Full wwPDB X-ray Structure Validation Report ⓘ

Oct 9, 2023 – 10:04 PM EDT

PDB ID	:	4V7V
Title	:	Crystal structure of the E. coli ribosome bound to clindamycin.
Authors	:	Dunkle, J.A.; Xiong, L.; Mankin, A.S.; Cate, J.H.D.
Deposited on	:	2010-08-16
Resolution	:	3.29 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

The following versions of software and data (see references ⓘ) were used in the production of this report:

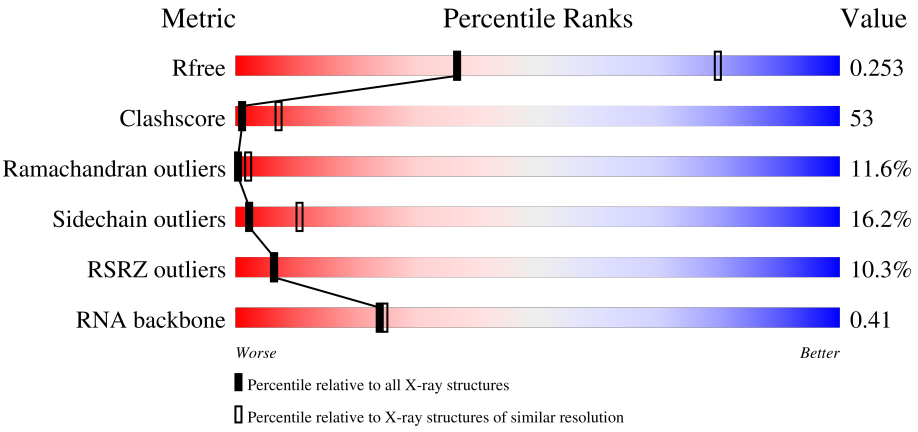
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.35.1
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.35.1

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 3.29 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1177 (3.32-3.24)
Clashscore	141614	1044 (3.30-3.26)
Ramachandran outliers	138981	1026 (3.30-3.26)
Sidechain outliers	138945	1025 (3.30-3.26)
RSRZ outliers	127900	1141 (3.32-3.24)
RNA backbone	3102	1091 (3.66-2.90)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	AA	1533	19% 48% 18% 14%
2	AB	218	22% 21% 54% 23%
2	CB	218	42% 25% 60% 14%
3	AC	206	5% 33% 50% 14%

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Mol	Chain	Length	Quality of chain
3	CC	206	15% 34% 53% 13%
4	AD	205	3% 25% 53% 20%
4	CD	205	29% 49% 20%
5	AE	150	3% 27% 51% 20%
5	CE	150	2% 32% 49% 18%
6	AF	100	2% 31% 54% 14%
6	CF	100	7% 26% 56% 15%
7	AG	151	9% 34% 56% 9%
8	AH	129	3% 36% 50% 12%
8	CH	129	5% 35% 51% 14%
9	AI	127	17% 27% 57% 14%
9	CI	127	40% 14% 70% 15%
10	AJ	98	12% 17% 61% 20%
10	CJ	98	48% 22% 57% 19%
11	AK	117	4% 36% 43% 19%
11	CK	117	6% 36% 50% 14%
12	AL	123	% 32% 48% 17%
12	CL	123	3% 22% 59% 19%
13	AM	114	7% 34% 58% 8%
14	AN	100	6% 17% 64% 13%
14	CN	100	46% 20% 62% 12% 5%
15	AO	88	33% 51% 15%
15	CO	88	% 44% 47% 7%
16	AP	82	11% 40% 45% 13%
17	AQ	80	9% 24% 52% 21%

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Mol	Chain	Length	Quality of chain
17	CQ	80	16% 25% 54% 20%
18	AR	55	5% 27% 69%
18	CR	55	2% 33% 60% 7%
19	AS	79	27% 28% 59% 13%
19	CS	79	61% 27% 59% 13%
20	AT	85	28% 49% 20%
20	CT	85	18% 34% 49% 14%
21	AU	51	41% 22% 57% 20%
21	CU	51	10% 29% 39% 24% 8%
22	BA	2903	% 19% 42% 20% 17%
22	DA	2903	3% 12% 47% 22% 16%
23	BB	118	28% 45% 9% 18%
24	BC	271	2% 31% 50% 17%
24	DC	271	5% 22% 60% 17%
25	BD	209	26% 50% 20%
25	DD	209	7% 21% 58% 20%
26	BE	201	27% 51% 19%
26	DE	201	33% 23% 61% 14%
27	BF	177	2% 28% 55% 15%
28	BG	176	2% 30% 44% 24%
28	DG	176	38% 26% 53% 20%
29	BH	149	46% 24% 51% 19% 5%
29	DH	149	42% 26% 56% 17%
30	BI	141	57% 29% 54% 16%
30	DI	141	72% 29% 58% 11%

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Mol	Chain	Length	Quality of chain
31	BJ	142	23% 50% 25%
31	DJ	142	13% 26% 56% 16%
32	BK	122	20% 46% 31%
32	DK	122	17% 17% 53% 28%
33	BL	143	29% 50% 19%
33	DL	143	23% 27% 55% 16%
34	BM	136	31% 49% 18%
34	DM	136	15% 23% 65% 12%
35	BN	120	28% 56% 15%
35	DN	120	25% 14% 64% 20%
36	BO	116	34% 53% 14%
36	DO	116	41% 29% 59% 9%
37	BP	114	% 18% 52% 26%
37	DP	114	20% 20% 59% 19%
38	BQ	117	32% 50% 16%
38	DQ	117	17% 30% 50% 21%
39	BR	103	% 23% 55% 20%
39	DR	103	42% 29% 54% 17%
40	BS	110	% 35% 45% 18%
40	DS	110	39% 29% 53% 18%
41	BT	93	2% 24% 44% 27% 5%
41	DT	93	54% 17% 62% 20%
42	BU	102	% 30% 48% 21%
42	DU	102	60% 23% 49% 25%
43	BV	94	40% 47% 13%

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Mol	Chain	Length	Quality of chain
43	DV	94	13% 34% 53% 12%
44	BW	79	6% 13% 44% 34% 9%
44	DW	79	56% 20% 48% 24% 8%
45	BX	77	19% 60% 19%
45	DX	77	16% 22% 62% 14%
46	BY	63	5% 35% 43% 19%
46	DY	63	32% 25% 62% 13%
47	BZ	58	21% 55% 22%
47	DZ	58	3% 29% 52% 17%
48	B0	56	38% 41% 21%
48	D0	56	32% 25% 59% 16%
49	B1	50	4% 30% 50% 18%
49	D1	50	38% 26% 60% 12%
50	B2	46	2% 41% 46% 13%
50	D2	46	13% 26% 63% 11%
51	B3	64	48% 39% 9%
51	D3	64	34% 34% 47% 16%
52	B4	38	3% 29% 53% 16%
52	D4	38	58% 34% 45% 21%
53	CA	1530	3% 15% 48% 23% 14%
54	CG	150	51% 21% 64% 15%
55	CM	113	67% 26% 58% 15%
56	CP	80	14% 20% 60% 18%
57	DB	117	% 18% 47% 21% 15%
58	DF	178	47% 22% 53% 22%

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
59	MG	CA	1624	-	-	-	X
59	MG	CA	1628	-	-	-	X
59	MG	DA	3003	-	-	-	X
59	MG	DA	3005	-	-	-	X
59	MG	DA	3007	-	-	-	X
59	MG	DA	3010	-	-	-	X
59	MG	DA	3019	-	-	-	X
59	MG	DA	3025	-	-	-	X
59	MG	DA	3027	-	-	-	X
59	MG	DA	3056	-	-	-	X
59	MG	DA	3059	-	-	-	X
59	MG	DA	3061	-	-	-	X
59	MG	DA	3062	-	-	-	X
59	MG	DA	3073	-	-	-	X
59	MG	DA	3075	-	-	-	X
59	MG	DA	3107	-	-	-	X
59	MG	DA	3108	-	-	-	X
59	MG	DA	3124	-	-	-	X
59	MG	DA	3129	-	-	-	X
59	MG	DE	301	-	-	-	X
59	MG	DJ	201	-	-	-	X

2 Entry composition (i)

There are 62 unique types of molecules in this entry. The entry contains 284501 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a RNA chain called 16S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
1	AA	1533	32895	14671	6036	10655	1533	0	0	0

- Molecule 2 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	AB	218	1705	1081	305	312	7	0	0	0
			Total	C	N	O	S			
2	CB	218	1705	1081	305	312	7	0	0	0

- Molecule 3 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	AC	206	1625	1028	305	289	3	0	0	0
			Total	C	N	O	S			
3	CC	206	1625	1028	305	289	3	0	0	0

- Molecule 4 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
4	AD	205	1643	1026	315	298	4	0	0	0
			Total	C	N	O	S			
4	CD	205	1643	1026	315	298	4	0	0	0

- Molecule 5 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
5	AE	150	1106	687	211	202	6	0	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	CE	150	Total	C	N	O	S	0	0	0
			1106	687	211	202	6			

- Molecule 6 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AF	100	Total	C	N	O	S	0	0	0
			818	515	148	149	6			
6	CF	100	Total	C	N	O	S	0	0	0
			818	515	148	149	6			

- Molecule 7 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AG	151	Total	C	N	O	S	0	0	0
			1182	735	227	216	4			

- Molecule 8 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AH	129	Total	C	N	O	S	0	0	0
			979	616	173	184	6			
8	CH	129	Total	C	N	O	S	0	0	0
			979	616	173	184	6			

- Molecule 9 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	AI	127	Total	C	N	O	S	0	0	0
			1022	634	206	179	3			
9	CI	127	Total	C	N	O	S	0	0	0
			1022	634	206	179	3			

- Molecule 10 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AJ	98	Total	C	N	O	S	0	0	0
			787	493	150	143	1			
10	CJ	98	Total	C	N	O	S	0	0	0
			787	493	150	143	1			

- Molecule 11 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AK	117	Total	C	N	O	S	0	0	0
			877	540	174	160	3			
11	CK	117	Total	C	N	O	S	0	0	0
			877	540	174	160	3			

- Molecule 12 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AL	123	Total	C	N	O	S	0	0	0
			955	590	196	165	4			
12	CL	123	Total	C	N	O	S	0	0	0
			955	590	196	165	4			

- Molecule 13 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	114	Total	C	N	O	S	0	0	0
			884	546	178	157	3			

- Molecule 14 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AN	96	Total	C	N	O	S	0	0	0
			774	483	160	128	3			
14	CN	95	Total	C	N	O	S	0	0	0
			769	480	159	127	3			

- Molecule 15 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AO	88	Total	C	N	O	S	0	0	0
			714	439	144	130	1			
15	CO	88	Total	C	N	O	S	0	0	0
			714	439	144	130	1			

- Molecule 16 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			

- Molecule 17 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AQ	80	Total	C	N	O	S	0	0	0
			649	411	121	114	3			
17	CQ	80	Total	C	N	O	S	0	0	0
			649	411	121	114	3			

- Molecule 18 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	AR	55	Total	C	N	O	0	0	0
			456	288	86	82			
18	CR	55	Total	C	N	O	0	0	0
			456	288	86	82			

- Molecule 19 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AS	79	Total	C	N	O	S	0	0	0
			638	408	120	108	2			
19	CS	79	Total	C	N	O	S	0	0	0
			638	408	120	108	2			

- Molecule 20 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AT	85	Total	C	N	O	S	0	0	0
			665	411	137	114	3			
20	CT	85	Total	C	N	O	S	0	0	0
			665	411	137	114	3			

- Molecule 21 is a protein called 30S ribosomal protein S21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	AU	51	Total	C	N	O	S	0	0	0
			426	265	86	74	1			
21	CU	51	Total	C	N	O	S	0	0	0
			426	265	86	74	1			

- Molecule 22 is a RNA chain called 23S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	BA	2854	Total	C	N	O	P	0	0	0
			61274	27334	11279	19807	2854			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	DA	2841	Total	C	N	O	P	0	0	0
			60995	27210	11229	19715	2841			

- Molecule 23 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	BB	118	Total	C	N	O	P	0	0	0
			2529	1126	464	821	118			

- Molecule 24 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	BC	271	Total	C	N	O	S	0	0	0
			2083	1288	423	365	7			
24	DC	271	Total	C	N	O	S	0	0	0
			2083	1288	423	365	7			

- Molecule 25 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BD	209	Total	C	N	O	S	0	0	0
			1565	979	288	294	4			
25	DD	209	Total	C	N	O	S	0	0	0
			1565	979	288	294	4			

- Molecule 26 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	BE	201	Total	C	N	O	S	0	0	0
			1552	974	283	290	5			
26	DE	201	Total	C	N	O	S	0	0	0
			1552	974	283	290	5			

- Molecule 27 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	BF	177	Total	C	N	O	S	0	0	0
			1411	899	249	257	6			

- Molecule 28 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	BG	176	Total	C	N	O	S	0	0	0
			1323	832	243	246	2			
28	DG	176	Total	C	N	O	S	0	0	0
			1323	832	243	246	2			

- Molecule 29 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	BH	149	Total	C	N	O	S	0	0	0
			1111	699	197	214	1			
29	DH	149	Total	C	N	O	S	0	0	0
			1111	699	197	214	1			

- Molecule 30 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	BI	141	Total	C	N	O	S	0	0	0
			1032	651	179	196	6			
30	DI	141	Total	C	N	O	S	0	0	0
			1032	651	179	196	6			

- Molecule 31 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	BJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			
31	DJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			

- Molecule 32 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BK	122	Total	C	N	O	S	0	0	0
			939	587	180	166	6			
32	DK	122	Total	C	N	O	S	0	0	0
			939	587	180	166	6			

- Molecule 33 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	DL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			

- Molecule 34 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			
34	DM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			

- Molecule 35 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BN	120	Total	C	N	O	S	0	0	0
			961	593	196	167	5			
35	DN	120	Total	C	N	O	S	0	0	0
			961	593	196	167	5			

- Molecule 36 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
36	BO	116	Total	C	N	O	0	0	0
			892	552	178	162			
36	DO	116	Total	C	N	O	0	0	0
			892	552	178	162			

- Molecule 37 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BP	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			
37	DP	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			

- Molecule 38 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
38	BQ	117	Total	C	N	O	0	0	0
			947	604	192	151			
38	DQ	117	Total	C	N	O	0	0	0
			947	604	192	151			

- Molecule 39 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	BR	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			
39	DR	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			

- Molecule 40 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			
40	DS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			

- Molecule 41 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BT	93	Total	C	N	O	S	0	0	0
			739	466	139	132	2			
41	DT	93	Total	C	N	O	S	0	0	0
			739	466	139	132	2			

- Molecule 42 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
42	BU	102	Total	C	N	O	0	0	0
			780	492	146	142			
42	DU	102	Total	C	N	O	0	0	0
			780	492	146	142			

- Molecule 43 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BV	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			
43	DV	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			

- Molecule 44 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	BW	79	Total	C	N	O	S	0	0	0
			596	367	120	108	1			
44	DW	79	Total	C	N	O	S	0	0	0
			596	367	120	108	1			

- Molecule 45 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BX	77	Total	C	N	O	S	0	0	0
			625	388	129	106	2			
45	DX	77	Total	C	N	O	S	0	0	0
			625	388	129	106	2			

- Molecule 46 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	BY	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			
46	DY	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			

- Molecule 47 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	BZ	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			
47	DZ	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			

- Molecule 48 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	B0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			
48	D0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			

- Molecule 49 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
49	B1	50	Total	C	N	O	0	0	0
			410	263	75	72			

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
49	D1	50	Total	C	N	O	0	0	0
			410	263	75	72			

- Molecule 50 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	B2	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			
50	D2	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			

- Molecule 51 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	B3	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			
51	D3	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			

- Molecule 52 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	B4	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			
52	D4	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			

- Molecule 53 is a RNA chain called 16S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	CA	1530	Total	C	N	O	P	0	0	0
			32831	14642	6024	10635	1530			

- Molecule 54 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	CG	150	Total	C	N	O	S	0	0	0
			1175	730	226	215	4			

- Molecule 55 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	CM	113	Total	C	N	O	S	0	0	0
			877	541	177	156	3			

- Molecule 56 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	CP	80	Total	C	N	O	S	0	0	0
			639	400	126	112	1			

- Molecule 57 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
57	DB	117	Total	C	N	O	P	0	0	0
			2507	1116	459	815	117			

- Molecule 58 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
58	DF	178	Total	C	N	O	S	0	0	0
			1420	905	251	258	6			

- Molecule 59 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	AA	42	Total	Mg	0	0
			42	42		
59	AN	1	Total	Mg	0	0
			1	1		
59	BA	134	Total	Mg	0	0
			134	134		
59	BB	4	Total	Mg	0	0
			4	4		
59	BL	1	Total	Mg	0	0
			1	1		
59	CA	42	Total	Mg	0	0
			42	42		
59	DA	132	Total	Mg	0	0
			132	132		
59	DB	1	Total	Mg	0	0
			1	1		
59	DC	2	Total	Mg	0	0
			2	2		

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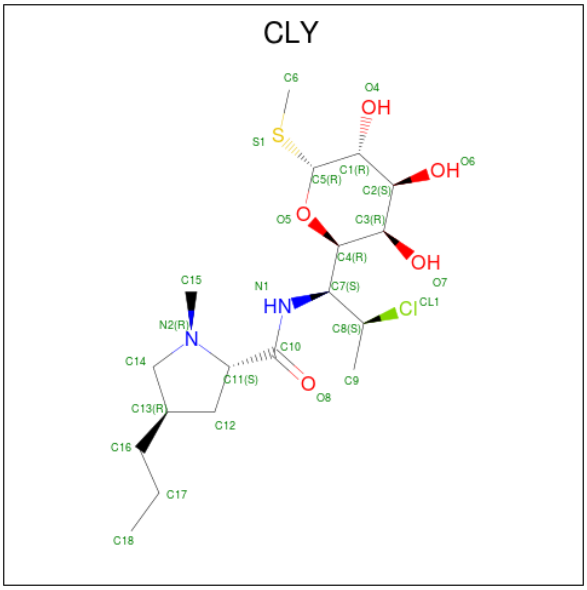
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	DE	1	Total Mg 1 1	0	0
59	DJ	1	Total Mg 1 1	0	0

- Molecule 60 is CLINDAMYCIN (three-letter code: CLY) (formula: $C_{18}H_{33}ClN_2O_5S$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	BA	1	Total C Cl N O S 27 18 1 2 5 1	0	0

- Molecule 61 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	B4	1	Total Zn 1 1	0	0
61	D4	1	Total Zn 1 1	0	0

- Molecule 62 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
62	AA	197	Total O 197 197	0	0
62	AE	1	Total O 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
62	AL	1	Total O 1 1	0	0
62	AN	6	Total O 6 6	0	0
62	AT	2	Total O 2 2	0	0
62	AU	1	Total O 1 1	0	0
62	BA	601	Total O 601 601	0	0
62	BB	20	Total O 20 20	0	0
62	BC	8	Total O 8 8	0	0
62	BD	4	Total O 4 4	0	0
62	BE	1	Total O 1 1	0	0
62	BL	3	Total O 3 3	0	0
62	BN	3	Total O 3 3	0	0
62	BQ	1	Total O 1 1	0	0
62	BR	1	Total O 1 1	0	0
62	BT	3	Total O 3 3	0	0
62	B2	2	Total O 2 2	0	0
62	B3	2	Total O 2 2	0	0
62	B4	1	Total O 1 1	0	0
62	CA	193	Total O 193 193	0	0
62	CE	4	Total O 4 4	0	0
62	CI	1	Total O 1 1	0	0
62	CL	1	Total O 1 1	0	0

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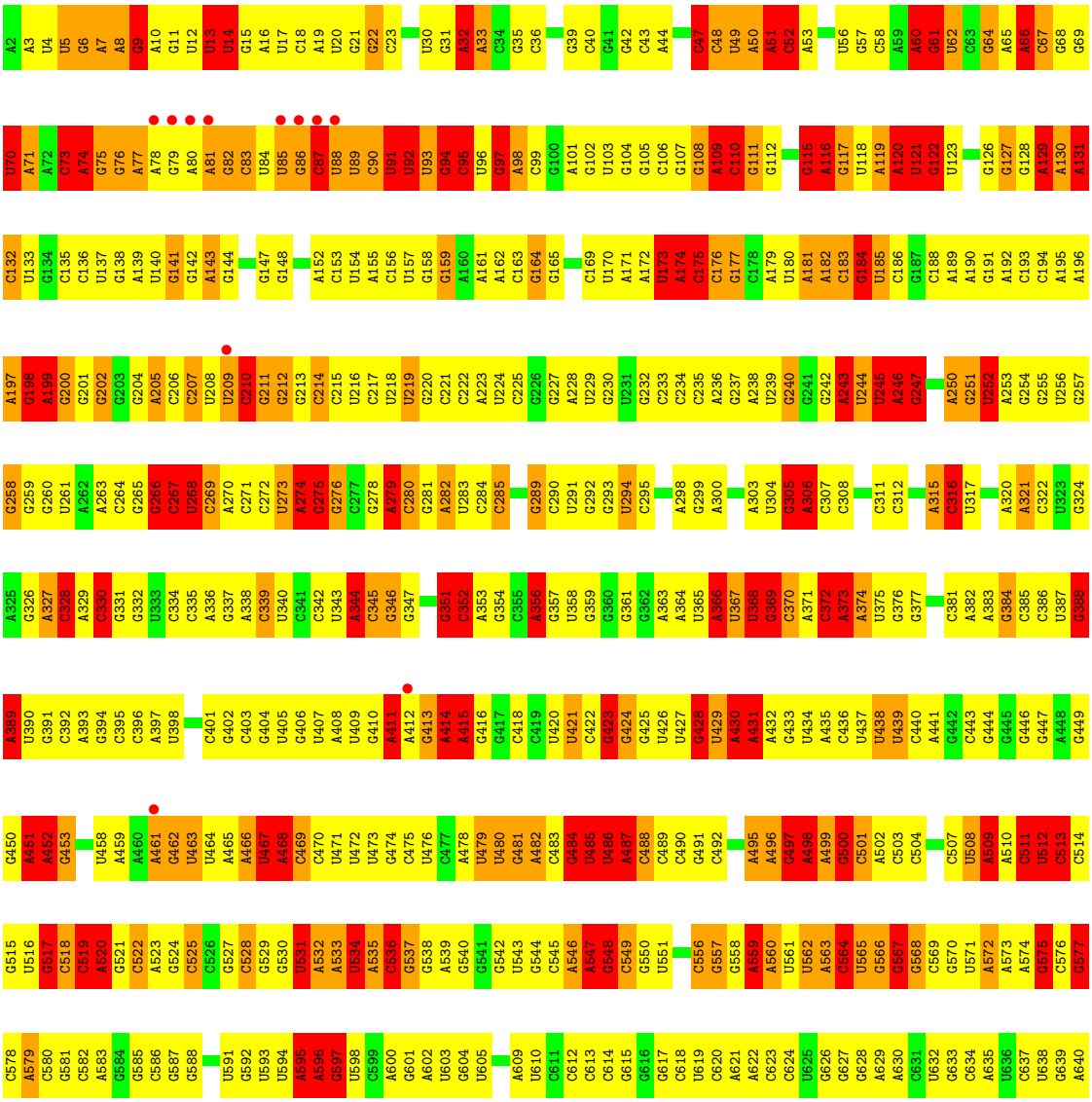
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
62	CN	3	Total O 3 3	0	0
62	CT	3	Total O 3 3	0	0
62	CU	2	Total O 2 2	0	0
62	DA	599	Total O 599 599	0	0
62	DB	4	Total O 4 4	0	0
62	DC	9	Total O 9 9	0	0
62	DD	2	Total O 2 2	0	0
62	DE	3	Total O 3 3	0	0
62	DJ	5	Total O 5 5	0	0
62	DL	5	Total O 5 5	0	0
62	DN	3	Total O 3 3	0	0
62	DT	3	Total O 3 3	0	0
62	DU	2	Total O 2 2	0	0
62	DV	1	Total O 1 1	0	0
62	D2	2	Total O 2 2	0	0
62	D3	1	Total O 1 1	0	0
62	D4	4	Total O 4 4	0	0

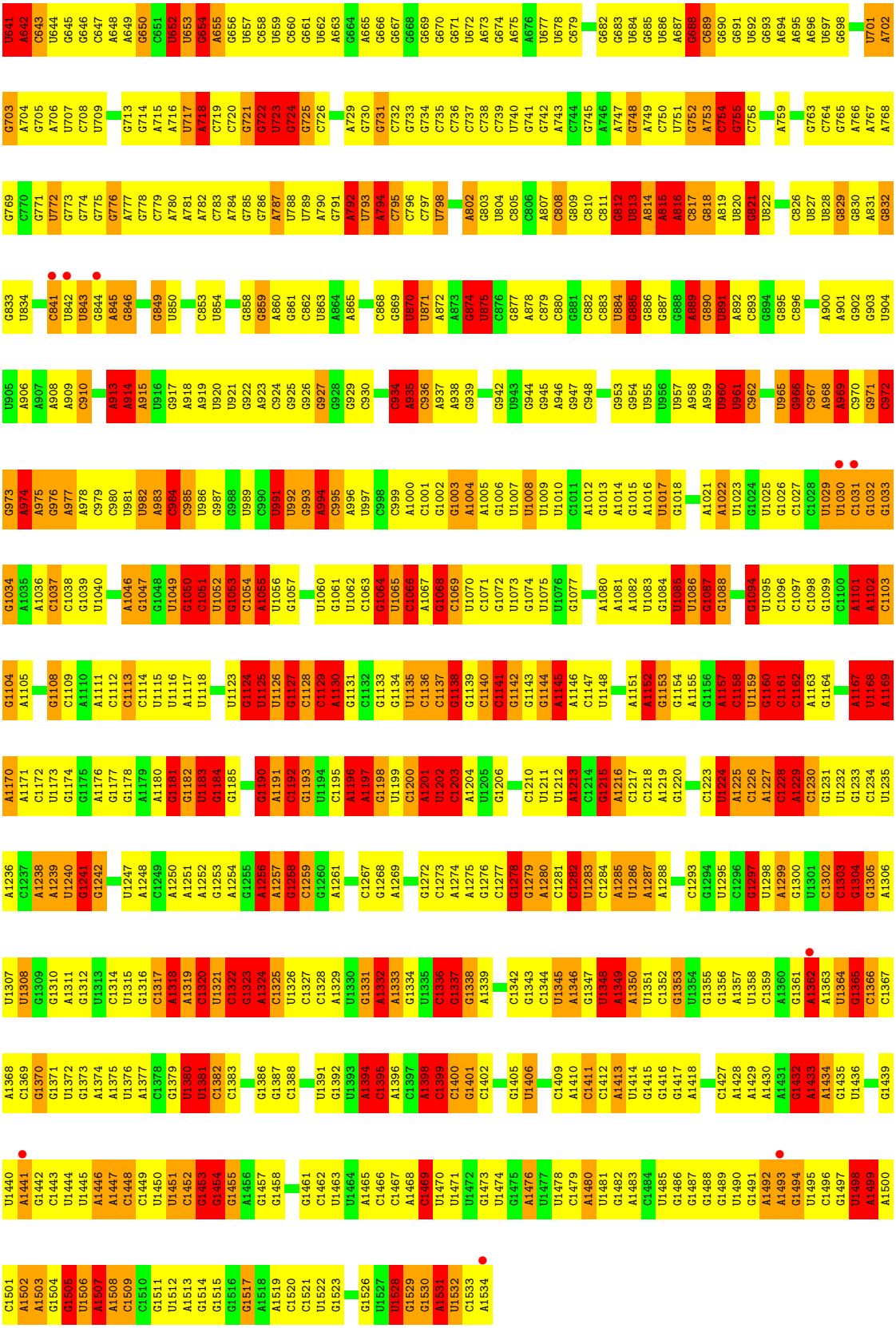
3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density (RSRZ > 2). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: 16S rRNA

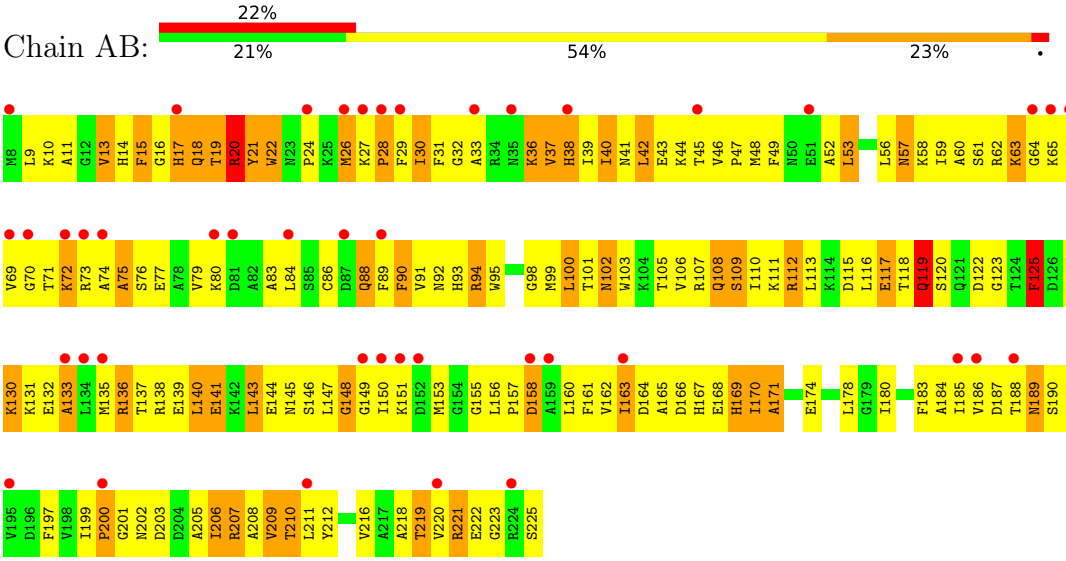
Chain AA:





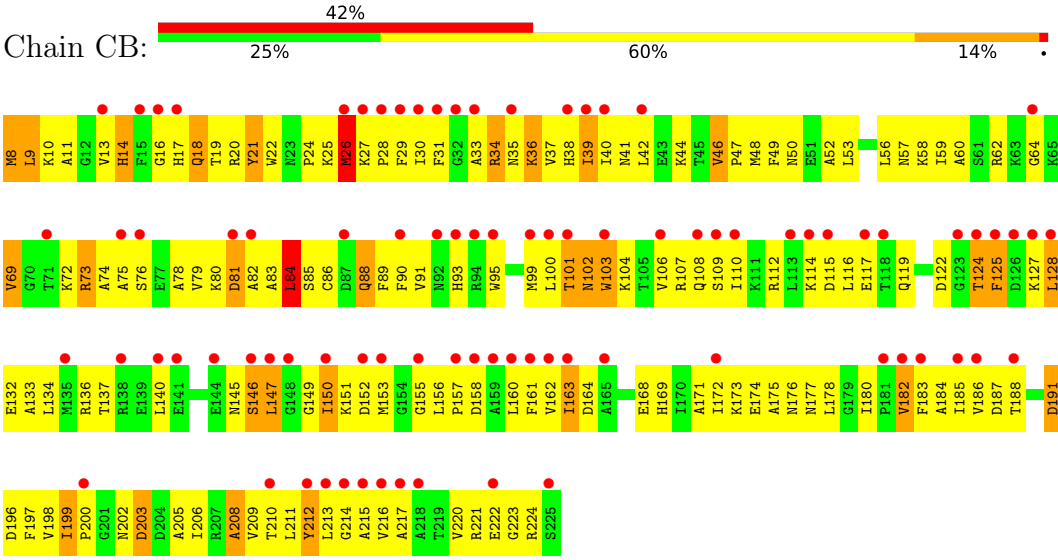
• Molecule 2: 30S ribosomal protein S2

Chain AB:



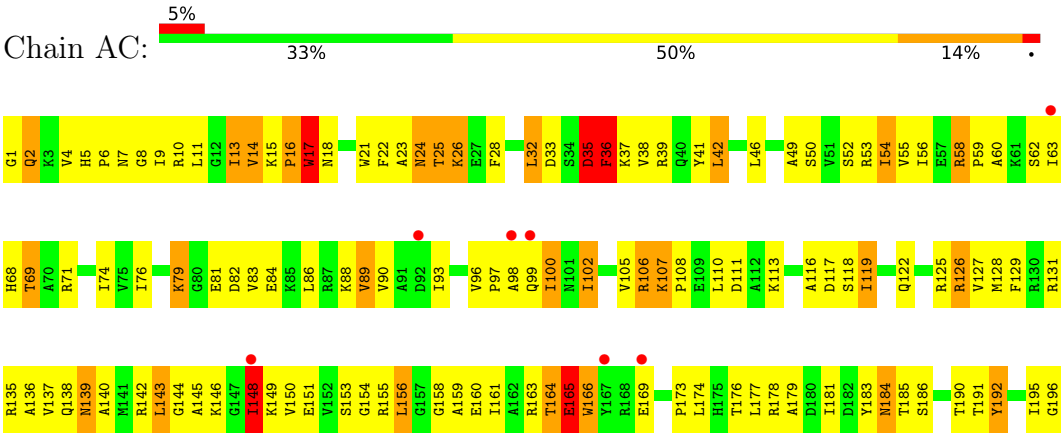
• Molecule 2: 30S ribosomal protein S2

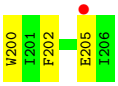
Chain CB:



• Molecule 3: 30S ribosomal protein S3

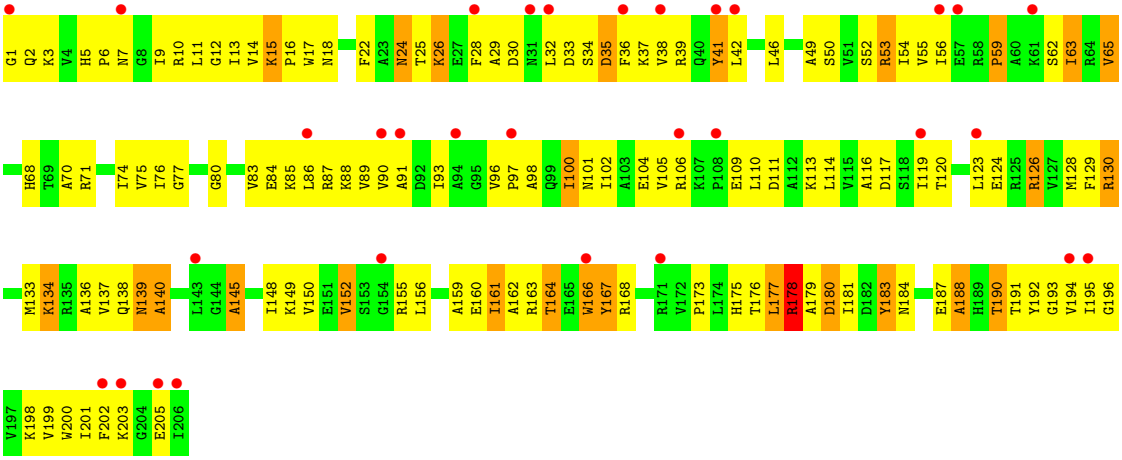
Chain AC:





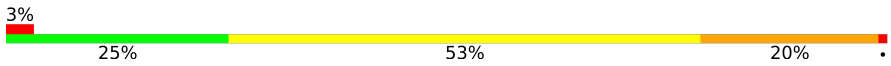
• Molecule 3: 30S ribosomal protein S3

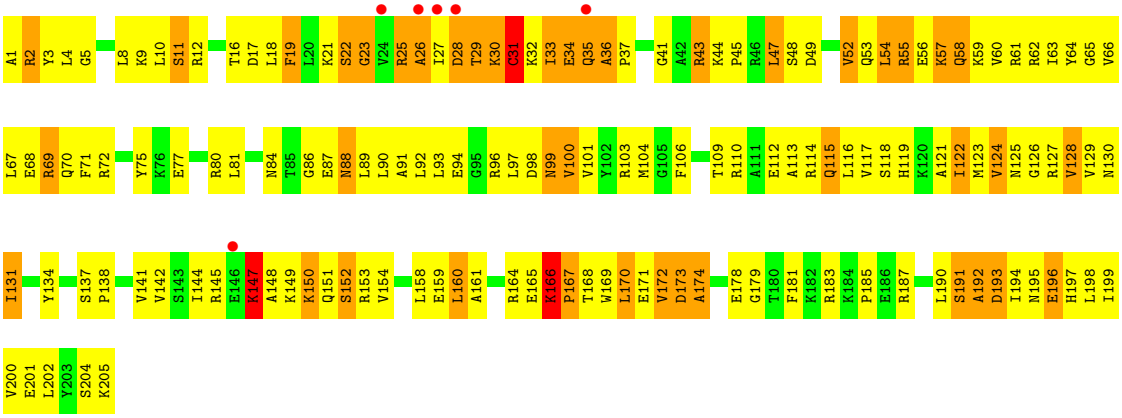
Chain CC:



• Molecule 4: 30S ribosomal protein S4

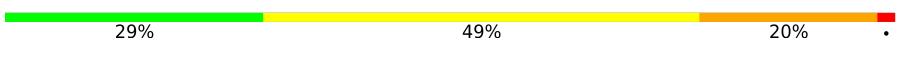
Chain AD:

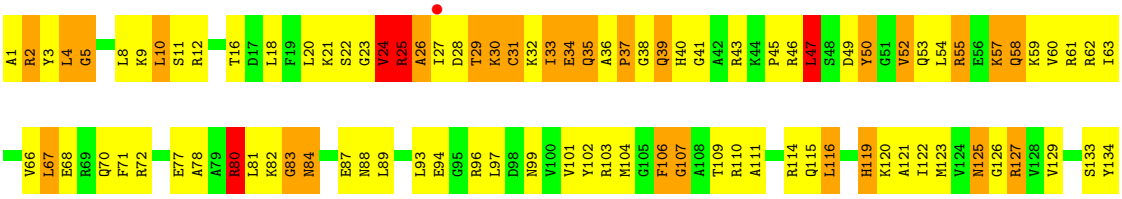


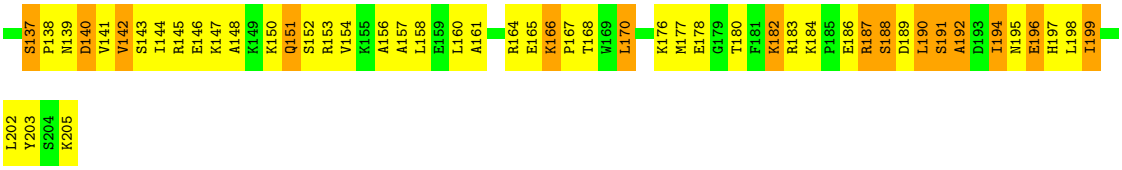


• Molecule 4: 30S ribosomal protein S4

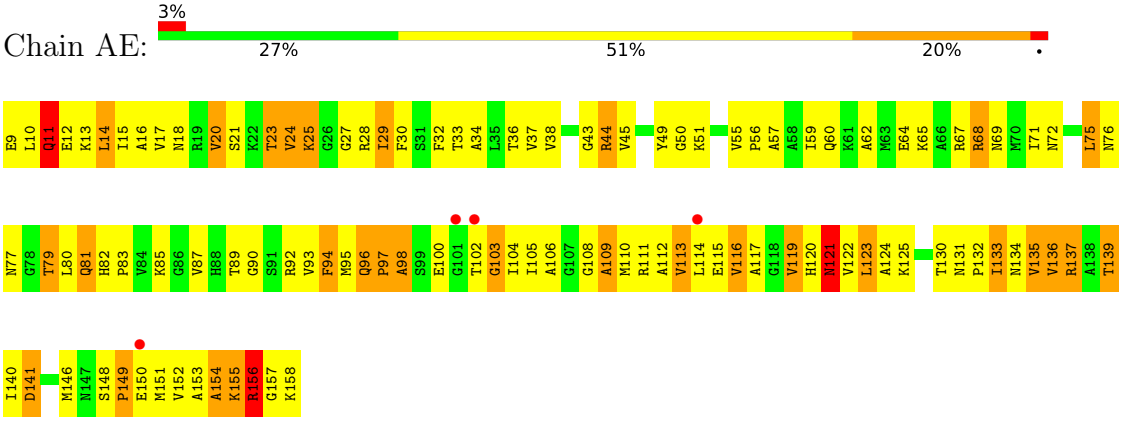
Chain CD:



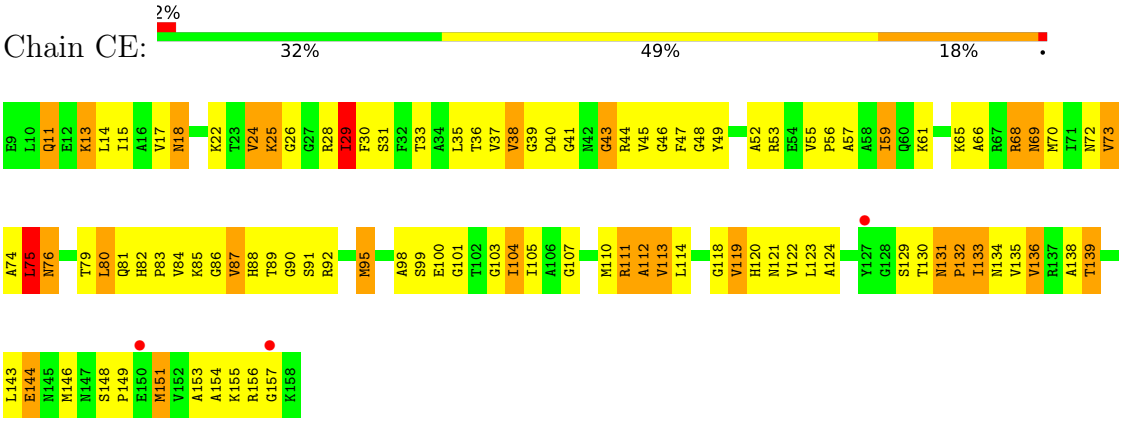




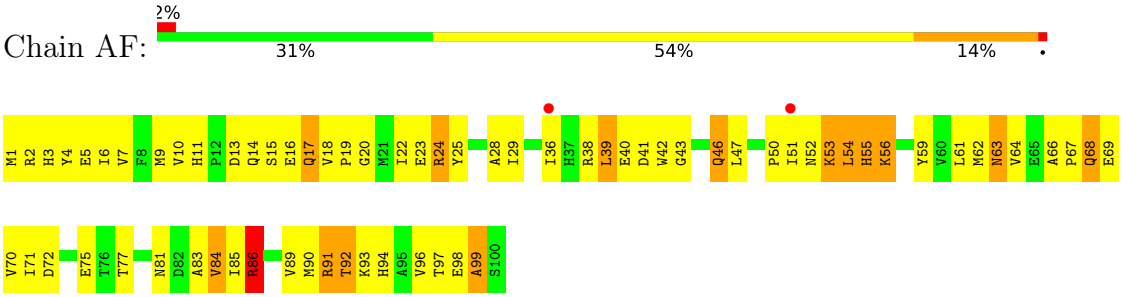
• Molecule 5: 30S ribosomal protein S5



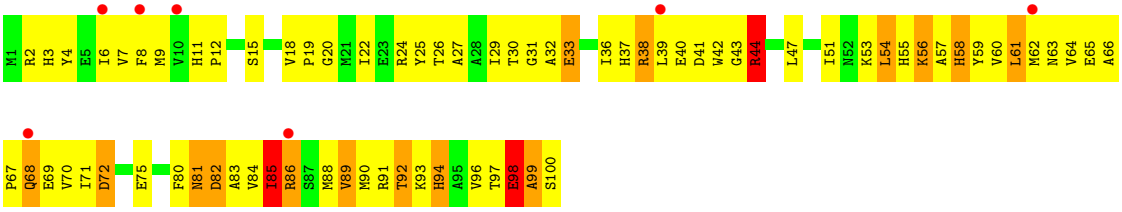
• Molecule 5: 30S ribosomal protein S5



• Molecule 6: 30S ribosomal protein S6

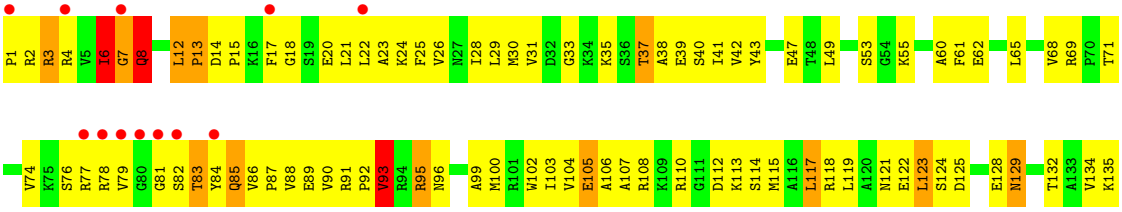


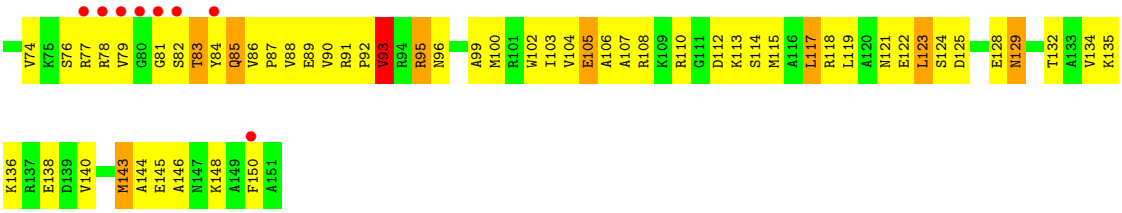
• Molecule 6: 30S ribosomal protein S6



• Molecule 7: 30S ribosomal protein S7

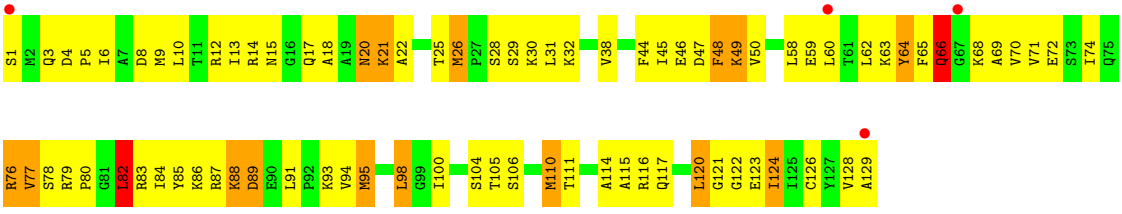
Chain AG:





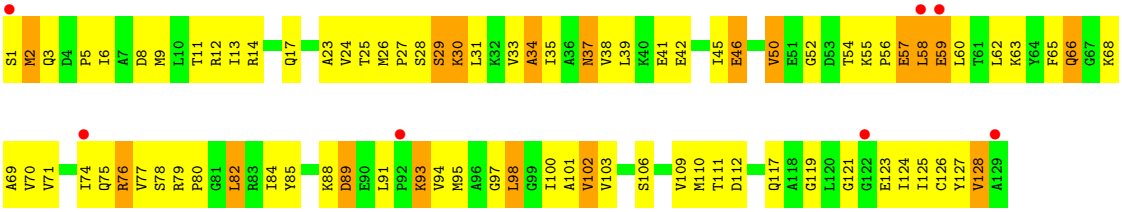
• Molecule 8: 30S ribosomal protein S8

Chain AH:



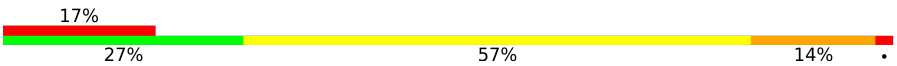
• Molecule 8: 30S ribosomal protein S8

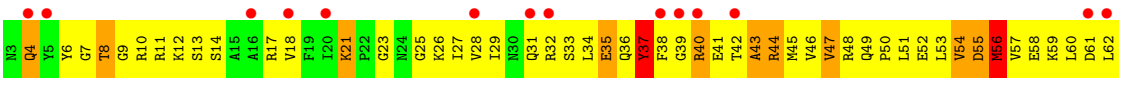
Chain CH:

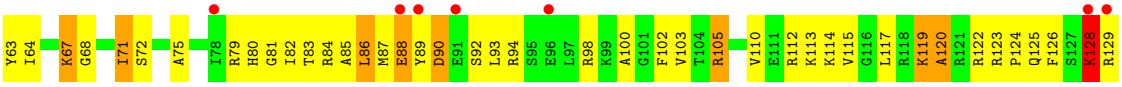


• Molecule 9: 30S ribosomal protein S9

Chain AI:

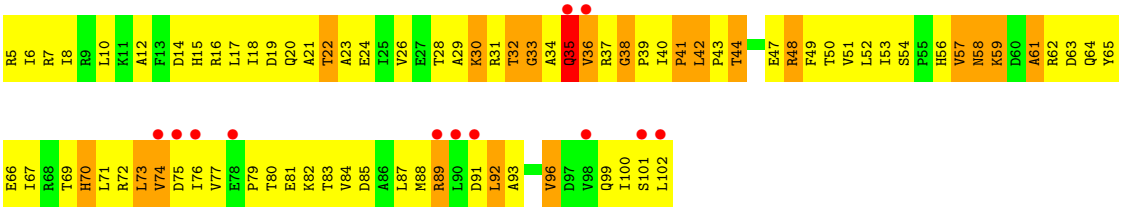




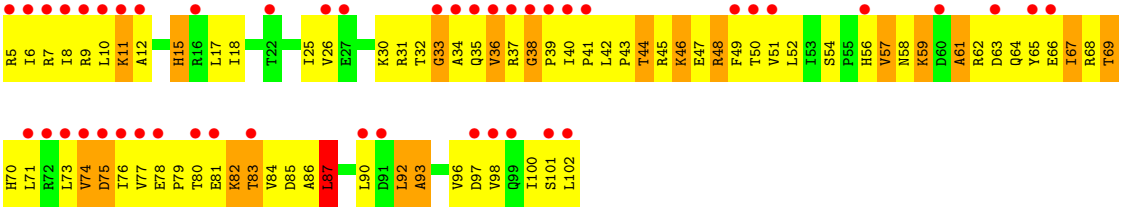


• Molecule 9: 30S ribosomal protein S9

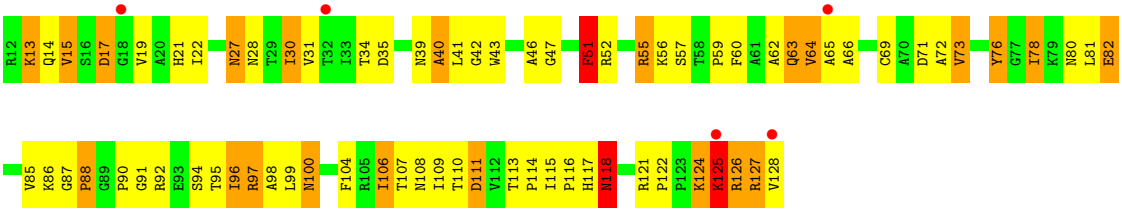
• Molecule 10: 30S ribosomal protein S10



• Molecule 10: 30S ribosomal protein S10

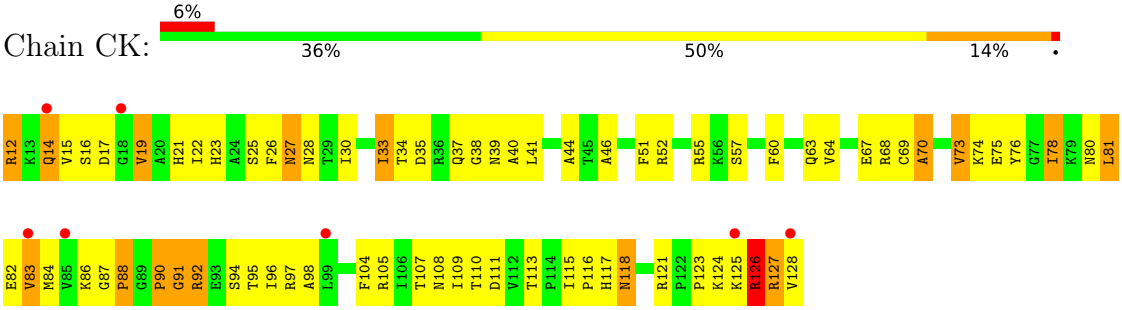


• Molecule 11: 30S ribosomal protein S11



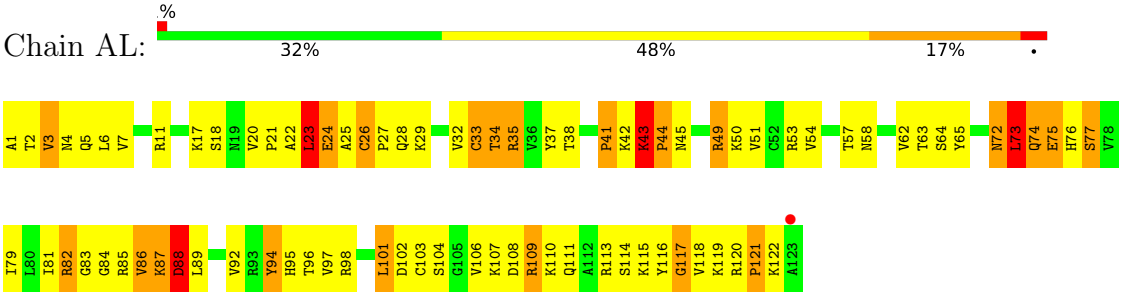
• Molecule 11: 30S ribosomal protein S11

Chain CK:



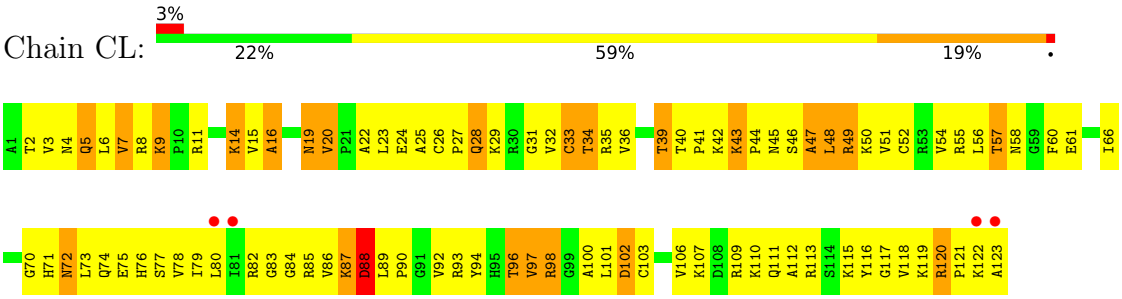
• Molecule 12: 30S ribosomal protein S12

Chain AL:



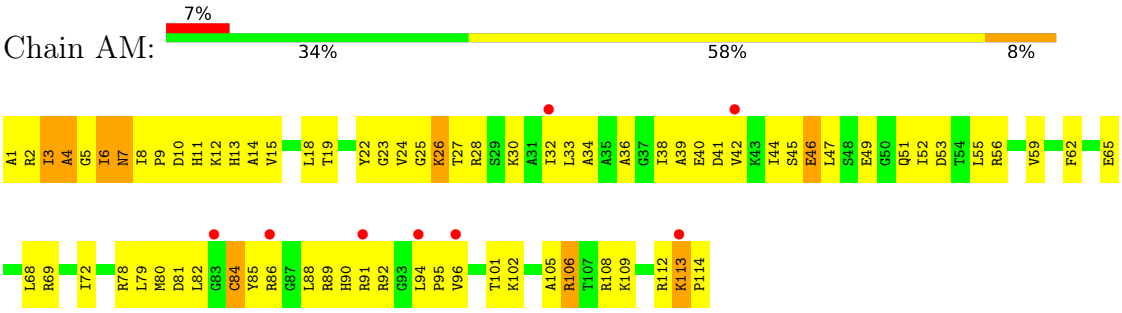
• Molecule 12: 30S ribosomal protein S12

Chain CL:



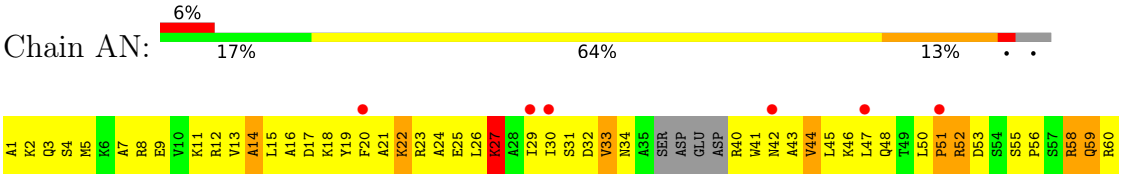
• Molecule 13: 30S ribosomal protein S13

Chain AM:

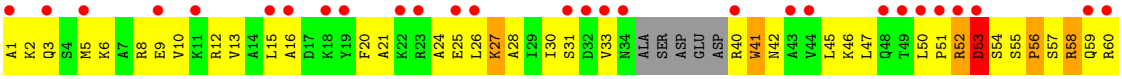


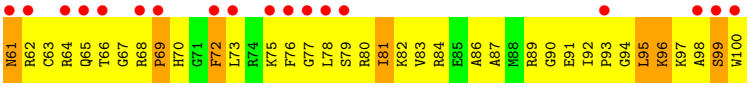
• Molecule 14: 30S ribosomal protein S14

Chain AN:

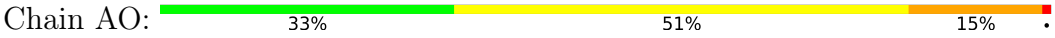


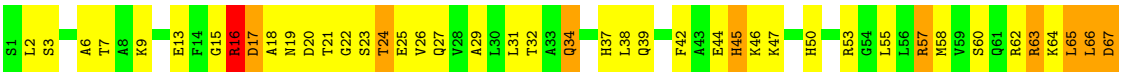
• Molecule 14: 30S ribosomal protein S14

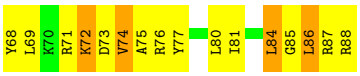




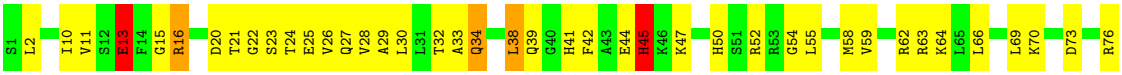
• Molecule 15: 30S ribosomal protein S15



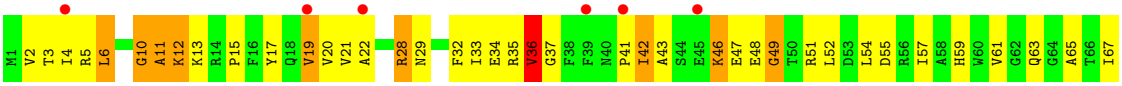


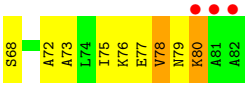


• Molecule 15: 30S ribosomal protein S15

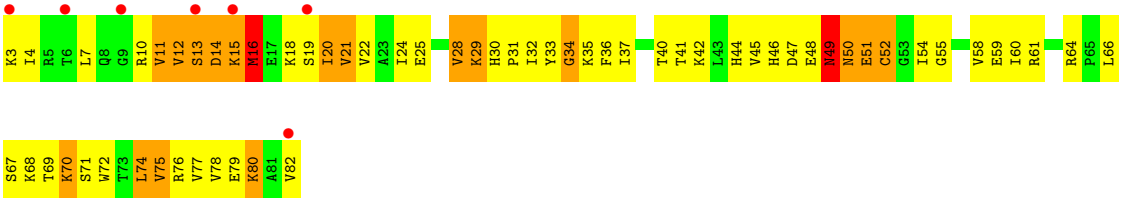


• Molecule 16: 30S ribosomal protein S16

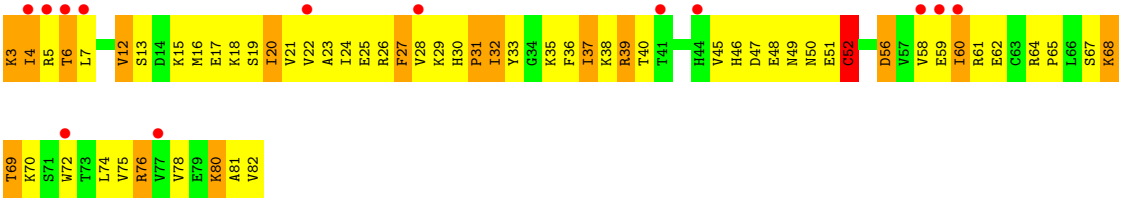




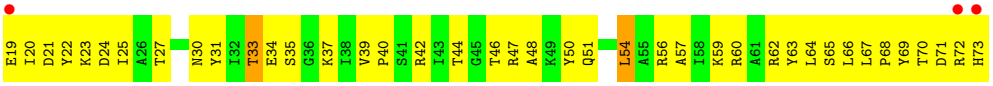
• Molecule 17: 30S ribosomal protein S17



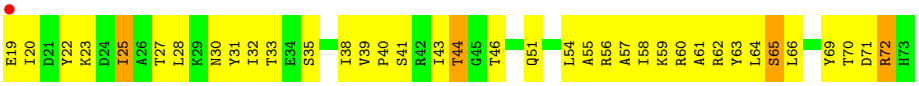
• Molecule 17: 30S ribosomal protein S17



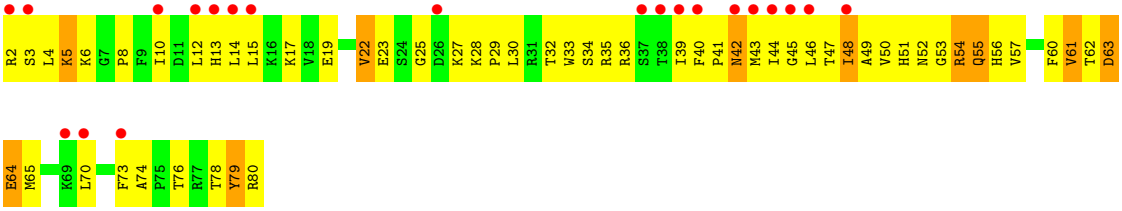
• Molecule 18: 30S ribosomal protein S18



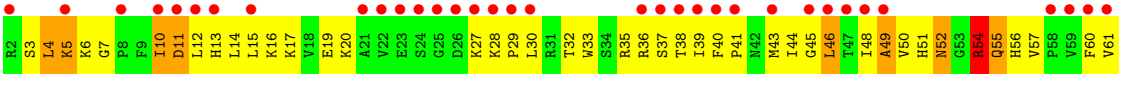
• Molecule 18: 30S ribosomal protein S18

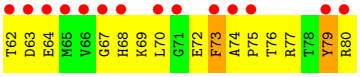


• Molecule 19: 30S ribosomal protein S19



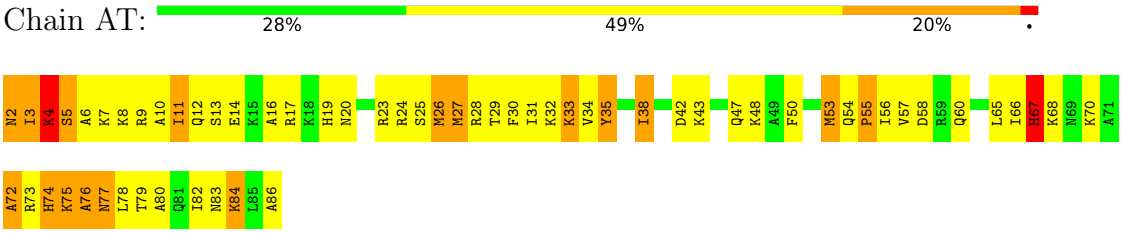
• Molecule 19: 30S ribosomal protein S19





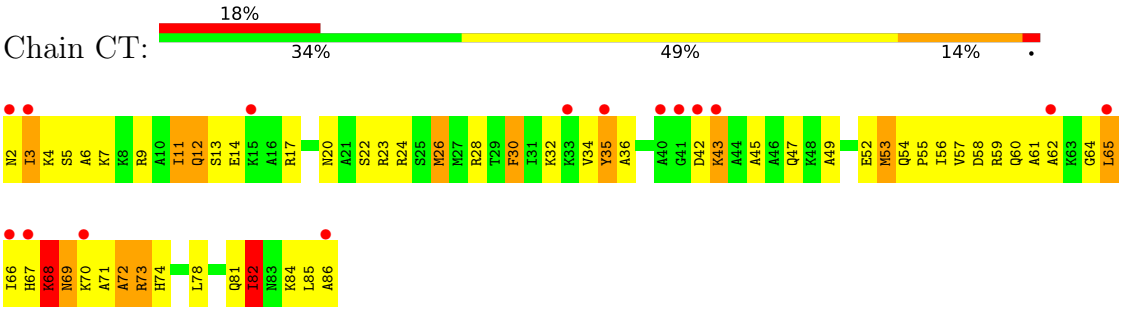
• Molecule 20: 30S ribosomal protein S20

Chain AT:



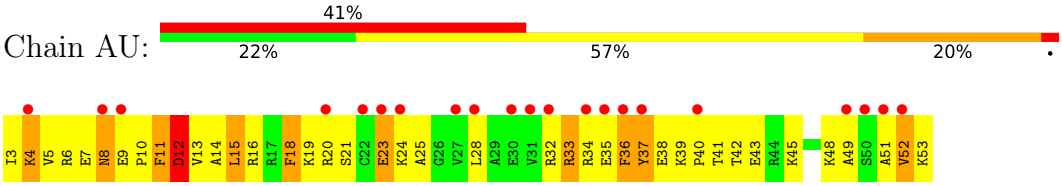
• Molecule 20: 30S ribosomal protein S20

Chain CT:



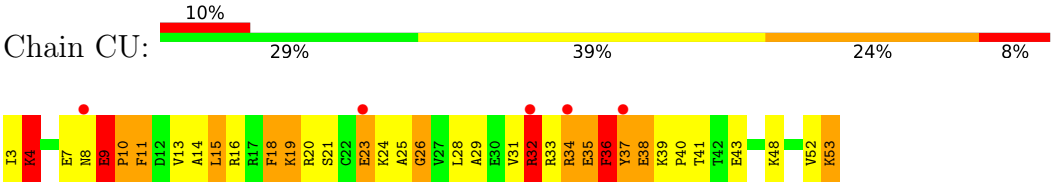
• Molecule 21: 30S ribosomal protein S21

Chain AU:



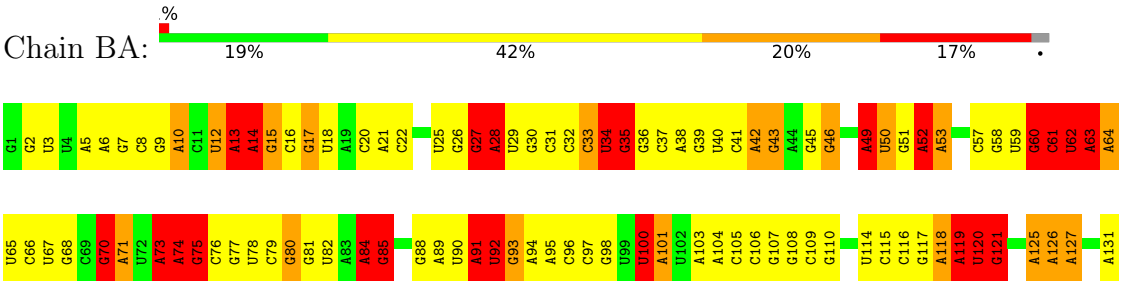
• Molecule 21: 30S ribosomal protein S21

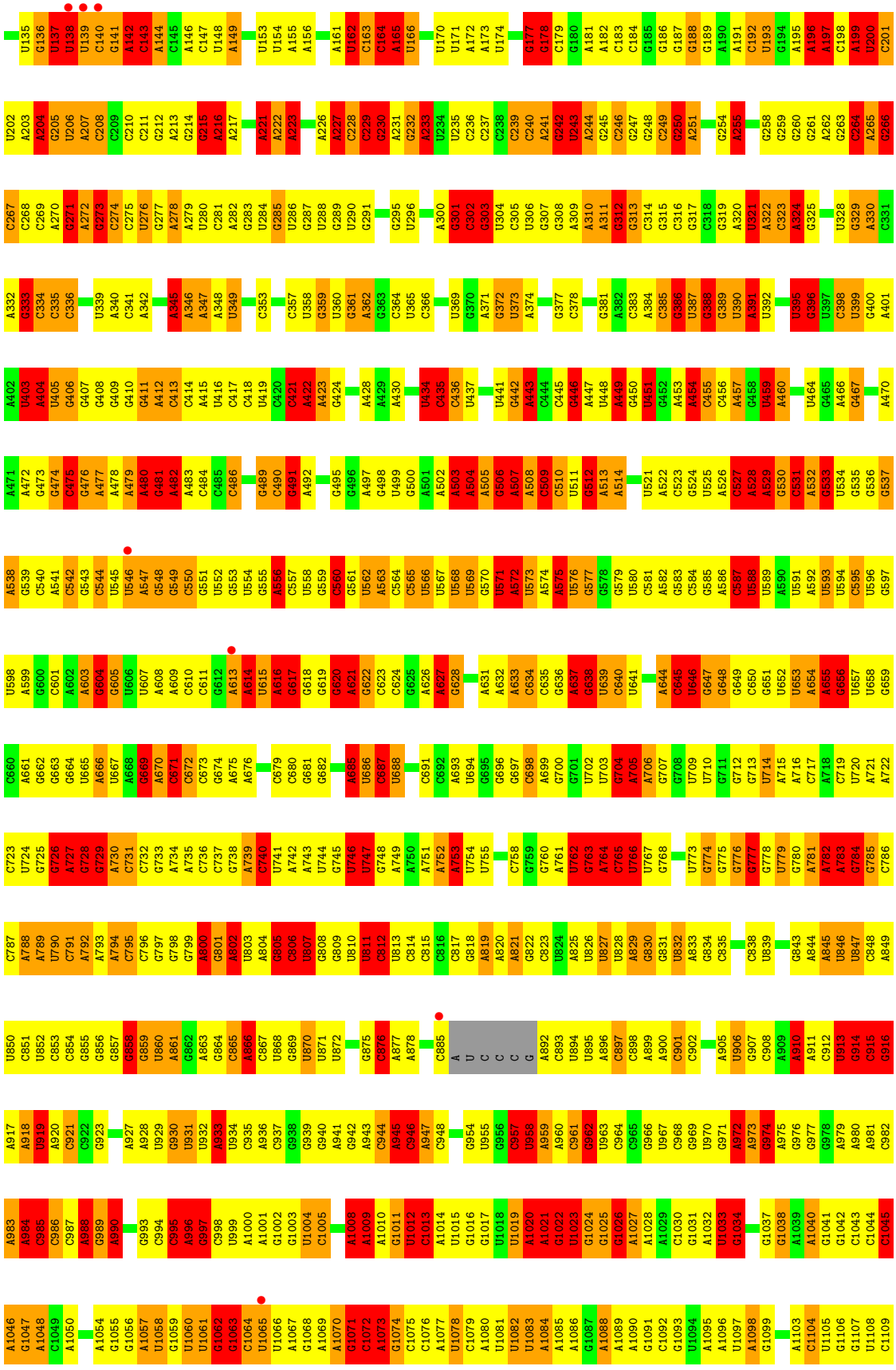
Chain CU:

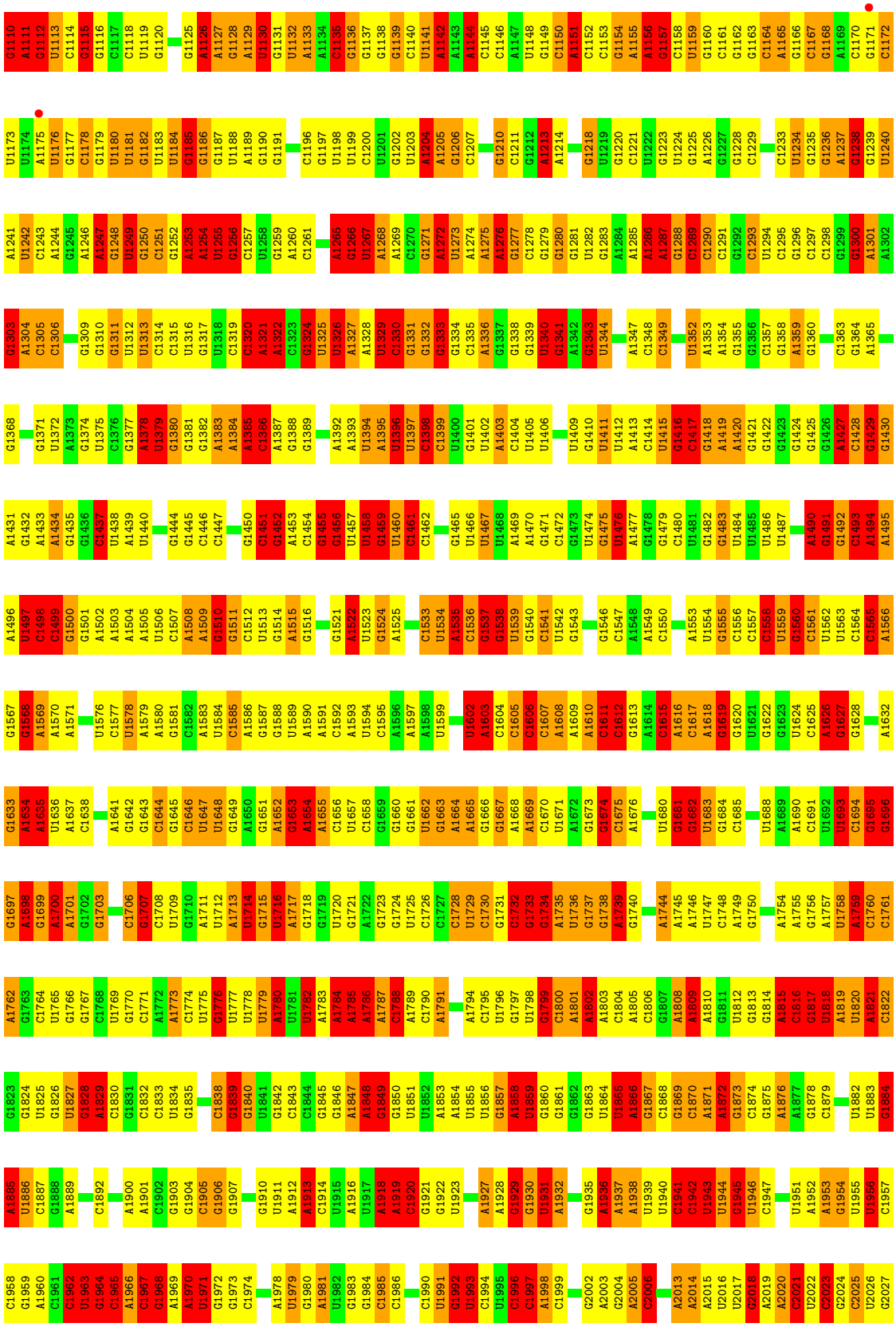


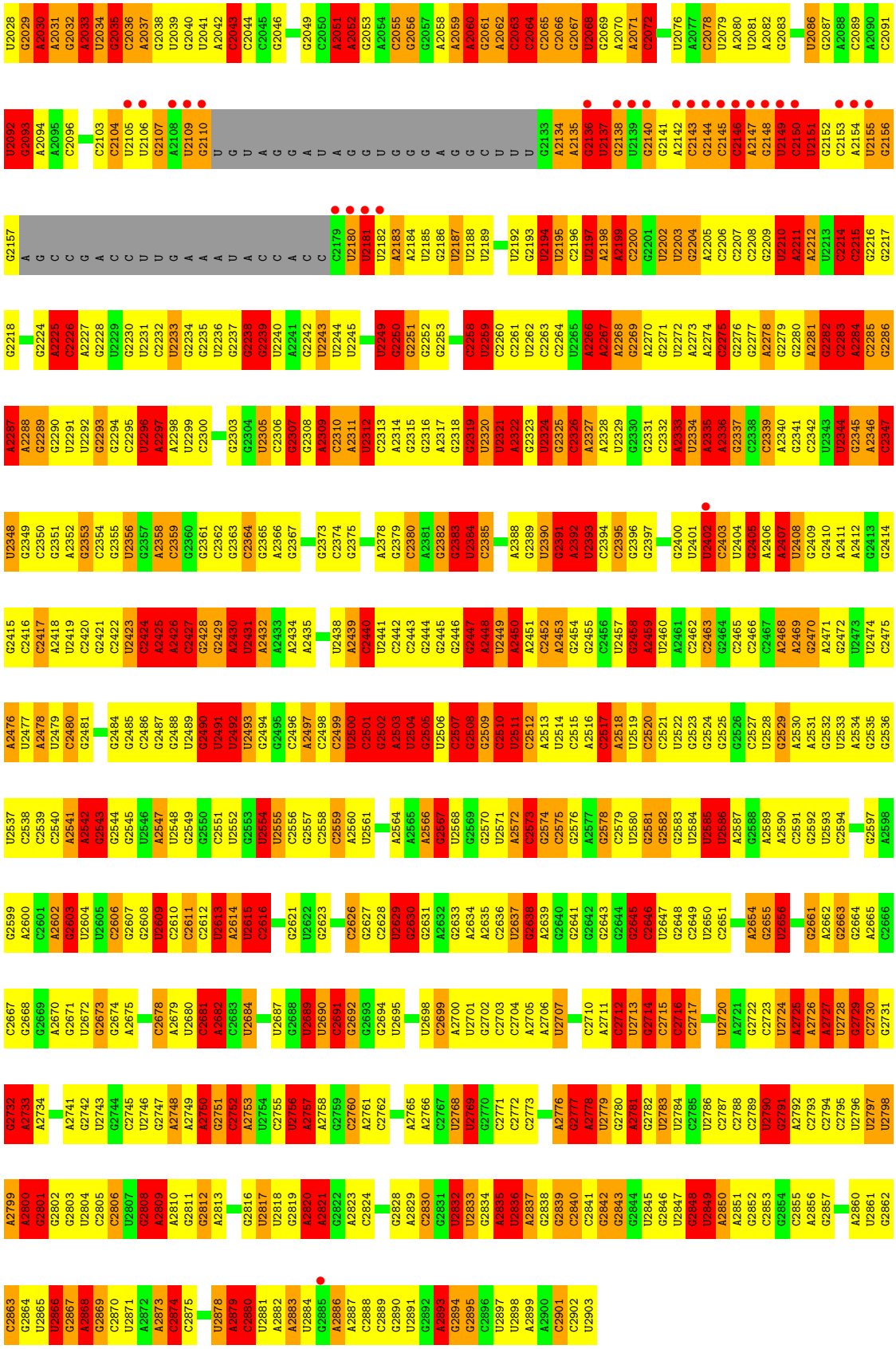
• Molecule 22: 23S rRNA

Chain BA:



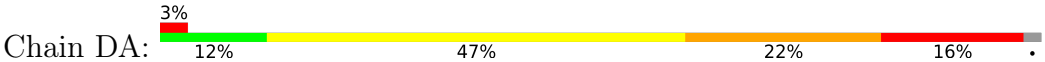


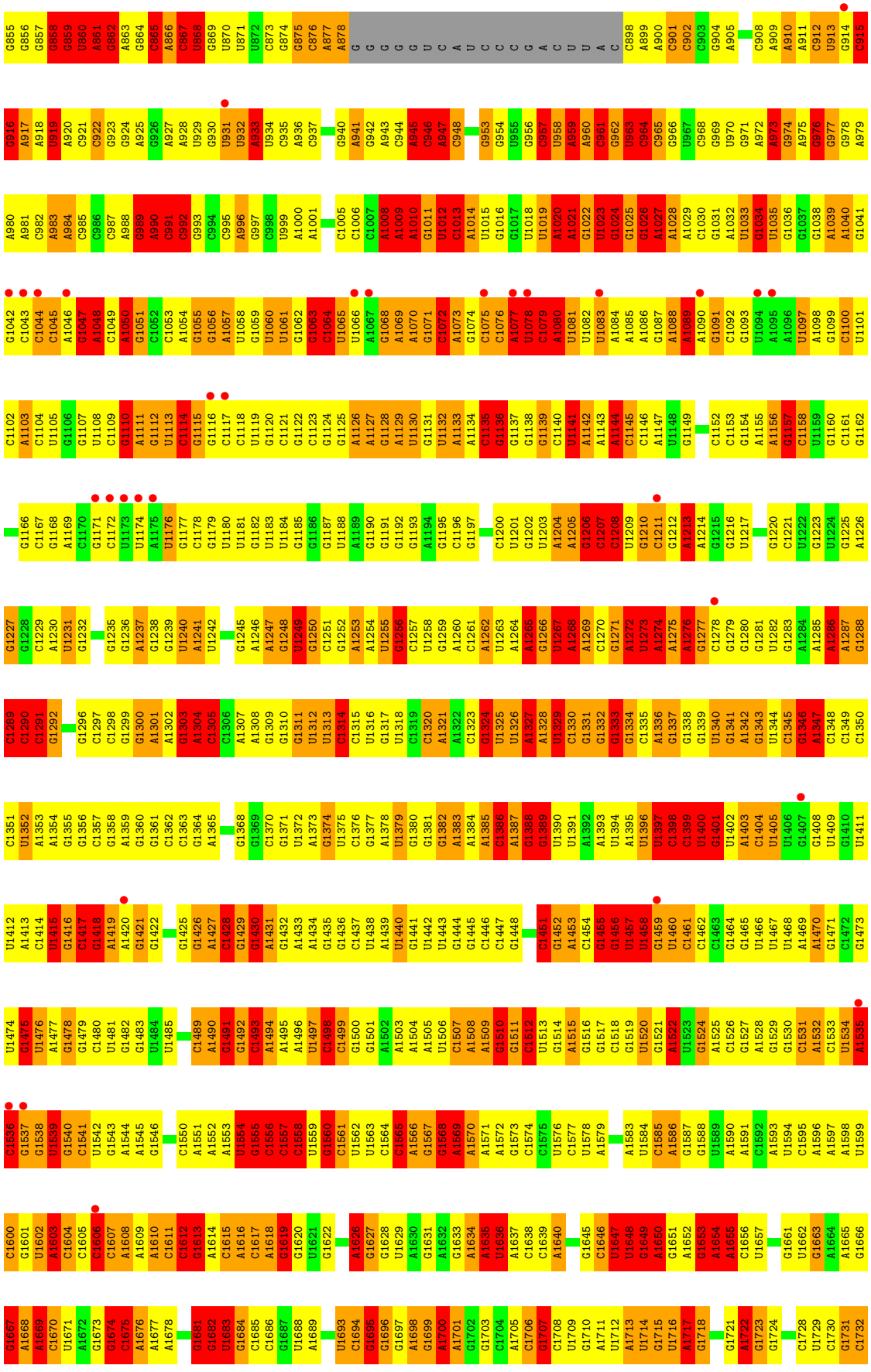


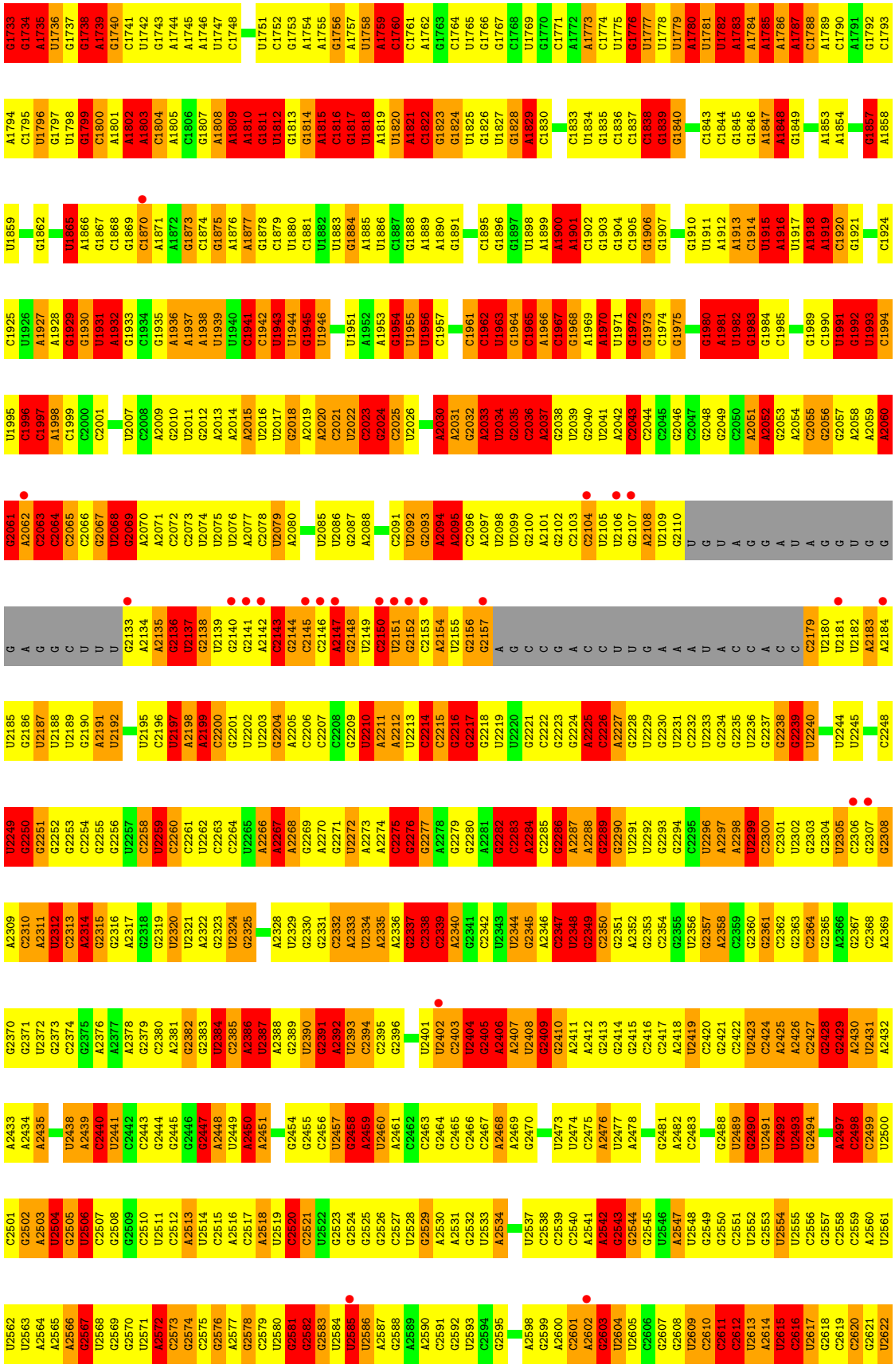


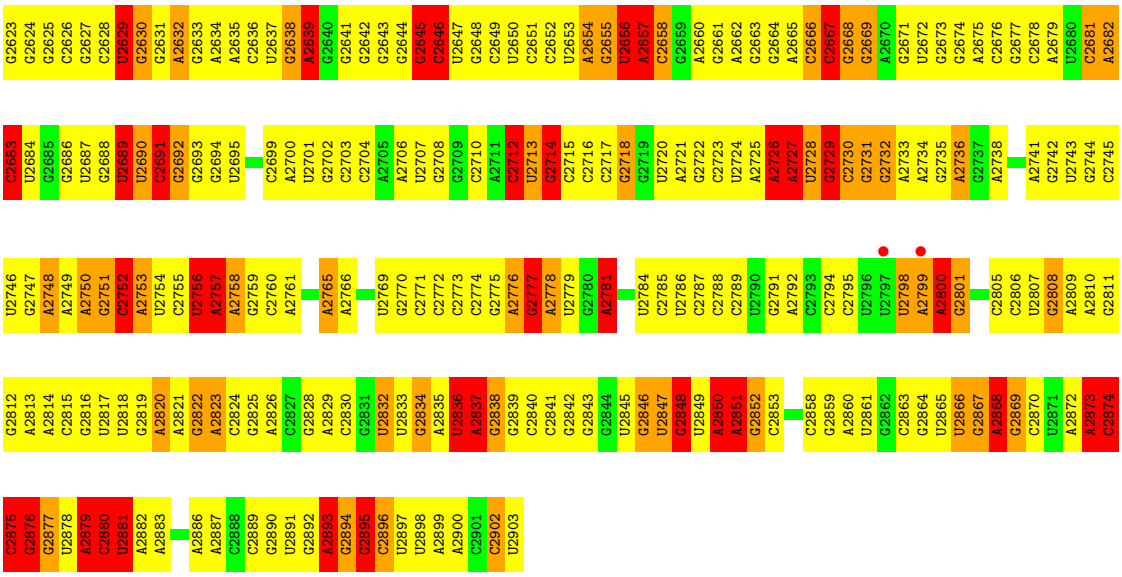
• Molecule 22: 23S rRNA

Chain DA:



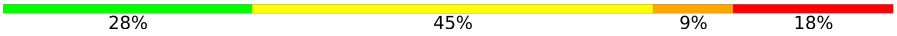


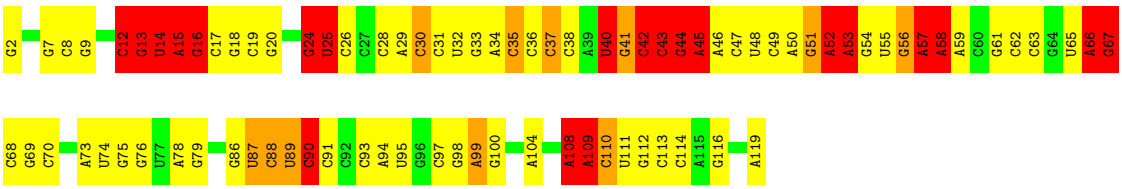




• Molecule 23: 5S rRNA

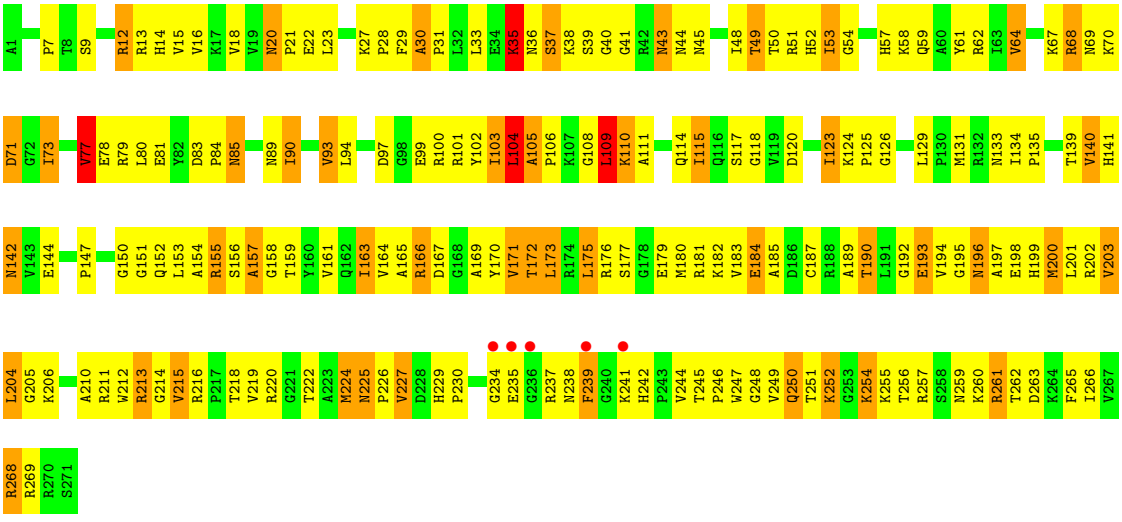
Chain BB:





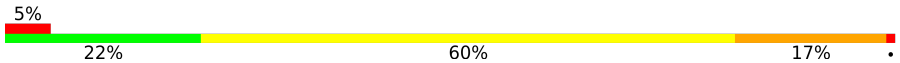
• Molecule 24: 50S ribosomal protein L2

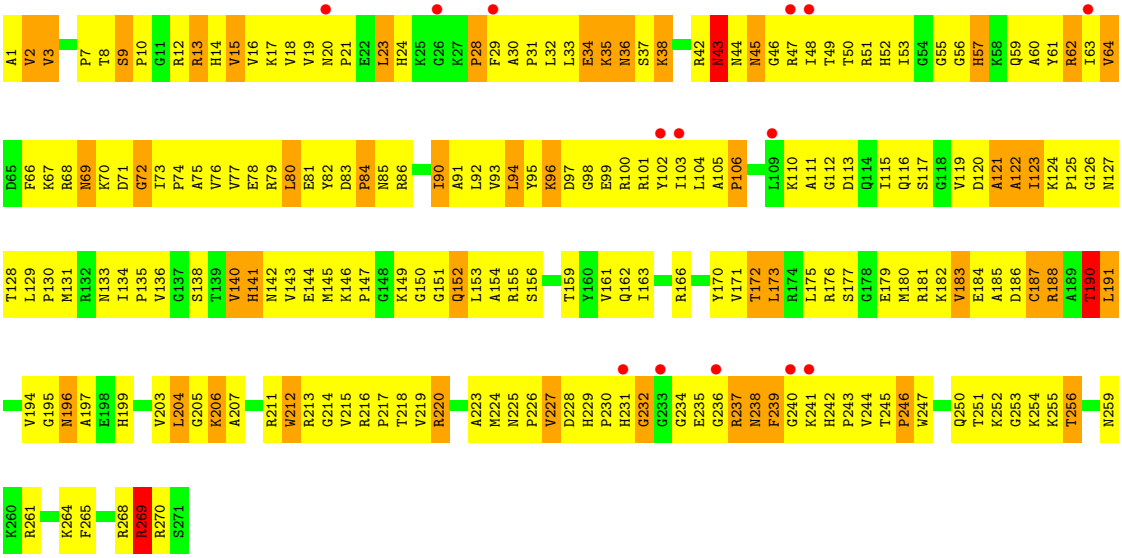
Chain BC:



• Molecule 24: 50S ribosomal protein L2

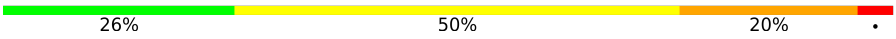
Chain DC:

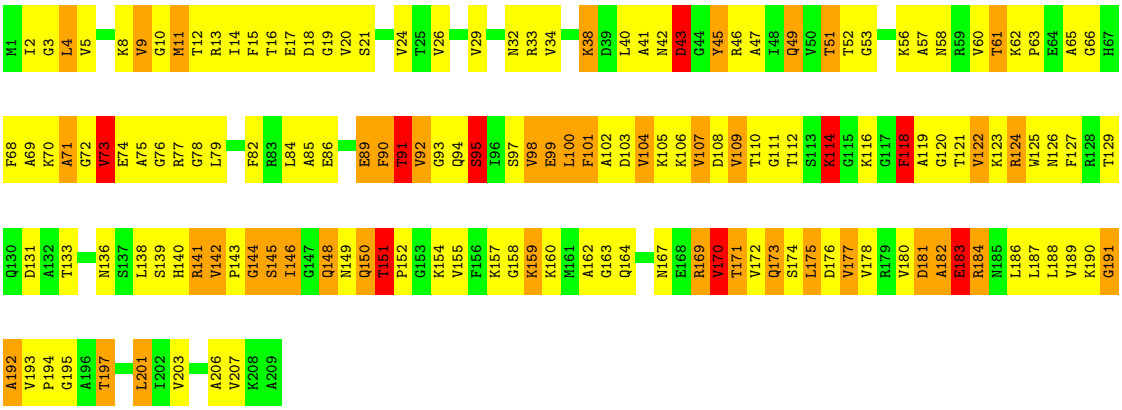




• Molecule 25: 50S ribosomal protein L3

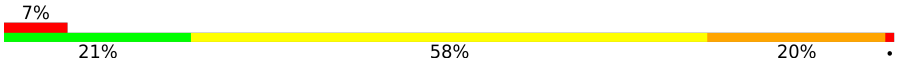
Chain BD:

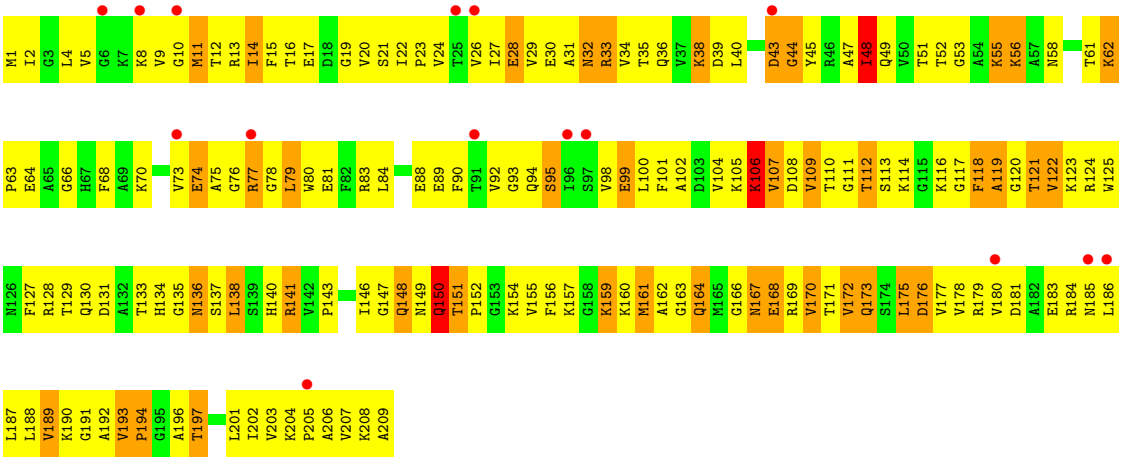




• Molecule 25: 50S ribosomal protein L3

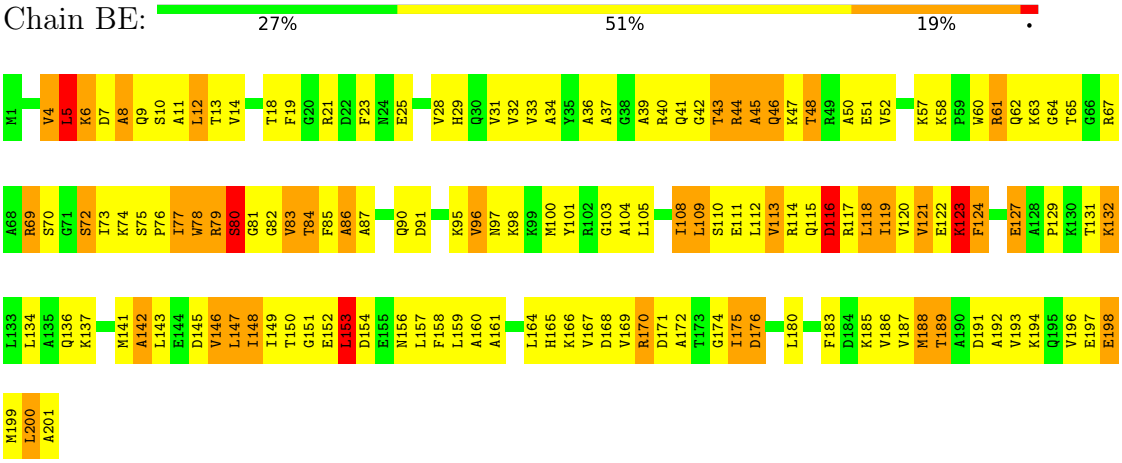
Chain DD:





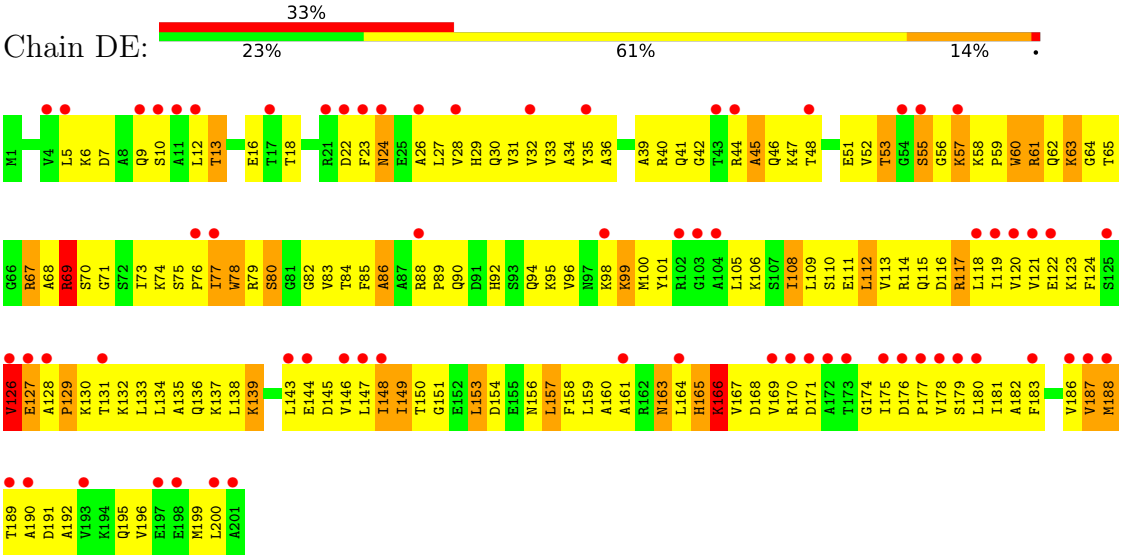
• Molecule 26: 50S ribosomal protein L4

Chain BE:



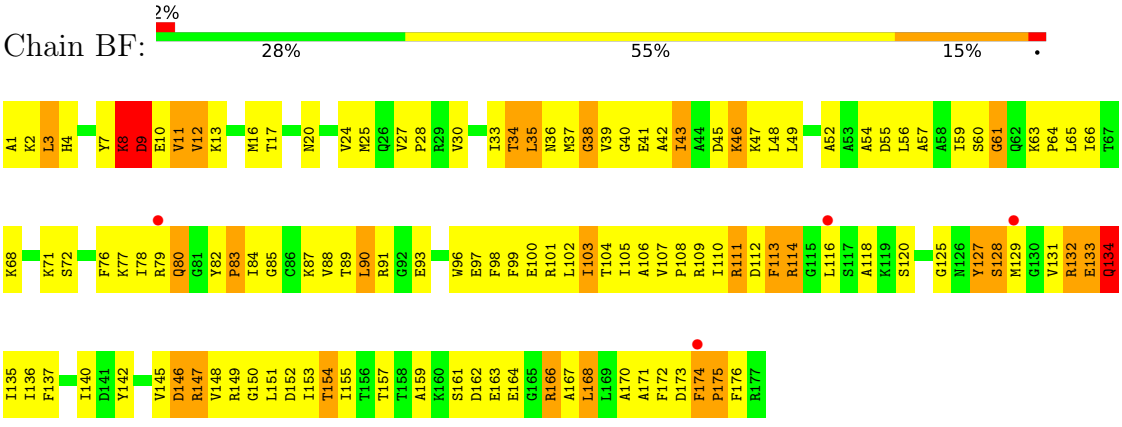
• Molecule 26: 50S ribosomal protein L4

Chain DE:



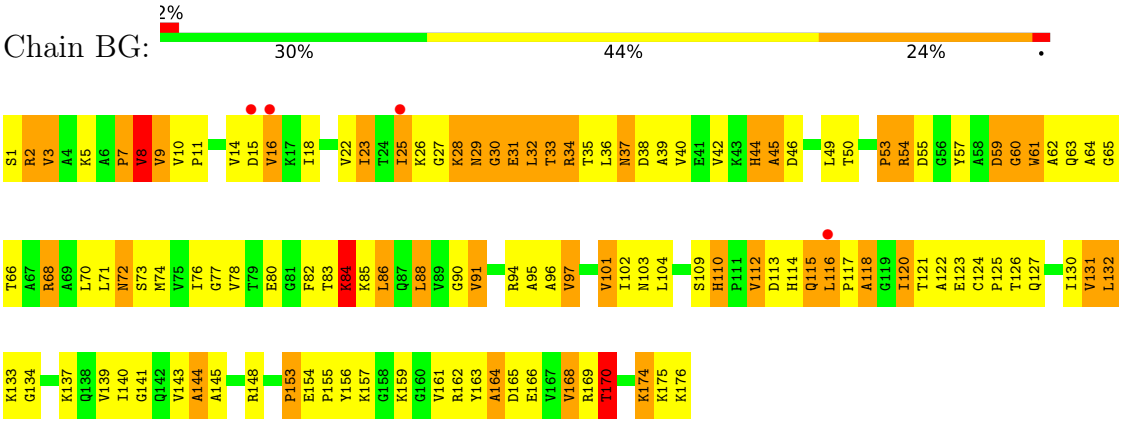
• Molecule 27: 50S ribosomal protein L5

Chain BF:



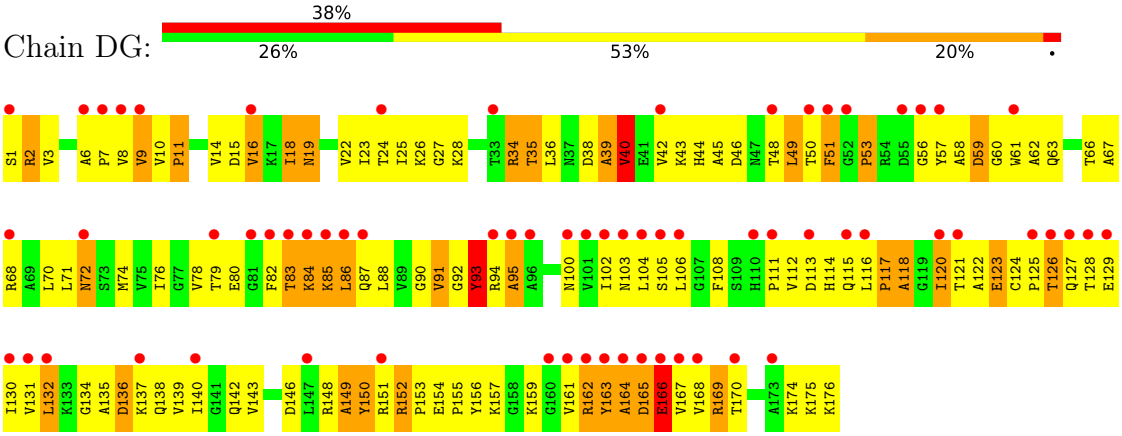
• Molecule 28: 50S ribosomal protein L6

Chain BG:



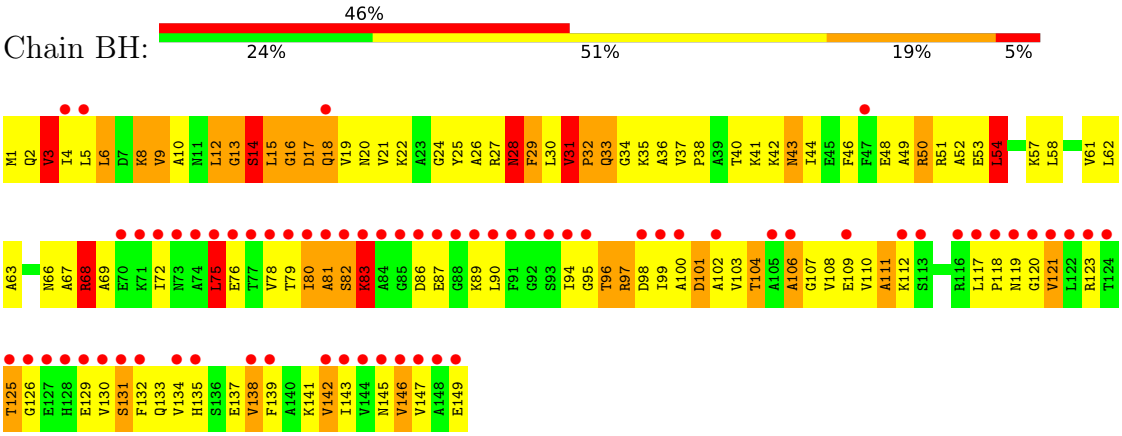
• Molecule 28: 50S ribosomal protein L6

Chain DG:



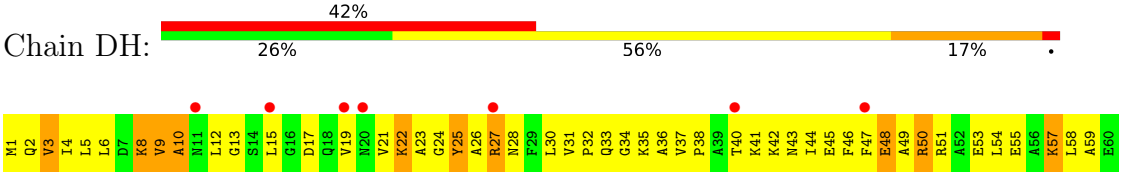
• Molecule 29: 50S ribosomal protein L9

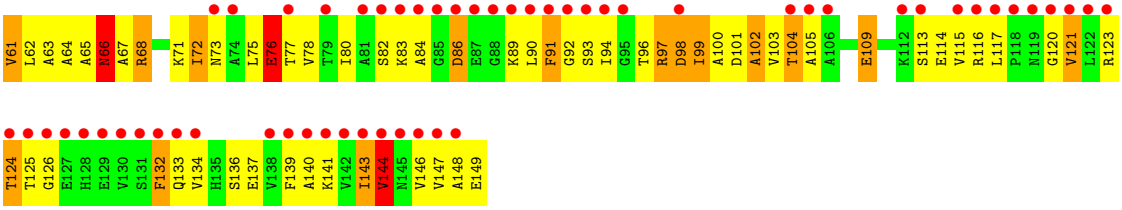
Chain BH:



• Molecule 29: 50S ribosomal protein L9

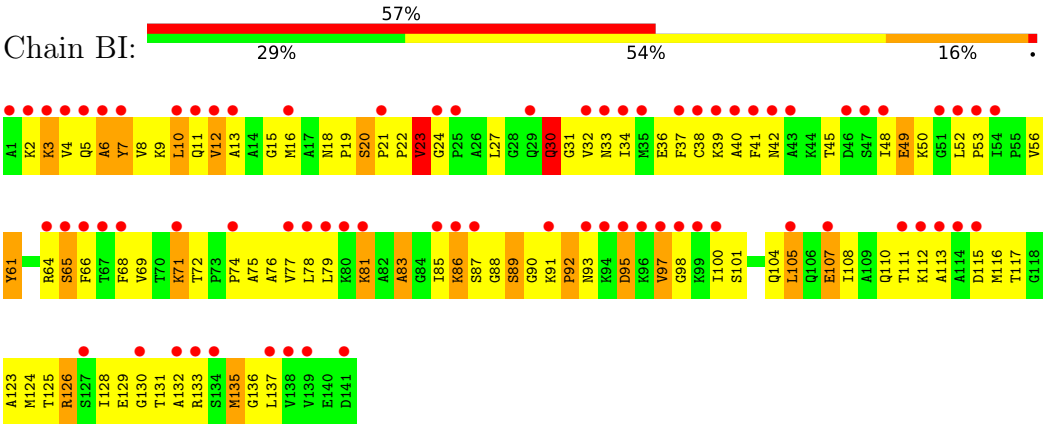
Chain DH:





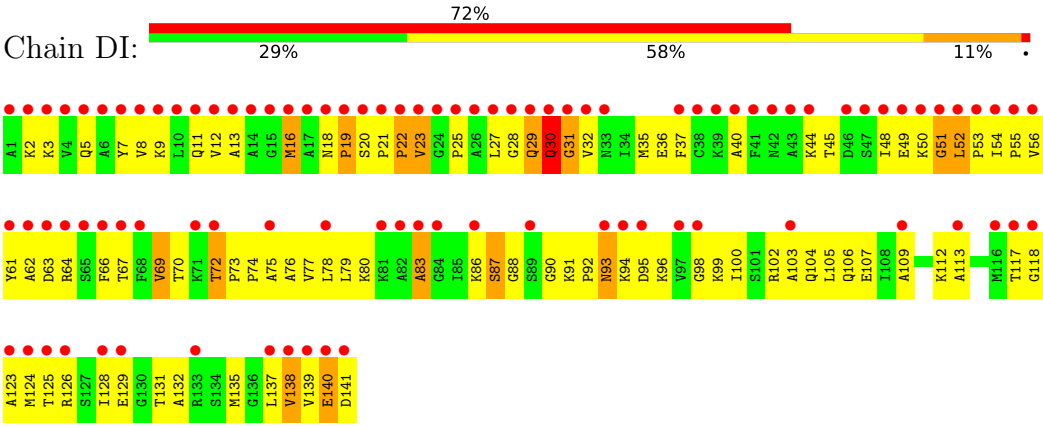
• Molecule 30: 50S ribosomal protein L11

Chain BI:



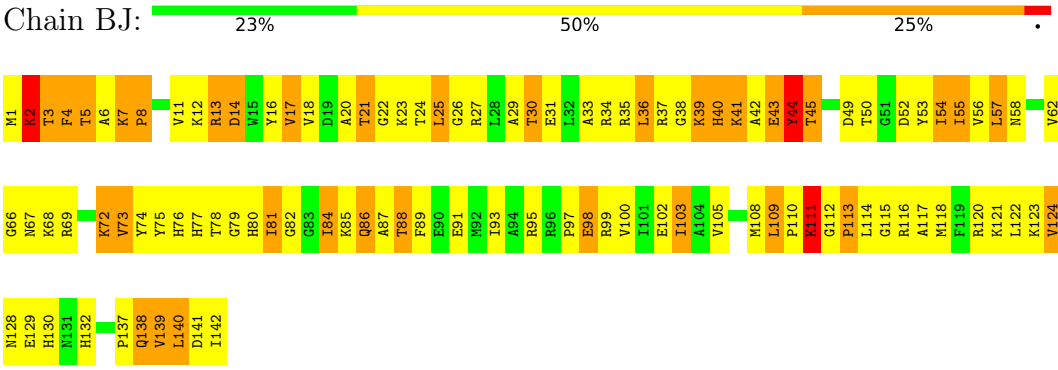
• Molecule 30: 50S ribosomal protein L11

Chain DI:



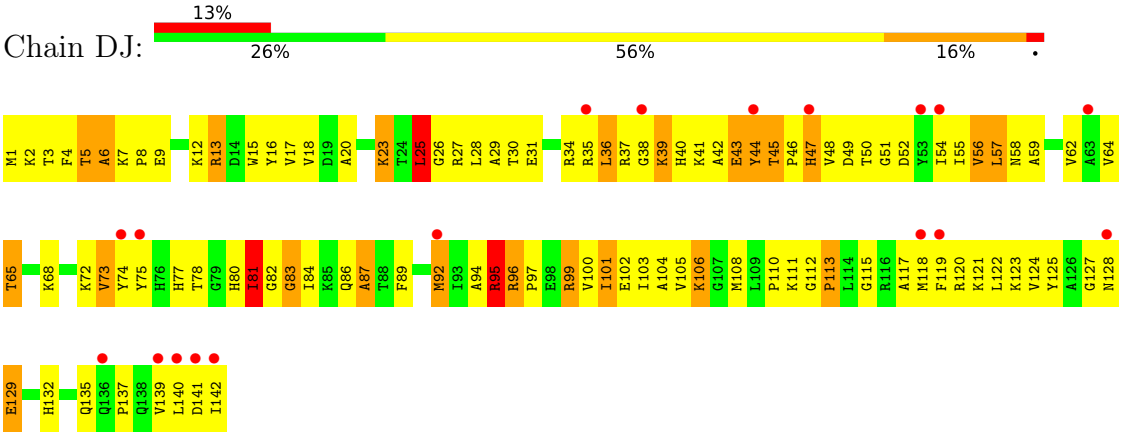
• Molecule 31: 50S ribosomal protein L13

Chain BJ:



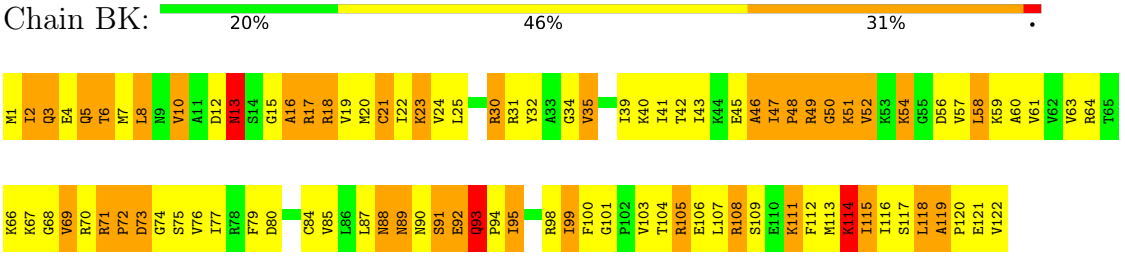
• Molecule 31: 50S ribosomal protein L13

Chain DJ:



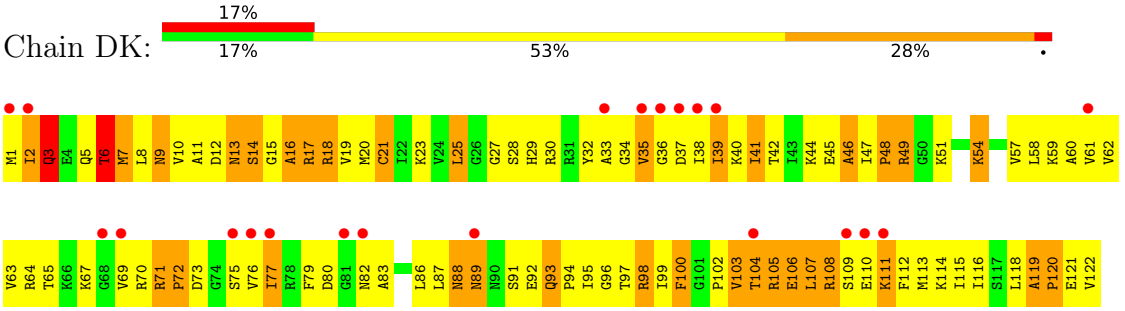
• Molecule 32: 50S ribosomal protein L14

Chain BK:



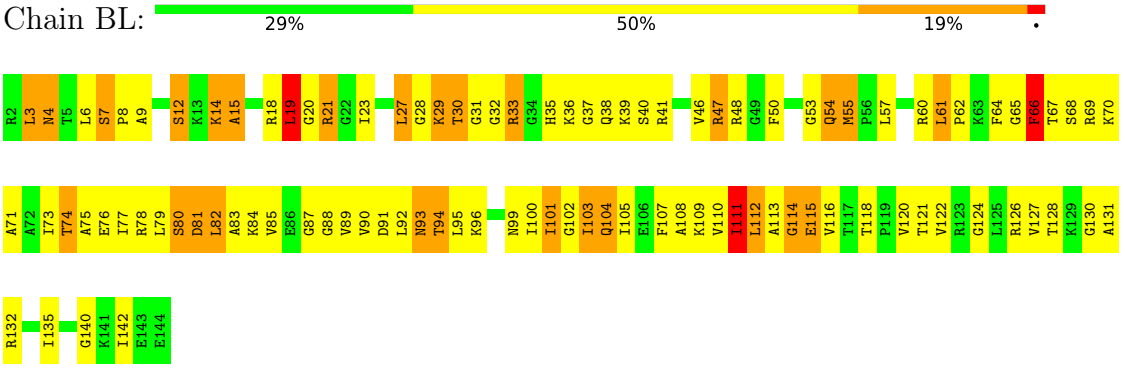
• Molecule 32: 50S ribosomal protein L14

Chain DK:



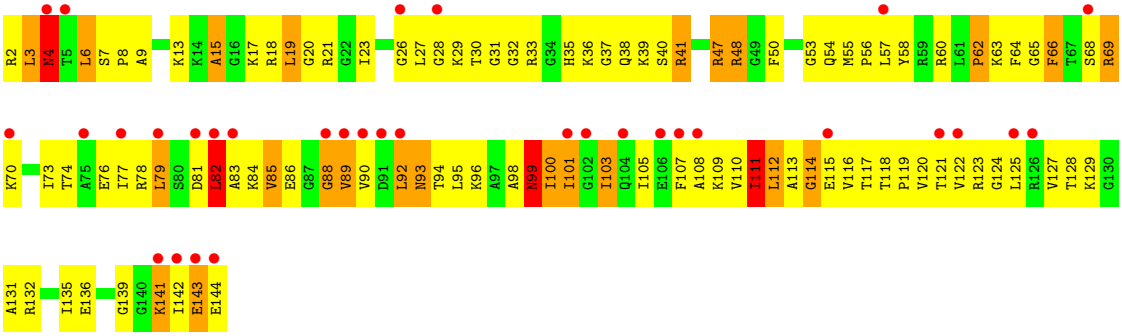
• Molecule 33: 50S ribosomal protein L15

Chain BL:



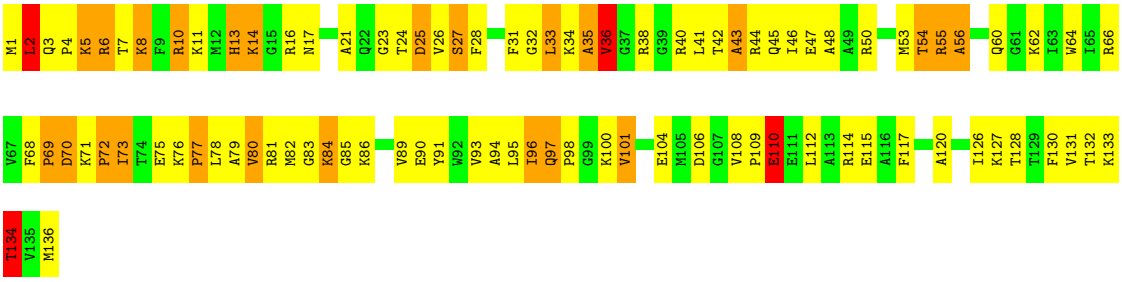
• Molecule 33: 50S ribosomal protein L15

Chain DL:



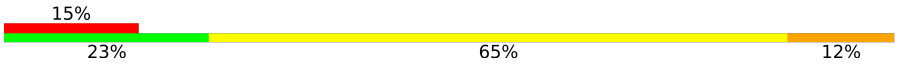
• Molecule 34: 50S ribosomal protein L16

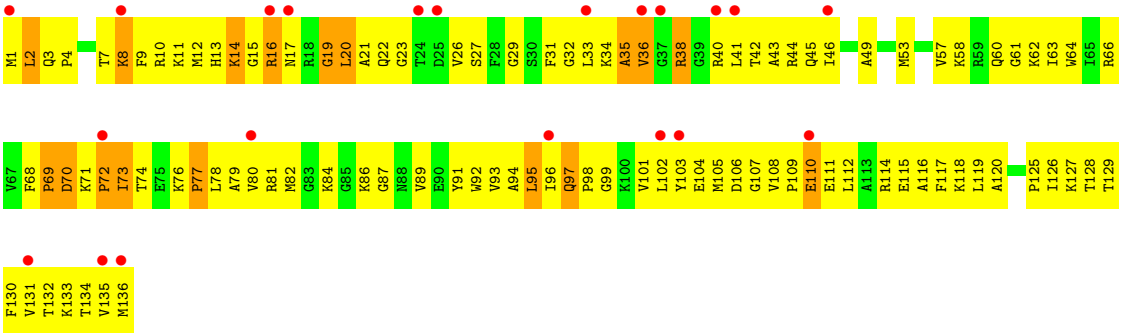
Chain BM:



• Molecule 34: 50S ribosomal protein L16

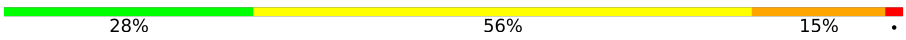
Chain DM:

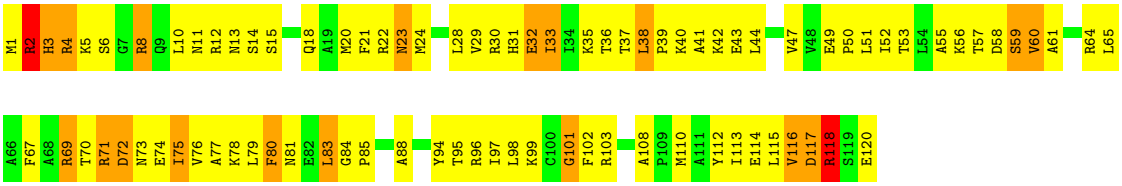




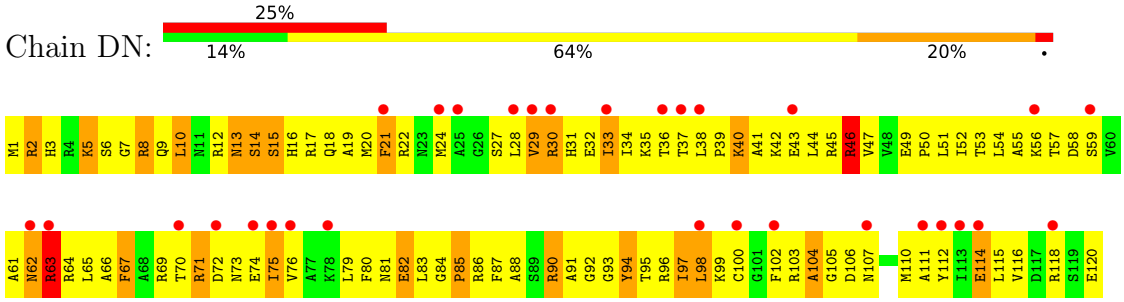
• Molecule 35: 50S ribosomal protein L17

Chain BN:

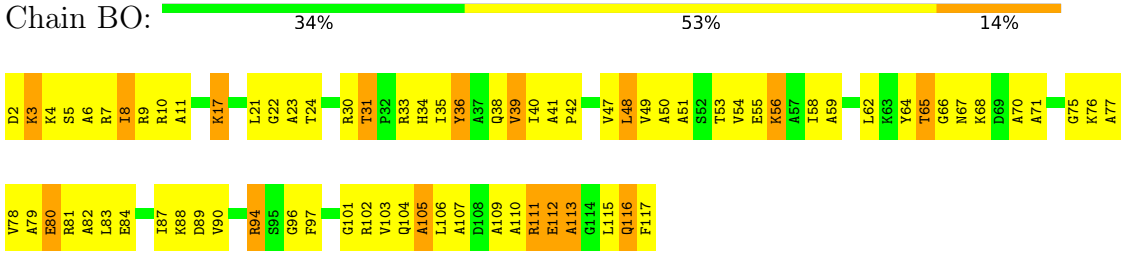




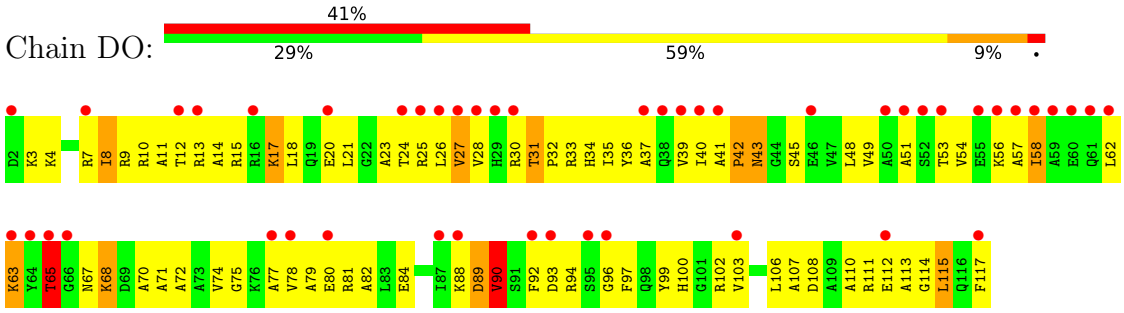
• Molecule 35: 50S ribosomal protein L17



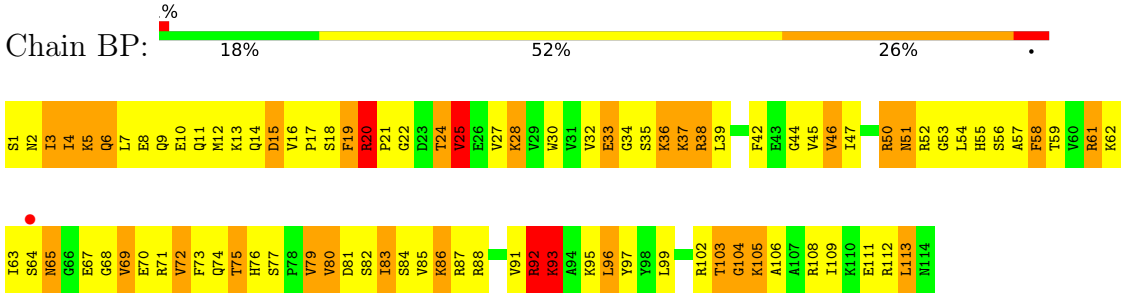
• Molecule 36: 50S ribosomal protein L18



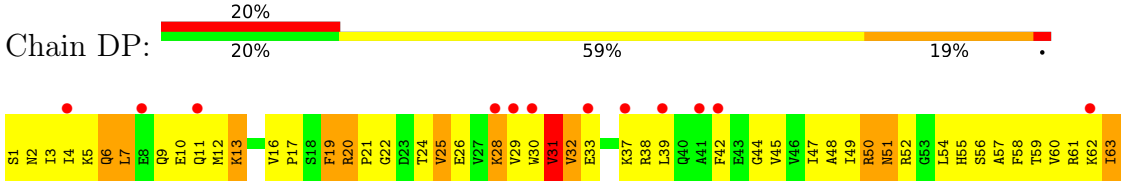
• Molecule 36: 50S ribosomal protein L18

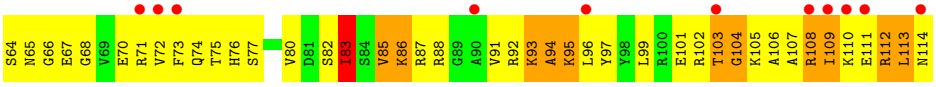


• Molecule 37: 50S ribosomal protein L19



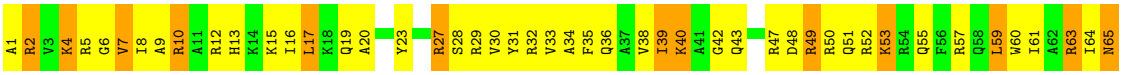
• Molecule 37: 50S ribosomal protein L19

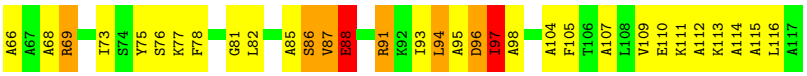




• Molecule 38: 50S ribosomal protein L20

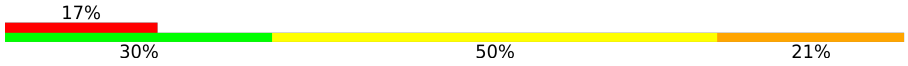
Chain BQ:

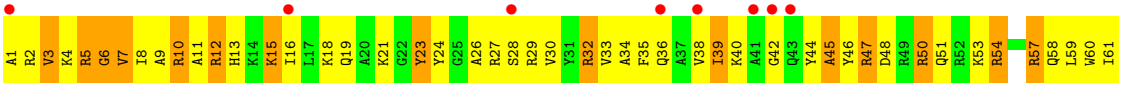


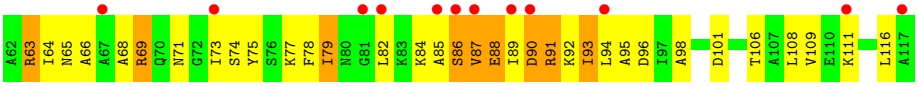


• Molecule 38: 50S ribosomal protein L20

Chain DQ:

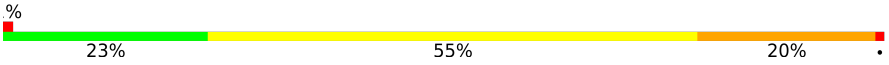


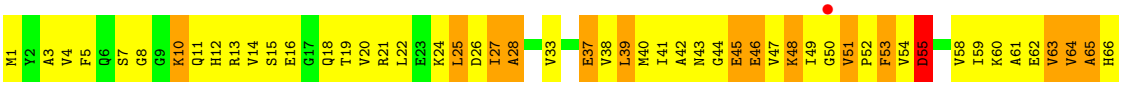


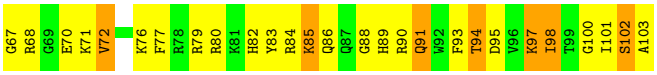


• Molecule 39: 50S ribosomal protein L21

Chain BR:

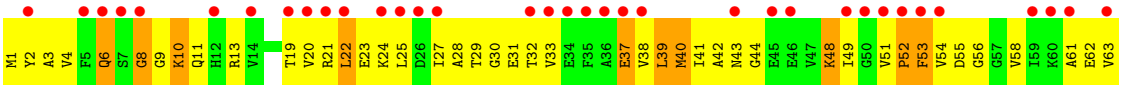


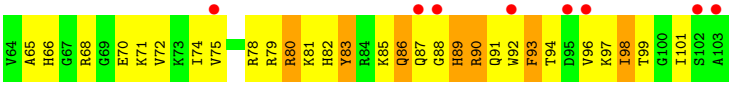




• Molecule 39: 50S ribosomal protein L21

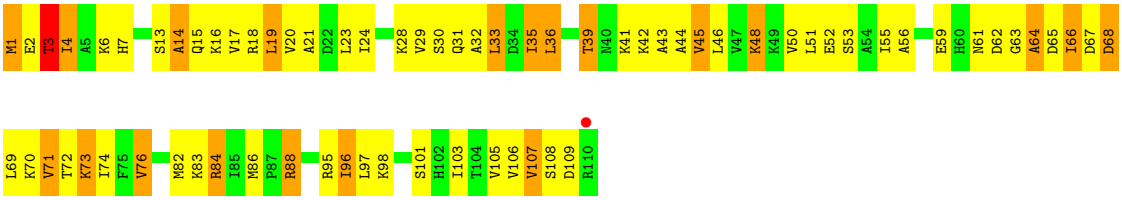
Chain DR:





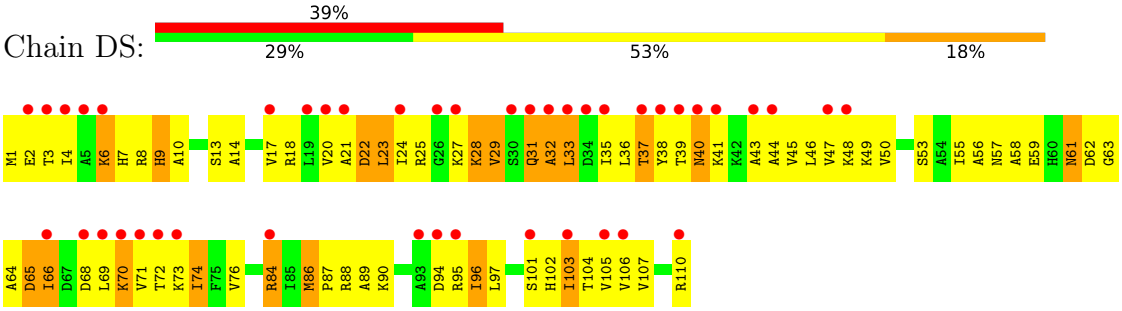
• Molecule 40: 50S ribosomal protein L22

Chain BS:



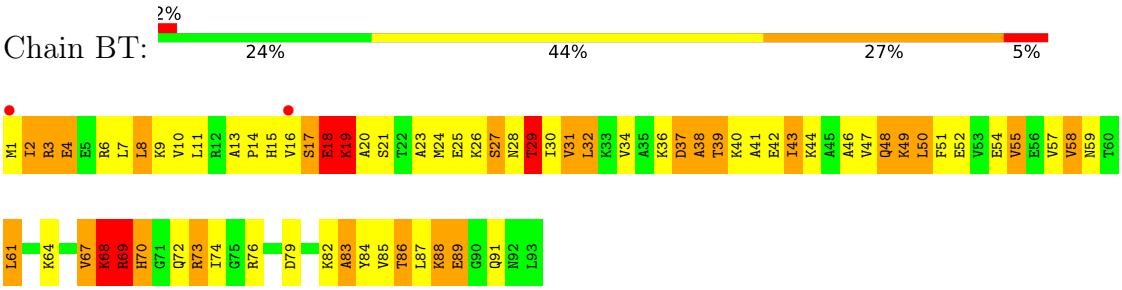
• Molecule 40: 50S ribosomal protein L22

Chain DS:



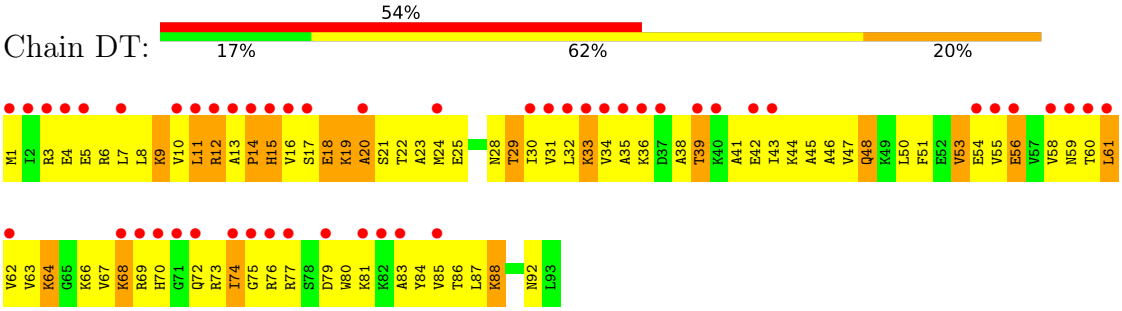
• Molecule 41: 50S ribosomal protein L23

Chain BT:



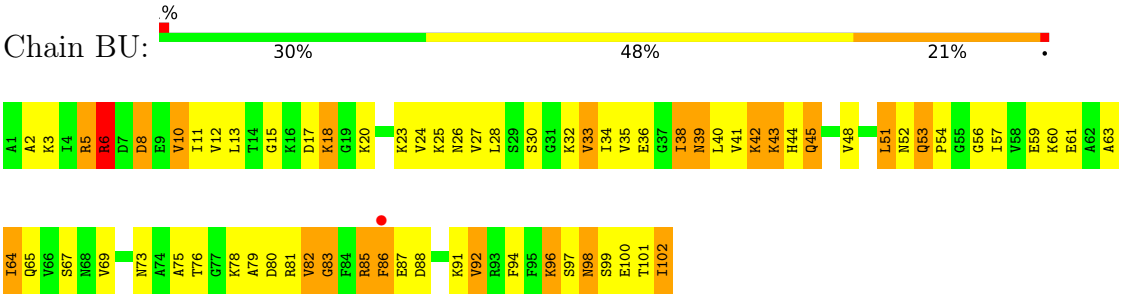
• Molecule 41: 50S ribosomal protein L23

Chain DT:



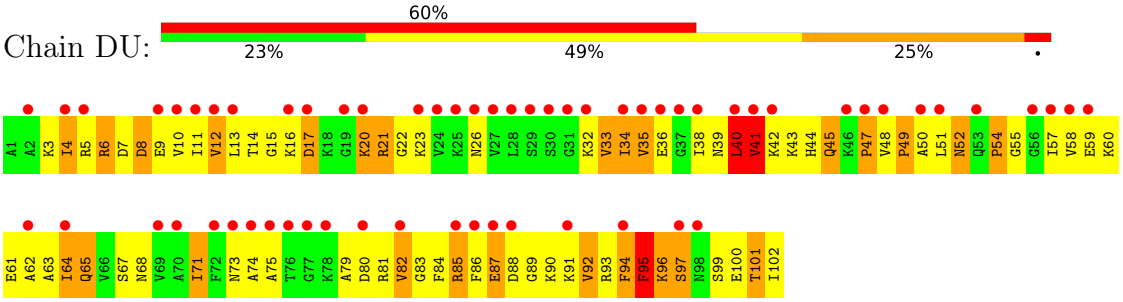
• Molecule 42: 50S ribosomal protein L24

Chain BU:



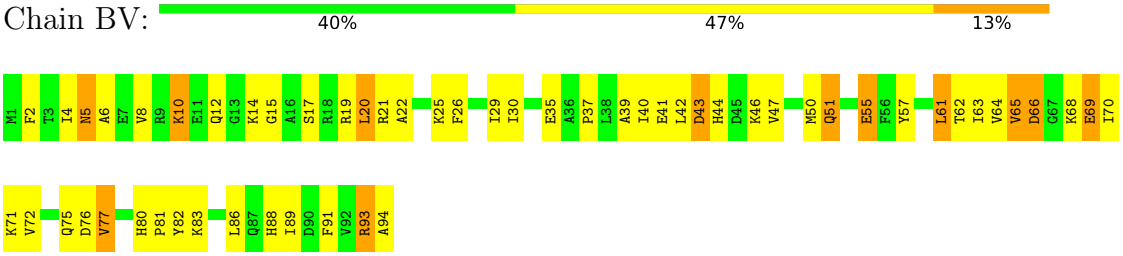
• Molecule 42: 50S ribosomal protein L24

Chain DU:



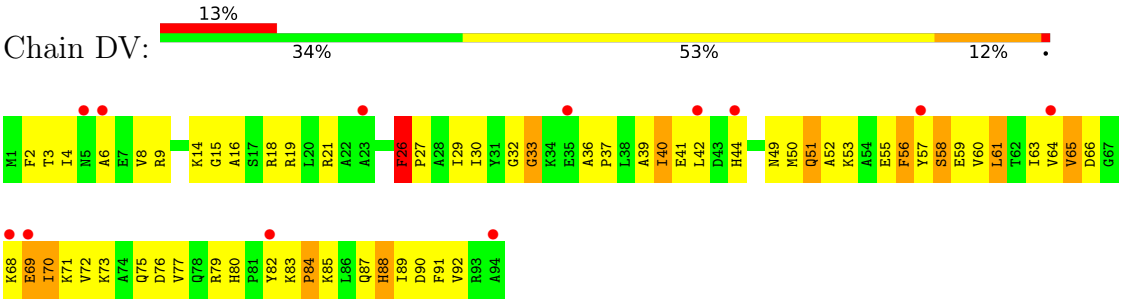
• Molecule 43: 50S ribosomal protein L25

Chain BV:



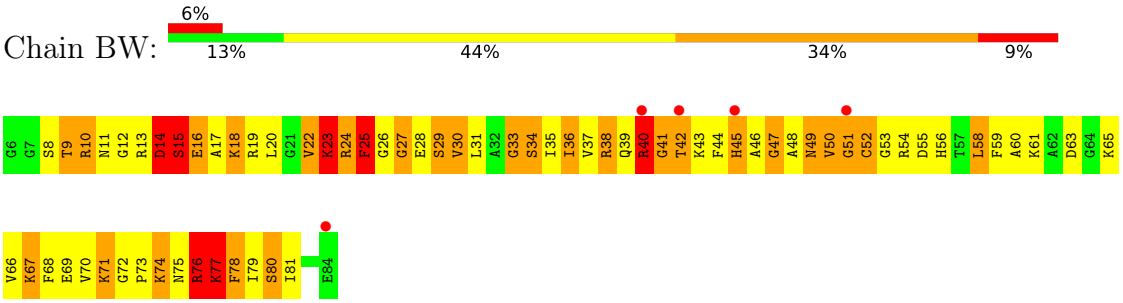
• Molecule 43: 50S ribosomal protein L25

Chain DV:



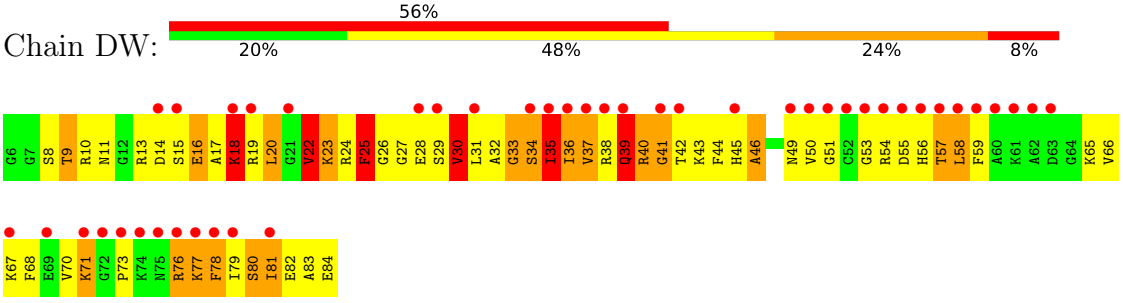
• Molecule 44: 50S ribosomal protein L27

Chain BW:



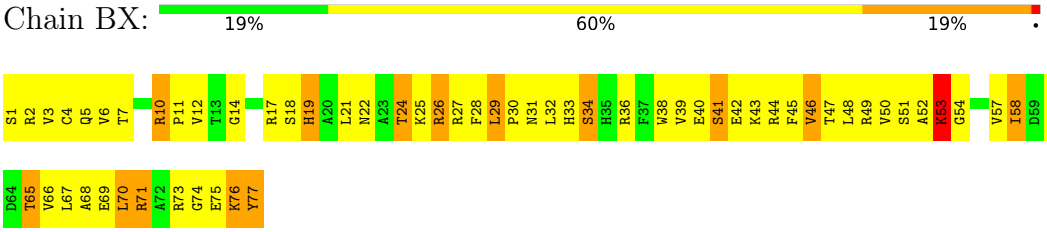
• Molecule 44: 50S ribosomal protein L27

Chain DW:



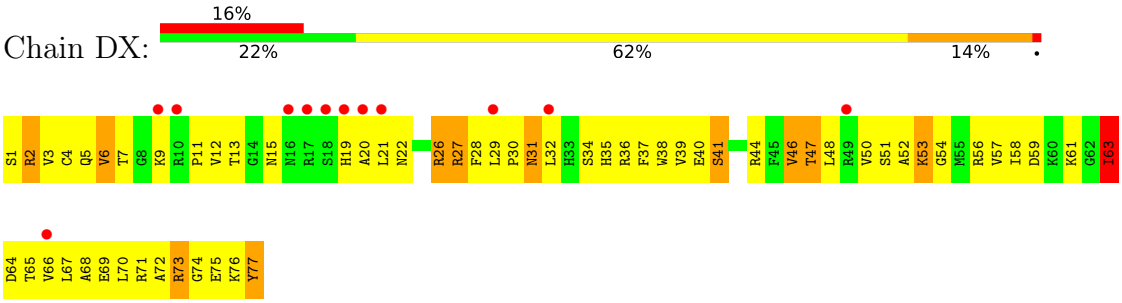
• Molecule 45: 50S ribosomal protein L28

Chain BX:



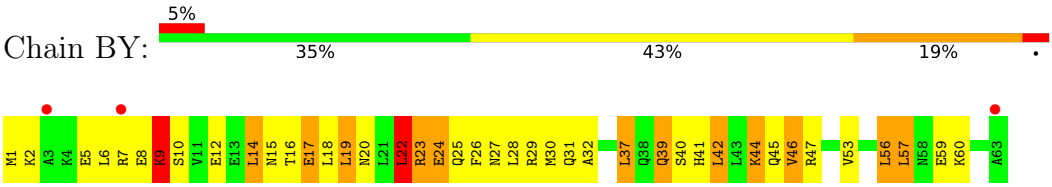
• Molecule 45: 50S ribosomal protein L28

Chain DX:



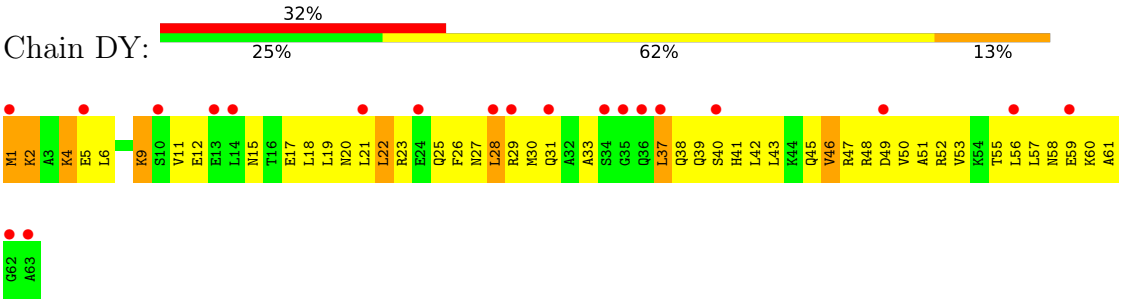
• Molecule 46: 50S ribosomal protein L29

Chain BY:



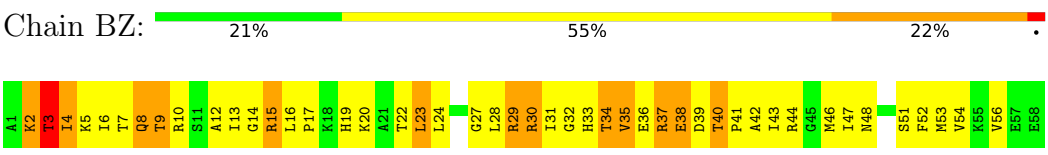
• Molecule 46: 50S ribosomal protein L29

Chain DY:



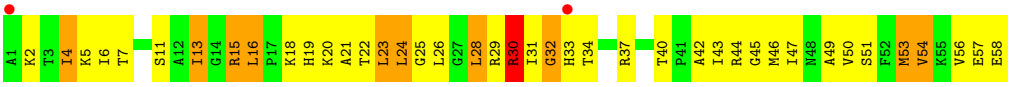
• Molecule 47: 50S ribosomal protein L30

Chain BZ:

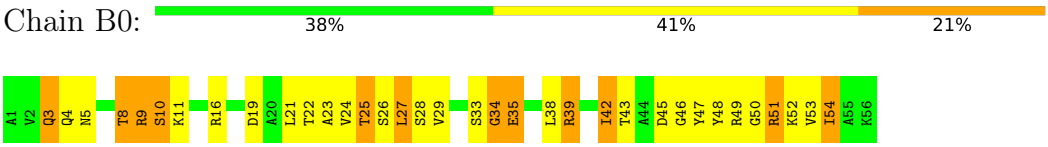


• Molecule 47: 50S ribosomal protein L30

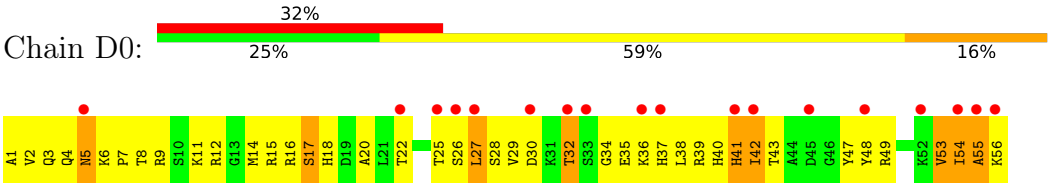
Chain DZ:



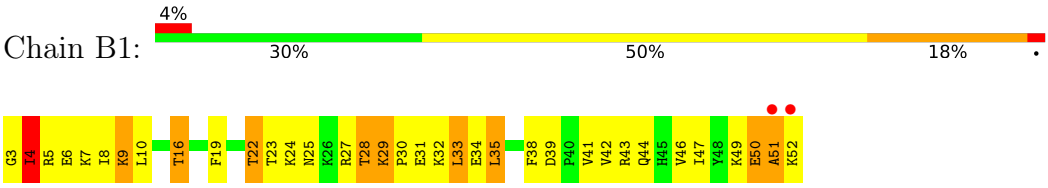
• Molecule 48: 50S ribosomal protein L32



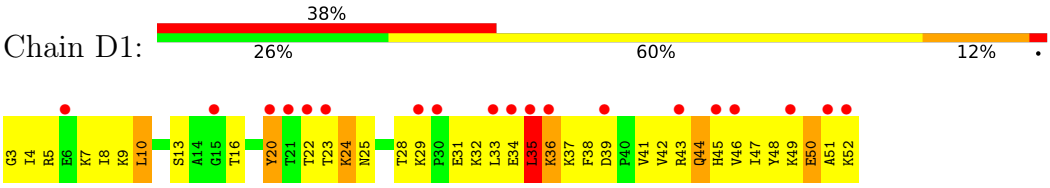
• Molecule 48: 50S ribosomal protein L32



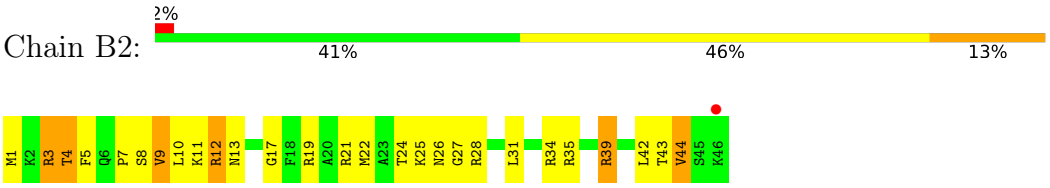
• Molecule 49: 50S ribosomal protein L33



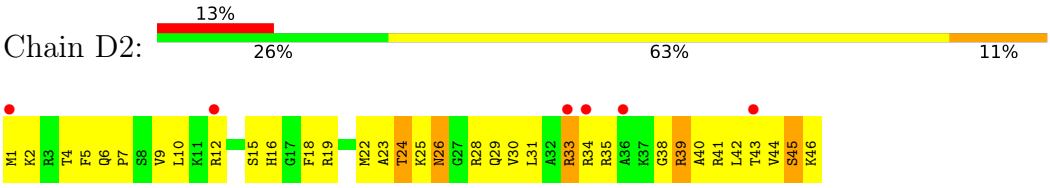
• Molecule 49: 50S ribosomal protein L33



• Molecule 50: 50S ribosomal protein L34

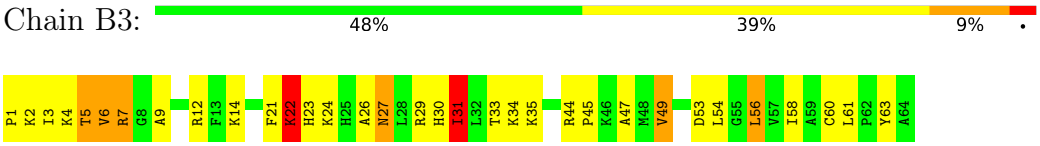


• Molecule 50: 50S ribosomal protein L34



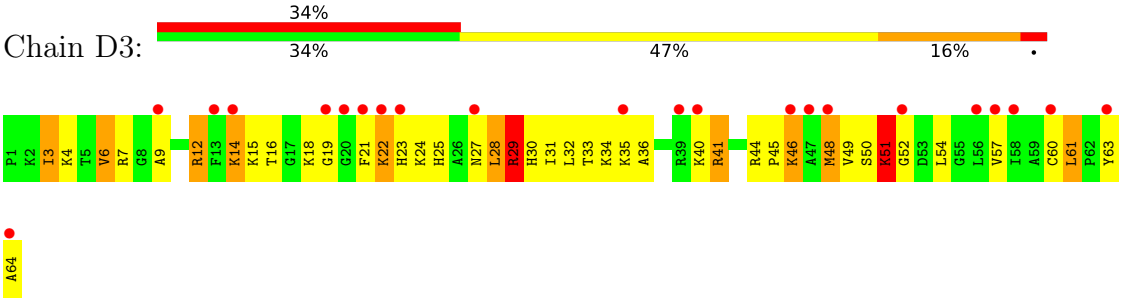
• Molecule 51: 50S ribosomal protein L35

Chain B3:



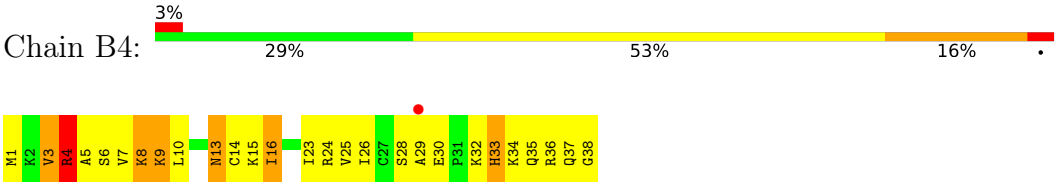
• Molecule 51: 50S ribosomal protein L35

Chain D3:



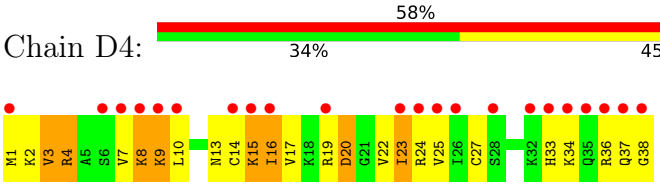
• Molecule 52: 50S ribosomal protein L36

Chain B4:



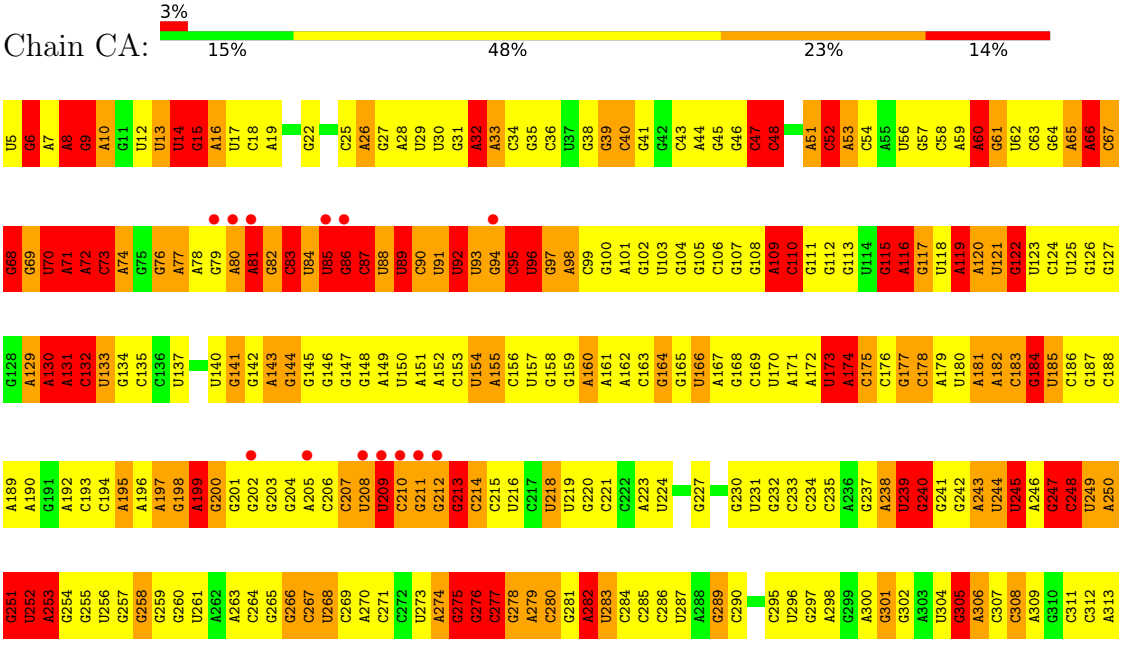
• Molecule 52: 50S ribosomal protein L36

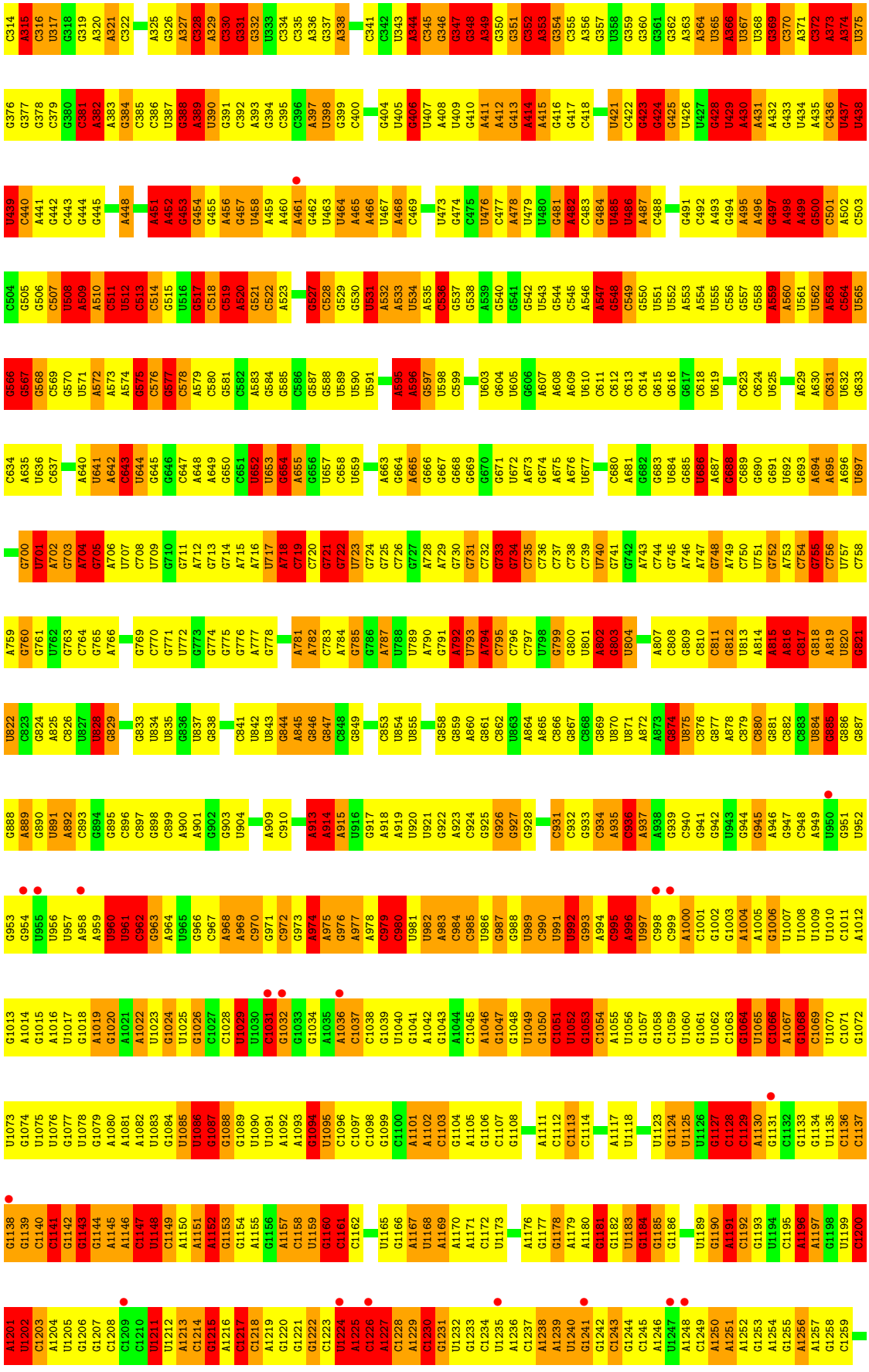
Chain D4:

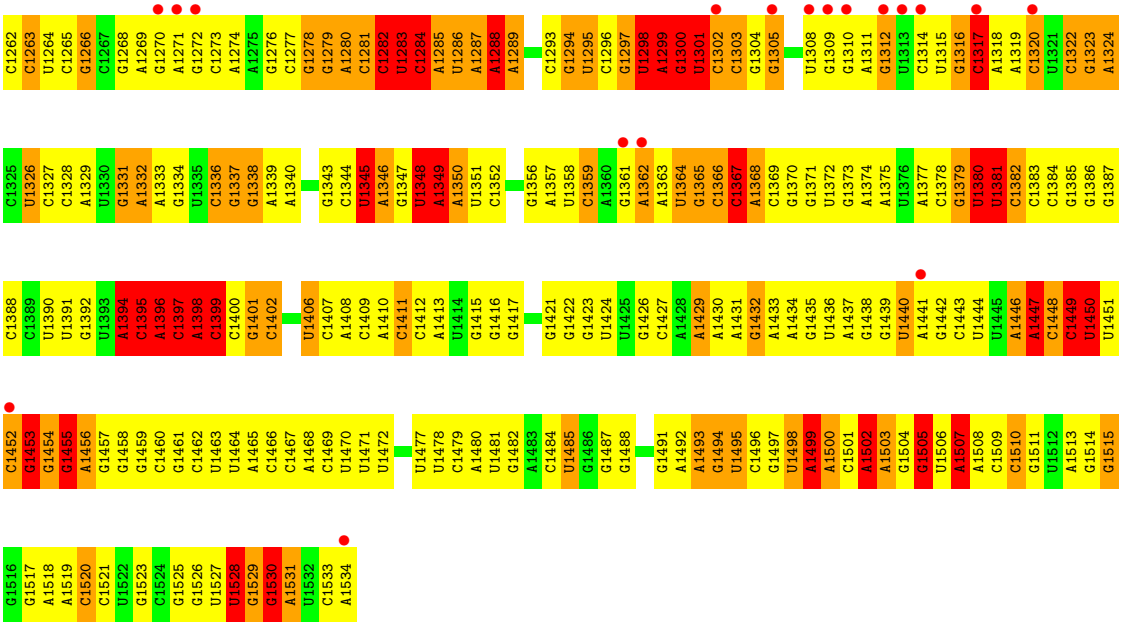


• Molecule 53: 16S rRNA

Chain CA:

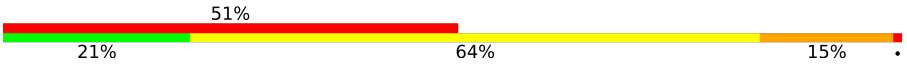


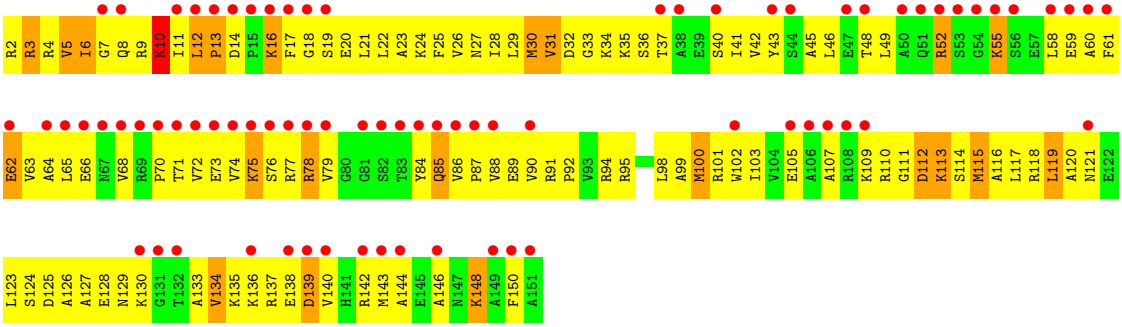




• Molecule 54: 30S ribosomal protein S7

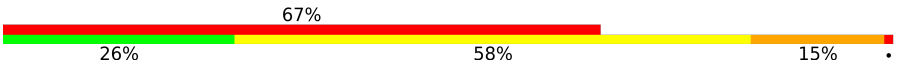
Chain CG:

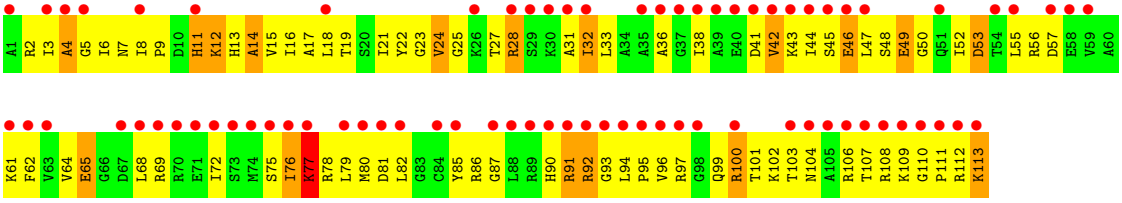




• Molecule 55: 30S ribosomal protein S13

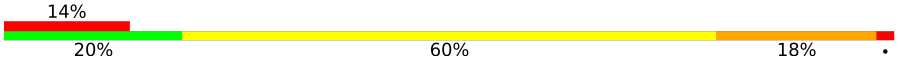
Chain CM:

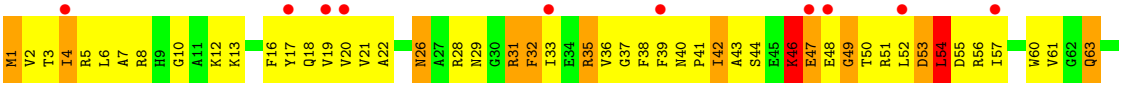




• Molecule 56: 30S ribosomal protein S16

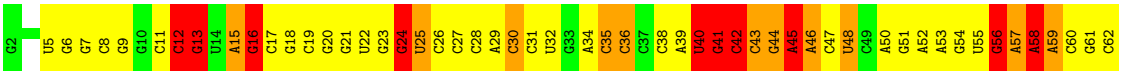
Chain CP:

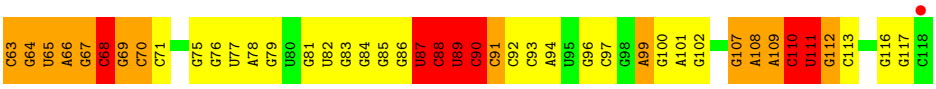




• Molecule 57: 5S rRNA

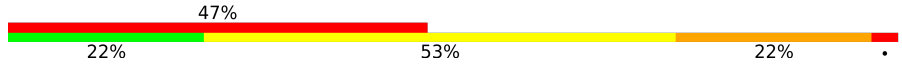
Chain DB:

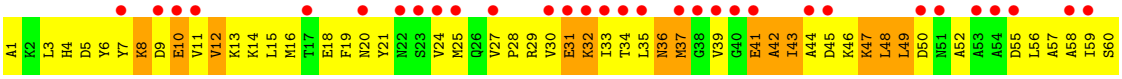


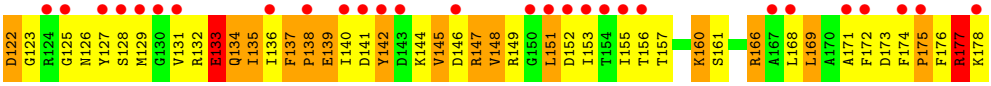


• Molecule 58: 50S ribosomal protein L5

Chain DF:







4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	211.08Å 434.46Å 618.92Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	76.35 – 3.29 76.35 – 3.29	Depositor EDS
% Data completeness (in resolution range)	77.5 (76.35-3.29) 77.5 (76.35-3.29)	Depositor EDS
R_{merge}	0.12	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.65 (at 3.26Å)	Xtriage
Refinement program	PHENIX ?, PHENIX (phenix.refine)	Depositor
R, R_{free}	0.189 , 0.241 0.202 , 0.253	Depositor DCC
R_{free} test set	14080 reflections (2.01%)	wwPDB-VP
Wilson B-factor (Å^2)	66.6	Xtriage
Anisotropy	0.324	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.23 , 77.7	EDS
L-test for twinning[2]	$< \|L\| > = 0.48$, $< L^2 > = 0.31$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.93	EDS
Total number of atoms	284501	wwPDB-VP
Average B, all atoms (Å^2)	103.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.60% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, CLY, MG

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	AA	0.50	2/36834 (0.0%)	1.24	439/57462 (0.8%)
2	AB	0.24	0/1736	0.44	0/2338
2	CB	0.23	0/1736	0.44	0/2338
3	AC	0.26	0/1652	0.48	0/2225
3	CC	0.22	0/1652	0.42	0/2225
4	AD	0.29	0/1665	0.50	0/2227
4	CD	0.32	0/1665	0.55	0/2227
5	AE	0.31	0/1119	0.56	0/1504
5	CE	0.35	1/1119 (0.1%)	0.53	0/1504
6	AF	0.28	0/836	0.47	0/1128
6	CF	0.26	0/836	0.48	0/1128
7	AG	0.23	0/1196	0.45	0/1602
8	AH	0.30	0/989	0.52	0/1326
8	CH	0.26	0/989	0.49	0/1326
9	AI	0.24	0/1034	0.45	0/1375
9	CI	0.21	0/1034	0.41	0/1375
10	AJ	0.24	0/797	0.47	0/1077
10	CJ	0.21	0/797	0.45	0/1077
11	AK	0.26	0/893	0.51	0/1205
11	CK	0.26	0/893	0.50	0/1205
12	AL	0.35	0/969	0.66	1/1300 (0.1%)
12	CL	0.29	0/969	0.54	0/1300
13	AM	0.23	0/893	0.47	0/1193
14	AN	0.26	0/785	0.46	0/1043
14	CN	0.21	0/780	0.37	0/1036
15	AO	0.29	0/722	0.45	0/964
15	CO	0.25	0/722	0.42	0/964
16	AP	0.30	0/659	0.48	0/884
17	AQ	0.35	0/658	0.56	0/881
17	CQ	0.27	0/658	0.49	0/881
18	AR	0.28	0/463	0.47	0/621
18	CR	0.26	0/463	0.45	0/621

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
19	AS	0.24	0/653	0.43	0/877
19	CS	0.20	0/653	0.41	0/877
20	AT	0.31	0/671	0.52	0/888
20	CT	0.25	0/671	0.49	0/888
21	AU	0.27	0/431	0.45	0/570
21	CU	0.32	0/431	0.57	0/570
22	BA	0.73	7/68626 (0.0%)	1.54	1278/107056 (1.2%)
22	DA	0.45	2/68314 (0.0%)	1.23	934/106569 (0.9%)
23	BB	0.68	0/2828	1.42	40/4410 (0.9%)
24	BC	0.40	0/2122	0.67	0/2852
24	DC	0.29	0/2122	0.51	0/2852
25	BD	0.51	0/1586	0.72	1/2134 (0.0%)
25	DD	0.28	0/1586	0.54	0/2134
26	BE	0.42	0/1571	0.63	0/2113
26	DE	0.24	0/1571	0.46	0/2113
27	BF	0.32	0/1435	0.52	0/1926
28	BG	0.36	0/1343	0.59	0/1816
28	DG	0.22	0/1343	0.44	0/1816
29	BH	0.27	0/1122	0.47	0/1515
29	DH	0.25	0/1122	0.51	2/1515 (0.1%)
30	BI	0.23	0/1046	0.47	0/1410
30	DI	0.20	0/1046	0.42	0/1410
31	BJ	0.52	0/1152	0.77	0/1551
31	DJ	0.26	0/1152	0.55	1/1551 (0.1%)
32	BK	0.49	0/948	0.71	0/1268
32	DK	0.29	0/948	0.52	0/1268
33	BL	0.41	0/1054	0.71	1/1403 (0.1%)
33	DL	0.25	0/1054	0.50	0/1403
34	BM	0.46	0/1093	0.68	0/1460
34	DM	0.27	0/1093	0.46	0/1460
35	BN	0.42	0/974	0.68	0/1301
35	DN	0.26	0/974	0.48	0/1301
36	BO	0.39	0/902	0.59	0/1209
36	DO	0.21	0/902	0.40	0/1209
37	BP	0.45	0/929	0.71	0/1242
37	DP	0.27	0/929	0.47	0/1242
38	BQ	0.55	0/960	0.69	0/1278
38	DQ	0.27	0/960	0.44	0/1278
39	BR	0.54	0/829	0.72	0/1107
39	DR	0.26	0/829	0.49	0/1107
40	BS	0.51	0/864	0.73	0/1156
40	DS	0.26	0/864	0.50	0/1156
41	BT	0.43	0/745	0.68	0/994

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
41	DT	0.22	0/745	0.45	0/994
42	BU	0.39	0/788	0.67	0/1051
42	DU	0.22	0/788	0.45	0/1051
43	BV	0.41	0/766	0.60	0/1025
43	DV	0.23	0/766	0.42	0/1025
44	BW	0.49	0/603	0.77	0/797
44	DW	0.25	0/603	0.46	0/797
45	BX	0.39	0/635	0.66	0/848
45	DX	0.26	0/635	0.52	0/848
46	BY	0.36	0/510	0.60	0/677
46	DY	0.21	0/510	0.42	0/677
47	BZ	0.51	0/453	0.73	0/605
47	DZ	0.25	0/453	0.50	0/605
48	B0	0.44	0/450	0.69	0/599
48	D0	0.26	0/450	0.48	0/599
49	B1	0.36	0/417	0.54	0/554
49	D1	0.24	0/417	0.44	0/554
50	B2	0.45	0/380	0.62	0/498
50	D2	0.25	0/380	0.47	0/498
51	B3	0.44	0/513	0.62	0/676
51	D3	0.25	0/513	0.49	0/676
52	B4	0.47	0/303	0.74	0/397
52	D4	0.32	0/303	0.45	0/397
53	CA	0.46	3/36762 (0.0%)	1.18	421/57350 (0.7%)
54	CG	0.21	0/1188	0.42	0/1591
55	CM	0.19	0/885	0.39	0/1181
56	CP	0.27	0/649	0.49	0/870
57	DB	0.43	1/2803 (0.0%)	1.07	30/4371 (0.7%)
58	DF	0.22	0/1444	0.45	0/1937
All	All	0.51	16/306773 (0.0%)	1.17	3148/458565 (0.7%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand.A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
25	BD	0	1
31	BJ	0	1
35	BN	0	1
58	DF	0	1
All	All	0	4

All (16) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
53	CA	1396	A	O3'-P	-16.33	1.41	1.61
1	AA	1047	G	O3'-P	-13.54	1.45	1.61
22	BA	1905	C	O3'-P	-12.21	1.46	1.61
22	BA	2197	U	O3'-P	-9.98	1.49	1.61
22	BA	876	C	O3'-P	-9.54	1.49	1.61
57	DB	107	G	O3'-P	-8.40	1.51	1.61
22	BA	2092	U	O3'-P	-7.44	1.52	1.61
22	BA	1142	A	N9-C4	-6.53	1.33	1.37
22	DA	1929	G	O3'-P	6.36	1.68	1.61
22	BA	1038	G	O3'-P	6.25	1.68	1.61
53	CA	8	A	O3'-P	-6.01	1.53	1.61
22	DA	901	C	O3'-P	5.98	1.68	1.61
22	BA	984	A	N9-C4	-5.68	1.34	1.37
5	CE	73	VAL	C-N	5.22	1.46	1.34
53	CA	26	A	O3'-P	-5.09	1.55	1.61
1	AA	557	G	O3'-P	-5.01	1.55	1.61

All (3148) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	DA	2586	U	N1-C1'-C2'	-16.52	92.53	114.00
22	BA	627	A	P-O3'-C3'	15.92	138.81	119.70
22	BA	531	C	P-O3'-C3'	15.89	138.77	119.70
1	AA	1047	G	P-O3'-C3'	-15.60	100.98	119.70
22	BA	2068	U	N1-C1'-C2'	-15.16	94.30	114.00
22	DA	2283	C	N1-C1'-C2'	-14.98	94.52	114.00
22	BA	2752	C	N1-C1'-C2'	-14.87	94.67	114.00
22	BA	2424	C	P-O3'-C3'	-14.87	101.86	119.70
22	BA	1185	G	P-O3'-C3'	-14.78	101.97	119.70
22	BA	805	G	P-O3'-C3'	14.63	137.26	119.70
22	BA	687	C	N1-C1'-C2'	-14.54	95.10	114.00
22	BA	1330	C	N1-C1'-C2'	-14.53	95.12	114.00
22	BA	1461	C	N1-C1'-C2'	-14.41	95.27	114.00
22	BA	2283	C	N1-C1'-C2'	-14.31	95.40	114.00
22	BA	2800	A	P-O3'-C3'	14.29	136.85	119.70
22	DA	2197	U	P-O3'-C3'	14.29	136.85	119.70
22	DA	2137	U	N1-C1'-C2'	-14.24	95.49	114.00
22	BA	2500	U	O4'-C1'-N1	-14.19	96.85	108.20
22	DA	2504	U	N1-C1'-C2'	-14.02	95.77	114.00
22	BA	49	A	P-O3'-C3'	14.01	136.51	119.70
22	BA	302	C	N1-C1'-C2'	-14.00	95.80	114.00
22	BA	728	G	P-O3'-C3'	13.98	136.48	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	DA	946	C	N1-C1'-C2'	-13.92	95.90	114.00
22	BA	2613	U	O4'-C1'-N1	13.91	119.33	108.20
22	BA	92	U	N1-C1'-C2'	-13.88	95.95	114.00
22	BA	449	A	P-O3'-C3'	-13.85	103.08	119.70
53	CA	132	C	N1-C1'-C2'	-13.77	96.10	114.00
22	DA	2646	C	N1-C1'-C2'	-13.69	96.20	114.00
22	BA	704	G	P-O3'-C3'	13.62	136.05	119.70
23	BB	90	C	N1-C1'-C2'	-13.62	96.30	114.00
22	BA	1635	A	P-O3'-C3'	-13.61	103.37	119.70
22	BA	227	A	P-O3'-C3'	13.60	136.02	119.70
22	BA	766	U	N1-C1'-C2'	-13.52	96.43	114.00
22	DA	740	C	N1-C1'-C2'	-13.50	96.45	114.00
22	BA	1993	U	N1-C1'-C2'	-13.46	96.50	114.00
22	BA	1815	A	P-O3'-C3'	13.38	135.76	119.70
53	CA	328	C	P-O3'-C3'	13.37	135.74	119.70
1	AA	1202	U	N1-C1'-C2'	-13.36	96.64	114.00
22	BA	2691	C	N1-C1'-C2'	-13.15	96.90	114.00
22	BA	562	U	O4'-C1'-N1	-13.10	97.72	108.20
22	BA	614	A	P-O3'-C3'	12.96	135.25	119.70
22	DA	304	U	N1-C1'-C2'	-12.82	97.33	114.00
22	BA	1603	A	P-O3'-C3'	-12.77	104.38	119.70
22	DA	672	C	N1-C1'-C2'	-12.75	97.42	114.00
22	BA	1023	U	N1-C1'-C2'	-12.65	97.56	114.00
22	DA	1675	C	N1-C1'-C2'	-12.56	97.67	114.00
22	BA	669	G	P-O3'-C3'	12.53	134.73	119.70
22	BA	229	C	N1-C1'-C2'	-12.51	97.73	114.00
22	BA	2848	G	P-O3'-C3'	12.45	134.64	119.70
22	BA	1758	U	P-O3'-C3'	12.40	134.59	119.70
53	CA	1230	C	N1-C1'-C2'	-12.40	97.88	114.00
22	DA	2880	C	N1-C1'-C2'	-12.34	97.95	114.00
22	BA	995	C	O4'-C1'-N1	-12.29	98.36	108.20
22	BA	2197	U	P-O3'-C3'	12.28	134.43	119.70
22	BA	2287	A	P-O3'-C3'	12.20	134.34	119.70
22	BA	2347	C	N1-C1'-C2'	-12.20	98.15	114.00
22	BA	1151	A	P-O3'-C3'	-12.19	105.07	119.70
22	BA	2284	A	P-O3'-C3'	-12.18	105.08	119.70
22	BA	1272	A	P-O3'-C3'	12.15	134.28	119.70
22	BA	1653	G	P-O3'-C3'	12.12	134.25	119.70
22	BA	2137	U	N1-C1'-C2'	-12.09	98.28	114.00
1	AA	52	C	N1-C1'-C2'	-12.07	98.31	114.00
53	CA	352	C	N1-C1'-C2'	-12.06	98.32	114.00
53	CA	1086	U	N1-C1'-C2'	-12.06	98.33	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BB	57	A	P-O3'-C3'	-12.05	105.24	119.70
22	DA	992	C	N1-C1'-C2'	-12.04	98.35	114.00
22	DA	673	C	N1-C1'-C2'	-11.99	98.41	114.00
53	CA	1396	A	P-O3'-C3'	11.99	134.09	119.70
57	DB	110	C	N1-C1'-C2'	-11.99	98.42	114.00
22	BA	858	G	P-O3'-C3'	11.95	134.04	119.70
1	AA	972	C	N1-C1'-C2'	-11.95	98.47	114.00
22	DA	2881	U	N1-C1'-C2'	-11.94	98.48	114.00
22	DA	87	U	N1-C1'-C2'	-11.93	98.49	114.00
22	DA	2339	C	N1-C1'-C2'	-11.90	98.52	114.00
22	BA	2613	U	P-O3'-C3'	11.89	133.96	119.70
22	DA	2226	C	N1-C1'-C2'	-11.87	98.57	114.00
22	DA	1997	C	N1-C1'-C2'	-11.86	98.58	114.00
53	CA	891	U	N1-C1'-C2'	-11.85	98.59	114.00
53	CA	520	A	P-O3'-C3'	-11.84	105.49	119.70
22	BA	196	A	P-O3'-C3'	11.84	133.91	119.70
22	BA	1859	U	N1-C1'-C2'	-11.83	98.62	114.00
53	CA	14	U	N1-C1'-C2'	-11.82	98.63	114.00
22	DA	2095	A	P-O3'-C3'	-11.81	105.53	119.70
22	DA	2137	U	P-O3'-C3'	-11.80	105.54	119.70
22	BA	2266	A	P-O3'-C3'	11.79	133.85	119.70
22	DA	1013	C	N1-C1'-C2'	-11.76	98.72	114.00
22	DA	860	U	N1-C1'-C2'	-11.75	98.73	114.00
22	BA	1111	A	P-O3'-C3'	11.73	133.78	119.70
22	DA	235	U	N1-C1'-C2'	-11.73	98.76	114.00
22	DA	1023	U	N1-C1'-C2'	-11.72	98.76	114.00
22	BA	740	C	N1-C1'-C2'	-11.71	98.77	114.00
22	DA	1782	U	N1-C1'-C2'	-11.69	98.80	114.00
22	DA	2440	C	N1-C1'-C2'	-11.69	98.81	114.00
22	DA	1972	G	P-O3'-C3'	-11.68	105.68	119.70
22	BA	1997	C	N1-C1'-C2'	-11.67	98.83	114.00
22	DA	2615	U	N1-C1'-C2'	-11.67	98.83	114.00
22	BA	373	U	N1-C1'-C2'	-11.62	98.89	114.00
22	DA	61	C	N1-C1'-C2'	-11.59	98.94	114.00
22	DA	991	C	N1-C1'-C2'	-11.57	98.95	114.00
22	DA	1782	U	P-O3'-C3'	-11.55	105.84	119.70
53	CA	248	C	N1-C1'-C2'	-11.53	99.01	114.00
22	BA	2609	U	O4'-C1'-N1	11.53	117.42	108.20
22	BA	1654	A	N9-C1'-C2'	-11.51	99.04	114.00
53	CA	245	U	N1-C1'-C2'	-11.51	99.04	114.00
22	BA	2497	A	P-O3'-C3'	11.49	133.49	119.70
22	DA	961	C	P-O3'-C3'	11.46	133.45	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	DA	2611	C	N1-C1'-C2'	-11.46	99.11	114.00
22	BA	1675	C	N1-C1'-C2'	-11.41	99.16	114.00
22	BA	1499	C	N1-C1'-C2'	-11.41	99.17	114.00
22	BA	1647	U	O4'-C1'-N1	11.40	117.32	108.20
22	BA	435	C	N1-C1'-C2'	-11.39	99.19	114.00
22	BA	2727	A	P-O3'-C3'	-11.39	106.03	119.70
22	DA	765	C	N1-C1'-C2'	-11.38	99.21	114.00
22	BA	2712	C	P-O3'-C3'	11.38	133.35	119.70
1	AA	51	A	P-O3'-C3'	11.35	133.32	119.70
22	BA	390	U	P-O3'-C3'	11.33	133.30	119.70
22	DA	1822	C	P-O3'-C3'	-11.33	106.11	119.70
1	AA	512	U	N1-C1'-C2'	-11.32	99.28	114.00
22	BA	2517	C	P-O3'-C3'	11.32	133.28	119.70
53	CA	512	U	N1-C1'-C2'	-11.32	99.29	114.00
53	CA	252	U	N1-C1'-C2'	-11.31	99.30	114.00
22	BA	739	A	P-O3'-C3'	11.29	133.25	119.70
22	BA	1602	U	P-O3'-C3'	11.28	133.24	119.70
22	DA	1064	C	N1-C1'-C2'	-11.23	99.41	114.00
1	AA	1528	U	P-O3'-C3'	11.22	133.16	119.70
22	DA	2691	C	N1-C1'-C2'	-11.21	99.43	114.00
22	BA	475	C	N1-C1'-C2'	-11.19	99.45	114.00
22	DA	234	U	N1-C1'-C2'	-11.19	99.45	114.00
22	DA	2520	C	N1-C1'-C2'	-11.19	99.46	114.00
22	BA	2517	C	O4'-C1'-N1	11.18	117.14	108.20
1	AA	821	G	P-O3'-C3'	-11.16	106.31	119.70
53	CA	92	U	N1-C1'-C2'	-11.16	99.50	114.00
22	DA	336	C	N1-C1'-C2'	-11.15	99.50	114.00
53	CA	66	A	P-O3'-C3'	-11.14	106.33	119.70
22	BA	2023	C	N1-C1'-C2'	-11.14	99.52	114.00
22	BA	250	G	P-O3'-C3'	-11.13	106.35	119.70
22	BA	1112	G	P-O3'-C3'	-11.12	106.36	119.70
53	CA	96	U	N1-C1'-C2'	-11.10	99.57	114.00
1	AA	267	C	N1-C1'-C2'	-11.10	99.58	114.00
57	DB	90	C	N1-C1'-C2'	-11.09	99.58	114.00
22	DA	2348	U	N1-C1'-C2'	-11.09	99.59	114.00
22	BA	2035	G	P-O3'-C3'	11.08	132.99	119.70
22	DA	1648	U	N1-C1'-C2'	-11.06	99.62	114.00
1	AA	1345	U	O4'-C1'-N1	11.05	117.04	108.20
22	DA	1683	U	N1-C1'-C2'	-11.04	99.65	114.00
22	DA	2586	U	P-O3'-C3'	-11.02	106.48	119.70
1	AA	1162	C	N1-C1'-C2'	-10.99	99.71	114.00
22	BA	1967	C	N1-C1'-C2'	-10.99	99.71	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	DA	1932	A	P-O3'-C3'	-10.98	106.52	119.70
22	BA	2312	U	N1-C1'-C2'	-10.95	99.76	114.00
22	BA	2504	U	N1-C1'-C2'	-10.95	99.77	114.00
53	CA	486	U	P-O3'-C3'	-10.95	106.56	119.70
22	DA	2616	C	N1-C1'-C2'	-10.93	99.79	114.00
1	AA	32	A	P-O3'-C3'	-10.93	106.58	119.70
22	BA	531	C	O4'-C1'-N1	-10.91	99.47	108.20
22	BA	1956	U	N1-C1'-C2'	-10.89	99.84	114.00
22	BA	200	U	N1-C1'-C2'	-10.88	99.86	114.00
22	BA	1965	C	N1-C1'-C2'	-10.88	99.86	114.00
22	DA	2492	U	N1-C1'-C2'	-10.88	99.86	114.00
22	DA	1931	U	P-O3'-C3'	-10.88	106.65	119.70
22	DA	2068	U	N1-C1'-C2'	-10.87	99.87	114.00
22	DA	164	C	N1-C1'-C2'	-10.87	99.87	114.00
22	BA	2581	G	P-O3'-C3'	10.87	132.74	119.70
22	BA	783	A	P-O3'-C3'	-10.85	106.68	119.70
22	DA	2876	G	P-O3'-C3'	-10.85	106.68	119.70
22	BA	2036	C	N1-C1'-C2'	-10.84	99.91	114.00
22	DA	1417	C	N1-C1'-C2'	-10.83	99.92	114.00
22	BA	506	G	P-O3'-C3'	10.83	132.69	119.70
1	AA	1398	A	P-O3'-C3'	-10.82	106.71	119.70
1	AA	486	U	N1-C1'-C2'	-10.81	99.95	114.00
1	AA	352	C	N1-C1'-C2'	-10.80	99.96	114.00
22	BA	1417	C	N1-C1'-C2'	-10.79	99.97	114.00
22	BA	613	A	P-O3'-C3'	10.77	132.62	119.70
22	BA	2440	C	N1-C1'-C2'	-10.76	100.01	114.00
22	BA	61	C	N1-C1'-C2'	-10.76	100.01	114.00
22	DA	1249	U	N1-C1'-C2'	-10.73	100.05	114.00
22	BA	1626	A	P-O3'-C3'	10.71	132.55	119.70
22	BA	1249	U	N1-C1'-C2'	-10.70	100.09	114.00
22	DA	2063	C	N1-C1'-C2'	-10.69	100.10	114.00
22	DA	576	U	N1-C1'-C2'	-10.69	100.10	114.00
22	BA	2498	C	N1-C1'-C2'	-10.69	100.11	114.00
22	DA	2037	A	P-O3'-C3'	-10.69	106.88	119.70
22	BA	1427	A	P-O3'-C3'	10.65	132.48	119.70
1	AA	268	U	N1-C1'-C2'	-10.63	100.18	114.00
22	BA	2630	G	P-O3'-C3'	-10.63	106.94	119.70
22	BA	2431	U	N1-C1'-C2'	-10.63	100.19	114.00
53	CA	1217	C	N1-C1'-C2'	-10.63	100.19	114.00
22	DA	1682	G	P-O3'-C3'	-10.61	106.97	119.70
22	BA	1782	U	N1-C1'-C2'	-10.61	100.21	114.00
22	BA	1681	G	P-O3'-C3'	10.60	132.42	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	BA	1012	U	O4'-C1'-N1	10.57	116.66	108.20
22	BA	1013	C	N1-C1'-C2'	-10.57	100.26	114.00
22	DA	859	G	P-O3'-C3'	10.57	132.38	119.70
22	BA	2729	G	P-O3'-C3'	-10.56	107.03	119.70
1	AA	577	G	P-O3'-C3'	-10.54	107.06	119.70
53	CA	643	C	N1-C1'-C2'	-10.53	100.31	114.00
22	BA	301	G	P-O3'-C3'	10.50	132.30	119.70
22	BA	1045	C	P-O3'-C3'	10.49	132.29	119.70
22	BA	962	G	P-O3'-C3'	-10.48	107.13	119.70
22	DA	1291	C	N1-C1'-C2'	-10.46	100.40	114.00
22	BA	2836	U	N1-C1'-C2'	-10.45	100.41	114.00
22	BA	2645	G	P-O3'-C3'	10.45	132.24	119.70
22	BA	1816	C	P-O3'-C3'	-10.44	107.17	119.70
1	AA	1336	C	P-O3'-C3'	10.43	132.22	119.70
22	BA	2021	C	O4'-C1'-N1	10.43	116.55	108.20
22	BA	2214	C	N1-C1'-C2'	-10.43	100.44	114.00
1	AA	1203	C	N1-C1'-C2'	-10.42	100.46	114.00
22	BA	915	C	N1-C1'-C2'	-10.40	100.48	114.00
22	BA	865	C	P-O3'-C3'	10.39	132.17	119.70
22	BA	1786	A	O4'-C1'-N9	10.39	116.51	108.20
22	DA	206	U	N1-C1'-C2'	-10.39	100.49	114.00
1	AA	513	C	N1-C1'-C2'	-10.38	100.51	114.00
22	DA	224	U	N1-C1'-C2'	-10.36	100.53	114.00
22	BA	481	G	P-O3'-C3'	10.33	132.09	119.70
22	DA	2214	C	N1-C1'-C2'	-10.32	100.58	114.00
1	AA	330	C	N1-C1'-C2'	-10.30	100.61	114.00
22	DA	933	A	P-O3'-C3'	-10.30	107.34	119.70
22	BA	1997	C	P-O3'-C3'	-10.28	107.37	119.70
22	BA	2319	G	P-O3'-C3'	10.27	132.02	119.70
22	BA	726	G	P-O3'-C3'	10.24	131.99	119.70
1	AA	1399	C	P-O3'-C3'	10.22	131.96	119.70
1	AA	1228	C	N1-C1'-C2'	-10.19	100.75	114.00
22	BA	646	U	N1-C1'-C2'	-10.18	100.77	114.00
22	BA	2385	C	N1-C1'-C2'	-10.18	100.77	114.00
53	CA	1367	C	N1-C1'-C2'	-10.16	100.79	114.00
22	BA	206	U	N1-C1'-C2'	-10.15	100.80	114.00
22	DA	588	U	N1-C1'-C2'	-10.15	100.81	114.00
22	DA	484	C	N1-C1'-C2'	-10.14	100.81	114.00
1	AA	1432	G	P-O3'-C3'	10.14	131.87	119.70
1	AA	1282	C	N1-C1'-C2'	-10.14	100.82	114.00
1	AA	1303	C	N1-C1'-C2'	-10.13	100.83	114.00
22	BA	2656	U	N1-C1'-C2'	-10.13	100.83	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
53	CA	1528	U	P-O3'-C3'	10.13	131.86	119.70
22	DA	915	C	N1-C1'-C2'	-10.12	100.84	114.00
1	AA	175	C	N1-C1'-C2'	-10.11	100.85	114.00
22	BA	1941	C	N1-C1'-C2'	-10.11	100.86	114.00
22	DA	1289	C	N1-C1'-C2'	-10.09	100.88	114.00
22	BA	2424	C	N1-C1'-C2'	-10.08	100.89	114.00
22	BA	783	A	N9-C1'-C2'	-10.08	100.90	114.00
22	BA	1648	U	N1-C1'-C2'	-10.05	100.94	114.00
22	BA	1971	U	N1-C1'-C2'	-10.04	100.95	114.00
22	DA	1498	C	N1-C1'-C2'	-10.04	100.95	114.00
23	BB	42	C	N1-C1'-C2'	-10.03	100.96	114.00
53	CA	330	C	N1-C1'-C2'	-10.03	100.97	114.00
1	AA	1192	C	N1-C1'-C2'	-10.02	100.97	114.00
22	DA	459	U	N1-C1'-C2'	-10.02	100.97	114.00
53	CA	428	G	P-O3'-C3'	10.00	131.71	119.70
22	DA	1418	G	P-O3'-C3'	-10.00	107.70	119.70
57	DB	68	C	N1-C1'-C2'	-10.00	101.00	114.00
53	CA	1283	U	N1-C1'-C2'	-9.99	101.01	112.00
1	AA	13	U	P-O3'-C3'	9.98	131.67	119.70
22	DA	2498	C	N1-C1'-C2'	-9.98	101.03	112.00
22	BA	14	A	P-O3'-C3'	-9.97	107.73	119.70
22	DA	1982	U	N1-C1'-C2'	-9.97	101.03	112.00
1	AA	564	C	N1-C1'-C2'	-9.97	101.03	112.00
23	BB	44	G	P-O3'-C3'	9.96	131.65	119.70
22	DA	2249	U	P-O3'-C3'	9.96	131.65	119.70
22	DA	2645	G	P-O3'-C3'	9.95	131.63	119.70
22	BA	421	C	P-O3'-C3'	9.94	131.63	119.70
22	BA	2459	A	P-O3'-C3'	-9.94	107.77	119.70
22	DA	1967	C	N1-C1'-C2'	-9.93	101.08	112.00
1	AA	1051	C	N1-C1'-C2'	-9.93	101.08	112.00
53	CA	1068	G	P-O3'-C3'	-9.92	107.79	119.70
22	DA	2283	C	P-O3'-C3'	-9.92	107.79	119.70
1	AA	1224	U	P-O3'-C3'	9.92	131.60	119.70
22	BA	784	G	P-O3'-C3'	9.91	131.59	119.70
1	AA	961	U	N1-C1'-C2'	-9.91	101.10	112.00
22	BA	2880	C	N1-C1'-C2'	-9.90	101.11	112.00
1	AA	315	A	P-O3'-C3'	9.90	131.58	119.70
53	CA	509	A	P-O3'-C3'	-9.90	107.82	119.70
22	BA	164	C	N1-C1'-C2'	-9.88	101.13	112.00
22	DA	250	G	P-O3'-C3'	-9.87	107.85	119.70
1	AA	969	A	P-O3'-C3'	-9.86	107.86	119.70
22	BA	1732	C	P-O3'-C3'	9.86	131.53	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	BA	812	C	N1-C1'-C2'	-9.85	101.16	112.00
1	AA	14	U	P-O3'-C3'	-9.84	107.89	119.70
1	AA	1141	C	N1-C1'-C2'	-9.84	101.18	112.00
22	BA	1964	G	P-O3'-C3'	9.84	131.50	119.70
22	BA	2511	U	N1-C1'-C2'	-9.83	101.19	112.00
22	BA	403	U	P-O3'-C3'	9.82	131.48	119.70
22	BA	2210	U	P-O3'-C3'	9.82	131.48	119.70
22	BA	946	C	N1-C1'-C2'	-9.81	101.20	112.00
53	CA	110	C	N1-C1'-C2'	-9.80	101.22	112.00
22	DA	2299	U	N1-C1'-C2'	-9.79	101.23	112.00
1	AA	547	A	P-O3'-C3'	9.78	131.44	119.70
53	CA	132	C	O4'-C1'-N1	9.78	116.02	108.20
22	BA	2520	C	P-O3'-C3'	-9.77	107.97	119.70
22	DA	1956	U	N1-C1'-C2'	-9.77	101.26	112.00
22	DA	1267	U	N1-C1'-C2'	-9.75	101.27	112.00
1	AA	891	U	N1-C1'-C2'	-9.74	101.28	112.00
22	BA	404	A	P-O3'-C3'	9.74	131.39	119.70
1	AA	66	A	P-O3'-C3'	-9.73	108.02	119.70
53	CA	577	G	P-O3'-C3'	-9.73	108.03	119.70
53	CA	1449	C	N1-C1'-C2'	-9.71	101.32	112.00
22	BA	1021	A	P-O3'-C3'	-9.70	108.06	119.70
1	AA	1320	C	N1-C1'-C2'	-9.70	101.33	112.00
22	BA	2835	A	P-O3'-C3'	9.70	131.34	119.70
22	BA	2894	G	P-O3'-C3'	-9.67	108.09	119.70
22	DA	2347	C	N1-C1'-C2'	-9.66	101.38	112.00
22	BA	906	U	O4'-C1'-N1	9.65	115.92	108.20
22	BA	1324	G	O4'-C1'-N9	9.65	115.92	108.20
22	BA	2226	C	N1-C1'-C2'	-9.65	101.39	112.00
22	BA	1009	A	P-O3'-C3'	-9.64	108.13	119.70
22	BA	2542	A	P-O3'-C3'	9.62	131.25	119.70
22	DA	1276	A	P-O3'-C3'	-9.62	108.16	119.70
22	BA	2611	C	N1-C1'-C2'	-9.61	101.43	112.00
22	BA	2611	C	P-O3'-C3'	-9.60	108.18	119.70
1	AA	1152	A	P-O3'-C3'	-9.60	108.19	119.70
22	BA	512	G	O4'-C1'-N9	9.59	115.87	108.20
22	BA	685	A	P-O3'-C3'	9.59	131.21	119.70
22	BA	1524	G	P-O3'-C3'	-9.58	108.20	119.70
53	CA	564	C	N1-C1'-C2'	-9.58	101.46	112.00
22	BA	503	A	P-O3'-C3'	9.57	131.19	119.70
53	CA	248	C	O4'-C1'-N1	9.57	115.86	108.20
22	BA	1522	A	P-O3'-C3'	9.57	131.19	119.70
22	BA	637	A	P-O3'-C3'	9.56	131.17	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
53	CA	344	A	P-O3'-C3'	9.55	131.16	119.70
22	BA	2808	G	P-O3'-C3'	9.55	131.16	119.70
53	CA	821	G	P-O3'-C3'	-9.54	108.25	119.70
22	BA	1210	G	P-O3'-C3'	9.54	131.15	119.70
22	BA	2874	C	N1-C1'-C2'	-9.54	101.51	112.00
22	BA	2215	C	P-O3'-C3'	-9.53	108.27	119.70
1	AA	119	A	P-O3'-C3'	9.51	131.12	119.70
22	BA	2333	A	P-O3'-C3'	9.51	131.11	119.70
22	BA	197	A	P-O5'-C5'	-9.51	105.69	120.90
1	AA	9	G	P-O3'-C3'	-9.50	108.30	119.70
22	BA	2554	U	O4'-C1'-N1	-9.45	100.64	108.20
22	BA	995	C	P-O3'-C3'	9.45	131.03	119.70
53	CA	331	G	P-O3'-C3'	-9.45	108.36	119.70
1	AA	512	U	P-O3'-C3'	-9.44	108.37	119.70
22	DA	445	C	N1-C1'-C2'	-9.44	101.62	112.00
22	BA	1682	G	P-O3'-C3'	-9.43	108.39	119.70
1	AA	1224	U	O4'-C1'-N1	9.40	115.72	108.20
22	BA	1634	A	P-O3'-C3'	9.39	130.97	119.70
22	DA	991	C	P-O3'-C3'	-9.38	108.45	119.70
53	CA	992	U	P-O3'-C3'	9.38	130.95	119.70
53	CA	1161	C	N1-C1'-C2'	-9.37	101.69	112.00
22	DA	2458	G	O4'-C1'-N9	9.37	115.70	108.20
22	BA	1931	U	N1-C1'-C2'	-9.36	101.70	112.00
53	CA	439	U	N1-C1'-C2'	-9.36	101.71	112.00
22	DA	606	U	N1-C1'-C2'	-9.35	101.71	112.00
53	CA	316	C	N1-C1'-C2'	-9.35	101.71	112.00
22	DA	673	C	O4'-C1'-N1	9.34	115.67	108.20
22	BA	2072	C	P-O3'-C3'	-9.34	108.50	119.70
22	DA	2875	C	N1-C1'-C2'	-9.34	101.73	112.00
1	AA	812	G	P-O3'-C3'	9.33	130.90	119.70
22	BA	2656	U	P-O3'-C3'	-9.32	108.51	119.70
22	BA	2425	A	P-O3'-C3'	9.32	130.88	119.70
22	BA	2866	U	O4'-C1'-N1	9.31	115.65	108.20
22	BA	1918	A	P-O3'-C3'	9.31	130.88	119.70
22	BA	249	C	N1-C1'-C2'	9.29	126.08	114.00
1	AA	368	U	N1-C1'-C2'	-9.29	101.78	112.00
1	AA	792	A	P-O3'-C3'	9.29	130.85	119.70
22	BA	2879	A	P-O3'-C3'	9.29	130.85	119.70
22	BA	396	G	P-O3'-C3'	-9.27	108.57	119.70
1	AA	1181	G	P-O3'-C3'	9.26	130.81	119.70
22	BA	811	U	P-O3'-C3'	9.25	130.80	119.70
22	BA	1555	G	P-O3'-C3'	-9.24	108.61	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
53	CA	718	A	P-O3'-C3'	-9.24	108.61	119.70
53	CA	816	A	P-O3'-C3'	-9.24	108.61	119.70
22	DA	1556	C	N1-C1'-C2'	-9.24	101.84	112.00
22	BA	729	G	P-O5'-C5'	-9.23	106.13	120.90
22	BA	556	A	P-O5'-C5'	-9.23	106.14	120.90
22	DA	1991	U	O4'-C1'-N1	-9.22	100.82	108.20
22	DA	831	G	P-O3'-C3'	-9.22	108.64	119.70
22	BA	528	A	P-O3'-C3'	-9.21	108.65	119.70
22	BA	249	C	P-O3'-C3'	9.20	130.74	119.70
22	BA	1619	G	P-O3'-C3'	-9.17	108.69	119.70
1	AA	1157	A	P-O3'-C3'	9.17	130.70	119.70
22	DA	86	G	P-O3'-C3'	-9.16	108.71	119.70
22	DA	829	A	P-O3'-C3'	9.15	130.68	119.70
22	BA	790	U	P-O3'-C3'	-9.14	108.73	119.70
22	BA	1971	U	P-O3'-C3'	-9.14	108.73	119.70
22	DA	868	U	N1-C1'-C2'	-9.13	101.96	112.00
53	CA	95	C	N1-C1'-C2'	-9.12	101.97	112.00
22	DA	2043	C	O4'-C1'-N1	-9.12	100.90	108.20
22	BA	1398	C	N1-C1'-C2'	-9.11	101.98	112.00
53	CA	513	C	N1-C1'-C2'	-9.10	102.00	112.00
1	AA	984	C	N1-C1'-C2'	-9.09	102.00	112.00
1	AA	173	U	O4'-C1'-N1	9.08	115.46	108.20
22	BA	451	U	O4'-C1'-N1	9.07	115.46	108.20
22	DA	2573	C	N1-C1'-C2'	-9.07	102.02	112.00
22	BA	1816	C	N1-C1'-C2'	-9.07	102.02	112.00
22	BA	2335	A	P-O3'-C3'	-9.07	108.81	119.70
22	DA	1539	U	N1-C1'-C2'	-9.06	102.03	112.00
22	DA	1779	U	O4'-C1'-N1	9.06	115.45	108.20
22	BA	802	A	P-O3'-C3'	-9.06	108.83	119.70
1	AA	704	A	P-O3'-C3'	-9.04	108.86	119.70
1	AA	1047	G	OP2-P-O3'	9.03	125.08	105.20
22	BA	919	U	O4'-C1'-N1	-9.04	100.97	108.20
22	BA	2490	G	P-O3'-C3'	9.03	130.54	119.70
22	DA	1838	C	O4'-C1'-N1	9.03	115.43	108.20
22	BA	1866	A	P-O3'-C3'	-9.03	108.87	119.70
53	CA	9	G	P-O3'-C3'	-9.02	108.87	119.70
22	BA	138	U	N1-C1'-C2'	-9.02	102.08	112.00
22	DA	60	G	P-O3'-C3'	9.01	130.51	119.70
22	BA	1204	A	P-O3'-C3'	9.01	130.51	119.70
22	BA	1135	C	N1-C1'-C2'	-9.00	102.10	112.00
22	DA	2458	G	P-O3'-C3'	9.00	130.50	119.70
22	BA	811	U	O4'-C1'-N1	9.00	115.40	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	DA	2429	G	P-O3'-C3'	-8.99	108.92	119.70
22	BA	2092	U	OP2-P-O3'	8.98	124.97	105.20
22	BA	1568	G	P-O3'-C3'	-8.97	108.94	119.70
22	DA	2225	A	P-O3'-C3'	8.97	130.46	119.70
22	DA	1565	C	P-O3'-C3'	8.96	130.46	119.70
22	DA	1776	G	P-O3'-C3'	-8.96	108.95	119.70
1	AA	686	U	O4'-C1'-N1	8.95	115.36	108.20
1	AA	815	A	P-O3'-C3'	8.95	130.44	119.70
53	CA	794	A	P-O3'-C3'	-8.95	108.96	119.70
22	BA	1144	A	P-O3'-C3'	-8.95	108.96	119.70
53	CA	109	A	P-O3'-C3'	8.94	130.43	119.70
1	AA	87	C	N1-C1'-C2'	-8.94	102.17	112.00
22	BA	2629	U	P-O3'-C3'	8.94	130.43	119.70
22	DA	451	U	O4'-C1'-N1	8.94	115.35	108.20
22	BA	2756	U	P-O3'-C3'	8.94	130.42	119.70
53	CA	13	U	P-O3'-C3'	8.94	130.42	119.70
22	BA	126	A	P-O3'-C3'	-8.93	108.99	119.70
22	BA	2289	G	P-O3'-C3'	-8.91	109.00	119.70
22	DA	128	C	N1-C1'-C2'	-8.91	102.19	112.00
53	CA	348	G	P-O3'-C3'	-8.91	109.01	119.70
22	BA	1693	U	P-O3'-C3'	8.90	130.39	119.70
22	BA	1848	A	P-O3'-C3'	-8.90	109.02	119.70
22	BA	1716	U	N1-C1'-C2'	-8.89	102.22	112.00
22	BA	1324	G	P-O3'-C3'	8.88	130.36	119.70
22	DA	862	G	P-O3'-C3'	-8.88	109.05	119.70
22	BA	164	C	P-O3'-C3'	-8.87	109.05	119.70
22	BA	1455	G	P-O3'-C3'	-8.87	109.05	119.70
22	BA	143	C	N1-C1'-C2'	-8.87	102.25	112.00
22	DA	1667	G	P-O3'-C3'	8.87	130.34	119.70
22	BA	2866	U	P-O3'-C3'	8.86	130.33	119.70
53	CA	688	G	P-O3'-C3'	-8.84	109.09	119.70
53	CA	277	C	N1-C1'-C2'	-8.84	102.28	112.00
22	DA	1963	U	N1-C1'-C2'	-8.84	102.28	112.00
22	BA	2615	U	P-O3'-C3'	-8.83	109.10	119.70
1	AA	517	G	P-O3'-C3'	8.83	130.30	119.70
22	DA	606	U	O4'-C1'-N1	8.83	115.27	108.20
22	DA	1119	U	O4'-C1'-N1	8.83	115.26	108.20
22	BA	985	C	N1-C1'-C2'	-8.83	102.29	112.00
22	BA	1325	U	O4'-C1'-N1	8.82	115.26	108.20
1	AA	1064	G	P-O3'-C3'	8.82	130.28	119.70
22	DA	224	U	P-O3'-C3'	-8.82	109.12	119.70
1	AA	1196	A	P-O3'-C3'	8.82	130.28	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1200	C	P-O3'-C3'	8.81	130.27	119.70
22	DA	444	C	O4'-C1'-N1	8.81	115.25	108.20
53	CA	52	C	N1-C1'-C2'	-8.79	102.33	112.00
22	BA	2225	A	P-O3'-C3'	8.78	130.24	119.70
1	AA	1395	C	N1-C1'-C2'	-8.78	102.34	112.00
22	BA	243	U	N1-C1'-C2'	-8.78	102.34	112.00
1	AA	14	U	N1-C1'-C2'	-8.77	102.35	112.00
22	BA	727	A	P-O3'-C3'	-8.75	109.20	119.70
1	AA	1348	U	N1-C1'-C2'	-8.75	102.38	112.00
22	BA	2511	U	P-O3'-C3'	-8.74	109.22	119.70
22	DA	533	G	P-O3'-C3'	-8.74	109.22	119.70
22	BA	2801	G	P-O5'-C5'	-8.73	106.93	120.90
22	DA	1536	C	P-O3'-C3'	8.73	130.18	119.70
22	BA	2585	U	O4'-C1'-N1	8.73	115.18	108.20
22	DA	2404	U	N1-C1'-C2'	-8.72	102.40	112.00
22	BA	84	A	P-O3'-C3'	8.72	130.17	119.70
22	DA	1386	C	N1-C1'-C2'	-8.70	102.43	112.00
53	CA	817	C	P-O3'-C3'	8.69	130.13	119.70
22	BA	208	C	C6-N1-C2	8.69	123.78	120.30
22	BA	2391	G	P-O3'-C3'	8.68	130.12	119.70
22	BA	474	G	P-O3'-C3'	8.68	130.12	119.70
22	BA	61	C	P-O3'-C3'	-8.68	109.29	119.70
22	BA	2312	U	P-O3'-C3'	-8.68	109.29	119.70
22	BA	2646	C	N1-C1'-C2'	-8.67	102.46	112.00
53	CA	110	C	P-O3'-C3'	-8.66	109.30	119.70
22	DA	1613	G	P-O3'-C3'	-8.66	109.31	119.70
22	BA	2573	C	N1-C1'-C2'	-8.65	102.48	112.00
53	CA	85	U	P-O3'-C3'	8.65	130.08	119.70
1	AA	974	A	P-O3'-C3'	8.63	130.06	119.70
22	BA	2732	G	P-O3'-C3'	8.64	130.06	119.70
22	DA	1780	A	P-O3'-C3'	8.64	130.06	119.70
22	BA	2458	G	P-O3'-C3'	8.63	130.06	119.70
22	BA	1942	C	P-O5'-C5'	-8.63	107.09	120.90
22	DA	1983	G	P-O3'-C3'	-8.63	109.35	119.70
22	DA	413	C	N1-C1'-C2'	-8.63	102.51	112.00
22	DA	957	C	P-O3'-C3'	8.62	130.05	119.70
22	BA	1787	A	P-O3'-C3'	-8.62	109.36	119.70
22	DA	1817	G	P-O3'-C3'	-8.62	109.36	119.70
22	DA	1816	C	O4'-C1'-N1	8.60	115.08	108.20
22	DA	531	C	P-O3'-C3'	8.60	130.02	119.70
1	AA	1184	G	P-O3'-C3'	-8.59	109.39	119.70
22	BA	1045	C	O4'-C1'-N1	8.59	115.07	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	BA	1240	U	O4'-C1'-N1	-8.58	101.34	108.20
22	BA	1615	C	O4'-C1'-N1	8.58	115.06	108.20
53	CA	874	G	P-O3'-C3'	-8.58	109.41	119.70
22	DA	413	C	P-O3'-C3'	-8.57	109.41	119.70
1	AA	316	C	N1-C1'-C2'	-8.57	102.57	112.00
1	AA	373	A	P-O3'-C3'	-8.56	109.42	119.70
22	BA	2836	U	P-O3'-C3'	-8.55	109.44	119.70
1	AA	279	A	P-O3'-C3'	8.55	129.96	119.70
22	BA	1963	U	N1-C1'-C2'	-8.54	102.60	112.00
22	BA	2034	U	N1-C1'-C2'	-8.53	102.62	112.00
1	AA	431	A	P-O3'-C3'	-8.53	109.47	119.70
57	DB	88	C	P-O3'-C3'	8.53	129.93	119.70
23	BB	43	C	P-O3'-C3'	-8.52	109.48	119.70
22	DA	335	C	N1-C1'-C2'	-8.52	102.63	112.00
22	BA	1942	C	P-O3'-C3'	-8.51	109.49	119.70
22	BA	572	A	O5'-P-OP2	-8.50	98.05	105.70
22	BA	1849	G	P-O3'-C3'	-8.50	109.50	119.70
22	BA	858	G	O4'-C1'-N9	8.49	115.00	108.20
23	BB	67	G	P-O3'-C3'	-8.49	109.51	119.70
22	BA	1329	U	P-O3'-C3'	8.48	129.88	119.70
53	CA	1148	U	N1-C1'-C2'	-8.48	102.67	112.00
22	DA	687	C	N1-C1'-C2'	-8.48	102.67	112.00
22	DA	2024	G	P-O3'-C3'	-8.48	109.53	119.70
22	BA	2321	U	N1-C1'-C2'	-8.47	102.68	112.00
53	CA	349	A	P-O3'-C3'	-8.46	109.55	119.70
22	DA	1428	C	O4'-C1'-N1	8.45	114.96	108.20
22	BA	782	A	P-O3'-C3'	8.45	129.84	119.70
1	AA	511	C	P-O3'-C3'	8.45	129.84	119.70
22	BA	1063	G	P-O3'-C3'	-8.45	109.56	119.70
22	BA	2893	A	P-O3'-C3'	8.45	129.84	119.70
53	CA	239	U	N1-C1'-C2'	-8.43	102.73	112.00
53	CA	486	U	N1-C1'-C2'	-8.43	102.73	112.00
22	DA	2683	C	N1-C1'-C2'	-8.42	102.73	112.00
22	BA	783	A	N7-C8-N9	8.42	118.01	113.80
22	BA	2776	A	P-O3'-C3'	8.42	129.80	119.70
22	DA	805	G	P-O3'-C3'	8.42	129.80	119.70
53	CA	1528	U	O4'-C1'-N1	8.41	114.93	108.20
22	DA	1965	C	N1-C1'-C2'	-8.40	102.76	112.00
22	DA	2023	C	P-O3'-C3'	-8.40	109.62	119.70
22	BA	395	U	P-O3'-C3'	8.38	129.76	119.70
22	BA	1398	C	P-O3'-C3'	-8.38	109.64	119.70
53	CA	534	U	N1-C1'-C2'	-8.38	102.78	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	DA	1758	U	N1-C1'-C2'	8.38	124.89	114.00
1	AA	1203	C	P-O3'-C3'	-8.38	109.65	119.70
57	DB	87	U	P-O3'-C3'	8.38	129.75	119.70
22	BA	567	U	P-O3'-C3'	-8.37	109.65	119.70
22	BA	1859	U	P-O3'-C3'	-8.37	109.65	119.70
1	AA	500	G	P-O3'-C3'	-8.36	109.66	119.70
22	BA	1236	G	P-O3'-C3'	8.36	129.73	119.70
22	BA	1247	A	P-O3'-C3'	8.36	129.73	119.70
22	DA	1396	U	P-O3'-C3'	8.35	129.72	119.70
22	BA	2428	G	P-O3'-C3'	-8.35	109.69	119.70
22	DA	867	C	N1-C1'-C2'	-8.35	102.82	112.00
22	BA	1013	C	P-O3'-C3'	-8.34	109.69	119.70
22	BA	1606	C	O4'-C1'-N1	-8.34	101.53	108.20
1	AA	1167	A	P-O3'-C3'	8.34	129.71	119.70
22	BA	604	G	P-O3'-C3'	-8.34	109.69	119.70
53	CA	1051	C	N1-C1'-C2'	-8.32	102.84	112.00
22	DA	976	G	P-O3'-C3'	-8.32	109.71	119.70
22	BA	1273	U	N1-C1'-C2'	-8.32	102.85	112.00
1	AA	1502	A	P-O3'-C3'	8.32	129.68	119.70
22	BA	13	A	P-O3'-C3'	8.31	129.68	119.70
22	BA	2423	U	P-O3'-C3'	8.31	129.68	119.70
53	CA	1202	U	N1-C1'-C2'	-8.31	102.85	112.00
22	BA	2384	U	P-O3'-C3'	8.31	129.67	119.70
1	AA	245	U	N1-C1'-C2'	-8.30	102.87	112.00
22	BA	687	C	P-O3'-C3'	-8.30	109.74	119.70
53	CA	701	U	P-O3'-C3'	8.30	129.66	119.70
22	BA	1809	A	P-O3'-C3'	-8.29	109.75	119.70
22	BA	783	A	N1-C6-N6	8.29	123.58	118.60
22	DA	2036	C	N1-C1'-C2'	-8.29	102.88	112.00
22	BA	1459	G	P-O3'-C3'	-8.29	109.76	119.70
1	AA	415	A	P-O3'-C3'	-8.28	109.77	119.70
22	DA	235	U	P-O3'-C3'	-8.27	109.78	119.70
22	BA	507	A	P-O3'-C3'	-8.27	109.78	119.70
1	AA	1332	A	P-O3'-C3'	-8.26	109.78	119.70
22	BA	746	U	P-O3'-C3'	8.26	129.61	119.70
22	BA	2297	A	P-O3'-C3'	-8.25	109.80	119.70
22	DA	92	U	N1-C1'-C2'	-8.25	102.93	112.00
22	DA	1557	C	N1-C1'-C2'	-8.25	102.93	112.00
22	DA	1207	C	N1-C1'-C2'	-8.24	102.94	112.00
22	BA	2757	A	P-O3'-C3'	-8.23	109.82	119.70
22	DA	2501	C	O4'-C1'-N1	8.23	114.79	108.20
53	CA	173	U	O4'-C1'-N1	8.23	114.79	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	724	G	P-O3'-C3'	-8.23	109.82	119.70
1	AA	972	C	P-O3'-C3'	-8.23	109.83	119.70
22	DA	1931	U	N1-C1'-C2'	-8.22	102.95	112.00
22	BA	196	A	O4'-C1'-N9	8.22	114.77	108.20
22	DA	1822	C	N1-C1'-C2'	-8.21	102.97	112.00
22	BA	2492	U	N1-C1'-C2'	-8.21	102.97	112.00
22	BA	1048	A	P-O3'-C3'	-8.20	109.86	119.70
22	BA	860	U	N1-C1'-C2'	-8.20	102.98	112.00
22	BA	2581	G	O4'-C1'-N9	8.20	114.76	108.20
22	BA	1332	G	P-O3'-C3'	8.20	129.53	119.70
57	DB	68	C	O4'-C1'-N1	8.20	114.76	108.20
22	BA	335	C	P-O3'-C3'	-8.19	109.87	119.70
22	BA	1255	U	P-O3'-C3'	8.19	129.53	119.70
22	DA	217	A	P-O3'-C3'	-8.18	109.88	119.70
1	AA	252	U	N1-C1'-C2'	-8.18	103.01	112.00
22	BA	1962	C	P-O3'-C3'	8.17	129.51	119.70
1	AA	816	A	P-O3'-C3'	-8.17	109.90	119.70
53	CA	1381	U	N1-C1'-C2'	-8.17	103.01	112.00
22	BA	783	A	C5-N7-C8	-8.17	99.82	103.90
22	BA	2689	U	O4'-C1'-N1	8.15	114.72	108.20
22	BA	2336	A	P-O3'-C3'	8.14	129.47	119.70
22	BA	1326	U	N1-C1'-C2'	-8.14	103.05	112.00
22	BA	137	U	O4'-C1'-N1	-8.14	101.69	108.20
1	AA	388	G	P-O3'-C3'	8.13	129.46	119.70
53	CA	548	G	P-O3'-C3'	-8.12	109.96	119.70
22	BA	1184	U	O4'-C1'-N1	-8.12	101.71	108.20
53	CA	734	G	P-O3'-C3'	-8.12	109.96	119.70
22	BA	243	U	P-O3'-C3'	-8.11	109.96	119.70
22	BA	204	A	P-O3'-C3'	8.11	129.43	119.70
22	DA	2848	G	P-O3'-C3'	8.10	129.43	119.70
1	AA	122	G	P-O3'-C3'	-8.10	109.98	119.70
22	DA	2497	A	P-O3'-C3'	8.10	129.42	119.70
22	BA	931	U	P-O3'-C3'	8.10	129.41	119.70
22	BA	1667	G	P-O3'-C3'	8.09	129.41	119.70
22	BA	1920	C	N1-C1'-C2'	-8.09	103.10	112.00
1	AA	934	C	O4'-C1'-N1	8.09	114.67	108.20
22	BA	1159	U	O4'-C1'-N1	8.09	114.67	108.20
22	BA	1565	C	N1-C1'-C2'	8.09	124.51	114.00
53	CA	792	A	P-O3'-C3'	8.07	129.39	119.70
22	BA	531	C	N1-C1'-C2'	8.07	124.49	114.00
1	AA	1066	C	N1-C1'-C2'	-8.06	103.13	112.00
53	CA	1498	U	P-O3'-C3'	8.06	129.38	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	DA	2581	G	P-O3'-C3'	8.06	129.37	119.70
53	CA	1224	U	P-O3'-C3'	8.06	129.37	119.70
22	BA	1954	G	P-O3'-C3'	8.05	129.37	119.70
22	BA	482	A	P-O3'-C3'	-8.05	110.04	119.70
22	DA	243	U	N1-C1'-C2'	-8.05	103.15	112.00
1	AA	870	U	P-O3'-C3'	8.04	129.35	119.70
22	DA	1560	G	P-O3'-C3'	-8.04	110.05	119.70
53	CA	1399	C	P-O3'-C3'	8.04	129.35	119.70
53	CA	1401	G	P-O3'-C3'	-8.03	110.06	119.70
1	AA	754	C	N1-C1'-C2'	-8.03	103.17	112.00
22	DA	763	G	P-O3'-C3'	-8.03	110.07	119.70
53	CA	1052	U	N1-C1'-C2'	-8.02	103.17	112.00
22	DA	2063	C	P-O3'-C3'	-8.02	110.07	119.70
22	BA	2021	C	P-O3'-C3'	8.02	129.32	119.70
22	DA	1816	C	N1-C1'-C2'	-8.02	103.18	112.00
22	BA	2064	C	N1-C1'-C2'	-8.02	103.18	112.00
22	DA	162	U	P-O3'-C3'	8.01	129.31	119.70
22	BA	527	C	P-O3'-C3'	8.01	129.31	119.70
53	CA	1502	A	P-O3'-C3'	8.01	129.31	119.70
22	DA	726	G	P-O3'-C3'	8.00	129.30	119.70
1	AA	519	C	P-O3'-C3'	-8.00	110.10	119.70
22	DA	2712	C	O4'-C1'-N1	8.00	114.60	108.20
1	AA	1125	U	P-O3'-C3'	8.00	129.30	119.70
22	BA	27	G	P-O3'-C3'	7.99	129.29	119.70
22	DA	1400	U	N1-C1'-C2'	-7.99	103.21	112.00
1	AA	316	C	P-O3'-C3'	-7.98	110.12	119.70
22	DA	2061	G	P-O3'-C3'	7.98	129.28	119.70
22	BA	1942	C	N1-C1'-C2'	-7.98	103.23	112.00
22	BA	2800	A	O3'-P-O5'	-7.98	88.84	104.00
23	BB	42	C	P-O3'-C3'	-7.98	110.13	119.70
22	DA	984	A	P-O3'-C3'	7.98	129.27	119.70
22	DA	1785	A	P-O3'-C3'	-7.97	110.13	119.70
22	DA	1558	C	P-O3'-C3'	7.97	129.26	119.70
22	BA	16	C	P-O3'-C3'	-7.97	110.14	119.70
22	BA	621	A	P-O3'-C3'	-7.96	110.14	119.70
53	CA	32	A	P-O3'-C3'	-7.96	110.14	119.70
22	DA	527	C	P-O3'-C3'	7.95	129.24	119.70
22	BA	616	A	P-O3'-C3'	-7.95	110.16	119.70
22	BA	2286	G	P-O3'-C3'	7.95	129.24	119.70
22	BA	783	A	C6-C5-N7	-7.95	126.73	132.30
53	CA	68	G	P-O3'-C3'	-7.95	110.16	119.70
22	BA	1416	G	P-O3'-C3'	7.95	129.24	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	BA	385	C	O4'-C1'-N1	-7.94	101.85	108.20
22	BA	178	G	P-O3'-C3'	-7.94	110.17	119.70
1	AA	717	U	P-O3'-C3'	7.93	129.22	119.70
53	CA	1395	C	N1-C1'-C2'	-7.93	103.28	112.00
22	BA	560	C	O4'-C1'-N1	-7.92	101.86	108.20
22	BA	373	U	P-O3'-C3'	-7.92	110.19	119.70
22	DA	1945	G	P-O3'-C3'	-7.92	110.19	119.70
1	AA	1053	G	P-O3'-C3'	7.91	129.20	119.70
22	BA	2791	G	P-O3'-C3'	-7.91	110.21	119.70
22	DA	1818	U	O4'-C1'-N1	7.90	114.52	108.20
53	CA	527	G	P-O3'-C3'	-7.90	110.22	119.70
22	BA	2849	U	O4'-C1'-N1	-7.89	101.89	108.20
1	AA	173	U	P-O3'-C3'	7.89	129.16	119.70
22	BA	302	C	P-O3'-C3'	-7.88	110.24	119.70
22	BA	266	G	P-O3'-C3'	-7.88	110.24	119.70
22	BA	2325	G	P-O3'-C3'	-7.88	110.25	119.70
1	AA	1197	A	P-O3'-C3'	-7.87	110.25	119.70
1	AA	534	U	N1-C1'-C2'	-7.86	103.36	112.00
22	DA	2629	U	P-O3'-C3'	7.86	129.13	119.70
1	AA	641	U	P-O3'-C3'	7.85	129.12	119.70
53	CA	1066	C	N1-C1'-C2'	-7.85	103.36	112.00
22	DA	1963	U	P-O3'-C3'	-7.85	110.28	119.70
22	DA	1603	A	P-O3'-C3'	-7.84	110.29	119.70
22	DA	1626	A	P-O3'-C3'	7.84	129.11	119.70
22	DA	2493	U	P-O3'-C3'	-7.84	110.29	119.70
22	BA	1499	C	O4'-C1'-N1	7.83	114.47	108.20
22	BA	795	C	O4'-C1'-N1	-7.82	101.95	108.20
22	DA	222	A	P-O3'-C3'	7.82	129.08	119.70
22	BA	975	A	P-O3'-C3'	-7.81	110.33	119.70
22	DA	2259	U	N1-C1'-C2'	-7.80	103.42	112.00
22	DA	1829	A	P-O3'-C3'	-7.80	110.34	119.70
22	BA	241	A	P-O3'-C3'	7.80	129.06	119.70
22	BA	1654	A	P-O3'-C3'	-7.80	110.34	119.70
53	CA	564	C	P-O3'-C3'	-7.80	110.34	119.70
22	DA	622	G	P-O3'-C3'	-7.79	110.35	119.70
22	BA	2809	A	P-O5'-C5'	-7.79	108.43	120.90
1	AA	1256	A	P-O3'-C3'	7.79	129.05	119.70
22	BA	2324	U	N1-C1'-C2'	7.79	124.13	114.00
22	DA	397	U	N1-C1'-C2'	-7.79	103.44	112.00
22	BA	1476	U	N1-C1'-C2'	-7.78	103.44	112.00
22	DA	2052	A	P-O3'-C3'	-7.78	110.37	119.70
22	DA	1013	C	P-O3'-C3'	-7.77	110.38	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	875	U	P-O3'-C3'	-7.76	110.38	119.70
22	BA	1329	U	O4'-C1'-N1	7.76	114.41	108.20
22	BA	2258	C	P-O3'-C3'	7.76	129.02	119.70
22	BA	764	A	O4'-C1'-N9	7.76	114.41	108.20
22	DA	304	U	P-O3'-C3'	-7.76	110.39	119.70
22	DA	2349	G	P-O3'-C3'	-7.75	110.39	119.70
1	AA	642	A	P-O3'-C3'	-7.75	110.39	119.70
22	DA	2150	C	N1-C1'-C2'	-7.75	103.47	112.00
22	BA	807	U	P-O5'-C5'	-7.74	108.51	120.90
22	BA	1821	A	P-O3'-C3'	-7.74	110.41	119.70
22	BA	774	G	P-O3'-C3'	7.73	128.98	119.70
22	BA	933	A	P-O3'-C3'	-7.73	110.42	119.70
22	DA	705	A	P-O3'-C3'	-7.73	110.42	119.70
22	BA	1674	G	P-O3'-C3'	7.73	128.97	119.70
22	BA	2501	C	P-O3'-C3'	-7.72	110.43	119.70
22	BA	193	U	O4'-C1'-N1	7.72	114.38	108.20
22	BA	2681	C	P-O3'-C3'	7.72	128.96	119.70
22	DA	2314	A	P-O3'-C3'	-7.72	110.44	119.70
22	BA	1330	C	P-O3'-C3'	-7.71	110.44	119.70
22	BA	2510	C	O4'-C1'-N1	-7.71	102.03	108.20
22	DA	36	G	P-O3'-C3'	-7.71	110.45	119.70
22	DA	1612	C	N1-C1'-C2'	-7.71	103.52	112.00
1	AA	559	A	O4'-C1'-N9	7.71	114.37	108.20
22	BA	2215	C	N1-C1'-C2'	-7.71	103.52	112.00
1	AA	722	G	P-O3'-C3'	-7.70	110.46	119.70
53	CA	374	A	P-O3'-C3'	-7.70	110.46	119.70
22	BA	1128	G	O4'-C1'-N9	7.69	114.35	108.20
1	AA	268	U	P-O3'-C3'	-7.69	110.47	119.70
22	BA	1110	G	P-O3'-C3'	7.69	128.93	119.70
22	BA	1996	C	P-O3'-C3'	7.69	128.93	119.70
22	DA	2023	C	N1-C1'-C2'	-7.68	103.55	112.00
22	BA	1537	G	P-O3'-C3'	-7.68	110.48	119.70
22	BA	1828	G	P-O3'-C3'	7.68	128.92	119.70
53	CA	132	C	P-O3'-C3'	-7.68	110.48	119.70
22	DA	860	U	P-O3'-C3'	-7.68	110.49	119.70
22	BA	1654	A	C3'-C2'-C1'	7.67	107.64	101.50
22	BA	91	A	P-O3'-C3'	7.67	128.90	119.70
22	BA	2071	A	P-O3'-C3'	7.67	128.90	119.70
22	BA	2699	C	C6-N1-C2	7.67	123.37	120.30
22	DA	784	G	O4'-C1'-N9	7.66	114.33	108.20
53	CA	1147	C	N1-C1'-C2'	-7.66	103.57	112.00
22	DA	1993	U	N1-C1'-C2'	-7.66	103.57	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	BA	781	A	P-O3'-C3'	7.66	128.89	119.70
22	BA	2510	C	P-O5'-C5'	-7.66	108.65	120.90
53	CA	884	U	O4'-C1'-N1	7.65	114.32	108.20
53	CA	14	U	P-O3'-C3'	-7.65	110.52	119.70
53	CA	979	C	N1-C1'-C2'	-7.65	103.58	112.00
22	DA	964	C	N1-C1'-C2'	-7.65	103.58	112.00
22	BA	489	G	P-O3'-C3'	7.65	128.88	119.70
22	DA	1954	G	P-O3'-C3'	7.65	128.88	119.70
53	CA	717	U	N1-C1'-C2'	7.64	123.93	114.00
22	BA	2250	G	O4'-C1'-N9	-7.64	102.09	108.20
22	BA	1126	A	P-O3'-C3'	7.63	128.86	119.70
53	CA	1348	U	N1-C1'-C2'	-7.63	103.60	112.00
53	CA	1530	G	P-O3'-C3'	-7.63	110.54	119.70
22	BA	790	U	N1-C1'-C2'	-7.63	103.61	112.00
1	AA	536	C	N1-C1'-C2'	-7.63	103.61	112.00
1	AA	1190	G	P-O3'-C3'	7.63	128.85	119.70
22	BA	321	U	O4'-C1'-N1	7.63	114.30	108.20
22	DA	122	G	P-O3'-C3'	-7.63	110.55	119.70
23	BB	109	A	P-O3'-C3'	-7.62	110.55	119.70
53	CA	1495	U	P-O3'-C3'	7.62	128.85	119.70
22	BA	1265	A	P-O3'-C3'	7.62	128.85	119.70
22	BA	1256	G	P-O3'-C3'	-7.62	110.56	119.70
22	BA	2006	C	O4'-C1'-N1	-7.62	102.11	108.20
22	BA	324	A	P-O3'-C3'	-7.61	110.57	119.70
22	DA	121	G	P-O3'-C3'	-7.60	110.58	119.70
1	AA	480	U	O4'-C1'-N1	7.60	114.28	108.20
22	BA	406	G	P-O3'-C3'	-7.60	110.58	119.70
53	CA	962	C	N1-C1'-C2'	-7.59	103.64	112.00
22	BA	1759	A	P-O3'-C3'	-7.59	110.59	119.70
1	AA	1349	A	P-O3'-C3'	-7.59	110.59	119.70
22	BA	2606	C	C6-N1-C2	7.59	123.34	120.30
22	BA	2214	C	P-O3'-C3'	-7.59	110.59	119.70
1	AA	884	U	P-O3'-C3'	7.59	128.80	119.70
1	AA	131	A	P-O3'-C3'	-7.58	110.61	119.70
22	DA	15	G	P-O3'-C3'	-7.58	110.61	119.70
22	BA	92	U	P-O3'-C3'	-7.57	110.61	119.70
22	DA	2712	C	P-O3'-C3'	7.57	128.79	119.70
22	DA	2249	U	N1-C1'-C2'	7.57	123.84	114.00
1	AA	1345	U	P-O3'-C3'	7.57	128.78	119.70
23	BB	40	U	P-O3'-C3'	7.57	128.78	119.70
22	BA	1286	A	P-O3'-C3'	7.57	128.78	119.70
22	DA	2286	G	P-O3'-C3'	7.56	128.78	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	369	G	P-O3'-C3'	-7.56	110.62	119.70
53	CA	382	A	P-O3'-C3'	7.56	128.78	119.70
22	DA	1135	C	N1-C1'-C2'	-7.56	103.68	112.00
53	CA	536	C	N1-C1'-C2'	-7.56	103.68	112.00
22	DA	2428	G	P-O3'-C3'	-7.56	110.63	119.70
22	BA	1300	G	P-O3'-C3'	7.56	128.77	119.70
1	AA	960	U	P-O3'-C3'	7.55	128.77	119.70
22	BA	2603	G	P-O3'-C3'	-7.55	110.64	119.70
1	AA	1297	G	P-O3'-C3'	7.55	128.76	119.70
1	AA	1322	C	P-O3'-C3'	7.55	128.76	119.70
23	BB	12	C	P-O3'-C3'	7.55	128.76	119.70
22	DA	1655	A	P-O3'-C3'	-7.55	110.64	119.70
22	BA	1611	C	P-O3'-C3'	-7.54	110.65	119.70
22	BA	2832	U	P-O3'-C3'	7.54	128.75	119.70
22	BA	2645	G	O4'-C1'-N9	7.54	114.23	108.20
22	DA	1839	G	P-O3'-C3'	-7.54	110.66	119.70
1	AA	430	A	P-O3'-C3'	-7.53	110.66	119.70
22	DA	2656	U	N1-C1'-C2'	-7.53	103.72	112.00
22	DA	1980	G	P-O3'-C3'	7.53	128.73	119.70
22	DA	2459	A	P-O3'-C3'	-7.53	110.67	119.70
1	AA	129	A	P-O3'-C3'	7.52	128.72	119.70
53	CA	704	A	P-O3'-C3'	-7.52	110.67	119.70
22	BA	673	C	C6-N1-C2	7.52	123.31	120.30
22	DA	1256	G	P-O3'-C3'	-7.52	110.68	119.70
22	BA	2035	G	O4'-C1'-N9	7.52	114.21	108.20
22	BA	2346	A	P-O3'-C3'	7.52	128.72	119.70
1	AA	688	G	P-O3'-C3'	-7.52	110.68	119.70
1	AA	875	U	N1-C1'-C2'	-7.51	103.73	112.00
22	DA	2493	U	N1-C1'-C2'	-7.51	103.74	112.00
1	AA	1141	C	O4'-C1'-N1	7.51	114.21	108.20
22	BA	1970	A	P-O3'-C3'	7.51	128.71	119.70
57	DB	40	U	P-O3'-C3'	7.51	128.71	119.70
1	AA	792	A	O4'-C1'-N9	7.50	114.20	108.20
22	BA	85	G	P-O3'-C3'	-7.50	110.70	119.70
22	BA	1858	A	P-O3'-C3'	-7.50	110.70	119.70
1	AA	85	U	P-O3'-C3'	7.50	128.70	119.70
22	BA	1644	C	O4'-C1'-N1	-7.50	102.20	108.20
22	BA	2678	C	C6-N1-C2	7.50	123.30	120.30
22	DA	1267	U	O4'-C1'-N1	7.50	114.20	108.20
22	DA	1700	A	P-O3'-C3'	-7.50	110.70	119.70
22	DA	2284	A	P-O3'-C3'	-7.50	110.70	119.70
22	DA	990	A	P-O3'-C3'	-7.49	110.71	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1453	G	P-O3'-C3'	-7.48	110.72	119.70
22	DA	1915	U	N1-C1'-C2'	-7.48	103.77	112.00
53	CA	122	G	P-O3'-C3'	-7.48	110.72	119.70
1	AA	184	G	P-O3'-C3'	-7.48	110.73	119.70
22	DA	2251	G	P-O3'-C3'	-7.48	110.73	119.70
22	BA	1237	A	P-O3'-C3'	7.47	128.67	119.70
22	BA	914	G	P-O3'-C3'	-7.47	110.73	119.70
1	AA	485	U	P-O3'-C3'	7.47	128.66	119.70
1	AA	1394	A	P-O3'-C3'	7.47	128.66	119.70
1	AA	718	A	P-O3'-C3'	-7.47	110.74	119.70
22	DA	1522	A	P-O3'-C3'	7.46	128.66	119.70
22	DA	2837	A	P-O3'-C3'	-7.46	110.74	119.70
22	DA	2406	A	P-O3'-C3'	7.46	128.66	119.70
1	AA	1433	A	P-O3'-C3'	-7.46	110.75	119.70
22	DA	656	G	P-O3'-C3'	-7.46	110.75	119.70
53	CA	277	C	P-O3'-C3'	-7.46	110.75	119.70
22	DA	778	G	P-O3'-C3'	-7.46	110.75	119.70
22	BA	2712	C	N1-C1'-C2'	7.46	123.70	114.00
1	AA	1365	G	P-O3'-C3'	-7.45	110.76	119.70
53	CA	1202	U	P-O3'-C3'	-7.45	110.76	119.70
22	BA	1396	U	O4'-C1'-N1	7.45	114.16	108.20
22	BA	1739	A	P-O3'-C3'	-7.45	110.76	119.70
22	BA	784	G	O4'-C1'-N9	-7.45	102.24	108.20
22	DA	2382	G	P-O3'-C3'	7.44	128.63	119.70
22	DA	1918	A	P-O3'-C3'	7.44	128.62	119.70
1	AA	110	C	N1-C1'-C2'	-7.43	103.82	112.00
22	BA	2030	A	P-O3'-C3'	7.43	128.62	119.70
22	BA	2755	C	O4'-C1'-N1	-7.43	102.25	108.20
22	DA	846	U	O4'-C1'-N1	7.43	114.15	108.20
22	BA	972	A	P-O3'-C3'	7.43	128.62	119.70
22	BA	2016	U	O4'-C1'-N1	-7.43	102.26	108.20
53	CA	1282	C	N1-C1'-C2'	-7.43	103.83	112.00
22	BA	1558	C	P-O3'-C3'	7.42	128.61	119.70
53	CA	1301	U	P-O3'-C3'	-7.42	110.79	119.70
22	DA	2387	U	N1-C1'-C2'	-7.42	103.83	112.00
22	DA	575	A	P-O3'-C3'	-7.42	110.80	119.70
22	BA	1779	U	C5-C6-N1	-7.42	118.99	122.70
22	DA	790	U	O4'-C1'-N1	7.42	114.13	108.20
22	DA	867	C	O4'-C1'-N1	7.42	114.13	108.20
22	BA	1178	C	O4'-C1'-N1	7.41	114.13	108.20
22	DA	76	C	N1-C1'-C2'	-7.41	103.85	112.00
22	DA	2312	U	P-O3'-C3'	-7.41	110.81	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	DA	1010	A	P-O3'-C3'	-7.41	110.81	119.70
22	BA	2559	C	O4'-C1'-N1	-7.41	102.28	108.20
53	CA	686	U	O4'-C1'-N1	7.41	114.12	108.20
22	BA	765	C	N1-C1'-C2'	-7.40	103.86	112.00
53	CA	511	C	P-O3'-C3'	7.40	128.58	119.70
22	BA	2469	A	P-O3'-C3'	-7.39	110.83	119.70
1	AA	1200	C	N1-C1'-C2'	7.39	123.61	114.00
22	BA	728	G	O3'-P-O5'	-7.38	89.97	104.00
1	AA	1362	A	O4'-C1'-N9	7.37	114.10	108.20
22	BA	230	G	P-O3'-C3'	-7.37	110.86	119.70
22	BA	741	U	P-O5'-C5'	-7.37	109.11	120.90
22	BA	812	C	P-O3'-C3'	-7.37	110.86	119.70
22	BA	1022	G	P-O3'-C3'	7.36	128.54	119.70
22	BA	1213	A	P-O5'-C5'	-7.36	109.12	120.90
22	DA	2197	U	OP1-P-O3'	7.36	121.40	105.20
1	AA	1124	G	P-O3'-C3'	7.36	128.53	119.70
22	BA	1490	A	P-O3'-C3'	7.36	128.53	119.70
53	CA	517	G	P-O3'-C3'	7.36	128.53	119.70
53	CA	519	C	N1-C1'-C2'	-7.36	103.91	112.00
22	DA	1556	C	P-O3'-C3'	-7.36	110.87	119.70
23	BB	108	A	P-O3'-C3'	7.35	128.52	119.70
53	CA	1227	A	P-O3'-C3'	7.35	128.52	119.70
1	AA	1302	C	N1-C1'-C2'	-7.35	103.91	112.00
22	DA	2267	A	P-O3'-C3'	-7.35	110.88	119.70
22	DA	961	C	N1-C1'-C2'	7.34	123.54	114.00
22	DA	2836	U	N1-C1'-C2'	-7.34	103.93	112.00
1	AA	1258	G	P-O3'-C3'	-7.34	110.90	119.70
22	BA	62	U	O4'-C1'-N1	7.34	114.07	108.20
22	DA	91	A	P-O3'-C3'	7.34	128.50	119.70
53	CA	1345	U	O4'-C1'-N1	7.33	114.07	108.20
22	BA	587	C	N1-C1'-C2'	7.33	123.53	114.00
1	AA	174	A	P-O3'-C3'	-7.32	110.91	119.70
22	DA	325	G	P-O3'-C3'	-7.32	110.91	119.70
22	BA	990	A	P-O3'-C3'	-7.32	110.91	119.70
22	DA	868	U	P-O3'-C3'	-7.32	110.92	119.70
53	CA	884	U	P-O3'-C3'	7.32	128.48	119.70
1	AA	813	U	P-O3'-C3'	-7.32	110.92	119.70
22	BA	303	G	P-O3'-C3'	-7.31	110.92	119.70
22	BA	1333	G	P-O5'-C5'	-7.31	109.20	120.90
22	DA	1272	A	P-O3'-C3'	7.31	128.47	119.70
53	CA	512	U	P-O3'-C3'	-7.30	110.94	119.70
22	BA	2384	U	N1-C1'-C2'	7.30	123.49	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	BA	1386	C	P-O3'-C3'	-7.30	110.94	119.70
22	BA	2586	U	O4'-C1'-N1	7.30	114.04	108.20
22	BA	1034	G	P-O3'-C3'	-7.30	110.94	119.70
22	DA	353	C	P-O3'-C3'	7.29	128.45	119.70
1	AA	575	G	P-O3'-C3'	7.29	128.45	119.70
1	AA	965	U	P-O3'-C3'	7.29	128.44	119.70
53	CA	52	C	P-O3'-C3'	-7.29	110.95	119.70
22	BA	645	C	P-O3'-C3'	7.28	128.44	119.70
53	CA	116	A	P-O3'-C3'	-7.28	110.96	119.70
22	DA	164	C	P-O3'-C3'	-7.28	110.96	119.70
1	AA	597	G	P-O3'-C3'	-7.28	110.97	119.70
22	BA	2051	A	P-O3'-C3'	7.28	128.43	119.70
22	DA	1389	G	P-O3'-C3'	-7.27	110.98	119.70
22	DA	2752	C	N1-C1'-C2'	-7.26	104.01	112.00
22	BA	1129	A	P-O3'-C3'	-7.26	110.99	119.70
22	BA	1838	C	P-O3'-C3'	7.25	128.41	119.70
22	BA	1865	U	P-O3'-C3'	7.25	128.41	119.70
22	DA	1674	G	P-O3'-C3'	7.25	128.41	119.70
22	DA	945	A	O4'-C1'-N9	7.25	114.00	108.20
22	BA	620	G	P-O3'-C3'	7.24	128.39	119.70
1	AA	934	C	P-O3'-C3'	7.23	128.38	119.70
22	BA	2447	G	P-O3'-C3'	7.23	128.38	119.70
22	DA	1144	A	P-O3'-C3'	-7.23	111.03	119.70
22	BA	2578	G	P-O3'-C3'	-7.23	111.03	119.70
1	AA	531	U	P-O3'-C3'	7.22	128.37	119.70
22	BA	794	A	P-O3'-C3'	-7.22	111.03	119.70
1	AA	1229	A	P-O3'-C3'	-7.22	111.04	119.70
22	DA	532	A	P-O3'-C3'	7.22	128.36	119.70
22	DA	2572	A	P-O3'-C3'	7.22	128.36	119.70
22	BA	1733	G	P-O3'-C3'	-7.21	111.04	119.70
1	AA	536	C	P-O3'-C3'	-7.21	111.05	119.70
22	BA	119	A	P-O3'-C3'	7.20	128.34	119.70
1	AA	411	A	P-O3'-C3'	7.20	128.34	119.70
22	BA	1963	U	P-O3'-C3'	-7.20	111.06	119.70
53	CA	733	G	P-O3'-C3'	7.20	128.34	119.70
22	DA	1636	U	P-O3'-C3'	-7.20	111.06	119.70
22	DA	1802	A	P-O3'-C3'	-7.20	111.06	119.70
53	CA	389	A	P-O3'-C3'	-7.19	111.07	119.70
1	AA	169	C	O4'-C1'-N1	7.19	113.95	108.20
53	CA	936	C	O4'-C1'-N1	7.19	113.95	108.20
22	DA	2289	G	P-O3'-C3'	-7.19	111.08	119.70
22	BA	2880	C	P-O3'-C3'	-7.19	111.08	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	306	A	P-O3'-C3'	-7.18	111.08	119.70
22	DA	1997	C	P-O3'-C3'	-7.18	111.08	119.70
22	BA	1714	U	O4'-C1'-N1	-7.18	102.46	108.20
22	BA	2566	A	P-O3'-C3'	7.17	128.31	119.70
1	AA	509	A	P-O3'-C3'	-7.17	111.10	119.70
22	BA	2344	U	N1-C1'-C2'	7.17	123.32	114.00
22	DA	1430	G	P-O3'-C3'	-7.17	111.10	119.70
1	AA	1101	A	P-O3'-C3'	7.16	128.29	119.70
22	BA	2638	G	P-O3'-C3'	7.16	128.29	119.70
22	BA	2259	U	P-O5'-C5'	-7.16	109.45	120.90
53	CA	73	C	N1-C1'-C2'	-7.15	104.13	112.00
1	AA	794	A	P-O3'-C3'	-7.15	111.12	119.70
22	DA	397	U	O4'-C1'-N1	7.15	113.92	108.20
22	BA	988	A	P-O3'-C3'	7.15	128.28	119.70
22	DA	207	A	P-O3'-C3'	-7.15	111.12	119.70
22	BA	1865	U	N1-C1'-C2'	7.15	123.29	114.00
22	BA	1602	U	O4'-C1'-N1	7.14	113.91	108.20
22	DA	1647	U	P-O3'-C3'	7.14	128.27	119.70
23	BB	16	G	P-O3'-C3'	-7.14	111.14	119.70
22	DA	1206	G	P-O3'-C3'	-7.14	111.14	119.70
1	AA	913	A	P-O3'-C3'	7.13	128.26	119.70
22	BA	206	U	P-O3'-C3'	-7.13	111.14	119.70
22	BA	958	U	N1-C1'-C2'	-7.13	104.16	112.00
22	BA	2259	U	P-O3'-C3'	-7.12	111.16	119.70
22	BA	2021	C	O3'-P-O5'	-7.12	90.47	104.00
22	DA	2384	U	N1-C1'-C2'	7.12	123.25	114.00
22	BA	2498	C	P-O3'-C3'	-7.12	111.16	119.70
22	BA	1320	C	N1-C1'-C2'	7.11	123.25	114.00
22	BA	2307	G	P-O3'-C3'	7.11	128.23	119.70
53	CA	1395	C	P-O3'-C3'	-7.10	111.18	119.70
1	AA	366	A	P-O3'-C3'	7.10	128.22	119.70
53	CA	1455	G	P-O3'-C3'	-7.10	111.18	119.70
22	BA	2573	C	O4'-C1'-N1	-7.10	102.52	108.20
22	DA	777	G	N9-C1'-C2'	-7.09	104.20	112.00
22	BA	1491	G	P-O3'-C3'	-7.09	111.20	119.70
22	BA	2034	U	P-O3'-C3'	-7.09	111.20	119.70
22	BA	2284	A	P-O5'-C5'	-7.09	109.56	120.90
22	BA	390	U	N1-C1'-C2'	7.08	123.21	114.00
1	AA	122	G	N9-C1'-C2'	-7.08	104.21	112.00
22	DA	2868	A	P-O3'-C3'	-7.08	111.21	119.70
22	BA	1839	G	P-O3'-C3'	-7.08	111.21	119.70
1	AA	559	A	P-O3'-C3'	7.08	128.19	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
53	CA	73	C	O4'-C1'-N1	7.08	113.86	108.20
22	BA	34	U	P-O3'-C3'	7.07	128.19	119.70
22	BA	1267	U	N1-C1'-C2'	-7.07	104.22	112.00
22	BA	2093	G	N9-C1'-C2'	-7.07	104.22	112.00
22	BA	2682	A	P-O3'-C3'	-7.07	111.21	119.70
53	CA	1065	U	O4'-C1'-N1	7.07	113.86	108.20
1	AA	282	A	P-O3'-C3'	-7.07	111.22	119.70
1	AA	889	A	P-O3'-C3'	7.07	128.18	119.70
22	DA	730	A	P-O3'-C3'	-7.07	111.22	119.70
22	DA	669	G	P-O3'-C3'	7.07	128.18	119.70
22	BA	2063	C	N1-C1'-C2'	-7.06	104.23	112.00
22	BA	588	U	N1-C1'-C2'	-7.06	104.23	112.00
53	CA	596	A	P-O3'-C3'	-7.06	111.23	119.70
1	AA	1064	G	O4'-C1'-N9	7.05	113.84	108.20
1	AA	1282	C	P-O3'-C3'	-7.05	111.24	119.70
22	DA	629	G	P-O3'-C3'	-7.04	111.25	119.70
1	AA	1395	C	P-O5'-C5'	-7.04	109.63	120.90
22	BA	2707	U	O4'-C1'-N1	-7.04	102.57	108.20
22	BA	2267	A	P-O5'-C5'	-7.04	109.64	120.90
53	CA	240	G	P-O3'-C3'	-7.04	111.25	119.70
53	CA	705	G	P-O3'-C3'	-7.04	111.25	119.70
22	DA	1901	A	P-O3'-C3'	-7.03	111.26	119.70
22	DA	1683	U	P-O3'-C3'	-7.03	111.27	119.70
22	DA	460	A	P-O3'-C3'	-7.03	111.27	119.70
22	DA	1141	U	P-O3'-C3'	7.02	128.13	119.70
22	DA	2250	G	O4'-C1'-N9	-7.02	102.59	108.20
53	CA	547	A	P-O3'-C3'	7.01	128.12	119.70
22	DA	2217	G	P-O3'-C3'	-7.01	111.28	119.70
22	DA	2874	C	P-O3'-C3'	-7.01	111.29	119.70
53	CA	453	G	P-O3'-C3'	-7.00	111.30	119.70
22	DA	229	C	N1-C1'-C2'	-7.00	104.30	112.00
22	DA	324	A	P-O3'-C3'	-7.00	111.30	119.70
22	BA	2613	U	O3'-P-O5'	-7.00	90.71	104.00
22	DA	1799	G	P-O3'-C3'	7.00	128.09	119.70
1	AA	243	A	P-O3'-C3'	6.99	128.09	119.70
22	DA	49	A	P-O3'-C3'	6.99	128.09	119.70
22	DA	992	C	P-O3'-C3'	-6.99	111.31	119.70
22	DA	2199	A	P-O3'-C3'	-6.99	111.31	119.70
22	DA	2874	C	N1-C1'-C2'	-6.99	104.31	112.00
1	AA	115	G	P-O3'-C3'	6.99	128.08	119.70
22	DA	1079	C	N1-C1'-C2'	-6.99	104.32	112.00
22	DA	1707	G	P-O3'-C3'	-6.98	111.32	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	BA	2197	U	N1-C1'-C2'	6.98	123.07	114.00
22	BA	434	U	O4'-C1'-N1	6.97	113.78	108.20
22	BA	1417	C	P-O3'-C3'	-6.97	111.33	119.70
22	BA	2863	C	C6-N1-C2	6.97	123.09	120.30
23	BB	40	U	O4'-C1'-N1	6.97	113.78	108.20
22	DA	2339	C	P-O3'-C3'	-6.97	111.34	119.70
1	AA	884	U	O4'-C1'-N1	6.97	113.77	108.20
22	DA	162	U	O4'-C1'-N1	6.96	113.77	108.20
22	DA	2603	G	P-O3'-C3'	-6.96	111.34	119.70
1	AA	654	G	P-O3'-C3'	-6.96	111.35	119.70
22	DA	1347	A	P-O3'-C3'	-6.96	111.35	119.70
22	DA	704	G	P-O3'-C3'	6.96	128.05	119.70
53	CA	498	A	P-O3'-C3'	-6.95	111.36	119.70
22	BA	61	C	P-O5'-C5'	-6.95	109.78	120.90
1	AA	960	U	N1-C1'-C2'	6.95	123.03	114.00
53	CA	962	C	O4'-C1'-N1	6.95	113.76	108.20
22	BA	2092	U	OP1-P-O3'	-6.94	89.92	105.20
22	BA	763	G	P-O3'-C3'	-6.94	111.37	119.70
22	DA	1965	C	O4'-C1'-N1	-6.94	102.65	108.20
1	AA	717	U	N1-C1'-C2'	6.94	123.02	114.00
22	BA	1627	G	P-O3'-C3'	-6.94	111.37	119.70
22	DA	1397	U	N1-C1'-C2'	6.94	123.02	114.00
1	AA	1395	C	O4'-C1'-N1	-6.94	102.65	108.20
1	AA	1183	U	N1-C1'-C2'	-6.94	104.37	112.00
22	DA	2714	G	P-O3'-C3'	-6.94	111.38	119.70
22	DA	2282	G	P-O3'-C3'	6.93	128.02	119.70
22	DA	1569	A	P-O3'-C3'	-6.93	111.38	119.70
22	BA	1965	C	P-O5'-C5'	-6.93	109.81	120.90
22	BA	177	G	P-O3'-C3'	6.93	128.01	119.70
22	BA	1885	A	P-O3'-C3'	-6.92	111.39	119.70
22	DA	916	G	P-O3'-C3'	-6.92	111.39	119.70
22	BA	434	U	P-O3'-C3'	6.92	128.00	119.70
22	BA	1238	G	N9-C1'-C2'	-6.92	104.39	112.00
22	DA	913	U	P-O3'-C3'	6.92	128.00	119.70
1	AA	1129	C	P-O3'-C3'	6.92	128.00	119.70
22	DA	2667	C	N1-C1'-C2'	-6.91	104.40	112.00
22	BA	449	A	P-O5'-C5'	-6.91	109.84	120.90
53	CA	802	A	P-O3'-C3'	6.91	127.99	119.70
22	DA	1460	U	P-O3'-C3'	6.91	127.99	119.70
1	AA	374	A	P-O3'-C3'	-6.91	111.41	119.70
22	BA	865	C	O4'-C1'-N1	6.91	113.73	108.20
22	BA	1493	C	P-O3'-C3'	6.91	127.99	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	DA	1247	A	P-O3'-C3'	6.91	127.99	119.70
1	AA	1162	C	P-O3'-C3'	-6.90	111.42	119.70
22	BA	2681	C	O4'-C1'-N1	6.90	113.72	108.20
53	CA	372	C	O4'-C1'-N1	6.90	113.72	108.20
22	DA	1967	C	P-O3'-C3'	-6.90	111.42	119.70
1	AA	528	C	O4'-C1'-N1	-6.89	102.68	108.20
1	AA	73	C	N1-C1'-C2'	-6.89	104.42	112.00
22	DA	1019	U	O4'-C1'-N1	6.89	113.71	108.20
22	BA	913	U	P-O3'-C3'	6.89	127.97	119.70
53	CA	316	C	P-O3'-C3'	-6.89	111.44	119.70
22	BA	765	C	P-O3'-C3'	-6.88	111.44	119.70
22	BA	1839	G	N9-C1'-C2'	-6.88	104.43	112.00
22	BA	2044	C	P-O3'-C3'	-6.88	111.45	119.70
22	DA	2272	U	O4'-C1'-N1	-6.88	102.70	108.20
1	AA	175	C	P-O3'-C3'	-6.87	111.45	119.70
22	DA	2757	A	P-O3'-C3'	-6.87	111.45	119.70
22	BA	2733	A	P-O3'-C3'	-6.87	111.45	119.70
1	AA	984	C	P-O3'-C3'	-6.87	111.45	119.70
22	BA	2440	C	C3'-C2'-C1'	6.87	107.00	101.50
22	DA	1787	A	P-O3'-C3'	-6.87	111.46	119.70
22	DA	1941	C	N1-C1'-C2'	-6.87	104.45	112.00
1	AA	513	C	P-O3'-C3'	-6.86	111.46	119.70
1	AA	564	C	P-O3'-C3'	-6.86	111.46	119.70
22	BA	199	A	P-O3'-C3'	6.86	127.94	119.70
22	DA	421	C	P-O3'-C3'	6.86	127.93	119.70
22	BA	2797	U	P-O3'-C3'	6.85	127.92	119.70
22	DA	73	A	P-O3'-C3'	-6.85	111.48	119.70
22	DA	670	A	P-O3'-C3'	6.85	127.92	119.70
22	BA	691	C	C6-N1-C2	6.84	123.04	120.30
1	AA	1380	U	P-O3'-C3'	6.84	127.91	119.70
57	DB	24	G	P-O3'-C3'	6.84	127.91	119.70
22	BA	1945	G	P-O3'-C3'	-6.84	111.50	119.70
53	CA	184	G	P-O3'-C3'	-6.84	111.50	119.70
53	CA	1152	A	P-O3'-C3'	-6.84	111.50	119.70
1	AA	486	U	P-O5'-C5'	-6.83	109.97	120.90
22	BA	1615	C	P-O3'-C3'	6.83	127.89	119.70
22	BA	2492	U	P-O3'-C3'	-6.83	111.51	119.70
1	AA	486	U	P-O3'-C3'	-6.82	111.51	119.70
22	BA	2850	A	P-O3'-C3'	-6.82	111.51	119.70
1	AA	813	U	N1-C1'-C2'	-6.82	104.50	112.00
22	DA	1654	A	C3'-C2'-C1'	6.82	106.96	101.50
22	BA	2335	A	C3'-C2'-C1'	6.82	106.95	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	596	A	P-O3'-C3'	-6.82	111.52	119.70
22	DA	510	C	N1-C1'-C2'	-6.82	104.50	112.00
22	BA	1664	A	P-O5'-C5'	-6.82	110.00	120.90
1	AA	991	U	P-O3'-C3'	6.81	127.87	119.70
22	DA	2646	C	O4'-C1'-N1	-6.80	102.76	108.20
22	BA	1456	G	P-O3'-C3'	-6.80	111.54	119.70
22	BA	2745	C	P-O5'-C5'	-6.80	110.02	120.90
22	BA	221	A	P-O3'-C3'	6.80	127.86	119.70
22	DA	129	C	N1-C1'-C2'	-6.80	104.52	112.00
22	DA	1305	C	O4'-C1'-N1	6.80	113.64	108.20
22	DA	1615	C	N1-C1'-C2'	6.80	122.84	114.00
22	BA	2052	A	P-O5'-C5'	-6.80	110.03	120.90
22	BA	2392	A	P-O3'-C3'	-6.80	111.54	119.70
22	BA	2065	C	O4'-C1'-N1	-6.79	102.77	108.20
23	BB	45	A	P-O3'-C3'	-6.79	111.55	119.70
22	BA	73	A	P-O3'-C3'	-6.78	111.57	119.70
53	CA	15	G	P-O3'-C3'	-6.78	111.57	119.70
22	BA	2423	U	O4'-C1'-N1	-6.77	102.78	108.20
22	BA	958	U	P-O3'-C3'	-6.77	111.58	119.70
1	AA	1401	G	P-O3'-C3'	-6.77	111.58	119.70
22	BA	1340	U	O3'-P-O5'	-6.76	91.15	104.00
22	BA	1130	U	P-O3'-C3'	6.76	127.81	119.70
22	BA	1965	C	P-O3'-C3'	-6.76	111.59	119.70
22	DA	958	U	P-O3'-C3'	-6.76	111.59	119.70
22	BA	509	C	P-O3'-C3'	-6.75	111.60	119.70
1	AA	1476	A	P-O3'-C3'	-6.75	111.60	119.70
22	DA	2391	G	P-O3'-C3'	6.75	127.80	119.70
22	DA	304	U	O4'-C1'-N1	6.75	113.60	108.20
22	BA	386	G	O4'-C1'-N9	6.74	113.59	108.20
22	BA	827	U	O4'-C1'-N1	6.74	113.59	108.20
22	BA	1238	G	P-O3'-C3'	-6.74	111.61	119.70
22	DA	1114	C	N1-C1'-C2'	-6.74	104.59	112.00
53	CA	500	G	P-O3'-C3'	-6.74	111.62	119.70
22	BA	996	A	P-O3'-C3'	-6.74	111.62	119.70
1	AA	1087	G	P-O3'-C3'	-6.73	111.62	119.70
22	DA	628	G	P-O3'-C3'	-6.73	111.63	119.70
22	DA	1900	A	P-O3'-C3'	6.72	127.77	119.70
22	DA	407	G	P-O3'-C3'	-6.72	111.63	119.70
22	BA	946	C	C3'-C2'-C1'	6.72	106.87	101.50
22	DA	1557	C	P-O3'-C3'	-6.72	111.64	119.70
53	CA	575	G	P-O3'-C3'	6.71	127.76	119.70
22	DA	336	C	P-O3'-C3'	-6.71	111.64	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	121	U	O4'-C1'-N1	-6.71	102.83	108.20
53	CA	559	A	P-O3'-C3'	6.71	127.75	119.70
1	AA	961	U	P-O3'-C3'	-6.71	111.65	119.70
22	BA	1560	G	P-O3'-C3'	-6.71	111.65	119.70
22	BA	2760	C	O4'-C1'-N1	-6.71	102.83	108.20
53	CA	1230	C	P-O3'-C3'	-6.71	111.65	119.70
22	DA	2023	C	O4'-C1'-N1	6.70	113.56	108.20
22	DA	2409	G	P-O3'-C3'	-6.70	111.66	119.70
53	CA	1401	G	N9-C1'-C2'	-6.70	104.63	112.00
22	BA	740	C	P-O5'-C5'	-6.70	110.18	120.90
22	BA	2520	C	N1-C1'-C2'	-6.70	104.63	112.00
22	DA	2490	G	P-O3'-C3'	6.69	127.72	119.70
22	DA	811	U	O4'-C1'-N1	6.68	113.55	108.20
22	DA	335	C	O4'-C1'-N1	6.68	113.55	108.20
22	DA	861	A	P-O3'-C3'	-6.68	111.68	119.70
22	DA	1455	G	P-O3'-C3'	-6.68	111.68	119.70
22	BA	2820	A	P-O3'-C3'	6.68	127.72	119.70
22	DA	1072	C	O4'-C1'-N1	6.68	113.54	108.20
53	CA	974	A	P-O3'-C3'	6.68	127.71	119.70
22	BA	585	G	P-O3'-C3'	6.67	127.70	119.70
22	BA	1204	A	O4'-C1'-N9	6.67	113.53	108.20
53	CA	1143	G	P-O3'-C3'	-6.67	111.70	119.70
1	AA	305	G	P-O3'-C3'	6.66	127.69	119.70
1	AA	595	A	P-O3'-C3'	6.66	127.69	119.70
1	AA	1068	G	P-O3'-C3'	-6.66	111.71	119.70
22	BA	2067	G	P-O3'-C3'	6.66	127.69	119.70
22	DA	2324	U	P-O3'-C3'	6.65	127.69	119.70
22	BA	1498	C	N1-C1'-C2'	-6.65	104.68	112.00
53	CA	89	U	N1-C1'-C2'	-6.65	104.68	112.00
22	BA	1968	G	N9-C1'-C2'	-6.65	104.68	112.00
1	AA	519	C	N1-C1'-C2'	-6.65	104.69	112.00
22	BA	2609	U	P-O3'-C3'	6.65	127.68	119.70
22	DA	1008	A	P-O3'-C3'	6.65	127.68	119.70
22	DA	571	U	P-O3'-C3'	6.65	127.68	119.70
1	AA	1228	C	P-O3'-C3'	-6.64	111.73	119.70
23	BB	52	A	P-O3'-C3'	6.64	127.67	119.70
22	DA	484	C	O4'-C1'-N1	6.64	113.51	108.20
22	DA	2267	A	N9-C1'-C2'	-6.64	104.70	112.00
22	DA	777	G	P-O3'-C3'	-6.64	111.74	119.70
22	DA	2060	A	P-O3'-C3'	6.64	127.66	119.70
22	DA	2616	C	P-O3'-C3'	-6.64	111.74	119.70
1	AA	109	A	P-O3'-C3'	6.63	127.66	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	BA	566	U	P-O3'-C3'	-6.63	111.74	119.70
53	CA	428	G	O4'-C1'-N9	6.63	113.51	108.20
22	DA	2447	G	O4'-C1'-N9	6.63	113.51	108.20
1	AA	688	G	N9-C1'-C2'	-6.63	104.70	112.00
22	BA	961	C	O4'-C1'-N1	6.63	113.50	108.20
1	AA	511	C	N1-C1'-C2'	6.63	122.62	114.00
1	AA	1469	C	P-O5'-C5'	-6.63	110.29	120.90
22	BA	753	A	P-O3'-C3'	-6.63	111.75	119.70
22	BA	2202	U	O4'-C1'-N1	6.63	113.50	108.20
22	DA	1213	A	P-O3'-C3'	-6.63	111.75	119.70
22	DA	1386	C	O4'-C1'-N1	6.63	113.50	108.20
1	AA	1320	C	P-O3'-C3'	-6.63	111.75	119.70
1	AA	1507	A	P-O3'-C3'	-6.63	111.75	119.70
31	DJ	25	LEU	CA-CB-CG	6.63	130.54	115.30
1	AA	874	G	P-O3'-C3'	-6.62	111.75	119.70
22	BA	454	A	P-O3'-C3'	6.62	127.64	119.70
53	CA	1184	G	P-O3'-C3'	-6.62	111.76	119.70
22	BA	1993	U	C3'-C2'-C1'	6.62	106.79	101.50
22	DA	672	C	P-O3'-C3'	-6.62	111.76	119.70
53	CA	507	C	O4'-C1'-N1	6.61	113.49	108.20
53	CA	717	U	P-O3'-C3'	6.61	127.63	119.70
53	CA	70	U	P-O3'-C3'	6.60	127.62	119.70
53	CA	129	A	P-O3'-C3'	6.60	127.62	119.70
22	BA	2390	U	O4'-C1'-N1	6.60	113.48	108.20
22	BA	1385	A	P-O3'-C3'	6.59	127.61	119.70
22	DA	915	C	P-O3'-C3'	-6.59	111.79	119.70
22	DA	1717	A	P-O3'-C3'	-6.59	111.79	119.70
22	DA	811	U	P-O3'-C3'	6.59	127.61	119.70
22	BA	783	A	C4-N9-C1'	6.58	138.15	126.30
53	CA	315	A	P-O3'-C3'	6.58	127.60	119.70
53	CA	388	G	P-O3'-C3'	6.58	127.60	119.70
22	BA	1378	A	P-O3'-C3'	6.58	127.59	119.70
22	DA	530	G	P-O3'-C3'	-6.58	111.81	119.70
22	BA	1646	C	O4'-C1'-N1	6.58	113.46	108.20
1	AA	95	C	P-O3'-C3'	-6.57	111.81	119.70
53	CA	482	A	P-O3'-C3'	-6.57	111.81	119.70
22	BA	1127	A	P-O3'-C3'	-6.57	111.81	119.70
53	CA	1211	U	P-O3'-C3'	6.57	127.59	119.70
22	DA	1606	C	P-O3'-C3'	6.57	127.58	119.70
22	DA	1733	G	P-O3'-C3'	-6.57	111.82	119.70
22	BA	975	A	N9-C1'-C2'	-6.57	104.77	112.00
22	BA	2621	G	O5'-P-OP2	-6.57	99.79	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	BA	255	A	O4'-C1'-N9	-6.57	102.95	108.20
22	DA	1993	U	P-O3'-C3'	-6.57	111.82	119.70
1	AA	173	U	N1-C1'-C2'	6.56	122.53	114.00
22	BA	961	C	P-O3'-C3'	6.56	127.58	119.70
22	BA	2507	C	O4'-C1'-N1	6.56	113.45	108.20
22	DA	1568	G	P-O3'-C3'	-6.56	111.83	119.70
22	BA	2426	A	P-O3'-C3'	6.56	127.57	119.70
22	DA	1136	G	P-O3'-C3'	-6.56	111.83	119.70
22	DA	2567	G	P-O3'-C3'	-6.55	111.83	119.70
22	BA	1289	C	P-O3'-C3'	-6.55	111.84	119.70
22	DA	1649	G	P-O3'-C3'	-6.55	111.84	119.70
53	CA	1200	C	P-O3'-C3'	6.55	127.56	119.70
1	AA	47	C	P-O3'-C3'	6.55	127.56	119.70
22	BA	1538	G	P-O3'-C3'	-6.54	111.85	119.70
22	DA	1615	C	P-O3'-C3'	6.54	127.55	119.70
22	DA	1650	A	P-O3'-C3'	-6.54	111.85	119.70
22	BA	1761	C	O4'-C1'-N1	-6.53	102.97	108.20
22	BA	391	A	N9-C1'-C2'	-6.53	104.82	112.00
53	CA	1398	A	P-O3'-C3'	-6.53	111.87	119.70
53	CA	536	C	P-O3'-C3'	-6.52	111.87	119.70
22	BA	571	U	O4'-C1'-N1	6.52	113.42	108.20
22	DA	230	G	P-O3'-C3'	-6.52	111.87	119.70
1	AA	965	U	N1-C1'-C2'	6.52	122.48	114.00
22	DA	1289	C	P-O3'-C3'	-6.52	111.88	119.70
22	DA	1399	C	N1-C1'-C2'	-6.51	104.84	112.00
22	BA	1675	C	O4'-C1'-N1	6.51	113.41	108.20
22	BA	1072	C	N1-C1'-C2'	-6.51	104.84	112.00
53	CA	436	C	O4'-C1'-N1	-6.51	102.99	108.20
22	DA	1600	C	O4'-C1'-N1	-6.51	102.99	108.20
57	DB	107	G	P-O3'-C3'	6.51	127.51	119.70
22	DA	1941	C	P-O3'-C3'	-6.50	111.89	119.70
22	BA	2072	C	O4'-C1'-N1	-6.50	103.00	108.20
22	BA	588	U	C3'-C2'-C1'	6.50	106.70	101.50
22	BA	2029	G	P-O3'-C3'	-6.50	111.90	119.70
22	BA	2493	U	P-O3'-C3'	-6.50	111.90	119.70
53	CA	130	A	P-O3'-C3'	6.50	127.50	119.70
53	CA	282	A	P-O3'-C3'	-6.50	111.91	119.70
53	CA	1367	C	O4'-C1'-N1	6.49	113.39	108.20
22	BA	2821	A	P-O3'-C3'	-6.49	111.92	119.70
22	BA	640	C	O4'-C1'-N1	-6.49	103.01	108.20
22	BA	1611	C	P-O5'-C5'	-6.49	110.52	120.90
22	DA	271	G	P-O3'-C3'	6.49	127.48	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	372	C	O4'-C1'-N1	6.48	113.39	108.20
22	DA	2609	U	N1-C1'-C2'	6.48	122.42	114.00
22	BA	1476	U	C3'-C2'-C1'	6.48	106.68	101.50
1	AA	935	A	C3'-C2'-C1'	6.48	106.68	101.50
22	BA	1266	G	P-O3'-C3'	6.47	127.47	119.70
22	DA	2240	U	O4'-C1'-N1	6.47	113.38	108.20
22	BA	2504	U	P-O5'-C5'	-6.46	110.56	120.90
22	BA	2777	G	P-O3'-C3'	-6.46	111.94	119.70
22	DA	901	C	P-O3'-C3'	6.46	127.45	119.70
22	DA	1498	C	P-O3'-C3'	-6.45	111.96	119.70
22	DA	1612	C	O4'-C1'-N1	6.45	113.36	108.20
22	DA	1810	A	P-O3'-C3'	-6.45	111.96	119.70
22	DA	2542	A	P-O3'-C3'	6.45	127.44	119.70
23	BB	25	U	N1-C1'-C2'	-6.45	104.91	112.00
53	CA	47	C	P-O3'-C3'	6.44	127.43	119.70
53	CA	1507	A	P-O3'-C3'	-6.44	111.97	119.70
1	AA	1381	U	N1-C1'-C2'	-6.44	104.91	112.00
22	DA	206	U	P-O3'-C3'	-6.44	111.97	119.70
1	AA	1201	A	P-O3'-C3'	6.44	127.42	119.70
22	BA	865	C	N1-C2-O2	-6.43	115.04	118.90
53	CA	1128	C	O4'-C1'-N1	6.43	113.35	108.20
1	AA	547	A	O4'-C1'-N9	6.43	113.34	108.20
22	BA	74	A	P-O3'-C3'	6.43	127.41	119.70
53	CA	13	U	N1-C1'-C2'	6.43	122.36	114.00
22	DA	2284	A	N9-C1'-C2'	-6.43	104.93	112.00
22	BA	1981	A	P-O3'-C3'	-6.42	111.99	119.70
22	BA	2319	G	O4'-C1'-N9	6.42	113.34	108.20
22	DA	2226	C	C3'-C2'-C1'	6.42	106.64	101.50
1	AA	423	G	C3'-C2'-C1'	6.42	106.64	101.50
22	DA	143	C	N1-C1'-C2'	-6.42	104.94	112.00
22	DA	1611	C	N1-C1'-C2'	-6.42	104.94	112.00
22	BA	764	A	P-O3'-C3'	6.42	127.41	119.70
53	CA	688	G	N9-C1'-C2'	-6.42	104.94	112.00
22	BA	1499	C	C3'-C2'-C1'	6.42	106.63	101.50
22	DA	1397	U	P-O3'-C3'	6.42	127.40	119.70
22	BA	1254	A	C3'-C2'-C1'	6.42	106.63	101.50
22	DA	1304	A	P-O3'-C3'	-6.41	112.00	119.70
22	DA	1811	G	P-O3'-C3'	-6.41	112.00	119.70
22	DA	2683	C	P-O3'-C3'	-6.41	112.00	119.70
53	CA	722	G	P-O3'-C3'	-6.41	112.01	119.70
1	AA	94	G	P-O3'-C3'	6.41	127.39	119.70
22	BA	2542	A	O4'-C1'-N9	6.41	113.33	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
53	CA	9	G	N9-C1'-C2'	-6.41	104.95	112.00
53	CA	247	G	P-O3'-C3'	-6.41	112.01	119.70
22	DA	1451	C	O4'-C1'-N1	6.41	113.33	108.20
22	DA	2895	G	P-O3'-C3'	-6.41	112.01	119.70
1	AA	1085	U	P-O3'-C3'	6.41	127.39	119.70
53	CA	1160	G	P-O3'-C3'	-6.41	112.01	119.70
1	AA	95	C	N1-C1'-C2'	-6.41	104.95	112.00
22	DA	1838	C	P-O3'-C3'	6.41	127.39	119.70
22	BA	32	C	O4'-C1'-N1	6.40	113.32	108.20
22	BA	656	G	P-O3'-C3'	-6.40	112.02	119.70
22	BA	2447	G	O4'-C1'-N9	6.40	113.32	108.20
53	CA	960	U	O4'-C1'-N1	6.40	113.32	108.20
22	BA	197	A	P-O3'-C3'	-6.40	112.03	119.70
22	DA	2447	G	P-O3'-C3'	6.39	127.37	119.70
53	CA	1298	U	P-O3'-C3'	6.39	127.37	119.70
22	BA	406	G	N9-C1'-C2'	-6.39	104.97	112.00
22	BA	1627	G	N9-C1'-C2'	-6.39	104.97	112.00
53	CA	793	U	P-O3'-C3'	-6.38	112.04	119.70
53	CA	87	C	N1-C1'-C2'	-6.38	104.98	112.00
22	DA	858	G	P-O3'-C3'	6.38	127.35	119.70
22	DA	1265	A	P-O3'-C3'	6.38	127.35	119.70
22	DA	2299	U	O4'-C1'-N1	6.38	113.30	108.20
22	BA	2639	A	P-O5'-C5'	-6.38	110.70	120.90
22	BA	731	C	O4'-C1'-N1	-6.38	103.10	108.20
53	CA	305	G	P-O3'-C3'	6.37	127.35	119.70
1	AA	1304	G	P-O3'-C3'	-6.37	112.06	119.70
53	CA	567	G	C3'-C2'-C1'	6.37	106.59	101.50
22	DA	2582	G	N9-C1'-C2'	-6.37	105.00	112.00
22	BA	783	A	C4-C5-N7	6.37	113.88	110.70
53	CA	96	U	P-O3'-C3'	-6.37	112.06	119.70
23	BB	87	U	O4'-C1'-N1	6.36	113.29	108.20
22	DA	480	A	P-O3'-C3'	-6.36	112.06	119.70
53	CA	914	A	C3'-C2'-C1'	6.36	106.59	101.50
22	BA	2337	G	P-O3'-C3'	-6.36	112.07	119.70
22	DA	1333	G	P-O3'-C3'	-6.36	112.07	119.70
1	AA	497	G	P-O3'-C3'	-6.35	112.08	119.70
1	AA	487	A	P-O3'-C3'	-6.35	112.08	119.70
22	DA	1314	C	N1-C1'-C2'	-6.35	105.01	112.00
22	BA	529	A	C8-N9-C4	6.35	108.34	105.80
22	BA	2715	C	O4'-C1'-N1	-6.35	103.12	108.20
1	AA	344	A	O4'-C1'-N9	6.34	113.28	108.20
22	BA	1213	A	N9-C1'-C2'	-6.34	105.02	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	BA	2312	U	O4'-C1'-N1	6.34	113.28	108.20
22	DA	2299	U	P-O3'-C3'	-6.34	112.09	119.70
22	DA	1983	G	N9-C1'-C2'	-6.34	105.02	112.00
22	DA	2873	A	O4'-C1'-N9	6.34	113.27	108.20
22	BA	506	G	O4'-C1'-N9	6.34	113.27	108.20
1	AA	275	G	P-O3'-C3'	-6.34	112.09	119.70
53	CA	253	A	P-O3'-C3'	-6.34	112.09	119.70
22	BA	2347	C	C3'-C2'-C1'	6.34	106.57	101.50
22	BA	2629	U	N1-C1'-C2'	6.34	122.24	114.00
22	DA	2034	U	P-O3'-C3'	-6.34	112.09	119.70
53	CA	891	U	P-O3'-C3'	-6.33	112.10	119.70
53	CA	1499	A	P-O3'-C3'	-6.33	112.10	119.70
22	BA	233	A	P-O3'-C3'	-6.33	112.11	119.70
53	CA	86	G	P-O3'-C3'	6.33	127.30	119.70
22	DA	673	C	P-O3'-C3'	-6.33	112.11	119.70
22	DA	1027	A	P-O3'-C3'	-6.33	112.11	119.70
1	AA	74	A	P-O3'-C3'	-6.32	112.11	119.70
22	DA	802	A	P-O3'-C3'	-6.32	112.12	119.70
22	DA	129	C	P-O3'-C3'	-6.32	112.12	119.70
22	BA	395	U	N1-C1'-C2'	6.32	122.21	114.00
22	DA	397	U	P-O3'-C3'	-6.32	112.12	119.70
1	AA	267	C	C3'-C2'-C1'	6.31	106.55	101.50
22	BA	323	C	O4'-C1'-N1	6.31	113.25	108.20
22	BA	1146	C	O4'-C1'-N1	6.31	113.25	108.20
22	DA	765	C	C3'-C2'-C1'	6.31	106.55	101.50
22	DA	959	A	C3'-C2'-C1'	6.31	106.55	101.50
22	BA	2023	C	P-O3'-C3'	-6.31	112.13	119.70
22	DA	638	G	P-O3'-C3'	-6.31	112.13	119.70
22	BA	1707	G	P-O3'-C3'	-6.30	112.14	119.70
22	BA	2226	C	P-O3'-C3'	-6.30	112.14	119.70
22	DA	2850	A	P-O3'-C3'	-6.30	112.14	119.70
29	DH	48	GLU	O-C-N	6.30	132.78	122.70
22	DA	1619	G	N9-C1'-C2'	-6.30	105.07	112.00
22	BA	1617	C	C6-N1-C2	6.30	122.82	120.30
53	CA	486	U	O4'-C1'-N1	-6.29	103.16	108.20
53	CA	755	G	P-O3'-C3'	-6.29	112.14	119.70
22	BA	2582	G	P-O3'-C3'	-6.29	112.15	119.70
22	DA	1064	C	P-O3'-C3'	-6.29	112.15	119.70
22	BA	2321	U	O4'-C1'-N1	-6.29	103.17	108.20
22	DA	1078	U	O4'-C1'-N1	6.29	113.23	108.20
22	DA	1848	A	P-O3'-C3'	-6.29	112.15	119.70
22	BA	1320	C	P-O3'-C3'	6.28	127.24	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1168	U	O4'-C1'-N1	6.28	113.22	108.20
22	BA	671	C	O4'-C1'-N1	6.28	113.22	108.20
22	DA	2210	U	P-O3'-C3'	6.28	127.23	119.70
53	CA	173	U	P-O3'-C3'	6.28	127.23	119.70
53	CA	980	C	O4'-C1'-N1	6.28	113.22	108.20
22	DA	1758	U	P-O3'-C3'	6.28	127.23	119.70
1	AA	339	C	O4'-C1'-N1	6.28	113.22	108.20
53	CA	654	G	C3'-C2'-C1'	6.28	106.52	101.50
53	CA	1495	U	OP1-P-O3'	6.27	118.99	105.20
1	AA	47	C	N1-C1'-C2'	6.27	122.15	114.00
22	BA	2725	A	P-O3'-C3'	6.27	127.22	119.70
22	BA	806	C	P-O5'-C5'	-6.26	110.88	120.90
22	BA	1665	A	P-O3'-C3'	-6.26	112.18	119.70
22	DA	752	A	O4'-C1'-N9	6.26	113.21	108.20
22	DA	783	A	C3'-C2'-C1'	6.26	106.51	101.50
22	DA	2689	U	O4'-C1'-N1	6.26	113.21	108.20
1	AA	1365	G	N9-C1'-C2'	-6.26	105.11	112.00
22	BA	2714	G	P-O3'-C3'	-6.26	112.19	119.70
22	DA	964	C	C3'-C2'-C1'	6.26	106.51	101.50
22	DA	1236	G	P-O3'-C3'	6.26	127.21	119.70
53	CA	803	G	C3'-C2'-C1'	6.25	106.50	101.50
1	AA	971	G	C4-N9-C1'	-6.25	118.37	126.50
22	BA	763	G	C3'-C2'-C1'	6.25	106.50	101.50
22	BA	914	G	N9-C1'-C2'	-6.25	105.13	112.00
22	BA	1817	G	P-O3'-C3'	-6.24	112.21	119.70
22	DA	1291	C	O4'-C1'-N1	6.24	113.19	108.20
22	DA	2150	C	P-O3'-C3'	-6.24	112.21	119.70
53	CA	531	U	O4'-C1'-N1	6.24	113.19	108.20
22	BA	637	A	O4'-C1'-N9	6.24	113.19	108.20
22	BA	2469	A	N9-C1'-C2'	-6.24	105.14	112.00
22	DA	1617	C	O4'-C1'-N1	6.24	113.19	108.20
22	DA	2136	G	P-O3'-C3'	-6.24	112.22	119.70
1	AA	652	U	P-O3'-C3'	6.23	127.18	119.70
22	DA	1739	A	P-O3'-C3'	-6.23	112.22	119.70
22	DA	1803	A	P-O3'-C3'	-6.23	112.22	119.70
22	BA	63	A	P-O3'-C3'	-6.23	112.23	119.70
22	DA	2143	C	P-O3'-C3'	6.23	127.17	119.70
22	BA	2874	C	P-O5'-C5'	-6.23	110.94	120.90
22	DA	1399	C	P-O3'-C3'	-6.22	112.23	119.70
22	DA	1602	U	P-O3'-C3'	6.22	127.17	119.70
22	BA	655	A	P-O3'-C3'	6.22	127.16	119.70
22	DA	1430	G	C3'-C2'-C1'	6.21	106.47	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	BA	1456	G	N9-C1'-C2'	-6.21	105.17	112.00
22	BA	1714	U	N1-C1'-C2'	-6.21	105.17	112.00
22	DA	87	U	P-O3'-C3'	-6.21	112.25	119.70
22	DA	1554	U	P-O3'-C3'	6.21	127.16	119.70
22	DA	2438	U	O4'-C1'-N1	6.21	113.17	108.20
1	AA	199	A	C3'-C2'-C1'	6.21	106.47	101.50
22	DA	404	A	P-O3'-C3'	6.21	127.15	119.70
53	CA	1196	A	P-O3'-C3'	6.21	127.15	119.70
22	BA	996	A	C3'-C2'-C1'	6.20	106.46	101.50
22	BA	740	C	O5'-P-OP2	-6.19	100.13	105.70
22	BA	229	C	C3'-C2'-C1'	6.19	106.45	101.50
22	BA	1058	U	O4'-C1'-N1	6.19	113.15	108.20
1	AA	451	A	P-O3'-C3'	6.19	127.12	119.70
22	BA	333	G	P-O3'-C3'	-6.18	112.28	119.70
22	BA	2036	C	P-O3'-C3'	-6.18	112.28	119.70
53	CA	1201	A	P-O3'-C3'	6.18	127.12	119.70
1	AA	247	G	P-O3'-C3'	-6.18	112.28	119.70
1	AA	1498	U	P-O3'-C3'	6.18	127.12	119.70
1	AA	1161	C	N1-C1'-C2'	-6.18	105.20	112.00
22	BA	1758	U	N1-C1'-C2'	6.18	122.03	114.00
23	BB	15	A	P-O5'-C5'	-6.18	111.02	120.90
22	DA	2339	C	O4'-C1'-N1	6.18	113.14	108.20
22	DA	2520	C	C3'-C2'-C1'	6.18	106.44	101.50
1	AA	110	C	P-O5'-C5'	-6.17	111.02	120.90
22	BA	2393	U	O4'-C1'-N1	6.17	113.14	108.20
22	BA	421	C	N1-C1'-C2'	6.17	122.02	114.00
53	CA	1485	U	O4'-C1'-N1	6.17	113.14	108.20
23	BB	90	C	P-O3'-C3'	-6.17	112.30	119.70
22	DA	2147	A	P-O3'-C3'	-6.17	112.30	119.70
22	BA	2450	A	C3'-C2'-C1'	6.17	106.44	101.50
22	BA	2093	G	P-O3'-C3'	-6.17	112.30	119.70
22	BA	777	G	P-O3'-C3'	-6.16	112.30	119.70
22	DA	449	A	C3'-C2'-C1'	6.16	106.43	101.50
22	DA	1020	A	P-O3'-C3'	6.16	127.09	119.70
1	AA	654	G	C3'-C2'-C1'	6.16	106.43	101.50
53	CA	1505	G	C3'-C2'-C1'	6.16	106.43	101.50
22	BA	1698	A	P-O3'-C3'	6.16	127.09	119.70
53	CA	306	A	N9-C1'-C2'	-6.15	105.23	112.00
53	CA	381	C	P-O3'-C3'	6.15	127.08	119.70
22	DA	2334	U	P-O3'-C3'	6.15	127.08	119.70
22	DA	2777	G	C3'-C2'-C1'	6.15	106.42	101.50
22	DA	2033	A	P-O3'-C3'	6.15	127.08	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	BA	1287	A	C3'-C2'-C1'	6.14	106.41	101.50
22	DA	1475	G	P-O3'-C3'	6.14	127.07	119.70
22	BA	2425	A	O4'-C1'-N9	6.14	113.11	108.20
22	DA	947	A	C3'-C2'-C1'	6.14	106.41	101.50
57	DB	107	G	OP1-P-O3'	6.14	118.71	105.20
22	BA	572	A	P-O5'-C5'	-6.14	111.08	120.90
22	BA	1700	A	P-O3'-C3'	-6.14	112.33	119.70
22	BA	640	C	C6-N1-C2	6.13	122.75	120.30
22	DA	2498	C	P-O3'-C3'	-6.13	112.34	119.70
1	AA	1066	C	P-O3'-C3'	-6.13	112.34	119.70
53	CA	438	U	P-O3'-C3'	6.13	127.06	119.70
22	DA	774	G	P-O3'-C3'	6.13	127.05	119.70
53	CA	885	G	P-O3'-C3'	-6.12	112.35	119.70
22	DA	1268	A	C3'-C2'-C1'	6.12	106.40	101.50
1	AA	389	A	P-O3'-C3'	-6.12	112.35	119.70
22	BA	1494	A	P-O3'-C3'	-6.12	112.35	119.70
53	CA	961	U	N1-C1'-C2'	-6.12	105.27	112.00
22	BA	1461	C	P-O3'-C3'	-6.12	112.35	119.70
22	BA	1829	A	N9-C1'-C2'	-6.12	105.27	112.00
22	BA	2326	C	P-O3'-C3'	6.12	127.05	119.70
1	AA	1336	C	O4'-C1'-N1	6.12	113.10	108.20
22	BA	388	G	P-O3'-C3'	-6.12	112.36	119.70
22	BA	121	G	N9-C1'-C2'	-6.12	105.27	112.00
22	BA	435	C	C3'-C2'-C1'	6.12	106.39	101.50
22	DA	28	A	C3'-C2'-C1'	6.11	106.39	101.50
22	DA	2143	C	O4'-C1'-N1	6.11	113.09	108.20
22	DA	2450	A	P-O3'-C3'	-6.11	112.36	119.70
53	CA	83	C	O4'-C1'-N1	6.11	113.09	108.20
22	BA	2842	G	N1-C6-O6	6.11	123.57	119.90
22	BA	829	A	P-O3'-C3'	6.11	127.03	119.70
22	BA	974	G	C5-N7-C8	-6.11	101.25	104.30
22	BA	2771	C	O4'-C1'-N1	-6.11	103.32	108.20
53	CA	1087	G	P-O3'-C3'	-6.10	112.38	119.70
22	DA	1320	C	P-O3'-C3'	6.10	127.02	119.70
1	AA	110	C	C3'-C2'-C1'	6.10	106.38	101.50
22	BA	2034	U	N3-C4-O4	6.10	123.67	119.40
22	DA	1803	A	C3'-C2'-C1'	6.10	106.38	101.50
22	DA	1982	U	P-O3'-C3'	-6.10	112.38	119.70
22	DA	2875	C	O4'-C1'-N1	6.10	113.08	108.20
22	BA	1647	U	P-O3'-C3'	6.09	127.01	119.70
53	CA	429	U	O4'-C1'-N1	6.09	113.08	108.20
22	BA	1706	C	O4'-C1'-N1	6.09	113.08	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	BA	2036	C	C3'-C2'-C1'	6.09	106.38	101.50
1	AA	246	A	P-O3'-C3'	6.09	127.01	119.70
22	BA	386	G	P-O3'-C3'	6.09	127.01	119.70
22	DA	1695	G	P-O3'-C3'	-6.09	112.39	119.70
22	BA	1234	U	P-O3'-C3'	-6.09	112.40	119.70
53	CA	92	U	P-O3'-C3'	-6.08	112.40	119.70
53	CA	183	C	O4'-C1'-N1	6.08	113.07	108.20
22	DA	2585	U	P-O3'-C3'	6.08	127.00	119.70
22	BA	33	C	P-O3'-C3'	6.08	127.00	119.70
22	DA	702	U	O4'-C1'-N1	6.08	113.07	108.20
22	DA	2348	U	O4'-C1'-N1	6.08	113.06	108.20
22	DA	1327	A	C3'-C2'-C1'	6.08	106.36	101.50
22	BA	2347	C	P-O3'-C3'	-6.07	112.41	119.70
22	DA	1314	C	C3'-C2'-C1'	6.07	106.36	101.50
22	BA	2511	U	P-O5'-C5'	-6.07	111.19	120.90
22	DA	2836	U	P-O3'-C3'	-6.07	112.42	119.70
1	AA	971	G	O4'-C1'-N9	6.07	113.05	108.20
22	DA	2582	G	P-O3'-C3'	-6.07	112.42	119.70
22	BA	1429	G	P-O3'-C3'	-6.07	112.42	119.70
22	DA	605	G	C3'-C2'-C1'	6.06	106.35	101.50
22	DA	1716	U	N1-C1'-C2'	-6.06	105.33	112.00
1	AA	275	G	C8-N9-C4	-6.06	103.97	106.40
22	BA	215	G	P-O3'-C3'	6.06	126.98	119.70
22	BA	1379	U	O4'-C1'-N1	-6.06	103.35	108.20
1	AA	108	G	O4'-C1'-N9	6.06	113.05	108.20
53	CA	979	C	P-O3'-C3'	-6.06	112.43	119.70
22	BA	1019	U	P-O3'-C3'	6.06	126.97	119.70
1	AA	966	G	C3'-C2'-C1'	6.05	106.34	101.50
22	DA	913	U	O4'-C1'-N1	6.05	113.04	108.20
22	DA	2239	G	P-O3'-C3'	-6.05	112.44	119.70
22	DA	2504	U	O4'-C1'-N1	6.05	113.04	108.20
22	BA	335	C	P-O5'-C5'	-6.05	111.22	120.90
22	BA	381	G	P-O5'-C5'	-6.05	111.22	120.90
1	AA	414	A	C3'-C2'-C1'	6.05	106.34	101.50
1	AA	85	U	N1-C1'-C2'	6.05	121.86	114.00
22	BA	1675	C	P-O3'-C3'	-6.05	112.44	119.70
1	AA	198	G	C3'-C2'-C1'	6.04	106.34	101.50
22	BA	1872	A	C3'-C2'-C1'	6.04	106.34	101.50
1	AA	1055	A	P-O3'-C3'	-6.04	112.45	119.70
1	AA	1202	U	O4'-C1'-N1	6.04	113.03	108.20
53	CA	913	A	P-O3'-C3'	6.04	126.95	119.70
22	DA	1635	A	P-O3'-C3'	-6.04	112.45	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	BA	805	G	P-O5'-C5'	-6.04	111.24	120.90
22	BA	35	G	C3'-C2'-C1'	6.04	106.33	101.50
53	CA	84	U	O4'-C1'-N1	6.04	113.03	108.20
22	DA	476	G	P-O3'-C3'	-6.04	112.45	119.70
22	BA	1732	C	O4'-C1'-N1	6.04	113.03	108.20
1	AA	641	U	N1-C1'-C2'	6.04	121.85	114.00
22	DA	861	A	C3'-C2'-C1'	6.04	106.33	101.50
22	DA	1996	C	P-O3'-C3'	6.04	126.94	119.70
22	DA	1136	G	N9-C1'-C2'	-6.03	105.36	112.00
22	DA	2214	C	P-O3'-C3'	-6.03	112.46	119.70
53	CA	60	A	P-O3'-C3'	6.03	126.94	119.70
1	AA	1348	U	P-O3'-C3'	-6.03	112.47	119.70
22	BA	2715	C	P-O3'-C3'	-6.03	112.47	119.70
22	BA	1314	C	O4'-C1'-N1	-6.03	103.38	108.20
22	DA	1636	U	N1-C1'-C2'	-6.03	105.37	112.00
22	DA	973	A	P-O3'-C3'	6.02	126.93	119.70
22	BA	2250	G	C5-N7-C8	-6.02	101.29	104.30
22	DA	1717	A	C3'-C2'-C1'	6.02	106.32	101.50
53	CA	116	A	N9-C1'-C2'	-6.02	105.38	112.00
22	BA	369	U	P-O3'-C3'	6.02	126.92	119.70
22	BA	103	A	P-O3'-C3'	-6.01	112.48	119.70
22	BA	1734	G	P-O3'-C3'	-6.01	112.48	119.70
22	DA	1398	C	P-O3'-C3'	-6.01	112.48	119.70
1	AA	914	A	C3'-C2'-C1'	6.01	106.31	101.50
22	BA	2321	U	P-O3'-C3'	-6.01	112.48	119.70
22	DA	865	C	P-O3'-C3'	6.01	126.92	119.70
22	DA	1962	C	P-O3'-C3'	6.01	126.91	119.70
22	DA	374	A	C3'-C2'-C1'	6.01	106.31	101.50
22	BA	671	C	C4-C5-C6	6.01	120.40	117.40
22	BA	2030	A	C5-N7-C8	6.01	106.90	103.90
53	CA	253	A	C3'-C2'-C1'	6.01	106.30	101.50
53	CA	486	U	P-O5'-C5'	-6.01	111.29	120.90
22	DA	1415	U	O4'-C1'-N1	6.01	113.00	108.20
53	CA	429	U	P-O3'-C3'	6.00	126.91	119.70
22	BA	1071	G	P-O3'-C3'	6.00	126.91	119.70
22	BA	1330	C	C3'-C2'-C1'	6.00	106.30	101.50
22	DA	976	G	C3'-C2'-C1'	6.00	106.30	101.50
22	BA	120	U	P-O5'-C5'	-6.00	111.30	120.90
22	DA	1063	G	P-O3'-C3'	-6.00	112.50	119.70
1	AA	245	U	P-O3'-C3'	-6.00	112.50	119.70
22	BA	974	G	C4-C5-N7	6.00	113.20	110.80
22	BA	1499	C	P-O3'-C3'	-6.00	112.50	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	BA	1838	C	O4'-C1'-N1	6.00	113.00	108.20
22	BA	2842	G	P-O5'-C5'	-6.00	111.31	120.90
53	CA	547	A	O4'-C1'-N9	6.00	113.00	108.20
22	DA	77	G	C3'-C2'-C1'	6.00	106.30	101.50
22	DA	1669	A	C3'-C2'-C1'	6.00	106.30	101.50
22	BA	1762	A	O4'-C1'-N9	-5.99	103.41	108.20
22	BA	2030	A	C4-C5-N7	-5.99	107.70	110.70
23	BB	51	G	P-O3'-C3'	5.99	126.89	119.70
1	AA	885	G	N9-C1'-C2'	-5.99	105.41	112.00
22	BA	2353	G	P-O5'-C5'	-5.99	111.32	120.90
22	DA	958	U	N1-C1'-C2'	-5.99	105.41	112.00
22	BA	1936	A	C2-N3-C4	-5.99	107.61	110.60
22	BA	2639	A	N9-C1'-C2'	-5.99	105.41	112.00
23	BB	14	U	P-O3'-C3'	5.99	126.89	119.70
22	DA	618	G	P-O3'-C3'	-5.99	112.51	119.70
22	DA	2800	A	C3'-C2'-C1'	5.99	106.29	101.50
1	AA	1496	C	P-O3'-C3'	-5.99	112.52	119.70
22	BA	491	G	P-O3'-C3'	-5.99	112.52	119.70
22	DA	273	G	P-O3'-C3'	-5.98	112.52	119.70
1	AA	81	A	P-O3'-C3'	5.98	126.88	119.70
1	AA	1323	G	P-O3'-C3'	-5.98	112.52	119.70
22	BA	860	U	C3'-C2'-C1'	5.98	106.28	101.50
22	BA	2307	G	O4'-C1'-N9	5.98	112.98	108.20
22	BA	505	A	P-O3'-C3'	-5.97	112.53	119.70
22	BA	1997	C	O4'-C1'-N1	5.97	112.98	108.20
22	DA	2881	U	P-O3'-C3'	-5.97	112.53	119.70
22	BA	1287	A	P-O3'-C3'	-5.97	112.53	119.70
22	BA	1560	G	C3'-C2'-C1'	5.97	106.28	101.50
22	BA	2043	C	O4'-C1'-N1	-5.97	103.42	108.20
53	CA	308	C	P-O3'-C3'	-5.97	112.54	119.70
22	BA	1396	U	P-O3'-C3'	5.96	126.86	119.70
22	DA	576	U	C3'-C2'-C1'	5.96	106.27	101.50
22	DA	546	U	O4'-C1'-N1	5.96	112.97	108.20
22	DA	673	C	C3'-C2'-C1'	5.96	106.27	101.50
22	DA	1274	A	P-O3'-C3'	-5.96	112.55	119.70
22	DA	638	G	C3'-C2'-C1'	5.96	106.27	101.50
22	DA	1077	A	P-O3'-C3'	-5.96	112.55	119.70
22	DA	1034	G	C3'-C2'-C1'	5.96	106.27	101.50
1	AA	1229	A	C3'-C2'-C1'	5.95	106.26	101.50
22	BA	2296	U	P-O3'-C3'	5.95	126.84	119.70
22	DA	2609	U	P-O3'-C3'	5.95	126.84	119.70
22	DA	163	C	N1-C1'-C2'	-5.95	105.45	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	91	U	N1-C1'-C2'	-5.95	105.46	112.00
22	BA	60	G	P-O3'-C3'	5.95	126.84	119.70
53	CA	406	G	C5-C6-O6	-5.95	125.03	128.60
22	BA	1996	C	N1-C1'-C2'	5.95	121.73	114.00
22	BA	2463	C	N1-C2-O2	-5.95	115.33	118.90
53	CA	511	C	N1-C1'-C2'	5.95	121.73	114.00
22	DA	2275	C	P-O3'-C3'	5.94	126.83	119.70
1	AA	1202	U	C3'-C2'-C1'	5.94	106.25	101.50
53	CA	1161	C	P-O3'-C3'	-5.94	112.57	119.70
22	DA	1782	U	O4'-C1'-N1	5.94	112.95	108.20
22	BA	1920	C	P-O3'-C3'	-5.94	112.57	119.70
53	CA	85	U	N1-C1'-C2'	5.94	121.72	114.00
22	BA	705	A	P-O3'-C3'	-5.94	112.57	119.70
22	BA	1020	A	P-O3'-C3'	5.94	126.83	119.70
22	BA	593	U	O5'-P-OP2	-5.94	100.36	105.70
22	BA	691	C	C5-C6-N1	-5.94	118.03	121.00
53	CA	174	A	P-O3'-C3'	-5.94	112.58	119.70
22	DA	1649	G	N9-C1'-C2'	-5.94	105.47	112.00
22	DA	424	G	C3'-C2'-C1'	5.93	106.25	101.50
22	BA	2068	U	P-O3'-C3'	-5.93	112.58	119.70
22	BA	2251	G	P-O3'-C3'	-5.93	112.58	119.70
22	DA	407	G	C3'-C2'-C1'	5.93	106.25	101.50
22	DA	1865	U	N1-C1'-C2'	5.93	121.71	114.00
53	CA	740	U	O4'-C1'-N1	5.93	112.94	108.20
22	BA	459	U	P-O3'-C3'	-5.93	112.58	119.70
22	BA	1901	A	P-O3'-C3'	-5.93	112.58	119.70
23	BB	58	A	P-O3'-C3'	-5.93	112.59	119.70
22	DA	1700	A	C3'-C2'-C1'	5.93	106.24	101.50
22	DA	2036	C	P-O3'-C3'	-5.93	112.58	119.70
53	CA	1217	C	P-O3'-C3'	-5.93	112.59	119.70
53	CA	1288	A	C3'-C2'-C1'	5.93	106.24	101.50
1	AA	971	G	C8-N9-C1'	5.92	134.70	127.00
22	BA	617	G	P-O3'-C3'	-5.92	112.59	119.70
22	BA	962	G	P-O5'-C5'	-5.92	111.42	120.90
22	BA	1839	G	P-O5'-C5'	-5.92	111.42	120.90
22	BA	2275	C	N1-C1'-C2'	5.92	121.70	114.00
22	BA	811	U	O3'-P-O5'	-5.92	92.75	104.00
1	AA	267	C	O4'-C1'-N1	5.92	112.94	108.20
53	CA	1381	U	P-O3'-C3'	-5.92	112.60	119.70
22	BA	2714	G	N9-C1'-C2'	-5.92	105.49	112.00
22	DA	492	A	C3'-C2'-C1'	5.92	106.23	101.50
53	CA	184	G	C3'-C2'-C1'	5.91	106.23	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	DA	1633	G	P-O3'-C3'	5.91	126.80	119.70
1	AA	755	G	C3'-C2'-C1'	5.91	106.23	101.50
22	DA	1207	C	P-O3'-C3'	-5.91	112.61	119.70
1	AA	369	G	C3'-C2'-C1'	5.91	106.23	101.50
22	BA	1273	U	C3'-C2'-C1'	5.91	106.23	101.50
22	DA	104	A	C3'-C2'-C1'	5.91	106.23	101.50
22	DA	2387	U	C3'-C2'-C1'	5.91	106.23	101.50
22	BA	2036	C	O4'-C1'-N1	5.91	112.93	108.20
22	DA	1286	A	P-O3'-C3'	5.91	126.79	119.70
1	AA	534	U	P-O3'-C3'	-5.91	112.61	119.70
22	DA	424	G	N9-C1'-C2'	-5.90	105.50	112.00
22	BA	1326	U	C3'-C2'-C1'	5.90	106.22	101.50
53	CA	347	G	P-O3'-C3'	-5.90	112.62	119.70
33	BL	19	LEU	CA-CB-CG	5.90	128.87	115.30
22	DA	2217	G	C3'-C2'-C1'	5.90	106.22	101.50
1	AA	1349	A	C3'-C2'-C1'	5.90	106.22	101.50
1	AA	1381	U	P-O3'-C3'	-5.90	112.62	119.70
22	DA	442	G	P-O3'-C3'	5.90	126.78	119.70
1	AA	596	A	C3'-C2'-C1'	5.90	106.22	101.50
22	BA	2427	C	C3'-C2'-C1'	5.90	106.22	101.50
22	DA	963	U	O4'-C1'-N1	5.90	112.92	108.20
22	DA	1888	G	O4'-C1'-N9	5.90	112.92	108.20
22	DA	2333	A	P-O3'-C3'	5.90	126.78	119.70
22	DA	2338	C	O4'-C1'-N1	5.90	112.92	108.20
22	BA	63	A	N9-C1'-C2'	-5.90	105.52	112.00
22	DA	1829	A	N9-C1'-C2'	-5.89	105.52	112.00
22	DA	2868	A	C3'-C2'-C1'	5.89	106.22	101.50
22	DA	273	G	C3'-C2'-C1'	5.89	106.21	101.50
22	DA	1811	G	C3'-C2'-C1'	5.89	106.21	101.50
22	BA	2752	C	C3'-C2'-C1'	5.89	106.21	101.50
22	DA	1965	C	P-O3'-C3'	-5.89	112.63	119.70
22	DA	2582	G	C3'-C2'-C1'	5.89	106.21	101.50
22	BA	538	A	N1-C2-N3	5.89	132.24	129.30
22	BA	2052	A	N9-C1'-C2'	-5.88	105.53	112.00
22	DA	1333	G	C3'-C2'-C1'	5.88	106.21	101.50
22	DA	1970	A	P-O3'-C3'	5.88	126.76	119.70
53	CA	643	C	C3'-C2'-C1'	5.88	106.21	101.50
22	DA	1110	G	P-O3'-C3'	5.88	126.76	119.70
1	AA	274	A	O4'-C1'-N9	5.88	112.91	108.20
22	BA	2325	G	C3'-C2'-C1'	5.88	106.20	101.50
53	CA	452	A	C3'-C2'-C1'	5.88	106.20	101.50
22	DA	1735	A	C3'-C2'-C1'	5.88	106.20	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1129	C	N1-C1'-C2'	5.88	121.64	114.00
53	CA	276	G	P-O3'-C3'	-5.88	112.65	119.70
22	DA	2334	U	N1-C1'-C2'	5.88	121.64	114.00
22	BA	2868	A	P-O3'-C3'	-5.88	112.65	119.70
22	DA	1993	U	C3'-C2'-C1'	5.88	106.20	101.50
22	DA	783	A	P-O3'-C3'	-5.88	112.65	119.70
22	DA	1839	G	N9-C1'-C2'	-5.88	105.54	112.00
1	AA	373	A	N9-C1'-C2'	-5.87	105.54	112.00
22	BA	2616	C	O4'-C1'-N1	5.87	112.90	108.20
22	BA	2746	U	P-O3'-C3'	-5.87	112.65	119.70
22	BA	2820	A	O3'-P-O5'	-5.87	92.85	104.00
57	DB	45	A	P-O3'-C3'	-5.87	112.65	119.70
22	DA	1274	A	C3'-C2'-C1'	5.87	106.20	101.50
22	BA	480	A	C3'-C2'-C1'	5.87	106.19	101.50
22	BA	747	U	C3'-C2'-C1'	5.87	106.19	101.50
53	CA	1217	C	O4'-C1'-N1	5.87	112.89	108.20
1	AA	935	A	P-O3'-C3'	-5.86	112.66	119.70
22	BA	2878	U	C5-C6-N1	-5.86	119.77	122.70
22	DA	1558	C	O4'-C1'-N1	5.86	112.89	108.20
22	DA	1722	A	P-O3'-C3'	-5.86	112.67	119.70
22	DA	2752	C	O4'-C1'-N1	5.86	112.89	108.20
22	DA	1839	G	C3'-C2'-C1'	5.86	106.19	101.50
22	BA	1919	A	N9-C1'-C2'	-5.86	105.56	112.00
53	CA	72	A	P-O3'-C3'	-5.86	112.67	119.70
53	CA	575	G	C4-N9-C1'	-5.86	118.89	126.50
22	BA	443	A	P-O5'-C5'	-5.86	111.53	120.90
53	CA	14	U	C3'-C2'-C1'	5.86	106.19	101.50
22	DA	1916	A	C3'-C2'-C1'	5.86	106.19	101.50
22	DA	2440	C	P-O3'-C3'	-5.86	112.67	119.70
22	BA	1142	A	C2-N3-C4	-5.85	107.67	110.60
53	CA	1380	U	P-O3'-C3'	5.85	126.72	119.70
22	DA	1290	C	O4'-C1'-N1	5.85	112.88	108.20
22	BA	777	G	N9-C1'-C2'	-5.85	105.56	112.00
22	BA	2777	G	O4'-C1'-N9	-5.85	103.52	108.20
53	CA	67	C	O4'-C1'-N1	5.85	112.88	108.20
53	CA	199	A	C3'-C2'-C1'	5.85	106.18	101.50
1	AA	1192	C	O4'-C1'-N1	5.85	112.88	108.20
22	BA	2689	U	C2-N1-C1'	-5.85	110.68	117.70
22	BA	70	G	P-O3'-C3'	5.85	126.72	119.70
53	CA	373	A	N9-C1'-C2'	-5.85	105.57	112.00
22	DA	14	A	C3'-C2'-C1'	5.85	106.18	101.50
22	BA	1696	G	N9-C1'-C2'	-5.85	105.57	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	DA	1114	C	O4'-C1'-N1	5.84	112.88	108.20
1	AA	1401	G	N9-C1'-C2'	-5.84	105.57	112.00
22	BA	2842	G	C5-C6-O6	-5.84	125.09	128.60
22	BA	273	G	C3'-C2'-C1'	5.84	106.17	101.50
22	DA	606	U	P-O3'-C3'	-5.84	112.69	119.70
1	AA	116	A	N9-C1'-C2'	-5.84	105.58	112.00
22	BA	1022	G	N1-C6-O6	-5.84	116.40	119.90
22	BA	2195	U	O4'-C1'-N1	5.84	112.87	108.20
22	BA	2768	U	P-O3'-C3'	-5.84	112.69	119.70
22	DA	321	U	O4'-C1'-N1	5.84	112.87	108.20
22	DA	531	C	N1-C1'-C2'	5.84	121.59	114.00
22	BA	621	A	C3'-C2'-C1'	5.84	106.17	101.50
22	DA	395	U	N1-C1'-C2'	5.84	121.59	114.00
22	BA	1943	U	N1-C1'-C2'	5.83	121.58	114.00
22	DA	244	A	C3'-C2'-C1'	5.83	106.17	101.50
22	BA	1510	G	C3'-C2'-C1'	5.83	106.17	101.50
22	BA	2149	U	N1-C1'-C2'	-5.83	105.59	112.00
22	DA	2450	A	C3'-C2'-C1'	5.83	106.17	101.50
22	BA	1156	A	P-O3'-C3'	5.83	126.69	119.70
23	BB	88	C	O4'-C1'-N1	-5.83	103.54	108.20
22	DA	740	C	C3'-C2'-C1'	5.83	106.16	101.50
22	DA	2199	A	C3'-C2'-C1'	5.83	106.16	101.50
23	BB	53	A	C3'-C2'-C1'	5.83	106.16	101.50
22	BA	246	C	N1-C2-O2	-5.83	115.41	118.90
23	BB	67	G	P-O5'-C5'	-5.83	111.58	120.90
22	BA	1129	A	C3'-C2'-C1'	5.82	106.16	101.50
22	BA	1820	U	O4'-C1'-N1	5.82	112.86	108.20
22	BA	1884	G	O4'-C1'-N9	5.82	112.86	108.20
53	CA	1226	C	P-O3'-C3'	5.82	126.69	119.70
22	BA	62	U	P-O3'-C3'	5.82	126.69	119.70
22	DA	1809	A	P-O3'-C3'	-5.82	112.71	119.70
1	AA	1365	G	C3'-C2'-C1'	5.82	106.16	101.50
22	BA	1734	G	C3'-C2'-C1'	5.82	106.16	101.50
22	DA	1821	A	P-O3'-C3'	-5.82	112.72	119.70
1	AA	1213	A	P-O3'-C3'	5.82	126.68	119.70
22	BA	1568	G	C3'-C2'-C1'	5.82	106.16	101.50
23	BB	67	G	C3'-C2'-C1'	5.82	106.16	101.50
53	CA	68	G	C3'-C2'-C1'	5.82	106.16	101.50
22	BA	945	A	P-O3'-C3'	5.82	126.68	119.70
22	DA	52	A	C3'-C2'-C1'	5.82	106.15	101.50
22	DA	1649	G	C3'-C2'-C1'	5.82	106.15	101.50
22	DA	2064	C	N1-C1'-C2'	-5.82	105.60	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	994	A	P-O3'-C3'	-5.81	112.72	119.70
22	BA	1394	U	O4'-C1'-N1	-5.81	103.55	108.20
22	DA	2498	C	C3'-C2'-C1'	5.81	106.15	101.50
22	BA	1242	U	O4'-C1'-N1	5.81	112.85	108.20
22	BA	2034	U	C3'-C2'-C1'	5.81	106.15	101.50
22	BA	2505	G	O5'-P-OP2	-5.81	100.47	105.70
22	BA	2752	C	P-O3'-C3'	-5.81	112.73	119.70
22	BA	671	C	N1-C1'-C2'	-5.81	105.61	112.00
22	BA	2713	U	O4'-C1'-N1	5.81	112.85	108.20
22	DA	217	A	C3'-C2'-C1'	5.81	106.15	101.50
22	DA	1654	A	P-O3'-C3'	-5.81	112.73	119.70
1	AA	266	G	P-O3'-C3'	5.81	126.67	119.70
22	DA	2646	C	P-O3'-C3'	-5.81	112.73	119.70
57	DB	90	C	P-O3'-C3'	-5.81	112.73	119.70
1	AA	438	U	O4'-C1'-N1	5.80	112.84	108.20
22	BA	302	C	C3'-C2'-C1'	5.80	106.14	101.50
22	BA	2137	U	P-O3'-C3'	-5.80	112.74	119.70
1	AA	497	G	C3'-C2'-C1'	5.80	106.14	101.50
22	BA	2801	G	P-O3'-C3'	-5.80	112.74	119.70
22	DA	1400	U	P-O3'-C3'	-5.80	112.74	119.70
22	DA	2729	G	C3'-C2'-C1'	5.80	106.14	101.50
22	BA	2755	C	P-O3'-C3'	5.80	126.66	119.70
22	DA	302	C	N1-C1'-C2'	-5.80	105.62	112.00
22	BA	1693	U	N1-C1'-C2'	5.79	121.53	114.00
53	CA	81	A	P-O3'-C3'	5.79	126.65	119.70
22	BA	628	G	P-O3'-C3'	-5.79	112.75	119.70
22	DA	2505	G	C3'-C2'-C1'	5.79	106.14	101.50
22	BA	2395	C	O4'-C1'-N1	-5.79	103.57	108.20
53	CA	577	G	C3'-C2'-C1'	5.79	106.13	101.50
57	DB	111	U	P-O3'-C3'	-5.79	112.75	119.70
22	DA	460	A	C3'-C2'-C1'	5.79	106.13	101.50
22	BA	2468	A	P-O3'-C3'	5.79	126.65	119.70
22	BA	814	C	C6-N1-C2	5.79	122.61	120.30
22	BA	2809	A	P-O3'-C3'	-5.79	112.75	119.70
53	CA	6	G	C3'-C2'-C1'	5.79	106.13	101.50
1	AA	1087	G	C3'-C2'-C1'	5.79	106.13	101.50
53	CA	331	G	C3'-C2'-C1'	5.79	106.13	101.50
22	BA	1839	G	C3'-C2'-C1'	5.78	106.12	101.50
22	DA	947	A	P-O3'-C3'	-5.78	112.76	119.70
22	DA	1493	C	P-O3'-C3'	5.78	126.64	119.70
1	AA	14	U	P-O5'-C5'	-5.78	111.65	120.90
22	DA	2639	A	P-O3'-C3'	-5.78	112.76	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	534	U	C3'-C2'-C1'	5.78	106.12	101.50
53	CA	328	C	O4'-C1'-N1	-5.78	103.58	108.20
1	AA	1362	A	P-O3'-C3'	5.78	126.63	119.70
22	DA	2458	G	C4-N9-C1'	5.78	134.01	126.50
22	DA	2638	G	P-O3'-C3'	5.78	126.63	119.70
22	BA	1716	U	C3'-C2'-C1'	5.78	106.12	101.50
22	BA	876	C	P-O3'-C3'	5.77	126.63	119.70
57	DB	107	G	O3'-P-O5'	-5.77	93.03	104.00
22	BA	2238	G	P-O3'-C3'	5.77	126.63	119.70
22	BA	2879	A	O4'-C1'-N9	5.77	112.82	108.20
22	BA	984	A	N1-C6-N6	5.77	122.06	118.60
53	CA	1128	C	P-O3'-C3'	-5.77	112.78	119.70
22	DA	2492	U	C3'-C2'-C1'	5.77	106.12	101.50
22	BA	604	G	N9-C1'-C2'	-5.77	105.66	112.00
22	BA	2267	A	C3'-C2'-C1'	5.77	106.11	101.50
53	CA	996	A	P-O3'-C3'	-5.76	112.78	119.70
53	CA	6	G	P-O3'-C3'	-5.76	112.78	119.70
1	AA	175	C	C3'-C2'-C1'	5.76	106.11	101.50
22	BA	729	G	C3'-C2'-C1'	5.76	106.11	101.50
22	BA	2656	U	C3'-C2'-C1'	5.76	106.11	101.50
53	CA	1191	A	P-O3'-C3'	-5.76	112.79	119.70
22	DA	391	A	C3'-C2'-C1'	5.76	106.11	101.50
22	DA	1389	G	C3'-C2'-C1'	5.76	106.11	101.50
22	BA	628	G	P-O5'-C5'	-5.76	111.69	120.90
22	BA	1669	A	C3'-C2'-C1'	5.76	106.11	101.50
22	BA	2543	G	P-O3'-C3'	-5.76	112.79	119.70
22	BA	1045	C	N1-C1'-C2'	5.75	121.48	114.00
1	AA	97	G	C3'-C2'-C1'	5.75	106.10	101.50
1	AA	487	A	C3'-C2'-C1'	5.75	106.10	101.50
22	BA	1130	U	N1-C1'-C2'	5.75	121.48	114.00
1	AA	479	U	O4'-C1'-N1	5.75	112.80	108.20
22	BA	2239	G	P-O5'-C5'	-5.75	111.70	120.90
22	BA	2699	C	P-O3'-C3'	-5.75	112.80	119.70
22	BA	1033	U	O4'-C1'-N1	5.75	112.80	108.20
53	CA	497	G	C3'-C2'-C1'	5.75	106.10	101.50
22	DA	1821	A	C3'-C2'-C1'	5.75	106.10	101.50
22	DA	992	C	O4'-C1'-N1	5.75	112.80	108.20
22	DA	1027	A	C3'-C2'-C1'	5.75	106.10	101.50
22	BA	1293	C	O4'-C1'-N1	-5.74	103.61	108.20
22	BA	2382	G	P-O3'-C3'	5.74	126.59	119.70
1	AA	1191	A	C3'-C2'-C1'	5.74	106.09	101.50
1	AA	597	G	C3'-C2'-C1'	5.74	106.09	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
53	CA	885	G	C3'-C2'-C1'	5.74	106.09	101.50
22	DA	2459	A	C3'-C2'-C1'	5.74	106.09	101.50
53	CA	527	G	N9-C1'-C2'	-5.74	105.69	112.00
22	BA	1821	A	N9-C1'-C2'	-5.73	105.69	112.00
1	AA	1241	G	C3'-C2'-C1'	5.73	106.09	101.50
1	AA	1451	U	N1-C1'-C2'	5.73	121.45	114.00
22	BA	345	A	P-O3'-C3'	5.73	126.58	119.70
22	BA	566	U	C6-N1-C2	5.73	124.44	121.00
22	DA	1303	G	P-O3'-C3'	-5.73	112.82	119.70
1	AA	509	A	C3'-C2'-C1'	5.73	106.08	101.50
1	AA	794	A	C3'-C2'-C1'	5.73	106.08	101.50
22	DA	747	U	P-O3'-C3'	-5.73	112.82	119.70
22	DA	1388	G	C3'-C2'-C1'	5.73	106.08	101.50
1	AA	328	C	O4'-C1'-N1	5.73	112.78	108.20
1	AA	121	U	N1-C1'-C2'	-5.72	105.70	112.00
1	AA	1050	G	P-O3'-C3'	-5.72	112.83	119.70
22	BA	2442	C	N1-C2-O2	-5.72	115.47	118.90
22	DA	1021	A	C3'-C2'-C1'	5.72	106.08	101.50
22	BA	230	G	N9-C1'-C2'	-5.72	105.71	112.00
22	DA	2150	C	C3'-C2'-C1'	5.72	106.08	101.50
53	CA	71	A	C3'-C2'-C1'	5.72	106.08	101.50
1	AA	536	C	C3'-C2'-C1'	5.72	106.08	101.50
22	BA	1791	A	C8-N9-C4	5.72	108.09	105.80
53	CA	794	A	C3'-C2'-C1'	5.72	106.08	101.50
22	DA	1735	A	P-O3'-C3'	-5.72	112.84	119.70
22	BA	2086	U	O4'-C1'-N1	5.72	112.77	108.20
53	CA	15	G	C3'-C2'-C1'	5.72	106.07	101.50
53	CA	520	A	C3'-C2'-C1'	5.72	106.07	101.50
22	DA	2683	C	C3'-C2'-C1'	5.72	106.07	101.50
22	BA	1560	G	N9-C1'-C2'	-5.71	105.72	112.00
22	BA	2239	G	P-O3'-C3'	-5.71	112.84	119.70
22	DA	2489	U	O4'-C1'-N1	5.71	112.77	108.20
22	BA	142	A	P-O3'-C3'	-5.71	112.84	119.70
1	AA	984	C	C3'-C2'-C1'	5.71	106.07	101.50
1	AA	1215	G	P-O3'-C3'	-5.71	112.85	119.70
22	BA	165	A	C3'-C2'-C1'	5.71	106.07	101.50
22	BA	975	A	P-O5'-C5'	-5.71	111.76	120.90
22	BA	1706	C	P-O3'-C3'	5.71	126.55	119.70
22	BA	2500	U	P-O5'-C5'	-5.71	111.76	120.90
22	BA	2503	A	P-O3'-C3'	5.71	126.55	119.70
22	DA	749	A	P-O3'-C3'	-5.71	112.85	119.70
53	CA	641	U	P-O3'-C3'	5.71	126.55	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	DA	1415	U	P-O3'-C3'	5.71	126.55	119.70
22	BA	2431	U	P-O3'-C3'	-5.71	112.85	119.70
57	DB	58	A	C3'-C2'-C1'	5.71	106.07	101.50
53	CA	1147	C	P-O3'-C3'	-5.71	112.85	119.70
22	DA	1010	A	C3'-C2'-C1'	5.71	106.06	101.50
1	AA	279	A	N1-C6-N6	5.70	122.02	118.60
1	AA	816	A	C3'-C2'-C1'	5.70	106.06	101.50
53	CA	95	C	P-O3'-C3'	-5.70	112.86	119.70
22	BA	1633	G	P-O3'-C3'	5.70	126.54	119.70
53	CA	596	A	C3'-C2'-C1'	5.70	106.06	101.50
53	CA	1127	G	C3'-C2'-C1'	5.70	106.06	101.50
1	AA	1528	U	O4'-C1'-N1	5.70	112.76	108.20
22	DA	2429	G	C4-N9-C1'	5.70	133.91	126.50
22	BA	2285	C	P-O5'-C5'	-5.69	111.79	120.90
22	BA	1112	G	N9-C1'-C2'	-5.69	105.74	112.00
22	BA	2392	A	P-O5'-C5'	-5.69	111.79	120.90
22	BA	1681	G	N1-C6-O6	5.69	123.31	119.90
22	DA	868	U	C3'-C2'-C1'	5.69	106.05	101.50
57	DB	45	A	C3'-C2'-C1'	5.69	106.05	101.50
1	AA	1145	A	P-O3'-C3'	5.69	126.53	119.70
22	DA	783	A	N9-C1'-C2'	-5.69	105.74	112.00
22	DA	1273	U	P-O3'-C3'	-5.69	112.88	119.70
1	AA	1169	A	C3'-C2'-C1'	5.69	106.05	101.50
22	BA	1026	G	C3'-C2'-C1'	5.69	106.05	101.50
1	AA	498	A	C3'-C2'-C1'	5.68	106.05	101.50
22	BA	653	U	P-O3'-C3'	5.68	126.52	119.70
22	DA	2714	G	N9-C1'-C2'	-5.68	105.75	112.00
22	BA	199	A	O4'-C1'-N9	5.68	112.75	108.20
53	CA	1282	C	P-O3'-C3'	-5.68	112.88	119.70
22	DA	510	C	C3'-C2'-C1'	5.68	106.05	101.50
22	DA	945	A	P-O3'-C3'	5.68	126.52	119.70
22	DA	2052	A	N9-C1'-C2'	-5.68	105.75	112.00
1	AA	1413	A	P-O3'-C3'	-5.68	112.88	119.70
22	BA	1780	A	O4'-C1'-N9	5.68	112.74	108.20
22	DA	2214	C	C3'-C2'-C1'	5.68	106.04	101.50
22	BA	251	A	O3'-P-O5'	-5.68	93.21	104.00
1	AA	5	U	P-O3'-C3'	5.68	126.51	119.70
22	BA	562	U	N1-C1'-C2'	5.68	121.38	114.00
22	DA	445	C	P-O3'-C3'	-5.68	112.89	119.70
22	DA	1267	U	P-O3'-C3'	-5.68	112.89	119.70
22	DA	1555	G	C3'-C2'-C1'	5.68	106.04	101.50
22	DA	1654	A	N9-C1'-C2'	-5.68	105.75	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	DB	41	G	P-O3'-C3'	-5.68	112.89	119.70
22	BA	1280	G	P-O5'-C5'	-5.67	111.82	120.90
53	CA	414	A	C3'-C2'-C1'	5.67	106.04	101.50
22	DA	424	G	P-O3'-C3'	-5.67	112.89	119.70
57	DB	40	U	N1-C1'-C2'	5.67	121.38	114.00
22	BA	242	G	P-O3'-C3'	5.67	126.51	119.70
22	DA	73	A	C3'-C2'-C1'	5.67	106.04	101.50
22	DA	2289	G	C3'-C2'-C1'	5.67	106.04	101.50
22	BA	1648	U	C3'-C2'-C1'	5.67	106.04	101.50
53	CA	1064	G	P-O3'-C3'	5.67	126.51	119.70
1	AA	116	A	P-O3'-C3'	-5.67	112.90	119.70
53	CA	1345	U	P-O3'-C3'	5.67	126.50	119.70
1	AA	1433	A	C3'-C2'-C1'	5.67	106.03	101.50
22	BA	1411	U	O4'-C1'-N1	5.67	112.73	108.20
53	CA	1161	C	O4'-C1'-N1	5.67	112.73	108.20
53	CA	1148	U	P-O3'-C3'	-5.67	112.90	119.70
22	DA	334	C	O4'-C1'-N1	5.67	112.73	108.20
22	DA	919	U	O4'-C1'-N1	-5.67	103.67	108.20
1	AA	498	A	P-O3'-C3'	-5.66	112.90	119.70
22	BA	575	A	P-O3'-C3'	-5.66	112.90	119.70
22	BA	957	C	N1-C1'-C2'	5.66	121.36	114.00
53	CA	282	A	C3'-C2'-C1'	5.66	106.03	101.50
22	DA	628	G	C3'-C2'-C1'	5.66	106.03	101.50
22	BA	848	C	P-O3'-C3'	-5.66	112.91	119.70
22	BA	2402	U	O4'-C1'-N1	5.66	112.73	108.20
1	AA	808	C	O4'-C1'-N1	5.66	112.73	108.20
1	AA	1162	C	C3'-C2'-C1'	5.66	106.03	101.50
22	BA	835	C	N1-C1'-C2'	-5.66	105.78	112.00
53	CA	369	G	P-O3'-C3'	-5.66	112.91	119.70
53	CA	1141	C	N1-C1'-C2'	-5.66	105.78	112.00
53	CA	1367	C	P-O3'-C3'	-5.66	112.91	119.70
22	DA	916	G	C3'-C2'-C1'	5.66	106.03	101.50
22	DA	2440	C	C3'-C2'-C1'	5.66	106.03	101.50
22	BA	1829	A	P-O3'-C3'	-5.66	112.91	119.70
53	CA	32	A	C3'-C2'-C1'	5.66	106.02	101.50
22	DA	1144	A	C3'-C2'-C1'	5.66	106.02	101.50
22	DA	1956	U	C3'-C2'-C1'	5.66	106.03	101.50
57	DB	16	G	C3'-C2'-C1'	5.66	106.03	101.50
22	DA	1089	A	P-O3'-C3'	5.65	126.48	119.70
53	CA	331	G	N9-C1'-C2'	-5.65	105.78	112.00
22	DA	412	A	C3'-C2'-C1'	5.65	106.02	101.50
22	DA	2620	C	O4'-C1'-N1	-5.65	103.68	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BB	25	U	C3'-C2'-C1'	5.65	106.02	101.50
22	BA	1510	G	P-O3'-C3'	-5.65	112.92	119.70
22	BA	312	G	P-O3'-C3'	-5.65	112.92	119.70
22	BA	504	A	P-O5'-C5'	-5.65	111.86	120.90
22	BA	2430	A	O4'-C1'-N9	5.65	112.72	108.20
53	CA	119	A	P-O3'-C3'	5.65	126.48	119.70
22	BA	2250	G	C4-C5-N7	5.65	113.06	110.80
1	AA	184	G	C3'-C2'-C1'	5.64	106.02	101.50
22	BA	178	G	N9-C1'-C2'	-5.64	105.79	112.00
22	BA	200	U	C3'-C2'-C1'	5.64	106.02	101.50
22	BA	1384	A	N1-C6-N6	5.64	121.99	118.60
22	DA	765	C	P-O3'-C3'	-5.64	112.93	119.70
22	DA	2615	U	C3'-C2'-C1'	5.64	106.01	101.50
22	BA	621	A	N9-C1'-C2'	-5.64	105.80	112.00
22	BA	2579	C	P-O3'-C3'	-5.64	112.94	119.70
53	CA	251	G	P-O3'-C3'	5.64	126.47	119.70
22	DA	393	C	O4'-C1'-N1	5.64	112.71	108.20
22	DA	656	G	C3'-C2'-C1'	5.64	106.01	101.50
22	BA	120	U	P-O3'-C3'	5.64	126.46	119.70
22	BA	2613	U	OP2-P-O3'	5.64	117.60	105.20
22	DA	2616	C	C3'-C2'-C1'	5.64	106.01	101.50
22	DA	1759	A	P-O3'-C3'	-5.63	112.94	119.70
22	BA	2359	C	P-O5'-C5'	-5.63	111.89	120.90
22	BA	2830	C	P-O3'-C3'	-5.63	112.94	119.70
22	DA	629	G	C3'-C2'-C1'	5.63	106.00	101.50
22	BA	1256	G	C8-N9-C4	-5.63	104.15	106.40
22	BA	1913	A	P-O3'-C3'	5.63	126.45	119.70
53	CA	721	G	P-O3'-C3'	5.63	126.45	119.70
53	CA	1148	U	C3'-C2'-C1'	5.63	106.00	101.50
22	BA	814	C	C5-C6-N1	-5.63	118.19	121.00
22	DA	1901	A	C3'-C2'-C1'	5.63	106.00	101.50
22	DA	1919	A	P-O3'-C3'	-5.63	112.95	119.70
22	BA	73	A	C3'-C2'-C1'	5.62	106.00	101.50
1	AA	316	C	C3'-C2'-C1'	5.62	106.00	101.50
22	BA	2211	A	P-O3'-C3'	5.62	126.45	119.70
22	DA	389	G	P-O3'-C3'	-5.62	112.96	119.70
22	BA	1942	C	C3'-C2'-C1'	5.62	106.00	101.50
22	DA	1400	U	C3'-C2'-C1'	5.62	105.99	101.50
22	DA	1428	C	C3'-C2'-C1'	-5.62	97.00	101.50
22	DA	1997	C	C3'-C2'-C1'	5.62	106.00	101.50
22	DA	2506	U	P-O3'-C3'	-5.62	112.96	119.70
22	DA	1675	C	C3'-C2'-C1'	5.62	105.99	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	BA	1538	G	C3'-C2'-C1'	5.62	105.99	101.50
22	DA	2875	C	P-O3'-C3'	-5.62	112.96	119.70
22	DA	1815	A	P-O3'-C3'	5.61	126.44	119.70
22	DA	1945	G	C3'-C2'-C1'	5.61	105.99	101.50
1	AA	467	U	O4'-C1'-N1	5.61	112.69	108.20
22	BA	243	U	C3'-C2'-C1'	5.61	105.99	101.50
1	AA	1337	G	P-O3'-C3'	-5.61	112.97	119.70
22	BA	2407	A	C3'-C2'-C1'	5.61	105.99	101.50
1	AA	1130	A	P-O3'-C3'	-5.60	112.97	119.70
22	BA	2249	U	N1-C1'-C2'	5.60	121.29	114.00
53	CA	439	U	P-O5'-C5'	-5.60	111.93	120.90
53	CA	792	A	O4'-C1'-N9	5.60	112.68	108.20
22	DA	827	U	P-O3'-C3'	5.60	126.42	119.70
22	BA	264	C	N1-C2-O2	5.60	122.26	118.90
22	BA	1695	G	P-O3'-C3'	-5.60	112.98	119.70
22	BA	1929	G	P-O3'-C3'	5.60	126.42	119.70
53	CA	1300	G	P-O3'-C3'	-5.60	112.98	119.70
22	DA	1401	G	C3'-C2'-C1'	5.60	105.98	101.50
57	DB	110	C	P-O3'-C3'	-5.60	112.98	119.70
22	BA	2682	A	P-O5'-C5'	-5.60	111.94	120.90
53	CA	1160	G	N9-C1'-C2'	-5.60	105.84	112.00
1	AA	548	G	C3'-C2'-C1'	5.60	105.98	101.50
22	BA	2480	C	P-O3'-C3'	-5.60	112.98	119.70
53	CA	1398	A	N9-C1'-C2'	-5.60	105.84	112.00
22	BA	100	U	P-O3'-C3'	5.60	126.42	119.70
22	BA	1808	A	P-O3'-C3'	5.60	126.42	119.70
22	DA	1324	G	P-O3'-C3'	5.60	126.42	119.70
22	DA	2409	G	C3'-C2'-C1'	5.60	105.98	101.50
22	DA	2656	U	P-O3'-C3'	-5.60	112.98	119.70
1	AA	642	A	N9-C1'-C2'	-5.59	105.85	112.00
22	BA	2324	U	P-O3'-C3'	5.59	126.41	119.70
22	BA	2452	C	O4'-C1'-N1	-5.59	103.72	108.20
22	BA	2797	U	N1-C1'-C2'	5.59	121.27	114.00
22	BA	2821	A	N9-C1'-C2'	-5.59	105.84	112.00
22	DA	860	U	C3'-C2'-C1'	5.59	105.98	101.50
1	AA	1192	C	C3'-C2'-C1'	5.59	105.97	101.50
1	AA	91	U	C3'-C2'-C1'	5.59	105.97	101.50
22	BA	1858	A	C3'-C2'-C1'	5.59	105.97	101.50
53	CA	213	G	P-O3'-C3'	-5.59	112.99	119.70
53	CA	734	G	C3'-C2'-C1'	5.59	105.97	101.50
22	DA	990	A	C3'-C2'-C1'	5.59	105.97	101.50
53	CA	1449	C	C3'-C2'-C1'	5.59	105.97	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	DA	1157	G	C3'-C2'-C1'	5.59	105.97	101.50
22	DA	1498	C	C3'-C2'-C1'	5.59	105.97	101.50
22	BA	512	G	P-O3'-C3'	5.59	126.41	119.70
22	BA	1009	A	C3'-C2'-C1'	5.59	105.97	101.50
22	BA	2551	C	O4'-C1'-N1	5.59	112.67	108.20
22	DA	1695	G	C3'-C2'-C1'	5.59	105.97	101.50
22	BA	1379	U	C3'-C2'-C1'	5.58	105.97	101.50
1	AA	1127	G	P-O3'-C3'	-5.58	113.00	119.70
22	BA	783	A	C8-N9-C4	-5.58	103.57	105.80
22	BA	860	U	N3-C2-O2	-5.58	118.29	122.20
53	CA	1053	G	P-O3'-C3'	5.58	126.40	119.70
1	AA	1050	G	C3'-C2'-C1'	5.58	105.97	101.50
22	BA	568	U	O4'-C1'-N1	5.58	112.67	108.20
22	BA	1780	A	P-O3'-C3'	5.58	126.40	119.70
22	BA	2391	G	C8-N9-C1'	5.58	134.25	127.00
53	CA	209	U	P-O3'-C3'	5.58	126.40	119.70
22	DA	2314	A	C3'-C2'-C1'	5.58	105.97	101.50
22	DA	1009	A	C3'-C2'-C1'	5.58	105.96	101.50
22	DA	1636	U	C3'-C2'-C1'	5.58	105.96	101.50
22	DA	2364	C	O4'-C1'-N1	5.58	112.66	108.20
22	DA	2493	U	C3'-C2'-C1'	5.58	105.96	101.50
22	BA	2637	U	N1-C2-O2	-5.58	118.90	122.80
22	DA	1982	U	C3'-C2'-C1'	5.58	105.96	101.50
22	BA	766	U	P-O3'-C3'	-5.58	113.01	119.70
53	CA	652	U	P-O3'-C3'	5.58	126.39	119.70
22	DA	2348	U	P-O3'-C3'	-5.58	113.01	119.70
1	AA	131	A	C3'-C2'-C1'	5.57	105.96	101.50
22	DA	1760	C	C3'-C2'-C1'	5.57	105.96	101.50
22	DA	231	A	C3'-C2'-C1'	5.57	105.96	101.50
22	DA	747	U	N1-C1'-C2'	-5.57	105.87	112.00
22	BA	616	A	C3'-C2'-C1'	5.57	105.96	101.50
22	BA	1272	A	O4'-C1'-N9	5.57	112.66	108.20
22	DA	103	A	C3'-C2'-C1'	5.57	105.96	101.50
22	DA	1398	C	N1-C1'-C2'	-5.57	105.87	112.00
22	DA	2024	G	C3'-C2'-C1'	5.57	105.95	101.50
22	DA	2504	U	C3'-C2'-C1'	5.57	105.95	101.50
22	BA	2626	C	C6-N1-C2	5.57	122.53	120.30
22	DA	52	A	P-O3'-C3'	-5.57	113.02	119.70
1	AA	875	U	C3'-C2'-C1'	5.57	105.95	101.50
22	BA	765	C	C3'-C2'-C1'	5.57	105.95	101.50
22	BA	962	G	N1-C6-O6	5.57	123.24	119.90
22	DA	687	C	C3'-C2'-C1'	5.57	105.95	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	DA	2468	A	P-O3'-C3'	5.57	126.38	119.70
22	BA	1394	U	P-O3'-C3'	5.56	126.38	119.70
22	BA	1452	G	C5-N7-C8	-5.56	101.52	104.30
22	DA	2880	C	C3'-C2'-C1'	5.56	105.95	101.50
22	BA	1695	G	C3'-C2'-C1'	5.56	105.95	101.50
22	BA	1809	A	P-O5'-C5'	-5.56	112.00	120.90
22	BA	1992	G	P-O3'-C3'	5.56	126.37	119.70
22	BA	2783	U	P-O5'-C5'	-5.56	112.01	120.90
22	DA	325	G	C3'-C2'-C1'	5.56	105.95	101.50
1	AA	468	A	C3'-C2'-C1'	5.56	105.95	101.50
1	AA	752	G	P-O3'-C3'	5.56	126.37	119.70
22	DA	2063	C	C3'-C2'-C1'	5.56	105.94	101.50
22	BA	1728	C	O4'-C1'-N1	5.56	112.64	108.20
22	BA	2491	U	O5'-P-OP2	-5.56	100.70	105.70
22	DA	1648	U	C3'-C2'-C1'	5.56	105.94	101.50
1	AA	49	U	P-O3'-C3'	5.55	126.36	119.70
22	BA	577	G	OP2-P-O3'	5.55	117.42	105.20
22	BA	2427	C	P-O3'-C3'	-5.55	113.03	119.70
22	DA	778	G	N9-C1'-C2'	-5.55	105.89	112.00
1	AA	210	C	P-O3'-C3'	5.55	126.36	119.70
22	DA	2832	U	O4'-C1'-N1	5.55	112.64	108.20
1	AA	61	G	C3'-C2'-C1'	5.55	105.94	101.50
1	AA	1531	A	C3'-C2'-C1'	5.55	105.94	101.50
22	BA	1971	U	C3'-C2'-C1'	5.55	105.94	101.50
53	CA	960	U	P-O3'-C3'	5.55	126.36	119.70
22	DA	223	A	P-O3'-C3'	-5.55	113.04	119.70
1	AA	1318	A	P-O3'-C3'	5.55	126.36	119.70
22	BA	1013	C	C3'-C2'-C1'	5.55	105.94	101.50
22	BA	2151	U	O4'-C1'-N1	5.55	112.64	108.20
22	BA	2880	C	P-O5'-C5'	-5.55	112.02	120.90
22	DA	2573	C	P-O3'-C3'	-5.55	113.04	119.70
1	AA	520	A	P-O3'-C3'	-5.55	113.04	119.70
22	BA	34	U	O4'-C1'-N1	-5.55	103.76	108.20
22	BA	997	G	N1-C2-N3	5.55	127.23	123.90
22	BA	2645	G	C4-N9-C1'	5.55	133.71	126.50
22	DA	370	G	P-O3'-C3'	5.54	126.35	119.70
22	BA	1452	G	N7-C8-N9	5.54	115.87	113.10
22	BA	2463	C	P-O3'-C3'	-5.54	113.05	119.70
22	DA	1857	G	P-O3'-C3'	5.54	126.35	119.70
1	AA	1051	C	C3'-C2'-C1'	5.54	105.93	101.50
22	BA	2064	C	C3'-C2'-C1'	5.54	105.93	101.50
53	CA	439	U	C3'-C2'-C1'	5.54	105.93	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	DA	572	A	O4'-C1'-N9	-5.54	103.77	108.20
22	BA	1611	C	N1-C1'-C2'	-5.54	105.91	112.00
1	AA	1324	A	C3'-C2'-C1'	5.54	105.93	101.50
22	BA	790	U	O4'-C1'-N1	5.54	112.63	108.20
53	CA	239	U	P-O3'-C3'	-5.54	113.05	119.70
53	CA	548	G	C3'-C2'-C1'	5.54	105.93	101.50
22	DA	746	U	N1-C1'-C2'	5.54	121.20	114.00
22	BA	2014	A	N1-C2-N3	-5.54	126.53	129.30
22	BA	2873	A	P-O3'-C3'	5.54	126.34	119.70
22	BA	336	C	P-O5'-C5'	-5.54	112.04	120.90
22	BA	2020	A	O5'-P-OP2	-5.54	100.72	105.70
53	CA	68	G	N9-C1'-C2'	-5.54	105.91	112.00
53	CA	996	A	C3'-C2'-C1'	5.54	105.93	101.50
1	AA	1282	C	C3'-C2'-C1'	5.53	105.93	101.50
22	BA	1941	C	C3'-C2'-C1'	5.53	105.93	101.50
22	BA	2283	C	C3'-C2'-C1'	5.53	105.93	101.50
53	CA	1440	U	P-O3'-C3'	5.53	126.34	119.70
22	DA	35	G	C3'-C2'-C1'	5.53	105.93	101.50
22	DA	2850	A	C3'-C2'-C1'	5.53	105.93	101.50
53	CA	643	C	P-O3'-C3'	-5.53	113.06	119.70
22	DA	2216	G	P-O3'-C3'	-5.53	113.06	119.70
22	BA	812	C	C3'-C2'-C1'	5.53	105.92	101.50
22	BA	2391	G	O4'-C1'-N9	5.53	112.62	108.20
22	DA	1739	A	C3'-C2'-C1'	5.53	105.92	101.50
22	DA	2239	G	C3'-C2'-C1'	5.53	105.92	101.50
53	CA	995	C	P-O3'-C3'	-5.53	113.06	119.70
22	DA	1346	G	P-O3'-C3'	-5.53	113.07	119.70
22	BA	120	U	O4'-C1'-N1	-5.53	103.78	108.20
53	CA	369	G	C3'-C2'-C1'	5.53	105.92	101.50
22	DA	788	A	P-O3'-C3'	5.53	126.33	119.70
1	AA	1399	C	N1-C1'-C2'	5.53	121.18	114.00
22	BA	391	A	P-O3'-C3'	-5.53	113.07	119.70
53	CA	341	C	O4'-C1'-N1	5.53	112.62	108.20
53	CA	374	A	C3'-C2'-C1'	5.53	105.92	101.50
22	DA	2276	G	C3'-C2'-C1'	5.53	105.92	101.50
22	BA	765	C	P-O5'-C5'	-5.52	112.06	120.90
22	BA	569	U	N1-C2-O2	-5.52	118.94	122.80
53	CA	755	G	C3'-C2'-C1'	5.52	105.92	101.50
22	BA	1635	A	N9-C1'-C2'	-5.52	105.93	112.00
22	BA	2820	A	O4'-C1'-N9	-5.52	103.78	108.20
53	CA	373	A	P-O3'-C3'	-5.52	113.08	119.70
22	DA	671	C	N1-C1'-C2'	-5.52	105.93	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	DA	763	G	C3'-C2'-C1'	5.52	105.91	101.50
22	DA	1981	A	P-O5'-C5'	-5.52	112.07	120.90
22	DA	2216	G	C3'-C2'-C1'	5.52	105.91	101.50
22	BA	237	C	O4'-C1'-N1	5.52	112.61	108.20
22	BA	957	C	P-O3'-C3'	5.52	126.32	119.70
22	DA	1981	A	P-O3'-C3'	-5.52	113.08	119.70
22	BA	206	U	C3'-C2'-C1'	5.51	105.91	101.50
22	BA	1818	U	P-O3'-C3'	5.51	126.32	119.70
53	CA	1215	G	P-O3'-C3'	-5.51	113.08	119.70
22	DA	443	A	C3'-C2'-C1'	5.51	105.91	101.50
22	DA	481	G	O4'-C1'-N9	5.51	112.61	108.20
22	BA	2309	A	C3'-C2'-C1'	5.51	105.91	101.50
22	DA	622	G	C3'-C2'-C1'	5.51	105.91	101.50
22	DA	1290	C	N1-C1'-C2'	-5.51	105.94	112.00
22	BA	584	C	O4'-C1'-N1	5.51	112.61	108.20
53	CA	485	U	O4'-C1'-N1	-5.51	103.79	108.20
53	CA	1395	C	C3'-C2'-C1'	5.51	105.91	101.50
1	AA	52	C	P-O3'-C3'	-5.51	113.09	119.70
53	CA	811	C	P-O3'-C3'	5.51	126.31	119.70
22	DA	1782	U	C3'-C2'-C1'	5.51	105.91	101.50
22	DA	992	C	C3'-C2'-C1'	5.50	105.90	101.50
22	BA	388	G	C3'-C2'-C1'	5.50	105.90	101.50
22	BA	446	G	P-O3'-C3'	5.50	126.30	119.70
53	CA	643	C	O4'-C1'-N1	5.50	112.60	108.20
57	DB	111	U	N1-C1'-C2'	-5.50	105.94	112.00
22	BA	2239	G	C3'-C2'-C1'	5.50	105.90	101.50
53	CA	132	C	C3'-C2'-C1'	5.50	105.90	101.50
53	CA	1349	A	C3'-C2'-C1'	5.50	105.90	101.50
22	DA	221	A	P-O3'-C3'	5.50	126.30	119.70
22	DA	335	C	P-O3'-C3'	-5.50	113.10	119.70
22	BA	2790	U	O4'-C1'-N1	5.50	112.60	108.20
53	CA	1094	G	P-O3'-C3'	5.50	126.30	119.70
22	BA	2282	G	P-O3'-C3'	5.50	126.29	119.70
1	AA	1102	A	P-O3'-C3'	-5.49	113.11	119.70
57	DB	89	U	O4'-C1'-N1	5.49	112.59	108.20
22	DA	1456	G	C3'-C2'-C1'	5.49	105.89	101.50
22	BA	1892	C	P-O5'-C5'	-5.49	112.12	120.90
22	DA	959	A	P-O3'-C3'	-5.49	113.11	119.70
22	BA	672	C	O5'-P-OP2	-5.49	100.76	105.70
22	BA	986	C	O4'-C1'-N1	5.49	112.59	108.20
22	BA	1128	G	O5'-P-OP2	-5.49	100.76	105.70
53	CA	1160	G	C3'-C2'-C1'	5.49	105.89	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	DA	1682	G	C3'-C2'-C1'	5.49	105.89	101.50
22	BA	810	U	O4'-C1'-N1	5.49	112.59	108.20
22	BA	2226	C	C3'-C2'-C1'	5.49	105.89	101.50
53	CA	508	U	P-O3'-C3'	5.49	126.28	119.70
22	BA	1321	A	C3'-C2'-C1'	5.49	105.89	101.50
22	BA	1885	A	C3'-C2'-C1'	5.49	105.89	101.50
22	BA	2809	A	C3'-C2'-C1'	5.49	105.89	101.50
22	BA	490	C	P-O5'-C5'	-5.48	112.13	120.90
53	CA	245	U	C3'-C2'-C1'	5.48	105.89	101.50
53	CA	1202	U	C3'-C2'-C1'	5.48	105.89	101.50
22	DA	1919	A	C3'-C2'-C1'	5.48	105.89	101.50
22	BA	33	C	N1-C1'-C2'	5.48	121.13	114.00
57	DB	110	C	C3'-C2'-C1'	5.48	105.89	101.50
22	BA	1941	C	O4'-C1'-N1	-5.48	103.82	108.20
22	DA	615	U	N1-C1'-C2'	5.48	121.12	114.00
1	AA	1304	G	C3'-C2'-C1'	5.48	105.88	101.50
22	BA	806	C	N1-C1'-C2'	-5.48	105.97	112.00
22	BA	1662	U	P-O5'-C5'	-5.48	112.13	120.90
23	BB	42	C	C3'-C2'-C1'	5.48	105.88	101.50
22	DA	572	A	P-O3'-C3'	-5.48	113.13	119.70
22	BA	727	A	C3'-C2'-C1'	5.48	105.88	101.50
22	BA	1386	C	N1-C1'-C2'	-5.48	105.97	112.00
22	BA	1980	G	P-O3'-C3'	5.48	126.27	119.70
53	CA	316	C	C3'-C2'-C1'	5.48	105.88	101.50
22	DA	510	C	P-O3'-C3'	-5.48	113.13	119.70
22	BA	2249	U	P-O3'-C3'	5.47	126.27	119.70
22	BA	1218	G	N1-C6-O6	5.47	123.18	119.90
22	BA	2488	G	N1-C6-O6	5.47	123.18	119.90
22	DA	762	U	P-O3'-C3'	5.47	126.27	119.70
22	BA	369	U	N1-C1'-C2'	5.47	121.11	114.00
22	BA	2030	A	C6-C5-N7	5.47	136.13	132.30
1	AA	64	G	P-O3'-C3'	5.47	126.26	119.70
1	AA	74	A	C3'-C2'-C1'	5.47	105.87	101.50
1	AA	415	A	C3'-C2'-C1'	5.47	105.88	101.50
22	BA	28	A	C3'-C2'-C1'	5.47	105.87	101.50
22	BA	2005	A	P-O3'-C3'	5.47	126.26	119.70
22	DA	1734	G	C3'-C2'-C1'	5.47	105.87	101.50
22	DA	2064	C	C3'-C2'-C1'	5.47	105.87	101.50
53	CA	1397	C	P-O3'-C3'	-5.46	113.14	119.70
22	DA	2136	G	C3'-C2'-C1'	5.46	105.87	101.50
22	DA	1429	G	P-O3'-C3'	-5.46	113.14	119.70
1	AA	885	G	P-O3'-C3'	-5.46	113.14	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	BA	249	C	O4'-C1'-N1	-5.46	103.83	108.20
22	BA	572	A	C3'-C2'-C1'	5.46	105.87	101.50
22	BA	628	G	N9-C1'-C2'	-5.46	105.99	112.00
22	BA	2068	U	C3'-C2'-C1'	5.46	105.87	101.50
53	CA	131	A	C3'-C2'-C1'	5.46	105.87	101.50
22	BA	1073	A	C3'-C2'-C1'	5.46	105.87	101.50
22	BA	1606	C	P-O3'-C3'	5.46	126.25	119.70
22	BA	1782	U	P-O3'-C3'	-5.46	113.15	119.70
22	BA	2873	A	O4'-C1'-N9	5.46	112.57	108.20
53	CA	347	G	C3'-C2'-C1'	5.46	105.87	101.50
22	DA	705	A	N9-C1'-C2'	-5.46	106.00	112.00
22	BA	958	U	O4'-C1'-N1	-5.46	103.83	108.20
1	AA	198	G	P-O3'-C3'	-5.45	113.16	119.70
1	AA	116	A	C3'-C2'-C1'	5.45	105.86	101.50
22	BA	1620	G	P-O3'-C3'	-5.45	113.16	119.70
22	BA	1739	A	C3'-C2'-C1'	5.45	105.86	101.50
53	CA	705	G	C3'-C2'-C1'	5.45	105.86	101.50
1	AA	414	A	P-O3'-C3'	-5.45	113.16	119.70
23	BB	24	G	P-O3'-C3'	5.45	126.24	119.70
53	CA	566	G	P-O3'-C3'	5.45	126.24	119.70
1	AA	718	A	C3'-C2'-C1'	5.45	105.86	101.50
22	DA	794	A	C3'-C2'-C1'	5.45	105.86	101.50
22	DA	2392	A	P-O3'-C3'	-5.45	113.17	119.70
22	DA	2756	U	N1-C1'-C2'	5.45	121.08	114.00
22	DA	2781	A	C3'-C2'-C1'	5.45	105.86	101.50
22	BA	1791	A	N9-C4-C5	-5.44	103.62	105.80
22	DA	2895	G	C3'-C2'-C1'	5.44	105.86	101.50
22	DA	230	G	C3'-C2'-C1'	5.44	105.85	101.50
1	AA	60	A	P-O3'-C3'	5.44	126.23	119.70
53	CA	352	C	C3'-C2'-C1'	5.44	105.85	101.50
1	AA	351	G	O4'-C1'-N9	5.44	112.55	108.20
22	BA	2137	U	C3'-C2'-C1'	5.44	105.85	101.50
22	DA	1206	G	C3'-C2'-C1'	5.44	105.85	101.50
22	BA	2059	A	O4'-C1'-N9	5.43	112.55	108.20
53	CA	1326	U	O4'-C1'-N1	5.43	112.55	108.20
1	AA	1323	G	C3'-C2'-C1'	5.43	105.85	101.50
53	CA	497	G	P-O3'-C3'	-5.43	113.18	119.70
22	DA	3	U	O4'-C1'-N1	5.43	112.55	108.20
22	DA	1329	U	P-O3'-C3'	5.43	126.22	119.70
22	DA	1347	A	C3'-C2'-C1'	5.43	105.85	101.50
22	DA	2727	A	P-O3'-C3'	-5.43	113.18	119.70
1	AA	452	A	P-O3'-C3'	-5.43	113.18	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	BA	2901	C	O4'-C1'-N1	-5.43	103.86	108.20
1	AA	1138	G	P-O3'-C3'	-5.43	113.18	119.70
22	BA	1456	G	C3'-C2'-C1'	5.43	105.84	101.50
22	BA	1779	U	P-O5'-C5'	-5.43	112.21	120.90
22	DA	2386	A	C3'-C2'-C1'	5.43	105.84	101.50
1	AA	1050	G	N9-C1'-C2'	-5.43	106.03	112.00
53	CA	889	A	P-O3'-C3'	5.43	126.21	119.70
1	AA	1184	G	N9-C1'-C2'	-5.42	106.03	112.00
53	CA	213	G	C3'-C2'-C1'	5.42	105.84	101.50
53	CA	815	A	P-O3'-C3'	5.42	126.21	119.70
53	CA	885	G	N9-C1'-C2'	-5.42	106.03	112.00
22	DA	1738	G	P-O3'-C3'	5.42	126.21	119.70
22	DA	1929	G	OP1-P-O3'	5.42	117.13	105.20
22	DA	618	G	C3'-C2'-C1'	5.42	105.84	101.50
22	BA	1782	U	O4'-C1'-N1	5.42	112.54	108.20
22	BA	2181	U	O4'-C1'-N1	-5.42	103.86	108.20
22	BA	2383	G	C3'-C2'-C1'	5.42	105.84	101.50
22	DA	2034	U	N1-C1'-C2'	-5.42	106.04	112.00
1	AA	1337	G	C3'-C2'-C1'	5.42	105.83	101.50
22	BA	456	C	P-O5'-C5'	-5.42	112.23	120.90
22	BA	762	U	P-O3'-C3'	5.42	126.20	119.70
22	BA	1535	A	O4'-C1'-N9	5.42	112.53	108.20
53	CA	821	G	C3'-C2'-C1'	5.42	105.83	101.50
22	DA	1939	U	P-O3'-C3'	5.42	126.20	119.70
22	BA	2843	G	P-O3'-C3'	5.42	126.20	119.70
53	CA	1507	A	N9-C1'-C2'	-5.42	106.04	112.00
22	BA	1429	G	C3'-C2'-C1'	5.41	105.83	101.50
22	DA	1655	A	C3'-C2'-C1'	5.41	105.83	101.50
22	DA	1796	U	O4'-C1'-N1	5.41	112.53	108.20
22	DA	2337	G	C3'-C2'-C1'	5.41	105.83	101.50
22	BA	2089	C	P-O3'-C3'	-5.41	113.20	119.70
22	BA	2034	U	C5-C4-O4	-5.41	122.65	125.90
22	BA	2215	C	P-O5'-C5'	-5.41	112.24	120.90
53	CA	1515	G	N1-C6-O6	5.41	123.15	119.90
22	DA	2612	C	O4'-C1'-N1	5.41	112.53	108.20
1	AA	914	A	P-O3'-C3'	-5.41	113.21	119.70
22	BA	921	C	P-O5'-C5'	-5.41	112.25	120.90
53	CA	174	A	C3'-C2'-C1'	5.41	105.83	101.50
53	CA	277	C	C3'-C2'-C1'	5.41	105.83	101.50
53	CA	891	U	C3'-C2'-C1'	5.41	105.83	101.50
22	DA	946	C	C3'-C2'-C1'	5.41	105.83	101.50
22	DA	1996	C	N1-C1'-C2'	5.41	121.03	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	DA	2386	A	P-O3'-C3'	-5.41	113.21	119.70
22	BA	35	G	P-O5'-C5'	-5.41	112.25	120.90
1	AA	1505	G	C3'-C2'-C1'	5.41	105.83	101.50
22	BA	336	C	O4'-C1'-N1	-5.41	103.88	108.20
22	DA	234	U	C3'-C2'-C1'	5.41	105.82	101.50
22	DA	2408	U	O4'-C1'-N1	5.41	112.53	108.20
22	BA	2033	A	C2-N3-C4	5.40	113.30	110.60
22	DA	637	A	P-O3'-C3'	5.40	126.19	119.70
22	BA	1253	A	O4'-C1'-N9	-5.40	103.88	108.20
22	BA	2405	G	P-O3'-C3'	5.40	126.18	119.70
22	DA	2611	C	P-O3'-C3'	-5.40	113.22	119.70
1	AA	961	U	C3'-C2'-C1'	5.40	105.82	101.50
22	BA	779	U	N1-C1'-C2'	-5.40	106.06	112.00
22	BA	2575	C	O4'-C1'-N1	5.40	112.52	108.20
22	BA	2840	C	C6-N1-C2	5.40	122.46	120.30
22	DA	2639	A	C3'-C2'-C1'	5.40	105.82	101.50
22	BA	1062	G	C3'-C2'-C1'	5.40	105.82	101.50
22	BA	1802	A	C3'-C2'-C1'	5.40	105.82	101.50
53	CA	931	C	O4'-C1'-N1	5.40	112.52	108.20
22	DA	1077	A	C3'-C2'-C1'	5.40	105.82	101.50
22	DA	1048	A	P-O3'-C3'	5.40	126.18	119.70
22	BA	595	C	C6-N1-C2	5.39	122.46	120.30
22	BA	1303	G	P-O3'-C3'	-5.39	113.23	119.70
22	BA	2874	C	C3'-C2'-C1'	5.39	105.82	101.50
22	DA	672	C	C3'-C2'-C1'	5.39	105.81	101.50
22	DA	2429	G	C3'-C2'-C1'	5.39	105.81	101.50
22	DA	2851	A	C3'-C2'-C1'	5.39	105.81	101.50
22	BA	673	C	P-O5'-C5'	-5.39	112.27	120.90
22	BA	1267	U	C3'-C2'-C1'	5.39	105.81	101.50
22	BA	1459	G	C3'-C2'-C1'	5.39	105.81	101.50
22	DA	222	A	O4'-C1'-N9	5.39	112.51	108.20
53	CA	1087	G	C3'-C2'-C1'	5.39	105.81	101.50
1	AA	772	U	P-O3'-C3'	-5.39	113.23	119.70
22	BA	2417	C	N1-C2-O2	-5.39	115.67	118.90
53	CA	1052	U	C3'-C2'-C1'	5.39	105.81	101.50
22	DA	1023	U	C3'-C2'-C1'	5.39	105.81	101.50
22	DA	1565	C	N1-C1'-C2'	5.39	121.01	114.00
22	DA	2657	A	C3'-C2'-C1'	5.39	105.81	101.50
22	BA	1707	G	C3'-C2'-C1'	5.39	105.81	101.50
25	BD	10	GLY	N-CA-C	5.39	126.56	113.10
22	DA	87	U	C3'-C2'-C1'	5.39	105.81	101.50
22	DA	991	C	C3'-C2'-C1'	5.39	105.81	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1499	A	C3'-C2'-C1'	5.38	105.81	101.50
22	BA	571	U	P-O3'-C3'	5.38	126.16	119.70
22	DA	304	U	C3'-C2'-C1'	5.38	105.81	101.50
22	DA	2405	G	P-O3'-C3'	5.38	126.16	119.70
57	DB	90	C	C3'-C2'-C1'	5.38	105.81	101.50
1	AA	1094	G	P-O3'-C3'	5.38	126.16	119.70
22	BA	539	G	P-O5'-C5'	-5.38	112.29	120.90
22	BA	671	C	C3'-C2'-C1'	5.38	105.81	101.50
22	BA	910	A	C3'-C2'-C1'	5.38	105.80	101.50
22	BA	1714	U	C3'-C2'-C1'	5.38	105.81	101.50
53	CA	1225	A	P-O3'-C3'	5.38	126.16	119.70
53	CA	1367	C	C3'-C2'-C1'	5.38	105.81	101.50
22	DA	727	A	C3'-C2'-C1'	5.38	105.81	101.50
57	DB	12	C	O4'-C1'-N1	-5.38	103.89	108.20
22	BA	1765	U	P-O3'-C3'	-5.38	113.24	119.70
53	CA	519	C	C3'-C2'-C1'	5.38	105.80	101.50
22	DA	1653	G	O4'-C1'-N9	5.38	112.50	108.20
1	AA	522	C	C6-N1-C2	5.38	122.45	120.30
22	BA	230	G	C3'-C2'-C1'	5.38	105.80	101.50
22	BA	638	G	C3'-C2'-C1'	5.38	105.80	101.50
22	BA	1669	A	C8-N9-C4	-5.38	103.65	105.80
22	BA	2339	C	O4'-C1'-N1	5.38	112.50	108.20
22	BA	2769	U	P-O3'-C3'	-5.38	113.25	119.70
23	BB	114	C	C6-N1-C2	5.38	122.45	120.30
22	DA	427	U	O4'-C1'-N1	5.38	112.50	108.20
22	DA	1733	G	N9-C1'-C2'	-5.38	106.08	112.00
1	AA	174	A	C3'-C2'-C1'	5.38	105.80	101.50
22	DA	1941	C	C3'-C2'-C1'	5.38	105.80	101.50
22	BA	997	G	C2-N3-C4	-5.37	109.21	111.90
22	BA	1759	A	C3'-C2'-C1'	5.37	105.80	101.50
22	BA	2448	A	N1-C6-N6	5.37	121.82	118.60
53	CA	48	C	O4'-C1'-N1	5.37	112.50	108.20
22	DA	1802	A	C3'-C2'-C1'	5.37	105.80	101.50
22	DA	2349	G	C3'-C2'-C1'	5.37	105.80	101.50
22	BA	127	A	C3'-C2'-C1'	5.37	105.80	101.50
22	BA	223	A	P-O3'-C3'	-5.37	113.25	119.70
22	BA	2259	U	C3'-C2'-C1'	5.37	105.80	101.50
22	DA	604	G	P-O3'-C3'	-5.37	113.25	119.70
53	CA	70	U	O4'-C1'-N1	5.37	112.50	108.20
22	BA	1866	A	C3'-C2'-C1'	5.37	105.79	101.50
22	DA	989	G	P-O3'-C3'	5.37	126.14	119.70
1	AA	1228	C	C3'-C2'-C1'	5.37	105.79	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	AL	23	LEU	N-CA-C	5.37	125.49	111.00
22	BA	1276	A	P-O3'-C3'	-5.37	113.26	119.70
22	BA	2364	C	C6-N1-C2	5.37	122.45	120.30
22	BA	192	C	P-O5'-C5'	-5.36	112.32	120.90
22	BA	2520	C	O4'-C1'-N1	5.36	112.49	108.20
22	DA	1047	G	P-O3'-C3'	5.36	126.14	119.70
22	BA	216	A	P-O3'-C3'	-5.36	113.27	119.70
22	BA	324	A	C3'-C2'-C1'	5.36	105.79	101.50
53	CA	536	C	C3'-C2'-C1'	5.36	105.79	101.50
22	DA	477	A	P-O3'-C3'	-5.36	113.27	119.70
22	DA	1848	A	N9-C1'-C2'	-5.36	106.10	112.00
22	BA	571	U	C5-C6-N1	-5.36	120.02	122.70
22	BA	1289	C	C3'-C2'-C1'	5.36	105.79	101.50
22	DA	15	G	C3'-C2'-C1'	5.36	105.79	101.50
1	AA	1447	A	O4'-C1'-N9	5.36	112.48	108.20
53	CA	512	U	C3'-C2'-C1'	5.36	105.78	101.50
1	AA	268	U	C3'-C2'-C1'	5.36	105.78	101.50
1	AA	564	C	C3'-C2'-C1'	5.36	105.78	101.50
22	BA	783	A	C2-N3-C4	-5.36	107.92	110.60
22	BA	1164	C	C5-C6-N1	-5.36	118.32	121.00
22	BA	2499	C	P-O5'-C5'	-5.36	112.33	120.90
22	DA	826	U	P-O3'-C3'	-5.36	113.27	119.70
22	BA	454	A	C4'-C3'-C2'	5.35	107.95	102.60
22	BA	142	A	C3'-C2'-C1'	5.35	105.78	101.50
22	BA	399	U	P-O3'-C3'	5.35	126.12	119.70
22	BA	1494	A	C3'-C2'-C1'	5.35	105.78	101.50
22	BA	1931	U	C3'-C2'-C1'	5.35	105.78	101.50
23	BB	15	A	P-O3'-C3'	5.35	126.12	119.70
22	DA	1405	U	O4'-C1'-N1	5.35	112.48	108.20
22	DA	1961	C	O4'-C1'-N1	5.35	112.48	108.20
1	AA	64	G	O4'-C1'-N9	5.35	112.48	108.20
22	BA	2275	C	P-O3'-C3'	5.35	126.12	119.70
23	BB	13	G	P-O3'-C3'	-5.35	113.28	119.70
53	CA	513	C	C3'-C2'-C1'	5.35	105.78	101.50
1	AA	32	A	C3'-C2'-C1'	5.35	105.78	101.50
1	AA	120	A	O4'-C1'-N9	-5.35	103.92	108.20
22	DA	2036	C	C3'-C2'-C1'	5.35	105.78	101.50
22	DA	2611	C	C3'-C2'-C1'	5.35	105.78	101.50
22	BA	644	A	P-O3'-C3'	-5.35	113.28	119.70
22	DA	61	C	C3'-C2'-C1'	5.35	105.78	101.50
1	AA	1160	G	P-O3'-C3'	-5.34	113.29	119.70
22	BA	1266	G	O4'-C1'-N9	-5.34	103.92	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
53	CA	252	U	C3'-C2'-C1'	5.34	105.78	101.50
22	DA	1759	A	C3'-C2'-C1'	5.34	105.77	101.50
22	BA	1788	C	C4-C5-C6	5.34	120.07	117.40
22	BA	1996	C	OP1-P-O3'	5.34	116.95	105.20
22	BA	2450	A	N9-C1'-C2'	-5.34	106.12	112.00
53	CA	424	G	P-O3'-C3'	-5.34	113.29	119.70
22	BA	14	A	P-O5'-C5'	-5.34	112.36	120.90
22	DA	389	G	C3'-C2'-C1'	5.34	105.77	101.50
1	AA	1381	U	C3'-C2'-C1'	5.34	105.77	101.50
22	BA	1919	A	C3'-C2'-C1'	5.34	105.77	101.50
22	BA	2645	G	C6-C5-N7	-5.34	127.20	130.40
53	CA	575	G	C8-N9-C1'	5.34	133.94	127.00
22	BA	1848	A	C3'-C2'-C1'	5.33	105.77	101.50
22	BA	2508	G	C2-N3-C4	-5.33	109.23	111.90
53	CA	369	G	N9-C1'-C2'	-5.33	106.13	112.00
22	DA	196	A	P-O3'-C3'	5.33	126.10	119.70
22	BA	126	A	C3'-C2'-C1'	5.33	105.77	101.50
22	DA	2094	A	C3'-C2'-C1'	5.33	105.77	101.50
1	AA	513	C	C3'-C2'-C1'	5.33	105.76	101.50
22	BA	1157	G	C3'-C2'-C1'	5.33	105.76	101.50
22	BA	2611	C	P-O5'-C5'	-5.33	112.37	120.90
22	BA	510	C	O5'-P-OP2	-5.33	100.91	105.70
22	BA	572	A	O4'-C1'-N9	-5.33	103.94	108.20
22	BA	2511	U	C3'-C2'-C1'	5.33	105.76	101.50
53	CA	349	A	N9-C1'-C2'	-5.33	106.14	112.00
22	BA	988	A	N1-C6-N6	5.32	121.79	118.60
22	DA	1683	U	C3'-C2'-C1'	5.32	105.76	101.50
22	BA	2573	C	P-O3'-C3'	-5.32	113.32	119.70
22	BA	422	A	P-O3'-C3'	-5.32	113.32	119.70
22	BA	638	G	P-O3'-C3'	-5.32	113.32	119.70
22	BA	1497	U	N1-C1'-C2'	5.32	120.91	114.00
53	CA	1143	G	C3'-C2'-C1'	5.32	105.75	101.50
57	DB	13	G	C3'-C2'-C1'	5.32	105.75	101.50
22	BA	17	G	N1-C6-O6	5.32	123.09	119.90
22	BA	1063	G	C3'-C2'-C1'	5.32	105.75	101.50
53	CA	1288	A	P-O3'-C3'	-5.32	113.32	119.70
22	DA	1916	A	P-O3'-C3'	-5.32	113.32	119.70
53	CA	509	A	C3'-C2'-C1'	5.31	105.75	101.50
53	CA	755	G	N9-C1'-C2'	-5.31	106.16	112.00
53	CA	1299	A	P-O3'-C3'	-5.31	113.33	119.70
22	BA	2197	U	O3'-P-O5'	-5.31	93.91	104.00
22	BA	475	C	P-O5'-C5'	-5.31	112.41	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	BA	2720	U	C6-N1-C2	5.31	124.19	121.00
22	DA	575	A	C3'-C2'-C1'	5.31	105.75	101.50
22	DA	2339	C	C3'-C2'-C1'	5.31	105.75	101.50
22	BA	1784	A	P-O3'-C3'	5.31	126.07	119.70
23	BB	66	A	P-O3'-C3'	5.31	126.07	119.70
22	DA	627	A	P-O3'-C3'	5.31	126.07	119.70
22	BA	1663	G	P-O5'-C5'	-5.30	112.41	120.90
53	CA	96	U	C3'-C2'-C1'	5.30	105.74	101.50
22	DA	229	C	P-O3'-C3'	-5.30	113.33	119.70
22	DA	1451	C	P-O3'-C3'	5.30	126.06	119.70
57	DB	111	U	C3'-C2'-C1'	5.30	105.74	101.50
22	DA	749	A	C3'-C2'-C1'	5.30	105.74	101.50
22	BA	482	A	O5'-P-OP2	-5.30	100.93	105.70
22	BA	1990	C	N1-C1'-C2'	-5.30	106.17	112.00
22	BA	2025	C	P-O3'-C3'	5.30	126.06	119.70
22	BA	2197	U	O4'-C1'-N1	-5.30	103.96	108.20
22	DA	1024	G	C3'-C2'-C1'	5.30	105.74	101.50
1	AA	316	C	O4'-C1'-N1	5.30	112.44	108.20
22	BA	1157	G	P-O3'-C3'	-5.30	113.34	119.70
53	CA	803	G	P-O3'-C3'	-5.30	113.34	119.70
22	DA	61	C	P-O3'-C3'	-5.30	113.34	119.70
22	DA	1535	A	P-O3'-C3'	5.30	126.06	119.70
22	DA	1760	C	N1-C1'-C2'	-5.30	106.17	112.00
22	BA	1785	A	C3'-C2'-C1'	5.30	105.74	101.50
22	BA	2060	A	P-O3'-C3'	5.30	126.06	119.70
22	DA	1050	A	P-O3'-C3'	-5.30	113.34	119.70
22	BA	1956	U	C3'-C2'-C1'	5.29	105.74	101.50
22	BA	2541	A	C2-N3-C4	5.29	113.25	110.60
53	CA	451	A	P-O3'-C3'	5.29	126.05	119.70
22	BA	396	G	P-O5'-C5'	-5.29	112.43	120.90
1	AA	484	G	P-O3'-C3'	5.29	126.05	119.70
22	BA	1437	C	P-O5'-C5'	-5.29	112.43	120.90
22	BA	1289	C	P-O5'-C5'	-5.29	112.44	120.90
22	BA	2836	U	C3'-C2'-C1'	5.29	105.73	101.50
53	CA	392	C	O4'-C1'-N1	5.29	112.43	108.20
22	BA	52	A	C3'-C2'-C1'	5.29	105.73	101.50
22	BA	1022	G	N9-C4-C5	5.29	107.52	105.40
22	BA	914	G	C4-N9-C1'	5.29	133.37	126.50
22	BA	2136	G	C3'-C2'-C1'	5.29	105.73	101.50
53	CA	1141	C	P-O3'-C3'	-5.29	113.36	119.70
22	DA	2873	A	P-O3'-C3'	5.29	126.04	119.70
1	AA	1046	A	O4'-C1'-N9	5.28	112.43	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	821	G	C3'-C2'-C1'	5.28	105.72	101.50
22	DA	2024	G	N9-C1'-C2'	-5.28	106.19	112.00
22	BA	1461	C	C3'-C2'-C1'	5.28	105.72	101.50
22	BA	1829	A	C3'-C2'-C1'	5.28	105.72	101.50
22	DA	530	G	C3'-C2'-C1'	5.28	105.72	101.50
1	AA	519	C	C3'-C2'-C1'	5.28	105.72	101.50
22	BA	1968	G	P-O3'-C3'	-5.28	113.37	119.70
22	DA	1512	C	O4'-C1'-N1	5.28	112.42	108.20
53	CA	1086	U	C3'-C2'-C1'	5.27	105.72	101.50
22	DA	177	G	P-O3'-C3'	5.27	126.03	119.70
22	BA	2146	C	O4'-C1'-N1	5.27	112.42	108.20
22	BA	2432	A	N1-C6-N6	5.27	121.76	118.60
22	DA	1136	G	C3'-C2'-C1'	5.27	105.72	101.50
22	BA	740	C	C3'-C2'-C1'	5.27	105.72	101.50
22	DA	92	U	C3'-C2'-C1'	5.27	105.72	101.50
22	DA	726	G	O4'-C1'-N9	5.27	112.42	108.20
22	DA	1510	G	C3'-C2'-C1'	5.27	105.72	101.50
22	DA	1635	A	P-O5'-C5'	-5.27	112.47	120.90
22	BA	565	C	C6-N1-C2	5.27	122.41	120.30
22	BA	2543	G	P-O5'-C5'	-5.27	112.47	120.90
53	CA	1336	C	P-O3'-C3'	5.27	126.02	119.70
22	BA	531	C	OP2-P-O3'	5.27	116.79	105.20
22	DA	397	U	C3'-C2'-C1'	5.27	105.71	101.50
53	CA	366	A	P-O3'-C3'	5.27	126.02	119.70
22	BA	1635	A	P-O5'-C5'	-5.26	112.48	120.90
22	DA	413	C	C3'-C2'-C1'	5.26	105.71	101.50
22	DA	1418	G	C3'-C2'-C1'	5.26	105.71	101.50
22	DA	1557	C	C3'-C2'-C1'	5.26	105.71	101.50
22	DA	1613	G	C3'-C2'-C1'	5.26	105.71	101.50
22	BA	1651	G	O3'-P-O5'	-5.26	94.00	104.00
1	AA	13	U	N1-C1'-C2'	5.26	120.84	114.00
22	DA	2893	A	P-O3'-C3'	5.26	126.01	119.70
1	AA	1152	A	C3'-C2'-C1'	5.26	105.71	101.50
22	BA	1497	U	O4'-C1'-N1	5.26	112.41	108.20
22	DA	1814	G	P-O3'-C3'	5.26	126.01	119.70
22	BA	1776	G	N1-C6-O6	5.26	123.05	119.90
22	DA	2615	U	P-O3'-C3'	-5.26	113.39	119.70
1	AA	512	U	C3'-C2'-C1'	5.25	105.70	101.50
22	BA	2149	U	C3'-C2'-C1'	5.25	105.70	101.50
1	AA	525	C	O4'-C1'-N1	5.25	112.40	108.20
1	AA	567	G	C3'-C2'-C1'	5.25	105.70	101.50
22	BA	729	G	P-O3'-C3'	-5.25	113.40	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	BA	866	A	N9-C1'-C2'	-5.25	106.22	112.00
53	CA	1284	C	P-O3'-C3'	5.25	126.00	119.70
22	DA	1386	C	P-O3'-C3'	-5.25	113.40	119.70
22	BA	1128	G	P-O3'-C3'	5.25	126.00	119.70
22	BA	2030	A	C5-C6-N6	5.25	127.90	123.70
22	DA	336	C	C3'-C2'-C1'	5.25	105.70	101.50
22	DA	2876	G	C3'-C2'-C1'	5.25	105.70	101.50
22	BA	1115	G	P-O3'-C3'	5.25	126.00	119.70
22	DA	1785	A	C3'-C2'-C1'	5.25	105.70	101.50
22	DA	2275	C	N1-C1'-C2'	5.25	120.82	114.00
22	DA	2504	U	P-O3'-C3'	-5.25	113.41	119.70
22	BA	794	A	P-O5'-C5'	-5.24	112.51	120.90
22	BA	2070	A	N1-C6-N6	5.24	121.75	118.60
22	DA	2881	U	C3'-C2'-C1'	5.24	105.69	101.50
22	BA	117	G	P-O5'-C5'	-5.24	112.52	120.90
22	BA	303	G	C3'-C2'-C1'	5.24	105.69	101.50
22	BA	1967	C	C3'-C2'-C1'	5.24	105.69	101.50
53	CA	1394	A	P-O3'-C3'	5.24	125.99	119.70
22	DA	1026	G	C3'-C2'-C1'	5.24	105.69	101.50
22	BA	681	G	P-O5'-C5'	-5.24	112.52	120.90
22	BA	783	A	C8-N9-C1'	-5.24	118.27	127.70
53	CA	364	A	P-O3'-C3'	5.24	125.99	119.70
22	DA	1981	A	C3'-C2'-C1'	5.24	105.69	101.50
22	DA	2683	C	O4'-C1'-N1	5.24	112.39	108.20
57	DB	56	G	P-O3'-C3'	5.24	125.98	119.70
22	BA	1273	U	P-O5'-C5'	-5.24	112.52	120.90
53	CA	1455	G	C3'-C2'-C1'	5.24	105.69	101.50
22	DA	235	U	C3'-C2'-C1'	5.24	105.69	101.50
22	DA	421	C	N1-C1'-C2'	5.24	120.81	114.00
22	BA	2750	A	C4'-C3'-C2'	5.23	107.83	102.60
22	DA	1256	G	C3'-C2'-C1'	5.23	105.69	101.50
1	AA	642	A	C3'-C2'-C1'	5.23	105.69	101.50
22	BA	2064	C	P-O5'-C5'	-5.23	112.53	120.90
22	BA	2839	G	P-O3'-C3'	5.23	125.98	119.70
22	DA	122	G	C3'-C2'-C1'	5.23	105.69	101.50
22	BA	2239	G	N9-C1'-C2'	-5.23	106.25	112.00
22	BA	2716	C	N1-C1'-C2'	-5.23	106.25	112.00
22	DA	1612	C	C3'-C2'-C1'	5.23	105.69	101.50
22	DA	2338	C	P-O3'-C3'	-5.23	113.42	119.70
22	DA	2419	U	O4'-C1'-N1	5.23	112.38	108.20
22	BA	569	U	N3-C2-O2	5.23	125.86	122.20
22	BA	996	A	N9-C1'-C2'	-5.23	106.25	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	BA	990	A	O4'-C1'-N9	-5.23	104.02	108.20
22	DA	406	G	P-O3'-C3'	-5.23	113.43	119.70
22	BA	1458	U	P-O3'-C3'	5.22	125.97	119.70
22	BA	1555	G	C3'-C2'-C1'	5.22	105.68	101.50
22	BA	2249	U	C4'-C3'-C2'	5.22	107.82	102.60
22	BA	2380	C	P-O5'-C5'	-5.22	112.54	120.90
22	BA	2687	U	P-O5'-C5'	-5.22	112.54	120.90
53	CA	247	G	C3'-C2'-C1'	5.22	105.68	101.50
22	DA	1992	G	P-O3'-C3'	5.22	125.97	119.70
22	DA	2225	A	O4'-C1'-N9	5.22	112.38	108.20
22	BA	435	C	P-O5'-C5'	-5.22	112.54	120.90
53	CA	115	G	P-O3'-C3'	5.22	125.97	119.70
22	DA	1417	C	O4'-C1'-N1	5.22	112.38	108.20
22	DA	1681	G	P-O3'-C3'	5.22	125.97	119.70
22	DA	2757	A	C3'-C2'-C1'	5.22	105.68	101.50
1	AA	889	A	O4'-C1'-N9	5.22	112.38	108.20
1	AA	1064	G	C4-N9-C1'	-5.22	119.71	126.50
22	BA	687	C	C3'-C2'-C1'	5.22	105.68	101.50
53	CA	722	G	C3'-C2'-C1'	5.22	105.68	101.50
22	DA	1733	G	C3'-C2'-C1'	5.22	105.68	101.50
22	BA	240	C	O4'-C1'-N1	-5.22	104.03	108.20
22	BA	1452	G	C6-C5-N7	-5.22	127.27	130.40
53	CA	389	A	C3'-C2'-C1'	5.22	105.68	101.50
53	CA	979	C	C3'-C2'-C1'	5.22	105.67	101.50
22	DA	13	A	P-O3'-C3'	5.22	125.96	119.70
22	DA	207	A	C3'-C2'-C1'	5.22	105.67	101.50
1	AA	1320	C	C3'-C2'-C1'	5.22	105.67	101.50
1	AA	1324	A	P-O3'-C3'	-5.22	113.44	119.70
1	AA	994	A	C3'-C2'-C1'	5.22	105.67	101.50
22	BA	2615	U	C3'-C2'-C1'	5.22	105.67	101.50
22	DA	862	G	N9-C1'-C2'	-5.22	106.26	112.00
22	BA	529	A	C4-C5-C6	-5.21	114.39	117.00
22	BA	930	G	O4'-C1'-N9	5.21	112.37	108.20
22	BA	2309	A	P-O3'-C3'	-5.21	113.44	119.70
23	BB	57	A	P-O5'-C5'	-5.21	112.56	120.90
53	CA	821	G	N9-C1'-C2'	-5.21	106.26	112.00
22	DA	2846	G	P-O3'-C3'	-5.21	113.44	119.70
22	BA	75	G	P-O3'-C3'	-5.21	113.44	119.70
22	BA	2850	A	P-O5'-C5'	-5.21	112.56	120.90
22	DA	302	C	O4'-C1'-N1	5.21	112.37	108.20
22	DA	1556	C	C3'-C2'-C1'	5.21	105.67	101.50
22	DA	143	C	C3'-C2'-C1'	5.21	105.67	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	DA	1291	C	C3'-C2'-C1'	5.21	105.67	101.50
22	BA	1008	A	P-O3'-C3'	5.21	125.95	119.70
22	DA	324	A	C3'-C2'-C1'	5.21	105.67	101.50
22	DA	1129	A	P-O3'-C3'	-5.21	113.45	119.70
22	BA	459	U	N1-C1'-C2'	-5.21	106.27	112.00
22	BA	800	A	P-O3'-C3'	5.21	125.95	119.70
1	AA	61	G	P-O3'-C3'	-5.20	113.46	119.70
1	AA	70	U	P-O3'-C3'	5.20	125.94	119.70
1	AA	431	A	C3'-C2'-C1'	5.20	105.66	101.50
1	AA	723	U	P-O3'-C3'	-5.20	113.45	119.70
22	DA	336	C	O4'-C1'-N1	5.20	112.36	108.20
22	DA	224	U	C3'-C2'-C1'	5.20	105.66	101.50
1	AA	346	G	C3'-C2'-C1'	5.20	105.66	101.50
1	AA	755	G	N9-C1'-C2'	-5.20	106.28	112.00
22	BA	2834	G	C3'-C2'-C1'	5.20	105.66	101.50
53	CA	421	U	P-O3'-C3'	5.20	125.94	119.70
53	CA	874	G	C3'-C2'-C1'	5.20	105.66	101.50
22	DA	121	G	C3'-C2'-C1'	5.20	105.66	101.50
22	BA	1985	C	P-O5'-C5'	-5.20	112.58	120.90
22	DA	2069	G	N9-C1'-C2'	-5.20	106.28	112.00
22	DA	2881	U	O4'-C1'-N1	5.20	112.36	108.20
22	DA	482	A	P-O3'-C3'	-5.20	113.46	119.70
1	AA	1169	A	P-O3'-C3'	-5.20	113.47	119.70
22	BA	2691	C	P-O3'-C3'	-5.20	113.47	119.70
53	CA	891	U	O4'-C1'-N1	5.20	112.36	108.20
22	DA	505	A	P-O3'-C3'	-5.20	113.47	119.70
22	BA	1806	C	P-O3'-C3'	-5.19	113.47	119.70
22	BA	1992	G	C4'-C3'-C2'	5.19	107.79	102.60
22	DA	1558	C	N1-C1'-C2'	5.19	120.75	114.00
22	BA	1968	G	P-O5'-C5'	-5.19	112.59	120.90
22	DA	164	C	C3'-C2'-C1'	5.19	105.65	101.50
22	DA	1013	C	C3'-C2'-C1'	5.19	105.65	101.50
1	AA	14	U	C3'-C2'-C1'	5.19	105.65	101.50
22	BA	503	A	O4'-C1'-N9	5.19	112.35	108.20
22	BA	507	A	C3'-C2'-C1'	5.19	105.65	101.50
22	BA	2428	G	N9-C1'-C2'	-5.19	106.29	112.00
22	DA	772	C	O4'-C1'-N1	5.19	112.35	108.20
22	DA	1208	C	O4'-C1'-N1	5.19	112.35	108.20
22	DA	2581	G	O4'-C1'-N9	5.19	112.35	108.20
22	DA	2836	U	C3'-C2'-C1'	5.19	105.65	101.50
22	BA	2445	G	P-O3'-C3'	-5.19	113.48	119.70
22	DA	2603	G	C3'-C2'-C1'	5.19	105.65	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	430	A	N9-C1'-C2'	-5.18	106.30	112.00
22	BA	475	C	O4'-C1'-N1	-5.18	104.05	108.20
22	BA	1497	U	P-O3'-C3'	5.18	125.92	119.70
22	BA	2060	A	O4'-C1'-N9	5.18	112.35	108.20
53	CA	1510	C	O4'-C1'-N1	-5.18	104.05	108.20
22	DA	2567	G	C3'-C2'-C1'	5.18	105.65	101.50
23	BB	48	U	P-O5'-C5'	-5.18	112.61	120.90
53	CA	52	C	C3'-C2'-C1'	5.18	105.65	101.50
22	DA	730	A	C3'-C2'-C1'	5.18	105.65	101.50
1	AA	1068	G	C3'-C2'-C1'	5.18	105.64	101.50
22	BA	957	C	C2-N3-C4	5.18	122.49	119.90
53	CA	1283	U	C3'-C2'-C1'	5.18	105.64	101.50
22	DA	2450	A	N9-C1'-C2'	-5.18	106.30	112.00
1	AA	52	C	C3'-C2'-C1'	5.18	105.64	101.50
1	AA	874	G	C3'-C2'-C1'	5.18	105.64	101.50
22	BA	672	C	C5-C6-N1	-5.18	118.41	121.00
22	BA	2354	C	O4'-C1'-N1	-5.18	104.06	108.20
53	CA	110	C	C3'-C2'-C1'	5.18	105.64	101.50
22	DA	2667	C	P-O3'-C3'	-5.18	113.49	119.70
22	BA	566	U	P-O5'-C5'	-5.17	112.62	120.90
22	BA	1786	A	P-O3'-C3'	5.17	125.91	119.70
22	BA	1943	U	P-O3'-C3'	5.17	125.91	119.70
22	DA	964	C	O4'-C1'-N1	5.17	112.34	108.20
57	DB	16	G	P-O3'-C3'	-5.17	113.49	119.70
22	DA	104	A	P-O3'-C3'	-5.17	113.49	119.70
53	CA	1317	C	O4'-C1'-N1	5.17	112.34	108.20
22	DA	1569	A	C3'-C2'-C1'	5.17	105.64	101.50
22	BA	1313	U	C3'-C2'-C1'	5.17	105.64	101.50
22	BA	2781	A	C3'-C2'-C1'	5.17	105.64	101.50
53	CA	563	A	P-O3'-C3'	-5.17	113.50	119.70
53	CA	1530	G	C3'-C2'-C1'	5.17	105.63	101.50
22	DA	946	C	P-O3'-C3'	-5.17	113.50	119.70
53	CA	1450	U	O4'-C1'-N1	5.16	112.33	108.20
1	AA	724	G	N9-C1'-C2'	-5.16	106.32	112.00
22	BA	2424	C	N3-C4-N4	-5.16	114.39	118.00
22	BA	2491	U	P-O5'-C5'	-5.16	112.64	120.90
22	BA	776	G	O4'-C1'-N9	-5.16	104.07	108.20
22	BA	806	C	P-O3'-C3'	-5.16	113.51	119.70
53	CA	1184	G	C3'-C2'-C1'	5.16	105.63	101.50
22	DA	77	G	P-O3'-C3'	-5.16	113.51	119.70
22	DA	2337	G	P-O3'-C3'	-5.16	113.51	119.70
1	AA	1202	U	P-O3'-C3'	-5.16	113.51	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	DA	1810	A	C3'-C2'-C1'	5.16	105.62	101.50
22	BA	2692	G	P-O3'-C3'	-5.15	113.52	119.70
22	DA	250	G	C3'-C2'-C1'	5.15	105.62	101.50
1	AA	972	C	O4'-C1'-N1	5.15	112.32	108.20
22	BA	1023	U	C3'-C2'-C1'	5.15	105.62	101.50
22	BA	1082	U	O4'-C1'-N1	5.15	112.32	108.20
22	DA	1276	A	C3'-C2'-C1'	5.15	105.62	101.50
22	DA	1943	U	N1-C1'-C2'	5.15	120.70	114.00
1	AA	722	G	C3'-C2'-C1'	5.15	105.62	101.50
22	BA	628	G	C3'-C2'-C1'	5.15	105.62	101.50
22	BA	1165	A	P-O3'-C3'	5.15	125.88	119.70
53	CA	1217	C	C3'-C2'-C1'	5.15	105.62	101.50
22	DA	459	U	P-O3'-C3'	-5.15	113.52	119.70
22	DA	1080	A	P-O3'-C3'	-5.15	113.52	119.70
1	AA	330	C	C3'-C2'-C1'	5.15	105.62	101.50
22	BA	373	U	C3'-C2'-C1'	5.15	105.62	101.50
22	BA	542	C	O4'-C1'-N1	5.15	112.32	108.20
22	DA	197	A	P-O3'-C3'	-5.15	113.52	119.70
22	BA	2322	A	C3'-C2'-C1'	5.15	105.62	101.50
22	BA	208	C	C5-C6-N1	-5.14	118.43	121.00
22	BA	223	A	C3'-C2'-C1'	5.14	105.62	101.50
22	BA	607	U	N1-C1'-C2'	-5.14	106.34	112.00
22	BA	1612	C	O4'-C1'-N1	-5.14	104.08	108.20
22	BA	1714	U	P-O3'-C3'	-5.14	113.53	119.70
22	DA	933	A	O4'-C1'-N9	-5.14	104.08	108.20
22	DA	1456	G	P-O3'-C3'	-5.14	113.53	119.70
22	DA	2299	U	C3'-C2'-C1'	5.14	105.61	101.50
22	DA	2874	C	C3'-C2'-C1'	5.14	105.62	101.50
1	AA	1055	A	N9-C1'-C2'	-5.14	106.34	112.00
22	BA	1859	U	C3'-C2'-C1'	5.14	105.61	101.50
57	DB	42	C	P-O3'-C3'	-5.14	113.53	119.70
22	BA	398	C	P-O5'-C5'	-5.14	112.67	120.90
22	DA	739	A	P-O3'-C3'	5.14	125.87	119.70
22	BA	386	G	N3-C4-N9	-5.14	122.92	126.00
22	BA	1693	U	O4'-C1'-N1	5.14	112.31	108.20
53	CA	238	A	P-O3'-C3'	5.14	125.87	119.70
22	BA	1249	U	C3'-C2'-C1'	5.14	105.61	101.50
22	DA	1050	A	C3'-C2'-C1'	5.14	105.61	101.50
22	DA	2879	A	P-O3'-C3'	5.14	125.86	119.70
1	AA	567	G	N9-C1'-C2'	-5.13	106.35	112.00
22	BA	2691	C	C3'-C2'-C1'	5.13	105.61	101.50
53	CA	437	U	O4'-C1'-N1	-5.13	104.09	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
53	CA	1129	C	P-O3'-C3'	5.13	125.86	119.70
22	DA	1324	G	O4'-C1'-N9	5.13	112.31	108.20
22	DA	1401	G	P-O3'-C3'	-5.13	113.54	119.70
22	BA	459	U	C3'-C2'-C1'	5.13	105.61	101.50
22	DA	588	U	C3'-C2'-C1'	5.13	105.61	101.50
1	AA	1509	C	C6-N1-C2	5.13	122.35	120.30
22	BA	593	U	O4'-C1'-N1	5.13	112.31	108.20
22	BA	1021	A	O4'-C1'-N9	-5.13	104.09	108.20
22	BA	1537	G	C3'-C2'-C1'	5.13	105.61	101.50
22	BA	2093	G	C3'-C2'-C1'	5.13	105.61	101.50
22	DA	1993	U	O4'-C1'-N1	5.13	112.31	108.20
22	BA	2757	A	N9-C1'-C2'	-5.13	106.36	112.00
53	CA	389	A	N9-C1'-C2'	-5.13	106.36	112.00
22	DA	1329	U	N1-C1'-C2'	5.13	120.67	114.00
22	BA	239	C	O4'-C1'-N1	5.13	112.30	108.20
53	CA	352	C	P-O3'-C3'	-5.13	113.55	119.70
22	DA	615	U	P-O3'-C3'	5.13	125.86	119.70
22	BA	698	C	C6-N1-C2	5.13	122.35	120.30
22	BA	918	A	P-O5'-C5'	-5.13	112.70	120.90
22	BA	1682	G	C3'-C2'-C1'	5.13	105.60	101.50
22	BA	2199	A	O4'-C1'-N9	-5.13	104.10	108.20
53	CA	72	A	C3'-C2'-C1'	5.12	105.60	101.50
53	CA	122	G	C3'-C2'-C1'	5.12	105.60	101.50
22	DA	1938	A	P-O3'-C3'	5.12	125.85	119.70
29	DH	48	GLU	CA-C-N	-5.12	105.93	117.20
22	BA	312	G	C3'-C2'-C1'	5.12	105.60	101.50
22	BA	1953	A	P-O5'-C5'	-5.12	112.71	120.90
22	BA	2295	C	C6-N1-C2	5.12	122.35	120.30
22	DA	1812	U	O4'-C1'-N1	5.12	112.30	108.20
22	BA	2725	A	C8-N9-C4	5.12	107.85	105.80
1	AA	356	A	O4'-C1'-N9	5.12	112.30	108.20
1	AA	468	A	P-O3'-C3'	-5.12	113.56	119.70
22	BA	1218	G	C6-C5-N7	-5.12	127.33	130.40
22	BA	2442	C	OP1-P-O3'	5.12	116.46	105.20
53	CA	64	G	P-O3'-C3'	5.12	125.84	119.70
22	BA	1452	G	C8-N9-C4	-5.12	104.35	106.40
22	BA	1304	A	P-O5'-C5'	-5.12	112.72	120.90
22	BA	1788	C	O5'-P-OP2	-5.12	101.10	105.70
22	BA	2453	A	N1-C6-N6	5.12	121.67	118.60
22	DA	406	G	C3'-C2'-C1'	5.12	105.59	101.50
22	DA	824	U	P-O3'-C3'	-5.12	113.56	119.70
22	DA	2459	A	N9-C1'-C2'	-5.12	106.37	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	BA	806	C	C3'-C2'-C1'	5.11	105.59	101.50
22	BA	2364	C	O4'-C1'-N1	5.11	112.29	108.20
22	BA	2781	A	N9-C1'-C2'	-5.11	106.38	112.00
22	DA	199	A	O4'-C1'-N9	5.11	112.29	108.20
22	DA	1034	G	P-O3'-C3'	-5.11	113.56	119.70
22	DA	1783	A	O5'-P-OP2	-5.11	101.10	105.70
22	BA	2502	G	O4'-C1'-N9	5.11	112.29	108.20
22	BA	2449	U	N3-C4-O4	5.11	122.98	119.40
1	AA	430	A	C3'-C2'-C1'	5.11	105.59	101.50
1	AA	1192	C	P-O3'-C3'	-5.11	113.57	119.70
22	BA	2356	U	O4'-C1'-N1	5.11	112.29	108.20
22	DA	1396	U	N1-C1'-C2'	5.11	120.64	114.00
1	AA	245	U	C3'-C2'-C1'	5.11	105.59	101.50
22	BA	1605	C	N1-C2-O2	-5.11	115.84	118.90
22	BA	2258	C	C4'-C3'-C2'	5.11	107.71	102.60
22	BA	2385	C	C3'-C2'-C1'	5.11	105.59	101.50
53	CA	448	A	O4'-C1'-N9	5.11	112.29	108.20
53	CA	1128	C	C3'-C2'-C1'	5.11	105.59	101.50
22	DA	1722	A	C3'-C2'-C1'	5.11	105.59	101.50
22	BA	2639	A	P-O3'-C3'	-5.11	113.57	119.70
22	DA	1915	U	C3'-C2'-C1'	5.11	105.58	101.50
22	BA	1547	C	P-O3'-C3'	-5.10	113.58	119.70
53	CA	1499	A	N9-C1'-C2'	-5.10	106.39	112.00
22	DA	480	A	C3'-C2'-C1'	5.10	105.58	101.50
22	DA	1515	A	O4'-C1'-N9	5.10	112.28	108.20
1	AA	1203	C	O4'-C1'-N1	5.10	112.28	108.20
22	BA	1956	U	P-O5'-C5'	-5.10	112.74	120.90
53	CA	374	A	N9-C1'-C2'	-5.10	106.39	112.00
53	CA	828	U	O4'-C1'-N1	5.10	112.28	108.20
1	AA	498	A	N9-C1'-C2'	-5.10	106.39	112.00
1	AA	1215	G	C3'-C2'-C1'	5.10	105.58	101.50
53	CA	430	A	P-O3'-C3'	-5.10	113.58	119.70
53	CA	1447	A	P-O3'-C3'	5.10	125.82	119.70
22	DA	197	A	C3'-C2'-C1'	5.10	105.58	101.50
1	AA	1395	C	C3'-C2'-C1'	5.10	105.58	101.50
53	CA	353	A	O4'-C1'-N9	5.10	112.28	108.20
22	DA	1012	U	O4'-C1'-N1	5.10	112.28	108.20
1	AA	1258	G	C3'-C2'-C1'	5.10	105.58	101.50
22	BA	2150	C	O4'-C1'-N1	5.10	112.28	108.20
22	BA	2407	A	P-O3'-C3'	-5.10	113.58	119.70
22	BA	2797	U	O4'-C1'-N1	5.10	112.28	108.20
22	BA	2806	C	O4'-C1'-N1	5.10	112.28	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
53	CA	984	C	O4'-C1'-N1	5.10	112.28	108.20
22	DA	2505	G	C8-N9-C4	-5.10	104.36	106.40
22	DA	2639	A	N9-C1'-C2'	-5.10	106.39	112.00
22	BA	1664	A	O3'-P-O5'	-5.10	94.32	104.00
22	BA	2013	A	C8-N9-C4	5.10	107.84	105.80
22	DA	2543	G	C3'-C2'-C1'	5.10	105.58	101.50
22	BA	2490	G	O3'-P-O5'	5.09	113.68	104.00
22	DA	1653	G	P-O3'-C3'	5.09	125.81	119.70
1	AA	1278	G	P-O3'-C3'	5.09	125.81	119.70
22	BA	271	G	P-O3'-C3'	5.09	125.81	119.70
22	BA	533	G	C3'-C2'-C1'	5.09	105.57	101.50
22	BA	832	U	C5-C6-N1	-5.09	120.16	122.70
22	BA	2451	A	P-O3'-C3'	-5.09	113.59	119.70
22	BA	2611	C	O4'-C1'-N1	5.09	112.27	108.20
22	BA	1809	A	C3'-C2'-C1'	5.09	105.57	101.50
22	DA	776	G	O4'-C1'-N9	-5.09	104.13	108.20
22	DA	802	A	C3'-C2'-C1'	5.09	105.57	101.50
22	BA	143	C	O4'-C1'-N1	5.09	112.27	108.20
22	BA	255	A	C2-N3-C4	-5.09	108.06	110.60
1	AA	1332	A	C3'-C2'-C1'	5.09	105.57	101.50
22	BA	486	C	O4'-C1'-N1	-5.09	104.13	108.20
22	BA	974	G	P-O3'-C3'	5.09	125.80	119.70
22	BA	1541	C	P-O3'-C3'	-5.09	113.60	119.70
22	DA	1493	C	N1-C1'-C2'	5.09	120.61	114.00
22	DA	2347	C	C3'-C2'-C1'	5.09	105.57	101.50
22	DA	2847	U	P-O3'-C3'	5.09	125.80	119.70
1	AA	279	A	O4'-C1'-N9	-5.08	104.13	108.20
1	AA	1108	G	P-O3'-C3'	-5.08	113.60	119.70
22	BA	656	G	P-O5'-C5'	-5.08	112.77	120.90
53	CA	508	U	O4'-C1'-N1	5.08	112.27	108.20
1	AA	1380	U	O4'-C1'-N1	5.08	112.26	108.20
22	DA	915	C	C3'-C2'-C1'	5.08	105.56	101.50
22	BA	2281	A	P-O5'-C5'	-5.08	112.77	120.90
22	BA	2597	G	P-O3'-C3'	5.08	125.80	119.70
22	DA	505	A	C3'-C2'-C1'	5.08	105.56	101.50
22	DA	1458	U	O4'-C1'-N1	5.08	112.26	108.20
22	DA	2429	G	C8-N9-C1'	-5.08	120.40	127.00
53	CA	1152	A	C3'-C2'-C1'	5.08	105.56	101.50
22	BA	1618	A	P-O3'-C3'	5.08	125.79	119.70
22	DA	265	A	O4'-C1'-N9	5.08	112.26	108.20
22	BA	2729	G	N9-C1'-C2'	-5.07	106.42	112.00
22	BA	2874	C	P-O3'-C3'	-5.07	113.61	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	DA	2757	A	N9-C1'-C2'	-5.07	106.42	112.00
22	BA	2689	U	C5-C4-O4	5.07	128.94	125.90
53	CA	349	A	C3'-C2'-C1'	5.07	105.56	101.50
1	AA	428	G	P-O3'-C3'	5.07	125.78	119.70
22	BA	2567	G	P-O3'-C3'	-5.07	113.62	119.70
22	BA	2630	G	C3'-C2'-C1'	5.07	105.55	101.50
1	AA	372	C	P-O3'-C3'	5.07	125.78	119.70
22	BA	2037	A	P-O5'-C5'	-5.07	112.80	120.90
22	BA	2194	U	P-O3'-C3'	-5.07	113.62	119.70
23	BB	86	G	P-O3'-C3'	-5.07	113.62	119.70
22	DA	477	A	C3'-C2'-C1'	5.07	105.55	101.50
53	CA	1453	G	C3'-C2'-C1'	5.06	105.55	101.50
1	AA	1531	A	P-O3'-C3'	-5.06	113.62	119.70
22	BA	996	A	O5'-P-OP2	-5.06	101.14	105.70
53	CA	199	A	P-O3'-C3'	-5.06	113.62	119.70
22	DA	1919	A	N9-C1'-C2'	-5.06	106.43	112.00
22	BA	2469	A	C3'-C2'-C1'	5.06	105.55	101.50
22	BA	1120	G	C2-N3-C4	-5.06	109.37	111.90
22	BA	916	G	P-O5'-C5'	-5.06	112.81	120.90
22	BA	962	G	N9-C1'-C2'	-5.06	106.44	112.00
53	CA	1029	U	O4'-C1'-N1	5.06	112.25	108.20
22	DA	321	U	P-O3'-C3'	5.06	125.77	119.70
22	DA	2726	A	P-O3'-C3'	5.06	125.77	119.70
22	DA	1080	A	C3'-C2'-C1'	5.06	105.55	101.50
1	AA	966	G	N9-C1'-C2'	-5.05	106.44	112.00
1	AA	1102	A	C3'-C2'-C1'	5.05	105.54	101.50
53	CA	1449	C	P-O3'-C3'	-5.05	113.64	119.70
1	AA	247	G	N9-C1'-C2'	-5.05	106.44	112.00
22	DA	445	C	C3'-C2'-C1'	5.05	105.54	101.50
1	AA	438	U	P-O3'-C3'	5.05	125.76	119.70
1	AA	813	U	O4'-C1'-N1	5.05	112.24	108.20
22	BA	1343	G	C3'-C2'-C1'	5.05	105.54	101.50
22	BA	2684	U	O5'-P-OP2	-5.05	101.15	105.70
22	BA	2769	U	O4'-C1'-N1	5.05	112.24	108.20
22	BA	2778	A	P-O3'-C3'	5.05	125.76	119.70
53	CA	1191	A	C3'-C2'-C1'	5.05	105.54	101.50
22	BA	865	C	N3-C2-O2	5.05	125.44	121.90
22	BA	1306	C	O4'-C1'-N1	5.05	112.24	108.20
22	BA	1669	A	O4'-C1'-N9	5.05	112.24	108.20
23	BB	58	A	C3'-C2'-C1'	5.05	105.54	101.50
22	BA	2492	U	P-O5'-C5'	-5.05	112.82	120.90
53	CA	218	U	O4'-C1'-N1	5.05	112.24	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
53	CA	1051	C	O4'-C1'-N1	5.05	112.24	108.20
1	AA	1395	C	P-O3'-C3'	-5.05	113.64	119.70
22	BA	2506	U	N1-C1'-C2'	5.05	120.56	114.00
22	BA	2547	A	P-O3'-C3'	5.05	125.76	119.70
22	DA	606	U	C3'-C2'-C1'	5.05	105.54	101.50
22	DA	2267	A	C4-N9-C1'	5.05	135.38	126.30
22	BA	1799	G	P-O3'-C3'	5.04	125.75	119.70
53	CA	12	U	O4'-C1'-N1	5.04	112.24	108.20
22	DA	1539	U	P-O3'-C3'	-5.04	113.65	119.70
1	AA	1454	G	C3'-C2'-C1'	5.04	105.53	101.50
22	BA	1144	A	N9-C1'-C2'	-5.04	106.45	112.00
22	BA	1341	G	P-O5'-C5'	-5.04	112.83	120.90
22	BA	1417	C	C3'-C2'-C1'	5.04	105.53	101.50
22	BA	2781	A	P-O3'-C3'	-5.04	113.65	119.70
53	CA	499	A	P-O3'-C3'	5.04	125.75	119.70
22	DA	2731	G	P-O3'-C3'	-5.04	113.65	119.70
22	BA	333	G	P-O5'-C5'	-5.04	112.83	120.90
22	BA	2018	G	O5'-P-OP1	5.04	116.75	110.70
22	DA	491	G	C3'-C2'-C1'	5.04	105.53	101.50
22	DA	1399	C	C3'-C2'-C1'	5.04	105.53	101.50
22	BA	2293	G	P-O5'-C5'	-5.04	112.84	120.90
22	BA	2342	C	P-O5'-C5'	-5.04	112.84	120.90
22	DA	2137	U	O4'-C1'-N1	5.04	112.23	108.20
22	BA	391	A	C3'-C2'-C1'	5.04	105.53	101.50
22	BA	1669	A	P-O3'-C3'	-5.04	113.66	119.70
23	BB	43	C	C3'-C2'-C1'	5.04	105.53	101.50
22	BA	821	A	OP1-P-O3'	5.04	116.28	105.20
53	CA	595	A	P-O3'-C3'	5.04	125.74	119.70
22	DA	831	G	C3'-C2'-C1'	5.04	105.53	101.50
22	BA	633	A	P-O3'-C3'	5.03	125.74	119.70
22	BA	1322	A	P-O3'-C3'	5.03	125.74	119.70
22	BA	1498	C	P-O3'-C3'	-5.03	113.66	119.70
53	CA	697	U	O4'-C1'-N1	5.03	112.23	108.20
53	CA	719	C	O4'-C1'-N1	5.03	112.23	108.20
22	DA	1602	U	N1-C1'-C2'	5.03	120.54	114.00
22	DA	2035	G	O4'-C1'-N9	5.03	112.23	108.20
53	CA	423	G	C3'-C2'-C1'	5.03	105.52	101.50
53	CA	500	G	C3'-C2'-C1'	5.03	105.53	101.50
22	DA	1539	U	C3'-C2'-C1'	5.03	105.52	101.50
22	DA	2729	G	P-O3'-C3'	-5.03	113.66	119.70
22	BA	2682	A	C3'-C2'-C1'	5.03	105.52	101.50
22	DA	1491	G	C3'-C2'-C1'	5.03	105.52	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1303	C	C3'-C2'-C1'	5.03	105.52	101.50
22	BA	866	A	P-O3'-C3'	-5.03	113.67	119.70
53	CA	1031	C	P-O3'-C3'	5.03	125.73	119.70
22	DA	1064	C	C3'-C2'-C1'	5.03	105.52	101.50
22	BA	974	G	N7-C8-N9	5.03	115.61	113.10
22	BA	1281	G	P-O5'-C5'	-5.03	112.86	120.90
22	BA	2490	G	C4'-C3'-C2'	5.03	107.63	102.60
53	CA	47	C	N1-C1'-C2'	5.03	120.53	114.00
1	AA	1064	G	C8-N9-C1'	5.02	133.53	127.00
22	BA	674	G	P-O5'-C5'	-5.02	112.86	120.90
23	BB	45	A	C3'-C2'-C1'	5.02	105.52	101.50
53	CA	1181	G	P-O3'-C3'	5.02	125.73	119.70
22	DA	2030	A	P-O3'-C3'	5.02	125.73	119.70
22	BA	944	C	O4'-C1'-N1	5.02	112.22	108.20
22	DA	1457	U	O4'-C1'-N1	5.02	112.22	108.20
22	DA	1619	G	P-O3'-C3'	-5.02	113.67	119.70
22	BA	1451	C	N1-C1'-C2'	5.02	120.53	114.00
22	BA	1771	C	N1-C2-O2	-5.02	115.89	118.90
22	DA	589	U	O4'-C1'-N1	5.02	112.22	108.20
1	AA	813	U	C3'-C2'-C1'	5.02	105.52	101.50
22	BA	1524	G	C3'-C2'-C1'	5.02	105.52	101.50
22	BA	2894	G	C3'-C2'-C1'	5.02	105.52	101.50
22	DA	2404	U	C3'-C2'-C1'	5.02	105.52	101.50
22	DA	2440	C	O4'-C1'-N1	5.02	112.22	108.20
22	BA	2347	C	O4'-C1'-N1	5.02	112.21	108.20
22	BA	2637	U	N3-C2-O2	5.02	125.71	122.20
53	CA	527	G	C3'-C2'-C1'	5.02	105.51	101.50
22	BA	870	U	O4'-C1'-N1	5.01	112.21	108.20
22	BA	1135	C	C3'-C2'-C1'	5.01	105.51	101.50
22	BA	1681	G	C5-C6-O6	-5.01	125.59	128.60
22	BA	2681	C	C6-N1-C2	5.01	122.31	120.30
22	DA	1346	G	C3'-C2'-C1'	5.01	105.51	101.50
22	BA	739	A	C4'-C3'-C2'	5.01	107.61	102.60
53	CA	306	A	O4'-C1'-N9	-5.01	104.19	108.20
22	DA	1675	C	P-O3'-C3'	-5.01	113.68	119.70
22	BA	913	U	C4'-C3'-C2'	5.01	107.61	102.60
22	DA	1560	G	C3'-C2'-C1'	5.01	105.51	101.50
22	DA	2573	C	C3'-C2'-C1'	5.01	105.51	101.50
22	DA	2837	A	C3'-C2'-C1'	5.01	105.51	101.50
1	AA	1158	C	N1-C1'-C2'	-5.01	106.49	112.00
22	BA	162	U	N1-C1'-C2'	5.01	120.51	114.00
22	BA	860	U	P-O3'-C3'	-5.01	113.69	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
53	CA	1161	C	C3'-C2'-C1'	5.01	105.51	101.50
22	DA	2622	U	O4'-C1'-N1	5.01	112.21	108.20
22	BA	334	C	OP1-P-O3'	5.01	116.21	105.20
22	BA	1612	C	N1-C2-O2	-5.01	115.90	118.90
22	BA	1700	A	N9-C1'-C2'	-5.01	106.49	112.00
53	CA	275	G	P-O3'-C3'	-5.01	113.69	119.70
53	CA	498	A	C3'-C2'-C1'	5.01	105.50	101.50
22	DA	396	G	C3'-C2'-C1'	5.01	105.51	101.50
22	DA	2489	U	P-O3'-C3'	5.01	125.71	119.70
22	DA	2543	G	P-O3'-C3'	-5.01	113.69	119.70
1	AA	92	U	C3'-C2'-C1'	5.00	105.50	101.50
22	BA	1267	U	P-O3'-C3'	-5.00	113.69	119.70
22	BA	266	G	C3'-C2'-C1'	5.00	105.50	101.50
22	BA	1821	A	C3'-C2'-C1'	5.00	105.50	101.50
22	DA	199	A	P-O3'-C3'	5.00	125.70	119.70
22	BA	25	U	C5-C4-O4	-5.00	122.90	125.90
23	BB	45	A	N9-C1'-C2'	-5.00	106.50	112.00
53	CA	73	C	P-O3'-C3'	-5.00	113.70	119.70

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
25	BD	9	VAL	Peptide
31	BJ	43	GLU	Peptide
35	BN	101	GLY	Peptide
58	DF	177	ARG	Mainchain

5.2 Too-close contacts (i)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	32895	0	16553	1994	0
2	AB	1705	0	1731	279	0
2	CB	1705	0	1732	233	0
3	AC	1625	0	1699	178	0
3	CC	1625	0	1699	193	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	AD	1643	0	1710	243	0
4	CD	1643	0	1710	224	0
5	AE	1106	0	1148	206	0
5	CE	1106	0	1148	145	0
6	AF	818	0	808	111	0
6	CF	818	0	808	117	0
7	AG	1182	0	1240	130	0
8	AH	979	0	1034	136	0
8	CH	979	0	1034	126	0
9	AI	1022	0	1070	133	0
9	CI	1022	0	1070	164	0
10	AJ	787	0	828	141	0
10	CJ	787	0	828	148	0
11	AK	877	0	887	140	0
11	CK	877	0	887	128	0
12	AL	955	0	1019	127	0
12	CL	955	0	1019	156	0
13	AM	884	0	944	94	0
14	AN	774	0	827	136	0
14	CN	769	0	822	130	0
15	AO	714	0	737	84	0
15	CO	714	0	737	61	0
16	AP	649	0	666	79	0
17	AQ	649	0	691	100	0
17	CQ	649	0	691	112	0
18	AR	456	0	478	53	0
18	CR	456	0	478	57	0
19	AS	638	0	665	74	0
19	CS	638	0	665	109	0
20	AT	665	0	714	97	0
20	CT	665	0	714	86	0
21	AU	426	0	449	116	0
21	CU	426	0	449	92	0
22	BA	61274	0	30819	3248	0
22	DA	60995	0	30679	5259	0
23	BB	2529	0	1281	118	0
24	BC	2083	0	2157	287	0
24	DC	2083	0	2157	345	0
25	BD	1565	0	1616	269	0
25	DD	1565	0	1616	291	0
26	BE	1552	0	1619	203	0
26	DE	1552	0	1619	266	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
27	BF	1411	0	1447	208	0
28	BG	1323	0	1374	211	0
28	DG	1323	0	1374	199	0
29	BH	1111	0	1148	166	0
29	DH	1111	0	1148	175	0
30	BI	1032	0	1088	114	0
30	DI	1032	0	1088	120	0
31	BJ	1129	0	1162	216	0
31	DJ	1129	0	1162	202	0
32	BK	939	0	1012	164	0
32	DK	939	0	1012	183	0
33	BL	1045	0	1117	169	0
33	DL	1045	0	1117	192	0
34	BM	1074	0	1157	146	0
34	DM	1074	0	1157	150	0
35	BN	961	0	1000	123	0
35	DN	961	0	1000	207	0
36	BO	892	0	923	92	0
36	DO	892	0	923	107	0
37	BP	917	0	965	195	0
37	DP	917	0	965	172	0
38	BQ	947	0	1022	191	0
38	DQ	947	0	1022	180	0
39	BR	816	0	839	138	0
39	DR	816	0	839	137	0
40	BS	857	0	922	110	0
40	DS	857	0	922	131	0
41	BT	739	0	807	156	0
41	DT	739	0	807	159	0
42	BU	780	0	834	84	0
42	DU	780	0	834	133	0
43	BV	753	0	780	76	0
43	DV	753	0	780	108	0
44	BW	596	0	610	229	0
44	DW	596	0	610	174	0
45	BX	625	0	655	104	0
45	DX	625	0	655	114	0
46	BY	509	0	543	69	0
46	DY	509	0	543	102	0
47	BZ	449	0	491	58	0
47	DZ	449	0	491	58	0
48	B0	444	0	461	32	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
48	D0	444	0	461	75	0
49	B1	410	0	440	57	0
49	D1	410	0	440	53	0
50	B2	377	0	418	36	0
50	D2	377	0	418	66	0
51	B3	504	0	574	53	0
51	D3	504	0	574	67	0
52	B4	302	0	340	47	0
52	D4	302	0	342	41	0
53	CA	32831	0	16521	2416	0
54	CG	1175	0	1230	194	0
55	CM	877	0	937	167	0
56	CP	639	0	656	101	0
57	DB	2507	0	1270	234	0
58	DF	1420	0	1460	282	0
59	AA	42	0	0	0	0
59	AN	1	0	0	0	0
59	BA	134	0	0	0	0
59	BB	4	0	0	0	0
59	BL	1	0	0	0	0
59	CA	42	0	0	0	0
59	DA	132	0	0	0	0
59	DB	1	0	0	0	0
59	DC	2	0	0	0	0
59	DE	1	0	0	0	0
59	DJ	1	0	0	0	0
60	BA	27	0	32	2	0
61	B4	1	0	0	0	0
61	D4	1	0	0	0	0
62	AA	197	0	0	5	0
62	AE	1	0	0	0	0
62	AL	1	0	0	0	0
62	AN	6	0	0	2	0
62	AT	2	0	0	0	0
62	AU	1	0	0	0	0
62	B2	2	0	0	0	0
62	B3	2	0	0	1	0
62	B4	1	0	0	0	0
62	BA	601	0	0	48	0
62	BB	20	0	0	1	0
62	BC	8	0	0	0	0
62	BD	4	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
62	BE	1	0	0	1	0
62	BL	3	0	0	1	0
62	BN	3	0	0	1	0
62	BQ	1	0	0	0	0
62	BR	1	0	0	1	0
62	BT	3	0	0	0	0
62	CA	193	0	0	7	0
62	CE	4	0	0	0	0
62	CI	1	0	0	0	0
62	CL	1	0	0	0	0
62	CN	3	0	0	0	0
62	CT	3	0	0	0	0
62	CU	2	0	0	0	0
62	D2	2	0	0	0	0
62	D3	1	0	0	0	0
62	D4	4	0	0	0	0
62	DA	599	0	0	28	0
62	DB	4	0	0	0	0
62	DC	9	0	0	2	0
62	DD	2	0	0	0	0
62	DE	3	0	0	0	0
62	DJ	5	0	0	0	0
62	DL	5	0	0	1	0
62	DN	3	0	0	0	0
62	DT	3	0	0	1	0
62	DU	2	0	0	0	0
62	DV	1	0	0	0	0
All	All	284501	0	190871	25099	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 53.

All (25099) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:900:A:C2'	22:BA:901:C:H5'	1.40	1.46
2:AB:108:GLN:O	2:AB:110:ILE:N	1.58	1.37
22:BA:1073:A:C2'	22:BA:1074:G:H5"	1.54	1.35
2:CB:93:HIS:CG	2:CB:145:ASN:O	1.88	1.27
28:BG:84:LYS:HG3	28:BG:132:LEU:N	1.49	1.26
22:DA:1915:U:H2'	22:DA:1916:A:C8	1.71	1.26

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:989:U:C2'	53:CA:990:C:H5'	1.67	1.25
31:BJ:111:LYS:HD3	31:BJ:112:GLY:N	1.50	1.25
22:BA:2197:U:O2'	22:BA:2198:A:H2'	1.30	1.24
22:DA:2800:A:O2'	22:DA:2801:G:H4'	1.25	1.24
22:DA:1401:G:H2'	22:DA:1402:U:C6	1.74	1.23
24:BC:246:PRO:HG2	24:BC:247:TRP:CZ3	1.75	1.22
53:CA:82:G:O2'	53:CA:83:C:H4'	1.38	1.22
1:AA:174:A:O2'	1:AA:175:C:H5'	1.41	1.21
38:BQ:63:ARG:NH1	38:BQ:96:ASP:HA	1.56	1.20
53:CA:987:G:H2'	53:CA:988:G:C8	1.77	1.19
44:DW:27:GLY:CA	44:DW:31:LEU:HD11	1.71	1.19
22:BA:900:A:H2'	22:BA:901:C:C5'	1.71	1.19
2:AB:110:ILE:CD1	2:AB:147:LEU:HD13	1.73	1.19
22:DA:1492:G:H3'	22:DA:1493:C:H5'	1.21	1.19
22:BA:751:A:H5"	22:BA:752:A:OP1	1.41	1.18
37:BP:50:ARG:HG2	37:BP:57:ALA:N	1.54	1.18
22:DA:1537:G:C2'	22:DA:1538:G:H4'	1.74	1.18
53:CA:1014:A:H4'	19:CS:13:HIS:CD2	1.78	1.17
1:AA:94:G:H4'	1:AA:95:C:C5'	1.73	1.17
5:AE:80:LEU:HD23	5:AE:122:VAL:HG11	1.22	1.17
1:AA:874:G:O2'	1:AA:875:U:H5'	1.42	1.17
22:BA:1071:G:H1'	22:BA:1089:A:N7	1.59	1.17
39:BR:42:ALA:HA	39:BR:46:GLU:HB2	1.26	1.17
28:BG:8:VAL:HG11	28:BG:49:LEU:HB2	1.23	1.16
31:BJ:44:TYR:HB2	38:BQ:63:ARG:HB3	1.23	1.16
12:CL:43:LYS:HB3	12:CL:44:PRO:CD	1.75	1.16
23:BB:30:C:H2'	23:BB:31:C:H5'	1.27	1.16
9:CI:51:LEU:HG	9:CI:86:LEU:HD22	1.19	1.16
11:AK:126:ARG:HB2	21:AU:33:ARG:NH1	1.57	1.16
28:BG:83:THR:HA	28:BG:84:LYS:NZ	1.59	1.16
22:DA:1024:G:H3'	22:DA:1025:G:C5'	1.74	1.16
22:DA:1024:G:C3'	22:DA:1025:G:H5"	1.75	1.16
17:AQ:18:LYS:HA	17:AQ:47:ASP:HB2	1.22	1.16
44:BW:18:LYS:HA	44:BW:36:ILE:HG13	1.27	1.16
41:DT:39:THR:HG21	41:DT:42:GLU:HB2	1.28	1.15
32:BK:18:ARG:HH11	32:BK:18:ARG:HG3	1.03	1.15
38:BQ:91:ARG:HD3	39:BR:11:GLN:HG3	1.19	1.15
5:CE:13:LYS:HE2	5:CE:13:LYS:HA	1.28	1.15
38:DQ:27:ARG:HA	38:DQ:33:VAL:CG1	1.75	1.15
33:BL:27:LEU:H	33:BL:27:LEU:HD12	1.09	1.15
22:BA:1179:G:C5	22:BA:1180:U:H1'	1.82	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BG:83:THR:HA	28:BG:84:LYS:HZ3	1.07	1.15
31:BJ:37:ARG:HA	31:BJ:118:MET:HE2	1.22	1.15
53:CA:519:C:H2'	53:CA:520:A:C8	1.81	1.15
22:DA:1021:A:O2'	22:DA:1022:G:H4'	1.46	1.15
35:BN:103:ARG:HD3	35:BN:110:MET:HE3	1.29	1.14
53:CA:72:A:O2'	53:CA:73:C:H5'	1.46	1.14
22:DA:1537:G:H2'	22:DA:1538:G:H4'	1.28	1.14
1:AA:842:U:H3'	1:AA:843:U:H5"	1.18	1.14
53:CA:1378:C:H3'	53:CA:1379:G:H5"	1.30	1.14
32:BK:10:VAL:HG21	32:BK:16:ALA:HB1	1.25	1.14
53:CA:1226:C:H41	55:CM:102:LYS:HA	1.11	1.14
22:DA:996:A:H4'	38:DQ:91:ARG:HD2	1.25	1.14
22:BA:2352:A:C2	44:BW:30:VAL:HG11	1.81	1.14
22:DA:1784:A:H4'	22:DA:1785:A:O5'	1.41	1.14
53:CA:988:G:O2'	53:CA:989:U:H5'	1.48	1.14
44:DW:37:VAL:HG12	44:DW:55:ASP:HB2	1.19	1.14
24:BC:16:VAL:H	24:BC:203:VAL:HG12	1.04	1.13
38:BQ:69:ARG:HH21	38:BQ:69:ARG:HB2	1.02	1.13
32:DK:71:ARG:HB3	32:DK:72:PRO:CD	1.78	1.13
6:CF:18:VAL:HG21	6:CF:58:HIS:CD2	1.83	1.13
22:DA:1492:G:H3'	22:DA:1493:C:C5'	1.77	1.13
4:AD:47:LEU:HD21	4:AD:52:VAL:HG12	1.29	1.13
22:BA:1073:A:C3'	22:BA:1074:G:H5"	1.78	1.13
53:CA:1422:G:H5"	32:DK:48:PRO:HB3	1.24	1.13
3:AC:76:ILE:HD11	3:AC:102:ILE:HG12	1.31	1.12
22:DA:604:G:O2'	22:DA:605:G:H5'	1.45	1.12
2:AB:40:ILE:HD13	2:AB:201:GLY:HA2	1.27	1.12
22:BA:2510:C:H5'	22:BA:2510:C:C6	1.83	1.12
39:BR:49:ILE:HD12	39:BR:52:PRO:CA	1.77	1.12
57:DB:110:C:O2'	57:DB:111:U:H5'	1.48	1.12
1:AA:1395:C:H5'	1:AA:1395:C:H6	1.13	1.12
2:AB:89:PHE:HB3	2:AB:149:GLY:HA2	1.14	1.12
21:AU:9:GLU:CG	21:AU:10:PRO:HD3	1.80	1.12
11:CK:70:ALA:HA	11:CK:73:VAL:HG22	1.26	1.12
26:DE:47:LYS:HB3	26:DE:51:GLU:HB2	1.28	1.12
12:CL:43:LYS:CB	12:CL:44:PRO:HD2	1.80	1.11
22:DA:2631:G:H2'	22:DA:2632:A:H5"	1.19	1.11
34:DM:27:SER:H	34:DM:66:ARG:NH2	1.48	1.11
6:AF:6:ILE:HG12	6:AF:89:VAL:HG23	1.13	1.11
20:AT:43:LYS:HB3	20:AT:86:ALA:HB1	1.20	1.11
2:CB:46:VAL:HG13	2:CB:47:PRO:HD3	1.22	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:566:G:H4'	1:AA:567:G:OP1	1.45	1.11
39:BR:49:ILE:CD1	39:BR:52:PRO:HA	1.79	1.11
53:CA:1182:G:C4'	53:CA:1183:U:H5'	1.81	1.11
22:DA:2060:A:H2'	26:DE:63:LYS:HZ3	1.06	1.11
1:AA:243:A:H4'	1:AA:244:U:C5'	1.81	1.11
22:BA:1045:C:H5"	22:BA:1046:A:H5'	1.33	1.11
27:BF:35:LEU:HB3	27:BF:153:ILE:CG2	1.79	1.11
38:BQ:27:ARG:HG3	38:BQ:27:ARG:HH11	1.09	1.11
49:B1:33:LEU:H	49:B1:51:ALA:HB3	1.00	1.11
22:DA:2296:U:H4'	22:DA:2297:A:OP1	1.39	1.11
29:BH:31:VAL:HB	29:BH:32:PRO:CD	1.80	1.11
21:CU:24:LYS:HG3	21:CU:25:ALA:H	1.03	1.11
6:AF:16:GLU:CG	4:CD:191:SER:HB2	1.81	1.10
22:BA:646:U:H3'	22:BA:647:G:H5"	1.25	1.10
22:BA:1073:A:H2'	22:BA:1074:G:H5"	1.13	1.10
25:BD:99:GLU:HG3	25:BD:100:LEU:H	0.94	1.10
53:CA:1183:U:H3'	53:CA:1184:G:H5"	1.30	1.10
22:DA:2135:A:C3'	22:DA:2136:G:H5"	1.81	1.10
22:BA:1458:U:H4'	22:BA:1459:G:O5'	1.51	1.10
32:BK:10:VAL:CG2	32:BK:16:ALA:HB1	1.81	1.10
36:BO:59:ALA:HA	36:BO:62:LEU:HD12	1.24	1.10
44:BW:24:ARG:HD2	44:BW:25:PHE:N	1.65	1.10
44:BW:37:VAL:HG12	44:BW:38:ARG:H	1.06	1.10
53:CA:238:A:H2'	53:CA:239:U:H5"	1.23	1.10
1:AA:975:A:H4'	1:AA:976:G:H5'	1.20	1.10
5:AE:153:ALA:HA	5:AE:156:ARG:HB2	1.32	1.10
7:AG:12:LEU:H	7:AG:12:LEU:HD22	1.13	1.10
22:BA:2431:U:H6	22:BA:2431:U:H5'	1.10	1.10
35:DN:28:LEU:HD21	35:DN:115:LEU:HD21	1.16	1.10
39:DR:39:LEU:HA	39:DR:49:ILE:HG21	1.31	1.10
1:AA:158:G:C2'	1:AA:159:G:H5"	1.80	1.10
20:CT:23:ARG:HB3	20:CT:60:GLN:HE22	1.16	1.10
22:DA:217:A:H2'	22:DA:218:A:C8	1.86	1.10
24:DC:144:GLU:HA	24:DC:151:GLY:HA2	1.28	1.10
1:AA:1007:U:H2'	1:AA:1008:U:H5"	1.33	1.10
36:BO:40:ILE:HG12	36:BO:47:VAL:HG12	1.32	1.10
43:BV:10:LYS:HD3	43:BV:10:LYS:H	1.02	1.10
22:DA:33:C:O2'	22:DA:34:U:H5'	1.50	1.10
33:DL:79:LEU:HA	33:DL:82:LEU:HD11	1.33	1.10
40:BS:88:ARG:HG2	40:BS:88:ARG:HH21	0.98	1.09
4:CD:2:ARG:NH2	4:CD:114:ARG:HD3	1.67	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:11:HIS:CD2	6:CF:54:LEU:HD21	1.85	1.09
22:DA:2060:A:H2'	26:DE:63:LYS:NZ	1.64	1.09
22:DA:2214:C:O2'	22:DA:2215:C:H5'	1.52	1.09
22:DA:2689:U:H4'	22:DA:2690:U:OP2	1.51	1.09
15:AO:63:ARG:HD3	15:AO:87:ARG:HH22	1.04	1.09
22:BA:636:G:C5	33:BL:111:ILE:HD11	1.87	1.09
27:BF:40:GLY:CA	27:BF:84:ILE:HD11	1.82	1.09
53:CA:373:A:O2'	53:CA:374:A:H5'	1.52	1.09
22:DA:1565:C:O2'	22:DA:1566:A:H2'	1.52	1.09
22:DA:1639:C:C2'	22:DA:1640:A:H5"	1.82	1.09
57:DB:58:A:H2'	57:DB:59:A:C8	1.88	1.09
38:DQ:61:ILE:HD11	38:DQ:92:LYS:HD3	1.29	1.09
27:BF:35:LEU:HB3	27:BF:153:ILE:HG22	1.26	1.09
38:BQ:4:LYS:HG3	38:BQ:5:ARG:H	1.11	1.09
4:CD:25:ARG:NH1	4:CD:30:LYS:HG2	1.68	1.09
1:AA:204:G:H3'	1:AA:205:A:H5"	1.19	1.09
22:BA:2510:C:H5'	22:BA:2510:C:H6	1.02	1.09
53:CA:989:U:H2'	53:CA:990:C:H5'	1.14	1.09
11:AK:87:GLY:N	11:AK:113:THR:HG22	1.67	1.09
29:BH:89:LYS:HG2	29:BH:90:LEU:H	1.16	1.09
53:CA:987:G:H2'	53:CA:988:G:H8	0.92	1.09
38:DQ:87:VAL:HG21	39:DR:52:PRO:HD3	1.09	1.09
1:AA:721:G:H4'	1:AA:722:G:O5'	1.42	1.08
22:BA:2352:A:N1	44:BW:30:VAL:HG11	1.66	1.08
10:CJ:64:GLN:HB2	14:CN:98:ALA:HB3	1.26	1.08
11:CK:44:ALA:HB3	11:CK:69:CYS:HB2	1.34	1.08
22:DA:1639:C:H2'	22:DA:1640:A:H5"	1.27	1.08
22:DA:1817:G:O2'	22:DA:1818:U:H5'	1.54	1.08
44:DW:40:ARG:HH11	44:DW:40:ARG:HG2	0.94	1.08
9:AI:40:ARG:HA	9:AI:44:ARG:HB3	1.33	1.08
5:CE:29:ILE:HG23	5:CE:30:PHE:H	1.13	1.08
21:CU:16:ARG:HG3	21:CU:19:LYS:HG2	1.15	1.08
35:DN:37:THR:CG2	35:DN:39:PRO:HD2	1.83	1.08
26:BE:119:ILE:CD1	26:BE:187:VAL:HA	1.84	1.08
44:BW:9:THR:HG23	44:BW:10:ARG:HD3	1.30	1.08
39:DR:27:ILE:HG22	39:DR:28:ALA:H	1.09	1.08
22:BA:900:A:C2'	22:BA:901:C:C5'	2.30	1.08
22:BA:1238:G:O2'	22:BA:1239:G:H5'	1.52	1.08
34:BM:35:ALA:O	34:BM:36:VAL:HB	1.54	1.08
53:CA:1152:A:H2'	53:CA:1153:G:C8	1.89	1.08
22:DA:2199:A:H2'	22:DA:2200:C:C6	1.89	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:D3:35:LYS:HB2	51:D3:40:LYS:HD3	1.25	1.08
12:AL:49:ARG:HH11	12:AL:49:ARG:HG2	0.95	1.08
29:BH:31:VAL:HB	29:BH:32:PRO:HD2	1.32	1.08
22:DA:2051:A:H4'	22:DA:2052:A:OP1	1.37	1.08
22:DA:2136:G:H2'	22:DA:2137:U:C5	1.88	1.08
53:CA:1168:U:H2'	53:CA:1168:U:O2	1.52	1.07
54:CG:74:VAL:HG13	54:CG:140:VAL:HG13	1.31	1.07
22:DA:1313:U:H2'	22:DA:1313:U:O2	1.47	1.07
26:DE:148:ILE:HD13	26:DE:187:VAL:HG21	1.12	1.07
1:AA:1021:A:H2'	1:AA:1022:A:H5"	1.28	1.07
4:AD:109:THR:HG23	4:AD:112:GLU:H	1.13	1.07
25:BD:97:SER:O	25:BD:99:GLU:HG2	1.53	1.07
44:BW:28:GLU:HB3	44:BW:31:LEU:HD21	1.08	1.07
46:BY:32:ALA:HB2	46:BY:37:LEU:HD12	1.32	1.07
53:CA:120:A:C2'	53:CA:121:U:H5"	1.84	1.07
4:CD:2:ARG:HH21	4:CD:114:ARG:HD3	0.91	1.07
19:CS:40:PHE:HB3	19:CS:41:PRO:HD2	1.27	1.07
22:BA:1179:G:H3'	22:BA:1180:U:H4'	1.33	1.07
25:BD:106:LYS:HB3	25:BD:206:ALA:HB3	1.27	1.07
31:BJ:37:ARG:HA	31:BJ:118:MET:CE	1.84	1.07
33:BL:55:MET:HE2	33:BL:55:MET:HA	1.27	1.07
54:CG:22:LEU:HA	54:CG:25:PHE:HB3	1.23	1.07
8:CH:103:VAL:HG12	8:CH:124:ILE:HA	1.30	1.07
10:CJ:84:VAL:HG23	10:CJ:85:ASP:H	1.08	1.07
22:DA:1060:U:H4'	22:DA:1061:U:O5'	1.54	1.07
2:AB:9:LEU:HD12	2:AB:42:LEU:HD13	1.27	1.07
2:AB:110:ILE:HD11	2:AB:147:LEU:HD13	1.30	1.07
25:BD:16:THR:HG23	25:BD:18:ASP:OD1	1.53	1.07
25:BD:169:ARG:O	25:BD:170:VAL:HG13	1.55	1.07
2:CB:206:ILE:HA	2:CB:209:VAL:HG22	1.33	1.07
6:CF:92:THR:HG22	6:CF:94:HIS:H	1.20	1.07
22:DA:449:A:O2'	22:DA:450:G:H5'	1.52	1.07
22:DA:589:U:O2'	22:DA:590:A:H5'	1.55	1.07
22:DA:1079:C:H41	22:DA:1088:A:H5"	1.09	1.07
1:AA:1129:C:H5"	9:AI:17:ARG:NH2	1.68	1.07
37:BP:50:ARG:HD3	37:BP:56:SER:HB3	1.09	1.07
53:CA:1046:A:O2'	53:CA:1047:G:H5'	1.55	1.07
22:DA:1474:U:H2'	22:DA:1475:G:H5'	1.37	1.07
22:DA:1935:G:H1'	22:DA:1964:G:N2	1.68	1.07
22:DA:2093:G:O6	22:DA:2225:A:C8	2.08	1.07
32:DK:38:ILE:HG12	32:DK:61:VAL:HG12	1.34	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:D4:16:ILE:HG12	52:D4:25:VAL:HG22	1.15	1.07
1:AA:158:G:H2'	1:AA:159:G:H5"	1.11	1.06
9:AI:98:ARG:CG	9:AI:103:VAL:HG21	1.85	1.06
53:CA:597:G:H2'	53:CA:598:U:H5'	1.32	1.06
22:DA:959:A:H2'	22:DA:960:A:C8	1.89	1.06
1:AA:374:A:H5"	1:AA:452:A:C2	1.90	1.06
1:AA:1065:U:H5"	1:AA:1190:G:N2	1.70	1.06
22:BA:1060:U:C4'	22:BA:1061:U:H5'	1.85	1.06
32:BK:21:CYS:HB2	32:BK:39:ILE:HD11	1.25	1.06
53:CA:575:G:H4'	53:CA:576:C:O5'	1.55	1.06
52:D4:7:VAL:HG13	52:D4:8:LYS:H	1.15	1.06
22:BA:762:U:H4'	22:BA:763:G:O5'	1.49	1.06
53:CA:987:G:C2'	53:CA:988:G:H8	1.68	1.06
25:DD:8:LYS:HB2	25:DD:201:LEU:HD11	1.38	1.06
1:AA:1238:A:H5'	1:AA:1336:C:H41	1.14	1.06
22:BA:946:C:O2'	22:BA:947:A:H5'	1.54	1.06
24:BC:131:MET:HA	24:BC:134:ILE:HD12	1.27	1.06
22:BA:1060:U:H4'	22:BA:1061:U:C5'	1.86	1.06
38:BQ:49:ARG:HH11	38:BQ:49:ARG:HG3	1.20	1.06
53:CA:1148:U:O2'	53:CA:1149:C:H5'	1.56	1.06
2:AB:66:ILE:HB	2:AB:88:GLN:HB3	1.37	1.05
42:BU:73:ASN:ND2	42:BU:76:THR:HG23	1.71	1.05
4:CD:25:ARG:NH1	4:CD:25:ARG:HG2	1.53	1.05
5:CE:29:ILE:HG23	5:CE:30:PHE:N	1.64	1.05
22:DA:873:C:H4'	34:DM:64:TRP:NE1	1.70	1.05
9:AI:32:ARG:HG2	9:AI:36:GLN:HB3	1.34	1.05
53:CA:6:G:H2'	53:CA:6:G:N3	1.66	1.05
54:CG:91:ARG:HG2	54:CG:92:PRO:HD2	1.34	1.05
55:CM:95:PRO:HD3	55:CM:108:ARG:HG2	1.38	1.05
22:DA:197:A:H62	22:DA:2430:A:H2'	0.88	1.05
22:DA:1127:A:O2'	22:DA:1128:G:H5'	1.55	1.05
32:DK:70:ARG:HB3	32:DK:76:VAL:HG22	1.31	1.05
49:B1:16:THR:HB	49:B1:41:VAL:HG21	1.31	1.05
22:DA:84:A:H4'	22:DA:85:G:O5'	1.56	1.05
22:DA:491:G:H2'	22:DA:492:A:C8	1.90	1.05
22:DA:2092:U:H4'	22:DA:2093:G:OP1	1.57	1.05
26:DE:130:LYS:HB3	26:DE:133:LEU:HB3	1.37	1.05
33:DL:17:LYS:NZ	33:DL:19:LEU:HD22	1.68	1.05
11:AK:108:ASN:HB3	21:AU:6:ARG:HG2	1.36	1.05
22:BA:2585:U:O2'	22:BA:2586:U:H5'	1.57	1.05
25:BD:172:VAL:O	25:BD:173:GLN:HB2	1.56	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DK:111:LYS:H	32:DK:111:LYS:HE3	1.17	1.05
4:CD:25:ARG:HH11	4:CD:25:ARG:CG	1.70	1.05
26:DE:170:ARG:HH22	26:DE:176:ASP:HB2	1.20	1.05
29:DH:115:VAL:HG12	29:DH:132:PHE:HB2	1.35	1.05
35:DN:37:THR:HG22	35:DN:39:PRO:HD2	1.05	1.05
30:BI:79:LEU:HA	30:BI:83:ALA:HB3	1.34	1.04
37:BP:50:ARG:CB	37:BP:57:ALA:H	1.70	1.04
2:CB:114:LYS:HE3	2:CB:151:LYS:HB2	1.34	1.04
24:DC:122:ALA:HB3	24:DC:127:ASN:ND2	1.71	1.04
1:AA:243:A:H4'	1:AA:244:U:H5"	1.39	1.04
2:AB:163:ILE:HG23	2:AB:164:ASP:H	1.16	1.04
5:AE:81:GLN:HG2	5:AE:149:PRO:HG3	1.39	1.04
22:BA:2269:G:H4'	44:BW:18:LYS:HE2	1.36	1.04
53:CA:33:A:H2'	53:CA:34:C:H6	1.19	1.04
17:CQ:30:HIS:HE1	17:CQ:32:ILE:HG13	1.17	1.04
25:DD:36:GLN:HG3	25:DD:38:LYS:HZ1	1.21	1.04
10:AJ:29:ALA:HB1	10:AJ:36:VAL:HG21	1.39	1.04
22:BA:1287:A:H5'	35:BN:103:ARG:HD2	1.38	1.04
41:BT:39:THR:HB	41:BT:42:GLU:HB2	1.33	1.04
22:DA:1662:U:H2'	22:DA:1663:G:H5"	1.39	1.04
6:AF:16:GLU:HG2	4:CD:191:SER:CB	1.87	1.04
17:AQ:16:MET:HB2	17:AQ:19:SER:HB3	1.34	1.04
29:BH:96:THR:O	29:BH:97:ARG:HG3	1.56	1.04
2:CB:79:VAL:HA	2:CB:213:LEU:HD21	1.38	1.04
2:CB:114:LYS:HA	2:CB:117:GLU:HG2	1.35	1.04
3:CC:190:THR:HG22	3:CC:191:THR:H	1.20	1.04
22:DA:382:A:H2'	22:DA:383:C:H5"	1.39	1.04
37:DP:9:GLN:HB3	37:DP:12:MET:HE2	1.36	1.04
1:AA:1129:C:H5"	9:AI:17:ARG:HH22	0.87	1.04
53:CA:982:U:H4'	53:CA:983:A:O5'	1.57	1.04
25:DD:34:VAL:HG12	25:DD:48:ILE:HD11	1.32	1.04
1:AA:1239:A:H62	1:AA:1299:A:N6	1.54	1.03
53:CA:987:G:O2'	53:CA:988:G:H5'	1.58	1.03
20:CT:73:ARG:HH11	20:CT:73:ARG:CG	1.71	1.03
22:DA:297:G:H5"	42:DU:84:PHE:HB2	1.38	1.03
40:BS:73:LYS:HE3	40:BS:74:ILE:H	1.22	1.03
22:DA:491:G:H2'	22:DA:492:A:H8	1.17	1.03
25:DD:124:ARG:HD3	25:DD:125:TRP:CD1	1.92	1.03
1:AA:415:A:H2'	1:AA:416:G:C8	1.94	1.03
5:AE:153:ALA:HA	5:AE:156:ARG:CB	1.89	1.03
27:BF:43:ILE:HG22	27:BF:82:TYR:CE1	1.92	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:764:C:H2'	53:CA:765:G:H5'	1.36	1.03
24:DC:122:ALA:HB3	24:DC:127:ASN:HD22	1.24	1.03
11:AK:87:GLY:H	11:AK:113:THR:HG22	0.90	1.03
21:AU:52:VAL:HG13	21:AU:53:LYS:H	1.21	1.03
32:BK:71:ARG:CB	32:BK:72:PRO:HD3	1.86	1.03
44:BW:39:GLN:HG2	44:BW:41:GLY:H	1.19	1.03
22:DA:668:A:H2'	22:DA:670:A:H62	1.18	1.03
22:DA:1032:A:H1'	52:D4:23:ILE:HD13	1.41	1.03
22:DA:1645:G:OP1	22:DA:1646:C:H5'	1.57	1.03
25:DD:114:LYS:HD2	25:DD:116:LYS:NZ	1.72	1.03
28:BG:104:LEU:HB2	28:BG:112:VAL:CG2	1.88	1.03
8:CH:76:ARG:HD3	8:CH:77:VAL:N	1.71	1.03
22:DA:234:U:O2'	22:DA:235:U:H5'	1.58	1.03
22:BA:1179:G:C6	22:BA:1180:U:H1'	1.94	1.02
53:CA:335:C:H2'	53:CA:336:A:C8	1.94	1.02
5:CE:103:GLY:O	5:CE:104:ILE:HG22	1.58	1.02
11:CK:126:ARG:HB2	21:CU:33:ARG:HD2	1.36	1.02
22:DA:2135:A:H3'	22:DA:2136:G:H5"	1.05	1.02
58:DF:137:PHE:HB2	58:DF:138:PRO:HD2	1.37	1.02
1:AA:545:C:H5'	4:AD:68:GLU:HG3	1.39	1.02
1:AA:1361:G:H2'	1:AA:1362:A:H5'	1.41	1.02
2:AB:108:GLN:O	2:AB:111:LYS:N	1.91	1.02
17:AQ:45:VAL:HG21	17:AQ:60:ILE:HD13	1.34	1.02
22:BA:2503:A:H4'	22:BA:2504:U:OP1	1.56	1.02
38:BQ:69:ARG:HH21	38:BQ:69:ARG:CB	1.72	1.02
10:CJ:15:HIS:HA	10:CJ:18:ILE:HG22	1.40	1.02
22:DA:2646:C:H5'	22:DA:2646:C:H6	1.20	1.02
57:DB:24:G:H1'	57:DB:27:C:N4	1.74	1.02
2:AB:46:VAL:HB	2:AB:47:PRO:HD3	1.42	1.02
22:BA:1141:U:H4'	22:BA:1142:A:O5'	1.60	1.02
53:CA:254:G:H21	17:CQ:17:GLU:HG3	1.25	1.02
53:CA:335:C:H2'	53:CA:336:A:H8	1.24	1.02
21:CU:35:GLU:HG3	21:CU:36:PHE:H	1.23	1.02
38:DQ:27:ARG:HA	38:DQ:33:VAL:HG11	1.36	1.02
44:DW:18:LYS:HD3	44:DW:19:ARG:N	1.74	1.02
1:AA:1138:G:N3	1:AA:1138:G:H2'	1.71	1.02
25:BD:61:THR:OG1	25:BD:63:PRO:HD2	1.60	1.02
44:BW:28:GLU:HB3	44:BW:31:LEU:CD2	1.88	1.02
44:BW:51:GLY:HA3	44:BW:59:PHE:CZ	1.94	1.02
53:CA:1086:U:H5'	53:CA:1086:U:H6	1.18	1.02
53:CA:1221:G:H4'	19:CS:35:ARG:NH2	1.74	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2092:U:O2'	22:DA:2093:G:H5'	1.60	1.02
2:AB:69:VAL:HB	2:AB:162:VAL:HG12	1.42	1.02
14:AN:15:LEU:HD23	14:AN:18:LYS:HD2	1.38	1.02
15:AO:63:ARG:HD3	15:AO:87:ARG:NH2	1.73	1.02
4:CD:25:ARG:HH12	4:CD:30:LYS:HG2	1.17	1.02
5:CE:76:ASN:O	5:CE:79:THR:HG22	1.58	1.02
22:DA:1731:G:O2'	22:DA:1732:C:H5"	1.60	1.02
1:AA:1411:C:C2'	1:AA:1412:C:H5'	1.90	1.01
11:AK:109:ILE:HB	21:AU:5:VAL:CG2	1.90	1.01
33:BL:74:THR:HG22	33:BL:107:PHE:HB2	1.40	1.01
22:DA:197:A:N6	22:DA:2430:A:H2'	1.74	1.01
22:DA:1635:A:O2'	22:DA:1636:U:H5'	1.60	1.01
22:DA:1931:U:H2'	22:DA:1932:A:H8	1.18	1.01
1:AA:430:A:O2'	1:AA:431:A:H5'	1.60	1.01
13:AM:2:ARG:O	13:AM:3:ILE:HG12	1.60	1.01
37:BP:21:PRO:HA	37:BP:46:VAL:CG1	1.91	1.01
53:CA:1249:C:H2'	53:CA:1250:A:H5"	1.39	1.01
21:CU:16:ARG:CG	21:CU:19:LYS:HG2	1.90	1.01
45:DX:53:LYS:HA	45:DX:56:ARG:HB3	1.41	1.01
22:BA:1784:A:H4'	22:BA:1785:A:O5'	1.58	1.01
22:BA:2150:C:H2'	22:BA:2151:U:C5	1.95	1.01
50:B2:3:ARG:HH21	50:B2:3:ARG:HG2	1.20	1.01
53:CA:1299:A:H2'	53:CA:1299:A:N3	1.71	1.01
22:DA:922:C:H1'	44:DW:22:VAL:HG21	1.35	1.01
12:AL:24:GLU:HB2	12:AL:26:CYS:SG	1.99	1.01
19:AS:28:LYS:HB3	19:AS:29:PRO:HD2	1.42	1.01
33:BL:93:ASN:HD22	33:BL:94:THR:N	1.58	1.01
53:CA:238:A:C2'	53:CA:239:U:H5"	1.91	1.01
4:CD:55:ARG:HA	4:CD:55:ARG:HH11	1.21	1.01
9:CI:51:LEU:HG	9:CI:86:LEU:CD2	1.91	1.01
22:DA:861:A:H2'	22:DA:862:G:H8	1.23	1.01
25:DD:124:ARG:HD3	25:DD:125:TRP:NE1	1.76	1.01
29:DH:93:SER:HB3	29:DH:121:VAL:HG21	1.40	1.01
22:BA:1045:C:C5'	22:BA:1046:A:H5'	1.90	1.01
54:CG:134:VAL:HB	54:CG:137:ARG:HH21	1.22	1.01
22:DA:2063:C:O2'	22:DA:2064:C:H5'	1.61	1.01
15:AO:63:ARG:HG2	15:AO:87:ARG:HH12	1.24	1.00
31:BJ:6:ALA:HB3	31:BJ:45:THR:HG21	1.41	1.00
33:BL:109:LYS:HG2	33:BL:126:ARG:HB3	1.41	1.00
38:BQ:93:ILE:HG23	38:BQ:94:LEU:H	1.26	1.00
38:BQ:97:ILE:HD11	38:BQ:105:PHE:HB2	1.41	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:93:HIS:ND1	2:CB:145:ASN:O	1.94	1.00
8:CH:76:ARG:HD3	8:CH:77:VAL:H	1.20	1.00
10:CJ:57:VAL:HG22	10:CJ:58:ASN:H	1.22	1.00
22:DA:573:U:H4'	22:DA:574:A:OP1	1.59	1.00
22:DA:802:A:H2'	22:DA:803:U:C6	1.94	1.00
22:DA:1508:A:H4'	22:DA:1509:A:OP1	1.58	1.00
37:DP:91:VAL:HG22	37:DP:109:ILE:HG21	1.43	1.00
1:AA:1319:A:H4'	1:AA:1320:C:OP1	1.61	1.00
2:AB:42:LEU:HG	2:AB:43:GLU:HG3	1.42	1.00
16:AP:4:ILE:HG12	16:AP:21:VAL:HG22	1.40	1.00
22:BA:265:A:H4'	22:BA:266:G:OP1	1.57	1.00
37:BP:4:ILE:HG22	37:BP:5:LYS:H	1.26	1.00
51:B3:31:ILE:HD11	51:B3:34:LYS:HD2	1.43	1.00
52:B4:9:LYS:HD3	52:B4:9:LYS:H	1.21	1.00
53:CA:245:U:O2'	53:CA:246:A:H5'	1.60	1.00
24:DC:144:GLU:HB3	24:DC:187:CYS:HB2	1.43	1.00
32:DK:7:MET:HA	32:DK:7:MET:CE	1.89	1.00
1:AA:94:G:H4'	1:AA:95:C:O5'	1.59	1.00
1:AA:747:A:H5'	1:AA:748:G:OP2	1.61	1.00
11:AK:87:GLY:H	11:AK:113:THR:CG2	1.75	1.00
24:BC:180:MET:HG3	24:BC:268:ARG:HH11	1.27	1.00
41:BT:30:ILE:HG23	41:BT:85:VAL:HB	1.44	1.00
44:BW:46:ALA:HB3	44:BW:79:ILE:O	1.62	1.00
22:DA:412:A:O2'	22:DA:413:C:H5'	1.62	1.00
22:DA:2283:C:O2'	22:DA:2284:A:H5'	1.61	1.00
29:DH:80:ILE:HB	29:DH:101:ASP:CB	1.90	1.00
21:AU:9:GLU:HG3	21:AU:10:PRO:CD	1.92	1.00
22:BA:1084:A:H2'	22:BA:1085:A:H8	1.23	1.00
41:BT:67:VAL:HG12	41:BT:76:ARG:HG3	1.41	1.00
11:CK:78:ILE:H	11:CK:78:ILE:HD13	1.22	1.00
22:DA:61:C:O2'	22:DA:62:U:H5'	1.62	1.00
22:DA:2321:U:O2	22:DA:2321:U:H3'	1.62	1.00
23:BB:90:C:H5"	23:BB:90:C:H6	1.26	1.00
23:BB:116:G:H4'	36:BO:54:VAL:HG22	1.43	1.00
22:DA:834:G:H1'	22:DA:2358:A:N3	1.75	1.00
22:BA:923:G:H21	44:BW:23:LYS:HZ3	1.05	1.00
22:BA:1060:U:H4'	22:BA:1061:U:H5'	1.01	1.00
53:CA:1152:A:H2'	53:CA:1153:G:H8	1.19	1.00
10:CJ:40:ILE:HG22	10:CJ:42:LEU:HD12	1.43	1.00
22:DA:1555:G:O2'	22:DA:1556:C:H5'	1.62	1.00
22:DA:1965:C:H3'	22:DA:1966:A:C5'	1.92	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:982:U:H4'	1:AA:983:A:O5'	1.59	1.00
2:AB:108:GLN:HG2	2:AB:109:SER:H	1.27	1.00
22:BA:2203:U:H5"	22:BA:2204:G:OP1	1.62	1.00
53:CA:1068:G:O2'	53:CA:1069:C:H5'	1.60	1.00
2:CB:19:THR:HG22	2:CB:37:VAL:HG23	1.41	1.00
3:CC:109:GLU:HG2	3:CC:139:ASN:HB2	1.42	1.00
12:CL:42:LYS:HG2	12:CL:43:LYS:H	1.26	1.00
22:DA:1237:A:C2	22:DA:1238:G:H1'	1.96	1.00
29:DH:90:LEU:HB2	29:DH:123:ARG:HB3	1.40	1.00
31:BJ:21:THR:HG22	31:BJ:22:GLY:N	1.74	0.99
46:BY:32:ALA:CB	46:BY:37:LEU:HD12	1.92	0.99
53:CA:982:U:H1'	53:CA:983:A:N7	1.77	0.99
22:DA:232:G:H4'	22:DA:233:A:OP1	1.61	0.99
24:DC:75:ALA:HB2	24:DC:95:TYR:CD1	1.97	0.99
25:DD:106:LYS:HB3	25:DD:206:ALA:CB	1.91	0.99
1:AA:1129:C:C5'	9:AI:17:ARG:HH22	1.74	0.99
1:AA:1395:C:H5'	1:AA:1395:C:C6	1.95	0.99
35:BN:103:ARG:HD3	35:BN:110:MET:CE	1.92	0.99
22:DA:647:G:H2'	22:DA:648:G:H8	1.23	0.99
22:DA:862:G:H2'	22:DA:863:A:H8	1.26	0.99
44:DW:23:LYS:HD2	44:DW:24:ARG:N	1.78	0.99
1:AA:94:G:H4'	1:AA:95:C:H5"	1.42	0.99
10:AJ:80:THR:HB	10:AJ:83:THR:HG22	1.43	0.99
22:BA:855:G:H21	44:BW:23:LYS:HG2	1.22	0.99
22:BA:958:U:H5'	22:BA:958:U:H6	1.22	0.99
31:BJ:99:ARG:O	31:BJ:103:ILE:HG23	1.62	0.99
41:BT:29:THR:HG22	41:BT:86:THR:HG22	1.44	0.99
44:BW:19:ARG:HA	44:BW:34:SER:HA	1.44	0.99
53:CA:1143:G:H2'	53:CA:1144:G:H8	1.25	0.99
22:DA:1069:A:O2'	22:DA:1070:A:H5'	1.63	0.99
32:DK:71:ARG:CB	32:DK:72:PRO:HD3	1.91	0.99
31:BJ:73:VAL:HG23	31:BJ:74:TYR:H	1.23	0.99
44:BW:18:LYS:CA	44:BW:36:ILE:HG13	1.91	0.99
24:DC:62:ARG:HG2	24:DC:62:ARG:HH21	1.28	0.99
2:AB:89:PHE:HB3	2:AB:149:GLY:CA	1.92	0.99
7:AG:26:VAL:HG12	7:AG:42:VAL:HG21	1.41	0.99
16:AP:22:ALA:HB2	16:AP:32:PHE:HA	1.40	0.99
22:BA:232:G:H4'	22:BA:233:A:OP1	1.61	0.99
27:BF:129:MET:HG3	27:BF:153:ILE:CD1	1.92	0.99
3:CC:26:LYS:HA	3:CC:26:LYS:HE3	1.39	0.99
22:DA:861:A:H2'	22:DA:862:G:C8	1.97	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DN:37:THR:HG22	35:DN:39:PRO:CD	1.93	0.99
1:AA:1127:G:O2'	1:AA:1128:C:H5'	1.62	0.99
2:AB:116:LEU:HD12	2:AB:140:LEU:HD11	1.43	0.99
22:BA:1799:G:H4'	22:BA:1800:C:O5'	1.61	0.99
24:BC:12:ARG:HH11	24:BC:12:ARG:HG2	1.28	0.99
52:B4:36:ARG:HG2	52:B4:37:GLN:H	1.21	0.99
4:CD:2:ARG:NH2	4:CD:114:ARG:HH11	1.60	0.99
22:DA:876:C:H3'	22:DA:877:A:H8	1.25	0.99
22:DA:2304:G:H22	22:DA:2312:U:H3	1.00	0.99
33:BL:29:LYS:HG2	33:BL:30:THR:HG23	1.41	0.99
53:CA:1124:G:H4'	53:CA:1125:U:OP1	1.54	0.99
22:DA:197:A:H62	22:DA:2430:A:C2'	1.75	0.99
28:DG:18:ILE:HD12	28:DG:42:VAL:HG13	1.43	0.99
4:AD:43:ARG:O	4:AD:45:PRO:HD3	1.60	0.99
7:AG:114:SER:HB3	7:AG:117:LEU:HG	1.44	0.99
12:AL:33:CYS:HA	12:AL:54:VAL:HA	1.45	0.99
27:BF:134:GLN:H	27:BF:134:GLN:NE2	1.59	0.99
18:CR:72:ARG:HE	18:CR:72:ARG:H	1.10	0.99
22:DA:2408:U:O2'	22:DA:2409:G:H5'	1.63	0.99
38:DQ:57:ARG:NH1	38:DQ:92:LYS:HE2	1.77	0.99
25:BD:99:GLU:CG	25:BD:100:LEU:H	1.72	0.99
25:BD:151:THR:HG22	25:BD:152:PRO:CD	1.93	0.99
22:DA:2646:C:H5'	22:DA:2646:C:C6	1.96	0.99
22:DA:2875:C:O2'	22:DA:2876:G:H8	1.44	0.99
4:AD:172:VAL:HG22	4:AD:173:ASP:H	1.27	0.99
40:BS:73:LYS:HE3	40:BS:73:LYS:HA	1.45	0.99
53:CA:243:A:H4'	53:CA:244:U:H5'	1.44	0.99
53:CA:1182:G:H4'	53:CA:1183:U:H5'	1.03	0.99
22:DA:1731:G:H4'	22:DA:1732:C:OP1	1.61	0.99
22:DA:2267:A:N6	22:DA:2272:U:H3	1.61	0.98
14:AN:60:ARG:O	14:AN:61:ASN:HB2	1.62	0.98
44:DW:27:GLY:HA2	44:DW:31:LEU:CD1	1.93	0.98
6:AF:3:HIS:H	6:AF:92:THR:HG23	1.24	0.98
19:AS:50:VAL:HG21	19:AS:70:LEU:HB3	1.45	0.98
53:CA:547:A:H4'	53:CA:548:G:O5'	1.62	0.98
5:AE:11:GLN:HE21	5:AE:11:GLN:HA	1.27	0.98
31:BJ:81:ILE:HG23	31:BJ:82:GLY:H	1.26	0.98
6:CF:86:ARG:NH1	18:CR:63:TYR:HB3	1.76	0.98
22:DA:1669:A:H2'	22:DA:1669:A:N3	1.74	0.98
58:DF:43:ILE:HG23	58:DF:44:ALA:H	1.26	0.98
4:AD:25:ARG:HH11	4:AD:30:LYS:HE3	1.27	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:77:GLU:HG3	4:CD:81:LEU:HD11	1.45	0.98
55:CM:12:LYS:HA	55:CM:12:LYS:HE3	1.43	0.98
22:DA:1116:G:C2	22:DA:1117:C:C5	2.51	0.98
24:DC:147:PRO:HD3	24:DC:184:GLU:HG3	1.40	0.98
8:AH:6:ILE:HB	8:AH:76:ARG:HH12	1.24	0.98
22:BA:2790:U:H4'	22:BA:2791:G:OP1	1.58	0.98
37:BP:50:ARG:CD	37:BP:56:SER:HB3	1.93	0.98
34:DM:42:THR:HG22	34:DM:44:ARG:H	1.26	0.98
1:AA:267:C:O2'	1:AA:268:U:H5'	1.63	0.98
12:AL:89:LEU:HB3	12:AL:92:VAL:HG21	1.43	0.98
22:BA:1967:C:O2'	22:BA:1968:G:H5'	1.64	0.98
22:BA:2637:U:C2'	22:BA:2638:G:H5'	1.94	0.98
39:BR:51:VAL:HB	39:BR:52:PRO:CD	1.93	0.98
53:CA:721:G:H4'	53:CA:722:G:O5'	1.63	0.98
53:CA:1329:A:H5"	55:CM:25:GLY:H	1.27	0.98
53:CA:1452:C:H4'	53:CA:1453:G:O5'	1.60	0.98
22:DA:2346:A:H3'	22:DA:2347:C:H5"	1.44	0.98
11:AK:126:ARG:HB2	21:AU:33:ARG:HH12	1.22	0.98
24:BC:251:THR:HG22	24:BC:252:LYS:H	1.27	0.98
55:CM:64:VAL:HG12	55:CM:65:GLU:H	1.28	0.98
31:DJ:73:VAL:HG23	31:DJ:74:TYR:H	1.28	0.98
1:AA:1021:A:C2'	1:AA:1022:A:H5"	1.94	0.98
12:AL:49:ARG:HG2	12:AL:49:ARG:NH1	1.73	0.98
22:DA:302:C:O2'	22:DA:303:G:H8	1.45	0.98
35:DN:92:GLY:H	35:DN:94:TYR:HE1	1.08	0.98
32:BK:18:ARG:H	32:BK:45:GLU:HB2	1.28	0.98
52:B4:9:LYS:H	52:B4:9:LYS:CD	1.77	0.98
2:CB:162:VAL:HG13	2:CB:184:ALA:HB2	1.45	0.98
22:DA:1056:G:H1'	22:DA:1103:A:H61	1.27	0.98
22:DA:1116:G:C2	22:DA:1117:C:C6	2.52	0.98
22:DA:1931:U:H2'	22:DA:1932:A:C8	1.99	0.98
44:DW:17:ALA:O	44:DW:18:LYS:HB3	1.64	0.98
1:AA:842:U:H3'	1:AA:843:U:C5'	1.94	0.97
22:BA:923:G:N3	44:BW:23:LYS:HE2	1.78	0.97
23:BB:30:C:C2'	23:BB:31:C:H5'	1.94	0.97
53:CA:120:A:C3'	53:CA:121:U:H5"	1.92	0.97
11:CK:74:LYS:HA	11:CK:78:ILE:HD11	1.46	0.97
22:DA:2094:A:O2'	22:DA:2095:A:H5"	1.63	0.97
58:DF:74:ALA:HB3	58:DF:78:ILE:HB	1.46	0.97
1:AA:204:G:H3'	1:AA:205:A:C5'	1.91	0.97
1:AA:495:A:H4'	1:AA:496:A:O5'	1.62	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:374:A:H5"	53:CA:452:A:N1	1.79	0.97
1:AA:206:C:H2'	1:AA:207:C:O4'	1.63	0.97
22:BA:2197:U:O2'	22:BA:2198:A:C2'	2.11	0.97
38:BQ:65:ASN:HD21	38:BQ:69:ARG:HH22	1.02	0.97
53:CA:94:G:H4'	53:CA:95:C:OP1	1.63	0.97
22:DA:1391:U:H4'	41:DT:19:LYS:HZ1	1.29	0.97
42:DU:47:PRO:HB3	42:DU:54:PRO:HG3	1.44	0.97
1:AA:411:A:O2'	1:AA:413:G:H5"	1.63	0.97
26:BE:119:ILE:HD11	26:BE:187:VAL:HA	1.44	0.97
36:BO:31:THR:HG22	36:BO:34:HIS:H	1.30	0.97
44:BW:51:GLY:HA3	44:BW:59:PHE:CE2	1.99	0.97
54:CG:88:VAL:HG22	54:CG:89:GLU:H	1.28	0.97
40:DS:29:VAL:HG11	40:DS:55:ILE:HD11	1.46	0.97
25:BD:51:THR:HG21	25:BD:68:PHE:HE2	1.26	0.97
41:BT:39:THR:HB	41:BT:42:GLU:CB	1.93	0.97
22:DA:335:C:O2'	22:DA:336:C:H6	1.46	0.97
22:DA:1458:U:O3'	22:DA:1459:G:H4'	1.64	0.97
22:DA:2807:U:H3'	22:DA:2808:G:H5"	1.42	0.97
37:DP:9:GLN:HB3	37:DP:12:MET:CE	1.94	0.97
45:DX:31:ASN:HD22	45:DX:31:ASN:H	1.11	0.97
54:CG:45:ALA:HB1	54:CG:120:ALA:HB2	1.45	0.97
28:BG:104:LEU:HB2	28:BG:112:VAL:HG21	1.42	0.97
44:DW:13:ARG:HG3	44:DW:14:ASP:H	1.29	0.97
25:BD:99:GLU:HG3	25:BD:100:LEU:N	1.79	0.97
22:DA:915:C:O2'	22:DA:916:G:H5'	1.62	0.97
37:DP:91:VAL:HG11	37:DP:96:LEU:HD11	1.45	0.97
21:AU:16:ARG:NH1	21:AU:19:LYS:HG3	1.79	0.97
28:BG:120:ILE:HD13	28:BG:121:THR:N	1.79	0.97
22:DA:915:C:H2'	22:DA:916:G:C8	1.99	0.97
22:DA:921:C:H2'	22:DA:922:C:H5'	1.41	0.97
29:DH:93:SER:CB	29:DH:121:VAL:HG21	1.94	0.97
22:BA:1056:G:H5"	22:BA:1057:A:H5'	1.46	0.97
33:BL:110:VAL:O	33:BL:111:ILE:HB	1.62	0.97
45:BX:34:SER:HA	45:BX:49:ARG:HA	1.47	0.97
2:CB:89:PHE:HE2	2:CB:152:ASP:HB2	1.29	0.97
4:CD:30:LYS:HD3	4:CD:30:LYS:N	1.78	0.97
44:BW:43:LYS:HE2	44:BW:68:PHE:HE1	1.30	0.96
46:BY:56:LEU:O	46:BY:57:LEU:HB3	1.64	0.96
52:B4:10:LEU:HB2	52:B4:33:HIS:HD2	1.28	0.96
58:DF:177:ARG:NE	58:DF:178:LYS:H	1.63	0.96
1:AA:89:U:O2'	1:AA:90:C:H5"	1.65	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1228:C:HO2'	53:CA:1229:A:H8	1.05	0.96
22:DA:1346:G:O2'	22:DA:1347:A:H8	1.48	0.96
22:DA:1760:C:H2'	22:DA:1761:C:H6	1.26	0.96
22:DA:2668:G:HO2'	22:DA:2669:G:H8	0.98	0.96
5:AE:93:VAL:HG21	5:AE:139:THR:HG22	1.45	0.96
22:BA:528:A:H5"	31:BJ:116:ARG:HH22	1.27	0.96
27:BF:43:ILE:HG22	27:BF:82:TYR:HE1	1.30	0.96
28:BG:73:SER:HA	28:BG:76:ILE:CG2	1.94	0.96
29:BH:90:LEU:HB2	29:BH:123:ARG:HB3	1.46	0.96
31:BJ:44:TYR:CD2	38:BQ:63:ARG:HG2	2.00	0.96
37:BP:21:PRO:HA	37:BP:46:VAL:HG12	1.42	0.96
56:CP:22:ALA:HA	56:CP:33:ILE:HG13	1.46	0.96
25:BD:12:THR:HG22	25:BD:13:ARG:N	1.80	0.96
36:BO:49:VAL:HG21	36:BO:82:ALA:HA	1.47	0.96
53:CA:320:A:O2'	53:CA:1435:G:H1'	1.66	0.96
22:DA:2714:G:H2'	22:DA:2715:C:H6	1.27	0.96
25:DD:106:LYS:HB3	25:DD:206:ALA:HB3	1.44	0.96
40:BS:88:ARG:HH21	40:BS:88:ARG:CG	1.78	0.96
53:CA:197:A:C6	53:CA:221:C:H4'	2.01	0.96
53:CA:664:G:H22	53:CA:741:G:H1	1.07	0.96
26:DE:149:ILE:HG23	26:DE:188:MET:CA	1.96	0.96
30:DI:74:PRO:HB2	30:DI:77:VAL:HG22	1.46	0.96
9:AI:98:ARG:HG2	9:AI:103:VAL:HG21	1.41	0.96
22:DA:82:U:H2'	22:DA:83:A:H5"	1.48	0.96
30:DI:113:ALA:HB1	30:DI:124:MET:SD	2.06	0.96
35:DN:62:ASN:O	35:DN:63:ARG:HB2	1.65	0.96
52:D4:16:ILE:CG1	52:D4:25:VAL:HG22	1.93	0.96
1:AA:8:A:H62	4:AD:204:SER:HB2	1.31	0.96
22:BA:137:U:H5"	22:BA:140:C:C5	2.00	0.96
25:BD:186:LEU:HD11	37:BP:3:ILE:HD11	1.48	0.96
38:BQ:97:ILE:HD11	38:BQ:105:PHE:CB	1.95	0.96
22:DA:876:C:H5"	22:DA:876:C:O2	1.65	0.96
22:DA:2585:U:O2'	22:DA:2586:U:H5'	1.66	0.96
24:DC:146:LYS:HB2	24:DC:149:LYS:HB2	1.44	0.96
31:DJ:17:VAL:HG23	31:DJ:137:PRO:HB2	1.48	0.96
22:BA:571:U:H4'	22:BA:572:A:OP1	1.63	0.96
28:BG:73:SER:HA	28:BG:76:ILE:HG22	1.48	0.96
53:CA:1202:U:H2'	53:CA:1203:C:H6	1.31	0.96
11:CK:27:ASN:N	11:CK:27:ASN:HD22	1.64	0.96
22:DA:1673:G:C2'	22:DA:1674:G:H5'	1.96	0.96
51:D3:15:LYS:HZ1	51:D3:19:GLY:HA2	1.28	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:20:ARG:HA	2:AB:20:ARG:NH1	1.81	0.95
5:AE:153:ALA:CA	5:AE:156:ARG:HB2	1.95	0.95
6:AF:3:HIS:H	6:AF:92:THR:CG2	1.78	0.95
22:BA:675:A:H4'	26:BE:62:GLN:NE2	1.81	0.95
53:CA:1045:C:H2'	53:CA:1046:A:H5'	1.46	0.95
22:DA:1116:G:N3	22:DA:1117:C:C6	2.33	0.95
21:AU:9:GLU:HG3	21:AU:10:PRO:HD3	0.97	0.95
28:BG:59:ASP:HB2	28:BG:63:GLN:HG2	1.45	0.95
31:BJ:124:VAL:HG23	31:BJ:125:TYR:H	1.28	0.95
53:CA:1157:A:H4'	53:CA:1158:C:O5'	1.64	0.95
54:CG:63:VAL:HG11	54:CG:127:ALA:HB2	1.48	0.95
22:DA:2135:A:H3'	22:DA:2136:G:C5'	1.95	0.95
8:AH:9:MET:HE1	8:AH:32:LYS:HA	1.46	0.95
22:BA:1509:A:H1'	22:BA:1510:G:H5'	1.47	0.95
32:BK:116:ILE:HD12	32:BK:117:SER:N	1.82	0.95
40:BS:88:ARG:HG2	40:BS:88:ARG:NH2	1.73	0.95
41:BT:39:THR:HG22	41:BT:41:ALA:HB3	1.46	0.95
3:CC:166:TRP:O	3:CC:167:TYR:HB2	1.66	0.95
17:CQ:46:HIS:HB2	17:CQ:70:LYS:HE3	1.45	0.95
22:DA:1965:C:H3'	22:DA:1966:A:H5"	1.43	0.95
22:DA:2439:A:H4'	22:DA:2440:C:O5'	1.64	0.95
16:AP:73:ALA:O	16:AP:77:GLU:HB2	1.66	0.95
2:CB:130:LYS:HA	2:CB:133:ALA:HB3	1.48	0.95
22:DA:1399:C:O2'	22:DA:1400:U:H5'	1.66	0.95
44:DW:27:GLY:HA2	44:DW:31:LEU:HD11	0.98	0.95
44:DW:40:ARG:HH11	44:DW:40:ARG:CG	1.79	0.95
51:D3:41:ARG:HG3	51:D3:41:ARG:HH21	1.29	0.95
36:BO:59:ALA:HA	36:BO:62:LEU:CD1	1.96	0.95
22:DA:83:A:H61	22:DA:101:A:H5'	1.31	0.95
22:DA:2378:A:H2'	22:DA:2379:G:H5'	1.48	0.95
6:AF:86:ARG:CZ	18:AR:63:TYR:HB3	1.96	0.95
27:BF:40:GLY:HA2	27:BF:84:ILE:HD11	1.45	0.95
33:BL:19:LEU:HB2	33:BL:27:LEU:HD22	1.45	0.95
38:BQ:93:ILE:HG23	38:BQ:94:LEU:N	1.77	0.95
53:CA:960:U:O2'	53:CA:1223:C:H4'	1.67	0.95
53:CA:1458:G:O2'	20:CT:22:SER:HB3	1.65	0.95
54:CG:59:GLU:OE2	54:CG:63:VAL:HG23	1.65	0.95
31:BJ:6:ALA:CB	31:BJ:45:THR:HG21	1.97	0.95
40:BS:59:GLU:HA	40:BS:64:ALA:HB2	1.48	0.95
22:DA:1307:A:N6	22:DA:1606:C:H6	1.65	0.95
9:AI:51:LEU:HB3	9:AI:56:MET:HG2	1.48	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1218:C:H2'	53:CA:1219:A:C8	2.02	0.95
2:CB:74:ALA:HB1	2:CB:206:ILE:HD11	1.49	0.95
29:DH:132:PHE:CZ	29:DH:134:VAL:HB	2.00	0.95
32:DK:71:ARG:HB3	32:DK:72:PRO:HD3	0.97	0.95
1:AA:974:A:H4'	1:AA:975:A:H5'	1.44	0.95
7:AG:61:PHE:CE1	7:AG:65:LEU:HD22	2.01	0.95
22:BA:1073:A:H2'	22:BA:1074:G:C5'	1.97	0.95
40:BS:84:ARG:HB2	40:BS:96:ILE:HD11	1.48	0.95
8:CH:1:SER:HB3	8:CH:3:GLN:HG3	1.45	0.95
8:CH:93:LYS:HD3	8:CH:93:LYS:H	1.30	0.95
58:DF:42:ALA:HB2	58:DF:49:LEU:HD21	1.48	0.95
29:DH:3:VAL:HG12	29:DH:38:PRO:HA	1.49	0.95
38:BQ:69:ARG:HB2	38:BQ:69:ARG:NH2	1.81	0.95
22:DA:207:A:H2'	22:DA:208:C:H6	1.32	0.95
1:AA:451:A:H4'	1:AA:452:A:O5'	1.66	0.94
1:AA:1157:A:H1'	1:AA:1181:G:C2	2.02	0.94
8:AH:105:THR:HG21	8:AH:120:LEU:HD13	1.48	0.94
54:CG:91:ARG:HG2	54:CG:92:PRO:CD	1.97	0.94
55:CM:33:LEU:HB3	55:CM:38:ILE:HB	1.47	0.94
22:DA:395:U:HO2'	22:DA:396:G:H8	1.00	0.94
22:DA:1391:U:H4'	41:DT:19:LYS:NZ	1.82	0.94
40:DS:20:VAL:HG23	40:DS:23:LEU:HD12	1.46	0.94
12:AL:43:LYS:HB2	12:AL:44:PRO:CD	1.97	0.94
38:BQ:27:ARG:HH11	38:BQ:27:ARG:CG	1.80	0.94
53:CA:990:C:H2'	53:CA:991:U:O4'	1.68	0.94
53:CA:1278:G:H4'	53:CA:1279:G:C5'	1.97	0.94
12:CL:79:ILE:HD12	12:CL:96:THR:HG21	1.49	0.94
57:DB:58:A:H2'	57:DB:59:A:H8	1.29	0.94
57:DB:112:G:H21	36:DO:45:SER:HA	1.31	0.94
38:DQ:91:ARG:NH1	39:DR:10:LYS:HB3	1.82	0.94
44:DW:49:ASN:ND2	44:DW:81:ILE:HG23	1.82	0.94
3:AC:76:ILE:HA	3:AC:83:VAL:HG23	1.45	0.94
3:AC:143:LEU:H	3:AC:143:LEU:HD22	1.28	0.94
4:AD:36:ALA:HA	4:AD:41:GLY:HA3	1.43	0.94
4:AD:129:VAL:HG13	4:AD:131:ILE:CD1	1.96	0.94
6:AF:16:GLU:HG2	4:CD:191:SER:HB2	0.95	0.94
22:BA:1929:G:H4'	22:BA:1930:G:OP1	1.65	0.94
28:BG:23:ILE:H	28:BG:23:ILE:HD12	1.31	0.94
30:BI:15:GLY:HA2	30:BI:50:LYS:HB3	1.47	0.94
33:BL:30:THR:O	33:BL:33:ARG:HG2	1.68	0.94
26:DE:128:ALA:HB1	26:DE:129:PRO:HD2	1.48	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DL:117:THR:HG22	33:DL:118:THR:H	1.32	0.94
45:DX:6:VAL:HG22	45:DX:7:THR:HG23	1.49	0.94
50:D2:34:ARG:HB3	50:D2:42:LEU:HD11	1.45	0.94
1:AA:110:C:H2'	1:AA:111:G:C8	2.02	0.94
1:AA:439:U:H2'	1:AA:440:C:H5'	1.48	0.94
22:DA:975:A:O2'	22:DA:976:G:H8	1.49	0.94
35:DN:71:ARG:HH21	35:DN:71:ARG:HB2	1.31	0.94
40:DS:24:ILE:HG22	40:DS:35:ILE:HD11	1.48	0.94
24:BC:166:ARG:O	24:BC:166:ARG:HG3	1.64	0.94
28:BG:120:ILE:HD11	28:BG:132:LEU:HB2	1.46	0.94
44:BW:76:ARG:HH21	44:BW:76:ARG:CG	1.81	0.94
46:BY:9:LYS:HB3	46:BY:12:GLU:HG3	1.47	0.94
52:B4:10:LEU:HB2	52:B4:33:HIS:CD2	2.01	0.94
2:CB:163:ILE:HG23	2:CB:185:ILE:HD11	1.48	0.94
22:DA:247:G:H4'	22:DA:386:G:C5	2.01	0.94
22:DA:333:G:HO2'	22:DA:334:C:H6	1.04	0.94
22:DA:2291:U:H2'	22:DA:2292:U:C6	2.02	0.94
22:DA:2360:G:H1'	33:DL:60:ARG:HH21	1.30	0.94
37:DP:50:ARG:HB3	37:DP:57:ALA:H	1.32	0.94
45:DX:53:LYS:HA	45:DX:56:ARG:CB	1.96	0.94
4:AD:55:ARG:HH12	4:AD:58:GLN:HG2	1.32	0.94
14:AN:40:ARG:NH1	14:AN:44:VAL:HG11	1.82	0.94
17:AQ:45:VAL:HG21	17:AQ:60:ILE:CD1	1.96	0.94
25:BD:5:VAL:H	25:BD:32:ASN:HD21	1.01	0.94
53:CA:1143:G:H2'	53:CA:1144:G:C8	2.01	0.94
53:CA:1279:G:H5"	10:CJ:9:ARG:HH22	1.31	0.94
53:CA:1285:A:H4'	53:CA:1286:U:OP1	1.66	0.94
54:CG:68:VAL:HG22	54:CG:134:VAL:HG12	1.50	0.94
54:CG:100:MET:CE	54:CG:100:MET:H	1.81	0.94
22:DA:2748:A:H1'	28:DG:66:THR:HG22	1.49	0.94
25:DD:114:LYS:HD2	25:DD:116:LYS:HZ2	1.26	0.94
31:DJ:44:TYR:HB2	38:DQ:63:ARG:CZ	1.97	0.94
45:DX:63:ILE:CD1	45:DX:64:ASP:H	1.80	0.94
1:AA:619:U:H3	4:AD:130:ASN:HB3	1.30	0.94
3:AC:156:LEU:HD12	3:AC:156:LEU:H	1.30	0.94
11:AK:126:ARG:CB	21:AU:33:ARG:HH12	1.80	0.94
22:BA:1070:A:C2	30:BI:9:LYS:HG2	2.03	0.94
27:BF:129:MET:CE	27:BF:153:ILE:HD11	1.98	0.94
29:BH:18:GLN:HE21	29:BH:18:GLN:HA	1.30	0.94
33:BL:91:ASP:H	33:BL:94:THR:HG21	1.32	0.94
53:CA:348:G:H2'	53:CA:349:A:H8	1.33	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:46:VAL:HG13	2:CB:47:PRO:CD	1.98	0.94
6:CF:90:MET:CE	18:CR:60:ARG:HD3	1.98	0.94
22:DA:616:A:HO2'	22:DA:617:G:H8	1.00	0.94
22:DA:1026:G:O2'	22:DA:1027:A:H5'	1.67	0.94
22:DA:1069:A:H4'	22:DA:1070:A:O5'	1.68	0.94
22:DA:1857:G:H1'	22:DA:1884:G:H22	1.30	0.94
57:DB:69:G:C8	57:DB:70:C:C5	2.55	0.94
28:DG:112:VAL:HG13	28:DG:150:TYR:HE1	1.33	0.94
41:DT:29:THR:HB	41:DT:87:LEU:H	1.33	0.94
42:DU:58:VAL:CG1	42:DU:60:LYS:HG2	1.98	0.94
17:AQ:31:PRO:HB2	17:AQ:32:ILE:HD12	1.45	0.94
22:BA:250:G:H2'	22:BA:251:A:C8	2.03	0.94
25:BD:159:LYS:HZ2	25:BD:160:LYS:N	1.65	0.94
35:BN:72:ASP:OD1	35:BN:75:ILE:HG23	1.68	0.94
37:BP:50:ARG:CG	37:BP:57:ALA:N	2.31	0.94
12:CL:43:LYS:HB3	12:CL:44:PRO:HD2	0.95	0.94
51:D3:35:LYS:CB	51:D3:40:LYS:HD3	1.97	0.94
1:AA:795:C:H5"	1:AA:796:C:OP2	1.67	0.94
1:AA:1468:A:C2'	1:AA:1469:C:H5"	1.98	0.94
2:AB:36:LYS:HA	2:AB:36:LYS:HE3	1.49	0.94
5:AE:80:LEU:HD23	5:AE:122:VAL:CG1	1.96	0.94
29:BH:8:LYS:O	29:BH:9:VAL:HB	1.66	0.94
22:DA:946:C:HO2'	22:DA:947:A:H8	0.97	0.94
7:AG:121:ASN:O	7:AG:125:ASP:HB2	1.68	0.93
53:CA:960:U:C5'	53:CA:961:U:H5"	1.98	0.93
53:CA:1348:U:HO2'	53:CA:1349:A:H8	0.97	0.93
22:DA:118:A:N3	22:DA:178:G:H1'	1.83	0.93
24:BC:16:VAL:N	24:BC:203:VAL:HG12	1.81	0.93
31:BJ:2:LYS:HD3	31:BJ:2:LYS:N	1.83	0.93
41:BT:32:LEU:H	41:BT:83:ALA:HB3	1.30	0.93
22:DA:1126:A:H4'	22:DA:1127:A:O5'	1.68	0.93
22:DA:2311:A:H4'	22:DA:2312:U:OP2	1.66	0.93
57:DB:45:A:H2'	57:DB:46:A:C8	2.02	0.93
2:AB:127:LYS:HG3	2:AB:128:LEU:H	1.32	0.93
11:AK:124:LYS:NZ	21:AU:33:ARG:HH21	1.66	0.93
17:AQ:22:VAL:HG21	17:AQ:60:ILE:HD11	1.49	0.93
53:CA:1458:G:O2'	20:CT:22:SER:CB	2.16	0.93
22:DA:589:U:H2'	22:DA:590:A:H8	1.33	0.93
22:DA:2517:C:O2'	22:DA:2518:A:H3'	1.68	0.93
8:AH:6:ILE:HB	8:AH:76:ARG:NH1	1.82	0.93
21:AU:3:ILE:HA	21:AU:19:LYS:HZ2	1.34	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2431:U:H5'	22:BA:2431:U:C6	2.03	0.93
22:BA:2757:A:N1	28:BG:66:THR:HG21	1.83	0.93
26:BE:79:ARG:HG2	26:BE:80:SER:H	1.32	0.93
53:CA:274:A:HO2'	53:CA:275:G:H8	0.93	0.93
21:CU:24:LYS:HG3	21:CU:25:ALA:N	1.78	0.93
22:DA:118:A:OP2	22:DA:119:A:H3'	1.68	0.93
22:DA:2880:C:H1'	35:DN:93:GLY:H	1.33	0.93
22:BA:1020:A:H4'	22:BA:1021:A:O5'	1.67	0.93
22:DA:2216:G:O2'	22:DA:2217:G:H8	1.49	0.93
36:DO:17:LYS:HE3	36:DO:17:LYS:O	1.67	0.93
5:AE:87:VAL:HG12	5:AE:92:ARG:HA	1.47	0.93
6:AF:6:ILE:CG1	6:AF:89:VAL:HG23	1.99	0.93
9:AI:40:ARG:CA	9:AI:44:ARG:HB3	1.98	0.93
44:BW:9:THR:CG2	44:BW:10:ARG:HD3	1.97	0.93
8:CH:93:LYS:HD3	8:CH:93:LYS:N	1.84	0.93
32:DK:87:LEU:HD12	32:DK:92:GLU:HA	1.48	0.93
1:AA:511:C:O2'	1:AA:512:U:H5"	1.69	0.93
22:BA:443:A:N7	26:BE:40:ARG:HD3	1.83	0.93
53:CA:251:G:H4'	53:CA:252:U:C5'	1.99	0.93
53:CA:1139:G:H4'	53:CA:1140:C:O5'	1.69	0.93
38:DQ:27:ARG:HA	38:DQ:33:VAL:HG12	1.50	0.93
1:AA:497:G:O2'	1:AA:498:A:H5'	1.68	0.93
14:AN:40:ARG:HH12	14:AN:44:VAL:HG11	1.32	0.93
28:BG:8:VAL:O	28:BG:9:VAL:HG12	1.68	0.93
4:CD:144:ILE:HD11	4:CD:154:VAL:HG21	1.51	0.93
56:CP:75:ILE:HA	56:CP:78:VAL:HG23	1.49	0.93
22:DA:1267:U:HO2'	22:DA:1268:A:H8	0.96	0.93
22:BA:335:C:H5"	42:BU:81:ARG:HD3	1.49	0.93
22:BA:859:G:N2	22:BA:916:G:H2'	1.83	0.93
41:BT:29:THR:HA	41:BT:86:THR:HA	1.51	0.93
54:CG:91:ARG:CG	54:CG:92:PRO:HD2	1.98	0.93
22:DA:249:C:H5"	22:DA:2394:C:O2'	1.69	0.93
53:CA:166:U:H2'	53:CA:167:A:H5'	1.51	0.93
53:CA:209:U:H5"	53:CA:210:C:OP2	1.69	0.93
22:DA:2199:A:H2'	22:DA:2200:C:H6	1.34	0.93
58:DF:91:ARG:HH21	58:DF:91:ARG:HB3	1.31	0.93
40:DS:47:VAL:HG12	40:DS:103:ILE:HG12	1.49	0.93
1:AA:706:A:O2'	11:AK:30:ILE:HD11	1.69	0.92
5:AE:133:ILE:H	5:AE:133:ILE:HD12	1.34	0.92
28:BG:120:ILE:HD13	28:BG:121:THR:H	1.30	0.92
30:BI:23:VAL:HB	30:BI:27:LEU:HB3	1.49	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BR:4:VAL:HG23	39:BR:39:LEU:HG	1.49	0.92
53:CA:330:C:HO2'	53:CA:331:G:H8	0.94	0.92
22:DA:1345:C:HO2'	22:DA:1346:G:H8	0.96	0.92
26:DE:119:ILE:HD13	26:DE:143:LEU:HD21	1.51	0.92
22:BA:284:U:H2'	22:BA:285:G:H8	1.34	0.92
24:BC:131:MET:HA	24:BC:134:ILE:CD1	1.98	0.92
32:BK:71:ARG:HB2	32:BK:72:PRO:HD3	1.51	0.92
54:CG:22:LEU:HA	54:CG:25:PHE:CB	2.00	0.92
5:AE:110:MET:HA	5:AE:113:VAL:HG13	1.51	0.92
22:BA:728:G:HO2'	22:BA:730:A:H8	1.05	0.92
25:BD:9:VAL:HG22	25:BD:26:VAL:HB	1.48	0.92
43:BV:10:LYS:HD3	43:BV:10:LYS:N	1.80	0.92
20:CT:23:ARG:HB3	20:CT:60:GLN:NE2	1.83	0.92
22:DA:873:C:H4'	34:DM:64:TRP:HE1	1.29	0.92
32:DK:21:CYS:HA	32:DK:41:ILE:HD12	1.50	0.92
1:AA:1197:A:O2'	1:AA:1198:G:H5'	1.70	0.92
2:AB:9:LEU:HD23	2:AB:11:ALA:H	1.31	0.92
5:AE:14:LEU:HB2	5:AE:36:THR:HG22	1.51	0.92
6:AF:92:THR:O	6:AF:93:LYS:HG2	1.70	0.92
22:BA:1707:G:H2'	22:BA:1708:C:C6	2.05	0.92
53:CA:519:C:O2'	53:CA:520:A:H5'	1.67	0.92
4:CD:66:VAL:HG22	4:CD:96:ARG:NH1	1.85	0.92
22:DA:164:C:O2'	22:DA:165:A:H5'	1.70	0.92
22:DA:1552:A:O2'	22:DA:1553:A:H5'	1.67	0.92
35:DN:90:ARG:NH2	35:DN:116:VAL:HG11	1.83	0.92
42:DU:33:VAL:O	42:DU:34:ILE:HG13	1.67	0.92
5:AE:113:VAL:HG21	5:AE:140:ILE:HD12	1.51	0.92
22:BA:1438:U:O2'	22:BA:1439:A:H5'	1.70	0.92
27:BF:134:GLN:H	27:BF:134:GLN:HE21	1.02	0.92
53:CA:1226:C:N4	55:CM:102:LYS:HA	1.83	0.92
22:DA:2267:A:H61	22:DA:2272:U:H3	0.93	0.92
25:DD:137:SER:C	25:DD:138:LEU:HD22	1.89	0.92
41:DT:50:LEU:HD23	41:DT:51:PHE:H	1.32	0.92
42:DU:47:PRO:HB3	42:DU:54:PRO:CG	1.99	0.92
1:AA:975:A:H4'	1:AA:976:G:C5'	1.98	0.92
16:AP:28:ARG:HE	16:AP:29:ASN:HD21	1.01	0.92
22:BA:1085:A:H3'	22:BA:1086:A:C2	2.04	0.92
22:BA:1682:G:H2'	22:BA:1683:U:C6	2.04	0.92
25:BD:107:VAL:HG21	25:BD:177:VAL:HG13	1.51	0.92
31:BJ:4:PHE:O	31:BJ:44:TYR:CE1	2.22	0.92
34:BM:40:ARG:HB2	34:BM:93:VAL:HG21	1.50	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BP:112:ARG:C	37:BP:113:LEU:HD23	1.90	0.92
2:CB:110:ILE:HD13	2:CB:151:LYS:HA	1.51	0.92
17:CQ:3:LYS:NZ	17:CQ:6:THR:HG21	1.85	0.92
57:DB:50:A:C2	57:DB:51:G:H1'	2.05	0.92
22:BA:2197:U:HO2'	22:BA:2198:A:H2'	1.32	0.92
43:BV:10:LYS:H	43:BV:10:LYS:CD	1.77	0.92
53:CA:694:A:H3'	53:CA:695:A:H5"	1.48	0.92
4:CD:109:THR:HG22	4:CD:111:ALA:H	1.34	0.92
22:DA:1534:U:H6	22:DA:1538:G:H1	1.17	0.92
50:D2:31:LEU:HA	50:D2:34:ARG:HB2	1.50	0.92
22:BA:646:U:C3'	22:BA:647:G:H5"	2.00	0.92
22:BA:856:G:H1'	44:BW:23:LYS:HB3	1.49	0.92
22:BA:1063:G:OP1	30:BI:76:ALA:HB3	1.70	0.92
37:BP:50:ARG:HB3	37:BP:57:ALA:H	1.34	0.92
12:CL:109:ARG:HB2	12:CL:118:VAL:HG21	1.47	0.92
26:DE:59:PRO:HB2	26:DE:67:ARG:NH2	1.85	0.92
26:DE:166:LYS:HE2	26:DE:166:LYS:HA	1.52	0.92
1:AA:439:U:C2'	1:AA:440:C:H5'	1.99	0.92
1:AA:1202:U:O2'	1:AA:1203:C:H5'	1.70	0.92
1:AA:1499:A:O2'	1:AA:1500:A:H5'	1.70	0.92
20:AT:82:ILE:O	20:AT:86:ALA:HB3	1.68	0.92
28:BG:84:LYS:HG3	28:BG:132:LEU:H	1.12	0.92
53:CA:566:G:H4'	53:CA:567:G:OP1	1.69	0.92
53:CA:936:C:O2'	53:CA:937:A:H8	1.52	0.92
22:DA:1655:A:H2'	22:DA:1656:C:C6	2.04	0.92
22:DA:1913:A:H4'	22:DA:1914:C:OP1	1.67	0.92
22:DA:2023:C:O2'	22:DA:2024:G:H8	1.52	0.92
22:DA:2612:C:H5"	22:DA:2613:U:OP1	1.70	0.92
24:DC:16:VAL:N	24:DC:203:VAL:HG12	1.84	0.92
22:BA:1157:G:O2'	47:BZ:31:ILE:HD11	1.70	0.92
22:BA:1695:G:C8	24:BC:7:PRO:HG2	2.05	0.92
37:BP:50:ARG:HD3	37:BP:56:SER:CB	1.98	0.92
40:BS:73:LYS:HE3	40:BS:74:ILE:N	1.85	0.92
22:DA:637:A:H4'	22:DA:638:G:O5'	1.65	0.92
42:DU:14:THR:HB	42:DU:68:ASN:HB3	1.49	0.92
49:D1:25:ASN:HB3	49:D1:28:THR:OG1	1.70	0.92
6:AF:40:GLU:HB2	6:AF:42:TRP:HE1	1.33	0.91
21:CU:39:LYS:N	21:CU:40:PRO:HD2	1.85	0.91
33:DL:79:LEU:HB2	33:DL:113:ALA:H	1.33	0.91
1:AA:275:G:O2'	1:AA:276:G:H5'	1.71	0.91
27:BF:114:ARG:HD2	27:BF:114:ARG:H	1.34	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BG:86:LEU:HD12	28:BG:86:LEU:H	1.35	0.91
53:CA:32:A:H2'	53:CA:33:A:C8	2.05	0.91
22:DA:95:A:H1'	46:DY:40:SER:HB2	1.49	0.91
22:DA:1258:U:H2'	22:DA:1259:G:H8	1.33	0.91
22:DA:2520:C:HO2'	22:DA:2521:C:H6	0.98	0.91
1:AA:1157:A:H4'	1:AA:1158:C:H5"	1.53	0.91
10:AJ:29:ALA:CB	10:AJ:36:VAL:HG21	1.99	0.91
12:AL:27:PRO:HB2	12:AL:28:GLN:OE1	1.67	0.91
46:BY:7:ARG:H	46:BY:60:LYS:HZ1	1.15	0.91
3:CC:29:ALA:HB1	14:CN:64:ARG:HH12	1.35	0.91
4:CD:29:THR:HG22	4:CD:30:LYS:HD3	1.50	0.91
22:DA:2756:U:O2'	22:DA:2757:A:H5'	1.69	0.91
31:DJ:111:LYS:HB2	31:DJ:115:GLY:CA	2.00	0.91
1:AA:1050:G:O2'	1:AA:1051:C:H5'	1.70	0.91
39:BR:28:ALA:O	39:BR:63:VAL:HG21	1.70	0.91
3:CC:29:ALA:HB1	14:CN:64:ARG:NH1	1.86	0.91
22:DA:762:U:H4'	22:DA:763:G:O5'	1.69	0.91
22:DA:862:G:H2'	22:DA:863:A:C8	2.05	0.91
41:DT:39:THR:CG2	41:DT:42:GLU:HB2	2.01	0.91
47:DZ:20:LYS:O	47:DZ:24:LEU:HD13	1.70	0.91
14:AN:22:LYS:HG3	14:AN:23:ARG:H	1.35	0.91
32:BK:113:MET:SD	32:BK:116:ILE:HD11	2.10	0.91
53:CA:481:G:H4'	53:CA:482:A:OP1	1.68	0.91
53:CA:1172:C:O2'	53:CA:1173:U:H5'	1.70	0.91
8:CH:28:SER:HA	8:CH:58:LEU:HD12	1.53	0.91
43:BV:80:HIS:ND1	43:BV:81:PRO:HD2	1.86	0.91
6:CF:61:LEU:HD13	6:CF:62:MET:H	1.35	0.91
54:CG:110:ARG:HG3	54:CG:111:GLY:H	1.35	0.91
22:DA:2385:C:HO2'	22:DA:2386:A:H8	1.16	0.91
29:DH:83:LYS:HE2	29:DH:149:GLU:HB3	1.49	0.91
22:BA:1073:A:C2'	22:BA:1074:G:C5'	2.48	0.91
22:BA:1455:G:H8	22:BA:1455:G:H5'	1.33	0.91
40:BS:18:ARG:HG2	40:BS:76:VAL:HG13	1.50	0.91
5:CE:24:VAL:HG23	5:CE:26:GLY:H	1.35	0.91
22:DA:1078:U:H4'	22:DA:1079:C:C5'	2.01	0.91
22:DA:2683:C:O2'	22:DA:2684:U:H5'	1.71	0.91
37:DP:50:ARG:HB3	37:DP:57:ALA:N	1.86	0.91
6:AF:36:ILE:HG22	6:AF:64:VAL:HG22	1.53	0.91
21:AU:3:ILE:HA	21:AU:19:LYS:NZ	1.84	0.91
24:BC:16:VAL:H	24:BC:203:VAL:CG1	1.83	0.91
49:B1:33:LEU:N	49:B1:51:ALA:HB3	1.85	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1182:G:H4'	53:CA:1183:U:C5'	1.97	0.91
53:CA:1213:A:O2'	53:CA:1214:C:H5'	1.71	0.91
22:DA:1760:C:H2'	22:DA:1761:C:C6	2.06	0.91
22:DA:2093:G:N3	22:DA:2094:A:C8	2.39	0.91
22:DA:2850:A:O2'	22:DA:2851:A:H5'	1.70	0.91
57:DB:56:G:H4'	57:DB:57:A:O5'	1.70	0.91
57:DB:58:A:C2'	57:DB:59:A:H8	1.83	0.91
41:DT:43:ILE:HG21	41:DT:58:VAL:HG11	1.52	0.91
43:DV:77:VAL:HA	43:DV:89:ILE:HG22	1.53	0.91
22:BA:372:G:H5"	45:BX:60:LYS:HE3	1.51	0.91
4:CD:2:ARG:HH21	4:CD:114:ARG:CD	1.83	0.91
4:CD:25:ARG:HG2	4:CD:25:ARG:HH11	0.79	0.91
22:DA:510:C:H2'	22:DA:511:U:C6	2.05	0.91
22:DA:2688:G:H1'	22:DA:2721:A:N6	1.85	0.91
34:DM:41:LEU:HD23	34:DM:46:ILE:HG22	1.52	0.91
2:AB:110:ILE:CD1	2:AB:147:LEU:CD1	2.48	0.91
14:AN:22:LYS:HG3	14:AN:23:ARG:N	1.85	0.91
22:BA:826:U:O2'	33:BL:53:GLY:HA3	1.68	0.91
22:BA:942:G:H2'	22:BA:943:A:H5'	1.53	0.91
32:BK:10:VAL:CB	32:BK:16:ALA:HB1	2.01	0.91
38:BQ:8:ILE:HD12	38:BQ:9:ALA:N	1.86	0.91
43:BV:44:HIS:HE1	43:BV:86:LEU:H	1.18	0.91
17:CQ:46:HIS:HB2	17:CQ:70:LYS:CE	2.01	0.91
22:DA:1754:A:OP1	37:DP:93:LYS:HE3	1.71	0.91
57:DB:24:G:H1'	57:DB:27:C:H42	1.32	0.91
1:AA:560:A:H5'	1:AA:566:G:N2	1.85	0.90
22:BA:1733:G:HO2'	22:BA:1734:G:H8	0.90	0.90
22:BA:2211:A:OP2	22:BA:2211:A:H4'	1.68	0.90
53:CA:642:A:N7	8:CH:106:SER:HA	1.86	0.90
2:CB:99:MET:HA	2:CB:106:VAL:HG21	1.51	0.90
21:CU:24:LYS:CG	21:CU:25:ALA:H	1.84	0.90
22:DA:915:C:H2'	22:DA:916:G:H8	1.34	0.90
31:DJ:35:ARG:HG2	31:DJ:40:HIS:CD2	2.05	0.90
34:DM:42:THR:HB	34:DM:45:GLN:HG3	1.53	0.90
35:DN:38:LEU:HB3	35:DN:39:PRO:HD3	1.53	0.90
35:DN:71:ARG:HB2	35:DN:71:ARG:NH2	1.87	0.90
3:AC:166:TRP:H	3:AC:166:TRP:HE3	1.10	0.90
44:BW:76:ARG:HH21	44:BW:76:ARG:HG3	1.33	0.90
22:DA:664:G:H4'	22:DA:941:A:OP1	1.70	0.90
22:DA:1022:G:H22	22:DA:1142:A:H2	1.14	0.90
22:DA:1327:A:H2'	22:DA:1328:A:H8	1.34	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2461:A:H1'	22:DA:2492:U:H3	1.34	0.90
22:DA:2631:G:C2'	22:DA:2632:A:H5"	2.01	0.90
30:DI:57:VAL:HG12	30:DI:58:ILE:H	1.33	0.90
36:DO:115:LEU:H	36:DO:115:LEU:HD13	1.34	0.90
1:AA:545:C:H2'	1:AA:546:A:H5'	1.52	0.90
2:AB:13:VAL:HG22	2:AB:207:ARG:HH22	1.34	0.90
11:AK:100:ASN:HB2	11:AK:106:ILE:CG2	2.02	0.90
22:BA:2703:C:H2'	22:BA:2704:C:H6	1.37	0.90
29:BH:5:LEU:HD13	29:BH:13:GLY:HA2	1.50	0.90
53:CA:484:G:H4'	53:CA:485:U:O5'	1.71	0.90
53:CA:1086:U:O2'	53:CA:1087:G:H5'	1.71	0.90
10:CJ:15:HIS:HE1	10:CJ:68:ARG:HD3	1.37	0.90
22:DA:1116:G:N3	22:DA:1117:C:C5	2.39	0.90
22:DA:1673:G:H2'	22:DA:1674:G:H5'	1.53	0.90
22:DA:2389:G:H5"	22:DA:2390:U:H5'	1.53	0.90
22:DA:2415:G:H4'	33:DL:66:PHE:HB2	1.52	0.90
1:AA:251:G:H4'	1:AA:252:U:O5'	1.68	0.90
5:AE:148:SER:O	5:AE:152:VAL:HG13	1.71	0.90
22:BA:1286:A:H4'	22:BA:1287:A:OP1	1.70	0.90
12:CL:79:ILE:HD12	12:CL:96:THR:CG2	2.00	0.90
14:CN:76:PHE:HE2	14:CN:92:ILE:HG21	1.37	0.90
22:DA:989:G:H4'	22:DA:990:A:OP1	1.69	0.90
28:DG:126:THR:HG22	28:DG:127:GLN:H	1.35	0.90
33:DL:17:LYS:HZ1	33:DL:19:LEU:HD22	1.36	0.90
11:AK:124:LYS:CE	21:AU:33:ARG:HH21	1.82	0.90
22:BA:646:U:H3'	22:BA:647:G:C5'	2.01	0.90
22:BA:2339:C:H2'	22:BA:2340:A:H8	1.37	0.90
28:BG:86:LEU:HB3	28:BG:162:ARG:O	1.71	0.90
53:CA:1102:A:O2'	53:CA:1103:C:H5'	1.70	0.90
22:DA:320:A:H2'	26:DE:131:THR:OG1	1.71	0.90
31:DJ:74:TYR:HE2	31:DJ:103:ILE:HD11	1.35	0.90
1:AA:1343:G:H1'	9:AI:122:ARG:NH1	1.86	0.90
28:BG:85:LYS:HG2	28:BG:131:VAL:HG12	1.50	0.90
4:CD:29:THR:HG22	4:CD:30:LYS:CD	2.00	0.90
9:CI:27:ILE:HD13	9:CI:62:LEU:HB3	1.54	0.90
12:CL:3:VAL:HG23	12:CL:4:ASN:H	1.35	0.90
14:CN:33:VAL:HG22	14:CN:40:ARG:HH21	1.36	0.90
22:DA:1611:C:HO2'	22:DA:1612:C:H6	0.90	0.90
6:AF:97:THR:O	6:AF:98:GLU:HG2	1.72	0.90
41:BT:61:LEU:C	41:BT:61:LEU:HD12	1.92	0.90
53:CA:988:G:C2'	53:CA:989:U:H5'	1.99	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1870:C:H5”	22:DA:1871:A:H2	1.37	0.90
29:DH:1:MET:HB3	29:DH:21:VAL:O	1.72	0.90
37:DP:20:ARG:HG2	37:DP:112:ARG:HH12	1.34	0.90
5:AE:14:LEU:HD13	5:AE:14:LEU:O	1.70	0.90
22:BA:1084:A:H2’	22:BA:1085:A:C8	2.05	0.90
31:BJ:111:LYS:CD	31:BJ:112:GLY:N	2.33	0.90
6:CF:43:GLY:HA2	6:CF:58:HIS:CE1	2.06	0.90
22:DA:142:A:H2’	22:DA:143:C:C6	2.07	0.90
22:DA:447:A:H5’	22:DA:449:A:C5	2.07	0.90
22:DA:1807:G:H2’	22:DA:1808:A:H5’	1.54	0.90
22:DA:1929:G:H4’	22:DA:1930:G:OP1	1.71	0.90
24:DC:224:MET:SD	24:DC:229:HIS:HB2	2.12	0.90
31:DJ:45:THR:HG21	31:DJ:50:THR:HG23	1.52	0.90
17:AQ:7:LEU:HD23	17:AQ:24:ILE:HD13	1.54	0.90
20:AT:43:LYS:CB	20:AT:86:ALA:HB1	2.00	0.90
22:BA:479:A:O2’	22:BA:481:G:H5’	1.72	0.90
28:BG:84:LYS:CG	28:BG:132:LEU:H	1.84	0.90
44:BW:23:LYS:HD2	44:BW:24:ARG:N	1.86	0.90
22:DA:1417:C:O2’	22:DA:1418:G:H5’	1.71	0.90
25:DD:89:GLU:HG2	25:DD:94:GLN:HE22	1.37	0.90
30:DI:45:THR:HG23	30:DI:54:ILE:HD13	1.54	0.90
32:DK:118:LEU:C	32:DK:120:PRO:HD2	1.91	0.90
33:DL:92:LEU:CD2	33:DL:124:GLY:HA3	2.00	0.90
38:DQ:87:VAL:HG21	39:DR:52:PRO:CD	2.02	0.90
1:AA:633:G:O2’	1:AA:634:C:H5’	1.72	0.90
14:AN:19:TYR:O	14:AN:22:LYS:HB3	1.72	0.90
22:BA:528:A:H5”	22:BA:528:A:H8	1.36	0.90
53:CA:348:G:O2’	53:CA:349:A:H5’	1.72	0.90
53:CA:781:A:H2’	53:CA:782:A:H5’	1.54	0.90
22:DA:822:G:O6	22:DA:943:A:H2	1.55	0.90
22:DA:2348:U:O2’	22:DA:2349:G:H8	1.52	0.90
25:DD:141:ARG:HB3	25:DD:141:ARG:NH1	1.87	0.90
30:DI:91:LYS:HB3	30:DI:94:LYS:HB2	1.53	0.90
1:AA:1123:U:H4’	10:AJ:39:PRO:HD2	1.53	0.89
1:AA:1314:C:OP2	19:AS:5:LYS:HD2	1.72	0.89
25:BD:104:VAL:O	25:BD:177:VAL:HG21	1.72	0.89
38:BQ:97:ILE:HD11	38:BQ:105:PHE:CA	2.02	0.89
41:BT:32:LEU:H	41:BT:83:ALA:CB	1.84	0.89
53:CA:1086:U:H5’	53:CA:1086:U:C6	2.08	0.89
26:DE:119:ILE:CD1	26:DE:143:LEU:HD21	2.02	0.89
26:DE:149:ILE:O	26:DE:188:MET:HA	1.72	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:DF:91:ARG:HA	58:DF:95:MET:SD	2.13	0.89
35:DN:73:ASN:HA	35:DN:76:VAL:HG22	1.52	0.89
42:DU:92:VAL:HB	42:DU:101:THR:CG2	2.02	0.89
44:DW:40:ARG:HG2	44:DW:40:ARG:NH1	1.75	0.89
1:AA:60:A:H4'	1:AA:61:G:O5'	1.70	0.89
53:CA:279:A:H5"	53:CA:280:C:H3'	1.54	0.89
53:CA:519:C:H2'	53:CA:520:A:H8	1.34	0.89
53:CA:960:U:H4'	53:CA:961:U:C5'	2.02	0.89
17:CQ:30:HIS:CE1	17:CQ:32:ILE:HG13	2.05	0.89
22:DA:1996:C:H4'	22:DA:1997:C:OP1	1.70	0.89
25:DD:107:VAL:HG12	25:DD:109:VAL:HG23	1.52	0.89
58:DF:103:ILE:HA	58:DF:107:VAL:HG21	1.52	0.89
31:DJ:99:ARG:HA	31:DJ:102:GLU:HB3	1.52	0.89
34:DM:34:LYS:HB2	34:DM:131:VAL:CG2	2.03	0.89
16:AP:28:ARG:NE	16:AP:29:ASN:HD21	1.69	0.89
29:BH:68:ARG:NH2	29:BH:72:ILE:HG21	1.87	0.89
22:DA:811:U:H5"	22:DA:812:C:OP2	1.71	0.89
22:DA:973:A:H1'	22:DA:1188:U:C6	2.06	0.89
22:DA:995:C:O2	31:DJ:3:THR:HG23	1.71	0.89
29:DH:41:LYS:HA	29:DH:44:ILE:HG12	1.55	0.89
5:AE:80:LEU:CD2	5:AE:122:VAL:HG11	2.01	0.89
9:AI:32:ARG:HG2	9:AI:36:GLN:CB	2.01	0.89
11:AK:28:ASN:OD1	11:AK:46:ALA:HB3	1.72	0.89
22:BA:1885:A:H2'	22:BA:1886:U:C6	2.08	0.89
26:BE:112:LEU:HD13	26:BE:186:VAL:HG11	1.53	0.89
22:DA:91:A:O2'	22:DA:92:U:H5"	1.72	0.89
29:DH:84:ALA:HB3	29:DH:148:ALA:CB	2.03	0.89
1:AA:158:G:H2'	1:AA:159:G:C5'	2.02	0.89
5:AE:80:LEU:HD12	5:AE:146:MET:CE	2.03	0.89
5:AE:110:MET:O	5:AE:114:LEU:HB2	1.73	0.89
22:BA:1654:A:H1'	25:BD:118:PHE:CD1	2.07	0.89
22:BA:1993:U:H4'	25:BD:133:THR:HG21	1.55	0.89
37:BP:50:ARG:CG	37:BP:57:ALA:H	1.84	0.89
37:BP:61:ARG:HG2	37:BP:70:GLU:HG2	1.54	0.89
44:BW:24:ARG:HD3	44:BW:65:LYS:HE2	1.53	0.89
53:CA:239:U:H5'	53:CA:239:U:H6	1.33	0.89
22:DA:593:U:H2'	22:DA:594:U:C6	2.08	0.89
22:DA:1915:U:H2'	22:DA:1916:A:H8	1.07	0.89
22:DA:2093:G:N2	22:DA:2094:A:C4	2.40	0.89
1:AA:792:A:H4'	1:AA:793:U:O5'	1.72	0.89
22:BA:84:A:H62	22:BA:101:A:H2	0.97	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:506:G:H4'	22:BA:507:A:H5'	1.55	0.89
22:BA:2654:A:H4'	22:BA:2655:G:OP1	1.70	0.89
23:BB:33:G:O2'	23:BB:34:A:H5'	1.73	0.89
2:CB:127:LYS:HE2	2:CB:136:ARG:HH21	1.34	0.89
3:CC:76:ILE:HD11	3:CC:102:ILE:HD11	1.54	0.89
22:DA:876:C:H3'	22:DA:877:A:C8	2.08	0.89
42:DU:95:PHE:HD1	42:DU:95:PHE:H	1.18	0.89
6:AF:3:HIS:N	6:AF:92:THR:HG23	1.87	0.89
44:BW:37:VAL:HG12	44:BW:38:ARG:N	1.84	0.89
53:CA:135:C:O2	56:CP:1:MET:HB2	1.72	0.89
4:CD:89:LEU:HD23	4:CD:199:ILE:HD11	1.53	0.89
22:DA:96:C:H4'	46:DY:41:HIS:CD2	2.07	0.89
22:DA:1965:C:H5'	22:DA:1966:A:H5"	1.54	0.89
40:DS:8:ARG:O	40:DS:9:HIS:HB2	1.70	0.89
1:AA:877:G:H21	8:AH:1:SER:HB2	1.38	0.89
24:BC:33:LEU:CD2	24:BC:62:ARG:HD3	2.02	0.89
48:B0:39:ARG:HB2	48:B0:39:ARG:HH11	1.36	0.89
51:B3:26:ALA:O	51:B3:27:ASN:HB2	1.72	0.89
10:CJ:15:HIS:CE1	10:CJ:68:ARG:HD3	2.07	0.89
22:DA:1116:G:C4	22:DA:1117:C:C5	2.60	0.89
41:DT:14:PRO:O	41:DT:15:HIS:HB2	1.73	0.89
3:AC:128:MET:HB3	3:AC:131:ARG:HG3	1.53	0.89
19:AS:4:LEU:HD22	19:AS:8:PRO:HA	1.55	0.89
4:CD:143:SER:HB3	4:CD:178:GLU:HG3	1.55	0.89
22:DA:279:A:H61	22:DA:361:G:H1'	1.37	0.89
22:BA:84:A:H4'	22:BA:85:G:O5'	1.70	0.89
53:CA:491:G:O2'	53:CA:492:C:H5'	1.70	0.89
22:DA:739:A:H4'	22:DA:740:C:OP1	1.69	0.89
22:DA:1181:U:H2'	22:DA:1182:G:H8	1.37	0.89
22:DA:1327:A:H2'	22:DA:1328:A:C8	2.07	0.89
37:DP:28:LYS:HB2	37:DP:28:LYS:HZ2	1.37	0.89
1:AA:545:C:H5'	4:AD:68:GLU:CG	2.02	0.88
1:AA:1299:A:H2'	1:AA:1299:A:N3	1.88	0.88
2:AB:108:GLN:C	2:AB:110:ILE:N	2.19	0.88
22:BA:1023:U:H5'	22:BA:1023:U:H6	1.35	0.88
28:BG:140:ILE:HD12	28:BG:141:GLY:N	1.88	0.88
35:BN:65:LEU:HD11	35:BN:69:ARG:NH2	1.88	0.88
39:BR:39:LEU:HA	39:BR:49:ILE:HG21	1.54	0.88
53:CA:174:A:O2'	53:CA:175:C:H5'	1.71	0.88
10:CJ:35:GLN:HG2	10:CJ:76:ILE:HG23	1.54	0.88
41:DT:87:LEU:HD23	41:DT:88:LYS:N	1.87	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:531:U:H4'	1:AA:532:A:O5'	1.73	0.88
4:AD:25:ARG:NH1	4:AD:30:LYS:HE3	1.88	0.88
22:BA:765:C:O2'	22:BA:766:U:H5'	1.73	0.88
23:BB:28:C:C2'	23:BB:29:A:H5'	2.03	0.88
37:BP:59:THR:HG23	37:BP:72:VAL:HG13	1.55	0.88
53:CA:989:U:C2'	53:CA:990:C:C5'	2.51	0.88
6:CF:92:THR:O	6:CF:93:LYS:HG2	1.73	0.88
10:CJ:12:ALA:HB3	10:CJ:18:ILE:HB	1.53	0.88
22:DA:279:A:N6	22:DA:361:G:H1'	1.88	0.88
37:DP:86:LYS:HA	37:DP:86:LYS:HZ2	1.36	0.88
1:AA:423:G:H2'	1:AA:423:G:N3	1.86	0.88
5:AE:45:VAL:HG21	5:AE:117:ALA:HA	1.52	0.88
38:BQ:63:ARG:CZ	38:BQ:96:ASP:HA	2.02	0.88
38:BQ:91:ARG:HD3	39:BR:11:GLN:CG	2.03	0.88
39:BR:25:LEU:H	39:BR:94:THR:CG2	1.85	0.88
3:CC:113:LYS:HG3	3:CC:184:ASN:ND2	1.88	0.88
20:CT:2:ASN:N	20:CT:7:LYS:HZ3	1.72	0.88
22:DA:1338:G:H4'	41:DT:18:GLU:OE2	1.73	0.88
58:DF:48:LEU:HG	58:DF:49:LEU:HD22	1.52	0.88
32:DK:35:VAL:HG23	32:DK:36:GLY:H	1.38	0.88
38:DQ:71:ASN:ND2	38:DQ:106:THR:HA	1.89	0.88
42:DU:45:GLN:HA	42:DU:45:GLN:HE21	1.38	0.88
44:DW:28:GLU:H	44:DW:31:LEU:HD21	1.34	0.88
46:DY:20:ASN:HD22	46:DY:50:VAL:HG22	1.38	0.88
47:DZ:4:ILE:HD12	47:DZ:58:GLU:HA	1.53	0.88
22:BA:915:C:H6	22:BA:915:C:H5"	1.36	0.88
22:BA:1779:U:H5	22:BA:1784:A:N7	1.70	0.88
53:CA:983:A:O2'	53:CA:984:C:H5'	1.73	0.88
22:DA:310:A:O2'	22:DA:311:A:H8	1.55	0.88
22:DA:2800:A:C4	22:DA:2801:G:H1'	2.09	0.88
58:DF:64:PRO:HA	58:DF:88:VAL:HG22	1.55	0.88
5:AE:155:LYS:HA	5:AE:158:LYS:NZ	1.88	0.88
22:BA:2328:A:H2'	22:BA:2329:U:C6	2.08	0.88
32:BK:18:ARG:HG3	32:BK:18:ARG:NH1	1.83	0.88
40:BS:59:GLU:HA	40:BS:64:ALA:CB	2.03	0.88
46:BY:24:GLU:O	46:BY:28:LEU:HB2	1.73	0.88
53:CA:940:C:H5'	54:CG:101:ARG:NH2	1.89	0.88
53:CA:960:U:H5'	53:CA:961:U:H5"	1.54	0.88
53:CA:984:C:O2'	53:CA:985:C:C6	2.26	0.88
10:CJ:40:ILE:HG22	10:CJ:42:LEU:CD1	2.02	0.88
22:DA:783:A:H2	22:DA:1778:U:H4'	1.36	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1345:C:H3'	22:DA:1345:C:OP2	1.72	0.88
2:AB:71:THR:HG22	2:AB:72:LYS:H	1.37	0.88
25:BD:12:THR:CG2	25:BD:13:ARG:H	1.86	0.88
47:BZ:6:ILE:O	47:BZ:34:THR:HA	1.74	0.88
53:CA:91:U:HO2'	53:CA:92:U:H6	1.09	0.88
53:CA:170:U:O2'	53:CA:171:A:H5'	1.74	0.88
53:CA:1159:U:H5	53:CA:1182:G:HO2'	0.93	0.88
22:DA:806:C:H2'	22:DA:807:U:H6	1.36	0.88
25:DD:184:ARG:HH22	37:DP:6:GLN:HE21	1.19	0.88
39:DR:68:ARG:HD2	39:DR:92:TRP:CH2	2.08	0.88
51:D3:32:LEU:HA	51:D3:35:LYS:HG3	1.54	0.88
1:AA:32:A:H2'	1:AA:33:A:C8	2.07	0.88
1:AA:1256:A:H1'	1:AA:1258:G:C5	2.09	0.88
13:AM:113:LYS:H	13:AM:114:PRO:CD	1.87	0.88
41:BT:39:THR:CG2	41:BT:41:ALA:HB3	2.03	0.88
43:BV:80:HIS:HD2	43:BV:83:LYS:N	1.70	0.88
21:AU:39:LYS:H	21:AU:40:PRO:HD2	1.39	0.88
28:BG:126:THR:HG22	28:BG:127:GLN:H	1.36	0.88
37:BP:91:VAL:O	37:BP:92:ARG:HG2	1.73	0.88
53:CA:1278:G:H4'	53:CA:1279:G:O5'	1.70	0.88
22:DA:1401:G:H2'	22:DA:1402:U:H6	1.33	0.88
57:DB:65:U:H3'	57:DB:108:A:N6	1.89	0.88
2:AB:148:GLY:O	2:AB:151:LYS:HG2	1.72	0.88
10:AJ:53:ILE:HG22	10:AJ:61:ALA:HB1	1.56	0.88
32:BK:76:VAL:HB	37:BP:72:VAL:CG2	2.04	0.88
33:BL:27:LEU:H	33:BL:27:LEU:CD1	1.87	0.88
53:CA:764:C:C2'	53:CA:765:G:H5'	2.03	0.88
22:DA:320:A:H4'	22:DA:322:A:N7	1.89	0.88
22:DA:1387:A:N6	22:DA:1401:G:C6	2.41	0.88
4:AD:167:PRO:HB2	4:AD:170:LEU:HD11	1.56	0.88
22:BA:475:C:H5'	22:BA:475:C:H6	1.39	0.88
22:BA:1585:C:C2'	22:BA:1586:A:H5'	2.04	0.88
24:BC:180:MET:HG3	24:BC:268:ARG:NH1	1.87	0.88
44:BW:17:ALA:HA	44:BW:35:ILE:HG23	1.54	0.88
56:CP:67:ILE:HG12	56:CP:72:ALA:HB2	1.54	0.88
19:CS:40:PHE:CB	19:CS:41:PRO:HD2	2.02	0.88
22:DA:1141:U:H4'	22:DA:1142:A:O5'	1.72	0.88
22:DA:1324:G:H1'	22:DA:1616:A:N6	1.89	0.88
1:AA:620:C:C2	4:AD:131:ILE:HG21	2.09	0.87
11:AK:108:ASN:CB	21:AU:6:ARG:HG2	2.02	0.87
21:AU:13:VAL:HG13	21:AU:15:LEU:HG	1.55	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BD:45:TYR:HD1	25:BD:45:TYR:H	1.21	0.87
39:BR:16:GLU:HA	39:BR:98:ILE:HG22	1.55	0.87
53:CA:1493:A:H3'	22:DA:1913:A:H62	1.39	0.87
22:DA:1716:U:O2'	22:DA:1717:A:H8	1.58	0.87
22:DA:1830:C:H5'	24:DC:14:HIS:CE1	2.08	0.87
22:DA:2136:G:H2'	22:DA:2137:U:C6	2.08	0.87
28:DG:106:LEU:HB2	28:DG:108:PHE:HE1	1.38	0.87
37:DP:86:LYS:HA	37:DP:86:LYS:NZ	1.88	0.87
38:DQ:4:LYS:HE3	38:DQ:7:VAL:HG13	1.55	0.87
22:BA:1347:A:O2'	22:BA:1348:C:H5'	1.74	0.87
22:BA:2508:G:H2'	22:BA:2509:G:O5'	1.74	0.87
32:BK:4:GLU:OE2	32:BK:23:LYS:HE2	1.73	0.87
42:BU:52:ASN:C	42:BU:54:PRO:HD2	1.94	0.87
44:BW:19:ARG:NH1	44:BW:22:VAL:HG11	1.89	0.87
22:DA:1440:U:O2'	22:DA:1441:G:H5'	1.74	0.87
22:DA:2143:C:H5'	22:DA:2144:G:OP2	1.74	0.87
38:DQ:87:VAL:CG2	39:DR:52:PRO:HD3	2.01	0.87
44:DW:18:LYS:HD3	44:DW:19:ARG:H	1.35	0.87
1:AA:174:A:HO2'	1:AA:175:C:H5'	1.39	0.87
4:AD:117:VAL:N	4:AD:122:ILE:HD11	1.90	0.87
11:AK:88:PRO:HD3	21:AU:28:LEU:HD13	1.56	0.87
22:BA:1416:G:HO2'	22:BA:1417:C:H6	0.95	0.87
53:CA:68:G:N2	53:CA:152:A:H1'	1.89	0.87
22:DA:2023:C:HO2'	22:DA:2024:G:H8	0.87	0.87
25:DD:107:VAL:HG13	25:DD:203:VAL:HG23	1.57	0.87
38:DQ:78:PHE:CE1	38:DQ:82:LEU:HD11	2.10	0.87
44:DW:37:VAL:CG1	44:DW:55:ASP:HB2	2.03	0.87
1:AA:390:U:H2'	1:AA:391:G:C8	2.09	0.87
8:AH:29:SER:HB3	8:AH:32:LYS:HG3	1.53	0.87
24:BC:140:VAL:CG1	24:BC:189:ALA:HB1	2.04	0.87
29:BH:32:PRO:HB3	45:BX:38:TRP:HB3	1.57	0.87
31:BJ:111:LYS:HE2	31:BJ:115:GLY:H	1.40	0.87
10:CJ:84:VAL:HG23	10:CJ:85:ASP:N	1.90	0.87
22:DA:230:G:HO2'	22:DA:231:A:H8	0.95	0.87
11:AK:22:ILE:HD13	11:AK:95:THR:HG21	1.56	0.87
22:BA:1510:G:H2'	22:BA:1511:G:H8	1.38	0.87
6:CF:3:HIS:ND1	6:CF:92:THR:HG23	1.88	0.87
22:DA:1078:U:H4'	22:DA:1079:C:H5"	1.56	0.87
22:DA:1280:G:H2'	22:DA:1281:G:H5'	1.56	0.87
22:DA:1453:A:H4'	22:DA:1454:C:OP2	1.73	0.87
42:DU:35:VAL:HG12	42:DU:36:GLU:H	1.37	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DX:31:ASN:H	45:DX:31:ASN:ND2	1.72	0.87
14:AN:44:VAL:HG23	14:AN:45:LEU:H	1.39	0.87
54:CG:14:ASP:HB3	54:CG:18:GLY:H	1.40	0.87
9:CI:51:LEU:CG	9:CI:86:LEU:HD22	2.03	0.87
22:DA:1069:A:N6	22:DA:1073:A:H5"	1.89	0.87
22:DA:1313:U:O2'	22:DA:1314:C:H5'	1.75	0.87
25:DD:141:ARG:HB3	25:DD:141:ARG:HH11	1.38	0.87
26:DE:60:TRP:CZ2	26:DE:71:GLY:HA2	2.10	0.87
36:DO:18:LEU:HD13	36:DO:25:ARG:HG2	1.55	0.87
1:AA:274:A:O2'	1:AA:275:G:C8	2.27	0.87
1:AA:1239:A:H4'	1:AA:1240:U:C5'	2.05	0.87
22:BA:1062:G:OP1	22:BA:1070:A:H4'	1.75	0.87
25:BD:151:THR:HG22	25:BD:152:PRO:N	1.85	0.87
38:BQ:63:ARG:HH12	38:BQ:96:ASP:CA	1.87	0.87
43:BV:80:HIS:CD2	43:BV:83:LYS:HB2	2.09	0.87
4:CD:34:GLU:O	4:CD:37:PRO:HD3	1.74	0.87
22:DA:45:G:H5'	22:DA:46:G:H5'	1.56	0.87
22:DA:1967:C:H6	22:DA:1967:C:H5"	1.40	0.87
22:DA:2800:A:O2'	22:DA:2801:G:C4'	2.19	0.87
24:DC:128:THR:CG2	24:DC:188:ARG:HB3	2.05	0.87
28:DG:93:TYR:H	28:DG:93:TYR:HD2	1.20	0.87
34:DM:61:GLY:HA2	34:DM:107:GLY:HA3	1.53	0.87
1:AA:16:A:O2'	1:AA:17:U:H5'	1.75	0.87
1:AA:49:U:O4	1:AA:365:U:H5	1.57	0.87
22:BA:1590:A:H2'	22:BA:1591:A:H8	1.36	0.87
22:BA:1873:G:O2'	22:BA:1874:C:H5'	1.75	0.87
22:BA:2602:A:H4'	22:BA:2603:G:OP2	1.75	0.87
33:BL:95:LEU:HD22	33:BL:100:ILE:HG12	1.54	0.87
38:BQ:97:ILE:CD1	38:BQ:105:PHE:HB2	2.05	0.87
22:DA:921:C:C2'	22:DA:922:C:H5'	2.03	0.87
22:DA:2514:U:H2'	22:DA:2515:C:H6	1.40	0.87
1:AA:198:G:O2'	1:AA:199:A:H8	1.58	0.87
1:AA:1411:C:H2'	1:AA:1412:C:H5'	1.55	0.87
22:BA:545:U:H2'	22:BA:546:U:H4'	1.54	0.87
22:BA:2051:A:H4'	22:BA:2052:A:OP1	1.72	0.87
53:CA:239:U:H5'	53:CA:239:U:C6	2.10	0.87
10:CJ:52:LEU:HD23	10:CJ:62:ARG:HG2	1.56	0.87
55:CM:78:ARG:HH21	55:CM:79:LEU:HD23	1.37	0.87
22:DA:526:A:N6	22:DA:2626:C:H4'	1.90	0.87
22:DA:1447:C:H2'	22:DA:1448:G:C8	2.10	0.87
22:DA:1469:A:H2'	22:DA:1470:A:C8	2.10	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:202:G:H21	1:AA:466:A:H61	1.18	0.86
29:BH:31:VAL:CB	29:BH:32:PRO:HD2	2.05	0.86
35:BN:71:ARG:HH21	35:BN:71:ARG:CG	1.88	0.86
37:BP:105:LYS:HA	37:BP:108:ARG:HH21	1.40	0.86
48:B0:9:ARG:HH21	48:B0:9:ARG:HG3	1.38	0.86
53:CA:994:A:N6	53:CA:1216:A:H5'	1.90	0.86
5:CE:104:ILE:H	5:CE:122:VAL:H	1.17	0.86
22:DA:674:G:O2'	26:DE:69:ARG:HG2	1.74	0.86
22:DA:1919:A:O2'	22:DA:1920:C:H5'	1.75	0.86
29:DH:72:ILE:HD11	29:DH:141:LYS:H	1.40	0.86
33:DL:47:ARG:HH21	33:DL:47:ARG:HG2	1.40	0.86
51:D3:15:LYS:NZ	51:D3:19:GLY:HA2	1.90	0.86
17:AQ:79:GLU:C	17:AQ:80:LYS:HD3	1.96	0.86
22:BA:1150:C:H2'	22:BA:1151:A:O5'	1.75	0.86
53:CA:91:U:O2'	53:CA:92:U:H5"	1.74	0.86
53:CA:238:A:H2'	53:CA:239:U:C5'	2.04	0.86
3:CC:181:ILE:HG12	3:CC:202:PHE:HB2	1.57	0.86
57:DB:45:A:H2'	57:DB:46:A:H8	1.38	0.86
33:DL:92:LEU:HD22	33:DL:124:GLY:HA3	1.56	0.86
35:DN:35:LYS:HG2	35:DN:112:TYR:CE1	2.09	0.86
36:DO:23:ALA:O	36:DO:42:PRO:HG3	1.75	0.86
38:DQ:87:VAL:HG11	39:DR:52:PRO:HG3	1.55	0.86
1:AA:563:A:H2'	1:AA:563:A:N3	1.89	0.86
1:AA:1279:G:H2'	1:AA:1279:G:N3	1.88	0.86
54:CG:71:THR:HG23	54:CG:72:VAL:HG23	1.54	0.86
21:CU:15:LEU:O	21:CU:15:LEU:HD12	1.75	0.86
22:DA:1388:G:O2'	22:DA:1389:G:H5'	1.75	0.86
31:BJ:73:VAL:HG23	31:BJ:74:TYR:N	1.91	0.86
38:BQ:63:ARG:HH12	38:BQ:96:ASP:HA	1.28	0.86
44:BW:23:LYS:HD2	44:BW:24:ARG:H	1.36	0.86
22:DA:1870:C:H5"	22:DA:1871:A:C2	2.10	0.86
31:DJ:25:LEU:HD12	31:DJ:64:VAL:HA	1.57	0.86
36:DO:53:THR:HB	36:DO:65:THR:HG22	1.58	0.86
43:DV:61:LEU:HD23	43:DV:61:LEU:H	1.40	0.86
1:AA:109:A:H2'	1:AA:326:G:H21	1.40	0.86
1:AA:571:U:H5"	1:AA:572:A:OP2	1.76	0.86
4:AD:145:ARG:HH11	4:AD:147:LYS:HE3	1.38	0.86
10:AJ:51:VAL:HB	14:AN:80:ARG:HB2	1.55	0.86
22:BA:2492:U:O2'	22:BA:2493:U:H5'	1.74	0.86
31:BJ:77:HIS:HD2	31:BJ:79:GLY:H	1.23	0.86
3:CC:110:LEU:HD21	3:CC:203:LYS:HD2	1.54	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:176:LYS:HG3	4:CD:178:GLU:HB2	1.57	0.86
12:CL:97:VAL:O	12:CL:97:VAL:HG23	1.72	0.86
22:DA:28:A:O2'	22:DA:29:U:H5'	1.74	0.86
22:DA:2776:A:H4'	22:DA:2777:G:O5'	1.76	0.86
22:DA:2847:U:H2'	22:DA:2848:G:H5'	1.58	0.86
28:DG:120:ILE:HG13	28:DG:140:ILE:HG22	1.55	0.86
33:DL:124:GLY:H	33:DL:143:GLU:HG3	1.38	0.86
1:AA:1240:U:H3'	1:AA:1241:G:H5'	1.55	0.86
22:BA:65:U:H2'	22:BA:66:C:H6	1.40	0.86
22:BA:2136:G:H2'	22:BA:2137:U:H5	1.39	0.86
24:BC:77:VAL:O	24:BC:77:VAL:HG23	1.75	0.86
28:BG:115:GLN:CD	28:BG:115:GLN:H	1.79	0.86
44:BW:23:LYS:O	44:BW:66:VAL:HB	1.75	0.86
44:BW:37:VAL:CG1	44:BW:38:ARG:H	1.88	0.86
3:CC:140:ALA:O	3:CC:145:ALA:HB3	1.75	0.86
3:CC:152:VAL:HG23	3:CC:156:LEU:HD21	1.55	0.86
14:CN:40:ARG:NH1	19:CS:6:LYS:HB2	1.90	0.86
22:DA:246:C:H2'	22:DA:247:G:H5'	1.55	0.86
22:DA:1605:C:H4'	22:DA:1610:A:C6	2.10	0.86
57:DB:42:C:H41	58:DF:87:LYS:NZ	1.72	0.86
58:DF:39:VAL:HG22	58:DF:49:LEU:HG	1.57	0.86
32:DK:39:ILE:HD11	32:DK:62:VAL:HG23	1.56	0.86
38:DQ:60:TRP:O	38:DQ:63:ARG:HG2	1.76	0.86
46:DY:28:LEU:HD11	46:DY:43:LEU:HD13	1.55	0.86
1:AA:545:C:C2'	1:AA:546:A:H5'	2.06	0.86
2:AB:71:THR:O	2:AB:72:LYS:HG2	1.76	0.86
8:AH:63:LYS:O	8:AH:70:VAL:HG23	1.75	0.86
22:BA:1870:C:H4'	22:BA:1871:A:OP1	1.73	0.86
22:BA:1941:C:H5'	22:BA:1941:C:C6	2.11	0.86
38:BQ:8:ILE:HD12	38:BQ:8:ILE:C	1.96	0.86
20:CT:73:ARG:HH11	20:CT:73:ARG:HG2	1.40	0.86
22:DA:15:G:OP1	48:D0:20:ALA:HB2	1.75	0.86
22:DA:802:A:O2'	22:DA:803:U:H5'	1.74	0.86
22:DA:2210:U:H4'	22:DA:2211:A:C5'	2.05	0.86
57:DB:42:C:O2'	57:DB:43:C:H5'	1.75	0.86
58:DF:39:VAL:HA	58:DF:49:LEU:HG	1.58	0.86
45:DX:63:ILE:HD12	45:DX:64:ASP:H	1.39	0.86
1:AA:1068:G:O2'	1:AA:1069:C:H5'	1.75	0.86
3:AC:119:ILE:HG21	3:AC:197:VAL:HG11	1.57	0.86
22:BA:1471:G:H2'	22:BA:1472:C:H6	1.41	0.86
53:CA:154:U:H2'	53:CA:155:A:H5'	1.55	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:794:A:H2'	53:CA:795:C:C6	2.10	0.86
22:DA:338:G:H2'	22:DA:339:U:H5'	1.55	0.86
22:DA:2582:G:O2'	22:DA:2583:G:H5'	1.75	0.86
1:AA:667:G:H4'	15:AO:50:HIS:CE1	2.10	0.86
31:BJ:88:THR:HG22	31:BJ:91:GLU:CG	2.05	0.86
34:BM:108:VAL:HG13	34:BM:109:PRO:HD2	1.57	0.86
38:BQ:97:ILE:C	38:BQ:97:ILE:HD12	1.96	0.86
53:CA:413:G:N1	4:CD:32:LYS:HE3	1.91	0.86
2:CB:26:MET:HE2	2:CB:29:PHE:HD2	1.38	0.86
22:DA:1422:G:H4'	22:DA:1493:C:OP1	1.76	0.86
57:DB:12:C:H4'	57:DB:13:G:OP1	1.76	0.86
22:BA:90:U:H2'	22:BA:91:A:C8	2.10	0.86
22:BA:1073:A:C3'	22:BA:1074:G:C5'	2.54	0.86
25:BD:12:THR:CG2	25:BD:13:ARG:N	2.39	0.86
28:BG:84:LYS:HD2	28:BG:133:LYS:HG2	1.56	0.86
33:BL:27:LEU:HD12	33:BL:27:LEU:N	1.87	0.86
37:BP:17:PRO:HG3	37:BP:83:ILE:O	1.76	0.86
53:CA:345:C:H4'	53:CA:346:G:H5"	1.58	0.86
53:CA:1118:U:H1'	53:CA:1179:A:C4	2.10	0.86
20:CT:60:GLN:HB3	20:CT:65:LEU:HD12	1.57	0.86
22:DA:192:C:H2'	22:DA:193:U:H5'	1.55	0.86
22:DA:1700:A:O2'	22:DA:1701:A:H5'	1.76	0.86
58:DF:104:THR:HG22	58:DF:105:ILE:HG13	1.57	0.86
1:AA:654:G:H2'	1:AA:655:A:H8	1.41	0.85
11:AK:14:GLN:HA	11:AK:76:TYR:O	1.76	0.85
31:BJ:18:VAL:HG22	31:BJ:140:LEU:CD1	2.06	0.85
46:BY:9:LYS:HA	46:BY:9:LYS:NZ	1.90	0.85
53:CA:33:A:H2'	53:CA:34:C:C6	2.10	0.85
53:CA:72:A:N6	53:CA:99:C:H1'	1.90	0.85
53:CA:1493:A:H3'	22:DA:1913:A:N6	1.91	0.85
9:CI:10:ARG:HG3	9:CI:14:SER:O	1.75	0.85
22:DA:141:G:H3'	22:DA:142:A:O4'	1.76	0.85
22:DA:1447:C:H2'	22:DA:1448:G:H8	1.40	0.85
29:DH:97:ARG:O	29:DH:98:ASP:HB2	1.76	0.85
38:DQ:4:LYS:HZ2	38:DQ:6:GLY:HA3	1.41	0.85
39:DR:27:ILE:HG22	39:DR:28:ALA:N	1.90	0.85
22:BA:357:C:H2'	22:BA:358:U:C6	2.11	0.85
22:BA:1417:C:O2'	22:BA:1418:G:H5'	1.75	0.85
22:BA:1498:C:HO2'	22:BA:1499:C:H6	1.22	0.85
22:DA:1207:C:HO2'	22:DA:1208:C:H6	0.89	0.85
22:DA:2617:U:H2'	22:DA:2618:G:H5'	1.58	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:662:U:H2'	1:AA:663:A:C8	2.11	0.85
19:AS:39:ILE:HD11	19:AS:70:LEU:HD23	1.58	0.85
22:BA:1073:A:H3'	22:BA:1074:G:C5'	2.06	0.85
25:BD:186:LEU:HD11	37:BP:3:ILE:CD1	2.07	0.85
53:CA:1217:C:O2'	53:CA:1218:C:H6	1.59	0.85
22:DA:999:U:O2'	22:DA:1000:A:H5'	1.75	0.85
57:DB:40:U:O2	57:DB:43:C:H2'	1.75	0.85
25:DD:10:GLY:O	25:DD:11:MET:HB2	1.76	0.85
28:DG:86:LEU:HA	28:DG:163:TYR:HB3	1.58	0.85
4:AD:69:ARG:HA	4:AD:69:ARG:HE	1.41	0.85
5:AE:89:THR:HG22	5:AE:90:GLY:N	1.91	0.85
26:BE:189:THR:OG1	26:BE:191:ASP:HB3	1.75	0.85
27:BF:134:GLN:HE21	27:BF:134:GLN:N	1.74	0.85
33:BL:78:ARG:HB3	33:BL:113:ALA:HB3	1.58	0.85
53:CA:197:A:N6	53:CA:221:C:H4'	1.91	0.85
53:CA:1086:U:H6	53:CA:1086:U:C5'	1.89	0.85
53:CA:1139:G:H4'	53:CA:1140:C:C5'	2.07	0.85
54:CG:64:ALA:HB2	54:CG:126:ALA:HB1	1.57	0.85
1:AA:204:G:H1'	1:AA:465:A:C2	2.11	0.85
1:AA:390:U:H2'	1:AA:391:G:H8	1.42	0.85
1:AA:968:A:H4'	1:AA:969:A:OP2	1.76	0.85
22:BA:197:A:N6	22:BA:2430:A:H2'	1.90	0.85
22:BA:1073:A:H3'	22:BA:1074:G:H5"	1.57	0.85
22:BA:1590:A:H2'	22:BA:1591:A:C8	2.10	0.85
22:BA:2103:C:H2'	22:BA:2104:C:H5'	1.57	0.85
26:BE:31:VAL:HG21	26:BE:104:ALA:HB2	1.58	0.85
39:BR:39:LEU:HA	39:BR:49:ILE:CG2	2.07	0.85
53:CA:51:A:H4'	53:CA:52:C:C5'	2.05	0.85
19:CS:40:PHE:HB3	19:CS:41:PRO:CD	2.06	0.85
22:DA:181:A:H2	22:DA:434:U:H1'	1.40	0.85
25:DD:118:PHE:CD1	25:DD:119:ALA:N	2.44	0.85
37:DP:63:ILE:HA	37:DP:68:GLY:HA2	1.58	0.85
5:AE:83:PRO:HB3	5:AE:96:GLN:NE2	1.91	0.85
21:AU:19:LYS:HE2	21:AU:19:LYS:CA	2.06	0.85
22:BA:1019:U:H3	22:BA:1142:A:H62	1.23	0.85
35:BN:53:THR:HA	35:BN:56:LYS:HG3	1.59	0.85
36:BO:30:ARG:HG2	36:BO:31:THR:H	1.41	0.85
53:CA:818:G:H3'	53:CA:819:A:H5'	1.56	0.85
53:CA:972:C:O2'	10:CJ:57:VAL:HG23	1.75	0.85
53:CA:1101:A:H4'	53:CA:1102:A:O5'	1.76	0.85
54:CG:137:ARG:CZ	54:CG:138:GLU:HG2	2.07	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:532:A:H3'	38:DQ:27:ARG:NH1	1.92	0.85
22:DA:873:C:H4'	34:DM:64:TRP:CD1	2.10	0.85
28:DG:124:CYS:HB3	28:DG:130:ILE:HA	1.56	0.85
32:DK:94:PRO:HG3	32:DK:115:ILE:HD12	1.59	0.85
1:AA:1157:A:H1'	1:AA:1181:G:N2	1.90	0.85
4:AD:145:ARG:HD2	4:AD:147:LYS:HE2	1.58	0.85
6:AF:17:GLN:HG2	4:CD:188:SER:HB2	1.55	0.85
22:BA:1050:A:C2	22:BA:2751:G:C5	2.64	0.85
32:BK:71:ARG:HB3	32:BK:72:PRO:HD3	1.57	0.85
53:CA:932:C:H5"	54:CG:2:ARG:HD3	1.58	0.85
22:DA:95:A:H4'	46:DY:38:GLN:O	1.75	0.85
22:DA:671:C:O2'	22:DA:672:C:H5'	1.75	0.85
22:DA:1915:U:O2'	22:DA:1916:A:H5'	1.76	0.85
22:DA:2284:A:O2'	22:DA:2285:C:H5'	1.77	0.85
57:DB:67:G:HO2'	57:DB:68:C:H6	1.21	0.85
43:DV:30:ILE:HG12	43:DV:91:PHE:HB2	1.58	0.85
1:AA:87:C:H2'	1:AA:88:U:H6	1.42	0.85
2:AB:19:THR:HA	2:AB:37:VAL:HG23	1.57	0.85
8:AH:74:ILE:CD1	8:AH:128:VAL:HG22	2.06	0.85
31:BJ:111:LYS:HD3	31:BJ:112:GLY:H	1.07	0.85
34:BM:40:ARG:HB2	34:BM:93:VAL:CG2	2.05	0.85
41:BT:48:GLN:HE21	41:BT:48:GLN:HA	1.41	0.85
2:CB:147:LEU:HD12	2:CB:147:LEU:H	1.41	0.85
8:CH:23:ALA:HA	8:CH:62:LEU:HD23	1.59	0.85
10:CJ:64:GLN:CB	14:CN:98:ALA:HB3	2.06	0.85
26:DE:112:LEU:HD12	26:DE:118:LEU:HD13	1.57	0.85
1:AA:129:A:O2'	1:AA:130:A:H5"	1.77	0.85
1:AA:1338:G:H2'	1:AA:1339:A:C8	2.10	0.85
10:AJ:42:LEU:HB3	10:AJ:43:PRO:HD2	1.57	0.85
10:AJ:65:TYR:HB3	14:AN:95:LEU:HD11	1.57	0.85
22:BA:1455:G:H5'	22:BA:1455:G:C8	2.11	0.85
24:BC:14:HIS:O	24:BC:203:VAL:HG11	1.76	0.85
26:BE:119:ILE:HD13	26:BE:187:VAL:HA	1.59	0.85
53:CA:1147:C:H4'	9:CI:6:TYR:CE1	2.12	0.85
53:CA:1242:G:C2	53:CA:1243:C:H1'	2.12	0.85
53:CA:1268:G:H21	53:CA:1327:C:H1'	1.42	0.85
22:DA:1511:G:HO2'	22:DA:1512:C:H6	1.23	0.85
22:DA:2389:G:C5'	22:DA:2390:U:H5'	2.07	0.85
24:DC:8:THR:O	24:DC:9:SER:HB3	1.77	0.85
58:DF:177:ARG:CD	58:DF:178:LYS:H	1.90	0.85
29:DH:116:ARG:O	29:DH:117:LEU:HG	1.76	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DM:36:VAL:HG22	43:DV:82:TYR:HB2	1.59	0.85
46:DY:57:LEU:HD13	46:DY:60:LYS:HE3	1.58	0.85
2:AB:17:HIS:CD2	2:AB:202:ASN:HD21	1.94	0.85
6:AF:3:HIS:CB	6:AF:92:THR:HG23	2.07	0.85
22:BA:216:A:H2'	22:BA:217:A:H8	1.41	0.85
22:BA:1714:U:H2'	22:BA:1714:U:O2	1.77	0.85
24:BC:16:VAL:N	24:BC:203:VAL:CG1	2.39	0.85
53:CA:1396:A:H4'	53:CA:1397:C:O5'	1.75	0.85
22:DA:533:G:OP1	38:DQ:27:ARG:HD3	1.76	0.85
22:DA:878:A:H4'	22:DA:898:C:H42	1.40	0.85
22:DA:1258:U:H2'	22:DA:1259:G:C8	2.10	0.85
25:DD:51:THR:CG2	25:DD:76:GLY:HA3	2.05	0.85
36:DO:11:ALA:HB2	36:DO:96:GLY:N	1.92	0.85
5:AE:100:GLU:HB3	5:AE:121:ASN:HA	1.59	0.84
17:AQ:13:SER:O	17:AQ:16:MET:HE2	1.77	0.84
25:BD:106:LYS:N	25:BD:106:LYS:HD2	1.90	0.84
31:BJ:111:LYS:CD	31:BJ:112:GLY:H	1.88	0.84
20:CT:74:HIS:O	20:CT:78:LEU:HB2	1.76	0.84
22:DA:1012:U:O4	31:DJ:30:THR:HG21	1.76	0.84
22:DA:1070:A:H5'	22:DA:1071:G:H5"	1.59	0.84
22:DA:2093:G:C2	22:DA:2094:A:C5	2.65	0.84
22:DA:2319:G:O2'	22:DA:2321:U:O4	1.94	0.84
58:DF:59:ILE:HD13	58:DF:137:PHE:HZ	1.41	0.84
42:DU:3:LYS:HG2	42:DU:84:PHE:HZ	1.42	0.84
1:AA:1277:C:HO2'	1:AA:1279:G:H8	0.86	0.84
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.11	0.84
4:AD:195:ASN:O	4:AD:196:GLU:HG3	1.76	0.84
53:CA:87:C:O2'	53:CA:88:U:H4'	1.77	0.84
10:CJ:15:HIS:HA	10:CJ:18:ILE:CG2	2.07	0.84
17:CQ:3:LYS:HZ3	17:CQ:6:THR:HG21	1.40	0.84
32:DK:60:ALA:HA	32:DK:87:LEU:HD23	1.56	0.84
1:AA:339:C:H2'	1:AA:340:U:H6	1.42	0.84
11:AK:100:ASN:HB2	11:AK:106:ILE:HG21	1.59	0.84
22:BA:760:G:H2'	22:BA:761:A:H5'	1.60	0.84
22:BA:1347:A:C2'	22:BA:1348:C:H5'	2.07	0.84
50:B2:34:ARG:NH1	50:B2:39:ARG:HG2	1.93	0.84
53:CA:1322:C:O2'	53:CA:1323:G:H5'	1.77	0.84
53:CA:1504:G:C3'	53:CA:1505:G:H5'	2.07	0.84
22:DA:2466:C:OP1	52:D4:4:ARG:HB3	1.78	0.84
58:DF:91:ARG:HB3	58:DF:91:ARG:NH2	1.91	0.84
31:DJ:59:ALA:O	31:DJ:62:VAL:HG12	1.77	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DQ:87:VAL:HG12	38:DQ:88:GLU:H	1.42	0.84
41:DT:44:LYS:O	41:DT:48:GLN:HG2	1.78	0.84
43:DV:4:ILE:HB	43:DV:63:ILE:HG13	1.58	0.84
1:AA:366:A:O2'	1:AA:394:G:N2	2.10	0.84
12:AL:62:VAL:HG21	12:AL:94:TYR:CE2	2.12	0.84
53:CA:66:A:H2'	53:CA:66:A:N3	1.91	0.84
53:CA:1458:G:O3'	20:CT:22:SER:HA	1.76	0.84
22:DA:207:A:H2'	22:DA:208:C:C6	2.12	0.84
31:DJ:74:TYR:CE2	31:DJ:103:ILE:HD11	2.11	0.84
21:AU:19:LYS:HE2	21:AU:19:LYS:HA	1.57	0.84
22:BA:196:A:H2'	22:BA:805:G:O6	1.77	0.84
22:BA:1945:G:H2'	22:BA:1946:U:H6	1.42	0.84
28:BG:83:THR:HA	28:BG:84:LYS:CE	2.08	0.84
38:BQ:91:ARG:HB3	38:BQ:93:ILE:HG22	1.57	0.84
52:B4:9:LYS:O	52:B4:10:LEU:HD23	1.77	0.84
2:CB:162:VAL:HG13	2:CB:184:ALA:CB	2.08	0.84
4:CD:2:ARG:HE	4:CD:114:ARG:HD2	1.41	0.84
11:CK:81:LEU:HD11	11:CK:104:PHE:CD2	2.12	0.84
17:CQ:61:ARG:HG2	17:CQ:75:VAL:HG11	1.60	0.84
22:DA:172:A:H2'	22:DA:173:A:H8	1.42	0.84
22:DA:616:A:O2'	22:DA:617:G:H8	1.61	0.84
22:DA:1277:G:H5'	35:DN:20:MET:CE	2.07	0.84
26:DE:170:ARG:NH2	26:DE:176:ASP:HB2	1.91	0.84
33:DL:57:LEU:HD12	33:DL:60:ARG:HD2	1.58	0.84
1:AA:1370:G:O5'	9:AI:110:VAL:HG21	1.77	0.84
22:BA:153:U:O2'	22:BA:154:U:H5'	1.77	0.84
22:BA:2093:G:O2'	22:BA:2094:A:H5'	1.77	0.84
24:BC:12:ARG:HH11	24:BC:12:ARG:CG	1.89	0.84
28:BG:70:LEU:O	28:BG:74:MET:HG3	1.78	0.84
53:CA:987:G:C4	53:CA:988:G:N7	2.46	0.84
53:CA:989:U:O2'	53:CA:990:C:C5'	2.25	0.84
53:CA:1058:G:OP1	3:CC:198:LYS:HE2	1.77	0.84
3:CC:63:ILE:HG12	3:CC:65:VAL:HG23	1.59	0.84
3:CC:148:ILE:HD13	3:CC:201:ILE:HG12	1.60	0.84
22:DA:1359:A:C2	22:DA:1360:G:H1'	2.13	0.84
22:DA:1521:G:C6	22:DA:1522:A:N6	2.44	0.84
22:DA:2001:C:H4'	22:DA:2689:U:H2'	1.58	0.84
22:DA:2636:C:H2'	22:DA:2637:U:H6	1.42	0.84
22:DA:2838:G:H1'	35:DN:45:ARG:HH22	1.41	0.84
34:DM:35:ALA:HB3	34:DM:99:GLY:H	1.41	0.84
40:DS:29:VAL:CG1	40:DS:55:ILE:HD11	2.07	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:101:THR:HG22	2:AB:174:GLU:OE1	1.78	0.84
5:AE:109:ALA:O	5:AE:110:MET:HG2	1.77	0.84
9:AI:119:LYS:HG3	9:AI:122:ARG:HB3	1.58	0.84
16:AP:22:ALA:CB	16:AP:32:PHE:HA	2.06	0.84
22:BA:855:G:N3	44:BW:23:LYS:HD3	1.92	0.84
22:BA:1082:U:H5'	30:BI:117:THR:O	1.78	0.84
22:BA:2813:A:H2	22:BA:2887:A:N6	1.75	0.84
24:BC:93:VAL:HG13	24:BC:94:LEU:N	1.90	0.84
27:BF:34:THR:HG23	27:BF:89:THR:HG23	1.57	0.84
22:DA:382:A:H2'	22:DA:383:C:C5'	2.07	0.84
22:DA:480:A:H3'	22:DA:481:G:C5'	2.07	0.84
22:DA:1116:G:N2	22:DA:1117:C:C2	2.45	0.84
22:DA:2190:G:H5'	22:DA:2191:A:OP2	1.77	0.84
22:DA:2401:U:H3'	22:DA:2402:U:H5"	1.59	0.84
22:DA:2714:G:H2'	22:DA:2715:C:C6	2.12	0.84
58:DF:147:ARG:O	58:DF:148:VAL:HG22	1.78	0.84
1:AA:194:C:O2'	1:AA:195:A:H5'	1.77	0.84
12:AL:23:LEU:CB	12:AL:58:ASN:HD22	1.90	0.84
41:BT:87:LEU:HB2	41:BT:91:GLN:HG2	1.57	0.84
2:CB:26:MET:HE2	2:CB:29:PHE:CD2	2.13	0.84
2:CB:160:LEU:HD13	2:CB:180:ILE:HG21	1.59	0.84
22:DA:142:A:O2'	22:DA:143:C:H5'	1.77	0.84
22:DA:617:G:HO2'	22:DA:618:G:H8	0.86	0.84
40:DS:14:ALA:O	40:DS:18:ARG:HB2	1.77	0.84
46:DY:2:LYS:HD2	46:DY:4:LYS:HE3	1.60	0.84
4:AD:47:LEU:CD2	4:AD:52:VAL:HG12	2.07	0.84
8:AH:21:LYS:HE2	8:AH:22:ALA:H	1.42	0.84
22:BA:1085:A:H3'	22:BA:1086:A:H2	1.41	0.84
26:BE:111:GLU:HG2	26:BE:114:ARG:NH1	1.93	0.84
26:BE:146:VAL:HG23	26:BE:167:VAL:CG2	2.08	0.84
35:BN:33:ILE:HD11	35:BN:118:ARG:HD2	1.59	0.84
51:B3:31:ILE:O	51:B3:35:LYS:HE3	1.78	0.84
53:CA:47:C:O2'	53:CA:48:C:H5'	1.76	0.84
53:CA:79:G:H2'	53:CA:80:A:H8	1.42	0.84
22:DA:2286:G:H4'	22:DA:2287:A:O4'	1.78	0.84
52:D4:16:ILE:HG12	52:D4:25:VAL:CG2	2.02	0.84
4:AD:11:SER:HA	4:AD:18:LEU:HD12	1.59	0.84
7:AG:61:PHE:HE1	7:AG:65:LEU:HD22	1.43	0.84
22:BA:269:C:H2'	22:BA:270:A:H5'	1.58	0.84
22:BA:1378:A:O2'	22:BA:1379:U:O5'	1.96	0.84
22:BA:2135:A:HO2'	22:BA:2136:G:H8	1.26	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2358:A:H61	33:BL:54:GLN:HE22	1.24	0.84
53:CA:961:U:O2'	53:CA:962:C:H6	1.59	0.84
53:CA:1202:U:H2'	53:CA:1203:C:C6	2.12	0.84
53:CA:1293:C:H2'	53:CA:1294:G:C8	2.13	0.84
3:CC:110:LEU:O	3:CC:110:LEU:HD23	1.77	0.84
9:CI:51:LEU:HB2	9:CI:56:MET:SD	2.17	0.84
22:DA:279:A:C2	22:DA:362:A:H4'	2.13	0.84
22:DA:2429:G:H3'	22:DA:2429:G:OP2	1.78	0.84
22:DA:2492:U:O2'	22:DA:2493:U:H5'	1.78	0.84
24:DC:152:GLN:HE21	24:DC:152:GLN:H	1.21	0.84
43:DV:44:HIS:NE2	43:DV:85:LYS:HB2	1.92	0.84
1:AA:415:A:H2'	1:AA:416:G:H8	1.40	0.83
22:BA:1050:A:C2	22:BA:2751:G:C4	2.66	0.83
25:BD:13:ARG:HH12	37:BP:74:GLN:HE21	1.26	0.83
26:BE:76:PRO:HA	26:BE:82:GLY:HA3	1.60	0.83
48:B0:42:ILE:CD1	48:B0:48:TYR:HB2	2.07	0.83
12:CL:42:LYS:HG2	12:CL:43:LYS:N	1.92	0.83
22:DA:575:A:O2'	22:DA:576:U:H5'	1.77	0.83
22:DA:1056:G:H1'	22:DA:1103:A:N6	1.93	0.83
22:DA:1060:U:C4'	22:DA:1061:U:H2'	2.08	0.83
28:DG:167:VAL:HG23	28:DG:168:VAL:H	1.42	0.83
29:DH:8:LYS:HD2	29:DH:9:VAL:N	1.92	0.83
34:DM:27:SER:H	34:DM:66:ARG:HH22	1.20	0.83
38:DQ:16:ILE:HG23	38:DQ:38:VAL:HG21	1.58	0.83
2:AB:218:ALA:HA	2:AB:221:ARG:HH21	1.44	0.83
9:AI:83:THR:HG21	9:AI:102:PHE:HB3	1.60	0.83
53:CA:631:C:H3'	53:CA:632:U:H5'	1.59	0.83
53:CA:1493:A:H8	22:DA:1913:A:H61	1.23	0.83
11:CK:111:ASP:H	21:CU:3:ILE:N	1.76	0.83
22:DA:78:U:O2'	22:DA:79:C:H5'	1.78	0.83
22:DA:558:U:OP1	31:DJ:113:PRO:HD2	1.77	0.83
1:AA:121:U:H6	1:AA:121:U:H5"	1.43	0.83
1:AA:1441:A:H62	1:AA:1461:G:H21	1.26	0.83
2:AB:67:LEU:HD21	2:AB:91:VAL:HG23	1.59	0.83
7:AG:86:VAL:HG22	7:AG:150:PHE:HB3	1.58	0.83
12:AL:1:ALA:HB3	12:AL:5:GLN:OE1	1.78	0.83
20:AT:43:LYS:HB3	20:AT:86:ALA:CB	2.06	0.83
22:BA:1079:C:N4	22:BA:1088:A:H2	1.76	0.83
25:BD:110:THR:HG23	25:BD:171:THR:HG22	1.60	0.83
35:BN:1:MET:O	35:BN:2:ARG:HB2	1.76	0.83
37:BP:28:LYS:HB2	37:BP:82:SER:HB3	1.60	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BP:57:ALA:HB1	37:BP:73:PHE:O	1.78	0.83
43:BV:20:LEU:HD23	43:BV:25:LYS:HB2	1.59	0.83
53:CA:77:A:H2'	53:CA:78:A:C8	2.12	0.83
53:CA:1038:C:H2'	53:CA:1039:G:C8	2.12	0.83
12:CL:66:ILE:HD13	12:CL:73:LEU:HD12	1.59	0.83
22:DA:637:A:OP2	33:DL:112:LEU:HD22	1.78	0.83
22:DA:1931:U:C2'	22:DA:1932:A:H8	1.91	0.83
25:DD:48:ILE:HG22	25:DD:84:LEU:HD23	1.59	0.83
1:AA:468:A:O2'	1:AA:469:C:H5'	1.78	0.83
1:AA:496:A:H2'	1:AA:496:A:N3	1.92	0.83
12:AL:23:LEU:HB2	12:AL:58:ASN:HD22	1.43	0.83
12:AL:49:ARG:HH11	12:AL:49:ARG:CG	1.85	0.83
22:BA:866:A:O2'	22:BA:867:C:H5'	1.78	0.83
22:BA:1069:A:O2'	22:BA:1070:A:H5"	1.77	0.83
22:BA:2801:G:O2'	22:BA:2802:G:H5'	1.79	0.83
46:BY:7:ARG:H	46:BY:60:LYS:NZ	1.77	0.83
54:CG:41:ILE:HG21	54:CG:115:MET:CE	2.08	0.83
22:DA:704:G:H2'	22:DA:726:G:H22	1.44	0.83
41:DT:29:THR:H	41:DT:87:LEU:HB2	1.42	0.83
1:AA:718:A:C8	11:AK:117:HIS:HB3	2.13	0.83
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.14	0.83
4:AD:60:VAL:HA	4:AD:63:ILE:HG22	1.60	0.83
22:BA:1199:U:H2'	22:BA:1200:C:C6	2.13	0.83
23:BB:52:A:H4'	23:BB:53:A:OP1	1.74	0.83
28:BG:88:LEU:HD11	28:BG:95:ALA:HB2	1.58	0.83
41:BT:28:ASN:HA	41:BT:91:GLN:NE2	1.94	0.83
22:DA:739:A:O2'	22:DA:740:C:C5	2.31	0.83
22:DA:1039:A:H2	22:DA:1116:G:H22	1.25	0.83
22:DA:2461:A:H1'	22:DA:2492:U:N3	1.92	0.83
24:DC:52:HIS:HA	24:DC:216:ARG:HB2	1.59	0.83
38:DQ:4:LYS:CD	38:DQ:7:VAL:HG22	2.08	0.83
1:AA:724:G:O2'	1:AA:725:G:H5'	1.78	0.83
1:AA:765:G:H1	1:AA:812:G:HO2'	1.19	0.83
22:BA:915:C:O2'	22:BA:916:G:H5'	1.78	0.83
22:BA:1414:C:C4	22:BA:1415:U:H5	1.96	0.83
22:BA:2510:C:H6	22:BA:2510:C:C5'	1.89	0.83
36:BO:58:ILE:O	36:BO:62:LEU:HD11	1.79	0.83
22:DA:2339:C:HO2'	22:DA:2340:A:H8	0.86	0.83
30:DI:104:GLN:HA	30:DI:107:GLU:HB2	1.60	0.83
42:DU:54:PRO:HG2	42:DU:55:GLY:H	1.40	0.83
1:AA:210:C:H4'	1:AA:211:G:N2	1.94	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1707:G:H2'	22:BA:1708:C:H6	1.43	0.83
24:BC:158:GLY:H	24:BC:194:VAL:HG13	1.40	0.83
31:BJ:117:ALA:HA	31:BJ:120:ARG:NH2	1.94	0.83
37:BP:3:ILE:HD13	37:BP:3:ILE:O	1.77	0.83
38:BQ:93:ILE:CG2	38:BQ:94:LEU:H	1.90	0.83
53:CA:694:A:C3'	53:CA:695:A:H5"	2.09	0.83
54:CG:41:ILE:HG21	54:CG:115:MET:HE2	1.61	0.83
22:DA:1387:A:H5'	22:DA:1469:A:H1'	1.60	0.83
22:DA:2345:G:H4'	22:DA:2346:A:H5"	1.59	0.83
57:DB:94:A:OP1	43:DV:19:ARG:HD3	1.77	0.83
29:DH:68:ARG:CD	29:DH:71:LYS:HD3	2.07	0.83
31:DJ:6:ALA:HB3	31:DJ:45:THR:HB	1.61	0.83
4:AD:21:LYS:O	4:AD:21:LYS:HD3	1.78	0.83
38:BQ:4:LYS:HG3	38:BQ:5:ARG:N	1.93	0.83
38:BQ:27:ARG:HG3	38:BQ:27:ARG:NH1	1.92	0.83
38:BQ:40:LYS:HB2	38:BQ:40:LYS:NZ	1.93	0.83
49:B1:7:LYS:HA	49:B1:23:THR:HG22	1.60	0.83
53:CA:1446:A:H2'	53:CA:1447:A:H5'	1.61	0.83
22:DA:426:C:O2'	22:DA:427:U:H5'	1.79	0.83
28:DG:148:ARG:HB2	28:DG:152:ARG:NH2	1.94	0.83
51:D3:22:LYS:H	51:D3:48:MET:HB3	1.44	0.83
29:BH:94:ILE:HG21	29:BH:99:ILE:HG12	1.59	0.83
32:BK:114:LYS:O	32:BK:118:LEU:HD13	1.79	0.83
6:CF:86:ARG:HD3	18:CR:63:TYR:O	1.77	0.83
9:CI:11:ARG:HD3	9:CI:106:ASP:OD1	1.78	0.83
22:DA:389:G:C8	22:DA:2413:G:H4'	2.14	0.83
43:DV:63:ILE:O	43:DV:70:ILE:HD11	1.79	0.83
2:AB:139:GLU:O	2:AB:143:LEU:HD23	1.79	0.83
34:BM:2:LEU:HD23	34:BM:69:PRO:HD2	1.60	0.83
45:BX:5:GLN:NE2	45:BX:49:ARG:H	1.77	0.83
53:CA:496:A:N3	53:CA:496:A:H2'	1.91	0.83
53:CA:989:U:O2'	53:CA:990:C:H5"	1.79	0.83
53:CA:1520:C:H2'	53:CA:1521:C:C6	2.12	0.83
55:CM:64:VAL:HG12	55:CM:65:GLU:HG3	1.59	0.83
56:CP:52:LEU:HD21	56:CP:75:ILE:HG12	1.59	0.83
22:DA:241:A:H4'	22:DA:242:G:OP1	1.77	0.83
22:DA:443:A:H61	26:DE:36:ALA:HB1	1.43	0.83
22:DA:1751:U:H2'	22:DA:1752:C:C6	2.13	0.83
26:DE:148:ILE:CD1	26:DE:187:VAL:HG21	2.03	0.83
19:AS:43:MET:O	19:AS:61:VAL:HG21	1.79	0.82
22:BA:636:G:C4	33:BL:111:ILE:HD11	2.13	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BC:210:ALA:O	24:BC:215:VAL:HG23	1.79	0.82
31:BJ:56:VAL:HG12	31:BJ:57:LEU:N	1.94	0.82
8:CH:85:TYR:CD2	8:CH:123:GLU:HB2	2.14	0.82
17:CQ:19:SER:HB3	17:CQ:70:LYS:NZ	1.93	0.82
22:DA:616:A:C2'	22:DA:617:G:H8	1.91	0.82
58:DF:39:VAL:HG13	58:DF:49:LEU:CD2	2.09	0.82
49:D1:32:LYS:HE3	49:D1:52:LYS:OXT	1.79	0.82
6:AF:42:TRP:HZ2	6:AF:61:LEU:HD22	1.44	0.82
9:AI:98:ARG:HG3	9:AI:103:VAL:HG21	1.59	0.82
22:BA:1865:U:O2'	22:BA:1866:A:H5"	1.78	0.82
22:BA:2573:C:OP1	62:BA:3705:HOH:O	1.95	0.82
53:CA:117:G:O2'	53:CA:118:U:H5'	1.79	0.82
53:CA:1005:A:C5	53:CA:1006:G:H1'	2.13	0.82
11:CK:55:ARG:H	11:CK:55:ARG:HD2	1.41	0.82
24:DC:94:LEU:HD13	24:DC:100:ARG:HD3	1.59	0.82
49:D1:7:LYS:HD3	51:D3:33:THR:HG21	1.60	0.82
1:AA:1063:C:H2'	1:AA:1064:G:C8	2.15	0.82
1:AA:1303:C:O2'	1:AA:1304:G:H5'	1.78	0.82
2:AB:9:LEU:HD23	2:AB:11:ALA:N	1.94	0.82
2:AB:137:THR:HA	2:AB:140:LEU:HD13	1.60	0.82
3:AC:35:ASP:OD1	3:AC:56:ILE:HG21	1.79	0.82
12:AL:72:ASN:ND2	12:AL:73:LEU:H	1.78	0.82
12:AL:89:LEU:HB3	12:AL:92:VAL:CG2	2.10	0.82
22:BA:559:G:C2'	22:BA:560:C:H5'	2.10	0.82
22:BA:559:G:H2'	22:BA:560:C:H5'	1.61	0.82
22:BA:1734:G:O2'	22:BA:1735:A:H8	1.62	0.82
29:BH:62:LEU:HD12	29:BH:63:ALA:N	1.94	0.82
40:BS:73:LYS:HA	40:BS:73:LYS:CE	2.04	0.82
49:B1:33:LEU:H	49:B1:51:ALA:CB	1.89	0.82
53:CA:1264:U:H2'	53:CA:1265:C:C6	2.14	0.82
2:CB:114:LYS:CE	2:CB:151:LYS:HB2	2.09	0.82
22:DA:27:G:H1'	22:DA:513:A:N6	1.94	0.82
22:DA:1079:C:N4	22:DA:1088:A:H5"	1.92	0.82
22:DA:2215:C:HO2'	22:DA:2216:G:H8	1.27	0.82
31:DJ:5:THR:HA	31:DJ:44:TYR:CD2	2.14	0.82
45:DX:31:ASN:HD22	45:DX:31:ASN:N	1.76	0.82
1:AA:6:G:O6	5:AE:98:ALA:HB1	1.79	0.82
1:AA:374:A:H5"	1:AA:452:A:N1	1.93	0.82
2:AB:110:ILE:HD12	2:AB:147:LEU:CD1	2.10	0.82
44:BW:39:GLN:HG2	44:BW:41:GLY:N	1.95	0.82
53:CA:1329:A:H5"	55:CM:25:GLY:N	1.93	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:33:ILE:O	4:CD:35:GLN:HG2	1.79	0.82
55:CM:13:HIS:HB3	55:CM:16:ILE:HD13	1.62	0.82
22:DA:614:A:H4'	22:DA:616:A:H62	1.44	0.82
57:DB:58:A:C2'	57:DB:59:A:C8	2.60	0.82
29:DH:27:ARG:NH1	45:DX:59:ASP:HA	1.93	0.82
29:DH:84:ALA:HB3	29:DH:148:ALA:HB2	1.61	0.82
48:D0:28:SER:HB3	48:D0:39:ARG:HE	1.43	0.82
1:AA:1167:A:C8	1:AA:1169:A:N6	2.47	0.82
11:AK:19:VAL:HG22	11:AK:82:GLU:HG2	1.61	0.82
12:AL:2:THR:HB	12:AL:5:GLN:HG3	1.60	0.82
22:BA:215:G:H4'	22:BA:216:A:H4'	1.61	0.82
22:BA:675:A:H4'	26:BE:62:GLN:HE22	1.43	0.82
22:BA:1813:G:N3	24:BC:49:THR:HG21	1.94	0.82
22:BA:1931:U:O2'	22:BA:1932:A:H5'	1.78	0.82
22:BA:2508:G:H1'	22:BA:2554:U:O2'	1.80	0.82
22:BA:2637:U:H2'	22:BA:2638:G:H5'	1.61	0.82
22:BA:2870:C:C5	22:BA:2871:U:C5	2.68	0.82
32:BK:51:LYS:HG3	32:BK:95:ILE:HD11	1.60	0.82
33:BL:104:GLN:HA	33:BL:104:GLN:HE21	1.44	0.82
35:BN:85:PRO:HA	35:BN:88:ALA:HB2	1.60	0.82
42:BU:38:ILE:HG22	42:BU:39:ASN:N	1.92	0.82
53:CA:1125:U:C5	10:CJ:40:ILE:HG12	2.14	0.82
5:CE:44:ARG:HG2	5:CE:72:ASN:HA	1.58	0.82
22:DA:1534:U:H6	22:DA:1538:G:N1	1.75	0.82
3:AC:18:ASN:HB3	3:AC:39:ARG:HH12	1.44	0.82
4:AD:33:ILE:O	4:AD:34:GLU:HB3	1.76	0.82
22:BA:1941:C:H5'	22:BA:1941:C:H6	1.43	0.82
28:BG:18:ILE:HD11	28:BG:42:VAL:HG13	1.61	0.82
34:BM:35:ALA:O	34:BM:128:THR:HA	1.79	0.82
37:BP:63:ILE:HA	37:BP:68:GLY:HA2	1.58	0.82
40:BS:18:ARG:O	40:BS:19:LEU:HB2	1.78	0.82
53:CA:73:C:HO2'	53:CA:74:A:H8	0.86	0.82
2:CB:49:PHE:HA	2:CB:52:ALA:HB3	1.61	0.82
2:CB:67:LEU:HD12	2:CB:157:PRO:HG3	1.61	0.82
3:CC:12:GLY:O	3:CC:13:ILE:HD13	1.80	0.82
22:DA:1808:A:O3'	22:DA:1809:A:H8	1.61	0.82
26:DE:105:LEU:HD12	26:DE:200:LEU:HD11	1.61	0.82
41:DT:10:VAL:HG23	41:DT:11:LEU:HD12	1.61	0.82
1:AA:1192:C:H2'	1:AA:1193:G:O4'	1.78	0.82
3:AC:134:LYS:HE3	3:AC:138:GLN:NE2	1.94	0.82
14:AN:50:LEU:HB3	14:AN:51:PRO:HD2	1.60	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:616:A:O2'	22:BA:617:G:H5'	1.80	0.82
24:BC:77:VAL:HA	24:BC:93:VAL:HA	1.60	0.82
26:BE:119:ILE:HD11	26:BE:187:VAL:CG2	2.08	0.82
32:BK:21:CYS:HA	32:BK:41:ILE:HD12	1.60	0.82
11:CK:126:ARG:HB2	21:CU:33:ARG:CD	2.10	0.82
12:CL:20:VAL:HB	12:CL:23:LEU:HD12	1.59	0.82
22:DA:810:U:O4	33:DL:30:THR:HG22	1.78	0.82
29:DH:31:VAL:HB	29:DH:32:PRO:HD3	1.61	0.82
40:DS:6:LYS:NZ	40:DS:104:THR:HG23	1.95	0.82
52:D4:19:ARG:O	52:D4:20:ASP:HB2	1.79	0.82
22:BA:619:G:H5"	22:BA:620:G:OP2	1.79	0.82
34:BM:73:ILE:HG21	34:BM:91:TYR:CZ	2.14	0.82
40:BS:4:ILE:CG2	40:BS:106:VAL:HG22	2.09	0.82
8:CH:78:SER:HB2	8:CH:124:ILE:O	1.80	0.82
22:DA:503:A:H4'	22:DA:504:A:O5'	1.80	0.82
22:DA:1307:A:H62	22:DA:1606:C:H6	0.86	0.82
22:DA:2756:U:H4'	22:DA:2757:A:O5'	1.80	0.82
35:DN:73:ASN:CA	35:DN:76:VAL:HG22	2.09	0.82
1:AA:1285:A:H5'	1:AA:1286:U:C4	2.13	0.82
18:AR:40:PRO:HB2	18:AR:42:ARG:HG2	1.60	0.82
22:BA:1045:C:H5"	22:BA:1046:A:C5'	2.09	0.82
29:BH:67:ALA:HA	29:BH:138:VAL:HB	1.60	0.82
31:BJ:26:GLY:HA2	31:BJ:29:ALA:HB3	1.62	0.82
33:BL:110:VAL:HG12	33:BL:111:ILE:N	1.94	0.82
38:BQ:49:ARG:HG3	38:BQ:49:ARG:NH1	1.88	0.82
53:CA:1054:C:O2'	53:CA:1055:A:H5"	1.79	0.82
2:CB:67:LEU:CD1	2:CB:157:PRO:HG3	2.10	0.82
10:CJ:57:VAL:HG22	10:CJ:58:ASN:N	1.95	0.82
22:DA:618:G:O2'	22:DA:619:G:H5'	1.79	0.82
22:DA:1038:G:H2'	22:DA:1039:A:C5'	2.10	0.82
22:DA:2752:C:H2'	22:DA:2753:A:C8	2.15	0.82
25:DD:108:ASP:OD1	25:DD:207:VAL:HG23	1.77	0.82
42:DU:58:VAL:HG13	42:DU:60:LYS:HG2	1.60	0.82
51:D3:6:VAL:HG12	51:D3:9:ALA:H	1.44	0.82
12:AL:64:SER:OG	12:AL:96:THR:HG23	1.79	0.82
17:AQ:18:LYS:HA	17:AQ:47:ASP:CB	2.08	0.82
22:BA:800:A:H4'	22:BA:801:G:O5'	1.80	0.82
22:BA:859:G:H22	22:BA:916:G:H2'	1.43	0.82
25:BD:120:GLY:HA2	25:BD:162:ALA:CB	2.09	0.82
39:BR:27:ILE:HG13	39:BR:33:VAL:HG12	1.59	0.82
25:DD:119:ALA:HB3	25:DD:163:GLY:H	1.43	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DT:38:ALA:HB1	41:DT:81:LYS:NZ	1.93	0.82
11:AK:109:ILE:HB	21:AU:5:VAL:HG23	1.62	0.81
17:AQ:46:HIS:HA	17:AQ:70:LYS:HE3	1.61	0.81
22:BA:1791:A:O2'	24:BC:205:GLY:HA2	1.80	0.81
28:BG:162:ARG:NH1	28:BG:168:VAL:HG21	1.95	0.81
31:BJ:43:GLU:O	31:BJ:45:THR:HG22	1.80	0.81
35:BN:38:LEU:O	35:BN:38:LEU:HD12	1.80	0.81
38:BQ:65:ASN:HD21	38:BQ:69:ARG:NH2	1.77	0.81
38:BQ:109:VAL:HG12	38:BQ:113:LYS:HD2	1.60	0.81
49:B1:16:THR:HB	49:B1:41:VAL:CG2	2.10	0.81
20:CT:57:VAL:HG12	20:CT:71:ALA:HB2	1.60	0.81
32:DK:61:VAL:HG11	32:DK:112:PHE:HE2	1.45	0.81
1:AA:243:A:H4'	1:AA:244:U:H5'	1.60	0.81
1:AA:1007:U:C2'	1:AA:1008:U:H5"	2.08	0.81
14:AN:15:LEU:N	14:AN:18:LYS:HE2	1.96	0.81
22:BA:228:C:H4'	22:BA:229:C:H5"	1.61	0.81
22:BA:2396:G:O2'	22:BA:2397:G:H5'	1.80	0.81
24:BC:93:VAL:CG1	24:BC:94:LEU:N	2.42	0.81
35:BN:23:ASN:H	35:BN:23:ASN:HD22	1.25	0.81
37:BP:50:ARG:CD	37:BP:51:ASN:H	1.93	0.81
37:BP:102:ARG:O	37:BP:103:THR:HG22	1.78	0.81
12:CL:84:GLY:H	12:CL:94:TYR:HA	1.44	0.81
22:DA:100:U:H1'	22:DA:101:A:C5	2.15	0.81
22:DA:678:C:H2'	22:DA:679:C:C6	2.14	0.81
22:DA:2053:G:C2'	22:DA:2054:A:H5'	2.10	0.81
22:DA:2748:A:H1'	28:DG:66:THR:CG2	2.10	0.81
57:DB:110:C:O2'	57:DB:111:U:C5'	2.28	0.81
1:AA:473:U:H2'	1:AA:474:G:H8	1.44	0.81
1:AA:1021:A:H2'	1:AA:1022:A:C5'	2.10	0.81
5:AE:81:GLN:HG2	5:AE:149:PRO:CG	2.10	0.81
5:AE:89:THR:HG22	5:AE:90:GLY:H	1.45	0.81
5:AE:135:VAL:O	5:AE:139:THR:HG23	1.81	0.81
10:AJ:36:VAL:HG22	10:AJ:76:ILE:HG23	1.61	0.81
19:AS:6:LYS:HE2	19:AS:6:LYS:HA	1.62	0.81
22:BA:1110:G:HO2'	22:BA:1111:A:H8	1.27	0.81
22:BA:1188:U:C2'	22:BA:1189:A:H5'	2.10	0.81
22:BA:2352:A:C2	44:BW:30:VAL:CG1	2.63	0.81
27:BF:104:THR:HG22	27:BF:105:ILE:HG23	1.63	0.81
33:BL:77:ILE:HD11	33:BL:108:ALA:HB1	1.59	0.81
33:BL:95:LEU:HD13	33:BL:100:ILE:HD11	1.61	0.81
41:BT:31:VAL:C	41:BT:32:LEU:HD23	2.01	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:113:G:H21	53:CA:353:A:H8	1.26	0.81
53:CA:597:G:C2'	53:CA:598:U:H5'	2.10	0.81
22:DA:172:A:H2'	22:DA:173:A:C8	2.15	0.81
22:DA:672:C:O2'	22:DA:673:C:H5'	1.79	0.81
22:DA:867:C:O2'	22:DA:868:U:H6	1.62	0.81
22:DA:2544:G:H5'	22:DA:2645:G:N7	1.95	0.81
22:DA:2798:U:H5'	22:DA:2800:A:N7	1.95	0.81
57:DB:57:A:O2'	57:DB:58:A:H8	1.63	0.81
25:DD:40:LEU:HA	25:DD:44:GLY:HA2	1.60	0.81
28:DG:16:VAL:HG11	28:DG:44:HIS:CD2	2.15	0.81
28:DG:164:ALA:O	28:DG:165:ASP:HB2	1.78	0.81
41:DT:39:THR:HG21	41:DT:42:GLU:CB	2.08	0.81
49:D1:16:THR:HG21	49:D1:42:VAL:HG23	1.62	0.81
17:AQ:12:VAL:HG13	17:AQ:16:MET:HE1	1.63	0.81
24:BC:20:ASN:HB3	24:BC:23:LEU:HD23	1.61	0.81
26:BE:127:GLU:CD	26:BE:127:GLU:H	1.83	0.81
53:CA:1225:A:H4'	19:CS:77:ARG:NH1	1.94	0.81
22:DA:397:U:OP1	45:DX:30:PRO:HA	1.81	0.81
22:DA:2135:A:H2'	22:DA:2136:G:O4'	1.80	0.81
22:DA:2311:A:H5'	22:DA:2312:U:C5	2.15	0.81
57:DB:17:C:O2'	57:DB:18:G:H5'	1.80	0.81
22:BA:1022:G:N2	22:BA:1142:A:C2	2.48	0.81
22:BA:1469:A:H2'	22:BA:1470:A:C8	2.16	0.81
22:BA:1558:C:H4'	22:BA:1559:U:O5'	1.78	0.81
27:BF:131:VAL:HG22	27:BF:151:LEU:H	1.45	0.81
28:BG:11:PRO:O	28:BG:14:VAL:HG22	1.80	0.81
39:BR:42:ALA:HA	39:BR:46:GLU:CB	2.08	0.81
47:BZ:6:ILE:HD11	47:BZ:47:ILE:HD11	1.62	0.81
53:CA:239:U:H6	53:CA:239:U:C5'	1.94	0.81
2:CB:19:THR:HG22	2:CB:37:VAL:CG2	2.11	0.81
15:CO:47:LYS:HD2	15:CO:47:LYS:H	1.45	0.81
56:CP:44:SER:H	56:CP:46:LYS:NZ	1.78	0.81
22:DA:1839:G:O2'	22:DA:1840:G:H5'	1.81	0.81
22:DA:2093:G:C6	22:DA:2225:A:C8	2.68	0.81
22:DA:2425:A:H4'	22:DA:2426:A:O5'	1.79	0.81
37:DP:109:ILE:O	37:DP:110:LYS:HG3	1.81	0.81
41:DT:50:LEU:HD23	41:DT:51:PHE:N	1.95	0.81
46:DY:18:LEU:O	46:DY:22:LEU:HD13	1.79	0.81
47:DZ:30:ARG:NH2	47:DZ:33:HIS:HB2	1.94	0.81
2:AB:40:ILE:CD1	2:AB:201:GLY:HA2	2.10	0.81
6:AF:3:HIS:HB2	6:AF:92:THR:HG23	1.63	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:580:U:H2'	22:BA:581:C:H6	1.45	0.81
22:BA:1330:C:O2'	22:BA:1331:G:H5'	1.79	0.81
22:BA:2336:A:N6	44:BW:40:ARG:HB3	1.96	0.81
22:BA:2339:C:H2'	22:BA:2340:A:C8	2.16	0.81
32:BK:91:SER:O	32:BK:93:GLN:HB2	1.79	0.81
40:BS:42:LYS:O	40:BS:42:LYS:HD3	1.81	0.81
53:CA:876:C:H1'	8:CH:11:THR:HG21	1.60	0.81
5:CE:74:ALA:O	5:CE:75:LEU:HB2	1.79	0.81
22:DA:1611:C:O2'	22:DA:1612:C:H6	1.62	0.81
57:DB:57:A:HO2'	57:DB:58:A:H8	1.29	0.81
26:DE:130:LYS:HG3	26:DE:133:LEU:HD13	1.62	0.81
46:DY:17:GLU:HG3	46:DY:53:VAL:HG11	1.63	0.81
50:D2:19:ARG:NH2	50:D2:19:ARG:HB3	1.96	0.81
8:AH:63:LYS:HB2	8:AH:70:VAL:HG21	1.60	0.81
22:BA:747:U:C5	22:BA:2613:U:C5	2.68	0.81
22:BA:930:G:H1'	47:BZ:24:LEU:HD21	1.63	0.81
22:BA:959:A:H62	34:BM:82:MET:HE3	1.45	0.81
22:BA:1945:G:H2'	22:BA:1946:U:C6	2.15	0.81
53:CA:513:C:O2'	53:CA:514:C:H6	1.64	0.81
53:CA:1011:C:H2'	53:CA:1012:A:H8	1.44	0.81
17:CQ:29:LYS:HE2	17:CQ:36:PHE:CZ	2.16	0.81
22:DA:600:G:H5"	26:DE:27:LEU:HD22	1.61	0.81
22:DA:673:C:O2'	22:DA:674:G:H5'	1.81	0.81
22:DA:1676:A:C2	22:DA:1993:U:H5'	2.15	0.81
22:DA:2378:A:C2'	22:DA:2379:G:H5'	2.11	0.81
33:DL:119:PRO:HB3	33:DL:139:GLY:O	1.80	0.81
38:DQ:27:ARG:CA	38:DQ:33:VAL:HG11	2.10	0.81
21:AU:16:ARG:HH11	21:AU:19:LYS:HG3	1.44	0.81
22:BA:815:C:OP1	39:BR:85:LYS:HE2	1.80	0.81
22:BA:2820:A:H3'	22:BA:2820:A:H8	1.45	0.81
25:BD:101:PHE:HE2	25:BD:203:VAL:HG22	1.44	0.81
33:BL:96:LYS:HA	33:BL:101:ILE:HG22	1.62	0.81
36:BO:31:THR:CG2	36:BO:34:HIS:H	1.93	0.81
38:BQ:91:ARG:NH2	38:BQ:93:ILE:HD13	1.96	0.81
53:CA:82:G:HO2'	53:CA:83:C:H4'	1.40	0.81
53:CA:948:C:H5"	55:CM:104:ASN:HB3	1.62	0.81
3:CC:5:HIS:NE2	3:CC:183:TYR:HE2	1.77	0.81
56:CP:75:ILE:HA	56:CP:78:VAL:CG2	2.11	0.81
20:CT:73:ARG:HH11	20:CT:73:ARG:HG3	1.45	0.81
22:DA:83:A:N6	22:DA:101:A:H5'	1.94	0.81
22:DA:716:A:H2'	22:DA:717:C:H5"	1.63	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1097:U:H2'	22:DA:1098:A:O4'	1.80	0.81
22:DA:1360:G:H2'	22:DA:1361:G:H5'	1.61	0.81
22:DA:1714:U:H3'	22:DA:1715:G:C5'	2.11	0.81
1:AA:488:C:O2'	1:AA:489:C:H5'	1.81	0.81
1:AA:1151:A:O2'	1:AA:1152:A:H5"	1.79	0.81
2:AB:59:ILE:HD12	2:AB:60:ALA:N	1.96	0.81
2:AB:86:CYS:SG	2:AB:221:ARG:HB2	2.21	0.81
22:BA:871:U:OP1	34:BM:5:LYS:HG3	1.81	0.81
22:BA:1011:G:O2'	22:BA:1013:C:H5"	1.81	0.81
22:BA:1585:C:H2'	22:BA:1586:A:O4'	1.80	0.81
29:BH:2:GLN:O	29:BH:3:VAL:HG22	1.80	0.81
33:BL:91:ASP:H	33:BL:94:THR:CG2	1.92	0.81
2:CB:119:GLN:HG3	2:CB:124:THR:HG21	1.62	0.81
5:CE:29:ILE:CG2	5:CE:30:PHE:N	2.39	0.81
54:CG:4:ARG:NH2	54:CG:6:ILE:HB	1.96	0.81
22:DA:802:A:H2'	22:DA:803:U:H6	1.43	0.81
22:DA:870:U:H2'	22:DA:871:U:H5'	1.63	0.81
22:DA:1023:U:H5'	22:DA:1023:U:H6	1.46	0.81
22:DA:1401:G:H2'	22:DA:1402:U:C5	2.16	0.81
22:DA:2757:A:N1	28:DG:66:THR:HG21	1.96	0.81
34:DM:8:LYS:HA	34:DM:8:LYS:HE3	1.60	0.81
47:DZ:16:LEU:H	47:DZ:16:LEU:HD22	1.46	0.81
1:AA:109:A:H2'	1:AA:326:G:N2	1.95	0.81
2:AB:163:ILE:HG23	2:AB:164:ASP:N	1.96	0.81
22:BA:784:G:C6	24:BC:227:VAL:HG11	2.16	0.81
2:CB:114:LYS:CA	2:CB:117:GLU:HG2	2.10	0.81
2:CB:206:ILE:HA	2:CB:209:VAL:CG2	2.10	0.81
9:CI:90:ASP:HB3	9:CI:93:LEU:HD23	1.62	0.81
21:CU:35:GLU:HG3	21:CU:36:PHE:N	1.96	0.81
22:DA:574:A:H4'	22:DA:575:A:C5'	2.11	0.81
22:DA:1076:C:O2	30:DI:92:PRO:HG2	1.81	0.81
32:DK:2:ILE:HG22	32:DK:3:GLN:N	1.95	0.81
46:DY:28:LEU:HG	46:DY:42:LEU:HD22	1.63	0.81
8:AH:12:ARG:HH11	8:AH:26:MET:HB2	1.46	0.80
22:BA:923:G:N2	44:BW:23:LYS:HZ3	1.79	0.80
22:BA:1026:G:H2'	22:BA:1027:A:C8	2.15	0.80
22:BA:2502:G:H5'	22:BA:2503:A:H5"	1.62	0.80
24:BC:33:LEU:HD23	24:BC:62:ARG:HD3	1.60	0.80
32:BK:47:ILE:HG13	32:BK:48:PRO:HD2	1.63	0.80
34:BM:71:LYS:HD3	34:BM:95:LEU:HD13	1.63	0.80
39:BR:21:ARG:HG3	39:BR:95:ASP:OD1	1.81	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:B1:24:LYS:HE2	49:B1:52:LYS:HB2	1.61	0.80
49:B1:49:LYS:HG2	49:B1:50:GLU:H	1.45	0.80
3:CC:126:ARG:HA	3:CC:126:ARG:HE	1.45	0.80
4:CD:195:ASN:HB3	4:CD:197:HIS:CD2	2.16	0.80
22:DA:381:G:C5'	45:DX:15:ASN:HD22	1.93	0.80
22:DA:447:A:H5'	22:DA:449:A:N7	1.96	0.80
22:DA:629:G:OP1	51:D3:16:THR:HB	1.80	0.80
22:DA:1490:A:H8	24:DC:73:ILE:HD12	1.44	0.80
22:DA:1989:G:H2'	22:DA:1990:C:H5'	1.64	0.80
22:DA:2662:A:H2'	22:DA:2663:G:O4'	1.81	0.80
57:DB:42:C:H41	58:DF:87:LYS:HZ3	1.27	0.80
57:DB:42:C:H2'	57:DB:43:C:C6	2.16	0.80
31:DJ:111:LYS:HB2	31:DJ:115:GLY:HA3	1.63	0.80
37:DP:56:SER:O	37:DP:75:THR:HG22	1.81	0.80
41:DT:20:ALA:HB1	41:DT:31:VAL:HG21	1.61	0.80
1:AA:1251:A:H2'	1:AA:1252:A:H8	1.46	0.80
4:AD:151:GLN:H	4:AD:154:VAL:CG1	1.93	0.80
10:AJ:14:ASP:HB3	10:AJ:17:LEU:HB3	1.61	0.80
22:BA:2210:U:H4'	22:BA:2211:A:O5'	1.81	0.80
22:BA:2355:G:H4'	44:BW:20:LEU:HD13	1.63	0.80
25:BD:12:THR:HG22	25:BD:13:ARG:H	1.44	0.80
28:BG:60:GLY:O	28:BG:61:TRP:HB2	1.80	0.80
51:B3:21:PHE:HB2	51:B3:49:VAL:CG1	2.10	0.80
53:CA:1422:G:C5'	32:DK:48:PRO:HB3	2.10	0.80
2:CB:114:LYS:HA	2:CB:117:GLU:CG	2.10	0.80
8:CH:85:TYR:CE2	8:CH:123:GLU:HB2	2.15	0.80
56:CP:8:ARG:HB3	56:CP:28:ARG:NH1	1.96	0.80
22:DA:674:G:H1'	26:DE:69:ARG:HE	1.47	0.80
22:DA:878:A:H3'	22:DA:878:A:N3	1.95	0.80
22:DA:945:A:H5'	22:DA:946:C:OP2	1.80	0.80
22:DA:975:A:HO2'	22:DA:976:G:H8	0.82	0.80
22:DA:2408:U:O2'	22:DA:2409:G:C5'	2.28	0.80
26:DE:126:VAL:HG11	26:DE:134:LEU:HD22	1.63	0.80
34:DM:112:LEU:HD13	34:DM:112:LEU:O	1.80	0.80
41:DT:43:ILE:CG2	41:DT:58:VAL:HG11	2.11	0.80
43:DV:9:ARG:HG2	43:DV:39:ALA:O	1.80	0.80
1:AA:198:G:HO2'	1:AA:199:A:H8	0.82	0.80
1:AA:1303:C:H2'	1:AA:1304:G:C8	2.16	0.80
5:AE:37:VAL:CG1	5:AE:116:VAL:HG21	2.12	0.80
22:BA:1849:G:O2'	22:BA:1850:G:H5'	1.82	0.80
50:B2:3:ARG:HG2	50:B2:3:ARG:NH2	1.85	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:157:U:O2'	53:CA:158:G:H5'	1.81	0.80
10:CJ:30:LYS:CG	10:CJ:36:VAL:HG22	2.10	0.80
22:DA:647:G:H2'	22:DA:648:G:C8	2.13	0.80
22:DA:2091:C:N4	22:DA:2092:U:C5	2.49	0.80
57:DB:44:G:H5"	58:DF:91:ARG:CZ	2.10	0.80
58:DF:48:LEU:HD23	58:DF:48:LEU:H	1.45	0.80
51:D3:18:LYS:HD2	51:D3:19:GLY:H	1.47	0.80
22:BA:272:A:HO2'	22:BA:273:G:H8	1.27	0.80
22:BA:714:U:H5'	22:BA:715:A:OP2	1.81	0.80
31:BJ:81:ILE:HG23	31:BJ:82:GLY:N	1.95	0.80
44:BW:39:GLN:HG3	44:BW:42:THR:N	1.95	0.80
50:B2:43:THR:O	50:B2:44:VAL:HB	1.80	0.80
53:CA:51:A:H4'	53:CA:52:C:H5'	1.60	0.80
53:CA:1145:A:O2'	53:CA:1146:A:H5"	1.80	0.80
4:CD:2:ARG:HE	4:CD:114:ARG:CD	1.94	0.80
10:CJ:80:THR:O	10:CJ:84:VAL:HG22	1.82	0.80
14:CN:76:PHE:CE2	14:CN:92:ILE:HG21	2.15	0.80
22:DA:1491:G:O2'	22:DA:1492:G:H5'	1.80	0.80
30:DI:55:PRO:HG2	30:DI:70:THR:HG23	1.63	0.80
33:DL:23:ILE:HG13	39:DR:82:HIS:CE1	2.17	0.80
44:DW:9:THR:HG23	44:DW:10:ARG:HG3	1.64	0.80
47:DZ:4:ILE:CD1	47:DZ:58:GLU:HA	2.11	0.80
1:AA:183:C:O2'	1:AA:184:G:H5'	1.81	0.80
1:AA:1314:C:C5	19:AS:5:LYS:HD3	2.15	0.80
22:BA:269:C:C2'	22:BA:270:A:H5'	2.10	0.80
22:BA:666:A:H4'	33:BL:48:ARG:HD2	1.64	0.80
22:BA:2226:C:O2'	22:BA:2227:A:H5'	1.81	0.80
31:BJ:37:ARG:CA	31:BJ:118:MET:HE2	2.10	0.80
47:BZ:24:LEU:HD23	47:BZ:24:LEU:C	2.01	0.80
53:CA:78:A:H2'	53:CA:79:G:C8	2.17	0.80
53:CA:1226:C:H41	55:CM:102:LYS:CA	1.94	0.80
53:CA:1284:C:H5"	53:CA:1285:A:OP2	1.80	0.80
6:CF:18:VAL:HG21	6:CF:58:HIS:HD2	1.47	0.80
54:CG:100:MET:H	54:CG:100:MET:HE3	1.47	0.80
20:CT:22:SER:O	20:CT:26:MET:HB2	1.82	0.80
22:DA:153:U:O2'	22:DA:154:U:H5'	1.82	0.80
22:DA:1519:G:H5'	22:DA:1520:U:OP2	1.81	0.80
22:DA:2331:G:H1'	44:DW:40:ARG:HB3	1.62	0.80
57:DB:90:C:H6	57:DB:90:C:H5"	1.44	0.80
28:DG:115:GLN:HG2	28:DG:116:LEU:N	1.96	0.80
39:DR:39:LEU:O	39:DR:40:MET:HB2	1.79	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DS:49:LYS:HB3	40:DS:49:LYS:NZ	1.97	0.80
1:AA:567:G:H5'	1:AA:567:G:H8	1.45	0.80
1:AA:1238:A:H5'	1:AA:1336:C:N4	1.94	0.80
10:AJ:14:ASP:CB	10:AJ:17:LEU:HB3	2.11	0.80
14:AN:83:VAL:HG12	14:AN:84:ARG:N	1.96	0.80
25:BD:106:LYS:HD2	25:BD:106:LYS:H	1.44	0.80
34:BM:43:ALA:O	34:BM:46:ILE:HG13	1.82	0.80
53:CA:962:C:O2'	53:CA:963:G:H8	1.65	0.80
4:CD:43:ARG:O	4:CD:45:PRO:HD3	1.82	0.80
54:CG:142:ARG:O	54:CG:146:ALA:HB3	1.82	0.80
11:CK:63:GLN:HB2	11:CK:98:ALA:HB2	1.63	0.80
56:CP:8:ARG:HB3	56:CP:28:ARG:HH11	1.47	0.80
22:DA:84:A:C4	22:DA:103:A:N6	2.49	0.80
22:DA:484:C:N4	22:DA:497:A:C2	2.49	0.80
22:DA:616:A:H2'	22:DA:617:G:C8	2.16	0.80
22:DA:765:C:H2'	22:DA:766:U:C6	2.16	0.80
22:DA:1038:G:H2'	22:DA:1039:A:H5'	1.63	0.80
25:DD:187:LEU:HD12	25:DD:188:LEU:H	1.46	0.80
2:AB:131:LYS:O	2:AB:135:MET:HB2	1.82	0.80
12:AL:23:LEU:HB2	12:AL:58:ASN:ND2	1.96	0.80
22:BA:243:U:OP1	51:B3:5:THR:HG21	1.82	0.80
22:BA:876:C:H2'	22:BA:877:A:O4'	1.80	0.80
22:BA:1734:G:HO2'	22:BA:1735:A:H8	0.82	0.80
22:BA:2315:G:O2'	22:BA:2316:G:H5'	1.81	0.80
25:BD:174:SER:O	25:BD:175:LEU:HB2	1.78	0.80
29:BH:82:SER:O	29:BH:83:LYS:HB2	1.82	0.80
37:BP:59:THR:HG23	37:BP:72:VAL:CG1	2.11	0.80
53:CA:6:G:N3	53:CA:6:G:C2'	2.45	0.80
53:CA:397:A:N7	53:CA:547:A:O2'	2.15	0.80
53:CA:987:G:O2'	53:CA:988:G:C5'	2.30	0.80
22:DA:484:C:HO2'	22:DA:485:C:H6	1.29	0.80
22:DA:859:G:N2	22:DA:916:G:H2'	1.96	0.80
22:DA:1078:U:H4'	22:DA:1079:C:O5'	1.81	0.80
22:DA:1275:A:N7	35:DN:16:HIS:HB2	1.97	0.80
22:DA:2825:G:H3'	22:DA:2826:A:H8	1.45	0.80
29:DH:84:ALA:H	29:DH:148:ALA:HA	1.47	0.80
1:AA:1256:A:H5"	3:AC:26:LYS:HE2	1.64	0.80
29:BH:89:LYS:HG2	29:BH:90:LEU:N	1.97	0.80
40:BS:29:VAL:HG13	40:BS:55:ILE:HD11	1.64	0.80
53:CA:177:G:O2'	53:CA:1448:C:H4'	1.82	0.80
53:CA:247:G:O6	53:CA:278:G:C6	2.35	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1046:A:O2'	53:CA:1047:G:C5'	2.30	0.80
9:CI:105:ARG:HH11	9:CI:107:ALA:HA	1.46	0.80
12:CL:83:GLY:HA2	12:CL:94:TYR:HD1	1.47	0.80
22:DA:1265:A:H4'	22:DA:1266:G:O5'	1.80	0.80
22:DA:1649:G:O2'	22:DA:1650:A:H5'	1.81	0.80
22:DA:1812:U:H2'	22:DA:1813:G:H8	1.47	0.80
28:DG:1:SER:HB2	28:DG:61:TRP:HB3	1.63	0.80
41:DT:3:ARG:HD2	41:DT:42:GLU:HG2	1.62	0.80
52:D4:7:VAL:HG13	52:D4:8:LYS:N	1.95	0.80
1:AA:1336:C:O2'	1:AA:1337:G:OP2	2.00	0.80
2:AB:202:ASN:ND2	2:AB:205:ALA:HB2	1.96	0.80
4:AD:100:VAL:HG12	4:AD:100:VAL:O	1.81	0.80
22:BA:1970:A:H4'	22:BA:1971:U:O5'	1.82	0.80
22:BA:2063:C:H5'	22:BA:2063:C:H6	1.45	0.80
51:B3:56:LEU:HD23	51:B3:56:LEU:H	1.46	0.80
53:CA:94:G:O2'	53:CA:95:C:H5'	1.80	0.80
53:CA:183:C:O2'	53:CA:184:G:H5'	1.80	0.80
53:CA:926:G:H3'	53:CA:1505:G:H21	1.46	0.80
53:CA:1090:U:H2'	53:CA:1091:U:H6	1.47	0.80
45:DX:58:ILE:HG12	45:DX:66:VAL:HG11	1.64	0.80
2:AB:86:CYS:HB2	2:AB:88:GLN:HG3	1.63	0.80
32:BK:8:LEU:HD23	32:BK:8:LEU:N	1.97	0.80
40:BS:96:ILE:O	40:BS:96:ILE:HG13	1.80	0.80
44:BW:28:GLU:CB	44:BW:31:LEU:HD21	2.03	0.80
2:CB:185:ILE:HA	2:CB:199:ILE:HG13	1.63	0.80
54:CG:49:LEU:O	54:CG:49:LEU:HD13	1.82	0.80
8:CH:23:ALA:HA	8:CH:62:LEU:CD2	2.12	0.80
22:DA:1355:G:O2'	22:DA:1356:G:H5'	1.82	0.80
22:DA:2074:U:O2'	22:DA:2075:U:H5'	1.82	0.80
22:DA:2092:U:O2'	22:DA:2093:G:C5'	2.30	0.80
29:DH:5:LEU:O	29:DH:6:LEU:HD12	1.82	0.80
29:DH:78:VAL:HB	29:DH:144:VAL:HA	1.63	0.80
51:D3:41:ARG:HH21	51:D3:41:ARG:CG	1.94	0.80
9:AI:112:ARG:HH22	10:AJ:64:GLN:HE22	1.26	0.79
22:BA:638:G:H2'	22:BA:639:U:C6	2.17	0.79
24:BC:171:VAL:CG2	24:BC:185:ALA:HA	2.11	0.79
25:BD:186:LEU:CD1	37:BP:3:ILE:HD11	2.11	0.79
39:BR:51:VAL:HB	39:BR:52:PRO:HD3	1.63	0.79
41:BT:28:ASN:HA	41:BT:91:GLN:HE22	1.46	0.79
43:BV:80:HIS:HD2	43:BV:83:LYS:H	1.29	0.79
53:CA:1213:A:O2'	53:CA:1214:C:C5'	2.29	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:5:ARG:HG2	10:CJ:79:PRO:HG3	1.63	0.79
14:CN:66:THR:CG2	14:CN:82:LYS:HE3	2.12	0.79
17:CQ:23:ALA:C	17:CQ:24:ILE:HD12	2.02	0.79
17:CQ:68:LYS:O	17:CQ:69:THR:HG23	1.81	0.79
22:DA:528:A:C2	22:DA:2042:A:H2'	2.16	0.79
22:DA:1474:U:C2'	22:DA:1475:G:H5'	2.12	0.79
22:DA:2420:C:OP1	51:D3:33:THR:HB	1.83	0.79
22:DA:2758:A:H2'	22:DA:2759:G:H5'	1.63	0.79
24:DC:140:VAL:CG2	24:DC:161:VAL:HB	2.12	0.79
25:DD:12:THR:HG22	25:DD:13:ARG:O	1.82	0.79
1:AA:204:G:C3'	1:AA:205:A:H5"	2.09	0.79
10:AJ:91:ASP:C	10:AJ:92:LEU:HD23	2.02	0.79
25:BD:106:LYS:HB3	25:BD:206:ALA:CB	2.10	0.79
33:BL:95:LEU:HD22	33:BL:100:ILE:CG1	2.11	0.79
34:BM:46:ILE:HD12	34:BM:47:GLU:N	1.96	0.79
35:BN:73:ASN:O	35:BN:76:VAL:HG12	1.82	0.79
53:CA:371:A:O2'	53:CA:372:C:H5'	1.82	0.79
53:CA:1038:C:H2'	53:CA:1039:G:H8	1.47	0.79
12:CL:48:LEU:HD23	12:CL:48:LEU:N	1.96	0.79
22:DA:477:A:O2'	22:DA:478:A:H8	1.63	0.79
22:DA:1607:C:H4'	22:DA:1608:A:C8	2.17	0.79
22:DA:2094:A:O2'	22:DA:2095:A:C5'	2.29	0.79
22:DA:2519:U:C6	22:DA:2542:A:N6	2.50	0.79
26:DE:29:HIS:HA	26:DE:32:VAL:HG22	1.63	0.79
33:DL:98:ALA:O	33:DL:100:ILE:HG22	1.82	0.79
1:AA:654:G:H2'	1:AA:655:A:C8	2.16	0.79
1:AA:1234:C:C2'	1:AA:1235:U:H5'	2.12	0.79
22:BA:1064:C:H5'	30:BI:88:GLY:HA3	1.63	0.79
23:BB:57:A:O2'	23:BB:58:A:H5'	1.82	0.79
28:BG:86:LEU:HD12	28:BG:86:LEU:N	1.95	0.79
30:BI:53:PRO:HD2	30:BI:77:VAL:HG21	1.64	0.79
32:BK:51:LYS:HE3	32:BK:52:VAL:HG12	1.62	0.79
35:BN:33:ILE:HD12	35:BN:33:ILE:N	1.97	0.79
42:BU:73:ASN:HD22	42:BU:76:THR:H	1.30	0.79
53:CA:704:A:H2'	53:CA:705:G:C8	2.17	0.79
53:CA:1347:G:H22	53:CA:1373:G:H2'	1.47	0.79
22:DA:448:U:H5"	62:DA:3240:HOH:O	1.81	0.79
22:DA:1846:G:H5"	22:DA:1847:A:OP2	1.81	0.79
22:DA:2512:C:H2'	22:DA:2513:A:O4'	1.82	0.79
25:DD:30:GLU:HG2	25:DD:185:ASN:ND2	1.98	0.79
26:DE:139:LYS:HB2	26:DE:139:LYS:NZ	1.97	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DG:83:THR:C	28:DG:84:LYS:HD3	2.02	0.79
31:DJ:110:PRO:HG2	31:DJ:111:LYS:HG2	1.63	0.79
38:DQ:77:LYS:HE2	38:DQ:116:LEU:HD21	1.64	0.79
1:AA:246:A:H4'	1:AA:247:G:OP1	1.81	0.79
3:AC:25:THR:HG23	14:AN:75:LYS:HD3	1.65	0.79
3:AC:118:SER:O	3:AC:122:GLN:HG2	1.81	0.79
9:AI:23:GLY:H	9:AI:60:LEU:HA	1.46	0.79
11:AK:107:THR:HG22	11:AK:108:ASN:ND2	1.98	0.79
21:AU:10:PRO:O	21:AU:11:PHE:HB3	1.81	0.79
22:BA:529:A:H4'	22:BA:530:G:OP1	1.82	0.79
22:BA:1644:C:C2'	22:BA:1645:G:H5'	2.13	0.79
24:BC:94:LEU:HD13	24:BC:100:ARG:HD3	1.63	0.79
27:BF:40:GLY:C	27:BF:84:ILE:HD11	2.03	0.79
28:BG:84:LYS:N	28:BG:84:LYS:HE2	1.97	0.79
31:BJ:21:THR:HG22	31:BJ:22:GLY:H	1.45	0.79
31:BJ:88:THR:HG22	31:BJ:91:GLU:HB2	1.65	0.79
53:CA:327:A:O2'	53:CA:329:A:H5"	1.82	0.79
53:CA:1304:G:H1'	53:CA:1333:A:H61	1.46	0.79
53:CA:1520:C:H2'	53:CA:1521:C:H6	1.47	0.79
3:CC:76:ILE:HA	3:CC:83:VAL:HG13	1.65	0.79
10:CJ:26:VAL:O	10:CJ:30:LYS:HB3	1.82	0.79
14:CN:66:THR:HG23	14:CN:82:LYS:HE3	1.63	0.79
22:DA:79:C:H2'	22:DA:80:G:O4'	1.83	0.79
22:DA:1361:G:O2'	22:DA:1362:C:H5'	1.82	0.79
22:DA:1364:G:C8	45:DX:1:SER:HB2	2.17	0.79
22:DA:1915:U:C2'	22:DA:1916:A:H8	1.92	0.79
22:DA:2051:A:C4'	22:DA:2052:A:OP1	2.28	0.79
25:DD:4:LEU:HD12	25:DD:32:ASN:OD1	1.81	0.79
4:AD:29:THR:C	4:AD:30:LYS:HD3	2.03	0.79
22:BA:527:C:H4'	22:BA:528:A:O5'	1.83	0.79
22:BA:855:G:N2	44:BW:23:LYS:HG2	1.95	0.79
22:BA:1257:C:H5'	26:BE:78:TRP:CZ3	2.18	0.79
22:BA:1935:G:H1'	22:BA:1964:G:N2	1.98	0.79
25:BD:107:VAL:HG13	25:BD:203:VAL:HG23	1.62	0.79
31:BJ:88:THR:HG22	31:BJ:91:GLU:CB	2.12	0.79
37:BP:63:ILE:HG22	37:BP:63:ILE:O	1.83	0.79
8:CH:65:PHE:CD2	8:CH:66:GLN:HG2	2.18	0.79
21:CU:39:LYS:H	21:CU:40:PRO:HD2	1.48	0.79
22:DA:1694:C:H4'	22:DA:1695:G:H5"	1.65	0.79
22:DA:2149:U:HO2'	22:DA:2150:C:H6	1.28	0.79
22:DA:2285:C:H2'	22:DA:2286:G:H5"	1.64	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2360:G:C1'	33:DL:60:ARG:HH21	1.96	0.79
1:AA:116:A:H2'	1:AA:117:G:C8	2.18	0.79
1:AA:409:U:OP1	4:AD:23:GLY:HA3	1.81	0.79
1:AA:414:A:H2'	1:AA:415:A:H8	1.48	0.79
1:AA:1343:G:H4'	9:AI:123:ARG:HB3	1.62	0.79
1:AA:1409:C:O2'	1:AA:1410:A:H5'	1.81	0.79
8:AH:21:LYS:HE2	8:AH:22:ALA:N	1.97	0.79
22:BA:2321:U:H3'	22:BA:2322:A:H5'	1.63	0.79
26:BE:108:ILE:HD11	26:BE:180:LEU:HB3	1.65	0.79
26:BE:147:LEU:HB3	26:BE:186:VAL:HG23	1.64	0.79
35:BN:8:ARG:HB3	35:BN:10:LEU:CD2	2.13	0.79
53:CA:1347:G:N2	53:CA:1373:G:H2'	1.98	0.79
2:CB:9:LEU:HD12	2:CB:11:ALA:C	2.03	0.79
4:CD:144:ILE:CD1	4:CD:154:VAL:HG21	2.13	0.79
22:DA:1080:A:HO2'	22:DA:1081:U:H6	1.29	0.79
22:DA:1204:A:H4'	22:DA:1205:A:C5'	2.12	0.79
22:DA:1326:U:HO2'	22:DA:1327:A:H8	1.29	0.79
22:DA:1489:C:H4'	22:DA:1490:A:OP1	1.83	0.79
22:DA:2771:C:H2'	22:DA:2772:C:H6	1.46	0.79
1:AA:1003:G:N2	1:AA:1005:A:H5'	1.97	0.79
4:AD:104:MET:HG2	4:AD:170:LEU:HD22	1.65	0.79
17:AQ:18:LYS:CA	17:AQ:47:ASP:HB2	2.10	0.79
22:BA:1867:G:O2'	22:BA:1868:C:H5'	1.83	0.79
46:BY:17:GLU:HG3	46:BY:18:LEU:N	1.96	0.79
53:CA:559:A:H4'	53:CA:560:A:O5'	1.80	0.79
22:DA:867:C:HO2'	22:DA:868:U:H6	0.83	0.79
22:DA:1116:G:N1	22:DA:1117:C:C4	2.51	0.79
22:DA:2068:U:H5"	22:DA:2068:U:H6	1.47	0.79
22:DA:2093:G:C6	22:DA:2225:A:N7	2.50	0.79
22:DA:2688:G:H1'	22:DA:2721:A:H61	1.46	0.79
29:DH:59:ALA:HA	29:DH:63:ALA:HB3	1.64	0.79
37:DP:105:LYS:HA	37:DP:108:ARG:NE	1.97	0.79
1:AA:107:G:H2'	1:AA:108:G:H5'	1.64	0.79
3:AC:131:ARG:O	3:AC:135:ARG:HG2	1.83	0.79
10:AJ:19:ASP:HA	10:AJ:22:THR:HB	1.65	0.79
10:AJ:65:TYR:CB	14:AN:95:LEU:HD11	2.12	0.79
16:AP:22:ALA:HA	16:AP:33:ILE:HG13	1.64	0.79
22:BA:2509:G:C3'	22:BA:2510:C:H5"	2.12	0.79
25:BD:151:THR:HG22	25:BD:152:PRO:HD3	1.62	0.79
30:BI:100:ILE:HG22	30:BI:101:SER:H	1.47	0.79
31:BJ:4:PHE:O	31:BJ:44:TYR:HE1	1.61	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BJ:13:ARG:O	31:BJ:14:ASP:HB2	1.83	0.79
41:BT:31:VAL:HA	41:BT:83:ALA:HB3	1.64	0.79
53:CA:820:U:H4'	53:CA:821:G:OP2	1.79	0.79
53:CA:962:C:HO2'	53:CA:963:G:H8	0.82	0.79
2:CB:103:TRP:HA	2:CB:106:VAL:HB	1.63	0.79
22:DA:1231:U:H2'	22:DA:1232:G:C8	2.18	0.79
22:DA:1647:U:H5"	22:DA:1648:U:OP1	1.82	0.79
22:DA:2092:U:C4'	22:DA:2093:G:OP1	2.30	0.79
22:DA:2586:U:O2'	22:DA:2587:A:H5'	1.82	0.79
22:DA:2651:C:O2'	22:DA:2652:C:H5'	1.83	0.79
40:DS:24:ILE:HG22	40:DS:35:ILE:CD1	2.12	0.79
6:AF:6:ILE:HG12	6:AF:89:VAL:CG2	2.05	0.79
14:AN:15:LEU:HD23	14:AN:18:LYS:CD	2.13	0.79
22:BA:409:G:O2'	22:BA:410:G:H5'	1.82	0.79
22:BA:1498:C:O2'	22:BA:1499:C:H6	1.64	0.79
29:BH:117:LEU:HD11	29:BH:130:VAL:HG11	1.64	0.79
37:BP:83:ILE:C	37:BP:83:ILE:HD13	2.03	0.79
38:BQ:10:ARG:HB2	38:BQ:10:ARG:HH11	1.48	0.79
53:CA:1142:G:H2'	53:CA:1143:G:C8	2.18	0.79
53:CA:1328:C:H5"	55:CM:27:THR:HG21	1.65	0.79
22:DA:677:A:O2'	22:DA:2071:A:H5'	1.82	0.79
22:DA:1116:G:N2	22:DA:1117:C:N1	2.30	0.79
22:DA:2602:A:OP1	22:DA:2602:A:H3'	1.82	0.79
58:DF:41:GLU:HG2	58:DF:42:ALA:H	1.46	0.79
40:DS:86:MET:CE	40:DS:87:PRO:HD2	2.12	0.79
41:DT:48:GLN:HA	41:DT:48:GLN:HE21	1.48	0.79
12:AL:81:ILE:HD11	12:AL:94:TYR:CG	2.18	0.79
22:BA:74:A:H4'	22:BA:75:G:O5'	1.81	0.79
22:BA:303:G:H2'	22:BA:304:U:H6	1.48	0.79
22:BA:1937:A:H5"	62:BA:3459:HOH:O	1.83	0.79
29:BH:8:LYS:O	29:BH:13:GLY:HA3	1.83	0.79
44:BW:67:LYS:HB3	44:BW:80:SER:H	1.48	0.79
53:CA:15:G:H2'	53:CA:16:A:H8	1.48	0.79
53:CA:668:G:O2'	15:CO:45:HIS:HB3	1.83	0.79
11:CK:70:ALA:HA	11:CK:73:VAL:CG2	2.10	0.79
22:DA:170:U:H2'	22:DA:171:U:H6	1.46	0.79
22:DA:202:U:H3'	22:DA:203:A:C8	2.18	0.79
22:DA:2423:U:H5"	22:DA:2424:C:OP1	1.82	0.79
22:DA:2838:G:H1'	35:DN:45:ARG:NH2	1.98	0.79
24:DC:16:VAL:H	24:DC:203:VAL:HG12	1.46	0.79
35:DN:103:ARG:HB2	35:DN:110:MET:CG	2.12	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:52:SER:HB2	3:AC:111:ASP:OD2	1.83	0.78
4:AD:109:THR:HG23	4:AD:112:GLU:N	1.97	0.78
7:AG:29:LEU:O	7:AG:29:LEU:HD23	1.82	0.78
10:AJ:57:VAL:HG22	10:AJ:58:ASN:H	1.45	0.78
22:BA:475:C:O2'	22:BA:476:G:H5'	1.83	0.78
22:BA:1657:U:O3'	25:BD:138:LEU:HD23	1.83	0.78
31:BJ:98:GLU:HB3	31:BJ:124:VAL:HG21	1.64	0.78
53:CA:1239:A:H5"	54:CG:118:ARG:HH12	1.48	0.78
22:DA:740:C:C5	22:DA:1981:A:C2	2.71	0.78
22:DA:857:G:H1'	44:DW:19:ARG:NE	1.98	0.78
22:DA:1441:G:H2'	22:DA:1442:U:H6	1.45	0.78
26:DE:110:SER:O	26:DE:113:VAL:HG12	1.83	0.78
22:BA:869:G:O2'	34:BM:8:LYS:HD3	1.82	0.78
22:BA:2509:G:C2'	22:BA:2510:C:H5"	2.13	0.78
37:BP:80:VAL:O	37:BP:81:ASP:HB3	1.82	0.78
53:CA:254:G:O2'	53:CA:255:G:H5'	1.83	0.78
53:CA:752:G:H1'	53:CA:754:C:N4	1.98	0.78
22:DA:411:G:H4'	22:DA:412:A:OP1	1.83	0.78
22:DA:2311:A:H5'	22:DA:2312:U:C6	2.18	0.78
31:DJ:117:ALA:HA	31:DJ:120:ARG:HD2	1.64	0.78
38:DQ:64:ILE:HD12	38:DQ:95:ALA:HB1	1.64	0.78
1:AA:654:G:O2'	1:AA:655:A:H5'	1.82	0.78
22:BA:852:U:H2'	22:BA:853:C:C6	2.18	0.78
22:BA:1334:G:C2'	22:BA:1335:C:H5'	2.13	0.78
22:BA:2321:U:H3'	22:BA:2322:A:C5'	2.13	0.78
46:BY:5:GLU:O	46:BY:8:GLU:HB2	1.83	0.78
53:CA:953:G:C6	53:CA:1229:A:N6	2.52	0.78
22:DA:90:U:H3'	22:DA:91:A:H5"	1.65	0.78
22:DA:1049:C:O2'	22:DA:1050:A:H5'	1.83	0.78
22:DA:1116:G:C2	22:DA:1117:C:C4	2.71	0.78
22:DA:1511:G:O2'	22:DA:1512:C:H6	1.66	0.78
22:DA:1552:A:H2'	22:DA:1552:A:N3	1.98	0.78
22:DA:1799:G:H4'	22:DA:1800:C:O5'	1.83	0.78
22:DA:2529:G:H4'	28:DG:174:LYS:HD3	1.64	0.78
35:DN:90:ARG:HH21	35:DN:116:VAL:HG11	1.47	0.78
38:DQ:4:LYS:NZ	38:DQ:6:GLY:HA3	1.99	0.78
38:DQ:10:ARG:HA	38:DQ:13:HIS:HB2	1.65	0.78
6:AF:81:ASN:OD1	6:AF:83:ALA:HB3	1.83	0.78
9:AI:28:VAL:HB	9:AI:63:TYR:HD2	1.45	0.78
22:BA:1076:C:H2'	22:BA:1077:A:H8	1.48	0.78
22:BA:2888:C:H2'	22:BA:2889:C:H6	1.48	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BJ:25:LEU:HD22	31:BJ:25:LEU:C	2.03	0.78
37:BP:50:ARG:HG2	37:BP:57:ALA:H	1.42	0.78
53:CA:330:C:O2'	53:CA:331:G:H8	1.65	0.78
2:CB:44:LYS:O	2:CB:48:MET:HG3	1.84	0.78
8:CH:68:LYS:HD3	8:CH:69:ALA:H	1.47	0.78
22:DA:587:C:H1'	22:DA:671:C:H5'	1.65	0.78
22:DA:1441:G:H2'	22:DA:1442:U:C6	2.19	0.78
22:DA:1590:A:H2'	22:DA:1591:A:C8	2.18	0.78
22:DA:2603:G:OP2	22:DA:2603:G:H4'	1.81	0.78
33:DL:17:LYS:HZ3	33:DL:19:LEU:HD22	1.46	0.78
34:DM:136:MET:HE1	43:DV:57:TYR:HD2	1.48	0.78
43:DV:70:ILE:N	43:DV:70:ILE:HD13	1.99	0.78
49:D1:51:ALA:O	49:D1:52:LYS:HB2	1.82	0.78
1:AA:1103:C:H2'	1:AA:1104:G:O4'	1.84	0.78
8:AH:74:ILE:HD12	8:AH:128:VAL:HG22	1.63	0.78
22:BA:197:A:H62	22:BA:2430:A:H2'	1.46	0.78
22:BA:289:G:H2'	22:BA:290:U:O4'	1.83	0.78
22:BA:603:A:H4'	22:BA:604:G:O5'	1.81	0.78
22:BA:760:G:C2'	22:BA:761:A:H5'	2.13	0.78
22:BA:1277:G:H5'	35:BN:20:MET:CE	2.14	0.78
22:BA:1534:U:H5'	22:BA:1535:A:OP1	1.83	0.78
22:BA:2210:U:H4'	22:BA:2211:A:C5'	2.14	0.78
26:BE:79:ARG:HG2	26:BE:80:SER:N	1.99	0.78
30:BI:33:ASN:HB3	30:BI:36:GLU:HB2	1.66	0.78
44:BW:77:LYS:O	44:BW:78:PHE:HB2	1.82	0.78
53:CA:1349:A:H2'	53:CA:1350:A:C8	2.17	0.78
53:CA:1387:G:H2'	53:CA:1388:C:H6	1.47	0.78
21:CU:33:ARG:NH1	21:CU:34:ARG:HD3	1.99	0.78
22:DA:639:U:H2'	22:DA:640:C:H6	1.49	0.78
22:DA:1635:A:H2'	22:DA:1636:U:H6	1.49	0.78
57:DB:57:A:C6	58:DF:25:MET:HG2	2.19	0.78
32:DK:111:LYS:HE3	32:DK:111:LYS:N	1.98	0.78
42:DU:14:THR:HG23	42:DU:15:GLY:H	1.48	0.78
1:AA:439:U:H2'	1:AA:440:C:C5'	2.14	0.78
1:AA:546:A:P	4:AD:68:GLU:HB2	2.23	0.78
1:AA:1111:A:O2'	1:AA:1112:C:H5'	1.82	0.78
22:BA:1032:A:H1'	52:B4:23:ILE:HD13	1.64	0.78
22:BA:1956:U:O2'	22:BA:1957:C:H5'	1.84	0.78
22:BA:2431:U:H6	22:BA:2431:U:C5'	1.91	0.78
22:BA:2502:G:H5'	22:BA:2503:A:C5'	2.14	0.78
27:BF:131:VAL:CG2	27:BF:151:LEU:HG	2.14	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BJ:31:GLU:HG3	31:BJ:142:ILE:HG21	1.65	0.78
33:BL:93:ASN:ND2	33:BL:94:THR:N	2.31	0.78
38:BQ:73:ILE:HD11	38:BQ:77:LYS:HB3	1.65	0.78
39:BR:25:LEU:H	39:BR:94:THR:HG23	1.48	0.78
44:BW:23:LYS:HE3	44:BW:24:ARG:HG3	1.65	0.78
44:BW:43:LYS:HE2	44:BW:68:PHE:CE1	2.18	0.78
2:CB:125:PHE:HD1	2:CB:137:THR:HG22	1.49	0.78
54:CG:107:ALA:O	54:CG:118:ARG:HB3	1.82	0.78
14:CN:87:ALA:HB2	14:CN:92:ILE:HD12	1.63	0.78
56:CP:4:ILE:HD12	56:CP:4:ILE:N	1.99	0.78
22:DA:991:C:O2'	22:DA:992:C:H5'	1.83	0.78
57:DB:17:C:H42	57:DB:68:C:H42	1.28	0.78
34:DM:7:THR:HG22	34:DM:9:PHE:H	1.46	0.78
39:DR:89:HIS:NE2	39:DR:91:GLN:HB2	1.99	0.78
42:DU:90:LYS:HE2	42:DU:92:VAL:HG12	1.64	0.78
47:DZ:18:LYS:O	47:DZ:22:THR:HG23	1.83	0.78
22:BA:480:A:OP2	42:BU:43:LYS:HD2	1.84	0.78
22:BA:794:A:H2'	22:BA:795:C:C6	2.19	0.78
24:BC:246:PRO:HG2	24:BC:247:TRP:CE3	2.17	0.78
28:BG:30:GLY:HA3	28:BG:78:VAL:HG12	1.65	0.78
53:CA:73:C:O2'	53:CA:74:A:H8	1.64	0.78
53:CA:513:C:HO2'	53:CA:514:C:H6	0.81	0.78
53:CA:522:C:H41	12:CL:49:ARG:HH22	1.30	0.78
21:CU:19:LYS:HZ3	21:CU:19:LYS:N	1.81	0.78
22:DA:2092:U:H4'	22:DA:2093:G:H5"	1.65	0.78
22:DA:2210:U:H4'	22:DA:2211:A:O5'	1.83	0.78
22:DA:2214:C:O2'	22:DA:2215:C:C5'	2.31	0.78
26:DE:130:LYS:CB	26:DE:133:LEU:HB3	2.13	0.78
42:DU:26:ASN:OD1	42:DU:34:ILE:HD12	1.82	0.78
1:AA:1239:A:H62	1:AA:1299:A:H62	1.29	0.78
5:AE:155:LYS:HD2	5:AE:156:ARG:H	1.48	0.78
22:BA:1188:U:O2'	22:BA:1189:A:H5'	1.84	0.78
22:BA:2311:A:H1'	27:BF:78:ILE:HD13	1.65	0.78
22:BA:2507:C:C3'	22:BA:2508:G:H5"	2.14	0.78
22:BA:2591:C:OP1	24:BC:237:ARG:HG3	1.83	0.78
24:BC:93:VAL:CG1	24:BC:94:LEU:H	1.97	0.78
36:BO:7:ARG:HA	36:BO:10:ARG:NH2	1.99	0.78
38:BQ:65:ASN:ND2	38:BQ:69:ARG:HH22	1.79	0.78
44:BW:18:LYS:N	44:BW:36:ILE:HG13	1.99	0.78
51:B3:56:LEU:H	51:B3:56:LEU:CD2	1.96	0.78
53:CA:665:A:H2'	53:CA:725:G:N2	1.99	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:170:LEU:HA	4:CD:182:LYS:HB2	1.65	0.78
22:DA:1808:A:H62	45:DX:27:ARG:HH11	1.32	0.78
22:DA:2287:A:O2'	22:DA:2288:A:H3'	1.84	0.78
2:AB:22:TRP:O	2:AB:22:TRP:CG	2.37	0.78
5:AE:80:LEU:HD12	5:AE:146:MET:HE3	1.66	0.78
9:AI:51:LEU:HB3	9:AI:56:MET:CG	2.14	0.78
22:BA:357:C:H2'	22:BA:358:U:H6	1.49	0.78
26:BE:110:SER:O	26:BE:113:VAL:HG12	1.83	0.78
33:BL:95:LEU:HD22	33:BL:100:ILE:CD1	2.13	0.78
38:BQ:6:GLY:HA2	38:BQ:9:ALA:HB3	1.66	0.78
38:BQ:10:ARG:HB2	38:BQ:10:ARG:NH1	1.98	0.78
38:BQ:40:LYS:HB2	38:BQ:40:LYS:HZ3	1.46	0.78
38:BQ:97:ILE:HD12	38:BQ:97:ILE:O	1.83	0.78
41:BT:28:ASN:C	41:BT:91:GLN:HE22	1.87	0.78
53:CA:369:G:OP2	53:CA:388:G:N2	2.15	0.78
53:CA:560:A:H5'	53:CA:566:G:N2	1.99	0.78
53:CA:987:G:N3	53:CA:988:G:C8	2.52	0.78
3:CC:129:PHE:CE1	3:CC:156:LEU:HB3	2.18	0.78
22:DA:127:A:N7	50:D2:46:LYS:HE3	1.99	0.78
22:DA:143:C:H2'	22:DA:144:A:C8	2.19	0.78
22:DA:617:G:O2'	22:DA:618:G:H8	1.67	0.78
22:DA:1080:A:O2'	22:DA:1081:U:H6	1.67	0.78
22:DA:1347:A:O2'	22:DA:1348:C:H5'	1.84	0.78
51:D3:18:LYS:CD	51:D3:19:GLY:H	1.96	0.78
18:AR:33:THR:HG21	18:AR:37:LYS:HB2	1.66	0.78
27:BF:151:LEU:HD12	27:BF:152:ASP:N	1.99	0.78
28:BG:22:VAL:HG22	28:BG:36:LEU:HD11	1.66	0.78
45:BX:30:PRO:HB2	45:BX:32:LEU:CD1	2.14	0.78
53:CA:366:A:O2'	53:CA:394:G:N2	2.17	0.78
22:DA:183:C:H2'	22:DA:184:C:H5'	1.66	0.78
22:DA:482:A:N6	22:DA:506:G:C4	2.51	0.78
22:DA:607:U:O4	22:DA:619:G:H2'	1.82	0.78
22:DA:616:A:H2'	22:DA:617:G:H8	1.48	0.78
22:DA:629:G:O2'	22:DA:630:G:H5'	1.84	0.78
22:DA:1455:G:HO2'	22:DA:1456:G:H8	1.31	0.78
22:DA:2339:C:O2'	22:DA:2340:A:H8	1.66	0.78
25:DD:107:VAL:HG21	25:DD:177:VAL:HG11	1.65	0.78
32:DK:7:MET:HA	32:DK:7:MET:HE3	1.64	0.78
37:DP:50:ARG:HA	37:DP:57:ALA:O	1.84	0.78
41:DT:29:THR:H	41:DT:87:LEU:CB	1.97	0.78
1:AA:116:A:H2'	1:AA:117:G:H8	1.48	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:481:G:HO2'	1:AA:482:A:H8	1.30	0.77
1:AA:519:C:H2'	1:AA:520:A:C8	2.19	0.77
17:AQ:45:VAL:HG13	17:AQ:72:TRP:O	1.85	0.77
18:AR:33:THR:CG2	18:AR:37:LYS:HB2	2.14	0.77
21:AU:36:PHE:HA	21:AU:39:LYS:HE2	1.66	0.77
22:BA:284:U:H2'	22:BA:285:G:C8	2.18	0.77
22:BA:1664:A:H5"	22:BA:1665:A:OP2	1.83	0.77
22:BA:2887:A:H2'	22:BA:2887:A:N3	1.99	0.77
30:BI:3:LYS:HD2	30:BI:4:VAL:HG23	1.66	0.77
38:BQ:73:ILE:HD11	38:BQ:77:LYS:CB	2.12	0.77
53:CA:1239:A:H1'	53:CA:1241:G:C4	2.19	0.77
53:CA:1454:G:O2'	53:CA:1455:G:H5"	1.84	0.77
22:DA:508:A:H62	40:DS:9:HIS:CE1	2.02	0.77
22:DA:1439:A:N7	22:DA:1440:U:C1'	2.47	0.77
22:DA:2311:A:H1'	58:DF:78:ILE:HD11	1.67	0.77
28:DG:88:LEU:HD13	28:DG:93:TYR:HB3	1.65	0.77
29:DH:90:LEU:CB	29:DH:123:ARG:HB3	2.14	0.77
40:DS:66:ILE:HD13	40:DS:66:ILE:H	1.48	0.77
1:AA:279:A:H5"	1:AA:281:G:H5'	1.66	0.77
22:BA:620:G:H4'	22:BA:621:A:O5'	1.83	0.77
24:BC:251:THR:HG22	24:BC:252:LYS:N	1.99	0.77
26:BE:161:ALA:HA	26:BE:164:LEU:HB2	1.66	0.77
28:BG:22:VAL:HG22	28:BG:36:LEU:CD1	2.15	0.77
38:BQ:43:GLN:HE21	39:BR:77:PHE:HB3	1.47	0.77
38:BQ:86:SER:HB2	39:BR:50:GLY:O	1.83	0.77
40:BS:73:LYS:HE3	40:BS:73:LYS:CA	2.13	0.77
41:BT:40:LYS:H	41:BT:43:ILE:CG2	1.97	0.77
45:BX:76:LYS:HG3	45:BX:77:TYR:H	1.49	0.77
53:CA:654:G:H2'	53:CA:655:A:C8	2.20	0.77
53:CA:920:U:H2'	53:CA:921:U:C6	2.19	0.77
53:CA:1450:U:H4'	53:CA:1451:U:C5	2.19	0.77
56:CP:48:GLU:HG3	56:CP:51:ARG:HH21	1.49	0.77
17:CQ:18:LYS:HD3	17:CQ:48:GLU:OE2	1.84	0.77
22:DA:338:G:C2'	22:DA:339:U:H5'	2.13	0.77
22:DA:511:U:H4'	22:DA:1235:G:H4'	1.63	0.77
22:DA:1998:A:H2'	22:DA:1999:C:H6	1.47	0.77
22:DA:2199:A:O2'	22:DA:2200:C:H5'	1.84	0.77
34:DM:19:GLY:H	34:DM:38:ARG:NH2	1.81	0.77
30:BI:104:GLN:O	30:BI:105:LEU:HB2	1.84	0.77
53:CA:79:G:H2'	53:CA:80:A:C8	2.19	0.77
53:CA:177:G:O2'	53:CA:1448:C:H5"	1.83	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:519:C:O2'	53:CA:520:A:C5'	2.31	0.77
22:DA:996:A:C4'	38:DQ:91:ARG:HD2	2.12	0.77
22:DA:1204:A:H4'	22:DA:1205:A:O5'	1.82	0.77
29:DH:6:LEU:HD13	29:DH:36:ALA:HA	1.66	0.77
4:AD:117:VAL:HA	4:AD:122:ILE:HD11	1.66	0.77
22:BA:528:A:H8	22:BA:528:A:C5'	1.97	0.77
22:BA:1063:G:H2'	22:BA:1064:C:H6	1.49	0.77
22:BA:1079:C:C4	22:BA:1088:A:H2	2.01	0.77
32:BK:101:GLY:O	32:BK:120:PRO:HD2	1.83	0.77
53:CA:212:G:O2'	53:CA:213:G:H5"	1.85	0.77
53:CA:818:G:C3'	53:CA:819:A:H5'	2.14	0.77
53:CA:986:U:C2'	53:CA:987:G:H5'	2.14	0.77
53:CA:1493:A:H8	22:DA:1913:A:N6	1.82	0.77
54:CG:59:GLU:HG3	54:CG:60:ALA:N	1.99	0.77
10:CJ:64:GLN:HB2	14:CN:98:ALA:CB	2.13	0.77
56:CP:5:ARG:HA	56:CP:71:VAL:HG11	1.66	0.77
22:DA:1309:G:OP1	50:D2:9:VAL:HG12	1.85	0.77
22:DA:1537:G:O2'	22:DA:1538:G:H4'	1.84	0.77
25:DD:36:GLN:HG3	25:DD:38:LYS:NZ	1.99	0.77
26:DE:47:LYS:CB	26:DE:51:GLU:HB2	2.14	0.77
58:DF:12:VAL:HA	58:DF:15:LEU:HB2	1.67	0.77
58:DF:49:LEU:HD22	58:DF:49:LEU:H	1.47	0.77
41:DT:69:ARG:O	41:DT:74:ILE:HD12	1.83	0.77
1:AA:1184:G:O2'	1:AA:1185:G:H5'	1.84	0.77
4:AD:10:LEU:HD22	4:AD:62:ARG:HG3	1.65	0.77
4:AD:61:ARG:NH2	4:AD:67:LEU:HD23	1.98	0.77
22:BA:301:G:HO2'	22:BA:302:C:C5'	1.97	0.77
22:BA:704:G:O2'	22:BA:726:G:N2	2.17	0.77
22:BA:1486:U:H2'	22:BA:1487:U:H6	1.48	0.77
40:BS:4:ILE:HG21	40:BS:106:VAL:HG22	1.66	0.77
3:CC:148:ILE:HD13	3:CC:201:ILE:CD1	2.14	0.77
22:DA:614:A:C4'	22:DA:616:A:H62	1.98	0.77
22:DA:2056:G:H21	48:D0:1:ALA:H3	1.31	0.77
25:DD:122:VAL:HA	25:DD:127:PHE:H	1.48	0.77
26:DE:149:ILE:HG23	26:DE:188:MET:HA	1.66	0.77
31:DJ:111:LYS:HB2	31:DJ:115:GLY:N	2.00	0.77
32:DK:13:ASN:HD21	32:DK:97:THR:H	1.31	0.77
1:AA:513:C:H2'	1:AA:514:C:C6	2.20	0.77
1:AA:684:U:H1'	11:AK:39:ASN:O	1.85	0.77
7:AG:143:MET:HA	7:AG:143:MET:CE	2.15	0.77
24:BC:104:LEU:O	24:BC:105:ALA:HB2	1.83	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BH:68:ARG:HH22	29:BH:72:ILE:HG21	1.48	0.77
37:BP:80:VAL:HG12	37:BP:81:ASP:N	2.00	0.77
38:BQ:85:ALA:O	38:BQ:88:GLU:HB2	1.83	0.77
44:BW:22:VAL:O	44:BW:25:PHE:HD2	1.67	0.77
53:CA:642:A:C8	8:CH:106:SER:HA	2.20	0.77
53:CA:844:G:O2'	53:CA:845:A:H5"	1.85	0.77
3:CC:190:THR:HG22	3:CC:191:THR:N	1.99	0.77
5:CE:80:LEU:HD13	5:CE:80:LEU:O	1.85	0.77
5:CE:80:LEU:N	5:CE:121:ASN:HD21	1.83	0.77
54:CG:28:ILE:HG21	54:CG:100:MET:HG3	1.66	0.77
8:CH:17:GLN:NE2	8:CH:71:VAL:HG23	2.00	0.77
21:CU:39:LYS:N	21:CU:40:PRO:CD	2.45	0.77
22:DA:959:A:C2'	22:DA:960:A:C8	2.68	0.77
57:DB:88:C:OP2	57:DB:88:C:H3'	1.84	0.77
25:DD:151:THR:HG22	25:DD:152:PRO:HD3	1.64	0.77
32:DK:2:ILE:O	32:DK:3:GLN:HG2	1.83	0.77
33:DL:73:ILE:O	33:DL:105:ILE:HG23	1.85	0.77
40:DS:27:LYS:O	40:DS:71:VAL:HG12	1.84	0.77
41:DT:5:GLU:OE2	46:DY:18:LEU:HD21	1.84	0.77
5:AE:148:SER:O	5:AE:152:VAL:CG1	2.33	0.77
9:AI:34:LEU:HD11	9:AI:47:VAL:HG21	1.67	0.77
22:BA:900:A:H2'	22:BA:901:C:H5'	0.77	0.77
22:BA:1339:G:H21	22:BA:1603:A:H1'	1.49	0.77
22:BA:1682:G:H2'	22:BA:1683:U:H6	1.45	0.77
41:BT:32:LEU:HD23	41:BT:32:LEU:N	1.99	0.77
53:CA:511:C:O2'	53:CA:512:U:H5"	1.83	0.77
53:CA:765:G:C8	53:CA:812:G:C2	2.73	0.77
53:CA:969:A:O2'	53:CA:970:C:H5'	1.85	0.77
2:CB:95:TRP:HZ2	2:CB:100:LEU:HD13	1.49	0.77
22:DA:1799:G:H8	24:DC:179:GLU:OE1	1.67	0.77
22:DA:2392:A:C8	22:DA:2429:G:C2	2.73	0.77
22:DA:2800:A:C2'	22:DA:2801:G:H4'	2.15	0.77
36:DO:13:ARG:O	36:DO:17:LYS:HB2	1.83	0.77
38:DQ:60:TRP:CZ2	38:DQ:93:ILE:HB	2.20	0.77
1:AA:701:U:O2	1:AA:701:U:H2'	1.83	0.77
2:AB:9:LEU:CD1	2:AB:42:LEU:HD13	2.12	0.77
14:AN:13:VAL:HA	14:AN:59:GLN:OE1	1.84	0.77
28:BG:96:ALA:HB3	28:BG:103:ASN:HB3	1.67	0.77
28:BG:162:ARG:CZ	28:BG:168:VAL:HG21	2.14	0.77
38:BQ:88:GLU:OE1	38:BQ:88:GLU:C	2.22	0.77
46:BY:9:LYS:HA	46:BY:9:LYS:HZ1	1.45	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:456:A:H2'	53:CA:457:G:H8	1.50	0.77
53:CA:1382:C:O2'	53:CA:1383:C:H5'	1.84	0.77
8:CH:74:ILE:HG13	8:CH:128:VAL:HG13	1.66	0.77
11:CK:51:PHE:O	11:CK:52:ARG:HD2	1.84	0.77
55:CM:13:HIS:HB3	55:CM:16:ILE:HB	1.67	0.77
22:DA:1751:U:H2'	22:DA:1752:C:H6	1.48	0.77
22:DA:2331:G:C1'	44:DW:40:ARG:HB3	2.13	0.77
22:DA:2847:U:C2'	22:DA:2848:G:H5'	2.15	0.77
57:DB:111:U:O2'	57:DB:112:G:C8	2.38	0.77
31:DJ:23:LYS:HB3	31:DJ:28:LEU:HD13	1.66	0.77
2:AB:75:ALA:O	2:AB:79:VAL:HG23	1.85	0.77
4:AD:62:ARG:NE	4:AD:62:ARG:HA	1.98	0.77
17:AQ:45:VAL:CG2	17:AQ:60:ILE:HD13	2.15	0.77
22:BA:276:U:O2'	22:BA:278:A:N7	2.18	0.77
27:BF:114:ARG:HD2	27:BF:114:ARG:N	2.00	0.77
49:B1:16:THR:CB	49:B1:41:VAL:HG21	2.14	0.77
53:CA:976:G:H5'	53:CA:977:A:OP2	1.85	0.77
22:DA:484:C:O2'	22:DA:485:C:H6	1.68	0.77
22:DA:1739:A:H2'	22:DA:1740:G:C8	2.20	0.77
1:AA:202:G:N2	1:AA:466:A:H61	1.83	0.77
20:AT:8:LYS:HA	20:AT:11:ILE:CG2	2.14	0.77
22:BA:434:U:H4'	22:BA:435:C:OP1	1.85	0.77
22:BA:443:A:C5	26:BE:40:ARG:HD3	2.20	0.77
22:BA:1386:C:H2'	22:BA:1387:A:C8	2.20	0.77
24:BC:106:PRO:HA	24:BC:141:HIS:CE1	2.20	0.77
27:BF:131:VAL:HG21	27:BF:151:LEU:HG	1.67	0.77
28:BG:23:ILE:HD12	28:BG:23:ILE:N	2.00	0.77
32:BK:19:VAL:HG22	32:BK:41:ILE:HG13	1.67	0.77
53:CA:1127:G:O2'	53:CA:1128:C:H5'	1.84	0.77
5:CE:103:GLY:HA3	5:CE:121:ASN:HA	1.66	0.77
6:CF:18:VAL:O	6:CF:22:ILE:HG12	1.84	0.77
10:CJ:51:VAL:HB	14:CN:80:ARG:HB2	1.67	0.77
11:CK:27:ASN:HD22	11:CK:27:ASN:H	1.32	0.77
22:DA:95:A:H2'	22:DA:96:C:H5"	1.66	0.77
22:DA:391:A:O2'	22:DA:392:U:H5'	1.85	0.77
22:DA:1812:U:H2'	22:DA:1813:G:C8	2.19	0.77
22:DA:1847:A:HO2'	22:DA:1848:A:H8	1.32	0.77
22:DA:2291:U:H2'	22:DA:2292:U:H6	1.48	0.77
25:DD:11:MET:HE1	25:DD:192:ALA:HA	1.67	0.77
34:DM:36:VAL:HG13	43:DV:82:TYR:CD1	2.20	0.77
42:DU:92:VAL:HB	42:DU:101:THR:HG21	1.67	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1202:U:O2'	1:AA:1203:C:C5'	2.32	0.76
1:AA:1215:G:O2'	1:AA:1216:A:H5'	1.85	0.76
1:AA:1324:A:O2'	1:AA:1325:C:H6	1.68	0.76
1:AA:1361:G:C2'	1:AA:1362:A:H5'	2.15	0.76
17:AQ:22:VAL:HG21	17:AQ:60:ILE:CD1	2.15	0.76
22:BA:1993:U:H4'	25:BD:133:THR:CG2	2.15	0.76
22:BA:2146:C:H4'	22:BA:2147:A:O5'	1.84	0.76
22:BA:2585:U:O2'	22:BA:2586:U:C5'	2.33	0.76
25:BD:151:THR:CG2	25:BD:152:PRO:HD3	2.16	0.76
41:BT:39:THR:O	41:BT:40:LYS:HB2	1.84	0.76
53:CA:1387:G:H2'	53:CA:1388:C:C6	2.20	0.76
6:CF:11:HIS:HD2	6:CF:54:LEU:HD21	1.47	0.76
22:DA:502:A:H5'	22:DA:503:A:OP2	1.85	0.76
22:DA:781:A:H5"	22:DA:782:A:OP1	1.85	0.76
24:DC:15:VAL:HG22	24:DC:205:GLY:HA3	1.67	0.76
28:DG:48:THR:O	28:DG:49:LEU:HB2	1.86	0.76
31:DJ:45:THR:HG21	31:DJ:50:THR:CG2	2.15	0.76
35:DN:54:LEU:HD11	35:DN:66:ALA:HB2	1.66	0.76
37:DP:50:ARG:CB	37:DP:57:ALA:H	1.98	0.76
4:AD:117:VAL:CA	4:AD:122:ILE:HD11	2.15	0.76
5:AE:114:LEU:HD21	5:AE:122:VAL:HG21	1.67	0.76
7:AG:99:ALA:O	7:AG:103:ILE:HG13	1.85	0.76
10:AJ:74:VAL:HG12	10:AJ:75:ASP:N	1.97	0.76
22:BA:65:U:H2'	22:BA:66:C:C6	2.20	0.76
22:BA:1676:A:C2	22:BA:1993:U:H5'	2.20	0.76
25:BD:97:SER:C	25:BD:99:GLU:HG2	2.05	0.76
34:BM:23:GLY:O	34:BM:101:VAL:HG12	1.85	0.76
49:B1:47:ILE:HD12	49:B1:47:ILE:H	1.50	0.76
2:CB:150:ILE:HD11	2:CB:153:MET:CE	2.14	0.76
22:DA:329:G:O6	42:DU:16:LYS:HB2	1.84	0.76
22:DA:684:G:H5'	50:D2:16:HIS:CE1	2.20	0.76
22:DA:724:U:H2'	22:DA:725:G:O4'	1.85	0.76
22:DA:740:C:C6	22:DA:1981:A:C2	2.73	0.76
22:DA:1056:G:C1'	22:DA:1103:A:H61	1.98	0.76
22:DA:1635:A:H2'	22:DA:1636:U:C6	2.20	0.76
22:DA:2829:A:H2'	22:DA:2830:C:H5'	1.67	0.76
28:DG:112:VAL:HG13	28:DG:150:TYR:CE1	2.20	0.76
33:DL:73:ILE:O	33:DL:105:ILE:HA	1.85	0.76
1:AA:414:A:O2'	1:AA:415:A:H5'	1.85	0.76
4:AD:145:ARG:NH1	4:AD:147:LYS:HE3	1.99	0.76
28:BG:148:ARG:HD2	28:BG:163:TYR:CE2	2.21	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BT:32:LEU:N	41:BT:83:ALA:HB3	2.00	0.76
44:BW:40:ARG:H	44:BW:56:HIS:HB3	1.49	0.76
53:CA:1148:U:O2'	53:CA:1149:C:C5'	2.33	0.76
5:CE:95:MET:HB3	5:CE:124:ALA:HB2	1.66	0.76
56:CP:41:PRO:O	56:CP:42:ILE:HD13	1.84	0.76
22:DA:1307:A:O2'	22:DA:1308:A:H5'	1.86	0.76
22:DA:2666:C:H2'	22:DA:2667:C:H5'	1.65	0.76
24:DC:255:LYS:O	24:DC:256:THR:HG23	1.84	0.76
25:DD:51:THR:HG23	25:DD:76:GLY:HA3	1.66	0.76
25:DD:119:ALA:CB	25:DD:163:GLY:H	1.98	0.76
58:DF:76:PHE:HD2	58:DF:76:PHE:H	1.33	0.76
37:DP:88:ARG:HH11	37:DP:112:ARG:NH2	1.84	0.76
1:AA:198:G:N2	1:AA:220:G:H1'	2.00	0.76
1:AA:386:C:H2'	1:AA:387:U:H5'	1.67	0.76
2:AB:66:ILE:HB	2:AB:88:GLN:CB	2.13	0.76
2:AB:162:VAL:HG22	2:AB:184:ALA:HB2	1.66	0.76
22:BA:1182:G:H2'	22:BA:1183:U:O4'	1.86	0.76
32:BK:2:ILE:HG21	32:BK:39:ILE:HD12	1.66	0.76
49:B1:27:ARG:O	49:B1:30:PRO:HD3	1.85	0.76
22:DA:686:U:O4	50:D2:12:ARG:HG3	1.84	0.76
22:DA:1207:C:O2'	22:DA:1208:C:H6	1.67	0.76
22:DA:2714:G:O2'	22:DA:2715:C:H5'	1.85	0.76
28:DG:162:ARG:H	28:DG:162:ARG:HD2	1.50	0.76
29:DH:12:LEU:HD12	29:DH:12:LEU:O	1.86	0.76
31:DJ:2:LYS:HB2	31:DJ:2:LYS:NZ	2.00	0.76
38:DQ:79:ILE:HD13	38:DQ:79:ILE:C	2.05	0.76
42:DU:81:ARG:HD2	42:DU:81:ARG:N	2.00	0.76
1:AA:263:A:H2'	1:AA:264:C:C5	2.20	0.76
2:AB:108:GLN:HG2	2:AB:109:SER:N	1.98	0.76
8:AH:88:LYS:HG3	8:AH:89:ASP:N	1.99	0.76
22:BA:1698:A:H4'	22:BA:1699:G:O5'	1.84	0.76
22:BA:1833:C:H2'	22:BA:1834:U:H6	1.49	0.76
33:BL:78:ARG:HB3	33:BL:113:ALA:CB	2.15	0.76
22:DA:70:G:O2'	22:DA:71:A:C5'	2.34	0.76
22:DA:241:A:H1'	22:DA:243:U:C5	2.19	0.76
22:DA:727:A:H2'	22:DA:728:G:C8	2.20	0.76
22:DA:2807:U:C3'	22:DA:2808:G:H5"	2.15	0.76
25:DD:202:ILE:HD12	25:DD:202:ILE:N	1.99	0.76
58:DF:65:LEU:HD23	58:DF:65:LEU:H	1.51	0.76
34:DM:19:GLY:H	34:DM:38:ARG:HH21	1.32	0.76
1:AA:1202:U:H2'	1:AA:1203:C:C6	2.21	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:120:HIS:O	5:AE:121:ASN:HB3	1.84	0.76
22:BA:1061:U:H3'	22:BA:1062:G:H5"	1.68	0.76
22:BA:2134:A:O2'	22:BA:2135:A:H5"	1.86	0.76
22:BA:2180:U:H2'	22:BA:2181:U:H5	1.51	0.76
22:BA:2275:C:O2'	34:BM:84:LYS:HA	1.86	0.76
19:CS:35:ARG:HA	19:CS:70:LEU:HB2	1.68	0.76
22:DA:454:A:H4'	22:DA:455:C:OP2	1.86	0.76
22:DA:806:C:H2'	22:DA:807:U:C6	2.21	0.76
22:DA:1064:C:O2'	22:DA:1065:U:H5'	1.86	0.76
22:DA:1790:C:O2'	24:DC:207:ALA:HB2	1.84	0.76
31:DJ:106:LYS:HB2	31:DJ:119:PHE:HE2	1.49	0.76
33:DL:62:PRO:O	51:D3:12:ARG:HB3	1.84	0.76
40:DS:7:HIS:CE1	40:DS:10:ALA:HA	2.21	0.76
41:DT:1:MET:HG2	41:DT:4:GLU:HA	1.68	0.76
2:AB:209:VAL:HG23	2:AB:210:THR:H	1.51	0.76
5:AE:105:ILE:HD11	5:AE:123:LEU:HD23	1.68	0.76
22:BA:272:A:O2'	22:BA:273:G:H8	1.68	0.76
22:BA:1157:G:O2'	22:BA:1158:C:H5'	1.86	0.76
22:BA:2572:A:N7	25:BD:150:GLN:HB3	2.00	0.76
53:CA:1533:C:H2'	53:CA:1534:A:H5"	1.65	0.76
22:DA:379:G:C6	22:DA:396:G:O6	2.39	0.76
24:DC:173:LEU:HD22	24:DC:181:ARG:O	1.85	0.76
14:AN:46:LYS:HD2	19:AS:12:LEU:HD21	1.68	0.76
17:AQ:80:LYS:HZ3	17:AQ:80:LYS:HB2	1.49	0.76
22:BA:558:U:OP1	31:BJ:111:LYS:HE3	1.86	0.76
22:BA:994:C:H3'	38:BQ:53:LYS:HE2	1.66	0.76
22:BA:2231:U:C2'	22:BA:2232:C:H5'	2.16	0.76
30:BI:7:TYR:HB3	30:BI:58:ILE:H	1.50	0.76
40:BS:24:ILE:HD12	40:BS:32:ALA:HA	1.66	0.76
3:CC:18:ASN:HD21	3:CC:53:ARG:NH1	1.84	0.76
4:CD:115:GLN:HE22	4:CD:153:ARG:NH2	1.84	0.76
17:CQ:45:VAL:HG11	17:CQ:60:ILE:CG2	2.16	0.76
22:DA:92:U:H2'	22:DA:93:G:O4'	1.86	0.76
22:DA:140:C:H5'	22:DA:141:G:N2	2.01	0.76
22:DA:794:A:H2'	22:DA:795:C:C6	2.20	0.76
22:DA:1716:U:HO2'	22:DA:1717:A:H8	0.78	0.76
22:DA:2430:A:H5'	22:DA:2431:U:OP2	1.85	0.76
22:DA:2716:C:O2'	22:DA:2717:C:H5'	1.84	0.76
1:AA:386:C:C2'	1:AA:387:U:H5'	2.14	0.76
1:AA:475:C:H2'	1:AA:476:U:H6	1.50	0.76
1:AA:1277:C:O2'	1:AA:1279:G:H8	1.66	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1285:A:H5'	1:AA:1286:U:O4	1.86	0.76
2:AB:110:ILE:HD11	2:AB:147:LEU:CD1	2.12	0.76
8:AH:28:SER:HB2	8:AH:58:LEU:HB2	1.68	0.76
22:BA:1254:A:H5"	22:BA:1255:U:H5"	1.67	0.76
22:BA:1936:A:H2	22:BA:1943:U:C5	2.04	0.76
24:BC:28:PRO:HG2	24:BC:33:LEU:HD11	1.68	0.76
27:BF:72:SER:HB2	27:BF:80:GLN:HB2	1.66	0.76
53:CA:413:G:C2	4:CD:32:LYS:HE3	2.21	0.76
53:CA:748:G:H2'	53:CA:749:A:C8	2.21	0.76
53:CA:1067:A:H1'	53:CA:1068:G:C8	2.19	0.76
4:CD:34:GLU:O	4:CD:36:ALA:N	2.18	0.76
54:CG:117:LEU:HA	54:CG:121:ASN:HB2	1.66	0.76
17:CQ:4:ILE:HG22	17:CQ:5:ARG:H	1.51	0.76
22:DA:1817:G:HO2'	22:DA:1818:U:H5'	1.50	0.76
22:DA:2447:G:C8	22:DA:2500:U:H2'	2.21	0.76
22:DA:2726:A:O2'	32:DK:67:LYS:NZ	2.18	0.76
29:DH:61:VAL:HG13	29:DH:62:LEU:HG	1.66	0.76
34:DM:34:LYS:HB3	34:DM:129:THR:HG22	1.66	0.76
1:AA:1317:C:H2'	1:AA:1318:A:H5'	1.68	0.76
20:AT:68:LYS:HB2	20:AT:68:LYS:NZ	2.01	0.76
22:BA:195:A:N7	62:BA:3750:HOH:O	2.18	0.76
22:BA:588:U:H1'	26:BE:85:PHE:CD1	2.21	0.76
22:BA:1450:G:C6	22:BA:1451:C:N4	2.54	0.76
22:BA:1839:G:H2'	22:BA:1840:G:H8	1.48	0.76
22:BA:2820:A:H3'	22:BA:2820:A:C8	2.20	0.76
25:BD:91:THR:O	25:BD:93:GLY:N	2.18	0.76
31:BJ:43:GLU:O	31:BJ:45:THR:CG2	2.34	0.76
31:BJ:74:TYR:HB2	31:BJ:87:ALA:O	1.86	0.76
42:BU:97:SER:O	42:BU:98:ASN:HB3	1.84	0.76
53:CA:801:U:H2'	53:CA:802:A:H8	1.51	0.76
53:CA:1380:U:H4'	53:CA:1381:U:OP1	1.85	0.76
12:CL:3:VAL:HG23	12:CL:4:ASN:N	2.00	0.76
22:DA:85:G:O2'	22:DA:86:G:H5"	1.85	0.76
22:DA:1655:A:H2'	22:DA:1656:C:H6	1.50	0.76
22:DA:1739:A:H2'	22:DA:1740:G:H8	1.51	0.76
22:DA:2360:G:H1'	33:DL:60:ARG:NH2	2.01	0.76
22:DA:2868:A:H2'	22:DA:2869:G:C8	2.21	0.76
25:DD:38:LYS:NZ	25:DD:38:LYS:HB3	2.00	0.76
25:DD:148:GLN:HG2	25:DD:152:PRO:HG2	1.68	0.76
29:DH:90:LEU:HB3	29:DH:123:ARG:HD2	1.67	0.76
30:DI:51:GLY:O	30:DI:52:LEU:HB2	1.86	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DZ:30:ARG:HH21	47:DZ:33:HIS:HB2	1.51	0.76
50:D2:19:ARG:HB3	50:D2:19:ARG:HH21	1.50	0.76
1:AA:1507:A:O2'	1:AA:1508:A:H5'	1.85	0.75
3:AC:154:GLY:O	3:AC:195:ILE:HG12	1.85	0.75
4:AD:106:PHE:CD1	4:AD:144:ILE:HD11	2.20	0.75
22:BA:1110:G:O2'	22:BA:1111:A:H8	1.68	0.75
23:BB:89:U:H3'	23:BB:90:C:H5"	1.68	0.75
52:B4:36:ARG:HG2	52:B4:37:GLN:N	1.99	0.75
53:CA:1051:C:O2'	53:CA:1052:U:O5'	2.04	0.75
17:CQ:61:ARG:HG2	17:CQ:75:VAL:CG1	2.16	0.75
22:DA:381:G:H5"	45:DX:15:ASN:HD22	1.50	0.75
22:DA:404:A:H5'	22:DA:405:U:OP1	1.85	0.75
22:DA:1213:A:O2'	22:DA:1214:A:H5'	1.85	0.75
22:DA:1394:U:H4'	22:DA:1603:A:H4'	1.68	0.75
58:DF:113:PHE:CE2	58:DF:116:LEU:HD22	2.21	0.75
35:DN:5:LYS:HG2	35:DN:6:SER:H	1.49	0.75
38:DQ:34:ALA:O	38:DQ:38:VAL:HG23	1.86	0.75
42:DU:10:VAL:HG12	42:DU:71:ILE:HA	1.68	0.75
2:AB:53:LEU:HA	2:AB:56:LEU:HB3	1.66	0.75
20:AT:27:MET:HE1	20:AT:57:VAL:HG22	1.67	0.75
22:BA:2356:U:H4'	44:BW:16:GLU:HG3	1.66	0.75
43:BV:29:ILE:HG12	43:BV:30:ILE:H	1.51	0.75
53:CA:120:A:H3'	53:CA:121:U:H5"	1.67	0.75
8:CH:1:SER:CB	8:CH:3:GLN:HG3	2.16	0.75
22:DA:740:C:C5'	22:DA:1784:A:H3'	2.17	0.75
22:DA:1742:U:H2'	22:DA:1743:G:H8	1.50	0.75
25:DD:133:THR:HG23	25:DD:134:HIS:N	2.01	0.75
32:DK:69:VAL:HG11	32:DK:106:GLU:HG2	1.68	0.75
41:DT:6:ARG:O	41:DT:9:LYS:HD2	1.85	0.75
44:DW:20:LEU:HD11	44:DW:35:ILE:HG13	1.68	0.75
1:AA:250:A:H4'	1:AA:251:G:O5'	1.86	0.75
1:AA:725:G:O2'	1:AA:726:C:H5'	1.86	0.75
19:AS:51:HIS:CD2	19:AS:53:GLY:H	2.04	0.75
20:AT:26:MET:CE	20:AT:56:ILE:HD11	2.15	0.75
22:BA:84:A:N6	22:BA:101:A:H2	1.80	0.75
22:BA:751:A:C5'	22:BA:752:A:OP1	2.30	0.75
22:BA:933:A:H2'	22:BA:933:A:N3	2.00	0.75
22:BA:2214:C:H2'	22:BA:2215:C:C6	2.22	0.75
38:BQ:63:ARG:HD2	38:BQ:64:ILE:N	2.01	0.75
41:BT:50:LEU:H	41:BT:50:LEU:HD12	1.52	0.75
53:CA:784:A:H2'	53:CA:785:G:C8	2.21	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CG:4:ARG:HD2	54:CG:5:VAL:H	1.49	0.75
9:CI:45:MET:HE2	9:CI:48:ARG:HG3	1.69	0.75
22:DA:249:C:O2	22:DA:249:C:H2'	1.86	0.75
22:DA:600:G:C5'	26:DE:27:LEU:HD22	2.16	0.75
22:DA:1364:G:N7	45:DX:1:SER:HB2	2.02	0.75
22:DA:1492:G:C3'	22:DA:1493:C:C5'	2.62	0.75
22:DA:1962:C:H4'	22:DA:1963:U:OP1	1.86	0.75
22:DA:2321:U:O2	22:DA:2321:U:C3'	2.33	0.75
57:DB:83:G:OP1	47:DZ:16:LEU:HD21	1.86	0.75
26:DE:134:LEU:HA	26:DE:137:LYS:CB	2.17	0.75
58:DF:49:LEU:HA	58:DF:52:ALA:HB3	1.67	0.75
30:DI:106:GLN:HA	30:DI:109:ALA:HB3	1.68	0.75
34:DM:35:ALA:HB3	34:DM:99:GLY:N	2.01	0.75
38:DQ:24:TYR:O	38:DQ:27:ARG:HB3	1.86	0.75
38:DQ:91:ARG:HH11	39:DR:10:LYS:HB3	1.49	0.75
40:DS:25:ARG:HG3	40:DS:74:ILE:HG22	1.67	0.75
41:DT:25:GLU:OE1	41:DT:30:ILE:HD13	1.87	0.75
42:DU:3:LYS:HG2	42:DU:84:PHE:CZ	2.21	0.75
46:DY:4:LYS:HD3	46:DY:4:LYS:H	1.51	0.75
47:DZ:16:LEU:HD23	47:DZ:19:HIS:CD2	2.22	0.75
1:AA:996:A:C2	1:AA:1046:A:H5'	2.22	0.75
6:AF:5:GLU:HG3	6:AF:63:ASN:OD1	1.86	0.75
22:BA:1248:G:OP2	26:BE:44:ARG:NH1	2.19	0.75
22:BA:1565:C:O2'	22:BA:1566:A:H2'	1.86	0.75
23:BB:66:A:H4'	23:BB:67:G:OP1	1.84	0.75
36:BO:31:THR:HG22	36:BO:34:HIS:N	2.01	0.75
40:BS:17:VAL:HG12	40:BS:76:VAL:HG11	1.67	0.75
52:B4:10:LEU:HD12	52:B4:33:HIS:HB3	1.67	0.75
53:CA:246:A:C4	53:CA:282:A:N6	2.54	0.75
53:CA:597:G:H2'	53:CA:598:U:C5'	2.13	0.75
53:CA:1135:U:H5'	53:CA:1136:C:OP2	1.85	0.75
2:CB:162:VAL:CG1	2:CB:184:ALA:HB2	2.16	0.75
3:CC:120:THR:HG23	3:CC:187:GLU:O	1.86	0.75
55:CM:68:LEU:HD22	55:CM:69:ARG:HH11	1.50	0.75
22:DA:196:A:H61	22:DA:831:G:H21	1.34	0.75
22:DA:249:C:H4'	22:DA:250:G:O5'	1.87	0.75
22:DA:370:G:N1	22:DA:424:G:C5	2.54	0.75
22:DA:1480:C:H2'	22:DA:1481:U:O4'	1.87	0.75
22:DA:1742:U:H2'	22:DA:1743:G:C8	2.21	0.75
22:DA:1808:A:N6	45:DX:27:ARG:HH11	1.84	0.75
22:DA:2626:C:C2'	22:DA:2627:G:H5'	2.16	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DB:44:G:H3'	58:DF:91:ARG:HE	1.52	0.75
36:DO:26:LEU:HD23	36:DO:92:PHE:CE1	2.21	0.75
39:DR:62:GLU:HB3	39:DR:97:LYS:HB3	1.67	0.75
41:DT:60:THR:HG22	41:DT:83:ALA:HA	1.65	0.75
42:DU:43:LYS:HE3	42:DU:45:GLN:CD	2.07	0.75
1:AA:255:G:H4'	17:AQ:18:LYS:HE3	1.66	0.75
1:AA:461:A:H3'	1:AA:461:A:N3	2.02	0.75
1:AA:486:U:C6	1:AA:486:U:H5"	2.22	0.75
1:AA:1046:A:O2'	1:AA:1047:G:H5'	1.87	0.75
3:AC:143:LEU:HD22	3:AC:143:LEU:N	2.00	0.75
3:AC:156:LEU:HD12	3:AC:156:LEU:N	2.01	0.75
10:AJ:52:LEU:HD23	10:AJ:62:ARG:CG	2.17	0.75
15:AO:29:ALA:HA	15:AO:84:LEU:HD21	1.67	0.75
20:AT:82:ILE:HD12	20:AT:83:ASN:N	2.01	0.75
22:BA:1498:C:O2'	22:BA:1499:C:C6	2.38	0.75
22:BA:1499:C:O2'	22:BA:1500:G:H5'	1.86	0.75
22:BA:2135:A:O2'	22:BA:2136:G:H8	1.69	0.75
22:BA:2180:U:H2'	22:BA:2181:U:C5	2.21	0.75
22:BA:2207:C:H2'	22:BA:2208:C:H6	1.51	0.75
23:BB:45:A:H2'	23:BB:46:A:H8	1.52	0.75
25:BD:47:ALA:HA	25:BD:84:LEU:HG	1.66	0.75
28:BG:7:PRO:O	28:BG:8:VAL:HB	1.85	0.75
28:BG:126:THR:HG22	28:BG:127:GLN:N	2.00	0.75
31:BJ:44:TYR:HB2	38:BQ:63:ARG:CB	2.12	0.75
53:CA:795:C:H5"	11:CK:127:ARG:HH21	1.50	0.75
3:CC:41:TYR:HE1	3:CC:89:VAL:CG1	1.98	0.75
14:CN:60:ARG:HG2	14:CN:61:ASN:H	1.50	0.75
22:DA:95:A:H2'	22:DA:96:C:C5'	2.16	0.75
22:DA:1310:G:H2'	22:DA:1311:G:O4'	1.85	0.75
22:DA:1507:C:H5'	22:DA:1508:A:OP2	1.87	0.75
29:DH:84:ALA:N	29:DH:148:ALA:HA	2.00	0.75
44:DW:16:GLU:OE2	44:DW:16:GLU:HA	1.85	0.75
47:DZ:16:LEU:H	47:DZ:16:LEU:CD2	2.00	0.75
1:AA:345:C:H3'	37:BP:33:GLU:OE1	1.86	0.75
1:AA:433:G:C2'	1:AA:434:U:H5'	2.16	0.75
1:AA:1218:C:H2'	1:AA:1219:A:C8	2.21	0.75
20:AT:33:LYS:HE2	20:AT:33:LYS:N	2.02	0.75
22:BA:1340:U:H4'	22:BA:1341:G:OP2	1.84	0.75
24:BC:77:VAL:O	24:BC:77:VAL:CG2	2.33	0.75
53:CA:802:A:O2'	53:CA:803:G:H5'	1.87	0.75
54:CG:135:LYS:O	54:CG:139:ASP:HB2	1.86	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:11:THR:HG22	8:CH:14:ARG:HH12	1.52	0.75
11:CK:23:HIS:HB3	11:CK:30:ILE:HB	1.69	0.75
20:CT:57:VAL:HG12	20:CT:71:ALA:CB	2.17	0.75
22:DA:388:G:N7	22:DA:390:U:H2'	2.02	0.75
22:DA:685:A:H5'	22:DA:686:U:OP1	1.85	0.75
58:DF:30:VAL:HA	58:DF:157:THR:HG22	1.68	0.75
1:AA:688:G:H5"	1:AA:688:G:H8	1.52	0.75
7:AG:112:ASP:HB2	7:AG:118:ARG:CG	2.15	0.75
16:AP:52:LEU:O	16:AP:54:LEU:HD12	1.87	0.75
22:BA:491:G:H2'	22:BA:492:A:C8	2.22	0.75
25:BD:89:GLU:HG3	25:BD:94:GLN:OE1	1.86	0.75
44:BW:23:LYS:CE	44:BW:24:ARG:HG3	2.17	0.75
9:CI:24:ASN:O	9:CI:61:ASP:HA	1.85	0.75
22:DA:1060:U:H1'	22:DA:1062:G:OP2	1.87	0.75
22:DA:1809:A:C2	22:DA:1810:A:C4	2.74	0.75
22:DA:1809:A:O2'	22:DA:1810:A:H8	1.68	0.75
22:DA:1815:A:H4'	22:DA:1816:C:OP1	1.86	0.75
22:DA:1912:A:H62	22:DA:1917:U:H3	1.34	0.75
57:DB:69:G:C4	57:DB:70:C:C6	2.75	0.75
25:DD:94:GLN:HG2	25:DD:94:GLN:O	1.87	0.75
29:DH:68:ARG:HD3	29:DH:71:LYS:HD3	1.66	0.75
37:DP:22:GLY:HA3	37:DP:91:VAL:HG21	1.67	0.75
52:D4:7:VAL:CG1	52:D4:8:LYS:H	1.97	0.75
1:AA:338:A:N1	1:AA:351:G:O6	2.19	0.75
1:AA:374:A:OP1	1:AA:452:A:N1	2.20	0.75
1:AA:966:G:H2'	1:AA:967:C:C5	2.21	0.75
2:AB:77:GLU:HB2	2:AB:80:LYS:HE2	1.69	0.75
2:AB:112:ARG:O	2:AB:116:LEU:HD23	1.87	0.75
7:AG:71:THR:O	7:AG:90:VAL:HG12	1.87	0.75
9:AI:44:ARG:HG3	9:AI:45:MET:HE1	1.69	0.75
22:BA:178:G:O2'	22:BA:179:C:H5'	1.87	0.75
31:BJ:25:LEU:HD22	31:BJ:26:GLY:N	2.01	0.75
31:BJ:39:LYS:HA	31:BJ:43:GLU:HG3	1.68	0.75
41:BT:29:THR:CG2	41:BT:86:THR:HG22	2.17	0.75
44:BW:9:THR:OG1	44:BW:10:ARG:N	2.15	0.75
49:B1:8:ILE:HG23	49:B1:51:ALA:HA	1.67	0.75
53:CA:223:A:H2'	53:CA:224:U:H6	1.51	0.75
53:CA:348:G:H2'	53:CA:349:A:C8	2.19	0.75
53:CA:564:C:H5'	53:CA:564:C:H6	1.51	0.75
53:CA:1125:U:C6	10:CJ:40:ILE:HG12	2.22	0.75
9:CI:71:ILE:CD1	9:CI:72:SER:H	2.00	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:106:VAL:HG23	12:CL:116:TYR:HB3	1.69	0.75
22:DA:92:U:O2'	22:DA:93:G:H5'	1.87	0.75
22:DA:121:G:O2'	22:DA:122:G:H5'	1.87	0.75
22:DA:395:U:O2'	22:DA:396:G:H8	1.70	0.75
22:DA:414:C:H5"	22:DA:1879:C:O2'	1.87	0.75
22:DA:602:A:H1'	22:DA:656:G:N2	2.02	0.75
22:DA:1010:A:O2'	22:DA:1011:G:H5"	1.87	0.75
22:DA:1676:A:H2	22:DA:1993:U:H5'	1.50	0.75
22:DA:1912:A:N6	22:DA:1917:U:H3	1.85	0.75
22:DA:2699:C:H2'	22:DA:2700:A:C8	2.21	0.75
25:DD:68:PHE:HB3	25:DD:73:VAL:HA	1.69	0.75
26:DE:108:ILE:HD11	26:DE:181:ILE:HB	1.67	0.75
34:DM:33:LEU:CD2	34:DM:128:THR:HB	2.17	0.75
38:DQ:78:PHE:CZ	38:DQ:82:LEU:HD11	2.22	0.75
1:AA:92:U:H2'	1:AA:93:U:C5	2.21	0.75
1:AA:826:C:H5'	8:AH:12:ARG:HH21	1.51	0.75
6:AF:86:ARG:HD2	18:AR:63:TYR:O	1.87	0.75
10:AJ:56:HIS:HD2	10:AJ:57:VAL:HG12	1.51	0.75
21:AU:16:ARG:HH11	21:AU:19:LYS:CG	1.98	0.75
22:BA:894:U:H2'	22:BA:895:U:C6	2.21	0.75
22:BA:1179:G:C5	22:BA:1180:U:C1'	2.69	0.75
25:BD:169:ARG:O	25:BD:170:VAL:CG1	2.35	0.75
29:BH:18:GLN:HE21	29:BH:18:GLN:CA	2.00	0.75
29:BH:38:PRO:HB2	29:BH:40:THR:HG23	1.69	0.75
30:BI:115:ASP:O	30:BI:116:MET:HG2	1.86	0.75
37:BP:92:ARG:O	37:BP:93:LYS:HB2	1.87	0.75
41:BT:40:LYS:CA	41:BT:43:ILE:HG23	2.16	0.75
44:BW:47:GLY:O	44:BW:49:ASN:N	2.20	0.75
53:CA:32:A:H2'	53:CA:33:A:H8	1.49	0.75
53:CA:1499:A:O2'	53:CA:1500:A:H5'	1.85	0.75
3:CC:91:ALA:HB2	3:CC:98:ALA:HB3	1.67	0.75
22:DA:138:U:H2'	22:DA:140:C:H1'	1.68	0.75
22:DA:1965:C:H2'	22:DA:1966:A:C8	2.22	0.75
57:DB:75:G:H1	57:DB:102:G:H22	1.35	0.75
32:DK:94:PRO:HG3	32:DK:115:ILE:CD1	2.17	0.75
1:AA:94:G:C4'	1:AA:95:C:H5"	2.17	0.74
20:AT:53:MET:O	20:AT:56:ILE:HG22	1.87	0.74
22:BA:26:G:H1'	22:BA:514:A:N6	2.02	0.74
22:BA:141:G:H5'	22:BA:142:A:C8	2.22	0.74
22:BA:915:C:H5"	22:BA:915:C:C6	2.21	0.74
22:BA:2286:G:O6	49:B1:22:THR:HG21	1.86	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BD:13:ARG:HH12	37:BP:74:GLN:NE2	1.84	0.74
27:BF:106:ALA:N	27:BF:108:PRO:HD2	2.01	0.74
39:BR:27:ILE:HD13	39:BR:27:ILE:H	1.51	0.74
51:B3:22:LYS:HA	51:B3:47:ALA:O	1.87	0.74
53:CA:335:C:O2	53:CA:1433:A:H2	1.69	0.74
2:CB:95:TRP:CZ2	2:CB:100:LEU:HD13	2.22	0.74
22:DA:195:A:C6	22:DA:198:C:C5	2.75	0.74
22:DA:216:A:N3	22:DA:217:A:C8	2.55	0.74
22:DA:312:G:H5'	22:DA:331:C:O2'	1.87	0.74
22:DA:942:G:H2'	22:DA:943:A:H5'	1.69	0.74
22:DA:1714:U:H3'	22:DA:1715:G:H5'	1.68	0.74
22:DA:1759:A:H2'	22:DA:1760:C:C6	2.22	0.74
22:DA:2311:A:H3'	22:DA:2312:U:H6	1.51	0.74
24:DC:28:PRO:HB3	24:DC:62:ARG:HH22	1.50	0.74
25:DD:16:THR:CG2	25:DD:20:VAL:HB	2.17	0.74
25:DD:16:THR:HG22	25:DD:20:VAL:HB	1.68	0.74
25:DD:34:VAL:CG1	25:DD:48:ILE:HD11	2.16	0.74
26:DE:29:HIS:HA	26:DE:32:VAL:CG2	2.17	0.74
58:DF:43:ILE:HD13	58:DF:82:TYR:HE2	1.51	0.74
31:DJ:8:PRO:HG2	31:DJ:9:GLU:H	1.52	0.74
35:DN:73:ASN:HA	35:DN:76:VAL:CG2	2.17	0.74
36:DO:94:ARG:HD2	36:DO:97:PHE:O	1.87	0.74
1:AA:723:U:H5"	21:AU:48:LYS:HG2	1.66	0.74
1:AA:862:C:C2'	1:AA:863:U:H5'	2.17	0.74
5:AE:45:VAL:CG2	5:AE:117:ALA:HA	2.17	0.74
25:BD:5:VAL:H	25:BD:32:ASN:ND2	1.83	0.74
31:BJ:21:THR:CG2	31:BJ:22:GLY:N	2.49	0.74
31:BJ:65:THR:HG22	31:BJ:68:LYS:HE3	1.68	0.74
35:BN:3:HIS:O	35:BN:4:ARG:HB2	1.85	0.74
37:BP:4:ILE:HG22	37:BP:5:LYS:N	2.02	0.74
53:CA:1011:C:H2'	53:CA:1012:A:C8	2.22	0.74
53:CA:1218:C:H2'	53:CA:1219:A:H8	1.49	0.74
53:CA:1241:G:H2'	53:CA:1242:G:H8	1.52	0.74
22:DA:389:G:O2'	22:DA:390:U:H5'	1.86	0.74
57:DB:86:G:H2'	57:DB:87:U:H5"	1.67	0.74
25:DD:4:LEU:HB3	25:DD:32:ASN:HD21	1.52	0.74
25:DD:89:GLU:HG2	25:DD:94:GLN:NE2	2.02	0.74
40:DS:20:VAL:HG23	40:DS:23:LEU:CD1	2.16	0.74
1:AA:254:G:O2'	1:AA:255:G:H5'	1.87	0.74
1:AA:1279:G:H1'	1:AA:1282:C:N4	2.02	0.74
1:AA:1399:C:H4'	1:AA:1400:C:O5'	1.86	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:106:PHE:CG	4:AD:144:ILE:HD11	2.22	0.74
21:AU:35:GLU:O	21:AU:36:PHE:HB2	1.87	0.74
22:BA:528:A:C2	22:BA:2042:A:H2'	2.22	0.74
22:BA:1060:U:O4'	22:BA:1062:G:H5"	1.86	0.74
22:BA:1150:C:C2'	22:BA:1151:A:O5'	2.36	0.74
22:BA:1644:C:H2'	22:BA:1645:G:H5'	1.67	0.74
22:BA:2352:A:C6	44:BW:30:VAL:HG11	2.21	0.74
22:BA:2510:C:C6	22:BA:2510:C:C5'	2.67	0.74
22:BA:2572:A:C8	25:BD:150:GLN:HB3	2.22	0.74
39:BR:27:ILE:HD13	39:BR:27:ILE:N	2.02	0.74
44:BW:28:GLU:HG3	44:BW:29:SER:H	1.51	0.74
44:BW:37:VAL:HG13	44:BW:55:ASP:O	1.87	0.74
53:CA:1003:G:N2	53:CA:1005:A:H5"	2.02	0.74
53:CA:1372:U:H5"	9:CI:71:ILE:HD11	1.68	0.74
2:CB:78:ALA:O	2:CB:213:LEU:HD23	1.87	0.74
9:CI:17:ARG:HB2	9:CI:65:THR:HB	1.67	0.74
22:DA:397:U:OP2	45:DX:9:LYS:HE2	1.87	0.74
22:DA:469:G:P	26:DE:55:SER:HB3	2.28	0.74
22:DA:811:U:H1'	22:DA:1251:C:C2	2.21	0.74
22:DA:834:G:H1'	22:DA:2358:A:C2	2.22	0.74
22:DA:992:C:O3'	39:DR:74:ILE:HD13	1.88	0.74
22:DA:1345:C:H5"	22:DA:1396:U:O4	1.87	0.74
22:DA:2552:U:C2	22:DA:2554:U:H5'	2.23	0.74
58:DF:42:ALA:CB	58:DF:49:LEU:HD21	2.17	0.74
41:DT:19:LYS:HE2	41:DT:23:ALA:HB3	1.69	0.74
44:DW:77:LYS:N	44:DW:77:LYS:HZ2	1.85	0.74
1:AA:683:G:H21	11:AK:39:ASN:HA	1.52	0.74
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.23	0.74
13:AM:26:LYS:O	13:AM:30:LYS:HG3	1.87	0.74
22:BA:1602:U:O4	62:BA:3706:HOH:O	2.05	0.74
26:BE:146:VAL:HG23	26:BE:167:VAL:HG23	1.67	0.74
31:BJ:44:TYR:HD1	31:BJ:44:TYR:O	1.69	0.74
31:BJ:103:ILE:O	31:BJ:103:ILE:HD12	1.88	0.74
32:BK:59:LYS:HE2	32:BK:89:ASN:O	1.87	0.74
32:BK:71:ARG:CB	32:BK:72:PRO:CD	2.65	0.74
34:BM:71:LYS:HB3	34:BM:93:VAL:O	1.87	0.74
42:BU:5:ARG:O	42:BU:8:ASP:HB2	1.88	0.74
53:CA:1108:G:H5"	3:CC:175:HIS:CE1	2.22	0.74
56:CP:74:LEU:O	56:CP:78:VAL:HG23	1.86	0.74
22:DA:5:A:C2	22:DA:2899:A:C2	2.76	0.74
22:DA:1056:G:N2	22:DA:1102:C:H5	1.85	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DC:173:LEU:HD22	24:DC:173:LEU:H	1.53	0.74
41:DT:38:ALA:HB1	41:DT:81:LYS:HZ3	1.47	0.74
43:DV:73:LYS:O	43:DV:92:VAL:HG22	1.85	0.74
1:AA:209:U:H5'	1:AA:210:C:OP2	1.87	0.74
1:AA:443:C:O2'	1:AA:444:G:H5'	1.88	0.74
1:AA:785:G:C2'	1:AA:786:G:H5'	2.17	0.74
2:AB:58:LYS:NZ	2:AB:62:ARG:HG3	2.03	0.74
22:BA:900:A:C3'	22:BA:901:C:H5'	2.17	0.74
22:BA:1415:U:O2	22:BA:1415:U:H2'	1.87	0.74
22:BA:1996:C:H4'	22:BA:1997:C:OP1	1.87	0.74
22:BA:2558:C:C2'	22:BA:2559:C:H5'	2.17	0.74
30:BI:78:LEU:HD13	30:BI:108:ILE:HG23	1.69	0.74
42:BU:27:VAL:HA	42:BU:33:VAL:HG12	1.68	0.74
53:CA:1258:G:O2'	53:CA:1259:C:H5'	1.88	0.74
4:CD:32:LYS:O	4:CD:33:ILE:HG22	1.87	0.74
14:CN:68:ARG:HG3	14:CN:69:PRO:HD2	1.69	0.74
14:CN:76:PHE:CE2	14:CN:92:ILE:HD13	2.23	0.74
56:CP:75:ILE:HG23	56:CP:80:LYS:HD2	1.69	0.74
22:DA:382:A:C2'	22:DA:383:C:H5"	2.16	0.74
22:DA:412:A:N7	22:DA:2412:A:H1'	2.03	0.74
22:DA:460:A:H2'	22:DA:461:C:O4'	1.86	0.74
22:DA:749:A:H1'	22:DA:1618:A:OP1	1.87	0.74
22:DA:1467:U:H2'	22:DA:1468:U:H5'	1.69	0.74
22:DA:1554:U:H5"	22:DA:1555:G:OP2	1.86	0.74
25:DD:137:SER:HB3	25:DD:138:LEU:HD22	1.69	0.74
29:DH:61:VAL:HG13	29:DH:62:LEU:H	1.53	0.74
1:AA:49:U:C2	1:AA:361:G:N2	2.55	0.74
2:AB:20:ARG:HA	2:AB:20:ARG:HH11	1.53	0.74
6:AF:40:GLU:CB	6:AF:42:TRP:HE1	2.00	0.74
7:AG:119:LEU:HD21	7:AG:123:LEU:HD23	1.68	0.74
12:AL:23:LEU:HG	12:AL:24:GLU:H	1.52	0.74
26:BE:124:PHE:CZ	26:BE:148:ILE:HD12	2.22	0.74
29:BH:125:THR:HG23	29:BH:126:GLY:H	1.53	0.74
34:BM:42:THR:HG23	34:BM:45:GLN:OE1	1.86	0.74
39:BR:45:GLU:OE2	39:BR:45:GLU:HA	1.86	0.74
44:BW:24:ARG:HD3	44:BW:65:LYS:CE	2.18	0.74
44:BW:37:VAL:HG22	44:BW:55:ASP:O	1.87	0.74
53:CA:166:U:C2'	53:CA:167:A:H5'	2.17	0.74
10:CJ:47:GLU:HB2	10:CJ:67:ILE:HG13	1.69	0.74
11:CK:27:ASN:N	11:CK:27:ASN:ND2	2.36	0.74
55:CM:78:ARG:NH2	55:CM:79:LEU:HD23	2.02	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:287:G:O2'	22:DA:288:U:H5'	1.88	0.74
22:DA:634:C:H2'	22:DA:635:C:C6	2.23	0.74
22:DA:1027:A:O2'	22:DA:1028:A:H8	1.70	0.74
22:DA:1682:G:H2'	22:DA:1683:U:C5	2.23	0.74
22:DA:1809:A:O2'	22:DA:1810:A:C8	2.40	0.74
22:DA:2503:A:H4'	22:DA:2504:U:OP1	1.86	0.74
26:DE:108:ILE:HD13	26:DE:108:ILE:O	1.87	0.74
26:DE:128:ALA:HB1	26:DE:129:PRO:CD	2.17	0.74
29:DH:143:ILE:O	29:DH:144:VAL:HG13	1.87	0.74
34:DM:38:ARG:O	34:DM:126:ILE:HG21	1.85	0.74
38:DQ:91:ARG:HG3	39:DR:11:GLN:CD	2.07	0.74
44:DW:8:SER:O	44:DW:9:THR:HB	1.86	0.74
1:AA:375:U:H4'	16:AP:17:TYR:HE2	1.53	0.74
1:AA:1143:G:H2'	1:AA:1144:G:H8	1.53	0.74
1:AA:1343:G:H1'	9:AI:122:ARG:HH12	1.53	0.74
2:AB:89:PHE:CZ	2:AB:153:MET:HB2	2.23	0.74
7:AG:3:ARG:HG3	7:AG:4:ARG:H	1.53	0.74
14:AN:40:ARG:HH12	14:AN:44:VAL:HG21	1.51	0.74
21:AU:7:GLU:HB2	21:AU:11:PHE:CE1	2.23	0.74
22:BA:1085:A:H2'	22:BA:1086:A:N3	2.03	0.74
30:BI:79:LEU:HD13	30:BI:135:MET:SD	2.28	0.74
53:CA:754:C:H2'	53:CA:754:C:O2	1.88	0.74
22:DA:216:A:O2'	22:DA:217:A:H8	1.69	0.74
22:DA:1166:G:N2	22:DA:1184:U:H1'	2.01	0.74
22:DA:2142:A:H2'	22:DA:2143:C:H4'	1.68	0.74
22:DA:2390:U:OP2	51:D3:34:LYS:HE2	1.88	0.74
25:DD:137:SER:CB	25:DD:138:LEU:HD22	2.18	0.74
39:DR:39:LEU:CB	39:DR:49:ILE:HD13	2.18	0.74
1:AA:1442:G:H2'	1:AA:1443:C:H6	1.53	0.74
4:AD:37:PRO:HD2	4:AD:41:GLY:HA2	1.70	0.74
14:AN:40:ARG:HH12	14:AN:44:VAL:CG1	2.00	0.74
16:AP:79:ASN:O	16:AP:80:LYS:HB2	1.87	0.74
22:BA:28:A:O2'	22:BA:29:U:H5'	1.88	0.74
24:BC:20:ASN:HD21	24:BC:22:GLU:HG2	1.51	0.74
24:BC:144:GLU:HA	24:BC:151:GLY:HA2	1.69	0.74
25:BD:5:VAL:N	25:BD:32:ASN:HD21	1.83	0.74
26:BE:153:LEU:C	26:BE:153:LEU:HD12	2.08	0.74
31:BJ:44:TYR:O	31:BJ:44:TYR:CD1	2.40	0.74
44:BW:30:VAL:HG22	44:BW:30:VAL:O	1.86	0.74
44:BW:30:VAL:HA	44:BW:60:ALA:HB3	1.69	0.74
52:B4:37:GLN:O	52:B4:37:GLN:HG2	1.86	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1346:A:N1	54:CG:9:ARG:NH2	2.35	0.74
4:CD:58:GLN:O	4:CD:62:ARG:HG2	1.88	0.74
14:CN:52:ARG:HA	14:CN:52:ARG:NE	2.02	0.74
19:CS:54:ARG:HG2	19:CS:55:GLN:H	1.52	0.74
22:DA:206:U:O2'	22:DA:207:A:H5'	1.87	0.74
22:DA:335:C:HO2'	22:DA:336:C:H6	0.75	0.74
22:DA:1027:A:O2'	22:DA:1028:A:C8	2.40	0.74
22:DA:1080:A:O2'	22:DA:1081:U:C6	2.39	0.74
22:DA:2529:G:H4'	28:DG:174:LYS:CD	2.17	0.74
31:DJ:57:LEU:HD11	31:DJ:129:GLU:H	1.51	0.74
1:AA:274:A:O2'	1:AA:275:G:H8	1.68	0.74
2:AB:13:VAL:CG2	2:AB:207:ARG:HH22	2.00	0.74
2:AB:133:ALA:O	2:AB:137:THR:HG23	1.87	0.74
2:AB:149:GLY:O	2:AB:153:MET:HE3	1.88	0.74
4:AD:61:ARG:HH21	4:AD:67:LEU:HD23	1.50	0.74
5:AE:79:THR:HB	5:AE:121:ASN:ND2	2.03	0.74
6:AF:36:ILE:HG22	6:AF:64:VAL:CG2	2.18	0.74
9:AI:44:ARG:HG3	9:AI:45:MET:CE	2.17	0.74
22:BA:1179:G:H3'	22:BA:1180:U:C4'	2.14	0.74
22:BA:1927:A:H2'	22:BA:1928:A:C8	2.23	0.74
22:BA:2334:U:H4'	22:BA:2335:A:OP2	1.87	0.74
30:BI:126:ARG:HA	30:BI:129:GLU:HB2	1.69	0.74
34:BM:54:THR:O	34:BM:56:ALA:N	2.19	0.74
37:BP:51:ASN:O	37:BP:52:ARG:HG2	1.88	0.74
38:BQ:111:LYS:CE	39:BR:50:GLY:HA2	2.18	0.74
53:CA:17:U:H2'	53:CA:18:C:C6	2.23	0.74
53:CA:968:A:N3	53:CA:1062:U:H4'	2.03	0.74
53:CA:1304:G:H1'	53:CA:1333:A:N6	2.03	0.74
53:CA:1361:G:H2'	53:CA:1362:A:H5'	1.70	0.74
22:DA:456:C:O2'	41:DT:73:ARG:HG3	1.87	0.74
22:DA:720:U:H2'	22:DA:721:A:C8	2.23	0.74
22:DA:865:C:H5"	22:DA:866:A:OP1	1.88	0.74
22:DA:1417:C:H4'	22:DA:1587:G:H21	1.50	0.74
22:DA:1919:A:H2'	22:DA:1920:C:H6	1.52	0.74
31:DJ:45:THR:H	31:DJ:46:PRO:HD3	1.53	0.74
40:DS:70:LYS:H	40:DS:70:LYS:HE3	1.52	0.74
2:AB:212:TYR:O	2:AB:216:VAL:HG23	1.87	0.74
6:AF:38:ARG:NH2	6:AF:96:VAL:HG23	2.03	0.74
22:BA:1287:A:OP2	35:BN:103:ARG:HG3	1.88	0.74
22:BA:2508:G:C2'	22:BA:2509:G:O5'	2.36	0.74
53:CA:775:G:C2'	53:CA:776:G:H5'	2.17	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:CU:16:ARG:HG3	21:CU:19:LYS:CG	2.07	0.74
22:DA:1439:A:C2	22:DA:1553:A:N7	2.56	0.74
22:DA:2353:G:H1'	44:DW:30:VAL:HG13	1.69	0.74
24:DC:179:GLU:HA	24:DC:269:ARG:O	1.88	0.74
28:DG:72:ASN:O	28:DG:76:ILE:HG12	1.88	0.74
30:DI:5:GLN:OE1	30:DI:59:THR:HG21	1.87	0.74
35:DN:103:ARG:HD3	35:DN:110:MET:SD	2.27	0.74
41:DT:29:THR:HB	41:DT:87:LEU:N	2.03	0.74
13:AM:40:GLU:HG3	13:AM:41:ASP:N	2.03	0.73
22:BA:412:A:O2'	22:BA:413:C:H5'	1.87	0.73
22:BA:947:A:HO2'	22:BA:984:A:H2	1.35	0.73
22:BA:1252:G:N3	38:BQ:32:ARG:HG2	2.03	0.73
22:BA:1654:A:H4'	25:BD:118:PHE:CZ	2.23	0.73
25:BD:38:LYS:O	25:BD:46:ARG:HA	1.88	0.73
27:BF:82:TYR:HD2	27:BF:83:PRO:HD2	1.53	0.73
28:BG:112:VAL:HG23	28:BG:113:ASP:H	1.53	0.73
53:CA:15:G:H2'	53:CA:16:A:C8	2.23	0.73
53:CA:97:G:C6	53:CA:98:A:H1'	2.23	0.73
53:CA:654:G:H2'	53:CA:655:A:H8	1.53	0.73
53:CA:828:U:H2'	53:CA:829:G:O5'	1.88	0.73
54:CG:24:LYS:O	54:CG:28:ILE:HG12	1.88	0.73
55:CM:12:LYS:HB3	55:CM:17:ALA:HB2	1.70	0.73
22:DA:464:U:H1'	22:DA:686:U:H5	1.51	0.73
22:DA:2136:G:H2'	22:DA:2137:U:H5	1.50	0.73
22:DA:2882:A:C5'	35:DN:96:ARG:HD3	2.18	0.73
47:DZ:16:LEU:HD22	47:DZ:16:LEU:N	2.03	0.73
49:D1:8:ILE:HD11	49:D1:52:LYS:HE3	1.70	0.73
1:AA:179:A:C2'	1:AA:180:U:H5'	2.17	0.73
1:AA:598:U:H4'	8:AH:85:TYR:CD1	2.23	0.73
1:AA:1239:A:N6	1:AA:1299:A:N6	2.34	0.73
1:AA:1348:U:O2'	1:AA:1349:A:H5'	1.87	0.73
6:AF:18:VAL:O	6:AF:22:ILE:HD12	1.87	0.73
11:AK:106:ILE:HD13	11:AK:106:ILE:O	1.88	0.73
20:AT:53:MET:HE1	20:AT:57:VAL:HG21	1.68	0.73
24:BC:18:VAL:O	24:BC:18:VAL:HG13	1.88	0.73
28:BG:63:GLN:HA	28:BG:63:GLN:OE1	1.87	0.73
29:BH:14:SER:OG	29:BH:17:ASP:HB2	1.88	0.73
32:BK:61:VAL:CG2	32:BK:87:LEU:HD11	2.18	0.73
33:BL:77:ILE:CD1	33:BL:108:ALA:HB1	2.16	0.73
53:CA:536:C:H2'	53:CA:537:G:H8	1.52	0.73
53:CA:1014:A:H4'	19:CS:13:HIS:HD2	1.50	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:115:GLN:HE22	4:CD:153:ARG:HH22	1.36	0.73
22:DA:2056:G:C2	22:DA:2057:G:C8	2.76	0.73
22:DA:2468:A:O2'	22:DA:2469:A:H8	1.71	0.73
22:DA:2626:C:O2'	22:DA:2627:G:H5'	1.87	0.73
13:AM:3:ILE:HA	13:AM:56:ARG:NH1	2.03	0.73
22:BA:855:G:H1'	44:BW:23:LYS:HD3	1.70	0.73
22:BA:2231:U:O2'	22:BA:2232:C:H5'	1.88	0.73
23:BB:89:U:H3'	23:BB:90:C:C5'	2.18	0.73
28:BG:33:THR:C	28:BG:34:ARG:HD3	2.08	0.73
34:BM:8:LYS:HD2	34:BM:8:LYS:N	2.00	0.73
41:BT:29:THR:HA	41:BT:86:THR:CA	2.18	0.73
44:BW:24:ARG:CD	44:BW:25:PHE:N	2.50	0.73
53:CA:90:C:O2'	53:CA:91:U:C6	2.39	0.73
53:CA:91:U:O2'	53:CA:92:U:H6	1.70	0.73
53:CA:663:A:O2'	53:CA:664:G:H5'	1.88	0.73
22:DA:53:A:C2	22:DA:179:C:H4'	2.23	0.73
22:DA:469:G:OP2	26:DE:55:SER:HB3	1.87	0.73
22:DA:1918:A:H4'	22:DA:1919:A:OP1	1.86	0.73
22:DA:2303:G:H5'	58:DF:121:PHE:CE1	2.24	0.73
22:DA:2823:A:C5	22:DA:2824:C:C5	2.75	0.73
26:DE:6:LYS:HE3	26:DE:7:ASP:OD2	1.88	0.73
26:DE:133:LEU:O	26:DE:137:LYS:HB2	1.87	0.73
29:DH:80:ILE:HB	29:DH:101:ASP:HB2	1.66	0.73
35:DN:37:THR:HB	35:DN:40:LYS:HB2	1.71	0.73
1:AA:452:A:H2'	1:AA:453:G:O4'	1.87	0.73
1:AA:1314:C:O2'	1:AA:1315:U:H5'	1.88	0.73
12:AL:43:LYS:HB2	12:AL:44:PRO:HD3	1.70	0.73
22:BA:319:G:C4	22:BA:333:G:N2	2.57	0.73
22:BA:1494:A:H2'	22:BA:1495:A:C8	2.23	0.73
22:BA:1867:G:C2'	22:BA:1868:C:H5'	2.19	0.73
22:BA:2336:A:H61	44:BW:40:ARG:HB3	1.50	0.73
23:BB:49:C:O2'	23:BB:50:A:H5'	1.88	0.73
24:BC:106:PRO:CA	24:BC:141:HIS:HE1	2.00	0.73
25:BD:120:GLY:HA2	25:BD:162:ALA:HB1	1.71	0.73
27:BF:127:TYR:O	27:BF:128:SER:HB2	1.88	0.73
34:BM:13:HIS:O	34:BM:14:LYS:CB	2.35	0.73
37:BP:50:ARG:HD2	37:BP:51:ASN:N	2.02	0.73
39:BR:21:ARG:NH2	39:BR:93:PHE:CE1	2.57	0.73
44:BW:9:THR:HG23	44:BW:10:ARG:CD	2.14	0.73
44:BW:14:ASP:O	44:BW:15:SER:HB2	1.89	0.73
53:CA:410:G:OP1	4:CD:25:ARG:HD2	1.88	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:719:C:H3'	53:CA:720:C:C6	2.23	0.73
3:CC:9:ILE:HD12	14:CN:97:LYS:HD3	1.68	0.73
22:DA:2542:A:H4'	22:DA:2543:G:C5'	2.18	0.73
58:DF:147:ARG:HG2	58:DF:149:ARG:HH12	1.51	0.73
37:DP:22:GLY:HA3	37:DP:91:VAL:CG2	2.19	0.73
42:DU:35:VAL:HG12	42:DU:36:GLU:N	2.03	0.73
22:BA:142:A:H2'	22:BA:143:C:C5	2.23	0.73
22:BA:528:A:H5"	31:BJ:116:ARG:NH2	2.02	0.73
22:BA:1056:G:O2'	22:BA:1086:A:H1'	1.88	0.73
22:BA:1941:C:H2'	22:BA:1942:C:C6	2.24	0.73
22:BA:2425:A:H5'	22:BA:2427:C:H5'	1.71	0.73
27:BF:45:ASP:HB3	27:BF:48:LEU:HB2	1.70	0.73
28:BG:8:VAL:CG1	28:BG:49:LEU:HB2	2.10	0.73
29:BH:147:VAL:HG12	29:BH:149:GLU:HG3	1.70	0.73
38:BQ:85:ALA:O	38:BQ:86:SER:C	2.25	0.73
53:CA:961:U:HO2'	53:CA:962:C:H6	0.77	0.73
4:CD:89:LEU:CD2	4:CD:199:ILE:HD11	2.18	0.73
55:CM:78:ARG:HH21	55:CM:79:LEU:CD2	2.01	0.73
22:DA:374:A:H2'	22:DA:375:G:H8	1.51	0.73
22:DA:1821:A:H5'	24:DC:156:SER:OG	1.88	0.73
22:DA:2052:A:O2'	22:DA:2053:G:H5'	1.88	0.73
22:DA:2304:G:N2	22:DA:2312:U:H3	1.83	0.73
24:DC:93:VAL:CG1	24:DC:101:ARG:H	2.00	0.73
32:DK:61:VAL:HG11	32:DK:112:PHE:CE2	2.22	0.73
38:DQ:4:LYS:HE3	38:DQ:7:VAL:HG22	1.70	0.73
39:DR:48:LYS:HD2	39:DR:48:LYS:H	1.53	0.73
1:AA:731:G:OP1	1:AA:766:A:H1'	1.87	0.73
1:AA:1468:A:H2'	1:AA:1469:C:H5"	1.70	0.73
3:AC:156:LEU:H	3:AC:156:LEU:CD1	2.02	0.73
5:AE:156:ARG:O	5:AE:158:LYS:N	2.22	0.73
7:AG:119:LEU:CD2	7:AG:123:LEU:HD23	2.18	0.73
11:AK:124:LYS:HE2	11:AK:124:LYS:C	2.09	0.73
22:BA:946:C:O2'	22:BA:947:A:C5'	2.36	0.73
26:BE:119:ILE:HD11	26:BE:187:VAL:HG22	1.70	0.73
33:BL:111:ILE:HD12	33:BL:128:THR:HG21	1.70	0.73
44:BW:17:ALA:O	44:BW:18:LYS:HB3	1.88	0.73
44:BW:47:GLY:C	44:BW:49:ASN:H	1.91	0.73
53:CA:120:A:O2'	53:CA:121:U:H5"	1.89	0.73
53:CA:252:U:H2'	53:CA:253:A:C8	2.23	0.73
53:CA:987:G:N3	53:CA:988:G:N7	2.37	0.73
4:CD:121:ALA:O	4:CD:145:ARG:HB2	1.88	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CG:134:VAL:HB	54:CG:137:ARG:NH2	2.02	0.73
22:DA:638:G:H2'	22:DA:639:U:C6	2.23	0.73
22:DA:1537:G:H2'	22:DA:1538:G:C4'	2.13	0.73
22:DA:1965:C:C3'	22:DA:1966:A:H5"	2.17	0.73
22:DA:1965:C:C5'	22:DA:1966:A:H5"	2.18	0.73
32:DK:108:ARG:HA	32:DK:116:ILE:HD13	1.70	0.73
35:DN:22:ARG:HG3	35:DN:70:THR:HA	1.71	0.73
1:AA:707:U:OP1	11:AK:86:LYS:HE3	1.88	0.73
2:AB:32:GLY:HA3	2:AB:39:ILE:HG12	1.69	0.73
2:AB:42:LEU:HG	2:AB:43:GLU:N	2.03	0.73
4:AD:121:ALA:C	4:AD:122:ILE:HD13	2.08	0.73
10:AJ:57:VAL:HG22	10:AJ:58:ASN:N	2.03	0.73
11:AK:13:LYS:O	11:AK:14:GLN:HB3	1.89	0.73
32:BK:19:VAL:HG22	32:BK:41:ILE:CG1	2.19	0.73
55:CM:64:VAL:HG12	55:CM:65:GLU:N	2.01	0.73
22:DA:797:G:OP1	26:DE:57:LYS:HG2	1.88	0.73
22:DA:1288:G:C8	22:DA:1327:A:N6	2.56	0.73
22:DA:1698:A:H1'	22:DA:1700:A:OP2	1.89	0.73
22:DA:1830:C:H5'	24:DC:14:HIS:HE1	1.53	0.73
22:DA:2214:C:H2'	22:DA:2215:C:C6	2.22	0.73
22:DA:2614:A:H4'	22:DA:2615:U:OP1	1.88	0.73
24:DC:159:THR:O	24:DC:194:VAL:HG12	1.88	0.73
1:AA:797:C:OP2	11:AK:125:LYS:HG3	1.88	0.73
16:AP:48:GLU:HG3	16:AP:49:GLY:N	2.04	0.73
22:BA:201:C:H2'	22:BA:202:U:H5'	1.71	0.73
22:BA:1321:A:H2'	22:BA:1322:A:C8	2.23	0.73
22:BA:1913:A:OP1	22:BA:1913:A:H4'	1.88	0.73
22:BA:2287:A:C2	22:BA:2289:G:C6	2.77	0.73
22:BA:2321:U:H6	22:BA:2321:U:H5"	1.53	0.73
25:BD:150:GLN:O	25:BD:150:GLN:HG3	1.88	0.73
41:BT:73:ARG:HB3	41:BT:73:ARG:CZ	2.18	0.73
46:BY:9:LYS:CB	46:BY:12:GLU:HG3	2.18	0.73
53:CA:369:G:O2'	53:CA:370:C:H5'	1.89	0.73
4:CD:2:ARG:NE	4:CD:114:ARG:HD2	2.03	0.73
56:CP:20:VAL:HA	56:CP:36:VAL:HG12	1.71	0.73
22:DA:602:A:H4'	22:DA:604:G:O3'	1.87	0.73
22:DA:740:C:H5"	22:DA:1784:A:H3'	1.69	0.73
22:DA:1049:C:O2	22:DA:1113:U:H4'	1.88	0.73
22:DA:1590:A:H2'	22:DA:1591:A:H8	1.53	0.73
22:DA:2136:G:C2'	22:DA:2137:U:C6	2.71	0.73
31:DJ:13:ARG:HG2	31:DJ:51:GLY:O	1.88	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DN:75:ILE:HD12	35:DN:79:LEU:HD12	1.69	0.73
44:DW:18:LYS:H	44:DW:36:ILE:CG1	2.02	0.73
22:BA:1919:A:O2'	22:BA:1920:C:H5'	1.88	0.73
24:BC:255:LYS:O	24:BC:257:ARG:N	2.18	0.73
26:BE:46:GLN:HG3	26:BE:87:ALA:H	1.53	0.73
27:BF:9:ASP:O	27:BF:10:GLU:HB2	1.87	0.73
47:BZ:12:ALA:HA	47:BZ:15:ARG:HD3	1.70	0.73
53:CA:821:G:H2'	53:CA:822:U:C6	2.23	0.73
53:CA:994:A:N3	53:CA:995:C:C6	2.57	0.73
53:CA:1190:G:O2'	53:CA:1191:A:P	2.46	0.73
56:CP:71:VAL:O	56:CP:74:LEU:HB2	1.88	0.73
22:DA:118:A:H1'	22:DA:178:G:O4'	1.89	0.73
22:DA:412:A:O2'	22:DA:413:C:C5'	2.35	0.73
22:DA:590:A:H2'	22:DA:591:U:H6	1.52	0.73
29:DH:41:LYS:HA	29:DH:44:ILE:CG1	2.18	0.73
32:DK:87:LEU:HD12	32:DK:92:GLU:CA	2.17	0.73
9:AI:9:GLY:HA2	9:AI:80:HIS:HD2	1.53	0.73
10:AJ:32:THR:HG23	10:AJ:33:GLY:H	1.53	0.73
22:BA:242:G:OP2	51:B3:2:LYS:HE2	1.88	0.73
22:BA:271:G:O2'	22:BA:272:A:H5"	1.88	0.73
22:BA:1315:C:O2'	22:BA:1316:U:H5'	1.89	0.73
22:BA:2210:U:C2	22:BA:2212:A:N7	2.56	0.73
27:BF:35:LEU:HB3	27:BF:153:ILE:HG23	1.69	0.73
30:BI:33:ASN:HD22	30:BI:64:ARG:NH2	1.85	0.73
32:BK:43:ILE:N	32:BK:43:ILE:HD13	2.04	0.73
37:BP:21:PRO:HA	37:BP:46:VAL:HG11	1.70	0.73
40:BS:48:LYS:O	40:BS:52:GLU:HG3	1.87	0.73
41:BT:32:LEU:O	41:BT:34:VAL:HG13	1.89	0.73
44:BW:24:ARG:CD	44:BW:65:LYS:HE2	2.19	0.73
53:CA:162:A:H2'	53:CA:163:C:O4'	1.88	0.73
53:CA:1168:U:O2	53:CA:1168:U:C2'	2.35	0.73
3:CC:137:VAL:O	3:CC:140:ALA:HB3	1.89	0.73
6:CF:2:ARG:NH2	6:CF:91:ARG:HB2	2.04	0.73
12:CL:89:LEU:HB3	12:CL:92:VAL:HG21	1.68	0.73
21:CU:38:GLU:HA	21:CU:41:THR:OG1	1.88	0.73
22:DA:999:U:C2'	22:DA:1000:A:H5'	2.18	0.73
22:DA:1021:A:C2'	22:DA:1022:G:H4'	2.18	0.73
35:DN:32:GLU:OE1	35:DN:115:LEU:HD12	1.88	0.73
40:DS:71:VAL:O	40:DS:71:VAL:HG13	1.89	0.73
46:DY:19:LEU:HA	46:DY:22:LEU:HB2	1.71	0.73
1:AA:1240:U:H3'	1:AA:1241:G:C5'	2.19	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:155:LYS:HA	5:AE:158:LYS:HZ3	1.54	0.72
11:AK:52:ARG:HD2	11:AK:56:LYS:HD3	1.69	0.72
16:AP:48:GLU:HG3	16:AP:49:GLY:H	1.54	0.72
22:BA:2291:U:H2'	22:BA:2292:U:C6	2.23	0.72
22:BA:2438:U:O2'	22:BA:2439:A:H5"	1.89	0.72
24:BC:16:VAL:HB	24:BC:203:VAL:HB	1.70	0.72
28:BG:10:VAL:O	28:BG:10:VAL:HG23	1.88	0.72
31:BJ:84:ILE:O	31:BJ:84:ILE:HG13	1.89	0.72
32:BK:7:MET:C	32:BK:8:LEU:HD23	2.08	0.72
53:CA:116:A:O2'	53:CA:117:G:H5'	1.89	0.72
53:CA:537:G:H2'	53:CA:538:G:C8	2.23	0.72
53:CA:643:C:O2'	53:CA:644:U:H5'	1.89	0.72
53:CA:1046:A:H2'	53:CA:1047:G:O5'	1.89	0.72
53:CA:1183:U:C3'	53:CA:1184:G:H5"	2.15	0.72
3:CC:148:ILE:CD1	3:CC:201:ILE:HG12	2.19	0.72
4:CD:156:ALA:O	4:CD:160:LEU:HD23	1.88	0.72
10:CJ:5:ARG:C	10:CJ:6:ILE:HD12	2.10	0.72
22:DA:108:G:H2'	22:DA:109:C:C6	2.24	0.72
22:DA:527:C:H2'	22:DA:527:C:O2	1.87	0.72
22:DA:589:U:HO2'	22:DA:590:A:H5'	1.52	0.72
22:DA:1325:U:H4'	22:DA:1326:U:OP1	1.89	0.72
24:DC:62:ARG:HH21	24:DC:62:ARG:CG	2.01	0.72
30:DI:104:GLN:HA	30:DI:107:GLU:CB	2.18	0.72
33:DL:110:VAL:HB	33:DL:127:VAL:HA	1.71	0.72
34:DM:66:ARG:CZ	34:DM:101:VAL:HG11	2.19	0.72
35:DN:24:MET:HG2	35:DN:44:LEU:HD22	1.70	0.72
42:DU:73:ASN:HB3	42:DU:95:PHE:HE2	1.53	0.72
2:AB:116:LEU:CD1	2:AB:140:LEU:HD11	2.19	0.72
3:AC:54:ILE:C	3:AC:54:ILE:HD12	2.09	0.72
3:AC:139:ASN:HA	3:AC:142:ARG:HB2	1.72	0.72
9:AI:50:PRO:HG3	9:AI:82:ILE:HD12	1.71	0.72
22:BA:186:G:H2'	22:BA:187:G:H8	1.54	0.72
22:BA:729:G:N3	22:BA:729:G:H2'	2.03	0.72
22:BA:1190:G:OP1	33:BL:32:GLY:HA2	1.89	0.72
35:BN:117:ASP:O	35:BN:118:ARG:HB2	1.88	0.72
50:B2:24:THR:HG23	50:B2:27:GLY:H	1.52	0.72
53:CA:321:A:C1'	53:CA:1435:G:O2'	2.37	0.72
53:CA:1299:A:O2'	53:CA:1300:G:H4'	1.88	0.72
3:CC:36:PHE:HE1	14:CN:91:GLU:HB3	1.54	0.72
54:CG:12:LEU:HD22	54:CG:13:PRO:O	1.90	0.72
22:DA:828:U:C5	22:DA:829:A:N6	2.57	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1722:A:N6	22:DA:1738:G:H1'	2.04	0.72
22:DA:1734:G:C2'	22:DA:1735:A:H8	2.01	0.72
22:DA:2267:A:N6	22:DA:2272:U:N3	2.27	0.72
22:DA:2286:G:H4'	22:DA:2287:A:C1'	2.19	0.72
22:DA:2296:U:H5	36:DO:9:ARG:HH22	1.35	0.72
33:DL:20:GLY:HA2	33:DL:28:GLY:HA2	1.69	0.72
34:DM:40:ARG:HB2	34:DM:93:VAL:HG21	1.71	0.72
42:DU:81:ARG:HD2	42:DU:81:ARG:H	1.53	0.72
22:BA:979:A:H2'	22:BA:982:C:H42	1.52	0.72
22:BA:1682:G:C8	22:BA:1757:A:C2	2.76	0.72
35:BN:116:VAL:HG22	35:BN:116:VAL:O	1.88	0.72
37:BP:33:GLU:HG3	37:BP:34:GLY:H	1.54	0.72
43:BV:80:HIS:CD2	43:BV:83:LYS:H	2.06	0.72
52:B4:9:LYS:C	52:B4:10:LEU:HD23	2.09	0.72
53:CA:60:A:H4'	53:CA:61:G:O5'	1.87	0.72
53:CA:802:A:C2'	53:CA:803:G:H5'	2.19	0.72
53:CA:825:A:H2'	53:CA:826:C:H6	1.54	0.72
53:CA:1053:G:O6	53:CA:1199:U:H2'	1.89	0.72
53:CA:1455:G:H2'	53:CA:1456:A:C8	2.24	0.72
53:CA:1526:G:OP1	21:CU:38:GLU:HG3	1.88	0.72
22:DA:226:A:C2	22:DA:230:G:O6	2.42	0.72
22:DA:242:G:H8	51:D3:3:ILE:O	1.72	0.72
22:DA:374:A:H2'	22:DA:375:G:C8	2.25	0.72
22:DA:1817:G:O2'	22:DA:1818:U:C5'	2.36	0.72
44:DW:39:GLN:HE22	44:DW:58:LEU:HD23	1.51	0.72
49:D1:16:THR:CG2	49:D1:42:VAL:HG23	2.19	0.72
1:AA:1349:A:H2'	1:AA:1350:A:C8	2.23	0.72
4:AD:160:LEU:H	4:AD:160:LEU:HD13	1.53	0.72
11:AK:66:ALA:HB1	11:AK:99:LEU:HD13	1.70	0.72
12:AL:43:LYS:HZ2	12:AL:44:PRO:HD2	1.53	0.72
15:AO:57:ARG:HH11	15:AO:57:ARG:HB3	1.53	0.72
20:AT:66:ILE:HD11	20:AT:70:LYS:HE3	1.71	0.72
22:BA:693:A:H2'	22:BA:694:U:O4'	1.88	0.72
22:BA:936:A:H2'	22:BA:937:C:H6	1.53	0.72
22:BA:942:G:C2'	22:BA:943:A:H5'	2.17	0.72
22:BA:2148:G:H2'	22:BA:2149:U:O4'	1.90	0.72
24:BC:158:GLY:N	24:BC:194:VAL:HG13	2.02	0.72
28:BG:97:VAL:HG22	28:BG:102:ILE:HG12	1.69	0.72
53:CA:438:U:H2'	53:CA:494:G:O6	1.89	0.72
53:CA:642:A:O2'	53:CA:643:C:C6	2.41	0.72
53:CA:704:A:H2'	53:CA:705:G:H8	1.55	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:808:C:OP1	15:CO:47:LYS:HE2	1.88	0.72
53:CA:982:U:H1'	53:CA:983:A:C8	2.24	0.72
53:CA:1316:G:N2	53:CA:1318:A:H3'	2.04	0.72
2:CB:79:VAL:HA	2:CB:213:LEU:CD2	2.15	0.72
3:CC:14:VAL:HG12	3:CC:14:VAL:O	1.86	0.72
11:CK:121:ARG:NH2	21:CU:35:GLU:HB2	2.05	0.72
22:DA:1309:G:H4'	50:D2:7:PRO:HB2	1.71	0.72
22:DA:1847:A:O2'	22:DA:1848:A:C8	2.42	0.72
22:DA:2201:G:H2'	22:DA:2202:U:H6	1.53	0.72
22:DA:2259:U:O2'	22:DA:2260:C:C6	2.43	0.72
22:DA:2275:C:O2'	34:DM:84:LYS:HA	1.89	0.72
26:DE:29:HIS:HB2	33:DL:6:LEU:HD21	1.70	0.72
26:DE:58:LYS:HB3	26:DE:60:TRP:HE1	1.54	0.72
33:DL:79:LEU:HB3	33:DL:114:GLY:H	1.54	0.72
43:DV:59:GLU:HG2	43:DV:60:VAL:H	1.51	0.72
1:AA:1356:G:H2'	1:AA:1357:A:H8	1.54	0.72
6:AF:42:TRP:CZ2	6:AF:61:LEU:HD22	2.24	0.72
12:AL:113:ARG:HB3	12:AL:118:VAL:HB	1.72	0.72
16:AP:28:ARG:HE	16:AP:29:ASN:ND2	1.84	0.72
22:BA:417:C:H2'	22:BA:418:C:H6	1.54	0.72
22:BA:1105:U:H2'	22:BA:1106:G:H8	1.53	0.72
22:BA:1964:G:H4'	22:BA:1965:C:OP2	1.88	0.72
22:BA:2336:A:N6	44:BW:40:ARG:HD2	2.04	0.72
24:BC:203:VAL:O	24:BC:204:LEU:HB2	1.87	0.72
45:BX:5:GLN:HE21	45:BX:49:ARG:H	1.37	0.72
53:CA:282:A:H2'	53:CA:283:U:H6	1.53	0.72
53:CA:491:G:C2'	53:CA:492:C:H5'	2.19	0.72
53:CA:961:U:OP1	53:CA:961:U:H3'	1.88	0.72
24:DC:64:VAL:HG11	24:DC:66:PHE:CZ	2.23	0.72
29:DH:57:LYS:O	29:DH:57:LYS:HD2	1.89	0.72
40:DS:9:HIS:H	40:DS:102:HIS:CE1	2.07	0.72
44:DW:37:VAL:HG12	44:DW:55:ASP:CB	2.10	0.72
51:D3:32:LEU:HA	51:D3:35:LYS:CG	2.20	0.72
1:AA:92:U:H2'	1:AA:93:U:C6	2.23	0.72
1:AA:363:A:OP1	12:AL:57:THR:HG21	1.89	0.72
1:AA:375:U:H4'	16:AP:17:TYR:CE2	2.25	0.72
1:AA:633:G:H2'	1:AA:634:C:H6	1.55	0.72
13:AM:89:ARG:HD2	13:AM:95:PRO:O	1.89	0.72
22:BA:1813:G:N3	24:BC:49:THR:CG2	2.53	0.72
22:BA:2065:C:H1'	22:BA:2449:U:H3	1.55	0.72
33:BL:29:LYS:HG2	33:BL:30:THR:CG2	2.18	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BL:110:VAL:HG11	33:BL:131:ALA:HB1	1.71	0.72
41:BT:28:ASN:CA	41:BT:91:GLN:HE22	2.01	0.72
44:BW:67:LYS:O	44:BW:68:PHE:HB2	1.90	0.72
48:B0:9:ARG:HH21	48:B0:9:ARG:CG	2.01	0.72
53:CA:814:A:H5'	53:CA:1511:G:H4'	1.71	0.72
53:CA:1146:A:O2'	53:CA:1147:C:H5'	1.90	0.72
2:CB:59:ILE:HA	2:CB:62:ARG:HD3	1.71	0.72
54:CG:16:LYS:HE2	9:CI:45:MET:SD	2.29	0.72
55:CM:32:ILE:HD13	55:CM:32:ILE:O	1.89	0.72
22:DA:128:C:H6	22:DA:128:C:H5"	1.53	0.72
22:DA:217:A:C2'	22:DA:218:A:C8	2.70	0.72
22:DA:445:C:H2'	22:DA:446:G:C8	2.23	0.72
22:DA:1307:A:C2'	22:DA:1308:A:H5'	2.19	0.72
22:DA:1413:A:H2'	22:DA:1414:C:C6	2.24	0.72
22:DA:1586:A:H2'	22:DA:1587:G:H8	1.54	0.72
22:DA:1789:A:H5"	24:DC:218:THR:O	1.90	0.72
22:DA:1965:C:H6	22:DA:1965:C:H5"	1.53	0.72
22:DA:2232:C:P	45:DX:26:ARG:HH12	2.13	0.72
29:DH:84:ALA:HB3	29:DH:148:ALA:CA	2.20	0.72
34:DM:27:SER:N	34:DM:66:ARG:NH2	2.32	0.72
1:AA:61:G:H2'	1:AA:62:U:C6	2.25	0.72
1:AA:80:A:C2	1:AA:81:A:H1'	2.24	0.72
1:AA:853:C:C2'	1:AA:854:U:H5'	2.19	0.72
22:BA:1746:A:H2'	22:BA:1747:U:C6	2.25	0.72
24:BC:106:PRO:CA	24:BC:141:HIS:CE1	2.73	0.72
28:BG:117:PRO:HD2	28:BG:120:ILE:HG21	1.71	0.72
45:BX:34:SER:CA	45:BX:49:ARG:HA	2.19	0.72
53:CA:58:C:O2'	53:CA:59:A:H5'	1.90	0.72
2:CB:89:PHE:CE2	2:CB:152:ASP:HB2	2.20	0.72
3:CC:39:ARG:HG2	3:CC:54:ILE:HD13	1.71	0.72
10:CJ:42:LEU:HB3	10:CJ:43:PRO:HD2	1.70	0.72
11:CK:74:LYS:HG3	11:CK:78:ILE:CD1	2.20	0.72
20:CT:26:MET:HE1	20:CT:30:PHE:HD1	1.55	0.72
22:DA:716:A:C2'	22:DA:717:C:H5"	2.20	0.72
22:DA:976:G:HO2'	22:DA:977:G:H8	1.37	0.72
22:DA:1011:G:O2'	22:DA:1013:C:H5"	1.90	0.72
22:DA:1153:C:H2'	22:DA:1154:G:C8	2.25	0.72
22:DA:1231:U:H2'	22:DA:1232:G:H8	1.51	0.72
22:DA:1827:U:C4'	22:DA:1970:A:O2'	2.38	0.72
22:DA:2210:U:C4'	22:DA:2211:A:H5'	2.20	0.72
22:DA:2720:U:H5"	37:DP:52:ARG:HH21	1.52	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DC:94:LEU:HB2	24:DC:100:ARG:HD2	1.71	0.72
25:DD:107:VAL:HG21	25:DD:177:VAL:CG1	2.20	0.72
25:DD:149:ASN:O	25:DD:152:PRO:HD2	1.88	0.72
22:BA:2327:A:H2'	22:BA:2328:A:C8	2.24	0.72
27:BF:129:MET:HE2	27:BF:153:ILE:HD11	1.72	0.72
29:BH:44:ILE:O	29:BH:48:GLU:HB2	1.88	0.72
33:BL:74:THR:CG2	33:BL:107:PHE:HB2	2.19	0.72
43:BV:80:HIS:CD2	43:BV:83:LYS:N	2.57	0.72
44:BW:18:LYS:HA	44:BW:36:ILE:CG1	2.15	0.72
53:CA:523:A:H61	12:CL:49:ARG:HH12	1.35	0.72
53:CA:668:G:O2'	53:CA:669:G:H5'	1.89	0.72
53:CA:1305:G:H22	53:CA:1331:G:H2'	1.55	0.72
2:CB:168:GLU:O	2:CB:172:ILE:HG12	1.90	0.72
3:CC:120:THR:HG22	3:CC:120:THR:O	1.90	0.72
22:DA:181:A:C2	22:DA:434:U:H1'	2.22	0.72
22:DA:225:C:H2'	22:DA:226:A:O4'	1.90	0.72
22:DA:616:A:H4'	26:DE:101:TYR:CZ	2.25	0.72
22:DA:876:C:O2	22:DA:876:C:C5'	2.38	0.72
22:DA:1308:A:H2'	22:DA:1309:G:O4'	1.90	0.72
22:DA:1455:G:O2'	22:DA:1456:G:H8	1.73	0.72
22:DA:1716:U:O2'	22:DA:1717:A:H5'	1.88	0.72
30:DI:96:LYS:HE2	30:DI:138:VAL:HG11	1.71	0.72
5:AE:149:PRO:O	5:AE:152:VAL:HG22	1.90	0.72
11:AK:124:LYS:NZ	21:AU:33:ARG:NH2	2.38	0.72
22:BA:1510:G:H2'	22:BA:1511:G:C8	2.23	0.72
30:BI:33:ASN:HD22	30:BI:64:ARG:HH22	1.36	0.72
38:BQ:111:LYS:NZ	39:BR:50:GLY:HA2	2.05	0.72
45:BX:67:LEU:HD13	45:BX:77:TYR:CE1	2.25	0.72
53:CA:157:U:C2'	53:CA:158:G:H5'	2.19	0.72
53:CA:1046:A:N1	53:CA:1213:A:N1	2.38	0.72
53:CA:1071:C:H5"	5:CE:53:ARG:HD2	1.71	0.72
53:CA:1370:G:H5"	9:CI:110:VAL:HG21	1.72	0.72
4:CD:115:GLN:NE2	4:CD:153:ARG:NH2	2.37	0.72
9:CI:18:VAL:HG11	9:CI:82:ILE:HA	1.71	0.72
56:CP:75:ILE:CG2	56:CP:80:LYS:HD2	2.20	0.72
22:DA:475:C:H2'	22:DA:476:G:C8	2.25	0.72
22:DA:538:A:H5"	31:DJ:7:LYS:NZ	2.04	0.72
22:DA:674:G:O3'	26:DE:60:TRP:HH2	1.72	0.72
22:DA:1071:G:O2'	22:DA:1072:C:H5'	1.88	0.72
57:DB:44:G:H3'	58:DF:91:ARG:NE	2.05	0.72
34:DM:119:LEU:O	34:DM:119:LEU:HD23	1.89	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DP:28:LYS:HG2	37:DP:39:LEU:HD23	1.72	0.72
1:AA:914:A:H2'	1:AA:915:A:H8	1.52	0.72
22:BA:39:G:H2'	22:BA:40:U:C6	2.25	0.72
22:BA:100:U:H4'	22:BA:101:A:O5'	1.90	0.72
22:BA:303:G:H2'	22:BA:304:U:C6	2.24	0.72
22:BA:747:U:O2	22:BA:2014:A:H1'	1.90	0.72
22:BA:1063:G:H2'	22:BA:1064:C:C6	2.25	0.72
22:BA:1676:A:H2	22:BA:1993:U:H5'	1.53	0.72
22:BA:1815:A:H1'	22:BA:1817:G:C8	2.24	0.72
22:BA:2391:G:O2'	22:BA:2424:C:N4	2.22	0.72
23:BB:45:A:H2'	23:BB:46:A:C8	2.25	0.72
23:BB:90:C:H5"	23:BB:90:C:C6	2.18	0.72
28:BG:73:SER:CA	28:BG:76:ILE:HG22	2.17	0.72
29:BH:130:VAL:HG23	29:BH:131:SER:H	1.55	0.72
38:BQ:111:LYS:HE2	39:BR:50:GLY:HA2	1.71	0.72
41:BT:4:GLU:OE1	41:BT:6:ARG:HG3	1.89	0.72
46:BY:9:LYS:HB3	46:BY:12:GLU:CG	2.19	0.72
6:CF:25:TYR:O	6:CF:29:ILE:HD13	1.89	0.72
9:CI:35:GLU:HA	9:CI:39:GLY:HA3	1.71	0.72
10:CJ:84:VAL:CG2	10:CJ:85:ASP:H	1.92	0.72
12:CL:6:LEU:HA	12:CL:9:LYS:O	1.89	0.72
12:CL:72:ASN:HD22	12:CL:72:ASN:H	1.35	0.72
21:CU:33:ARG:HH12	21:CU:34:ARG:HD3	1.55	0.72
22:DA:1277:G:H5'	35:DN:20:MET:HE1	1.70	0.72
22:DA:1935:G:H1	22:DA:1962:C:H2'	1.54	0.72
22:DA:2054:A:C2	22:DA:2616:C:N3	2.58	0.72
22:DA:2147:A:OP1	22:DA:2147:A:H4'	1.89	0.72
57:DB:52:A:N6	36:DO:33:ARG:HE	1.88	0.72
31:DJ:56:VAL:CG2	31:DJ:124:VAL:HG23	2.19	0.72
31:DJ:64:VAL:CG2	31:DJ:68:LYS:HG3	2.19	0.72
35:DN:63:ARG:O	35:DN:67:PHE:HB2	1.90	0.72
1:AA:128:G:O2'	1:AA:129:A:H5'	1.90	0.71
1:AA:372:C:H4'	1:AA:373:A:OP1	1.88	0.71
22:BA:533:G:H2'	22:BA:534:U:C6	2.25	0.71
22:BA:2429:G:OP1	62:BA:3692:HOH:O	2.08	0.71
22:BA:2466:C:H5'	52:B4:5:ALA:HB3	1.71	0.71
25:BD:45:TYR:N	25:BD:45:TYR:CD1	2.49	0.71
26:BE:95:LYS:O	26:BE:96:VAL:HB	1.89	0.71
29:BH:27:ARG:NH1	29:BH:38:PRO:HG3	2.04	0.71
36:BO:75:GLY:HA2	36:BO:106:LEU:CD1	2.19	0.71
45:BX:39:VAL:HG21	45:BX:42:GLU:HB2	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:B3:21:PHE:HB2	51:B3:49:VAL:HG11	1.70	0.71
53:CA:456:A:H2'	53:CA:457:G:C8	2.25	0.71
53:CA:1264:U:H2'	53:CA:1265:C:H6	1.55	0.71
22:DA:526:A:C6	22:DA:2626:C:H4'	2.24	0.71
22:DA:1783:A:H5'	22:DA:2608:G:H4'	1.72	0.71
22:DA:2056:G:N2	48:D0:1:ALA:N	2.38	0.71
22:DA:2210:U:H4'	22:DA:2211:A:H5'	1.68	0.71
37:DP:83:ILE:HD13	37:DP:83:ILE:O	1.89	0.71
38:DQ:74:SER:O	38:DQ:78:PHE:HB2	1.90	0.71
44:DW:67:LYS:HB3	44:DW:80:SER:HB2	1.72	0.71
1:AA:430:A:OP1	4:AD:8:LEU:HB2	1.90	0.71
1:AA:1094:G:HO2'	1:AA:1095:U:P	2.13	0.71
1:AA:1239:A:H4'	1:AA:1240:U:H5'	1.72	0.71
2:AB:15:PHE:O	2:AB:40:ILE:HG12	1.89	0.71
2:AB:108:GLN:O	2:AB:110:ILE:CA	2.38	0.71
7:AG:112:ASP:HB2	7:AG:118:ARG:HG2	1.70	0.71
22:BA:817:C:C2'	22:BA:818:G:H5'	2.19	0.71
22:BA:1071:G:H1'	22:BA:1089:A:C8	2.25	0.71
22:BA:1321:A:H2'	22:BA:1322:A:H8	1.55	0.71
27:BF:151:LEU:HD12	27:BF:151:LEU:C	2.09	0.71
35:BN:79:LEU:O	35:BN:80:PHE:HB2	1.90	0.71
41:BT:14:PRO:HA	41:BT:32:LEU:HB3	1.70	0.71
53:CA:213:G:H2'	53:CA:214:C:C6	2.24	0.71
53:CA:328:C:H2'	53:CA:328:C:O2	1.88	0.71
53:CA:464:U:O4	53:CA:466:A:H4'	1.89	0.71
53:CA:538:G:H5"	12:CL:110:LYS:HB2	1.72	0.71
53:CA:987:G:C2	53:CA:988:G:C5	2.78	0.71
2:CB:160:LEU:CD1	2:CB:180:ILE:HG21	2.20	0.71
3:CC:148:ILE:HD13	3:CC:201:ILE:CG1	2.19	0.71
55:CM:77:LYS:HA	55:CM:80:MET:HE2	1.71	0.71
55:CM:106:ARG:HA	55:CM:110:GLY:O	1.91	0.71
22:DA:1662:U:C2'	22:DA:1663:G:H5"	2.18	0.71
22:DA:2752:C:H2'	22:DA:2753:A:H8	1.53	0.71
41:DT:45:ALA:HA	41:DT:48:GLN:CG	2.20	0.71
43:DV:72:VAL:HA	43:DV:92:VAL:O	1.89	0.71
43:DV:80:HIS:CD2	43:DV:83:LYS:H	2.07	0.71
46:DY:1:MET:H1	46:DY:1:MET:CE	2.02	0.71
46:DY:57:LEU:HD13	46:DY:57:LEU:O	1.90	0.71
50:D2:5:PHE:HZ	50:D2:12:ARG:HH11	1.38	0.71
1:AA:204:G:C1'	1:AA:465:A:C2	2.73	0.71
1:AA:1055:A:H1'	3:AC:155:ARG:HH21	1.55	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:32:LEU:HD21	14:AN:92:ILE:HG12	1.71	0.71
4:AD:16:THR:HG22	4:AD:17:ASP:N	2.04	0.71
15:AO:9:LYS:O	15:AO:13:GLU:HG3	1.91	0.71
20:AT:77:ASN:HD22	20:AT:78:LEU:H	1.38	0.71
22:BA:141:G:N1	41:BT:2:ILE:HG23	2.06	0.71
22:BA:726:G:O2'	22:BA:727:A:P	2.47	0.71
22:BA:2496:C:OP1	34:BM:82:MET:HB2	1.91	0.71
24:BC:170:TYR:CD2	24:BC:184:GLU:HA	2.24	0.71
34:BM:5:LYS:NZ	34:BM:5:LYS:HB3	2.05	0.71
39:BR:24:LYS:HA	39:BR:94:THR:HG23	1.71	0.71
42:BU:85:ARG:HA	42:BU:91:LYS:O	1.89	0.71
53:CA:173:U:H5"	53:CA:174:A:OP2	1.90	0.71
53:CA:505:G:H2'	53:CA:506:G:H8	1.55	0.71
53:CA:508:U:H4'	53:CA:509:A:OP1	1.89	0.71
53:CA:748:G:H2'	53:CA:749:A:H8	1.54	0.71
53:CA:1127:G:O2'	53:CA:1128:C:C5'	2.38	0.71
53:CA:1450:U:H4'	53:CA:1451:U:H5	1.52	0.71
4:CD:29:THR:C	4:CD:30:LYS:HD3	2.09	0.71
4:CD:55:ARG:HA	4:CD:55:ARG:NH1	2.03	0.71
14:CN:1:ALA:HA	14:CN:67:GLY:O	1.89	0.71
20:CT:54:GLN:N	20:CT:55:PRO:HD2	2.06	0.71
22:DA:30:G:OP1	38:DQ:4:LYS:HG3	1.90	0.71
22:DA:33:C:O2'	22:DA:34:U:C5'	2.36	0.71
22:DA:67:U:H2'	22:DA:68:G:H8	1.55	0.71
22:DA:668:A:H2'	22:DA:670:A:N6	2.00	0.71
22:DA:782:A:N7	24:DC:219:VAL:HG21	2.05	0.71
22:DA:960:A:H2'	22:DA:962:G:H5'	1.69	0.71
22:DA:1181:U:H2'	22:DA:1182:G:C8	2.23	0.71
26:DE:129:PRO:HD3	26:DE:156:ASN:OD1	1.90	0.71
33:DL:79:LEU:HD22	33:DL:115:GLU:O	1.90	0.71
34:DM:41:LEU:HD23	34:DM:46:ILE:CG2	2.19	0.71
1:AA:175:C:O2'	1:AA:176:C:H5'	1.90	0.71
2:AB:117:GLU:HA	2:AB:120:SER:HB2	1.72	0.71
4:AD:31:CYS:O	4:AD:32:LYS:HB2	1.89	0.71
22:BA:216:A:H2'	22:BA:217:A:C8	2.26	0.71
22:BA:1471:G:H2'	22:BA:1472:C:C6	2.24	0.71
22:BA:1486:U:H2'	22:BA:1487:U:C6	2.26	0.71
25:BD:105:LYS:N	25:BD:106:LYS:HD2	2.06	0.71
39:BR:16:GLU:HA	39:BR:98:ILE:CG2	2.20	0.71
45:BX:38:TRP:HB2	45:BX:45:PHE:HE2	1.55	0.71
53:CA:451:A:H4'	53:CA:452:A:O5'	1.90	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1045:C:C2'	53:CA:1046:A:H5'	2.20	0.71
53:CA:1215:G:HO2'	53:CA:1216:A:H8	1.35	0.71
2:CB:209:VAL:O	2:CB:213:LEU:HB2	1.90	0.71
10:CJ:5:ARG:CG	10:CJ:79:PRO:HG3	2.20	0.71
14:CN:47:LEU:O	14:CN:50:LEU:HG	1.88	0.71
19:CS:28:LYS:O	19:CS:30:LEU:HD12	1.90	0.71
22:DA:158:U:H1'	22:DA:169:G:N2	2.04	0.71
22:DA:716:A:C3'	22:DA:717:C:H5"	2.20	0.71
22:DA:867:C:O2'	22:DA:868:U:H5'	1.90	0.71
22:DA:1063:G:O2'	22:DA:1064:C:C6	2.42	0.71
22:DA:1390:U:O2'	22:DA:1391:U:H5'	1.90	0.71
22:DA:1555:G:N2	22:DA:1556:C:C2	2.58	0.71
22:DA:1567:G:H5"	24:DC:84:PRO:HB3	1.73	0.71
22:DA:2666:C:H2'	22:DA:2667:C:C5'	2.21	0.71
57:DB:45:A:OP1	58:DF:91:ARG:HD2	1.90	0.71
24:DC:255:LYS:C	24:DC:256:THR:HG23	2.08	0.71
38:DQ:40:LYS:CD	38:DQ:44:TYR:HE2	2.02	0.71
38:DQ:42:GLY:O	38:DQ:45:ALA:HB3	1.89	0.71
39:DR:68:ARG:HD2	39:DR:92:TRP:CZ2	2.24	0.71
41:DT:29:THR:CB	41:DT:86:THR:H	2.04	0.71
1:AA:57:G:H2'	1:AA:58:C:C6	2.26	0.71
6:AF:61:LEU:HD21	18:AR:23:LYS:HZ1	1.55	0.71
10:AJ:29:ALA:HB1	10:AJ:36:VAL:CG2	2.18	0.71
10:AJ:52:LEU:HD23	10:AJ:62:ARG:HG2	1.71	0.71
22:BA:588:U:H2'	22:BA:589:U:C6	2.25	0.71
22:BA:729:G:H2'	22:BA:1775:U:H1'	1.73	0.71
22:BA:1290:C:H2'	22:BA:1291:C:H6	1.56	0.71
24:BC:140:VAL:HG13	24:BC:189:ALA:HB1	1.72	0.71
25:BD:114:LYS:NZ	25:BD:116:LYS:HE2	2.05	0.71
28:BG:148:ARG:HD2	28:BG:163:TYR:HE2	1.53	0.71
41:BT:86:THR:O	41:BT:87:LEU:HD23	1.90	0.71
46:BY:7:ARG:N	46:BY:60:LYS:HZ1	1.88	0.71
53:CA:282:A:H2'	53:CA:283:U:C6	2.24	0.71
53:CA:486:U:O2'	53:CA:487:A:H5'	1.89	0.71
22:DA:1071:G:N7	22:DA:1089:A:C6	2.59	0.71
22:DA:1956:U:O2	22:DA:1985:C:H4'	1.91	0.71
22:DA:1973:G:C5	22:DA:1974:C:C5	2.78	0.71
22:DA:2259:U:O2'	22:DA:2260:C:H6	1.73	0.71
57:DB:38:C:O2'	57:DB:39:A:H5'	1.90	0.71
34:DM:72:PRO:O	34:DM:73:ILE:HB	1.90	0.71
37:DP:88:ARG:HH11	37:DP:112:ARG:HH21	1.38	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DR:49:ILE:HB	39:DR:51:VAL:O	1.91	0.71
20:AT:28:ARG:HA	20:AT:31:ILE:HG13	1.72	0.71
20:AT:34:VAL:HG11	20:AT:78:LEU:HD22	1.73	0.71
22:BA:302:C:O2'	22:BA:303:G:H5'	1.91	0.71
22:BA:725:G:C6	22:BA:726:G:N1	2.58	0.71
22:BA:2414:G:C2'	22:BA:2415:G:H5'	2.20	0.71
25:BD:121:THR:O	25:BD:122:VAL:HB	1.90	0.71
26:BE:12:LEU:O	26:BE:13:THR:HB	1.90	0.71
31:BJ:64:VAL:CG1	31:BJ:68:LYS:HB2	2.21	0.71
31:BJ:95:ARG:O	31:BJ:95:ARG:HG3	1.90	0.71
36:BO:17:LYS:HD3	36:BO:17:LYS:O	1.91	0.71
38:BQ:82:LEU:HD23	38:BQ:112:ALA:HB2	1.71	0.71
39:BR:25:LEU:H	39:BR:94:THR:HG21	1.55	0.71
51:B3:56:LEU:CD2	51:B3:56:LEU:N	2.52	0.71
53:CA:532:A:C8	3:CC:192:TYR:HE2	2.08	0.71
53:CA:563:A:H2'	53:CA:563:A:N3	2.02	0.71
53:CA:613:C:H2'	53:CA:614:C:C6	2.25	0.71
53:CA:701:U:H4'	53:CA:702:A:H5"	1.71	0.71
53:CA:808:C:O2'	53:CA:809:G:H5'	1.91	0.71
53:CA:877:G:O2'	53:CA:878:A:H5'	1.90	0.71
53:CA:913:A:H4'	53:CA:914:A:O5'	1.89	0.71
53:CA:1046:A:C2'	53:CA:1047:G:O5'	2.38	0.71
53:CA:1293:C:H2'	53:CA:1294:G:H8	1.55	0.71
4:CD:115:GLN:NE2	4:CD:153:ARG:HH22	1.88	0.71
10:CJ:25:ILE:HG22	10:CJ:25:ILE:O	1.90	0.71
22:DA:304:U:O2'	22:DA:305:C:H6	1.73	0.71
22:DA:1700:A:H2'	22:DA:1701:A:O4'	1.91	0.71
22:DA:1997:C:HO2'	22:DA:1998:A:C5'	2.04	0.71
57:DB:5:U:H2'	57:DB:6:G:C8	2.25	0.71
32:DK:60:ALA:HA	32:DK:87:LEU:CD2	2.20	0.71
1:AA:1124:G:O2'	10:AJ:40:ILE:HD13	1.90	0.71
1:AA:1411:C:O2'	1:AA:1412:C:H5'	1.88	0.71
7:AG:110:ARG:NH1	7:AG:122:GLU:HG2	2.05	0.71
16:AP:19:VAL:HG13	16:AP:37:GLY:C	2.11	0.71
44:BW:58:LEU:HD13	44:BW:58:LEU:N	2.05	0.71
47:BZ:29:ARG:O	47:BZ:30:ARG:HG3	1.91	0.71
52:B4:9:LYS:HD3	52:B4:9:LYS:N	2.01	0.71
53:CA:818:G:O2'	53:CA:819:A:H5"	1.91	0.71
2:CB:127:LYS:HE2	2:CB:136:ARG:NH2	2.05	0.71
6:CF:54:LEU:HD12	6:CF:56:LYS:O	1.90	0.71
10:CJ:15:HIS:CA	10:CJ:18:ILE:HG22	2.17	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:35:ARG:HH21	19:CS:51:HIS:HD2	1.37	0.71
22:DA:923:G:H1'	44:DW:23:LYS:HZ1	1.55	0.71
22:DA:1062:G:H2'	22:DA:1070:A:OP1	1.89	0.71
22:DA:1311:G:H21	22:DA:1603:A:H62	1.35	0.71
22:DA:2837:A:H2'	22:DA:2838:G:C8	2.25	0.71
57:DB:12:C:H5"	57:DB:15:A:N6	2.04	0.71
26:DE:149:ILE:HG23	26:DE:188:MET:CB	2.19	0.71
58:DF:39:VAL:HG22	58:DF:49:LEU:CG	2.19	0.71
32:DK:118:LEU:O	32:DK:120:PRO:HD2	1.89	0.71
47:DZ:23:LEU:HD21	47:DZ:53:MET:HE1	1.73	0.71
1:AA:841:C:C2	1:AA:843:U:H5'	2.26	0.71
4:AD:61:ARG:NH1	4:AD:68:GLU:HG2	2.06	0.71
7:AG:4:ARG:HA	7:AG:4:ARG:HE	1.55	0.71
9:AI:56:MET:HE2	9:AI:57:VAL:H	1.53	0.71
17:AQ:12:VAL:CB	17:AQ:21:VAL:HG22	2.21	0.71
22:BA:2689:U:H4'	22:BA:2690:U:OP2	1.87	0.71
22:BA:2804:U:H2'	22:BA:2805:C:H6	1.56	0.71
33:BL:101:ILE:CG2	33:BL:102:GLY:N	2.53	0.71
39:BR:61:ALA:HB2	39:BR:98:ILE:HA	1.72	0.71
53:CA:876:C:C1'	8:CH:11:THR:HG21	2.20	0.71
53:CA:1140:C:H2'	53:CA:1141:C:C5	2.26	0.71
53:CA:1148:U:HO2'	53:CA:1149:C:H5'	1.51	0.71
53:CA:1378:C:H3'	53:CA:1379:G:C5'	2.13	0.71
3:CC:36:PHE:CE1	14:CN:91:GLU:HB3	2.26	0.71
54:CG:128:GLU:HG3	54:CG:130:LYS:H	1.56	0.71
9:CI:51:LEU:HD11	9:CI:82:ILE:HG22	1.72	0.71
22:DA:638:G:O2'	22:DA:639:U:O4'	2.08	0.71
22:DA:922:C:H1'	44:DW:22:VAL:CG2	2.17	0.71
22:DA:1469:A:H2'	22:DA:1470:A:H8	1.56	0.71
22:DA:2461:A:H1'	22:DA:2492:U:C2	2.26	0.71
22:DA:2507:C:H1'	22:DA:2583:G:N2	2.05	0.71
24:DC:79:ARG:HD3	24:DC:81:GLU:OE1	1.89	0.71
25:DD:36:GLN:CG	25:DD:38:LYS:HZ1	2.01	0.71
29:DH:41:LYS:H	29:DH:44:ILE:HG23	1.56	0.71
35:DN:103:ARG:HB2	35:DN:110:MET:HG3	1.71	0.71
38:DQ:65:ASN:HA	38:DQ:75:TYR:HB2	1.71	0.71
51:D3:22:LYS:H	51:D3:48:MET:CB	2.02	0.71
1:AA:537:G:H5"	12:AL:109:ARG:HH12	1.56	0.71
1:AA:1303:C:O2'	1:AA:1304:G:C5'	2.39	0.71
16:AP:19:VAL:HG22	16:AP:36:VAL:HG12	1.73	0.71
22:BA:509:C:H5"	22:BA:509:C:H6	1.55	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2292:U:H2'	22:BA:2293:G:H8	1.54	0.71
22:BA:2328:A:H2'	22:BA:2329:U:H6	1.53	0.71
24:BC:108:GLY:O	24:BC:109:LEU:HD22	1.91	0.71
26:BE:97:ASN:HB2	26:BE:100:MET:HG3	1.73	0.71
26:BE:134:LEU:CD2	26:BE:161:ALA:HB2	2.21	0.71
28:BG:72:ASN:C	28:BG:72:ASN:HD22	1.94	0.71
36:BO:53:THR:HB	36:BO:65:THR:HG22	1.71	0.71
43:BV:29:ILE:HG12	43:BV:30:ILE:N	2.06	0.71
53:CA:93:U:H2'	53:CA:95:C:H5	1.55	0.71
53:CA:1186:G:H4'	9:CI:111:GLU:CD	2.11	0.71
53:CA:1219:A:OP1	14:CN:52:ARG:HG3	1.90	0.71
5:CE:79:THR:HA	5:CE:121:ASN:CG	2.11	0.71
12:CL:36:VAL:HG23	12:CL:36:VAL:O	1.91	0.71
22:DA:8:C:C2'	22:DA:9:G:H5'	2.21	0.71
22:DA:686:U:H6	22:DA:788:A:N1	1.89	0.71
22:DA:786:C:C2'	22:DA:787:C:H5'	2.21	0.71
22:DA:1237:A:H2	22:DA:1238:G:H1'	1.53	0.71
58:DF:7:TYR:O	58:DF:8:LYS:HG3	1.91	0.71
40:DS:33:LEU:CA	40:DS:36:LEU:HD23	2.21	0.71
48:D0:28:SER:HB3	48:D0:39:ARG:NE	2.06	0.71
1:AA:433:G:H2'	1:AA:434:U:H5'	1.70	0.71
1:AA:652:U:O4	1:AA:752:G:H2'	1.91	0.71
1:AA:842:U:H2'	1:AA:844:G:P	2.31	0.71
1:AA:919:A:O2'	1:AA:920:U:H5'	1.91	0.71
1:AA:1226:C:H4'	1:AA:1227:A:OP1	1.89	0.71
1:AA:1227:A:N3	1:AA:1227:A:H2'	2.05	0.71
4:AD:54:LEU:O	4:AD:54:LEU:HD23	1.90	0.71
6:AF:38:ARG:HG3	6:AF:39:LEU:N	2.04	0.71
9:AI:56:MET:CE	9:AI:57:VAL:H	2.04	0.71
22:BA:215:G:H4'	22:BA:216:A:OP1	1.91	0.71
31:BJ:64:VAL:HG13	31:BJ:68:LYS:HB2	1.72	0.71
48:B0:39:ARG:HB2	48:B0:39:ARG:NH1	2.04	0.71
53:CA:277:C:O2'	53:CA:278:G:H5'	1.91	0.71
53:CA:1064:G:O2'	53:CA:1190:G:N2	2.24	0.71
6:CF:6:ILE:H	6:CF:6:ILE:HD12	1.55	0.71
55:CM:13:HIS:HB2	55:CM:43:LYS:HE2	1.72	0.71
19:CS:46:LEU:HD23	19:CS:46:LEU:H	1.53	0.71
22:DA:841:G:O2'	22:DA:842:U:H5'	1.91	0.71
22:DA:2654:A:H4'	22:DA:2655:G:OP1	1.91	0.71
57:DB:81:G:C5	57:DB:82:U:C5	2.79	0.71
38:DQ:46:TYR:CZ	38:DQ:50:ARG:NH1	2.59	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DU:3:LYS:HD3	42:DU:82:VAL:HG21	1.72	0.71
1:AA:111:G:O6	1:AA:330:C:N4	2.24	0.70
1:AA:205:A:OP1	1:AA:205:A:H4'	1.89	0.70
1:AA:596:A:H2'	1:AA:597:G:H8	1.56	0.70
10:AJ:66:GLU:HG2	14:AN:98:ALA:HB2	1.71	0.70
18:AR:56:ARG:O	18:AR:60:ARG:HB2	1.91	0.70
21:AU:33:ARG:HD3	21:AU:34:ARG:HG3	1.72	0.70
22:BA:142:A:H2'	22:BA:143:C:C6	2.26	0.70
22:BA:1885:A:H2'	22:BA:1886:U:H6	1.56	0.70
22:BA:2420:C:OP1	51:B3:33:THR:HB	1.91	0.70
28:BG:66:THR:O	28:BG:70:LEU:HG	1.91	0.70
31:BJ:77:HIS:CD2	31:BJ:79:GLY:H	2.06	0.70
53:CA:878:A:O2'	53:CA:879:C:H5'	1.91	0.70
53:CA:979:C:O2'	53:CA:980:C:H5'	1.91	0.70
3:CC:41:TYR:HE1	3:CC:89:VAL:HG12	1.56	0.70
8:CH:17:GLN:NE2	8:CH:69:ALA:HB1	2.06	0.70
10:CJ:81:GLU:O	10:CJ:86:ALA:HB3	1.90	0.70
12:CL:27:PRO:HB2	12:CL:28:GLN:OE1	1.91	0.70
22:DA:1132:U:H5"	31:DJ:84:ILE:HD13	1.73	0.70
22:DA:1734:G:O2'	22:DA:1735:A:H8	1.73	0.70
22:DA:2636:C:H2'	22:DA:2637:U:C6	2.25	0.70
57:DB:86:G:C2'	57:DB:87:U:H5"	2.21	0.70
26:DE:60:TRP:HZ2	26:DE:71:GLY:HA2	1.54	0.70
29:DH:61:VAL:HG13	29:DH:62:LEU:N	2.06	0.70
29:DH:80:ILE:HB	29:DH:101:ASP:OD2	1.91	0.70
38:DQ:46:TYR:HD1	39:DR:74:ILE:CG2	2.03	0.70
40:DS:84:ARG:HB3	40:DS:96:ILE:HG23	1.72	0.70
44:DW:37:VAL:HG23	44:DW:38:ARG:HH11	1.56	0.70
1:AA:1258:G:O2'	1:AA:1259:C:H6	1.73	0.70
10:AJ:66:GLU:CG	14:AN:98:ALA:HB2	2.21	0.70
11:AK:110:THR:HG22	21:AU:4:LYS:CB	2.21	0.70
15:AO:73:ASP:CG	15:AO:76:ARG:HG3	2.12	0.70
22:BA:638:G:C5	22:BA:651:G:C2	2.78	0.70
22:BA:1866:A:O2'	22:BA:1867:G:H5'	1.91	0.70
22:BA:2555:U:C5	22:BA:2556:C:C6	2.79	0.70
24:BC:246:PRO:HG2	24:BC:247:TRP:CH2	2.25	0.70
35:BN:38:LEU:HB3	35:BN:39:PRO:HD3	1.73	0.70
41:BT:61:LEU:HD12	41:BT:61:LEU:O	1.91	0.70
53:CA:268:U:H2'	53:CA:269:C:C6	2.26	0.70
53:CA:1365:G:HO2'	53:CA:1366:C:H6	1.36	0.70
53:CA:1365:G:O2'	53:CA:1366:C:C6	2.44	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:176:THR:HG22	3:CC:178:ARG:HG3	1.73	0.70
6:CF:47:LEU:HD13	6:CF:51:ILE:HD12	1.72	0.70
9:CI:61:ASP:O	9:CI:62:LEU:HD22	1.90	0.70
15:CO:79:GLN:HE21	15:CO:83:ARG:HH21	1.39	0.70
22:DA:846:U:O2'	22:DA:847:U:H5"	1.90	0.70
22:DA:1311:G:H21	22:DA:1603:A:N6	1.89	0.70
22:DA:1438:U:H2'	22:DA:1439:A:O4'	1.91	0.70
22:DA:2310:C:H2'	22:DA:2311:A:H5"	1.73	0.70
22:DA:2345:G:H4'	22:DA:2346:A:C5'	2.20	0.70
50:D2:31:LEU:CA	50:D2:34:ARG:HB2	2.18	0.70
52:D4:36:ARG:HG2	52:D4:37:GLN:N	2.05	0.70
1:AA:443:C:C2'	1:AA:444:G:H5'	2.22	0.70
1:AA:792:A:O2'	1:AA:794:A:N7	2.21	0.70
1:AA:1306:A:N6	1:AA:1331:G:H1'	2.06	0.70
5:AE:82:HIS:HB2	5:AE:83:PRO:HD2	1.73	0.70
13:AM:40:GLU:HG3	13:AM:41:ASP:H	1.56	0.70
22:BA:962:G:O2'	22:BA:963:U:H5'	1.92	0.70
42:BU:38:ILE:HG22	42:BU:39:ASN:H	1.55	0.70
47:BZ:29:ARG:HH21	47:BZ:29:ARG:HG3	1.57	0.70
53:CA:892:A:O2'	53:CA:893:C:H5'	1.91	0.70
53:CA:1140:C:H2'	53:CA:1141:C:H5	1.56	0.70
53:CA:1533:C:C2'	53:CA:1534:A:H5"	2.19	0.70
2:CB:13:VAL:HG23	2:CB:211:LEU:HD22	1.72	0.70
9:CI:12:LYS:HG2	9:CI:12:LYS:O	1.92	0.70
10:CJ:52:LEU:CD2	10:CJ:62:ARG:HG2	2.20	0.70
20:CT:30:PHE:HE2	20:CT:52:GLU:HG2	1.56	0.70
22:DA:878:A:H4'	22:DA:898:C:N4	2.07	0.70
22:DA:1734:G:H2'	22:DA:1735:A:H8	1.55	0.70
22:DA:2756:U:C1'	22:DA:2757:A:H5"	2.21	0.70
24:DC:77:VAL:HG23	24:DC:111:ALA:HA	1.74	0.70
24:DC:144:GLU:HG3	24:DC:151:GLY:CA	2.20	0.70
26:DE:48:THR:O	26:DE:52:VAL:HG23	1.90	0.70
26:DE:75:SER:O	26:DE:78:TRP:HB2	1.91	0.70
36:DO:30:ARG:HA	36:DO:35:ILE:HD13	1.73	0.70
43:DV:26:PHE:HE2	43:DV:42:LEU:HD12	1.56	0.70
1:AA:107:G:C2'	1:AA:108:G:H5'	2.21	0.70
1:AA:462:G:H3'	1:AA:463:U:H6	1.56	0.70
1:AA:486:U:H2'	1:AA:487:A:C8	2.26	0.70
2:AB:20:ARG:HA	2:AB:20:ARG:CZ	2.21	0.70
20:AT:53:MET:CE	20:AT:57:VAL:HG21	2.22	0.70
22:BA:95:A:O2'	46:BY:41:HIS:HD2	1.75	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:936:A:H2'	22:BA:937:C:C6	2.27	0.70
22:BA:2195:U:H2'	22:BA:2196:C:H6	1.55	0.70
34:BM:13:HIS:O	34:BM:14:LYS:HB2	1.91	0.70
50:B2:43:THR:O	50:B2:44:VAL:CB	2.40	0.70
53:CA:1272:G:H2'	53:CA:1273:C:H5'	1.73	0.70
53:CA:1346:A:C8	53:CA:1348:U:N3	2.60	0.70
53:CA:1471:U:O2'	53:CA:1472:U:H5'	1.90	0.70
15:CO:47:LYS:HD2	15:CO:47:LYS:N	2.05	0.70
56:CP:22:ALA:HA	56:CP:33:ILE:CG1	2.19	0.70
22:DA:45:G:C5'	22:DA:46:G:H5'	2.22	0.70
22:DA:374:A:O2'	22:DA:375:G:O4'	2.06	0.70
22:DA:546:U:H5'	22:DA:547:A:OP1	1.91	0.70
22:DA:1079:C:H41	22:DA:1088:A:C5'	1.95	0.70
22:DA:1734:G:H2'	22:DA:1735:A:C8	2.25	0.70
22:DA:2235:G:H2'	22:DA:2236:U:H6	1.55	0.70
22:DA:2336:A:N7	44:DW:40:ARG:NH2	2.38	0.70
22:DA:2360:G:H5"	22:DA:2361:G:OP2	1.92	0.70
22:DA:2511:U:C2'	22:DA:2512:C:H5'	2.21	0.70
24:DC:68:ARG:HH12	24:DC:115:ILE:HD12	1.56	0.70
24:DC:79:ARG:C	24:DC:80:LEU:HD12	2.11	0.70
26:DE:61:ARG:HE	26:DE:65:THR:HB	1.54	0.70
38:DQ:40:LYS:HD2	38:DQ:44:TYR:HE2	1.55	0.70
39:DR:66:HIS:CD2	39:DR:94:THR:HG22	2.26	0.70
40:DS:32:ALA:O	40:DS:33:LEU:HB2	1.91	0.70
44:DW:39:GLN:HG2	44:DW:42:THR:HB	1.71	0.70
1:AA:484:G:H4'	1:AA:485:U:O5'	1.90	0.70
4:AD:122:ILE:HD13	4:AD:122:ILE:N	2.05	0.70
10:AJ:35:GLN:HG2	10:AJ:77:VAL:HB	1.73	0.70
22:BA:1000:A:H62	22:BA:1154:G:H2'	1.56	0.70
22:BA:2032:G:H4'	62:BA:3474:HOH:O	1.92	0.70
31:BJ:88:THR:HG23	31:BJ:91:GLU:H	1.56	0.70
38:BQ:63:ARG:HH12	38:BQ:96:ASP:CB	2.04	0.70
39:BR:90:ARG:O	39:BR:91:GLN:HB3	1.90	0.70
41:BT:29:THR:CA	41:BT:86:THR:HA	2.21	0.70
44:BW:23:LYS:HG3	44:BW:24:ARG:O	1.91	0.70
52:B4:9:LYS:CD	52:B4:9:LYS:N	2.53	0.70
53:CA:243:A:C4'	53:CA:244:U:H5'	2.20	0.70
53:CA:801:U:H2'	53:CA:802:A:C8	2.26	0.70
53:CA:1159:U:H5	53:CA:1182:G:O2'	1.72	0.70
53:CA:1409:C:H5'	22:DA:1916:A:N1	2.07	0.70
53:CA:1458:G:O2'	20:CT:22:SER:HB2	1.90	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:39:GLN:C	4:CD:41:GLY:H	1.94	0.70
5:CE:75:LEU:HD13	5:CE:79:THR:O	1.90	0.70
19:CS:52:ASN:ND2	19:CS:54:ARG:HG2	2.07	0.70
22:DA:222:A:N6	22:DA:232:G:H1'	2.07	0.70
22:DA:226:A:H4'	22:DA:258:G:OP1	1.90	0.70
22:DA:381:G:H5"	45:DX:15:ASN:ND2	2.06	0.70
22:DA:990:A:H61	39:DR:78:ARG:NH1	1.89	0.70
22:DA:1064:C:OP1	30:DI:88:GLY:HA3	1.91	0.70
22:DA:1270:C:H2'	22:DA:1648:U:H5"	1.73	0.70
22:DA:2135:A:H8	22:DA:2135:A:OP2	1.75	0.70
22:DA:2149:U:O2'	22:DA:2150:C:H6	1.73	0.70
22:DA:2506:U:C5	22:DA:2576:G:O6	2.44	0.70
22:DA:2617:U:C2'	22:DA:2618:G:H5'	2.21	0.70
29:DH:96:THR:HA	29:DH:113:SER:OG	1.90	0.70
44:DW:18:LYS:HD3	44:DW:19:ARG:HG2	1.74	0.70
44:DW:81:ILE:C	44:DW:81:ILE:HD12	2.11	0.70
45:DX:58:ILE:HG12	45:DX:66:VAL:HG21	1.73	0.70
1:AA:1511:G:C5	1:AA:1512:U:C5	2.79	0.70
2:AB:67:LEU:HD22	2:AB:69:VAL:HG23	1.73	0.70
2:AB:108:GLN:O	2:AB:109:SER:C	2.30	0.70
3:AC:14:VAL:O	3:AC:14:VAL:HG23	1.90	0.70
22:BA:13:A:O2'	22:BA:15:G:N7	2.24	0.70
22:BA:919:U:C4	22:BA:920:A:N7	2.60	0.70
22:BA:1653:G:H1	35:BN:11:ASN:ND2	1.89	0.70
28:BG:163:TYR:O	28:BG:164:ALA:CB	2.39	0.70
31:BJ:3:THR:HG21	38:BQ:60:TRP:HE1	1.55	0.70
33:BL:87:GLY:O	33:BL:89:VAL:N	2.25	0.70
33:BL:110:VAL:CG1	33:BL:111:ILE:N	2.54	0.70
53:CA:432:A:H2'	53:CA:433:G:H5'	1.73	0.70
53:CA:1326:U:H2'	53:CA:1327:C:C6	2.27	0.70
2:CB:76:SER:O	2:CB:79:VAL:HG12	1.91	0.70
6:CF:6:ILE:HD12	6:CF:6:ILE:N	2.07	0.70
54:CG:76:SER:HA	54:CG:85:GLN:HA	1.72	0.70
14:CN:20:PHE:CA	14:CN:24:ALA:HB2	2.22	0.70
14:CN:80:ARG:HH11	14:CN:80:ARG:HG2	1.55	0.70
17:CQ:59:GLU:HG3	17:CQ:75:VAL:HG22	1.72	0.70
22:DA:49:A:H4'	22:DA:50:U:O5'	1.91	0.70
22:DA:1167:C:O2'	22:DA:1168:G:H5'	1.90	0.70
22:DA:2262:U:H5"	44:DW:38:ARG:NH2	2.07	0.70
24:DC:127:ASN:O	24:DC:190:THR:HA	1.91	0.70
26:DE:6:LYS:HB2	26:DE:121:VAL:HG12	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:DF:110:ILE:HD13	58:DF:110:ILE:H	1.57	0.70
33:DL:47:ARG:HG2	33:DL:47:ARG:NH2	2.03	0.70
33:DL:141:LYS:HD2	33:DL:142:ILE:N	2.07	0.70
38:DQ:4:LYS:CE	38:DQ:7:VAL:H	2.05	0.70
42:DU:81:ARG:HB2	42:DU:96:LYS:HD2	1.74	0.70
43:DV:44:HIS:CD2	43:DV:85:LYS:HB2	2.27	0.70
1:AA:1522:U:O2'	1:AA:1523:G:H5'	1.92	0.70
3:AC:137:VAL:HA	3:AC:148:ILE:HD13	1.72	0.70
4:AD:170:LEU:HD12	4:AD:170:LEU:H	1.55	0.70
16:AP:12:LYS:O	16:AP:13:LYS:HB2	1.90	0.70
19:AS:6:LYS:HA	19:AS:6:LYS:CE	2.21	0.70
20:AT:77:ASN:HD22	20:AT:78:LEU:N	1.89	0.70
22:BA:448:U:H4'	22:BA:449:A:OP2	1.91	0.70
22:BA:639:U:H2'	22:BA:640:C:C6	2.26	0.70
22:BA:915:C:C2'	22:BA:916:G:H5'	2.21	0.70
22:BA:2507:C:C3'	22:BA:2508:G:C5'	2.70	0.70
22:BA:2742:G:C2'	22:BA:2743:U:H5'	2.21	0.70
23:BB:90:C:H6	23:BB:90:C:C5'	2.01	0.70
25:BD:51:THR:HG21	25:BD:68:PHE:CE2	2.19	0.70
26:BE:46:GLN:CG	26:BE:87:ALA:H	2.05	0.70
28:BG:3:VAL:O	28:BG:68:ARG:HG3	1.91	0.70
39:BR:49:ILE:HG21	39:BR:53:PHE:H	1.57	0.70
43:BV:75:GLN:HA	43:BV:75:GLN:OE1	1.92	0.70
47:BZ:29:ARG:C	47:BZ:30:ARG:HG3	2.12	0.70
55:CM:95:PRO:HD3	55:CM:108:ARG:CG	2.19	0.70
14:CN:20:PHE:HA	14:CN:24:ALA:HB2	1.73	0.70
19:CS:35:ARG:NH1	19:CS:76:THR:HG22	2.07	0.70
22:DA:45:G:H5'	22:DA:46:G:OP1	1.92	0.70
22:DA:275:C:H2'	22:DA:276:U:O4'	1.91	0.70
22:DA:401:A:H2'	22:DA:402:A:C8	2.27	0.70
22:DA:489:G:H4'	22:DA:490:C:OP1	1.91	0.70
22:DA:852:U:H2'	22:DA:853:C:C6	2.26	0.70
22:DA:1494:A:H2'	22:DA:1495:A:C8	2.27	0.70
24:DC:42:ARG:CZ	24:DC:48:ILE:HD11	2.22	0.70
24:DC:77:VAL:CG2	24:DC:112:GLY:H	2.05	0.70
24:DC:144:GLU:CB	24:DC:187:CYS:HB2	2.20	0.70
25:DD:73:VAL:O	25:DD:74:GLU:HB2	1.91	0.70
58:DF:43:ILE:HG12	58:DF:77:LYS:HD3	1.73	0.70
28:DG:112:VAL:CG1	28:DG:114:HIS:HB3	2.22	0.70
38:DQ:101:ASP:HB2	39:DR:2:TYR:OH	1.92	0.70
43:DV:75:GLN:HG3	43:DV:92:VAL:CG1	2.22	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:158:G:C3’	1:AA:159:G:H5”	2.20	0.70
1:AA:1239:A:N6	1:AA:1299:A:H62	1.89	0.70
1:AA:1338:G:H2’	1:AA:1339:A:H8	1.53	0.70
2:AB:76:SER:HB2	2:AB:92:ASN:HB2	1.71	0.70
3:AC:174:LEU:O	3:AC:174:LEU:HD12	1.91	0.70
5:AE:113:VAL:HG21	5:AE:140:ILE:CD1	2.19	0.70
10:AJ:57:VAL:O	10:AJ:58:ASN:HB2	1.90	0.70
22:BA:1113:U:H2’	22:BA:1114:C:H6	1.57	0.70
25:BD:140:HIS:NE2	62:BD:303:HOH:O	2.24	0.70
29:BH:131:SER:HB2	29:BH:139:PHE:HD2	1.57	0.70
53:CA:1250:A:H2’	53:CA:1251:A:O4’	1.91	0.70
2:CB:128:LEU:HB3	2:CB:131:LYS:HB3	1.72	0.70
5:CE:14:LEU:HD12	5:CE:15:ILE:H	1.55	0.70
12:CL:106:VAL:HB	12:CL:109:ARG:HG3	1.72	0.70
22:DA:191:A:H2’	22:DA:192:C:C6	2.26	0.70
22:DA:228:C:C5’	22:DA:229:C:H5	2.04	0.70
22:DA:747:U:H3’	22:DA:748:G:C5’	2.20	0.70
22:DA:2064:C:O3’	22:DA:2251:G:N2	2.23	0.70
22:DA:2145:C:H3’	22:DA:2147:A:OP2	1.91	0.70
57:DB:16:G:O2’	57:DB:17:C:H5’	1.91	0.70
57:DB:110:C:HO2’	57:DB:111:U:H5’	1.56	0.70
24:DC:19:VAL:HG12	24:DC:19:VAL:O	1.90	0.70
36:DO:57:ALA:C	36:DO:58:ILE:HD12	2.11	0.70
41:DT:44:LYS:HE2	41:DT:48:GLN:OE1	1.92	0.70
43:DV:30:ILE:HG12	43:DV:91:PHE:CB	2.22	0.70
44:DW:37:VAL:CG2	44:DW:38:ARG:HH11	2.04	0.70
1:AA:275:G:C4	1:AA:276:G:C8	2.80	0.70
1:AA:817:C:H4’	1:AA:818:G:OP1	1.92	0.70
8:AH:87:ARG:O	8:AH:121:GLY:HA3	1.92	0.70
22:BA:1962:C:O2’	22:BA:1964:G:OP2	2.08	0.70
23:BB:28:C:H2’	23:BB:29:A:H5’	1.73	0.70
26:BE:134:LEU:HD21	26:BE:161:ALA:HB2	1.72	0.70
27:BF:33:ILE:HG12	27:BF:155:ILE:HG12	1.73	0.70
31:BJ:73:VAL:CG2	31:BJ:74:TYR:H	2.02	0.70
34:BM:133:LYS:O	34:BM:134:THR:HB	1.91	0.70
38:BQ:63:ARG:NH1	38:BQ:96:ASP:CA	2.41	0.70
53:CA:770:C:O2’	53:CA:771:G:H5’	1.90	0.70
53:CA:1050:G:HO2’	53:CA:1051:C:H6	1.37	0.70
53:CA:1239:A:H3’	54:CG:118:ARG:HH22	1.56	0.70
53:CA:1337:G:H5”	53:CA:1338:G:OP1	1.92	0.70
53:CA:1372:U:H5”	9:CI:71:ILE:CD1	2.22	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1480:A:C5	53:CA:1481:U:C5	2.80	0.70
4:CD:109:THR:HG22	4:CD:111:ALA:N	2.06	0.70
17:CQ:13:SER:O	17:CQ:20:ILE:HB	1.91	0.70
22:DA:201:C:C5	22:DA:202:U:C5	2.80	0.70
22:DA:704:G:C2'	22:DA:726:G:H22	2.05	0.70
22:DA:1071:G:N7	22:DA:1089:A:C5	2.60	0.70
22:DA:1401:G:C2'	22:DA:1402:U:C6	2.67	0.70
22:DA:1439:A:H1'	22:DA:1553:A:N6	2.07	0.70
22:DA:1510:G:N2	22:DA:1511:G:C4	2.60	0.70
22:DA:2893:A:H4'	22:DA:2894:G:O5'	1.92	0.70
57:DB:42:C:H5	58:DF:65:LEU:HD13	1.55	0.70
24:DC:68:ARG:HH12	24:DC:115:ILE:CD1	2.04	0.70
28:DG:106:LEU:HB2	28:DG:108:PHE:CE1	2.25	0.70
29:DH:96:THR:O	29:DH:97:ARG:HG3	1.92	0.70
31:DJ:64:VAL:HG13	31:DJ:65:THR:N	2.06	0.70
35:DN:55:ALA:CB	35:DN:79:LEU:HD22	2.21	0.70
1:AA:548:G:H2'	1:AA:549:C:C6	2.26	0.70
4:AD:1:ALA:O	4:AD:67:LEU:HD12	1.91	0.70
6:AF:18:VAL:N	6:AF:19:PRO:HD2	2.06	0.70
7:AG:38:ALA:O	7:AG:42:VAL:HG23	1.92	0.70
9:AI:27:ILE:HG13	9:AI:62:LEU:HD21	1.74	0.70
17:AQ:7:LEU:HD23	17:AQ:24:ILE:CD1	2.22	0.70
20:AT:27:MET:O	20:AT:27:MET:HE2	1.90	0.70
22:BA:2210:U:H4'	22:BA:2211:A:H5'	1.74	0.70
22:BA:2725:A:O2'	22:BA:2726:A:H2'	1.90	0.70
25:BD:120:GLY:HA2	25:BD:162:ALA:HB2	1.74	0.70
28:BG:73:SER:HA	28:BG:76:ILE:HG21	1.74	0.70
30:BI:89:SER:HB3	30:BI:92:PRO:HG3	1.72	0.70
33:BL:57:LEU:HD22	51:B3:53:ASP:HB3	1.74	0.70
36:BO:51:ALA:HB3	36:BO:78:VAL:HG13	1.73	0.70
37:BP:37:LYS:HD3	37:BP:37:LYS:H	1.57	0.70
42:BU:24:VAL:HG22	42:BU:35:VAL:HG22	1.74	0.70
53:CA:119:A:H4'	53:CA:120:A:O5'	1.92	0.70
53:CA:570:G:H1'	53:CA:820:U:C4	2.27	0.70
53:CA:577:G:O2'	53:CA:578:C:H5'	1.90	0.70
53:CA:951:G:H2'	53:CA:952:U:H6	1.55	0.70
53:CA:1201:A:H1'	53:CA:1202:U:OP2	1.92	0.70
5:CE:59:ILE:O	5:CE:59:ILE:HG13	1.90	0.70
54:CG:148:LYS:NZ	54:CG:148:LYS:HB2	2.06	0.70
15:CO:79:GLN:NE2	15:CO:83:ARG:NH2	2.40	0.70
22:DA:28:A:C6	22:DA:513:A:C8	2.79	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:82:U:C2'	22:DA:83:A:H5"	2.20	0.70
22:DA:1290:C:O2'	22:DA:1291:C:H6	1.74	0.70
22:DA:1608:A:C8	22:DA:1611:C:N4	2.60	0.70
22:DA:2229:U:H2'	22:DA:2230:G:H8	1.57	0.70
22:DA:2378:A:H2'	22:DA:2379:G:C5'	2.22	0.70
26:DE:111:GLU:HA	26:DE:114:ARG:HE	1.57	0.70
58:DF:35:LEU:HD11	58:DF:153:ILE:HG23	1.74	0.70
32:DK:6:THR:O	32:DK:8:LEU:HD12	1.92	0.70
42:DU:43:LYS:HG2	42:DU:45:GLN:HG2	1.72	0.70
1:AA:642:A:H2'	1:AA:643:C:C6	2.27	0.69
1:AA:723:U:OP1	21:AU:48:LYS:HD3	1.92	0.69
4:AD:16:THR:HG22	4:AD:17:ASP:O	1.92	0.69
9:AI:9:GLY:HA2	9:AI:80:HIS:CD2	2.27	0.69
22:BA:163:C:H6	22:BA:163:C:OP1	1.73	0.69
22:BA:974:G:H8	22:BA:990:A:H62	1.38	0.69
22:BA:1683:U:H2'	22:BA:1684:G:H8	1.56	0.69
24:BC:108:GLY:C	24:BC:109:LEU:HD22	2.12	0.69
25:BD:114:LYS:HE3	25:BD:114:LYS:N	2.06	0.69
27:BF:54:ALA:O	27:BF:57:ALA:HB3	1.92	0.69
53:CA:1134:G:C6	53:CA:1135:U:H1'	2.26	0.69
2:CB:212:TYR:O	2:CB:212:TYR:HD2	1.75	0.69
4:CD:25:ARG:CZ	4:CD:30:LYS:HG2	2.22	0.69
5:CE:103:GLY:HA3	5:CE:120:HIS:O	1.92	0.69
22:DA:201:C:C5	22:DA:202:U:H5	2.09	0.69
22:DA:649:G:H2'	22:DA:650:C:C6	2.27	0.69
22:DA:973:A:H1'	22:DA:1188:U:C5	2.26	0.69
22:DA:1139:G:O2'	22:DA:1140:C:H5'	1.91	0.69
22:DA:1639:C:C3'	22:DA:1640:A:H5"	2.22	0.69
31:DJ:75:TYR:CD1	31:DJ:84:ILE:HD11	2.27	0.69
35:DN:82:GLU:C	35:DN:85:PRO:HD2	2.12	0.69
1:AA:1320:C:H41	19:AS:36:ARG:HG2	1.56	0.69
1:AA:1441:A:N6	1:AA:1461:G:H21	1.90	0.69
3:AC:96:VAL:HB	3:AC:97:PRO:HD2	1.73	0.69
4:AD:129:VAL:HG13	4:AD:131:ILE:HD12	1.72	0.69
5:AE:132:PRO:O	5:AE:136:VAL:HG13	1.91	0.69
5:AE:152:VAL:CA	5:AE:155:LYS:HZ2	2.06	0.69
15:AO:62:ARG:HG2	15:AO:66:LEU:HD12	1.73	0.69
18:AR:66:LEU:O	18:AR:67:LEU:HD23	1.92	0.69
22:BA:2292:U:H2'	22:BA:2293:G:C8	2.28	0.69
22:BA:2801:G:H2'	22:BA:2802:G:H8	1.56	0.69
24:BC:30:ALA:HB3	24:BC:31:PRO:CD	2.22	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BC:244:VAL:HG12	24:BC:250:GLN:HA	1.74	0.69
25:BD:107:VAL:HG21	25:BD:177:VAL:CG1	2.23	0.69
29:BH:4:ILE:HG23	29:BH:17:ASP:O	1.93	0.69
30:BI:74:PRO:O	30:BI:77:VAL:HG22	1.93	0.69
31:BJ:77:HIS:HD2	31:BJ:79:GLY:N	1.88	0.69
36:BO:30:ARG:HG2	36:BO:31:THR:N	2.07	0.69
44:BW:37:VAL:C	44:BW:38:ARG:HG2	2.13	0.69
49:B1:8:ILE:HG22	49:B1:9:LYS:N	2.07	0.69
53:CA:1446:A:H2'	53:CA:1447:A:C5'	2.21	0.69
53:CA:1528:U:O2'	53:CA:1529:G:H3'	1.93	0.69
2:CB:9:LEU:HD23	2:CB:9:LEU:H	1.57	0.69
14:CN:6:LYS:O	14:CN:10:VAL:HG23	1.92	0.69
56:CP:44:SER:H	56:CP:46:LYS:HZ3	1.36	0.69
22:DA:142:A:H2'	22:DA:143:C:H6	1.56	0.69
22:DA:923:G:H1'	44:DW:23:LYS:NZ	2.07	0.69
22:DA:1060:U:O4'	22:DA:1061:U:H2'	1.92	0.69
22:DA:1492:G:C3'	22:DA:1493:C:H5'	2.13	0.69
22:DA:2699:C:H2'	22:DA:2700:A:H8	1.56	0.69
25:DD:151:THR:HG22	25:DD:152:PRO:CD	2.21	0.69
26:DE:196:VAL:HG13	26:DE:200:LEU:HD23	1.73	0.69
28:DG:70:LEU:HD12	28:DG:71:LEU:N	2.07	0.69
28:DG:167:VAL:HG23	28:DG:168:VAL:N	2.06	0.69
44:DW:18:LYS:H	44:DW:36:ILE:HG12	1.57	0.69
44:DW:23:LYS:HD2	44:DW:24:ARG:H	1.56	0.69
1:AA:47:C:H4'	1:AA:48:C:O5'	1.90	0.69
1:AA:224:U:O2'	1:AA:225:C:H5'	1.92	0.69
2:AB:84:LEU:O	2:AB:84:LEU:HG	1.91	0.69
6:AF:11:HIS:CD2	6:AF:13:ASP:H	2.10	0.69
22:BA:1635:A:H2'	22:BA:1636:U:H6	1.58	0.69
22:BA:1809:A:H2'	22:BA:1810:A:C8	2.28	0.69
26:BE:81:GLY:HA2	62:BE:301:HOH:O	1.91	0.69
27:BF:55:ASP:O	27:BF:59:ILE:HG13	1.91	0.69
44:BW:8:SER:O	44:BW:9:THR:HG22	1.91	0.69
49:B1:8:ILE:HD11	49:B1:52:LYS:HB2	1.75	0.69
53:CA:343:U:HO2'	53:CA:344:A:H8	1.40	0.69
53:CA:1245:C:H2'	53:CA:1246:A:H8	1.58	0.69
53:CA:1416:G:N2	53:CA:1485:U:H1'	2.07	0.69
54:CG:63:VAL:HG11	54:CG:127:ALA:CB	2.21	0.69
8:CH:68:LYS:HD3	8:CH:69:ALA:N	2.06	0.69
56:CP:21:VAL:HG12	56:CP:33:ILE:HD12	1.73	0.69
17:CQ:25:GLU:HA	17:CQ:39:ARG:O	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1205:A:H5”	22:DA:1206:G:C8	2.27	0.69
22:DA:1666:G:H4’	32:DK:6:THR:HG23	1.72	0.69
22:DA:2296:U:H5	36:DO:9:ARG:NH2	1.89	0.69
22:DA:2562:U:H1’	32:DK:23:LYS:HE2	1.73	0.69
25:DD:106:LYS:CB	25:DD:206:ALA:HB3	2.21	0.69
28:DG:112:VAL:HG12	28:DG:114:HIS:H	1.56	0.69
1:AA:843:U:H2’	1:AA:844:G:H5’	1.75	0.69
5:AE:136:VAL:HG22	5:AE:136:VAL:O	1.90	0.69
6:AF:91:ARG:HG3	6:AF:92:THR:H	1.57	0.69
7:AG:4:ARG:HA	7:AG:4:ARG:NE	2.08	0.69
10:AJ:18:ILE:CG2	10:AJ:72:ARG:HE	2.05	0.69
22:BA:192:C:OP1	62:BA:3731:HOH:O	2.08	0.69
22:BA:1819:A:OP1	24:BC:154:ALA:HA	1.93	0.69
26:BE:132:LYS:NZ	26:BE:132:LYS:HB3	2.07	0.69
33:BL:114:GLY:C	33:BL:115:GLU:HG3	2.12	0.69
49:B1:3:GLY:O	49:B1:4:ILE:HG12	1.91	0.69
53:CA:92:U:H2’	53:CA:93:U:C5	2.28	0.69
53:CA:373:A:H2’	53:CA:374:A:H8	1.58	0.69
53:CA:441:A:C2	53:CA:497:G:C6	2.80	0.69
53:CA:702:A:H5’	53:CA:703:G:C8	2.27	0.69
53:CA:1365:G:O2’	53:CA:1366:C:H6	1.74	0.69
2:CB:13:VAL:CG2	2:CB:211:LEU:HD22	2.22	0.69
22:DA:674:G:O3’	26:DE:60:TRP:CH2	2.45	0.69
22:DA:855:G:N3	44:DW:23:LYS:HE3	2.07	0.69
22:DA:1709:U:H2’	22:DA:1710:G:C8	2.27	0.69
22:DA:1816:C:H2’	24:DC:61:TYR:CE2	2.28	0.69
22:DA:2150:C:O2’	22:DA:2151:U:O4’	2.11	0.69
24:DC:181:ARG:HG3	24:DC:265:PHE:O	1.91	0.69
25:DD:184:ARG:HH22	37:DP:6:GLN:NE2	1.91	0.69
58:DF:12:VAL:HG12	58:DF:16:MET:HG3	1.73	0.69
58:DF:136:ILE:O	58:DF:137:PHE:O	2.09	0.69
42:DU:82:VAL:H	42:DU:96:LYS:HZ2	1.38	0.69
1:AA:702:A:C4	22:BA:1847:A:H2	2.09	0.69
1:AA:994:A:C5	1:AA:1216:A:H4’	2.27	0.69
1:AA:1370:G:C5’	9:AI:110:VAL:HG21	2.23	0.69
1:AA:1380:U:H5’	1:AA:1381:U:OP1	1.92	0.69
1:AA:1395:C:H6	1:AA:1395:C:C5’	1.99	0.69
11:AK:100:ASN:HB2	11:AK:106:ILE:HG22	1.74	0.69
15:AO:16:ARG:O	15:AO:17:ASP:HB3	1.92	0.69
18:AR:31:TYR:O	18:AR:39:VAL:HG23	1.92	0.69
22:BA:195:A:C5	62:BA:3750:HOH:O	2.45	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:278:A:C2	22:BA:362:A:C8	2.80	0.69
22:BA:321:U:O2'	22:BA:340:A:O2'	2.10	0.69
22:BA:569:U:OP1	22:BA:945:A:H2'	1.92	0.69
22:BA:765:C:H2'	22:BA:766:U:C6	2.27	0.69
22:BA:789:A:OP1	22:BA:790:U:H5	1.74	0.69
22:BA:1161:C:H1'	39:BR:8:GLY:O	1.92	0.69
22:BA:1515:A:H2'	22:BA:1516:G:O4'	1.92	0.69
22:BA:2021:C:P	48:B0:8:THR:HG21	2.31	0.69
30:BI:98:GLY:HA3	30:BI:137:LEU:HD23	1.75	0.69
36:BO:59:ALA:CA	36:BO:62:LEU:HD12	2.13	0.69
53:CA:548:G:H2'	53:CA:549:C:C6	2.28	0.69
53:CA:1458:G:H4'	20:CT:22:SER:HB2	1.73	0.69
3:CC:149:LYS:HG3	3:CC:168:ARG:HB2	1.74	0.69
15:CO:79:GLN:HE21	15:CO:83:ARG:NH2	1.91	0.69
17:CQ:37:ILE:HD11	17:CQ:39:ARG:NH1	2.08	0.69
22:DA:104:A:H2'	22:DA:105:C:C6	2.28	0.69
22:DA:612:G:N2	22:DA:614:A:HO2'	1.90	0.69
22:DA:674:G:H2'	22:DA:804:A:H61	1.56	0.69
22:DA:1535:A:H2'	22:DA:1535:A:N3	2.07	0.69
22:DA:1568:G:H21	24:DC:57:HIS:CE1	2.11	0.69
22:DA:1700:A:C2'	22:DA:1701:A:H5'	2.23	0.69
22:DA:2014:A:H5'	40:DS:94:ASP:OD2	1.93	0.69
22:DA:2091:C:C4	22:DA:2092:U:C4	2.80	0.69
30:DI:50:LYS:HA	30:DI:50:LYS:HE2	1.73	0.69
35:DN:56:LYS:HA	35:DN:84:GLY:HA2	1.74	0.69
37:DP:28:LYS:HB3	37:DP:39:LEU:HD23	1.74	0.69
42:DU:40:LEU:HA	42:DU:61:GLU:HA	1.75	0.69
1:AA:464:U:N3	1:AA:466:A:H5'	2.06	0.69
1:AA:508:U:H4'	1:AA:509:A:OP1	1.93	0.69
1:AA:1038:C:H2'	1:AA:1039:G:C8	2.27	0.69
1:AA:1160:G:O6	1:AA:1181:G:C6	2.46	0.69
2:AB:71:THR:HG22	2:AB:72:LYS:N	2.07	0.69
16:AP:28:ARG:HG2	16:AP:29:ASN:ND2	2.07	0.69
22:BA:957:C:H4'	22:BA:958:U:OP1	1.91	0.69
22:BA:1152:C:O2'	22:BA:1153:C:H5'	1.92	0.69
22:BA:1493:C:H5"	22:BA:1494:A:OP2	1.92	0.69
25:BD:114:LYS:HE3	25:BD:114:LYS:O	1.93	0.69
27:BF:133:GLU:H	27:BF:150:GLY:HA2	1.58	0.69
28:BG:86:LEU:HD13	28:BG:130:ILE:HB	1.73	0.69
29:BH:78:VAL:HG11	29:BH:145:ASN:HB3	1.74	0.69
39:BR:15:SER:O	39:BR:18:GLN:HB3	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BU:100:GLU:O	42:BU:101:THR:HB	1.93	0.69
53:CA:95:C:O2'	53:CA:96:U:H5'	1.91	0.69
53:CA:251:G:H4'	53:CA:252:U:H5'	1.74	0.69
53:CA:345:C:H4'	53:CA:346:G:C5'	2.22	0.69
53:CA:996:A:O2'	53:CA:997:U:C6	2.44	0.69
53:CA:1380:U:O4	54:CG:2:ARG:HB2	1.93	0.69
53:CA:1530:G:O2'	53:CA:1531:A:C8	2.45	0.69
9:CI:23:GLY:H	9:CI:60:LEU:HA	1.57	0.69
10:CJ:37:ARG:HB3	10:CJ:74:VAL:O	1.93	0.69
11:CK:60:PHE:O	11:CK:64:VAL:HG13	1.93	0.69
19:CS:62:THR:HG22	19:CS:63:ASP:H	1.57	0.69
22:DA:1237:A:N3	22:DA:1238:G:H1'	2.07	0.69
22:DA:1341:G:H3'	22:DA:1397:U:O2	1.91	0.69
22:DA:1388:G:H2'	22:DA:1389:G:H8	1.58	0.69
22:DA:2408:U:C2'	22:DA:2409:G:H8	2.06	0.69
22:DA:2514:U:H2'	22:DA:2515:C:C6	2.25	0.69
26:DE:147:LEU:O	26:DE:148:ILE:HB	1.92	0.69
28:DG:34:ARG:O	28:DG:35:THR:HG23	1.92	0.69
29:DH:84:ALA:HB3	29:DH:148:ALA:HA	1.73	0.69
33:DL:100:ILE:O	33:DL:101:ILE:HB	1.93	0.69
41:DT:4:GLU:HG3	41:DT:6:ARG:NH2	2.08	0.69
46:DY:28:LEU:HD23	46:DY:42:LEU:HD13	1.74	0.69
1:AA:1442:G:H2'	1:AA:1443:C:C6	2.28	0.69
5:AE:155:LYS:HA	5:AE:158:LYS:HZ2	1.56	0.69
8:AH:104:SER:O	8:AH:122:GLY:HA3	1.92	0.69
21:AU:4:LYS:O	21:AU:4:LYS:HD2	1.92	0.69
21:AU:33:ARG:HE	21:AU:34:ARG:CG	2.06	0.69
22:BA:62:U:H4'	22:BA:63:A:OP1	1.93	0.69
22:BA:475:C:H6	22:BA:475:C:C5'	2.05	0.69
22:BA:575:A:O2'	22:BA:576:U:H5'	1.92	0.69
22:BA:1062:G:O2'	22:BA:1063:G:C8	2.46	0.69
22:BA:1076:C:H2'	22:BA:1077:A:C8	2.26	0.69
22:BA:1078:U:H4'	22:BA:1079:C:H6	1.57	0.69
22:BA:1475:G:O2'	22:BA:1476:U:P	2.51	0.69
22:BA:1713:A:H4'	22:BA:1714:U:OP1	1.92	0.69
22:BA:1967:C:H2'	22:BA:1968:G:C8	2.28	0.69
22:BA:2505:G:H1'	60:BA:3135:CLY:CL1	2.30	0.69
35:BN:33:ILE:HG12	35:BN:118:ARG:CZ	2.22	0.69
36:BO:88:LYS:O	36:BO:89:ASP:HB2	1.92	0.69
42:BU:91:LYS:O	42:BU:92:VAL:HB	1.93	0.69
53:CA:14:U:O2	53:CA:16:A:C8	2.46	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:338:A:H61	53:CA:351:G:H1	1.40	0.69
53:CA:986:U:H2'	53:CA:987:G:H5'	1.73	0.69
53:CA:992:U:H1'	53:CA:993:G:N2	2.06	0.69
53:CA:1151:A:H2'	53:CA:1152:A:H8	1.57	0.69
53:CA:1240:U:O2'	54:CG:37:THR:HB	1.92	0.69
53:CA:1366:C:O2'	53:CA:1367:C:C6	2.44	0.69
5:CE:29:ILE:CG2	5:CE:30:PHE:H	1.95	0.69
6:CF:11:HIS:CD2	6:CF:54:LEU:CD2	2.73	0.69
9:CI:53:LEU:O	9:CI:54:VAL:HG13	1.93	0.69
11:CK:74:LYS:CA	11:CK:78:ILE:HD11	2.22	0.69
22:DA:228:C:C5'	22:DA:229:C:C5	2.75	0.69
22:DA:818:G:C2'	22:DA:819:A:H5"	2.22	0.69
22:DA:962:G:HO2'	22:DA:963:U:H6	1.40	0.69
22:DA:1013:C:O2'	22:DA:1014:A:H5'	1.92	0.69
22:DA:1126:A:H4'	22:DA:1127:A:C5'	2.22	0.69
22:DA:2284:A:OP1	49:D1:5:ARG:HG3	1.92	0.69
26:DE:28:VAL:O	26:DE:32:VAL:HG13	1.92	0.69
58:DF:30:VAL:HG12	58:DF:157:THR:HG21	1.74	0.69
30:DI:57:VAL:HG12	30:DI:58:ILE:N	2.07	0.69
32:DK:76:VAL:HB	37:DP:72:VAL:HG22	1.74	0.69
32:DK:103:VAL:HG23	32:DK:122:VAL:O	1.93	0.69
33:DL:103:ILE:H	33:DL:103:ILE:HD12	1.58	0.69
1:AA:92:U:O2'	1:AA:93:U:C6	2.45	0.69
1:AA:181:A:H5"	1:AA:182:A:OP1	1.93	0.69
1:AA:486:U:O2'	1:AA:487:A:H5'	1.93	0.69
1:AA:923:A:O4'	1:AA:1398:A:C2	2.45	0.69
1:AA:1064:G:N2	1:AA:1190:G:O2'	2.25	0.69
2:AB:67:LEU:HB3	2:AB:160:LEU:CD1	2.22	0.69
5:AE:14:LEU:CB	5:AE:36:THR:HG22	2.20	0.69
6:AF:3:HIS:CA	6:AF:92:THR:HG23	2.22	0.69
14:AN:2:LYS:HD3	14:AN:5:MET:HG2	1.75	0.69
14:AN:82:LYS:HE2	14:AN:85:GLU:HG3	1.74	0.69
16:AP:2:VAL:HG23	16:AP:65:ALA:CB	2.22	0.69
17:AQ:60:ILE:HG22	17:AQ:72:TRP:HE3	1.58	0.69
22:BA:277:G:H4'	22:BA:278:A:N7	2.07	0.69
22:BA:558:U:OP1	31:BJ:113:PRO:HB2	1.93	0.69
22:BA:811:U:O2'	22:BA:1250:G:H2'	1.93	0.69
22:BA:947:A:O2'	22:BA:984:A:H2	1.75	0.69
22:BA:1510:G:O2'	22:BA:1511:G:C5'	2.40	0.69
22:BA:1563:U:H2'	22:BA:1564:C:C6	2.28	0.69
22:BA:1683:U:H2'	22:BA:1684:G:C8	2.28	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1799:G:H22	22:BA:1818:U:HO2'	1.41	0.69
22:BA:2214:C:H6	22:BA:2214:C:H5'	1.58	0.69
22:BA:2425:A:H4'	22:BA:2426:A:O5'	1.92	0.69
22:BA:2722:G:H4'	35:BN:4:ARG:HB2	1.73	0.69
24:BC:182:LYS:O	24:BC:183:VAL:HG23	1.93	0.69
25:BD:182:ALA:O	25:BD:184:ARG:N	2.25	0.69
31:BJ:26:GLY:HA2	31:BJ:29:ALA:CB	2.23	0.69
31:BJ:65:THR:HG23	31:BJ:66:GLY:N	2.07	0.69
34:BM:1:MET:O	34:BM:2:LEU:HB2	1.92	0.69
34:BM:64:TRP:CZ3	34:BM:106:ASP:HB2	2.28	0.69
37:BP:33:GLU:HG2	37:BP:36:LYS:HD3	1.75	0.69
39:BR:62:GLU:O	39:BR:64:VAL:HG23	1.92	0.69
44:BW:8:SER:O	44:BW:9:THR:CB	2.40	0.69
53:CA:500:G:O2'	53:CA:501:C:H5'	1.91	0.69
53:CA:569:C:H5"	53:CA:570:G:OP1	1.93	0.69
53:CA:738:C:H2'	53:CA:739:C:H6	1.57	0.69
53:CA:1050:G:O2'	53:CA:1051:C:H6	1.74	0.69
53:CA:1200:C:O2'	53:CA:1201:A:OP2	2.11	0.69
53:CA:1332:A:H2'	53:CA:1333:A:H5'	1.75	0.69
53:CA:1478:U:H2'	53:CA:1479:C:H6	1.56	0.69
54:CG:148:LYS:HD3	54:CG:148:LYS:O	1.92	0.69
8:CH:54:THR:HG23	8:CH:55:LYS:H	1.58	0.69
12:CL:41:PRO:HD2	12:CL:47:ALA:O	1.92	0.69
14:CN:20:PHE:HE1	14:CN:54:SER:HB2	1.58	0.69
22:DA:140:C:H5'	22:DA:141:G:H21	1.56	0.69
22:DA:216:A:O2'	22:DA:217:A:C8	2.43	0.69
22:DA:538:A:O2'	31:DJ:8:PRO:HG3	1.93	0.69
22:DA:747:U:H2'	22:DA:2613:U:O4	1.92	0.69
22:DA:765:C:H2'	22:DA:766:U:H6	1.55	0.69
22:DA:1545:A:H2'	22:DA:1546:G:O4'	1.92	0.69
22:DA:1613:G:C6	22:DA:1619:G:O6	2.45	0.69
22:DA:2324:U:H5'	22:DA:2325:G:C5'	2.23	0.69
22:DA:2515:C:OP1	31:DJ:81:ILE:HG22	1.92	0.69
57:DB:42:C:C5	58:DF:65:LEU:HD13	2.28	0.69
24:DC:71:ASP:HA	24:DC:117:SER:O	1.92	0.69
24:DC:106:PRO:HB3	24:DC:141:HIS:CE1	2.28	0.69
26:DE:5:LEU:HA	26:DE:120:VAL:HG13	1.74	0.69
29:DH:132:PHE:HZ	29:DH:134:VAL:HB	1.52	0.69
34:DM:40:ARG:HB2	34:DM:93:VAL:CG2	2.23	0.69
35:DN:52:ILE:HG21	35:DN:94:TYR:CD2	2.28	0.69
41:DT:67:VAL:HG23	41:DT:75:GLY:O	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DW:20:LEU:HD12	44:DW:20:LEU:N	2.08	0.69
46:DY:60:LYS:HG2	46:DY:60:LYS:O	1.93	0.69
1:AA:70:U:O2'	1:AA:71:A:C8	2.44	0.69
2:AB:185:ILE:HA	2:AB:199:ILE:HB	1.75	0.69
4:AD:170:LEU:HD12	4:AD:170:LEU:N	2.08	0.69
6:AF:86:ARG:NH1	18:AR:63:TYR:HB3	2.08	0.69
8:AH:9:MET:HE2	8:AH:32:LYS:HG2	1.74	0.69
22:BA:119:A:H4'	22:BA:120:U:O5'	1.91	0.69
22:BA:789:A:OP1	22:BA:790:U:C5	2.46	0.69
22:BA:1249:U:H2'	33:BL:18:ARG:NH2	2.08	0.69
22:BA:1848:A:H2'	22:BA:1849:G:C8	2.27	0.69
22:BA:2025:C:H2'	22:BA:2026:U:C6	2.28	0.69
22:BA:2615:U:C2	48:B0:3:GLN:HA	2.28	0.69
40:BS:63:GLY:O	40:BS:64:ALA:HB3	1.92	0.69
53:CA:213:G:H2'	53:CA:214:C:H6	1.56	0.69
4:CD:66:VAL:HG22	4:CD:96:ARG:HH11	1.56	0.69
9:CI:49:GLN:N	9:CI:50:PRO:HD2	2.08	0.69
22:DA:206:U:HO2'	22:DA:207:A:H8	1.39	0.69
22:DA:511:U:C5'	22:DA:1235:G:H4'	2.23	0.69
22:DA:799:G:P	22:DA:800:A:H3'	2.33	0.69
22:DA:851:C:H4'	47:DZ:46:MET:HG2	1.75	0.69
22:DA:1635:A:H5'	22:DA:1635:A:H8	1.57	0.69
22:DA:1709:U:H2'	22:DA:1710:G:H8	1.57	0.69
22:DA:1906:G:H8	22:DA:1929:G:H2'	1.57	0.69
25:DD:110:THR:OG1	25:DD:171:THR:HG22	1.93	0.69
29:DH:125:THR:HG22	29:DH:146:VAL:HG11	1.75	0.69
31:DJ:5:THR:HA	31:DJ:44:TYR:CE2	2.28	0.69
38:DQ:61:ILE:CD1	38:DQ:92:LYS:HD3	2.17	0.69
1:AA:184:G:H2'	1:AA:185:U:C5	2.28	0.69
1:AA:373:A:O2'	1:AA:374:A:H5'	1.93	0.69
1:AA:1006:G:H2'	1:AA:1007:U:C6	2.28	0.69
1:AA:1468:A:H2'	1:AA:1469:C:C5'	2.22	0.69
4:AD:172:VAL:HG22	4:AD:173:ASP:N	2.06	0.69
13:AM:113:LYS:H	13:AM:114:PRO:HD2	1.57	0.69
21:AU:32:ARG:HG2	21:AU:32:ARG:O	1.93	0.69
22:BA:1249:U:H2'	33:BL:18:ARG:HH22	1.57	0.69
22:BA:1799:G:N2	22:BA:1818:U:O2'	2.25	0.69
25:BD:13:ARG:NH1	37:BP:74:GLN:HE21	1.91	0.69
25:BD:136:ASN:ND2	25:BD:139:SER:O	2.27	0.69
26:BE:47:LYS:HB3	26:BE:51:GLU:HG3	1.74	0.69
27:BF:104:THR:HG22	27:BF:105:ILE:CG2	2.21	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BJ:44:TYR:HD1	31:BJ:44:TYR:C	1.96	0.69
40:BS:73:LYS:HB3	40:BS:106:VAL:HB	1.73	0.69
41:BT:18:GLU:HA	41:BT:18:GLU:OE2	1.93	0.69
41:BT:30:ILE:CG2	41:BT:85:VAL:HB	2.20	0.69
53:CA:205:A:C6	53:CA:206:C:N4	2.61	0.69
2:CB:169:HIS:HD2	2:CB:173:LYS:NZ	1.91	0.69
9:CI:118:ARG:NH2	9:CI:122:ARG:HE	1.91	0.69
17:CQ:29:LYS:HB2	17:CQ:36:PHE:CE1	2.28	0.69
22:DA:82:U:H2'	22:DA:83:A:C5'	2.22	0.69
22:DA:228:C:H5"	22:DA:229:C:C5	2.28	0.69
22:DA:674:G:H5"	26:DE:71:GLY:H	1.58	0.69
22:DA:1062:G:O4'	22:DA:1088:A:N7	2.25	0.69
22:DA:1346:G:O2'	22:DA:1347:A:C8	2.31	0.69
22:DA:1989:G:C2'	22:DA:1990:C:H5'	2.22	0.69
22:DA:2282:G:H1'	22:DA:2390:U:C5	2.28	0.69
22:DA:2458:G:H2'	22:DA:2490:G:H1	1.57	0.69
22:DA:2657:A:H2'	22:DA:2658:C:C6	2.28	0.69
35:DN:8:ARG:HG2	35:DN:10:LEU:HD22	1.73	0.69
1:AA:1409:C:H2'	1:AA:1410:A:H8	1.57	0.68
2:AB:46:VAL:CB	2:AB:47:PRO:HD3	2.22	0.68
6:AF:9:MET:CE	6:AF:59:TYR:CE2	2.77	0.68
6:AF:29:ILE:HG12	6:AF:64:VAL:HG11	1.75	0.68
12:AL:43:LYS:HB2	12:AL:44:PRO:HD2	1.75	0.68
12:AL:85:ARG:NH2	12:AL:87:LYS:HD2	2.08	0.68
22:BA:662:G:C2'	22:BA:663:G:H5'	2.22	0.68
22:BA:958:U:H5'	22:BA:958:U:C6	2.15	0.68
22:BA:1386:C:H2'	22:BA:1387:A:H8	1.57	0.68
22:BA:2233:U:H2'	22:BA:2234:G:C8	2.28	0.68
24:BC:131:MET:CA	24:BC:134:ILE:HD12	2.16	0.68
30:BI:20:SER:HB3	30:BI:21:PRO:HD3	1.75	0.68
31:BJ:30:THR:HG22	31:BJ:31:GLU:N	2.08	0.68
32:BK:1:MET:HG3	32:BK:67:LYS:HG3	1.75	0.68
32:BK:95:ILE:HD12	32:BK:95:ILE:O	1.92	0.68
36:BO:111:ARG:O	36:BO:113:ALA:N	2.27	0.68
53:CA:82:G:C2'	53:CA:83:C:H4'	2.22	0.68
53:CA:198:G:O6	53:CA:220:G:C4	2.46	0.68
53:CA:596:A:N6	53:CA:645:G:N1	2.41	0.68
53:CA:1129:C:H1'	53:CA:1146:A:H61	1.58	0.68
6:CF:9:MET:HE3	18:CR:64:LEU:HA	1.75	0.68
6:CF:42:TRP:HB2	6:CF:59:TYR:HB2	1.74	0.68
8:CH:1:SER:C	8:CH:3:GLN:H	1.95	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:232:G:O2'	22:DA:233:A:H5"	1.92	0.68
22:DA:748:G:O5'	40:DS:89:ALA:HB2	1.93	0.68
22:DA:1090:A:C3'	22:DA:1091:G:H5"	2.23	0.68
22:DA:1338:G:H4'	41:DT:18:GLU:CD	2.12	0.68
22:DA:2250:G:OP1	22:DA:2275:C:H2'	1.93	0.68
22:DA:2581:G:H2'	22:DA:2610:C:N4	2.07	0.68
26:DE:79:ARG:HG2	26:DE:80:SER:H	1.58	0.68
28:DG:152:ARG:HD2	28:DG:153:PRO:CD	2.23	0.68
30:DI:57:VAL:O	30:DI:58:ILE:HG13	1.92	0.68
31:DJ:30:THR:HG23	31:DJ:31:GLU:N	2.08	0.68
38:DQ:57:ARG:HH12	38:DQ:92:LYS:HE2	1.57	0.68
1:AA:76:G:H2'	1:AA:76:G:N3	2.08	0.68
1:AA:89:U:O2'	1:AA:90:C:C5'	2.40	0.68
1:AA:299:G:H2'	1:AA:300:A:C8	2.27	0.68
3:AC:148:ILE:HG12	3:AC:149:LYS:N	2.07	0.68
14:AN:56:PRO:HA	14:AN:59:GLN:NE2	2.08	0.68
17:AQ:31:PRO:HB2	17:AQ:32:ILE:CD1	2.21	0.68
22:BA:187:G:C2	22:BA:210:C:O2	2.46	0.68
22:BA:1414:C:C5	22:BA:1415:U:H5	2.12	0.68
22:BA:1734:G:N3	22:BA:1735:A:C8	2.62	0.68
24:BC:104:LEU:O	24:BC:105:ALA:CB	2.41	0.68
37:BP:19:PHE:O	37:BP:20:ARG:HB3	1.93	0.68
37:BP:50:ARG:O	37:BP:51:ASN:HB2	1.92	0.68
38:BQ:43:GLN:NE2	39:BR:77:PHE:HB3	2.07	0.68
41:BT:43:ILE:O	41:BT:47:VAL:HG23	1.92	0.68
53:CA:256:U:H2'	53:CA:257:G:O4'	1.94	0.68
53:CA:962:C:N4	53:CA:974:A:H61	1.90	0.68
53:CA:1052:U:H3'	53:CA:1053:G:H5"	1.74	0.68
53:CA:1316:G:H22	53:CA:1318:A:H3'	1.59	0.68
2:CB:147:LEU:HD12	2:CB:147:LEU:N	2.07	0.68
5:CE:135:VAL:O	5:CE:138:ALA:HB3	1.93	0.68
6:CF:9:MET:HE1	18:CR:64:LEU:O	1.93	0.68
18:CR:71:ASP:OD1	21:CU:3:ILE:HD11	1.93	0.68
22:DA:449:A:HO2'	22:DA:450:G:H5'	1.53	0.68
22:DA:729:G:O2'	22:DA:1775:U:H1'	1.92	0.68
22:DA:822:G:O6	22:DA:943:A:C2	2.42	0.68
22:DA:860:U:O2'	22:DA:861:A:H5'	1.92	0.68
22:DA:1290:C:HO2'	22:DA:1291:C:H6	1.36	0.68
22:DA:2056:G:H21	48:D0:1:ALA:N	1.91	0.68
22:DA:2674:G:H2'	22:DA:2675:A:C8	2.28	0.68
25:DD:117:GLY:HA2	25:DD:164:GLN:OE1	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:DF:39:VAL:HG22	58:DF:49:LEU:CB	2.24	0.68
28:DG:138:GLN:HG2	28:DG:138:GLN:O	1.91	0.68
33:DL:110:VAL:C	33:DL:111:ILE:HD13	2.14	0.68
34:DM:26:VAL:HG21	34:DM:132:THR:O	1.93	0.68
34:DM:73:ILE:HG21	34:DM:91:TYR:CE1	2.28	0.68
35:DN:56:LYS:HD3	35:DN:88:ALA:HA	1.74	0.68
37:DP:67:GLU:CD	37:DP:68:GLY:H	1.97	0.68
1:AA:596:A:N6	1:AA:645:G:C6	2.61	0.68
1:AA:642:A:H2'	1:AA:643:C:H6	1.59	0.68
1:AA:1050:G:O2'	1:AA:1051:C:C5'	2.40	0.68
2:AB:222:GLU:OE1	2:AB:225:SER:HA	1.94	0.68
7:AG:68:VAL:HG21	7:AG:103:ILE:HD11	1.73	0.68
17:AQ:12:VAL:HG11	17:AQ:21:VAL:HG22	1.74	0.68
22:BA:31:C:H4'	22:BA:1238:G:H4'	1.75	0.68
22:BA:672:C:C2	22:BA:809:G:N2	2.62	0.68
22:BA:1499:C:O2'	22:BA:1500:G:C5'	2.41	0.68
29:BH:90:LEU:CB	29:BH:123:ARG:HB3	2.22	0.68
45:BX:70:LEU:HB3	45:BX:75:GLU:HB2	1.75	0.68
53:CA:878:A:OP1	8:CH:79:ARG:HB2	1.92	0.68
2:CB:125:PHE:CD1	2:CB:137:THR:HG22	2.29	0.68
55:CM:18:LEU:H	55:CM:18:LEU:HD12	1.56	0.68
55:CM:68:LEU:HD22	55:CM:69:ARG:NH1	2.08	0.68
22:DA:492:A:N1	40:DS:49:LYS:HE2	2.09	0.68
22:DA:704:G:H1'	22:DA:727:A:N6	2.08	0.68
22:DA:1142:A:C8	22:DA:1144:A:N7	2.60	0.68
32:DK:21:CYS:HA	32:DK:41:ILE:CD1	2.22	0.68
37:DP:86:LYS:N	37:DP:86:LYS:HZ3	1.91	0.68
40:DS:24:ILE:HG21	40:DS:36:LEU:HD21	1.74	0.68
41:DT:61:LEU:C	41:DT:61:LEU:HD12	2.14	0.68
1:AA:475:C:H2'	1:AA:476:U:C6	2.29	0.68
1:AA:575:G:C6	1:AA:821:G:N7	2.61	0.68
2:AB:119:GLN:C	2:AB:119:GLN:HE21	1.97	0.68
4:AD:116:LEU:C	4:AD:122:ILE:HD11	2.13	0.68
14:AN:40:ARG:HH22	14:AN:44:VAL:HG21	1.58	0.68
17:AQ:20:ILE:HB	17:AQ:47:ASP:OD1	1.93	0.68
22:BA:85:G:OP1	42:BU:27:VAL:HG11	1.93	0.68
22:BA:386:G:H4'	22:BA:387:U:OP2	1.92	0.68
22:BA:2804:U:H2'	22:BA:2805:C:C6	2.28	0.68
28:BG:82:PHE:HB2	28:BG:134:GLY:O	1.93	0.68
37:BP:50:ARG:HG2	37:BP:57:ALA:CA	2.23	0.68
38:BQ:63:ARG:HH12	38:BQ:96:ASP:HB2	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:346:G:H2'	53:CA:346:G:N3	2.08	0.68
53:CA:701:U:H4'	53:CA:702:A:C5'	2.23	0.68
53:CA:936:C:O2'	53:CA:937:A:C8	2.35	0.68
53:CA:951:G:H2'	53:CA:952:U:C6	2.28	0.68
3:CC:76:ILE:HG12	3:CC:83:VAL:HG11	1.76	0.68
5:CE:13:LYS:HE2	5:CE:13:LYS:CA	2.17	0.68
6:CF:11:HIS:HD2	6:CF:12:PRO:HD2	1.57	0.68
11:CK:78:ILE:HD13	11:CK:78:ILE:N	2.05	0.68
15:CO:23:SER:HB3	15:CO:26:VAL:CG2	2.23	0.68
21:CU:35:GLU:CG	21:CU:36:PHE:H	1.99	0.68
22:DA:303:G:O2'	22:DA:304:U:C6	2.44	0.68
22:DA:624:C:O2'	22:DA:657:U:H5"	1.93	0.68
22:DA:1087:G:C5	22:DA:1089:A:C2	2.81	0.68
22:DA:1277:G:H5'	35:DN:20:MET:HE3	1.74	0.68
22:DA:1490:A:C8	24:DC:73:ILE:HD12	2.27	0.68
22:DA:2421:G:N7	51:D3:30:HIS:HD2	1.91	0.68
24:DC:1:ALA:O	24:DC:18:VAL:HG23	1.94	0.68
24:DC:128:THR:HG23	24:DC:188:ARG:HB3	1.76	0.68
26:DE:126:VAL:HG21	26:DE:134:LEU:HD13	1.75	0.68
36:DO:26:LEU:HD23	36:DO:92:PHE:HE1	1.58	0.68
38:DQ:59:LEU:O	38:DQ:63:ARG:HD3	1.93	0.68
48:D0:32:THR:HG21	48:D0:47:TYR:CE2	2.28	0.68
51:D3:23:HIS:O	51:D3:46:LYS:HB2	1.93	0.68
1:AA:1324:A:O2'	1:AA:1325:C:C6	2.45	0.68
5:AE:148:SER:HB2	5:AE:151:MET:HB2	1.74	0.68
7:AG:23:ALA:O	7:AG:26:VAL:HG22	1.94	0.68
11:AK:106:ILE:HD13	11:AK:106:ILE:C	2.14	0.68
22:BA:545:U:H2'	22:BA:546:U:C4'	2.24	0.68
22:BA:1313:U:H2'	22:BA:1313:U:O2	1.93	0.68
22:BA:2319:G:O2'	22:BA:2320:U:H5	1.76	0.68
29:BH:75:LEU:HD22	29:BH:143:ILE:HG12	1.75	0.68
39:BR:3:ALA:HB3	39:BR:59:ILE:HD11	1.74	0.68
53:CA:238:A:C3'	53:CA:239:U:H5"	2.23	0.68
53:CA:321:A:H1'	53:CA:1435:G:O2'	1.93	0.68
53:CA:451:A:H1'	53:CA:452:A:N7	2.08	0.68
53:CA:518:C:H2'	53:CA:530:G:N7	2.08	0.68
53:CA:536:C:H2'	53:CA:537:G:C8	2.28	0.68
8:CH:57:GLU:O	8:CH:58:LEU:HB2	1.92	0.68
9:CI:35:GLU:HA	9:CI:39:GLY:CA	2.23	0.68
22:DA:167:A:H2'	22:DA:168:G:O4'	1.93	0.68
22:DA:575:A:C2	22:DA:576:U:C5	2.82	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1022:G:N2	22:DA:1142:A:C2	2.55	0.68
22:DA:1669:A:N3	22:DA:1669:A:C2'	2.52	0.68
24:DC:119:VAL:HG13	24:DC:133:ASN:HD21	1.58	0.68
35:DN:22:ARG:HG2	35:DN:22:ARG:O	1.94	0.68
35:DN:62:ASN:O	35:DN:63:ARG:CB	2.42	0.68
43:DV:56:PHE:CE1	43:DV:61:LEU:HD13	2.29	0.68
48:D0:39:ARG:O	48:D0:40:HIS:HB2	1.93	0.68
48:D0:42:ILE:HD13	48:D0:48:TYR:CD2	2.28	0.68
1:AA:206:C:H2'	1:AA:207:C:C4'	2.23	0.68
1:AA:641:U:H4'	8:AH:106:SER:O	1.93	0.68
2:AB:141:GLU:HA	2:AB:144:GLU:HB2	1.75	0.68
8:AH:9:MET:CE	8:AH:32:LYS:HA	2.22	0.68
22:BA:536:G:H2'	22:BA:537:G:C5'	2.24	0.68
22:BA:923:G:H5'	44:BW:25:PHE:CZ	2.29	0.68
22:BA:1576:U:O2'	22:BA:1577:C:H5'	1.93	0.68
22:DA:297:G:H5"	42:DU:84:PHE:CB	2.20	0.68
22:DA:919:U:H2'	22:DA:920:A:C8	2.29	0.68
22:DA:1033:U:H4'	22:DA:1034:G:OP1	1.93	0.68
22:DA:2848:G:O2'	22:DA:2849:U:C6	2.44	0.68
24:DC:128:THR:HG22	24:DC:188:ARG:HB3	1.76	0.68
25:DD:38:LYS:HB3	25:DD:38:LYS:HZ3	1.58	0.68
31:DJ:73:VAL:HB	31:DJ:75:TYR:CE2	2.29	0.68
38:DQ:4:LYS:CE	38:DQ:7:VAL:HG22	2.24	0.68
38:DQ:42:GLY:HA3	39:DR:75:VAL:HG21	1.75	0.68
4:AD:196:GLU:HA	4:AD:199:ILE:HG22	1.75	0.68
6:AF:40:GLU:HB2	6:AF:42:TRP:NE1	2.06	0.68
14:AN:45:LEU:O	14:AN:45:LEU:HG	1.94	0.68
22:BA:186:G:O2'	22:BA:187:G:H5'	1.94	0.68
22:BA:780:G:H21	22:BA:783:A:H62	1.40	0.68
22:BA:1695:G:H8	24:BC:7:PRO:HG2	1.59	0.68
22:BA:2134:A:HO2'	22:BA:2135:A:H8	1.41	0.68
30:BI:7:TYR:HA	30:BI:58:ILE:HB	1.75	0.68
35:BN:108:ALA:O	35:BN:110:MET:HG2	1.94	0.68
44:BW:28:GLU:HG3	44:BW:29:SER:N	2.08	0.68
53:CA:178:C:O2'	53:CA:179:A:H5'	1.93	0.68
53:CA:279:A:C5'	53:CA:280:C:H3'	2.23	0.68
53:CA:432:A:C2'	53:CA:433:G:H5'	2.23	0.68
2:CB:185:ILE:HG22	2:CB:199:ILE:HG13	1.75	0.68
54:CG:124:SER:O	54:CG:128:GLU:HG2	1.94	0.68
10:CJ:52:LEU:HD21	10:CJ:59:LYS:HA	1.76	0.68
17:CQ:59:GLU:HB3	17:CQ:76:ARG:O	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:849:A:H2'	22:DA:850:U:C6	2.29	0.68
22:DA:1341:G:O2'	22:DA:1398:C:H5'	1.94	0.68
22:DA:1343:G:O2'	22:DA:1344:U:C6	2.46	0.68
22:DA:1534:U:C6	22:DA:1538:G:N1	2.62	0.68
22:DA:2324:U:C5'	22:DA:2325:G:H5"	2.24	0.68
22:DA:2720:U:H5"	37:DP:52:ARG:NH2	2.09	0.68
22:DA:2726:A:HO2'	22:DA:2727:A:P	2.16	0.68
22:DA:2851:A:H2'	22:DA:2852:G:C8	2.28	0.68
24:DC:130:PRO:N	24:DC:188:ARG:HG3	2.09	0.68
25:DD:36:GLN:HE21	25:DD:38:LYS:NZ	1.92	0.68
26:DE:24:ASN:HB3	26:DE:27:LEU:HB3	1.76	0.68
28:DG:115:GLN:HG2	28:DG:116:LEU:H	1.58	0.68
33:DL:57:LEU:HA	33:DL:60:ARG:HG3	1.75	0.68
36:DO:51:ALA:HB3	36:DO:78:VAL:HG22	1.75	0.68
41:DT:67:VAL:O	41:DT:68:LYS:HG3	1.94	0.68
45:DX:29:LEU:HB2	45:DX:30:PRO:CD	2.23	0.68
1:AA:594:U:H2'	1:AA:595:A:O4'	1.92	0.68
1:AA:1236:A:H4'	1:AA:1304:G:H4'	1.76	0.68
1:AA:1281:C:O2'	1:AA:1282:C:H5'	1.94	0.68
1:AA:1285:A:C5'	1:AA:1286:U:C4	2.77	0.68
7:AG:74:VAL:HG21	7:AG:85:GLN:NE2	2.09	0.68
13:AM:10:ASP:OD1	13:AM:44:ILE:HD13	1.94	0.68
13:AM:18:LEU:O	13:AM:24:VAL:HG21	1.93	0.68
18:AR:44:THR:OG1	18:AR:46:THR:HG22	1.94	0.68
22:BA:528:A:OP2	31:BJ:116:ARG:NH2	2.27	0.68
22:BA:1872:A:H2'	22:BA:1873:G:O4'	1.93	0.68
22:BA:2310:C:H2'	27:BF:76:PHE:HE1	1.58	0.68
22:BA:2471:A:H2'	22:BA:2472:G:H5'	1.76	0.68
26:BE:160:ALA:O	26:BE:161:ALA:HB3	1.93	0.68
27:BF:120:SER:HB2	27:BF:127:TYR:CE1	2.28	0.68
49:B1:42:VAL:HG12	49:B1:44:GLN:HB2	1.76	0.68
53:CA:68:G:H5'	53:CA:171:A:H1'	1.75	0.68
53:CA:373:A:O2'	53:CA:374:A:C5'	2.37	0.68
53:CA:458:U:H2'	53:CA:459:A:C8	2.27	0.68
53:CA:1226:C:H5"	55:CM:94:LEU:HD21	1.75	0.68
2:CB:110:ILE:CD1	2:CB:151:LYS:HA	2.22	0.68
54:CG:30:MET:O	54:CG:31:VAL:HB	1.93	0.68
54:CG:59:GLU:HG3	54:CG:60:ALA:H	1.59	0.68
11:CK:64:VAL:O	11:CK:68:ARG:HB2	1.92	0.68
20:CT:30:PHE:CE2	20:CT:52:GLU:HG2	2.29	0.68
22:DA:1312:U:H4'	22:DA:1313:U:O5'	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1327:A:O2'	22:DA:1328:A:O4'	2.05	0.68
22:DA:1346:G:HO2'	22:DA:1347:A:H8	0.71	0.68
22:DA:2615:U:O2'	22:DA:2616:C:H5'	1.94	0.68
32:DK:88:ASN:HB2	32:DK:91:SER:HB2	1.75	0.68
38:DQ:64:ILE:HD12	38:DQ:95:ALA:CB	2.23	0.68
41:DT:28:ASN:HB2	41:DT:87:LEU:HB3	1.76	0.68
52:D4:19:ARG:HD2	52:D4:24:ARG:HD2	1.75	0.68
1:AA:683:G:N2	11:AK:39:ASN:HA	2.08	0.68
1:AA:1151:A:O2'	1:AA:1152:A:C5'	2.42	0.68
2:AB:36:LYS:HE3	2:AB:36:LYS:CA	2.23	0.68
4:AD:71:PHE:CE1	4:AD:199:ILE:HD11	2.29	0.68
5:AE:100:GLU:HB2	5:AE:103:GLY:CA	2.24	0.68
13:AM:55:LEU:O	13:AM:59:VAL:HG12	1.92	0.68
15:AO:16:ARG:HD3	15:AO:16:ARG:H	1.57	0.68
21:AU:39:LYS:N	21:AU:40:PRO:HD2	2.07	0.68
22:BA:7:G:H2'	22:BA:8:C:H6	1.59	0.68
22:BA:14:A:H3'	22:BA:15:G:H5"	1.76	0.68
22:BA:560:C:O2	38:BQ:47:ARG:NH1	2.27	0.68
22:BA:767:U:O2'	22:BA:768:G:H5'	1.94	0.68
22:BA:1019:U:C4	22:BA:1020:A:N6	2.62	0.68
22:BA:1140:C:P	31:BJ:68:LYS:HZ3	2.17	0.68
27:BF:134:GLN:O	27:BF:135:ILE:HB	1.93	0.68
39:BR:3:ALA:HA	39:BR:40:MET:O	1.94	0.68
53:CA:119:A:H5'	53:CA:120:A:C5'	2.24	0.68
53:CA:384:G:H2'	53:CA:385:C:C6	2.29	0.68
53:CA:464:U:C4	53:CA:466:A:H4'	2.29	0.68
53:CA:1217:C:OP1	14:CN:8:ARG:HB2	1.92	0.68
53:CA:1281:C:H3'	53:CA:1282:C:H5'	1.75	0.68
10:CJ:7:ARG:NH1	10:CJ:102:LEU:HG	2.09	0.68
56:CP:54:LEU:HD23	56:CP:54:LEU:H	1.59	0.68
22:DA:1125:G:H4'	52:D4:37:GLN:NE2	2.08	0.68
22:DA:1417:C:O2'	22:DA:1418:G:C5'	2.40	0.68
22:DA:1607:C:H4'	22:DA:1608:A:H8	1.56	0.68
22:DA:1809:A:H2'	22:DA:1810:A:C8	2.29	0.68
22:DA:2607:G:H2'	22:DA:2608:G:O4'	1.92	0.68
31:DJ:56:VAL:HG21	31:DJ:124:VAL:HG23	1.74	0.68
35:DN:16:HIS:O	35:DN:20:MET:HB2	1.93	0.68
41:DT:10:VAL:HG23	41:DT:11:LEU:H	1.59	0.68
41:DT:30:ILE:O	41:DT:85:VAL:HG23	1.94	0.68
1:AA:1006:G:H2'	1:AA:1007:U:H6	1.58	0.68
1:AA:1123:U:H5"	1:AA:1124:G:OP2	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1157:A:H1'	1:AA:1181:G:N1	2.09	0.68
6:AF:61:LEU:HD21	18:AR:23:LYS:NZ	2.09	0.68
7:AG:143:MET:HA	7:AG:143:MET:HE2	1.74	0.68
8:AH:48:PHE:O	8:AH:49:LYS:HB2	1.94	0.68
11:AK:15:VAL:HG13	11:AK:78:ILE:CG2	2.24	0.68
11:AK:126:ARG:CB	21:AU:33:ARG:NH1	2.41	0.68
21:AU:52:VAL:HG13	21:AU:53:LYS:N	2.02	0.68
22:BA:1179:G:OP2	22:BA:1180:U:H5"	1.94	0.68
22:BA:1494:A:H2'	22:BA:1495:A:H8	1.59	0.68
22:BA:2058:A:H5"	22:BA:2059:A:OP2	1.93	0.68
22:BA:2188:U:H2'	22:BA:2189:U:H6	1.57	0.68
22:BA:2599:G:C2'	22:BA:2600:A:H5'	2.24	0.68
25:BD:159:LYS:HZ2	25:BD:160:LYS:H	1.40	0.68
26:BE:137:LYS:O	26:BE:141:MET:HG3	1.93	0.68
32:BK:18:ARG:N	32:BK:45:GLU:HB2	2.06	0.68
36:BO:75:GLY:HA3	36:BO:106:LEU:HA	1.75	0.68
37:BP:25:VAL:HG11	37:BP:46:VAL:HG23	1.75	0.68
44:BW:33:GLY:O	44:BW:34:SER:HB3	1.93	0.68
53:CA:802:A:H2'	53:CA:803:G:H5'	1.76	0.68
53:CA:1102:A:H2'	53:CA:1103:C:C6	2.28	0.68
53:CA:1453:G:H2'	53:CA:1453:G:N3	2.09	0.68
5:CE:81:GLN:OE1	5:CE:149:PRO:HD3	1.94	0.68
12:CL:2:THR:HB	12:CL:5:GLN:H	1.59	0.68
17:CQ:37:ILE:HG13	17:CQ:38:LYS:O	1.93	0.68
22:DA:304:U:HO2'	22:DA:305:C:H6	1.37	0.68
22:DA:528:A:N1	22:DA:2043:C:O5'	2.27	0.68
22:DA:851:C:C4'	47:DZ:46:MET:HG2	2.23	0.68
22:DA:1343:G:H2'	22:DA:1344:U:C5	2.29	0.68
22:DA:1722:A:C6	22:DA:1739:A:C8	2.81	0.68
22:DA:2211:A:OP2	22:DA:2211:A:H4'	1.94	0.68
22:DA:2276:G:O2'	22:DA:2277:G:H5'	1.94	0.68
26:DE:109:LEU:O	26:DE:112:LEU:HB3	1.94	0.68
36:DO:70:ALA:O	36:DO:74:VAL:HG23	1.94	0.68
44:DW:37:VAL:CG2	44:DW:38:ARG:NH1	2.57	0.68
1:AA:1025:U:H5"	1:AA:1026:G:H5'	1.76	0.67
1:AA:1195:C:H2'	1:AA:1197:A:H5'	1.75	0.67
1:AA:1355:G:O2'	1:AA:1356:G:H5'	1.93	0.67
12:AL:84:GLY:O	12:AL:95:HIS:HD2	1.76	0.67
22:BA:594:U:H2'	22:BA:595:C:C6	2.27	0.67
22:BA:614:A:O2'	22:BA:615:U:OP2	2.11	0.67
22:BA:899:A:HO2'	22:BA:900:A:H8	1.42	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1644:C:O2'	22:BA:1645:G:H5'	1.94	0.67
22:BA:2150:C:H2'	22:BA:2151:U:H5	1.56	0.67
26:BE:146:VAL:HG23	26:BE:167:VAL:HG21	1.76	0.67
34:BM:114:ARG:HA	34:BM:130:PHE:CE1	2.28	0.67
53:CA:520:A:H2'	53:CA:521:G:O4'	1.94	0.67
53:CA:643:C:O2'	53:CA:644:U:C5'	2.42	0.67
53:CA:1504:G:C4'	53:CA:1505:G:H5'	2.23	0.67
5:CE:44:ARG:NH2	5:CE:70:MET:HB2	2.09	0.67
55:CM:91:ARG:HD3	55:CM:91:ARG:O	1.94	0.67
22:DA:12:U:O2	22:DA:12:U:H2'	1.93	0.67
22:DA:929:U:H1'	47:DZ:25:GLY:O	1.93	0.67
22:DA:1008:A:H4'	22:DA:1009:A:OP1	1.93	0.67
22:DA:1204:A:H4'	22:DA:1205:A:H5"	1.76	0.67
22:DA:1352:U:C5	22:DA:1377:G:C6	2.82	0.67
22:DA:1740:G:O2'	22:DA:1741:C:H5'	1.94	0.67
22:DA:1821:A:O2'	22:DA:1822:C:O5'	2.12	0.67
22:DA:2585:U:O2'	22:DA:2586:U:C5'	2.42	0.67
22:DA:2829:A:C2'	22:DA:2830:C:H5'	2.24	0.67
25:DD:4:LEU:HD23	25:DD:101:PHE:CE1	2.29	0.67
33:DL:122:VAL:O	33:DL:122:VAL:HG23	1.94	0.67
34:DM:34:LYS:HB2	34:DM:131:VAL:HG23	1.76	0.67
34:DM:36:VAL:HG13	43:DV:82:TYR:HD1	1.57	0.67
39:DR:39:LEU:HA	39:DR:49:ILE:CG2	2.17	0.67
41:DT:10:VAL:HG23	41:DT:11:LEU:CD1	2.23	0.67
51:D3:36:ALA:O	51:D3:40:LYS:HG3	1.93	0.67
1:AA:1201:A:H1'	1:AA:1202:U:OP2	1.94	0.67
5:AE:152:VAL:HG12	5:AE:155:LYS:HZ1	1.60	0.67
8:AH:88:LYS:HG3	8:AH:89:ASP:H	1.58	0.67
16:AP:36:VAL:O	16:AP:36:VAL:HG13	1.93	0.67
23:BB:15:A:O2'	23:BB:16:G:H5'	1.95	0.67
25:BD:46:ARG:HG3	25:BD:84:LEU:HB2	1.76	0.67
25:BD:107:VAL:H	25:BD:206:ALA:H	1.39	0.67
26:BE:46:GLN:HG3	26:BE:86:ALA:HA	1.76	0.67
44:BW:37:VAL:CG1	44:BW:55:ASP:O	2.43	0.67
46:BY:1:MET:C	46:BY:2:LYS:HD2	2.14	0.67
53:CA:675:A:H1'	11:CK:117:HIS:ND1	2.09	0.67
53:CA:960:U:O2'	53:CA:1223:C:C4'	2.42	0.67
53:CA:1072:G:H2'	53:CA:1073:U:C6	2.29	0.67
2:CB:131:LYS:O	2:CB:131:LYS:HE3	1.94	0.67
4:CD:8:LEU:CD2	4:CD:21:LYS:HD2	2.24	0.67
5:CE:68:ARG:O	5:CE:70:MET:HG2	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:58:GLU:HG3	9:CI:59:LYS:H	1.59	0.67
10:CJ:102:LEU:HD13	10:CJ:102:LEU:OXT	1.95	0.67
15:CO:63:ARG:HH22	22:DA:715:A:C5'	2.06	0.67
56:CP:52:LEU:O	56:CP:53:ASP:HB2	1.93	0.67
18:CR:22:TYR:HA	18:CR:57:ALA:HB1	1.76	0.67
22:DA:1010:A:O2'	22:DA:1011:G:C5'	2.42	0.67
22:DA:1038:G:C2'	22:DA:1039:A:C5'	2.71	0.67
22:DA:1079:C:N4	22:DA:1088:A:N3	2.42	0.67
22:DA:1087:G:H1'	22:DA:1089:A:H1'	1.76	0.67
22:DA:1127:A:O2'	22:DA:1128:G:C5'	2.38	0.67
22:DA:1345:C:O2'	22:DA:1346:G:H8	1.74	0.67
58:DF:129:MET:HE2	58:DF:174:PHE:HZ	1.57	0.67
30:DI:76:ALA:HB2	30:DI:131:THR:HB	1.75	0.67
32:DK:97:THR:O	32:DK:98:ARG:HB2	1.92	0.67
33:DL:79:LEU:CA	33:DL:82:LEU:HD11	2.19	0.67
40:DS:6:LYS:HZ2	40:DS:104:THR:HG23	1.58	0.67
40:DS:66:ILE:HD13	40:DS:66:ILE:N	2.09	0.67
49:D1:34:GLU:HG3	49:D1:49:LYS:HB2	1.77	0.67
49:D1:47:ILE:HD12	49:D1:47:ILE:N	2.09	0.67
1:AA:345:C:C3'	37:BP:33:GLU:OE1	2.42	0.67
1:AA:701:U:O2'	1:AA:702:A:OP2	2.12	0.67
1:AA:1071:C:H2'	1:AA:1072:G:C8	2.28	0.67
1:AA:1101:A:H4'	1:AA:1102:A:O5'	1.94	0.67
1:AA:1306:A:H2'	1:AA:1307:U:H5'	1.74	0.67
5:AE:12:GLU:HB2	5:AE:38:VAL:HG12	1.76	0.67
10:AJ:49:PHE:CE1	14:AN:76:PHE:HZ	2.13	0.67
22:BA:2136:G:C2	22:BA:2137:U:C4	2.82	0.67
22:BA:2732:G:H8	22:BA:2732:G:OP2	1.77	0.67
26:BE:61:ARG:NH1	26:BE:64:GLY:HA3	2.09	0.67
35:BN:23:ASN:HD22	35:BN:23:ASN:N	1.91	0.67
40:BS:4:ILE:HG22	40:BS:106:VAL:HG13	1.76	0.67
41:BT:8:LEU:N	41:BT:8:LEU:HD23	2.08	0.67
53:CA:197:A:C6	53:CA:221:C:C4'	2.77	0.67
53:CA:642:A:HO2'	53:CA:643:C:H6	1.38	0.67
53:CA:954:G:H1	53:CA:1228:C:N4	1.92	0.67
53:CA:958:A:H62	19:CS:54:ARG:NH1	1.92	0.67
53:CA:960:U:O2'	53:CA:1223:C:H5"	1.94	0.67
53:CA:960:U:H4'	53:CA:961:U:O5'	1.94	0.67
53:CA:1202:U:O2'	53:CA:1203:C:H5'	1.93	0.67
2:CB:112:ARG:O	2:CB:112:ARG:HG3	1.94	0.67
5:CE:28:ARG:HG2	5:CE:29:ILE:N	2.08	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:73:VAL:HG12	5:CE:74:ALA:O	1.94	0.67
6:CF:39:LEU:HD12	6:CF:40:GLU:N	2.09	0.67
19:CS:28:LYS:HB3	19:CS:29:PRO:HD2	1.75	0.67
22:DA:108:G:H2'	22:DA:109:C:H6	1.60	0.67
22:DA:273:G:H2'	22:DA:274:C:C6	2.29	0.67
22:DA:2756:U:H1'	22:DA:2757:A:H5"	1.76	0.67
26:DE:150:THR:O	26:DE:192:ALA:HB2	1.95	0.67
28:DG:112:VAL:HG12	28:DG:114:HIS:HB3	1.76	0.67
31:DJ:64:VAL:HG22	31:DJ:68:LYS:HG3	1.75	0.67
39:DR:82:HIS:O	39:DR:82:HIS:CG	2.47	0.67
42:DU:6:ARG:HG2	42:DU:7:ASP:N	2.08	0.67
45:DX:30:PRO:HG2	45:DX:32:LEU:CD2	2.23	0.67
46:DY:18:LEU:O	46:DY:18:LEU:HD13	1.94	0.67
12:AL:43:LYS:CB	12:AL:44:PRO:CD	2.71	0.67
13:AM:39:ALA:HB3	13:AM:42:VAL:CG1	2.24	0.67
22:BA:364:C:O2'	22:BA:365:U:H5'	1.92	0.67
22:BA:568:U:OP1	33:BL:36:LYS:HE3	1.94	0.67
22:BA:1537:G:H5"	22:BA:1537:G:N3	2.10	0.67
22:BA:2801:G:H2'	22:BA:2802:G:C8	2.30	0.67
25:BD:73:VAL:HG23	25:BD:74:GLU:H	1.60	0.67
28:BG:84:LYS:HZ1	28:BG:133:LYS:HE3	1.57	0.67
37:BP:87:ARG:NH2	37:BP:111:GLU:HG3	2.09	0.67
45:BX:30:PRO:HB2	45:BX:32:LEU:HD12	1.77	0.67
45:BX:65:THR:O	45:BX:68:ALA:HB3	1.94	0.67
53:CA:821:G:H2'	53:CA:822:U:H6	1.59	0.67
53:CA:1087:G:O2'	53:CA:1088:G:H5'	1.95	0.67
14:CN:2:LYS:HD3	14:CN:5:MET:CG	2.25	0.67
22:DA:110:G:N2	22:DA:111:A:H1'	2.10	0.67
22:DA:2336:A:N7	44:DW:40:ARG:CZ	2.58	0.67
22:DA:2344:U:H4'	22:DA:2345:G:OP1	1.94	0.67
57:DB:31:C:H5"	58:DF:29:ARG:HH12	1.59	0.67
24:DC:191:LEU:HD22	24:DC:191:LEU:N	2.10	0.67
29:DH:1:MET:CE	29:DH:23:ALA:HB2	2.24	0.67
35:DN:56:LYS:HA	35:DN:84:GLY:CA	2.23	0.67
41:DT:29:THR:N	41:DT:87:LEU:HB2	2.08	0.67
45:DX:53:LYS:HA	45:DX:56:ARG:HB2	1.77	0.67
1:AA:98:A:H2'	1:AA:99:C:H6	1.59	0.67
1:AA:206:C:C2	1:AA:207:C:H1'	2.29	0.67
1:AA:428:G:C1'	1:AA:430:A:C8	2.78	0.67
1:AA:437:U:H4'	4:AD:153:ARG:NH2	2.09	0.67
1:AA:779:C:C2'	1:AA:780:A:H5'	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1507:A:N6	1:AA:1530:G:C6	2.62	0.67
5:AE:37:VAL:HG12	5:AE:116:VAL:HG21	1.75	0.67
5:AE:67:ARG:HB2	5:AE:68:ARG:HE	1.60	0.67
5:AE:83:PRO:HB3	5:AE:96:GLN:HE21	1.58	0.67
5:AE:152:VAL:CB	5:AE:155:LYS:NZ	2.58	0.67
22:BA:6:A:O2'	22:BA:7:G:H5'	1.93	0.67
22:BA:39:G:H2'	22:BA:40:U:H6	1.59	0.67
22:BA:574:A:H4'	22:BA:575:A:H5'	1.76	0.67
22:BA:747:U:H2'	22:BA:2613:U:O4	1.94	0.67
22:BA:1188:U:H2'	22:BA:1189:A:H5'	1.74	0.67
22:BA:2207:C:H2'	22:BA:2208:C:C6	2.30	0.67
22:BA:2547:A:H2'	22:BA:2548:U:C6	2.29	0.67
24:BC:68:ARG:HD3	24:BC:103:ILE:HD11	1.76	0.67
24:BC:80:LEU:HD11	24:BC:109:LEU:HG	1.77	0.67
24:BC:85:ASN:OD1	24:BC:85:ASN:N	2.27	0.67
24:BC:140:VAL:HG11	24:BC:189:ALA:HB1	1.75	0.67
26:BE:129:PRO:HG3	26:BE:156:ASN:OD1	1.93	0.67
32:BK:63:VAL:HG21	32:BK:85:VAL:HG23	1.76	0.67
53:CA:412:A:H4'	53:CA:413:G:OP1	1.92	0.67
53:CA:696:A:H2'	53:CA:697:U:H6	1.59	0.67
53:CA:1278:G:H4'	53:CA:1279:G:H5'	1.73	0.67
3:CC:33:ASP:O	3:CC:37:LYS:HG2	1.94	0.67
6:CF:3:HIS:HD2	6:CF:65:GLU:HG2	1.58	0.67
18:CR:19:GLU:CD	18:CR:20:ILE:H	1.97	0.67
20:CT:3:ILE:O	20:CT:4:LYS:HG2	1.93	0.67
22:DA:946:C:O2'	22:DA:947:A:H5'	1.95	0.67
22:DA:959:A:H2'	22:DA:960:A:N7	2.10	0.67
22:DA:1326:U:O2'	22:DA:1327:A:H8	1.77	0.67
22:DA:1536:C:H5"	22:DA:1537:G:O5'	1.93	0.67
22:DA:2271:G:H2'	22:DA:2272:U:C6	2.30	0.67
22:DA:2324:U:H5'	22:DA:2325:G:H5"	1.77	0.67
22:DA:2846:G:OP1	37:DP:51:ASN:HB2	1.95	0.67
57:DB:58:A:O2'	57:DB:59:A:H8	1.78	0.67
26:DE:34:ALA:HB1	26:DE:94:GLN:HB2	1.75	0.67
32:DK:99:ILE:HG13	32:DK:118:LEU:HD12	1.77	0.67
34:DM:108:VAL:HG23	34:DM:109:PRO:HD2	1.77	0.67
39:DR:39:LEU:HB3	39:DR:49:ILE:HD13	1.77	0.67
1:AA:425:G:C2'	1:AA:426:U:H5'	2.24	0.67
1:AA:430:A:O2'	1:AA:431:A:C5'	2.40	0.67
1:AA:725:G:H2'	1:AA:726:C:H6	1.60	0.67
1:AA:1233:G:H2'	1:AA:1234:C:H6	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1258:G:HO2'	1:AA:1259:C:H6	1.41	0.67
5:AE:114:LEU:HD21	5:AE:122:VAL:CG2	2.25	0.67
5:AE:155:LYS:HD2	5:AE:155:LYS:H	1.60	0.67
10:AJ:18:ILE:HG21	10:AJ:72:ARG:HE	1.59	0.67
22:BA:1011:G:H4'	22:BA:1012:U:OP1	1.92	0.67
22:BA:1735:A:H2'	22:BA:1736:U:H6	1.60	0.67
22:BA:2543:G:H2'	22:BA:2544:G:C8	2.29	0.67
24:BC:52:HIS:NE2	24:BC:218:THR:HG23	2.09	0.67
29:BH:4:ILE:HG12	29:BH:18:GLN:NE2	2.10	0.67
44:BW:17:ALA:CA	44:BW:35:ILE:HG23	2.24	0.67
44:BW:41:GLY:O	44:BW:43:LYS:N	2.28	0.67
53:CA:160:A:H2'	53:CA:161:A:O4'	1.95	0.67
53:CA:1268:G:N2	53:CA:1327:C:H1'	2.10	0.67
12:CL:56:LEU:HB2	12:CL:58:ASN:OD1	1.94	0.67
14:CN:27:LYS:HD2	14:CN:27:LYS:C	2.15	0.67
22:DA:35:G:O2'	22:DA:36:G:O5'	2.13	0.67
22:DA:686:U:C6	22:DA:788:A:N1	2.62	0.67
22:DA:859:G:N2	22:DA:916:G:C2'	2.57	0.67
22:DA:942:G:H4'	22:DA:1190:G:H5'	1.75	0.67
22:DA:1063:G:HO2'	22:DA:1064:C:H6	1.41	0.67
22:DA:1651:G:N2	22:DA:2007:U:C2	2.63	0.67
22:DA:2136:G:O2'	22:DA:2137:U:C6	2.47	0.67
22:DA:2286:G:O6	49:D1:22:THR:HG21	1.94	0.67
22:DA:2620:C:O4'	25:DD:161:MET:HG3	1.95	0.67
25:DD:179:ARG:HD2	25:DD:188:LEU:HD12	1.75	0.67
26:DE:23:PHE:HB2	26:DE:114:ARG:HH22	1.60	0.67
26:DE:98:LYS:O	26:DE:99:LYS:HB2	1.93	0.67
58:DF:39:VAL:HG13	58:DF:49:LEU:HD23	1.76	0.67
58:DF:65:LEU:HD11	58:DF:87:LYS:HZ1	1.58	0.67
58:DF:177:ARG:HD3	58:DF:178:LYS:N	2.10	0.67
36:DO:30:ARG:HG2	36:DO:31:THR:N	2.09	0.67
37:DP:45:VAL:O	37:DP:60:VAL:HA	1.95	0.67
1:AA:667:G:H4'	15:AO:50:HIS:ND1	2.10	0.67
4:AD:47:LEU:HD23	4:AD:47:LEU:O	1.95	0.67
5:AE:10:LEU:HD23	5:AE:10:LEU:H	1.60	0.67
5:AE:11:GLN:HA	5:AE:11:GLN:NE2	2.05	0.67
22:BA:201:C:C2'	22:BA:202:U:H5'	2.25	0.67
22:BA:264:C:C2'	22:BA:265:A:H5"	2.25	0.67
22:BA:1139:G:O2'	22:BA:1140:C:H5'	1.95	0.67
22:BA:1731:G:O2'	22:BA:1732:C:H3'	1.94	0.67
22:BA:2584:U:O4	62:BA:3698:HOH:O	2.08	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BF:39:VAL:CG1	27:BF:49:LEU:HD13	2.25	0.67
44:BW:76:ARG:HG3	44:BW:76:ARG:NH2	2.09	0.67
53:CA:108:G:H5'	53:CA:109:A:H5"	1.77	0.67
53:CA:487:A:H2'	53:CA:488:C:O4'	1.95	0.67
53:CA:1169:A:H2'	53:CA:1170:A:C8	2.30	0.67
9:CI:75:ALA:HA	9:CI:78:ILE:HD12	1.75	0.67
12:CL:5:GLN:HG3	12:CL:9:LYS:NZ	2.10	0.67
55:CM:28:ARG:O	55:CM:28:ARG:HD2	1.93	0.67
55:CM:77:LYS:O	55:CM:77:LYS:HD3	1.94	0.67
55:CM:81:ASP:HB3	55:CM:82:LEU:HD12	1.75	0.67
21:CU:53:LYS:HB2	21:CU:53:LYS:NZ	2.10	0.67
22:DA:126:A:O5'	50:D2:19:ARG:HG3	1.94	0.67
22:DA:491:G:O2'	22:DA:492:A:H5'	1.94	0.67
22:DA:575:A:N3	22:DA:576:U:C5	2.62	0.67
22:DA:705:A:H2'	22:DA:706:A:C8	2.28	0.67
22:DA:800:A:H4'	22:DA:801:G:O5'	1.93	0.67
22:DA:1274:A:C6	22:DA:1302:A:C2	2.82	0.67
22:DA:1666:G:O3'	32:DK:6:THR:HG23	1.93	0.67
22:DA:2426:A:H3'	22:DA:2427:C:C5'	2.24	0.67
22:DA:2508:G:C2	22:DA:2582:G:C6	2.83	0.67
22:DA:2788:C:H2'	22:DA:2789:C:C6	2.29	0.67
57:DB:40:U:O2'	57:DB:45:A:N6	2.27	0.67
57:DB:81:G:H2'	57:DB:82:U:H6	1.60	0.67
24:DC:32:LEU:HB3	24:DC:63:ILE:HG12	1.77	0.67
25:DD:119:ALA:HB2	25:DD:163:GLY:O	1.94	0.67
58:DF:177:ARG:HD3	58:DF:178:LYS:H	1.60	0.67
31:DJ:86:GLN:O	31:DJ:87:ALA:HB2	1.94	0.67
35:DN:70:THR:HG22	35:DN:70:THR:O	1.95	0.67
42:DU:81:ARG:CB	42:DU:96:LYS:HD2	2.25	0.67
45:DX:63:ILE:O	45:DX:67:LEU:HD12	1.95	0.67
46:DY:37:LEU:HD13	46:DY:42:LEU:CD1	2.24	0.67
52:D4:3:VAL:O	52:D4:4:ARG:HB2	1.94	0.67
1:AA:98:A:H2'	1:AA:99:C:C6	2.30	0.67
1:AA:279:A:H5"	1:AA:281:G:O4'	1.93	0.67
1:AA:469:C:O2'	1:AA:470:C:H5'	1.95	0.67
1:AA:601:G:H2'	1:AA:602:A:C8	2.30	0.67
1:AA:1387:G:H2'	1:AA:1388:C:C6	2.30	0.67
1:AA:1398:A:H8	1:AA:1398:A:H5"	1.60	0.67
2:AB:46:VAL:HB	2:AB:47:PRO:CD	2.23	0.67
2:AB:89:PHE:CB	2:AB:149:GLY:HA2	2.08	0.67
2:AB:187:ASP:HB2	2:AB:203:ASP:HB3	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:132:PRO:HA	5:AE:135:VAL:HG13	1.75	0.67
19:AS:46:LEU:H	19:AS:61:VAL:CG2	2.07	0.67
22:BA:38:A:N3	26:BE:43:THR:HB	2.09	0.67
22:BA:1882:U:O2'	22:BA:1883:U:H5'	1.95	0.67
32:BK:24:VAL:HG12	32:BK:30:ARG:HD2	1.77	0.67
32:BK:39:ILE:HG22	32:BK:60:ALA:O	1.95	0.67
36:BO:76:LYS:O	36:BO:80:GLU:HG2	1.95	0.67
53:CA:182:A:C4	53:CA:184:G:N7	2.63	0.67
53:CA:1301:U:O2'	53:CA:1302:C:C5	2.48	0.67
53:CA:1467:C:H2'	53:CA:1468:A:C8	2.30	0.67
4:CD:3:TYR:O	4:CD:4:LEU:HB2	1.94	0.67
4:CD:129:VAL:HG11	4:CD:134:TYR:CD1	2.29	0.67
54:CG:100:MET:H	54:CG:100:MET:HE2	1.59	0.67
56:CP:52:LEU:CD2	56:CP:75:ILE:HG12	2.25	0.67
56:CP:78:VAL:C	56:CP:80:LYS:H	1.98	0.67
22:DA:633:A:O5'	22:DA:633:A:H8	1.78	0.67
22:DA:784:G:O2'	22:DA:785:G:H8	1.78	0.67
22:DA:2197:U:C6	22:DA:2224:G:C6	2.82	0.67
26:DE:88:ARG:HB3	26:DE:89:PRO:HD2	1.77	0.67
26:DE:111:GLU:HB2	26:DE:114:ARG:HH21	1.57	0.67
26:DE:134:LEU:HA	26:DE:137:LYS:HB2	1.76	0.67
30:DI:21:PRO:N	30:DI:22:PRO:HD2	2.10	0.67
40:DS:29:VAL:HG11	40:DS:55:ILE:CD1	2.24	0.67
40:DS:86:MET:HE1	40:DS:87:PRO:HD2	1.77	0.67
45:DX:52:ALA:O	45:DX:53:LYS:HB3	1.93	0.67
1:AA:500:G:H2'	1:AA:501:C:C6	2.30	0.67
1:AA:545:C:C5'	4:AD:68:GLU:HG3	2.19	0.67
1:AA:1225:A:H2'	1:AA:1226:C:C5	2.30	0.67
3:AC:166:TRP:HE3	3:AC:166:TRP:N	1.89	0.67
5:AE:152:VAL:CA	5:AE:155:LYS:NZ	2.58	0.67
13:AM:7:ASN:HD22	13:AM:8:ILE:H	1.41	0.67
22:BA:1681:G:O2'	22:BA:1762:A:H1'	1.95	0.67
22:BA:2886:A:C5	22:BA:2887:A:C8	2.83	0.67
23:BB:53:A:O2'	23:BB:54:G:H5'	1.95	0.67
31:BJ:18:VAL:CG2	31:BJ:140:LEU:CD1	2.72	0.67
31:BJ:44:TYR:O	31:BJ:45:THR:HB	1.95	0.67
37:BP:50:ARG:HB2	37:BP:56:SER:HA	1.77	0.67
53:CA:117:G:C2'	53:CA:118:U:H5'	2.25	0.67
54:CG:68:VAL:CG2	54:CG:134:VAL:HG12	2.25	0.67
55:CM:47:LEU:HD23	55:CM:48:SER:N	2.10	0.67
17:CQ:67:SER:OG	17:CQ:70:LYS:HB2	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:286:U:H2'	22:DA:287:G:C8	2.29	0.67
22:DA:426:C:C2'	22:DA:427:U:H5'	2.25	0.67
22:DA:647:G:O2'	22:DA:648:G:H5'	1.94	0.67
22:DA:678:C:H2'	22:DA:679:C:H6	1.58	0.67
22:DA:688:U:O2'	22:DA:689:A:H5'	1.95	0.67
22:DA:1255:U:H3'	22:DA:1256:G:H5"	1.75	0.67
22:DA:1428:C:C5	22:DA:1569:A:H5'	2.29	0.67
22:DA:1827:U:O4'	22:DA:1970:A:O2'	2.12	0.67
22:DA:2271:G:H2'	22:DA:2272:U:H6	1.60	0.67
22:DA:2331:G:O2'	44:DW:40:ARG:HB3	1.94	0.67
22:DA:2384:U:H5"	22:DA:2386:A:OP1	1.95	0.67
58:DF:43:ILE:HD13	58:DF:82:TYR:CE2	2.28	0.67
31:DJ:2:LYS:HB2	31:DJ:2:LYS:HZ3	1.59	0.67
31:DJ:25:LEU:HB2	31:DJ:62:VAL:HG21	1.76	0.67
40:DS:4:ILE:CG2	40:DS:106:VAL:HG22	2.24	0.67
48:D0:26:SER:O	48:D0:27:LEU:HD13	1.94	0.67
1:AA:1247:U:O2'	1:AA:1248:A:H5'	1.94	0.67
1:AA:1520:C:H2'	1:AA:1521:C:H6	1.60	0.67
5:AE:152:VAL:HB	5:AE:155:LYS:HZ2	1.60	0.67
11:AK:22:ILE:HG22	11:AK:31:VAL:HG13	1.76	0.67
20:AT:75:LYS:HB3	20:AT:75:LYS:NZ	2.10	0.67
22:BA:346:A:C2	22:BA:347:A:H1'	2.30	0.67
22:BA:503:A:H4'	22:BA:504:A:O5'	1.94	0.67
22:BA:595:C:H2'	22:BA:596:U:H6	1.60	0.67
22:BA:703:U:H2'	22:BA:704:G:H5'	1.75	0.67
22:BA:1967:C:C2'	22:BA:1968:G:H5'	2.23	0.67
22:BA:2092:U:H4'	22:BA:2093:G:O5'	1.95	0.67
22:BA:2729:G:H8	22:BA:2729:G:H5"	1.60	0.67
26:BE:187:VAL:HG12	26:BE:188:MET:N	2.08	0.67
53:CA:389:A:O2'	53:CA:390:U:H5'	1.94	0.67
53:CA:523:A:C2	53:CA:527:G:O6	2.48	0.67
53:CA:672:U:H2'	53:CA:673:A:C8	2.30	0.67
53:CA:718:A:C5	11:CK:117:HIS:CD2	2.83	0.67
53:CA:1171:A:O2'	53:CA:1172:C:H5'	1.93	0.67
54:CG:116:ALA:O	54:CG:120:ALA:HB3	1.94	0.67
22:DA:594:U:H2'	22:DA:595:C:C6	2.30	0.67
22:DA:851:C:H2'	22:DA:852:U:C6	2.30	0.67
22:DA:1135:C:N4	22:DA:1139:G:C6	2.63	0.67
22:DA:1252:G:H5"	62:DA:3286:HOH:O	1.95	0.67
22:DA:1429:G:O2'	22:DA:1430:G:H8	1.77	0.67
22:DA:1536:C:H4'	22:DA:1537:G:C5'	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1964:G:H4'	22:DA:1965:C:OP2	1.94	0.67
22:DA:2093:G:N7	22:DA:2225:A:C4	2.63	0.67
22:DA:2229:U:H2'	22:DA:2230:G:C8	2.30	0.67
57:DB:17:C:N4	57:DB:68:C:H42	1.93	0.67
24:DC:77:VAL:HG23	24:DC:112:GLY:H	1.60	0.67
25:DD:40:LEU:H	25:DD:40:LEU:HD12	1.59	0.67
31:DJ:57:LEU:HG	31:DJ:128:ASN:H	1.59	0.67
33:DL:117:THR:HG22	33:DL:118:THR:N	2.08	0.67
40:DS:39:THR:O	40:DS:40:ASN:HB3	1.94	0.67
46:DY:1:MET:HG2	46:DY:4:LYS:HZ1	1.60	0.67
1:AA:1112:C:N4	3:AC:177:LEU:HD22	2.10	0.66
1:AA:1533:C:H3'	1:AA:1534:A:H5"	1.77	0.66
2:AB:95:TRP:HZ2	2:AB:100:LEU:HD23	1.60	0.66
7:AG:12:LEU:HD22	7:AG:12:LEU:N	1.98	0.66
15:AO:73:ASP:OD2	15:AO:76:ARG:HG3	1.95	0.66
22:BA:1223:G:OP2	39:BR:68:ARG:NH1	2.27	0.66
22:BA:2615:U:O2'	22:BA:2616:C:H5'	1.94	0.66
23:BB:12:C:H4'	23:BB:13:G:OP1	1.95	0.66
29:BH:75:LEU:HD23	29:BH:143:ILE:HG23	1.76	0.66
38:BQ:82:LEU:CD2	38:BQ:112:ALA:HB2	2.25	0.66
53:CA:269:C:H2'	53:CA:270:A:C8	2.30	0.66
6:CF:86:ARG:HH11	18:CR:63:TYR:HB3	1.55	0.66
10:CJ:44:THR:HG22	10:CJ:45:ARG:H	1.60	0.66
22:DA:36:G:O2'	22:DA:37:C:H5'	1.95	0.66
22:DA:77:G:O2'	22:DA:78:U:O4'	2.12	0.66
22:DA:92:U:O2'	22:DA:93:G:C5'	2.43	0.66
22:DA:505:A:O2'	22:DA:506:G:H5'	1.95	0.66
22:DA:657:U:O2'	22:DA:658:U:H5'	1.95	0.66
22:DA:1429:G:HO2'	22:DA:1430:G:H8	1.42	0.66
22:DA:1534:U:H2'	22:DA:1536:C:O2	1.95	0.66
22:DA:2314:A:C2	22:DA:2315:G:C5	2.82	0.66
22:DA:2331:G:N1	22:DA:2385:C:C4	2.63	0.66
22:DA:2540:C:C2	22:DA:2541:A:C8	2.83	0.66
24:DC:103:ILE:HD12	24:DC:104:LEU:H	1.61	0.66
58:DF:107:VAL:N	58:DF:108:PRO:CD	2.58	0.66
28:DG:22:VAL:HG12	28:DG:23:ILE:H	1.60	0.66
34:DM:17:ASN:OD1	34:DM:95:LEU:HB3	1.95	0.66
1:AA:261:U:OP2	20:AT:73:ARG:NH2	2.28	0.66
1:AA:414:A:O2'	1:AA:415:A:C5'	2.42	0.66
1:AA:794:A:H2'	1:AA:795:C:C6	2.30	0.66
4:AD:25:ARG:O	4:AD:26:ALA:HB2	1.94	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:126:ARG:CA	21:AU:33:ARG:HH12	2.08	0.66
22:BA:141:G:C5'	22:BA:142:A:C8	2.79	0.66
22:BA:384:A:H2'	22:BA:385:C:H5'	1.77	0.66
25:BD:86:GLU:HA	25:BD:86:GLU:OE1	1.93	0.66
28:BG:18:ILE:CD1	28:BG:42:VAL:HG13	2.25	0.66
28:BG:85:LYS:HG2	28:BG:131:VAL:CG1	2.23	0.66
33:BL:101:ILE:HG23	33:BL:102:GLY:N	2.10	0.66
38:BQ:69:ARG:HH21	38:BQ:69:ARG:CG	2.08	0.66
53:CA:532:A:C8	3:CC:192:TYR:CE2	2.83	0.66
53:CA:714:G:H2'	53:CA:715:A:C8	2.29	0.66
2:CB:128:LEU:HD22	2:CB:132:GLU:HG2	1.76	0.66
4:CD:2:ARG:NH2	4:CD:114:ARG:NH1	2.41	0.66
9:CI:9:GLY:HA3	9:CI:16:ALA:HB3	1.77	0.66
14:CN:13:VAL:HG22	14:CN:59:GLN:OE1	1.95	0.66
17:CQ:29:LYS:HE2	17:CQ:36:PHE:CE2	2.30	0.66
22:DA:128:C:O2'	22:DA:129:C:C6	2.46	0.66
22:DA:459:U:O2'	22:DA:460:A:H5'	1.95	0.66
22:DA:533:G:H2'	22:DA:534:U:C6	2.31	0.66
22:DA:553:G:H2'	22:DA:554:U:O4'	1.95	0.66
22:DA:792:A:H5"	22:DA:793:A:H5'	1.76	0.66
22:DA:1799:G:C8	24:DC:179:GLU:OE1	2.47	0.66
22:DA:1905:C:O4'	22:DA:1928:A:C2	2.48	0.66
22:DA:2313:C:HO2'	22:DA:2314:A:H8	1.39	0.66
22:DA:2313:C:O2'	22:DA:2314:A:H5'	1.95	0.66
22:DA:2376:A:H1'	36:DO:99:TYR:CZ	2.30	0.66
22:DA:2758:A:C2'	22:DA:2759:G:H5'	2.24	0.66
57:DB:75:G:H1	57:DB:102:G:N2	1.92	0.66
25:DD:28:GLU:HA	25:DD:185:ASN:O	1.95	0.66
58:DF:56:LEU:HD13	58:DF:56:LEU:O	1.94	0.66
58:DF:134:GLN:HG3	58:DF:149:ARG:O	1.95	0.66
38:DQ:50:ARG:O	38:DQ:54:ARG:HD3	1.95	0.66
40:DS:10:ALA:HB3	40:DS:101:SER:O	1.94	0.66
43:DV:80:HIS:CD2	43:DV:83:LYS:N	2.63	0.66
1:AA:56:U:H2'	1:AA:57:G:C8	2.29	0.66
1:AA:370:C:O2'	1:AA:371:A:H5'	1.95	0.66
1:AA:511:C:O2'	1:AA:512:U:C5'	2.42	0.66
1:AA:1136:C:H5"	1:AA:1137:C:OP2	1.94	0.66
1:AA:1343:G:H2'	1:AA:1344:C:C6	2.31	0.66
1:AA:1427:C:O2'	1:AA:1428:A:H5'	1.95	0.66
3:AC:63:ILE:O	3:AC:98:ALA:HA	1.94	0.66
4:AD:60:VAL:HA	4:AD:63:ILE:CG2	2.26	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:147:LYS:O	4:AD:149:LYS:N	2.28	0.66
8:AH:105:THR:HG21	8:AH:120:LEU:CD1	2.25	0.66
9:AI:38:PHE:HA	9:AI:41:GLU:OE1	1.96	0.66
18:AR:33:THR:HG23	18:AR:37:LYS:H	1.61	0.66
20:AT:53:MET:HG3	20:AT:54:GLN:N	2.10	0.66
22:BA:204:A:H4'	22:BA:205:G:OP1	1.96	0.66
22:BA:595:C:H2'	22:BA:596:U:C6	2.31	0.66
22:BA:802:A:H2'	22:BA:803:U:C6	2.29	0.66
22:BA:923:G:H4'	44:BW:25:PHE:CZ	2.31	0.66
22:BA:1184:U:H2'	22:BA:1185:G:O5'	1.95	0.66
22:BA:2840:C:O2'	22:BA:2841:C:H5'	1.95	0.66
31:BJ:2:LYS:HD3	31:BJ:2:LYS:H	1.61	0.66
34:BM:72:PRO:O	34:BM:91:TYR:O	2.12	0.66
37:BP:102:ARG:O	37:BP:103:THR:CG2	2.43	0.66
41:BT:39:THR:HG22	41:BT:41:ALA:CB	2.25	0.66
53:CA:177:G:O2'	53:CA:1448:C:C5'	2.42	0.66
53:CA:858:G:N7	62:CA:1822:HOH:O	2.27	0.66
53:CA:1160:G:O2'	53:CA:1161:C:H5'	1.94	0.66
53:CA:1202:U:O2'	53:CA:1203:C:C5'	2.44	0.66
2:CB:20:ARG:HH21	2:CB:38:HIS:CD2	2.11	0.66
3:CC:181:ILE:CG1	3:CC:202:PHE:HB2	2.24	0.66
6:CF:11:HIS:NE2	6:CF:54:LEU:HD21	2.11	0.66
9:CI:48:ARG:C	9:CI:50:PRO:HD2	2.15	0.66
10:CJ:32:THR:HG23	10:CJ:83:THR:OG1	1.94	0.66
22:DA:36:G:C6	22:DA:445:C:N4	2.63	0.66
22:DA:246:C:C2'	22:DA:247:G:H5'	2.25	0.66
22:DA:468:G:H5"	26:DE:55:SER:HB2	1.78	0.66
22:DA:524:G:H2'	22:DA:525:U:H6	1.60	0.66
22:DA:639:U:H2'	22:DA:640:C:C6	2.31	0.66
22:DA:867:C:O2'	22:DA:868:U:C5'	2.43	0.66
22:DA:1328:A:H2'	22:DA:1330:C:N4	2.10	0.66
22:DA:1342:A:N6	22:DA:1397:U:C5	2.64	0.66
22:DA:1597:A:O3'	22:DA:1598:A:H8	1.77	0.66
22:DA:2376:A:N3	36:DO:99:TYR:CE2	2.64	0.66
22:DA:2408:U:H5	62:DA:3599:HOH:O	1.78	0.66
22:DA:2638:G:H1'	22:DA:2778:A:N6	2.11	0.66
22:DA:2798:U:H5"	22:DA:2799:A:OP1	1.96	0.66
57:DB:69:G:N7	57:DB:70:C:C4	2.63	0.66
24:DC:42:ARG:NH2	24:DC:48:ILE:HD11	2.10	0.66
26:DE:122:GLU:HA	26:DE:190:ALA:HB2	1.77	0.66
31:DJ:58:ASN:OD1	31:DJ:127:GLY:HA2	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DL:127:VAL:HG13	33:DL:132:ARG:HB2	1.77	0.66
37:DP:91:VAL:CG1	37:DP:96:LEU:HD11	2.22	0.66
39:DR:98:ILE:HG22	39:DR:98:ILE:O	1.93	0.66
42:DU:39:ASN:HB3	42:DU:62:ALA:HB3	1.76	0.66
44:DW:28:GLU:H	44:DW:31:LEU:CD2	2.08	0.66
1:AA:480:U:H5"	1:AA:481:G:OP2	1.95	0.66
1:AA:874:G:C2'	1:AA:875:U:H5'	2.25	0.66
3:AC:13:ILE:O	3:AC:15:LYS:N	2.28	0.66
7:AG:30:MET:HG2	7:AG:31:VAL:N	2.11	0.66
17:AQ:20:ILE:H	17:AQ:47:ASP:CG	1.99	0.66
22:BA:512:G:N7	62:BA:3760:HOH:O	2.27	0.66
22:BA:1339:G:N2	22:BA:1603:A:H1'	2.11	0.66
24:BC:80:LEU:HD11	24:BC:109:LEU:HB2	1.76	0.66
44:BW:37:VAL:CG2	44:BW:55:ASP:O	2.43	0.66
53:CA:87:C:O2'	53:CA:88:U:C4'	2.44	0.66
53:CA:120:A:C3'	53:CA:121:U:C5'	2.73	0.66
53:CA:765:G:C5	53:CA:812:G:C5	2.83	0.66
53:CA:1381:U:C4	54:CG:77:ARG:NH1	2.63	0.66
8:CH:54:THR:O	8:CH:56:PRO:HD3	1.95	0.66
22:DA:73:A:H8	22:DA:73:A:O5'	1.78	0.66
22:DA:815:C:P	39:DR:85:LYS:HE2	2.34	0.66
22:DA:2094:A:P	29:DH:22:LYS:HD2	2.35	0.66
22:DA:2339:C:O2'	22:DA:2340:A:C8	2.44	0.66
22:DA:2734:A:H2'	22:DA:2735:G:H5'	1.76	0.66
57:DB:13:G:N2	57:DB:16:G:C4	2.64	0.66
25:DD:169:ARG:O	25:DD:170:VAL:HG22	1.96	0.66
26:DE:148:ILE:HA	26:DE:187:VAL:HB	1.76	0.66
32:DK:54:LYS:H	32:DK:54:LYS:HD2	1.61	0.66
35:DN:98:LEU:HD21	48:D0:53:VAL:HG11	1.78	0.66
37:DP:92:ARG:HG2	37:DP:92:ARG:O	1.93	0.66
38:DQ:87:VAL:HG11	39:DR:52:PRO:CG	2.23	0.66
41:DT:62:VAL:HG12	41:DT:63:VAL:N	2.11	0.66
1:AA:82:G:N2	1:AA:84:U:N3	2.42	0.66
1:AA:322:C:H5	1:AA:328:C:C5	2.13	0.66
1:AA:330:C:H6	1:AA:330:C:H5"	1.60	0.66
1:AA:587:G:H4'	8:AH:3:GLN:HA	1.78	0.66
1:AA:1269:A:H2	1:AA:1312:G:N3	1.94	0.66
13:AM:19:THR:HA	13:AM:24:VAL:HG23	1.77	0.66
16:AP:22:ALA:HB2	16:AP:32:PHE:CA	2.22	0.66
22:BA:181:A:H1'	22:BA:435:C:H5'	1.78	0.66
22:BA:364:C:H2'	22:BA:365:U:C6	2.31	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1238:G:C2'	22:BA:1239:G:H5'	2.25	0.66
22:BA:2134:A:N6	22:BA:2135:A:N6	2.43	0.66
22:BA:2773:C:OP1	25:BD:171:THR:CG2	2.44	0.66
32:BK:18:ARG:HH11	32:BK:18:ARG:CG	1.93	0.66
35:BN:33:ILE:HD11	35:BN:118:ARG:CD	2.26	0.66
37:BP:50:ARG:CD	37:BP:51:ASN:N	2.58	0.66
53:CA:84:U:N3	53:CA:87:C:H1'	2.10	0.66
53:CA:140:U:H2'	53:CA:141:G:O4'	1.95	0.66
53:CA:254:G:N2	17:CQ:17:GLU:HG3	2.06	0.66
53:CA:927:G:N2	53:CA:1391:U:H1'	2.09	0.66
53:CA:1067:A:H4'	53:CA:1068:G:O5'	1.94	0.66
53:CA:1430:A:H2'	53:CA:1431:A:O4'	1.95	0.66
5:CE:132:PRO:O	5:CE:136:VAL:HG12	1.96	0.66
6:CF:92:THR:HG22	6:CF:94:HIS:N	2.01	0.66
54:CG:74:VAL:HG11	54:CG:143:MET:HB2	1.76	0.66
22:DA:443:A:N6	26:DE:36:ALA:HB1	2.10	0.66
22:DA:574:A:H4'	22:DA:575:A:H5'	1.76	0.66
22:DA:1328:A:H2'	22:DA:1330:C:C4	2.31	0.66
57:DB:69:G:H3'	57:DB:70:C:C6	2.31	0.66
24:DC:8:THR:O	24:DC:9:SER:CB	2.44	0.66
58:DF:48:LEU:HG	58:DF:49:LEU:CD2	2.24	0.66
33:DL:142:ILE:HG22	33:DL:144:GLU:H	1.60	0.66
36:DO:51:ALA:HB3	36:DO:78:VAL:CG2	2.26	0.66
38:DQ:40:LYS:HD2	38:DQ:44:TYR:CE2	2.30	0.66
1:AA:82:G:N2	1:AA:84:U:H3	1.94	0.66
1:AA:1210:C:H2'	1:AA:1211:U:H5'	1.77	0.66
2:AB:174:GLU:O	2:AB:178:LEU:HB2	1.95	0.66
22:BA:1061:U:C5	30:BI:9:LYS:HG3	2.31	0.66
22:BA:1666:G:O2'	22:BA:1667:G:H5'	1.96	0.66
22:BA:2196:C:O3'	4:CD:150:LYS:HD2	1.96	0.66
22:BA:2765:A:H2'	22:BA:2765:A:N3	2.09	0.66
23:BB:109:A:H2'	23:BB:110:C:C6	2.31	0.66
24:BC:20:ASN:CB	24:BC:23:LEU:HD23	2.26	0.66
24:BC:90:ILE:CG2	24:BC:102:TYR:CD1	2.79	0.66
28:BG:84:LYS:HB3	28:BG:132:LEU:O	1.96	0.66
32:BK:51:LYS:O	32:BK:51:LYS:HD2	1.95	0.66
41:BT:24:MET:HE2	41:BT:27:SER:O	1.96	0.66
41:BT:51:PHE:O	41:BT:52:GLU:HG2	1.96	0.66
2:CB:160:LEU:HD13	2:CB:180:ILE:CG2	2.26	0.66
8:CH:100:ILE:C	8:CH:100:ILE:HD12	2.16	0.66
11:CK:74:LYS:HA	11:CK:78:ILE:CD1	2.22	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:2:LEU:HD13	15:CO:34:GLN:HG2	1.78	0.66
15:CO:38:LEU:O	15:CO:41:HIS:HB3	1.96	0.66
22:DA:1014:A:O2'	22:DA:1015:U:H5'	1.96	0.66
22:DA:1139:G:N2	22:DA:1140:C:C2	2.63	0.66
22:DA:2102:G:H2'	22:DA:2103:C:H5'	1.78	0.66
22:DA:2197:U:C5	22:DA:2224:G:C6	2.84	0.66
25:DD:175:LEU:O	25:DD:176:ASP:HB2	1.95	0.66
35:DN:12:ARG:HG3	35:DN:13:ASN:H	1.59	0.66
40:DS:33:LEU:HA	40:DS:36:LEU:HD23	1.76	0.66
41:DT:34:VAL:HG12	41:DT:34:VAL:O	1.95	0.66
2:AB:42:LEU:CG	2:AB:43:GLU:HG3	2.22	0.66
5:AE:152:VAL:CB	5:AE:155:LYS:HZ2	2.09	0.66
17:AQ:32:ILE:HD12	17:AQ:32:ILE:N	2.10	0.66
17:AQ:55:GLY:HA3	17:AQ:82:VAL:HG11	1.76	0.66
22:BA:215:G:C4'	22:BA:216:A:H4'	2.25	0.66
22:BA:1159:U:C2'	22:BA:1160:G:H5'	2.24	0.66
22:BA:1609:A:H5"	62:BA:3638:HOH:O	1.95	0.66
22:BA:1906:G:H2'	22:BA:1907:G:O5'	1.96	0.66
31:BJ:124:VAL:HG23	31:BJ:125:TYR:N	2.07	0.66
32:BK:99:ILE:HG22	32:BK:119:ALA:HA	1.77	0.66
33:BL:93:ASN:HD22	33:BL:93:ASN:C	1.98	0.66
53:CA:277:C:H2'	53:CA:278:G:H8	1.60	0.66
2:CB:160:LEU:HB2	2:CB:182:VAL:HG12	1.78	0.66
12:CL:97:VAL:O	12:CL:97:VAL:CG2	2.41	0.66
55:CM:12:LYS:HA	55:CM:12:LYS:CE	2.21	0.66
17:CQ:59:GLU:HG2	17:CQ:76:ARG:HG2	1.76	0.66
22:DA:249:C:C5'	22:DA:2394:C:O2'	2.43	0.66
22:DA:323:C:H6	26:DE:165:HIS:CE1	2.14	0.66
22:DA:705:A:N6	22:DA:726:G:H1'	2.10	0.66
22:DA:786:C:H2'	22:DA:787:C:H5'	1.78	0.66
22:DA:1824:G:O2'	24:DC:245:THR:HG22	1.95	0.66
22:DA:1965:C:H5"	22:DA:1965:C:C6	2.30	0.66
22:DA:2225:A:H4'	22:DA:2226:C:O5'	1.94	0.66
24:DC:79:ARG:HD2	24:DC:92:LEU:HD22	1.78	0.66
26:DE:69:ARG:O	26:DE:70:SER:HB3	1.95	0.66
26:DE:90:GLN:OE1	26:DE:90:GLN:HA	1.95	0.66
28:DG:18:ILE:CD1	28:DG:42:VAL:HG13	2.23	0.66
38:DQ:71:ASN:HD21	38:DQ:106:THR:HA	1.60	0.66
1:AA:785:G:H2'	1:AA:786:G:H5'	1.78	0.66
6:AF:4:TYR:HA	6:AF:91:ARG:O	1.96	0.66
11:AK:109:ILE:HG21	21:AU:16:ARG:NE	2.11	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:55:GLN:CD	19:AS:56:HIS:H	1.99	0.66
22:BA:320:A:HO2'	22:BA:322:A:H8	1.44	0.66
22:BA:1000:A:N6	22:BA:1154:G:H2'	2.11	0.66
22:BA:1059:G:H5"	22:BA:1060:U:H3'	1.78	0.66
22:BA:1585:C:O2'	22:BA:1586:A:H5'	1.96	0.66
22:BA:2414:G:O2'	22:BA:2415:G:H5'	1.96	0.66
24:BC:93:VAL:O	24:BC:94:LEU:HB3	1.96	0.66
25:BD:94:GLN:O	25:BD:95:SER:HB2	1.94	0.66
26:BE:193:VAL:O	26:BE:197:GLU:HB2	1.95	0.66
38:BQ:65:ASN:O	38:BQ:69:ARG:HB3	1.96	0.66
53:CA:711:G:O2'	53:CA:712:A:H5'	1.96	0.66
8:CH:17:GLN:HE21	8:CH:71:VAL:HG23	1.57	0.66
9:CI:49:GLN:N	9:CI:50:PRO:CD	2.58	0.66
17:CQ:13:SER:HB3	17:CQ:21:VAL:HB	1.76	0.66
22:DA:187:G:C2	22:DA:210:C:C2	2.83	0.66
22:DA:301:G:C6	22:DA:302:C:N4	2.64	0.66
22:DA:372:G:N2	22:DA:400:G:H2'	2.11	0.66
22:DA:589:U:C2'	22:DA:590:A:H5'	2.26	0.66
22:DA:649:G:H2'	22:DA:650:C:H6	1.58	0.66
22:DA:1006:C:H6	22:DA:1006:C:O5'	1.79	0.66
22:DA:1090:A:H3'	22:DA:1091:G:H5"	1.76	0.66
22:DA:1545:A:C2'	22:DA:1546:G:H5'	2.26	0.66
22:DA:1919:A:O2'	22:DA:1920:C:C5'	2.44	0.66
22:DA:2298:A:H5'	22:DA:2322:A:O2'	1.96	0.66
28:DG:7:PRO:O	28:DG:8:VAL:HB	1.96	0.66
34:DM:33:LEU:HB2	34:DM:117:PHE:CE2	2.31	0.66
37:DP:52:ARG:HH11	37:DP:52:ARG:HG2	1.61	0.66
40:DS:17:VAL:HG11	40:DS:103:ILE:HG13	1.76	0.66
48:D0:38:LEU:HB2	48:D0:41:HIS:CE1	2.30	0.66
1:AA:487:A:O2'	1:AA:488:C:H5'	1.96	0.66
5:AE:75:LEU:HD21	5:AE:119:VAL:HG12	1.78	0.66
5:AE:155:LYS:H	5:AE:155:LYS:CD	2.08	0.66
6:AF:67:PRO:HG2	6:AF:70:VAL:HG22	1.76	0.66
10:AJ:65:TYR:HB3	14:AN:95:LEU:CD1	2.26	0.66
10:AJ:80:THR:CB	10:AJ:83:THR:HG22	2.25	0.66
16:AP:20:VAL:HG22	16:AP:21:VAL:N	2.10	0.66
25:BD:107:VAL:HG13	25:BD:203:VAL:CG2	2.25	0.66
31:BJ:124:VAL:O	31:BJ:125:TYR:HB2	1.95	0.66
36:BO:79:ALA:HB2	36:BO:110:ALA:HA	1.76	0.66
40:BS:71:VAL:HG22	40:BS:71:VAL:O	1.96	0.66
41:BT:87:LEU:HB2	41:BT:91:GLN:CG	2.26	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BV:80:HIS:CD2	43:BV:83:LYS:CB	2.79	0.66
53:CA:960:U:H4'	53:CA:961:U:H5"	1.77	0.66
3:CC:10:ARG:HH21	3:CC:181:ILE:HB	1.61	0.66
5:CE:55:VAL:O	5:CE:59:ILE:HG22	1.95	0.66
6:CF:88:MET:HG2	6:CF:90:MET:SD	2.35	0.66
6:CF:99:ALA:O	6:CF:100:SER:HB2	1.96	0.66
17:CQ:75:VAL:O	17:CQ:76:ARG:HB3	1.95	0.66
22:DA:143:C:HO2'	22:DA:144:A:C1'	2.07	0.66
22:DA:455:C:H42	22:DA:473:G:H5'	1.60	0.66
22:DA:674:G:H4'	26:DE:69:ARG:HB3	1.77	0.66
22:DA:1343:G:H2'	22:DA:1344:U:H5	1.60	0.66
22:DA:1827:U:H2'	22:DA:1828:G:O4'	1.95	0.66
22:DA:2214:C:H2'	22:DA:2215:C:H6	1.60	0.66
57:DB:67:G:O2'	57:DB:68:C:H6	1.78	0.66
24:DC:13:ARG:HG2	24:DC:14:HIS:CD2	2.31	0.66
25:DD:29:VAL:HB	25:DD:98:VAL:CG1	2.26	0.66
58:DF:135:ILE:HD12	58:DF:135:ILE:N	2.11	0.66
28:DG:120:ILE:HG12	28:DG:134:GLY:HA3	1.77	0.66
34:DM:27:SER:N	34:DM:66:ARG:HH22	1.92	0.66
9:AI:79:ARG:O	9:AI:83:THR:HG23	1.96	0.66
22:BA:877:A:C6	22:BA:899:A:C6	2.83	0.66
22:BA:1510:G:O2'	22:BA:1511:G:H5'	1.96	0.66
22:BA:1539:U:C2	22:BA:1540:G:C8	2.84	0.66
22:BA:1655:A:H61	22:BA:2005:A:H1'	1.61	0.66
22:BA:1871:A:C8	22:BA:1872:A:C6	2.84	0.66
25:BD:110:THR:CG2	25:BD:171:THR:HG22	2.26	0.66
28:BG:15:ASP:CG	28:BG:16:VAL:N	2.49	0.66
30:BI:42:ASN:HA	30:BI:45:THR:HB	1.78	0.66
44:BW:41:GLY:C	44:BW:43:LYS:N	2.46	0.66
53:CA:404:G:O2'	53:CA:405:U:H5'	1.96	0.66
53:CA:695:A:H2'	53:CA:696:A:C8	2.31	0.66
53:CA:824:G:O2'	53:CA:825:A:H5'	1.96	0.66
53:CA:1072:G:H2'	53:CA:1073:U:H6	1.59	0.66
53:CA:1186:G:H4'	9:CI:111:GLU:OE1	1.96	0.66
53:CA:1250:A:N3	53:CA:1287:A:N6	2.44	0.66
53:CA:1288:A:HO2'	53:CA:1289:A:H8	1.43	0.66
3:CC:190:THR:CG2	3:CC:191:THR:H	2.04	0.66
5:CE:38:VAL:HG12	5:CE:39:GLY:N	2.11	0.66
6:CF:61:LEU:HD13	6:CF:62:MET:N	2.08	0.66
9:CI:38:PHE:CE2	9:CI:71:ILE:HG22	2.30	0.66
11:CK:74:LYS:O	11:CK:74:LYS:HG2	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1038:G:C2'	22:DA:1039:A:H5"	2.26	0.66
22:DA:1126:A:OP1	22:DA:1126:A:H8	1.79	0.66
22:DA:1717:A:H2'	22:DA:1718:G:O4'	1.96	0.66
57:DB:42:C:N4	58:DF:87:LYS:NZ	2.43	0.66
25:DD:149:ASN:O	25:DD:151:THR:N	2.29	0.66
30:DI:105:LEU:HD23	30:DI:105:LEU:O	1.96	0.66
34:DM:81:ARG:NH2	34:DM:84:LYS:HE2	2.10	0.66
35:DN:93:GLY:O	35:DN:116:VAL:HG21	1.96	0.66
45:DX:39:VAL:HG22	45:DX:44:ARG:O	1.97	0.66
1:AA:414:A:H2'	1:AA:415:A:C8	2.30	0.65
1:AA:1002:G:H2'	1:AA:1003:G:O4'	1.96	0.65
1:AA:1049:U:O4	14:AN:1:ALA:HB1	1.95	0.65
9:AI:123:ARG:HD3	9:AI:124:PRO:HD2	1.78	0.65
13:AM:39:ALA:HB3	13:AM:42:VAL:HG13	1.76	0.65
22:BA:335:C:O2'	22:BA:336:C:H5'	1.95	0.65
22:BA:1289:C:H2'	22:BA:1290:C:C6	2.30	0.65
22:BA:1935:G:H1	22:BA:1962:C:H2'	1.61	0.65
22:BA:2154:A:H2'	22:BA:2155:U:O4'	1.95	0.65
22:BA:2637:U:C3'	22:BA:2638:G:H5'	2.21	0.65
25:BD:98:VAL:O	25:BD:99:GLU:C	2.34	0.65
28:BG:115:GLN:CD	28:BG:115:GLN:N	2.42	0.65
35:BN:71:ARG:HH21	35:BN:71:ARG:HG2	1.61	0.65
41:BT:29:THR:HA	41:BT:86:THR:N	2.12	0.65
44:BW:24:ARG:HD2	44:BW:24:ARG:C	2.16	0.65
53:CA:223:A:H2'	53:CA:224:U:C6	2.30	0.65
53:CA:940:C:H5'	54:CG:101:ARG:HH22	1.60	0.65
54:CG:88:VAL:HG22	54:CG:89:GLU:N	2.07	0.65
9:CI:6:TYR:HE2	9:CI:17:ARG:HA	1.60	0.65
10:CJ:30:LYS:HG3	10:CJ:36:VAL:HG22	1.77	0.65
10:CJ:52:LEU:HD23	10:CJ:62:ARG:CG	2.26	0.65
15:CO:23:SER:O	15:CO:26:VAL:HB	1.95	0.65
22:DA:558:U:H5"	31:DJ:111:LYS:HD2	1.78	0.65
22:DA:668:A:C5	22:DA:670:A:N7	2.64	0.65
22:DA:1069:A:O2'	22:DA:1071:G:H5"	1.95	0.65
22:DA:1338:G:O2'	41:DT:18:GLU:HG3	1.95	0.65
22:DA:1355:G:C2'	22:DA:1356:G:H5'	2.26	0.65
22:DA:1816:C:H2'	24:DC:61:TYR:CZ	2.31	0.65
22:DA:1865:U:C4	22:DA:1875:G:C2	2.84	0.65
22:DA:2260:C:H2'	22:DA:2261:C:H6	1.59	0.65
22:DA:2624:G:C2	22:DA:2625:G:H1'	2.31	0.65
24:DC:239:PHE:HD1	24:DC:240:GLY:H	1.41	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DE:119:ILE:O	26:DE:119:ILE:HG13	1.96	0.65
58:DF:34:THR:O	58:DF:35:LEU:HB2	1.95	0.65
30:DI:102:ARG:NH1	30:DI:105:LEU:HD13	2.11	0.65
33:DL:88:GLY:O	33:DL:89:VAL:HG12	1.95	0.65
36:DO:7:ARG:HA	36:DO:10:ARG:NH2	2.11	0.65
45:DX:63:ILE:HD13	45:DX:64:ASP:H	1.61	0.65
1:AA:978:A:OP2	1:AA:1362:A:N6	2.29	0.65
12:AL:21:PRO:O	12:AL:23:LEU:N	2.29	0.65
22:BA:1738:G:HO2'	22:BA:1739:A:H8	1.44	0.65
28:BG:30:GLY:O	28:BG:32:LEU:N	2.29	0.65
28:BG:116:LEU:HB3	28:BG:120:ILE:HG23	1.78	0.65
35:BN:71:ARG:HH21	35:BN:71:ARG:HG3	1.61	0.65
36:BO:36:TYR:CD2	36:BO:36:TYR:N	2.63	0.65
45:BX:76:LYS:CG	45:BX:77:TYR:H	2.09	0.65
53:CA:205:A:C5	53:CA:206:C:N4	2.64	0.65
53:CA:362:G:OP1	12:CL:57:THR:HG22	1.96	0.65
53:CA:457:G:N3	53:CA:457:G:H2'	2.11	0.65
53:CA:784:A:H2'	53:CA:785:G:H8	1.59	0.65
53:CA:1082:A:C2'	53:CA:1083:U:H5'	2.25	0.65
2:CB:206:ILE:CA	2:CB:209:VAL:HG22	2.18	0.65
3:CC:80:GLY:O	3:CC:83:VAL:HG22	1.96	0.65
6:CF:90:MET:HE1	18:CR:60:ARG:HD3	1.76	0.65
12:CL:4:ASN:HD21	17:CQ:35:LYS:HE3	1.62	0.65
15:CO:63:ARG:HH22	22:DA:715:A:H5'	1.60	0.65
56:CP:70:ARG:O	56:CP:74:LEU:HG	1.96	0.65
22:DA:247:G:H4'	22:DA:386:G:C4	2.30	0.65
22:DA:329:G:H4'	22:DA:330:A:OP1	1.95	0.65
22:DA:871:U:OP1	34:DM:4:PRO:HA	1.97	0.65
22:DA:1304:A:O2'	22:DA:1305:C:H6	1.78	0.65
22:DA:2458:G:O2'	22:DA:2460:U:C5	2.49	0.65
25:DD:28:GLU:OE2	25:DD:30:GLU:HG3	1.96	0.65
58:DF:43:ILE:HG23	58:DF:44:ALA:N	2.06	0.65
48:D0:4:GLN:HG2	48:D0:4:GLN:O	1.97	0.65
49:D1:10:LEU:HD23	49:D1:20:TYR:HB3	1.78	0.65
1:AA:68:G:H5'	1:AA:171:A:O2'	1.96	0.65
1:AA:189:A:O2'	1:AA:190:A:H5'	1.96	0.65
1:AA:1069:C:H4'	1:AA:1192:C:O2	1.96	0.65
2:AB:74:ALA:O	2:AB:75:ALA:HB2	1.96	0.65
22:BA:302:C:O2'	22:BA:303:G:C5'	2.44	0.65
22:BA:572:A:C2	22:BA:2033:A:C2	2.85	0.65
22:BA:817:C:HO2'	22:BA:818:G:H5'	1.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1495:A:H2'	22:BA:1496:A:C8	2.32	0.65
22:BA:2136:G:H2'	22:BA:2137:U:C5	2.27	0.65
24:BC:180:MET:CG	24:BC:268:ARG:HH11	2.06	0.65
36:BO:48:LEU:HD23	36:BO:48:LEU:N	2.12	0.65
38:BQ:82:LEU:O	38:BQ:88:GLU:HB3	1.95	0.65
41:BT:24:MET:HG3	41:BT:29:THR:CG2	2.26	0.65
43:BV:21:ARG:HA	43:BV:25:LYS:O	1.96	0.65
53:CA:39:G:H2'	53:CA:40:C:H6	1.61	0.65
53:CA:859:G:H2'	53:CA:860:A:C8	2.31	0.65
53:CA:989:U:H2'	53:CA:990:C:C5'	2.08	0.65
3:CC:133:MET:CE	3:CC:152:VAL:HG13	2.26	0.65
4:CD:186:GLU:O	4:CD:187:ARG:HB2	1.96	0.65
54:CG:42:VAL:HG12	54:CG:43:TYR:HD2	1.61	0.65
11:CK:126:ARG:CB	21:CU:33:ARG:HD2	2.21	0.65
12:CL:46:SER:O	12:CL:47:ALA:HB2	1.96	0.65
20:CT:34:VAL:HG12	20:CT:78:LEU:HD21	1.78	0.65
22:DA:116:C:H5"	22:DA:128:C:H41	1.62	0.65
22:DA:126:A:P	50:D2:19:ARG:HG3	2.36	0.65
22:DA:192:C:C2'	22:DA:193:U:H5'	2.27	0.65
22:DA:325:G:O6	22:DA:338:G:C2	2.49	0.65
22:DA:799:G:OP2	22:DA:800:A:H3'	1.96	0.65
22:DA:1432:G:O2'	22:DA:1433:A:H5'	1.97	0.65
22:DA:1797:G:O3'	24:DC:255:LYS:O	2.15	0.65
22:DA:2531:A:C5'	28:DG:156:TYR:CZ	2.79	0.65
22:DA:2577:A:H5"	22:DA:2578:G:H5'	1.79	0.65
22:DA:2822:G:H2'	22:DA:2823:A:H5"	1.78	0.65
57:DB:18:G:C2	57:DB:67:G:O6	2.50	0.65
36:DO:31:THR:HG23	36:DO:34:HIS:C	2.17	0.65
40:DS:8:ARG:HA	40:DS:102:HIS:ND1	2.12	0.65
41:DT:13:ALA:O	41:DT:32:LEU:HB2	1.96	0.65
46:DY:20:ASN:ND2	46:DY:50:VAL:HG22	2.11	0.65
3:AC:133:MET:HB3	3:AC:150:VAL:HG21	1.79	0.65
4:AD:84:ASN:HD22	4:AD:87:GLU:HG2	1.60	0.65
4:AD:173:ASP:O	4:AD:174:ALA:HB2	1.95	0.65
8:AH:63:LYS:CB	8:AH:70:VAL:HG21	2.26	0.65
13:AM:10:ASP:CG	13:AM:11:HIS:H	1.99	0.65
20:AT:27:MET:CE	20:AT:57:VAL:HG22	2.26	0.65
21:AU:19:LYS:HE2	21:AU:19:LYS:N	2.11	0.65
22:BA:2416:C:H2'	22:BA:2417:C:H6	1.61	0.65
22:BA:2531:A:H5'	28:BG:156:TYR:CE2	2.31	0.65
22:BA:2557:G:H2'	22:BA:2558:C:C6	2.32	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BE:4:VAL:HG12	26:BE:4:VAL:O	1.96	0.65
28:BG:25:ILE:HG22	28:BG:78:VAL:HG21	1.79	0.65
31:BJ:31:GLU:O	31:BJ:35:ARG:HG3	1.96	0.65
32:BK:10:VAL:HG21	32:BK:16:ALA:CB	2.15	0.65
37:BP:54:LEU:HA	37:BP:76:HIS:CD2	2.31	0.65
53:CA:672:U:H2'	53:CA:673:A:H8	1.61	0.65
53:CA:1024:G:H2'	53:CA:1025:U:O4'	1.96	0.65
53:CA:1071:C:H4'	5:CE:53:ARG:NH1	2.11	0.65
53:CA:1480:A:O2'	53:CA:1481:U:H5'	1.95	0.65
54:CG:74:VAL:CG1	54:CG:143:MET:HB2	2.26	0.65
14:CN:33:VAL:HG22	14:CN:40:ARG:NH2	2.09	0.65
14:CN:96:LYS:HD2	14:CN:96:LYS:H	1.61	0.65
22:DA:84:A:C5	22:DA:103:A:N6	2.65	0.65
22:DA:477:A:C2'	22:DA:478:A:H8	2.09	0.65
22:DA:962:G:H3'	22:DA:962:G:OP1	1.95	0.65
22:DA:1416:G:C6	22:DA:1417:C:N4	2.65	0.65
22:DA:1439:A:C8	22:DA:1440:U:O4'	2.50	0.65
22:DA:2385:C:O2'	22:DA:2386:A:H8	1.77	0.65
30:DI:18:ASN:HB3	30:DI:19:PRO:HD3	1.77	0.65
30:DI:52:LEU:HD12	30:DI:53:PRO:HD2	1.78	0.65
31:DJ:92:MET:HE3	31:DJ:92:MET:HA	1.78	0.65
33:DL:90:VAL:HB	33:DL:122:VAL:HA	1.78	0.65
1:AA:51:A:H4'	1:AA:52:C:O5'	1.96	0.65
2:AB:63:LYS:HD3	2:AB:63:LYS:C	2.17	0.65
11:AK:96:ILE:HG13	11:AK:97:ARG:N	2.11	0.65
15:AO:80:LEU:HD11	15:AO:84:LEU:HD22	1.78	0.65
22:BA:7:G:H2'	22:BA:8:C:C6	2.31	0.65
22:BA:285:G:N3	22:BA:285:G:H2'	2.11	0.65
22:BA:1402:U:H2'	22:BA:1403:A:O5'	1.96	0.65
22:BA:2136:G:O2'	22:BA:2137:U:C6	2.49	0.65
25:BD:4:LEU:HD13	25:BD:100:LEU:HD23	1.78	0.65
27:BF:30:VAL:CG1	27:BF:96:TRP:CH2	2.80	0.65
27:BF:46:LYS:HD2	27:BF:46:LYS:H	1.62	0.65
28:BG:8:VAL:CG1	28:BG:9:VAL:N	2.58	0.65
29:BH:2:GLN:HA	29:BH:20:ASN:HA	1.78	0.65
33:BL:104:GLN:HA	33:BL:104:GLN:NE2	2.11	0.65
37:BP:105:LYS:HA	37:BP:108:ARG:NH2	2.11	0.65
53:CA:1169:A:H2'	53:CA:1170:A:H8	1.62	0.65
6:CF:90:MET:HE2	18:CR:60:ARG:HD3	1.78	0.65
10:CJ:11:LYS:HB3	10:CJ:71:LEU:HD13	1.77	0.65
22:DA:125:A:H4'	22:DA:126:A:OP2	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:247:G:C5	22:DA:249:C:H1'	2.31	0.65
22:DA:745:G:H5"	22:DA:746:U:OP2	1.97	0.65
22:DA:1533:C:C2'	22:DA:1534:U:H5'	2.27	0.65
22:DA:1567:G:H5"	24:DC:84:PRO:CB	2.26	0.65
22:DA:2353:G:H1'	44:DW:30:VAL:CG1	2.27	0.65
26:DE:139:LYS:HB2	26:DE:139:LYS:HZ3	1.61	0.65
28:DG:162:ARG:HB2	28:DG:166:GLU:HB3	1.78	0.65
34:DM:49:ALA:O	34:DM:120:ALA:HB1	1.97	0.65
43:DV:14:LYS:HG3	43:DV:18:ARG:HD2	1.78	0.65
1:AA:339:C:H2'	1:AA:340:U:C6	2.30	0.65
1:AA:978:A:HO2'	1:AA:1322:C:H5	1.43	0.65
3:AC:17:TRP:CD1	14:AN:90:GLY:HA2	2.31	0.65
6:AF:55:HIS:O	6:AF:56:LYS:HB2	1.95	0.65
12:AL:35:ARG:HB2	12:AL:37:TYR:CE1	2.31	0.65
13:AM:10:ASP:CG	13:AM:11:HIS:N	2.50	0.65
20:AT:8:LYS:O	20:AT:11:ILE:HG23	1.96	0.65
20:AT:67:HIS:HB3	20:AT:68:LYS:NZ	2.11	0.65
22:BA:26:G:H1'	22:BA:514:A:H61	1.61	0.65
22:BA:563:A:C2	22:BA:564:C:C2	2.85	0.65
22:BA:742:A:H2'	22:BA:743:A:C8	2.32	0.65
22:BA:1303:G:H2'	22:BA:1304:A:H8	1.61	0.65
22:BA:1682:G:O2'	22:BA:1683:U:H5'	1.97	0.65
22:BA:1936:A:C2	22:BA:1943:U:C5	2.84	0.65
23:BB:28:C:O2'	23:BB:29:A:H5'	1.96	0.65
38:BQ:91:ARG:HH21	38:BQ:93:ILE:HD13	1.60	0.65
38:BQ:97:ILE:HD11	38:BQ:105:PHE:HA	1.78	0.65
46:BY:7:ARG:N	46:BY:60:LYS:NZ	2.44	0.65
53:CA:505:G:H2'	53:CA:506:G:C8	2.30	0.65
53:CA:1040:U:O2'	53:CA:1041:G:H5'	1.96	0.65
53:CA:1408:A:C2	53:CA:1492:A:N6	2.64	0.65
54:CG:99:ALA:HB3	54:CG:100:MET:CE	2.27	0.65
11:CK:110:THR:HG22	21:CU:4:LYS:HA	1.79	0.65
12:CL:3:VAL:CG2	12:CL:4:ASN:H	2.09	0.65
56:CP:75:ILE:CA	56:CP:78:VAL:HG23	2.25	0.65
22:DA:273:G:O2'	22:DA:274:C:O4'	2.13	0.65
22:DA:602:A:H1'	22:DA:656:G:H22	1.61	0.65
22:DA:655:A:O2'	22:DA:656:G:C8	2.49	0.65
22:DA:672:C:H5'	22:DA:672:C:H6	1.62	0.65
22:DA:699:A:H2'	22:DA:700:G:O4'	1.96	0.65
22:DA:752:A:C6	22:DA:1781:U:H1'	2.32	0.65
22:DA:861:A:O2'	22:DA:862:G:C5'	2.45	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1024:G:H2'	22:DA:1025:G:C8	2.31	0.65
25:DD:208:LYS:O	25:DD:209:ALA:CB	2.44	0.65
58:DF:59:ILE:HD13	58:DF:137:PHE:CZ	2.30	0.65
29:DH:1:MET:HE3	29:DH:23:ALA:HB2	1.78	0.65
31:DJ:84:ILE:O	31:DJ:84:ILE:HG23	1.95	0.65
1:AA:502:A:H2'	1:AA:503:C:C6	2.31	0.65
1:AA:1142:G:C2	1:AA:1143:G:H1'	2.31	0.65
1:AA:1468:A:C3'	1:AA:1469:C:H5"	2.22	0.65
10:AJ:10:LEU:O	10:AJ:71:LEU:HD13	1.97	0.65
21:AU:41:THR:O	21:AU:45:LYS:HB2	1.97	0.65
27:BF:132:ARG:O	27:BF:133:GLU:CB	2.44	0.65
31:BJ:3:THR:HG21	38:BQ:60:TRP:NE1	2.12	0.65
32:BK:57:VAL:C	32:BK:58:LEU:HD23	2.17	0.65
35:BN:55:ALA:HA	35:BN:80:PHE:CE1	2.32	0.65
39:BR:4:VAL:CG2	39:BR:39:LEU:HG	2.26	0.65
39:BR:25:LEU:O	39:BR:66:HIS:HE1	1.79	0.65
39:BR:49:ILE:HB	39:BR:51:VAL:O	1.97	0.65
44:BW:13:ARG:HG3	44:BW:14:ASP:N	2.10	0.65
53:CA:86:G:H1'	53:CA:87:C:O5'	1.96	0.65
53:CA:615:G:H2'	53:CA:616:G:H8	1.61	0.65
53:CA:1262:C:H2'	53:CA:1263:C:H5'	1.77	0.65
8:CH:59:GLU:O	8:CH:60:LEU:HD12	1.96	0.65
12:CL:106:VAL:CG2	12:CL:116:TYR:HB3	2.26	0.65
56:CP:1:MET:HA	56:CP:1:MET:CE	2.26	0.65
17:CQ:19:SER:HB3	17:CQ:70:LYS:HZ2	1.62	0.65
17:CQ:47:ASP:HB3	17:CQ:74:LEU:HB3	1.79	0.65
22:DA:217:A:O2'	22:DA:218:A:O4'	2.12	0.65
22:DA:804:A:H2'	22:DA:806:C:C4	2.32	0.65
22:DA:870:U:C2'	22:DA:871:U:H5'	2.27	0.65
22:DA:956:G:C2	22:DA:962:G:O6	2.50	0.65
22:DA:1760:C:O2'	22:DA:1761:C:H5'	1.96	0.65
22:DA:2250:G:N2	34:DM:82:MET:HB2	2.12	0.65
22:DA:2798:U:H5'	22:DA:2800:A:C5	2.32	0.65
22:DA:2834:G:C1'	22:DA:2879:A:N6	2.59	0.65
24:DC:144:GLU:HA	24:DC:151:GLY:CA	2.17	0.65
32:DK:19:VAL:HG12	32:DK:41:ILE:CG1	2.27	0.65
36:DO:23:ALA:HB1	36:DO:90:VAL:HG12	1.78	0.65
42:DU:73:ASN:HB3	42:DU:95:PHE:CE2	2.32	0.65
43:DV:26:PHE:CE2	43:DV:42:LEU:HD12	2.30	0.65
51:D3:57:VAL:O	51:D3:60:CYS:HB2	1.97	0.65
2:AB:165:ALA:HB2	2:AB:186:VAL:HG12	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:17:GLN:NE2	8:AH:71:VAL:HG23	2.11	0.65
12:AL:43:LYS:NZ	12:AL:44:PRO:HD2	2.12	0.65
14:AN:11:LYS:HB2	14:AN:11:LYS:NZ	2.12	0.65
22:BA:632:A:O2'	22:BA:633:A:H5'	1.96	0.65
22:BA:1028:A:N6	22:BA:1125:G:H2'	2.12	0.65
22:BA:1334:G:H2'	22:BA:1335:C:H5'	1.78	0.65
22:BA:1676:A:C8	62:BA:3756:HOH:O	2.50	0.65
22:BA:1911:U:O4	22:BA:1918:A:H2'	1.96	0.65
24:BC:20:ASN:HD22	24:BC:20:ASN:C	2.00	0.65
25:BD:66:GLY:O	25:BD:69:ALA:HB3	1.97	0.65
26:BE:12:LEU:O	26:BE:12:LEU:HD13	1.95	0.65
26:BE:124:PHE:CD1	26:BE:124:PHE:C	2.69	0.65
27:BF:3:LEU:HD11	27:BF:172:PHE:HD2	1.62	0.65
28:BG:163:TYR:O	28:BG:164:ALA:HB2	1.97	0.65
29:BH:12:LEU:HB2	29:BH:19:VAL:HG11	1.78	0.65
31:BJ:40:HIS:H	31:BJ:40:HIS:CD2	2.15	0.65
37:BP:51:ASN:C	37:BP:52:ARG:HG2	2.17	0.65
46:BY:18:LEU:CD1	46:BY:22:LEU:HD22	2.27	0.65
53:CA:1102:A:H2'	53:CA:1103:C:H6	1.60	0.65
53:CA:1339:A:H2'	53:CA:1340:A:O4'	1.96	0.65
53:CA:1410:A:H2'	53:CA:1411:C:C6	2.31	0.65
5:CE:55:VAL:N	5:CE:56:PRO:HD2	2.11	0.65
10:CJ:48:ARG:CZ	10:CJ:48:ARG:HB2	2.26	0.65
14:CN:86:ALA:O	14:CN:91:GLU:HB2	1.96	0.65
22:DA:70:G:H5'	22:DA:112:U:O2	1.97	0.65
22:DA:234:U:O2'	22:DA:235:U:C5'	2.41	0.65
22:DA:246:C:H4'	22:DA:385:C:O2'	1.96	0.65
22:DA:503:A:C6	22:DA:506:G:C6	2.84	0.65
22:DA:565:C:H4'	22:DA:1253:A:N6	2.11	0.65
22:DA:688:U:H1'	22:DA:786:C:O2'	1.97	0.65
22:DA:1558:C:H1'	22:DA:1560:G:C5	2.31	0.65
22:DA:2468:A:O2'	22:DA:2469:A:C8	2.49	0.65
22:DA:2716:C:H2'	22:DA:2717:C:H6	1.61	0.65
58:DF:122:ASP:HB3	58:DF:126:ASN:ND2	2.11	0.65
29:DH:109:GLU:HA	29:DH:109:GLU:OE2	1.95	0.65
30:DI:83:ALA:HB2	30:DI:99:LYS:O	1.97	0.65
1:AA:94:G:C4'	1:AA:95:C:C5'	2.65	0.65
1:AA:143:A:H5'	1:AA:144:G:H5'	1.79	0.65
1:AA:913:A:H4'	1:AA:914:A:O5'	1.96	0.65
1:AA:961:U:H2'	1:AA:962:C:H6	1.60	0.65
6:AF:10:VAL:HG12	6:AF:11:HIS:N	2.12	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:52:ASN:O	6:AF:53:LYS:HB3	1.96	0.65
8:AH:83:ARG:O	8:AH:84:ILE:HD13	1.96	0.65
10:AJ:21:ALA:HA	10:AJ:24:GLU:OE2	1.96	0.65
10:AJ:44:THR:HG23	10:AJ:70:HIS:HA	1.79	0.65
12:AL:89:LEU:CB	12:AL:92:VAL:HG21	2.22	0.65
21:AU:52:VAL:CG1	21:AU:53:LYS:H	2.05	0.65
22:BA:528:A:C5'	22:BA:528:A:C8	2.80	0.65
22:BA:655:A:O2'	22:BA:656:G:C8	2.50	0.65
22:BA:855:G:N3	44:BW:23:LYS:CD	2.60	0.65
22:BA:1438:U:C2'	22:BA:1439:A:H5'	2.27	0.65
22:BA:2103:C:C2'	22:BA:2104:C:H5'	2.25	0.65
22:BA:2134:A:N6	22:BA:2157:G:C5	2.65	0.65
25:BD:110:THR:HG22	25:BD:111:GLY:N	2.12	0.65
27:BF:129:MET:HG3	27:BF:153:ILE:HD12	1.77	0.65
31:BJ:41:LYS:N	38:BQ:66:ALA:HB1	2.12	0.65
36:BO:2:ASP:O	36:BO:3:LYS:HB3	1.97	0.65
53:CA:219:U:H2'	53:CA:220:G:H8	1.62	0.65
53:CA:404:G:O6	4:CD:1:ALA:HB2	1.97	0.65
53:CA:613:C:H2'	53:CA:614:C:H6	1.62	0.65
53:CA:1026:G:H1	53:CA:1036:A:N6	1.94	0.65
5:CE:155:LYS:HB3	8:CH:70:VAL:HG23	1.78	0.65
17:CQ:12:VAL:HG22	17:CQ:12:VAL:O	1.97	0.65
19:CS:10:ILE:HD12	19:CS:10:ILE:N	2.12	0.65
20:CT:26:MET:HE1	20:CT:30:PHE:CD1	2.31	0.65
22:DA:228:C:H5'	22:DA:229:C:H5	1.62	0.65
22:DA:614:A:H4'	22:DA:616:A:N6	2.11	0.65
22:DA:705:A:H2'	22:DA:706:A:H8	1.60	0.65
22:DA:783:A:C2	22:DA:1778:U:H4'	2.27	0.65
22:DA:990:A:O2'	22:DA:991:C:H5"	1.96	0.65
22:DA:1338:G:H2'	22:DA:1339:G:H5'	1.79	0.65
22:DA:2093:G:C2	22:DA:2094:A:N7	2.65	0.65
22:DA:2093:G:O2'	22:DA:2094:A:OP2	2.15	0.65
22:DA:2135:A:C2'	22:DA:2136:G:O4'	2.45	0.65
22:DA:2646:C:H6	22:DA:2646:C:C5'	2.05	0.65
22:DA:2716:C:H2'	22:DA:2717:C:C6	2.32	0.65
22:DA:2748:A:C1'	28:DG:66:THR:HG22	2.26	0.65
24:DC:72:GLY:O	24:DC:73:ILE:HD13	1.97	0.65
24:DC:80:LEU:HD12	24:DC:80:LEU:N	2.12	0.65
39:DR:27:ILE:CG2	39:DR:28:ALA:H	1.93	0.65
41:DT:12:ARG:HB2	41:DT:33:LYS:HG2	1.79	0.65
43:DV:80:HIS:CD2	43:DV:82:TYR:H	2.15	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:370:C:C2'	1:AA:371:A:H5'	2.26	0.65
1:AA:672:U:H2'	1:AA:673:A:H8	1.60	0.65
4:AD:16:THR:CG2	4:AD:17:ASP:N	2.60	0.65
8:AH:10:LEU:HD22	8:AH:74:ILE:CG1	2.26	0.65
12:AL:86:VAL:HG12	12:AL:86:VAL:O	1.97	0.65
22:BA:1282:U:H2'	22:BA:1283:G:O4'	1.96	0.65
22:BA:1312:U:H4'	22:BA:1313:U:O5'	1.97	0.65
22:BA:1420:A:O2'	22:BA:1421:G:H5'	1.96	0.65
22:BA:1635:A:H2'	22:BA:1636:U:C6	2.32	0.65
22:BA:1738:G:O2'	22:BA:1739:A:H8	1.80	0.65
22:BA:2503:A:O2'	22:BA:2505:G:OP2	2.14	0.65
22:BA:2808:G:N2	22:BA:2891:U:C6	2.66	0.65
22:BA:2813:A:C2	22:BA:2887:A:N6	2.62	0.65
24:BC:261:ARG:O	24:BC:261:ARG:HG2	1.96	0.65
31:BJ:56:VAL:CG1	31:BJ:57:LEU:N	2.59	0.65
46:BY:45:GLN:O	46:BY:46:VAL:HB	1.97	0.65
49:B1:34:GLU:HG2	49:B1:49:LYS:HG3	1.78	0.65
53:CA:537:G:H5"	12:CL:109:ARG:NH1	2.12	0.65
53:CA:1129:C:O2'	53:CA:1130:A:C8	2.49	0.65
53:CA:1281:C:C3'	53:CA:1282:C:H5'	2.27	0.65
54:CG:148:LYS:HB2	54:CG:148:LYS:HZ2	1.61	0.65
18:CR:58:ILE:O	18:CR:62:ARG:HG3	1.97	0.65
18:CR:72:ARG:H	18:CR:72:ARG:NE	1.91	0.65
19:CS:49:ALA:HB1	19:CS:56:HIS:HB3	1.77	0.65
19:CS:52:ASN:HD21	19:CS:54:ARG:HG2	1.62	0.65
22:DA:866:A:O2'	22:DA:867:C:H6	1.79	0.65
22:DA:1286:A:C6	22:DA:1289:C:N3	2.65	0.65
22:DA:1708:C:H2'	22:DA:1709:U:H6	1.62	0.65
22:DA:1809:A:C2'	22:DA:1810:A:C8	2.80	0.65
57:DB:12:C:H5"	57:DB:15:A:H62	1.62	0.65
24:DC:28:PRO:HG3	24:DC:62:ARG:NH1	2.12	0.65
24:DC:166:ARG:HB2	24:DC:171:VAL:CG2	2.26	0.65
25:DD:48:ILE:CG2	25:DD:84:LEU:HD23	2.25	0.65
39:DR:39:LEU:CA	39:DR:49:ILE:HG21	2.18	0.65
41:DT:5:GLU:CD	46:DY:18:LEU:HD21	2.17	0.65
42:DU:17:ASP:HB2	42:DU:38:ILE:HA	1.79	0.65
44:DW:19:ARG:HA	44:DW:34:SER:HA	1.78	0.65
46:DY:53:VAL:O	46:DY:57:LEU:HB2	1.97	0.65
3:AC:76:ILE:HA	3:AC:83:VAL:CG2	2.23	0.64
5:AE:155:LYS:HD2	5:AE:156:ARG:N	2.12	0.64
13:AM:1:ALA:HB3	13:AM:8:ILE:HG23	1.77	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:48:GLU:CG	16:AP:49:GLY:H	2.11	0.64
17:AQ:80:LYS:HB2	17:AQ:80:LYS:NZ	2.12	0.64
22:BA:372:G:O4'	45:BX:60:LYS:HE3	1.97	0.64
22:BA:588:U:H2'	22:BA:589:U:H6	1.60	0.64
22:BA:1784:A:H4'	22:BA:1785:A:C5'	2.26	0.64
27:BF:153:ILE:HD12	27:BF:153:ILE:O	1.96	0.64
28:BG:33:THR:N	28:BG:34:ARG:HH11	1.95	0.64
41:BT:29:THR:HA	41:BT:86:THR:H	1.61	0.64
48:B0:42:ILE:HD12	48:B0:48:TYR:HB2	1.78	0.64
53:CA:209:U:O2	53:CA:209:U:H2'	1.96	0.64
53:CA:381:C:O2	53:CA:381:C:H2'	1.96	0.64
53:CA:734:G:H2'	53:CA:735:C:C6	2.32	0.64
4:CD:60:VAL:HG22	4:CD:194:ILE:HG21	1.77	0.64
54:CG:10:LYS:HE3	54:CG:10:LYS:N	2.11	0.64
10:CJ:8:ILE:O	10:CJ:8:ILE:HG13	1.96	0.64
22:DA:508:A:H3'	22:DA:509:C:H5'	1.79	0.64
22:DA:1393:A:N6	41:DT:19:LYS:HB2	2.12	0.64
22:DA:1901:A:OP2	24:DC:252:LYS:HE3	1.96	0.64
22:DA:2142:A:C2'	22:DA:2143:C:H4'	2.26	0.64
22:DA:2195:U:H2'	22:DA:2196:C:H6	1.63	0.64
24:DC:94:LEU:HA	24:DC:100:ARG:HG2	1.80	0.64
25:DD:119:ALA:HB2	25:DD:163:GLY:C	2.18	0.64
25:DD:172:VAL:O	25:DD:172:VAL:HG12	1.96	0.64
30:DI:102:ARG:HH11	30:DI:105:LEU:HD13	1.60	0.64
31:DJ:4:PHE:O	31:DJ:44:TYR:CZ	2.50	0.64
31:DJ:17:VAL:HG23	31:DJ:137:PRO:CB	2.25	0.64
38:DQ:4:LYS:HE3	38:DQ:7:VAL:CG1	2.27	0.64
39:DR:27:ILE:HG13	39:DR:33:VAL:HG11	1.79	0.64
1:AA:215:C:O2'	1:AA:216:U:H5'	1.97	0.64
1:AA:275:G:H8	1:AA:275:G:H5"	1.61	0.64
1:AA:275:G:H2'	1:AA:276:G:H8	1.60	0.64
1:AA:723:U:C5'	21:AU:48:LYS:HG2	2.26	0.64
2:AB:185:ILE:O	2:AB:185:ILE:HG13	1.96	0.64
3:AC:25:THR:HG23	14:AN:75:LYS:CD	2.27	0.64
4:AD:2:ARG:NH2	4:AD:114:ARG:HD3	2.12	0.64
5:AE:29:ILE:HD12	5:AE:30:PHE:N	2.12	0.64
5:AE:120:HIS:C	5:AE:121:ASN:HD22	2.01	0.64
7:AG:105:GLU:HG2	7:AG:105:GLU:O	1.97	0.64
9:AI:9:GLY:CA	9:AI:80:HIS:HD2	2.09	0.64
16:AP:20:VAL:HG21	16:AP:32:PHE:CG	2.32	0.64
22:BA:544:C:H3'	22:BA:545:U:O2	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:981:A:H5”	22:BA:982:C:OP2	1.97	0.64
22:BA:1256:G:O2’	26:BE:77:ILE:HD11	1.97	0.64
22:BA:2134:A:C6	22:BA:2135:A:C6	2.85	0.64
22:BA:2703:C:H2’	22:BA:2704:C:C6	2.27	0.64
25:BD:91:THR:C	25:BD:93:GLY:H	2.00	0.64
27:BF:174:PHE:CD1	27:BF:176:PHE:CE1	2.86	0.64
29:BH:12:LEU:HD23	29:BH:12:LEU:N	2.11	0.64
35:BN:38:LEU:HD12	35:BN:38:LEU:C	2.18	0.64
40:BS:84:ARG:HB2	40:BS:96:ILE:CD1	2.26	0.64
53:CA:1253:G:N1	53:CA:1285:A:N6	2.46	0.64
3:CC:41:TYR:CE1	3:CC:89:VAL:CG1	2.80	0.64
6:CF:38:ARG:HG3	6:CF:63:ASN:HB2	1.80	0.64
22:DA:104:A:O2’	22:DA:105:C:O4’	2.14	0.64
22:DA:377:G:C6	22:DA:378:C:C4	2.86	0.64
22:DA:858:G:H2’	22:DA:2268:A:N3	2.12	0.64
22:DA:1695:G:H2’	22:DA:1696:G:O4’	1.97	0.64
22:DA:2025:C:H2’	22:DA:2026:U:C6	2.32	0.64
22:DA:2297:A:N3	22:DA:2298:A:C8	2.66	0.64
22:DA:2653:U:C4	22:DA:2654:A:C6	2.85	0.64
22:DA:2738:A:H2	22:DA:2766:A:H61	1.43	0.64
26:DE:79:ARG:CG	26:DE:80:SER:H	2.10	0.64
34:DM:4:PRO:HD3	34:DM:68:PHE:HE2	1.61	0.64
47:DZ:40:THR:H	47:DZ:43:ILE:HD11	1.62	0.64
1:AA:138:G:C2’	1:AA:139:A:H5’	2.27	0.64
1:AA:223:A:H2’	1:AA:224:U:C6	2.32	0.64
1:AA:923:A:O2’	1:AA:924:C:H5’	1.97	0.64
4:AD:123:MET:HA	4:AD:128:VAL:HA	1.78	0.64
8:AH:93:LYS:HE3	8:AH:116:ARG:HH12	1.63	0.64
10:AJ:53:ILE:CG2	10:AJ:61:ALA:HB1	2.25	0.64
12:AL:33:CYS:H	12:AL:54:VAL:HG13	1.62	0.64
12:AL:82:ARG:O	12:AL:82:ARG:HG3	1.98	0.64
20:AT:79:THR:O	20:AT:82:ILE:HG13	1.97	0.64
22:BA:540:C:C2’	22:BA:541:A:H5’	2.28	0.64
22:BA:806:C:H2’	22:BA:807:U:H6	1.62	0.64
25:BD:151:THR:CG2	25:BD:152:PRO:N	2.59	0.64
33:BL:91:ASP:HB3	33:BL:94:THR:HB	1.77	0.64
46:BY:56:LEU:O	46:BY:57:LEU:CB	2.43	0.64
47:BZ:35:VAL:HG21	47:BZ:37:ARG:CZ	2.27	0.64
53:CA:1084:G:C5	53:CA:1085:U:C4	2.85	0.64
53:CA:1298:U:H4’	53:CA:1299:A:O5’	1.97	0.64
4:CD:94:GLU:OE1	4:CD:103:ARG:HG3	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:9:G:C6	22:DA:2629:U:C5	2.86	0.64
22:DA:13:A:O2'	22:DA:15:G:N7	2.31	0.64
22:DA:250:G:H2'	22:DA:251:A:C8	2.31	0.64
22:DA:396:G:O2'	22:DA:397:U:H5'	1.96	0.64
22:DA:1347:A:O2'	22:DA:1348:C:C5'	2.45	0.64
22:DA:1929:G:C4'	22:DA:1930:G:OP1	2.46	0.64
22:DA:2333:A:C2	22:DA:2335:A:N6	2.65	0.64
22:DA:2771:C:H2'	22:DA:2772:C:C6	2.31	0.64
22:DA:2773:C:H2'	22:DA:2774:C:H6	1.63	0.64
22:DA:2898:U:H2'	22:DA:2899:A:C8	2.33	0.64
28:DG:18:ILE:HD12	28:DG:42:VAL:CG1	2.22	0.64
32:DK:11:ALA:HB2	32:DK:64:ARG:NH1	2.12	0.64
32:DK:17:ARG:CG	32:DK:18:ARG:H	2.09	0.64
42:DU:3:LYS:HE2	42:DU:84:PHE:HE1	1.63	0.64
42:DU:85:ARG:HA	42:DU:85:ARG:HE	1.61	0.64
1:AA:246:A:C4	1:AA:282:A:N6	2.65	0.64
1:AA:495:A:O2'	1:AA:496:A:H5"	1.97	0.64
1:AA:1067:A:H1'	1:AA:1068:G:C8	2.33	0.64
1:AA:1084:G:C5	1:AA:1085:U:C4	2.86	0.64
1:AA:1170:A:H2'	1:AA:1171:A:O4'	1.98	0.64
1:AA:1234:C:O2'	1:AA:1235:U:H5'	1.98	0.64
1:AA:1363:A:C8	1:AA:1365:G:C5	2.86	0.64
2:AB:100:LEU:HD12	2:AB:178:LEU:HD23	1.79	0.64
3:AC:39:ARG:NE	3:AC:54:ILE:HD11	2.13	0.64
10:AJ:6:ILE:HD11	10:AJ:79:PRO:HB3	1.78	0.64
11:AK:22:ILE:CD1	11:AK:95:THR:HG21	2.27	0.64
14:AN:92:ILE:HG21	14:AN:95:LEU:HD22	1.77	0.64
15:AO:24:THR:CG2	15:AO:69:LEU:HD12	2.28	0.64
22:BA:900:A:O2'	22:BA:901:C:C5'	2.45	0.64
22:BA:1060:U:H5"	22:BA:1061:U:OP1	1.98	0.64
22:BA:2309:A:O2'	22:BA:2310:C:H5'	1.98	0.64
22:BA:2365:G:H2'	22:BA:2366:A:C8	2.33	0.64
22:BA:2842:G:C2'	22:BA:2843:G:H5'	2.28	0.64
24:BC:123:ILE:O	24:BC:123:ILE:HG12	1.96	0.64
27:BF:40:GLY:CA	27:BF:84:ILE:CD1	2.70	0.64
31:BJ:44:TYR:CD1	38:BQ:59:LEU:HD11	2.31	0.64
31:BJ:64:VAL:O	31:BJ:65:THR:HB	1.97	0.64
33:BL:82:LEU:C	33:BL:82:LEU:HD23	2.17	0.64
42:BU:53:GLN:N	42:BU:54:PRO:CD	2.60	0.64
44:BW:31:LEU:N	44:BW:31:LEU:HD23	2.12	0.64
52:B4:1:MET:SD	52:B4:36:ARG:HB2	2.38	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:909:A:H2	53:CA:1413:A:N3	1.96	0.64
53:CA:1285:A:C4'	53:CA:1286:U:OP1	2.45	0.64
53:CA:1449:C:O2'	53:CA:1450:U:C5'	2.46	0.64
54:CG:2:ARG:HG2	54:CG:3:ARG:N	2.11	0.64
8:CH:102:VAL:HG23	8:CH:125:ILE:HD12	1.78	0.64
22:DA:240:C:H3'	22:DA:241:A:H5"	1.77	0.64
22:DA:329:G:OP1	22:DA:329:G:H3'	1.98	0.64
22:DA:687:C:H2'	22:DA:688:U:C6	2.32	0.64
22:DA:832:U:OP1	33:DL:39:LYS:N	2.30	0.64
22:DA:1723:G:H2'	22:DA:1724:G:H8	1.62	0.64
22:DA:1819:A:H1'	22:DA:1821:A:C6	2.32	0.64
22:DA:2618:G:H21	25:DD:155:VAL:HG21	1.63	0.64
22:DA:2663:G:H2'	22:DA:2664:G:H8	1.62	0.64
24:DC:171:VAL:N	24:DC:185:ALA:HB2	2.12	0.64
58:DF:42:ALA:HB2	58:DF:48:LEU:HD11	1.79	0.64
58:DF:46:LYS:O	58:DF:46:LYS:HD3	1.96	0.64
28:DG:84:LYS:O	28:DG:85:LYS:HB3	1.95	0.64
31:DJ:110:PRO:CG	31:DJ:111:LYS:HG2	2.27	0.64
33:DL:96:LYS:HD3	33:DL:103:ILE:HA	1.79	0.64
33:DL:123:ARG:HA	33:DL:143:GLU:HB3	1.79	0.64
35:DN:73:ASN:O	35:DN:76:VAL:HG22	1.98	0.64
1:AA:92:U:C2'	1:AA:93:U:C6	2.81	0.64
1:AA:179:A:H2'	1:AA:180:U:H5'	1.78	0.64
1:AA:652:U:O4	1:AA:752:G:C2'	2.46	0.64
1:AA:714:G:O2'	1:AA:715:A:H5'	1.97	0.64
3:AC:21:TRP:CB	3:AC:58:ARG:HG2	2.28	0.64
4:AD:28:ASP:OD1	4:AD:33:ILE:HG12	1.98	0.64
10:AJ:6:ILE:HD11	10:AJ:79:PRO:CA	2.27	0.64
22:BA:199:A:O2'	22:BA:200:U:H5'	1.97	0.64
22:BA:1404:C:O2'	22:BA:1405:U:H5'	1.97	0.64
22:BA:1414:C:C4	22:BA:1415:U:C5	2.84	0.64
22:BA:1585:C:H2'	22:BA:1586:A:H5'	1.78	0.64
28:BG:25:ILE:HD11	28:BG:71:LEU:HD12	1.80	0.64
32:BK:58:LEU:HD23	32:BK:58:LEU:N	2.12	0.64
37:BP:92:ARG:O	37:BP:92:ARG:CG	2.46	0.64
38:BQ:86:SER:O	39:BR:51:VAL:HA	1.97	0.64
43:BV:93:ARG:O	43:BV:94:ALA:HB2	1.96	0.64
53:CA:174:A:H2'	53:CA:175:C:H6	1.62	0.64
53:CA:1318:A:O2'	19:CS:36:ARG:HD3	1.97	0.64
5:CE:103:GLY:O	5:CE:104:ILE:CG2	2.41	0.64
6:CF:72:ASP:O	6:CF:75:GLU:HB2	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:29:ILE:HA	9:CI:64:ILE:O	1.97	0.64
9:CI:59:LYS:HE3	9:CI:60:LEU:HG	1.79	0.64
20:CT:42:ASP:HB3	20:CT:45:ALA:HB3	1.78	0.64
22:DA:921:C:C2'	22:DA:922:C:C5'	2.74	0.64
22:DA:1055:G:C3'	22:DA:1056:G:H5'	2.26	0.64
22:DA:1062:G:H22	22:DA:1077:A:H2	1.43	0.64
22:DA:1639:C:H2'	22:DA:1640:A:C5'	2.16	0.64
22:DA:1906:G:C8	22:DA:1929:G:H2'	2.32	0.64
22:DA:1915:U:O2'	22:DA:1916:A:C5'	2.45	0.64
22:DA:2060:A:H62	26:DE:69:ARG:HH12	1.43	0.64
24:DC:35:LYS:NZ	24:DC:35:LYS:HB3	2.12	0.64
26:DE:149:ILE:HG23	26:DE:188:MET:N	2.12	0.64
29:DH:33:GLN:O	29:DH:35:LYS:HG2	1.97	0.64
38:DQ:60:TRP:CH2	38:DQ:93:ILE:HB	2.32	0.64
43:DV:80:HIS:HD2	43:DV:82:TYR:H	1.45	0.64
1:AA:66:A:H2'	1:AA:66:A:N3	2.11	0.64
1:AA:819:A:H4'	1:AA:820:U:OP2	1.96	0.64
4:AD:55:ARG:NH1	4:AD:58:GLN:HG2	2.11	0.64
9:AI:40:ARG:O	9:AI:44:ARG:HD3	1.98	0.64
12:AL:86:VAL:CG1	12:AL:89:LEU:HD23	2.28	0.64
22:BA:509:C:H6	22:BA:509:C:C5'	2.10	0.64
22:BA:675:A:OP1	26:BE:58:LYS:HE2	1.97	0.64
22:BA:1079:C:N4	22:BA:1088:A:C2	2.62	0.64
22:BA:1178:C:H2'	22:BA:1179:G:N7	2.11	0.64
22:BA:2364:C:C2'	22:BA:2365:G:H5'	2.28	0.64
22:BA:2393:U:H5'	33:BL:60:ARG:O	1.97	0.64
22:BA:2558:C:O2'	22:BA:2559:C:H5'	1.97	0.64
22:BA:2567:G:H2'	22:BA:2568:U:C6	2.32	0.64
27:BF:106:ALA:C	27:BF:108:PRO:HD2	2.18	0.64
29:BH:96:THR:O	29:BH:96:THR:HG23	1.98	0.64
31:BJ:102:GLU:HG3	31:BJ:124:VAL:HG11	1.80	0.64
35:BN:32:GLU:C	35:BN:33:ILE:HD12	2.16	0.64
35:BN:70:THR:HG21	35:BN:75:ILE:HD11	1.79	0.64
40:BS:24:ILE:CD1	40:BS:32:ALA:HA	2.28	0.64
42:BU:43:LYS:O	42:BU:57:ILE:HA	1.98	0.64
44:BW:72:GLY:N	44:BW:73:PRO:HD2	2.13	0.64
53:CA:372:C:O2'	53:CA:373:A:P	2.56	0.64
53:CA:998:C:H2'	53:CA:999:C:H6	1.62	0.64
53:CA:1189:U:O2'	3:CC:175:HIS:HD2	1.80	0.64
53:CA:1280:A:H5"	10:CJ:43:PRO:CG	2.28	0.64
53:CA:1372:U:C5'	9:CI:71:ILE:HD11	2.26	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:82:HIS:HB2	5:CE:83:PRO:HD2	1.79	0.64
12:CL:89:LEU:HB3	12:CL:92:VAL:CG2	2.26	0.64
15:CO:69:LEU:CD1	15:CO:77:TYR:HA	2.28	0.64
22:DA:36:G:N1	22:DA:445:C:N4	2.46	0.64
22:DA:575:A:HO2'	22:DA:576:U:H6	1.44	0.64
22:DA:861:A:O2'	22:DA:862:G:H5'	1.97	0.64
22:DA:1062:G:OP1	22:DA:1070:A:H4'	1.98	0.64
22:DA:1827:U:H4'	22:DA:1970:A:O2'	1.97	0.64
22:DA:2283:C:H6	22:DA:2283:C:H5"	1.63	0.64
22:DA:2638:G:O2'	22:DA:2639:A:C8	2.51	0.64
22:DA:2734:A:C2'	22:DA:2735:G:H5'	2.28	0.64
24:DC:77:VAL:CG2	24:DC:111:ALA:HA	2.27	0.64
29:DH:37:VAL:HG23	29:DH:38:PRO:HD2	1.80	0.64
35:DN:71:ARG:HH21	35:DN:71:ARG:CB	2.08	0.64
37:DP:20:ARG:HD2	37:DP:21:PRO:HD2	1.79	0.64
37:DP:28:LYS:CG	37:DP:39:LEU:HD23	2.28	0.64
39:DR:39:LEU:HB2	39:DR:49:ILE:CD1	2.27	0.64
45:DX:19:HIS:C	45:DX:21:LEU:H	2.00	0.64
1:AA:243:A:C4'	1:AA:244:U:H5"	2.21	0.64
4:AD:167:PRO:HB2	4:AD:170:LEU:CD1	2.26	0.64
11:AK:22:ILE:HD13	11:AK:95:THR:CG2	2.27	0.64
11:AK:114:PRO:O	11:AK:115:ILE:HD13	1.98	0.64
22:BA:78:U:O2'	22:BA:79:C:H5'	1.97	0.64
22:BA:481:G:C4	22:BA:507:A:C2	2.85	0.64
22:BA:856:G:H21	44:BW:19:ARG:HH22	1.46	0.64
22:BA:1432:G:O2'	22:BA:1433:A:H5'	1.97	0.64
22:BA:1459:G:O2'	22:BA:1460:U:H3'	1.97	0.64
25:BD:51:THR:HB	25:BD:78:GLY:O	1.98	0.64
25:BD:182:ALA:C	25:BD:184:ARG:N	2.50	0.64
27:BF:30:VAL:O	27:BF:30:VAL:HG13	1.97	0.64
42:BU:12:VAL:HA	42:BU:69:VAL:HG12	1.79	0.64
42:BU:41:VAL:O	42:BU:59:GLU:HA	1.96	0.64
44:BW:28:GLU:CG	44:BW:29:SER:H	2.10	0.64
47:BZ:23:LEU:HD21	47:BZ:53:MET:CE	2.28	0.64
53:CA:120:A:H3'	53:CA:121:U:C5'	2.27	0.64
53:CA:194:C:O2'	53:CA:195:A:H5'	1.98	0.64
53:CA:919:A:O2'	53:CA:920:U:H5'	1.97	0.64
53:CA:1134:G:C5	53:CA:1135:U:H1'	2.33	0.64
12:CL:2:THR:HB	12:CL:5:GLN:HB2	1.79	0.64
17:CQ:59:GLU:O	17:CQ:75:VAL:HG22	1.98	0.64
22:DA:170:U:H2'	22:DA:171:U:C6	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:603:A:H4'	22:DA:604:G:O5'	1.96	0.64
22:DA:1313:U:O2	22:DA:1313:U:C2'	2.33	0.64
22:DA:1574:C:O5'	22:DA:1574:C:H6	1.80	0.64
22:DA:2261:C:C2	22:DA:2280:G:N2	2.66	0.64
22:DA:2511:U:O2'	22:DA:2512:C:H5'	1.97	0.64
24:DC:166:ARG:CB	24:DC:171:VAL:HG22	2.27	0.64
28:DG:85:LYS:O	28:DG:86:LEU:HG	1.98	0.64
28:DG:132:LEU:HD12	28:DG:132:LEU:N	2.13	0.64
34:DM:136:MET:HE1	43:DV:57:TYR:CD2	2.32	0.64
1:AA:67:C:H4'	1:AA:172:A:O4'	1.98	0.64
1:AA:430:A:HO2'	1:AA:431:A:H5'	1.62	0.64
1:AA:523:A:H61	12:AL:88:ASP:CB	2.11	0.64
1:AA:666:G:H5'	1:AA:726:C:H1'	1.78	0.64
1:AA:1065:U:H5"	1:AA:1190:G:H21	1.59	0.64
4:AD:34:GLU:O	4:AD:37:PRO:HD3	1.98	0.64
8:AH:77:VAL:HG23	8:AH:126:CYS:HA	1.78	0.64
13:AM:92:ARG:CZ	13:AM:92:ARG:HB3	2.27	0.64
13:AM:106:ARG:HH21	13:AM:112:ARG:HB3	1.62	0.64
22:BA:1023:U:H5'	22:BA:1023:U:C6	2.26	0.64
22:BA:1025:G:H4'	22:BA:1026:G:OP2	1.97	0.64
22:BA:1224:U:H4'	39:BR:88:GLY:O	1.97	0.64
22:BA:1347:A:H2'	22:BA:1348:C:H5'	1.79	0.64
22:BA:1607:C:N4	22:BA:1622:G:C5	2.66	0.64
24:BC:246:PRO:CG	24:BC:247:TRP:CZ3	2.68	0.64
26:BE:175:ILE:HG23	26:BE:175:ILE:O	1.98	0.64
29:BH:8:LYS:O	29:BH:9:VAL:CB	2.44	0.64
34:BM:41:LEU:O	34:BM:93:VAL:HG23	1.97	0.64
40:BS:13:SER:O	40:BS:14:ALA:CB	2.45	0.64
44:BW:8:SER:O	44:BW:9:THR:HB	1.98	0.64
45:BX:52:ALA:O	45:BX:53:LYS:CB	2.46	0.64
49:B1:32:LYS:HG2	49:B1:52:LYS:OXT	1.97	0.64
53:CA:409:U:H2'	53:CA:410:G:O4'	1.96	0.64
53:CA:671:G:N1	53:CA:672:U:C2	2.66	0.64
53:CA:764:C:H2'	53:CA:765:G:C5'	2.23	0.64
53:CA:1350:A:H2	54:CG:33:GLY:HA3	1.63	0.64
53:CA:1359:C:H5"	62:CA:1776:HOH:O	1.98	0.64
53:CA:1365:G:C2	53:CA:1366:C:C2	2.86	0.64
53:CA:1451:U:C2	53:CA:1453:G:O6	2.51	0.64
3:CC:134:LYS:HD3	3:CC:138:GLN:OE1	1.98	0.64
9:CI:125:GLN:H	9:CI:125:GLN:HE21	1.46	0.64
56:CP:1:MET:HA	56:CP:1:MET:HE3	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:24:ARG:HD3	20:CT:28:ARG:HH21	1.63	0.64
22:DA:391:A:H2'	22:DA:392:U:H6	1.63	0.64
22:DA:424:G:O2'	22:DA:425:G:H5'	1.97	0.64
22:DA:563:A:C4	22:DA:2018:G:C2	2.86	0.64
22:DA:564:C:C2'	22:DA:565:C:H5'	2.28	0.64
22:DA:574:A:C8	22:DA:2055:C:H5"	2.33	0.64
22:DA:612:G:N2	22:DA:614:A:O2'	2.30	0.64
22:DA:1116:G:C6	22:DA:1117:C:N4	2.66	0.64
22:DA:1361:G:C2'	22:DA:1362:C:H5'	2.28	0.64
22:DA:1362:C:N3	22:DA:1363:C:C5	2.66	0.64
22:DA:1997:C:O2'	22:DA:1998:A:H5'	1.97	0.64
22:DA:2356:U:H4'	44:DW:16:GLU:HG3	1.79	0.64
22:DA:2707:U:H2'	22:DA:2708:G:C8	2.32	0.64
22:DA:2746:U:H2'	22:DA:2747:G:H5'	1.79	0.64
24:DC:120:ASP:CG	24:DC:121:ALA:H	2.00	0.64
24:DC:166:ARG:HB2	24:DC:171:VAL:HG22	1.79	0.64
38:DQ:87:VAL:HG12	38:DQ:88:GLU:N	2.10	0.64
47:DZ:23:LEU:HD12	47:DZ:28:LEU:HD21	1.78	0.64
1:AA:982:U:H4'	1:AA:983:A:C5'	2.28	0.64
2:AB:153:MET:CE	2:AB:157:PRO:HG3	2.27	0.64
4:AD:194:ILE:O	4:AD:194:ILE:HG13	1.98	0.64
9:AI:6:TYR:HE2	9:AI:17:ARG:HB2	1.63	0.64
20:AT:54:GLN:N	20:AT:55:PRO:HD2	2.11	0.64
22:BA:544:C:N3	22:BA:548:G:OP1	2.31	0.64
22:BA:1060:U:C5'	22:BA:1061:U:H5'	2.27	0.64
22:BA:1576:U:C2'	22:BA:1577:C:H5'	2.27	0.64
22:BA:1682:G:C8	22:BA:1757:A:N3	2.65	0.64
22:BA:1847:A:N3	22:BA:1847:A:H2'	2.13	0.64
22:BA:1871:A:H8	22:BA:1872:A:C6	2.16	0.64
22:BA:2311:A:O3'	22:BA:2312:U:C6	2.51	0.64
22:BA:2388:A:H5'	22:BA:2389:G:OP2	1.98	0.64
22:BA:2393:U:O2'	22:BA:2394:C:H5'	1.98	0.64
22:BA:2889:C:O2'	22:BA:2890:G:H5'	1.98	0.64
28:BG:83:THR:C	28:BG:84:LYS:HE2	2.17	0.64
31:BJ:42:ALA:O	31:BJ:45:THR:HG22	1.98	0.64
32:BK:61:VAL:HG22	32:BK:87:LEU:HD11	1.80	0.64
37:BP:4:ILE:O	37:BP:6:GLN:N	2.31	0.64
40:BS:73:LYS:CE	40:BS:74:ILE:H	2.06	0.64
40:BS:84:ARG:CB	40:BS:96:ILE:HD11	2.27	0.64
41:BT:2:ILE:N	41:BT:2:ILE:HD13	2.13	0.64
53:CA:495:A:H4'	53:CA:496:A:O5'	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:769:G:O2'	53:CA:770:C:H5'	1.98	0.64
53:CA:1074:G:H4'	2:CB:102:ASN:HB2	1.80	0.64
53:CA:1296:C:O2'	53:CA:1302:C:C4	2.51	0.64
4:CD:2:ARG:NE	4:CD:114:ARG:CD	2.61	0.64
5:CE:39:GLY:HA2	5:CE:45:VAL:HA	1.79	0.64
6:CF:98:GLU:O	6:CF:99:ALA:HB3	1.98	0.64
12:CL:52:CYS:HB3	12:CL:66:ILE:HD11	1.80	0.64
22:DA:286:U:H2'	22:DA:287:G:H8	1.61	0.64
22:DA:956:G:C1'	34:DM:82:MET:HE1	2.28	0.64
22:DA:1267:U:O2'	22:DA:1268:A:H8	1.74	0.64
22:DA:1274:A:O2'	22:DA:1275:A:H5"	1.97	0.64
22:DA:1587:G:N2	22:DA:1588:G:H1'	2.12	0.64
22:DA:2376:A:C1'	36:DO:99:TYR:CE1	2.81	0.64
57:DB:30:C:H2'	57:DB:31:C:H5'	1.79	0.64
58:DF:64:PRO:HA	58:DF:88:VAL:CG2	2.27	0.64
29:DH:80:ILE:HB	29:DH:101:ASP:CG	2.19	0.64
32:DK:21:CYS:SG	32:DK:39:ILE:CG2	2.86	0.64
33:DL:110:VAL:HG11	33:DL:127:VAL:HG23	1.79	0.64
36:DO:58:ILE:O	36:DO:62:LEU:HB2	1.98	0.64
41:DT:18:GLU:HA	41:DT:22:THR:HG21	1.80	0.64
1:AA:74:A:C6	1:AA:97:G:O6	2.51	0.64
1:AA:507:C:H3'	1:AA:508:U:H5"	1.79	0.64
1:AA:649:A:H2'	1:AA:650:G:O4'	1.98	0.64
1:AA:1003:G:H22	1:AA:1005:A:H5'	1.62	0.64
1:AA:1287:A:H2'	1:AA:1288:A:C8	2.33	0.64
4:AD:29:THR:HG22	4:AD:30:LYS:HD3	1.79	0.64
7:AG:53:SER:C	7:AG:55:LYS:H	2.00	0.64
21:AU:40:PRO:HA	21:AU:43:GLU:HB2	1.79	0.64
22:BA:483:A:O2'	42:BU:56:GLY:HA2	1.98	0.64
22:BA:636:G:C6	33:BL:111:ILE:HD11	2.33	0.64
22:BA:1474:U:H2'	22:BA:1475:G:H5'	1.80	0.64
26:BE:111:GLU:HG2	26:BE:114:ARG:HH12	1.61	0.64
37:BP:58:PHE:CE2	37:BP:75:THR:HG22	2.33	0.64
40:BS:72:THR:HG21	40:BS:108:SER:OG	1.97	0.64
42:BU:82:VAL:O	42:BU:94:PHE:O	2.16	0.64
53:CA:249:U:C2	53:CA:276:G:N1	2.66	0.64
53:CA:461:A:N3	53:CA:461:A:H2'	2.12	0.64
53:CA:723:U:O4'	21:CU:48:LYS:HD2	1.97	0.64
53:CA:1322:C:H2'	53:CA:1322:C:O2	1.97	0.64
2:CB:19:THR:HG22	2:CB:37:VAL:CB	2.27	0.64
3:CC:18:ASN:HA	3:CC:55:VAL:HG12	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:59:PRO:HG2	3:CC:62:SER:HB3	1.78	0.64
10:CJ:57:VAL:CG2	10:CJ:58:ASN:H	2.00	0.64
22:DA:533:G:H21	38:DQ:44:TYR:HD1	1.43	0.64
22:DA:858:G:C4	22:DA:2268:A:C2	2.85	0.64
22:DA:2197:U:C5	22:DA:2224:G:C5	2.86	0.64
22:DA:2223:G:H2'	22:DA:2224:G:H5'	1.80	0.64
24:DC:130:PRO:HG2	24:DC:133:ASN:ND2	2.12	0.64
32:DK:19:VAL:HG12	32:DK:41:ILE:HG12	1.80	0.64
34:DM:71:LYS:HD3	34:DM:95:LEU:HD13	1.80	0.64
37:DP:103:THR:O	37:DP:106:ALA:HB3	1.98	0.64
40:DS:66:ILE:H	40:DS:66:ILE:CD1	2.09	0.64
43:DV:61:LEU:HD23	43:DV:61:LEU:N	2.12	0.64
1:AA:408:A:P	4:AD:109:THR:HG21	2.39	0.63
1:AA:1319:A:H2'	1:AA:1323:G:N7	2.12	0.63
2:AB:221:ARG:CZ	2:AB:221:ARG:HB3	2.28	0.63
3:AC:41:TYR:OH	3:AC:89:VAL:HG21	1.98	0.63
9:AI:12:LYS:O	9:AI:13:SER:HB3	1.98	0.63
10:AJ:57:VAL:CG2	10:AJ:58:ASN:H	2.12	0.63
14:AN:51:PRO:O	14:AN:52:ARG:CB	2.46	0.63
17:AQ:11:VAL:HG12	17:AQ:12:VAL:N	2.13	0.63
22:BA:221:A:H4'	22:BA:222:A:O5'	1.98	0.63
22:BA:455:C:N3	22:BA:473:G:H5'	2.12	0.63
22:BA:478:A:C6	22:BA:480:A:C6	2.86	0.63
22:BA:923:G:N3	44:BW:23:LYS:CE	2.58	0.63
22:BA:923:G:H5'	44:BW:25:PHE:HZ	1.62	0.63
24:BC:80:LEU:CD1	24:BC:109:LEU:HG	2.28	0.63
25:BD:104:VAL:HA	25:BD:106:LYS:HZ3	1.64	0.63
26:BE:150:THR:HG21	26:BE:153:LEU:HA	1.80	0.63
27:BF:68:LYS:HD2	27:BF:68:LYS:N	2.13	0.63
29:BH:8:LYS:O	29:BH:13:GLY:CA	2.46	0.63
33:BL:65:GLY:O	33:BL:66:PHE:HB3	1.97	0.63
36:BO:58:ILE:HD11	36:BO:81:ARG:NH2	2.13	0.63
37:BP:112:ARG:O	37:BP:113:LEU:HD23	1.98	0.63
49:B1:8:ILE:CG2	49:B1:9:LYS:N	2.60	0.63
49:B1:9:LYS:N	49:B1:9:LYS:HD3	2.13	0.63
53:CA:373:A:C2	53:CA:482:A:C6	2.85	0.63
53:CA:775:G:H2'	53:CA:776:G:H5'	1.79	0.63
53:CA:794:A:H2'	53:CA:795:C:H6	1.62	0.63
53:CA:960:U:O2'	53:CA:1223:C:C5'	2.46	0.63
53:CA:1478:U:H2'	53:CA:1479:C:C6	2.33	0.63
3:CC:181:ILE:HG22	3:CC:181:ILE:O	1.96	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:2:ARG:NH2	4:CD:114:ARG:CD	2.51	0.63
5:CE:80:LEU:HD21	5:CE:143:LEU:HD21	1.80	0.63
6:CF:42:TRP:HB2	6:CF:59:TYR:CB	2.28	0.63
9:CI:78:ILE:O	9:CI:82:ILE:HG13	1.99	0.63
55:CM:2:ARG:HA	55:CM:7:ASN:O	1.97	0.63
14:CN:63:CYS:SG	14:CN:82:LYS:HG3	2.38	0.63
22:DA:103:A:H2'	22:DA:104:A:C8	2.33	0.63
22:DA:103:A:O2'	22:DA:104:A:H5'	1.98	0.63
22:DA:111:A:C2	22:DA:112:U:C2	2.86	0.63
22:DA:603:A:H4'	22:DA:604:G:C4'	2.28	0.63
22:DA:1936:A:H2'	22:DA:1945:G:O6	1.98	0.63
22:DA:1957:C:H5'	22:DA:1984:G:O2'	1.97	0.63
22:DA:2104:C:O2	22:DA:2105:U:H5	1.80	0.63
22:DA:2135:A:C3'	22:DA:2136:G:C5'	2.65	0.63
22:DA:2142:A:C3'	22:DA:2143:C:H4'	2.28	0.63
22:DA:2876:G:H4'	37:DP:2:ASN:HD21	1.62	0.63
24:DC:94:LEU:CD1	24:DC:100:ARG:HD3	2.28	0.63
58:DF:103:ILE:HG22	58:DF:103:ILE:O	1.98	0.63
32:DK:27:GLY:HA3	32:DK:30:ARG:HD3	1.78	0.63
35:DN:33:ILE:CD1	35:DN:118:ARG:HH21	2.12	0.63
37:DP:91:VAL:HG11	37:DP:96:LEU:CD1	2.25	0.63
38:DQ:90:ASP:O	38:DQ:94:LEU:HB2	1.98	0.63
1:AA:282:A:C2	1:AA:283:U:H1'	2.33	0.63
1:AA:352:C:H6	1:AA:352:C:H5"	1.63	0.63
1:AA:872:A:C4	1:AA:874:G:N7	2.65	0.63
4:AD:64:TYR:CD1	4:AD:93:LEU:HD13	2.33	0.63
5:AE:81:GLN:CG	5:AE:149:PRO:HG3	2.24	0.63
17:AQ:12:VAL:HG13	17:AQ:16:MET:CE	2.28	0.63
22:BA:513:A:O2'	22:BA:514:A:H5'	1.99	0.63
22:BA:1378:A:H2'	22:BA:1380:G:N7	2.14	0.63
22:BA:2052:A:H4'	25:BD:148:GLN:O	1.99	0.63
22:BA:2332:C:OP1	44:BW:44:PHE:HZ	1.81	0.63
22:BA:2447:G:H2'	22:BA:2500:U:H5'	1.80	0.63
25:BD:191:GLY:O	25:BD:192:ALA:HB3	1.97	0.63
26:BE:147:LEU:HD23	26:BE:183:PHE:CD1	2.33	0.63
42:BU:25:LYS:O	42:BU:26:ASN:HB3	1.96	0.63
44:BW:24:ARG:HD3	44:BW:65:LYS:CD	2.28	0.63
46:BY:57:LEU:HD12	46:BY:57:LEU:O	1.98	0.63
49:B1:29:LYS:NZ	49:B1:29:LYS:HB3	2.13	0.63
51:B3:22:LYS:HG2	51:B3:22:LYS:O	1.99	0.63
53:CA:802:A:H2'	53:CA:803:G:C5'	2.28	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:995:C:N4	53:CA:1046:A:H1'	2.13	0.63
53:CA:996:A:O2'	53:CA:997:U:H6	1.81	0.63
53:CA:1050:G:O2'	53:CA:1051:C:C6	2.45	0.63
2:CB:122:ASP:HB3	2:CB:124:THR:HG22	1.79	0.63
4:CD:72:ARG:HA	4:CD:203:TYR:HE1	1.63	0.63
54:CG:112:ASP:HB3	54:CG:117:LEU:HB3	1.80	0.63
54:CG:136:LYS:O	54:CG:140:VAL:HG23	1.98	0.63
19:CS:20:LYS:O	19:CS:20:LYS:HD3	1.98	0.63
22:DA:379:G:C6	22:DA:396:G:C6	2.86	0.63
22:DA:604:G:C2	22:DA:605:G:C5	2.86	0.63
22:DA:762:U:H4'	22:DA:763:G:C5'	2.28	0.63
22:DA:828:U:H2'	22:DA:829:A:C8	2.33	0.63
22:DA:1125:G:H4'	52:D4:37:GLN:HE21	1.62	0.63
22:DA:1401:G:C2'	22:DA:1402:U:H6	2.08	0.63
22:DA:1708:C:H2'	22:DA:1709:U:C6	2.32	0.63
22:DA:1944:U:O4'	22:DA:1955:U:H1'	1.98	0.63
22:DA:1973:G:H2'	22:DA:1974:C:H6	1.63	0.63
22:DA:2024:G:O2'	22:DA:2025:C:O4'	2.13	0.63
22:DA:2054:A:N7	22:DA:2056:G:H1'	2.13	0.63
22:DA:2657:A:O2'	22:DA:2658:C:C5'	2.46	0.63
25:DD:118:PHE:O	25:DD:119:ALA:HB3	1.98	0.63
26:DE:29:HIS:HB2	33:DL:6:LEU:CD2	2.28	0.63
58:DF:35:LEU:CD1	58:DF:153:ILE:HG23	2.28	0.63
58:DF:39:VAL:CG2	58:DF:49:LEU:HG	2.27	0.63
31:DJ:73:VAL:HG23	31:DJ:74:TYR:N	2.07	0.63
35:DN:28:LEU:HD23	35:DN:28:LEU:C	2.19	0.63
39:DR:97:LYS:HG2	39:DR:97:LYS:O	1.98	0.63
41:DT:9:LYS:HG3	46:DY:21:LEU:HD13	1.79	0.63
43:DV:4:ILE:HD11	43:DV:50:MET:HE2	1.80	0.63
48:D0:53:VAL:HG23	48:D0:54:ILE:H	1.62	0.63
1:AA:429:U:H1'	1:AA:430:A:H5"	1.80	0.63
1:AA:657:U:O2	15:AO:21:THR:HG23	1.99	0.63
1:AA:683:G:C2'	1:AA:684:U:H5'	2.28	0.63
1:AA:961:U:H2'	1:AA:962:C:C6	2.34	0.63
1:AA:1373:G:H5"	7:AG:35:LYS:HB2	1.78	0.63
5:AE:155:LYS:HB3	8:AH:70:VAL:HG13	1.80	0.63
8:AH:21:LYS:HE2	8:AH:21:LYS:HA	1.78	0.63
16:AP:10:GLY:HA3	16:AP:15:PRO:HA	1.80	0.63
22:BA:391:A:C6	22:BA:411:G:C2	2.87	0.63
22:BA:434:U:O2'	22:BA:436:C:H5	1.81	0.63
22:BA:1063:G:O2'	22:BA:1064:C:O4'	2.16	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1105:U:H2'	22:BA:1106:G:C8	2.34	0.63
22:BA:1319:C:O2'	22:BA:1320:C:H5'	1.98	0.63
22:BA:1392:A:H61	41:BT:18:GLU:CD	2.02	0.63
22:BA:1952:A:C5	32:BK:22:ILE:HG21	2.34	0.63
27:BF:118:ALA:HB2	27:BF:176:PHE:CD2	2.33	0.63
31:BJ:45:THR:O	31:BJ:45:THR:HG23	1.99	0.63
31:BJ:65:THR:CG2	31:BJ:68:LYS:HE3	2.28	0.63
31:BJ:88:THR:CG2	31:BJ:91:GLU:HG3	2.27	0.63
37:BP:7:LEU:O	37:BP:10:GLU:HG2	1.98	0.63
39:BR:49:ILE:O	39:BR:49:ILE:HG13	1.99	0.63
51:B3:9:ALA:HB3	51:B3:61:LEU:HD21	1.80	0.63
52:B4:25:VAL:C	52:B4:26:ILE:HD13	2.19	0.63
53:CA:113:G:N2	53:CA:353:A:H8	1.93	0.63
53:CA:149:A:C2	53:CA:150:U:C2	2.87	0.63
53:CA:577:G:O2'	53:CA:578:C:C5'	2.46	0.63
53:CA:677:U:H3	53:CA:713:G:H22	1.45	0.63
2:CB:84:LEU:HG	2:CB:84:LEU:O	1.96	0.63
6:CF:91:ARG:O	6:CF:93:LYS:HE3	1.98	0.63
54:CG:99:ALA:HB3	54:CG:100:MET:HE2	1.80	0.63
14:CN:62:ARG:HB3	14:CN:68:ARG:O	1.97	0.63
22:DA:2052:A:OP1	25:DD:146:ILE:HG12	1.99	0.63
22:DA:2353:G:H21	44:DW:30:VAL:HG21	1.64	0.63
22:DA:2748:A:C4	22:DA:2757:A:N6	2.67	0.63
25:DD:61:THR:HB	25:DD:63:PRO:HD2	1.79	0.63
58:DF:19:PHE:HB3	58:DF:21:TYR:CE2	2.34	0.63
58:DF:33:ILE:HB	58:DF:90:LEU:HB2	1.81	0.63
29:DH:83:LYS:HG3	29:DH:149:GLU:HB2	1.80	0.63
30:DI:45:THR:CG2	30:DI:54:ILE:HD13	2.26	0.63
33:DL:120:VAL:HG12	33:DL:121:THR:N	2.13	0.63
43:DV:77:VAL:HG23	43:DV:89:ILE:CG2	2.28	0.63
44:DW:20:LEU:HD11	44:DW:35:ILE:CG1	2.27	0.63
46:DY:57:LEU:O	46:DY:60:LYS:HB3	1.99	0.63
1:AA:210:C:C4'	1:AA:211:G:N2	2.61	0.63
1:AA:469:C:H2'	1:AA:470:C:C6	2.33	0.63
1:AA:486:U:H2'	1:AA:487:A:H8	1.63	0.63
1:AA:1130:A:C8	1:AA:1130:A:H5"	2.34	0.63
2:AB:48:MET:HA	2:AB:48:MET:CE	2.29	0.63
6:AF:71:ILE:HD11	6:AF:89:VAL:HG21	1.79	0.63
22:BA:996:A:O3'	38:BQ:91:ARG:HG2	1.98	0.63
22:BA:1288:G:C4	22:BA:1327:A:C2	2.86	0.63
22:BA:1696:G:H5"	22:BA:1696:G:H8	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1712:U:C2	22:BA:1713:A:N7	2.66	0.63
22:BA:1797:G:O3'	24:BC:255:LYS:HA	1.98	0.63
24:BC:252:LYS:HZ3	24:BC:252:LYS:HB2	1.63	0.63
25:BD:68:PHE:CE2	25:BD:75:ALA:HA	2.33	0.63
26:BE:41:GLN:OE1	26:BE:43:THR:HG21	1.97	0.63
27:BF:28:PRO:HB2	27:BF:168:LEU:HD22	1.80	0.63
29:BH:3:VAL:HB	29:BH:37:VAL:O	1.98	0.63
32:BK:10:VAL:CB	32:BK:16:ALA:CB	2.75	0.63
33:BL:93:ASN:O	33:BL:95:LEU:N	2.31	0.63
35:BN:24:MET:HG2	35:BN:44:LEU:HD22	1.79	0.63
36:BO:75:GLY:HA3	36:BO:109:ALA:HB3	1.81	0.63
39:BR:7:SER:OG	39:BR:22:LEU:HD13	1.99	0.63
40:BS:18:ARG:HA	40:BS:21:ALA:HB3	1.80	0.63
41:BT:44:LYS:HG3	41:BT:55:VAL:HG11	1.80	0.63
43:BV:19:ARG:O	43:BV:22:ALA:HB3	1.99	0.63
45:BX:44:ARG:HG2	45:BX:45:PHE:N	2.13	0.63
53:CA:337:G:H2'	53:CA:338:A:C8	2.33	0.63
53:CA:372:C:H4'	53:CA:373:A:OP2	1.99	0.63
53:CA:397:A:H5'	53:CA:398:U:OP1	1.99	0.63
53:CA:995:C:H42	53:CA:1046:A:H1'	1.63	0.63
9:CI:71:ILE:HD12	9:CI:72:SER:H	1.62	0.63
12:CL:83:GLY:HA2	12:CL:94:TYR:CD1	2.30	0.63
19:CS:79:TYR:O	19:CS:80:ARG:HB2	1.97	0.63
22:DA:70:G:O2'	22:DA:71:A:H5'	1.98	0.63
22:DA:1268:A:H2'	22:DA:1269:A:C8	2.33	0.63
22:DA:1303:G:HO2'	22:DA:1304:A:H8	1.46	0.63
22:DA:1311:G:H1'	22:DA:1313:U:O4	1.99	0.63
22:DA:1338:G:C2'	22:DA:1339:G:H5'	2.28	0.63
22:DA:1565:C:N4	22:DA:1567:G:C2	2.66	0.63
22:DA:1759:A:H2'	22:DA:1760:C:H6	1.61	0.63
22:DA:2530:A:H3'	28:DG:156:TYR:OH	1.98	0.63
22:DA:2582:G:H2'	22:DA:2582:G:N3	2.12	0.63
57:DB:11:C:H2'	57:DB:15:A:N6	2.14	0.63
25:DD:78:GLY:C	25:DD:79:LEU:HD22	2.19	0.63
25:DD:137:SER:HB3	25:DD:138:LEU:CD2	2.28	0.63
32:DK:11:ALA:O	32:DK:99:ILE:HG23	1.98	0.63
32:DK:17:ARG:HG2	32:DK:18:ARG:H	1.63	0.63
33:DL:76:GLU:O	33:DL:76:GLU:HG3	1.96	0.63
35:DN:94:TYR:N	35:DN:94:TYR:CD1	2.66	0.63
37:DP:28:LYS:CB	37:DP:39:LEU:HD23	2.28	0.63
41:DT:9:LYS:HG2	41:DT:9:LYS:O	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:99:ASN:O	4:AD:103:ARG:HB2	1.98	0.63
12:AL:115:LYS:O	12:AL:116:TYR:HB2	1.97	0.63
17:AQ:12:VAL:CG1	17:AQ:21:VAL:HG22	2.29	0.63
19:AS:33:TRP:CD1	19:AS:51:HIS:CG	2.87	0.63
22:BA:163:C:OP1	22:BA:163:C:C6	2.51	0.63
22:BA:250:G:H2'	22:BA:251:A:H8	1.60	0.63
22:BA:271:G:HO2'	22:BA:272:A:C5'	2.10	0.63
22:BA:324:A:C2	22:BA:325:G:H1'	2.34	0.63
22:BA:1853:A:N1	22:BA:2087:G:H1'	2.14	0.63
22:BA:1967:C:HO2'	22:BA:1968:G:H5'	1.60	0.63
22:BA:2816:G:O2'	22:BA:2817:U:H5'	1.97	0.63
30:BI:71:LYS:HG2	30:BI:72:THR:H	1.63	0.63
31:BJ:44:TYR:CD1	31:BJ:44:TYR:C	2.71	0.63
39:BR:39:LEU:O	39:BR:49:ILE:HG23	1.99	0.63
39:BR:51:VAL:HB	39:BR:52:PRO:HD2	1.78	0.63
53:CA:93:U:H2'	53:CA:95:C:C5	2.33	0.63
53:CA:373:A:N3	53:CA:374:A:C8	2.67	0.63
53:CA:543:U:O2'	53:CA:544:G:H5'	1.99	0.63
53:CA:642:A:O2'	53:CA:643:C:H6	1.80	0.63
53:CA:796:C:OP1	11:CK:127:ARG:HB3	1.99	0.63
53:CA:1226:C:C5	55:CM:102:LYS:HA	2.34	0.63
2:CB:80:LYS:HD3	2:CB:90:PHE:CZ	2.34	0.63
3:CC:26:LYS:HA	3:CC:26:LYS:CE	2.23	0.63
4:CD:154:VAL:O	4:CD:158:LEU:HD12	1.98	0.63
5:CE:13:LYS:HA	5:CE:13:LYS:CE	2.12	0.63
54:CG:42:VAL:O	54:CG:43:TYR:HB2	1.98	0.63
18:CR:63:TYR:CE2	18:CR:69:TYR:OH	2.51	0.63
22:DA:78:U:C2'	22:DA:79:C:H5'	2.28	0.63
22:DA:638:G:H2'	22:DA:639:U:C5	2.33	0.63
22:DA:686:U:H3	50:D2:12:ARG:HB2	1.63	0.63
22:DA:956:G:H1'	34:DM:82:MET:HE1	1.80	0.63
22:DA:1116:G:C6	22:DA:1117:C:C4	2.87	0.63
22:DA:1124:G:H1'	52:D4:38:GLY:OXT	1.98	0.63
22:DA:1759:A:O2'	22:DA:1760:C:H5'	1.98	0.63
24:DC:33:LEU:O	24:DC:34:GLU:HB3	1.97	0.63
24:DC:149:LYS:HE3	24:DC:152:GLN:CD	2.19	0.63
24:DC:166:ARG:HG3	24:DC:166:ARG:O	1.98	0.63
24:DC:172:THR:HG22	24:DC:182:LYS:HG2	1.79	0.63
25:DD:33:ARG:HH21	25:DD:51:THR:HG22	1.63	0.63
32:DK:77:ILE:HD11	32:DK:105:ARG:HH22	1.62	0.63
40:DS:7:HIS:HE1	40:DS:10:ALA:HA	1.62	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DU:34:ILE:HG12	42:DU:62:ALA:O	1.99	0.63
43:DV:29:ILE:HD12	43:DV:90:ASP:HA	1.81	0.63
46:DY:19:LEU:HG	46:DY:22:LEU:HD22	1.79	0.63
52:D4:19:ARG:O	52:D4:20:ASP:CB	2.46	0.63
1:AA:86:G:C2	1:AA:87:C:N4	2.63	0.63
1:AA:462:G:H3'	1:AA:463:U:C6	2.33	0.63
2:AB:127:LYS:HG3	2:AB:128:LEU:N	2.10	0.63
22:BA:121:G:H4'	22:BA:149:A:H5'	1.80	0.63
22:BA:1062:G:H2'	22:BA:1063:G:C8	2.33	0.63
22:BA:1498:C:O2'	22:BA:1499:C:C5'	2.47	0.63
22:BA:2025:C:H2'	22:BA:2026:U:H6	1.63	0.63
27:BF:33:ILE:O	27:BF:90:LEU:HB2	1.98	0.63
27:BF:40:GLY:HA2	27:BF:84:ILE:CD1	2.24	0.63
35:BN:71:ARG:HG3	35:BN:71:ARG:NH2	2.14	0.63
37:BP:58:PHE:CD2	37:BP:75:THR:HG22	2.33	0.63
40:BS:70:LYS:N	40:BS:70:LYS:HD2	2.13	0.63
51:B3:31:ILE:C	51:B3:31:ILE:HD12	2.19	0.63
53:CA:143:A:H2'	53:CA:143:A:N3	2.13	0.63
53:CA:198:G:HO2'	53:CA:199:A:H8	1.45	0.63
53:CA:267:C:OP2	17:CQ:68:LYS:HD2	1.99	0.63
53:CA:609:A:N7	62:CA:1856:HOH:O	2.30	0.63
6:CF:18:VAL:CG2	6:CF:58:HIS:CD2	2.71	0.63
6:CF:43:GLY:HA2	6:CF:58:HIS:HE1	1.60	0.63
14:CN:50:LEU:HB2	14:CN:51:PRO:HD3	1.80	0.63
17:CQ:46:HIS:HE2	17:CQ:48:GLU:HG2	1.62	0.63
20:CT:81:GLN:C	20:CT:82:ILE:HG12	2.19	0.63
22:DA:90:U:H3'	22:DA:91:A:C5'	2.28	0.63
22:DA:620:G:O2'	22:DA:622:G:N7	2.32	0.63
22:DA:788:A:H5"	22:DA:789:A:OP1	1.98	0.63
22:DA:961:C:H5	22:DA:2456:C:O4'	1.80	0.63
22:DA:1301:A:C4	22:DA:1303:G:N7	2.66	0.63
22:DA:1358:G:H2'	22:DA:1372:U:O4	1.97	0.63
22:DA:1802:A:O2'	22:DA:1803:A:H5'	1.98	0.63
22:DA:2297:A:C2	22:DA:2298:A:N7	2.67	0.63
22:DA:2591:C:OP1	24:DC:237:ARG:HD2	1.99	0.63
57:DB:17:C:H42	57:DB:68:C:N4	1.96	0.63
29:DH:5:LEU:C	29:DH:6:LEU:HD12	2.18	0.63
29:DH:78:VAL:HG11	29:DH:144:VAL:HG12	1.79	0.63
37:DP:44:GLY:HA3	37:DP:60:VAL:CG1	2.28	0.63
1:AA:49:U:O4	1:AA:365:U:C5	2.47	0.63
1:AA:197:A:O2'	1:AA:198:G:C8	2.52	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:737:C:H2'	1:AA:738:C:H6	1.64	0.63
4:AD:109:THR:HG22	4:AD:112:GLU:HB2	1.80	0.63
7:AG:21:LEU:HD21	7:AG:96:ASN:HD22	1.63	0.63
11:AK:121:ARG:CZ	21:AU:35:GLU:HG3	2.29	0.63
21:AU:33:ARG:CD	21:AU:34:ARG:HG3	2.28	0.63
22:BA:535:G:C2'	22:BA:536:G:H5'	2.29	0.63
22:BA:1491:G:O2'	22:BA:1492:G:H5'	1.98	0.63
22:BA:1507:C:C4	22:BA:1508:A:C2	2.86	0.63
24:BC:93:VAL:HG12	24:BC:94:LEU:H	1.63	0.63
28:BG:8:VAL:HG12	28:BG:9:VAL:N	2.14	0.63
28:BG:83:THR:CA	28:BG:84:LYS:CE	2.77	0.63
31:BJ:88:THR:HG22	31:BJ:91:GLU:HG3	1.77	0.63
33:BL:95:LEU:HD22	33:BL:100:ILE:HD11	1.80	0.63
39:BR:61:ALA:HB1	39:BR:98:ILE:H	1.63	0.63
41:BT:61:LEU:C	41:BT:61:LEU:CD1	2.64	0.63
41:BT:64:LYS:HA	41:BT:79:ASP:OD1	1.98	0.63
53:CA:327:A:C2	53:CA:329:A:N3	2.67	0.63
53:CA:499:A:C6	53:CA:547:A:C8	2.87	0.63
53:CA:624:C:H2'	53:CA:625:U:O4'	1.99	0.63
54:CG:110:ARG:HG3	54:CG:111:GLY:N	2.12	0.63
21:CU:28:LEU:O	21:CU:28:LEU:HD23	1.98	0.63
22:DA:117:G:N1	22:DA:119:A:N6	2.46	0.63
22:DA:118:A:C8	22:DA:119:A:C8	2.86	0.63
22:DA:304:U:O2'	22:DA:305:C:C6	2.46	0.63
22:DA:396:G:O2'	22:DA:397:U:C5'	2.47	0.63
22:DA:632:A:H5"	33:DL:68:SER:OG	1.99	0.63
22:DA:971:G:H2'	22:DA:972:A:H5'	1.79	0.63
22:DA:1387:A:C5'	22:DA:1469:A:H1'	2.27	0.63
22:DA:1416:G:C2	22:DA:1417:C:C4	2.87	0.63
25:DD:21:SER:O	25:DD:23:PRO:HD3	1.99	0.63
58:DF:65:LEU:HD11	58:DF:87:LYS:NZ	2.13	0.63
58:DF:65:LEU:HG	58:DF:67:THR:HG23	1.81	0.63
31:DJ:45:THR:H	31:DJ:46:PRO:CD	2.10	0.63
35:DN:84:GLY:O	35:DN:88:ALA:HB2	1.99	0.63
42:DU:35:VAL:HB	42:DU:38:ILE:HD13	1.81	0.63
47:DZ:28:LEU:HD23	47:DZ:28:LEU:N	2.14	0.63
1:AA:86:G:N2	1:AA:87:C:N4	2.47	0.63
1:AA:923:A:H5"	5:AE:25:LYS:HE2	1.81	0.63
1:AA:1234:C:H2'	1:AA:1235:U:H5'	1.79	0.63
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.33	0.63
4:AD:54:LEU:C	4:AD:54:LEU:CD2	2.67	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:86:GLY:O	4:AD:89:LEU:HB3	1.99	0.63
4:AD:190:LEU:O	4:AD:191:SER:HB2	1.98	0.63
5:AE:110:MET:O	5:AE:114:LEU:CB	2.46	0.63
5:AE:120:HIS:O	5:AE:121:ASN:CB	2.46	0.63
6:AF:9:MET:HE2	6:AF:59:TYR:CE2	2.34	0.63
10:AJ:18:ILE:CG2	10:AJ:19:ASP:N	2.61	0.63
12:AL:2:THR:CB	12:AL:5:GLN:HG3	2.26	0.63
14:AN:90:GLY:O	14:AN:92:ILE:N	2.31	0.63
22:BA:699:A:H4'	22:BA:1634:A:N7	2.13	0.63
22:BA:1275:A:H4'	22:BA:1276:A:OP1	1.99	0.63
22:BA:2405:G:H1'	22:BA:2412:A:N6	2.14	0.63
22:BA:2800:A:C2	22:BA:2895:G:H1'	2.34	0.63
26:BE:172:ALA:O	26:BE:175:ILE:HG22	1.99	0.63
27:BF:132:ARG:O	27:BF:133:GLU:HB3	1.97	0.63
31:BJ:44:TYR:O	31:BJ:45:THR:CB	2.47	0.63
31:BJ:44:TYR:HD2	38:BQ:63:ARG:HG2	1.61	0.63
38:BQ:96:ASP:C	38:BQ:98:ALA:N	2.49	0.63
53:CA:888:G:O3'	53:CA:1488:G:H4'	1.97	0.63
53:CA:1040:U:C2'	53:CA:1041:G:H5'	2.29	0.63
53:CA:1160:G:C6	53:CA:1181:G:O6	2.52	0.63
53:CA:1190:G:O3'	3:CC:2:GLN:HB3	1.99	0.63
53:CA:1308:U:OP1	55:CM:95:PRO:HB3	1.98	0.63
53:CA:1417:G:C6	53:CA:1482:G:C6	2.87	0.63
3:CC:29:ALA:CB	14:CN:64:ARG:HH12	2.09	0.63
4:CD:104:MET:SD	4:CD:142:VAL:HG13	2.39	0.63
54:CG:4:ARG:CZ	54:CG:6:ILE:HG22	2.28	0.63
54:CG:134:VAL:CB	54:CG:137:ARG:HH21	2.06	0.63
8:CH:50:VAL:HG22	8:CH:50:VAL:O	1.99	0.63
9:CI:38:PHE:HE2	9:CI:71:ILE:HG22	1.62	0.63
55:CM:12:LYS:HE2	55:CM:16:ILE:HG22	1.80	0.63
55:CM:103:THR:HG22	55:CM:104:ASN:N	2.14	0.63
22:DA:33:C:H2'	22:DA:446:G:N2	2.14	0.63
22:DA:259:G:H2'	22:DA:260:G:H5'	1.79	0.63
22:DA:605:G:H2'	22:DA:606:U:C6	2.33	0.63
22:DA:973:A:H5'	22:DA:974:G:OP2	1.98	0.63
22:DA:1166:G:H22	22:DA:1184:U:H1'	1.61	0.63
22:DA:1255:U:H2'	26:DE:68:ALA:HB2	1.81	0.63
22:DA:1339:G:H5'	22:DA:1393:A:N1	2.13	0.63
22:DA:1607:C:C4'	22:DA:1608:A:C8	2.81	0.63
22:DA:2040:G:C5	22:DA:2041:U:C5	2.87	0.63
28:DG:120:ILE:O	28:DG:120:ILE:HG23	1.97	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DG:175:LYS:HD3	28:DG:175:LYS:C	2.19	0.63
30:DI:86:LYS:O	30:DI:87:SER:HB2	1.99	0.63
36:DO:62:LEU:HD11	36:DO:65:THR:HG23	1.81	0.63
42:DU:20:LYS:HD2	42:DU:38:ILE:HD11	1.81	0.63
45:DX:26:ARG:HD3	45:DX:28:PHE:CE2	2.34	0.63
48:D0:28:SER:O	48:D0:36:LYS:HA	1.99	0.63
1:AA:243:A:C2	1:AA:245:U:H2'	2.33	0.63
1:AA:258:G:N2	1:AA:259:G:H1'	2.14	0.63
1:AA:815:A:H4'	1:AA:817:C:C4	2.34	0.63
1:AA:1127:G:O2'	1:AA:1128:C:C5'	2.43	0.63
1:AA:1433:A:N7	1:AA:1468:A:C6	2.66	0.63
2:AB:153:MET:HE2	2:AB:157:PRO:HG3	1.81	0.63
3:AC:21:TRP:CG	3:AC:58:ARG:HG2	2.34	0.63
3:AC:144:GLY:O	3:AC:145:ALA:HB3	1.98	0.63
5:AE:155:LYS:HD2	5:AE:155:LYS:N	2.13	0.63
7:AG:69:ARG:HG3	7:AG:95:ARG:HG2	1.80	0.63
7:AG:76:SER:HA	7:AG:85:GLN:HB2	1.80	0.63
9:AI:27:ILE:N	9:AI:27:ILE:HD12	2.14	0.63
13:AM:36:ALA:HB3	13:AM:38:ILE:HG12	1.80	0.63
13:AM:45:SER:O	13:AM:46:GLU:HB2	1.99	0.63
22:BA:340:A:H2'	22:BA:341:C:H5'	1.80	0.63
22:BA:1071:G:C8	22:BA:1089:A:N6	2.66	0.63
22:BA:1165:A:H2'	22:BA:1166:G:H8	1.61	0.63
22:BA:1624:U:H2'	22:BA:1625:C:H6	1.64	0.63
22:BA:1725:U:H2'	22:BA:1726:C:H6	1.61	0.63
22:BA:1885:A:C2	22:BA:1886:U:H1'	2.34	0.63
22:BA:2402:U:H2'	22:BA:2403:C:OP2	1.99	0.63
22:BA:2661:G:O2'	22:BA:2662:A:H5'	1.98	0.63
27:BF:46:LYS:HD2	27:BF:46:LYS:N	2.14	0.63
28:BG:29:ASN:CG	28:BG:30:GLY:N	2.50	0.63
32:BK:1:MET:HE2	32:BK:32:TYR:CE1	2.33	0.63
33:BL:92:LEU:HD21	33:BL:124:GLY:HA3	1.80	0.63
34:BM:6:ARG:HD2	34:BM:8:LYS:NZ	2.14	0.63
36:BO:75:GLY:HA2	36:BO:106:LEU:HD12	1.79	0.63
37:BP:83:ILE:C	37:BP:83:ILE:CD1	2.66	0.63
39:BR:60:LYS:H	39:BR:100:GLY:HA3	1.63	0.63
47:BZ:13:ILE:HG22	47:BZ:14:GLY:N	2.13	0.63
48:B0:33:SER:OG	48:B0:35:GLU:HG3	1.99	0.63
53:CA:983:A:O2'	53:CA:984:C:C5'	2.47	0.63
53:CA:1285:A:O2'	53:CA:1286:U:H5'	1.99	0.63
4:CD:190:LEU:O	4:CD:191:SER:O	2.17	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:35:LEU:HD11	5:CE:136:VAL:HG11	1.80	0.63
19:CS:68:HIS:HB3	19:CS:72:GLU:HG3	1.80	0.63
22:DA:1351:C:O2'	22:DA:1571:A:H1'	1.99	0.63
22:DA:1817:G:H5"	24:DC:86:ARG:NH2	2.14	0.63
22:DA:1973:G:C4	22:DA:1974:C:C5	2.87	0.63
22:DA:2239:G:OP2	62:DA:3530:HOH:O	2.16	0.63
22:DA:2668:G:O2'	22:DA:2669:G:H8	1.74	0.63
58:DF:32:LYS:HB3	58:DF:156:THR:HB	1.80	0.63
29:DH:78:VAL:HG21	29:DH:144:VAL:CG1	2.29	0.63
30:DI:36:GLU:HB2	30:DI:40:ALA:HB3	1.80	0.63
43:DV:55:GLU:O	43:DV:57:TYR:N	2.32	0.63
1:AA:61:G:O2'	1:AA:62:U:H5'	1.97	0.62
1:AA:102:G:H2'	1:AA:103:U:H6	1.64	0.62
1:AA:322:C:H5	1:AA:328:C:H5	1.47	0.62
1:AA:428:G:H1'	1:AA:430:A:N7	2.14	0.62
1:AA:754:C:H5"	1:AA:754:C:O2	1.99	0.62
1:AA:1130:A:H5"	1:AA:1130:A:H8	1.63	0.62
1:AA:1305:G:HO2'	1:AA:1306:A:H8	1.47	0.62
7:AG:112:ASP:O	7:AG:113:LYS:HD3	1.98	0.62
8:AH:58:LEU:HD11	8:AH:60:LEU:HD21	1.80	0.62
22:BA:1626:A:O2'	22:BA:1627:G:OP2	2.14	0.62
22:BA:2547:A:O2'	22:BA:2548:U:H5'	1.99	0.62
26:BE:5:LEU:HA	26:BE:120:VAL:HG13	1.81	0.62
28:BG:84:LYS:CG	28:BG:132:LEU:N	2.42	0.62
32:BK:10:VAL:HB	32:BK:16:ALA:CB	2.29	0.62
35:BN:8:ARG:HB3	35:BN:10:LEU:HD22	1.80	0.62
38:BQ:93:ILE:CG2	38:BQ:94:LEU:N	2.47	0.62
41:BT:24:MET:HG3	41:BT:29:THR:HG23	1.81	0.62
45:BX:30:PRO:CG	45:BX:32:LEU:HD11	2.29	0.62
48:B0:29:VAL:HG13	48:B0:34:GLY:O	1.99	0.62
53:CA:84:U:O2'	53:CA:85:U:H5'	1.98	0.62
53:CA:1287:A:O2'	53:CA:1288:A:C8	2.49	0.62
5:CE:148:SER:H	5:CE:151:MET:HE3	1.63	0.62
22:DA:2:G:C6	22:DA:3:U:C4	2.87	0.62
22:DA:85:G:HO2'	22:DA:86:G:H8	1.46	0.62
22:DA:236:C:H2'	22:DA:237:C:H6	1.64	0.62
22:DA:247:G:C8	22:DA:249:C:C6	2.87	0.62
22:DA:303:G:C2	22:DA:304:U:C2	2.87	0.62
22:DA:310:A:HO2'	22:DA:311:A:H8	0.73	0.62
22:DA:445:C:O2'	22:DA:446:G:O4'	2.17	0.62
22:DA:1081:U:H4'	30:DI:123:ALA:HA	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1238:G:O2'	22:DA:1239:G:H5'	1.99	0.62
22:DA:1301:A:C8	22:DA:1303:G:C8	2.87	0.62
22:DA:2019:A:H4'	38:DQ:33:VAL:HG21	1.81	0.62
22:DA:2037:A:H2'	22:DA:2038:G:C8	2.34	0.62
22:DA:2287:A:HO2'	22:DA:2288:A:H3'	1.62	0.62
22:DA:2619:C:H4'	25:DD:156:PHE:O	1.99	0.62
22:DA:2674:G:H4'	32:DK:30:ARG:HD2	1.81	0.62
24:DC:2:VAL:O	24:DC:3:VAL:HB	1.98	0.62
25:DD:10:GLY:HA2	37:DP:4:ILE:CD1	2.29	0.62
25:DD:107:VAL:CG1	25:DD:109:VAL:HG23	2.28	0.62
1:AA:75:G:C5	1:AA:76:G:C8	2.86	0.62
1:AA:188:C:O2	1:AA:188:C:H2'	1.98	0.62
1:AA:197:A:H4'	1:AA:198:G:O5'	1.97	0.62
1:AA:1162:C:H2'	1:AA:1163:A:C8	2.34	0.62
1:AA:1427:C:C2'	1:AA:1428:A:H5'	2.30	0.62
2:AB:99:MET:HA	2:AB:106:VAL:HG21	1.81	0.62
7:AG:108:ARG:NH2	7:AG:118:ARG:HH22	1.97	0.62
8:AH:76:ARG:NE	8:AH:78:SER:O	2.32	0.62
14:AN:40:ARG:NH1	14:AN:44:VAL:HG21	2.13	0.62
16:AP:10:GLY:O	16:AP:11:ALA:HB2	1.99	0.62
22:BA:264:C:H2'	22:BA:265:A:H5"	1.81	0.62
22:BA:1279:G:O2'	22:BA:1280:G:H5'	1.99	0.62
22:BA:1739:A:C2	22:BA:1740:G:H1'	2.34	0.62
22:BA:2522:U:H2'	22:BA:2523:G:H5'	1.81	0.62
23:BB:7:G:O2'	36:BO:38:GLN:NE2	2.32	0.62
24:BC:70:LYS:HD2	24:BC:99:GLU:OE1	1.99	0.62
26:BE:152:GLU:O	26:BE:153:LEU:HG	1.99	0.62
27:BF:82:TYR:CD2	27:BF:83:PRO:HD2	2.34	0.62
27:BF:107:VAL:N	27:BF:108:PRO:CD	2.62	0.62
28:BG:23:ILE:H	28:BG:23:ILE:CD1	2.08	0.62
29:BH:99:ILE:HG22	29:BH:99:ILE:O	1.99	0.62
32:BK:70:ARG:HD3	32:BK:76:VAL:HG22	1.81	0.62
33:BL:19:LEU:CB	33:BL:27:LEU:HD22	2.24	0.62
34:BM:64:TRP:CH2	34:BM:106:ASP:HB2	2.35	0.62
34:BM:71:LYS:HD3	34:BM:95:LEU:CD1	2.29	0.62
54:CG:75:LYS:HG3	54:CG:76:SER:N	2.13	0.62
10:CJ:52:LEU:HB2	14:CN:80:ARG:HE	1.64	0.62
55:CM:2:ARG:NE	55:CM:8:ILE:HD11	2.13	0.62
55:CM:87:GLY:O	55:CM:91:ARG:HD2	2.00	0.62
17:CQ:27:PHE:CD1	17:CQ:36:PHE:HB3	2.33	0.62
22:DA:233:A:O2'	22:DA:234:U:O5'	2.16	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:850:U:O2'	47:DZ:22:THR:HG22	1.98	0.62
22:DA:852:U:H2'	22:DA:853:C:H6	1.64	0.62
22:DA:974:G:H1'	22:DA:975:A:C8	2.34	0.62
22:DA:975:A:N3	22:DA:976:G:C8	2.66	0.62
22:DA:989:G:C4'	22:DA:990:A:OP1	2.46	0.62
22:DA:1062:G:C8	22:DA:1088:A:C8	2.87	0.62
22:DA:1176:U:H2'	22:DA:1177:G:C8	2.34	0.62
22:DA:1416:G:C4	22:DA:1417:C:C5	2.87	0.62
22:DA:1670:C:C5	22:DA:1671:U:C4	2.87	0.62
22:DA:2358:A:H61	33:DL:54:GLN:HE22	1.47	0.62
22:DA:2507:C:H1'	22:DA:2583:G:C2	2.34	0.62
24:DC:93:VAL:HG13	24:DC:94:LEU:N	2.14	0.62
24:DC:183:VAL:HG13	24:DC:185:ALA:H	1.63	0.62
58:DF:5:ASP:C	58:DF:7:TYR:H	2.01	0.62
58:DF:11:VAL:HG12	58:DF:12:VAL:N	2.14	0.62
30:DI:79:LEU:HD22	30:DI:100:ILE:HD12	1.81	0.62
30:DI:109:ALA:HB1	30:DI:125:THR:HG22	1.79	0.62
34:DM:97:GLN:HB2	34:DM:98:PRO:HD2	1.81	0.62
48:D0:27:LEU:N	48:D0:27:LEU:HD22	2.14	0.62
1:AA:1032:G:H2'	1:AA:1033:G:H5'	1.80	0.62
12:AL:65:TYR:CD2	12:AL:86:VAL:HG21	2.34	0.62
14:AN:9:GLU:OE1	14:AN:60:ARG:HB3	2.00	0.62
21:AU:13:VAL:HG13	21:AU:15:LEU:CG	2.27	0.62
22:BA:2810:A:H2'	22:BA:2811:G:O4'	1.99	0.62
24:BC:169:ALA:O	24:BC:185:ALA:HB3	1.99	0.62
44:BW:39:GLN:HG3	44:BW:42:THR:H	1.64	0.62
53:CA:198:G:C4	53:CA:199:A:C8	2.86	0.62
53:CA:745:G:H2'	53:CA:746:A:C8	2.33	0.62
53:CA:1221:G:H4'	19:CS:35:ARG:HH21	1.61	0.62
53:CA:1242:G:N2	53:CA:1243:C:H1'	2.14	0.62
53:CA:1394:A:H2'	53:CA:1501:C:O2'	1.98	0.62
4:CD:94:GLU:CD	4:CD:99:ASN:HD21	2.03	0.62
10:CJ:101:SER:O	10:CJ:102:LEU:HB2	1.99	0.62
55:CM:13:HIS:HB3	55:CM:16:ILE:CD1	2.30	0.62
22:DA:279:A:N6	22:DA:361:G:O2'	2.33	0.62
22:DA:1342:A:C6	22:DA:1397:U:C6	2.86	0.62
22:DA:1389:G:O2'	22:DA:1390:U:H5'	1.99	0.62
22:DA:1439:A:N7	22:DA:1440:U:N1	2.48	0.62
26:DE:126:VAL:HG22	26:DE:127:GLU:OE2	2.00	0.62
26:DE:136:GLN:HA	26:DE:139:LYS:HG2	1.81	0.62
26:DE:157:LEU:C	26:DE:157:LEU:HD12	2.20	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:DF:47:LYS:HA	58:DF:50:ASP:HB3	1.79	0.62
42:DU:83:GLY:O	42:DU:93:ARG:HA	1.98	0.62
1:AA:265:G:C2'	1:AA:266:G:H5'	2.29	0.62
1:AA:1348:U:O2'	1:AA:1349:A:C5'	2.48	0.62
3:AC:59:PRO:HG2	3:AC:62:SER:HB3	1.82	0.62
7:AG:12:LEU:H	7:AG:12:LEU:CD2	1.92	0.62
10:AJ:74:VAL:HG12	10:AJ:75:ASP:H	1.63	0.62
15:AO:18:ALA:O	15:AO:19:ASN:HB2	1.98	0.62
19:AS:79:TYR:CE1	19:AS:80:ARG:HB2	2.35	0.62
22:BA:95:A:O2'	46:BY:41:HIS:CD2	2.51	0.62
22:BA:1276:A:C8	22:BA:1276:A:H5"	2.35	0.62
22:BA:2013:A:OP1	40:BS:96:ILE:HA	1.98	0.62
22:BA:2134:A:O2'	22:BA:2135:A:H8	1.82	0.62
22:BA:2225:A:H4'	22:BA:2226:C:H6	1.63	0.62
62:BB:315:HOH:O	43:BV:14:LYS:HD2	1.98	0.62
24:BC:67:LYS:O	24:BC:68:ARG:HB2	2.00	0.62
31:BJ:40:HIS:H	31:BJ:40:HIS:HD2	1.45	0.62
32:BK:16:ALA:O	32:BK:17:ARG:HB2	1.99	0.62
38:BQ:65:ASN:ND2	38:BQ:69:ARG:NH2	2.42	0.62
41:BT:32:LEU:N	41:BT:83:ALA:CB	2.59	0.62
44:BW:22:VAL:HG13	44:BW:25:PHE:CE2	2.34	0.62
53:CA:210:C:O2	53:CA:210:C:H2'	1.98	0.62
53:CA:277:C:O2'	53:CA:278:G:C5'	2.48	0.62
53:CA:430:A:O2'	53:CA:431:A:H5'	1.99	0.62
53:CA:979:C:H2'	53:CA:980:C:O4'	1.99	0.62
53:CA:1144:G:H21	53:CA:1146:A:H62	1.45	0.62
3:CC:10:ARG:HD3	3:CC:177:LEU:HA	1.80	0.62
5:CE:14:LEU:HD12	5:CE:15:ILE:N	2.13	0.62
5:CE:79:THR:HA	5:CE:121:ASN:OD1	2.00	0.62
12:CL:26:CYS:HB2	12:CL:29:LYS:HE2	1.81	0.62
55:CM:12:LYS:H	55:CM:44:ILE:HG13	1.65	0.62
14:CN:2:LYS:HD3	14:CN:5:MET:HG2	1.82	0.62
22:DA:27:G:H1'	22:DA:513:A:H62	1.64	0.62
22:DA:185:G:C6	22:DA:212:G:C2	2.87	0.62
22:DA:492:A:H2'	22:DA:493:G:C8	2.35	0.62
22:DA:506:G:H4'	22:DA:507:A:H5'	1.80	0.62
22:DA:969:G:H2'	22:DA:970:U:C6	2.35	0.62
22:DA:1117:C:O2'	22:DA:1118:C:H5'	1.98	0.62
22:DA:1376:C:H5"	62:DA:3411:HOH:O	1.99	0.62
22:DA:1494:A:H2'	22:DA:1495:A:H8	1.63	0.62
22:DA:1754:A:C6	22:DA:1755:A:C6	2.86	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1794:A:H1'	22:DA:1900:A:C2	2.34	0.62
57:DB:38:C:H4'	36:DO:100:HIS:NE2	2.14	0.62
57:DB:41:G:H3'	57:DB:42:C:C5'	2.28	0.62
57:DB:81:G:C4	57:DB:82:U:C5	2.88	0.62
28:DG:8:VAL:HG11	28:DG:49:LEU:HD23	1.81	0.62
44:DW:49:ASN:CG	44:DW:81:ILE:HG23	2.19	0.62
47:DZ:6:ILE:O	47:DZ:34:THR:HA	2.00	0.62
1:AA:199:A:O2'	1:AA:200:G:O4'	2.18	0.62
1:AA:345:C:O2	32:BK:117:SER:HA	2.00	0.62
1:AA:537:G:H5"	12:AL:109:ARG:NH1	2.14	0.62
1:AA:878:A:H5"	8:AH:80:PRO:HG2	1.80	0.62
1:AA:946:A:H2'	1:AA:947:G:C8	2.35	0.62
1:AA:1228:C:H2'	1:AA:1229:A:C8	2.35	0.62
1:AA:1358:U:C6	1:AA:1359:C:C5	2.88	0.62
5:AE:105:ILE:O	5:AE:105:ILE:HG13	1.99	0.62
5:AE:153:ALA:HA	5:AE:156:ARG:HB3	1.78	0.62
7:AG:30:MET:HG2	7:AG:31:VAL:H	1.64	0.62
22:BA:1849:G:H2'	22:BA:1850:G:H8	1.63	0.62
22:BA:2199:A:C8	22:BA:2199:A:H5"	2.34	0.62
62:BA:3285:HOH:O	26:BE:98:LYS:HE2	2.00	0.62
24:BC:242:HIS:O	24:BC:244:VAL:HG13	1.99	0.62
26:BE:31:VAL:HG21	26:BE:104:ALA:CB	2.27	0.62
27:BF:4:HIS:O	27:BF:7:TYR:HB3	1.99	0.62
28:BG:29:ASN:CG	28:BG:30:GLY:H	2.02	0.62
34:BM:17:ASN:O	34:BM:38:ARG:HD3	1.99	0.62
36:BO:31:THR:HG22	36:BO:34:HIS:O	1.99	0.62
39:BR:49:ILE:HG21	39:BR:53:PHE:N	2.14	0.62
40:BS:20:VAL:HA	40:BS:23:LEU:HD12	1.81	0.62
44:BW:24:ARG:HB2	44:BW:65:LYS:HD3	1.79	0.62
51:B3:26:ALA:O	51:B3:27:ASN:CB	2.44	0.62
53:CA:252:U:H5'	53:CA:252:U:H6	1.63	0.62
53:CA:254:G:H5"	17:CQ:70:LYS:CD	2.30	0.62
53:CA:429:U:H1'	53:CA:430:A:H5"	1.80	0.62
53:CA:1151:A:O3'	10:CJ:70:HIS:CE1	2.51	0.62
2:CB:130:LYS:O	2:CB:134:LEU:HG	1.98	0.62
4:CD:23:GLY:HA2	4:CD:160:LEU:HD12	1.80	0.62
12:CL:70:GLY:C	12:CL:98:ARG:HH22	2.02	0.62
55:CM:18:LEU:HD22	55:CM:32:ILE:HG21	1.81	0.62
22:DA:46:G:C2	22:DA:47:C:C5	2.86	0.62
22:DA:612:G:C2	22:DA:614:A:H1'	2.34	0.62
22:DA:1245:G:H4'	26:DE:33:VAL:HG11	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1364:G:C5	45:DX:1:SER:HB2	2.34	0.62
22:DA:1779:U:H5	22:DA:1784:A:N7	1.97	0.62
22:DA:2575:C:H5'	25:DD:148:GLN:O	2.00	0.62
22:DA:2850:A:OP2	22:DA:2866:U:N3	2.30	0.62
58:DF:28:PRO:HB2	58:DF:168:LEU:HD21	1.80	0.62
58:DF:129:MET:HE2	58:DF:174:PHE:CZ	2.34	0.62
31:DJ:8:PRO:HG2	31:DJ:9:GLU:N	2.15	0.62
31:DJ:95:ARG:HH11	31:DJ:99:ARG:HH21	1.46	0.62
44:DW:51:GLY:HA2	44:DW:59:PHE:HD2	1.64	0.62
1:AA:182:A:N3	1:AA:184:G:C8	2.68	0.62
1:AA:486:U:H5"	1:AA:486:U:H6	1.63	0.62
1:AA:1015:G:O2'	1:AA:1016:A:H5'	1.99	0.62
10:AJ:6:ILE:HD11	10:AJ:79:PRO:CB	2.29	0.62
14:AN:91:GLU:O	14:AN:93:PRO:HD3	1.98	0.62
17:AQ:20:ILE:CB	17:AQ:47:ASP:OD1	2.47	0.62
22:BA:143:C:HO2'	22:BA:144:A:H8	1.47	0.62
22:BA:417:C:H2'	22:BA:418:C:C6	2.34	0.62
22:BA:443:A:C8	26:BE:40:ARG:HD3	2.34	0.62
22:BA:1062:G:C8	22:BA:1088:A:C8	2.88	0.62
22:BA:2484:G:OP1	34:BM:44:ARG:HD3	2.00	0.62
24:BC:106:PRO:HB3	24:BC:141:HIS:CE1	2.33	0.62
28:BG:39:ALA:HB1	28:BG:57:TYR:CG	2.35	0.62
37:BP:33:GLU:CG	37:BP:34:GLY:N	2.62	0.62
46:BY:31:GLN:HG2	46:BY:37:LEU:HB2	1.81	0.62
53:CA:1348:U:H4'	9:CI:121:ARG:HG3	1.81	0.62
2:CB:119:GLN:CG	2:CB:124:THR:HG21	2.29	0.62
3:CC:46:LEU:HD22	3:CC:75:VAL:HG22	1.80	0.62
6:CF:51:ILE:HG22	6:CF:51:ILE:O	1.98	0.62
8:CH:24:VAL:HG12	8:CH:62:LEU:HD21	1.82	0.62
17:CQ:45:VAL:HG11	17:CQ:60:ILE:HG21	1.82	0.62
22:DA:271:G:O2'	22:DA:272:A:C5'	2.47	0.62
22:DA:340:A:C2'	22:DA:341:C:H5'	2.29	0.62
22:DA:1019:U:O2'	22:DA:1021:A:N1	2.26	0.62
22:DA:1282:U:H2'	22:DA:1283:G:O4'	1.99	0.62
24:DC:196:ASN:O	24:DC:197:ALA:HB3	1.99	0.62
25:DD:178:VAL:HG12	25:DD:179:ARG:HG3	1.80	0.62
58:DF:122:ASP:HB2	58:DF:126:ASN:HB2	1.81	0.62
28:DG:116:LEU:HD13	28:DG:121:THR:HA	1.81	0.62
33:DL:103:ILE:HD12	33:DL:103:ILE:N	2.13	0.62
35:DN:47:VAL:O	35:DN:50:PRO:HD2	1.99	0.62
36:DO:31:THR:HG23	36:DO:34:HIS:O	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DP:56:SER:HB2	37:DP:75:THR:HG21	1.82	0.62
42:DU:94:PHE:HD2	42:DU:94:PHE:O	1.83	0.62
49:D1:16:THR:CG2	49:D1:41:VAL:HB	2.30	0.62
1:AA:4:U:O2	1:AA:4:U:H2'	1.99	0.62
1:AA:373:A:C8	1:AA:373:A:H5'	2.35	0.62
1:AA:510:A:N3	1:AA:543:U:H1'	2.14	0.62
1:AA:539:A:H2'	1:AA:540:G:C8	2.34	0.62
1:AA:991:U:H4'	1:AA:992:U:OP1	2.00	0.62
2:AB:71:THR:HG21	2:AB:94:ARG:HD3	1.81	0.62
3:AC:134:LYS:HE3	3:AC:138:GLN:HE22	1.64	0.62
7:AG:7:GLY:O	7:AG:8:GLN:HB3	2.00	0.62
19:AS:10:ILE:HD11	19:AS:15:LEU:HB2	1.81	0.62
22:BA:118:A:C8	22:BA:119:A:C8	2.87	0.62
22:BA:161:A:H3'	22:BA:162:U:H5"	1.81	0.62
22:BA:364:C:H2'	22:BA:365:U:H6	1.65	0.62
22:BA:1054:A:H2'	22:BA:1055:G:C8	2.34	0.62
22:BA:1141:U:C4'	22:BA:1142:A:O5'	2.44	0.62
22:BA:1471:G:C5	22:BA:1472:C:C5	2.88	0.62
22:BA:1507:C:C4	22:BA:1508:A:H2	2.17	0.62
22:BA:2707:U:O2	35:BN:71:ARG:NH1	2.33	0.62
22:BA:2791:G:H5"	22:BA:2791:G:H8	1.65	0.62
27:BF:7:TYR:O	27:BF:12:VAL:HG12	2.00	0.62
29:BH:67:ALA:HA	29:BH:138:VAL:CB	2.28	0.62
29:BH:78:VAL:CG1	29:BH:145:ASN:HB3	2.30	0.62
35:BN:18:GLN:HE21	35:BN:22:ARG:NH1	1.96	0.62
35:BN:71:ARG:CG	35:BN:71:ARG:NH2	2.55	0.62
41:BT:13:ALA:O	41:BT:32:LEU:HB2	2.00	0.62
53:CA:146:G:C2'	53:CA:147:G:H5'	2.30	0.62
53:CA:754:C:C2'	53:CA:755:G:H5'	2.30	0.62
53:CA:1151:A:C6	53:CA:1152:A:N6	2.67	0.62
54:CG:32:ASP:HB2	54:CG:34:LYS:HD3	1.81	0.62
10:CJ:30:LYS:HG2	10:CJ:36:VAL:HG22	1.81	0.62
12:CL:34:THR:HG22	12:CL:35:ARG:HG2	1.80	0.62
14:CN:9:GLU:HA	14:CN:12:ARG:HD2	1.82	0.62
56:CP:67:ILE:HD11	56:CP:75:ILE:HD12	1.82	0.62
17:CQ:45:VAL:HG21	17:CQ:60:ILE:HG21	1.79	0.62
20:CT:2:ASN:N	20:CT:7:LYS:NZ	2.45	0.62
22:DA:586:A:H5'	26:DE:84:THR:HG21	1.81	0.62
22:DA:815:C:OP2	39:DR:85:LYS:HE2	1.99	0.62
22:DA:1060:U:C4'	22:DA:1061:U:O5'	2.41	0.62
22:DA:1324:G:O2'	22:DA:1616:A:C6	2.53	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1381:G:H2'	22:DA:1382:G:H5"	1.80	0.62
22:DA:1649:G:O2'	22:DA:1650:A:C5'	2.48	0.62
22:DA:1773:A:N7	22:DA:1829:A:H1'	2.15	0.62
22:DA:1998:A:H2'	22:DA:1999:C:C6	2.32	0.62
22:DA:2336:A:C8	44:DW:40:ARG:NH2	2.68	0.62
22:DA:2726:A:O2'	22:DA:2727:A:P	2.57	0.62
22:DA:2822:G:H5"	25:DD:164:GLN:HE22	1.63	0.62
25:DD:133:THR:HG23	25:DD:134:HIS:H	1.64	0.62
26:DE:111:GLU:CB	26:DE:114:ARG:HH21	2.12	0.62
28:DG:152:ARG:HD2	28:DG:153:PRO:HD3	1.82	0.62
31:DJ:92:MET:HA	31:DJ:92:MET:CE	2.30	0.62
34:DM:96:ILE:HD13	34:DM:102:LEU:HD11	1.81	0.62
39:DR:68:ARG:NH1	39:DR:90:ARG:HG2	2.14	0.62
49:D1:10:LEU:HD22	49:D1:10:LEU:H	1.64	0.62
52:D4:7:VAL:HG22	52:D4:25:VAL:HG21	1.81	0.62
1:AA:22:G:H1'	1:AA:914:A:N6	2.14	0.62
1:AA:517:G:O2'	1:AA:530:G:H4'	2.00	0.62
1:AA:601:G:H2'	1:AA:602:A:H8	1.65	0.62
1:AA:853:C:H2'	1:AA:854:U:H5'	1.81	0.62
3:AC:119:ILE:CG2	3:AC:197:VAL:HG11	2.28	0.62
5:AE:100:GLU:HB3	5:AE:121:ASN:CA	2.29	0.62
7:AG:92:PRO:O	7:AG:93:VAL:HG13	1.99	0.62
13:AM:106:ARG:HA	13:AM:106:ARG:HH11	1.64	0.62
14:AN:92:ILE:HG21	14:AN:95:LEU:CD2	2.30	0.62
15:AO:68:TYR:O	15:AO:71:ARG:HG2	1.98	0.62
21:AU:33:ARG:NE	21:AU:34:ARG:HG3	2.15	0.62
22:BA:271:G:O2'	22:BA:272:A:C5'	2.47	0.62
22:BA:1541:C:O2'	22:BA:1542:U:H5'	2.00	0.62
22:BA:1607:C:N4	22:BA:1622:G:N7	2.47	0.62
25:BD:107:VAL:O	25:BD:174:SER:O	2.17	0.62
32:BK:10:VAL:HB	32:BK:16:ALA:HB1	1.79	0.62
32:BK:99:ILE:HG23	32:BK:100:PHE:N	2.15	0.62
38:BQ:73:ILE:HD11	38:BQ:77:LYS:HB2	1.81	0.62
41:BT:40:LYS:HA	41:BT:43:ILE:HG23	1.80	0.62
53:CA:926:G:H3'	53:CA:1505:G:N2	2.13	0.62
53:CA:1090:U:H2'	53:CA:1091:U:C6	2.33	0.62
53:CA:1215:G:O2'	53:CA:1216:A:H8	1.82	0.62
4:CD:195:ASN:HB3	4:CD:197:HIS:NE2	2.15	0.62
54:CG:74:VAL:HG13	54:CG:140:VAL:CG1	2.19	0.62
10:CJ:6:ILE:HG23	10:CJ:100:ILE:HG23	1.81	0.62
11:CK:12:ARG:N	11:CK:12:ARG:HD3	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:15:VAL:O	11:CK:16:SER:HB2	1.99	0.62
17:CQ:3:LYS:HZ2	17:CQ:6:THR:HG21	1.64	0.62
20:CT:14:GLU:HA	20:CT:17:ARG:HB2	1.80	0.62
20:CT:57:VAL:CG1	20:CT:71:ALA:CB	2.78	0.62
22:DA:14:A:N6	22:DA:526:A:C4	2.67	0.62
22:DA:324:A:C2	22:DA:325:G:H1'	2.34	0.62
22:DA:773:U:H5"	22:DA:774:G:OP2	2.00	0.62
22:DA:960:A:C2'	22:DA:962:G:H5'	2.29	0.62
22:DA:1681:G:H2'	22:DA:1762:A:N3	2.15	0.62
22:DA:2396:G:C2	22:DA:2421:G:C2	2.88	0.62
57:DB:109:A:O2'	57:DB:110:C:C6	2.53	0.62
24:DC:79:ARG:CG	24:DC:92:LEU:HB2	2.29	0.62
25:DD:51:THR:HG21	25:DD:75:ALA:O	2.00	0.62
29:DH:58:LEU:O	29:DH:61:VAL:HG12	1.98	0.62
31:DJ:44:TYR:HD1	38:DQ:63:ARG:NH2	1.98	0.62
31:DJ:44:TYR:O	31:DJ:45:THR:HB	1.98	0.62
31:DJ:64:VAL:HG22	31:DJ:68:LYS:HE2	1.80	0.62
39:DR:4:VAL:O	39:DR:38:VAL:HG23	1.99	0.62
39:DR:40:MET:O	39:DR:41:ILE:HD13	1.99	0.62
40:DS:31:GLN:O	40:DS:35:ILE:HG12	2.00	0.62
40:DS:49:LYS:HB3	40:DS:49:LYS:HZ3	1.64	0.62
45:DX:30:PRO:HG2	45:DX:32:LEU:HD21	1.79	0.62
1:AA:181:A:H1'	1:AA:182:A:N7	2.14	0.62
1:AA:688:G:H5"	1:AA:688:G:C8	2.34	0.62
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.34	0.62
1:AA:1151:A:C4	1:AA:1152:A:N7	2.68	0.62
1:AA:1196:A:O2'	1:AA:1197:A:OP2	2.18	0.62
1:AA:1239:A:H1'	1:AA:1241:G:C5	2.35	0.62
1:AA:1450:U:H2'	1:AA:1452:C:C5	2.35	0.62
2:AB:22:TRP:CZ3	2:AB:24:PRO:HA	2.35	0.62
8:AH:10:LEU:O	8:AH:13:ILE:HB	2.00	0.62
12:AL:85:ARG:CZ	12:AL:87:LYS:HB3	2.29	0.62
16:AP:20:VAL:CG2	16:AP:32:PHE:HB2	2.29	0.62
22:BA:786:C:O2'	22:BA:787:C:H5'	2.00	0.62
22:BA:959:A:N6	34:BM:82:MET:HE3	2.13	0.62
22:BA:1688:U:O2	22:BA:1700:A:H5"	2.00	0.62
22:BA:1778:U:H2'	22:BA:1784:A:N6	2.15	0.62
22:BA:1794:A:H2'	22:BA:1795:C:C6	2.35	0.62
22:BA:1842:G:H2'	22:BA:1843:C:C6	2.35	0.62
22:BA:2136:G:C2'	22:BA:2137:U:H5	2.13	0.62
26:BE:141:MET:O	26:BE:142:ALA:HB3	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BK:21:CYS:CA	32:BK:41:ILE:HD12	2.30	0.62
53:CA:202:G:HO2'	53:CA:468:A:H8	1.48	0.62
53:CA:249:U:H5'	53:CA:250:A:OP2	2.00	0.62
53:CA:423:G:H2'	53:CA:424:G:O4'	2.00	0.62
53:CA:542:G:H2'	53:CA:543:U:H6	1.65	0.62
53:CA:988:G:N2	53:CA:989:U:C2	2.68	0.62
53:CA:1036:A:C2'	53:CA:1037:C:H5'	2.30	0.62
53:CA:1454:G:O2'	53:CA:1455:G:C5'	2.47	0.62
4:CD:190:LEU:O	4:CD:190:LEU:HD23	1.99	0.62
11:CK:74:LYS:HG3	11:CK:78:ILE:HD11	1.82	0.62
22:DA:8:C:O2'	22:DA:9:G:H5'	1.99	0.62
22:DA:284:U:H2'	22:DA:285:G:H8	1.65	0.62
22:DA:748:G:O6	22:DA:751:A:H5'	2.00	0.62
22:DA:845:A:N3	22:DA:847:U:H1'	2.14	0.62
22:DA:942:G:C2'	22:DA:943:A:H5'	2.30	0.62
22:DA:946:C:O2'	22:DA:947:A:C5'	2.48	0.62
22:DA:971:G:C2'	22:DA:972:A:H5'	2.30	0.62
22:DA:1208:C:N3	22:DA:1209:U:C5	2.68	0.62
22:DA:1531:C:H2'	22:DA:1532:A:O4'	2.00	0.62
22:DA:1550:C:O2'	22:DA:1551:A:H5'	1.99	0.62
58:DF:56:LEU:O	58:DF:60:SER:HB3	2.00	0.62
58:DF:60:SER:C	58:DF:62:GLN:H	2.03	0.62
28:DG:87:GLN:HA	28:DG:129:GLU:HA	1.81	0.62
28:DG:120:ILE:CG1	28:DG:140:ILE:HG22	2.27	0.62
29:DH:27:ARG:HB2	29:DH:27:ARG:HH21	1.63	0.62
32:DK:64:ARG:HD2	32:DK:102:PRO:O	2.00	0.62
33:DL:26:GLY:O	33:DL:27:LEU:HD23	2.00	0.62
33:DL:111:ILE:HA	33:DL:128:THR:OG1	1.99	0.62
42:DU:58:VAL:HG12	42:DU:60:LYS:H	1.64	0.62
44:DW:77:LYS:O	44:DW:78:PHE:HB2	1.98	0.62
45:DX:11:PRO:CB	45:DX:27:ARG:HH21	2.13	0.62
1:AA:544:G:C5	1:AA:545:C:C5	2.88	0.62
1:AA:830:G:H2'	1:AA:831:A:H8	1.65	0.62
1:AA:853:C:O2'	1:AA:854:U:H5'	2.00	0.62
1:AA:1447:A:H5'	1:AA:1448:C:OP2	2.00	0.62
2:AB:40:ILE:HG21	2:AB:201:GLY:HA2	1.82	0.62
3:AC:96:VAL:HG23	3:AC:97:PRO:O	2.00	0.62
5:AE:79:THR:OG1	5:AE:80:LEU:N	2.32	0.62
8:AH:48:PHE:O	8:AH:49:LYS:CB	2.48	0.62
21:AU:33:ARG:HE	21:AU:34:ARG:HG3	1.65	0.62
22:BA:445:C:O2'	22:BA:446:G:H5'	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:491:G:H2'	22:BA:492:A:H8	1.65	0.62
22:BA:574:A:H4'	22:BA:575:A:C5'	2.30	0.62
22:BA:1206:G:H2'	22:BA:1207:C:H6	1.64	0.62
22:BA:1276:A:H5"	22:BA:1276:A:H8	1.63	0.62
22:BA:1381:G:H2'	22:BA:1382:G:H5'	1.81	0.62
22:BA:2250:G:H8	22:BA:2250:G:O5'	1.82	0.62
22:BA:2259:U:O4'	22:BA:2427:C:H2'	2.00	0.62
22:BA:2311:A:H1'	27:BF:78:ILE:CD1	2.29	0.62
22:BA:2321:U:C3'	22:BA:2322:A:H5'	2.30	0.62
22:BA:2353:G:H1'	44:BW:30:VAL:HG13	1.82	0.62
23:BB:74:U:O2	43:BV:29:ILE:HD13	2.00	0.62
26:BE:149:ILE:O	26:BE:188:MET:HA	1.99	0.62
26:BE:151:GLY:HA2	26:BE:192:ALA:HB2	1.82	0.62
27:BF:47:LYS:HB3	27:BF:47:LYS:NZ	2.14	0.62
31:BJ:118:MET:HA	31:BJ:121:LYS:HE2	1.80	0.62
32:BK:99:ILE:CG2	32:BK:100:PHE:N	2.63	0.62
37:BP:50:ARG:CB	37:BP:57:ALA:N	2.53	0.62
41:BT:40:LYS:N	41:BT:43:ILE:HG23	2.14	0.62
53:CA:96:U:HO2'	53:CA:97:G:C5'	2.13	0.62
53:CA:987:G:C4	53:CA:988:G:C8	2.88	0.62
54:CG:137:ARG:NH1	54:CG:138:GLU:HG2	2.14	0.62
55:CM:85:TYR:HE2	55:CM:96:VAL:CG1	2.13	0.62
22:DA:156:A:H2'	22:DA:157:C:O4'	2.00	0.62
22:DA:259:G:C2'	22:DA:260:G:H5'	2.29	0.62
22:DA:405:U:H3'	22:DA:406:G:H5'	1.81	0.62
22:DA:411:G:C4'	22:DA:412:A:OP1	2.47	0.62
22:DA:475:C:O2'	22:DA:476:G:H5'	2.00	0.62
22:DA:479:A:H1'	22:DA:480:A:H5"	1.82	0.62
22:DA:532:A:H61	22:DA:2020:A:H1'	1.64	0.62
22:DA:774:G:HO2'	22:DA:775:G:H8	1.47	0.62
22:DA:991:C:C4	22:DA:1185:G:C6	2.88	0.62
22:DA:1280:G:C2'	22:DA:1281:G:H5'	2.28	0.62
22:DA:1499:C:H2'	22:DA:1500:G:H5'	1.82	0.62
22:DA:1554:U:C5'	22:DA:1555:G:OP2	2.48	0.62
22:DA:1555:G:H2'	22:DA:1556:C:C6	2.35	0.62
22:DA:1830:C:C4'	24:DC:14:HIS:HE1	2.13	0.62
22:DA:2015:A:C4	48:D0:2:VAL:HG11	2.35	0.62
22:DA:2837:A:N6	22:DA:2882:A:C6	2.68	0.62
31:DJ:105:VAL:HA	31:DJ:108:MET:HG3	1.82	0.62
39:DR:68:ARG:CZ	39:DR:90:ARG:HG2	2.29	0.62
40:DS:20:VAL:HG11	40:DS:43:ALA:CB	2.30	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DU:42:LYS:HB2	42:DU:42:LYS:NZ	2.15	0.62
44:DW:22:VAL:O	44:DW:23:LYS:HG3	2.00	0.62
46:DY:1:MET:CE	46:DY:1:MET:N	2.62	0.62
47:DZ:31:ILE:O	47:DZ:31:ILE:HG13	1.99	0.62
1:AA:126:G:H2'	1:AA:127:G:O5'	2.00	0.61
1:AA:174:A:H2'	1:AA:175:C:C6	2.35	0.61
2:AB:40:ILE:HG21	2:AB:201:GLY:CA	2.30	0.61
9:AI:79:ARG:HD3	9:AI:102:PHE:CD1	2.34	0.61
14:AN:40:ARG:HH12	14:AN:44:VAL:CG2	2.13	0.61
17:AQ:20:ILE:N	17:AQ:47:ASP:OD1	2.32	0.61
20:AT:53:MET:CE	20:AT:57:VAL:CG2	2.78	0.61
22:BA:869:G:C5	22:BA:870:U:C5	2.88	0.61
22:BA:1085:A:C3'	22:BA:1086:A:C2	2.81	0.61
22:BA:1157:G:N2	22:BA:1158:C:C2	2.67	0.61
22:BA:1735:A:H2'	22:BA:1736:U:C6	2.34	0.61
22:BA:2063:C:H5'	22:BA:2063:C:C6	2.30	0.61
22:BA:2280:G:C2	22:BA:2281:A:C8	2.88	0.61
22:BA:2820:A:C8	22:BA:2820:A:C3'	2.82	0.61
25:BD:107:VAL:CG2	25:BD:177:VAL:HG13	2.26	0.61
27:BF:134:GLN:NE2	27:BF:148:VAL:O	2.33	0.61
28:BG:84:LYS:HB2	28:BG:132:LEU:HG	1.82	0.61
33:BL:94:THR:HG22	33:BL:95:LEU:H	1.65	0.61
33:BL:110:VAL:HG12	33:BL:111:ILE:H	1.61	0.61
41:BT:34:VAL:O	41:BT:34:VAL:HG23	1.99	0.61
53:CA:515:G:N7	62:CA:1854:HOH:O	2.31	0.61
53:CA:825:A:H2'	53:CA:826:C:C6	2.33	0.61
53:CA:1031:C:H5'	53:CA:1032:G:H5"	1.81	0.61
53:CA:1350:A:C2	54:CG:33:GLY:HA3	2.35	0.61
3:CC:166:TRP:N	3:CC:166:TRP:CE3	2.68	0.61
14:CN:79:SER:HB2	14:CN:81:ILE:HD11	1.81	0.61
56:CP:2:VAL:HA	56:CP:22:ALA:O	2.00	0.61
18:CR:19:GLU:CD	18:CR:20:ILE:N	2.52	0.61
22:DA:14:A:C6	22:DA:526:A:C2	2.88	0.61
22:DA:874:G:H5'	22:DA:875:G:OP2	1.99	0.61
22:DA:962:G:O2'	22:DA:963:U:H6	1.83	0.61
22:DA:1131:G:N7	22:DA:2025:C:H4'	2.14	0.61
22:DA:1565:C:H3'	24:DC:17:LYS:HE2	1.82	0.61
22:DA:1655:A:O2'	22:DA:1656:C:H5'	2.00	0.61
22:DA:2232:C:P	45:DX:26:ARG:NH1	2.72	0.61
22:DA:2328:A:H2'	22:DA:2329:U:C6	2.34	0.61
22:DA:2447:G:N7	22:DA:2500:U:H2'	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2810:A:H2'	22:DA:2811:G:O4'	2.00	0.61
22:DA:2836:U:O2'	22:DA:2837:A:O5'	2.17	0.61
24:DC:244:VAL:HG12	24:DC:250:GLN:HA	1.82	0.61
35:DN:51:LEU:HA	35:DN:54:LEU:CD2	2.30	0.61
35:DN:75:ILE:CD1	35:DN:79:LEU:HD12	2.30	0.61
39:DR:68:ARG:HD2	39:DR:92:TRP:CZ3	2.35	0.61
40:DS:4:ILE:HG22	40:DS:106:VAL:HG13	1.82	0.61
47:DZ:6:ILE:CD1	47:DZ:47:ILE:HD11	2.30	0.61
1:AA:429:U:H4'	1:AA:430:A:O5'	1.98	0.61
1:AA:677:U:H3	1:AA:713:G:H22	1.48	0.61
1:AA:751:U:H4'	15:AO:23:SER:HA	1.81	0.61
1:AA:872:A:C8	1:AA:874:G:C8	2.88	0.61
1:AA:1143:G:H2'	1:AA:1144:G:C8	2.33	0.61
2:AB:66:ILE:CB	2:AB:88:GLN:HB3	2.21	0.61
4:AD:151:GLN:H	4:AD:154:VAL:HG13	1.65	0.61
5:AE:103:GLY:HA2	5:AE:121:ASN:HA	1.81	0.61
6:AF:93:LYS:O	6:AF:94:HIS:HB2	2.00	0.61
17:AQ:18:LYS:C	17:AQ:47:ASP:OD2	2.37	0.61
22:BA:396:G:H1'	45:BX:28:PHE:HB3	1.81	0.61
22:BA:1277:G:C5'	35:BN:20:MET:CE	2.79	0.61
22:BA:1364:G:OP2	45:BX:1:SER:N	2.33	0.61
22:BA:1815:A:C1'	22:BA:1817:G:C8	2.83	0.61
22:BA:2816:G:C2'	22:BA:2817:U:H5'	2.30	0.61
26:BE:154:ASP:OD2	26:BE:157:LEU:HB3	1.99	0.61
27:BF:129:MET:HG3	27:BF:153:ILE:HD11	1.77	0.61
29:BH:96:THR:C	29:BH:97:ARG:HG3	2.20	0.61
38:BQ:13:HIS:HD2	38:BQ:31:TYR:CE1	2.18	0.61
53:CA:517:G:H5'	53:CA:519:C:C2	2.35	0.61
53:CA:1448:C:O2'	53:CA:1449:C:C6	2.52	0.61
11:CK:21:HIS:O	11:CK:22:ILE:HD12	2.00	0.61
55:CM:3:ILE:O	55:CM:4:ALA:HB2	1.98	0.61
20:CT:69:ASN:O	20:CT:72:ALA:HB3	1.99	0.61
21:CU:33:ARG:CZ	21:CU:34:ARG:HD3	2.30	0.61
21:CU:38:GLU:N	21:CU:40:PRO:HD2	2.14	0.61
22:DA:126:A:H2'	50:D2:46:LYS:CE	2.30	0.61
22:DA:173:A:H2'	22:DA:174:U:H6	1.63	0.61
22:DA:338:G:H2'	22:DA:339:U:C5'	2.28	0.61
22:DA:471:A:H5"	26:DE:79:ARG:HH12	1.65	0.61
22:DA:828:U:H4'	22:DA:831:G:N1	2.14	0.61
22:DA:1304:A:HO2'	22:DA:1305:C:H6	1.42	0.61
22:DA:1904:G:H1'	22:DA:1927:A:N1	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2093:G:N2	22:DA:2094:A:C5	2.66	0.61
22:DA:2099:U:O2	22:DA:2099:U:H2'	2.00	0.61
22:DA:2312:U:H2'	22:DA:2313:C:C6	2.35	0.61
22:DA:2674:G:H2'	22:DA:2675:A:H8	1.65	0.61
22:DA:2898:U:H2'	22:DA:2899:A:H8	1.64	0.61
24:DC:62:ARG:N	24:DC:62:ARG:HD2	2.15	0.61
25:DD:10:GLY:O	25:DD:11:MET:CB	2.48	0.61
25:DD:177:VAL:HG12	25:DD:189:VAL:HG13	1.82	0.61
34:DM:57:VAL:HA	34:DM:112:LEU:HD11	1.81	0.61
36:DO:15:ARG:HG2	36:DO:93:ASP:OD1	2.00	0.61
36:DO:62:LEU:CD1	36:DO:65:THR:HG23	2.29	0.61
37:DP:86:LYS:NZ	37:DP:86:LYS:CA	2.61	0.61
37:DP:102:ARG:CB	37:DP:107:ALA:HB2	2.30	0.61
38:DQ:57:ARG:O	38:DQ:61:ILE:HD13	2.00	0.61
40:DS:35:ILE:HG13	40:DS:36:LEU:HD22	1.82	0.61
44:DW:31:LEU:C	44:DW:33:GLY:H	2.04	0.61
1:AA:198:G:O2'	1:AA:199:A:C5'	2.49	0.61
1:AA:198:G:H22	1:AA:220:G:H1'	1.64	0.61
1:AA:953:G:C2	1:AA:954:G:H1'	2.35	0.61
1:AA:983:A:O2'	1:AA:984:C:H5'	2.01	0.61
4:AD:147:LYS:O	4:AD:149:LYS:HB2	2.00	0.61
4:AD:158:LEU:O	4:AD:161:ALA:HB3	2.00	0.61
9:AI:83:THR:HG21	9:AI:102:PHE:CB	2.28	0.61
10:AJ:53:ILE:HG22	10:AJ:61:ALA:CB	2.28	0.61
15:AO:50:HIS:O	15:AO:53:ARG:HB3	2.00	0.61
20:AT:43:LYS:NZ	20:AT:86:ALA:HA	2.15	0.61
22:BA:580:U:C2	22:BA:581:C:C5	2.89	0.61
22:BA:790:U:O2'	22:BA:791:C:O5'	2.18	0.61
22:BA:1266:G:H5"	40:BS:15:GLN:HE22	1.65	0.61
22:BA:1848:A:H2'	22:BA:1849:G:H8	1.64	0.61
22:BA:2202:U:H5"	22:BA:2203:U:OP1	2.00	0.61
31:BJ:44:TYR:CD2	38:BQ:63:ARG:CG	2.81	0.61
41:BT:50:LEU:O	41:BT:51:PHE:HB2	2.01	0.61
51:B3:44:ARG:N	51:B3:45:PRO:HD2	2.15	0.61
53:CA:704:A:C2'	53:CA:705:G:H8	2.13	0.61
53:CA:1348:U:O2'	53:CA:1349:A:H8	1.75	0.61
4:CD:186:GLU:O	4:CD:187:ARG:CB	2.47	0.61
6:CF:66:ALA:HB1	6:CF:70:VAL:CG2	2.31	0.61
8:CH:39:LEU:HB2	8:CH:45:ILE:HD11	1.82	0.61
9:CI:79:ARG:O	9:CI:83:THR:HG22	2.00	0.61
56:CP:4:ILE:N	56:CP:4:ILE:CD1	2.63	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:19:A:C2	22:DA:522:A:C2	2.88	0.61
22:DA:303:G:H2'	22:DA:304:U:C5	2.36	0.61
22:DA:753:A:O2'	22:DA:754:U:H5'	2.01	0.61
22:DA:836:G:C6	22:DA:837:C:N3	2.67	0.61
22:DA:1205:A:N7	26:DE:165:HIS:CG	2.68	0.61
22:DA:1525:A:H2'	22:DA:1526:C:O4'	2.00	0.61
22:DA:1722:A:N6	22:DA:1739:A:C8	2.68	0.61
22:DA:2215:C:O2'	22:DA:2216:G:H8	1.82	0.61
22:DA:2235:G:C5	22:DA:2236:U:C5	2.88	0.61
29:DH:77:THR:HG22	29:DH:143:ILE:HD11	1.82	0.61
31:DJ:123:LYS:N	31:DJ:123:LYS:HD2	2.15	0.61
32:DK:7:MET:HG3	32:DK:17:ARG:HH12	1.65	0.61
40:DS:47:VAL:O	40:DS:50:VAL:HB	1.99	0.61
41:DT:8:LEU:HD22	41:DT:46:ALA:HA	1.82	0.61
46:DY:4:LYS:HB2	46:DY:4:LYS:NZ	2.14	0.61
48:D0:37:HIS:CG	48:D0:43:THR:HG22	2.35	0.61
1:AA:263:A:H2'	1:AA:264:C:C6	2.34	0.61
1:AA:507:C:OP2	1:AA:508:U:H3'	1.99	0.61
1:AA:597:G:O2'	1:AA:598:U:H5'	2.01	0.61
1:AA:662:U:H2'	1:AA:663:A:H8	1.63	0.61
1:AA:1240:U:H3	7:AG:29:LEU:CD2	2.12	0.61
10:AJ:14:ASP:HB3	10:AJ:17:LEU:CB	2.30	0.61
10:AJ:51:VAL:HB	14:AN:80:ARG:CB	2.29	0.61
15:AO:15:GLY:C	15:AO:17:ASP:H	2.04	0.61
15:AO:77:TYR:OH	15:AO:87:ARG:HG2	2.00	0.61
21:AU:8:ASN:O	21:AU:11:PHE:HE2	1.82	0.61
21:AU:48:LYS:HA	21:AU:51:ALA:HB3	1.81	0.61
22:BA:634:C:H6	22:BA:634:C:O5'	1.83	0.61
28:BG:15:ASP:CG	28:BG:16:VAL:H	2.03	0.61
53:CA:151:A:H2'	53:CA:152:A:O4'	2.00	0.61
53:CA:375:U:OP1	56:CP:70:ARG:HD3	2.01	0.61
53:CA:501:C:H2'	53:CA:502:A:C8	2.35	0.61
9:CI:27:ILE:HD13	9:CI:62:LEU:CB	2.28	0.61
12:CL:50:LYS:HD2	12:CL:50:LYS:N	2.13	0.61
22:DA:104:A:O2'	22:DA:105:C:C5'	2.48	0.61
22:DA:117:G:C2	22:DA:119:A:N6	2.68	0.61
22:DA:224:U:H5	22:DA:420:C:H4'	1.65	0.61
22:DA:604:G:O2'	22:DA:605:G:H8	1.83	0.61
22:DA:1021:A:O2'	22:DA:1022:G:C4'	2.37	0.61
22:DA:1171:G:N2	22:DA:1179:G:H1'	2.16	0.61
22:DA:1388:G:O2'	22:DA:1389:G:C5'	2.47	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1965:C:C5'	22:DA:1965:C:H6	2.13	0.61
22:DA:2141:G:H2'	22:DA:2142:A:C8	2.35	0.61
22:DA:2674:G:H4'	32:DK:30:ARG:HG2	1.82	0.61
24:DC:82:TYR:O	24:DC:84:PRO:HD3	2.00	0.61
24:DC:106:PRO:HB3	24:DC:141:HIS:HE1	1.65	0.61
58:DF:39:VAL:CA	58:DF:49:LEU:HG	2.29	0.61
58:DF:177:ARG:NH1	58:DF:178:LYS:HB3	2.16	0.61
30:DI:12:VAL:HG12	30:DI:13:ALA:N	2.15	0.61
32:DK:38:ILE:CG1	32:DK:61:VAL:HG12	2.22	0.61
35:DN:14:SER:C	35:DN:16:HIS:H	2.03	0.61
44:DW:8:SER:O	44:DW:9:THR:CB	2.47	0.61
1:AA:15:G:H4'	5:AE:28:ARG:NH1	2.16	0.61
1:AA:214:C:H2'	1:AA:215:C:C6	2.36	0.61
1:AA:252:U:H6	1:AA:252:U:H5"	1.63	0.61
1:AA:687:A:C8	1:AA:701:U:H5	2.18	0.61
1:AA:1395:C:C6	1:AA:1395:C:C5'	2.79	0.61
8:AH:105:THR:CG2	8:AH:120:LEU:HD13	2.27	0.61
22:BA:475:C:C5'	22:BA:475:C:C6	2.84	0.61
22:BA:535:G:O2'	22:BA:536:G:H5'	2.01	0.61
22:BA:1068:G:H2'	22:BA:1069:A:H5'	1.82	0.61
22:BA:1309:G:OP1	50:B2:9:VAL:HG13	2.01	0.61
22:BA:2405:G:H1'	22:BA:2412:A:H61	1.64	0.61
22:BA:2582:G:N3	22:BA:2582:G:H2'	2.16	0.61
22:BA:2840:C:H2'	22:BA:2841:C:H6	1.64	0.61
29:BH:43:ASN:N	29:BH:43:ASN:HD22	1.98	0.61
33:BL:77:ILE:O	33:BL:110:VAL:O	2.18	0.61
39:BR:64:VAL:O	39:BR:65:ALA:HB3	2.01	0.61
41:BT:73:ARG:HB3	41:BT:73:ARG:NH2	2.15	0.61
44:BW:41:GLY:O	44:BW:42:THR:C	2.38	0.61
47:BZ:9:THR:HG23	47:BZ:10:ARG:HB2	1.83	0.61
48:B0:52:LYS:O	48:B0:52:LYS:HG3	1.99	0.61
53:CA:47:C:H4'	53:CA:48:C:O5'	2.00	0.61
53:CA:168:G:H2'	53:CA:169:C:H5'	1.82	0.61
53:CA:484:G:C4'	53:CA:485:U:O5'	2.48	0.61
53:CA:577:G:C6	53:CA:812:G:N2	2.68	0.61
53:CA:861:G:C5	53:CA:862:C:C5	2.89	0.61
53:CA:968:A:C4	53:CA:1062:U:H4'	2.36	0.61
4:CD:60:VAL:HG22	4:CD:194:ILE:CG2	2.30	0.61
9:CI:26:LYS:O	9:CI:62:LEU:HB2	1.99	0.61
11:CK:55:ARG:HD2	11:CK:55:ARG:N	2.15	0.61
11:CK:123:PRO:HB2	11:CK:125:LYS:HG3	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:29:LYS:CE	17:CQ:36:PHE:CE2	2.84	0.61
19:CS:38:THR:OG1	19:CS:67:GLY:HA2	2.01	0.61
22:DA:125:A:C5'	50:D2:19:ARG:HD3	2.30	0.61
22:DA:447:A:H5'	22:DA:449:A:C8	2.34	0.61
22:DA:671:C:O2'	22:DA:672:C:C5'	2.49	0.61
22:DA:992:C:H4'	39:DR:74:ILE:HD13	1.83	0.61
22:DA:1051:G:H5'	22:DA:2752:C:H1'	1.83	0.61
22:DA:1069:A:N6	22:DA:1073:A:C5'	2.62	0.61
22:DA:1156:A:OP1	22:DA:1156:A:H8	1.82	0.61
22:DA:1839:G:O2'	22:DA:1840:G:C5'	2.48	0.61
22:DA:2636:C:H4'	25:DD:81:GLU:OE1	2.00	0.61
24:DC:79:ARG:HG3	24:DC:92:LEU:HB2	1.82	0.61
25:DD:33:ARG:HD2	25:DD:33:ARG:H	1.64	0.61
58:DF:36:ASN:O	58:DF:37:MET:HB3	2.01	0.61
58:DF:134:GLN:HB2	58:DF:137:PHE:HE2	1.64	0.61
28:DG:175:LYS:HD3	28:DG:175:LYS:O	2.01	0.61
29:DH:26:ALA:HA	29:DH:30:LEU:HB2	1.82	0.61
1:AA:92:U:O2'	1:AA:93:U:H6	1.83	0.61
1:AA:139:A:C2'	1:AA:140:U:H5'	2.30	0.61
1:AA:198:G:C4	1:AA:199:A:N7	2.67	0.61
1:AA:428:G:O4'	1:AA:430:A:C8	2.53	0.61
1:AA:1159:U:N3	1:AA:1182:G:C5	2.69	0.61
2:AB:58:LYS:HZ1	2:AB:62:ARG:HG3	1.66	0.61
3:AC:6:PRO:O	3:AC:10:ARG:HG2	2.00	0.61
4:AD:145:ARG:HH11	4:AD:147:LYS:CE	2.11	0.61
5:AE:158:LYS:HE2	8:AH:63:LYS:NZ	2.16	0.61
7:AG:136:LYS:O	7:AG:140:VAL:HG23	2.00	0.61
11:AK:22:ILE:O	11:AK:22:ILE:HG13	1.99	0.61
12:AL:29:LYS:O	12:AL:81:ILE:HG22	2.01	0.61
14:AN:56:PRO:HA	14:AN:59:GLN:HE22	1.63	0.61
21:AU:45:LYS:HA	21:AU:45:LYS:HE3	1.82	0.61
22:BA:1059:G:C6	22:BA:1060:U:N3	2.68	0.61
22:BA:1474:U:C2'	22:BA:1475:G:H5'	2.30	0.61
22:BA:1916:A:H8	22:BA:1916:A:O5'	1.82	0.61
26:BE:134:LEU:HD12	26:BE:134:LEU:O	2.00	0.61
29:BH:78:VAL:HG11	29:BH:145:ASN:CB	2.30	0.61
32:BK:108:ARG:HH21	37:BP:34:GLY:HA3	1.66	0.61
34:BM:33:LEU:CD2	34:BM:128:THR:HB	2.30	0.61
44:BW:23:LYS:CD	44:BW:24:ARG:N	2.63	0.61
53:CA:986:U:O2'	53:CA:987:G:H5'	2.01	0.61
53:CA:992:U:H1'	53:CA:993:G:C2	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1406:U:H2'	53:CA:1407:C:H5'	1.82	0.61
2:CB:27:LYS:N	2:CB:28:PRO:CD	2.63	0.61
3:CC:181:ILE:HG12	3:CC:202:PHE:CB	2.30	0.61
4:CD:58:GLN:OE1	4:CD:58:GLN:HA	2.00	0.61
55:CM:82:LEU:HD21	19:CS:60:PHE:HB3	1.81	0.61
19:CS:50:VAL:HG11	19:CS:70:LEU:HB3	1.81	0.61
22:DA:17:G:H4'	38:DQ:24:TYR:HE1	1.66	0.61
22:DA:192:C:OP1	62:DA:3722:HOH:O	2.16	0.61
22:DA:513:A:C2	22:DA:514:A:C5	2.89	0.61
22:DA:826:U:H5'	22:DA:2428:G:O2'	2.01	0.61
22:DA:1039:A:C4	22:DA:1040:A:C8	2.88	0.61
22:DA:1223:G:N2	22:DA:1226:A:OP2	2.29	0.61
22:DA:1361:G:C5	22:DA:1362:C:C5	2.88	0.61
22:DA:1698:A:H4'	22:DA:1699:G:O5'	1.99	0.61
22:DA:1744:A:H3'	22:DA:1745:A:H8	1.65	0.61
22:DA:2187:U:O2'	22:DA:2188:U:H5'	2.01	0.61
22:DA:2226:C:H2'	22:DA:2227:A:C8	2.35	0.61
22:DA:2847:U:H3'	37:DP:94:ALA:HB2	1.81	0.61
57:DB:116:G:H2'	57:DB:117:G:H8	1.66	0.61
58:DF:1:ALA:HB3	58:DF:93:GLU:OE2	2.00	0.61
29:DH:93:SER:HB3	29:DH:121:VAL:CG2	2.24	0.61
32:DK:99:ILE:HD12	32:DK:118:LEU:HB2	1.82	0.61
39:DR:51:VAL:HB	39:DR:52:PRO:HD2	1.83	0.61
44:DW:37:VAL:HG23	44:DW:38:ARG:NH1	2.15	0.61
1:AA:1111:A:C2'	1:AA:1112:C:H5'	2.29	0.61
1:AA:1141:C:O2'	1:AA:1142:G:O5'	2.16	0.61
1:AA:1257:A:H4'	1:AA:1258:G:OP2	2.01	0.61
7:AG:112:ASP:HB2	7:AG:118:ARG:HG3	1.82	0.61
9:AI:93:LEU:HD12	9:AI:94:ARG:N	2.16	0.61
10:AJ:48:ARG:NH1	10:AJ:66:GLU:OE1	2.34	0.61
11:AK:113:THR:HB	21:AU:28:LEU:HD11	1.82	0.61
22:BA:320:A:H4'	22:BA:322:A:N7	2.14	0.61
22:BA:1070:A:C2	30:BI:9:LYS:CG	2.82	0.61
22:BA:2217:G:O2'	22:BA:2218:G:H5'	2.00	0.61
22:BA:2347:C:H2'	22:BA:2348:U:C6	2.36	0.61
22:BA:2857:G:N2	22:BA:2860:A:OP2	2.32	0.61
27:BF:35:LEU:CB	27:BF:153:ILE:HG22	2.17	0.61
29:BH:40:THR:O	29:BH:42:LYS:N	2.30	0.61
35:BN:73:ASN:HA	35:BN:76:VAL:HG12	1.82	0.61
41:BT:40:LYS:O	41:BT:44:LYS:N	2.34	0.61
47:BZ:35:VAL:CG2	47:BZ:37:ARG:CZ	2.79	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:91:U:C4	53:CA:92:U:C4	2.88	0.61
53:CA:119:A:H5'	53:CA:120:A:O5'	2.00	0.61
53:CA:132:C:O2'	53:CA:133:U:C5'	2.48	0.61
53:CA:234:C:O2'	53:CA:235:C:H5'	2.00	0.61
53:CA:255:G:H4'	17:CQ:18:LYS:HB2	1.82	0.61
53:CA:702:A:OP1	53:CA:702:A:H8	1.84	0.61
53:CA:752:G:H1'	53:CA:754:C:H41	1.62	0.61
53:CA:935:A:O2'	53:CA:936:C:C6	2.50	0.61
53:CA:994:A:HO2'	53:CA:995:C:H6	1.48	0.61
53:CA:1062:U:H2'	53:CA:1063:C:C6	2.36	0.61
53:CA:1363:A:C6	53:CA:1365:G:O6	2.53	0.61
22:DA:188:G:H2'	22:DA:189:G:H5'	1.82	0.61
22:DA:322:A:H3'	26:DE:163:ASN:HD21	1.65	0.61
22:DA:1281:G:C6	22:DA:1290:C:N4	2.67	0.61
22:DA:1300:G:H4'	22:DA:1301:A:O5'	1.99	0.61
22:DA:1808:A:H5"	22:DA:1809:A:N7	2.15	0.61
22:DA:1830:C:C5'	24:DC:14:HIS:HE1	2.13	0.61
22:DA:1956:U:H2'	22:DA:1957:C:H6	1.65	0.61
22:DA:2689:U:H5"	22:DA:2690:U:O5'	2.00	0.61
25:DD:36:GLN:HE21	25:DD:38:LYS:HZ1	1.49	0.61
36:DO:18:LEU:HD13	36:DO:25:ARG:CG	2.29	0.61
37:DP:74:GLN:OE1	37:DP:74:GLN:HA	1.99	0.61
1:AA:466:A:O2'	1:AA:467:U:H5	1.84	0.61
4:AD:61:ARG:HH21	4:AD:67:LEU:HA	1.66	0.61
4:AD:167:PRO:CB	4:AD:170:LEU:HD11	2.28	0.61
5:AE:85:LYS:HG3	5:AE:94:PHE:HB2	1.83	0.61
10:AJ:22:THR:HG22	10:AJ:23:ALA:N	2.16	0.61
13:AM:95:PRO:CG	13:AM:101:THR:HG22	2.31	0.61
21:AU:9:GLU:CB	21:AU:10:PRO:HD3	2.30	0.61
22:BA:202:U:H2'	22:BA:203:A:C8	2.34	0.61
22:BA:475:C:H5'	22:BA:475:C:C6	2.30	0.61
22:BA:531:C:C5	22:BA:2035:G:C2	2.89	0.61
22:BA:568:U:P	33:BL:36:LYS:HE3	2.40	0.61
22:BA:1062:G:C8	22:BA:1088:A:H8	2.19	0.61
22:BA:1378:A:O2'	22:BA:1379:U:H3'	2.00	0.61
22:BA:1585:C:O5'	22:BA:1585:C:H6	1.83	0.61
22:BA:1779:U:C5	22:BA:1784:A:N7	2.61	0.61
22:BA:1818:U:H2'	24:BC:152:GLN:O	2.01	0.61
22:BA:1871:A:O2'	22:BA:1872:A:C8	2.53	0.61
22:BA:2065:C:H2'	22:BA:2066:C:H6	1.65	0.61
22:BA:2509:G:C3'	22:BA:2510:C:C5'	2.79	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2509:G:H2'	22:BA:2510:C:H5"	1.81	0.61
28:BG:18:ILE:HD11	28:BG:42:VAL:CG1	2.30	0.61
29:BH:100:ALA:O	29:BH:104:THR:HB	2.00	0.61
31:BJ:25:LEU:HB2	31:BJ:62:VAL:CG2	2.31	0.61
31:BJ:56:VAL:HG12	31:BJ:57:LEU:H	1.62	0.61
37:BP:105:LYS:CA	37:BP:108:ARG:HH21	2.12	0.61
38:BQ:63:ARG:NH2	38:BQ:96:ASP:CA	2.64	0.61
44:BW:26:GLY:O	44:BW:27:GLY:C	2.39	0.61
53:CA:313:A:H2'	53:CA:314:C:C6	2.35	0.61
53:CA:1157:A:C2	53:CA:1181:G:C8	2.89	0.61
53:CA:1336:C:H1'	53:CA:1337:G:C2	2.35	0.61
3:CC:100:ILE:HD12	3:CC:101:ASN:N	2.16	0.61
4:CD:25:ARG:HH12	4:CD:30:LYS:CG	2.03	0.61
8:CH:65:PHE:CE2	8:CH:66:GLN:HG2	2.35	0.61
12:CL:80:LEU:HB3	12:CL:97:VAL:HG22	1.82	0.61
22:DA:859:G:N2	22:DA:916:G:O2'	2.33	0.61
22:DA:1351:C:H4'	22:DA:1572:A:O4'	2.01	0.61
22:DA:1430:G:H2'	22:DA:1431:A:C8	2.35	0.61
22:DA:2069:G:O2'	22:DA:2070:A:H5'	2.01	0.61
24:DC:129:LEU:C	24:DC:188:ARG:HG3	2.21	0.61
25:DD:114:LYS:CD	25:DD:116:LYS:NZ	2.57	0.61
38:DQ:87:VAL:CG1	39:DR:52:PRO:HG3	2.29	0.61
44:DW:46:ALA:HA	44:DW:50:VAL:HG12	1.81	0.61
48:D0:42:ILE:HD11	48:D0:48:TYR:HB2	1.81	0.61
1:AA:466:A:HO2'	1:AA:467:U:H5	1.43	0.61
1:AA:914:A:C4	1:AA:915:A:C8	2.88	0.61
4:AD:166:LYS:HB3	4:AD:166:LYS:NZ	2.15	0.61
9:AI:28:VAL:HB	9:AI:63:TYR:CD2	2.32	0.61
22:BA:141:G:H1	41:BT:2:ILE:HG23	1.65	0.61
22:BA:170:U:H2'	22:BA:171:U:H6	1.65	0.61
22:BA:245:G:H2'	22:BA:246:C:H6	1.65	0.61
22:BA:346:A:H5'	22:BA:346:A:H8	1.66	0.61
22:BA:914:G:H5"	22:BA:914:G:H8	1.66	0.61
22:BA:1045:C:C4'	22:BA:1046:A:H5'	2.29	0.61
25:BD:125:TRP:O	25:BD:126:ASN:HB2	2.00	0.61
32:BK:18:ARG:HG2	32:BK:45:GLU:HG3	1.83	0.61
32:BK:63:VAL:HG11	32:BK:103:VAL:HG12	1.83	0.61
32:BK:98:ARG:HA	32:BK:118:LEU:HD23	1.83	0.61
35:BN:75:ILE:HD12	35:BN:79:LEU:HD12	1.81	0.61
44:BW:8:SER:O	44:BW:9:THR:CG2	2.48	0.61
53:CA:373:A:H5'	53:CA:373:A:H8	1.66	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:618:C:H3'	53:CA:619:U:H5"	1.82	0.61
2:CB:93:HIS:CB	2:CB:145:ASN:O	2.47	0.61
3:CC:70:ALA:HB2	3:CC:114:LEU:HD11	1.82	0.61
8:CH:28:SER:HB2	8:CH:57:GLU:O	2.01	0.61
21:CU:36:PHE:HD1	21:CU:40:PRO:HB3	1.66	0.61
22:DA:104:A:O2'	22:DA:105:C:H5'	2.01	0.61
22:DA:340:A:H2'	22:DA:341:C:H5'	1.81	0.61
22:DA:739:A:O2'	22:DA:740:C:H5	1.84	0.61
22:DA:924:G:O2'	22:DA:925:A:H5'	2.01	0.61
22:DA:1038:G:C2'	22:DA:1039:A:H5'	2.30	0.61
22:DA:1196:C:H1'	22:DA:1226:A:C4	2.36	0.61
22:DA:1935:G:C1'	22:DA:1964:G:N2	2.56	0.61
22:DA:2310:C:H2'	22:DA:2311:A:C5'	2.30	0.61
22:DA:2665:A:H2'	22:DA:2666:C:O2	2.00	0.61
57:DB:15:A:C4	57:DB:109:A:C6	2.88	0.61
26:DE:128:ALA:O	26:DE:130:LYS:HG2	2.01	0.61
58:DF:155:ILE:HD12	58:DF:155:ILE:N	2.16	0.61
31:DJ:35:ARG:NH1	31:DJ:140:LEU:HD11	2.16	0.61
31:DJ:44:TYR:HB2	38:DQ:63:ARG:NH1	2.15	0.61
33:DL:108:ALA:HB3	33:DL:125:LEU:HD22	1.83	0.61
36:DO:30:ARG:HH12	36:DO:102:ARG:HB2	1.66	0.61
40:DS:28:LYS:HA	40:DS:70:LYS:HA	1.82	0.61
47:DZ:46:MET:O	47:DZ:49:ALA:HB3	2.00	0.61
48:D0:5:ASN:HD22	48:D0:6:LYS:N	1.99	0.61
1:AA:439:U:O2'	1:AA:440:C:H5'	1.99	0.61
1:AA:569:C:H5"	1:AA:570:G:OP1	2.00	0.61
1:AA:779:C:O2'	1:AA:780:A:H5'	2.01	0.61
1:AA:1284:C:H6	1:AA:1284:C:O5'	1.84	0.61
1:AA:1348:U:HO2'	1:AA:1349:A:H8	1.48	0.61
9:AI:6:TYR:CG	9:AI:7:GLY:N	2.68	0.61
10:AJ:80:THR:HB	10:AJ:83:THR:CG2	2.27	0.61
22:BA:335:C:O5'	22:BA:335:C:H6	1.82	0.61
22:BA:497:A:H2'	22:BA:498:G:O4'	2.01	0.61
22:BA:558:U:P	31:BJ:113:PRO:HB2	2.41	0.61
22:BA:1171:G:C6	22:BA:1172:C:C4	2.89	0.61
22:BA:1417:C:H2'	22:BA:1418:G:C8	2.35	0.61
22:BA:1479:G:C2'	22:BA:1480:C:H5'	2.31	0.61
22:BA:2480:C:C2'	22:BA:2481:G:H5'	2.30	0.61
23:BB:28:C:OP1	36:BO:31:THR:HG21	2.00	0.61
23:BB:57:A:H2'	23:BB:58:A:C8	2.35	0.61
28:BG:116:LEU:HB3	28:BG:120:ILE:CG2	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BL:55:MET:HE2	33:BL:55:MET:CA	2.08	0.61
40:BS:29:VAL:O	40:BS:33:LEU:HD22	2.01	0.61
41:BT:26:LYS:O	41:BT:27:SER:CB	2.48	0.61
49:B1:35:LEU:O	49:B1:35:LEU:HD23	2.01	0.61
53:CA:274:A:O2'	53:CA:275:G:H8	1.74	0.61
53:CA:1183:U:O2'	53:CA:1184:G:OP1	2.19	0.61
53:CA:1239:A:O2'	53:CA:1241:G:C5	2.52	0.61
2:CB:74:ALA:HB1	2:CB:206:ILE:CD1	2.27	0.61
3:CC:41:TYR:CE1	3:CC:89:VAL:HG12	2.36	0.61
5:CE:132:PRO:O	5:CE:134:ASN:N	2.34	0.61
54:CG:92:PRO:HA	54:CG:95:ARG:HB2	1.82	0.61
22:DA:231:A:O2'	22:DA:232:G:C5'	2.49	0.61
22:DA:545:U:C2	22:DA:547:A:H5"	2.36	0.61
22:DA:810:U:C4	33:DL:30:THR:HG22	2.35	0.61
22:DA:1084:A:H2'	22:DA:1085:A:H5'	1.81	0.61
22:DA:1272:A:C2	22:DA:1618:A:N3	2.68	0.61
22:DA:1498:C:O2'	22:DA:1499:C:H5'	2.00	0.61
22:DA:1655:A:H4'	25:DD:118:PHE:CE1	2.36	0.61
22:DA:2332:C:O2'	44:DW:40:ARG:NH2	2.34	0.61
22:DA:2346:A:H3'	22:DA:2347:C:C5'	2.26	0.61
58:DF:28:PRO:CB	58:DF:168:LEU:HD21	2.31	0.61
58:DF:137:PHE:CB	58:DF:138:PRO:HD2	2.20	0.61
31:DJ:18:VAL:HG13	31:DJ:56:VAL:HA	1.83	0.61
33:DL:65:GLY:O	33:DL:66:PHE:HB2	2.01	0.61
43:DV:4:ILE:HD11	43:DV:50:MET:CE	2.30	0.61
44:DW:45:HIS:O	44:DW:46:ALA:HB2	2.01	0.61
47:DZ:40:THR:N	47:DZ:43:ILE:HD11	2.16	0.61
50:D2:31:LEU:HA	50:D2:34:ARG:CB	2.27	0.61
51:D3:51:LYS:O	51:D3:54:LEU:HB3	2.01	0.61
1:AA:15:G:C4'	5:AE:28:ARG:NH1	2.64	0.60
1:AA:208:U:H3	1:AA:212:G:N2	1.99	0.60
1:AA:603:U:H2'	1:AA:604:G:H8	1.66	0.60
2:AB:163:ILE:O	2:AB:185:ILE:HG12	2.00	0.60
4:AD:33:ILE:O	4:AD:34:GLU:CB	2.48	0.60
5:AE:152:VAL:HB	5:AE:155:LYS:NZ	2.16	0.60
7:AG:14:ASP:OD1	7:AG:17:PHE:HB2	2.01	0.60
11:AK:109:ILE:HG22	11:AK:110:THR:N	2.16	0.60
22:BA:301:G:OP2	42:BU:81:ARG:NH1	2.34	0.60
22:BA:1199:U:H2'	22:BA:1200:C:H6	1.64	0.60
22:BA:1278:C:H2'	22:BA:1279:G:H8	1.65	0.60
22:BA:1330:C:O2'	22:BA:1331:G:C5'	2.49	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1428:C:C5	22:BA:1569:A:H5"	2.36	0.60
22:BA:1605:C:H2'	22:BA:1606:C:H5'	1.83	0.60
22:BA:1945:G:C4	22:BA:1946:U:C5	2.89	0.60
22:BA:2038:G:H2'	22:BA:2039:U:O4'	2.01	0.60
24:BC:77:VAL:HG23	24:BC:111:ALA:HA	1.83	0.60
24:BC:251:THR:CG2	24:BC:252:LYS:H	2.07	0.60
24:BC:259:ASN:C	24:BC:261:ARG:H	2.04	0.60
27:BF:168:LEU:O	27:BF:168:LEU:HD12	2.01	0.60
32:BK:43:ILE:HG21	32:BK:46:ALA:HB2	1.82	0.60
33:BL:4:ASN:H	33:BL:4:ASN:HD22	1.48	0.60
37:BP:3:ILE:HD13	37:BP:3:ILE:C	2.20	0.60
37:BP:4:ILE:HG22	37:BP:8:GLU:HG3	1.82	0.60
37:BP:67:GLU:OE1	37:BP:67:GLU:HA	2.00	0.60
37:BP:85:VAL:HG13	37:BP:86:LYS:H	1.66	0.60
42:BU:42:LYS:N	42:BU:42:LYS:HD3	2.15	0.60
44:BW:23:LYS:NZ	44:BW:24:ARG:HG3	2.16	0.60
53:CA:527:G:C2	53:CA:528:C:C6	2.89	0.60
53:CA:740:U:H4'	15:CO:38:LEU:HD11	1.83	0.60
53:CA:960:U:C4'	53:CA:961:U:H5"	2.30	0.60
53:CA:1071:C:H4'	5:CE:53:ARG:HH11	1.66	0.60
53:CA:1134:G:N1	53:CA:1141:C:C4	2.69	0.60
53:CA:1181:G:H2'	53:CA:1182:G:C8	2.36	0.60
4:CD:106:PHE:N	4:CD:106:PHE:CD1	2.67	0.60
10:CJ:38:GLY:O	10:CJ:40:ILE:HD12	2.01	0.60
12:CL:106:VAL:HB	12:CL:109:ARG:CG	2.31	0.60
19:CS:54:ARG:CG	19:CS:55:GLN:H	2.13	0.60
21:CU:39:LYS:H	21:CU:40:PRO:CD	2.08	0.60
22:DA:295:G:N2	22:DA:296:U:C6	2.69	0.60
22:DA:381:G:H5'	45:DX:15:ASN:HD22	1.66	0.60
22:DA:612:G:C2	22:DA:617:G:O6	2.54	0.60
22:DA:833:A:H2'	22:DA:834:G:C8	2.35	0.60
22:DA:1573:G:H2'	22:DA:1574:C:H5'	1.83	0.60
22:DA:1782:U:O2'	22:DA:1783:A:H5'	2.01	0.60
22:DA:1815:A:H1'	22:DA:1817:G:N7	2.16	0.60
22:DA:1823:G:H5"	62:DC:407:HOH:O	2.01	0.60
22:DA:2216:G:HO2'	22:DA:2217:G:H8	0.69	0.60
22:DA:2337:G:H2'	22:DA:2337:G:N3	2.15	0.60
22:DA:2408:U:H2'	22:DA:2409:G:H8	1.65	0.60
30:DI:16:MET:SD	30:DI:19:PRO:HG2	2.41	0.60
37:DP:91:VAL:HG11	37:DP:96:LEU:HD21	1.83	0.60
40:DS:2:GLU:HA	40:DS:2:GLU:OE2	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DU:26:ASN:O	42:DU:34:ILE:HB	2.01	0.60
1:AA:1094:G:O2'	1:AA:1095:U:OP2	2.17	0.60
2:AB:60:ALA:CB	2:AB:223:GLY:HA3	2.31	0.60
2:AB:157:PRO:O	2:AB:180:ILE:HD12	2.00	0.60
4:AD:196:GLU:C	4:AD:198:LEU:H	2.04	0.60
5:AE:109:ALA:O	5:AE:110:MET:CG	2.49	0.60
6:AF:71:ILE:HG23	6:AF:72:ASP:N	2.17	0.60
10:AJ:53:ILE:CG1	14:AN:84:ARG:CZ	2.79	0.60
10:AJ:53:ILE:HG13	14:AN:84:ARG:CZ	2.31	0.60
17:AQ:29:LYS:HB2	17:AQ:36:PHE:CE1	2.35	0.60
22:BA:136:G:H2'	22:BA:137:U:C5	2.36	0.60
22:BA:638:G:H2'	22:BA:639:U:H6	1.62	0.60
22:BA:1073:A:P	22:BA:1073:A:H8	2.24	0.60
22:BA:1154:G:OP2	38:BQ:57:ARG:NH1	2.33	0.60
26:BE:149:ILE:HD11	26:BE:172:ALA:HA	1.82	0.60
52:B4:3:VAL:O	52:B4:4:ARG:O	2.19	0.60
53:CA:183:C:HO2'	53:CA:184:G:C5'	2.13	0.60
53:CA:629:A:H2'	53:CA:630:A:O4'	2.01	0.60
53:CA:1254:A:H2'	53:CA:1255:G:C8	2.35	0.60
53:CA:1513:A:H2'	53:CA:1514:G:C8	2.36	0.60
3:CC:166:TRP:N	3:CC:166:TRP:HE3	1.99	0.60
54:CG:22:LEU:HD23	54:CG:22:LEU:C	2.21	0.60
8:CH:103:VAL:CG1	8:CH:124:ILE:HA	2.21	0.60
12:CL:58:ASN:CG	12:CL:60:PHE:HD1	2.05	0.60
22:DA:616:A:C2'	22:DA:617:G:C8	2.78	0.60
22:DA:982:C:H5"	22:DA:983:A:OP1	2.02	0.60
22:DA:1655:A:C5'	25:DD:118:PHE:CE1	2.85	0.60
22:DA:1915:U:C2'	22:DA:1916:A:C8	2.66	0.60
22:DA:2808:G:HO2'	22:DA:2809:A:H8	1.48	0.60
22:DA:2834:G:C1'	22:DA:2879:A:H61	2.14	0.60
24:DC:95:TYR:C	24:DC:97:ASP:H	2.05	0.60
25:DD:208:LYS:O	25:DD:209:ALA:HB2	2.00	0.60
26:DE:29:HIS:ND1	33:DL:6:LEU:HD22	2.17	0.60
36:DO:24:THR:HG22	36:DO:41:ALA:HA	1.82	0.60
40:DS:55:ILE:O	40:DS:59:GLU:HG2	2.01	0.60
1:AA:251:G:H4'	1:AA:252:U:C5'	2.29	0.60
1:AA:923:A:H2'	1:AA:924:C:H6	1.66	0.60
8:AH:21:LYS:HE2	8:AH:21:LYS:CA	2.31	0.60
10:AJ:8:ILE:HG12	10:AJ:100:ILE:HG22	1.83	0.60
18:AR:33:THR:HG22	18:AR:37:LYS:O	2.01	0.60
22:BA:2475:C:C2'	22:BA:2476:A:H5'	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:19:C:O2'	23:BB:20:G:H5'	2.01	0.60
25:BD:136:ASN:HD21	25:BD:139:SER:HB2	1.66	0.60
33:BL:23:ILE:HG12	39:BR:82:HIS:CE1	2.37	0.60
37:BP:17:PRO:CG	37:BP:83:ILE:HG23	2.31	0.60
37:BP:30:TRP:CZ2	37:BP:39:LEU:HD11	2.36	0.60
50:B2:21:ARG:O	50:B2:27:GLY:HA3	2.02	0.60
53:CA:121:U:OP1	53:CA:121:U:H3'	2.01	0.60
53:CA:1148:U:H2'	53:CA:1149:C:O4'	2.01	0.60
53:CA:1190:G:H3'	3:CC:2:GLN:O	2.01	0.60
2:CB:19:THR:CG2	2:CB:37:VAL:HA	2.31	0.60
3:CC:109:GLU:CG	3:CC:139:ASN:HB2	2.25	0.60
4:CD:59:LYS:O	4:CD:63:ILE:HG13	2.02	0.60
9:CI:45:MET:O	9:CI:49:GLN:HG3	2.01	0.60
9:CI:114:LYS:HB2	9:CI:117:LEU:HD12	1.84	0.60
55:CM:18:LEU:HD12	55:CM:18:LEU:N	2.16	0.60
22:DA:27:G:N2	22:DA:512:G:H2'	2.16	0.60
22:DA:55:G:N2	22:DA:116:C:C2	2.68	0.60
22:DA:452:G:OP1	26:DE:53:THR:HG23	2.01	0.60
22:DA:656:G:O2'	22:DA:657:U:C5'	2.49	0.60
22:DA:739:A:H8	22:DA:739:A:OP2	1.84	0.60
22:DA:1420:A:C4	22:DA:2211:A:N7	2.69	0.60
22:DA:1655:A:H5'	25:DD:118:PHE:CD1	2.35	0.60
22:DA:1965:C:C3'	22:DA:1966:A:C5'	2.76	0.60
24:DC:62:ARG:HG2	24:DC:62:ARG:NH2	2.08	0.60
58:DF:48:LEU:O	58:DF:52:ALA:HB2	2.01	0.60
58:DF:155:ILE:HD12	58:DF:155:ILE:H	1.66	0.60
29:DH:68:ARG:CG	29:DH:71:LYS:HD3	2.31	0.60
31:DJ:127:GLY:O	31:DJ:129:GLU:HG3	2.00	0.60
32:DK:21:CYS:SG	32:DK:39:ILE:HG21	2.40	0.60
32:DK:88:ASN:CB	32:DK:91:SER:HB2	2.31	0.60
35:DN:35:LYS:NZ	35:DN:112:TYR:HE1	1.98	0.60
39:DR:90:ARG:O	39:DR:91:GLN:HB3	2.01	0.60
43:DV:75:GLN:HG3	43:DV:92:VAL:HG13	1.84	0.60
52:D4:3:VAL:O	52:D4:4:ARG:CB	2.48	0.60
1:AA:266:G:OP2	1:AA:267:C:H5	1.85	0.60
1:AA:423:G:HO2'	1:AA:424:G:C4'	2.14	0.60
1:AA:1210:C:C2'	1:AA:1211:U:H5'	2.31	0.60
1:AA:1386:G:H2'	1:AA:1387:G:H8	1.66	0.60
5:AE:81:GLN:NE2	5:AE:81:GLN:H	1.99	0.60
8:AH:85:TYR:CD2	8:AH:123:GLU:HB2	2.36	0.60
20:AT:8:LYS:HA	20:AT:11:ILE:HG23	1.81	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1046:A:H3'	22:BA:1047:G:H5'	1.83	0.60
22:BA:1179:G:C2	22:BA:1180:U:O2'	2.54	0.60
22:BA:2023:C:H6	22:BA:2023:C:H5"	1.65	0.60
23:BB:116:G:C4'	36:BO:54:VAL:HG22	2.25	0.60
25:BD:45:TYR:HD1	25:BD:45:TYR:N	1.90	0.60
33:BL:96:LYS:HD3	33:BL:103:ILE:HA	1.83	0.60
40:BS:29:VAL:CG1	40:BS:55:ILE:HD11	2.31	0.60
41:BT:31:VAL:CA	41:BT:32:LEU:HD23	2.31	0.60
53:CA:16:A:C2'	53:CA:17:U:H5'	2.31	0.60
53:CA:71:A:C2	53:CA:72:A:N7	2.70	0.60
53:CA:254:G:H5"	17:CQ:70:LYS:HD3	1.83	0.60
53:CA:436:C:C2'	53:CA:437:U:H5'	2.31	0.60
53:CA:1504:G:H3'	53:CA:1505:G:H5'	1.82	0.60
2:CB:95:TRP:CZ3	2:CB:171:ALA:HA	2.37	0.60
3:CC:38:VAL:O	3:CC:42:LEU:HD23	2.01	0.60
4:CD:187:ARG:HH21	4:CD:191:SER:HA	1.66	0.60
5:CE:44:ARG:HH22	5:CE:70:MET:HB2	1.66	0.60
9:CI:61:ASP:C	9:CI:62:LEU:HD22	2.22	0.60
22:DA:159:G:O2'	22:DA:160:A:H5"	2.00	0.60
22:DA:165:A:H2'	22:DA:166:U:H6	1.65	0.60
22:DA:727:A:C2'	22:DA:728:G:C8	2.84	0.60
22:DA:1055:G:H2'	22:DA:1055:G:N3	2.16	0.60
22:DA:1359:A:N1	22:DA:1360:G:H1'	2.17	0.60
22:DA:1387:A:O2'	22:DA:1388:G:H8	1.84	0.60
22:DA:1389:G:O2'	22:DA:1390:U:C5'	2.50	0.60
22:DA:1693:U:H4'	22:DA:1694:C:OP2	2.01	0.60
22:DA:1738:G:O2'	22:DA:1739:A:H8	1.82	0.60
22:DA:2091:C:N4	22:DA:2092:U:C4	2.69	0.60
22:DA:2230:G:H2'	22:DA:2231:U:C6	2.36	0.60
26:DE:44:ARG:H	26:DE:89:PRO:HA	1.66	0.60
28:DG:8:VAL:HB	28:DG:49:LEU:HB3	1.83	0.60
32:DK:39:ILE:HD11	32:DK:62:VAL:CG2	2.29	0.60
33:DL:3:LEU:C	33:DL:3:LEU:HD12	2.20	0.60
35:DN:24:MET:HG2	35:DN:44:LEU:HD13	1.84	0.60
38:DQ:6:GLY:C	38:DQ:8:ILE:H	2.04	0.60
39:DR:39:LEU:HB2	39:DR:49:ILE:HD13	1.84	0.60
45:DX:63:ILE:HD12	45:DX:64:ASP:N	2.14	0.60
47:DZ:7:THR:O	47:DZ:54:VAL:HA	2.02	0.60
1:AA:73:C:O2'	1:AA:74:A:H5"	2.01	0.60
1:AA:154:U:O2'	1:AA:155:A:H5'	2.01	0.60
1:AA:731:G:OP1	1:AA:766:A:C1'	2.50	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1031:C:O2'	1:AA:1032:G:H5"	2.02	0.60
2:AB:139:GLU:O	2:AB:143:LEU:CD2	2.48	0.60
18:AR:35:SER:HA	18:AR:71:ASP:HB3	1.83	0.60
21:AU:24:LYS:O	21:AU:28:LEU:HB2	2.01	0.60
22:BA:71:A:H3'	22:BA:71:A:OP2	2.02	0.60
22:BA:817:C:O2'	22:BA:818:G:H5'	2.01	0.60
22:BA:1026:G:O2'	22:BA:1027:A:H5'	2.01	0.60
22:BA:1079:C:C4	22:BA:1088:A:C2	2.87	0.60
22:BA:1106:G:C2	22:BA:1107:G:C8	2.90	0.60
22:BA:1577:C:H2'	22:BA:1578:U:O4'	2.01	0.60
22:BA:1684:G:H2'	22:BA:1685:C:C6	2.36	0.60
22:BA:2211:A:OP2	22:BA:2211:A:C4'	2.48	0.60
22:BA:2507:C:C2'	22:BA:2508:G:H5"	2.31	0.60
25:BD:159:LYS:HA	25:BD:159:LYS:NZ	2.16	0.60
37:BP:45:VAL:HG12	37:BP:46:VAL:O	2.02	0.60
44:BW:17:ALA:HB1	44:BW:36:ILE:HA	1.84	0.60
53:CA:193:C:H1'	20:CT:54:GLN:HE21	1.66	0.60
53:CA:338:A:N1	53:CA:351:G:N2	2.48	0.60
53:CA:934:C:H4'	53:CA:935:A:OP1	2.00	0.60
2:CB:130:LYS:HD3	2:CB:133:ALA:HB3	1.83	0.60
3:CC:76:ILE:HA	3:CC:83:VAL:CG1	2.32	0.60
4:CD:93:LEU:O	4:CD:96:ARG:HG3	2.01	0.60
6:CF:2:ARG:HG2	6:CF:4:TYR:OH	2.00	0.60
10:CJ:39:PRO:HA	10:CJ:74:VAL:H	1.66	0.60
12:CL:120:ARG:HG2	12:CL:121:PRO:N	2.14	0.60
55:CM:82:LEU:HD12	55:CM:82:LEU:N	2.17	0.60
22:DA:55:G:C2	22:DA:116:C:C2	2.90	0.60
22:DA:243:U:O2'	22:DA:244:A:H5'	2.01	0.60
22:DA:455:C:N4	22:DA:472:A:H2'	2.16	0.60
22:DA:528:A:C2	22:DA:2043:C:H4'	2.36	0.60
22:DA:622:G:H2'	22:DA:623:C:C6	2.37	0.60
22:DA:644:A:O2'	22:DA:645:C:H5'	2.02	0.60
22:DA:729:G:C2'	22:DA:729:G:N3	2.64	0.60
22:DA:1402:U:H2'	22:DA:1403:A:O5'	2.01	0.60
22:DA:1475:G:N3	22:DA:1475:G:H2'	2.16	0.60
22:DA:1609:A:N6	22:DA:1616:A:C2	2.69	0.60
22:DA:2815:C:H2'	22:DA:2816:G:H8	1.64	0.60
24:DC:172:THR:HG22	24:DC:182:LYS:NZ	2.17	0.60
28:DG:44:HIS:HA	28:DG:49:LEU:HA	1.83	0.60
30:DI:11:GLN:OE1	30:DI:74:PRO:HG2	2.02	0.60
31:DJ:86:GLN:O	31:DJ:87:ALA:CB	2.49	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DL:7:SER:HB2	33:DL:8:PRO:HD2	1.81	0.60
33:DL:29:LYS:C	33:DL:30:THR:HG23	2.21	0.60
35:DN:72:ASP:O	35:DN:75:ILE:HG13	2.01	0.60
36:DO:88:LYS:O	36:DO:89:ASP:HB3	2.01	0.60
1:AA:198:G:O2'	1:AA:199:A:H5'	2.02	0.60
1:AA:596:A:H2'	1:AA:597:G:C8	2.36	0.60
1:AA:994:A:N7	1:AA:1216:A:H4'	2.16	0.60
1:AA:1342:C:O2'	1:AA:1343:G:H5'	2.02	0.60
1:AA:1365:G:H2'	1:AA:1366:C:C6	2.36	0.60
2:AB:132:GLU:O	2:AB:132:GLU:HG3	1.99	0.60
2:AB:163:ILE:CG2	2:AB:164:ASP:H	2.00	0.60
8:AH:77:VAL:HG11	8:AH:124:ILE:HD11	1.83	0.60
17:AQ:46:HIS:HB2	17:AQ:66:LEU:CD1	2.32	0.60
19:AS:28:LYS:HB3	19:AS:29:PRO:CD	2.24	0.60
22:BA:914:G:H5"	22:BA:914:G:C8	2.36	0.60
22:BA:1186:G:OP1	62:BA:3571:HOH:O	2.16	0.60
22:BA:1434:A:H2'	22:BA:1435:G:H8	1.66	0.60
22:BA:2225:A:H4'	22:BA:2226:C:C6	2.37	0.60
22:BA:2641:G:OP1	31:BJ:76:HIS:HE1	1.84	0.60
22:BA:2680:U:P	25:BD:114:LYS:HE2	2.42	0.60
22:BA:2849:U:H5'	22:BA:2867:G:N2	2.16	0.60
24:BC:252:LYS:HA	24:BC:252:LYS:HZ2	1.67	0.60
25:BD:174:SER:O	25:BD:175:LEU:CB	2.44	0.60
26:BE:23:PHE:CE2	26:BE:25:GLU:HB2	2.36	0.60
28:BG:86:LEU:HD12	28:BG:130:ILE:O	2.01	0.60
31:BJ:111:LYS:CE	31:BJ:115:GLY:H	2.14	0.60
32:BK:104:THR:HB	32:BK:106:GLU:OE1	2.00	0.60
37:BP:22:GLY:O	37:BP:109:ILE:HD11	2.02	0.60
41:BT:70:HIS:HB2	41:BT:73:ARG:O	2.02	0.60
53:CA:1097:C:H2'	53:CA:1098:C:C6	2.36	0.60
53:CA:1346:A:C8	53:CA:1348:U:C2	2.89	0.60
2:CB:35:ASN:O	2:CB:36:LYS:HD2	2.02	0.60
4:CD:137:SER:O	4:CD:140:ASP:HB2	2.02	0.60
6:CF:27:ALA:O	6:CF:31:GLY:HA3	2.01	0.60
20:CT:73:ARG:HG3	20:CT:73:ARG:NH1	2.12	0.60
22:DA:503:A:C4	22:DA:506:G:N7	2.69	0.60
22:DA:659:G:H5'	26:DE:95:LYS:HD2	1.83	0.60
22:DA:750:A:H5"	22:DA:751:A:OP2	2.01	0.60
22:DA:818:G:O2'	22:DA:819:A:H5"	2.00	0.60
22:DA:1142:A:H4'	31:DJ:27:ARG:HH22	1.66	0.60
22:DA:1205:A:H5"	22:DA:1206:G:N7	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1286:A:C4	22:DA:1289:C:N4	2.70	0.60
24:DC:15:VAL:CG2	24:DC:205:GLY:HA3	2.31	0.60
26:DE:46:GLN:HB3	26:DE:86:ALA:HB1	1.84	0.60
32:DK:7:MET:HA	32:DK:7:MET:HE2	1.78	0.60
35:DN:35:LYS:HZ2	35:DN:112:TYR:HE1	1.49	0.60
40:DS:6:LYS:NZ	40:DS:6:LYS:HB3	2.16	0.60
40:DS:7:HIS:ND1	40:DS:10:ALA:HB2	2.16	0.60
43:DV:44:HIS:CE1	43:DV:85:LYS:HD3	2.37	0.60
44:DW:36:ILE:HG22	44:DW:39:GLN:HB2	1.83	0.60
46:DY:22:LEU:CD1	46:DY:23:ARG:HH12	2.15	0.60
1:AA:96:U:HO2'	1:AA:97:G:H8	1.48	0.60
1:AA:291:U:O2'	1:AA:292:G:H5'	2.00	0.60
1:AA:721:G:C4'	1:AA:722:G:O5'	2.34	0.60
1:AA:1441:A:H62	1:AA:1461:G:N2	1.97	0.60
10:AJ:41:PRO:O	10:AJ:42:LEU:HB2	2.00	0.60
22:BA:1669:A:H2'	22:BA:1669:A:N3	2.16	0.60
25:BD:70:LYS:O	25:BD:71:ALA:HB3	2.02	0.60
37:BP:67:GLU:HG3	37:BP:68:GLY:H	1.67	0.60
37:BP:103:THR:HG23	37:BP:103:THR:O	2.01	0.60
39:BR:49:ILE:HG13	39:BR:51:VAL:O	2.02	0.60
53:CA:35:G:C6	53:CA:36:C:N4	2.69	0.60
53:CA:119:A:H5'	53:CA:120:A:H5'	1.82	0.60
53:CA:182:A:C5	53:CA:184:G:C8	2.89	0.60
53:CA:575:G:H4'	53:CA:576:C:C5'	2.30	0.60
53:CA:989:U:O4	53:CA:990:C:N4	2.34	0.60
53:CA:1070:U:H2'	53:CA:1071:C:H6	1.67	0.60
53:CA:1383:C:C2'	53:CA:1384:C:H5'	2.32	0.60
9:CI:63:TYR:C	9:CI:64:ILE:HD12	2.22	0.60
10:CJ:37:ARG:HG2	10:CJ:75:ASP:HB3	1.83	0.60
55:CM:64:VAL:CG1	55:CM:65:GLU:H	2.08	0.60
22:DA:86:G:C2	22:DA:87:U:C4	2.90	0.60
22:DA:740:C:O2'	22:DA:741:U:H5'	2.02	0.60
22:DA:856:G:O4'	44:DW:23:LYS:HB3	2.02	0.60
22:DA:963:U:HO2'	22:DA:964:C:H6	1.48	0.60
22:DA:976:G:N3	22:DA:977:G:C8	2.70	0.60
22:DA:1738:G:HO2'	22:DA:1739:A:H8	1.48	0.60
22:DA:2013:A:N6	22:DA:2014:A:C2	2.70	0.60
22:DA:2092:U:H4'	22:DA:2093:G:C5'	2.32	0.60
22:DA:2093:G:N3	22:DA:2094:A:N7	2.49	0.60
22:DA:2332:C:H4'	44:DW:40:ARG:NH1	2.17	0.60
22:DA:2619:C:H5'	25:DD:157:LYS:HA	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2672:U:H6	22:DA:2672:U:O5'	1.85	0.60
62:DA:3294:HOH:O	33:DL:99:ASN:HA	2.02	0.60
25:DD:79:LEU:HD22	25:DD:79:LEU:N	2.16	0.60
25:DD:129:THR:HG22	25:DD:130:GLN:O	2.02	0.60
25:DD:148:GLN:CG	25:DD:152:PRO:HG2	2.31	0.60
29:DH:125:THR:CG2	29:DH:146:VAL:HG11	2.30	0.60
33:DL:100:ILE:O	33:DL:101:ILE:CB	2.50	0.60
45:DX:58:ILE:HA	45:DX:66:VAL:HG21	1.84	0.60
1:AA:767:A:H2'	1:AA:768:A:O4'	2.02	0.60
8:AH:50:VAL:O	8:AH:50:VAL:HG13	2.02	0.60
22:BA:346:A:H5'	22:BA:346:A:C8	2.37	0.60
22:BA:434:U:HO2'	22:BA:436:C:H5	1.49	0.60
22:BA:536:G:H2'	22:BA:537:G:H5'	1.84	0.60
22:BA:1731:G:C2	22:BA:1733:G:C5	2.90	0.60
22:BA:2299:U:O2'	22:BA:2300:C:H5'	2.02	0.60
22:BA:2786:U:O2'	22:BA:2787:C:H5'	2.02	0.60
24:BC:255:LYS:C	24:BC:257:ARG:H	2.04	0.60
25:BD:91:THR:C	25:BD:93:GLY:N	2.55	0.60
33:BL:85:VAL:HG21	33:BL:94:THR:HG23	1.83	0.60
39:BR:48:LYS:H	39:BR:48:LYS:HD2	1.67	0.60
41:BT:28:ASN:HA	41:BT:91:GLN:CD	2.21	0.60
45:BX:10:ARG:HB2	45:BX:11:PRO:CD	2.32	0.60
53:CA:818:G:C3'	53:CA:819:A:C5'	2.80	0.60
53:CA:1066:C:H2'	53:CA:1067:A:C8	2.36	0.60
53:CA:1440:U:OP2	53:CA:1440:U:H6	1.84	0.60
3:CC:104:GLU:HG2	3:CC:105:VAL:N	2.17	0.60
4:CD:151:GLN:HB3	4:CD:154:VAL:HG12	1.82	0.60
55:CM:11:HIS:N	55:CM:44:ILE:HD12	2.16	0.60
55:CM:106:ARG:HH21	55:CM:112:ARG:CZ	2.14	0.60
21:CU:28:LEU:HD23	21:CU:28:LEU:C	2.21	0.60
22:DA:206:U:O2'	22:DA:207:A:H8	1.84	0.60
22:DA:263:G:H4'	22:DA:430:A:O4'	2.01	0.60
22:DA:332:A:C5	22:DA:335:C:N4	2.70	0.60
22:DA:620:G:H4'	22:DA:621:A:O5'	2.02	0.60
22:DA:1073:A:OP2	22:DA:1073:A:H4'	2.02	0.60
22:DA:1087:G:N2	22:DA:1103:A:H1'	2.16	0.60
22:DA:1510:G:H3'	22:DA:1510:G:OP2	2.00	0.60
22:DA:1608:A:O3'	22:DA:1609:A:H3'	2.02	0.60
22:DA:1649:G:C6	22:DA:2009:A:C6	2.89	0.60
22:DA:1734:G:HO2'	22:DA:1735:A:H8	1.40	0.60
22:DA:1775:U:H2'	22:DA:1776:G:O5'	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1967:C:H5”	22:DA:1967:C:C6	2.29	0.60
22:DA:1991:U:H2’	22:DA:1992:G:H5’	1.83	0.60
26:DE:153:LEU:HD12	26:DE:170:ARG:O	2.02	0.60
58:DF:8:LYS:HB2	58:DF:8:LYS:NZ	2.16	0.60
58:DF:102:LEU:C	58:DF:103:ILE:HD12	2.22	0.60
58:DF:177:ARG:CD	58:DF:178:LYS:N	2.60	0.60
28:DG:19:ASN:N	28:DG:19:ASN:HD22	1.98	0.60
30:DI:74:PRO:O	30:DI:78:LEU:HG	2.01	0.60
31:DJ:94:ALA:O	31:DJ:95:ARG:CB	2.50	0.60
33:DL:103:ILE:H	33:DL:103:ILE:CD1	2.13	0.60
33:DL:111:ILE:HD13	33:DL:111:ILE:N	2.16	0.60
36:DO:20:GLU:HG3	44:DW:50:VAL:HG11	1.84	0.60
42:DU:39:ASN:OD1	42:DU:64:ILE:HB	2.01	0.60
1:AA:433:G:O2’	1:AA:434:U:H5’	2.02	0.60
2:AB:58:LYS:O	2:AB:58:LYS:HD3	2.01	0.60
6:AF:52:ASN:O	6:AF:53:LYS:CB	2.50	0.60
12:AL:23:LEU:HB3	12:AL:58:ASN:HD22	1.65	0.60
19:AS:46:LEU:H	19:AS:61:VAL:HG23	1.67	0.60
20:AT:24:ARG:O	20:AT:28:ARG:HG2	2.01	0.60
22:BA:358:U:H2’	22:BA:359:G:O4’	2.02	0.60
22:BA:747:U:C4	22:BA:2613:U:C5	2.89	0.60
22:BA:866:A:C8	22:BA:914:G:C6	2.89	0.60
22:BA:2742:G:O2’	22:BA:2743:U:H5’	2.02	0.60
24:BC:165:ALA:HB3	24:BC:172:THR:CG2	2.32	0.60
25:BD:97:SER:HB3	25:BD:99:GLU:OE1	2.02	0.60
26:BE:28:VAL:O	26:BE:32:VAL:HG22	2.02	0.60
27:BF:37:MET:HE3	27:BF:151:LEU:HB3	1.83	0.60
33:BL:61:LEU:O	51:B3:12:ARG:HD3	2.02	0.60
40:BS:2:GLU:O	40:BS:107:VAL:O	2.18	0.60
42:BU:33:VAL:O	42:BU:64:ILE:HG22	2.00	0.60
50:B2:35:ARG:HG2	50:B2:42:LEU:HD11	1.84	0.60
53:CA:82:G:N7	53:CA:89:U:C4	2.69	0.60
53:CA:1345:U:H5”	53:CA:1346:A:OP1	2.02	0.60
53:CA:1481:U:H2’	53:CA:1482:G:C8	2.37	0.60
2:CB:10:LYS:HA	2:CB:10:LYS:HE3	1.84	0.60
3:CC:179:ALA:HB1	3:CC:202:PHE:CE1	2.36	0.60
54:CG:116:ALA:C	54:CG:120:ALA:HB3	2.22	0.60
55:CM:18:LEU:HA	55:CM:21:ILE:HD11	1.83	0.60
22:DA:185:G:H2’	22:DA:186:G:C8	2.36	0.60
22:DA:453:A:H4’	22:DA:472:A:H62	1.66	0.60
22:DA:637:A:N6	22:DA:652:U:H4’	2.17	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:973:A:OP2	39:DR:81:LYS:HE3	2.02	0.60
22:DA:2212:A:C8	22:DA:2214:C:N4	2.70	0.60
22:DA:2425:A:H1'	22:DA:2427:C:C5	2.36	0.60
22:DA:2646:C:C6	22:DA:2646:C:C5'	2.78	0.60
22:DA:2815:C:H2'	22:DA:2816:G:C8	2.37	0.60
29:DH:94:ILE:HG13	29:DH:98:ASP:OD1	2.01	0.60
33:DL:21:ARG:CZ	33:DL:21:ARG:HB3	2.32	0.60
39:DR:43:ASN:ND2	39:DR:44:GLY:H	1.99	0.60
43:DV:9:ARG:HD3	43:DV:39:ALA:HB1	1.82	0.60
44:DW:18:LYS:HZ3	44:DW:18:LYS:HB2	1.66	0.60
48:D0:37:HIS:CB	48:D0:43:THR:HG22	2.31	0.60
1:AA:68:G:C5	1:AA:69:G:H1'	2.37	0.60
1:AA:1314:C:H5	19:AS:5:LYS:HD3	1.63	0.60
1:AA:1452:C:H4'	1:AA:1453:G:C4	2.37	0.60
4:AD:103:ARG:NH1	4:AD:110:ARG:HH12	1.99	0.60
9:AI:37:TYR:CD2	9:AI:38:PHE:HD2	2.20	0.60
11:AK:108:ASN:CG	21:AU:6:ARG:HG2	2.21	0.60
22:BA:141:G:H5'	22:BA:142:A:N7	2.16	0.60
22:BA:2262:U:H4'	22:BA:2328:A:C2	2.37	0.60
25:BD:121:THR:HB	25:BD:127:PHE:CD1	2.37	0.60
30:BI:10:LEU:HD13	30:BI:27:LEU:HA	1.84	0.60
31:BJ:40:HIS:C	31:BJ:41:LYS:HG2	2.22	0.60
31:BJ:64:VAL:O	31:BJ:65:THR:CB	2.50	0.60
34:BM:10:ARG:NH2	34:BM:89:VAL:HB	2.16	0.60
39:BR:49:ILE:HD12	39:BR:52:PRO:HA	0.83	0.60
40:BS:29:VAL:CG1	40:BS:55:ILE:CD1	2.80	0.60
40:BS:39:THR:HG22	40:BS:44:ALA:HB2	1.83	0.60
49:B1:16:THR:CG2	49:B1:41:VAL:CG2	2.80	0.60
53:CA:425:G:H2'	53:CA:426:U:O4'	2.02	0.60
53:CA:537:G:H2'	53:CA:538:G:H8	1.63	0.60
53:CA:1081:A:H5'	5:CE:22:LYS:HD2	1.84	0.60
53:CA:1104:G:H2'	53:CA:1105:A:O4'	2.01	0.60
53:CA:1399:C:O2	53:CA:1401:G:C5	2.54	0.60
6:CF:66:ALA:HB1	6:CF:70:VAL:HG23	1.82	0.60
10:CJ:44:THR:HG23	10:CJ:70:HIS:CE1	2.37	0.60
22:DA:60:G:HO2'	22:DA:61:C:P	2.25	0.60
22:DA:531:C:O5'	22:DA:532:A:H8	1.85	0.60
22:DA:565:C:H2'	22:DA:566:U:O4'	2.01	0.60
22:DA:927:A:H2'	22:DA:928:A:C8	2.37	0.60
22:DA:1040:A:C2	22:DA:1041:G:C4	2.90	0.60
22:DA:1053:C:N4	22:DA:1054:A:H62	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1338:G:H5”	41:DT:17:SER:HB3	1.83	0.60
22:DA:1635:A:C2’	22:DA:1636:U:H5’	2.31	0.60
22:DA:1809:A:C2	22:DA:1810:A:C5	2.90	0.60
22:DA:2235:G:C4	22:DA:2236:U:C5	2.90	0.60
22:DA:2492:U:O2’	22:DA:2493:U:C5’	2.50	0.60
22:DA:2694:G:H2’	22:DA:2695:U:H6	1.67	0.60
24:DC:52:HIS:NE2	24:DC:218:THR:HG23	2.17	0.60
58:DF:43:ILE:HG12	58:DF:77:LYS:CD	2.31	0.60
46:DY:2:LYS:CD	46:DY:4:LYS:HE3	2.30	0.60
52:D4:9:LYS:O	52:D4:9:LYS:HD3	2.02	0.60
1:AA:693:G:C2’	1:AA:694:A:H5’	2.32	0.59
1:AA:769:G:H4’	1:AA:1513:A:H4’	1.84	0.59
1:AA:914:A:C2’	1:AA:915:A:H8	2.15	0.59
1:AA:1064:G:H1’	1:AA:1066:C:C5	2.37	0.59
4:AD:147:LYS:HD3	4:AD:147:LYS:N	2.15	0.59
6:AF:86:ARG:NH2	18:AR:63:TYR:HB3	2.17	0.59
12:AL:79:ILE:HD12	12:AL:96:THR:CG2	2.32	0.59
22:BA:372:G:C5’	45:BX:60:LYS:HE3	2.30	0.59
22:BA:532:A:HO2’	22:BA:2021:C:H5	1.50	0.59
22:BA:1381:G:C2’	22:BA:1382:G:H5’	2.32	0.59
22:BA:1434:A:H2’	22:BA:1435:G:C8	2.36	0.59
22:BA:1733:G:O2’	22:BA:1734:G:H8	1.72	0.59
22:BA:1827:U:H2’	22:BA:1828:G:O4’	2.01	0.59
22:BA:1936:A:C2	22:BA:1943:U:H5	2.20	0.59
22:BA:2094:A:H4’	29:BH:25:TYR:CE1	2.37	0.59
22:BA:2199:A:H3’	22:BA:2200:C:H6	1.66	0.59
22:BA:2881:U:O2’	22:BA:2882:A:H5’	2.02	0.59
23:BB:33:G:C2’	23:BB:34:A:H5’	2.32	0.59
29:BH:67:ALA:C	29:BH:69:ALA:H	2.05	0.59
53:CA:82:G:C5	53:CA:89:U:C5	2.90	0.59
53:CA:1124:G:O2’	53:CA:1125:U:C5	2.54	0.59
53:CA:1228:C:O2’	53:CA:1229:A:H8	1.81	0.59
53:CA:1248:A:HO2’	9:CI:37:TYR:HD1	1.50	0.59
53:CA:1323:G:H2’	53:CA:1324:A:H8	1.65	0.59
53:CA:1356:G:H2’	53:CA:1357:A:C8	2.37	0.59
2:CB:19:THR:HG22	2:CB:37:VAL:HA	1.83	0.59
4:CD:148:ALA:O	4:CD:151:GLN:HB2	2.02	0.59
9:CI:118:ARG:HH21	9:CI:122:ARG:HE	1.49	0.59
9:CI:128:LYS:O	9:CI:129:ARG:HB2	2.01	0.59
10:CJ:50:THR:HB	10:CJ:64:GLN:OE1	2.02	0.59
20:CT:57:VAL:CG1	20:CT:71:ALA:HB2	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:492:A:O2'	22:DA:493:G:H5'	2.02	0.59
22:DA:850:U:O2'	47:DZ:22:THR:HA	2.02	0.59
22:DA:1099:G:H5"	22:DA:1100:C:OP2	2.01	0.59
22:DA:1374:G:H2'	22:DA:1375:U:O4'	2.01	0.59
22:DA:2225:A:H5'	22:DA:2226:C:H5'	1.84	0.59
22:DA:2615:U:C2	48:D0:3:GLN:HA	2.37	0.59
22:DA:2650:U:C2	22:DA:2671:G:N2	2.70	0.59
22:DA:2902:C:H2'	22:DA:2903:U:O4'	2.00	0.59
25:DD:119:ALA:HB3	25:DD:163:GLY:N	2.15	0.59
29:DH:114:GLU:OE1	29:DH:132:PHE:HE1	1.85	0.59
31:DJ:64:VAL:HG13	31:DJ:65:THR:H	1.67	0.59
32:DK:27:GLY:HA3	32:DK:30:ARG:CD	2.31	0.59
34:DM:19:GLY:O	34:DM:20:LEU:HB2	2.01	0.59
35:DN:28:LEU:HD21	35:DN:115:LEU:CD2	2.11	0.59
38:DQ:15:LYS:HD2	38:DQ:19:GLN:HE21	1.66	0.59
40:DS:73:LYS:HB2	40:DS:106:VAL:HB	1.84	0.59
42:DU:7:ASP:O	42:DU:8:ASP:HB2	2.02	0.59
47:DZ:51:SER:HA	47:DZ:54:VAL:CG2	2.32	0.59
48:D0:38:LEU:HB2	48:D0:41:HIS:NE2	2.17	0.59
1:AA:322:C:O2'	20:AT:17:ARG:CG	2.50	0.59
1:AA:596:A:N6	1:AA:645:G:N1	2.50	0.59
1:AA:1458:G:H5"	20:AT:25:SER:HB3	1.83	0.59
4:AD:80:ARG:HH21	4:AD:81:LEU:CD2	2.15	0.59
5:AE:81:GLN:HG2	5:AE:149:PRO:CB	2.31	0.59
8:AH:10:LEU:HD11	8:AH:126:CYS:CB	2.32	0.59
13:AM:7:ASN:HD22	13:AM:8:ILE:N	1.99	0.59
14:AN:51:PRO:O	14:AN:52:ARG:HB2	2.02	0.59
22:BA:226:A:O2'	22:BA:227:A:H5'	2.01	0.59
22:BA:893:C:H2'	22:BA:894:U:O4'	2.02	0.59
22:BA:910:A:H2'	22:BA:911:A:C8	2.38	0.59
22:BA:920:A:C6	22:BA:921:C:C4	2.90	0.59
22:BA:1139:G:C2'	22:BA:1140:C:H5'	2.32	0.59
22:BA:1253:A:H4'	22:BA:1254:A:OP2	2.00	0.59
22:BA:1866:A:C6	22:BA:1876:A:N7	2.71	0.59
22:BA:2064:C:O2'	22:BA:2065:C:H5'	2.02	0.59
23:BB:33:G:HO2'	23:BB:34:A:H5'	1.67	0.59
23:BB:37:C:C5	23:BB:38:C:C4	2.90	0.59
24:BC:265:PHE:H	24:BC:265:PHE:HD1	1.50	0.59
25:BD:151:THR:CG2	25:BD:152:PRO:CD	2.71	0.59
33:BL:9:ALA:HB3	33:BL:12:SER:HB2	1.84	0.59
34:BM:132:THR:HG22	34:BM:133:LYS:N	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BP:33:GLU:CG	37:BP:34:GLY:H	2.15	0.59
49:B1:39:ASP:OD1	49:B1:41:VAL:HG22	2.01	0.59
53:CA:89:U:O2'	53:CA:90:C:O4'	2.19	0.59
53:CA:276:G:O2'	53:CA:277:C:C6	2.52	0.59
53:CA:977:A:H8	53:CA:1223:C:C4	2.20	0.59
2:CB:59:ILE:HD12	2:CB:60:ALA:N	2.17	0.59
3:CC:129:PHE:CZ	3:CC:156:LEU:HB3	2.36	0.59
6:CF:18:VAL:CG2	6:CF:58:HIS:HD2	2.12	0.59
14:CN:46:LYS:HE3	19:CS:10:ILE:HB	1.83	0.59
21:CU:9:GLU:HB3	21:CU:10:PRO:CD	2.32	0.59
22:DA:105:C:H2'	22:DA:106:C:C6	2.36	0.59
22:DA:183:C:C2'	22:DA:184:C:H5'	2.31	0.59
22:DA:296:U:C2	22:DA:297:G:C8	2.90	0.59
22:DA:354:A:H2'	22:DA:355:U:O4'	2.01	0.59
22:DA:391:A:H2'	22:DA:392:U:C6	2.37	0.59
22:DA:593:U:H2'	22:DA:594:U:H6	1.64	0.59
22:DA:656:G:O2'	22:DA:657:U:O4'	2.15	0.59
22:DA:1345:C:C5'	22:DA:1396:U:O4	2.50	0.59
22:DA:1552:A:N3	22:DA:1552:A:C2'	2.65	0.59
22:DA:1657:U:P	25:DD:141:ARG:HG3	2.41	0.59
22:DA:2064:C:O2'	22:DA:2065:C:O4'	2.17	0.59
22:DA:2143:C:C5'	22:DA:2144:G:OP2	2.50	0.59
22:DA:2379:G:H2'	22:DA:2380:C:H6	1.67	0.59
22:DA:2674:G:H4'	32:DK:30:ARG:CG	2.32	0.59
22:DA:2742:G:OP1	52:D4:36:ARG:HD3	2.02	0.59
24:DC:131:MET:HE2	24:DC:187:CYS:O	2.01	0.59
35:DN:57:THR:O	35:DN:80:PHE:HD1	1.85	0.59
39:DR:49:ILE:O	39:DR:49:ILE:HG13	2.01	0.59
41:DT:29:THR:HA	41:DT:87:LEU:HB2	1.84	0.59
47:DZ:6:ILE:HD12	47:DZ:47:ILE:HD11	1.84	0.59
1:AA:267:C:O2'	1:AA:268:U:C5'	2.46	0.59
1:AA:275:G:C8	1:AA:275:G:H5"	2.38	0.59
1:AA:1038:C:H2'	1:AA:1039:G:H8	1.65	0.59
4:AD:100:VAL:O	4:AD:100:VAL:CG1	2.50	0.59
6:AF:4:TYR:CD2	6:AF:71:ILE:HD13	2.36	0.59
8:AH:78:SER:OG	8:AH:83:ARG:HA	2.02	0.59
11:AK:125:LYS:C	21:AU:33:ARG:NH2	2.56	0.59
14:AN:12:ARG:HG2	14:AN:53:ASP:HB3	1.84	0.59
14:AN:92:ILE:HG22	14:AN:95:LEU:HB2	1.83	0.59
17:AQ:12:VAL:HG13	17:AQ:13:SER:N	2.15	0.59
17:AQ:29:LYS:HG2	17:AQ:34:GLY:HA2	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:34:VAL:HG11	20:AT:78:LEU:CD2	2.32	0.59
22:BA:395:U:O2'	22:BA:396:G:N7	2.35	0.59
22:BA:1498:C:O2'	22:BA:1499:C:H5'	2.02	0.59
25:BD:108:ASP:OD2	25:BD:173:GLN:HA	2.01	0.59
29:BH:31:VAL:O	29:BH:32:PRO:C	2.41	0.59
31:BJ:81:ILE:CG2	31:BJ:82:GLY:H	1.96	0.59
39:BR:39:LEU:C	39:BR:49:ILE:HG23	2.22	0.59
41:BT:54:GLU:O	41:BT:55:VAL:HB	2.03	0.59
42:BU:15:GLY:O	42:BU:17:ASP:N	2.34	0.59
44:BW:19:ARG:NH2	44:BW:22:VAL:HG21	2.17	0.59
44:BW:28:GLU:OE2	44:BW:28:GLU:HA	2.03	0.59
44:BW:37:VAL:HG13	44:BW:55:ASP:C	2.23	0.59
53:CA:33:A:C4	53:CA:34:C:C6	2.90	0.59
53:CA:71:A:C2	53:CA:72:A:C8	2.91	0.59
53:CA:177:G:O2'	53:CA:1448:C:C4'	2.50	0.59
53:CA:1167:A:N7	53:CA:1169:A:N6	2.49	0.59
53:CA:1365:G:O2'	53:CA:1366:C:C5'	2.50	0.59
53:CA:1431:A:C6	53:CA:1432:G:N1	2.70	0.59
2:CB:26:MET:HG2	2:CB:188:THR:HA	1.83	0.59
2:CB:209:VAL:HG23	2:CB:210:THR:N	2.17	0.59
5:CE:45:VAL:HG22	5:CE:46:GLY:N	2.17	0.59
54:CG:119:LEU:HD23	54:CG:119:LEU:C	2.21	0.59
10:CJ:77:VAL:O	10:CJ:79:PRO:HD3	2.02	0.59
55:CM:15:VAL:O	55:CM:19:THR:HG23	2.01	0.59
55:CM:16:ILE:HD12	55:CM:16:ILE:N	2.17	0.59
56:CP:48:GLU:CD	56:CP:51:ARG:HE	2.04	0.59
22:DA:164:C:HO2'	22:DA:165:A:H5'	1.66	0.59
22:DA:374:A:N6	22:DA:401:A:C8	2.70	0.59
22:DA:464:U:C1'	22:DA:686:U:H5	2.15	0.59
22:DA:507:A:H2'	22:DA:507:A:OP2	2.01	0.59
22:DA:605:G:O2'	22:DA:606:U:C5'	2.50	0.59
22:DA:656:G:H2'	22:DA:657:U:C6	2.37	0.59
22:DA:1059:G:N3	30:DI:131:THR:HG22	2.17	0.59
22:DA:1252:G:C4	22:DA:1253:A:C2	2.90	0.59
22:DA:2216:G:O2'	22:DA:2217:G:C5'	2.51	0.59
25:DD:106:LYS:HD3	25:DD:106:LYS:N	2.17	0.59
28:DG:43:LYS:O	28:DG:49:LEU:HD12	2.02	0.59
28:DG:149:ALA:O	28:DG:151:ARG:N	2.35	0.59
30:DI:58:ILE:HG23	30:DI:66:PHE:CD2	2.38	0.59
32:DK:119:ALA:N	32:DK:120:PRO:HD2	2.18	0.59
39:DR:49:ILE:HD12	39:DR:51:VAL:O	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DW:13:ARG:HG3	44:DW:14:ASP:N	2.10	0.59
1:AA:829:G:O2'	1:AA:830:G:H5'	2.02	0.59
1:AA:1352:C:H2'	1:AA:1353:G:H8	1.65	0.59
1:AA:1379:G:O6	7:AG:1:PRO:HB2	2.01	0.59
1:AA:1458:G:H5'	20:AT:26:MET:HB3	1.84	0.59
4:AD:131:ILE:HD12	4:AD:131:ILE:N	2.16	0.59
7:AG:146:ALA:C	7:AG:148:LYS:H	2.05	0.59
10:AJ:42:LEU:HB3	10:AJ:43:PRO:CD	2.31	0.59
13:AM:95:PRO:HG3	13:AM:101:THR:HG22	1.84	0.59
17:AQ:13:SER:O	17:AQ:16:MET:CE	2.50	0.59
22:BA:313:G:C2'	22:BA:314:C:H5'	2.32	0.59
22:BA:608:A:C6	22:BA:609:A:C6	2.90	0.59
22:BA:819:A:C4	22:BA:1189:A:C2	2.90	0.59
22:BA:1062:G:C2'	22:BA:1063:G:C8	2.86	0.59
22:BA:1471:G:C4	22:BA:1472:C:C5	2.90	0.59
22:BA:1681:G:O2'	22:BA:1762:A:C2'	2.50	0.59
22:BA:2352:A:N1	44:BW:30:VAL:CG1	2.57	0.59
22:BA:2466:C:C5'	52:B4:5:ALA:HB3	2.31	0.59
24:BC:40:GLY:C	24:BC:53:ILE:HG22	2.22	0.59
26:BE:76:PRO:HA	26:BE:82:GLY:CA	2.30	0.59
27:BF:46:LYS:H	27:BF:46:LYS:CD	2.14	0.59
28:BG:112:VAL:O	28:BG:113:ASP:HB2	2.01	0.59
31:BJ:43:GLU:O	31:BJ:45:THR:N	2.35	0.59
35:BN:65:LEU:HD11	35:BN:69:ARG:HH21	1.65	0.59
37:BP:113:LEU:O	37:BP:113:LEU:HG	2.01	0.59
45:BX:30:PRO:HG2	45:BX:32:LEU:HD11	1.85	0.59
53:CA:154:U:H2'	53:CA:155:A:C5'	2.29	0.59
53:CA:172:A:C5	53:CA:174:A:N7	2.71	0.59
53:CA:311:C:O2'	53:CA:312:C:H5'	2.02	0.59
53:CA:596:A:N6	53:CA:645:G:C6	2.70	0.59
53:CA:765:G:N7	53:CA:812:G:C4	2.71	0.59
53:CA:1319:A:OP2	19:CS:4:LEU:HD21	2.02	0.59
4:CD:24:VAL:HG23	4:CD:25:ARG:N	2.17	0.59
18:CR:51:GLN:HA	18:CR:51:GLN:OE1	2.01	0.59
20:CT:34:VAL:HG21	20:CT:53:MET:HG2	1.85	0.59
22:DA:512:G:OP2	22:DA:1235:G:H5'	2.02	0.59
22:DA:609:A:H2'	22:DA:610:C:O4'	2.02	0.59
22:DA:1071:G:O2'	22:DA:1072:C:C5'	2.49	0.59
22:DA:1973:G:C6	22:DA:1974:C:C4	2.90	0.59
22:DA:2283:C:N4	22:DA:2389:G:C5	2.71	0.59
22:DA:2691:C:H6	22:DA:2691:C:C5'	2.15	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DB:68:C:O2'	57:DB:69:G:C5'	2.50	0.59
25:DD:105:LYS:HA	25:DD:177:VAL:HG22	1.83	0.59
25:DD:117:GLY:O	25:DD:119:ALA:N	2.36	0.59
26:DE:61:ARG:O	26:DE:61:ARG:HD2	2.02	0.59
58:DF:30:VAL:HG12	58:DF:157:THR:CG2	2.31	0.59
33:DL:110:VAL:O	33:DL:111:ILE:HG12	2.02	0.59
46:DY:22:LEU:HG	46:DY:23:ARG:NH1	2.18	0.59
47:DZ:21:ALA:HA	47:DZ:24:LEU:HD22	1.84	0.59
51:D3:46:LYS:O	51:D3:46:LYS:HD3	2.01	0.59
1:AA:1097:C:H2'	1:AA:1098:C:C6	2.37	0.59
2:AB:26:MET:HE3	2:AB:192:PRO:HG3	1.84	0.59
3:AC:133:MET:HB3	3:AC:150:VAL:CG2	2.33	0.59
4:AD:43:ARG:C	4:AD:45:PRO:HD3	2.23	0.59
4:AD:144:ILE:N	4:AD:144:ILE:HD13	2.17	0.59
8:AH:25:THR:O	8:AH:26:MET:HB3	2.02	0.59
12:AL:86:VAL:HG11	12:AL:89:LEU:HD23	1.84	0.59
22:BA:547:A:C8	22:BA:548:G:N3	2.70	0.59
22:BA:587:C:OP2	33:BL:21:ARG:NH1	2.36	0.59
22:BA:704:G:O2'	22:BA:705:A:OP2	2.20	0.59
22:BA:863:A:O2'	22:BA:864:G:H5'	2.03	0.59
22:BA:994:C:H1'	39:BR:10:LYS:NZ	2.16	0.59
22:BA:1385:A:H4'	22:BA:1386:C:OP1	2.03	0.59
22:BA:1444:G:H2'	22:BA:1445:G:H8	1.66	0.59
22:BA:1641:A:H5"	22:BA:1642:G:OP2	2.02	0.59
22:BA:2104:C:H2'	22:BA:2105:U:O4'	2.02	0.59
23:BB:50:A:H2'	23:BB:51:G:O5'	2.02	0.59
26:BE:108:ILE:CD1	26:BE:180:LEU:HB3	2.32	0.59
27:BF:38:GLY:HA2	27:BF:85:GLY:HA3	1.85	0.59
27:BF:42:ALA:HB2	27:BF:49:LEU:HB2	1.84	0.59
28:BG:8:VAL:HG12	28:BG:49:LEU:H	1.67	0.59
30:BI:105:LEU:HA	30:BI:108:ILE:HB	1.84	0.59
32:BK:12:ASP:HB3	32:BK:85:VAL:HG13	1.84	0.59
32:BK:61:VAL:HG23	32:BK:87:LEU:HD11	1.84	0.59
32:BK:111:LYS:H	32:BK:111:LYS:HE3	1.67	0.59
37:BP:27:VAL:HG22	37:BP:83:ILE:HG12	1.84	0.59
37:BP:37:LYS:HD3	37:BP:37:LYS:N	2.16	0.59
41:BT:57:VAL:O	41:BT:85:VAL:O	2.20	0.59
41:BT:59:ASN:O	41:BT:83:ALA:O	2.19	0.59
45:BX:58:ILE:HD11	45:BX:66:VAL:HG11	1.84	0.59
51:B3:54:LEU:O	51:B3:58:ILE:HG13	2.01	0.59
53:CA:523:A:N6	12:CL:49:ARG:HH12	1.99	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:562:U:H4'	53:CA:563:A:O5'	2.02	0.59
53:CA:828:U:C2'	53:CA:829:G:O5'	2.50	0.59
53:CA:1087:G:C6	53:CA:1099:G:C2	2.90	0.59
53:CA:1170:A:H2'	53:CA:1171:A:O4'	2.03	0.59
2:CB:29:PHE:O	2:CB:40:ILE:HG23	2.02	0.59
4:CD:187:ARG:C	4:CD:189:ASP:H	2.06	0.59
8:CH:9:MET:O	8:CH:13:ILE:HG13	2.02	0.59
55:CM:57:ASP:O	55:CM:61:LYS:HG3	2.01	0.59
19:CS:13:HIS:O	19:CS:17:LYS:HG2	2.01	0.59
22:DA:270:A:N1	22:DA:369:U:H1'	2.17	0.59
22:DA:516:C:H2'	22:DA:517:C:H6	1.68	0.59
22:DA:571:U:C6	22:DA:575:A:N6	2.70	0.59
22:DA:674:G:H5"	26:DE:71:GLY:N	2.17	0.59
22:DA:1713:A:H4'	22:DA:1714:U:OP1	2.00	0.59
22:DA:1808:A:C3'	22:DA:1809:A:H8	2.15	0.59
22:DA:1814:G:N1	22:DA:1815:A:N6	2.51	0.59
22:DA:1838:C:C2	22:DA:1899:A:C2	2.90	0.59
22:DA:2053:G:O2'	22:DA:2054:A:H5'	2.01	0.59
22:DA:2232:C:OP1	45:DX:26:ARG:NH1	2.36	0.59
22:DA:2726:A:HO2'	32:DK:67:LYS:NZ	2.00	0.59
22:DA:2847:U:H2'	22:DA:2848:G:C5'	2.31	0.59
24:DC:63:ILE:O	24:DC:64:VAL:HB	2.02	0.59
25:DD:110:THR:HA	25:DD:171:THR:HA	1.85	0.59
58:DF:30:VAL:HG13	58:DF:168:LEU:HD23	1.82	0.59
33:DL:29:LYS:HG2	33:DL:29:LYS:O	2.01	0.59
33:DL:92:LEU:HD23	33:DL:124:GLY:HA3	1.83	0.59
37:DP:50:ARG:CA	37:DP:57:ALA:H	2.16	0.59
43:DV:63:ILE:O	43:DV:63:ILE:HG22	2.01	0.59
1:AA:206:C:C2'	1:AA:207:C:O4'	2.46	0.59
1:AA:258:G:H5"	62:AA:1701:HOH:O	2.03	0.59
1:AA:267:C:HO2'	1:AA:268:U:H5'	1.64	0.59
1:AA:316:C:C2	1:AA:317:U:C5	2.90	0.59
1:AA:429:U:C1'	1:AA:430:A:H5"	2.33	0.59
1:AA:862:C:O2'	1:AA:863:U:H5'	2.02	0.59
5:AE:55:VAL:N	5:AE:56:PRO:HD2	2.16	0.59
12:AL:85:ARG:HH21	12:AL:87:LYS:HD2	1.67	0.59
16:AP:3:THR:HG22	16:AP:4:ILE:N	2.17	0.59
22:BA:310:A:HO2'	22:BA:311:A:P	2.25	0.59
22:BA:2148:G:C2'	22:BA:2149:U:O4'	2.51	0.59
22:BA:2231:U:H2'	22:BA:2232:C:H5'	1.83	0.59
22:BA:2558:C:H2'	22:BA:2559:C:H5'	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BD:40:LEU:H	25:BD:40:LEU:HD12	1.68	0.59
25:BD:169:ARG:C	25:BD:170:VAL:CG1	2.71	0.59
26:BE:127:GLU:CD	26:BE:127:GLU:N	2.54	0.59
28:BG:83:THR:C	28:BG:84:LYS:CE	2.71	0.59
31:BJ:56:VAL:CG1	31:BJ:57:LEU:H	2.16	0.59
33:BL:96:LYS:HG3	33:BL:101:ILE:CG2	2.32	0.59
38:BQ:49:ARG:HH11	38:BQ:49:ARG:CG	2.02	0.59
40:BS:53:SER:O	40:BS:56:ALA:HB3	2.02	0.59
53:CA:183:C:H2'	53:CA:183:C:O2	2.02	0.59
53:CA:277:C:H2'	53:CA:278:G:C8	2.37	0.59
53:CA:414:A:C2'	53:CA:415:A:H5"	2.32	0.59
53:CA:428:G:H1'	53:CA:430:A:C8	2.37	0.59
53:CA:512:U:O2'	53:CA:513:C:H5'	2.02	0.59
53:CA:914:A:O2'	53:CA:915:A:C5'	2.51	0.59
53:CA:994:A:C5	53:CA:1216:A:H4'	2.38	0.59
54:CG:14:ASP:HB3	54:CG:18:GLY:N	2.12	0.59
54:CG:119:LEU:O	54:CG:123:LEU:HD23	2.02	0.59
9:CI:56:MET:HG3	9:CI:57:VAL:HG23	1.84	0.59
10:CJ:65:TYR:HB3	14:CN:95:LEU:CD1	2.32	0.59
14:CN:26:LEU:O	14:CN:26:LEU:HD23	2.03	0.59
20:CT:58:ASP:O	20:CT:61:ALA:HB3	2.02	0.59
22:DA:321:U:O4'	26:DE:159:LEU:HG	2.02	0.59
22:DA:379:G:C6	22:DA:380:G:C5	2.90	0.59
22:DA:876:C:H2'	22:DA:877:A:OP1	2.03	0.59
22:DA:1307:A:H2'	22:DA:1308:A:H5'	1.85	0.59
22:DA:1360:G:C2'	22:DA:1361:G:H5'	2.32	0.59
22:DA:1654:A:O2'	22:DA:1655:A:C5'	2.51	0.59
22:DA:1676:A:H2'	22:DA:1677:A:O4'	2.02	0.59
22:DA:2056:G:N2	48:D0:1:ALA:H1	1.99	0.59
22:DA:2800:A:N3	22:DA:2801:G:H1'	2.16	0.59
22:DA:2834:G:H1'	22:DA:2879:A:N6	2.18	0.59
57:DB:26:C:H1'	57:DB:117:G:H1'	1.84	0.59
26:DE:52:VAL:HB	26:DE:74:LYS:HD3	1.84	0.59
41:DT:21:SER:HA	41:DT:25:GLU:HB2	1.84	0.59
43:DV:16:ALA:HA	43:DV:19:ARG:CZ	2.32	0.59
50:D2:10:LEU:O	50:D2:10:LEU:HD23	2.03	0.59
1:AA:164:G:H2'	1:AA:165:G:H5'	1.84	0.59
1:AA:1452:C:H5'	1:AA:1453:G:C5	2.37	0.59
4:AD:54:LEU:HD23	4:AD:54:LEU:C	2.23	0.59
5:AE:136:VAL:O	5:AE:137:ARG:HB2	2.02	0.59
8:AH:9:MET:HE2	8:AH:32:LYS:CG	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:17:GLN:HE21	8:AH:71:VAL:HG23	1.68	0.59
14:AN:62:ARG:NH1	14:AN:69:PRO:HG3	2.17	0.59
22:BA:90:U:H2'	22:BA:91:A:H8	1.65	0.59
22:BA:340:A:C2'	22:BA:341:C:H5'	2.33	0.59
22:BA:449:A:H1'	38:BQ:2:ARG:HH22	1.66	0.59
22:BA:1179:G:N7	22:BA:1180:U:H1'	2.17	0.59
22:BA:1537:G:H2'	22:BA:1538:G:O4'	2.02	0.59
22:BA:1963:U:O5'	22:BA:1963:U:H6	1.86	0.59
22:BA:2509:G:H2'	22:BA:2510:C:C5'	2.33	0.59
22:BA:2555:U:C5	22:BA:2556:C:N1	2.70	0.59
27:BF:39:VAL:HG11	27:BF:42:ALA:HB2	1.83	0.59
35:BN:103:ARG:HB2	35:BN:110:MET:CE	2.32	0.59
37:BP:33:GLU:HG3	37:BP:34:GLY:N	2.17	0.59
40:BS:66:ILE:HA	40:BS:69:LEU:HD22	1.83	0.59
48:B0:42:ILE:HG23	48:B0:46:GLY:HA2	1.85	0.59
53:CA:631:C:C3'	53:CA:632:U:H5'	2.30	0.59
53:CA:1160:G:O2'	53:CA:1161:C:C5'	2.50	0.59
54:CG:99:ALA:O	54:CG:103:ILE:HG13	2.02	0.59
9:CI:119:LYS:O	9:CI:119:LYS:HG3	2.03	0.59
22:DA:37:C:O2'	22:DA:38:A:H5'	2.02	0.59
22:DA:310:A:H1'	22:DA:311:A:C8	2.38	0.59
22:DA:510:C:H2'	22:DA:511:U:C5	2.36	0.59
22:DA:511:U:C4'	22:DA:1235:G:H4'	2.31	0.59
22:DA:676:A:H2	22:DA:2069:G:N3	2.00	0.59
22:DA:2331:G:N1	22:DA:2385:C:N4	2.50	0.59
57:DB:57:A:O2'	57:DB:58:A:C8	2.43	0.59
24:DC:171:VAL:HG12	24:DC:173:LEU:HD13	1.84	0.59
58:DF:92:GLY:O	58:DF:95:MET:HB3	2.03	0.59
31:DJ:58:ASN:CG	31:DJ:127:GLY:HA2	2.23	0.59
32:DK:60:ALA:HB2	32:DK:86:LEU:HA	1.85	0.59
38:DQ:4:LYS:NZ	38:DQ:7:VAL:H	2.01	0.59
41:DT:7:LEU:O	41:DT:7:LEU:HD23	2.02	0.59
1:AA:222:C:O2'	1:AA:223:A:H5'	2.03	0.59
1:AA:266:G:O3'	17:AQ:68:LYS:HB2	2.03	0.59
1:AA:797:C:C2'	1:AA:798:U:H5'	2.33	0.59
1:AA:968:A:C4'	1:AA:969:A:OP2	2.49	0.59
1:AA:1095:U:O2'	1:AA:1096:C:H5'	2.02	0.59
1:AA:1161:C:O2'	1:AA:1162:C:C6	2.52	0.59
1:AA:1233:G:H2'	1:AA:1234:C:C6	2.37	0.59
1:AA:1317:C:H2'	1:AA:1318:A:C5'	2.33	0.59
3:AC:18:ASN:CB	3:AC:39:ARG:HH12	2.14	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:109:THR:CG2	4:AD:112:GLU:HB2	2.33	0.59
18:AR:40:PRO:O	18:AR:44:THR:HG23	2.02	0.59
20:AT:68:LYS:HB2	20:AT:68:LYS:HZ3	1.66	0.59
22:BA:229:C:H2'	22:BA:230:G:O4'	2.02	0.59
22:BA:960:A:H2'	22:BA:962:G:H5'	1.85	0.59
22:BA:995:C:O2'	22:BA:996:A:P	2.60	0.59
22:BA:1791:A:N6	22:BA:1828:G:O2'	2.33	0.59
22:BA:2491:U:H5"	22:BA:2570:G:H5"	1.83	0.59
26:BE:147:LEU:HD23	26:BE:183:PHE:CE1	2.38	0.59
28:BG:83:THR:CA	28:BG:84:LYS:HE2	2.31	0.59
32:BK:71:ARG:NE	32:BK:71:ARG:HA	2.18	0.59
34:BM:81:ARG:HG3	34:BM:82:MET:H	1.67	0.59
39:BR:54:VAL:O	39:BR:55:ASP:C	2.40	0.59
40:BS:13:SER:O	40:BS:14:ALA:HB2	2.02	0.59
42:BU:97:SER:O	42:BU:98:ASN:CB	2.50	0.59
50:B2:3:ARG:HH21	50:B2:3:ARG:CG	2.01	0.59
53:CA:497:G:O2'	53:CA:498:A:H5'	2.02	0.59
53:CA:994:A:C2	53:CA:995:C:C6	2.91	0.59
53:CA:1447:A:O2'	53:CA:1448:C:OP1	2.19	0.59
3:CC:84:GLU:C	3:CC:86:LEU:H	2.05	0.59
8:CH:75:GLN:O	8:CH:126:CYS:HB2	2.03	0.59
9:CI:30:ASN:O	9:CI:32:ARG:HG2	2.03	0.59
10:CJ:12:ALA:N	10:CJ:18:ILE:HD12	2.18	0.59
55:CM:69:ARG:HA	55:CM:72:ILE:HG22	1.85	0.59
20:CT:4:LYS:HB3	20:CT:6:ALA:H	1.68	0.59
22:DA:170:U:C2	22:DA:171:U:C5	2.90	0.59
22:DA:259:G:C6	22:DA:260:G:N7	2.70	0.59
22:DA:511:U:H5"	22:DA:512:G:OP2	2.03	0.59
22:DA:656:G:O2'	22:DA:657:U:H5'	2.03	0.59
22:DA:659:G:H2'	22:DA:660:C:C6	2.37	0.59
22:DA:729:G:N3	22:DA:729:G:H2'	2.17	0.59
22:DA:866:A:HO2'	22:DA:867:C:H6	1.46	0.59
22:DA:992:C:O3'	39:DR:74:ILE:CD1	2.50	0.59
22:DA:1031:G:O2'	52:D4:7:VAL:HG12	2.03	0.59
22:DA:1060:U:H4'	22:DA:1061:U:C5'	2.31	0.59
22:DA:1317:G:C6	22:DA:1318:U:N3	2.71	0.59
22:DA:1343:G:C5	22:DA:1597:A:N6	2.71	0.59
22:DA:1605:C:H4'	22:DA:1610:A:N1	2.17	0.59
22:DA:1716:U:O2'	22:DA:1717:A:C5'	2.51	0.59
22:DA:2191:A:C5	22:DA:2192:U:C5	2.90	0.59
22:DA:2520:C:O2'	22:DA:2521:C:H6	1.74	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2552:U:C2	22:DA:2554:U:C5'	2.86	0.59
22:DA:2559:C:O2'	22:DA:2560:A:H5'	2.03	0.59
57:DB:58:A:O2'	57:DB:59:A:C5'	2.51	0.59
24:DC:93:VAL:HG11	24:DC:101:ARG:H	1.65	0.59
25:DD:109:VAL:HG21	25:DD:175:LEU:HD13	1.83	0.59
29:DH:78:VAL:HG21	29:DH:144:VAL:HG13	1.83	0.59
31:DJ:106:LYS:HB2	31:DJ:119:PHE:CE2	2.36	0.59
36:DO:4:LYS:HG3	36:DO:8:ILE:HD11	1.85	0.59
39:DR:9:GLY:O	39:DR:10:LYS:HG3	2.02	0.59
46:DY:22:LEU:HD12	46:DY:23:ARG:HH12	1.67	0.59
1:AA:49:U:C4	1:AA:364:A:C6	2.91	0.59
1:AA:351:G:H4'	1:AA:352:C:OP1	2.03	0.59
1:AA:543:U:O2'	1:AA:544:G:H5'	2.02	0.59
1:AA:957:U:O2	1:AA:959:A:H8	1.85	0.59
3:AC:54:ILE:HD12	3:AC:55:VAL:N	2.18	0.59
4:AD:71:PHE:HE1	4:AD:199:ILE:HD11	1.67	0.59
4:AD:145:ARG:HD2	4:AD:147:LYS:CE	2.32	0.59
22:BA:92:U:H6	22:BA:92:U:H5"	1.68	0.59
22:BA:580:U:O3'	38:BQ:30:VAL:CG1	2.51	0.59
22:BA:656:G:H2'	22:BA:657:U:C6	2.37	0.59
22:BA:682:G:H5'	50:B2:26:ASN:OD1	2.03	0.59
22:BA:784:G:O6	24:BC:227:VAL:HG11	2.02	0.59
22:BA:1714:U:O2	22:BA:1714:U:C2'	2.49	0.59
22:BA:1747:U:H2'	22:BA:1748:C:C6	2.37	0.59
22:BA:1794:A:H2'	22:BA:1795:C:H6	1.68	0.59
22:BA:2842:G:O2'	22:BA:2843:G:H5'	2.03	0.59
27:BF:72:SER:OG	27:BF:79:ARG:HA	2.03	0.59
28:BG:74:MET:O	28:BG:78:VAL:HG22	2.02	0.59
44:BW:39:GLN:C	44:BW:41:GLY:N	2.54	0.59
45:BX:44:ARG:CG	45:BX:45:PHE:N	2.66	0.59
46:BY:17:GLU:HB2	46:BY:53:VAL:HG11	1.85	0.59
47:BZ:35:VAL:HG21	47:BZ:37:ARG:NH1	2.18	0.59
53:CA:91:U:O2'	53:CA:92:U:C6	2.50	0.59
53:CA:202:G:O2'	53:CA:468:A:H8	1.86	0.59
53:CA:441:A:H61	53:CA:493:A:H62	1.51	0.59
53:CA:719:C:H3'	53:CA:720:C:H6	1.66	0.59
53:CA:1006:G:N2	53:CA:1007:U:H1'	2.18	0.59
53:CA:1113:C:H2'	53:CA:1114:C:H6	1.67	0.59
2:CB:161:PHE:HA	2:CB:183:PHE:O	2.03	0.59
3:CC:39:ARG:CG	3:CC:54:ILE:HD13	2.33	0.59
55:CM:21:ILE:HB	55:CM:24:VAL:HG23	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:500:G:N2	22:DA:503:A:C8	2.71	0.59
22:DA:519:U:H5"	40:DS:25:ARG:NH2	2.17	0.59
22:DA:536:G:C2'	22:DA:537:G:H5'	2.32	0.59
22:DA:538:A:H5"	31:DJ:7:LYS:HZ2	1.65	0.59
22:DA:590:A:H2'	22:DA:591:U:C6	2.37	0.59
22:DA:852:U:H5'	47:DZ:45:GLY:HA3	1.84	0.59
22:DA:1287:A:H5'	35:DN:103:ARG:HD2	1.85	0.59
22:DA:1338:G:H4'	41:DT:18:GLU:CG	2.33	0.59
22:DA:1342:A:C5	22:DA:1345:C:N4	2.71	0.59
22:DA:1631:G:H1'	22:DA:1635:A:H61	1.68	0.59
22:DA:1649:G:C6	22:DA:2009:A:N1	2.71	0.59
22:DA:1651:G:C2	22:DA:2007:U:C2	2.91	0.59
22:DA:1848:A:H2'	22:DA:1849:G:C8	2.37	0.59
22:DA:2055:C:H2'	22:DA:2504:U:H4'	1.85	0.59
22:DA:2394:C:O2'	22:DA:2395:C:H5'	2.02	0.59
57:DB:50:A:OP1	36:DO:68:LYS:HB2	2.03	0.59
57:DB:69:G:H3'	57:DB:70:C:C5	2.37	0.59
24:DC:147:PRO:CD	24:DC:184:GLU:HG3	2.26	0.59
28:DG:163:TYR:N	28:DG:163:TYR:CD2	2.69	0.59
33:DL:132:ARG:HA	33:DL:135:ILE:HG22	1.84	0.59
37:DP:102:ARG:O	37:DP:103:THR:CB	2.51	0.59
43:DV:80:HIS:HD2	43:DV:83:LYS:N	2.00	0.59
49:D1:13:SER:OG	49:D1:46:VAL:HG22	2.03	0.59
1:AA:186:C:H4'	20:AT:75:LYS:HG3	1.85	0.59
1:AA:464:U:C2	1:AA:466:A:H5"	2.37	0.59
2:AB:44:LYS:O	2:AB:48:MET:HB2	2.02	0.59
4:AD:48:SER:O	4:AD:52:VAL:HG13	2.02	0.59
9:AI:29:ILE:HA	9:AI:64:ILE:O	2.03	0.59
10:AJ:8:ILE:HA	10:AJ:99:GLN:O	2.02	0.59
12:AL:33:CYS:HA	12:AL:53:ARG:O	2.03	0.59
22:BA:387:U:H4'	22:BA:388:G:O5'	2.01	0.59
22:BA:475:C:C4	22:BA:481:G:O6	2.56	0.59
22:BA:851:C:O2'	22:BA:852:U:H5'	2.02	0.59
24:BC:29:PHE:CE2	24:BC:31:PRO:HG2	2.38	0.59
27:BF:41:GLU:HB2	27:BF:48:LEU:HD23	1.85	0.59
28:BG:86:LEU:CD1	28:BG:130:ILE:HB	2.32	0.59
29:BH:32:PRO:O	29:BH:33:GLN:HB2	2.03	0.59
34:BM:36:VAL:HG22	43:BV:82:TYR:CD1	2.38	0.59
37:BP:30:TRP:CE3	37:BP:39:LEU:HD12	2.38	0.59
38:BQ:91:ARG:CZ	38:BQ:93:ILE:HG21	2.32	0.59
39:BR:49:ILE:CB	39:BR:51:VAL:O	2.50	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BU:27:VAL:HG22	42:BU:28:LEU:N	2.18	0.59
43:BV:10:LYS:N	43:BV:10:LYS:CD	2.52	0.59
52:B4:36:ARG:CG	52:B4:37:GLN:H	2.05	0.59
53:CA:123:U:OP1	53:CA:311:C:O2'	2.20	0.59
53:CA:197:A:H4'	53:CA:198:G:O5'	2.02	0.59
53:CA:1367:C:O2'	53:CA:1368:A:O4'	2.21	0.59
53:CA:1503:A:C8	53:CA:1531:A:H1'	2.37	0.59
15:CO:69:LEU:HD11	15:CO:77:TYR:HA	1.84	0.59
18:CR:71:ASP:HB3	18:CR:72:ARG:HH21	1.68	0.59
22:DA:52:A:H2	22:DA:179:C:O4'	1.86	0.59
22:DA:254:G:N7	51:D3:4:LYS:HE2	2.18	0.59
22:DA:415:A:C2	22:DA:2409:G:C6	2.91	0.59
22:DA:620:G:H5'	22:DA:621:A:OP1	2.03	0.59
22:DA:627:A:O2'	22:DA:628:G:C8	2.54	0.59
22:DA:859:G:O2'	22:DA:860:U:OP2	2.11	0.59
22:DA:1204:A:N1	22:DA:1241:A:N1	2.49	0.59
22:DA:1667:G:OP1	32:DK:6:THR:HA	2.03	0.59
22:DA:1668:A:H4'	22:DA:1669:A:O5'	2.02	0.59
22:DA:2019:A:H4'	38:DQ:33:VAL:CG2	2.33	0.59
22:DA:2623:G:H4'	22:DA:2825:G:H8	1.68	0.59
25:DD:17:GLU:CD	25:DD:17:GLU:H	2.06	0.59
58:DF:129:MET:HE1	58:DF:174:PHE:CE1	2.37	0.59
28:DG:91:VAL:N	28:DG:93:TYR:CD2	2.71	0.59
29:DH:80:ILE:HB	29:DH:101:ASP:HB3	1.80	0.59
30:DI:45:THR:HG23	30:DI:54:ILE:CD1	2.28	0.59
37:DP:50:ARG:HB3	37:DP:56:SER:HB3	1.85	0.59
39:DR:49:ILE:HG22	39:DR:54:VAL:N	2.18	0.59
44:DW:33:GLY:O	44:DW:34:SER:CB	2.50	0.59
1:AA:6:G:O2'	1:AA:7:A:H8	1.86	0.58
1:AA:148:G:N3	1:AA:1446:A:H2	2.01	0.58
1:AA:328:C:O2	1:AA:328:C:H2'	2.02	0.58
1:AA:430:A:H2'	1:AA:431:A:H8	1.66	0.58
1:AA:669:G:C2'	1:AA:670:G:H5'	2.32	0.58
1:AA:1526:G:P	21:AU:38:GLU:HB2	2.43	0.58
5:AE:121:ASN:HD22	5:AE:121:ASN:N	2.01	0.58
17:AQ:76:ARG:HG2	17:AQ:77:VAL:H	1.68	0.58
22:BA:357:C:O2'	22:BA:358:U:H5'	2.02	0.58
22:BA:616:A:H2'	22:BA:617:G:C8	2.38	0.58
22:BA:1132:U:H3'	22:BA:1133:A:H5"	1.84	0.58
22:BA:1290:C:H2'	22:BA:1291:C:C6	2.38	0.58
22:BA:2480:C:H2'	22:BA:2481:G:H5'	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2514:U:H2'	22:BA:2515:C:C6	2.38	0.58
22:BA:2716:C:O2'	22:BA:2717:C:H5'	2.03	0.58
25:BD:15:PHE:H	37:BP:11:GLN:HE22	1.51	0.58
25:BD:92:VAL:HG12	25:BD:92:VAL:O	2.03	0.58
28:BG:61:TRP:O	28:BG:65:GLY:N	2.28	0.58
30:BI:120:ASP:HB3	30:BI:123:ALA:HB3	1.83	0.58
31:BJ:17:VAL:CG2	31:BJ:137:PRO:HB2	2.33	0.58
31:BJ:18:VAL:CG2	31:BJ:140:LEU:HD11	2.33	0.58
34:BM:66:ARG:NH1	34:BM:104:GLU:OE1	2.34	0.58
36:BO:105:ALA:O	36:BO:106:LEU:HB3	2.01	0.58
38:BQ:27:ARG:CG	38:BQ:27:ARG:NH1	2.49	0.58
38:BQ:114:ALA:C	38:BQ:116:LEU:H	2.06	0.58
44:BW:8:SER:C	44:BW:9:THR:HG22	2.23	0.58
45:BX:39:VAL:O	45:BX:41:SER:N	2.34	0.58
53:CA:702:A:H5'	53:CA:703:G:N7	2.18	0.58
53:CA:1146:A:O2'	53:CA:1147:C:C5'	2.51	0.58
53:CA:1206:G:C6	53:CA:1207:G:C5	2.91	0.58
53:CA:1299:A:C8	53:CA:1301:U:H1'	2.38	0.58
53:CA:1308:U:H5	55:CM:97:ARG:CZ	2.16	0.58
53:CA:1323:G:H2'	53:CA:1324:A:C8	2.38	0.58
2:CB:185:ILE:CA	2:CB:199:ILE:HG13	2.32	0.58
2:CB:186:VAL:O	2:CB:186:VAL:HG23	2.02	0.58
4:CD:2:ARG:CZ	4:CD:114:ARG:HD3	2.33	0.58
54:CG:9:ARG:C	54:CG:10:LYS:HG3	2.23	0.58
9:CI:48:ARG:HH21	9:CI:57:VAL:HG21	1.67	0.58
19:CS:52:ASN:HD21	19:CS:55:GLN:N	2.01	0.58
22:DA:172:A:O2'	22:DA:173:A:H5'	2.03	0.58
22:DA:265:A:N7	22:DA:427:U:O2'	2.36	0.58
22:DA:372:G:H22	22:DA:400:G:H2'	1.67	0.58
22:DA:1039:A:H2'	22:DA:1040:A:O4'	2.03	0.58
22:DA:1127:A:HO2'	22:DA:1128:G:H5'	1.65	0.58
22:DA:1241:A:N3	22:DA:1241:A:H5'	2.17	0.58
22:DA:1826:G:C6	22:DA:1827:U:C4	2.91	0.58
22:DA:2093:G:C2	22:DA:2094:A:C8	2.90	0.58
22:DA:2549:G:N2	22:DA:2560:A:C4	2.71	0.58
22:DA:2800:A:C2'	22:DA:2801:G:C4'	2.78	0.58
22:DA:2869:G:H2'	22:DA:2870:C:O4'	2.03	0.58
57:DB:77:U:C2'	57:DB:78:A:H5'	2.32	0.58
58:DF:58:ALA:HB1	58:DF:139:GLU:HG2	1.85	0.58
58:DF:160:LYS:HD3	58:DF:161:SER:N	2.18	0.58
33:DL:48:ARG:HG3	33:DL:48:ARG:HH11	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DP:102:ARG:O	37:DP:103:THR:HB	2.03	0.58
38:DQ:57:ARG:C	38:DQ:59:LEU:H	2.07	0.58
1:AA:275:G:N3	1:AA:276:G:C8	2.71	0.58
1:AA:885:G:H1'	1:AA:914:A:N1	2.18	0.58
1:AA:1234:C:C2	1:AA:1235:U:C6	2.91	0.58
2:AB:103:TRP:NE1	2:AB:150:ILE:HD11	2.18	0.58
4:AD:19:PHE:N	4:AD:19:PHE:CD1	2.72	0.58
9:AI:49:GLN:N	9:AI:50:PRO:HD2	2.17	0.58
11:AK:17:ASP:HB3	11:AK:80:ASN:OD1	2.02	0.58
11:AK:91:GLY:HA2	11:AK:94:SER:HB3	1.83	0.58
13:AM:2:ARG:HG3	13:AM:56:ARG:HH12	1.67	0.58
19:AS:52:ASN:O	19:AS:76:THR:HG22	2.03	0.58
22:BA:699:A:H1'	22:BA:1634:A:H2'	1.85	0.58
22:BA:805:G:OP2	33:BL:41:ARG:HD2	2.03	0.58
22:BA:958:U:H6	22:BA:958:U:C5'	2.05	0.58
22:BA:1071:G:C4	22:BA:1089:A:C6	2.91	0.58
22:BA:1184:U:C2'	22:BA:1185:G:O5'	2.50	0.58
22:BA:1268:A:C2	22:BA:2013:A:C4	2.90	0.58
22:BA:1821:A:H2'	22:BA:1822:C:C6	2.37	0.58
22:BA:1856:U:H3	22:BA:1886:U:H3	1.49	0.58
24:BC:12:ARG:CG	24:BC:12:ARG:NH1	2.59	0.58
25:BD:68:PHE:CD2	25:BD:75:ALA:HA	2.38	0.58
25:BD:97:SER:O	25:BD:99:GLU:CG	2.40	0.58
25:BD:159:LYS:HA	25:BD:159:LYS:HZ3	1.67	0.58
26:BE:124:PHE:C	26:BE:124:PHE:HD1	2.05	0.58
27:BF:4:HIS:CD2	27:BF:96:TRP:NE1	2.71	0.58
31:BJ:40:HIS:CD2	31:BJ:40:HIS:N	2.71	0.58
37:BP:104:GLY:O	37:BP:106:ALA:N	2.37	0.58
38:BQ:63:ARG:HH22	38:BQ:96:ASP:CA	2.15	0.58
51:B3:29:ARG:HA	62:B3:101:HOH:O	2.02	0.58
53:CA:147:G:H2'	53:CA:148:G:C8	2.38	0.58
53:CA:595:A:H4'	53:CA:596:A:OP1	2.02	0.58
53:CA:882:C:H41	12:CL:5:GLN:HE21	1.51	0.58
6:CF:47:LEU:CD1	6:CF:51:ILE:HD12	2.32	0.58
12:CL:22:ALA:HB3	12:CL:94:TYR:OH	2.03	0.58
22:DA:232:G:C4'	22:DA:233:A:OP1	2.45	0.58
22:DA:513:A:H2'	22:DA:514:A:C8	2.38	0.58
22:DA:876:C:C2'	22:DA:877:A:OP1	2.51	0.58
22:DA:961:C:C5	22:DA:2031:A:C2	2.91	0.58
22:DA:1053:C:N4	22:DA:1054:A:N6	2.51	0.58
22:DA:1079:C:N3	22:DA:1088:A:H2	2.01	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1262:A:H2	48:D0:6:LYS:HD2	1.67	0.58
22:DA:1329:U:HO2'	22:DA:1330:C:P	2.25	0.58
22:DA:1723:G:O2'	22:DA:1724:G:H5'	2.03	0.58
22:DA:1826:G:OP2	24:DC:220:ARG:HB3	2.03	0.58
22:DA:1905:C:HO2'	22:DA:1929:G:HO2'	1.46	0.58
22:DA:1973:G:C6	22:DA:1974:C:N4	2.72	0.58
22:DA:2517:C:HO2'	22:DA:2518:A:H3'	1.68	0.58
22:DA:2874:C:O2'	22:DA:2875:C:C6	2.53	0.58
26:DE:5:LEU:HD13	26:DE:122:GLU:HB2	1.84	0.58
26:DE:29:HIS:CA	26:DE:32:VAL:HG22	2.34	0.58
28:DG:152:ARG:HD2	28:DG:153:PRO:HD2	1.84	0.58
31:DJ:125:TYR:HE2	31:DJ:132:HIS:HD2	1.51	0.58
35:DN:36:THR:CG2	35:DN:41:ALA:HB2	2.33	0.58
35:DN:55:ALA:HA	35:DN:80:PHE:CE1	2.38	0.58
37:DP:107:ALA:O	37:DP:108:ARG:C	2.41	0.58
43:DV:29:ILE:CD1	43:DV:90:ASP:HA	2.33	0.58
46:DY:22:LEU:CD1	46:DY:23:ARG:NH1	2.66	0.58
1:AA:172:A:C5	1:AA:174:A:N7	2.72	0.58
1:AA:279:A:H5"	1:AA:281:G:C5'	2.33	0.58
1:AA:1468:A:C2'	1:AA:1469:C:C5'	2.75	0.58
9:AI:8:THR:O	9:AI:81:GLY:HA2	2.03	0.58
15:AO:67:ASP:OD1	15:AO:87:ARG:NH2	2.36	0.58
19:AS:4:LEU:CD2	19:AS:8:PRO:HA	2.31	0.58
19:AS:45:GLY:H	19:AS:61:VAL:HG23	1.67	0.58
22:BA:243:U:OP1	51:B3:5:THR:CG2	2.51	0.58
22:BA:457:A:O4'	22:BA:459:U:C6	2.56	0.58
22:BA:875:G:C2'	22:BA:876:C:H5'	2.33	0.58
22:BA:1588:G:C2	22:BA:1589:U:C6	2.92	0.58
22:BA:1760:C:H2'	22:BA:1761:C:O4'	2.03	0.58
22:BA:2321:U:C3'	22:BA:2322:A:C5'	2.81	0.58
22:BA:2444:G:P	26:BE:63:LYS:HD2	2.43	0.58
22:BA:2711:A:P	62:BA:3540:HOH:O	2.60	0.58
25:BD:105:LYS:H	25:BD:106:LYS:HD2	1.69	0.58
29:BH:147:VAL:CG1	29:BH:149:GLU:HG3	2.33	0.58
31:BJ:17:VAL:HG22	31:BJ:137:PRO:HB2	1.83	0.58
36:BO:79:ALA:HA	36:BO:115:LEU:HD22	1.85	0.58
37:BP:33:GLU:N	37:BP:36:LYS:O	2.36	0.58
40:BS:33:LEU:HD13	40:BS:51:LEU:HD23	1.84	0.58
53:CA:146:G:O2'	53:CA:147:G:H5'	2.03	0.58
53:CA:245:U:H6	53:CA:245:U:H5"	1.67	0.58
53:CA:1130:A:C5	53:CA:1146:A:C6	2.90	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1279:G:H2'	10:CJ:45:ARG:NH2	2.18	0.58
2:CB:37:VAL:HG22	2:CB:38:HIS:N	2.19	0.58
4:CD:24:VAL:HG23	4:CD:25:ARG:HB2	1.85	0.58
5:CE:131:ASN:HD22	5:CE:132:PRO:CD	2.16	0.58
5:CE:148:SER:H	5:CE:151:MET:CE	2.16	0.58
17:CQ:46:HIS:HB2	17:CQ:70:LYS:NZ	2.19	0.58
22:DA:33:C:H2'	22:DA:446:G:H22	1.68	0.58
22:DA:35:G:C5	22:DA:454:A:C2	2.91	0.58
22:DA:160:A:N1	22:DA:161:A:C2	2.71	0.58
22:DA:193:U:H4'	22:DA:802:A:O2'	2.04	0.58
22:DA:308:G:C6	22:DA:309:A:C6	2.92	0.58
22:DA:425:G:H2'	22:DA:426:C:H6	1.67	0.58
22:DA:873:C:C4'	34:DM:64:TRP:CD1	2.84	0.58
22:DA:1255:U:H3'	22:DA:1256:G:C5'	2.32	0.58
22:DA:1415:U:O3'	22:DA:1416:G:H4'	2.03	0.58
22:DA:2216:G:C2'	22:DA:2217:G:H8	2.16	0.58
22:DA:2226:C:H2'	22:DA:2227:A:H8	1.68	0.58
22:DA:2264:C:H41	44:DW:11:ASN:ND2	2.01	0.58
22:DA:2689:U:C4'	22:DA:2690:U:OP2	2.39	0.58
57:DB:69:G:N7	57:DB:70:C:C5	2.71	0.58
25:DD:159:LYS:HE2	25:DD:160:LYS:N	2.17	0.58
26:DE:126:VAL:HG22	26:DE:127:GLU:H	1.68	0.58
58:DF:137:PHE:HB2	58:DF:138:PRO:CD	2.22	0.58
38:DQ:50:ARG:HD2	38:DQ:50:ARG:N	2.19	0.58
47:DZ:23:LEU:HD21	47:DZ:53:MET:CE	2.32	0.58
1:AA:13:U:O2'	1:AA:14:U:H5'	2.03	0.58
1:AA:126:G:C2'	1:AA:127:G:O5'	2.52	0.58
1:AA:175:C:O2'	1:AA:176:C:C5'	2.52	0.58
1:AA:821:G:O2'	1:AA:822:U:H5'	2.03	0.58
3:AC:185:THR:HG22	3:AC:186:SER:N	2.18	0.58
4:AD:29:THR:HG22	4:AD:30:LYS:CD	2.33	0.58
6:AF:46:GLN:NE2	6:AF:56:LYS:HG3	2.18	0.58
7:AG:110:ARG:HB2	7:AG:110:ARG:HH11	1.68	0.58
20:AT:25:SER:O	20:AT:28:ARG:HG3	2.03	0.58
22:BA:374:A:C2	22:BA:401:A:C4	2.91	0.58
22:BA:570:G:H2'	22:BA:2030:A:N7	2.19	0.58
22:BA:839:U:O2'	22:BA:1191:G:H1'	2.03	0.58
22:BA:1108:U:H2'	22:BA:1109:C:O4'	2.04	0.58
26:BE:148:ILE:HA	26:BE:187:VAL:HB	1.85	0.58
27:BF:68:LYS:HD2	27:BF:68:LYS:H	1.69	0.58
28:BG:104:LEU:O	28:BG:112:VAL:HG22	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BJ:21:THR:C	31:BJ:23:LYS:H	2.07	0.58
31:BJ:44:TYR:HA	38:BQ:59:LEU:HD21	1.86	0.58
32:BK:111:LYS:H	32:BK:111:LYS:CE	2.15	0.58
50:B2:42:LEU:H	50:B2:42:LEU:HD22	1.67	0.58
53:CA:68:G:H21	53:CA:152:A:H1'	1.64	0.58
53:CA:372:C:HO2'	53:CA:373:A:P	2.26	0.58
53:CA:979:C:O2'	53:CA:980:C:C5'	2.52	0.58
53:CA:1248:A:O2'	9:CI:37:TYR:HD1	1.86	0.58
3:CC:63:ILE:O	3:CC:63:ILE:HG23	2.02	0.58
4:CD:176:LYS:HG3	4:CD:178:GLU:CB	2.32	0.58
6:CF:4:TYR:O	6:CF:63:ASN:HA	2.04	0.58
54:CG:48:THR:O	54:CG:52:ARG:HD3	2.04	0.58
54:CG:129:ASN:OD1	54:CG:134:VAL:HG11	2.04	0.58
19:CS:62:THR:HG22	19:CS:63:ASP:N	2.17	0.58
22:DA:216:A:C4	22:DA:217:A:C8	2.91	0.58
22:DA:273:G:H2'	22:DA:274:C:H6	1.67	0.58
22:DA:305:C:C2	22:DA:313:G:C2	2.91	0.58
22:DA:322:A:H3'	26:DE:163:ASN:ND2	2.18	0.58
22:DA:531:C:H4'	22:DA:532:A:C8	2.37	0.58
22:DA:608:A:C5	22:DA:621:A:N7	2.72	0.58
22:DA:622:G:H2'	22:DA:623:C:C5	2.39	0.58
22:DA:764:A:C2	22:DA:781:A:C2	2.91	0.58
22:DA:1081:U:OP1	30:DI:126:ARG:HD2	2.03	0.58
22:DA:1281:G:C2'	22:DA:1282:U:H5'	2.33	0.58
22:DA:1307:A:H2'	22:DA:1308:A:C5'	2.34	0.58
22:DA:1342:A:C4	22:DA:1345:C:N4	2.71	0.58
22:DA:1343:G:O2'	22:DA:1344:U:H6	1.84	0.58
22:DA:1395:A:H4'	22:DA:1397:U:C5	2.38	0.58
22:DA:1594:U:H2'	22:DA:1595:C:C6	2.38	0.58
22:DA:1628:G:O2'	22:DA:1629:U:H5'	2.03	0.58
22:DA:1805:A:N3	24:DC:49:THR:HG22	2.18	0.58
22:DA:2096:C:O2'	22:DA:2097:A:H5'	2.04	0.58
57:DB:15:A:C8	57:DB:109:A:N6	2.71	0.58
57:DB:42:C:O2'	57:DB:43:C:C5'	2.50	0.58
25:DD:101:PHE:HE2	25:DD:205:PRO:HD3	1.67	0.58
30:DI:20:SER:OG	30:DI:25:PRO:HG2	2.03	0.58
31:DJ:43:GLU:O	31:DJ:45:THR:N	2.36	0.58
32:DK:13:ASN:HD21	32:DK:97:THR:N	1.99	0.58
35:DN:82:GLU:O	35:DN:85:PRO:HD2	2.03	0.58
36:DO:62:LEU:HD11	36:DO:65:THR:N	2.19	0.58
37:DP:88:ARG:HE	37:DP:112:ARG:HH21	1.52	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DU:45:GLN:HA	42:DU:45:GLN:NE2	2.16	0.58
45:DX:29:LEU:HB2	45:DX:30:PRO:HD2	1.83	0.58
1:AA:57:G:C6	1:AA:356:A:N1	2.72	0.58
1:AA:411:A:H62	1:AA:413:G:N2	2.02	0.58
1:AA:1157:A:C5	1:AA:1180:A:C6	2.92	0.58
12:AL:28:GLN:HB2	12:AL:81:ILE:O	2.03	0.58
13:AM:1:ALA:HB3	13:AM:8:ILE:CG2	2.34	0.58
20:AT:60:GLN:HA	20:AT:60:GLN:NE2	2.18	0.58
22:BA:580:U:H2'	22:BA:581:C:C6	2.34	0.58
22:BA:1104:C:H2'	22:BA:1105:U:C6	2.38	0.58
22:BA:1223:G:P	39:BR:68:ARG:HH12	2.27	0.58
22:BA:1429:G:O2'	22:BA:1430:G:H5'	2.04	0.58
22:BA:2752:C:H2'	22:BA:2753:A:C8	2.37	0.58
29:BH:54:LEU:N	29:BH:57:LYS:HB3	2.17	0.58
34:BM:2:LEU:CD2	34:BM:69:PRO:HD2	2.31	0.58
44:BW:39:GLN:CG	44:BW:41:GLY:H	2.07	0.58
53:CA:140:U:O2	53:CA:183:C:N4	2.36	0.58
53:CA:183:C:O2'	53:CA:184:G:C5'	2.51	0.58
53:CA:328:C:O2	53:CA:328:C:C2'	2.52	0.58
53:CA:996:A:N1	53:CA:1046:A:H5"	2.18	0.58
3:CC:96:VAL:HB	3:CC:97:PRO:HD2	1.84	0.58
4:CD:191:SER:O	4:CD:192:ALA:HB2	2.04	0.58
6:CF:92:THR:HG22	6:CF:93:LYS:N	2.18	0.58
22:DA:271:G:C6	22:DA:272:A:N6	2.72	0.58
22:DA:1038:G:H2'	22:DA:1039:A:H5"	1.81	0.58
22:DA:1237:A:O2'	22:DA:1238:G:H4'	2.03	0.58
22:DA:1398:C:HO2'	22:DA:1399:C:H6	1.50	0.58
22:DA:2629:U:H5"	22:DA:2630:G:OP1	2.04	0.58
25:DD:39:ASP:CG	25:DD:40:LEU:H	2.06	0.58
26:DE:79:ARG:HG2	26:DE:80:SER:N	2.19	0.58
26:DE:149:ILE:HG23	26:DE:188:MET:HB2	1.84	0.58
29:DH:9:VAL:CG1	29:DH:10:ALA:N	2.66	0.58
30:DI:20:SER:N	30:DI:21:PRO:CD	2.66	0.58
34:DM:108:VAL:HG11	34:DM:112:LEU:HD12	1.84	0.58
51:D3:18:LYS:CG	51:D3:19:GLY:N	2.67	0.58
52:D4:1:MET:HB3	52:D4:34:LYS:HE3	1.85	0.58
1:AA:439:U:C2'	1:AA:440:C:C5'	2.77	0.58
1:AA:633:G:HO2'	1:AA:634:C:H5'	1.67	0.58
1:AA:877:G:N2	8:AH:1:SER:HB2	2.13	0.58
1:AA:1055:A:H1'	3:AC:155:ARG:NH2	2.17	0.58
5:AE:11:GLN:HE21	5:AE:11:GLN:CA	2.11	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:42:THR:O	9:AI:43:ALA:HB2	2.04	0.58
9:AI:89:TYR:HB2	9:AI:93:LEU:HD21	1.84	0.58
9:AI:128:LYS:CD	9:AI:129:ARG:H	2.16	0.58
10:AJ:17:LEU:HD21	10:AJ:96:VAL:HG22	1.84	0.58
22:BA:35:G:N2	22:BA:36:G:H1'	2.18	0.58
22:BA:42:A:H2'	22:BA:43:G:H5"	1.84	0.58
22:BA:269:C:H2'	22:BA:270:A:C5'	2.30	0.58
22:BA:796:C:OP1	26:BE:57:LYS:HE2	2.04	0.58
22:BA:1206:G:H2'	22:BA:1207:C:C6	2.38	0.58
22:BA:1438:U:HO2'	22:BA:1439:A:H5'	1.67	0.58
22:BA:2507:C:H5"	22:BA:2508:G:OP2	2.04	0.58
26:BE:72:SER:C	26:BE:74:LYS:H	2.05	0.58
34:BM:21:ALA:CB	34:BM:100:LYS:N	2.67	0.58
35:BN:103:ARG:CD	35:BN:110:MET:CE	2.74	0.58
44:BW:45:HIS:ND1	44:BW:45:HIS:N	2.52	0.58
53:CA:273:U:C2'	53:CA:274:A:H5'	2.33	0.58
53:CA:414:A:H2'	53:CA:415:A:H5"	1.84	0.58
53:CA:451:A:H61	53:CA:481:G:H5'	1.68	0.58
53:CA:878:A:C5	53:CA:879:C:C5	2.91	0.58
53:CA:1296:C:C4	53:CA:1297:G:N2	2.72	0.58
2:CB:184:ALA:O	2:CB:199:ILE:HG12	2.02	0.58
6:CF:99:ALA:O	6:CF:100:SER:CB	2.52	0.58
11:CK:27:ASN:H	11:CK:27:ASN:ND2	1.98	0.58
15:CO:69:LEU:HD13	15:CO:77:TYR:HB2	1.85	0.58
19:CS:36:ARG:O	19:CS:69:LYS:HD2	2.02	0.58
22:DA:155:A:C2	22:DA:172:A:C6	2.92	0.58
22:DA:183:C:O2'	22:DA:432:A:H1'	2.03	0.58
22:DA:691:C:O2'	22:DA:692:C:H5'	2.03	0.58
22:DA:1352:U:C5	22:DA:1377:G:O6	2.56	0.58
22:DA:1521:G:C6	22:DA:1522:A:C6	2.92	0.58
22:DA:1533:C:H2'	22:DA:1534:U:H5'	1.85	0.58
22:DA:1657:U:OP2	25:DD:141:ARG:HG3	2.04	0.58
22:DA:2021:C:O2	22:DA:2021:C:H2'	2.03	0.58
25:DD:107:VAL:HG12	25:DD:109:VAL:CG2	2.32	0.58
58:DF:113:PHE:O	58:DF:114:ARG:CB	2.52	0.58
29:DH:73:ASN:O	29:DH:75:LEU:HD12	2.02	0.58
33:DL:63:LYS:HB3	51:D3:12:ARG:HD2	1.84	0.58
34:DM:94:ALA:O	34:DM:96:ILE:HG23	2.04	0.58
35:DN:47:VAL:C	35:DN:50:PRO:HD2	2.23	0.58
35:DN:90:ARG:CZ	35:DN:116:VAL:HG11	2.32	0.58
36:DO:31:THR:HG21	36:DO:36:TYR:HE2	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DP:9:GLN:HA	37:DP:12:MET:HG3	1.85	0.58
46:DY:21:LEU:HD23	46:DY:25:GLN:CD	2.24	0.58
50:D2:23:ALA:O	50:D2:24:THR:HB	2.03	0.58
1:AA:330:C:H5"	1:AA:330:C:C6	2.38	0.58
1:AA:518:C:H2'	1:AA:530:G:C8	2.39	0.58
1:AA:1305:G:N2	1:AA:1331:G:H2'	2.19	0.58
2:AB:9:LEU:CD2	2:AB:11:ALA:H	2.11	0.58
5:AE:110:MET:HE3	5:AE:139:THR:HG21	1.85	0.58
8:AH:58:LEU:HD13	8:AH:59:GLU:N	2.19	0.58
12:AL:43:LYS:HB2	12:AL:43:LYS:NZ	2.18	0.58
15:AO:16:ARG:O	15:AO:17:ASP:CB	2.52	0.58
16:AP:59:HIS:CE1	16:AP:63:GLN:HE22	2.21	0.58
22:BA:990:A:H8	22:BA:990:A:C5'	2.17	0.58
22:BA:1334:G:O2'	22:BA:1335:C:H5'	2.03	0.58
22:BA:1416:G:O2'	22:BA:1417:C:O5'	2.21	0.58
22:BA:2109:U:H2'	22:BA:2110:G:H5'	1.86	0.58
22:BA:2813:A:H2	22:BA:2887:A:H62	1.49	0.58
23:BB:30:C:C3'	23:BB:31:C:H5'	2.33	0.58
25:BD:151:THR:O	25:BD:152:PRO:C	2.35	0.58
27:BF:42:ALA:HA	27:BF:45:ASP:O	2.04	0.58
29:BH:133:GLN:HA	29:BH:133:GLN:OE1	2.03	0.58
41:BT:26:LYS:O	41:BT:27:SER:HB2	2.03	0.58
41:BT:39:THR:H	41:BT:43:ILE:HG22	1.69	0.58
44:BW:58:LEU:N	44:BW:58:LEU:CD1	2.64	0.58
46:BY:32:ALA:HB2	46:BY:37:LEU:CD1	2.22	0.58
48:B0:9:ARG:CG	48:B0:9:ARG:NH2	2.66	0.58
53:CA:68:G:O2'	53:CA:69:G:O5'	2.12	0.58
53:CA:181:A:H1'	53:CA:182:A:C2	2.39	0.58
53:CA:781:A:C2'	53:CA:782:A:H5'	2.32	0.58
53:CA:963:G:O2'	53:CA:964:A:H5'	2.04	0.58
2:CB:119:GLN:HG2	2:CB:119:GLN:O	2.03	0.58
2:CB:127:LYS:HE3	2:CB:132:GLU:HG3	1.86	0.58
3:CC:149:LYS:HG2	3:CC:167:TYR:O	2.04	0.58
6:CF:67:PRO:O	6:CF:69:GLU:N	2.36	0.58
12:CL:98:ARG:HB2	12:CL:116:TYR:HA	1.86	0.58
55:CM:86:ARG:NH1	55:CM:90:HIS:HD2	2.00	0.58
17:CQ:46:HIS:NE2	17:CQ:48:GLU:HG2	2.18	0.58
17:CQ:58:VAL:HB	17:CQ:74:LEU:CD1	2.34	0.58
22:DA:364:C:H2'	22:DA:365:U:C6	2.38	0.58
22:DA:747:U:H3'	22:DA:748:G:H5"	1.85	0.58
22:DA:788:A:O2'	50:D2:4:THR:HB	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:849:A:H2'	22:DA:850:U:H6	1.69	0.58
22:DA:1087:G:C4	22:DA:1089:A:C2	2.91	0.58
22:DA:1208:C:C2	22:DA:1209:U:C5	2.92	0.58
22:DA:1737:G:C6	22:DA:1738:G:N1	2.72	0.58
22:DA:1760:C:H2'	22:DA:1761:C:O4'	2.04	0.58
22:DA:2550:G:C2	22:DA:2559:C:O2	2.56	0.58
22:DA:2577:A:C2	48:D0:1:ALA:N	2.71	0.58
22:DA:2881:U:H2'	22:DA:2882:A:C8	2.39	0.58
57:DB:78:A:C6	57:DB:99:A:C8	2.92	0.58
25:DD:39:ASP:OD1	25:DD:40:LEU:HD12	2.02	0.58
30:DI:48:ILE:HG13	30:DI:49:GLU:N	2.19	0.58
34:DM:34:LYS:HE2	34:DM:99:GLY:HA2	1.86	0.58
35:DN:9:GLN:HG2	35:DN:10:LEU:O	2.03	0.58
45:DX:76:LYS:HG3	45:DX:77:TYR:N	2.19	0.58
1:AA:198:G:C2'	1:AA:199:A:H8	2.17	0.58
1:AA:547:A:H4'	1:AA:548:G:O5'	2.04	0.58
1:AA:642:A:C5	8:AH:106:SER:HA	2.39	0.58
1:AA:1167:A:C8	1:AA:1169:A:C6	2.92	0.58
6:AF:92:THR:HG22	6:AF:93:LYS:N	2.19	0.58
7:AG:69:ARG:HG3	7:AG:95:ARG:CG	2.32	0.58
13:AM:79:LEU:HD22	13:AM:86:ARG:HB2	1.86	0.58
14:AN:40:ARG:NH2	14:AN:44:VAL:HG21	2.18	0.58
20:AT:33:LYS:HE2	20:AT:33:LYS:CA	2.33	0.58
22:BA:1032:A:H1'	52:B4:23:ILE:CD1	2.33	0.58
22:BA:1497:U:H5"	22:BA:1498:C:OP2	2.04	0.58
22:BA:1965:C:H2'	22:BA:1966:A:C8	2.39	0.58
22:BA:2855:C:O5'	22:BA:2855:C:H6	1.87	0.58
28:BG:60:GLY:O	28:BG:61:TRP:CB	2.50	0.58
29:BH:62:LEU:HD12	29:BH:62:LEU:C	2.23	0.58
33:BL:100:ILE:C	33:BL:100:ILE:HD12	2.24	0.58
37:BP:77:SER:OG	37:BP:79:VAL:HG13	2.04	0.58
41:BT:39:THR:CB	41:BT:42:GLU:HB2	2.21	0.58
53:CA:892:A:C2'	53:CA:893:C:H5'	2.33	0.58
53:CA:1346:A:N6	54:CG:9:ARG:HH22	2.01	0.58
8:CH:59:GLU:C	8:CH:60:LEU:HD12	2.23	0.58
9:CI:96:GLU:HA	9:CI:99:LYS:HE2	1.86	0.58
11:CK:117:HIS:O	11:CK:118:ASN:HB2	2.03	0.58
20:CT:11:ILE:C	20:CT:13:SER:H	2.06	0.58
21:CU:35:GLU:CG	21:CU:36:PHE:N	2.63	0.58
22:DA:339:U:H2'	22:DA:340:A:C8	2.39	0.58
22:DA:1039:A:C5	22:DA:1040:A:C8	2.92	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1049:C:C5	22:DA:1050:A:N7	2.71	0.58
22:DA:1553:A:N7	22:DA:1555:G:C6	2.72	0.58
22:DA:1809:A:C2'	22:DA:1810:A:H8	2.17	0.58
22:DA:2226:C:O2'	22:DA:2227:A:O4'	2.18	0.58
22:DA:2637:U:C2'	22:DA:2638:G:H5'	2.32	0.58
22:DA:2645:G:H3'	22:DA:2646:C:H5"	1.85	0.58
22:DA:2850:A:C6	22:DA:2869:G:H4'	2.39	0.58
24:DC:70:LYS:HB2	24:DC:101:ARG:HH22	1.69	0.58
25:DD:53:GLY:HA3	25:DD:77:ARG:HG3	1.85	0.58
58:DF:45:ASP:OD2	58:DF:47:LYS:HB2	2.04	0.58
29:DH:50:ARG:HG3	29:DH:54:LEU:HG	1.86	0.58
29:DH:96:THR:HG22	29:DH:113:SER:OG	2.02	0.58
30:DI:105:LEU:HD21	30:DI:129:GLU:OE2	2.03	0.58
31:DJ:64:VAL:CG1	31:DJ:65:THR:H	2.17	0.58
33:DL:29:LYS:O	33:DL:30:THR:HG23	2.04	0.58
33:DL:81:ASP:C	33:DL:82:LEU:HD12	2.24	0.58
33:DL:90:VAL:HG12	33:DL:90:VAL:O	2.02	0.58
33:DL:123:ARG:HG2	33:DL:143:GLU:HB3	1.86	0.58
39:DR:31:GLU:HG2	39:DR:32:THR:H	1.69	0.58
41:DT:4:GLU:HG3	41:DT:6:ARG:HH21	1.67	0.58
42:DU:9:GLU:OE1	42:DU:23:LYS:HA	2.04	0.58
42:DU:73:ASN:CB	42:DU:95:PHE:HE2	2.17	0.58
52:D4:7:VAL:HG22	52:D4:25:VAL:CG2	2.33	0.58
1:AA:574:A:H5"	1:AA:575:G:OP2	2.04	0.58
1:AA:1081:A:C2'	1:AA:1082:A:H5'	2.34	0.58
1:AA:1323:G:O2'	1:AA:1324:A:H5'	2.03	0.58
2:AB:58:LYS:HD3	2:AB:58:LYS:C	2.24	0.58
2:AB:67:LEU:HB3	2:AB:160:LEU:HD12	1.85	0.58
4:AD:173:ASP:O	4:AD:174:ALA:CB	2.51	0.58
7:AG:29:LEU:HD23	7:AG:29:LEU:C	2.24	0.58
7:AG:49:LEU:HD13	7:AG:49:LEU:O	2.03	0.58
8:AH:45:ILE:C	8:AH:63:LYS:HD2	2.23	0.58
22:BA:295:G:C2	22:BA:296:U:C5	2.92	0.58
22:BA:1461:C:O2'	22:BA:1462:C:H5'	2.03	0.58
22:BA:1779:U:H2'	62:BA:3683:HOH:O	2.04	0.58
22:BA:1943:U:H4'	22:BA:1944:U:O5'	2.04	0.58
22:BA:2305:U:H2'	22:BA:2306:C:C6	2.39	0.58
24:BC:180:MET:CG	24:BC:268:ARG:NH1	2.63	0.58
26:BE:79:ARG:CG	26:BE:80:SER:H	2.02	0.58
29:BH:2:GLN:C	29:BH:3:VAL:HG13	2.23	0.58
41:BT:57:VAL:HG22	41:BT:58:VAL:N	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:829:G:O2'	2:CB:24:PRO:HG3	2.03	0.58
2:CB:101:THR:O	2:CB:102:ASN:HB2	2.03	0.58
5:CE:79:THR:HG23	5:CE:81:GLN:H	1.68	0.58
54:CG:100:MET:HA	54:CG:103:ILE:CG1	2.34	0.58
9:CI:105:ARG:NH1	9:CI:107:ALA:HA	2.17	0.58
15:CO:66:LEU:HB3	15:CO:77:TYR:HE1	1.68	0.58
18:CR:39:VAL:CG1	18:CR:40:PRO:HD2	2.34	0.58
19:CS:12:LEU:O	19:CS:12:LEU:HD13	2.04	0.58
22:DA:992:C:H4'	39:DR:74:ILE:CD1	2.34	0.58
22:DA:1038:G:C6	22:DA:1118:C:N4	2.72	0.58
22:DA:1379:U:O2	22:DA:1379:U:H2'	2.04	0.58
22:DA:1814:G:C6	22:DA:1815:A:N6	2.72	0.58
22:DA:1997:C:O2'	22:DA:1998:A:C5'	2.51	0.58
22:DA:2063:C:HO2'	22:DA:2064:C:H5'	1.68	0.58
22:DA:2623:G:H4'	22:DA:2825:G:C8	2.37	0.58
22:DA:2721:A:H2'	22:DA:2722:G:C8	2.39	0.58
25:DD:107:VAL:H	25:DD:206:ALA:H	1.52	0.58
25:DD:138:LEU:N	25:DD:138:LEU:HD13	2.19	0.58
26:DE:108:ILE:O	26:DE:112:LEU:HB2	2.03	0.58
58:DF:32:LYS:HD2	58:DF:156:THR:HG21	1.86	0.58
28:DG:22:VAL:HG12	28:DG:23:ILE:N	2.19	0.58
28:DG:84:LYS:O	28:DG:85:LYS:CB	2.52	0.58
32:DK:104:THR:C	32:DK:106:GLU:H	2.07	0.58
37:DP:48:ALA:HB3	37:DP:59:THR:OG1	2.03	0.58
37:DP:91:VAL:HG21	37:DP:96:LEU:HD21	1.86	0.58
37:DP:102:ARG:HB2	37:DP:107:ALA:HB2	1.85	0.58
40:DS:95:ARG:HG3	40:DS:97:LEU:HD22	1.85	0.58
46:DY:17:GLU:OE1	46:DY:53:VAL:HB	2.03	0.58
1:AA:1142:G:H2'	1:AA:1143:G:O4'	2.04	0.58
1:AA:1322:C:HO2'	1:AA:1323:G:P	2.26	0.58
4:AD:64:TYR:CE1	4:AD:93:LEU:HD13	2.39	0.58
9:AI:10:ARG:HB2	9:AI:14:SER:O	2.03	0.58
12:AL:33:CYS:CA	12:AL:54:VAL:HA	2.28	0.58
13:AM:105:ALA:O	13:AM:109:LYS:HB2	2.03	0.58
15:AO:32:THR:HG21	15:AO:84:LEU:HG	1.86	0.58
15:AO:57:ARG:HB3	15:AO:57:ARG:NH1	2.19	0.58
17:AQ:48:GLU:HA	17:AQ:48:GLU:OE1	2.02	0.58
17:AQ:60:ILE:CG2	17:AQ:72:TRP:HE3	2.16	0.58
22:BA:28:A:C2	22:BA:513:A:C8	2.92	0.58
22:BA:42:A:C3'	22:BA:43:G:H5"	2.34	0.58
22:BA:811:U:C2	22:BA:1251:C:C5	2.92	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1728:C:O2'	22:BA:1729:U:C6	2.56	0.58
22:BA:1789:A:OP2	24:BC:220:ARG:NH1	2.36	0.58
22:BA:2023:C:H5"	22:BA:2023:C:C6	2.38	0.58
22:BA:2454:G:C2'	22:BA:2455:G:H5'	2.34	0.58
22:BA:2680:U:OP2	25:BD:114:LYS:HE2	2.03	0.58
22:BA:2798:U:OP2	22:BA:2798:U:H2'	2.03	0.58
25:BD:151:THR:CB	25:BD:152:PRO:HD3	2.34	0.58
25:BD:182:ALA:O	25:BD:183:GLU:C	2.43	0.58
27:BF:168:LEU:HD12	27:BF:168:LEU:C	2.23	0.58
28:BG:83:THR:C	28:BG:84:LYS:HD3	2.25	0.58
30:BI:48:ILE:HG13	30:BI:49:GLU:H	1.68	0.58
31:BJ:58:ASN:HD21	31:BJ:128:ASN:HB2	1.69	0.58
38:BQ:57:ARG:HA	38:BQ:60:TRP:CE3	2.39	0.58
41:BT:39:THR:CG2	41:BT:39:THR:O	2.51	0.58
53:CA:84:U:H3	53:CA:87:C:H1'	1.69	0.58
53:CA:704:A:C2'	53:CA:705:G:C8	2.87	0.58
53:CA:1161:C:O2	53:CA:1176:A:C2	2.56	0.58
53:CA:1206:G:H4'	3:CC:191:THR:O	2.03	0.58
53:CA:1319:A:H5"	19:CS:4:LEU:CD1	2.33	0.58
22:DA:116:C:O2'	22:DA:117:G:H5'	2.03	0.58
22:DA:135:U:H2'	22:DA:136:G:C8	2.38	0.58
22:DA:564:C:O2'	22:DA:565:C:H5'	2.04	0.58
22:DA:936:A:O2'	22:DA:937:C:H5'	2.04	0.58
22:DA:1054:A:C4	22:DA:1055:G:H1'	2.39	0.58
22:DA:1558:C:H1'	22:DA:1560:G:N7	2.19	0.58
22:DA:1616:A:OP1	22:DA:1616:A:H8	1.86	0.58
22:DA:1825:U:OP1	24:DC:246:PRO:HG3	2.04	0.58
22:DA:2418:A:OP1	51:D3:44:ARG:HD3	2.04	0.58
22:DA:2648:G:H2'	22:DA:2649:C:O4'	2.04	0.58
22:DA:2691:C:O2'	22:DA:2692:G:H5'	2.03	0.58
24:DC:170:TYR:HD2	24:DC:183:VAL:O	1.86	0.58
58:DF:147:ARG:HD2	58:DF:147:ARG:H	1.69	0.58
32:DK:40:LYS:NZ	32:DK:89:ASN:HD21	2.02	0.58
38:DQ:79:ILE:HD13	38:DQ:79:ILE:O	2.02	0.58
49:D1:34:GLU:HG3	49:D1:49:LYS:CB	2.34	0.58
1:AA:73:C:O2'	1:AA:74:A:C5'	2.52	0.57
1:AA:109:A:H3'	1:AA:110:C:H5'	1.85	0.57
1:AA:1151:A:H5"	10:AJ:44:THR:OG1	2.03	0.57
1:AA:1171:A:C2	1:AA:1172:C:C2	2.92	0.57
1:AA:1305:G:H21	1:AA:1332:A:H2	1.52	0.57
1:AA:1306:A:C2'	1:AA:1307:U:H5'	2.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1428:A:H2'	1:AA:1429:A:O4'	2.02	0.57
2:AB:59:ILE:HD12	2:AB:59:ILE:C	2.24	0.57
3:AC:56:ILE:HG12	3:AC:65:VAL:HG22	1.86	0.57
6:AF:38:ARG:HB3	6:AF:63:ASN:HB2	1.85	0.57
8:AH:98:LEU:HD23	8:AH:98:LEU:N	2.17	0.57
17:AQ:14:ASP:O	17:AQ:16:MET:HG2	2.04	0.57
22:BA:1416:G:O2'	22:BA:1417:C:C5'	2.52	0.57
22:BA:1655:A:N6	22:BA:2005:A:H1'	2.18	0.57
22:BA:1857:G:O2'	22:BA:1858:A:P	2.61	0.57
22:BA:1867:G:H2'	22:BA:1868:C:H5'	1.84	0.57
22:BA:2244:U:O2'	22:BA:2245:U:H5'	2.04	0.57
22:BA:2292:U:O2'	22:BA:2293:G:H5'	2.04	0.57
22:BA:2312:U:O2'	22:BA:2313:C:H5'	2.04	0.57
22:BA:2808:G:C2	22:BA:2891:U:C6	2.92	0.57
23:BB:41:G:H3'	23:BB:42:C:C5'	2.33	0.57
24:BC:49:THR:HG22	24:BC:50:THR:N	2.18	0.57
27:BF:72:SER:HB2	27:BF:80:GLN:N	2.18	0.57
27:BF:127:TYR:O	27:BF:128:SER:CB	2.52	0.57
36:BO:6:ALA:O	36:BO:10:ARG:HB2	2.04	0.57
45:BX:46:VAL:HG11	45:BX:77:TYR:CE1	2.39	0.57
50:B2:34:ARG:HH12	50:B2:39:ARG:HG2	1.67	0.57
53:CA:116:A:H2'	53:CA:117:G:C8	2.39	0.57
53:CA:164:G:H2'	53:CA:165:G:H5'	1.85	0.57
53:CA:344:A:H5"	53:CA:345:C:H5	1.68	0.57
53:CA:542:G:O2'	53:CA:543:U:H5'	2.04	0.57
53:CA:936:C:HO2'	53:CA:937:A:H8	0.71	0.57
53:CA:990:C:C2'	53:CA:991:U:O4'	2.49	0.57
53:CA:1416:G:C2'	53:CA:1417:G:H5'	2.34	0.57
53:CA:1513:A:H2'	53:CA:1514:G:H8	1.67	0.57
3:CC:133:MET:HE3	3:CC:152:VAL:HG13	1.85	0.57
11:CK:63:GLN:HB2	11:CK:98:ALA:CB	2.33	0.57
11:CK:94:SER:O	11:CK:97:ARG:HB2	2.04	0.57
11:CK:107:THR:HG22	11:CK:108:ASN:N	2.18	0.57
17:CQ:59:GLU:HG3	17:CQ:59:GLU:O	2.04	0.57
21:CU:19:LYS:N	21:CU:19:LYS:NZ	2.52	0.57
22:DA:185:G:C5	22:DA:212:G:N2	2.71	0.57
22:DA:460:A:H5"	41:DT:72:GLN:O	2.03	0.57
22:DA:460:A:C6	22:DA:470:A:C8	2.92	0.57
22:DA:479:A:H4'	22:DA:480:A:O5'	2.03	0.57
22:DA:502:A:C5	22:DA:505:A:N7	2.72	0.57
22:DA:510:C:H6	22:DA:510:C:O5'	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:664:G:O2'	22:DA:665:U:H5'	2.03	0.57
22:DA:813:U:C6	22:DA:1195:G:N2	2.72	0.57
22:DA:1208:C:O2'	22:DA:1209:U:H5'	2.04	0.57
22:DA:1352:U:H5	22:DA:1377:G:C6	2.20	0.57
22:DA:1635:A:H5'	22:DA:1635:A:C8	2.38	0.57
22:DA:1682:G:O2'	22:DA:1683:U:C6	2.53	0.57
22:DA:2361:G:H2'	22:DA:2362:C:H6	1.69	0.57
22:DA:2635:A:H5"	25:DD:79:LEU:O	2.04	0.57
24:DC:147:PRO:HA	24:DC:187:CYS:HB3	1.85	0.57
29:DH:84:ALA:CB	29:DH:148:ALA:HA	2.34	0.57
33:DL:56:PRO:O	33:DL:60:ARG:HG3	2.03	0.57
36:DO:71:ALA:CB	36:DO:102:ARG:HB3	2.33	0.57
37:DP:88:ARG:NH1	37:DP:112:ARG:HH21	2.01	0.57
40:DS:53:SER:O	40:DS:56:ALA:HB3	2.04	0.57
48:D0:37:HIS:HB3	48:D0:43:THR:HG22	1.84	0.57
49:D1:29:LYS:HE2	49:D1:31:GLU:OE2	2.04	0.57
1:AA:729:A:H2'	1:AA:730:G:O4'	2.04	0.57
1:AA:790:A:H2'	1:AA:791:G:C8	2.40	0.57
1:AA:1123:U:O3'	10:AJ:38:GLY:HA3	2.03	0.57
1:AA:1501:C:C5	1:AA:1504:G:C4	2.93	0.57
7:AG:25:PHE:HA	7:AG:100:MET:HE3	1.86	0.57
8:AH:95:MET:HB2	8:AH:98:LEU:O	2.03	0.57
14:AN:20:PHE:HA	14:AN:24:ALA:HB3	1.86	0.57
20:AT:55:PRO:HG2	20:AT:56:ILE:H	1.70	0.57
20:AT:82:ILE:HD12	20:AT:82:ILE:C	2.24	0.57
22:BA:550:C:H2'	22:BA:550:C:O2	2.03	0.57
22:BA:662:G:H2'	22:BA:663:G:H5'	1.85	0.57
22:BA:875:G:H2'	22:BA:876:C:H5'	1.85	0.57
22:BA:960:A:N7	22:BA:962:G:C8	2.72	0.57
22:BA:996:A:C2	22:BA:997:G:C8	2.92	0.57
22:BA:1725:U:H2'	22:BA:1726:C:C6	2.38	0.57
22:BA:1858:A:H2'	22:BA:1859:U:C6	2.39	0.57
22:BA:2006:C:O5'	22:BA:2006:C:H6	1.87	0.57
22:BA:2063:C:C2'	22:BA:2064:C:H5'	2.35	0.57
22:BA:2150:C:O2'	22:BA:2151:U:C6	2.53	0.57
26:BE:119:ILE:HD11	26:BE:187:VAL:CA	2.27	0.57
32:BK:113:MET:O	32:BK:116:ILE:HG13	2.04	0.57
33:BL:57:LEU:HD11	33:BL:61:LEU:HD21	1.85	0.57
34:BM:1:MET:O	34:BM:2:LEU:CB	2.52	0.57
34:BM:62:LYS:HD3	34:BM:64:TRP:CZ2	2.39	0.57
41:BT:68:LYS:O	41:BT:69:ARG:O	2.22	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BT:73:ARG:NH2	41:BT:74:ILE:H	2.02	0.57
43:BV:61:LEU:O	43:BV:71:LYS:HA	2.04	0.57
44:BW:24:ARG:HD2	44:BW:25:PHE:CA	2.33	0.57
46:BY:18:LEU:HD13	46:BY:22:LEU:HB2	1.85	0.57
53:CA:295:C:C4	53:CA:296:U:C5	2.92	0.57
53:CA:362:G:OP1	12:CL:57:THR:CG2	2.52	0.57
53:CA:769:G:H4'	53:CA:1513:A:H4'	1.84	0.57
53:CA:994:A:C6	53:CA:1216:A:C5'	2.87	0.57
53:CA:1226:C:C4	55:CM:102:LYS:HA	2.38	0.57
54:CG:91:ARG:NE	54:CG:92:PRO:HD2	2.19	0.57
9:CI:51:LEU:C	9:CI:53:LEU:H	2.08	0.57
55:CM:12:LYS:HE3	55:CM:12:LYS:CA	2.27	0.57
15:CO:69:LEU:HD13	15:CO:69:LEU:O	2.04	0.57
17:CQ:29:LYS:HE2	17:CQ:36:PHE:CE1	2.39	0.57
17:CQ:68:LYS:C	17:CQ:69:THR:HG23	2.24	0.57
18:CR:25:ILE:O	18:CR:25:ILE:HG13	2.04	0.57
22:DA:143:C:O2'	22:DA:144:A:O4'	2.21	0.57
22:DA:227:A:H61	22:DA:410:G:H1'	1.69	0.57
22:DA:300:A:C5	22:DA:334:C:H4'	2.38	0.57
22:DA:803:U:C2'	22:DA:804:A:H5'	2.34	0.57
22:DA:807:U:H1'	22:DA:2445:G:H5'	1.85	0.57
22:DA:1328:A:H3'	22:DA:1330:C:H41	1.67	0.57
22:DA:1437:C:H2'	22:DA:1438:U:C6	2.40	0.57
22:DA:1439:A:C8	22:DA:1439:A:H3'	2.39	0.57
22:DA:1800:C:C2	22:DA:1802:A:C8	2.93	0.57
22:DA:2331:G:H1'	44:DW:40:ARG:CB	2.34	0.57
22:DA:2577:A:H2	48:D0:1:ALA:N	2.01	0.57
22:DA:2746:U:H1'	28:DG:138:GLN:HE21	1.69	0.57
26:DE:147:LEU:HB3	26:DE:186:VAL:HG23	1.85	0.57
32:DK:107:LEU:C	32:DK:109:SER:H	2.07	0.57
35:DN:65:LEU:H	35:DN:65:LEU:HD12	1.68	0.57
37:DP:30:TRP:HD1	37:DP:39:LEU:HD12	1.68	0.57
37:DP:54:LEU:HA	37:DP:76:HIS:CD2	2.39	0.57
42:DU:91:LYS:O	42:DU:92:VAL:HG22	2.04	0.57
51:D3:31:ILE:HG21	51:D3:34:LYS:NZ	2.19	0.57
1:AA:701:U:O2	1:AA:701:U:C2'	2.52	0.57
1:AA:862:C:H2'	1:AA:863:U:H5'	1.85	0.57
3:AC:146:LYS:HB2	3:AC:202:PHE:CD2	2.39	0.57
4:AD:113:ALA:O	4:AD:116:LEU:HB2	2.04	0.57
5:AE:59:ILE:C	5:AE:59:ILE:HD12	2.23	0.57
6:AF:38:ARG:HH11	6:AF:38:ARG:HG2	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:39:ALA:HB3	13:AM:42:VAL:CG2	2.34	0.57
22:BA:189:G:OP1	45:BX:25:LYS:HD2	2.04	0.57
22:BA:479:A:HO2'	22:BA:481:G:H5'	1.69	0.57
22:BA:1374:G:C5	22:BA:1375:U:C5	2.92	0.57
22:BA:1655:A:H5'	25:BD:118:PHE:CD2	2.39	0.57
22:BA:1731:G:C4	22:BA:1733:G:N7	2.72	0.57
22:BA:2051:A:OP2	62:BA:3480:HOH:O	2.17	0.57
22:BA:2134:A:C6	22:BA:2135:A:N6	2.72	0.57
22:BA:2407:A:H2'	22:BA:2408:U:C6	2.40	0.57
22:BA:2429:G:P	62:BA:3692:HOH:O	2.62	0.57
22:BA:2840:C:H2'	22:BA:2841:C:C6	2.38	0.57
34:BM:69:PRO:HA	34:BM:94:ALA:HB2	1.85	0.57
35:BN:117:ASP:O	35:BN:118:ARG:CB	2.52	0.57
36:BO:2:ASP:O	36:BO:3:LYS:CB	2.52	0.57
36:BO:31:THR:CG2	36:BO:34:HIS:N	2.64	0.57
37:BP:24:THR:HG21	37:BP:87:ARG:HB3	1.87	0.57
41:BT:39:THR:CG2	41:BT:42:GLU:H	2.18	0.57
43:BV:80:HIS:HD2	43:BV:83:LYS:CB	2.17	0.57
53:CA:72:A:OP1	53:CA:72:A:H4'	2.02	0.57
53:CA:109:A:C8	53:CA:327:A:O4'	2.58	0.57
4:CD:53:GLN:CB	4:CD:202:LEU:HD12	2.34	0.57
55:CM:13:HIS:HB3	55:CM:16:ILE:CB	2.34	0.57
55:CM:113:LYS:OXT	55:CM:113:LYS:HD3	2.03	0.57
22:DA:100:U:H1'	22:DA:101:A:N7	2.20	0.57
22:DA:117:G:C6	22:DA:119:A:C6	2.92	0.57
22:DA:136:G:N2	22:DA:144:A:C2	2.72	0.57
22:DA:396:G:O2'	22:DA:397:U:C6	2.53	0.57
22:DA:489:G:C5	22:DA:491:G:C5	2.92	0.57
22:DA:532:A:N3	22:DA:532:A:H2'	2.19	0.57
22:DA:560:C:H1'	38:DQ:47:ARG:NH1	2.19	0.57
22:DA:1062:G:H8	22:DA:1070:A:OP2	1.88	0.57
22:DA:1213:A:O2'	22:DA:1214:A:C5'	2.51	0.57
22:DA:1329:U:O2'	22:DA:1330:C:P	2.62	0.57
22:DA:1340:U:HO2'	22:DA:1341:G:P	2.27	0.57
22:DA:1427:A:C2	22:DA:1570:A:OP2	2.58	0.57
22:DA:1685:C:O2'	22:DA:1686:C:H5'	2.04	0.57
22:DA:1847:A:O2'	22:DA:1848:A:H8	1.81	0.57
22:DA:2426:A:H3'	22:DA:2427:C:H5'	1.86	0.57
22:DA:2456:C:C2'	22:DA:2457:U:H5'	2.34	0.57
22:DA:2599:G:OP2	24:DC:234:GLY:HA2	2.04	0.57
24:DC:119:VAL:HG13	24:DC:133:ASN:ND2	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DD:137:SER:CA	25:DD:138:LEU:HD22	2.34	0.57
26:DE:148:ILE:HD13	26:DE:187:VAL:CG2	2.08	0.57
28:DG:116:LEU:HD13	28:DG:120:ILE:O	2.04	0.57
30:DI:112:LYS:NZ	30:DI:128:ILE:HD12	2.19	0.57
31:DJ:64:VAL:CG1	31:DJ:65:THR:N	2.67	0.57
37:DP:1:SER:OG	37:DP:4:ILE:HD12	2.04	0.57
44:DW:23:LYS:CD	44:DW:24:ARG:N	2.61	0.57
46:DY:31:GLN:C	46:DY:33:ALA:H	2.07	0.57
50:D2:5:PHE:HZ	50:D2:12:ARG:NH1	2.02	0.57
1:AA:8:A:N6	4:AD:201:GLU:O	2.37	0.57
1:AA:858:G:C2'	1:AA:859:G:H5'	2.34	0.57
1:AA:895:G:H2'	1:AA:896:C:H6	1.70	0.57
1:AA:1039:G:O2'	1:AA:1040:U:H5'	2.03	0.57
1:AA:1367:C:H5'	10:AJ:62:ARG:NH1	2.20	0.57
4:AD:1:ALA:O	4:AD:67:LEU:CD1	2.52	0.57
4:AD:104:MET:CG	4:AD:170:LEU:HD22	2.32	0.57
6:AF:11:HIS:HD2	6:AF:13:ASP:H	1.52	0.57
7:AG:108:ARG:HH21	7:AG:118:ARG:HH22	1.50	0.57
8:AH:31:LEU:HD12	8:AH:31:LEU:O	2.04	0.57
13:AM:89:ARG:HB3	13:AM:96:VAL:HG22	1.86	0.57
16:AP:48:GLU:CG	16:AP:49:GLY:N	2.66	0.57
20:AT:67:HIS:HB3	20:AT:68:LYS:HZ2	1.68	0.57
22:BA:28:A:C5	22:BA:513:A:N7	2.72	0.57
22:BA:114:U:H2'	22:BA:115:C:C6	2.39	0.57
22:BA:616:A:O2'	22:BA:617:G:C5'	2.51	0.57
22:BA:1078:U:H4'	22:BA:1079:C:C6	2.38	0.57
22:BA:1754:A:C6	22:BA:1755:A:C6	2.93	0.57
22:BA:2188:U:O2'	22:BA:2189:U:H5'	2.03	0.57
22:BA:2394:C:OP2	51:B3:29:ARG:HD3	2.03	0.57
22:BA:2748:A:O3'	28:BG:3:VAL:HG11	2.04	0.57
22:BA:2828:G:O2'	22:BA:2829:A:H5'	2.04	0.57
23:BB:24:G:N7	23:BB:56:G:H2'	2.17	0.57
26:BE:23:PHE:CZ	26:BE:28:VAL:HG11	2.39	0.57
27:BF:34:THR:CG2	27:BF:89:THR:HG23	2.31	0.57
30:BI:53:PRO:O	30:BI:74:PRO:HD2	2.04	0.57
33:BL:40:SER:O	33:BL:41:ARG:HB2	2.03	0.57
33:BL:79:LEU:HB2	33:BL:114:GLY:O	2.03	0.57
33:BL:116:VAL:O	33:BL:116:VAL:HG13	2.04	0.57
38:BQ:63:ARG:HD2	38:BQ:63:ARG:C	2.24	0.57
44:BW:30:VAL:HG23	44:BW:59:PHE:HD1	1.70	0.57
53:CA:9:G:H2'	53:CA:10:A:H8	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:72:A:H61	53:CA:99:C:H1'	1.69	0.57
53:CA:220:G:O2'	53:CA:221:C:H5'	2.03	0.57
5:CE:37:VAL:HG12	5:CE:38:VAL:N	2.20	0.57
6:CF:43:GLY:HA2	6:CF:58:HIS:ND1	2.19	0.57
54:CG:41:ILE:HG21	54:CG:115:MET:HE3	1.84	0.57
9:CI:74:GLN:O	9:CI:78:ILE:HG13	2.04	0.57
10:CJ:11:LYS:HB3	10:CJ:71:LEU:CD1	2.34	0.57
22:DA:28:A:O2'	22:DA:29:U:C5'	2.49	0.57
22:DA:391:A:O2'	22:DA:392:U:C5'	2.52	0.57
22:DA:529:A:C8	22:DA:2023:C:N4	2.72	0.57
22:DA:571:U:C5	22:DA:575:A:C6	2.92	0.57
22:DA:585:G:C2'	22:DA:1254:A:H61	2.17	0.57
22:DA:648:G:H2'	22:DA:649:G:H8	1.69	0.57
22:DA:999:U:H2'	22:DA:1000:A:H5'	1.85	0.57
22:DA:1417:C:H4'	22:DA:1587:G:N2	2.19	0.57
22:DA:1490:A:N3	22:DA:1490:A:H5'	2.18	0.57
22:DA:2015:A:C5	48:D0:2:VAL:HG11	2.39	0.57
22:DA:2234:G:C5	22:DA:2235:G:C8	2.92	0.57
22:DA:2345:G:C6	22:DA:2347:C:N4	2.71	0.57
22:DA:2443:C:O2'	22:DA:2444:G:H5'	2.04	0.57
57:DB:96:G:C5	57:DB:97:C:C5	2.92	0.57
24:DC:76:VAL:O	24:DC:76:VAL:HG23	2.04	0.57
29:DH:68:ARG:O	29:DH:68:ARG:HD2	2.05	0.57
30:DI:102:ARG:HG2	30:DI:141:ASP:O	2.04	0.57
32:DK:14:SER:OG	32:DK:51:LYS:N	2.37	0.57
35:DN:5:LYS:CG	35:DN:6:SER:H	2.17	0.57
37:DP:25:VAL:HA	37:DP:85:VAL:HA	1.84	0.57
39:DR:37:GLU:HB2	39:DR:53:PHE:CD2	2.40	0.57
40:DS:13:SER:O	40:DS:17:VAL:HG23	2.05	0.57
43:DV:51:GLN:HA	43:DV:56:PHE:CD2	2.39	0.57
52:D4:7:VAL:CG2	52:D4:25:VAL:HG23	2.34	0.57
1:AA:275:G:HO2'	1:AA:276:G:H5'	1.67	0.57
1:AA:397:A:N7	1:AA:547:A:O2'	2.35	0.57
1:AA:497:G:N2	1:AA:498:A:C6	2.73	0.57
1:AA:1001:C:H2'	1:AA:1002:G:H8	1.70	0.57
3:AC:155:ARG:HG2	3:AC:159:ALA:O	2.05	0.57
5:AE:59:ILE:O	5:AE:62:ALA:HB3	2.04	0.57
12:AL:45:ASN:N	12:AL:45:ASN:HD22	2.01	0.57
12:AL:115:LYS:O	12:AL:116:TYR:CB	2.53	0.57
17:AQ:25:GLU:HA	17:AQ:25:GLU:OE1	2.05	0.57
17:AQ:71:SER:O	17:AQ:72:TRP:CD1	2.58	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:137:U:C5	22:BA:137:U:OP2	2.57	0.57
22:BA:192:C:O5'	22:BA:192:C:H6	1.86	0.57
22:BA:960:A:C8	22:BA:962:G:C8	2.92	0.57
22:BA:996:A:H4'	38:BQ:91:ARG:HG2	1.85	0.57
22:BA:2364:C:O2'	22:BA:2365:G:H5'	2.04	0.57
22:BA:2672:U:H2'	22:BA:2673:G:O5'	2.05	0.57
23:BB:49:C:OP1	36:BO:101:GLY:HA3	2.04	0.57
28:BG:117:PRO:HD2	28:BG:120:ILE:CG2	2.34	0.57
32:BK:71:ARG:HB3	32:BK:72:PRO:CD	2.30	0.57
34:BM:68:PHE:C	34:BM:68:PHE:CD2	2.78	0.57
35:BN:57:THR:HG22	35:BN:57:THR:O	2.05	0.57
46:BY:6:LEU:O	46:BY:7:ARG:HB3	2.05	0.57
53:CA:66:A:N6	53:CA:67:C:N4	2.52	0.57
53:CA:257:G:C2	53:CA:270:A:N1	2.73	0.57
53:CA:280:C:H4'	53:CA:281:G:OP2	2.04	0.57
53:CA:1239:A:H3'	54:CG:118:ARG:NH2	2.19	0.57
53:CA:1319:A:H5"	19:CS:4:LEU:HD11	1.85	0.57
53:CA:1370:G:C5'	9:CI:110:VAL:HG21	2.35	0.57
11:CK:78:ILE:H	11:CK:78:ILE:CD1	2.02	0.57
22:DA:340:A:H2'	22:DA:341:C:O4'	2.04	0.57
22:DA:404:A:N3	22:DA:406:G:C6	2.73	0.57
22:DA:558:U:OP2	31:DJ:113:PRO:HG2	2.04	0.57
22:DA:659:G:C5'	26:DE:95:LYS:HD2	2.34	0.57
22:DA:673:C:H5"	26:DE:75:SER:HB2	1.85	0.57
22:DA:1055:G:H2'	22:DA:1056:G:H5'	1.85	0.57
22:DA:2443:C:C2'	22:DA:2444:G:H5'	2.34	0.57
22:DA:2574:G:O2'	25:DD:148:GLN:HB2	2.05	0.57
22:DA:2635:A:H5'	25:DD:79:LEU:HB2	1.87	0.57
35:DN:33:ILE:HD13	35:DN:118:ARG:NH2	2.19	0.57
36:DO:25:ARG:HB3	36:DO:93:ASP:HB2	1.85	0.57
38:DQ:8:ILE:HG12	38:DQ:8:ILE:O	2.05	0.57
41:DT:45:ALA:HA	41:DT:48:GLN:HG2	1.85	0.57
44:DW:45:HIS:HB3	44:DW:58:LEU:HD11	1.87	0.57
1:AA:516:U:O2'	1:AA:517:G:H5'	2.05	0.57
1:AA:1049:U:H4'	1:AA:1050:G:OP2	2.04	0.57
1:AA:1180:A:H5"	1:AA:1181:G:OP2	2.05	0.57
1:AA:1381:U:HO2'	1:AA:1382:C:H6	1.52	0.57
1:AA:1432:G:O2'	1:AA:1433:A:OP2	2.22	0.57
4:AD:96:ARG:HB3	4:AD:98:ASP:OD1	2.04	0.57
4:AD:97:LEU:HD22	4:AD:117:VAL:HG11	1.86	0.57
13:AM:3:ILE:HA	13:AM:56:ARG:CZ	2.33	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:78:VAL:HG22	16:AP:78:VAL:O	2.04	0.57
22:BA:62:U:C4'	22:BA:63:A:OP1	2.53	0.57
22:BA:141:G:N1	41:BT:2:ILE:CG2	2.67	0.57
22:BA:182:A:C6	22:BA:183:C:C4	2.93	0.57
22:BA:580:U:O3'	38:BQ:30:VAL:HG13	2.04	0.57
22:BA:1061:U:H3'	22:BA:1062:G:C5'	2.34	0.57
22:BA:1249:U:H5'	22:BA:1249:U:H6	1.69	0.57
22:BA:1286:A:O2'	22:BA:1288:G:OP2	2.21	0.57
22:BA:2136:G:C2'	22:BA:2137:U:C5	2.87	0.57
22:BA:2233:U:H2'	22:BA:2234:G:H8	1.68	0.57
22:BA:2264:C:H41	44:BW:11:ASN:ND2	2.02	0.57
22:BA:2365:G:C2'	22:BA:2366:A:C8	2.88	0.57
22:BA:2555:U:H5"	22:BA:2556:C:OP2	2.05	0.57
25:BD:51:THR:OG1	25:BD:76:GLY:HA3	2.03	0.57
26:BE:194:LYS:O	26:BE:197:GLU:HB3	2.04	0.57
29:BH:41:LYS:HA	29:BH:44:ILE:HG12	1.87	0.57
31:BJ:49:ASP:OD1	31:BJ:121:LYS:HE2	2.04	0.57
37:BP:33:GLU:HB2	37:BP:38:ARG:HH11	1.70	0.57
42:BU:27:VAL:HG22	42:BU:28:LEU:H	1.70	0.57
42:BU:35:VAL:HG12	42:BU:38:ILE:CG1	2.35	0.57
49:B1:42:VAL:CG1	49:B1:44:GLN:HB2	2.34	0.57
53:CA:571:U:H5"	53:CA:572:A:OP2	2.04	0.57
53:CA:1005:A:C4	53:CA:1006:G:H1'	2.39	0.57
53:CA:1049:U:H4'	53:CA:1050:G:OP2	2.04	0.57
53:CA:1363:A:C5	53:CA:1365:G:C6	2.92	0.57
3:CC:133:MET:HB2	3:CC:150:VAL:HG21	1.85	0.57
10:CJ:42:LEU:HD22	10:CJ:71:LEU:HD23	1.84	0.57
11:CK:126:ARG:HA	11:CK:126:ARG:HE	1.69	0.57
12:CL:89:LEU:CB	12:CL:92:VAL:HG21	2.34	0.57
56:CP:26:ASN:OD1	56:CP:31:ARG:HB3	2.05	0.57
22:DA:345:A:O2'	22:DA:346:A:C2	2.58	0.57
22:DA:480:A:H3'	22:DA:481:G:H5"	1.84	0.57
22:DA:627:A:O2'	22:DA:628:G:O5'	2.23	0.57
22:DA:716:A:H3'	22:DA:717:C:H5"	1.85	0.57
22:DA:730:A:H2'	22:DA:731:C:C6	2.39	0.57
22:DA:1008:A:OP1	22:DA:1008:A:H8	1.88	0.57
22:DA:1075:C:O2'	22:DA:1076:C:H6	1.87	0.57
22:DA:1544:A:C6	22:DA:1545:A:C6	2.92	0.57
22:DA:1638:C:H4'	22:DA:2710:C:O2	2.05	0.57
22:DA:1857:G:C4	22:DA:1884:G:N1	2.72	0.57
22:DA:2296:U:C4'	22:DA:2297:A:OP1	2.30	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2548:U:H2'	22:DA:2549:G:O4'	2.05	0.57
22:DA:2757:A:OP1	52:D4:20:ASP:N	2.38	0.57
25:DD:118:PHE:CG	25:DD:119:ALA:N	2.72	0.57
58:DF:103:ILE:HD12	58:DF:103:ILE:N	2.20	0.57
28:DG:94:ARG:NH2	28:DG:111:PRO:HB3	2.20	0.57
44:DW:9:THR:HG23	44:DW:10:ARG:N	2.19	0.57
44:DW:43:LYS:HD2	44:DW:79:ILE:HD11	1.86	0.57
45:DX:26:ARG:HG3	45:DX:27:ARG:N	2.18	0.57
45:DX:63:ILE:CD1	45:DX:64:ASP:N	2.61	0.57
49:D1:5:ARG:HD2	49:D1:25:ASN:HB2	1.86	0.57
1:AA:337:G:O2'	1:AA:338:A:H5'	2.05	0.57
1:AA:620:C:H2'	1:AA:621:A:O4'	2.04	0.57
1:AA:844:G:H2'	1:AA:844:G:N3	2.19	0.57
1:AA:1241:G:HO2'	1:AA:1242:G:H8	1.51	0.57
5:AE:108:GLY:O	5:AE:109:ALA:HB3	2.05	0.57
5:AE:152:VAL:HA	5:AE:155:LYS:NZ	2.19	0.57
5:AE:155:LYS:CB	8:AH:70:VAL:HG13	2.34	0.57
8:AH:46:GLU:O	8:AH:47:ASP:HB3	2.05	0.57
10:AJ:87:LEU:HD13	10:AJ:88:MET:N	2.19	0.57
13:AM:15:VAL:HA	13:AM:33:LEU:CD1	2.34	0.57
18:AR:70:THR:OG1	18:AR:72:ARG:HG2	2.05	0.57
22:BA:637:A:H4'	22:BA:638:G:O5'	2.05	0.57
22:BA:1027:A:N1	22:BA:1126:A:H1'	2.19	0.57
22:BA:1083:U:H2'	22:BA:1084:A:O5'	2.05	0.57
22:BA:1277:G:H4'	35:BN:20:MET:HE2	1.86	0.57
22:BA:1579:A:O2'	22:BA:1580:A:H5'	2.04	0.57
22:BA:1922:G:H2'	22:BA:1923:U:O4'	2.05	0.57
22:BA:2765:A:N3	22:BA:2765:A:C2'	2.67	0.57
22:BA:2817:U:O2	22:BA:2836:U:H1'	2.05	0.57
26:BE:73:ILE:O	26:BE:73:ILE:HG12	2.03	0.57
28:BG:168:VAL:HG23	28:BG:168:VAL:O	2.04	0.57
35:BN:61:ALA:O	35:BN:64:ARG:HB2	2.05	0.57
37:BP:92:ARG:HH11	37:BP:92:ARG:HB2	1.69	0.57
52:B4:26:ILE:HD13	52:B4:26:ILE:N	2.19	0.57
53:CA:895:G:C5	53:CA:896:C:C5	2.93	0.57
53:CA:914:A:O2'	53:CA:915:A:O4'	2.19	0.57
2:CB:114:LYS:HE2	2:CB:151:LYS:HD3	1.87	0.57
3:CC:5:HIS:NE2	3:CC:183:TYR:CE2	2.68	0.57
5:CE:130:THR:HA	5:CE:135:VAL:CG2	2.35	0.57
9:CI:46:VAL:O	9:CI:79:ARG:HG3	2.05	0.57
10:CJ:79:PRO:HA	10:CJ:84:VAL:HG11	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CR:32:ILE:HD12	18:CR:33:THR:O	2.04	0.57
18:CR:59:LYS:O	18:CR:63:TYR:CD1	2.58	0.57
22:DA:17:G:H4'	38:DQ:24:TYR:CE1	2.39	0.57
22:DA:92:U:H2'	22:DA:93:G:C8	2.40	0.57
22:DA:467:G:H4'	22:DA:796:C:O2'	2.04	0.57
22:DA:518:G:H2'	22:DA:519:U:H6	1.68	0.57
22:DA:747:U:O2	22:DA:2014:A:H1'	2.05	0.57
22:DA:1178:C:H2'	22:DA:1179:G:O4'	2.05	0.57
22:DA:1204:A:O4'	22:DA:1206:G:C5	2.58	0.57
22:DA:1439:A:H3'	22:DA:1439:A:H8	1.68	0.57
22:DA:1774:C:O2	24:DC:10:PRO:HB2	2.04	0.57
22:DA:2022:U:O2'	22:DA:2617:U:H5'	2.04	0.57
22:DA:2151:U:H2'	22:DA:2152:G:H8	1.70	0.57
22:DA:2330:G:H2'	22:DA:2331:G:H5'	1.86	0.57
22:DA:2728:U:O2'	22:DA:2729:G:H8	1.88	0.57
25:DD:34:VAL:HG12	25:DD:48:ILE:CD1	2.21	0.57
26:DE:133:LEU:HD23	26:DE:133:LEU:C	2.24	0.57
29:DH:72:ILE:HD11	29:DH:141:LYS:N	2.17	0.57
32:DK:2:ILE:HD12	32:DK:2:ILE:N	2.19	0.57
44:DW:81:ILE:HD12	44:DW:82:GLU:N	2.19	0.57
45:DX:44:ARG:HB3	45:DX:44:ARG:NH1	2.19	0.57
47:DZ:43:ILE:HD12	47:DZ:44:ARG:N	2.20	0.57
1:AA:115:G:H4'	1:AA:116:A:O5'	2.03	0.57
1:AA:164:G:C2'	1:AA:165:G:H5'	2.35	0.57
1:AA:428:G:H1'	1:AA:430:A:C8	2.40	0.57
1:AA:968:A:H8	1:AA:968:A:OP1	1.86	0.57
1:AA:969:A:O2'	1:AA:970:C:H5'	2.04	0.57
1:AA:1358:U:H5	1:AA:1359:C:C4	2.23	0.57
1:AA:1358:U:H6	1:AA:1359:C:C5	2.23	0.57
5:AE:132:PRO:HG2	5:AE:133:ILE:HD12	1.86	0.57
9:AI:6:TYR:O	9:AI:85:ALA:HA	2.04	0.57
16:AP:20:VAL:HG21	16:AP:32:PHE:CB	2.35	0.57
22:BA:854:C:O2'	22:BA:855:G:H5'	2.05	0.57
22:BA:923:G:C4'	44:BW:25:PHE:CZ	2.88	0.57
22:BA:1252:G:C2	38:BQ:32:ARG:HG2	2.40	0.57
22:BA:1746:A:C2	22:BA:1747:U:C2	2.93	0.57
22:BA:2828:G:C2'	22:BA:2829:A:H5'	2.34	0.57
24:BC:265:PHE:N	24:BC:265:PHE:CD1	2.73	0.57
28:BG:126:THR:CG2	28:BG:127:GLN:H	2.15	0.57
33:BL:120:VAL:CG1	33:BL:121:THR:N	2.66	0.57
38:BQ:48:ASP:HA	38:BQ:51:GLN:HB2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BQ:63:ARG:CZ	38:BQ:96:ASP:CA	2.80	0.57
38:BQ:63:ARG:HH22	38:BQ:96:ASP:CB	2.17	0.57
39:BR:47:VAL:HG12	39:BR:47:VAL:O	2.03	0.57
39:BR:49:ILE:CG1	39:BR:51:VAL:O	2.52	0.57
40:BS:24:ILE:HD12	40:BS:32:ALA:CA	2.34	0.57
53:CA:71:A:C2	53:CA:72:A:C5	2.93	0.57
53:CA:82:G:C6	53:CA:89:U:C5	2.92	0.57
53:CA:122:G:O2'	53:CA:123:U:H5'	2.04	0.57
53:CA:192:A:H8	53:CA:192:A:O5'	1.87	0.57
53:CA:254:G:C2'	53:CA:255:G:H5'	2.34	0.57
53:CA:596:A:C2	53:CA:597:G:C5	2.93	0.57
53:CA:764:C:H3'	53:CA:765:G:H21	1.70	0.57
53:CA:931:C:H2'	53:CA:932:C:H6	1.70	0.57
53:CA:979:C:C5	53:CA:1318:A:N1	2.73	0.57
9:CI:115:VAL:HG21	10:CJ:61:ALA:O	2.05	0.57
12:CL:78:VAL:HG23	12:CL:101:LEU:HD12	1.87	0.57
55:CM:68:LEU:O	55:CM:72:ILE:HG22	2.04	0.57
56:CP:46:LYS:HE2	56:CP:47:GLU:N	2.19	0.57
17:CQ:68:LYS:HG2	17:CQ:69:THR:HG23	1.87	0.57
19:CS:20:LYS:HD3	19:CS:20:LYS:C	2.25	0.57
22:DA:192:C:H5'	22:DA:678:C:H1'	1.86	0.57
22:DA:740:C:O2'	22:DA:741:U:C5'	2.52	0.57
22:DA:1239:G:H5"	62:DA:3691:HOH:O	2.05	0.57
22:DA:1511:G:O2'	22:DA:1512:C:C6	2.47	0.57
22:DA:2619:C:H5'	25:DD:157:LYS:HG2	1.87	0.57
57:DB:109:A:C6	57:DB:110:C:N4	2.73	0.57
24:DC:30:ALA:N	24:DC:31:PRO:CD	2.68	0.57
28:DG:122:ALA:HB1	28:DG:131:VAL:O	2.04	0.57
29:DH:136:SER:C	29:DH:137:GLU:HG3	2.25	0.57
32:DK:113:MET:SD	32:DK:116:ILE:HD11	2.45	0.57
34:DM:71:LYS:HD3	34:DM:95:LEU:CD1	2.33	0.57
35:DN:1:MET:O	35:DN:2:ARG:CB	2.52	0.57
38:DQ:27:ARG:CA	38:DQ:33:VAL:CG1	2.66	0.57
40:DS:25:ARG:HH11	40:DS:25:ARG:HB3	1.70	0.57
46:DY:57:LEU:CD1	46:DY:60:LYS:HE3	2.32	0.57
51:D3:22:LYS:HG2	51:D3:46:LYS:HE2	1.86	0.57
1:AA:209:U:C5'	1:AA:210:C:OP2	2.52	0.57
1:AA:545:C:H2'	1:AA:545:C:O2	2.03	0.57
1:AA:764:C:O2'	1:AA:765:G:H5'	2.04	0.57
1:AA:914:A:O2'	1:AA:915:A:O4'	2.23	0.57
2:AB:9:LEU:HB2	2:AB:42:LEU:CD1	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:90:MET:HB3	18:AR:60:ARG:HH21	1.70	0.57
10:AJ:33:GLY:CA	10:AJ:83:THR:HB	2.34	0.57
12:AL:24:GLU:HB2	12:AL:26:CYS:HG	1.67	0.57
15:AO:69:LEU:HD21	15:AO:76:ARG:HB2	1.87	0.57
22:BA:811:U:H1'	22:BA:1251:C:C6	2.39	0.57
22:BA:899:A:O2'	22:BA:900:A:H8	1.86	0.57
22:BA:994:C:O2	39:BR:10:LYS:NZ	2.37	0.57
22:BA:1340:U:H3'	41:BT:61:LEU:HD22	1.86	0.57
22:BA:1450:G:N2	22:BA:1452:G:O6	2.37	0.57
22:BA:1778:U:O4	22:BA:1784:A:H1'	2.05	0.57
22:BA:2715:C:H6	22:BA:2715:C:O5'	1.88	0.57
24:BC:230:PRO:HD2	24:BC:246:PRO:HA	1.85	0.57
26:BE:146:VAL:HA	26:BE:185:LYS:O	2.04	0.57
31:BJ:140:LEU:HD13	31:BJ:140:LEU:C	2.24	0.57
33:BL:101:ILE:CG2	33:BL:102:GLY:H	2.18	0.57
33:BL:121:THR:O	33:BL:121:THR:HG23	2.05	0.57
40:BS:63:GLY:O	40:BS:64:ALA:CB	2.53	0.57
41:BT:38:ALA:HB1	41:BT:43:ILE:HG22	1.85	0.57
42:BU:35:VAL:HG12	42:BU:38:ILE:HG12	1.86	0.57
43:BV:2:PHE:HD1	43:BV:50:MET:CE	2.18	0.57
44:BW:23:LYS:NZ	44:BW:24:ARG:CG	2.67	0.57
44:BW:49:ASN:HA	44:BW:61:LYS:HB2	1.86	0.57
49:B1:22:THR:OG1	49:B1:23:THR:N	2.37	0.57
53:CA:252:U:H2'	53:CA:253:A:H8	1.70	0.57
53:CA:390:U:O2'	53:CA:391:G:H5'	2.05	0.57
53:CA:747:A:H2'	53:CA:748:G:O4'	2.05	0.57
2:CB:73:ARG:HG3	2:CB:74:ALA:N	2.19	0.57
2:CB:75:ALA:O	2:CB:79:VAL:HB	2.04	0.57
2:CB:103:TRP:CD1	2:CB:107:ARG:HB3	2.40	0.57
14:CN:20:PHE:CE1	14:CN:54:SER:HB2	2.37	0.57
22:DA:125:A:H5"	50:D2:19:ARG:HD3	1.87	0.57
22:DA:250:G:O6	22:DA:386:G:N2	2.35	0.57
22:DA:293:U:H5"	22:DA:294:A:OP2	2.04	0.57
22:DA:475:C:H4'	22:DA:509:C:O2'	2.05	0.57
22:DA:808:G:O2'	22:DA:1254:A:H4'	2.04	0.57
22:DA:857:G:H1'	44:DW:19:ARG:HE	1.67	0.57
22:DA:921:C:O2'	22:DA:922:C:H5"	2.05	0.57
22:DA:962:G:O2'	22:DA:963:U:C5'	2.52	0.57
22:DA:1204:A:O4'	22:DA:1206:G:N7	2.38	0.57
22:DA:1328:A:H2'	22:DA:1330:C:C5	2.39	0.57
22:DA:1567:G:H5"	24:DC:84:PRO:HG3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1765:U:C2'	22:DA:1766:G:H5'	2.35	0.57
22:DA:1813:G:N3	24:DC:49:THR:HB	2.20	0.57
22:DA:2033:A:H2'	22:DA:2033:A:OP1	2.04	0.57
22:DA:2591:C:P	24:DC:237:ARG:HD2	2.45	0.57
22:DA:2612:C:O2	48:D0:1:ALA:HB2	2.04	0.57
22:DA:2800:A:H2'	22:DA:2801:G:O4'	2.05	0.57
22:DA:2813:A:H2'	22:DA:2814:A:C8	2.40	0.57
22:DA:2882:A:H4'	35:DN:97:ILE:HG12	1.87	0.57
28:DG:93:TYR:CD2	28:DG:93:TYR:N	2.65	0.57
33:DL:77:ILE:HG12	33:DL:101:ILE:HD11	1.86	0.57
34:DM:73:ILE:HG12	34:DM:93:VAL:HG12	1.87	0.57
52:D4:22:VAL:O	52:D4:24:ARG:HG3	2.05	0.57
1:AA:52:C:H2'	1:AA:53:A:C8	2.40	0.57
1:AA:236:A:O2'	1:AA:237:G:H5'	2.05	0.57
4:AD:164:ARG:HG2	4:AD:165:GLU:H	1.70	0.57
10:AJ:52:LEU:HD22	10:AJ:59:LYS:HA	1.86	0.57
11:AK:95:THR:O	11:AK:99:LEU:HB2	2.05	0.57
14:AN:60:ARG:O	14:AN:61:ASN:CB	2.44	0.57
21:AU:36:PHE:HD1	21:AU:39:LYS:HB3	1.70	0.57
22:BA:14:A:H5"	22:BA:15:G:OP2	2.05	0.57
22:BA:1055:G:H3'	22:BA:1056:G:H8	1.69	0.57
22:BA:1277:G:H5'	35:BN:20:MET:HE1	1.86	0.57
22:BA:1695:G:H2'	22:BA:1696:G:O4'	2.05	0.57
22:BA:2383:G:O2'	22:BA:2384:U:H5'	2.05	0.57
22:BA:2879:A:H4'	22:BA:2880:C:OP1	2.05	0.57
25:BD:111:GLY:O	25:BD:169:ARG:O	2.22	0.57
27:BF:102:LEU:C	27:BF:102:LEU:HD13	2.24	0.57
28:BG:103:ASN:HD22	28:BG:113:ASP:CG	2.09	0.57
29:BH:94:ILE:HG23	29:BH:98:ASP:HB3	1.87	0.57
31:BJ:88:THR:CG2	31:BJ:91:GLU:H	2.16	0.57
32:BK:63:VAL:CG2	32:BK:85:VAL:HG23	2.33	0.57
33:BL:68:SER:HB3	33:BL:71:ALA:HB2	1.87	0.57
36:BO:54:VAL:HG22	36:BO:54:VAL:O	2.03	0.57
37:BP:1:SER:N	37:BP:4:ILE:HG13	2.20	0.57
39:BR:15:SER:H	39:BR:18:GLN:NE2	2.03	0.57
44:BW:19:ARG:NH1	44:BW:22:VAL:CG1	2.67	0.57
53:CA:112:G:C2'	53:CA:113:G:H5'	2.34	0.57
53:CA:348:G:HO2'	53:CA:349:A:H5'	1.65	0.57
53:CA:374:A:OP1	53:CA:452:A:N1	2.36	0.57
53:CA:439:U:H4'	4:CD:120:LYS:HD2	1.87	0.57
53:CA:614:C:N3	53:CA:615:G:C8	2.72	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:728:A:H2'	53:CA:729:A:C8	2.40	0.57
53:CA:1042:A:H2'	53:CA:1043:G:O4'	2.05	0.57
53:CA:1092:A:H62	53:CA:1093:A:N6	2.02	0.57
5:CE:79:THR:HA	5:CE:121:ASN:ND2	2.19	0.57
54:CG:75:LYS:HB3	54:CG:86:VAL:O	2.04	0.57
14:CN:80:ARG:HG2	14:CN:80:ARG:NH1	2.18	0.57
22:DA:104:A:H2'	22:DA:105:C:H6	1.68	0.57
22:DA:200:U:C5	22:DA:201:C:C4	2.92	0.57
22:DA:223:A:H2	22:DA:407:G:N3	2.03	0.57
22:DA:445:C:C2'	22:DA:446:G:C8	2.88	0.57
22:DA:655:A:H4'	22:DA:656:G:O5'	2.04	0.57
22:DA:784:G:C6	24:DC:227:VAL:HG11	2.40	0.57
22:DA:1062:G:C8	22:DA:1088:A:H8	2.22	0.57
22:DA:1085:A:H2'	22:DA:1086:A:N3	2.20	0.57
22:DA:1281:G:C5	22:DA:1282:U:C5	2.92	0.57
22:DA:1329:U:O2'	22:DA:1330:C:OP1	2.22	0.57
22:DA:1359:A:C2	22:DA:1360:G:C1'	2.87	0.57
22:DA:1516:G:O2'	22:DA:1517:G:H5'	2.05	0.57
22:DA:1684:G:C2	22:DA:1705:A:C2	2.92	0.57
22:DA:1867:G:O2'	22:DA:1868:C:H5'	2.05	0.57
22:DA:2182:U:H2'	22:DA:2183:A:C8	2.40	0.57
22:DA:2199:A:N6	22:DA:2225:A:N9	2.53	0.57
22:DA:2816:G:O3'	35:DN:99:LYS:HE3	2.04	0.57
57:DB:62:C:H2'	57:DB:63:C:O4'	2.05	0.57
28:DG:53:PRO:HB3	28:DG:61:TRP:H	1.69	0.57
28:DG:91:VAL:HG23	28:DG:92:GLY:H	1.69	0.57
35:DN:16:HIS:O	35:DN:20:MET:CB	2.53	0.57
36:DO:17:LYS:HE3	36:DO:17:LYS:C	2.25	0.57
37:DP:113:LEU:HD23	37:DP:113:LEU:C	2.24	0.57
39:DR:87:GLN:HG2	39:DR:88:GLY:N	2.20	0.57
1:AA:32:A:H2'	1:AA:33:A:H8	1.61	0.56
1:AA:129:A:O2'	1:AA:130:A:C5'	2.49	0.56
2:AB:15:PHE:HD1	2:AB:16:GLY:N	2.02	0.56
3:AC:76:ILE:HG12	3:AC:83:VAL:HG21	1.85	0.56
11:AK:109:ILE:O	11:AK:110:THR:CG2	2.53	0.56
14:AN:27:LYS:O	14:AN:31:SER:HB2	2.05	0.56
22:BA:153:U:C2'	22:BA:154:U:H5'	2.35	0.56
22:BA:1107:G:H2'	22:BA:1108:U:H6	1.69	0.56
22:BA:1444:G:H2'	22:BA:1445:G:C8	2.40	0.56
22:BA:2331:G:O2'	44:BW:39:GLN:O	2.22	0.56
22:BA:2821:A:H4'	25:BD:167:ASN:ND2	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BC:106:PRO:CB	24:BC:141:HIS:CE1	2.87	0.56
25:BD:172:VAL:O	25:BD:173:GLN:CB	2.37	0.56
29:BH:80:ILE:HG23	29:BH:147:VAL:HG21	1.87	0.56
31:BJ:18:VAL:HG22	31:BJ:140:LEU:HD12	1.85	0.56
31:BJ:54:ILE:O	31:BJ:54:ILE:HG13	2.04	0.56
33:BL:82:LEU:HD23	33:BL:83:ALA:N	2.20	0.56
38:BQ:91:ARG:NH2	38:BQ:93:ILE:HG21	2.20	0.56
39:BR:21:ARG:NH2	39:BR:93:PHE:CZ	2.73	0.56
44:BW:71:LYS:N	44:BW:71:LYS:HD2	2.18	0.56
47:BZ:7:THR:HG23	47:BZ:34:THR:OG1	2.05	0.56
51:B3:14:LYS:O	51:B3:21:PHE:O	2.23	0.56
53:CA:122:G:H2'	53:CA:123:U:C6	2.40	0.56
53:CA:429:U:C1'	53:CA:430:A:H5"	2.34	0.56
53:CA:989:U:C4	53:CA:990:C:N4	2.73	0.56
53:CA:1276:G:O2'	53:CA:1277:C:H5'	2.05	0.56
53:CA:1523:G:P	11:CK:124:LYS:HZ3	2.28	0.56
2:CB:84:LEU:O	2:CB:84:LEU:CG	2.53	0.56
5:CE:14:LEU:HD22	5:CE:59:ILE:HD13	1.85	0.56
5:CE:65:LYS:HZ2	5:CE:68:ARG:HD3	1.70	0.56
8:CH:57:GLU:HG3	8:CH:58:LEU:H	1.70	0.56
9:CI:58:GLU:HG3	9:CI:59:LYS:N	2.20	0.56
12:CL:14:LYS:HG3	12:CL:14:LYS:O	2.05	0.56
14:CN:64:ARG:HD3	14:CN:77:GLY:O	2.05	0.56
15:CO:16:ARG:HB2	15:CO:23:SER:HB2	1.87	0.56
22:DA:191:A:H2'	22:DA:192:C:H6	1.67	0.56
22:DA:300:A:H2'	22:DA:301:G:H5'	1.86	0.56
22:DA:487:C:H2'	22:DA:488:G:H5'	1.87	0.56
22:DA:740:C:H5'	22:DA:1784:A:H3'	1.87	0.56
22:DA:2346:A:C3'	22:DA:2347:C:H5"	2.29	0.56
22:DA:2438:U:O2'	22:DA:2439:A:H5"	2.04	0.56
24:DC:91:ALA:HB3	24:DC:103:ILE:HG23	1.87	0.56
28:DG:24:THR:C	28:DG:25:ILE:HD12	2.25	0.56
28:DG:112:VAL:HG12	28:DG:114:HIS:N	2.19	0.56
35:DN:42:LYS:HA	35:DN:45:ARG:HD3	1.86	0.56
38:DQ:48:ASP:HA	38:DQ:51:GLN:HB2	1.86	0.56
40:DS:84:ARG:HB3	40:DS:96:ILE:CG2	2.35	0.56
42:DU:14:THR:HG23	42:DU:15:GLY:N	2.16	0.56
42:DU:96:LYS:O	42:DU:97:SER:HB3	2.05	0.56
1:AA:139:A:O2'	1:AA:140:U:H5'	2.04	0.56
1:AA:512:U:O2'	1:AA:513:C:C6	2.57	0.56
1:AA:1322:C:O2'	1:AA:1323:G:O5'	2.23	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.39	0.56
2:AB:67:LEU:HD21	2:AB:91:VAL:CG2	2.32	0.56
2:AB:143:LEU:HD23	2:AB:143:LEU:H	1.69	0.56
6:AF:81:ASN:HB3	6:AF:84:VAL:HG12	1.86	0.56
15:AO:9:LYS:HB3	15:AO:9:LYS:NZ	2.21	0.56
22:BA:758:C:O2	22:BA:1981:A:H2	1.88	0.56
22:BA:1003:G:O2'	22:BA:1004:U:H5'	2.05	0.56
22:BA:1081:U:H2'	22:BA:1081:U:O2	2.03	0.56
22:BA:2320:U:H4'	22:BA:2321:U:H5"	1.87	0.56
22:BA:2788:C:O2'	22:BA:2789:C:H5'	2.05	0.56
25:BD:99:GLU:O	25:BD:101:PHE:N	2.38	0.56
27:BF:3:LEU:HD12	27:BF:172:PHE:CE2	2.41	0.56
27:BF:131:VAL:C	27:BF:132:ARG:HG3	2.24	0.56
31:BJ:13:ARG:O	31:BJ:14:ASP:CB	2.49	0.56
32:BK:19:VAL:HG23	32:BK:43:ILE:HA	1.87	0.56
34:BM:76:LYS:O	34:BM:77:PRO:O	2.23	0.56
36:BO:75:GLY:HA2	36:BO:106:LEU:HD13	1.86	0.56
41:BT:87:LEU:CB	41:BT:91:GLN:HG2	2.31	0.56
53:CA:154:U:C2'	53:CA:155:A:H5'	2.33	0.56
53:CA:374:A:H5"	53:CA:452:A:C6	2.39	0.56
53:CA:513:C:O2'	53:CA:514:C:O4'	2.22	0.56
53:CA:644:U:H2'	53:CA:645:G:H8	1.70	0.56
2:CB:81:ASP:CG	2:CB:82:ALA:H	2.08	0.56
2:CB:95:TRP:CH2	2:CB:171:ALA:HA	2.39	0.56
2:CB:160:LEU:HD22	2:CB:175:ALA:HB2	1.87	0.56
3:CC:150:VAL:HG12	3:CC:199:VAL:HG12	1.86	0.56
3:CC:161:ILE:HD13	3:CC:161:ILE:H	1.71	0.56
4:CD:28:ASP:O	4:CD:29:THR:O	2.23	0.56
9:CI:39:GLY:O	9:CI:40:ARG:HB2	2.04	0.56
14:CN:27:LYS:HB2	14:CN:45:LEU:CD2	2.35	0.56
56:CP:44:SER:HB2	56:CP:46:LYS:HG3	1.87	0.56
22:DA:118:A:P	22:DA:119:A:H5"	2.45	0.56
22:DA:308:G:N1	22:DA:309:A:C2	2.73	0.56
22:DA:352:A:H3'	22:DA:353:C:H5"	1.87	0.56
22:DA:528:A:N1	22:DA:2042:A:H2'	2.20	0.56
22:DA:615:U:O4	26:DE:39:ALA:HB2	2.06	0.56
22:DA:636:G:H3'	33:DL:128:THR:HG21	1.86	0.56
22:DA:674:G:N2	22:DA:2445:G:OP1	2.38	0.56
22:DA:755:U:O2'	22:DA:756:A:H5'	2.05	0.56
22:DA:1055:G:H3'	22:DA:1056:G:H5'	1.86	0.56
22:DA:1078:U:H5"	22:DA:1079:C:OP1	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1131:G:C5	22:DA:2025:C:H4'	2.40	0.56
22:DA:2305:U:O2'	58:DF:132:ARG:HA	2.05	0.56
22:DA:2313:C:O2'	22:DA:2314:A:H8	1.87	0.56
22:DA:2513:A:H2	25:DD:148:GLN:HE21	1.53	0.56
22:DA:2730:C:H2'	22:DA:2731:G:O4'	2.05	0.56
57:DB:78:A:C2	57:DB:99:A:C4	2.92	0.56
24:DC:106:PRO:CB	24:DC:141:HIS:HE1	2.18	0.56
24:DC:145:MET:HE2	24:DC:181:ARG:HH22	1.70	0.56
25:DD:150:GLN:HG3	25:DD:151:THR:N	2.20	0.56
29:DH:4:ILE:HG23	29:DH:17:ASP:O	2.05	0.56
30:DI:112:LYS:HZ3	30:DI:128:ILE:HD12	1.70	0.56
32:DK:87:LEU:HB2	32:DK:92:GLU:O	2.04	0.56
38:DQ:4:LYS:HD3	38:DQ:7:VAL:HG22	1.87	0.56
39:DR:39:LEU:HD22	39:DR:53:PHE:CE1	2.40	0.56
41:DT:29:THR:HB	41:DT:86:THR:N	2.20	0.56
45:DX:39:VAL:O	45:DX:40:GLU:HB2	2.05	0.56
1:AA:3:A:N1	1:AA:628:G:O2'	2.31	0.56
1:AA:280:C:H4'	1:AA:281:G:OP2	2.04	0.56
1:AA:473:U:H2'	1:AA:474:G:C8	2.33	0.56
1:AA:488:C:C2'	1:AA:489:C:H5'	2.34	0.56
1:AA:536:C:H2'	1:AA:537:G:C8	2.40	0.56
1:AA:672:U:H2'	1:AA:673:A:C8	2.39	0.56
1:AA:878:A:C5'	8:AH:80:PRO:HG2	2.35	0.56
1:AA:1016:A:C8	1:AA:1017:U:H1'	2.40	0.56
1:AA:1052:U:H5"	1:AA:1053:G:OP2	2.05	0.56
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.41	0.56
1:AA:1380:U:C5	7:AG:2:ARG:HA	2.40	0.56
2:AB:49:PHE:O	2:AB:52:ALA:HB3	2.06	0.56
2:AB:108:GLN:O	2:AB:110:ILE:C	2.44	0.56
3:AC:129:PHE:O	3:AC:133:MET:HG3	2.04	0.56
4:AD:60:VAL:CA	4:AD:63:ILE:HG22	2.30	0.56
4:AD:191:SER:OG	4:AD:192:ALA:N	2.37	0.56
9:AI:89:TYR:O	9:AI:90:ASP:HB3	2.05	0.56
10:AJ:49:PHE:CD1	14:AN:76:PHE:HZ	2.23	0.56
11:AK:76:TYR:CD1	11:AK:76:TYR:N	2.73	0.56
11:AK:109:ILE:HG21	21:AU:16:ARG:HE	1.70	0.56
13:AM:45:SER:O	13:AM:46:GLU:CB	2.53	0.56
17:AQ:12:VAL:HB	17:AQ:21:VAL:HG22	1.86	0.56
17:AQ:58:VAL:CG2	17:AQ:59:GLU:N	2.68	0.56
19:AS:62:THR:HB	19:AS:65:MET:HG3	1.87	0.56
20:AT:50:PHE:HA	20:AT:53:MET:HG2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:37:C:O2'	26:BE:45:ALA:CB	2.53	0.56
22:BA:163:C:HO2'	22:BA:164:C:C5'	2.17	0.56
22:BA:273:G:O2'	22:BA:274:C:O5'	2.23	0.56
22:BA:621:A:H2'	22:BA:622:G:O4'	2.05	0.56
22:BA:983:A:C6	22:BA:984:A:C2	2.94	0.56
22:BA:1799:G:N2	24:BC:153:LEU:HD23	2.21	0.56
22:BA:1878:G:O2'	22:BA:1879:C:H5'	2.05	0.56
22:BA:2230:G:O3'	45:BX:29:LEU:HD23	2.04	0.56
22:BA:2499:C:H3'	22:BA:2500:U:H5"	1.88	0.56
22:BA:2698:U:H2'	22:BA:2699:C:C6	2.40	0.56
22:BA:2711:A:OP2	62:BA:3540:HOH:O	2.18	0.56
23:BB:109:A:O2'	23:BB:110:C:H5'	2.05	0.56
24:BC:219:VAL:HG12	24:BC:224:MET:HE3	1.86	0.56
25:BD:8:LYS:HB2	25:BD:201:LEU:HD22	1.88	0.56
26:BE:7:ASP:O	26:BE:9:GLN:N	2.38	0.56
26:BE:196:VAL:O	26:BE:200:LEU:HD23	2.05	0.56
27:BF:1:ALA:O	27:BF:2:LYS:HB3	2.05	0.56
27:BF:45:ASP:CB	27:BF:48:LEU:HB2	2.34	0.56
27:BF:116:LEU:O	27:BF:176:PHE:HA	2.05	0.56
29:BH:78:VAL:CG2	29:BH:145:ASN:HD22	2.18	0.56
30:BI:3:LYS:CD	30:BI:4:VAL:HG23	2.35	0.56
32:BK:5:GLN:O	32:BK:6:THR:HB	2.05	0.56
32:BK:91:SER:O	32:BK:92:GLU:C	2.43	0.56
37:BP:24:THR:HG22	37:BP:87:ARG:H	1.70	0.56
37:BP:52:ARG:HG2	37:BP:52:ARG:HH11	1.70	0.56
38:BQ:68:ALA:HB1	38:BQ:73:ILE:HG23	1.88	0.56
39:BR:59:ILE:HG12	39:BR:101:ILE:HD13	1.87	0.56
42:BU:5:ARG:HG2	42:BU:5:ARG:HH21	1.69	0.56
43:BV:25:LYS:HD3	43:BV:43:ASP:HA	1.87	0.56
44:BW:18:LYS:N	44:BW:36:ILE:CG1	2.67	0.56
44:BW:18:LYS:H	44:BW:36:ILE:N	2.03	0.56
44:BW:41:GLY:HA2	44:BW:44:PHE:CE2	2.40	0.56
46:BY:14:LEU:HD22	46:BY:57:LEU:HD21	1.87	0.56
47:BZ:4:ILE:O	47:BZ:4:ILE:HG12	2.05	0.56
49:B1:9:LYS:O	49:B1:50:GLU:HG3	2.04	0.56
49:B1:24:LYS:HE2	49:B1:52:LYS:CB	2.32	0.56
53:CA:461:A:P	53:CA:462:G:OP2	2.64	0.56
53:CA:969:A:O2'	53:CA:970:C:C5'	2.54	0.56
53:CA:1068:G:C2	53:CA:1069:C:C6	2.93	0.56
53:CA:1124:G:O2'	53:CA:1125:U:C6	2.58	0.56
53:CA:1452:C:C4'	53:CA:1453:G:O5'	2.46	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1494:G:H5'	22:DA:1913:A:C6	2.40	0.56
2:CB:99:MET:O	2:CB:103:TRP:HB3	2.03	0.56
5:CE:86:GLY:O	5:CE:87:VAL:HG13	2.06	0.56
54:CG:70:PRO:HB3	54:CG:98:LEU:HD12	1.86	0.56
8:CH:82:LEU:HD12	12:CL:3:VAL:HG11	1.86	0.56
12:CL:5:GLN:HG3	12:CL:9:LYS:HZ3	1.69	0.56
14:CN:52:ARG:HA	14:CN:52:ARG:CZ	2.35	0.56
14:CN:72:PHE:HB2	14:CN:78:LEU:O	2.05	0.56
18:CR:31:TYR:CG	18:CR:54:LEU:HD21	2.40	0.56
21:CU:36:PHE:HB3	21:CU:40:PRO:HD3	1.87	0.56
22:DA:30:G:H2'	22:DA:31:C:C6	2.40	0.56
22:DA:36:G:N1	22:DA:445:C:C4	2.73	0.56
22:DA:260:G:C6	22:DA:261:G:C5	2.93	0.56
22:DA:380:G:O3'	45:DX:15:ASN:HB2	2.05	0.56
22:DA:382:A:C2	22:DA:393:C:C2	2.93	0.56
22:DA:460:A:C2'	22:DA:461:C:O4'	2.54	0.56
22:DA:607:U:H5	22:DA:619:G:C5	2.24	0.56
22:DA:730:A:H2'	22:DA:731:C:H6	1.70	0.56
22:DA:781:A:H2'	22:DA:1777:U:H1'	1.86	0.56
22:DA:782:A:OP1	22:DA:782:A:H8	1.88	0.56
22:DA:836:G:C5	22:DA:837:C:C4	2.94	0.56
22:DA:972:A:N1	22:DA:973:A:N6	2.54	0.56
22:DA:1161:C:H4'	39:DR:8:GLY:O	2.05	0.56
22:DA:1171:G:C2	22:DA:1179:G:N3	2.73	0.56
22:DA:1248:G:OP1	38:DQ:1:ALA:HB3	2.05	0.56
22:DA:1262:A:C6	22:DA:1263:U:C2	2.92	0.56
22:DA:1476:U:H1'	22:DA:1732:C:C2	2.41	0.56
22:DA:1494:A:O2'	22:DA:1495:A:H5'	2.05	0.56
22:DA:1603:A:O2'	22:DA:1604:C:H5'	2.05	0.56
22:DA:1649:G:N1	22:DA:2009:A:C6	2.74	0.56
22:DA:1655:A:H4'	25:DD:118:PHE:CD1	2.40	0.56
22:DA:1905:C:O2'	22:DA:1929:G:O2'	2.18	0.56
22:DA:1924:C:O2'	22:DA:1925:C:H5'	2.05	0.56
22:DA:2315:G:OP1	58:DF:156:THR:HG21	2.04	0.56
22:DA:2414:G:H2'	22:DA:2415:G:H5'	1.87	0.56
22:DA:2727:A:O2'	22:DA:2728:U:C6	2.58	0.56
22:DA:2756:U:H1'	22:DA:2757:A:C5'	2.34	0.56
22:DA:2879:A:O2'	22:DA:2880:C:P	2.64	0.56
24:DC:15:VAL:HG22	24:DC:204:LEU:O	2.05	0.56
24:DC:71:ASP:O	24:DC:73:ILE:HG12	2.05	0.56
25:DD:56:LYS:NZ	25:DD:56:LYS:HB3	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DD:61:THR:CB	25:DD:63:PRO:HD2	2.35	0.56
28:DG:84:LYS:HD3	28:DG:84:LYS:N	2.20	0.56
29:DH:84:ALA:HA	29:DH:89:LYS:O	2.04	0.56
31:DJ:16:TYR:HB2	31:DJ:54:ILE:HD13	1.86	0.56
33:DL:120:VAL:HG12	33:DL:121:THR:H	1.69	0.56
35:DN:33:ILE:HG23	35:DN:114:GLU:HB2	1.88	0.56
38:DQ:46:TYR:CD1	39:DR:74:ILE:CG2	2.87	0.56
40:DS:20:VAL:HG11	40:DS:43:ALA:HB1	1.88	0.56
41:DT:76:ARG:HG2	41:DT:77:ARG:N	2.20	0.56
43:DV:75:GLN:HG3	43:DV:92:VAL:HG11	1.86	0.56
46:DY:39:GLN:O	46:DY:42:LEU:HB2	2.05	0.56
52:D4:36:ARG:HG2	52:D4:37:GLN:H	1.71	0.56
1:AA:181:A:N6	1:AA:195:A:OP2	2.39	0.56
1:AA:210:C:H4’	1:AA:211:G:C2	2.39	0.56
1:AA:995:C:H4’	14:AN:7:ALA:HB2	1.88	0.56
4:AD:29:THR:HG22	4:AD:30:LYS:N	2.21	0.56
5:AE:100:GLU:HB2	5:AE:103:GLY:HA2	1.86	0.56
13:AM:28:ARG:O	13:AM:32:ILE:HG12	2.06	0.56
14:AN:47:LEU:O	14:AN:47:LEU:HD23	2.05	0.56
22:BA:634:C:H2’	22:BA:635:C:C6	2.41	0.56
22:BA:854:C:C2’	22:BA:855:G:H5’	2.36	0.56
22:BA:1654:A:C4’	25:BD:118:PHE:CZ	2.89	0.56
22:BA:1866:A:C6	22:BA:1876:A:C8	2.94	0.56
24:BC:123:ILE:HD12	24:BC:135:PRO:HG2	1.87	0.56
24:BC:159:THR:O	24:BC:194:VAL:HG12	2.05	0.56
25:BD:101:PHE:HE2	25:BD:203:VAL:CG2	2.17	0.56
30:BI:15:GLY:CA	30:BI:50:LYS:HB3	2.28	0.56
31:BJ:110:PRO:HB2	31:BJ:111:LYS:HG3	1.86	0.56
36:BO:2:ASP:HB3	36:BO:5:SER:HB2	1.87	0.56
46:BY:18:LEU:HD11	46:BY:22:LEU:HD22	1.87	0.56
53:CA:247:G:C6	53:CA:278:G:N1	2.73	0.56
53:CA:389:A:H2’	53:CA:390:U:O4’	2.06	0.56
53:CA:413:G:N2	53:CA:428:G:O2’	2.39	0.56
53:CA:1092:A:C2	53:CA:1183:U:N3	2.70	0.56
53:CA:1117:A:C6	53:CA:1184:G:O6	2.58	0.56
2:CB:150:ILE:HD11	2:CB:153:MET:HE1	1.88	0.56
14:CN:79:SER:HB2	14:CN:81:ILE:CD1	2.35	0.56
17:CQ:61:ARG:CG	17:CQ:75:VAL:HG11	2.33	0.56
20:CT:61:ALA:O	20:CT:67:HIS:CG	2.59	0.56
22:DA:20:C:O2’	22:DA:21:A:H5’	2.05	0.56
22:DA:77:G:N2	22:DA:110:G:H1’	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:174:U:H2'	22:DA:174:U:O2	2.04	0.56
22:DA:585:G:H2'	22:DA:1254:A:H61	1.70	0.56
22:DA:589:U:H2'	22:DA:590:A:C8	2.26	0.56
22:DA:629:G:O2'	22:DA:630:G:C5'	2.52	0.56
22:DA:736:C:C4	22:DA:737:C:C5	2.94	0.56
22:DA:910:A:C2	34:DM:13:HIS:CE1	2.93	0.56
22:DA:1022:G:C6	22:DA:1140:C:C5	2.94	0.56
22:DA:1304:A:O2'	22:DA:1305:C:O5'	2.24	0.56
22:DA:1404:C:O2'	22:DA:1405:U:H5'	2.05	0.56
22:DA:1428:C:C5	22:DA:1569:A:C5'	2.88	0.56
22:DA:1935:G:H1'	22:DA:1964:G:H21	1.66	0.56
22:DA:2064:C:H2'	22:DA:2065:C:C6	2.40	0.56
22:DA:2244:U:H2'	22:DA:2245:U:O4'	2.05	0.56
22:DA:2316:G:H2'	22:DA:2317:A:H8	1.69	0.56
22:DA:2440:C:O2'	22:DA:2441:U:H4'	2.04	0.56
58:DF:118:ALA:HB2	58:DF:176:PHE:HB3	1.87	0.56
58:DF:129:MET:CE	58:DF:174:PHE:CZ	2.89	0.56
28:DG:126:THR:HG22	28:DG:127:GLN:N	2.14	0.56
29:DH:78:VAL:HG22	29:DH:100:ALA:HA	1.87	0.56
40:DS:39:THR:O	40:DS:40:ASN:CB	2.53	0.56
41:DT:24:MET:HA	41:DT:24:MET:CE	2.36	0.56
41:DT:69:ARG:HD2	41:DT:70:HIS:H	1.70	0.56
44:DW:65:LYS:N	44:DW:65:LYS:HD2	2.20	0.56
51:D3:22:LYS:N	51:D3:48:MET:HB3	2.18	0.56
52:D4:7:VAL:O	52:D4:8:LYS:HG2	2.05	0.56
1:AA:92:U:O2'	1:AA:93:U:O4'	2.23	0.56
1:AA:669:G:O2'	1:AA:670:G:H5'	2.05	0.56
1:AA:802:A:H5"	1:AA:803:G:OP2	2.05	0.56
1:AA:914:A:N3	1:AA:915:A:C8	2.74	0.56
1:AA:1151:A:HO2'	1:AA:1152:A:H8	1.53	0.56
1:AA:1491:G:H5'	1:AA:1492:A:OP1	2.04	0.56
7:AG:68:VAL:HG21	7:AG:103:ILE:CG1	2.35	0.56
7:AG:144:ALA:C	7:AG:146:ALA:H	2.06	0.56
22:BA:27:G:O2'	22:BA:28:A:P	2.63	0.56
22:BA:866:A:N7	22:BA:914:G:C6	2.73	0.56
22:BA:1182:G:O2'	22:BA:1183:U:H5'	2.05	0.56
22:BA:2262:U:H4'	22:BA:2328:A:H2	1.71	0.56
22:BA:2472:G:H2'	22:BA:2475:C:H42	1.70	0.56
25:BD:107:VAL:N	25:BD:206:ALA:H	2.02	0.56
26:BE:32:VAL:HG23	26:BE:33:VAL:H	1.70	0.56
41:BT:1:MET:HB3	41:BT:2:ILE:HD13	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BT:38:ALA:HB1	41:BT:43:ILE:CG2	2.36	0.56
42:BU:5:ARG:HG2	42:BU:5:ARG:NH2	2.20	0.56
44:BW:19:ARG:CZ	44:BW:22:VAL:HB	2.35	0.56
45:BX:30:PRO:HB2	45:BX:32:LEU:HD11	1.84	0.56
51:B3:56:LEU:N	51:B3:56:LEU:HD22	2.20	0.56
53:CA:94:G:O2'	53:CA:95:C:C5'	2.54	0.56
53:CA:204:G:H2'	53:CA:205:A:C8	2.41	0.56
53:CA:796:C:O3'	11:CK:126:ARG:NH2	2.39	0.56
53:CA:982:U:C1'	53:CA:983:A:N7	2.61	0.56
53:CA:1009:U:H2'	53:CA:1010:U:C6	2.40	0.56
53:CA:1057:G:H4'	3:CC:196:GLY:H	1.71	0.56
3:CC:149:LYS:HE3	3:CC:200:TRP:CE3	2.40	0.56
4:CD:81:LEU:O	4:CD:83:GLY:N	2.38	0.56
4:CD:94:GLU:HA	4:CD:99:ASN:ND2	2.21	0.56
12:CL:61:GLU:O	12:CL:61:GLU:HG3	2.05	0.56
56:CP:74:LEU:O	56:CP:78:VAL:CG2	2.52	0.56
19:CS:45:GLY:H	19:CS:61:VAL:HB	1.70	0.56
22:DA:53:A:H2	22:DA:179:C:H4'	1.70	0.56
22:DA:234:U:H5"	22:DA:234:U:H6	1.71	0.56
22:DA:457:A:N3	22:DA:459:U:O4	2.39	0.56
22:DA:669:G:C2	22:DA:801:G:C6	2.93	0.56
22:DA:1036:G:C6	22:DA:1120:G:C6	2.93	0.56
22:DA:1183:U:H2'	22:DA:1184:U:C6	2.41	0.56
22:DA:1385:A:H4'	22:DA:1386:C:OP1	2.06	0.56
22:DA:1416:G:N1	22:DA:1417:C:C4	2.73	0.56
22:DA:1954:G:O2'	22:DA:1955:U:P	2.63	0.56
22:DA:2147:A:OP1	22:DA:2147:A:C4'	2.54	0.56
22:DA:2408:U:H2'	22:DA:2409:G:C8	2.40	0.56
22:DA:2448:A:HO2'	22:DA:2449:U:H5	1.51	0.56
57:DB:81:G:C4	57:DB:82:U:C6	2.94	0.56
35:DN:24:MET:HG2	35:DN:44:LEU:CD2	2.34	0.56
38:DQ:73:ILE:HG13	38:DQ:74:SER:N	2.21	0.56
43:DV:27:PRO:O	43:DV:88:HIS:HA	2.06	0.56
44:DW:70:VAL:HG22	44:DW:70:VAL:O	2.06	0.56
46:DY:1:MET:N	46:DY:1:MET:HE2	2.21	0.56
1:AA:265:G:H2'	1:AA:266:G:H5'	1.88	0.56
1:AA:567:G:H5'	1:AA:567:G:C8	2.34	0.56
1:AA:1138:G:O2'	1:AA:1139:G:H4'	2.05	0.56
1:AA:1533:C:H3'	1:AA:1534:A:C5'	2.34	0.56
2:AB:20:ARG:O	2:AB:22:TRP:N	2.38	0.56
9:AI:129:ARG:NH1	9:AI:129:ARG:HA	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:53:ILE:HD11	14:AN:84:ARG:CZ	2.35	0.56
20:AT:80:ALA:O	20:AT:84:LYS:HB2	2.05	0.56
22:BA:191:A:H2'	22:BA:192:C:C6	2.40	0.56
22:BA:309:A:N3	22:BA:329:G:O2'	2.39	0.56
22:BA:1033:U:H4'	22:BA:1034:G:OP1	2.04	0.56
22:BA:1078:U:H5"	22:BA:1079:C:O5'	2.05	0.56
22:BA:1115:G:O2'	22:BA:1116:G:O5'	2.24	0.56
22:BA:1131:G:OP1	31:BJ:82:GLY:HA2	2.05	0.56
22:BA:1559:U:H4'	22:BA:1560:G:OP2	2.05	0.56
22:BA:2226:C:O2'	22:BA:2227:A:C5'	2.52	0.56
22:BA:2446:G:C3'	22:BA:2447:G:H5"	2.36	0.56
25:BD:139:SER:HA	25:BD:142:VAL:CG1	2.35	0.56
31:BJ:6:ALA:HB2	31:BJ:45:THR:HG21	1.83	0.56
37:BP:85:VAL:O	37:BP:86:LYS:HB2	2.04	0.56
40:BS:18:ARG:O	40:BS:19:LEU:CB	2.53	0.56
47:BZ:24:LEU:C	47:BZ:24:LEU:CD2	2.73	0.56
53:CA:579:A:H2'	53:CA:580:C:C6	2.40	0.56
53:CA:765:G:C5	53:CA:812:G:C6	2.93	0.56
53:CA:782:A:C2'	53:CA:783:C:H5'	2.36	0.56
53:CA:1004:A:H2'	53:CA:1005:A:O4'	2.06	0.56
53:CA:1047:G:O6	53:CA:1211:U:C2	2.59	0.56
2:CB:119:GLN:HG3	2:CB:124:THR:CG2	2.35	0.56
4:CD:72:ARG:HD2	4:CD:203:TYR:CE1	2.40	0.56
6:CF:11:HIS:CD2	6:CF:12:PRO:HD2	2.39	0.56
54:CG:42:VAL:HG12	54:CG:43:TYR:CD2	2.40	0.56
54:CG:79:VAL:O	54:CG:79:VAL:HG23	2.06	0.56
10:CJ:90:LEU:O	10:CJ:90:LEU:HD23	2.06	0.56
10:CJ:92:LEU:N	10:CJ:92:LEU:HD13	2.21	0.56
56:CP:19:VAL:HG13	56:CP:37:GLY:HA3	1.87	0.56
17:CQ:4:ILE:HG22	17:CQ:5:ARG:N	2.20	0.56
21:CU:16:ARG:HA	21:CU:16:ARG:NE	2.21	0.56
22:DA:143:C:C2'	22:DA:144:A:C8	2.88	0.56
22:DA:289:G:C2	22:DA:352:A:C2	2.94	0.56
22:DA:1439:A:N7	22:DA:1440:U:H1'	2.20	0.56
22:DA:1717:A:N6	22:DA:1744:A:C8	2.73	0.56
22:DA:1734:G:C2'	22:DA:1735:A:C8	2.84	0.56
22:DA:1765:U:O2'	22:DA:1766:G:H5'	2.05	0.56
22:DA:2259:U:C4	22:DA:2427:C:N4	2.74	0.56
22:DA:2307:G:H1'	22:DA:2308:G:C5	2.40	0.56
22:DA:2330:G:N1	22:DA:2386:A:C6	2.73	0.56
28:DG:100:ASN:O	28:DG:115:GLN:HB2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DG:148:ARG:HB2	28:DG:152:ARG:HH21	1.71	0.56
29:DH:49:ALA:HB3	29:DH:50:ARG:NH2	2.21	0.56
36:DO:89:ASP:O	36:DO:90:VAL:HG13	2.06	0.56
42:DU:85:ARG:HA	42:DU:85:ARG:NE	2.20	0.56
42:DU:95:PHE:O	42:DU:97:SER:N	2.38	0.56
1:AA:6:G:HO2'	1:AA:7:A:H8	1.52	0.56
1:AA:1053:G:O6	1:AA:1199:U:H2'	2.06	0.56
1:AA:1129:C:H2'	1:AA:1139:G:N7	2.20	0.56
1:AA:1183:U:H3'	1:AA:1184:G:H5"	1.87	0.56
2:AB:66:ILE:HG22	2:AB:67:LEU:N	2.21	0.56
4:AD:57:LYS:CB	4:AD:199:ILE:HG13	2.36	0.56
10:AJ:14:ASP:HB2	10:AJ:17:LEU:HB3	1.85	0.56
22:BA:311:A:C8	22:BA:332:A:C5	2.94	0.56
22:BA:936:A:C5	22:BA:937:C:C5	2.94	0.56
22:BA:1023:U:H6	22:BA:1023:U:C5'	2.14	0.56
22:BA:1107:G:H2'	22:BA:1108:U:C6	2.41	0.56
22:BA:1360:G:C6	22:BA:1372:U:C2	2.94	0.56
23:BB:56:G:H5"	23:BB:57:A:OP1	2.06	0.56
24:BC:16:VAL:N	24:BC:203:VAL:HG11	2.21	0.56
24:BC:102:TYR:O	24:BC:103:ILE:HD12	2.06	0.56
25:BD:101:PHE:N	25:BD:101:PHE:CD1	2.74	0.56
29:BH:49:ALA:O	29:BH:53:GLU:N	2.33	0.56
30:BI:23:VAL:HG23	30:BI:24:GLY:H	1.71	0.56
31:BJ:17:VAL:HG13	31:BJ:55:ILE:HG13	1.86	0.56
31:BJ:72:LYS:HB2	31:BJ:89:PHE:HB2	1.87	0.56
32:BK:92:GLU:O	32:BK:93:GLN:O	2.23	0.56
40:BS:31:GLN:O	40:BS:35:ILE:HG12	2.05	0.56
41:BT:87:LEU:O	41:BT:89:GLU:N	2.38	0.56
42:BU:3:LYS:O	42:BU:82:VAL:HG21	2.06	0.56
43:BV:80:HIS:HD2	43:BV:83:LYS:HB2	1.66	0.56
53:CA:69:G:H2'	53:CA:70:U:C6	2.41	0.56
53:CA:110:C:H2'	53:CA:111:G:C8	2.40	0.56
53:CA:1225:A:H4'	19:CS:77:ARG:HH12	1.68	0.56
5:CE:114:LEU:HD13	5:CE:122:VAL:HG11	1.87	0.56
10:CJ:6:ILE:HG23	10:CJ:100:ILE:CG2	2.36	0.56
22:DA:92:U:H2'	22:DA:93:G:H8	1.71	0.56
22:DA:370:G:C6	22:DA:424:G:N7	2.74	0.56
22:DA:677:A:C2	22:DA:678:C:C4	2.94	0.56
22:DA:1116:G:C2	22:DA:1117:C:C2	2.94	0.56
22:DA:1287:A:OP1	35:DN:103:ARG:HG3	2.06	0.56
22:DA:1364:G:H1'	22:DA:1368:G:N2	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1525:A:C2'	22:DA:1526:C:H5'	2.36	0.56
22:DA:1536:C:H4'	22:DA:1537:G:H5'	1.87	0.56
22:DA:2060:A:H62	26:DE:69:ARG:NH1	2.03	0.56
22:DA:2766:A:H2'	22:DA:2766:A:N3	2.20	0.56
58:DF:111:ARG:HG3	58:DF:135:ILE:HG12	1.87	0.56
31:DJ:44:TYR:CD1	38:DQ:63:ARG:NH2	2.74	0.56
32:DK:77:ILE:HD11	32:DK:105:ARG:NH2	2.21	0.56
34:DM:15:GLY:O	34:DM:16:ARG:HB3	2.06	0.56
1:AA:466:A:H4'	1:AA:467:U:OP2	2.03	0.56
1:AA:738:C:O2'	1:AA:739:C:H5'	2.06	0.56
1:AA:858:G:O2'	1:AA:859:G:C5'	2.53	0.56
1:AA:1097:C:H2'	1:AA:1098:C:H6	1.71	0.56
2:AB:20:ARG:O	2:AB:22:TRP:HB3	2.06	0.56
3:AC:21:TRP:HB3	3:AC:58:ARG:H	1.71	0.56
7:AG:129:ASN:HA	7:AG:134:VAL:HG11	1.88	0.56
11:AK:124:LYS:HE3	21:AU:34:ARG:HG2	1.86	0.56
17:AQ:60:ILE:HG22	17:AQ:72:TRP:CE3	2.41	0.56
20:AT:3:ILE:O	20:AT:4:LYS:HB2	2.04	0.56
22:BA:52:A:O2'	22:BA:53:A:H5'	2.06	0.56
22:BA:1071:G:C1'	22:BA:1089:A:N7	2.51	0.56
22:BA:1188:U:H2'	22:BA:1189:A:C5'	2.36	0.56
22:BA:1560:G:H2'	22:BA:1561:C:C6	2.41	0.56
24:BC:245:THR:OG1	24:BC:249:VAL:HB	2.06	0.56
26:BE:172:ALA:O	26:BE:175:ILE:CG2	2.53	0.56
31:BJ:99:ARG:O	31:BJ:103:ILE:CG2	2.46	0.56
32:BK:2:ILE:O	32:BK:6:THR:HG21	2.05	0.56
35:BN:70:THR:CG2	35:BN:75:ILE:HD11	2.36	0.56
38:BQ:81:GLY:HA2	38:BQ:116:LEU:HD13	1.88	0.56
41:BT:30:ILE:HG12	41:BT:32:LEU:CD2	2.36	0.56
42:BU:94:PHE:O	42:BU:94:PHE:CD1	2.59	0.56
47:BZ:24:LEU:HD23	47:BZ:24:LEU:O	2.04	0.56
53:CA:32:A:C2'	53:CA:33:A:H8	2.17	0.56
53:CA:92:U:O2'	53:CA:93:U:C6	2.53	0.56
53:CA:355:C:N4	53:CA:356:A:N6	2.54	0.56
53:CA:1048:G:H21	53:CA:1214:C:H5	1.54	0.56
53:CA:1182:G:C3'	53:CA:1183:U:H5'	2.35	0.56
6:CF:43:GLY:O	6:CF:44:ARG:C	2.43	0.56
11:CK:27:ASN:HA	11:CK:57:SER:HB3	1.86	0.56
11:CK:126:ARG:O	21:CU:33:ARG:NH2	2.39	0.56
12:CL:66:ILE:HA	12:CL:96:THR:OG1	2.06	0.56
17:CQ:68:LYS:O	17:CQ:69:THR:CG2	2.52	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:53:A:H2'	22:DA:54:G:O4'	2.06	0.56
22:DA:321:U:H1'	26:DE:159:LEU:HD11	1.87	0.56
22:DA:347:A:H2'	22:DA:348:A:H8	1.70	0.56
22:DA:377:G:C6	22:DA:378:C:N3	2.73	0.56
22:DA:446:G:H4'	22:DA:447:A:OP1	2.06	0.56
22:DA:449:A:O2'	22:DA:450:G:C5'	2.43	0.56
22:DA:699:A:N6	22:DA:733:G:O2'	2.38	0.56
22:DA:727:A:O2'	22:DA:728:G:C8	2.58	0.56
22:DA:919:U:C2	22:DA:920:A:N7	2.74	0.56
22:DA:1049:C:C2'	22:DA:1050:A:H5'	2.34	0.56
22:DA:1107:G:H2'	22:DA:1108:U:H5'	1.87	0.56
22:DA:1179:G:N2	22:DA:1180:U:C2	2.74	0.56
22:DA:1265:A:C8	22:DA:1267:U:N3	2.73	0.56
22:DA:1420:A:N3	22:DA:2211:A:N7	2.52	0.56
22:DA:1649:G:H2'	22:DA:1650:A:C8	2.40	0.56
22:DA:2106:U:C4	22:DA:2107:G:N7	2.74	0.56
22:DA:2263:C:H4'	22:DA:2329:U:H4'	1.88	0.56
22:DA:2348:U:HO2'	22:DA:2349:G:H8	0.70	0.56
32:DK:1:MET:HB2	32:DK:32:TYR:HB3	1.87	0.56
35:DN:1:MET:O	35:DN:2:ARG:HB2	2.06	0.56
38:DQ:23:TYR:HB2	38:DQ:28:SER:HB3	1.88	0.56
42:DU:52:ASN:CG	42:DU:54:PRO:HD3	2.26	0.56
43:DV:4:ILE:HD12	43:DV:63:ILE:CG1	2.35	0.56
44:DW:37:VAL:HG13	44:DW:55:ASP:OD2	2.06	0.56
45:DX:69:GLU:HA	45:DX:72:ALA:HB3	1.86	0.56
1:AA:559:A:H4'	1:AA:560:A:O5'	2.06	0.56
1:AA:673:A:H1'	18:AR:63:TYR:CE1	2.40	0.56
1:AA:1240:U:N3	7:AG:29:LEU:HD21	2.21	0.56
1:AA:1322:C:O2'	1:AA:1323:G:H5'	2.06	0.56
2:AB:58:LYS:HZ2	2:AB:62:ARG:HG3	1.70	0.56
3:AC:113:LYS:HB2	3:AC:184:ASN:OD1	2.06	0.56
3:AC:150:VAL:HG12	3:AC:199:VAL:HB	1.88	0.56
5:AE:140:ILE:HG22	5:AE:141:ASP:N	2.21	0.56
7:AG:49:LEU:CD1	7:AG:60:ALA:HB1	2.36	0.56
9:AI:26:LYS:C	9:AI:27:ILE:HD12	2.26	0.56
12:AL:83:GLY:H	12:AL:94:TYR:HB3	1.71	0.56
13:AM:15:VAL:HG13	13:AM:40:GLU:O	2.06	0.56
22:BA:235:U:H2'	22:BA:236:C:H6	1.70	0.56
22:BA:509:C:H5"	22:BA:509:C:C6	2.38	0.56
22:BA:948:C:H6	22:BA:948:C:O5'	1.89	0.56
22:BA:1061:U:H6	22:BA:1070:A:C1'	2.19	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1509:A:N3	22:BA:1510:G:C8	2.74	0.56
22:BA:1585:C:H2'	22:BA:1586:A:C5'	2.36	0.56
22:BA:1818:U:OP2	24:BC:155:ARG:NH1	2.39	0.56
22:BA:2065:C:H1'	22:BA:2449:U:N3	2.19	0.56
22:BA:2214:C:H2'	22:BA:2215:C:H6	1.67	0.56
22:BA:2249:U:N3	22:BA:2253:G:OP2	2.38	0.56
23:BB:61:G:H2'	23:BB:62:C:H6	1.70	0.56
27:BF:84:ILE:O	27:BF:84:ILE:HG13	2.05	0.56
32:BK:21:CYS:CB	32:BK:39:ILE:HD11	2.17	0.56
33:BL:110:VAL:CG1	33:BL:131:ALA:HB1	2.35	0.56
33:BL:127:VAL:HG11	33:BL:142:ILE:HG21	1.87	0.56
37:BP:58:PHE:CD2	37:BP:58:PHE:N	2.74	0.56
40:BS:95:ARG:O	40:BS:96:ILE:HG12	2.06	0.56
44:BW:28:GLU:N	44:BW:31:LEU:HG	2.21	0.56
53:CA:17:U:H2'	53:CA:18:C:H6	1.70	0.56
53:CA:120:A:C5	53:CA:122:G:C6	2.94	0.56
53:CA:199:A:O2'	53:CA:200:G:O4'	2.24	0.56
53:CA:260:G:OP1	20:CT:74:HIS:HE1	1.89	0.56
53:CA:801:U:O2'	53:CA:802:A:H5'	2.06	0.56
53:CA:1189:U:O2'	3:CC:175:HIS:CD2	2.58	0.56
53:CA:1446:A:C2'	53:CA:1447:A:H5'	2.36	0.56
3:CC:83:VAL:HA	3:CC:86:LEU:HD12	1.88	0.56
3:CC:104:GLU:HG2	3:CC:105:VAL:H	1.71	0.56
4:CD:187:ARG:NH2	4:CD:191:SER:CB	2.68	0.56
5:CE:131:ASN:HD22	5:CE:132:PRO:HD2	1.70	0.56
56:CP:17:TYR:CD1	56:CP:39:PHE:HD2	2.24	0.56
17:CQ:82:VAL:HG13	17:CQ:82:VAL:OXT	2.05	0.56
20:CT:61:ALA:O	20:CT:67:HIS:HA	2.05	0.56
22:DA:39:G:N2	22:DA:441:U:C2	2.73	0.56
22:DA:49:A:N6	22:DA:177:G:C5	2.73	0.56
22:DA:57:C:O2'	41:DT:36:LYS:HE2	2.06	0.56
22:DA:217:A:O2'	22:DA:218:A:C5'	2.54	0.56
22:DA:238:C:H4'	22:DA:608:A:O2'	2.06	0.56
22:DA:412:A:N6	22:DA:2412:A:O4'	2.39	0.56
22:DA:665:U:H2'	22:DA:666:A:H8	1.71	0.56
22:DA:685:A:H1'	22:DA:688:U:O4	2.06	0.56
22:DA:750:A:H2'	22:DA:750:A:N3	2.21	0.56
22:DA:1317:G:H2'	22:DA:1318:U:O4'	2.05	0.56
22:DA:1913:A:C4'	22:DA:1914:C:OP1	2.50	0.56
22:DA:2038:G:H2'	22:DA:2039:U:O4'	2.06	0.56
22:DA:2102:G:C2'	22:DA:2103:C:H5'	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2769:U:C2'	22:DA:2770:G:H5'	2.36	0.56
24:DC:73:ILE:N	24:DC:116:GLN:HE21	2.04	0.56
25:DD:202:ILE:N	25:DD:202:ILE:CD1	2.69	0.56
31:DJ:23:LYS:CB	31:DJ:28:LEU:HD13	2.35	0.56
34:DM:34:LYS:HD3	34:DM:131:VAL:HG21	1.86	0.56
38:DQ:89:ILE:HG22	38:DQ:91:ARG:H	1.70	0.56
41:DT:5:GLU:HA	41:DT:8:LEU:HD12	1.88	0.56
43:DV:21:ARG:HD3	43:DV:87:GLN:HG2	1.87	0.56
47:DZ:51:SER:HA	47:DZ:54:VAL:HG22	1.88	0.56
1:AA:131:A:O2'	1:AA:132:C:O4'	2.24	0.56
1:AA:290:C:C2'	1:AA:291:U:H5'	2.36	0.56
1:AA:334:C:O2'	1:AA:335:C:H5'	2.06	0.56
1:AA:335:C:H2'	1:AA:336:A:H8	1.71	0.56
1:AA:658:C:O2'	1:AA:659:U:H5'	2.06	0.56
1:AA:736:C:H2'	1:AA:737:C:C6	2.41	0.56
1:AA:859:G:H2'	1:AA:860:A:C8	2.41	0.56
1:AA:1004:A:H2'	1:AA:1005:A:O4'	2.05	0.56
1:AA:1473:G:C2'	1:AA:1474:U:H5'	2.36	0.56
2:AB:13:VAL:CG2	2:AB:207:ARG:NH2	2.68	0.56
6:AF:97:THR:O	6:AF:98:GLU:CG	2.49	0.56
11:AK:124:LYS:HZ3	21:AU:33:ARG:NH2	2.03	0.56
19:AS:17:LYS:HB3	19:AS:30:LEU:HD23	1.87	0.56
20:AT:29:THR:HA	20:AT:32:LYS:HG2	1.88	0.56
22:BA:313:G:O2'	22:BA:314:C:H5'	2.06	0.56
22:BA:1184:U:C3'	22:BA:1184:U:C6	2.89	0.56
22:BA:1654:A:C1'	25:BD:118:PHE:CD1	2.85	0.56
22:BA:1762:A:H8	22:BA:1762:A:O5'	1.89	0.56
22:BA:2389:G:H5"	22:BA:2390:U:O4'	2.06	0.56
22:BA:2418:A:H2'	22:BA:2419:U:O4'	2.05	0.56
25:BD:190:LYS:O	25:BD:191:GLY:O	2.24	0.56
27:BF:129:MET:CG	27:BF:153:ILE:CD1	2.77	0.56
28:BG:83:THR:C	28:BG:84:LYS:CD	2.75	0.56
28:BG:132:LEU:N	28:BG:132:LEU:HD23	2.21	0.56
36:BO:48:LEU:HD12	36:BO:87:ILE:HD12	1.86	0.56
39:BR:20:VAL:HG21	39:BR:22:LEU:HD21	1.88	0.56
39:BR:39:LEU:HB3	39:BR:49:ILE:HD13	1.87	0.56
53:CA:106:C:C2'	53:CA:107:G:H5'	2.36	0.56
53:CA:147:G:H2'	53:CA:148:G:H8	1.69	0.56
53:CA:242:G:N2	53:CA:285:C:C2	2.74	0.56
53:CA:785:G:N3	53:CA:785:G:H2'	2.21	0.56
53:CA:937:A:C2	53:CA:1379:G:C6	2.93	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:974:A:HO2'	53:CA:975:A:P	2.29	0.56
53:CA:1139:G:H4'	53:CA:1140:C:H5'	1.88	0.56
3:CC:25:THR:HG23	14:CN:75:LYS:HD2	1.88	0.56
3:CC:180:ASP:OD2	3:CC:203:LYS:HB2	2.05	0.56
9:CI:59:LYS:HE3	9:CI:60:LEU:CG	2.35	0.56
10:CJ:17:LEU:HD23	10:CJ:96:VAL:HG13	1.88	0.56
22:DA:28:A:HO2'	22:DA:29:U:H5'	1.71	0.56
22:DA:70:G:O2'	22:DA:71:A:H5"	2.04	0.56
22:DA:192:C:H2'	22:DA:193:U:C5'	2.31	0.56
22:DA:404:A:C2	22:DA:421:C:N3	2.74	0.56
22:DA:477:A:C2'	22:DA:478:A:C8	2.88	0.56
22:DA:659:G:C5	22:DA:660:C:C4	2.93	0.56
22:DA:811:U:C5'	22:DA:812:C:OP2	2.52	0.56
22:DA:1056:G:N2	22:DA:1102:C:C5	2.70	0.56
22:DA:1316:U:O2'	22:DA:1317:G:H5'	2.05	0.56
22:DA:1467:U:C2'	22:DA:1468:U:H5'	2.34	0.56
22:DA:1731:G:N3	22:DA:1733:G:C8	2.74	0.56
22:DA:1816:C:O2'	22:DA:1817:G:P	2.63	0.56
22:DA:1965:C:H2'	22:DA:1966:A:H8	1.71	0.56
22:DA:2093:G:C5	22:DA:2225:A:C5	2.94	0.56
22:DA:2308:G:C8	22:DA:2310:C:N4	2.74	0.56
22:DA:2331:G:H4'	44:DW:41:GLY:N	2.21	0.56
22:DA:2638:G:O2'	22:DA:2639:A:H8	1.87	0.56
22:DA:2663:G:H2'	22:DA:2664:G:C8	2.41	0.56
22:DA:2868:A:O2'	22:DA:2869:G:C5'	2.54	0.56
22:DA:2891:U:C2'	22:DA:2892:G:H5'	2.36	0.56
57:DB:5:U:H2'	57:DB:6:G:H8	1.70	0.56
24:DC:9:SER:O	24:DC:12:ARG:HB2	2.05	0.56
58:DF:36:ASN:O	58:DF:37:MET:CB	2.54	0.56
28:DG:1:SER:C	28:DG:3:VAL:H	2.09	0.56
32:DK:2:ILE:O	32:DK:3:GLN:CG	2.53	0.56
34:DM:72:PRO:O	34:DM:73:ILE:CB	2.54	0.56
37:DP:28:LYS:H	37:DP:28:LYS:NZ	2.04	0.56
44:DW:18:LYS:H	44:DW:36:ILE:HG13	1.71	0.56
44:DW:28:GLU:HG3	44:DW:29:SER:H	1.71	0.56
1:AA:284:C:H2'	1:AA:285:C:H6	1.71	0.55
1:AA:373:A:H2'	1:AA:374:A:H8	1.70	0.55
1:AA:418:C:N4	62:AA:1717:HOH:O	2.39	0.55
1:AA:737:C:H2'	1:AA:738:C:C6	2.40	0.55
1:AA:807:A:H2'	1:AA:808:C:C6	2.40	0.55
1:AA:978:A:O2'	1:AA:1322:C:H5	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1507:A:C2	1:AA:1508:A:C5	2.94	0.55
2:AB:86:CYS:HB2	2:AB:88:GLN:CG	2.33	0.55
2:AB:138:ARG:HG3	2:AB:139:GLU:N	2.20	0.55
2:AB:161:PHE:HA	2:AB:183:PHE:O	2.06	0.55
3:AC:142:ARG:HB3	3:AC:143:LEU:HD13	1.87	0.55
5:AE:62:ALA:O	5:AE:65:LYS:HB2	2.06	0.55
5:AE:113:VAL:O	5:AE:117:ALA:HB2	2.06	0.55
6:AF:4:TYR:O	6:AF:63:ASN:HA	2.06	0.55
7:AG:37:THR:O	7:AG:41:ILE:HG13	2.06	0.55
7:AG:49:LEU:HD12	7:AG:60:ALA:HB1	1.88	0.55
9:AI:60:LEU:HD23	9:AI:60:LEU:H	1.71	0.55
9:AI:113:LYS:HG2	9:AI:114:LYS:N	2.21	0.55
10:AJ:32:THR:HG23	10:AJ:33:GLY:N	2.22	0.55
12:AL:85:ARG:HG3	12:AL:86:VAL:N	2.20	0.55
20:AT:20:ASN:O	20:AT:24:ARG:HB2	2.05	0.55
22:BA:78:U:H2'	22:BA:79:C:C6	2.41	0.55
22:BA:670:A:H4'	22:BA:671:C:O5'	2.05	0.55
22:BA:726:G:O2'	22:BA:727:A:OP2	2.24	0.55
22:BA:1157:G:HO2'	22:BA:1158:C:H5'	1.69	0.55
22:BA:1396:U:H5"	22:BA:1397:U:OP2	2.06	0.55
22:BA:1872:A:C2'	22:BA:1873:G:O4'	2.53	0.55
22:BA:2847:U:C2'	22:BA:2848:G:H5'	2.36	0.55
31:BJ:44:TYR:HD2	38:BQ:63:ARG:CG	2.19	0.55
36:BO:88:LYS:HE2	36:BO:116:GLN:HE22	1.72	0.55
41:BT:29:THR:H	41:BT:86:THR:HA	1.69	0.55
43:BV:29:ILE:O	43:BV:91:PHE:HB2	2.07	0.55
53:CA:34:C:O2	53:CA:34:C:H2'	2.05	0.55
53:CA:131:A:C2	53:CA:132:C:N3	2.73	0.55
53:CA:168:G:C2'	53:CA:169:C:H5'	2.36	0.55
53:CA:373:A:H2'	53:CA:374:A:C8	2.40	0.55
53:CA:393:A:OP2	56:CP:12:LYS:HD2	2.06	0.55
53:CA:406:G:N7	53:CA:495:A:H2'	2.21	0.55
53:CA:439:U:H2'	53:CA:440:C:H6	1.71	0.55
53:CA:608:A:H2'	53:CA:609:A:O4'	2.07	0.55
53:CA:1014:A:C4'	19:CS:13:HIS:CD2	2.71	0.55
2:CB:82:ALA:HB1	2:CB:217:ALA:HB1	1.89	0.55
5:CE:89:THR:OG1	5:CE:90:GLY:N	2.35	0.55
55:CM:106:ARG:CZ	55:CM:112:ARG:HB3	2.36	0.55
56:CP:6:LEU:HD13	56:CP:17:TYR:CD2	2.40	0.55
19:CS:52:ASN:HD22	19:CS:52:ASN:C	2.09	0.55
22:DA:297:G:C2	22:DA:342:A:C2	2.94	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:491:G:O2'	22:DA:492:A:C5'	2.54	0.55
22:DA:492:A:N1	40:DS:49:LYS:CE	2.68	0.55
22:DA:972:A:H3'	22:DA:973:A:H5"	1.87	0.55
22:DA:1331:G:C4	22:DA:1333:G:N7	2.73	0.55
22:DA:2367:G:O2'	22:DA:2368:C:H5'	2.06	0.55
22:DA:2748:A:C2	22:DA:2757:A:C5	2.94	0.55
22:DA:2822:G:C5'	25:DD:164:GLN:HE22	2.18	0.55
25:DD:1:MET:SD	25:DD:100:LEU:HD11	2.46	0.55
25:DD:114:LYS:HD2	25:DD:116:LYS:HZ1	1.67	0.55
58:DF:67:THR:O	58:DF:84:ILE:HG22	2.06	0.55
58:DF:113:PHE:CZ	58:DF:116:LEU:HD22	2.41	0.55
33:DL:93:ASN:O	33:DL:95:LEU:N	2.38	0.55
35:DN:7:GLY:O	35:DN:8:ARG:HB2	2.04	0.55
35:DN:28:LEU:O	35:DN:32:GLU:N	2.36	0.55
38:DQ:69:ARG:HB2	38:DQ:69:ARG:HH21	1.70	0.55
44:DW:36:ILE:CG2	44:DW:39:GLN:HB2	2.35	0.55
45:DX:31:ASN:ND2	45:DX:31:ASN:N	2.42	0.55
47:DZ:53:MET:O	47:DZ:54:VAL:HG13	2.06	0.55
1:AA:16:A:C2'	1:AA:17:U:H5'	2.36	0.55
1:AA:184:G:HO2'	1:AA:185:U:H6	1.49	0.55
1:AA:425:G:H2'	1:AA:426:U:H5'	1.88	0.55
1:AA:430:A:C4	1:AA:431:A:C8	2.95	0.55
1:AA:1112:C:C4	3:AC:177:LEU:HD22	2.41	0.55
1:AA:1250:A:N3	1:AA:1370:G:O2'	2.31	0.55
2:AB:41:ASN:OD1	2:AB:44:LYS:HB2	2.06	0.55
5:AE:104:ILE:O	5:AE:104:ILE:HG23	2.06	0.55
5:AE:135:VAL:HG22	5:AE:136:VAL:N	2.19	0.55
22:BA:480:A:H2	22:BA:499:U:O2	1.89	0.55
22:BA:973:A:O4'	22:BA:1188:U:C6	2.59	0.55
22:BA:2026:U:C2	22:BA:2027:G:C8	2.94	0.55
22:BA:2145:C:H3'	22:BA:2146:C:H5"	1.87	0.55
22:BA:2439:A:H4'	22:BA:2440:C:O5'	2.06	0.55
22:BA:2730:C:O3'	25:BD:174:SER:HB3	2.07	0.55
22:BA:2823:A:C5	22:BA:2824:C:C5	2.93	0.55
24:BC:33:LEU:CD2	24:BC:62:ARG:CD	2.81	0.55
24:BC:71:ASP:HA	24:BC:117:SER:O	2.07	0.55
27:BF:134:GLN:HG2	27:BF:135:ILE:N	2.22	0.55
28:BG:84:LYS:CD	28:BG:133:LYS:HG2	2.34	0.55
33:BL:95:LEU:CD2	33:BL:100:ILE:HG12	2.31	0.55
43:BV:70:ILE:HD12	43:BV:93:ARG:HH21	1.70	0.55
53:CA:15:G:C2	53:CA:16:A:C4	2.94	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:67:C:OP1	53:CA:199:A:H5”	2.07	0.55
53:CA:158:G:H2’	53:CA:159:G:H8	1.70	0.55
53:CA:1365:G:O2’	53:CA:1366:C:H5’	2.06	0.55
2:CB:9:LEU:C	2:CB:11:ALA:H	2.09	0.55
4:CD:97:LEU:HB2	4:CD:134:TYR:HB3	1.88	0.55
55:CM:13:HIS:HB3	55:CM:16:ILE:CG1	2.37	0.55
17:CQ:45:VAL:HG11	17:CQ:60:ILE:HG22	1.85	0.55
22:DA:7:G:H4’	31:DJ:15:TRP:CH2	2.41	0.55
22:DA:223:A:C4	22:DA:408:G:H1’	2.41	0.55
22:DA:224:U:C4	22:DA:225:C:C5	2.94	0.55
22:DA:597:G:C2	22:DA:661:A:C2	2.95	0.55
22:DA:841:G:C2’	22:DA:842:U:H5’	2.36	0.55
22:DA:1153:C:H2’	22:DA:1154:G:H8	1.70	0.55
22:DA:1303:G:O2’	22:DA:1304:A:H8	1.88	0.55
22:DA:1499:C:C2’	22:DA:1500:G:H5’	2.35	0.55
22:DA:2148:G:N2	22:DA:2149:U:O4	2.36	0.55
22:DA:2216:G:O2’	22:DA:2217:G:H5’	2.06	0.55
22:DA:2303:G:C6	22:DA:2314:A:N6	2.74	0.55
22:DA:2344:U:OP1	49:D1:36:LYS:HD2	2.06	0.55
22:DA:2414:G:C2’	22:DA:2415:G:H5’	2.35	0.55
22:DA:2461:A:C2	22:DA:2490:G:N2	2.74	0.55
22:DA:2677:G:C4	22:DA:2731:G:N2	2.74	0.55
57:DB:55:U:H1’	58:DF:25:MET:SD	2.45	0.55
24:DC:93:VAL:HG12	24:DC:101:ARG:N	2.21	0.55
25:DD:106:LYS:O	25:DD:107:VAL:HB	2.07	0.55
25:DD:151:THR:HG22	25:DD:152:PRO:N	2.21	0.55
28:DG:95:ALA:HB3	28:DG:127:GLN:HA	1.87	0.55
29:DH:115:VAL:CG1	29:DH:132:PHE:HB2	2.24	0.55
29:DH:132:PHE:CZ	29:DH:134:VAL:CB	2.83	0.55
33:DL:93:ASN:CG	33:DL:94:THR:H	2.08	0.55
34:DM:29:GLY:CA	34:DM:64:TRP:HZ3	2.19	0.55
34:DM:74:THR:HB	34:DM:87:GLY:O	2.06	0.55
42:DU:10:VAL:O	42:DU:21:ARG:HA	2.06	0.55
42:DU:22:GLY:HA3	42:DU:36:GLU:HB3	1.88	0.55
46:DY:25:GLN:HB2	46:DY:46:VAL:HG11	1.87	0.55
1:AA:513:C:H2’	1:AA:514:C:H6	1.71	0.55
1:AA:600:A:H2’	1:AA:601:G:H8	1.70	0.55
1:AA:701:U:H5”	1:AA:703:G:O4’	2.05	0.55
1:AA:946:A:C2	1:AA:1236:A:C2	2.94	0.55
3:AC:119:ILE:HD11	3:AC:133:MET:HA	1.88	0.55
5:AE:131:ASN:O	5:AE:135:VAL:HG12	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:69:ARG:CD	7:AG:95:ARG:HG2	2.37	0.55
10:AJ:53:ILE:HD11	14:AN:84:ARG:NH2	2.21	0.55
14:AN:11:LYS:HB2	14:AN:11:LYS:HZ3	1.71	0.55
22:BA:782:A:H4'	22:BA:783:A:O5'	2.06	0.55
22:BA:947:A:O2'	22:BA:984:A:C2	2.53	0.55
22:BA:1138:G:H5"	22:BA:1139:G:OP2	2.05	0.55
22:BA:1378:A:HO2'	22:BA:1379:U:H3'	1.71	0.55
22:BA:1381:G:H1'	22:BA:1571:A:N1	2.22	0.55
22:BA:1767:G:C2	22:BA:1986:C:C2	2.94	0.55
22:BA:2832:U:HO2'	22:BA:2833:U:P	2.29	0.55
24:BC:33:LEU:HD21	24:BC:62:ARG:HD3	1.87	0.55
32:BK:59:LYS:HG3	32:BK:89:ASN:HD22	1.70	0.55
37:BP:4:ILE:HA	37:BP:7:LEU:HB2	1.87	0.55
44:BW:76:ARG:CG	44:BW:76:ARG:NH2	2.52	0.55
52:B4:15:LYS:O	52:B4:16:ILE:O	2.24	0.55
53:CA:266:G:O2'	53:CA:267:C:H3'	2.06	0.55
53:CA:453:G:H2'	53:CA:454:G:C8	2.41	0.55
53:CA:649:A:H2'	53:CA:650:G:O4'	2.07	0.55
53:CA:796:C:H4'	11:CK:126:ARG:NH2	2.21	0.55
53:CA:1053:G:OP1	53:CA:1054:C:H3'	2.07	0.55
53:CA:1150:A:N6	53:CA:1151:A:N6	2.53	0.55
53:CA:1279:G:H2'	10:CJ:45:ARG:HH21	1.72	0.55
53:CA:1421:G:H1	53:CA:1479:C:H42	1.55	0.55
3:CC:130:ARG:O	3:CC:133:MET:HG2	2.06	0.55
3:CC:152:VAL:CG2	3:CC:156:LEU:HD21	2.32	0.55
4:CD:77:GLU:OE1	4:CD:81:LEU:HD21	2.07	0.55
12:CL:51:VAL:HG12	12:CL:52:CYS:N	2.21	0.55
15:CO:69:LEU:O	15:CO:69:LEU:HD22	2.06	0.55
17:CQ:27:PHE:HD1	17:CQ:36:PHE:HB3	1.71	0.55
22:DA:64:A:H2'	22:DA:65:U:O4'	2.06	0.55
22:DA:511:U:H5"	22:DA:1235:G:H4'	1.89	0.55
22:DA:1069:A:O2'	22:DA:1070:A:C5'	2.46	0.55
22:DA:1116:G:C2	22:DA:1117:C:N1	2.73	0.55
22:DA:1278:C:O2'	35:DN:27:SER:HB3	2.06	0.55
22:DA:1667:G:P	32:DK:6:THR:HA	2.47	0.55
22:DA:2473:U:OP2	22:DA:2473:U:H6	1.89	0.55
22:DA:2812:G:C6	22:DA:2813:A:C6	2.95	0.55
57:DB:12:C:N3	44:DW:73:PRO:HA	2.22	0.55
58:DF:74:ALA:HB1	58:DF:76:PHE:CD2	2.41	0.55
32:DK:20:MET:O	32:DK:41:ILE:HG13	2.06	0.55
34:DM:71:LYS:HG3	34:DM:72:PRO:HD2	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DP:51:ASN:O	37:DP:52:ARG:HD3	2.07	0.55
37:DP:62:LYS:O	37:DP:63:ILE:HB	2.06	0.55
37:DP:105:LYS:HA	37:DP:108:ARG:CZ	2.36	0.55
41:DT:14:PRO:HG2	41:DT:15:HIS:H	1.71	0.55
44:DW:23:LYS:HD2	44:DW:24:ARG:CA	2.36	0.55
46:DY:6:LEU:HD21	46:DY:56:LEU:HD12	1.88	0.55
47:DZ:40:THR:HG22	47:DZ:42:ALA:H	1.72	0.55
1:AA:14:U:H2'	1:AA:16:A:OP2	2.06	0.55
1:AA:21:G:N2	1:AA:22:G:C6	2.74	0.55
1:AA:66:A:O4'	1:AA:173:U:C4	2.60	0.55
1:AA:66:A:O5'	1:AA:66:A:C8	2.59	0.55
1:AA:74:A:C2	1:AA:75:G:C4	2.94	0.55
1:AA:1358:U:C5	1:AA:1359:C:C4	2.95	0.55
2:AB:162:VAL:CG2	2:AB:184:ALA:HB2	2.37	0.55
3:AC:6:PRO:HG2	3:AC:183:TYR:CD2	2.41	0.55
3:AC:89:VAL:O	3:AC:93:ILE:HG13	2.05	0.55
5:AE:152:VAL:C	5:AE:155:LYS:HZ2	2.09	0.55
22:BA:38:A:O2'	26:BE:43:THR:HA	2.06	0.55
22:BA:50:U:H4'	22:BA:51:G:OP2	2.06	0.55
22:BA:226:A:N6	22:BA:227:A:N1	2.53	0.55
22:BA:455:C:N3	22:BA:472:A:H2'	2.21	0.55
22:BA:581:C:OP1	38:BQ:32:ARG:HB2	2.06	0.55
22:BA:876:C:C2'	22:BA:877:A:O4'	2.53	0.55
22:BA:1045:C:H5'	22:BA:1047:G:O4'	2.07	0.55
22:BA:1247:A:C4	22:BA:1249:U:C5	2.94	0.55
22:BA:2747:G:O2'	28:BG:66:THR:HG22	2.06	0.55
23:BB:34:A:C2	23:BB:49:C:O2	2.59	0.55
23:BB:46:A:C5	23:BB:47:C:C5	2.94	0.55
24:BC:156:SER:O	24:BC:194:VAL:HG11	2.07	0.55
27:BF:129:MET:HE1	27:BF:153:ILE:HD11	1.84	0.55
30:BI:104:GLN:O	30:BI:105:LEU:CB	2.54	0.55
31:BJ:2:LYS:N	31:BJ:2:LYS:CD	2.65	0.55
32:BK:88:ASN:ND2	32:BK:90:ASN:H	2.03	0.55
47:BZ:48:ASN:O	47:BZ:51:SER:HB3	2.06	0.55
53:CA:204:G:H2'	53:CA:205:A:H8	1.71	0.55
53:CA:658:C:H1'	15:CO:21:THR:HG21	1.88	0.55
53:CA:1129:C:O2'	53:CA:1130:A:H8	1.89	0.55
53:CA:1278:G:O2'	53:CA:1279:G:C2	2.60	0.55
53:CA:1409:C:H6	53:CA:1409:C:O5'	1.90	0.55
53:CA:1480:A:C4	53:CA:1481:U:C6	2.95	0.55
3:CC:53:ARG:HH11	3:CC:53:ARG:HB2	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:104:ILE:N	5:CE:122:VAL:H	1.96	0.55
54:CG:100:MET:HA	54:CG:103:ILE:HG13	1.87	0.55
9:CI:45:MET:CE	9:CI:48:ARG:HG3	2.35	0.55
56:CP:6:LEU:HB2	56:CP:17:TYR:HB3	1.88	0.55
17:CQ:46:HIS:HB2	17:CQ:70:LYS:HZ1	1.70	0.55
22:DA:547:A:H8	22:DA:548:G:H5'	1.71	0.55
22:DA:845:A:C2	22:DA:847:U:H1'	2.41	0.55
22:DA:1179:G:O2'	22:DA:1180:U:H5'	2.06	0.55
22:DA:1431:A:O2'	22:DA:1432:G:H5'	2.06	0.55
22:DA:1435:G:C2	22:DA:1558:C:N4	2.74	0.55
22:DA:2094:A:HO2'	22:DA:2095:A:H8	1.55	0.55
22:DA:2408:U:HO2'	22:DA:2409:G:H8	1.53	0.55
22:DA:2422:C:H2'	22:DA:2423:U:H5"	1.89	0.55
22:DA:2440:C:H2'	22:DA:2441:U:O4'	2.05	0.55
22:DA:2615:U:O2'	22:DA:2616:C:C5'	2.54	0.55
22:DA:2800:A:H2'	22:DA:2801:G:C4'	2.37	0.55
22:DA:2881:U:O2'	22:DA:2882:A:H5'	2.07	0.55
25:DD:40:LEU:HD12	25:DD:40:LEU:N	2.20	0.55
25:DD:124:ARG:HD3	25:DD:125:TRP:HE1	1.68	0.55
25:DD:193:VAL:HB	25:DD:194:PRO:HD2	1.88	0.55
26:DE:5:LEU:HD23	26:DE:120:VAL:HG22	1.87	0.55
26:DE:112:LEU:HD11	26:DE:186:VAL:HG11	1.88	0.55
26:DE:131:THR:HG22	26:DE:161:ALA:H	1.71	0.55
58:DF:71:LYS:O	58:DF:72:SER:HB3	2.06	0.55
29:DH:61:VAL:CG1	29:DH:62:LEU:H	2.20	0.55
31:DJ:103:ILE:C	31:DJ:103:ILE:HD12	2.27	0.55
52:D4:8:LYS:HA	52:D4:16:ILE:HD11	1.89	0.55
1:AA:49:U:C5	1:AA:364:A:C6	2.95	0.55
1:AA:633:G:C2'	1:AA:634:C:H5'	2.36	0.55
1:AA:877:G:N3	8:AH:1:SER:N	2.54	0.55
1:AA:923:A:H2'	1:AA:924:C:C6	2.41	0.55
4:AD:190:LEU:O	4:AD:191:SER:CB	2.55	0.55
9:AI:98:ARG:HG2	9:AI:98:ARG:HH11	1.72	0.55
10:AJ:26:VAL:HG12	10:AJ:30:LYS:HE2	1.87	0.55
13:AM:2:ARG:HG3	13:AM:3:ILE:H	1.70	0.55
15:AO:39:GLN:OE1	22:BA:716:A:H1'	2.07	0.55
22:BA:1343:G:O2'	22:BA:1344:U:H5'	2.06	0.55
22:BA:1588:G:C2	22:BA:1589:U:C5	2.93	0.55
22:BA:2430:A:H5'	22:BA:2431:U:OP2	2.06	0.55
22:BA:2525:G:C2	22:BA:2539:C:C2	2.95	0.55
24:BC:259:ASN:O	24:BC:260:LYS:HB2	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BE:46:GLN:HB2	26:BE:83:VAL:HG11	1.88	0.55
29:BH:61:VAL:O	29:BH:61:VAL:HG12	2.07	0.55
30:BI:58:ILE:O	30:BI:60:VAL:HG23	2.06	0.55
36:BO:102:ARG:O	36:BO:105:ALA:HB3	2.06	0.55
41:BT:51:PHE:C	41:BT:52:GLU:HG2	2.27	0.55
44:BW:29:SER:N	44:BW:63:ASP:HB3	2.21	0.55
45:BX:46:VAL:HG21	45:BX:67:LEU:HD11	1.88	0.55
47:BZ:8:GLN:O	47:BZ:9:THR:HG22	2.07	0.55
53:CA:386:C:C5	53:CA:387:U:C5	2.95	0.55
54:CG:9:ARG:HD3	54:CG:24:LYS:HZ1	1.72	0.55
9:CI:125:GLN:H	9:CI:125:GLN:NE2	2.04	0.55
55:CM:94:LEU:HD23	55:CM:101:THR:HG22	1.89	0.55
20:CT:73:ARG:HG2	20:CT:73:ARG:NH1	2.14	0.55
22:DA:37:C:H1'	26:DE:45:ALA:HB2	1.89	0.55
22:DA:64:A:H8	22:DA:64:A:O5'	1.89	0.55
22:DA:457:A:N1	22:DA:470:A:H5"	2.21	0.55
22:DA:513:A:H2'	22:DA:514:A:H8	1.72	0.55
22:DA:870:U:H2'	22:DA:871:U:C5'	2.35	0.55
22:DA:1278:C:O2'	22:DA:1279:G:H5'	2.05	0.55
22:DA:1695:G:H8	24:DC:7:PRO:O	1.89	0.55
22:DA:1721:G:H1'	22:DA:1739:A:N6	2.21	0.55
22:DA:1792:G:H5"	24:DC:203:VAL:CG2	2.37	0.55
22:DA:1931:U:OP2	22:DA:1968:G:N2	2.38	0.55
24:DC:140:VAL:HG21	24:DC:161:VAL:HB	1.87	0.55
25:DD:12:THR:CG2	25:DD:13:ARG:N	2.69	0.55
26:DE:175:ILE:O	26:DE:175:ILE:HG23	2.07	0.55
58:DF:35:LEU:HA	58:DF:152:ASP:O	2.07	0.55
58:DF:90:LEU:HB3	58:DF:95:MET:HG3	1.88	0.55
32:DK:80:ASP:HB2	37:DP:67:GLU:OE1	2.07	0.55
35:DN:56:LYS:HE2	35:DN:87:PHE:O	2.05	0.55
35:DN:103:ARG:HG3	35:DN:104:ALA:N	2.22	0.55
37:DP:16:VAL:CG1	37:DP:19:PHE:HE2	2.19	0.55
44:DW:44:PHE:HE2	44:DW:76:ARG:NE	2.04	0.55
1:AA:71:A:H3'	1:AA:71:A:OP2	2.06	0.55
1:AA:109:A:H4'	1:AA:110:C:OP2	2.07	0.55
1:AA:563:A:H1'	1:AA:566:G:O2'	2.06	0.55
1:AA:804:U:H5"	1:AA:805:C:OP2	2.06	0.55
1:AA:1239:A:H4'	1:AA:1240:U:O5'	2.05	0.55
19:AS:19:GLU:HA	19:AS:19:GLU:OE2	2.06	0.55
19:AS:40:PHE:HB2	19:AS:42:ASN:ND2	2.21	0.55
22:BA:163:C:O2'	22:BA:164:C:O5'	2.23	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:309:A:O3'	42:BU:15:GLY:HA2	2.05	0.55
22:BA:395:U:O2'	22:BA:396:G:C8	2.60	0.55
22:BA:792:A:H5"	22:BA:793:A:H5'	1.89	0.55
22:BA:817:C:H2'	22:BA:818:G:H5'	1.87	0.55
22:BA:1668:A:N3	22:BA:1674:G:C8	2.75	0.55
23:BB:58:A:H2'	23:BB:59:A:C8	2.42	0.55
23:BB:112:G:H2'	23:BB:113:C:C6	2.42	0.55
25:BD:169:ARG:C	25:BD:170:VAL:HG13	2.26	0.55
26:BE:132:LYS:HB3	26:BE:132:LYS:HZ2	1.70	0.55
27:BF:16:MET:O	27:BF:20:ASN:HA	2.07	0.55
34:BM:5:LYS:HB3	34:BM:5:LYS:HZ2	1.71	0.55
36:BO:36:TYR:N	36:BO:36:TYR:HD2	2.03	0.55
53:CA:119:A:C4'	53:CA:120:A:O5'	2.54	0.55
53:CA:265:G:O3'	17:CQ:67:SER:HA	2.06	0.55
53:CA:765:G:C4	53:CA:812:G:C6	2.95	0.55
53:CA:977:A:H8	53:CA:1223:C:N3	2.04	0.55
53:CA:1072:G:C5	53:CA:1073:U:C4	2.95	0.55
53:CA:1280:A:H5"	10:CJ:43:PRO:HG2	1.89	0.55
53:CA:1283:U:H2'	53:CA:1284:C:C6	2.41	0.55
53:CA:1350:A:O2'	53:CA:1351:U:H5'	2.06	0.55
4:CD:70:GLN:HE22	4:CD:133:SER:HB3	1.72	0.55
4:CD:78:ALA:HA	4:CD:81:LEU:HD12	1.88	0.55
55:CM:106:ARG:HH21	55:CM:112:ARG:NE	2.04	0.55
15:CO:23:SER:HB3	15:CO:26:VAL:HG23	1.87	0.55
18:CR:41:SER:HA	18:CR:46:THR:HG22	1.89	0.55
22:DA:126:A:H2'	50:D2:46:LYS:HE2	1.88	0.55
22:DA:152:A:C2'	22:DA:153:U:H5'	2.37	0.55
22:DA:230:G:C2	22:DA:231:A:N7	2.74	0.55
22:DA:352:A:C4	22:DA:353:C:H1'	2.41	0.55
22:DA:827:U:H6	62:DA:3354:HOH:O	1.90	0.55
22:DA:919:U:H2'	22:DA:920:A:H8	1.71	0.55
22:DA:1183:U:H2'	22:DA:1184:U:H6	1.71	0.55
22:DA:1655:A:H5'	25:DD:118:PHE:CE1	2.42	0.55
22:DA:1769:U:H1'	22:DA:1984:G:N2	2.21	0.55
22:DA:2147:A:H5"	22:DA:2147:A:N3	2.21	0.55
22:DA:2527:C:C2'	22:DA:2528:U:H5'	2.36	0.55
22:DA:2531:A:H5"	28:DG:156:TYR:CZ	2.40	0.55
22:DA:2834:G:N9	22:DA:2879:A:N6	2.54	0.55
24:DC:196:ASN:OD1	24:DC:199:HIS:HB2	2.06	0.55
34:DM:73:ILE:HG13	34:DM:93:VAL:HG11	1.88	0.55
36:DO:11:ALA:O	36:DO:15:ARG:HG3	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DP:7:LEU:O	37:DP:7:LEU:HD12	2.06	0.55
37:DP:32:VAL:HA	37:DP:37:LYS:HA	1.88	0.55
49:D1:47:ILE:HD12	49:D1:47:ILE:H	1.68	0.55
1:AA:122:G:O2'	1:AA:123:U:H5'	2.06	0.55
1:AA:197:A:H1'	1:AA:198:G:O4'	2.06	0.55
1:AA:666:G:C5	1:AA:741:G:C6	2.95	0.55
1:AA:1158:C:O2	1:AA:1158:C:H2'	2.07	0.55
5:AE:153:ALA:O	5:AE:154:ALA:C	2.43	0.55
6:AF:66:ALA:HB1	6:AF:67:PRO:HD2	1.89	0.55
12:AL:2:THR:HB	12:AL:5:GLN:H	1.71	0.55
22:BA:1731:G:N1	22:BA:1733:G:C6	2.74	0.55
22:BA:1992:G:N2	22:BA:1996:C:O2'	2.40	0.55
22:BA:2197:U:OP1	4:CD:150:LYS:HE3	2.07	0.55
22:BA:2358:A:C4	22:BA:2359:C:C6	2.94	0.55
22:BA:2682:A:C8	25:BD:11:MET:CG	2.90	0.55
22:BA:2823:A:H2'	22:BA:2824:C:H6	1.72	0.55
24:BC:70:LYS:NZ	24:BC:97:ASP:OD2	2.38	0.55
25:BD:42:ASN:O	25:BD:42:ASN:ND2	2.39	0.55
25:BD:101:PHE:N	25:BD:101:PHE:HD1	2.05	0.55
34:BM:78:LEU:C	34:BM:80:VAL:H	2.10	0.55
35:BN:74:GLU:O	35:BN:77:ALA:HB3	2.06	0.55
37:BP:64:SER:O	37:BP:65:ASN:C	2.44	0.55
39:BR:27:ILE:HG13	39:BR:33:VAL:CG1	2.35	0.55
53:CA:15:G:H5'	53:CA:1396:A:O2'	2.06	0.55
53:CA:158:G:C5	53:CA:164:G:C6	2.95	0.55
53:CA:330:C:O2'	53:CA:331:G:C8	2.50	0.55
53:CA:725:G:H2'	53:CA:726:C:H6	1.72	0.55
53:CA:736:C:H2'	53:CA:737:C:C6	2.41	0.55
53:CA:828:U:C5	53:CA:829:G:C8	2.95	0.55
53:CA:978:A:C6	53:CA:1318:A:C6	2.94	0.55
53:CA:1014:A:C2	19:CS:33:TRP:HB2	2.41	0.55
53:CA:1101:A:H1'	53:CA:1102:A:O4'	2.05	0.55
53:CA:1301:U:O2'	53:CA:1302:C:C6	2.60	0.55
3:CC:116:ALA:HB2	3:CC:199:VAL:CG2	2.36	0.55
5:CE:65:LYS:NZ	5:CE:68:ARG:HD3	2.22	0.55
5:CE:80:LEU:H	5:CE:121:ASN:ND2	2.04	0.55
5:CE:110:MET:HG2	5:CE:139:THR:HG21	1.88	0.55
54:CG:11:ILE:CD1	54:CG:24:LYS:HB2	2.36	0.55
55:CM:36:ALA:HB3	55:CM:55:LEU:HD11	1.89	0.55
14:CN:79:SER:CB	14:CN:81:ILE:HD11	2.37	0.55
22:DA:202:U:C3'	22:DA:203:A:C8	2.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:538:A:O2'	31:DJ:8:PRO:CG	2.54	0.55
22:DA:538:A:C2	22:DA:556:A:C4	2.94	0.55
22:DA:827:U:H5"	62:DA:3354:HOH:O	2.06	0.55
22:DA:1000:A:N1	22:DA:1001:A:C2	2.75	0.55
22:DA:1287:A:O2'	22:DA:1288:G:H5'	2.07	0.55
22:DA:1314:C:OP1	22:DA:1332:G:H5"	2.07	0.55
22:DA:1498:C:O2'	22:DA:1499:C:C5'	2.55	0.55
22:DA:2217:G:O2'	22:DA:2218:G:C5'	2.54	0.55
22:DA:2290:G:H2'	22:DA:2291:U:C6	2.42	0.55
22:DA:2331:G:H2'	22:DA:2332:C:O4'	2.07	0.55
57:DB:15:A:H1'	57:DB:109:A:N7	2.21	0.55
24:DC:19:VAL:O	24:DC:21:PRO:HD3	2.07	0.55
24:DC:94:LEU:HD13	24:DC:100:ARG:CD	2.34	0.55
25:DD:187:LEU:O	25:DD:188:LEU:HD23	2.07	0.55
26:DE:42:GLY:HA3	26:DE:90:GLN:O	2.07	0.55
26:DE:134:LEU:HA	26:DE:137:LYS:HB3	1.88	0.55
28:DG:28:LYS:H	28:DG:79:THR:HG22	1.72	0.55
29:DH:54:LEU:HA	29:DH:57:LYS:HG3	1.88	0.55
31:DJ:94:ALA:O	31:DJ:95:ARG:HB3	2.05	0.55
33:DL:116:VAL:HG13	33:DL:117:THR:H	1.70	0.55
37:DP:16:VAL:HG13	37:DP:19:PHE:HE2	1.72	0.55
41:DT:39:THR:OG1	41:DT:42:GLU:HG3	2.07	0.55
1:AA:101:A:C2'	1:AA:102:G:H5'	2.37	0.55
1:AA:184:G:O2'	1:AA:185:U:H6	1.90	0.55
1:AA:436:C:O2'	1:AA:437:U:H5'	2.06	0.55
1:AA:501:C:O2'	1:AA:502:A:H5'	2.06	0.55
1:AA:673:A:H1'	18:AR:63:TYR:HE1	1.72	0.55
1:AA:877:G:H21	8:AH:1:SER:CB	2.16	0.55
1:AA:1417:G:C6	1:AA:1482:G:C6	2.95	0.55
1:AA:1461:G:H2'	1:AA:1462:C:H6	1.71	0.55
2:AB:74:ALA:O	2:AB:75:ALA:CB	2.55	0.55
5:AE:100:GLU:CB	5:AE:121:ASN:HA	2.35	0.55
12:AL:24:GLU:O	12:AL:25:ALA:C	2.43	0.55
14:AN:50:LEU:O	14:AN:52:ARG:N	2.39	0.55
16:AP:20:VAL:HG21	16:AP:32:PHE:HB2	1.87	0.55
17:AQ:46:HIS:HB2	17:AQ:66:LEU:HD12	1.88	0.55
20:AT:66:ILE:HG13	20:AT:70:LYS:HG2	1.89	0.55
21:AU:18:PHE:O	21:AU:21:SER:HB3	2.06	0.55
22:BA:243:U:O2'	22:BA:244:A:H5'	2.05	0.55
22:BA:412:A:C2'	22:BA:413:C:H5'	2.37	0.55
22:BA:1167:C:H2'	22:BA:1168:G:O5'	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1716:U:O2'	22:BA:1717:A:H5'	2.07	0.55
24:BC:36:ASN:O	24:BC:37:SER:HB3	2.07	0.55
27:BF:52:ALA:HB2	27:BF:149:ARG:HD3	1.89	0.55
29:BH:6:LEU:O	29:BH:15:LEU:HA	2.06	0.55
32:BK:70:ARG:CD	32:BK:76:VAL:HG22	2.37	0.55
35:BN:95:THR:HG21	35:BN:113:ILE:HD11	1.88	0.55
37:BP:24:THR:CG2	37:BP:87:ARG:HB3	2.37	0.55
41:BT:29:THR:N	41:BT:86:THR:HA	2.22	0.55
53:CA:120:A:H2'	53:CA:121:U:H5"	1.83	0.55
53:CA:373:A:H5'	53:CA:373:A:C8	2.41	0.55
53:CA:410:G:OP1	4:CD:25:ARG:CD	2.54	0.55
53:CA:666:G:C6	53:CA:741:G:C6	2.95	0.55
53:CA:888:G:H4'	53:CA:1488:G:O2'	2.07	0.55
53:CA:987:G:C2'	53:CA:988:G:C8	2.60	0.55
53:CA:994:A:C6	53:CA:1216:A:H5'	2.42	0.55
53:CA:1151:A:N6	53:CA:1152:A:N6	2.55	0.55
53:CA:1215:G:O2'	53:CA:1216:A:H5'	2.06	0.55
53:CA:1345:U:C6	53:CA:1377:A:H2	2.25	0.55
53:CA:1348:U:O2'	53:CA:1349:A:H5'	2.06	0.55
53:CA:1395:C:H5"	53:CA:1402:C:O2'	2.07	0.55
53:CA:1481:U:H2'	53:CA:1482:G:H8	1.72	0.55
2:CB:89:PHE:HB3	2:CB:149:GLY:O	2.07	0.55
3:CC:93:ILE:O	3:CC:93:ILE:HG13	2.06	0.55
10:CJ:76:ILE:HG22	10:CJ:77:VAL:N	2.22	0.55
19:CS:10:ILE:HG22	19:CS:14:LEU:HD21	1.89	0.55
20:CT:62:ALA:HA	20:CT:67:HIS:CE1	2.41	0.55
22:DA:257:C:H2'	22:DA:258:G:O4'	2.06	0.55
22:DA:532:A:N6	22:DA:2020:A:H1'	2.22	0.55
22:DA:627:A:O2'	22:DA:628:G:O4'	2.25	0.55
22:DA:878:A:N3	22:DA:878:A:C3'	2.70	0.55
22:DA:1034:G:H2'	22:DA:1035:U:C6	2.42	0.55
22:DA:1056:G:H1'	22:DA:1103:A:C6	2.42	0.55
22:DA:1248:G:H2'	38:DQ:1:ALA:O	2.06	0.55
22:DA:1465:G:H2'	22:DA:1466:U:C6	2.42	0.55
22:DA:2030:A:N3	22:DA:2499:C:H5"	2.22	0.55
22:DA:2060:A:H2'	26:DE:63:LYS:HZ1	1.65	0.55
22:DA:2543:G:H2'	22:DA:2544:G:C8	2.41	0.55
22:DA:2734:A:H2'	22:DA:2735:G:C5'	2.37	0.55
25:DD:32:ASN:HB3	25:DD:52:THR:OG1	2.07	0.55
58:DF:45:ASP:C	58:DF:47:LYS:H	2.10	0.55
33:DL:23:ILE:HD12	33:DL:23:ILE:N	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DL:33:ARG:HD3	33:DL:40:SER:HA	1.89	0.55
34:DM:133:LYS:NZ	34:DM:133:LYS:HB3	2.22	0.55
36:DO:28:VAL:O	36:DO:28:VAL:HG13	2.07	0.55
36:DO:111:ARG:HA	36:DO:115:LEU:O	2.06	0.55
38:DQ:4:LYS:HE3	38:DQ:7:VAL:CG2	2.37	0.55
38:DQ:10:ARG:CZ	38:DQ:10:ARG:HB2	2.37	0.55
40:DS:86:MET:HE2	40:DS:87:PRO:HD2	1.86	0.55
41:DT:48:GLN:HA	41:DT:48:GLN:NE2	2.19	0.55
43:DV:75:GLN:HB2	43:DV:90:ASP:O	2.06	0.55
1:AA:357:G:H1'	1:AA:368:U:O2	2.07	0.55
1:AA:487:A:H2'	1:AA:488:C:C6	2.42	0.55
1:AA:596:A:C6	1:AA:645:G:C2	2.95	0.55
1:AA:797:C:O2'	1:AA:798:U:H5'	2.07	0.55
1:AA:1367:C:C5'	10:AJ:62:ARG:NH1	2.70	0.55
2:AB:19:THR:HG23	2:AB:20:ARG:H	1.72	0.55
2:AB:113:LEU:HB2	2:AB:143:LEU:HD12	1.89	0.55
7:AG:20:GLU:O	7:AG:24:LYS:HG3	2.07	0.55
7:AG:68:VAL:HB	7:AG:99:ALA:HB1	1.88	0.55
10:AJ:18:ILE:HG23	10:AJ:19:ASP:N	2.21	0.55
15:AO:80:LEU:O	15:AO:80:LEU:HD12	2.07	0.55
19:AS:79:TYR:CG	19:AS:80:ARG:N	2.75	0.55
22:BA:877:A:C2	22:BA:899:A:C2	2.94	0.55
22:BA:1009:A:H8	22:BA:1009:A:O5'	1.89	0.55
22:BA:1858:A:OP2	22:BA:1858:A:C8	2.60	0.55
22:BA:1885:A:O2'	22:BA:1886:U:H5'	2.06	0.55
22:BA:1886:U:H2'	22:BA:1887:C:C6	2.42	0.55
22:BA:1997:C:OP2	25:BD:129:THR:OG1	2.24	0.55
22:BA:2024:G:C2'	22:BA:2025:C:H5'	2.37	0.55
22:BA:2210:U:C2	22:BA:2212:A:C8	2.95	0.55
22:BA:2886:A:C2	22:BA:2887:A:H1'	2.42	0.55
32:BK:108:ARG:HG3	32:BK:108:ARG:HH11	1.71	0.55
34:BM:109:PRO:O	34:BM:110:GLU:C	2.45	0.55
52:B4:9:LYS:HB3	52:B4:14:CYS:HB2	1.87	0.55
53:CA:566:G:C4'	53:CA:567:G:OP1	2.48	0.55
53:CA:687:A:C2	53:CA:704:A:C5	2.95	0.55
53:CA:974:A:O2'	53:CA:975:A:P	2.64	0.55
53:CA:1366:C:O2'	53:CA:1367:C:H6	1.88	0.55
6:CF:62:MET:O	6:CF:63:ASN:HB2	2.07	0.55
11:CK:115:ILE:O	11:CK:115:ILE:HG23	2.07	0.55
55:CM:77:LYS:HD3	55:CM:77:LYS:C	2.27	0.55
14:CN:63:CYS:HB3	14:CN:67:GLY:H	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:81:GLN:O	20:CT:82:ILE:HG23	2.07	0.55
22:DA:9:G:H1	22:DA:2629:U:H2'	1.71	0.55
22:DA:568:U:H2'	22:DA:570:G:OP2	2.07	0.55
22:DA:586:A:H8	22:DA:586:A:O5'	1.89	0.55
22:DA:663:G:O6	22:DA:664:G:C6	2.59	0.55
22:DA:784:G:HO2'	22:DA:785:G:H8	1.54	0.55
22:DA:856:G:N2	22:DA:922:C:C2	2.75	0.55
22:DA:962:G:O2'	22:DA:963:U:H5'	2.06	0.55
22:DA:973:A:O5'	39:DR:81:LYS:HE3	2.07	0.55
22:DA:1421:G:H8	22:DA:1421:G:OP2	1.90	0.55
22:DA:1492:G:C4	22:DA:1496:A:N6	2.75	0.55
22:DA:1553:A:N7	22:DA:1555:G:C5	2.75	0.55
22:DA:1565:C:HO2'	22:DA:1566:A:H2'	1.66	0.55
22:DA:1914:C:O2'	22:DA:1915:U:H5"	2.07	0.55
22:DA:2054:A:C2	22:DA:2616:C:C2	2.95	0.55
22:DA:2095:A:H2'	22:DA:2096:C:C6	2.42	0.55
26:DE:42:GLY:HA2	26:DE:92:HIS:HE1	1.71	0.55
58:DF:59:ILE:HG23	58:DF:137:PHE:HE1	1.72	0.55
58:DF:73:VAL:O	58:DF:73:VAL:HG12	2.07	0.55
29:DH:2:GLN:O	29:DH:3:VAL:O	2.25	0.55
29:DH:5:LEU:HD11	29:DH:13:GLY:HA3	1.87	0.55
30:DI:52:LEU:O	30:DI:54:ILE:HD12	2.07	0.55
31:DJ:4:PHE:HB3	38:DQ:63:ARG:HH22	1.72	0.55
31:DJ:125:TYR:HE2	31:DJ:132:HIS:CD2	2.25	0.55
37:DP:9:GLN:HB3	37:DP:12:MET:HE3	1.83	0.55
41:DT:34:VAL:O	41:DT:35:ALA:HB3	2.06	0.55
44:DW:18:LYS:CD	44:DW:19:ARG:HG2	2.37	0.55
46:DY:57:LEU:HD13	46:DY:60:LYS:CE	2.33	0.55
49:D1:8:ILE:HG22	49:D1:9:LYS:N	2.21	0.55
51:D3:41:ARG:HG3	51:D3:41:ARG:NH2	2.10	0.55
1:AA:259:G:C4	1:AA:260:G:C8	2.95	0.55
1:AA:528:C:H5'	1:AA:529:G:OP2	2.07	0.55
1:AA:601:G:O2'	1:AA:602:A:H5'	2.05	0.55
1:AA:687:A:N7	1:AA:701:U:H5	2.05	0.55
1:AA:927:G:N2	1:AA:1391:U:H1'	2.22	0.55
1:AA:1136:C:H4'	1:AA:1137:C:OP1	2.06	0.55
1:AA:1387:G:H2'	1:AA:1388:C:H6	1.70	0.55
1:AA:1418:A:C2	1:AA:1483:A:C2	2.95	0.55
1:AA:1489:G:C2'	1:AA:1490:U:H5'	2.37	0.55
5:AE:96:GLN:HB2	5:AE:123:LEU:HD13	1.89	0.55
17:AQ:74:LEU:HD12	17:AQ:74:LEU:H	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:80:G:C2	22:BA:107:G:C2	2.94	0.55
22:BA:523:C:O2'	22:BA:524:G:H5'	2.07	0.55
22:BA:936:A:N6	62:BA:3577:HOH:O	2.38	0.55
22:BA:1090:A:O2'	22:BA:1091:G:H5'	2.06	0.55
22:BA:2510:C:H2'	22:BA:2511:U:O5'	2.06	0.55
22:BA:2787:C:O2'	22:BA:2788:C:H5'	2.07	0.55
23:BB:57:A:H2'	23:BB:58:A:H8	1.72	0.55
24:BC:90:ILE:HG23	24:BC:102:TYR:CD1	2.42	0.55
24:BC:252:LYS:HZ2	24:BC:252:LYS:CA	2.19	0.55
25:BD:16:THR:HG22	25:BD:20:VAL:O	2.06	0.55
27:BF:34:THR:HG22	27:BF:89:THR:HA	1.89	0.55
27:BF:175:PRO:O	27:BF:176:PHE:HB2	2.07	0.55
28:BG:33:THR:CA	28:BG:34:ARG:HH11	2.20	0.55
29:BH:137:GLU:HG3	29:BH:138:VAL:N	2.22	0.55
30:BI:126:ARG:HA	30:BI:129:GLU:CB	2.36	0.55
33:BL:94:THR:CG2	33:BL:95:LEU:N	2.70	0.55
47:BZ:43:ILE:C	47:BZ:43:ILE:HD12	2.28	0.55
53:CA:102:G:H2'	53:CA:103:U:H6	1.71	0.55
53:CA:791:G:C2'	53:CA:792:A:H5'	2.36	0.55
53:CA:935:A:HO2'	53:CA:936:C:H6	1.43	0.55
53:CA:1230:C:H6	53:CA:1230:C:H5"	1.72	0.55
53:CA:1449:C:O2'	53:CA:1450:U:O4'	2.24	0.55
2:CB:93:HIS:CD2	2:CB:145:ASN:O	2.54	0.55
3:CC:26:LYS:HE3	3:CC:26:LYS:CA	2.23	0.55
6:CF:54:LEU:CD1	6:CF:56:LYS:O	2.55	0.55
10:CJ:10:LEU:O	10:CJ:18:ILE:HD11	2.07	0.55
14:CN:2:LYS:HD3	14:CN:5:MET:HG3	1.87	0.55
22:DA:540:C:O2'	22:DA:541:A:H5'	2.07	0.55
22:DA:565:C:C2'	22:DA:566:U:H5'	2.36	0.55
22:DA:1014:A:C2	22:DA:1149:G:C2	2.95	0.55
22:DA:1029:A:H5"	22:DA:1030:C:OP2	2.06	0.55
22:DA:1130:U:O2'	22:DA:1131:G:H8	1.89	0.55
22:DA:1612:C:O2'	22:DA:1613:G:O5'	2.25	0.55
22:DA:1792:G:H5"	24:DC:203:VAL:HG23	1.89	0.55
22:DA:2185:U:H2'	22:DA:2186:G:H8	1.72	0.55
22:DA:2192:U:H2'	22:DA:2192:U:O2	2.05	0.55
22:DA:2261:C:H41	44:DW:10:ARG:HB3	1.72	0.55
22:DA:2313:C:O2'	22:DA:2314:A:C5'	2.55	0.55
22:DA:2817:U:O2	22:DA:2836:U:H1'	2.07	0.55
24:DC:29:PHE:CE2	24:DC:31:PRO:HG2	2.42	0.55
25:DD:12:THR:OG1	37:DP:4:ILE:HG23	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DD:141:ARG:HH11	25:DD:141:ARG:CB	2.15	0.55
58:DF:11:VAL:HG13	58:DF:171:ALA:HB2	1.87	0.55
29:DH:66:ASN:HD22	29:DH:137:GLU:HB3	1.72	0.55
29:DH:136:SER:O	29:DH:137:GLU:HG3	2.07	0.55
33:DL:127:VAL:CG1	33:DL:132:ARG:HB2	2.36	0.55
1:AA:69:G:H2'	1:AA:69:G:N3	2.23	0.54
1:AA:215:C:H2'	1:AA:216:U:C6	2.42	0.54
1:AA:224:U:H2'	1:AA:225:C:H6	1.72	0.54
1:AA:251:G:O4'	1:AA:252:U:H5"	2.06	0.54
1:AA:514:C:O2'	1:AA:515:G:H5'	2.08	0.54
1:AA:918:A:H2'	1:AA:919:A:C8	2.42	0.54
1:AA:954:G:H21	1:AA:1227:A:H2	1.54	0.54
1:AA:1052:U:C5'	1:AA:1053:G:OP2	2.55	0.54
8:AH:28:SER:CB	8:AH:58:LEU:HB2	2.34	0.54
11:AK:76:TYR:N	11:AK:76:TYR:HD1	2.05	0.54
12:AL:84:GLY:O	12:AL:95:HIS:CD2	2.58	0.54
19:AS:79:TYR:CZ	19:AS:80:ARG:HB2	2.42	0.54
22:BA:301:G:HO2'	22:BA:302:C:H5"	1.72	0.54
22:BA:719:C:O2'	22:BA:720:U:H5'	2.06	0.54
22:BA:745:G:C2'	22:BA:746:U:H5'	2.37	0.54
22:BA:997:G:O2'	22:BA:998:C:H5'	2.06	0.54
22:BA:1140:C:P	31:BJ:68:LYS:NZ	2.80	0.54
22:BA:1465:G:C6	22:BA:1466:U:N3	2.75	0.54
22:BA:2777:G:O5'	22:BA:2777:G:C8	2.59	0.54
23:BB:34:A:H2'	23:BB:35:C:OP2	2.05	0.54
27:BF:142:TYR:O	27:BF:145:VAL:HG22	2.07	0.54
29:BH:25:TYR:O	29:BH:29:PHE:HB3	2.06	0.54
32:BK:87:LEU:HD23	32:BK:94:PRO:HA	1.89	0.54
41:BT:30:ILE:HG23	41:BT:85:VAL:CB	2.30	0.54
41:BT:69:ARG:NE	41:BT:70:HIS:H	2.05	0.54
53:CA:261:U:OP2	20:CT:70:LYS:HE2	2.07	0.54
53:CA:501:C:H2'	53:CA:502:A:H8	1.71	0.54
53:CA:1160:G:O6	53:CA:1181:G:C6	2.60	0.54
4:CD:52:VAL:HG12	4:CD:53:GLN:N	2.21	0.54
5:CE:105:ILE:HG22	5:CE:105:ILE:O	2.06	0.54
12:CL:42:LYS:HD3	12:CL:43:LYS:HZ2	1.71	0.54
14:CN:76:PHE:CZ	14:CN:95:LEU:HD22	2.42	0.54
56:CP:8:ARG:CB	56:CP:28:ARG:NH1	2.68	0.54
21:CU:37:TYR:O	21:CU:38:GLU:HG2	2.07	0.54
22:DA:128:C:H2'	22:DA:129:C:C5	2.42	0.54
22:DA:151:C:H2'	22:DA:152:A:C8	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:190:A:H2'	22:DA:191:A:O4'	2.07	0.54
22:DA:197:A:N7	22:DA:2430:A:C8	2.75	0.54
22:DA:224:U:O4	22:DA:420:C:H5'	2.08	0.54
22:DA:322:A:C2	22:DA:340:A:C6	2.95	0.54
22:DA:571:U:C4	22:DA:2030:A:C6	2.95	0.54
22:DA:608:A:H2'	22:DA:609:A:C8	2.42	0.54
22:DA:675:A:OP1	26:DE:60:TRP:CZ2	2.60	0.54
22:DA:763:G:C4	22:DA:765:C:C6	2.94	0.54
22:DA:924:G:C2'	22:DA:925:A:H5'	2.38	0.54
22:DA:962:G:O2'	22:DA:963:U:C6	2.58	0.54
22:DA:991:C:H6	22:DA:991:C:O5'	1.90	0.54
22:DA:995:C:O2'	38:DQ:60:TRP:CZ2	2.56	0.54
22:DA:1355:G:C6	22:DA:1377:G:N2	2.75	0.54
22:DA:1440:U:H2'	22:DA:1441:G:H8	1.72	0.54
22:DA:1512:C:H2'	22:DA:1513:U:O4'	2.07	0.54
22:DA:1738:G:O2'	22:DA:1739:A:C8	2.56	0.54
22:DA:1956:U:H2'	22:DA:1957:C:C6	2.41	0.54
22:DA:1998:A:O3'	22:DA:2724:U:H4'	2.05	0.54
22:DA:2191:A:H5"	22:DA:2192:U:OP2	2.07	0.54
22:DA:2285:C:H5	49:D1:5:ARG:NH2	2.04	0.54
22:DA:2691:C:H5'	22:DA:2691:C:C6	2.42	0.54
22:DA:2732:G:H5"	22:DA:2733:A:O4'	2.06	0.54
57:DB:11:C:H5'	44:DW:71:LYS:HD3	1.89	0.54
58:DF:4:HIS:CE1	58:DF:96:TRP:CH2	2.95	0.54
33:DL:85:VAL:O	33:DL:86:GLU:HB2	2.07	0.54
38:DQ:44:TYR:HD2	38:DQ:44:TYR:H	1.55	0.54
40:DS:4:ILE:HG21	40:DS:106:VAL:HG22	1.87	0.54
46:DY:18:LEU:HD13	46:DY:22:LEU:HD13	1.88	0.54
1:AA:57:G:C5	1:AA:58:C:C4	2.95	0.54
1:AA:244:U:H4'	1:AA:245:U:H5'	1.89	0.54
1:AA:826:C:H5'	8:AH:12:ARG:NH2	2.22	0.54
1:AA:920:U:H2'	1:AA:921:U:C6	2.43	0.54
1:AA:1055:A:N6	1:AA:1206:G:C5	2.76	0.54
1:AA:1363:A:C5	1:AA:1365:G:C6	2.95	0.54
2:AB:60:ALA:HB3	2:AB:223:GLY:HA3	1.88	0.54
4:AD:61:ARG:HG2	4:AD:71:PHE:CD2	2.42	0.54
6:AF:16:GLU:CB	4:CD:191:SER:HB2	2.36	0.54
6:AF:81:ASN:HB3	6:AF:84:VAL:CG1	2.37	0.54
8:AH:30:LYS:HA	8:AH:30:LYS:HE3	1.90	0.54
14:AN:42:ASN:HD21	14:AN:46:LYS:NZ	2.05	0.54
15:AO:42:PHE:CE1	15:AO:55:LEU:HD22	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:65:U:C2	22:BA:66:C:C5	2.95	0.54
22:BA:301:G:H1'	22:BA:302:C:C6	2.42	0.54
22:BA:786:C:C2'	22:BA:787:C:H5'	2.36	0.54
22:BA:977:G:O6	62:BA:3579:HOH:O	2.18	0.54
22:BA:1184:U:C6	22:BA:1184:U:H3'	2.43	0.54
22:BA:1248:G:OP1	38:BQ:1:ALA:N	2.34	0.54
22:BA:1506:U:H2'	22:BA:1507:C:C6	2.42	0.54
22:BA:1965:C:H2'	22:BA:1966:A:H8	1.72	0.54
22:BA:2150:C:H2'	22:BA:2151:U:C6	2.38	0.54
22:BA:2592:G:C6	22:BA:2593:U:C4	2.95	0.54
22:BA:2902:C:O2'	22:BA:2903:U:H5'	2.07	0.54
23:BB:34:A:O2'	23:BB:35:C:H5'	2.07	0.54
24:BC:20:ASN:HB3	24:BC:23:LEU:CD2	2.34	0.54
24:BC:106:PRO:O	24:BC:109:LEU:HD13	2.07	0.54
27:BF:131:VAL:HG22	27:BF:151:LEU:HG	1.89	0.54
32:BK:70:ARG:HD3	32:BK:76:VAL:CG2	2.38	0.54
32:BK:72:PRO:O	32:BK:74:GLY:N	2.38	0.54
36:BO:88:LYS:HE2	36:BO:116:GLN:NE2	2.22	0.54
41:BT:40:LYS:N	41:BT:43:ILE:CG2	2.67	0.54
44:BW:77:LYS:O	44:BW:78:PHE:CB	2.55	0.54
47:BZ:6:ILE:CD1	47:BZ:47:ILE:HD11	2.36	0.54
51:B3:9:ALA:CB	51:B3:61:LEU:HD21	2.37	0.54
53:CA:65:A:C5	53:CA:200:G:O2'	2.60	0.54
53:CA:72:A:N6	53:CA:99:C:C1'	2.69	0.54
53:CA:219:U:H2'	53:CA:220:G:C8	2.41	0.54
53:CA:243:A:H4'	53:CA:244:U:C5'	2.28	0.54
53:CA:657:U:O2'	53:CA:658:C:H5'	2.07	0.54
53:CA:960:U:C5	53:CA:1225:A:H1'	2.43	0.54
53:CA:1029:U:H4'	53:CA:1032:G:H1	1.71	0.54
53:CA:1303:C:H2'	53:CA:1303:C:O2	2.07	0.54
53:CA:1319:A:N6	53:CA:1323:G:C2	2.76	0.54
53:CA:1343:G:H4'	9:CI:123:ARG:O	2.07	0.54
2:CB:46:VAL:CG1	2:CB:47:PRO:CD	2.81	0.54
2:CB:119:GLN:CG	2:CB:124:THR:CG2	2.84	0.54
6:CF:26:THR:HA	6:CF:36:ILE:HD11	1.89	0.54
9:CI:40:ARG:H	9:CI:44:ARG:HD3	1.70	0.54
56:CP:7:ALA:HB1	56:CP:29:ASN:OD1	2.07	0.54
56:CP:12:LYS:O	56:CP:13:LYS:HB2	2.07	0.54
22:DA:347:A:H2'	22:DA:348:A:C8	2.42	0.54
22:DA:495:G:H4'	40:DS:4:ILE:O	2.07	0.54
22:DA:503:A:C4'	22:DA:504:A:O5'	2.53	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:767:U:O2'	22:DA:768:G:H5'	2.06	0.54
22:DA:1139:G:C2'	22:DA:1140:C:H5'	2.37	0.54
22:DA:1210:G:C6	22:DA:1237:A:N7	2.75	0.54
22:DA:1654:A:N3	22:DA:1655:A:C8	2.76	0.54
22:DA:1757:A:N1	22:DA:1762:A:H2	2.04	0.54
22:DA:2185:U:H2'	22:DA:2186:G:C8	2.42	0.54
22:DA:2198:A:O2'	22:DA:2199:A:H5'	2.07	0.54
22:DA:2691:C:H6	22:DA:2691:C:H5'	1.72	0.54
22:DA:2812:G:C2	22:DA:2813:A:C4	2.95	0.54
57:DB:25:U:O2'	57:DB:26:C:H5'	2.07	0.54
57:DB:29:A:OP2	36:DO:32:PRO:HD2	2.07	0.54
24:DC:180:MET:CE	24:DC:268:ARG:HE	2.20	0.54
26:DE:59:PRO:CB	26:DE:67:ARG:NH2	2.65	0.54
29:DH:32:PRO:HA	45:DX:38:TRP:CD1	2.42	0.54
31:DJ:35:ARG:HA	31:DJ:40:HIS:HD2	1.73	0.54
32:DK:73:ASP:OD2	32:DK:75:SER:HB3	2.07	0.54
33:DL:110:VAL:CG1	33:DL:127:VAL:HG23	2.36	0.54
35:DN:39:PRO:O	35:DN:43:GLU:HG2	2.07	0.54
42:DU:54:PRO:HG2	42:DU:55:GLY:N	2.17	0.54
42:DU:92:VAL:CB	42:DU:101:THR:HG21	2.36	0.54
44:DW:18:LYS:CD	44:DW:19:ARG:N	2.62	0.54
46:DY:48:ARG:O	46:DY:51:ALA:HB3	2.07	0.54
1:AA:198:G:N1	1:AA:220:G:C4	2.75	0.54
1:AA:204:G:C3'	1:AA:205:A:C5'	2.77	0.54
1:AA:981:U:C2	1:AA:982:U:C5	2.95	0.54
1:AA:1094:G:O2'	1:AA:1095:U:P	2.64	0.54
1:AA:1124:G:H3'	1:AA:1145:A:N6	2.22	0.54
1:AA:1444:U:H2'	1:AA:1445:U:C6	2.43	0.54
4:AD:52:VAL:CG2	4:AD:53:GLN:N	2.70	0.54
5:AE:82:HIS:NE2	8:AH:95:MET:HE2	2.22	0.54
7:AG:68:VAL:HG21	7:AG:103:ILE:CD1	2.37	0.54
7:AG:78:ARG:HA	7:AG:82:SER:O	2.06	0.54
10:AJ:15:HIS:CG	10:AJ:16:ARG:N	2.76	0.54
11:AK:15:VAL:CG1	11:AK:78:ILE:HG23	2.38	0.54
12:AL:2:THR:HG22	12:AL:4:ASN:H	1.71	0.54
12:AL:35:ARG:CB	12:AL:37:TYR:CE1	2.90	0.54
12:AL:49:ARG:NH1	12:AL:49:ARG:CG	2.53	0.54
13:AM:113:LYS:N	13:AM:114:PRO:CD	2.58	0.54
22:BA:45:G:H5"	22:BA:46:G:H5'	1.88	0.54
22:BA:597:G:C2	22:BA:661:A:C2	2.95	0.54
22:BA:857:G:H2'	22:BA:858:G:O4'	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1252:G:N1	38:BQ:36:GLN:OE1	2.33	0.54
22:BA:1343:G:H2'	22:BA:1344:U:C6	2.42	0.54
22:BA:1455:G:O2'	22:BA:1456:G:H5'	2.08	0.54
22:BA:1730:C:H1'	22:BA:1731:G:C2	2.43	0.54
22:BA:2148:G:HO2'	22:BA:2149:U:P	2.31	0.54
30:BI:24:GLY:O	30:BI:27:LEU:HG	2.07	0.54
37:BP:24:THR:HG22	37:BP:87:ARG:N	2.21	0.54
42:BU:80:ASP:O	42:BU:81:ARG:HB2	2.07	0.54
49:B1:16:THR:CB	49:B1:41:VAL:CG2	2.79	0.54
53:CA:68:G:N2	53:CA:152:A:C1'	2.69	0.54
53:CA:250:A:H1'	53:CA:252:U:C4	2.42	0.54
53:CA:374:A:H2'	53:CA:375:U:C6	2.43	0.54
53:CA:439:U:H2'	53:CA:440:C:C6	2.43	0.54
53:CA:509:A:C2	53:CA:510:A:C2	2.95	0.54
53:CA:739:C:O2	53:CA:739:C:H2'	2.07	0.54
53:CA:1190:G:HO2'	53:CA:1191:A:P	2.30	0.54
53:CA:1249:C:H2'	53:CA:1250:A:C5'	2.26	0.54
53:CA:1422:G:H5"	32:DK:48:PRO:CB	2.17	0.54
6:CF:3:HIS:HB2	6:CF:92:THR:HG23	1.88	0.54
9:CI:9:GLY:CA	9:CI:16:ALA:HB3	2.38	0.54
10:CJ:44:THR:OG1	10:CJ:70:HIS:CE1	2.61	0.54
11:CK:107:THR:HG22	11:CK:108:ASN:CB	2.37	0.54
55:CM:76:ILE:HG22	55:CM:76:ILE:O	2.07	0.54
19:CS:39:ILE:HG12	19:CS:68:HIS:O	2.07	0.54
22:DA:10:A:O2'	22:DA:11:C:H5'	2.06	0.54
22:DA:272:A:N3	22:DA:273:G:N7	2.55	0.54
22:DA:1157:G:H2'	22:DA:1158:C:C6	2.43	0.54
22:DA:1168:G:C6	22:DA:1182:G:C6	2.95	0.54
22:DA:1497:U:C5	22:DA:1578:U:O5'	2.61	0.54
22:DA:1951:U:H2'	22:DA:1953:A:OP2	2.07	0.54
22:DA:2416:C:H6	22:DA:2416:C:O5'	1.90	0.54
22:DA:2821:A:H2'	22:DA:2822:G:O4'	2.06	0.54
57:DB:100:G:H2'	57:DB:101:A:O4'	2.08	0.54
25:DD:9:VAL:CG1	25:DD:26:VAL:HG12	2.37	0.54
25:DD:47:ALA:HB2	25:DD:83:ARG:HD2	1.88	0.54
25:DD:88:GLU:O	25:DD:89:GLU:HG3	2.08	0.54
25:DD:106:LYS:HB3	25:DD:206:ALA:H	1.72	0.54
25:DD:113:SER:HB3	25:DD:168:GLU:H	1.72	0.54
25:DD:169:ARG:O	25:DD:170:VAL:CG2	2.55	0.54
58:DF:103:ILE:HG21	58:DF:173:ASP:O	2.07	0.54
29:DH:92:GLY:O	29:DH:121:VAL:HG11	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DJ:6:ALA:CB	31:DJ:45:THR:HB	2.36	0.54
31:DJ:18:VAL:HG12	31:DJ:54:ILE:HD11	1.90	0.54
31:DJ:44:TYR:CD2	31:DJ:44:TYR:C	2.81	0.54
31:DJ:103:ILE:HD12	31:DJ:103:ILE:O	2.07	0.54
33:DL:56:PRO:HB3	33:DL:58:TYR:CE2	2.43	0.54
33:DL:124:GLY:H	33:DL:143:GLU:CG	2.14	0.54
37:DP:57:ALA:HB1	37:DP:73:PHE:O	2.07	0.54
39:DR:10:LYS:N	39:DR:10:LYS:HD2	2.22	0.54
39:DR:38:VAL:HG21	39:DR:41:ILE:HD11	1.90	0.54
45:DX:6:VAL:HG22	45:DX:7:THR:CG2	2.31	0.54
1:AA:91:U:O2'	1:AA:92:U:O4'	2.24	0.54
1:AA:174:A:C2'	1:AA:175:C:H5'	2.36	0.54
1:AA:577:G:O2'	1:AA:578:C:H5'	2.06	0.54
1:AA:1032:G:N2	1:AA:1033:G:C8	2.76	0.54
1:AA:1064:G:O2'	1:AA:1190:G:N2	2.40	0.54
2:AB:183:PHE:CE1	2:AB:197:PHE:CD2	2.96	0.54
6:AF:50:PRO:HD3	18:AR:73:HIS:HB3	1.88	0.54
7:AG:49:LEU:CD2	7:AG:124:SER:HB2	2.37	0.54
10:AJ:44:THR:HG23	10:AJ:70:HIS:CA	2.37	0.54
11:AK:124:LYS:HD2	21:AU:34:ARG:CZ	2.37	0.54
14:AN:42:ASN:C	14:AN:44:VAL:H	2.10	0.54
16:AP:75:ILE:C	16:AP:77:GLU:H	2.11	0.54
22:BA:451:U:C2	22:BA:453:A:N7	2.76	0.54
22:BA:869:G:C4	22:BA:870:U:C6	2.96	0.54
22:BA:1130:U:O2'	22:BA:1131:G:H8	1.90	0.54
22:BA:1277:G:C5'	35:BN:20:MET:HE2	2.37	0.54
22:BA:1394:U:P	62:BA:3404:HOH:O	2.65	0.54
22:BA:1859:U:H2'	22:BA:1860:G:H8	1.72	0.54
22:BA:2214:C:H5'	22:BA:2214:C:C6	2.39	0.54
22:BA:2476:A:H2'	22:BA:2477:U:H5'	1.90	0.54
24:BC:252:LYS:NZ	24:BC:252:LYS:CB	2.71	0.54
27:BF:68:LYS:H	27:BF:68:LYS:CD	2.20	0.54
28:BG:85:LYS:HA	28:BG:130:ILE:O	2.07	0.54
29:BH:111:ALA:O	29:BH:112:LYS:HD3	2.07	0.54
30:BI:19:PRO:HG2	30:BI:23:VAL:CG2	2.37	0.54
31:BJ:43:GLU:O	31:BJ:44:TYR:C	2.46	0.54
31:BJ:44:TYR:O	31:BJ:45:THR:HG22	2.08	0.54
34:BM:46:ILE:HD12	34:BM:46:ILE:C	2.28	0.54
35:BN:23:ASN:H	35:BN:23:ASN:ND2	2.01	0.54
41:BT:30:ILE:HG12	41:BT:32:LEU:HD22	1.89	0.54
48:B0:24:VAL:C	48:B0:25:THR:HG23	2.28	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:B1:47:ILE:HD12	49:B1:47:ILE:N	2.22	0.54
53:CA:122:G:H2'	53:CA:123:U:H6	1.71	0.54
53:CA:134:G:H2'	53:CA:135:C:O4'	2.08	0.54
53:CA:502:A:H2'	53:CA:503:C:O4'	2.07	0.54
53:CA:1270:G:H2'	53:CA:1271:A:C8	2.42	0.54
3:CC:119:ILE:O	3:CC:123:LEU:HB2	2.08	0.54
6:CF:3:HIS:HB2	6:CF:92:THR:HA	1.88	0.54
8:CH:37:ASN:O	8:CH:41:GLU:HG2	2.07	0.54
12:CL:84:GLY:N	12:CL:94:TYR:HA	2.20	0.54
22:DA:492:A:H2	40:DS:7:HIS:CD2	2.26	0.54
22:DA:874:G:C2	22:DA:904:G:C2	2.96	0.54
22:DA:920:A:H2'	22:DA:921:C:C6	2.42	0.54
22:DA:1700:A:C2'	22:DA:1701:A:C5'	2.86	0.54
22:DA:1817:G:H5"	24:DC:86:ARG:HH22	1.71	0.54
22:DA:1936:A:H4'	22:DA:1937:A:OP2	2.08	0.54
22:DA:2143:C:H3'	22:DA:2144:G:C8	2.43	0.54
22:DA:2274:A:C5	22:DA:2276:G:C8	2.95	0.54
22:DA:2298:A:H2'	22:DA:2299:U:C6	2.42	0.54
22:DA:2376:A:H1'	36:DO:99:TYR:CE1	2.42	0.54
22:DA:2408:U:O2'	22:DA:2409:G:H8	1.90	0.54
22:DA:2690:U:H3'	22:DA:2691:C:C5'	2.37	0.54
22:DA:2744:G:N2	22:DA:2745:C:C2	2.76	0.54
22:DA:2786:U:O2'	22:DA:2787:C:H5'	2.07	0.54
57:DB:116:G:H4'	36:DO:54:VAL:HG22	1.90	0.54
26:DE:16:GLU:HG3	26:DE:16:GLU:O	2.08	0.54
31:DJ:20:ALA:HA	31:DJ:23:LYS:HG3	1.89	0.54
35:DN:75:ILE:HD12	35:DN:75:ILE:C	2.27	0.54
37:DP:28:LYS:HB3	37:DP:39:LEU:CD2	2.36	0.54
38:DQ:84:LYS:C	38:DQ:86:SER:H	2.11	0.54
39:DR:24:LYS:HA	39:DR:94:THR:HG23	1.89	0.54
39:DR:80:ARG:HB3	39:DR:81:LYS:HD3	1.89	0.54
43:DV:87:GLN:O	43:DV:88:HIS:HB2	2.07	0.54
46:DY:25:GLN:HA	46:DY:28:LEU:HB3	1.89	0.54
1:AA:481:G:O2'	1:AA:482:A:H8	1.89	0.54
1:AA:597:G:C2	1:AA:644:U:C2	2.96	0.54
1:AA:693:G:H2'	1:AA:694:A:H5'	1.88	0.54
1:AA:1322:C:O2'	1:AA:1323:G:C5'	2.56	0.54
1:AA:1405:G:O4'	1:AA:1519:A:H4'	2.08	0.54
1:AA:1468:A:C3'	1:AA:1469:C:C5'	2.86	0.54
2:AB:165:ALA:HB3	2:AB:190:SER:HB3	1.90	0.54
3:AC:39:ARG:HD3	3:AC:54:ILE:CG1	2.36	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:132:PRO:O	5:AE:134:ASN:N	2.40	0.54
14:AN:4:SER:O	14:AN:8:ARG:HG3	2.07	0.54
16:AP:77:GLU:C	16:AP:79:ASN:H	2.09	0.54
22:BA:581:C:H2'	22:BA:582:A:C8	2.42	0.54
22:BA:812:C:H4'	38:BQ:12:ARG:HH22	1.73	0.54
22:BA:1313:U:O2	22:BA:1313:U:C2'	2.55	0.54
22:BA:1789:A:OP1	24:BC:220:ARG:HD3	2.07	0.54
22:BA:1906:G:C2'	22:BA:1907:G:O5'	2.55	0.54
22:BA:2318:G:C6	22:BA:2319:G:N1	2.75	0.54
22:BA:2348:U:O2'	22:BA:2349:G:H5'	2.07	0.54
22:BA:2626:C:H2'	22:BA:2627:G:O4'	2.07	0.54
22:BA:2678:C:H2'	22:BA:2679:A:O4'	2.07	0.54
22:BA:2756:U:H1'	22:BA:2757:A:H5"	1.89	0.54
24:BC:30:ALA:HB3	24:BC:31:PRO:HD3	1.90	0.54
26:BE:5:LEU:HD13	26:BE:10:SER:HB3	1.89	0.54
28:BG:82:PHE:CE2	28:BG:137:LYS:HB2	2.42	0.54
30:BI:60:VAL:HG22	30:BI:66:PHE:HB2	1.90	0.54
30:BI:64:ARG:HG3	30:BI:65:SER:N	2.22	0.54
31:BJ:25:LEU:C	31:BJ:25:LEU:CD2	2.75	0.54
33:BL:131:ALA:O	33:BL:135:ILE:HD12	2.07	0.54
34:BM:134:THR:HG23	34:BM:136:MET:O	2.08	0.54
37:BP:54:LEU:HA	37:BP:76:HIS:HD2	1.72	0.54
38:BQ:60:TRP:O	38:BQ:63:ARG:HG3	2.07	0.54
39:BR:46:GLU:HG2	39:BR:47:VAL:N	2.22	0.54
42:BU:44:HIS:O	42:BU:45:GLN:C	2.45	0.54
44:BW:28:GLU:O	44:BW:30:VAL:N	2.40	0.54
44:BW:39:GLN:O	44:BW:40:ARG:C	2.45	0.54
53:CA:14:U:H2'	53:CA:16:A:OP2	2.07	0.54
53:CA:129:A:O2'	53:CA:130:A:C8	2.60	0.54
53:CA:223:A:C5	53:CA:224:U:C5	2.95	0.54
53:CA:696:A:H8	53:CA:696:A:O5'	1.90	0.54
53:CA:703:G:H4'	53:CA:704:A:H5'	1.89	0.54
53:CA:1049:U:O2	53:CA:1049:U:H2'	2.08	0.54
53:CA:1062:U:H2'	53:CA:1063:C:C5	2.43	0.54
53:CA:1374:A:H2'	53:CA:1375:A:C8	2.43	0.54
3:CC:63:ILE:HG12	3:CC:65:VAL:CG2	2.35	0.54
3:CC:113:LYS:HE3	3:CC:184:ASN:HD21	1.71	0.54
54:CG:45:ALA:CB	54:CG:120:ALA:HB2	2.30	0.54
9:CI:34:LEU:HG	9:CI:35:GLU:HG3	1.89	0.54
9:CI:49:GLN:HA	9:CI:52:GLU:HG2	1.87	0.54
10:CJ:10:LEU:CD2	10:CJ:98:VAL:HG22	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:48:ARG:HB2	10:CJ:48:ARG:NH1	2.22	0.54
55:CM:75:SER:HB2	55:CM:79:LEU:CD1	2.38	0.54
14:CN:8:ARG:HD2	14:CN:12:ARG:CZ	2.38	0.54
22:DA:35:G:O4'	22:DA:454:A:H1'	2.08	0.54
22:DA:77:G:H4'	46:DY:56:LEU:HD21	1.89	0.54
22:DA:320:A:H5"	22:DA:321:U:OP1	2.08	0.54
22:DA:565:C:H2'	22:DA:566:U:C5'	2.37	0.54
22:DA:1116:G:H2'	22:DA:1117:C:H6	1.72	0.54
22:DA:1331:G:C4	22:DA:1333:G:C8	2.95	0.54
22:DA:1810:A:H3'	22:DA:1811:G:H8	1.72	0.54
22:DA:1935:G:N1	22:DA:1962:C:H2'	2.20	0.54
22:DA:1982:U:O2'	22:DA:1983:G:H5'	2.07	0.54
22:DA:2324:U:HO2'	22:DA:2385:C:H5	1.56	0.54
24:DC:44:ASN:C	24:DC:46:GLY:H	2.08	0.54
24:DC:52:HIS:HB3	24:DC:216:ARG:O	2.08	0.54
24:DC:74:PRO:HA	24:DC:116:GLN:HG3	1.88	0.54
24:DC:220:ARG:O	24:DC:223:ALA:HB3	2.06	0.54
25:DD:187:LEU:HD12	25:DD:188:LEU:N	2.21	0.54
28:DG:10:VAL:HB	28:DG:14:VAL:HG21	1.90	0.54
28:DG:71:LEU:HD13	28:DG:71:LEU:O	2.08	0.54
30:DI:49:GLU:OE2	30:DI:54:ILE:HG13	2.07	0.54
32:DK:10:VAL:HG13	32:DK:12:ASP:OD1	2.06	0.54
35:DN:2:ARG:HD2	35:DN:5:LYS:HB3	1.89	0.54
38:DQ:91:ARG:NH2	38:DQ:93:ILE:HD13	2.23	0.54
38:DQ:96:ASP:C	38:DQ:98:ALA:H	2.11	0.54
41:DT:58:VAL:HG23	41:DT:84:TYR:O	2.06	0.54
45:DX:65:THR:O	45:DX:68:ALA:HB3	2.08	0.54
1:AA:35:G:H2'	1:AA:36:C:H6	1.72	0.54
1:AA:212:G:H2'	1:AA:213:G:H8	1.72	0.54
1:AA:268:U:O2'	1:AA:269:C:O4'	2.26	0.54
1:AA:548:G:H2'	1:AA:549:C:H6	1.69	0.54
1:AA:1370:G:H5"	9:AI:110:VAL:HG21	1.89	0.54
2:AB:113:LEU:O	2:AB:117:GLU:HG3	2.07	0.54
3:AC:76:ILE:C	3:AC:82:ASP:HB2	2.28	0.54
3:AC:116:ALA:HB2	3:AC:199:VAL:CG1	2.36	0.54
4:AD:168:THR:HG22	4:AD:183:ARG:HH21	1.73	0.54
4:AD:196:GLU:C	4:AD:198:LEU:N	2.61	0.54
6:AF:42:TRP:N	6:AF:42:TRP:CD1	2.73	0.54
11:AK:124:LYS:HE2	11:AK:125:LYS:N	2.23	0.54
14:AN:44:VAL:HG23	14:AN:45:LEU:N	2.18	0.54
14:AN:46:LYS:C	14:AN:48:GLN:H	2.11	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:153:U:HO2'	22:BA:154:U:H5'	1.73	0.54
22:BA:155:A:O2'	22:BA:156:A:H5'	2.08	0.54
22:BA:348:A:H2'	22:BA:349:U:O4'	2.08	0.54
22:BA:528:A:C5'	31:BJ:116:ARG:HH22	2.11	0.54
22:BA:572:A:H8	22:BA:572:A:H5'	1.72	0.54
22:BA:918:A:H4'	23:BB:97:C:O2	2.08	0.54
22:BA:933:A:N3	22:BA:933:A:C2'	2.68	0.54
22:BA:1402:U:C2'	22:BA:1403:A:O5'	2.56	0.54
22:BA:1857:G:N2	22:BA:1884:G:O2'	2.41	0.54
22:BA:2333:A:H4'	22:BA:2334:U:O5'	2.08	0.54
22:BA:2499:C:C3'	22:BA:2500:U:H5"	2.37	0.54
22:BA:2522:U:C2'	22:BA:2523:G:H5'	2.37	0.54
22:BA:2783:U:H2'	22:BA:2784:U:H6	1.73	0.54
27:BF:47:LYS:HB3	27:BF:47:LYS:HZ3	1.72	0.54
29:BH:29:PHE:HD2	29:BH:30:LEU:HD23	1.71	0.54
32:BK:8:LEU:N	32:BK:8:LEU:CD2	2.68	0.54
32:BK:47:ILE:HG23	32:BK:48:PRO:N	2.23	0.54
33:BL:23:ILE:HG12	39:BR:82:HIS:ND1	2.23	0.54
34:BM:42:THR:O	34:BM:44:ARG:N	2.40	0.54
38:BQ:4:LYS:CG	38:BQ:5:ARG:H	1.97	0.54
38:BQ:91:ARG:HB3	38:BQ:93:ILE:CG2	2.34	0.54
39:BR:18:GLN:O	39:BR:98:ILE:HB	2.08	0.54
39:BR:19:THR:HG22	39:BR:20:VAL:N	2.22	0.54
40:BS:3:THR:HB	40:BS:62:ASP:OD2	2.08	0.54
53:CA:174:A:O2'	53:CA:175:C:C5'	2.52	0.54
53:CA:204:G:H2'	53:CA:205:A:O4'	2.08	0.54
53:CA:501:C:H1'	53:CA:549:C:H1'	1.89	0.54
53:CA:508:U:C4'	53:CA:509:A:OP1	2.54	0.54
53:CA:542:G:C4	53:CA:543:U:C5	2.95	0.54
53:CA:642:A:C2	53:CA:643:C:C2	2.95	0.54
53:CA:704:A:O2'	53:CA:705:G:C5'	2.56	0.54
53:CA:1114:C:O2'	14:CN:99:SER:HB2	2.07	0.54
53:CA:1234:C:H4'	53:CA:1364:U:O2'	2.07	0.54
53:CA:1416:G:H2'	53:CA:1417:G:H5'	1.88	0.54
2:CB:185:ILE:CG2	2:CB:199:ILE:HG13	2.38	0.54
54:CG:4:ARG:HG3	54:CG:5:VAL:N	2.22	0.54
54:CG:11:ILE:HD13	54:CG:24:LYS:HB2	1.88	0.54
10:CJ:41:PRO:O	10:CJ:42:LEU:HB2	2.08	0.54
11:CK:19:VAL:CG1	11:CK:34:THR:HG23	2.37	0.54
55:CM:18:LEU:O	55:CM:24:VAL:HG23	2.08	0.54
22:DA:33:C:N4	22:DA:446:G:O2'	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:449:A:H4'	38:DQ:2:ARG:HH22	1.72	0.54
22:DA:673:C:O2'	22:DA:674:G:C5'	2.52	0.54
22:DA:752:A:O2'	22:DA:753:A:OP2	2.16	0.54
22:DA:765:C:C2	22:DA:766:U:C6	2.96	0.54
22:DA:1430:G:O2'	22:DA:1431:A:O4'	2.19	0.54
22:DA:1713:A:H1'	22:DA:1716:U:H5'	1.90	0.54
22:DA:2282:G:H1'	22:DA:2390:U:H5	1.73	0.54
22:DA:2298:A:H2'	22:DA:2299:U:C5	2.43	0.54
22:DA:2494:G:O2'	34:DM:79:ALA:HA	2.07	0.54
22:DA:2592:G:C5	22:DA:2593:U:C5	2.95	0.54
22:DA:2718:G:O3'	37:DP:95:LYS:HG3	2.07	0.54
25:DD:5:VAL:H	25:DD:32:ASN:ND2	2.06	0.54
25:DD:113:SER:HB2	25:DD:168:GLU:OE1	2.07	0.54
25:DD:118:PHE:CE1	25:DD:119:ALA:O	2.61	0.54
25:DD:159:LYS:HE2	25:DD:160:LYS:H	1.73	0.54
25:DD:179:ARG:NH1	37:DP:7:LEU:HD11	2.23	0.54
58:DF:103:ILE:H	58:DF:107:VAL:CG1	2.20	0.54
28:DG:163:TYR:N	28:DG:163:TYR:HD2	2.04	0.54
32:DK:6:THR:O	32:DK:8:LEU:CD1	2.56	0.54
32:DK:25:LEU:HD23	32:DK:25:LEU:H	1.73	0.54
34:DM:73:ILE:CG1	34:DM:93:VAL:CG1	2.86	0.54
35:DN:90:ARG:NH2	35:DN:116:VAL:CG1	2.67	0.54
40:DS:36:LEU:HA	40:DS:39:THR:OG1	2.07	0.54
40:DS:103:ILE:HD12	40:DS:103:ILE:N	2.22	0.54
42:DU:20:LYS:HD3	42:DU:21:ARG:O	2.08	0.54
1:AA:531:U:C4'	1:AA:532:A:O5'	2.53	0.54
1:AA:596:A:O2'	1:AA:597:G:H5'	2.08	0.54
1:AA:749:A:H2	15:AO:21:THR:HG21	1.72	0.54
1:AA:1032:G:C2'	1:AA:1033:G:H5'	2.38	0.54
1:AA:1261:A:N1	1:AA:1274:A:C2	2.76	0.54
1:AA:1324:A:O2'	1:AA:1325:C:O5'	2.26	0.54
2:AB:89:PHE:CE2	2:AB:153:MET:HB2	2.42	0.54
2:AB:103:TRP:HE1	2:AB:150:ILE:HD11	1.72	0.54
5:AE:89:THR:CG2	5:AE:90:GLY:N	2.62	0.54
9:AI:98:ARG:HG2	9:AI:103:VAL:CG2	2.28	0.54
11:AK:15:VAL:HG13	11:AK:78:ILE:HG23	1.90	0.54
13:AM:113:LYS:H	13:AM:114:PRO:HD3	1.71	0.54
19:AS:57:VAL:HG21	19:AS:74:ALA:HA	1.89	0.54
22:BA:1250:G:N7	33:BL:18:ARG:NH1	2.50	0.54
22:BA:1606:C:HO2'	22:BA:1607:C:P	2.31	0.54
22:BA:2485:G:C5'	34:BM:45:GLN:HE21	2.21	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BD:34:VAL:CG2	25:BD:91:THR:HA	2.38	0.54
31:BJ:25:LEU:HB2	31:BJ:62:VAL:HG21	1.90	0.54
37:BP:83:ILE:O	37:BP:83:ILE:HG23	2.08	0.54
45:BX:14:GLY:O	45:BX:26:ARG:HG3	2.08	0.54
53:CA:115:G:H1'	53:CA:116:A:N7	2.23	0.54
53:CA:120:A:O2'	53:CA:121:U:C5'	2.55	0.54
53:CA:258:G:H5'	20:CT:81:GLN:NE2	2.22	0.54
53:CA:327:A:N1	53:CA:329:A:C2	2.76	0.54
53:CA:764:C:N4	53:CA:812:G:N1	2.55	0.54
3:CC:120:THR:O	3:CC:120:THR:CG2	2.54	0.54
54:CG:12:LEU:HD13	54:CG:12:LEU:O	2.08	0.54
11:CK:111:ASP:N	21:CU:3:ILE:N	2.53	0.54
14:CN:1:ALA:HA	14:CN:67:GLY:C	2.28	0.54
20:CT:26:MET:CE	20:CT:30:PHE:HD1	2.19	0.54
22:DA:15:G:O2'	22:DA:16:C:H5'	2.08	0.54
22:DA:100:U:OP1	22:DA:100:U:H3'	2.08	0.54
22:DA:183:C:O5'	22:DA:183:C:H6	1.90	0.54
22:DA:206:U:O2'	22:DA:207:A:C5'	2.55	0.54
22:DA:532:A:H4'	22:DA:533:G:C8	2.43	0.54
22:DA:563:A:N3	38:DQ:36:GLN:NE2	2.55	0.54
22:DA:608:A:C6	22:DA:621:A:C8	2.96	0.54
22:DA:634:C:H2'	22:DA:635:C:H6	1.67	0.54
22:DA:663:G:OP1	33:DL:17:LYS:HG2	2.07	0.54
22:DA:668:A:C5	22:DA:670:A:C8	2.96	0.54
22:DA:672:C:H5'	22:DA:672:C:C6	2.41	0.54
22:DA:1342:A:C6	22:DA:1397:U:C5	2.96	0.54
22:DA:1431:A:H2'	22:DA:1432:G:O4'	2.07	0.54
22:DA:1494:A:OP2	22:DA:1494:A:H3'	2.06	0.54
22:DA:1820:U:H3	24:DC:197:ALA:HA	1.71	0.54
22:DA:1916:A:H2'	22:DA:1917:U:C6	2.43	0.54
22:DA:1982:U:H6	22:DA:1982:U:O5'	1.90	0.54
22:DA:2235:G:H2'	22:DA:2236:U:C6	2.41	0.54
22:DA:2236:U:H2'	22:DA:2237:G:O4'	2.08	0.54
22:DA:2269:G:O2'	44:DW:18:LYS:HG2	2.07	0.54
22:DA:2290:G:H4'	22:DA:2381:A:O2'	2.08	0.54
22:DA:2677:G:H2'	22:DA:2678:C:C6	2.43	0.54
22:DA:2729:G:O2'	22:DA:2730:C:O4'	2.21	0.54
26:DE:85:PHE:O	26:DE:86:ALA:C	2.46	0.54
34:DM:33:LEU:HD12	34:DM:117:PHE:CG	2.42	0.54
34:DM:62:LYS:HG2	34:DM:64:TRP:CZ2	2.43	0.54
38:DQ:111:LYS:HE3	39:DR:48:LYS:HD3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:101:A:H2'	1:AA:102:G:H5'	1.89	0.54
1:AA:198:G:C6	1:AA:220:G:C2	2.96	0.54
1:AA:1065:U:C5'	1:AA:1190:G:N2	2.58	0.54
1:AA:1128:C:H4'	1:AA:1148:U:O2	2.08	0.54
1:AA:1141:C:HO2'	1:AA:1142:G:P	2.31	0.54
1:AA:1151:A:O2'	1:AA:1152:A:H8	1.91	0.54
1:AA:1411:C:H2'	1:AA:1412:C:C5'	2.34	0.54
7:AG:108:ARG:HH21	7:AG:118:ARG:NH2	2.05	0.54
8:AH:85:TYR:CE2	8:AH:123:GLU:HB2	2.43	0.54
9:AI:80:HIS:CE1	9:AI:84:ARG:HD2	2.43	0.54
10:AJ:56:HIS:CD2	10:AJ:57:VAL:HG12	2.37	0.54
14:AN:92:ILE:HG22	14:AN:95:LEU:CB	2.38	0.54
21:AU:10:PRO:O	21:AU:11:PHE:CB	2.52	0.54
22:BA:719:C:C2'	22:BA:720:U:H5'	2.38	0.54
22:BA:2013:A:OP1	40:BS:97:LEU:N	2.32	0.54
22:BA:2152:G:O2'	22:BA:2153:C:H5'	2.08	0.54
22:BA:2284:A:O2'	22:BA:2288:A:N1	2.39	0.54
22:BA:2419:U:H5	62:BA:3660:HOH:O	1.90	0.54
22:BA:2670:A:H2'	22:BA:2671:G:O5'	2.08	0.54
29:BH:3:VAL:HA	29:BH:37:VAL:O	2.08	0.54
29:BH:53:GLU:HG2	29:BH:53:GLU:O	2.06	0.54
32:BK:34:GLY:O	32:BK:35:VAL:C	2.45	0.54
32:BK:85:VAL:HG21	32:BK:115:ILE:HD11	1.90	0.54
35:BN:36:THR:HG23	35:BN:37:THR:O	2.07	0.54
38:BQ:63:ARG:NH2	38:BQ:96:ASP:N	2.56	0.54
42:BU:78:LYS:CG	42:BU:79:ALA:H	2.20	0.54
46:BY:45:GLN:O	46:BY:46:VAL:CB	2.55	0.54
53:CA:1108:G:OP1	3:CC:175:HIS:ND1	2.34	0.54
53:CA:1124:G:O2'	53:CA:1127:G:O6	2.24	0.54
53:CA:1140:C:O2'	53:CA:1141:C:C6	2.59	0.54
53:CA:1160:G:O6	53:CA:1181:G:O6	2.26	0.54
53:CA:1279:G:H5'	10:CJ:9:ARG:HH12	1.73	0.54
2:CB:103:TRP:HZ2	2:CB:155:GLY:HA2	1.72	0.54
2:CB:119:GLN:HG2	2:CB:124:THR:HG23	1.88	0.54
54:CG:37:THR:HA	54:CG:40:SER:HB2	1.90	0.54
8:CH:102:VAL:CG2	8:CH:125:ILE:HB	2.38	0.54
10:CJ:65:TYR:HD2	14:CN:96:LYS:O	1.91	0.54
11:CK:83:VAL:CG2	11:CK:109:ILE:HG12	2.38	0.54
11:CK:126:ARG:N	21:CU:33:ARG:HE	2.06	0.54
12:CL:19:ASN:ND2	12:CL:19:ASN:H	2.06	0.54
12:CL:75:GLU:C	12:CL:77:SER:H	2.11	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:113:ARG:HB3	12:CL:118:VAL:HB	1.89	0.54
55:CM:92:ARG:HD2	19:CS:79:TYR:OH	2.07	0.54
19:CS:54:ARG:HG2	19:CS:55:GLN:N	2.22	0.54
22:DA:265:A:C6	22:DA:428:A:O4'	2.61	0.54
22:DA:311:A:C2	22:DA:328:U:O4	2.61	0.54
22:DA:332:A:C4	22:DA:335:C:N4	2.76	0.54
22:DA:538:A:HO2'	31:DJ:8:PRO:HG3	1.70	0.54
22:DA:674:G:O2'	26:DE:69:ARG:CG	2.49	0.54
22:DA:746:U:H5'	22:DA:748:G:O4'	2.08	0.54
22:DA:749:A:C6	22:DA:1618:A:C2	2.96	0.54
22:DA:976:G:C5'	22:DA:1156:A:N6	2.70	0.54
22:DA:995:C:O2'	38:DQ:93:ILE:HD12	2.08	0.54
22:DA:1078:U:C4'	22:DA:1079:C:O5'	2.55	0.54
22:DA:1335:C:N4	62:DA:3409:HOH:O	2.41	0.54
22:DA:1388:G:H2'	22:DA:1389:G:C8	2.39	0.54
22:DA:2184:A:H2'	22:DA:2185:U:O4'	2.08	0.54
22:DA:2455:G:N1	22:DA:2498:C:N4	2.55	0.54
22:DA:2788:C:H2'	22:DA:2789:C:H6	1.69	0.54
22:DA:2886:A:H62	48:D0:39:ARG:HD3	1.71	0.54
24:DC:99:GLU:HG2	24:DC:100:ARG:N	2.23	0.54
24:DC:251:THR:HG22	24:DC:252:LYS:N	2.21	0.54
25:DD:53:GLY:O	25:DD:76:GLY:HA2	2.07	0.54
26:DE:105:LEU:HD13	26:DE:105:LEU:O	2.07	0.54
58:DF:1:ALA:HA	58:DF:97:GLU:HB3	1.90	0.54
58:DF:13:LYS:HD2	58:DF:13:LYS:N	2.23	0.54
58:DF:131:VAL:C	58:DF:133:GLU:H	2.11	0.54
28:DG:117:PRO:HG2	28:DG:143:VAL:CG1	2.38	0.54
29:DH:15:LEU:N	29:DH:15:LEU:HD22	2.23	0.54
31:DJ:95:ARG:NH1	31:DJ:99:ARG:HH21	2.06	0.54
32:DK:17:ARG:HG2	32:DK:18:ARG:N	2.23	0.54
34:DM:73:ILE:HG13	34:DM:93:VAL:CG1	2.38	0.54
35:DN:2:ARG:CD	35:DN:5:LYS:HB3	2.37	0.54
35:DN:14:SER:C	35:DN:16:HIS:N	2.59	0.54
38:DQ:54:ARG:HB2	38:DQ:54:ARG:HH11	1.71	0.54
38:DQ:93:ILE:O	38:DQ:96:ASP:HB3	2.06	0.54
39:DR:49:ILE:HG22	39:DR:54:VAL:H	1.71	0.54
40:DS:27:LYS:O	40:DS:28:LYS:O	2.26	0.54
43:DV:61:LEU:O	43:DV:72:VAL:HG22	2.07	0.54
1:AA:66:A:N6	1:AA:104:G:C2	2.75	0.54
1:AA:330:C:H6	1:AA:330:C:C5'	2.20	0.54
1:AA:895:G:H2'	1:AA:896:C:C6	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:914:A:H2'	1:AA:915:A:C8	2.40	0.54
1:AA:1066:C:H5"	1:AA:1066:C:H6	1.72	0.54
1:AA:1088:G:H21	1:AA:1167:A:H62	1.55	0.54
1:AA:1157:A:C2	1:AA:1181:G:C4	2.96	0.54
1:AA:1323:G:H4'	1:AA:1362:A:C2	2.42	0.54
2:AB:105:THR:HG22	2:AB:105:THR:O	2.08	0.54
2:AB:108:GLN:CG	2:AB:109:SER:N	2.69	0.54
8:AH:110:MET:HE2	8:AH:114:ALA:HB1	1.89	0.54
10:AJ:53:ILE:HD11	14:AN:84:ARG:NH1	2.23	0.54
11:AK:13:LYS:O	11:AK:14:GLN:CB	2.56	0.54
22:BA:96:C:H4'	46:BY:41:HIS:CE1	2.43	0.54
22:BA:108:G:C2'	22:BA:109:C:H5'	2.38	0.54
22:BA:295:G:C2	22:BA:296:U:C6	2.96	0.54
22:BA:859:G:H8	22:BA:859:G:OP2	1.89	0.54
22:BA:1064:C:OP1	30:BI:87:SER:O	2.26	0.54
22:BA:1141:U:H5	31:BJ:65:THR:HG23	1.73	0.54
22:BA:1739:A:H2'	22:BA:1740:G:C8	2.43	0.54
22:BA:2080:A:H5'	45:BX:18:SER:HB2	1.90	0.54
22:BA:2286:G:O6	49:B1:22:THR:CG2	2.56	0.54
22:BA:2454:G:H2'	22:BA:2455:G:H5'	1.90	0.54
24:BC:171:VAL:HG23	24:BC:185:ALA:HA	1.87	0.54
24:BC:230:PRO:HG2	24:BC:245:THR:O	2.08	0.54
25:BD:16:THR:O	25:BD:19:GLY:N	2.40	0.54
26:BE:119:ILE:HG12	26:BE:119:ILE:O	2.08	0.54
26:BE:131:THR:HG22	26:BE:161:ALA:H	1.72	0.54
31:BJ:97:PRO:O	31:BJ:99:ARG:N	2.41	0.54
31:BJ:117:ALA:HA	31:BJ:120:ARG:HH21	1.72	0.54
35:BN:96:ARG:HD2	35:BN:114:GLU:OE1	2.08	0.54
37:BP:33:GLU:CB	37:BP:38:ARG:HH11	2.21	0.54
40:BS:17:VAL:CG1	40:BS:76:VAL:HG11	2.35	0.54
52:B4:10:LEU:CD1	52:B4:33:HIS:HB3	2.37	0.54
53:CA:125:U:O2'	53:CA:126:G:H5'	2.07	0.54
53:CA:764:C:N4	53:CA:812:G:C6	2.76	0.54
53:CA:814:A:C5'	53:CA:1511:G:H4'	2.38	0.54
53:CA:927:G:N1	53:CA:1391:U:C2	2.76	0.54
2:CB:26:MET:O	2:CB:30:ILE:HG13	2.08	0.54
3:CC:177:LEU:O	3:CC:178:ARG:HB3	2.07	0.54
5:CE:33:THR:CG2	5:CE:33:THR:O	2.56	0.54
6:CF:3:HIS:CG	6:CF:92:THR:HG23	2.43	0.54
6:CF:80:PHE:CE2	24:DC:123:ILE:HG21	2.43	0.54
10:CJ:6:ILE:HD12	10:CJ:6:ILE:N	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CN:76:PHE:HE2	14:CN:92:ILE:HD13	1.72	0.54
56:CP:48:GLU:CG	56:CP:51:ARG:HE	2.21	0.54
17:CQ:20:ILE:HD11	17:CQ:22:VAL:CG2	2.37	0.54
22:DA:41:C:H2'	22:DA:42:A:C8	2.43	0.54
22:DA:119:A:H4'	22:DA:120:U:OP1	2.07	0.54
22:DA:142:A:HO2'	22:DA:143:C:H5'	1.73	0.54
22:DA:226:A:H2'	22:DA:227:A:C8	2.43	0.54
22:DA:311:A:O2'	22:DA:332:A:H5'	2.07	0.54
22:DA:739:A:O2'	22:DA:740:C:C6	2.61	0.54
22:DA:1060:U:H5'	22:DA:1061:U:H2'	1.89	0.54
22:DA:1112:G:O2'	22:DA:1113:U:C6	2.61	0.54
22:DA:1120:G:O2'	22:DA:1121:C:H5'	2.07	0.54
22:DA:1206:G:O2'	22:DA:1207:C:C5'	2.55	0.54
22:DA:1386:C:O2'	22:DA:1387:A:H8	1.90	0.54
22:DA:1446:C:N4	22:DA:1447:C:N4	2.55	0.54
22:DA:1912:A:N7	22:DA:1918:A:C2	2.76	0.54
22:DA:2100:G:C6	22:DA:2101:A:C6	2.96	0.54
22:DA:2238:G:C5'	22:DA:2239:G:OP1	2.55	0.54
22:DA:2314:A:HO2'	22:DA:2315:G:H8	1.50	0.54
22:DA:2578:G:OP2	22:DA:2578:G:H4'	2.07	0.54
22:DA:2666:C:H2'	22:DA:2667:C:O5'	2.08	0.54
22:DA:2769:U:H2'	22:DA:2770:G:H5'	1.90	0.54
25:DD:179:ARG:HD2	25:DD:188:LEU:CD1	2.38	0.54
26:DE:147:LEU:CB	26:DE:186:VAL:HG23	2.38	0.54
28:DG:122:ALA:HB2	28:DG:132:LEU:HA	1.90	0.54
29:DH:94:ILE:HG13	29:DH:98:ASP:CB	2.37	0.54
33:DL:108:ALA:HB3	33:DL:125:LEU:CD2	2.37	0.54
43:DV:26:PHE:CD2	43:DV:42:LEU:HB2	2.43	0.54
44:DW:37:VAL:HG21	44:DW:38:ARG:NH1	2.22	0.54
50:D2:31:LEU:C	50:D2:34:ARG:HB2	2.27	0.54
1:AA:585:G:C6	1:AA:586:C:C4	2.96	0.54
1:AA:813:U:C2'	1:AA:814:A:H5"	2.37	0.54
1:AA:1162:C:O2'	1:AA:1163:A:O4'	2.19	0.54
1:AA:1349:A:O2'	1:AA:1350:A:C5'	2.56	0.54
1:AA:1473:G:O2'	1:AA:1474:U:H5'	2.08	0.54
2:AB:56:LEU:HD11	2:AB:220:VAL:CG2	2.38	0.54
7:AG:39:GLU:HB2	7:AG:43:TYR:CE2	2.42	0.54
8:AH:63:LYS:C	8:AH:70:VAL:HG23	2.27	0.54
10:AJ:57:VAL:CG2	10:AJ:58:ASN:N	2.70	0.54
12:AL:6:LEU:HD23	17:AQ:33:TYR:CE2	2.43	0.54
12:AL:87:LYS:O	12:AL:88:ASP:HB2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AR:46:THR:HG21	18:AR:51:GLN:OE1	2.08	0.54
22:BA:223:A:C2	22:BA:407:G:N3	2.76	0.54
22:BA:310:A:O2'	22:BA:311:A:O5'	2.25	0.54
22:BA:962:G:H21	22:BA:2250:G:H1	1.56	0.54
22:BA:995:C:OP2	38:BQ:53:LYS:HE2	2.07	0.54
22:BA:1283:G:N2	22:BA:1285:A:H3'	2.22	0.54
22:BA:1319:C:O2	22:BA:1334:G:C2	2.61	0.54
22:BA:1352:U:C2'	22:BA:1353:A:H5'	2.38	0.54
22:BA:1508:A:O2'	22:BA:1509:A:C5'	2.56	0.54
22:BA:2277:G:C3'	22:BA:2278:A:H5"	2.38	0.54
22:BA:2359:C:H2'	22:BA:2359:C:O2	2.07	0.54
24:BC:171:VAL:HG22	24:BC:185:ALA:HA	1.90	0.54
25:BD:74:GLU:O	25:BD:75:ALA:C	2.44	0.54
25:BD:104:VAL:HA	25:BD:106:LYS:NZ	2.22	0.54
28:BG:109:SER:O	28:BG:110:HIS:HB3	2.08	0.54
29:BH:134:VAL:HG21	29:BH:139:PHE:O	2.07	0.54
31:BJ:81:ILE:HG12	31:BJ:82:GLY:N	2.22	0.54
31:BJ:97:PRO:C	31:BJ:99:ARG:N	2.61	0.54
36:BO:41:ALA:HB2	36:BO:48:LEU:HD21	1.90	0.54
40:BS:83:LYS:O	40:BS:84:ARG:HD2	2.08	0.54
41:BT:28:ASN:HA	41:BT:91:GLN:OE1	2.08	0.54
46:BY:57:LEU:HA	46:BY:60:LYS:HB3	1.89	0.54
53:CA:153:C:O5'	53:CA:153:C:H6	1.91	0.54
53:CA:367:U:C6	53:CA:394:G:N2	2.77	0.54
53:CA:372:C:H4'	53:CA:373:A:H5'	1.90	0.54
53:CA:436:C:H2'	53:CA:437:U:H5'	1.90	0.54
53:CA:510:A:H5"	53:CA:511:C:P	2.47	0.54
53:CA:614:C:C4	53:CA:615:G:N7	2.75	0.54
53:CA:954:G:N1	53:CA:1228:C:N4	2.55	0.54
53:CA:1272:G:H2'	53:CA:1273:C:C5'	2.37	0.54
53:CA:1454:G:HO2'	53:CA:1455:G:H8	1.54	0.54
4:CD:116:LEU:CD2	4:CD:153:ARG:HH11	2.21	0.54
5:CE:80:LEU:N	5:CE:121:ASN:ND2	2.53	0.54
6:CF:47:LEU:HD22	18:CR:65:SER:CB	2.38	0.54
8:CH:1:SER:C	8:CH:3:GLN:N	2.61	0.54
9:CI:15:ALA:O	9:CI:66:VAL:HG23	2.07	0.54
11:CK:57:SER:C	11:CK:90:PRO:HG3	2.29	0.54
11:CK:90:PRO:O	11:CK:91:GLY:C	2.46	0.54
12:CL:97:VAL:CG2	12:CL:100:ALA:HB3	2.38	0.54
55:CM:95:PRO:CD	55:CM:108:ARG:HG2	2.24	0.54
14:CN:55:SER:C	14:CN:57:SER:H	2.10	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:21:A:H2'	22:DA:22:C:C6	2.43	0.54
22:DA:67:U:H2'	22:DA:68:G:C8	2.41	0.54
22:DA:468:G:H5"	26:DE:55:SER:CB	2.38	0.54
22:DA:1055:G:C2'	22:DA:1056:G:H5'	2.38	0.54
22:DA:1060:U:C5'	22:DA:1061:U:H2'	2.37	0.54
22:DA:1087:G:C6	22:DA:1089:A:C2	2.96	0.54
22:DA:1619:G:O2'	22:DA:1620:G:H5'	2.08	0.54
22:DA:1993:U:O2'	22:DA:1994:C:C5'	2.56	0.54
22:DA:2209:G:C5	22:DA:2210:U:C4	2.96	0.54
22:DA:2408:U:C2'	22:DA:2409:G:C8	2.90	0.54
22:DA:2552:U:N3	22:DA:2554:U:H5'	2.22	0.54
22:DA:2836:U:HO2'	22:DA:2837:A:P	2.31	0.54
22:DA:2868:A:O2'	22:DA:2869:G:H5'	2.07	0.54
58:DF:14:LYS:HB3	58:DF:14:LYS:HZ2	1.73	0.54
58:DF:59:ILE:CD1	58:DF:137:PHE:HZ	2.14	0.54
30:DI:109:ALA:HB1	30:DI:125:THR:HA	1.90	0.54
31:DJ:89:PHE:CE2	31:DJ:100:VAL:HG11	2.43	0.54
33:DL:81:ASP:O	33:DL:83:ALA:N	2.40	0.54
34:DM:73:ILE:HG21	34:DM:91:TYR:CZ	2.42	0.54
34:DM:73:ILE:CG1	34:DM:93:VAL:HG12	2.38	0.54
42:DU:11:ILE:HG21	42:DU:79:ALA:HB2	1.90	0.54
43:DV:73:LYS:HB3	43:DV:92:VAL:CG2	2.38	0.54
49:D1:46:VAL:HG22	49:D1:47:ILE:H	1.73	0.54
1:AA:922:G:H4'	5:AE:24:VAL:HA	1.88	0.53
1:AA:1055:A:N7	1:AA:1206:G:C2	2.76	0.53
1:AA:1082:A:O2'	1:AA:1083:U:H5'	2.07	0.53
1:AA:1305:G:H22	1:AA:1331:G:H2'	1.73	0.53
3:AC:38:VAL:O	3:AC:42:LEU:HB2	2.08	0.53
4:AD:98:ASP:HB3	4:AD:114:ARG:HG2	1.91	0.53
11:AK:59:PRO:HD3	11:AK:90:PRO:HB3	1.90	0.53
14:AN:86:ALA:O	14:AN:91:GLU:HB2	2.08	0.53
20:AT:79:THR:HG22	20:AT:80:ALA:N	2.22	0.53
22:BA:250:G:C6	22:BA:251:A:C6	2.96	0.53
22:BA:459:U:O2'	22:BA:460:A:H5'	2.07	0.53
22:BA:551:G:C6	22:BA:552:U:C4	2.96	0.53
22:BA:856:G:H1'	44:BW:23:LYS:CB	2.28	0.53
22:BA:976:G:C2	22:BA:977:G:C8	2.96	0.53
22:BA:1348:C:H2'	22:BA:1349:C:O5'	2.09	0.53
22:BA:1409:U:O2'	22:BA:1410:G:H5'	2.07	0.53
22:BA:1609:A:O2'	22:BA:1610:A:H5'	2.07	0.53
22:BA:1690:A:C2'	22:BA:1691:C:H5'	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2151:U:N3	22:BA:2152:G:C5	2.76	0.53
22:BA:2502:G:C5'	22:BA:2503:A:H5"	2.34	0.53
22:BA:2868:A:H2'	22:BA:2869:G:C8	2.42	0.53
28:BG:86:LEU:HD11	28:BG:132:LEU:HD21	1.90	0.53
29:BH:9:VAL:HG12	29:BH:9:VAL:O	2.07	0.53
29:BH:89:LYS:O	29:BH:90:LEU:HD12	2.08	0.53
32:BK:68:GLY:O	32:BK:69:VAL:HG23	2.08	0.53
33:BL:38:GLN:O	33:BL:40:SER:O	2.26	0.53
35:BN:55:ALA:HB1	35:BN:80:PHE:N	2.23	0.53
39:BR:4:VAL:HA	39:BR:12:HIS:O	2.08	0.53
42:BU:51:LEU:O	42:BU:52:ASN:HB2	2.08	0.53
44:BW:18:LYS:CA	44:BW:36:ILE:CG1	2.79	0.53
44:BW:28:GLU:H	44:BW:31:LEU:HG	1.73	0.53
49:B1:8:ILE:CD1	49:B1:52:LYS:HB2	2.38	0.53
53:CA:70:U:H2'	53:CA:94:G:N7	2.23	0.53
53:CA:198:G:O2'	53:CA:199:A:H8	1.92	0.53
53:CA:247:G:OP1	53:CA:247:G:H4'	2.07	0.53
53:CA:269:C:H2'	53:CA:270:A:H8	1.73	0.53
53:CA:496:A:N3	53:CA:496:A:C2'	2.68	0.53
53:CA:598:U:H4'	8:CH:85:TYR:CD1	2.42	0.53
53:CA:737:C:OP1	6:CF:91:ARG:HB3	2.08	0.53
53:CA:782:A:H2'	53:CA:783:C:H5'	1.90	0.53
53:CA:994:A:O2'	53:CA:995:C:H6	1.91	0.53
2:CB:19:THR:OG1	2:CB:20:ARG:N	2.40	0.53
54:CG:112:ASP:HB3	54:CG:117:LEU:CB	2.38	0.53
9:CI:117:LEU:CD2	9:CI:123:ARG:HD3	2.37	0.53
55:CM:36:ALA:HB2	55:CM:55:LEU:HD21	1.89	0.53
21:CU:33:ARG:NH2	21:CU:34:ARG:HD3	2.23	0.53
22:DA:201:C:C4	22:DA:202:U:C5	2.96	0.53
22:DA:307:G:N2	22:DA:310:A:C8	2.76	0.53
22:DA:638:G:C2'	22:DA:639:U:C6	2.90	0.53
22:DA:684:G:C2	22:DA:794:A:C2	2.96	0.53
22:DA:831:G:O2'	22:DA:832:U:H5'	2.07	0.53
22:DA:973:A:P	39:DR:81:LYS:HE3	2.48	0.53
22:DA:995:C:HO2'	38:DQ:60:TRP:HZ2	1.45	0.53
22:DA:1090:A:H2'	22:DA:1091:G:H5"	1.88	0.53
22:DA:1339:G:H21	22:DA:1603:A:H1'	1.73	0.53
22:DA:1426:G:H8	22:DA:1426:G:OP2	1.91	0.53
22:DA:1438:U:O2'	22:DA:1439:A:H5'	2.08	0.53
22:DA:1519:G:N3	22:DA:1519:G:H2'	2.22	0.53
22:DA:1551:A:H2'	22:DA:1552:A:O4'	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1794:A:H2'	22:DA:1795:C:C6	2.43	0.53
22:DA:2107:G:H2'	22:DA:2108:A:C8	2.43	0.53
22:DA:2261:C:N4	44:DW:10:ARG:HB3	2.24	0.53
22:DA:2298:A:O2'	22:DA:2299:U:C5'	2.55	0.53
22:DA:2681:C:H4'	22:DA:2682:A:O5'	2.08	0.53
22:DA:2748:A:N1	22:DA:2757:A:N7	2.56	0.53
22:DA:2756:U:C1'	22:DA:2757:A:C5'	2.86	0.53
22:DA:2808:G:O2'	22:DA:2809:A:H8	1.92	0.53
57:DB:16:G:O6	57:DB:69:G:C5	2.61	0.53
25:DD:118:PHE:O	25:DD:119:ALA:CB	2.56	0.53
25:DD:131:ASP:OD2	25:DD:131:ASP:N	2.42	0.53
26:DE:46:GLN:HB3	26:DE:86:ALA:CB	2.38	0.53
29:DH:120:GLY:O	29:DH:121:VAL:HB	2.08	0.53
32:DK:34:GLY:H	32:DK:37:ASP:HB2	1.73	0.53
35:DN:21:PHE:N	35:DN:21:PHE:CD1	2.76	0.53
36:DO:4:LYS:HG3	36:DO:8:ILE:CD1	2.38	0.53
37:DP:75:THR:HG23	37:DP:76:HIS:CD2	2.43	0.53
40:DS:50:VAL:O	40:DS:53:SER:HB3	2.07	0.53
41:DT:28:ASN:O	41:DT:29:THR:CG2	2.56	0.53
42:DU:58:VAL:HG12	42:DU:59:GLU:N	2.22	0.53
50:D2:28:ARG:C	50:D2:30:VAL:H	2.11	0.53
51:D3:18:LYS:HG3	51:D3:19:GLY:N	2.22	0.53
1:AA:49:U:O2'	1:AA:50:A:H2'	2.08	0.53
1:AA:116:A:O5'	1:AA:116:A:H8	1.91	0.53
1:AA:322:C:O2'	20:AT:17:ARG:HG2	2.07	0.53
1:AA:519:C:O2'	1:AA:520:A:H5'	2.08	0.53
1:AA:666:G:C6	1:AA:741:G:C6	2.96	0.53
1:AA:695:A:H2'	1:AA:696:A:C8	2.43	0.53
1:AA:1151:A:C6	1:AA:1152:A:N6	2.76	0.53
1:AA:1152:A:H2'	1:AA:1153:G:H8	1.73	0.53
2:AB:79:VAL:O	2:AB:83:ALA:HB3	2.08	0.53
3:AC:69:THR:O	3:AC:105:VAL:HG23	2.08	0.53
4:AD:77:GLU:HA	4:AD:77:GLU:OE1	2.08	0.53
6:AF:98:GLU:O	6:AF:99:ALA:HB3	2.08	0.53
12:AL:23:LEU:CB	12:AL:58:ASN:ND2	2.61	0.53
13:AM:39:ALA:HB3	13:AM:42:VAL:HG22	1.89	0.53
15:AO:45:HIS:C	15:AO:46:LYS:HG3	2.28	0.53
16:AP:2:VAL:HG23	16:AP:65:ALA:HA	1.89	0.53
16:AP:20:VAL:CG2	16:AP:21:VAL:N	2.70	0.53
22:BA:43:G:C2	22:BA:437:U:N3	2.77	0.53
22:BA:164:C:O2'	22:BA:165:A:H5'	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:994:C:O3'	22:BA:995:C:H3'	2.08	0.53
22:BA:1446:C:H2'	22:BA:1447:C:C6	2.43	0.53
22:BA:1733:G:O2'	22:BA:1734:G:C5'	2.57	0.53
22:BA:2150:C:C2'	22:BA:2151:U:C5	2.82	0.53
22:BA:2188:U:H2'	22:BA:2189:U:C6	2.42	0.53
22:BA:2425:A:C5'	22:BA:2427:C:H5'	2.37	0.53
22:BA:2705:A:H2'	22:BA:2706:A:O4'	2.08	0.53
24:BC:182:LYS:O	24:BC:183:VAL:CG2	2.55	0.53
26:BE:42:GLY:C	26:BE:43:THR:HG23	2.27	0.53
27:BF:134:GLN:NE2	27:BF:134:GLN:N	2.41	0.53
33:BL:101:ILE:HG22	33:BL:102:GLY:H	1.73	0.53
40:BS:6:LYS:HB2	40:BS:103:ILE:O	2.07	0.53
44:BW:22:VAL:O	44:BW:25:PHE:CD2	2.56	0.53
45:BX:40:GLU:O	45:BX:43:LYS:HD2	2.08	0.53
50:B2:12:ARG:HG3	50:B2:13:ASN:N	2.23	0.53
53:CA:33:A:C4	53:CA:34:C:C5	2.97	0.53
53:CA:209:U:C5'	53:CA:210:C:OP2	2.51	0.53
53:CA:216:U:H4'	53:CA:464:U:H4'	1.89	0.53
5:CE:68:ARG:O	5:CE:69:ASN:C	2.45	0.53
6:CF:98:GLU:O	6:CF:99:ALA:CB	2.56	0.53
11:CK:19:VAL:HG12	11:CK:34:THR:CG2	2.38	0.53
22:DA:74:A:H4'	22:DA:75:G:O5'	2.07	0.53
22:DA:251:A:H4'	33:DL:47:ARG:NH2	2.24	0.53
22:DA:464:U:C6	22:DA:788:A:C2	2.97	0.53
22:DA:576:U:H2'	22:DA:577:G:C8	2.43	0.53
22:DA:605:G:H2'	22:DA:606:U:H6	1.73	0.53
22:DA:606:U:O2'	22:DA:607:U:C4'	2.57	0.53
22:DA:826:U:O2'	33:DL:53:GLY:HA3	2.08	0.53
22:DA:1107:G:C2'	22:DA:1108:U:H5'	2.38	0.53
22:DA:1387:A:N3	22:DA:1388:G:C8	2.77	0.53
22:DA:1773:A:H2'	22:DA:1774:C:O4'	2.08	0.53
22:DA:2204:G:C2	22:DA:2205:A:C8	2.95	0.53
22:DA:2230:G:H2'	22:DA:2231:U:H6	1.72	0.53
22:DA:2353:G:H2'	22:DA:2354:C:O4'	2.07	0.53
25:DD:124:ARG:NH1	25:DD:125:TRP:CZ2	2.76	0.53
26:DE:112:LEU:CD1	26:DE:118:LEU:HD13	2.33	0.53
26:DE:149:ILE:CG2	26:DE:188:MET:HB2	2.39	0.53
37:DP:91:VAL:HG22	37:DP:109:ILE:HD13	1.89	0.53
40:DS:7:HIS:CE1	40:DS:10:ALA:CA	2.91	0.53
41:DT:61:LEU:HD12	41:DT:61:LEU:O	2.07	0.53
43:DV:8:VAL:HG13	43:DV:66:ASP:OD2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DX:11:PRO:HB2	45:DX:27:ARG:HH21	1.71	0.53
49:D1:24:LYS:HE2	49:D1:52:LYS:NZ	2.23	0.53
1:AA:17:U:H2'	1:AA:18:C:C6	2.44	0.53
1:AA:508:U:O2'	1:AA:509:A:C8	2.60	0.53
1:AA:560:A:H5'	1:AA:566:G:H21	1.70	0.53
1:AA:656:G:N2	15:AO:22:GLY:HA3	2.24	0.53
1:AA:821:G:H2'	1:AA:822:U:H6	1.72	0.53
1:AA:972:C:P	10:AJ:59:LYS:HE3	2.48	0.53
1:AA:1173:U:H2'	1:AA:1174:G:C8	2.43	0.53
1:AA:1478:U:H2'	1:AA:1479:C:H6	1.73	0.53
2:AB:53:LEU:CA	2:AB:56:LEU:HB3	2.35	0.53
4:AD:35:GLN:O	4:AD:36:ALA:HB2	2.08	0.53
5:AE:24:VAL:O	5:AE:25:LYS:C	2.47	0.53
9:AI:25:GLY:N	9:AI:58:GLU:HA	2.23	0.53
20:AT:27:MET:O	20:AT:31:ILE:HG13	2.07	0.53
22:BA:34:U:H1'	22:BA:35:G:OP1	2.08	0.53
22:BA:302:C:H2'	22:BA:303:G:H8	1.73	0.53
22:BA:414:C:H2'	22:BA:415:A:C8	2.43	0.53
22:BA:532:A:N7	22:BA:2021:C:H2'	2.23	0.53
22:BA:1142:A:C4	22:BA:1144:A:C8	2.96	0.53
22:BA:1182:G:C2'	22:BA:1183:U:H5'	2.38	0.53
22:BA:1605:C:C2'	22:BA:1606:C:H5'	2.38	0.53
22:BA:2307:G:N2	22:BA:2311:A:C8	2.76	0.53
22:BA:2648:G:H2'	22:BA:2649:C:C6	2.43	0.53
22:BA:2726:A:O2'	22:BA:2727:A:H5'	2.08	0.53
22:BA:2749:A:OP1	28:BG:3:VAL:HG12	2.08	0.53
23:BB:51:G:N2	23:BB:53:A:N6	2.56	0.53
24:BC:259:ASN:O	24:BC:261:ARG:N	2.38	0.53
25:BD:93:GLY:O	25:BD:94:GLN:C	2.46	0.53
28:BG:96:ALA:CB	28:BG:103:ASN:HB3	2.38	0.53
31:BJ:44:TYR:HA	38:BQ:59:LEU:CD2	2.38	0.53
53:CA:66:A:C6	53:CA:67:C:C4	2.97	0.53
53:CA:338:A:N6	53:CA:351:G:H1	2.05	0.53
53:CA:460:A:O2'	53:CA:462:G:H5'	2.08	0.53
53:CA:652:U:HO2'	53:CA:653:U:P	2.31	0.53
53:CA:989:U:C4	53:CA:990:C:C5	2.96	0.53
53:CA:1117:A:C2	53:CA:1184:G:C6	2.95	0.53
53:CA:1123:U:O3'	10:CJ:38:GLY:HA3	2.09	0.53
53:CA:1234:C:C4'	53:CA:1364:U:O2'	2.55	0.53
3:CC:100:ILE:HD12	3:CC:101:ASN:H	1.73	0.53
3:CC:116:ALA:HB2	3:CC:199:VAL:HG21	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:126:ARG:HE	3:CC:126:ARG:CA	2.16	0.53
9:CI:6:TYR:CE2	9:CI:17:ARG:HA	2.43	0.53
12:CL:113:ARG:HD2	12:CL:118:VAL:CG1	2.38	0.53
55:CM:13:HIS:CB	55:CM:16:ILE:HB	2.37	0.53
55:CM:85:TYR:HE2	55:CM:96:VAL:HG13	1.71	0.53
19:CS:12:LEU:HD13	19:CS:12:LEU:C	2.29	0.53
22:DA:75:G:O2'	22:DA:76:C:C6	2.61	0.53
22:DA:179:C:H2'	22:DA:180:G:O4'	2.08	0.53
22:DA:242:G:C8	51:D3:3:ILE:O	2.59	0.53
22:DA:244:A:H2'	22:DA:245:G:O4'	2.08	0.53
22:DA:301:G:O3'	42:DU:81:ARG:NH1	2.42	0.53
22:DA:465:G:H4'	50:D2:16:HIS:HD2	1.72	0.53
22:DA:497:A:H2'	22:DA:498:G:C1'	2.39	0.53
22:DA:1286:A:O2'	22:DA:1288:G:N2	2.42	0.53
22:DA:1413:A:C6	22:DA:1414:C:N4	2.77	0.53
22:DA:1739:A:O2'	22:DA:1740:G:C5'	2.57	0.53
22:DA:1802:A:C2	22:DA:1803:A:C6	2.97	0.53
22:DA:1945:G:H2'	22:DA:1946:U:C6	2.43	0.53
22:DA:2143:C:H5"	22:DA:2144:G:N7	2.24	0.53
22:DA:2753:A:H2'	22:DA:2754:U:C6	2.43	0.53
22:DA:2882:A:H5'	35:DN:96:ARG:HD3	1.90	0.53
22:DA:2882:A:H5"	35:DN:96:ARG:HD3	1.88	0.53
24:DC:71:ASP:CA	24:DC:117:SER:O	2.56	0.53
26:DE:5:LEU:CD2	26:DE:120:VAL:HG22	2.38	0.53
29:DH:62:LEU:C	29:DH:64:ALA:H	2.12	0.53
31:DJ:30:THR:CG2	31:DJ:31:GLU:N	2.71	0.53
34:DM:41:LEU:O	34:DM:93:VAL:HG23	2.09	0.53
43:DV:56:PHE:C	43:DV:58:SER:H	2.10	0.53
45:DX:58:ILE:CG1	45:DX:66:VAL:HG11	2.36	0.53
1:AA:121:U:OP2	1:AA:121:U:H4'	2.07	0.53
1:AA:674:G:H4'	18:AR:69:TYR:CD1	2.44	0.53
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.08	0.53
1:AA:1531:A:O2'	1:AA:1532:U:H5'	2.07	0.53
2:AB:14:HIS:O	2:AB:14:HIS:CG	2.62	0.53
6:AF:63:ASN:ND2	6:AF:96:VAL:HG22	2.23	0.53
7:AG:110:ARG:NH1	7:AG:110:ARG:HB2	2.22	0.53
9:AI:49:GLN:O	9:AI:52:GLU:HG3	2.07	0.53
17:AQ:58:VAL:HG22	17:AQ:59:GLU:N	2.24	0.53
22:BA:623:C:H2'	22:BA:624:C:C6	2.43	0.53
22:BA:923:G:H4'	44:BW:25:PHE:CE1	2.43	0.53
22:BA:945:A:O3'	22:BA:946:C:H4'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1274:A:N3	22:BA:1297:C:H1'	2.23	0.53
22:BA:1276:A:H8	22:BA:1276:A:C5'	2.21	0.53
22:BA:1343:G:H2'	22:BA:1344:U:H6	1.74	0.53
22:BA:1490:A:C8	24:BC:73:ILE:HD13	2.42	0.53
22:BA:1842:G:H2'	22:BA:1843:C:H6	1.72	0.53
22:BA:2064:C:H2'	22:BA:2065:C:C6	2.43	0.53
22:BA:2507:C:O2	22:BA:2507:C:H2'	2.09	0.53
22:BA:2508:G:H2'	22:BA:2509:G:C5'	2.38	0.53
22:BA:2672:U:C2'	22:BA:2673:G:O5'	2.57	0.53
23:BB:110:C:C4	23:BB:111:U:C5	2.96	0.53
26:BE:189:THR:HG1	26:BE:191:ASP:HB3	1.72	0.53
28:BG:33:THR:N	28:BG:34:ARG:NH1	2.56	0.53
32:BK:71:ARG:HA	32:BK:71:ARG:HE	1.73	0.53
32:BK:88:ASN:HD22	32:BK:90:ASN:H	1.57	0.53
36:BO:62:LEU:HD22	36:BO:70:ALA:HA	1.90	0.53
37:BP:30:TRP:CZ3	37:BP:39:LEU:CD1	2.92	0.53
38:BQ:104:ALA:O	38:BQ:107:ALA:HB3	2.08	0.53
39:BR:3:ALA:CB	39:BR:59:ILE:HD11	2.39	0.53
39:BR:28:ALA:O	39:BR:63:VAL:CG2	2.52	0.53
45:BX:4:CYS:HB2	45:BX:51:SER:HB3	1.90	0.53
48:B0:54:ILE:HG22	48:B0:54:ILE:O	2.07	0.53
53:CA:52:C:O2'	53:CA:53:A:H5'	2.07	0.53
53:CA:80:A:C6	53:CA:81:A:O2'	2.58	0.53
53:CA:93:U:C2	53:CA:95:C:N4	2.76	0.53
53:CA:279:A:H4'	53:CA:280:C:O5'	2.08	0.53
53:CA:356:A:H2'	53:CA:357:G:O4'	2.09	0.53
53:CA:1138:G:N2	53:CA:1140:C:C4	2.77	0.53
53:CA:1151:A:H2'	53:CA:1152:A:C8	2.41	0.53
53:CA:1301:U:O2'	53:CA:1302:C:H5	1.91	0.53
53:CA:1446:A:C2'	53:CA:1447:A:C5'	2.86	0.53
2:CB:103:TRP:O	2:CB:107:ARG:HB3	2.08	0.53
8:CH:52:GLY:HA3	8:CH:56:PRO:HA	1.90	0.53
8:CH:58:LEU:CD2	8:CH:60:LEU:CD1	2.86	0.53
11:CK:12:ARG:N	11:CK:12:ARG:CD	2.71	0.53
12:CL:82:ARG:HH11	12:CL:82:ARG:HG2	1.72	0.53
55:CM:111:PRO:HG2	55:CM:113:LYS:HG3	1.89	0.53
14:CN:12:ARG:HB3	14:CN:59:GLN:HG2	1.90	0.53
15:CO:20:ASP:OD1	15:CO:23:SER:HB2	2.07	0.53
56:CP:66:THR:HG22	56:CP:67:ILE:N	2.24	0.53
56:CP:77:GLU:C	56:CP:79:ASN:H	2.11	0.53
18:CR:32:ILE:HD12	18:CR:32:ILE:O	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:117:G:O4'	22:DA:126:A:H2	1.90	0.53
22:DA:792:A:H1'	22:DA:2072:C:O2'	2.08	0.53
22:DA:1028:A:C2	22:DA:1029:A:C5	2.96	0.53
22:DA:1132:U:H5"	31:DJ:84:ILE:CD1	2.37	0.53
22:DA:1771:C:O2'	22:DA:1786:A:H1'	2.09	0.53
22:DA:1854:A:O4'	22:DA:2233:U:H4'	2.08	0.53
22:DA:1941:C:H2'	22:DA:1942:C:C6	2.44	0.53
22:DA:1992:G:N2	22:DA:1995:U:C5	2.76	0.53
22:DA:2836:U:O2'	22:DA:2837:A:H8	1.92	0.53
22:DA:2837:A:N6	22:DA:2882:A:N6	2.56	0.53
57:DB:90:C:H6	57:DB:90:C:C5'	2.20	0.53
28:DG:88:LEU:N	28:DG:128:THR:O	2.41	0.53
35:DN:35:LYS:HD3	35:DN:112:TYR:OH	2.07	0.53
37:DP:50:ARG:O	37:DP:51:ASN:HB2	2.09	0.53
37:DP:52:ARG:HG2	37:DP:52:ARG:NH1	2.24	0.53
44:DW:24:ARG:HH21	44:DW:65:LYS:HG2	1.72	0.53
1:AA:173:U:C2	1:AA:197:A:C2	2.97	0.53
1:AA:266:G:OP2	1:AA:267:C:C5	2.61	0.53
1:AA:382:A:H2'	1:AA:383:A:C8	2.44	0.53
1:AA:781:A:H2'	1:AA:782:A:H5'	1.90	0.53
1:AA:1381:U:O2'	1:AA:1382:C:C5'	2.56	0.53
2:AB:9:LEU:HD21	2:AB:11:ALA:O	2.09	0.53
3:AC:39:ARG:CD	3:AC:54:ILE:HD11	2.39	0.53
11:AK:22:ILE:HG21	11:AK:95:THR:HG21	1.89	0.53
12:AL:34:THR:HB	12:AL:35:ARG:HG2	1.90	0.53
12:AL:72:ASN:HD22	12:AL:73:LEU:H	1.53	0.53
15:AO:17:ASP:O	15:AO:20:ASP:HB3	2.09	0.53
19:AS:14:LEU:O	19:AS:14:LEU:HD12	2.07	0.53
22:BA:1421:G:C2	22:BA:1422:G:C8	2.97	0.53
22:BA:1688:U:H1'	22:BA:1701:A:C6	2.43	0.53
22:BA:1734:G:C4	22:BA:1735:A:C8	2.97	0.53
22:BA:1746:A:C2	22:BA:1747:U:N3	2.76	0.53
22:BA:1820:U:O2	24:BC:199:HIS:HB3	2.08	0.53
22:BA:1962:C:H4'	22:BA:1963:U:OP1	2.08	0.53
22:BA:1983:G:O2'	22:BA:1984:G:H5'	2.08	0.53
22:BA:2286:G:H4'	22:BA:2287:A:O4'	2.09	0.53
22:BA:2502:G:C5'	22:BA:2503:A:C5'	2.86	0.53
24:BC:51:ARG:O	24:BC:52:HIS:HB2	2.09	0.53
25:BD:159:LYS:NZ	25:BD:160:LYS:H	2.05	0.53
29:BH:110:VAL:O	29:BH:111:ALA:HB2	2.08	0.53
39:BR:61:ALA:CB	39:BR:98:ILE:HA	2.37	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BY:39:GLN:HB2	46:BY:41:HIS:CD2	2.44	0.53
53:CA:182:A:C2	53:CA:184:G:C6	2.96	0.53
53:CA:815:A:H4'	53:CA:817:C:C4	2.44	0.53
53:CA:996:A:N6	53:CA:1046:A:O4'	2.41	0.53
53:CA:1046:A:N1	53:CA:1213:A:C6	2.77	0.53
53:CA:1067:A:H1'	53:CA:1068:G:H8	1.69	0.53
2:CB:20:ARG:HA	2:CB:20:ARG:HE	1.73	0.53
2:CB:20:ARG:HA	2:CB:20:ARG:NE	2.24	0.53
4:CD:39:GLN:C	4:CD:41:GLY:N	2.61	0.53
54:CG:35:LYS:O	9:CI:42:THR:HG21	2.09	0.53
10:CJ:52:LEU:HA	10:CJ:62:ARG:HG2	1.90	0.53
12:CL:47:ALA:C	12:CL:48:LEU:HD23	2.29	0.53
15:CO:16:ARG:HB2	15:CO:23:SER:CB	2.37	0.53
22:DA:121:G:N2	22:DA:131:A:C4	2.76	0.53
22:DA:303:G:C6	22:DA:315:G:C6	2.97	0.53
22:DA:352:A:H3'	22:DA:353:C:C5'	2.39	0.53
22:DA:605:G:O2'	22:DA:606:U:O4'	2.26	0.53
22:DA:675:A:OP1	26:DE:60:TRP:HZ2	1.91	0.53
22:DA:830:G:N3	22:DA:2448:A:C6	2.77	0.53
22:DA:929:U:O2'	22:DA:930:G:H5'	2.08	0.53
22:DA:1083:U:H1'	22:DA:1086:A:N1	2.23	0.53
22:DA:1775:U:C2'	22:DA:1776:G:O5'	2.56	0.53
22:DA:1798:U:C5	24:DC:270:ARG:NH1	2.76	0.53
22:DA:2058:A:N6	22:DA:2059:A:N6	2.56	0.53
22:DA:2148:G:O2'	22:DA:2149:U:C5	2.62	0.53
22:DA:2852:G:O2'	22:DA:2853:C:H5'	2.08	0.53
57:DB:30:C:H2'	57:DB:30:C:O2	2.08	0.53
25:DD:119:ALA:CB	25:DD:163:GLY:C	2.77	0.53
58:DF:4:HIS:CE1	58:DF:96:TRP:CZ2	2.96	0.53
28:DG:90:GLY:HA3	28:DG:93:TYR:CZ	2.42	0.53
28:DG:162:ARG:HB2	28:DG:166:GLU:CB	2.39	0.53
30:DI:57:VAL:CG1	30:DI:58:ILE:H	2.14	0.53
34:DM:81:ARG:HH21	34:DM:84:LYS:NZ	2.07	0.53
35:DN:22:ARG:O	35:DN:22:ARG:CG	2.56	0.53
36:DO:74:VAL:HB	36:DO:106:LEU:CD1	2.39	0.53
41:DT:14:PRO:O	41:DT:32:LEU:HA	2.08	0.53
46:DY:25:GLN:O	46:DY:29:ARG:HD3	2.08	0.53
48:D0:30:ASP:OD1	48:D0:47:TYR:HB3	2.09	0.53
1:AA:108:G:H2'	1:AA:109:A:OP1	2.08	0.53
1:AA:182:A:C2	1:AA:184:G:C8	2.96	0.53
1:AA:300:A:H1'	1:AA:565:U:O2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:702:A:N9	22:BA:1847:A:H2	2.06	0.53
1:AA:1124:G:HO2'	1:AA:1125:U:H6	1.55	0.53
1:AA:1273:C:H2'	1:AA:1274:A:O4'	2.08	0.53
1:AA:1279:G:N3	1:AA:1279:G:C2'	2.67	0.53
2:AB:65:LYS:HG2	2:AB:153:MET:HG3	1.90	0.53
3:AC:39:ARG:CZ	3:AC:54:ILE:HD11	2.38	0.53
3:AC:86:LEU:O	3:AC:90:VAL:HG23	2.07	0.53
3:AC:106:ARG:HG2	3:AC:106:ARG:O	2.08	0.53
9:AI:128:LYS:HD2	9:AI:129:ARG:H	1.74	0.53
16:AP:21:VAL:O	16:AP:33:ILE:N	2.41	0.53
17:AQ:14:ASP:O	17:AQ:16:MET:SD	2.67	0.53
22:BA:37:C:O2'	26:BE:45:ALA:HB2	2.09	0.53
22:BA:1011:G:C2	22:BA:1151:A:C2	2.97	0.53
22:BA:1060:U:O4'	22:BA:1062:G:C5'	2.54	0.53
22:BA:1300:G:H1'	22:BA:1626:A:C2	2.43	0.53
22:BA:2086:U:H2'	22:BA:2087:G:C8	2.44	0.53
22:BA:2323:G:C2'	22:BA:2324:U:H5'	2.39	0.53
22:BA:2590:A:H2'	22:BA:2591:C:C6	2.44	0.53
24:BC:12:ARG:HA	24:BC:15:VAL:HG23	1.90	0.53
25:BD:34:VAL:HG22	25:BD:94:GLN:H	1.74	0.53
27:BF:134:GLN:HE22	27:BF:150:GLY:H	1.57	0.53
28:BG:140:ILE:HD12	28:BG:141:GLY:H	1.67	0.53
30:BI:123:ALA:C	30:BI:125:THR:H	2.10	0.53
31:BJ:74:TYR:OH	31:BJ:100:VAL:HG13	2.08	0.53
36:BO:55:GLU:OE1	36:BO:58:ILE:CD1	2.57	0.53
37:BP:77:SER:HG	37:BP:79:VAL:HG13	1.74	0.53
38:BQ:61:ILE:HG23	38:BQ:75:TYR:CE1	2.43	0.53
40:BS:39:THR:HG22	40:BS:39:THR:O	2.08	0.53
42:BU:73:ASN:C	42:BU:75:ALA:H	2.12	0.53
53:CA:722:G:H2'	53:CA:722:G:N3	2.23	0.53
53:CA:886:G:H2'	53:CA:887:G:O4'	2.09	0.53
53:CA:936:C:O2'	53:CA:937:A:O5'	2.26	0.53
53:CA:1147:C:O2'	53:CA:1148:U:H6	1.91	0.53
53:CA:1239:A:H62	53:CA:1299:A:N6	2.07	0.53
53:CA:1370:G:H5"	9:CI:110:VAL:CG2	2.38	0.53
53:CA:1457:G:O2'	20:CT:26:MET:HG2	2.09	0.53
3:CC:46:LEU:CD2	3:CC:75:VAL:HG22	2.39	0.53
3:CC:136:ALA:HA	3:CC:139:ASN:HD21	1.73	0.53
6:CF:92:THR:O	6:CF:93:LYS:CG	2.54	0.53
10:CJ:33:GLY:O	10:CJ:35:GLN:N	2.41	0.53
56:CP:22:ALA:HA	56:CP:33:ILE:CD1	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:CP:52:LEU:O	56:CP:53:ASP:CB	2.57	0.53
22:DA:64:A:OP1	41:DT:77:ARG:HG2	2.08	0.53
22:DA:91:A:O2'	22:DA:92:U:C5'	2.52	0.53
22:DA:227:A:HO2'	22:DA:228:C:P	2.32	0.53
22:DA:287:G:N1	22:DA:354:A:C6	2.76	0.53
22:DA:324:A:N6	22:DA:338:G:O2'	2.41	0.53
22:DA:455:C:H3'	22:DA:456:C:H5'	1.90	0.53
22:DA:459:U:HO2'	22:DA:460:A:H8	1.57	0.53
22:DA:528:A:C2	22:DA:2043:C:C5'	2.92	0.53
22:DA:538:A:O2'	31:DJ:8:PRO:CD	2.57	0.53
22:DA:747:U:C2'	22:DA:2613:U:O4	2.56	0.53
22:DA:975:A:C2'	22:DA:976:G:H8	2.21	0.53
22:DA:1130:U:HO2'	22:DA:1131:G:H8	1.53	0.53
22:DA:1225:G:C6	22:DA:1226:A:N6	2.76	0.53
22:DA:1430:G:O2'	22:DA:1431:A:C5'	2.57	0.53
22:DA:1465:G:H2'	22:DA:1466:U:H6	1.74	0.53
22:DA:1566:A:C2	24:DC:212:TRP:HB2	2.44	0.53
22:DA:1607:C:N4	22:DA:1622:G:N7	2.56	0.53
22:DA:1833:C:C4	22:DA:1834:U:C5	2.97	0.53
22:DA:1993:U:H2'	22:DA:1994:C:C6	2.43	0.53
22:DA:2267:A:H2'	62:DA:3535:HOH:O	2.07	0.53
22:DA:2379:G:H2'	22:DA:2380:C:C6	2.43	0.53
22:DA:2721:A:H2'	22:DA:2722:G:O4'	2.09	0.53
22:DA:2817:U:H2'	22:DA:2818:U:O5'	2.09	0.53
29:DH:90:LEU:CD2	29:DH:91:PHE:H	2.22	0.53
31:DJ:43:GLU:O	31:DJ:45:THR:HG22	2.09	0.53
31:DJ:54:ILE:O	31:DJ:122:LEU:HD12	2.08	0.53
34:DM:1:MET:O	34:DM:2:LEU:O	2.27	0.53
34:DM:76:LYS:O	34:DM:77:PRO:O	2.27	0.53
35:DN:100:CYS:O	48:D0:41:HIS:HD2	1.91	0.53
37:DP:44:GLY:HA3	37:DP:60:VAL:HG12	1.90	0.53
41:DT:29:THR:CA	41:DT:87:LEU:HB2	2.39	0.53
45:DX:69:GLU:O	45:DX:70:LEU:HB2	2.08	0.53
48:D0:29:VAL:HG23	48:D0:35:GLU:O	2.08	0.53
48:D0:32:THR:HG21	48:D0:47:TYR:CD2	2.44	0.53
1:AA:251:G:C4'	1:AA:252:U:C5'	2.87	0.53
1:AA:564:C:H2'	1:AA:565:U:C6	2.43	0.53
1:AA:792:A:H4'	1:AA:793:U:C5'	2.39	0.53
1:AA:921:U:H2'	1:AA:922:G:O4'	2.08	0.53
1:AA:953:G:H2'	1:AA:954:G:O4'	2.09	0.53
1:AA:1057:G:O3'	3:AC:196:GLY:HA3	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:17:HIS:CD2	2:AB:202:ASN:ND2	2.72	0.53
3:AC:125:ARG:O	3:AC:126:ARG:CB	2.56	0.53
5:AE:34:ALA:O	5:AE:49:TYR:O	2.27	0.53
5:AE:136:VAL:O	5:AE:137:ARG:CB	2.56	0.53
8:AH:9:MET:CE	8:AH:32:LYS:HG2	2.38	0.53
8:AH:58:LEU:HD11	8:AH:60:LEU:CD2	2.38	0.53
9:AI:90:ASP:CG	9:AI:92:SER:HB3	2.29	0.53
11:AK:124:LYS:HZ3	21:AU:33:ARG:HH21	1.52	0.53
12:AL:23:LEU:O	12:AL:25:ALA:N	2.41	0.53
17:AQ:13:SER:HB3	17:AQ:16:MET:HE1	1.90	0.53
22:BA:2:G:O2'	22:BA:3:U:H5'	2.08	0.53
22:BA:43:G:C2	22:BA:437:U:C2	2.96	0.53
22:BA:264:C:O2'	22:BA:265:A:H3'	2.09	0.53
22:BA:543:G:C2	22:BA:544:C:H1'	2.43	0.53
22:BA:587:C:H42	33:BL:33:ARG:HD3	1.74	0.53
22:BA:1454:C:O2	35:BN:64:ARG:NE	2.39	0.53
22:BA:1524:G:O2'	22:BA:1525:A:H5'	2.09	0.53
22:BA:1670:C:H1'	22:BA:1993:U:O2	2.09	0.53
22:BA:1799:G:H2'	24:BC:179:GLU:OE2	2.09	0.53
22:BA:2415:G:H4'	33:BL:66:PHE:HB2	1.90	0.53
23:BB:50:A:C2'	23:BB:51:G:O5'	2.57	0.53
25:BD:34:VAL:HG23	25:BD:91:THR:HA	1.91	0.53
26:BE:5:LEU:CD2	26:BE:122:GLU:HG2	2.38	0.53
26:BE:150:THR:CG2	26:BE:153:LEU:HA	2.39	0.53
27:BF:30:VAL:HG12	27:BF:96:TRP:CH2	2.43	0.53
28:BG:153:PRO:HD3	28:BG:161:VAL:O	2.08	0.53
32:BK:18:ARG:HB2	32:BK:45:GLU:HG2	1.89	0.53
37:BP:30:TRP:CE2	37:BP:39:LEU:HD11	2.44	0.53
37:BP:83:ILE:HD13	37:BP:84:SER:N	2.23	0.53
39:BR:39:LEU:CA	39:BR:49:ILE:CG2	2.86	0.53
41:BT:87:LEU:HB2	41:BT:91:GLN:HE21	1.73	0.53
43:BV:65:VAL:HG22	43:BV:65:VAL:O	2.08	0.53
47:BZ:9:THR:CG2	47:BZ:53:MET:C	2.77	0.53
50:B2:22:MET:CE	50:B2:28:ARG:HG2	2.38	0.53
53:CA:96:U:O2'	53:CA:97:G:C5'	2.57	0.53
53:CA:371:A:C2'	53:CA:372:C:H5'	2.39	0.53
53:CA:373:A:HO2'	53:CA:374:A:H5'	1.72	0.53
53:CA:618:C:H3'	53:CA:619:U:C5'	2.38	0.53
53:CA:652:U:O2'	53:CA:653:U:P	2.67	0.53
53:CA:692:U:H2'	53:CA:694:A:OP2	2.09	0.53
53:CA:949:A:H4'	53:CA:1364:U:O4	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:977:A:H4'	53:CA:981:U:O2	2.09	0.53
53:CA:1423:G:O2'	53:CA:1424:U:H5'	2.07	0.53
53:CA:1460:C:O5'	53:CA:1460:C:H6	1.92	0.53
9:CI:35:GLU:CA	9:CI:39:GLY:HA3	2.36	0.53
14:CN:68:ARG:HG3	14:CN:69:PRO:CD	2.38	0.53
22:DA:27:G:O2'	22:DA:28:A:C8	2.61	0.53
22:DA:64:A:P	41:DT:77:ARG:HG2	2.48	0.53
22:DA:195:A:C5	22:DA:198:C:C5	2.97	0.53
22:DA:274:C:H2'	22:DA:275:C:O4'	2.09	0.53
22:DA:424:G:O2'	22:DA:425:G:C5'	2.55	0.53
22:DA:536:G:H2'	22:DA:537:G:H5'	1.90	0.53
22:DA:587:C:H1'	22:DA:671:C:C5'	2.36	0.53
22:DA:679:C:H2'	22:DA:680:C:H6	1.73	0.53
22:DA:1024:G:H3'	22:DA:1025:G:H5"	0.80	0.53
22:DA:1045:C:H4'	22:DA:1047:G:C4	2.43	0.53
22:DA:1346:G:O2'	22:DA:1347:A:O5'	2.27	0.53
22:DA:1417:C:H2'	22:DA:1418:G:C8	2.44	0.53
22:DA:1539:U:O2'	22:DA:1540:G:O4'	2.27	0.53
22:DA:2290:G:C5	22:DA:2291:U:C4	2.97	0.53
22:DA:2823:A:C4	22:DA:2824:C:C6	2.96	0.53
25:DD:14:ILE:HG22	25:DD:22:ILE:O	2.09	0.53
25:DD:113:SER:OG	25:DD:114:LYS:N	2.41	0.53
58:DF:122:ASP:HB2	58:DF:126:ASN:CB	2.38	0.53
29:DH:62:LEU:HD12	29:DH:63:ALA:N	2.24	0.53
29:DH:132:PHE:CE1	29:DH:134:VAL:HB	2.41	0.53
42:DU:43:LYS:HE3	42:DU:45:GLN:CG	2.38	0.53
1:AA:464:U:H2'	1:AA:466:A:OP2	2.08	0.53
1:AA:723:U:H5'	21:AU:48:LYS:HE2	1.89	0.53
1:AA:1161:C:O2'	1:AA:1162:C:H5'	2.08	0.53
1:AA:1492:A:H2'	1:AA:1493:A:H5"	1.90	0.53
2:AB:49:PHE:HB2	2:AB:53:LEU:HD23	1.90	0.53
3:AC:41:TYR:CZ	3:AC:89:VAL:HG21	2.44	0.53
4:AD:169:TRP:CD1	4:AD:170:LEU:HG	2.43	0.53
6:AF:2:ARG:HH21	6:AF:68:GLN:HE21	1.57	0.53
17:AQ:45:VAL:HG21	17:AQ:60:ILE:HD11	1.88	0.53
17:AQ:74:LEU:HD12	17:AQ:74:LEU:N	2.24	0.53
22:BA:226:A:C6	22:BA:227:A:C6	2.97	0.53
22:BA:301:G:O2'	22:BA:302:C:P	2.67	0.53
22:BA:533:G:H2'	22:BA:534:U:H6	1.71	0.53
22:BA:746:U:O2'	22:BA:747:U:P	2.66	0.53
22:BA:817:C:H2'	22:BA:818:G:C5'	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:855:G:H1'	44:BW:23:LYS:CD	2.38	0.53
22:BA:1041:G:O2'	22:BA:1042:G:H5'	2.08	0.53
22:BA:1063:G:C2'	22:BA:1064:C:O4'	2.57	0.53
22:BA:1157:G:H1'	47:BZ:31:ILE:HD11	1.91	0.53
22:BA:1469:A:H2'	22:BA:1470:A:H8	1.67	0.53
22:BA:1654:A:O4'	25:BD:118:PHE:CE1	2.62	0.53
22:BA:1804:C:C4	22:BA:1805:A:N7	2.77	0.53
22:BA:1952:A:C5	32:BK:22:ILE:CG2	2.91	0.53
22:BA:2136:G:O2'	22:BA:2137:U:C5	2.60	0.53
22:BA:2720:U:OP1	37:BP:52:ARG:NH2	2.42	0.53
22:BA:2724:U:P	25:BD:116:LYS:HZ2	2.32	0.53
22:BA:2760:C:C2'	22:BA:2761:A:H5'	2.39	0.53
24:BC:196:ASN:O	24:BC:197:ALA:HB3	2.09	0.53
24:BC:250:GLN:N	24:BC:250:GLN:HE21	2.07	0.53
25:BD:49:GLN:NE2	25:BD:79:LEU:HD22	2.24	0.53
26:BE:37:ALA:HA	26:BE:40:ARG:HG3	1.91	0.53
27:BF:60:SER:HB2	27:BF:90:LEU:HD21	1.90	0.53
29:BH:24:GLY:O	29:BH:28:ASN:HB2	2.09	0.53
30:BI:126:ARG:HA	30:BI:129:GLU:CG	2.39	0.53
31:BJ:140:LEU:CD1	31:BJ:140:LEU:C	2.77	0.53
33:BL:132:ARG:HA	33:BL:142:ILE:CD1	2.39	0.53
35:BN:47:VAL:O	35:BN:50:PRO:HD2	2.09	0.53
37:BP:105:LYS:O	37:BP:108:ARG:HD3	2.08	0.53
53:CA:80:A:H3'	53:CA:81:A:H4'	1.89	0.53
53:CA:515:G:N2	53:CA:537:G:C4	2.77	0.53
53:CA:740:U:O2'	53:CA:741:G:H5'	2.08	0.53
53:CA:1172:C:C2'	53:CA:1173:U:H5'	2.38	0.53
53:CA:1349:A:O2'	53:CA:1350:A:C5'	2.57	0.53
6:CF:8:PHE:CZ	6:CF:60:VAL:HB	2.43	0.53
12:CL:80:LEU:HD23	12:CL:97:VAL:HG21	1.90	0.53
22:DA:9:G:C6	22:DA:2895:G:O6	2.62	0.53
22:DA:13:A:N3	22:DA:15:G:O6	2.42	0.53
22:DA:90:U:C4	22:DA:91:A:C5	2.96	0.53
22:DA:227:A:C4'	22:DA:229:C:H41	2.21	0.53
22:DA:397:U:O2'	22:DA:398:C:O5'	2.26	0.53
22:DA:432:A:H8	22:DA:432:A:O5'	1.91	0.53
22:DA:831:G:H5"	33:DL:37:GLY:HA2	1.90	0.53
22:DA:1239:G:C5	22:DA:1240:U:C5	2.96	0.53
22:DA:1264:A:H1'	22:DA:2015:A:H61	1.73	0.53
22:DA:1455:G:O2'	22:DA:1456:G:C8	2.50	0.53
22:DA:1525:A:C6	22:DA:1526:C:C2	2.97	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2053:G:H2'	22:DA:2054:A:H5'	1.88	0.53
22:DA:2061:G:C2	22:DA:2063:C:C4	2.97	0.53
22:DA:2229:U:O2'	22:DA:2230:G:H5'	2.09	0.53
22:DA:2332:C:H4'	44:DW:40:ARG:CZ	2.39	0.53
57:DB:55:U:H1'	58:DF:25:MET:CE	2.39	0.53
57:DB:69:G:C5	57:DB:70:C:C5	2.96	0.53
24:DC:259:ASN:C	24:DC:261:ARG:H	2.12	0.53
25:DD:148:GLN:OE1	25:DD:152:PRO:HG2	2.09	0.53
26:DE:60:TRP:O	26:DE:61:ARG:CB	2.57	0.53
58:DF:129:MET:O	58:DF:129:MET:HG3	2.09	0.53
29:DH:38:PRO:HB2	29:DH:40:THR:HG23	1.91	0.53
29:DH:76:GLU:OE1	29:DH:102:ALA:HB2	2.09	0.53
30:DI:69:VAL:O	30:DI:69:VAL:HG13	2.09	0.53
30:DI:118:GLY:O	30:DI:123:ALA:HB3	2.09	0.53
31:DJ:64:VAL:HG21	31:DJ:68:LYS:HG3	1.90	0.53
31:DJ:89:PHE:HE2	31:DJ:100:VAL:HG11	1.73	0.53
31:DJ:142:ILE:HD12	31:DJ:142:ILE:N	2.23	0.53
33:DL:21:ARG:HB3	33:DL:21:ARG:NH2	2.23	0.53
33:DL:35:HIS:HB2	62:DL:3603:HOH:O	2.09	0.53
41:DT:55:VAL:HG22	41:DT:56:GLU:N	2.23	0.53
46:DY:28:LEU:CD2	46:DY:42:LEU:HD13	2.39	0.53
48:D0:54:ILE:O	48:D0:55:ALA:HB2	2.08	0.53
1:AA:33:A:O2'	1:AA:363:A:H1'	2.08	0.53
1:AA:73:C:C2'	1:AA:74:A:H5"	2.38	0.53
1:AA:366:A:HO2'	1:AA:394:G:H22	1.50	0.53
1:AA:414:A:N3	1:AA:415:A:C8	2.77	0.53
1:AA:532:A:H4'	1:AA:533:A:OP2	2.08	0.53
1:AA:596:A:N3	1:AA:597:G:C8	2.77	0.53
1:AA:765:G:H2'	1:AA:812:G:N2	2.23	0.53
1:AA:1276:G:C5	1:AA:1277:C:C5	2.97	0.53
1:AA:1533:C:C3'	1:AA:1534:A:H5"	2.39	0.53
4:AD:61:ARG:NH2	4:AD:67:LEU:HA	2.24	0.53
9:AI:90:ASP:OD2	9:AI:93:LEU:HG	2.09	0.53
18:AR:33:THR:CG2	18:AR:37:LYS:H	2.22	0.53
22:BA:273:G:N2	22:BA:365:U:C2	2.77	0.53
22:BA:478:A:N6	22:BA:480:A:N6	2.57	0.53
22:BA:845:A:H3'	22:BA:845:A:N3	2.24	0.53
22:BA:1084:A:C4	22:BA:1085:A:N7	2.77	0.53
22:BA:1411:U:H2'	22:BA:1412:U:O4'	2.09	0.53
22:BA:1560:G:O2'	22:BA:1561:C:H5'	2.08	0.53
22:BA:1936:A:H2	22:BA:1943:U:C4	2.27	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2014:A:H2'	22:BA:2015:A:C8	2.43	0.53
22:BA:2182:U:C2'	22:BA:2183:A:OP1	2.57	0.53
22:BA:2654:A:C4'	22:BA:2655:G:OP1	2.51	0.53
24:BC:219:VAL:HG12	24:BC:224:MET:CE	2.39	0.53
25:BD:53:GLY:HA3	25:BD:77:ARG:HB2	1.91	0.53
26:BE:83:VAL:O	26:BE:83:VAL:HG12	2.08	0.53
27:BF:128:SER:HA	27:BF:154:THR:HA	1.89	0.53
29:BH:89:LYS:CG	29:BH:90:LEU:H	1.98	0.53
33:BL:77:ILE:N	33:BL:77:ILE:HD12	2.23	0.53
35:BN:58:ASP:O	35:BN:59:SER:HB3	2.09	0.53
45:BX:39:VAL:CG2	45:BX:42:GLU:HB2	2.36	0.53
53:CA:135:C:C2	56:CP:1:MET:HB2	2.44	0.53
53:CA:283:U:H2'	53:CA:284:C:C6	2.44	0.53
53:CA:348:G:H5"	53:CA:348:G:H8	1.74	0.53
53:CA:667:G:C2	53:CA:740:U:O2	2.62	0.53
53:CA:725:G:H2'	53:CA:726:C:C6	2.43	0.53
53:CA:992:U:O2'	53:CA:993:G:OP2	2.18	0.53
53:CA:1125:U:C5	10:CJ:40:ILE:HG21	2.43	0.53
53:CA:1146:A:C2	53:CA:1147:C:C2	2.96	0.53
2:CB:59:ILE:HD12	2:CB:59:ILE:C	2.28	0.53
2:CB:151:LYS:HG3	2:CB:152:ASP:N	2.24	0.53
54:CG:84:TYR:CD2	54:CG:150:PHE:HD2	2.27	0.53
9:CI:51:LEU:CD1	9:CI:82:ILE:HG22	2.37	0.53
9:CI:59:LYS:HG2	9:CI:60:LEU:HG	1.91	0.53
12:CL:34:THR:HG22	12:CL:35:ARG:HE	1.74	0.53
12:CL:109:ARG:NH2	12:CL:116:TYR:HE2	2.06	0.53
22:DA:92:U:C2'	22:DA:93:G:O4'	2.56	0.53
22:DA:103:A:O2'	22:DA:104:A:C5'	2.56	0.53
22:DA:189:G:C2'	22:DA:190:A:O5'	2.56	0.53
22:DA:930:G:C2	22:DA:933:A:C2	2.96	0.53
22:DA:1040:A:C2	22:DA:1041:G:N9	2.77	0.53
22:DA:1255:U:HO2'	22:DA:1256:G:P	2.32	0.53
22:DA:1515:A:H2'	22:DA:1516:G:O4'	2.09	0.53
22:DA:1666:G:C4'	32:DK:6:THR:HG23	2.39	0.53
22:DA:1746:A:H2'	22:DA:1747:U:C6	2.44	0.53
22:DA:1914:C:O2'	22:DA:1915:U:C5'	2.57	0.53
22:DA:2033:A:H4'	22:DA:2034:U:OP1	2.08	0.53
22:DA:2837:A:H61	22:DA:2882:A:N6	2.06	0.53
22:DA:2849:U:OP1	37:DP:92:ARG:NH1	2.42	0.53
57:DB:90:C:H5"	57:DB:90:C:C6	2.35	0.53
57:DB:111:U:O2'	57:DB:112:G:H8	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DE:117:ARG:NH2	33:DL:2:ARG:HB3	2.24	0.53
28:DG:93:TYR:OH	28:DG:159:LYS:HE2	2.08	0.53
30:DI:132:ALA:HA	30:DI:137:LEU:HD12	1.90	0.53
31:DJ:36:LEU:HD21	31:DJ:122:LEU:HD13	1.89	0.53
32:DK:16:ALA:HB1	32:DK:45:GLU:HG3	1.91	0.53
32:DK:115:ILE:HG22	32:DK:116:ILE:N	2.24	0.53
35:DN:120:GLU:HA	35:DN:120:GLU:OE1	2.09	0.53
39:DR:19:THR:HA	39:DR:96:VAL:O	2.08	0.53
50:D2:24:THR:O	50:D2:24:THR:HG23	2.09	0.53
50:D2:25:LYS:HG2	50:D2:25:LYS:O	2.09	0.53
1:AA:152:A:N6	1:AA:170:U:C2	2.77	0.53
1:AA:269:C:H2'	1:AA:270:A:C8	2.44	0.53
1:AA:441:A:C2	1:AA:497:G:C6	2.97	0.53
1:AA:614:C:H2'	1:AA:615:G:O5'	2.09	0.53
1:AA:1055:A:C8	1:AA:1206:G:N2	2.77	0.53
1:AA:1073:U:O2'	1:AA:1074:G:H5'	2.08	0.53
1:AA:1298:U:H4'	1:AA:1299:A:O5'	2.09	0.53
1:AA:1363:A:C4	1:AA:1365:G:C6	2.97	0.53
4:AD:57:LYS:HB3	4:AD:199:ILE:HG13	1.90	0.53
7:AG:78:ARG:HD2	7:AG:83:THR:HA	1.91	0.53
10:AJ:26:VAL:O	10:AJ:29:ALA:HB3	2.08	0.53
14:AN:20:PHE:O	14:AN:21:ALA:HB3	2.08	0.53
22:BA:139:U:C5	41:BT:1:MET:HG2	2.43	0.53
22:BA:165:A:H2'	22:BA:166:U:C6	2.44	0.53
22:BA:623:C:H2'	22:BA:624:C:H6	1.73	0.53
22:BA:1081:U:N3	22:BA:1082:U:C5	2.77	0.53
22:BA:1820:U:C2	24:BC:200:MET:HB2	2.44	0.53
22:BA:2019:A:H4'	38:BQ:33:VAL:HG21	1.90	0.53
22:BA:2570:G:C2'	22:BA:2571:U:H5'	2.39	0.53
25:BD:180:VAL:HG12	25:BD:181:ASP:N	2.23	0.53
27:BF:34:THR:CG2	27:BF:89:THR:HA	2.39	0.53
32:BK:2:ILE:HG21	32:BK:39:ILE:CD1	2.36	0.53
32:BK:18:ARG:HB2	32:BK:45:GLU:CG	2.38	0.53
32:BK:64:ARG:NH1	32:BK:101:GLY:HA3	2.24	0.53
34:BM:78:LEU:O	34:BM:80:VAL:N	2.42	0.53
38:BQ:15:LYS:O	38:BQ:19:GLN:HG3	2.09	0.53
44:BW:50:VAL:O	44:BW:52:CYS:N	2.35	0.53
44:BW:51:GLY:CA	44:BW:59:PHE:CE2	2.85	0.53
45:BX:31:ASN:OD1	45:BX:33:HIS:NE2	2.42	0.53
53:CA:506:G:C6	53:CA:507:C:C4	2.97	0.53
53:CA:696:A:C4	53:CA:697:U:C5	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1077:G:N2	53:CA:1080:A:OP2	2.42	0.53
53:CA:1092:A:H4'	54:CG:3:ARG:HH12	1.74	0.53
53:CA:1231:G:C5	53:CA:1232:U:C5	2.97	0.53
53:CA:1250:A:C6	53:CA:1251:A:C5	2.97	0.53
2:CB:90:PHE:CE2	2:CB:149:GLY:HA3	2.44	0.53
3:CC:12:GLY:C	3:CC:13:ILE:HD13	2.27	0.53
4:CD:18:LEU:HD22	4:CD:63:ILE:HG12	1.90	0.53
5:CE:15:ILE:HG21	5:CE:35:LEU:HD12	1.90	0.53
5:CE:103:GLY:HA3	5:CE:121:ASN:CA	2.36	0.53
54:CG:26:VAL:HG23	54:CG:27:ASN:OD1	2.09	0.53
54:CG:70:PRO:HD2	54:CG:95:ARG:O	2.09	0.53
12:CL:42:LYS:HD2	12:CL:43:LYS:HZ3	1.74	0.53
17:CQ:19:SER:CB	17:CQ:70:LYS:HZ2	2.22	0.53
20:CT:34:VAL:CG1	20:CT:78:LEU:HD21	2.38	0.53
22:DA:163:C:O2'	22:DA:164:C:C5'	2.56	0.53
22:DA:469:G:P	26:DE:55:SER:CB	2.96	0.53
22:DA:574:A:C2	22:DA:2032:G:O2'	2.62	0.53
22:DA:777:G:O2'	22:DA:778:G:H5'	2.09	0.53
22:DA:945:A:C8	22:DA:2448:A:C2	2.97	0.53
22:DA:1754:A:N6	22:DA:1755:A:C6	2.77	0.53
22:DA:1974:C:C2	22:DA:1975:G:C8	2.97	0.53
22:DA:2020:A:O2'	22:DA:2021:C:H3'	2.09	0.53
22:DA:2686:G:C5	22:DA:2687:U:C4	2.97	0.53
57:DB:40:U:N3	57:DB:43:C:OP2	2.42	0.53
24:DC:120:ASP:CG	24:DC:121:ALA:N	2.63	0.53
24:DC:144:GLU:HG3	24:DC:151:GLY:N	2.24	0.53
58:DF:107:VAL:N	58:DF:108:PRO:HD2	2.23	0.53
29:DH:50:ARG:HH12	29:DH:53:GLU:HG3	1.74	0.53
33:DL:18:ARG:HB3	33:DL:21:ARG:HD2	1.91	0.53
34:DM:73:ILE:CG2	34:DM:91:TYR:CE1	2.92	0.53
34:DM:96:ILE:CD1	34:DM:102:LEU:HD11	2.38	0.53
35:DN:62:ASN:OD1	35:DN:62:ASN:N	2.43	0.53
36:DO:17:LYS:HE2	36:DO:21:LEU:HD11	1.90	0.53
37:DP:57:ALA:HA	37:DP:75:THR:HB	1.90	0.53
45:DX:36:ARG:HG2	45:DX:47:THR:HB	1.90	0.53
1:AA:186:C:O4'	20:AT:75:LYS:HD2	2.08	0.52
1:AA:619:U:N3	4:AD:130:ASN:HB3	2.11	0.52
1:AA:1203:C:H2'	1:AA:1204:A:H8	1.74	0.52
1:AA:1386:G:H2'	1:AA:1387:G:C8	2.42	0.52
2:AB:49:PHE:HB2	2:AB:53:LEU:CD2	2.39	0.52
6:AF:92:THR:C	6:AF:93:LYS:HG2	2.30	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:42:A:C2'	22:BA:43:G:H5"	2.39	0.52
22:BA:278:A:N3	22:BA:278:A:H2'	2.24	0.52
22:BA:1063:G:H2'	22:BA:1064:C:O4'	2.09	0.52
22:BA:1095:A:H2'	22:BA:1096:A:C8	2.44	0.52
22:BA:1347:A:C2'	22:BA:1348:C:C5'	2.86	0.52
22:BA:1348:C:H2'	22:BA:1349:C:C5'	2.39	0.52
22:BA:1499:C:H2'	22:BA:1500:G:H8	1.74	0.52
22:BA:1996:C:OP1	32:BK:31:ARG:NE	2.41	0.52
22:BA:2004:G:H2'	22:BA:2005:A:H5'	1.91	0.52
22:BA:2365:G:O2'	22:BA:2366:A:C8	2.56	0.52
22:BA:2726:A:HO2'	22:BA:2727:A:C5'	2.22	0.52
24:BC:106:PRO:CB	24:BC:141:HIS:HE1	2.23	0.52
24:BC:252:LYS:CA	24:BC:252:LYS:NZ	2.72	0.52
27:BF:47:LYS:NZ	27:BF:47:LYS:CB	2.72	0.52
28:BG:83:THR:O	28:BG:84:LYS:HD3	2.08	0.52
31:BJ:56:VAL:O	31:BJ:124:VAL:O	2.27	0.52
35:BN:23:ASN:N	35:BN:23:ASN:ND2	2.55	0.52
39:BR:67:GLY:C	39:BR:93:PHE:CE2	2.82	0.52
53:CA:71:A:N3	53:CA:72:A:C8	2.77	0.52
53:CA:173:U:C5'	53:CA:174:A:OP2	2.57	0.52
53:CA:404:G:C2'	53:CA:405:U:H5'	2.39	0.52
53:CA:495:A:C2	53:CA:496:A:C6	2.97	0.52
53:CA:644:U:H2'	53:CA:645:G:C8	2.44	0.52
53:CA:790:A:N6	53:CA:791:G:C6	2.77	0.52
53:CA:861:G:C6	53:CA:862:C:C4	2.96	0.52
53:CA:946:A:H2'	53:CA:947:G:C8	2.43	0.52
53:CA:1386:G:N2	53:CA:1387:G:C4	2.77	0.52
53:CA:1439:G:C2	53:CA:1463:U:O2	2.62	0.52
53:CA:1504:G:C3'	53:CA:1505:G:C5'	2.84	0.52
54:CG:78:ARG:HA	54:CG:84:TYR:HB2	1.92	0.52
11:CK:19:VAL:N	11:CK:34:THR:O	2.41	0.52
55:CM:18:LEU:HA	55:CM:21:ILE:CD1	2.38	0.52
55:CM:81:ASP:CB	55:CM:82:LEU:HD12	2.38	0.52
56:CP:19:VAL:CG1	56:CP:37:GLY:HA3	2.39	0.52
20:CT:64:GLY:O	20:CT:67:HIS:HB2	2.09	0.52
22:DA:24:G:C2'	22:DA:25:U:H5'	2.38	0.52
22:DA:152:A:C2	22:DA:175:G:C2	2.97	0.52
22:DA:310:A:O2'	22:DA:311:A:H5"	2.10	0.52
22:DA:323:C:H2'	26:DE:163:ASN:CG	2.29	0.52
22:DA:476:G:O2'	22:DA:477:A:H3'	2.09	0.52
22:DA:478:A:C6	22:DA:480:A:C5	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:672:C:O2'	22:DA:673:C:C5'	2.53	0.52
22:DA:688:U:C2'	22:DA:689:A:H5'	2.38	0.52
22:DA:775:G:C2	22:DA:794:A:C8	2.96	0.52
22:DA:1351:C:H2'	22:DA:1352:U:O4'	2.09	0.52
22:DA:1655:A:C4'	25:DD:118:PHE:CD1	2.92	0.52
22:DA:1746:A:H2'	22:DA:1747:U:H6	1.74	0.52
22:DA:1820:U:OP1	24:DC:176:ARG:HB3	2.09	0.52
22:DA:2063:C:C2'	22:DA:2064:C:H5'	2.39	0.52
22:DA:2234:G:C5	22:DA:2235:G:N7	2.77	0.52
22:DA:2259:U:O4'	22:DA:2427:C:H2'	2.09	0.52
22:DA:2264:C:C2	22:DA:2277:G:N2	2.77	0.52
22:DA:2331:G:C2	22:DA:2385:C:N3	2.76	0.52
22:DA:2371:G:C2	22:DA:2372:U:C6	2.97	0.52
22:DA:2459:A:O2'	22:DA:2460:U:H5'	2.09	0.52
22:DA:2516:A:H2'	22:DA:2517:C:O4'	2.09	0.52
22:DA:2656:U:C5	22:DA:2664:G:N2	2.77	0.52
25:DD:106:LYS:HB3	25:DD:206:ALA:HB2	1.85	0.52
58:DF:11:VAL:HG12	58:DF:12:VAL:H	1.74	0.52
58:DF:65:LEU:HD11	58:DF:67:THR:HG22	1.91	0.52
34:DM:61:GLY:CA	34:DM:107:GLY:HA3	2.33	0.52
37:DP:19:PHE:HE1	37:DP:58:PHE:CE1	2.26	0.52
37:DP:26:GLU:OE1	37:DP:28:LYS:HE2	2.09	0.52
41:DT:29:THR:HB	41:DT:86:THR:CA	2.39	0.52
42:DU:3:LYS:HD3	42:DU:82:VAL:CG2	2.39	0.52
44:DW:37:VAL:O	44:DW:38:ARG:HB2	2.08	0.52
44:DW:49:ASN:OD1	44:DW:80:SER:HA	2.08	0.52
51:D3:33:THR:HG23	51:D3:34:LYS:N	2.23	0.52
1:AA:654:G:O2'	1:AA:655:A:C5'	2.54	0.52
1:AA:830:G:H2'	1:AA:831:A:C8	2.43	0.52
1:AA:924:C:H2'	1:AA:925:G:H8	1.74	0.52
1:AA:1112:C:C4	3:AC:177:LEU:CD2	2.93	0.52
1:AA:1305:G:O2'	1:AA:1306:A:H8	1.91	0.52
1:AA:1365:G:O2'	1:AA:1366:C:H5'	2.09	0.52
8:AH:74:ILE:HD13	8:AH:128:VAL:HG13	1.91	0.52
10:AJ:71:LEU:O	10:AJ:72:ARG:HD3	2.09	0.52
11:AK:47:GLY:HA3	11:AK:52:ARG:HH11	1.73	0.52
22:BA:869:G:H2'	22:BA:870:U:O4'	2.09	0.52
22:BA:907:G:C2'	22:BA:908:C:H5'	2.39	0.52
22:BA:1075:C:C4	22:BA:1076:C:N4	2.77	0.52
22:BA:1374:G:C4	22:BA:1375:U:C6	2.97	0.52
22:BA:1559:U:H3'	22:BA:1560:G:H5'	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1744:A:H3'	22:BA:1745:A:H8	1.74	0.52
22:BA:2573:C:H2'	62:BA:3704:HOH:O	2.09	0.52
25:BD:191:GLY:O	25:BD:192:ALA:CB	2.57	0.52
28:BG:26:LYS:HB3	28:BG:32:LEU:HG	1.90	0.52
31:BJ:17:VAL:HG13	31:BJ:55:ILE:CG1	2.40	0.52
33:BL:91:ASP:CB	33:BL:94:THR:HB	2.38	0.52
34:BM:41:LEU:O	34:BM:93:VAL:CG2	2.57	0.52
34:BM:46:ILE:CD1	34:BM:47:GLU:N	2.69	0.52
38:BQ:40:LYS:HA	38:BQ:43:GLN:HG3	1.91	0.52
40:BS:68:ASP:O	40:BS:109:ASP:HB3	2.09	0.52
41:BT:39:THR:HG22	41:BT:39:THR:O	2.09	0.52
49:B1:49:LYS:HG2	49:B1:50:GLU:N	2.21	0.52
53:CA:557:G:C6	53:CA:558:G:N1	2.77	0.52
53:CA:676:A:H2'	53:CA:677:U:H6	1.73	0.52
53:CA:976:G:C5'	53:CA:977:A:OP2	2.56	0.52
53:CA:1046:A:C2'	53:CA:1047:G:C5'	2.86	0.52
53:CA:1217:C:HO2'	53:CA:1218:C:H6	0.75	0.52
53:CA:1453:G:N3	53:CA:1453:G:C2'	2.71	0.52
2:CB:9:LEU:HD12	2:CB:11:ALA:O	2.09	0.52
54:CG:65:LEU:O	54:CG:65:LEU:HD23	2.08	0.52
8:CH:26:MET:HB2	8:CH:27:PRO:HD2	1.91	0.52
21:CU:10:PRO:O	21:CU:11:PHE:HB3	2.09	0.52
21:CU:20:ARG:HH12	21:CU:24:LYS:HD3	1.74	0.52
22:DA:54:G:H2'	22:DA:55:G:O4'	2.09	0.52
22:DA:204:A:O4'	22:DA:206:U:C6	2.62	0.52
22:DA:508:A:H3'	22:DA:509:C:C5'	2.39	0.52
22:DA:1032:A:H1'	52:D4:23:ILE:CD1	2.27	0.52
22:DA:1108:U:H2'	22:DA:1109:C:O4'	2.09	0.52
22:DA:1264:A:H1'	22:DA:2015:A:N6	2.24	0.52
22:DA:1275:A:N3	22:DA:1275:A:O2'	2.36	0.52
22:DA:1378:A:O2'	22:DA:1379:U:H3'	2.10	0.52
22:DA:1429:G:N3	22:DA:1430:G:N7	2.56	0.52
22:DA:1461:C:H2'	22:DA:1462:C:C6	2.44	0.52
22:DA:1681:G:O2'	22:DA:1762:A:O2'	2.26	0.52
22:DA:1798:U:C4	22:DA:1819:A:C2	2.97	0.52
22:DA:1865:U:O4	22:DA:1875:G:N3	2.42	0.52
22:DA:1914:C:O2'	22:DA:1915:U:O4'	2.26	0.52
22:DA:2353:G:H21	44:DW:30:VAL:CG2	2.22	0.52
22:DA:2361:G:OP1	51:D3:25:HIS:HA	2.08	0.52
22:DA:2388:A:H5'	22:DA:2389:G:OP2	2.08	0.52
22:DA:2489:U:H2'	22:DA:2490:G:O4'	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2616:C:O2'	22:DA:2617:U:O4'	2.27	0.52
57:DB:26:C:H1'	57:DB:117:G:C1'	2.39	0.52
57:DB:42:C:H2'	57:DB:43:C:C5	2.43	0.52
57:DB:57:A:C2'	57:DB:58:A:H8	2.23	0.52
57:DB:78:A:H2'	57:DB:79:G:H8	1.72	0.52
24:DC:86:ARG:HB3	24:DC:86:ARG:NH1	2.24	0.52
24:DC:146:LYS:HB2	24:DC:149:LYS:CB	2.30	0.52
25:DD:105:LYS:HA	25:DD:177:VAL:CG2	2.39	0.52
32:DK:18:ARG:HB2	32:DK:45:GLU:HB2	1.91	0.52
32:DK:60:ALA:CB	32:DK:86:LEU:HA	2.38	0.52
33:DL:99:ASN:O	33:DL:100:ILE:HB	2.10	0.52
35:DN:19:ALA:HA	35:DN:22:ARG:HB3	1.90	0.52
36:DO:8:ILE:H	36:DO:8:ILE:HD12	1.74	0.52
37:DP:47:ILE:HD13	37:DP:61:ARG:HB2	1.90	0.52
39:DR:19:THR:HG22	39:DR:20:VAL:H	1.74	0.52
44:DW:16:GLU:OE2	44:DW:16:GLU:CA	2.57	0.52
1:AA:582:C:C2	1:AA:583:A:C8	2.98	0.52
1:AA:1112:C:H1'	3:AC:178:ARG:HD3	1.90	0.52
1:AA:1167:A:N7	1:AA:1169:A:N6	2.58	0.52
1:AA:1453:G:N3	1:AA:1453:G:H2'	2.23	0.52
2:AB:103:TRP:HE1	2:AB:150:ILE:CD1	2.22	0.52
3:AC:5:HIS:O	3:AC:9:ILE:HG22	2.10	0.52
5:AE:103:GLY:O	5:AE:104:ILE:HG22	2.09	0.52
6:AF:19:PRO:HG2	6:AF:20:GLY:H	1.74	0.52
8:AH:12:ARG:NH1	8:AH:26:MET:HB2	2.22	0.52
8:AH:74:ILE:HG23	8:AH:74:ILE:O	2.09	0.52
15:AO:2:LEU:HD22	15:AO:34:GLN:HG2	1.90	0.52
16:AP:51:ARG:O	16:AP:52:LEU:HD12	2.09	0.52
22:BA:27:G:N2	22:BA:512:G:O2'	2.37	0.52
22:BA:226:A:N6	22:BA:227:A:C6	2.77	0.52
22:BA:721:A:H2'	22:BA:722:A:C8	2.44	0.52
22:BA:958:U:C5'	34:BM:14:LYS:NZ	2.73	0.52
22:BA:1001:A:H2'	22:BA:1002:G:O4'	2.10	0.52
22:BA:1019:U:O4	22:BA:1020:A:N6	2.42	0.52
22:BA:1434:A:OP1	22:BA:1434:A:H4'	2.09	0.52
22:BA:1541:C:C2'	22:BA:1542:U:H5'	2.38	0.52
22:BA:1565:C:HO2'	22:BA:1566:A:P	2.33	0.52
22:BA:1869:G:H8	22:BA:1869:G:OP2	1.92	0.52
22:BA:2236:U:O2'	22:BA:2237:G:H5'	2.09	0.52
22:BA:2630:G:H2'	22:BA:2631:G:H8	1.74	0.52
22:BA:2636:C:H2'	22:BA:2637:U:C6	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:16:G:C5	23:BB:69:G:C2	2.97	0.52
24:BC:54:GLY:O	24:BC:214:GLY:HA2	2.10	0.52
24:BC:154:ALA:HB2	24:BC:161:VAL:HG23	1.92	0.52
27:BF:146:ASP:O	27:BF:147:ARG:HB2	2.09	0.52
30:BI:105:LEU:HD23	30:BI:108:ILE:HG21	1.91	0.52
31:BJ:54:ILE:HD11	31:BJ:56:VAL:HG23	1.90	0.52
35:BN:32:GLU:HA	35:BN:115:LEU:HD12	1.90	0.52
37:BP:85:VAL:HG13	37:BP:86:LYS:N	2.23	0.52
39:BR:67:GLY:HA3	39:BR:93:PHE:CZ	2.44	0.52
42:BU:48:VAL:O	42:BU:53:GLN:HB3	2.09	0.52
43:BV:68:LYS:O	43:BV:69:GLU:C	2.47	0.52
44:BW:22:VAL:HG13	44:BW:25:PHE:HE2	1.72	0.52
48:B0:22:THR:HG22	48:B0:23:ALA:O	2.09	0.52
52:B4:10:LEU:HD12	52:B4:33:HIS:CB	2.39	0.52
52:B4:15:LYS:O	52:B4:16:ILE:C	2.47	0.52
53:CA:967:C:N3	53:CA:968:A:N6	2.57	0.52
53:CA:1300:G:H22	53:CA:1334:G:H2'	1.73	0.52
3:CC:10:ARG:NH2	3:CC:181:ILE:HB	2.23	0.52
3:CC:35:ASP:OD1	3:CC:56:ILE:HG21	2.09	0.52
6:CF:68:GLN:O	6:CF:71:ILE:HG22	2.08	0.52
54:CG:22:LEU:HD23	54:CG:22:LEU:O	2.09	0.52
10:CJ:5:ARG:HH21	10:CJ:77:VAL:HG13	1.73	0.52
11:CK:124:LYS:O	21:CU:34:ARG:HB2	2.08	0.52
12:CL:2:THR:CB	12:CL:5:GLN:HB2	2.38	0.52
12:CL:4:ASN:ND2	17:CQ:35:LYS:HE3	2.25	0.52
22:DA:58:G:N2	22:DA:59:U:H1'	2.24	0.52
22:DA:95:A:O2'	46:DY:41:HIS:HD2	1.93	0.52
22:DA:196:A:H61	22:DA:831:G:N2	2.04	0.52
22:DA:379:G:C5	22:DA:396:G:C6	2.97	0.52
22:DA:527:C:N3	22:DA:2779:U:H2'	2.25	0.52
22:DA:604:G:O2'	22:DA:605:G:C8	2.58	0.52
22:DA:607:U:H5	22:DA:619:G:C4	2.28	0.52
22:DA:632:A:H4'	33:DL:68:SER:HA	1.91	0.52
22:DA:647:G:C5	22:DA:648:G:N7	2.77	0.52
22:DA:811:U:C4	33:DL:21:ARG:NH1	2.77	0.52
22:DA:822:G:H5"	62:DA:3360:HOH:O	2.08	0.52
22:DA:860:U:O2'	22:DA:861:A:C5'	2.57	0.52
22:DA:1027:A:N7	22:DA:1126:A:C2	2.77	0.52
22:DA:1059:G:N1	22:DA:1088:A:C2	2.78	0.52
22:DA:1125:G:C6	22:DA:1126:A:N6	2.78	0.52
22:DA:1555:G:C2	22:DA:1556:C:C2	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1612:C:C2'	22:DA:1613:G:O5'	2.57	0.52
22:DA:1613:G:H2'	22:DA:1617:C:H42	1.74	0.52
22:DA:1634:A:H4'	22:DA:1635:A:OP1	2.09	0.52
22:DA:1652:A:H3'	22:DA:1653:G:C8	2.44	0.52
22:DA:1862:G:C2	22:DA:1881:C:C2	2.97	0.52
22:DA:1867:G:O6	22:DA:1875:G:N2	2.41	0.52
22:DA:2199:A:N6	22:DA:2225:A:C8	2.78	0.52
22:DA:2271:G:O2'	22:DA:2272:U:H5'	2.08	0.52
22:DA:2372:U:H1'	49:D1:45:HIS:CE1	2.44	0.52
22:DA:2726:A:O2'	22:DA:2727:A:C5'	2.57	0.52
22:DA:2834:G:C4	22:DA:2879:A:N6	2.77	0.52
57:DB:50:A:N3	57:DB:51:G:H1'	2.24	0.52
57:DB:69:G:C2'	57:DB:70:C:H5'	2.39	0.52
57:DB:109:A:C5	57:DB:110:C:C4	2.96	0.52
24:DC:93:VAL:HG12	24:DC:101:ARG:H	1.73	0.52
26:DE:79:ARG:O	26:DE:80:SER:C	2.47	0.52
26:DE:135:ALA:C	26:DE:137:LYS:H	2.12	0.52
58:DF:48:LEU:O	58:DF:52:ALA:CB	2.58	0.52
28:DG:59:ASP:O	28:DG:63:GLN:HB2	2.09	0.52
29:DH:89:LYS:HD2	29:DH:124:THR:HA	1.91	0.52
31:DJ:45:THR:O	31:DJ:45:THR:HG23	2.08	0.52
31:DJ:55:ILE:O	31:DJ:55:ILE:HG13	2.08	0.52
31:DJ:74:TYR:OH	31:DJ:100:VAL:HG13	2.09	0.52
32:DK:16:ALA:HB3	32:DK:46:ALA:N	2.24	0.52
36:DO:24:THR:OG1	36:DO:90:VAL:HG11	2.10	0.52
47:DZ:15:ARG:HD2	47:DZ:15:ARG:N	2.23	0.52
1:AA:80:A:C2	1:AA:90:C:N3	2.77	0.52
1:AA:214:C:H2'	1:AA:215:C:H6	1.74	0.52
1:AA:376:G:H2'	1:AA:377:G:H8	1.74	0.52
1:AA:612:C:O2'	1:AA:613:C:H5'	2.09	0.52
1:AA:749:A:H2'	1:AA:750:C:H6	1.74	0.52
1:AA:785:G:O2'	1:AA:786:G:H5'	2.10	0.52
1:AA:1241:G:O2'	1:AA:1242:G:H8	1.92	0.52
3:AC:166:TRP:N	3:AC:166:TRP:CE3	2.70	0.52
9:AI:50:PRO:HB3	9:AI:83:THR:HG22	1.91	0.52
10:AJ:65:TYR:HB2	14:AN:95:LEU:HD11	1.90	0.52
16:AP:20:VAL:HG23	16:AP:34:GLU:O	2.10	0.52
17:AQ:12:VAL:CG1	17:AQ:16:MET:HE1	2.37	0.52
22:BA:114:U:H2'	22:BA:115:C:H6	1.72	0.52
22:BA:421:C:O2'	22:BA:422:A:OP2	2.25	0.52
22:BA:679:C:O2'	22:BA:680:C:H5'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:855:G:H21	44:BW:23:LYS:CG	2.08	0.52
22:BA:855:G:C1'	44:BW:23:LYS:HD3	2.38	0.52
22:BA:1057:A:C2	22:BA:1082:U:C2	2.97	0.52
22:BA:1151:A:H5"	22:BA:1151:A:H8	1.74	0.52
22:BA:1246:A:H2'	22:BA:1247:A:O5'	2.09	0.52
22:BA:1296:G:O2'	22:BA:1297:C:H5'	2.08	0.52
22:BA:1328:A:H2'	22:BA:1330:C:C4	2.44	0.52
22:BA:1747:U:H2'	22:BA:1748:C:H6	1.74	0.52
22:BA:2694:G:H2'	22:BA:2695:U:O4'	2.10	0.52
22:BA:2851:A:H2'	22:BA:2852:G:O4'	2.10	0.52
62:BA:3772:HOH:O	31:BJ:39:LYS:HE2	2.09	0.52
24:BC:170:TYR:CE2	24:BC:184:GLU:HA	2.44	0.52
25:BD:70:LYS:O	25:BD:71:ALA:CB	2.57	0.52
26:BE:52:VAL:O	26:BE:74:LYS:HE2	2.10	0.52
29:BH:97:ARG:HG2	29:BH:111:ALA:HB1	1.92	0.52
30:BI:78:LEU:HD23	30:BI:81:LYS:HE3	1.90	0.52
30:BI:86:LYS:HD2	30:BI:86:LYS:H	1.74	0.52
32:BK:76:VAL:HB	37:BP:72:VAL:HG21	1.89	0.52
34:BM:6:ARG:CZ	34:BM:6:ARG:CB	2.87	0.52
35:BN:36:THR:HG23	35:BN:37:THR:N	2.24	0.52
35:BN:77:ALA:O	35:BN:81:ASN:HB2	2.09	0.52
37:BP:30:TRP:CZ3	37:BP:39:LEU:HD12	2.45	0.52
44:BW:28:GLU:HB3	44:BW:31:LEU:CG	2.39	0.52
44:BW:37:VAL:HG13	44:BW:56:HIS:HB2	1.91	0.52
44:BW:47:GLY:C	44:BW:49:ASN:N	2.60	0.52
45:BX:30:PRO:CB	45:BX:32:LEU:HD11	2.39	0.52
53:CA:97:G:C5	53:CA:98:A:H1'	2.44	0.52
53:CA:127:G:N2	53:CA:235:C:C2	2.77	0.52
53:CA:160:A:H1'	53:CA:344:A:C5	2.45	0.52
53:CA:247:G:C6	53:CA:278:G:C2	2.97	0.52
53:CA:429:U:H1'	53:CA:430:A:C5'	2.39	0.52
53:CA:513:C:O2'	53:CA:514:C:P	2.67	0.52
53:CA:764:C:C4	53:CA:812:G:O6	2.63	0.52
53:CA:1278:G:H5'	53:CA:1279:G:H5'	1.90	0.52
2:CB:83:ALA:O	2:CB:85:SER:N	2.42	0.52
3:CC:5:HIS:CD2	3:CC:183:TYR:HE2	2.27	0.52
4:CD:61:ARG:HH21	4:CD:67:LEU:HA	1.74	0.52
6:CF:92:THR:C	6:CF:93:LYS:HG2	2.28	0.52
8:CH:93:LYS:N	8:CH:93:LYS:CD	2.59	0.52
9:CI:80:HIS:O	9:CI:83:THR:HG23	2.09	0.52
11:CK:104:PHE:HD1	11:CK:104:PHE:H	1.55	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CM:47:LEU:HD23	55:CM:47:LEU:C	2.29	0.52
55:CM:97:ARG:HG2	55:CM:97:ARG:O	2.09	0.52
14:CN:30:ILE:O	14:CN:45:LEU:HD11	2.09	0.52
56:CP:44:SER:HB2	56:CP:46:LYS:CG	2.40	0.52
56:CP:73:ALA:HA	56:CP:76:LYS:HB2	1.92	0.52
17:CQ:22:VAL:HG21	17:CQ:58:VAL:HG21	1.91	0.52
19:CS:38:THR:N	19:CS:69:LYS:HD3	2.24	0.52
21:CU:16:ARG:HD2	21:CU:19:LYS:HE2	1.90	0.52
22:DA:154:U:H2'	22:DA:155:A:O4'	2.10	0.52
22:DA:204:A:O2'	22:DA:205:G:O5'	2.24	0.52
22:DA:295:G:N3	22:DA:295:G:H2'	2.23	0.52
22:DA:425:G:H2'	22:DA:426:C:C6	2.43	0.52
22:DA:453:A:N3	22:DA:457:A:O2'	2.42	0.52
22:DA:749:A:H2'	22:DA:750:A:H8	1.74	0.52
22:DA:855:G:N3	44:DW:23:LYS:HG2	2.25	0.52
22:DA:1070:A:H61	30:DI:8:VAL:CG1	2.22	0.52
22:DA:1116:G:N2	22:DA:1117:C:C6	2.75	0.52
22:DA:1906:G:OP2	22:DA:1929:G:O2'	2.26	0.52
22:DA:1954:G:O2'	22:DA:1956:U:C5	2.62	0.52
22:DA:2259:U:C5	22:DA:2427:C:N4	2.78	0.52
22:DA:2478:A:N7	22:DA:2529:G:C6	2.78	0.52
22:DA:2726:A:HO2'	32:DK:67:LYS:HZ3	1.57	0.52
22:DA:2733:A:O2'	22:DA:2734:A:H5'	2.08	0.52
57:DB:108:A:HO2'	57:DB:109:A:P	2.32	0.52
24:DC:56:GLY:HA3	24:DC:213:ARG:O	2.09	0.52
26:DE:5:LEU:HD13	26:DE:122:GLU:CB	2.40	0.52
26:DE:196:VAL:O	26:DE:196:VAL:HG12	2.10	0.52
58:DF:28:PRO:HB2	58:DF:168:LEU:CG	2.40	0.52
28:DG:86:LEU:HA	28:DG:163:TYR:CB	2.35	0.52
29:DH:27:ARG:HH11	45:DX:59:ASP:HA	1.74	0.52
30:DI:28:GLY:O	30:DI:29:GLN:C	2.47	0.52
31:DJ:25:LEU:HD22	31:DJ:26:GLY:N	2.23	0.52
36:DO:53:THR:HB	36:DO:65:THR:CG2	2.33	0.52
49:D1:34:GLU:C	49:D1:35:LEU:HD23	2.29	0.52
1:AA:373:A:C2	1:AA:374:A:C8	2.97	0.52
1:AA:536:C:H2'	1:AA:537:G:H8	1.74	0.52
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.45	0.52
8:AH:88:LYS:CG	8:AH:89:ASP:H	2.23	0.52
9:AI:8:THR:N	9:AI:84:ARG:HH12	2.06	0.52
11:AK:17:ASP:HA	11:AK:80:ASN:O	2.09	0.52
13:AM:22:TYR:CE2	13:AM:69:ARG:HG2	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:80:LYS:HB2	16:AP:80:LYS:NZ	2.25	0.52
19:AS:80:ARG:O	19:AS:80:ARG:HG3	2.08	0.52
21:AU:49:ALA:O	21:AU:52:VAL:HG12	2.10	0.52
22:BA:289:G:H2'	22:BA:290:U:C6	2.45	0.52
22:BA:449:A:C2'	22:BA:450:G:H5'	2.39	0.52
22:BA:900:A:O2'	22:BA:901:C:H5'	1.97	0.52
22:BA:1085:A:C2	22:BA:1086:A:C8	2.98	0.52
22:BA:1450:G:C5	22:BA:1451:C:N4	2.78	0.52
22:BA:1542:U:O2'	22:BA:1543:G:H5'	2.10	0.52
22:BA:1588:G:N3	22:BA:1589:U:C6	2.77	0.52
22:BA:2315:G:H2'	22:BA:2316:G:H8	1.75	0.52
22:BA:2353:G:H1'	44:BW:30:VAL:CG1	2.40	0.52
22:BA:2874:C:O2'	22:BA:2875:C:H5'	2.10	0.52
24:BC:161:VAL:HG11	24:BC:173:LEU:HG	1.92	0.52
28:BG:25:ILE:O	28:BG:78:VAL:HG11	2.10	0.52
28:BG:54:ARG:HD3	28:BG:54:ARG:C	2.30	0.52
30:BI:75:ALA:HB3	30:BI:131:THR:HG21	1.91	0.52
30:BI:107:GLU:O	30:BI:111:THR:HG23	2.10	0.52
31:BJ:111:LYS:HD3	31:BJ:112:GLY:CA	2.35	0.52
34:BM:6:ARG:CZ	34:BM:6:ARG:HB2	2.39	0.52
34:BM:80:VAL:HG22	34:BM:81:ARG:O	2.09	0.52
37:BP:37:LYS:N	37:BP:37:LYS:CD	2.73	0.52
40:BS:82:MET:HB2	40:BS:98:LYS:HB2	1.91	0.52
41:BT:31:VAL:CA	41:BT:83:ALA:HB3	2.38	0.52
47:BZ:35:VAL:CG2	47:BZ:36:GLU:N	2.72	0.52
53:CA:112:G:H2'	53:CA:113:G:H5'	1.92	0.52
53:CA:360:G:H8	53:CA:360:G:O5'	1.93	0.52
53:CA:529:G:O6	12:CL:45:ASN:HA	2.09	0.52
53:CA:647:C:H2'	53:CA:648:A:H8	1.74	0.52
53:CA:1255:G:N1	53:CA:1279:G:N7	2.57	0.52
11:CK:19:VAL:HG12	11:CK:34:THR:HG23	1.92	0.52
11:CK:44:ALA:HB3	11:CK:69:CYS:CB	2.24	0.52
14:CN:16:ALA:HA	14:CN:20:PHE:HD1	1.73	0.52
56:CP:78:VAL:HG12	56:CP:78:VAL:O	2.09	0.52
22:DA:142:A:C4	22:DA:143:C:C5	2.98	0.52
22:DA:272:A:C2	22:DA:273:G:C5	2.97	0.52
22:DA:524:G:H2'	22:DA:525:U:C6	2.44	0.52
22:DA:594:U:H2'	22:DA:595:C:H6	1.71	0.52
22:DA:659:G:H4'	26:DE:95:LYS:HD3	1.92	0.52
22:DA:704:G:O2'	22:DA:705:A:C8	2.62	0.52
22:DA:726:G:OP2	22:DA:726:G:C8	2.63	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1090:A:C2'	22:DA:1091:G:H5"	2.40	0.52
22:DA:1139:G:N3	22:DA:1143:A:H2	2.08	0.52
22:DA:1197:G:H5'	22:DA:1227:G:O2'	2.08	0.52
22:DA:1308:A:N6	22:DA:1309:G:C2	2.77	0.52
22:DA:1390:U:C2'	22:DA:1391:U:H5'	2.39	0.52
22:DA:1706:C:O2'	22:DA:1707:G:OP1	2.27	0.52
22:DA:1805:A:O2'	24:DC:49:THR:HA	2.09	0.52
22:DA:1929:G:H5'	22:DA:1930:G:OP1	2.09	0.52
22:DA:2523:G:C2'	22:DA:2524:G:H5'	2.40	0.52
22:DA:2757:A:O2'	22:DA:2758:A:H5'	2.10	0.52
22:DA:2881:U:H2'	22:DA:2882:A:H8	1.74	0.52
57:DB:69:G:N9	57:DB:70:C:C5	2.77	0.52
58:DF:41:GLU:O	58:DF:43:ILE:N	2.42	0.52
58:DF:76:PHE:CD2	58:DF:76:PHE:N	2.74	0.52
29:DH:68:ARG:CD	29:DH:68:ARG:O	2.58	0.52
38:DQ:77:LYS:HE3	38:DQ:116:LEU:HD11	1.92	0.52
39:DR:38:VAL:HG21	39:DR:41:ILE:CD1	2.40	0.52
42:DU:12:VAL:HG12	42:DU:12:VAL:O	2.08	0.52
47:DZ:4:ILE:HG21	47:DZ:56:VAL:CG1	2.39	0.52
50:D2:41:ARG:HB3	50:D2:44:VAL:HG13	1.91	0.52
1:AA:89:U:N3	1:AA:90:C:C5	2.78	0.52
1:AA:1314:C:C6	19:AS:5:LYS:HD3	2.45	0.52
1:AA:1368:A:O2'	1:AA:1369:C:H5'	2.10	0.52
2:AB:218:ALA:HA	2:AB:221:ARG:NH2	2.20	0.52
4:AD:68:GLU:O	4:AD:72:ARG:HG2	2.10	0.52
7:AG:15:PRO:HG2	7:AG:43:TYR:OH	2.09	0.52
9:AI:21:LYS:C	9:AI:21:LYS:HD2	2.30	0.52
13:AM:6:ILE:HD12	13:AM:6:ILE:N	2.25	0.52
16:AP:37:GLY:HA2	16:AP:51:ARG:NH1	2.25	0.52
17:AQ:28:VAL:O	17:AQ:36:PHE:HA	2.10	0.52
19:AS:62:THR:CG2	19:AS:63:ASP:N	2.73	0.52
20:AT:14:GLU:HA	20:AT:17:ARG:HB2	1.92	0.52
22:BA:143:C:O2'	22:BA:144:A:H8	1.92	0.52
22:BA:580:U:N3	22:BA:581:C:C5	2.78	0.52
22:BA:729:G:C4	22:BA:1775:U:O2	2.62	0.52
22:BA:900:A:O2'	22:BA:901:C:H5"	2.09	0.52
22:BA:1062:G:HO2'	22:BA:1063:G:H8	1.56	0.52
22:BA:1157:G:O2'	47:BZ:31:ILE:CD1	2.50	0.52
22:BA:1317:G:C2	22:BA:1336:A:C2	2.98	0.52
22:BA:1615:C:C6	22:BA:1617:C:C5	2.98	0.52
22:BA:1725:U:H2'	22:BA:1726:C:O4'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1735:A:C2	22:BA:1736:U:C2	2.98	0.52
22:BA:2093:G:O2'	22:BA:2094:A:C5'	2.54	0.52
22:BA:2674:G:H4'	32:BK:30:ARG:HG3	1.92	0.52
22:BA:2793:C:H2'	22:BA:2794:C:H6	1.74	0.52
23:BB:35:C:H2'	23:BB:36:C:O4'	2.10	0.52
24:BC:12:ARG:HG2	24:BC:12:ARG:NH1	2.09	0.52
24:BC:250:GLN:N	24:BC:250:GLN:NE2	2.57	0.52
25:BD:118:PHE:HD2	25:BD:119:ALA:H	1.55	0.52
26:BE:150:THR:HA	26:BE:189:THR:HG23	1.92	0.52
35:BN:103:ARG:HB2	35:BN:110:MET:HE2	1.91	0.52
37:BP:92:ARG:HH11	37:BP:92:ARG:CB	2.22	0.52
38:BQ:63:ARG:NH2	38:BQ:93:ILE:O	2.43	0.52
41:BT:57:VAL:CG2	41:BT:58:VAL:N	2.73	0.52
42:BU:53:GLN:N	42:BU:54:PRO:HD2	2.22	0.52
52:B4:8:LYS:O	52:B4:35:GLN:NE2	2.43	0.52
52:B4:30:GLU:HB3	52:B4:33:HIS:CE1	2.45	0.52
53:CA:91:U:C4	53:CA:92:U:O4	2.63	0.52
53:CA:369:G:O2'	53:CA:370:C:C5'	2.57	0.52
53:CA:505:G:C6	53:CA:535:A:C2	2.97	0.52
53:CA:595:A:C4'	53:CA:596:A:OP1	2.57	0.52
53:CA:1070:U:O2'	53:CA:1071:C:H5'	2.09	0.52
53:CA:1072:G:C5	53:CA:1073:U:C5	2.97	0.52
53:CA:1086:U:O2'	53:CA:1087:G:C5'	2.53	0.52
53:CA:1172:C:HO2'	53:CA:1173:U:H5'	1.73	0.52
53:CA:1406:U:C2'	53:CA:1407:C:H5'	2.39	0.52
5:CE:131:ASN:O	5:CE:135:VAL:HG23	2.09	0.52
54:CG:41:ILE:HG22	54:CG:41:ILE:O	2.10	0.52
10:CJ:45:ARG:O	10:CJ:46:LYS:C	2.46	0.52
17:CQ:62:GLU:HB2	17:CQ:72:TRP:CH2	2.44	0.52
22:DA:84:A:C4	22:DA:99:U:H1'	2.45	0.52
22:DA:118:A:O5'	22:DA:119:A:H5"	2.09	0.52
22:DA:332:A:C8	22:DA:335:C:N4	2.77	0.52
22:DA:466:A:P	50:D2:34:ARG:HH21	2.33	0.52
22:DA:628:G:O2'	22:DA:629:G:H8	1.92	0.52
22:DA:927:A:C6	22:DA:928:A:C6	2.98	0.52
22:DA:966:G:H5'	22:DA:2272:U:O2	2.10	0.52
22:DA:1210:G:H5"	22:DA:1211:C:H3'	1.92	0.52
22:DA:1437:C:C2	22:DA:1438:U:C5	2.98	0.52
22:DA:1613:G:H3'	22:DA:1614:A:C5'	2.39	0.52
22:DA:1649:G:H2'	22:DA:1650:A:H8	1.75	0.52
22:DA:1663:G:C2	22:DA:1998:A:C5	2.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1717:A:C2'	22:DA:1718:G:O4'	2.56	0.52
22:DA:1735:A:HO2'	22:DA:1736:U:H6	1.56	0.52
22:DA:2068:U:H6	22:DA:2068:U:C5'	2.20	0.52
22:DA:2080:A:H4'	45:DX:22:ASN:HD22	1.75	0.52
22:DA:2305:U:OP1	58:DF:132:ARG:HG3	2.10	0.52
22:DA:2425:A:H1'	22:DA:2427:C:C4	2.45	0.52
22:DA:2516:A:O2'	22:DA:2517:C:H5'	2.10	0.52
22:DA:2531:A:H5'	28:DG:156:TYR:CZ	2.44	0.52
22:DA:2566:A:O2'	22:DA:2567:G:P	2.67	0.52
22:DA:2874:C:O2'	22:DA:2875:C:H6	1.92	0.52
57:DB:27:C:H2'	57:DB:28:C:H6	1.74	0.52
25:DD:16:THR:HG21	25:DD:20:VAL:HB	1.91	0.52
58:DF:58:ALA:HB1	58:DF:139:GLU:CG	2.40	0.52
28:DG:25:ILE:CG2	28:DG:78:VAL:HG21	2.39	0.52
30:DI:30:GLN:HG3	30:DI:31:GLY:H	1.75	0.52
30:DI:61:TYR:HE2	30:DI:67:THR:H	1.57	0.52
31:DJ:37:ARG:HG3	31:DJ:118:MET:SD	2.49	0.52
31:DJ:123:LYS:HG2	31:DJ:132:HIS:NE2	2.24	0.52
32:DK:34:GLY:O	32:DK:35:VAL:CG2	2.58	0.52
35:DN:14:SER:O	35:DN:16:HIS:N	2.42	0.52
39:DR:23:GLU:O	39:DR:25:LEU:HD22	2.09	0.52
42:DU:32:LYS:HE2	42:DU:65:GLN:OE1	2.10	0.52
44:DW:77:LYS:O	44:DW:78:PHE:CB	2.58	0.52
45:DX:19:HIS:O	45:DX:20:ALA:HB3	2.09	0.52
1:AA:184:G:H2'	1:AA:185:U:H5	1.73	0.52
1:AA:420:U:O2'	1:AA:421:U:H5"	2.10	0.52
1:AA:602:A:O2'	1:AA:603:U:H5'	2.10	0.52
1:AA:749:A:H2	15:AO:21:THR:CG2	2.22	0.52
1:AA:827:U:C4	1:AA:870:U:C2	2.98	0.52
1:AA:974:A:C4'	1:AA:975:A:H5'	2.30	0.52
1:AA:1049:U:H1'	1:AA:1201:A:N7	2.23	0.52
1:AA:1071:C:H2'	1:AA:1072:G:H8	1.72	0.52
1:AA:1113:C:H2'	1:AA:1114:C:H6	1.75	0.52
3:AC:156:LEU:HD13	3:AC:163:ARG:HB2	1.91	0.52
4:AD:25:ARG:O	4:AD:26:ALA:CB	2.58	0.52
5:AE:96:GLN:HE21	5:AE:96:GLN:HA	1.75	0.52
5:AE:121:ASN:ND2	5:AE:122:VAL:HG13	2.24	0.52
5:AE:152:VAL:O	5:AE:155:LYS:HD2	2.09	0.52
6:AF:20:GLY:O	6:AF:23:GLU:HB3	2.09	0.52
11:AK:124:LYS:HE2	21:AU:33:ARG:HH21	1.72	0.52
14:AN:25:GLU:CG	14:AN:26:LEU:HD12	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:15:LYS:O	17:AQ:16:MET:SD	2.68	0.52
21:AU:7:GLU:CB	21:AU:11:PHE:CE1	2.93	0.52
22:BA:28:A:H2'	22:BA:29:U:H6	1.74	0.52
22:BA:41:C:H2'	22:BA:42:A:O5'	2.10	0.52
22:BA:459:U:H2'	22:BA:460:A:C8	2.44	0.52
22:BA:825:A:H2'	22:BA:826:U:O5'	2.09	0.52
22:BA:986:C:O2'	22:BA:987:C:H5'	2.10	0.52
22:BA:1050:A:N1	22:BA:2751:G:C5	2.77	0.52
22:BA:1794:A:O2'	22:BA:1795:C:H5'	2.10	0.52
22:BA:2416:C:H2'	22:BA:2417:C:C6	2.41	0.52
22:BA:2571:U:O2'	25:BD:151:THR:HG21	2.09	0.52
24:BC:61:TYR:HA	24:BC:85:ASN:HD21	1.75	0.52
24:BC:78:GLU:OE1	24:BC:100:ARG:NE	2.40	0.52
24:BC:94:LEU:HB2	24:BC:100:ARG:HD2	1.92	0.52
24:BC:141:HIS:N	24:BC:190:THR:O	2.34	0.52
25:BD:62:LYS:N	25:BD:63:PRO:CD	2.73	0.52
28:BG:30:GLY:CA	28:BG:78:VAL:HG12	2.38	0.52
32:BK:63:VAL:CG1	32:BK:103:VAL:HG12	2.39	0.52
33:BL:85:VAL:CG2	33:BL:94:THR:HG23	2.39	0.52
33:BL:92:LEU:CD2	33:BL:124:GLY:HA3	2.40	0.52
37:BP:24:THR:O	37:BP:24:THR:HG23	2.08	0.52
38:BQ:78:PHE:CZ	38:BQ:82:LEU:HD11	2.45	0.52
43:BV:44:HIS:CE1	43:BV:86:LEU:H	2.10	0.52
53:CA:35:G:H2'	53:CA:36:C:C6	2.45	0.52
53:CA:72:A:H61	53:CA:99:C:C1'	2.22	0.52
53:CA:132:C:O2'	53:CA:133:U:O5'	2.27	0.52
53:CA:193:C:H1'	20:CT:54:GLN:NE2	2.23	0.52
53:CA:577:G:C4	53:CA:816:A:C2	2.98	0.52
53:CA:892:A:O2'	53:CA:1415:G:O2'	2.26	0.52
53:CA:981:U:H2'	53:CA:982:U:C5	2.45	0.52
53:CA:1269:A:H2'	53:CA:1270:G:H5'	1.91	0.52
2:CB:47:PRO:HA	2:CB:50:ASN:HB2	1.92	0.52
4:CD:106:PHE:HA	4:CD:154:VAL:HG23	1.92	0.52
5:CE:56:PRO:O	5:CE:59:ILE:HG23	2.09	0.52
5:CE:98:ALA:O	5:CE:121:ASN:HB2	2.10	0.52
5:CE:114:LEU:O	5:CE:119:VAL:HG23	2.10	0.52
54:CG:91:ARG:NH2	54:CG:92:PRO:HB2	2.24	0.52
8:CH:97:GLY:O	8:CH:98:LEU:HB2	2.10	0.52
9:CI:5:TYR:CD2	9:CI:5:TYR:N	2.77	0.52
9:CI:98:ARG:HG2	9:CI:103:VAL:HG21	1.91	0.52
10:CJ:37:ARG:CG	10:CJ:75:ASP:HB3	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CM:16:ILE:HD12	55:CM:16:ILE:H	1.75	0.52
14:CN:76:PHE:CE2	14:CN:95:LEU:HD22	2.45	0.52
56:CP:35:ARG:HH12	56:CP:38:PHE:HB3	1.75	0.52
18:CR:62:ARG:HB3	18:CR:69:TYR:CE1	2.44	0.52
22:DA:422:A:H2'	22:DA:423:A:C8	2.44	0.52
22:DA:422:A:H2'	22:DA:423:A:H8	1.75	0.52
22:DA:567:U:C4	22:DA:568:U:C4	2.97	0.52
22:DA:813:U:C2	22:DA:814:C:C5	2.97	0.52
22:DA:845:A:N6	22:DA:932:U:N3	2.57	0.52
22:DA:855:G:C2	44:DW:23:LYS:HG2	2.45	0.52
22:DA:959:A:OP2	22:DA:959:A:H4'	2.09	0.52
22:DA:1070:A:H61	30:DI:8:VAL:HG12	1.74	0.52
22:DA:1190:G:O2'	22:DA:1191:G:H5'	2.10	0.52
22:DA:1378:A:H2'	22:DA:1380:G:N7	2.24	0.52
22:DA:1469:A:C2	22:DA:1470:A:C5	2.96	0.52
22:DA:1507:C:H3'	22:DA:1508:A:O4'	2.10	0.52
22:DA:1797:G:H4'	24:DC:254:LYS:O	2.09	0.52
22:DA:1815:A:C2	22:DA:1817:G:O6	2.63	0.52
22:DA:2056:G:N3	22:DA:2056:G:H2'	2.23	0.52
22:DA:2094:A:O2'	22:DA:2095:A:H8	1.92	0.52
22:DA:2353:G:N3	44:DW:30:VAL:HG13	2.25	0.52
22:DA:2725:A:C4	22:DA:2727:A:N7	2.78	0.52
22:DA:2875:C:O2'	22:DA:2876:G:C5'	2.57	0.52
24:DC:141:HIS:HB2	24:DC:190:THR:O	2.10	0.52
26:DE:158:PHE:HA	26:DE:169:VAL:HG11	1.90	0.52
58:DF:177:ARG:CZ	58:DF:178:LYS:H	2.21	0.52
29:DH:45:GLU:C	29:DH:47:PHE:H	2.12	0.52
32:DK:39:ILE:HB	32:DK:41:ILE:HD13	1.91	0.52
35:DN:9:GLN:O	35:DN:17:ARG:CD	2.58	0.52
39:DR:19:THR:HG22	39:DR:20:VAL:N	2.24	0.52
1:AA:74:A:C2	1:AA:75:G:C5	2.98	0.52
1:AA:115:G:H1'	1:AA:116:A:N7	2.25	0.52
1:AA:327:A:H4'	1:AA:328:C:OP1	2.09	0.52
1:AA:345:C:H4'	37:BP:33:GLU:CD	2.30	0.52
1:AA:372:C:C4'	1:AA:373:A:OP1	2.55	0.52
1:AA:411:A:HO2'	1:AA:413:G:H5"	1.72	0.52
1:AA:945:G:C6	1:AA:1337:G:C5	2.98	0.52
1:AA:1447:A:H5"	1:AA:1448:C:H5	1.74	0.52
5:AE:100:GLU:HB2	5:AE:103:GLY:N	2.25	0.52
6:AF:9:MET:HE3	18:AR:64:LEU:HD22	1.91	0.52
7:AG:96:ASN:N	7:AG:96:ASN:OD1	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:14:ARG:HE	8:AH:74:ILE:HG23	1.74	0.52
11:AK:51:PHE:HZ	11:AK:64:VAL:HG11	1.74	0.52
11:AK:57:SER:O	11:AK:90:PRO:HG3	2.10	0.52
11:AK:97:ARG:C	11:AK:99:LEU:H	2.13	0.52
21:AU:16:ARG:NH1	21:AU:19:LYS:CG	2.58	0.52
22:BA:301:G:O2'	22:BA:302:C:O5'	2.20	0.52
22:BA:459:U:H2'	22:BA:460:A:H8	1.75	0.52
22:BA:528:A:H2	22:BA:2042:A:H2'	1.71	0.52
22:BA:565:C:H2'	22:BA:566:U:O4'	2.10	0.52
22:BA:591:U:H1'	51:B3:1:PRO:H3	1.74	0.52
22:BA:946:C:H2'	22:BA:947:A:H8	1.75	0.52
22:BA:1157:G:H2'	22:BA:1158:C:C6	2.45	0.52
22:BA:1248:G:O2'	38:BQ:2:ARG:HA	2.09	0.52
22:BA:1347:A:H2'	22:BA:1348:C:C5'	2.40	0.52
22:BA:1419:A:C5	22:BA:1421:G:C4	2.98	0.52
22:BA:1832:C:N4	22:BA:1833:C:C4	2.78	0.52
22:BA:2046:G:OP1	48:B0:11:LYS:HE3	2.10	0.52
22:BA:2182:U:H2'	22:BA:2183:A:OP1	2.09	0.52
22:BA:2392:A:H4'	51:B3:27:ASN:ND2	2.24	0.52
24:BC:12:ARG:HD2	24:BC:15:VAL:HG21	1.91	0.52
27:BF:66:ILE:O	27:BF:66:ILE:HG13	2.09	0.52
28:BG:101:VAL:CG1	28:BG:115:GLN:HB3	2.40	0.52
28:BG:164:ALA:C	28:BG:166:GLU:H	2.12	0.52
31:BJ:14:ASP:O	31:BJ:52:ASP:HB3	2.10	0.52
32:BK:107:LEU:O	32:BK:109:SER:N	2.37	0.52
37:BP:25:VAL:O	37:BP:25:VAL:HG22	2.10	0.52
48:B0:43:THR:HG23	48:B0:47:TYR:O	2.10	0.52
48:B0:48:TYR:O	48:B0:49:ARG:HB2	2.10	0.52
53:CA:158:G:H2'	53:CA:159:G:C8	2.45	0.52
53:CA:286:C:H2'	53:CA:287:U:O4'	2.10	0.52
53:CA:444:G:O2'	53:CA:445:G:H5'	2.09	0.52
53:CA:954:G:H1	53:CA:1228:C:H42	1.57	0.52
53:CA:982:U:H4'	53:CA:983:A:C5'	2.40	0.52
53:CA:1004:A:C4	53:CA:1026:G:N7	2.78	0.52
53:CA:1014:A:O3'	19:CS:13:HIS:CG	2.63	0.52
53:CA:1152:A:C2'	53:CA:1153:G:H8	2.06	0.52
5:CE:80:LEU:HD22	5:CE:146:MET:HE1	1.91	0.52
5:CE:130:THR:HA	5:CE:135:VAL:HG22	1.91	0.52
9:CI:45:MET:HA	9:CI:48:ARG:HB2	1.92	0.52
12:CL:3:VAL:CG2	12:CL:4:ASN:N	2.70	0.52
19:CS:14:LEU:C	19:CS:14:LEU:HD12	2.29	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:215:G:O2'	22:DA:216:A:O5'	2.25	0.52
22:DA:405:U:H3'	22:DA:406:G:C5'	2.40	0.52
22:DA:447:A:C4	22:DA:473:G:C8	2.97	0.52
22:DA:528:A:H2	22:DA:2043:C:C5'	2.23	0.52
22:DA:813:U:N1	22:DA:1195:G:N2	2.57	0.52
22:DA:1179:G:C2	22:DA:1180:U:C2	2.97	0.52
22:DA:1717:A:O2'	22:DA:1718:G:H5'	2.10	0.52
22:DA:1982:U:H6	22:DA:1982:U:C5'	2.23	0.52
22:DA:2040:G:C6	22:DA:2041:U:C4	2.97	0.52
22:DA:2077:A:OP1	22:DA:2238:G:N1	2.41	0.52
22:DA:2093:G:O2'	22:DA:2094:A:P	2.66	0.52
22:DA:2144:G:O2'	22:DA:2147:A:OP2	2.23	0.52
22:DA:2188:U:H2'	22:DA:2189:U:C6	2.45	0.52
22:DA:2235:G:C4	22:DA:2236:U:C6	2.97	0.52
22:DA:2324:U:H5"	22:DA:2325:G:H5"	1.91	0.52
22:DA:2432:A:N6	45:DX:20:ALA:HA	2.24	0.52
22:DA:2531:A:H5'	28:DG:156:TYR:CE2	2.45	0.52
22:DA:2623:G:C4'	22:DA:2825:G:H8	2.22	0.52
22:DA:2668:G:O2'	22:DA:2669:G:O5'	2.28	0.52
22:DA:2688:G:N1	22:DA:2720:U:OP2	2.33	0.52
57:DB:54:G:H21	58:DF:25:MET:HE3	1.74	0.52
57:DB:58:A:O2'	57:DB:59:A:O5'	2.28	0.52
57:DB:59:A:H2'	57:DB:60:C:O4'	2.09	0.52
29:DH:125:THR:CB	29:DH:146:VAL:HG11	2.40	0.52
31:DJ:95:ARG:NH1	31:DJ:99:ARG:NH2	2.58	0.52
34:DM:57:VAL:O	34:DM:58:LYS:HB2	2.09	0.52
36:DO:74:VAL:HB	36:DO:106:LEU:HD11	1.92	0.52
37:DP:37:LYS:O	37:DP:38:ARG:HB3	2.10	0.52
37:DP:47:ILE:HD13	37:DP:61:ARG:CB	2.40	0.52
38:DQ:15:LYS:HE3	38:DQ:19:GLN:NE2	2.24	0.52
39:DR:51:VAL:HB	39:DR:52:PRO:CD	2.40	0.52
41:DT:11:LEU:H	41:DT:11:LEU:CD1	2.22	0.52
41:DT:13:ALA:HB1	41:DT:14:PRO:HD2	1.92	0.52
42:DU:94:PHE:O	42:DU:95:PHE:C	2.48	0.52
48:D0:5:ASN:HD22	48:D0:6:LYS:H	1.54	0.52
1:AA:138:G:O2'	1:AA:139:A:H5'	2.10	0.52
1:AA:306:A:H2'	1:AA:307:C:C6	2.45	0.52
1:AA:402:G:C5	1:AA:403:C:C5	2.98	0.52
1:AA:466:A:C4'	1:AA:467:U:OP2	2.58	0.52
1:AA:1095:U:H2'	1:AA:1096:C:C6	2.45	0.52
1:AA:1256:A:H1'	1:AA:1258:G:C6	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1272:G:O2'	1:AA:1273:C:H5'	2.10	0.52
1:AA:1310:G:H2'	1:AA:1311:A:O4'	2.10	0.52
1:AA:1349:A:O2'	1:AA:1350:A:H5'	2.08	0.52
2:AB:64:GLY:HA3	2:AB:158:ASP:OD2	2.09	0.52
3:AC:102:ILE:H	3:AC:102:ILE:HD12	1.75	0.52
6:AF:85:ILE:O	6:AF:86:ARG:C	2.49	0.52
13:AM:65:GLU:O	13:AM:69:ARG:HG3	2.10	0.52
15:AO:74:VAL:O	15:AO:77:TYR:N	2.43	0.52
19:AS:45:GLY:N	19:AS:61:VAL:HG23	2.25	0.52
19:AS:62:THR:HG22	19:AS:63:ASP:N	2.23	0.52
22:BA:264:C:C3'	22:BA:265:A:H5"	2.38	0.52
22:BA:271:G:C4	22:BA:272:A:N7	2.78	0.52
22:BA:340:A:H2'	22:BA:341:C:C5'	2.40	0.52
22:BA:422:A:C2	22:BA:423:A:C4	2.98	0.52
22:BA:731:C:O5'	22:BA:731:C:H6	1.91	0.52
22:BA:807:U:C2	22:BA:808:G:C8	2.98	0.52
22:BA:1083:U:C5	22:BA:1085:A:OP2	2.63	0.52
22:BA:1661:G:H2'	22:BA:1662:U:H6	1.74	0.52
22:BA:1700:A:O2'	22:BA:1766:G:OP1	2.27	0.52
22:BA:2358:A:H5"	22:BA:2359:C:OP2	2.10	0.52
22:BA:2773:C:OP1	25:BD:171:THR:HG23	2.10	0.52
22:BA:2789:C:N4	22:BA:2893:A:C2	2.78	0.52
25:BD:62:LYS:O	25:BD:65:ALA:HB3	2.10	0.52
26:BE:117:ARG:HA	26:BE:185:LYS:CD	2.40	0.52
29:BH:31:VAL:CG2	29:BH:32:PRO:HD2	2.40	0.52
31:BJ:33:ALA:HA	31:BJ:36:LEU:HB2	1.91	0.52
32:BK:111:LYS:HE2	32:BK:111:LYS:N	2.25	0.52
34:BM:80:VAL:CG2	34:BM:81:ARG:N	2.73	0.52
34:BM:108:VAL:CG1	34:BM:112:LEU:HB3	2.40	0.52
35:BN:8:ARG:HD2	35:BN:43:GLU:HG3	1.91	0.52
36:BO:76:LYS:O	36:BO:79:ALA:HB3	2.10	0.52
37:BP:92:ARG:O	37:BP:93:LYS:CB	2.56	0.52
41:BT:32:LEU:H	41:BT:83:ALA:HB2	1.72	0.52
44:BW:49:ASN:C	44:BW:49:ASN:ND2	2.62	0.52
46:BY:16:THR:O	46:BY:20:ASN:N	2.37	0.52
53:CA:112:G:C2	53:CA:330:C:C4	2.98	0.52
53:CA:142:G:C2	53:CA:143:A:H1'	2.45	0.52
53:CA:214:C:C2	53:CA:215:C:C5	2.98	0.52
53:CA:251:G:H4'	53:CA:252:U:H5"	1.84	0.52
53:CA:443:C:O5'	53:CA:443:C:H6	1.93	0.52
53:CA:444:G:C2'	53:CA:445:G:H5'	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:583:A:H2'	53:CA:584:G:O4'	2.09	0.52
53:CA:723:U:O4'	21:CU:48:LYS:CD	2.57	0.52
53:CA:914:A:O2'	53:CA:915:A:O5'	2.28	0.52
53:CA:1072:G:H2'	53:CA:1073:U:O4'	2.10	0.52
53:CA:1072:G:C6	53:CA:1073:U:C4	2.97	0.52
53:CA:1434:A:H2'	53:CA:1435:G:O4'	2.10	0.52
4:CD:116:LEU:CD2	4:CD:153:ARG:NH1	2.72	0.52
5:CE:84:VAL:HG22	5:CE:85:LYS:H	1.74	0.52
54:CG:10:LYS:HE3	54:CG:10:LYS:H	1.74	0.52
54:CG:19:SER:O	54:CG:23:ALA:HB2	2.10	0.52
9:CI:119:LYS:HG2	9:CI:122:ARG:HB3	1.92	0.52
20:CT:4:LYS:HE3	20:CT:5:SER:H	1.75	0.52
21:CU:36:PHE:CD1	21:CU:40:PRO:HB3	2.45	0.52
22:DA:129:C:HO2'	22:DA:130:C:H6	1.58	0.52
22:DA:169:G:H2'	22:DA:170:U:C6	2.45	0.52
22:DA:225:C:N3	22:DA:231:A:N6	2.58	0.52
22:DA:590:A:C5	22:DA:591:U:C5	2.98	0.52
22:DA:686:U:N3	50:D2:12:ARG:HB2	2.24	0.52
22:DA:1519:G:C6	22:DA:1520:U:N3	2.78	0.52
22:DA:2056:G:N2	22:DA:2057:G:C8	2.78	0.52
22:DA:2197:U:H2'	22:DA:2224:G:H1	1.75	0.52
22:DA:2353:G:N3	44:DW:30:VAL:CG1	2.73	0.52
22:DA:2482:A:H2'	22:DA:2483:C:H6	1.75	0.52
22:DA:2555:U:H2'	22:DA:2556:C:H5'	1.92	0.52
22:DA:2819:G:H5"	62:DA:3797:HOH:O	2.09	0.52
22:DA:2865:U:C5	22:DA:2866:U:C2	2.98	0.52
22:DA:2876:G:HO2'	22:DA:2877:G:P	2.33	0.52
24:DC:67:LYS:CG	24:DC:150:GLY:HA2	2.40	0.52
25:DD:10:GLY:HA2	37:DP:4:ILE:HD11	1.90	0.52
25:DD:181:ASP:C	25:DD:183:GLU:H	2.12	0.52
58:DF:123:GLY:H	58:DF:126:ASN:HD22	1.58	0.52
58:DF:147:ARG:HD3	58:DF:149:ARG:HH22	1.75	0.52
28:DG:169:ARG:O	28:DG:170:THR:HB	2.10	0.52
29:DH:80:ILE:HD13	29:DH:101:ASP:OD2	2.09	0.52
29:DH:83:LYS:CE	29:DH:149:GLU:HB3	2.32	0.52
31:DJ:1:MET:SD	31:DJ:2:LYS:HE3	2.50	0.52
31:DJ:58:ASN:HA	31:DJ:127:GLY:N	2.25	0.52
38:DQ:91:ARG:HD3	39:DR:11:GLN:HG3	1.92	0.52
42:DU:82:VAL:O	42:DU:96:LYS:HG3	2.10	0.52
44:DW:37:VAL:C	44:DW:39:GLN:H	2.12	0.52
46:DY:50:VAL:HA	46:DY:53:VAL:HG23	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:D3:18:LYS:HD2	51:D3:19:GLY:N	2.23	0.52
51:D3:41:ARG:CG	51:D3:41:ARG:NH2	2.60	0.52
1:AA:367:U:C6	1:AA:394:G:N2	2.78	0.52
1:AA:468:A:C2	1:AA:469:C:C5	2.98	0.52
1:AA:624:C:H4'	16:AP:10:GLY:O	2.09	0.52
1:AA:642:A:N7	8:AH:106:SER:HA	2.25	0.52
1:AA:742:G:O2'	1:AA:743:A:H5'	2.10	0.52
1:AA:826:C:C5'	8:AH:12:ARG:HH21	2.21	0.52
1:AA:922:G:H2'	1:AA:923:A:C8	2.45	0.52
1:AA:1086:U:C3'	1:AA:1087:G:H5'	2.40	0.52
1:AA:1160:G:O6	1:AA:1181:G:O6	2.27	0.52
2:AB:67:LEU:HD22	2:AB:69:VAL:CG2	2.39	0.52
2:AB:101:THR:HG22	2:AB:174:GLU:CD	2.29	0.52
15:AO:63:ARG:CG	15:AO:87:ARG:HH12	2.09	0.52
17:AQ:11:VAL:HG12	17:AQ:12:VAL:HG12	1.91	0.52
17:AQ:13:SER:O	17:AQ:20:ILE:HD11	2.10	0.52
19:AS:33:TRP:O	19:AS:35:ARG:HG3	2.10	0.52
22:BA:137:U:O2'	22:BA:138:U:P	2.69	0.52
22:BA:328:U:O3'	42:BU:65:GLN:HG3	2.10	0.52
22:BA:568:U:O2	22:BA:570:G:C8	2.63	0.52
22:BA:1131:G:C4	31:BJ:77:HIS:ND1	2.78	0.52
22:BA:1452:G:H2'	22:BA:1457:U:O4	2.10	0.52
22:BA:1681:G:O2'	22:BA:1762:A:C1'	2.57	0.52
22:BA:1728:C:O2'	22:BA:1729:U:H6	1.92	0.52
22:BA:1830:C:O5'	22:BA:1830:C:H6	1.93	0.52
22:BA:2287:A:C4	22:BA:2289:G:N7	2.78	0.52
22:BA:2319:G:O2'	22:BA:2320:U:C5	2.56	0.52
22:BA:2531:A:P	28:BG:174:LYS:HG3	2.50	0.52
22:BA:2837:A:C6	22:BA:2882:A:N1	2.78	0.52
23:BB:61:G:H2'	23:BB:62:C:C6	2.45	0.52
24:BC:134:ILE:O	24:BC:166:ARG:NH1	2.42	0.52
24:BC:156:SER:O	24:BC:157:ALA:C	2.48	0.52
26:BE:115:GLN:O	26:BE:116:ASP:C	2.49	0.52
26:BE:164:LEU:HB3	26:BE:167:VAL:HG12	1.91	0.52
27:BF:147:ARG:HG3	27:BF:148:VAL:N	2.24	0.52
28:BG:29:ASN:H	28:BG:29:ASN:HD22	1.58	0.52
28:BG:122:ALA:HB2	28:BG:132:LEU:HB3	1.91	0.52
33:BL:57:LEU:CD1	33:BL:61:LEU:HD21	2.40	0.52
34:BM:36:VAL:HG22	43:BV:82:TYR:HD1	1.74	0.52
39:BR:38:VAL:HG23	39:BR:40:MET:H	1.75	0.52
41:BT:43:ILE:CD1	41:BT:58:VAL:HG21	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BW:76:ARG:HH21	44:BW:76:ARG:HG2	1.72	0.52
45:BX:6:VAL:HG13	45:BX:7:THR:HG23	1.92	0.52
45:BX:34:SER:HA	45:BX:48:LEU:O	2.10	0.52
45:BX:77:TYR:O	45:BX:77:TYR:CG	2.63	0.52
53:CA:16:A:N1	53:CA:919:A:H2	2.08	0.52
53:CA:189:A:H3'	53:CA:190:A:C8	2.45	0.52
53:CA:563:A:OP2	12:CL:11:ARG:HG3	2.10	0.52
53:CA:718:A:N7	11:CK:117:HIS:CD2	2.78	0.52
53:CA:787:A:C2	53:CA:796:C:N3	2.78	0.52
53:CA:803:G:H2'	53:CA:804:U:C6	2.44	0.52
53:CA:815:A:C2	53:CA:1529:G:C4	2.98	0.52
53:CA:895:G:C6	53:CA:896:C:C4	2.97	0.52
53:CA:1004:A:N3	53:CA:1026:G:C5	2.78	0.52
53:CA:1130:A:N7	53:CA:1146:A:N6	2.58	0.52
53:CA:1145:A:O2'	53:CA:1146:A:C5'	2.53	0.52
53:CA:1213:A:H2'	53:CA:1215:G:N7	2.25	0.52
53:CA:1217:C:O2'	53:CA:1218:C:O4'	2.28	0.52
53:CA:1283:U:H2'	53:CA:1284:C:H6	1.75	0.52
53:CA:1430:A:N6	53:CA:1431:A:C2	2.78	0.52
53:CA:1508:A:H2'	53:CA:1509:C:C6	2.45	0.52
2:CB:19:THR:HG22	2:CB:37:VAL:CA	2.40	0.52
4:CD:120:LYS:O	4:CD:145:ARG:NH1	2.42	0.52
9:CI:56:MET:O	9:CI:58:GLU:HG2	2.10	0.52
22:DA:137:U:C4	22:DA:138:U:C2	2.98	0.52
22:DA:191:A:C2	62:DA:3336:HOH:O	2.62	0.52
22:DA:216:A:N6	22:DA:432:A:C1'	2.73	0.52
22:DA:365:U:H2'	22:DA:366:C:O4'	2.10	0.52
22:DA:475:C:C2'	22:DA:476:G:C8	2.93	0.52
22:DA:566:U:C5	22:DA:567:U:C5	2.98	0.52
22:DA:584:C:N4	22:DA:585:G:C6	2.78	0.52
22:DA:600:G:O4'	26:DE:100:MET:HE3	2.10	0.52
22:DA:786:C:H4'	22:DA:1780:A:N7	2.25	0.52
22:DA:1038:G:C3'	22:DA:1039:A:C5'	2.88	0.52
22:DA:1076:C:O2'	22:DA:1077:A:C8	2.62	0.52
22:DA:1341:G:C2	41:DT:84:TYR:CE2	2.98	0.52
22:DA:1520:U:O4	22:DA:1521:G:C6	2.63	0.52
22:DA:2011:U:H2'	22:DA:2012:G:O4'	2.09	0.52
22:DA:2212:A:N7	22:DA:2214:C:N4	2.58	0.52
22:DA:2714:G:O2'	22:DA:2715:C:C5'	2.55	0.52
22:DA:2839:G:N2	22:DA:2880:C:C4	2.78	0.52
22:DA:2875:C:HO2'	22:DA:2876:G:H8	0.65	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2889:C:N4	22:DA:2890:G:C6	2.77	0.52
26:DE:5:LEU:HD12	26:DE:10:SER:HB2	1.92	0.52
29:DH:84:ALA:CA	29:DH:148:ALA:HA	2.39	0.52
30:DI:121:ILE:HG22	30:DI:121:ILE:O	2.09	0.52
35:DN:73:ASN:C	35:DN:76:VAL:HG22	2.29	0.52
38:DQ:71:ASN:HD21	38:DQ:106:THR:CA	2.21	0.52
42:DU:42:LYS:NZ	42:DU:42:LYS:CB	2.73	0.52
43:DV:77:VAL:O	43:DV:77:VAL:HG13	2.10	0.52
44:DW:18:LYS:N	44:DW:36:ILE:HG12	2.25	0.52
44:DW:30:VAL:HG22	44:DW:30:VAL:O	2.09	0.52
45:DX:1:SER:O	45:DX:3:VAL:N	2.43	0.52
46:DY:47:ARG:O	46:DY:50:VAL:N	2.42	0.52
1:AA:15:G:O4'	5:AE:28:ARG:NH1	2.43	0.51
1:AA:211:G:H2'	1:AA:212:G:O5'	2.10	0.51
1:AA:502:A:OP1	12:AL:114:SER:HB3	2.10	0.51
1:AA:858:G:O2'	1:AA:859:G:H5"	2.10	0.51
1:AA:967:C:O5'	1:AA:967:C:H6	1.93	0.51
1:AA:1216:A:C2	1:AA:1217:C:C4	2.99	0.51
2:AB:40:ILE:HG21	2:AB:201:GLY:N	2.25	0.51
2:AB:49:PHE:CG	2:AB:212:TYR:OH	2.63	0.51
3:AC:76:ILE:CD1	3:AC:102:ILE:HG12	2.22	0.51
4:AD:55:ARG:HH12	4:AD:58:GLN:CG	2.15	0.51
5:AE:110:MET:HE3	5:AE:139:THR:CG2	2.40	0.51
6:AF:3:HIS:H	6:AF:92:THR:HG21	1.68	0.51
10:AJ:33:GLY:O	10:AJ:34:ALA:HB2	2.09	0.51
15:AO:23:SER:O	15:AO:24:THR:C	2.48	0.51
22:BA:26:G:C6	22:BA:27:G:N1	2.77	0.51
22:BA:31:C:O3'	22:BA:1238:G:H5'	2.10	0.51
22:BA:62:U:H5"	22:BA:63:A:OP1	2.11	0.51
22:BA:161:A:OP2	22:BA:162:U:H3'	2.09	0.51
22:BA:919:U:C3'	22:BA:919:U:C6	2.93	0.51
22:BA:945:A:H5'	22:BA:946:C:OP2	2.10	0.51
22:BA:1019:U:C2	22:BA:1142:A:N6	2.78	0.51
22:BA:1665:A:H5"	32:BK:66:LYS:HG3	1.92	0.51
22:BA:1867:G:H2'	22:BA:1868:C:C5'	2.39	0.51
22:BA:2092:U:O2'	22:BA:2093:G:P	2.69	0.51
22:BA:2231:U:H2'	22:BA:2232:C:C5'	2.40	0.51
22:BA:2888:C:H2'	22:BA:2889:C:C6	2.37	0.51
27:BF:27:VAL:O	27:BF:27:VAL:HG13	2.10	0.51
32:BK:77:ILE:HD12	32:BK:77:ILE:N	2.24	0.51
35:BN:52:ILE:HD12	35:BN:94:TYR:HB2	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BQ:23:TYR:HB3	38:BQ:27:ARG:HB3	1.92	0.51
40:BS:69:LEU:HG	40:BS:107:VAL:HG13	1.91	0.51
40:BS:107:VAL:O	40:BS:107:VAL:HG12	2.09	0.51
53:CA:52:C:OP2	53:CA:52:C:H4'	2.10	0.51
53:CA:97:G:H2'	53:CA:98:A:O5'	2.09	0.51
53:CA:250:A:O2'	53:CA:251:G:H5"	2.10	0.51
53:CA:282:A:O2'	53:CA:283:U:H5'	2.10	0.51
53:CA:560:A:H5'	53:CA:566:G:H21	1.74	0.51
53:CA:807:A:H2'	53:CA:808:C:C6	2.45	0.51
53:CA:1146:A:C6	53:CA:1147:C:C4	2.98	0.51
53:CA:1298:U:C5	54:CG:113:LYS:HA	2.44	0.51
53:CA:1494:G:H5'	22:DA:1913:A:C5	2.45	0.51
3:CC:7:ASN:HD22	14:CN:89:ARG:HA	1.75	0.51
9:CI:5:TYR:N	9:CI:5:TYR:HD2	2.07	0.51
22:DA:31:C:H6	22:DA:31:C:O5'	1.93	0.51
22:DA:648:G:H2'	22:DA:649:G:C8	2.45	0.51
22:DA:830:G:H4'	22:DA:831:G:OP2	2.09	0.51
22:DA:845:A:C2	22:DA:847:U:N1	2.78	0.51
22:DA:987:C:O2'	22:DA:1000:A:N3	2.34	0.51
22:DA:1026:G:H2'	22:DA:1027:A:C8	2.45	0.51
22:DA:1068:G:C8	22:DA:1069:A:N7	2.78	0.51
22:DA:1281:G:N7	22:DA:1282:U:C5	2.79	0.51
22:DA:2151:U:C2	22:DA:2152:G:C8	2.98	0.51
22:DA:2250:G:N2	34:DM:82:MET:CB	2.73	0.51
24:DC:2:VAL:O	24:DC:3:VAL:CB	2.58	0.51
25:DD:32:ASN:HA	25:DD:51:THR:O	2.10	0.51
25:DD:116:LYS:HD3	35:DN:1:MET:HE2	1.92	0.51
26:DE:34:ALA:HA	26:DE:94:GLN:HG3	1.92	0.51
58:DF:59:ILE:CD1	58:DF:137:PHE:CZ	2.92	0.51
28:DG:91:VAL:HG23	28:DG:92:GLY:N	2.26	0.51
29:DH:80:ILE:CB	29:DH:101:ASP:CB	2.79	0.51
40:DS:20:VAL:CG1	40:DS:43:ALA:HB1	2.40	0.51
43:DV:21:ARG:HE	43:DV:87:GLN:CB	2.22	0.51
45:DX:77:TYR:CD1	45:DX:77:TYR:C	2.83	0.51
49:D1:8:ILE:CG2	49:D1:9:LYS:N	2.73	0.51
1:AA:195:A:O2'	1:AA:196:A:H5'	2.10	0.51
1:AA:571:U:C5'	1:AA:572:A:OP2	2.55	0.51
1:AA:602:A:C2'	1:AA:603:U:H5'	2.40	0.51
1:AA:604:G:C2	1:AA:635:A:C2	2.98	0.51
1:AA:1111:A:N1	3:AC:176:THR:HG23	2.24	0.51
1:AA:1350:A:H2	7:AG:33:GLY:HA3	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1508:A:H2'	1:AA:1509:C:C6	2.45	0.51
2:AB:53:LEU:N	2:AB:53:LEU:HD22	2.25	0.51
8:AH:17:GLN:NE2	8:AH:71:VAL:H	2.09	0.51
10:AJ:12:ALA:HB2	10:AJ:96:VAL:HG13	1.91	0.51
11:AK:60:PHE:O	11:AK:63:GLN:HB3	2.10	0.51
11:AK:122:PRO:HG2	21:AU:33:ARG:O	2.10	0.51
11:AK:125:LYS:O	11:AK:126:ARG:CB	2.57	0.51
13:AM:47:LEU:HD23	13:AM:51:GLN:HB3	1.93	0.51
17:AQ:11:VAL:HG12	17:AQ:12:VAL:H	1.74	0.51
18:AR:24:ASP:O	18:AR:27:THR:N	2.31	0.51
22:BA:646:U:H5'	22:BA:647:G:H5"	1.92	0.51
22:BA:675:A:C4	22:BA:804:A:C2	2.98	0.51
22:BA:958:U:H5"	34:BM:14:LYS:HE2	1.92	0.51
22:BA:1494:A:O2'	22:BA:1495:A:H5'	2.11	0.51
22:BA:1785:A:O2'	22:BA:1786:A:H2'	2.10	0.51
22:BA:2431:U:C6	22:BA:2431:U:C5'	2.80	0.51
22:BA:2470:G:C2'	22:BA:2471:A:H5'	2.41	0.51
29:BH:81:ALA:HB1	29:BH:146:VAL:HA	1.92	0.51
31:BJ:21:THR:O	31:BJ:23:LYS:N	2.43	0.51
33:BL:80:SER:HB3	33:BL:115:GLU:CD	2.31	0.51
34:BM:40:ARG:HB2	34:BM:93:VAL:HG22	1.90	0.51
37:BP:33:GLU:CG	37:BP:36:LYS:HD3	2.39	0.51
40:BS:95:ARG:O	40:BS:96:ILE:CG1	2.58	0.51
42:BU:13:LEU:HD12	42:BU:69:VAL:N	2.26	0.51
47:BZ:40:THR:HG23	47:BZ:43:ILE:HG23	1.91	0.51
49:B1:49:LYS:O	49:B1:50:GLU:HB3	2.10	0.51
53:CA:54:C:N4	53:CA:352:C:H2'	2.26	0.51
53:CA:330:C:O2'	53:CA:331:G:O5'	2.28	0.51
53:CA:533:A:O2'	53:CA:535:A:OP2	2.26	0.51
53:CA:1086:U:HO2'	53:CA:1087:G:H5'	1.74	0.51
53:CA:1144:G:H21	53:CA:1146:A:N6	2.08	0.51
3:CC:86:LEU:O	3:CC:90:VAL:HG22	2.09	0.51
8:CH:39:LEU:HB2	8:CH:45:ILE:CD1	2.41	0.51
10:CJ:65:TYR:HB3	14:CN:95:LEU:HD12	1.91	0.51
55:CM:69:ARG:HA	55:CM:72:ILE:CG2	2.41	0.51
14:CN:63:CYS:HB3	14:CN:68:ARG:H	1.76	0.51
18:CR:54:LEU:O	18:CR:58:ILE:HG13	2.10	0.51
22:DA:109:C:H4'	22:DA:348:A:H4'	1.91	0.51
22:DA:121:G:C2	22:DA:131:A:C5	2.98	0.51
22:DA:459:U:O2'	22:DA:460:A:C5'	2.59	0.51
22:DA:486:C:O5'	22:DA:486:C:H6	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:504:A:O2'	22:DA:505:A:P	2.69	0.51
22:DA:560:C:O2'	38:DQ:47:ARG:NH1	2.44	0.51
22:DA:560:C:O5'	22:DA:560:C:H6	1.93	0.51
22:DA:589:U:C2	22:DA:590:A:N7	2.79	0.51
22:DA:1285:A:N6	22:DA:1329:U:C5	2.78	0.51
22:DA:1430:G:H2'	22:DA:1431:A:H8	1.74	0.51
22:DA:1566:A:H2	24:DC:212:TRP:HB2	1.74	0.51
22:DA:1683:U:O2'	22:DA:1684:G:C5'	2.59	0.51
22:DA:2201:G:H2'	22:DA:2202:U:C6	2.42	0.51
22:DA:2230:G:O3'	45:DX:29:LEU:HD12	2.10	0.51
22:DA:2544:G:H2'	22:DA:2545:G:C8	2.45	0.51
22:DA:2716:C:HO2'	22:DA:2717:C:H5'	1.73	0.51
24:DC:144:GLU:HB3	24:DC:187:CYS:CB	2.29	0.51
24:DC:211:ARG:HD2	24:DC:215:VAL:O	2.11	0.51
26:DE:147:LEU:CG	26:DE:186:VAL:HG23	2.39	0.51
58:DF:113:PHE:HE2	58:DF:116:LEU:HB2	1.75	0.51
28:DG:162:ARG:C	28:DG:163:TYR:HD2	2.13	0.51
33:DL:89:VAL:HG23	33:DL:121:THR:CG2	2.39	0.51
39:DR:55:ASP:CG	39:DR:56:GLY:H	2.13	0.51
40:DS:66:ILE:HA	40:DS:69:LEU:HD13	1.93	0.51
1:AA:185:U:H2'	1:AA:186:C:H6	1.75	0.51
1:AA:381:C:H2'	1:AA:382:A:O4'	2.10	0.51
1:AA:404:G:C2'	1:AA:405:U:H5'	2.40	0.51
1:AA:974:A:H4'	1:AA:975:A:C5'	2.31	0.51
1:AA:1160:G:HO2'	1:AA:1161:C:H6	1.58	0.51
1:AA:1239:A:H62	1:AA:1299:A:H61	1.51	0.51
1:AA:1429:A:H4'	22:BA:1703:G:O2'	2.09	0.51
1:AA:1508:A:H2'	1:AA:1509:C:H6	1.75	0.51
2:AB:61:SER:HA	2:AB:223:GLY:C	2.31	0.51
3:AC:6:PRO:HG3	3:AC:183:TYR:CG	2.45	0.51
3:AC:116:ALA:HB1	3:AC:186:SER:HB2	1.92	0.51
5:AE:152:VAL:O	5:AE:156:ARG:HB2	2.10	0.51
6:AF:3:HIS:HB2	6:AF:92:THR:CG2	2.36	0.51
11:AK:35:ASP:OD2	11:AK:39:ASN:HB2	2.10	0.51
13:AM:10:ASP:O	13:AM:11:HIS:HB2	2.10	0.51
13:AM:89:ARG:HH11	13:AM:94:LEU:HB3	1.76	0.51
14:AN:20:PHE:HA	14:AN:24:ALA:CB	2.40	0.51
22:BA:142:A:O2'	22:BA:143:C:O4'	2.28	0.51
22:BA:320:A:O2'	22:BA:322:A:H8	1.93	0.51
22:BA:588:U:O4	22:BA:670:A:H1'	2.09	0.51
22:BA:627:A:C6	22:BA:637:A:C8	2.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:959:A:H2	22:BA:2494:G:H22	1.56	0.51
22:BA:1607:C:H4'	22:BA:1608:A:O5'	2.11	0.51
22:BA:1774:C:O5'	22:BA:1774:C:H6	1.93	0.51
22:BA:1857:G:O2'	22:BA:1858:A:OP2	2.23	0.51
22:BA:2196:C:O2'	22:BA:2197:U:H5'	2.10	0.51
22:BA:2476:A:C2'	22:BA:2477:U:H5'	2.40	0.51
22:BA:2496:C:O2'	22:BA:2497:A:H5'	2.10	0.51
22:BA:2817:U:H2'	22:BA:2818:U:O5'	2.10	0.51
29:BH:132:PHE:CG	29:BH:133:GLN:N	2.78	0.51
37:BP:57:ALA:HB2	37:BP:74:GLN:HA	1.92	0.51
38:BQ:63:ARG:NH2	38:BQ:95:ALA:C	2.64	0.51
47:BZ:15:ARG:O	47:BZ:20:LYS:HE2	2.10	0.51
53:CA:43:C:O2'	53:CA:44:A:H5'	2.10	0.51
53:CA:457:G:C8	53:CA:457:G:OP2	2.63	0.51
53:CA:631:C:H5"	53:CA:632:U:O4'	2.09	0.51
53:CA:947:G:P	55:CM:106:ARG:HG3	2.51	0.51
53:CA:1343:G:H2'	53:CA:1344:C:H6	1.76	0.51
2:CB:212:TYR:CD2	2:CB:215:ALA:HB3	2.46	0.51
5:CE:38:VAL:HG23	5:CE:66:ALA:HB1	1.93	0.51
8:CH:28:SER:HB3	8:CH:56:PRO:HB2	1.91	0.51
55:CM:8:ILE:N	55:CM:9:PRO:CD	2.73	0.51
55:CM:23:GLY:O	55:CM:24:VAL:HG13	2.10	0.51
55:CM:46:GLU:O	55:CM:47:LEU:HB2	2.10	0.51
15:CO:63:ARG:NH2	22:DA:715:A:H5'	2.23	0.51
19:CS:16:LYS:O	19:CS:17:LYS:HD3	2.10	0.51
22:DA:95:A:H2'	22:DA:96:C:C4'	2.40	0.51
22:DA:200:U:O4	22:DA:248:G:C2	2.64	0.51
22:DA:231:A:O2'	22:DA:232:G:H5'	2.11	0.51
22:DA:260:G:C6	22:DA:261:G:N7	2.78	0.51
22:DA:301:G:C5	22:DA:302:C:N4	2.79	0.51
22:DA:477:A:O2'	22:DA:478:A:C8	2.45	0.51
22:DA:478:A:C2	22:DA:480:A:C8	2.98	0.51
22:DA:627:A:O2'	22:DA:628:G:P	2.69	0.51
22:DA:691:C:O5'	22:DA:691:C:H6	1.94	0.51
22:DA:1009:A:O2'	22:DA:1010:A:C8	2.49	0.51
22:DA:1025:G:H1'	22:DA:1135:C:O4'	2.10	0.51
22:DA:1905:C:O2'	22:DA:1929:G:H1'	2.10	0.51
22:DA:2409:G:O2'	22:DA:2410:G:O4'	2.14	0.51
22:DA:2575:C:H4'	25:DD:148:GLN:O	2.10	0.51
22:DA:2660:A:C2	22:DA:2661:G:C5	2.98	0.51
22:DA:2683:C:H5"	37:DP:55:HIS:HB3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2725:A:C4	22:DA:2727:A:C8	2.99	0.51
22:DA:2852:G:H2'	22:DA:2853:C:O4'	2.10	0.51
22:DA:2887:A:H1'	48:D0:39:ARG:HH22	1.76	0.51
22:DA:2893:A:O4'	22:DA:2894:G:C2	2.63	0.51
24:DC:231:HIS:O	24:DC:232:GLY:C	2.48	0.51
26:DE:130:LYS:HB3	26:DE:133:LEU:CB	2.25	0.51
26:DE:134:LEU:O	26:DE:138:LEU:HG	2.10	0.51
29:DH:8:LYS:HD2	29:DH:8:LYS:C	2.30	0.51
29:DH:41:LYS:N	29:DH:44:ILE:HG23	2.22	0.51
30:DI:132:ALA:CB	30:DI:137:LEU:HD12	2.40	0.51
38:DQ:46:TYR:HD1	39:DR:74:ILE:HG21	1.75	0.51
40:DS:22:ASP:HA	40:DS:25:ARG:HH12	1.75	0.51
41:DT:64:LYS:HA	41:DT:79:ASP:OD1	2.09	0.51
45:DX:30:PRO:CG	45:DX:32:LEU:HD21	2.40	0.51
47:DZ:32:GLY:C	47:DZ:34:THR:H	2.14	0.51
50:D2:34:ARG:HH11	50:D2:39:ARG:HG2	1.73	0.51
1:AA:179:A:O2'	1:AA:180:U:H5'	2.09	0.51
1:AA:184:G:O2'	1:AA:185:U:C6	2.64	0.51
1:AA:404:G:H2'	1:AA:405:U:O4'	2.10	0.51
1:AA:673:A:H2'	1:AA:674:G:C8	2.46	0.51
1:AA:809:G:C6	1:AA:810:C:C5	2.99	0.51
1:AA:827:U:H2'	1:AA:870:U:O4	2.11	0.51
1:AA:1240:U:H3	7:AG:29:LEU:HD23	1.74	0.51
1:AA:1433:A:H2'	1:AA:1434:A:C8	2.46	0.51
1:AA:1478:U:H2'	1:AA:1479:C:C6	2.45	0.51
6:AF:2:ARG:HH21	6:AF:68:GLN:NE2	2.08	0.51
14:AN:2:LYS:HD3	14:AN:5:MET:CG	2.37	0.51
20:AT:2:ASN:O	20:AT:3:ILE:C	2.48	0.51
22:BA:163:C:O2'	22:BA:164:C:P	2.68	0.51
22:BA:536:G:C2'	22:BA:537:G:H5'	2.39	0.51
22:BA:610:C:H2'	22:BA:611:C:H6	1.74	0.51
22:BA:901:C:H2'	22:BA:902:C:H6	1.75	0.51
22:BA:1069:A:N1	22:BA:1074:G:N7	2.59	0.51
22:BA:1196:C:O4'	22:BA:1226:A:C2	2.64	0.51
22:BA:1682:G:H2'	22:BA:1683:U:C5	2.43	0.51
22:BA:1734:G:C4	22:BA:1735:A:N7	2.79	0.51
22:BA:1833:C:C4	22:BA:1834:U:C5	2.98	0.51
22:BA:1866:A:O2'	22:BA:1867:G:C5'	2.57	0.51
22:BA:2109:U:O4	22:BA:2110:G:C5	2.63	0.51
22:BA:2420:C:O2'	22:BA:2421:G:H5'	2.09	0.51
22:BA:2531:A:C8	28:BG:174:LYS:NZ	2.79	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2726:A:N3	32:BK:67:LYS:NZ	2.59	0.51
24:BC:41:GLY:N	24:BC:53:ILE:CG2	2.74	0.51
28:BG:31:GLU:O	28:BG:31:GLU:HG3	2.09	0.51
30:BI:33:ASN:HB3	30:BI:36:GLU:CB	2.38	0.51
31:BJ:43:GLU:O	31:BJ:45:THR:O	2.28	0.51
33:BL:75:ALA:O	33:BL:108:ALA:HA	2.10	0.51
34:BM:31:PHE:CZ	34:BM:110:GLU:HG2	2.46	0.51
40:BS:1:MET:HE3	40:BS:1:MET:HA	1.93	0.51
40:BS:32:ALA:HB1	40:BS:51:LEU:HD22	1.92	0.51
41:BT:39:THR:HB	41:BT:42:GLU:H	1.76	0.51
44:BW:39:GLN:HG2	44:BW:40:ARG:N	2.25	0.51
53:CA:71:A:O2'	53:CA:72:A:O4'	2.20	0.51
53:CA:512:U:O2'	53:CA:513:C:C5'	2.58	0.51
53:CA:597:G:N7	53:CA:598:U:C5	2.79	0.51
53:CA:733:G:O2'	53:CA:734:G:C5'	2.58	0.51
53:CA:1084:G:OP1	53:CA:1086:U:C5	2.63	0.51
53:CA:1147:C:O2'	53:CA:1148:U:C6	2.64	0.51
53:CA:1226:C:OP2	55:CM:94:LEU:HD22	2.09	0.51
53:CA:1308:U:H5	55:CM:97:ARG:NH1	2.08	0.51
53:CA:1383:C:H2'	53:CA:1384:C:H5'	1.93	0.51
53:CA:1494:G:H2'	53:CA:1495:U:O5'	2.10	0.51
2:CB:164:ASP:CG	2:CB:203:ASP:HB2	2.31	0.51
5:CE:38:VAL:HG12	5:CE:39:GLY:H	1.75	0.51
6:CF:32:ALA:O	6:CF:33:GLU:HB2	2.09	0.51
9:CI:70:GLY:O	9:CI:73:GLY:N	2.43	0.51
10:CJ:10:LEU:HD23	10:CJ:98:VAL:HG22	1.93	0.51
11:CK:41:LEU:HD22	11:CK:76:TYR:CE2	2.46	0.51
19:CS:52:ASN:OD1	19:CS:57:VAL:HG13	2.11	0.51
21:CU:16:ARG:HA	21:CU:16:ARG:HE	1.76	0.51
22:DA:340:A:H2'	22:DA:341:C:C5'	2.41	0.51
22:DA:484:C:O2'	22:DA:485:C:C6	2.55	0.51
22:DA:532:A:N1	22:DA:2020:A:H1'	2.25	0.51
22:DA:545:U:H6	22:DA:545:U:H3'	1.76	0.51
22:DA:657:U:H2'	22:DA:658:U:H6	1.75	0.51
22:DA:732:C:N4	22:DA:733:G:C6	2.79	0.51
22:DA:789:A:H5'	50:D2:4:THR:HG21	1.92	0.51
22:DA:1060:U:O4'	22:DA:1061:U:C2'	2.59	0.51
22:DA:1156:A:H5"	22:DA:1157:G:OP2	2.10	0.51
22:DA:1300:G:H5'	22:DA:1301:A:C2	2.45	0.51
22:DA:1550:C:C2'	22:DA:1551:A:H5'	2.41	0.51
22:DA:1605:C:C4'	22:DA:1610:A:C6	2.87	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2074:U:H2'	22:DA:2075:U:C6	2.46	0.51
22:DA:2217:G:O2'	22:DA:2218:G:O4'	2.25	0.51
22:DA:2567:G:H2'	22:DA:2568:U:C6	2.46	0.51
22:DA:2654:A:C4	22:DA:2656:U:N3	2.79	0.51
22:DA:2834:G:H1'	22:DA:2879:A:H61	1.73	0.51
22:DA:2866:U:H4'	22:DA:2867:G:O5'	2.10	0.51
57:DB:21:G:C2'	57:DB:22:U:H5'	2.41	0.51
57:DB:27:C:O2'	57:DB:28:C:H5'	2.11	0.51
26:DE:9:GLN:O	26:DE:9:GLN:HG3	2.11	0.51
28:DG:7:PRO:HB3	28:DG:48:THR:HB	1.92	0.51
32:DK:40:LYS:HZ1	32:DK:89:ASN:HD21	1.58	0.51
35:DN:33:ILE:O	35:DN:34:ILE:HG13	2.10	0.51
37:DP:19:PHE:HE1	37:DP:58:PHE:CZ	2.29	0.51
38:DQ:40:LYS:CD	38:DQ:44:TYR:CE2	2.89	0.51
45:DX:3:VAL:O	45:DX:3:VAL:HG23	2.09	0.51
1:AA:66:A:C2	1:AA:67:C:C6	2.98	0.51
1:AA:322:C:O2'	20:AT:17:ARG:HG3	2.10	0.51
1:AA:488:C:HO2'	1:AA:489:C:H5'	1.76	0.51
1:AA:542:G:O2'	1:AA:543:U:H5'	2.09	0.51
1:AA:725:G:H2'	1:AA:726:C:C6	2.43	0.51
1:AA:966:G:H2'	1:AA:967:C:C6	2.45	0.51
1:AA:1160:G:C6	1:AA:1181:G:O6	2.63	0.51
1:AA:1295:U:H6	1:AA:1295:U:O5'	1.94	0.51
7:AG:13:PRO:HB2	7:AG:18:GLY:HA2	1.91	0.51
8:AH:30:LYS:HA	8:AH:30:LYS:CE	2.40	0.51
16:AP:10:GLY:O	16:AP:11:ALA:CB	2.59	0.51
22:BA:310:A:O2'	22:BA:311:A:P	2.68	0.51
22:BA:919:U:H6	22:BA:919:U:C5'	2.23	0.51
22:BA:962:G:P	62:BA:3352:HOH:O	2.68	0.51
22:BA:1135:C:H2'	22:BA:1137:G:OP2	2.10	0.51
22:BA:1254:A:H5"	22:BA:1255:U:C5'	2.40	0.51
22:BA:2148:G:O2'	22:BA:2149:U:C4'	2.58	0.51
22:BA:2508:G:C6	22:BA:2582:G:O6	2.64	0.51
22:BA:2698:U:H2'	22:BA:2699:C:H6	1.73	0.51
22:BA:2836:U:H2'	22:BA:2837:A:C8	2.45	0.51
24:BC:57:HIS:ND1	24:BC:58:LYS:N	2.56	0.51
24:BC:252:LYS:HB2	24:BC:252:LYS:NZ	2.26	0.51
25:BD:12:THR:HG23	25:BD:13:ARG:H	1.69	0.51
30:BI:135:MET:HG2	30:BI:137:LEU:HG	1.92	0.51
31:BJ:17:VAL:HA	31:BJ:55:ILE:O	2.10	0.51
33:BL:96:LYS:HG3	33:BL:101:ILE:HG22	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BO:67:ASN:O	36:BO:68:LYS:C	2.49	0.51
37:BP:33:GLU:HB3	37:BP:36:LYS:H	1.76	0.51
44:BW:24:ARG:CD	44:BW:24:ARG:C	2.77	0.51
45:BX:1:SER:O	45:BX:3:VAL:N	2.43	0.51
49:B1:8:ILE:H	49:B1:23:THR:HA	1.76	0.51
53:CA:166:U:OP2	53:CA:166:U:H6	1.92	0.51
53:CA:255:G:H4'	17:CQ:17:GLU:O	2.11	0.51
53:CA:518:C:H2'	53:CA:530:G:C8	2.45	0.51
53:CA:624:C:O2'	56:CP:10:GLY:HA2	2.09	0.51
53:CA:1073:U:C2	53:CA:1074:G:C8	2.99	0.51
53:CA:1279:G:H5"	10:CJ:9:ARG:NH2	2.12	0.51
53:CA:1416:G:H22	53:CA:1485:U:H1'	1.74	0.51
2:CB:56:LEU:HD22	2:CB:59:ILE:HD11	1.93	0.51
3:CC:113:LYS:HA	3:CC:184:ASN:HB3	1.93	0.51
8:CH:30:LYS:O	8:CH:33:VAL:N	2.43	0.51
9:CI:114:LYS:HD2	9:CI:120:ALA:O	2.09	0.51
12:CL:82:ARG:HB2	12:CL:97:VAL:HG12	1.91	0.51
55:CM:13:HIS:HA	55:CM:43:LYS:HG2	1.93	0.51
17:CQ:3:LYS:HZ2	17:CQ:6:THR:CG2	2.22	0.51
17:CQ:19:SER:HB3	17:CQ:70:LYS:HZ1	1.74	0.51
22:DA:70:G:H4'	22:DA:71:A:OP1	2.10	0.51
22:DA:298:G:HO2'	22:DA:322:A:H2	1.58	0.51
22:DA:301:G:C6	22:DA:317:G:C6	2.98	0.51
22:DA:325:G:HO2'	22:DA:326:G:H8	1.57	0.51
22:DA:335:C:O2'	22:DA:336:C:C6	2.34	0.51
22:DA:455:C:N3	22:DA:473:G:H5'	2.25	0.51
22:DA:477:A:O2'	22:DA:478:A:O5'	2.28	0.51
22:DA:478:A:C6	22:DA:480:A:C6	2.99	0.51
22:DA:492:A:O2'	22:DA:493:G:C5'	2.58	0.51
22:DA:575:A:O2'	22:DA:576:U:H6	1.94	0.51
22:DA:621:A:O2'	22:DA:622:G:O5'	2.28	0.51
22:DA:687:C:O2'	22:DA:688:U:H5'	2.11	0.51
22:DA:749:A:C4	22:DA:750:A:C8	2.98	0.51
22:DA:821:A:N7	22:DA:946:C:C4	2.79	0.51
22:DA:1062:G:C4	22:DA:1063:G:C8	2.98	0.51
22:DA:1324:G:H5"	22:DA:1325:U:H5"	1.93	0.51
22:DA:1383:A:C2	22:DA:1384:A:C5	2.99	0.51
22:DA:1782:U:O2'	22:DA:1783:A:C5'	2.58	0.51
22:DA:1819:A:OP1	24:DC:154:ALA:HA	2.11	0.51
22:DA:1935:G:H1'	22:DA:1964:G:C2	2.41	0.51
22:DA:2011:U:C2'	22:DA:2012:G:H5'	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2136:G:O6	22:DA:2156:G:C2	2.63	0.51
22:DA:2140:G:C6	22:DA:2152:G:C6	2.98	0.51
22:DA:2392:A:C8	22:DA:2429:G:N1	2.79	0.51
22:DA:2511:U:H2'	22:DA:2512:C:H5'	1.92	0.51
22:DA:2741:A:H2'	22:DA:2742:G:O4'	2.11	0.51
58:DF:30:VAL:CG1	58:DF:168:LEU:HD23	2.39	0.51
58:DF:39:VAL:CB	58:DF:49:LEU:HG	2.40	0.51
32:DK:104:THR:OG1	32:DK:106:GLU:HB2	2.11	0.51
35:DN:35:LYS:NZ	35:DN:112:TYR:CE1	2.77	0.51
39:DR:70:GLU:CD	39:DR:70:GLU:H	2.14	0.51
41:DT:64:LYS:HD2	41:DT:64:LYS:N	2.25	0.51
46:DY:22:LEU:HG	46:DY:23:ARG:H	1.74	0.51
1:AA:52:C:H2'	1:AA:53:A:H8	1.74	0.51
1:AA:217:C:O2'	1:AA:218:U:H5'	2.09	0.51
1:AA:374:A:H2'	1:AA:375:U:H6	1.76	0.51
1:AA:465:A:H2'	1:AA:466:A:O4'	2.10	0.51
1:AA:1080:A:OP1	5:AE:51:LYS:HE3	2.11	0.51
1:AA:1241:G:C2	1:AA:1242:G:C5	2.99	0.51
1:AA:1526:G:OP2	21:AU:38:GLU:HB2	2.10	0.51
3:AC:5:HIS:CD2	3:AC:7:ASN:HB3	2.46	0.51
3:AC:76:ILE:HD11	3:AC:102:ILE:CG1	2.22	0.51
8:AH:64:TYR:N	8:AH:64:TYR:CD1	2.78	0.51
13:AM:2:ARG:HA	13:AM:7:ASN:O	2.11	0.51
15:AO:86:LEU:C	15:AO:88:ARG:H	2.13	0.51
22:BA:12:U:H2'	22:BA:13:A:O5'	2.11	0.51
22:BA:876:C:O2'	22:BA:877:A:H5'	2.10	0.51
22:BA:1042:G:C2'	22:BA:1043:C:H5'	2.41	0.51
22:BA:1613:G:C2	22:BA:1619:G:C5	2.99	0.51
22:BA:1858:A:OP2	22:BA:1858:A:H8	1.94	0.51
22:BA:2508:G:H1'	22:BA:2554:U:HO2'	1.73	0.51
25:BD:151:THR:HB	25:BD:152:PRO:HD3	1.93	0.51
27:BF:107:VAL:N	27:BF:108:PRO:HD2	2.25	0.51
30:BI:89:SER:OG	30:BI:135:MET:HA	2.11	0.51
32:BK:49:ARG:O	32:BK:50:GLY:O	2.29	0.51
32:BK:121:GLU:O	32:BK:122:VAL:C	2.49	0.51
33:BL:65:GLY:O	33:BL:66:PHE:CB	2.57	0.51
33:BL:110:VAL:O	33:BL:111:ILE:CB	2.43	0.51
34:BM:73:ILE:HG21	34:BM:91:TYR:CE1	2.46	0.51
36:BO:39:VAL:HG12	36:BO:39:VAL:O	2.10	0.51
41:BT:39:THR:HG22	41:BT:42:GLU:H	1.74	0.51
43:BV:6:ALA:HB2	43:BV:42:LEU:CD2	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BX:71:ARG:HE	45:BX:77:TYR:HE2	1.59	0.51
49:B1:25:ASN:ND2	49:B1:28:THR:HG23	2.26	0.51
50:B2:12:ARG:HG3	50:B2:13:ASN:HD22	1.75	0.51
53:CA:5:U:H4'	53:CA:6:G:H5"	1.93	0.51
53:CA:106:C:O2	53:CA:379:C:H4'	2.11	0.51
53:CA:374:A:H2'	53:CA:375:U:H6	1.73	0.51
53:CA:705:G:H2'	53:CA:706:A:C8	2.46	0.51
53:CA:756:C:O2'	53:CA:757:U:H5'	2.10	0.51
53:CA:819:A:H4'	53:CA:820:U:OP2	2.10	0.51
53:CA:876:C:O2'	8:CH:11:THR:HG21	2.11	0.51
53:CA:918:A:H2'	53:CA:919:A:C8	2.46	0.51
53:CA:988:G:H2'	53:CA:989:U:H5'	1.91	0.51
53:CA:1014:A:H5'	19:CS:17:LYS:HE3	1.93	0.51
53:CA:1026:G:H22	53:CA:1036:A:H61	1.58	0.51
53:CA:1097:C:H2'	53:CA:1098:C:H6	1.72	0.51
53:CA:1114:C:O2	14:CN:99:SER:HB3	2.11	0.51
53:CA:1200:C:HO2'	53:CA:1201:A:P	2.32	0.51
2:CB:93:HIS:HB2	2:CB:146:SER:HA	1.93	0.51
6:CF:2:ARG:HG2	6:CF:4:TYR:CZ	2.46	0.51
8:CH:75:GLN:O	8:CH:126:CYS:CB	2.58	0.51
10:CJ:48:ARG:HB3	14:CN:100:TRP:HZ2	1.75	0.51
55:CM:23:GLY:HA3	55:CM:64:VAL:HG13	1.93	0.51
14:CN:62:ARG:HE	14:CN:69:PRO:HA	1.75	0.51
19:CS:50:VAL:CG2	19:CS:74:ALA:HB2	2.41	0.51
19:CS:79:TYR:CD1	19:CS:80:ARG:HD2	2.46	0.51
22:DA:14:A:C5	22:DA:526:A:C2	2.99	0.51
22:DA:100:U:OP1	22:DA:100:U:C6	2.64	0.51
22:DA:188:G:C2'	22:DA:189:G:H5'	2.40	0.51
22:DA:460:A:N6	22:DA:470:A:C8	2.78	0.51
22:DA:533:G:O5'	38:DQ:23:TYR:CD2	2.64	0.51
22:DA:782:A:OP1	22:DA:782:A:C8	2.64	0.51
22:DA:1062:G:N2	22:DA:1077:A:H2	2.09	0.51
22:DA:1083:U:H1'	22:DA:1086:A:C2	2.46	0.51
22:DA:1272:A:C2	22:DA:1618:A:C2	2.99	0.51
22:DA:1373:A:H2'	22:DA:1374:G:O4'	2.11	0.51
22:DA:1411:U:H2'	22:DA:1412:U:C6	2.45	0.51
22:DA:1425:G:H2'	22:DA:1426:G:O4'	2.10	0.51
22:DA:2712:C:C2	22:DA:2715:C:OP1	2.64	0.51
22:DA:2751:G:H4'	28:DG:3:VAL:CG1	2.40	0.51
22:DA:2880:C:O2'	22:DA:2881:U:H5'	2.11	0.51
24:DC:77:VAL:HA	24:DC:92:LEU:O	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DD:78:GLY:C	25:DD:80:TRP:CZ3	2.83	0.51
58:DF:31:GLU:O	58:DF:95:MET:HE2	2.09	0.51
58:DF:65:LEU:H	58:DF:65:LEU:CD2	2.21	0.51
29:DH:41:LYS:CA	29:DH:44:ILE:HG12	2.34	0.51
29:DH:99:ILE:HG22	29:DH:100:ALA:N	2.26	0.51
29:DH:147:VAL:O	29:DH:148:ALA:HB3	2.10	0.51
30:DI:52:LEU:HD12	30:DI:53:PRO:CD	2.41	0.51
33:DL:50:PHE:CE2	33:DL:53:GLY:N	2.79	0.51
36:DO:68:LYS:HB2	36:DO:68:LYS:NZ	2.26	0.51
39:DR:37:GLU:HB2	39:DR:53:PHE:CG	2.45	0.51
40:DS:49:LYS:NZ	40:DS:49:LYS:CB	2.70	0.51
41:DT:10:VAL:HG23	41:DT:11:LEU:N	2.24	0.51
41:DT:39:THR:HG21	41:DT:42:GLU:CG	2.41	0.51
42:DU:33:VAL:O	42:DU:34:ILE:CG1	2.49	0.51
43:DV:30:ILE:HA	43:DV:91:PHE:O	2.11	0.51
45:DX:32:LEU:N	45:DX:32:LEU:HD22	2.26	0.51
46:DY:28:LEU:C	46:DY:28:LEU:HD13	2.31	0.51
46:DY:49:ASP:O	46:DY:52:ARG:HB2	2.11	0.51
50:D2:46:LYS:HD2	50:D2:46:LYS:N	2.25	0.51
1:AA:35:G:H2'	1:AA:36:C:C6	2.46	0.51
1:AA:433:G:H2'	1:AA:434:U:C5'	2.38	0.51
1:AA:579:A:H2'	1:AA:580:C:H6	1.76	0.51
1:AA:858:G:H2'	1:AA:859:G:H5'	1.92	0.51
2:AB:123:GLY:O	2:AB:125:PHE:HD2	1.94	0.51
2:AB:130:LYS:HA	2:AB:130:LYS:NZ	2.25	0.51
3:AC:6:PRO:CG	3:AC:183:TYR:CG	2.93	0.51
4:AD:75:TYR:CD1	4:AD:75:TYR:C	2.84	0.51
4:AD:151:GLN:O	4:AD:152:SER:C	2.48	0.51
5:AE:152:VAL:O	5:AE:155:LYS:NZ	2.44	0.51
6:AF:39:LEU:O	6:AF:40:GLU:HG2	2.11	0.51
7:AG:96:ASN:O	7:AG:100:MET:HG3	2.10	0.51
11:AK:110:THR:HG22	21:AU:4:LYS:HB2	1.93	0.51
12:AL:74:GLN:O	12:AL:75:GLU:C	2.49	0.51
18:AR:59:LYS:HA	18:AR:62:ARG:HD2	1.92	0.51
21:AU:38:GLU:OE2	21:AU:41:THR:HG21	2.10	0.51
22:BA:535:G:H2'	22:BA:536:G:H5'	1.92	0.51
22:BA:740:C:O5'	22:BA:740:C:H6	1.94	0.51
22:BA:958:U:C2	23:BB:89:U:H1'	2.46	0.51
22:BA:994:C:H1'	39:BR:10:LYS:HZ3	1.73	0.51
22:BA:1045:C:C3'	22:BA:1046:A:H5'	2.41	0.51
22:BA:1057:A:N7	22:BA:1086:A:H2'	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1103:A:H2'	22:BA:1104:C:H5'	1.92	0.51
22:BA:1446:C:H2'	22:BA:1447:C:H6	1.76	0.51
22:BA:1568:G:OP1	24:BC:62:ARG:NH1	2.44	0.51
22:BA:2689:U:C4'	22:BA:2690:U:OP2	2.58	0.51
24:BC:161:VAL:CG1	24:BC:173:LEU:HG	2.41	0.51
26:BE:143:LEU:HD13	26:BE:146:VAL:HG11	1.93	0.51
26:BE:152:GLU:HA	26:BE:152:GLU:OE2	2.10	0.51
26:BE:160:ALA:O	26:BE:161:ALA:CB	2.59	0.51
28:BG:96:ALA:O	28:BG:97:VAL:HB	2.10	0.51
29:BH:90:LEU:HD22	29:BH:123:ARG:HA	1.93	0.51
32:BK:7:MET:C	32:BK:8:LEU:CD2	2.77	0.51
33:BL:28:GLY:O	33:BL:29:LYS:O	2.28	0.51
33:BL:92:LEU:HD21	33:BL:124:GLY:CA	2.40	0.51
35:BN:84:GLY:N	35:BN:85:PRO:HD2	2.25	0.51
35:BN:103:ARG:CD	35:BN:110:MET:HE3	2.20	0.51
37:BP:9:GLN:C	37:BP:11:GLN:H	2.14	0.51
37:BP:30:TRP:CH2	37:BP:39:LEU:HD11	2.46	0.51
37:BP:95:LYS:HG2	37:BP:97:TYR:CE1	2.46	0.51
53:CA:78:A:H2'	53:CA:79:G:H8	1.70	0.51
53:CA:413:G:C6	4:CD:32:LYS:HE3	2.46	0.51
53:CA:522:C:O2'	53:CA:523:A:H5'	2.11	0.51
53:CA:543:U:C2'	53:CA:544:G:H5'	2.41	0.51
53:CA:1165:U:H2'	53:CA:1166:G:H5'	1.93	0.51
53:CA:1299:A:N3	53:CA:1299:A:C2'	2.56	0.51
53:CA:1348:U:O2'	53:CA:1349:A:C5'	2.58	0.51
53:CA:1484:C:H2'	53:CA:1485:U:O4'	2.11	0.51
2:CB:9:LEU:O	2:CB:10:LYS:HB3	2.11	0.51
2:CB:150:ILE:HD11	2:CB:153:MET:HE2	1.93	0.51
3:CC:24:ASN:O	3:CC:28:PHE:HB2	2.11	0.51
6:CF:26:THR:HG22	6:CF:36:ILE:HD13	1.91	0.51
8:CH:41:GLU:OE2	8:CH:41:GLU:HA	2.10	0.51
10:CJ:52:LEU:CD2	10:CJ:59:LYS:HA	2.39	0.51
12:CL:85:ARG:HA	12:CL:93:ARG:HA	1.93	0.51
20:CT:32:LYS:O	20:CT:36:ALA:HB3	2.11	0.51
20:CT:73:ARG:CG	20:CT:73:ARG:NH1	2.43	0.51
22:DA:40:U:C4	22:DA:41:C:C4	2.98	0.51
22:DA:86:G:O2'	22:DA:87:U:H5'	2.10	0.51
22:DA:111:A:N1	22:DA:112:U:C2	2.79	0.51
22:DA:740:C:C5	22:DA:1981:A:N1	2.79	0.51
22:DA:785:G:O2'	22:DA:1779:U:C5'	2.59	0.51
22:DA:1038:G:N1	22:DA:1118:C:C4	2.79	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1312:U:O2'	22:DA:1314:C:N4	2.44	0.51
22:DA:1439:A:H1'	22:DA:1553:A:H61	1.72	0.51
22:DA:1440:U:O2'	22:DA:1441:G:C5'	2.54	0.51
22:DA:1445:G:C2'	22:DA:1446:C:H5'	2.41	0.51
22:DA:1476:U:O2'	22:DA:1477:A:H5'	2.11	0.51
22:DA:1734:G:N3	22:DA:1735:A:C8	2.79	0.51
22:DA:1735:A:C2	22:DA:1736:U:C2	2.98	0.51
22:DA:1739:A:C2	22:DA:1740:G:C4	2.99	0.51
22:DA:2287:A:C6	22:DA:2289:G:C5	2.98	0.51
22:DA:2690:U:H3'	22:DA:2691:C:H5'	1.93	0.51
22:DA:2875:C:O2'	22:DA:2876:G:C8	2.33	0.51
24:DC:38:LYS:HE2	24:DC:55:GLY:H	1.76	0.51
24:DC:86:ARG:HB3	24:DC:86:ARG:CZ	2.41	0.51
24:DC:161:VAL:HG11	24:DC:173:LEU:HB2	1.92	0.51
25:DD:9:VAL:O	37:DP:4:ILE:HD11	2.10	0.51
26:DE:45:ALA:O	26:DE:46:GLN:HB2	2.10	0.51
31:DJ:77:HIS:CE1	31:DJ:83:GLY:HA3	2.46	0.51
40:DS:25:ARG:HH11	40:DS:25:ARG:CB	2.24	0.51
41:DT:20:ALA:CB	41:DT:31:VAL:HG21	2.35	0.51
50:D2:41:ARG:HB3	50:D2:44:VAL:CG1	2.40	0.51
1:AA:91:U:C2'	1:AA:92:U:O4'	2.59	0.51
1:AA:184:G:H2'	1:AA:185:U:C6	2.46	0.51
1:AA:290:C:O2'	1:AA:291:U:H5'	2.11	0.51
1:AA:461:A:N3	1:AA:461:A:C3'	2.73	0.51
1:AA:532:A:N7	3:AC:192:TYR:HB3	2.26	0.51
1:AA:614:C:C2'	1:AA:615:G:O5'	2.59	0.51
1:AA:778:G:C5	1:AA:779:C:C5	2.99	0.51
1:AA:1005:A:C2	1:AA:1006:G:H1'	2.46	0.51
1:AA:1322:C:O2'	1:AA:1323:G:P	2.68	0.51
3:AC:21:TRP:CZ3	3:AC:23:ALA:HB3	2.46	0.51
4:AD:2:ARG:CZ	4:AD:114:ARG:CD	2.89	0.51
12:AL:41:PRO:HA	12:AL:88:ASP:O	2.11	0.51
13:AM:24:VAL:HG23	13:AM:24:VAL:O	2.11	0.51
22:BA:29:U:H2'	22:BA:30:G:C8	2.46	0.51
22:BA:272:A:O2'	22:BA:273:G:O5'	2.29	0.51
22:BA:508:A:H4'	22:BA:509:C:OP2	2.11	0.51
22:BA:763:G:O2'	22:BA:764:A:H3'	2.11	0.51
22:BA:958:U:C5'	34:BM:14:LYS:HZ1	2.24	0.51
22:BA:976:G:H2'	22:BA:976:G:N3	2.26	0.51
22:BA:1850:G:C5	22:BA:1851:U:C5	2.98	0.51
22:BA:2107:G:O6	22:BA:2183:A:C6	2.64	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2217:G:C2'	22:BA:2218:G:H5'	2.40	0.51
22:BA:2848:G:O2'	22:BA:2867:G:N2	2.43	0.51
25:BD:61:THR:HG1	25:BD:63:PRO:HD2	1.70	0.51
29:BH:29:PHE:CD2	29:BH:30:LEU:HD23	2.45	0.51
33:BL:14:LYS:HG3	33:BL:15:ALA:N	2.25	0.51
36:BO:3:LYS:HG3	36:BO:4:LYS:N	2.25	0.51
36:BO:117:PHE:CD1	36:BO:117:PHE:O	2.64	0.51
39:BR:27:ILE:N	39:BR:27:ILE:CD1	2.73	0.51
45:BX:46:VAL:HG11	45:BX:77:TYR:CD1	2.45	0.51
53:CA:9:G:O2'	53:CA:10:A:H5'	2.11	0.51
53:CA:104:G:O2'	53:CA:105:G:H5'	2.10	0.51
53:CA:141:G:N2	53:CA:223:A:C4	2.79	0.51
53:CA:259:G:P	20:CT:35:TYR:HH	2.34	0.51
53:CA:286:C:H2'	53:CA:287:U:H6	1.76	0.51
53:CA:437:U:H2'	53:CA:438:U:O5'	2.11	0.51
53:CA:499:A:H4'	53:CA:500:G:O5'	2.08	0.51
53:CA:520:A:OP1	12:CL:48:LEU:HG	2.11	0.51
53:CA:683:G:C6	53:CA:708:C:N3	2.79	0.51
53:CA:771:G:O2'	53:CA:772:U:H5'	2.10	0.51
53:CA:920:U:H2'	53:CA:921:U:H6	1.74	0.51
53:CA:1179:A:C2'	53:CA:1180:A:H5'	2.41	0.51
2:CB:9:LEU:HG	2:CB:10:LYS:H	1.76	0.51
2:CB:128:LEU:O	2:CB:129:THR:C	2.48	0.51
2:CB:209:VAL:CG2	2:CB:210:THR:N	2.74	0.51
3:CC:126:ARG:HA	3:CC:126:ARG:NE	2.20	0.51
4:CD:25:ARG:O	4:CD:26:ALA:C	2.48	0.51
5:CE:14:LEU:HD13	5:CE:36:THR:HG22	1.91	0.51
9:CI:27:ILE:O	9:CI:33:SER:HA	2.11	0.51
12:CL:42:LYS:HD2	12:CL:43:LYS:NZ	2.26	0.51
22:DA:193:U:O2'	22:DA:194:G:H5'	2.10	0.51
22:DA:237:C:N3	22:DA:238:C:C5	2.79	0.51
22:DA:432:A:O2'	22:DA:433:C:H5'	2.11	0.51
22:DA:475:C:O2'	22:DA:476:G:C5'	2.59	0.51
22:DA:482:A:N6	22:DA:506:G:N9	2.58	0.51
22:DA:616:A:N3	22:DA:617:G:C8	2.79	0.51
22:DA:1142:A:C8	22:DA:1144:A:C5	2.99	0.51
22:DA:1206:G:O2'	22:DA:1207:C:H5'	2.11	0.51
22:DA:1519:G:N1	22:DA:1520:U:C2	2.78	0.51
22:DA:1567:G:H5"	24:DC:84:PRO:CG	2.40	0.51
22:DA:1654:A:O2'	22:DA:1655:A:H8	1.92	0.51
22:DA:1673:G:O2'	22:DA:1674:G:H5'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1857:G:C1'	22:DA:1884:G:H22	2.15	0.51
22:DA:2010:G:OP1	40:DS:41:LYS:HD3	2.11	0.51
22:DA:2093:G:H4'	29:DH:24:GLY:HA3	1.93	0.51
22:DA:2094:A:O2'	22:DA:2095:A:O4'	2.28	0.51
22:DA:2234:G:C6	22:DA:2235:G:C5	2.98	0.51
22:DA:2502:G:H5'	22:DA:2503:A:H5"	1.93	0.51
22:DA:2675:A:H2'	22:DA:2676:C:O4'	2.10	0.51
22:DA:2808:G:O2'	22:DA:2809:A:C8	2.64	0.51
57:DB:17:C:C2'	57:DB:18:G:H5'	2.40	0.51
24:DC:75:ALA:HB1	24:DC:93:VAL:HG22	1.93	0.51
58:DF:1:ALA:HB2	58:DF:93:GLU:O	2.10	0.51
29:DH:61:VAL:CG1	29:DH:62:LEU:N	2.74	0.51
32:DK:70:ARG:HB3	32:DK:76:VAL:CG2	2.21	0.51
33:DL:116:VAL:HG13	33:DL:117:THR:N	2.26	0.51
35:DN:36:THR:HG23	35:DN:41:ALA:HB2	1.93	0.51
38:DQ:91:ARG:CZ	39:DR:11:GLN:H	2.23	0.51
44:DW:44:PHE:CE2	44:DW:76:ARG:NE	2.78	0.51
1:AA:375:U:C4'	16:AP:17:TYR:HE2	2.20	0.51
1:AA:483:C:O2	16:AP:13:LYS:NZ	2.44	0.51
1:AA:613:C:H2'	1:AA:614:C:C6	2.46	0.51
1:AA:613:C:O2'	1:AA:614:C:H5'	2.11	0.51
2:AB:30:ILE:HD11	2:AB:38:HIS:CG	2.46	0.51
3:AC:179:ALA:HB1	3:AC:202:PHE:HE1	1.76	0.51
4:AD:37:PRO:HD2	4:AD:41:GLY:CA	2.39	0.51
4:AD:160:LEU:HD22	4:AD:161:ALA:N	2.26	0.51
7:AG:144:ALA:C	7:AG:146:ALA:N	2.63	0.51
8:AH:17:GLN:NE2	8:AH:69:ALA:HB1	2.26	0.51
13:AM:44:ILE:HD12	13:AM:44:ILE:N	2.26	0.51
15:AO:68:TYR:HA	15:AO:71:ARG:CZ	2.40	0.51
16:AP:12:LYS:O	16:AP:13:LYS:CB	2.59	0.51
22:BA:301:G:O2'	22:BA:302:C:H5"	2.11	0.51
22:BA:540:C:O2'	22:BA:541:A:H5'	2.11	0.51
22:BA:697:G:H2'	22:BA:698:C:C6	2.45	0.51
22:BA:869:G:H4'	34:BM:8:LYS:HE2	1.93	0.51
22:BA:1927:A:C6	22:BA:1928:A:C6	2.99	0.51
22:BA:2180:U:C2'	22:BA:2181:U:H5	2.22	0.51
22:BA:2870:C:C6	22:BA:2871:U:C5	2.98	0.51
23:BB:41:G:H3'	23:BB:42:C:H5"	1.92	0.51
23:BB:46:A:C5	23:BB:47:C:C4	2.99	0.51
25:BD:53:GLY:HA3	25:BD:77:ARG:H	1.75	0.51
27:BF:104:THR:CG2	27:BF:105:ILE:HG23	2.36	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BF:105:ILE:HA	27:BF:108:PRO:HG2	1.92	0.51
28:BG:82:PHE:CZ	28:BG:137:LYS:HB2	2.46	0.51
28:BG:84:LYS:HG3	28:BG:132:LEU:CA	2.35	0.51
28:BG:154:GLU:OE1	28:BG:157:LYS:HB2	2.11	0.51
30:BI:32:VAL:HG13	30:BI:66:PHE:CE2	2.46	0.51
31:BJ:44:TYR:C	31:BJ:45:THR:HG22	2.31	0.51
31:BJ:65:THR:HG22	31:BJ:68:LYS:CE	2.38	0.51
32:BK:109:SER:HB3	32:BK:111:LYS:HE3	1.93	0.51
34:BM:133:LYS:NZ	34:BM:133:LYS:CB	2.74	0.51
35:BN:20:MET:CG	35:BN:21:PHE:N	2.74	0.51
36:BO:105:ALA:O	36:BO:107:ALA:N	2.44	0.51
37:BP:53:GLY:O	37:BP:55:HIS:N	2.43	0.51
39:BR:49:ILE:O	39:BR:51:VAL:O	2.27	0.51
41:BT:19:LYS:O	41:BT:23:ALA:CB	2.59	0.51
53:CA:355:C:C4	53:CA:356:A:N7	2.79	0.51
53:CA:615:G:H2'	53:CA:616:G:C8	2.45	0.51
53:CA:652:U:O2'	53:CA:653:U:O5'	2.29	0.51
53:CA:765:G:O6	53:CA:811:C:C5	2.64	0.51
53:CA:824:G:H1'	8:CH:1:SER:N	2.25	0.51
53:CA:940:C:C5'	54:CG:101:ARG:NH2	2.69	0.51
53:CA:1090:U:C2	53:CA:1091:U:C5	2.98	0.51
2:CB:31:PHE:HB2	2:CB:41:ASN:HB2	1.92	0.51
3:CC:149:LYS:CG	3:CC:168:ARG:HB2	2.39	0.51
4:CD:32:LYS:HB3	4:CD:35:GLN:OE1	2.11	0.51
4:CD:84:ASN:OD1	5:CE:101:GLY:HA2	2.10	0.51
54:CG:4:ARG:CG	54:CG:5:VAL:N	2.74	0.51
8:CH:24:VAL:HG22	8:CH:25:THR:N	2.26	0.51
55:CM:11:HIS:CE1	55:CM:43:LYS:HD2	2.45	0.51
21:CU:33:ARG:HH22	21:CU:34:ARG:HH11	1.59	0.51
22:DA:95:A:C2'	22:DA:96:C:H5"	2.39	0.51
22:DA:249:C:O2	22:DA:249:C:C2'	2.59	0.51
22:DA:867:C:O2'	22:DA:868:U:O5'	2.28	0.51
22:DA:980:A:C4	22:DA:1136:G:O4'	2.64	0.51
22:DA:1181:U:O2'	22:DA:1182:G:H5'	2.11	0.51
22:DA:1695:G:HO2'	22:DA:1696:G:P	2.32	0.51
22:DA:2209:G:C6	22:DA:2210:U:O4	2.63	0.51
22:DA:2283:C:C2'	22:DA:2284:A:H5'	2.41	0.51
22:DA:2344:U:HO2'	22:DA:2345:G:C5'	2.23	0.51
22:DA:2632:A:O2'	22:DA:2633:G:H5'	2.10	0.51
22:DA:2674:G:H4'	32:DK:30:ARG:CD	2.41	0.51
57:DB:18:G:C2	57:DB:19:C:C2	2.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DB:27:C:H2'	57:DB:28:C:C6	2.45	0.51
25:DD:125:TRP:CG	25:DD:160:LYS:HB3	2.46	0.51
26:DE:76:PRO:HA	26:DE:82:GLY:O	2.11	0.51
32:DK:2:ILE:HB	32:DK:33:ALA:HB3	1.93	0.51
33:DL:62:PRO:O	51:D3:12:ARG:CB	2.56	0.51
35:DN:83:LEU:HD11	35:DN:86:ARG:HH21	1.75	0.51
36:DO:24:THR:HG22	36:DO:42:PRO:HD3	1.92	0.51
37:DP:102:ARG:HD2	37:DP:106:ALA:O	2.11	0.51
41:DT:32:LEU:HD23	41:DT:32:LEU:N	2.26	0.51
43:DV:29:ILE:HD12	43:DV:29:ILE:O	2.11	0.51
1:AA:76:G:N1	1:AA:95:C:N4	2.58	0.51
1:AA:143:A:N3	1:AA:143:A:H2'	2.25	0.51
1:AA:678:U:H2'	1:AA:679:C:O4'	2.11	0.51
1:AA:696:A:O2'	1:AA:697:U:H5'	2.11	0.51
1:AA:1171:A:H2'	1:AA:1172:C:C6	2.46	0.51
2:AB:53:LEU:CD2	2:AB:53:LEU:H	2.24	0.51
2:AB:53:LEU:HD21	2:AB:212:TYR:OH	2.10	0.51
3:AC:8:GLY:HA3	14:AN:88:MET:SD	2.50	0.51
6:AF:9:MET:HE1	6:AF:59:TYR:CE2	2.45	0.51
11:AK:27:ASN:O	11:AK:56:LYS:HE3	2.10	0.51
11:AK:125:LYS:O	11:AK:126:ARG:HB2	2.11	0.51
20:AT:33:LYS:HA	20:AT:33:LYS:CE	2.41	0.51
22:BA:1507:C:N3	22:BA:1508:A:C2	2.79	0.51
22:BA:1848:A:O2'	22:BA:1849:G:C5'	2.58	0.51
22:BA:2507:C:H3'	22:BA:2508:G:C5'	2.40	0.51
22:BA:2589:A:H2'	22:BA:2590:A:C8	2.45	0.51
22:BA:2780:G:H4'	22:BA:2781:A:OP2	2.11	0.51
22:BA:2794:C:O2'	22:BA:2795:C:H5'	2.11	0.51
24:BC:33:LEU:HD21	24:BC:62:ARG:CD	2.39	0.51
26:BE:119:ILE:O	26:BE:119:ILE:CG1	2.59	0.51
34:BM:64:TRP:HZ3	34:BM:106:ASP:HB2	1.76	0.51
34:BM:108:VAL:HG13	34:BM:109:PRO:CD	2.35	0.51
37:BP:50:ARG:NH2	37:BP:51:ASN:OD1	2.44	0.51
45:BX:5:GLN:HE21	45:BX:49:ARG:N	2.07	0.51
45:BX:70:LEU:O	45:BX:73:ARG:N	2.44	0.51
50:B2:22:MET:HE3	50:B2:28:ARG:HG2	1.93	0.51
53:CA:68:G:C5'	53:CA:171:A:H1'	2.39	0.51
53:CA:757:U:O2'	53:CA:879:C:H1'	2.11	0.51
53:CA:922:G:O2'	53:CA:1398:A:N1	2.43	0.51
53:CA:1082:A:O2'	53:CA:1083:U:H5'	2.11	0.51
53:CA:1167:A:C2'	53:CA:1168:U:OP1	2.59	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1504:G:H3'	53:CA:1505:G:C5'	2.40	0.51
5:CE:33:THR:O	5:CE:33:THR:HG23	2.09	0.51
11:CK:21:HIS:HD2	11:CK:34:THR:CG2	2.24	0.51
12:CL:86:VAL:HG11	12:CL:89:LEU:HD23	1.93	0.51
56:CP:20:VAL:HG21	56:CP:32:PHE:HB2	1.93	0.51
19:CS:15:LEU:C	19:CS:15:LEU:HD23	2.32	0.51
20:CT:61:ALA:HA	20:CT:67:HIS:HA	1.91	0.51
21:CU:37:TYR:O	21:CU:37:TYR:HD2	1.94	0.51
22:DA:40:U:C4	22:DA:41:C:N4	2.79	0.51
22:DA:95:A:HO2'	46:DY:39:GLN:HA	1.75	0.51
22:DA:185:G:H2'	22:DA:186:G:H8	1.74	0.51
22:DA:223:A:O2'	22:DA:408:G:N3	2.43	0.51
22:DA:233:A:O2'	22:DA:234:U:C6	2.59	0.51
22:DA:321:U:H1'	26:DE:159:LEU:CD1	2.40	0.51
22:DA:415:A:N1	22:DA:2409:G:C6	2.79	0.51
22:DA:417:C:O2'	22:DA:418:C:H5'	2.11	0.51
22:DA:564:C:H2'	22:DA:565:C:H5'	1.93	0.51
22:DA:575:A:O2'	22:DA:576:U:C5'	2.57	0.51
22:DA:818:G:H4'	22:DA:838:C:O3'	2.11	0.51
22:DA:819:A:OP2	22:DA:1187:G:N2	2.44	0.51
22:DA:973:A:OP1	22:DA:973:A:H8	1.94	0.51
22:DA:1075:C:O2'	22:DA:1076:C:C6	2.64	0.51
22:DA:1613:G:C2	22:DA:1617:C:C2	2.99	0.51
22:DA:1654:A:H1'	25:DD:118:PHE:HB3	1.91	0.51
22:DA:1735:A:O2'	22:DA:1736:U:H6	1.93	0.51
22:DA:2750:A:O2'	22:DA:2752:C:N4	2.40	0.51
26:DE:175:ILE:HD11	26:DE:180:LEU:HD11	1.93	0.51
31:DJ:35:ARG:HA	31:DJ:40:HIS:CD2	2.46	0.51
35:DN:67:PHE:HE2	35:DN:73:ASN:HD21	1.58	0.51
36:DO:108:ASP:C	36:DO:110:ALA:H	2.14	0.51
43:DV:4:ILE:HD12	43:DV:63:ILE:HD11	1.93	0.51
43:DV:41:GLU:HG2	43:DV:42:LEU:N	2.25	0.51
43:DV:69:GLU:HG2	43:DV:70:ILE:N	2.26	0.51
44:DW:65:LYS:HE2	44:DW:84:GLU:HA	1.93	0.51
45:DX:57:VAL:CG1	45:DX:58:ILE:N	2.74	0.51
46:DY:1:MET:HE2	46:DY:1:MET:H3	1.76	0.51
52:D4:9:LYS:HD3	52:D4:9:LYS:C	2.32	0.51
1:AA:56:U:H2'	1:AA:57:G:H8	1.71	0.50
1:AA:173:U:C2	1:AA:197:A:N1	2.79	0.50
1:AA:363:A:O2'	1:AA:364:A:H5'	2.11	0.50
1:AA:1168:U:C6	1:AA:1168:U:OP1	2.64	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1398:A:H5"	1:AA:1398:A:C8	2.43	0.50
1:AA:1453:G:H2'	1:AA:1454:G:O4'	2.11	0.50
2:AB:9:LEU:HB2	2:AB:42:LEU:HD13	1.93	0.50
2:AB:45:THR:HG23	2:AB:200:PRO:HG2	1.93	0.50
4:AD:187:ARG:HH12	4:AD:190:LEU:HD12	1.76	0.50
4:AD:191:SER:HA	4:AD:194:ILE:HD11	1.93	0.50
6:AF:10:VAL:CG1	6:AF:11:HIS:N	2.75	0.50
7:AG:23:ALA:O	7:AG:26:VAL:CG2	2.57	0.50
10:AJ:20:GLN:HA	10:AJ:20:GLN:NE2	2.26	0.50
11:AK:124:LYS:O	21:AU:33:ARG:CZ	2.59	0.50
14:AN:25:GLU:HG3	14:AN:26:LEU:HD12	1.93	0.50
21:AU:3:ILE:HA	21:AU:19:LYS:HZ1	1.70	0.50
22:BA:536:G:H2'	22:BA:537:G:O5'	2.11	0.50
22:BA:999:U:C5	22:BA:1154:G:C5	2.99	0.50
22:BA:1179:G:C3'	22:BA:1180:U:H4'	2.23	0.50
22:BA:1394:U:C5	22:BA:1395:A:C5	2.99	0.50
22:BA:1501:G:C2'	22:BA:1502:A:H5'	2.41	0.50
22:BA:2148:G:O2'	22:BA:2149:U:O4'	2.29	0.50
22:BA:2197:U:P	4:CD:150:LYS:HD2	2.50	0.50
22:BA:2532:G:C5	22:BA:2533:U:C4	2.98	0.50
22:BA:2732:G:OP2	22:BA:2732:G:C8	2.62	0.50
24:BC:238:ASN:O	24:BC:239:PHE:HB2	2.11	0.50
25:BD:106:LYS:N	25:BD:106:LYS:CD	2.67	0.50
25:BD:139:SER:HA	25:BD:142:VAL:HG13	1.92	0.50
28:BG:61:TRP:HA	28:BG:64:ALA:HB3	1.94	0.50
28:BG:84:LYS:CB	28:BG:132:LEU:H	2.23	0.50
31:BJ:54:ILE:C	31:BJ:54:ILE:HD12	2.32	0.50
33:BL:110:VAL:CG1	33:BL:131:ALA:CB	2.89	0.50
34:BM:6:ARG:HB2	34:BM:6:ARG:NH1	2.26	0.50
35:BN:21:PHE:CE2	35:BN:24:MET:HE1	2.46	0.50
36:BO:104:GLN:C	36:BO:105:ALA:O	2.43	0.50
45:BX:53:LYS:O	45:BX:57:VAL:HG23	2.11	0.50
50:B2:12:ARG:CZ	50:B2:12:ARG:HB2	2.40	0.50
53:CA:1018:G:H2'	53:CA:1019:A:O4'	2.10	0.50
53:CA:1190:G:H5'	3:CC:175:HIS:NE2	2.27	0.50
53:CA:1215:G:O2'	53:CA:1216:A:C5'	2.60	0.50
4:CD:11:SER:HB3	4:CD:16:THR:O	2.11	0.50
8:CH:28:SER:HA	8:CH:58:LEU:CD1	2.34	0.50
9:CI:19:PHE:O	9:CI:63:TYR:HB3	2.11	0.50
55:CM:49:GLU:HA	55:CM:49:GLU:OE1	2.11	0.50
15:CO:79:GLN:NE2	15:CO:83:ARG:HH21	2.02	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:60:GLN:CB	20:CT:65:LEU:HD12	2.34	0.50
21:CU:28:LEU:C	21:CU:28:LEU:CD2	2.80	0.50
22:DA:92:U:C6	22:DA:93:G:C8	2.99	0.50
22:DA:96:C:O2'	22:DA:97:C:H5'	2.10	0.50
22:DA:224:U:C5	22:DA:420:C:H4'	2.44	0.50
22:DA:309:A:C2	22:DA:329:G:O2'	2.60	0.50
22:DA:876:C:O2'	22:DA:877:A:P	2.69	0.50
22:DA:995:C:H5"	38:DQ:53:LYS:HG2	1.93	0.50
22:DA:1206:G:C6	22:DA:1207:C:N4	2.80	0.50
22:DA:1429:G:C2	22:DA:1430:G:C5	2.99	0.50
22:DA:1654:A:H1'	25:DD:118:PHE:CB	2.41	0.50
22:DA:1722:A:H62	22:DA:1738:G:H1'	1.72	0.50
22:DA:1803:A:O2'	22:DA:1804:C:C5'	2.59	0.50
22:DA:1837:C:C2	22:DA:1904:G:C2	2.99	0.50
22:DA:1992:G:H4'	22:DA:1993:U:OP1	2.11	0.50
22:DA:2152:G:N3	22:DA:2152:G:H2'	2.26	0.50
22:DA:2285:C:C2'	22:DA:2286:G:H5"	2.39	0.50
22:DA:2611:C:H6	22:DA:2611:C:C5'	2.24	0.50
22:DA:2785:C:O3'	25:DD:70:LYS:HD3	2.10	0.50
57:DB:70:C:O2'	57:DB:71:C:H5'	2.11	0.50
24:DC:181:ARG:HH11	24:DC:265:PHE:HD1	1.59	0.50
25:DD:10:GLY:HA2	37:DP:4:ILE:HD13	1.93	0.50
26:DE:119:ILE:HD11	26:DE:143:LEU:HD21	1.87	0.50
28:DG:85:LYS:HD3	28:DG:164:ALA:O	2.11	0.50
30:DI:52:LEU:HD11	30:DI:78:LEU:CD2	2.41	0.50
30:DI:132:ALA:HB1	30:DI:137:LEU:HD12	1.92	0.50
33:DL:85:VAL:O	33:DL:85:VAL:HG22	2.10	0.50
34:DM:33:LEU:HB2	34:DM:117:PHE:CD2	2.45	0.50
34:DM:57:VAL:HG23	34:DM:58:LYS:O	2.10	0.50
35:DN:21:PHE:N	35:DN:21:PHE:HD1	2.09	0.50
38:DQ:75:TYR:OH	38:DQ:92:LYS:HE3	2.10	0.50
38:DQ:96:ASP:C	38:DQ:98:ALA:N	2.64	0.50
39:DR:21:ARG:HB2	39:DR:93:PHE:HD1	1.76	0.50
41:DT:15:HIS:CE1	41:DT:80:TRP:CH2	2.99	0.50
46:DY:23:ARG:O	46:DY:27:ASN:HB2	2.11	0.50
48:D0:12:ARG:HG3	48:D0:15:ARG:HH11	1.75	0.50
49:D1:43:ARG:NH2	49:D1:43:ARG:HB2	2.26	0.50
1:AA:176:C:H2'	1:AA:177:G:N3	2.25	0.50
1:AA:428:G:C1'	1:AA:430:A:N7	2.74	0.50
1:AA:519:C:O2'	1:AA:520:A:C5'	2.59	0.50
1:AA:580:C:H2'	1:AA:581:G:O4'	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:656:G:O2'	1:AA:657:U:H5'	2.11	0.50
1:AA:772:U:C2'	1:AA:773:G:H5'	2.41	0.50
1:AA:853:C:H2'	1:AA:854:U:C5'	2.40	0.50
1:AA:1161:C:O2'	1:AA:1162:C:C5'	2.59	0.50
3:AC:33:ASP:O	3:AC:37:LYS:HB2	2.12	0.50
3:AC:156:LEU:C	3:AC:158:GLY:H	2.13	0.50
4:AD:3:TYR:O	4:AD:4:LEU:HB2	2.09	0.50
5:AE:152:VAL:O	5:AE:155:LYS:CE	2.59	0.50
7:AG:92:PRO:C	7:AG:93:VAL:HG22	2.31	0.50
9:AI:33:SER:OG	9:AI:35:GLU:HG2	2.12	0.50
12:AL:74:GLN:HG3	12:AL:75:GLU:HG2	1.92	0.50
17:AQ:10:ARG:O	17:AQ:22:VAL:HG13	2.12	0.50
17:AQ:80:LYS:HD3	17:AQ:80:LYS:N	2.25	0.50
21:AU:45:LYS:HA	21:AU:45:LYS:CE	2.41	0.50
22:BA:301:G:O2'	22:BA:302:C:C5'	2.58	0.50
22:BA:531:C:HO2'	22:BA:532:A:P	2.35	0.50
22:BA:553:G:H2'	22:BA:554:U:O4'	2.10	0.50
22:BA:576:U:H2'	22:BA:577:G:C8	2.46	0.50
22:BA:979:A:H2'	22:BA:982:C:N4	2.25	0.50
22:BA:1188:U:C2'	22:BA:1189:A:C5'	2.85	0.50
22:BA:1479:G:O2'	22:BA:1480:C:H5'	2.11	0.50
22:BA:2392:A:H4'	51:B3:27:ASN:HD21	1.76	0.50
22:BA:2529:G:OP2	22:BA:2530:A:H5"	2.11	0.50
24:BC:234:GLY:O	24:BC:235:GLU:CB	2.59	0.50
25:BD:121:THR:O	25:BD:122:VAL:CB	2.57	0.50
26:BE:32:VAL:HG23	26:BE:33:VAL:N	2.26	0.50
28:BG:174:LYS:HD2	28:BG:174:LYS:C	2.31	0.50
29:BH:31:VAL:HB	29:BH:32:PRO:HD3	1.86	0.50
29:BH:81:ALA:O	29:BH:102:ALA:HB2	2.11	0.50
31:BJ:6:ALA:HB3	31:BJ:45:THR:CG2	2.26	0.50
31:BJ:55:ILE:HG13	31:BJ:55:ILE:O	2.08	0.50
36:BO:55:GLU:O	36:BO:56:LYS:C	2.49	0.50
43:BV:51:GLN:NE2	43:BV:51:GLN:O	2.45	0.50
44:BW:75:ASN:O	44:BW:76:ARG:HB2	2.12	0.50
47:BZ:29:ARG:HH21	47:BZ:29:ARG:CG	2.22	0.50
53:CA:158:G:C4	53:CA:159:G:C8	2.99	0.50
53:CA:190:A:O5'	53:CA:190:A:H8	1.94	0.50
53:CA:1159:U:O4'	53:CA:1182:G:N2	2.44	0.50
2:CB:20:ARG:NH2	2:CB:38:HIS:CD2	2.79	0.50
6:CF:92:THR:CG2	6:CF:94:HIS:H	2.06	0.50
10:CJ:90:LEU:HD23	10:CJ:92:LEU:HD11	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:34:THR:OG1	11:CK:39:ASN:N	2.44	0.50
12:CL:115:LYS:O	12:CL:116:TYR:CD2	2.64	0.50
15:CO:73:ASP:OD2	15:CO:76:ARG:HD3	2.11	0.50
19:CS:43:MET:O	19:CS:61:VAL:HG11	2.11	0.50
22:DA:83:A:P	42:DU:91:LYS:HZ2	2.34	0.50
22:DA:227:A:H5'	22:DA:229:C:N4	2.26	0.50
22:DA:247:G:C4'	22:DA:386:G:C5	2.86	0.50
22:DA:279:A:C6	22:DA:361:G:O2'	2.64	0.50
22:DA:522:A:H2'	22:DA:523:C:C6	2.46	0.50
22:DA:526:A:C6	22:DA:2626:C:C4'	2.94	0.50
22:DA:562:U:H2'	22:DA:572:A:O4'	2.12	0.50
22:DA:604:G:C6	22:DA:625:G:N1	2.79	0.50
22:DA:682:G:H5'	50:D2:26:ASN:OD1	2.12	0.50
22:DA:1264:A:H5'	48:D0:7:PRO:HG2	1.93	0.50
22:DA:1522:A:H1'	22:DA:1524:G:C4	2.46	0.50
22:DA:1973:G:H2'	22:DA:1974:C:C6	2.45	0.50
22:DA:2259:U:C5	22:DA:2427:C:C4	3.00	0.50
22:DA:2390:U:O2	22:DA:2390:U:H2'	2.12	0.50
22:DA:2432:A:H61	45:DX:20:ALA:HA	1.77	0.50
22:DA:2533:U:C4	22:DA:2534:A:C4	2.99	0.50
22:DA:2537:U:H2'	22:DA:2538:C:C6	2.45	0.50
22:DA:2746:U:H5"	28:DG:137:LYS:HG2	1.91	0.50
22:DA:2773:C:C2	22:DA:2774:C:C5	2.98	0.50
57:DB:42:C:N4	58:DF:87:LYS:HZ2	2.09	0.50
57:DB:109:A:C6	57:DB:110:C:C4	3.00	0.50
25:DD:101:PHE:HD2	25:DD:104:VAL:HG11	1.75	0.50
26:DE:147:LEU:HD13	26:DE:147:LEU:C	2.32	0.50
28:DG:167:VAL:CG2	28:DG:168:VAL:H	2.18	0.50
28:DG:168:VAL:HG12	28:DG:168:VAL:O	2.10	0.50
30:DI:29:GLN:O	30:DI:30:GLN:HB3	2.11	0.50
32:DK:9:ASN:O	32:DK:83:ALA:HA	2.10	0.50
33:DL:84:LYS:O	33:DL:85:VAL:HB	2.11	0.50
34:DM:69:PRO:CA	34:DM:94:ALA:HB2	2.41	0.50
41:DT:24:MET:HA	41:DT:24:MET:HE3	1.92	0.50
1:AA:154:U:H2'	1:AA:155:A:C8	2.47	0.50
1:AA:338:A:H2'	1:AA:339:C:O4'	2.11	0.50
1:AA:705:G:H2'	1:AA:706:A:H5'	1.94	0.50
1:AA:792:A:N3	1:AA:794:A:C6	2.79	0.50
1:AA:858:G:O2'	1:AA:859:G:H5'	2.11	0.50
1:AA:886:G:H2'	1:AA:887:G:O4'	2.12	0.50
1:AA:1060:U:H4'	10:AJ:53:ILE:HG23	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1183:U:H3'	1:AA:1184:G:C5'	2.40	0.50
1:AA:1253:G:O2'	1:AA:1254:A:H5'	2.10	0.50
1:AA:1343:G:O3'	9:AI:123:ARG:HB3	2.11	0.50
1:AA:1458:G:OP1	20:AT:29:THR:HG21	2.11	0.50
3:AC:55:VAL:O	3:AC:65:VAL:HA	2.12	0.50
5:AE:97:PRO:HA	5:AE:122:VAL:HG12	1.93	0.50
7:AG:28:ILE:HG13	7:AG:100:MET:HE3	1.92	0.50
9:AI:44:ARG:HG3	9:AI:45:MET:HE3	1.90	0.50
15:AO:74:VAL:O	15:AO:75:ALA:C	2.49	0.50
20:AT:43:LYS:HE2	20:AT:86:ALA:CB	2.40	0.50
22:BA:142:A:C5	22:BA:143:C:C4	2.99	0.50
22:BA:170:U:C2	22:BA:171:U:C6	2.99	0.50
22:BA:1071:G:H1'	22:BA:1089:A:C5	2.42	0.50
22:BA:1387:A:C4	22:BA:1401:G:N2	2.79	0.50
22:BA:1475:G:HO2'	22:BA:1476:U:P	2.35	0.50
22:BA:1717:A:H2'	22:BA:1718:G:O4'	2.11	0.50
22:BA:1737:G:N1	22:BA:1738:G:N2	2.59	0.50
25:BD:90:PHE:HB2	25:BD:92:VAL:HG23	1.93	0.50
25:BD:92:VAL:O	25:BD:93:GLY:C	2.49	0.50
25:BD:118:PHE:O	25:BD:119:ALA:HB3	2.12	0.50
26:BE:5:LEU:HD23	26:BE:121:VAL:HA	1.92	0.50
30:BI:6:ALA:HB3	30:BI:60:VAL:H	1.77	0.50
31:BJ:64:VAL:HG11	31:BJ:68:LYS:HB2	1.93	0.50
31:BJ:109:LEU:HB3	31:BJ:110:PRO:HD2	1.93	0.50
37:BP:62:LYS:HD3	37:BP:64:SER:HB2	1.94	0.50
44:BW:13:ARG:O	44:BW:14:ASP:C	2.50	0.50
44:BW:37:VAL:C	44:BW:38:ARG:CG	2.76	0.50
45:BX:42:GLU:OE2	45:BX:44:ARG:NH2	2.45	0.50
47:BZ:36:GLU:O	47:BZ:37:ARG:NE	2.43	0.50
53:CA:275:G:O2'	53:CA:276:G:C5'	2.60	0.50
53:CA:369:G:C4	53:CA:370:C:C5	2.99	0.50
53:CA:372:C:C4'	53:CA:373:A:OP2	2.59	0.50
53:CA:519:C:C2'	53:CA:520:A:C8	2.74	0.50
53:CA:562:U:H1'	12:CL:11:ARG:HD2	1.93	0.50
53:CA:596:A:C6	53:CA:645:G:C2	3.00	0.50
53:CA:770:C:C2'	53:CA:771:G:H5'	2.42	0.50
53:CA:1151:A:C2'	53:CA:1152:A:O5'	2.58	0.50
53:CA:1239:A:H62	53:CA:1299:A:H61	1.58	0.50
53:CA:1399:C:C4	53:CA:1502:A:C2	3.00	0.50
2:CB:212:TYR:O	2:CB:212:TYR:CD2	2.61	0.50
3:CC:49:ALA:O	3:CC:50:SER:HB2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:84:ASN:OD1	5:CE:101:GLY:CA	2.59	0.50
5:CE:37:VAL:HG12	5:CE:38:VAL:H	1.76	0.50
5:CE:82:HIS:CE1	8:CH:95:MET:CE	2.93	0.50
8:CH:102:VAL:HG22	8:CH:125:ILE:HB	1.93	0.50
11:CK:28:ASN:OD1	11:CK:46:ALA:HB3	2.12	0.50
12:CL:50:LYS:N	12:CL:50:LYS:CD	2.74	0.50
55:CM:18:LEU:H	55:CM:18:LEU:CD1	2.25	0.50
55:CM:53:ASP:HA	55:CM:56:ARG:CZ	2.42	0.50
17:CQ:59:GLU:HG2	17:CQ:76:ARG:CG	2.41	0.50
19:CS:50:VAL:CG1	19:CS:70:LEU:HB3	2.41	0.50
22:DA:128:C:O2'	22:DA:129:C:H6	1.93	0.50
22:DA:236:C:O2'	22:DA:237:C:H5'	2.11	0.50
22:DA:303:G:C6	22:DA:315:G:O6	2.64	0.50
22:DA:477:A:H2'	22:DA:478:A:C8	2.47	0.50
22:DA:976:G:O2'	22:DA:977:G:C5'	2.60	0.50
22:DA:1020:A:C2	22:DA:1141:U:C2	3.00	0.50
22:DA:1034:G:O6	22:DA:1122:G:C6	2.65	0.50
22:DA:1187:G:H8	22:DA:1187:G:O5'	1.94	0.50
22:DA:1286:A:C4	22:DA:1289:C:C4	2.99	0.50
22:DA:1308:A:C6	22:DA:1309:G:C2	3.00	0.50
22:DA:1385:A:O2'	22:DA:1386:C:C5'	2.59	0.50
22:DA:1747:U:C2	22:DA:1748:C:C5	3.00	0.50
22:DA:1817:G:H5"	24:DC:86:ARG:NH1	2.27	0.50
22:DA:1826:G:C5	22:DA:1827:U:C5	3.00	0.50
22:DA:2259:U:C6	22:DA:2427:C:C4	2.99	0.50
22:DA:2285:C:OP2	49:D1:5:ARG:HD3	2.12	0.50
22:DA:2542:A:H4'	22:DA:2543:G:H5'	1.90	0.50
22:DA:2550:G:C6	22:DA:2551:C:C4	3.00	0.50
22:DA:2616:C:O2'	22:DA:2617:U:C5'	2.59	0.50
57:DB:65:U:H3'	57:DB:108:A:H61	1.75	0.50
57:DB:84:G:N2	57:DB:93:C:C2	2.79	0.50
24:DC:42:ARG:HD2	24:DC:48:ILE:HG12	1.93	0.50
25:DD:36:GLN:NE2	25:DD:38:LYS:HZ1	2.10	0.50
25:DD:49:GLN:NE2	25:DD:79:LEU:HB3	2.27	0.50
25:DD:149:ASN:OD1	25:DD:150:GLN:N	2.45	0.50
32:DK:118:LEU:O	32:DK:120:PRO:CD	2.59	0.50
37:DP:72:VAL:O	37:DP:72:VAL:HG23	2.12	0.50
38:DQ:78:PHE:CE2	38:DQ:109:VAL:HG22	2.47	0.50
41:DT:74:ILE:HG13	41:DT:75:GLY:H	1.74	0.50
46:DY:28:LEU:HD11	46:DY:43:LEU:CD1	2.34	0.50
1:AA:15:G:C4'	5:AE:28:ARG:HH11	2.24	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:372:C:H5'	1:AA:373:A:OP1	2.11	0.50
1:AA:942:G:C2	1:AA:1342:C:C2	2.99	0.50
1:AA:1003:G:C6	1:AA:1036:A:N6	2.80	0.50
1:AA:1053:G:N7	1:AA:1199:U:C6	2.80	0.50
1:AA:1160:G:O2'	1:AA:1161:C:O5'	2.28	0.50
1:AA:1503:A:C8	1:AA:1531:A:H1'	2.47	0.50
4:AD:33:ILE:O	4:AD:33:ILE:HG23	2.11	0.50
8:AH:4:ASP:HB2	8:AH:80:PRO:HG3	1.92	0.50
14:AN:15:LEU:HA	14:AN:18:LYS:CD	2.41	0.50
17:AQ:74:LEU:C	17:AQ:74:LEU:HD13	2.32	0.50
22:BA:61:C:O5'	22:BA:61:C:H6	1.94	0.50
22:BA:324:A:N6	22:BA:339:U:O4'	2.42	0.50
22:BA:2670:A:C2'	22:BA:2671:G:O5'	2.60	0.50
22:BA:2714:G:H2'	22:BA:2715:C:C6	2.46	0.50
22:BA:2830:C:O2	22:BA:2883:A:H2	1.94	0.50
24:BC:84:PRO:HD2	24:BC:85:ASN:OD1	2.12	0.50
27:BF:133:GLU:N	27:BF:150:GLY:HA2	2.24	0.50
28:BG:88:LEU:N	28:BG:88:LEU:HD23	2.26	0.50
28:BG:174:LYS:HE2	28:BG:176:LYS:OXT	2.11	0.50
29:BH:117:LEU:CD1	29:BH:130:VAL:HG11	2.37	0.50
30:BI:56:VAL:HG23	30:BI:69:VAL:O	2.10	0.50
33:BL:37:GLY:HA3	62:BL:303:HOH:O	2.12	0.50
33:BL:81:ASP:O	33:BL:82:LEU:HB3	2.11	0.50
34:BM:33:LEU:HD21	34:BM:128:THR:HB	1.93	0.50
34:BM:36:VAL:HG23	43:BV:82:TYR:HB2	1.93	0.50
40:BS:33:LEU:HD21	40:BS:55:ILE:CD1	2.40	0.50
41:BT:50:LEU:HD22	46:BY:26:PHE:CE2	2.46	0.50
42:BU:35:VAL:CG1	42:BU:38:ILE:HG13	2.41	0.50
44:BW:72:GLY:C	44:BW:74:LYS:H	2.14	0.50
45:BX:30:PRO:O	45:BX:32:LEU:HD12	2.11	0.50
53:CA:115:G:H5'	53:CA:116:A:OP1	2.11	0.50
53:CA:245:U:O2'	53:CA:246:A:C5'	2.48	0.50
53:CA:320:A:C2	53:CA:334:C:N3	2.79	0.50
53:CA:428:G:C5	53:CA:430:A:C6	2.99	0.50
53:CA:1191:A:H8	53:CA:1191:A:OP2	1.93	0.50
53:CA:1297:G:C8	53:CA:1297:G:OP2	2.65	0.50
53:CA:1421:G:N2	53:CA:1479:C:N3	2.55	0.50
53:CA:1449:C:O2'	53:CA:1450:U:H5'	2.11	0.50
53:CA:1494:G:C2'	53:CA:1495:U:O5'	2.59	0.50
2:CB:93:HIS:CE1	2:CB:145:ASN:O	2.61	0.50
6:CF:61:LEU:CD1	6:CF:62:MET:H	2.16	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:102:VAL:O	8:CH:103:VAL:HG13	2.10	0.50
9:CI:44:ARG:NH1	9:CI:44:ARG:HB3	2.26	0.50
12:CL:97:VAL:O	12:CL:98:ARG:C	2.49	0.50
22:DA:49:A:C6	22:DA:177:G:C6	2.99	0.50
22:DA:192:C:O2'	22:DA:802:A:N3	2.43	0.50
22:DA:1056:G:OP2	22:DA:1056:G:H3'	2.11	0.50
22:DA:1081:U:O2'	22:DA:1082:U:H5'	2.11	0.50
22:DA:1087:G:C4	22:DA:1089:A:N3	2.80	0.50
22:DA:1142:A:N7	22:DA:1144:A:C5	2.79	0.50
22:DA:1441:G:C2	22:DA:1551:A:C2	3.00	0.50
22:DA:1667:G:O2'	22:DA:1668:A:P	2.70	0.50
22:DA:1709:U:O2'	22:DA:1710:G:H5'	2.12	0.50
22:DA:1912:A:N6	22:DA:1917:U:N3	2.51	0.50
22:DA:2061:G:C4	22:DA:2063:C:N4	2.80	0.50
22:DA:2283:C:C4	22:DA:2389:G:C4	2.99	0.50
22:DA:2604:U:H2'	22:DA:2605:U:H6	1.76	0.50
22:DA:2706:A:N6	62:DA:3669:HOH:O	2.43	0.50
22:DA:2881:U:O3'	35:DN:96:ARG:NE	2.44	0.50
57:DB:94:A:OP1	43:DV:19:ARG:CD	2.54	0.50
24:DC:44:ASN:C	24:DC:46:GLY:N	2.65	0.50
25:DD:62:LYS:N	25:DD:63:PRO:CD	2.74	0.50
26:DE:136:GLN:HA	26:DE:136:GLN:OE1	2.11	0.50
28:DG:83:THR:O	28:DG:140:ILE:HD12	2.11	0.50
28:DG:85:LYS:HG3	28:DG:163:TYR:HB2	1.94	0.50
29:DH:75:LEU:O	29:DH:76:GLU:HB2	2.10	0.50
30:DI:118:GLY:O	30:DI:119:ALA:HB3	2.11	0.50
35:DN:9:GLN:O	35:DN:17:ARG:NE	2.45	0.50
35:DN:103:ARG:HB2	35:DN:110:MET:SD	2.52	0.50
36:DO:63:LYS:C	36:DO:63:LYS:HD3	2.32	0.50
37:DP:19:PHE:O	37:DP:20:ARG:HB3	2.11	0.50
38:DQ:73:ILE:HD11	38:DQ:77:LYS:HD3	1.93	0.50
42:DU:81:ARG:N	42:DU:81:ARG:CD	2.72	0.50
46:DY:17:GLU:HG2	46:DY:50:VAL:HG13	1.93	0.50
1:AA:198:G:O6	1:AA:220:G:C6	2.64	0.50
1:AA:316:C:C2	1:AA:317:U:H5	2.29	0.50
1:AA:388:G:O2'	1:AA:389:A:P	2.69	0.50
1:AA:1006:G:H2'	1:AA:1007:U:O4'	2.12	0.50
1:AA:1055:A:C5	1:AA:1206:G:C2	3.00	0.50
1:AA:1267:C:H2'	1:AA:1268:G:H5'	1.94	0.50
2:AB:9:LEU:CD2	2:AB:11:ALA:N	2.72	0.50
2:AB:49:PHE:C	2:AB:49:PHE:CD1	2.85	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:9:LYS:O	4:AD:12:ARG:HB2	2.11	0.50
4:AD:129:VAL:HG13	4:AD:131:ILE:HD13	1.88	0.50
10:AJ:15:HIS:HB3	10:AJ:70:HIS:CE1	2.47	0.50
13:AM:80:MET:SD	13:AM:91:ARG:HB2	2.52	0.50
19:AS:39:ILE:HD11	19:AS:70:LEU:CD2	2.37	0.50
20:AT:72:ALA:O	20:AT:73:ARG:C	2.50	0.50
22:BA:172:A:O2'	22:BA:173:A:H5'	2.11	0.50
22:BA:545:U:O2	22:BA:545:U:O4'	2.27	0.50
22:BA:923:G:C5'	44:BW:25:PHE:CZ	2.93	0.50
22:BA:955:U:OP1	34:BM:86:LYS:NZ	2.36	0.50
22:BA:1151:A:H5"	22:BA:1151:A:C8	2.46	0.50
22:BA:1165:A:H2'	22:BA:1166:G:C8	2.45	0.50
22:BA:1660:G:O2'	22:BA:1661:G:H5'	2.11	0.50
22:BA:1667:G:O2'	22:BA:1991:U:O4	2.24	0.50
22:BA:1882:U:C2'	22:BA:1883:U:H5'	2.42	0.50
22:BA:2508:G:O2'	22:BA:2555:U:H5'	2.11	0.50
24:BC:61:TYR:HD2	24:BC:85:ASN:ND2	2.09	0.50
25:BD:34:VAL:HG22	25:BD:94:GLN:N	2.26	0.50
26:BE:158:PHE:CD1	26:BE:159:LEU:HD12	2.46	0.50
29:BH:18:GLN:HA	29:BH:18:GLN:NE2	2.13	0.50
36:BO:3:LYS:CG	36:BO:4:LYS:N	2.75	0.50
43:BV:26:PHE:CZ	43:BV:42:LEU:HD12	2.47	0.50
45:BX:18:SER:H	45:BX:22:ASN:H	1.59	0.50
46:BY:12:GLU:O	46:BY:15:ASN:HB2	2.12	0.50
46:BY:26:PHE:HD1	46:BY:27:ASN:HD22	1.59	0.50
53:CA:85:U:O4'	53:CA:85:U:O2	2.26	0.50
53:CA:160:A:H1'	53:CA:344:A:N7	2.26	0.50
53:CA:273:U:H2'	53:CA:274:A:H5'	1.92	0.50
53:CA:304:U:H2'	53:CA:305:G:C8	2.46	0.50
53:CA:499:A:H1'	53:CA:500:G:C8	2.47	0.50
53:CA:733:G:O2'	53:CA:734:G:H5"	2.12	0.50
53:CA:826:C:H2'	53:CA:826:C:O2	2.11	0.50
53:CA:1013:G:N2	53:CA:1015:G:H3'	2.27	0.50
53:CA:1195:C:H2'	53:CA:1197:A:O4'	2.12	0.50
53:CA:1281:C:H3'	53:CA:1282:C:C5'	2.41	0.50
53:CA:1343:G:H2'	53:CA:1344:C:C6	2.46	0.50
53:CA:1363:A:C5	53:CA:1365:G:O6	2.64	0.50
2:CB:66:ILE:H	2:CB:88:GLN:HB3	1.74	0.50
4:CD:29:THR:HG22	4:CD:30:LYS:HD2	1.90	0.50
6:CF:41:ASP:O	6:CF:42:TRP:C	2.49	0.50
10:CJ:8:ILE:HG22	10:CJ:100:ILE:HG12	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:43:LYS:CB	12:CL:44:PRO:CD	2.51	0.50
12:CL:46:SER:O	12:CL:47:ALA:CB	2.58	0.50
55:CM:100:ARG:NH2	55:CM:102:LYS:HD3	2.26	0.50
14:CN:89:ARG:HG3	14:CN:91:GLU:HG3	1.93	0.50
15:CO:44:GLU:HG2	15:CO:45:HIS:CD2	2.47	0.50
15:CO:59:VAL:O	15:CO:62:ARG:HB3	2.11	0.50
17:CQ:61:ARG:C	17:CQ:72:TRP:CE3	2.85	0.50
22:DA:9:G:C6	22:DA:2629:U:C6	3.00	0.50
22:DA:60:G:O2'	22:DA:61:C:OP1	2.27	0.50
22:DA:91:A:HO2'	22:DA:92:U:H6	1.57	0.50
22:DA:98:G:O2'	22:DA:103:A:C8	2.65	0.50
22:DA:518:G:H2'	22:DA:519:U:C6	2.45	0.50
22:DA:616:A:O2'	22:DA:617:G:C5'	2.58	0.50
22:DA:622:G:O2'	22:DA:623:C:C5'	2.58	0.50
22:DA:636:G:O6	33:DL:109:LYS:HG3	2.12	0.50
22:DA:781:A:N1	22:DA:1776:G:O2'	2.42	0.50
22:DA:833:A:H2'	22:DA:834:G:H8	1.76	0.50
22:DA:922:C:H2'	22:DA:923:G:O4'	2.12	0.50
22:DA:1439:A:C8	22:DA:1439:A:C3'	2.94	0.50
22:DA:1744:A:H3'	22:DA:1745:A:C8	2.46	0.50
22:DA:2262:U:H5"	44:DW:38:ARG:HH21	1.76	0.50
22:DA:2345:G:C8	22:DA:2347:C:C5	2.99	0.50
22:DA:2450:A:C2	22:DA:2451:A:C8	2.99	0.50
22:DA:2492:U:HO2'	22:DA:2493:U:H6	1.60	0.50
22:DA:2574:G:H1'	25:DD:148:GLN:HB2	1.93	0.50
22:DA:2748:A:C2	22:DA:2749:A:C4	3.00	0.50
22:DA:2849:U:O4	22:DA:2867:G:C8	2.65	0.50
57:DB:13:G:H8	57:DB:13:G:H5"	1.76	0.50
25:DD:45:TYR:HE2	25:DD:47:ALA:HB3	1.77	0.50
25:DD:166:GLY:O	25:DD:167:ASN:CB	2.59	0.50
25:DD:196:ALA:O	25:DD:197:THR:C	2.50	0.50
28:DG:116:LEU:CD1	28:DG:121:THR:HA	2.41	0.50
35:DN:9:GLN:C	35:DN:10:LEU:O	2.48	0.50
35:DN:80:PHE:O	35:DN:85:PRO:HD3	2.12	0.50
37:DP:50:ARG:CA	37:DP:57:ALA:O	2.58	0.50
38:DQ:40:LYS:HD3	38:DQ:44:TYR:HE2	1.75	0.50
40:DS:6:LYS:HB3	40:DS:6:LYS:HZ3	1.76	0.50
42:DU:58:VAL:HG11	42:DU:60:LYS:HG2	1.91	0.50
49:D1:5:ARG:NH2	49:D1:23:THR:HB	2.26	0.50
51:D3:18:LYS:CD	51:D3:19:GLY:N	2.72	0.50
1:AA:87:C:H2'	1:AA:88:U:C6	2.33	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:105:G:H2'	1:AA:106:C:C6	2.46	0.50
1:AA:191:G:H2'	1:AA:192:A:C8	2.47	0.50
1:AA:238:A:C2'	1:AA:239:U:H5'	2.42	0.50
1:AA:251:G:C4'	1:AA:252:U:H5"	2.41	0.50
1:AA:251:G:N1	1:AA:266:G:O6	2.45	0.50
1:AA:429:U:H1'	1:AA:430:A:C5'	2.40	0.50
1:AA:538:G:OP2	12:AL:111:GLN:HB2	2.12	0.50
1:AA:628:G:H2'	1:AA:629:A:C8	2.47	0.50
1:AA:702:A:C4	22:BA:1847:A:C2	2.97	0.50
1:AA:821:G:O2'	1:AA:822:U:C5'	2.60	0.50
1:AA:1167:A:N7	1:AA:1169:A:C6	2.80	0.50
1:AA:1253:G:H2'	1:AA:1254:A:H8	1.75	0.50
6:AF:3:HIS:O	6:AF:4:TYR:CG	2.64	0.50
10:AJ:81:GLU:O	10:AJ:84:VAL:HG12	2.11	0.50
15:AO:20:ASP:OD1	15:AO:23:SER:HB2	2.11	0.50
18:AR:22:TYR:HA	18:AR:57:ALA:HB1	1.94	0.50
22:BA:450:G:OP2	62:BA:3238:HOH:O	2.19	0.50
22:BA:703:U:C2'	22:BA:704:G:H5'	2.42	0.50
22:BA:709:U:H2'	22:BA:710:U:O4'	2.11	0.50
22:BA:986:C:C2'	22:BA:987:C:H5'	2.42	0.50
22:BA:1097:U:O2'	30:BI:8:VAL:HG12	2.12	0.50
22:BA:1319:C:C2'	22:BA:1320:C:H5'	2.41	0.50
22:BA:1413:A:C6	22:BA:1414:C:N3	2.79	0.50
22:BA:1935:G:N1	22:BA:1962:C:H2'	2.27	0.50
22:BA:2232:C:H2'	22:BA:2233:U:O5'	2.11	0.50
22:BA:2447:G:C8	22:BA:2501:C:H5"	2.47	0.50
22:BA:2515:C:C2'	22:BA:2516:A:H5'	2.41	0.50
22:BA:2786:U:H2'	22:BA:2787:C:H6	1.77	0.50
23:BB:19:C:C2'	23:BB:20:G:H5'	2.41	0.50
29:BH:68:ARG:NH2	29:BH:69:ALA:HA	2.27	0.50
35:BN:33:ILE:N	35:BN:33:ILE:CD1	2.69	0.50
35:BN:116:VAL:O	35:BN:116:VAL:CG2	2.59	0.50
37:BP:103:THR:O	37:BP:104:GLY:O	2.30	0.50
40:BS:45:VAL:CG2	40:BS:46:LEU:N	2.74	0.50
44:BW:30:VAL:HG23	44:BW:60:ALA:O	2.12	0.50
44:BW:40:ARG:HH11	44:BW:45:HIS:CE1	2.30	0.50
46:BY:8:GLU:O	46:BY:12:GLU:HB2	2.12	0.50
53:CA:116:A:H2'	53:CA:117:G:H8	1.74	0.50
53:CA:346:G:O2'	53:CA:347:G:O4'	2.29	0.50
53:CA:675:A:H1'	11:CK:117:HIS:CE1	2.47	0.50
53:CA:1279:G:H2'	53:CA:1279:G:N3	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1349:A:O2'	53:CA:1350:A:H5'	2.10	0.50
53:CA:1359:C:H4'	62:CA:1777:HOH:O	2.10	0.50
6:CF:2:ARG:CG	6:CF:4:TYR:CZ	2.95	0.50
6:CF:61:LEU:CD1	6:CF:62:MET:N	2.75	0.50
10:CJ:7:ARG:HH11	10:CJ:102:LEU:HG	1.74	0.50
11:CK:125:LYS:O	11:CK:126:ARG:O	2.28	0.50
19:CS:79:TYR:CE1	19:CS:80:ARG:HD2	2.47	0.50
20:CT:26:MET:HE1	20:CT:56:ILE:HD13	1.93	0.50
22:DA:7:G:H2'	22:DA:8:C:O4'	2.12	0.50
22:DA:27:G:O2'	22:DA:28:A:H8	1.93	0.50
22:DA:233:A:H61	22:DA:428:A:N6	2.10	0.50
22:DA:279:A:H61	22:DA:361:G:C1'	2.18	0.50
22:DA:426:C:H2'	22:DA:427:U:C5'	2.41	0.50
22:DA:489:G:C6	22:DA:491:G:C4	3.00	0.50
22:DA:581:C:P	38:DQ:32:ARG:HE	2.34	0.50
22:DA:627:A:N6	33:DL:112:LEU:HD23	2.27	0.50
22:DA:1079:C:O2'	22:DA:1080:A:C8	2.57	0.50
22:DA:1206:G:H2'	22:DA:1207:C:C5	2.47	0.50
22:DA:1381:G:C2'	22:DA:1382:G:H5"	2.42	0.50
22:DA:1388:G:N3	22:DA:1389:G:C8	2.79	0.50
22:DA:1650:A:H5'	35:DN:106:ASP:OD2	2.11	0.50
22:DA:1670:C:C5	22:DA:1671:U:C5	2.99	0.50
22:DA:2024:G:O2'	22:DA:2025:C:C5'	2.60	0.50
22:DA:2077:A:C5	22:DA:2078:C:C5	2.99	0.50
22:DA:2136:G:O2'	22:DA:2137:U:H6	1.91	0.50
22:DA:2234:G:C4	22:DA:2235:G:C8	3.00	0.50
22:DA:2253:G:C5	22:DA:2254:C:C5	2.99	0.50
22:DA:2344:U:O2'	22:DA:2345:G:H5"	2.11	0.50
22:DA:2386:A:H2	44:DW:38:ARG:HG2	1.75	0.50
22:DA:2544:G:H2'	22:DA:2545:G:H8	1.76	0.50
22:DA:2601:C:H4'	22:DA:2602:A:OP2	2.07	0.50
22:DA:2622:U:O2'	22:DA:2825:G:N7	2.42	0.50
22:DA:2657:A:O2'	22:DA:2658:C:H5'	2.11	0.50
22:DA:2712:C:H5"	22:DA:2713:U:OP2	2.11	0.50
25:DD:55:LYS:HB3	25:DD:75:ALA:HB1	1.92	0.50
26:DE:147:LEU:HG	26:DE:186:VAL:HG23	1.94	0.50
28:DG:28:LYS:HG3	28:DG:79:THR:HG22	1.94	0.50
29:DH:80:ILE:CB	29:DH:101:ASP:HB2	2.38	0.50
33:DL:121:THR:OG1	33:DL:141:LYS:HE3	2.11	0.50
35:DN:21:PHE:HE2	35:DN:43:GLU:HB3	1.77	0.50
35:DN:98:LEU:O	35:DN:112:TYR:HB2	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DT:17:SER:C	41:DT:18:GLU:HG2	2.31	0.50
42:DU:14:THR:HB	42:DU:68:ASN:CB	2.32	0.50
45:DX:48:LEU:O	45:DX:50:VAL:HG13	2.11	0.50
51:D3:57:VAL:HA	51:D3:60:CYS:HB2	1.94	0.50
1:AA:10:A:OP2	5:AE:130:THR:OG1	2.24	0.50
1:AA:15:G:H4'	5:AE:28:ARG:HH11	1.76	0.50
1:AA:96:U:O2'	1:AA:97:G:H8	1.95	0.50
1:AA:154:U:H2'	1:AA:155:A:H8	1.77	0.50
1:AA:270:A:H2'	1:AA:271:C:C6	2.46	0.50
1:AA:363:A:C2	1:AA:364:A:C4	2.99	0.50
1:AA:374:A:H2'	1:AA:375:U:C6	2.47	0.50
1:AA:695:A:C6	1:AA:696:A:C6	3.00	0.50
1:AA:1014:A:H4'	19:AS:13:HIS:CD2	2.47	0.50
1:AA:1086:U:O2'	1:AA:1087:G:H5'	2.12	0.50
1:AA:1151:A:H5'	10:AJ:42:LEU:O	2.10	0.50
1:AA:1430:A:C2	1:AA:1471:U:C2	2.99	0.50
2:AB:9:LEU:HD23	2:AB:9:LEU:C	2.32	0.50
3:AC:183:TYR:OH	3:AC:198:LYS:HD2	2.12	0.50
4:AD:21:LYS:O	4:AD:21:LYS:CD	2.56	0.50
5:AE:23:THR:HA	5:AE:28:ARG:HA	1.93	0.50
8:AH:58:LEU:HD13	8:AH:58:LEU:C	2.32	0.50
13:AM:3:ILE:H	13:AM:56:ARG:NH1	2.09	0.50
15:AO:24:THR:HG21	15:AO:69:LEU:HD12	1.94	0.50
20:AT:73:ARG:O	20:AT:76:ALA:HB3	2.12	0.50
22:BA:27:G:H1'	22:BA:513:A:N6	2.27	0.50
22:BA:346:A:C4	22:BA:347:A:C8	3.00	0.50
22:BA:548:G:H3'	22:BA:548:G:H8	1.76	0.50
22:BA:736:C:C2	22:BA:737:C:C5	2.99	0.50
22:BA:819:A:OP2	22:BA:1187:G:N2	2.32	0.50
22:BA:1085:A:H2'	22:BA:1086:A:C2	2.46	0.50
22:BA:1176:U:H2'	22:BA:1177:G:C4	2.46	0.50
22:BA:1206:G:C5	22:BA:1207:C:C5	2.99	0.50
22:BA:1338:G:O2'	41:BT:18:GLU:HG2	2.11	0.50
22:BA:1419:A:N7	22:BA:1421:G:C6	2.80	0.50
22:BA:1509:A:O2'	22:BA:1510:G:P	2.70	0.50
22:BA:2040:G:O2'	22:BA:2041:U:H5'	2.12	0.50
22:BA:2210:U:O2	22:BA:2212:A:C8	2.65	0.50
22:BA:2236:U:C2'	22:BA:2237:G:H5'	2.42	0.50
22:BA:2262:U:H2'	22:BA:2263:C:H6	1.76	0.50
22:BA:2282:G:H4'	22:BA:2389:G:O2'	2.11	0.50
22:BA:2539:C:O2'	22:BA:2540:C:H5'	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2547:A:H2'	22:BA:2548:U:C5	2.47	0.50
23:BB:24:G:C6	23:BB:56:G:C2	3.00	0.50
23:BB:28:C:H2'	23:BB:29:A:C5'	2.42	0.50
24:BC:140:VAL:HA	24:BC:190:THR:O	2.11	0.50
25:BD:15:PHE:N	37:BP:11:GLN:HE22	2.09	0.50
28:BG:154:GLU:OE2	28:BG:156:TYR:HB2	2.11	0.50
30:BI:58:ILE:HG22	30:BI:60:VAL:HG23	1.92	0.50
35:BN:6:SER:HB3	62:BN:202:HOH:O	2.11	0.50
38:BQ:20:ALA:HA	38:BQ:23:TYR:CE1	2.47	0.50
41:BT:17:SER:O	41:BT:18:GLU:CB	2.59	0.50
43:BV:5:ASN:HB3	43:BV:64:VAL:HB	1.94	0.50
52:B4:7:VAL:HG13	52:B4:38:GLY:HA2	1.94	0.50
53:CA:276:G:O2'	53:CA:277:C:C5'	2.60	0.50
53:CA:408:A:C2	53:CA:435:A:C2	3.00	0.50
53:CA:452:A:H2'	53:CA:453:G:O4'	2.11	0.50
53:CA:555:U:H2'	53:CA:556:C:C6	2.46	0.50
53:CA:616:G:C2	53:CA:625:U:O2	2.65	0.50
53:CA:974:A:O2'	53:CA:975:A:OP2	2.30	0.50
53:CA:1288:A:O2'	53:CA:1289:A:H8	1.93	0.50
2:CB:8:MET:HB2	2:CB:9:LEU:HD23	1.94	0.50
3:CC:161:ILE:H	3:CC:161:ILE:CD1	2.24	0.50
4:CD:94:GLU:OE1	4:CD:103:ARG:NE	2.40	0.50
5:CE:17:VAL:HA	5:CE:33:THR:O	2.12	0.50
8:CH:5:PRO:O	8:CH:8:ASP:HB3	2.11	0.50
8:CH:38:VAL:O	8:CH:41:GLU:HB2	2.11	0.50
55:CM:94:LEU:HD12	55:CM:94:LEU:N	2.26	0.50
55:CM:95:PRO:HG3	55:CM:99:GLN:OE1	2.11	0.50
17:CQ:30:HIS:HE1	17:CQ:32:ILE:CG1	2.05	0.50
21:CU:3:ILE:HG21	21:CU:18:PHE:HB3	1.94	0.50
21:CU:14:ALA:O	21:CU:15:LEU:O	2.30	0.50
22:DA:28:A:N6	22:DA:513:A:C8	2.79	0.50
22:DA:246:C:O2'	22:DA:385:C:H4'	2.11	0.50
22:DA:271:G:O2'	22:DA:272:A:H5"	2.11	0.50
22:DA:566:U:H2'	22:DA:567:U:O4'	2.12	0.50
22:DA:858:G:C5	22:DA:2268:A:C2	3.00	0.50
22:DA:1275:A:O3'	22:DA:1276:A:O4'	2.30	0.50
22:DA:1317:G:C2	22:DA:1336:A:C2	3.00	0.50
22:DA:1817:G:H5"	24:DC:86:ARG:CZ	2.42	0.50
22:DA:1954:G:O2'	22:DA:1955:U:OP2	2.30	0.50
22:DA:2238:G:H5'	22:DA:2239:G:OP1	2.11	0.50
22:DA:2352:A:H8	22:DA:2352:A:O5'	1.95	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2533:U:O4	22:DA:2534:A:C2	2.64	0.50
22:DA:2563:U:H2'	22:DA:2565:A:OP2	2.11	0.50
22:DA:2581:G:H5"	22:DA:2582:G:OP1	2.12	0.50
22:DA:2716:C:C2	22:DA:2717:C:C5	2.99	0.50
22:DA:2868:A:O2'	22:DA:2869:G:O4'	2.29	0.50
57:DB:17:C:H2'	57:DB:18:G:H8	1.77	0.50
57:DB:69:G:H2'	57:DB:70:C:H5'	1.93	0.50
24:DC:62:ARG:CG	24:DC:62:ARG:NH2	2.65	0.50
26:DE:35:TYR:CE2	26:DE:177:PRO:HD2	2.47	0.50
58:DF:14:LYS:HB3	58:DF:14:LYS:NZ	2.27	0.50
28:DG:8:VAL:HA	28:DG:68:ARG:HH21	1.77	0.50
29:DH:40:THR:O	29:DH:41:LYS:HB2	2.12	0.50
37:DP:51:ASN:H	37:DP:56:SER:HB3	1.75	0.50
40:DS:74:ILE:O	40:DS:74:ILE:HG23	2.12	0.50
43:DV:30:ILE:HG13	43:DV:40:ILE:HD11	1.94	0.50
48:D0:16:ARG:O	48:D0:17:SER:C	2.50	0.50
50:D2:15:SER:O	50:D2:16:HIS:ND1	2.45	0.50
52:D4:7:VAL:CG2	52:D4:25:VAL:CG2	2.90	0.50
1:AA:652:U:O2'	1:AA:653:U:O5'	2.30	0.50
1:AA:901:A:N7	1:AA:902:G:H1'	2.26	0.50
1:AA:908:A:O2'	1:AA:909:A:H5'	2.12	0.50
1:AA:937:A:H2'	1:AA:938:A:H5'	1.93	0.50
1:AA:973:G:H5'	10:AJ:57:VAL:HA	1.92	0.50
1:AA:1123:U:C4'	10:AJ:39:PRO:HD2	2.35	0.50
2:AB:9:LEU:HD21	2:AB:11:ALA:HB3	1.94	0.50
3:AC:15:LYS:HG3	3:AC:16:PRO:HD2	1.94	0.50
3:AC:119:ILE:HA	3:AC:122:GLN:HG3	1.93	0.50
4:AD:19:PHE:N	4:AD:19:PHE:HD1	2.09	0.50
5:AE:44:ARG:HA	5:AE:71:ILE:O	2.12	0.50
8:AH:95:MET:SD	8:AH:129:ALA:HB1	2.51	0.50
11:AK:109:ILE:CG2	11:AK:110:THR:N	2.75	0.50
12:AL:82:ARG:HG2	12:AL:82:ARG:NH1	2.27	0.50
17:AQ:74:LEU:C	17:AQ:74:LEU:CD1	2.80	0.50
19:AS:6:LYS:HE2	19:AS:6:LYS:CA	2.39	0.50
22:BA:569:U:H1'	22:BA:947:A:O4'	2.11	0.50
22:BA:687:C:O2'	22:BA:1780:A:N1	2.44	0.50
22:BA:715:A:N6	22:BA:716:A:C6	2.80	0.50
22:BA:833:A:H2'	22:BA:834:G:C8	2.47	0.50
22:BA:915:C:H6	22:BA:915:C:C5'	2.17	0.50
22:BA:1159:U:H2'	22:BA:1160:G:H5'	1.92	0.50
22:BA:1419:A:C5	22:BA:1421:G:C5	2.99	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1644:C:H2'	22:BA:1645:G:C5'	2.40	0.50
22:BA:1669:A:OP2	62:BA:3714:HOH:O	2.19	0.50
22:BA:2314:A:O2'	22:BA:2315:G:H5'	2.12	0.50
22:BA:2344:U:H4'	22:BA:2345:G:OP1	2.07	0.50
23:BB:65:U:C4	23:BB:108:A:C4	2.99	0.50
24:BC:7:PRO:HB3	24:BC:13:ARG:HB2	1.93	0.50
24:BC:151:GLY:C	24:BC:152:GLN:HG3	2.32	0.50
24:BC:163:ILE:HG23	24:BC:171:VAL:CG1	2.42	0.50
25:BD:136:ASN:OD1	25:BD:140:HIS:CE1	2.65	0.50
26:BE:48:THR:HG22	26:BE:86:ALA:HB3	1.94	0.50
27:BF:10:GLU:O	27:BF:11:VAL:HB	2.11	0.50
28:BG:59:ASP:O	28:BG:60:GLY:C	2.49	0.50
30:BI:72:THR:HB	30:BI:112:LYS:NZ	2.26	0.50
32:BK:111:LYS:CE	32:BK:111:LYS:N	2.74	0.50
33:BL:40:SER:O	33:BL:41:ARG:CB	2.57	0.50
33:BL:120:VAL:O	33:BL:140:GLY:HA2	2.11	0.50
38:BQ:63:ARG:NH2	38:BQ:96:ASP:HA	2.27	0.50
41:BT:7:LEU:O	41:BT:10:VAL:HG13	2.10	0.50
41:BT:40:LYS:HG2	41:BT:58:VAL:O	2.12	0.50
45:BX:70:LEU:O	45:BX:74:GLY:N	2.45	0.50
53:CA:248:C:O2'	53:CA:249:U:O4'	2.29	0.50
53:CA:596:A:O2'	53:CA:597:G:H5'	2.12	0.50
53:CA:1176:A:H2'	53:CA:1177:G:O4'	2.12	0.50
53:CA:1328:C:H2'	53:CA:1329:A:H8	1.77	0.50
2:CB:9:LEU:HB2	2:CB:11:ALA:H	1.77	0.50
5:CE:103:GLY:CA	5:CE:120:HIS:O	2.59	0.50
54:CG:59:GLU:HB2	54:CG:62:GLU:HB2	1.94	0.50
54:CG:114:SER:O	54:CG:118:ARG:HG3	2.12	0.50
10:CJ:30:LYS:CE	10:CJ:36:VAL:HG22	2.42	0.50
10:CJ:64:GLN:CB	14:CN:98:ALA:CB	2.84	0.50
10:CJ:92:LEU:HD22	10:CJ:93:ALA:N	2.27	0.50
11:CK:115:ILE:HD12	21:CU:23:GLU:HG2	1.93	0.50
14:CN:40:ARG:HH12	19:CS:6:LYS:HB2	1.74	0.50
17:CQ:13:SER:CB	17:CQ:21:VAL:HB	2.41	0.50
22:DA:452:G:OP1	26:DE:53:THR:CG2	2.59	0.50
22:DA:502:A:N6	22:DA:505:A:C6	2.79	0.50
22:DA:974:G:H1'	22:DA:975:A:H8	1.77	0.50
22:DA:1536:C:OP2	22:DA:1536:C:C2	2.65	0.50
22:DA:1603:A:C2	22:DA:1604:C:C2	2.99	0.50
22:DA:1760:C:HO2'	22:DA:1761:C:H5'	1.76	0.50
22:DA:1760:C:C2'	22:DA:1761:C:H6	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1802:A:N6	22:DA:1817:G:N2	2.60	0.50
22:DA:1895:C:C6	22:DA:1895:C:H3'	2.47	0.50
22:DA:1962:C:C4'	22:DA:1963:U:OP1	2.58	0.50
22:DA:2085:U:C2'	22:DA:2086:U:H5'	2.42	0.50
22:DA:2286:G:N7	49:D1:33:LEU:HD23	2.26	0.50
22:DA:2331:G:H1	22:DA:2385:C:N4	2.09	0.50
22:DA:2345:G:C5	22:DA:2381:A:C2	2.99	0.50
22:DA:2638:G:H2'	22:DA:2775:G:H22	1.76	0.50
22:DA:2751:G:H4'	28:DG:3:VAL:HG11	1.94	0.50
22:DA:2899:A:C2	22:DA:2900:A:C5	3.00	0.50
57:DB:8:C:O2'	36:DO:40:ILE:HD13	2.12	0.50
24:DC:173:LEU:HD22	24:DC:173:LEU:N	2.23	0.50
25:DD:98:VAL:HG23	25:DD:180:VAL:CG1	2.42	0.50
26:DE:6:LYS:HG2	26:DE:7:ASP:CG	2.31	0.50
28:DG:84:LYS:HB3	28:DG:132:LEU:O	2.12	0.50
40:DS:8:ARG:HB3	40:DS:102:HIS:CE1	2.46	0.50
44:DW:18:LYS:HZ2	44:DW:18:LYS:HA	1.77	0.50
44:DW:65:LYS:O	44:DW:81:ILE:HA	2.12	0.50
49:D1:51:ALA:O	49:D1:52:LYS:CB	2.56	0.50
1:AA:22:G:C1'	1:AA:914:A:N6	2.75	0.50
1:AA:57:G:H2'	1:AA:58:C:O4'	2.12	0.50
1:AA:335:C:H2'	1:AA:336:A:C8	2.47	0.50
1:AA:772:U:O2'	1:AA:773:G:H5'	2.12	0.50
1:AA:1152:A:O2'	1:AA:1153:G:C5'	2.60	0.50
1:AA:1250:A:H2	1:AA:1370:G:H1'	1.77	0.50
1:AA:1416:G:H2'	1:AA:1417:G:H5'	1.94	0.50
1:AA:1520:C:H2'	1:AA:1521:C:C6	2.43	0.50
2:AB:102:ASN:O	2:AB:106:VAL:HG23	2.12	0.50
4:AD:18:LEU:C	4:AD:19:PHE:HD1	2.15	0.50
4:AD:89:LEU:HD21	4:AD:199:ILE:HD13	1.93	0.50
4:AD:94:GLU:HG2	4:AD:185:PRO:HG3	1.92	0.50
4:AD:114:ARG:O	4:AD:115:GLN:C	2.50	0.50
11:AK:81:LEU:HD22	11:AK:104:PHE:CD1	2.46	0.50
14:AN:22:LYS:CG	14:AN:23:ARG:N	2.59	0.50
15:AO:81:ILE:O	15:AO:85:GLY:N	2.44	0.50
16:AP:67:ILE:CG2	16:AP:72:ALA:HB2	2.41	0.50
18:AR:31:TYR:C	18:AR:39:VAL:HG23	2.32	0.50
22:BA:178:G:H8	22:BA:178:G:O5'	1.94	0.50
22:BA:279:A:H2'	22:BA:280:U:O4'	2.11	0.50
22:BA:483:A:C8	22:BA:484:C:C5	3.00	0.50
22:BA:685:A:C8	22:BA:773:U:C4	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2065:C:H2'	22:BA:2066:C:C6	2.46	0.50
22:BA:2362:C:C2'	22:BA:2363:G:H5'	2.42	0.50
22:BA:2602:A:H5"	22:BA:2603:G:C5'	2.42	0.50
22:BA:2823:A:C4	22:BA:2824:C:C5	3.00	0.50
26:BE:113:VAL:CG1	26:BE:114:ARG:N	2.75	0.50
27:BF:39:VAL:HG11	27:BF:49:LEU:HD13	1.92	0.50
29:BH:49:ALA:O	29:BH:52:ALA:N	2.34	0.50
30:BI:21:PRO:HB2	30:BI:22:PRO:HD3	1.94	0.50
35:BN:2:ARG:O	35:BN:3:HIS:C	2.50	0.50
38:BQ:85:ALA:O	38:BQ:87:VAL:C	2.50	0.50
43:BV:5:ASN:ND2	43:BV:5:ASN:H	2.08	0.50
53:CA:181:A:H4'	53:CA:182:A:OP1	2.12	0.50
53:CA:428:G:C1'	53:CA:430:A:C8	2.94	0.50
53:CA:481:G:C4'	53:CA:482:A:OP1	2.51	0.50
53:CA:719:C:H3'	53:CA:720:C:C5	2.47	0.50
53:CA:755:G:C2	53:CA:756:C:C5	3.00	0.50
53:CA:861:G:H2'	53:CA:862:C:H6	1.77	0.50
53:CA:914:A:C2	53:CA:915:A:C4	3.00	0.50
53:CA:1207:G:H2'	53:CA:1208:C:H6	1.75	0.50
53:CA:1316:G:N2	53:CA:1318:A:C8	2.80	0.50
53:CA:1365:G:N2	53:CA:1366:C:C2	2.79	0.50
3:CC:149:LYS:CE	3:CC:200:TRP:CE3	2.94	0.50
4:CD:176:LYS:O	4:CD:176:LYS:HD2	2.12	0.50
54:CG:64:ALA:HB2	54:CG:126:ALA:CB	2.36	0.50
10:CJ:44:THR:HG23	10:CJ:70:HIS:CG	2.46	0.50
11:CK:14:GLN:HA	11:CK:76:TYR:O	2.12	0.50
17:CQ:26:ARG:NH2	17:CQ:39:ARG:HG2	2.27	0.50
22:DA:3:U:H2'	22:DA:4:U:H6	1.77	0.50
22:DA:27:G:H1'	22:DA:513:A:H61	1.74	0.50
22:DA:35:G:C2'	22:DA:36:G:O5'	2.60	0.50
22:DA:46:G:C2	22:DA:47:C:C6	2.99	0.50
22:DA:75:G:O2'	22:DA:76:C:H6	1.94	0.50
22:DA:223:A:C5	22:DA:422:A:C8	3.00	0.50
22:DA:465:G:C4'	50:D2:16:HIS:HD2	2.24	0.50
22:DA:615:U:N3	26:DE:35:TYR:CE1	2.79	0.50
22:DA:991:C:O2'	22:DA:992:C:C5'	2.58	0.50
22:DA:1069:A:H4'	22:DA:1070:A:C5'	2.42	0.50
22:DA:1071:G:O6	22:DA:1089:A:C2	2.65	0.50
22:DA:1330:C:HO2'	22:DA:1331:G:P	2.34	0.50
22:DA:1345:C:O2'	22:DA:1346:G:O5'	2.30	0.50
22:DA:2059:A:O3'	26:DE:64:GLY:HA2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2226:C:O2'	22:DA:2227:A:C5'	2.60	0.50
22:DA:2311:A:H1'	58:DF:78:ILE:CD1	2.40	0.50
22:DA:2531:A:C4	22:DA:2532:G:C8	3.00	0.50
22:DA:2718:G:OP1	37:DP:97:TYR:HD1	1.95	0.50
22:DA:2746:U:C2'	22:DA:2747:G:H5'	2.42	0.50
22:DA:2800:A:N1	22:DA:2801:G:N3	2.60	0.50
24:DC:20:ASN:HB2	24:DC:23:LEU:HD22	1.94	0.50
29:DH:1:MET:HE1	29:DH:23:ALA:HB2	1.94	0.50
31:DJ:106:LYS:HD2	31:DJ:119:PHE:CD2	2.46	0.50
36:DO:79:ALA:HB1	36:DO:114:GLY:HA3	1.94	0.50
36:DO:115:LEU:H	36:DO:115:LEU:CD1	2.12	0.50
40:DS:21:ALA:O	40:DS:74:ILE:HD13	2.11	0.50
42:DU:47:PRO:HB3	42:DU:54:PRO:HG2	1.90	0.50
49:D1:38:PHE:CD2	49:D1:39:ASP:N	2.80	0.50
50:D2:45:SER:C	50:D2:46:LYS:HD2	2.32	0.50
1:AA:36:C:OP1	12:AL:119:LYS:HE3	2.12	0.49
1:AA:57:G:C2	1:AA:356:A:C2	3.00	0.49
1:AA:247:G:OP1	1:AA:247:G:H4'	2.11	0.49
1:AA:394:G:C5	1:AA:395:C:C5	3.00	0.49
1:AA:603:U:H2'	1:AA:604:G:C8	2.47	0.49
1:AA:691:G:H2'	1:AA:692:U:H6	1.77	0.49
1:AA:748:G:O6	1:AA:749:A:N6	2.45	0.49
1:AA:875:U:O2'	8:AH:14:ARG:NH1	2.45	0.49
1:AA:1088:G:H21	1:AA:1167:A:N6	2.10	0.49
1:AA:1162:C:H2'	1:AA:1163:A:H8	1.77	0.49
1:AA:1507:A:C2	1:AA:1508:A:C4	3.00	0.49
2:AB:90:PHE:CE2	2:AB:148:GLY:HA3	2.47	0.49
5:AE:113:VAL:CG2	5:AE:140:ILE:CD1	2.88	0.49
7:AG:107:ALA:HA	7:AG:122:GLU:HG3	1.92	0.49
9:AI:9:GLY:CA	9:AI:80:HIS:CD2	2.91	0.49
11:AK:109:ILE:O	11:AK:110:THR:HG23	2.11	0.49
11:AK:111:ASP:CB	21:AU:19:LYS:HD3	2.42	0.49
16:AP:42:ILE:O	16:AP:43:ALA:HB3	2.12	0.49
22:BA:125:A:OP2	50:B2:19:ARG:NH2	2.44	0.49
22:BA:300:A:H2'	22:BA:334:C:H1'	1.93	0.49
22:BA:412:A:H2'	22:BA:413:C:C5'	2.42	0.49
22:BA:919:U:C6	22:BA:919:U:H3'	2.47	0.49
22:BA:1450:G:C6	22:BA:1451:C:C4	2.99	0.49
22:BA:1508:A:O2'	22:BA:1509:A:O4'	2.30	0.49
22:BA:1556:C:O2'	22:BA:1557:C:H5'	2.12	0.49
22:BA:1568:G:H4'	24:BC:58:LYS:CG	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1654:A:C1'	25:BD:118:PHE:CE1	2.95	0.49
22:BA:1789:A:P	24:BC:220:ARG:HH11	2.35	0.49
22:BA:1801:A:H3'	22:BA:1802:A:H5'	1.94	0.49
22:BA:1842:G:C4'	24:BC:242:HIS:CE1	2.94	0.49
22:BA:1943:U:O2	22:BA:1943:U:O4'	2.28	0.49
22:BA:2046:G:N2	22:BA:2623:G:H1'	2.27	0.49
22:BA:2068:U:H6	22:BA:2068:U:H5"	1.78	0.49
22:BA:2109:U:C4	22:BA:2181:U:O4	2.65	0.49
22:BA:2210:U:H6	22:BA:2210:U:OP1	1.95	0.49
22:BA:2519:U:H2'	22:BA:2541:A:H61	1.77	0.49
22:BA:2572:A:N7	25:BD:150:GLN:CB	2.74	0.49
24:BC:20:ASN:C	24:BC:20:ASN:ND2	2.64	0.49
25:BD:9:VAL:HG22	25:BD:26:VAL:CB	2.34	0.49
25:BD:114:LYS:HZ2	25:BD:116:LYS:HE2	1.77	0.49
26:BE:7:ASP:CG	26:BE:8:ALA:H	2.16	0.49
27:BF:35:LEU:CD1	27:BF:88:VAL:HB	2.42	0.49
34:BM:70:ASP:OD1	34:BM:70:ASP:C	2.50	0.49
39:BR:49:ILE:C	39:BR:51:VAL:O	2.50	0.49
41:BT:70:HIS:HB3	41:BT:73:ARG:HB2	1.93	0.49
42:BU:30:SER:HB2	42:BU:32:LYS:HD3	1.94	0.49
47:BZ:24:LEU:O	47:BZ:27:GLY:N	2.44	0.49
53:CA:86:G:O2'	53:CA:87:C:OP2	2.30	0.49
53:CA:86:G:O2'	53:CA:87:C:P	2.70	0.49
53:CA:497:G:O2'	53:CA:498:A:C5'	2.60	0.49
53:CA:505:G:C2	53:CA:506:G:C5	3.00	0.49
53:CA:765:G:C6	53:CA:812:G:C5	3.00	0.49
53:CA:933:G:P	54:CG:3:ARG:HD3	2.51	0.49
53:CA:1064:G:N2	53:CA:1190:G:O2'	2.44	0.49
53:CA:1158:C:O2	53:CA:1158:C:H2'	2.11	0.49
3:CC:10:ARG:O	3:CC:15:LYS:HB2	2.11	0.49
3:CC:148:ILE:HD13	3:CC:201:ILE:HD11	1.92	0.49
4:CD:123:MET:CE	4:CD:126:GLY:O	2.60	0.49
5:CE:79:THR:OG1	5:CE:121:ASN:ND2	2.45	0.49
54:CG:116:ALA:HA	54:CG:120:ALA:HB3	1.94	0.49
10:CJ:51:VAL:HB	14:CN:80:ARG:CB	2.39	0.49
11:CK:17:ASP:HA	11:CK:80:ASN:O	2.12	0.49
14:CN:47:LEU:CD1	14:CN:50:LEU:HD21	2.41	0.49
56:CP:68:SER:O	56:CP:71:VAL:HG13	2.12	0.49
17:CQ:20:ILE:HG21	17:CQ:52:CYS:HB3	1.93	0.49
18:CR:44:THR:OG1	18:CR:46:THR:HG22	2.12	0.49
19:CS:38:THR:HA	19:CS:69:LYS:HA	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:122:G:O2'	22:DA:123:G:C5'	2.60	0.49
22:DA:301:G:O2'	22:DA:302:C:O5'	2.30	0.49
22:DA:303:G:O2'	22:DA:304:U:O5'	2.29	0.49
22:DA:584:C:C4	22:DA:585:G:C5	3.00	0.49
22:DA:627:A:N6	33:DL:111:ILE:HB	2.27	0.49
22:DA:637:A:O5'	33:DL:112:LEU:HD21	2.12	0.49
22:DA:685:A:H4'	22:DA:686:U:O5'	2.13	0.49
22:DA:732:C:C4	22:DA:733:G:C5	3.00	0.49
22:DA:946:C:H5'	22:DA:946:C:H6	1.77	0.49
22:DA:1192:G:C2'	22:DA:1193:G:H5'	2.41	0.49
22:DA:1462:C:C1'	22:DA:2702:G:H21	2.25	0.49
22:DA:1652:A:H2'	22:DA:1653:G:O4'	2.11	0.49
22:DA:1794:A:H2'	22:DA:1795:C:H6	1.77	0.49
22:DA:1826:G:H2'	22:DA:1827:U:O5'	2.12	0.49
22:DA:1904:G:C2'	22:DA:1905:C:H5'	2.42	0.49
22:DA:2020:A:H5'	48:D0:8:THR:CG2	2.42	0.49
22:DA:2314:A:N3	22:DA:2315:G:C8	2.80	0.49
22:DA:2345:G:C5	22:DA:2347:C:N4	2.80	0.49
22:DA:2439:A:H1'	22:DA:2587:A:H5'	1.94	0.49
22:DA:2641:G:H5"	31:DJ:78:THR:HB	1.94	0.49
22:DA:2825:G:H2'	22:DA:2826:A:O4'	2.11	0.49
57:DB:52:A:O2'	57:DB:53:A:C8	2.58	0.49
57:DB:109:A:O2'	57:DB:110:C:H6	1.93	0.49
24:DC:143:VAL:HB	24:DC:153:LEU:HB3	1.94	0.49
58:DF:157:THR:HG21	58:DF:168:LEU:HD22	1.93	0.49
28:DG:70:LEU:HD12	28:DG:70:LEU:C	2.32	0.49
29:DH:125:THR:HB	29:DH:146:VAL:HG11	1.94	0.49
31:DJ:56:VAL:HG23	31:DJ:124:VAL:HA	1.92	0.49
35:DN:87:PHE:CD1	35:DN:90:ARG:HD2	2.47	0.49
37:DP:26:GLU:HB2	37:DP:86:LYS:HD3	1.94	0.49
38:DQ:9:ALA:C	38:DQ:11:ALA:H	2.14	0.49
38:DQ:71:ASN:HD21	38:DQ:106:THR:HG23	1.77	0.49
38:DQ:91:ARG:NH2	39:DR:11:GLN:O	2.45	0.49
39:DR:81:LYS:CD	39:DR:81:LYS:N	2.75	0.49
41:DT:8:LEU:CD2	41:DT:46:ALA:HA	2.41	0.49
42:DU:20:LYS:HD2	42:DU:38:ILE:CD1	2.41	0.49
1:AA:487:A:H2'	1:AA:488:C:O4'	2.11	0.49
1:AA:529:G:O6	12:AL:45:ASN:HA	2.12	0.49
1:AA:764:C:C2'	1:AA:765:G:H5'	2.42	0.49
1:AA:1303:C:C2'	1:AA:1304:G:C8	2.93	0.49
2:AB:146:SER:O	2:AB:147:LEU:HD23	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:37:VAL:CG1	5:AE:116:VAL:CG2	2.86	0.49
5:AE:154:ALA:HB1	8:AH:65:PHE:CE2	2.47	0.49
10:AJ:17:LEU:HD23	10:AJ:17:LEU:C	2.33	0.49
10:AJ:87:LEU:HD13	10:AJ:87:LEU:C	2.32	0.49
11:AK:109:ILE:HB	21:AU:5:VAL:HG22	1.89	0.49
12:AL:20:VAL:O	12:AL:20:VAL:HG23	2.11	0.49
14:AN:50:LEU:CB	14:AN:51:PRO:HD2	2.38	0.49
22:BA:409:G:C2'	22:BA:410:G:H5'	2.42	0.49
22:BA:980:A:C6	22:BA:981:A:N1	2.80	0.49
22:BA:1084:A:C2'	22:BA:1085:A:H8	2.11	0.49
22:BA:1239:G:C2'	22:BA:1240:U:O5'	2.60	0.49
22:BA:1276:A:O2'	22:BA:1277:G:H5'	2.13	0.49
22:BA:1417:C:O2'	22:BA:1418:G:C5'	2.55	0.49
22:BA:1507:C:C5'	22:BA:1508:A:OP2	2.61	0.49
22:BA:2136:G:O6	22:BA:2156:G:C2	2.65	0.49
22:BA:2152:G:C2'	22:BA:2153:C:H5'	2.42	0.49
22:BA:2309:A:O2'	22:BA:2310:C:C5'	2.60	0.49
22:BA:2795:C:H2'	22:BA:2796:U:C6	2.47	0.49
25:BD:114:LYS:HE3	25:BD:114:LYS:C	2.31	0.49
30:BI:27:LEU:C	30:BI:27:LEU:HD12	2.33	0.49
31:BJ:76:HIS:NE2	31:BJ:85:LYS:HB2	2.26	0.49
35:BN:75:ILE:HD12	35:BN:79:LEU:CD1	2.42	0.49
39:BR:49:ILE:HG22	39:BR:53:PHE:C	2.33	0.49
43:BV:2:PHE:HD1	43:BV:50:MET:HE2	1.76	0.49
45:BX:5:GLN:HG3	45:BX:49:ARG:O	2.13	0.49
45:BX:39:VAL:CG1	45:BX:46:VAL:CG2	2.90	0.49
46:BY:18:LEU:CD1	46:BY:22:LEU:CD2	2.90	0.49
53:CA:90:C:H2'	53:CA:91:U:C5	2.46	0.49
53:CA:238:A:H2'	53:CA:239:U:C4'	2.42	0.49
53:CA:511:C:HO2'	53:CA:512:U:H6	1.57	0.49
53:CA:665:A:N3	53:CA:732:C:H2'	2.28	0.49
53:CA:725:G:C4	53:CA:726:C:C5	3.00	0.49
53:CA:745:G:H2'	53:CA:746:A:H8	1.76	0.49
53:CA:1040:U:H2'	53:CA:1041:G:H5'	1.93	0.49
53:CA:1094:G:O2'	53:CA:1095:U:OP2	2.28	0.49
53:CA:1181:G:H2'	53:CA:1182:G:N7	2.27	0.49
53:CA:1219:A:C6	53:CA:1220:G:C5	3.00	0.49
2:CB:9:LEU:HD23	2:CB:9:LEU:N	2.25	0.49
3:CC:74:ILE:HG12	3:CC:74:ILE:O	2.12	0.49
4:CD:148:ALA:HB1	4:CD:151:GLN:HE22	1.78	0.49
5:CE:15:ILE:HB	5:CE:35:LEU:O	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:8:PHE:CE2	6:CF:60:VAL:CG1	2.95	0.49
54:CG:30:MET:SD	54:CG:35:LYS:HB2	2.53	0.49
8:CH:58:LEU:CD2	8:CH:60:LEU:HD11	2.43	0.49
12:CL:42:LYS:CD	12:CL:43:LYS:NZ	2.75	0.49
12:CL:109:ARG:CB	12:CL:118:VAL:HG21	2.32	0.49
22:DA:120:U:H1'	22:DA:149:A:C8	2.47	0.49
22:DA:155:A:C2'	22:DA:156:A:H5'	2.42	0.49
22:DA:157:C:C2	22:DA:158:U:C6	3.00	0.49
22:DA:325:G:O2'	22:DA:326:G:C5'	2.60	0.49
22:DA:352:A:N3	22:DA:353:C:H1'	2.28	0.49
22:DA:1330:C:O2'	22:DA:1331:G:O5'	2.29	0.49
22:DA:1335:C:H2'	22:DA:1336:A:C1'	2.42	0.49
22:DA:1810:A:H2'	22:DA:1811:G:C8	2.46	0.49
22:DA:1865:U:O4	22:DA:1875:G:C2	2.65	0.49
22:DA:2296:U:O2'	22:DA:2297:A:O5'	2.30	0.49
22:DA:2464:G:H2'	22:DA:2465:C:O4'	2.13	0.49
22:DA:2585:U:HO2'	22:DA:2586:U:C5'	2.24	0.49
22:DA:2660:A:C2	22:DA:2661:G:N7	2.81	0.49
22:DA:2674:G:O3'	32:DK:30:ARG:HG2	2.11	0.49
57:DB:6:G:H4'	57:DB:28:C:H4'	1.94	0.49
25:DD:120:GLY:O	25:DD:124:ARG:HB2	2.12	0.49
58:DF:11:VAL:O	58:DF:13:LYS:HD2	2.12	0.49
58:DF:27:VAL:O	58:DF:27:VAL:HG23	2.12	0.49
29:DH:32:PRO:HA	45:DX:38:TRP:HD1	1.77	0.49
30:DI:79:LEU:HD13	30:DI:100:ILE:HG13	1.93	0.49
31:DJ:51:GLY:C	31:DJ:121:LYS:HE3	2.32	0.49
31:DJ:100:VAL:O	31:DJ:104:ALA:CB	2.60	0.49
39:DR:33:VAL:O	39:DR:61:ALA:HB3	2.12	0.49
41:DT:21:SER:C	41:DT:25:GLU:HB3	2.32	0.49
42:DU:82:VAL:HG23	42:DU:83:GLY:H	1.76	0.49
43:DV:4:ILE:CB	43:DV:63:ILE:HG13	2.37	0.49
46:DY:57:LEU:O	46:DY:60:LYS:HE3	2.12	0.49
1:AA:109:A:C6	1:AA:327:A:C6	3.01	0.49
1:AA:404:G:O2'	1:AA:405:U:H5'	2.12	0.49
1:AA:596:A:O2'	1:AA:597:G:C5'	2.60	0.49
1:AA:723:U:OP1	21:AU:48:LYS:HB2	2.13	0.49
1:AA:751:U:H2'	1:AA:752:G:O4'	2.11	0.49
1:AA:1032:G:H2'	1:AA:1033:G:C5'	2.42	0.49
1:AA:1394:A:C6	1:AA:1501:C:H4'	2.47	0.49
12:AL:76:HIS:O	12:AL:77:SER:CB	2.61	0.49
18:AR:27:THR:O	18:AR:30:ASN:HB2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:345:A:O2'	22:BA:347:A:N7	2.46	0.49
22:BA:861:A:C2	22:BA:917:A:C4	3.00	0.49
22:BA:1031:G:H4'	52:B4:6:SER:HB2	1.93	0.49
22:BA:1247:A:C2	22:BA:1249:U:C6	3.00	0.49
22:BA:1398:C:H2'	22:BA:1399:C:C6	2.47	0.49
22:BA:1496:A:H2'	22:BA:1498:C:C4	2.47	0.49
22:BA:1859:U:H2'	22:BA:1860:G:C8	2.47	0.49
22:BA:1872:A:O2'	22:BA:1873:G:O4'	2.30	0.49
22:BA:2017:U:H4'	48:B0:4:GLN:O	2.13	0.49
22:BA:2109:U:N3	22:BA:2181:U:C4	2.80	0.49
22:BA:2262:U:H2'	22:BA:2263:C:C6	2.47	0.49
22:BA:2285:C:P	49:B1:5:ARG:HH21	2.35	0.49
22:BA:2507:C:H2'	22:BA:2508:G:H5"	1.95	0.49
23:BB:34:A:C2'	23:BB:35:C:OP2	2.60	0.49
23:BB:42:C:OP1	27:BF:63:LYS:HE2	2.13	0.49
25:BD:146:ILE:O	25:BD:146:ILE:HG13	2.12	0.49
27:BF:27:VAL:O	27:BF:27:VAL:CG1	2.61	0.49
28:BG:84:LYS:O	28:BG:85:LYS:HB2	2.11	0.49
36:BO:40:ILE:HG22	36:BO:41:ALA:O	2.13	0.49
36:BO:55:GLU:OE1	36:BO:58:ILE:HD11	2.12	0.49
37:BP:50:ARG:CG	37:BP:57:ALA:C	2.81	0.49
39:BR:76:LYS:O	39:BR:84:ARG:HA	2.12	0.49
44:BW:16:GLU:OE2	44:BW:16:GLU:CA	2.61	0.49
45:BX:38:TRP:HE3	45:BX:45:PHE:CD2	2.31	0.49
53:CA:451:A:C1'	53:CA:452:A:N7	2.73	0.49
53:CA:599:C:H4'	8:CH:121:GLY:C	2.33	0.49
53:CA:971:G:H5"	53:CA:972:C:H5"	1.94	0.49
53:CA:973:G:C6	53:CA:974:A:C6	2.99	0.49
53:CA:977:A:C8	53:CA:1223:C:N3	2.81	0.49
53:CA:977:A:O2'	53:CA:1223:C:N4	2.40	0.49
53:CA:981:U:OP2	53:CA:982:U:H3'	2.13	0.49
53:CA:1000:A:C2	53:CA:1001:C:C4	3.00	0.49
53:CA:1098:C:H2'	53:CA:1099:G:O4'	2.12	0.49
53:CA:1138:G:H2'	53:CA:1139:G:OP1	2.11	0.49
2:CB:176:ASN:C	2:CB:178:LEU:H	2.16	0.49
4:CD:61:ARG:NH2	4:CD:67:LEU:HA	2.28	0.49
54:CG:28:ILE:HG21	54:CG:100:MET:CG	2.39	0.49
9:CI:64:ILE:HD12	9:CI:64:ILE:N	2.27	0.49
10:CJ:30:LYS:HG2	10:CJ:36:VAL:CG2	2.41	0.49
12:CL:88:ASP:HB3	12:CL:89:LEU:HD22	1.93	0.49
55:CM:41:ASP:O	55:CM:42:VAL:HB	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:CP:78:VAL:C	56:CP:80:LYS:N	2.64	0.49
22:DA:95:A:C1'	46:DY:40:SER:HB2	2.34	0.49
22:DA:120:U:H4'	22:DA:121:G:H5'	1.94	0.49
22:DA:139:U:H2'	22:DA:139:U:O2	2.11	0.49
22:DA:152:A:H2'	22:DA:153:U:H5'	1.94	0.49
22:DA:163:C:O2'	22:DA:164:C:H5"	2.13	0.49
22:DA:674:G:H5"	26:DE:71:GLY:CA	2.43	0.49
22:DA:917:A:H2	57:DB:79:G:H21	1.60	0.49
22:DA:947:A:O2'	22:DA:948:C:O4'	2.28	0.49
22:DA:1010:A:P	38:DQ:65:ASN:HD22	2.35	0.49
22:DA:1044:C:O2	22:DA:1044:C:H2'	2.11	0.49
22:DA:1112:G:O2'	22:DA:1113:U:C5'	2.60	0.49
22:DA:1127:A:N7	22:DA:2488:G:O2'	2.41	0.49
22:DA:1526:C:N4	22:DA:1527:G:C6	2.80	0.49
22:DA:1683:U:O5'	22:DA:1683:U:H6	1.95	0.49
22:DA:1878:G:H2'	22:DA:1879:C:O4'	2.12	0.49
22:DA:2014:A:H2	22:DA:2613:U:C2	2.30	0.49
22:DA:2293:G:H2'	22:DA:2294:G:O4'	2.13	0.49
22:DA:2428:G:C2	33:DL:54:GLN:NE2	2.80	0.49
22:DA:2624:G:H1'	48:D0:18:HIS:HE1	1.78	0.49
57:DB:86:G:H2'	57:DB:87:U:C5'	2.41	0.49
57:DB:109:A:C5	57:DB:110:C:N4	2.81	0.49
24:DC:66:PHE:HB3	24:DC:150:GLY:O	2.12	0.49
25:DD:119:ALA:CB	25:DD:163:GLY:O	2.60	0.49
26:DE:47:LYS:HD3	26:DE:51:GLU:HB3	1.93	0.49
26:DE:58:LYS:HB3	26:DE:60:TRP:NE1	2.24	0.49
58:DF:5:ASP:C	58:DF:7:TYR:N	2.65	0.49
29:DH:54:LEU:HA	29:DH:57:LYS:CG	2.42	0.49
30:DI:32:VAL:HG22	30:DI:58:ILE:HG21	1.95	0.49
34:DM:136:MET:OXT	34:DM:136:MET:HG2	2.12	0.49
35:DN:45:ARG:C	35:DN:47:VAL:H	2.14	0.49
40:DS:6:LYS:HZ1	40:DS:104:THR:HG23	1.75	0.49
40:DS:70:LYS:HE3	40:DS:70:LYS:N	2.25	0.49
41:DT:11:LEU:HD12	41:DT:11:LEU:H	1.77	0.49
43:DV:6:ALA:HB3	43:DV:65:VAL:HB	1.95	0.49
46:DY:31:GLN:OE1	46:DY:37:LEU:HB2	2.12	0.49
1:AA:109:A:C6	1:AA:326:G:C6	3.01	0.49
1:AA:413:G:N2	1:AA:428:G:O2'	2.45	0.49
1:AA:420:U:C2'	1:AA:421:U:H5"	2.42	0.49
1:AA:562:U:H4'	1:AA:563:A:O5'	2.11	0.49
1:AA:994:A:O2'	1:AA:995:C:H5'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:95:TRP:O	2:AB:95:TRP:HE3	1.95	0.49
4:AD:63:ILE:O	4:AD:63:ILE:HG12	2.12	0.49
11:AK:107:THR:HG22	11:AK:108:ASN:HD21	1.78	0.49
15:AO:23:SER:O	15:AO:26:VAL:HG23	2.13	0.49
16:AP:11:ALA:O	16:AP:12:LYS:C	2.50	0.49
20:AT:66:ILE:O	20:AT:70:LYS:HB3	2.12	0.49
21:AU:8:ASN:N	21:AU:8:ASN:HD22	2.10	0.49
22:BA:943:A:O2'	22:BA:944:C:H5'	2.12	0.49
22:BA:990:A:H8	22:BA:990:A:H5'	1.77	0.49
22:BA:1409:U:C2'	22:BA:1410:G:H5'	2.42	0.49
22:BA:1778:U:C4	22:BA:1784:A:C4	3.00	0.49
22:BA:2019:A:H2'	22:BA:2020:A:O5'	2.13	0.49
22:BA:2525:G:N2	22:BA:2539:C:C2	2.80	0.49
22:BA:2819:G:H5"	62:BA:3799:HOH:O	2.11	0.49
22:BA:2849:U:H1'	22:BA:2866:U:O2	2.11	0.49
24:BC:141:HIS:CD2	24:BC:192:GLY:O	2.65	0.49
24:BC:181:ARG:NH2	24:BC:265:PHE:HB3	2.27	0.49
27:BF:72:SER:HB2	27:BF:80:GLN:H	1.77	0.49
28:BG:112:VAL:HG23	28:BG:113:ASP:N	2.25	0.49
29:BH:29:PHE:O	29:BH:33:GLN:HB3	2.13	0.49
34:BM:4:PRO:CG	34:BM:70:ASP:HA	2.42	0.49
38:BQ:16:ILE:HG22	38:BQ:17:LEU:N	2.28	0.49
41:BT:21:SER:HA	41:BT:31:VAL:HG11	1.93	0.49
44:BW:17:ALA:O	44:BW:18:LYS:CB	2.59	0.49
45:BX:42:GLU:O	45:BX:43:LYS:C	2.49	0.49
46:BY:23:ARG:O	46:BY:24:GLU:C	2.50	0.49
49:B1:8:ILE:CG2	49:B1:9:LYS:H	2.24	0.49
50:B2:13:ASN:O	50:B2:17:GLY:HA3	2.13	0.49
53:CA:16:A:O2'	53:CA:17:U:H5'	2.12	0.49
53:CA:295:C:H2'	53:CA:296:U:H6	1.77	0.49
53:CA:373:A:C2	53:CA:374:A:C8	3.00	0.49
53:CA:431:A:C2	53:CA:432:A:H1'	2.47	0.49
53:CA:476:U:C6	53:CA:476:U:OP2	2.65	0.49
53:CA:591:U:OP1	8:CH:30:LYS:HE3	2.12	0.49
53:CA:705:G:O2'	53:CA:706:A:H5'	2.11	0.49
53:CA:961:U:O4	53:CA:983:A:N6	2.46	0.49
53:CA:978:A:C4	53:CA:1319:A:C2	3.01	0.49
53:CA:1278:G:H8	53:CA:1278:G:OP2	1.95	0.49
53:CA:1408:A:N1	53:CA:1494:G:C6	2.79	0.49
2:CB:74:ALA:CB	2:CB:206:ILE:HD11	2.32	0.49
3:CC:117:ASP:HA	3:CC:120:THR:HB	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:116:LEU:HD21	4:CD:153:ARG:HH11	1.77	0.49
4:CD:137:SER:HB2	4:CD:138:PRO:HD2	1.94	0.49
54:CG:35:LYS:NZ	54:CG:35:LYS:HB3	2.26	0.49
8:CH:62:LEU:N	8:CH:62:LEU:HD22	2.28	0.49
10:CJ:17:LEU:CD2	10:CJ:96:VAL:HG13	2.42	0.49
11:CK:57:SER:O	11:CK:90:PRO:HG3	2.12	0.49
11:CK:86:LYS:HA	11:CK:113:THR:OG1	2.12	0.49
14:CN:8:ARG:HH11	14:CN:12:ARG:NH2	2.10	0.49
15:CO:2:LEU:HD13	15:CO:34:GLN:HE21	1.77	0.49
22:DA:33:C:H4'	22:DA:34:U:OP1	2.08	0.49
22:DA:76:C:OP1	46:DY:48:ARG:HG2	2.13	0.49
22:DA:170:U:H6	22:DA:170:U:O5'	1.96	0.49
22:DA:426:C:H2'	22:DA:427:U:H5'	1.94	0.49
22:DA:477:A:O2'	22:DA:478:A:O4'	2.30	0.49
22:DA:479:A:O2'	22:DA:481:G:H5'	2.12	0.49
22:DA:745:G:C5'	22:DA:746:U:OP2	2.60	0.49
22:DA:996:A:C6	22:DA:1160:G:C2	3.01	0.49
22:DA:1144:A:H2'	22:DA:1145:C:C6	2.47	0.49
22:DA:1262:A:N3	48:D0:6:LYS:NZ	2.51	0.49
22:DA:1735:A:O2'	22:DA:1736:U:C5'	2.60	0.49
22:DA:2269:G:O3'	44:DW:18:LYS:HE2	2.13	0.49
22:DA:2316:G:H2'	22:DA:2317:A:C8	2.48	0.49
22:DA:2345:G:C4	22:DA:2347:C:H5	2.30	0.49
22:DA:2482:A:H2'	22:DA:2483:C:C6	2.46	0.49
22:DA:2652:C:C4	22:DA:2653:U:C4	3.01	0.49
22:DA:2834:G:C2'	22:DA:2879:A:H61	2.25	0.49
22:DA:2889:C:O2'	22:DA:2890:G:H5'	2.12	0.49
37:DP:50:ARG:CB	37:DP:56:SER:HB3	2.42	0.49
39:DR:48:LYS:HD2	39:DR:48:LYS:N	2.23	0.49
46:DY:28:LEU:CG	46:DY:42:LEU:HD22	2.38	0.49
1:AA:77:A:N6	1:AA:90:C:C5	2.78	0.49
1:AA:212:G:H2'	1:AA:213:G:C8	2.47	0.49
1:AA:282:A:N3	1:AA:282:A:H2'	2.28	0.49
1:AA:367:U:O2'	1:AA:368:U:H4'	2.12	0.49
1:AA:404:G:N7	4:AD:1:ALA:CB	2.75	0.49
1:AA:464:U:C2	1:AA:466:A:C5'	2.95	0.49
1:AA:1124:G:H2'	1:AA:1145:A:H61	1.77	0.49
1:AA:1401:G:N2	1:AA:1402:C:H1'	2.27	0.49
1:AA:1487:G:O2'	1:AA:1488:G:H5'	2.13	0.49
2:AB:80:LYS:HG3	2:AB:90:PHE:CE1	2.47	0.49
2:AB:202:ASN:HD21	2:AB:205:ALA:HB2	1.73	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:100:ILE:O	3:AC:100:ILE:HG23	2.12	0.49
5:AE:152:VAL:HG12	5:AE:155:LYS:NZ	2.28	0.49
8:AH:1:SER:C	8:AH:3:GLN:H	2.15	0.49
9:AI:25:GLY:H	9:AI:58:GLU:HA	1.78	0.49
9:AI:57:VAL:HG12	9:AI:58:GLU:HG2	1.93	0.49
9:AI:110:VAL:HG23	9:AI:110:VAL:O	2.12	0.49
10:AJ:49:PHE:HE1	10:AJ:67:ILE:HG13	1.77	0.49
11:AK:51:PHE:HZ	11:AK:64:VAL:CG1	2.26	0.49
14:AN:53:ASP:HA	14:AN:58:ARG:HH11	1.77	0.49
19:AS:30:LEU:O	19:AS:49:ALA:HB3	2.13	0.49
19:AS:64:GLU:CD	19:AS:64:GLU:H	2.15	0.49
22:BA:1056:G:HO2'	22:BA:1086:A:H1'	1.75	0.49
22:BA:1141:U:C5	31:BJ:65:THR:HG23	2.47	0.49
22:BA:1322:A:O3'	40:BS:84:ARG:NH1	2.45	0.49
22:BA:1338:G:O2'	22:BA:1339:G:H5'	2.13	0.49
22:BA:1385:A:C2	22:BA:1386:C:N3	2.81	0.49
22:BA:1416:G:O2'	22:BA:1417:C:H5"	2.12	0.49
22:BA:1416:G:O2'	22:BA:1417:C:P	2.71	0.49
22:BA:1430:G:H2'	22:BA:1431:A:O4'	2.11	0.49
22:BA:1483:G:C2	22:BA:1484:U:C2	3.00	0.49
22:BA:1696:G:H5"	22:BA:1696:G:C8	2.45	0.49
22:BA:2149:U:O2'	22:BA:2150:C:O5'	2.29	0.49
22:BA:2231:U:OP1	45:BX:29:LEU:CD2	2.61	0.49
22:BA:2414:G:H2'	22:BA:2415:G:H5'	1.94	0.49
22:BA:2462:C:H2'	22:BA:2463:C:C6	2.47	0.49
22:BA:2471:A:C2'	22:BA:2472:G:H5'	2.42	0.49
22:BA:2500:U:H6	22:BA:2500:U:C5'	2.25	0.49
22:BA:2681:C:C5	22:BA:2724:U:C5	3.00	0.49
22:BA:2865:U:C4	22:BA:2866:U:C4	3.01	0.49
28:BG:76:ILE:HG23	28:BG:77:GLY:N	2.26	0.49
29:BH:99:ILE:O	29:BH:99:ILE:CG2	2.61	0.49
37:BP:5:LYS:C	37:BP:7:LEU:N	2.64	0.49
45:BX:39:VAL:HG22	45:BX:44:ARG:O	2.11	0.49
53:CA:159:G:C5'	53:CA:160:A:OP2	2.60	0.49
53:CA:289:G:C2	53:CA:290:C:C5	3.00	0.49
53:CA:451:A:N6	53:CA:481:G:H5'	2.27	0.49
53:CA:754:C:O2	53:CA:754:C:C2'	2.55	0.49
53:CA:987:G:C2	53:CA:988:G:N7	2.81	0.49
53:CA:1074:G:H4'	2:CB:101:THR:O	2.12	0.49
53:CA:1213:A:C8	53:CA:1215:G:C5	3.00	0.49
54:CG:4:ARG:CG	54:CG:6:ILE:HG22	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:100:ILE:HD12	8:CH:101:ALA:N	2.26	0.49
10:CJ:49:PHE:CE2	14:CN:73:LEU:HD13	2.47	0.49
56:CP:1:MET:CE	56:CP:1:MET:CA	2.89	0.49
56:CP:18:GLN:HE21	56:CP:35:ARG:CZ	2.25	0.49
56:CP:54:LEU:HD23	56:CP:54:LEU:N	2.25	0.49
22:DA:196:A:N6	22:DA:831:G:H21	2.07	0.49
22:DA:319:G:C6	22:DA:333:G:C6	3.00	0.49
22:DA:519:U:H5"	40:DS:25:ARG:HH21	1.76	0.49
22:DA:528:A:C2	22:DA:2043:C:O5'	2.65	0.49
22:DA:581:C:C2	22:DA:582:A:N7	2.81	0.49
22:DA:976:G:H2'	22:DA:977:G:H8	1.77	0.49
22:DA:1056:G:O5'	22:DA:1085:A:C2	2.65	0.49
22:DA:1064:C:O2'	22:DA:1065:U:C5'	2.58	0.49
22:DA:1427:A:H4'	22:DA:1428:C:O5'	2.12	0.49
22:DA:1451:C:H1'	22:DA:1452:G:N7	2.27	0.49
22:DA:1905:C:O5'	22:DA:1905:C:H6	1.95	0.49
22:DA:2092:U:C5'	22:DA:2093:G:OP1	2.60	0.49
22:DA:2788:C:O2'	22:DA:2809:A:N3	2.33	0.49
57:DB:68:C:O2'	57:DB:69:G:H5"	2.13	0.49
26:DE:105:LEU:HD23	26:DE:177:PRO:HG3	1.94	0.49
58:DF:28:PRO:HB2	58:DF:168:LEU:CD2	2.43	0.49
58:DF:49:LEU:HD13	58:DF:49:LEU:N	2.28	0.49
58:DF:113:PHE:HE2	58:DF:116:LEU:HD22	1.76	0.49
58:DF:118:ALA:HB2	58:DF:176:PHE:CB	2.42	0.49
28:DG:74:MET:O	28:DG:78:VAL:HG13	2.12	0.49
29:DH:37:VAL:CG2	29:DH:38:PRO:HD2	2.42	0.49
30:DI:132:ALA:CA	30:DI:137:LEU:HD12	2.42	0.49
31:DJ:3:THR:CG2	38:DQ:60:TRP:HE1	2.24	0.49
32:DK:35:VAL:HG23	32:DK:36:GLY:N	2.16	0.49
35:DN:5:LYS:O	35:DN:6:SER:HB2	2.12	0.49
40:DS:64:ALA:O	40:DS:65:ASP:C	2.50	0.49
41:DT:69:ARG:NE	41:DT:70:HIS:CD2	2.81	0.49
49:D1:52:LYS:HB2	49:D1:52:LYS:NZ	2.26	0.49
50:D2:34:ARG:HB3	50:D2:42:LEU:CD1	2.30	0.49
51:D3:23:HIS:O	51:D3:46:LYS:HE3	2.12	0.49
52:D4:7:VAL:HG21	52:D4:25:VAL:HG23	1.95	0.49
1:AA:43:C:H2'	1:AA:44:A:O4'	2.12	0.49
1:AA:198:G:O2'	1:AA:199:A:O5'	2.30	0.49
1:AA:654:G:HO2'	1:AA:655:A:H5'	1.77	0.49
1:AA:1098:C:C2	1:AA:1099:G:C8	2.99	0.49
1:AA:1184:G:HO2'	1:AA:1185:G:H5'	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1218:C:H2'	1:AA:1219:A:H8	1.72	0.49
1:AA:1343:G:C4'	9:AI:123:ARG:HB3	2.39	0.49
3:AC:63:ILE:CG2	3:AC:98:ALA:HB2	2.43	0.49
4:AD:191:SER:O	4:AD:192:ALA:HB2	2.11	0.49
5:AE:82:HIS:CE1	8:AH:95:MET:CE	2.96	0.49
8:AH:10:LEU:HD22	8:AH:74:ILE:HG12	1.95	0.49
9:AI:39:GLY:O	9:AI:40:ARG:HB2	2.12	0.49
13:AM:22:TYR:O	13:AM:22:TYR:CD2	2.66	0.49
13:AM:90:HIS:HA	13:AM:108:ARG:NH2	2.28	0.49
14:AN:15:LEU:O	14:AN:17:ASP:N	2.46	0.49
14:AN:32:ASP:O	14:AN:34:ASN:N	2.46	0.49
22:BA:21:A:O2'	22:BA:22:C:H5'	2.13	0.49
22:BA:80:G:C2'	22:BA:81:G:H5'	2.43	0.49
22:BA:181:A:H2'	22:BA:182:A:O4'	2.12	0.49
22:BA:216:A:C4	22:BA:217:A:C8	3.01	0.49
22:BA:239:C:N4	22:BA:240:C:N3	2.61	0.49
22:BA:316:C:H2'	22:BA:317:G:O5'	2.12	0.49
22:BA:644:A:H2'	22:BA:645:C:O4'	2.12	0.49
22:BA:831:G:O2'	22:BA:832:U:H5'	2.13	0.49
22:BA:893:C:O2'	22:BA:894:U:H5'	2.12	0.49
22:BA:923:G:H21	44:BW:23:LYS:NZ	1.92	0.49
22:BA:1429:G:O2'	22:BA:1430:G:C5'	2.60	0.49
22:BA:1563:U:H2'	22:BA:1564:C:H6	1.73	0.49
22:BA:1782:U:O5'	22:BA:1782:U:H6	1.94	0.49
22:BA:1871:A:H8	22:BA:1872:A:C5	2.30	0.49
22:BA:2150:C:C2'	22:BA:2151:U:C6	2.95	0.49
22:BA:2272:U:H5"	22:BA:2273:A:OP1	2.12	0.49
22:BA:2297:A:C2	22:BA:2298:A:C8	3.01	0.49
22:BA:2485:G:H5'	34:BM:45:GLN:HE21	1.78	0.49
22:BA:2593:U:O2'	22:BA:2594:C:H5'	2.12	0.49
22:BA:2599:G:H2'	22:BA:2600:A:H5'	1.94	0.49
22:BA:2671:G:C2'	22:BA:2672:U:H5'	2.43	0.49
23:BB:42:C:O2'	23:BB:43:C:C5'	2.60	0.49
24:BC:254:LYS:O	24:BC:255:LYS:HB2	2.12	0.49
26:BE:124:PHE:CE2	26:BE:148:ILE:CD1	2.95	0.49
28:BG:72:ASN:C	28:BG:72:ASN:ND2	2.65	0.49
29:BH:78:VAL:CB	29:BH:145:ASN:HB3	2.42	0.49
30:BI:90:GLY:O	30:BI:92:PRO:HD3	2.12	0.49
33:BL:9:ALA:O	33:BL:12:SER:HB3	2.12	0.49
39:BR:25:LEU:N	39:BR:94:THR:HG23	2.23	0.49
39:BR:54:VAL:O	39:BR:54:VAL:CG2	2.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BS:73:LYS:HE3	40:BS:73:LYS:C	2.33	0.49
40:BS:103:ILE:H	40:BS:103:ILE:HD12	1.78	0.49
41:BT:39:THR:CB	41:BT:42:GLU:H	2.26	0.49
41:BT:88:LYS:O	41:BT:89:GLU:HG2	2.12	0.49
44:BW:23:LYS:HD2	44:BW:24:ARG:HB3	1.95	0.49
53:CA:91:U:C6	53:CA:92:U:C5	3.00	0.49
53:CA:666:G:H5'	53:CA:726:C:H1'	1.94	0.49
53:CA:676:A:H2'	53:CA:677:U:C6	2.47	0.49
53:CA:684:U:O2'	11:CK:40:ALA:HB3	2.12	0.49
53:CA:808:C:C2'	53:CA:809:G:H5'	2.42	0.49
53:CA:1008:U:C4	53:CA:1022:A:C2	3.00	0.49
53:CA:1221:G:O3'	19:CS:76:THR:HB	2.13	0.49
53:CA:1386:G:C2	53:CA:1387:G:C8	3.00	0.49
2:CB:9:LEU:HG	2:CB:10:LYS:N	2.28	0.49
2:CB:79:VAL:HG13	2:CB:80:LYS:N	2.28	0.49
4:CD:33:ILE:O	4:CD:33:ILE:HG23	2.11	0.49
54:CG:7:GLY:O	54:CG:8:GLN:HB2	2.13	0.49
54:CG:34:LYS:HB2	54:CG:34:LYS:NZ	2.28	0.49
54:CG:88:VAL:CG2	54:CG:89:GLU:H	2.12	0.49
8:CH:74:ILE:O	8:CH:74:ILE:HG23	2.12	0.49
55:CM:96:VAL:HG12	55:CM:96:VAL:O	2.12	0.49
22:DA:3:U:C4	22:DA:4:U:C4	3.01	0.49
22:DA:61:C:O2'	22:DA:62:U:C5'	2.49	0.49
22:DA:268:C:O2	22:DA:268:C:H2'	2.12	0.49
22:DA:307:G:N1	22:DA:310:A:OP2	2.45	0.49
22:DA:333:G:C2	22:DA:334:C:C5	3.01	0.49
22:DA:628:G:O2'	22:DA:629:G:C5'	2.60	0.49
22:DA:729:G:H3'	22:DA:730:A:C5'	2.40	0.49
22:DA:834:G:H2'	22:DA:835:C:O4'	2.12	0.49
22:DA:975:A:O2'	22:DA:976:G:H5'	2.12	0.49
22:DA:1200:C:O5'	22:DA:1200:C:H6	1.95	0.49
22:DA:1268:A:O2'	22:DA:1269:A:O4'	2.28	0.49
22:DA:1269:A:H2'	22:DA:1270:C:C6	2.47	0.49
22:DA:1290:C:C2	22:DA:1291:C:C5	3.01	0.49
22:DA:1337:G:N2	22:DA:1338:G:H1'	2.27	0.49
22:DA:1386:C:HO2'	22:DA:1387:A:H8	1.58	0.49
22:DA:1671:U:O2	22:DA:1673:G:H3'	2.12	0.49
22:DA:1895:C:H3'	22:DA:1895:C:H6	1.77	0.49
22:DA:1914:C:C6	22:DA:1915:U:C6	3.01	0.49
22:DA:2093:G:C2	22:DA:2094:A:C4	2.98	0.49
22:DA:2103:C:H2'	22:DA:2104:C:O4'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2206:C:O2'	22:DA:2207:C:H5'	2.12	0.49
22:DA:2283:C:C5	22:DA:2389:G:C4	3.00	0.49
22:DA:2339:C:O2'	22:DA:2340:A:O5'	2.30	0.49
22:DA:2406:A:C2	33:DL:69:ARG:NH2	2.80	0.49
22:DA:2458:G:H5"	22:DA:2459:A:OP1	2.13	0.49
22:DA:2461:A:N1	22:DA:2490:G:N2	2.60	0.49
22:DA:2619:C:OP1	25:DD:157:LYS:HE2	2.12	0.49
22:DA:2634:A:H2'	22:DA:2635:A:C8	2.47	0.49
22:DA:2753:A:O2'	22:DA:2754:U:H5'	2.12	0.49
22:DA:2869:G:C5	22:DA:2870:C:C4	3.00	0.49
22:DA:2875:C:O2'	22:DA:2876:G:H5'	2.11	0.49
57:DB:57:A:C5	58:DF:25:MET:HB2	2.47	0.49
25:DD:151:THR:CG2	25:DD:152:PRO:HD3	2.37	0.49
58:DF:103:ILE:H	58:DF:107:VAL:HG13	1.78	0.49
28:DG:8:VAL:O	28:DG:9:VAL:HB	2.13	0.49
33:DL:3:LEU:O	33:DL:4:ASN:C	2.50	0.49
37:DP:85:VAL:C	37:DP:86:LYS:HZ3	2.16	0.49
37:DP:112:ARG:O	37:DP:113:LEU:HB3	2.12	0.49
41:DT:9:LYS:O	41:DT:9:LYS:CG	2.58	0.49
41:DT:29:THR:CB	41:DT:86:THR:N	2.71	0.49
44:DW:25:PHE:O	44:DW:27:GLY:N	2.38	0.49
1:AA:255:G:H2'	1:AA:256:U:C6	2.48	0.49
1:AA:368:U:O2'	1:AA:369:G:P	2.70	0.49
1:AA:903:G:C5	1:AA:904:U:C5	3.00	0.49
1:AA:1316:G:H5"	1:AA:1317:C:OP2	2.13	0.49
1:AA:1521:C:C2	1:AA:1522:U:C5	3.01	0.49
4:AD:11:SER:HA	4:AD:18:LEU:CD1	2.39	0.49
6:AF:6:ILE:HB	6:AF:62:MET:HB3	1.95	0.49
8:AH:93:LYS:HB3	8:AH:116:ARG:HH22	1.76	0.49
12:AL:72:ASN:CG	12:AL:73:LEU:H	2.15	0.49
14:AN:65:GLN:HG3	14:AN:78:LEU:HD21	1.95	0.49
22:BA:68:G:N2	22:BA:74:A:C4	2.81	0.49
22:BA:223:A:H2	22:BA:407:G:N3	2.11	0.49
22:BA:579:G:H5"	22:BA:2018:G:OP2	2.13	0.49
22:BA:592:A:N3	51:B3:3:ILE:HD11	2.28	0.49
22:BA:603:A:C4'	22:BA:604:G:O5'	2.59	0.49
22:BA:640:C:H2'	22:BA:641:U:C6	2.48	0.49
22:BA:919:U:H2'	22:BA:920:A:O4'	2.12	0.49
22:BA:1246:A:C2'	22:BA:1247:A:O5'	2.61	0.49
22:BA:1384:A:H1'	22:BA:1405:U:C1'	2.42	0.49
22:BA:1638:C:H4'	22:BA:2710:C:O2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2149:U:C2'	22:BA:2150:C:O5'	2.61	0.49
22:BA:2393:U:O3'	33:BL:62:PRO:HA	2.12	0.49
23:BB:43:C:C2'	23:BB:44:G:H5'	2.42	0.49
25:BD:72:GLY:O	25:BD:73:VAL:O	2.30	0.49
25:BD:175:LEU:HD23	25:BD:190:LYS:HB3	1.94	0.49
27:BF:167:ALA:O	27:BF:170:ALA:HB3	2.12	0.49
28:BG:73:SER:C	28:BG:76:ILE:HG22	2.33	0.49
29:BH:16:GLY:C	29:BH:51:ARG:HH21	2.16	0.49
29:BH:67:ALA:O	29:BH:69:ALA:N	2.43	0.49
29:BH:76:GLU:HG2	29:BH:106:ALA:HB2	1.94	0.49
29:BH:108:VAL:HG12	29:BH:109:GLU:N	2.27	0.49
33:BL:28:GLY:O	33:BL:29:LYS:HB3	2.11	0.49
33:BL:111:ILE:HD12	33:BL:128:THR:CG2	2.42	0.49
38:BQ:91:ARG:NE	39:BR:11:GLN:H	2.11	0.49
39:BR:51:VAL:CB	39:BR:52:PRO:CD	2.74	0.49
40:BS:88:ARG:CG	40:BS:88:ARG:NH2	2.48	0.49
42:BU:5:ARG:HH21	42:BU:5:ARG:CG	2.26	0.49
42:BU:27:VAL:C	42:BU:28:LEU:HG	2.33	0.49
44:BW:30:VAL:O	44:BW:30:VAL:CG2	2.58	0.49
45:BX:40:GLU:C	45:BX:42:GLU:H	2.16	0.49
46:BY:6:LEU:HD13	46:BY:56:LEU:HD11	1.93	0.49
47:BZ:39:ASP:CG	47:BZ:44:ARG:HH11	2.16	0.49
53:CA:115:G:C2	53:CA:289:G:N7	2.80	0.49
53:CA:174:A:HO2'	53:CA:175:C:H5'	1.75	0.49
53:CA:448:A:C4	53:CA:487:A:C2	3.00	0.49
53:CA:519:C:C2'	53:CA:520:A:H8	2.16	0.49
53:CA:604:G:C2	53:CA:635:A:C2	3.01	0.49
53:CA:944:G:H3'	53:CA:945:G:H5'	1.95	0.49
53:CA:1086:U:C6	53:CA:1086:U:C5'	2.81	0.49
53:CA:1236:A:H2'	53:CA:1237:C:C6	2.48	0.49
53:CA:1361:G:H2'	53:CA:1362:A:C5'	2.40	0.49
9:CI:96:GLU:CA	9:CI:99:LYS:HE2	2.43	0.49
12:CL:115:LYS:O	12:CL:116:TYR:CG	2.66	0.49
55:CM:5:GLY:C	55:CM:6:ILE:HG13	2.33	0.49
14:CN:68:ARG:NH1	14:CN:80:ARG:HH12	2.11	0.49
22:DA:8:C:H2'	22:DA:9:G:H5'	1.94	0.49
22:DA:120:U:O4	22:DA:177:G:C8	2.66	0.49
22:DA:251:A:H4'	33:DL:47:ARG:HH22	1.78	0.49
22:DA:271:G:O2'	22:DA:272:A:O4'	2.29	0.49
22:DA:459:U:C5	22:DA:469:G:N2	2.81	0.49
22:DA:712:G:C2	22:DA:720:U:O2	2.65	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:858:G:C5	22:DA:2268:A:N1	2.81	0.49
22:DA:1130:U:O2'	22:DA:1131:G:C8	2.64	0.49
22:DA:1312:U:O2'	22:DA:1313:U:OP2	2.29	0.49
22:DA:1555:G:HO2'	22:DA:1556:C:H5'	1.70	0.49
22:DA:1594:U:H2'	22:DA:1595:C:O4'	2.12	0.49
22:DA:1649:G:O2'	22:DA:1650:A:H8	1.96	0.49
22:DA:1654:A:HO2'	22:DA:1655:A:H8	1.59	0.49
22:DA:1668:A:O4'	22:DA:1669:A:C2	2.66	0.49
22:DA:1737:G:H5'	22:DA:1738:G:OP2	2.12	0.49
22:DA:1813:G:C2	24:DC:49:THR:HB	2.48	0.49
22:DA:1853:A:H1'	22:DA:2234:G:H5'	1.94	0.49
22:DA:2845:U:H2'	22:DA:2846:G:O4'	2.13	0.49
22:DA:2891:U:O2'	22:DA:2892:G:H5'	2.12	0.49
25:DD:99:GLU:HG3	25:DD:100:LEU:N	2.27	0.49
32:DK:11:ALA:CB	32:DK:64:ARG:NH1	2.76	0.49
33:DL:132:ARG:HA	33:DL:135:ILE:CG2	2.42	0.49
34:DM:69:PRO:O	34:DM:70:ASP:HB3	2.12	0.49
35:DN:97:ILE:HD11	35:DN:99:LYS:NZ	2.28	0.49
37:DP:60:VAL:HG12	37:DP:60:VAL:O	2.12	0.49
37:DP:102:ARG:HB3	37:DP:107:ALA:N	2.28	0.49
1:AA:246:A:C5	1:AA:282:A:N6	2.80	0.49
1:AA:275:G:C2'	1:AA:276:G:H5'	2.42	0.49
1:AA:377:G:H5'	16:AP:5:ARG:NH1	2.27	0.49
1:AA:466:A:C5'	1:AA:467:U:OP2	2.61	0.49
1:AA:513:C:H2'	1:AA:514:C:C5	2.48	0.49
1:AA:697:U:O2	1:AA:798:U:H1'	2.13	0.49
1:AA:900:A:N1	1:AA:901:A:C2	2.81	0.49
1:AA:1033:G:H2'	1:AA:1034:G:H5"	1.95	0.49
1:AA:1064:G:H1'	1:AA:1066:C:C6	2.48	0.49
1:AA:1241:G:N2	1:AA:1242:G:C4	2.80	0.49
2:AB:32:GLY:HA3	2:AB:39:ILE:CG1	2.38	0.49
2:AB:119:GLN:HA	2:AB:122:ASP:HB2	1.93	0.49
3:AC:125:ARG:O	3:AC:126:ARG:HB3	2.12	0.49
4:AD:53:GLN:HE21	4:AD:202:LEU:HA	1.77	0.49
5:AE:153:ALA:N	5:AE:156:ARG:HB2	2.26	0.49
6:AF:38:ARG:HG2	6:AF:38:ARG:NH1	2.26	0.49
8:AH:48:PHE:CD2	8:AH:49:LYS:N	2.81	0.49
10:AJ:17:LEU:HD21	10:AJ:96:VAL:CG2	2.42	0.49
10:AJ:52:LEU:HA	10:AJ:62:ARG:HA	1.95	0.49
15:AO:74:VAL:O	15:AO:77:TYR:HB3	2.13	0.49
20:AT:4:LYS:O	20:AT:5:SER:C	2.50	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:41:C:C2'	22:BA:42:A:O5'	2.61	0.49
22:BA:63:A:O2'	22:BA:64:A:H5'	2.12	0.49
22:BA:615:U:H4'	22:BA:616:A:OP2	2.13	0.49
22:BA:745:G:H2'	22:BA:746:U:H5'	1.94	0.49
22:BA:753:A:H2'	22:BA:754:U:H6	1.78	0.49
22:BA:799:G:C6	22:BA:800:A:C6	3.01	0.49
22:BA:1266:G:H5"	40:BS:15:GLN:NE2	2.27	0.49
22:BA:1872:A:HO2'	22:BA:1873:G:C4'	2.26	0.49
22:BA:2076:U:O5'	22:BA:2076:U:O2	2.31	0.49
22:BA:2332:C:OP1	44:BW:44:PHE:CZ	2.64	0.49
22:BA:2516:A:O2'	22:BA:2517:C:H5'	2.13	0.49
22:BA:2628:C:O2'	22:BA:2781:A:H2'	2.13	0.49
22:BA:2799:A:C6	22:BA:2801:G:C5	3.01	0.49
24:BC:131:MET:HG2	24:BC:134:ILE:HD12	1.94	0.49
25:BD:34:VAL:HG23	25:BD:34:VAL:O	2.13	0.49
26:BE:19:PHE:O	26:BE:113:VAL:HG11	2.12	0.49
28:BG:33:THR:H	28:BG:34:ARG:HD3	1.77	0.49
34:BM:31:PHE:CE2	34:BM:110:GLU:HG2	2.47	0.49
37:BP:5:LYS:O	37:BP:9:GLN:HG2	2.13	0.49
42:BU:52:ASN:C	42:BU:54:PRO:CD	2.74	0.49
44:BW:51:GLY:O	44:BW:52:CYS:O	2.31	0.49
44:BW:67:LYS:HG3	44:BW:69:GLU:HG3	1.93	0.49
49:B1:3:GLY:C	49:B1:4:ILE:HG23	2.31	0.49
53:CA:36:C:OP1	12:CL:119:LYS:HE3	2.13	0.49
53:CA:218:U:H2'	53:CA:219:U:O4'	2.11	0.49
53:CA:428:G:H1'	53:CA:430:A:N7	2.28	0.49
53:CA:729:A:H2'	53:CA:730:G:O4'	2.13	0.49
53:CA:935:A:N6	54:CG:2:ARG:CZ	2.75	0.49
53:CA:1138:G:C2'	53:CA:1139:G:OP1	2.61	0.49
53:CA:1249:C:C2'	53:CA:1250:A:H5"	2.28	0.49
53:CA:1269:A:H2	53:CA:1312:G:H21	1.61	0.49
53:CA:1462:C:H2'	53:CA:1463:U:C6	2.47	0.49
53:CA:1525:G:H5"	21:CU:37:TYR:CD1	2.48	0.49
2:CB:69:VAL:HG23	2:CB:161:PHE:O	2.13	0.49
4:CD:165:GLU:O	4:CD:166:LYS:HB3	2.12	0.49
8:CH:54:THR:HG23	8:CH:55:LYS:N	2.27	0.49
9:CI:118:ARG:HG3	9:CI:124:PRO:HG3	1.95	0.49
10:CJ:63:ASP:OD2	14:CN:84:ARG:NH1	2.46	0.49
14:CN:8:ARG:HD2	14:CN:12:ARG:NH2	2.27	0.49
14:CN:53:ASP:HA	14:CN:58:ARG:HD3	1.94	0.49
19:CS:40:PHE:CB	19:CS:41:PRO:CD	2.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:83:A:OP2	42:DU:91:LYS:HE3	2.12	0.49
22:DA:156:A:H2'	22:DA:157:C:H6	1.77	0.49
22:DA:191:A:N1	62:DA:3336:HOH:O	2.34	0.49
22:DA:299:A:C2	22:DA:319:G:N3	2.81	0.49
22:DA:309:A:H1'	22:DA:329:G:C4	2.48	0.49
22:DA:627:A:C2	22:DA:637:A:C4	3.01	0.49
22:DA:659:G:H4'	26:DE:95:LYS:CD	2.43	0.49
22:DA:845:A:N1	22:DA:932:U:O2	2.46	0.49
22:DA:983:A:N6	22:DA:984:A:C2	2.81	0.49
22:DA:1178:C:C2	22:DA:1179:G:C8	3.01	0.49
22:DA:1356:G:N2	22:DA:1357:C:H1'	2.27	0.49
22:DA:1492:G:H3'	22:DA:1493:C:H5"	1.82	0.49
22:DA:1598:A:O2'	22:DA:1599:U:H5'	2.13	0.49
22:DA:1682:G:C2	22:DA:1757:A:O4'	2.66	0.49
22:DA:1695:G:H2'	22:DA:1695:G:N3	2.27	0.49
22:DA:1982:U:O5'	22:DA:1982:U:C6	2.65	0.49
22:DA:2230:G:O4'	45:DX:31:ASN:HB3	2.12	0.49
22:DA:2250:G:C2	34:DM:82:MET:HB2	2.48	0.49
22:DA:2330:G:H1'	44:DW:38:ARG:HB3	1.94	0.49
22:DA:2860:A:H8	22:DA:2860:A:O5'	1.96	0.49
24:DC:16:VAL:HG23	24:DC:203:VAL:CG1	2.42	0.49
24:DC:64:VAL:HG12	24:DC:64:VAL:O	2.13	0.49
24:DC:67:LYS:HB3	24:DC:150:GLY:HA2	1.94	0.49
28:DG:102:ILE:HB	28:DG:114:HIS:O	2.13	0.49
30:DI:113:ALA:HB1	30:DI:124:MET:CG	2.41	0.49
31:DJ:111:LYS:HB2	31:DJ:115:GLY:H	1.74	0.49
32:DK:34:GLY:C	32:DK:35:VAL:HG22	2.33	0.49
33:DL:94:THR:O	33:DL:98:ALA:N	2.46	0.49
36:DO:26:LEU:HD23	36:DO:92:PHE:CD1	2.48	0.49
37:DP:86:LYS:HZ3	37:DP:86:LYS:CA	2.25	0.49
40:DS:32:ALA:HA	40:DS:35:ILE:HD11	1.94	0.49
40:DS:68:ASP:OD1	40:DS:68:ASP:N	2.45	0.49
42:DU:86:PHE:CG	42:DU:87:GLU:N	2.81	0.49
47:DZ:5:LYS:HE2	47:DZ:57:GLU:OE2	2.13	0.49
1:AA:450:G:N7	1:AA:481:G:O6	2.46	0.49
1:AA:722:G:H5"	1:AA:722:G:N3	2.27	0.49
1:AA:790:A:C6	1:AA:791:G:C6	3.01	0.49
1:AA:1134:G:O6	1:AA:1141:C:N4	2.46	0.49
1:AA:1281:C:HO2'	1:AA:1282:C:H6	1.59	0.49
1:AA:1507:A:H2'	1:AA:1508:A:C8	2.47	0.49
2:AB:95:TRP:CH2	2:AB:100:LEU:HB2	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:105:THR:HA	2:AB:108:GLN:HE22	1.78	0.49
4:AD:172:VAL:CG2	4:AD:173:ASP:H	2.08	0.49
5:AE:93:VAL:HG13	5:AE:94:PHE:N	2.27	0.49
5:AE:134:ASN:O	5:AE:137:ARG:HB3	2.13	0.49
7:AG:77:ARG:NE	7:AG:77:ARG:HA	2.28	0.49
13:AM:36:ALA:CB	13:AM:38:ILE:HG12	2.41	0.49
22:BA:418:C:H2'	22:BA:419:U:O4'	2.12	0.49
22:BA:483:A:H2'	22:BA:484:C:H5'	1.95	0.49
22:BA:594:U:H2'	22:BA:595:C:H6	1.76	0.49
22:BA:638:G:C8	22:BA:651:G:N2	2.81	0.49
22:BA:665:U:H2'	22:BA:666:A:C8	2.48	0.49
22:BA:1206:G:C6	22:BA:1207:C:C4	3.01	0.49
22:BA:1250:G:OP2	33:BL:21:ARG:NH2	2.45	0.49
22:BA:1567:G:H2'	24:BC:84:PRO:HG3	1.94	0.49
22:BA:1724:G:C2'	22:BA:1725:U:H5'	2.43	0.49
22:BA:1786:A:H1'	22:BA:1938:A:N6	2.28	0.49
22:BA:1814:G:H2'	22:BA:1815:A:C8	2.47	0.49
22:BA:1848:A:O2'	22:BA:1849:G:H5'	2.12	0.49
22:BA:2136:G:N3	22:BA:2137:U:C4	2.81	0.49
24:BC:173:LEU:O	24:BC:180:MET:HA	2.13	0.49
24:BC:195:GLY:O	24:BC:196:ASN:HB3	2.13	0.49
25:BD:110:THR:O	25:BD:201:LEU:HD12	2.12	0.49
26:BE:6:LYS:HG2	26:BE:7:ASP:N	2.26	0.49
26:BE:118:LEU:HD23	26:BE:186:VAL:HG13	1.95	0.49
26:BE:119:ILE:HD13	26:BE:119:ILE:H	1.78	0.49
27:BF:39:VAL:HG11	27:BF:42:ALA:CB	2.42	0.49
33:BL:77:ILE:HG12	33:BL:95:LEU:CD1	2.42	0.49
39:BR:48:LYS:HD2	39:BR:48:LYS:N	2.27	0.49
44:BW:39:GLN:O	44:BW:41:GLY:N	2.46	0.49
53:CA:38:G:C2	53:CA:397:A:C2	3.01	0.49
53:CA:211:G:H2'	53:CA:211:G:N3	2.27	0.49
53:CA:274:A:H4'	53:CA:275:G:O5'	2.12	0.49
53:CA:624:C:C2'	53:CA:625:U:H5'	2.42	0.49
53:CA:913:A:OP1	12:CL:43:LYS:HE3	2.13	0.49
53:CA:1200:C:O2'	53:CA:1201:A:P	2.71	0.49
2:CB:80:LYS:O	2:CB:81:ASP:C	2.51	0.49
5:CE:80:LEU:HD21	5:CE:143:LEU:CD2	2.42	0.49
6:CF:3:HIS:ND1	6:CF:92:THR:CG2	2.70	0.49
11:CK:44:ALA:CB	11:CK:69:CYS:HB2	2.25	0.49
55:CM:13:HIS:CB	55:CM:16:ILE:HD13	2.38	0.49
19:CS:32:THR:O	19:CS:32:THR:HG23	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:37:C:H2'	22:DA:38:A:O4'	2.13	0.49
22:DA:116:C:H5"	22:DA:128:C:N4	2.26	0.49
22:DA:303:G:O2'	22:DA:304:U:C5'	2.61	0.49
22:DA:315:G:H2'	22:DA:316:C:O4'	2.13	0.49
22:DA:533:G:C2	22:DA:534:U:C2	3.00	0.49
22:DA:620:G:H8	22:DA:622:G:O6	1.95	0.49
22:DA:664:G:H4'	22:DA:941:A:P	2.53	0.49
22:DA:818:G:H2'	22:DA:819:A:H5"	1.93	0.49
22:DA:1205:A:N7	26:DE:165:HIS:ND1	2.61	0.49
22:DA:1249:U:H4'	38:DQ:3:VAL:HB	1.94	0.49
22:DA:1512:C:C4	22:DA:1513:U:C4	3.01	0.49
22:DA:1565:C:O2'	22:DA:1566:A:C2'	2.44	0.49
22:DA:1865:U:O4	22:DA:1875:G:C4	2.65	0.49
22:DA:1936:A:H2	22:DA:1943:U:O4	1.96	0.49
22:DA:2135:A:C2'	22:DA:2136:G:H5"	2.40	0.49
22:DA:2321:U:O2	22:DA:2321:U:O5'	2.30	0.49
22:DA:2360:G:C1'	33:DL:60:ARG:NH2	2.69	0.49
22:DA:2461:A:H1'	22:DA:2492:U:O2	2.12	0.49
22:DA:2637:U:H2'	22:DA:2638:G:H5'	1.93	0.49
22:DA:2675:A:C2	22:DA:2676:C:C2	3.01	0.49
22:DA:2710:C:OP1	35:DN:15:SER:HB2	2.13	0.49
22:DA:2714:G:C5	22:DA:2715:C:C5	3.00	0.49
22:DA:2747:G:O2'	28:DG:66:THR:HG22	2.13	0.49
22:DA:2776:A:H1'	22:DA:2778:A:O2'	2.13	0.49
22:DA:2882:A:OP1	35:DN:96:ARG:CD	2.61	0.49
26:DE:132:LYS:HG2	26:DE:132:LYS:O	2.13	0.49
26:DE:149:ILE:O	26:DE:149:ILE:HG12	2.11	0.49
58:DF:104:THR:H	58:DF:107:VAL:HG22	1.77	0.49
31:DJ:45:THR:N	31:DJ:46:PRO:CD	2.76	0.49
31:DJ:100:VAL:O	31:DJ:104:ALA:HB2	2.12	0.49
31:DJ:140:LEU:C	31:DJ:140:LEU:HD13	2.33	0.49
33:DL:17:LYS:HE2	33:DL:19:LEU:HD13	1.94	0.49
34:DM:69:PRO:HA	34:DM:94:ALA:HB2	1.94	0.49
35:DN:75:ILE:O	35:DN:79:LEU:HB2	2.12	0.49
36:DO:7:ARG:HD2	36:DO:97:PHE:CZ	2.48	0.49
37:DP:13:LYS:HD2	37:DP:13:LYS:H	1.78	0.49
45:DX:51:SER:OG	45:DX:54:GLY:HA3	2.13	0.49
46:DY:57:LEU:CD1	46:DY:60:LYS:CE	2.91	0.49
50:D2:34:ARG:CB	50:D2:42:LEU:HD11	2.31	0.49
1:AA:428:G:C5	1:AA:430:A:C6	3.01	0.49
1:AA:507:C:C4	1:AA:508:U:C4	3.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:597:G:H2'	1:AA:598:U:H6	1.78	0.49
1:AA:644:U:C2'	1:AA:645:G:H5'	2.43	0.49
1:AA:826:C:H5'	8:AH:12:ARG:HE	1.78	0.49
1:AA:919:A:HO2'	1:AA:920:U:H5'	1.76	0.49
1:AA:955:U:H6	1:AA:955:U:O5'	1.96	0.49
1:AA:1009:U:O2'	1:AA:1010:U:H5'	2.12	0.49
1:AA:1026:G:C6	1:AA:1027:C:N4	2.81	0.49
1:AA:1138:G:N3	1:AA:1138:G:C2'	2.55	0.49
2:AB:20:ARG:HH12	2:AB:38:HIS:CE1	2.31	0.49
3:AC:151:GLU:HG2	3:AC:151:GLU:O	2.13	0.49
4:AD:30:LYS:HD3	4:AD:30:LYS:N	2.27	0.49
7:AG:69:ARG:CG	7:AG:95:ARG:HG2	2.42	0.49
7:AG:107:ALA:CA	7:AG:122:GLU:HG3	2.43	0.49
8:AH:94:VAL:HG12	8:AH:95:MET:HG3	1.95	0.49
9:AI:53:LEU:HD12	9:AI:53:LEU:N	2.27	0.49
10:AJ:81:GLU:C	10:AJ:84:VAL:HG12	2.33	0.49
11:AK:42:GLY:HA3	11:AK:73:VAL:HG12	1.95	0.49
13:AM:3:ILE:H	13:AM:56:ARG:HH12	1.60	0.49
17:AQ:12:VAL:CG1	17:AQ:16:MET:CE	2.90	0.49
22:BA:261:G:C2	22:BA:262:A:C8	3.01	0.49
22:BA:308:G:O2'	22:BA:309:A:H5'	2.12	0.49
22:BA:571:U:O3'	39:BR:80:ARG:NH2	2.46	0.49
22:BA:593:U:H2'	22:BA:594:U:C6	2.48	0.49
22:BA:1652:A:OP1	35:BN:8:ARG:NH2	2.45	0.49
22:BA:1854:A:H5"	22:BA:1855:U:OP2	2.13	0.49
22:BA:2060:A:O2'	22:BA:2061:G:OP2	2.28	0.49
22:BA:2373:G:H2'	22:BA:2374:C:C6	2.46	0.49
22:BA:2471:A:H2'	22:BA:2472:G:C5'	2.42	0.49
22:BA:2574:G:OP1	62:BA:3705:HOH:O	2.19	0.49
24:BC:69:ASN:O	24:BC:70:LYS:C	2.49	0.49
27:BF:3:LEU:HD11	27:BF:172:PHE:CD2	2.46	0.49
28:BG:115:GLN:H	28:BG:115:GLN:NE2	2.11	0.49
30:BI:32:VAL:HG22	30:BI:66:PHE:CG	2.47	0.49
33:BL:4:ASN:HD22	33:BL:4:ASN:N	2.06	0.49
37:BP:4:ILE:CG2	37:BP:5:LYS:H	2.12	0.49
37:BP:50:ARG:CG	37:BP:57:ALA:O	2.61	0.49
38:BQ:73:ILE:CD1	38:BQ:77:LYS:HB2	2.43	0.49
38:BQ:111:LYS:NZ	39:BR:48:LYS:HD3	2.28	0.49
43:BV:89:ILE:HG21	43:BV:91:PHE:CZ	2.48	0.49
44:BW:41:GLY:HA2	44:BW:44:PHE:CZ	2.47	0.49
47:BZ:2:LYS:C	47:BZ:3:THR:CG2	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:98:A:H2'	53:CA:99:C:C6	2.48	0.49
53:CA:220:G:C2	53:CA:221:C:C6	3.01	0.49
53:CA:246:A:C5	53:CA:282:A:N6	2.81	0.49
53:CA:247:G:C6	53:CA:278:G:C6	3.01	0.49
53:CA:652:U:O4	53:CA:752:G:H2'	2.12	0.49
53:CA:704:A:O2'	53:CA:705:G:H8	1.96	0.49
53:CA:756:C:C2'	53:CA:757:U:H5'	2.43	0.49
53:CA:1106:G:C2	53:CA:1107:C:C5	3.01	0.49
53:CA:1270:G:H2'	53:CA:1271:A:H8	1.78	0.49
53:CA:1288:A:C2'	53:CA:1289:A:H8	2.26	0.49
53:CA:1343:G:H4'	9:CI:123:ARG:HB3	1.94	0.49
2:CB:37:VAL:CG2	2:CB:38:HIS:N	2.76	0.49
3:CC:34:SER:O	3:CC:38:VAL:HG13	2.13	0.49
4:CD:57:LYS:HB2	4:CD:199:ILE:HB	1.95	0.49
5:CE:33:THR:OG1	5:CE:49:TYR:CZ	2.65	0.49
6:CF:97:THR:O	6:CF:98:GLU:HG3	2.13	0.49
55:CM:16:ILE:HG22	55:CM:16:ILE:O	2.12	0.49
19:CS:44:ILE:HA	19:CS:61:VAL:CG1	2.42	0.49
20:CT:54:GLN:N	20:CT:55:PRO:CD	2.75	0.49
22:DA:319:G:C6	22:DA:333:G:N1	2.81	0.49
22:DA:675:A:N6	22:DA:676:A:N6	2.61	0.49
22:DA:1028:A:C2	22:DA:1029:A:C6	3.01	0.49
22:DA:1063:G:C6	22:DA:1064:C:N4	2.80	0.49
22:DA:1362:C:C4	22:DA:1363:C:C5	3.01	0.49
22:DA:1527:G:H1'	22:DA:1546:G:N2	2.27	0.49
22:DA:1553:A:C8	22:DA:1555:G:C6	3.01	0.49
22:DA:1596:A:C6	22:DA:1597:A:C6	3.00	0.49
22:DA:1809:A:N3	22:DA:1810:A:C8	2.80	0.49
22:DA:1826:G:C2'	22:DA:1827:U:O5'	2.60	0.49
22:DA:1996:C:H5	32:DK:32:TYR:HH	1.60	0.49
22:DA:2015:A:C2	48:D0:2:VAL:HG11	2.47	0.49
22:DA:2024:G:H2'	22:DA:2025:C:C6	2.47	0.49
22:DA:2077:A:C5	22:DA:2435:A:C6	3.01	0.49
22:DA:2097:A:H2'	22:DA:2098:U:C6	2.48	0.49
22:DA:2412:A:H3'	22:DA:2413:G:H8	1.76	0.49
22:DA:2527:C:O2'	22:DA:2528:U:H5'	2.13	0.49
22:DA:2811:G:H2'	22:DA:2812:G:O4'	2.13	0.49
26:DE:147:LEU:O	26:DE:148:ILE:CB	2.59	0.49
28:DG:88:LEU:CD1	28:DG:93:TYR:HB3	2.40	0.49
29:DH:94:ILE:HG13	29:DH:98:ASP:CG	2.33	0.49
34:DM:62:LYS:C	34:DM:63:ILE:HD12	2.33	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DN:100:CYS:O	48:D0:41:HIS:CD2	2.66	0.49
37:DP:5:LYS:HG2	37:DP:9:GLN:HE21	1.78	0.49
40:DS:20:VAL:HG11	40:DS:43:ALA:HB3	1.95	0.49
43:DV:70:ILE:N	43:DV:70:ILE:CD1	2.70	0.49
1:AA:386:C:H2'	1:AA:387:U:C5'	2.41	0.48
1:AA:1299:A:O2'	1:AA:1300:G:H4'	2.13	0.48
1:AA:1323:G:H2'	1:AA:1324:A:H8	1.77	0.48
1:AA:1350:A:C6	1:AA:1351:U:N3	2.81	0.48
1:AA:1451:U:O5'	1:AA:1452:C:H5	1.96	0.48
2:AB:49:PHE:CB	2:AB:212:TYR:OH	2.61	0.48
2:AB:95:TRP:HH2	2:AB:100:LEU:HB2	1.77	0.48
2:AB:116:LEU:HB3	2:AB:140:LEU:HG	1.94	0.48
2:AB:185:ILE:O	2:AB:185:ILE:CG1	2.61	0.48
3:AC:4:VAL:HG22	3:AC:5:HIS:N	2.28	0.48
3:AC:149:LYS:HG3	3:AC:200:TRP:CE3	2.47	0.48
3:AC:153:SER:HB3	3:AC:164:THR:HG22	1.95	0.48
4:AD:69:ARG:HA	4:AD:69:ARG:NE	2.20	0.48
4:AD:88:ASN:HA	4:AD:91:ALA:HB3	1.94	0.48
5:AE:109:ALA:O	5:AE:110:MET:CB	2.61	0.48
8:AH:10:LEU:HD11	8:AH:126:CYS:HB3	1.95	0.48
8:AH:94:VAL:CG1	8:AH:95:MET:N	2.76	0.48
9:AI:119:LYS:O	9:AI:120:ALA:HB3	2.12	0.48
11:AK:111:ASP:HB3	21:AU:19:LYS:HD3	1.95	0.48
19:AS:64:GLU:CD	19:AS:64:GLU:N	2.66	0.48
22:BA:221:A:H1'	22:BA:233:A:H1'	1.95	0.48
22:BA:524:G:C2'	22:BA:525:U:H5'	2.43	0.48
22:BA:806:C:H2'	22:BA:807:U:C6	2.44	0.48
22:BA:1057:A:N3	22:BA:1082:U:C2	2.81	0.48
22:BA:1903:G:O2'	22:BA:1904:G:H5'	2.12	0.48
22:BA:2303:G:C6	22:BA:2314:A:C6	3.01	0.48
22:BA:2511:U:O5'	22:BA:2511:U:H6	1.96	0.48
22:BA:2531:A:OP1	28:BG:174:LYS:HG3	2.13	0.48
22:BA:2591:C:P	24:BC:237:ARG:HG3	2.52	0.48
22:BA:2742:G:P	52:B4:24:ARG:HH12	2.35	0.48
22:BA:2786:U:O2'	25:BD:66:GLY:HA3	2.13	0.48
22:BA:2842:G:H2'	22:BA:2843:G:H5'	1.94	0.48
24:BC:139:THR:O	24:BC:161:VAL:O	2.31	0.48
28:BG:154:GLU:OE1	28:BG:157:LYS:N	2.46	0.48
32:BK:1:MET:HE3	32:BK:32:TYR:CG	2.48	0.48
32:BK:64:ARG:HB3	32:BK:79:PHE:CG	2.48	0.48
33:BL:95:LEU:CD1	33:BL:100:ILE:HD11	2.37	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BM:136:MET:CE	43:BV:57:TYR:CD2	2.96	0.48
35:BN:32:GLU:OE1	35:BN:118:ARG:HA	2.13	0.48
39:BR:42:ALA:CA	39:BR:46:GLU:HB2	2.19	0.48
39:BR:97:LYS:O	39:BR:98:ILE:HB	2.13	0.48
40:BS:15:GLN:NE2	48:B0:16:ARG:NH2	2.61	0.48
41:BT:49:LYS:HE3	41:BT:49:LYS:N	2.28	0.48
43:BV:51:GLN:HG2	43:BV:86:LEU:HD11	1.95	0.48
45:BX:32:LEU:O	45:BX:33:HIS:CG	2.65	0.48
50:B2:42:LEU:HD22	50:B2:42:LEU:N	2.28	0.48
53:CA:399:G:C6	53:CA:400:C:C4	3.01	0.48
53:CA:411:A:N7	53:CA:413:G:C4	2.80	0.48
53:CA:917:G:C6	53:CA:918:A:C6	3.01	0.48
53:CA:1271:A:H5'	53:CA:1314:C:H5"	1.95	0.48
53:CA:1278:G:C5'	53:CA:1279:G:H5'	2.42	0.48
53:CA:1336:C:H1'	53:CA:1337:G:N1	2.28	0.48
4:CD:81:LEU:HB2	4:CD:88:ASN:ND2	2.28	0.48
54:CG:91:ARG:CZ	54:CG:92:PRO:HD2	2.43	0.48
8:CH:34:ALA:O	8:CH:38:VAL:HG23	2.13	0.48
9:CI:44:ARG:O	9:CI:48:ARG:HG2	2.13	0.48
9:CI:87:MET:SD	9:CI:87:MET:N	2.84	0.48
15:CO:55:LEU:HA	15:CO:58:MET:HG3	1.94	0.48
17:CQ:59:GLU:HG3	17:CQ:75:VAL:CG2	2.41	0.48
22:DA:27:G:H22	22:DA:512:G:H2'	1.78	0.48
22:DA:270:A:C2	22:DA:369:U:H4'	2.48	0.48
22:DA:464:U:O2'	22:DA:465:G:H5'	2.13	0.48
22:DA:477:A:H2'	22:DA:478:A:H8	1.78	0.48
22:DA:538:A:H5"	31:DJ:7:LYS:HZ3	1.78	0.48
22:DA:910:A:C4	34:DM:13:HIS:ND1	2.81	0.48
22:DA:1042:G:C5	22:DA:1043:C:C4	3.01	0.48
22:DA:1082:U:H2'	22:DA:1083:U:H5'	1.95	0.48
22:DA:1091:G:O2'	22:DA:1092:C:H5'	2.12	0.48
22:DA:1364:G:OP2	45:DX:1:SER:HA	2.13	0.48
22:DA:1387:A:C4	22:DA:1388:G:N7	2.81	0.48
22:DA:1490:A:H8	24:DC:73:ILE:CD1	2.21	0.48
22:DA:1532:A:N1	22:DA:1540:G:C6	2.81	0.48
22:DA:2230:G:C1'	45:DX:31:ASN:HB3	2.43	0.48
22:DA:2255:G:H2'	22:DA:2256:G:O4'	2.12	0.48
22:DA:2376:A:H1'	36:DO:99:TYR:OH	2.13	0.48
22:DA:2458:G:O2'	22:DA:2460:U:C4	2.65	0.48
22:DA:2873:A:C2	35:DN:5:LYS:HG3	2.48	0.48
57:DB:8:C:H5'	36:DO:27:VAL:HG11	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DD:14:ILE:HG23	25:DD:22:ILE:HB	1.95	0.48
25:DD:27:ILE:HD12	25:DD:189:VAL:CG2	2.42	0.48
26:DE:134:LEU:CA	26:DE:137:LYS:HB2	2.43	0.48
26:DE:166:LYS:HE2	26:DE:166:LYS:CA	2.34	0.48
58:DF:11:VAL:C	58:DF:13:LYS:H	2.16	0.48
58:DF:87:LYS:O	58:DF:88:VAL:HB	2.13	0.48
43:DV:77:VAL:HG23	43:DV:89:ILE:HG21	1.93	0.48
44:DW:27:GLY:HA3	44:DW:31:LEU:HD11	1.81	0.48
44:DW:42:THR:O	44:DW:43:LYS:HG2	2.13	0.48
50:D2:9:VAL:HG13	50:D2:10:LEU:N	2.27	0.48
1:AA:51:A:H4'	1:AA:52:C:C5'	2.43	0.48
1:AA:71:A:H61	1:AA:99:C:H1'	1.77	0.48
1:AA:279:A:H5"	1:AA:281:G:C4'	2.43	0.48
1:AA:450:G:H2'	1:AA:451:A:OP1	2.13	0.48
1:AA:524:G:C4	1:AA:525:C:C5	3.01	0.48
1:AA:880:C:OP1	12:AL:4:ASN:ND2	2.46	0.48
1:AA:1511:G:C4	1:AA:1512:U:C6	3.00	0.48
2:AB:22:TRP:HA	2:AB:188:THR:O	2.12	0.48
2:AB:61:SER:C	2:AB:63:LYS:H	2.16	0.48
5:AE:152:VAL:C	5:AE:156:ARG:HB2	2.33	0.48
6:AF:91:ARG:CG	6:AF:92:THR:H	2.23	0.48
7:AG:3:ARG:HG3	7:AG:4:ARG:N	2.26	0.48
13:AM:78:ARG:O	13:AM:82:LEU:HG	2.14	0.48
18:AR:63:TYR:CD1	18:AR:69:TYR:OH	2.66	0.48
22:BA:63:A:C2	22:BA:64:A:C5	3.01	0.48
22:BA:142:A:C2'	22:BA:143:C:C6	2.96	0.48
22:BA:434:U:C4'	22:BA:435:C:OP1	2.59	0.48
22:BA:1187:G:H5"	39:BR:83:TYR:CE2	2.48	0.48
22:BA:1289:C:H2'	22:BA:1290:C:H6	1.77	0.48
22:BA:1733:G:O2'	22:BA:1734:G:H5'	2.13	0.48
22:BA:1886:U:H2'	22:BA:1887:C:H6	1.78	0.48
22:BA:2140:G:H8	22:BA:2140:G:OP2	1.96	0.48
24:BC:94:LEU:CD1	24:BC:100:ARG:HD3	2.40	0.48
24:BC:159:THR:N	24:BC:194:VAL:CG1	2.77	0.48
25:BD:114:LYS:HZ3	25:BD:116:LYS:HE2	1.76	0.48
26:BE:82:GLY:O	26:BE:83:VAL:HB	2.14	0.48
28:BG:61:TRP:O	28:BG:62:ALA:C	2.51	0.48
32:BK:43:ILE:HG12	32:BK:56:ASP:HB2	1.95	0.48
33:BL:29:LYS:C	33:BL:30:THR:HG23	2.34	0.48
34:BM:134:THR:CG2	34:BM:136:MET:O	2.61	0.48
36:BO:79:ALA:HB1	36:BO:113:ALA:HB1	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BQ:114:ALA:C	38:BQ:116:LEU:N	2.67	0.48
39:BR:49:ILE:CG2	39:BR:53:PHE:N	2.75	0.48
44:BW:24:ARG:NE	44:BW:65:LYS:HE2	2.27	0.48
45:BX:69:GLU:O	45:BX:71:ARG:N	2.46	0.48
46:BY:17:GLU:HG3	46:BY:18:LEU:H	1.74	0.48
53:CA:155:A:C4	53:CA:167:A:C2	3.01	0.48
53:CA:530:G:H5"	53:CA:531:U:OP1	2.13	0.48
53:CA:552:U:C4	53:CA:553:A:N7	2.81	0.48
53:CA:1107:C:N3	53:CA:1108:G:C8	2.82	0.48
53:CA:1151:A:C4	53:CA:1152:A:N7	2.81	0.48
53:CA:1359:C:H2'	53:CA:1361:G:OP2	2.14	0.48
3:CC:149:LYS:HD2	3:CC:200:TRP:CE3	2.47	0.48
4:CD:29:THR:C	4:CD:31:CYS:H	2.17	0.48
10:CJ:51:VAL:CB	14:CN:80:ARG:HB2	2.39	0.48
11:CK:17:ASP:OD2	11:CK:80:ASN:HB2	2.12	0.48
11:CK:126:ARG:O	11:CK:127:ARG:HB2	2.13	0.48
20:CT:42:ASP:O	20:CT:43:LYS:C	2.52	0.48
22:DA:53:A:C2	50:D2:35:ARG:NH1	2.81	0.48
22:DA:349:U:H2'	22:DA:350:G:H8	1.78	0.48
22:DA:638:G:C6	22:DA:651:G:C5	3.01	0.48
22:DA:661:A:H2'	22:DA:662:G:O4'	2.13	0.48
22:DA:674:G:H5"	26:DE:71:GLY:HA3	1.95	0.48
22:DA:855:G:N2	44:DW:23:LYS:HG2	2.27	0.48
22:DA:1128:G:O6	22:DA:2491:U:C5	2.66	0.48
22:DA:1273:U:H4'	22:DA:1275:A:P	2.54	0.48
22:DA:1361:G:C4	22:DA:1362:C:C5	3.00	0.48
22:DA:1387:A:C4	22:DA:1388:G:C8	3.01	0.48
22:DA:2053:G:H5"	25:DD:150:GLN:H	1.76	0.48
22:DA:2363:G:O2'	22:DA:2364:C:H5'	2.13	0.48
22:DA:2473:U:H6	22:DA:2473:U:P	2.36	0.48
22:DA:2502:G:C5'	22:DA:2503:A:H5"	2.42	0.48
22:DA:2507:C:C2	22:DA:2508:G:C8	3.01	0.48
26:DE:88:ARG:HB3	26:DE:89:PRO:CD	2.42	0.48
26:DE:105:LEU:HB3	26:DE:200:LEU:HD11	1.94	0.48
31:DJ:29:ALA:HB3	31:DJ:108:MET:HE3	1.95	0.48
33:DL:64:PHE:HD2	51:D3:24:LYS:HG2	1.78	0.48
34:DM:133:LYS:O	34:DM:134:THR:HB	2.12	0.48
38:DQ:3:VAL:HG13	38:DQ:5:ARG:HG3	1.95	0.48
41:DT:50:LEU:HD11	46:DY:26:PHE:CE1	2.48	0.48
51:D3:28:LEU:HA	51:D3:32:LEU:HD21	1.95	0.48
1:AA:224:U:C2	1:AA:225:C:C5	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:257:G:H2'	1:AA:258:G:H8	1.78	0.48
1:AA:491:G:C6	1:AA:492:C:C4	3.01	0.48
1:AA:502:A:OP1	12:AL:114:SER:CB	2.61	0.48
1:AA:600:A:H2'	1:AA:601:G:C8	2.48	0.48
1:AA:765:G:N2	1:AA:812:G:HO2'	2.11	0.48
1:AA:919:A:H8	1:AA:919:A:O5'	1.96	0.48
1:AA:1297:G:OP1	1:AA:1302:C:N4	2.46	0.48
1:AA:1336:C:HO2'	1:AA:1337:G:P	2.34	0.48
1:AA:1346:A:H61	1:AA:1374:A:H3'	1.78	0.48
1:AA:1507:A:C6	1:AA:1530:G:C6	3.01	0.48
10:AJ:73:LEU:HD22	10:AJ:73:LEU:HA	1.57	0.48
12:AL:43:LYS:HD3	12:AL:43:LYS:N	2.28	0.48
17:AQ:4:ILE:HD12	17:AQ:4:ILE:N	2.27	0.48
17:AQ:76:ARG:O	17:AQ:77:VAL:HG23	2.13	0.48
22:BA:201:C:H2'	22:BA:202:U:C5'	2.43	0.48
22:BA:416:U:C4	22:BA:417:C:C4	3.02	0.48
22:BA:859:G:O2'	22:BA:916:G:O6	2.20	0.48
22:BA:1058:U:O2'	30:BI:117:THR:HG23	2.13	0.48
22:BA:1166:G:C2'	22:BA:1167:C:H5'	2.43	0.48
22:BA:1388:G:O2'	22:BA:1389:G:H5'	2.14	0.48
22:BA:1450:G:C5	22:BA:1451:C:C4	3.01	0.48
22:BA:2083:G:H8	22:BA:2083:G:O5'	1.97	0.48
22:BA:2645:G:H3'	22:BA:2646:C:H5'	1.95	0.48
27:BF:3:LEU:CD1	27:BF:172:PHE:CD2	2.97	0.48
31:BJ:16:TYR:HA	31:BJ:138:GLN:O	2.14	0.48
31:BJ:44:TYR:O	31:BJ:45:THR:CG2	2.61	0.48
32:BK:112:PHE:O	32:BK:115:ILE:HG22	2.14	0.48
32:BK:118:LEU:O	32:BK:119:ALA:O	2.30	0.48
37:BP:13:LYS:HE3	37:BP:76:HIS:HA	1.95	0.48
37:BP:102:ARG:C	37:BP:103:THR:HG22	2.34	0.48
47:BZ:9:THR:HG21	47:BZ:53:MET:C	2.33	0.48
53:CA:188:C:H42	53:CA:189:A:N6	2.11	0.48
53:CA:255:G:C4'	17:CQ:17:GLU:O	2.61	0.48
53:CA:264:C:H2'	53:CA:265:G:O4'	2.12	0.48
53:CA:270:A:H2'	53:CA:271:C:C6	2.49	0.48
53:CA:722:G:O3'	53:CA:723:U:C5	2.66	0.48
53:CA:758:C:H4'	53:CA:880:C:O2'	2.13	0.48
53:CA:802:A:C2'	53:CA:803:G:C5'	2.88	0.48
53:CA:923:A:H2'	53:CA:924:C:O4'	2.13	0.48
53:CA:976:G:N7	53:CA:1359:C:O4'	2.46	0.48
53:CA:1154:G:H2'	53:CA:1155:A:H8	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1284:C:OP2	53:CA:1285:A:H3'	2.13	0.48
53:CA:1288:A:O2'	53:CA:1289:A:C8	2.63	0.48
53:CA:1294:G:H2'	53:CA:1295:U:O5'	2.12	0.48
53:CA:1523:G:P	11:CK:124:LYS:NZ	2.86	0.48
4:CD:141:VAL:HG12	4:CD:142:VAL:N	2.27	0.48
54:CG:91:ARG:CZ	54:CG:92:PRO:HG2	2.43	0.48
8:CH:89:ASP:OD1	8:CH:89:ASP:N	2.46	0.48
8:CH:93:LYS:H	8:CH:93:LYS:CD	2.04	0.48
55:CM:94:LEU:CD2	55:CM:101:THR:HG22	2.43	0.48
14:CN:76:PHE:CD2	14:CN:92:ILE:HD13	2.48	0.48
20:CT:3:ILE:HD12	20:CT:3:ILE:H	1.78	0.48
22:DA:72:U:O2'	22:DA:73:A:H5'	2.14	0.48
22:DA:128:C:H5"	22:DA:128:C:C6	2.41	0.48
22:DA:628:G:O2'	22:DA:629:G:C8	2.66	0.48
22:DA:740:C:H5'	22:DA:1784:A:C3'	2.43	0.48
22:DA:860:U:O4'	22:DA:2268:A:H5'	2.13	0.48
22:DA:1091:G:C2	22:DA:1101:U:N3	2.81	0.48
22:DA:1281:G:H2'	22:DA:1282:U:O4'	2.12	0.48
22:DA:1317:G:C6	22:DA:1318:U:C4	3.01	0.48
22:DA:1833:C:C2	22:DA:1834:U:C6	3.01	0.48
22:DA:2021:C:H4'	22:DA:2022:U:OP2	2.13	0.48
22:DA:2142:A:H2'	22:DA:2144:G:P	2.54	0.48
22:DA:2850:A:N6	22:DA:2869:G:H5'	2.28	0.48
24:DC:161:VAL:CG1	24:DC:173:LEU:HB2	2.44	0.48
25:DD:30:GLU:HG2	25:DD:185:ASN:HD22	1.73	0.48
30:DI:52:LEU:HD11	30:DI:78:LEU:HD21	1.94	0.48
33:DL:111:ILE:O	33:DL:131:ALA:HB1	2.13	0.48
34:DM:74:THR:OG1	34:DM:86:LYS:NZ	2.47	0.48
44:DW:37:VAL:O	44:DW:38:ARG:CB	2.60	0.48
45:DX:31:ASN:C	45:DX:32:LEU:HD22	2.33	0.48
1:AA:131:A:C2	1:AA:132:C:C4	3.02	0.48
1:AA:1015:G:H1'	1:AA:1218:C:O2'	2.14	0.48
1:AA:1143:G:O2'	1:AA:1144:G:H5'	2.13	0.48
1:AA:1158:C:O2	1:AA:1158:C:C2'	2.61	0.48
1:AA:1325:C:H2'	1:AA:1326:U:H6	1.78	0.48
9:AI:98:ARG:HG2	9:AI:98:ARG:NH1	2.27	0.48
10:AJ:81:GLU:O	10:AJ:85:ASP:HB2	2.13	0.48
21:AU:8:ASN:O	21:AU:11:PHE:CE2	2.65	0.48
22:BA:276:U:H2'	22:BA:276:U:O2	2.12	0.48
22:BA:511:U:C5	22:BA:512:G:C5	3.01	0.48
22:BA:985:C:O5'	22:BA:985:C:H6	1.97	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1026:G:H2'	22:BA:1027:A:H8	1.72	0.48
22:BA:1476:U:C5	22:BA:1514:G:N2	2.81	0.48
22:BA:1911:U:C4	22:BA:1918:A:C4	3.02	0.48
22:BA:2063:C:O2	22:BA:2450:A:N1	2.47	0.48
22:BA:2149:U:O2'	22:BA:2150:C:C4'	2.61	0.48
22:BA:2459:A:N3	22:BA:2459:A:H2'	2.29	0.48
22:BA:2538:C:O2'	22:BA:2539:C:H5'	2.13	0.48
22:BA:2733:A:H2'	22:BA:2734:A:C8	2.48	0.48
23:BB:65:U:H3'	23:BB:108:A:N6	2.29	0.48
24:BC:12:ARG:HA	24:BC:15:VAL:CG2	2.43	0.48
27:BF:52:ALA:CB	27:BF:149:ARG:HD3	2.43	0.48
27:BF:134:GLN:C	27:BF:136:ILE:H	2.17	0.48
29:BH:21:VAL:HG22	29:BH:22:LYS:N	2.27	0.48
29:BH:37:VAL:HG23	29:BH:38:PRO:HD2	1.96	0.48
31:BJ:38:GLY:C	31:BJ:40:HIS:H	2.16	0.48
31:BJ:98:GLU:HB3	31:BJ:124:VAL:CG2	2.40	0.48
36:BO:33:ARG:HG2	36:BO:34:HIS:CE1	2.49	0.48
37:BP:71:ARG:HB3	37:BP:73:PHE:CE2	2.49	0.48
39:BR:64:VAL:O	39:BR:64:VAL:HG12	2.12	0.48
43:BV:93:ARG:O	43:BV:94:ALA:CB	2.61	0.48
45:BX:12:VAL:HG22	45:BX:28:PHE:HB2	1.95	0.48
53:CA:17:U:C2	53:CA:18:C:C5	3.01	0.48
53:CA:198:G:O6	53:CA:220:G:C5	2.67	0.48
53:CA:444:G:C4	53:CA:445:G:C8	3.01	0.48
53:CA:811:C:H4'	53:CA:900:A:N6	2.28	0.48
53:CA:903:G:C5	53:CA:904:U:C5	3.01	0.48
53:CA:1082:A:H2'	53:CA:1083:U:H5'	1.95	0.48
53:CA:1211:U:O2'	53:CA:1213:A:C2	2.65	0.48
53:CA:1349:A:H2'	53:CA:1350:A:H8	1.75	0.48
53:CA:1452:C:H4'	53:CA:1453:G:C5'	2.40	0.48
53:CA:1504:G:H4'	53:CA:1505:G:H5'	1.92	0.48
2:CB:116:LEU:HD13	2:CB:140:LEU:HB2	1.95	0.48
3:CC:109:GLU:HG3	3:CC:139:ASN:O	2.12	0.48
3:CC:111:ASP:HB3	3:CC:114:LEU:HB2	1.95	0.48
10:CJ:57:VAL:HG13	10:CJ:58:ASN:N	2.27	0.48
12:CL:14:LYS:HE2	12:CL:15:VAL:C	2.33	0.48
12:CL:26:CYS:CB	12:CL:29:LYS:HE2	2.43	0.48
12:CL:115:LYS:O	12:CL:116:TYR:CB	2.62	0.48
15:CO:44:GLU:O	15:CO:45:HIS:C	2.51	0.48
17:CQ:30:HIS:CE1	17:CQ:32:ILE:CG1	2.87	0.48
17:CQ:49:ASN:O	17:CQ:50:ASN:HB2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:CU:10:PRO:O	21:CU:11:PHE:CB	2.61	0.48
22:DA:45:G:C5'	22:DA:46:G:OP1	2.61	0.48
22:DA:82:U:H2'	22:DA:83:A:O4'	2.13	0.48
22:DA:88:G:C2	22:DA:89:A:C8	3.01	0.48
22:DA:99:U:H5'	22:DA:100:U:OP1	2.14	0.48
22:DA:211:C:H2'	22:DA:212:G:O4'	2.13	0.48
22:DA:300:A:H1'	22:DA:333:G:N2	2.28	0.48
22:DA:668:A:C4	22:DA:670:A:N7	2.81	0.48
22:DA:711:G:C2	22:DA:721:A:C2	3.02	0.48
22:DA:876:C:O2	22:DA:876:C:O4'	2.30	0.48
22:DA:976:G:C2'	22:DA:977:G:H8	2.25	0.48
22:DA:1020:A:C2	22:DA:1141:U:H2'	2.48	0.48
22:DA:1026:G:O2'	22:DA:1027:A:C5'	2.51	0.48
22:DA:1139:G:H2'	22:DA:1140:C:O5'	2.14	0.48
22:DA:1274:A:O2'	22:DA:1275:A:C5'	2.61	0.48
22:DA:1545:A:H2'	22:DA:1546:G:H5'	1.94	0.48
22:DA:1585:C:H2'	22:DA:1586:A:O5'	2.14	0.48
22:DA:1606:C:H4'	22:DA:1607:C:H5'	1.94	0.48
22:DA:1700:A:H2'	22:DA:1701:A:C5'	2.43	0.48
22:DA:1914:C:H2'	22:DA:1915:U:C6	2.47	0.48
22:DA:2077:A:C2	22:DA:2244:U:O2	2.65	0.48
22:DA:2144:G:O2'	22:DA:2145:C:H5'	2.12	0.48
22:DA:2259:U:H4'	22:DA:2427:C:O2'	2.13	0.48
22:DA:2460:U:H2'	22:DA:2461:A:O4'	2.14	0.48
22:DA:2478:A:C8	22:DA:2529:G:C5	3.02	0.48
22:DA:2628:C:O2'	22:DA:2781:A:H2'	2.13	0.48
22:DA:2820:A:C6	25:DD:197:THR:HB	2.48	0.48
24:DC:115:ILE:HB	24:DC:127:ASN:OD1	2.13	0.48
24:DC:224:MET:O	24:DC:232:GLY:HA2	2.13	0.48
24:DC:230:PRO:HA	62:DC:405:HOH:O	2.13	0.48
26:DE:58:LYS:HD3	26:DE:58:LYS:N	2.28	0.48
26:DE:115:GLN:O	26:DE:117:ARG:N	2.46	0.48
31:DJ:29:ALA:HB3	31:DJ:108:MET:CE	2.44	0.48
31:DJ:94:ALA:O	31:DJ:95:ARG:CG	2.62	0.48
34:DM:45:GLN:OE1	34:DM:125:PRO:HG3	2.12	0.48
39:DR:82:HIS:O	39:DR:82:HIS:CD2	2.66	0.48
41:DT:55:VAL:HG21	41:DT:85:VAL:O	2.13	0.48
42:DU:64:ILE:HG23	42:DU:64:ILE:O	2.13	0.48
45:DX:6:VAL:HG12	45:DX:50:VAL:HG12	1.94	0.48
46:DY:21:LEU:HA	46:DY:25:GLN:HB3	1.96	0.48
1:AA:138:G:H2'	1:AA:139:A:H5'	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:464:U:C4	1:AA:466:A:H5'	2.47	0.48
1:AA:792:A:C4	1:AA:794:A:N6	2.81	0.48
1:AA:874:G:HO2'	1:AA:875:U:H5'	1.65	0.48
1:AA:1136:C:H5"	1:AA:1137:C:P	2.54	0.48
1:AA:1152:A:H2'	1:AA:1153:G:C8	2.48	0.48
1:AA:1288:A:H1'	1:AA:1352:C:O2'	2.13	0.48
1:AA:1321:U:H5"	1:AA:1322:C:OP2	2.13	0.48
1:AA:1346:A:O4'	1:AA:1348:U:C6	2.66	0.48
3:AC:24:ASN:HD22	3:AC:25:THR:H	1.61	0.48
3:AC:36:PHE:HZ	14:AN:89:ARG:HH12	1.61	0.48
7:AG:143:MET:HA	7:AG:143:MET:HE3	1.94	0.48
13:AM:15:VAL:HG12	13:AM:33:LEU:HD12	1.95	0.48
14:AN:2:LYS:N	62:AN:306:HOH:O	2.46	0.48
15:AO:34:GLN:HA	15:AO:34:GLN:OE1	2.14	0.48
16:AP:57:ILE:O	16:AP:61:VAL:HG23	2.13	0.48
20:AT:57:VAL:HG12	20:AT:58:ASP:N	2.27	0.48
22:BA:184:C:O2'	22:BA:217:A:N3	2.45	0.48
22:BA:188:G:C2'	22:BA:189:G:H5'	2.43	0.48
22:BA:1056:G:H21	22:BA:1103:A:H62	1.62	0.48
22:BA:1074:G:N3	22:BA:1074:G:H2'	2.28	0.48
22:BA:1092:C:H2'	22:BA:1093:G:O4'	2.13	0.48
22:BA:1271:G:H5"	22:BA:1272:A:OP1	2.13	0.48
22:BA:1444:G:C4	22:BA:1445:G:C8	3.01	0.48
22:BA:1458:U:C4'	22:BA:1459:G:O5'	2.41	0.48
22:BA:1507:C:C5	22:BA:1508:A:H2	2.31	0.48
22:BA:1739:A:O2'	22:BA:1740:G:H5'	2.13	0.48
22:BA:2051:A:OP2	22:BA:2051:A:H8	1.96	0.48
23:BB:43:C:H2'	23:BB:44:G:H5'	1.94	0.48
23:BB:51:G:H21	23:BB:53:A:H62	1.60	0.48
24:BC:109:LEU:HD23	24:BC:110:LYS:N	2.28	0.48
25:BD:68:PHE:HB3	25:BD:73:VAL:HG12	1.95	0.48
26:BE:170:ARG:HG2	26:BE:170:ARG:HH21	1.78	0.48
29:BH:3:VAL:CA	29:BH:37:VAL:O	2.62	0.48
29:BH:9:VAL:O	29:BH:13:GLY:N	2.46	0.48
35:BN:76:VAL:O	35:BN:80:PHE:HD2	1.96	0.48
37:BP:50:ARG:HD3	37:BP:51:ASN:H	1.75	0.48
38:BQ:63:ARG:HH22	38:BQ:96:ASP:HB3	1.77	0.48
41:BT:37:ASP:O	41:BT:38:ALA:O	2.31	0.48
41:BT:40:LYS:H	41:BT:43:ILE:HG22	1.77	0.48
45:BX:12:VAL:CG2	45:BX:28:PHE:HB2	2.43	0.48
45:BX:67:LEU:O	45:BX:69:GLU:O	2.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BZ:52:PHE:CD2	47:BZ:52:PHE:C	2.87	0.48
53:CA:321:A:O2'	53:CA:1436:U:H5'	2.12	0.48
53:CA:437:U:C2'	53:CA:438:U:O5'	2.61	0.48
53:CA:676:A:C2	53:CA:677:U:C4	3.02	0.48
53:CA:864:A:C6	53:CA:865:A:N1	2.82	0.48
53:CA:874:G:O2'	53:CA:875:U:H5'	2.12	0.48
53:CA:978:A:C4	53:CA:1319:A:N3	2.82	0.48
53:CA:1128:C:O2'	53:CA:1129:C:O4'	2.32	0.48
53:CA:1242:G:H4'	53:CA:1304:G:OP1	2.12	0.48
53:CA:1298:U:H5	54:CG:113:LYS:HA	1.76	0.48
2:CB:164:ASP:OD2	2:CB:203:ASP:HB2	2.14	0.48
3:CC:35:ASP:CG	3:CC:56:ILE:HD12	2.33	0.48
3:CC:148:ILE:HD12	3:CC:200:TRP:O	2.12	0.48
5:CE:45:VAL:CG2	5:CE:46:GLY:N	2.75	0.48
6:CF:20:GLY:O	6:CF:24:ARG:HB2	2.13	0.48
8:CH:68:LYS:HE2	8:CH:68:LYS:HA	1.95	0.48
8:CH:78:SER:CB	8:CH:124:ILE:O	2.58	0.48
10:CJ:11:LYS:HE2	10:CJ:97:ASP:OD2	2.13	0.48
11:CK:55:ARG:H	11:CK:55:ARG:CD	2.20	0.48
20:CT:2:ASN:O	20:CT:3:ILE:C	2.52	0.48
22:DA:112:U:H5'	46:DY:58:ASN:HD21	1.78	0.48
22:DA:163:C:O2'	22:DA:164:C:O4'	2.28	0.48
22:DA:197:A:N7	22:DA:2430:A:C5	2.82	0.48
22:DA:204:A:C4	22:DA:206:U:O4	2.67	0.48
22:DA:216:A:N6	22:DA:432:A:H1'	2.28	0.48
22:DA:231:A:O2'	22:DA:232:G:O4'	2.30	0.48
22:DA:262:A:C2	22:DA:430:A:H1'	2.49	0.48
22:DA:445:C:O2'	22:DA:446:G:C8	2.65	0.48
22:DA:545:U:H2'	22:DA:547:A:OP1	2.12	0.48
22:DA:558:U:P	31:DJ:113:PRO:HG2	2.53	0.48
22:DA:704:G:O2'	22:DA:705:A:H8	1.96	0.48
22:DA:728:G:C2	22:DA:730:A:C4	3.01	0.48
22:DA:863:A:C2	22:DA:864:G:C4	3.01	0.48
22:DA:866:A:O2'	22:DA:867:C:C6	2.61	0.48
22:DA:1388:G:N1	22:DA:1400:U:N3	2.61	0.48
22:DA:1408:G:H22	22:DA:1595:C:H1'	1.79	0.48
22:DA:1413:A:H2'	22:DA:1414:C:C5	2.49	0.48
22:DA:1427:A:H4'	22:DA:1428:C:O4'	2.12	0.48
22:DA:1465:G:H2'	22:DA:1466:U:O4'	2.13	0.48
22:DA:1670:C:N4	22:DA:1674:G:O5'	2.46	0.48
22:DA:1683:U:O2'	22:DA:1684:G:H5'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1760:C:OP1	22:DA:2712:C:H5	1.96	0.48
22:DA:2079:U:O2'	45:DX:22:ASN:ND2	2.45	0.48
22:DA:2150:C:O2'	22:DA:2151:U:C5'	2.61	0.48
22:DA:2223:G:C2'	22:DA:2224:G:H5'	2.42	0.48
22:DA:2330:G:C2'	22:DA:2331:G:H5'	2.44	0.48
22:DA:2365:G:OP1	44:DW:54:ARG:HG3	2.13	0.48
24:DC:171:VAL:HG12	24:DC:173:LEU:CD1	2.44	0.48
24:DC:184:GLU:HB2	24:DC:187:CYS:SG	2.53	0.48
24:DC:203:VAL:O	24:DC:205:GLY:N	2.46	0.48
25:DD:78:GLY:O	25:DD:79:LEU:HD13	2.14	0.48
26:DE:130:LYS:H	26:DE:160:ALA:HB2	1.78	0.48
58:DF:43:ILE:HD13	58:DF:77:LYS:HG2	1.95	0.48
58:DF:127:TYR:O	58:DF:155:ILE:HD11	2.13	0.48
29:DH:66:ASN:ND2	29:DH:137:GLU:HB3	2.29	0.48
30:DI:21:PRO:CD	30:DI:22:PRO:HD2	2.44	0.48
32:DK:45:GLU:OE2	32:DK:45:GLU:HA	2.14	0.48
35:DN:103:ARG:CD	35:DN:110:MET:SD	3.00	0.48
37:DP:4:ILE:HG22	37:DP:4:ILE:O	2.13	0.48
39:DR:1:MET:HG3	39:DR:101:ILE:HD12	1.96	0.48
40:DS:95:ARG:CG	40:DS:97:LEU:HD22	2.43	0.48
41:DT:14:PRO:HG2	41:DT:15:HIS:N	2.29	0.48
41:DT:19:LYS:HE2	41:DT:23:ALA:CB	2.39	0.48
41:DT:38:ALA:HB1	41:DT:81:LYS:HZ2	1.73	0.48
45:DX:52:ALA:C	45:DX:54:GLY:H	2.17	0.48
47:DZ:26:LEU:HG	47:DZ:46:MET:HE1	1.94	0.48
48:D0:38:LEU:O	48:D0:41:HIS:ND1	2.46	0.48
1:AA:425:G:O2'	1:AA:426:U:H5'	2.14	0.48
1:AA:471:U:H2'	1:AA:472:U:O4'	2.14	0.48
1:AA:684:U:H3	1:AA:706:A:H61	1.60	0.48
1:AA:720:C:H5"	18:AR:40:PRO:HA	1.96	0.48
1:AA:1001:C:H2'	1:AA:1002:G:C8	2.48	0.48
1:AA:1072:G:C5	1:AA:1073:U:C4	3.02	0.48
1:AA:1306:A:H2'	1:AA:1307:U:C5'	2.43	0.48
1:AA:1451:U:O2	1:AA:1451:U:H2'	2.14	0.48
3:AC:18:ASN:O	3:AC:39:ARG:NH2	2.45	0.48
8:AH:63:LYS:C	8:AH:64:TYR:CD1	2.86	0.48
13:AM:68:LEU:O	13:AM:72:ILE:HG13	2.14	0.48
20:AT:27:MET:HG3	20:AT:28:ARG:N	2.27	0.48
20:AT:68:LYS:HB2	20:AT:68:LYS:HZ2	1.75	0.48
22:BA:141:G:H5"	22:BA:142:A:C8	2.49	0.48
22:BA:141:G:H3'	22:BA:142:A:O4'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:161:A:C3’	22:BA:162:U:H5”	2.44	0.48
22:BA:1539:U:H2’	22:BA:1540:G:H8	1.79	0.48
22:BA:1839:G:C4	22:BA:1840:G:C8	3.02	0.48
22:BA:2277:G:H3’	22:BA:2278:A:H5”	1.95	0.48
22:BA:2358:A:C5	22:BA:2359:C:C5	3.02	0.48
22:BA:2742:G:H2’	22:BA:2743:U:H5’	1.95	0.48
22:BA:2862:G:H2’	22:BA:2863:C:C6	2.49	0.48
24:BC:67:LYS:HG2	24:BC:150:GLY:HA2	1.96	0.48
24:BC:93:VAL:HG12	24:BC:101:ARG:H	1.78	0.48
26:BE:83:VAL:CG1	26:BE:86:ALA:HB2	2.43	0.48
27:BF:68:LYS:N	27:BF:68:LYS:CD	2.76	0.48
30:BI:16:MET:O	30:BI:19:PRO:HD3	2.12	0.48
30:BI:61:TYR:N	30:BI:61:TYR:CD2	2.81	0.48
31:BJ:54:ILE:HD11	31:BJ:56:VAL:CG2	2.43	0.48
32:BK:19:VAL:HG22	32:BK:41:ILE:HG12	1.95	0.48
34:BM:132:THR:CG2	34:BM:133:LYS:N	2.76	0.48
36:BO:78:VAL:HG23	36:BO:79:ALA:N	2.29	0.48
38:BQ:8:ILE:HD12	38:BQ:9:ALA:CA	2.44	0.48
38:BQ:69:ARG:NH2	38:BQ:69:ARG:CG	2.74	0.48
44:BW:40:ARG:HG3	44:BW:56:HIS:ND1	2.28	0.48
52:B4:9:LYS:H	52:B4:9:LYS:CE	2.23	0.48
53:CA:45:G:O2’	53:CA:46:G:H5’	2.13	0.48
53:CA:93:U:O5’	53:CA:93:U:H6	1.97	0.48
53:CA:322:C:O2	53:CA:332:G:N2	2.46	0.48
53:CA:369:G:N3	53:CA:370:C:C6	2.82	0.48
53:CA:604:G:H2’	53:CA:605:U:O4’	2.13	0.48
53:CA:814:A:H2’	53:CA:816:A:O5’	2.13	0.48
53:CA:1231:G:C4	53:CA:1232:U:C6	3.00	0.48
53:CA:1239:A:N6	53:CA:1299:A:N6	2.62	0.48
53:CA:1314:C:H2’	53:CA:1315:U:O4’	2.14	0.48
2:CB:80:LYS:O	2:CB:84:LEU:N	2.43	0.48
2:CB:128:LEU:HD22	2:CB:132:GLU:CG	2.44	0.48
3:CC:53:ARG:NH1	3:CC:53:ARG:HB2	2.28	0.48
3:CC:84:GLU:C	3:CC:86:LEU:N	2.67	0.48
4:CD:166:LYS:HA	4:CD:167:PRO:HD2	1.68	0.48
5:CE:52:ALA:HB2	5:CE:61:LYS:HE3	1.94	0.48
5:CE:151:MET:O	5:CE:154:ALA:HB3	2.12	0.48
54:CG:37:THR:HA	54:CG:40:SER:CB	2.44	0.48
12:CL:58:ASN:ND2	12:CL:60:PHE:CD1	2.82	0.48
55:CM:107:THR:HG22	55:CM:107:THR:O	2.13	0.48
19:CS:38:THR:HG1	19:CS:67:GLY:HA2	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:46:G:N2	22:DA:47:C:C2	2.81	0.48
22:DA:193:U:O3'	22:DA:803:U:H4'	2.14	0.48
22:DA:298:G:H2'	22:DA:339:U:O4	2.13	0.48
22:DA:449:A:H2'	22:DA:450:G:H8	1.79	0.48
22:DA:575:A:C2	22:DA:576:U:C4	3.02	0.48
22:DA:705:A:H61	22:DA:726:G:H1'	1.79	0.48
22:DA:1323:C:N4	22:DA:1324:G:N7	2.62	0.48
22:DA:2202:U:H5"	22:DA:2203:U:OP1	2.14	0.48
22:DA:2234:G:C6	22:DA:2235:G:N7	2.81	0.48
22:DA:2645:G:C3'	22:DA:2646:C:H5"	2.43	0.48
57:DB:16:G:O6	57:DB:69:G:C6	2.66	0.48
24:DC:147:PRO:HD3	24:DC:184:GLU:CG	2.28	0.48
25:DD:94:GLN:O	25:DD:94:GLN:CG	2.60	0.48
25:DD:116:LYS:HA	35:DN:1:MET:HE1	1.96	0.48
26:DE:58:LYS:O	26:DE:60:TRP:HD1	1.96	0.48
26:DE:105:LEU:O	26:DE:109:LEU:HB2	2.14	0.48
28:DG:90:GLY:HA2	28:DG:159:LYS:HE3	1.96	0.48
29:DH:4:ILE:HG22	29:DH:5:LEU:N	2.29	0.48
30:DI:27:LEU:CD1	30:DI:32:VAL:HG11	2.44	0.48
30:DI:74:PRO:HB2	30:DI:77:VAL:CG2	2.32	0.48
32:DK:19:VAL:HG12	32:DK:41:ILE:HG13	1.95	0.48
32:DK:76:VAL:O	37:DP:71:ARG:HG3	2.14	0.48
33:DL:6:LEU:HD23	33:DL:7:SER:N	2.28	0.48
35:DN:35:LYS:HA	35:DN:111:ALA:O	2.13	0.48
35:DN:55:ALA:O	35:DN:80:PHE:HA	2.14	0.48
40:DS:50:VAL:O	40:DS:53:SER:N	2.47	0.48
45:DX:30:PRO:HG2	45:DX:32:LEU:HD23	1.92	0.48
1:AA:409:U:H2'	1:AA:410:G:C8	2.48	0.48
1:AA:779:C:H2'	1:AA:780:A:H5'	1.94	0.48
1:AA:872:A:C5	1:AA:874:G:C8	3.02	0.48
1:AA:1240:U:H3	7:AG:29:LEU:HD21	1.77	0.48
1:AA:1381:U:O2'	1:AA:1382:C:H5'	2.14	0.48
1:AA:1462:C:H2'	1:AA:1463:U:O4'	2.14	0.48
1:AA:1528:U:H4'	1:AA:1529:G:H5'	1.94	0.48
4:AD:34:GLU:O	4:AD:36:ALA:N	2.39	0.48
5:AE:121:ASN:HD21	5:AE:122:VAL:HG13	1.79	0.48
9:AI:67:LYS:HD3	9:AI:67:LYS:N	2.29	0.48
10:AJ:51:VAL:CB	14:AN:80:ARG:HB2	2.36	0.48
14:AN:15:LEU:HD23	14:AN:18:LYS:CE	2.42	0.48
15:AO:57:ARG:HH11	15:AO:57:ARG:CB	2.25	0.48
20:AT:75:LYS:HB3	20:AT:75:LYS:HZ2	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AU:11:PHE:O	21:AU:12:ASP:HB2	2.14	0.48
21:AU:39:LYS:N	21:AU:40:PRO:CD	2.77	0.48
22:BA:14:A:H3'	22:BA:15:G:C5'	2.44	0.48
22:BA:49:A:C2	22:BA:118:A:N1	2.82	0.48
22:BA:521:U:H2'	22:BA:522:A:C8	2.48	0.48
22:BA:548:G:H3'	22:BA:548:G:C8	2.48	0.48
22:BA:558:U:OP1	31:BJ:111:LYS:CE	2.59	0.48
22:BA:675:A:C6	22:BA:676:A:C6	3.02	0.48
22:BA:1315:C:C2	22:BA:1316:U:C5	3.02	0.48
22:BA:1341:G:OP1	22:BA:1602:U:H2'	2.13	0.48
22:BA:1487:U:C2	22:BA:1503:A:C2	3.01	0.48
22:BA:1559:U:C3'	22:BA:1560:G:H5'	2.44	0.48
22:BA:1967:C:H2'	22:BA:1968:G:H8	1.76	0.48
22:BA:2458:G:O2'	22:BA:2460:U:O4	2.31	0.48
22:BA:2530:A:N6	28:BG:155:PRO:HG3	2.29	0.48
22:BA:2646:C:OP2	22:BA:2732:G:O2'	2.31	0.48
22:BA:2865:U:C4	22:BA:2866:U:C5	3.01	0.48
25:BD:187:LEU:HD12	25:BD:188:LEU:N	2.28	0.48
27:BF:35:LEU:HD12	27:BF:88:VAL:HB	1.95	0.48
27:BF:60:SER:O	27:BF:61:GLY:C	2.52	0.48
29:BH:32:PRO:HB3	45:BX:38:TRP:CB	2.36	0.48
30:BI:12:VAL:HG23	30:BI:13:ALA:H	1.78	0.48
32:BK:63:VAL:HG21	32:BK:85:VAL:CG2	2.43	0.48
33:BL:47:ARG:HG3	33:BL:50:PHE:HB2	1.95	0.48
37:BP:92:ARG:O	37:BP:92:ARG:HG3	2.13	0.48
38:BQ:91:ARG:CD	39:BR:11:GLN:H	2.26	0.48
45:BX:7:THR:CG2	45:BX:54:GLY:HA2	2.43	0.48
45:BX:30:PRO:CB	45:BX:32:LEU:CD1	2.89	0.48
46:BY:39:GLN:HG3	46:BY:42:LEU:HD22	1.95	0.48
53:CA:102:G:H2'	53:CA:103:U:C6	2.48	0.48
53:CA:442:G:C6	53:CA:443:C:N4	2.82	0.48
53:CA:1320:C:H41	19:CS:36:ARG:HG3	1.79	0.48
2:CB:116:LEU:HD23	2:CB:119:GLN:OE1	2.14	0.48
5:CE:40:ASP:CG	5:CE:41:GLY:H	2.16	0.48
5:CE:148:SER:O	5:CE:151:MET:N	2.30	0.48
6:CF:37:HIS:O	6:CF:38:ARG:HB3	2.13	0.48
6:CF:75:GLU:OE2	6:CF:89:VAL:HG11	2.12	0.48
8:CH:17:GLN:OE1	8:CH:62:LEU:HB3	2.12	0.48
12:CL:58:ASN:CG	12:CL:60:PHE:CD1	2.85	0.48
56:CP:54:LEU:HG	56:CP:55:ASP:H	1.78	0.48
21:CU:31:VAL:O	21:CU:32:ARG:C	2.52	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:58:G:N3	22:DA:73:A:H2	2.12	0.48
22:DA:397:U:O2'	22:DA:398:C:P	2.72	0.48
22:DA:426:C:C2'	22:DA:427:U:C5'	2.91	0.48
22:DA:764:A:N3	22:DA:781:A:C6	2.82	0.48
22:DA:1116:G:H2'	22:DA:1117:C:C6	2.48	0.48
22:DA:1291:C:O2'	22:DA:1292:G:C5'	2.62	0.48
22:DA:1395:A:H4'	22:DA:1397:U:C4	2.49	0.48
22:DA:1567:G:H3'	24:DC:84:PRO:HG3	1.95	0.48
22:DA:1808:A:N7	45:DX:27:ARG:NH1	2.61	0.48
22:DA:1997:C:OP2	25:DD:129:THR:N	2.47	0.48
22:DA:2095:A:H5'	22:DA:2096:C:OP2	2.13	0.48
22:DA:2149:U:O2'	22:DA:2150:C:C6	2.53	0.48
22:DA:2297:A:C2	22:DA:2298:A:C8	3.02	0.48
22:DA:2345:G:C6	22:DA:2381:A:C6	3.02	0.48
22:DA:2463:C:C2	22:DA:2488:G:N2	2.82	0.48
22:DA:2614:A:C4'	22:DA:2615:U:OP1	2.60	0.48
22:DA:2725:A:C5	22:DA:2727:A:N7	2.82	0.48
57:DB:66:A:HO2'	57:DB:67:G:P	2.36	0.48
57:DB:69:G:C5	57:DB:70:C:C4	3.02	0.48
24:DC:83:ASP:HB2	24:DC:90:ILE:HD12	1.95	0.48
24:DC:140:VAL:HG22	24:DC:161:VAL:HB	1.95	0.48
24:DC:211:ARG:HD3	24:DC:217:PRO:HD3	1.96	0.48
25:DD:33:ARG:NH2	25:DD:51:THR:HG22	2.27	0.48
26:DE:196:VAL:HG13	26:DE:200:LEU:CD2	2.41	0.48
58:DF:60:SER:OG	58:DF:88:VAL:HG11	2.14	0.48
28:DG:48:THR:O	28:DG:49:LEU:CB	2.56	0.48
28:DG:68:ARG:C	28:DG:68:ARG:HD3	2.34	0.48
30:DI:52:LEU:CD1	30:DI:53:PRO:HD2	2.41	0.48
31:DJ:77:HIS:HA	31:DJ:83:GLY:O	2.14	0.48
35:DN:82:GLU:O	35:DN:86:ARG:HG3	2.14	0.48
35:DN:92:GLY:N	35:DN:94:TYR:HE1	1.92	0.48
36:DO:67:ASN:H	36:DO:70:ALA:HB3	1.77	0.48
36:DO:75:GLY:N	36:DO:106:LEU:CD1	2.77	0.48
39:DR:41:ILE:HG22	39:DR:42:ALA:N	2.29	0.48
39:DR:49:ILE:HD13	39:DR:53:PHE:H	1.79	0.48
43:DV:69:GLU:OE1	43:DV:71:LYS:HG3	2.14	0.48
45:DX:65:THR:O	45:DX:68:ALA:CB	2.62	0.48
46:DY:1:MET:H1	46:DY:1:MET:HE1	1.76	0.48
47:DZ:28:LEU:N	47:DZ:28:LEU:CD2	2.77	0.48
51:D3:50:SER:O	51:D3:52:GLY:N	2.47	0.48
1:AA:32:A:C2'	1:AA:33:A:C8	2.91	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:133:U:H1'	1:AA:230:G:N2	2.29	0.48
1:AA:191:G:H2'	1:AA:192:A:H8	1.79	0.48
1:AA:557:G:C6	1:AA:558:G:N1	2.81	0.48
1:AA:754:C:H3'	1:AA:755:G:H5'	1.95	0.48
1:AA:791:G:C5	1:AA:792:A:N7	2.82	0.48
1:AA:807:A:C8	1:AA:808:C:C5	3.01	0.48
1:AA:1068:G:C2	1:AA:1069:C:C6	3.01	0.48
1:AA:1095:U:OP1	1:AA:1108:G:N2	2.44	0.48
1:AA:1102:A:O2'	1:AA:1103:C:H5'	2.13	0.48
1:AA:1234:C:H2'	1:AA:1235:U:C5'	2.44	0.48
2:AB:36:LYS:O	2:AB:37:VAL:HB	2.13	0.48
4:AD:104:MET:SD	4:AD:179:GLY:HA3	2.53	0.48
8:AH:63:LYS:C	8:AH:64:TYR:HD1	2.17	0.48
8:AH:78:SER:HB2	8:AH:84:ILE:HB	1.94	0.48
9:AI:46:VAL:HA	9:AI:49:GLN:HG3	1.95	0.48
11:AK:107:THR:HG22	11:AK:108:ASN:CG	2.33	0.48
12:AL:120:ARG:C	12:AL:122:LYS:H	2.16	0.48
20:AT:43:LYS:HZ3	20:AT:86:ALA:HA	1.77	0.48
22:BA:372:G:P	45:BX:61:LYS:NZ	2.87	0.48
22:BA:638:G:C6	22:BA:651:G:C2	3.01	0.48
22:BA:733:G:C8	22:BA:761:A:N6	2.82	0.48
22:BA:995:C:OP2	38:BQ:53:LYS:CE	2.62	0.48
22:BA:995:C:OP2	38:BQ:52:ARG:NH1	2.47	0.48
22:BA:1008:A:H4'	22:BA:1009:A:OP1	2.14	0.48
22:BA:1072:C:H6	22:BA:1072:C:H2'	1.31	0.48
22:BA:1113:U:C2	22:BA:1114:C:C5	3.02	0.48
22:BA:1673:G:H2'	22:BA:1674:G:H5'	1.96	0.48
22:BA:1733:G:O2'	22:BA:1734:G:O5'	2.31	0.48
22:BA:1842:G:H4'	24:BC:242:HIS:CE1	2.49	0.48
22:BA:2027:G:H2'	22:BA:2028:U:H6	1.79	0.48
22:BA:2366:A:C2	22:BA:2367:G:H1'	2.48	0.48
22:BA:2492:U:H2'	22:BA:2493:U:C6	2.48	0.48
22:BA:2795:C:O2'	22:BA:2796:U:H5'	2.14	0.48
22:BA:2887:A:C5	22:BA:2888:C:C5	3.02	0.48
24:BC:257:ARG:NH1	24:BC:263:ASP:OD2	2.46	0.48
26:BE:4:VAL:O	26:BE:6:LYS:N	2.47	0.48
28:BG:10:VAL:O	28:BG:10:VAL:CG2	2.58	0.48
30:BI:85:ILE:HD13	30:BI:88:GLY:HA2	1.96	0.48
35:BN:73:ASN:HA	35:BN:76:VAL:CG1	2.43	0.48
37:BP:1:SER:H2	37:BP:4:ILE:HG13	1.77	0.48
37:BP:80:VAL:HG12	37:BP:81:ASP:H	1.75	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BP:111:GLU:CD	37:BP:111:GLU:H	2.17	0.48
41:BT:1:MET:CB	41:BT:2:ILE:HD13	2.43	0.48
45:BX:18:SER:OG	45:BX:22:ASN:HB2	2.14	0.48
48:B0:50:GLY:O	48:B0:51:ARG:O	2.32	0.48
53:CA:296:U:C2	53:CA:297:G:C8	3.01	0.48
53:CA:690:G:H2'	53:CA:691:G:O4'	2.12	0.48
53:CA:1253:G:H1	53:CA:1285:A:N6	2.11	0.48
2:CB:25:LYS:O	2:CB:26:MET:HE3	2.12	0.48
2:CB:95:TRP:HZ2	2:CB:100:LEU:CD1	2.24	0.48
4:CD:2:ARG:CZ	4:CD:114:ARG:CD	2.92	0.48
5:CE:104:ILE:H	5:CE:122:VAL:N	1.98	0.48
54:CG:116:ALA:CA	54:CG:120:ALA:HB3	2.44	0.48
8:CH:1:SER:O	8:CH:3:GLN:N	2.47	0.48
8:CH:11:THR:HG23	8:CH:14:ARG:HH22	1.79	0.48
8:CH:103:VAL:HG11	8:CH:124:ILE:HD13	1.96	0.48
9:CI:20:ILE:HD11	9:CI:61:ASP:O	2.13	0.48
9:CI:47:VAL:C	9:CI:50:PRO:HD2	2.34	0.48
11:CK:75:GLU:OE2	11:CK:75:GLU:HA	2.14	0.48
55:CM:47:LEU:HD23	55:CM:48:SER:C	2.34	0.48
55:CM:61:LYS:O	55:CM:62:PHE:HB2	2.12	0.48
56:CP:6:LEU:HD13	56:CP:17:TYR:CG	2.49	0.48
19:CS:5:LYS:HE3	19:CS:6:LYS:H	1.78	0.48
22:DA:192:C:O4'	22:DA:678:C:O2	2.32	0.48
22:DA:295:G:C2	22:DA:296:U:C5	3.02	0.48
22:DA:301:G:O5'	42:DU:81:ARG:NH1	2.47	0.48
22:DA:424:G:C2	22:DA:425:G:C8	3.01	0.48
22:DA:587:C:N3	33:DL:33:ARG:NH2	2.61	0.48
22:DA:616:A:O2'	22:DA:617:G:O5'	2.32	0.48
22:DA:729:G:C6	24:DC:206:LYS:HB2	2.49	0.48
22:DA:1059:G:H1	22:DA:1088:A:H2	1.61	0.48
22:DA:1130:U:N3	22:DA:2025:C:OP1	2.44	0.48
22:DA:1273:U:O3'	22:DA:1274:A:H3'	2.12	0.48
22:DA:1361:G:C4	22:DA:1362:C:C6	3.02	0.48
22:DA:1400:U:O2'	22:DA:1401:G:O4'	2.19	0.48
22:DA:1416:G:C2	22:DA:1417:C:C5	3.02	0.48
22:DA:1677:A:N6	22:DA:1678:A:C6	2.82	0.48
22:DA:1835:G:H2'	22:DA:1836:C:H6	1.79	0.48
22:DA:1854:A:H2	22:DA:2087:G:N3	2.12	0.48
22:DA:2461:A:C1'	22:DA:2492:U:H3	2.18	0.48
22:DA:2508:G:N2	22:DA:2582:G:C6	2.82	0.48
22:DA:2516:A:C2	22:DA:2569:G:N3	2.82	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2571:U:N3	22:DA:2574:G:C8	2.82	0.48
22:DA:2714:G:H8	22:DA:2714:G:O5'	1.96	0.48
57:DB:40:U:O2	57:DB:43:C:C2'	2.55	0.48
24:DC:212:TRP:C	24:DC:212:TRP:CD1	2.87	0.48
26:DE:146:VAL:HG12	26:DE:167:VAL:HG23	1.96	0.48
58:DF:102:LEU:N	58:DF:102:LEU:HD22	2.28	0.48
31:DJ:110:PRO:HG2	31:DJ:111:LYS:CG	2.40	0.48
33:DL:79:LEU:HD23	33:DL:82:LEU:HD13	1.96	0.48
34:DM:13:HIS:O	34:DM:14:LYS:HB2	2.14	0.48
35:DN:73:ASN:HA	35:DN:76:VAL:HG13	1.96	0.48
36:DO:49:VAL:HG11	36:DO:81:ARG:HB3	1.95	0.48
37:DP:64:SER:O	37:DP:66:GLY:N	2.46	0.48
40:DS:1:MET:CE	40:DS:1:MET:N	2.77	0.48
42:DU:94:PHE:O	42:DU:94:PHE:CD2	2.64	0.48
1:AA:8:A:N6	4:AD:204:SER:HB2	2.14	0.48
1:AA:57:G:C6	1:AA:58:C:C4	3.02	0.48
1:AA:102:G:C4	1:AA:103:U:C5	3.02	0.48
1:AA:199:A:N3	1:AA:200:G:C8	2.82	0.48
1:AA:303:A:H2'	1:AA:304:U:O4'	2.14	0.48
1:AA:342:C:C2'	1:AA:343:U:H5'	2.43	0.48
1:AA:563:A:N3	1:AA:563:A:C2'	2.72	0.48
2:AB:164:ASP:O	2:AB:168:GLU:HG2	2.13	0.48
3:AC:148:ILE:HG13	3:AC:200:TRP:O	2.14	0.48
4:AD:123:MET:CB	4:AD:128:VAL:HA	2.44	0.48
8:AH:1:SER:C	8:AH:3:GLN:N	2.67	0.48
8:AH:17:GLN:HE21	8:AH:71:VAL:CG2	2.27	0.48
11:AK:126:ARG:N	21:AU:33:ARG:HH22	2.11	0.48
13:AM:86:ARG:O	13:AM:89:ARG:HB2	2.14	0.48
17:AQ:12:VAL:CG1	17:AQ:13:SER:N	2.76	0.48
19:AS:44:ILE:HA	19:AS:61:VAL:HB	1.96	0.48
20:AT:6:ALA:HB1	20:AT:9:ARG:HB2	1.96	0.48
21:AU:36:PHE:HB3	21:AU:40:PRO:HD3	1.96	0.48
22:BA:269:C:O2'	22:BA:270:A:H5'	2.14	0.48
22:BA:616:A:H2'	22:BA:617:G:H8	1.77	0.48
22:BA:1046:A:H3'	22:BA:1047:G:C5'	2.42	0.48
22:BA:1062:G:C6	22:BA:1063:G:C6	3.02	0.48
22:BA:1427:A:H4'	22:BA:1428:C:O5'	2.14	0.48
22:BA:1613:G:O2'	50:B2:3:ARG:HG3	2.14	0.48
22:BA:1615:C:C5	22:BA:1617:C:C4	3.01	0.48
22:BA:1759:A:H2'	22:BA:1760:C:C6	2.49	0.48
23:BB:53:A:C2	23:BB:54:G:C8	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BC:259:ASN:C	24:BC:261:ARG:N	2.64	0.48
26:BE:112:LEU:HD13	26:BE:186:VAL:CG1	2.36	0.48
29:BH:110:VAL:HG23	29:BH:111:ALA:N	2.29	0.48
30:BI:19:PRO:HG2	30:BI:23:VAL:HG22	1.96	0.48
36:BO:23:ALA:O	36:BO:24:THR:C	2.52	0.48
40:BS:17:VAL:HG12	40:BS:18:ARG:N	2.28	0.48
41:BT:9:LYS:O	41:BT:9:LYS:HG3	2.13	0.48
41:BT:11:LEU:HG	41:BT:46:ALA:HB1	1.95	0.48
44:BW:67:LYS:HB3	44:BW:80:SER:N	2.25	0.48
47:BZ:8:GLN:HG3	47:BZ:28:LEU:HB3	1.96	0.48
49:B1:29:LYS:HD2	49:B1:31:GLU:CD	2.34	0.48
53:CA:80:A:H3'	53:CA:81:A:C4'	2.43	0.48
53:CA:203:G:N2	53:CA:215:C:C2	2.81	0.48
53:CA:322:C:C2	53:CA:332:G:N2	2.82	0.48
53:CA:636:U:H2'	53:CA:637:C:C6	2.49	0.48
53:CA:1288:A:H2'	53:CA:1289:A:H8	1.77	0.48
53:CA:1480:A:H2'	53:CA:1481:U:H6	1.78	0.48
4:CD:53:GLN:HB2	4:CD:202:LEU:HD12	1.96	0.48
9:CI:35:GLU:CB	9:CI:39:GLY:HA3	2.44	0.48
11:CK:51:PHE:CE2	11:CK:64:VAL:HG21	2.49	0.48
55:CM:22:TYR:HB2	55:CM:65:GLU:HG2	1.96	0.48
15:CO:38:LEU:HG	15:CO:42:PHE:HE1	1.78	0.48
56:CP:71:VAL:HG22	56:CP:72:ALA:N	2.29	0.48
22:DA:487:C:C2'	22:DA:488:G:H5'	2.44	0.48
22:DA:669:G:N2	22:DA:670:A:C2	2.80	0.48
22:DA:1039:A:C6	22:DA:1040:A:N7	2.81	0.48
22:DA:1268:A:C6	22:DA:2013:A:C8	3.01	0.48
22:DA:1419:A:H1'	22:DA:1579:A:H61	1.79	0.48
22:DA:1537:G:C3'	22:DA:1538:G:H4'	2.41	0.48
22:DA:1801:A:C5	22:DA:2203:U:C5	3.02	0.48
22:DA:2283:C:H5"	22:DA:2283:C:C6	2.47	0.48
22:DA:2432:A:N1	45:DX:20:ALA:HA	2.29	0.48
22:DA:2572:A:C8	25:DD:149:ASN:ND2	2.65	0.48
22:DA:2611:C:H2'	22:DA:2612:C:H6	1.79	0.48
22:DA:2807:U:H2'	22:DA:2808:G:O4'	2.14	0.48
22:DA:2829:A:H2'	22:DA:2830:C:C5'	2.42	0.48
24:DC:19:VAL:O	24:DC:19:VAL:CG1	2.61	0.48
24:DC:78:GLU:HB2	24:DC:92:LEU:HB3	1.96	0.48
26:DE:44:ARG:HB2	26:DE:88:ARG:O	2.13	0.48
28:DG:84:LYS:HB2	28:DG:132:LEU:H	1.79	0.48
28:DG:92:GLY:O	28:DG:93:TYR:C	2.52	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DH:31:VAL:CB	29:DH:32:PRO:HD3	2.35	0.48
32:DK:77:ILE:HG23	37:DP:71:ARG:HD2	1.95	0.48
33:DL:68:SER:O	33:DL:69:ARG:HB2	2.13	0.48
38:DQ:9:ALA:C	38:DQ:11:ALA:N	2.68	0.48
38:DQ:26:ALA:HA	38:DQ:29:ARG:CG	2.44	0.48
38:DQ:39:ILE:O	38:DQ:42:GLY:N	2.47	0.48
38:DQ:75:TYR:O	38:DQ:79:ILE:HG22	2.14	0.48
39:DR:97:LYS:O	39:DR:97:LYS:CG	2.62	0.48
40:DS:36:LEU:C	40:DS:38:TYR:N	2.67	0.48
42:DU:81:ARG:H	42:DU:81:ARG:CD	2.25	0.48
44:DW:57:THR:HG22	44:DW:57:THR:O	2.13	0.48
48:D0:53:VAL:HG23	48:D0:54:ILE:N	2.28	0.48
1:AA:538:G:OP1	12:AL:109:ARG:HD3	2.14	0.48
1:AA:579:A:H2'	1:AA:580:C:C6	2.48	0.48
1:AA:657:U:O2'	1:AA:658:C:H5'	2.13	0.48
1:AA:674:G:OP1	6:AF:51:ILE:HG13	2.14	0.48
1:AA:707:U:H2'	1:AA:708:C:C6	2.49	0.48
1:AA:821:G:H2'	1:AA:822:U:C6	2.48	0.48
1:AA:908:A:C2	1:AA:909:A:C4	3.01	0.48
1:AA:1215:G:HO2'	1:AA:1216:A:H5'	1.75	0.48
1:AA:1349:A:OP1	9:AI:122:ARG:N	2.46	0.48
1:AA:1410:A:C2'	1:AA:1411:C:O5'	2.62	0.48
2:AB:40:ILE:HG21	2:AB:201:GLY:H	1.78	0.48
3:AC:55:VAL:HG12	3:AC:56:ILE:N	2.29	0.48
3:AC:63:ILE:HG22	3:AC:97:PRO:O	2.14	0.48
6:AF:42:TRP:HZ2	6:AF:61:LEU:CD2	2.23	0.48
7:AG:106:ALA:HB1	7:AG:132:THR:HB	1.96	0.48
10:AJ:63:ASP:OD2	14:AN:97:LYS:NZ	2.46	0.48
22:BA:60:G:C6	22:BA:74:A:N6	2.82	0.48
22:BA:80:G:C4	22:BA:107:G:N2	2.82	0.48
22:BA:306:U:H2'	22:BA:307:G:O4'	2.14	0.48
22:BA:1028:A:OP2	22:BA:1126:A:N6	2.42	0.48
22:BA:1159:U:O2'	22:BA:1160:G:H5'	2.14	0.48
22:BA:1513:U:C2'	22:BA:1514:G:H5'	2.44	0.48
22:BA:1952:A:C6	22:BA:1953:A:N1	2.81	0.48
22:BA:2446:G:H3'	22:BA:2447:G:H5"	1.94	0.48
22:BA:2583:G:C6	22:BA:2584:U:N3	2.82	0.48
22:BA:2783:U:H2'	22:BA:2784:U:C6	2.48	0.48
23:BB:42:C:O2'	23:BB:43:C:H5'	2.14	0.48
24:BC:184:GLU:O	24:BC:185:ALA:HB3	2.14	0.48
24:BC:257:ARG:HG3	24:BC:269:ARG:HH22	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BE:157:LEU:O	26:BE:157:LEU:HG	2.13	0.48
27:BF:118:ALA:HB1	27:BF:166:ARG:HD3	1.96	0.48
29:BH:100:ALA:O	29:BH:101:ASP:C	2.52	0.48
31:BJ:114:LEU:HD23	31:BJ:114:LEU:O	2.13	0.48
36:BO:17:LYS:HE3	36:BO:17:LYS:HA	1.95	0.48
37:BP:64:SER:HB3	37:BP:69:VAL:CG1	2.44	0.48
37:BP:96:LEU:HB3	37:BP:99:LEU:HD22	1.95	0.48
41:BT:23:ALA:C	41:BT:25:GLU:H	2.17	0.48
41:BT:39:THR:O	41:BT:41:ALA:N	2.44	0.48
53:CA:71:A:C6	53:CA:100:G:C5	3.02	0.48
53:CA:72:A:H2'	53:CA:73:C:C6	2.49	0.48
53:CA:345:C:H3'	37:DP:38:ARG:NH1	2.28	0.48
53:CA:595:A:H5"	53:CA:596:A:OP1	2.14	0.48
53:CA:949:A:C2	53:CA:1233:G:C4	3.02	0.48
53:CA:949:A:C4'	53:CA:1364:U:O4	2.62	0.48
53:CA:953:G:C6	53:CA:954:G:C6	3.02	0.48
53:CA:1272:G:C2'	53:CA:1273:C:H5'	2.44	0.48
53:CA:1349:A:OP1	9:CI:121:ARG:HB2	2.14	0.48
3:CC:120:THR:CG2	3:CC:187:GLU:O	2.58	0.48
5:CE:112:ALA:O	5:CE:113:VAL:C	2.53	0.48
54:CG:12:LEU:HD22	54:CG:12:LEU:C	2.34	0.48
54:CG:84:TYR:HD2	54:CG:150:PHE:HD2	1.60	0.48
54:CG:91:ARG:CD	54:CG:92:PRO:HD2	2.42	0.48
54:CG:103:ILE:HG22	54:CG:103:ILE:O	2.14	0.48
12:CL:31:GLY:HA3	12:CL:54:VAL:CG1	2.44	0.48
55:CM:28:ARG:HA	55:CM:31:ALA:HB3	1.95	0.48
21:CU:35:GLU:OE2	21:CU:35:GLU:HA	2.14	0.48
22:DA:46:G:N1	22:DA:47:C:C4	2.82	0.48
22:DA:133:U:H2'	22:DA:134:G:O4'	2.14	0.48
22:DA:181:A:H2	22:DA:434:U:C1'	2.18	0.48
22:DA:224:U:OP2	22:DA:408:G:N2	2.44	0.48
22:DA:657:U:H2'	22:DA:658:U:C6	2.49	0.48
22:DA:792:A:C5'	22:DA:793:A:H5'	2.42	0.48
22:DA:822:G:H2'	22:DA:823:C:H6	1.79	0.48
22:DA:1252:G:N3	22:DA:1253:A:C2	2.82	0.48
22:DA:1341:G:C2	41:DT:84:TYR:HE2	2.32	0.48
22:DA:1527:G:C2	22:DA:1546:G:N1	2.81	0.48
22:DA:1537:G:H3'	22:DA:1537:G:OP2	2.14	0.48
22:DA:1649:G:C2'	22:DA:1650:A:H8	2.27	0.48
22:DA:1674:G:N2	22:DA:1677:A:N1	2.62	0.48
22:DA:1808:A:C3'	22:DA:1809:A:C8	2.97	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1819:A:C1'	22:DA:1821:A:C6	2.97	0.48
22:DA:1875:G:H8	22:DA:1875:G:OP2	1.97	0.48
22:DA:2185:U:H6	22:DA:2185:U:O5'	1.97	0.48
22:DA:2387:U:O2	44:DW:38:ARG:CZ	2.61	0.48
22:DA:2644:G:C6	22:DA:2645:G:C2	3.02	0.48
22:DA:2751:G:N3	22:DA:2751:G:H2'	2.29	0.48
22:DA:2850:A:C2'	22:DA:2851:A:H5'	2.42	0.48
25:DD:106:LYS:CB	25:DD:206:ALA:H	2.26	0.48
26:DE:187:VAL:HG12	26:DE:188:MET:N	2.29	0.48
58:DF:169:LEU:HB3	58:DF:174:PHE:HB2	1.96	0.48
32:DK:118:LEU:HD23	32:DK:118:LEU:N	2.29	0.48
33:DL:57:LEU:HA	33:DL:60:ARG:CG	2.43	0.48
33:DL:142:ILE:CG2	33:DL:144:GLU:H	2.27	0.48
37:DP:28:LYS:O	37:DP:80:VAL:O	2.32	0.48
38:DQ:87:VAL:CG1	38:DQ:88:GLU:H	2.11	0.48
39:DR:43:ASN:HD22	39:DR:44:GLY:H	1.61	0.48
44:DW:35:ILE:HB	44:DW:36:ILE:H	1.45	0.48
49:D1:46:VAL:HG22	49:D1:47:ILE:N	2.29	0.48
51:D3:31:ILE:HG21	51:D3:34:LYS:HZ3	1.78	0.48
1:AA:94:G:C4'	1:AA:95:C:O5'	2.47	0.47
1:AA:633:G:C5	1:AA:634:C:C5	3.02	0.47
1:AA:993:G:H2'	1:AA:993:G:N3	2.29	0.47
1:AA:1029:U:N3	1:AA:1033:G:C6	2.82	0.47
1:AA:1216:A:OP1	14:AN:4:SER:CB	2.62	0.47
1:AA:1466:C:H2'	1:AA:1467:C:O4'	2.15	0.47
4:AD:129:VAL:O	4:AD:129:VAL:HG12	2.14	0.47
8:AH:63:LYS:HB2	8:AH:70:VAL:CG2	2.38	0.47
19:AS:33:TRP:CD1	19:AS:51:HIS:CB	2.97	0.47
22:BA:81:G:C2	22:BA:106:C:C2	3.02	0.47
22:BA:404:A:C8	22:BA:406:G:C6	3.02	0.47
22:BA:435:C:O2'	22:BA:436:C:H5'	2.14	0.47
22:BA:666:A:O2'	22:BA:667:U:H5'	2.14	0.47
22:BA:743:A:O3'	62:BA:3646:HOH:O	2.20	0.47
22:BA:796:C:H2'	22:BA:797:G:H8	1.78	0.47
22:BA:945:A:C4	22:BA:2448:A:C2	3.02	0.47
22:BA:966:G:C6	22:BA:967:U:C4	3.02	0.47
22:BA:1243:C:C2	22:BA:1244:A:C8	3.02	0.47
22:BA:1303:G:H2'	22:BA:1304:A:C8	2.46	0.47
22:BA:1333:G:OP2	62:BA:3389:HOH:O	2.20	0.47
22:BA:1569:A:C2	22:BA:1570:A:C4	3.01	0.47
22:BA:1576:U:H2'	22:BA:1577:C:H5'	1.94	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1644:C:C2'	22:BA:1645:G:C5'	2.88	0.47
22:BA:1818:U:O2'	22:BA:1819:A:OP2	2.31	0.47
22:BA:1958:C:P	62:BA:3724:HOH:O	2.72	0.47
22:BA:2019:A:C2'	22:BA:2020:A:O5'	2.62	0.47
22:BA:2203:U:C5'	22:BA:2204:G:OP1	2.49	0.47
22:BA:2555:U:H5	22:BA:2556:C:C6	2.27	0.47
23:BB:12:C:C4'	23:BB:13:G:OP1	2.62	0.47
26:BE:5:LEU:HD22	26:BE:122:GLU:HG2	1.95	0.47
27:BF:46:LYS:N	27:BF:46:LYS:CD	2.76	0.47
28:BG:86:LEU:CB	28:BG:162:ARG:O	2.53	0.47
29:BH:81:ALA:HB2	29:BH:145:ASN:O	2.15	0.47
31:BJ:38:GLY:O	31:BJ:40:HIS:N	2.47	0.47
33:BL:29:LYS:C	33:BL:31:GLY:H	2.17	0.47
37:BP:21:PRO:CA	37:BP:46:VAL:HG12	2.31	0.47
37:BP:71:ARG:HD3	37:BP:73:PHE:CZ	2.49	0.47
40:BS:32:ALA:HB3	40:BS:51:LEU:HD21	1.97	0.47
44:BW:29:SER:HA	44:BW:63:ASP:HB3	1.96	0.47
53:CA:112:G:C2	53:CA:330:C:N4	2.82	0.47
53:CA:320:A:HO2'	53:CA:1435:G:H1'	1.74	0.47
53:CA:364:A:C2	53:CA:365:U:O4	2.67	0.47
53:CA:451:A:H1'	53:CA:452:A:C8	2.49	0.47
53:CA:615:G:C2	53:CA:616:G:C4	3.02	0.47
53:CA:694:A:H3'	53:CA:695:A:C5'	2.33	0.47
53:CA:961:U:O4	53:CA:983:A:C6	2.67	0.47
53:CA:1102:A:H8	53:CA:1102:A:H5"	1.79	0.47
53:CA:1297:G:O2'	54:CG:113:LYS:HE3	2.13	0.47
53:CA:1320:C:O2'	19:CS:72:GLU:HA	2.14	0.47
2:CB:49:PHE:HB3	2:CB:199:ILE:CG2	2.44	0.47
2:CB:101:THR:HG23	2:CB:174:GLU:HB3	1.96	0.47
2:CB:115:ASP:O	2:CB:119:GLN:CB	2.62	0.47
3:CC:76:ILE:HD11	3:CC:102:ILE:CD1	2.36	0.47
3:CC:96:VAL:HB	3:CC:97:PRO:CD	2.45	0.47
4:CD:187:ARG:CZ	4:CD:191:SER:OG	2.62	0.47
5:CE:110:MET:HG2	5:CE:139:THR:CG2	2.43	0.47
6:CF:11:HIS:NE2	6:CF:54:LEU:CD2	2.76	0.47
54:CG:59:GLU:C	54:CG:61:PHE:H	2.18	0.47
56:CP:36:VAL:HG22	56:CP:36:VAL:O	2.14	0.47
22:DA:77:G:O2'	22:DA:78:U:C5'	2.62	0.47
22:DA:197:A:N7	22:DA:2430:A:C4	2.82	0.47
22:DA:782:A:O2'	24:DC:223:ALA:O	2.26	0.47
22:DA:836:G:C6	22:DA:837:C:C4	3.01	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:953:G:O2'	22:DA:954:G:H5'	2.14	0.47
22:DA:976:G:O2'	22:DA:977:G:H8	1.97	0.47
22:DA:1304:A:O2'	22:DA:1305:C:C6	2.58	0.47
22:DA:1364:G:N3	22:DA:1368:G:C2	2.82	0.47
22:DA:1717:A:O2'	22:DA:1718:G:O4'	2.32	0.47
22:DA:1803:A:C2	22:DA:1823:G:H1'	2.49	0.47
22:DA:2015:A:C6	48:D0:2:VAL:HG11	2.49	0.47
22:DA:2039:U:H2'	22:DA:2040:G:C8	2.48	0.47
22:DA:2077:A:C6	22:DA:2435:A:C6	3.02	0.47
22:DA:2145:C:H2'	22:DA:2146:C:H3'	1.96	0.47
22:DA:2250:G:H5'	34:DM:84:LYS:NZ	2.29	0.47
22:DA:2287:A:N7	22:DA:2289:G:C8	2.82	0.47
22:DA:2308:G:O6	22:DA:2311:A:N7	2.47	0.47
22:DA:2459:A:H2'	22:DA:2460:U:H6	1.78	0.47
57:DB:18:G:C6	57:DB:19:C:N3	2.82	0.47
57:DB:55:U:H5'	58:DF:24:VAL:CG2	2.44	0.47
57:DB:77:U:H2'	57:DB:78:A:H5'	1.95	0.47
24:DC:20:ASN:CB	24:DC:23:LEU:HD22	2.44	0.47
58:DF:135:ILE:O	58:DF:137:PHE:N	2.41	0.47
58:DF:139:GLU:HB3	58:DF:142:TYR:HB3	1.96	0.47
34:DM:32:GLY:HA2	34:DM:104:GLU:HA	1.96	0.47
35:DN:103:ARG:HG3	35:DN:104:ALA:H	1.79	0.47
41:DT:62:VAL:CG1	41:DT:63:VAL:N	2.76	0.47
43:DV:36:ALA:HB1	43:DV:37:PRO:HD2	1.96	0.47
44:DW:20:LEU:CD1	44:DW:35:ILE:HG13	2.41	0.47
45:DX:13:THR:HA	45:DX:27:ARG:HA	1.95	0.47
45:DX:30:PRO:HB2	45:DX:32:LEU:HD21	1.95	0.47
47:DZ:4:ILE:CG2	47:DZ:56:VAL:HG13	2.43	0.47
1:AA:366:A:HO2'	1:AA:394:G:N2	2.08	0.47
1:AA:503:C:O2'	1:AA:504:C:H5'	2.14	0.47
1:AA:692:U:H1'	1:AA:695:A:N7	2.29	0.47
1:AA:820:U:H4'	1:AA:821:G:OP2	2.14	0.47
1:AA:924:C:H2'	1:AA:925:G:C8	2.49	0.47
1:AA:959:A:H5"	1:AA:960:U:OP2	2.13	0.47
1:AA:1055:A:C2	1:AA:1056:U:H1'	2.48	0.47
1:AA:1210:C:H2'	1:AA:1211:U:C5'	2.44	0.47
1:AA:1227:A:O2'	1:AA:1228:C:O5'	2.31	0.47
1:AA:1452:C:O4'	1:AA:1453:G:C2	2.66	0.47
2:AB:205:ALA:O	2:AB:209:VAL:HG22	2.14	0.47
3:AC:164:THR:O	3:AC:165:GLU:C	2.52	0.47
5:AE:112:ALA:O	5:AE:116:VAL:HG13	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:110:ARG:HD3	7:AG:112:ASP:OD1	2.14	0.47
9:AI:57:VAL:O	9:AI:58:GLU:HG2	2.14	0.47
12:AL:89:LEU:N	12:AL:89:LEU:HD22	2.29	0.47
17:AQ:78:VAL:O	17:AQ:79:GLU:HB2	2.14	0.47
19:AS:51:HIS:CD2	19:AS:53:GLY:N	2.79	0.47
19:AS:78:THR:O	19:AS:78:THR:OG1	2.31	0.47
20:AT:84:LYS:O	20:AT:84:LYS:HD2	2.15	0.47
22:BA:422:A:H2'	22:BA:423:A:C8	2.49	0.47
22:BA:511:U:H5	22:BA:512:G:C5	2.31	0.47
22:BA:858:G:N3	22:BA:2268:A:H2'	2.29	0.47
22:BA:946:C:H2'	22:BA:947:A:C8	2.49	0.47
22:BA:1788:C:C2'	22:BA:1789:A:H5'	2.44	0.47
22:BA:1791:A:O2'	24:BC:205:GLY:CA	2.59	0.47
22:BA:1820:U:H3'	22:BA:1821:A:H5'	1.96	0.47
22:BA:2267:A:H5"	22:BA:2268:A:H5'	1.96	0.47
22:BA:2500:U:O2	22:BA:2504:U:C4	2.67	0.47
22:BA:2555:U:C5	22:BA:2556:C:C2	3.02	0.47
24:BC:211:ARG:HD2	24:BC:215:VAL:O	2.13	0.47
25:BD:144:GLY:O	25:BD:145:SER:O	2.32	0.47
26:BE:48:THR:O	26:BE:52:VAL:HG23	2.14	0.47
27:BF:134:GLN:HG3	27:BF:140:ILE:HG12	1.97	0.47
28:BG:104:LEU:HB2	28:BG:112:VAL:HG22	1.89	0.47
29:BH:72:ILE:O	29:BH:72:ILE:HG23	2.14	0.47
29:BH:75:LEU:HD22	29:BH:143:ILE:CG1	2.42	0.47
30:BI:56:VAL:HG22	30:BI:57:VAL:N	2.29	0.47
30:BI:126:ARG:HA	30:BI:129:GLU:CD	2.35	0.47
31:BJ:38:GLY:O	31:BJ:43:GLU:HB2	2.13	0.47
33:BL:93:ASN:O	33:BL:94:THR:HG22	2.13	0.47
38:BQ:20:ALA:HA	38:BQ:23:TYR:CD1	2.49	0.47
39:BR:48:LYS:H	39:BR:48:LYS:CD	2.23	0.47
40:BS:103:ILE:HD12	40:BS:103:ILE:N	2.29	0.47
45:BX:21:LEU:HD23	45:BX:21:LEU:HA	1.55	0.47
46:BY:22:LEU:O	46:BY:23:ARG:O	2.32	0.47
50:B2:21:ARG:HG2	50:B2:31:LEU:HG	1.96	0.47
51:B3:31:ILE:CD1	51:B3:34:LYS:HD2	2.30	0.47
53:CA:265:G:H5'	17:CQ:65:PRO:O	2.13	0.47
53:CA:275:G:O2'	53:CA:276:G:H5'	2.14	0.47
53:CA:391:G:H5"	56:CP:8:ARG:CD	2.44	0.47
53:CA:407:U:H2'	53:CA:408:A:C8	2.49	0.47
53:CA:765:G:C8	53:CA:812:G:N3	2.82	0.47
53:CA:1068:G:C2'	53:CA:1069:C:H5'	2.42	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1083:U:C5	53:CA:1084:G:C6	3.02	0.47
53:CA:1147:C:H4'	9:CI:6:TYR:HE1	1.71	0.47
53:CA:1213:A:O2'	53:CA:1214:C:H5"	2.13	0.47
53:CA:1345:U:C2	53:CA:1377:A:C2	3.03	0.47
53:CA:1387:G:C4	53:CA:1388:C:C5	3.02	0.47
53:CA:1397:C:H6	53:CA:1397:C:OP1	1.97	0.47
2:CB:103:TRP:CZ2	2:CB:155:GLY:HA2	2.48	0.47
4:CD:190:LEU:HD23	4:CD:190:LEU:C	2.34	0.47
5:CE:84:VAL:HG22	5:CE:85:LYS:N	2.28	0.47
54:CG:55:LYS:N	54:CG:55:LYS:HD2	2.28	0.47
14:CN:31:SER:OG	14:CN:45:LEU:HD13	2.14	0.47
20:CT:81:GLN:O	20:CT:82:ILE:HG12	2.14	0.47
22:DA:176:A:H3'	22:DA:177:G:N2	2.29	0.47
22:DA:303:G:C2'	22:DA:304:U:C6	2.97	0.47
22:DA:404:A:C2	22:DA:406:G:N1	2.83	0.47
22:DA:411:G:C5'	22:DA:412:A:OP1	2.62	0.47
22:DA:450:G:H2'	22:DA:451:U:H5"	1.96	0.47
22:DA:622:G:O2'	22:DA:623:C:H5'	2.14	0.47
22:DA:665:U:H2'	22:DA:666:A:C8	2.49	0.47
22:DA:1223:G:O6	39:DR:71:LYS:NZ	2.47	0.47
22:DA:1603:A:N1	22:DA:1604:C:C2	2.82	0.47
22:DA:1844:C:O2'	22:DA:1845:G:H5'	2.14	0.47
22:DA:1877:A:H2'	22:DA:1878:G:C8	2.49	0.47
22:DA:1944:U:C4	22:DA:1955:U:C5	3.02	0.47
22:DA:2209:G:C2	22:DA:2216:G:C2	3.02	0.47
22:DA:2387:U:H5	62:DA:3553:HOH:O	1.98	0.47
22:DA:2660:A:H2	22:DA:2661:G:N7	2.12	0.47
22:DA:2875:C:O2'	22:DA:2876:G:O5'	2.32	0.47
24:DC:38:LYS:HE2	24:DC:55:GLY:O	2.15	0.47
24:DC:135:PRO:HG2	24:DC:138:SER:OG	2.14	0.47
24:DC:140:VAL:HG22	24:DC:161:VAL:O	2.15	0.47
30:DI:95:ASP:CG	30:DI:96:LYS:H	2.17	0.47
31:DJ:20:ALA:HA	31:DJ:23:LYS:CG	2.43	0.47
31:DJ:95:ARG:O	31:DJ:96:ARG:C	2.52	0.47
33:DL:83:ALA:HB1	33:DL:118:THR:HG22	1.96	0.47
36:DO:71:ALA:HB1	36:DO:102:ARG:O	2.13	0.47
39:DR:4:VAL:HG23	39:DR:39:LEU:HG	1.96	0.47
42:DU:42:LYS:HB2	42:DU:42:LYS:HZ2	1.77	0.47
42:DU:44:HIS:HD2	42:DU:57:ILE:HG21	1.79	0.47
44:DW:76:ARG:C	44:DW:77:LYS:HZ2	2.17	0.47
1:AA:373:A:N3	1:AA:374:A:C8	2.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:544:G:C6	1:AA:545:C:C5	3.03	0.47
1:AA:957:U:O2	1:AA:959:A:C8	2.66	0.47
1:AA:1369:C:H2'	1:AA:1370:G:O4'	2.14	0.47
1:AA:1454:G:H2'	1:AA:1455:G:H8	1.78	0.47
1:AA:1514:G:O2'	1:AA:1515:G:H5'	2.14	0.47
2:AB:165:ALA:CB	2:AB:186:VAL:HG12	2.41	0.47
4:AD:2:ARG:NH2	4:AD:114:ARG:CD	2.77	0.47
4:AD:168:THR:HG22	4:AD:183:ARG:NH2	2.30	0.47
5:AE:82:HIS:HB2	5:AE:83:PRO:CD	2.43	0.47
5:AE:100:GLU:HB3	5:AE:121:ASN:CB	2.44	0.47
6:AF:41:ASP:C	6:AF:43:GLY:H	2.18	0.47
7:AG:68:VAL:HG12	7:AG:102:TRP:HE3	1.78	0.47
7:AG:145:GLU:CA	7:AG:148:LYS:HB2	2.44	0.47
8:AH:5:PRO:O	8:AH:8:ASP:HB3	2.14	0.47
10:AJ:18:ILE:O	10:AJ:22:THR:N	2.47	0.47
10:AJ:53:ILE:CD1	14:AN:84:ARG:NH1	2.77	0.47
12:AL:33:CYS:HB3	12:AL:54:VAL:HG22	1.96	0.47
14:AN:26:LEU:O	14:AN:27:LYS:HB3	2.12	0.47
22:BA:545:U:H2'	22:BA:546:U:O3'	2.13	0.47
22:BA:556:A:C8	22:BA:557:C:C5	3.01	0.47
22:BA:704:G:O2'	22:BA:705:A:P	2.72	0.47
22:BA:989:G:H5'	22:BA:1157:G:H4'	1.96	0.47
22:BA:1085:A:C2	22:BA:1086:A:N7	2.82	0.47
22:BA:1097:U:H3'	22:BA:1098:A:H4'	1.96	0.47
22:BA:1279:G:C2'	22:BA:1280:G:H5'	2.44	0.47
22:BA:1324:G:H1'	22:BA:1616:A:N6	2.29	0.47
22:BA:1508:A:O2'	22:BA:1509:A:O5'	2.32	0.47
22:BA:1693:U:O2'	24:BC:13:ARG:NH2	2.47	0.47
22:BA:1866:A:H2'	22:BA:1867:G:O4'	2.14	0.47
22:BA:2004:G:C2'	22:BA:2005:A:H5'	2.44	0.47
22:BA:2018:G:O2'	22:BA:2019:A:H5'	2.15	0.47
22:BA:2318:G:C6	22:BA:2319:G:C6	3.02	0.47
22:BA:2347:C:H2'	22:BA:2348:U:H6	1.78	0.47
22:BA:2420:C:H5"	49:B1:7:LYS:HE2	1.95	0.47
22:BA:2532:G:C5	22:BA:2533:U:C5	3.02	0.47
22:BA:2647:U:O2'	22:BA:2648:G:H5'	2.14	0.47
24:BC:30:ALA:CB	24:BC:31:PRO:CD	2.89	0.47
26:BE:83:VAL:HG12	26:BE:86:ALA:H	1.79	0.47
27:BF:84:ILE:O	27:BF:84:ILE:CG1	2.62	0.47
28:BG:34:ARG:HD3	28:BG:34:ARG:N	2.27	0.47
31:BJ:114:LEU:HD23	31:BJ:114:LEU:C	2.34	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BK:17:ARG:HB3	32:BK:45:GLU:HB3	1.96	0.47
33:BL:57:LEU:O	33:BL:61:LEU:HD22	2.14	0.47
34:BM:35:ALA:O	34:BM:36:VAL:CB	2.39	0.47
34:BM:83:GLY:O	34:BM:85:GLY:N	2.48	0.47
42:BU:94:PHE:HA	42:BU:102:ILE:HG22	1.97	0.47
44:BW:40:ARG:HB2	44:BW:56:HIS:ND1	2.28	0.47
53:CA:39:G:H2'	53:CA:40:C:C6	2.47	0.47
53:CA:61:G:H2'	53:CA:62:U:C6	2.48	0.47
53:CA:159:G:C2	53:CA:161:A:OP2	2.68	0.47
53:CA:254:G:HO2'	53:CA:255:G:H5'	1.75	0.47
53:CA:382:A:N7	53:CA:383:A:C6	2.83	0.47
53:CA:542:G:N3	53:CA:543:U:C6	2.82	0.47
53:CA:595:A:C5'	53:CA:596:A:OP1	2.62	0.47
53:CA:892:A:H2'	53:CA:893:C:H6	1.80	0.47
53:CA:952:U:H5	55:CM:102:LYS:HZ1	1.62	0.47
53:CA:962:C:O2'	53:CA:963:G:C8	2.51	0.47
53:CA:1167:A:O2'	53:CA:1168:U:OP1	2.31	0.47
53:CA:1229:A:O2'	53:CA:1230:C:H5"	2.14	0.47
2:CB:119:GLN:HE22	2:CB:136:ARG:HH12	1.62	0.47
3:CC:62:SER:OG	3:CC:63:ILE:N	2.47	0.47
4:CD:68:GLU:OE2	4:CD:203:TYR:OH	2.27	0.47
54:CG:21:LEU:O	54:CG:25:PHE:N	2.47	0.47
22:DA:295:G:C2	22:DA:296:U:C6	3.01	0.47
22:DA:395:U:O2'	22:DA:396:G:O5'	2.31	0.47
22:DA:637:A:P	33:DL:112:LEU:HD22	2.54	0.47
22:DA:677:A:O2'	22:DA:2071:A:C5'	2.59	0.47
22:DA:714:U:H2'	22:DA:716:A:OP2	2.14	0.47
22:DA:777:G:N7	22:DA:793:A:H2	2.12	0.47
22:DA:876:C:O2	22:DA:876:C:C4'	2.62	0.47
22:DA:1021:A:HO2'	22:DA:1022:G:P	2.37	0.47
22:DA:1146:C:N4	22:DA:1147:A:N6	2.63	0.47
22:DA:1324:G:N2	22:DA:1328:A:N1	2.62	0.47
22:DA:1635:A:HO2'	22:DA:1636:U:H5'	1.75	0.47
22:DA:1716:U:O2	22:DA:1717:A:C8	2.67	0.47
22:DA:1973:G:O2'	22:DA:1974:C:H5'	2.14	0.47
22:DA:2069:G:C2	22:DA:2443:C:C2	3.02	0.47
22:DA:2598:A:H2'	22:DA:2599:G:O4'	2.13	0.47
22:DA:2620:C:H2'	22:DA:2621:G:O4'	2.15	0.47
22:DA:2842:G:H2'	22:DA:2843:G:O4'	2.14	0.47
22:DA:2843:G:C2	22:DA:2875:C:N3	2.83	0.47
57:DB:58:A:H2'	57:DB:59:A:N7	2.24	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DD:106:LYS:CG	25:DD:206:ALA:HB3	2.44	0.47
26:DE:139:LYS:HB2	26:DE:139:LYS:HZ2	1.73	0.47
58:DF:102:LEU:HB3	58:DF:103:ILE:HD12	1.95	0.47
29:DH:83:LYS:HG3	29:DH:149:GLU:H	1.78	0.47
30:DI:12:VAL:CG1	30:DI:13:ALA:N	2.77	0.47
32:DK:2:ILE:CG2	32:DK:3:GLN:N	2.66	0.47
33:DL:29:LYS:HG2	33:DL:30:THR:HG23	1.96	0.47
35:DN:81:ASN:O	35:DN:82:GLU:HB2	2.14	0.47
35:DN:83:LEU:O	35:DN:87:PHE:HB2	2.14	0.47
37:DP:19:PHE:CE1	37:DP:58:PHE:CD2	3.03	0.47
40:DS:103:ILE:HD12	40:DS:103:ILE:H	1.79	0.47
42:DU:3:LYS:O	42:DU:5:ARG:HD3	2.14	0.47
44:DW:46:ALA:CA	44:DW:50:VAL:HG12	2.44	0.47
48:D0:11:LYS:HD2	48:D0:14:MET:HB2	1.95	0.47
51:D3:15:LYS:HG2	51:D3:16:THR:H	1.79	0.47
1:AA:198:G:C2'	1:AA:199:A:C8	2.95	0.47
1:AA:211:G:N1	1:AA:212:G:N3	2.62	0.47
1:AA:545:C:C3'	1:AA:546:A:H5'	2.44	0.47
1:AA:829:G:C2'	1:AA:830:G:H5'	2.44	0.47
1:AA:844:G:H5"	1:AA:845:A:OP1	2.15	0.47
1:AA:1329:A:H5"	13:AM:25:GLY:H	1.78	0.47
1:AA:1392:G:H8	1:AA:1392:G:O5'	1.98	0.47
1:AA:1417:G:N2	1:AA:1482:G:H2'	2.29	0.47
1:AA:1498:U:H4'	1:AA:1499:A:OP1	2.15	0.47
2:AB:27:LYS:C	2:AB:29:PHE:H	2.17	0.47
6:AF:39:LEU:C	6:AF:40:GLU:HG2	2.34	0.47
7:AG:53:SER:C	7:AG:55:LYS:N	2.68	0.47
7:AG:78:ARG:HH22	7:AG:81:GLY:HA2	1.78	0.47
8:AH:87:ARG:O	8:AH:88:LYS:HB3	2.15	0.47
12:AL:82:ARG:HG2	12:AL:82:ARG:HH11	1.78	0.47
13:AM:28:ARG:NH2	13:AM:62:PHE:HB2	2.30	0.47
15:AO:16:ARG:HD3	15:AO:20:ASP:OD2	2.14	0.47
17:AQ:71:SER:C	17:AQ:72:TRP:CD1	2.88	0.47
20:AT:8:LYS:CA	20:AT:11:ILE:HG23	2.44	0.47
22:BA:679:C:H2'	22:BA:680:C:H6	1.80	0.47
22:BA:800:A:C4'	22:BA:801:G:O5'	2.59	0.47
22:BA:966:G:C5	22:BA:967:U:C4	3.03	0.47
22:BA:1015:U:O2'	22:BA:1016:G:H5'	2.13	0.47
22:BA:1153:C:H2'	22:BA:1154:G:O4'	2.15	0.47
22:BA:1225:G:OP1	39:BR:71:LYS:HE3	2.14	0.47
22:BA:1456:G:C5	22:BA:1457:U:C5	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1505:A:C6	22:BA:1506:U:N3	2.82	0.47
22:BA:1731:G:H2'	22:BA:1732:C:H5"	1.95	0.47
22:BA:1734:G:C2'	22:BA:1735:A:H8	2.27	0.47
22:BA:1905:C:H2'	22:BA:1930:G:C8	2.49	0.47
22:BA:1959:G:H2'	22:BA:1960:A:O5'	2.14	0.47
22:BA:2282:G:H5"	22:BA:2283:C:O4'	2.14	0.47
22:BA:2823:A:C2'	22:BA:2824:C:H5'	2.45	0.47
23:BB:40:U:HO2'	23:BB:43:C:H5	1.61	0.47
24:BC:182:LYS:C	24:BC:183:VAL:HG23	2.35	0.47
26:BE:12:LEU:HD22	26:BE:12:LEU:HA	1.59	0.47
26:BE:187:VAL:CG1	26:BE:188:MET:N	2.76	0.47
27:BF:39:VAL:HG13	27:BF:84:ILE:HD12	1.96	0.47
32:BK:1:MET:CE	32:BK:32:TYR:CE1	2.98	0.47
32:BK:4:GLU:O	32:BK:5:GLN:HB2	2.14	0.47
32:BK:91:SER:O	32:BK:93:GLN:CB	2.58	0.47
38:BQ:39:ILE:O	38:BQ:42:GLY:N	2.47	0.47
38:BQ:111:LYS:HD3	39:BR:48:LYS:HD3	1.97	0.47
41:BT:67:VAL:CG1	41:BT:76:ARG:HG3	2.28	0.47
44:BW:23:LYS:CG	44:BW:24:ARG:N	2.77	0.47
53:CA:132:C:O2'	53:CA:133:U:H5'	2.13	0.47
53:CA:245:U:H6	53:CA:245:U:C5'	2.26	0.47
53:CA:429:U:H4'	53:CA:430:A:O5'	2.12	0.47
53:CA:702:A:OP1	53:CA:702:A:C8	2.65	0.47
53:CA:964:A:C2	53:CA:972:C:N3	2.82	0.47
53:CA:1053:G:C6	53:CA:1199:U:C2	3.03	0.47
53:CA:1147:C:O2	9:CI:17:ARG:NE	2.47	0.47
53:CA:1255:G:H2'	53:CA:1278:G:H21	1.79	0.47
53:CA:1367:C:O2'	53:CA:1368:A:O5'	2.31	0.47
2:CB:183:PHE:CE2	2:CB:197:PHE:CD2	3.03	0.47
3:CC:28:PHE:HZ	14:CN:93:PRO:HD2	1.77	0.47
3:CC:110:LEU:HD23	3:CC:110:LEU:C	2.33	0.47
3:CC:181:ILE:HG12	3:CC:202:PHE:CA	2.44	0.47
4:CD:165:GLU:O	4:CD:166:LYS:CB	2.62	0.47
5:CE:132:PRO:C	5:CE:134:ASN:H	2.17	0.47
5:CE:135:VAL:O	5:CE:139:THR:HG23	2.15	0.47
11:CK:64:VAL:O	11:CK:68:ARG:CB	2.61	0.47
11:CK:74:LYS:CG	11:CK:78:ILE:HD11	2.44	0.47
55:CM:75:SER:HB2	55:CM:79:LEU:HD11	1.96	0.47
18:CR:39:VAL:HG12	18:CR:40:PRO:HD2	1.97	0.47
19:CS:11:ASP:H	19:CS:14:LEU:HD21	1.78	0.47
22:DA:95:A:O2'	46:DY:40:SER:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:125:A:H5"	50:D2:19:ARG:HB2	1.96	0.47
22:DA:357:C:H2'	22:DA:358:U:H6	1.79	0.47
22:DA:782:A:H4'	22:DA:783:A:O5'	2.13	0.47
22:DA:1092:C:C2'	22:DA:1093:G:H5'	2.44	0.47
22:DA:1120:G:C6	22:DA:1121:C:C4	3.02	0.47
22:DA:1238:G:H2'	22:DA:1239:G:H8	1.79	0.47
22:DA:1312:U:O2'	22:DA:1314:C:C5	2.67	0.47
22:DA:1441:G:C4	22:DA:1551:A:C2	3.02	0.47
22:DA:1555:G:C2	22:DA:1556:C:N3	2.83	0.47
22:DA:1565:C:O2'	22:DA:1566:A:O5'	2.30	0.47
22:DA:1671:U:O2	22:DA:1673:G:C8	2.68	0.47
22:DA:2179:C:H5'	22:DA:2179:C:H6	1.80	0.47
22:DA:2195:U:C2	22:DA:2196:C:C6	3.03	0.47
22:DA:2221:G:O2'	22:DA:2222:C:H5'	2.14	0.47
22:DA:2290:G:C6	22:DA:2291:U:C4	3.02	0.47
22:DA:2439:A:H2'	22:DA:2439:A:N3	2.30	0.47
57:DB:54:G:O2'	58:DF:24:VAL:HG21	2.14	0.47
25:DD:112:THR:HG22	25:DD:113:SER:N	2.29	0.47
26:DE:18:THR:HG22	26:DE:106:LYS:HE2	1.96	0.47
26:DE:129:PRO:HG3	26:DE:159:LEU:HD23	1.95	0.47
58:DF:37:MET:N	58:DF:151:LEU:HB3	2.29	0.47
58:DF:66:ILE:HG13	58:DF:83:PRO:HB3	1.97	0.47
28:DG:36:LEU:HD12	28:DG:36:LEU:N	2.28	0.47
29:DH:24:GLY:O	29:DH:25:TYR:C	2.51	0.47
29:DH:48:GLU:HG2	29:DH:51:ARG:HH21	1.80	0.47
29:DH:49:ALA:O	29:DH:53:GLU:HB2	2.14	0.47
31:DJ:41:LYS:C	31:DJ:43:GLU:N	2.68	0.47
31:DJ:45:THR:OG1	31:DJ:48:VAL:HB	2.15	0.47
32:DK:13:ASN:ND2	32:DK:13:ASN:H	2.12	0.47
33:DL:48:ARG:HG3	33:DL:48:ARG:NH1	2.28	0.47
35:DN:61:ALA:O	35:DN:65:LEU:HD13	2.13	0.47
36:DO:31:THR:HG21	36:DO:36:TYR:CE2	2.49	0.47
37:DP:9:GLN:C	37:DP:11:GLN:H	2.18	0.47
40:DS:14:ALA:HB1	40:DS:18:ARG:NH2	2.30	0.47
42:DU:3:LYS:HE2	42:DU:84:PHE:CE1	2.46	0.47
43:DV:49:ASN:O	43:DV:52:ALA:HB3	2.14	0.47
44:DW:18:LYS:HA	44:DW:18:LYS:NZ	2.29	0.47
45:DX:53:LYS:CA	45:DX:56:ARG:HB3	2.28	0.47
1:AA:184:G:O4'	1:AA:224:U:H4'	2.14	0.47
1:AA:243:A:C2	1:AA:246:A:C8	3.02	0.47
1:AA:464:U:N3	1:AA:466:A:C5'	2.77	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:511:C:O2'	1:AA:512:U:P	2.72	0.47
1:AA:546:A:H4'	1:AA:548:G:O3'	2.13	0.47
1:AA:577:G:H2'	1:AA:578:C:C6	2.49	0.47
1:AA:865:A:C2	1:AA:918:A:H4'	2.50	0.47
1:AA:1176:A:H2'	1:AA:1177:G:C8	2.49	0.47
1:AA:1505:G:H5"	62:AA:1803:HOH:O	2.14	0.47
3:AC:10:ARG:NH2	3:AC:181:ILE:HG13	2.29	0.47
3:AC:107:LYS:HB2	3:AC:107:LYS:HZ2	1.79	0.47
3:AC:179:ALA:HB1	3:AC:202:PHE:CE1	2.50	0.47
4:AD:109:THR:CG2	4:AD:112:GLU:CB	2.92	0.47
8:AH:64:TYR:N	8:AH:64:TYR:HD1	2.13	0.47
8:AH:88:LYS:CG	8:AH:89:ASP:N	2.71	0.47
10:AJ:12:ALA:O	10:AJ:70:HIS:CD2	2.67	0.47
10:AJ:35:GLN:HE21	10:AJ:35:GLN:HA	1.80	0.47
14:AN:48:GLN:HA	14:AN:48:GLN:NE2	2.28	0.47
22:BA:271:G:C6	22:BA:272:A:N6	2.83	0.47
22:BA:372:G:P	45:BX:61:LYS:HZ1	2.36	0.47
22:BA:522:A:C6	22:BA:523:C:C4	3.01	0.47
22:BA:562:U:H2'	22:BA:572:A:O4'	2.14	0.47
22:BA:633:A:H2'	22:BA:634:C:H5'	1.96	0.47
22:BA:686:U:H2'	22:BA:788:A:C2	2.50	0.47
22:BA:907:G:H2'	22:BA:908:C:H5'	1.96	0.47
22:BA:939:G:N2	22:BA:940:G:H1'	2.29	0.47
22:BA:946:C:P	62:BA:3344:HOH:O	2.72	0.47
22:BA:1037:G:C2	22:BA:1119:U:O2	2.68	0.47
22:BA:1059:G:O2'	30:BI:128:ILE:HD13	2.15	0.47
22:BA:1075:C:N3	22:BA:1076:C:C4	2.82	0.47
22:BA:1589:U:N3	22:BA:1590:A:N7	2.63	0.47
22:BA:1664:A:H1'	22:BA:2726:A:N1	2.29	0.47
22:BA:1690:A:H2'	22:BA:1691:C:H5'	1.95	0.47
22:BA:1941:C:C5	22:BA:1965:C:C6	3.02	0.47
22:BA:2443:C:O2'	22:BA:2444:G:H5'	2.15	0.47
22:BA:2663:G:C4	22:BA:2664:G:C8	3.03	0.47
22:BA:2682:A:C8	25:BD:11:MET:HG2	2.49	0.47
24:BC:64:VAL:O	24:BC:64:VAL:HG12	2.15	0.47
26:BE:72:SER:C	26:BE:74:LYS:N	2.68	0.47
27:BF:174:PHE:HD1	27:BF:176:PHE:CE1	2.32	0.47
28:BG:8:VAL:HG12	28:BG:9:VAL:H	1.79	0.47
28:BG:117:PRO:O	28:BG:118:ALA:O	2.33	0.47
30:BI:91:LYS:O	30:BI:97:VAL:HG21	2.14	0.47
37:BP:50:ARG:HG3	37:BP:57:ALA:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BV:40:ILE:HG21	43:BV:42:LEU:HD21	1.97	0.47
46:BY:6:LEU:HD13	46:BY:56:LEU:CD1	2.45	0.47
48:B0:53:VAL:O	48:B0:54:ILE:O	2.31	0.47
49:B1:43:ARG:O	49:B1:44:GLN:HG2	2.14	0.47
51:B3:30:HIS:ND1	51:B3:31:ILE:HG22	2.29	0.47
53:CA:77:A:C2	53:CA:93:U:C2	3.02	0.47
53:CA:652:U:H1'	53:CA:653:U:C5	2.49	0.47
53:CA:708:C:H4'	11:CK:38:GLY:HA3	1.95	0.47
53:CA:833:G:O2'	53:CA:834:U:H5'	2.15	0.47
53:CA:1026:G:N2	53:CA:1036:A:H61	2.11	0.47
53:CA:1061:G:C5	53:CA:1197:A:C2	3.03	0.47
53:CA:1087:G:H2'	53:CA:1088:G:H8	1.79	0.47
53:CA:1350:A:C2'	53:CA:1351:U:H5'	2.44	0.47
2:CB:169:HIS:HD2	2:CB:173:LYS:HZ2	1.63	0.47
2:CB:216:VAL:O	2:CB:220:VAL:HG23	2.15	0.47
54:CG:32:ASP:CB	54:CG:34:LYS:HD3	2.43	0.47
8:CH:102:VAL:CG2	8:CH:125:ILE:HD12	2.45	0.47
9:CI:57:VAL:O	9:CI:57:VAL:HG12	2.15	0.47
10:CJ:31:ARG:NH2	10:CJ:32:THR:HB	2.29	0.47
11:CK:51:PHE:C	11:CK:52:ARG:HD2	2.35	0.47
55:CM:100:ARG:CZ	55:CM:102:LYS:HD3	2.45	0.47
19:CS:52:ASN:HD22	19:CS:54:ARG:H	1.61	0.47
19:CS:57:VAL:HG21	19:CS:75:PRO:HD2	1.96	0.47
22:DA:71:A:OP2	22:DA:71:A:H3'	2.15	0.47
22:DA:476:G:O2'	22:DA:477:A:O5'	2.32	0.47
22:DA:564:C:H3'	22:DA:564:C:C6	2.50	0.47
22:DA:616:A:H4'	26:DE:101:TYR:OH	2.14	0.47
22:DA:642:U:H2'	22:DA:644:A:OP2	2.14	0.47
22:DA:1014:A:C2'	22:DA:1015:U:H5'	2.45	0.47
22:DA:1838:C:C4	22:DA:1899:A:N3	2.83	0.47
22:DA:2025:C:OP1	25:DD:154:LYS:HE2	2.15	0.47
22:DA:2036:C:O2'	22:DA:2037:A:C5'	2.62	0.47
22:DA:2144:G:C2	22:DA:2148:G:O6	2.68	0.47
22:DA:2376:A:C2	36:DO:99:TYR:CD2	3.02	0.47
22:DA:2469:A:C6	22:DA:2482:A:C8	3.02	0.47
22:DA:2725:A:O2'	22:DA:2726:A:C8	2.64	0.47
22:DA:2742:G:O2'	22:DA:2743:U:H5'	2.13	0.47
22:DA:2818:U:H2'	22:DA:2819:G:C8	2.49	0.47
57:DB:23:G:N2	57:DB:61:G:C2	2.82	0.47
58:DF:57:ALA:HA	58:DF:60:SER:HB3	1.95	0.47
58:DF:177:ARG:NE	58:DF:178:LYS:N	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DG:43:LYS:HB2	28:DG:50:THR:O	2.14	0.47
28:DG:82:PHE:HB3	28:DG:140:ILE:CD1	2.43	0.47
28:DG:139:VAL:HA	28:DG:142:GLN:HB3	1.96	0.47
28:DG:154:GLU:O	28:DG:156:TYR:N	2.47	0.47
29:DH:41:LYS:HA	29:DH:44:ILE:CD1	2.44	0.47
29:DH:125:THR:HG22	29:DH:146:VAL:CG1	2.41	0.47
30:DI:22:PRO:HB2	30:DI:23:VAL:H	1.57	0.47
30:DI:105:LEU:HD21	30:DI:129:GLU:CD	2.35	0.47
31:DJ:25:LEU:HB2	31:DJ:62:VAL:CG2	2.43	0.47
32:DK:39:ILE:CD1	32:DK:62:VAL:HG23	2.38	0.47
35:DN:51:LEU:HA	35:DN:54:LEU:HD21	1.96	0.47
37:DP:112:ARG:HD2	37:DP:114:ASN:HD21	1.79	0.47
42:DU:95:PHE:CD1	42:DU:95:PHE:N	2.69	0.47
43:DV:29:ILE:HD11	43:DV:90:ASP:CG	2.34	0.47
43:DV:80:HIS:NE2	43:DV:83:LYS:HB2	2.29	0.47
46:DY:37:LEU:HD13	46:DY:42:LEU:HD11	1.95	0.47
47:DZ:22:THR:OG1	47:DZ:50:VAL:HG11	2.14	0.47
1:AA:443:C:H2'	1:AA:444:G:C5'	2.44	0.47
1:AA:731:G:O2'	1:AA:732:C:H5'	2.15	0.47
1:AA:981:U:N3	1:AA:982:U:C4	2.82	0.47
1:AA:1346:A:C4	1:AA:1348:U:C4	3.02	0.47
1:AA:1504:G:C3'	1:AA:1505:G:H5'	2.44	0.47
2:AB:187:ASP:HB2	2:AB:203:ASP:CB	2.43	0.47
2:AB:206:ILE:HD13	2:AB:207:ARG:H	1.79	0.47
3:AC:106:ARG:O	3:AC:106:ARG:CG	2.62	0.47
4:AD:196:GLU:O	4:AD:200:VAL:HG23	2.14	0.47
5:AE:158:LYS:HE2	8:AH:63:LYS:HZ1	1.80	0.47
8:AH:17:GLN:CD	8:AH:69:ALA:HB1	2.35	0.47
10:AJ:70:HIS:CD2	10:AJ:70:HIS:H	2.32	0.47
18:AR:59:LYS:O	18:AR:62:ARG:N	2.47	0.47
20:AT:60:GLN:NE2	20:AT:65:LEU:HD21	2.29	0.47
22:BA:6:A:C2'	22:BA:7:G:H5'	2.44	0.47
22:BA:245:G:H2'	22:BA:246:C:C6	2.48	0.47
22:BA:247:G:H4'	22:BA:386:G:C5	2.50	0.47
22:BA:273:G:O2'	22:BA:274:C:C5'	2.63	0.47
22:BA:447:A:C2	22:BA:454:A:C8	3.03	0.47
22:BA:1014:A:H2'	22:BA:1015:U:C6	2.50	0.47
22:BA:1113:U:H2'	22:BA:1114:C:C6	2.45	0.47
22:BA:1333:G:O2'	22:BA:1334:G:H5'	2.14	0.47
22:BA:2235:G:O2'	22:BA:2236:U:H5'	2.15	0.47
22:BA:2266:A:H4'	22:BA:2267:A:O5'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2289:G:O2'	22:BA:2290:G:H5'	2.15	0.47
22:BA:2347:C:OP1	22:BA:2347:C:H4'	2.14	0.47
22:BA:2396:G:C2'	22:BA:2397:G:H5'	2.43	0.47
22:BA:2492:U:H2'	22:BA:2493:U:H6	1.78	0.47
22:BA:2509:G:C2'	22:BA:2510:C:C5'	2.87	0.47
22:BA:2722:G:H4'	35:BN:3:HIS:O	2.15	0.47
23:BB:12:C:C5	44:BW:72:GLY:HA3	2.50	0.47
24:BC:73:ILE:H	24:BC:73:ILE:HG12	1.38	0.47
24:BC:212:TRP:HD1	24:BC:212:TRP:O	1.97	0.47
25:BD:56:LYS:HD3	25:BD:58:ASN:HD21	1.79	0.47
25:BD:85:ALA:O	25:BD:86:GLU:HB2	2.15	0.47
26:BE:152:GLU:O	26:BE:153:LEU:O	2.33	0.47
28:BG:8:VAL:O	28:BG:9:VAL:CG1	2.52	0.47
29:BH:9:VAL:HG12	29:BH:13:GLY:H	1.78	0.47
29:BH:95:GLY:C	29:BH:97:ARG:H	2.18	0.47
33:BL:68:SER:O	33:BL:69:ARG:HB2	2.14	0.47
34:BM:41:LEU:N	34:BM:41:LEU:HD23	2.29	0.47
35:BN:18:GLN:NE2	35:BN:22:ARG:NH1	2.62	0.47
35:BN:33:ILE:HG12	35:BN:118:ARG:NE	2.28	0.47
35:BN:33:ILE:CG1	35:BN:118:ARG:NE	2.78	0.47
36:BO:68:LYS:O	36:BO:71:ALA:HB3	2.15	0.47
37:BP:88:ARG:HG2	37:BP:112:ARG:NH1	2.30	0.47
38:BQ:13:HIS:CD2	38:BQ:31:TYR:CD1	3.02	0.47
39:BR:25:LEU:N	39:BR:94:THR:CG2	2.66	0.47
44:BW:46:ALA:HB3	44:BW:79:ILE:C	2.33	0.47
53:CA:164:G:C2'	53:CA:165:G:H5'	2.45	0.47
53:CA:254:G:H4'	17:CQ:70:LYS:HD2	1.96	0.47
53:CA:433:G:C2'	53:CA:434:U:H5'	2.44	0.47
53:CA:505:G:N3	53:CA:506:G:C8	2.83	0.47
53:CA:1067:A:C4'	53:CA:1068:G:O5'	2.62	0.47
53:CA:1071:C:H2'	53:CA:1072:G:C8	2.49	0.47
53:CA:1146:A:H2'	53:CA:1147:C:C5	2.49	0.47
53:CA:1179:A:H2'	53:CA:1180:A:O4'	2.15	0.47
53:CA:1221:G:N2	53:CA:1222:G:H1'	2.30	0.47
5:CE:81:GLN:OE1	5:CE:149:PRO:CD	2.63	0.47
9:CI:4:GLN:H	9:CI:4:GLN:HG2	1.55	0.47
9:CI:27:ILE:HB	9:CI:34:LEU:HB2	1.96	0.47
9:CI:71:ILE:HD13	9:CI:72:SER:H	1.78	0.47
9:CI:127:SER:O	9:CI:128:LYS:HB3	2.15	0.47
19:CS:62:THR:CG2	19:CS:64:GLU:HG3	2.44	0.47
21:CU:33:ARG:NH2	21:CU:34:ARG:CD	2.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:157:C:H2'	22:DA:157:C:O2	2.15	0.47
22:DA:184:C:H2'	22:DA:185:G:C8	2.50	0.47
22:DA:247:G:H4'	22:DA:386:G:C6	2.47	0.47
22:DA:321:U:C1'	26:DE:159:LEU:HG	2.43	0.47
22:DA:389:G:C6	22:DA:2413:G:O2'	2.67	0.47
22:DA:859:G:C2	22:DA:916:G:H2'	2.49	0.47
22:DA:1114:C:O2'	22:DA:1115:G:C8	2.61	0.47
22:DA:1139:G:H2'	22:DA:1140:C:C5'	2.45	0.47
22:DA:1187:G:H5"	39:DR:83:TYR:CE1	2.49	0.47
22:DA:1349:C:H2'	22:DA:1350:C:C5	2.49	0.47
22:DA:1380:G:C2	22:DA:1381:G:C8	3.03	0.47
22:DA:1489:C:C4'	22:DA:1490:A:OP1	2.58	0.47
22:DA:1565:C:HO2'	22:DA:1566:A:P	2.37	0.47
22:DA:1587:G:N2	22:DA:1588:G:C1'	2.75	0.47
22:DA:1654:A:O2'	22:DA:1655:A:H5'	2.14	0.47
22:DA:1667:G:C2'	22:DA:1991:U:O4	2.62	0.47
22:DA:1914:C:O2'	22:DA:1915:U:H6	1.97	0.47
22:DA:1991:U:C2'	22:DA:1992:G:H5'	2.43	0.47
22:DA:2020:A:H5'	48:D0:8:THR:HG22	1.97	0.47
22:DA:2387:U:H1'	44:DW:38:ARG:HH12	1.78	0.47
22:DA:2401:U:H5"	22:DA:2402:U:OP2	2.14	0.47
22:DA:2463:C:C2	22:DA:2488:G:C2	3.03	0.47
22:DA:2550:G:O6	22:DA:2551:C:N4	2.47	0.47
24:DC:24:HIS:N	24:DC:80:LEU:O	2.47	0.47
24:DC:172:THR:HG22	24:DC:182:LYS:HZ3	1.80	0.47
58:DF:28:PRO:CB	58:DF:168:LEU:HD11	2.44	0.47
58:DF:39:VAL:HG13	58:DF:49:LEU:HD21	1.94	0.47
28:DG:117:PRO:HG2	28:DG:143:VAL:HG11	1.96	0.47
31:DJ:120:ARG:O	31:DJ:123:LYS:NZ	2.46	0.47
36:DO:77:ALA:O	36:DO:81:ARG:HG3	2.15	0.47
37:DP:5:LYS:O	37:DP:9:GLN:HG2	2.14	0.47
38:DQ:15:LYS:CD	38:DQ:19:GLN:HE21	2.28	0.47
38:DQ:46:TYR:HB2	39:DR:74:ILE:HG23	1.96	0.47
39:DR:83:TYR:CD2	39:DR:83:TYR:C	2.87	0.47
43:DV:6:ALA:HB1	43:DV:40:ILE:HB	1.97	0.47
48:D0:38:LEU:N	48:D0:41:HIS:CE1	2.82	0.47
49:D1:42:VAL:O	49:D1:42:VAL:HG12	2.13	0.47
1:AA:11:G:C6	1:AA:12:U:C4	3.02	0.47
1:AA:161:A:N6	1:AA:162:A:C6	2.83	0.47
1:AA:174:A:H2'	1:AA:175:C:H6	1.75	0.47
1:AA:191:G:H2'	1:AA:192:A:O4'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:201:G:H2'	1:AA:202:G:O4'	2.15	0.47
1:AA:275:G:C5	1:AA:276:G:N7	2.83	0.47
1:AA:284:C:H2'	1:AA:285:C:C6	2.49	0.47
1:AA:499:A:H1'	1:AA:500:G:C8	2.49	0.47
1:AA:620:C:C2'	1:AA:621:A:H5'	2.44	0.47
1:AA:701:U:O2'	1:AA:702:A:P	2.73	0.47
1:AA:923:A:HO2'	1:AA:924:C:H5'	1.79	0.47
1:AA:938:A:C6	1:AA:939:G:C5	3.03	0.47
1:AA:948:C:H5'	1:AA:1306:A:O2'	2.14	0.47
1:AA:1134:G:N1	1:AA:1141:C:C4	2.83	0.47
1:AA:1256:A:C6	1:AA:1278:G:C2	3.02	0.47
1:AA:1320:C:N3	19:AS:35:ARG:NH1	2.61	0.47
1:AA:1328:C:H5"	13:AM:27:THR:HG21	1.96	0.47
1:AA:1374:A:H2'	1:AA:1375:A:H8	1.79	0.47
2:AB:42:LEU:HG	2:AB:43:GLU:CG	2.29	0.47
2:AB:56:LEU:CD1	2:AB:220:VAL:HG22	2.44	0.47
2:AB:209:VAL:O	2:AB:211:LEU:N	2.48	0.47
3:AC:35:ASP:C	3:AC:37:LYS:H	2.18	0.47
4:AD:18:LEU:HD22	4:AD:63:ILE:HB	1.97	0.47
4:AD:29:THR:CG2	4:AD:30:LYS:N	2.77	0.47
4:AD:80:ARG:HH21	4:AD:81:LEU:HD21	1.80	0.47
6:AF:15:SER:O	6:AF:18:VAL:HG23	2.15	0.47
9:AI:6:TYR:CE2	9:AI:17:ARG:HB2	2.48	0.47
9:AI:117:LEU:HD13	9:AI:120:ALA:O	2.14	0.47
11:AK:21:HIS:CD2	11:AK:34:THR:CG2	2.97	0.47
14:AN:63:CYS:HB2	14:AN:79:SER:OG	2.15	0.47
15:AO:24:THR:HG22	15:AO:69:LEU:HD12	1.96	0.47
17:AQ:60:ILE:CG2	17:AQ:61:ARG:N	2.77	0.47
22:BA:20:C:O2'	22:BA:21:A:H5'	2.15	0.47
22:BA:64:A:H2'	22:BA:65:U:C6	2.50	0.47
22:BA:276:U:O2'	22:BA:277:G:O5'	2.32	0.47
22:BA:364:C:O5'	22:BA:364:C:H6	1.97	0.47
22:BA:524:G:O2'	22:BA:525:U:H5'	2.15	0.47
22:BA:544:C:H3'	22:BA:545:U:C2	2.49	0.47
22:BA:555:G:O2'	22:BA:556:A:P	2.73	0.47
22:BA:686:U:O4	50:B2:12:ARG:HB2	2.15	0.47
22:BA:734:A:C4	22:BA:735:A:C8	3.03	0.47
22:BA:905:A:C6	22:BA:906:U:C5	3.03	0.47
22:BA:928:A:H2'	22:BA:929:U:O4'	2.15	0.47
22:BA:1000:A:C6	22:BA:1001:A:C6	3.03	0.47
22:BA:1071:G:C4	22:BA:1089:A:C5	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1249:U:H5'	22:BA:1249:U:C6	2.49	0.47
22:BA:1333:G:H2'	22:BA:1334:G:H8	1.79	0.47
22:BA:1594:U:H2'	22:BA:1595:C:C6	2.50	0.47
22:BA:1725:U:O2'	22:BA:1726:C:H5'	2.15	0.47
22:BA:1815:A:H1'	22:BA:1817:G:N7	2.30	0.47
22:BA:1867:G:C2'	22:BA:1868:C:C5'	2.90	0.47
22:BA:2291:U:C4	22:BA:2292:U:O4	2.67	0.47
22:BA:2305:U:H2'	22:BA:2306:C:O4'	2.15	0.47
22:BA:2454:G:H1'	62:BA:3527:HOH:O	2.15	0.47
22:BA:2643:G:C2	22:BA:2772:C:C2	3.02	0.47
22:BA:2663:G:H2'	22:BA:2664:G:H8	1.80	0.47
22:BA:2768:U:C4	22:BA:2769:U:C5	3.03	0.47
24:BC:94:LEU:O	24:BC:94:LEU:HG	2.12	0.47
24:BC:141:HIS:HD2	24:BC:192:GLY:O	1.97	0.47
25:BD:110:THR:OG1	25:BD:171:THR:HB	2.15	0.47
25:BD:157:LYS:HB3	31:BJ:80:HIS:CD2	2.50	0.47
25:BD:159:LYS:NZ	25:BD:160:LYS:N	2.49	0.47
25:BD:193:VAL:HB	25:BD:194:PRO:HD2	1.96	0.47
26:BE:121:VAL:O	26:BE:189:THR:HA	2.14	0.47
27:BF:161:SER:OG	27:BF:164:GLU:HG3	2.14	0.47
28:BG:59:ASP:CB	28:BG:63:GLN:HG2	2.32	0.47
29:BH:30:LEU:O	29:BH:35:LYS:HB2	2.15	0.47
29:BH:69:ALA:HB1	29:BH:72:ILE:CG2	2.44	0.47
29:BH:80:ILE:CG2	29:BH:147:VAL:HG21	2.43	0.47
29:BH:80:ILE:O	29:BH:81:ALA:HB2	2.15	0.47
30:BI:40:ALA:HB3	30:BI:68:PHE:CE1	2.50	0.47
30:BI:60:VAL:HG22	30:BI:66:PHE:CB	2.45	0.47
31:BJ:40:HIS:C	38:BQ:66:ALA:HB1	2.34	0.47
31:BJ:97:PRO:C	31:BJ:99:ARG:H	2.17	0.47
32:BK:61:VAL:O	32:BK:84:CYS:HA	2.15	0.47
33:BL:9:ALA:HB3	33:BL:12:SER:CB	2.45	0.47
37:BP:25:VAL:CG1	37:BP:46:VAL:HG23	2.44	0.47
39:BR:25:LEU:N	39:BR:94:THR:HG21	2.26	0.47
39:BR:37:GLU:OE1	39:BR:37:GLU:O	2.33	0.47
40:BS:46:LEU:HD23	40:BS:46:LEU:HA	1.57	0.47
43:BV:70:ILE:O	43:BV:71:LYS:CB	2.61	0.47
44:BW:72:GLY:C	44:BW:74:LYS:N	2.68	0.47
53:CA:248:C:O2'	53:CA:249:U:P	2.73	0.47
53:CA:376:G:H5"	56:CP:5:ARG:HB2	1.97	0.47
53:CA:435:A:C6	53:CA:436:C:C5	3.03	0.47
53:CA:502:A:H4'	53:CA:550:G:H4'	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:640:A:O2'	8:CH:106:SER:HB2	2.14	0.47
53:CA:701:U:O2'	53:CA:702:A:P	2.73	0.47
53:CA:885:G:O2'	53:CA:886:G:H5'	2.14	0.47
53:CA:1004:A:O2'	53:CA:1005:A:H5'	2.14	0.47
53:CA:1017:U:OP2	53:CA:1017:U:H6	1.98	0.47
53:CA:1053:G:C6	53:CA:1199:U:H2'	2.49	0.47
53:CA:1106:G:C2	53:CA:1107:C:C6	3.03	0.47
53:CA:1130:A:N7	53:CA:1146:A:C6	2.83	0.47
53:CA:1141:C:O2'	53:CA:1142:G:H8	1.97	0.47
53:CA:1225:A:H2'	53:CA:1225:A:N3	2.29	0.47
53:CA:1240:U:OP1	54:CG:115:MET:HB2	2.15	0.47
53:CA:1272:G:H5'	14:CN:33:VAL:HB	1.97	0.47
53:CA:1383:C:O2'	53:CA:1384:C:H5'	2.14	0.47
53:CA:1458:G:C4'	20:CT:22:SER:HB2	2.41	0.47
3:CC:93:ILE:O	3:CC:93:ILE:CG1	2.63	0.47
4:CD:18:LEU:HB2	4:CD:20:LEU:HG	1.97	0.47
4:CD:23:GLY:CA	4:CD:160:LEU:HD12	2.45	0.47
6:CF:39:LEU:HD12	6:CF:39:LEU:C	2.35	0.47
8:CH:38:VAL:HA	8:CH:41:GLU:HG2	1.96	0.47
9:CI:5:TYR:O	9:CI:19:PHE:HA	2.15	0.47
9:CI:126:PHE:O	9:CI:126:PHE:CG	2.67	0.47
10:CJ:81:GLU:O	10:CJ:86:ALA:CB	2.62	0.47
11:CK:70:ALA:N	11:CK:73:VAL:HG13	2.30	0.47
11:CK:87:GLY:H	11:CK:113:THR:CG2	2.27	0.47
12:CL:48:LEU:N	12:CL:48:LEU:CD2	2.69	0.47
12:CL:79:ILE:CD1	12:CL:96:THR:HG21	2.32	0.47
12:CL:109:ARG:NH2	12:CL:116:TYR:CE2	2.83	0.47
55:CM:52:ILE:HG13	55:CM:56:ARG:HH21	1.80	0.47
55:CM:85:TYR:CE2	55:CM:96:VAL:HG13	2.49	0.47
56:CP:39:PHE:CE2	56:CP:41:PRO:HG3	2.50	0.47
17:CQ:30:HIS:CG	17:CQ:31:PRO:HD2	2.49	0.47
19:CS:35:ARG:NH2	19:CS:51:HIS:HD2	2.10	0.47
20:CT:3:ILE:O	20:CT:3:ILE:HG22	2.14	0.47
21:CU:25:ALA:O	21:CU:26:GLY:C	2.53	0.47
22:DA:62:U:H2'	22:DA:62:U:O2	2.14	0.47
22:DA:63:A:N6	22:DA:91:A:N6	2.63	0.47
22:DA:87:U:O2'	22:DA:88:G:P	2.73	0.47
22:DA:233:A:HO2'	22:DA:234:U:H6	1.53	0.47
22:DA:347:A:O2'	22:DA:348:A:H5'	2.15	0.47
22:DA:413:C:H4'	22:DA:1880:U:H4'	1.97	0.47
22:DA:425:G:C2	22:DA:426:C:C4	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:468:G:H4'	26:DE:57:LYS:CG	2.44	0.47
22:DA:489:G:C6	22:DA:491:G:C5	3.03	0.47
22:DA:527:C:O2'	22:DA:528:A:P	2.72	0.47
22:DA:533:G:OP1	38:DQ:23:TYR:HB3	2.15	0.47
22:DA:567:U:O4	22:DA:568:U:C4	2.67	0.47
22:DA:579:G:N2	22:DA:1262:A:C4	2.83	0.47
22:DA:675:A:C6	22:DA:676:A:C6	3.02	0.47
22:DA:783:A:H2	22:DA:1778:U:C4'	2.19	0.47
22:DA:851:C:O4'	47:DZ:46:MET:HG2	2.14	0.47
22:DA:947:A:H2'	22:DA:948:C:C6	2.49	0.47
22:DA:1045:C:H1'	22:DA:1047:G:C2	2.50	0.47
22:DA:1079:C:N4	22:DA:1088:A:C2	2.82	0.47
22:DA:1092:C:H2'	22:DA:1093:G:H5'	1.95	0.47
22:DA:1220:G:H2'	22:DA:1221:C:C6	2.50	0.47
22:DA:1223:G:N2	22:DA:1225:G:H3'	2.30	0.47
22:DA:1286:A:C5	22:DA:1289:C:C4	3.02	0.47
22:DA:1426:G:C5'	22:DA:1427:A:OP2	2.63	0.47
22:DA:1451:C:H4'	22:DA:1452:G:O5'	2.15	0.47
22:DA:1456:G:O2'	22:DA:1457:U:C5'	2.63	0.47
22:DA:1506:U:O5'	22:DA:1506:U:H6	1.96	0.47
22:DA:1539:U:O2'	22:DA:1540:G:C8	2.65	0.47
22:DA:1542:U:O2'	22:DA:1543:G:H5'	2.14	0.47
22:DA:1586:A:H2'	22:DA:1587:G:C8	2.44	0.47
22:DA:1608:A:C5	22:DA:1611:C:C4	3.02	0.47
22:DA:1626:A:O2'	22:DA:1627:G:OP2	2.30	0.47
22:DA:1627:G:C2	22:DA:1628:G:N7	2.82	0.47
22:DA:1771:C:H42	22:DA:1980:G:H1	1.63	0.47
22:DA:1866:A:C4	22:DA:1876:A:N6	2.83	0.47
22:DA:2217:G:C2	22:DA:2218:G:C4	3.03	0.47
22:DA:2266:A:O2'	22:DA:2267:A:OP2	2.26	0.47
22:DA:2286:G:N7	49:D1:33:LEU:CD2	2.78	0.47
22:DA:2564:A:OP1	22:DA:2648:G:H4'	2.15	0.47
22:DA:2571:U:C4	22:DA:2574:G:C8	3.02	0.47
22:DA:2666:C:C2'	22:DA:2667:C:O5'	2.62	0.47
22:DA:2889:C:C4	22:DA:2890:G:C6	3.02	0.47
57:DB:66:A:OP2	57:DB:108:A:N6	2.47	0.47
24:DC:93:VAL:CG1	24:DC:94:LEU:N	2.78	0.47
24:DC:93:VAL:CG1	24:DC:101:ARG:N	2.72	0.47
25:DD:159:LYS:O	25:DD:161:MET:HG2	2.15	0.47
26:DE:26:ALA:CB	33:DL:9:ALA:HB2	2.45	0.47
26:DE:90:GLN:HG3	26:DE:92:HIS:NE2	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:DF:48:LEU:HD23	58:DF:48:LEU:N	2.22	0.47
58:DF:60:SER:O	58:DF:62:GLN:N	2.46	0.47
28:DG:104:LEU:H	28:DG:112:VAL:HG23	1.80	0.47
29:DH:82:SER:O	29:DH:83:LYS:HB3	2.14	0.47
31:DJ:65:THR:O	31:DJ:68:LYS:NZ	2.43	0.47
31:DJ:73:VAL:CG2	31:DJ:74:TYR:H	2.11	0.47
32:DK:87:LEU:HD23	32:DK:87:LEU:N	2.29	0.47
34:DM:32:GLY:C	34:DM:117:PHE:HE2	2.17	0.47
35:DN:12:ARG:HB3	35:DN:16:HIS:ND1	2.29	0.47
39:DR:2:TYR:CD2	39:DR:42:ALA:HB2	2.50	0.47
39:DR:80:ARG:HB3	39:DR:81:LYS:CD	2.45	0.47
41:DT:28:ASN:O	41:DT:29:THR:HG22	2.14	0.47
41:DT:63:VAL:HG21	41:DT:80:TRP:CE2	2.50	0.47
42:DU:81:ARG:O	42:DU:82:VAL:HG13	2.14	0.47
43:DV:26:PHE:HD2	43:DV:42:LEU:HB2	1.79	0.47
44:DW:43:LYS:HD3	44:DW:43:LYS:HA	1.58	0.47
45:DX:57:VAL:HG13	45:DX:58:ILE:N	2.28	0.47
51:D3:28:LEU:O	51:D3:29:ARG:HB3	2.14	0.47
1:AA:157:U:O2'	1:AA:158:G:H5'	2.15	0.47
1:AA:191:G:C4	1:AA:192:A:C8	3.03	0.47
1:AA:322:C:H41	1:AA:328:C:H6	1.62	0.47
1:AA:423:G:O2'	1:AA:424:G:O4'	2.32	0.47
1:AA:653:U:O2'	1:AA:654:G:H5'	2.15	0.47
1:AA:683:G:O2'	1:AA:684:U:H5'	2.15	0.47
1:AA:842:U:H2'	1:AA:843:U:O3'	2.14	0.47
1:AA:892:A:C2'	1:AA:893:C:H5'	2.45	0.47
1:AA:935:A:H61	7:AG:2:ARG:HB2	1.79	0.47
1:AA:991:U:C4'	1:AA:992:U:OP1	2.63	0.47
1:AA:1480:A:C6	1:AA:1481:U:C4	3.02	0.47
4:AD:80:ARG:NH2	4:AD:81:LEU:HD21	2.30	0.47
5:AE:81:GLN:HG2	5:AE:149:PRO:HB3	1.96	0.47
5:AE:152:VAL:HA	5:AE:155:LYS:HZ1	1.79	0.47
17:AQ:40:THR:HG22	17:AQ:41:THR:N	2.29	0.47
17:AQ:44:HIS:HD2	17:AQ:69:THR:HG22	1.79	0.47
20:AT:26:MET:HE1	20:AT:56:ILE:HD11	1.93	0.47
21:AU:24:LYS:CG	21:AU:25:ALA:H	2.27	0.47
22:BA:592:A:C2	51:B3:3:ILE:HD11	2.50	0.47
22:BA:693:A:O2'	22:BA:694:U:H5'	2.15	0.47
22:BA:1166:G:O2'	22:BA:1167:C:H5'	2.14	0.47
22:BA:1305:C:O2	22:BA:1305:C:H2'	2.15	0.47
22:BA:1456:G:H2'	22:BA:1457:U:H6	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1589:U:C2	22:BA:1590:A:C8	3.03	0.47
22:BA:1654:A:H2'	22:BA:1655:A:H8	1.80	0.47
22:BA:1817:G:O2'	22:BA:1818:U:H5'	2.15	0.47
22:BA:1824:G:C6	22:BA:1825:U:C4	3.02	0.47
22:BA:2063:C:H2'	22:BA:2064:C:H5'	1.96	0.47
22:BA:2714:G:OP1	62:BA:3541:HOH:O	2.20	0.47
22:BA:2897:U:H2'	22:BA:2898:U:C6	2.48	0.47
24:BC:29:PHE:O	24:BC:30:ALA:C	2.53	0.47
24:BC:109:LEU:HD23	24:BC:110:LYS:H	1.79	0.47
24:BC:159:THR:H	24:BC:194:VAL:CG1	2.28	0.47
24:BC:170:TYR:HD2	24:BC:183:VAL:C	2.18	0.47
26:BE:37:ALA:C	26:BE:39:ALA:H	2.18	0.47
28:BG:18:ILE:O	28:BG:18:ILE:HG23	2.14	0.47
28:BG:117:PRO:O	28:BG:118:ALA:C	2.53	0.47
32:BK:51:LYS:HG3	32:BK:95:ILE:CD1	2.37	0.47
33:BL:68:SER:O	33:BL:70:LYS:N	2.42	0.47
38:BQ:94:LEU:C	38:BQ:96:ASP:H	2.17	0.47
40:BS:74:ILE:CD1	40:BS:105:VAL:HG22	2.44	0.47
43:BV:88:HIS:CG	43:BV:89:ILE:N	2.82	0.47
45:BX:40:GLU:C	45:BX:42:GLU:N	2.67	0.47
52:B4:24:ARG:NH2	52:B4:24:ARG:HG2	2.30	0.47
53:CA:116:A:HO2'	53:CA:117:G:H5'	1.77	0.47
53:CA:119:A:C5'	53:CA:120:A:O5'	2.63	0.47
53:CA:239:U:C6	53:CA:239:U:C5'	2.81	0.47
53:CA:276:G:O2'	53:CA:277:C:P	2.73	0.47
53:CA:725:G:C6	53:CA:726:C:C4	3.02	0.47
53:CA:795:C:H1'	53:CA:1506:U:C5	2.49	0.47
53:CA:932:C:O3'	54:CG:3:ARG:HD3	2.14	0.47
53:CA:1056:U:H5'	3:CC:162:ALA:HB3	1.96	0.47
53:CA:1303:C:N4	53:CA:1304:G:C2	2.83	0.47
53:CA:1328:C:H2'	53:CA:1329:A:C8	2.50	0.47
53:CA:1458:G:O3'	20:CT:22:SER:CA	2.53	0.47
6:CF:6:ILE:H	6:CF:6:ILE:CD1	2.26	0.47
55:CM:75:SER:C	55:CM:77:LYS:H	2.17	0.47
15:CO:87:ARG:HA	15:CO:87:ARG:HD2	1.68	0.47
22:DA:243:U:O2'	22:DA:244:A:C5'	2.63	0.47
22:DA:244:A:O2'	22:DA:245:G:O4'	2.32	0.47
22:DA:298:G:OP1	42:DU:83:GLY:HA2	2.15	0.47
22:DA:301:G:C8	22:DA:334:C:C2	3.02	0.47
22:DA:310:A:O2'	22:DA:311:A:C8	2.43	0.47
22:DA:371:A:C4	22:DA:373:U:O4	2.68	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:397:U:OP1	45:DX:30:PRO:CA	2.56	0.47
22:DA:480:A:H2'	22:DA:480:A:N3	2.27	0.47
22:DA:929:U:H4'	47:DZ:37:ARG:NH1	2.29	0.47
22:DA:968:C:O2'	22:DA:969:G:H5'	2.15	0.47
22:DA:991:C:O5'	22:DA:991:C:C6	2.68	0.47
22:DA:1070:A:C5	22:DA:1097:U:H4'	2.48	0.47
22:DA:1312:U:C2	22:DA:1603:A:C6	3.03	0.47
22:DA:1373:A:H4'	22:DA:2212:A:H1'	1.96	0.47
22:DA:1378:A:C8	22:DA:1380:G:C5	3.02	0.47
22:DA:1529:G:H2'	22:DA:1530:G:O4'	2.15	0.47
22:DA:1716:U:C4	22:DA:1745:A:N6	2.83	0.47
22:DA:1808:A:H3'	22:DA:1809:A:C8	2.50	0.47
22:DA:1837:C:H2'	22:DA:1899:A:H61	1.80	0.47
22:DA:1857:G:H1'	22:DA:1884:G:N2	2.13	0.47
22:DA:2097:A:C5	22:DA:2098:U:C4	3.03	0.47
22:DA:2517:C:O2'	22:DA:2518:A:C3'	2.53	0.47
25:DD:193:VAL:CB	25:DD:194:PRO:HD2	2.44	0.47
28:DG:26:LYS:HD3	28:DG:27:GLY:N	2.30	0.47
28:DG:152:ARG:CD	28:DG:153:PRO:HD2	2.44	0.47
29:DH:68:ARG:HG2	29:DH:71:LYS:HZ2	1.80	0.47
30:DI:37:PHE:CE1	30:DI:56:VAL:HG21	2.50	0.47
31:DJ:6:ALA:HB3	31:DJ:45:THR:CB	2.38	0.47
31:DJ:106:LYS:HE2	31:DJ:106:LYS:HA	1.96	0.47
32:DK:10:VAL:HG13	32:DK:12:ASP:H	1.80	0.47
33:DL:18:ARG:O	33:DL:19:LEU:HB3	2.15	0.47
33:DL:58:TYR:O	51:D3:12:ARG:CZ	2.63	0.47
34:DM:108:VAL:HA	34:DM:109:PRO:HD3	1.76	0.47
41:DT:68:LYS:HG3	62:DT:101:HOH:O	2.13	0.47
47:DZ:4:ILE:HG21	47:DZ:56:VAL:HG13	1.96	0.47
1:AA:628:G:C2	1:AA:629:A:C4	3.03	0.47
1:AA:1054:C:O2	1:AA:1054:C:O4'	2.32	0.47
1:AA:1113:C:H2'	1:AA:1114:C:C6	2.49	0.47
1:AA:1453:G:HO2'	1:AA:1454:G:P	2.37	0.47
2:AB:27:LYS:N	2:AB:28:PRO:CD	2.77	0.47
2:AB:99:MET:O	2:AB:99:MET:HG3	2.15	0.47
2:AB:115:ASP:O	2:AB:119:GLN:HB3	2.14	0.47
3:AC:148:ILE:HA	3:AC:200:TRP:O	2.14	0.47
4:AD:71:PHE:CZ	4:AD:199:ILE:HD11	2.50	0.47
4:AD:147:LYS:N	4:AD:147:LYS:CD	2.78	0.47
4:AD:172:VAL:O	4:AD:173:ASP:HB2	2.14	0.47
5:AE:29:ILE:HD12	5:AE:30:PHE:H	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:104:ILE:O	5:AE:104:ILE:HG12	2.15	0.47
6:AF:11:HIS:CD2	6:AF:13:ASP:HB2	2.49	0.47
9:AI:12:LYS:O	9:AI:12:LYS:HG2	2.15	0.47
15:AO:80:LEU:HD12	15:AO:80:LEU:C	2.36	0.47
18:AR:25:ILE:HG21	18:AR:66:LEU:HB3	1.97	0.47
20:AT:9:ARG:HD2	20:AT:12:GLN:NE2	2.30	0.47
20:AT:32:LYS:O	20:AT:35:TYR:HD2	1.98	0.47
22:BA:79:C:O2'	22:BA:346:A:H1'	2.15	0.47
22:BA:288:U:O2'	22:BA:289:G:H5'	2.13	0.47
22:BA:830:G:H4'	22:BA:831:G:OP2	2.15	0.47
22:BA:892:A:H2'	22:BA:893:C:C6	2.50	0.47
22:BA:1167:C:C2'	22:BA:1168:G:O5'	2.63	0.47
22:BA:1354:A:H2'	22:BA:1355:G:O4'	2.15	0.47
22:BA:1471:G:C4	22:BA:1472:C:C6	3.03	0.47
22:BA:1471:G:O2'	22:BA:1472:C:H5'	2.15	0.47
22:BA:1654:A:O3'	25:BD:118:PHE:CE2	2.68	0.47
22:BA:2136:G:C2	22:BA:2137:U:O4	2.68	0.47
22:BA:2555:U:H5	22:BA:2556:C:C5	2.32	0.47
22:BA:2714:G:H2'	22:BA:2715:C:H6	1.79	0.47
25:BD:103:ASP:O	25:BD:104:VAL:C	2.53	0.47
26:BE:79:ARG:O	26:BE:80:SER:C	2.54	0.47
26:BE:141:MET:O	26:BE:142:ALA:CB	2.63	0.47
27:BF:3:LEU:HD12	27:BF:172:PHE:HE2	1.77	0.47
27:BF:110:ILE:O	27:BF:111:ARG:C	2.53	0.47
29:BH:25:TYR:CE2	29:BH:30:LEU:HD21	2.49	0.47
29:BH:50:ARG:O	29:BH:54:LEU:HB2	2.15	0.47
30:BI:18:ASN:ND2	30:BI:38:CYS:HB3	2.29	0.47
34:BM:32:GLY:HA3	34:BM:131:VAL:HG23	1.97	0.47
39:BR:25:LEU:O	39:BR:66:HIS:CE1	2.64	0.47
40:BS:18:ARG:CG	40:BS:76:VAL:HG13	2.32	0.47
41:BT:44:LYS:O	41:BT:48:GLN:HG2	2.15	0.47
43:BV:80:HIS:HD2	43:BV:83:LYS:CA	2.27	0.47
43:BV:80:HIS:HD1	43:BV:81:PRO:HD2	1.72	0.47
45:BX:58:ILE:CD1	45:BX:66:VAL:HG11	2.44	0.47
48:B0:27:LEU:H	48:B0:27:LEU:CD2	2.28	0.47
53:CA:39:G:C4	53:CA:40:C:C5	3.03	0.47
53:CA:245:U:HO2'	53:CA:246:A:H5'	1.76	0.47
53:CA:325:A:N6	53:CA:326:G:C6	2.82	0.47
53:CA:378:G:C2	53:CA:386:C:O2	2.68	0.47
53:CA:695:A:H61	53:CA:797:C:H1'	1.80	0.47
53:CA:914:A:C4	53:CA:915:A:C8	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:998:C:H2'	53:CA:999:C:C6	2.45	0.47
53:CA:1046:A:H2'	53:CA:1047:G:H8	1.80	0.47
53:CA:1304:G:C1'	53:CA:1333:A:H61	2.23	0.47
53:CA:1310:G:C6	53:CA:1311:A:C6	3.03	0.47
2:CB:58:LYS:O	2:CB:62:ARG:HG3	2.14	0.47
2:CB:119:GLN:HG2	2:CB:124:THR:CG2	2.44	0.47
3:CC:91:ALA:CB	3:CC:98:ALA:HB3	2.40	0.47
4:CD:54:LEU:HA	4:CD:202:LEU:HD11	1.97	0.47
8:CH:11:THR:CG2	8:CH:14:ARG:HH22	2.27	0.47
9:CI:71:ILE:HD12	9:CI:72:SER:N	2.26	0.47
10:CJ:38:GLY:O	10:CJ:40:ILE:CD1	2.63	0.47
14:CN:8:ARG:NH1	14:CN:12:ARG:HH22	2.13	0.47
56:CP:16:PHE:CZ	56:CP:38:PHE:HD1	2.33	0.47
22:DA:56:A:C2	22:DA:115:C:C2	3.03	0.47
22:DA:61:C:C4	22:DA:94:A:C2	3.03	0.47
22:DA:234:U:H2'	22:DA:235:U:C6	2.50	0.47
22:DA:287:G:C2	22:DA:354:A:C2	3.02	0.47
22:DA:370:G:N1	22:DA:424:G:C6	2.81	0.47
22:DA:479:A:C1'	22:DA:480:A:H5"	2.43	0.47
22:DA:553:G:O2'	22:DA:554:U:H5'	2.14	0.47
22:DA:602:A:H4'	22:DA:605:G:P	2.55	0.47
22:DA:715:A:C6	22:DA:716:A:C6	3.02	0.47
22:DA:845:A:C2	22:DA:847:U:C6	3.03	0.47
22:DA:1179:G:H2'	22:DA:1180:U:C6	2.49	0.47
22:DA:1327:A:N3	22:DA:1328:A:H1'	2.30	0.47
22:DA:1753:G:C2	22:DA:1756:G:C2	3.02	0.47
22:DA:1991:U:H5"	22:DA:1991:U:H6	1.80	0.47
22:DA:2015:A:H8	22:DA:2016:U:C6	2.33	0.47
22:DA:2144:G:O2'	22:DA:2145:C:C5'	2.63	0.47
22:DA:2314:A:C2	22:DA:2315:G:C4	3.03	0.47
22:DA:2330:G:H21	44:DW:38:ARG:HA	1.80	0.47
22:DA:2431:U:N3	22:DA:2434:A:OP2	2.45	0.47
22:DA:2443:C:H2'	22:DA:2444:G:O4'	2.15	0.47
22:DA:2687:U:C2'	22:DA:2688:G:H5'	2.45	0.47
22:DA:2756:U:H4'	22:DA:2757:A:C5'	2.45	0.47
24:DC:163:ILE:HG23	24:DC:171:VAL:HG13	1.97	0.47
24:DC:203:VAL:O	24:DC:204:LEU:HB2	2.15	0.47
26:DE:59:PRO:HB2	26:DE:67:ARG:HH22	1.75	0.47
58:DF:169:LEU:N	58:DF:169:LEU:CD1	2.78	0.47
28:DG:67:ALA:O	28:DG:71:LEU:HB2	2.14	0.47
28:DG:94:ARG:HH21	28:DG:111:PRO:HB3	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DM:53:MET:HB2	34:DM:120:ALA:CB	2.44	0.47
35:DN:31:HIS:O	35:DN:33:ILE:HG13	2.15	0.47
35:DN:96:ARG:HB3	35:DN:114:GLU:OE1	2.15	0.47
36:DO:63:LYS:HD3	36:DO:63:LYS:O	2.15	0.47
42:DU:6:ARG:CG	42:DU:7:ASP:N	2.73	0.47
49:D1:5:ARG:HH21	49:D1:23:THR:HB	1.79	0.47
49:D1:24:LYS:HE2	49:D1:52:LYS:HZ1	1.80	0.47
1:AA:275:G:C2	1:AA:276:G:C8	3.02	0.47
1:AA:518:C:OP2	1:AA:530:G:H1'	2.15	0.47
1:AA:545:C:C2'	1:AA:545:C:O2	2.63	0.47
1:AA:580:C:O2'	1:AA:581:G:H5'	2.15	0.47
1:AA:1111:A:C2	3:AC:176:THR:HG23	2.50	0.47
1:AA:1211:U:H1'	1:AA:1213:A:C2	2.50	0.47
1:AA:1303:C:H2'	1:AA:1304:G:H8	1.73	0.47
1:AA:1333:A:H2'	1:AA:1334:G:H5'	1.97	0.47
2:AB:53:LEU:CD2	2:AB:53:LEU:N	2.78	0.47
2:AB:106:VAL:O	2:AB:110:ILE:HD13	2.15	0.47
2:AB:110:ILE:CG1	2:AB:147:LEU:HD13	2.42	0.47
2:AB:219:THR:HG23	2:AB:220:VAL:H	1.80	0.47
6:AF:89:VAL:O	6:AF:89:VAL:HG13	2.13	0.47
8:AH:38:VAL:HG13	8:AH:111:THR:HG22	1.97	0.47
9:AI:8:THR:O	9:AI:81:GLY:CA	2.63	0.47
10:AJ:19:ASP:CA	10:AJ:22:THR:HB	2.41	0.47
10:AJ:20:GLN:HA	10:AJ:20:GLN:HE21	1.78	0.47
11:AK:15:VAL:CG1	11:AK:78:ILE:CG2	2.93	0.47
22:BA:470:A:H61	41:BT:72:GLN:HE22	1.63	0.47
22:BA:528:A:H5"	22:BA:528:A:C8	2.29	0.47
22:BA:747:U:O2'	40:BS:88:ARG:NH2	2.48	0.47
22:BA:954:G:OP2	34:BM:16:ARG:NH2	2.48	0.47
22:BA:971:G:H2'	22:BA:972:A:H5'	1.97	0.47
22:BA:1107:G:C4	22:BA:1108:U:C5	3.03	0.47
22:BA:1112:G:O2'	22:BA:1113:U:H5'	2.15	0.47
22:BA:1136:G:N2	22:BA:1137:G:C4	2.83	0.47
22:BA:1737:G:C6	22:BA:1738:G:C2	3.04	0.47
22:BA:2517:C:C6	22:BA:2542:A:N7	2.83	0.47
22:BA:2756:U:H4'	22:BA:2757:A:O5'	2.15	0.47
25:BD:159:LYS:HZ2	25:BD:159:LYS:C	2.18	0.47
25:BD:182:ALA:C	25:BD:184:ARG:H	2.19	0.47
27:BF:39:VAL:HG13	27:BF:40:GLY:N	2.29	0.47
27:BF:52:ALA:O	27:BF:55:ASP:HB2	2.15	0.47
30:BI:79:LEU:HD11	30:BI:132:ALA:HA	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BL:73:ILE:HA	33:BL:105:ILE:HD13	1.97	0.47
33:BL:80:SER:HB3	33:BL:115:GLU:OE1	2.15	0.47
34:BM:73:ILE:HB	34:BM:91:TYR:O	2.15	0.47
34:BM:78:LEU:C	34:BM:78:LEU:HD23	2.35	0.47
36:BO:31:THR:HG23	36:BO:33:ARG:H	1.80	0.47
36:BO:94:ARG:H	36:BO:94:ARG:HG3	1.45	0.47
38:BQ:110:GLU:HA	38:BQ:110:GLU:OE2	2.15	0.47
39:BR:54:VAL:O	39:BR:54:VAL:HG23	2.14	0.47
41:BT:39:THR:HG21	41:BT:41:ALA:HB3	1.93	0.47
44:BW:14:ASP:OD2	44:BW:16:GLU:OE1	2.33	0.47
45:BX:52:ALA:O	45:BX:53:LYS:HB3	2.15	0.47
46:BY:47:ARG:HH21	46:BY:47:ARG:HG3	1.80	0.47
47:BZ:30:ARG:HE	47:BZ:30:ARG:HB2	1.53	0.47
49:B1:10:LEU:O	49:B1:19:PHE:HB2	2.15	0.47
52:B4:33:HIS:N	52:B4:33:HIS:ND1	2.63	0.47
53:CA:335:C:O2	53:CA:1433:A:C2	2.60	0.47
53:CA:414:A:O2'	53:CA:415:A:C4'	2.62	0.47
53:CA:568:G:O2'	53:CA:574:A:N1	2.45	0.47
53:CA:760:G:H2'	53:CA:761:G:H5'	1.96	0.47
53:CA:1204:A:H2'	53:CA:1205:U:C6	2.50	0.47
53:CA:1332:A:C2'	53:CA:1333:A:H5'	2.45	0.47
3:CC:148:ILE:HD12	3:CC:149:LYS:H	1.80	0.47
4:CD:22:SER:OG	4:CD:23:GLY:N	2.48	0.47
4:CD:26:ALA:O	4:CD:28:ASP:O	2.33	0.47
4:CD:66:VAL:CG1	4:CD:70:GLN:HB3	2.45	0.47
9:CI:85:ALA:HA	9:CI:88:GLU:OE1	2.14	0.47
10:CJ:65:TYR:CB	14:CN:95:LEU:HD11	2.46	0.47
55:CM:21:ILE:HB	55:CM:24:VAL:CG2	2.45	0.47
15:CO:63:ARG:HH22	22:DA:715:A:H5"	1.80	0.47
56:CP:20:VAL:HG22	56:CP:21:VAL:N	2.30	0.47
17:CQ:19:SER:HB2	17:CQ:45:VAL:O	2.14	0.47
19:CS:32:THR:HG21	19:CS:48:ILE:CG2	2.45	0.47
22:DA:2:G:H2'	22:DA:3:U:O4'	2.15	0.47
22:DA:52:A:C5	22:DA:118:A:C2	3.03	0.47
22:DA:100:U:H3'	22:DA:100:U:P	2.54	0.47
22:DA:153:U:C2'	22:DA:154:U:H5'	2.45	0.47
22:DA:227:A:H4'	22:DA:228:C:OP1	2.14	0.47
22:DA:284:U:H2'	22:DA:285:G:C8	2.48	0.47
22:DA:352:A:H2'	22:DA:353:C:C4'	2.44	0.47
22:DA:919:U:C2	22:DA:920:A:C8	3.03	0.47
22:DA:1738:G:O2'	22:DA:1739:A:P	2.73	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1895:C:C6	22:DA:1895:C:C3'	2.98	0.47
22:DA:2286:G:C8	49:D1:33:LEU:HD21	2.50	0.47
22:DA:2331:G:O2'	44:DW:40:ARG:CB	2.62	0.47
22:DA:2394:C:OP1	33:DL:63:LYS:HG2	2.15	0.47
22:DA:2449:U:H3'	62:DA:3671:HOH:O	2.15	0.47
22:DA:2531:A:H5"	28:DG:156:TYR:OH	2.15	0.47
22:DA:2656:U:O2'	22:DA:2657:A:H8	1.98	0.47
57:DB:24:G:H1'	57:DB:27:C:H41	1.70	0.47
24:DC:125:PRO:HA	24:DC:191:LEU:HB2	1.97	0.47
24:DC:128:THR:HG22	24:DC:188:ARG:HG2	1.97	0.47
26:DE:24:ASN:O	26:DE:28:VAL:HG13	2.15	0.47
26:DE:60:TRP:O	26:DE:61:ARG:HB2	2.15	0.47
26:DE:146:VAL:O	26:DE:167:VAL:HA	2.14	0.47
58:DF:103:ILE:HA	58:DF:107:VAL:CG2	2.35	0.47
29:DH:83:LYS:HG3	29:DH:149:GLU:CB	2.45	0.47
31:DJ:80:HIS:O	31:DJ:81:ILE:C	2.52	0.47
35:DN:83:LEU:CD1	35:DN:86:ARG:HH21	2.28	0.47
36:DO:30:ARG:HA	36:DO:35:ILE:CD1	2.44	0.47
42:DU:34:ILE:HG12	42:DU:63:ALA:HA	1.97	0.47
44:DW:43:LYS:CG	44:DW:79:ILE:HD11	2.45	0.47
49:D1:37:LYS:O	49:D1:48:TYR:HD2	1.99	0.47
1:AA:344:A:O2'	37:BP:36:LYS:CE	2.63	0.46
1:AA:1232:U:C4	1:AA:1233:G:N7	2.84	0.46
1:AA:1370:G:C2	1:AA:1371:G:C8	3.03	0.46
2:AB:14:HIS:HB2	2:AB:208:ALA:HB2	1.96	0.46
2:AB:40:ILE:O	2:AB:41:ASN:HB2	2.15	0.46
2:AB:76:SER:O	2:AB:79:VAL:HB	2.15	0.46
3:AC:113:LYS:HD3	3:AC:184:ASN:ND2	2.30	0.46
4:AD:11:SER:CA	4:AD:18:LEU:HD12	2.38	0.46
7:AG:83:THR:O	7:AG:84:TYR:C	2.53	0.46
7:AG:138:GLU:OE1	7:AG:138:GLU:HA	2.16	0.46
8:AH:20:ASN:HA	8:AH:64:TYR:CE2	2.50	0.46
8:AH:110:MET:CE	8:AH:114:ALA:HB1	2.44	0.46
17:AQ:48:GLU:OE1	17:AQ:49:ASN:N	2.46	0.46
17:AQ:51:GLU:N	17:AQ:51:GLU:OE1	2.48	0.46
17:AQ:67:SER:OG	17:AQ:70:LYS:HB3	2.14	0.46
20:AT:3:ILE:HA	20:AT:7:LYS:NZ	2.29	0.46
22:BA:414:C:H1'	22:BA:1864:U:O2'	2.14	0.46
22:BA:709:U:H2'	22:BA:710:U:H6	1.79	0.46
22:BA:779:U:OP1	24:BC:48:ILE:HG13	2.14	0.46
22:BA:790:U:O2'	22:BA:791:C:P	2.73	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:901:C:H2'	22:BA:902:C:C6	2.50	0.46
22:BA:1301:A:C4	22:BA:1303:G:N7	2.83	0.46
22:BA:1510:G:O2'	22:BA:1511:G:O4'	2.26	0.46
22:BA:1731:G:C4	22:BA:1733:G:C8	3.03	0.46
22:BA:1735:A:O2'	22:BA:1736:U:H5'	2.15	0.46
22:BA:2080:A:H5'	45:BX:18:SER:CB	2.46	0.46
22:BA:2287:A:C2	22:BA:2289:G:C5	3.03	0.46
22:BA:2394:C:P	51:B3:29:ARG:HH21	2.38	0.46
22:BA:2402:U:C2'	22:BA:2403:C:OP2	2.56	0.46
22:BA:2808:G:C2	22:BA:2891:U:C5	3.03	0.46
24:BC:80:LEU:HD11	24:BC:109:LEU:CB	2.45	0.46
25:BD:13:ARG:HD2	37:BP:55:HIS:CE1	2.50	0.46
25:BD:42:ASN:O	25:BD:43:ASP:O	2.32	0.46
27:BF:24:VAL:HG22	27:BF:25:MET:N	2.30	0.46
27:BF:64:PRO:HA	27:BF:88:VAL:HG23	1.97	0.46
32:BK:15:GLY:O	32:BK:46:ALA:HA	2.15	0.46
35:BN:55:ALA:HB1	35:BN:80:PHE:HA	1.96	0.46
38:BQ:63:ARG:HH22	38:BQ:96:ASP:N	2.13	0.46
42:BU:78:LYS:HG2	42:BU:79:ALA:H	1.80	0.46
42:BU:80:ASP:O	42:BU:81:ARG:CB	2.62	0.46
52:B4:1:MET:CE	52:B4:34:LYS:HG2	2.45	0.46
53:CA:137:U:H1'	53:CA:227:G:N2	2.30	0.46
53:CA:366:A:H1'	53:CA:395:C:O2	2.16	0.46
53:CA:948:C:H5"	55:CM:104:ASN:CB	2.40	0.46
53:CA:954:G:C2	53:CA:1228:C:N3	2.82	0.46
53:CA:960:U:HO2'	53:CA:1223:C:H4'	1.77	0.46
53:CA:986:U:O4	53:CA:987:G:O6	2.32	0.46
53:CA:988:G:O2'	53:CA:989:U:C5'	2.41	0.46
53:CA:1004:A:H2'	53:CA:1005:A:H8	1.80	0.46
53:CA:1076:U:C2	53:CA:1082:A:C2	3.03	0.46
53:CA:1129:C:C4	53:CA:1139:G:C5	3.04	0.46
53:CA:1207:G:H2'	53:CA:1208:C:C6	2.51	0.46
53:CA:1494:G:O2'	53:CA:1495:U:H5'	2.16	0.46
4:CD:50:TYR:O	4:CD:53:GLN:N	2.49	0.46
6:CF:44:ARG:N	6:CF:58:HIS:ND1	2.60	0.46
54:CG:91:ARG:HG2	54:CG:92:PRO:HD3	1.90	0.46
8:CH:38:VAL:HA	8:CH:41:GLU:CG	2.45	0.46
12:CL:89:LEU:HA	12:CL:90:PRO:HD2	1.72	0.46
19:CS:50:VAL:HG21	19:CS:74:ALA:HB2	1.96	0.46
22:DA:119:A:C4'	22:DA:120:U:OP1	2.63	0.46
22:DA:136:G:H8	22:DA:136:G:O5'	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:298:G:H8	22:DA:298:G:O5'	1.98	0.46
22:DA:372:G:P	45:DX:61:LYS:HZ3	2.38	0.46
22:DA:374:A:C6	22:DA:401:A:C8	3.03	0.46
22:DA:417:C:H2'	22:DA:418:C:H6	1.79	0.46
22:DA:513:A:N1	22:DA:514:A:C6	2.83	0.46
22:DA:632:A:H2'	22:DA:633:A:C8	2.50	0.46
22:DA:638:G:O2'	22:DA:639:U:C5'	2.63	0.46
22:DA:740:C:C4	22:DA:1981:A:C2	3.03	0.46
22:DA:862:G:O6	22:DA:916:G:C2	2.68	0.46
22:DA:1203:U:C2	22:DA:1204:A:C6	3.02	0.46
22:DA:1373:A:C5'	22:DA:2212:A:H1'	2.44	0.46
22:DA:1717:A:O2'	22:DA:1718:G:C5'	2.63	0.46
22:DA:1721:G:H1'	22:DA:1739:A:H61	1.78	0.46
22:DA:1759:A:C4	22:DA:1760:C:C5	3.03	0.46
22:DA:1869:G:C2	22:DA:1873:G:C6	3.03	0.46
22:DA:2023:C:O2'	22:DA:2024:G:O5'	2.33	0.46
22:DA:2135:A:H2'	22:DA:2136:G:C8	2.50	0.46
22:DA:2145:C:C2'	22:DA:2146:C:H3'	2.45	0.46
22:DA:2369:A:O2'	22:DA:2370:G:H5'	2.15	0.46
22:DA:2376:A:N9	36:DO:99:TYR:CE1	2.84	0.46
22:DA:2566:A:O2'	22:DA:2567:G:OP2	2.31	0.46
22:DA:2668:G:O2'	22:DA:2669:G:P	2.73	0.46
22:DA:2852:G:H2'	22:DA:2853:C:C6	2.50	0.46
22:DA:2876:G:C2	22:DA:2877:G:H1'	2.50	0.46
57:DB:21:G:H2'	57:DB:22:U:O4'	2.13	0.46
57:DB:69:G:C4	57:DB:70:C:C5	3.03	0.46
57:DB:109:A:O2'	57:DB:110:C:O5'	2.33	0.46
24:DC:35:LYS:HB3	24:DC:35:LYS:HZ3	1.80	0.46
24:DC:191:LEU:N	24:DC:191:LEU:CD2	2.77	0.46
25:DD:179:ARG:HB2	25:DD:188:LEU:HD12	1.96	0.46
26:DE:55:SER:OG	26:DE:56:GLY:N	2.47	0.46
28:DG:58:ALA:O	28:DG:59:ASP:C	2.53	0.46
28:DG:115:GLN:CG	28:DG:116:LEU:H	2.23	0.46
31:DJ:18:VAL:CG1	31:DJ:54:ILE:HD11	2.45	0.46
31:DJ:56:VAL:HG23	31:DJ:124:VAL:HG23	1.96	0.46
32:DK:2:ILE:N	32:DK:2:ILE:CD1	2.78	0.46
32:DK:9:ASN:ND2	32:DK:9:ASN:N	2.61	0.46
33:DL:118:THR:HG23	33:DL:120:VAL:HG23	1.97	0.46
37:DP:10:GLU:HG2	37:DP:10:GLU:O	2.15	0.46
37:DP:25:VAL:O	37:DP:25:VAL:HG23	2.15	0.46
40:DS:70:LYS:HD2	40:DS:110:ARG:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DX:39:VAL:O	45:DX:41:SER:N	2.44	0.46
1:AA:49:U:H5	1:AA:365:U:O4	1.98	0.46
1:AA:144:G:C4	1:AA:179:A:C2	3.04	0.46
1:AA:189:A:H2'	1:AA:190:A:C8	2.51	0.46
1:AA:247:G:C6	1:AA:278:G:C2	3.02	0.46
1:AA:623:C:O2'	1:AA:624:C:H5'	2.15	0.46
1:AA:685:G:H8	1:AA:685:G:O5'	1.98	0.46
1:AA:929:G:C6	1:AA:930:C:C4	3.03	0.46
1:AA:1087:G:O2'	1:AA:1088:G:H5'	2.14	0.46
1:AA:1157:A:N3	1:AA:1181:G:C4	2.83	0.46
2:AB:22:TRP:O	2:AB:22:TRP:CD2	2.68	0.46
2:AB:57:ASN:C	2:AB:57:ASN:HD22	2.19	0.46
2:AB:168:GLU:HB3	2:AB:171:ALA:HB3	1.97	0.46
3:AC:54:ILE:C	3:AC:54:ILE:CD1	2.77	0.46
5:AE:123:LEU:H	5:AE:123:LEU:HD12	1.80	0.46
5:AE:133:ILE:H	5:AE:133:ILE:CD1	2.12	0.46
7:AG:119:LEU:O	7:AG:119:LEU:HD23	2.15	0.46
9:AI:100:ALA:HB1	9:AI:102:PHE:CE2	2.50	0.46
14:AN:68:ARG:HA	14:AN:69:PRO:HD3	1.71	0.46
22:BA:765:C:O2'	22:BA:766:U:C5'	2.55	0.46
22:BA:796:C:H2'	22:BA:797:G:C8	2.50	0.46
22:BA:833:A:H2'	22:BA:834:G:H8	1.80	0.46
22:BA:996:A:O2'	22:BA:997:G:H5'	2.16	0.46
22:BA:1244:A:OP1	33:BL:7:SER:HB3	2.15	0.46
22:BA:1494:A:O2'	22:BA:1495:A:C5'	2.64	0.46
22:BA:1661:G:C5	22:BA:1662:U:C5	3.03	0.46
22:BA:1668:A:C2	22:BA:1674:G:H1'	2.50	0.46
22:BA:1919:A:C2'	22:BA:1920:C:H5'	2.44	0.46
22:BA:2043:C:O2	22:BA:2043:C:H2'	2.14	0.46
22:BA:2870:C:C4	22:BA:2871:U:C5	3.03	0.46
24:BC:266:ILE:O	24:BC:266:ILE:HG22	2.15	0.46
27:BF:129:MET:SD	27:BF:153:ILE:HD11	2.54	0.46
28:BG:71:LEU:HD13	28:BG:74:MET:SD	2.55	0.46
28:BG:83:THR:HA	28:BG:84:LYS:HE2	1.87	0.46
29:BH:101:ASP:C	29:BH:104:THR:HB	2.35	0.46
31:BJ:25:LEU:HB2	31:BJ:62:VAL:HG22	1.96	0.46
31:BJ:41:LYS:N	38:BQ:66:ALA:CB	2.77	0.46
34:BM:50:ARG:O	34:BM:53:MET:HB3	2.16	0.46
35:BN:95:THR:HG22	35:BN:96:ARG:N	2.30	0.46
40:BS:1:MET:HA	40:BS:1:MET:CE	2.45	0.46
41:BT:2:ILE:HG13	41:BT:3:ARG:NH2	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BT:18:GLU:C	41:BT:20:ALA:N	2.68	0.46
44:BW:28:GLU:CG	44:BW:29:SER:N	2.68	0.46
44:BW:39:GLN:NE2	44:BW:43:LYS:HB2	2.30	0.46
49:B1:27:ARG:CZ	49:B1:27:ARG:HB2	2.44	0.46
53:CA:283:U:C4	53:CA:284:C:C4	3.03	0.46
53:CA:289:G:N1	53:CA:290:C:C4	2.82	0.46
53:CA:440:C:C2'	53:CA:441:A:H5'	2.45	0.46
53:CA:554:A:H2'	53:CA:555:U:C6	2.49	0.46
53:CA:587:G:O2'	53:CA:588:G:H5'	2.16	0.46
53:CA:752:G:C1'	53:CA:754:C:N4	2.76	0.46
53:CA:755:G:OP2	15:CO:64:LYS:HD2	2.15	0.46
53:CA:855:U:H5	53:CA:871:U:O4	1.99	0.46
53:CA:1012:A:C5	53:CA:1013:G:N7	2.83	0.46
53:CA:1363:A:C6	53:CA:1365:G:C6	3.03	0.46
2:CB:33:ALA:HA	2:CB:37:VAL:O	2.15	0.46
2:CB:122:ASP:CB	2:CB:124:THR:HG22	2.45	0.46
4:CD:29:THR:HB	4:CD:30:LYS:HE3	1.96	0.46
4:CD:138:PRO:O	4:CD:139:ASN:HB2	2.15	0.46
5:CE:14:LEU:CD1	5:CE:36:THR:HG22	2.44	0.46
5:CE:65:LYS:O	5:CE:69:ASN:OD1	2.33	0.46
8:CH:46:GLU:N	8:CH:63:LYS:HG3	2.30	0.46
22:DA:54:G:C5	22:DA:55:G:C8	3.03	0.46
22:DA:117:G:O4'	22:DA:126:A:C2	2.68	0.46
22:DA:185:G:C4	22:DA:212:G:N2	2.83	0.46
22:DA:197:A:C5	22:DA:2430:A:C4	3.03	0.46
22:DA:263:G:H2'	22:DA:264:C:O4'	2.15	0.46
22:DA:269:C:N3	22:DA:270:A:N7	2.64	0.46
22:DA:404:A:C5'	22:DA:405:U:OP1	2.59	0.46
22:DA:406:G:HO2'	22:DA:407:G:H8	1.62	0.46
22:DA:447:A:C8	22:DA:473:G:C6	3.03	0.46
22:DA:567:U:O4	39:DR:80:ARG:HG3	2.14	0.46
22:DA:614:A:H4'	22:DA:616:A:N7	2.31	0.46
22:DA:732:C:N4	22:DA:733:G:C5	2.83	0.46
22:DA:785:G:O2'	22:DA:1779:U:H5"	2.15	0.46
22:DA:975:A:O2'	22:DA:976:G:C5'	2.62	0.46
22:DA:981:A:H5"	62:DA:3623:HOH:O	2.14	0.46
22:DA:1013:C:O2'	22:DA:1014:A:C5'	2.60	0.46
22:DA:1014:A:N1	22:DA:1149:G:C6	2.82	0.46
22:DA:1555:G:H2'	22:DA:1556:C:C5	2.50	0.46
22:DA:1651:G:C2	22:DA:2007:U:N3	2.84	0.46
22:DA:1853:A:C6	22:DA:1854:A:N1	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1965:C:H5”	22:DA:1966:A:H2’	1.96	0.46
22:DA:2141:G:H2’	22:DA:2142:A:H8	1.81	0.46
22:DA:2350:C:H2’	22:DA:2351:G:C5’	2.46	0.46
22:DA:2582:G:N3	22:DA:2582:G:C2’	2.78	0.46
22:DA:2631:G:N2	22:DA:2788:C:C2	2.83	0.46
24:DC:34:GLU:HG3	24:DC:35:LYS:N	2.30	0.46
24:DC:43:ASN:ND2	24:DC:44:ASN:H	2.13	0.46
24:DC:184:GLU:O	24:DC:185:ALA:C	2.54	0.46
24:DC:245:THR:C	24:DC:247:TRP:H	2.18	0.46
26:DE:151:GLY:HA3	26:DE:191:ASP:OD1	2.14	0.46
58:DF:9:ASP:O	58:DF:10:GLU:HB3	2.14	0.46
29:DH:53:GLU:C	29:DH:55:GLU:H	2.18	0.46
30:DI:113:ALA:HB2	30:DI:124:MET:HB3	1.95	0.46
32:DK:17:ARG:H	32:DK:45:GLU:HG2	1.79	0.46
32:DK:104:THR:C	32:DK:106:GLU:N	2.68	0.46
35:DN:33:ILE:CD1	35:DN:118:ARG:NH2	2.77	0.46
42:DU:58:VAL:CG1	42:DU:59:GLU:N	2.77	0.46
42:DU:82:VAL:HG23	42:DU:83:GLY:N	2.30	0.46
1:AA:135:C:H2’	1:AA:136:C:H5’	1.96	0.46
1:AA:487:A:H2’	1:AA:488:C:H6	1.79	0.46
1:AA:880:C:P	12:AL:4:ASN:HD22	2.38	0.46
1:AA:919:A:C2’	1:AA:920:U:H5’	2.45	0.46
1:AA:1012:A:N6	1:AA:1013:G:C6	2.84	0.46
1:AA:1231:G:C6	1:AA:1232:U:C4	3.03	0.46
1:AA:1433:A:N6	1:AA:1468:A:C4	2.83	0.46
1:AA:1440:U:H5’	1:AA:1441:A:OP1	2.15	0.46
2:AB:118:THR:O	2:AB:119:GLN:CB	2.62	0.46
2:AB:166:ASP:OD1	2:AB:167:HIS:N	2.48	0.46
2:AB:186:VAL:HG23	2:AB:186:VAL:O	2.15	0.46
11:AK:91:GLY:O	11:AK:95:THR:HB	2.15	0.46
13:AM:4:ALA:H	13:AM:56:ARG:HG3	1.81	0.46
16:AP:2:VAL:HG23	16:AP:65:ALA:CA	2.45	0.46
22:BA:38:A:C2’	22:BA:39:G:O5’	2.63	0.46
22:BA:62:U:C5’	22:BA:63:A:OP1	2.63	0.46
22:BA:223:A:O4’	22:BA:421:C:H4’	2.15	0.46
22:BA:478:A:C6	22:BA:480:A:N6	2.82	0.46
22:BA:626:A:H2’	33:BL:78:ARG:NH1	2.30	0.46
22:BA:729:G:C4	22:BA:1775:U:C2	3.04	0.46
22:BA:806:C:H6	22:BA:806:C:C5’	2.27	0.46
22:BA:898:C:H2’	22:BA:899:A:H5’	1.97	0.46
22:BA:960:A:N6	22:BA:962:G:N3	2.62	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1204:A:H1'	22:BA:1206:G:C5	2.49	0.46
22:BA:1568:G:H4'	24:BC:58:LYS:HG2	1.96	0.46
22:BA:1849:G:H2'	22:BA:1850:G:C8	2.49	0.46
22:BA:2149:U:O2'	22:BA:2150:C:O4'	2.33	0.46
22:BA:2305:U:O2'	22:BA:2306:C:H5'	2.15	0.46
22:BA:2523:G:O2'	22:BA:2524:G:H5'	2.16	0.46
22:BA:2630:G:O2'	22:BA:2631:G:H5'	2.14	0.46
22:BA:2731:G:OP1	25:BD:174:SER:HB2	2.15	0.46
22:BA:2750:A:H4'	22:BA:2751:G:OP1	2.13	0.46
24:BC:68:ARG:NH2	24:BC:126:GLY:O	2.49	0.46
24:BC:94:LEU:HB2	24:BC:100:ARG:CD	2.45	0.46
25:BD:4:LEU:HD22	25:BD:101:PHE:CE1	2.51	0.46
27:BF:43:ILE:HG22	27:BF:82:TYR:CD1	2.47	0.46
28:BG:175:LYS:HD3	28:BG:175:LYS:HA	1.78	0.46
29:BH:21:VAL:HG21	29:BH:25:TYR:HD2	1.80	0.46
30:BI:56:VAL:HG11	30:BI:68:PHE:HD2	1.80	0.46
30:BI:105:LEU:HA	30:BI:108:ILE:HD12	1.97	0.46
33:BL:77:ILE:HG12	33:BL:95:LEU:HD13	1.95	0.46
40:BS:65:ASP:C	40:BS:67:ASP:H	2.19	0.46
51:B3:7:ARG:HA	51:B3:7:ARG:HD2	1.42	0.46
53:CA:120:A:O2'	53:CA:121:U:C4'	2.63	0.46
53:CA:935:A:H61	54:CG:2:ARG:CZ	2.28	0.46
53:CA:1061:G:C6	53:CA:1197:A:C2	3.03	0.46
53:CA:1165:U:C2'	53:CA:1166:G:H5'	2.45	0.46
53:CA:1243:C:N4	53:CA:1244:G:O6	2.48	0.46
53:CA:1268:G:C5	53:CA:1269:A:N6	2.84	0.46
53:CA:1276:G:C2'	53:CA:1277:C:H5'	2.46	0.46
53:CA:1380:U:C4	54:CG:2:ARG:HB2	2.49	0.46
53:CA:1417:G:N2	53:CA:1484:C:C4	2.83	0.46
2:CB:112:ARG:O	2:CB:112:ARG:CG	2.64	0.46
3:CC:149:LYS:HD2	3:CC:149:LYS:O	2.15	0.46
4:CD:150:LYS:HA	4:CD:150:LYS:HD3	1.73	0.46
4:CD:187:ARG:NH2	4:CD:191:SER:HA	2.28	0.46
4:CD:190:LEU:C	4:CD:190:LEU:CD2	2.83	0.46
5:CE:88:HIS:CE1	5:CE:89:THR:HG23	2.50	0.46
9:CI:14:SER:HA	9:CI:68:GLY:O	2.15	0.46
10:CJ:11:LYS:HE2	10:CJ:97:ASP:CG	2.35	0.46
12:CL:86:VAL:O	12:CL:88:ASP:N	2.43	0.46
55:CM:3:ILE:O	55:CM:4:ALA:CB	2.62	0.46
55:CM:77:LYS:HA	55:CM:80:MET:CE	2.44	0.46
55:CM:81:ASP:C	55:CM:82:LEU:HD12	2.35	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CN:2:LYS:CD	14:CN:5:MET:HG2	2.45	0.46
56:CP:60:TRP:O	56:CP:63:GLN:N	2.49	0.46
56:CP:71:VAL:HA	56:CP:74:LEU:HB2	1.97	0.46
18:CR:59:LYS:O	18:CR:63:TYR:HD1	1.98	0.46
18:CR:72:ARG:NH2	21:CU:3:ILE:HD13	2.31	0.46
19:CS:35:ARG:HH21	19:CS:51:HIS:CD2	2.25	0.46
22:DA:223:A:C6	22:DA:422:A:N7	2.84	0.46
22:DA:352:A:C2	22:DA:353:C:H1'	2.50	0.46
22:DA:1084:A:C2'	22:DA:1085:A:H5'	2.46	0.46
22:DA:1261:C:H2'	22:DA:1262:A:H5"	1.97	0.46
22:DA:1299:G:O6	22:DA:1639:C:H5"	2.15	0.46
22:DA:1506:U:H2'	22:DA:1507:C:O4'	2.14	0.46
22:DA:1572:A:H2'	22:DA:1573:G:H8	1.81	0.46
22:DA:1653:G:H5"	22:DA:1654:A:OP1	2.15	0.46
22:DA:1655:A:C5'	25:DD:118:PHE:CD1	2.98	0.46
22:DA:1737:G:C5'	22:DA:1738:G:OP2	2.63	0.46
22:DA:2312:U:O2	22:DA:2312:U:C2'	2.63	0.46
22:DA:2456:C:H2'	22:DA:2457:U:H5'	1.98	0.46
22:DA:2590:A:H5"	24:DC:237:ARG:HG3	1.98	0.46
22:DA:2601:C:C2	22:DA:2603:G:N7	2.84	0.46
22:DA:2638:G:H1'	22:DA:2778:A:H62	1.79	0.46
22:DA:2798:U:C5'	22:DA:2800:A:N7	2.74	0.46
57:DB:57:A:C4	58:DF:25:MET:HB2	2.51	0.46
24:DC:110:LYS:HB3	24:DC:113:ASP:OD1	2.15	0.46
58:DF:41:GLU:CG	58:DF:42:ALA:H	2.22	0.46
58:DF:129:MET:CE	58:DF:174:PHE:CE1	2.98	0.46
28:DG:53:PRO:HB3	28:DG:61:TRP:N	2.29	0.46
28:DG:112:VAL:O	28:DG:113:ASP:HB2	2.14	0.46
28:DG:122:ALA:O	28:DG:123:GLU:HB2	2.15	0.46
31:DJ:122:LEU:C	31:DJ:123:LYS:HD2	2.36	0.46
32:DK:92:GLU:O	32:DK:93:GLN:C	2.54	0.46
32:DK:108:ARG:CA	32:DK:116:ILE:HD13	2.41	0.46
33:DL:93:ASN:CG	33:DL:94:THR:N	2.69	0.46
34:DM:2:LEU:O	34:DM:3:GLN:HB3	2.16	0.46
34:DM:42:THR:HB	34:DM:45:GLN:CG	2.35	0.46
34:DM:103:TYR:O	34:DM:104:GLU:HG3	2.14	0.46
35:DN:35:LYS:HG2	35:DN:112:TYR:CZ	2.47	0.46
37:DP:19:PHE:CD2	37:DP:19:PHE:N	2.83	0.46
37:DP:56:SER:O	37:DP:57:ALA:HB2	2.15	0.46
42:DU:40:LEU:CA	42:DU:61:GLU:HA	2.44	0.46
45:DX:19:HIS:C	45:DX:21:LEU:N	2.67	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DX:75:GLU:O	45:DX:76:LYS:HG2	2.16	0.46
46:DY:17:GLU:HA	46:DY:20:ASN:HB2	1.97	0.46
46:DY:31:GLN:C	46:DY:33:ALA:N	2.68	0.46
48:D0:42:ILE:HD13	48:D0:48:TYR:HD2	1.77	0.46
48:D0:42:ILE:CD1	48:D0:48:TYR:HB2	2.45	0.46
49:D1:10:LEU:CD2	49:D1:20:TYR:HB3	2.45	0.46
1:AA:22:G:C2'	1:AA:23:C:H5'	2.45	0.46
1:AA:112:G:C6	1:AA:330:C:N4	2.83	0.46
1:AA:404:G:N7	4:AD:1:ALA:HB2	2.31	0.46
1:AA:543:U:C2'	1:AA:544:G:H5'	2.45	0.46
1:AA:562:U:H1'	12:AL:11:ARG:HB3	1.96	0.46
1:AA:675:A:H1'	11:AK:117:HIS:CD2	2.50	0.46
1:AA:1082:A:H2'	1:AA:1083:U:O4'	2.15	0.46
1:AA:1278:G:O5'	1:AA:1279:G:H5'	2.16	0.46
2:AB:71:THR:HG23	2:AB:93:HIS:C	2.35	0.46
7:AG:25:PHE:HE1	7:AG:104:VAL:HG23	1.80	0.46
9:AI:26:LYS:O	9:AI:62:LEU:HD23	2.16	0.46
18:AR:33:THR:OG1	18:AR:34:GLU:N	2.48	0.46
22:BA:14:A:H8	22:BA:14:A:O5'	1.98	0.46
22:BA:845:A:C6	22:BA:847:U:C6	3.04	0.46
22:BA:901:C:C6	22:BA:902:C:C5	3.04	0.46
22:BA:996:A:C4'	38:BQ:91:ARG:HG2	2.45	0.46
22:BA:1063:G:P	30:BI:76:ALA:HB3	2.55	0.46
22:BA:1196:C:H2'	22:BA:1197:G:O4'	2.16	0.46
22:BA:1566:A:O2'	22:BA:1567:G:H5'	2.15	0.46
22:BA:1968:G:O2'	22:BA:1969:A:O4'	2.33	0.46
22:BA:2346:A:H3'	22:BA:2347:C:H5"	1.98	0.46
23:BB:75:G:O4'	43:BV:29:ILE:HD12	2.14	0.46
24:BC:141:HIS:HE2	24:BC:193:GLU:C	2.19	0.46
25:BD:16:THR:CG2	25:BD:18:ASP:OD1	2.43	0.46
25:BD:34:VAL:CG2	25:BD:94:GLN:H	2.28	0.46
25:BD:110:THR:CG2	25:BD:111:GLY:N	2.78	0.46
26:BE:109:LEU:HD13	26:BE:109:LEU:HA	1.57	0.46
27:BF:129:MET:CG	27:BF:153:ILE:HD11	2.45	0.46
27:BF:152:ASP:N	27:BF:152:ASP:OD2	2.48	0.46
28:BG:148:ARG:HA	28:BG:161:VAL:CG1	2.45	0.46
29:BH:61:VAL:O	29:BH:61:VAL:CG1	2.64	0.46
30:BI:79:LEU:HD22	30:BI:137:LEU:CD1	2.46	0.46
30:BI:126:ARG:CA	30:BI:129:GLU:HB2	2.43	0.46
34:BM:69:PRO:CA	34:BM:94:ALA:HB2	2.45	0.46
35:BN:20:MET:HB2	35:BN:20:MET:HE3	1.60	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BO:24:THR:HG22	36:BO:42:PRO:HD3	1.97	0.46
37:BP:87:ARG:HH21	37:BP:111:GLU:HG3	1.78	0.46
38:BQ:7:VAL:CG2	38:BQ:8:ILE:N	2.79	0.46
43:BV:30:ILE:HG12	43:BV:91:PHE:HB2	1.97	0.46
46:BY:9:LYS:HA	46:BY:9:LYS:HZ2	1.76	0.46
52:B4:9:LYS:HB3	52:B4:14:CYS:CB	2.45	0.46
53:CA:91:U:O2'	53:CA:92:U:C5'	2.56	0.46
53:CA:275:G:O2'	53:CA:276:G:O5'	2.34	0.46
53:CA:590:U:O2'	53:CA:591:U:H5'	2.15	0.46
53:CA:693:G:OP1	11:CK:126:ARG:NH1	2.48	0.46
53:CA:734:G:H2'	53:CA:735:C:H6	1.80	0.46
53:CA:844:G:H3'	53:CA:844:G:OP2	2.16	0.46
53:CA:946:A:H2'	53:CA:947:G:H8	1.81	0.46
53:CA:989:U:N3	53:CA:990:C:C5	2.84	0.46
53:CA:1005:A:N7	53:CA:1006:G:H1'	2.29	0.46
53:CA:1130:A:C6	53:CA:1131:G:N7	2.83	0.46
53:CA:1207:G:C6	53:CA:1208:C:C4	3.02	0.46
53:CA:1217:C:O2'	53:CA:1218:C:C6	2.47	0.46
53:CA:1412:C:H2'	53:CA:1413:A:C8	2.51	0.46
53:CA:1509:C:O2'	53:CA:1510:C:H5'	2.15	0.46
2:CB:84:LEU:C	2:CB:84:LEU:HD12	2.36	0.46
4:CD:8:LEU:HD13	4:CD:8:LEU:HA	1.75	0.46
6:CF:81:ASN:O	6:CF:82:ASP:C	2.53	0.46
9:CI:98:ARG:HG2	9:CI:103:VAL:CG2	2.45	0.46
11:CK:107:THR:HG22	11:CK:108:ASN:HB2	1.97	0.46
12:CL:31:GLY:HA3	12:CL:54:VAL:HG12	1.98	0.46
17:CQ:58:VAL:CG1	17:CQ:74:LEU:HD11	2.45	0.46
17:CQ:68:LYS:O	17:CQ:69:THR:CB	2.63	0.46
18:CR:33:THR:C	18:CR:35:SER:H	2.19	0.46
19:CS:69:LYS:O	19:CS:72:GLU:HB2	2.14	0.46
20:CT:12:GLN:O	20:CT:12:GLN:HG2	2.15	0.46
21:CU:25:ALA:O	21:CU:29:ALA:N	2.48	0.46
22:DA:26:G:H1'	22:DA:515:A:H61	1.80	0.46
22:DA:336:C:O2'	22:DA:337:C:C5'	2.64	0.46
22:DA:565:C:H2'	22:DA:566:U:H5'	1.96	0.46
22:DA:627:A:H3'	33:DL:78:ARG:NH1	2.31	0.46
22:DA:677:A:N1	22:DA:678:C:C4	2.83	0.46
22:DA:830:G:H5"	62:DA:3356:HOH:O	2.15	0.46
22:DA:1328:A:C3'	22:DA:1330:C:H41	2.28	0.46
22:DA:1552:A:C2'	22:DA:1553:A:H5'	2.44	0.46
22:DA:1627:G:N2	22:DA:1628:G:C8	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1656:C:OP1	25:DD:141:ARG:NH1	2.49	0.46
22:DA:1776:G:C2	22:DA:1789:A:N3	2.83	0.46
22:DA:1884:G:H2'	22:DA:1884:G:N3	2.31	0.46
22:DA:1998:A:C5	22:DA:1999:C:C5	3.03	0.46
22:DA:2303:G:N1	22:DA:2314:A:C5	2.83	0.46
22:DA:2305:U:H4'	58:DF:132:ARG:HG2	1.97	0.46
22:DA:2394:C:H41	51:D3:30:HIS:CE1	2.34	0.46
22:DA:2403:C:O2'	22:DA:2404:U:H5'	2.15	0.46
22:DA:2626:C:H2'	22:DA:2627:G:H5'	1.96	0.46
22:DA:2837:A:C6	22:DA:2882:A:N1	2.83	0.46
57:DB:16:G:H2'	57:DB:17:C:H6	1.80	0.46
57:DB:63:C:O2	57:DB:63:C:H2'	2.15	0.46
25:DD:27:ILE:HD12	25:DD:189:VAL:HG22	1.97	0.46
25:DD:29:VAL:HB	25:DD:98:VAL:HG12	1.97	0.46
58:DF:12:VAL:O	58:DF:16:MET:HB2	2.14	0.46
58:DF:105:ILE:HG22	58:DF:105:ILE:O	2.16	0.46
30:DI:63:ASP:O	30:DI:64:ARG:HB2	2.15	0.46
30:DI:75:ALA:HA	30:DI:78:LEU:HD12	1.96	0.46
32:DK:2:ILE:O	32:DK:3:GLN:CB	2.62	0.46
34:DM:119:LEU:O	34:DM:119:LEU:CD2	2.62	0.46
35:DN:72:ASP:O	35:DN:76:VAL:HG13	2.15	0.46
36:DO:68:LYS:HB2	36:DO:68:LYS:HZ2	1.81	0.46
42:DU:101:THR:O	42:DU:102:ILE:HB	2.14	0.46
44:DW:67:LYS:CB	44:DW:80:SER:HB2	2.43	0.46
1:AA:220:G:C2	1:AA:221:C:C6	3.03	0.46
1:AA:290:C:H2'	1:AA:291:U:H5'	1.98	0.46
1:AA:411:A:H62	1:AA:413:G:H21	1.61	0.46
1:AA:600:A:C2	1:AA:639:G:N3	2.84	0.46
1:AA:788:U:O2'	1:AA:789:U:H5'	2.16	0.46
1:AA:791:G:C6	1:AA:792:A:N7	2.84	0.46
1:AA:834:U:OP1	18:AR:48:ALA:HB2	2.16	0.46
1:AA:1136:C:H3'	1:AA:1136:C:O2	2.16	0.46
1:AA:1507:A:N6	1:AA:1530:G:O6	2.48	0.46
2:AB:48:MET:HA	2:AB:48:MET:HE2	1.96	0.46
2:AB:49:PHE:CA	2:AB:52:ALA:HB3	2.45	0.46
2:AB:130:LYS:NZ	2:AB:133:ALA:HB2	2.30	0.46
4:AD:115:GLN:NE2	4:AD:119:HIS:CE1	2.84	0.46
5:AE:89:THR:CG2	5:AE:90:GLY:H	2.15	0.46
5:AE:110:MET:HA	5:AE:113:VAL:CG1	2.33	0.46
5:AE:137:ARG:O	5:AE:141:ASP:HB2	2.16	0.46
8:AH:4:ASP:OD2	8:AH:76:ARG:NH1	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:124:ILE:O	8:AH:124:ILE:CG1	2.64	0.46
9:AI:46:VAL:CG2	9:AI:75:ALA:HB1	2.45	0.46
9:AI:84:ARG:HB2	9:AI:84:ARG:HH11	1.81	0.46
10:AJ:91:ASP:OD1	10:AJ:91:ASP:N	2.47	0.46
11:AK:34:THR:OG1	11:AK:39:ASN:N	2.44	0.46
14:AN:14:ALA:HB1	14:AN:18:LYS:NZ	2.30	0.46
19:AS:57:VAL:O	19:AS:57:VAL:HG23	2.15	0.46
20:AT:16:ALA:O	20:AT:17:ARG:C	2.54	0.46
22:BA:322:A:H5'	22:BA:340:A:H1'	1.97	0.46
22:BA:927:A:H2'	22:BA:928:A:C8	2.50	0.46
22:BA:1673:G:C2'	22:BA:1674:G:H5'	2.45	0.46
22:BA:1769:U:O2'	22:BA:1770:G:H5'	2.15	0.46
22:BA:1874:C:H2'	22:BA:1875:G:O4'	2.15	0.46
22:BA:2199:A:N3	22:BA:2199:A:H2'	2.29	0.46
22:BA:2217:G:H2'	22:BA:2218:G:C5'	2.45	0.46
22:BA:2722:G:H2'	22:BA:2723:C:C6	2.50	0.46
22:BA:2808:G:N1	22:BA:2891:U:C5	2.84	0.46
22:BA:2839:G:H2'	22:BA:2840:C:C6	2.51	0.46
22:BA:2846:G:H2'	22:BA:2847:U:O4'	2.16	0.46
23:BB:75:G:O2'	43:BV:88:HIS:HE1	1.98	0.46
23:BB:90:C:C5'	23:BB:90:C:C6	2.91	0.46
24:BC:198:GLU:O	24:BC:199:HIS:C	2.54	0.46
25:BD:142:VAL:HB	25:BD:143:PRO:CD	2.46	0.46
25:BD:150:GLN:O	25:BD:151:THR:O	2.33	0.46
27:BF:164:GLU:O	27:BF:167:ALA:HB3	2.16	0.46
28:BG:116:LEU:N	28:BG:116:LEU:CD1	2.78	0.46
29:BH:66:ASN:C	29:BH:68:ARG:H	2.18	0.46
32:BK:2:ILE:HD12	32:BK:2:ILE:HA	1.57	0.46
32:BK:116:ILE:HD12	32:BK:116:ILE:C	2.36	0.46
39:BR:5:PHE:CE2	39:BR:7:SER:HB2	2.50	0.46
53:CA:794:A:H2'	53:CA:795:C:C5	2.51	0.46
53:CA:879:C:H2'	53:CA:880:C:O5'	2.15	0.46
53:CA:1014:A:C6	19:CS:33:TRP:CE3	3.04	0.46
53:CA:1125:U:C2	53:CA:1127:G:N7	2.83	0.46
53:CA:1146:A:C6	53:CA:1147:C:N4	2.83	0.46
53:CA:1288:A:O2'	53:CA:1289:A:O4'	2.34	0.46
2:CB:182:VAL:O	2:CB:195:VAL:HG13	2.16	0.46
3:CC:76:ILE:HG12	3:CC:83:VAL:CG1	2.44	0.46
4:CD:20:LEU:O	4:CD:21:LYS:C	2.51	0.46
5:CE:82:HIS:CE1	8:CH:95:MET:HE2	2.49	0.46
55:CM:19:THR:HA	55:CM:25:GLY:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CN:16:ALA:HA	14:CN:20:PHE:CD1	2.50	0.46
14:CN:89:ARG:HG3	14:CN:91:GLU:CG	2.45	0.46
14:CN:94:GLY:O	14:CN:95:LEU:C	2.53	0.46
22:DA:294:A:N1	22:DA:346:A:C6	2.83	0.46
22:DA:406:G:H2'	22:DA:407:G:H8	1.80	0.46
22:DA:455:C:N4	22:DA:473:G:H5'	2.29	0.46
22:DA:498:G:C6	22:DA:499:U:C5	3.03	0.46
22:DA:662:G:H4'	33:DL:15:ALA:O	2.15	0.46
22:DA:861:A:O2'	22:DA:862:G:O4'	2.27	0.46
22:DA:976:G:H5"	22:DA:1156:A:N6	2.30	0.46
22:DA:1056:G:H1'	22:DA:1103:A:N1	2.30	0.46
22:DA:1059:G:C6	22:DA:1080:A:N1	2.83	0.46
22:DA:1071:G:N2	22:DA:1090:A:OP2	2.48	0.46
22:DA:1287:A:H2'	22:DA:1288:G:C2	2.50	0.46
22:DA:1296:G:H1'	22:DA:1645:G:N2	2.29	0.46
22:DA:1435:G:N2	22:DA:1558:C:N4	2.63	0.46
22:DA:1439:A:H2	22:DA:1553:A:N7	2.07	0.46
22:DA:1532:A:C2	22:DA:1540:G:N1	2.83	0.46
22:DA:1551:A:C4	22:DA:1552:A:C8	3.04	0.46
22:DA:1821:A:C2'	22:DA:1822:C:O5'	2.63	0.46
22:DA:2092:U:O2	22:DA:2092:U:O4'	2.33	0.46
22:DA:2199:A:HO2'	22:DA:2200:C:H5'	1.76	0.46
22:DA:2315:G:C2	22:DA:2316:G:C4	3.04	0.46
22:DA:2651:C:C2'	22:DA:2652:C:H5'	2.46	0.46
22:DA:2654:A:C4'	22:DA:2655:G:OP1	2.63	0.46
58:DF:3:LEU:HG	58:DF:100:GLU:CD	2.35	0.46
28:DG:120:ILE:O	28:DG:120:ILE:HD13	2.15	0.46
30:DI:76:ALA:O	30:DI:135:MET:HE1	2.16	0.46
32:DK:77:ILE:CD1	32:DK:105:ARG:HH22	2.27	0.46
34:DM:108:VAL:HG21	34:DM:112:LEU:HB3	1.97	0.46
35:DN:38:LEU:HB3	35:DN:39:PRO:CD	2.36	0.46
36:DO:30:ARG:HG2	36:DO:31:THR:H	1.80	0.46
39:DR:98:ILE:H	39:DR:98:ILE:HD12	1.81	0.46
40:DS:25:ARG:HG3	40:DS:74:ILE:CG2	2.40	0.46
40:DS:58:ALA:O	40:DS:63:GLY:O	2.33	0.46
41:DT:29:THR:OG1	41:DT:85:VAL:HB	2.15	0.46
51:D3:6:VAL:HG12	51:D3:6:VAL:O	2.15	0.46
1:AA:110:C:H2'	1:AA:111:G:H8	1.71	0.46
1:AA:468:A:C2	1:AA:469:C:C4	3.04	0.46
1:AA:550:G:H2'	1:AA:551:U:C6	2.51	0.46
1:AA:690:G:H2'	1:AA:691:G:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1226:C:N4	13:AM:102:LYS:HG3	2.30	0.46
1:AA:1371:G:OP1	9:AI:13:SER:HB3	2.16	0.46
1:AA:1394:A:C5	1:AA:1501:C:H4'	2.50	0.46
3:AC:138:GLN:C	3:AC:140:ALA:H	2.19	0.46
11:AK:111:ASP:OD1	11:AK:111:ASP:C	2.54	0.46
15:AO:62:ARG:NH1	15:AO:86:LEU:HD12	2.31	0.46
17:AQ:51:GLU:O	17:AQ:52:CYS:O	2.33	0.46
19:AS:79:TYR:CD1	19:AS:80:ARG:N	2.84	0.46
22:BA:227:A:O2'	22:BA:228:C:OP2	2.30	0.46
22:BA:598:U:H2'	22:BA:599:A:C8	2.51	0.46
22:BA:605:G:H1'	22:BA:657:U:H1'	1.98	0.46
22:BA:720:U:H2'	22:BA:721:A:C8	2.50	0.46
22:BA:731:C:H2'	22:BA:732:C:H6	1.80	0.46
22:BA:1082:U:C2	22:BA:1083:U:O2	2.69	0.46
22:BA:1085:A:C2'	22:BA:1086:A:C2	2.99	0.46
22:BA:1627:G:C2	22:BA:1628:G:C8	3.04	0.46
22:BA:2002:G:H5'	35:BN:12:ARG:O	2.15	0.46
22:BA:2231:U:C2'	22:BA:2232:C:C5'	2.91	0.46
22:BA:2275:C:HO2'	34:BM:84:LYS:HA	1.77	0.46
22:BA:2336:A:H62	44:BW:40:ARG:HD2	1.77	0.46
22:BA:2510:C:C6	22:BA:2510:C:C4'	2.96	0.46
22:BA:2716:C:O2	22:BA:2716:C:H2'	2.14	0.46
22:BA:2733:A:H2'	22:BA:2734:A:H8	1.81	0.46
22:BA:2862:G:H2'	22:BA:2863:C:H6	1.80	0.46
25:BD:104:VAL:HG13	25:BD:106:LYS:H	1.79	0.46
25:BD:109:VAL:HG11	25:BD:193:VAL:HB	1.97	0.46
27:BF:11:VAL:HG22	27:BF:171:ALA:HB1	1.96	0.46
27:BF:13:LYS:O	27:BF:17:THR:HG23	2.16	0.46
27:BF:131:VAL:HG22	27:BF:151:LEU:N	2.24	0.46
29:BH:12:LEU:N	29:BH:12:LEU:CD2	2.79	0.46
32:BK:99:ILE:HG21	32:BK:119:ALA:HB2	1.98	0.46
32:BK:114:LYS:HE2	32:BK:114:LYS:HA	1.97	0.46
34:BM:117:PHE:HD2	34:BM:130:PHE:CE1	2.34	0.46
35:BN:33:ILE:HD11	35:BN:118:ARG:NH2	2.31	0.46
38:BQ:4:LYS:O	38:BQ:5:ARG:HB3	2.15	0.46
40:BS:2:GLU:HA	40:BS:108:SER:HB3	1.97	0.46
40:BS:24:ILE:HG22	40:BS:71:VAL:HG21	1.98	0.46
41:BT:11:LEU:N	41:BT:11:LEU:HD23	2.30	0.46
44:BW:71:LYS:N	44:BW:71:LYS:CD	2.79	0.46
45:BX:34:SER:H	45:BX:50:VAL:H	1.61	0.46
45:BX:70:LEU:O	45:BX:71:ARG:C	2.53	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:33:A:C5	53:CA:34:C:C5	3.04	0.46
53:CA:552:U:C2	53:CA:553:A:C8	3.04	0.46
53:CA:579:A:H2'	53:CA:580:C:H6	1.79	0.46
53:CA:1073:U:H2'	53:CA:1074:G:H8	1.81	0.46
53:CA:1184:G:O2'	53:CA:1185:G:C5'	2.64	0.46
2:CB:9:LEU:O	2:CB:10:LYS:CB	2.62	0.46
5:CE:107:GLY:O	5:CE:111:ARG:HB2	2.15	0.46
5:CE:131:ASN:C	5:CE:135:VAL:HG23	2.36	0.46
10:CJ:25:ILE:O	10:CJ:25:ILE:CG2	2.62	0.46
10:CJ:56:HIS:O	10:CJ:57:VAL:HG12	2.16	0.46
56:CP:48:GLU:HG3	56:CP:51:ARG:NH2	2.24	0.46
56:CP:48:GLU:CG	56:CP:51:ARG:HH21	2.23	0.46
19:CS:32:THR:HG21	19:CS:70:LEU:HD13	1.97	0.46
20:CT:11:ILE:C	20:CT:13:SER:N	2.69	0.46
22:DA:9:G:H21	22:DA:10:A:N6	2.14	0.46
22:DA:82:U:H5"	22:DA:296:U:H5"	1.97	0.46
22:DA:254:G:O2'	22:DA:384:A:H1'	2.16	0.46
22:DA:364:C:H2'	22:DA:365:U:O4'	2.16	0.46
22:DA:410:G:C2	22:DA:2407:A:C6	3.03	0.46
22:DA:438:G:C6	22:DA:439:A:C6	3.04	0.46
22:DA:455:C:N3	22:DA:473:G:C4'	2.78	0.46
22:DA:604:G:C6	22:DA:625:G:C6	3.03	0.46
22:DA:668:A:C2	22:DA:670:A:C6	3.03	0.46
22:DA:687:C:O2'	22:DA:688:U:O4'	2.25	0.46
22:DA:726:G:OP2	22:DA:726:G:H8	1.96	0.46
22:DA:764:A:N1	22:DA:1789:A:O2'	2.48	0.46
22:DA:807:U:OP2	33:DL:41:ARG:NH1	2.48	0.46
22:DA:813:U:C2	22:DA:1195:G:N2	2.84	0.46
22:DA:980:A:H5"	22:DA:981:A:OP2	2.15	0.46
22:DA:1056:G:O5'	22:DA:1085:A:H2	1.99	0.46
22:DA:1071:G:O4'	22:DA:1088:A:O2'	2.32	0.46
22:DA:1239:G:C5	22:DA:1240:U:C6	3.04	0.46
22:DA:1259:G:H2'	22:DA:1260:A:O4'	2.16	0.46
22:DA:1451:C:H5'	22:DA:1452:G:OP1	2.15	0.46
22:DA:1557:C:H2'	22:DA:1558:C:C6	2.51	0.46
22:DA:1671:U:N3	22:DA:1674:G:OP2	2.41	0.46
22:DA:2227:A:H5"	22:DA:2228:G:OP2	2.16	0.46
22:DA:2348:U:O2'	22:DA:2349:G:O5'	2.34	0.46
22:DA:2478:A:C8	22:DA:2529:G:C6	3.03	0.46
22:DA:2638:G:H2'	22:DA:2775:G:N2	2.31	0.46
57:DB:11:C:C5	57:DB:12:C:H5	2.33	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DC:163:ILE:HG23	24:DC:171:VAL:CG1	2.46	0.46
24:DC:236:GLY:O	24:DC:238:ASN:N	2.48	0.46
58:DF:28:PRO:HB2	58:DF:168:LEU:HD11	1.96	0.46
28:DG:104:LEU:N	28:DG:112:VAL:HG23	2.31	0.46
28:DG:164:ALA:O	28:DG:165:ASP:CB	2.54	0.46
32:DK:92:GLU:O	32:DK:93:GLN:O	2.34	0.46
35:DN:52:ILE:CG2	35:DN:94:TYR:CE2	2.99	0.46
35:DN:96:ARG:NH1	35:DN:116:VAL:HG22	2.31	0.46
39:DR:66:HIS:CD2	39:DR:94:THR:CG2	2.97	0.46
40:DS:33:LEU:N	40:DS:36:LEU:HD23	2.30	0.46
40:DS:36:LEU:HD22	40:DS:36:LEU:N	2.30	0.46
40:DS:57:ASN:O	40:DS:61:ASN:HB2	2.16	0.46
45:DX:67:LEU:HD23	45:DX:77:TYR:CZ	2.51	0.46
50:D2:22:MET:HG2	50:D2:22:MET:O	2.15	0.46
1:AA:290:C:H2'	1:AA:291:U:C5'	2.45	0.46
1:AA:425:G:H2'	1:AA:426:U:C5'	2.46	0.46
1:AA:436:C:H2'	1:AA:437:U:H6	1.81	0.46
1:AA:629:A:C2'	1:AA:630:A:H5'	2.46	0.46
1:AA:1279:G:H1'	1:AA:1282:C:H42	1.80	0.46
2:AB:86:CYS:H	2:AB:88:GLN:NE2	2.14	0.46
3:AC:46:LEU:HB3	3:AC:49:ALA:HB3	1.98	0.46
7:AG:146:ALA:C	7:AG:148:LYS:N	2.67	0.46
9:AI:57:VAL:C	9:AI:58:GLU:HG2	2.36	0.46
13:AM:13:HIS:HB3	13:AM:41:ASP:HA	1.98	0.46
14:AN:20:PHE:C	14:AN:22:LYS:H	2.19	0.46
14:AN:60:ARG:HA	62:AN:302:HOH:O	2.15	0.46
20:AT:33:LYS:CA	20:AT:33:LYS:CE	2.93	0.46
22:BA:177:G:OP2	22:BA:177:G:N2	2.37	0.46
22:BA:275:C:H3'	22:BA:276:U:H5"	1.98	0.46
22:BA:286:U:H2'	22:BA:287:G:O4'	2.15	0.46
22:BA:712:G:C2	22:BA:713:G:H1'	2.51	0.46
22:BA:1079:C:C4	22:BA:1080:A:N7	2.83	0.46
22:BA:1098:A:H5'	22:BA:1099:G:OP2	2.15	0.46
22:BA:1107:G:N3	22:BA:1108:U:C6	2.84	0.46
22:BA:1190:G:H5"	33:BL:32:GLY:HA2	1.96	0.46
22:BA:1276:A:C8	22:BA:1276:A:C5'	2.98	0.46
22:BA:1476:U:OP2	22:BA:1476:U:H6	1.98	0.46
22:BA:1509:A:C2	22:BA:1510:G:C8	3.04	0.46
22:BA:1668:A:O2'	22:BA:1674:G:N7	2.39	0.46
22:BA:2062:A:O2'	22:BA:2063:C:H5"	2.15	0.46
22:BA:2236:U:H2'	22:BA:2237:G:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:51:G:N2	23:BB:53:A:H62	2.13	0.46
24:BC:165:ALA:HB3	24:BC:172:THR:HG21	1.97	0.46
25:BD:124:ARG:HG2	25:BD:125:TRP:NE1	2.30	0.46
29:BH:79:THR:HG22	29:BH:80:ILE:HG12	1.98	0.46
35:BN:73:ASN:C	35:BN:76:VAL:HG12	2.36	0.46
36:BO:79:ALA:HB1	36:BO:113:ALA:CB	2.45	0.46
39:BR:24:LYS:HE2	39:BR:24:LYS:HB3	1.65	0.46
41:BT:29:THR:CA	41:BT:86:THR:H	2.28	0.46
42:BU:17:ASP:O	42:BU:18:LYS:C	2.54	0.46
44:BW:26:GLY:O	44:BW:27:GLY:O	2.34	0.46
46:BY:39:GLN:HB2	46:BY:41:HIS:NE2	2.29	0.46
51:B3:30:HIS:O	51:B3:31:ILE:C	2.54	0.46
53:CA:309:A:H1'	53:CA:608:A:C2	2.50	0.46
53:CA:348:G:H5"	53:CA:348:G:C8	2.51	0.46
53:CA:704:A:O2'	53:CA:705:G:O5'	2.34	0.46
53:CA:704:A:HO2'	53:CA:705:G:H8	1.61	0.46
53:CA:749:A:H2'	53:CA:750:C:H6	1.80	0.46
53:CA:812:G:O2'	53:CA:813:U:C6	2.64	0.46
53:CA:1320:C:N4	19:CS:36:ARG:HG3	2.31	0.46
2:CB:114:LYS:C	2:CB:117:GLU:HG2	2.35	0.46
6:CF:56:LYS:O	6:CF:57:ALA:HB2	2.15	0.46
54:CG:46:LEU:HD12	54:CG:46:LEU:O	2.16	0.46
54:CG:137:ARG:HD2	54:CG:137:ARG:C	2.36	0.46
8:CH:8:ASP:HA	8:CH:11:THR:OG1	2.16	0.46
8:CH:33:VAL:C	8:CH:35:ILE:H	2.18	0.46
11:CK:19:VAL:HG22	11:CK:82:GLU:HG2	1.96	0.46
11:CK:81:LEU:HD22	11:CK:81:LEU:O	2.14	0.46
12:CL:74:GLN:HA	12:CL:74:GLN:NE2	2.31	0.46
55:CM:12:LYS:CE	55:CM:16:ILE:HG22	2.46	0.46
56:CP:67:ILE:O	56:CP:67:ILE:HG23	2.15	0.46
21:CU:35:GLU:O	21:CU:36:PHE:CD2	2.69	0.46
22:DA:21:A:C6	22:DA:520:G:C6	3.03	0.46
22:DA:219:A:N6	22:DA:220:G:N1	2.64	0.46
22:DA:272:A:C2	22:DA:273:G:C6	3.03	0.46
22:DA:324:A:C2	22:DA:325:G:C1'	2.99	0.46
22:DA:352:A:C3'	22:DA:353:C:H4'	2.46	0.46
22:DA:455:C:N3	22:DA:473:G:H4'	2.30	0.46
22:DA:484:C:O2'	22:DA:485:C:O5'	2.33	0.46
22:DA:532:A:C4	22:DA:2021:C:O2	2.69	0.46
22:DA:687:C:O2'	22:DA:688:U:C5'	2.64	0.46
22:DA:752:A:N1	22:DA:1781:U:H1'	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:856:G:C2	22:DA:922:C:C2	3.04	0.46
22:DA:1000:A:C6	22:DA:1001:A:C2	3.04	0.46
22:DA:1027:A:C2	22:DA:2488:G:H5"	2.50	0.46
22:DA:1103:A:H8	22:DA:1103:A:O5'	1.99	0.46
22:DA:1342:A:OP1	41:DT:59:ASN:HB3	2.15	0.46
22:DA:1343:G:N3	22:DA:1344:U:C5	2.84	0.46
22:DA:1377:G:H8	22:DA:1377:G:O5'	1.98	0.46
22:DA:1500:G:N1	22:DA:1501:G:C5	2.84	0.46
22:DA:1593:A:C2	22:DA:1594:U:C2	3.04	0.46
22:DA:1666:G:O3'	32:DK:6:THR:HA	2.16	0.46
22:DA:1792:G:C5'	24:DC:203:VAL:HG22	2.45	0.46
22:DA:1816:C:O2'	22:DA:1817:G:OP1	2.34	0.46
22:DA:1817:G:H4'	24:DC:85:ASN:O	2.16	0.46
22:DA:1826:G:P	24:DC:220:ARG:HB3	2.56	0.46
22:DA:1932:A:C2	22:DA:1933:G:H1'	2.50	0.46
22:DA:2142:A:C5	22:DA:2143:C:O2'	2.68	0.46
22:DA:2297:A:HO2'	22:DA:2298:A:H8	1.63	0.46
22:DA:2305:U:H4'	58:DF:132:ARG:CG	2.45	0.46
22:DA:2415:G:C6	22:DA:2416:C:C4	3.03	0.46
22:DA:2834:G:HO2'	22:DA:2879:A:H61	1.60	0.46
22:DA:2851:A:C2'	22:DA:2852:G:C8	2.98	0.46
57:DB:24:G:C8	57:DB:56:G:C5	3.03	0.46
24:DC:83:ASP:CB	24:DC:90:ILE:HD12	2.46	0.46
25:DD:98:VAL:HG23	25:DD:180:VAL:HG12	1.97	0.46
26:DE:59:PRO:CB	26:DE:67:ARG:HH22	2.28	0.46
58:DF:107:VAL:H	58:DF:108:PRO:CD	2.28	0.46
58:DF:131:VAL:O	58:DF:132:ARG:HB2	2.14	0.46
30:DI:98:GLY:O	30:DI:99:LYS:HD2	2.16	0.46
31:DJ:8:PRO:CG	31:DJ:9:GLU:N	2.78	0.46
34:DM:61:GLY:HA2	34:DM:107:GLY:CA	2.37	0.46
35:DN:2:ARG:HD2	35:DN:2:ARG:O	2.15	0.46
38:DQ:82:LEU:HD22	38:DQ:108:LEU:CD2	2.46	0.46
40:DS:25:ARG:CB	40:DS:25:ARG:NH1	2.78	0.46
40:DS:69:LEU:HB3	40:DS:107:VAL:CG2	2.46	0.46
42:DU:64:ILE:O	42:DU:64:ILE:HG12	2.15	0.46
46:DY:49:ASP:HA	46:DY:52:ARG:HD2	1.98	0.46
1:AA:68:G:H5'	1:AA:171:A:HO2'	1.80	0.46
1:AA:131:A:C2	1:AA:132:C:N3	2.84	0.46
1:AA:1022:A:H2'	1:AA:1023:U:O4'	2.16	0.46
1:AA:1320:C:O2'	1:AA:1321:U:O4'	2.33	0.46
1:AA:1501:C:N4	1:AA:1504:G:C2	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:142:VAL:O	4:AD:142:VAL:HG13	2.15	0.46
5:AE:45:VAL:HG21	5:AE:117:ALA:CA	2.36	0.46
5:AE:106:ALA:HB2	5:AE:124:ALA:HB3	1.98	0.46
5:AE:149:PRO:HG2	5:AE:150:GLU:H	1.81	0.46
12:AL:32:VAL:O	12:AL:33:CYS:O	2.32	0.46
13:AM:113:LYS:N	13:AM:114:PRO:HD3	2.28	0.46
15:AO:80:LEU:HD11	15:AO:84:LEU:CD2	2.44	0.46
16:AP:20:VAL:HG22	16:AP:32:PHE:HB2	1.96	0.46
19:AS:33:TRP:O	19:AS:35:ARG:N	2.48	0.46
20:AT:9:ARG:HD2	20:AT:12:GLN:HE21	1.81	0.46
22:BA:108:G:O2'	22:BA:109:C:H5'	2.15	0.46
22:BA:282:A:H2'	22:BA:283:G:C8	2.51	0.46
22:BA:372:G:N2	22:BA:400:G:H2'	2.31	0.46
22:BA:686:U:H4'	22:BA:687:C:OP2	2.15	0.46
22:BA:742:A:H2'	22:BA:743:A:H8	1.79	0.46
22:BA:753:A:H2'	22:BA:754:U:C6	2.51	0.46
22:BA:1091:G:O2'	22:BA:1092:C:C5'	2.64	0.46
22:BA:1309:G:H4'	50:B2:7:PRO:HG2	1.98	0.46
22:BA:1535:A:H4'	22:BA:1536:C:OP2	2.14	0.46
22:BA:1537:G:HO2'	22:BA:1538:G:P	2.38	0.46
22:BA:1912:A:C2	22:BA:1919:A:C6	3.04	0.46
22:BA:2197:U:HO2'	22:BA:2198:A:C2'	2.13	0.46
22:BA:2275:C:O2	34:BM:84:LYS:HG2	2.16	0.46
22:BA:2458:G:C2'	22:BA:2490:G:H1	2.28	0.46
22:BA:2649:C:O2'	22:BA:2650:U:H5'	2.16	0.46
22:BA:2742:G:OP1	52:B4:36:ARG:HD3	2.15	0.46
22:BA:2847:U:H2'	22:BA:2848:G:H5'	1.97	0.46
23:BB:66:A:C2	23:BB:108:A:C2	3.04	0.46
31:BJ:130:HIS:CD2	31:BJ:132:HIS:H	2.34	0.46
38:BQ:96:ASP:C	38:BQ:98:ALA:H	2.18	0.46
40:BS:14:ALA:O	40:BS:18:ARG:N	2.48	0.46
41:BT:15:HIS:O	41:BT:17:SER:N	2.49	0.46
41:BT:50:LEU:HD22	46:BY:26:PHE:CZ	2.51	0.46
44:BW:67:LYS:HB2	44:BW:80:SER:HB2	1.98	0.46
45:BX:4:CYS:SG	45:BX:6:VAL:HG13	2.55	0.46
46:BY:18:LEU:O	46:BY:22:LEU:HB2	2.16	0.46
49:B1:8:ILE:HD12	49:B1:51:ALA:C	2.37	0.46
53:CA:177:G:H2'	53:CA:178:C:H5'	1.97	0.46
53:CA:212:G:N2	53:CA:213:G:C5	2.84	0.46
53:CA:495:A:C6	53:CA:496:A:N6	2.84	0.46
53:CA:522:C:O4'	53:CA:536:C:H4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:961:U:H5	53:CA:1223:C:H1'	1.81	0.46
53:CA:961:U:C4	53:CA:983:A:C6	3.04	0.46
53:CA:982:U:C6	53:CA:983:A:C6	3.04	0.46
53:CA:1154:G:H2'	53:CA:1155:A:C8	2.50	0.46
53:CA:1262:C:H2'	53:CA:1263:C:C5'	2.44	0.46
53:CA:1308:U:C5	55:CM:97:ARG:NH1	2.83	0.46
53:CA:1368:A:C8	9:CI:113:LYS:HD3	2.51	0.46
2:CB:210:THR:HG22	2:CB:210:THR:O	2.16	0.46
4:CD:8:LEU:HD21	4:CD:21:LYS:HD2	1.97	0.46
4:CD:115:GLN:HG3	4:CD:119:HIS:CE1	2.50	0.46
4:CD:148:ALA:HB1	4:CD:151:GLN:NE2	2.31	0.46
5:CE:132:PRO:C	5:CE:134:ASN:N	2.70	0.46
10:CJ:44:THR:CG2	10:CJ:70:HIS:CE1	2.98	0.46
11:CK:123:PRO:HB2	11:CK:125:LYS:CG	2.46	0.46
19:CS:35:ARG:HA	19:CS:70:LEU:CB	2.43	0.46
21:CU:35:GLU:O	21:CU:36:PHE:CB	2.64	0.46
22:DA:271:G:O2'	22:DA:272:A:P	2.74	0.46
22:DA:397:U:O2'	22:DA:398:C:O4'	2.33	0.46
22:DA:406:G:O2'	22:DA:407:G:C5'	2.63	0.46
22:DA:460:A:OP2	50:D2:41:ARG:NH1	2.45	0.46
22:DA:621:A:C2'	22:DA:622:G:O5'	2.63	0.46
22:DA:627:A:O4'	22:DA:637:A:N6	2.48	0.46
22:DA:827:U:C4	22:DA:2430:A:C6	3.04	0.46
22:DA:1011:G:C6	22:DA:1013:C:C4	3.03	0.46
22:DA:1038:G:C3'	22:DA:1039:A:H5'	2.46	0.46
22:DA:1267:U:C5	22:DA:2012:G:N2	2.84	0.46
22:DA:1385:A:O2'	22:DA:1386:C:C6	2.62	0.46
22:DA:1416:G:N3	22:DA:1417:C:C5	2.84	0.46
22:DA:1731:G:O2'	22:DA:1732:C:C5'	2.49	0.46
22:DA:1737:G:N7	22:DA:1738:G:C6	2.84	0.46
22:DA:1845:G:N2	22:DA:1896:G:C4	2.84	0.46
22:DA:2199:A:C6	22:DA:2225:A:C4	3.04	0.46
22:DA:2432:A:H61	45:DX:20:ALA:CA	2.28	0.46
22:DA:2468:A:N7	22:DA:2476:A:N1	2.64	0.46
22:DA:2645:G:H4'	22:DA:2732:G:H2'	1.97	0.46
22:DA:2679:A:C2	22:DA:2729:G:C6	3.04	0.46
24:DC:32:LEU:HD22	24:DC:63:ILE:CG1	2.46	0.46
24:DC:140:VAL:HG23	24:DC:141:HIS:N	2.30	0.46
24:DC:229:HIS:ND1	24:DC:230:PRO:HD2	2.31	0.46
26:DE:26:ALA:HB1	33:DL:9:ALA:HB2	1.97	0.46
58:DF:110:ILE:H	58:DF:110:ILE:CD1	2.25	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:DF:177:ARG:CZ	58:DF:178:LYS:HB3	2.46	0.46
28:DG:91:VAL:HG22	28:DG:93:TYR:HE2	1.81	0.46
29:DH:3:VAL:O	29:DH:3:VAL:HG23	2.16	0.46
29:DH:90:LEU:HD22	29:DH:91:PHE:H	1.80	0.46
31:DJ:44:TYR:HD1	38:DQ:63:ARG:HH21	1.61	0.46
32:DK:13:ASN:ND2	32:DK:97:THR:H	2.07	0.46
35:DN:46:ARG:H	35:DN:46:ARG:HG3	1.51	0.46
35:DN:65:LEU:H	35:DN:65:LEU:CD1	2.28	0.46
36:DO:23:ALA:O	36:DO:42:PRO:CG	2.56	0.46
36:DO:41:ALA:O	36:DO:43:ASN:N	2.49	0.46
41:DT:38:ALA:O	41:DT:39:THR:CB	2.64	0.46
42:DU:52:ASN:HD21	42:DU:54:PRO:HG3	1.79	0.46
46:DY:59:GLU:C	46:DY:61:ALA:H	2.19	0.46
49:D1:24:LYS:HE3	49:D1:29:LYS:O	2.15	0.46
1:AA:60:A:C4’	1:AA:61:G:O5’	2.54	0.46
1:AA:77:A:H2’	1:AA:78:A:N7	2.31	0.46
1:AA:449:G:O2’	1:AA:450:G:H5’	2.14	0.46
1:AA:1039:G:C2’	1:AA:1040:U:H5’	2.45	0.46
1:AA:1075:U:H4’	1:AA:1101:A:N6	2.30	0.46
1:AA:1219:A:C6	1:AA:1220:G:C6	3.03	0.46
2:AB:30:ILE:HD11	2:AB:38:HIS:CD2	2.50	0.46
4:AD:56:GLU:O	4:AD:59:LYS:HB3	2.16	0.46
4:AD:196:GLU:O	4:AD:198:LEU:N	2.49	0.46
10:AJ:35:GLN:HE21	10:AJ:35:GLN:CA	2.29	0.46
12:AL:2:THR:O	12:AL:5:GLN:HB2	2.15	0.46
12:AL:120:ARG:O	12:AL:122:LYS:N	2.47	0.46
19:AS:33:TRP:NE1	19:AS:51:HIS:ND1	2.64	0.46
20:AT:38:ILE:H	20:AT:38:ILE:HG12	1.43	0.46
22:BA:601:C:O2	22:BA:605:G:H4’	2.15	0.46
22:BA:871:U:H2’	22:BA:872:U:C6	2.50	0.46
22:BA:1095:A:C6	22:BA:1096:A:N6	2.84	0.46
22:BA:1148:U:H2’	22:BA:1149:G:O4’	2.16	0.46
22:BA:1300:G:H5”	22:BA:1301:A:H5”	1.98	0.46
22:BA:1653:G:H4’	22:BA:1654:A:O5’	2.15	0.46
22:BA:1696:G:C6	22:BA:1697:G:C4	3.04	0.46
22:BA:1964:G:O2’	22:BA:1967:C:P	2.74	0.46
22:BA:2148:G:O2’	22:BA:2149:U:O5’	2.33	0.46
22:BA:2800:A:O2’	22:BA:2801:G:OP1	2.34	0.46
23:BB:37:C:C6	23:BB:38:C:C5	3.03	0.46
24:BC:163:ILE:HG23	24:BC:171:VAL:HG11	1.98	0.46
25:BD:57:ALA:O	25:BD:60:VAL:HG12	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BD:90:PHE:C	25:BD:92:VAL:H	2.19	0.46
34:BM:2:LEU:HD23	34:BM:69:PRO:CD	2.37	0.46
40:BS:24:ILE:HD13	40:BS:24:ILE:HA	1.73	0.46
53:CA:32:A:C2'	53:CA:33:A:C8	2.88	0.46
53:CA:68:G:H5'	53:CA:171:A:O2'	2.15	0.46
53:CA:160:A:O2'	53:CA:344:A:N6	2.48	0.46
53:CA:264:C:O2'	17:CQ:64:ARG:HG3	2.16	0.46
53:CA:268:U:H2'	53:CA:269:C:H6	1.75	0.46
53:CA:354:G:N2	53:CA:355:C:C2	2.84	0.46
53:CA:429:U:H3'	4:CD:8:LEU:HD23	1.97	0.46
53:CA:544:G:C2'	53:CA:545:C:O5'	2.63	0.46
53:CA:642:A:N7	8:CH:106:SER:CA	2.70	0.46
53:CA:750:C:O2'	15:CO:20:ASP:HB2	2.16	0.46
53:CA:775:G:O2'	53:CA:776:G:H5'	2.16	0.46
53:CA:878:A:C6	53:CA:879:C:C5	3.03	0.46
53:CA:940:C:H2'	53:CA:941:G:O4'	2.15	0.46
53:CA:1050:G:C2	53:CA:1051:C:C4	3.03	0.46
53:CA:1146:A:H2'	53:CA:1147:C:C6	2.51	0.46
53:CA:1207:G:C5	53:CA:1208:C:C5	3.04	0.46
53:CA:1282:C:O2'	53:CA:1283:U:C6	2.67	0.46
53:CA:1461:G:C5	53:CA:1462:C:C4	3.04	0.46
53:CA:1530:G:O2'	53:CA:1531:A:H8	1.98	0.46
2:CB:26:MET:CE	2:CB:29:PHE:CD2	2.91	0.46
5:CE:11:GLN:CG	5:CE:40:ASP:O	2.64	0.46
6:CF:67:PRO:O	6:CF:68:GLN:C	2.54	0.46
55:CM:21:ILE:HG22	55:CM:22:TYR:N	2.31	0.46
15:CO:10:ILE:HA	15:CO:13:GLU:HB2	1.98	0.46
21:CU:18:PHE:C	21:CU:19:LYS:NZ	2.69	0.46
22:DA:95:A:O2'	46:DY:41:HIS:CD2	2.69	0.46
22:DA:110:G:C4	22:DA:111:A:C8	3.04	0.46
22:DA:165:A:H2'	22:DA:166:U:C6	2.50	0.46
22:DA:425:G:C4	22:DA:426:C:C5	3.04	0.46
22:DA:444:C:HO2'	22:DA:445:C:P	2.38	0.46
22:DA:449:A:C4'	38:DQ:2:ARG:HH22	2.29	0.46
22:DA:628:G:HO2'	22:DA:629:G:H8	1.58	0.46
22:DA:708:G:H2'	22:DA:709:U:H6	1.81	0.46
22:DA:789:A:H4'	22:DA:790:U:OP2	2.15	0.46
22:DA:948:C:O5'	22:DA:948:C:H6	1.98	0.46
22:DA:1203:U:C4	22:DA:1204:A:N7	2.83	0.46
22:DA:1291:C:O2'	22:DA:1292:G:O4'	2.33	0.46
22:DA:1307:A:HO2'	22:DA:1308:A:H5'	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1566:A:C2	24:DC:212:TRP:CD2	3.04	0.46
22:DA:1613:G:C6	22:DA:1617:C:C5	3.03	0.46
22:DA:1723:G:C2'	22:DA:1724:G:H5'	2.45	0.46
22:DA:1736:U:H2'	22:DA:1737:G:O4'	2.16	0.46
22:DA:1883:U:H2'	22:DA:1884:G:O4'	2.15	0.46
22:DA:1998:A:C4	22:DA:1999:C:C6	3.04	0.46
22:DA:2036:C:O2'	22:DA:2037:A:H5'	2.15	0.46
22:DA:2151:U:H2'	22:DA:2152:G:C8	2.49	0.46
22:DA:2373:G:O2'	22:DA:2374:C:H5'	2.16	0.46
22:DA:2418:A:C6	22:DA:2419:U:C4	3.04	0.46
22:DA:2507:C:N4	22:DA:2508:G:C6	2.84	0.46
22:DA:2512:C:H2'	22:DA:2513:A:C4'	2.45	0.46
22:DA:2586:U:O5'	22:DA:2586:U:H6	1.99	0.46
22:DA:2756:U:C4'	22:DA:2757:A:C5'	2.94	0.46
57:DB:109:A:C2	57:DB:110:C:C2	3.04	0.46
24:DC:245:THR:HB	24:DC:246:PRO:CD	2.46	0.46
25:DD:114:LYS:CD	25:DD:116:LYS:HZ1	2.26	0.46
26:DE:30:GLN:HG2	26:DE:30:GLN:O	2.16	0.46
58:DF:32:LYS:HB2	58:DF:32:LYS:NZ	2.31	0.46
58:DF:122:ASP:HB3	58:DF:123:GLY:H	1.55	0.46
58:DF:144:LYS:HG3	58:DF:145:VAL:H	1.80	0.46
28:DG:15:ASP:HB3	28:DG:26:LYS:H	1.81	0.46
29:DH:104:THR:O	29:DH:104:THR:HG23	2.16	0.46
30:DI:44:LYS:O	30:DI:48:ILE:HG23	2.16	0.46
31:DJ:49:ASP:HB2	31:DJ:121:LYS:HZ2	1.80	0.46
32:DK:1:MET:HA	32:DK:33:ALA:O	2.16	0.46
34:DM:66:ARG:NE	34:DM:101:VAL:HG11	2.30	0.46
34:DM:108:VAL:CG2	34:DM:109:PRO:HD2	2.45	0.46
35:DN:75:ILE:HD12	35:DN:75:ILE:O	2.16	0.46
38:DQ:15:LYS:HD2	38:DQ:15:LYS:C	2.35	0.46
42:DU:47:PRO:CB	42:DU:54:PRO:HG3	2.31	0.46
42:DU:81:ARG:HB2	42:DU:96:LYS:CD	2.42	0.46
46:DY:11:VAL:HG12	46:DY:11:VAL:O	2.15	0.46
48:D0:42:ILE:CD1	48:D0:48:TYR:CD2	2.97	0.46
1:AA:120:A:C5	1:AA:122:G:C6	3.04	0.46
1:AA:515:G:O2'	1:AA:516:U:H5'	2.15	0.46
1:AA:617:G:N1	1:AA:618:C:C5	2.84	0.46
1:AA:854:U:C6	1:AA:871:U:O4	2.69	0.46
1:AA:944:G:N1	1:AA:1338:G:OP2	2.49	0.46
1:AA:1073:U:C2'	1:AA:1074:G:H5'	2.45	0.46
1:AA:1144:G:C8	1:AA:1144:G:OP2	2.69	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1181:G:C2	1:AA:1182:G:N2	2.84	0.46
1:AA:1312:G:N7	19:AS:2:ARG:HA	2.31	0.46
5:AE:14:LEU:HD13	5:AE:14:LEU:C	2.34	0.46
5:AE:32:PHE:CD1	5:AE:55:VAL:HG22	2.51	0.46
8:AH:94:VAL:HG12	8:AH:95:MET:N	2.30	0.46
12:AL:76:HIS:O	12:AL:77:SER:HB2	2.16	0.46
14:AN:30:ILE:HG23	14:AN:44:VAL:HG12	1.98	0.46
18:AR:22:TYR:CD1	18:AR:22:TYR:O	2.68	0.46
22:BA:92:U:H5"	22:BA:92:U:C6	2.51	0.46
22:BA:188:G:H2'	22:BA:189:G:H5'	1.97	0.46
22:BA:288:U:H2'	22:BA:289:G:H8	1.81	0.46
22:BA:481:G:H1'	22:BA:506:G:N2	2.31	0.46
22:BA:709:U:H2'	22:BA:710:U:C6	2.51	0.46
22:BA:915:C:O2	23:BB:100:G:H4'	2.16	0.46
22:BA:1016:G:C2'	22:BA:1017:G:O5'	2.64	0.46
22:BA:1501:G:O2'	22:BA:1502:A:H5'	2.16	0.46
22:BA:1657:U:O2'	25:BD:138:LEU:HD22	2.16	0.46
22:BA:1682:G:O2'	22:BA:1683:U:C5'	2.63	0.46
22:BA:2145:C:OP1	22:BA:2148:G:C5	2.69	0.46
22:BA:2364:C:H2'	22:BA:2365:G:H5'	1.95	0.46
22:BA:2512:C:H5"	22:BA:2513:A:OP2	2.17	0.46
22:BA:2667:C:H2'	22:BA:2668:G:O4'	2.16	0.46
24:BC:106:PRO:HA	24:BC:141:HIS:NE2	2.31	0.46
25:BD:4:LEU:HD23	25:BD:29:VAL:HG11	1.97	0.46
25:BD:110:THR:HG22	25:BD:111:GLY:H	1.81	0.46
25:BD:114:LYS:HE3	25:BD:114:LYS:CA	2.45	0.46
25:BD:124:ARG:HG2	25:BD:125:TRP:CD1	2.50	0.46
29:BH:2:GLN:HG2	29:BH:20:ASN:ND2	2.31	0.46
29:BH:78:VAL:HG21	29:BH:145:ASN:ND2	2.31	0.46
31:BJ:40:HIS:C	31:BJ:41:LYS:CG	2.84	0.46
31:BJ:80:HIS:HB3	31:BJ:81:ILE:HG22	1.98	0.46
35:BN:1:MET:O	35:BN:2:ARG:CB	2.54	0.46
42:BU:73:ASN:HD22	42:BU:76:THR:N	2.08	0.46
45:BX:39:VAL:HG11	45:BX:46:VAL:CG2	2.46	0.46
53:CA:5:U:H4'	53:CA:6:G:C5'	2.46	0.46
53:CA:279:A:H5"	53:CA:280:C:C3'	2.36	0.46
53:CA:312:C:H2'	53:CA:313:A:O4'	2.16	0.46
53:CA:473:U:OP1	56:CP:76:LYS:HE2	2.15	0.46
53:CA:545:C:H2'	53:CA:546:A:H5'	1.98	0.46
53:CA:686:U:O2'	53:CA:687:A:O5'	2.34	0.46
53:CA:769:G:C2'	53:CA:770:C:H5'	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:935:A:O2'	53:CA:936:C:O5'	2.34	0.46
53:CA:1004:A:H2'	53:CA:1005:A:C8	2.51	0.46
53:CA:1011:C:N3	53:CA:1019:A:C2	2.84	0.46
53:CA:1046:A:H2'	53:CA:1047:G:C5'	2.46	0.46
53:CA:1262:C:C5	53:CA:1263:C:C5	3.04	0.46
2:CB:8:MET:SD	2:CB:9:LEU:HD23	2.56	0.46
4:CD:195:ASN:O	4:CD:197:HIS:N	2.49	0.46
6:CF:19:PRO:HA	6:CF:22:ILE:CG1	2.46	0.46
6:CF:85:ILE:HB	6:CF:86:ARG:H	1.56	0.46
54:CG:91:ARG:NH1	54:CG:92:PRO:HG2	2.31	0.46
54:CG:100:MET:HE2	54:CG:100:MET:N	2.30	0.46
8:CH:85:TYR:HD2	8:CH:123:GLU:HB2	1.74	0.46
55:CM:64:VAL:O	55:CM:65:GLU:C	2.54	0.46
14:CN:15:LEU:O	14:CN:54:SER:HB2	2.16	0.46
22:DA:14:A:H2'	22:DA:15:G:H8	1.81	0.46
22:DA:33:C:O2	22:DA:447:A:N6	2.49	0.46
22:DA:201:C:C6	22:DA:202:U:H5	2.34	0.46
22:DA:311:A:O2'	22:DA:332:A:O4'	2.29	0.46
22:DA:538:A:C5'	31:DJ:7:LYS:HZ3	2.29	0.46
22:DA:727:A:O2'	22:DA:728:G:O5'	2.34	0.46
22:DA:751:A:O5'	40:DS:90:LYS:HA	2.15	0.46
22:DA:799:G:OP2	22:DA:800:A:C3'	2.64	0.46
22:DA:818:G:N7	22:DA:1187:G:C6	2.84	0.46
22:DA:832:U:P	33:DL:38:GLN:H	2.38	0.46
22:DA:931:U:O2	22:DA:931:U:H2'	2.15	0.46
22:DA:987:C:O2	22:DA:1000:A:H2	1.98	0.46
22:DA:1082:U:H4'	30:DI:117:THR:O	2.16	0.46
22:DA:1203:U:H2'	22:DA:1204:A:C2	2.51	0.46
22:DA:1461:C:H2'	22:DA:1462:C:H6	1.81	0.46
22:DA:1607:C:H4'	22:DA:1608:A:O5'	2.15	0.46
22:DA:1683:U:O2'	22:DA:1684:G:O4'	2.31	0.46
22:DA:1753:G:N1	22:DA:1756:G:N1	2.64	0.46
22:DA:1969:A:H2'	22:DA:1972:G:H21	1.81	0.46
22:DA:1991:U:C6	22:DA:1991:U:C3'	2.99	0.46
22:DA:2135:A:H2'	22:DA:2136:G:H8	1.80	0.46
22:DA:2497:A:H4'	22:DA:2498:C:O5'	2.16	0.46
22:DA:2506:U:H3'	22:DA:2506:U:H6	1.81	0.46
22:DA:2880:C:O2'	22:DA:2881:U:C5'	2.64	0.46
57:DB:11:C:H2'	57:DB:15:A:H61	1.80	0.46
24:DC:68:ARG:NH1	24:DC:115:ILE:CD1	2.78	0.46
25:DD:107:VAL:CG1	25:DD:109:VAL:CG2	2.92	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DE:117:ARG:O	26:DE:186:VAL:HG12	2.16	0.46
26:DE:161:ALA:HB3	26:DE:169:VAL:HG13	1.98	0.46
58:DF:103:ILE:CA	58:DF:107:VAL:HG21	2.37	0.46
30:DI:20:SER:H	30:DI:21:PRO:CD	2.28	0.46
30:DI:98:GLY:HA3	30:DI:137:LEU:HA	1.98	0.46
32:DK:9:ASN:HD21	32:DK:17:ARG:NH2	2.14	0.46
35:DN:28:LEU:HD23	35:DN:29:VAL:N	2.30	0.46
37:DP:59:THR:HG23	37:DP:72:VAL:HG12	1.96	0.46
37:DP:88:ARG:NE	37:DP:112:ARG:HH21	2.12	0.46
41:DT:7:LEU:O	41:DT:10:VAL:HG13	2.17	0.46
41:DT:28:ASN:C	41:DT:29:THR:HG22	2.36	0.46
41:DT:38:ALA:C	41:DT:39:THR:HG22	2.34	0.46
42:DU:52:ASN:ND2	42:DU:54:PRO:HD3	2.30	0.46
43:DV:56:PHE:C	43:DV:56:PHE:CD1	2.89	0.46
45:DX:26:ARG:O	45:DX:27:ARG:HB3	2.16	0.46
48:D0:54:ILE:HG13	48:D0:55:ALA:H	1.80	0.46
1:AA:42:G:H8	1:AA:42:G:O5'	2.00	0.45
1:AA:298:A:H2'	1:AA:299:G:O4'	2.16	0.45
1:AA:369:G:O2'	1:AA:370:C:H5'	2.16	0.45
1:AA:423:G:N3	1:AA:423:G:C2'	2.66	0.45
1:AA:646:G:C2'	1:AA:647:C:H5'	2.45	0.45
1:AA:891:U:O2'	1:AA:892:A:H5'	2.16	0.45
1:AA:1372:U:C4	1:AA:1373:G:C5	3.03	0.45
1:AA:1508:A:H2'	1:AA:1509:C:O4'	2.16	0.45
2:AB:132:GLU:O	2:AB:136:ARG:HB2	2.16	0.45
3:AC:18:ASN:HB3	3:AC:39:ARG:NH1	2.22	0.45
3:AC:71:ARG:O	3:AC:74:ILE:HG22	2.15	0.45
10:AJ:35:GLN:HG2	10:AJ:77:VAL:CB	2.43	0.45
11:AK:111:ASP:HB3	21:AU:19:LYS:CD	2.45	0.45
16:AP:36:VAL:O	16:AP:36:VAL:CG1	2.62	0.45
19:AS:10:ILE:O	19:AS:10:ILE:HG13	2.15	0.45
19:AS:54:ARG:H	19:AS:54:ARG:HG3	1.61	0.45
22:BA:84:A:N6	22:BA:101:A:C2	2.67	0.45
22:BA:1632:A:C6	22:BA:1633:G:C6	3.05	0.45
22:BA:1744:A:H5"	22:BA:1745:A:OP2	2.15	0.45
22:BA:1845:G:O2'	22:BA:1846:G:H5'	2.16	0.45
22:BA:1863:G:H2'	22:BA:1864:U:O4'	2.15	0.45
22:BA:1885:A:O2'	22:BA:1886:U:C5'	2.63	0.45
22:BA:2197:U:HO2'	22:BA:2198:A:P	2.39	0.45
22:BA:2226:C:H2'	22:BA:2227:A:C8	2.51	0.45
22:BA:2267:A:H2'	22:BA:2267:A:N3	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2475:C:C3'	22:BA:2476:A:H5'	2.43	0.45
22:BA:2536:G:C5	22:BA:2537:U:C5	3.03	0.45
22:BA:2575:C:H2'	22:BA:2578:G:O6	2.15	0.45
27:BF:107:VAL:HG11	27:BF:175:PRO:HG2	1.98	0.45
28:BG:18:ILE:CD1	28:BG:42:VAL:CG1	2.93	0.45
28:BG:33:THR:CA	28:BG:34:ARG:HD3	2.45	0.45
30:BI:24:GLY:O	30:BI:34:ILE:HD12	2.17	0.45
30:BI:123:ALA:HA	30:BI:126:ARG:CZ	2.46	0.45
31:BJ:93:ILE:O	31:BJ:97:PRO:HG3	2.16	0.45
32:BK:10:VAL:HG11	32:BK:16:ALA:CB	2.47	0.45
33:BL:14:LYS:O	33:BL:15:ALA:O	2.33	0.45
35:BN:55:ALA:HB1	35:BN:80:PHE:CA	2.47	0.45
39:BR:72:VAL:HG13	39:BR:89:HIS:O	2.15	0.45
43:BV:20:LEU:CD2	43:BV:25:LYS:HB2	2.39	0.45
45:BX:76:LYS:CG	45:BX:77:TYR:N	2.78	0.45
49:B1:42:VAL:CG1	49:B1:42:VAL:O	2.64	0.45
53:CA:59:A:H2'	53:CA:59:A:N3	2.31	0.45
53:CA:120:A:O2'	53:CA:121:U:H4'	2.16	0.45
53:CA:178:C:C2'	53:CA:179:A:H5'	2.46	0.45
53:CA:258:G:O3'	20:CT:35:TYR:OH	2.34	0.45
53:CA:328:C:OP1	53:CA:328:C:H4'	2.15	0.45
53:CA:461:A:O5'	53:CA:462:G:OP2	2.34	0.45
53:CA:542:G:H2'	53:CA:543:U:C6	2.47	0.45
53:CA:669:G:N2	53:CA:738:C:C2	2.83	0.45
53:CA:776:G:N2	53:CA:802:A:OP2	2.48	0.45
53:CA:934:C:H5	53:CA:1344:C:C2	2.34	0.45
53:CA:1007:U:O2	53:CA:1007:U:H2'	2.15	0.45
53:CA:1249:C:H4'	9:CI:74:GLN:HE22	1.81	0.45
53:CA:1254:A:H2'	53:CA:1255:G:H8	1.80	0.45
53:CA:1288:A:H2'	53:CA:1289:A:C8	2.50	0.45
53:CA:1469:C:C5	53:CA:1470:U:C5	3.04	0.45
4:CD:89:LEU:CD2	4:CD:199:ILE:CD1	2.92	0.45
4:CD:137:SER:CB	4:CD:138:PRO:HD2	2.46	0.45
6:CF:53:LYS:O	6:CF:55:HIS:CD2	2.68	0.45
54:CG:27:ASN:OD1	54:CG:35:LYS:HD2	2.16	0.45
54:CG:94:ARG:HB3	54:CG:98:LEU:HG	1.98	0.45
8:CH:23:ALA:HA	8:CH:62:LEU:HD22	1.96	0.45
12:CL:42:LYS:CD	12:CL:43:LYS:HZ2	2.30	0.45
55:CM:17:ALA:HB3	55:CM:18:LEU:HD12	1.98	0.45
15:CO:25:GLU:HG2	15:CO:80:LEU:HG	1.97	0.45
15:CO:55:LEU:O	15:CO:58:MET:HG3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:CP:1:MET:O	56:CP:1:MET:HG3	2.16	0.45
18:CR:38:ILE:HG22	18:CR:39:VAL:N	2.31	0.45
22:DA:120:U:C2	22:DA:149:A:C6	3.04	0.45
22:DA:145:C:O5'	22:DA:145:C:H6	1.98	0.45
22:DA:617:G:N3	22:DA:618:G:C8	2.84	0.45
22:DA:618:G:O2'	22:DA:619:G:C5'	2.59	0.45
22:DA:648:G:O2'	22:DA:649:G:H5'	2.16	0.45
22:DA:803:U:O2'	22:DA:804:A:H5'	2.17	0.45
22:DA:830:G:H8	22:DA:830:G:P	2.39	0.45
22:DA:843:G:C6	22:DA:844:A:N6	2.83	0.45
22:DA:1171:G:C4	22:DA:1179:G:N2	2.85	0.45
22:DA:1204:A:C4	22:DA:1206:G:C6	3.04	0.45
22:DA:1497:U:H5"	22:DA:1498:C:OP2	2.16	0.45
22:DA:1551:A:C6	22:DA:1552:A:N7	2.85	0.45
22:DA:1647:U:C5'	22:DA:1648:U:OP1	2.60	0.45
22:DA:1739:A:O2'	22:DA:1740:G:O5'	2.34	0.45
22:DA:1848:A:H2'	22:DA:1849:G:H8	1.79	0.45
22:DA:2016:U:C4	22:DA:2017:U:C4	3.04	0.45
22:DA:2458:G:O2'	22:DA:2460:U:H5	1.97	0.45
22:DA:2571:U:H2'	22:DA:2572:A:OP1	2.16	0.45
22:DA:2749:A:H4'	28:DG:62:ALA:HB2	1.98	0.45
25:DD:112:THR:O	25:DD:113:SER:HB2	2.17	0.45
58:DF:60:SER:C	58:DF:62:GLN:N	2.69	0.45
28:DG:94:ARG:HG2	28:DG:105:SER:N	2.31	0.45
28:DG:104:LEU:HG	28:DG:112:VAL:HG21	1.97	0.45
28:DG:116:LEU:HA	28:DG:117:PRO:HD3	1.73	0.45
29:DH:42:LYS:HE2	29:DH:43:ASN:OD1	2.16	0.45
31:DJ:44:TYR:CD1	38:DQ:59:LEU:HD11	2.51	0.45
31:DJ:81:ILE:HB	31:DJ:82:GLY:H	1.45	0.45
31:DJ:110:PRO:CB	31:DJ:111:LYS:HG2	2.46	0.45
32:DK:19:VAL:CG1	32:DK:41:ILE:HG12	2.44	0.45
33:DL:70:LYS:HG2	33:DL:70:LYS:O	2.15	0.45
35:DN:31:HIS:C	35:DN:33:ILE:H	2.18	0.45
37:DP:50:ARG:HA	37:DP:57:ALA:H	1.80	0.45
37:DP:52:ARG:HB3	37:DP:55:HIS:HB2	1.99	0.45
38:DQ:4:LYS:O	38:DQ:5:ARG:HB2	2.16	0.45
41:DT:38:ALA:O	41:DT:39:THR:HB	2.16	0.45
44:DW:40:ARG:CG	44:DW:40:ARG:NH1	2.50	0.45
49:D1:37:LYS:O	49:D1:48:TYR:CD2	2.69	0.45
1:AA:321:A:H4'	1:AA:1435:G:O2'	2.15	0.45
1:AA:426:U:H2'	1:AA:427:U:C6	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:443:C:H2'	1:AA:444:G:H5'	1.95	0.45
1:AA:579:A:O2'	15:AO:53:ARG:NH1	2.50	0.45
1:AA:1069:C:H2'	1:AA:1070:U:O5'	2.16	0.45
1:AA:1280:A:O2'	1:AA:1281:C:H5'	2.16	0.45
1:AA:1323:G:O2'	1:AA:1324:A:C8	2.66	0.45
1:AA:1410:A:C2	1:AA:1411:C:C2	3.05	0.45
3:AC:5:HIS:HD2	3:AC:8:GLY:H	1.64	0.45
3:AC:144:GLY:O	3:AC:145:ALA:CB	2.64	0.45
6:AF:71:ILE:CG2	6:AF:72:ASP:N	2.80	0.45
9:AI:49:GLN:C	9:AI:51:LEU:H	2.19	0.45
18:AR:33:THR:CG2	18:AR:37:LYS:N	2.79	0.45
19:AS:22:VAL:HG12	19:AS:23:GLU:N	2.30	0.45
19:AS:48:ILE:HD12	19:AS:48:ILE:O	2.16	0.45
20:AT:74:HIS:O	20:AT:78:LEU:HB2	2.16	0.45
22:BA:5:A:C2	22:BA:2899:A:C2	3.04	0.45
22:BA:18:U:P	38:BQ:29:ARG:HH22	2.40	0.45
22:BA:38:A:C2	22:BA:442:G:C2	3.04	0.45
22:BA:154:U:H2'	22:BA:155:A:H8	1.82	0.45
22:BA:312:G:H2'	22:BA:313:G:C8	2.51	0.45
22:BA:387:U:C5	22:BA:388:G:C6	3.03	0.45
22:BA:511:U:C5	22:BA:512:G:C4	3.03	0.45
22:BA:560:C:H2'	22:BA:561:G:C5'	2.46	0.45
22:BA:634:C:H2'	22:BA:635:C:H6	1.80	0.45
22:BA:679:C:H2'	22:BA:680:C:C6	2.51	0.45
22:BA:778:G:C6	22:BA:779:U:N3	2.85	0.45
22:BA:806:C:H6	22:BA:806:C:O5'	1.99	0.45
22:BA:885:C:H6	22:BA:885:C:O5'	1.98	0.45
22:BA:899:A:O2'	22:BA:900:A:C8	2.62	0.45
22:BA:969:G:H2'	22:BA:970:U:C6	2.51	0.45
22:BA:1070:A:C6	22:BA:1097:U:H4'	2.51	0.45
22:BA:1152:C:H3'	62:BA:3357:HOH:O	2.17	0.45
22:BA:1205:A:H4'	22:BA:1206:G:OP2	2.17	0.45
22:BA:1421:G:C2	22:BA:1422:G:N7	2.84	0.45
22:BA:1533:C:H42	22:BA:1538:G:H1	1.64	0.45
22:BA:1813:G:H1'	24:BC:49:THR:HG21	1.98	0.45
22:BA:1817:G:N3	22:BA:1817:G:H2'	2.32	0.45
22:BA:1998:A:H2'	22:BA:1999:C:C6	2.51	0.45
22:BA:2081:U:H4'	45:BX:24:THR:HG21	1.98	0.45
22:BA:2270:A:H2'	22:BA:2271:G:O4'	2.15	0.45
22:BA:2465:C:O2'	22:BA:2466:C:H5'	2.15	0.45
22:BA:2471:A:N6	22:BA:2472:G:C2	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2592:G:C5	22:BA:2593:U:C4	3.04	0.45
22:BA:2817:U:C2'	22:BA:2818:U:O5'	2.64	0.45
23:BB:37:C:C5	23:BB:38:C:C5	3.04	0.45
26:BE:153:LEU:C	26:BE:153:LEU:CD1	2.79	0.45
26:BE:176:ASP:OD1	26:BE:176:ASP:C	2.54	0.45
28:BG:132:LEU:CD1	28:BG:143:VAL:HG12	2.46	0.45
29:BH:1:MET:SD	29:BH:27:ARG:NH2	2.89	0.45
32:BK:64:ARG:HB3	32:BK:79:PHE:CD1	2.52	0.45
40:BS:24:ILE:HG23	40:BS:71:VAL:HG11	1.97	0.45
41:BT:48:GLN:HE21	41:BT:48:GLN:CA	2.18	0.45
42:BU:27:VAL:HA	42:BU:33:VAL:CG1	2.43	0.45
42:BU:78:LYS:CG	42:BU:79:ALA:N	2.79	0.45
43:BV:30:ILE:HA	43:BV:91:PHE:O	2.16	0.45
43:BV:71:LYS:C	43:BV:72:VAL:HG13	2.36	0.45
53:CA:34:C:O2	53:CA:34:C:C2'	2.64	0.45
53:CA:62:U:O2'	53:CA:63:C:H5'	2.16	0.45
53:CA:131:A:C6	53:CA:232:G:C6	3.04	0.45
53:CA:286:C:H2'	53:CA:287:U:C6	2.51	0.45
53:CA:337:G:H2'	53:CA:338:A:H8	1.80	0.45
53:CA:707:U:H4'	11:CK:21:HIS:CD2	2.52	0.45
53:CA:708:C:H2'	53:CA:709:U:H6	1.80	0.45
53:CA:1051:C:HO2'	53:CA:1052:U:P	2.38	0.45
53:CA:1328:C:OP1	55:CM:27:THR:HG21	2.16	0.45
4:CD:164:ARG:HB3	4:CD:165:GLU:H	1.38	0.45
5:CE:43:GLY:O	5:CE:73:VAL:N	2.44	0.45
5:CE:43:GLY:O	5:CE:73:VAL:HB	2.16	0.45
6:CF:81:ASN:O	6:CF:84:VAL:HG12	2.16	0.45
6:CF:90:MET:HE3	18:CR:60:ARG:NH1	2.31	0.45
54:CG:17:PHE:HB2	54:CG:43:TYR:OH	2.16	0.45
8:CH:65:PHE:CG	8:CH:66:GLN:N	2.84	0.45
9:CI:12:LYS:O	9:CI:13:SER:HB3	2.16	0.45
9:CI:45:MET:HA	9:CI:48:ARG:CG	2.46	0.45
9:CI:91:GLU:O	9:CI:91:GLU:HG3	2.16	0.45
9:CI:129:ARG:CZ	9:CI:129:ARG:HA	2.46	0.45
11:CK:26:PHE:CZ	11:CK:88:PRO:HG2	2.50	0.45
14:CN:20:PHE:CB	14:CN:24:ALA:HB2	2.46	0.45
17:CQ:29:LYS:NZ	17:CQ:36:PHE:CD2	2.78	0.45
19:CS:48:ILE:O	19:CS:50:VAL:HG13	2.16	0.45
22:DA:219:A:C5	22:DA:220:G:C5	3.04	0.45
22:DA:248:G:H5'	22:DA:250:G:N7	2.30	0.45
22:DA:603:A:H4'	22:DA:604:G:H4'	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:629:G:H2'	22:DA:630:G:C8	2.51	0.45
22:DA:922:C:C4	22:DA:923:G:N7	2.83	0.45
22:DA:1056:G:H21	22:DA:1102:C:H41	1.64	0.45
22:DA:1272:A:N3	22:DA:1618:A:C4	2.84	0.45
22:DA:1297:C:N3	22:DA:1298:C:C5	2.84	0.45
22:DA:1326:U:O2'	22:DA:1327:A:O5'	2.34	0.45
22:DA:1345:C:O2'	22:DA:1346:G:P	2.74	0.45
22:DA:1352:U:H5	22:DA:1377:G:O6	1.95	0.45
22:DA:1665:A:N7	62:DA:3439:HOH:O	2.36	0.45
22:DA:1735:A:O2'	22:DA:1736:U:O4'	2.34	0.45
22:DA:1786:A:P	62:DA:3459:HOH:O	2.74	0.45
22:DA:1790:C:O2'	24:DC:207:ALA:CB	2.61	0.45
22:DA:1904:G:O2'	22:DA:1905:C:H5'	2.17	0.45
22:DA:2270:A:H5'	44:DW:18:LYS:HG2	1.98	0.45
22:DA:2415:G:H2'	22:DA:2416:C:C6	2.51	0.45
22:DA:2850:A:HO2'	22:DA:2851:A:H5'	1.78	0.45
57:DB:16:G:H2'	57:DB:17:C:C6	2.51	0.45
24:DC:28:PRO:HB3	24:DC:62:ARG:NH2	2.24	0.45
25:DD:121:THR:O	25:DD:122:VAL:HB	2.17	0.45
26:DE:77:ILE:H	26:DE:77:ILE:HG12	1.50	0.45
26:DE:196:VAL:HA	26:DE:199:MET:HB3	1.97	0.45
58:DF:42:ALA:CB	58:DF:48:LEU:HD11	2.46	0.45
58:DF:63:LYS:HD3	58:DF:63:LYS:C	2.36	0.45
29:DH:96:THR:O	29:DH:97:ARG:CG	2.62	0.45
32:DK:58:LEU:HD22	32:DK:89:ASN:HD22	1.81	0.45
35:DN:24:MET:HG2	35:DN:44:LEU:CD1	2.45	0.45
36:DO:14:ALA:O	36:DO:18:LEU:N	2.44	0.45
37:DP:67:GLU:OE1	37:DP:68:GLY:N	2.49	0.45
37:DP:85:VAL:O	37:DP:85:VAL:HG13	2.16	0.45
45:DX:38:TRP:CE3	45:DX:38:TRP:HA	2.50	0.45
1:AA:36:C:O2'	1:AA:501:C:OP1	2.34	0.45
1:AA:198:G:C6	1:AA:220:G:C4	3.05	0.45
1:AA:683:G:H2'	1:AA:684:U:H5'	1.98	0.45
1:AA:729:A:C2'	1:AA:730:G:H5'	2.46	0.45
1:AA:1071:C:C2	1:AA:1105:A:C2	3.04	0.45
1:AA:1126:U:O2'	1:AA:1127:G:H5'	2.16	0.45
1:AA:1144:G:H2'	1:AA:1145:A:O4'	2.17	0.45
1:AA:1197:A:O2'	1:AA:1198:G:C5'	2.52	0.45
4:AD:87:GLU:O	4:AD:90:LEU:N	2.49	0.45
7:AG:113:LYS:HB2	7:AG:117:LEU:HD12	1.98	0.45
8:AH:15:ASN:O	8:AH:18:ALA:HB3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:44:PHE:HE2	8:AH:100:ILE:HG12	1.80	0.45
9:AI:4:GLN:CA	9:AI:4:GLN:HE21	2.29	0.45
11:AK:92:ARG:HD3	21:AU:24:LYS:HE2	1.98	0.45
11:AK:124:LYS:NZ	11:AK:127:ARG:CD	2.79	0.45
14:AN:33:VAL:HG12	14:AN:33:VAL:O	2.16	0.45
22:BA:28:A:C4	22:BA:513:A:N7	2.85	0.45
22:BA:548:G:O2'	22:BA:549:G:C5	2.69	0.45
22:BA:783:A:O2'	22:BA:785:G:OP1	2.34	0.45
22:BA:1040:A:H2	22:BA:1115:G:H22	1.64	0.45
22:BA:1105:U:C2	22:BA:1106:G:N7	2.85	0.45
22:BA:1115:G:HO2'	22:BA:1116:G:P	2.39	0.45
22:BA:1301:A:C2	22:BA:1303:G:C6	3.04	0.45
22:BA:1424:G:H2'	22:BA:1425:G:O4'	2.17	0.45
22:BA:1498:C:O2'	22:BA:1499:C:O5'	2.33	0.45
22:BA:1668:A:H4'	22:BA:1669:A:O5'	2.16	0.45
22:BA:2656:U:C5	22:BA:2664:G:N2	2.84	0.45
22:BA:2682:A:H61	22:BA:2728:U:H1'	1.81	0.45
22:BA:2751:G:O2'	22:BA:2752:C:H5'	2.16	0.45
29:BH:4:ILE:O	29:BH:37:VAL:HG12	2.15	0.45
32:BK:103:VAL:O	32:BK:122:VAL:HB	2.16	0.45
33:BL:110:VAL:HG12	33:BL:131:ALA:CB	2.46	0.45
38:BQ:87:VAL:O	38:BQ:88:GLU:CB	2.61	0.45
39:BR:46:GLU:CG	39:BR:47:VAL:N	2.79	0.45
40:BS:59:GLU:CA	40:BS:64:ALA:HB2	2.34	0.45
42:BU:100:GLU:O	42:BU:101:THR:CB	2.63	0.45
43:BV:39:ALA:O	43:BV:40:ILE:HD13	2.16	0.45
43:BV:65:VAL:O	43:BV:66:ASP:OD1	2.34	0.45
47:BZ:15:ARG:HD2	47:BZ:15:ARG:H	1.81	0.45
49:B1:31:GLU:HG2	49:B1:31:GLU:O	2.16	0.45
53:CA:537:G:H5"	12:CL:109:ARG:HH11	1.80	0.45
53:CA:676:A:H1'	11:CK:116:PRO:HB3	1.98	0.45
53:CA:992:U:O2'	53:CA:993:G:H5"	2.16	0.45
53:CA:1343:G:H1'	9:CI:122:ARG:NH1	2.31	0.45
4:CD:187:ARG:NH2	4:CD:191:SER:HB3	2.32	0.45
4:CD:187:ARG:O	4:CD:189:ASP:N	2.48	0.45
5:CE:157:GLY:HA3	8:CH:63:LYS:HZ2	1.80	0.45
10:CJ:87:LEU:HD22	10:CJ:90:LEU:HD13	1.98	0.45
11:CK:124:LYS:O	21:CU:33:ARG:CZ	2.65	0.45
55:CM:16:ILE:CD1	55:CM:16:ILE:H	2.29	0.45
17:CQ:27:PHE:CE1	17:CQ:36:PHE:HB3	2.51	0.45
22:DA:17:G:C6	22:DA:524:G:C6	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:42:A:C2	22:DA:438:G:C2	3.05	0.45
22:DA:84:A:N1	22:DA:98:G:O2'	2.45	0.45
22:DA:121:G:N3	22:DA:131:A:C2	2.85	0.45
22:DA:156:A:H3'	22:DA:156:A:OP2	2.17	0.45
22:DA:323:C:C6	26:DE:165:HIS:NE2	2.85	0.45
22:DA:370:G:C6	22:DA:424:G:C5	3.04	0.45
22:DA:402:A:H2'	22:DA:403:U:O4'	2.16	0.45
22:DA:580:U:C6	22:DA:580:U:H3'	2.51	0.45
22:DA:602:A:H5'	22:DA:605:G:OP1	2.16	0.45
22:DA:614:A:N3	22:DA:614:A:OP2	2.49	0.45
22:DA:746:U:H5"	22:DA:748:G:H5'	1.98	0.45
22:DA:769:U:H6	22:DA:769:U:O5'	1.99	0.45
22:DA:806:C:OP2	33:DL:37:GLY:N	2.49	0.45
22:DA:1204:A:N9	22:DA:1206:G:C6	2.84	0.45
22:DA:1216:G:C2'	22:DA:1217:U:H5'	2.45	0.45
22:DA:1385:A:O2'	22:DA:1386:C:O5'	2.33	0.45
22:DA:1518:C:H2'	22:DA:1519:G:O4'	2.15	0.45
22:DA:1890:A:H2'	22:DA:1891:G:C5'	2.47	0.45
22:DA:1998:A:H4'	22:DA:2724:U:O2'	2.15	0.45
22:DA:2217:G:H2'	22:DA:2218:G:H8	1.82	0.45
22:DA:2238:G:C4'	22:DA:2239:G:OP1	2.64	0.45
22:DA:2298:A:O2'	22:DA:2299:U:C6	2.66	0.45
22:DA:2372:U:H2'	22:DA:2372:U:O2	2.15	0.45
22:DA:2752:C:O2'	22:DA:2753:A:C5'	2.65	0.45
22:DA:2896:C:O2'	22:DA:2897:U:H5'	2.15	0.45
57:DB:58:A:O2'	57:DB:59:A:O4'	2.27	0.45
24:DC:61:TYR:CE1	24:DC:62:ARG:O	2.69	0.45
25:DD:118:PHE:HE1	25:DD:119:ALA:O	1.99	0.45
25:DD:173:GLN:OE1	25:DD:208:LYS:HE3	2.15	0.45
26:DE:165:HIS:O	26:DE:167:VAL:N	2.50	0.45
28:DG:25:ILE:HG22	28:DG:25:ILE:O	2.15	0.45
28:DG:93:TYR:HD2	28:DG:93:TYR:N	2.01	0.45
31:DJ:38:GLY:C	31:DJ:40:HIS:H	2.20	0.45
32:DK:103:VAL:O	32:DK:104:THR:HB	2.16	0.45
33:DL:54:GLN:O	33:DL:55:MET:C	2.54	0.45
34:DM:97:GLN:HB2	34:DM:98:PRO:CD	2.45	0.45
36:DO:34:HIS:HD2	36:DO:53:THR:OG1	1.99	0.45
37:DP:19:PHE:HE1	37:DP:58:PHE:CD1	2.35	0.45
38:DQ:60:TRP:O	38:DQ:64:ILE:HG12	2.16	0.45
42:DU:80:ASP:N	42:DU:80:ASP:OD1	2.47	0.45
44:DW:39:GLN:CD	44:DW:39:GLN:O	2.55	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:22:G:C6	1:AA:23:C:C4	3.04	0.45
1:AA:185:U:H2'	1:AA:186:C:C6	2.51	0.45
1:AA:597:G:C2	1:AA:644:U:O2	2.69	0.45
1:AA:737:C:C2	1:AA:738:C:C5	3.04	0.45
1:AA:903:G:H2'	1:AA:904:U:H6	1.82	0.45
1:AA:1062:U:H2'	1:AA:1063:C:C5	2.52	0.45
1:AA:1124:G:OP1	10:AJ:37:ARG:C	2.55	0.45
1:AA:1321:U:H3'	1:AA:1322:C:O2	2.16	0.45
1:AA:1395:C:O2'	1:AA:1396:A:H5'	2.17	0.45
2:AB:123:GLY:O	2:AB:125:PHE:CD2	2.69	0.45
3:AC:6:PRO:HG2	3:AC:183:TYR:CG	2.51	0.45
3:AC:190:THR:C	3:AC:192:TYR:H	2.20	0.45
8:AH:45:ILE:HA	8:AH:63:LYS:HG3	1.96	0.45
11:AK:51:PHE:N	11:AK:51:PHE:CD2	2.81	0.45
16:AP:67:ILE:CG2	16:AP:67:ILE:O	2.64	0.45
17:AQ:15:LYS:HD2	17:AQ:15:LYS:C	2.37	0.45
18:AR:19:GLU:HG3	18:AR:54:LEU:HD22	1.98	0.45
21:AU:11:PHE:O	21:AU:12:ASP:CB	2.64	0.45
22:BA:28:A:C5	22:BA:29:U:C5	3.04	0.45
22:BA:572:A:H8	22:BA:572:A:C5'	2.30	0.45
22:BA:687:C:H2'	22:BA:688:U:C6	2.51	0.45
22:BA:818:G:H2'	22:BA:819:A:OP2	2.16	0.45
22:BA:1060:U:C5'	22:BA:1061:U:OP1	2.64	0.45
22:BA:1335:C:C2'	22:BA:1336:A:O5'	2.64	0.45
22:BA:1476:U:OP2	22:BA:1476:U:C6	2.69	0.45
22:BA:1709:U:C2	22:BA:1750:G:N2	2.84	0.45
22:BA:1776:G:C2	22:BA:1777:U:C6	3.04	0.45
22:BA:2002:G:C2	22:BA:2003:A:C8	3.04	0.45
22:BA:2501:C:H6	22:BA:2501:C:H2'	1.55	0.45
22:BA:2527:C:C2'	22:BA:2528:U:H5'	2.47	0.45
22:BA:2599:G:O2'	22:BA:2600:A:H5'	2.17	0.45
22:BA:2650:U:H2'	22:BA:2651:C:H6	1.80	0.45
23:BB:25:U:H2'	23:BB:26:C:C6	2.52	0.45
24:BC:229:HIS:CD2	24:BC:246:PRO:HA	2.51	0.45
25:BD:9:VAL:O	25:BD:197:THR:CG2	2.64	0.45
25:BD:53:GLY:HA3	25:BD:77:ARG:CB	2.47	0.45
25:BD:99:GLU:CG	25:BD:100:LEU:N	2.48	0.45
25:BD:101:PHE:O	25:BD:102:ALA:C	2.55	0.45
26:BE:145:ASP:HA	26:BE:166:LYS:O	2.17	0.45
29:BH:78:VAL:HB	29:BH:145:ASN:HB3	1.98	0.45
29:BH:141:LYS:O	29:BH:142:VAL:HG13	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BK:15:GLY:O	32:BK:16:ALA:O	2.34	0.45
32:BK:113:MET:SD	32:BK:116:ILE:CD1	2.93	0.45
33:BL:131:ALA:O	33:BL:132:ARG:C	2.55	0.45
36:BO:3:LYS:CG	36:BO:4:LYS:H	2.30	0.45
36:BO:33:ARG:HG2	36:BO:34:HIS:ND1	2.32	0.45
36:BO:79:ALA:CB	36:BO:113:ALA:HB1	2.46	0.45
38:BQ:8:ILE:O	38:BQ:12:ARG:HG3	2.16	0.45
41:BT:29:THR:N	41:BT:91:GLN:HE22	2.13	0.45
45:BX:30:PRO:C	45:BX:32:LEU:HD12	2.37	0.45
45:BX:38:TRP:CH2	45:BX:44:ARG:N	2.85	0.45
50:B2:12:ARG:HG3	50:B2:13:ASN:ND2	2.32	0.45
53:CA:27:G:C5	53:CA:557:G:C2	3.03	0.45
53:CA:90:C:O2'	53:CA:91:U:H5'	2.16	0.45
53:CA:142:G:C5	53:CA:143:A:C8	3.04	0.45
53:CA:160:A:N1	53:CA:343:U:H1'	2.32	0.45
53:CA:198:G:O2'	53:CA:199:A:O5'	2.35	0.45
53:CA:343:U:O2'	53:CA:344:A:H8	1.95	0.45
53:CA:388:G:HO2'	53:CA:389:A:P	2.39	0.45
53:CA:398:U:H2'	53:CA:399:G:H8	1.82	0.45
53:CA:688:G:H8	53:CA:688:G:H5"	1.80	0.45
53:CA:751:U:C2'	53:CA:752:G:H5'	2.45	0.45
53:CA:935:A:O2'	53:CA:936:C:H6	1.92	0.45
53:CA:973:G:O2'	14:CN:68:ARG:NH2	2.50	0.45
53:CA:1084:G:OP1	53:CA:1086:U:C6	2.70	0.45
53:CA:1108:G:H5"	3:CC:175:HIS:HE1	1.79	0.45
53:CA:1327:C:C4	53:CA:1328:C:N4	2.85	0.45
53:CA:1371:G:OP1	9:CI:12:LYS:HG2	2.16	0.45
2:CB:26:MET:HE3	2:CB:192:PRO:HG3	1.97	0.45
54:CG:105:GLU:O	54:CG:109:LYS:HD3	2.15	0.45
9:CI:55:ASP:O	9:CI:59:LYS:HE2	2.16	0.45
11:CK:87:GLY:H	11:CK:113:THR:HG23	1.82	0.45
12:CL:111:GLN:O	12:CL:112:ALA:HB3	2.17	0.45
55:CM:69:ARG:HD2	55:CM:69:ARG:N	2.30	0.45
22:DA:132:G:N2	22:DA:148:U:C2	2.84	0.45
22:DA:352:A:C3'	22:DA:353:C:C4'	2.95	0.45
22:DA:428:A:O2'	22:DA:429:A:H5'	2.17	0.45
22:DA:435:C:C5	22:DA:436:C:C5	3.03	0.45
22:DA:458:G:N2	22:DA:469:G:H2'	2.32	0.45
22:DA:857:G:O2'	44:DW:19:ARG:CZ	2.65	0.45
22:DA:908:C:OP1	34:DM:22:GLN:HG3	2.16	0.45
22:DA:1021:A:H2'	22:DA:1022:G:H4'	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1085:A:H4'	22:DA:1105:U:O4'	2.17	0.45
22:DA:1307:A:C2'	22:DA:1308:A:C5'	2.89	0.45
22:DA:1436:G:N2	22:DA:1557:C:C2	2.84	0.45
22:DA:1537:G:H2'	22:DA:1537:G:N3	2.31	0.45
22:DA:1661:G:C5	22:DA:1662:U:C5	3.05	0.45
22:DA:1957:C:O2'	22:DA:1985:C:H1'	2.15	0.45
22:DA:2201:G:C5	22:DA:2202:U:C5	3.05	0.45
22:DA:2837:A:H2'	22:DA:2838:G:H8	1.74	0.45
22:DA:2869:G:C8	22:DA:2870:C:C5	3.04	0.45
22:DA:2869:G:H2'	22:DA:2870:C:C6	2.52	0.45
22:DA:2881:U:O2'	22:DA:2882:A:C5'	2.64	0.45
24:DC:131:MET:HG2	24:DC:134:ILE:HD11	1.99	0.45
25:DD:51:THR:HG21	25:DD:76:GLY:HA3	1.91	0.45
58:DF:174:PHE:CG	58:DF:175:PRO:HD2	2.52	0.45
32:DK:13:ASN:HD21	32:DK:96:GLY:CA	2.29	0.45
34:DM:8:LYS:HA	34:DM:8:LYS:CE	2.38	0.45
36:DO:82:ALA:HB3	36:DO:115:LEU:HD11	1.97	0.45
40:DS:29:VAL:HG13	40:DS:55:ILE:HD11	1.95	0.45
41:DT:62:VAL:HG12	41:DT:63:VAL:H	1.82	0.45
43:DV:21:ARG:NH2	43:DV:87:GLN:O	2.49	0.45
44:DW:37:VAL:CG1	44:DW:55:ASP:OD2	2.64	0.45
46:DY:56:LEU:N	46:DY:56:LEU:HD22	2.31	0.45
1:AA:377:G:C5'	16:AP:5:ARG:HH12	2.30	0.45
1:AA:501:C:H1'	1:AA:549:C:H1'	1.99	0.45
1:AA:644:U:O2'	1:AA:645:G:H5'	2.17	0.45
1:AA:715:A:H2'	1:AA:716:A:C8	2.52	0.45
1:AA:978:A:OP2	1:AA:1362:A:N7	2.50	0.45
1:AA:1160:G:O2'	1:AA:1161:C:H6	2.00	0.45
1:AA:1416:G:C2'	1:AA:1417:G:H5'	2.46	0.45
1:AA:1449:C:C2'	1:AA:1450:U:H5'	2.46	0.45
1:AA:1506:U:H3'	62:AA:1803:HOH:O	2.15	0.45
2:AB:15:PHE:CD1	2:AB:16:GLY:N	2.85	0.45
2:AB:59:ILE:CD1	2:AB:60:ALA:N	2.73	0.45
3:AC:99:GLN:O	3:AC:100:ILE:HB	2.16	0.45
3:AC:149:LYS:HG3	3:AC:149:LYS:O	2.17	0.45
10:AJ:52:LEU:HD23	10:AJ:62:ARG:HG3	1.94	0.45
12:AL:73:LEU:HD21	12:AL:103:CYS:SG	2.57	0.45
14:AN:46:LYS:C	14:AN:48:GLN:N	2.69	0.45
14:AN:58:ARG:HH11	14:AN:58:ARG:HG2	1.80	0.45
16:AP:42:ILE:HG22	16:AP:43:ALA:N	2.31	0.45
20:AT:75:LYS:HB3	20:AT:75:LYS:HZ3	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:181:A:H2'	22:BA:182:A:C8	2.52	0.45
22:BA:360:U:C4	22:BA:361:G:C6	3.04	0.45
22:BA:657:U:O2'	22:BA:658:U:H5'	2.16	0.45
22:BA:963:U:H2'	22:BA:964:C:C6	2.52	0.45
22:BA:1189:A:OP1	39:BR:82:HIS:HD2	1.99	0.45
22:BA:1294:U:C4	22:BA:1295:C:C5	3.04	0.45
22:BA:1445:G:H2'	22:BA:1446:C:C6	2.52	0.45
22:BA:1487:U:N3	22:BA:1503:A:C2	2.84	0.45
22:BA:2144:G:H3'	22:BA:2144:G:N3	2.32	0.45
22:BA:2226:C:H6	22:BA:2226:C:O5'	1.99	0.45
22:BA:2838:G:H2'	22:BA:2839:G:O4'	2.17	0.45
26:BE:75:SER:OG	26:BE:77:ILE:HG23	2.16	0.45
27:BF:35:LEU:HD12	27:BF:35:LEU:O	2.17	0.45
28:BG:10:VAL:HB	28:BG:14:VAL:HG21	1.99	0.45
29:BH:27:ARG:O	29:BH:28:ASN:CB	2.65	0.45
29:BH:67:ALA:HA	29:BH:138:VAL:CG1	2.47	0.45
31:BJ:7:LYS:HA	31:BJ:8:PRO:HD3	1.81	0.45
33:BL:29:LYS:O	33:BL:30:THR:HG23	2.16	0.45
33:BL:112:LEU:HD12	33:BL:130:GLY:HA3	1.98	0.45
34:BM:6:ARG:HG2	34:BM:7:THR:N	2.31	0.45
34:BM:32:GLY:HA3	34:BM:131:VAL:CG2	2.47	0.45
35:BN:31:HIS:O	35:BN:33:ILE:HD12	2.17	0.45
36:BO:66:GLY:O	36:BO:102:ARG:NH2	2.49	0.45
39:BR:39:LEU:HD23	39:BR:39:LEU:N	2.32	0.45
39:BR:41:ILE:O	39:BR:46:GLU:HB2	2.17	0.45
42:BU:10:VAL:HG13	42:BU:24:VAL:HG23	1.98	0.45
42:BU:12:VAL:CG1	42:BU:13:LEU:N	2.80	0.45
45:BX:38:TRP:HB2	45:BX:45:PHE:CE2	2.44	0.45
46:BY:5:GLU:O	46:BY:8:GLU:CB	2.60	0.45
47:BZ:8:GLN:O	47:BZ:10:ARG:N	2.49	0.45
51:B3:27:ASN:O	51:B3:35:LYS:NZ	2.43	0.45
53:CA:16:A:C6	53:CA:17:U:C5	3.05	0.45
53:CA:428:G:C4	53:CA:430:A:C5	3.04	0.45
53:CA:671:G:C6	53:CA:672:U:N3	2.84	0.45
53:CA:743:A:C6	53:CA:744:C:C4	3.05	0.45
53:CA:858:G:N7	53:CA:869:G:N7	2.65	0.45
53:CA:934:C:C5	53:CA:1344:C:C2	3.05	0.45
53:CA:937:A:N6	53:CA:1345:U:O4	2.46	0.45
53:CA:1250:A:N6	53:CA:1251:A:C6	2.84	0.45
53:CA:1382:C:O2'	53:CA:1383:C:C5'	2.62	0.45
2:CB:184:ALA:HB3	2:CB:195:VAL:HG21	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:40:ILE:HB	10:CJ:73:LEU:HD12	1.99	0.45
12:CL:32:VAL:HG12	12:CL:32:VAL:O	2.16	0.45
15:CO:11:VAL:O	15:CO:15:GLY:CA	2.65	0.45
15:CO:69:LEU:HD13	15:CO:69:LEU:C	2.36	0.45
56:CP:32:PHE:C	56:CP:32:PHE:CD1	2.90	0.45
18:CR:19:GLU:CG	18:CR:20:ILE:N	2.80	0.45
19:CS:11:ASP:O	19:CS:14:LEU:HG	2.16	0.45
21:CU:24:LYS:CG	21:CU:25:ALA:N	2.52	0.45
22:DA:255:A:H2'	22:DA:256:A:O4'	2.17	0.45
22:DA:301:G:C8	22:DA:334:C:O2	2.69	0.45
22:DA:497:A:H2'	22:DA:498:G:O4'	2.16	0.45
22:DA:559:G:C2'	22:DA:560:C:H5'	2.45	0.45
22:DA:574:A:H2	22:DA:2032:G:O2'	1.98	0.45
22:DA:663:G:C6	22:DA:664:G:C5	3.04	0.45
22:DA:774:G:O2'	22:DA:775:G:H8	1.97	0.45
22:DA:999:U:C2'	22:DA:1000:A:C5'	2.90	0.45
22:DA:1036:G:C5	22:DA:1120:G:C6	3.05	0.45
22:DA:1327:A:C2	22:DA:1328:A:H1'	2.50	0.45
22:DA:1512:C:O2'	22:DA:1513:U:H5'	2.16	0.45
22:DA:1515:A:H5'	22:DA:1557:C:C5'	2.46	0.45
22:DA:1665:A:C2'	22:DA:1666:G:H5'	2.47	0.45
22:DA:1731:G:C2	22:DA:1733:G:C5	3.04	0.45
22:DA:1857:G:N3	22:DA:1884:G:C2	2.84	0.45
22:DA:1993:U:H4'	25:DD:133:THR:HG22	1.99	0.45
22:DA:2058:A:H5"	22:DA:2059:A:OP2	2.17	0.45
22:DA:2073:C:O2'	22:DA:2074:U:H5'	2.16	0.45
22:DA:2214:C:C2	22:DA:2215:C:C5	3.05	0.45
22:DA:2376:A:C2	36:DO:99:TYR:CE2	3.05	0.45
22:DA:2642:G:C2	22:DA:2773:C:C2	3.05	0.45
22:DA:2820:A:O2'	35:DN:3:HIS:CD2	2.69	0.45
57:DB:16:G:C6	57:DB:69:G:C4	3.04	0.45
57:DB:24:G:C1'	57:DB:27:C:N4	2.64	0.45
24:DC:243:PRO:O	24:DC:244:VAL:HG13	2.16	0.45
25:DD:186:LEU:HD21	37:DP:3:ILE:HD11	1.98	0.45
26:DE:31:VAL:HG11	26:DE:100:MET:O	2.16	0.45
26:DE:144:GLU:O	26:DE:145:ASP:C	2.55	0.45
58:DF:11:VAL:HG22	58:DF:171:ALA:HA	1.99	0.45
58:DF:52:ALA:HA	58:DF:55:ASP:HB2	1.99	0.45
58:DF:122:ASP:CB	58:DF:126:ASN:ND2	2.79	0.45
30:DI:90:GLY:O	30:DI:92:PRO:HD3	2.17	0.45
31:DJ:41:LYS:C	31:DJ:43:GLU:H	2.19	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DL:3:LEU:O	33:DL:6:LEU:HB2	2.16	0.45
34:DM:33:LEU:HD12	34:DM:117:PHE:CD2	2.51	0.45
34:DM:73:ILE:HG12	34:DM:93:VAL:CG1	2.46	0.45
36:DO:39:VAL:HB	36:DO:49:VAL:H	1.81	0.45
39:DR:22:LEU:HD23	39:DR:22:LEU:N	2.31	0.45
40:DS:29:VAL:HG23	40:DS:69:LEU:O	2.17	0.45
42:DU:86:PHE:HB2	42:DU:92:VAL:HG22	1.99	0.45
42:DU:92:VAL:CG2	42:DU:101:THR:HG21	2.46	0.45
48:D0:12:ARG:HD2	48:D0:16:ARG:NH2	2.31	0.45
51:D3:44:ARG:N	51:D3:45:PRO:HD2	2.32	0.45
1:AA:423:G:O2'	1:AA:424:G:C4'	2.65	0.45
1:AA:537:G:C5'	12:AL:109:ARG:HH12	2.25	0.45
1:AA:556:C:C2'	1:AA:557:G:H5'	2.46	0.45
1:AA:792:A:N3	1:AA:794:A:C5	2.85	0.45
3:AC:5:HIS:CD2	3:AC:8:GLY:H	2.35	0.45
3:AC:22:PHE:CD2	3:AC:23:ALA:N	2.84	0.45
3:AC:113:LYS:HD3	3:AC:184:ASN:CG	2.37	0.45
4:AD:117:VAL:HA	4:AD:122:ILE:CD1	2.40	0.45
6:AF:72:ASP:HA	6:AF:75:GLU:HG3	1.99	0.45
12:AL:26:CYS:HB2	12:AL:27:PRO:CD	2.47	0.45
12:AL:43:LYS:NZ	12:AL:44:PRO:CD	2.77	0.45
14:AN:5:MET:HA	14:AN:8:ARG:HD2	1.99	0.45
15:AO:72:LYS:HE2	15:AO:72:LYS:HA	1.98	0.45
17:AQ:49:ASN:O	17:AQ:51:GLU:N	2.50	0.45
19:AS:40:PHE:CB	19:AS:42:ASN:ND2	2.79	0.45
21:AU:4:LYS:HD2	21:AU:4:LYS:C	2.36	0.45
22:BA:142:A:O2'	22:BA:143:C:O5'	2.35	0.45
22:BA:729:G:N3	22:BA:729:G:C2'	2.76	0.45
22:BA:1490:A:C8	24:BC:73:ILE:CD1	3.00	0.45
22:BA:1947:C:C2	22:BA:1960:A:C2	3.05	0.45
22:BA:2029:G:H2'	22:BA:2031:A:OP1	2.17	0.45
22:BA:2548:U:C2'	22:BA:2549:G:O5'	2.64	0.45
22:BA:2703:C:O5'	22:BA:2703:C:H6	1.99	0.45
22:BA:2714:G:P	62:BA:3541:HOH:O	2.74	0.45
22:BA:2812:G:H2'	22:BA:2813:A:O4'	2.17	0.45
22:BA:2832:U:O2'	22:BA:2833:U:P	2.75	0.45
22:BA:2874:C:H2'	22:BA:2875:C:C6	2.51	0.45
23:BB:2:G:C2	23:BB:119:A:N3	2.85	0.45
23:BB:78:A:C2	23:BB:99:A:C4	3.04	0.45
24:BC:141:HIS:HB3	24:BC:142:ASN:H	1.21	0.45
25:BD:93:GLY:O	25:BD:95:SER:N	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BG:25:ILE:HD12	28:BG:74:MET:HB2	1.98	0.45
29:BH:31:VAL:HG12	29:BH:36:ALA:O	2.17	0.45
31:BJ:139:VAL:O	31:BJ:139:VAL:HG22	2.16	0.45
34:BM:47:GLU:O	34:BM:48:ALA:C	2.55	0.45
34:BM:54:THR:O	34:BM:55:ARG:C	2.54	0.45
34:BM:133:LYS:HZ2	34:BM:133:LYS:HB2	1.82	0.45
38:BQ:13:HIS:HD2	38:BQ:31:TYR:CZ	2.35	0.45
40:BS:2:GLU:O	40:BS:3:THR:O	2.35	0.45
40:BS:86:MET:CG	40:BS:88:ARG:HD2	2.47	0.45
44:BW:44:PHE:O	44:BW:78:PHE:HA	2.16	0.45
49:B1:7:LYS:HE3	51:B3:33:THR:HG21	1.97	0.45
53:CA:491:G:HO2'	53:CA:492:C:H5'	1.78	0.45
53:CA:517:G:C6	53:CA:531:U:H1'	2.52	0.45
53:CA:853:C:C4	53:CA:854:U:C5	3.05	0.45
53:CA:1026:G:H1	53:CA:1036:A:H61	1.62	0.45
53:CA:1281:C:H5'	53:CA:1282:C:H5	1.81	0.45
53:CA:1343:G:C5	53:CA:1344:C:C5	3.05	0.45
53:CA:1429:A:C2'	53:CA:1430:A:H5'	2.47	0.45
53:CA:1467:C:H2'	53:CA:1468:A:H8	1.76	0.45
2:CB:221:ARG:C	2:CB:223:GLY:H	2.20	0.45
54:CG:116:ALA:HA	54:CG:120:ALA:CB	2.47	0.45
55:CM:11:HIS:HA	55:CM:44:ILE:HB	1.99	0.45
55:CM:12:LYS:HB3	55:CM:17:ALA:CB	2.44	0.45
14:CN:13:VAL:HG22	14:CN:59:GLN:CD	2.36	0.45
15:CO:69:LEU:CD1	15:CO:77:TYR:CA	2.95	0.45
17:CQ:19:SER:CB	17:CQ:70:LYS:NZ	2.73	0.45
22:DA:61:C:HO2'	22:DA:62:U:H5'	1.74	0.45
22:DA:136:G:H2'	22:DA:137:U:C6	2.50	0.45
22:DA:195:A:H2'	22:DA:198:C:N4	2.32	0.45
22:DA:352:A:C6	22:DA:353:C:C2	3.05	0.45
22:DA:561:G:H2'	22:DA:562:U:C5'	2.46	0.45
22:DA:606:U:HO2'	22:DA:607:U:C4'	2.30	0.45
22:DA:777:G:C2	22:DA:778:G:C8	3.04	0.45
22:DA:833:A:OP2	33:DL:39:LYS:NZ	2.50	0.45
22:DA:946:C:O2'	22:DA:947:A:H8	1.78	0.45
22:DA:1168:G:C2	22:DA:1182:G:C2	3.04	0.45
22:DA:1206:G:H2'	22:DA:1207:C:C6	2.52	0.45
22:DA:1264:A:C6	22:DA:1265:A:N6	2.85	0.45
22:DA:1398:C:O2'	22:DA:1399:C:C6	2.70	0.45
22:DA:2024:G:N2	22:DA:2040:G:H1'	2.32	0.45
22:DA:2200:C:N4	22:DA:2224:G:N2	2.63	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2299:U:O2'	22:DA:2300:C:C6	2.64	0.45
22:DA:2592:G:C6	22:DA:2593:U:C4	3.05	0.45
22:DA:2619:C:H5'	25:DD:157:LYS:CG	2.46	0.45
22:DA:2865:U:C5	22:DA:2866:U:N3	2.84	0.45
57:DB:16:G:O2'	57:DB:17:C:C5'	2.62	0.45
57:DB:110:C:H2'	57:DB:111:U:C6	2.52	0.45
24:DC:128:THR:CG2	24:DC:188:ARG:CB	2.88	0.45
24:DC:159:THR:N	24:DC:194:VAL:CG1	2.80	0.45
25:DD:183:GLU:H	25:DD:183:GLU:CD	2.20	0.45
26:DE:122:GLU:O	26:DE:123:LYS:HB3	2.17	0.45
26:DE:124:PHE:HB3	26:DE:189:THR:HG22	1.99	0.45
28:DG:162:ARG:HG3	28:DG:166:GLU:HG3	1.99	0.45
29:DH:66:ASN:O	29:DH:67:ALA:HB3	2.17	0.45
29:DH:132:PHE:HZ	29:DH:134:VAL:CB	2.24	0.45
30:DI:54:ILE:HG23	30:DI:70:THR:HG21	1.98	0.45
31:DJ:27:ARG:O	31:DJ:30:THR:HG22	2.16	0.45
32:DK:34:GLY:O	32:DK:35:VAL:HG22	2.16	0.45
37:DP:24:THR:HA	37:DP:44:GLY:O	2.16	0.45
37:DP:103:THR:HG22	37:DP:104:GLY:N	2.31	0.45
38:DQ:57:ARG:CZ	38:DQ:92:LYS:HE2	2.44	0.45
38:DQ:64:ILE:CD1	38:DQ:95:ALA:CB	2.93	0.45
41:DT:50:LEU:HD22	41:DT:51:PHE:HD1	1.81	0.45
42:DU:51:LEU:O	42:DU:52:ASN:HB2	2.17	0.45
42:DU:60:LYS:N	42:DU:60:LYS:HD2	2.31	0.45
49:D1:3:GLY:C	49:D1:5:ARG:H	2.20	0.45
50:D2:28:ARG:C	50:D2:30:VAL:N	2.69	0.45
1:AA:269:C:H2'	1:AA:270:A:H8	1.79	0.45
1:AA:415:A:O2'	1:AA:416:G:H5'	2.17	0.45
1:AA:429:U:O4'	1:AA:430:A:H5"	2.17	0.45
1:AA:511:C:HO2'	1:AA:512:U:H6	1.64	0.45
1:AA:754:C:H3'	1:AA:755:G:C5'	2.46	0.45
1:AA:1033:G:H2'	1:AA:1033:G:N3	2.32	0.45
1:AA:1053:G:C6	1:AA:1199:U:C2	3.05	0.45
1:AA:1160:G:O6	1:AA:1181:G:C5	2.70	0.45
2:AB:27:LYS:HB3	2:AB:28:PRO:HD3	1.98	0.45
2:AB:153:MET:SD	2:AB:155:GLY:O	2.75	0.45
2:AB:191:ASP:HA	2:AB:192:PRO:HD2	1.74	0.45
3:AC:71:ARG:HG2	3:AC:74:ILE:HB	1.99	0.45
7:AG:37:THR:O	7:AG:40:SER:HB2	2.16	0.45
7:AG:88:VAL:HG22	7:AG:89:GLU:N	2.32	0.45
10:AJ:88:MET:HB3	10:AJ:89:ARG:HH12	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AR:59:LYS:O	18:AR:60:ARG:C	2.54	0.45
19:AS:14:LEU:HD13	19:AS:32:THR:HG21	1.98	0.45
22:BA:137:U:HO2'	22:BA:138:U:P	2.39	0.45
22:BA:143:C:O2'	22:BA:144:A:P	2.75	0.45
22:BA:747:U:C4	22:BA:2613:U:C4	3.05	0.45
22:BA:849:A:H2'	22:BA:850:U:C6	2.52	0.45
22:BA:919:U:C6	22:BA:919:U:C4'	2.99	0.45
22:BA:1048:A:OP2	22:BA:1110:G:N2	2.48	0.45
22:BA:1301:A:N3	22:BA:1301:A:H2'	2.32	0.45
22:BA:1419:A:N7	22:BA:1421:G:C5	2.85	0.45
22:BA:1684:G:H2'	22:BA:1685:C:H6	1.79	0.45
22:BA:1778:U:H2'	22:BA:1784:A:H62	1.81	0.45
22:BA:1797:G:C6	22:BA:1798:U:C4	3.04	0.45
22:BA:2194:U:C4	22:BA:2195:U:C4	3.05	0.45
22:BA:2486:C:C2'	22:BA:2487:G:O5'	2.65	0.45
22:BA:2576:G:C8	22:BA:2580:U:O4	2.70	0.45
22:BA:2742:G:OP2	52:B4:24:ARG:NH1	2.50	0.45
23:BB:66:A:C4'	23:BB:67:G:OP1	2.60	0.45
24:BC:80:LEU:HD11	24:BC:109:LEU:CG	2.44	0.45
24:BC:163:ILE:HD13	24:BC:173:LEU:HD11	1.98	0.45
28:BG:33:THR:HA	28:BG:34:ARG:HH11	1.81	0.45
29:BH:58:LEU:HA	29:BH:61:VAL:HB	1.99	0.45
32:BK:20:MET:C	32:BK:41:ILE:CD1	2.85	0.45
33:BL:14:LYS:CG	33:BL:15:ALA:N	2.78	0.45
33:BL:89:VAL:HA	33:BL:121:THR:HG23	1.99	0.45
39:BR:79:ARG:NH1	62:BR:201:HOH:O	2.34	0.45
40:BS:35:ILE:HG12	40:BS:35:ILE:H	1.62	0.45
45:BX:70:LEU:HD23	45:BX:73:ARG:HH11	1.82	0.45
49:B1:39:ASP:O	49:B1:43:ARG:N	2.50	0.45
53:CA:83:C:O2	53:CA:83:C:H2'	2.16	0.45
53:CA:276:G:O2'	53:CA:277:C:H5'	2.15	0.45
53:CA:369:G:H2'	53:CA:370:C:C6	2.51	0.45
53:CA:423:G:H2'	53:CA:423:G:N3	2.32	0.45
53:CA:552:U:H2'	53:CA:553:A:H8	1.82	0.45
53:CA:976:G:O5'	53:CA:1358:U:O2'	2.35	0.45
53:CA:1006:G:N3	53:CA:1006:G:H2'	2.32	0.45
53:CA:1031:C:H5'	53:CA:1032:G:C5'	2.44	0.45
53:CA:1186:G:C4'	9:CI:111:GLU:OE1	2.64	0.45
53:CA:1297:G:H5'	53:CA:1299:A:N7	2.32	0.45
2:CB:53:LEU:O	2:CB:57:ASN:HB2	2.17	0.45
4:CD:109:THR:HG22	4:CD:110:ARG:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CG:10:LYS:N	54:CG:10:LYS:CE	2.79	0.45
9:CI:70:GLY:O	9:CI:71:ILE:C	2.55	0.45
11:CK:70:ALA:HB1	11:CK:104:PHE:CZ	2.52	0.45
11:CK:111:ASP:HB3	21:CU:3:ILE:N	2.31	0.45
17:CQ:20:ILE:HD11	17:CQ:22:VAL:HG23	1.97	0.45
21:CU:53:LYS:HB2	21:CU:53:LYS:HZ3	1.78	0.45
22:DA:117:G:C4'	22:DA:126:A:H2	2.28	0.45
22:DA:223:A:N6	22:DA:422:A:C6	2.84	0.45
22:DA:244:A:C2'	22:DA:245:G:O4'	2.64	0.45
22:DA:335:C:O2'	22:DA:336:C:O5'	2.35	0.45
22:DA:859:G:HO2'	22:DA:860:U:P	2.35	0.45
22:DA:977:G:C2	22:DA:978:G:C8	3.05	0.45
22:DA:992:C:H2'	22:DA:993:G:H8	1.82	0.45
22:DA:1060:U:C4'	22:DA:1061:U:C2'	2.88	0.45
22:DA:1156:A:C8	38:DQ:50:ARG:HG2	2.51	0.45
22:DA:1346:G:O2'	22:DA:1347:A:P	2.75	0.45
22:DA:1370:C:H2'	22:DA:1371:G:C8	2.52	0.45
22:DA:1425:G:H8	22:DA:1425:G:O5'	2.00	0.45
22:DA:1455:G:N7	35:DN:64:ARG:NH1	2.64	0.45
22:DA:1613:G:C2	22:DA:1617:C:N3	2.84	0.45
22:DA:1809:A:H2'	22:DA:1810:A:H8	1.79	0.45
22:DA:1853:A:O2'	22:DA:2234:G:H5'	2.17	0.45
22:DA:1925:C:H6	22:DA:1925:C:H3'	1.82	0.45
22:DA:1957:C:H1'	22:DA:1985:C:O2'	2.16	0.45
22:DA:2023:C:O2'	22:DA:2024:G:C8	2.42	0.45
22:DA:2106:U:H2'	22:DA:2107:G:O4'	2.16	0.45
22:DA:2415:G:C5	22:DA:2416:C:C4	3.05	0.45
22:DA:2511:U:H2'	22:DA:2512:C:O4'	2.17	0.45
22:DA:2632:A:C2'	22:DA:2633:G:H5'	2.47	0.45
22:DA:2886:A:N7	48:D0:39:ARG:NE	2.65	0.45
24:DC:77:VAL:HG23	24:DC:112:GLY:N	2.29	0.45
58:DF:46:LYS:HE2	58:DF:83:PRO:HG3	1.98	0.45
31:DJ:16:TYR:HB2	31:DJ:54:ILE:CD1	2.47	0.45
31:DJ:36:LEU:HD13	31:DJ:36:LEU:HA	1.88	0.45
31:DJ:51:GLY:CA	31:DJ:121:LYS:HE3	2.47	0.45
32:DK:28:SER:O	32:DK:29:HIS:CB	2.65	0.45
33:DL:83:ALA:CB	33:DL:117:THR:HB	2.47	0.45
34:DM:76:LYS:HZ1	34:DM:84:LYS:H	1.63	0.45
37:DP:47:ILE:HA	37:DP:96:LEU:HB2	1.97	0.45
38:DQ:6:GLY:C	38:DQ:8:ILE:N	2.69	0.45
40:DS:23:LEU:O	40:DS:23:LEU:HD23	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DS:71:VAL:O	40:DS:71:VAL:CG1	2.61	0.45
42:DU:93:ARG:H	42:DU:101:THR:HG23	1.82	0.45
46:DY:19:LEU:HA	46:DY:22:LEU:CB	2.44	0.45
46:DY:28:LEU:O	46:DY:28:LEU:HD22	2.16	0.45
49:D1:16:THR:HG21	49:D1:41:VAL:HB	1.99	0.45
1:AA:77:A:N6	1:AA:90:C:C4	2.84	0.45
1:AA:384:G:H2'	1:AA:385:C:C6	2.51	0.45
1:AA:389:A:C6	1:AA:390:U:H1'	2.52	0.45
1:AA:397:A:H3'	1:AA:397:A:N3	2.31	0.45
1:AA:471:U:O2'	1:AA:472:U:H5'	2.17	0.45
1:AA:687:A:N7	1:AA:701:U:C5	2.84	0.45
1:AA:723:U:H5"	21:AU:48:LYS:CG	2.41	0.45
1:AA:807:A:H2'	1:AA:808:C:H6	1.81	0.45
1:AA:961:U:OP2	1:AA:1223:C:H1'	2.17	0.45
1:AA:983:A:N3	1:AA:983:A:C2'	2.79	0.45
1:AA:1494:G:C6	1:AA:1495:U:C4	3.05	0.45
1:AA:1501:C:C5	1:AA:1504:G:C5	3.04	0.45
2:AB:202:ASN:ND2	2:AB:205:ALA:CB	2.75	0.45
5:AE:132:PRO:O	5:AE:136:VAL:CG1	2.64	0.45
14:AN:40:ARG:NH1	14:AN:44:VAL:CG1	2.66	0.45
16:AP:17:TYR:N	16:AP:17:TYR:CD1	2.84	0.45
22:BA:196:A:C2'	22:BA:805:G:O6	2.57	0.45
22:BA:335:C:O5'	22:BA:335:C:C6	2.65	0.45
22:BA:528:A:C2	22:BA:2043:C:H4'	2.51	0.45
22:BA:544:C:C3'	22:BA:545:U:O2	2.64	0.45
22:BA:729:G:C6	24:BC:206:LYS:HB2	2.52	0.45
22:BA:1131:G:C8	31:BJ:77:HIS:CE1	3.05	0.45
22:BA:1176:U:H2'	22:BA:1177:G:N9	2.31	0.45
22:BA:1278:C:O2'	22:BA:1279:G:H5'	2.17	0.45
22:BA:1288:G:C5	22:BA:1327:A:C2	3.05	0.45
22:BA:1303:G:O2'	22:BA:1304:A:H5'	2.17	0.45
22:BA:1348:C:C2'	22:BA:1349:C:O5'	2.65	0.45
22:BA:2316:G:H2'	22:BA:2317:A:H8	1.81	0.45
22:BA:2373:G:H1	22:BA:2380:C:H42	1.64	0.45
22:BA:2555:U:C6	22:BA:2556:C:C6	3.05	0.45
22:BA:2680:U:OP1	25:BD:114:LYS:HE2	2.16	0.45
22:BA:2860:A:H8	22:BA:2860:A:O5'	1.99	0.45
24:BC:15:VAL:HA	24:BC:203:VAL:CG1	2.47	0.45
25:BD:52:THR:HG23	25:BD:53:GLY:N	2.32	0.45
25:BD:122:VAL:O	25:BD:126:ASN:HA	2.16	0.45
26:BE:44:ARG:HG3	26:BE:44:ARG:NH2	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BF:106:ALA:C	27:BF:108:PRO:CD	2.83	0.45
28:BG:61:TRP:HA	28:BG:61:TRP:CE3	2.52	0.45
29:BH:3:VAL:HB	29:BH:37:VAL:C	2.37	0.45
29:BH:14:SER:O	29:BH:16:GLY:N	2.50	0.45
30:BI:52:LEU:HD12	30:BI:52:LEU:N	2.32	0.45
32:BK:19:VAL:HG13	32:BK:41:ILE:HG12	1.99	0.45
34:BM:10:ARG:NH1	34:BM:89:VAL:H	2.14	0.45
35:BN:40:LYS:O	35:BN:41:ALA:C	2.53	0.45
36:BO:11:ALA:HB2	36:BO:96:GLY:N	2.32	0.45
38:BQ:51:GLN:HE21	38:BQ:55:GLN:HE21	1.65	0.45
38:BQ:94:LEU:O	38:BQ:94:LEU:HD13	2.16	0.45
40:BS:86:MET:HG3	40:BS:88:ARG:HD2	1.99	0.45
42:BU:73:ASN:ND2	42:BU:75:ALA:HB3	2.31	0.45
42:BU:73:ASN:O	42:BU:75:ALA:N	2.47	0.45
53:CA:117:G:HO2'	53:CA:118:U:H5'	1.77	0.45
53:CA:158:G:C6	53:CA:164:G:C5	3.05	0.45
53:CA:254:G:C2	53:CA:273:U:C2	3.05	0.45
53:CA:632:U:H3'	53:CA:633:G:H5'	1.99	0.45
53:CA:705:G:H2'	53:CA:706:A:H8	1.81	0.45
53:CA:764:C:N4	53:CA:812:G:H1	2.14	0.45
53:CA:790:A:C6	53:CA:791:G:C6	3.04	0.45
53:CA:948:C:C6	55:CM:104:ASN:ND2	2.84	0.45
53:CA:962:C:O2'	53:CA:963:G:O5'	2.35	0.45
53:CA:1013:G:H22	53:CA:1015:G:H3'	1.81	0.45
53:CA:1052:U:H3'	53:CA:1053:G:C5'	2.44	0.45
53:CA:1071:C:O2	53:CA:1072:G:C8	2.70	0.45
53:CA:1102:A:H5"	53:CA:1102:A:C8	2.52	0.45
53:CA:1133:G:C2	53:CA:1142:G:C5	3.04	0.45
53:CA:1244:G:C6	53:CA:1245:C:C4	3.04	0.45
53:CA:1296:C:H1'	53:CA:1302:C:C2	2.52	0.45
53:CA:1406:U:H1'	53:CA:1518:A:H4'	1.98	0.45
2:CB:21:TYR:N	2:CB:21:TYR:CD1	2.85	0.45
2:CB:151:LYS:HG3	2:CB:152:ASP:OD1	2.16	0.45
3:CC:85:LYS:O	3:CC:89:VAL:HG21	2.17	0.45
4:CD:101:VAL:HG21	4:CD:122:ILE:HG13	1.98	0.45
4:CD:127:ARG:HH11	4:CD:127:ARG:HG2	1.81	0.45
6:CF:68:GLN:HG2	6:CF:69:GLU:H	1.80	0.45
6:CF:81:ASN:O	6:CF:83:ALA:N	2.50	0.45
8:CH:100:ILE:C	8:CH:100:ILE:CD1	2.85	0.45
12:CL:98:ARG:CB	12:CL:116:TYR:HA	2.47	0.45
19:CS:20:LYS:NZ	19:CS:27:LYS:HD3	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:CU:19:LYS:C	21:CU:21:SER:H	2.20	0.45
22:DA:64:A:O2'	41:DT:69:ARG:HG2	2.16	0.45
22:DA:410:G:N1	22:DA:2407:A:N6	2.64	0.45
22:DA:588:U:H6	22:DA:588:U:O5'	2.00	0.45
22:DA:599:A:C5	22:DA:600:G:N7	2.85	0.45
22:DA:696:G:N1	22:DA:767:U:C2	2.85	0.45
22:DA:1409:U:O5'	22:DA:1409:U:H6	1.99	0.45
22:DA:1576:U:H2'	22:DA:1577:C:C6	2.52	0.45
22:DA:1813:G:H21	24:DC:50:THR:HG23	1.82	0.45
22:DA:1814:G:C6	22:DA:1815:A:C6	3.05	0.45
22:DA:2013:A:C6	22:DA:2014:A:C2	3.05	0.45
22:DA:2296:U:C5	36:DO:9:ARG:NH2	2.77	0.45
22:DA:2298:A:O2'	22:DA:2299:U:O4'	2.35	0.45
22:DA:2642:G:N2	22:DA:2773:C:C2	2.85	0.45
22:DA:2721:A:H2'	22:DA:2722:G:H8	1.81	0.45
22:DA:2722:G:C2	22:DA:2723:C:C2	3.04	0.45
57:DB:35:C:H3'	57:DB:36:C:H5"	1.97	0.45
57:DB:108:A:O2'	57:DB:109:A:P	2.75	0.45
24:DC:173:LEU:O	24:DC:180:MET:HA	2.16	0.45
24:DC:239:PHE:HE1	24:DC:241:LYS:O	2.00	0.45
26:DE:98:LYS:O	26:DE:99:LYS:CB	2.64	0.45
28:DG:7:PRO:O	28:DG:8:VAL:CB	2.64	0.45
30:DI:50:LYS:HA	30:DI:50:LYS:CE	2.45	0.45
31:DJ:43:GLU:O	31:DJ:43:GLU:CG	2.64	0.45
34:DM:127:LYS:H	34:DM:127:LYS:HG2	1.57	0.45
35:DN:49:GLU:N	35:DN:50:PRO:CD	2.80	0.45
37:DP:49:ILE:O	37:DP:50:ARG:O	2.35	0.45
37:DP:87:ARG:HG2	37:DP:88:ARG:N	2.32	0.45
38:DQ:60:TRP:CE2	38:DQ:93:ILE:HB	2.52	0.45
38:DQ:108:LEU:O	38:DQ:108:LEU:HD23	2.17	0.45
40:DS:36:LEU:C	40:DS:38:TYR:H	2.19	0.45
41:DT:18:GLU:O	41:DT:22:THR:HG23	2.16	0.45
1:AA:205:A:H2'	1:AA:206:C:H5'	1.99	0.45
1:AA:443:C:C2'	1:AA:444:G:C5'	2.94	0.45
1:AA:521:G:P	12:AL:50:LYS:HZ3	2.39	0.45
1:AA:577:G:C8	1:AA:816:A:C6	3.04	0.45
1:AA:579:A:C2	1:AA:763:G:C4	3.05	0.45
1:AA:691:G:H2'	1:AA:692:U:C6	2.51	0.45
1:AA:775:G:C2'	1:AA:776:G:H5'	2.47	0.45
1:AA:973:G:O2'	14:AN:68:ARG:NH2	2.50	0.45
1:AA:1167:A:H8	1:AA:1169:A:N6	2.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1192:C:C5	1:AA:1193:G:C8	3.05	0.45
2:AB:66:ILE:O	2:AB:67:LEU:CB	2.65	0.45
3:AC:153:SER:CB	3:AC:164:THR:HG22	2.47	0.45
8:AH:93:LYS:CE	8:AH:116:ARG:HH12	2.29	0.45
9:AI:37:TYR:CD2	9:AI:38:PHE:CD2	3.02	0.45
10:AJ:8:ILE:HG23	10:AJ:100:ILE:HG23	1.98	0.45
12:AL:72:ASN:OD1	12:AL:104:SER:CB	2.65	0.45
12:AL:72:ASN:OD1	12:AL:104:SER:HB3	2.17	0.45
12:AL:120:ARG:HA	12:AL:121:PRO:HD2	1.76	0.45
13:AM:89:ARG:NH1	13:AM:94:LEU:HB3	2.32	0.45
16:AP:10:GLY:HA3	16:AP:15:PRO:CA	2.46	0.45
21:AU:33:ARG:HE	21:AU:34:ARG:HG2	1.81	0.45
22:BA:108:G:H2'	22:BA:109:C:H5'	1.98	0.45
22:BA:300:A:N1	22:BA:333:G:O2'	2.46	0.45
22:BA:550:C:O2	22:BA:550:C:C2'	2.64	0.45
22:BA:686:U:O4	50:B2:12:ARG:CB	2.64	0.45
22:BA:764:A:H3'	22:BA:765:C:H5'	1.98	0.45
22:BA:822:G:H2'	22:BA:823:C:C6	2.52	0.45
22:BA:1181:U:H2'	22:BA:1182:G:C8	2.52	0.45
22:BA:1306:C:H2'	22:BA:1306:C:O2	2.17	0.45
22:BA:1352:U:O2'	22:BA:1353:A:H5'	2.17	0.45
22:BA:1371:G:O2'	22:BA:1372:U:H5'	2.16	0.45
22:BA:1524:G:H2'	22:BA:1525:A:H8	1.81	0.45
22:BA:1587:G:C2	22:BA:1588:G:C8	3.05	0.45
22:BA:1711:A:C2	22:BA:1748:C:C2	3.04	0.45
22:BA:2331:G:N3	22:BA:2336:A:C2	2.85	0.45
22:BA:2510:C:C2'	22:BA:2511:U:O5'	2.65	0.45
22:BA:2870:C:H2'	22:BA:2871:U:O4'	2.16	0.45
25:BD:149:ASN:CG	25:BD:150:GLN:H	2.20	0.45
25:BD:151:THR:CB	25:BD:152:PRO:CD	2.94	0.45
27:BF:43:ILE:HA	27:BF:82:TYR:OH	2.17	0.45
27:BF:99:PHE:O	27:BF:103:ILE:HG12	2.17	0.45
27:BF:120:SER:O	27:BF:127:TYR:CD1	2.69	0.45
28:BG:38:ASP:OD1	28:BG:38:ASP:N	2.50	0.45
32:BK:113:MET:O	32:BK:115:ILE:N	2.49	0.45
37:BP:7:LEU:HA	37:BP:7:LEU:HD12	1.62	0.45
53:CA:66:A:N3	53:CA:66:A:C2'	2.72	0.45
53:CA:206:C:C6	53:CA:206:C:H3'	2.52	0.45
53:CA:243:A:C2	53:CA:246:A:C8	3.05	0.45
53:CA:346:G:N3	53:CA:346:G:C2'	2.79	0.45
53:CA:369:G:C2	53:CA:370:C:C5	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:642:A:O2'	53:CA:643:C:O5'	2.35	0.45
53:CA:671:G:C2	53:CA:672:U:C2	3.04	0.45
53:CA:1184:G:HO2'	53:CA:1185:G:C5'	2.29	0.45
53:CA:1206:G:H2'	53:CA:1207:G:O4'	2.17	0.45
4:CD:84:ASN:CG	5:CE:101:GLY:HA3	2.37	0.45
5:CE:95:MET:HB3	5:CE:124:ALA:CB	2.42	0.45
5:CE:130:THR:C	5:CE:135:VAL:CG2	2.85	0.45
5:CE:131:ASN:HD22	5:CE:131:ASN:C	2.20	0.45
54:CG:70:PRO:CB	54:CG:98:LEU:HD12	2.47	0.45
8:CH:97:GLY:O	8:CH:98:LEU:CB	2.65	0.45
11:CK:91:GLY:O	11:CK:92:ARG:C	2.56	0.45
11:CK:104:PHE:CD1	11:CK:104:PHE:N	2.85	0.45
12:CL:85:ARG:HG2	12:CL:86:VAL:H	1.82	0.45
55:CM:82:LEU:HB2	19:CS:73:PHE:CE2	2.52	0.45
22:DA:80:G:H2'	22:DA:80:G:N3	2.32	0.45
22:DA:118:A:OP2	22:DA:119:A:C3'	2.53	0.45
22:DA:159:G:H1'	22:DA:167:A:N6	2.32	0.45
22:DA:217:A:O2'	22:DA:218:A:H5'	2.16	0.45
22:DA:229:C:O2'	22:DA:230:G:O5'	2.34	0.45
22:DA:303:G:H2'	22:DA:304:U:C6	2.51	0.45
22:DA:311:A:N6	22:DA:330:A:H5"	2.30	0.45
22:DA:335:C:O2'	22:DA:336:C:P	2.74	0.45
22:DA:425:G:C2	22:DA:426:C:C5	3.04	0.45
22:DA:612:G:N2	22:DA:617:G:O6	2.50	0.45
22:DA:1080:A:C4	22:DA:1081:U:C5	3.04	0.45
22:DA:1381:G:C3'	22:DA:1382:G:H5"	2.47	0.45
22:DA:1494:A:C2	22:DA:1495:A:C4	3.05	0.45
22:DA:1675:C:O2'	22:DA:1676:A:H5'	2.17	0.45
22:DA:1800:C:C2	22:DA:1802:A:N7	2.84	0.45
22:DA:1803:A:O2'	22:DA:1804:C:H5'	2.17	0.45
22:DA:2069:G:N2	22:DA:2443:C:C2	2.85	0.45
22:DA:2286:G:H4'	22:DA:2287:A:N9	2.32	0.45
22:DA:2310:C:H42	58:DF:76:PHE:HE1	1.63	0.45
22:DA:2348:U:O2'	22:DA:2349:G:C5'	2.65	0.45
22:DA:2405:G:N2	22:DA:2411:A:N7	2.65	0.45
22:DA:2440:C:C2'	22:DA:2441:U:O5'	2.64	0.45
22:DA:2455:G:C2	22:DA:2498:C:C4	3.05	0.45
22:DA:2477:U:O4	52:D4:10:LEU:HD22	2.17	0.45
22:DA:2508:G:C2	22:DA:2582:G:O6	2.69	0.45
22:DA:2846:G:P	37:DP:51:ASN:HB3	2.57	0.45
28:DG:94:ARG:HG2	28:DG:105:SER:H	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DG:94:ARG:O	28:DG:95:ALA:HB2	2.17	0.45
31:DJ:56:VAL:CG2	31:DJ:124:VAL:HA	2.47	0.45
33:DL:62:PRO:HG2	51:D3:24:LYS:CB	2.47	0.45
35:DN:9:GLN:O	35:DN:10:LEU:O	2.34	0.45
37:DP:16:VAL:HA	37:DP:17:PRO:HD3	1.59	0.45
38:DQ:74:SER:O	38:DQ:78:PHE:CB	2.63	0.45
39:DR:48:LYS:H	39:DR:48:LYS:CD	2.15	0.45
40:DS:20:VAL:CG1	40:DS:43:ALA:CB	2.94	0.45
41:DT:34:VAL:O	41:DT:34:VAL:CG1	2.64	0.45
44:DW:49:ASN:HD21	44:DW:80:SER:CA	2.30	0.45
1:AA:35:G:O2'	12:AL:117:GLY:HA2	2.17	0.45
1:AA:276:G:O3'	17:AQ:44:HIS:HE1	1.99	0.45
1:AA:411:A:N6	1:AA:413:G:H21	2.15	0.45
2:AB:32:GLY:HA3	2:AB:39:ILE:H	1.82	0.45
2:AB:49:PHE:HA	2:AB:52:ALA:CB	2.46	0.45
3:AC:35:ASP:O	3:AC:37:LYS:N	2.47	0.45
3:AC:137:VAL:HG11	3:AC:169:GLU:HB3	1.99	0.45
5:AE:76:ASN:HB3	5:AE:81:GLN:HG3	1.99	0.45
8:AH:30:LYS:HE3	8:AH:30:LYS:CA	2.47	0.45
11:AK:71:ASP:OD1	11:AK:72:ALA:N	2.49	0.45
12:AL:45:ASN:N	12:AL:45:ASN:ND2	2.64	0.45
14:AN:55:SER:HA	14:AN:56:PRO:HD2	1.82	0.45
19:AS:51:HIS:HA	19:AS:55:GLN:O	2.16	0.45
22:BA:411:G:H5"	22:BA:412:A:OP1	2.16	0.45
22:BA:478:A:N6	22:BA:480:A:C6	2.85	0.45
22:BA:1078:U:H3'	22:BA:1078:U:H6	1.81	0.45
22:BA:1142:A:N3	22:BA:1144:A:C8	2.85	0.45
22:BA:1394:U:H4'	22:BA:1603:A:H4'	1.99	0.45
22:BA:1419:A:C6	22:BA:1421:G:C4	3.05	0.45
22:BA:1452:G:H3'	62:BA:3410:HOH:O	2.17	0.45
22:BA:1663:G:N1	22:BA:1998:A:C6	2.85	0.45
22:BA:1778:U:C5	22:BA:1784:A:C4	3.05	0.45
22:BA:1797:G:O3'	24:BC:255:LYS:O	2.34	0.45
22:BA:1816:C:O2'	22:BA:1817:G:P	2.75	0.45
22:BA:2138:G:H2'	22:BA:2138:G:N3	2.32	0.45
22:BA:2279:G:N2	22:BA:2280:G:H1'	2.31	0.45
22:BA:2393:U:C2'	22:BA:2394:C:H5'	2.47	0.45
22:BA:2593:U:H2'	22:BA:2594:C:H6	1.81	0.45
22:BA:2864:G:H2'	22:BA:2865:U:C6	2.52	0.45
22:BA:2887:A:C4	22:BA:2888:C:C6	3.04	0.45
23:BB:78:A:H2'	23:BB:79:G:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BC:89:ASN:O	24:BC:90:ILE:HD13	2.17	0.45
24:BC:106:PRO:CD	24:BC:141:HIS:HE1	2.30	0.45
24:BC:211:ARG:HD2	24:BC:211:ARG:HA	1.61	0.45
25:BD:86:GLU:OE1	25:BD:86:GLU:CA	2.61	0.45
26:BE:122:GLU:O	26:BE:123:LYS:O	2.34	0.45
27:BF:128:SER:HA	27:BF:154:THR:HB	1.99	0.45
31:BJ:103:ILE:HD12	31:BJ:103:ILE:C	2.37	0.45
33:BL:76:GLU:C	33:BL:77:ILE:HD12	2.38	0.45
34:BM:72:PRO:O	34:BM:73:ILE:HB	2.17	0.45
37:BP:25:VAL:HA	37:BP:85:VAL:O	2.16	0.45
39:BR:58:VAL:HG13	39:BR:102:SER:HB2	1.99	0.45
42:BU:6:ARG:O	42:BU:24:VAL:HB	2.16	0.45
45:BX:39:VAL:CG1	45:BX:46:VAL:HG22	2.47	0.45
53:CA:149:A:H1'	53:CA:1446:A:C2	2.52	0.45
53:CA:412:A:H2	53:CA:413:G:N7	2.15	0.45
53:CA:455:G:C6	53:CA:456:A:C5	3.05	0.45
53:CA:482:A:H2'	53:CA:482:A:N3	2.32	0.45
53:CA:567:G:C2'	53:CA:568:G:O5'	2.64	0.45
53:CA:673:A:H2'	53:CA:674:G:C8	2.52	0.45
53:CA:989:U:C4	53:CA:990:C:C4	3.05	0.45
53:CA:1179:A:N6	53:CA:1180:A:C6	2.84	0.45
53:CA:1202:U:O2'	53:CA:1203:C:O4'	2.34	0.45
53:CA:1215:G:N3	53:CA:1216:A:C8	2.85	0.45
53:CA:1273:C:H2'	53:CA:1274:A:C8	2.52	0.45
53:CA:1526:G:C6	53:CA:1527:U:C4	3.05	0.45
2:CB:57:ASN:O	2:CB:60:ALA:HB3	2.17	0.45
2:CB:185:ILE:HG22	2:CB:199:ILE:CG1	2.44	0.45
54:CG:4:ARG:HH11	54:CG:4:ARG:HG2	1.82	0.45
9:CI:35:GLU:HA	9:CI:39:GLY:N	2.31	0.45
14:CN:78:LEU:HD12	14:CN:78:LEU:N	2.32	0.45
14:CN:87:ALA:HB2	14:CN:95:LEU:HD23	1.98	0.45
15:CO:24:THR:HG21	15:CO:69:LEU:HB2	1.99	0.45
15:CO:62:ARG:NH2	15:CO:88:ARG:HH21	2.14	0.45
18:CR:71:ASP:CB	18:CR:72:ARG:HH21	2.29	0.45
22:DA:107:G:C5'	22:DA:294:A:OP1	2.65	0.45
22:DA:473:G:N3	22:DA:473:G:H2'	2.32	0.45
22:DA:614:A:C4'	22:DA:616:A:N6	2.74	0.45
22:DA:689:A:N3	22:DA:779:U:H1'	2.32	0.45
22:DA:777:G:O2'	22:DA:778:G:C5'	2.65	0.45
22:DA:803:U:H2'	22:DA:804:A:H5'	1.99	0.45
22:DA:822:G:C5'	62:DA:3360:HOH:O	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:957:C:N4	22:DA:959:A:C6	2.85	0.45
22:DA:1133:A:C8	22:DA:2026:U:H4'	2.51	0.45
22:DA:1216:G:H2'	22:DA:1217:U:H5'	1.98	0.45
22:DA:1343:G:N7	22:DA:1597:A:N6	2.65	0.45
22:DA:1380:G:H1'	22:DA:1569:A:H61	1.82	0.45
22:DA:1419:A:H1'	22:DA:1579:A:N6	2.32	0.45
22:DA:1440:U:H2'	22:DA:1441:G:C8	2.52	0.45
22:DA:1919:A:H2'	22:DA:1920:C:C6	2.43	0.45
22:DA:1973:G:C5	22:DA:1974:C:C4	3.04	0.45
22:DA:2104:C:H6	22:DA:2104:C:OP2	2.00	0.45
22:DA:2209:G:C6	22:DA:2216:G:C6	3.05	0.45
22:DA:2218:G:H2'	22:DA:2219:U:H6	1.82	0.45
22:DA:2331:G:C2'	44:DW:40:ARG:HB3	2.46	0.45
22:DA:2735:G:H2'	22:DA:2736:A:H8	1.80	0.45
22:DA:2878:U:O5'	22:DA:2878:U:H6	2.00	0.45
57:DB:24:G:C1'	57:DB:27:C:H42	2.15	0.45
24:DC:255:LYS:C	24:DC:256:THR:CG2	2.78	0.45
26:DE:147:LEU:CB	26:DE:186:VAL:HA	2.47	0.45
26:DE:153:LEU:HB2	26:DE:171:ASP:HB3	1.99	0.45
58:DF:19:PHE:O	58:DF:20:ASN:HB3	2.17	0.45
28:DG:39:ALA:O	28:DG:40:VAL:HG13	2.17	0.45
28:DG:85:LYS:O	28:DG:86:LEU:CG	2.64	0.45
29:DH:50:ARG:NH1	29:DH:53:GLU:CB	2.80	0.45
29:DH:93:SER:HA	29:DH:121:VAL:HG11	1.98	0.45
31:DJ:64:VAL:HG22	31:DJ:68:LYS:CG	2.45	0.45
31:DJ:132:HIS:O	31:DJ:135:GLN:HB2	2.17	0.45
34:DM:41:LEU:HD13	34:DM:96:ILE:HG12	1.99	0.45
35:DN:52:ILE:CG2	35:DN:94:TYR:CD2	2.98	0.45
43:DV:79:ARG:HB3	43:DV:79:ARG:CZ	2.47	0.45
51:D3:29:ARG:HB3	51:D3:29:ARG:CZ	2.47	0.45
1:AA:87:C:O2'	1:AA:88:U:C4'	2.65	0.44
1:AA:423:G:O2'	1:AA:424:G:C5'	2.65	0.44
1:AA:601:G:C2	1:AA:602:A:C4	3.05	0.44
1:AA:734:G:H2'	1:AA:735:C:C6	2.52	0.44
1:AA:786:G:N2	1:AA:787:A:H1'	2.31	0.44
1:AA:958:A:C5	1:AA:959:A:C6	3.05	0.44
1:AA:1114:C:C2	1:AA:1115:U:C6	3.05	0.44
1:AA:1323:G:C2'	1:AA:1324:A:C8	3.00	0.44
1:AA:1411:C:C2'	1:AA:1412:C:C5'	2.79	0.44
1:AA:1517:G:N3	22:BA:1919:A:O2'	2.49	0.44
4:AD:98:ASP:HB2	4:AD:114:ARG:HG3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:160:LEU:HD22	4:AD:161:ALA:H	1.81	0.44
6:AF:86:ARG:NH1	18:AR:63:TYR:CB	2.80	0.44
9:AI:25:GLY:HA3	9:AI:57:VAL:O	2.18	0.44
12:AL:62:VAL:HG21	12:AL:94:TYR:HE2	1.70	0.44
22:BA:142:A:C2	22:BA:143:C:C2	3.04	0.44
22:BA:372:G:O4'	45:BX:60:LYS:CE	2.62	0.44
22:BA:404:A:H1'	22:BA:405:U:OP2	2.17	0.44
22:BA:526:A:OP1	62:BA:3247:HOH:O	2.21	0.44
22:BA:572:A:C5'	22:BA:572:A:C8	3.00	0.44
22:BA:592:A:O2'	51:B3:2:LYS:HA	2.16	0.44
22:BA:817:C:H2'	22:BA:818:G:O4'	2.16	0.44
22:BA:869:G:C6	22:BA:870:U:C4	3.05	0.44
22:BA:1030:C:OP2	34:BM:127:LYS:HE3	2.17	0.44
22:BA:1357:C:O2'	22:BA:1358:G:H5'	2.17	0.44
22:BA:1716:U:O2'	22:BA:1717:A:C5'	2.65	0.44
22:BA:2040:G:C2'	22:BA:2041:U:H5'	2.47	0.44
22:BA:2704:C:O2	22:BA:2704:C:H2'	2.17	0.44
22:BA:2881:U:C2'	22:BA:2882:A:H5'	2.47	0.44
24:BC:43:ASN:HB3	24:BC:45:ASN:H	1.82	0.44
24:BC:257:ARG:NE	24:BC:269:ARG:NH2	2.65	0.44
26:BE:33:VAL:O	26:BE:34:ALA:C	2.55	0.44
27:BF:151:LEU:HD12	27:BF:152:ASP:CA	2.46	0.44
33:BL:61:LEU:N	33:BL:61:LEU:HD13	2.32	0.44
35:BN:95:THR:CG2	35:BN:113:ILE:CG1	2.95	0.44
36:BO:103:VAL:O	36:BO:105:ALA:O	2.36	0.44
40:BS:41:LYS:C	40:BS:43:ALA:N	2.71	0.44
53:CA:89:U:O2'	53:CA:90:C:O5'	2.35	0.44
53:CA:869:G:H4'	53:CA:872:A:C8	2.52	0.44
53:CA:932:C:H2'	53:CA:932:C:O2	2.17	0.44
53:CA:951:G:O2'	53:CA:952:U:H5'	2.17	0.44
53:CA:981:U:C4	53:CA:982:U:C2	3.05	0.44
53:CA:1087:G:N2	53:CA:1099:G:H1'	2.32	0.44
53:CA:1250:A:O3'	9:CI:68:GLY:HA2	2.17	0.44
53:CA:1400:C:H4'	53:CA:1401:G:OP2	2.18	0.44
3:CC:5:HIS:HA	3:CC:6:PRO:HD2	1.83	0.44
4:CD:18:LEU:C	4:CD:20:LEU:H	2.21	0.44
5:CE:82:HIS:CE1	8:CH:95:MET:HE3	2.51	0.44
10:CJ:44:THR:HG23	10:CJ:70:HIS:CD2	2.52	0.44
10:CJ:92:LEU:HD13	10:CJ:92:LEU:H	1.81	0.44
12:CL:14:LYS:CE	12:CL:15:VAL:O	2.64	0.44
12:CL:39:THR:OG1	12:CL:40:THR:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CN:27:LYS:HB2	14:CN:45:LEU:HD22	2.00	0.44
15:CO:52:ARG:O	15:CO:55:LEU:HB3	2.17	0.44
56:CP:48:GLU:CD	56:CP:51:ARG:HB2	2.38	0.44
22:DA:9:G:N2	22:DA:10:A:H62	2.14	0.44
22:DA:54:G:C6	22:DA:117:G:N2	2.85	0.44
22:DA:90:U:C4	22:DA:91:A:N7	2.85	0.44
22:DA:444:C:O2'	22:DA:445:C:P	2.75	0.44
22:DA:627:A:H3'	33:DL:78:ARG:HH12	1.82	0.44
22:DA:674:G:C2'	26:DE:69:ARG:HG2	2.47	0.44
22:DA:813:U:H1'	22:DA:1226:A:N3	2.32	0.44
22:DA:921:C:O2'	22:DA:922:C:C5'	2.65	0.44
22:DA:960:A:O2'	22:DA:962:G:H5'	2.18	0.44
22:DA:996:A:C4	22:DA:997:G:C8	3.05	0.44
22:DA:1023:U:H5'	22:DA:1023:U:C6	2.37	0.44
22:DA:1024:G:H21	22:DA:1144:A:C4'	2.31	0.44
22:DA:1204:A:N6	22:DA:1241:A:C2	2.85	0.44
22:DA:1429:G:N3	22:DA:1430:G:C8	2.85	0.44
22:DA:1493:C:H2'	22:DA:1493:C:O2	2.16	0.44
22:DA:1731:G:C4'	22:DA:1732:C:OP1	2.45	0.44
22:DA:1873:G:O2'	22:DA:1874:C:H5'	2.17	0.44
22:DA:2011:U:H2'	22:DA:2012:G:H5'	1.99	0.44
22:DA:2260:C:H2'	22:DA:2261:C:C6	2.47	0.44
22:DA:2266:A:H4'	22:DA:2267:A:O5'	2.16	0.44
22:DA:2432:A:C6	45:DX:20:ALA:HA	2.52	0.44
22:DA:2577:A:H2	48:D0:1:ALA:H2	1.64	0.44
22:DA:2658:C:H5"	28:DG:157:LYS:CD	2.47	0.44
22:DA:2735:G:C4	22:DA:2736:A:C8	3.05	0.44
22:DA:2748:A:C6	22:DA:2757:A:N7	2.85	0.44
57:DB:76:G:O2'	57:DB:77:U:H5'	2.18	0.44
24:DC:159:THR:HG22	24:DC:176:ARG:HG3	1.99	0.44
24:DC:245:THR:HB	24:DC:246:PRO:HD2	1.99	0.44
25:DD:21:SER:HB2	32:DK:73:ASP:O	2.18	0.44
25:DD:137:SER:C	25:DD:138:LEU:CD2	2.75	0.44
26:DE:5:LEU:CD1	26:DE:122:GLU:HB2	2.46	0.44
28:DG:1:SER:HB2	28:DG:61:TRP:CE3	2.53	0.44
28:DG:1:SER:C	28:DG:3:VAL:N	2.71	0.44
28:DG:85:LYS:HD3	28:DG:164:ALA:HB3	1.99	0.44
30:DI:44:LYS:O	30:DI:44:LYS:HD3	2.17	0.44
31:DJ:56:VAL:HG11	31:DJ:101:ILE:HG21	1.99	0.44
31:DJ:141:ASP:C	31:DJ:142:ILE:HD12	2.37	0.44
34:DM:73:ILE:HD13	34:DM:73:ILE:HA	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DN:36:THR:O	35:DN:110:MET:HA	2.17	0.44
38:DQ:64:ILE:O	38:DQ:68:ALA:CB	2.66	0.44
40:DS:96:ILE:HG23	40:DS:96:ILE:O	2.17	0.44
45:DX:36:ARG:HA	45:DX:47:THR:HA	1.98	0.44
52:D4:36:ARG:CG	52:D4:37:GLN:N	2.78	0.44
1:AA:208:U:H3	1:AA:212:G:H21	1.64	0.44
1:AA:395:C:H2'	1:AA:396:C:C6	2.53	0.44
1:AA:617:G:C2	1:AA:618:C:C5	3.05	0.44
1:AA:661:G:C2	1:AA:745:G:C2	3.05	0.44
1:AA:953:G:C6	1:AA:954:G:C4	3.05	0.44
1:AA:981:U:H2'	1:AA:982:U:H5	1.83	0.44
1:AA:1108:G:C5	1:AA:1109:C:C6	3.06	0.44
1:AA:1138:G:N2	1:AA:1140:C:N4	2.66	0.44
1:AA:1254:A:OP1	10:AJ:47:GLU:HG2	2.17	0.44
1:AA:1323:G:C2'	1:AA:1324:A:H8	2.30	0.44
1:AA:1331:G:C2'	1:AA:1332:A:OP2	2.65	0.44
2:AB:118:THR:O	2:AB:119:GLN:HB2	2.16	0.44
2:AB:185:ILE:HA	2:AB:199:ILE:O	2.17	0.44
4:AD:49:ASP:O	4:AD:52:VAL:HG22	2.17	0.44
6:AF:93:LYS:O	6:AF:94:HIS:CB	2.66	0.44
13:AM:3:ILE:CA	13:AM:56:ARG:NH1	2.77	0.44
14:AN:22:LYS:O	14:AN:25:GLU:HG2	2.18	0.44
22:BA:38:A:H2'	22:BA:39:G:O5'	2.18	0.44
22:BA:43:G:H8	22:BA:43:G:C5'	2.30	0.44
22:BA:480:A:O3'	42:BU:43:LYS:HG2	2.17	0.44
22:BA:495:G:H21	40:BS:61:ASN:HD21	1.64	0.44
22:BA:723:C:H2'	22:BA:724:U:O4'	2.18	0.44
22:BA:1106:G:N3	22:BA:1107:G:C8	2.85	0.44
22:BA:1205:A:C6	26:BE:165:HIS:CG	3.05	0.44
22:BA:1268:A:H2	40:BS:88:ARG:NH1	2.16	0.44
22:BA:1661:G:C4	22:BA:1662:U:C5	3.06	0.44
22:BA:1690:A:H2'	22:BA:1691:C:O4'	2.18	0.44
22:BA:1748:C:H2'	22:BA:1749:A:H8	1.83	0.44
22:BA:1835:G:C4	22:BA:1931:U:C4	3.05	0.44
22:BA:2078:C:O2'	22:BA:2079:U:H5'	2.17	0.44
22:BA:2392:A:O3'	51:B3:26:ALA:HB1	2.17	0.44
22:BA:2446:G:C2	22:BA:2501:C:C5	3.05	0.44
22:BA:2552:U:H2'	22:BA:2554:U:OP2	2.17	0.44
22:BA:2661:G:H2'	22:BA:2662:A:C8	2.52	0.44
22:BA:2842:G:H2'	22:BA:2843:G:C5'	2.47	0.44
25:BD:97:SER:H	25:BD:99:GLU:CD	2.21	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BG:27:GLY:O	28:BG:28:LYS:C	2.56	0.44
29:BH:2:GLN:HA	29:BH:20:ASN:HD22	1.82	0.44
29:BH:86:ASP:O	29:BH:87:GLU:C	2.55	0.44
30:BI:95:ASP:O	30:BI:97:VAL:N	2.46	0.44
31:BJ:53:TYR:CE1	31:BJ:121:LYS:HG2	2.52	0.44
32:BK:99:ILE:HG23	32:BK:100:PHE:H	1.79	0.44
33:BL:67:THR:CG2	33:BL:68:SER:N	2.80	0.44
34:BM:6:ARG:HD2	34:BM:8:LYS:HZ1	1.80	0.44
34:BM:43:ALA:C	34:BM:45:GLN:N	2.69	0.44
35:BN:103:ARG:HB2	35:BN:110:MET:HE3	1.99	0.44
37:BP:8:GLU:O	37:BP:11:GLN:HB2	2.17	0.44
39:BR:46:GLU:HG2	39:BR:47:VAL:H	1.82	0.44
41:BT:31:VAL:C	41:BT:32:LEU:CD2	2.80	0.44
41:BT:34:VAL:O	41:BT:34:VAL:CG2	2.65	0.44
42:BU:60:LYS:HD2	42:BU:60:LYS:HA	1.68	0.44
44:BW:24:ARG:NH1	44:BW:26:GLY:N	2.65	0.44
44:BW:65:LYS:O	44:BW:81:ILE:HA	2.18	0.44
47:BZ:9:THR:HG22	47:BZ:53:MET:C	2.38	0.44
53:CA:142:G:N3	53:CA:196:A:H2	2.15	0.44
53:CA:267:C:P	17:CQ:68:LYS:HB2	2.57	0.44
53:CA:301:G:H2'	53:CA:302:G:H8	1.82	0.44
53:CA:491:G:H2'	53:CA:492:C:H5'	1.99	0.44
53:CA:784:A:N6	53:CA:799:G:C6	2.85	0.44
53:CA:821:G:C4	53:CA:822:U:C5	3.05	0.44
53:CA:1089:G:H1'	53:CA:1167:A:N6	2.32	0.44
53:CA:1157:A:C6	53:CA:1180:A:C5	3.04	0.44
53:CA:1171:A:C2	53:CA:1172:C:C2	3.05	0.44
53:CA:1317:C:H1'	14:CN:52:ARG:NH1	2.32	0.44
53:CA:1477:U:H2'	53:CA:1478:U:C6	2.52	0.44
53:CA:1493:A:H2'	53:CA:1494:G:OP1	2.18	0.44
2:CB:124:THR:HG23	2:CB:125:PHE:H	1.81	0.44
4:CD:9:LYS:O	4:CD:12:ARG:HB3	2.17	0.44
4:CD:49:ASP:O	4:CD:53:GLN:HG3	2.17	0.44
8:CH:57:GLU:CG	8:CH:58:LEU:H	2.30	0.44
8:CH:102:VAL:HG22	8:CH:126:CYS:SG	2.58	0.44
15:CO:32:THR:O	15:CO:33:ALA:C	2.55	0.44
20:CT:59:ARG:C	20:CT:61:ALA:N	2.71	0.44
21:CU:13:VAL:CG2	21:CU:15:LEU:HD23	2.47	0.44
22:DA:83:A:N6	22:DA:101:A:C5'	2.75	0.44
22:DA:119:A:C5'	22:DA:120:U:OP1	2.65	0.44
22:DA:373:U:O2'	22:DA:374:A:H8	2.01	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:410:G:N2	22:DA:418:C:C2	2.85	0.44
22:DA:498:G:C2	22:DA:499:U:C6	3.05	0.44
22:DA:508:A:N6	40:DS:9:HIS:CE1	2.79	0.44
22:DA:755:U:H2'	22:DA:756:A:C8	2.52	0.44
22:DA:1020:A:H5"	22:DA:1021:A:OP1	2.16	0.44
22:DA:1070:A:H5'	22:DA:1071:G:C5'	2.39	0.44
22:DA:1383:A:C2	22:DA:1384:A:C4	3.05	0.44
22:DA:1391:U:C4'	41:DT:19:LYS:NZ	2.69	0.44
22:DA:1421:G:N3	22:DA:1421:G:H2'	2.32	0.44
22:DA:1441:G:C4	22:DA:1442:U:C5	3.06	0.44
22:DA:1473:G:O2'	22:DA:1474:U:H5'	2.16	0.44
22:DA:1510:G:C2	22:DA:1511:G:C5	3.05	0.44
22:DA:1601:G:H2'	22:DA:1602:U:O4'	2.17	0.44
22:DA:1906:G:C2	22:DA:1907:G:C5	3.05	0.44
22:DA:1929:G:C5'	22:DA:1930:G:OP1	2.66	0.44
22:DA:1954:G:O2'	22:DA:1956:U:H5	2.00	0.44
22:DA:2154:A:H2'	22:DA:2155:U:H6	1.83	0.44
22:DA:2271:G:C2'	22:DA:2272:U:H5'	2.46	0.44
22:DA:2416:C:H2'	22:DA:2417:C:C6	2.52	0.44
22:DA:2476:A:C2'	22:DA:2477:U:H5'	2.47	0.44
22:DA:2492:U:O5'	22:DA:2492:U:H6	2.00	0.44
22:DA:2559:C:H2'	22:DA:2560:A:H8	1.82	0.44
22:DA:2657:A:O2'	22:DA:2658:C:O5'	2.35	0.44
22:DA:2820:A:O2'	35:DN:3:HIS:HD2	1.99	0.44
25:DD:171:THR:O	25:DD:172:VAL:CG2	2.65	0.44
58:DF:8:LYS:HB2	58:DF:8:LYS:HZ3	1.79	0.44
58:DF:16:MET:HA	58:DF:21:TYR:HB2	1.99	0.44
58:DF:42:ALA:CB	58:DF:49:LEU:CD2	2.94	0.44
29:DH:80:ILE:CG2	29:DH:101:ASP:HB2	2.47	0.44
30:DI:20:SER:N	30:DI:21:PRO:HD2	2.32	0.44
31:DJ:4:PHE:CG	31:DJ:5:THR:N	2.85	0.44
31:DJ:48:VAL:HG12	31:DJ:49:ASP:H	1.81	0.44
32:DK:10:VAL:CG1	32:DK:12:ASP:OD1	2.65	0.44
32:DK:100:PHE:CD1	32:DK:100:PHE:N	2.85	0.44
33:DL:112:LEU:HD23	33:DL:112:LEU:O	2.17	0.44
39:DR:97:LYS:O	39:DR:98:ILE:C	2.56	0.44
41:DT:18:GLU:HB2	41:DT:19:LYS:H	1.52	0.44
43:DV:44:HIS:NE2	43:DV:85:LYS:HD3	2.32	0.44
43:DV:65:VAL:O	43:DV:65:VAL:HG22	2.16	0.44
44:DW:36:ILE:O	44:DW:39:GLN:HB3	2.17	0.44
1:AA:283:U:C5	1:AA:284:C:C4	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:583:A:C6	1:AA:759:A:N7	2.84	0.44
1:AA:596:A:C2'	1:AA:597:G:H8	2.27	0.44
1:AA:695:A:H61	1:AA:797:C:H1'	1.82	0.44
1:AA:748:G:C6	1:AA:749:A:C6	3.05	0.44
1:AA:771:G:H2'	1:AA:772:U:C6	2.52	0.44
1:AA:1147:C:O2	9:AI:17:ARG:NH1	2.51	0.44
2:AB:90:PHE:O	2:AB:149:GLY:N	2.50	0.44
4:AD:88:ASN:O	4:AD:92:LEU:HD23	2.17	0.44
4:AD:114:ARG:O	4:AD:117:VAL:N	2.49	0.44
6:AF:10:VAL:HG12	6:AF:11:HIS:H	1.82	0.44
7:AG:25:PHE:CE1	7:AG:104:VAL:HG23	2.53	0.44
11:AK:110:THR:HG22	21:AU:4:LYS:CA	2.47	0.44
14:AN:40:ARG:CZ	14:AN:44:VAL:HG21	2.47	0.44
16:AP:19:VAL:CG2	16:AP:36:VAL:HG12	2.44	0.44
22:BA:302:C:H2'	22:BA:303:G:C8	2.50	0.44
22:BA:735:A:H3'	22:BA:736:C:H6	1.83	0.44
22:BA:1495:A:C6	22:BA:1496:A:C6	3.06	0.44
22:BA:1658:C:H5'	25:BD:138:LEU:CD2	2.48	0.44
22:BA:1824:G:C5	22:BA:1825:U:C5	3.06	0.44
22:BA:1946:U:H2'	22:BA:1947:C:C6	2.52	0.44
22:BA:1983:G:C2'	22:BA:1984:G:H5'	2.47	0.44
22:BA:2251:G:H2'	22:BA:2252:G:C8	2.52	0.44
22:BA:2347:C:H2'	22:BA:2348:U:C5	2.51	0.44
22:BA:2475:C:H2'	22:BA:2476:A:H5'	1.98	0.44
22:BA:2594:C:N4	62:BA:3779:HOH:O	2.51	0.44
22:BA:2716:C:C2'	22:BA:2717:C:H5'	2.48	0.44
22:BA:2788:C:H2'	22:BA:2789:C:C6	2.52	0.44
23:BB:14:U:OP2	23:BB:70:C:O2'	2.31	0.44
24:BC:20:ASN:CG	24:BC:23:LEU:HD23	2.38	0.44
24:BC:254:LYS:HE3	24:BC:254:LYS:HB3	1.74	0.44
26:BE:200:LEU:N	26:BE:200:LEU:HD22	2.32	0.44
27:BF:30:VAL:CG1	27:BF:30:VAL:O	2.65	0.44
27:BF:71:LYS:HD3	27:BF:80:GLN:HG3	1.99	0.44
27:BF:133:GLU:H	27:BF:150:GLY:CA	2.26	0.44
29:BH:129:GLU:HG2	29:BH:142:VAL:O	2.17	0.44
30:BI:30:GLN:NE2	30:BI:32:VAL:HB	2.32	0.44
34:BM:77:PRO:HB2	34:BM:80:VAL:CG1	2.47	0.44
37:BP:19:PHE:O	37:BP:20:ARG:CB	2.62	0.44
40:BS:28:LYS:O	40:BS:29:VAL:C	2.56	0.44
45:BX:10:ARG:HB2	45:BX:11:PRO:HD2	1.99	0.44
46:BY:46:VAL:O	46:BY:47:ARG:C	2.54	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BZ:8:GLN:HB3	47:BZ:31:ILE:HA	1.99	0.44
51:B3:6:VAL:HG21	51:B3:60:CYS:SG	2.58	0.44
53:CA:36:C:O3'	12:CL:119:LYS:HA	2.18	0.44
53:CA:71:A:C2'	53:CA:72:A:O5'	2.65	0.44
53:CA:615:G:N3	53:CA:616:G:C8	2.86	0.44
53:CA:797:C:OP1	11:CK:125:LYS:HE3	2.18	0.44
53:CA:903:G:C6	53:CA:904:U:C4	3.06	0.44
53:CA:956:U:O2	53:CA:1225:A:C2	2.71	0.44
53:CA:959:A:H2'	53:CA:960:U:O5'	2.18	0.44
53:CA:998:C:C6	53:CA:999:C:H5	2.35	0.44
53:CA:1087:G:N1	53:CA:1099:G:C2	2.85	0.44
53:CA:1215:G:C4	53:CA:1216:A:N7	2.85	0.44
2:CB:27:LYS:N	2:CB:28:PRO:HD2	2.33	0.44
2:CB:130:LYS:HD3	2:CB:133:ALA:CB	2.46	0.44
3:CC:161:ILE:HD13	3:CC:161:ILE:N	2.32	0.44
54:CG:4:ARG:HG2	54:CG:6:ILE:HG22	1.99	0.44
55:CM:82:LEU:CD2	19:CS:60:PHE:HB3	2.46	0.44
14:CN:72:PHE:CD1	14:CN:72:PHE:C	2.90	0.44
22:DA:167:A:C2	22:DA:168:G:H1'	2.52	0.44
22:DA:374:A:C6	22:DA:401:A:N7	2.84	0.44
22:DA:448:U:H4'	22:DA:449:A:OP2	2.17	0.44
22:DA:479:A:O2'	22:DA:480:A:H5'	2.16	0.44
22:DA:503:A:H5'	22:DA:504:A:H3'	1.99	0.44
22:DA:590:A:C4	22:DA:591:U:C6	3.05	0.44
22:DA:638:G:N2	22:DA:651:G:H1'	2.32	0.44
22:DA:647:G:O2'	22:DA:648:G:C5'	2.65	0.44
22:DA:672:C:H6	22:DA:672:C:C5'	2.30	0.44
22:DA:988:A:C2	22:DA:989:G:C2	3.06	0.44
22:DA:1087:G:H2'	22:DA:1089:A:C8	2.52	0.44
22:DA:1340:U:H4'	22:DA:1340:U:OP1	2.16	0.44
22:DA:1359:A:H2'	22:DA:1359:A:N3	2.32	0.44
22:DA:1361:G:HO2'	22:DA:1362:C:H5'	1.79	0.44
22:DA:1413:A:C5	22:DA:1414:C:N4	2.86	0.44
22:DA:1478:G:C6	22:DA:1514:G:C2	3.05	0.44
22:DA:1555:G:C2	22:DA:1556:C:C4	3.05	0.44
22:DA:1721:G:HO2'	22:DA:1722:A:P	2.41	0.44
22:DA:1838:C:N4	22:DA:1898:U:H2'	2.32	0.44
22:DA:1874:C:H2'	22:DA:1875:G:O4'	2.17	0.44
22:DA:2108:A:C8	22:DA:2108:A:OP2	2.71	0.44
22:DA:2138:G:H8	22:DA:2138:G:OP2	2.00	0.44
22:DA:2282:G:O2'	22:DA:2283:C:OP2	2.35	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2429:G:H8	22:DA:2429:G:H2'	1.45	0.44
22:DA:2561:U:H2'	22:DA:2562:U:O5'	2.16	0.44
22:DA:2724:U:H5"	25:DD:123:LYS:NZ	2.32	0.44
22:DA:2751:G:N3	28:DG:2:ARG:NH2	2.64	0.44
22:DA:2893:A:C4'	22:DA:2894:G:O5'	2.62	0.44
57:DB:32:U:C2	57:DB:51:G:N2	2.85	0.44
57:DB:78:A:H2'	57:DB:79:G:C8	2.53	0.44
25:DD:61:THR:OG1	25:DD:64:GLU:HG3	2.18	0.44
25:DD:124:ARG:NH1	25:DD:125:TRP:CE2	2.85	0.44
31:DJ:49:ASP:HB2	31:DJ:121:LYS:NZ	2.32	0.44
31:DJ:123:LYS:N	31:DJ:123:LYS:CD	2.80	0.44
32:DK:73:ASP:OD1	32:DK:73:ASP:N	2.49	0.44
33:DL:19:LEU:HD11	33:DL:31:GLY:CA	2.48	0.44
37:DP:5:LYS:CG	37:DP:9:GLN:HE21	2.31	0.44
40:DS:49:LYS:HB3	40:DS:49:LYS:HZ2	1.79	0.44
42:DU:43:LYS:HE3	42:DU:45:GLN:OE1	2.16	0.44
43:DV:73:LYS:HB3	43:DV:92:VAL:HG23	1.99	0.44
44:DW:31:LEU:C	44:DW:33:GLY:N	2.68	0.44
46:DY:21:LEU:CD2	46:DY:25:GLN:NE2	2.80	0.44
47:DZ:4:ILE:HG23	47:DZ:57:GLU:O	2.17	0.44
48:D0:29:VAL:HG21	48:D0:34:GLY:HA2	2.00	0.44
52:D4:27:CYS:HG	52:D4:33:HIS:HB2	1.82	0.44
1:AA:140:U:H2'	1:AA:141:G:O4'	2.17	0.44
1:AA:324:G:N2	1:AA:327:A:C8	2.85	0.44
1:AA:328:C:O2	1:AA:328:C:C2'	2.66	0.44
1:AA:408:A:O5'	4:AD:109:THR:HG21	2.18	0.44
1:AA:748:G:C6	1:AA:749:A:C5	3.06	0.44
1:AA:811:C:H4'	1:AA:900:A:N6	2.32	0.44
1:AA:934:C:H5'	1:AA:935:A:OP1	2.16	0.44
1:AA:981:U:H2'	1:AA:982:U:C5	2.53	0.44
1:AA:1138:G:C2	1:AA:1140:C:C4	3.06	0.44
1:AA:1234:C:N3	1:AA:1235:U:C5	2.86	0.44
1:AA:1317:C:C2'	1:AA:1318:A:H5'	2.41	0.44
1:AA:1380:U:C5'	1:AA:1381:U:OP1	2.63	0.44
1:AA:1457:G:O3'	20:AT:26:MET:HB3	2.17	0.44
1:AA:1465:A:O2'	1:AA:1466:C:H5'	2.17	0.44
2:AB:71:THR:CG2	2:AB:72:LYS:H	2.09	0.44
4:AD:58:GLN:CA	4:AD:58:GLN:HE21	2.30	0.44
4:AD:172:VAL:HG13	4:AD:173:ASP:N	2.32	0.44
8:AH:82:LEU:HD22	8:AH:82:LEU:C	2.38	0.44
9:AI:56:MET:SD	9:AI:57:VAL:N	2.90	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:69:CYS:O	11:AK:73:VAL:CG2	2.65	0.44
15:AO:60:SER:O	15:AO:64:LYS:HG3	2.17	0.44
16:AP:6:LEU:HD12	16:AP:6:LEU:HA	1.69	0.44
22:BA:10:A:C5	22:BA:2800:A:C6	3.05	0.44
22:BA:77:G:C4	22:BA:110:G:C2	3.05	0.44
22:BA:260:G:H2'	22:BA:261:G:O5'	2.17	0.44
22:BA:482:A:N6	22:BA:506:G:O2'	2.38	0.44
22:BA:536:G:O2'	22:BA:537:G:H5'	2.18	0.44
22:BA:581:C:H2'	22:BA:582:A:H8	1.81	0.44
22:BA:669:G:C5	22:BA:801:G:C6	3.05	0.44
22:BA:919:U:H6	22:BA:919:U:C4'	2.31	0.44
22:BA:959:A:C2	22:BA:2494:G:N2	2.86	0.44
22:BA:1057:A:C8	22:BA:1086:A:C8	3.05	0.44
22:BA:1179:G:N7	22:BA:1180:U:C1'	2.79	0.44
22:BA:1269:A:H8	22:BA:1269:A:O5'	1.99	0.44
22:BA:1290:C:C2	22:BA:1291:C:C5	3.06	0.44
22:BA:1611:C:O2'	22:BA:1612:C:H5'	2.17	0.44
22:BA:1688:U:C4	22:BA:1698:A:C2	3.05	0.44
22:BA:1744:A:H2'	22:BA:1744:A:N3	2.32	0.44
22:BA:2557:G:H2'	22:BA:2558:C:H6	1.78	0.44
22:BA:2593:U:H2'	22:BA:2594:C:C6	2.51	0.44
23:BB:52:A:N7	36:BO:64:TYR:OH	2.44	0.44
28:BG:37:ASN:OD1	28:BG:37:ASN:N	2.51	0.44
28:BG:159:LYS:HB3	28:BG:159:LYS:HE2	1.72	0.44
33:BL:93:ASN:ND2	33:BL:93:ASN:C	2.67	0.44
34:BM:50:ARG:HA	34:BM:53:MET:HE3	1.99	0.44
35:BN:95:THR:HG21	35:BN:113:ILE:CG1	2.47	0.44
38:BQ:17:LEU:HD13	38:BQ:17:LEU:HA	1.79	0.44
38:BQ:86:SER:HB3	39:BR:51:VAL:HG12	1.98	0.44
39:BR:18:GLN:O	39:BR:97:LYS:O	2.35	0.44
40:BS:36:LEU:HA	40:BS:36:LEU:HD12	1.55	0.44
42:BU:6:ARG:HH21	42:BU:6:ARG:HG3	1.82	0.44
42:BU:40:LEU:HA	42:BU:40:LEU:HD23	1.77	0.44
43:BV:76:ASP:OD1	43:BV:77:VAL:N	2.49	0.44
44:BW:49:ASN:OD1	44:BW:79:ILE:O	2.34	0.44
53:CA:96:U:O2'	53:CA:97:G:H5'	2.17	0.44
53:CA:207:C:O2	53:CA:213:G:C6	2.70	0.44
53:CA:327:A:C2	53:CA:329:A:C4	3.06	0.44
53:CA:604:G:C6	53:CA:605:U:N3	2.86	0.44
53:CA:614:C:C2	53:CA:615:G:C8	3.06	0.44
53:CA:704:A:N3	53:CA:705:G:C8	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:789:U:N3	53:CA:792:A:OP2	2.51	0.44
53:CA:833:G:C5	53:CA:834:U:C5	3.06	0.44
53:CA:989:U:C3'	53:CA:990:C:H5'	2.42	0.44
53:CA:994:A:O2'	53:CA:995:C:C6	2.66	0.44
53:CA:1084:G:OP1	53:CA:1086:U:C4	2.71	0.44
53:CA:1134:G:C6	53:CA:1141:C:N4	2.85	0.44
53:CA:1221:G:H5'	19:CS:35:ARG:NE	2.32	0.44
53:CA:1251:A:H2'	53:CA:1369:C:O2'	2.17	0.44
53:CA:1288:A:C2'	53:CA:1289:A:C8	3.00	0.44
53:CA:1357:A:C8	53:CA:1358:U:C5	3.04	0.44
4:CD:39:GLN:O	4:CD:41:GLY:N	2.50	0.44
4:CD:102:TYR:C	4:CD:104:MET:N	2.71	0.44
5:CE:91:SER:HB2	5:CE:129:SER:O	2.16	0.44
8:CH:45:ILE:N	8:CH:63:LYS:HD3	2.33	0.44
8:CH:94:VAL:CG2	8:CH:101:ALA:HB2	2.48	0.44
11:CK:104:PHE:HD1	11:CK:104:PHE:N	2.15	0.44
12:CL:87:LYS:HG2	12:CL:87:LYS:O	2.16	0.44
14:CN:79:SER:O	14:CN:83:VAL:HG23	2.17	0.44
20:CT:4:LYS:HE3	20:CT:5:SER:N	2.31	0.44
22:DA:34:U:HO2'	22:DA:35:G:P	2.39	0.44
22:DA:84:A:H2	22:DA:98:G:N3	2.16	0.44
22:DA:156:A:C4	22:DA:157:C:C6	3.05	0.44
22:DA:203:A:H8	22:DA:203:A:O5'	2.01	0.44
22:DA:215:G:H4'	22:DA:216:A:OP1	2.18	0.44
22:DA:361:G:HO2'	22:DA:362:A:P	2.39	0.44
22:DA:378:C:O2'	22:DA:379:G:H5'	2.17	0.44
22:DA:470:A:C2	22:DA:471:A:C4	3.05	0.44
22:DA:524:G:C5	22:DA:525:U:C5	3.05	0.44
22:DA:935:C:H2'	22:DA:936:A:H8	1.82	0.44
22:DA:962:G:O2'	22:DA:963:U:O5'	2.35	0.44
22:DA:999:U:H2'	22:DA:1000:A:C5'	2.46	0.44
22:DA:1062:G:C4	22:DA:1063:G:N7	2.85	0.44
22:DA:1089:A:H2	22:DA:1090:A:H62	1.65	0.44
22:DA:1116:G:C5	22:DA:1117:C:C5	3.04	0.44
22:DA:1653:G:O6	35:DN:10:LEU:C	2.56	0.44
22:DA:1809:A:C4	22:DA:1810:A:N7	2.86	0.44
22:DA:2455:G:C2	22:DA:2498:C:N4	2.85	0.44
22:DA:2458:G:C5'	22:DA:2459:A:OP1	2.66	0.44
22:DA:2692:G:H2'	22:DA:2693:G:C8	2.52	0.44
22:DA:2805:C:H2'	22:DA:2806:C:H6	1.83	0.44
24:DC:239:PHE:HD1	24:DC:240:GLY:N	2.14	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DD:15:PHE:CE2	37:DP:77:SER:HA	2.53	0.44
28:DG:51:PHE:HE2	28:DG:68:ARG:HG2	1.82	0.44
31:DJ:45:THR:C	31:DJ:47:HIS:N	2.71	0.44
32:DK:46:ALA:HB3	32:DK:54:LYS:HE3	2.00	0.44
32:DK:105:ARG:HB2	32:DK:108:ARG:HD2	1.99	0.44
33:DL:63:LYS:C	33:DL:65:GLY:H	2.20	0.44
34:DM:66:ARG:HD2	34:DM:101:VAL:HG13	1.99	0.44
39:DR:81:LYS:O	39:DR:82:HIS:C	2.56	0.44
41:DT:29:THR:OG1	41:DT:86:THR:N	2.45	0.44
43:DV:41:GLU:C	43:DV:42:LEU:HG	2.37	0.44
51:D3:22:LYS:HG2	51:D3:46:LYS:CE	2.48	0.44
1:AA:311:C:C4	1:AA:312:C:C5	3.06	0.44
1:AA:586:C:O2'	8:AH:3:GLN:NE2	2.50	0.44
1:AA:937:A:C2'	1:AA:938:A:H5'	2.48	0.44
1:AA:1066:C:H2'	1:AA:1067:A:C8	2.53	0.44
6:AF:90:MET:HB3	6:AF:91:ARG:H	1.43	0.44
7:AG:69:ARG:HG3	7:AG:95:ARG:HD3	1.99	0.44
9:AI:50:PRO:HB3	9:AI:83:THR:CG2	2.47	0.44
10:AJ:28:THR:O	10:AJ:32:THR:HG22	2.17	0.44
10:AJ:74:VAL:CG1	10:AJ:75:ASP:N	2.69	0.44
11:AK:62:ALA:CB	11:AK:91:GLY:HA3	2.47	0.44
11:AK:109:ILE:N	21:AU:5:VAL:O	2.50	0.44
12:AL:20:VAL:N	12:AL:21:PRO:HD3	2.33	0.44
12:AL:79:ILE:HD12	12:AL:96:THR:HG22	1.98	0.44
13:AM:22:TYR:O	13:AM:68:LEU:HD23	2.17	0.44
13:AM:84:CYS:O	13:AM:88:LEU:HD11	2.18	0.44
13:AM:84:CYS:HA	19:AS:73:PHE:CD2	2.53	0.44
14:AN:78:LEU:HB2	14:AN:83:VAL:HG23	1.99	0.44
15:AO:38:LEU:HD13	15:AO:38:LEU:HA	1.85	0.44
21:AU:23:GLU:HB3	21:AU:24:LYS:H	1.52	0.44
21:AU:24:LYS:HG2	21:AU:25:ALA:N	2.33	0.44
22:BA:49:A:C6	22:BA:177:G:C5	3.05	0.44
22:BA:212:G:O2'	22:BA:213:A:H5'	2.16	0.44
22:BA:269:C:C2'	22:BA:270:A:C5'	2.91	0.44
22:BA:633:A:C8	22:BA:633:A:H3'	2.53	0.44
22:BA:638:G:C5	22:BA:651:G:N2	2.85	0.44
22:BA:696:G:H2'	22:BA:697:G:H8	1.83	0.44
22:BA:976:G:H4'	22:BA:1156:A:N7	2.31	0.44
22:BA:1206:G:C4	22:BA:1207:C:C5	3.06	0.44
22:BA:1445:G:C6	22:BA:1446:C:C4	3.06	0.44
22:BA:1739:A:H2'	22:BA:1740:G:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1798:U:P	24:BC:255:LYS:HA	2.57	0.44
22:BA:1858:A:O2'	22:BA:1859:U:C5'	2.66	0.44
22:BA:1941:C:H6	22:BA:1941:C:C5'	2.23	0.44
22:BA:2013:A:H2'	22:BA:2014:A:H5'	1.98	0.44
22:BA:2227:A:H2'	22:BA:2228:G:O4'	2.17	0.44
22:BA:2280:G:C6	22:BA:2281:A:N7	2.86	0.44
22:BA:2298:A:C2	22:BA:2321:U:N3	2.86	0.44
22:BA:2323:G:H2'	22:BA:2324:U:H5'	1.99	0.44
22:BA:2800:A:HO2'	22:BA:2801:G:P	2.41	0.44
26:BE:29:HIS:O	26:BE:32:VAL:CG2	2.66	0.44
26:BE:146:VAL:O	26:BE:167:VAL:HG23	2.18	0.44
27:BF:114:ARG:N	27:BF:114:ARG:CD	2.69	0.44
27:BF:135:ILE:C	27:BF:137:PHE:N	2.71	0.44
29:BH:78:VAL:HG21	29:BH:145:ASN:HD22	1.80	0.44
32:BK:116:ILE:HD12	32:BK:117:SER:H	1.78	0.44
36:BO:90:VAL:O	36:BO:117:PHE:HB3	2.17	0.44
37:BP:47:ILE:HA	37:BP:96:LEU:HB2	2.00	0.44
45:BX:38:TRP:CZ3	45:BX:44:ARG:N	2.86	0.44
53:CA:142:G:C6	53:CA:143:A:C8	3.05	0.44
53:CA:659:U:O2	53:CA:747:A:C2	2.70	0.44
53:CA:694:A:C2'	53:CA:695:A:H5"	2.48	0.44
53:CA:881:G:C2	53:CA:882:C:C2	3.06	0.44
53:CA:1283:U:O2'	53:CA:1284:C:O4'	2.33	0.44
2:CB:30:ILE:HG23	2:CB:39:ILE:O	2.17	0.44
2:CB:116:LEU:CB	2:CB:140:LEU:HD13	2.47	0.44
2:CB:150:ILE:O	2:CB:150:ILE:HG13	2.18	0.44
3:CC:26:LYS:CE	3:CC:26:LYS:CA	2.90	0.44
4:CD:25:ARG:HH12	4:CD:30:LYS:CE	2.30	0.44
4:CD:26:ALA:HA	4:CD:31:CYS:SG	2.58	0.44
54:CG:41:ILE:CG2	54:CG:115:MET:HE3	2.47	0.44
54:CG:110:ARG:HG2	54:CG:112:ASP:OD1	2.17	0.44
11:CK:74:LYS:HD2	11:CK:104:PHE:CE1	2.51	0.44
12:CL:122:LYS:O	12:CL:123:ALA:HB3	2.17	0.44
56:CP:61:VAL:C	56:CP:63:GLN:H	2.19	0.44
17:CQ:62:GLU:HB2	17:CQ:72:TRP:CZ3	2.52	0.44
19:CS:28:LYS:HB3	19:CS:29:PRO:CD	2.44	0.44
21:CU:9:GLU:OE1	21:CU:11:PHE:HE2	2.00	0.44
21:CU:31:VAL:O	21:CU:33:ARG:N	2.50	0.44
22:DA:197:A:C8	22:DA:2430:A:N7	2.85	0.44
22:DA:243:U:HO2'	22:DA:244:A:H8	1.65	0.44
22:DA:271:G:C2	22:DA:367:G:C4	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:387:U:H4'	22:DA:388:G:O5'	2.18	0.44
22:DA:455:C:H4'	22:DA:456:C:OP2	2.17	0.44
22:DA:570:G:C5	22:DA:2030:A:C5	3.06	0.44
22:DA:815:C:OP1	39:DR:85:LYS:CE	2.65	0.44
22:DA:910:A:H62	34:DM:12:MET:C	2.20	0.44
22:DA:1142:A:N7	22:DA:1144:A:C6	2.85	0.44
22:DA:1157:G:H2'	22:DA:1158:C:C5	2.52	0.44
22:DA:1249:U:P	22:DA:1249:U:H3'	2.58	0.44
22:DA:1287:A:O2'	22:DA:1288:G:C5'	2.65	0.44
22:DA:1320:C:HO2'	22:DA:1321:A:H8	1.63	0.44
22:DA:1438:U:C4	22:DA:1555:G:N1	2.86	0.44
22:DA:1455:G:O2'	22:DA:1456:G:O5'	2.35	0.44
22:DA:1465:G:C5	22:DA:1466:U:C4	3.06	0.44
22:DA:1476:U:O2	22:DA:1516:G:C2	2.71	0.44
22:DA:1613:G:C6	22:DA:1619:G:C6	3.05	0.44
22:DA:1731:G:C2	22:DA:1733:G:N7	2.85	0.44
22:DA:1910:G:C6	22:DA:1911:U:C4	3.05	0.44
22:DA:1931:U:HO2'	22:DA:1932:A:H8	1.66	0.44
22:DA:2023:C:H4'	22:DA:2617:U:O3'	2.17	0.44
22:DA:2039:U:H2'	22:DA:2040:G:H8	1.83	0.44
22:DA:2056:G:N2	22:DA:2057:G:N9	2.65	0.44
22:DA:2199:A:C2'	22:DA:2200:C:H6	2.18	0.44
22:DA:2525:G:C2	22:DA:2539:C:C2	3.06	0.44
22:DA:2571:U:C2'	22:DA:2572:A:OP1	2.66	0.44
22:DA:2744:G:C4	22:DA:2761:A:C2	3.05	0.44
24:DC:130:PRO:CD	24:DC:188:ARG:HG3	2.48	0.44
24:DC:250:GLN:H	24:DC:250:GLN:HG2	1.53	0.44
25:DD:1:MET:SD	25:DD:100:LEU:CD1	3.05	0.44
26:DE:126:VAL:HG13	26:DE:127:GLU:N	2.32	0.44
26:DE:178:VAL:HG13	26:DE:179:SER:N	2.32	0.44
28:DG:11:PRO:O	28:DG:14:VAL:HG22	2.18	0.44
31:DJ:12:LYS:HB2	31:DJ:13:ARG:H	1.60	0.44
31:DJ:48:VAL:HG12	31:DJ:49:ASP:N	2.32	0.44
33:DL:128:THR:HG22	33:DL:129:LYS:N	2.33	0.44
39:DR:30:GLY:HA2	39:DR:63:VAL:O	2.16	0.44
39:DR:72:VAL:HG23	39:DR:72:VAL:O	2.18	0.44
40:DS:29:VAL:O	40:DS:33:LEU:HB2	2.18	0.44
43:DV:21:ARG:CD	43:DV:87:GLN:HG2	2.48	0.44
45:DX:1:SER:C	45:DX:3:VAL:N	2.71	0.44
46:DY:30:MET:SD	46:DY:30:MET:O	2.75	0.44
51:D3:24:LYS:HB3	51:D3:25:HIS:H	1.57	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:19:A:O2'	1:AA:20:U:H5'	2.17	0.44
1:AA:179:A:H2'	1:AA:180:U:C5'	2.47	0.44
1:AA:246:A:C6	1:AA:282:A:N7	2.86	0.44
1:AA:291:U:C2'	1:AA:292:G:H5'	2.48	0.44
1:AA:471:U:C2'	1:AA:472:U:H5'	2.48	0.44
1:AA:522:C:H2'	1:AA:523:A:O4'	2.18	0.44
1:AA:1067:A:H1'	1:AA:1068:G:H8	1.82	0.44
1:AA:1531:A:H2'	1:AA:1532:U:C6	2.53	0.44
2:AB:103:TRP:CZ3	2:AB:107:ARG:HD3	2.52	0.44
2:AB:145:ASN:OD1	2:AB:145:ASN:C	2.56	0.44
3:AC:2:GLN:OE1	3:AC:2:GLN:N	2.48	0.44
4:AD:84:ASN:HD22	4:AD:87:GLU:H	1.65	0.44
7:AG:86:VAL:HG13	7:AG:87:PRO:HD2	1.99	0.44
12:AL:2:THR:HB	12:AL:5:GLN:CG	2.41	0.44
12:AL:23:LEU:C	12:AL:25:ALA:H	2.20	0.44
15:AO:3:SER:O	15:AO:6:ALA:N	2.51	0.44
22:BA:28:A:C8	22:BA:513:A:N6	2.85	0.44
22:BA:58:G:C2'	22:BA:59:U:H5'	2.48	0.44
22:BA:822:G:H2'	22:BA:823:C:H6	1.82	0.44
22:BA:897:C:H5"	22:BA:898:C:OP2	2.18	0.44
22:BA:1016:G:H2'	22:BA:1017:G:O5'	2.18	0.44
22:BA:1038:G:N2	22:BA:1118:C:C2	2.85	0.44
22:BA:1420:A:H2'	22:BA:2211:A:H62	1.83	0.44
22:BA:1790:C:H2'	22:BA:1791:A:C5	2.53	0.44
22:BA:1941:C:C6	22:BA:1941:C:C5'	2.94	0.44
22:BA:2021:C:OP1	48:B0:8:THR:HG21	2.16	0.44
22:BA:2556:C:H2'	22:BA:2557:G:O4'	2.17	0.44
22:BA:2729:G:H5"	22:BA:2729:G:C8	2.48	0.44
22:BA:2757:A:N1	28:BG:66:THR:CG2	2.68	0.44
25:BD:9:VAL:CG2	25:BD:26:VAL:HB	2.33	0.44
26:BE:83:VAL:CG1	26:BE:86:ALA:CA	2.95	0.44
27:BF:64:PRO:HA	27:BF:88:VAL:CG2	2.47	0.44
28:BG:45:ALA:O	28:BG:46:ASP:CB	2.65	0.44
28:BG:148:ARG:HA	28:BG:161:VAL:HB	1.99	0.44
29:BH:68:ARG:HH21	29:BH:69:ALA:HA	1.83	0.44
33:BL:39:LYS:C	33:BL:40:SER:O	2.55	0.44
34:BM:34:LYS:HG2	34:BM:35:ALA:H	1.82	0.44
39:BR:93:PHE:CD1	39:BR:93:PHE:C	2.90	0.44
39:BR:102:SER:O	39:BR:103:ALA:O	2.36	0.44
40:BS:46:LEU:O	40:BS:50:VAL:HG23	2.18	0.44
41:BT:43:ILE:O	41:BT:43:ILE:CG1	2.63	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:B2:8:SER:O	50:B2:12:ARG:HB3	2.18	0.44
52:B4:1:MET:HE2	52:B4:34:LYS:HG2	1.98	0.44
53:CA:160:A:C2	53:CA:343:U:H1'	2.53	0.44
53:CA:315:A:C5	53:CA:330:C:H5"	2.51	0.44
53:CA:352:C:H6	53:CA:352:C:H5"	1.82	0.44
53:CA:683:G:H2'	53:CA:684:U:O4'	2.18	0.44
53:CA:752:G:C1'	53:CA:754:C:H41	2.28	0.44
53:CA:1026:G:H22	53:CA:1036:A:N6	2.15	0.44
53:CA:1232:U:C2	53:CA:1233:G:C8	3.06	0.44
53:CA:1296:C:C5	53:CA:1297:G:N2	2.85	0.44
53:CA:1382:C:H4'	54:CG:78:ARG:HH21	1.82	0.44
53:CA:1426:G:O2'	53:CA:1427:C:H5'	2.18	0.44
53:CA:1442:G:H2'	53:CA:1443:C:C6	2.52	0.44
53:CA:1457:G:O2'	20:CT:26:MET:CG	2.66	0.44
53:CA:1525:G:OP1	21:CU:37:TYR:HD1	2.00	0.44
2:CB:214:GLY:HA2	2:CB:217:ALA:HB3	1.99	0.44
4:CD:127:ARG:CZ	4:CD:127:ARG:HB2	2.47	0.44
6:CF:18:VAL:HG13	6:CF:22:ILE:HD11	1.99	0.44
9:CI:29:ILE:HG23	9:CI:29:ILE:O	2.18	0.44
10:CJ:37:ARG:HB3	10:CJ:75:ASP:HB3	2.00	0.44
10:CJ:86:ALA:O	10:CJ:87:LEU:HB2	2.17	0.44
12:CL:5:GLN:HG3	12:CL:9:LYS:HZ1	1.81	0.44
12:CL:120:ARG:HG2	12:CL:121:PRO:O	2.17	0.44
17:CQ:22:VAL:HG12	17:CQ:23:ALA:N	2.32	0.44
22:DA:333:G:N3	22:DA:334:C:C6	2.85	0.44
22:DA:497:A:H2'	22:DA:498:G:H1'	1.99	0.44
22:DA:570:G:O6	22:DA:2499:C:OP1	2.36	0.44
22:DA:809:G:H2'	22:DA:810:U:O5'	2.17	0.44
22:DA:816:C:H2'	22:DA:817:C:H6	1.82	0.44
22:DA:821:A:C8	22:DA:946:C:C5	3.06	0.44
22:DA:975:A:H62	22:DA:989:G:H1'	1.82	0.44
22:DA:1021:A:H2'	22:DA:1021:A:H8	1.61	0.44
22:DA:1053:C:H42	22:DA:1054:A:N6	2.15	0.44
22:DA:1059:G:O2'	30:DI:131:THR:HG21	2.18	0.44
22:DA:1323:C:C4	22:DA:1324:G:N7	2.85	0.44
22:DA:1400:U:H2'	22:DA:1401:G:H8	1.83	0.44
22:DA:1419:A:C2	22:DA:1579:A:C2	3.06	0.44
22:DA:1516:G:C2'	22:DA:1517:G:H5'	2.48	0.44
22:DA:1553:A:C8	22:DA:1555:G:O6	2.71	0.44
22:DA:1688:U:O2	22:DA:1700:A:H5'	2.18	0.44
22:DA:1734:G:C4	22:DA:1735:A:N7	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1796:U:H2'	22:DA:1797:G:C8	2.53	0.44
22:DA:2057:G:H2'	22:DA:2058:A:O4'	2.17	0.44
22:DA:2335:A:C4	22:DA:2337:G:N7	2.86	0.44
22:DA:2415:G:C2	22:DA:2416:C:C2	3.06	0.44
22:DA:2590:A:O3'	24:DC:237:ARG:HD2	2.17	0.44
57:DB:24:G:H4'	57:DB:26:C:H5	1.82	0.44
57:DB:68:C:HO2'	57:DB:69:G:P	2.39	0.44
57:DB:69:G:H3'	57:DB:70:C:H6	1.78	0.44
24:DC:92:LEU:HA	24:DC:92:LEU:HD12	1.74	0.44
26:DE:154:ASP:C	26:DE:156:ASN:H	2.20	0.44
26:DE:179:SER:HA	26:DE:182:ALA:HB3	2.00	0.44
58:DF:105:ILE:C	58:DF:108:PRO:HD2	2.37	0.44
31:DJ:25:LEU:CD1	31:DJ:64:VAL:HA	2.40	0.44
31:DJ:44:TYR:O	31:DJ:45:THR:CB	2.65	0.44
31:DJ:125:TYR:CE2	31:DJ:132:HIS:CD2	3.04	0.44
34:DM:43:ALA:HA	34:DM:46:ILE:HD11	1.99	0.44
37:DP:104:GLY:C	37:DP:106:ALA:H	2.21	0.44
41:DT:67:VAL:O	41:DT:68:LYS:CG	2.65	0.44
42:DU:73:ASN:CB	42:DU:95:PHE:CE2	2.98	0.44
44:DW:18:LYS:HB2	44:DW:18:LYS:NZ	2.32	0.44
45:DX:67:LEU:O	45:DX:77:TYR:OH	2.35	0.44
1:AA:240:G:OP1	1:AA:240:G:H4'	2.18	0.44
1:AA:293:G:C2'	1:AA:294:U:H5'	2.47	0.44
1:AA:294:U:H2'	1:AA:295:C:C6	2.53	0.44
1:AA:469:C:H2'	1:AA:470:C:H6	1.82	0.44
1:AA:479:U:O2'	1:AA:480:U:H5'	2.18	0.44
1:AA:512:U:O2'	1:AA:513:C:H6	1.99	0.44
1:AA:579:A:C2	1:AA:763:G:C2	3.06	0.44
1:AA:747:A:C6	1:AA:748:G:C6	3.05	0.44
1:AA:765:G:H2'	1:AA:812:G:H21	1.81	0.44
1:AA:969:A:H2'	1:AA:970:C:C6	2.53	0.44
1:AA:1227:A:O2'	1:AA:1228:C:C5'	2.66	0.44
1:AA:1380:U:C4	7:AG:2:ARG:HA	2.53	0.44
3:AC:139:ASN:ND2	3:AC:139:ASN:C	2.71	0.44
5:AE:59:ILE:HD12	5:AE:60:GLN:N	2.32	0.44
9:AI:11:ARG:O	9:AI:11:ARG:HG3	2.18	0.44
9:AI:46:VAL:HG21	9:AI:75:ALA:HB1	2.00	0.44
9:AI:79:ARG:NH1	9:AI:102:PHE:CD1	2.86	0.44
11:AK:39:ASN:O	11:AK:40:ALA:HB3	2.17	0.44
15:AO:2:LEU:HD12	15:AO:2:LEU:HA	1.85	0.44
16:AP:46:LYS:NZ	16:AP:48:GLU:HB3	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:59:HIS:CE1	16:AP:63:GLN:NE2	2.86	0.44
20:AT:4:LYS:O	20:AT:6:ALA:N	2.51	0.44
22:BA:322:A:H1'	22:BA:339:U:O2	2.17	0.44
22:BA:936:A:C4	22:BA:937:C:C5	3.05	0.44
22:BA:1198:U:O2'	38:BQ:4:LYS:HE3	2.17	0.44
22:BA:1213:A:O2'	22:BA:1214:A:H5'	2.18	0.44
22:BA:1257:C:O2'	26:BE:79:ARG:N	2.51	0.44
22:BA:1662:U:C2'	22:BA:1663:G:H5'	2.48	0.44
22:BA:1669:A:O3'	22:BA:2549:G:H5'	2.17	0.44
22:BA:1936:A:H5"	22:BA:1937:A:H5'	2.00	0.44
22:BA:2407:A:H2'	22:BA:2408:U:H6	1.80	0.44
22:BA:2477:U:O5'	22:BA:2477:U:H6	2.00	0.44
22:BA:2699:C:H2'	22:BA:2700:A:O4'	2.18	0.44
22:BA:2715:C:C4	22:BA:2716:C:C5	3.06	0.44
24:BC:212:TRP:O	24:BC:212:TRP:CD1	2.71	0.44
25:BD:62:LYS:HB2	25:BD:63:PRO:HD3	2.00	0.44
25:BD:114:LYS:N	25:BD:114:LYS:CE	2.80	0.44
25:BD:187:LEU:HD12	25:BD:187:LEU:C	2.38	0.44
27:BF:98:PHE:CD2	27:BF:98:PHE:C	2.90	0.44
29:BH:9:VAL:HB	29:BH:13:GLY:HA3	2.00	0.44
32:BK:108:ARG:HH11	32:BK:108:ARG:CG	2.30	0.44
33:BL:82:LEU:HG	33:BL:90:VAL:HG21	2.00	0.44
34:BM:6:ARG:HD2	34:BM:8:LYS:HZ3	1.81	0.44
34:BM:97:GLN:HB2	34:BM:98:PRO:HD2	2.00	0.44
34:BM:108:VAL:HA	34:BM:109:PRO:HD3	1.82	0.44
34:BM:133:LYS:NZ	34:BM:133:LYS:HB2	2.32	0.44
37:BP:52:ARG:HH11	37:BP:52:ARG:CG	2.31	0.44
41:BT:2:ILE:HG13	41:BT:3:ARG:CZ	2.48	0.44
41:BT:19:LYS:O	41:BT:23:ALA:N	2.43	0.44
42:BU:10:VAL:CG2	42:BU:69:VAL:HB	2.48	0.44
44:BW:41:GLY:C	44:BW:43:LYS:H	2.19	0.44
48:B0:33:SER:O	48:B0:34:GLY:C	2.55	0.44
50:B2:42:LEU:H	50:B2:42:LEU:CD2	2.31	0.44
53:CA:43:C:C2'	53:CA:44:A:H5'	2.47	0.44
53:CA:68:G:H21	53:CA:152:A:C1'	2.27	0.44
53:CA:76:G:N2	53:CA:95:C:N3	2.65	0.44
53:CA:79:G:N2	53:CA:91:U:C2	2.86	0.44
53:CA:202:G:H21	53:CA:465:A:H61	1.65	0.44
53:CA:331:G:C2'	53:CA:332:G:OP1	2.64	0.44
53:CA:588:G:N2	53:CA:589:U:H1'	2.32	0.44
53:CA:668:G:C2'	53:CA:669:G:H5'	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:723:U:C4'	21:CU:48:LYS:HD2	2.48	0.44
53:CA:759:A:H2'	53:CA:760:G:H5'	2.00	0.44
53:CA:1005:A:C8	53:CA:1006:G:H1'	2.53	0.44
2:CB:162:VAL:HG11	2:CB:172:ILE:HD11	1.98	0.44
6:CF:18:VAL:HB	6:CF:19:PRO:CD	2.47	0.44
54:CG:72:VAL:CG1	54:CG:144:ALA:HB1	2.48	0.44
8:CH:58:LEU:HD21	8:CH:60:LEU:HD11	2.00	0.44
9:CI:113:LYS:HG2	9:CI:114:LYS:N	2.32	0.44
11:CK:126:ARG:HB2	21:CU:33:ARG:NE	2.32	0.44
14:CN:47:LEU:HD11	14:CN:50:LEU:HD21	2.00	0.44
19:CS:4:LEU:HB3	19:CS:5:LYS:H	1.56	0.44
19:CS:38:THR:CA	19:CS:69:LYS:HD3	2.48	0.44
22:DA:241:A:C1'	22:DA:243:U:C5	2.98	0.44
22:DA:406:G:H2'	22:DA:407:G:C8	2.53	0.44
22:DA:465:G:O4'	50:D2:16:HIS:CD2	2.71	0.44
22:DA:564:C:C6	22:DA:564:C:C3'	3.01	0.44
22:DA:604:G:O6	22:DA:625:G:C6	2.71	0.44
22:DA:621:A:HO2'	22:DA:622:G:C4'	2.29	0.44
22:DA:780:G:C6	22:DA:782:A:C2	3.05	0.44
22:DA:821:A:H2'	22:DA:946:C:H5"	2.00	0.44
22:DA:909:A:C6	22:DA:912:C:C2	3.06	0.44
22:DA:1210:G:H4'	22:DA:1211:C:O5'	2.17	0.44
22:DA:1339:G:C5'	22:DA:1393:A:N1	2.80	0.44
22:DA:1776:G:C5	22:DA:1777:U:C5	3.06	0.44
22:DA:1857:G:N3	22:DA:1884:G:N1	2.65	0.44
22:DA:1869:G:C2	22:DA:1873:G:N1	2.85	0.44
22:DA:1906:G:N1	22:DA:1907:G:C5	2.86	0.44
22:DA:1997:C:O2'	22:DA:1998:A:O5'	2.34	0.44
22:DA:2439:A:C8	22:DA:2586:U:H4'	2.53	0.44
22:DA:2760:C:H2'	22:DA:2760:C:O2	2.18	0.44
24:DC:105:ALA:HA	24:DC:106:PRO:HD3	1.67	0.44
24:DC:159:THR:N	24:DC:194:VAL:HG13	2.33	0.44
25:DD:14:ILE:HG23	25:DD:14:ILE:O	2.18	0.44
25:DD:121:THR:HG21	25:DD:127:PHE:CD1	2.53	0.44
26:DE:119:ILE:HD11	26:DE:143:LEU:CD2	2.47	0.44
58:DF:35:LEU:O	58:DF:87:LYS:HA	2.17	0.44
28:DG:83:THR:CA	28:DG:84:LYS:HD3	2.48	0.44
29:DH:57:LYS:HD2	29:DH:57:LYS:C	2.38	0.44
30:DI:104:GLN:HA	30:DI:107:GLU:HB3	1.99	0.44
32:DK:71:ARG:CB	32:DK:72:PRO:CD	2.63	0.44
34:DM:66:ARG:HD2	34:DM:101:VAL:CG1	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DP:87:ARG:NH1	37:DP:111:GLU:HG3	2.33	0.44
39:DR:96:VAL:HG23	39:DR:98:ILE:CD1	2.48	0.44
42:DU:41:VAL:HB	42:DU:42:LYS:H	1.67	0.44
46:DY:5:GLU:O	46:DY:6:LEU:HG	2.18	0.44
48:D0:53:VAL:O	48:D0:54:ILE:O	2.36	0.44
1:AA:813:U:O2'	1:AA:814:A:H5"	2.18	0.44
1:AA:935:A:N6	7:AG:2:ARG:HD2	2.33	0.44
1:AA:961:U:O2'	1:AA:962:C:H5'	2.17	0.44
1:AA:1117:A:O3'	9:AI:105:ARG:NE	2.51	0.44
1:AA:1196:A:O2'	1:AA:1197:A:P	2.75	0.44
1:AA:1258:G:O2'	1:AA:1259:C:C6	2.58	0.44
2:AB:56:LEU:HB2	2:AB:183:PHE:CE1	2.53	0.44
2:AB:88:GLN:NE2	2:AB:88:GLN:O	2.48	0.44
2:AB:89:PHE:CB	2:AB:149:GLY:CA	2.81	0.44
3:AC:9:ILE:CG2	3:AC:10:ARG:HH11	2.31	0.44
4:AD:28:ASP:C	4:AD:29:THR:O	2.54	0.44
4:AD:171:GLU:O	4:AD:179:GLY:HA2	2.18	0.44
11:AK:126:ARG:C	21:AU:33:ARG:HH12	2.21	0.44
12:AL:50:LYS:N	12:AL:50:LYS:CD	2.81	0.44
13:AM:94:LEU:HB3	13:AM:95:PRO:HD2	1.99	0.44
15:AO:65:LEU:HD23	15:AO:65:LEU:N	2.33	0.44
22:BA:173:A:H2'	22:BA:174:U:H6	1.83	0.44
22:BA:245:G:O6	51:B3:7:ARG:HG3	2.18	0.44
22:BA:467:G:N7	50:B2:39:ARG:NH2	2.60	0.44
22:BA:651:G:C6	22:BA:652:U:C4	3.06	0.44
22:BA:915:C:HO2'	22:BA:916:G:H5'	1.81	0.44
22:BA:988:A:H2'	22:BA:989:G:O5'	2.17	0.44
22:BA:1079:C:C2	22:BA:1080:A:C8	3.05	0.44
22:BA:1241:A:C2'	22:BA:1242:U:H5'	2.48	0.44
22:BA:1257:C:H5'	26:BE:78:TRP:CH2	2.53	0.44
22:BA:1671:U:O2	22:BA:1673:G:C8	2.71	0.44
22:BA:2063:C:O2'	22:BA:2064:C:H5'	2.18	0.44
22:BA:2378:A:N7	22:BA:2379:G:H1'	2.33	0.44
26:BE:8:ALA:O	26:BE:9:GLN:C	2.56	0.44
27:BF:30:VAL:HG11	27:BF:96:TRP:CH2	2.52	0.44
27:BF:111:ARG:HB3	27:BF:112:ASP:H	1.40	0.44
28:BG:39:ALA:HB1	28:BG:57:TYR:CD1	2.53	0.44
28:BG:116:LEU:N	28:BG:116:LEU:HD13	2.33	0.44
29:BH:18:GLN:O	29:BH:18:GLN:HG3	2.18	0.44
30:BI:107:GLU:HA	30:BI:110:GLN:HB3	1.98	0.44
31:BJ:11:VAL:HG11	31:BJ:50:THR:HA	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BJ:76:HIS:CD2	31:BJ:85:LYS:HB2	2.53	0.44
32:BK:107:LEU:HD12	32:BK:107:LEU:HA	1.70	0.44
35:BN:38:LEU:HD11	35:BN:42:LYS:HE3	2.00	0.44
36:BO:54:VAL:O	36:BO:54:VAL:CG2	2.65	0.44
37:BP:37:LYS:HG2	37:BP:37:LYS:O	2.17	0.44
44:BW:19:ARG:HH12	44:BW:22:VAL:HG11	1.80	0.44
44:BW:23:LYS:HD2	44:BW:24:ARG:CB	2.47	0.44
49:B1:16:THR:HG21	49:B1:41:VAL:CG2	2.46	0.44
53:CA:182:A:O2'	53:CA:183:C:H2'	2.18	0.44
53:CA:327:A:H1'	53:CA:329:A:O4'	2.18	0.44
53:CA:386:C:N4	53:CA:387:U:C4	2.86	0.44
53:CA:404:G:C2	53:CA:405:U:C2	3.06	0.44
53:CA:634:C:H2'	53:CA:635:A:O4'	2.16	0.44
53:CA:945:G:N2	53:CA:1334:G:H4'	2.33	0.44
53:CA:995:C:O2'	53:CA:996:A:C5'	2.66	0.44
53:CA:1052:U:O2'	53:CA:1055:A:P	2.76	0.44
2:CB:110:ILE:HD13	2:CB:151:LYS:CA	2.34	0.44
2:CB:130:LYS:HA	2:CB:130:LYS:HD3	1.80	0.44
2:CB:157:PRO:O	2:CB:180:ILE:HD12	2.18	0.44
3:CC:9:ILE:HD12	14:CN:97:LYS:CD	2.42	0.44
3:CC:89:VAL:O	3:CC:93:ILE:HG22	2.17	0.44
6:CF:54:LEU:HD12	6:CF:56:LYS:H	1.83	0.44
54:CG:86:VAL:HA	54:CG:87:PRO:HD2	1.74	0.44
11:CK:125:LYS:C	21:CU:33:ARG:HE	2.21	0.44
12:CL:82:ARG:HG2	12:CL:82:ARG:NH1	2.32	0.44
15:CO:81:ILE:O	15:CO:85:GLY:N	2.49	0.44
20:CT:49:ALA:O	20:CT:52:GLU:HB3	2.17	0.44
20:CT:84:LYS:HB2	20:CT:84:LYS:NZ	2.32	0.44
22:DA:28:A:C2	22:DA:513:A:H1'	2.53	0.44
22:DA:195:A:C6	22:DA:198:C:C6	3.06	0.44
22:DA:227:A:C5'	22:DA:229:C:N4	2.81	0.44
22:DA:244:A:C2'	22:DA:245:G:O5'	2.65	0.44
22:DA:269:C:C2	22:DA:270:A:C8	3.05	0.44
22:DA:352:A:H2'	22:DA:353:C:H4'	1.98	0.44
22:DA:407:G:O2'	22:DA:408:G:O5'	2.32	0.44
22:DA:531:C:P	22:DA:532:A:H8	2.40	0.44
22:DA:532:A:C6	22:DA:2020:A:H1'	2.53	0.44
22:DA:605:G:O2'	22:DA:606:U:O5'	2.36	0.44
22:DA:653:U:O2	22:DA:653:U:H2'	2.18	0.44
22:DA:654:A:C2'	22:DA:655:A:O5'	2.66	0.44
22:DA:739:A:C4'	22:DA:740:C:OP1	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:754:U:H2'	22:DA:755:U:H6	1.82	0.44
22:DA:827:U:H2'	22:DA:2068:U:C2	2.52	0.44
22:DA:1039:A:C5	22:DA:1040:A:N7	2.85	0.44
22:DA:1079:C:N3	22:DA:1088:A:C2	2.84	0.44
22:DA:1229:C:H2'	22:DA:1230:A:C8	2.52	0.44
22:DA:1275:A:N6	35:DN:15:SER:O	2.51	0.44
22:DA:1286:A:C5	22:DA:1289:C:N4	2.86	0.44
22:DA:1843:C:O2'	24:DC:253:GLY:HA3	2.18	0.44
22:DA:1900:A:C6	22:DA:1970:A:N7	2.86	0.44
22:DA:2285:C:C5	49:D1:5:ARG:NH2	2.85	0.44
22:DA:2350:C:C2'	22:DA:2351:G:H5'	2.47	0.44
22:DA:2371:G:O3'	49:D1:44:GLN:NE2	2.51	0.44
22:DA:2466:C:O2'	22:DA:2467:C:H5'	2.17	0.44
22:DA:2520:C:C2'	22:DA:2521:C:H6	2.29	0.44
22:DA:2529:G:C4'	28:DG:174:LYS:HD3	2.40	0.44
22:DA:2575:C:C5'	25:DD:148:GLN:O	2.66	0.44
22:DA:2645:G:O2'	22:DA:2646:C:OP1	2.32	0.44
22:DA:2654:A:N3	22:DA:2656:U:C4	2.86	0.44
22:DA:2812:G:N2	22:DA:2889:C:C2	2.85	0.44
22:DA:2815:C:H2'	22:DA:2816:G:O4'	2.18	0.44
24:DC:171:VAL:HG12	24:DC:171:VAL:O	2.17	0.44
24:DC:191:LEU:HD22	24:DC:191:LEU:H	1.80	0.44
26:DE:129:PRO:O	26:DE:130:LYS:HD3	2.18	0.44
58:DF:123:GLY:H	58:DF:126:ASN:ND2	2.16	0.44
58:DF:129:MET:HG3	58:DF:153:ILE:HD12	1.99	0.44
30:DI:54:ILE:HD12	30:DI:54:ILE:N	2.33	0.44
31:DJ:38:GLY:O	31:DJ:43:GLU:HB2	2.18	0.44
31:DJ:84:ILE:O	31:DJ:84:ILE:CG2	2.65	0.44
32:DK:41:ILE:HG22	32:DK:58:LEU:O	2.18	0.44
32:DK:57:VAL:HG22	32:DK:57:VAL:O	2.18	0.44
32:DK:88:ASN:O	32:DK:89:ASN:HB3	2.17	0.44
32:DK:93:GLN:HA	32:DK:94:PRO:HD2	1.75	0.44
34:DM:58:LYS:O	34:DM:60:GLN:N	2.49	0.44
34:DM:136:MET:HE3	43:DV:75:GLN:O	2.17	0.44
35:DN:16:HIS:O	35:DN:20:MET:N	2.47	0.44
35:DN:57:THR:O	35:DN:80:PHE:CD1	2.67	0.44
36:DO:12:THR:HG22	36:DO:12:THR:O	2.18	0.44
36:DO:25:ARG:HB3	36:DO:93:ASP:CB	2.47	0.44
36:DO:56:LYS:HD3	36:DO:56:LYS:O	2.18	0.44
37:DP:19:PHE:N	37:DP:19:PHE:HD2	2.16	0.44
39:DR:38:VAL:HG22	39:DR:40:MET:H	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DS:36:LEU:O	40:DS:38:TYR:N	2.51	0.44
43:DV:41:GLU:O	43:DV:42:LEU:HD23	2.18	0.44
46:DY:58:ASN:C	46:DY:60:LYS:N	2.70	0.44
47:DZ:51:SER:C	47:DZ:53:MET:H	2.20	0.44
1:AA:77:A:H8	1:AA:77:A:OP2	2.00	0.44
1:AA:103:U:O2	1:AA:103:U:H2'	2.18	0.44
1:AA:204:G:H1'	1:AA:465:A:H2	1.75	0.44
1:AA:431:A:C2	1:AA:432:A:H1'	2.53	0.44
1:AA:684:U:O2'	11:AK:39:ASN:O	2.35	0.44
1:AA:1157:A:H1'	1:AA:1181:G:H22	1.78	0.44
2:AB:53:LEU:HA	2:AB:56:LEU:CB	2.44	0.44
4:AD:138:PRO:HA	4:AD:181:PHE:HD2	1.82	0.44
10:AJ:26:VAL:O	10:AJ:30:LYS:HG2	2.17	0.44
11:AK:22:ILE:HD11	11:AK:85:VAL:HG22	2.00	0.44
15:AO:68:TYR:CE2	15:AO:72:LYS:HG3	2.53	0.44
15:AO:84:LEU:HD12	15:AO:84:LEU:HA	1.85	0.44
19:AS:47:THR:O	19:AS:48:ILE:C	2.56	0.44
22:BA:94:A:H2'	22:BA:95:A:C8	2.53	0.44
22:BA:100:U:C2	22:BA:101:A:N6	2.86	0.44
22:BA:226:A:C2'	22:BA:227:A:H5'	2.48	0.44
22:BA:591:U:H1'	51:B3:1:PRO:N	2.32	0.44
22:BA:1013:C:H2'	22:BA:1014:A:H8	1.82	0.44
22:BA:1062:G:C4	22:BA:1088:A:N7	2.86	0.44
22:BA:1075:C:H2'	22:BA:1076:C:C6	2.53	0.44
22:BA:1141:U:OP2	31:BJ:65:THR:HG21	2.18	0.44
22:BA:1360:G:O6	22:BA:1372:U:C2	2.71	0.44
22:BA:1378:A:H2'	62:BA:3744:HOH:O	2.17	0.44
22:BA:1542:U:C2'	22:BA:1543:G:H5'	2.48	0.44
22:BA:1603:A:O2'	22:BA:1604:C:H5'	2.17	0.44
22:BA:1735:A:N3	22:BA:1736:U:C6	2.85	0.44
22:BA:1835:G:N3	22:BA:1931:U:C5	2.86	0.44
22:BA:2140:G:H2'	22:BA:2141:G:C8	2.53	0.44
22:BA:2209:G:C2	22:BA:2216:G:C2	3.06	0.44
22:BA:2671:G:C6	22:BA:2672:U:C4	3.06	0.44
23:BB:89:U:OP2	23:BB:89:U:H4'	2.18	0.44
24:BC:39:SER:C	24:BC:41:GLY:H	2.20	0.44
25:BD:33:ARG:NH1	25:BD:53:GLY:O	2.51	0.44
25:BD:163:GLY:O	25:BD:164:GLN:C	2.56	0.44
35:BN:28:LEU:O	35:BN:29:VAL:C	2.55	0.44
37:BP:63:ILE:CA	37:BP:68:GLY:HA2	2.39	0.44
38:BQ:111:LYS:NZ	39:BR:50:GLY:CA	2.78	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BT:48:GLN:HA	41:BT:48:GLN:NE2	2.21	0.44
42:BU:25:LYS:HG2	42:BU:36:GLU:HB3	2.00	0.44
42:BU:82:VAL:HG12	42:BU:83:GLY:N	2.33	0.44
43:BV:5:ASN:ND2	43:BV:5:ASN:N	2.64	0.44
44:BW:16:GLU:OE2	44:BW:16:GLU:HA	2.17	0.44
44:BW:37:VAL:O	44:BW:38:ARG:CB	2.66	0.44
47:BZ:43:ILE:HG13	47:BZ:44:ARG:N	2.33	0.44
53:CA:32:A:C2	53:CA:33:A:C5	3.06	0.44
53:CA:98:A:H2'	53:CA:99:C:H6	1.82	0.44
53:CA:163:C:H2'	53:CA:164:G:O5'	2.17	0.44
53:CA:755:G:C2	53:CA:756:C:C6	3.05	0.44
53:CA:927:G:C2	53:CA:1391:U:O2	2.71	0.44
53:CA:951:G:OP2	55:CM:100:ARG:NH2	2.51	0.44
53:CA:1047:G:O2'	53:CA:1216:A:OP1	2.36	0.44
53:CA:1231:G:H2'	53:CA:1232:U:H6	1.82	0.44
2:CB:133:ALA:HA	2:CB:137:THR:HG21	2.00	0.44
5:CE:80:LEU:O	5:CE:80:LEU:CD1	2.63	0.44
8:CH:12:ARG:HH12	8:CH:27:PRO:HD2	1.83	0.44
9:CI:51:LEU:C	9:CI:53:LEU:N	2.71	0.44
9:CI:109:GLN:CG	9:CI:110:VAL:N	2.81	0.44
11:CK:15:VAL:O	11:CK:16:SER:CB	2.66	0.44
12:CL:42:LYS:CG	12:CL:43:LYS:H	2.13	0.44
55:CM:103:THR:CG2	55:CM:104:ASN:N	2.80	0.44
56:CP:43:ALA:HB1	56:CP:46:LYS:NZ	2.33	0.44
19:CS:5:LYS:HB2	19:CS:6:LYS:H	1.56	0.44
21:CU:39:LYS:O	21:CU:43:GLU:HB2	2.18	0.44
22:DA:129:C:O2'	22:DA:130:C:O4'	2.35	0.44
22:DA:233:A:H61	22:DA:428:A:H61	1.64	0.44
22:DA:303:G:N1	22:DA:315:G:C6	2.86	0.44
22:DA:310:A:C2'	22:DA:311:A:H8	2.31	0.44
22:DA:366:C:H2'	22:DA:367:G:O5'	2.18	0.44
22:DA:414:C:H4'	22:DA:1879:C:O2	2.18	0.44
22:DA:422:A:C2	22:DA:423:A:C5	3.06	0.44
22:DA:655:A:O2'	22:DA:656:G:N7	2.49	0.44
22:DA:726:G:O2'	22:DA:727:A:OP2	2.25	0.44
22:DA:804:A:H2'	22:DA:806:C:N4	2.32	0.44
22:DA:1213:A:H2'	22:DA:1214:A:C8	2.52	0.44
22:DA:1273:U:H6	22:DA:1273:U:H2'	1.61	0.44
22:DA:1275:A:N3	22:DA:1275:A:C2'	2.81	0.44
22:DA:1288:G:H2'	22:DA:1288:G:N3	2.33	0.44
22:DA:1340:U:O2'	22:DA:1341:G:P	2.73	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1394:U:H3'	22:DA:1394:U:H6	1.83	0.44
22:DA:1476:U:H2'	22:DA:1477:A:H8	1.82	0.44
22:DA:1809:A:C6	22:DA:1810:A:C6	3.06	0.44
22:DA:1925:C:H3'	22:DA:1925:C:C6	2.52	0.44
22:DA:2053:G:C5'	25:DD:150:GLN:H	2.30	0.44
22:DA:2591:C:H2'	22:DA:2592:G:C8	2.53	0.44
22:DA:2822:G:H5"	25:DD:164:GLN:NE2	2.29	0.44
28:DG:70:LEU:O	28:DG:74:MET:HB2	2.18	0.44
28:DG:103:ASN:HA	28:DG:112:VAL:HB	2.00	0.44
30:DI:64:ARG:HB2	30:DI:64:ARG:CZ	2.48	0.44
32:DK:121:GLU:HB3	32:DK:122:VAL:H	1.51	0.44
33:DL:111:ILE:O	33:DL:131:ALA:CB	2.66	0.44
38:DQ:10:ARG:HB2	38:DQ:10:ARG:NH1	2.32	0.44
38:DQ:64:ILE:O	38:DQ:68:ALA:HB2	2.17	0.44
39:DR:55:ASP:CG	39:DR:56:GLY:N	2.71	0.44
39:DR:62:GLU:OE1	39:DR:97:LYS:HD2	2.17	0.44
46:DY:58:ASN:O	46:DY:61:ALA:HB2	2.17	0.44
1:AA:192:A:C5'	1:AA:193:C:OP2	2.66	0.43
1:AA:425:G:H2'	1:AA:426:U:O4'	2.17	0.43
1:AA:500:G:H2'	1:AA:501:C:H6	1.82	0.43
1:AA:517:G:H22	1:AA:533:A:P	2.41	0.43
1:AA:620:C:N3	4:AD:131:ILE:HG21	2.31	0.43
1:AA:740:U:OP1	15:AO:37:HIS:HE1	2.00	0.43
1:AA:792:A:C4	1:AA:794:A:C6	3.06	0.43
1:AA:815:A:C4'	1:AA:817:C:N4	2.81	0.43
1:AA:923:A:C6	1:AA:924:C:C4	3.05	0.43
1:AA:1323:G:O2'	1:AA:1324:A:H8	2.01	0.43
1:AA:1365:G:O2'	1:AA:1366:C:C5'	2.66	0.43
3:AC:136:ALA:O	3:AC:140:ALA:HB2	2.18	0.43
5:AE:80:LEU:HD12	5:AE:146:MET:HE1	1.94	0.43
5:AE:83:PRO:HB3	5:AE:96:GLN:HE22	1.78	0.43
11:AK:41:LEU:HD22	11:AK:76:TYR:CD2	2.53	0.43
11:AK:51:PHE:CZ	11:AK:64:VAL:HG11	2.51	0.43
11:AK:110:THR:HG22	21:AU:4:LYS:HA	1.99	0.43
15:AO:44:GLU:O	15:AO:45:HIS:HB2	2.17	0.43
22:BA:958:U:H5"	34:BM:14:LYS:CE	2.48	0.43
22:BA:1507:C:C2	22:BA:1508:A:C2	3.06	0.43
22:BA:1681:G:O2'	22:BA:1762:A:O2'	2.30	0.43
22:BA:1869:G:N2	22:BA:1873:G:C6	2.86	0.43
22:BA:2403:C:C4	22:BA:2404:U:C5	3.06	0.43
22:BA:2480:C:H2'	22:BA:2480:C:O2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2517:C:C5	22:BA:2542:A:C5	3.06	0.43
22:BA:2567:G:H2'	22:BA:2568:U:H6	1.77	0.43
22:BA:2835:A:N6	22:BA:2878:U:H2'	2.33	0.43
23:BB:17:C:H2'	23:BB:18:G:O4'	2.18	0.43
23:BB:65:U:O4	23:BB:108:A:H1'	2.17	0.43
24:BC:124:LYS:HG3	24:BC:125:PRO:HD2	1.99	0.43
27:BF:39:VAL:H	27:BF:85:GLY:HA2	1.82	0.43
29:BH:72:ILE:O	29:BH:72:ILE:HG12	2.16	0.43
30:BI:100:ILE:HG22	30:BI:101:SER:N	2.23	0.43
31:BJ:20:ALA:O	31:BJ:21:THR:O	2.36	0.43
31:BJ:113:PRO:HD3	31:BJ:116:ARG:HH12	1.83	0.43
40:BS:13:SER:OG	40:BS:16:LYS:HB2	2.18	0.43
44:BW:24:ARG:HD3	44:BW:65:LYS:HD3	1.99	0.43
44:BW:28:GLU:O	44:BW:29:SER:C	2.56	0.43
53:CA:28:A:H2'	53:CA:29:U:O4'	2.18	0.43
53:CA:67:C:O2'	53:CA:68:G:OP2	2.33	0.43
53:CA:206:C:O5'	53:CA:206:C:H6	2.02	0.43
53:CA:301:G:H2'	53:CA:302:G:C8	2.53	0.43
53:CA:307:C:H5"	53:CA:308:C:OP2	2.18	0.43
53:CA:511:C:O2'	53:CA:512:U:C5'	2.62	0.43
53:CA:596:A:O2'	53:CA:597:G:C5'	2.66	0.43
53:CA:715:A:H8	53:CA:715:A:O5'	2.01	0.43
53:CA:1221:G:C2	53:CA:1222:G:H1'	2.53	0.43
53:CA:1499:A:P	62:CA:1870:HOH:O	2.76	0.43
3:CC:88:LYS:HD3	3:CC:88:LYS:O	2.17	0.43
4:CD:25:ARG:NH2	4:CD:30:LYS:HG2	2.32	0.43
4:CD:187:ARG:C	4:CD:189:ASP:N	2.70	0.43
8:CH:74:ILE:O	8:CH:74:ILE:CG2	2.65	0.43
10:CJ:52:LEU:CD2	10:CJ:62:ARG:CG	2.92	0.43
11:CK:22:ILE:O	11:CK:22:ILE:HG22	2.17	0.43
12:CL:98:ARG:HD3	12:CL:103:CYS:SG	2.58	0.43
19:CS:37:SER:O	19:CS:69:LYS:HA	2.18	0.43
21:CU:20:ARG:NH1	21:CU:24:LYS:HD3	2.33	0.43
22:DA:126:A:H3'	50:D2:46:LYS:HZ1	1.83	0.43
22:DA:266:G:H2'	22:DA:267:C:O5'	2.17	0.43
22:DA:311:A:HO2'	22:DA:332:A:C4'	2.30	0.43
22:DA:447:A:C5'	22:DA:449:A:N7	2.75	0.43
22:DA:459:U:OP1	50:D2:39:ARG:HA	2.18	0.43
22:DA:503:A:N3	22:DA:505:A:H2'	2.33	0.43
22:DA:695:G:N2	22:DA:696:G:H1'	2.33	0.43
22:DA:715:A:N6	22:DA:716:A:C6	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:763:G:C5	22:DA:765:C:C5	3.06	0.43
22:DA:804:A:C2'	22:DA:806:C:C4	3.00	0.43
22:DA:1297:C:C2	22:DA:1298:C:C6	3.07	0.43
22:DA:1419:A:C4	22:DA:1579:A:C6	3.06	0.43
22:DA:1485:U:C2	22:DA:1505:A:C2	3.06	0.43
22:DA:1512:C:C4	22:DA:1513:U:C5	3.05	0.43
22:DA:1571:A:C8	22:DA:1571:A:H3'	2.52	0.43
22:DA:2009:A:N6	62:DA:3386:HOH:O	2.50	0.43
22:DA:2036:C:O2'	22:DA:2037:A:H8	2.01	0.43
22:DA:2064:C:H2'	22:DA:2065:C:H6	1.81	0.43
22:DA:2216:G:C4	22:DA:2217:G:N7	2.86	0.43
22:DA:2221:G:C2'	22:DA:2222:C:H5'	2.48	0.43
22:DA:2287:A:C5	22:DA:2289:G:C8	3.06	0.43
22:DA:2467:C:N4	22:DA:2468:A:N1	2.65	0.43
22:DA:2623:G:H21	48:D0:18:HIS:CE1	2.36	0.43
24:DC:28:PRO:HG3	24:DC:62:ARG:CZ	2.48	0.43
25:DD:181:ASP:C	25:DD:183:GLU:N	2.70	0.43
26:DE:109:LEU:O	26:DE:112:LEU:CB	2.65	0.43
26:DE:148:ILE:HA	26:DE:187:VAL:CB	2.43	0.43
58:DF:45:ASP:HB3	58:DF:48:LEU:CD2	2.48	0.43
28:DG:106:LEU:O	28:DG:108:PHE:CE1	2.71	0.43
30:DI:103:ALA:O	30:DI:107:GLU:HB2	2.18	0.43
31:DJ:36:LEU:HD12	31:DJ:121:LYS:HB2	1.99	0.43
32:DK:2:ILE:HG22	32:DK:3:GLN:O	2.18	0.43
32:DK:9:ASN:N	32:DK:9:ASN:HD22	2.15	0.43
34:DM:76:LYS:HG2	34:DM:80:VAL:HG11	2.00	0.43
35:DN:20:MET:C	35:DN:22:ARG:H	2.21	0.43
35:DN:67:PHE:C	35:DN:67:PHE:CD1	2.91	0.43
37:DP:19:PHE:CE1	37:DP:58:PHE:CE2	3.06	0.43
39:DR:86:GLN:HE21	39:DR:86:GLN:HB2	1.70	0.43
40:DS:59:GLU:CD	40:DS:66:ILE:HG23	2.37	0.43
41:DT:58:VAL:HG22	41:DT:59:ASN:N	2.33	0.43
42:DU:73:ASN:C	42:DU:75:ALA:H	2.22	0.43
43:DV:4:ILE:HD12	43:DV:63:ILE:HG13	2.00	0.43
43:DV:50:MET:O	43:DV:53:LYS:HB2	2.18	0.43
45:DX:71:ARG:C	45:DX:73:ARG:H	2.22	0.43
50:D2:1:MET:CG	50:D2:2:LYS:N	2.81	0.43
50:D2:25:LYS:HA	50:D2:28:ARG:HE	1.83	0.43
52:D4:27:CYS:SG	52:D4:33:HIS:HB2	2.58	0.43
1:AA:255:G:H2'	1:AA:256:U:H6	1.83	0.43
1:AA:263:A:P	20:AT:73:ARG:NH1	2.91	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:913:A:HO2'	1:AA:914:A:P	2.41	0.43
1:AA:1016:A:H3'	1:AA:1017:U:O4'	2.18	0.43
1:AA:1239:A:C5	1:AA:1298:U:C5	3.06	0.43
1:AA:1258:G:O2'	1:AA:1259:C:O5'	2.35	0.43
2:AB:132:GLU:O	2:AB:136:ARG:CB	2.66	0.43
3:AC:119:ILE:CG2	3:AC:197:VAL:HG21	2.48	0.43
10:AJ:53:ILE:CD1	14:AN:84:ARG:CZ	2.96	0.43
12:AL:87:LYS:HB2	12:AL:87:LYS:NZ	2.33	0.43
13:AM:86:ARG:NH2	13:AM:96:VAL:HG12	2.32	0.43
16:AP:2:VAL:HG23	16:AP:65:ALA:HB2	1.95	0.43
19:AS:62:THR:HG22	19:AS:64:GLU:OE1	2.19	0.43
22:BA:45:G:H5"	22:BA:46:G:OP1	2.18	0.43
22:BA:686:U:H2'	22:BA:788:A:N1	2.33	0.43
22:BA:825:A:C2'	22:BA:826:U:O5'	2.66	0.43
22:BA:902:C:H6	22:BA:902:C:O5'	2.01	0.43
22:BA:1173:U:O2	22:BA:1173:U:H2'	2.18	0.43
22:BA:1204:A:H4'	22:BA:1205:A:O5'	2.18	0.43
22:BA:1549:A:C6	22:BA:1550:C:C4	3.05	0.43
22:BA:1599:U:P	41:BT:40:LYS:HD2	2.58	0.43
22:BA:1668:A:C4	22:BA:1674:G:C8	3.06	0.43
22:BA:1713:A:C2	22:BA:1716:U:C6	3.06	0.43
22:BA:2273:A:H2'	22:BA:2274:A:C8	2.52	0.43
22:BA:2870:C:C2'	22:BA:2871:U:H5'	2.48	0.43
23:BB:52:A:C4'	23:BB:53:A:OP1	2.57	0.43
23:BB:94:A:C5	23:BB:95:U:C4	3.05	0.43
25:BD:122:VAL:HG12	25:BD:123:LYS:N	2.31	0.43
26:BE:119:ILE:HD11	26:BE:187:VAL:HG23	1.92	0.43
27:BF:8:LYS:HB2	27:BF:9:ASP:H	1.60	0.43
27:BF:120:SER:O	27:BF:127:TYR:HD1	2.01	0.43
33:BL:120:VAL:HG12	33:BL:121:THR:N	2.33	0.43
34:BM:136:MET:HE1	43:BV:57:TYR:CD2	2.53	0.43
37:BP:91:VAL:HG11	37:BP:96:LEU:HD21	2.00	0.43
43:BV:80:HIS:CG	43:BV:81:PRO:HD2	2.49	0.43
53:CA:212:G:HO2'	53:CA:213:G:H5"	1.81	0.43
53:CA:223:A:C4	53:CA:224:U:C5	3.06	0.43
53:CA:257:G:C2	53:CA:270:A:C6	3.06	0.43
53:CA:405:U:O4	4:CD:1:ALA:HA	2.18	0.43
53:CA:754:C:C3'	53:CA:755:G:H5'	2.48	0.43
53:CA:821:G:O2'	53:CA:822:U:O4'	2.26	0.43
53:CA:861:G:C4	53:CA:862:C:C5	3.05	0.43
53:CA:958:A:N6	19:CS:54:ARG:NH1	2.65	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1064:G:N2	53:CA:1190:G:HO2'	2.16	0.43
53:CA:1084:G:C6	53:CA:1085:U:O4	2.71	0.43
4:CD:202:LEU:O	4:CD:202:LEU:HD23	2.19	0.43
5:CE:37:VAL:HA	5:CE:47:PHE:HA	1.99	0.43
9:CI:59:LYS:HE2	9:CI:59:LYS:HB3	1.74	0.43
12:CL:75:GLU:O	12:CL:77:SER:N	2.51	0.43
14:CN:81:ILE:HD12	14:CN:82:LYS:N	2.33	0.43
17:CQ:12:VAL:O	17:CQ:12:VAL:CG2	2.66	0.43
17:CQ:47:ASP:OD1	17:CQ:74:LEU:HD23	2.18	0.43
18:CR:22:TYR:HE1	18:CR:64:LEU:HD12	1.83	0.43
22:DA:78:U:O2'	22:DA:79:C:C5'	2.59	0.43
22:DA:239:C:HO2'	22:DA:621:A:H2	1.66	0.43
22:DA:301:G:C4	22:DA:302:C:C4	3.06	0.43
22:DA:382:A:H2'	22:DA:383:C:C4'	2.47	0.43
22:DA:447:A:OP2	22:DA:447:A:H2'	2.17	0.43
22:DA:498:G:C6	22:DA:499:U:C4	3.05	0.43
22:DA:563:A:C6	22:DA:2018:G:C4	3.07	0.43
22:DA:728:G:N3	22:DA:730:A:C8	2.85	0.43
22:DA:730:A:HO2'	22:DA:731:C:H6	1.66	0.43
22:DA:931:U:O2	22:DA:931:U:C2'	2.65	0.43
22:DA:1063:G:O2'	22:DA:1064:C:H6	1.91	0.43
22:DA:1076:C:O2	30:DI:92:PRO:CG	2.59	0.43
22:DA:1201:U:H2'	22:DA:1202:G:H8	1.82	0.43
22:DA:1300:G:H5"	22:DA:1301:A:H5'	2.00	0.43
22:DA:1398:C:O2'	22:DA:1399:C:O4'	2.36	0.43
22:DA:1563:U:H2'	22:DA:1564:C:C6	2.52	0.43
22:DA:1587:G:N3	22:DA:1587:G:H2'	2.32	0.43
22:DA:1675:C:N3	25:DD:133:THR:HG21	2.33	0.43
22:DA:1870:C:C5'	22:DA:1871:A:H2	2.16	0.43
22:DA:1999:C:H5"	22:DA:2723:C:O2'	2.17	0.43
22:DA:2076:U:H5"	22:DA:2238:G:H22	1.82	0.43
22:DA:2197:U:O2'	22:DA:2198:A:C8	2.70	0.43
22:DA:2201:G:C5	22:DA:2223:G:C2	3.06	0.43
22:DA:2314:A:O2'	22:DA:2315:G:O4'	2.36	0.43
22:DA:2683:C:H2'	22:DA:2684:U:H6	1.84	0.43
22:DA:2723:C:C5	22:DA:2724:U:C5	3.06	0.43
22:DA:2728:U:HO2'	22:DA:2729:G:H8	1.49	0.43
57:DB:66:A:N1	57:DB:107:G:H2'	2.33	0.43
57:DB:88:C:O2'	57:DB:89:U:OP2	2.29	0.43
24:DC:53:ILE:HA	24:DC:214:GLY:O	2.17	0.43
24:DC:128:THR:HG22	24:DC:188:ARG:CB	2.44	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:DF:37:MET:CA	58:DF:151:LEU:HB3	2.48	0.43
58:DF:111:ARG:NH1	58:DF:113:PHE:CE1	2.85	0.43
31:DJ:89:PHE:O	31:DJ:92:MET:N	2.52	0.43
33:DL:89:VAL:HG23	33:DL:121:THR:HG23	2.00	0.43
34:DM:33:LEU:CD2	34:DM:128:THR:CB	2.94	0.43
35:DN:65:LEU:HD12	35:DN:65:LEU:N	2.32	0.43
35:DN:87:PHE:CD1	35:DN:90:ARG:CD	3.00	0.43
36:DO:7:ARG:NE	36:DO:97:PHE:CZ	2.86	0.43
36:DO:34:HIS:O	36:DO:35:ILE:HG12	2.18	0.43
37:DP:32:VAL:HG22	37:DP:32:VAL:O	2.17	0.43
39:DR:9:GLY:H	39:DR:10:LYS:HD2	1.82	0.43
39:DR:25:LEU:H	39:DR:94:THR:HG21	1.83	0.43
41:DT:15:HIS:HD2	41:DT:17:SER:HB2	1.83	0.43
41:DT:19:LYS:O	41:DT:20:ALA:HB2	2.18	0.43
41:DT:61:LEU:C	41:DT:61:LEU:CD1	2.84	0.43
50:D2:30:VAL:HG22	50:D2:33:ARG:HH22	1.83	0.43
52:D4:15:LYS:HA	52:D4:15:LYS:HE3	2.00	0.43
1:AA:307:C:H5"	1:AA:308:C:OP2	2.18	0.43
1:AA:344:A:O2'	37:BP:36:LYS:HE2	2.18	0.43
1:AA:502:A:H2'	1:AA:503:C:H6	1.80	0.43
1:AA:975:A:H8	1:AA:1357:A:HO2'	1.63	0.43
1:AA:1325:C:O2'	1:AA:1326:U:H5'	2.18	0.43
3:AC:17:TRP:HD1	14:AN:90:GLY:HA2	1.79	0.43
4:AD:185:PRO:HB2	4:AD:190:LEU:HD23	1.99	0.43
5:AE:43:GLY:O	5:AE:44:ARG:C	2.56	0.43
6:AF:98:GLU:HG3	6:AF:99:ALA:N	2.33	0.43
8:AH:45:ILE:HG22	8:AH:62:LEU:HD13	1.98	0.43
11:AK:121:ARG:NH2	21:AU:35:GLU:HG3	2.34	0.43
13:AM:2:ARG:O	13:AM:3:ILE:CG1	2.50	0.43
13:AM:82:LEU:N	13:AM:82:LEU:HD23	2.33	0.43
21:AU:7:GLU:HB2	21:AU:11:PHE:CZ	2.53	0.43
21:AU:16:ARG:HG2	21:AU:19:LYS:HG2	2.01	0.43
22:BA:12:U:H2'	22:BA:12:U:O2	2.19	0.43
22:BA:277:G:H4'	22:BA:278:A:C8	2.52	0.43
22:BA:649:G:H2'	22:BA:650:C:C6	2.53	0.43
22:BA:783:A:H8	22:BA:784:G:H4'	1.84	0.43
22:BA:1024:G:N2	22:BA:1142:A:H2	2.16	0.43
22:BA:1257:C:H5'	26:BE:78:TRP:CE3	2.53	0.43
22:BA:1352:U:H2'	22:BA:1353:A:H5'	2.00	0.43
22:BA:1510:G:C4	22:BA:1511:G:C8	3.06	0.43
22:BA:1799:G:N7	24:BC:177:SER:HB3	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1833:C:H2'	22:BA:1834:U:C6	2.39	0.43
22:BA:1858:A:C5	22:BA:1885:A:C8	3.06	0.43
22:BA:1978:A:C5	22:BA:1979:U:C5	3.06	0.43
22:BA:1984:G:C2	22:BA:1985:C:C6	3.06	0.43
22:BA:2452:C:C4	22:BA:2453:A:C6	3.07	0.43
24:BC:39:SER:C	24:BC:41:GLY:N	2.70	0.43
25:BD:101:PHE:CE2	25:BD:203:VAL:HG22	2.36	0.43
26:BE:101:TYR:CE2	26:BE:105:LEU:HD12	2.53	0.43
28:BG:139:VAL:O	28:BG:140:ILE:C	2.56	0.43
29:BH:67:ALA:C	29:BH:69:ALA:N	2.71	0.43
33:BL:53:GLY:O	33:BL:54:GLN:C	2.57	0.43
35:BN:33:ILE:CG1	35:BN:118:ARG:CZ	2.96	0.43
38:BQ:73:ILE:HG23	38:BQ:73:ILE:O	2.16	0.43
38:BQ:88:GLU:OE1	38:BQ:88:GLU:CA	2.67	0.43
42:BU:85:ARG:HG3	42:BU:86:PHE:N	2.31	0.43
43:BV:30:ILE:HD11	43:BV:63:ILE:HD13	1.99	0.43
44:BW:70:VAL:C	44:BW:71:LYS:HD2	2.38	0.43
44:BW:72:GLY:H	44:BW:73:PRO:HD2	1.82	0.43
44:BW:80:SER:O	44:BW:81:ILE:HG13	2.18	0.43
47:BZ:2:LYS:O	47:BZ:3:THR:O	2.36	0.43
52:B4:4:ARG:HG3	52:B4:6:SER:O	2.18	0.43
53:CA:18:C:C2	53:CA:19:A:C8	3.06	0.43
53:CA:611:C:H2'	53:CA:612:C:H6	1.82	0.43
53:CA:623:C:H6	53:CA:623:C:O5'	2.02	0.43
53:CA:715:A:O2'	53:CA:716:A:H5'	2.18	0.43
53:CA:973:G:H2'	53:CA:974:A:H5'	2.01	0.43
53:CA:1357:A:N7	53:CA:1358:U:C5	2.86	0.43
2:CB:17:HIS:CG	2:CB:18:GLN:N	2.86	0.43
2:CB:115:ASP:O	2:CB:119:GLN:HB2	2.18	0.43
3:CC:133:MET:HB2	3:CC:150:VAL:CG2	2.47	0.43
3:CC:152:VAL:CG2	3:CC:156:LEU:CD2	2.96	0.43
6:CF:96:VAL:HG12	6:CF:97:THR:N	2.33	0.43
54:CG:4:ARG:HD2	54:CG:5:VAL:N	2.26	0.43
8:CH:29:SER:O	8:CH:30:LYS:C	2.56	0.43
9:CI:27:ILE:HG21	9:CI:34:LEU:HA	2.00	0.43
55:CM:21:ILE:HD12	55:CM:24:VAL:HG21	2.00	0.43
15:CO:38:LEU:HD12	15:CO:41:HIS:HB3	2.00	0.43
17:CQ:24:ILE:HD12	17:CQ:24:ILE:N	2.32	0.43
18:CR:39:VAL:HG13	18:CR:40:PRO:HD2	1.98	0.43
18:CR:61:ALA:HB1	18:CR:66:LEU:HB2	2.00	0.43
22:DA:91:A:O2'	22:DA:92:U:C6	2.70	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:137:U:O5'	22:DA:137:U:H6	2.01	0.43
22:DA:283:G:N2	22:DA:358:U:C2	2.87	0.43
22:DA:289:G:H2'	22:DA:290:U:O4'	2.19	0.43
22:DA:379:G:N1	22:DA:380:G:C4	2.86	0.43
22:DA:492:A:O2'	22:DA:493:G:O4'	2.31	0.43
22:DA:532:A:N1	22:DA:2020:A:O2'	2.38	0.43
22:DA:576:U:O2'	22:DA:577:G:H5'	2.17	0.43
22:DA:752:A:C6	22:DA:1781:U:C1'	2.99	0.43
22:DA:763:G:N9	22:DA:765:C:C6	2.86	0.43
22:DA:858:G:C6	22:DA:2268:A:C6	3.07	0.43
22:DA:995:C:O2'	38:DQ:60:TRP:CH2	2.66	0.43
22:DA:1238:G:H2'	22:DA:1239:G:C8	2.53	0.43
22:DA:1686:C:C2	22:DA:1703:G:C2	3.06	0.43
22:DA:1757:A:N1	22:DA:1762:A:C2	2.86	0.43
22:DA:1819:A:H4'	22:DA:1820:U:H5'	2.00	0.43
22:DA:2060:A:O2'	62:DA:3514:HOH:O	2.21	0.43
22:DA:2331:G:C6	22:DA:2385:C:N4	2.86	0.43
22:DA:2463:C:O5'	22:DA:2463:C:H6	2.01	0.43
22:DA:2567:G:H2'	22:DA:2568:U:C5	2.53	0.43
22:DA:2646:C:C6	22:DA:2646:C:C4'	3.01	0.43
22:DA:2722:G:H4'	35:DN:3:HIS:O	2.18	0.43
22:DA:2746:U:C5'	28:DG:137:LYS:HG2	2.48	0.43
22:DA:2794:C:H2'	22:DA:2795:C:O4'	2.19	0.43
57:DB:19:C:H2'	57:DB:20:G:H8	1.83	0.43
57:DB:34:A:C6	57:DB:44:G:C8	3.05	0.43
57:DB:109:A:C4	57:DB:110:C:C5	3.06	0.43
25:DD:109:VAL:HG21	25:DD:175:LEU:CD1	2.48	0.43
25:DD:111:GLY:HA3	25:DD:194:PRO:HG2	2.00	0.43
58:DF:113:PHE:CE2	58:DF:116:LEU:HB2	2.53	0.43
29:DH:41:LYS:O	29:DH:44:ILE:HG12	2.18	0.43
30:DI:48:ILE:HG13	30:DI:49:GLU:HG2	2.00	0.43
32:DK:14:SER:HG	32:DK:51:LYS:H	1.64	0.43
32:DK:62:VAL:HG12	32:DK:63:VAL:N	2.34	0.43
33:DL:108:ALA:CB	33:DL:125:LEU:HD22	2.47	0.43
33:DL:135:ILE:HG23	33:DL:136:GLU:N	2.33	0.43
34:DM:72:PRO:HA	34:DM:92:TRP:CE3	2.54	0.43
38:DQ:82:LEU:O	38:DQ:85:ALA:HB3	2.18	0.43
38:DQ:91:ARG:NH1	39:DR:10:LYS:CB	2.69	0.43
41:DT:5:GLU:HA	41:DT:8:LEU:HB2	1.99	0.43
43:DV:26:PHE:HA	43:DV:27:PRO:HD2	1.84	0.43
43:DV:29:ILE:HD12	43:DV:29:ILE:C	2.38	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DW:66:VAL:HG13	44:DW:80:SER:O	2.19	0.43
45:DX:52:ALA:C	45:DX:54:GLY:N	2.72	0.43
47:DZ:40:THR:C	47:DZ:42:ALA:N	2.70	0.43
1:AA:68:G:C6	1:AA:69:G:H1'	2.52	0.43
1:AA:184:G:C2'	1:AA:185:U:C6	3.01	0.43
1:AA:334:C:C2'	1:AA:335:C:H5'	2.48	0.43
1:AA:373:A:O2'	1:AA:374:A:C5'	2.66	0.43
1:AA:376:G:H5"	16:AP:5:ARG:HB2	2.00	0.43
1:AA:501:C:O3'	12:AL:114:SER:HB2	2.18	0.43
1:AA:502:A:H2'	1:AA:503:C:O4'	2.19	0.43
1:AA:609:A:H2'	1:AA:610:U:H5'	1.99	0.43
1:AA:640:A:C2'	1:AA:641:U:H5'	2.48	0.43
1:AA:821:G:H4'	62:AA:1741:HOH:O	2.16	0.43
1:AA:953:G:C2'	1:AA:954:G:H5'	2.48	0.43
1:AA:1004:A:C2	1:AA:1005:A:H1'	2.53	0.43
1:AA:1135:U:H2'	1:AA:1135:U:O2	2.18	0.43
1:AA:1311:A:C2	1:AA:1327:C:N3	2.86	0.43
2:AB:56:LEU:O	2:AB:59:ILE:HG13	2.18	0.43
6:AF:85:ILE:H	6:AF:85:ILE:HG12	1.68	0.43
9:AI:90:ASP:OD2	9:AI:92:SER:HB3	2.18	0.43
10:AJ:92:LEU:HD23	10:AJ:92:LEU:N	2.33	0.43
12:AL:79:ILE:HD12	12:AL:96:THR:HG21	1.99	0.43
14:AN:29:ILE:HG23	14:AN:34:ASN:ND2	2.33	0.43
21:AU:20:ARG:HH12	21:AU:24:LYS:HD2	1.84	0.43
22:BA:154:U:H2'	22:BA:155:A:C8	2.54	0.43
22:BA:301:G:HO2'	22:BA:302:C:P	2.39	0.43
22:BA:312:G:H2'	22:BA:313:G:H8	1.82	0.43
22:BA:341:C:C2	22:BA:342:A:C8	3.07	0.43
22:BA:633:A:H8	22:BA:633:A:O5'	2.00	0.43
22:BA:1059:G:OP2	22:BA:1061:U:P	2.76	0.43
22:BA:1061:U:H1'	22:BA:1070:A:O4'	2.18	0.43
22:BA:1202:G:C6	22:BA:1203:U:N3	2.86	0.43
22:BA:1241:A:C8	22:BA:1242:U:C5	3.06	0.43
22:BA:1259:G:H2'	22:BA:1260:A:C8	2.53	0.43
22:BA:1413:A:H2'	22:BA:1414:C:O4'	2.18	0.43
22:BA:1688:U:H1'	22:BA:1701:A:C5	2.53	0.43
22:BA:1861:G:N2	22:BA:1882:U:H1'	2.33	0.43
22:BA:1875:G:H2'	22:BA:1876:A:OP2	2.19	0.43
22:BA:1984:G:C6	22:BA:1985:C:C5	3.07	0.43
22:BA:2013:A:N3	40:BS:88:ARG:NH1	2.67	0.43
22:BA:2478:A:OP1	52:B4:32:LYS:HD3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2850:A:N7	22:BA:2868:A:O2'	2.36	0.43
24:BC:18:VAL:O	24:BC:18:VAL:CG1	2.60	0.43
24:BC:83:ASP:HA	24:BC:84:PRO:HD3	1.85	0.43
24:BC:203:VAL:CG1	24:BC:204:LEU:N	2.80	0.43
27:BF:128:SER:OG	27:BF:154:THR:HB	2.18	0.43
27:BF:142:TYR:HA	27:BF:145:VAL:HG13	2.01	0.43
28:BG:120:ILE:CD1	28:BG:121:THR:N	2.66	0.43
31:BJ:4:PHE:O	31:BJ:4:PHE:CD1	2.71	0.43
32:BK:10:VAL:HG11	32:BK:16:ALA:HB2	1.99	0.43
36:BO:49:VAL:CG1	36:BO:50:ALA:N	2.81	0.43
38:BQ:23:TYR:O	38:BQ:28:SER:HB3	2.19	0.43
41:BT:54:GLU:HB3	41:BT:88:LYS:CG	2.48	0.43
43:BV:4:ILE:HG12	43:BV:50:MET:SD	2.58	0.43
43:BV:80:HIS:CD2	43:BV:82:TYR:H	2.36	0.43
45:BX:63:ILE:H	45:BX:63:ILE:HG13	1.42	0.43
53:CA:61:G:C6	53:CA:107:G:C2	3.07	0.43
53:CA:76:G:H8	53:CA:76:G:OP2	2.02	0.43
53:CA:83:C:C4	53:CA:85:U:N3	2.86	0.43
53:CA:131:A:N6	53:CA:232:G:O6	2.51	0.43
53:CA:319:G:H4'	53:CA:1468:A:C4'	2.48	0.43
53:CA:564:C:H5'	53:CA:564:C:C6	2.41	0.43
53:CA:701:U:O2'	53:CA:702:A:OP2	2.33	0.43
53:CA:1078:U:O4'	5:CE:88:HIS:HE1	2.01	0.43
53:CA:1245:C:H2'	53:CA:1246:A:C8	2.46	0.43
53:CA:1281:C:C3'	53:CA:1282:C:C5'	2.94	0.43
53:CA:1411:C:OP2	53:CA:1411:C:H6	2.00	0.43
53:CA:1437:A:H2'	53:CA:1438:G:H8	1.82	0.43
53:CA:1461:G:C6	53:CA:1462:C:C4	3.07	0.43
2:CB:103:TRP:HD1	2:CB:107:ARG:HB3	1.80	0.43
5:CE:131:ASN:HA	5:CE:132:PRO:HD2	1.79	0.43
9:CI:44:ARG:HH21	9:CI:48:ARG:NH1	2.16	0.43
10:CJ:45:ARG:HB2	10:CJ:69:THR:HB	1.99	0.43
22:DA:68:G:N2	22:DA:74:A:OP2	2.51	0.43
22:DA:81:G:H2'	22:DA:82:U:O4'	2.18	0.43
22:DA:226:A:H2'	22:DA:227:A:H8	1.81	0.43
22:DA:404:A:H1'	22:DA:406:G:C5	2.53	0.43
22:DA:453:A:H4'	22:DA:472:A:N6	2.32	0.43
22:DA:475:C:C6	22:DA:476:G:N7	2.87	0.43
22:DA:529:A:C4	22:DA:2023:C:C5	3.06	0.43
22:DA:679:C:H2'	22:DA:680:C:C6	2.52	0.43
22:DA:763:G:H8	22:DA:763:G:H2'	1.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:972:A:C2	22:DA:973:A:N6	2.86	0.43
22:DA:992:C:O2'	22:DA:993:G:C5'	2.66	0.43
22:DA:1015:U:H2'	22:DA:1016:G:O4'	2.18	0.43
22:DA:1057:A:C6	22:DA:1058:U:C4	3.06	0.43
22:DA:1057:A:N3	22:DA:1082:U:C2	2.86	0.43
22:DA:1211:C:H4'	22:DA:1212:G:OP2	2.17	0.43
22:DA:1361:G:C2'	22:DA:1362:C:C5'	2.96	0.43
22:DA:1387:A:N6	22:DA:1401:G:N1	2.67	0.43
22:DA:1527:G:N2	22:DA:1546:G:C6	2.87	0.43
22:DA:1585:C:C2'	22:DA:1586:A:O5'	2.66	0.43
22:DA:1596:A:N6	22:DA:1597:A:N6	2.66	0.43
22:DA:1654:A:O2'	22:DA:1655:A:O5'	2.36	0.43
22:DA:1996:C:H5	32:DK:32:TYR:OH	2.00	0.43
22:DA:2032:G:H1'	25:DD:150:GLN:OE1	2.19	0.43
22:DA:2093:G:O6	22:DA:2225:A:H8	1.85	0.43
22:DA:2303:G:O6	22:DA:2314:A:N6	2.51	0.43
22:DA:2319:G:O2'	22:DA:2320:U:O5'	2.37	0.43
22:DA:2370:G:C6	22:DA:2371:G:C6	3.06	0.43
22:DA:2474:U:O2	22:DA:2474:U:O4'	2.36	0.43
22:DA:2575:C:C4'	25:DD:148:GLN:O	2.67	0.43
22:DA:2600:A:C6	22:DA:2601:C:N4	2.87	0.43
22:DA:2682:A:O2'	22:DA:2683:C:O5'	2.37	0.43
22:DA:2846:G:P	37:DP:51:ASN:CB	3.07	0.43
57:DB:30:C:H1'	57:DB:58:A:N1	2.34	0.43
57:DB:96:G:C2'	57:DB:97:C:H5'	2.49	0.43
24:DC:145:MET:HB2	24:DC:152:GLN:HE22	1.83	0.43
25:DD:66:GLY:C	25:DD:68:PHE:N	2.71	0.43
25:DD:175:LEU:HD23	25:DD:190:LYS:O	2.18	0.43
58:DF:12:VAL:CG1	58:DF:16:MET:HG3	2.43	0.43
28:DG:163:TYR:O	28:DG:164:ALA:C	2.56	0.43
29:DH:102:ALA:C	29:DH:104:THR:H	2.21	0.43
30:DI:27:LEU:HD12	30:DI:27:LEU:C	2.38	0.43
37:DP:16:VAL:HG13	37:DP:19:PHE:CE2	2.53	0.43
38:DQ:92:LYS:O	38:DQ:95:ALA:HB3	2.17	0.43
39:DR:27:ILE:HG13	39:DR:33:VAL:CG1	2.45	0.43
40:DS:20:VAL:HA	40:DS:23:LEU:HB2	2.00	0.43
42:DU:39:ASN:O	42:DU:40:LEU:C	2.57	0.43
44:DW:17:ALA:HB1	44:DW:36:ILE:HG12	2.00	0.43
44:DW:37:VAL:HA	44:DW:55:ASP:O	2.19	0.43
49:D1:28:THR:C	49:D1:29:LYS:HG2	2.38	0.43
1:AA:109:A:C2	1:AA:327:A:N1	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:110:C:O2'	1:AA:111:G:C5'	2.66	0.43
1:AA:142:G:N3	1:AA:142:G:H2'	2.33	0.43
1:AA:208:U:H5	1:AA:210:C:C5	2.36	0.43
1:AA:628:G:N2	1:AA:629:A:N3	2.66	0.43
1:AA:637:C:H2'	1:AA:638:U:O4'	2.17	0.43
1:AA:642:A:C4	8:AH:105:THR:O	2.71	0.43
1:AA:909:A:C8	1:AA:910:C:C5	3.07	0.43
1:AA:1060:U:H2'	1:AA:1061:G:H8	1.83	0.43
1:AA:1112:C:N4	3:AC:177:LEU:CD2	2.81	0.43
1:AA:1157:A:C6	1:AA:1180:A:C6	3.07	0.43
1:AA:1202:U:O4'	14:AN:68:ARG:HD2	2.19	0.43
1:AA:1452:C:H4'	1:AA:1453:G:N3	2.34	0.43
2:AB:186:VAL:N	2:AB:199:ILE:O	2.51	0.43
3:AC:79:LYS:HE3	3:AC:79:LYS:HA	2.00	0.43
3:AC:108:PRO:C	3:AC:110:LEU:H	2.22	0.43
4:AD:3:TYR:CZ	4:AD:5:GLY:HA3	2.53	0.43
7:AG:14:ASP:HB3	7:AG:18:GLY:H	1.83	0.43
16:AP:15:PRO:HG2	16:AP:41:PRO:HG3	1.99	0.43
17:AQ:50:ASN:OD1	17:AQ:50:ASN:N	2.50	0.43
22:BA:303:G:C6	22:BA:315:G:C6	3.06	0.43
22:BA:377:G:C2'	22:BA:378:C:H5'	2.49	0.43
22:BA:412:A:C2'	22:BA:413:C:C5'	2.96	0.43
22:BA:575:A:OP2	22:BA:2055:C:H5	2.02	0.43
22:BA:610:C:O2'	22:BA:611:C:H5'	2.19	0.43
22:BA:826:U:O2'	33:BL:53:GLY:CA	2.55	0.43
22:BA:866:A:C8	22:BA:914:G:N1	2.86	0.43
22:BA:1090:A:C2	22:BA:1091:G:C8	3.06	0.43
22:BA:1141:U:H4'	22:BA:1142:A:O4'	2.18	0.43
22:BA:1190:G:OP1	33:BL:32:GLY:CA	2.63	0.43
22:BA:1348:C:H2'	22:BA:1349:C:H5'	1.99	0.43
22:BA:1467:U:C4	22:BA:1546:G:C2	3.06	0.43
22:BA:1655:A:H2'	22:BA:1656:C:O4'	2.19	0.43
22:BA:1724:G:C6	22:BA:1725:U:C4	3.07	0.43
22:BA:1803:A:H2	22:BA:1822:C:O2	2.00	0.43
22:BA:1839:G:C6	22:BA:1927:A:C5	3.07	0.43
22:BA:1911:U:C2	22:BA:1918:A:C2	3.06	0.43
22:BA:2019:A:H2	22:BA:2035:G:H22	1.66	0.43
22:BA:2286:G:H5"	22:BA:2287:A:O5'	2.18	0.43
22:BA:2310:C:C5	27:BF:76:PHE:CZ	3.06	0.43
22:BA:2573:C:H5'	22:BA:2573:C:H6	1.84	0.43
23:BB:32:U:O2'	23:BB:33:G:H5'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:75:G:H2'	23:BB:76:G:O4'	2.18	0.43
25:BD:90:PHE:C	25:BD:92:VAL:N	2.71	0.43
30:BI:79:LEU:HD21	30:BI:132:ALA:HB1	2.00	0.43
33:BL:95:LEU:HB3	33:BL:100:ILE:HD11	2.00	0.43
34:BM:97:GLN:HB2	34:BM:98:PRO:CD	2.48	0.43
34:BM:132:THR:CG2	34:BM:133:LYS:H	2.31	0.43
34:BM:134:THR:O	34:BM:134:THR:HG22	2.18	0.43
37:BP:30:TRP:CE3	37:BP:39:LEU:CD1	3.02	0.43
38:BQ:34:ALA:O	38:BQ:38:VAL:HG23	2.18	0.43
53:CA:117:G:C2'	53:CA:118:U:C5'	2.95	0.43
53:CA:452:A:HO2'	53:CA:453:G:P	2.41	0.43
53:CA:774:G:C5	53:CA:775:G:C8	3.07	0.43
53:CA:866:C:C4	53:CA:867:G:H1'	2.53	0.43
53:CA:994:A:C5	53:CA:1216:A:C4'	3.01	0.43
53:CA:1069:C:H4'	53:CA:1192:C:O2	2.18	0.43
53:CA:1071:C:H2'	53:CA:1072:G:H8	1.84	0.43
53:CA:1113:C:H2'	53:CA:1114:C:C6	2.50	0.43
53:CA:1158:C:O2	53:CA:1158:C:C2'	2.66	0.43
53:CA:1252:A:H4'	53:CA:1369:C:H4'	2.01	0.43
53:CA:1268:G:H21	53:CA:1327:C:C1'	2.19	0.43
3:CC:11:LEU:C	3:CC:13:ILE:N	2.71	0.43
3:CC:28:PHE:CZ	14:CN:93:PRO:HD2	2.53	0.43
4:CD:104:MET:SD	4:CD:142:VAL:CG1	3.06	0.43
4:CD:198:LEU:HD23	4:CD:198:LEU:HA	1.86	0.43
5:CE:25:LYS:HB2	5:CE:25:LYS:NZ	2.33	0.43
9:CI:30:ASN:O	9:CI:31:GLN:CG	2.66	0.43
9:CI:112:ARG:O	9:CI:112:ARG:HG3	2.18	0.43
55:CM:11:HIS:O	55:CM:12:LYS:HG2	2.18	0.43
55:CM:86:ARG:HH11	55:CM:90:HIS:HD2	1.66	0.43
20:CT:60:GLN:CD	20:CT:65:LEU:HD12	2.38	0.43
21:CU:3:ILE:O	21:CU:4:LYS:O	2.36	0.43
21:CU:9:GLU:CB	21:CU:10:PRO:CD	2.96	0.43
22:DA:3:U:H2'	22:DA:4:U:C6	2.53	0.43
22:DA:38:A:C2	22:DA:442:G:C2	3.06	0.43
22:DA:91:A:O2'	22:DA:92:U:H6	2.02	0.43
22:DA:152:A:O2'	22:DA:153:U:H5'	2.18	0.43
22:DA:204:A:C4	22:DA:206:U:C4	3.06	0.43
22:DA:362:A:C5	22:DA:363:G:C8	3.06	0.43
22:DA:457:A:C2	22:DA:459:U:O4	2.71	0.43
22:DA:527:C:O2'	22:DA:528:A:O5'	2.36	0.43
22:DA:579:G:C8	22:DA:2017:U:O4	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:593:U:C2	22:DA:594:U:C5	3.06	0.43
22:DA:651:G:C6	22:DA:652:U:C4	3.07	0.43
22:DA:807:U:H4'	22:DA:2445:G:O3'	2.18	0.43
22:DA:851:C:C4	22:DA:852:U:O4	2.72	0.43
22:DA:996:A:C5	22:DA:1160:G:N2	2.87	0.43
22:DA:1152:C:H5"	38:DQ:79:ILE:HD12	2.00	0.43
22:DA:1275:A:C4	35:DN:16:HIS:HD2	2.35	0.43
22:DA:1286:A:C5	22:DA:1289:C:N3	2.87	0.43
22:DA:1331:G:N3	22:DA:1333:G:C8	2.87	0.43
22:DA:1561:C:O2'	22:DA:1562:U:H5'	2.18	0.43
22:DA:1819:A:H1'	22:DA:1821:A:N6	2.33	0.43
22:DA:1833:C:C4	22:DA:1834:U:C4	3.06	0.43
22:DA:2024:G:C5	22:DA:2040:G:C2	3.06	0.43
22:DA:2053:G:H2'	22:DA:2054:A:C5'	2.49	0.43
22:DA:2283:C:O2'	22:DA:2284:A:C5'	2.50	0.43
22:DA:2345:G:C5	22:DA:2347:C:C5	3.06	0.43
22:DA:2466:C:OP1	52:D4:4:ARG:HD2	2.18	0.43
22:DA:2553:G:N1	22:DA:2554:U:O2	2.51	0.43
22:DA:2635:A:C5'	25:DD:79:LEU:HB2	2.47	0.43
22:DA:2729:G:C4'	25:DD:191:GLY:HA2	2.48	0.43
24:DC:29:PHE:C	24:DC:31:PRO:HD2	2.39	0.43
24:DC:79:ARG:HG2	24:DC:92:LEU:HB2	2.00	0.43
24:DC:166:ARG:HA	24:DC:171:VAL:HA	2.00	0.43
24:DC:172:THR:HG22	24:DC:182:LYS:HZ2	1.83	0.43
25:DD:114:LYS:HD2	25:DD:116:LYS:CE	2.47	0.43
26:DE:5:LEU:HA	26:DE:120:VAL:O	2.19	0.43
58:DF:11:VAL:CG1	58:DF:12:VAL:N	2.80	0.43
58:DF:94:ARG:HA	58:DF:97:GLU:OE2	2.19	0.43
58:DF:100:GLU:HG2	58:DF:100:GLU:O	2.18	0.43
30:DI:102:ARG:HD3	30:DI:140:GLU:O	2.19	0.43
32:DK:27:GLY:CA	32:DK:30:ARG:HD3	2.46	0.43
35:DN:31:HIS:O	35:DN:33:ILE:N	2.43	0.43
38:DQ:69:ARG:HB2	38:DQ:69:ARG:NH2	2.33	0.43
41:DT:11:LEU:HD12	41:DT:11:LEU:N	2.33	0.43
43:DV:29:ILE:HG22	43:DV:39:ALA:HA	1.99	0.43
43:DV:32:GLY:O	43:DV:33:GLY:C	2.56	0.43
43:DV:51:GLN:HE21	43:DV:51:GLN:HB2	1.59	0.43
45:DX:26:ARG:NH1	45:DX:28:PHE:CD2	2.86	0.43
46:DY:1:MET:H2	46:DY:5:GLU:CG	2.31	0.43
51:D3:32:LEU:HD23	51:D3:35:LYS:HG3	2.00	0.43
51:D3:33:THR:CG2	51:D3:34:LYS:N	2.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:974:A:P	14:AN:68:ARG:HH22	2.42	0.43
1:AA:979:C:OP2	1:AA:980:C:H5	2.02	0.43
1:AA:1202:U:HO2'	1:AA:1203:C:C5'	2.32	0.43
1:AA:1326:U:H2'	1:AA:1327:C:C6	2.53	0.43
1:AA:1331:G:HO2'	1:AA:1332:A:P	2.41	0.43
1:AA:1400:C:H4'	1:AA:1401:G:OP2	2.19	0.43
1:AA:1465:A:H2'	1:AA:1466:C:C6	2.53	0.43
3:AC:9:ILE:HG23	3:AC:10:ARG:HH11	1.84	0.43
3:AC:10:ARG:HH21	3:AC:181:ILE:HG13	1.83	0.43
5:AE:75:LEU:HD21	5:AE:119:VAL:CG1	2.47	0.43
5:AE:110:MET:HE2	5:AE:110:MET:HB2	1.85	0.43
7:AG:25:PHE:CE1	7:AG:104:VAL:CG2	3.01	0.43
8:AH:20:ASN:HA	8:AH:64:TYR:HE2	1.83	0.43
9:AI:49:GLN:C	9:AI:51:LEU:N	2.71	0.43
10:AJ:44:THR:CG2	10:AJ:69:THR:O	2.67	0.43
10:AJ:102:LEU:N	10:AJ:102:LEU:HD22	2.34	0.43
11:AK:21:HIS:CD2	11:AK:34:THR:HG22	2.53	0.43
14:AN:22:LYS:CG	14:AN:23:ARG:H	2.08	0.43
15:AO:2:LEU:HB3	15:AO:7:THR:CG2	2.49	0.43
16:AP:5:ARG:HA	16:AP:68:SER:OG	2.18	0.43
18:AR:44:THR:OG1	18:AR:46:THR:CG2	2.65	0.43
20:AT:27:MET:HE2	20:AT:27:MET:C	2.38	0.43
22:BA:146:A:H2'	22:BA:147:C:C6	2.54	0.43
22:BA:153:U:C2'	22:BA:154:U:C5'	2.96	0.43
22:BA:391:A:C5	22:BA:411:G:C2	3.06	0.43
22:BA:466:A:H5"	22:BA:467:G:OP2	2.18	0.43
22:BA:638:G:O6	22:BA:651:G:C6	2.72	0.43
22:BA:811:U:HO2'	22:BA:1250:G:H2'	1.84	0.43
22:BA:915:C:H2'	22:BA:916:G:H5'	2.00	0.43
22:BA:996:A:C3'	38:BQ:91:ARG:HG2	2.49	0.43
22:BA:1023:U:C2'	22:BA:1024:G:H5'	2.49	0.43
22:BA:1027:A:C6	22:BA:1126:A:N3	2.86	0.43
22:BA:1073:A:H2'	22:BA:1074:G:C4'	2.46	0.43
22:BA:1277:G:C4'	35:BN:20:MET:HE2	2.48	0.43
22:BA:1324:G:C4	22:BA:1328:A:N6	2.87	0.43
22:BA:1636:U:H2'	22:BA:1637:A:C8	2.54	0.43
22:BA:1760:C:OP1	22:BA:2712:C:H5	2.02	0.43
22:BA:2293:G:H2'	22:BA:2294:G:O4'	2.19	0.43
22:BA:2315:G:H2'	22:BA:2316:G:O5'	2.18	0.43
22:BA:2331:G:H4'	44:BW:39:GLN:O	2.19	0.43
22:BA:2470:G:N2	22:BA:2471:A:C4	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2691:C:O3'	22:BA:2871:U:H4'	2.19	0.43
24:BC:199:HIS:O	24:BC:201:LEU:N	2.51	0.43
25:BD:180:VAL:CG1	25:BD:181:ASP:N	2.82	0.43
26:BE:25:GLU:HA	26:BE:28:VAL:CG1	2.49	0.43
26:BE:132:LYS:HB3	26:BE:132:LYS:HZ3	1.81	0.43
27:BF:3:LEU:HD13	27:BF:3:LEU:HA	1.67	0.43
27:BF:42:ALA:CB	27:BF:49:LEU:HB2	2.47	0.43
28:BG:76:ILE:CG2	28:BG:77:GLY:N	2.81	0.43
31:BJ:12:LYS:O	31:BJ:13:ARG:HB2	2.18	0.43
31:BJ:21:THR:C	31:BJ:23:LYS:N	2.71	0.43
34:BM:34:LYS:HG2	34:BM:35:ALA:N	2.33	0.43
37:BP:9:GLN:HA	37:BP:12:MET:HG3	2.00	0.43
41:BT:39:THR:HB	41:BT:42:GLU:HB3	1.90	0.43
42:BU:86:PHE:CE1	42:BU:101:THR:HG21	2.54	0.43
43:BV:82:TYR:N	43:BV:82:TYR:CD2	2.86	0.43
44:BW:18:LYS:H	44:BW:36:ILE:HG13	1.81	0.43
44:BW:19:ARG:CZ	44:BW:22:VAL:CB	2.97	0.43
45:BX:19:HIS:C	45:BX:21:LEU:H	2.22	0.43
46:BY:18:LEU:HD13	46:BY:18:LEU:C	2.39	0.43
49:B1:3:GLY:C	49:B1:5:ARG:H	2.20	0.43
51:B3:31:ILE:O	51:B3:31:ILE:HG13	2.19	0.43
53:CA:120:A:C6	53:CA:122:G:C6	3.07	0.43
53:CA:215:C:H2'	53:CA:216:U:O4'	2.19	0.43
53:CA:253:A:HO2'	53:CA:254:G:C5'	2.32	0.43
53:CA:255:G:C4	53:CA:256:U:C5	3.06	0.43
53:CA:363:A:N6	53:CA:364:A:C6	2.86	0.43
53:CA:545:C:C2'	53:CA:546:A:H5'	2.49	0.43
53:CA:1066:C:H2'	53:CA:1067:A:N7	2.33	0.43
53:CA:1133:G:C6	53:CA:1134:G:N7	2.87	0.43
53:CA:1144:G:H5"	53:CA:1145:A:OP2	2.19	0.43
53:CA:1242:G:N2	53:CA:1302:C:O2	2.51	0.43
53:CA:1255:G:O2'	53:CA:1258:G:H1'	2.18	0.43
5:CE:76:ASN:HD22	5:CE:76:ASN:HA	1.58	0.43
6:CF:2:ARG:HG3	6:CF:4:TYR:CZ	2.54	0.43
6:CF:86:ARG:HH12	18:CR:63:TYR:HB3	1.75	0.43
54:CG:9:ARG:O	54:CG:10:LYS:HG3	2.18	0.43
8:CH:6:ILE:HG21	8:CH:76:ARG:NH2	2.33	0.43
8:CH:103:VAL:O	8:CH:109:VAL:HA	2.19	0.43
9:CI:45:MET:HB3	9:CI:49:GLN:HG3	1.99	0.43
9:CI:49:GLN:HA	9:CI:52:GLU:CG	2.48	0.43
10:CJ:65:TYR:HB3	14:CN:95:LEU:HD11	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:24:GLU:O	12:CL:25:ALA:HB3	2.19	0.43
55:CM:2:ARG:N	55:CM:2:ARG:HD2	2.34	0.43
20:CT:85:LEU:O	20:CT:86:ALA:HB2	2.18	0.43
22:DA:197:A:N3	22:DA:197:A:H2'	2.33	0.43
22:DA:271:G:O2'	22:DA:272:A:O5'	2.36	0.43
22:DA:291:G:N1	22:DA:350:G:C5	2.87	0.43
22:DA:333:G:O2'	22:DA:334:C:C5'	2.66	0.43
22:DA:428:A:H2'	22:DA:429:A:O4'	2.18	0.43
22:DA:462:C:H2'	22:DA:463:G:O4'	2.18	0.43
22:DA:502:A:C6	22:DA:505:A:C5	3.06	0.43
22:DA:599:A:N3	22:DA:659:G:C2	2.86	0.43
22:DA:671:C:O2'	22:DA:672:C:P	2.75	0.43
22:DA:718:A:H5'	22:DA:719:C:OP2	2.18	0.43
22:DA:728:G:C4	22:DA:730:A:C8	3.06	0.43
22:DA:1000:A:N6	22:DA:1001:A:N1	2.66	0.43
22:DA:1063:G:C5	22:DA:1064:C:N4	2.87	0.43
22:DA:1220:G:H2'	22:DA:1221:C:H6	1.83	0.43
22:DA:1273:U:H4'	22:DA:1275:A:OP1	2.18	0.43
22:DA:1308:A:N6	22:DA:1309:G:N1	2.67	0.43
22:DA:1361:G:H2'	22:DA:1362:C:H5'	1.99	0.43
22:DA:1402:U:C2'	22:DA:1403:A:O5'	2.64	0.43
22:DA:1417:C:C4'	22:DA:1587:G:N2	2.82	0.43
22:DA:1569:A:N1	22:DA:1570:A:C2	2.87	0.43
22:DA:1735:A:O2'	22:DA:1736:U:O5'	2.37	0.43
22:DA:1735:A:H2'	22:DA:1736:U:C6	2.54	0.43
22:DA:1930:G:O2'	22:DA:1931:U:P	2.76	0.43
22:DA:2337:G:O2'	22:DA:2338:C:H5'	2.18	0.43
22:DA:2418:A:C6	22:DA:2419:U:N3	2.87	0.43
22:DA:2557:G:H2'	22:DA:2558:C:C6	2.54	0.43
22:DA:2611:C:O2'	22:DA:2612:C:H5'	2.18	0.43
22:DA:2624:G:H2'	22:DA:2625:G:O4'	2.19	0.43
22:DA:2726:A:O2'	22:DA:2727:A:O5'	2.36	0.43
22:DA:2747:G:O6	22:DA:2755:C:H5"	2.18	0.43
22:DA:2805:C:H2'	22:DA:2806:C:O4'	2.18	0.43
22:DA:2817:U:C2'	22:DA:2818:U:O5'	2.67	0.43
22:DA:2864:G:H2'	22:DA:2865:U:O4'	2.19	0.43
22:DA:2873:A:H5"	22:DA:2874:C:OP2	2.19	0.43
57:DB:35:C:H2'	57:DB:36:C:H4'	2.00	0.43
57:DB:68:C:O2'	57:DB:69:G:O5'	2.33	0.43
24:DC:242:HIS:HA	24:DC:243:PRO:HD3	1.82	0.43
25:DD:90:PHE:C	25:DD:92:VAL:H	2.22	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DE:58:LYS:HA	26:DE:59:PRO:HD3	1.82	0.43
58:DF:140:ILE:O	58:DF:141:ASP:HB2	2.19	0.43
28:DG:157:LYS:C	28:DG:159:LYS:H	2.20	0.43
29:DH:65:ALA:O	29:DH:66:ASN:C	2.57	0.43
32:DK:87:LEU:HD23	32:DK:87:LEU:H	1.84	0.43
33:DL:86:GLU:HA	33:DL:86:GLU:OE2	2.18	0.43
33:DL:110:VAL:C	33:DL:111:ILE:CD1	2.85	0.43
34:DM:23:GLY:O	34:DM:101:VAL:HG12	2.18	0.43
35:DN:30:ARG:HD3	35:DN:74:GLU:OE2	2.18	0.43
39:DR:62:GLU:CD	39:DR:97:LYS:HD2	2.39	0.43
40:DS:17:VAL:HG13	40:DS:47:VAL:HG11	1.99	0.43
41:DT:68:LYS:O	41:DT:74:ILE:HG13	2.18	0.43
42:DU:82:VAL:O	42:DU:96:LYS:CG	2.67	0.43
43:DV:73:LYS:CB	43:DV:92:VAL:HG23	2.49	0.43
44:DW:20:LEU:HD11	44:DW:35:ILE:CD1	2.49	0.43
45:DX:37:PHE:HB2	45:DX:46:VAL:HG23	2.01	0.43
47:DZ:32:GLY:C	47:DZ:34:THR:N	2.71	0.43
47:DZ:54:VAL:HG23	47:DZ:54:VAL:O	2.18	0.43
48:D0:27:LEU:HB3	48:D0:37:HIS:O	2.19	0.43
1:AA:21:G:C2	1:AA:22:G:C5	3.07	0.43
1:AA:89:U:C2	1:AA:90:C:C5	3.07	0.43
1:AA:152:A:C8	1:AA:153:C:C5	3.07	0.43
1:AA:184:G:H4'	1:AA:224:U:O3'	2.18	0.43
1:AA:411:A:C5	1:AA:429:U:C5	3.07	0.43
1:AA:466:A:O2'	1:AA:467:U:C5	2.59	0.43
1:AA:539:A:H2'	1:AA:540:G:H8	1.80	0.43
1:AA:921:U:O2	5:AE:23:THR:HB	2.19	0.43
1:AA:996:A:O2'	1:AA:997:U:H5'	2.19	0.43
1:AA:1239:A:H1'	1:AA:1241:G:C4	2.54	0.43
1:AA:1308:U:O3'	13:AM:90:HIS:CE1	2.71	0.43
2:AB:138:ARG:HB2	2:AB:138:ARG:NH1	2.33	0.43
2:AB:170:ILE:H	2:AB:170:ILE:HG12	1.41	0.43
4:AD:57:LYS:HG2	4:AD:202:LEU:HD23	2.00	0.43
6:AF:25:TYR:O	6:AF:28:ALA:HB3	2.19	0.43
7:AG:28:ILE:HG13	7:AG:100:MET:CE	2.49	0.43
7:AG:74:VAL:CG2	7:AG:85:GLN:NE2	2.80	0.43
11:AK:82:GLU:CD	11:AK:82:GLU:H	2.20	0.43
12:AL:49:ARG:HG2	12:AL:89:LEU:HD21	1.99	0.43
13:AM:44:ILE:N	13:AM:44:ILE:CD1	2.82	0.43
15:AO:25:GLU:HG3	15:AO:69:LEU:HD11	1.99	0.43
17:AQ:48:GLU:O	17:AQ:49:ASN:C	2.56	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:277:G:C8	22:BA:361:G:O6	2.72	0.43
22:BA:323:C:N4	22:BA:333:G:N7	2.67	0.43
22:BA:651:G:C5	22:BA:652:U:C5	3.06	0.43
22:BA:702:U:O2	22:BA:702:U:H2'	2.17	0.43
22:BA:763:G:O2'	22:BA:765:C:H5'	2.19	0.43
22:BA:818:G:H4'	22:BA:838:C:O3'	2.19	0.43
22:BA:988:A:C2'	22:BA:989:G:O5'	2.67	0.43
22:BA:1177:G:H2'	22:BA:1178:C:O4'	2.19	0.43
22:BA:1638:C:H1'	22:BA:2698:U:O2'	2.19	0.43
22:BA:1782:U:H1'	22:BA:2609:U:O4'	2.19	0.43
22:BA:2532:G:H2'	22:BA:2533:U:C6	2.53	0.43
22:BA:2682:A:C8	25:BD:11:MET:HG3	2.53	0.43
22:BA:2802:G:H2'	22:BA:2803:G:O4'	2.18	0.43
23:BB:44:G:H1'	23:BB:47:C:H42	1.83	0.43
31:BJ:40:HIS:O	31:BJ:41:LYS:CB	2.67	0.43
31:BJ:45:THR:H	38:BQ:59:LEU:HD21	1.83	0.43
31:BJ:55:ILE:HD12	31:BJ:56:VAL:O	2.17	0.43
31:BJ:121:LYS:HB2	31:BJ:121:LYS:HE3	1.76	0.43
35:BN:14:SER:O	35:BN:18:GLN:HB3	2.18	0.43
35:BN:95:THR:CG2	35:BN:113:ILE:HG13	2.49	0.43
41:BT:10:VAL:HG23	41:BT:11:LEU:HD23	2.01	0.43
41:BT:20:ALA:O	41:BT:21:SER:C	2.57	0.43
44:BW:40:ARG:N	44:BW:56:HIS:HB3	2.25	0.43
45:BX:50:VAL:CG1	45:BX:51:SER:N	2.79	0.43
53:CA:104:G:C2	53:CA:105:G:C8	3.06	0.43
53:CA:254:G:O3'	17:CQ:70:LYS:HD3	2.19	0.43
53:CA:331:G:O2'	53:CA:332:G:P	2.76	0.43
53:CA:441:A:N6	53:CA:493:A:H62	2.16	0.43
53:CA:442:G:C6	53:CA:443:C:C4	3.07	0.43
53:CA:564:C:H2'	53:CA:565:U:C6	2.53	0.43
53:CA:644:U:O2'	53:CA:645:G:H5'	2.17	0.43
53:CA:751:U:H1'	15:CO:22:GLY:O	2.19	0.43
53:CA:892:A:C5	53:CA:893:C:C5	3.07	0.43
53:CA:896:C:C2'	53:CA:897:C:H5'	2.48	0.43
53:CA:898:G:N2	53:CA:901:A:OP2	2.45	0.43
53:CA:913:A:O2'	53:CA:914:A:H5"	2.19	0.43
53:CA:1348:U:C2'	53:CA:1349:A:H8	2.32	0.43
53:CA:1380:U:C4'	53:CA:1381:U:OP1	2.62	0.43
3:CC:155:ARG:NE	3:CC:159:ALA:O	2.52	0.43
3:CC:163:ARG:O	3:CC:164:THR:HB	2.18	0.43
3:CC:181:ILE:CD1	3:CC:202:PHE:HB2	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:79:THR:CA	5:CE:121:ASN:ND2	2.81	0.43
54:CG:4:ARG:HG2	54:CG:4:ARG:NH1	2.33	0.43
54:CG:75:LYS:HE2	54:CG:76:SER:H	1.84	0.43
9:CI:47:VAL:O	9:CI:50:PRO:HG2	2.18	0.43
10:CJ:37:ARG:CB	10:CJ:75:ASP:HB3	2.49	0.43
55:CM:13:HIS:CD2	55:CM:14:ALA:H	2.36	0.43
55:CM:14:ALA:HB1	55:CM:33:LEU:CD1	2.48	0.43
15:CO:28:VAL:O	15:CO:32:THR:N	2.40	0.43
56:CP:40:ASN:HB3	56:CP:49:GLY:O	2.18	0.43
21:CU:35:GLU:O	21:CU:36:PHE:HB2	2.19	0.43
22:DA:74:A:H5'	46:DY:48:ARG:HH22	1.83	0.43
22:DA:85:G:O2'	22:DA:86:G:H8	1.99	0.43
22:DA:138:U:H2'	22:DA:140:C:C1'	2.46	0.43
22:DA:186:G:N2	22:DA:211:C:O2	2.52	0.43
22:DA:228:C:H4'	22:DA:229:C:C6	2.54	0.43
22:DA:273:G:O2'	22:DA:274:C:C5'	2.67	0.43
22:DA:628:G:O2'	22:DA:629:G:O5'	2.37	0.43
22:DA:669:G:N3	22:DA:669:G:H2'	2.32	0.43
22:DA:706:A:H2'	22:DA:707:G:O4'	2.18	0.43
22:DA:764:A:C2	22:DA:781:A:C4	3.07	0.43
22:DA:898:C:C5	22:DA:899:A:C5	3.07	0.43
22:DA:917:A:C2	22:DA:918:A:H1'	2.54	0.43
22:DA:1064:C:H6	22:DA:1064:C:H5"	1.84	0.43
22:DA:1079:C:C4	22:DA:1088:A:C2	3.07	0.43
22:DA:1180:U:C4	22:DA:1181:U:C4	3.06	0.43
22:DA:1240:U:O2'	22:DA:1241:A:H5"	2.19	0.43
22:DA:1303:G:O2'	22:DA:1304:A:O5'	2.37	0.43
22:DA:1343:G:C2	22:DA:1344:U:C4	3.07	0.43
22:DA:1355:G:C2	22:DA:1356:G:C8	3.06	0.43
22:DA:1438:U:C5	22:DA:1552:A:N1	2.86	0.43
22:DA:1443:U:C2	22:DA:1444:G:C8	3.07	0.43
22:DA:1534:U:H3'	22:DA:1534:U:O2	2.19	0.43
22:DA:1663:G:C6	22:DA:1998:A:N6	2.87	0.43
22:DA:1997:C:H6	22:DA:1997:C:C5'	2.31	0.43
22:DA:2062:A:O2'	22:DA:2063:C:H5'	2.18	0.43
22:DA:2200:C:O2	22:DA:2226:C:N4	2.52	0.43
22:DA:2330:G:C2	22:DA:2386:A:C2	3.07	0.43
22:DA:2337:G:C2'	22:DA:2338:C:H5'	2.49	0.43
22:DA:2667:C:H2'	22:DA:2668:G:C8	2.54	0.43
22:DA:2700:A:N1	22:DA:2701:U:C4	2.86	0.43
22:DA:2898:U:C2	22:DA:2899:A:C8	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:DF:3:LEU:O	58:DF:6:TYR:HB3	2.19	0.43
58:DF:56:LEU:HD13	58:DF:56:LEU:C	2.38	0.43
58:DF:111:ARG:HH12	58:DF:113:PHE:HE1	1.65	0.43
28:DG:151:ARG:HB3	28:DG:161:VAL:HG23	2.01	0.43
29:DH:75:LEU:HD12	29:DH:75:LEU:N	2.34	0.43
31:DJ:43:GLU:C	31:DJ:45:THR:HG22	2.39	0.43
33:DL:57:LEU:CA	33:DL:60:ARG:HG3	2.47	0.43
34:DM:34:LYS:NZ	43:DV:82:TYR:HA	2.33	0.43
35:DN:79:LEU:O	35:DN:80:PHE:HB2	2.18	0.43
39:DR:6:GLN:HA	39:DR:6:GLN:HE21	1.83	0.43
41:DT:83:ALA:O	41:DT:84:TYR:HB2	2.19	0.43
46:DY:4:LYS:HB2	46:DY:4:LYS:HZ3	1.82	0.43
1:AA:40:C:O2	1:AA:40:C:H2'	2.18	0.43
1:AA:263:A:P	20:AT:73:ARG:HH11	2.41	0.43
1:AA:626:G:H2'	1:AA:627:G:C8	2.54	0.43
1:AA:729:A:C5	1:AA:730:G:C8	3.07	0.43
1:AA:752:G:O2'	1:AA:753:A:P	2.77	0.43
1:AA:1055:A:N6	1:AA:1206:G:C6	2.87	0.43
1:AA:1066:C:H5"	1:AA:1066:C:C6	2.52	0.43
1:AA:1498:U:C4'	1:AA:1499:A:OP1	2.65	0.43
2:AB:98:GLY:O	2:AB:102:ASN:HB3	2.19	0.43
2:AB:162:VAL:CG2	2:AB:184:ALA:CB	2.97	0.43
4:AD:53:GLN:NE2	4:AD:201:GLU:HG2	2.33	0.43
4:AD:103:ARG:O	4:AD:167:PRO:HG2	2.18	0.43
5:AE:80:LEU:HB2	5:AE:97:PRO:HB3	2.01	0.43
8:AH:4:ASP:OD2	8:AH:4:ASP:C	2.57	0.43
8:AH:9:MET:O	8:AH:10:LEU:C	2.56	0.43
10:AJ:80:THR:HG22	10:AJ:82:LYS:H	1.83	0.43
10:AJ:92:LEU:O	10:AJ:93:ALA:HB3	2.19	0.43
13:AM:30:LYS:O	13:AM:34:ALA:HB3	2.18	0.43
17:AQ:24:ILE:HB	17:AQ:41:THR:HB	2.01	0.43
19:AS:4:LEU:HD12	19:AS:4:LEU:N	2.33	0.43
22:BA:66:C:O2'	22:BA:67:U:H5'	2.18	0.43
22:BA:164:C:H5"	22:BA:164:C:H6	1.83	0.43
22:BA:258:G:H2'	22:BA:259:G:H8	1.84	0.43
22:BA:271:G:H4'	22:BA:272:A:OP1	2.18	0.43
22:BA:441:U:H2'	22:BA:442:G:C8	2.54	0.43
22:BA:619:G:C5'	22:BA:620:G:OP2	2.61	0.43
22:BA:783:A:C8	22:BA:784:G:H4'	2.54	0.43
22:BA:894:U:H2'	22:BA:895:U:H6	1.79	0.43
22:BA:1005:C:H1'	22:BA:1012:U:C4	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1022:G:C6	22:BA:1140:C:C4	3.07	0.43
22:BA:1306:C:O2	22:BA:1306:C:C2'	2.66	0.43
22:BA:1415:U:O2	22:BA:1415:U:C2'	2.61	0.43
22:BA:1433:A:H2'	22:BA:1434:A:O4'	2.18	0.43
22:BA:1656:C:O5'	22:BA:1656:C:H6	2.01	0.43
22:BA:1858:A:N6	22:BA:1884:G:H1'	2.34	0.43
22:BA:1870:C:H3'	22:BA:1871:A:C2	2.53	0.43
22:BA:2205:A:O2'	22:BA:2206:C:H5'	2.18	0.43
22:BA:2353:G:O2'	44:BW:31:LEU:CD2	2.67	0.43
22:BA:2374:C:C2'	22:BA:2375:G:H5'	2.48	0.43
22:BA:2403:C:N3	22:BA:2415:G:C2	2.86	0.43
22:BA:2504:U:C5	60:BA:3135:CLY:H151	2.54	0.43
22:BA:2531:A:C6	22:BA:2532:G:C5	3.06	0.43
22:BA:2850:A:OP2	22:BA:2866:U:N3	2.47	0.43
24:BC:118:GLY:O	24:BC:129:LEU:HD23	2.18	0.43
25:BD:24:VAL:HA	25:BD:189:VAL:O	2.19	0.43
25:BD:103:ASP:OD1	25:BD:103:ASP:C	2.57	0.43
25:BD:158:GLY:O	25:BD:159:LYS:C	2.57	0.43
25:BD:181:ASP:OD2	25:BD:184:ARG:HD2	2.19	0.43
27:BF:20:ASN:O	27:BF:20:ASN:OD1	2.37	0.43
27:BF:125:GLY:HA3	27:BF:159:ALA:HB3	2.01	0.43
27:BF:134:GLN:C	27:BF:136:ILE:N	2.72	0.43
28:BG:59:ASP:O	28:BG:62:ALA:HB3	2.18	0.43
29:BH:120:GLY:O	29:BH:121:VAL:CG2	2.67	0.43
30:BI:56:VAL:CG2	30:BI:68:PHE:HB2	2.49	0.43
34:BM:8:LYS:N	34:BM:8:LYS:CD	2.77	0.43
34:BM:136:MET:HB3	34:BM:136:MET:HE2	1.84	0.43
35:BN:2:ARG:HA	35:BN:5:LYS:HD2	2.00	0.43
38:BQ:60:TRP:O	38:BQ:64:ILE:HG13	2.19	0.43
39:BR:68:ARG:N	39:BR:93:PHE:CE2	2.87	0.43
39:BR:70:GLU:O	39:BR:71:LYS:C	2.57	0.43
40:BS:20:VAL:HG11	40:BS:44:ALA:HA	2.01	0.43
40:BS:24:ILE:CG2	40:BS:71:VAL:HG11	2.49	0.43
48:B0:8:THR:OG1	48:B0:10:SER:HB3	2.18	0.43
53:CA:25:C:H2'	53:CA:26:A:C8	2.54	0.43
53:CA:68:G:H2'	53:CA:69:G:O4'	2.19	0.43
53:CA:146:G:H2'	53:CA:147:G:H5'	2.01	0.43
53:CA:159:G:N3	53:CA:159:G:H2'	2.34	0.43
53:CA:203:G:H8	53:CA:203:G:O5'	2.02	0.43
53:CA:261:U:O2'	53:CA:263:A:N7	2.42	0.43
53:CA:696:A:C5	53:CA:697:U:C5	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:796:C:H4'	11:CK:126:ARG:HH21	1.83	0.43
53:CA:833:G:N2	53:CA:854:U:H1'	2.34	0.43
53:CA:970:C:H5"	53:CA:971:G:OP1	2.19	0.43
53:CA:1089:G:H2'	53:CA:1090:U:O4'	2.19	0.43
53:CA:1214:C:O2'	53:CA:1215:G:C5'	2.67	0.43
53:CA:1308:U:OP2	55:CM:97:ARG:HD3	2.19	0.43
53:CA:1452:C:H5'	53:CA:1453:G:C5	2.53	0.43
2:CB:202:ASN:HB3	2:CB:203:ASP:H	1.73	0.43
3:CC:22:PHE:CD2	10:CJ:97:ASP:HB2	2.54	0.43
3:CC:71:ARG:HH12	3:CC:74:ILE:HB	1.83	0.43
4:CD:53:GLN:HB3	4:CD:202:LEU:HD12	2.01	0.43
5:CE:95:MET:CE	5:CE:143:LEU:HD21	2.48	0.43
54:CG:72:VAL:O	54:CG:140:VAL:CG1	2.67	0.43
9:CI:109:GLN:CG	9:CI:110:VAL:H	2.31	0.43
10:CJ:57:VAL:CG2	10:CJ:58:ASN:N	2.66	0.43
12:CL:54:VAL:O	12:CL:61:GLU:HA	2.18	0.43
14:CN:26:LEU:HD23	14:CN:26:LEU:C	2.38	0.43
15:CO:27:GLN:O	15:CO:30:LEU:HB2	2.18	0.43
15:CO:30:LEU:HD23	15:CO:30:LEU:HA	1.90	0.43
56:CP:12:LYS:HG2	56:CP:13:LYS:HG2	2.01	0.43
18:CR:23:LYS:H	18:CR:23:LYS:HG2	1.57	0.43
21:CU:38:GLU:CA	21:CU:40:PRO:HD2	2.48	0.43
22:DA:125:A:OP2	50:D2:19:ARG:NH2	2.52	0.43
22:DA:128:C:H2'	22:DA:129:C:C6	2.53	0.43
22:DA:167:A:H3'	22:DA:168:G:H8	1.84	0.43
22:DA:216:A:C4	22:DA:217:A:N7	2.87	0.43
22:DA:243:U:OP2	51:D3:7:ARG:NH1	2.52	0.43
22:DA:266:G:C2'	22:DA:267:C:O5'	2.66	0.43
22:DA:294:A:N1	22:DA:346:A:N1	2.67	0.43
22:DA:412:A:N6	22:DA:2411:A:H2'	2.34	0.43
22:DA:444:C:H6	22:DA:444:C:H2'	1.57	0.43
22:DA:446:G:C4'	22:DA:447:A:OP1	2.66	0.43
22:DA:528:A:O2'	22:DA:529:A:C5'	2.66	0.43
22:DA:638:G:O2'	22:DA:639:U:C6	2.70	0.43
22:DA:718:A:C3'	22:DA:719:C:H5'	2.49	0.43
22:DA:1138:G:H2'	22:DA:1139:G:O4'	2.18	0.43
22:DA:1255:U:H2'	22:DA:1255:U:H6	1.56	0.43
22:DA:1426:G:H5'	22:DA:1427:A:OP2	2.18	0.43
22:DA:1565:C:C4	22:DA:1567:G:C2	3.07	0.43
22:DA:1717:A:HO2'	22:DA:1718:G:C4'	2.31	0.43
22:DA:1794:A:C2	22:DA:1795:C:C2	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2142:A:H3'	22:DA:2143:C:H4'	1.97	0.43
22:DA:2336:A:N1	44:DW:56:HIS:CE1	2.87	0.43
22:DA:2370:G:C6	22:DA:2371:G:C5	3.07	0.43
22:DA:2458:G:H2'	22:DA:2490:G:N1	2.28	0.43
22:DA:2636:C:H4'	25:DD:81:GLU:CD	2.39	0.43
22:DA:2656:U:O2'	22:DA:2657:A:H5'	2.19	0.43
22:DA:2658:C:H5"	28:DG:157:LYS:HD3	2.01	0.43
22:DA:2686:G:H2'	22:DA:2687:U:C6	2.54	0.43
22:DA:2756:U:C2'	22:DA:2757:A:H5'	2.46	0.43
57:DB:54:G:H21	58:DF:25:MET:CE	2.32	0.43
57:DB:81:G:O2'	57:DB:82:U:H5'	2.19	0.43
24:DC:141:HIS:HB3	24:DC:142:ASN:H	1.60	0.43
25:DD:12:THR:HG22	25:DD:13:ARG:N	2.32	0.43
26:DE:12:LEU:O	26:DE:13:THR:HB	2.18	0.43
58:DF:35:LEU:O	58:DF:36:ASN:HB2	2.18	0.43
28:DG:38:ASP:O	28:DG:39:ALA:HB2	2.18	0.43
29:DH:43:ASN:O	29:DH:47:PHE:CD2	2.72	0.43
29:DH:53:GLU:C	29:DH:55:GLU:N	2.71	0.43
29:DH:71:LYS:N	29:DH:71:LYS:HD2	2.34	0.43
31:DJ:51:GLY:HA3	31:DJ:121:LYS:HE3	2.00	0.43
32:DK:59:LYS:HG2	32:DK:89:ASN:HA	2.00	0.43
34:DM:34:LYS:HD3	34:DM:131:VAL:CG2	2.49	0.43
35:DN:24:MET:CG	35:DN:44:LEU:HD22	2.44	0.43
35:DN:38:LEU:HG	35:DN:42:LYS:HD2	2.01	0.43
35:DN:67:PHE:HE2	35:DN:73:ASN:ND2	2.17	0.43
36:DO:30:ARG:NH2	36:DO:103:VAL:HG23	2.33	0.43
40:DS:40:ASN:OD1	40:DS:41:LYS:N	2.52	0.43
41:DT:60:THR:O	41:DT:61:LEU:HB3	2.19	0.43
44:DW:23:LYS:HD2	44:DW:24:ARG:HB2	2.00	0.43
46:DY:22:LEU:CG	46:DY:23:ARG:NH1	2.82	0.43
47:DZ:11:SER:OG	47:DZ:13:ILE:HG13	2.18	0.43
1:AA:87:C:O2'	1:AA:88:U:O4'	2.36	0.43
1:AA:122:G:H8	1:AA:122:G:O5'	2.02	0.43
1:AA:393:A:OP2	16:AP:12:LYS:HD2	2.18	0.43
1:AA:559:A:H1'	1:AA:561:U:H2'	2.00	0.43
1:AA:705:G:H2'	1:AA:706:A:C5'	2.49	0.43
1:AA:882:C:O2'	1:AA:883:C:H5'	2.19	0.43
1:AA:1157:A:C6	1:AA:1180:A:C5	3.07	0.43
1:AA:1361:G:C2'	1:AA:1362:A:C5'	2.93	0.43
1:AA:1439:G:C6	1:AA:1440:U:C2	3.06	0.43
1:AA:1467:C:H2'	1:AA:1468:A:C8	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:199:ILE:HA	2:AB:200:PRO:HD2	1.86	0.43
3:AC:33:ASP:O	3:AC:37:LYS:CB	2.67	0.43
3:AC:76:ILE:HG12	3:AC:83:VAL:CG2	2.49	0.43
4:AD:117:VAL:HG12	4:AD:130:ASN:O	2.19	0.43
4:AD:149:LYS:O	4:AD:151:GLN:OE1	2.36	0.43
5:AE:83:PRO:CB	5:AE:96:GLN:NE2	2.73	0.43
5:AE:154:ALA:HB3	5:AE:155:LYS:HE3	2.00	0.43
6:AF:3:HIS:CD2	6:AF:94:HIS:H	2.36	0.43
8:AH:66:GLN:C	8:AH:68:LYS:H	2.21	0.43
8:AH:110:MET:SD	8:AH:115:ALA:HA	2.58	0.43
9:AI:31:GLN:O	9:AI:32:ARG:HB2	2.18	0.43
10:AJ:36:VAL:HA	10:AJ:76:ILE:HA	2.01	0.43
14:AN:15:LEU:HA	14:AN:18:LYS:HD2	2.00	0.43
14:AN:30:ILE:HG22	14:AN:31:SER:N	2.33	0.43
16:AP:3:THR:CG2	16:AP:4:ILE:N	2.80	0.43
17:AQ:40:THR:CG2	17:AQ:41:THR:N	2.82	0.43
18:AR:20:ILE:H	18:AR:20:ILE:HG13	1.67	0.43
22:BA:118:A:N3	22:BA:178:G:H1'	2.34	0.43
22:BA:161:A:P	22:BA:162:U:H3'	2.59	0.43
22:BA:273:G:O2'	22:BA:274:C:O4'	2.36	0.43
22:BA:398:C:H2'	22:BA:399:U:O5'	2.19	0.43
22:BA:855:G:N3	44:BW:23:LYS:CG	2.81	0.43
22:BA:993:G:C6	22:BA:1162:G:C6	3.06	0.43
22:BA:1437:C:H2'	22:BA:1438:U:C6	2.53	0.43
22:BA:1496:A:H2'	22:BA:1498:C:N4	2.34	0.43
22:BA:1511:G:N2	22:BA:1512:C:C2	2.87	0.43
22:BA:1904:G:C2'	22:BA:1905:C:H5'	2.49	0.43
22:BA:2817:U:H1'	22:BA:2836:U:O2	2.19	0.43
23:BB:109:A:H2'	23:BB:110:C:H6	1.82	0.43
24:BC:225:ASN:HB3	24:BC:226:PRO:HD2	2.01	0.43
31:BJ:54:ILE:O	31:BJ:54:ILE:CG1	2.67	0.43
34:BM:21:ALA:HA	34:BM:97:GLN:HG2	2.01	0.43
34:BM:54:THR:O	34:BM:56:ALA:HB3	2.19	0.43
38:BQ:60:TRP:O	38:BQ:61:ILE:C	2.57	0.43
44:BW:11:ASN:C	44:BW:12:GLY:O	2.57	0.43
47:BZ:33:HIS:O	47:BZ:34:THR:HB	2.19	0.43
50:B2:10:LEU:HD12	50:B2:10:LEU:O	2.19	0.43
53:CA:130:A:O2'	53:CA:263:A:O2'	2.18	0.43
53:CA:184:G:H2'	53:CA:185:U:C5	2.54	0.43
53:CA:322:C:O2'	20:CT:17:ARG:HG3	2.19	0.43
53:CA:560:A:H4'	53:CA:561:U:H5"	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1059:C:O2'	53:CA:1060:U:H5'	2.19	0.43
53:CA:1294:G:C2'	53:CA:1295:U:O5'	2.67	0.43
53:CA:1315:U:C5	53:CA:1316:G:N7	2.87	0.43
53:CA:1319:A:N6	53:CA:1323:G:N3	2.67	0.43
53:CA:1409:C:H5'	22:DA:1916:A:C6	2.53	0.43
2:CB:19:THR:CG2	2:CB:37:VAL:HG23	2.29	0.43
2:CB:26:MET:CE	2:CB:29:PHE:CE2	3.01	0.43
3:CC:179:ALA:HB1	3:CC:202:PHE:CD1	2.53	0.43
12:CL:79:ILE:HD12	12:CL:96:THR:HG22	1.92	0.43
12:CL:113:ARG:CZ	12:CL:120:ARG:HA	2.49	0.43
17:CQ:25:GLU:HG3	17:CQ:40:THR:HG22	2.01	0.43
22:DA:3:U:C4	22:DA:4:U:C5	3.07	0.43
22:DA:14:A:H2'	22:DA:15:G:C8	2.53	0.43
22:DA:64:A:H2'	22:DA:65:U:C6	2.54	0.43
22:DA:117:G:C4'	22:DA:126:A:C2	3.02	0.43
22:DA:119:A:H5'	22:DA:120:U:OP1	2.19	0.43
22:DA:303:G:O2'	22:DA:304:U:H6	1.97	0.43
22:DA:323:C:H6	26:DE:165:HIS:NE2	2.17	0.43
22:DA:352:A:H3'	22:DA:353:C:C4'	2.49	0.43
22:DA:522:A:H2'	22:DA:523:C:H6	1.81	0.43
22:DA:647:G:C8	22:DA:648:G:N7	2.87	0.43
22:DA:831:G:O3'	33:DL:38:GLN:N	2.52	0.43
22:DA:855:G:O2'	44:DW:23:LYS:HD3	2.19	0.43
22:DA:982:C:H3'	22:DA:982:C:O2	2.19	0.43
22:DA:1281:G:C2	22:DA:1290:C:N3	2.87	0.43
22:DA:1338:G:O6	41:DT:66:LYS:CE	2.66	0.43
22:DA:1345:C:H3'	22:DA:1345:C:P	2.58	0.43
22:DA:1361:G:H2'	22:DA:1362:C:C5'	2.48	0.43
22:DA:1371:G:C2	22:DA:1372:U:C5	3.06	0.43
22:DA:1517:G:N2	22:DA:1732:C:C5	2.87	0.43
22:DA:1555:G:O2'	22:DA:1556:C:C5'	2.51	0.43
22:DA:1722:A:O2'	22:DA:1723:G:O4'	2.37	0.43
22:DA:2563:U:O2	22:DA:2566:A:N7	2.52	0.43
24:DC:67:LYS:HG2	24:DC:150:GLY:HA2	2.00	0.43
24:DC:115:ILE:HB	24:DC:126:GLY:O	2.19	0.43
25:DD:73:VAL:HG22	25:DD:74:GLU:N	2.34	0.43
58:DF:43:ILE:CG2	58:DF:44:ALA:H	2.09	0.43
58:DF:94:ARG:HD3	58:DF:97:GLU:OE2	2.19	0.43
58:DF:146:ASP:HB3	58:DF:147:ARG:H	1.61	0.43
28:DG:135:ALA:O	28:DG:136:ASP:HB2	2.17	0.43
30:DI:60:VAL:HG22	30:DI:66:PHE:HE2	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DJ:43:GLU:O	31:DJ:43:GLU:HG2	2.19	0.43
32:DK:8:LEU:HD12	32:DK:8:LEU:N	2.33	0.43
32:DK:21:CYS:SG	32:DK:39:ILE:HG22	2.59	0.43
32:DK:121:GLU:O	32:DK:122:VAL:C	2.57	0.43
35:DN:34:ILE:O	35:DN:112:TYR:HA	2.18	0.43
35:DN:84:GLY:N	35:DN:85:PRO:CD	2.82	0.43
38:DQ:4:LYS:HD2	38:DQ:7:VAL:HG22	1.98	0.43
38:DQ:96:ASP:C	38:DQ:96:ASP:OD1	2.56	0.43
41:DT:3:ARG:CD	41:DT:42:GLU:HG2	2.41	0.43
41:DT:29:THR:CB	41:DT:87:LEU:H	2.16	0.43
44:DW:14:ASP:O	44:DW:15:SER:HB2	2.18	0.43
45:DX:44:ARG:HB3	45:DX:44:ARG:HH11	1.84	0.43
50:D2:10:LEU:HD23	50:D2:10:LEU:C	2.38	0.43
50:D2:18:PHE:O	50:D2:19:ARG:C	2.57	0.43
1:AA:32:A:C2'	1:AA:33:A:H8	2.29	0.43
1:AA:126:G:H2'	1:AA:127:G:O4'	2.18	0.43
1:AA:684:U:C1'	11:AK:39:ASN:O	2.62	0.43
1:AA:718:A:C8	11:AK:117:HIS:CB	2.94	0.43
1:AA:749:A:H2'	1:AA:750:C:C6	2.54	0.43
1:AA:752:G:H1'	1:AA:754:C:N4	2.34	0.43
1:AA:773:G:H2'	1:AA:774:G:O5'	2.19	0.43
1:AA:961:U:OP2	1:AA:1223:C:C1'	2.67	0.43
1:AA:1364:U:C3'	1:AA:1365:G:H5'	2.49	0.43
4:AD:123:MET:CA	4:AD:128:VAL:HA	2.45	0.43
5:AE:82:HIS:CE1	8:AH:95:MET:HE3	2.53	0.43
5:AE:131:ASN:HA	5:AE:132:PRO:HD2	1.74	0.43
9:AI:79:ARG:NH1	9:AI:102:PHE:HD1	2.17	0.43
12:AL:42:LYS:O	12:AL:43:LYS:C	2.58	0.43
19:AS:52:ASN:HB3	19:AS:74:ALA:HB1	2.01	0.43
20:AT:27:MET:HE1	20:AT:57:VAL:CG2	2.45	0.43
22:BA:96:C:O2'	22:BA:97:C:H5'	2.19	0.43
22:BA:532:A:H2'	22:BA:532:A:N3	2.34	0.43
22:BA:616:A:HO2'	22:BA:617:G:H5'	1.77	0.43
22:BA:747:U:C6	22:BA:2613:U:C5	3.07	0.43
22:BA:945:A:C5'	22:BA:946:C:OP2	2.67	0.43
22:BA:1015:U:C2'	22:BA:1016:G:H5'	2.49	0.43
22:BA:1335:C:H2'	22:BA:1336:A:O5'	2.18	0.43
22:BA:1591:A:H2'	22:BA:1592:C:C6	2.53	0.43
22:BA:2080:A:C5'	45:BX:18:SER:CB	2.97	0.43
22:BA:2486:C:H2'	22:BA:2487:G:O5'	2.18	0.43
22:BA:2489:U:C4	22:BA:2490:G:C6	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2531:A:H5'	28:BG:156:TYR:CZ	2.53	0.43
22:BA:2748:A:H1'	28:BG:66:THR:HG23	2.00	0.43
22:BA:2786:U:C2'	22:BA:2787:C:H5'	2.49	0.43
24:BC:7:PRO:C	24:BC:9:SER:H	2.22	0.43
24:BC:90:ILE:HG21	24:BC:102:TYR:CD1	2.53	0.43
25:BD:40:LEU:O	25:BD:41:ALA:C	2.57	0.43
26:BE:151:GLY:CA	26:BE:192:ALA:HB2	2.47	0.43
27:BF:7:TYR:O	27:BF:11:VAL:HB	2.19	0.43
27:BF:24:VAL:CG2	27:BF:25:MET:N	2.81	0.43
27:BF:43:ILE:HA	27:BF:82:TYR:CZ	2.54	0.43
27:BF:76:PHE:O	27:BF:77:LYS:HB2	2.18	0.43
28:BG:53:PRO:HD3	28:BG:61:TRP:CZ3	2.54	0.43
28:BG:102:ILE:N	28:BG:114:HIS:O	2.51	0.43
29:BH:81:ALA:CB	29:BH:146:VAL:HA	2.48	0.43
30:BI:3:LYS:HD2	30:BI:4:VAL:H	1.82	0.43
32:BK:54:LYS:C	32:BK:56:ASP:H	2.22	0.43
32:BK:80:ASP:OD2	37:BP:61:ARG:NH1	2.51	0.43
34:BM:136:MET:HE2	43:BV:57:TYR:CD2	2.54	0.43
36:BO:7:ARG:HD2	36:BO:97:PHE:CZ	2.54	0.43
37:BP:42:PHE:C	37:BP:42:PHE:CD1	2.92	0.43
37:BP:58:PHE:HE2	37:BP:75:THR:HG22	1.84	0.43
39:BR:39:LEU:O	39:BR:40:MET:HB2	2.18	0.43
41:BT:17:SER:O	41:BT:18:GLU:HB3	2.19	0.43
42:BU:48:VAL:O	42:BU:48:VAL:HG13	2.18	0.43
44:BW:35:ILE:O	44:BW:37:VAL:HG23	2.19	0.43
44:BW:67:LYS:C	44:BW:67:LYS:HE2	2.40	0.43
52:B4:13:ASN:HB3	52:B4:28:SER:OG	2.19	0.43
53:CA:27:G:C4	53:CA:557:G:N2	2.87	0.43
53:CA:183:C:O2	53:CA:183:C:C2'	2.67	0.43
53:CA:455:G:N2	53:CA:478:A:C2	2.87	0.43
53:CA:744:C:O2'	53:CA:745:G:H5'	2.18	0.43
53:CA:882:C:N4	12:CL:5:GLN:HE21	2.16	0.43
53:CA:974:A:H5"	14:CN:70:HIS:ND1	2.34	0.43
53:CA:1036:A:O2'	53:CA:1037:C:H5'	2.18	0.43
53:CA:1129:C:N3	53:CA:1139:G:C6	2.87	0.43
2:CB:132:GLU:C	2:CB:134:LEU:H	2.22	0.43
2:CB:137:THR:O	2:CB:140:LEU:HB3	2.19	0.43
2:CB:163:ILE:HA	2:CB:185:ILE:HG12	2.01	0.43
2:CB:206:ILE:C	2:CB:208:ALA:H	2.23	0.43
3:CC:188:ALA:O	3:CC:194:VAL:HA	2.19	0.43
3:CC:190:THR:HB	3:CC:193:GLY:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:191:THR:HB	3:CC:192:TYR:CE1	2.54	0.43
4:CD:116:LEU:HD21	4:CD:153:ARG:HD3	2.00	0.43
5:CE:48:GLY:HA3	5:CE:66:ALA:HB2	2.00	0.43
5:CE:56:PRO:HG2	5:CE:57:ALA:H	1.83	0.43
54:CG:89:GLU:O	54:CG:90:VAL:HG13	2.18	0.43
14:CN:61:ASN:CG	14:CN:72:PHE:CZ	2.93	0.43
22:DA:66:C:C4	22:DA:67:U:C4	3.06	0.43
22:DA:82:U:H2'	22:DA:83:A:C4'	2.49	0.43
22:DA:120:U:H5"	62:DA:3222:HOH:O	2.18	0.43
22:DA:191:A:O2'	22:DA:192:C:H5'	2.18	0.43
22:DA:253:C:H6	22:DA:253:C:O5'	2.02	0.43
22:DA:352:A:C4	22:DA:353:C:C1'	3.02	0.43
22:DA:373:U:O2'	22:DA:374:A:C8	2.72	0.43
22:DA:527:C:O2	22:DA:527:C:C2'	2.56	0.43
22:DA:531:C:O5'	22:DA:532:A:C8	2.70	0.43
22:DA:663:G:H5"	22:DA:664:G:OP2	2.18	0.43
22:DA:848:C:H2'	22:DA:849:A:H8	1.84	0.43
22:DA:1275:A:O2'	22:DA:1276:A:H1'	2.18	0.43
22:DA:1783:A:N1	22:DA:2587:A:H2'	2.34	0.43
22:DA:1788:C:O5'	22:DA:1788:C:H6	2.01	0.43
22:DA:2135:A:O2'	22:DA:2136:G:O4'	2.37	0.43
22:DA:2206:C:H2'	22:DA:2207:C:H6	1.84	0.43
22:DA:2206:C:C2	22:DA:2207:C:C5	3.07	0.43
22:DA:2218:G:C5	22:DA:2219:U:C5	3.07	0.43
22:DA:2344:U:O2'	22:DA:2345:G:C5'	2.67	0.43
22:DA:2532:G:O2'	22:DA:2657:A:N1	2.52	0.43
22:DA:2533:U:H4'	22:DA:2664:G:H4'	2.01	0.43
22:DA:2819:G:H1'	22:DA:2828:G:N2	2.33	0.43
57:DB:59:A:H2'	57:DB:60:C:C6	2.54	0.43
57:DB:69:G:H2'	57:DB:70:C:H6	1.84	0.43
24:DC:161:VAL:HG12	24:DC:162:GLN:N	2.33	0.43
25:DD:177:VAL:HA	25:DD:188:LEU:O	2.19	0.43
25:DD:180:VAL:HG22	25:DD:187:LEU:HD13	2.01	0.43
58:DF:97:GLU:O	58:DF:97:GLU:HG2	2.16	0.43
28:DG:146:ASP:O	28:DG:149:ALA:HB3	2.19	0.43
29:DH:4:ILE:O	29:DH:36:ALA:HB1	2.19	0.43
29:DH:78:VAL:HG21	29:DH:144:VAL:HG12	1.99	0.43
34:DM:21:ALA:HB2	34:DM:98:PRO:O	2.19	0.43
38:DQ:86:SER:O	38:DQ:87:VAL:C	2.57	0.43
41:DT:53:VAL:HG21	41:DT:92:ASN:HD22	1.83	0.43
42:DU:48:VAL:C	42:DU:50:ALA:H	2.23	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DV:14:LYS:HD3	43:DV:18:ARG:HH11	1.84	0.43
44:DW:14:ASP:C	44:DW:16:GLU:H	2.23	0.43
46:DY:9:LYS:HB3	46:DY:12:GLU:HG3	2.00	0.43
49:D1:22:THR:HG23	49:D1:23:THR:N	2.33	0.43
1:AA:118:U:O4	1:AA:289:G:H4'	2.19	0.42
1:AA:234:C:O2'	1:AA:235:C:H5'	2.18	0.42
1:AA:272:C:H2'	1:AA:273:U:H6	1.83	0.42
1:AA:408:A:OP1	4:AD:109:THR:HG21	2.18	0.42
1:AA:449:G:C2'	1:AA:450:G:H5'	2.49	0.42
1:AA:548:G:O2'	1:AA:549:C:H5'	2.19	0.42
1:AA:1039:G:C6	1:AA:1040:U:C4	3.06	0.42
1:AA:1183:U:HO2'	1:AA:1184:G:P	2.42	0.42
1:AA:1468:A:O2'	1:AA:1469:C:H5"	2.19	0.42
6:AF:39:LEU:HD12	6:AF:40:GLU:N	2.34	0.42
7:AG:128:GLU:O	7:AG:129:ASN:C	2.57	0.42
9:AI:18:VAL:HG21	9:AI:82:ILE:N	2.34	0.42
12:AL:7:VAL:HG22	17:AQ:30:HIS:CD2	2.54	0.42
17:AQ:16:MET:O	17:AQ:19:SER:HB3	2.19	0.42
22:BA:49:A:C5	22:BA:177:G:C5	3.07	0.42
22:BA:148:U:H5"	22:BA:149:A:OP2	2.19	0.42
22:BA:170:U:H2'	22:BA:171:U:C6	2.50	0.42
22:BA:541:A:C6	22:BA:542:C:C4	3.07	0.42
22:BA:1064:C:O2'	30:BI:89:SER:HB2	2.18	0.42
22:BA:1125:G:H5'	52:B4:37:GLN:HG3	1.99	0.42
22:BA:1223:G:P	39:BR:68:ARG:NH1	2.92	0.42
22:BA:1239:G:H2'	22:BA:1240:U:O5'	2.18	0.42
22:BA:1358:G:O2'	22:BA:1359:A:H5'	2.19	0.42
22:BA:1637:A:H4'	22:BA:2711:A:O2'	2.19	0.42
22:BA:1866:A:N1	22:BA:1876:A:C8	2.87	0.42
22:BA:2076:U:O2	22:BA:2076:U:O4'	2.37	0.42
22:BA:2296:U:H4'	22:BA:2297:A:OP1	2.19	0.42
22:BA:2417:C:C2	22:BA:2418:A:C8	3.07	0.42
22:BA:2478:A:H5'	52:B4:32:LYS:HD3	2.01	0.42
22:BA:2747:G:HO2'	28:BG:66:THR:HG22	1.84	0.42
22:BA:2841:C:H2'	22:BA:2842:G:C8	2.54	0.42
22:BA:2901:C:H6	22:BA:2901:C:OP2	2.02	0.42
24:BC:70:LYS:HE2	24:BC:73:ILE:HG13	2.01	0.42
25:BD:178:VAL:N	25:BD:188:LEU:O	2.50	0.42
26:BE:147:LEU:O	26:BE:168:ASP:O	2.37	0.42
26:BE:149:ILE:HD12	26:BE:175:ILE:HB	2.01	0.42
28:BG:1:SER:HA	28:BG:5:LYS:HG3	1.99	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BG:144:ALA:O	28:BG:145:ALA:C	2.57	0.42
28:BG:148:ARG:HA	28:BG:161:VAL:HG11	2.01	0.42
28:BG:169:ARG:C	28:BG:170:THR:HG23	2.39	0.42
29:BH:66:ASN:C	29:BH:68:ARG:N	2.72	0.42
30:BI:19:PRO:HB2	30:BI:22:PRO:HD2	2.02	0.42
30:BI:59:THR:HG22	30:BI:61:TYR:CE2	2.53	0.42
31:BJ:4:PHE:CD1	31:BJ:4:PHE:C	2.89	0.42
35:BN:30:ARG:HE	35:BN:30:ARG:HB2	1.57	0.42
35:BN:59:SER:O	35:BN:60:VAL:C	2.55	0.42
38:BQ:8:ILE:C	38:BQ:8:ILE:CD1	2.70	0.42
39:BR:43:ASN:HB3	39:BR:44:GLY:H	1.61	0.42
42:BU:10:VAL:CG1	42:BU:24:VAL:HG23	2.48	0.42
43:BV:42:LEU:HD13	43:BV:47:VAL:HG21	2.01	0.42
44:BW:16:GLU:HB2	44:BW:17:ALA:H	1.53	0.42
44:BW:45:HIS:HB2	44:BW:50:VAL:HG13	2.01	0.42
47:BZ:3:THR:C	47:BZ:4:ILE:HG22	2.39	0.42
50:B2:8:SER:OG	50:B2:11:LYS:HG3	2.19	0.42
51:B3:21:PHE:O	51:B3:22:LYS:CB	2.66	0.42
53:CA:9:G:H8	53:CA:9:G:O5'	2.02	0.42
53:CA:35:G:C6	53:CA:36:C:C4	3.07	0.42
53:CA:82:G:C5	53:CA:89:U:C4	3.07	0.42
53:CA:154:U:C2'	53:CA:155:A:C5'	2.94	0.42
53:CA:155:A:C6	53:CA:156:C:C4	3.06	0.42
53:CA:187:G:N2	53:CA:190:A:OP2	2.52	0.42
53:CA:511:C:C2	53:CA:512:U:C5	3.07	0.42
53:CA:522:C:H41	12:CL:49:ARG:NH2	2.06	0.42
53:CA:738:C:C2	53:CA:739:C:C5	3.07	0.42
53:CA:846:G:O2'	53:CA:847:G:H5'	2.19	0.42
53:CA:961:U:O2'	53:CA:962:C:C5'	2.67	0.42
53:CA:981:U:O4	53:CA:1222:G:O6	2.37	0.42
53:CA:1003:G:N3	53:CA:1005:A:OP1	2.52	0.42
53:CA:1022:A:H2'	53:CA:1023:U:H6	1.84	0.42
53:CA:1092:A:N6	53:CA:1093:A:N6	2.66	0.42
53:CA:1258:G:O2'	53:CA:1259:C:C5'	2.64	0.42
53:CA:1386:G:O2'	53:CA:1387:G:H5'	2.18	0.42
53:CA:1495:U:O2'	53:CA:1496:C:H5'	2.19	0.42
53:CA:1514:G:H2'	53:CA:1515:G:C8	2.54	0.42
2:CB:162:VAL:HG11	2:CB:172:ILE:CD1	2.49	0.42
3:CC:87:ARG:HH11	3:CC:100:ILE:HG22	1.84	0.42
4:CD:55:ARG:NH1	4:CD:55:ARG:HG3	2.33	0.42
4:CD:176:LYS:CG	4:CD:178:GLU:HB2	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:30:THR:HG22	6:CF:30:THR:O	2.19	0.42
12:CL:23:LEU:HD11	12:CL:94:TYR:CE1	2.54	0.42
12:CL:73:LEU:HD23	12:CL:73:LEU:HA	1.83	0.42
55:CM:113:LYS:HD3	55:CM:113:LYS:C	2.39	0.42
20:CT:66:ILE:HD12	20:CT:70:LYS:HG2	2.00	0.42
22:DA:59:U:O2'	22:DA:73:A:H2'	2.19	0.42
22:DA:139:U:N3	41:DT:1:MET:N	2.62	0.42
22:DA:302:C:O2'	22:DA:303:G:O5'	2.37	0.42
22:DA:384:A:N6	22:DA:385:C:C2	2.87	0.42
22:DA:496:G:H2'	22:DA:497:A:O4'	2.19	0.42
22:DA:528:A:H2	22:DA:2043:C:H5'	1.83	0.42
22:DA:704:G:C2'	22:DA:726:G:N2	2.78	0.42
22:DA:859:G:H22	22:DA:916:G:H2'	1.81	0.42
22:DA:1179:G:H2'	22:DA:1180:U:H6	1.84	0.42
22:DA:1190:G:OP1	33:DL:32:GLY:HA2	2.19	0.42
22:DA:1364:G:H1'	22:DA:1368:G:H21	1.84	0.42
22:DA:1476:U:H1'	22:DA:1732:C:O2	2.18	0.42
22:DA:1525:A:H2'	22:DA:1526:C:H5'	2.01	0.42
22:DA:1735:A:N3	22:DA:1736:U:C6	2.87	0.42
22:DA:1819:A:H5"	24:DC:159:THR:HG21	2.01	0.42
22:DA:1983:G:O2'	22:DA:1984:G:H5'	2.19	0.42
22:DA:1993:U:O2'	22:DA:1994:C:H5'	2.18	0.42
22:DA:2077:A:C6	22:DA:2435:A:N6	2.87	0.42
22:DA:2085:U:H2'	22:DA:2086:U:H5'	1.99	0.42
22:DA:2221:G:C6	22:DA:2222:C:C4	3.07	0.42
22:DA:2577:A:H1'	22:DA:2612:C:N3	2.34	0.42
22:DA:2686:G:C6	22:DA:2687:U:C4	3.07	0.42
22:DA:2744:G:C4	22:DA:2761:A:N1	2.87	0.42
22:DA:2758:A:H2'	22:DA:2759:G:C5'	2.40	0.42
22:DA:2805:C:H2'	22:DA:2806:C:C6	2.54	0.42
57:DB:38:C:C2'	57:DB:39:A:H5'	2.49	0.42
57:DB:69:G:C5	57:DB:70:C:C6	3.07	0.42
57:DB:69:G:N9	57:DB:70:C:C6	2.86	0.42
57:DB:113:C:H1'	36:DO:45:SER:O	2.19	0.42
24:DC:93:VAL:HG13	24:DC:94:LEU:H	1.83	0.42
24:DC:94:LEU:CD1	24:DC:100:ARG:CD	2.96	0.42
24:DC:141:HIS:HB3	24:DC:190:THR:HB	2.00	0.42
25:DD:9:VAL:O	25:DD:9:VAL:HG22	2.19	0.42
25:DD:21:SER:CB	32:DK:73:ASP:O	2.67	0.42
25:DD:61:THR:O	25:DD:64:GLU:N	2.50	0.42
26:DE:131:THR:HG22	26:DE:161:ALA:N	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:DF:113:PHE:O	58:DF:114:ARG:HB3	2.19	0.42
29:DH:6:LEU:HD13	29:DH:36:ALA:CA	2.42	0.42
29:DH:9:VAL:HG11	29:DH:12:LEU:HD12	2.01	0.42
30:DI:64:ARG:HB2	30:DI:64:ARG:NH1	2.34	0.42
30:DI:132:ALA:HB1	30:DI:137:LEU:HB2	2.00	0.42
31:DJ:42:ALA:C	31:DJ:44:TYR:H	2.23	0.42
31:DJ:97:PRO:C	31:DJ:99:ARG:H	2.22	0.42
32:DK:69:VAL:HG12	32:DK:70:ARG:H	1.83	0.42
33:DL:76:GLU:O	33:DL:76:GLU:CG	2.66	0.42
33:DL:77:ILE:HG22	33:DL:78:ARG:N	2.34	0.42
33:DL:132:ARG:CA	33:DL:135:ILE:HG22	2.49	0.42
34:DM:10:ARG:HH21	34:DM:10:ARG:HG3	1.84	0.42
34:DM:136:MET:CE	43:DV:57:TYR:CD2	3.02	0.42
38:DQ:50:ARG:HD2	38:DQ:50:ARG:H	1.82	0.42
38:DQ:64:ILE:CD1	38:DQ:95:ALA:HB3	2.49	0.42
38:DQ:77:LYS:CE	38:DQ:116:LEU:HD11	2.48	0.42
39:DR:4:VAL:HG22	39:DR:40:MET:HB3	2.00	0.42
39:DR:89:HIS:CE1	39:DR:91:GLN:HB2	2.54	0.42
39:DR:98:ILE:HD12	39:DR:98:ILE:N	2.34	0.42
44:DW:16:GLU:O	44:DW:17:ALA:HB3	2.20	0.42
50:D2:9:VAL:CG1	50:D2:10:LEU:N	2.82	0.42
1:AA:75:G:N3	1:AA:76:G:H1'	2.35	0.42
1:AA:82:G:H2'	1:AA:83:C:H4'	2.01	0.42
1:AA:173:U:H5"	1:AA:174:A:OP2	2.19	0.42
1:AA:414:A:N6	1:AA:431:A:C4	2.87	0.42
1:AA:489:C:O2'	1:AA:490:C:H5'	2.19	0.42
1:AA:564:C:O2'	1:AA:565:U:C5'	2.67	0.42
1:AA:647:C:O2'	1:AA:648:A:H5'	2.19	0.42
1:AA:654:G:C5	1:AA:753:A:C5	3.07	0.42
1:AA:689:C:H2'	1:AA:690:G:H5'	2.01	0.42
1:AA:810:C:O2'	1:AA:811:C:H5'	2.19	0.42
1:AA:935:A:O2'	1:AA:936:C:O4'	2.30	0.42
1:AA:977:A:C2	1:AA:1362:A:N6	2.87	0.42
1:AA:1240:U:N3	7:AG:29:LEU:CD2	2.80	0.42
1:AA:1343:G:O3'	9:AI:123:ARG:CB	2.66	0.42
1:AA:1449:C:H2'	1:AA:1450:U:H5'	2.00	0.42
4:AD:195:ASN:HB3	4:AD:196:GLU:H	1.69	0.42
9:AI:82:ILE:O	9:AI:86:LEU:N	2.51	0.42
9:AI:113:LYS:HG2	9:AI:114:LYS:H	1.83	0.42
10:AJ:7:ARG:O	10:AJ:100:ILE:HA	2.19	0.42
10:AJ:51:VAL:O	10:AJ:62:ARG:HA	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:81:GLU:HA	10:AJ:84:VAL:HG12	2.01	0.42
15:AO:2:LEU:O	15:AO:3:SER:C	2.57	0.42
19:AS:41:PRO:C	19:AS:43:MET:H	2.21	0.42
20:AT:26:MET:HE3	20:AT:56:ILE:HD11	1.95	0.42
22:BA:12:U:C2'	22:BA:13:A:O5'	2.66	0.42
22:BA:479:A:C2	22:BA:480:A:C2	3.07	0.42
22:BA:572:A:H2'	22:BA:573:U:O4'	2.19	0.42
22:BA:1000:A:C6	22:BA:1155:A:C8	3.07	0.42
22:BA:1004:U:C2'	22:BA:1005:C:OP2	2.67	0.42
22:BA:1060:U:H5"	22:BA:1061:U:H5'	2.00	0.42
22:BA:1062:G:O2'	22:BA:1063:G:O4'	2.36	0.42
22:BA:1080:A:H2'	22:BA:1081:U:H6	1.83	0.42
22:BA:1084:A:C4	22:BA:1085:A:C8	3.07	0.42
22:BA:1106:G:C4	22:BA:1107:G:C8	3.07	0.42
22:BA:1148:U:C6	22:BA:1148:U:H3'	2.54	0.42
22:BA:1522:A:H1'	22:BA:1524:G:C5	2.54	0.42
22:BA:1669:A:N3	22:BA:1669:A:C2'	2.82	0.42
22:BA:1853:A:C5	22:BA:1889:A:C6	3.07	0.42
22:BA:2794:C:H2'	22:BA:2795:C:C6	2.54	0.42
22:BA:2795:C:H2'	22:BA:2796:U:H6	1.84	0.42
22:BA:2805:C:C4	22:BA:2806:C:C4	3.07	0.42
22:BA:2845:U:O2'	22:BA:2846:G:H5'	2.19	0.42
24:BC:237:ARG:O	24:BC:238:ASN:HB2	2.19	0.42
27:BF:56:LEU:HD23	27:BF:56:LEU:HA	1.78	0.42
27:BF:133:GLU:N	27:BF:150:GLY:CA	2.82	0.42
28:BG:27:GLY:O	28:BG:29:ASN:O	2.37	0.42
28:BG:44:HIS:O	28:BG:45:ALA:O	2.37	0.42
29:BH:104:THR:O	29:BH:104:THR:HG23	2.17	0.42
29:BH:131:SER:CB	29:BH:139:PHE:HD2	2.30	0.42
30:BI:53:PRO:HB2	30:BI:74:PRO:CG	2.49	0.42
31:BJ:113:PRO:HD3	31:BJ:116:ARG:NH1	2.34	0.42
33:BL:3:LEU:HD23	33:BL:3:LEU:HA	1.81	0.42
41:BT:27:SER:O	41:BT:28:ASN:OD1	2.37	0.42
41:BT:61:LEU:HG	41:BT:82:LYS:HB3	2.01	0.42
43:BV:81:PRO:HB2	43:BV:82:TYR:CD2	2.55	0.42
45:BX:29:LEU:HB2	45:BX:30:PRO:HD3	2.00	0.42
46:BY:7:ARG:O	46:BY:7:ARG:HG3	2.18	0.42
49:B1:38:PHE:CZ	49:B1:43:ARG:HA	2.53	0.42
53:CA:33:A:N3	53:CA:34:C:C6	2.88	0.42
53:CA:80:A:C5	53:CA:81:A:H1'	2.53	0.42
53:CA:208:U:C4	53:CA:212:G:N1	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:237:G:C6	53:CA:238:A:C5	3.07	0.42
53:CA:240:G:H5"	53:CA:240:G:H8	1.83	0.42
53:CA:386:C:C4	53:CA:387:U:C5	3.07	0.42
53:CA:411:A:H4'	53:CA:412:A:OP1	2.15	0.42
53:CA:501:C:H1'	53:CA:549:C:O2'	2.19	0.42
53:CA:580:C:H2'	53:CA:581:G:C8	2.54	0.42
53:CA:734:G:N2	18:CR:63:TYR:CE2	2.87	0.42
53:CA:1190:G:OP1	3:CC:3:LYS:HA	2.19	0.42
53:CA:1217:C:O2'	53:CA:1218:C:O5'	2.37	0.42
53:CA:1397:C:H5"	53:CA:1398:A:C8	2.54	0.42
53:CA:1442:G:H2'	53:CA:1443:C:H6	1.84	0.42
3:CC:15:LYS:HG3	3:CC:16:PRO:HD2	1.99	0.42
3:CC:149:LYS:O	3:CC:200:TRP:HE3	2.01	0.42
4:CD:102:TYR:C	4:CD:104:MET:H	2.21	0.42
4:CD:106:PHE:HB3	4:CD:154:VAL:CG2	2.49	0.42
6:CF:47:LEU:HD22	18:CR:65:SER:HB3	2.00	0.42
55:CM:6:ILE:HD12	55:CM:7:ASN:OD1	2.19	0.42
18:CR:51:GLN:OE1	18:CR:51:GLN:CA	2.68	0.42
22:DA:55:G:C2	22:DA:116:C:N3	2.87	0.42
22:DA:117:G:C6	22:DA:119:A:N1	2.87	0.42
22:DA:184:C:H2'	22:DA:185:G:H8	1.82	0.42
22:DA:250:G:O6	22:DA:386:G:N1	2.50	0.42
22:DA:282:A:C6	22:DA:283:G:C5	3.07	0.42
22:DA:311:A:H61	22:DA:330:A:C5'	2.31	0.42
22:DA:443:A:H2'	26:DE:40:ARG:NE	2.34	0.42
22:DA:577:G:H2'	22:DA:578:G:C8	2.54	0.42
22:DA:605:G:O2'	22:DA:606:U:H5'	2.19	0.42
22:DA:617:G:O2'	22:DA:618:G:O5'	2.37	0.42
22:DA:671:C:O2'	22:DA:672:C:OP2	2.37	0.42
22:DA:961:C:C5	22:DA:2456:C:O4'	2.66	0.42
22:DA:976:G:O2'	22:DA:977:G:H5'	2.19	0.42
22:DA:976:G:H5'	22:DA:1156:A:C6	2.54	0.42
22:DA:1112:G:O2'	22:DA:1113:U:H5'	2.18	0.42
22:DA:1353:A:C2	22:DA:1378:A:C2	3.07	0.42
22:DA:1364:G:N3	22:DA:1368:G:N2	2.67	0.42
22:DA:1371:G:N3	22:DA:1372:U:C5	2.87	0.42
22:DA:1394:U:C3'	22:DA:1394:U:C6	3.02	0.42
22:DA:1419:A:N7	22:DA:1421:G:C6	2.88	0.42
22:DA:1439:A:N7	22:DA:1440:U:O4'	2.51	0.42
22:DA:1500:G:H2'	22:DA:1501:G:O5'	2.19	0.42
22:DA:1510:G:N2	22:DA:1511:G:N3	2.66	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1512:C:C5	22:DA:1513:U:C5	3.07	0.42
22:DA:1598:A:C2	22:DA:1599:U:C2	3.07	0.42
22:DA:1766:G:H2'	22:DA:1767:G:O5'	2.20	0.42
22:DA:1835:G:C5	22:DA:1836:C:C5	3.06	0.42
22:DA:1867:G:C2	22:DA:1868:C:C2	3.07	0.42
22:DA:2048:G:C6	22:DA:2049:G:C5	3.08	0.42
22:DA:2582:G:N2	22:DA:2583:G:C8	2.88	0.42
57:DB:11:C:C5	57:DB:12:C:C5	3.07	0.42
57:DB:47:C:H5"	57:DB:48:U:OP2	2.19	0.42
24:DC:2:VAL:HB	24:DC:3:VAL:H	1.59	0.42
24:DC:149:LYS:HE3	24:DC:152:GLN:OE1	2.18	0.42
24:DC:177:SER:O	24:DC:270:ARG:HG3	2.19	0.42
26:DE:153:LEU:HD23	26:DE:154:ASP:N	2.34	0.42
58:DF:8:LYS:HG3	58:DF:12:VAL:HG21	2.00	0.42
58:DF:41:GLU:HG2	58:DF:42:ALA:N	2.23	0.42
28:DG:94:ARG:CZ	28:DG:105:SER:HB2	2.49	0.42
28:DG:117:PRO:HD2	28:DG:120:ILE:CG2	2.50	0.42
30:DI:76:ALA:O	30:DI:135:MET:CE	2.66	0.42
30:DI:106:GLN:O	30:DI:106:GLN:HG3	2.19	0.42
32:DK:113:MET:O	32:DK:116:ILE:CG1	2.68	0.42
33:DL:124:GLY:N	33:DL:143:GLU:HG3	2.20	0.42
35:DN:51:LEU:HA	35:DN:51:LEU:HD23	1.88	0.42
38:DQ:4:LYS:HE3	38:DQ:7:VAL:H	1.80	0.42
38:DQ:61:ILE:HD12	38:DQ:61:ILE:N	2.34	0.42
44:DW:17:ALA:O	44:DW:18:LYS:CB	2.47	0.42
45:DX:61:LYS:O	45:DX:65:THR:HB	2.20	0.42
46:DY:42:LEU:O	46:DY:42:LEU:HD23	2.18	0.42
50:D2:1:MET:HG3	50:D2:2:LYS:N	2.34	0.42
50:D2:23:ALA:O	50:D2:24:THR:CB	2.67	0.42
50:D2:34:ARG:NH1	50:D2:39:ARG:HG2	2.33	0.42
1:AA:19:A:N3	1:AA:917:G:C2	2.87	0.42
1:AA:91:U:H2'	1:AA:92:U:C1'	2.49	0.42
1:AA:577:G:C4'	1:AA:816:A:H2'	2.49	0.42
1:AA:684:U:O2	11:AK:40:ALA:HB3	2.19	0.42
1:AA:889:A:O3'	1:AA:890:G:H4'	2.19	0.42
1:AA:958:A:C6	1:AA:959:A:N1	2.87	0.42
1:AA:1324:A:O2'	1:AA:1325:C:O4'	2.36	0.42
1:AA:1469:C:H6	1:AA:1469:C:H5'	1.84	0.42
2:AB:24:PRO:C	2:AB:26:MET:H	2.21	0.42
2:AB:44:LYS:HD2	2:AB:44:LYS:HA	1.92	0.42
3:AC:10:ARG:O	3:AC:11:LEU:C	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:35:ASP:O	3:AC:38:VAL:HG22	2.19	0.42
4:AD:58:GLN:HE21	4:AD:58:GLN:HA	1.84	0.42
5:AE:24:VAL:O	5:AE:27:GLY:O	2.37	0.42
7:AG:4:ARG:NE	7:AG:4:ARG:CA	2.81	0.42
7:AG:68:VAL:O	7:AG:69:ARG:C	2.57	0.42
11:AK:21:HIS:HD2	11:AK:34:THR:HG22	1.83	0.42
13:AM:5:GLY:HA3	13:AM:65:GLU:HG3	2.00	0.42
14:AN:61:ASN:HD22	14:AN:61:ASN:HA	1.57	0.42
15:AO:15:GLY:O	15:AO:17:ASP:N	2.52	0.42
16:AP:79:ASN:O	16:AP:80:LYS:CB	2.60	0.42
22:BA:244:A:C2	22:BA:255:A:C4	3.07	0.42
22:BA:289:G:C2	22:BA:290:U:C2	3.07	0.42
22:BA:323:C:N4	22:BA:333:G:C5	2.87	0.42
22:BA:408:G:O2'	22:BA:409:G:H5'	2.19	0.42
22:BA:477:A:C6	22:BA:478:A:C6	3.07	0.42
22:BA:597:G:C6	22:BA:598:U:N3	2.87	0.42
22:BA:743:A:C2'	22:BA:744:U:H5'	2.49	0.42
22:BA:754:U:H2'	22:BA:755:U:C6	2.54	0.42
22:BA:777:G:O2'	22:BA:778:G:H5'	2.19	0.42
22:BA:789:A:H5"	62:BA:3748:HOH:O	2.19	0.42
22:BA:812:C:O2'	22:BA:813:U:H5'	2.19	0.42
22:BA:1153:C:H2'	22:BA:1154:G:C8	2.54	0.42
22:BA:1180:U:H2'	22:BA:1181:U:C6	2.54	0.42
22:BA:1220:G:H2'	22:BA:1221:C:C6	2.54	0.42
22:BA:1260:A:C6	22:BA:1261:C:C4	3.07	0.42
22:BA:1381:G:H2'	22:BA:1382:G:C5'	2.48	0.42
22:BA:1825:U:H2'	22:BA:1826:G:O4'	2.19	0.42
22:BA:1845:G:C2'	22:BA:1846:G:H5'	2.49	0.42
22:BA:1910:G:N2	22:BA:1921:G:C4	2.87	0.42
22:BA:1912:A:N1	22:BA:1919:A:N7	2.67	0.42
22:BA:2032:G:N2	22:BA:2572:A:OP2	2.50	0.42
22:BA:2197:U:O2'	22:BA:2198:A:C3'	2.64	0.42
22:BA:2359:C:O2	22:BA:2359:C:C2'	2.67	0.42
22:BA:2458:G:H2'	22:BA:2490:G:H1	1.84	0.42
22:BA:2489:U:O2	22:BA:2491:U:C4	2.73	0.42
22:BA:2573:C:H6	22:BA:2573:C:C5'	2.32	0.42
22:BA:2587:A:N6	22:BA:2608:G:H1'	2.34	0.42
22:BA:2712:C:H2'	22:BA:2714:G:O3'	2.19	0.42
22:BA:2846:G:OP1	37:BP:50:ARG:O	2.37	0.42
22:BA:2846:G:P	37:BP:51:ASN:HB2	2.59	0.42
24:BC:165:ALA:HB3	24:BC:172:THR:HG23	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BD:97:SER:OG	25:BD:98:VAL:N	2.52	0.42
26:BE:5:LEU:CD1	26:BE:10:SER:HB3	2.49	0.42
26:BE:29:HIS:HA	26:BE:32:VAL:HG22	2.01	0.42
28:BG:33:THR:H	28:BG:34:ARG:NH1	2.17	0.42
28:BG:83:THR:O	28:BG:84:LYS:HB3	2.18	0.42
31:BJ:57:LEU:HD12	31:BJ:57:LEU:HA	1.70	0.42
32:BK:3:GLN:O	32:BK:6:THR:HB	2.19	0.42
35:BN:73:ASN:CA	35:BN:76:VAL:HG12	2.48	0.42
38:BQ:31:TYR:HH	38:BQ:35:PHE:HD2	1.62	0.42
40:BS:29:VAL:HG13	40:BS:55:ILE:CD1	2.37	0.42
40:BS:39:THR:CG2	40:BS:44:ALA:HB2	2.46	0.42
44:BW:53:GLY:O	44:BW:56:HIS:N	2.51	0.42
44:BW:67:LYS:HE2	44:BW:67:LYS:HA	2.01	0.42
44:BW:70:VAL:CG2	44:BW:75:ASN:HA	2.49	0.42
53:CA:176:C:C2'	53:CA:177:G:O5'	2.67	0.42
53:CA:176:C:H2'	53:CA:177:G:O5'	2.19	0.42
53:CA:276:G:O2'	53:CA:277:C:O5'	2.37	0.42
53:CA:415:A:H3'	53:CA:416:G:H8	1.83	0.42
53:CA:665:A:H2'	53:CA:725:G:H22	1.77	0.42
53:CA:750:C:H4'	15:CO:20:ASP:HB2	2.01	0.42
53:CA:909:A:H2'	53:CA:910:C:O4'	2.20	0.42
53:CA:1072:G:C4	53:CA:1073:U:C6	3.08	0.42
53:CA:1092:A:N6	53:CA:1093:A:C6	2.88	0.42
53:CA:1269:A:C2'	53:CA:1270:G:H5'	2.50	0.42
53:CA:1278:G:C4'	53:CA:1279:G:H5'	2.45	0.42
2:CB:20:ARG:NE	2:CB:20:ARG:CA	2.82	0.42
3:CC:32:LEU:HD12	14:CN:76:PHE:HA	2.02	0.42
4:CD:34:GLU:HB3	4:CD:35:GLN:H	1.51	0.42
4:CD:121:ALA:O	4:CD:145:ARG:CB	2.65	0.42
4:CD:176:LYS:O	4:CD:177:MET:HB2	2.20	0.42
9:CI:7:GLY:HA3	9:CI:84:ARG:O	2.19	0.42
11:CK:74:LYS:HD2	11:CK:104:PHE:HE1	1.83	0.42
12:CL:113:ARG:NH2	12:CL:120:ARG:HA	2.34	0.42
55:CM:65:GLU:H	55:CM:65:GLU:HG3	1.69	0.42
15:CO:34:GLN:OE1	15:CO:38:LEU:HD22	2.19	0.42
17:CQ:7:LEU:HD22	17:CQ:7:LEU:N	2.34	0.42
22:DA:37:C:O2'	26:DE:45:ALA:HB2	2.20	0.42
22:DA:98:G:N3	22:DA:98:G:H2'	2.34	0.42
22:DA:219:A:N7	22:DA:220:G:C5	2.87	0.42
22:DA:374:A:O2'	22:DA:375:G:O5'	2.38	0.42
22:DA:617:G:O2'	22:DA:618:G:O4'	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:695:G:C4	22:DA:768:G:C2	3.08	0.42
22:DA:704:G:O2'	22:DA:705:A:P	2.77	0.42
22:DA:927:A:N1	22:DA:928:A:C2	2.87	0.42
22:DA:946:C:O2'	22:DA:947:A:O5'	2.38	0.42
22:DA:971:G:H2'	22:DA:972:A:C5'	2.46	0.42
22:DA:1050:A:HO2'	22:DA:1051:G:H8	1.68	0.42
22:DA:1062:G:O2'	22:DA:1063:G:H8	2.01	0.42
22:DA:1103:A:H3'	22:DA:1104:C:C6	2.54	0.42
22:DA:1167:C:C2'	22:DA:1168:G:H5'	2.49	0.42
22:DA:1255:U:O2'	22:DA:1256:G:OP1	2.35	0.42
22:DA:1265:A:C4	22:DA:1267:U:C4	3.08	0.42
22:DA:1270:C:H5"	22:DA:1271:G:OP1	2.19	0.42
22:DA:1303:G:O2'	22:DA:1304:A:C5'	2.67	0.42
22:DA:1398:C:O2'	22:DA:1399:C:H6	2.01	0.42
22:DA:1901:A:OP2	22:DA:1901:A:H4'	2.18	0.42
22:DA:2205:A:O2'	22:DA:2206:C:H5'	2.19	0.42
22:DA:2288:A:H4'	22:DA:2289:G:OP2	2.14	0.42
22:DA:2349:G:OP1	51:D3:44:ARG:NH2	2.52	0.42
22:DA:2547:A:C8	22:DA:2566:A:C8	3.07	0.42
22:DA:2557:G:C6	22:DA:2558:C:N4	2.87	0.42
22:DA:2652:C:N4	22:DA:2653:U:C4	2.87	0.42
22:DA:2654:A:N6	22:DA:2667:C:N4	2.67	0.42
22:DA:2714:G:C4	22:DA:2715:C:C6	3.06	0.42
22:DA:2841:C:H2'	22:DA:2842:G:C8	2.54	0.42
22:DA:2882:A:P	35:DN:96:ARG:HD3	2.59	0.42
57:DB:19:C:H2'	57:DB:20:G:C8	2.53	0.42
25:DD:109:VAL:HB	25:DD:175:LEU:HD12	2.01	0.42
26:DE:46:GLN:CB	26:DE:86:ALA:HB1	2.48	0.42
31:DJ:8:PRO:CG	31:DJ:9:GLU:H	2.25	0.42
31:DJ:44:TYR:O	31:DJ:44:TYR:HD2	2.02	0.42
32:DK:113:MET:HA	32:DK:116:ILE:HD11	2.01	0.42
33:DL:112:LEU:HD23	33:DL:112:LEU:H	1.84	0.42
34:DM:116:ALA:C	34:DM:118:LYS:H	2.22	0.42
37:DP:54:LEU:O	37:DP:54:LEU:HG	2.18	0.42
38:DQ:12:ARG:HD2	38:DQ:12:ARG:H	1.83	0.42
41:DT:55:VAL:HG23	41:DT:86:THR:O	2.19	0.42
43:DV:69:GLU:C	43:DV:70:ILE:HD13	2.39	0.42
48:D0:26:SER:C	48:D0:27:LEU:HD13	2.38	0.42
1:AA:199:A:C2	1:AA:200:G:C8	3.08	0.42
1:AA:466:A:C6	1:AA:468:A:N6	2.87	0.42
1:AA:1012:A:C6	1:AA:1013:G:C6	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1111:A:H2'	1:AA:1112:C:H5'	2.01	0.42
1:AA:1336:C:H4'	1:AA:1337:G:H5'	2.01	0.42
2:AB:22:TRP:HA	2:AB:189:ASN:HA	2.01	0.42
2:AB:128:LEU:O	2:AB:129:THR:HG23	2.20	0.42
3:AC:107:LYS:HA	3:AC:108:PRO:HD2	1.75	0.42
7:AG:21:LEU:HD23	7:AG:21:LEU:HA	1.74	0.42
11:AK:21:HIS:CD2	11:AK:34:THR:HG21	2.55	0.42
18:AR:67:LEU:HA	18:AR:68:PRO:HD3	1.88	0.42
22:BA:28:A:C4	22:BA:29:U:C6	3.07	0.42
22:BA:92:U:H2'	22:BA:93:G:C8	2.54	0.42
22:BA:137:U:OP2	22:BA:137:U:H5	2.01	0.42
22:BA:573:U:O3'	22:BA:574:A:H3'	2.19	0.42
22:BA:672:C:H4'	26:BE:84:THR:CG2	2.50	0.42
22:BA:866:A:C2'	22:BA:867:C:H5'	2.48	0.42
22:BA:959:A:N6	34:BM:82:MET:CE	2.80	0.42
22:BA:1062:G:N9	22:BA:1088:A:N7	2.67	0.42
22:BA:1151:A:H8	22:BA:1151:A:C5'	2.33	0.42
22:BA:1179:G:N1	22:BA:1180:U:O2'	2.50	0.42
22:BA:1239:G:H2'	22:BA:1240:U:O4'	2.20	0.42
22:BA:2092:U:C4'	22:BA:2093:G:O5'	2.66	0.42
22:BA:2238:G:H5'	22:BA:2239:G:OP1	2.19	0.42
22:BA:2321:U:H5"	22:BA:2321:U:C6	2.42	0.42
22:BA:2572:A:O5'	22:BA:2574:G:H4'	2.19	0.42
22:BA:2633:G:H2'	22:BA:2634:A:O4'	2.19	0.42
22:BA:2692:G:H4'	22:BA:2870:C:O2	2.19	0.42
22:BA:2726:A:O2'	22:BA:2727:A:C5'	2.68	0.42
22:BA:2727:A:O2'	22:BA:2728:U:H5'	2.20	0.42
22:BA:2823:A:O2'	22:BA:2824:C:H5'	2.20	0.42
24:BC:147:PRO:HD3	24:BC:187:CYS:SG	2.60	0.42
25:BD:85:ALA:O	25:BD:86:GLU:CB	2.68	0.42
25:BD:139:SER:HA	25:BD:142:VAL:HG11	2.00	0.42
26:BE:119:ILE:HD13	26:BE:119:ILE:O	2.18	0.42
29:BH:62:LEU:HD12	29:BH:63:ALA:CA	2.49	0.42
29:BH:78:VAL:HG23	29:BH:78:VAL:O	2.19	0.42
31:BJ:78:THR:OG1	31:BJ:80:HIS:HB2	2.19	0.42
31:BJ:105:VAL:HG23	31:BJ:109:LEU:HD11	2.01	0.42
32:BK:18:ARG:NH1	32:BK:18:ARG:CG	2.63	0.42
32:BK:47:ILE:HD12	32:BK:47:ILE:HA	1.73	0.42
33:BL:113:ALA:O	33:BL:114:GLY:O	2.37	0.42
35:BN:4:ARG:HD2	35:BN:4:ARG:HA	1.75	0.42
38:BQ:13:HIS:CD2	38:BQ:31:TYR:CE1	3.05	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BS:24:ILE:HG13	40:BS:36:LEU:HD22	2.02	0.42
43:BV:30:ILE:O	43:BV:37:PRO:HA	2.19	0.42
44:BW:67:LYS:HE2	44:BW:67:LYS:CA	2.49	0.42
45:BX:29:LEU:HB2	45:BX:30:PRO:CD	2.50	0.42
53:CA:369:G:OP2	53:CA:388:G:C2	2.72	0.42
53:CA:374:A:C5'	53:CA:452:A:N1	2.68	0.42
53:CA:584:G:H2'	53:CA:585:G:C8	2.54	0.42
53:CA:587:G:HO2'	53:CA:588:G:C5'	2.32	0.42
53:CA:837:U:H2'	53:CA:838:G:H8	1.83	0.42
53:CA:934:C:C5	53:CA:1344:C:N3	2.88	0.42
53:CA:1078:U:C5	53:CA:1079:G:C5	3.07	0.42
53:CA:1130:A:C5	53:CA:1146:A:C5	3.07	0.42
53:CA:1226:C:H5	55:CM:102:LYS:HA	1.84	0.42
2:CB:49:PHE:HA	2:CB:52:ALA:CB	2.43	0.42
2:CB:67:LEU:HG	2:CB:157:PRO:HB3	2.02	0.42
3:CC:129:PHE:O	3:CC:130:ARG:C	2.57	0.42
3:CC:148:ILE:HD12	3:CC:149:LYS:N	2.35	0.42
5:CE:130:THR:C	5:CE:135:VAL:HG21	2.39	0.42
5:CE:153:ALA:O	5:CE:156:ARG:HG2	2.20	0.42
6:CF:47:LEU:HB2	6:CF:55:HIS:O	2.20	0.42
54:CG:4:ARG:CZ	54:CG:6:ILE:CG2	2.98	0.42
9:CI:11:ARG:O	9:CI:12:LYS:HB3	2.19	0.42
9:CI:29:ILE:HG13	9:CI:64:ILE:HG22	2.02	0.42
11:CK:35:ASP:C	11:CK:37:GLN:H	2.22	0.42
14:CN:41:TRP:HE3	14:CN:42:ASN:N	2.17	0.42
14:CN:61:ASN:HB2	14:CN:72:PHE:CZ	2.55	0.42
18:CR:32:ILE:HD12	18:CR:32:ILE:C	2.39	0.42
19:CS:52:ASN:C	19:CS:54:ARG:H	2.22	0.42
19:CS:62:THR:HG21	19:CS:64:GLU:HG3	2.02	0.42
20:CT:9:ARG:HD3	20:CT:12:GLN:NE2	2.33	0.42
20:CT:78:LEU:O	20:CT:82:ILE:HD11	2.19	0.42
22:DA:2:G:C5	22:DA:3:U:C4	3.07	0.42
22:DA:50:U:H6	22:DA:50:U:OP1	2.02	0.42
22:DA:70:G:H8	22:DA:70:G:OP2	2.03	0.42
22:DA:82:U:C2	22:DA:83:A:C8	3.07	0.42
22:DA:126:A:OP2	50:D2:19:ARG:HB2	2.20	0.42
22:DA:373:U:C2	22:DA:374:A:N7	2.88	0.42
22:DA:379:G:C6	22:DA:380:G:N7	2.87	0.42
22:DA:445:C:HO2'	22:DA:446:G:H8	1.59	0.42
22:DA:492:A:N6	40:DS:49:LYS:HD2	2.34	0.42
22:DA:664:G:C4'	22:DA:941:A:OP1	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:779:U:H5"	24:DC:42:ARG:HH21	1.84	0.42
22:DA:841:G:H2'	22:DA:842:U:O4'	2.20	0.42
22:DA:959:A:H2'	22:DA:960:A:H8	1.71	0.42
22:DA:989:G:OP2	47:DZ:11:SER:HB2	2.18	0.42
22:DA:1011:G:H4'	22:DA:1012:U:OP1	2.19	0.42
22:DA:1034:G:C6	22:DA:1122:G:C6	3.07	0.42
22:DA:1063:G:C2	22:DA:1064:C:N3	2.87	0.42
22:DA:1262:A:C2	48:D0:6:LYS:HD2	2.51	0.42
22:DA:1385:A:O2'	22:DA:1386:C:H5"	2.19	0.42
22:DA:1417:C:C4'	22:DA:1587:G:H21	2.25	0.42
22:DA:1771:C:HO2'	22:DA:1786:A:H1'	1.84	0.42
22:DA:2024:G:N1	22:DA:2040:G:C4	2.87	0.42
22:DA:2107:G:C2	22:DA:2108:A:C5	3.06	0.42
22:DA:2136:G:HO2'	22:DA:2137:U:H6	1.55	0.42
24:DC:175:LEU:HD12	24:DC:179:GLU:HB3	2.00	0.42
25:DD:45:TYR:CE2	25:DD:47:ALA:HB3	2.54	0.42
28:DG:25:ILE:HG22	28:DG:78:VAL:HG11	2.00	0.42
28:DG:60:GLY:O	28:DG:61:TRP:HB2	2.19	0.42
34:DM:71:LYS:HA	34:DM:72:PRO:HD3	1.78	0.42
34:DM:81:ARG:NH2	34:DM:84:LYS:CE	2.81	0.42
37:DP:50:ARG:H	37:DP:50:ARG:HG3	1.47	0.42
38:DQ:4:LYS:HZ2	38:DQ:6:GLY:CA	2.21	0.42
38:DQ:4:LYS:O	38:DQ:5:ARG:CB	2.66	0.42
41:DT:19:LYS:CE	41:DT:23:ALA:HB3	2.45	0.42
41:DT:68:LYS:NZ	41:DT:68:LYS:HB2	2.35	0.42
42:DU:21:ARG:H	42:DU:21:ARG:HG2	1.61	0.42
44:DW:11:ASN:OD1	44:DW:11:ASN:O	2.37	0.42
50:D2:19:ARG:HH21	50:D2:19:ARG:CB	2.26	0.42
1:AA:188:C:O2	1:AA:188:C:C2'	2.65	0.42
1:AA:198:G:H2'	1:AA:199:A:C8	2.54	0.42
1:AA:242:G:C2	1:AA:245:U:C4	3.07	0.42
1:AA:370:C:H2'	1:AA:371:A:H5'	2.00	0.42
1:AA:468:A:C2'	1:AA:469:C:H5'	2.49	0.42
1:AA:511:C:H2'	1:AA:534:U:O2	2.19	0.42
1:AA:1239:A:H5'	1:AA:1240:U:OP1	2.19	0.42
1:AA:1282:C:O2'	1:AA:1283:U:O5'	2.38	0.42
2:AB:67:LEU:O	2:AB:160:LEU:HD12	2.20	0.42
3:AC:6:PRO:CG	3:AC:183:TYR:CD2	3.03	0.42
4:AD:131:ILE:HD13	4:AD:134:TYR:HB2	2.02	0.42
4:AD:145:ARG:C	4:AD:147:LYS:N	2.70	0.42
5:AE:71:ILE:HG12	5:AE:72:ASN:H	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:132:PRO:C	5:AE:134:ASN:N	2.72	0.42
7:AG:108:ARG:HH21	7:AG:118:ARG:HH12	1.68	0.42
11:AK:109:ILE:C	11:AK:110:THR:HG23	2.39	0.42
11:AK:111:ASP:CB	21:AU:19:LYS:CD	2.98	0.42
22:BA:73:A:H8	22:BA:73:A:O5'	2.03	0.42
22:BA:163:C:O2'	22:BA:164:C:C5'	2.67	0.42
22:BA:295:G:N1	22:BA:296:U:C5	2.88	0.42
22:BA:480:A:C2'	22:BA:481:G:OP1	2.68	0.42
22:BA:747:U:C4	22:BA:2613:U:C6	3.08	0.42
22:BA:817:C:C2'	22:BA:818:G:C5'	2.92	0.42
22:BA:876:C:O2'	22:BA:877:A:C5'	2.67	0.42
22:BA:954:G:C5	22:BA:955:U:C5	3.07	0.42
22:BA:960:A:C4'	22:BA:2457:U:H4'	2.49	0.42
22:BA:971:G:C6	22:BA:972:A:C4	3.07	0.42
22:BA:1042:G:H2'	22:BA:1043:C:H5'	2.01	0.42
22:BA:1062:G:C5	22:BA:1063:G:C6	3.08	0.42
22:BA:1385:A:C2	22:BA:1386:C:C2	3.08	0.42
22:BA:1562:U:H2'	22:BA:1563:U:O4'	2.19	0.42
22:BA:1603:A:H2'	22:BA:1604:C:H6	1.83	0.42
22:BA:1633:G:C6	22:BA:1635:A:C5	3.08	0.42
22:BA:1682:G:C4	22:BA:1683:U:C5	3.07	0.42
22:BA:1731:G:C5	22:BA:1733:G:N7	2.88	0.42
22:BA:1736:U:C2'	22:BA:1737:G:O5'	2.67	0.42
22:BA:2080:A:C5'	45:BX:18:SER:HB2	2.49	0.42
22:BA:2081:U:H2'	22:BA:2082:A:C8	2.54	0.42
22:BA:2091:C:O2	45:BX:33:HIS:CE1	2.73	0.42
22:BA:2518:A:P	62:BA:3531:HOH:O	2.78	0.42
22:BA:2901:C:H2'	22:BA:2902:C:H5'	2.02	0.42
24:BC:20:ASN:HD22	24:BC:21:PRO:N	2.17	0.42
25:BD:112:THR:O	25:BD:195:GLY:HA2	2.19	0.42
26:BE:101:TYR:CE2	26:BE:105:LEU:CD1	3.02	0.42
26:BE:169:VAL:O	26:BE:170:ARG:HD2	2.20	0.42
27:BF:134:GLN:HG2	27:BF:135:ILE:H	1.83	0.42
29:BH:119:ASN:C	29:BH:121:VAL:H	2.22	0.42
31:BJ:58:ASN:N	31:BJ:127:GLY:O	2.49	0.42
32:BK:47:ILE:CG1	32:BK:48:PRO:HD2	2.43	0.42
33:BL:68:SER:HB3	33:BL:71:ALA:CB	2.49	0.42
34:BM:5:LYS:HB3	34:BM:5:LYS:HZ3	1.78	0.42
34:BM:46:ILE:CG1	34:BM:47:GLU:N	2.83	0.42
35:BN:98:LEU:HB2	35:BN:112:TYR:HB2	2.02	0.42
38:BQ:85:ALA:HA	38:BQ:115:ALA:CB	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BT:48:GLN:CB	41:BT:49:LYS:HE3	2.49	0.42
42:BU:96:LYS:O	42:BU:97:SER:C	2.57	0.42
44:BW:72:GLY:N	44:BW:73:PRO:CD	2.80	0.42
47:BZ:19:HIS:O	47:BZ:22:THR:HB	2.18	0.42
49:B1:6:GLU:OE1	49:B1:52:LYS:HD2	2.19	0.42
51:B3:49:VAL:HG23	51:B3:53:ASP:HB2	2.01	0.42
53:CA:27:G:C5	53:CA:557:G:N2	2.88	0.42
53:CA:58:C:O5'	53:CA:58:C:H6	2.01	0.42
53:CA:174:A:N3	53:CA:175:C:C6	2.87	0.42
53:CA:248:C:O2'	53:CA:249:U:O5'	2.37	0.42
53:CA:252:U:O4	53:CA:253:A:N6	2.52	0.42
53:CA:563:A:N3	53:CA:563:A:C2'	2.79	0.42
53:CA:1235:U:H2'	53:CA:1236:A:O4'	2.19	0.42
53:CA:1444:U:H1'	53:CA:1459:G:N2	2.34	0.42
2:CB:9:LEU:C	2:CB:11:ALA:N	2.72	0.42
2:CB:116:LEU:HB2	2:CB:140:LEU:HD13	2.01	0.42
3:CC:17:TRP:CD1	14:CN:90:GLY:HA2	2.54	0.42
4:CD:78:ALA:HA	4:CD:88:ASN:HB3	2.00	0.42
4:CD:141:VAL:HA	4:CD:180:THR:HA	2.02	0.42
6:CF:72:ASP:HA	6:CF:75:GLU:HB2	2.00	0.42
10:CJ:59:LYS:H	10:CJ:59:LYS:HG3	1.67	0.42
19:CS:36:ARG:O	19:CS:36:ARG:HG2	2.18	0.42
22:DA:20:C:H2'	22:DA:21:A:H8	1.83	0.42
22:DA:141:G:C3'	22:DA:142:A:O4'	2.57	0.42
22:DA:241:A:C4'	22:DA:242:G:OP1	2.60	0.42
22:DA:308:G:N1	22:DA:309:A:N1	2.68	0.42
22:DA:310:A:O2'	22:DA:311:A:C5'	2.67	0.42
22:DA:628:G:O5'	22:DA:628:G:H8	2.02	0.42
22:DA:730:A:O2'	22:DA:731:C:H5'	2.19	0.42
22:DA:996:A:C2	22:DA:997:G:C8	3.07	0.42
22:DA:1018:U:H5"	22:DA:1036:G:O2'	2.19	0.42
22:DA:1161:C:H2'	22:DA:1162:G:H8	1.84	0.42
22:DA:1420:A:C2	22:DA:2211:A:N7	2.88	0.42
22:DA:1529:G:O6	22:DA:1543:G:C2	2.72	0.42
22:DA:1613:G:H2'	22:DA:1617:C:N4	2.34	0.42
22:DA:1808:A:N6	45:DX:27:ARG:HD2	2.35	0.42
22:DA:1968:G:H4'	22:DA:1973:G:H5"	2.01	0.42
22:DA:2210:U:O2	22:DA:2212:A:H5"	2.19	0.42
22:DA:2244:U:C5	22:DA:2245:U:C4	3.08	0.42
22:DA:2331:G:C2	22:DA:2385:C:C4	3.07	0.42
22:DA:2595:G:C6	22:DA:2599:G:C6	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2703:C:H2'	22:DA:2704:C:C6	2.54	0.42
22:DA:2836:U:O2'	22:DA:2837:A:C8	2.73	0.42
57:DB:76:G:C6	57:DB:77:U:C4	3.08	0.42
57:DB:96:G:O2'	57:DB:97:C:H5'	2.20	0.42
24:DC:94:LEU:HA	24:DC:100:ARG:CG	2.46	0.42
25:DD:19:GLY:O	32:DK:72:PRO:CB	2.67	0.42
26:DE:28:VAL:HG23	26:DE:29:HIS:N	2.35	0.42
58:DF:14:LYS:NZ	58:DF:18:GLU:HG3	2.34	0.42
31:DJ:35:ARG:CG	31:DJ:40:HIS:CD2	2.91	0.42
37:DP:109:ILE:O	37:DP:110:LYS:CG	2.61	0.42
39:DR:38:VAL:O	39:DR:53:PHE:HA	2.20	0.42
39:DR:52:PRO:O	39:DR:53:PHE:CD2	2.72	0.42
43:DV:2:PHE:HD1	43:DV:50:MET:HE3	1.85	0.42
45:DX:69:GLU:O	45:DX:70:LEU:CB	2.67	0.42
46:DY:28:LEU:HG	46:DY:42:LEU:CD2	2.43	0.42
47:DZ:4:ILE:CG2	47:DZ:56:VAL:CG1	2.98	0.42
49:D1:38:PHE:CG	49:D1:39:ASP:N	2.88	0.42
1:AA:401:C:H3'	1:AA:401:C:C6	2.54	0.42
1:AA:468:A:C2	1:AA:469:C:N4	2.87	0.42
1:AA:486:U:H6	1:AA:486:U:C5'	2.29	0.42
1:AA:660:C:H2'	1:AA:661:G:O4'	2.19	0.42
1:AA:844:G:N2	1:AA:845:A:H62	2.17	0.42
1:AA:1055:A:O3'	3:AC:160:GLU:O	2.38	0.42
1:AA:1140:C:HO2'	1:AA:1141:C:H6	1.67	0.42
1:AA:1377:A:O2'	7:AG:1:PRO:HB3	2.20	0.42
3:AC:21:TRP:CD1	3:AC:58:ARG:HD3	2.55	0.42
3:AC:143:LEU:N	3:AC:143:LEU:CD2	2.72	0.42
4:AD:93:LEU:HD23	4:AD:93:LEU:HA	1.76	0.42
6:AF:46:GLN:HE21	6:AF:56:LYS:HG3	1.84	0.42
9:AI:40:ARG:HA	9:AI:44:ARG:CB	2.24	0.42
10:AJ:49:PHE:CZ	14:AN:75:LYS:HG2	2.55	0.42
11:AK:117:HIS:O	11:AK:118:ASN:HB2	2.18	0.42
16:AP:19:VAL:HG13	16:AP:37:GLY:O	2.17	0.42
16:AP:80:LYS:HB2	16:AP:80:LYS:HZ3	1.85	0.42
18:AR:33:THR:HG23	18:AR:37:LYS:N	2.30	0.42
19:AS:28:LYS:CB	19:AS:29:PRO:HD2	2.24	0.42
22:BA:80:G:N3	22:BA:107:G:C2	2.88	0.42
22:BA:604:G:H5"	22:BA:604:G:H8	1.85	0.42
22:BA:665:U:O2'	22:BA:666:A:H5'	2.20	0.42
22:BA:715:A:N6	22:BA:716:A:N1	2.66	0.42
22:BA:807:U:H2'	22:BA:808:G:H8	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:935:C:O2'	22:BA:936:A:H5'	2.18	0.42
22:BA:955:U:OP2	34:BM:13:HIS:O	2.37	0.42
22:BA:1050:A:C2	22:BA:2751:G:C8	3.08	0.42
22:BA:1283:G:H1'	22:BA:1329:U:O2	2.20	0.42
22:BA:1409:U:H2'	22:BA:1410:G:O4'	2.19	0.42
22:BA:1507:C:H5'	22:BA:1508:A:OP2	2.19	0.42
22:BA:1564:C:H2'	22:BA:1565:C:C6	2.55	0.42
22:BA:1663:G:N2	22:BA:1998:A:C4	2.88	0.42
22:BA:1724:G:H2'	22:BA:1725:U:H5'	2.02	0.42
22:BA:1795:C:H2'	22:BA:1796:U:C6	2.54	0.42
22:BA:2186:G:C6	22:BA:2187:U:C2	3.08	0.42
22:BA:2195:U:H2'	22:BA:2196:C:C6	2.46	0.42
22:BA:2199:A:C5'	22:BA:2200:C:H5	2.31	0.42
22:BA:2400:G:H2'	22:BA:2401:U:O4'	2.20	0.42
22:BA:2521:C:C2'	22:BA:2522:U:H5'	2.50	0.42
22:BA:2536:G:C6	22:BA:2537:U:C4	3.08	0.42
23:BB:28:C:C2'	23:BB:29:A:C5'	2.89	0.42
23:BB:94:A:C2'	23:BB:95:U:H5'	2.49	0.42
25:BD:114:LYS:C	25:BD:114:LYS:HD2	2.40	0.42
25:BD:177:VAL:HG12	25:BD:187:LEU:HD11	2.01	0.42
26:BE:96:VAL:O	26:BE:96:VAL:HG12	2.19	0.42
28:BG:1:SER:O	28:BG:3:VAL:N	2.52	0.42
28:BG:132:LEU:HD13	28:BG:143:VAL:HG12	2.02	0.42
28:BG:174:LYS:HD2	28:BG:174:LYS:O	2.19	0.42
29:BH:8:LYS:C	29:BH:13:GLY:HA3	2.37	0.42
29:BH:14:SER:C	29:BH:16:GLY:H	2.23	0.42
30:BI:49:GLU:HG2	30:BI:50:LYS:H	1.83	0.42
31:BJ:73:VAL:HB	31:BJ:75:TYR:CD2	2.54	0.42
31:BJ:111:LYS:HE2	31:BJ:115:GLY:N	2.21	0.42
31:BJ:141:ASP:HB3	31:BJ:142:ILE:H	1.57	0.42
33:BL:82:LEU:C	33:BL:84:LYS:H	2.21	0.42
35:BN:79:LEU:O	35:BN:80:PHE:CB	2.61	0.42
35:BN:95:THR:CG2	35:BN:96:ARG:N	2.82	0.42
37:BP:57:ALA:HA	37:BP:75:THR:HG23	2.01	0.42
38:BQ:40:LYS:HB2	38:BQ:40:LYS:HZ2	1.77	0.42
40:BS:48:LYS:HD2	40:BS:52:GLU:CD	2.40	0.42
41:BT:70:HIS:HB2	41:BT:73:ARG:C	2.40	0.42
43:BV:51:GLN:NE2	43:BV:57:TYR:OH	2.51	0.42
47:BZ:38:GLU:O	47:BZ:43:ILE:HG12	2.19	0.42
53:CA:16:A:H2'	53:CA:17:U:H5'	2.02	0.42
53:CA:178:C:C4	53:CA:179:A:N7	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:309:A:O2'	53:CA:607:A:N1	2.38	0.42
53:CA:347:G:H2'	53:CA:348:G:H8	1.85	0.42
53:CA:376:G:H5"	56:CP:5:ARG:HD2	2.00	0.42
53:CA:444:G:C6	53:CA:445:G:N7	2.88	0.42
53:CA:517:G:H5'	53:CA:519:C:N3	2.33	0.42
53:CA:1195:C:H5"	53:CA:1196:A:OP2	2.19	0.42
53:CA:1357:A:C5	53:CA:1358:U:C4	3.08	0.42
53:CA:1391:U:H2'	53:CA:1392:G:C8	2.55	0.42
2:CB:9:LEU:HB2	2:CB:11:ALA:HB3	2.01	0.42
4:CD:109:THR:CG2	4:CD:110:ARG:N	2.82	0.42
5:CE:11:GLN:HG3	5:CE:40:ASP:O	2.19	0.42
5:CE:118:GLY:O	5:CE:119:VAL:HG13	2.19	0.42
6:CF:15:SER:OG	6:CF:58:HIS:CD2	2.73	0.42
54:CG:37:THR:HA	54:CG:40:SER:OG	2.20	0.42
8:CH:31:LEU:O	8:CH:35:ILE:HG13	2.19	0.42
12:CL:51:VAL:CG1	12:CL:52:CYS:N	2.82	0.42
55:CM:78:ARG:HE	55:CM:79:LEU:HD23	1.84	0.42
19:CS:19:GLU:OE2	19:CS:19:GLU:HA	2.19	0.42
22:DA:142:A:H2'	22:DA:143:C:C5	2.52	0.42
22:DA:336:C:HO2'	22:DA:337:C:H6	1.67	0.42
22:DA:410:G:C6	22:DA:2407:A:N6	2.87	0.42
22:DA:416:U:H2'	22:DA:417:C:C6	2.55	0.42
22:DA:564:C:H2'	22:DA:565:C:C5'	2.48	0.42
22:DA:573:U:N3	22:DA:2030:A:H3'	2.35	0.42
22:DA:730:A:O2'	22:DA:731:C:C5'	2.67	0.42
22:DA:743:A:OP1	25:DD:135:GLY:HA2	2.20	0.42
22:DA:784:G:OP1	22:DA:2588:G:H5"	2.20	0.42
22:DA:848:C:H2'	22:DA:849:A:C8	2.54	0.42
22:DA:1050:A:O2'	22:DA:1051:G:O5'	2.37	0.42
22:DA:1102:C:H2'	22:DA:1103:A:C8	2.53	0.42
22:DA:1206:G:C6	22:DA:1207:C:C4	3.08	0.42
22:DA:1352:U:C6	22:DA:1377:G:O6	2.72	0.42
22:DA:1515:A:H5'	22:DA:1557:C:H5'	2.01	0.42
22:DA:1628:G:H2'	22:DA:1629:U:H6	1.84	0.42
22:DA:1653:G:O6	35:DN:10:LEU:O	2.37	0.42
22:DA:1665:A:C6	22:DA:1666:G:C5	3.08	0.42
22:DA:1793:C:H2'	22:DA:1794:A:O4'	2.19	0.42
22:DA:1931:U:C2	22:DA:1932:A:C8	3.08	0.42
22:DA:1957:C:H5'	22:DA:1984:G:HO2'	1.83	0.42
22:DA:2036:C:O2'	22:DA:2037:A:C8	2.69	0.42
22:DA:2043:C:C2	22:DA:2044:C:C5	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2209:G:C6	22:DA:2210:U:C4	3.08	0.42
22:DA:2258:C:O2'	22:DA:2427:C:OP2	2.38	0.42
22:DA:2526:G:C5	22:DA:2527:C:C5	3.08	0.42
22:DA:2604:U:H2'	22:DA:2605:U:C6	2.54	0.42
22:DA:2694:G:H2'	22:DA:2695:U:C6	2.50	0.42
22:DA:2824:C:OP2	22:DA:2825:G:N2	2.51	0.42
57:DB:7:G:O2'	36:DO:27:VAL:HG11	2.19	0.42
57:DB:25:U:C2'	57:DB:26:C:H5'	2.50	0.42
25:DD:16:THR:HG22	25:DD:20:VAL:CB	2.44	0.42
26:DE:148:ILE:HB	26:DE:168:ASP:O	2.19	0.42
26:DE:170:ARG:CZ	26:DE:176:ASP:OD2	2.67	0.42
26:DE:195:GLN:O	26:DE:199:MET:HB2	2.20	0.42
28:DG:56:GLY:C	28:DG:57:TYR:HD2	2.23	0.42
32:DK:13:ASN:ND2	32:DK:96:GLY:HA3	2.35	0.42
33:DL:112:LEU:CD2	33:DL:112:LEU:N	2.82	0.42
33:DL:120:VAL:CG1	33:DL:121:THR:N	2.80	0.42
33:DL:124:GLY:N	33:DL:143:GLU:OE2	2.52	0.42
34:DM:31:PHE:CE2	34:DM:110:GLU:HB3	2.54	0.42
35:DN:58:ASP:O	35:DN:59:SER:HB3	2.20	0.42
35:DN:79:LEU:O	35:DN:81:ASN:N	2.50	0.42
35:DN:87:PHE:HD1	35:DN:90:ARG:HD2	1.85	0.42
41:DT:14:PRO:O	41:DT:15:HIS:CB	2.54	0.42
41:DT:29:THR:H	41:DT:87:LEU:HB3	1.79	0.42
43:DV:2:PHE:CD1	43:DV:50:MET:HE3	2.54	0.42
44:DW:49:ASN:HD21	44:DW:80:SER:C	2.22	0.42
46:DY:37:LEU:HD13	46:DY:42:LEU:HD12	2.01	0.42
52:D4:9:LYS:CB	52:D4:14:CYS:HB2	2.50	0.42
1:AA:57:G:N1	1:AA:356:A:C2	2.88	0.42
1:AA:408:A:C2	1:AA:435:A:C2	3.07	0.42
1:AA:439:U:H1'	4:AD:118:SER:O	2.20	0.42
1:AA:671:G:C2	1:AA:736:C:C2	3.07	0.42
1:AA:764:C:H2'	1:AA:765:G:C5'	2.50	0.42
1:AA:830:G:O2'	1:AA:831:A:H5'	2.18	0.42
1:AA:842:U:HO2'	1:AA:846:G:H1	1.66	0.42
1:AA:1080:A:OP1	5:AE:51:LYS:CE	2.67	0.42
1:AA:1080:A:O3'	5:AE:20:VAL:HG21	2.20	0.42
1:AA:1081:A:H2'	1:AA:1082:A:H5'	2.01	0.42
1:AA:1152:A:O2'	1:AA:1153:G:O4'	2.36	0.42
1:AA:1202:U:H2'	1:AA:1203:C:H6	1.77	0.42
2:AB:26:MET:HE3	2:AB:26:MET:HA	2.01	0.42
2:AB:138:ARG:HB2	2:AB:138:ARG:HH11	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:88:ASN:OD1	4:AD:88:ASN:N	2.53	0.42
4:AD:124:VAL:O	4:AD:126:GLY:N	2.44	0.42
4:AD:193:ASP:OD1	4:AD:193:ASP:N	2.53	0.42
5:AE:96:GLN:HB2	5:AE:123:LEU:CD1	2.49	0.42
6:AF:1:MET:SD	6:AF:67:PRO:HD3	2.59	0.42
6:AF:91:ARG:HG3	6:AF:92:THR:N	2.29	0.42
7:AG:21:LEU:HD23	7:AG:24:LYS:HD2	2.01	0.42
10:AJ:12:ALA:O	10:AJ:70:HIS:HD2	2.02	0.42
13:AM:84:CYS:O	13:AM:88:LEU:CD1	2.68	0.42
15:AO:63:ARG:NH1	15:AO:67:ASP:OD1	2.41	0.42
16:AP:67:ILE:HG21	16:AP:72:ALA:HB2	2.02	0.42
17:AQ:14:ASP:HA	17:AQ:20:ILE:HD11	2.01	0.42
22:BA:245:G:C5	22:BA:246:C:C5	3.08	0.42
22:BA:532:A:O2'	22:BA:2021:C:H5	2.02	0.42
22:BA:580:U:O3'	38:BQ:30:VAL:HG11	2.18	0.42
22:BA:648:G:O2'	22:BA:2351:G:OP1	2.19	0.42
22:BA:1593:A:H2'	22:BA:1594:U:O4'	2.19	0.42
22:BA:1798:U:P	24:BC:255:LYS:O	2.78	0.42
22:BA:1932:A:C2	22:BA:1969:A:C5	3.08	0.42
22:BA:2024:G:H4'	25:BD:154:LYS:NZ	2.35	0.42
22:BA:2405:G:O2'	22:BA:2411:A:N6	2.53	0.42
22:BA:2536:G:C5	22:BA:2537:U:C4	3.07	0.42
22:BA:2583:G:C6	22:BA:2584:U:C2	3.07	0.42
22:BA:2681:C:C2	22:BA:2724:U:O4	2.73	0.42
25:BD:17:GLU:C	25:BD:19:GLY:H	2.22	0.42
25:BD:100:LEU:HD23	25:BD:101:PHE:HE1	1.84	0.42
25:BD:110:THR:HA	25:BD:171:THR:HA	2.02	0.42
28:BG:32:LEU:O	28:BG:33:THR:HG23	2.19	0.42
31:BJ:80:HIS:O	31:BJ:81:ILE:C	2.57	0.42
32:BK:42:THR:O	32:BK:42:THR:HG23	2.19	0.42
32:BK:88:ASN:HD22	32:BK:90:ASN:N	2.17	0.42
32:BK:118:LEU:HD12	32:BK:118:LEU:N	2.33	0.42
33:BL:78:ARG:HB2	33:BL:80:SER:OG	2.19	0.42
34:BM:27:SER:C	34:BM:28:PHE:CD2	2.93	0.42
36:BO:31:THR:O	36:BO:102:ARG:NH1	2.53	0.42
36:BO:106:LEU:HD12	36:BO:106:LEU:C	2.40	0.42
37:BP:30:TRP:CH2	37:BP:39:LEU:CD1	3.03	0.42
38:BQ:8:ILE:CD1	38:BQ:9:ALA:N	2.69	0.42
38:BQ:40:LYS:NZ	38:BQ:40:LYS:CB	2.69	0.42
40:BS:24:ILE:HD12	40:BS:32:ALA:CB	2.50	0.42
41:BT:7:LEU:O	41:BT:7:LEU:HG	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BX:51:SER:O	45:BX:52:ALA:C	2.56	0.42
48:B0:35:GLU:OE1	48:B0:45:ASP:HB2	2.20	0.42
53:CA:115:G:H4'	53:CA:116:A:OP1	2.18	0.42
53:CA:284:C:H2'	53:CA:285:C:C6	2.54	0.42
53:CA:300:A:H2'	53:CA:301:G:C5'	2.50	0.42
53:CA:414:A:N6	53:CA:431:A:N3	2.68	0.42
53:CA:667:G:H4'	15:CO:50:HIS:CG	2.54	0.42
53:CA:687:A:N1	53:CA:704:A:N7	2.68	0.42
53:CA:787:A:C2	53:CA:796:C:C2	3.07	0.42
53:CA:794:A:O2'	53:CA:795:C:C5'	2.67	0.42
53:CA:799:G:C6	53:CA:800:G:C4	3.07	0.42
53:CA:1010:U:C2	53:CA:1020:G:N2	2.87	0.42
53:CA:1028:C:C2	53:CA:1034:G:N2	2.88	0.42
53:CA:1085:U:H4'	53:CA:1086:U:OP1	2.19	0.42
53:CA:1118:U:H5'	9:CI:10:ARG:HH21	1.85	0.42
53:CA:1157:A:C5	53:CA:1180:A:C6	3.08	0.42
53:CA:1309:G:H1'	55:CM:72:ILE:CD1	2.50	0.42
53:CA:1463:U:H2'	53:CA:1464:U:C6	2.55	0.42
2:CB:10:LYS:HA	2:CB:10:LYS:CE	2.49	0.42
2:CB:86:CYS:HB3	2:CB:220:VAL:HG12	2.01	0.42
3:CC:25:THR:HG22	3:CC:25:THR:O	2.19	0.42
4:CD:84:ASN:HD22	4:CD:84:ASN:C	2.23	0.42
6:CF:9:MET:HE3	18:CR:64:LEU:CA	2.48	0.42
54:CG:73:GLU:HA	54:CG:140:VAL:HG11	2.01	0.42
9:CI:17:ARG:NH1	9:CI:65:THR:HG21	2.35	0.42
9:CI:102:PHE:C	9:CI:104:THR:H	2.23	0.42
10:CJ:35:GLN:NE2	10:CJ:78:GLU:H	2.17	0.42
10:CJ:66:GLU:HB2	14:CN:100:TRP:CZ3	2.55	0.42
12:CL:36:VAL:HA	12:CL:52:CYS:HA	2.00	0.42
12:CL:55:ARG:HA	12:CL:61:GLU:HA	2.02	0.42
22:DA:52:A:O2'	22:DA:53:A:H5'	2.20	0.42
22:DA:71:A:O4'	22:DA:73:A:C5	2.72	0.42
22:DA:88:G:O5'	22:DA:88:G:C8	2.73	0.42
22:DA:128:C:C2'	22:DA:129:C:C6	3.02	0.42
22:DA:233:A:N6	22:DA:428:A:H61	2.18	0.42
22:DA:516:C:H2'	22:DA:517:C:C6	2.52	0.42
22:DA:564:C:H3'	22:DA:564:C:H6	1.85	0.42
22:DA:851:C:H2'	22:DA:852:U:C5	2.54	0.42
22:DA:859:G:O2'	22:DA:916:G:N1	2.53	0.42
22:DA:972:A:C6	22:DA:973:A:C6	3.08	0.42
22:DA:975:A:N6	22:DA:989:G:H1'	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1009:A:N3	22:DA:1153:C:O2'	2.42	0.42
22:DA:1048:A:C2	22:DA:1049:C:N3	2.88	0.42
22:DA:1241:A:N3	22:DA:1241:A:O4'	2.52	0.42
22:DA:1249:U:H4'	38:DQ:3:VAL:CB	2.48	0.42
22:DA:1255:U:O2'	22:DA:1256:G:P	2.77	0.42
22:DA:1264:A:OP1	48:D0:15:ARG:NH1	2.43	0.42
22:DA:1304:A:O2'	22:DA:1305:C:P	2.78	0.42
22:DA:1334:G:C6	22:DA:1335:C:N3	2.88	0.42
22:DA:1464:G:O2'	22:DA:1465:G:H5'	2.20	0.42
22:DA:1520:U:C4	22:DA:1521:G:C5	3.08	0.42
22:DA:1666:G:H4'	32:DK:6:THR:CG2	2.43	0.42
22:DA:1838:C:N3	22:DA:1899:A:C2	2.87	0.42
22:DA:1866:A:H2'	22:DA:1867:G:O4'	2.20	0.42
22:DA:1991:U:C6	22:DA:1991:U:C4'	3.03	0.42
22:DA:1993:U:H2'	22:DA:1994:C:H6	1.82	0.42
22:DA:1997:C:C5'	25:DD:129:THR:HG1	2.32	0.42
22:DA:2060:A:O4'	22:DA:2502:G:H1'	2.20	0.42
22:DA:2324:U:C5'	22:DA:2325:G:C5'	2.88	0.42
22:DA:2345:G:H4'	22:DA:2346:A:O5'	2.19	0.42
22:DA:2619:C:H1'	25:DD:155:VAL:HB	2.01	0.42
57:DB:52:A:H2	57:DB:54:G:O6	2.02	0.42
57:DB:57:A:C2'	57:DB:58:A:C8	3.02	0.42
57:DB:65:U:O2	57:DB:65:U:H2'	2.20	0.42
24:DC:16:VAL:HG23	24:DC:203:VAL:HG11	2.02	0.42
24:DC:30:ALA:C	24:DC:32:LEU:H	2.23	0.42
24:DC:231:HIS:NE2	24:DC:243:PRO:HA	2.34	0.42
58:DF:103:ILE:HG12	58:DF:175:PRO:HD3	2.02	0.42
58:DF:151:LEU:HD23	58:DF:152:ASP:O	2.20	0.42
30:DI:77:VAL:HA	30:DI:80:LYS:HE3	2.00	0.42
31:DJ:75:TYR:HD1	31:DJ:84:ILE:HD11	1.81	0.42
32:DK:42:THR:HG22	32:DK:44:LYS:HG3	2.02	0.42
33:DL:74:THR:OG1	33:DL:107:PHE:HB2	2.20	0.42
35:DN:37:THR:HA	35:DN:110:MET:HE1	2.02	0.42
35:DN:73:ASN:HA	35:DN:76:VAL:CG1	2.49	0.42
38:DQ:9:ALA:O	38:DQ:12:ARG:HG2	2.19	0.42
40:DS:4:ILE:HB	40:DS:105:VAL:O	2.20	0.42
41:DT:67:VAL:HB	41:DT:76:ARG:HG3	2.02	0.42
42:DU:39:ASN:HD21	42:DU:64:ILE:HG22	1.85	0.42
42:DU:52:ASN:C	42:DU:54:PRO:HD3	2.40	0.42
43:DV:3:THR:C	43:DV:4:ILE:HG13	2.39	0.42
46:DY:17:GLU:HG3	46:DY:53:VAL:CG1	2.41	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:D0:42:ILE:HD13	48:D0:42:ILE:HA	1.69	0.42
1:AA:269:C:C2'	1:AA:270:A:O5'	2.68	0.42
1:AA:363:A:C2'	1:AA:364:A:H5'	2.49	0.42
1:AA:368:U:H6	1:AA:368:U:H2'	1.41	0.42
1:AA:604:G:H2'	1:AA:605:U:O4'	2.18	0.42
1:AA:954:G:N2	1:AA:1228:C:C4	2.88	0.42
1:AA:1153:G:C2'	1:AA:1154:G:O5'	2.68	0.42
1:AA:1347:G:N2	1:AA:1373:G:H2'	2.34	0.42
1:AA:1489:G:H2'	1:AA:1490:U:H5'	2.01	0.42
3:AC:139:ASN:C	3:AC:139:ASN:HD22	2.21	0.42
5:AE:67:ARG:HB2	5:AE:68:ARG:NE	2.33	0.42
10:AJ:33:GLY:N	10:AJ:83:THR:HB	2.35	0.42
10:AJ:35:GLN:CG	10:AJ:77:VAL:HB	2.45	0.42
10:AJ:49:PHE:CE1	14:AN:76:PHE:CZ	3.01	0.42
12:AL:24:GLU:CB	12:AL:26:CYS:SG	2.89	0.42
12:AL:87:LYS:O	12:AL:88:ASP:CB	2.67	0.42
17:AQ:14:ASP:O	17:AQ:20:ILE:CD1	2.68	0.42
17:AQ:80:LYS:N	17:AQ:80:LYS:HZ2	2.18	0.42
22:BA:34:U:O2'	22:BA:35:G:H5'	2.19	0.42
22:BA:170:U:C2'	22:BA:171:U:O5'	2.68	0.42
22:BA:597:G:C6	22:BA:598:U:C4	3.08	0.42
22:BA:608:A:N1	22:BA:609:A:C2	2.87	0.42
22:BA:743:A:O2'	22:BA:744:U:H5'	2.20	0.42
22:BA:764:A:C2	22:BA:781:A:C6	3.08	0.42
22:BA:1138:G:N3	31:BJ:108:MET:HE2	2.35	0.42
22:BA:1282:U:O2'	22:BA:1283:G:H5'	2.20	0.42
22:BA:1671:U:O2	22:BA:1673:G:H8	2.03	0.42
22:BA:2051:A:N6	22:BA:2614:A:C8	2.88	0.42
22:BA:2152:G:H2'	22:BA:2153:C:O4'	2.20	0.42
22:BA:2244:U:C2'	22:BA:2245:U:H5'	2.49	0.42
22:BA:2260:C:O2'	22:BA:2261:C:H5'	2.19	0.42
22:BA:2310:C:C5	27:BF:76:PHE:HZ	2.37	0.42
22:BA:2315:G:HO2'	22:BA:2316:G:H5'	1.84	0.42
22:BA:2352:A:N1	44:BW:30:VAL:HG21	2.34	0.42
22:BA:2389:G:H5"	22:BA:2390:U:H5'	2.01	0.42
22:BA:2395:C:O5'	22:BA:2395:C:H6	2.02	0.42
22:BA:2544:G:O2'	22:BA:2545:G:H5'	2.20	0.42
22:BA:2548:U:H2'	22:BA:2549:G:O4'	2.19	0.42
23:BB:2:G:C6	23:BB:119:A:C2	3.07	0.42
23:BB:16:G:O2'	23:BB:17:C:H5'	2.19	0.42
24:BC:15:VAL:C	24:BC:203:VAL:HG11	2.40	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BC:20:ASN:HA	24:BC:21:PRO:HD2	1.80	0.42
24:BC:175:LEU:HD12	24:BC:175:LEU:HA	1.80	0.42
24:BC:239:PHE:CE1	24:BC:241:LYS:HB2	2.54	0.42
27:BF:8:LYS:O	27:BF:12:VAL:CG1	2.68	0.42
27:BF:43:ILE:HA	27:BF:82:TYR:CE1	2.55	0.42
27:BF:113:PHE:HE1	27:BF:116:LEU:HD22	1.84	0.42
29:BH:100:ALA:O	29:BH:104:THR:N	2.53	0.42
30:BI:56:VAL:CG2	30:BI:57:VAL:N	2.83	0.42
30:BI:123:ALA:C	30:BI:125:THR:N	2.72	0.42
31:BJ:81:ILE:HG12	31:BJ:82:GLY:H	1.85	0.42
32:BK:19:VAL:CG2	32:BK:41:ILE:HG12	2.50	0.42
33:BL:62:PRO:HG2	51:B3:24:LYS:HD3	2.02	0.42
35:BN:8:ARG:HB3	35:BN:10:LEU:HD21	1.97	0.42
36:BO:35:ILE:HD11	36:BO:106:LEU:HD23	2.01	0.42
36:BO:58:ILE:HD11	36:BO:81:ARG:HH22	1.81	0.42
36:BO:66:GLY:C	36:BO:102:ARG:NH2	2.73	0.42
37:BP:33:GLU:HA	37:BP:38:ARG:HH11	1.84	0.42
37:BP:95:LYS:HB3	37:BP:97:TYR:CE1	2.55	0.42
38:BQ:38:VAL:O	38:BQ:39:ILE:C	2.56	0.42
41:BT:88:LYS:HD3	41:BT:88:LYS:HA	1.71	0.42
50:B2:43:THR:O	50:B2:44:VAL:CG2	2.68	0.42
53:CA:97:G:C2’	53:CA:98:A:O5’	2.68	0.42
53:CA:174:A:C2	53:CA:175:C:C6	3.08	0.42
53:CA:260:G:C6	53:CA:261:U:C4	3.07	0.42
53:CA:321:A:N7	53:CA:328:C:C2	2.88	0.42
53:CA:418:C:H1’	53:CA:540:G:O2’	2.20	0.42
53:CA:433:G:O2’	53:CA:434:U:H5’	2.20	0.42
53:CA:497:G:O2’	53:CA:498:A:C8	2.68	0.42
53:CA:644:U:C2	53:CA:645:G:C8	3.08	0.42
53:CA:654:G:O2’	53:CA:655:A:C5’	2.67	0.42
53:CA:663:A:C2’	53:CA:664:G:H5’	2.49	0.42
53:CA:914:A:N3	53:CA:915:A:C8	2.87	0.42
53:CA:933:G:OP1	54:CG:3:ARG:HD3	2.20	0.42
53:CA:959:A:N6	53:CA:1222:G:H4’	2.34	0.42
53:CA:1108:G:H5”	3:CC:175:HIS:ND1	2.35	0.42
53:CA:1151:A:H5”	10:CJ:44:THR:OG1	2.19	0.42
53:CA:1302:C:H5”	55:CM:16:ILE:HG23	2.02	0.42
53:CA:1319:A:P	19:CS:4:LEU:HD21	2.60	0.42
5:CE:22:LYS:H	5:CE:29:ILE:HG22	1.84	0.42
9:CI:30:ASN:C	9:CI:32:ARG:H	2.23	0.42
10:CJ:48:ARG:NH1	10:CJ:48:ARG:CB	2.82	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:67:ILE:CG2	14:CN:95:LEU:H	2.32	0.42
11:CK:33:ILE:O	11:CK:41:LEU:HB2	2.19	0.42
12:CL:83:GLY:CA	12:CL:94:TYR:HD1	2.26	0.42
55:CM:2:ARG:O	55:CM:3:ILE:HB	2.19	0.42
14:CN:59:GLN:O	14:CN:60:ARG:HB2	2.20	0.42
56:CP:50:THR:O	56:CP:51:ARG:CZ	2.67	0.42
17:CQ:68:LYS:O	17:CQ:68:LYS:HG2	2.20	0.42
19:CS:54:ARG:CG	19:CS:55:GLN:N	2.81	0.42
21:CU:15:LEU:O	21:CU:15:LEU:CD1	2.59	0.42
22:DA:61:C:N3	22:DA:94:A:C2	2.88	0.42
22:DA:186:G:N2	22:DA:211:C:C2	2.88	0.42
22:DA:355:U:H2'	22:DA:356:G:H8	1.84	0.42
22:DA:468:G:H4'	26:DE:57:LYS:HG3	2.00	0.42
22:DA:499:U:C4	22:DA:500:G:C6	3.07	0.42
22:DA:628:G:C6	22:DA:636:G:C2	3.08	0.42
22:DA:727:A:OP1	22:DA:1431:A:O2'	2.28	0.42
22:DA:847:U:H5'	22:DA:848:C:OP2	2.19	0.42
22:DA:1279:G:H4'	35:DN:31:HIS:CD2	2.54	0.42
22:DA:1361:G:C6	22:DA:1362:C:C5	3.08	0.42
22:DA:1394:U:H3'	22:DA:1394:U:C6	2.55	0.42
22:DA:1508:A:O3'	22:DA:1509:A:C2	2.72	0.42
22:DA:1590:A:C6	22:DA:1591:A:N6	2.88	0.42
22:DA:1815:A:H1'	22:DA:1817:G:C8	2.54	0.42
22:DA:1828:G:O2'	22:DA:1829:A:H5'	2.20	0.42
22:DA:2053:G:H2'	22:DA:2054:A:O4'	2.19	0.42
22:DA:2077:A:C5	22:DA:2435:A:C5	3.08	0.42
22:DA:2258:C:H4'	22:DA:2259:U:OP2	2.20	0.42
22:DA:2376:A:N6	36:DO:94:ARG:HH21	2.18	0.42
22:DA:2439:A:N7	22:DA:2586:U:H4'	2.34	0.42
22:DA:2448:A:H61	33:DL:36:LYS:CE	2.33	0.42
22:DA:2510:C:O2'	22:DA:2511:U:H5'	2.20	0.42
22:DA:2511:U:H2'	22:DA:2512:C:C5'	2.50	0.42
22:DA:2683:C:OP1	37:DP:55:HIS:HB3	2.20	0.42
22:DA:2850:A:C6	22:DA:2869:G:C4'	3.02	0.42
22:DA:2858:C:H2'	22:DA:2859:G:O4'	2.18	0.42
57:DB:46:A:C5	57:DB:47:C:C5	3.07	0.42
57:DB:85:G:O2'	57:DB:86:G:H5'	2.19	0.42
24:DC:73:ILE:CA	24:DC:116:GLN:HE21	2.33	0.42
24:DC:171:VAL:HB	24:DC:185:ALA:HB2	2.01	0.42
25:DD:22:ILE:HA	25:DD:23:PRO:HD2	1.89	0.42
26:DE:117:ARG:NH1	26:DE:183:PHE:O	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:DF:166:ARG:H	58:DF:166:ARG:HG2	1.67	0.42
29:DH:31:VAL:CB	29:DH:32:PRO:CD	2.98	0.42
32:DK:119:ALA:O	32:DK:120:PRO:C	2.57	0.42
34:DM:33:LEU:HD21	34:DM:128:THR:HB	1.98	0.42
34:DM:81:ARG:HH21	34:DM:84:LYS:CE	2.33	0.42
39:DR:62:GLU:HB2	39:DR:99:THR:CG2	2.50	0.42
43:DV:21:ARG:NE	43:DV:87:GLN:HG2	2.34	0.42
44:DW:70:VAL:O	44:DW:70:VAL:CG2	2.67	0.42
45:DX:70:LEU:O	45:DX:74:GLY:N	2.52	0.42
51:D3:24:LYS:O	51:D3:25:HIS:CD2	2.73	0.42
1:AA:235:C:O2'	1:AA:236:A:H5'	2.20	0.42
1:AA:267:C:H2'	1:AA:268:U:C5	2.55	0.42
1:AA:283:U:C5	1:AA:284:C:C5	3.08	0.42
1:AA:316:C:N3	1:AA:317:U:C5	2.88	0.42
1:AA:652:U:O2'	1:AA:653:U:P	2.77	0.42
1:AA:754:C:C3'	1:AA:755:G:H5'	2.50	0.42
1:AA:923:A:C4	1:AA:924:C:C5	3.07	0.42
1:AA:947:G:H2'	1:AA:948:C:C6	2.54	0.42
1:AA:1118:U:OP1	9:AI:10:ARG:HD2	2.20	0.42
1:AA:1173:U:H2'	1:AA:1174:G:H8	1.85	0.42
1:AA:1401:G:C2	1:AA:1402:C:H1'	2.54	0.42
2:AB:162:VAL:HG22	2:AB:184:ALA:CB	2.45	0.42
3:AC:116:ALA:O	3:AC:119:ILE:HG22	2.20	0.42
4:AD:34:GLU:C	4:AD:36:ALA:H	2.21	0.42
5:AE:79:THR:HB	5:AE:121:ASN:CG	2.40	0.42
8:AH:17:GLN:O	8:AH:20:ASN:N	2.52	0.42
9:AI:42:THR:O	9:AI:43:ALA:CB	2.68	0.42
11:AK:125:LYS:C	21:AU:33:ARG:HH22	2.21	0.42
13:AM:14:ALA:O	13:AM:18:LEU:HD23	2.20	0.42
14:AN:63:CYS:O	14:AN:64:ARG:C	2.57	0.42
19:AS:50:VAL:CG2	19:AS:70:LEU:HB3	2.32	0.42
22:BA:139:U:C5	41:BT:1:MET:SD	3.13	0.42
22:BA:260:G:H8	22:BA:260:G:O5'	2.02	0.42
22:BA:531:C:H5"	22:BA:532:A:C5	2.54	0.42
22:BA:609:A:H61	22:BA:619:G:C2'	2.32	0.42
22:BA:609:A:H2'	22:BA:610:C:O4'	2.19	0.42
22:BA:635:C:P	33:BL:109:LYS:HZ2	2.43	0.42
22:BA:820:A:H2'	22:BA:821:A:O4'	2.20	0.42
22:BA:877:A:N6	22:BA:899:A:N6	2.67	0.42
22:BA:995:C:O2'	22:BA:996:A:OP2	2.37	0.42
22:BA:1002:G:H2'	22:BA:1003:G:O5'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1059:G:C6	22:BA:1060:U:C4	3.08	0.42
22:BA:1083:U:C2'	22:BA:1084:A:O5'	2.66	0.42
22:BA:1296:G:H2'	22:BA:1297:C:H6	1.84	0.42
22:BA:1315:C:OP2	62:BA:3753:HOH:O	2.21	0.42
22:BA:1829:A:O2'	22:BA:1830:C:H5'	2.20	0.42
22:BA:2037:A:C6	22:BA:2038:G:C6	3.08	0.42
22:BA:2225:A:H4'	22:BA:2226:C:O5'	2.19	0.42
22:BA:2258:C:H4'	22:BA:2259:U:OP2	2.19	0.42
22:BA:2478:A:C2'	22:BA:2479:U:H5'	2.49	0.42
22:BA:2733:A:H8	22:BA:2733:A:O5'	2.03	0.42
22:BA:2886:A:H2'	22:BA:2887:A:O4'	2.20	0.42
24:BC:33:LEU:HA	24:BC:61:TYR:O	2.19	0.42
24:BC:108:GLY:O	24:BC:109:LEU:C	2.58	0.42
24:BC:181:ARG:HG2	24:BC:181:ARG:HH21	1.85	0.42
24:BC:196:ASN:OD1	24:BC:197:ALA:N	2.52	0.42
25:BD:2:ILE:HG13	25:BD:100:LEU:HD21	2.02	0.42
27:BF:166:ARG:O	27:BF:167:ALA:C	2.58	0.42
27:BF:173:ASP:O	27:BF:174:PHE:C	2.58	0.42
30:BI:58:ILE:HG22	30:BI:60:VAL:CG2	2.50	0.42
30:BI:111:THR:O	30:BI:113:ALA:N	2.47	0.42
32:BK:4:GLU:OE2	32:BK:23:LYS:CE	2.58	0.42
33:BL:20:GLY:O	33:BL:21:ARG:HD3	2.20	0.42
33:BL:90:VAL:HG13	33:BL:95:LEU:HG	2.01	0.42
37:BP:87:ARG:NH1	37:BP:87:ARG:HG2	2.34	0.42
44:BW:29:SER:CA	44:BW:63:ASP:HB3	2.50	0.42
45:BX:34:SER:CB	45:BX:49:ARG:HA	2.50	0.42
48:B0:38:LEU:O	48:B0:39:ARG:C	2.57	0.42
49:B1:27:ARG:C	49:B1:29:LYS:H	2.23	0.42
49:B1:31:GLU:OE2	49:B1:31:GLU:N	2.41	0.42
53:CA:61:G:H5"	53:CA:61:G:H8	1.85	0.42
53:CA:155:A:C5	53:CA:156:C:C4	3.07	0.42
53:CA:398:U:H2'	53:CA:399:G:C8	2.54	0.42
53:CA:725:G:C5	53:CA:726:C:C5	3.08	0.42
53:CA:737:C:OP1	6:CF:91:ARG:HD2	2.19	0.42
53:CA:877:G:HO2'	53:CA:878:A:H5'	1.84	0.42
53:CA:913:A:OP1	12:CL:43:LYS:CE	2.68	0.42
53:CA:948:C:OP2	55:CM:104:ASN:HB3	2.20	0.42
53:CA:949:A:C2	53:CA:1233:G:C2	3.07	0.42
53:CA:1081:A:H2'	53:CA:1082:A:O4'	2.20	0.42
53:CA:1102:A:HO2'	53:CA:1103:C:H5'	1.77	0.42
53:CA:1178:G:OP2	9:CI:98:ARG:NH2	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:198:VAL:O	2:CB:198:VAL:HG23	2.20	0.42
4:CD:70:GLN:NE2	4:CD:133:SER:HB3	2.35	0.42
5:CE:40:ASP:OD1	5:CE:41:GLY:N	2.46	0.42
9:CI:106:ASP:OD1	9:CI:106:ASP:N	2.50	0.42
55:CM:62:PHE:O	55:CM:64:VAL:HG23	2.19	0.42
56:CP:78:VAL:O	56:CP:80:LYS:N	2.53	0.42
17:CQ:29:LYS:CE	17:CQ:36:PHE:CZ	2.96	0.42
18:CR:54:LEU:O	18:CR:55:ALA:C	2.57	0.42
22:DA:9:G:C5	22:DA:2629:U:C4	3.08	0.42
22:DA:30:G:C6	22:DA:31:C:N3	2.87	0.42
22:DA:265:A:N6	22:DA:428:A:O4'	2.53	0.42
22:DA:447:A:C4	22:DA:473:G:N7	2.87	0.42
22:DA:545:U:C4	22:DA:547:A:H4'	2.55	0.42
22:DA:618:G:HO2'	22:DA:619:G:H5'	1.79	0.42
22:DA:800:A:N1	22:DA:802:A:C8	2.88	0.42
22:DA:839:U:H2'	22:DA:840:C:C6	2.55	0.42
22:DA:915:C:O2	57:DB:100:G:H4'	2.19	0.42
22:DA:1048:A:C6	22:DA:1111:A:C2	3.08	0.42
22:DA:1123:C:H2'	22:DA:1124:G:C8	2.54	0.42
22:DA:1462:C:H1'	22:DA:2702:G:H21	1.84	0.42
22:DA:1570:A:H8	22:DA:1570:A:O5'	2.03	0.42
22:DA:1594:U:H2'	22:DA:1595:C:H6	1.83	0.42
22:DA:1885:A:H3'	22:DA:1886:U:C6	2.55	0.42
22:DA:2077:A:N6	22:DA:2435:A:N6	2.68	0.42
22:DA:2197:U:O2	22:DA:2225:A:N7	2.53	0.42
22:DA:2301:C:C4	22:DA:2302:U:C5	3.08	0.42
22:DA:2543:G:C6	22:DA:2765:A:C5	3.08	0.42
22:DA:2553:G:C2	22:DA:2554:U:H1'	2.55	0.42
22:DA:2666:C:O2	22:DA:2666:C:O4'	2.36	0.42
22:DA:2848:G:OP2	37:DP:94:ALA:CB	2.68	0.42
22:DA:2863:C:O2'	22:DA:2864:G:H5'	2.20	0.42
25:DD:33:ARG:HB3	25:DD:95:SER:OG	2.19	0.42
28:DG:10:VAL:HB	28:DG:14:VAL:HG11	2.01	0.42
28:DG:36:LEU:N	28:DG:36:LEU:CD1	2.83	0.42
28:DG:117:PRO:CD	28:DG:143:VAL:HG11	2.50	0.42
32:DK:61:VAL:HG13	32:DK:87:LEU:CD2	2.49	0.42
34:DM:53:MET:HB2	34:DM:120:ALA:HB2	2.00	0.42
37:DP:19:PHE:CE1	37:DP:58:PHE:CG	3.07	0.42
37:DP:92:ARG:O	37:DP:93:LYS:HB2	2.20	0.42
39:DR:78:ARG:HD2	39:DR:83:TYR:HD1	1.83	0.42
44:DW:18:LYS:HE3	44:DW:19:ARG:NH2	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:109:A:C3'	1:AA:110:C:H5'	2.47	0.42
1:AA:182:A:H1'	1:AA:183:C:H6	1.85	0.42
1:AA:228:A:H2'	1:AA:229:U:O4'	2.20	0.42
1:AA:377:G:C5'	16:AP:5:ARG:NH1	2.83	0.42
1:AA:543:U:H2'	1:AA:544:G:O4'	2.20	0.42
1:AA:633:G:C4	1:AA:634:C:C6	3.07	0.42
1:AA:903:G:C4	1:AA:904:U:C5	3.08	0.42
1:AA:1142:G:H3'	1:AA:1143:G:H8	1.85	0.42
1:AA:1283:U:O2'	1:AA:1284:C:H5'	2.20	0.42
1:AA:1382:C:O2'	1:AA:1383:C:H5'	2.20	0.42
1:AA:1412:C:H2'	1:AA:1413:A:H8	1.85	0.42
1:AA:1511:G:H2'	1:AA:1512:U:H6	1.85	0.42
2:AB:18:GLN:HG2	2:AB:189:ASN:ND2	2.35	0.42
2:AB:148:GLY:C	2:AB:150:ILE:H	2.23	0.42
2:AB:168:GLU:O	2:AB:169:HIS:C	2.58	0.42
5:AE:64:GLU:HA	5:AE:67:ARG:CG	2.50	0.42
9:AI:71:ILE:HG22	9:AI:72:SER:N	2.35	0.42
13:AM:49:GLU:O	13:AM:52:ILE:HG22	2.20	0.42
15:AO:15:GLY:C	15:AO:17:ASP:N	2.72	0.42
20:AT:30:PHE:O	20:AT:33:LYS:HB2	2.20	0.42
22:BA:57:C:H2'	22:BA:58:G:O4'	2.20	0.42
22:BA:235:U:H2'	22:BA:236:C:C6	2.51	0.42
22:BA:582:A:H2'	22:BA:583:G:C8	2.55	0.42
22:BA:1244:A:H5'	33:BL:8:PRO:HD3	2.01	0.42
22:BA:1298:C:C2	22:BA:1643:G:N2	2.88	0.42
22:BA:1326:U:O2'	22:BA:1327:A:H5'	2.20	0.42
22:BA:1378:A:O2'	22:BA:1379:U:P	2.78	0.42
22:BA:1521:G:C6	22:BA:1522:A:C6	3.07	0.42
22:BA:1539:U:O2	22:BA:1540:G:C8	2.72	0.42
22:BA:1557:C:H2'	22:BA:1558:C:C5	2.55	0.42
22:BA:1590:A:C2'	22:BA:1591:A:H8	2.20	0.42
22:BA:2079:U:O2'	45:BX:22:ASN:ND2	2.50	0.42
22:BA:2217:G:C2'	22:BA:2218:G:C5'	2.98	0.42
22:BA:2313:C:H5"	27:BF:87:LYS:HD3	2.01	0.42
22:BA:2315:G:C2'	22:BA:2316:G:O5'	2.67	0.42
22:BA:2364:C:H2'	22:BA:2365:G:C5'	2.49	0.42
22:BA:2365:G:C2'	22:BA:2366:A:H8	2.33	0.42
22:BA:2447:G:H8	22:BA:2501:C:H5"	1.83	0.42
22:BA:2466:C:OP1	52:B4:4:ARG:HB2	2.20	0.42
22:BA:2602:A:H4'	22:BA:2603:G:H5'	2.01	0.42
23:BB:53:A:O2'	23:BB:54:G:C5'	2.66	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:57:A:HO2'	23:BB:58:A:H5'	1.80	0.42
23:BB:62:C:O2'	23:BB:63:C:H5'	2.20	0.42
24:BC:115:ILE:HD12	24:BC:115:ILE:HA	1.63	0.42
24:BC:131:MET:HA	24:BC:134:ILE:CG1	2.50	0.42
25:BD:3:GLY:O	25:BD:82:PHE:CZ	2.73	0.42
25:BD:106:LYS:H	25:BD:106:LYS:CD	2.24	0.42
25:BD:106:LYS:HB2	25:BD:206:ALA:H	1.85	0.42
25:BD:180:VAL:O	25:BD:181:ASP:HB2	2.20	0.42
26:BE:96:VAL:CG1	26:BE:101:TYR:HB2	2.49	0.42
28:BG:7:PRO:O	28:BG:8:VAL:CB	2.60	0.42
28:BG:124:CYS:HA	28:BG:125:PRO:HD2	1.75	0.42
29:BH:68:ARG:HH21	29:BH:72:ILE:HG21	1.77	0.42
29:BH:94:ILE:HD12	29:BH:98:ASP:O	2.19	0.42
31:BJ:117:ALA:CA	31:BJ:120:ARG:NH2	2.73	0.42
32:BK:76:VAL:N	37:BP:72:VAL:HG23	2.35	0.42
33:BL:111:ILE:HD12	33:BL:111:ILE:HA	1.77	0.42
53:CA:43:C:H2'	53:CA:44:A:C5'	2.50	0.42
53:CA:130:A:H1'	53:CA:264:C:H5'	2.02	0.42
53:CA:441:A:C2	53:CA:497:G:C5	3.08	0.42
53:CA:464:U:O4	53:CA:466:A:C4'	2.65	0.42
53:CA:554:A:H2'	53:CA:555:U:H6	1.84	0.42
53:CA:624:C:H4'	56:CP:10:GLY:C	2.39	0.42
53:CA:708:C:O2'	53:CA:709:U:H5'	2.20	0.42
53:CA:1018:G:H2'	53:CA:1019:A:O5'	2.20	0.42
53:CA:1111:A:H3'	53:CA:1111:A:C8	2.55	0.42
53:CA:1112:C:O2	3:CC:178:ARG:HG2	2.20	0.42
53:CA:1137:C:H4'	53:CA:1138:G:C2	2.54	0.42
53:CA:1268:G:C6	53:CA:1269:A:N6	2.88	0.42
53:CA:1452:C:H5'	53:CA:1453:G:C4	2.55	0.42
2:CB:99:MET:O	2:CB:103:TRP:CB	2.67	0.42
4:CD:3:TYR:CE2	4:CD:5:GLY:N	2.88	0.42
4:CD:80:ARG:HB2	4:CD:81:LEU:H	1.43	0.42
4:CD:195:ASN:O	4:CD:196:GLU:C	2.58	0.42
54:CG:41:ILE:HD13	54:CG:115:MET:HB3	2.02	0.42
8:CH:63:LYS:O	8:CH:70:VAL:HG12	2.19	0.42
9:CI:4:GLN:HB3	9:CI:21:LYS:CG	2.50	0.42
10:CJ:38:GLY:HA2	10:CJ:39:PRO:HD2	1.89	0.42
11:CK:26:PHE:CZ	11:CK:88:PRO:CG	3.02	0.42
11:CK:96:ILE:HD13	11:CK:109:ILE:HD13	2.02	0.42
56:CP:16:PHE:CZ	56:CP:38:PHE:CD1	3.08	0.42
17:CQ:17:GLU:O	17:CQ:18:LYS:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:57:VAL:HG11	20:CT:71:ALA:HA	2.01	0.42
22:DA:35:G:O2'	22:DA:36:G:O4'	2.33	0.42
22:DA:136:G:H8	22:DA:136:G:P	2.43	0.42
22:DA:311:A:O2'	22:DA:312:G:OP1	2.38	0.42
22:DA:482:A:O2'	22:DA:483:A:P	2.78	0.42
22:DA:509:C:H6	22:DA:509:C:H2'	1.65	0.42
22:DA:547:A:H3'	22:DA:548:G:C5'	2.50	0.42
22:DA:573:U:O2'	22:DA:574:A:H3'	2.20	0.42
22:DA:606:U:O2'	22:DA:607:U:H4'	2.20	0.42
22:DA:633:A:H5"	33:DL:70:LYS:HD3	2.02	0.42
22:DA:901:C:H2'	22:DA:902:C:H6	1.85	0.42
22:DA:922:C:H2'	22:DA:923:G:H8	1.85	0.42
22:DA:1060:U:O4	30:DI:131:THR:HG22	2.19	0.42
22:DA:1102:C:H6	22:DA:1102:C:OP2	2.03	0.42
22:DA:1161:C:O2'	22:DA:1162:G:H5'	2.19	0.42
22:DA:1255:U:O4	22:DA:2060:A:H5'	2.20	0.42
22:DA:1341:G:H4'	22:DA:1342:A:OP2	2.18	0.42
22:DA:1362:C:H5'	22:DA:2215:C:H4'	2.02	0.42
22:DA:1378:A:C8	22:DA:1380:G:C6	3.08	0.42
22:DA:1465:G:HO2'	22:DA:1545:A:H2	1.64	0.42
22:DA:1745:A:H2'	22:DA:1746:A:H8	1.85	0.42
22:DA:1784:A:H4'	22:DA:1785:A:C5'	2.43	0.42
22:DA:1963:U:O2'	22:DA:1964:G:H5'	2.20	0.42
22:DA:2035:G:H4'	22:DA:2036:C:OP2	2.20	0.42
22:DA:2051:A:C2	22:DA:2052:A:N6	2.87	0.42
22:DA:2087:G:H2'	22:DA:2088:A:H8	1.85	0.42
22:DA:2107:G:H2'	22:DA:2108:A:H8	1.82	0.42
22:DA:2199:A:C2	22:DA:2200:C:H1'	2.55	0.42
22:DA:2283:C:N4	22:DA:2389:G:C6	2.88	0.42
22:DA:2298:A:O2'	22:DA:2299:U:H5'	2.19	0.42
22:DA:2329:U:O5'	22:DA:2329:U:H6	2.03	0.42
22:DA:2729:G:O4'	25:DD:191:GLY:HA2	2.20	0.42
22:DA:2839:G:H2'	22:DA:2840:C:O4'	2.20	0.42
57:DB:30:C:C2'	57:DB:31:C:H5'	2.47	0.42
57:DB:64:G:C6	57:DB:65:U:C4	3.08	0.42
57:DB:91:C:H2'	57:DB:92:C:C6	2.54	0.42
24:DC:67:LYS:CB	24:DC:150:GLY:HA2	2.50	0.42
24:DC:129:LEU:HG	24:DC:134:ILE:HG23	2.02	0.42
24:DC:129:LEU:CA	24:DC:188:ARG:HG3	2.49	0.42
25:DD:19:GLY:O	32:DK:72:PRO:HB2	2.19	0.42
25:DD:204:LYS:HA	25:DD:205:PRO:HD2	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:DF:84:ILE:O	58:DF:84:ILE:HG13	2.19	0.42
29:DH:73:ASN:C	29:DH:75:LEU:H	2.22	0.42
32:DK:87:LEU:O	32:DK:89:ASN:N	2.53	0.42
33:DL:23:ILE:N	33:DL:23:ILE:CD1	2.82	0.42
38:DQ:21:LYS:HD2	38:DQ:21:LYS:HA	1.91	0.42
40:DS:8:ARG:CA	40:DS:102:HIS:ND1	2.79	0.42
41:DT:14:PRO:HA	41:DT:32:LEU:HB3	2.02	0.42
43:DV:57:TYR:N	43:DV:57:TYR:CD1	2.87	0.42
45:DX:44:ARG:HH11	45:DX:44:ARG:CB	2.33	0.42
1:AA:197:A:C4'	1:AA:198:G:O5'	2.66	0.41
1:AA:207:C:O2	1:AA:207:C:H2'	2.20	0.41
1:AA:255:G:O2'	1:AA:256:U:H5'	2.20	0.41
1:AA:272:C:C2'	1:AA:273:U:O5'	2.68	0.41
1:AA:592:G:C6	1:AA:648:A:C6	3.07	0.41
1:AA:708:C:O2'	1:AA:709:U:H5'	2.19	0.41
1:AA:922:G:C6	1:AA:923:A:C6	3.07	0.41
1:AA:1115:U:O2'	1:AA:1116:U:H5'	2.19	0.41
1:AA:1228:C:O2'	1:AA:1229:A:H5'	2.20	0.41
1:AA:1414:U:H2'	1:AA:1415:G:H8	1.85	0.41
2:AB:219:THR:HG23	2:AB:220:VAL:N	2.34	0.41
4:AD:25:ARG:HH12	4:AD:30:LYS:HG2	1.84	0.41
7:AG:69:ARG:HG3	7:AG:95:ARG:CD	2.49	0.41
10:AJ:81:GLU:CA	10:AJ:84:VAL:HG12	2.50	0.41
11:AK:62:ALA:O	11:AK:65:ALA:HB3	2.19	0.41
12:AL:3:VAL:HG23	12:AL:4:ASN:H	1.85	0.41
12:AL:42:LYS:HE3	12:AL:43:LYS:HE3	2.02	0.41
13:AM:1:ALA:CB	13:AM:8:ILE:HG23	2.47	0.41
13:AM:10:ASP:O	13:AM:11:HIS:CB	2.68	0.41
14:AN:42:ASN:O	14:AN:44:VAL:N	2.53	0.41
16:AP:46:LYS:HB2	16:AP:47:GLU:H	1.63	0.41
19:AS:3:SER:O	19:AS:5:LYS:HG3	2.20	0.41
22:BA:186:G:N3	22:BA:187:G:C8	2.88	0.41
22:BA:365:U:H2'	22:BA:366:C:C6	2.55	0.41
22:BA:404:A:O4'	22:BA:406:G:C8	2.73	0.41
22:BA:659:G:H4'	26:BE:95:LYS:HD3	2.02	0.41
22:BA:843:G:O2'	22:BA:844:A:H5'	2.20	0.41
22:BA:969:G:C6	22:BA:970:U:C4	3.07	0.41
22:BA:1011:G:H1'	22:BA:1013:C:O4'	2.20	0.41
22:BA:1011:G:H5"	38:BQ:76:SER:OG	2.20	0.41
22:BA:1046:A:H4'	22:BA:1046:A:OP2	2.19	0.41
22:BA:1084:A:C5	22:BA:1085:A:N7	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1139:G:C2	22:BA:1140:C:C6	3.09	0.41
22:BA:1378:A:HO2'	22:BA:1379:U:P	2.38	0.41
22:BA:1450:G:O6	22:BA:1451:C:N4	2.52	0.41
22:BA:1534:U:H5'	22:BA:1535:A:P	2.59	0.41
22:BA:1662:U:O2	22:BA:1662:U:H2'	2.19	0.41
22:BA:1720:U:H2'	22:BA:1721:G:O4'	2.20	0.41
22:BA:2547:A:H2'	22:BA:2548:U:H6	1.77	0.41
22:BA:2748:A:H1'	28:BG:66:THR:CG2	2.50	0.41
23:BB:42:C:P	27:BF:63:LYS:HE2	2.60	0.41
24:BC:41:GLY:N	24:BC:53:ILE:HG22	2.34	0.41
24:BC:83:ASP:OD1	24:BC:85:ASN:OD1	2.38	0.41
24:BC:234:GLY:O	24:BC:235:GLU:HB3	2.20	0.41
25:BD:104:VAL:CG1	25:BD:106:LYS:H	2.33	0.41
26:BE:7:ASP:CG	26:BE:8:ALA:N	2.74	0.41
26:BE:79:ARG:CG	26:BE:80:SER:N	2.67	0.41
26:BE:170:ARG:HG2	26:BE:170:ARG:NH2	2.34	0.41
27:BF:174:PHE:HD1	27:BF:176:PHE:CD1	2.38	0.41
33:BL:75:ALA:HB3	33:BL:101:ILE:HD11	2.02	0.41
35:BN:12:ARG:HB3	35:BN:13:ASN:H	1.67	0.41
38:BQ:82:LEU:HD21	38:BQ:112:ALA:HB2	2.02	0.41
39:BR:44:GLY:O	39:BR:45:GLU:HG2	2.19	0.41
40:BS:41:LYS:O	40:BS:44:ALA:N	2.53	0.41
44:BW:28:GLU:C	44:BW:63:ASP:HB3	2.41	0.41
44:BW:40:ARG:O	44:BW:44:PHE:CE1	2.72	0.41
44:BW:46:ALA:CB	44:BW:79:ILE:O	2.50	0.41
46:BY:25:GLN:O	46:BY:29:ARG:HB2	2.19	0.41
47:BZ:16:LEU:HB3	47:BZ:17:PRO:CD	2.49	0.41
47:BZ:40:THR:CG2	47:BZ:43:ILE:HG23	2.50	0.41
53:CA:9:G:H2'	53:CA:10:A:C8	2.54	0.41
53:CA:9:G:C2	53:CA:10:A:C8	3.08	0.41
53:CA:14:U:HO2'	53:CA:15:G:P	2.43	0.41
53:CA:274:A:O2'	53:CA:275:G:O5'	2.38	0.41
53:CA:375:U:C2	53:CA:376:G:C8	3.08	0.41
53:CA:654:G:O2'	53:CA:655:A:O4'	2.27	0.41
53:CA:885:G:H8	53:CA:885:G:OP2	2.02	0.41
53:CA:1067:A:O3'	53:CA:1094:G:H5'	2.19	0.41
53:CA:1084:G:C5	53:CA:1085:U:O4	2.72	0.41
53:CA:1092:A:H5'	54:CG:3:ARG:NH2	2.34	0.41
53:CA:1223:C:H5"	53:CA:1224:U:OP2	2.20	0.41
53:CA:1345:U:C6	53:CA:1377:A:C2	3.07	0.41
53:CA:1365:G:O2'	53:CA:1366:C:O5'	2.38	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1381:U:N3	54:CG:77:ARG:CZ	2.82	0.41
2:CB:34:ARG:HD3	2:CB:35:ASN:N	2.35	0.41
3:CC:190:THR:OG1	3:CC:195:ILE:HG13	2.20	0.41
4:CD:33:ILE:O	4:CD:33:ILE:CG2	2.68	0.41
4:CD:141:VAL:HG22	4:CD:180:THR:HG23	2.02	0.41
4:CD:156:ALA:O	4:CD:160:LEU:CD2	2.64	0.41
54:CG:8:GLN:CD	54:CG:9:ARG:H	2.23	0.41
54:CG:68:VAL:O	54:CG:70:PRO:HD3	2.19	0.41
10:CJ:52:LEU:HB2	14:CN:80:ARG:NE	2.32	0.41
55:CM:13:HIS:NE2	55:CM:41:ASP:HA	2.34	0.41
17:CQ:80:LYS:CB	17:CQ:80:LYS:NZ	2.83	0.41
18:CR:25:ILE:HA	18:CR:28:LEU:HB2	2.01	0.41
18:CR:54:LEU:HD12	18:CR:54:LEU:HA	1.91	0.41
21:CU:34:ARG:HG3	21:CU:35:GLU:N	2.35	0.41
22:DA:224:U:O4	22:DA:232:G:N2	2.53	0.41
22:DA:300:A:H2'	22:DA:301:G:C5'	2.50	0.41
22:DA:672:C:O2'	26:DE:77:ILE:HD11	2.19	0.41
22:DA:1126:A:OP1	22:DA:1126:A:C8	2.67	0.41
22:DA:1139:G:C2'	22:DA:1140:C:C5'	2.98	0.41
22:DA:1206:G:C4	22:DA:1207:C:C5	3.07	0.41
22:DA:1251:C:C5	38:DQ:5:ARG:NH1	2.88	0.41
22:DA:1265:A:C8	22:DA:1267:U:C2	3.08	0.41
22:DA:1270:C:C5'	22:DA:1271:G:OP1	2.68	0.41
22:DA:1576:U:C2	22:DA:1577:C:C5	3.08	0.41
22:DA:1587:G:H21	22:DA:1588:G:H1'	1.82	0.41
22:DA:1821:A:O2'	22:DA:1822:C:O4'	2.37	0.41
22:DA:1838:C:N4	22:DA:1899:A:O4'	2.53	0.41
22:DA:1875:G:HO2'	22:DA:1876:A:H8	1.66	0.41
22:DA:2013:A:N6	22:DA:2014:A:N1	2.68	0.41
22:DA:2191:A:N7	22:DA:2192:U:C5	2.88	0.41
22:DA:2196:C:O2	22:DA:2196:C:H2'	2.19	0.41
22:DA:2216:G:O2'	22:DA:2217:G:C8	2.38	0.41
22:DA:2276:G:O2'	22:DA:2277:G:C5'	2.64	0.41
22:DA:2694:G:C5	22:DA:2695:U:C5	3.08	0.41
22:DA:2772:C:O2	22:DA:2772:C:H2'	2.20	0.41
57:DB:11:C:H3'	57:DB:12:C:C5'	2.50	0.41
57:DB:44:G:H5"	58:DF:91:ARG:NE	2.33	0.41
57:DB:110:C:H2'	57:DB:111:U:H6	1.85	0.41
24:DC:16:VAL:N	24:DC:203:VAL:CG1	2.70	0.41
24:DC:255:LYS:O	24:DC:256:THR:CG2	2.62	0.41
58:DF:47:LYS:HA	58:DF:50:ASP:CB	2.47	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:DF:49:LEU:CD2	58:DF:49:LEU:H	2.27	0.41
31:DJ:34:ARG:HE	31:DJ:34:ARG:HB3	1.74	0.41
31:DJ:86:GLN:HG2	31:DJ:87:ALA:H	1.85	0.41
39:DR:33:VAL:O	39:DR:33:VAL:HG23	2.19	0.41
40:DS:1:MET:N	40:DS:1:MET:HE3	2.35	0.41
40:DS:1:MET:HE3	40:DS:1:MET:H1	1.85	0.41
40:DS:37:THR:HG22	40:DS:37:THR:O	2.20	0.41
41:DT:22:THR:OG1	41:DT:23:ALA:N	2.50	0.41
43:DV:83:LYS:HA	43:DV:84:PRO:HD3	1.91	0.41
45:DX:38:TRP:NE1	45:DX:40:GLU:HG2	2.35	0.41
47:DZ:40:THR:HB	47:DZ:43:ILE:HG13	2.01	0.41
1:AA:358:U:H2'	1:AA:359:G:H8	1.85	0.41
1:AA:401:C:C6	1:AA:401:C:C3'	3.03	0.41
1:AA:407:U:H2'	1:AA:408:A:O4'	2.20	0.41
1:AA:481:G:O2'	1:AA:482:A:C8	2.64	0.41
1:AA:672:U:O2'	1:AA:673:A:H5'	2.20	0.41
1:AA:833:G:C2	1:AA:834:U:C2	3.08	0.41
1:AA:874:G:C6	1:AA:875:U:C4	3.08	0.41
1:AA:985:C:C4	1:AA:986:U:O4	2.73	0.41
1:AA:1152:A:OP1	10:AJ:70:HIS:ND1	2.53	0.41
1:AA:1492:A:N1	22:BA:1913:A:C4	2.88	0.41
1:AA:1521:C:C2	1:AA:1522:U:C6	3.08	0.41
4:AD:124:VAL:HG23	4:AD:125:ASN:N	2.35	0.41
5:AE:17:VAL:HA	5:AE:33:THR:O	2.21	0.41
5:AE:68:ARG:O	5:AE:69:ASN:C	2.58	0.41
7:AG:49:LEU:HD13	7:AG:49:LEU:C	2.40	0.41
7:AG:91:ARG:HA	7:AG:92:PRO:HD3	1.86	0.41
7:AG:132:THR:O	7:AG:135:LYS:HB3	2.19	0.41
9:AI:26:LYS:HG3	9:AI:61:ASP:OD1	2.21	0.41
10:AJ:81:GLU:HA	10:AJ:81:GLU:OE1	2.20	0.41
12:AL:98:ARG:HD2	12:AL:103:CYS:SG	2.60	0.41
14:AN:46:LYS:HD2	19:AS:12:LEU:CD2	2.46	0.41
14:AN:88:MET:HE2	14:AN:97:LYS:HD2	2.02	0.41
17:AQ:19:SER:N	17:AQ:47:ASP:OD2	2.53	0.41
17:AQ:28:VAL:HG23	17:AQ:29:LYS:O	2.21	0.41
18:AR:56:ARG:NH2	18:AR:60:ARG:HH12	2.18	0.41
20:AT:47:GLN:HE21	20:AT:82:ILE:HD13	1.85	0.41
22:BA:28:A:C4	22:BA:513:A:C5	3.08	0.41
22:BA:163:C:HO2'	22:BA:164:C:P	2.43	0.41
22:BA:274:C:H2'	22:BA:275:C:O4'	2.19	0.41
22:BA:664:G:H2'	22:BA:665:U:H6	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:705:A:C8	22:BA:727:A:C2	3.08	0.41
22:BA:749:A:C6	22:BA:1618:A:C2	3.08	0.41
22:BA:1538:G:N2	22:BA:1539:U:C2	2.88	0.41
22:BA:1538:G:H2'	22:BA:1539:U:C5	2.55	0.41
22:BA:1588:G:C4	22:BA:1589:U:C5	3.08	0.41
22:BA:2149:U:HO2'	22:BA:2150:C:C4'	2.33	0.41
22:BA:2231:U:P	45:BX:29:LEU:CD2	3.08	0.41
22:BA:2277:G:H2'	22:BA:2278:A:H5"	2.03	0.41
22:BA:2348:U:C2'	22:BA:2349:G:H5'	2.50	0.41
24:BC:61:TYR:HD2	24:BC:85:ASN:HD22	1.68	0.41
24:BC:141:HIS:HB2	24:BC:190:THR:HB	2.01	0.41
25:BD:20:VAL:CG1	25:BD:21:SER:N	2.83	0.41
25:BD:142:VAL:CB	25:BD:143:PRO:CD	2.98	0.41
26:BE:111:GLU:HG2	26:BE:114:ARG:HH11	1.76	0.41
26:BE:175:ILE:HD11	26:BE:180:LEU:HD11	2.03	0.41
28:BG:33:THR:H	28:BG:34:ARG:HH11	1.63	0.41
29:BH:24:GLY:O	29:BH:25:TYR:C	2.58	0.41
29:BH:117:LEU:HA	29:BH:118:PRO:HD2	1.91	0.41
29:BH:134:VAL:HG21	29:BH:139:PHE:CA	2.50	0.41
30:BI:93:ASN:OD1	30:BI:136:GLY:HA2	2.20	0.41
30:BI:115:ASP:OD1	30:BI:115:ASP:C	2.59	0.41
33:BL:101:ILE:HA	33:BL:101:ILE:HD12	1.61	0.41
35:BN:49:GLU:N	35:BN:50:PRO:CD	2.84	0.41
36:BO:115:LEU:HA	36:BO:115:LEU:HD12	1.65	0.41
43:BV:40:ILE:CG2	43:BV:42:LEU:HD21	2.50	0.41
46:BY:26:PHE:CE1	46:BY:30:MET:HG3	2.55	0.41
48:B0:11:LYS:HD2	48:B0:11:LYS:HA	1.83	0.41
49:B1:29:LYS:HB3	49:B1:29:LYS:HZ3	1.81	0.41
53:CA:40:C:H2'	53:CA:41:G:O4'	2.20	0.41
53:CA:53:A:N1	53:CA:359:G:C6	2.88	0.41
53:CA:144:G:C6	53:CA:145:G:C5	3.08	0.41
53:CA:179:A:H2'	53:CA:180:U:C6	2.55	0.41
53:CA:263:A:OP1	20:CT:73:ARG:NH1	2.53	0.41
53:CA:319:G:H5'	53:CA:1468:A:H4'	2.02	0.41
53:CA:375:U:O3'	56:CP:6:LEU:HD12	2.19	0.41
53:CA:579:A:C2	53:CA:763:G:C4	3.09	0.41
53:CA:859:G:H2'	53:CA:860:A:H8	1.84	0.41
53:CA:878:A:C6	53:CA:879:C:C4	3.07	0.41
53:CA:879:C:C2'	53:CA:880:C:O5'	2.68	0.41
53:CA:885:G:O2'	53:CA:886:G:C5'	2.68	0.41
53:CA:977:A:O2'	53:CA:978:A:H5"	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1151:A:N6	53:CA:1152:A:H62	2.18	0.41
53:CA:1366:C:O2'	53:CA:1367:C:C5'	2.68	0.41
53:CA:1465:A:H2'	53:CA:1466:C:C6	2.54	0.41
2:CB:66:ILE:HG21	2:CB:68:PHE:CE1	2.55	0.41
3:CC:1:GLY:O	3:CC:2:GLN:C	2.59	0.41
4:CD:161:ALA:O	4:CD:164:ARG:HB2	2.21	0.41
5:CE:38:VAL:CG1	5:CE:39:GLY:H	2.33	0.41
6:CF:18:VAL:N	6:CF:19:PRO:HD2	2.34	0.41
6:CF:22:ILE:HG21	6:CF:39:LEU:HD21	2.02	0.41
8:CH:94:VAL:HG21	8:CH:101:ALA:HB2	2.02	0.41
10:CJ:90:LEU:O	10:CJ:90:LEU:CD2	2.68	0.41
11:CK:126:ARG:O	21:CU:33:ARG:CZ	2.69	0.41
55:CM:68:LEU:O	55:CM:68:LEU:HD23	2.20	0.41
22:DA:37:C:O2'	26:DE:45:ALA:CB	2.68	0.41
22:DA:107:G:H4'	22:DA:294:A:OP1	2.20	0.41
22:DA:159:G:O2'	22:DA:160:A:C5'	2.66	0.41
22:DA:223:A:C5	22:DA:422:A:N7	2.88	0.41
22:DA:299:A:N3	22:DA:319:G:O2'	2.40	0.41
22:DA:319:G:O6	22:DA:333:G:C6	2.73	0.41
22:DA:455:C:C3'	22:DA:456:C:H5'	2.50	0.41
22:DA:470:A:C6	22:DA:471:A:C6	3.08	0.41
22:DA:585:G:H2'	22:DA:1254:A:N6	2.34	0.41
22:DA:780:G:N1	22:DA:782:A:C2	2.88	0.41
22:DA:859:G:H22	22:DA:916:G:C2'	2.31	0.41
22:DA:965:C:H5"	62:DA:3347:HOH:O	2.20	0.41
22:DA:1064:C:H2'	22:DA:1065:U:H6	1.85	0.41
22:DA:1656:C:O2'	22:DA:1657:U:H5'	2.20	0.41
22:DA:1735:A:C4	22:DA:1736:U:C5	3.08	0.41
22:DA:1805:A:N3	24:DC:49:THR:CG2	2.83	0.41
22:DA:1829:A:O2'	24:DC:14:HIS:CE1	2.73	0.41
22:DA:1869:G:N1	22:DA:1873:G:C6	2.87	0.41
22:DA:2024:G:O2'	22:DA:2025:C:H5'	2.19	0.41
22:DA:2040:G:C4	22:DA:2041:U:C6	3.08	0.41
22:DA:2221:G:C5	22:DA:2222:C:C5	3.08	0.41
22:DA:2261:C:C2	22:DA:2280:G:C2	3.08	0.41
22:DA:2391:G:O2'	22:DA:2392:A:O5'	2.38	0.41
22:DA:2454:G:C2	22:DA:2499:C:N3	2.88	0.41
22:DA:2470:G:C6	22:DA:2481:G:C2	3.09	0.41
22:DA:2537:U:O5'	22:DA:2537:U:H6	2.03	0.41
22:DA:2798:U:C5'	22:DA:2799:A:OP1	2.67	0.41
22:DA:2867:G:N3	22:DA:2867:G:C2'	2.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DC:66:PHE:CZ	24:DC:155:ARG:NH1	2.88	0.41
24:DC:145:MET:CE	24:DC:181:ARG:NH2	2.83	0.41
24:DC:264:LYS:HG3	24:DC:265:PHE:CD2	2.55	0.41
25:DD:172:VAL:CG2	25:DD:194:PRO:HD3	2.50	0.41
28:DG:86:LEU:HD12	28:DG:132:LEU:CD1	2.50	0.41
28:DG:95:ALA:HB1	28:DG:124:CYS:SG	2.60	0.41
29:DH:5:LEU:HD22	29:DH:9:VAL:HG21	2.00	0.41
29:DH:93:SER:CA	29:DH:121:VAL:HG21	2.49	0.41
32:DK:107:LEU:C	32:DK:109:SER:N	2.73	0.41
34:DM:26:VAL:HA	34:DM:66:ARG:NH2	2.35	0.41
39:DR:39:LEU:HD22	39:DR:53:PHE:HE1	1.84	0.41
40:DS:29:VAL:HG11	40:DS:55:ILE:CG1	2.50	0.41
41:DT:39:THR:C	41:DT:41:ALA:H	2.23	0.41
41:DT:53:VAL:CG2	41:DT:92:ASN:HD22	2.33	0.41
42:DU:4:ILE:H	42:DU:4:ILE:HG13	1.63	0.41
42:DU:48:VAL:HA	42:DU:49:PRO:HD3	1.89	0.41
50:D2:6:GLN:HA	50:D2:7:PRO:HD2	1.78	0.41
1:AA:111:G:C6	1:AA:330:C:N4	2.88	0.41
1:AA:137:U:H1'	1:AA:227:G:N2	2.35	0.41
1:AA:596:A:N6	1:AA:645:G:C2	2.88	0.41
1:AA:722:G:H1	1:AA:733:G:H1	1.67	0.41
1:AA:868:C:N4	1:AA:869:G:C2	2.89	0.41
1:AA:914:A:HO2'	1:AA:915:A:H8	1.67	0.41
1:AA:978:A:H5'	1:AA:1224:U:O4	2.20	0.41
1:AA:1046:A:H2'	1:AA:1047:G:H8	1.84	0.41
1:AA:1154:G:N1	1:AA:1155:A:C5	2.89	0.41
1:AA:1216:A:C6	1:AA:1217:C:N4	2.89	0.41
1:AA:1250:A:O3'	9:AI:68:GLY:HA2	2.21	0.41
1:AA:1306:A:H61	1:AA:1331:G:H1'	1.84	0.41
1:AA:1410:A:C4	1:AA:1491:G:N2	2.88	0.41
2:AB:9:LEU:HD12	2:AB:42:LEU:CD1	2.20	0.41
2:AB:138:ARG:HA	2:AB:141:GLU:OE2	2.20	0.41
4:AD:99:ASN:C	4:AD:99:ASN:ND2	2.73	0.41
4:AD:104:MET:HE2	4:AD:170:LEU:HB2	2.03	0.41
5:AE:71:ILE:HG12	5:AE:72:ASN:N	2.36	0.41
9:AI:45:MET:O	9:AI:45:MET:HG2	2.21	0.41
13:AM:3:ILE:O	13:AM:5:GLY:N	2.53	0.41
14:AN:40:ARG:HH12	14:AN:44:VAL:CB	2.32	0.41
15:AO:65:LEU:N	15:AO:65:LEU:CD2	2.84	0.41
17:AQ:12:VAL:HG21	17:AQ:21:VAL:HG22	2.02	0.41
22:BA:17:G:H2'	22:BA:18:U:C6	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:43:G:C5'	22:BA:43:G:C8	3.03	0.41
22:BA:287:G:H2'	22:BA:288:U:C6	2.55	0.41
22:BA:581:C:O2	22:BA:582:A:C8	2.74	0.41
22:BA:706:A:H2'	22:BA:707:G:O4'	2.19	0.41
22:BA:784:G:H5"	24:BC:225:ASN:HD21	1.85	0.41
22:BA:915:C:C6	22:BA:915:C:C5'	2.99	0.41
22:BA:1061:U:H6	22:BA:1070:A:O4'	2.03	0.41
22:BA:1070:A:N1	22:BA:1097:U:H4'	2.35	0.41
22:BA:1340:U:C5	22:BA:1603:A:C8	3.08	0.41
22:BA:1343:G:O4'	22:BA:1597:A:H2'	2.19	0.41
22:BA:1858:A:C6	22:BA:1885:A:C8	3.08	0.41
22:BA:2280:G:C2'	22:BA:2281:A:H5'	2.50	0.41
22:BA:2297:A:O2'	22:BA:2298:A:H5'	2.20	0.41
22:BA:2383:G:H2'	22:BA:2384:U:C6	2.55	0.41
22:BA:2403:C:C2	22:BA:2404:U:C6	3.08	0.41
22:BA:2635:A:H2'	22:BA:2636:C:O5'	2.20	0.41
22:BA:2741:A:H2'	22:BA:2742:G:O4'	2.19	0.41
22:BA:2766:A:H2'	22:BA:2766:A:N3	2.36	0.41
22:BA:2773:C:OP1	25:BD:169:ARG:NE	2.53	0.41
24:BC:79:ARG:NH2	24:BC:81:GLU:OE2	2.53	0.41
25:BD:52:THR:CG2	25:BD:53:GLY:N	2.84	0.41
25:BD:155:VAL:HG13	25:BD:159:LYS:HG3	2.01	0.41
26:BE:36:ALA:O	26:BE:39:ALA:HB3	2.20	0.41
26:BE:150:THR:HA	26:BE:189:THR:CG2	2.50	0.41
29:BH:125:THR:HG23	29:BH:126:GLY:N	2.29	0.41
29:BH:131:SER:O	29:BH:132:PHE:HB3	2.20	0.41
31:BJ:141:ASP:O	31:BJ:142:ILE:HB	2.20	0.41
34:BM:46:ILE:HD12	34:BM:47:GLU:CA	2.50	0.41
37:BP:50:ARG:HG3	37:BP:50:ARG:H	1.61	0.41
39:BR:39:LEU:CA	39:BR:49:ILE:HG23	2.50	0.41
42:BU:38:ILE:CG2	42:BU:39:ASN:N	2.64	0.41
43:BV:62:THR:HA	43:BV:71:LYS:HA	2.01	0.41
43:BV:81:PRO:HB2	43:BV:82:TYR:HD2	1.85	0.41
44:BW:23:LYS:CD	44:BW:24:ARG:H	2.19	0.41
46:BY:39:GLN:O	46:BY:42:LEU:HB2	2.20	0.41
53:CA:68:G:C2'	53:CA:69:G:O5'	2.68	0.41
53:CA:239:U:H4'	53:CA:239:U:OP1	2.20	0.41
53:CA:283:U:H2'	53:CA:284:C:H6	1.84	0.41
53:CA:355:C:N4	53:CA:356:A:H62	2.18	0.41
53:CA:411:A:C6	53:CA:429:U:C5	3.08	0.41
53:CA:939:G:C6	53:CA:940:C:N4	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1001:C:H2'	53:CA:1002:G:O4'	2.20	0.41
53:CA:1184:G:O2'	53:CA:1185:G:H8	2.03	0.41
53:CA:1262:C:C4	53:CA:1263:C:C5	3.08	0.41
53:CA:1333:A:H2'	53:CA:1334:G:O4'	2.20	0.41
53:CA:1356:G:N2	53:CA:1367:C:C2	2.89	0.41
53:CA:1367:C:H5'	10:CJ:62:ARG:NH1	2.34	0.41
53:CA:1381:U:O2'	53:CA:1382:C:O5'	2.37	0.41
53:CA:1385:G:C4	53:CA:1386:G:C8	3.08	0.41
53:CA:1447:A:P	53:CA:1448:C:H5	2.43	0.41
2:CB:156:LEU:HD23	2:CB:156:LEU:H	1.85	0.41
2:CB:191:ASP:HA	2:CB:192:PRO:HD2	1.82	0.41
3:CC:18:ASN:ND2	3:CC:53:ARG:NH1	2.59	0.41
4:CD:114:ARG:HE	4:CD:114:ARG:HB2	1.62	0.41
54:CG:34:LYS:NZ	54:CG:34:LYS:CB	2.84	0.41
10:CJ:102:LEU:HD13	10:CJ:102:LEU:C	2.40	0.41
11:CK:35:ASP:CG	11:CK:37:GLN:HB2	2.40	0.41
12:CL:71:HIS:ND1	12:CL:73:LEU:N	2.68	0.41
56:CP:5:ARG:O	56:CP:19:VAL:HA	2.21	0.41
17:CQ:46:HIS:CG	17:CQ:70:LYS:HZ1	2.38	0.41
21:CU:3:ILE:CG2	21:CU:18:PHE:HD1	2.34	0.41
22:DA:50:U:OP1	22:DA:50:U:C6	2.74	0.41
22:DA:67:U:C2	22:DA:68:G:C8	3.08	0.41
22:DA:69:C:H2'	22:DA:70:G:C8	2.55	0.41
22:DA:75:G:O2'	22:DA:76:C:O5'	2.38	0.41
22:DA:87:U:C2'	22:DA:88:G:OP1	2.65	0.41
22:DA:89:A:C2	22:DA:90:U:C2	3.09	0.41
22:DA:139:U:H3	41:DT:1:MET:HA	1.85	0.41
22:DA:240:C:OP2	22:DA:241:A:H3'	2.20	0.41
22:DA:447:A:C5	22:DA:473:G:C5	3.08	0.41
22:DA:962:G:H3'	22:DA:962:G:P	2.60	0.41
22:DA:1077:A:O2'	22:DA:1078:U:C5'	2.68	0.41
22:DA:1091:G:H2'	22:DA:1092:C:C6	2.54	0.41
22:DA:1206:G:O2'	22:DA:1207:C:O5'	2.37	0.41
22:DA:1255:U:H5'	22:DA:2502:G:H22	1.85	0.41
22:DA:1275:A:C8	35:DN:16:HIS:CD2	3.08	0.41
22:DA:1281:G:H2'	22:DA:1282:U:H5'	2.02	0.41
22:DA:1317:G:N2	22:DA:1336:A:N3	2.68	0.41
22:DA:1324:G:H1'	22:DA:1616:A:H61	1.81	0.41
22:DA:1446:C:C4	22:DA:1447:C:C4	3.08	0.41
22:DA:1545:A:O2'	22:DA:1546:G:H5'	2.21	0.41
22:DA:1558:C:H1'	22:DA:1560:G:C8	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2338:C:O2'	22:DA:2339:C:P	2.79	0.41
22:DA:2574:G:N2	25:DD:147:GLY:O	2.50	0.41
22:DA:2626:C:H2'	22:DA:2627:G:O4'	2.21	0.41
22:DA:2756:U:O4'	22:DA:2757:A:H5"	2.19	0.41
57:DB:17:C:N3	57:DB:68:C:N3	2.69	0.41
57:DB:24:G:H5'	57:DB:25:U:C4	2.55	0.41
57:DB:54:G:N2	58:DF:25:MET:CE	2.83	0.41
57:DB:57:A:N6	58:DF:25:MET:HG2	2.35	0.41
57:DB:69:G:C2'	57:DB:70:C:H6	2.34	0.41
24:DC:152:GLN:H	24:DC:152:GLN:NE2	2.02	0.41
58:DF:49:LEU:HD22	58:DF:49:LEU:N	2.25	0.41
58:DF:135:ILE:HD12	58:DF:135:ILE:H	1.83	0.41
28:DG:152:ARG:HA	28:DG:153:PRO:HD3	1.84	0.41
29:DH:133:GLN:NE2	29:DH:139:PHE:CE2	2.87	0.41
30:DI:72:THR:HA	30:DI:73:PRO:HD2	1.87	0.41
30:DI:139:VAL:O	30:DI:140:GLU:HB2	2.19	0.41
31:DJ:99:ARG:CZ	31:DJ:99:ARG:CB	2.99	0.41
33:DL:120:VAL:CG1	33:DL:121:THR:H	2.33	0.41
34:DM:41:LEU:C	34:DM:93:VAL:HG23	2.41	0.41
34:DM:133:LYS:NZ	34:DM:133:LYS:CB	2.84	0.41
36:DO:11:ALA:HB2	36:DO:96:GLY:H	1.82	0.41
39:DR:79:ARG:O	39:DR:80:ARG:CB	2.69	0.41
44:DW:23:LYS:CD	44:DW:24:ARG:H	2.26	0.41
51:D3:41:ARG:NH2	51:D3:41:ARG:CB	2.83	0.41
1:AA:201:G:N3	1:AA:202:G:H1'	2.35	0.41
1:AA:229:U:H2'	1:AA:230:G:O4'	2.20	0.41
1:AA:244:U:O4	1:AA:906:A:H1'	2.20	0.41
1:AA:450:G:C2'	1:AA:451:A:OP1	2.69	0.41
1:AA:568:G:C2	1:AA:883:C:C2	3.08	0.41
1:AA:585:G:N3	1:AA:879:C:H4'	2.34	0.41
1:AA:706:A:H4'	11:AK:30:ILE:HG12	2.02	0.41
1:AA:1125:U:HO2'	1:AA:1126:U:P	2.43	0.41
1:AA:1190:G:OP1	3:AC:4:VAL:HG12	2.20	0.41
1:AA:1316:G:C5'	1:AA:1317:C:OP2	2.69	0.41
1:AA:1485:U:O5'	1:AA:1485:U:H6	2.03	0.41
1:AA:1507:A:C6	1:AA:1530:G:C5	3.08	0.41
2:AB:141:GLU:CA	2:AB:144:GLU:HB2	2.47	0.41
2:AB:187:ASP:HB2	2:AB:203:ASP:CG	2.41	0.41
2:AB:206:ILE:HD13	2:AB:207:ARG:N	2.35	0.41
3:AC:5:HIS:HA	3:AC:6:PRO:HD2	1.81	0.41
4:AD:109:THR:HG22	4:AD:112:GLU:CB	2.47	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:15:ILE:HG22	5:AE:16:ALA:N	2.36	0.41
5:AE:96:GLN:HA	5:AE:97:PRO:HD2	1.94	0.41
6:AF:20:GLY:O	6:AF:24:ARG:HD3	2.20	0.41
6:AF:62:MET:HG3	6:AF:64:VAL:HG23	2.02	0.41
8:AH:110:MET:H	8:AH:110:MET:HG3	1.75	0.41
11:AK:125:LYS:O	11:AK:126:ARG:CG	2.68	0.41
13:AM:15:VAL:HA	13:AM:33:LEU:HD11	2.02	0.41
18:AR:22:TYR:CZ	18:AR:23:LYS:HE3	2.55	0.41
21:AU:18:PHE:C	21:AU:19:LYS:HE2	2.39	0.41
22:BA:109:C:C2'	22:BA:110:G:O5'	2.69	0.41
22:BA:794:A:H2'	22:BA:795:C:H6	1.77	0.41
22:BA:962:G:H2'	22:BA:963:U:C6	2.55	0.41
22:BA:1067:A:OP2	22:BA:1067:A:H8	2.03	0.41
22:BA:1105:U:C2'	22:BA:1106:G:H8	2.28	0.41
22:BA:1184:U:O5'	22:BA:1184:U:H6	2.04	0.41
22:BA:1228:G:H2'	22:BA:1229:C:C6	2.55	0.41
22:BA:1274:A:OP1	22:BA:1646:C:N4	2.46	0.41
22:BA:1383:A:H2	22:BA:1405:U:O2	2.02	0.41
22:BA:1387:A:C6	22:BA:1401:G:N1	2.88	0.41
22:BA:1535:A:O2'	22:BA:1536:C:OP1	2.32	0.41
22:BA:1585:C:H2'	22:BA:1586:A:C4'	2.50	0.41
22:BA:1812:U:H2'	22:BA:1813:G:C8	2.55	0.41
22:BA:1833:C:C5	22:BA:1834:U:C5	3.08	0.41
22:BA:1858:A:O2'	22:BA:1859:U:O4'	2.33	0.41
22:BA:2055:C:H5'	22:BA:2056:G:O5'	2.20	0.41
22:BA:2140:G:C2	22:BA:2141:G:C4	3.08	0.41
22:BA:2242:G:H2'	22:BA:2243:U:O4'	2.20	0.41
23:BB:30:C:C3'	23:BB:31:C:C5'	2.98	0.41
24:BC:105:ALA:O	24:BC:195:GLY:HA3	2.19	0.41
24:BC:159:THR:N	24:BC:194:VAL:HG12	2.36	0.41
26:BE:174:GLY:O	26:BE:175:ILE:C	2.58	0.41
27:BF:100:GLU:C	27:BF:102:LEU:N	2.73	0.41
27:BF:162:ASP:OD1	27:BF:162:ASP:N	2.43	0.41
31:BJ:37:ARG:HG3	31:BJ:118:MET:HE1	2.03	0.41
32:BK:105:ARG:NE	32:BK:106:GLU:OE2	2.54	0.41
32:BK:113:MET:O	32:BK:116:ILE:N	2.51	0.41
34:BM:73:ILE:CG2	34:BM:91:TYR:CE1	3.03	0.41
37:BP:32:VAL:O	37:BP:33:GLU:O	2.37	0.41
38:BQ:51:GLN:NE2	38:BQ:55:GLN:HE21	2.19	0.41
42:BU:11:ILE:O	42:BU:11:ILE:HG23	2.20	0.41
42:BU:41:VAL:C	42:BU:42:LYS:HD3	2.40	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BV:29:ILE:CG1	43:BV:30:ILE:N	2.79	0.41
53:CA:16:A:C5	53:CA:17:U:C5	3.09	0.41
53:CA:46:G:O2'	53:CA:365:U:H1'	2.20	0.41
53:CA:77:A:H8	53:CA:77:A:OP2	2.03	0.41
53:CA:158:G:C5	53:CA:159:G:N7	2.89	0.41
53:CA:186:C:O2'	53:CA:187:G:H5'	2.20	0.41
53:CA:557:G:C6	53:CA:558:G:C2	3.08	0.41
53:CA:587:G:OP1	8:CH:80:PRO:HB3	2.20	0.41
53:CA:603:U:H2'	53:CA:604:G:C8	2.56	0.41
53:CA:650:G:N3	53:CA:650:G:H2'	2.36	0.41
53:CA:680:C:C4	53:CA:681:A:N7	2.89	0.41
53:CA:685:G:O4'	11:CK:40:ALA:HB3	2.20	0.41
53:CA:731:G:OP1	53:CA:766:A:H1'	2.20	0.41
53:CA:778:G:O2'	11:CK:121:ARG:O	2.38	0.41
53:CA:951:G:N1	53:CA:1231:G:C6	2.89	0.41
53:CA:995:C:O2'	53:CA:996:A:H5"	2.21	0.41
53:CA:1051:C:O2'	53:CA:1052:U:C6	2.74	0.41
53:CA:1238:A:N6	53:CA:1302:C:N4	2.69	0.41
53:CA:1266:G:H3'	53:CA:1266:G:C8	2.56	0.41
53:CA:1480:A:H2'	53:CA:1481:U:O4'	2.21	0.41
2:CB:91:VAL:HG11	2:CB:95:TRP:HD1	1.85	0.41
4:CD:67:LEU:HA	4:CD:67:LEU:HD12	1.76	0.41
5:CE:18:ASN:OD1	5:CE:33:THR:CG2	2.68	0.41
5:CE:154:ALA:C	5:CE:156:ARG:H	2.23	0.41
54:CG:20:GLU:O	54:CG:23:ALA:HB3	2.20	0.41
54:CG:72:VAL:O	54:CG:140:VAL:HG12	2.20	0.41
9:CI:117:LEU:HD23	9:CI:123:ARG:HD3	2.01	0.41
10:CJ:5:ARG:HG3	10:CJ:79:PRO:HG3	1.99	0.41
11:CK:21:HIS:C	11:CK:22:ILE:HD12	2.41	0.41
12:CL:35:ARG:HA	12:CL:35:ARG:HD3	1.84	0.41
12:CL:113:ARG:HD2	12:CL:118:VAL:HG12	2.02	0.41
55:CM:82:LEU:HB2	19:CS:73:PHE:HE2	1.85	0.41
14:CN:52:ARG:HH21	14:CN:58:ARG:NE	2.18	0.41
15:CO:54:GLY:O	15:CO:58:MET:HG3	2.20	0.41
22:DA:230:G:O2'	22:DA:231:A:O5'	2.38	0.41
22:DA:302:C:O2'	22:DA:303:G:C5'	2.68	0.41
22:DA:352:A:H2'	22:DA:353:C:O4'	2.20	0.41
22:DA:467:G:O3'	22:DA:797:G:H5'	2.20	0.41
22:DA:911:A:H8	22:DA:911:A:O5'	2.03	0.41
22:DA:936:A:C6	22:DA:937:C:C4	3.08	0.41
22:DA:965:C:H4'	22:DA:2273:A:H1'	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:976:G:H5'	22:DA:1156:A:N6	2.35	0.41
22:DA:996:A:O2'	22:DA:997:G:H5'	2.20	0.41
22:DA:1020:A:H2	22:DA:1141:U:H2'	1.84	0.41
22:DA:1027:A:N3	22:DA:2488:G:H5"	2.35	0.41
22:DA:1071:G:C5	22:DA:1089:A:C5	3.09	0.41
22:DA:1123:C:H2'	22:DA:1124:G:H8	1.85	0.41
22:DA:1287:A:H5'	35:DN:103:ARG:NH1	2.35	0.41
22:DA:1298:C:H2'	22:DA:1299:G:O4'	2.20	0.41
22:DA:1312:U:O2'	22:DA:1313:U:P	2.78	0.41
22:DA:1317:G:C5	22:DA:1318:U:C4	3.08	0.41
22:DA:1415:U:H5'	22:DA:1416:G:OP1	2.20	0.41
22:DA:1566:A:C2	24:DC:212:TRP:CG	3.08	0.41
22:DA:1759:A:O2'	22:DA:1760:C:C5'	2.65	0.41
22:DA:1792:G:C5'	24:DC:203:VAL:CG2	2.99	0.41
22:DA:1792:G:H5'	24:DC:203:VAL:HG22	2.01	0.41
22:DA:1803:A:H2	22:DA:1823:G:H1'	1.83	0.41
22:DA:1838:C:C4	22:DA:1899:A:C2	3.08	0.41
22:DA:1984:G:C6	22:DA:1985:C:C4	3.08	0.41
22:DA:2136:G:C2'	22:DA:2137:U:H6	2.28	0.41
22:DA:2230:G:H1'	45:DX:31:ASN:HB3	2.01	0.41
22:DA:2361:G:H2'	22:DA:2362:C:C6	2.52	0.41
22:DA:2386:A:C2	44:DW:38:ARG:HG2	2.53	0.41
22:DA:2677:G:H2'	22:DA:2678:C:H6	1.85	0.41
22:DA:2822:G:C2'	22:DA:2823:A:H5"	2.50	0.41
22:DA:2850:A:N7	22:DA:2868:A:O2'	2.51	0.41
22:DA:2869:G:N7	22:DA:2870:C:C5	2.89	0.41
22:DA:2891:U:H2'	22:DA:2892:G:H5'	2.01	0.41
57:DB:57:A:C6	58:DF:25:MET:CG	2.97	0.41
24:DC:73:ILE:O	24:DC:116:GLN:HG2	2.20	0.41
24:DC:216:ARG:HH11	24:DC:216:ARG:HG3	1.84	0.41
58:DF:11:VAL:O	58:DF:12:VAL:HB	2.20	0.41
30:DI:27:LEU:HD13	30:DI:32:VAL:HG11	2.02	0.41
32:DK:35:VAL:HA	32:DK:62:VAL:HG12	2.01	0.41
35:DN:96:ARG:CZ	35:DN:96:ARG:HB2	2.49	0.41
36:DO:80:GLU:O	36:DO:84:GLU:N	2.53	0.41
37:DP:24:THR:O	37:DP:44:GLY:O	2.39	0.41
46:DY:45:GLN:C	46:DY:46:VAL:HG23	2.41	0.41
46:DY:55:THR:HG22	46:DY:56:LEU:HD22	2.03	0.41
48:D0:41:HIS:ND1	48:D0:41:HIS:C	2.74	0.41
1:AA:81:A:O2'	1:AA:89:U:O2	2.35	0.41
1:AA:267:C:H2'	1:AA:268:U:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:397:A:C6	1:AA:548:G:N7	2.89	0.41
1:AA:544:G:C6	1:AA:545:C:C4	3.09	0.41
1:AA:859:G:OP2	1:AA:869:G:N1	2.50	0.41
1:AA:865:A:H2	1:AA:918:A:H4'	1.85	0.41
1:AA:1031:C:C2'	1:AA:1032:G:OP2	2.68	0.41
1:AA:1060:U:O2'	10:AJ:54:SER:HB2	2.21	0.41
1:AA:1164:G:N2	1:AA:1173:U:C2	2.89	0.41
1:AA:1269:A:C2	1:AA:1312:G:N3	2.81	0.41
1:AA:1277:C:O2'	1:AA:1279:G:C8	2.53	0.41
1:AA:1356:G:C2	1:AA:1367:C:O2	2.73	0.41
1:AA:1402:C:O2	1:AA:1500:A:N1	2.53	0.41
3:AC:81:GLU:O	3:AC:84:GLU:HB3	2.20	0.41
4:AD:2:ARG:HB2	4:AD:4:LEU:CD1	2.50	0.41
4:AD:150:LYS:O	4:AD:150:LYS:HG3	2.20	0.41
6:AF:47:LEU:CD1	6:AF:51:ILE:HG22	2.51	0.41
7:AG:145:GLU:HA	7:AG:148:LYS:HB2	2.02	0.41
11:AK:113:THR:HA	11:AK:114:PRO:HD3	1.89	0.41
11:AK:124:LYS:O	11:AK:125:LYS:O	2.39	0.41
15:AO:55:LEU:HA	15:AO:58:MET:HG3	2.02	0.41
17:AQ:33:TYR:O	17:AQ:35:LYS:N	2.52	0.41
17:AQ:49:ASN:O	17:AQ:50:ASN:C	2.57	0.41
22:BA:207:A:H2'	22:BA:208:C:O4'	2.21	0.41
22:BA:242:G:H5"	51:B3:63:TYR:CE2	2.55	0.41
22:BA:478:A:N6	22:BA:502:A:H62	2.17	0.41
22:BA:527:C:H2'	22:BA:2779:U:O2'	2.20	0.41
22:BA:547:A:N7	22:BA:548:G:N3	2.68	0.41
22:BA:570:G:H2'	22:BA:2030:A:C8	2.55	0.41
22:BA:687:C:H5'	50:B2:4:THR:O	2.20	0.41
22:BA:745:G:C3'	22:BA:746:U:H5'	2.50	0.41
22:BA:863:A:C2	22:BA:864:G:C4	3.09	0.41
22:BA:863:A:H2'	22:BA:864:G:O4'	2.20	0.41
22:BA:983:A:N6	22:BA:984:A:C2	2.88	0.41
22:BA:1022:G:C5	22:BA:1140:C:C4	3.09	0.41
22:BA:1054:A:C6	22:BA:1106:G:O6	2.74	0.41
22:BA:1065:U:H5	22:BA:1074:G:H21	1.68	0.41
22:BA:1163:G:C2	22:BA:1164:C:C5	3.09	0.41
22:BA:1455:G:C8	22:BA:1455:G:C5'	2.96	0.41
22:BA:1804:C:H6	22:BA:1804:C:O5'	2.03	0.41
22:BA:1858:A:O2'	22:BA:1859:U:O5'	2.38	0.41
22:BA:2071:A:H2'	22:BA:2072:C:C6	2.55	0.41
22:BA:2142:A:H2'	22:BA:2143:C:OP2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2243:U:O2	22:BA:2434:A:C2	2.74	0.41
22:BA:2264:C:H41	44:BW:11:ASN:HD21	1.67	0.41
22:BA:2421:G:N7	51:B3:30:HIS:CD2	2.89	0.41
22:BA:2665:A:N3	22:BA:2665:A:H2'	2.35	0.41
22:BA:2889:C:C2'	22:BA:2890:G:H5'	2.50	0.41
23:BB:73:A:C4	23:BB:104:A:C2	3.08	0.41
24:BC:141:HIS:NE2	24:BC:193:GLU:C	2.74	0.41
26:BE:44:ARG:HH21	26:BE:44:ARG:CG	2.33	0.41
26:BE:124:PHE:CZ	26:BE:148:ILE:CD1	2.97	0.41
27:BF:97:GLU:O	27:BF:101:ARG:HG2	2.20	0.41
27:BF:151:LEU:CD1	27:BF:152:ASP:N	2.76	0.41
28:BG:32:LEU:HB2	28:BG:34:ARG:CZ	2.50	0.41
30:BI:78:LEU:HD13	30:BI:108:ILE:CG2	2.46	0.41
33:BL:67:THR:HG22	33:BL:68:SER:N	2.35	0.41
34:BM:25:ASP:N	34:BM:25:ASP:OD2	2.53	0.41
34:BM:53:MET:HE2	34:BM:120:ALA:CB	2.50	0.41
37:BP:9:GLN:C	37:BP:11:GLN:N	2.73	0.41
38:BQ:40:LYS:HA	38:BQ:43:GLN:CG	2.50	0.41
42:BU:27:VAL:CG2	42:BU:28:LEU:N	2.83	0.41
52:B4:24:ARG:HG2	52:B4:24:ARG:HH21	1.86	0.41
53:CA:106:C:O2'	53:CA:107:G:H5'	2.20	0.41
53:CA:254:G:H1'	17:CQ:16:MET:HB3	2.02	0.41
53:CA:277:C:O2'	53:CA:278:G:O4'	2.34	0.41
53:CA:704:A:C2	53:CA:705:G:C4	3.09	0.41
53:CA:812:G:N3	53:CA:812:G:H2'	2.35	0.41
53:CA:900:A:O2'	53:CA:901:A:H5'	2.21	0.41
53:CA:952:U:C5	55:CM:102:LYS:NZ	2.87	0.41
53:CA:1135:U:O2	53:CA:1135:U:H2'	2.19	0.41
53:CA:1137:C:O2'	53:CA:1138:G:N2	2.54	0.41
2:CB:26:MET:SD	2:CB:192:PRO:HD3	2.60	0.41
4:CD:151:GLN:O	4:CD:152:SER:C	2.58	0.41
4:CD:191:SER:O	4:CD:192:ALA:CB	2.69	0.41
5:CE:157:GLY:HA3	8:CH:63:LYS:NZ	2.35	0.41
54:CG:4:ARG:CD	54:CG:5:VAL:H	2.26	0.41
54:CG:22:LEU:CA	54:CG:25:PHE:HB3	2.17	0.41
11:CK:67:GLU:C	11:CK:69:CYS:N	2.74	0.41
11:CK:82:GLU:HB3	11:CK:108:ASN:HB3	2.02	0.41
11:CK:84:MET:HG2	11:CK:110:THR:OG1	2.20	0.41
12:CL:115:LYS:C	12:CL:116:TYR:CG	2.92	0.41
19:CS:46:LEU:HD23	19:CS:46:LEU:N	2.30	0.41
22:DA:129:C:O2'	22:DA:130:C:H6	2.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:150:U:H2'	22:DA:151:C:C6	2.55	0.41
22:DA:155:A:C6	22:DA:172:A:N6	2.89	0.41
22:DA:183:C:C5	22:DA:184:C:C5	3.08	0.41
22:DA:227:A:C5'	22:DA:229:C:H41	2.32	0.41
22:DA:259:G:C6	22:DA:260:G:C8	3.08	0.41
22:DA:311:A:H61	22:DA:330:A:H5'	1.85	0.41
22:DA:336:C:O2'	22:DA:337:C:H5'	2.21	0.41
22:DA:617:G:O2'	22:DA:618:G:C8	2.51	0.41
22:DA:696:G:C2	22:DA:767:U:O2	2.73	0.41
22:DA:825:A:C2	22:DA:826:U:C2	3.08	0.41
22:DA:827:U:C5	22:DA:2430:A:C5	3.08	0.41
22:DA:873:C:N3	22:DA:905:A:C2	2.88	0.41
22:DA:971:G:OP2	22:DA:974:G:N2	2.53	0.41
22:DA:1028:A:N6	22:DA:1125:G:H2'	2.35	0.41
22:DA:1054:A:N3	22:DA:1055:G:H1'	2.35	0.41
22:DA:1055:G:C5	22:DA:1056:G:C8	3.09	0.41
22:DA:1364:G:C4	22:DA:1368:G:N2	2.88	0.41
22:DA:1499:C:H2'	22:DA:1500:G:C5'	2.49	0.41
22:DA:1612:C:C5'	50:D2:7:PRO:HG3	2.50	0.41
22:DA:1813:G:N2	24:DC:49:THR:HB	2.35	0.41
22:DA:1918:A:C4'	22:DA:1919:A:OP1	2.62	0.41
22:DA:1967:C:H6	22:DA:1967:C:C5'	2.20	0.41
22:DA:2290:G:O2'	22:DA:2381:A:H1'	2.19	0.41
22:DA:2376:A:N3	36:DO:99:TYR:CZ	2.89	0.41
22:DA:2516:A:C4	22:DA:2569:G:N2	2.88	0.41
22:DA:2619:C:O2'	25:DD:155:VAL:HG12	2.21	0.41
22:DA:2687:U:O2'	22:DA:2688:G:H5'	2.20	0.41
22:DA:2725:A:C5	22:DA:2727:A:C5	3.09	0.41
22:DA:2744:G:C6	22:DA:2761:A:C6	3.08	0.41
22:DA:2798:U:H5'	22:DA:2800:A:N6	2.35	0.41
24:DC:120:ASP:O	24:DC:121:ALA:O	2.38	0.41
24:DC:140:VAL:HG23	24:DC:141:HIS:H	1.85	0.41
25:DD:127:PHE:O	25:DD:128:ARG:C	2.59	0.41
26:DE:40:ARG:CZ	26:DE:92:HIS:CD2	3.04	0.41
58:DF:104:THR:N	58:DF:107:VAL:HG22	2.34	0.41
28:DG:1:SER:HB2	28:DG:61:TRP:HE3	1.85	0.41
28:DG:86:LEU:HD12	28:DG:132:LEU:HD11	2.01	0.41
31:DJ:1:MET:SD	31:DJ:2:LYS:NZ	2.87	0.41
31:DJ:42:ALA:O	31:DJ:44:TYR:N	2.54	0.41
31:DJ:141:ASP:HB2	31:DJ:142:ILE:HD12	2.01	0.41
42:DU:39:ASN:HB2	42:DU:62:ALA:H	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DV:16:ALA:HB2	43:DV:19:ARG:NH2	2.35	0.41
47:DZ:4:ILE:HG13	47:DZ:44:ARG:HH12	1.85	0.41
52:D4:10:LEU:HD12	52:D4:33:HIS:CD2	2.54	0.41
1:AA:184:G:C4	1:AA:185:U:C5	3.08	0.41
1:AA:274:A:H4'	1:AA:275:G:O5'	2.18	0.41
1:AA:370:C:C2	1:AA:371:A:C8	3.08	0.41
1:AA:482:A:H2'	1:AA:483:C:O4'	2.20	0.41
1:AA:528:C:O2'	1:AA:535:A:H2'	2.20	0.41
1:AA:670:G:C2'	1:AA:671:G:O5'	2.69	0.41
1:AA:671:G:N2	1:AA:736:C:C2	2.89	0.41
1:AA:694:A:N1	1:AA:787:A:O2'	2.54	0.41
1:AA:826:C:C5'	8:AH:12:ARG:HE	2.33	0.41
1:AA:859:G:O2'	1:AA:860:A:H5'	2.20	0.41
1:AA:967:C:H1'	9:AI:129:ARG:HH22	1.85	0.41
1:AA:975:A:C4'	1:AA:976:G:C5'	2.86	0.41
1:AA:1111:A:C2'	1:AA:1112:C:C5'	2.98	0.41
2:AB:56:LEU:C	2:AB:56:LEU:HD13	2.40	0.41
2:AB:67:LEU:CD2	2:AB:91:VAL:HG23	2.42	0.41
2:AB:101:THR:N	2:AB:174:GLU:OE1	2.50	0.41
5:AE:43:GLY:O	5:AE:45:VAL:HG23	2.20	0.41
5:AE:110:MET:H	5:AE:113:VAL:HG12	1.86	0.41
5:AE:152:VAL:CG1	5:AE:155:LYS:HZ1	2.29	0.41
6:AF:51:ILE:CD1	6:AF:86:ARG:HG3	2.51	0.41
7:AG:117:LEU:HD23	7:AG:117:LEU:N	2.35	0.41
11:AK:51:PHE:HB2	11:AK:55:ARG:HB3	2.02	0.41
12:AL:81:ILE:HD11	12:AL:94:TYR:CB	2.50	0.41
12:AL:101:LEU:HB3	12:AL:102:ASP:H	1.55	0.41
14:AN:20:PHE:C	14:AN:22:LYS:N	2.74	0.41
14:AN:27:LYS:CD	14:AN:27:LYS:C	2.88	0.41
17:AQ:51:GLU:O	17:AQ:52:CYS:SG	2.78	0.41
19:AS:42:ASN:ND2	19:AS:42:ASN:C	2.73	0.41
20:AT:67:HIS:C	20:AT:68:LYS:HZ2	2.24	0.41
21:AU:24:LYS:HG2	21:AU:25:ALA:H	1.85	0.41
22:BA:89:A:C6	22:BA:90:U:C4	3.08	0.41
22:BA:96:C:H4'	46:BY:41:HIS:ND1	2.35	0.41
22:BA:118:A:H1'	22:BA:178:G:O4'	2.19	0.41
22:BA:170:U:H2'	22:BA:171:U:O5'	2.19	0.41
22:BA:263:G:H1'	22:BA:430:A:N3	2.36	0.41
22:BA:289:G:C5	22:BA:290:U:C4	3.09	0.41
22:BA:323:C:C4	22:BA:333:G:C8	3.08	0.41
22:BA:329:G:H4'	22:BA:330:A:OP1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:526:A:O2'	22:BA:2043:C:O2	2.39	0.41
22:BA:587:C:C3'	22:BA:588:U:H5'	2.51	0.41
22:BA:700:G:C6	22:BA:733:G:C2	3.08	0.41
22:BA:727:A:H2'	22:BA:728:G:C8	2.55	0.41
22:BA:958:U:H5"	34:BM:14:LYS:NZ	2.35	0.41
22:BA:996:A:P	38:BQ:91:ARG:HH12	2.44	0.41
22:BA:1277:G:H2'	22:BA:1278:C:C6	2.55	0.41
22:BA:1422:G:H1'	22:BA:1496:A:N1	2.36	0.41
22:BA:1603:A:C2'	22:BA:1604:C:H5'	2.51	0.41
22:BA:1795:C:H2'	22:BA:1796:U:H6	1.86	0.41
22:BA:1853:A:C6	22:BA:1889:A:C5	3.08	0.41
22:BA:1936:A:H4'	22:BA:1937:A:OP2	2.20	0.41
22:BA:2534:A:C2	22:BA:2535:G:H1'	2.56	0.41
22:BA:2849:U:P	37:BP:92:ARG:HH12	2.44	0.41
23:BB:8:C:C2'	23:BB:9:G:O5'	2.69	0.41
24:BC:41:GLY:CA	24:BC:53:ILE:HG21	2.51	0.41
26:BE:198:GLU:O	26:BE:199:MET:C	2.58	0.41
27:BF:46:LYS:H	27:BF:46:LYS:CE	2.33	0.41
27:BF:82:TYR:HA	27:BF:83:PRO:HD2	1.76	0.41
27:BF:172:PHE:O	27:BF:173:ASP:C	2.59	0.41
29:BH:21:VAL:CG2	29:BH:22:LYS:N	2.83	0.41
30:BI:57:VAL:HG12	30:BI:58:ILE:N	2.35	0.41
31:BJ:123:LYS:HD2	31:BJ:123:LYS:N	2.36	0.41
34:BM:45:GLN:O	34:BM:46:ILE:C	2.58	0.41
34:BM:69:PRO:HB2	34:BM:70:ASP:H	1.65	0.41
35:BN:28:LEU:HD12	35:BN:28:LEU:HA	1.81	0.41
36:BO:11:ALA:HB2	36:BO:96:GLY:CA	2.50	0.41
37:BP:50:ARG:HG2	37:BP:56:SER:C	2.31	0.41
37:BP:111:GLU:CD	37:BP:111:GLU:N	2.74	0.41
38:BQ:114:ALA:O	38:BQ:116:LEU:N	2.54	0.41
53:CA:8:A:C5	4:CD:205:LYS:HG3	2.56	0.41
53:CA:70:U:C2	53:CA:94:G:N7	2.88	0.41
53:CA:155:A:C6	53:CA:167:A:C6	3.08	0.41
53:CA:155:A:H2'	53:CA:156:C:O4'	2.20	0.41
53:CA:200:G:C2	53:CA:218:U:C2	3.09	0.41
53:CA:212:G:N2	53:CA:213:G:C8	2.88	0.41
53:CA:289:G:C6	53:CA:290:C:N4	2.88	0.41
53:CA:615:G:N2	53:CA:616:G:C4	2.89	0.41
53:CA:722:G:N3	53:CA:722:G:C2'	2.84	0.41
53:CA:734:G:N2	53:CA:735:C:C2	2.88	0.41
53:CA:878:A:C2'	53:CA:879:C:H5'	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:892:A:O2'	53:CA:1415:G:H4'	2.21	0.41
53:CA:920:U:C2	53:CA:921:U:C5	3.08	0.41
53:CA:1055:A:C6	53:CA:1206:G:C5	3.08	0.41
53:CA:1081:A:C2'	53:CA:1082:A:H5'	2.51	0.41
53:CA:1386:G:N3	53:CA:1387:G:C8	2.89	0.41
53:CA:1408:A:C2	53:CA:1494:G:C4	3.09	0.41
53:CA:1500:A:OP1	53:CA:1508:A:OP1	2.39	0.41
2:CB:72:LYS:O	2:CB:73:ARG:C	2.59	0.41
3:CC:87:ARG:HH11	3:CC:100:ILE:CG2	2.34	0.41
4:CD:87:GLU:O	4:CD:88:ASN:C	2.58	0.41
4:CD:145:ARG:HG3	4:CD:146:GLU:N	2.35	0.41
5:CE:74:ALA:O	5:CE:75:LEU:CB	2.55	0.41
5:CE:81:GLN:CD	5:CE:149:PRO:HD3	2.41	0.41
5:CE:114:LEU:HD23	5:CE:119:VAL:HG21	2.02	0.41
6:CF:38:ARG:HG3	6:CF:63:ASN:CB	2.48	0.41
9:CI:79:ARG:CZ	9:CI:102:PHE:HD1	2.33	0.41
10:CJ:11:LYS:HA	10:CJ:18:ILE:HD11	2.03	0.41
10:CJ:49:PHE:O	10:CJ:50:THR:HG22	2.21	0.41
10:CJ:87:LEU:HD13	10:CJ:87:LEU:O	2.21	0.41
11:CK:74:LYS:CB	11:CK:78:ILE:HD11	2.49	0.41
12:CL:7:VAL:HG22	17:CQ:33:TYR:HD1	1.83	0.41
12:CL:15:VAL:O	12:CL:16:ALA:O	2.39	0.41
12:CL:72:ASN:HD22	12:CL:72:ASN:N	2.12	0.41
55:CM:85:TYR:HE2	55:CM:96:VAL:HG11	1.83	0.41
14:CN:60:ARG:CG	14:CN:61:ASN:H	2.21	0.41
56:CP:20:VAL:CG2	56:CP:32:PHE:HB2	2.49	0.41
56:CP:78:VAL:HG11	56:CP:80:LYS:HE3	2.03	0.41
17:CQ:62:GLU:N	17:CQ:72:TRP:CE3	2.89	0.41
22:DA:2:G:C5	22:DA:3:U:C5	3.09	0.41
22:DA:58:G:N3	22:DA:73:A:C2	2.88	0.41
22:DA:300:A:H1'	22:DA:333:G:H21	1.86	0.41
22:DA:323:C:C4	22:DA:333:G:N7	2.88	0.41
22:DA:358:U:N3	22:DA:359:G:N7	2.68	0.41
22:DA:373:U:H2'	22:DA:400:G:H22	1.85	0.41
22:DA:579:G:C8	22:DA:2017:U:C4	3.09	0.41
22:DA:835:C:C4	22:DA:836:G:N7	2.89	0.41
22:DA:992:C:O2'	22:DA:993:G:H5'	2.20	0.41
22:DA:1071:G:O6	22:DA:1091:G:N7	2.53	0.41
22:DA:1353:A:O2'	22:DA:1354:A:H5'	2.21	0.41
22:DA:1388:G:C2	22:DA:1389:G:C8	3.08	0.41
22:DA:1479:G:HO2'	22:DA:1560:G:HO2'	1.63	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1689:A:C4	22:DA:1700:A:C6	3.09	0.41
22:DA:1712:U:C4	22:DA:1713:A:C6	3.09	0.41
22:DA:1813:G:N3	24:DC:49:THR:CB	2.83	0.41
22:DA:2157:G:OP2	22:DA:2157:G:N2	2.53	0.41
22:DA:2252:G:H2'	22:DA:2253:G:O4'	2.21	0.41
22:DA:2393:U:C2'	22:DA:2394:C:H5'	2.50	0.41
22:DA:2511:U:O5'	22:DA:2511:U:H6	2.03	0.41
22:DA:2691:C:O2'	22:DA:2692:G:C5'	2.67	0.41
22:DA:2879:A:HO2'	22:DA:2880:C:P	2.43	0.41
57:DB:54:G:N2	58:DF:25:MET:HE2	2.36	0.41
24:DC:52:HIS:HA	24:DC:216:ARG:CB	2.40	0.41
25:DD:146:ILE:HG13	25:DD:155:VAL:HG22	2.03	0.41
26:DE:88:ARG:CB	26:DE:89:PRO:CD	2.99	0.41
30:DI:27:LEU:HD13	30:DI:32:VAL:HG21	2.00	0.41
30:DI:54:ILE:HA	30:DI:55:PRO:HD2	1.87	0.41
33:DL:65:GLY:O	33:DL:66:PHE:CB	2.68	0.41
33:DL:98:ALA:O	33:DL:99:ASN:C	2.59	0.41
33:DL:144:GLU:O	33:DL:144:GLU:HG3	2.21	0.41
34:DM:11:LYS:HG2	34:DM:89:VAL:HG13	2.02	0.41
35:DN:2:ARG:HG2	35:DN:5:LYS:HD3	2.03	0.41
35:DN:13:ASN:O	35:DN:17:ARG:NH1	2.53	0.41
35:DN:92:GLY:N	35:DN:94:TYR:CE1	2.77	0.41
37:DP:28:LYS:NZ	37:DP:82:SER:HB2	2.35	0.41
40:DS:8:ARG:HB3	40:DS:102:HIS:ND1	2.36	0.41
44:DW:18:LYS:NZ	44:DW:18:LYS:CB	2.83	0.41
44:DW:43:LYS:CD	44:DW:79:ILE:HD11	2.50	0.41
44:DW:56:HIS:O	44:DW:58:LEU:N	2.54	0.41
1:AA:35:G:N2	12:AL:114:SER:OG	2.49	0.41
1:AA:88:U:O2'	1:AA:89:U:O5'	2.39	0.41
1:AA:182:A:H1'	1:AA:183:C:C6	2.56	0.41
1:AA:204:G:N3	1:AA:465:A:C4	2.89	0.41
1:AA:218:U:C5	1:AA:219:U:C4	3.09	0.41
1:AA:233:C:H2'	1:AA:234:C:H6	1.86	0.41
1:AA:373:A:H2'	1:AA:374:A:C8	2.54	0.41
1:AA:462:G:C5'	1:AA:463:U:OP2	2.69	0.41
1:AA:507:C:C3'	1:AA:508:U:H5"	2.49	0.41
1:AA:973:G:H2'	1:AA:974:A:OP1	2.19	0.41
1:AA:1143:G:N3	1:AA:1144:G:C8	2.88	0.41
1:AA:1342:C:H2'	1:AA:1343:G:H8	1.85	0.41
1:AA:1380:U:C4'	1:AA:1381:U:OP1	2.69	0.41
2:AB:110:ILE:HD12	2:AB:147:LEU:HD11	1.98	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:113:LYS:HE3	3:AC:117:ASP:OD2	2.21	0.41
5:AE:106:ALA:CB	5:AE:124:ALA:HB3	2.51	0.41
9:AI:11:ARG:HA	9:AI:105:ARG:NH1	2.35	0.41
9:AI:60:LEU:HD23	9:AI:60:LEU:N	2.35	0.41
10:AJ:10:LEU:HB2	10:AJ:72:ARG:HB2	2.03	0.41
10:AJ:56:HIS:O	10:AJ:57:VAL:O	2.38	0.41
10:AJ:80:THR:O	10:AJ:81:GLU:C	2.59	0.41
13:AM:11:HIS:C	13:AM:12:LYS:HG3	2.39	0.41
13:AM:44:ILE:O	13:AM:44:ILE:HG22	2.19	0.41
14:AN:88:MET:CE	14:AN:97:LYS:HD2	2.51	0.41
15:AO:69:LEU:HD22	15:AO:77:TYR:HA	2.02	0.41
22:BA:9:G:C6	22:BA:2629:U:C6	3.09	0.41
22:BA:30:G:H2'	22:BA:31:C:C6	2.56	0.41
22:BA:104:A:H2'	22:BA:105:C:O4'	2.21	0.41
22:BA:153:U:H2'	22:BA:154:U:C5'	2.50	0.41
22:BA:246:C:C2'	22:BA:247:G:H5'	2.50	0.41
22:BA:289:G:C4	22:BA:290:U:C6	3.08	0.41
22:BA:477:A:OP1	22:BA:477:A:H8	2.03	0.41
22:BA:675:A:N6	22:BA:676:A:N6	2.67	0.41
22:BA:797:G:C4	22:BA:798:G:C8	3.09	0.41
22:BA:1045:C:C5'	22:BA:1047:G:H5'	2.51	0.41
22:BA:1061:U:H6	22:BA:1070:A:N9	2.18	0.41
22:BA:1310:G:C2'	22:BA:1311:G:H5'	2.51	0.41
22:BA:1694:C:H4'	22:BA:1695:G:O5'	2.19	0.41
22:BA:2013:A:C2'	22:BA:2014:A:H5'	2.51	0.41
22:BA:2340:A:H2'	22:BA:2341:G:C8	2.56	0.41
22:BA:2511:U:O4	22:BA:2575:C:N3	2.53	0.41
22:BA:2648:G:H2'	22:BA:2649:C:H6	1.86	0.41
22:BA:2732:G:C3'	22:BA:2733:A:H5'	2.51	0.41
23:BB:51:G:H21	23:BB:53:A:N6	2.18	0.41
23:BB:55:U:H2'	23:BB:56:G:O4'	2.20	0.41
24:BC:169:ALA:O	24:BC:185:ALA:CB	2.68	0.41
25:BD:60:VAL:O	25:BD:60:VAL:HG13	2.20	0.41
26:BE:96:VAL:HG11	26:BE:101:TYR:HB2	2.03	0.41
30:BI:41:PHE:CE2	30:BI:45:THR:HG21	2.56	0.41
30:BI:49:GLU:HG2	30:BI:50:LYS:N	2.35	0.41
30:BI:130:GLY:HA2	30:BI:133:ARG:HB3	2.01	0.41
32:BK:76:VAL:HB	37:BP:72:VAL:HG22	1.98	0.41
33:BL:21:ARG:HD3	33:BL:21:ARG:HA	1.28	0.41
33:BL:89:VAL:O	33:BL:89:VAL:HG13	2.20	0.41
35:BN:78:LYS:HG2	35:BN:83:LEU:HD22	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BQ:85:ALA:O	38:BQ:87:VAL:O	2.38	0.41
39:BR:26:ASP:O	39:BR:27:ILE:C	2.59	0.41
41:BT:37:ASP:O	41:BT:38:ALA:C	2.59	0.41
43:BV:75:GLN:OE1	43:BV:75:GLN:CA	2.64	0.41
46:BY:7:ARG:CA	46:BY:60:LYS:HZ3	2.33	0.41
47:BZ:35:VAL:HG22	47:BZ:36:GLU:N	2.36	0.41
53:CA:182:A:H2	53:CA:194:C:H42	1.62	0.41
53:CA:275:G:O2'	53:CA:276:G:H8	2.04	0.41
53:CA:377:G:O2'	53:CA:378:G:H5'	2.20	0.41
53:CA:377:G:H2'	53:CA:378:G:H8	1.85	0.41
53:CA:414:A:O2'	53:CA:415:A:O4'	2.38	0.41
53:CA:438:U:H4'	4:CD:119:HIS:CD2	2.56	0.41
53:CA:551:U:O2'	53:CA:552:U:H5'	2.20	0.41
53:CA:864:A:C5	53:CA:865:A:C6	3.09	0.41
53:CA:972:C:H4'	10:CJ:59:LYS:HG2	2.03	0.41
53:CA:1004:A:N3	53:CA:1026:G:C6	2.88	0.41
53:CA:1047:G:C2'	53:CA:1048:G:H5'	2.51	0.41
53:CA:1060:U:O2'	10:CJ:54:SER:HB2	2.21	0.41
53:CA:1149:C:H2'	53:CA:1150:A:O4'	2.21	0.41
53:CA:1226:C:C2	53:CA:1228:C:N4	2.89	0.41
53:CA:1229:A:O2'	53:CA:1230:C:P	2.79	0.41
53:CA:1351:U:O2'	53:CA:1352:C:H5'	2.21	0.41
53:CA:1416:G:N2	53:CA:1485:U:O2	2.54	0.41
53:CA:1430:A:C6	53:CA:1431:A:C2	3.08	0.41
3:CC:179:ALA:HA	3:CC:205:GLU:O	2.20	0.41
4:CD:47:LEU:HD23	4:CD:52:VAL:HA	2.02	0.41
6:CF:18:VAL:CG1	6:CF:22:ILE:HD11	2.50	0.41
8:CH:78:SER:HA	8:CH:84:ILE:HG12	2.03	0.41
8:CH:111:THR:HG22	8:CH:112:ASP:N	2.36	0.41
9:CI:25:GLY:HA2	9:CI:60:LEU:O	2.20	0.41
12:CL:75:GLU:C	12:CL:77:SER:N	2.73	0.41
56:CP:51:ARG:HD3	56:CP:51:ARG:HA	1.88	0.41
56:CP:69:ASP:O	56:CP:70:ARG:C	2.58	0.41
56:CP:74:LEU:HD23	56:CP:74:LEU:HA	1.89	0.41
18:CR:55:ALA:HA	18:CR:58:ILE:HD12	2.03	0.41
20:CT:82:ILE:C	20:CT:84:LYS:N	2.74	0.41
22:DA:155:A:H2'	22:DA:156:A:C8	2.56	0.41
22:DA:225:C:H2'	22:DA:225:C:O2	2.20	0.41
22:DA:249:C:O3'	22:DA:2394:C:H4'	2.21	0.41
22:DA:272:A:C4	22:DA:273:G:N7	2.89	0.41
22:DA:333:G:O2'	22:DA:334:C:H5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1340:U:C4	22:DA:1603:A:C8	3.08	0.41
22:DA:1358:G:N2	22:DA:1374:G:C6	2.88	0.41
22:DA:1451:C:O2	22:DA:1451:C:C2'	2.69	0.41
22:DA:1471:G:O6	22:DA:1521:G:C2	2.74	0.41
22:DA:1668:A:N6	22:DA:1993:U:C5	2.89	0.41
22:DA:1733:G:C2'	22:DA:1734:G:O5'	2.68	0.41
22:DA:1801:A:C3'	22:DA:1802:A:H5'	2.50	0.41
22:DA:1858:A:C2	22:DA:1859:U:C2	3.09	0.41
22:DA:1877:A:C6	22:DA:1878:G:C6	3.09	0.41
22:DA:1910:G:C2	22:DA:1921:G:C2	3.08	0.41
22:DA:2267:A:H2'	22:DA:2267:A:H8	1.40	0.41
22:DA:2285:C:H2'	22:DA:2286:G:C5'	2.45	0.41
22:DA:2342:C:O2'	22:DA:2374:C:H5"	2.21	0.41
22:DA:2373:G:C6	22:DA:2374:C:C4	3.08	0.41
22:DA:2517:C:C5	22:DA:2542:A:C5	3.08	0.41
57:DB:28:C:OP1	36:DO:31:THR:HG21	2.21	0.41
57:DB:67:G:O2'	57:DB:68:C:O5'	2.38	0.41
24:DC:2:VAL:O	24:DC:17:LYS:O	2.37	0.41
24:DC:75:ALA:HB2	24:DC:95:TYR:CE1	2.49	0.41
26:DE:47:LYS:O	26:DE:83:VAL:HB	2.20	0.41
58:DF:119:LYS:O	58:DF:120:SER:HB2	2.20	0.41
28:DG:6:ALA:HA	28:DG:7:PRO:HD3	1.74	0.41
28:DG:82:PHE:HB3	28:DG:140:ILE:HD11	2.03	0.41
29:DH:33:GLN:O	29:DH:34:GLY:C	2.59	0.41
29:DH:103:VAL:C	29:DH:105:ALA:H	2.24	0.41
29:DH:132:PHE:CZ	29:DH:134:VAL:CG1	3.03	0.41
29:DH:140:ALA:O	29:DH:141:LYS:HG3	2.20	0.41
30:DI:2:LYS:HB3	30:DI:3:LYS:H	1.65	0.41
30:DI:79:LEU:HD13	30:DI:100:ILE:CD1	2.51	0.41
32:DK:15:GLY:O	32:DK:16:ALA:O	2.38	0.41
33:DL:128:THR:HB	33:DL:131:ALA:H	1.86	0.41
35:DN:56:LYS:CD	35:DN:88:ALA:HA	2.48	0.41
35:DN:98:LEU:HD12	35:DN:98:LEU:HA	1.89	0.41
36:DO:112:GLU:HG3	36:DO:113:ALA:H	1.84	0.41
38:DQ:57:ARG:C	38:DQ:59:LEU:N	2.73	0.41
38:DQ:89:ILE:O	38:DQ:91:ARG:N	2.53	0.41
41:DT:15:HIS:CD2	41:DT:17:SER:HB2	2.55	0.41
42:DU:73:ASN:O	42:DU:74:ALA:HB3	2.21	0.41
42:DU:100:GLU:O	42:DU:101:THR:C	2.59	0.41
44:DW:25:PHE:CD1	44:DW:25:PHE:C	2.92	0.41
47:DZ:53:MET:O	47:DZ:54:VAL:CG1	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:68:G:O4'	1:AA:171:A:H1'	2.21	0.41
1:AA:180:U:C2'	1:AA:181:A:O5'	2.69	0.41
1:AA:269:C:H2'	1:AA:270:A:O5'	2.21	0.41
1:AA:499:A:O4'	1:AA:547:A:N6	2.54	0.41
1:AA:574:A:H1'	1:AA:883:C:O4'	2.20	0.41
1:AA:782:A:H2'	1:AA:783:C:C5'	2.51	0.41
1:AA:913:A:O2'	1:AA:914:A:OP2	2.35	0.41
1:AA:923:A:C5	1:AA:924:C:C5	3.08	0.41
1:AA:977:A:H3'	1:AA:1362:A:H62	1.86	0.41
1:AA:1064:G:O6	1:AA:1193:G:C6	2.73	0.41
1:AA:1267:C:C2'	1:AA:1268:G:H5'	2.51	0.41
1:AA:1350:A:C5	1:AA:1351:U:C4	3.09	0.41
1:AA:1371:G:C6	1:AA:1372:U:C4	3.09	0.41
1:AA:1467:C:H2'	1:AA:1468:A:H8	1.85	0.41
2:AB:77:GLU:HA	2:AB:80:LYS:HB3	2.02	0.41
3:AC:107:LYS:HB2	3:AC:107:LYS:NZ	2.36	0.41
3:AC:148:ILE:CG1	3:AC:149:LYS:N	2.79	0.41
4:AD:25:ARG:H	4:AD:25:ARG:HG3	1.71	0.41
4:AD:57:LYS:HB2	4:AD:199:ILE:HG13	2.01	0.41
4:AD:144:ILE:O	4:AD:145:ARG:C	2.58	0.41
4:AD:166:LYS:HB3	4:AD:166:LYS:HZ2	1.84	0.41
6:AF:47:LEU:HB3	18:AR:65:SER:OG	2.20	0.41
7:AG:41:ILE:HG21	7:AG:115:MET:HB3	2.03	0.41
9:AI:41:GLU:HB3	9:AI:42:THR:H	1.60	0.41
11:AK:43:TRP:CE3	11:AK:43:TRP:C	2.94	0.41
12:AL:107:LYS:O	12:AL:108:ASP:HB2	2.20	0.41
14:AN:59:GLN:H	14:AN:59:GLN:HE21	1.69	0.41
14:AN:64:ARG:HB2	14:AN:77:GLY:O	2.21	0.41
15:AO:68:TYR:CZ	15:AO:72:LYS:HG3	2.56	0.41
18:AR:19:GLU:OE1	18:AR:50:TYR:HD1	2.04	0.41
19:AS:23:GLU:O	19:AS:23:GLU:HG3	2.21	0.41
20:AT:2:ASN:OD1	20:AT:2:ASN:C	2.58	0.41
22:BA:445:C:N4	22:BA:446:G:C6	2.89	0.41
22:BA:486:C:C3'	22:BA:486:C:C6	3.04	0.41
22:BA:571:U:O2'	22:BA:573:U:O5'	2.39	0.41
22:BA:580:U:O2'	38:BQ:30:VAL:HG22	2.21	0.41
22:BA:633:A:C8	22:BA:633:A:C3'	3.04	0.41
22:BA:825:A:H1'	33:BL:54:GLN:NE2	2.35	0.41
22:BA:1085:A:C2	22:BA:1086:A:C5	3.09	0.41
22:BA:1266:G:N7	40:BS:16:LYS:HE3	2.35	0.41
22:BA:1377:G:H8	22:BA:1377:G:O5'	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1420:A:C8	22:BA:2211:A:N6	2.89	0.41
22:BA:1635:A:C4	22:BA:1636:U:C6	3.09	0.41
22:BA:1668:A:C2	22:BA:1674:G:C1'	3.04	0.41
22:BA:1734:G:O2'	22:BA:1735:A:O5'	2.38	0.41
22:BA:2307:G:O6	27:BF:40:GLY:HA3	2.21	0.41
22:BA:2353:G:O2'	44:BW:31:LEU:HD23	2.20	0.41
22:BA:2540:C:H2'	22:BA:2541:A:C5'	2.50	0.41
22:BA:2808:G:O2'	22:BA:2809:A:OP2	2.38	0.41
22:BA:2852:G:C6	22:BA:2853:C:C4	3.09	0.41
23:BB:49:C:C2'	23:BB:50:A:H5'	2.51	0.41
23:BB:89:U:O2	23:BB:89:U:O4'	2.39	0.41
25:BD:18:ASP:OD1	25:BD:20:VAL:HB	2.21	0.41
26:BE:103:GLY:O	26:BE:104:ALA:C	2.58	0.41
26:BE:124:PHE:HD1	26:BE:124:PHE:O	2.04	0.41
26:BE:129:PRO:HG3	26:BE:156:ASN:CG	2.40	0.41
27:BF:40:GLY:N	27:BF:84:ILE:CD1	2.84	0.41
27:BF:106:ALA:CA	27:BF:108:PRO:HD2	2.51	0.41
32:BK:1:MET:CE	32:BK:32:TYR:CD1	3.04	0.41
32:BK:18:ARG:HA	32:BK:18:ARG:HD2	1.69	0.41
32:BK:22:ILE:O	32:BK:23:LYS:HB2	2.21	0.41
32:BK:76:VAL:H	37:BP:72:VAL:HG23	1.86	0.41
34:BM:96:ILE:HD11	34:BM:126:ILE:HD13	2.02	0.41
37:BP:5:LYS:O	37:BP:6:GLN:C	2.59	0.41
38:BQ:63:ARG:CZ	38:BQ:95:ALA:O	2.69	0.41
38:BQ:91:ARG:NH2	38:BQ:93:ILE:CD1	2.78	0.41
40:BS:51:LEU:O	40:BS:55:ILE:HG13	2.21	0.41
40:BS:64:ALA:O	40:BS:65:ASP:HB3	2.21	0.41
42:BU:5:ARG:O	42:BU:6:ARG:O	2.38	0.41
48:B0:9:ARG:CZ	48:B0:9:ARG:HB3	2.51	0.41
53:CA:35:G:C4	53:CA:36:C:C5	3.09	0.41
53:CA:104:G:H4'	53:CA:174:A:O4'	2.19	0.41
53:CA:209:U:O2	53:CA:209:U:C2'	2.67	0.41
53:CA:230:G:H2'	53:CA:231:U:O4'	2.20	0.41
53:CA:240:G:H5"	53:CA:240:G:C8	2.56	0.41
53:CA:320:A:C2	53:CA:334:C:C2	3.09	0.41
53:CA:821:G:H4'	62:CA:1740:HOH:O	2.20	0.41
53:CA:987:G:N2	53:CA:1218:C:C2	2.85	0.41
53:CA:994:A:N3	53:CA:995:C:H6	2.16	0.41
53:CA:1134:G:C2	53:CA:1141:C:N3	2.88	0.41
53:CA:1326:U:N3	53:CA:1327:C:C4	2.89	0.41
53:CA:1346:A:N6	54:CG:9:ARG:HH12	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:39:ARG:HG2	3:CC:54:ILE:HG21	2.03	0.41
3:CC:124:GLU:N	3:CC:124:GLU:CD	2.74	0.41
3:CC:181:ILE:HG12	3:CC:202:PHE:HA	2.01	0.41
4:CD:29:THR:C	4:CD:31:CYS:N	2.74	0.41
4:CD:54:LEU:HA	4:CD:202:LEU:CD1	2.50	0.41
6:CF:41:ASP:OD2	6:CF:58:HIS:CE1	2.74	0.41
54:CG:22:LEU:O	54:CG:26:VAL:HG22	2.19	0.41
9:CI:37:TYR:N	9:CI:37:TYR:CD2	2.88	0.41
12:CL:33:CYS:HB3	12:CL:77:SER:O	2.21	0.41
12:CL:101:LEU:HB3	12:CL:102:ASP:H	1.71	0.41
55:CM:13:HIS:CG	55:CM:16:ILE:HD13	2.56	0.41
55:CM:75:SER:HB2	55:CM:79:LEU:HG	2.02	0.41
17:CQ:37:ILE:HD11	17:CQ:39:ARG:CZ	2.50	0.41
19:CS:20:LYS:HZ3	19:CS:27:LYS:HD3	1.85	0.41
22:DA:296:U:H2'	22:DA:297:G:O4'	2.20	0.41
22:DA:573:U:C4'	22:DA:574:A:OP1	2.45	0.41
22:DA:580:U:C6	22:DA:580:U:C3'	3.04	0.41
22:DA:830:G:H8	22:DA:830:G:OP2	2.02	0.41
22:DA:845:A:N6	22:DA:932:U:H3	2.19	0.41
22:DA:900:A:C6	22:DA:901:C:N3	2.88	0.41
22:DA:931:U:H4'	22:DA:932:U:OP1	2.18	0.41
22:DA:983:A:C6	22:DA:984:A:C2	3.09	0.41
22:DA:1016:G:C2	22:DA:1147:A:C2	3.08	0.41
22:DA:1029:A:N7	22:DA:1030:C:C2	2.89	0.41
22:DA:1206:G:C2	22:DA:1207:C:C2	3.08	0.41
22:DA:1252:G:C2	22:DA:1253:A:C2	3.08	0.41
22:DA:1252:G:C2	22:DA:1253:A:H2	2.39	0.41
22:DA:1527:G:H1'	22:DA:1546:G:H22	1.85	0.41
22:DA:2054:A:H2'	48:D0:4:GLN:OE1	2.21	0.41
22:DA:2056:G:C2	22:DA:2057:G:N7	2.89	0.41
22:DA:2093:G:C5	22:DA:2225:A:N7	2.88	0.41
22:DA:2248:C:H3'	22:DA:2249:U:C6	2.56	0.41
22:DA:2262:U:H1'	22:DA:2328:A:H1'	2.03	0.41
22:DA:2262:U:O2'	22:DA:2263:C:H5'	2.21	0.41
22:DA:2356:U:H2'	22:DA:2357:G:O4'	2.20	0.41
22:DA:2378:A:H2'	22:DA:2379:G:C4'	2.51	0.41
22:DA:2389:G:O5'	22:DA:2390:U:H5'	2.19	0.41
22:DA:2464:G:N2	22:DA:2465:C:H1'	2.36	0.41
22:DA:2566:A:HO2'	22:DA:2567:G:P	2.42	0.41
22:DA:2586:U:O2'	22:DA:2587:A:C5'	2.63	0.41
22:DA:2654:A:N3	22:DA:2656:U:O4	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2657:A:O2'	22:DA:2658:C:O4'	2.28	0.41
22:DA:2771:C:H5"	25:DD:207:VAL:HG11	2.03	0.41
22:DA:2823:A:H2'	22:DA:2824:C:H5'	2.03	0.41
22:DA:2841:C:C2	22:DA:2877:G:N2	2.89	0.41
22:DA:2873:A:H2	35:DN:5:LYS:HG3	1.84	0.41
57:DB:23:G:C2	57:DB:61:G:C2	3.09	0.41
24:DC:94:LEU:CB	24:DC:100:ARG:HD2	2.46	0.41
26:DE:65:THR:HG23	26:DE:67:ARG:HG3	2.03	0.41
26:DE:90:GLN:OE1	26:DE:90:GLN:CA	2.66	0.41
58:DF:91:ARG:CA	58:DF:95:MET:SD	2.97	0.41
58:DF:134:GLN:HB2	58:DF:137:PHE:CE2	2.50	0.41
37:DP:47:ILE:HD11	37:DP:70:GLU:HG2	2.02	0.41
37:DP:95:LYS:HA	37:DP:95:LYS:HE3	2.02	0.41
39:DR:9:GLY:C	39:DR:10:LYS:HG3	2.40	0.41
41:DT:3:ARG:O	41:DT:4:GLU:C	2.59	0.41
41:DT:19:LYS:HD3	41:DT:19:LYS:HA	1.76	0.41
41:DT:20:ALA:HB1	41:DT:31:VAL:HG11	2.03	0.41
43:DV:21:ARG:HE	43:DV:87:GLN:HG2	1.85	0.41
44:DW:33:GLY:O	44:DW:34:SER:HB3	2.21	0.41
47:DZ:6:ILE:HD12	47:DZ:47:ILE:CD1	2.50	0.41
1:AA:109:A:C4	1:AA:327:A:C2	3.08	0.41
1:AA:142:G:O2'	1:AA:196:A:N1	2.48	0.41
1:AA:147:G:N2	1:AA:176:C:C2	2.89	0.41
1:AA:159:G:N2	1:AA:162:A:OP2	2.52	0.41
1:AA:211:G:C2'	1:AA:212:G:O5'	2.68	0.41
1:AA:213:G:C8	1:AA:214:C:C5	3.09	0.41
1:AA:243:A:H2	1:AA:245:U:H2'	1.80	0.41
1:AA:377:G:H5'	16:AP:5:ARG:HH12	1.85	0.41
1:AA:389:A:N3	1:AA:389:A:H2'	2.35	0.41
1:AA:404:G:N7	4:AD:1:ALA:HB3	2.36	0.41
1:AA:437:U:H4'	4:AD:153:ARG:HH21	1.84	0.41
1:AA:496:A:O2'	1:AA:497:G:C8	2.65	0.41
1:AA:632:U:H2'	1:AA:633:G:OP1	2.21	0.41
1:AA:669:G:H2'	1:AA:670:G:H5'	2.02	0.41
1:AA:832:G:C2	1:AA:833:G:C8	3.09	0.41
1:AA:892:A:O2'	1:AA:893:C:H5'	2.21	0.41
1:AA:999:C:H2'	1:AA:1000:A:H8	1.85	0.41
1:AA:1002:G:C2	1:AA:1003:G:H1'	2.56	0.41
1:AA:1068:G:N3	1:AA:1068:G:H2'	2.34	0.41
1:AA:1077:G:C6	1:AA:1081:A:C6	3.09	0.41
1:AA:1157:A:N6	1:AA:1178:G:H1'	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1157:A:C1'	1:AA:1181:G:N1	2.82	0.41
1:AA:1228:C:O2'	1:AA:1229:A:C5'	2.69	0.41
1:AA:1358:U:C6	1:AA:1359:C:C6	3.08	0.41
1:AA:1363:A:O2'	1:AA:1365:G:N7	2.36	0.41
1:AA:1375:A:C5	1:AA:1376:U:C5	3.09	0.41
1:AA:1381:U:O2'	1:AA:1382:C:H6	2.03	0.41
1:AA:1405:G:C2'	1:AA:1406:U:O5'	2.69	0.41
1:AA:1433:A:N6	1:AA:1468:A:C8	2.88	0.41
1:AA:1499:A:H2'	1:AA:1500:A:H8	1.85	0.41
2:AB:68:PHE:CD2	2:AB:83:ALA:HB1	2.56	0.41
2:AB:98:GLY:C	2:AB:100:LEU:H	2.24	0.41
3:AC:143:LEU:H	3:AC:143:LEU:CD2	2.14	0.41
4:AD:68:GLU:HA	4:AD:68:GLU:OE1	2.21	0.41
4:AD:77:GLU:O	4:AD:81:LEU:HG	2.21	0.41
5:AE:104:ILE:HA	5:AE:122:VAL:O	2.21	0.41
5:AE:152:VAL:CG1	5:AE:155:LYS:NZ	2.84	0.41
5:AE:152:VAL:O	5:AE:155:LYS:CD	2.69	0.41
6:AF:68:GLN:CD	6:AF:68:GLN:H	2.25	0.41
6:AF:81:ASN:OD1	6:AF:83:ALA:CB	2.63	0.41
7:AG:74:VAL:HA	7:AG:87:PRO:HA	2.03	0.41
7:AG:108:ARG:HH21	7:AG:118:ARG:NH1	2.19	0.41
10:AJ:29:ALA:C	10:AJ:31:ARG:H	2.25	0.41
10:AJ:48:ARG:NH2	14:AN:100:TRP:CD2	2.89	0.41
11:AK:34:THR:HG1	11:AK:39:ASN:N	2.19	0.41
12:AL:108:ASP:O	12:AL:110:LYS:HG3	2.21	0.41
13:AM:25:GLY:O	13:AM:27:THR:N	2.54	0.41
15:AO:18:ALA:C	15:AO:20:ASP:H	2.24	0.41
15:AO:69:LEU:HD22	15:AO:77:TYR:CA	2.51	0.41
15:AO:73:ASP:O	15:AO:74:VAL:C	2.59	0.41
20:AT:23:ARG:O	20:AT:26:MET:HG3	2.21	0.41
22:BA:141:G:C2	41:BT:2:ILE:CG2	3.03	0.41
22:BA:186:G:N2	22:BA:211:C:C2	2.89	0.41
22:BA:195:A:H61	22:BA:198:C:H3'	1.86	0.41
22:BA:320:A:H4'	22:BA:322:A:C8	2.56	0.41
22:BA:384:A:H2'	22:BA:384:A:N3	2.36	0.41
22:BA:387:U:C4	22:BA:388:G:O6	2.74	0.41
22:BA:403:U:O2'	22:BA:404:A:OP2	2.31	0.41
22:BA:412:A:H2'	22:BA:413:C:H5'	2.00	0.41
22:BA:447:A:H4'	22:BA:449:A:N7	2.36	0.41
22:BA:551:G:C5	22:BA:552:U:C5	3.09	0.41
22:BA:735:A:H3'	22:BA:736:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:744:U:H2'	22:BA:745:G:O4'	2.20	0.41
22:BA:766:U:H2'	22:BA:767:U:C6	2.55	0.41
22:BA:797:G:O6	62:BA:3317:HOH:O	2.21	0.41
22:BA:832:U:O2'	22:BA:833:A:H5'	2.21	0.41
22:BA:990:A:N6	22:BA:1186:G:H1'	2.35	0.41
22:BA:1012:U:C2	31:BJ:27:ARG:NH1	2.88	0.41
22:BA:1059:G:C6	22:BA:1080:A:C6	3.08	0.41
22:BA:1144:A:H2'	22:BA:1145:C:C6	2.56	0.41
22:BA:1205:A:H3'	22:BA:1206:G:H5'	2.03	0.41
22:BA:1300:G:H4'	22:BA:1301:A:H5'	2.03	0.41
22:BA:1344:U:H1'	22:BA:1384:A:H2'	2.01	0.41
22:BA:1357:C:C2'	22:BA:1358:G:H5'	2.51	0.41
22:BA:1386:C:H5"	22:BA:1396:U:O2	2.20	0.41
22:BA:1392:A:C6	22:BA:1393:A:C6	3.09	0.41
22:BA:1419:A:C3'	22:BA:1420:A:H5"	2.47	0.41
22:BA:1587:G:C4	22:BA:1588:G:C8	3.08	0.41
22:BA:1707:G:C5	22:BA:1756:G:C6	3.09	0.41
22:BA:1797:G:C5	22:BA:1798:U:C5	3.09	0.41
22:BA:1820:U:H3'	22:BA:1821:A:C5'	2.49	0.41
22:BA:1842:G:H4'	24:BC:242:HIS:ND1	2.36	0.41
22:BA:1903:G:C2'	22:BA:1904:G:H5'	2.51	0.41
22:BA:1939:U:OP1	22:BA:2604:U:O2'	2.34	0.41
22:BA:2144:G:N2	22:BA:2148:G:C8	2.88	0.41
22:BA:2192:U:O2'	22:BA:2193:G:H5'	2.21	0.41
22:BA:2250:G:OP1	22:BA:2275:C:H2'	2.20	0.41
22:BA:2311:A:H4'	22:BA:2312:U:OP1	2.19	0.41
22:BA:2364:C:H4'	44:BW:55:ASP:OD1	2.20	0.41
22:BA:2415:G:C5	22:BA:2416:C:C4	3.09	0.41
22:BA:2485:G:H5"	34:BM:45:GLN:HE21	1.85	0.41
22:BA:2515:C:O2'	22:BA:2516:A:H5'	2.21	0.41
22:BA:2606:C:C2'	22:BA:2607:G:H5'	2.51	0.41
22:BA:2671:G:C5	22:BA:2672:U:C5	3.09	0.41
22:BA:2793:C:H2'	22:BA:2794:C:C6	2.54	0.41
22:BA:2887:A:C4	22:BA:2888:C:C5	3.09	0.41
23:BB:93:C:O2'	23:BB:94:A:H5'	2.20	0.41
24:BC:44:ASN:OD1	24:BC:44:ASN:C	2.58	0.41
24:BC:141:HIS:CG	24:BC:190:THR:HG22	2.56	0.41
24:BC:144:GLU:CA	24:BC:151:GLY:HA2	2.44	0.41
26:BE:5:LEU:HD21	26:BE:122:GLU:HG2	2.03	0.41
26:BE:48:THR:C	26:BE:50:ALA:H	2.23	0.41
26:BE:60:TRP:CZ2	26:BE:70:SER:HB3	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BE:153:LEU:HD12	26:BE:153:LEU:O	2.19	0.41
26:BE:156:ASN:O	26:BE:159:LEU:N	2.54	0.41
26:BE:169:VAL:O	26:BE:169:VAL:HG23	2.20	0.41
27:BF:131:VAL:CG2	27:BF:151:LEU:H	2.24	0.41
29:BH:134:VAL:HG21	29:BH:139:PHE:C	2.42	0.41
31:BJ:5:THR:O	31:BJ:5:THR:HG22	2.16	0.41
32:BK:2:ILE:HG22	32:BK:3:GLN:N	2.34	0.41
32:BK:13:ASN:N	32:BK:100:PHE:HE1	2.19	0.41
33:BL:96:LYS:CA	33:BL:101:ILE:HG22	2.42	0.41
34:BM:4:PRO:HG3	34:BM:70:ASP:HA	2.03	0.41
35:BN:33:ILE:HD11	35:BN:118:ARG:HH21	1.86	0.41
36:BO:21:LEU:HD23	36:BO:21:LEU:HA	1.93	0.41
37:BP:4:ILE:O	37:BP:5:LYS:HB3	2.21	0.41
38:BQ:78:PHE:CE2	38:BQ:109:VAL:HA	2.56	0.41
38:BQ:81:GLY:O	38:BQ:85:ALA:N	2.49	0.41
39:BR:3:ALA:CA	39:BR:40:MET:O	2.68	0.41
40:BS:32:ALA:HB1	40:BS:51:LEU:CD2	2.51	0.41
41:BT:13:ALA:O	41:BT:32:LEU:CB	2.68	0.41
41:BT:40:LYS:O	41:BT:44:LYS:HB2	2.21	0.41
42:BU:30:SER:CB	42:BU:32:LYS:HD3	2.49	0.41
43:BV:55:GLU:H	43:BV:55:GLU:HG3	1.54	0.41
45:BX:33:HIS:N	45:BX:50:VAL:O	2.53	0.41
46:BY:14:LEU:HD13	46:BY:17:GLU:HG2	2.03	0.41
46:BY:15:ASN:O	46:BY:16:THR:C	2.57	0.41
46:BY:26:PHE:CD1	46:BY:26:PHE:C	2.94	0.41
46:BY:42:LEU:HD12	46:BY:42:LEU:HA	1.63	0.41
47:BZ:40:THR:C	47:BZ:42:ALA:N	2.74	0.41
50:B2:44:VAL:O	50:B2:44:VAL:HG12	2.20	0.41
51:B3:23:HIS:N	51:B3:47:ALA:O	2.53	0.41
53:CA:66:A:C6	53:CA:67:C:C5	3.09	0.41
53:CA:70:U:C2	53:CA:94:G:C5	3.08	0.41
53:CA:79:G:N1	53:CA:80:A:N6	2.68	0.41
53:CA:86:G:C2	53:CA:87:C:C5	3.09	0.41
53:CA:148:G:C2	53:CA:149:A:C4	3.08	0.41
53:CA:179:A:O2'	53:CA:180:U:H5'	2.21	0.41
53:CA:182:A:C4	53:CA:184:G:C8	3.09	0.41
53:CA:198:G:N3	53:CA:199:A:C8	2.89	0.41
53:CA:206:C:C6	53:CA:206:C:C3'	3.04	0.41
53:CA:206:C:O5'	53:CA:207:C:OP2	2.38	0.41
53:CA:212:G:C2	53:CA:213:G:C8	3.09	0.41
53:CA:237:G:C2'	53:CA:238:A:H5'	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:311:C:HO2'	53:CA:312:C:H5'	1.84	0.41
53:CA:369:G:C2	53:CA:370:C:C6	3.08	0.41
53:CA:428:G:C4	53:CA:430:A:C6	3.09	0.41
53:CA:658:C:O2'	53:CA:659:U:H5'	2.21	0.41
53:CA:665:A:C2	53:CA:732:C:C6	3.09	0.41
53:CA:782:A:H2'	53:CA:783:C:C5'	2.50	0.41
53:CA:794:A:O2'	53:CA:795:C:O4'	2.35	0.41
53:CA:829:G:C6	53:CA:858:G:N2	2.89	0.41
53:CA:860:A:H2'	53:CA:861:G:O4'	2.21	0.41
53:CA:957:U:C5	53:CA:959:A:OP2	2.74	0.41
53:CA:978:A:C8	53:CA:1319:A:C2	3.09	0.41
53:CA:1060:U:C5	3:CC:1:GLY:N	2.77	0.41
53:CA:1083:U:C5	53:CA:1084:G:C5	3.08	0.41
53:CA:1140:C:O2'	53:CA:1141:C:H6	2.01	0.41
53:CA:1227:A:O5'	55:CM:109:LYS:HE3	2.20	0.41
53:CA:1416:G:C2	53:CA:1485:U:O2	2.74	0.41
53:CA:1429:A:O2'	53:CA:1430:A:H5'	2.20	0.41
53:CA:1447:A:O3'	53:CA:1448:C:H6	2.03	0.41
2:CB:64:GLY:HA2	2:CB:158:ASP:OD2	2.21	0.41
3:CC:133:MET:O	3:CC:137:VAL:HG23	2.21	0.41
3:CC:149:LYS:HD2	3:CC:200:TRP:HE3	1.86	0.41
4:CD:3:TYR:CE2	4:CD:5:GLY:CA	3.04	0.41
4:CD:46:ARG:O	4:CD:47:LEU:O	2.39	0.41
4:CD:61:ARG:HG2	4:CD:71:PHE:CD2	2.55	0.41
4:CD:106:PHE:HB3	4:CD:144:ILE:HD11	2.03	0.41
4:CD:203:TYR:C	4:CD:205:LYS:H	2.24	0.41
54:CG:91:ARG:CG	54:CG:92:PRO:CD	2.75	0.41
9:CI:14:SER:OG	9:CI:69:GLY:HA3	2.21	0.41
11:CK:96:ILE:O	11:CK:97:ARG:C	2.58	0.41
11:CK:124:LYS:O	21:CU:33:ARG:NE	2.54	0.41
12:CL:33:CYS:HA	12:CL:54:VAL:HG13	2.01	0.41
12:CL:83:GLY:HA2	12:CL:94:TYR:HA	2.03	0.41
55:CM:16:ILE:CD1	55:CM:16:ILE:N	2.82	0.41
55:CM:80:MET:HE2	55:CM:80:MET:HB2	1.96	0.41
14:CN:25:GLU:HA	14:CN:28:ALA:HB2	2.02	0.41
15:CO:69:LEU:HD11	15:CO:77:TYR:CA	2.51	0.41
56:CP:19:VAL:HG13	56:CP:37:GLY:CA	2.49	0.41
17:CQ:28:VAL:HG11	17:CQ:39:ARG:HD3	2.03	0.41
18:CR:41:SER:HB3	18:CR:51:GLN:HG2	2.03	0.41
18:CR:64:LEU:HB2	18:CR:66:LEU:HG	2.03	0.41
19:CS:46:LEU:H	19:CS:46:LEU:CD2	2.27	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:64:GLY:O	20:CT:65:LEU:C	2.59	0.41
21:CU:52:VAL:HG22	21:CU:52:VAL:O	2.20	0.41
22:DA:17:G:H2'	22:DA:18:U:H6	1.85	0.41
22:DA:24:G:H2'	22:DA:25:U:H5'	2.01	0.41
22:DA:82:U:C2'	22:DA:83:A:C5'	2.93	0.41
22:DA:83:A:C6	22:DA:101:A:OP1	2.74	0.41
22:DA:89:A:C6	22:DA:90:U:C4	3.09	0.41
22:DA:104:A:HO2'	22:DA:105:C:C4'	2.32	0.41
22:DA:122:G:O2'	22:DA:123:G:H5'	2.21	0.41
22:DA:234:U:H6	22:DA:234:U:C5'	2.33	0.41
22:DA:333:G:C2	22:DA:334:C:C6	3.08	0.41
22:DA:430:A:OP2	22:DA:431:U:H5	2.04	0.41
22:DA:459:U:O2'	22:DA:460:A:H8	2.02	0.41
22:DA:557:C:H2'	22:DA:558:U:H6	1.86	0.41
22:DA:579:G:C2	22:DA:1262:A:C5	3.09	0.41
22:DA:606:U:OP1	26:DE:99:LYS:HD3	2.21	0.41
22:DA:625:G:C6	22:DA:626:A:N7	2.89	0.41
22:DA:684:G:H5'	50:D2:16:HIS:NE2	2.35	0.41
22:DA:813:U:H2'	22:DA:814:C:H6	1.86	0.41
22:DA:855:G:H21	44:DW:23:LYS:CG	2.33	0.41
22:DA:947:A:H2'	22:DA:948:C:C5	2.56	0.41
22:DA:976:G:C2	22:DA:977:G:C8	3.09	0.41
22:DA:982:C:C5'	22:DA:983:A:OP1	2.69	0.41
22:DA:1042:G:C6	22:DA:1043:C:C4	3.09	0.41
22:DA:1048:A:C5	22:DA:1111:A:C2	3.09	0.41
22:DA:1062:G:OP1	22:DA:1070:A:C4'	2.65	0.41
22:DA:1070:A:H4'	22:DA:1071:G:H5'	2.03	0.41
22:DA:1203:U:N3	22:DA:1204:A:N6	2.68	0.41
22:DA:1249:U:O2'	22:DA:1250:G:OP2	2.28	0.41
22:DA:1288:G:C5	22:DA:1327:A:C6	3.08	0.41
22:DA:1342:A:H5'	22:DA:1398:C:OP1	2.20	0.41
22:DA:1387:A:O2'	22:DA:1388:G:OP2	2.35	0.41
22:DA:1528:A:H2'	22:DA:1529:G:O4'	2.21	0.41
22:DA:1569:A:OP1	22:DA:1569:A:H4'	2.21	0.41
22:DA:1572:A:H2'	22:DA:1573:G:C8	2.55	0.41
22:DA:1608:A:C5	22:DA:1611:C:N4	2.89	0.41
22:DA:1655:A:C4'	25:DD:118:PHE:CE1	3.03	0.41
22:DA:1773:A:C2'	22:DA:1774:C:H5'	2.51	0.41
22:DA:1797:G:H2'	22:DA:1798:U:H5'	2.03	0.41
22:DA:1826:G:C5	22:DA:1827:U:C4	3.09	0.41
22:DA:1869:G:H5'	22:DA:1870:C:OP2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1925:C:C6	22:DA:1925:C:C3'	3.04	0.41
22:DA:1945:G:H8	22:DA:1945:G:O5'	2.04	0.41
22:DA:1982:U:O2'	22:DA:1983:G:C5'	2.68	0.41
22:DA:2014:A:H2	22:DA:2613:U:O2	2.04	0.41
22:DA:2046:G:OP1	48:D0:11:LYS:HE3	2.20	0.41
22:DA:2154:A:C8	22:DA:2155:U:C5	3.09	0.41
22:DA:2184:A:H8	22:DA:2184:A:O5'	2.03	0.41
22:DA:2204:G:N3	22:DA:2205:A:C8	2.89	0.41
22:DA:2298:A:C2'	22:DA:2299:U:C6	3.03	0.41
22:DA:2323:G:C6	22:DA:2324:U:C4	3.09	0.41
22:DA:2333:A:N1	22:DA:2335:A:N6	2.69	0.41
22:DA:2345:G:C4	22:DA:2347:C:C5	3.09	0.41
22:DA:2345:G:C4	22:DA:2381:A:C2	3.09	0.41
22:DA:2416:C:H2'	22:DA:2417:C:H6	1.85	0.41
22:DA:2425:A:H4'	22:DA:2426:A:C5'	2.49	0.41
22:DA:2520:C:H2'	22:DA:2521:C:C6	2.56	0.41
22:DA:2583:G:C2'	22:DA:2584:U:H5'	2.51	0.41
22:DA:2667:C:H2'	22:DA:2668:G:H8	1.85	0.41
22:DA:2673:G:H2'	22:DA:2674:G:H8	1.86	0.41
22:DA:2700:A:C2	22:DA:2708:G:C2	3.09	0.41
22:DA:2773:C:C2	22:DA:2774:C:C6	3.08	0.41
22:DA:2784:U:H2'	22:DA:2785:C:H6	1.85	0.41
22:DA:2867:G:N3	22:DA:2867:G:O2'	2.44	0.41
57:DB:11:C:H3'	57:DB:12:C:H5'	2.01	0.41
57:DB:18:G:C2	57:DB:67:G:C6	3.08	0.41
57:DB:18:G:C6	57:DB:19:C:C4	3.09	0.41
57:DB:44:G:OP1	58:DF:91:ARG:NH1	2.54	0.41
57:DB:66:A:C2'	57:DB:67:G:OP2	2.69	0.41
57:DB:67:G:C4	57:DB:68:C:C5	3.09	0.41
57:DB:91:C:O2'	57:DB:92:C:H5'	2.21	0.41
24:DC:68:ARG:NH1	24:DC:115:ILE:HD12	2.28	0.41
24:DC:78:GLU:OE2	24:DC:94:LEU:HD22	2.21	0.41
24:DC:82:TYR:O	24:DC:84:PRO:CD	2.65	0.41
24:DC:123:ILE:HD12	24:DC:123:ILE:HA	1.87	0.41
24:DC:211:ARG:C	24:DC:213:ARG:H	2.24	0.41
24:DC:225:ASN:HB3	24:DC:226:PRO:HD2	2.02	0.41
25:DD:166:GLY:O	25:DD:167:ASN:HB3	2.19	0.41
58:DF:144:LYS:HG3	58:DF:145:VAL:N	2.36	0.41
28:DG:157:LYS:C	28:DG:159:LYS:N	2.75	0.41
29:DH:2:GLN:O	29:DH:19:VAL:O	2.38	0.41
29:DH:80:ILE:CB	29:DH:101:ASP:OD2	2.65	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DI:57:VAL:O	30:DI:58:ILE:CG1	2.67	0.41
30:DI:92:PRO:O	30:DI:93:ASN:CB	2.69	0.41
31:DJ:39:LYS:HE2	31:DJ:39:LYS:HB2	1.83	0.41
31:DJ:44:TYR:C	31:DJ:44:TYR:HD2	2.24	0.41
31:DJ:55:ILE:O	31:DJ:55:ILE:CG1	2.68	0.41
31:DJ:101:ILE:O	31:DJ:105:VAL:HG12	2.21	0.41
32:DK:69:VAL:HG12	32:DK:70:ARG:N	2.35	0.41
33:DL:79:LEU:HD23	33:DL:82:LEU:CD1	2.50	0.41
33:DL:96:LYS:C	33:DL:98:ALA:N	2.74	0.41
34:DM:69:PRO:O	34:DM:70:ASP:CB	2.68	0.41
34:DM:114:ARG:HA	34:DM:130:PHE:CE1	2.55	0.41
35:DN:10:LEU:HD13	35:DN:10:LEU:HA	1.92	0.41
36:DO:49:VAL:CG1	36:DO:81:ARG:HB3	2.51	0.41
37:DP:87:ARG:NH2	37:DP:110:LYS:O	2.54	0.41
38:DQ:61:ILE:CD1	38:DQ:61:ILE:H	2.34	0.41
38:DQ:87:VAL:HG11	39:DR:52:PRO:CD	2.51	0.41
40:DS:4:ILE:C	40:DS:4:ILE:HD12	2.41	0.41
40:DS:44:ALA:O	40:DS:48:LYS:HB2	2.21	0.41
40:DS:59:GLU:OE1	40:DS:66:ILE:HG23	2.21	0.41
41:DT:87:LEU:HD23	41:DT:88:LYS:H	1.80	0.41
43:DV:4:ILE:HD12	43:DV:63:ILE:CD1	2.51	0.41
43:DV:29:ILE:HG13	43:DV:88:HIS:CE1	2.55	0.41
43:DV:40:ILE:H	43:DV:40:ILE:HD13	1.86	0.41
44:DW:45:HIS:O	44:DW:46:ALA:CB	2.66	0.41
45:DX:35:HIS:O	45:DX:47:THR:HA	2.21	0.41
46:DY:15:ASN:O	46:DY:19:LEU:HD13	2.21	0.41
48:D0:55:ALA:HB3	48:D0:56:LYS:NZ	2.35	0.41
51:D3:14:LYS:O	51:D3:21:PHE:O	2.38	0.41
51:D3:28:LEU:O	51:D3:29:ARG:CB	2.68	0.41
1:AA:32:A:C2	1:AA:33:A:C5	3.09	0.41
1:AA:92:U:O2'	1:AA:93:U:C5'	2.69	0.41
1:AA:110:C:O2'	1:AA:111:G:O5'	2.39	0.41
1:AA:115:G:HO2'	1:AA:116:A:P	2.43	0.41
1:AA:137:U:O2	1:AA:137:U:H2'	2.19	0.41
1:AA:221:C:C2	1:AA:222:C:C5	3.09	0.41
1:AA:339:C:N3	1:AA:351:G:O6	2.54	0.41
1:AA:414:A:N6	1:AA:431:A:N3	2.69	0.41
1:AA:430:A:C2	1:AA:431:A:C8	3.09	0.41
1:AA:586:C:O2'	1:AA:587:G:H5'	2.21	0.41
1:AA:613:C:H2'	1:AA:614:C:H6	1.86	0.41
1:AA:640:A:H2'	1:AA:641:U:H5'	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:705:G:C2'	1:AA:706:A:H5'	2.51	0.41
1:AA:773:G:C2'	1:AA:774:G:O5'	2.69	0.41
1:AA:807:A:C5	1:AA:808:C:C5	3.09	0.41
1:AA:1063:C:H2'	1:AA:1064:G:H8	1.76	0.41
1:AA:1157:A:N7	1:AA:1180:A:N6	2.68	0.41
1:AA:1452:C:H5'	1:AA:1453:G:C6	2.56	0.41
2:AB:20:ARG:HB3	2:AB:21:TYR:H	1.66	0.41
3:AC:190:THR:O	3:AC:192:TYR:N	2.54	0.41
4:AD:26:ALA:O	4:AD:27:ILE:C	2.59	0.41
4:AD:123:MET:CE	4:AD:126:GLY:O	2.69	0.41
6:AF:90:MET:CE	18:AR:22:TYR:CE2	3.04	0.41
7:AG:85:GLN:O	7:AG:85:GLN:CG	2.69	0.41
11:AK:124:LYS:HD2	21:AU:34:ARG:NH2	2.36	0.41
15:AO:45:HIS:C	15:AO:47:LYS:H	2.24	0.41
20:AT:27:MET:SD	20:AT:66:ILE:HD13	2.61	0.41
22:BA:38:A:N1	22:BA:442:G:C6	2.89	0.41
22:BA:43:G:C8	22:BA:43:G:H5'	2.56	0.41
22:BA:58:G:N2	22:BA:70:G:C4	2.89	0.41
22:BA:100:U:HO2'	22:BA:101:A:P	2.42	0.41
22:BA:182:A:C5	22:BA:183:C:C4	3.09	0.41
22:BA:265:A:N6	22:BA:428:A:C1'	2.84	0.41
22:BA:322:A:H2	22:BA:339:U:O4	2.03	0.41
22:BA:960:A:N6	22:BA:962:G:C2	2.89	0.41
22:BA:1000:A:C6	22:BA:1155:A:N7	2.89	0.41
22:BA:1056:G:H5"	22:BA:1057:A:C5'	2.33	0.41
22:BA:1344:U:N3	22:BA:1385:A:C8	2.89	0.41
22:BA:1405:U:N3	22:BA:1406:U:C4	2.89	0.41
22:BA:1604:C:H5"	62:BA:3403:HOH:O	2.21	0.41
22:BA:1748:C:H2'	22:BA:1749:A:C8	2.55	0.41
22:BA:1912:A:N1	22:BA:1919:A:C5	2.89	0.41
22:BA:2531:A:N7	28:BG:174:LYS:NZ	2.66	0.41
22:BA:2564:A:OP1	22:BA:2648:G:H4'	2.21	0.41
22:BA:2729:G:H2'	22:BA:2730:C:C6	2.56	0.41
22:BA:2748:A:C2	22:BA:2757:A:C5	3.09	0.41
22:BA:2819:G:H2'	22:BA:2821:A:N7	2.36	0.41
22:BA:2835:A:H61	22:BA:2878:U:H2'	1.86	0.41
24:BC:35:LYS:HB3	24:BC:35:LYS:HE3	1.20	0.41
25:BD:105:LYS:HA	25:BD:177:VAL:CG2	2.51	0.41
26:BE:200:LEU:N	26:BE:200:LEU:CD2	2.84	0.41
28:BG:153:PRO:HB3	28:BG:168:VAL:HG12	2.03	0.41
29:BH:25:TYR:CD2	29:BH:30:LEU:HD11	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BJ:123:LYS:N	31:BJ:123:LYS:CD	2.84	0.41
34:BM:10:ARG:HB3	34:BM:11:LYS:HG3	2.02	0.41
34:BM:76:LYS:HA	34:BM:77:PRO:HD3	1.96	0.41
34:BM:94:ALA:O	34:BM:96:ILE:HG23	2.21	0.41
37:BP:44:GLY:HA3	37:BP:61:ARG:O	2.21	0.41
37:BP:50:ARG:O	37:BP:51:ASN:CB	2.66	0.41
37:BP:73:PHE:N	37:BP:73:PHE:CD2	2.89	0.41
37:BP:95:LYS:HG2	37:BP:97:TYR:CZ	2.56	0.41
37:BP:96:LEU:HD12	37:BP:96:LEU:HA	1.65	0.41
44:BW:37:VAL:HG11	44:BW:55:ASP:HB2	2.03	0.41
46:BY:18:LEU:HD13	46:BY:18:LEU:O	2.20	0.41
47:BZ:29:ARG:CG	47:BZ:29:ARG:NH2	2.82	0.41
53:CA:96:U:O2'	53:CA:97:G:O5'	2.37	0.41
53:CA:251:G:C4'	53:CA:252:U:H5'	2.49	0.41
53:CA:451:A:HO2'	53:CA:452:A:P	2.43	0.41
53:CA:511:C:O2'	53:CA:512:U:H6	2.03	0.41
53:CA:737:C:H2'	53:CA:738:C:C6	2.56	0.41
53:CA:794:A:C5	53:CA:795:C:C4	3.09	0.41
53:CA:865:A:C2	53:CA:918:A:H4'	2.56	0.41
53:CA:934:C:N3	53:CA:1345:U:C4	2.89	0.41
53:CA:1075:U:H4'	53:CA:1101:A:N6	2.36	0.41
53:CA:1146:A:C4	53:CA:1147:C:C5	3.09	0.41
53:CA:1146:A:N1	53:CA:1147:C:N3	2.69	0.41
53:CA:1151:A:O2'	53:CA:1152:A:P	2.79	0.41
53:CA:1315:U:C6	53:CA:1316:G:N7	2.88	0.41
2:CB:169:HIS:HD2	2:CB:173:LYS:HZ1	1.67	0.41
8:CH:45:ILE:C	8:CH:63:LYS:HD2	2.41	0.41
8:CH:88:LYS:HA	8:CH:91:LEU:HD11	2.02	0.41
8:CH:127:TYR:N	8:CH:127:TYR:CD1	2.88	0.41
9:CI:90:ASP:HB3	9:CI:93:LEU:CD2	2.40	0.41
17:CQ:50:ASN:O	17:CQ:52:CYS:SG	2.78	0.41
20:CT:26:MET:CE	20:CT:56:ILE:HD13	2.51	0.41
22:DA:219:A:C8	22:DA:220:G:N7	2.89	0.41
22:DA:374:A:C6	22:DA:401:A:C5	3.09	0.41
22:DA:379:G:C5	22:DA:396:G:O6	2.74	0.41
22:DA:383:C:H2'	22:DA:384:A:OP1	2.21	0.41
22:DA:493:G:H4'	40:DS:8:ARG:O	2.21	0.41
22:DA:518:G:C4	22:DA:519:U:C5	3.09	0.41
22:DA:660:C:H5"	26:DE:94:GLN:OE1	2.21	0.41
22:DA:677:A:C6	22:DA:678:C:N4	2.88	0.41
22:DA:718:A:C2	22:DA:719:C:C2	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1605:C:H5'	22:DA:1610:A:N6	2.35	0.41
22:DA:1681:G:O2'	22:DA:1762:A:C2'	2.69	0.41
22:DA:1765:U:H2'	22:DA:1766:G:C5'	2.50	0.41
22:DA:1868:C:N4	22:DA:1869:G:O6	2.54	0.41
22:DA:1912:A:C2	22:DA:1919:A:N6	2.89	0.41
22:DA:2061:G:N3	22:DA:2063:C:C5	2.89	0.41
22:DA:2287:A:C6	22:DA:2289:G:C4	3.09	0.41
22:DA:2407:A:HO2'	22:DA:2408:U:C5'	2.34	0.41
22:DA:2450:A:N1	22:DA:2451:A:C5	2.90	0.41
22:DA:2491:U:H5"	22:DA:2570:G:H5"	2.03	0.41
22:DA:2507:C:O2	22:DA:2507:C:H2'	2.20	0.41
22:DA:2516:A:C2	22:DA:2569:G:C2	3.08	0.41
22:DA:2579:C:H2'	22:DA:2580:U:O4'	2.20	0.41
22:DA:2700:A:C6	22:DA:2701:U:O4	2.74	0.41
22:DA:2798:U:H5'	22:DA:2800:A:C6	2.56	0.41
24:DC:35:LYS:O	24:DC:36:ASN:CB	2.68	0.41
24:DC:45:ASN:C	24:DC:47:ARG:H	2.23	0.41
24:DC:96:LYS:HD3	24:DC:96:LYS:HA	1.93	0.41
24:DC:129:LEU:N	24:DC:129:LEU:HD23	2.36	0.41
24:DC:152:GLN:HE21	24:DC:152:GLN:N	2.01	0.41
25:DD:14:ILE:HG13	37:DP:11:GLN:HE22	1.86	0.41
58:DF:12:VAL:O	58:DF:16:MET:CB	2.69	0.41
58:DF:128:SER:HA	58:DF:153:ILE:O	2.21	0.41
28:DG:120:ILE:HD13	28:DG:120:ILE:C	2.40	0.41
30:DI:5:GLN:OE1	30:DI:59:THR:CG2	2.64	0.41
32:DK:51:LYS:HD2	32:DK:95:ILE:CG2	2.51	0.41
32:DK:60:ALA:HB2	32:DK:86:LEU:HD23	2.02	0.41
32:DK:64:ARG:O	32:DK:82:ASN:HA	2.21	0.41
34:DM:46:ILE:HD11	34:DM:69:PRO:HG3	2.02	0.41
37:DP:19:PHE:O	37:DP:20:ARG:CB	2.69	0.41
37:DP:82:SER:O	37:DP:83:ILE:HB	2.21	0.41
38:DQ:26:ALA:HB1	38:DQ:30:VAL:HB	2.03	0.41
40:DS:17:VAL:HG11	40:DS:103:ILE:CG1	2.46	0.41
41:DT:55:VAL:CG2	41:DT:56:GLU:N	2.83	0.41
46:DY:19:LEU:HA	46:DY:22:LEU:HD22	2.03	0.41
46:DY:21:LEU:HD23	46:DY:25:GLN:NE2	2.36	0.41
1:AA:243:A:C5'	1:AA:244:U:H5"	2.51	0.40
1:AA:342:C:H2'	1:AA:343:U:H5'	2.03	0.40
1:AA:393:A:H5'	1:AA:483:C:O2'	2.21	0.40
1:AA:446:G:O2'	1:AA:447:G:H5'	2.21	0.40
1:AA:475:C:O2'	1:AA:476:U:H5'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:622:A:H2'	1:AA:623:C:H5'	2.03	0.40
1:AA:742:G:C2'	1:AA:743:A:H5'	2.51	0.40
1:AA:807:A:N7	1:AA:808:C:C5	2.88	0.40
1:AA:849:G:C6	1:AA:850:U:C2	3.10	0.40
1:AA:1084:G:C6	1:AA:1085:U:O4	2.74	0.40
1:AA:1157:A:N7	1:AA:1180:A:C6	2.89	0.40
1:AA:1452:C:O4'	1:AA:1453:G:N1	2.54	0.40
1:AA:1504:G:H3'	1:AA:1505:G:H5'	2.03	0.40
4:AD:22:SER:O	4:AD:23:GLY:C	2.59	0.40
4:AD:68:GLU:O	4:AD:69:ARG:C	2.59	0.40
4:AD:168:THR:CG2	4:AD:183:ARG:NH2	2.84	0.40
5:AE:13:LYS:HD3	5:AE:116:VAL:CG1	2.51	0.40
5:AE:56:PRO:HG2	5:AE:57:ALA:H	1.85	0.40
8:AH:78:SER:OG	8:AH:84:ILE:N	2.51	0.40
9:AI:54:VAL:O	9:AI:55:ASP:O	2.39	0.40
12:AL:38:THR:HA	12:AL:49:ARG:O	2.21	0.40
14:AN:81:ILE:O	14:AN:85:GLU:HG2	2.20	0.40
16:AP:4:ILE:HA	16:AP:20:VAL:O	2.21	0.40
16:AP:67:ILE:O	16:AP:67:ILE:HG22	2.22	0.40
18:AR:21:ASP:OD2	18:AR:23:LYS:HD2	2.21	0.40
20:AT:47:GLN:HE21	20:AT:82:ILE:CD1	2.33	0.40
21:AU:18:PHE:O	21:AU:18:PHE:HD2	2.04	0.40
22:BA:49:A:C5	22:BA:177:G:C6	3.08	0.40
22:BA:49:A:N6	22:BA:177:G:C4	2.89	0.40
22:BA:88:G:C2'	22:BA:89:A:H5'	2.50	0.40
22:BA:254:G:N7	51:B3:4:LYS:HE2	2.36	0.40
22:BA:265:A:N6	22:BA:428:A:N9	2.70	0.40
22:BA:319:G:N9	22:BA:333:G:N2	2.69	0.40
22:BA:464:U:H5'	50:B2:5:PHE:CD2	2.56	0.40
22:BA:475:C:C6	22:BA:509:C:C4	3.09	0.40
22:BA:503:A:C4'	22:BA:504:A:O5'	2.65	0.40
22:BA:548:G:C8	22:BA:548:G:C3'	3.03	0.40
22:BA:558:U:H5"	31:BJ:111:LYS:HZ1	1.86	0.40
22:BA:830:G:C4	22:BA:2448:A:C5	3.09	0.40
22:BA:877:A:N6	22:BA:899:A:C6	2.89	0.40
22:BA:920:A:C5	22:BA:921:C:C5	3.10	0.40
22:BA:1233:C:C4	22:BA:1234:U:C5	3.08	0.40
22:BA:1655:A:C6	22:BA:1656:C:C2	3.09	0.40
22:BA:1656:C:OP1	25:BD:141:ARG:NH1	2.47	0.40
22:BA:1737:G:C6	22:BA:1738:G:N2	2.90	0.40
22:BA:2052:A:C2	22:BA:2053:G:C8	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2149:U:O2'	22:BA:2150:C:P	2.79	0.40
22:BA:2151:U:N3	22:BA:2152:G:N7	2.69	0.40
22:BA:2180:U:C2'	22:BA:2181:U:C5	2.98	0.40
22:BA:2197:U:H2'	22:BA:2224:G:H1	1.86	0.40
22:BA:2261:C:C2	22:BA:2280:G:C2	3.09	0.40
22:BA:2320:U:H4'	22:BA:2321:U:C5'	2.49	0.40
22:BA:2409:G:C5	22:BA:2410:G:C8	3.09	0.40
22:BA:2570:G:H2'	22:BA:2571:U:H5'	2.03	0.40
22:BA:2637:U:C2	22:BA:2782:G:N2	2.89	0.40
22:BA:2701:U:H2'	22:BA:2702:G:OP1	2.21	0.40
22:BA:2778:A:H4'	22:BA:2779:U:OP2	2.22	0.40
27:BF:103:ILE:HG12	27:BF:103:ILE:H	1.56	0.40
28:BG:8:VAL:HG12	28:BG:49:LEU:N	2.35	0.40
28:BG:72:ASN:O	28:BG:76:ILE:HG22	2.21	0.40
28:BG:115:GLN:NE2	28:BG:115:GLN:O	2.53	0.40
29:BH:133:GLN:OE1	29:BH:133:GLN:CA	2.68	0.40
31:BJ:75:TYR:CD1	31:BJ:86:GLN:HB3	2.56	0.40
31:BJ:122:LEU:C	31:BJ:123:LYS:HD2	2.41	0.40
32:BK:12:ASP:C	32:BK:100:PHE:HE1	2.24	0.40
32:BK:98:ARG:O	32:BK:99:ILE:HD12	2.21	0.40
34:BM:42:THR:OG1	34:BM:45:GLN:HG3	2.22	0.40
34:BM:132:THR:HG22	34:BM:133:LYS:H	1.85	0.40
35:BN:75:ILE:HG13	35:BN:76:VAL:N	2.35	0.40
37:BP:4:ILE:O	37:BP:5:LYS:CB	2.68	0.40
37:BP:33:GLU:OE2	37:BP:38:ARG:NH1	2.54	0.40
38:BQ:78:PHE:HE2	38:BQ:109:VAL:HA	1.86	0.40
39:BR:20:VAL:CG2	39:BR:22:LEU:HD21	2.50	0.40
39:BR:89:HIS:NE2	39:BR:91:GLN:HB2	2.36	0.40
42:BU:35:VAL:HG12	42:BU:38:ILE:HG13	2.02	0.40
44:BW:28:GLU:OE2	44:BW:28:GLU:CA	2.68	0.40
46:BY:5:GLU:O	46:BY:6:LEU:C	2.60	0.40
46:BY:40:SER:C	46:BY:42:LEU:N	2.74	0.40
47:BZ:7:THR:CG2	47:BZ:34:THR:OG1	2.69	0.40
53:CA:54:C:H2'	53:CA:352:C:N4	2.35	0.40
53:CA:83:C:O2	53:CA:83:C:C2'	2.69	0.40
53:CA:149:A:H2'	53:CA:150:U:C6	2.56	0.40
53:CA:275:G:H4'	17:CQ:15:LYS:HB3	2.03	0.40
53:CA:503:C:OP1	12:CL:115:LYS:NZ	2.39	0.40
53:CA:563:A:C8	53:CA:567:G:O4'	2.75	0.40
53:CA:925:G:C4	53:CA:1392:G:N2	2.89	0.40
53:CA:989:U:C2	53:CA:990:C:C5	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1135:U:H3'	53:CA:1137:C:O2	2.20	0.40
53:CA:1258:G:H2'	53:CA:1259:C:C6	2.56	0.40
4:CD:10:LEU:N	4:CD:10:LEU:CD1	2.85	0.40
4:CD:34:GLU:HA	4:CD:34:GLU:OE1	2.21	0.40
5:CE:81:GLN:HB3	5:CE:82:HIS:H	1.54	0.40
5:CE:98:ALA:HB2	5:CE:123:LEU:HG	2.03	0.40
54:CG:55:LYS:HD2	54:CG:55:LYS:H	1.85	0.40
8:CH:100:ILE:CD1	8:CH:101:ALA:N	2.84	0.40
12:CL:23:LEU:O	12:CL:24:GLU:C	2.59	0.40
14:CN:41:TRP:CE3	14:CN:42:ASN:N	2.89	0.40
14:CN:100:TRP:CD1	14:CN:100:TRP:C	2.94	0.40
56:CP:4:ILE:HG21	56:CP:57:ILE:CD1	2.51	0.40
21:CU:3:ILE:O	21:CU:3:ILE:HG23	2.22	0.40
22:DA:16:C:H2'	22:DA:17:G:H8	1.86	0.40
22:DA:46:G:C2	22:DA:47:C:C4	3.09	0.40
22:DA:225:C:C4	22:DA:231:A:N6	2.90	0.40
22:DA:363:G:C2	22:DA:364:C:C5	3.09	0.40
22:DA:477:A:O2'	22:DA:478:A:C5'	2.69	0.40
22:DA:483:A:OP2	22:DA:484:C:C5	2.74	0.40
22:DA:623:C:H2'	22:DA:624:C:O4'	2.21	0.40
22:DA:819:A:O2'	22:DA:820:A:H5'	2.22	0.40
22:DA:908:C:OP1	34:DM:22:GLN:CG	2.69	0.40
22:DA:973:A:H4'	22:DA:974:G:OP2	2.20	0.40
22:DA:1206:G:O2'	22:DA:1207:C:C6	2.73	0.40
22:DA:1385:A:HO2'	22:DA:1386:C:H6	1.57	0.40
22:DA:1540:G:C2'	22:DA:1541:C:O5'	2.69	0.40
22:DA:1572:A:H8	22:DA:1572:A:O5'	2.04	0.40
22:DA:1961:C:C5	22:DA:1962:C:C4	3.09	0.40
22:DA:2024:G:C6	22:DA:2040:G:C2	3.10	0.40
22:DA:2331:G:O2'	44:DW:40:ARG:HG2	2.21	0.40
22:DA:2350:C:H2'	22:DA:2351:G:O4'	2.21	0.40
22:DA:2353:G:N3	44:DW:30:VAL:HG11	2.36	0.40
22:DA:2520:C:C2	22:DA:2521:C:C5	3.10	0.40
22:DA:2591:C:H2'	22:DA:2592:G:H8	1.86	0.40
22:DA:2642:G:C2'	22:DA:2643:G:H5'	2.51	0.40
22:DA:2748:A:H2'	22:DA:2749:A:O4'	2.21	0.40
22:DA:2815:C:O2	48:D0:40:HIS:CE1	2.74	0.40
22:DA:2836:U:C2	22:DA:2837:A:N7	2.89	0.40
24:DC:143:VAL:HG12	24:DC:144:GLU:O	2.21	0.40
25:DD:34:VAL:HG22	25:DD:92:VAL:O	2.20	0.40
58:DF:93:GLU:OE2	58:DF:93:GLU:HA	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:DF:131:VAL:C	58:DF:133:GLU:N	2.74	0.40
28:DG:88:LEU:HG	28:DG:128:THR:O	2.20	0.40
28:DG:117:PRO:O	28:DG:118:ALA:C	2.60	0.40
32:DK:113:MET:O	32:DK:116:ILE:HG13	2.21	0.40
33:DL:17:LYS:CE	33:DL:19:LEU:HD13	2.51	0.40
34:DM:125:PRO:O	34:DM:126:ILE:HG23	2.21	0.40
37:DP:29:VAL:HG11	37:DP:73:PHE:HE1	1.86	0.40
37:DP:105:LYS:HA	37:DP:105:LYS:HD3	1.91	0.40
38:DQ:63:ARG:O	38:DQ:64:ILE:C	2.59	0.40
38:DQ:63:ARG:O	38:DQ:66:ALA:N	2.53	0.40
38:DQ:82:LEU:HB3	38:DQ:88:GLU:OE2	2.21	0.40
39:DR:49:ILE:O	39:DR:49:ILE:CG1	2.68	0.40
41:DT:74:ILE:HG23	41:DT:75:GLY:N	2.36	0.40
44:DW:54:ARG:C	44:DW:56:HIS:H	2.24	0.40
1:AA:9:G:OP2	5:AE:125:LYS:HG3	2.21	0.40
1:AA:105:G:H2'	1:AA:106:C:H6	1.86	0.40
1:AA:112:G:N1	1:AA:330:C:C4	2.89	0.40
1:AA:202:G:H21	1:AA:466:A:N6	2.00	0.40
1:AA:213:G:H2'	1:AA:214:C:H5'	2.02	0.40
1:AA:251:G:C4'	1:AA:252:U:O5'	2.53	0.40
1:AA:427:U:C4	1:AA:428:G:C6	3.10	0.40
1:AA:579:A:C2	1:AA:763:G:N3	2.89	0.40
1:AA:1216:A:OP1	14:AN:4:SER:HB3	2.21	0.40
1:AA:1411:C:N3	1:AA:1412:C:C5	2.89	0.40
2:AB:70:GLY:HA2	2:AB:163:ILE:HG22	2.04	0.40
3:AC:28:PHE:O	3:AC:28:PHE:CD2	2.75	0.40
3:AC:154:GLY:O	3:AC:155:ARG:C	2.60	0.40
4:AD:200:VAL:HG11	5:AE:102:THR:HG23	2.04	0.40
5:AE:21:SER:OG	5:AE:28:ARG:HB2	2.21	0.40
5:AE:60:GLN:C	5:AE:62:ALA:N	2.73	0.40
5:AE:81:GLN:NE2	5:AE:81:GLN:N	2.69	0.40
5:AE:104:ILE:HD11	5:AE:111:ARG:HA	2.03	0.40
7:AG:110:ARG:HD3	7:AG:112:ASP:CG	2.41	0.40
9:AI:88:GLU:HG3	9:AI:89:TYR:H	1.86	0.40
14:AN:29:ILE:HG23	14:AN:34:ASN:HD21	1.86	0.40
15:AO:20:ASP:CG	15:AO:23:SER:HB2	2.41	0.40
17:AQ:20:ILE:HG22	17:AQ:47:ASP:OD1	2.20	0.40
21:AU:3:ILE:HD13	21:AU:19:LYS:NZ	2.37	0.40
22:BA:186:G:H2'	22:BA:187:G:C8	2.44	0.40
22:BA:388:G:O2'	22:BA:389:G:C8	2.72	0.40
22:BA:654:A:H3'	22:BA:654:A:N3	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:665:U:H2'	22:BA:666:A:H8	1.86	0.40
22:BA:727:A:OP1	22:BA:1431:A:O2'	2.31	0.40
22:BA:912:C:C4	22:BA:913:U:O4	2.74	0.40
22:BA:928:A:H2	47:BZ:46:MET:HE1	1.86	0.40
22:BA:1004:U:O4'	22:BA:1010:A:C5	2.74	0.40
22:BA:1252:G:N3	38:BQ:32:ARG:CG	2.80	0.40
22:BA:1287:A:O2'	22:BA:1288:G:H5'	2.21	0.40
22:BA:1383:A:C2	22:BA:1405:U:O2	2.75	0.40
22:BA:1471:G:C6	22:BA:1472:C:C4	3.09	0.40
22:BA:1654:A:O2'	22:BA:1655:A:C5'	2.70	0.40
22:BA:1713:A:O2'	22:BA:1715:G:H5'	2.20	0.40
22:BA:1773:A:H2'	22:BA:1774:C:C5'	2.52	0.40
22:BA:1973:G:C6	22:BA:1974:C:C4	3.10	0.40
22:BA:1983:G:C6	22:BA:1984:G:N7	2.89	0.40
22:BA:2379:G:H4'	36:BO:21:LEU:HD11	2.04	0.40
22:BA:2422:C:C4	22:BA:2424:C:N4	2.89	0.40
22:BA:2474:U:H5"	22:BA:2475:C:OP2	2.20	0.40
22:BA:2674:G:H2'	22:BA:2675:A:C8	2.56	0.40
22:BA:2711:A:N6	22:BA:2714:G:C5	2.89	0.40
22:BA:2816:G:O3'	35:BN:99:LYS:HE2	2.21	0.40
22:BA:2849:U:H6	22:BA:2849:U:H2'	1.74	0.40
23:BB:43:C:O2	27:BF:91:ARG:NH2	2.52	0.40
24:BC:94:LEU:HA	24:BC:100:ARG:HA	2.03	0.40
24:BC:170:TYR:CE2	24:BC:184:GLU:HG2	2.56	0.40
24:BC:230:PRO:HB2	24:BC:244:VAL:HG23	2.02	0.40
24:BC:244:VAL:HB	24:BC:249:VAL:O	2.22	0.40
26:BE:83:VAL:HG11	26:BE:86:ALA:HA	2.03	0.40
26:BE:147:LEU:O	26:BE:148:ILE:C	2.59	0.40
27:BF:46:LYS:H	27:BF:46:LYS:HE3	1.86	0.40
28:BG:90:GLY:O	28:BG:91:VAL:C	2.59	0.40
30:BI:41:PHE:N	30:BI:68:PHE:HZ	2.19	0.40
30:BI:52:LEU:HD11	30:BI:81:LYS:HE2	2.03	0.40
30:BI:126:ARG:HD3	30:BI:126:ARG:H	1.86	0.40
31:BJ:13:ARG:HA	31:BJ:13:ARG:HD3	1.95	0.40
32:BK:40:LYS:NZ	32:BK:89:ASN:HD21	2.19	0.40
35:BN:67:PHE:HE2	35:BN:71:ARG:NH1	2.20	0.40
39:BR:49:ILE:HG22	39:BR:54:VAL:N	2.36	0.40
52:B4:10:LEU:HD12	52:B4:33:HIS:CG	2.56	0.40
53:CA:56:U:H2'	53:CA:57:G:C8	2.56	0.40
53:CA:76:G:N2	53:CA:95:C:C2	2.89	0.40
53:CA:110:C:H2'	53:CA:111:G:O4'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:232:G:H2'	53:CA:233:C:O4'	2.21	0.40
53:CA:461:A:N3	53:CA:461:A:C2'	2.83	0.40
53:CA:477:C:H3'	53:CA:478:A:C8	2.56	0.40
53:CA:1009:U:H2'	53:CA:1010:U:H6	1.84	0.40
53:CA:1215:G:C2	53:CA:1216:A:N7	2.90	0.40
53:CA:1236:A:H2'	53:CA:1237:C:H6	1.86	0.40
53:CA:1256:A:C4	53:CA:1278:G:C6	3.09	0.40
53:CA:1487:G:O5'	53:CA:1487:G:H8	2.04	0.40
4:CD:8:LEU:HD22	4:CD:21:LYS:HD2	2.01	0.40
6:CF:3:HIS:CB	6:CF:92:THR:HG23	2.50	0.40
8:CH:33:VAL:O	8:CH:35:ILE:N	2.54	0.40
9:CI:52:GLU:HA	9:CI:52:GLU:OE2	2.21	0.40
11:CK:15:VAL:HG12	11:CK:17:ASP:O	2.20	0.40
18:CR:27:THR:O	18:CR:30:ASN:HB3	2.21	0.40
22:DA:142:A:C5	22:DA:143:C:C4	3.09	0.40
22:DA:199:A:N6	22:DA:2433:A:H2'	2.36	0.40
22:DA:285:G:C6	22:DA:356:G:C6	3.09	0.40
22:DA:343:C:O2	22:DA:343:C:H2'	2.21	0.40
22:DA:503:A:C5	22:DA:506:G:C5	3.09	0.40
22:DA:636:G:H5'	22:DA:639:U:OP1	2.21	0.40
22:DA:690:G:H1'	22:DA:779:U:O3'	2.21	0.40
22:DA:732:C:H2'	22:DA:733:G:O4'	2.22	0.40
22:DA:770:G:H1'	22:DA:1379:U:C4	2.56	0.40
22:DA:786:C:O2'	22:DA:787:C:H5'	2.21	0.40
22:DA:996:A:C5	22:DA:1160:G:C2	3.09	0.40
22:DA:1048:A:C5	22:DA:1049:C:N4	2.89	0.40
22:DA:1109:C:N4	22:DA:1110:G:N1	2.68	0.40
22:DA:1127:A:H8	22:DA:1127:A:H2'	1.75	0.40
22:DA:1328:A:C2'	22:DA:1330:C:N4	2.83	0.40
22:DA:1534:U:C2'	22:DA:1536:C:O2	2.65	0.40
22:DA:1656:C:C2'	22:DA:1657:U:H5'	2.51	0.40
22:DA:1663:G:C6	22:DA:1992:G:N7	2.89	0.40
22:DA:1695:G:N3	22:DA:1695:G:C2'	2.84	0.40
22:DA:1710:G:H2'	22:DA:1711:A:C8	2.57	0.40
22:DA:1910:G:N2	22:DA:1921:G:C4	2.88	0.40
22:DA:1914:C:O2	22:DA:1914:C:O4'	2.40	0.40
22:DA:1956:U:O2'	22:DA:1957:C:H5'	2.21	0.40
22:DA:2290:G:H2'	22:DA:2291:U:H6	1.83	0.40
22:DA:2385:C:O2'	22:DA:2386:A:O5'	2.39	0.40
22:DA:2851:A:O2'	22:DA:2852:G:O4'	2.36	0.40
22:DA:2868:A:C2	22:DA:2869:G:C4	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DC:181:ARG:NH1	24:DC:265:PHE:CD1	2.88	0.40
26:DE:109:LEU:HD12	26:DE:109:LEU:HA	1.72	0.40
26:DE:147:LEU:HB2	26:DE:186:VAL:HA	2.04	0.40
29:DH:78:VAL:CG1	29:DH:144:VAL:HG12	2.49	0.40
29:DH:83:LYS:CG	29:DH:149:GLU:HB2	2.50	0.40
29:DH:89:LYS:HB2	29:DH:90:LEU:H	1.78	0.40
32:DK:88:ASN:OD1	32:DK:95:ILE:HG12	2.21	0.40
33:DL:4:ASN:HD22	33:DL:4:ASN:HA	1.58	0.40
33:DL:29:LYS:O	33:DL:30:THR:CB	2.68	0.40
34:DM:108:VAL:HG23	34:DM:109:PRO:CD	2.48	0.40
35:DN:103:ARG:CG	35:DN:104:ALA:N	2.83	0.40
36:DO:39:VAL:HB	36:DO:49:VAL:O	2.20	0.40
37:DP:105:LYS:CD	37:DP:108:ARG:NH2	2.84	0.40
42:DU:102:ILE:HD12	42:DU:102:ILE:HA	1.95	0.40
43:DV:14:LYS:CG	43:DV:18:ARG:HD2	2.47	0.40
44:DW:24:ARG:HA	44:DW:66:VAL:H	1.86	0.40
45:DX:4:CYS:HB3	45:DX:9:LYS:H	1.87	0.40
46:DY:4:LYS:HD3	46:DY:4:LYS:N	2.29	0.40
46:DY:4:LYS:HB2	46:DY:4:LYS:HZ2	1.86	0.40
46:DY:45:GLN:C	46:DY:47:ARG:H	2.24	0.40
1:AA:66:A:O4’	1:AA:173:U:C5	2.75	0.40
1:AA:180:U:H2’	1:AA:181:A:O5’	2.22	0.40
1:AA:339:C:C4	1:AA:340:U:C5	3.10	0.40
1:AA:404:G:N3	1:AA:498:A:C2	2.89	0.40
1:AA:524:G:C5	1:AA:525:C:C5	3.09	0.40
1:AA:592:G:H2’	1:AA:593:U:C6	2.57	0.40
1:AA:734:G:H2’	1:AA:735:C:H6	1.85	0.40
1:AA:983:A:N3	1:AA:983:A:H2’	2.36	0.40
1:AA:1030:U:H5’	1:AA:1031:C:O2	2.21	0.40
1:AA:1032:G:H2’	1:AA:1033:G:C4’	2.52	0.40
1:AA:1153:G:H2’	1:AA:1154:G:O5’	2.21	0.40
1:AA:1169:A:H2’	1:AA:1170:A:C8	2.56	0.40
1:AA:1319:A:C5	1:AA:1323:G:C4	3.09	0.40
1:AA:1498:U:C5’	1:AA:1499:A:OP1	2.70	0.40
2:AB:14:HIS:O	2:AB:14:HIS:CD2	2.74	0.40
2:AB:42:LEU:CD2	2:AB:43:GLU:HG3	2.50	0.40
3:AC:58:ARG:HA	3:AC:62:SER:O	2.21	0.40
3:AC:137:VAL:CG1	3:AC:169:GLU:HB3	2.50	0.40
3:AC:158:GLY:HA2	3:AC:192:TYR:CE1	2.56	0.40
3:AC:185:THR:CG2	3:AC:186:SER:N	2.83	0.40
4:AD:57:LYS:HG2	4:AD:202:LEU:CD2	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:121:ASN:ND2	5:AE:122:VAL:N	2.69	0.40
6:AF:3:HIS:HD2	6:AF:92:THR:HG22	1.85	0.40
9:AI:62:LEU:HD23	9:AI:62:LEU:N	2.36	0.40
11:AK:108:ASN:ND2	21:AU:6:ARG:HB3	2.36	0.40
13:AM:44:ILE:O	13:AM:44:ILE:CG2	2.70	0.40
14:AN:79:SER:O	14:AN:81:ILE:N	2.54	0.40
15:AO:27:GLN:O	15:AO:31:LEU:HG	2.21	0.40
19:AS:46:LEU:HB3	19:AS:47:THR:H	1.76	0.40
20:AT:10:ALA:O	20:AT:13:SER:N	2.54	0.40
22:BA:239:C:C4	22:BA:240:C:N3	2.90	0.40
22:BA:242:G:O2'	51:B3:5:THR:HG23	2.22	0.40
22:BA:304:U:H2'	22:BA:305:C:C6	2.56	0.40
22:BA:387:U:H4'	22:BA:388:G:C5'	2.51	0.40
22:BA:513:A:C2	22:BA:514:A:C4	3.10	0.40
22:BA:672:C:H4'	26:BE:84:THR:HG21	2.03	0.40
22:BA:802:A:C2	22:BA:803:U:C2	3.09	0.40
22:BA:1011:G:HO2'	22:BA:1013:C:H5"	1.83	0.40
22:BA:1135:C:H6	22:BA:1135:C:H5"	1.86	0.40
22:BA:1148:U:C6	22:BA:1148:U:C3'	3.05	0.40
22:BA:1243:C:H2'	22:BA:1244:A:O4'	2.21	0.40
22:BA:1265:A:O4'	22:BA:1267:U:C6	2.73	0.40
22:BA:1392:A:H2'	22:BA:1393:A:C8	2.56	0.40
22:BA:1429:G:N3	22:BA:1568:G:C2	2.90	0.40
22:BA:1821:A:H2'	22:BA:1822:C:H6	1.82	0.40
22:BA:1930:G:HO2'	22:BA:1931:U:P	2.44	0.40
22:BA:2314:A:C2'	22:BA:2315:G:H5'	2.51	0.40
22:BA:2480:C:C2'	22:BA:2480:C:O2	2.68	0.40
22:BA:2515:C:O5'	22:BA:2515:C:H6	2.05	0.40
22:BA:2846:G:N2	22:BA:2871:U:H1'	2.36	0.40
23:BB:16:G:C6	23:BB:69:G:C2	3.09	0.40
23:BB:112:G:H2'	23:BB:113:C:H6	1.85	0.40
26:BE:23:PHE:CE1	26:BE:28:VAL:HG11	2.56	0.40
26:BE:61:ARG:H	26:BE:61:ARG:HG2	1.54	0.40
26:BE:73:ILE:O	26:BE:73:ILE:CG1	2.69	0.40
30:BI:56:VAL:HG22	30:BI:68:PHE:HB2	2.03	0.40
31:BJ:44:TYR:HD2	38:BQ:63:ARG:CB	2.34	0.40
32:BK:1:MET:HE3	32:BK:32:TYR:CD1	2.56	0.40
33:BL:62:PRO:HD2	51:B3:24:LYS:HB3	2.03	0.40
33:BL:96:LYS:HA	33:BL:101:ILE:CG2	2.43	0.40
37:BP:15:ASP:OD1	37:BP:15:ASP:N	2.55	0.40
39:BR:46:GLU:CD	39:BR:46:GLU:C	2.78	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BT:39:THR:C	41:BT:41:ALA:N	2.74	0.40
45:BX:5:GLN:NE2	45:BX:49:ARG:N	2.57	0.40
46:BY:44:LYS:HE3	46:BY:44:LYS:HB2	1.90	0.40
53:CA:175:C:O2	53:CA:1447:A:C2	2.74	0.40
53:CA:278:G:H21	53:CA:279:A:H62	1.68	0.40
53:CA:330:C:O2'	53:CA:331:G:C5'	2.69	0.40
53:CA:441:A:H61	53:CA:493:A:N6	2.16	0.40
53:CA:495:A:N1	53:CA:496:A:N6	2.69	0.40
53:CA:543:U:C2	53:CA:544:G:C8	3.09	0.40
53:CA:580:C:C4	53:CA:581:G:C6	3.09	0.40
53:CA:688:G:C5	53:CA:700:G:C2	3.09	0.40
53:CA:881:G:H2'	53:CA:882:C:O4'	2.21	0.40
53:CA:928:G:C2	53:CA:1390:U:O2	2.74	0.40
53:CA:1014:A:OP2	19:CS:17:LYS:NZ	2.40	0.40
53:CA:1096:C:N3	53:CA:1097:C:C5	2.89	0.40
53:CA:1106:G:O2'	3:CC:168:ARG:NH1	2.55	0.40
53:CA:1129:C:C5	53:CA:1139:G:C5	3.10	0.40
53:CA:1250:A:C2	53:CA:1287:A:C6	3.08	0.40
53:CA:1287:A:O2'	53:CA:1288:A:O5'	2.39	0.40
53:CA:1507:A:H2'	53:CA:1508:A:C8	2.55	0.40
4:CD:107:GLY:N	4:CD:157:ALA:CB	2.84	0.40
4:CD:143:SER:CB	4:CD:178:GLU:HG3	2.40	0.40
6:CF:33:GLU:N	6:CF:33:GLU:OE1	2.54	0.40
10:CJ:30:LYS:C	10:CJ:30:LYS:HD3	2.42	0.40
10:CJ:44:THR:HG23	10:CJ:70:HIS:ND1	2.36	0.40
15:CO:28:VAL:O	15:CO:29:ALA:C	2.58	0.40
15:CO:70:LYS:HA	15:CO:77:TYR:HB2	2.03	0.40
22:DA:30:G:C5	22:DA:31:C:C4	3.10	0.40
22:DA:160:A:N6	22:DA:167:A:H1'	2.36	0.40
22:DA:197:A:N6	22:DA:2430:A:N3	2.69	0.40
22:DA:197:A:N6	22:DA:2430:A:C2'	2.57	0.40
22:DA:319:G:C6	22:DA:320:A:C4	3.09	0.40
22:DA:405:U:C3'	22:DA:406:G:H5'	2.50	0.40
22:DA:671:C:H6	22:DA:671:C:H2'	1.42	0.40
22:DA:993:G:O2'	39:DR:91:GLN:HG2	2.21	0.40
22:DA:1044:C:C4	22:DA:1112:G:O6	2.74	0.40
22:DA:1285:A:C6	22:DA:1329:U:C5	3.09	0.40
22:DA:1936:A:H2	22:DA:1943:U:C4	2.39	0.40
22:DA:2235:G:C6	22:DA:2236:U:C4	3.10	0.40
22:DA:2238:G:H4'	22:DA:2239:G:OP1	2.22	0.40
22:DA:2667:C:O2'	22:DA:2668:G:O4'	2.39	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DB:89:U:H5”	57:DB:90:C:C5	2.57	0.40
25:DD:169:ARG:C	25:DD:170:VAL:HG22	2.42	0.40
58:DF:33:ILE:HB	58:DF:90:LEU:HD23	2.02	0.40
58:DF:121:PHE:O	58:DF:122:ASP:CG	2.59	0.40
58:DF:151:LEU:HD13	58:DF:151:LEU:N	2.37	0.40
28:DG:117:PRO:CG	28:DG:143:VAL:HG11	2.51	0.40
31:DJ:25:LEU:C	31:DJ:27:ARG:H	2.24	0.40
32:DK:1:MET:HG3	32:DK:1:MET:O	2.21	0.40
33:DL:119:PRO:HB3	33:DL:139:GLY:C	2.41	0.40
35:DN:33:ILE:HA	35:DN:114:GLU:HB2	2.04	0.40
35:DN:56:LYS:HA	35:DN:84:GLY:HA3	2.00	0.40
36:DO:48:LEU:HD23	36:DO:48:LEU:HA	1.98	0.40
37:DP:47:ILE:HD11	37:DP:70:GLU:CG	2.51	0.40
39:DR:9:GLY:C	39:DR:10:LYS:CG	2.89	0.40
39:DR:19:THR:O	39:DR:20:VAL:HG23	2.21	0.40
40:DS:62:ASP:OD1	40:DS:62:ASP:N	2.54	0.40
40:DS:95:ARG:HG2	40:DS:97:LEU:CD2	2.52	0.40
42:DU:12:VAL:HG21	42:DU:38:ILE:HG12	2.03	0.40
42:DU:82:VAL:CG2	42:DU:83:GLY:H	2.33	0.40
43:DV:64:VAL:HG13	43:DV:68:LYS:O	2.22	0.40
45:DX:1:SER:O	45:DX:2:ARG:C	2.60	0.40
48:D0:32:THR:HG21	48:D0:47:TYR:HE2	1.85	0.40
49:D1:9:LYS:HA	49:D1:20:TYR:O	2.21	0.40
51:D3:63:TYR:O	51:D3:64:ALA:O	2.39	0.40
1:AA:75:G:C4	1:AA:76:G:C8	3.09	0.40
1:AA:238:A:H2’	1:AA:239:U:H5’	2.04	0.40
1:AA:304:U:O2’	1:AA:305:G:H5’	2.21	0.40
1:AA:678:U:H4’	1:AA:778:G:OP1	2.21	0.40
1:AA:783:C:O2’	1:AA:784:A:H5’	2.21	0.40
1:AA:937:A:C2	1:AA:1379:G:O6	2.74	0.40
1:AA:957:U:H4’	19:AS:78:THR:OG1	2.20	0.40
1:AA:1037:C:N4	1:AA:1038:C:N4	2.70	0.40
1:AA:1060:U:C5	3:AC:1:GLY:HA3	2.57	0.40
1:AA:1148:U:H5”	9:AI:8:THR:HG21	2.04	0.40
1:AA:1216:A:OP1	14:AN:4:SER:HB2	2.22	0.40
1:AA:1229:A:O2’	1:AA:1230:C:C5’	2.69	0.40
1:AA:1282:C:O2’	1:AA:1283:U:C5’	2.69	0.40
1:AA:1337:G:H8	1:AA:1337:G:H2’	1.77	0.40
1:AA:1370:G:H3’	9:AI:110:VAL:HG11	2.02	0.40
1:AA:1380:U:H4’	1:AA:1381:U:OP1	2.21	0.40
3:AC:33:ASP:CG	14:AN:64:ARG:HG2	2.42	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:53:ARG:O	3:AC:68:HIS:HB2	2.22	0.40
4:AD:66:VAL:HG13	4:AD:70:GLN:HE21	1.85	0.40
4:AD:99:ASN:C	4:AD:101:VAL:H	2.25	0.40
7:AG:74:VAL:HG21	7:AG:85:GLN:HE21	1.82	0.40
8:AH:114:ALA:O	8:AH:117:GLN:N	2.55	0.40
9:AI:55:ASP:O	9:AI:59:LYS:HE3	2.21	0.40
10:AJ:74:VAL:O	10:AJ:75:ASP:CB	2.69	0.40
11:AK:110:THR:HA	21:AU:4:LYS:HA	2.04	0.40
11:AK:116:PRO:C	11:AK:118:ASN:H	2.25	0.40
12:AL:106:VAL:CG2	12:AL:116:TYR:HB3	2.52	0.40
13:AM:1:ALA:CA	13:AM:8:ILE:HG23	2.51	0.40
13:AM:81:ASP:OD2	27:BF:111:ARG:HD2	2.21	0.40
13:AM:84:CYS:SG	13:AM:85:TYR:N	2.94	0.40
15:AO:63:ARG:HD3	15:AO:87:ARG:CZ	2.46	0.40
17:AQ:22:VAL:O	17:AQ:42:LYS:HA	2.21	0.40
18:AR:62:ARG:HB3	18:AR:69:TYR:CE2	2.56	0.40
22:BA:141:G:H3'	22:BA:142:A:C5'	2.51	0.40
22:BA:214:G:H1'	22:BA:217:A:H5'	2.02	0.40
22:BA:266:G:C2'	22:BA:267:C:O5'	2.70	0.40
22:BA:608:A:N6	22:BA:609:A:C6	2.90	0.40
22:BA:846:U:C2'	22:BA:847:U:OP2	2.68	0.40
22:BA:898:C:C2'	22:BA:899:A:H5'	2.52	0.40
22:BA:971:G:C2'	22:BA:972:A:H5'	2.51	0.40
22:BA:1110:G:O2'	22:BA:1111:A:P	2.80	0.40
22:BA:1154:G:OP1	38:BQ:57:ARG:HD3	2.21	0.40
22:BA:1177:G:C5	22:BA:1178:C:C5	3.09	0.40
22:BA:1282:U:C2'	22:BA:1283:G:H5'	2.52	0.40
22:BA:1315:C:H2'	22:BA:1316:U:H6	1.87	0.40
22:BA:1380:G:N7	62:BA:3744:HOH:O	2.37	0.40
22:BA:1405:U:H2'	22:BA:1406:U:C6	2.57	0.40
22:BA:1439:A:C2	22:BA:1553:A:C4	3.10	0.40
22:BA:1542:U:H2'	22:BA:1543:G:C5'	2.52	0.40
22:BA:1680:U:H2'	22:BA:1681:G:O4'	2.21	0.40
22:BA:1728:C:O2'	22:BA:1729:U:C5	2.74	0.40
22:BA:1733:G:O2'	22:BA:1734:G:P	2.80	0.40
22:BA:2135:A:O2'	22:BA:2136:G:C8	2.47	0.40
22:BA:2326:C:HO2'	22:BA:2327:A:P	2.45	0.40
22:BA:2560:A:C6	22:BA:2561:U:C4	3.09	0.40
22:BA:2772:C:H2'	22:BA:2773:C:C6	2.56	0.40
22:BA:2856:A:O2'	22:BA:2857:G:H5'	2.21	0.40
23:BB:24:G:N1	23:BB:56:G:N2	2.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:97:C:H2'	23:BB:98:G:H5'	2.02	0.40
23:BB:116:G:H4'	36:BO:54:VAL:O	2.21	0.40
24:BC:89:ASN:HD22	24:BC:89:ASN:HA	1.58	0.40
26:BE:200:LEU:O	26:BE:201:ALA:HB3	2.21	0.40
29:BH:96:THR:O	29:BH:96:THR:CG2	2.68	0.40
30:BI:5:GLN:O	30:BI:6:ALA:HB2	2.21	0.40
35:BN:50:PRO:O	35:BN:51:LEU:C	2.60	0.40
42:BU:2:ALA:O	42:BU:5:ARG:NH2	2.54	0.40
42:BU:73:ASN:ND2	42:BU:76:THR:H	2.08	0.40
44:BW:23:LYS:HD2	44:BW:24:ARG:CA	2.51	0.40
45:BX:31:ASN:O	45:BX:51:SER:HA	2.22	0.40
47:BZ:2:LYS:C	47:BZ:3:THR:HG23	2.42	0.40
48:B0:27:LEU:H	48:B0:27:LEU:HD23	1.86	0.40
53:CA:9:G:N3	53:CA:10:A:C8	2.89	0.40
53:CA:29:U:H4'	53:CA:295:C:O3'	2.20	0.40
53:CA:92:U:O2'	53:CA:93:U:O5'	2.39	0.40
53:CA:123:U:H2'	53:CA:124:C:H6	1.86	0.40
53:CA:177:G:C3'	53:CA:178:C:H5'	2.51	0.40
53:CA:197:A:N6	53:CA:221:C:C4'	2.74	0.40
53:CA:277:C:C2'	53:CA:278:G:H8	2.30	0.40
53:CA:458:U:H6	53:CA:458:U:OP2	2.03	0.40
53:CA:642:A:O2'	53:CA:643:C:P	2.80	0.40
53:CA:770:C:H1'	53:CA:899:C:H42	1.86	0.40
53:CA:1222:G:H5'	19:CS:77:ARG:HH21	1.86	0.40
53:CA:1401:G:H2'	53:CA:1402:C:H6	1.87	0.40
2:CB:14:HIS:CD2	2:CB:16:GLY:HA3	2.56	0.40
2:CB:104:LYS:HD2	2:CB:104:LYS:N	2.37	0.40
2:CB:221:ARG:O	2:CB:224:ARG:HG2	2.21	0.40
4:CD:125:ASN:HB2	4:CD:141:VAL:H	1.86	0.40
54:CG:125:ASP:HA	54:CG:128:GLU:HG2	2.02	0.40
8:CH:38:VAL:O	8:CH:38:VAL:HG12	2.22	0.40
55:CM:100:ARG:NH1	55:CM:102:LYS:HE3	2.37	0.40
14:CN:55:SER:HA	14:CN:56:PRO:HD2	1.87	0.40
17:CQ:30:HIS:HA	17:CQ:31:PRO:HD3	1.86	0.40
18:CR:22:TYR:HE1	18:CR:64:LEU:CD1	2.35	0.40
18:CR:22:TYR:CE1	18:CR:64:LEU:HD12	2.56	0.40
18:CR:43:ILE:HD13	18:CR:43:ILE:HA	1.90	0.40
22:DA:171:U:H2'	22:DA:172:A:C8	2.56	0.40
22:DA:188:G:H2'	22:DA:189:G:C5'	2.50	0.40
22:DA:278:A:N1	22:DA:362:A:C8	2.90	0.40
22:DA:373:U:HO2'	22:DA:374:A:H8	1.60	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:465:G:C4'	50:D2:16:HIS:CD2	3.04	0.40
22:DA:492:A:H2'	22:DA:493:G:H8	1.86	0.40
22:DA:515:A:H2'	22:DA:516:C:H5'	2.04	0.40
22:DA:661:A:O2'	33:DL:13:LYS:HA	2.21	0.40
22:DA:674:G:C1'	26:DE:69:ARG:HG2	2.51	0.40
22:DA:844:A:H2'	22:DA:845:A:O4'	2.21	0.40
22:DA:940:G:N3	22:DA:1191:G:H4'	2.37	0.40
22:DA:1038:G:C2	22:DA:1118:C:N3	2.90	0.40
22:DA:1264:A:P	48:D0:15:ARG:HH12	2.44	0.40
22:DA:1519:G:C5'	22:DA:1520:U:OP2	2.62	0.40
22:DA:1666:G:C3'	32:DK:6:THR:HG23	2.51	0.40
22:DA:1787:A:O5'	22:DA:1787:A:C8	2.75	0.40
22:DA:1797:G:H2'	22:DA:1798:U:C5'	2.51	0.40
22:DA:1837:C:H2'	22:DA:1899:A:N6	2.36	0.40
22:DA:1967:C:O2'	22:DA:1968:G:H5'	2.22	0.40
22:DA:2075:U:C4	22:DA:2238:G:C5	3.10	0.40
22:DA:2338:C:H6	22:DA:2338:C:H2'	1.60	0.40
22:DA:2376:A:H2	36:DO:92:PHE:HD2	1.70	0.40
22:DA:2595:G:N1	22:DA:2599:G:C6	2.89	0.40
22:DA:2808:G:N2	22:DA:2891:U:C6	2.89	0.40
22:DA:2899:A:N1	22:DA:2900:A:C6	2.89	0.40
57:DB:69:G:C3'	57:DB:70:C:H6	2.34	0.40
24:DC:69:ASN:O	24:DC:70:LYS:C	2.59	0.40
24:DC:75:ALA:HA	24:DC:95:TYR:HA	2.02	0.40
24:DC:77:VAL:HG21	24:DC:111:ALA:HA	2.03	0.40
58:DF:93:GLU:O	58:DF:95:MET:N	2.46	0.40
28:DG:19:ASN:N	28:DG:19:ASN:ND2	2.69	0.40
29:DH:9:VAL:HG12	29:DH:10:ALA:N	2.34	0.40
29:DH:43:ASN:O	29:DH:47:PHE:HD2	2.04	0.40
30:DI:87:SER:HB3	30:DI:88:GLY:H	1.73	0.40
31:DJ:30:THR:CG2	31:DJ:31:GLU:H	2.35	0.40
31:DJ:111:LYS:CB	31:DJ:115:GLY:N	2.80	0.40
37:DP:31:VAL:O	37:DP:32:VAL:CG1	2.70	0.40
37:DP:99:LEU:HD23	37:DP:99:LEU:HA	1.95	0.40
42:DU:20:LYS:HD3	42:DU:20:LYS:C	2.42	0.40
42:DU:32:LYS:HE2	42:DU:65:GLN:CD	2.41	0.40
42:DU:35:VAL:CG1	42:DU:36:GLU:N	2.71	0.40
42:DU:47:PRO:CB	42:DU:54:PRO:CG	2.86	0.40
45:DX:12:VAL:O	45:DX:12:VAL:HG23	2.21	0.40
48:D0:25:THR:HG22	48:D0:25:THR:O	2.21	0.40
1:AA:132:C:C4	1:AA:133:U:C5	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:224:U:C2'	1:AA:225:C:H5'	2.52	0.40
1:AA:434:U:H2'	1:AA:435:A:O4'	2.21	0.40
1:AA:508:U:O2'	1:AA:509:A:H8	2.02	0.40
1:AA:591:U:H2'	1:AA:592:G:H8	1.86	0.40
1:AA:626:G:H2'	1:AA:627:G:O4'	2.22	0.40
1:AA:872:A:C2	1:AA:874:G:C6	3.10	0.40
1:AA:1114:C:C4	1:AA:1115:U:C5	3.10	0.40
1:AA:1141:C:C2	1:AA:1142:G:C8	3.10	0.40
1:AA:1272:G:C5	1:AA:1273:C:C4	3.10	0.40
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.57	0.40
2:AB:69:VAL:HG23	2:AB:160:LEU:HD11	2.04	0.40
4:AD:60:VAL:C	4:AD:63:ILE:HG22	2.42	0.40
4:AD:65:GLY:HA3	4:AD:114:ARG:HH22	1.87	0.40
4:AD:80:ARG:HH21	4:AD:81:LEU:HD23	1.84	0.40
7:AG:6:ILE:HB	7:AG:7:GLY:H	1.67	0.40
8:AH:10:LEU:HD12	8:AH:76:ARG:HB2	2.03	0.40
8:AH:88:LYS:O	8:AH:91:LEU:HB2	2.22	0.40
9:AI:128:LYS:HD2	9:AI:129:ARG:N	2.34	0.40
11:AK:96:ILE:CG1	11:AK:97:ARG:N	2.80	0.40
15:AO:55:LEU:HD21	22:BA:715:A:C2	2.57	0.40
21:AU:13:VAL:HG22	21:AU:14:ALA:H	1.86	0.40
22:BA:235:U:C5	22:BA:236:C:C5	3.10	0.40
22:BA:316:C:C2'	22:BA:317:G:O5'	2.70	0.40
22:BA:478:A:N1	22:BA:500:G:H4'	2.36	0.40
22:BA:960:A:H4'	22:BA:2457:U:H4'	2.04	0.40
22:BA:1234:U:H2'	22:BA:1235:G:O4'	2.21	0.40
22:BA:1384:A:H1'	22:BA:1405:U:O4'	2.22	0.40
22:BA:2024:G:H4'	25:BD:154:LYS:HZ2	1.86	0.40
22:BA:2094:A:P	29:BH:22:LYS:HD2	2.62	0.40
22:BA:2195:U:O2'	22:BA:2196:C:H5'	2.22	0.40
22:BA:2425:A:H5'	22:BA:2427:C:O4'	2.21	0.40
22:BA:2829:A:H2'	22:BA:2830:C:O4'	2.21	0.40
22:BA:2836:U:H2'	22:BA:2837:A:H8	1.86	0.40
22:BA:2856:A:N6	22:BA:2857:G:C6	2.89	0.40
24:BC:124:LYS:CG	24:BC:125:PRO:HD2	2.51	0.40
24:BC:211:ARG:C	24:BC:213:ARG:H	2.25	0.40
24:BC:245:THR:O	24:BC:248:GLY:N	2.55	0.40
31:BJ:73:VAL:HB	31:BJ:75:TYR:CE2	2.57	0.40
32:BK:113:MET:C	32:BK:115:ILE:N	2.74	0.40
36:BO:8:ILE:O	36:BO:11:ALA:N	2.42	0.40
37:BP:3:ILE:CD1	37:BP:3:ILE:C	2.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BP:58:PHE:HD2	37:BP:75:THR:HG22	1.83	0.40
41:BT:29:THR:HB	41:BT:86:THR:HG23	2.04	0.40
44:BW:22:VAL:O	44:BW:23:LYS:O	2.39	0.40
46:BY:7:ARG:HA	46:BY:60:LYS:HZ3	1.87	0.40
46:BY:19:LEU:HD12	46:BY:19:LEU:HA	1.91	0.40
47:BZ:7:THR:HG22	47:BZ:32:GLY:HA2	2.04	0.40
47:BZ:40:THR:OG1	47:BZ:41:PRO:HD2	2.22	0.40
53:CA:118:U:O4	53:CA:289:G:H4'	2.21	0.40
53:CA:198:G:O2'	53:CA:199:A:P	2.80	0.40
53:CA:289:G:C2	53:CA:290:C:C4	3.09	0.40
53:CA:315:A:H5"	53:CA:317:U:OP2	2.22	0.40
53:CA:321:A:O4'	53:CA:1435:G:O2'	2.37	0.40
53:CA:334:C:C6	53:CA:334:C:C3'	3.05	0.40
53:CA:374:A:N3	53:CA:375:U:C6	2.90	0.40
53:CA:513:C:O2'	53:CA:514:C:C6	2.51	0.40
53:CA:680:C:C6	53:CA:680:C:C3'	3.04	0.40
53:CA:729:A:C4	53:CA:730:G:C8	3.09	0.40
53:CA:754:C:H3'	53:CA:755:G:C5'	2.51	0.40
53:CA:826:C:O2	53:CA:826:C:C2'	2.70	0.40
53:CA:834:U:H2'	53:CA:835:U:C6	2.56	0.40
53:CA:935:A:H61	54:CG:2:ARG:NE	2.18	0.40
53:CA:1053:G:N7	53:CA:1199:U:H3'	2.36	0.40
53:CA:1359:C:C2'	53:CA:1361:G:OP2	2.69	0.40
53:CA:1361:G:C2'	53:CA:1362:A:H5'	2.45	0.40
53:CA:1480:A:N7	53:CA:1481:U:C5	2.90	0.40
2:CB:72:LYS:O	2:CB:74:ALA:N	2.55	0.40
3:CC:6:PRO:HG2	3:CC:183:TYR:CD2	2.57	0.40
3:CC:52:SER:HB2	3:CC:68:HIS:O	2.20	0.40
4:CD:116:LEU:HD21	4:CD:153:ARG:CD	2.52	0.40
8:CH:46:GLU:OE2	8:CH:46:GLU:HA	2.21	0.40
8:CH:68:LYS:HA	8:CH:68:LYS:CE	2.51	0.40
9:CI:18:VAL:HG21	9:CI:81:GLY:HA3	2.03	0.40
10:CJ:42:LEU:HD12	10:CJ:42:LEU:N	2.36	0.40
10:CJ:74:VAL:HG12	10:CJ:75:ASP:N	2.37	0.40
12:CL:7:VAL:HG12	12:CL:7:VAL:O	2.21	0.40
14:CN:27:LYS:HB2	14:CN:45:LEU:HD23	2.02	0.40
56:CP:48:GLU:OE2	56:CP:51:ARG:NE	2.53	0.40
17:CQ:47:ASP:O	17:CQ:50:ASN:N	2.55	0.40
17:CQ:58:VAL:HG12	17:CQ:74:LEU:HD11	2.03	0.40
20:CT:20:ASN:O	20:CT:24:ARG:HB2	2.21	0.40
20:CT:67:HIS:HB3	20:CT:68:LYS:HD2	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:45:G:C4'	22:DA:46:G:H5'	2.52	0.40
22:DA:123:G:O3'	22:DA:1376:C:H4'	2.21	0.40
22:DA:222:A:H61	22:DA:232:G:H1'	1.80	0.40
22:DA:321:U:C2	26:DE:159:LEU:HD21	2.57	0.40
22:DA:389:G:N7	22:DA:2413:G:H4'	2.36	0.40
22:DA:426:C:HO2'	22:DA:427:U:H5'	1.80	0.40
22:DA:603:A:H4'	22:DA:604:G:C5'	2.50	0.40
22:DA:626:A:H2'	33:DL:78:ARG:NH2	2.37	0.40
22:DA:675:A:N6	22:DA:676:A:H61	2.20	0.40
22:DA:772:C:N3	22:DA:773:U:C5	2.90	0.40
22:DA:784:G:C2	24:DC:227:VAL:CG2	3.04	0.40
22:DA:979:A:H2'	22:DA:982:C:H41	1.87	0.40
22:DA:992:C:O2'	22:DA:993:G:O4'	2.36	0.40
22:DA:1120:G:C2'	22:DA:1121:C:H5'	2.52	0.40
22:DA:1275:A:O3'	22:DA:1276:A:C4'	2.70	0.40
22:DA:1277:G:O2'	35:DN:24:MET:HB2	2.22	0.40
22:DA:1286:A:C6	22:DA:1289:C:C2	3.09	0.40
22:DA:1301:A:C5	22:DA:1303:G:C5	3.09	0.40
22:DA:1412:U:H2'	22:DA:1413:A:O4'	2.21	0.40
22:DA:1479:G:N2	22:DA:1513:U:H1'	2.36	0.40
22:DA:2066:C:H2'	22:DA:2067:G:H8	1.87	0.40
22:DA:2191:A:C5'	22:DA:2192:U:OP2	2.69	0.40
22:DA:2323:G:N2	22:DA:2335:A:H2	2.20	0.40
22:DA:2339:C:O2'	22:DA:2340:A:P	2.80	0.40
22:DA:2403:C:H2'	22:DA:2404:U:H6	1.86	0.40
22:DA:2492:U:H2'	22:DA:2493:U:C5	2.56	0.40
22:DA:2518:A:H4'	22:DA:2519:U:OP2	2.21	0.40
22:DA:2559:C:C3'	22:DA:2559:C:C6	3.05	0.40
57:DB:77:U:O2'	57:DB:78:A:H5'	2.21	0.40
24:DC:60:ALA:O	24:DC:62:ARG:HD2	2.22	0.40
25:DD:43:ASP:HB3	25:DD:44:GLY:H	1.68	0.40
26:DE:34:ALA:HB1	26:DE:94:GLN:CB	2.47	0.40
26:DE:106:LYS:HG3	26:DE:200:LEU:HD12	2.03	0.40
28:DG:18:ILE:CD1	28:DG:42:VAL:CG1	2.94	0.40
29:DH:26:ALA:O	29:DH:27:ARG:CB	2.69	0.40
33:DL:29:LYS:O	33:DL:30:THR:OG1	2.35	0.40
33:DL:57:LEU:HA	33:DL:60:ARG:CD	2.50	0.40
39:DR:41:ILE:HG22	39:DR:42:ALA:H	1.85	0.40
42:DU:8:ASP:C	42:DU:8:ASP:OD1	2.60	0.40
45:DX:2:ARG:CB	45:DX:11:PRO:HD3	2.51	0.40
49:D1:49:LYS:O	49:D1:50:GLU:HB3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:D3:61:LEU:HB2	51:D3:64:ALA:HB3	2.02	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	AB	216/218 (99%)	121 (56%)	65 (30%)	30 (14%)	0	1
2	CB	216/218 (99%)	145 (67%)	54 (25%)	17 (8%)	1	6
3	AC	204/206 (99%)	154 (76%)	33 (16%)	17 (8%)	1	6
3	CC	204/206 (99%)	147 (72%)	40 (20%)	17 (8%)	1	6
4	AD	203/205 (99%)	134 (66%)	42 (21%)	27 (13%)	0	1
4	CD	203/205 (99%)	139 (68%)	38 (19%)	26 (13%)	0	1
5	AE	148/150 (99%)	105 (71%)	26 (18%)	17 (12%)	0	2
5	CE	148/150 (99%)	110 (74%)	23 (16%)	15 (10%)	0	3
6	AF	98/100 (98%)	71 (72%)	19 (19%)	8 (8%)	1	6
6	CF	98/100 (98%)	62 (63%)	27 (28%)	9 (9%)	1	4
7	AG	149/151 (99%)	107 (72%)	34 (23%)	8 (5%)	2	12
8	AH	127/129 (98%)	92 (72%)	27 (21%)	8 (6%)	1	10
8	CH	127/129 (98%)	87 (68%)	30 (24%)	10 (8%)	1	6
9	AI	125/127 (98%)	83 (66%)	31 (25%)	11 (9%)	1	5
9	CI	125/127 (98%)	87 (70%)	29 (23%)	9 (7%)	1	8
10	AJ	96/98 (98%)	64 (67%)	19 (20%)	13 (14%)	0	1
10	CJ	96/98 (98%)	58 (60%)	24 (25%)	14 (15%)	0	1
11	AK	115/117 (98%)	85 (74%)	18 (16%)	12 (10%)	0	3
11	CK	115/117 (98%)	89 (77%)	17 (15%)	9 (8%)	1	6

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
12	AL	121/123 (98%)	84 (69%)	21 (17%)	16 (13%)	0 1
12	CL	121/123 (98%)	84 (69%)	25 (21%)	12 (10%)	0 3
13	AM	112/114 (98%)	87 (78%)	17 (15%)	8 (7%)	1 8
14	AN	92/100 (92%)	54 (59%)	23 (25%)	15 (16%)	0 1
14	CN	91/100 (91%)	58 (64%)	27 (30%)	6 (7%)	1 9
15	AO	86/88 (98%)	58 (67%)	22 (26%)	6 (7%)	1 8
15	CO	86/88 (98%)	68 (79%)	15 (17%)	3 (4%)	3 22
16	AP	80/82 (98%)	58 (72%)	13 (16%)	9 (11%)	0 2
17	AQ	78/80 (98%)	46 (59%)	20 (26%)	12 (15%)	0 1
17	CQ	78/80 (98%)	60 (77%)	8 (10%)	10 (13%)	0 1
18	AR	53/55 (96%)	39 (74%)	13 (24%)	1 (2%)	8 35
18	CR	53/55 (96%)	40 (76%)	11 (21%)	2 (4%)	3 20
19	AS	77/79 (98%)	56 (73%)	14 (18%)	7 (9%)	1 4
19	CS	77/79 (98%)	46 (60%)	24 (31%)	7 (9%)	1 4
20	AT	83/85 (98%)	54 (65%)	20 (24%)	9 (11%)	0 3
20	CT	83/85 (98%)	55 (66%)	21 (25%)	7 (8%)	1 5
21	AU	49/51 (96%)	25 (51%)	17 (35%)	7 (14%)	0 1
21	CU	49/51 (96%)	24 (49%)	11 (22%)	14 (29%)	0 0
24	BC	269/271 (99%)	197 (73%)	53 (20%)	19 (7%)	1 8
24	DC	269/271 (99%)	177 (66%)	55 (20%)	37 (14%)	0 1
25	BD	207/209 (99%)	140 (68%)	38 (18%)	29 (14%)	0 1
25	DD	207/209 (99%)	134 (65%)	39 (19%)	34 (16%)	0 1
26	BE	199/201 (99%)	143 (72%)	35 (18%)	21 (11%)	0 3
26	DE	199/201 (99%)	122 (61%)	51 (26%)	26 (13%)	0 1
27	BF	175/177 (99%)	127 (73%)	33 (19%)	15 (9%)	1 5
28	BG	174/176 (99%)	115 (66%)	32 (18%)	27 (16%)	0 1
28	DG	174/176 (99%)	100 (58%)	43 (25%)	31 (18%)	0 1
29	BH	147/149 (99%)	67 (46%)	46 (31%)	34 (23%)	0 0
29	DH	147/149 (99%)	71 (48%)	58 (40%)	18 (12%)	0 2
30	BI	139/141 (99%)	84 (60%)	41 (30%)	14 (10%)	0 3
30	DI	139/141 (99%)	78 (56%)	43 (31%)	18 (13%)	0 1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
31	BJ	140/142 (99%)	101 (72%)	23 (16%)	16 (11%)	0 2
31	DJ	140/142 (99%)	90 (64%)	30 (21%)	20 (14%)	0 1
32	BK	120/122 (98%)	83 (69%)	15 (12%)	22 (18%)	0 1
32	DK	120/122 (98%)	83 (69%)	13 (11%)	24 (20%)	0 0
33	BL	141/143 (99%)	104 (74%)	28 (20%)	9 (6%)	1 9
33	DL	141/143 (99%)	81 (57%)	42 (30%)	18 (13%)	0 1
34	BM	134/136 (98%)	91 (68%)	25 (19%)	18 (13%)	0 1
34	DM	134/136 (98%)	93 (69%)	24 (18%)	17 (13%)	0 1
35	BN	118/120 (98%)	87 (74%)	21 (18%)	10 (8%)	1 5
35	DN	118/120 (98%)	72 (61%)	30 (25%)	16 (14%)	0 1
36	BO	114/116 (98%)	87 (76%)	20 (18%)	7 (6%)	1 10
36	DO	114/116 (98%)	76 (67%)	26 (23%)	12 (10%)	0 3
37	BP	112/114 (98%)	75 (67%)	21 (19%)	16 (14%)	0 1
37	DP	112/114 (98%)	65 (58%)	27 (24%)	20 (18%)	0 1
38	BQ	115/117 (98%)	91 (79%)	17 (15%)	7 (6%)	1 10
38	DQ	115/117 (98%)	78 (68%)	24 (21%)	13 (11%)	0 2
39	BR	101/103 (98%)	76 (75%)	16 (16%)	9 (9%)	1 5
39	DR	101/103 (98%)	67 (66%)	25 (25%)	9 (9%)	1 5
40	BS	108/110 (98%)	77 (71%)	25 (23%)	6 (6%)	2 12
40	DS	108/110 (98%)	75 (69%)	21 (19%)	12 (11%)	0 2
41	BT	91/93 (98%)	55 (60%)	19 (21%)	17 (19%)	0 1
41	DT	91/93 (98%)	47 (52%)	28 (31%)	16 (18%)	0 1
42	BU	100/102 (98%)	63 (63%)	22 (22%)	15 (15%)	0 1
42	DU	100/102 (98%)	50 (50%)	23 (23%)	27 (27%)	0 0
43	BV	92/94 (98%)	80 (87%)	10 (11%)	2 (2%)	6 31
43	DV	92/94 (98%)	61 (66%)	24 (26%)	7 (8%)	1 7
44	BW	77/79 (98%)	27 (35%)	25 (32%)	25 (32%)	0 0
44	DW	77/79 (98%)	34 (44%)	22 (29%)	21 (27%)	0 0
45	BX	75/77 (97%)	54 (72%)	15 (20%)	6 (8%)	1 6
45	DX	75/77 (97%)	46 (61%)	24 (32%)	5 (7%)	1 9
46	BY	61/63 (97%)	37 (61%)	16 (26%)	8 (13%)	0 1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
46	DY	61/63 (97%)	40 (66%)	16 (26%)	5 (8%)	1 6
47	BZ	56/58 (97%)	44 (79%)	10 (18%)	2 (4%)	3 21
47	DZ	56/58 (97%)	35 (62%)	15 (27%)	6 (11%)	0 3
48	B0	54/56 (96%)	42 (78%)	8 (15%)	4 (7%)	1 7
48	D0	54/56 (96%)	37 (68%)	12 (22%)	5 (9%)	0 4
49	B1	48/50 (96%)	37 (77%)	6 (12%)	5 (10%)	0 3
49	D1	48/50 (96%)	33 (69%)	10 (21%)	5 (10%)	0 3
50	B2	44/46 (96%)	37 (84%)	6 (14%)	1 (2%)	6 30
50	D2	44/46 (96%)	32 (73%)	6 (14%)	6 (14%)	0 1
51	B3	62/64 (97%)	50 (81%)	8 (13%)	4 (6%)	1 9
51	D3	62/64 (97%)	40 (64%)	17 (27%)	5 (8%)	1 6
52	B4	36/38 (95%)	28 (78%)	4 (11%)	4 (11%)	0 2
52	D4	36/38 (95%)	24 (67%)	6 (17%)	6 (17%)	0 1
54	CG	148/150 (99%)	103 (70%)	34 (23%)	11 (7%)	1 7
55	CM	111/113 (98%)	63 (57%)	36 (32%)	12 (11%)	0 3
56	CP	78/80 (98%)	50 (64%)	19 (24%)	9 (12%)	0 2
58	DF	176/178 (99%)	98 (56%)	46 (26%)	32 (18%)	0 1
All	All	11238/11447 (98%)	7490 (67%)	2445 (22%)	1303 (12%)	0 2

All (1303) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	20	ARG
2	AB	21	TYR
2	AB	37	VAL
2	AB	40	ILE
2	AB	75	ALA
2	AB	109	SER
2	AB	119	GLN
2	AB	133	ALA
2	AB	200	PRO
3	AC	14	VAL
3	AC	16	PRO
3	AC	60	ALA
3	AC	100	ILE
3	AC	126	ARG

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Mol	Chain	Res	Type
3	AC	165	GLU
3	AC	205	GLU
4	AD	26	ALA
4	AD	28	ASP
4	AD	31	CYS
4	AD	34	GLU
4	AD	148	ALA
4	AD	167	PRO
4	AD	173	ASP
4	AD	191	SER
4	AD	192	ALA
5	AE	44	ARG
5	AE	97	PRO
5	AE	156	ARG
5	AE	157	GLY
7	AG	93	VAL
7	AG	129	ASN
8	AH	49	LYS
9	AI	8	THR
9	AI	40	ARG
9	AI	43	ALA
9	AI	55	ASP
9	AI	128	LYS
10	AJ	57	VAL
10	AJ	61	ALA
10	AJ	92	LEU
11	AK	51	PHE
11	AK	125	LYS
11	AK	126	ARG
12	AL	23	LEU
12	AL	24	GLU
12	AL	33	CYS
12	AL	43	LYS
12	AL	73	LEU
12	AL	75	GLU
12	AL	88	ASP
12	AL	97	VAL
13	AM	46	GLU
13	AM	113	LYS
14	AN	22	LYS
14	AN	27	LYS
14	AN	33	VAL

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Mol	Chain	Res	Type
14	AN	51	PRO
14	AN	52	ARG
14	AN	61	ASN
15	AO	17	ASP
15	AO	24	THR
16	AP	11	ALA
16	AP	80	LYS
17	AQ	12	VAL
17	AQ	16	MET
20	AT	3	ILE
20	AT	4	LYS
20	AT	5	SER
20	AT	67	HIS
21	AU	11	PHE
21	AU	12	ASP
21	AU	23	GLU
24	BC	104	LEU
24	BC	105	ALA
24	BC	140	VAL
24	BC	239	PHE
25	BD	43	ASP
25	BD	73	VAL
25	BD	92	VAL
25	BD	99	GLU
25	BD	100	LEU
25	BD	104	VAL
25	BD	122	VAL
25	BD	145	SER
25	BD	151	THR
25	BD	169	ARG
25	BD	183	GLU
25	BD	184	ARG
25	BD	191	GLY
25	BD	192	ALA
26	BE	4	VAL
26	BE	8	ALA
26	BE	46	GLN
26	BE	123	LYS
26	BE	153	LEU
26	BE	175	ILE
27	BF	127	TYR
27	BF	133	GLU

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Mol	Chain	Res	Type
27	BF	134	GLN
27	BF	174	PHE
27	BF	175	PRO
28	BG	7	PRO
28	BG	8	VAL
28	BG	31	GLU
28	BG	33	THR
28	BG	45	ALA
28	BG	53	PRO
28	BG	61	TRP
28	BG	84	LYS
28	BG	91	VAL
28	BG	94	ARG
28	BG	118	ALA
29	BH	3	VAL
29	BH	8	LYS
29	BH	9	VAL
29	BH	10	ALA
29	BH	14	SER
29	BH	28	ASN
29	BH	31	VAL
29	BH	32	PRO
29	BH	33	GLN
29	BH	54	LEU
29	BH	81	ALA
29	BH	83	LYS
29	BH	111	ALA
30	BI	65	SER
30	BI	92	PRO
31	BJ	21	THR
31	BJ	41	LYS
31	BJ	45	THR
32	BK	13	ASN
32	BK	16	ALA
32	BK	17	ARG
32	BK	35	VAL
32	BK	49	ARG
32	BK	71	ARG
32	BK	72	PRO
32	BK	93	GLN
32	BK	108	ARG
33	BL	15	ALA

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Mol	Chain	Res	Type
33	BL	66	PHE
33	BL	88	GLY
34	BM	36	VAL
34	BM	54	THR
34	BM	55	ARG
34	BM	60	GLN
34	BM	69	PRO
34	BM	77	PRO
34	BM	84	LYS
35	BN	117	ASP
36	BO	3	LYS
36	BO	112	GLU
37	BP	25	VAL
37	BP	33	GLU
37	BP	50	ARG
37	BP	93	LYS
38	BQ	86	SER
39	BR	55	ASP
40	BS	3	THR
40	BS	14	ALA
40	BS	19	LEU
40	BS	64	ALA
41	BT	27	SER
41	BT	29	THR
41	BT	38	ALA
41	BT	69	ARG
41	BT	86	THR
41	BT	88	LYS
42	BU	6	ARG
42	BU	18	LYS
42	BU	63	ALA
42	BU	88	ASP
42	BU	98	ASN
44	BW	9	THR
44	BW	14	ASP
44	BW	30	VAL
44	BW	50	VAL
45	BX	53	LYS
46	BY	22	LEU
46	BY	23	ARG
47	BZ	3	THR
48	B0	35	GLU

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Mol	Chain	Res	Type
48	B0	54	ILE
50	B2	44	VAL
51	B3	6	VAL
52	B4	4	ARG
52	B4	16	ILE
2	CB	81	ASP
2	CB	84	LEU
2	CB	102	ASN
2	CB	129	THR
2	CB	150	ILE
3	CC	24	ASN
3	CC	59	PRO
3	CC	63	ILE
3	CC	178	ARG
4	CD	24	VAL
4	CD	26	ALA
4	CD	29	THR
4	CD	35	GLN
4	CD	47	LEU
4	CD	80	ARG
4	CD	82	LYS
4	CD	187	ARG
4	CD	191	SER
4	CD	192	ALA
5	CE	31	SER
5	CE	69	ASN
5	CE	75	LEU
6	CF	68	GLN
6	CF	98	GLU
6	CF	99	ALA
54	CG	29	LEU
54	CG	30	MET
54	CG	31	VAL
54	CG	52	ARG
8	CH	58	LEU
9	CI	54	VAL
9	CI	71	ILE
10	CJ	87	LEU
11	CK	14	GLN
11	CK	88	PRO
11	CK	90	PRO
11	CK	126	ARG

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Mol	Chain	Res	Type
11	CK	127	ARG
12	CL	16	ALA
12	CL	34	THR
12	CL	47	ALA
55	CM	4	ALA
14	CN	21	ALA
14	CN	53	ASP
14	CN	95	LEU
56	CP	63	GLN
17	CQ	52	CYS
20	CT	3	ILE
20	CT	43	LYS
20	CT	65	LEU
20	CT	82	ILE
21	CU	4	LYS
21	CU	15	LEU
21	CU	23	GLU
21	CU	32	ARG
21	CU	35	GLU
21	CU	36	PHE
24	DC	9	SER
24	DC	28	PRO
24	DC	186	ASP
24	DC	232	GLY
24	DC	239	PHE
24	DC	269	ARG
25	DD	11	MET
25	DD	14	ILE
25	DD	74	GLU
25	DD	102	ALA
25	DD	118	PHE
25	DD	119	ALA
25	DD	136	ASN
25	DD	150	GLN
25	DD	162	ALA
25	DD	170	VAL
25	DD	194	PRO
26	DE	41	GLN
26	DE	62	GLN
26	DE	99	LYS
26	DE	116	ASP
26	DE	153	LEU

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Mol	Chain	Res	Type
58	DF	10	GLU
58	DF	12	VAL
58	DF	32	LYS
58	DF	36	ASN
58	DF	42	ALA
58	DF	76	PHE
58	DF	112	ASP
58	DF	114	ARG
58	DF	120	SER
58	DF	122	ASP
58	DF	137	PHE
28	DG	49	LEU
28	DG	59	ASP
28	DG	85	LYS
28	DG	86	LEU
28	DG	95	ALA
28	DG	149	ALA
28	DG	165	ASP
29	DH	3	VAL
29	DH	9	VAL
29	DH	10	ALA
29	DH	61	VAL
29	DH	76	GLU
29	DH	98	ASP
29	DH	102	ALA
30	DI	22	PRO
30	DI	23	VAL
30	DI	29	GLN
30	DI	52	LEU
30	DI	58	ILE
30	DI	69	VAL
31	DJ	45	THR
31	DJ	81	ILE
31	DJ	87	ALA
31	DJ	95	ARG
32	DK	16	ALA
32	DK	49	ARG
32	DK	71	ARG
32	DK	120	PRO
33	DL	4	ASN
33	DL	41	ARG
33	DL	82	LEU

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Mol	Chain	Res	Type
33	DL	85	VAL
33	DL	89	VAL
33	DL	100	ILE
33	DL	101	ILE
33	DL	111	ILE
34	DM	2	LEU
34	DM	72	PRO
34	DM	73	ILE
34	DM	77	PRO
34	DM	135	VAL
35	DN	8	ARG
35	DN	10	LEU
35	DN	104	ALA
36	DO	90	VAL
37	DP	25	VAL
37	DP	50	ARG
37	DP	83	ILE
37	DP	94	ALA
37	DP	112	ARG
40	DS	28	LYS
40	DS	33	LEU
40	DS	40	ASN
40	DS	72	THR
41	DT	14	PRO
41	DT	15	HIS
41	DT	20	ALA
41	DT	29	THR
41	DT	39	THR
41	DT	88	LYS
42	DU	8	ASP
42	DU	65	GLN
42	DU	82	VAL
42	DU	92	VAL
42	DU	96	LYS
42	DU	97	SER
43	DV	56	PHE
44	DW	9	THR
44	DW	34	SER
44	DW	35	ILE
44	DW	46	ALA
44	DW	71	LYS
45	DX	2	ARG

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Mol	Chain	Res	Type
46	DY	22	LEU
47	DZ	4	ILE
47	DZ	13	ILE
48	D0	54	ILE
50	D2	24	THR
51	D3	29	ARG
51	D3	51	LYS
52	D4	20	ASP
2	AB	17	HIS
2	AB	18	GLN
2	AB	33	ALA
2	AB	63	LYS
2	AB	72	LYS
2	AB	125	PHE
2	AB	140	LEU
2	AB	163	ILE
2	AB	189	ASN
2	AB	210	THR
2	AB	219	THR
3	AC	17	TRP
3	AC	148	ILE
3	AC	191	THR
4	AD	23	GLY
4	AD	29	THR
4	AD	35	GLN
4	AD	147	LYS
4	AD	152	SER
4	AD	159	GLU
4	AD	174	ALA
5	AE	98	ALA
5	AE	121	ASN
5	AE	133	ILE
5	AE	137	ARG
6	AF	54	LEU
6	AF	86	ARG
6	AF	91	ARG
7	AG	6	ILE
8	AH	48	PHE
8	AH	88	LYS
8	AH	95	MET
9	AI	71	ILE
9	AI	119	LYS

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Mol	Chain	Res	Type
10	AJ	33	GLY
10	AJ	74	VAL
10	AJ	101	SER
11	AK	97	ARG
12	AL	22	ALA
12	AL	117	GLY
13	AM	4	ALA
13	AM	84	CYS
14	AN	14	ALA
14	AN	81	ILE
14	AN	91	GLU
15	AO	72	LYS
15	AO	74	VAL
16	AP	10	GLY
17	AQ	11	VAL
17	AQ	14	ASP
17	AQ	49	ASN
17	AQ	50	ASN
17	AQ	52	CYS
17	AQ	70	LYS
17	AQ	75	VAL
18	AR	47	ARG
19	AS	27	LYS
21	AU	8	ASN
24	BC	35	LYS
24	BC	59	GLN
24	BC	68	ARG
25	BD	71	ALA
25	BD	107	VAL
25	BD	144	GLY
25	BD	173	GLN
25	BD	182	ALA
26	BE	5	LEU
26	BE	6	LYS
26	BE	79	ARG
26	BE	80	SER
26	BE	116	ASP
27	BF	147	ARG
28	BG	9	VAL
28	BG	44	HIS
28	BG	54	ARG
28	BG	60	GLY

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Mol	Chain	Res	Type
28	BG	164	ALA
28	BG	168	VAL
28	BG	170	THR
29	BH	13	GLY
29	BH	34	GLY
29	BH	101	ASP
29	BH	107	GLY
29	BH	121	VAL
29	BH	131	SER
30	BI	30	GLN
30	BI	105	LEU
31	BJ	2	LYS
31	BJ	14	ASP
31	BJ	44	TYR
31	BJ	81	ILE
31	BJ	111	LYS
31	BJ	124	VAL
32	BK	48	PRO
32	BK	50	GLY
32	BK	118	LEU
33	BL	29	LYS
33	BL	81	ASP
33	BL	111	ILE
33	BL	114	GLY
34	BM	2	LEU
34	BM	14	LYS
34	BM	56	ALA
34	BM	110	GLU
35	BN	59	SER
35	BN	101	GLY
35	BN	102	PHE
36	BO	22	GLY
36	BO	113	ALA
37	BP	2	ASN
37	BP	51	ASN
37	BP	92	ARG
37	BP	104	GLY
37	BP	105	LYS
38	BQ	4	LYS
38	BQ	87	VAL
38	BQ	91	ARG
38	BQ	97	ILE

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Mol	Chain	Res	Type
39	BR	27	ILE
40	BS	96	ILE
41	BT	16	VAL
41	BT	19	LYS
41	BT	39	THR
41	BT	70	HIS
41	BT	83	ALA
42	BU	38	ILE
42	BU	51	LEU
42	BU	83	GLY
42	BU	92	VAL
43	BV	69	GLU
44	BW	18	LYS
44	BW	27	GLY
44	BW	29	SER
44	BW	33	GLY
44	BW	34	SER
44	BW	36	ILE
44	BW	40	ARG
44	BW	48	ALA
44	BW	51	GLY
44	BW	52	CYS
45	BX	2	ARG
45	BX	17	ARG
46	BY	17	GLU
46	BY	24	GLU
48	B0	51	ARG
49	B1	4	ILE
49	B1	51	ALA
51	B3	27	ASN
51	B3	31	ILE
52	B4	8	LYS
52	B4	29	ALA
2	CB	26	MET
2	CB	163	ILE
3	CC	130	ARG
3	CC	140	ALA
3	CC	164	THR
4	CD	25	ARG
4	CD	40	HIS
4	CD	107	GLY
4	CD	188	SER

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Mol	Chain	Res	Type
5	CE	68	ARG
5	CE	113	VAL
5	CE	133	ILE
6	CF	44	ARG
6	CF	82	ASP
6	CF	85	ILE
6	CF	92	THR
54	CG	10	LYS
54	CG	113	LYS
8	CH	2	MET
8	CH	29	SER
8	CH	30	LYS
8	CH	119	GLY
9	CI	11	ARG
9	CI	44	ARG
9	CI	58	GLU
10	CJ	34	ALA
10	CJ	44	THR
10	CJ	46	LYS
10	CJ	57	VAL
10	CJ	93	ALA
11	CK	70	ALA
11	CK	91	GLY
12	CL	8	ARG
12	CL	43	LYS
12	CL	88	ASP
55	CM	11	HIS
55	CM	14	ALA
55	CM	45	SER
55	CM	49	GLU
55	CM	65	GLU
14	CN	99	SER
56	CP	31	ARG
56	CP	42	ILE
56	CP	53	ASP
56	CP	78	VAL
17	CQ	12	VAL
17	CQ	68	LYS
17	CQ	69	THR
17	CQ	78	VAL
18	CR	70	THR
19	CS	4	LEU

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Mol	Chain	Res	Type
19	CS	46	LEU
21	CU	8	ASN
21	CU	9	GLU
21	CU	11	PHE
21	CU	34	ARG
21	CU	38	GLU
24	DC	3	VAL
24	DC	15	VAL
24	DC	37	SER
24	DC	69	ASN
24	DC	94	LEU
24	DC	121	ALA
24	DC	140	VAL
24	DC	141	HIS
25	DD	31	ALA
25	DD	77	ARG
25	DD	93	GLY
25	DD	95	SER
25	DD	143	PRO
25	DD	164	GLN
25	DD	176	ASP
25	DD	197	THR
26	DE	24	ASN
26	DE	55	SER
26	DE	80	SER
26	DE	127	GLU
26	DE	148	ILE
26	DE	166	LYS
26	DE	187	VAL
58	DF	8	LYS
58	DF	41	GLU
58	DF	43	ILE
58	DF	67	THR
58	DF	113	PHE
58	DF	133	GLU
58	DF	138	PRO
58	DF	145	VAL
58	DF	148	VAL
28	DG	80	GLU
28	DG	83	THR
28	DG	93	TYR
28	DG	123	GLU

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Mol	Chain	Res	Type
28	DG	125	PRO
28	DG	150	TYR
28	DG	164	ALA
29	DH	66	ASN
29	DH	72	ILE
29	DH	86	ASP
29	DH	143	ILE
29	DH	144	VAL
30	DI	9	LYS
30	DI	19	PRO
30	DI	30	GLN
30	DI	62	ALA
30	DI	140	GLU
31	DJ	44	TYR
31	DJ	112	GLY
31	DJ	113	PRO
32	DK	2	ILE
32	DK	18	ARG
32	DK	35	VAL
32	DK	46	ALA
32	DK	72	PRO
32	DK	88	ASN
32	DK	104	THR
32	DK	110	GLU
33	DL	48	ARG
33	DL	66	PHE
33	DL	88	GLY
33	DL	99	ASN
34	DM	14	LYS
34	DM	35	ALA
34	DM	95	LEU
34	DM	111	GLU
35	DN	2	ARG
35	DN	13	ASN
35	DN	30	ARG
35	DN	63	ARG
35	DN	82	GLU
35	DN	91	ALA
35	DN	105	GLY
36	DO	27	VAL
36	DO	43	ASN
36	DO	72	ALA

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Mol	Chain	Res	Type
37	DP	33	GLU
37	DP	51	ASN
37	DP	85	VAL
37	DP	108	ARG
38	DQ	88	GLU
39	DR	3	ALA
39	DR	40	MET
39	DR	98	ILE
40	DS	3	THR
41	DT	33	LYS
41	DT	56	GLU
41	DT	68	LYS
42	DU	17	ASP
42	DU	34	ILE
42	DU	52	ASN
42	DU	87	GLU
42	DU	88	ASP
42	DU	95	PHE
43	DV	58	SER
44	DW	18	LYS
44	DW	33	GLY
44	DW	36	ILE
44	DW	53	GLY
44	DW	57	THR
44	DW	83	ALA
45	DX	41	SER
46	DY	9	LYS
46	DY	37	LEU
46	DY	46	VAL
48	D0	32	THR
48	D0	55	ALA
49	D1	4	ILE
49	D1	35	LEU
49	D1	36	LYS
50	D2	40	ALA
51	D3	22	LYS
52	D4	4	ARG
2	AB	22	TRP
2	AB	171	ALA
3	AC	88	LYS
3	AC	192	TYR
4	AD	33	ILE

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Mol	Chain	Res	Type
4	AD	150	LYS
4	AD	196	GLU
5	AE	11	GLN
5	AE	23	THR
5	AE	149	PRO
5	AE	154	ALA
6	AF	63	ASN
7	AG	8	GLN
8	AH	66	GLN
8	AH	82	LEU
9	AI	90	ASP
9	AI	120	ALA
10	AJ	30	LYS
10	AJ	58	ASN
11	AK	13	LYS
11	AK	88	PRO
11	AK	98	ALA
13	AM	26	LYS
14	AN	16	ALA
14	AN	63	CYS
15	AO	16	ARG
16	AP	12	LYS
17	AQ	15	LYS
19	AS	5	LYS
19	AS	63	ASP
20	AT	72	ALA
20	AT	74	HIS
24	BC	109	LEU
24	BC	157	ALA
24	BC	184	GLU
24	BC	196	ASN
24	BC	204	LEU
25	BD	91	THR
25	BD	118	PHE
25	BD	170	VAL
25	BD	175	LEU
26	BE	11	ALA
26	BE	142	ALA
27	BF	11	VAL
27	BF	111	ARG
27	BF	128	SER
28	BG	30	GLY

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Mol	Chain	Res	Type
29	BH	15	LEU
29	BH	29	PHE
29	BH	106	ALA
29	BH	125	THR
30	BI	59	THR
31	BJ	39	LYS
31	BJ	73	VAL
32	BK	73	ASP
32	BK	92	GLU
32	BK	119	ALA
34	BM	35	ALA
34	BM	43	ALA
35	BN	2	ARG
35	BN	118	ARG
37	BP	103	THR
37	BP	113	LEU
38	BQ	88	GLU
39	BR	51	VAL
42	BU	45	GLN
42	BU	85	ARG
42	BU	87	GLU
42	BU	96	LYS
44	BW	23	LYS
44	BW	42	THR
44	BW	74	LYS
45	BX	34	SER
46	BY	57	LEU
48	B0	34	GLY
49	B1	28	THR
2	CB	128	LEU
2	CB	177	ASN
2	CB	205	ALA
2	CB	208	ALA
3	CC	145	ALA
3	CC	173	PRO
3	CC	180	ASP
3	CC	190	THR
4	CD	4	LEU
4	CD	33	ILE
4	CD	39	GLN
5	CE	43	GLY
5	CE	100	GLU

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Mol	Chain	Res	Type
5	CE	144	GLU
6	CF	94	HIS
54	CG	36	SER
54	CG	62	GLU
54	CG	133	ALA
54	CG	134	VAL
8	CH	34	ALA
8	CH	117	GLN
9	CI	52	GLU
9	CI	55	ASP
10	CJ	61	ALA
10	CJ	74	VAL
11	CK	118	ASN
12	CL	76	HIS
12	CL	98	ARG
55	CM	46	GLU
55	CM	76	ILE
55	CM	93	GLY
14	CN	69	PRO
15	CO	45	HIS
15	CO	87	ARG
56	CP	47	GLU
17	CQ	56	ASP
17	CQ	76	ARG
20	CT	12	GLN
20	CT	72	ALA
21	CU	7	GLU
24	DC	13	ARG
24	DC	36	ASN
24	DC	38	LYS
24	DC	43	ASN
24	DC	98	GLY
24	DC	122	ALA
24	DC	196	ASN
24	DC	237	ARG
25	DD	43	ASP
25	DD	44	GLY
25	DD	48	ILE
25	DD	112	THR
25	DD	122	VAL
25	DD	167	ASN
25	DD	175	LEU

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Mol	Chain	Res	Type
26	DE	45	ALA
26	DE	86	ALA
26	DE	165	HIS
26	DE	188	MET
58	DF	37	MET
58	DF	116	LEU
28	DG	9	VAL
28	DG	11	PRO
28	DG	39	ALA
28	DG	40	VAL
28	DG	45	ALA
28	DG	136	ASP
28	DG	169	ARG
29	DH	97	ARG
30	DI	51	GLY
30	DI	83	ALA
30	DI	87	SER
30	DI	119	ALA
31	DJ	5	THR
31	DJ	6	ALA
31	DJ	43	GLU
32	DK	14	SER
32	DK	93	GLN
32	DK	103	VAL
33	DL	15	ALA
33	DL	93	ASN
34	DM	16	ARG
34	DM	69	PRO
34	DM	70	ASP
35	DN	15	SER
35	DN	71	ARG
35	DN	102	PHE
36	DO	3	LYS
36	DO	42	PRO
37	DP	42	PHE
37	DP	93	LYS
38	DQ	5	ARG
38	DQ	32	ARG
38	DQ	45	ALA
38	DQ	58	GLN
38	DQ	86	SER
38	DQ	87	VAL

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Mol	Chain	Res	Type
38	DQ	91	ARG
39	DR	29	THR
39	DR	89	HIS
40	DS	32	ALA
41	DT	19	LYS
42	DU	40	LEU
42	DU	54	PRO
42	DU	89	GLY
42	DU	101	THR
43	DV	33	GLY
43	DV	88	HIS
44	DW	25	PHE
44	DW	39	GLN
45	DX	34	SER
45	DX	63	ILE
46	DY	2	LYS
47	DZ	30	ARG
47	DZ	32	GLY
50	D2	43	THR
52	D4	3	VAL
52	D4	23	ILE
2	AB	128	LEU
2	AB	141	GLU
2	AB	169	HIS
4	AD	22	SER
4	AD	124	VAL
4	AD	172	VAL
4	AD	197	HIS
5	AE	50	GLY
5	AE	77	ASN
6	AF	99	ALA
9	AI	37	TYR
9	AI	56	MET
10	AJ	35	GLN
10	AJ	36	VAL
11	AK	40	ALA
11	AK	63	GLN
11	AK	118	ASN
12	AL	86	VAL
12	AL	121	PRO
13	AM	3	ILE
14	AN	43	ALA

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Mol	Chain	Res	Type
14	AN	44	VAL
14	AN	80	ARG
15	AO	45	HIS
17	AQ	13	SER
19	AS	22	VAL
19	AS	34	SER
19	AS	48	ILE
20	AT	19	HIS
24	BC	30	ALA
24	BC	37	SER
24	BC	200	MET
25	BD	148	GLN
26	BE	69	ARG
26	BE	86	ALA
28	BG	144	ALA
28	BG	153	PRO
29	BH	16	GLY
29	BH	68	ARG
29	BH	97	ARG
30	BI	6	ALA
30	BI	83	ALA
30	BI	89	SER
31	BJ	65	THR
31	BJ	98	GLU
32	BK	3	GLN
32	BK	5	GLN
32	BK	46	ALA
32	BK	75	SER
33	BL	54	GLN
34	BM	79	ALA
35	BN	3	HIS
36	BO	56	LYS
36	BO	105	ALA
37	BP	15	ASP
38	BQ	39	ILE
39	BR	91	GLN
41	BT	36	LYS
41	BT	68	LYS
41	BT	84	TYR
44	BW	10	ARG
44	BW	15	SER
44	BW	25	PHE

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Mol	Chain	Res	Type
44	BW	76	ARG
45	BX	70	LEU
46	BY	9	LYS
46	BY	44	LYS
51	B3	22	LYS
2	CB	18	GLN
2	CB	73	ARG
2	CB	203	ASP
2	CB	222	GLU
3	CC	128	MET
3	CC	167	TYR
3	CC	188	ALA
4	CD	37	PRO
4	CD	50	TYR
4	CD	83	GLY
4	CD	119	HIS
4	CD	166	LYS
5	CE	38	VAL
5	CE	111	ARG
5	CE	112	ALA
8	CH	57	GLU
8	CH	66	GLN
9	CI	119	LYS
10	CJ	36	VAL
10	CJ	82	LYS
10	CJ	83	THR
11	CK	92	ARG
55	CM	42	VAL
55	CM	77	LYS
15	CO	13	GLU
56	CP	46	LYS
56	CP	49	GLY
56	CP	54	LEU
17	CQ	4	ILE
18	CR	56	ARG
19	CS	3	SER
19	CS	7	GLY
19	CS	79	TYR
20	CT	68	LYS
24	DC	34	GLU
24	DC	45	ASN
24	DC	59	GLN

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Mol	Chain	Res	Type
24	DC	190	THR
25	DD	99	GLU
25	DD	107	VAL
25	DD	173	GLN
26	DE	22	ASP
26	DE	63	LYS
26	DE	69	ARG
26	DE	126	VAL
58	DF	94	ARG
28	DG	46	ASP
28	DG	91	VAL
28	DG	117	PRO
28	DG	118	ALA
28	DG	126	THR
29	DH	46	PHE
30	DI	35	MET
31	DJ	25	LEU
31	DJ	39	LYS
31	DJ	65	THR
31	DJ	72	LYS
32	DK	3	GLN
32	DK	5	GLN
32	DK	17	ARG
32	DK	89	ASN
32	DK	98	ARG
33	DL	19	LEU
34	DM	106	ASP
34	DM	110	GLU
35	DN	5	LYS
36	DO	37	ALA
37	DP	20	ARG
37	DP	103	THR
40	DS	65	ASP
41	DT	11	LEU
41	DT	61	LEU
42	DU	6	ARG
42	DU	64	ILE
42	DU	99	SER
44	DW	78	PHE
45	DX	27	ARG
48	D0	53	VAL
49	D1	24	LYS

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Mol	Chain	Res	Type
50	D2	29	GLN
51	D3	3	ILE
52	D4	8	LYS
2	AB	67	LEU
2	AB	209	VAL
3	AC	35	ASP
3	AC	36	PHE
3	AC	65	VAL
3	AC	107	LYS
4	AD	100	VAL
4	AD	166	LYS
5	AE	25	LYS
6	AF	53	LYS
6	AF	56	LYS
6	AF	92	THR
7	AG	95	ARG
8	AH	77	VAL
10	AJ	41	PRO
12	AL	72	ASN
12	AL	77	SER
14	AN	41	TRP
16	AP	42	ILE
16	AP	76	LYS
17	AQ	34	GLY
20	AT	76	ALA
21	AU	36	PHE
24	BC	64	VAL
24	BC	77	VAL
24	BC	256	THR
25	BD	11	MET
25	BD	109	VAL
25	BD	114	LYS
26	BE	45	ALA
26	BE	96	VAL
27	BF	8	LYS
27	BF	9	ASP
27	BF	38	GLY
27	BF	113	PHE
28	BG	2	ARG
28	BG	97	VAL
29	BH	26	ALA
30	BI	3	LYS

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Mol	Chain	Res	Type
30	BI	20	SER
31	BJ	113	PRO
32	BK	6	THR
32	BK	54	LYS
32	BK	114	LYS
33	BL	64	PHE
34	BM	134	THR
35	BN	32	GLU
35	BN	80	PHE
36	BO	77	ALA
37	BP	20	ARG
37	BP	86	LYS
39	BR	28	ALA
39	BR	98	ILE
41	BT	18	GLU
41	BT	55	VAL
41	BT	89	GLU
42	BU	53	GLN
44	BW	47	GLY
44	BW	77	LYS
44	BW	78	PHE
46	BY	46	VAL
47	BZ	34	THR
49	B1	22	THR
49	B1	50	GLU
4	CD	196	GLU
5	CE	29	ILE
5	CE	104	ILE
8	CH	98	LEU
10	CJ	75	ASP
12	CL	33	CYS
17	CQ	81	ALA
19	CS	49	ALA
19	CS	54	ARG
24	DC	106	PRO
24	DC	195	GLY
24	DC	238	ASN
25	DD	106	LYS
25	DD	172	VAL
26	DE	96	VAL
26	DE	129	PRO
58	DF	68	LYS

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Mol	Chain	Res	Type
58	DF	70	ARG
58	DF	82	TYR
58	DF	87	LYS
58	DF	88	VAL
28	DG	53	PRO
28	DG	152	ARG
29	DH	121	VAL
31	DJ	23	LYS
32	DK	6	THR
32	DK	108	ARG
34	DM	20	LEU
35	DN	85	PRO
36	DO	65	THR
37	DP	63	ILE
37	DP	65	ASN
37	DP	113	LEU
38	DQ	90	ASP
39	DR	53	PHE
39	DR	65	ALA
40	DS	37	THR
40	DS	61	ASN
42	DU	33	VAL
43	DV	84	PRO
44	DW	16	GLU
44	DW	23	LYS
44	DW	26	GLY
44	DW	32	ALA
44	DW	41	GLY
49	D1	50	GLU
51	D3	6	VAL
52	D4	16	ILE
2	AB	73	ARG
3	AC	173	PRO
4	AD	36	ALA
5	AE	109	ALA
7	AG	7	GLY
8	AH	26	MET
10	AJ	38	GLY
13	AM	23	GLY
16	AP	78	VAL
21	AU	37	TYR
21	AU	52	VAL

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Mol	Chain	Res	Type
24	BC	167	ASP
25	BD	95	SER
25	BD	181	ASP
26	BE	67	ARG
26	BE	83	VAL
26	BE	188	MET
27	BF	83	PRO
28	BG	16	VAL
28	BG	28	LYS
29	BH	75	LEU
29	BH	82	SER
30	BI	7	TYR
31	BJ	13	ARG
34	BM	26	VAL
34	BM	73	ILE
37	BP	5	LYS
39	BR	53	PHE
39	BR	65	ALA
42	BU	39	ASN
43	BV	15	GLY
44	BW	41	GLY
45	BX	76	LYS
2	CB	101	THR
3	CC	65	VAL
4	CD	27	ILE
9	CI	103	VAL
10	CJ	38	GLY
12	CL	87	LYS
14	CN	56	PRO
17	CQ	31	PRO
24	DC	64	VAL
24	DC	96	LYS
24	DC	204	LEU
25	DD	109	VAL
25	DD	161	MET
26	DE	13	THR
26	DE	60	TRP
58	DF	31	GLU
58	DF	83	PRO
58	DF	175	PRO
28	DG	155	PRO
28	DG	166	GLU

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Mol	Chain	Res	Type
29	DH	124	THR
30	DI	31	GLY
31	DJ	13	ARG
33	DL	62	PRO
33	DL	92	LEU
35	DN	46	ARG
36	DO	8	ILE
36	DO	89	ASP
36	DO	107	ALA
37	DP	109	ILE
38	DQ	23	TYR
39	DR	8	GLY
39	DR	52	PRO
41	DT	53	VAL
41	DT	74	ILE
42	DU	4	ILE
42	DU	12	VAL
42	DU	67	SER
47	DZ	2	LYS
48	D0	17	SER
50	D2	39	ARG
7	AG	79	VAL
11	AK	15	VAL
13	AM	9	PRO
27	BF	61	GLY
28	BG	25	ILE
29	BH	146	VAL
30	BI	97	VAL
34	BM	72	PRO
39	BR	64	VAL
2	CB	200	PRO
4	CD	5	GLY
12	CL	7	VAL
21	CU	26	GLY
24	DC	123	ILE
25	DD	2	ILE
26	DE	73	ILE
29	DH	99	ILE
30	DI	138	VAL
32	DK	119	ALA
38	DQ	6	GLY
38	DQ	39	ILE

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Mol	Chain	Res	Type
40	DS	29	VAL
42	DU	35	VAL
42	DU	49	PRO
2	AB	148	GLY
7	AG	13	PRO
10	AJ	42	LEU
11	AK	73	VAL
12	AL	44	PRO
16	AP	36	VAL
16	AP	49	GLY
20	AT	55	PRO
26	BE	148	ILE
29	BH	80	ILE
29	BH	103	VAL
29	BH	138	VAL
3	CC	77	GLY
3	CC	100	ILE
5	CE	132	PRO
10	CJ	33	GLY
55	CM	50	GLY
21	CU	10	PRO
24	DC	2	VAL
24	DC	246	PRO
31	DJ	96	ARG
37	DP	31	VAL
37	DP	104	GLY
41	DT	16	VAL
42	DU	41	VAL
42	DU	47	PRO
44	DW	30	VAL
5	AE	103	GLY
19	AS	25	GLY
28	BG	110	HIS
29	BH	142	VAL
30	BI	23	VAL
31	BJ	8	PRO
35	BN	60	VAL
40	BS	35	ILE
4	CD	38	GLY
54	CG	13	PRO
31	DJ	56	VAL
32	DK	48	PRO

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Mol	Chain	Res	Type
33	DL	114	GLY
34	DM	36	VAL
37	DP	32	VAL
40	DS	103	ILE
47	DZ	54	VAL
50	D2	38	GLY
2	AB	28	PRO
4	AD	44	LYS
12	AL	41	PRO
30	BI	31	GLY
6	CF	64	VAL
24	DC	72	GLY
24	DC	84	PRO
26	DE	174	GLY
58	DF	125	GLY
31	DJ	73	VAL
31	DJ	83	GLY
34	DM	19	GLY
40	DS	96	ILE
41	DT	47	VAL
43	DV	26	PHE
37	BP	4	ILE
12	CL	117	GLY
28	DG	16	VAL
29	DH	126	GLY
36	DO	58	ILE
38	DQ	7	VAL
43	DV	15	GLY
44	DW	22	VAL

5.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	AB	180/180 (100%)	147 (82%)	33 (18%)	1 7
2	CB	180/180 (100%)	152 (84%)	28 (16%)	2 12

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
3	AC	170/170 (100%)	140 (82%)	30 (18%)	2 8
3	CC	170/170 (100%)	153 (90%)	17 (10%)	7 28
4	AD	172/172 (100%)	142 (83%)	30 (17%)	2 8
4	CD	172/172 (100%)	140 (81%)	32 (19%)	1 7
5	AE	113/113 (100%)	87 (77%)	26 (23%)	1 3
5	CE	113/113 (100%)	92 (81%)	21 (19%)	1 7
6	AF	87/87 (100%)	74 (85%)	13 (15%)	3 13
6	CF	87/87 (100%)	73 (84%)	14 (16%)	2 11
7	AG	124/124 (100%)	109 (88%)	15 (12%)	5 21
8	AH	104/104 (100%)	90 (86%)	14 (14%)	4 17
8	CH	104/104 (100%)	91 (88%)	13 (12%)	4 19
9	AI	105/105 (100%)	87 (83%)	18 (17%)	2 9
9	CI	105/105 (100%)	92 (88%)	13 (12%)	4 20
10	AJ	86/86 (100%)	74 (86%)	12 (14%)	3 16
10	CJ	86/86 (100%)	77 (90%)	9 (10%)	7 26
11	AK	90/90 (100%)	72 (80%)	18 (20%)	1 5
11	CK	90/90 (100%)	77 (86%)	13 (14%)	3 15
12	AL	103/103 (100%)	85 (82%)	18 (18%)	2 8
12	CL	103/103 (100%)	86 (84%)	17 (16%)	2 10
13	AM	92/92 (100%)	88 (96%)	4 (4%)	29 59
14	AN	79/83 (95%)	72 (91%)	7 (9%)	9 32
14	CN	79/83 (95%)	68 (86%)	11 (14%)	3 16
15	AO	76/76 (100%)	67 (88%)	9 (12%)	5 21
15	CO	76/76 (100%)	68 (90%)	8 (10%)	7 26
16	AP	65/65 (100%)	58 (89%)	7 (11%)	6 25
17	AQ	74/74 (100%)	60 (81%)	14 (19%)	1 6
17	CQ	74/74 (100%)	62 (84%)	12 (16%)	2 10
18	AR	48/48 (100%)	46 (96%)	2 (4%)	30 60
18	CR	48/48 (100%)	44 (92%)	4 (8%)	11 35
19	AS	70/70 (100%)	63 (90%)	7 (10%)	7 28
19	CS	70/70 (100%)	63 (90%)	7 (10%)	7 28

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
20	AT	65/65 (100%)	50 (77%)	15 (23%)	1 3
20	CT	65/65 (100%)	55 (85%)	10 (15%)	2 12
21	AU	44/44 (100%)	37 (84%)	7 (16%)	2 11
21	CU	44/44 (100%)	36 (82%)	8 (18%)	1 7
24	BC	216/216 (100%)	166 (77%)	50 (23%)	1 3
24	DC	216/216 (100%)	189 (88%)	27 (12%)	4 19
25	BD	164/164 (100%)	131 (80%)	33 (20%)	1 5
25	DD	164/164 (100%)	139 (85%)	25 (15%)	3 12
26	BE	165/165 (100%)	126 (76%)	39 (24%)	1 2
26	DE	165/165 (100%)	148 (90%)	17 (10%)	7 26
27	BF	148/148 (100%)	124 (84%)	24 (16%)	2 10
28	BG	137/137 (100%)	107 (78%)	30 (22%)	1 3
28	DG	137/137 (100%)	121 (88%)	16 (12%)	5 22
29	BH	114/114 (100%)	96 (84%)	18 (16%)	2 11
29	DH	114/114 (100%)	98 (86%)	16 (14%)	3 16
30	BI	109/109 (100%)	91 (84%)	18 (16%)	2 10
30	DI	109/109 (100%)	103 (94%)	6 (6%)	21 52
31	BJ	116/116 (100%)	84 (72%)	32 (28%)	0 1
31	DJ	116/116 (100%)	103 (89%)	13 (11%)	6 23
32	BK	103/103 (100%)	78 (76%)	25 (24%)	0 2
32	DK	103/103 (100%)	82 (80%)	21 (20%)	1 4
33	BL	102/102 (100%)	71 (70%)	31 (30%)	0 1
33	DL	102/102 (100%)	89 (87%)	13 (13%)	4 19
34	BM	109/109 (100%)	87 (80%)	22 (20%)	1 5
34	DM	109/109 (100%)	103 (94%)	6 (6%)	21 52
35	BN	100/100 (100%)	83 (83%)	17 (17%)	2 9
35	DN	100/100 (100%)	80 (80%)	20 (20%)	1 5
36	BO	86/86 (100%)	71 (83%)	15 (17%)	2 8
36	DO	86/86 (100%)	78 (91%)	8 (9%)	9 30
37	BP	99/99 (100%)	72 (73%)	27 (27%)	0 1
37	DP	99/99 (100%)	89 (90%)	10 (10%)	7 27

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
38	BQ	89/89 (100%)	72 (81%)	17 (19%)	1 6
38	DQ	89/89 (100%)	75 (84%)	14 (16%)	2 12
39	BR	84/84 (100%)	66 (79%)	18 (21%)	1 4
39	DR	84/84 (100%)	71 (84%)	13 (16%)	2 12
40	BS	93/93 (100%)	74 (80%)	19 (20%)	1 4
40	DS	93/93 (100%)	79 (85%)	14 (15%)	3 13
41	BT	80/80 (100%)	59 (74%)	21 (26%)	0 1
41	DT	80/80 (100%)	74 (92%)	6 (8%)	13 39
42	BU	83/83 (100%)	66 (80%)	17 (20%)	1 4
42	DU	83/83 (100%)	73 (88%)	10 (12%)	5 21
43	BV	78/78 (100%)	61 (78%)	17 (22%)	1 3
43	DV	78/78 (100%)	70 (90%)	8 (10%)	7 26
44	BW	59/59 (100%)	41 (70%)	18 (30%)	0 1
44	DW	59/59 (100%)	44 (75%)	15 (25%)	0 2
45	BX	67/67 (100%)	51 (76%)	16 (24%)	0 2
45	DX	67/67 (100%)	57 (85%)	10 (15%)	3 13
46	BY	55/55 (100%)	45 (82%)	10 (18%)	1 7
46	DY	55/55 (100%)	52 (94%)	3 (6%)	21 52
47	BZ	48/48 (100%)	32 (67%)	16 (33%)	0 0
47	DZ	48/48 (100%)	40 (83%)	8 (17%)	2 10
48	B0	47/47 (100%)	34 (72%)	13 (28%)	0 1
48	D0	47/47 (100%)	40 (85%)	7 (15%)	3 13
49	B1	45/45 (100%)	38 (84%)	7 (16%)	2 12
49	D1	45/45 (100%)	41 (91%)	4 (9%)	9 32
50	B2	38/38 (100%)	31 (82%)	7 (18%)	1 7
50	D2	38/38 (100%)	35 (92%)	3 (8%)	12 37
51	B3	51/51 (100%)	45 (88%)	6 (12%)	5 21
51	D3	51/51 (100%)	40 (78%)	11 (22%)	1 4
52	B4	34/34 (100%)	29 (85%)	5 (15%)	3 14
52	D4	34/34 (100%)	29 (85%)	5 (15%)	3 14
54	CG	123/123 (100%)	104 (85%)	19 (15%)	2 12

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
55	CM	91/91 (100%)	81 (89%)	10 (11%)	6 24
56	CP	65/65 (100%)	54 (83%)	11 (17%)	2 9
58	DF	149/149 (100%)	127 (85%)	22 (15%)	3 14
All	All	9331/9339 (100%)	7816 (84%)	1515 (16%)	2 10

All (1515) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	10	LYS
2	AB	13	VAL
2	AB	15	PHE
2	AB	19	THR
2	AB	20	ARG
2	AB	26	MET
2	AB	30	ILE
2	AB	31	PHE
2	AB	36	LYS
2	AB	38	HIS
2	AB	42	LEU
2	AB	53	LEU
2	AB	57	ASN
2	AB	88	GLN
2	AB	90	PHE
2	AB	94	ARG
2	AB	100	LEU
2	AB	102	ASN
2	AB	108	GLN
2	AB	112	ARG
2	AB	117	GLU
2	AB	119	GLN
2	AB	125	PHE
2	AB	128	LEU
2	AB	130	LYS
2	AB	136	ARG
2	AB	143	LEU
2	AB	156	LEU
2	AB	158	ASP
2	AB	170	ILE
2	AB	206	ILE
2	AB	207	ARG
2	AB	221	ARG

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Mol	Chain	Res	Type
3	AC	2	GLN
3	AC	13	ILE
3	AC	17	TRP
3	AC	24	ASN
3	AC	25	THR
3	AC	26	LYS
3	AC	32	LEU
3	AC	35	ASP
3	AC	36	PHE
3	AC	42	LEU
3	AC	50	SER
3	AC	54	ILE
3	AC	58	ARG
3	AC	69	THR
3	AC	79	LYS
3	AC	89	VAL
3	AC	102	ILE
3	AC	106	ARG
3	AC	119	ILE
3	AC	127	VAL
3	AC	139	ASN
3	AC	143	LEU
3	AC	148	ILE
3	AC	156	LEU
3	AC	161	ILE
3	AC	164	THR
3	AC	165	GLU
3	AC	166	TRP
3	AC	184	ASN
3	AC	199	VAL
4	AD	2	ARG
4	AD	11	SER
4	AD	19	PHE
4	AD	25	ARG
4	AD	30	LYS
4	AD	31	CYS
4	AD	43	ARG
4	AD	47	LEU
4	AD	52	VAL
4	AD	54	LEU
4	AD	55	ARG
4	AD	57	LYS

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Mol	Chain	Res	Type
4	AD	58	GLN
4	AD	69	ARG
4	AD	88	ASN
4	AD	99	ASN
4	AD	115	GLN
4	AD	122	ILE
4	AD	127	ARG
4	AD	128	VAL
4	AD	131	ILE
4	AD	137	SER
4	AD	141	VAL
4	AD	147	LYS
4	AD	160	LEU
4	AD	166	LYS
4	AD	170	LEU
4	AD	178	GLU
4	AD	193	ASP
4	AD	205	LYS
5	AE	9	GLU
5	AE	11	GLN
5	AE	14	LEU
5	AE	18	ASN
5	AE	20	VAL
5	AE	24	VAL
5	AE	29	ILE
5	AE	68	ARG
5	AE	75	LEU
5	AE	79	THR
5	AE	81	GLN
5	AE	94	PHE
5	AE	95	MET
5	AE	96	GLN
5	AE	113	VAL
5	AE	115	GLU
5	AE	116	VAL
5	AE	119	VAL
5	AE	121	ASN
5	AE	123	LEU
5	AE	135	VAL
5	AE	136	VAL
5	AE	139	THR
5	AE	141	ASP

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Mol	Chain	Res	Type
5	AE	155	LYS
5	AE	156	ARG
6	AF	7	VAL
6	AF	14	GLN
6	AF	17	GLN
6	AF	24	ARG
6	AF	39	LEU
6	AF	46	GLN
6	AF	54	LEU
6	AF	55	HIS
6	AF	68	GLN
6	AF	69	GLU
6	AF	77	THR
6	AF	84	VAL
6	AF	86	ARG
7	AG	3	ARG
7	AG	6	ILE
7	AG	8	GLN
7	AG	12	LEU
7	AG	22	LEU
7	AG	37	THR
7	AG	47	GLU
7	AG	62	GLU
7	AG	83	THR
7	AG	85	GLN
7	AG	93	VAL
7	AG	105	GLU
7	AG	117	LEU
7	AG	123	LEU
7	AG	143	MET
8	AH	20	ASN
8	AH	21	LYS
8	AH	64	TYR
8	AH	66	GLN
8	AH	72	GLU
8	AH	76	ARG
8	AH	79	ARG
8	AH	82	LEU
8	AH	86	LYS
8	AH	89	ASP
8	AH	98	LEU
8	AH	110	MET

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Mol	Chain	Res	Type
8	AH	120	LEU
8	AH	124	ILE
9	AI	4	GLN
9	AI	21	LYS
9	AI	35	GLU
9	AI	37	TYR
9	AI	44	ARG
9	AI	47	VAL
9	AI	48	ARG
9	AI	54	VAL
9	AI	56	MET
9	AI	67	LYS
9	AI	86	LEU
9	AI	87	MET
9	AI	88	GLU
9	AI	105	ARG
9	AI	115	VAL
9	AI	125	GLN
9	AI	126	PHE
9	AI	128	LYS
10	AJ	5	ARG
10	AJ	22	THR
10	AJ	32	THR
10	AJ	35	GLN
10	AJ	44	THR
10	AJ	48	ARG
10	AJ	50	THR
10	AJ	59	LYS
10	AJ	70	HIS
10	AJ	73	LEU
10	AJ	89	ARG
10	AJ	96	VAL
11	AK	17	ASP
11	AK	27	ASN
11	AK	30	ILE
11	AK	51	PHE
11	AK	55	ARG
11	AK	64	VAL
11	AK	76	TYR
11	AK	78	ILE
11	AK	82	GLU
11	AK	96	ILE

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Mol	Chain	Res	Type
11	AK	100	ASN
11	AK	106	ILE
11	AK	111	ASP
11	AK	118	ASN
11	AK	124	LYS
11	AK	125	LYS
11	AK	127	ARG
11	AK	128	VAL
12	AL	3	VAL
12	AL	17	LYS
12	AL	18	SER
12	AL	26	CYS
12	AL	34	THR
12	AL	35	ARG
12	AL	43	LYS
12	AL	49	ARG
12	AL	51	VAL
12	AL	63	THR
12	AL	73	LEU
12	AL	74	GLN
12	AL	82	ARG
12	AL	87	LYS
12	AL	88	ASP
12	AL	94	TYR
12	AL	101	LEU
12	AL	109	ARG
13	AM	6	ILE
13	AM	7	ASN
13	AM	53	ASP
13	AM	106	ARG
14	AN	3	GLN
14	AN	27	LYS
14	AN	58	ARG
14	AN	59	GLN
14	AN	61	ASN
14	AN	83	VAL
14	AN	96	LYS
15	AO	16	ARG
15	AO	34	GLN
15	AO	57	ARG
15	AO	63	ARG
15	AO	65	LEU

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Mol	Chain	Res	Type
15	AO	66	LEU
15	AO	67	ASP
15	AO	84	LEU
15	AO	86	LEU
16	AP	6	LEU
16	AP	19	VAL
16	AP	28	ARG
16	AP	35	ARG
16	AP	36	VAL
16	AP	46	LYS
16	AP	55	ASP
17	AQ	3	LYS
17	AQ	16	MET
17	AQ	20	ILE
17	AQ	21	VAL
17	AQ	28	VAL
17	AQ	29	LYS
17	AQ	37	ILE
17	AQ	49	ASN
17	AQ	51	GLU
17	AQ	54	ILE
17	AQ	64	ARG
17	AQ	74	LEU
17	AQ	75	VAL
17	AQ	80	LYS
18	AR	33	THR
18	AR	54	LEU
19	AS	42	ASN
19	AS	54	ARG
19	AS	55	GLN
19	AS	60	PHE
19	AS	61	VAL
19	AS	64	GLU
19	AS	79	TYR
20	AT	2	ASN
20	AT	4	LYS
20	AT	11	ILE
20	AT	26	MET
20	AT	27	MET
20	AT	33	LYS
20	AT	35	TYR
20	AT	38	ILE

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Mol	Chain	Res	Type
20	AT	42	ASP
20	AT	48	LYS
20	AT	53	MET
20	AT	67	HIS
20	AT	75	LYS
20	AT	77	ASN
20	AT	84	LYS
21	AU	4	LYS
21	AU	12	ASP
21	AU	15	LEU
21	AU	18	PHE
21	AU	33	ARG
21	AU	37	TYR
21	AU	42	THR
24	BC	12	ARG
24	BC	20	ASN
24	BC	27	LYS
24	BC	35	LYS
24	BC	38	LYS
24	BC	43	ASN
24	BC	49	THR
24	BC	53	ILE
24	BC	71	ASP
24	BC	73	ILE
24	BC	77	VAL
24	BC	85	ASN
24	BC	90	ILE
24	BC	93	VAL
24	BC	103	ILE
24	BC	104	LEU
24	BC	109	LEU
24	BC	110	LYS
24	BC	114	GLN
24	BC	115	ILE
24	BC	120	ASP
24	BC	123	ILE
24	BC	133	ASN
24	BC	142	ASN
24	BC	155	ARG
24	BC	163	ILE
24	BC	164	VAL
24	BC	166	ARG

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Mol	Chain	Res	Type
24	BC	171	VAL
24	BC	172	THR
24	BC	173	LEU
24	BC	175	LEU
24	BC	176	ARG
24	BC	190	THR
24	BC	193	GLU
24	BC	202	ARG
24	BC	203	VAL
24	BC	213	ARG
24	BC	215	VAL
24	BC	216	ARG
24	BC	222	THR
24	BC	224	MET
24	BC	225	ASN
24	BC	227	VAL
24	BC	250	GLN
24	BC	252	LYS
24	BC	254	LYS
24	BC	261	ARG
24	BC	262	THR
24	BC	268	ARG
25	BD	4	LEU
25	BD	14	ILE
25	BD	38	LYS
25	BD	43	ASP
25	BD	45	TYR
25	BD	49	GLN
25	BD	51	THR
25	BD	61	THR
25	BD	73	VAL
25	BD	89	GLU
25	BD	90	PHE
25	BD	91	THR
25	BD	95	SER
25	BD	98	VAL
25	BD	101	PHE
25	BD	114	LYS
25	BD	118	PHE
25	BD	124	ARG
25	BD	131	ASP
25	BD	141	ARG

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Mol	Chain	Res	Type
25	BD	142	VAL
25	BD	146	ILE
25	BD	150	GLN
25	BD	151	THR
25	BD	159	LYS
25	BD	170	VAL
25	BD	171	THR
25	BD	176	ASP
25	BD	177	VAL
25	BD	183	GLU
25	BD	197	THR
25	BD	201	LEU
25	BD	207	VAL
26	BE	5	LEU
26	BE	12	LEU
26	BE	14	VAL
26	BE	18	THR
26	BE	21	ARG
26	BE	43	THR
26	BE	44	ARG
26	BE	48	THR
26	BE	61	ARG
26	BE	65	THR
26	BE	69	ARG
26	BE	72	SER
26	BE	77	ILE
26	BE	78	TRP
26	BE	80	SER
26	BE	84	THR
26	BE	90	GLN
26	BE	91	ASP
26	BE	108	ILE
26	BE	109	LEU
26	BE	113	VAL
26	BE	116	ASP
26	BE	118	LEU
26	BE	119	ILE
26	BE	121	VAL
26	BE	123	LYS
26	BE	124	PHE
26	BE	127	GLU
26	BE	132	LYS

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Mol	Chain	Res	Type
26	BE	136	GLN
26	BE	146	VAL
26	BE	147	LEU
26	BE	153	LEU
26	BE	170	ARG
26	BE	171	ASP
26	BE	176	ASP
26	BE	189	THR
26	BE	198	GLU
26	BE	200	LEU
27	BF	3	LEU
27	BF	8	LYS
27	BF	9	ASP
27	BF	12	VAL
27	BF	34	THR
27	BF	35	LEU
27	BF	36	ASN
27	BF	43	ILE
27	BF	46	LYS
27	BF	65	LEU
27	BF	80	GLN
27	BF	90	LEU
27	BF	93	GLU
27	BF	103	ILE
27	BF	109	ARG
27	BF	114	ARG
27	BF	132	ARG
27	BF	134	GLN
27	BF	146	ASP
27	BF	154	THR
27	BF	157	THR
27	BF	163	GLU
27	BF	166	ARG
27	BF	168	LEU
28	BG	2	ARG
28	BG	3	VAL
28	BG	8	VAL
28	BG	23	ILE
28	BG	29	ASN
28	BG	32	LEU
28	BG	34	ARG
28	BG	35	THR

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Mol	Chain	Res	Type
28	BG	37	ASN
28	BG	40	VAL
28	BG	50	THR
28	BG	55	ASP
28	BG	59	ASP
28	BG	68	ARG
28	BG	72	ASN
28	BG	80	GLU
28	BG	84	LYS
28	BG	86	LEU
28	BG	88	LEU
28	BG	101	VAL
28	BG	112	VAL
28	BG	115	GLN
28	BG	116	LEU
28	BG	120	ILE
28	BG	123	GLU
28	BG	131	VAL
28	BG	132	LEU
28	BG	165	ASP
28	BG	170	THR
28	BG	174	LYS
29	BH	3	VAL
29	BH	6	LEU
29	BH	12	LEU
29	BH	14	SER
29	BH	17	ASP
29	BH	18	GLN
29	BH	28	ASN
29	BH	31	VAL
29	BH	43	ASN
29	BH	46	PHE
29	BH	50	ARG
29	BH	54	LEU
29	BH	68	ARG
29	BH	75	LEU
29	BH	83	LYS
29	BH	96	THR
29	BH	104	THR
29	BH	135	HIS
30	BI	2	LYS
30	BI	10	LEU

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Mol	Chain	Res	Type
30	BI	11	GLN
30	BI	12	VAL
30	BI	23	VAL
30	BI	30	GLN
30	BI	37	PHE
30	BI	39	LYS
30	BI	49	GLU
30	BI	61	TYR
30	BI	71	LYS
30	BI	81	LYS
30	BI	86	LYS
30	BI	95	ASP
30	BI	107	GLU
30	BI	124	MET
30	BI	126	ARG
30	BI	135	MET
31	BJ	1	MET
31	BJ	2	LYS
31	BJ	3	THR
31	BJ	4	PHE
31	BJ	5	THR
31	BJ	7	LYS
31	BJ	17	VAL
31	BJ	24	THR
31	BJ	25	LEU
31	BJ	30	THR
31	BJ	34	ARG
31	BJ	36	LEU
31	BJ	40	HIS
31	BJ	44	TYR
31	BJ	54	ILE
31	BJ	55	ILE
31	BJ	57	LEU
31	BJ	64	VAL
31	BJ	65	THR
31	BJ	67	ASN
31	BJ	69	ARG
31	BJ	72	LYS
31	BJ	84	ILE
31	BJ	86	GLN
31	BJ	88	THR
31	BJ	103	ILE

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Mol	Chain	Res	Type
31	BJ	109	LEU
31	BJ	111	LYS
31	BJ	129	GLU
31	BJ	138	GLN
31	BJ	139	VAL
31	BJ	140	LEU
32	BK	2	ILE
32	BK	8	LEU
32	BK	10	VAL
32	BK	13	ASN
32	BK	18	ARG
32	BK	21	CYS
32	BK	23	LYS
32	BK	25	LEU
32	BK	30	ARG
32	BK	47	ILE
32	BK	51	LYS
32	BK	52	VAL
32	BK	58	LEU
32	BK	69	VAL
32	BK	73	ASP
32	BK	88	ASN
32	BK	89	ASN
32	BK	91	SER
32	BK	93	GLN
32	BK	95	ILE
32	BK	99	ILE
32	BK	105	ARG
32	BK	111	LYS
32	BK	114	LYS
32	BK	115	ILE
33	BL	3	LEU
33	BL	4	ASN
33	BL	6	LEU
33	BL	7	SER
33	BL	12	SER
33	BL	14	LYS
33	BL	19	LEU
33	BL	21	ARG
33	BL	27	LEU
33	BL	30	THR
33	BL	33	ARG

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Mol	Chain	Res	Type
33	BL	35	HIS
33	BL	46	VAL
33	BL	47	ARG
33	BL	55	MET
33	BL	61	LEU
33	BL	66	PHE
33	BL	74	THR
33	BL	80	SER
33	BL	82	LEU
33	BL	93	ASN
33	BL	94	THR
33	BL	99	ASN
33	BL	101	ILE
33	BL	103	ILE
33	BL	104	GLN
33	BL	111	ILE
33	BL	112	LEU
33	BL	115	GLU
33	BL	118	THR
33	BL	122	VAL
34	BM	2	LEU
34	BM	3	GLN
34	BM	5	LYS
34	BM	6	ARG
34	BM	8	LYS
34	BM	10	ARG
34	BM	13	HIS
34	BM	24	THR
34	BM	25	ASP
34	BM	27	SER
34	BM	33	LEU
34	BM	36	VAL
34	BM	70	ASP
34	BM	75	GLU
34	BM	80	VAL
34	BM	90	GLU
34	BM	96	ILE
34	BM	97	GLN
34	BM	101	VAL
34	BM	110	GLU
34	BM	115	GLU
34	BM	134	THR

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Mol	Chain	Res	Type
35	BN	2	ARG
35	BN	4	ARG
35	BN	8	ARG
35	BN	15	SER
35	BN	23	ASN
35	BN	33	ILE
35	BN	35	LYS
35	BN	38	LEU
35	BN	69	ARG
35	BN	71	ARG
35	BN	72	ASP
35	BN	75	ILE
35	BN	83	LEU
35	BN	97	ILE
35	BN	116	VAL
35	BN	118	ARG
35	BN	120	GLU
36	BO	8	ILE
36	BO	9	ARG
36	BO	17	LYS
36	BO	31	THR
36	BO	36	TYR
36	BO	39	VAL
36	BO	48	LEU
36	BO	65	THR
36	BO	80	GLU
36	BO	83	LEU
36	BO	84	GLU
36	BO	94	ARG
36	BO	111	ARG
36	BO	112	GLU
36	BO	116	GLN
37	BP	3	ILE
37	BP	6	GLN
37	BP	14	GLN
37	BP	16	VAL
37	BP	18	SER
37	BP	19	PHE
37	BP	20	ARG
37	BP	24	THR
37	BP	25	VAL
37	BP	28	LYS

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Mol	Chain	Res	Type
37	BP	35	SER
37	BP	36	LYS
37	BP	37	LYS
37	BP	38	ARG
37	BP	46	VAL
37	BP	58	PHE
37	BP	61	ARG
37	BP	65	ASN
37	BP	69	VAL
37	BP	72	VAL
37	BP	75	THR
37	BP	79	VAL
37	BP	80	VAL
37	BP	83	ILE
37	BP	92	ARG
37	BP	93	LYS
37	BP	96	LEU
38	BQ	2	ARG
38	BQ	7	VAL
38	BQ	10	ARG
38	BQ	17	LEU
38	BQ	27	ARG
38	BQ	40	LYS
38	BQ	49	ARG
38	BQ	50	ARG
38	BQ	53	LYS
38	BQ	59	LEU
38	BQ	63	ARG
38	BQ	65	ASN
38	BQ	69	ARG
38	BQ	88	GLU
38	BQ	94	LEU
38	BQ	96	ASP
38	BQ	97	ILE
39	BR	1	MET
39	BR	10	LYS
39	BR	13	ARG
39	BR	14	VAL
39	BR	25	LEU
39	BR	37	GLU
39	BR	39	LEU
39	BR	45	GLU

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Mol	Chain	Res	Type
39	BR	46	GLU
39	BR	48	LYS
39	BR	55	ASP
39	BR	63	VAL
39	BR	72	VAL
39	BR	85	LYS
39	BR	86	GLN
39	BR	94	THR
39	BR	97	LYS
39	BR	102	SER
40	BS	1	MET
40	BS	3	THR
40	BS	4	ILE
40	BS	7	HIS
40	BS	30	SER
40	BS	33	LEU
40	BS	36	LEU
40	BS	39	THR
40	BS	45	VAL
40	BS	48	LYS
40	BS	66	ILE
40	BS	68	ASP
40	BS	71	VAL
40	BS	73	LYS
40	BS	76	VAL
40	BS	84	ARG
40	BS	88	ARG
40	BS	101	SER
40	BS	107	VAL
41	BT	2	ILE
41	BT	3	ARG
41	BT	4	GLU
41	BT	8	LEU
41	BT	17	SER
41	BT	18	GLU
41	BT	19	LYS
41	BT	29	THR
41	BT	31	VAL
41	BT	32	LEU
41	BT	37	ASP
41	BT	43	ILE
41	BT	48	GLN

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Mol	Chain	Res	Type
41	BT	49	LYS
41	BT	50	LEU
41	BT	58	VAL
41	BT	61	LEU
41	BT	67	VAL
41	BT	68	LYS
41	BT	69	ARG
41	BT	73	ARG
42	BU	5	ARG
42	BU	6	ARG
42	BU	8	ASP
42	BU	10	VAL
42	BU	20	LYS
42	BU	23	LYS
42	BU	33	VAL
42	BU	34	ILE
42	BU	42	LYS
42	BU	43	LYS
42	BU	61	GLU
42	BU	64	ILE
42	BU	67	SER
42	BU	82	VAL
42	BU	86	PHE
42	BU	99	SER
42	BU	102	ILE
43	BV	5	ASN
43	BV	8	VAL
43	BV	10	LYS
43	BV	12	GLN
43	BV	17	SER
43	BV	20	LEU
43	BV	35	GLU
43	BV	41	GLU
43	BV	43	ASP
43	BV	46	LYS
43	BV	51	GLN
43	BV	55	GLU
43	BV	61	LEU
43	BV	65	VAL
43	BV	66	ASP
43	BV	77	VAL
43	BV	93	ARG

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Mol	Chain	Res	Type
44	BW	14	ASP
44	BW	15	SER
44	BW	16	GLU
44	BW	22	VAL
44	BW	23	LYS
44	BW	24	ARG
44	BW	25	PHE
44	BW	38	ARG
44	BW	40	ARG
44	BW	45	HIS
44	BW	49	ASN
44	BW	54	ARG
44	BW	58	LEU
44	BW	67	LYS
44	BW	71	LYS
44	BW	76	ARG
44	BW	77	LYS
44	BW	80	SER
45	BX	10	ARG
45	BX	19	HIS
45	BX	24	THR
45	BX	26	ARG
45	BX	27	ARG
45	BX	29	LEU
45	BX	36	ARG
45	BX	41	SER
45	BX	46	VAL
45	BX	47	THR
45	BX	53	LYS
45	BX	58	ILE
45	BX	63	ILE
45	BX	65	THR
45	BX	71	ARG
45	BX	77	TYR
46	BY	9	LYS
46	BY	10	SER
46	BY	14	LEU
46	BY	19	LEU
46	BY	22	LEU
46	BY	37	LEU
46	BY	39	GLN
46	BY	42	LEU

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Mol	Chain	Res	Type
46	BY	56	LEU
46	BY	59	GLU
47	BZ	2	LYS
47	BZ	3	THR
47	BZ	4	ILE
47	BZ	5	LYS
47	BZ	8	GLN
47	BZ	9	THR
47	BZ	15	ARG
47	BZ	23	LEU
47	BZ	29	ARG
47	BZ	30	ARG
47	BZ	35	VAL
47	BZ	37	ARG
47	BZ	38	GLU
47	BZ	40	THR
47	BZ	54	VAL
47	BZ	56	VAL
48	B0	3	GLN
48	B0	5	ASN
48	B0	8	THR
48	B0	9	ARG
48	B0	10	SER
48	B0	19	ASP
48	B0	21	LEU
48	B0	25	THR
48	B0	26	SER
48	B0	27	LEU
48	B0	28	SER
48	B0	39	ARG
48	B0	42	ILE
49	B1	4	ILE
49	B1	9	LYS
49	B1	16	THR
49	B1	29	LYS
49	B1	33	LEU
49	B1	35	LEU
49	B1	46	VAL
50	B2	1	MET
50	B2	3	ARG
50	B2	4	THR
50	B2	9	VAL

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Mol	Chain	Res	Type
50	B2	12	ARG
50	B2	25	LYS
50	B2	39	ARG
51	B3	5	THR
51	B3	7	ARG
51	B3	22	LYS
51	B3	31	ILE
51	B3	49	VAL
51	B3	56	LEU
52	B4	3	VAL
52	B4	4	ARG
52	B4	9	LYS
52	B4	13	ASN
52	B4	33	HIS
2	CB	8	MET
2	CB	9	LEU
2	CB	14	HIS
2	CB	21	TYR
2	CB	22	TRP
2	CB	26	MET
2	CB	34	ARG
2	CB	36	LYS
2	CB	39	ILE
2	CB	42	LEU
2	CB	46	VAL
2	CB	69	VAL
2	CB	84	LEU
2	CB	88	GLN
2	CB	103	TRP
2	CB	108	GLN
2	CB	109	SER
2	CB	124	THR
2	CB	125	PHE
2	CB	131	LYS
2	CB	146	SER
2	CB	147	LEU
2	CB	182	VAL
2	CB	187	ASP
2	CB	191	ASP
2	CB	196	ASP
2	CB	199	ILE
2	CB	212	TYR

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Mol	Chain	Res	Type
3	CC	15	LYS
3	CC	26	LYS
3	CC	30	ASP
3	CC	35	ASP
3	CC	41	TYR
3	CC	53	ARG
3	CC	106	ARG
3	CC	126	ARG
3	CC	134	LYS
3	CC	139	ASN
3	CC	152	VAL
3	CC	160	GLU
3	CC	161	ILE
3	CC	166	TRP
3	CC	177	LEU
3	CC	178	ARG
3	CC	183	TYR
4	CD	2	ARG
4	CD	10	LEU
4	CD	24	VAL
4	CD	25	ARG
4	CD	30	LYS
4	CD	31	CYS
4	CD	34	GLU
4	CD	47	LEU
4	CD	52	VAL
4	CD	55	ARG
4	CD	57	LYS
4	CD	58	GLN
4	CD	67	LEU
4	CD	80	ARG
4	CD	84	ASN
4	CD	106	PHE
4	CD	116	LEU
4	CD	125	ASN
4	CD	127	ARG
4	CD	137	SER
4	CD	140	ASP
4	CD	142	VAL
4	CD	147	LYS
4	CD	151	GLN
4	CD	168	THR

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Mol	Chain	Res	Type
4	CD	170	LEU
4	CD	182	LYS
4	CD	183	ARG
4	CD	184	LYS
4	CD	190	LEU
4	CD	194	ILE
4	CD	199	ILE
5	CE	11	GLN
5	CE	13	LYS
5	CE	18	ASN
5	CE	24	VAL
5	CE	25	LYS
5	CE	29	ILE
5	CE	59	ILE
5	CE	75	LEU
5	CE	76	ASN
5	CE	80	LEU
5	CE	87	VAL
5	CE	92	ARG
5	CE	95	MET
5	CE	99	SER
5	CE	119	VAL
5	CE	131	ASN
5	CE	133	ILE
5	CE	136	VAL
5	CE	139	THR
5	CE	144	GLU
5	CE	151	MET
6	CF	7	VAL
6	CF	33	GLU
6	CF	38	ARG
6	CF	44	ARG
6	CF	54	LEU
6	CF	56	LYS
6	CF	58	HIS
6	CF	61	LEU
6	CF	72	ASP
6	CF	81	ASN
6	CF	85	ILE
6	CF	86	ARG
6	CF	89	VAL
6	CF	98	GLU

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Mol	Chain	Res	Type
54	CG	3	ARG
54	CG	5	VAL
54	CG	6	ILE
54	CG	10	LYS
54	CG	12	LEU
54	CG	16	LYS
54	CG	55	LYS
54	CG	58	LEU
54	CG	66	GLU
54	CG	75	LYS
54	CG	78	ARG
54	CG	85	GLN
54	CG	100	MET
54	CG	102	TRP
54	CG	112	ASP
54	CG	115	MET
54	CG	119	LEU
54	CG	139	ASP
54	CG	148	LYS
8	CH	2	MET
8	CH	37	ASN
8	CH	42	GLU
8	CH	46	GLU
8	CH	50	VAL
8	CH	59	GLU
8	CH	76	ARG
8	CH	82	LEU
8	CH	89	ASP
8	CH	93	LYS
8	CH	102	VAL
8	CH	110	MET
8	CH	128	VAL
9	CI	3	ASN
9	CI	4	GLN
9	CI	5	TYR
9	CI	37	TYR
9	CI	45	MET
9	CI	47	VAL
9	CI	53	LEU
9	CI	54	VAL
9	CI	60	LEU
9	CI	83	THR

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Mol	Chain	Res	Type
9	CI	87	MET
9	CI	125	GLN
9	CI	129	ARG
10	CJ	11	LYS
10	CJ	15	HIS
10	CJ	48	ARG
10	CJ	59	LYS
10	CJ	67	ILE
10	CJ	69	THR
10	CJ	82	LYS
10	CJ	87	LEU
10	CJ	92	LEU
11	CK	12	ARG
11	CK	19	VAL
11	CK	25	SER
11	CK	27	ASN
11	CK	33	ILE
11	CK	73	VAL
11	CK	78	ILE
11	CK	81	LEU
11	CK	83	VAL
11	CK	95	THR
11	CK	105	ARG
11	CK	126	ARG
11	CK	128	VAL
12	CL	5	GLN
12	CL	9	LYS
12	CL	14	LYS
12	CL	19	ASN
12	CL	20	VAL
12	CL	28	GLN
12	CL	39	THR
12	CL	48	LEU
12	CL	49	ARG
12	CL	57	THR
12	CL	72	ASN
12	CL	88	ASP
12	CL	96	THR
12	CL	97	VAL
12	CL	102	ASP
12	CL	107	LYS
12	CL	120	ARG

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Mol	Chain	Res	Type
55	CM	12	LYS
55	CM	24	VAL
55	CM	28	ARG
55	CM	32	ILE
55	CM	53	ASP
55	CM	77	LYS
55	CM	91	ARG
55	CM	92	ARG
55	CM	100	ARG
55	CM	113	LYS
14	CN	3	GLN
14	CN	27	LYS
14	CN	41	TRP
14	CN	52	ARG
14	CN	53	ASP
14	CN	58	ARG
14	CN	61	ASN
14	CN	65	GLN
14	CN	72	PHE
14	CN	81	ILE
14	CN	96	LYS
15	CO	13	GLU
15	CO	16	ARG
15	CO	34	GLN
15	CO	38	LEU
15	CO	39	GLN
15	CO	45	HIS
15	CO	79	GLN
15	CO	80	LEU
56	CP	1	MET
56	CP	3	THR
56	CP	4	ILE
56	CP	26	ASN
56	CP	32	PHE
56	CP	35	ARG
56	CP	46	LYS
56	CP	54	LEU
56	CP	56	ARG
56	CP	69	ASP
56	CP	71	VAL
17	CQ	3	LYS
17	CQ	6	THR

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Mol	Chain	Res	Type
17	CQ	20	ILE
17	CQ	27	PHE
17	CQ	32	ILE
17	CQ	37	ILE
17	CQ	39	ARG
17	CQ	51	GLU
17	CQ	52	CYS
17	CQ	56	ASP
17	CQ	60	ILE
17	CQ	80	LYS
18	CR	25	ILE
18	CR	44	THR
18	CR	65	SER
18	CR	72	ARG
19	CS	5	LYS
19	CS	10	ILE
19	CS	11	ASP
19	CS	52	ASN
19	CS	54	ARG
19	CS	55	GLN
19	CS	73	PHE
20	CT	11	ILE
20	CT	26	MET
20	CT	30	PHE
20	CT	35	TYR
20	CT	47	GLN
20	CT	53	MET
20	CT	68	LYS
20	CT	69	ASN
20	CT	73	ARG
20	CT	82	ILE
21	CU	4	LYS
21	CU	9	GLU
21	CU	18	PHE
21	CU	19	LYS
21	CU	32	ARG
21	CU	36	PHE
21	CU	37	TYR
21	CU	53	LYS
24	DC	23	LEU
24	DC	35	LYS
24	DC	43	ASN

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Mol	Chain	Res	Type
24	DC	51	ARG
24	DC	57	HIS
24	DC	62	ARG
24	DC	80	LEU
24	DC	90	ILE
24	DC	102	TYR
24	DC	124	LYS
24	DC	136	VAL
24	DC	152	GLN
24	DC	172	THR
24	DC	173	LEU
24	DC	183	VAL
24	DC	187	CYS
24	DC	188	ARG
24	DC	190	THR
24	DC	191	LEU
24	DC	206	LYS
24	DC	212	TRP
24	DC	220	ARG
24	DC	227	VAL
24	DC	228	ASP
24	DC	235	GLU
24	DC	256	THR
24	DC	269	ARG
25	DD	24	VAL
25	DD	28	GLU
25	DD	32	ASN
25	DD	33	ARG
25	DD	35	THR
25	DD	38	LYS
25	DD	48	ILE
25	DD	55	LYS
25	DD	56	LYS
25	DD	58	ASN
25	DD	62	LYS
25	DD	79	LEU
25	DD	106	LYS
25	DD	121	THR
25	DD	136	ASN
25	DD	138	LEU
25	DD	140	HIS
25	DD	141	ARG

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Mol	Chain	Res	Type
25	DD	148	GLN
25	DD	150	GLN
25	DD	151	THR
25	DD	159	LYS
25	DD	168	GLU
25	DD	189	VAL
25	DD	193	VAL
26	DE	53	THR
26	DE	57	LYS
26	DE	61	ARG
26	DE	67	ARG
26	DE	69	ARG
26	DE	77	ILE
26	DE	78	TRP
26	DE	108	ILE
26	DE	112	LEU
26	DE	117	ARG
26	DE	126	VAL
26	DE	139	LYS
26	DE	149	ILE
26	DE	157	LEU
26	DE	163	ASN
26	DE	164	LEU
26	DE	166	LYS
58	DF	47	LYS
58	DF	48	LEU
58	DF	49	LEU
58	DF	76	PHE
58	DF	94	ARG
58	DF	97	GLU
58	DF	110	ILE
58	DF	111	ARG
58	DF	113	PHE
58	DF	119	LYS
58	DF	133	GLU
58	DF	134	GLN
58	DF	135	ILE
58	DF	139	GLU
58	DF	142	TYR
58	DF	147	ARG
58	DF	151	LEU
58	DF	160	LYS

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Mol	Chain	Res	Type
58	DF	166	ARG
58	DF	169	LEU
58	DF	172	PHE
58	DF	177	ARG
28	DG	2	ARG
28	DG	18	ILE
28	DG	19	ASN
28	DG	34	ARG
28	DG	35	THR
28	DG	40	VAL
28	DG	51	PHE
28	DG	72	ASN
28	DG	84	LYS
28	DG	93	TYR
28	DG	120	ILE
28	DG	132	LEU
28	DG	162	ARG
28	DG	163	TYR
28	DG	166	GLU
28	DG	176	LYS
29	DH	8	LYS
29	DH	22	LYS
29	DH	25	TYR
29	DH	27	ARG
29	DH	28	ASN
29	DH	50	ARG
29	DH	57	LYS
29	DH	66	ASN
29	DH	68	ARG
29	DH	76	GLU
29	DH	86	ASP
29	DH	91	PHE
29	DH	104	THR
29	DH	109	GLU
29	DH	132	PHE
29	DH	144	VAL
30	DI	7	TYR
30	DI	16	MET
30	DI	30	GLN
30	DI	58	ILE
30	DI	72	THR
30	DI	93	ASN

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Mol	Chain	Res	Type
31	DJ	25	LEU
31	DJ	36	LEU
31	DJ	47	HIS
31	DJ	52	ASP
31	DJ	57	LEU
31	DJ	81	ILE
31	DJ	92	MET
31	DJ	95	ARG
31	DJ	99	ARG
31	DJ	101	ILE
31	DJ	106	LYS
31	DJ	129	GLU
31	DJ	139	VAL
32	DK	3	GLN
32	DK	6	THR
32	DK	7	MET
32	DK	9	ASN
32	DK	13	ASN
32	DK	21	CYS
32	DK	25	LEU
32	DK	39	ILE
32	DK	41	ILE
32	DK	47	ILE
32	DK	49	ARG
32	DK	54	LYS
32	DK	65	THR
32	DK	77	ILE
32	DK	79	PHE
32	DK	100	PHE
32	DK	105	ARG
32	DK	106	GLU
32	DK	107	LEU
32	DK	111	LYS
32	DK	114	LYS
33	DL	3	LEU
33	DL	4	ASN
33	DL	6	LEU
33	DL	47	ARG
33	DL	69	ARG
33	DL	79	LEU
33	DL	82	LEU
33	DL	99	ASN

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Mol	Chain	Res	Type
33	DL	103	ILE
33	DL	111	ILE
33	DL	112	LEU
33	DL	141	LYS
33	DL	143	GLU
34	DM	8	LYS
34	DM	38	ARG
34	DM	78	LEU
34	DM	97	GLN
34	DM	105	MET
34	DM	115	GLU
35	DN	14	SER
35	DN	18	GLN
35	DN	21	PHE
35	DN	29	VAL
35	DN	33	ILE
35	DN	40	LYS
35	DN	46	ARG
35	DN	53	THR
35	DN	62	ASN
35	DN	63	ARG
35	DN	67	PHE
35	DN	69	ARG
35	DN	75	ILE
35	DN	90	ARG
35	DN	94	TYR
35	DN	95	THR
35	DN	97	ILE
35	DN	98	LEU
35	DN	107	ASN
35	DN	114	GLU
36	DO	17	LYS
36	DO	31	THR
36	DO	63	LYS
36	DO	65	THR
36	DO	68	LYS
36	DO	90	VAL
36	DO	115	LEU
36	DO	117	PHE
37	DP	6	GLN
37	DP	7	LEU
37	DP	13	LYS

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Mol	Chain	Res	Type
37	DP	19	PHE
37	DP	28	LYS
37	DP	31	VAL
37	DP	83	ILE
37	DP	86	LYS
37	DP	95	LYS
37	DP	101	GLU
38	DQ	3	VAL
38	DQ	10	ARG
38	DQ	12	ARG
38	DQ	15	LYS
38	DQ	18	LYS
38	DQ	35	PHE
38	DQ	47	ARG
38	DQ	50	ARG
38	DQ	54	ARG
38	DQ	57	ARG
38	DQ	63	ARG
38	DQ	69	ARG
38	DQ	79	ILE
38	DQ	93	ILE
39	DR	6	GLN
39	DR	10	LYS
39	DR	13	ARG
39	DR	22	LEU
39	DR	37	GLU
39	DR	39	LEU
39	DR	48	LYS
39	DR	58	VAL
39	DR	80	ARG
39	DR	83	TYR
39	DR	86	GLN
39	DR	90	ARG
39	DR	93	PHE
40	DS	6	LYS
40	DS	9	HIS
40	DS	22	ASP
40	DS	23	LEU
40	DS	31	GLN
40	DS	45	VAL
40	DS	46	LEU
40	DS	66	ILE

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Mol	Chain	Res	Type
40	DS	70	LYS
40	DS	74	ILE
40	DS	76	VAL
40	DS	84	ARG
40	DS	86	MET
40	DS	88	ARG
41	DT	9	LYS
41	DT	12	ARG
41	DT	18	GLU
41	DT	48	GLN
41	DT	54	GLU
41	DT	64	LYS
42	DU	13	LEU
42	DU	20	LYS
42	DU	21	ARG
42	DU	40	LEU
42	DU	41	VAL
42	DU	45	GLN
42	DU	71	ILE
42	DU	85	ARG
42	DU	94	PHE
42	DU	95	PHE
43	DV	26	PHE
43	DV	40	ILE
43	DV	51	GLN
43	DV	61	LEU
43	DV	65	VAL
43	DV	69	GLU
43	DV	70	ILE
43	DV	76	ASP
44	DW	18	LYS
44	DW	20	LEU
44	DW	22	VAL
44	DW	25	PHE
44	DW	30	VAL
44	DW	35	ILE
44	DW	37	VAL
44	DW	39	GLN
44	DW	40	ARG
44	DW	58	LEU
44	DW	68	PHE
44	DW	76	ARG

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Mol	Chain	Res	Type
44	DW	77	LYS
44	DW	80	SER
44	DW	81	ILE
45	DX	5	GLN
45	DX	6	VAL
45	DX	26	ARG
45	DX	31	ASN
45	DX	46	VAL
45	DX	47	THR
45	DX	53	LYS
45	DX	63	ILE
45	DX	73	ARG
45	DX	77	TYR
46	DY	1	MET
46	DY	4	LYS
46	DY	28	LEU
47	DZ	15	ARG
47	DZ	16	LEU
47	DZ	23	LEU
47	DZ	24	LEU
47	DZ	28	LEU
47	DZ	29	ARG
47	DZ	30	ARG
47	DZ	53	MET
48	D0	5	ASN
48	D0	9	ARG
48	D0	22	THR
48	D0	27	LEU
48	D0	41	HIS
48	D0	42	ILE
48	D0	49	ARG
49	D1	10	LEU
49	D1	20	TYR
49	D1	35	LEU
49	D1	44	GLN
50	D2	26	ASN
50	D2	33	ARG
50	D2	45	SER
51	D3	12	ARG
51	D3	14	LYS
51	D3	27	ASN
51	D3	28	LEU

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Mol	Chain	Res	Type
51	D3	29	ARG
51	D3	41	ARG
51	D3	46	LYS
51	D3	48	MET
51	D3	49	VAL
51	D3	51	LYS
51	D3	61	LEU
52	D4	2	LYS
52	D4	9	LYS
52	D4	13	ASN
52	D4	15	LYS
52	D4	17	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (355) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	38	HIS
2	AB	57	ASN
2	AB	102	ASN
2	AB	108	GLN
2	AB	119	GLN
2	AB	167	HIS
2	AB	169	HIS
3	AC	5	HIS
3	AC	24	ASN
3	AC	68	HIS
3	AC	138	GLN
3	AC	139	ASN
4	AD	40	HIS
4	AD	53	GLN
4	AD	58	GLN
4	AD	70	GLN
4	AD	73	ASN
4	AD	84	ASN
4	AD	99	ASN
4	AD	119	HIS
4	AD	163	GLN
5	AE	11	GLN
5	AE	42	ASN
5	AE	69	ASN
5	AE	72	ASN
5	AE	77	ASN

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Mol	Chain	Res	Type
5	AE	121	ASN
6	AF	3	HIS
6	AF	11	HIS
6	AF	46	GLN
6	AF	52	ASN
6	AF	68	GLN
7	AG	67	ASN
7	AG	85	GLN
7	AG	121	ASN
7	AG	147	ASN
8	AH	3	GLN
8	AH	17	GLN
8	AH	20	ASN
8	AH	117	GLN
9	AI	3	ASN
9	AI	4	GLN
9	AI	74	GLN
9	AI	80	HIS
9	AI	125	GLN
10	AJ	20	GLN
10	AJ	35	GLN
10	AJ	56	HIS
10	AJ	64	GLN
11	AK	21	HIS
11	AK	23	HIS
11	AK	108	ASN
11	AK	118	ASN
12	AL	4	ASN
12	AL	45	ASN
12	AL	58	ASN
13	AM	7	ASN
14	AN	42	ASN
14	AN	48	GLN
14	AN	61	ASN
15	AO	19	ASN
15	AO	36	ASN
15	AO	37	HIS
15	AO	45	HIS
15	AO	61	GLN
16	AP	9	HIS
16	AP	29	ASN
16	AP	59	HIS

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Mol	Chain	Res	Type
17	AQ	44	HIS
17	AQ	46	HIS
17	AQ	49	ASN
18	AR	30	ASN
18	AR	73	HIS
19	AS	13	HIS
19	AS	42	ASN
20	AT	12	GLN
20	AT	47	GLN
20	AT	54	GLN
20	AT	60	GLN
20	AT	74	HIS
20	AT	77	ASN
21	AU	8	ASN
24	BC	20	ASN
24	BC	43	ASN
24	BC	59	GLN
24	BC	89	ASN
24	BC	114	GLN
24	BC	141	HIS
24	BC	152	GLN
24	BC	199	HIS
24	BC	225	ASN
24	BC	242	HIS
24	BC	250	GLN
24	BC	259	ASN
25	BD	32	ASN
25	BD	42	ASN
25	BD	58	ASN
25	BD	126	ASN
25	BD	130	GLN
25	BD	150	GLN
26	BE	29	HIS
26	BE	30	GLN
26	BE	62	GLN
26	BE	90	GLN
26	BE	97	ASN
26	BE	136	GLN
27	BF	4	HIS
27	BF	22	ASN
27	BF	26	GLN
27	BF	134	GLN

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Mol	Chain	Res	Type
28	BG	72	ASN
28	BG	100	ASN
28	BG	103	ASN
29	BH	18	GLN
29	BH	20	ASN
29	BH	28	ASN
29	BH	33	GLN
29	BH	43	ASN
29	BH	145	ASN
30	BI	5	GLN
30	BI	30	GLN
30	BI	110	GLN
31	BJ	40	HIS
31	BJ	58	ASN
31	BJ	76	HIS
31	BJ	77	HIS
31	BJ	80	HIS
31	BJ	128	ASN
31	BJ	130	HIS
32	BK	88	ASN
32	BK	89	ASN
33	BL	4	ASN
33	BL	54	GLN
33	BL	93	ASN
33	BL	104	GLN
34	BM	17	ASN
34	BM	88	ASN
34	BM	97	GLN
35	BN	9	GLN
35	BN	11	ASN
35	BN	18	GLN
35	BN	23	ASN
35	BN	62	ASN
35	BN	107	ASN
36	BO	19	GLN
36	BO	34	HIS
36	BO	38	GLN
36	BO	100	HIS
37	BP	9	GLN
37	BP	11	GLN
37	BP	74	GLN
38	BQ	13	HIS

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Mol	Chain	Res	Type
38	BQ	51	GLN
38	BQ	65	ASN
39	BR	12	HIS
39	BR	18	GLN
39	BR	43	ASN
39	BR	66	HIS
40	BS	15	GLN
40	BS	57	ASN
40	BS	61	ASN
41	BT	48	GLN
41	BT	70	HIS
41	BT	72	GLN
41	BT	91	GLN
42	BU	52	ASN
42	BU	65	GLN
42	BU	73	ASN
43	BV	5	ASN
43	BV	44	HIS
43	BV	51	GLN
43	BV	80	HIS
43	BV	88	HIS
44	BW	11	ASN
44	BW	39	GLN
44	BW	49	ASN
45	BX	5	GLN
45	BX	22	ASN
46	BY	15	ASN
46	BY	27	ASN
46	BY	41	HIS
47	BZ	8	GLN
48	B0	3	GLN
48	B0	4	GLN
48	B0	41	HIS
50	B2	13	ASN
50	B2	16	HIS
51	B3	25	HIS
51	B3	27	ASN
52	B4	13	ASN
52	B4	33	HIS
52	B4	35	GLN
2	CB	18	GLN
2	CB	38	HIS

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Mol	Chain	Res	Type
2	CB	169	HIS
2	CB	176	ASN
3	CC	2	GLN
3	CC	7	ASN
3	CC	18	ASN
3	CC	31	ASN
3	CC	68	HIS
3	CC	139	ASN
3	CC	175	HIS
3	CC	184	ASN
4	CD	70	GLN
4	CD	84	ASN
4	CD	115	GLN
4	CD	119	HIS
4	CD	125	ASN
4	CD	151	GLN
4	CD	163	GLN
5	CE	11	GLN
5	CE	69	ASN
5	CE	76	ASN
5	CE	121	ASN
5	CE	131	ASN
6	CF	11	HIS
6	CF	55	HIS
6	CF	58	HIS
6	CF	81	ASN
54	CG	67	ASN
54	CG	85	GLN
8	CH	3	GLN
8	CH	17	GLN
8	CH	75	GLN
9	CI	3	ASN
9	CI	4	GLN
9	CI	49	GLN
9	CI	74	GLN
9	CI	109	GLN
9	CI	125	GLN
10	CJ	70	HIS
11	CK	21	HIS
11	CK	27	ASN
11	CK	117	HIS
12	CL	4	ASN

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Mol	Chain	Res	Type
12	CL	5	GLN
12	CL	19	ASN
12	CL	72	ASN
12	CL	74	GLN
12	CL	111	GLN
55	CM	90	HIS
14	CN	65	GLN
15	CO	27	GLN
15	CO	36	ASN
15	CO	45	HIS
15	CO	79	GLN
56	CP	18	GLN
56	CP	26	ASN
17	CQ	44	HIS
17	CQ	49	ASN
19	CS	51	HIS
19	CS	52	ASN
19	CS	56	HIS
20	CT	12	GLN
20	CT	54	GLN
20	CT	60	GLN
20	CT	81	GLN
24	DC	43	ASN
24	DC	57	HIS
24	DC	59	GLN
24	DC	89	ASN
24	DC	116	GLN
24	DC	133	ASN
24	DC	141	HIS
24	DC	162	GLN
24	DC	242	HIS
25	DD	32	ASN
25	DD	36	GLN
25	DD	49	GLN
25	DD	58	ASN
25	DD	136	ASN
25	DD	185	ASN
26	DE	29	HIS
26	DE	30	GLN
26	DE	62	GLN
58	DF	126	ASN
28	DG	19	ASN

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Mol	Chain	Res	Type
28	DG	37	ASN
28	DG	44	HIS
28	DG	138	GLN
29	DH	2	GLN
29	DH	28	ASN
29	DH	66	ASN
30	DI	42	ASN
30	DI	93	ASN
30	DI	106	GLN
31	DJ	40	HIS
31	DJ	136	GLN
31	DJ	138	GLN
32	DK	3	GLN
32	DK	9	ASN
32	DK	13	ASN
32	DK	89	ASN
33	DL	4	ASN
33	DL	54	GLN
34	DM	3	GLN
34	DM	13	HIS
35	DN	3	HIS
35	DN	16	HIS
35	DN	31	HIS
35	DN	73	ASN
36	DO	29	HIS
36	DO	34	HIS
36	DO	38	GLN
37	DP	2	ASN
37	DP	6	GLN
37	DP	9	GLN
37	DP	65	ASN
37	DP	114	ASN
38	DQ	19	GLN
38	DQ	71	ASN
38	DQ	80	ASN
39	DR	6	GLN
39	DR	12	HIS
39	DR	43	ASN
39	DR	66	HIS
39	DR	82	HIS
39	DR	86	GLN
39	DR	87	GLN

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Mol	Chain	Res	Type
40	DS	31	GLN
40	DS	57	ASN
41	DT	15	HIS
41	DT	48	GLN
41	DT	70	HIS
41	DT	92	ASN
42	DU	44	HIS
42	DU	45	GLN
42	DU	52	ASN
42	DU	53	GLN
42	DU	68	ASN
43	DV	24	ASN
43	DV	51	GLN
43	DV	80	HIS
43	DV	88	HIS
44	DW	11	ASN
44	DW	56	HIS
45	DX	15	ASN
45	DX	22	ASN
45	DX	31	ASN
46	DY	15	ASN
46	DY	20	ASN
46	DY	41	HIS
46	DY	58	ASN
47	DZ	19	HIS
48	D0	5	ASN
48	D0	41	HIS
50	D2	6	GLN
50	D2	16	HIS
50	D2	26	ASN
51	D3	25	HIS
51	D3	27	ASN
51	D3	30	HIS
51	D3	42	HIS
52	D4	37	GLN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1532/1533 (99%)	482 (31%)	233 (15%)
22	BA	2850/2903 (98%)	900 (31%)	473 (16%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
22	DA	2839/2903 (97%)	1062 (37%)	506 (17%)
23	BB	117/118 (99%)	32 (27%)	18 (15%)
53	CA	1529/1530 (99%)	548 (35%)	236 (15%)
57	DB	116/117 (99%)	38 (32%)	15 (12%)
All	All	8983/9104 (98%)	3062 (34%)	1481 (16%)

All (3062) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	5	U
1	AA	6	G
1	AA	7	A
1	AA	8	A
1	AA	9	G
1	AA	13	U
1	AA	14	U
1	AA	22	G
1	AA	31	G
1	AA	32	A
1	AA	33	A
1	AA	39	G
1	AA	47	C
1	AA	48	C
1	AA	50	A
1	AA	51	A
1	AA	52	C
1	AA	61	G
1	AA	62	U
1	AA	65	A
1	AA	66	A
1	AA	67	C
1	AA	70	U
1	AA	71	A
1	AA	73	C
1	AA	74	A
1	AA	75	G
1	AA	76	G
1	AA	77	A
1	AA	79	G
1	AA	82	G
1	AA	83	C
1	AA	85	U

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Mol	Chain	Res	Type
1	AA	86	G
1	AA	87	C
1	AA	88	U
1	AA	89	U
1	AA	90	C
1	AA	91	U
1	AA	92	U
1	AA	93	U
1	AA	94	G
1	AA	95	C
1	AA	97	G
1	AA	98	A
1	AA	109	A
1	AA	110	C
1	AA	111	G
1	AA	116	A
1	AA	117	G
1	AA	119	A
1	AA	120	A
1	AA	121	U
1	AA	122	G
1	AA	127	G
1	AA	129	A
1	AA	130	A
1	AA	131	A
1	AA	132	C
1	AA	141	G
1	AA	143	A
1	AA	156	C
1	AA	159	G
1	AA	163	C
1	AA	164	G
1	AA	174	A
1	AA	175	C
1	AA	176	C
1	AA	177	G
1	AA	181	A
1	AA	182	A
1	AA	183	C
1	AA	184	G
1	AA	185	U
1	AA	198	G

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Mol	Chain	Res	Type
1	AA	199	A
1	AA	200	G
1	AA	202	G
1	AA	205	A
1	AA	207	C
1	AA	209	U
1	AA	210	C
1	AA	211	G
1	AA	212	G
1	AA	214	C
1	AA	219	U
1	AA	232	G
1	AA	240	G
1	AA	243	A
1	AA	244	U
1	AA	245	U
1	AA	247	G
1	AA	250	A
1	AA	251	G
1	AA	252	U
1	AA	253	A
1	AA	258	G
1	AA	266	G
1	AA	267	C
1	AA	268	U
1	AA	269	C
1	AA	273	U
1	AA	274	A
1	AA	275	G
1	AA	276	G
1	AA	279	A
1	AA	280	C
1	AA	285	C
1	AA	289	G
1	AA	294	U
1	AA	305	G
1	AA	306	A
1	AA	316	C
1	AA	320	A
1	AA	321	A
1	AA	328	C
1	AA	329	A

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Mol	Chain	Res	Type
1	AA	330	C
1	AA	331	G
1	AA	332	G
1	AA	344	A
1	AA	345	C
1	AA	346	G
1	AA	347	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	356	A
1	AA	367	U
1	AA	368	U
1	AA	369	G
1	AA	370	C
1	AA	373	A
1	AA	384	G
1	AA	389	A
1	AA	392	C
1	AA	398	U
1	AA	406	G
1	AA	411	A
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	415	A
1	AA	421	U
1	AA	422	C
1	AA	423	G
1	AA	424	G
1	AA	428	G
1	AA	429	U
1	AA	430	A
1	AA	431	A
1	AA	438	U
1	AA	439	U
1	AA	451	A
1	AA	452	A
1	AA	453	G
1	AA	458	U
1	AA	459	A
1	AA	461	A

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Mol	Chain	Res	Type
1	AA	462	G
1	AA	463	U
1	AA	466	A
1	AA	467	U
1	AA	468	A
1	AA	469	C
1	AA	478	A
1	AA	481	G
1	AA	482	A
1	AA	484	G
1	AA	485	U
1	AA	486	U
1	AA	487	A
1	AA	488	C
1	AA	496	A
1	AA	497	G
1	AA	498	A
1	AA	499	A
1	AA	500	G
1	AA	501	C
1	AA	508	U
1	AA	509	A
1	AA	511	C
1	AA	512	U
1	AA	513	C
1	AA	517	G
1	AA	518	C
1	AA	519	C
1	AA	520	A
1	AA	527	G
1	AA	532	A
1	AA	533	A
1	AA	534	U
1	AA	535	A
1	AA	536	C
1	AA	537	G
1	AA	546	A
1	AA	548	G
1	AA	549	C
1	AA	556	C
1	AA	559	A
1	AA	560	A

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Mol	Chain	Res	Type
1	AA	562	U
1	AA	563	A
1	AA	564	C
1	AA	565	U
1	AA	566	G
1	AA	567	G
1	AA	568	G
1	AA	572	A
1	AA	573	A
1	AA	575	G
1	AA	576	C
1	AA	577	G
1	AA	579	A
1	AA	588	G
1	AA	595	A
1	AA	596	A
1	AA	597	G
1	AA	642	A
1	AA	643	C
1	AA	650	G
1	AA	653	U
1	AA	654	G
1	AA	655	A
1	AA	665	A
1	AA	682	G
1	AA	688	G
1	AA	689	C
1	AA	698	G
1	AA	701	U
1	AA	702	A
1	AA	703	G
1	AA	717	U
1	AA	718	A
1	AA	719	C
1	AA	721	G
1	AA	722	G
1	AA	723	U
1	AA	724	G
1	AA	725	G
1	AA	731	G
1	AA	748	G
1	AA	753	A

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Mol	Chain	Res	Type
1	AA	754	C
1	AA	755	G
1	AA	756	C
1	AA	776	G
1	AA	777	A
1	AA	787	A
1	AA	792	A
1	AA	793	U
1	AA	794	A
1	AA	795	C
1	AA	798	U
1	AA	802	A
1	AA	812	G
1	AA	813	U
1	AA	814	A
1	AA	815	A
1	AA	816	A
1	AA	817	C
1	AA	818	G
1	AA	828	U
1	AA	829	G
1	AA	832	G
1	AA	841	C
1	AA	843	U
1	AA	845	A
1	AA	846	G
1	AA	849	G
1	AA	859	G
1	AA	861	G
1	AA	870	U
1	AA	871	U
1	AA	874	G
1	AA	875	U
1	AA	885	G
1	AA	889	A
1	AA	890	G
1	AA	910	C
1	AA	914	A
1	AA	915	A
1	AA	926	G
1	AA	927	G
1	AA	934	C

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Mol	Chain	Res	Type
1	AA	935	A
1	AA	936	C
1	AA	960	U
1	AA	961	U
1	AA	962	C
1	AA	966	G
1	AA	967	C
1	AA	968	A
1	AA	969	A
1	AA	971	G
1	AA	972	C
1	AA	973	G
1	AA	974	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	982	U
1	AA	983	A
1	AA	984	C
1	AA	985	C
1	AA	987	G
1	AA	989	U
1	AA	992	U
1	AA	993	G
1	AA	994	A
1	AA	995	C
1	AA	1003	G
1	AA	1004	A
1	AA	1008	U
1	AA	1017	U
1	AA	1018	G
1	AA	1022	A
1	AA	1029	U
1	AA	1030	U
1	AA	1031	C
1	AA	1032	G
1	AA	1033	G
1	AA	1034	G
1	AA	1037	C
1	AA	1050	G
1	AA	1051	C
1	AA	1052	U

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Mol	Chain	Res	Type
1	AA	1053	G
1	AA	1054	C
1	AA	1064	G
1	AA	1065	U
1	AA	1066	C
1	AA	1068	G
1	AA	1069	C
1	AA	1085	U
1	AA	1086	U
1	AA	1087	G
1	AA	1088	G
1	AA	1094	G
1	AA	1101	A
1	AA	1102	A
1	AA	1103	C
1	AA	1104	G
1	AA	1113	C
1	AA	1124	G
1	AA	1125	U
1	AA	1126	U
1	AA	1127	G
1	AA	1128	C
1	AA	1130	A
1	AA	1131	G
1	AA	1133	G
1	AA	1135	U
1	AA	1137	C
1	AA	1138	G
1	AA	1140	C
1	AA	1141	C
1	AA	1142	G
1	AA	1144	G
1	AA	1145	A
1	AA	1146	A
1	AA	1152	A
1	AA	1153	G
1	AA	1158	C
1	AA	1159	U
1	AA	1160	G
1	AA	1161	C
1	AA	1162	C
1	AA	1167	A

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Mol	Chain	Res	Type
1	AA	1168	U
1	AA	1169	A
1	AA	1170	A
1	AA	1181	G
1	AA	1182	G
1	AA	1183	U
1	AA	1184	G
1	AA	1191	A
1	AA	1192	C
1	AA	1193	G
1	AA	1196	A
1	AA	1197	A
1	AA	1198	G
1	AA	1200	C
1	AA	1201	A
1	AA	1202	U
1	AA	1203	C
1	AA	1212	U
1	AA	1213	A
1	AA	1215	G
1	AA	1216	A
1	AA	1224	U
1	AA	1225	A
1	AA	1226	C
1	AA	1227	A
1	AA	1228	C
1	AA	1229	A
1	AA	1230	C
1	AA	1238	A
1	AA	1239	A
1	AA	1240	U
1	AA	1241	G
1	AA	1242	G
1	AA	1256	A
1	AA	1257	A
1	AA	1258	G
1	AA	1259	C
1	AA	1275	A
1	AA	1278	G
1	AA	1279	G
1	AA	1280	A
1	AA	1282	C

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Mol	Chain	Res	Type
1	AA	1283	U
1	AA	1285	A
1	AA	1286	U
1	AA	1287	A
1	AA	1293	C
1	AA	1299	A
1	AA	1303	C
1	AA	1304	G
1	AA	1305	G
1	AA	1308	U
1	AA	1317	C
1	AA	1318	A
1	AA	1320	C
1	AA	1321	U
1	AA	1322	C
1	AA	1323	G
1	AA	1324	A
1	AA	1325	C
1	AA	1332	A
1	AA	1333	A
1	AA	1337	G
1	AA	1338	G
1	AA	1346	A
1	AA	1348	U
1	AA	1349	A
1	AA	1350	A
1	AA	1353	G
1	AA	1362	A
1	AA	1364	U
1	AA	1365	G
1	AA	1366	C
1	AA	1370	G
1	AA	1380	U
1	AA	1381	U
1	AA	1382	C
1	AA	1395	C
1	AA	1398	A
1	AA	1399	C
1	AA	1400	C
1	AA	1406	U
1	AA	1411	C
1	AA	1433	A

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Mol	Chain	Res	Type
1	AA	1434	A
1	AA	1441	A
1	AA	1446	A
1	AA	1448	C
1	AA	1452	C
1	AA	1453	G
1	AA	1454	G
1	AA	1455	G
1	AA	1469	C
1	AA	1470	U
1	AA	1476	A
1	AA	1480	A
1	AA	1492	A
1	AA	1493	A
1	AA	1494	G
1	AA	1497	G
1	AA	1499	A
1	AA	1502	A
1	AA	1503	A
1	AA	1505	G
1	AA	1506	U
1	AA	1507	A
1	AA	1508	A
1	AA	1517	G
1	AA	1528	U
1	AA	1529	G
1	AA	1530	G
1	AA	1531	A
1	AA	1532	U
22	BA	10	A
22	BA	12	U
22	BA	13	A
22	BA	14	A
22	BA	15	G
22	BA	27	G
22	BA	28	A
22	BA	33	C
22	BA	34	U
22	BA	35	G
22	BA	42	A
22	BA	43	G
22	BA	46	G

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Mol	Chain	Res	Type
22	BA	49	A
22	BA	50	U
22	BA	52	A
22	BA	53	A
22	BA	61	C
22	BA	63	A
22	BA	64	A
22	BA	70	G
22	BA	71	A
22	BA	74	A
22	BA	75	G
22	BA	76	C
22	BA	80	G
22	BA	82	U
22	BA	84	A
22	BA	85	G
22	BA	92	U
22	BA	93	G
22	BA	98	G
22	BA	101	A
22	BA	116	C
22	BA	118	A
22	BA	119	A
22	BA	120	U
22	BA	126	A
22	BA	127	A
22	BA	131	A
22	BA	135	U
22	BA	136	G
22	BA	137	U
22	BA	138	U
22	BA	139	U
22	BA	140	C
22	BA	141	G
22	BA	142	A
22	BA	143	C
22	BA	144	A
22	BA	149	A
22	BA	162	U
22	BA	163	C
22	BA	164	C
22	BA	165	A

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Mol	Chain	Res	Type
22	BA	166	U
22	BA	177	G
22	BA	178	G
22	BA	188	G
22	BA	193	U
22	BA	196	A
22	BA	197	A
22	BA	199	A
22	BA	200	U
22	BA	201	C
22	BA	204	A
22	BA	205	G
22	BA	206	U
22	BA	207	A
22	BA	216	A
22	BA	221	A
22	BA	222	A
22	BA	223	A
22	BA	227	A
22	BA	228	C
22	BA	229	C
22	BA	230	G
22	BA	231	A
22	BA	233	A
22	BA	242	G
22	BA	243	U
22	BA	244	A
22	BA	248	G
22	BA	249	C
22	BA	250	G
22	BA	255	A
22	BA	264	C
22	BA	265	A
22	BA	266	G
22	BA	267	C
22	BA	268	C
22	BA	271	G
22	BA	272	A
22	BA	273	G
22	BA	274	C
22	BA	276	U
22	BA	278	A

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Mol	Chain	Res	Type
22	BA	281	C
22	BA	285	G
22	BA	291	G
22	BA	301	G
22	BA	302	C
22	BA	303	G
22	BA	310	A
22	BA	311	A
22	BA	312	G
22	BA	313	G
22	BA	322	A
22	BA	329	G
22	BA	330	A
22	BA	345	A
22	BA	346	A
22	BA	347	A
22	BA	349	U
22	BA	353	C
22	BA	359	G
22	BA	361	G
22	BA	362	A
22	BA	371	A
22	BA	372	G
22	BA	373	U
22	BA	383	C
22	BA	386	G
22	BA	387	U
22	BA	388	G
22	BA	389	G
22	BA	391	A
22	BA	392	U
22	BA	395	U
22	BA	396	G
22	BA	404	A
22	BA	405	U
22	BA	411	G
22	BA	412	A
22	BA	413	C
22	BA	422	A
22	BA	423	A
22	BA	424	G
22	BA	435	C

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Mol	Chain	Res	Type
22	BA	436	C
22	BA	443	A
22	BA	449	A
22	BA	451	U
22	BA	455	C
22	BA	457	A
22	BA	460	A
22	BA	467	G
22	BA	475	C
22	BA	476	G
22	BA	477	A
22	BA	479	A
22	BA	480	A
22	BA	481	G
22	BA	482	A
22	BA	489	G
22	BA	490	C
22	BA	491	G
22	BA	504	A
22	BA	505	A
22	BA	506	G
22	BA	507	A
22	BA	508	A
22	BA	509	C
22	BA	510	C
22	BA	512	G
22	BA	513	A
22	BA	514	A
22	BA	528	A
22	BA	529	A
22	BA	530	G
22	BA	531	C
22	BA	532	A
22	BA	533	G
22	BA	537	G
22	BA	538	A
22	BA	544	C
22	BA	546	U
22	BA	547	A
22	BA	548	G
22	BA	549	G
22	BA	550	C

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Mol	Chain	Res	Type
22	BA	556	A
22	BA	560	C
22	BA	563	A
22	BA	572	A
22	BA	573	U
22	BA	575	A
22	BA	576	U
22	BA	586	A
22	BA	587	C
22	BA	588	U
22	BA	603	A
22	BA	604	G
22	BA	605	G
22	BA	613	A
22	BA	614	A
22	BA	615	U
22	BA	616	A
22	BA	617	G
22	BA	618	G
22	BA	621	A
22	BA	622	G
22	BA	627	A
22	BA	628	G
22	BA	631	A
22	BA	634	C
22	BA	637	A
22	BA	638	G
22	BA	639	U
22	BA	645	C
22	BA	646	U
22	BA	647	G
22	BA	648	G
22	BA	653	U
22	BA	654	A
22	BA	655	A
22	BA	656	G
22	BA	666	A
22	BA	669	G
22	BA	670	A
22	BA	671	C
22	BA	685	A
22	BA	686	U

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Mol	Chain	Res	Type
22	BA	687	C
22	BA	688	U
22	BA	705	A
22	BA	706	A
22	BA	714	U
22	BA	717	C
22	BA	726	G
22	BA	727	A
22	BA	728	G
22	BA	729	G
22	BA	730	A
22	BA	738	G
22	BA	740	C
22	BA	746	U
22	BA	747	U
22	BA	748	G
22	BA	752	A
22	BA	753	A
22	BA	763	G
22	BA	764	A
22	BA	765	C
22	BA	766	U
22	BA	775	G
22	BA	776	G
22	BA	777	G
22	BA	782	A
22	BA	783	A
22	BA	784	G
22	BA	785	G
22	BA	788	A
22	BA	789	A
22	BA	791	C
22	BA	792	A
22	BA	801	G
22	BA	805	G
22	BA	806	C
22	BA	807	U
22	BA	811	U
22	BA	812	C
22	BA	819	A
22	BA	827	U
22	BA	828	U

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Mol	Chain	Res	Type
22	BA	829	A
22	BA	830	G
22	BA	845	A
22	BA	846	U
22	BA	847	U
22	BA	858	G
22	BA	859	G
22	BA	860	U
22	BA	861	A
22	BA	865	C
22	BA	866	A
22	BA	868	U
22	BA	876	C
22	BA	878	A
22	BA	896	A
22	BA	897	C
22	BA	901	C
22	BA	910	A
22	BA	913	U
22	BA	914	G
22	BA	915	C
22	BA	916	G
22	BA	919	U
22	BA	932	U
22	BA	933	A
22	BA	934	U
22	BA	941	A
22	BA	945	A
22	BA	946	C
22	BA	947	A
22	BA	958	U
22	BA	959	A
22	BA	961	C
22	BA	962	G
22	BA	968	C
22	BA	973	A
22	BA	974	G
22	BA	983	A
22	BA	984	A
22	BA	985	C
22	BA	989	G
22	BA	990	A

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Mol	Chain	Res	Type
22	BA	995	C
22	BA	996	A
22	BA	997	G
22	BA	1004	U
22	BA	1005	C
22	BA	1008	A
22	BA	1009	A
22	BA	1011	G
22	BA	1012	U
22	BA	1013	C
22	BA	1021	A
22	BA	1022	G
22	BA	1023	U
22	BA	1024	G
22	BA	1025	G
22	BA	1026	G
22	BA	1027	A
22	BA	1033	U
22	BA	1034	G
22	BA	1040	A
22	BA	1044	C
22	BA	1046	A
22	BA	1047	G
22	BA	1057	A
22	BA	1060	U
22	BA	1061	U
22	BA	1062	G
22	BA	1063	G
22	BA	1064	C
22	BA	1065	U
22	BA	1066	U
22	BA	1070	A
22	BA	1071	G
22	BA	1072	C
22	BA	1073	A
22	BA	1074	G
22	BA	1078	U
22	BA	1083	U
22	BA	1084	A
22	BA	1088	A
22	BA	1098	A
22	BA	1104	C

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Mol	Chain	Res	Type
22	BA	1111	A
22	BA	1112	G
22	BA	1113	U
22	BA	1115	G
22	BA	1127	A
22	BA	1129	A
22	BA	1130	U
22	BA	1132	U
22	BA	1133	A
22	BA	1135	C
22	BA	1136	G
22	BA	1139	G
22	BA	1142	A
22	BA	1151	A
22	BA	1154	G
22	BA	1155	A
22	BA	1156	A
22	BA	1157	G
22	BA	1167	C
22	BA	1168	G
22	BA	1170	C
22	BA	1172	C
22	BA	1175	A
22	BA	1176	U
22	BA	1180	U
22	BA	1181	U
22	BA	1182	G
22	BA	1185	G
22	BA	1186	G
22	BA	1204	A
22	BA	1205	A
22	BA	1206	G
22	BA	1210	G
22	BA	1211	C
22	BA	1213	A
22	BA	1218	G
22	BA	1236	G
22	BA	1237	A
22	BA	1238	G
22	BA	1247	A
22	BA	1248	G
22	BA	1249	U

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Mol	Chain	Res	Type
22	BA	1250	G
22	BA	1251	C
22	BA	1253	A
22	BA	1255	U
22	BA	1256	G
22	BA	1266	G
22	BA	1268	A
22	BA	1271	G
22	BA	1272	A
22	BA	1273	U
22	BA	1275	A
22	BA	1276	A
22	BA	1277	G
22	BA	1287	A
22	BA	1288	G
22	BA	1289	C
22	BA	1290	C
22	BA	1293	C
22	BA	1300	G
22	BA	1301	A
22	BA	1303	G
22	BA	1305	C
22	BA	1320	C
22	BA	1321	A
22	BA	1322	A
22	BA	1324	G
22	BA	1325	U
22	BA	1326	U
22	BA	1327	A
22	BA	1329	U
22	BA	1330	C
22	BA	1331	G
22	BA	1332	G
22	BA	1333	G
22	BA	1336	A
22	BA	1341	G
22	BA	1343	G
22	BA	1344	U
22	BA	1349	C
22	BA	1352	U
22	BA	1359	A
22	BA	1363	C

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Mol	Chain	Res	Type
22	BA	1365	A
22	BA	1368	G
22	BA	1379	U
22	BA	1380	G
22	BA	1383	A
22	BA	1385	A
22	BA	1386	C
22	BA	1395	A
22	BA	1397	U
22	BA	1398	C
22	BA	1399	C
22	BA	1403	A
22	BA	1415	U
22	BA	1416	G
22	BA	1417	C
22	BA	1418	G
22	BA	1419	A
22	BA	1420	A
22	BA	1427	A
22	BA	1428	C
22	BA	1429	G
22	BA	1430	G
22	BA	1434	A
22	BA	1437	C
22	BA	1440	U
22	BA	1451	C
22	BA	1452	G
22	BA	1453	A
22	BA	1455	G
22	BA	1456	G
22	BA	1458	U
22	BA	1459	G
22	BA	1460	U
22	BA	1461	C
22	BA	1467	U
22	BA	1475	G
22	BA	1476	U
22	BA	1477	A
22	BA	1482	G
22	BA	1483	G
22	BA	1490	A
22	BA	1491	G

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Mol	Chain	Res	Type
22	BA	1492	G
22	BA	1494	A
22	BA	1495	A
22	BA	1497	U
22	BA	1498	C
22	BA	1499	C
22	BA	1500	G
22	BA	1504	A
22	BA	1508	A
22	BA	1509	A
22	BA	1510	G
22	BA	1511	G
22	BA	1515	A
22	BA	1522	A
22	BA	1523	U
22	BA	1533	C
22	BA	1534	U
22	BA	1535	A
22	BA	1536	C
22	BA	1537	G
22	BA	1538	G
22	BA	1539	U
22	BA	1555	G
22	BA	1558	C
22	BA	1559	U
22	BA	1560	G
22	BA	1561	C
22	BA	1565	C
22	BA	1566	A
22	BA	1569	A
22	BA	1578	U
22	BA	1581	G
22	BA	1583	A
22	BA	1584	U
22	BA	1585	C
22	BA	1602	U
22	BA	1603	A
22	BA	1606	C
22	BA	1607	C
22	BA	1608	A
22	BA	1610	A
22	BA	1612	C

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Mol	Chain	Res	Type
22	BA	1615	C
22	BA	1616	A
22	BA	1627	G
22	BA	1635	A
22	BA	1647	U
22	BA	1648	U
22	BA	1649	G
22	BA	1652	A
22	BA	1653	G
22	BA	1654	A
22	BA	1655	A
22	BA	1674	G
22	BA	1675	C
22	BA	1682	G
22	BA	1683	U
22	BA	1693	U
22	BA	1694	C
22	BA	1695	G
22	BA	1696	G
22	BA	1697	G
22	BA	1698	A
22	BA	1699	G
22	BA	1700	A
22	BA	1701	A
22	BA	1703	G
22	BA	1707	G
22	BA	1713	A
22	BA	1714	U
22	BA	1715	G
22	BA	1716	U
22	BA	1717	A
22	BA	1723	G
22	BA	1729	U
22	BA	1730	C
22	BA	1732	C
22	BA	1733	G
22	BA	1734	G
22	BA	1735	A
22	BA	1736	U
22	BA	1737	G
22	BA	1738	G
22	BA	1744	A

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Mol	Chain	Res	Type
22	BA	1758	U
22	BA	1759	A
22	BA	1760	C
22	BA	1764	C
22	BA	1773	A
22	BA	1776	G
22	BA	1780	A
22	BA	1782	U
22	BA	1783	A
22	BA	1784	A
22	BA	1785	A
22	BA	1786	A
22	BA	1787	A
22	BA	1788	C
22	BA	1800	C
22	BA	1801	A
22	BA	1802	A
22	BA	1808	A
22	BA	1809	A
22	BA	1815	A
22	BA	1816	C
22	BA	1818	U
22	BA	1819	A
22	BA	1821	A
22	BA	1822	C
22	BA	1827	U
22	BA	1829	A
22	BA	1839	G
22	BA	1840	G
22	BA	1848	A
22	BA	1849	G
22	BA	1857	G
22	BA	1858	A
22	BA	1859	U
22	BA	1865	U
22	BA	1866	A
22	BA	1867	G
22	BA	1869	G
22	BA	1871	A
22	BA	1872	A
22	BA	1873	G
22	BA	1876	A

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Mol	Chain	Res	Type
22	BA	1884	G
22	BA	1885	A
22	BA	1886	U
22	BA	1900	A
22	BA	1906	G
22	BA	1913	A
22	BA	1914	C
22	BA	1918	A
22	BA	1919	A
22	BA	1920	C
22	BA	1927	A
22	BA	1930	G
22	BA	1931	U
22	BA	1932	A
22	BA	1937	A
22	BA	1938	A
22	BA	1940	U
22	BA	1941	C
22	BA	1942	C
22	BA	1943	U
22	BA	1944	U
22	BA	1945	G
22	BA	1946	U
22	BA	1951	U
22	BA	1955	U
22	BA	1963	U
22	BA	1964	G
22	BA	1965	C
22	BA	1966	A
22	BA	1967	C
22	BA	1968	G
22	BA	1970	A
22	BA	1971	U
22	BA	1972	G
22	BA	1979	U
22	BA	1991	U
22	BA	1992	G
22	BA	1993	U
22	BA	1994	C
22	BA	1996	C
22	BA	1997	C
22	BA	1998	A

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Mol	Chain	Res	Type
22	BA	2006	C
22	BA	2018	G
22	BA	2022	U
22	BA	2023	C
22	BA	2030	A
22	BA	2031	A
22	BA	2032	G
22	BA	2033	A
22	BA	2035	G
22	BA	2036	C
22	BA	2043	C
22	BA	2049	G
22	BA	2051	A
22	BA	2052	A
22	BA	2055	C
22	BA	2056	G
22	BA	2060	A
22	BA	2061	G
22	BA	2062	A
22	BA	2063	C
22	BA	2064	C
22	BA	2066	C
22	BA	2068	U
22	BA	2069	G
22	BA	2072	C
22	BA	2078	C
22	BA	2093	G
22	BA	2096	C
22	BA	2104	C
22	BA	2106	U
22	BA	2107	G
22	BA	2109	U
22	BA	2110	G
22	BA	2134	A
22	BA	2135	A
22	BA	2136	G
22	BA	2137	U
22	BA	2138	G
22	BA	2140	G
22	BA	2143	C
22	BA	2144	G
22	BA	2145	C

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Mol	Chain	Res	Type
22	BA	2146	C
22	BA	2147	A
22	BA	2148	G
22	BA	2149	U
22	BA	2150	C
22	BA	2151	U
22	BA	2155	U
22	BA	2156	G
22	BA	2180	U
22	BA	2181	U
22	BA	2183	A
22	BA	2184	A
22	BA	2185	U
22	BA	2187	U
22	BA	2194	U
22	BA	2197	U
22	BA	2198	A
22	BA	2199	A
22	BA	2200	C
22	BA	2203	U
22	BA	2204	G
22	BA	2210	U
22	BA	2211	A
22	BA	2212	A
22	BA	2214	C
22	BA	2215	C
22	BA	2225	A
22	BA	2226	C
22	BA	2233	U
22	BA	2238	G
22	BA	2239	G
22	BA	2240	U
22	BA	2243	U
22	BA	2249	U
22	BA	2250	G
22	BA	2258	C
22	BA	2259	U
22	BA	2266	A
22	BA	2267	A
22	BA	2268	A
22	BA	2269	G
22	BA	2275	C

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Mol	Chain	Res	Type
22	BA	2276	G
22	BA	2278	A
22	BA	2283	C
22	BA	2284	A
22	BA	2287	A
22	BA	2288	A
22	BA	2297	A
22	BA	2305	U
22	BA	2307	G
22	BA	2308	G
22	BA	2309	A
22	BA	2310	C
22	BA	2312	U
22	BA	2320	U
22	BA	2321	U
22	BA	2322	A
22	BA	2325	G
22	BA	2326	C
22	BA	2327	A
22	BA	2333	A
22	BA	2334	U
22	BA	2335	A
22	BA	2336	A
22	BA	2337	G
22	BA	2345	G
22	BA	2347	C
22	BA	2348	U
22	BA	2350	C
22	BA	2358	A
22	BA	2361	G
22	BA	2382	G
22	BA	2383	G
22	BA	2384	U
22	BA	2385	C
22	BA	2391	G
22	BA	2392	A
22	BA	2393	U
22	BA	2402	U
22	BA	2403	C
22	BA	2406	A
22	BA	2407	A
22	BA	2408	U

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Mol	Chain	Res	Type
22	BA	2423	U
22	BA	2424	C
22	BA	2425	A
22	BA	2426	A
22	BA	2427	C
22	BA	2428	G
22	BA	2429	G
22	BA	2430	A
22	BA	2431	U
22	BA	2432	A
22	BA	2435	A
22	BA	2439	A
22	BA	2440	C
22	BA	2441	U
22	BA	2447	G
22	BA	2448	A
22	BA	2450	A
22	BA	2458	G
22	BA	2459	A
22	BA	2469	A
22	BA	2470	G
22	BA	2476	A
22	BA	2478	A
22	BA	2491	U
22	BA	2492	U
22	BA	2500	U
22	BA	2501	C
22	BA	2502	G
22	BA	2503	A
22	BA	2504	U
22	BA	2505	G
22	BA	2507	C
22	BA	2508	G
22	BA	2509	G
22	BA	2510	C
22	BA	2511	U
22	BA	2512	C
22	BA	2518	A
22	BA	2529	G
22	BA	2542	A
22	BA	2543	G
22	BA	2554	U

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Mol	Chain	Res	Type
22	BA	2555	U
22	BA	2566	A
22	BA	2567	G
22	BA	2573	C
22	BA	2574	G
22	BA	2585	U
22	BA	2586	U
22	BA	2603	G
22	BA	2609	U
22	BA	2610	C
22	BA	2611	C
22	BA	2612	C
22	BA	2613	U
22	BA	2614	A
22	BA	2615	U
22	BA	2616	C
22	BA	2630	G
22	BA	2638	G
22	BA	2645	G
22	BA	2646	C
22	BA	2654	A
22	BA	2655	G
22	BA	2661	G
22	BA	2663	G
22	BA	2673	G
22	BA	2681	C
22	BA	2682	A
22	BA	2684	U
22	BA	2690	U
22	BA	2691	C
22	BA	2712	C
22	BA	2713	U
22	BA	2714	G
22	BA	2716	C
22	BA	2717	C
22	BA	2724	U
22	BA	2725	A
22	BA	2726	A
22	BA	2727	A
22	BA	2728	U
22	BA	2729	G
22	BA	2730	C

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Mol	Chain	Res	Type
22	BA	2732	G
22	BA	2733	A
22	BA	2748	A
22	BA	2750	A
22	BA	2751	G
22	BA	2752	C
22	BA	2753	A
22	BA	2756	U
22	BA	2757	A
22	BA	2758	A
22	BA	2762	C
22	BA	2769	U
22	BA	2776	A
22	BA	2777	G
22	BA	2778	A
22	BA	2779	U
22	BA	2781	A
22	BA	2791	G
22	BA	2792	A
22	BA	2798	U
22	BA	2799	A
22	BA	2800	A
22	BA	2801	G
22	BA	2808	G
22	BA	2809	A
22	BA	2812	G
22	BA	2817	U
22	BA	2820	A
22	BA	2821	A
22	BA	2833	U
22	BA	2835	A
22	BA	2836	U
22	BA	2837	A
22	BA	2849	U
22	BA	2861	U
22	BA	2866	U
22	BA	2867	G
22	BA	2868	A
22	BA	2869	G
22	BA	2874	C
22	BA	2879	A
22	BA	2880	C

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Mol	Chain	Res	Type
22	BA	2883	A
22	BA	2884	U
22	BA	2886	A
22	BA	2894	G
22	BA	2895	G
23	BB	12	C
23	BB	13	G
23	BB	14	U
23	BB	15	A
23	BB	16	G
23	BB	24	G
23	BB	25	U
23	BB	30	C
23	BB	35	C
23	BB	37	C
23	BB	41	G
23	BB	42	C
23	BB	43	C
23	BB	44	G
23	BB	45	A
23	BB	52	A
23	BB	53	A
23	BB	56	G
23	BB	57	A
23	BB	58	A
23	BB	66	A
23	BB	67	G
23	BB	68	C
23	BB	87	U
23	BB	88	C
23	BB	89	U
23	BB	90	C
23	BB	91	C
23	BB	99	A
23	BB	108	A
23	BB	109	A
23	BB	110	C
53	CA	6	G
53	CA	7	A
53	CA	8	A
53	CA	9	G
53	CA	10	A

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Mol	Chain	Res	Type
53	CA	13	U
53	CA	14	U
53	CA	15	G
53	CA	16	A
53	CA	22	G
53	CA	31	G
53	CA	32	A
53	CA	33	A
53	CA	39	G
53	CA	40	C
53	CA	47	C
53	CA	48	C
53	CA	51	A
53	CA	52	C
53	CA	53	A
53	CA	61	G
53	CA	65	A
53	CA	66	A
53	CA	68	G
53	CA	69	G
53	CA	70	U
53	CA	71	A
53	CA	72	A
53	CA	73	C
53	CA	74	A
53	CA	76	G
53	CA	77	A
53	CA	80	A
53	CA	81	A
53	CA	82	G
53	CA	83	C
53	CA	85	U
53	CA	86	G
53	CA	87	C
53	CA	88	U
53	CA	89	U
53	CA	90	C
53	CA	91	U
53	CA	92	U
53	CA	93	U
53	CA	94	G
53	CA	95	C

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Mol	Chain	Res	Type
53	CA	96	U
53	CA	97	G
53	CA	98	A
53	CA	101	A
53	CA	110	C
53	CA	115	G
53	CA	116	A
53	CA	117	G
53	CA	119	A
53	CA	120	A
53	CA	121	U
53	CA	122	G
53	CA	130	A
53	CA	131	A
53	CA	132	C
53	CA	133	U
53	CA	141	G
53	CA	143	A
53	CA	144	G
53	CA	154	U
53	CA	155	A
53	CA	160	A
53	CA	164	G
53	CA	166	U
53	CA	174	A
53	CA	175	C
53	CA	177	G
53	CA	178	C
53	CA	181	A
53	CA	182	A
53	CA	184	G
53	CA	185	U
53	CA	195	A
53	CA	198	G
53	CA	199	A
53	CA	200	G
53	CA	201	G
53	CA	207	C
53	CA	208	U
53	CA	209	U
53	CA	210	C
53	CA	211	G

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Mol	Chain	Res	Type
53	CA	212	G
53	CA	213	G
53	CA	214	C
53	CA	239	U
53	CA	240	G
53	CA	241	G
53	CA	243	A
53	CA	244	U
53	CA	245	U
53	CA	247	G
53	CA	248	C
53	CA	249	U
53	CA	250	A
53	CA	251	G
53	CA	252	U
53	CA	253	A
53	CA	258	G
53	CA	266	G
53	CA	267	C
53	CA	268	U
53	CA	275	G
53	CA	276	G
53	CA	277	C
53	CA	278	G
53	CA	280	C
53	CA	282	A
53	CA	283	U
53	CA	289	G
53	CA	298	A
53	CA	301	G
53	CA	305	G
53	CA	306	A
53	CA	316	C
53	CA	317	U
53	CA	321	A
53	CA	328	C
53	CA	329	A
53	CA	330	C
53	CA	331	G
53	CA	332	G
53	CA	338	A
53	CA	344	A

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Mol	Chain	Res	Type
53	CA	345	C
53	CA	346	G
53	CA	347	G
53	CA	348	G
53	CA	349	A
53	CA	350	G
53	CA	351	G
53	CA	352	C
53	CA	353	A
53	CA	354	G
53	CA	365	U
53	CA	367	U
53	CA	369	G
53	CA	370	C
53	CA	372	C
53	CA	373	A
53	CA	374	A
53	CA	375	U
53	CA	381	C
53	CA	382	A
53	CA	384	G
53	CA	389	A
53	CA	390	U
53	CA	397	A
53	CA	398	U
53	CA	406	G
53	CA	411	A
53	CA	412	A
53	CA	413	G
53	CA	414	A
53	CA	415	A
53	CA	417	G
53	CA	421	U
53	CA	422	C
53	CA	423	G
53	CA	424	G
53	CA	425	G
53	CA	428	G
53	CA	429	U
53	CA	430	A
53	CA	431	A
53	CA	437	U

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Mol	Chain	Res	Type
53	CA	438	U
53	CA	439	U
53	CA	440	C
53	CA	452	A
53	CA	453	G
53	CA	454	G
53	CA	456	A
53	CA	457	G
53	CA	458	U
53	CA	461	A
53	CA	463	U
53	CA	464	U
53	CA	465	A
53	CA	466	A
53	CA	467	U
53	CA	468	A
53	CA	469	C
53	CA	474	G
53	CA	476	U
53	CA	478	A
53	CA	479	U
53	CA	481	G
53	CA	482	A
53	CA	483	C
53	CA	484	G
53	CA	485	U
53	CA	486	U
53	CA	487	A
53	CA	496	A
53	CA	497	G
53	CA	498	A
53	CA	499	A
53	CA	500	G
53	CA	501	C
53	CA	508	U
53	CA	509	A
53	CA	510	A
53	CA	511	C
53	CA	512	U
53	CA	513	C
53	CA	514	C
53	CA	517	G

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Mol	Chain	Res	Type
53	CA	518	C
53	CA	519	C
53	CA	520	A
53	CA	521	G
53	CA	522	C
53	CA	527	G
53	CA	528	C
53	CA	531	U
53	CA	532	A
53	CA	533	A
53	CA	534	U
53	CA	536	C
53	CA	548	G
53	CA	549	C
53	CA	559	A
53	CA	560	A
53	CA	562	U
53	CA	563	A
53	CA	564	C
53	CA	565	U
53	CA	566	G
53	CA	567	G
53	CA	568	G
53	CA	572	A
53	CA	573	A
53	CA	575	G
53	CA	576	C
53	CA	577	G
53	CA	578	C
53	CA	596	A
53	CA	597	G
53	CA	610	U
53	CA	631	C
53	CA	642	A
53	CA	643	C
53	CA	644	U
53	CA	653	U
53	CA	654	G
53	CA	655	A
53	CA	665	A
53	CA	688	G
53	CA	689	C

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Mol	Chain	Res	Type
53	CA	694	A
53	CA	695	A
53	CA	700	G
53	CA	701	U
53	CA	702	A
53	CA	703	G
53	CA	704	A
53	CA	705	G
53	CA	718	A
53	CA	719	C
53	CA	721	G
53	CA	722	G
53	CA	723	U
53	CA	724	G
53	CA	731	G
53	CA	733	G
53	CA	734	G
53	CA	735	C
53	CA	748	G
53	CA	752	G
53	CA	753	A
53	CA	754	C
53	CA	755	G
53	CA	756	C
53	CA	760	G
53	CA	777	A
53	CA	781	A
53	CA	782	A
53	CA	785	G
53	CA	787	A
53	CA	793	U
53	CA	794	A
53	CA	795	C
53	CA	799	G
53	CA	803	G
53	CA	804	U
53	CA	810	C
53	CA	812	G
53	CA	815	A
53	CA	816	A
53	CA	817	C
53	CA	818	G

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Mol	Chain	Res	Type
53	CA	819	A
53	CA	821	G
53	CA	822	U
53	CA	828	U
53	CA	829	G
53	CA	841	C
53	CA	842	U
53	CA	843	U
53	CA	844	G
53	CA	845	A
53	CA	846	G
53	CA	847	G
53	CA	849	G
53	CA	874	G
53	CA	875	U
53	CA	880	C
53	CA	885	G
53	CA	889	A
53	CA	890	G
53	CA	891	U
53	CA	892	A
53	CA	914	A
53	CA	915	A
53	CA	926	G
53	CA	927	G
53	CA	934	C
53	CA	935	A
53	CA	936	C
53	CA	937	A
53	CA	942	G
53	CA	945	G
53	CA	960	U
53	CA	961	U
53	CA	962	C
53	CA	963	G
53	CA	966	G
53	CA	968	A
53	CA	969	A
53	CA	970	C
53	CA	972	C
53	CA	974	A
53	CA	975	A

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Mol	Chain	Res	Type
53	CA	976	G
53	CA	977	A
53	CA	979	C
53	CA	980	C
53	CA	982	U
53	CA	983	A
53	CA	985	C
53	CA	987	G
53	CA	989	U
53	CA	990	C
53	CA	991	U
53	CA	992	U
53	CA	993	G
53	CA	995	C
53	CA	996	A
53	CA	997	U
53	CA	1000	A
53	CA	1004	A
53	CA	1006	G
53	CA	1016	A
53	CA	1019	A
53	CA	1020	G
53	CA	1022	A
53	CA	1024	G
53	CA	1026	G
53	CA	1029	U
53	CA	1031	C
53	CA	1032	G
53	CA	1036	A
53	CA	1037	C
53	CA	1046	A
53	CA	1047	G
53	CA	1049	U
53	CA	1050	G
53	CA	1051	C
53	CA	1052	U
53	CA	1053	G
53	CA	1054	C
53	CA	1064	G
53	CA	1065	U
53	CA	1066	C
53	CA	1067	A

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Mol	Chain	Res	Type
53	CA	1068	G
53	CA	1069	C
53	CA	1085	U
53	CA	1086	U
53	CA	1087	G
53	CA	1088	G
53	CA	1094	G
53	CA	1095	U
53	CA	1101	A
53	CA	1102	A
53	CA	1103	C
53	CA	1113	C
53	CA	1125	U
53	CA	1127	G
53	CA	1128	C
53	CA	1129	C
53	CA	1130	A
53	CA	1136	C
53	CA	1137	C
53	CA	1138	G
53	CA	1139	G
53	CA	1140	C
53	CA	1141	C
53	CA	1142	G
53	CA	1143	G
53	CA	1144	G
53	CA	1145	A
53	CA	1146	A
53	CA	1147	C
53	CA	1148	U
53	CA	1149	C
53	CA	1152	A
53	CA	1153	G
53	CA	1158	C
53	CA	1159	U
53	CA	1160	G
53	CA	1161	C
53	CA	1162	C
53	CA	1168	U
53	CA	1169	A
53	CA	1178	G
53	CA	1181	G

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Mol	Chain	Res	Type
53	CA	1183	U
53	CA	1184	G
53	CA	1185	G
53	CA	1190	G
53	CA	1191	A
53	CA	1192	C
53	CA	1193	G
53	CA	1196	A
53	CA	1197	A
53	CA	1200	C
53	CA	1201	A
53	CA	1202	U
53	CA	1203	C
53	CA	1211	U
53	CA	1212	U
53	CA	1213	A
53	CA	1214	C
53	CA	1215	G
53	CA	1217	C
53	CA	1218	C
53	CA	1222	G
53	CA	1224	U
53	CA	1225	A
53	CA	1226	C
53	CA	1227	A
53	CA	1228	C
53	CA	1229	A
53	CA	1230	C
53	CA	1231	G
53	CA	1238	A
53	CA	1239	A
53	CA	1240	U
53	CA	1241	G
53	CA	1243	C
53	CA	1250	A
53	CA	1251	A
53	CA	1256	A
53	CA	1257	A
53	CA	1263	C
53	CA	1266	G
53	CA	1278	G
53	CA	1279	G

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Mol	Chain	Res	Type
53	CA	1280	A
53	CA	1281	C
53	CA	1282	C
53	CA	1283	U
53	CA	1284	C
53	CA	1285	A
53	CA	1286	U
53	CA	1287	A
53	CA	1288	A
53	CA	1289	A
53	CA	1294	G
53	CA	1295	U
53	CA	1297	G
53	CA	1299	A
53	CA	1300	G
53	CA	1301	U
53	CA	1302	C
53	CA	1303	C
53	CA	1305	G
53	CA	1312	G
53	CA	1316	G
53	CA	1317	C
53	CA	1320	C
53	CA	1322	C
53	CA	1323	G
53	CA	1324	A
53	CA	1332	A
53	CA	1337	G
53	CA	1338	G
53	CA	1346	A
53	CA	1348	U
53	CA	1349	A
53	CA	1350	A
53	CA	1359	C
53	CA	1362	A
53	CA	1364	U
53	CA	1365	G
53	CA	1366	C
53	CA	1367	C
53	CA	1368	A
53	CA	1379	G
53	CA	1381	U

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Mol	Chain	Res	Type
53	CA	1382	C
53	CA	1394	A
53	CA	1395	C
53	CA	1396	A
53	CA	1397	C
53	CA	1398	A
53	CA	1399	C
53	CA	1402	C
53	CA	1406	U
53	CA	1411	C
53	CA	1429	A
53	CA	1432	G
53	CA	1441	A
53	CA	1446	A
53	CA	1447	A
53	CA	1448	C
53	CA	1449	C
53	CA	1450	U
53	CA	1452	C
53	CA	1453	G
53	CA	1454	G
53	CA	1455	G
53	CA	1456	A
53	CA	1491	G
53	CA	1493	A
53	CA	1494	G
53	CA	1497	G
53	CA	1499	A
53	CA	1500	A
53	CA	1502	A
53	CA	1503	A
53	CA	1505	G
53	CA	1507	A
53	CA	1517	G
53	CA	1519	A
53	CA	1520	C
53	CA	1529	G
53	CA	1530	G
53	CA	1531	A
22	DA	13	A
22	DA	14	A
22	DA	15	G

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Mol	Chain	Res	Type
22	DA	16	C
22	DA	28	A
22	DA	29	U
22	DA	34	U
22	DA	35	G
22	DA	36	G
22	DA	37	C
22	DA	39	G
22	DA	46	G
22	DA	49	A
22	DA	50	U
22	DA	52	A
22	DA	53	A
22	DA	55	G
22	DA	61	C
22	DA	62	U
22	DA	64	A
22	DA	70	G
22	DA	71	A
22	DA	73	A
22	DA	74	A
22	DA	75	G
22	DA	76	C
22	DA	77	G
22	DA	78	U
22	DA	79	C
22	DA	83	A
22	DA	84	A
22	DA	85	G
22	DA	86	G
22	DA	87	U
22	DA	88	G
22	DA	91	A
22	DA	92	U
22	DA	93	G
22	DA	96	C
22	DA	100	U
22	DA	101	A
22	DA	102	U
22	DA	103	A
22	DA	104	A
22	DA	105	C

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Mol	Chain	Res	Type
22	DA	118	A
22	DA	119	A
22	DA	120	U
22	DA	121	G
22	DA	122	G
22	DA	123	G
22	DA	126	A
22	DA	128	C
22	DA	129	C
22	DA	130	C
22	DA	134	G
22	DA	139	U
22	DA	140	C
22	DA	141	G
22	DA	142	A
22	DA	143	C
22	DA	155	A
22	DA	156	A
22	DA	160	A
22	DA	162	U
22	DA	163	C
22	DA	164	C
22	DA	165	A
22	DA	166	U
22	DA	180	G
22	DA	181	A
22	DA	196	A
22	DA	197	A
22	DA	199	A
22	DA	204	A
22	DA	205	G
22	DA	206	U
22	DA	207	A
22	DA	208	C
22	DA	216	A
22	DA	217	A
22	DA	218	A
22	DA	222	A
22	DA	223	A
22	DA	224	U
22	DA	225	C
22	DA	227	A

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Mol	Chain	Res	Type
22	DA	228	C
22	DA	229	C
22	DA	230	G
22	DA	231	A
22	DA	232	G
22	DA	233	A
22	DA	234	U
22	DA	235	U
22	DA	241	A
22	DA	242	G
22	DA	244	A
22	DA	245	G
22	DA	248	G
22	DA	249	C
22	DA	250	G
22	DA	251	A
22	DA	255	A
22	DA	258	G
22	DA	264	C
22	DA	265	A
22	DA	266	G
22	DA	271	G
22	DA	272	A
22	DA	273	G
22	DA	274	C
22	DA	277	G
22	DA	280	U
22	DA	281	C
22	DA	284	U
22	DA	285	G
22	DA	294	A
22	DA	295	G
22	DA	299	A
22	DA	301	G
22	DA	302	C
22	DA	303	G
22	DA	304	U
22	DA	311	A
22	DA	312	G
22	DA	314	C
22	DA	315	G
22	DA	322	A

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Mol	Chain	Res	Type
22	DA	323	C
22	DA	324	A
22	DA	325	G
22	DA	326	G
22	DA	329	G
22	DA	330	A
22	DA	334	C
22	DA	335	C
22	DA	336	C
22	DA	337	C
22	DA	343	C
22	DA	351	C
22	DA	353	C
22	DA	354	A
22	DA	362	A
22	DA	367	G
22	DA	371	A
22	DA	372	G
22	DA	373	U
22	DA	374	A
22	DA	375	G
22	DA	383	C
22	DA	386	G
22	DA	387	U
22	DA	388	G
22	DA	390	U
22	DA	392	U
22	DA	396	G
22	DA	397	U
22	DA	398	C
22	DA	399	U
22	DA	404	A
22	DA	405	U
22	DA	406	G
22	DA	407	G
22	DA	408	G
22	DA	411	G
22	DA	412	A
22	DA	413	C
22	DA	414	C
22	DA	424	G
22	DA	425	G

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Mol	Chain	Res	Type
22	DA	430	A
22	DA	436	C
22	DA	442	G
22	DA	443	A
22	DA	444	C
22	DA	445	C
22	DA	446	G
22	DA	447	A
22	DA	449	A
22	DA	450	G
22	DA	451	U
22	DA	455	C
22	DA	457	A
22	DA	459	U
22	DA	460	A
22	DA	461	C
22	DA	462	C
22	DA	475	C
22	DA	476	G
22	DA	477	A
22	DA	478	A
22	DA	479	A
22	DA	480	A
22	DA	481	G
22	DA	482	A
22	DA	485	C
22	DA	490	C
22	DA	491	G
22	DA	492	A
22	DA	498	G
22	DA	502	A
22	DA	504	A
22	DA	505	A
22	DA	507	A
22	DA	510	C
22	DA	511	U
22	DA	512	G
22	DA	527	C
22	DA	528	A
22	DA	529	A
22	DA	530	G
22	DA	531	C

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Mol	Chain	Res	Type
22	DA	532	A
22	DA	533	G
22	DA	534	U
22	DA	544	C
22	DA	545	U
22	DA	546	U
22	DA	547	A
22	DA	548	G
22	DA	549	G
22	DA	562	U
22	DA	563	A
22	DA	571	U
22	DA	572	A
22	DA	573	U
22	DA	574	A
22	DA	575	A
22	DA	576	U
22	DA	577	G
22	DA	586	A
22	DA	587	C
22	DA	588	U
22	DA	589	U
22	DA	590	A
22	DA	603	A
22	DA	604	G
22	DA	605	G
22	DA	606	U
22	DA	607	U
22	DA	613	A
22	DA	614	A
22	DA	616	A
22	DA	617	G
22	DA	618	G
22	DA	621	A
22	DA	622	G
22	DA	623	C
22	DA	627	A
22	DA	628	G
22	DA	629	G
22	DA	637	A
22	DA	638	G
22	DA	639	U

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Mol	Chain	Res	Type
22	DA	645	C
22	DA	646	U
22	DA	654	A
22	DA	655	A
22	DA	656	G
22	DA	657	U
22	DA	662	G
22	DA	669	G
22	DA	671	C
22	DA	672	C
22	DA	673	C
22	DA	686	U
22	DA	687	C
22	DA	688	U
22	DA	699	A
22	DA	702	U
22	DA	705	A
22	DA	717	C
22	DA	726	G
22	DA	727	A
22	DA	728	G
22	DA	729	G
22	DA	730	A
22	DA	731	C
22	DA	739	A
22	DA	740	C
22	DA	741	U
22	DA	745	G
22	DA	746	U
22	DA	747	U
22	DA	748	G
22	DA	751	A
22	DA	753	A
22	DA	756	A
22	DA	757	G
22	DA	763	G
22	DA	764	A
22	DA	765	C
22	DA	766	U
22	DA	775	G
22	DA	776	G
22	DA	777	G

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Mol	Chain	Res	Type
22	DA	778	G
22	DA	782	A
22	DA	783	A
22	DA	784	G
22	DA	785	G
22	DA	789	A
22	DA	790	U
22	DA	791	C
22	DA	792	A
22	DA	794	A
22	DA	798	G
22	DA	800	A
22	DA	801	G
22	DA	802	A
22	DA	803	U
22	DA	805	G
22	DA	806	C
22	DA	812	C
22	DA	819	A
22	DA	827	U
22	DA	828	U
22	DA	830	G
22	DA	831	G
22	DA	832	U
22	DA	846	U
22	DA	847	U
22	DA	858	G
22	DA	859	G
22	DA	860	U
22	DA	861	A
22	DA	862	G
22	DA	866	A
22	DA	867	C
22	DA	868	U
22	DA	869	G
22	DA	875	G
22	DA	877	A
22	DA	878	A
22	DA	902	C
22	DA	910	A
22	DA	912	C
22	DA	914	G

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Mol	Chain	Res	Type
22	DA	915	C
22	DA	916	G
22	DA	917	A
22	DA	919	U
22	DA	922	C
22	DA	932	U
22	DA	933	A
22	DA	934	U
22	DA	941	A
22	DA	944	C
22	DA	946	C
22	DA	947	A
22	DA	948	C
22	DA	953	G
22	DA	958	U
22	DA	959	A
22	DA	960	A
22	DA	961	C
22	DA	962	G
22	DA	963	U
22	DA	964	C
22	DA	965	C
22	DA	973	A
22	DA	974	G
22	DA	976	G
22	DA	977	G
22	DA	983	A
22	DA	985	C
22	DA	990	A
22	DA	991	C
22	DA	992	C
22	DA	996	A
22	DA	1005	C
22	DA	1008	A
22	DA	1009	A
22	DA	1010	A
22	DA	1011	G
22	DA	1012	U
22	DA	1013	C
22	DA	1014	A
22	DA	1020	A
22	DA	1021	A

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Mol	Chain	Res	Type
22	DA	1022	G
22	DA	1023	U
22	DA	1024	G
22	DA	1025	G
22	DA	1026	G
22	DA	1027	A
22	DA	1028	A
22	DA	1033	U
22	DA	1034	G
22	DA	1035	U
22	DA	1039	A
22	DA	1040	A
22	DA	1044	C
22	DA	1045	C
22	DA	1046	A
22	DA	1047	G
22	DA	1048	A
22	DA	1050	A
22	DA	1051	G
22	DA	1055	G
22	DA	1056	G
22	DA	1057	A
22	DA	1060	U
22	DA	1061	U
22	DA	1063	G
22	DA	1064	C
22	DA	1065	U
22	DA	1066	U
22	DA	1068	G
22	DA	1070	A
22	DA	1071	G
22	DA	1072	C
22	DA	1073	A
22	DA	1074	G
22	DA	1075	C
22	DA	1076	C
22	DA	1077	A
22	DA	1078	U
22	DA	1079	C
22	DA	1080	A
22	DA	1081	U
22	DA	1083	U

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Mol	Chain	Res	Type
22	DA	1088	A
22	DA	1089	A
22	DA	1091	G
22	DA	1097	U
22	DA	1100	C
22	DA	1103	A
22	DA	1111	A
22	DA	1112	G
22	DA	1113	U
22	DA	1114	C
22	DA	1115	G
22	DA	1126	A
22	DA	1127	A
22	DA	1128	G
22	DA	1129	A
22	DA	1130	U
22	DA	1132	U
22	DA	1133	A
22	DA	1134	A
22	DA	1135	C
22	DA	1136	G
22	DA	1137	G
22	DA	1139	G
22	DA	1142	A
22	DA	1144	A
22	DA	1145	C
22	DA	1155	A
22	DA	1156	A
22	DA	1157	G
22	DA	1158	C
22	DA	1169	A
22	DA	1172	C
22	DA	1174	U
22	DA	1176	U
22	DA	1204	A
22	DA	1205	A
22	DA	1206	G
22	DA	1207	C
22	DA	1208	C
22	DA	1211	C
22	DA	1213	A
22	DA	1227	G

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Mol	Chain	Res	Type
22	DA	1231	U
22	DA	1237	A
22	DA	1240	U
22	DA	1241	A
22	DA	1242	U
22	DA	1246	A
22	DA	1247	A
22	DA	1248	G
22	DA	1249	U
22	DA	1250	G
22	DA	1253	A
22	DA	1255	U
22	DA	1256	G
22	DA	1257	C
22	DA	1262	A
22	DA	1265	A
22	DA	1266	G
22	DA	1267	U
22	DA	1268	A
22	DA	1269	A
22	DA	1271	G
22	DA	1272	A
22	DA	1273	U
22	DA	1274	A
22	DA	1275	A
22	DA	1276	A
22	DA	1277	G
22	DA	1286	A
22	DA	1287	A
22	DA	1288	G
22	DA	1290	C
22	DA	1291	C
22	DA	1292	G
22	DA	1300	G
22	DA	1301	A
22	DA	1304	A
22	DA	1305	C
22	DA	1311	G
22	DA	1313	U
22	DA	1314	C
22	DA	1315	C
22	DA	1321	A

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Mol	Chain	Res	Type
22	DA	1324	G
22	DA	1325	U
22	DA	1326	U
22	DA	1327	A
22	DA	1328	A
22	DA	1329	U
22	DA	1330	C
22	DA	1331	G
22	DA	1332	G
22	DA	1333	G
22	DA	1334	G
22	DA	1336	A
22	DA	1337	G
22	DA	1340	U
22	DA	1341	G
22	DA	1342	A
22	DA	1343	G
22	DA	1345	C
22	DA	1346	G
22	DA	1347	A
22	DA	1352	U
22	DA	1365	A
22	DA	1374	G
22	DA	1379	U
22	DA	1382	G
22	DA	1383	A
22	DA	1385	A
22	DA	1386	C
22	DA	1387	A
22	DA	1388	G
22	DA	1389	G
22	DA	1397	U
22	DA	1398	C
22	DA	1399	C
22	DA	1400	U
22	DA	1401	G
22	DA	1403	A
22	DA	1404	C
22	DA	1416	G
22	DA	1417	C
22	DA	1418	G
22	DA	1419	A

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Mol	Chain	Res	Type
22	DA	1421	G
22	DA	1426	G
22	DA	1427	A
22	DA	1428	C
22	DA	1430	G
22	DA	1431	A
22	DA	1434	A
22	DA	1440	U
22	DA	1452	G
22	DA	1453	A
22	DA	1455	G
22	DA	1456	G
22	DA	1457	U
22	DA	1458	U
22	DA	1459	G
22	DA	1460	U
22	DA	1461	C
22	DA	1470	A
22	DA	1476	U
22	DA	1478	G
22	DA	1482	G
22	DA	1483	G
22	DA	1490	A
22	DA	1491	G
22	DA	1492	G
22	DA	1493	C
22	DA	1494	A
22	DA	1497	U
22	DA	1498	C
22	DA	1499	C
22	DA	1503	A
22	DA	1504	A
22	DA	1507	C
22	DA	1508	A
22	DA	1509	A
22	DA	1510	G
22	DA	1511	G
22	DA	1512	C
22	DA	1520	U
22	DA	1522	A
22	DA	1524	G
22	DA	1531	C

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Mol	Chain	Res	Type
22	DA	1532	A
22	DA	1534	U
22	DA	1535	A
22	DA	1536	C
22	DA	1537	G
22	DA	1538	G
22	DA	1539	U
22	DA	1540	G
22	DA	1541	C
22	DA	1554	U
22	DA	1555	G
22	DA	1556	C
22	DA	1557	C
22	DA	1558	C
22	DA	1559	U
22	DA	1560	G
22	DA	1561	C
22	DA	1565	C
22	DA	1566	A
22	DA	1567	G
22	DA	1568	G
22	DA	1569	A
22	DA	1570	A
22	DA	1583	A
22	DA	1584	U
22	DA	1585	C
22	DA	1586	A
22	DA	1600	C
22	DA	1603	A
22	DA	1604	C
22	DA	1606	C
22	DA	1607	C
22	DA	1608	A
22	DA	1610	A
22	DA	1612	C
22	DA	1613	G
22	DA	1615	C
22	DA	1616	A
22	DA	1618	A
22	DA	1626	A
22	DA	1627	G
22	DA	1635	A

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Mol	Chain	Res	Type
22	DA	1636	U
22	DA	1637	A
22	DA	1640	A
22	DA	1646	C
22	DA	1647	U
22	DA	1648	U
22	DA	1649	G
22	DA	1650	A
22	DA	1654	A
22	DA	1655	A
22	DA	1663	G
22	DA	1668	A
22	DA	1669	A
22	DA	1670	C
22	DA	1674	G
22	DA	1675	C
22	DA	1676	A
22	DA	1682	G
22	DA	1683	U
22	DA	1684	G
22	DA	1694	C
22	DA	1695	G
22	DA	1696	G
22	DA	1697	G
22	DA	1698	A
22	DA	1699	G
22	DA	1700	A
22	DA	1701	A
22	DA	1707	G
22	DA	1713	A
22	DA	1714	U
22	DA	1715	G
22	DA	1717	A
22	DA	1718	G
22	DA	1722	A
22	DA	1723	G
22	DA	1728	C
22	DA	1729	U
22	DA	1730	C
22	DA	1731	G
22	DA	1732	C
22	DA	1733	G

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Mol	Chain	Res	Type
22	DA	1734	G
22	DA	1735	A
22	DA	1736	U
22	DA	1739	A
22	DA	1740	G
22	DA	1756	G
22	DA	1758	U
22	DA	1759	A
22	DA	1760	C
22	DA	1764	C
22	DA	1773	A
22	DA	1776	G
22	DA	1777	U
22	DA	1780	A
22	DA	1781	U
22	DA	1782	U
22	DA	1783	A
22	DA	1784	A
22	DA	1785	A
22	DA	1786	A
22	DA	1787	A
22	DA	1788	C
22	DA	1800	C
22	DA	1802	A
22	DA	1803	A
22	DA	1804	C
22	DA	1808	A
22	DA	1809	A
22	DA	1810	A
22	DA	1811	G
22	DA	1812	U
22	DA	1815	A
22	DA	1816	C
22	DA	1817	G
22	DA	1818	U
22	DA	1820	U
22	DA	1821	A
22	DA	1822	C
22	DA	1823	G
22	DA	1824	G
22	DA	1828	G
22	DA	1829	A

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Mol	Chain	Res	Type
22	DA	1838	C
22	DA	1839	G
22	DA	1840	G
22	DA	1847	A
22	DA	1848	A
22	DA	1857	G
22	DA	1865	U
22	DA	1870	C
22	DA	1873	G
22	DA	1875	G
22	DA	1877	A
22	DA	1884	G
22	DA	1889	A
22	DA	1900	A
22	DA	1901	A
22	DA	1902	C
22	DA	1903	G
22	DA	1906	G
22	DA	1913	A
22	DA	1914	C
22	DA	1915	U
22	DA	1916	A
22	DA	1919	A
22	DA	1920	C
22	DA	1927	A
22	DA	1929	G
22	DA	1930	G
22	DA	1931	U
22	DA	1932	A
22	DA	1937	A
22	DA	1938	A
22	DA	1939	U
22	DA	1941	C
22	DA	1942	C
22	DA	1943	U
22	DA	1944	U
22	DA	1945	G
22	DA	1946	U
22	DA	1955	U
22	DA	1956	U
22	DA	1963	U
22	DA	1964	G

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Mol	Chain	Res	Type
22	DA	1966	A
22	DA	1967	C
22	DA	1968	G
22	DA	1970	A
22	DA	1971	U
22	DA	1972	G
22	DA	1973	G
22	DA	1975	G
22	DA	1981	A
22	DA	1982	U
22	DA	1983	G
22	DA	1991	U
22	DA	1993	U
22	DA	1994	C
22	DA	1996	C
22	DA	1997	C
22	DA	1998	A
22	DA	2015	A
22	DA	2018	G
22	DA	2020	A
22	DA	2021	C
22	DA	2022	U
22	DA	2023	C
22	DA	2024	G
22	DA	2025	C
22	DA	2030	A
22	DA	2031	A
22	DA	2032	G
22	DA	2033	A
22	DA	2034	U
22	DA	2035	G
22	DA	2036	C
22	DA	2037	A
22	DA	2043	C
22	DA	2052	A
22	DA	2055	C
22	DA	2056	G
22	DA	2060	A
22	DA	2061	G
22	DA	2062	A
22	DA	2063	C
22	DA	2064	C

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Mol	Chain	Res	Type
22	DA	2065	C
22	DA	2068	U
22	DA	2069	G
22	DA	2079	U
22	DA	2092	U
22	DA	2093	G
22	DA	2094	A
22	DA	2095	A
22	DA	2104	C
22	DA	2108	A
22	DA	2109	U
22	DA	2110	G
22	DA	2134	A
22	DA	2135	A
22	DA	2136	G
22	DA	2137	U
22	DA	2138	G
22	DA	2139	U
22	DA	2143	C
22	DA	2144	G
22	DA	2145	C
22	DA	2147	A
22	DA	2148	G
22	DA	2150	C
22	DA	2151	U
22	DA	2152	G
22	DA	2153	C
22	DA	2154	A
22	DA	2156	G
22	DA	2157	G
22	DA	2180	U
22	DA	2181	U
22	DA	2183	A
22	DA	2187	U
22	DA	2191	A
22	DA	2192	U
22	DA	2198	A
22	DA	2199	A
22	DA	2200	C
22	DA	2204	G
22	DA	2210	U
22	DA	2211	A

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Mol	Chain	Res	Type
22	DA	2212	A
22	DA	2213	U
22	DA	2214	C
22	DA	2215	C
22	DA	2216	G
22	DA	2217	G
22	DA	2225	A
22	DA	2226	C
22	DA	2227	A
22	DA	2238	G
22	DA	2239	G
22	DA	2240	U
22	DA	2249	U
22	DA	2250	G
22	DA	2259	U
22	DA	2260	C
22	DA	2266	A
22	DA	2267	A
22	DA	2268	A
22	DA	2275	C
22	DA	2276	G
22	DA	2277	G
22	DA	2279	G
22	DA	2283	C
22	DA	2284	A
22	DA	2286	G
22	DA	2287	A
22	DA	2289	G
22	DA	2290	G
22	DA	2296	U
22	DA	2297	A
22	DA	2298	A
22	DA	2299	U
22	DA	2300	C
22	DA	2305	U
22	DA	2306	C
22	DA	2308	G
22	DA	2309	A
22	DA	2310	C
22	DA	2311	A
22	DA	2312	U
22	DA	2313	C

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Mol	Chain	Res	Type
22	DA	2314	A
22	DA	2315	G
22	DA	2320	U
22	DA	2325	G
22	DA	2332	C
22	DA	2334	U
22	DA	2335	A
22	DA	2337	G
22	DA	2338	C
22	DA	2339	C
22	DA	2340	A
22	DA	2345	G
22	DA	2347	C
22	DA	2348	U
22	DA	2349	G
22	DA	2350	C
22	DA	2357	G
22	DA	2358	A
22	DA	2361	G
22	DA	2382	G
22	DA	2383	G
22	DA	2384	U
22	DA	2385	C
22	DA	2386	A
22	DA	2387	U
22	DA	2390	U
22	DA	2392	A
22	DA	2393	U
22	DA	2394	C
22	DA	2402	U
22	DA	2403	C
22	DA	2404	U
22	DA	2405	G
22	DA	2406	A
22	DA	2407	A
22	DA	2409	G
22	DA	2410	G
22	DA	2423	U
22	DA	2424	C
22	DA	2426	A
22	DA	2427	C
22	DA	2428	G

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Mol	Chain	Res	Type
22	DA	2429	G
22	DA	2430	A
22	DA	2431	U
22	DA	2435	A
22	DA	2439	A
22	DA	2440	C
22	DA	2441	U
22	DA	2447	G
22	DA	2448	A
22	DA	2450	A
22	DA	2451	A
22	DA	2457	U
22	DA	2459	A
22	DA	2460	U
22	DA	2475	C
22	DA	2476	A
22	DA	2490	G
22	DA	2491	U
22	DA	2493	U
22	DA	2494	G
22	DA	2498	C
22	DA	2499	C
22	DA	2502	G
22	DA	2503	A
22	DA	2504	U
22	DA	2505	G
22	DA	2506	U
22	DA	2513	A
22	DA	2518	A
22	DA	2520	C
22	DA	2521	C
22	DA	2529	G
22	DA	2534	A
22	DA	2543	G
22	DA	2544	G
22	DA	2547	A
22	DA	2554	U
22	DA	2567	G
22	DA	2573	C
22	DA	2574	G
22	DA	2576	G
22	DA	2578	G

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Mol	Chain	Res	Type
22	DA	2581	G
22	DA	2582	G
22	DA	2583	G
22	DA	2585	U
22	DA	2602	A
22	DA	2603	G
22	DA	2604	U
22	DA	2609	U
22	DA	2610	C
22	DA	2611	C
22	DA	2612	C
22	DA	2613	U
22	DA	2614	A
22	DA	2615	U
22	DA	2616	C
22	DA	2617	U
22	DA	2629	U
22	DA	2630	G
22	DA	2632	A
22	DA	2646	C
22	DA	2647	U
22	DA	2654	A
22	DA	2655	G
22	DA	2656	U
22	DA	2657	A
22	DA	2658	C
22	DA	2667	C
22	DA	2668	G
22	DA	2669	G
22	DA	2682	A
22	DA	2683	C
22	DA	2690	U
22	DA	2691	C
22	DA	2692	G
22	DA	2713	U
22	DA	2714	G
22	DA	2718	G
22	DA	2726	A
22	DA	2727	A
22	DA	2728	U
22	DA	2729	G
22	DA	2730	C

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Mol	Chain	Res	Type
22	DA	2732	G
22	DA	2736	A
22	DA	2748	A
22	DA	2750	A
22	DA	2751	G
22	DA	2752	C
22	DA	2753	A
22	DA	2756	U
22	DA	2757	A
22	DA	2758	A
22	DA	2765	A
22	DA	2777	G
22	DA	2778	A
22	DA	2791	G
22	DA	2792	A
22	DA	2799	A
22	DA	2800	A
22	DA	2801	G
22	DA	2808	G
22	DA	2820	A
22	DA	2822	G
22	DA	2823	A
22	DA	2833	U
22	DA	2834	G
22	DA	2835	A
22	DA	2836	U
22	DA	2837	A
22	DA	2838	G
22	DA	2848	G
22	DA	2850	A
22	DA	2851	A
22	DA	2852	G
22	DA	2861	U
22	DA	2866	U
22	DA	2867	G
22	DA	2868	A
22	DA	2869	G
22	DA	2872	A
22	DA	2873	A
22	DA	2874	C
22	DA	2875	C
22	DA	2876	G

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Mol	Chain	Res	Type
22	DA	2877	G
22	DA	2879	A
22	DA	2880	C
22	DA	2881	U
22	DA	2883	A
22	DA	2894	G
22	DA	2895	G
22	DA	2896	C
22	DA	2902	C
57	DB	9	G
57	DB	12	C
57	DB	13	G
57	DB	15	A
57	DB	16	G
57	DB	24	G
57	DB	25	U
57	DB	30	C
57	DB	35	C
57	DB	36	C
57	DB	41	G
57	DB	42	C
57	DB	43	C
57	DB	44	G
57	DB	45	A
57	DB	46	A
57	DB	48	U
57	DB	57	A
57	DB	58	A
57	DB	59	A
57	DB	63	C
57	DB	64	G
57	DB	65	U
57	DB	66	A
57	DB	67	G
57	DB	68	C
57	DB	69	G
57	DB	70	C
57	DB	87	U
57	DB	88	C
57	DB	89	U
57	DB	90	C
57	DB	91	C

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Mol	Chain	Res	Type
57	DB	99	A
57	DB	109	A
57	DB	110	C
57	DB	111	U
57	DB	112	G

All (1481) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	7	A
1	AA	9	G
1	AA	13	U
1	AA	14	U
1	AA	30	U
1	AA	32	A
1	AA	47	C
1	AA	51	A
1	AA	52	C
1	AA	60	A
1	AA	61	G
1	AA	64	G
1	AA	66	A
1	AA	73	C
1	AA	74	A
1	AA	85	U
1	AA	87	C
1	AA	91	U
1	AA	92	U
1	AA	94	G
1	AA	95	C
1	AA	97	G
1	AA	109	A
1	AA	110	C
1	AA	115	G
1	AA	116	A
1	AA	119	A
1	AA	129	A
1	AA	131	A
1	AA	173	U
1	AA	174	A
1	AA	175	C
1	AA	181	A

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Mol	Chain	Res	Type
1	AA	184	G
1	AA	197	A
1	AA	198	G
1	AA	199	A
1	AA	243	A
1	AA	245	U
1	AA	246	A
1	AA	247	G
1	AA	250	A
1	AA	251	G
1	AA	252	U
1	AA	266	G
1	AA	267	C
1	AA	268	U
1	AA	274	A
1	AA	275	G
1	AA	279	A
1	AA	305	G
1	AA	306	A
1	AA	315	A
1	AA	316	C
1	AA	327	A
1	AA	330	C
1	AA	344	A
1	AA	346	G
1	AA	351	G
1	AA	352	C
1	AA	366	A
1	AA	368	U
1	AA	369	G
1	AA	372	C
1	AA	373	A
1	AA	388	G
1	AA	411	A
1	AA	414	A
1	AA	421	U
1	AA	423	G
1	AA	428	G
1	AA	429	U
1	AA	430	A
1	AA	451	A
1	AA	452	A

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Mol	Chain	Res	Type
1	AA	466	A
1	AA	468	A
1	AA	484	G
1	AA	486	U
1	AA	487	A
1	AA	495	A
1	AA	497	G
1	AA	498	A
1	AA	499	A
1	AA	500	G
1	AA	508	U
1	AA	509	A
1	AA	511	C
1	AA	512	U
1	AA	517	G
1	AA	519	C
1	AA	531	U
1	AA	534	U
1	AA	535	A
1	AA	536	C
1	AA	547	A
1	AA	548	G
1	AA	559	A
1	AA	563	A
1	AA	564	C
1	AA	566	G
1	AA	567	G
1	AA	575	G
1	AA	577	G
1	AA	595	A
1	AA	596	A
1	AA	641	U
1	AA	642	A
1	AA	652	U
1	AA	654	G
1	AA	688	G
1	AA	701	U
1	AA	717	U
1	AA	718	A
1	AA	721	G
1	AA	722	G
1	AA	724	G

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Mol	Chain	Res	Type
1	AA	754	C
1	AA	755	G
1	AA	792	A
1	AA	794	A
1	AA	812	G
1	AA	813	U
1	AA	815	A
1	AA	816	A
1	AA	817	C
1	AA	821	G
1	AA	870	U
1	AA	874	G
1	AA	875	U
1	AA	884	U
1	AA	885	G
1	AA	889	A
1	AA	891	U
1	AA	913	A
1	AA	914	A
1	AA	934	C
1	AA	935	A
1	AA	960	U
1	AA	961	U
1	AA	965	U
1	AA	966	G
1	AA	968	A
1	AA	969	A
1	AA	971	G
1	AA	972	C
1	AA	974	A
1	AA	976	G
1	AA	982	U
1	AA	984	C
1	AA	991	U
1	AA	994	A
1	AA	1049	U
1	AA	1050	G
1	AA	1051	C
1	AA	1055	A
1	AA	1064	G
1	AA	1066	C
1	AA	1068	G

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Mol	Chain	Res	Type
1	AA	1085	U
1	AA	1087	G
1	AA	1094	G
1	AA	1101	A
1	AA	1102	A
1	AA	1125	U
1	AA	1127	G
1	AA	1129	C
1	AA	1130	A
1	AA	1136	C
1	AA	1141	C
1	AA	1145	A
1	AA	1152	A
1	AA	1157	A
1	AA	1158	C
1	AA	1161	C
1	AA	1162	C
1	AA	1168	U
1	AA	1169	A
1	AA	1181	G
1	AA	1184	G
1	AA	1190	G
1	AA	1191	A
1	AA	1192	C
1	AA	1196	A
1	AA	1197	A
1	AA	1200	C
1	AA	1201	A
1	AA	1202	U
1	AA	1215	G
1	AA	1224	U
1	AA	1226	C
1	AA	1228	C
1	AA	1229	A
1	AA	1239	A
1	AA	1241	G
1	AA	1256	A
1	AA	1258	G
1	AA	1282	C
1	AA	1297	G
1	AA	1303	C
1	AA	1304	G

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Mol	Chain	Res	Type
1	AA	1319	A
1	AA	1320	C
1	AA	1322	C
1	AA	1323	G
1	AA	1324	A
1	AA	1331	G
1	AA	1332	A
1	AA	1336	C
1	AA	1337	G
1	AA	1345	U
1	AA	1348	U
1	AA	1349	A
1	AA	1362	A
1	AA	1365	G
1	AA	1380	U
1	AA	1381	U
1	AA	1394	A
1	AA	1395	C
1	AA	1398	A
1	AA	1399	C
1	AA	1432	G
1	AA	1433	A
1	AA	1453	G
1	AA	1454	G
1	AA	1498	U
1	AA	1499	A
1	AA	1502	A
1	AA	1505	G
1	AA	1507	A
1	AA	1528	U
1	AA	1530	G
1	AA	1531	A
22	BA	13	A
22	BA	14	A
22	BA	27	G
22	BA	33	C
22	BA	34	U
22	BA	35	G
22	BA	49	A
22	BA	52	A
22	BA	60	G
22	BA	62	U

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Mol	Chain	Res	Type
22	BA	63	A
22	BA	70	G
22	BA	73	A
22	BA	74	A
22	BA	75	G
22	BA	84	A
22	BA	85	G
22	BA	91	A
22	BA	92	U
22	BA	100	U
22	BA	119	A
22	BA	121	G
22	BA	125	A
22	BA	126	A
22	BA	127	A
22	BA	137	U
22	BA	138	U
22	BA	142	A
22	BA	143	C
22	BA	162	U
22	BA	164	C
22	BA	177	G
22	BA	196	A
22	BA	199	A
22	BA	200	U
22	BA	204	A
22	BA	206	U
22	BA	215	G
22	BA	216	A
22	BA	221	A
22	BA	223	A
22	BA	227	A
22	BA	229	C
22	BA	230	G
22	BA	232	G
22	BA	241	A
22	BA	243	U
22	BA	249	C
22	BA	265	A
22	BA	266	G
22	BA	271	G
22	BA	273	G

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Mol	Chain	Res	Type
22	BA	301	G
22	BA	302	C
22	BA	310	A
22	BA	312	G
22	BA	321	U
22	BA	324	A
22	BA	329	G
22	BA	333	G
22	BA	345	A
22	BA	346	A
22	BA	373	U
22	BA	386	G
22	BA	388	G
22	BA	390	U
22	BA	391	A
22	BA	395	U
22	BA	403	U
22	BA	404	A
22	BA	411	G
22	BA	412	A
22	BA	421	C
22	BA	422	A
22	BA	434	U
22	BA	435	C
22	BA	442	G
22	BA	446	G
22	BA	454	A
22	BA	459	U
22	BA	474	G
22	BA	475	C
22	BA	479	A
22	BA	480	A
22	BA	481	G
22	BA	482	A
22	BA	489	G
22	BA	491	G
22	BA	503	A
22	BA	505	A
22	BA	506	G
22	BA	507	A
22	BA	509	C
22	BA	512	G

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Mol	Chain	Res	Type
22	BA	513	A
22	BA	527	C
22	BA	528	A
22	BA	529	A
22	BA	531	C
22	BA	533	G
22	BA	571	U
22	BA	572	A
22	BA	575	A
22	BA	587	C
22	BA	588	U
22	BA	603	A
22	BA	604	G
22	BA	613	A
22	BA	614	A
22	BA	616	A
22	BA	620	G
22	BA	621	A
22	BA	627	A
22	BA	637	A
22	BA	638	G
22	BA	645	C
22	BA	655	A
22	BA	669	G
22	BA	685	A
22	BA	687	C
22	BA	704	G
22	BA	705	A
22	BA	726	G
22	BA	727	A
22	BA	728	G
22	BA	729	G
22	BA	739	A
22	BA	746	U
22	BA	747	U
22	BA	752	A
22	BA	753	A
22	BA	762	U
22	BA	763	G
22	BA	764	A
22	BA	765	C
22	BA	774	G

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Mol	Chain	Res	Type
22	BA	782	A
22	BA	788	A
22	BA	800	A
22	BA	802	A
22	BA	805	G
22	BA	806	C
22	BA	811	U
22	BA	829	A
22	BA	858	G
22	BA	860	U
22	BA	865	C
22	BA	913	U
22	BA	914	G
22	BA	915	C
22	BA	931	U
22	BA	933	A
22	BA	945	A
22	BA	946	C
22	BA	957	C
22	BA	958	U
22	BA	961	C
22	BA	962	G
22	BA	972	A
22	BA	984	A
22	BA	985	C
22	BA	988	A
22	BA	989	G
22	BA	990	A
22	BA	995	C
22	BA	996	A
22	BA	1008	A
22	BA	1009	A
22	BA	1011	G
22	BA	1013	C
22	BA	1020	A
22	BA	1021	A
22	BA	1022	G
22	BA	1023	U
22	BA	1025	G
22	BA	1026	G
22	BA	1033	U
22	BA	1045	C

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Mol	Chain	Res	Type
22	BA	1060	U
22	BA	1062	G
22	BA	1063	G
22	BA	1073	A
22	BA	1110	G
22	BA	1111	A
22	BA	1112	G
22	BA	1126	A
22	BA	1128	G
22	BA	1129	A
22	BA	1135	C
22	BA	1141	U
22	BA	1144	A
22	BA	1150	C
22	BA	1151	A
22	BA	1156	A
22	BA	1157	G
22	BA	1204	A
22	BA	1206	G
22	BA	1210	G
22	BA	1213	A
22	BA	1236	G
22	BA	1247	A
22	BA	1249	U
22	BA	1254	A
22	BA	1265	A
22	BA	1267	U
22	BA	1272	A
22	BA	1273	U
22	BA	1275	A
22	BA	1276	A
22	BA	1286	A
22	BA	1287	A
22	BA	1289	C
22	BA	1300	G
22	BA	1303	G
22	BA	1311	G
22	BA	1320	C
22	BA	1321	A
22	BA	1324	G
22	BA	1326	U
22	BA	1329	U

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Mol	Chain	Res	Type
22	BA	1330	C
22	BA	1332	G
22	BA	1340	U
22	BA	1343	G
22	BA	1378	A
22	BA	1379	U
22	BA	1385	A
22	BA	1386	C
22	BA	1396	U
22	BA	1398	C
22	BA	1416	G
22	BA	1417	C
22	BA	1420	A
22	BA	1427	A
22	BA	1429	G
22	BA	1451	C
22	BA	1455	G
22	BA	1458	U
22	BA	1459	G
22	BA	1461	C
22	BA	1475	G
22	BA	1476	U
22	BA	1490	A
22	BA	1491	G
22	BA	1493	C
22	BA	1494	A
22	BA	1497	U
22	BA	1498	C
22	BA	1499	C
22	BA	1508	A
22	BA	1510	G
22	BA	1522	A
22	BA	1535	A
22	BA	1537	G
22	BA	1538	G
22	BA	1554	U
22	BA	1555	G
22	BA	1558	C
22	BA	1560	G
22	BA	1565	C
22	BA	1568	G
22	BA	1602	U

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Mol	Chain	Res	Type
22	BA	1606	C
22	BA	1611	C
22	BA	1615	C
22	BA	1619	G
22	BA	1626	A
22	BA	1634	A
22	BA	1647	U
22	BA	1648	U
22	BA	1653	G
22	BA	1654	A
22	BA	1674	G
22	BA	1681	G
22	BA	1682	G
22	BA	1693	U
22	BA	1695	G
22	BA	1696	G
22	BA	1698	A
22	BA	1700	A
22	BA	1706	C
22	BA	1707	G
22	BA	1713	A
22	BA	1714	U
22	BA	1716	U
22	BA	1732	C
22	BA	1733	G
22	BA	1734	G
22	BA	1739	A
22	BA	1758	U
22	BA	1759	A
22	BA	1780	A
22	BA	1782	U
22	BA	1784	A
22	BA	1785	A
22	BA	1786	A
22	BA	1787	A
22	BA	1799	G
22	BA	1802	A
22	BA	1808	A
22	BA	1809	A
22	BA	1815	A
22	BA	1816	C
22	BA	1817	G

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Mol	Chain	Res	Type
22	BA	1818	U
22	BA	1821	A
22	BA	1828	G
22	BA	1838	C
22	BA	1839	G
22	BA	1847	A
22	BA	1848	A
22	BA	1857	G
22	BA	1858	A
22	BA	1865	U
22	BA	1866	A
22	BA	1870	C
22	BA	1871	A
22	BA	1872	A
22	BA	1884	G
22	BA	1885	A
22	BA	1900	A
22	BA	1918	A
22	BA	1919	A
22	BA	1929	G
22	BA	1931	U
22	BA	1936	A
22	BA	1941	C
22	BA	1942	C
22	BA	1943	U
22	BA	1945	G
22	BA	1954	G
22	BA	1956	U
22	BA	1962	C
22	BA	1963	U
22	BA	1964	G
22	BA	1965	C
22	BA	1966	A
22	BA	1967	C
22	BA	1970	A
22	BA	1971	U
22	BA	1992	G
22	BA	1993	U
22	BA	1996	C
22	BA	1997	C
22	BA	2021	C
22	BA	2023	C

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Mol	Chain	Res	Type
22	BA	2030	A
22	BA	2034	U
22	BA	2035	G
22	BA	2036	C
22	BA	2051	A
22	BA	2060	A
22	BA	2063	C
22	BA	2067	G
22	BA	2068	U
22	BA	2092	U
22	BA	2093	G
22	BA	2136	G
22	BA	2137	U
22	BA	2146	C
22	BA	2148	G
22	BA	2149	U
22	BA	2150	C
22	BA	2197	U
22	BA	2199	A
22	BA	2210	U
22	BA	2214	C
22	BA	2225	A
22	BA	2226	C
22	BA	2238	G
22	BA	2239	G
22	BA	2249	U
22	BA	2258	C
22	BA	2266	A
22	BA	2267	A
22	BA	2275	C
22	BA	2276	G
22	BA	2282	G
22	BA	2283	C
22	BA	2287	A
22	BA	2296	U
22	BA	2297	A
22	BA	2307	G
22	BA	2309	A
22	BA	2311	A
22	BA	2319	G
22	BA	2321	U
22	BA	2324	U

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Mol	Chain	Res	Type
22	BA	2325	G
22	BA	2326	C
22	BA	2333	A
22	BA	2335	A
22	BA	2336	A
22	BA	2337	G
22	BA	2344	U
22	BA	2347	C
22	BA	2383	G
22	BA	2391	G
22	BA	2392	A
22	BA	2405	G
22	BA	2407	A
22	BA	2423	U
22	BA	2425	A
22	BA	2427	C
22	BA	2428	G
22	BA	2430	A
22	BA	2431	U
22	BA	2439	A
22	BA	2440	C
22	BA	2447	G
22	BA	2450	A
22	BA	2458	G
22	BA	2459	A
22	BA	2468	A
22	BA	2469	A
22	BA	2490	G
22	BA	2492	U
22	BA	2501	C
22	BA	2503	A
22	BA	2517	C
22	BA	2520	C
22	BA	2542	A
22	BA	2566	A
22	BA	2572	A
22	BA	2573	C
22	BA	2581	G
22	BA	2602	A
22	BA	2603	G
22	BA	2609	U
22	BA	2611	C

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Mol	Chain	Res	Type
22	BA	2613	U
22	BA	2615	U
22	BA	2629	U
22	BA	2630	G
22	BA	2638	G
22	BA	2645	G
22	BA	2654	A
22	BA	2656	U
22	BA	2681	C
22	BA	2682	A
22	BA	2689	U
22	BA	2691	C
22	BA	2712	C
22	BA	2714	G
22	BA	2725	A
22	BA	2727	A
22	BA	2729	G
22	BA	2732	G
22	BA	2750	A
22	BA	2752	C
22	BA	2756	U
22	BA	2757	A
22	BA	2777	G
22	BA	2778	A
22	BA	2781	A
22	BA	2790	U
22	BA	2791	G
22	BA	2797	U
22	BA	2800	A
22	BA	2801	G
22	BA	2808	G
22	BA	2809	A
22	BA	2820	A
22	BA	2832	U
22	BA	2835	A
22	BA	2848	G
22	BA	2866	U
22	BA	2868	A
22	BA	2873	A
22	BA	2874	C
22	BA	2879	A
22	BA	2893	A

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Mol	Chain	Res	Type
22	BA	2894	G
23	BB	12	C
23	BB	14	U
23	BB	16	G
23	BB	24	G
23	BB	25	U
23	BB	40	U
23	BB	42	C
23	BB	44	G
23	BB	45	A
23	BB	52	A
23	BB	53	A
23	BB	56	G
23	BB	57	A
23	BB	66	A
23	BB	67	G
23	BB	87	U
23	BB	90	C
23	BB	108	A
53	CA	6	G
53	CA	9	G
53	CA	13	U
53	CA	14	U
53	CA	15	G
53	CA	30	U
53	CA	32	A
53	CA	47	C
53	CA	52	C
53	CA	60	A
53	CA	61	G
53	CA	66	A
53	CA	68	G
53	CA	70	U
53	CA	71	A
53	CA	72	A
53	CA	73	C
53	CA	82	G
53	CA	85	U
53	CA	86	G
53	CA	87	C
53	CA	89	U
53	CA	92	U

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Mol	Chain	Res	Type
53	CA	94	G
53	CA	95	C
53	CA	96	U
53	CA	109	A
53	CA	115	G
53	CA	116	A
53	CA	119	A
53	CA	122	G
53	CA	131	A
53	CA	132	C
53	CA	173	U
53	CA	174	A
53	CA	181	A
53	CA	184	G
53	CA	197	A
53	CA	199	A
53	CA	213	G
53	CA	239	U
53	CA	240	G
53	CA	243	A
53	CA	245	U
53	CA	247	G
53	CA	248	C
53	CA	251	G
53	CA	252	U
53	CA	253	A
53	CA	274	A
53	CA	276	G
53	CA	277	C
53	CA	279	A
53	CA	282	A
53	CA	305	G
53	CA	315	A
53	CA	316	C
53	CA	327	A
53	CA	328	C
53	CA	330	C
53	CA	331	G
53	CA	347	G
53	CA	348	G
53	CA	349	A
53	CA	351	G

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Mol	Chain	Res	Type
53	CA	352	C
53	CA	366	A
53	CA	368	U
53	CA	369	G
53	CA	372	C
53	CA	373	A
53	CA	374	A
53	CA	388	G
53	CA	389	A
53	CA	411	A
53	CA	414	A
53	CA	421	U
53	CA	423	G
53	CA	424	G
53	CA	428	G
53	CA	429	U
53	CA	430	A
53	CA	439	U
53	CA	451	A
53	CA	452	A
53	CA	453	G
53	CA	481	G
53	CA	482	A
53	CA	484	G
53	CA	486	U
53	CA	495	A
53	CA	496	A
53	CA	497	G
53	CA	498	A
53	CA	499	A
53	CA	500	G
53	CA	508	U
53	CA	509	A
53	CA	511	C
53	CA	512	U
53	CA	513	C
53	CA	517	G
53	CA	519	C
53	CA	520	A
53	CA	527	G
53	CA	531	U
53	CA	534	U

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Mol	Chain	Res	Type
53	CA	536	C
53	CA	547	A
53	CA	548	G
53	CA	559	A
53	CA	563	A
53	CA	564	C
53	CA	566	G
53	CA	567	G
53	CA	575	G
53	CA	577	G
53	CA	595	A
53	CA	596	A
53	CA	641	U
53	CA	643	C
53	CA	652	U
53	CA	654	G
53	CA	686	U
53	CA	688	G
53	CA	701	U
53	CA	704	A
53	CA	705	G
53	CA	717	U
53	CA	718	A
53	CA	721	G
53	CA	722	G
53	CA	733	G
53	CA	734	G
53	CA	755	G
53	CA	792	A
53	CA	794	A
53	CA	802	A
53	CA	803	G
53	CA	815	A
53	CA	816	A
53	CA	817	C
53	CA	819	A
53	CA	820	U
53	CA	821	G
53	CA	870	U
53	CA	874	G
53	CA	884	U
53	CA	885	G

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Mol	Chain	Res	Type
53	CA	889	A
53	CA	891	U
53	CA	913	A
53	CA	914	A
53	CA	934	C
53	CA	936	C
53	CA	960	U
53	CA	962	C
53	CA	969	A
53	CA	974	A
53	CA	979	C
53	CA	982	U
53	CA	992	U
53	CA	996	A
53	CA	1049	U
53	CA	1051	C
53	CA	1052	U
53	CA	1064	G
53	CA	1066	C
53	CA	1067	A
53	CA	1068	G
53	CA	1085	U
53	CA	1086	U
53	CA	1087	G
53	CA	1101	A
53	CA	1102	A
53	CA	1124	G
53	CA	1127	G
53	CA	1128	C
53	CA	1138	G
53	CA	1139	G
53	CA	1141	C
53	CA	1142	G
53	CA	1143	G
53	CA	1145	A
53	CA	1146	A
53	CA	1147	C
53	CA	1148	U
53	CA	1151	A
53	CA	1152	A
53	CA	1157	A
53	CA	1158	C

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Mol	Chain	Res	Type
53	CA	1160	G
53	CA	1161	C
53	CA	1167	A
53	CA	1184	G
53	CA	1190	G
53	CA	1191	A
53	CA	1200	C
53	CA	1201	A
53	CA	1202	U
53	CA	1217	C
53	CA	1224	U
53	CA	1227	A
53	CA	1230	C
53	CA	1278	G
53	CA	1282	C
53	CA	1283	U
53	CA	1285	A
53	CA	1288	A
53	CA	1298	U
53	CA	1301	U
53	CA	1331	G
53	CA	1345	U
53	CA	1348	U
53	CA	1349	A
53	CA	1366	C
53	CA	1367	C
53	CA	1380	U
53	CA	1381	U
53	CA	1394	A
53	CA	1395	C
53	CA	1396	A
53	CA	1398	A
53	CA	1399	C
53	CA	1447	A
53	CA	1449	C
53	CA	1452	C
53	CA	1453	G
53	CA	1455	G
53	CA	1498	U
53	CA	1499	A
53	CA	1502	A
53	CA	1505	G

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Mol	Chain	Res	Type
53	CA	1507	A
53	CA	1528	U
53	CA	1530	G
22	DA	13	A
22	DA	14	A
22	DA	15	G
22	DA	28	A
22	DA	33	C
22	DA	35	G
22	DA	36	G
22	DA	49	A
22	DA	52	A
22	DA	60	G
22	DA	61	C
22	DA	70	G
22	DA	73	A
22	DA	77	G
22	DA	84	A
22	DA	86	G
22	DA	87	U
22	DA	91	A
22	DA	92	U
22	DA	103	A
22	DA	104	A
22	DA	119	A
22	DA	121	G
22	DA	122	G
22	DA	125	A
22	DA	128	C
22	DA	129	C
22	DA	141	G
22	DA	143	C
22	DA	163	C
22	DA	164	C
22	DA	196	A
22	DA	197	A
22	DA	204	A
22	DA	206	U
22	DA	207	A
22	DA	215	G
22	DA	217	A
22	DA	222	A

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Mol	Chain	Res	Type
22	DA	223	A
22	DA	224	U
22	DA	227	A
22	DA	229	C
22	DA	230	G
22	DA	231	A
22	DA	232	G
22	DA	234	U
22	DA	235	U
22	DA	241	A
22	DA	243	U
22	DA	244	A
22	DA	249	C
22	DA	250	G
22	DA	271	G
22	DA	273	G
22	DA	301	G
22	DA	303	G
22	DA	304	U
22	DA	311	A
22	DA	321	U
22	DA	324	A
22	DA	325	G
22	DA	329	G
22	DA	335	C
22	DA	336	C
22	DA	370	G
22	DA	374	A
22	DA	386	G
22	DA	388	G
22	DA	389	G
22	DA	391	A
22	DA	395	U
22	DA	396	G
22	DA	397	U
22	DA	404	A
22	DA	406	G
22	DA	407	G
22	DA	411	G
22	DA	412	A
22	DA	413	C
22	DA	424	G

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Mol	Chain	Res	Type
22	DA	442	G
22	DA	443	A
22	DA	445	C
22	DA	446	G
22	DA	449	A
22	DA	454	A
22	DA	459	U
22	DA	460	A
22	DA	474	G
22	DA	476	G
22	DA	477	A
22	DA	479	A
22	DA	480	A
22	DA	484	C
22	DA	489	G
22	DA	491	G
22	DA	492	A
22	DA	503	A
22	DA	505	A
22	DA	510	C
22	DA	527	C
22	DA	530	G
22	DA	533	G
22	DA	571	U
22	DA	572	A
22	DA	573	U
22	DA	575	A
22	DA	576	U
22	DA	588	U
22	DA	603	A
22	DA	604	G
22	DA	605	G
22	DA	606	U
22	DA	615	U
22	DA	617	G
22	DA	618	G
22	DA	620	G
22	DA	621	A
22	DA	622	G
22	DA	627	A
22	DA	628	G
22	DA	629	G

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Mol	Chain	Res	Type
22	DA	637	A
22	DA	638	G
22	DA	655	A
22	DA	656	G
22	DA	670	A
22	DA	672	C
22	DA	673	C
22	DA	685	A
22	DA	687	C
22	DA	704	G
22	DA	705	A
22	DA	726	G
22	DA	727	A
22	DA	730	A
22	DA	739	A
22	DA	740	C
22	DA	762	U
22	DA	763	G
22	DA	765	C
22	DA	777	G
22	DA	782	A
22	DA	783	A
22	DA	794	A
22	DA	800	A
22	DA	802	A
22	DA	811	U
22	DA	829	A
22	DA	831	G
22	DA	859	G
22	DA	860	U
22	DA	861	A
22	DA	865	C
22	DA	867	C
22	DA	868	U
22	DA	876	C
22	DA	913	U
22	DA	915	C
22	DA	916	G
22	DA	931	U
22	DA	933	A
22	DA	945	A
22	DA	946	C

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Mol	Chain	Res	Type
22	DA	947	A
22	DA	957	C
22	DA	958	U
22	DA	959	A
22	DA	961	C
22	DA	964	C
22	DA	973	A
22	DA	976	G
22	DA	989	G
22	DA	990	A
22	DA	991	C
22	DA	992	C
22	DA	1008	A
22	DA	1009	A
22	DA	1010	A
22	DA	1011	G
22	DA	1013	C
22	DA	1020	A
22	DA	1021	A
22	DA	1023	U
22	DA	1024	G
22	DA	1025	G
22	DA	1026	G
22	DA	1027	A
22	DA	1033	U
22	DA	1034	G
22	DA	1047	G
22	DA	1050	A
22	DA	1060	U
22	DA	1063	G
22	DA	1064	C
22	DA	1069	A
22	DA	1077	A
22	DA	1078	U
22	DA	1079	C
22	DA	1080	A
22	DA	1110	G
22	DA	1114	C
22	DA	1126	A
22	DA	1129	A
22	DA	1135	C
22	DA	1136	G

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Mol	Chain	Res	Type
22	DA	1141	U
22	DA	1144	A
22	DA	1156	A
22	DA	1157	G
22	DA	1204	A
22	DA	1206	G
22	DA	1207	C
22	DA	1210	G
22	DA	1213	A
22	DA	1247	A
22	DA	1249	U
22	DA	1256	G
22	DA	1265	A
22	DA	1267	U
22	DA	1268	A
22	DA	1272	A
22	DA	1274	A
22	DA	1276	A
22	DA	1289	C
22	DA	1291	C
22	DA	1300	G
22	DA	1303	G
22	DA	1304	A
22	DA	1312	U
22	DA	1313	U
22	DA	1314	C
22	DA	1325	U
22	DA	1327	A
22	DA	1329	U
22	DA	1333	G
22	DA	1340	U
22	DA	1346	G
22	DA	1347	A
22	DA	1385	A
22	DA	1386	C
22	DA	1388	G
22	DA	1389	G
22	DA	1397	U
22	DA	1398	C
22	DA	1399	C
22	DA	1400	U
22	DA	1401	G

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Mol	Chain	Res	Type
22	DA	1415	U
22	DA	1417	C
22	DA	1418	G
22	DA	1427	A
22	DA	1430	G
22	DA	1451	C
22	DA	1455	G
22	DA	1456	G
22	DA	1475	G
22	DA	1482	G
22	DA	1489	C
22	DA	1491	G
22	DA	1492	G
22	DA	1497	U
22	DA	1498	C
22	DA	1508	A
22	DA	1510	G
22	DA	1536	C
22	DA	1539	U
22	DA	1554	U
22	DA	1555	G
22	DA	1556	C
22	DA	1557	C
22	DA	1558	C
22	DA	1560	G
22	DA	1565	C
22	DA	1568	G
22	DA	1569	A
22	DA	1603	A
22	DA	1606	C
22	DA	1612	C
22	DA	1613	G
22	DA	1615	C
22	DA	1619	G
22	DA	1626	A
22	DA	1634	A
22	DA	1635	A
22	DA	1636	U
22	DA	1647	U
22	DA	1648	U
22	DA	1649	G
22	DA	1653	G

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Mol	Chain	Res	Type
22	DA	1654	A
22	DA	1655	A
22	DA	1667	G
22	DA	1669	A
22	DA	1674	G
22	DA	1675	C
22	DA	1681	G
22	DA	1682	G
22	DA	1683	U
22	DA	1693	U
22	DA	1695	G
22	DA	1696	G
22	DA	1698	A
22	DA	1700	A
22	DA	1706	C
22	DA	1713	A
22	DA	1717	A
22	DA	1722	A
22	DA	1731	G
22	DA	1733	G
22	DA	1734	G
22	DA	1735	A
22	DA	1738	G
22	DA	1739	A
22	DA	1758	U
22	DA	1759	A
22	DA	1760	C
22	DA	1776	G
22	DA	1780	A
22	DA	1782	U
22	DA	1784	A
22	DA	1785	A
22	DA	1786	A
22	DA	1787	A
22	DA	1799	G
22	DA	1802	A
22	DA	1803	A
22	DA	1808	A
22	DA	1810	A
22	DA	1811	G
22	DA	1815	A
22	DA	1816	C

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Mol	Chain	Res	Type
22	DA	1817	G
22	DA	1821	A
22	DA	1828	G
22	DA	1838	C
22	DA	1839	G
22	DA	1848	A
22	DA	1900	A
22	DA	1901	A
22	DA	1913	A
22	DA	1915	U
22	DA	1916	A
22	DA	1918	A
22	DA	1919	A
22	DA	1929	G
22	DA	1931	U
22	DA	1932	A
22	DA	1936	A
22	DA	1941	C
22	DA	1943	U
22	DA	1945	G
22	DA	1954	G
22	DA	1956	U
22	DA	1962	C
22	DA	1963	U
22	DA	1965	C
22	DA	1967	C
22	DA	1970	A
22	DA	1972	G
22	DA	1980	G
22	DA	1981	A
22	DA	1982	U
22	DA	1992	G
22	DA	1993	U
22	DA	1996	C
22	DA	1997	C
22	DA	2021	C
22	DA	2023	C
22	DA	2024	G
22	DA	2030	A
22	DA	2034	U
22	DA	2036	C
22	DA	2051	A

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Mol	Chain	Res	Type
22	DA	2052	A
22	DA	2063	C
22	DA	2064	C
22	DA	2067	G
22	DA	2068	U
22	DA	2092	U
22	DA	2094	A
22	DA	2133	G
22	DA	2135	A
22	DA	2136	G
22	DA	2143	C
22	DA	2148	G
22	DA	2150	C
22	DA	2179	C
22	DA	2197	U
22	DA	2199	A
22	DA	2210	U
22	DA	2214	C
22	DA	2216	G
22	DA	2217	G
22	DA	2225	A
22	DA	2226	C
22	DA	2238	G
22	DA	2239	G
22	DA	2249	U
22	DA	2258	C
22	DA	2259	U
22	DA	2266	A
22	DA	2267	A
22	DA	2275	C
22	DA	2276	G
22	DA	2282	G
22	DA	2283	C
22	DA	2286	G
22	DA	2288	A
22	DA	2289	G
22	DA	2296	U
22	DA	2299	U
22	DA	2311	A
22	DA	2314	A
22	DA	2334	U
22	DA	2337	G

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Mol	Chain	Res	Type
22	DA	2339	C
22	DA	2344	U
22	DA	2347	C
22	DA	2348	U
22	DA	2349	G
22	DA	2384	U
22	DA	2386	A
22	DA	2391	G
22	DA	2392	A
22	DA	2404	U
22	DA	2406	A
22	DA	2407	A
22	DA	2409	G
22	DA	2425	A
22	DA	2428	G
22	DA	2429	G
22	DA	2439	A
22	DA	2440	C
22	DA	2447	G
22	DA	2450	A
22	DA	2458	G
22	DA	2459	A
22	DA	2490	G
22	DA	2492	U
22	DA	2493	U
22	DA	2497	A
22	DA	2498	C
22	DA	2503	A
22	DA	2504	U
22	DA	2505	G
22	DA	2520	C
22	DA	2542	A
22	DA	2543	G
22	DA	2566	A
22	DA	2567	G
22	DA	2572	A
22	DA	2573	C
22	DA	2581	G
22	DA	2582	G
22	DA	2601	C
22	DA	2603	G
22	DA	2609	U

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Mol	Chain	Res	Type
22	DA	2611	C
22	DA	2613	U
22	DA	2615	U
22	DA	2616	C
22	DA	2639	A
22	DA	2645	G
22	DA	2646	C
22	DA	2654	A
22	DA	2656	U
22	DA	2657	A
22	DA	2666	C
22	DA	2667	C
22	DA	2668	G
22	DA	2681	C
22	DA	2682	A
22	DA	2689	U
22	DA	2691	C
22	DA	2712	C
22	DA	2714	G
22	DA	2726	A
22	DA	2729	G
22	DA	2750	A
22	DA	2752	C
22	DA	2756	U
22	DA	2757	A
22	DA	2776	A
22	DA	2777	G
22	DA	2781	A
22	DA	2798	U
22	DA	2800	A
22	DA	2832	U
22	DA	2836	U
22	DA	2837	A
22	DA	2848	G
22	DA	2850	A
22	DA	2851	A
22	DA	2866	U
22	DA	2868	A
22	DA	2873	A
22	DA	2874	C
22	DA	2875	C
22	DA	2876	G

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Mol	Chain	Res	Type
22	DA	2879	A
22	DA	2880	C
22	DA	2881	U
22	DA	2893	A
22	DA	2895	G
57	DB	12	C
57	DB	13	G
57	DB	16	G
57	DB	40	U
57	DB	45	A
57	DB	56	G
57	DB	58	A
57	DB	66	A
57	DB	68	C
57	DB	87	U
57	DB	88	C
57	DB	90	C
57	DB	108	A
57	DB	110	C
57	DB	111	U

5.4 Non-standard residues in protein, DNA, RNA chains (i)

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 364 ligands modelled in this entry, 363 are monoatomic - leaving 1 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
60	CLY	BA	3135	-	25,28,28	1.49	4 (16%)	29,40,40	1.52	8 (27%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
60	CLY	BA	3135	-	-	2/21/53/53	0/2/2/2

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
60	BA	3135	CLY	C14-N2	3.38	1.51	1.47
60	BA	3135	CLY	C15-N2	2.88	1.52	1.46
60	BA	3135	CLY	O5-C4	2.75	1.48	1.44
60	BA	3135	CLY	C6-S1	2.24	1.84	1.79

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
60	BA	3135	CLY	C11-C10-N1	-3.28	109.28	116.58
60	BA	3135	CLY	C10-C11-N2	-2.62	107.53	112.40
60	BA	3135	CLY	O4-C1-C2	-2.38	104.84	110.35
60	BA	3135	CLY	C9-C8-CL1	-2.17	105.14	108.76
60	BA	3135	CLY	C15-N2-C14	2.16	115.39	112.45
60	BA	3135	CLY	C12-C13-C16	-2.14	112.01	114.60
60	BA	3135	CLY	C4-C7-N1	-2.14	103.19	110.69
60	BA	3135	CLY	C5-O5-C4	-2.09	111.29	114.12

There are no chirality outliers.

All (2) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
60	BA	3135	CLY	N1-C10-C11-C12
60	BA	3135	CLY	N1-C10-C11-N2

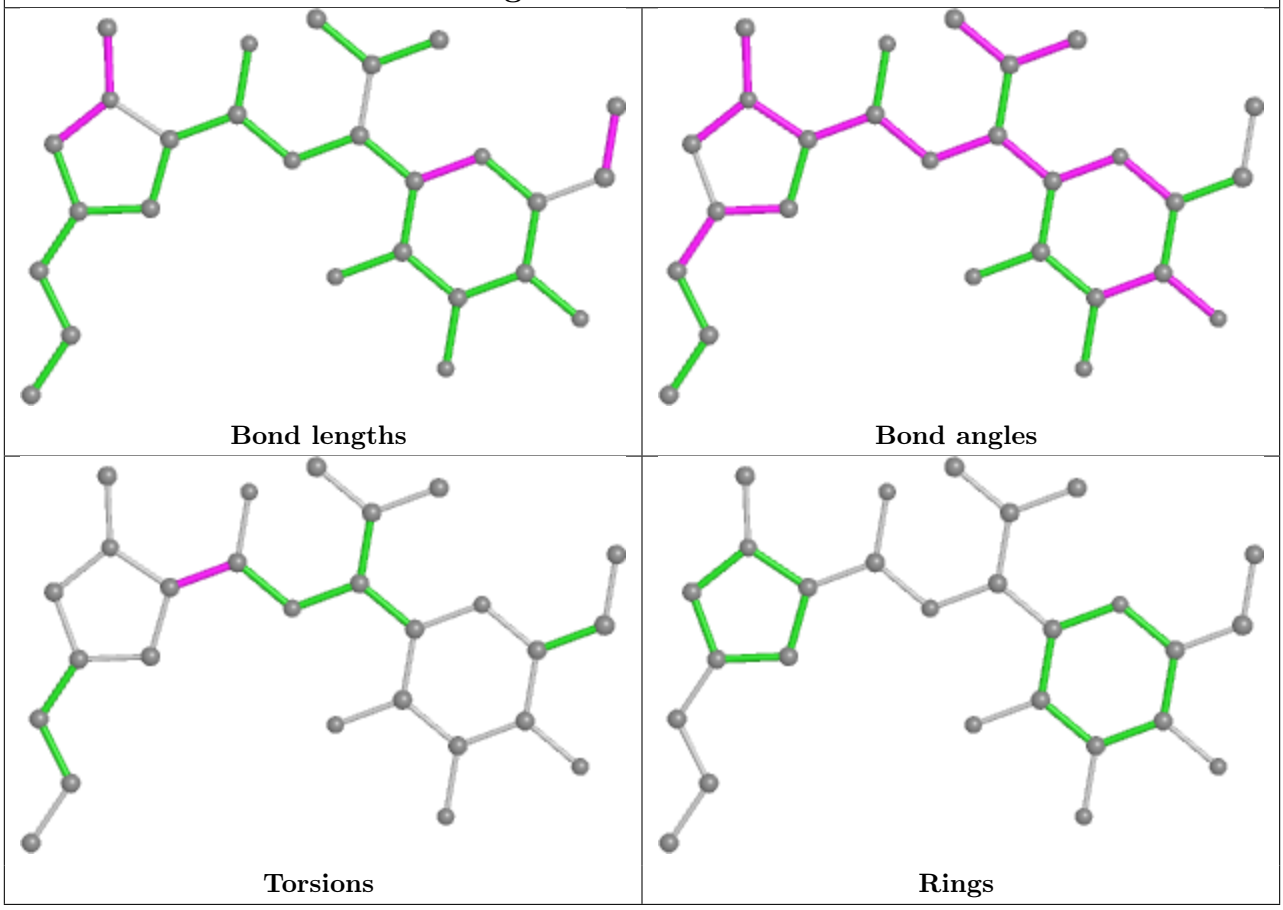
There are no ring outliers.

1 monomer is involved in 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
60	BA	3135	CLY	2	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

Ligand CLY BA 3135



5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	AA	1533/1533 (100%)	-0.56	20 (1%) 77 76	26, 75, 180, 427	0
2	AB	218/218 (100%)	1.35	47 (21%) 0 1	111, 151, 210, 294	0
2	CB	218/218 (100%)	1.86	91 (41%) 0 0	125, 161, 248, 300	0
3	AC	206/206 (100%)	0.38	10 (4%) 29 28	51, 97, 147, 208	0
3	CC	206/206 (100%)	0.93	31 (15%) 2 2	74, 144, 225, 261	0
4	AD	205/205 (100%)	-0.02	6 (2%) 51 50	43, 83, 164, 311	0
4	CD	205/205 (100%)	-0.27	1 (0%) 91 91	31, 59, 113, 227	0
5	AE	150/150 (100%)	0.15	4 (2%) 54 52	55, 78, 148, 255	0
5	CE	150/150 (100%)	0.26	3 (2%) 65 63	55, 85, 149, 258	0
6	AF	100/100 (100%)	-0.06	2 (2%) 65 63	53, 90, 143, 171	0
6	CF	100/100 (100%)	0.46	7 (7%) 16 16	72, 107, 167, 226	0
7	AG	151/151 (100%)	0.39	13 (8%) 10 10	67, 129, 199, 248	0
8	AH	129/129 (100%)	0.17	4 (3%) 49 48	38, 71, 123, 214	0
8	CH	129/129 (100%)	0.46	7 (5%) 25 24	53, 100, 161, 214	0
9	AI	127/127 (100%)	0.90	21 (16%) 1 2	66, 125, 243, 279	0
9	CI	127/127 (100%)	2.01	51 (40%) 0 0	111, 184, 282, 308	0
10	AJ	98/98 (100%)	0.62	12 (12%) 4 4	60, 114, 210, 262	0
10	CJ	98/98 (100%)	2.43	47 (47%) 0 0	103, 188, 266, 292	0
11	AK	117/117 (100%)	0.46	5 (4%) 35 33	36, 98, 174, 203	0
11	CK	117/117 (100%)	0.38	7 (5%) 21 21	55, 104, 165, 196	0
12	AL	123/123 (100%)	-0.27	1 (0%) 86 86	15, 54, 116, 167	0
12	CL	123/123 (100%)	0.28	4 (3%) 46 44	36, 73, 121, 188	0
13	AM	114/114 (100%)	0.45	8 (7%) 16 16	76, 125, 196, 274	0
14	AN	96/100 (96%)	0.27	6 (6%) 20 20	59, 102, 195, 267	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
14	CN	95/100 (95%)	2.30	46 (48%) 0 0	109, 221, 327, 373	0
15	AO	88/88 (100%)	-0.41	0 100 100	36, 70, 123, 182	0
15	CO	88/88 (100%)	0.07	1 (1%) 80 80	59, 103, 158, 277	0
16	AP	82/82 (100%)	0.51	9 (10%) 5 5	44, 74, 148, 243	0
17	AQ	80/80 (100%)	0.48	7 (8%) 10 10	29, 78, 141, 267	0
17	CQ	80/80 (100%)	0.86	13 (16%) 1 2	48, 106, 161, 199	0
18	AR	55/55 (100%)	0.06	3 (5%) 25 24	60, 86, 161, 196	0
18	CR	55/55 (100%)	0.16	1 (1%) 68 66	47, 92, 186, 230	0
19	AS	79/79 (100%)	1.52	21 (26%) 0 0	79, 127, 199, 277	0
19	CS	79/79 (100%)	3.17	48 (60%) 0 0	181, 371, 451, 469	0
20	AT	85/85 (100%)	-0.08	0 100 100	43, 76, 116, 143	0
20	CT	85/85 (100%)	1.02	15 (17%) 1 1	58, 117, 197, 268	0
21	AU	51/51 (100%)	1.78	21 (41%) 0 0	88, 157, 204, 230	0
21	CU	51/51 (100%)	0.54	5 (9%) 7 7	58, 111, 182, 320	0
22	BA	2854/2903 (98%)	-0.51	36 (1%) 77 76	4, 28, 155, 403	0
22	DA	2841/2903 (97%)	0.22	83 (2%) 51 50	49, 122, 252, 460	0
23	BB	118/118 (100%)	-0.61	0 100 100	13, 43, 77, 106	0
24	BC	271/271 (100%)	-0.34	5 (1%) 68 66	5, 39, 81, 171	0
24	DC	271/271 (100%)	0.43	14 (5%) 27 25	51, 96, 147, 192	0
25	BD	209/209 (100%)	-0.43	0 100 100	3, 23, 72, 171	0
25	DD	209/209 (100%)	0.54	15 (7%) 15 15	50, 111, 176, 290	0
26	BE	201/201 (100%)	-0.28	0 100 100	2, 37, 98, 185	0
26	DE	201/201 (100%)	1.66	67 (33%) 0 0	62, 197, 394, 486	0
27	BF	177/177 (100%)	0.09	4 (2%) 60 58	27, 70, 127, 197	0
28	BG	176/176 (100%)	-0.03	4 (2%) 60 58	23, 60, 119, 204	0
28	DG	176/176 (100%)	1.63	67 (38%) 0 0	95, 195, 279, 335	0
29	BH	149/149 (100%)	3.03	68 (45%) 0 0	40, 177, 291, 362	0
29	DH	149/149 (100%)	3.28	63 (42%) 0 0	82, 181, 277, 319	0
30	BI	141/141 (100%)	3.00	80 (56%) 0 0	162, 269, 338, 374	0
30	DI	141/141 (100%)	3.53	101 (71%) 0 0	210, 324, 369, 408	0
31	BJ	142/142 (100%)	-0.50	0 100 100	6, 21, 60, 138	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
31	DJ	142/142 (100%)	0.83	18 (12%) 3 3	63, 102, 163, 184	0
32	BK	122/122 (100%)	-0.45	0 100 100	7, 26, 74, 263	0
32	DK	122/122 (100%)	0.97	21 (17%) 1 1	52, 95, 164, 236	0
33	BL	143/143 (100%)	-0.42	0 100 100	3, 35, 77, 103	0
33	DL	143/143 (100%)	1.35	33 (23%) 0 1	58, 159, 278, 348	0
34	BM	136/136 (100%)	-0.47	0 100 100	4, 26, 66, 135	0
34	DM	136/136 (100%)	0.87	21 (15%) 2 2	44, 105, 164, 196	0
35	BN	120/120 (100%)	-0.54	0 100 100	6, 20, 43, 151	0
35	DN	120/120 (100%)	1.33	30 (25%) 0 0	79, 127, 200, 268	0
36	BO	116/116 (100%)	-0.24	0 100 100	26, 43, 77, 126	0
36	DO	116/116 (100%)	2.03	47 (40%) 0 0	124, 168, 240, 292	0
37	BP	114/114 (100%)	-0.29	1 (0%) 84 84	9, 35, 83, 148	0
37	DP	114/114 (100%)	1.04	23 (20%) 1 1	62, 114, 174, 238	0
38	BQ	117/117 (100%)	-0.57	0 100 100	3, 16, 43, 199	0
38	DQ	117/117 (100%)	1.03	20 (17%) 1 1	66, 103, 194, 288	0
39	BR	103/103 (100%)	-0.45	1 (0%) 82 82	4, 31, 80, 180	0
39	DR	103/103 (100%)	2.02	43 (41%) 0 0	67, 130, 227, 316	0
40	BS	110/110 (100%)	-0.50	1 (0%) 84 84	4, 17, 52, 175	0
40	DS	110/110 (100%)	1.79	43 (39%) 0 0	59, 130, 231, 279	0
41	BT	93/93 (100%)	-0.03	2 (2%) 62 59	19, 43, 128, 185	0
41	DT	93/93 (100%)	2.64	50 (53%) 0 0	123, 205, 306, 347	0
42	BU	102/102 (100%)	-0.11	1 (0%) 82 82	18, 49, 120, 241	0
42	DU	102/102 (100%)	3.05	61 (59%) 0 0	123, 285, 434, 557	0
43	BV	94/94 (100%)	-0.07	0 100 100	15, 43, 86, 142	0
43	DV	94/94 (100%)	0.85	12 (12%) 3 3	97, 143, 194, 233	0
44	BW	79/79 (100%)	0.02	5 (6%) 20 20	10, 30, 105, 223	0
44	DW	79/79 (100%)	2.38	44 (55%) 0 0	82, 140, 238, 284	0
45	BX	77/77 (100%)	-0.41	0 100 100	11, 42, 84, 117	0
45	DX	77/77 (100%)	0.95	12 (15%) 2 2	78, 117, 171, 236	0
46	BY	63/63 (100%)	0.17	3 (4%) 30 29	30, 66, 136, 222	0
46	DY	63/63 (100%)	1.97	20 (31%) 0 0	143, 309, 433, 440	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
47	BZ	58/58 (100%)	-0.45	0 100 100	8, 22, 56, 111	0
47	DZ	58/58 (100%)	0.30	2 (3%) 45 43	78, 119, 208, 217	0
48	B0	56/56 (100%)	-0.61	0 100 100	3, 24, 70, 159	0
48	D0	56/56 (100%)	1.28	18 (32%) 0 0	63, 139, 242, 298	0
49	B1	50/50 (100%)	0.29	2 (4%) 38 36	22, 48, 99, 165	0
49	D1	50/50 (100%)	1.99	19 (38%) 0 0	99, 170, 210, 236	0
50	B2	46/46 (100%)	-0.54	1 (2%) 62 59	7, 26, 52, 155	0
50	D2	46/46 (100%)	0.94	6 (13%) 3 3	81, 118, 175, 233	0
51	B3	64/64 (100%)	-0.58	0 100 100	5, 23, 44, 70	0
51	D3	64/64 (100%)	1.61	22 (34%) 0 0	65, 128, 183, 257	0
52	B4	38/38 (100%)	0.03	1 (2%) 56 52	21, 45, 86, 124	0
52	D4	38/38 (100%)	2.45	22 (57%) 0 0	79, 137, 187, 227	0
53	CA	1530/1530 (100%)	-0.05	50 (3%) 46 44	34, 102, 281, 444	0
54	CG	150/150 (100%)	2.27	76 (50%) 0 0	107, 224, 298, 322	0
55	CM	113/113 (100%)	3.02	76 (67%) 0 0	182, 402, 494, 538	0
56	CP	80/80 (100%)	0.90	11 (13%) 2 2	51, 94, 155, 236	0
57	DB	117/117 (100%)	-0.05	1 (0%) 84 84	95, 169, 224, 274	0
58	DF	178/178 (100%)	2.03	84 (47%) 0 0	183, 225, 286, 338	0
All	All	20431/20551 (99%)	0.34	2108 (10%) 6 6	2, 94, 269, 557	0

All (2108) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
29	DH	92	GLY	29.7
29	DH	124	THR	23.0
29	DH	91	PHE	21.8
29	DH	105	ALA	21.1
30	BI	67	THR	15.3
30	DI	4	VAL	15.2
29	DH	93	SER	15.1
29	DH	123	ARG	15.0
46	DY	63	ALA	14.9
42	DU	35	VAL	14.6
29	BH	122	LEU	13.7
19	CS	28	LYS	13.5
29	BH	118	PRO	13.4

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Mol	Chain	Res	Type	RSRZ
29	DH	90	LEU	13.4
29	DH	131	SER	13.2
29	BH	84	ALA	13.0
17	AQ	82	VAL	12.6
29	BH	147	VAL	12.4
19	CS	73	PHE	12.3
14	CN	33	VAL	12.2
29	BH	123	ARG	12.1
22	BA	2147	A	11.9
22	BA	2179	C	11.8
30	DI	51	GLY	11.7
29	DH	119	ASN	11.7
29	BH	92	GLY	11.4
41	DT	55	VAL	11.3
29	DH	112	LYS	11.3
19	CS	60	PHE	11.3
29	BH	105	ALA	11.2
10	CJ	8	ILE	11.0
30	DI	58	ILE	11.0
29	DH	82	SER	11.0
29	BH	117	LEU	11.0
29	DH	133	GLN	10.9
29	DH	120	GLY	10.6
19	CS	23	GLU	10.5
29	BH	98	ASP	10.5
55	CM	94	LEU	10.4
22	BA	2154	A	10.4
29	BH	148	ALA	10.4
46	DY	62	GLY	10.4
30	DI	15	GLY	10.4
29	DH	86	ASP	10.3
29	BH	91	PHE	10.3
29	BH	85	GLY	10.2
19	CS	29	PRO	10.1
44	DW	51	GLY	10.1
30	BI	2	LYS	10.1
30	BI	46	ASP	10.0
40	DS	5	ALA	10.0
29	BH	93	SER	9.9
30	DI	2	LYS	9.9
9	CI	42	THR	9.8
42	DU	75	ALA	9.7

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Mol	Chain	Res	Type	RSRZ
29	BH	90	LEU	9.6
30	BI	3	LYS	9.5
58	DF	129	MET	9.4
22	BA	2146	C	9.3
29	BH	80	ILE	9.3
9	CI	57	VAL	9.3
26	DE	144	GLU	9.3
29	DH	113	SER	9.1
19	AS	38	THR	9.1
29	BH	79	THR	9.1
19	CS	22	VAL	8.9
29	DH	121	VAL	8.9
30	BI	11	GLN	8.8
35	DN	63	ARG	8.7
30	BI	68	PHE	8.7
43	DV	94	ALA	8.7
46	DY	24	GLU	8.7
22	DA	139	U	8.7
30	DI	56	VAL	8.7
30	BI	86	LYS	8.6
22	DA	2157	G	8.6
55	CM	67	ASP	8.6
29	BH	89	LYS	8.6
39	DR	50	GLY	8.6
55	CM	54	THR	8.6
46	DY	35	GLY	8.5
9	CI	56	MET	8.5
30	DI	119	ALA	8.5
29	BH	149	GLU	8.4
30	DI	17	ALA	8.4
30	BI	77	VAL	8.4
41	DT	15	HIS	8.3
42	DU	59	GLU	8.3
12	CL	123	ALA	8.2
29	DH	106	ALA	8.2
51	D3	20	GLY	8.1
28	DG	83	THR	8.1
30	BI	66	PHE	8.1
26	DE	127	GLU	8.0
29	BH	86	ASP	8.0
30	DI	66	PHE	8.0
30	BI	1	ALA	8.0

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Mol	Chain	Res	Type	RSRZ
29	BH	145	ASN	8.0
55	CM	111	PRO	8.0
19	CS	47	THR	7.9
29	BH	88	GLY	7.9
9	CI	66	VAL	7.9
29	DH	87	GLU	7.7
49	D1	35	LEU	7.7
30	BI	78	LEU	7.7
46	DY	36	GLN	7.7
41	DT	34	VAL	7.7
30	BI	52	LEU	7.7
54	CG	64	ALA	7.6
30	DI	55	PRO	7.6
33	DL	89	VAL	7.5
29	BH	121	VAL	7.5
49	D1	52	LYS	7.5
30	DI	5	GLN	7.5
55	CM	93	GLY	7.5
42	DU	34	ILE	7.5
29	BH	124	THR	7.4
41	DT	83	ALA	7.4
29	BH	94	ILE	7.4
30	DI	120	ASP	7.3
54	CG	65	LEU	7.3
41	DT	3	ARG	7.3
42	DU	36	GLU	7.3
37	DP	109	ILE	7.2
29	DH	128	HIS	7.2
14	CN	51	PRO	7.2
55	CM	108	ARG	7.2
10	CJ	10	LEU	7.2
29	BH	126	GLY	7.1
36	DO	61	GLN	7.1
29	DH	89	LYS	7.1
54	CG	7	GLY	7.1
33	DL	92	LEU	7.1
10	CJ	75	ASP	7.0
54	CG	71	THR	7.0
10	CJ	34	ALA	7.0
41	DT	2	ILE	7.0
22	BA	2138	G	7.0
42	DU	76	THR	7.0

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Mol	Chain	Res	Type	RSRZ
42	DU	86	PHE	6.9
29	BH	81	ALA	6.9
55	CM	39	ALA	6.9
29	BH	143	ILE	6.9
42	DU	24	VAL	6.9
29	DH	118	PRO	6.9
10	AJ	35	GLN	6.9
36	DO	60	GLU	6.9
42	DU	19	GLY	6.9
30	DI	50	LYS	6.8
54	CG	15	PRO	6.8
16	AP	81	ALA	6.8
42	DU	30	SER	6.7
14	CN	32	ASP	6.7
58	DF	141	ASP	6.7
22	BA	2143	C	6.7
51	D3	21	PHE	6.7
19	CS	65	MET	6.7
29	BH	73	ASN	6.7
9	CI	38	PHE	6.7
30	DI	3	LYS	6.6
54	CG	70	PRO	6.6
58	DF	110	ILE	6.6
30	DI	118	GLY	6.6
2	CB	87	ASP	6.6
29	DH	122	LEU	6.6
30	DI	22	PRO	6.6
29	BH	82	SER	6.6
29	DH	88	GLY	6.5
19	CS	30	LEU	6.5
29	DH	143	ILE	6.5
30	BI	4	VAL	6.5
55	CM	81	ASP	6.5
54	CG	106	ALA	6.5
10	CJ	11	LYS	6.5
30	BI	132	ALA	6.5
29	BH	128	HIS	6.5
55	CM	112	ARG	6.5
14	CN	52	ARG	6.4
19	CS	66	VAL	6.4
30	BI	139	VAL	6.4
55	CM	46	GLU	6.4

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Mol	Chain	Res	Type	RSRZ
26	DE	104	ALA	6.4
29	DH	125	THR	6.4
29	DH	127	GLU	6.3
10	CJ	74	VAL	6.3
30	BI	13	ALA	6.3
26	DE	193	VAL	6.3
39	DR	20	VAL	6.3
30	DI	121	ILE	6.3
41	DT	42	GLU	6.3
10	CJ	76	ILE	6.3
29	BH	119	ASN	6.3
30	DI	21	PRO	6.3
36	DO	52	SER	6.3
58	DF	105	ILE	6.2
54	CG	16	LYS	6.2
33	DL	144	GLU	6.2
16	AP	80	LYS	6.2
9	AI	89	TYR	6.2
42	DU	11	ILE	6.2
2	AB	135	MET	6.2
28	DG	104	LEU	6.2
41	DT	43	ILE	6.2
38	DQ	36	GLN	6.2
58	DF	39	VAL	6.2
19	CS	64	GLU	6.1
55	CM	38	ILE	6.1
30	BI	12	VAL	6.1
29	BH	87	GLU	6.1
55	CM	42	VAL	6.1
33	DL	82	LEU	6.1
39	DR	103	ALA	6.1
30	BI	33	ASN	6.1
35	DN	29	VAL	6.1
55	CM	62	PHE	6.1
14	CN	1	ALA	6.1
30	BI	47	SER	6.1
30	DI	18	ASN	6.1
10	CJ	6	ILE	6.1
29	BH	71	LYS	6.1
29	BH	146	VAL	6.1
2	CB	109	SER	6.0
42	DU	85	ARG	6.0

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Mol	Chain	Res	Type	RSRZ
58	DF	171	ALA	6.0
39	DR	27	ILE	6.0
29	BH	125	THR	6.0
41	DT	35	ALA	6.0
9	AI	42	THR	6.0
22	DA	228	C	6.0
30	BI	58	ILE	6.0
53	CA	461	A	6.0
26	DE	103	GLY	6.0
29	BH	116	ARG	5.9
33	DL	101	ILE	5.9
29	BH	134	VAL	5.9
54	CG	58	LEU	5.9
39	DR	96	VAL	5.9
10	CJ	63	ASP	5.9
22	BA	2110	G	5.9
52	D4	33	HIS	5.9
10	CJ	12	ALA	5.9
28	DG	166	GLU	5.8
29	BH	74	ALA	5.8
40	DS	110	ARG	5.8
40	DS	34	ASP	5.8
55	CM	84	CYS	5.8
9	CI	65	THR	5.8
30	DI	57	VAL	5.8
42	DU	26	ASN	5.8
19	CS	39	ILE	5.8
30	DI	123	ALA	5.8
44	DW	29	SER	5.8
3	CC	42	LEU	5.7
28	DG	85	LYS	5.7
22	BA	2180	U	5.7
29	DH	145	ASN	5.7
55	CM	45	SER	5.7
2	CB	82	ALA	5.7
3	CC	154	GLY	5.7
29	DH	84	ALA	5.7
19	AS	14	LEU	5.7
36	DO	25	ARG	5.7
44	DW	50	VAL	5.7
2	AB	26	MET	5.7
19	CS	26	ASP	5.7

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Mol	Chain	Res	Type	RSRZ
42	DU	97	SER	5.7
30	DI	12	VAL	5.6
2	CB	148	GLY	5.6
29	DH	95	GLY	5.6
2	CB	147	LEU	5.6
42	DU	77	GLY	5.6
19	CS	58	PRO	5.6
53	CA	209	U	5.6
10	CJ	73	LEU	5.6
58	DF	10	GLU	5.6
55	CM	57	ASP	5.6
44	DW	52	CYS	5.6
22	BA	138	U	5.5
30	BI	54	ILE	5.5
40	DS	4	ILE	5.5
42	DU	70	ALA	5.5
2	AB	73	ARG	5.5
14	CN	61	ASN	5.5
36	DO	62	LEU	5.5
14	CN	53	ASP	5.5
36	DO	24	THR	5.5
19	CS	27	LYS	5.4
54	CG	17	PHE	5.4
54	CG	150	PHE	5.4
12	AL	123	ALA	5.4
22	DA	1172	C	5.4
29	BH	113	SER	5.4
54	CG	143	MET	5.4
54	CG	87	PRO	5.4
39	DR	26	ASP	5.4
30	DI	43	ALA	5.4
42	DU	87	GLU	5.4
54	CG	55	LYS	5.4
54	CG	38	ALA	5.4
2	CB	158	ASP	5.4
2	AB	66	ILE	5.3
58	DF	155	ILE	5.3
54	CG	69	ARG	5.3
10	CJ	71	LEU	5.3
42	DU	12	VAL	5.3
1	AA	1030	U	5.3
44	DW	34	SER	5.3

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Mol	Chain	Res	Type	RSRZ
2	AB	150	ILE	5.3
58	DF	51	ASN	5.3
2	CB	129	THR	5.3
54	CG	53	SER	5.3
54	CG	59	GLU	5.3
54	CG	132	THR	5.3
41	DT	14	PRO	5.3
14	CN	34	ASN	5.3
35	DN	113	ILE	5.3
55	CM	103	THR	5.2
22	DA	2146	C	5.2
40	DS	31	GLN	5.2
26	DE	119	ILE	5.2
30	DI	1	ALA	5.2
9	CI	15	ALA	5.2
9	CI	127	SER	5.2
36	DO	64	TYR	5.2
19	CS	11	ASP	5.2
14	CN	78	LEU	5.2
28	DG	82	PHE	5.1
58	DF	41	GLU	5.1
55	CM	63	VAL	5.1
52	D4	1	MET	5.1
55	CM	109	LYS	5.1
22	BA	2139	U	5.1
54	CG	75	LYS	5.1
58	DF	153	ILE	5.1
19	CS	62	THR	5.1
40	DS	3	THR	5.1
2	CB	15	PHE	5.1
30	BI	99	LYS	5.1
55	CM	51	GLN	5.1
29	DH	116	ARG	5.1
41	DT	72	GLN	5.1
30	DI	24	GLY	5.1
30	DI	33	ASN	5.1
32	DK	69	VAL	5.1
22	DA	1116	G	5.1
49	D1	20	TYR	5.1
39	DR	22	LEU	5.1
30	BI	37	PHE	5.1
30	BI	53	PRO	5.1

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Mol	Chain	Res	Type	RSRZ
26	DE	121	VAL	5.1
41	DT	1	MET	5.0
29	DH	139	PHE	5.0
30	DI	98	GLY	5.0
54	CG	44	SER	5.0
22	DA	2181	U	5.0
56	CP	57	ILE	5.0
39	DR	88	GLY	5.0
36	DO	50	ALA	5.0
37	DP	37	LYS	5.0
41	DT	16	VAL	5.0
54	CG	83	THR	5.0
54	CG	85	GLN	5.0
46	DY	37	LEU	5.0
55	CM	95	PRO	5.0
55	CM	70	ARG	5.0
41	DT	60	THR	5.0
30	BI	114	ALA	5.0
29	DH	130	VAL	5.0
30	DI	23	VAL	5.0
2	AB	220	VAL	5.0
22	DA	2799	A	5.0
19	CS	21	ALA	4.9
30	DI	117	THR	4.9
29	BH	131	SER	4.9
9	AI	129	ARG	4.9
10	CJ	72	ARG	4.9
29	BH	83	LYS	4.9
9	CI	41	GLU	4.9
19	CS	41	PRO	4.9
44	DW	62	ALA	4.9
29	DH	104	THR	4.9
53	CA	1271	A	4.9
58	DF	24	VAL	4.9
42	DU	4	ILE	4.9
44	DW	60	ALA	4.9
36	DO	51	ALA	4.9
36	DO	40	ILE	4.9
30	DI	83	ALA	4.8
30	BI	60	VAL	4.8
51	D3	22	LYS	4.8
28	DG	165	ASP	4.8

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Mol	Chain	Res	Type	RSRZ
33	DL	88	GLY	4.8
14	CN	62	ARG	4.8
28	DG	84	LYS	4.8
30	DI	93	ASN	4.8
31	DJ	142	ILE	4.8
29	BH	102	ALA	4.8
17	CQ	6	THR	4.8
29	DH	141	LYS	4.8
22	BA	2145	C	4.8
30	DI	40	ALA	4.8
29	BH	144	VAL	4.8
29	DH	138	VAL	4.8
26	DE	147	LEU	4.8
51	D3	13	PHE	4.8
46	DY	10	SER	4.8
29	DH	140	ALA	4.8
54	CG	61	PHE	4.7
58	DF	9	ASP	4.7
46	BY	63	ALA	4.7
29	DH	146	VAL	4.7
54	CG	48	THR	4.7
30	BI	10	LEU	4.7
26	DE	175	ILE	4.7
53	CA	1314	C	4.7
29	DH	85	GLY	4.7
30	BI	42	ASN	4.7
53	CA	1224	U	4.7
2	AB	29	PHE	4.7
52	D4	10	LEU	4.7
36	DO	26	LEU	4.7
51	D3	19	GLY	4.7
55	CM	37	GLY	4.7
6	CF	8	PHE	4.7
26	DE	24	ASN	4.7
33	DL	142	ILE	4.7
41	DT	56	GLU	4.7
22	DA	1067	A	4.7
44	DW	63	ASP	4.7
56	CP	52	LEU	4.7
29	BH	139	PHE	4.7
22	DA	613	A	4.7
38	DQ	28	SER	4.7

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Mol	Chain	Res	Type	RSRZ
58	DF	131	VAL	4.7
26	DE	180	LEU	4.7
55	CM	91	ARG	4.7
30	BI	16	MET	4.6
30	DI	13	ALA	4.6
49	D1	6	GLU	4.6
42	DU	13	LEU	4.6
19	CS	40	PHE	4.6
28	DG	101	VAL	4.6
30	DI	122	GLU	4.6
19	AS	15	LEU	4.6
30	BI	134	SER	4.6
48	D0	56	LYS	4.6
2	CB	66	ILE	4.6
1	AA	86	G	4.6
42	DU	78	LYS	4.6
30	DI	32	VAL	4.6
9	CI	8	THR	4.6
2	CB	103	TRP	4.6
42	DU	74	ALA	4.6
52	D4	37	GLN	4.6
40	DS	70	LYS	4.6
42	DU	31	GLY	4.6
17	CQ	7	LEU	4.6
2	CB	106	VAL	4.6
42	DU	94	PHE	4.6
18	AR	19	GLU	4.6
44	DW	45	HIS	4.6
36	DO	28	VAL	4.6
2	AB	89	PHE	4.5
52	D4	38	GLY	4.5
26	DE	201	ALA	4.5
10	CJ	7	ARG	4.5
2	CB	17	HIS	4.5
46	DY	14	LEU	4.5
22	DA	645	C	4.5
19	CS	59	VAL	4.5
5	AE	102	THR	4.5
54	CG	14	ASP	4.5
41	DT	36	LYS	4.5
49	B1	52	LYS	4.5
53	CA	1534	A	4.5

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Mol	Chain	Res	Type	RSRZ
28	DG	8	VAL	4.5
42	DU	38	ILE	4.5
55	CM	68	LEU	4.5
42	DU	17	ASP	4.5
36	DO	46	GLU	4.5
44	DW	59	PHE	4.5
19	CS	25	GLY	4.5
30	BI	38	CYS	4.5
29	DH	117	LEU	4.5
46	DY	56	LEU	4.5
9	CI	67	LYS	4.5
54	CG	136	LYS	4.5
54	CG	60	ALA	4.5
9	CI	40	ARG	4.4
30	DI	72	THR	4.4
40	DS	48	LYS	4.4
44	DW	73	PRO	4.4
14	CN	60	ARG	4.4
28	DG	61	TRP	4.4
49	D1	46	VAL	4.4
36	DO	65	THR	4.4
28	DG	7	PRO	4.4
30	DI	31	GLY	4.4
42	DU	69	VAL	4.4
55	CM	88	LEU	4.4
30	DI	11	GLN	4.4
28	DG	51	PHE	4.4
20	CT	43	LYS	4.4
28	DG	102	ILE	4.4
26	DE	143	LEU	4.4
40	DS	68	ASP	4.4
42	DU	37	GLY	4.4
9	CI	31	GLN	4.4
30	DI	16	MET	4.4
9	CI	4	GLN	4.4
2	AB	200	PRO	4.4
34	DM	24	THR	4.4
2	AB	51	GLU	4.4
51	D3	23	HIS	4.4
58	DF	94	ARG	4.3
19	CS	38	THR	4.3
30	BI	100	ILE	4.3

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Mol	Chain	Res	Type	RSRZ
36	DO	117	PHE	4.3
2	AB	45	THR	4.3
46	DY	29	ARG	4.3
29	DH	94	ILE	4.3
44	DW	28	GLU	4.3
30	BI	40	ALA	4.3
4	AD	35	GLN	4.3
55	CM	61	LYS	4.3
21	CU	8	ASN	4.3
30	DI	138	VAL	4.3
2	AB	68	PHE	4.3
2	CB	35	ASN	4.3
29	DH	15	LEU	4.3
21	AU	31	VAL	4.3
19	CS	24	SER	4.3
28	DG	110	HIS	4.3
58	DF	55	ASP	4.3
30	BI	138	VAL	4.3
41	DT	75	GLY	4.3
2	AB	159	ALA	4.3
29	DH	126	GLY	4.2
21	AU	51	ALA	4.2
36	DO	92	PHE	4.2
2	AB	188	THR	4.2
41	DT	58	VAL	4.2
54	CG	8	GLN	4.2
29	DH	115	VAL	4.2
33	DL	122	VAL	4.2
37	DP	111	GLU	4.2
19	AS	48	ILE	4.2
29	BH	78	VAL	4.2
22	BA	2885	G	4.2
9	AI	128	LYS	4.2
24	DC	26	GLY	4.2
40	DS	47	VAL	4.2
7	AG	79	VAL	4.2
19	AS	39	ILE	4.2
29	DH	81	ALA	4.2
26	DE	55	SER	4.2
36	DO	103	VAL	4.2
30	DI	95	ASP	4.2
2	CB	128	LEU	4.2

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Mol	Chain	Res	Type	RSRZ
17	AQ	6	THR	4.2
9	CI	39	GLY	4.2
30	DI	28	GLY	4.2
19	CS	63	ASP	4.1
53	CA	210	C	4.1
54	CG	76	SER	4.2
54	CG	54	GLY	4.1
39	DR	87	GLN	4.1
9	AI	16	ALA	4.1
28	DG	56	GLY	4.1
29	BH	77	THR	4.1
30	BI	141	ASP	4.1
54	CG	146	ALA	4.1
30	BI	51	GLY	4.1
26	DE	48	THR	4.1
41	DT	76	ARG	4.1
28	DG	140	ILE	4.1
41	DT	20	ALA	4.1
19	CS	70	LEU	4.1
32	DK	38	ILE	4.1
54	CG	52	ARG	4.1
55	CM	104	ASN	4.1
30	BI	29	GLN	4.1
33	DL	81	ASP	4.1
30	DI	52	LEU	4.1
42	DU	82	VAL	4.1
56	CP	47	GLU	4.1
30	DI	48	ILE	4.1
9	CI	14	SER	4.1
13	AM	42	VAL	4.1
30	DI	60	VAL	4.1
54	CG	72	VAL	4.1
2	CB	30	ILE	4.1
42	DU	28	LEU	4.1
22	BA	2148	G	4.1
56	CP	39	PHE	4.1
26	DE	122	GLU	4.1
14	CN	19	TYR	4.1
30	BI	7	TYR	4.1
2	CB	146	SER	4.1
52	D4	6	SER	4.1
54	CG	19	SER	4.1

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Mol	Chain	Res	Type	RSRZ
10	CJ	77	VAL	4.1
28	DG	87	GLN	4.1
38	DQ	90	ASP	4.0
39	DR	21	ARG	4.0
28	DG	161	VAL	4.0
9	AI	31	GLN	4.0
25	DD	186	LEU	4.0
55	CM	44	ILE	4.0
58	DF	59	ILE	4.0
58	DF	22	ASN	4.0
52	D4	8	LYS	4.0
10	CJ	80	THR	4.0
55	CM	87	GLY	4.0
43	DV	42	LEU	4.0
29	DH	83	LYS	4.0
30	DI	8	VAL	4.0
19	AS	2	ARG	4.0
30	DI	53	PRO	4.0
20	CT	41	GLY	4.0
29	DH	142	VAL	4.0
41	BT	16	VAL	4.0
41	DT	69	ARG	4.0
14	CN	49	THR	4.0
26	DE	198	GLU	4.0
2	CB	32	GLY	4.0
30	DI	59	THR	4.0
33	DL	5	THR	4.0
42	DU	72	PHE	4.0
29	DH	129	GLU	4.0
56	CP	48	GLU	4.0
3	AC	64	ARG	4.0
58	DF	150	GLY	4.0
44	DW	35	ILE	4.0
33	DL	107	PHE	4.0
9	CI	58	GLU	4.0
28	DG	162	ARG	4.0
54	CG	43	TYR	4.0
20	CT	66	ILE	4.0
22	DA	846	U	4.0
9	CI	64	ILE	4.0
35	DN	98	LEU	4.0
54	CG	151	ALA	4.0

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Mol	Chain	Res	Type	RSRZ
2	AB	8	MET	3.9
22	DA	318	C	3.9
2	CB	163	ILE	3.9
29	BH	106	ALA	3.9
1	AA	412	A	3.9
22	DA	345	A	3.9
22	DA	2602	A	3.9
29	BH	76	GLU	3.9
26	DE	164	LEU	3.9
9	AI	88	GLU	3.9
53	CA	1138	G	3.9
30	BI	95	ASP	3.9
58	DF	152	ASP	3.9
36	DO	27	VAL	3.9
19	CS	12	LEU	3.9
42	DU	5	ARG	3.9
55	CM	82	LEU	3.9
58	DF	23	SER	3.9
5	AE	101	GLY	3.9
49	D1	22	THR	3.9
4	AD	26	ALA	3.9
5	AE	150	GLU	3.9
55	CM	4	ALA	3.9
30	DI	81	LYS	3.9
33	DL	121	THR	3.9
8	CH	1	SER	3.9
55	CM	80	MET	3.9
26	DE	12	LEU	3.9
58	DF	127	TYR	3.9
30	DI	41	PHE	3.9
30	DI	67	THR	3.9
22	DA	138	U	3.9
14	CN	22	LYS	3.9
28	DG	147	LEU	3.9
22	DA	1173	U	3.9
25	DD	97	SER	3.9
32	DK	75	SER	3.9
54	CG	78	ARG	3.9
26	DE	197	GLU	3.8
33	DL	104	GLN	3.8
41	DT	59	ASN	3.8
14	CN	100	TRP	3.8

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Mol	Chain	Res	Type	RSRZ
42	DU	2	ALA	3.8
19	AS	45	GLY	3.8
45	DX	16	ASN	3.8
2	CB	110	ILE	3.8
41	DT	32	LEU	3.8
3	CC	108	PRO	3.8
2	AB	72	LYS	3.8
14	CN	11	LYS	3.8
19	CS	61	VAL	3.8
22	DA	137	U	3.8
55	CM	59	VAL	3.8
54	CG	18	GLY	3.8
29	BH	70	GLU	3.8
54	CG	84	TYR	3.8
10	CJ	50	THR	3.8
33	DL	143	GLU	3.8
35	DN	70	THR	3.8
10	CJ	98	VAL	3.8
26	DE	4	VAL	3.8
39	DR	63	VAL	3.8
42	DU	50	ALA	3.8
42	DU	51	LEU	3.8
2	CB	75	ALA	3.7
2	CB	123	GLY	3.7
9	CI	37	TYR	3.7
7	AG	77	ARG	3.7
36	DO	41	ALA	3.7
36	DO	88	LYS	3.7
7	AG	4	ARG	3.7
39	BR	50	GLY	3.7
22	DA	1459	G	3.7
53	CA	954	G	3.7
33	DL	91	ASP	3.7
58	DF	146	ASP	3.7
52	D4	9	LYS	3.7
46	DY	5	GLU	3.7
14	CN	3	GLN	3.7
33	DL	70	LYS	3.7
14	CN	77	GLY	3.7
44	DW	21	GLY	3.7
31	DJ	136	GLN	3.7
30	BI	57	VAL	3.7

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Mol	Chain	Res	Type	RSRZ
53	CA	1270	G	3.7
2	CB	225	SER	3.7
45	DX	49	ARG	3.7
1	AA	88	U	3.7
10	CJ	91	ASP	3.7
41	DT	5	GLU	3.7
26	DE	190	ALA	3.7
41	DT	33	LYS	3.7
41	DT	54	GLU	3.7
30	BI	35	MET	3.7
49	D1	23	THR	3.7
58	DF	115	GLY	3.7
40	DS	32	ALA	3.7
22	DA	2152	G	3.7
21	AU	34	ARG	3.7
46	DY	13	GLU	3.7
30	BI	87	SER	3.7
9	CI	63	TYR	3.7
25	DD	26	VAL	3.7
7	AG	80	GLY	3.6
35	DN	38	LEU	3.6
39	DR	53	PHE	3.6
55	CM	31	ALA	3.6
55	CM	89	ARG	3.6
26	DE	173	THR	3.6
21	CU	23	GLU	3.6
33	DL	106	GLU	3.6
42	DU	56	GLY	3.6
37	DP	71	ARG	3.6
10	AJ	76	ILE	3.6
30	DI	25	PRO	3.6
39	DR	52	PRO	3.6
22	BA	139	U	3.6
54	CG	102	TRP	3.6
46	DY	34	SER	3.6
39	DR	51	VAL	3.6
42	DU	46	LYS	3.6
9	CI	9	GLY	3.6
13	AM	94	LEU	3.6
24	DC	241	LYS	3.6
29	BH	142	VAL	3.6
10	AJ	102	LEU	3.6

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Mol	Chain	Res	Type	RSRZ
54	CG	82	SER	3.6
55	CM	97	ARG	3.6
1	AA	1534	A	3.6
22	DA	1095	A	3.6
53	CA	1312	G	3.6
58	DF	83	PRO	3.6
58	DF	168	LEU	3.6
30	DI	65	SER	3.6
22	BA	1175	A	3.6
28	DG	164	ALA	3.6
34	DM	135	VAL	3.6
38	DQ	81	GLY	3.6
39	DR	25	LEU	3.6
3	CC	205	GLU	3.6
19	CS	37	SER	3.6
30	BI	111	THR	3.6
30	DI	64	ARG	3.6
30	DI	139	VAL	3.6
3	CC	41	TYR	3.6
52	D4	36	ARG	3.6
36	DO	56	LYS	3.6
58	DF	140	ILE	3.6
46	DY	21	LEU	3.6
22	DA	1175	A	3.6
2	CB	99	MET	3.6
18	CR	19	GLU	3.6
29	DH	144	VAL	3.6
26	DE	172	ALA	3.6
46	DY	40	SER	3.6
48	D0	33	SER	3.6
58	DF	67	THR	3.6
45	DX	17	ARG	3.5
5	CE	157	GLY	3.5
2	AB	27	LYS	3.5
40	DS	27	LYS	3.5
29	BH	99	ILE	3.5
30	DI	14	ALA	3.5
29	BH	135	HIS	3.5
41	DT	68	LYS	3.5
47	DZ	33	HIS	3.5
10	AJ	36	VAL	3.5
22	BA	2144	G	3.5

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Mol	Chain	Res	Type	RSRZ
2	CB	218	ALA	3.5
19	CS	36	ARG	3.5
26	DE	128	ALA	3.5
31	DJ	128	ASN	3.5
13	AM	32	ILE	3.5
30	BI	48	ILE	3.5
10	CJ	65	TYR	3.5
28	DG	57	TYR	3.5
26	DE	148	ILE	3.5
33	DL	90	VAL	3.5
19	CS	74	ALA	3.5
28	DG	55	ASP	3.5
44	DW	56	HIS	3.5
14	AN	29	ILE	3.5
21	AU	4	LYS	3.5
21	AU	40	PRO	3.5
2	CB	144	GLU	3.5
46	DY	59	GLU	3.5
3	AC	63	ILE	3.5
30	DI	125	THR	3.5
37	DP	96	LEU	3.5
29	BH	120	GLY	3.5
48	D0	32	THR	3.5
58	DF	34	THR	3.5
28	DG	129	GLU	3.5
2	AB	195	VAL	3.5
39	DR	43	ASN	3.5
46	DY	28	LEU	3.5
10	AJ	75	ASP	3.5
22	DA	1077	A	3.5
26	DE	23	PHE	3.5
26	DE	183	PHE	3.5
10	CJ	22	THR	3.5
10	CJ	39	PRO	3.5
54	CG	13	PRO	3.5
30	DI	97	VAL	3.5
22	DA	93	G	3.5
29	BH	112	LYS	3.5
39	DR	35	PHE	3.5
58	DF	130	GLY	3.5
22	BA	2155	U	3.5
33	DL	108	ALA	3.5

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Mol	Chain	Res	Type	RSRZ
35	DN	111	ALA	3.5
55	CM	113	LYS	3.5
2	CB	159	ALA	3.5
22	DA	1171	G	3.4
29	BH	130	VAL	3.4
48	D0	36	LYS	3.4
58	DF	44	ALA	3.4
10	CJ	9	ARG	3.4
11	CK	125	LYS	3.4
14	AN	51	PRO	3.4
22	BA	2105	U	3.4
1	AA	80	A	3.4
14	CN	72	PHE	3.4
34	DM	1	MET	3.4
10	CJ	66	GLU	3.4
21	AU	23	GLU	3.4
9	AI	62	LEU	3.4
30	DI	27	LEU	3.4
31	DJ	54	ILE	3.4
1	AA	87	C	3.4
9	CI	116	GLY	3.4
22	BA	2150	C	3.4
25	DD	91	THR	3.4
44	DW	53	GLY	3.4
30	DI	124	MET	3.4
10	AJ	89	ARG	3.4
29	DH	74	ALA	3.4
22	BA	2149	U	3.4
22	DA	1075	C	3.4
41	DT	12	ARG	3.4
33	DL	125	LEU	3.4
1	AA	78	A	3.4
22	DA	1535	A	3.4
22	DA	2184	A	3.4
26	DE	176	ASP	3.4
29	DH	147	VAL	3.4
31	DJ	53	TYR	3.4
42	DU	27	VAL	3.4
14	AN	20	PHE	3.4
51	D3	47	ALA	3.4
3	CC	7	ASN	3.4
2	CB	183	PHE	3.4

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Mol	Chain	Res	Type	RSRZ
25	DD	10	GLY	3.4
55	CM	1	ALA	3.4
55	CM	30	LYS	3.4
35	DN	59	SER	3.4
44	DW	15	SER	3.4
29	BH	129	GLU	3.4
26	DE	188	MET	3.4
26	DE	187	VAL	3.4
30	DI	141	ASP	3.4
35	DN	72	ASP	3.4
40	DS	103	ILE	3.4
54	CG	40	SER	3.4
52	D4	24	ARG	3.4
55	CM	55	LEU	3.4
21	AU	30	GLU	3.4
2	CB	127	LYS	3.4
19	AS	37	SER	3.4
32	DK	110	GLU	3.4
55	CM	40	GLU	3.4
9	CI	43	ALA	3.3
28	DG	130	ILE	3.3
30	DI	68	PHE	3.3
10	CJ	99	GLN	3.3
58	DF	172	PHE	3.3
30	BI	115	ASP	3.3
21	AU	50	SER	3.3
2	CB	39	ILE	3.3
7	AG	78	ARG	3.3
21	AU	37	TYR	3.3
54	CG	81	GLY	3.3
25	DD	185	ASN	3.3
26	DE	120	VAL	3.3
17	AQ	13	SER	3.3
52	D4	26	ILE	3.3
55	CM	100	ARG	3.3
58	DF	114	ARG	3.3
3	CC	195	ILE	3.3
8	CH	129	ALA	3.3
36	DO	58	ILE	3.3
2	AB	149	GLY	3.3
30	DI	46	ASP	3.3
53	CA	1209	C	3.3

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Mol	Chain	Res	Type	RSRZ
21	AU	35	GLU	3.3
58	DF	58	ALA	3.3
10	CJ	41	PRO	3.3
53	CA	202	G	3.3
30	DI	26	ALA	3.3
41	DT	70	HIS	3.3
52	D4	15	LYS	3.3
58	DF	77	LYS	3.3
2	AB	67	LEU	3.3
2	AB	133	ALA	3.3
55	CM	76	ILE	3.3
32	DK	68	GLY	3.3
22	BA	2106	U	3.3
51	D3	60	CYS	3.3
17	CQ	58	VAL	3.3
41	DT	10	VAL	3.3
56	CP	20	VAL	3.3
2	AB	87	ASP	3.3
55	CM	98	GLY	3.3
1	AA	79	G	3.3
10	CJ	49	PHE	3.3
10	CJ	101	SER	3.3
30	DI	49	GLU	3.3
36	DO	63	LYS	3.3
28	DG	52	GLY	3.3
36	DO	96	GLY	3.3
58	DF	54	ALA	3.3
22	DA	2142	A	3.3
44	DW	31	LEU	3.3
39	DR	75	VAL	3.3
28	DG	125	PRO	3.3
3	AC	205	GLU	3.3
38	DQ	82	LEU	3.3
40	DS	20	VAL	3.3
40	DS	71	VAL	3.3
14	AN	30	ILE	3.2
19	AS	10	ILE	3.2
51	D3	9	ALA	3.2
28	DG	132	LEU	3.2
34	DM	41	LEU	3.2
36	DO	93	ASP	3.2
58	DF	11	VAL	3.2

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Mol	Chain	Res	Type	RSRZ
44	DW	38	ARG	3.2
28	DG	103	ASN	3.2
30	DI	140	GLU	3.2
38	DQ	73	ILE	3.2
38	DQ	1	ALA	3.2
49	D1	49	LYS	3.2
58	DF	142	TYR	3.2
22	DA	1536	C	3.2
22	DA	2145	C	3.2
39	DR	6	GLN	3.2
39	DR	49	ILE	3.2
26	DE	118	LEU	3.2
28	DG	86	LEU	3.2
37	DP	90	ALA	3.2
44	DW	19	ARG	3.2
33	DL	79	LEU	3.2
35	DN	75	ILE	3.2
3	CC	143	LEU	3.2
30	BI	119	ALA	3.2
7	AG	82	SER	3.2
17	CQ	5	ARG	3.2
30	BI	137	LEU	3.2
42	DU	41	VAL	3.2
53	CA	998	C	3.2
22	DA	2402	U	3.2
2	CB	157	PRO	3.2
41	DT	31	VAL	3.2
2	CB	117	GLU	3.2
10	AJ	101	SER	3.2
36	DO	87	ILE	3.2
13	AM	113	LYS	3.2
30	DI	39	LYS	3.2
37	DP	110	LYS	3.2
4	CD	27	ILE	3.2
29	DH	40	THR	3.2
44	DW	42	THR	3.2
55	CM	36	ALA	3.2
21	AU	36	PHE	3.2
38	DQ	87	VAL	3.2
22	BA	546	U	3.2
20	CT	3	ILE	3.2
36	DO	66	GLY	3.2

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Mol	Chain	Res	Type	RSRZ
51	D3	35	LYS	3.2
54	CG	130	LYS	3.2
9	CI	129	ARG	3.2
30	DI	42	ASN	3.2
32	DK	89	ASN	3.2
2	CB	13	VAL	3.2
10	CJ	36	VAL	3.2
18	AR	73	HIS	3.2
2	CB	200	PRO	3.1
9	AI	20	ILE	3.1
55	CM	8	ILE	3.1
31	DJ	119	PHE	3.1
30	BI	113	ALA	3.1
30	DI	109	ALA	3.1
39	DR	38	VAL	3.1
30	DI	61	TYR	3.1
43	DV	69	GLU	3.1
2	AB	151	LYS	3.1
49	D1	36	LYS	3.1
14	CN	26	LEU	3.1
30	BI	79	LEU	3.1
2	CB	214	GLY	3.1
32	DK	39	ILE	3.1
14	CN	76	PHE	3.1
2	CB	186	VAL	3.1
11	AK	125	LYS	3.1
33	DL	75	ALA	3.1
40	DS	30	SER	3.1
40	DS	40	ASN	3.1
30	DI	54	ILE	3.1
30	BI	39	LYS	3.1
19	AS	13	HIS	3.1
9	CI	126	PHE	3.1
35	DN	37	THR	3.1
28	DG	168	VAL	3.1
39	DR	46	GLU	3.1
42	DU	98	ASN	3.1
55	CM	90	HIS	3.1
35	DN	25	ALA	3.1
2	AB	84	LEU	3.1
20	CT	35	TYR	3.1
53	CA	1031	C	3.1

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Mol	Chain	Res	Type	RSRZ
35	DN	76	VAL	3.1
40	DS	72	THR	3.1
58	DF	53	ALA	3.1
3	AC	167	TYR	3.1
4	AD	27	ILE	3.1
17	AQ	9	GLY	3.1
9	AI	61	ASP	3.1
34	DM	72	PRO	3.1
44	DW	14	ASP	3.1
30	BI	98	GLY	3.1
44	DW	78	PHE	3.1
30	DI	38	CYS	3.1
21	AU	49	ALA	3.1
37	DP	73	PHE	3.1
26	DE	169	VAL	3.1
20	CT	42	ASP	3.1
30	DI	63	ASP	3.1
19	CS	48	ILE	3.1
38	DQ	38	VAL	3.1
53	CA	1302	C	3.1
14	CN	79	SER	3.1
26	DE	102	ARG	3.1
13	AM	83	GLY	3.1
42	DU	42	LYS	3.1
10	CJ	16	ARG	3.1
22	DA	2147	A	3.1
30	DI	20	SER	3.0
10	CJ	83	THR	3.0
19	AS	46	LEU	3.0
22	DA	136	G	3.0
40	DS	84	ARG	3.0
41	DT	11	LEU	3.0
2	AB	64	GLY	3.0
22	BA	2153	C	3.0
43	DV	57	TYR	3.0
2	CB	95	TRP	3.0
5	AE	114	LEU	3.0
6	CF	39	LEU	3.0
29	BH	47	PHE	3.0
24	BC	234	GLY	3.0
55	CM	71	GLU	3.0
39	DR	7	SER	3.0

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Mol	Chain	Res	Type	RSRZ
45	DX	18	SER	3.0
54	CG	86	VAL	3.0
58	DF	112	ASP	3.0
34	DM	136	MET	3.0
19	CS	45	GLY	3.0
30	DI	129	GLU	3.0
53	CA	86	G	3.0
58	DF	117	SER	3.0
22	DA	1066	U	3.0
39	DR	5	PHE	3.0
24	BC	235	GLU	3.0
30	BI	96	LYS	3.0
52	D4	35	GLN	3.0
28	DG	79	THR	3.0
19	CS	79	TYR	3.0
49	D1	51	ALA	3.0
22	DA	1078	U	3.0
51	D3	14	LYS	3.0
30	DI	29	GLN	3.0
9	CI	55	ASP	3.0
40	DS	44	ALA	3.0
8	CH	92	PRO	3.0
19	CS	15	LEU	3.0
19	CS	68	HIS	3.0
42	DU	53	GLN	3.0
19	CS	2	ARG	3.0
33	DL	83	ALA	3.0
36	DO	95	SER	3.0
40	DS	73	LYS	3.0
3	CC	194	VAL	3.0
53	CA	94	G	3.0
20	CT	2	ASN	3.0
29	DH	73	ASN	3.0
54	CG	121	ASN	3.0
9	AI	40	ARG	3.0
22	DA	62	U	3.0
31	DJ	118	MET	3.0
36	DO	57	ALA	3.0
26	DE	178	VAL	3.0
58	DF	85	GLY	3.0
17	CQ	4	ILE	3.0
39	DR	59	ILE	3.0

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Mol	Chain	Res	Type	RSRZ
32	DK	37	ASP	3.0
30	DI	89	SER	3.0
34	DM	8	LYS	3.0
51	D3	46	LYS	3.0
28	DG	128	THR	3.0
2	CB	141	GLU	3.0
30	DI	6	ALA	2.9
36	DO	13	ARG	2.9
54	CG	108	ARG	2.9
24	DC	102	TYR	2.9
2	CB	81	ASP	2.9
26	DE	179	SER	2.9
9	CI	128	LYS	2.9
26	DE	186	VAL	2.9
40	DS	6	LYS	2.9
14	CN	40	ARG	2.9
32	DK	82	ASN	2.9
2	AB	28	PRO	2.9
32	DK	104	THR	2.9
39	DR	19	THR	2.9
1	AA	85	U	2.9
22	DA	2107	G	2.9
53	CA	211	G	2.9
26	DE	131	THR	2.9
2	AB	65	LYS	2.9
4	AD	146	GLU	2.9
35	DN	78	LYS	2.9
58	DF	143	ASP	2.9
58	DF	178	LYS	2.9
2	CB	150	ILE	2.9
14	CN	15	LEU	2.9
2	CB	28	PRO	2.9
21	AU	8	ASN	2.9
44	DW	58	LEU	2.9
44	DW	61	LYS	2.9
28	DG	160	GLY	2.9
10	CJ	35	GLN	2.9
12	CL	80	LEU	2.9
26	DE	32	VAL	2.9
2	CB	29	PHE	2.9
9	CI	30	ASN	2.9
42	DU	25	LYS	2.9

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Mol	Chain	Res	Type	RSRZ
9	CI	20	ILE	2.9
40	DS	69	LEU	2.9
54	CG	12	LEU	2.9
2	AB	74	ALA	2.9
2	CB	161	PHE	2.9
16	AP	82	ALA	2.9
26	DE	126	VAL	2.9
35	DN	118	ARG	2.9
42	DU	40	LEU	2.9
39	DR	36	ALA	2.9
39	DR	60	LYS	2.9
17	AQ	19	SER	2.9
37	DP	114	ASN	2.9
33	DL	28	GLY	2.9
58	DF	40	GLY	2.9
30	DI	44	LYS	2.9
40	DS	33	LEU	2.9
51	D3	48	MET	2.9
44	BW	45	HIS	2.9
21	AU	22	CYS	2.9
24	DC	236	GLY	2.9
30	BI	133	ARG	2.9
54	CG	131	GLY	2.9
2	AB	163	ILE	2.9
31	DJ	92	MET	2.9
41	DT	30	ILE	2.9
42	DU	48	VAL	2.9
51	D3	57	VAL	2.9
31	DJ	44	TYR	2.9
10	CJ	78	GLU	2.9
50	D2	33	ARG	2.9
21	AU	52	VAL	2.9
28	DG	120	ILE	2.9
50	D2	43	THR	2.9
54	CG	37	THR	2.9
20	CT	40	ALA	2.9
34	DM	16	ARG	2.9
39	DR	37	GLU	2.9
43	DV	35	GLU	2.9
2	CB	100	LEU	2.9
14	CN	50	LEU	2.9
35	DN	28	LEU	2.9

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Mol	Chain	Res	Type	RSRZ
2	CB	185	ILE	2.8
52	D4	25	VAL	2.8
35	DN	62	ASN	2.8
38	DQ	117	ALA	2.8
58	DF	31	GLU	2.8
38	DQ	42	GLY	2.8
2	CB	182	VAL	2.8
3	CC	36	PHE	2.8
2	AB	186	VAL	2.8
44	DW	37	VAL	2.8
42	DU	20	LYS	2.8
14	CN	99	SER	2.8
19	AS	3	SER	2.8
48	D0	22	THR	2.8
2	CB	213	LEU	2.8
10	CJ	33	GLY	2.8
19	AS	12	LEU	2.8
2	CB	115	ASP	2.8
10	CJ	37	ARG	2.8
30	BI	97	VAL	2.8
30	BI	121	ILE	2.8
26	DE	11	ALA	2.8
46	DY	31	GLN	2.8
29	DH	77	THR	2.8
40	DS	26	GLY	2.8
2	CB	181	PRO	2.8
31	DJ	141	ASP	2.8
48	D0	30	ASP	2.8
29	DH	19	VAL	2.8
35	DN	21	PHE	2.8
36	DO	112	GLU	2.8
14	CN	73	LEU	2.8
48	D0	54	ILE	2.8
28	DG	48	THR	2.8
34	DM	40	ARG	2.8
53	CA	950	U	2.8
9	CI	68	GLY	2.8
58	DF	38	GLY	2.8
8	AH	1	SER	2.8
9	CI	27	ILE	2.8
55	CM	73	SER	2.8
30	DI	86	LYS	2.8

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Mol	Chain	Res	Type	RSRZ
58	DF	154	THR	2.8
29	DH	98	ASP	2.8
3	CC	90	VAL	2.8
11	AK	128	VAL	2.8
2	AB	185	ILE	2.8
3	CC	106	ARG	2.8
36	DO	55	GLU	2.8
36	DO	12	THR	2.8
22	DA	1094	U	2.8
53	CA	81	A	2.8
54	CG	68	VAL	2.8
36	DO	30	ARG	2.8
54	CG	56	SER	2.8
10	CJ	90	LEU	2.8
2	AB	38	HIS	2.8
4	AD	28	ASP	2.8
19	CS	8	PRO	2.8
9	AI	38	PHE	2.8
10	CJ	51	VAL	2.8
17	CQ	77	VAL	2.8
22	BA	2136	G	2.8
40	DS	94	ASP	2.8
27	BF	79	ARG	2.8
53	CA	1235	U	2.8
2	CB	16	GLY	2.8
49	D1	21	THR	2.8
9	CI	29	ILE	2.7
39	DR	95	ASP	2.8
41	DT	74	ILE	2.7
57	DB	118	C	2.8
22	BA	1065	U	2.7
8	AH	60	LEU	2.7
11	AK	18	GLY	2.7
28	DG	6	ALA	2.7
30	DI	47	SER	2.7
33	DL	141	LYS	2.7
44	DW	74	LYS	2.7
39	DR	32	THR	2.7
2	AB	134	LEU	2.7
13	AM	91	ARG	2.7
48	D0	48	TYR	2.7
58	DF	128	SER	2.7

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Mol	Chain	Res	Type	RSRZ
30	BI	59	THR	2.7
35	DN	36	THR	2.7
40	DS	39	THR	2.7
41	DT	4	GLU	2.7
49	D1	30	PRO	2.7
2	CB	153	MET	2.7
24	DC	233	GLY	2.7
19	CS	10	ILE	2.7
29	BH	109	GLU	2.7
14	CN	23	ARG	2.7
30	DI	116	MET	2.7
41	DT	24	MET	2.7
19	CS	71	GLY	2.7
30	DI	7	TYR	2.7
30	DI	75	ALA	2.7
2	CB	27	LYS	2.7
31	DJ	35	ARG	2.7
24	DC	109	LEU	2.7
30	BI	105	LEU	2.7
10	AJ	91	ASP	2.7
37	DP	42	PHE	2.7
2	CB	212	TYR	2.7
46	BY	3	ALA	2.7
53	CA	1310	G	2.7
39	DR	24	LYS	2.7
54	CG	105	GLU	2.7
22	BA	2182	U	2.7
33	DL	68	SER	2.7
44	DW	39	GLN	2.7
2	CB	188	THR	2.7
26	DE	17	THR	2.7
28	DG	170	THR	2.7
2	CB	217	ALA	2.7
26	DE	88	ARG	2.7
28	DG	163	TYR	2.7
34	DM	36	VAL	2.7
22	DA	2062	A	2.7
19	AS	70	LEU	2.7
29	BH	75	LEU	2.7
22	DA	786	C	2.7
9	CI	16	ALA	2.7
17	CQ	22	VAL	2.7

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Mol	Chain	Res	Type	RSRZ
28	DG	131	VAL	2.7
30	DI	137	LEU	2.7
37	DP	62	LYS	2.7
44	DW	67	LYS	2.7
58	DF	86	CYS	2.7
22	DA	1537	G	2.7
10	CJ	27	GLU	2.7
37	DP	41	ALA	2.7
38	DQ	94	LEU	2.7
21	AU	32	ARG	2.7
24	DC	47	ARG	2.7
39	DR	8	GLY	2.7
14	CN	25	GLU	2.7
22	DA	1090	A	2.7
33	DL	77	ILE	2.7
58	DF	104	THR	2.7
20	CT	15	LYS	2.7
16	AP	45	GLU	2.7
30	BI	65	SER	2.7
36	DO	59	ALA	2.7
3	CC	32	LEU	2.7
14	CN	48	GLN	2.7
19	AS	73	PHE	2.7
25	DD	205	PRO	2.7
10	CJ	40	ILE	2.7
26	DE	10	SER	2.6
31	DJ	140	LEU	2.6
35	DN	30	ARG	2.6
2	CB	31	PHE	2.6
22	BA	2181	U	2.6
25	DD	25	THR	2.6
24	DC	240	GLY	2.6
9	CI	35	GLU	2.6
29	BH	127	GLU	2.6
17	AQ	15	LYS	2.6
55	CM	77	LYS	2.6
2	AB	17	HIS	2.6
54	CG	50	ALA	2.6
26	DE	200	LEU	2.6
30	DI	10	LEU	2.6
33	DL	57	LEU	2.6
2	CB	210	THR	2.6

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Mol	Chain	Res	Type	RSRZ
19	CS	5	LYS	2.6
30	BI	112	LYS	2.6
37	DP	11	GLN	2.6
44	DW	69	GLU	2.6
54	CG	51	GLN	2.6
2	CB	165	ALA	2.6
2	CB	172	ILE	2.6
3	CC	171	ARG	2.6
41	DT	13	ALA	2.6
53	CA	999	C	2.6
9	CI	47	VAL	2.6
10	CJ	97	ASP	2.6
28	DG	81	GLY	2.6
30	BI	130	GLY	2.6
36	DO	2	ASP	2.6
52	D4	34	LYS	2.6
54	CG	90	VAL	2.6
14	CN	66	THR	2.6
36	DO	16	ARG	2.6
44	BW	40	ARG	2.6
30	DI	78	LEU	2.6
32	DK	77	ILE	2.6
45	DX	21	LEU	2.6
3	CC	61	LYS	2.6
7	AG	81	GLY	2.6
30	DI	30	GLN	2.6
42	DU	73	ASN	2.6
44	DW	75	ASN	2.6
40	DS	24	ILE	2.6
44	BW	42	THR	2.6
2	CB	215	ALA	2.6
8	AH	67	GLY	2.6
26	DE	28	VAL	2.6
35	DN	114	GLU	2.6
2	CB	160	LEU	2.6
30	DI	128	ILE	2.6
58	DF	33	ILE	2.6
43	DV	6	ALA	2.6
47	DZ	1	ALA	2.6
9	CI	102	PHE	2.6
10	CJ	5	ARG	2.6
21	CU	32	ARG	2.6

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Mol	Chain	Res	Type	RSRZ
26	DE	54	GLY	2.6
20	CT	65	LEU	2.6
36	DO	38	GLN	2.6
42	DU	23	LYS	2.6
22	DA	343	C	2.6
51	D3	63	TYR	2.6
9	AI	18	VAL	2.6
9	AI	91	GLU	2.6
28	DG	9	VAL	2.6
35	DN	74	GLU	2.6
58	DF	66	ILE	2.6
29	BH	132	PHE	2.6
55	CM	85	TYR	2.6
10	AJ	78	GLU	2.6
28	DG	33	THR	2.6
30	BI	74	PRO	2.6
25	DD	8	LYS	2.6
11	CK	99	LEU	2.6
58	DF	90	LEU	2.6
41	DT	77	ARG	2.6
54	CG	144	ALA	2.6
34	DM	17	ASN	2.6
40	DS	2	GLU	2.6
40	DS	37	THR	2.6
49	D1	43	ARG	2.6
54	CG	77	ARG	2.6
55	CM	72	ILE	2.6
9	CI	36	GLN	2.6
33	DL	26	GLY	2.6
39	DR	33	VAL	2.6
41	DT	40	LYS	2.6
49	D1	39	ASP	2.6
7	AG	7	GLY	2.6
58	DF	108	PRO	2.6
24	DC	103	ILE	2.6
3	CC	28	PHE	2.6
22	DA	654	A	2.6
28	DG	137	LYS	2.6
30	BI	107	GLU	2.6
30	DI	71	LYS	2.6
9	AI	39	GLY	2.6
38	DQ	86	SER	2.6

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Mol	Chain	Res	Type	RSRZ
41	DT	79	ASP	2.6
44	BW	51	GLY	2.6
44	DW	55	ASP	2.6
26	DE	177	PRO	2.6
43	DV	5	ASN	2.6
44	DW	79	ILE	2.6
54	CG	11	ILE	2.6
7	AG	17	PHE	2.5
29	DH	132	PHE	2.5
1	AA	1362	A	2.5
10	CJ	26	VAL	2.5
17	CQ	28	VAL	2.5
22	DA	2133	G	2.5
46	BY	7	ARG	2.5
58	DF	27	VAL	2.5
58	DF	35	LEU	2.5
58	DF	151	LEU	2.5
44	DW	49	ASN	2.5
58	DF	78	ILE	2.5
58	DF	138	PRO	2.5
30	BI	81	LYS	2.5
41	DT	39	THR	2.5
45	DX	19	HIS	2.5
54	CG	109	LYS	2.5
36	DO	80	GLU	2.5
2	CB	113	LEU	2.5
22	DA	914	G	2.5
22	DA	1042	G	2.5
29	BH	72	ILE	2.5
55	CM	43	LYS	2.5
30	BI	93	ASN	2.5
3	AC	98	ALA	2.5
9	AI	32	ARG	2.5
43	DV	44	HIS	2.5
48	D0	37	HIS	2.5
11	CK	14	GLN	2.5
26	DE	9	GLN	2.5
35	DN	43	GLU	2.5
45	DX	20	ALA	2.5
3	CC	123	LEU	2.5
51	D3	39	ARG	2.5
55	CM	28	ARG	2.5

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Mol	Chain	Res	Type	RSRZ
55	CM	69	ARG	2.5
55	CM	92	ARG	2.5
28	DG	100	ASN	2.5
34	DM	103	TYR	2.5
44	DW	41	GLY	2.5
2	CB	40	ILE	2.5
14	CN	5	MET	2.5
19	CS	43	MET	2.5
9	CI	61	ASP	2.5
28	DG	68	ARG	2.5
14	CN	31	SER	2.5
9	CI	3	ASN	2.5
19	CS	13	HIS	2.5
10	CJ	102	LEU	2.5
22	DA	2150	C	2.5
45	DX	66	VAL	2.5
28	DG	106	LEU	2.5
55	CM	79	LEU	2.5
22	DA	2141	G	2.5
8	AH	129	ALA	2.5
14	CN	59	GLN	2.5
24	BC	236	GLY	2.5
29	BH	100	ALA	2.5
19	CS	46	LEU	2.5
20	CT	67	HIS	2.5
22	DA	12	U	2.5
33	DL	102	GLY	2.5
55	CM	5	GLY	2.5
56	CP	19	VAL	2.5
54	CG	67	ASN	2.5
58	DF	116	LEU	2.5
1	AA	1031	C	2.5
58	DF	84	ILE	2.5
54	CG	62	GLU	2.5
58	DF	93	GLU	2.5
2	AB	152	ASP	2.5
28	DG	42	VAL	2.5
40	DS	105	VAL	2.5
41	DT	71	GLY	2.5
51	D3	64	ALA	2.5
3	CC	86	LEU	2.5
53	CA	1032	G	2.5

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Mol	Chain	Res	Type	RSRZ
55	CM	107	THR	2.5
30	BI	71	LYS	2.5
44	DW	71	LYS	2.5
30	BI	32	VAL	2.5
30	DI	133	ARG	2.5
54	CG	88	VAL	2.5
3	CC	166	TRP	2.5
24	BC	239	PHE	2.5
32	DK	2	ILE	2.5
37	DP	30	TRP	2.5
58	DF	20	ASN	2.5
6	CF	62	MET	2.5
55	CM	58	GLU	2.5
11	CK	128	VAL	2.5
14	CN	68	ARG	2.5
58	DF	30	VAL	2.5
2	CB	192	PRO	2.5
22	DA	1044	C	2.5
14	CN	75	LYS	2.5
32	DK	109	SER	2.5
42	DU	29	SER	2.5
52	D4	28	SER	2.5
50	D2	34	ARG	2.5
29	BH	5	LEU	2.5
32	DK	76	VAL	2.5
40	DS	19	LEU	2.5
52	D4	7	VAL	2.5
28	DG	127	GLN	2.5
44	DW	18	LYS	2.5
2	AB	224	ARG	2.5
35	DN	24	MET	2.5
44	DW	54	ARG	2.5
54	CG	47	GLU	2.5
2	AB	211	LEU	2.5
53	CA	1313	U	2.5
28	DG	111	PRO	2.5
26	DE	170	ARG	2.5
29	DH	27	ARG	2.5
26	DE	146	VAL	2.4
1	AA	209	U	2.4
2	CB	71	THR	2.4
19	AS	42	ASN	2.4

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Mol	Chain	Res	Type	RSRZ
45	DX	29	LEU	2.4
16	AP	22	ALA	2.4
2	CB	68	PHE	2.4
7	AG	150	PHE	2.4
2	AB	192	PRO	2.4
30	DI	19	PRO	2.4
37	DP	8	GLU	2.4
26	DE	98	LYS	2.4
54	CG	74	VAL	2.4
2	AB	33	ALA	2.4
3	CC	31	ASN	2.4
14	AN	42	ASN	2.4
22	DA	2585	U	2.4
53	CA	1308	U	2.4
58	DF	124	ARG	2.4
16	AP	4	ILE	2.4
44	DW	81	ILE	2.4
30	BI	94	LYS	2.4
2	CB	42	LEU	2.4
25	DD	6	GLY	2.4
30	DI	84	GLY	2.4
34	DM	37	GLY	2.4
15	CO	88	ARG	2.4
40	DS	43	ALA	2.4
55	CM	105	ALA	2.4
2	CB	114	LYS	2.4
17	AQ	3	LYS	2.4
38	DQ	89	ILE	2.4
53	CA	955	U	2.4
10	CJ	60	ASP	2.4
46	DY	1	MET	2.4
31	DJ	47	HIS	2.4
43	DV	64	VAL	2.4
54	CG	139	ASP	2.4
55	CM	41	ASP	2.4
9	CI	13	SER	2.4
26	DE	26	ALA	2.4
28	DG	96	ALA	2.4
29	DH	11	ASN	2.4
33	DL	115	GLU	2.4
38	DQ	16	ILE	2.4
54	CG	66	GLU	2.4

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Mol	Chain	Res	Type	RSRZ
22	DA	1043	C	2.4
25	DD	77	ARG	2.4
28	DG	94	ARG	2.4
32	DK	35	VAL	2.4
41	BT	1	MET	2.4
41	DT	62	VAL	2.4
51	D3	52	GLY	2.4
3	CC	203	LYS	2.4
26	DE	57	LYS	2.4
29	DH	148	ALA	2.4
30	BI	80	LYS	2.4
24	DC	63	ILE	2.4
42	DU	57	ILE	2.4
37	DP	108	ARG	2.4
58	DF	125	GLY	2.4
26	DE	171	ASP	2.4
30	BI	43	ALA	2.4
55	CM	29	SER	2.4
55	CM	75	SER	2.4
58	DF	79	ARG	2.4
21	AU	28	LEU	2.4
28	DG	116	LEU	2.4
45	DX	32	LEU	2.4
19	CS	75	PRO	2.4
50	B2	46	LYS	2.4
55	CM	110	GLY	2.4
30	BI	41	PHE	2.4
2	CB	126	ASP	2.4
36	DO	20	GLU	2.4
53	CA	1247	U	2.4
58	DF	82	TYR	2.4
8	CH	58	LEU	2.4
22	BA	2108	A	2.4
38	DQ	43	GLN	2.4
43	DV	68	LYS	2.4
16	AP	41	PRO	2.4
36	DO	53	THR	2.4
51	D3	27	ASN	2.4
30	BI	6	ALA	2.4
8	CH	74	ILE	2.4
58	DF	136	ILE	2.4
3	AC	99	GLN	2.4

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Mol	Chain	Res	Type	RSRZ
21	AU	27	VAL	2.4
37	DP	39	LEU	2.4
40	DS	17	VAL	2.4
36	DO	77	ALA	2.4
17	CQ	60	ILE	2.4
2	CB	162	VAL	2.4
14	CN	44	VAL	2.4
16	AP	39	PHE	2.4
30	DI	37	PHE	2.4
54	CG	142	ARG	2.4
35	DN	56	LYS	2.4
52	D4	16	ILE	2.4
55	CM	32	ILE	2.4
22	DA	1083	U	2.4
28	DG	115	GLN	2.4
30	BI	5	GLN	2.4
52	D4	32	LYS	2.4
2	CB	124	THR	2.4
17	CQ	44	HIS	2.4
2	AB	69	VAL	2.3
28	DG	167	VAL	2.3
2	CB	222	GLU	2.3
22	DA	2106	U	2.3
22	DA	2797	U	2.3
25	DD	96	ILE	2.3
52	B4	29	ALA	2.3
26	DE	44	ARG	2.3
37	DP	72	VAL	2.3
40	DS	95	ARG	2.3
2	CB	155	GLY	2.3
49	D1	15	GLY	2.3
53	CA	1317	C	2.3
29	BH	18	GLN	2.3
26	DE	125	SER	2.3
2	CB	125	PHE	2.3
34	DM	110	GLU	2.3
41	DT	37	ASP	2.3
46	DY	49	ASP	2.3
34	DM	46	ILE	2.3
43	DV	23	ALA	2.3
44	DW	36	ILE	2.3
2	AB	70	GLY	2.3

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Mol	Chain	Res	Type	RSRZ
11	CK	85	VAL	2.3
5	CE	150	GLU	2.3
26	DE	43	THR	2.3
54	CG	138	GLU	2.3
2	AB	81	ASP	2.3
22	DA	33	C	2.3
22	DA	1117	C	2.3
22	DA	2306	C	2.3
56	CP	17	TYR	2.3
12	CL	122	LYS	2.3
32	DK	61	VAL	2.3
58	DF	119	LYS	2.3
22	DA	810	U	2.3
21	CU	34	ARG	2.3
28	DG	113	ASP	2.3
20	CT	86	ALA	2.3
30	DI	62	ALA	2.3
30	DI	103	ALA	2.3
40	DS	21	ALA	2.3
52	D4	14	CYS	2.3
52	D4	23	ILE	2.3
55	CM	26	LYS	2.3
58	DF	167	ALA	2.3
3	CC	38	VAL	2.3
26	DE	76	PRO	2.3
33	DL	126	ARG	2.3
36	DO	7	ARG	2.3
42	DU	9	GLU	2.3
20	CT	70	LYS	2.3
32	DK	36	GLY	2.3
3	AC	169	GLU	2.3
53	CA	1320	C	2.3
2	AB	128	LEU	2.3
9	CI	51	LEU	2.3
9	CI	82	ILE	2.3
28	BG	116	LEU	2.3
53	CA	79	G	2.3
43	DV	82	TYR	2.3
48	D0	5	ASN	2.3
55	CM	47	LEU	2.3
26	DE	189	THR	2.3
13	AM	96	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
28	DG	173	ALA	2.3
32	DK	33	ALA	2.3
53	CA	1362	A	2.3
14	CN	93	PRO	2.3
19	AS	43	MET	2.3
20	CT	33	LYS	2.3
21	AU	24	LYS	2.3
58	DF	175	PRO	2.3
7	AG	22	LEU	2.3
41	DT	61	LEU	2.3
31	DJ	74	TYR	2.3
39	DR	2	TYR	2.3
40	DS	66	ILE	2.3
54	CG	140	VAL	2.3
22	BA	2142	A	2.3
22	DA	1407	G	2.3
37	DP	33	GLU	2.3
58	DF	37	MET	2.3
2	CB	140	LEU	2.3
30	BI	64	ARG	2.3
30	BI	85	ILE	2.3
39	DR	61	ALA	2.3
44	DW	76	ARG	2.3
58	DF	98	PHE	2.3
22	DA	1211	C	2.3
22	DA	1278	C	2.3
29	BH	95	GLY	2.3
30	DI	94	LYS	2.3
22	DA	88	G	2.3
3	CC	202	PHE	2.3
32	DK	111	LYS	2.3
50	D2	36	ALA	2.3
39	DR	34	GLU	2.3
21	AU	20	ARG	2.3
6	AF	36	ILE	2.3
41	DT	81	LYS	2.3
30	DI	82	ALA	2.3
31	DJ	75	TYR	2.3
31	DJ	139	VAL	2.3
34	DM	131	VAL	2.3
53	CA	1441	A	2.3
22	DA	2140	G	2.2

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Mol	Chain	Res	Type	RSRZ
17	CQ	41	THR	2.2
33	DL	4	ASN	2.2
22	DA	1174	U	2.2
34	DM	102	LEU	2.2
12	CL	81	ILE	2.2
22	DA	2153	C	2.2
45	DX	9	LYS	2.2
3	AC	65	VAL	2.2
10	AJ	98	VAL	2.2
3	CC	91	ALA	2.2
14	CN	65	GLN	2.2
34	DM	80	VAL	2.2
9	AI	96	GLU	2.2
44	DW	72	GLY	2.2
1	AA	461	A	2.2
14	CN	64	ARG	2.2
28	DG	151	ARG	2.2
24	BC	241	LYS	2.2
48	D0	25	THR	2.2
42	DU	58	VAL	2.2
14	CN	16	ALA	2.2
28	DG	1	SER	2.2
30	BI	91	LYS	2.2
44	DW	77	LYS	2.2
55	CM	74	MET	2.2
2	CB	92	ASN	2.2
9	CI	46	VAL	2.2
30	BI	21	PRO	2.2
58	DF	17	THR	2.2
53	CA	1305	G	2.2
58	DF	109	ARG	2.2
48	D0	26	SER	2.2
29	BH	138	VAL	2.2
40	DS	35	ILE	2.2
42	DU	80	ASP	2.2
1	AA	81	A	2.2
22	BA	613	A	2.2
41	DT	82	LYS	2.2
53	CA	205	A	2.2
53	CA	1036	A	2.2
26	DE	5	LEU	2.2
49	D1	33	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
55	CM	18	LEU	2.2
58	DF	174	PHE	2.2
2	AB	158	ASP	2.2
9	CI	90	ASP	2.2
49	D1	34	GLU	2.2
44	DW	57	THR	2.2
54	CG	107	ALA	2.2
53	CA	80	A	2.2
53	CA	1248	A	2.2
3	CC	56	ILE	2.2
9	CI	54	VAL	2.2
19	AS	69	LYS	2.2
1	AA	841	C	2.2
7	AG	84	TYR	2.2
53	CA	212	G	2.2
53	CA	1131	G	2.2
42	DU	47	PRO	2.2
14	AN	47	LEU	2.2
1	AA	1441	A	2.2
14	CN	18	LYS	2.2
10	CJ	81	GLU	2.2
28	DG	16	VAL	2.2
36	DO	78	VAL	2.2
42	DU	88	ASP	2.2
48	D0	45	ASP	2.2
49	B1	51	ALA	2.2
3	CC	97	PRO	2.2
51	D3	56	LEU	2.2
28	DG	121	THR	2.2
4	AD	24	VAL	2.2
6	AF	51	ILE	2.2
37	DP	4	ILE	2.2
39	DR	12	HIS	2.2
2	CB	76	SER	2.2
8	CH	122	GLY	2.2
35	DN	100	CYS	2.2
28	BG	15	ASP	2.2
42	DU	32	LYS	2.2
2	CB	90	PHE	2.2
29	DH	134	VAL	2.2
35	DN	112	TYR	2.2
45	DX	10	ARG	2.2

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Mol	Chain	Res	Type	RSRZ
2	CB	152	ASP	2.2
22	DA	344	A	2.2
25	DD	43	ASP	2.2
28	DG	72	ASN	2.2
36	DO	39	VAL	2.2
37	DP	103	THR	2.2
2	CB	38	HIS	2.2
19	CS	67	GLY	2.2
22	BA	140	C	2.2
10	AJ	90	LEU	2.2
34	DM	33	LEU	2.2
22	BA	2402	U	2.2
22	DA	549	G	2.2
10	AJ	74	VAL	2.2
25	DD	73	VAL	2.2
48	D0	42	ILE	2.2
55	CM	3	ILE	2.2
1	AA	1493	A	2.2
2	AB	35	ASN	2.2
6	CF	86	ARG	2.2
22	DA	1046	A	2.2
10	CJ	56	HIS	2.2
35	DN	107	ASN	2.2
2	CB	67	LEU	2.1
17	CQ	72	TRP	2.1
22	DA	2104	C	2.1
8	CH	59	GLU	2.1
16	AP	19	VAL	2.1
30	BI	25	PRO	2.1
26	DE	22	ASP	2.1
48	D0	52	LYS	2.1
55	CM	106	ARG	2.1
30	BI	24	GLY	2.1
48	D0	55	ALA	2.1
53	CA	958	A	2.1
55	CM	11	HIS	2.1
30	DI	113	ALA	2.1
38	DQ	85	ALA	2.1
55	CM	35	ALA	2.1
6	CF	68	GLN	2.1
2	AB	80	LYS	2.1
9	CI	11	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
28	BG	25	ILE	2.1
42	DU	10	VAL	2.1
58	DF	32	LYS	2.1
20	CT	62	ALA	2.1
40	DS	38	TYR	2.1
53	CA	1241	G	2.1
53	CA	1272	G	2.1
7	AG	1	PRO	2.1
39	DR	102	SER	2.1
58	DF	25	MET	2.1
22	DA	795	C	2.1
22	DA	2151	U	2.1
2	CB	93	HIS	2.1
5	CE	127	TYR	2.1
11	AK	65	ALA	2.1
26	DE	21	ARG	2.1
37	DP	28	LYS	2.1
58	DF	156	THR	2.1
9	AI	28	VAL	2.1
9	AI	78	ILE	2.1
24	DC	48	ILE	2.1
39	DR	45	GLU	2.1
28	DG	105	SER	2.1
41	DT	7	LEU	2.1
19	CS	49	ALA	2.1
27	BF	174	PHE	2.1
42	BU	86	PHE	2.1
49	D1	29	LYS	2.1
50	D2	12	ARG	2.1
53	CA	85	U	2.1
2	CB	101	THR	2.1
28	DG	50	THR	2.1
29	DH	79	THR	2.1
2	CB	108	GLN	2.1
3	CC	119	ILE	2.1
55	CM	96	VAL	2.1
56	CP	4	ILE	2.1
2	CB	135	MET	2.1
32	DK	1	MET	2.1
50	D2	1	MET	2.1
42	DU	91	LYS	2.1
19	AS	40	PHE	2.1

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Mol	Chain	Res	Type	RSRZ
26	DE	35	TYR	2.1
1	AA	844	G	2.1
3	CC	94	ALA	2.1
26	DE	161	ALA	2.1
14	CN	9	GLU	2.1
22	DA	931	U	2.1
22	DA	2307	G	2.1
36	DO	37	ALA	2.1
38	DQ	67	ALA	2.1
41	DT	17	SER	2.1
58	DF	45	ASP	2.1
22	DA	546	U	2.1
22	DA	1420	A	2.1
25	DD	180	VAL	2.1
22	BA	885	C	2.1
9	CI	19	PHE	2.1
35	DN	102	PHE	2.1
28	DG	95	ALA	2.1
11	CK	83	VAL	2.1
19	AS	26	ASP	2.1
2	CB	94	ARG	2.1
18	AR	72	ARG	2.1
26	DE	77	ILE	2.1
30	DI	9	LYS	2.1
49	D1	45	HIS	2.1
31	DJ	38	GLY	2.1
22	BA	2109	U	2.1
28	DG	126	THR	2.1
22	DA	748	G	2.1
22	DA	1606	C	2.1
53	CA	1309	G	2.1
53	CA	1361	G	2.1
53	CA	1452	C	2.1
30	DI	126	ARG	2.1
56	CP	80	LYS	2.1
3	AC	92	ASP	2.1
19	AS	44	ILE	2.1
35	DN	33	ILE	2.1
42	DU	64	ILE	2.1
51	D3	58	ILE	2.1
56	CP	33	ILE	2.1
39	DR	92	TRP	2.1

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Mol	Chain	Res	Type	RSRZ
2	CB	33	ALA	2.1
2	CB	138	ARG	2.1
21	AU	9	GLU	2.1
31	DJ	63	ALA	2.1
42	DU	16	LYS	2.1
34	DM	96	ILE	2.1
10	CJ	38	GLY	2.1
2	CB	118	THR	2.1
6	CF	10	VAL	2.1
39	DR	54	VAL	2.1
40	DS	106	VAL	2.1
2	CB	64	GLY	2.1
11	CK	18	GLY	2.1
22	DA	1870	C	2.1
37	BP	64	SER	2.1
24	DC	29	PHE	2.0
24	DC	231	HIS	2.1
48	D0	41	HIS	2.1
53	CA	1226	C	2.1
3	CC	57	GLU	2.0
17	CQ	59	GLU	2.0
14	CN	43	ALA	2.0
14	CN	69	PRO	2.0
14	CN	98	ALA	2.0
24	DC	20	ASN	2.0
28	BG	16	VAL	2.0
42	DU	62	ALA	2.0
30	BI	127	SER	2.0
58	DF	50	ASP	2.0
37	DP	29	VAL	2.0
40	DS	93	ALA	2.0
6	CF	6	ILE	2.0
29	DH	20	ASN	2.0
22	BA	1171	G	2.0
22	DA	245	G	2.0
51	D3	40	LYS	2.0
13	AM	86	ARG	2.0
19	CS	80	ARG	2.0
29	DH	47	PHE	2.0
53	CA	208	U	2.0
52	D4	19	ARG	2.0
34	DM	25	ASP	2.0

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Mol	Chain	Res	Type	RSRZ
39	DR	14	VAL	2.0
54	CG	149	ALA	2.0
58	DF	7	TYR	2.0
27	BF	116	LEU	2.0
30	BI	34	ILE	2.0
2	AB	24	PRO	2.0
40	DS	41	LYS	2.0
28	DG	24	THR	2.0
1	AA	842	U	2.0
27	BF	129	MET	2.0
22	BA	2140	G	2.0
40	DS	101	SER	2.0
9	AI	5	TYR	2.0
21	CU	37	TYR	2.0
3	AC	148	ILE	2.0
9	CI	86	LEU	2.0
29	BH	4	ILE	2.0
48	D0	27	LEU	2.0
32	DK	81	GLY	2.0
9	AI	4	GLN	2.0
54	CG	73	GLU	2.0
22	DA	92	U	2.0
2	CB	216	VAL	2.0
36	DO	29	HIS	2.0
38	DQ	111	LYS	2.0
54	CG	79	VAL	2.0
3	CC	1	GLY	2.0
3	CC	206	ILE	2.0
9	CI	34	LEU	2.0
38	DQ	41	ALA	2.0
40	BS	110	ARG	2.0
2	CB	26	MET	2.0
11	AK	32	THR	2.0
44	BW	84	GLU	2.0
9	CI	49	GLN	2.0
9	CI	5	TYR	2.0
41	DT	85	VAL	2.0

6.2 Non-standard residues in protein, DNA, RNA chains (i)

There are no non-standard protein/DNA/RNA residues in this entry.

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	DA	3129	1/1	-0.39	1.35	233,233,233,233	0
59	MG	DA	3124	1/1	-0.02	0.59	176,176,176,176	0
59	MG	DJ	201	1/1	0.01	2.07	230,230,230,230	0
59	MG	DA	3003	1/1	0.03	0.97	236,236,236,236	0
59	MG	DA	3013	1/1	0.26	0.24	126,126,126,126	0
59	MG	DA	3044	1/1	0.28	0.28	156,156,156,156	0
59	MG	DA	3017	1/1	0.28	0.18	204,204,204,204	0
59	MG	DA	3010	1/1	0.29	0.61	218,218,218,218	0
59	MG	DA	3025	1/1	0.34	1.37	278,278,278,278	0
59	MG	DA	3081	1/1	0.40	0.18	142,142,142,142	0
59	MG	DA	3019	1/1	0.40	2.04	247,247,247,247	0
59	MG	DA	3131	1/1	0.46	0.35	212,212,212,212	0
59	MG	DA	3001	1/1	0.49	0.19	151,151,151,151	0
59	MG	DA	3002	1/1	0.50	0.32	180,180,180,180	0
59	MG	DA	3005	1/1	0.51	1.11	309,309,309,309	0
59	MG	DA	3110	1/1	0.51	0.27	153,153,153,153	0
59	MG	DA	3061	1/1	0.52	1.00	229,229,229,229	0
59	MG	DA	3082	1/1	0.53	0.08	197,197,197,197	0
59	MG	DA	3098	1/1	0.54	0.16	172,172,172,172	0
59	MG	DA	3073	1/1	0.58	2.10	274,274,274,274	0
59	MG	DA	3007	1/1	0.59	0.65	254,254,254,254	0
59	MG	DA	3090	1/1	0.60	0.36	165,165,165,165	0
59	MG	CA	1602	1/1	0.64	0.15	175,175,175,175	0
59	MG	AA	1629	1/1	0.64	0.20	180,180,180,180	0
59	MG	DA	3016	1/1	0.64	0.15	87,87,87,87	0
59	MG	DA	3085	1/1	0.65	0.12	87,87,87,87	0
59	MG	DA	3108	1/1	0.66	0.54	185,185,185,185	0
59	MG	CA	1619	1/1	0.66	0.38	214,214,214,214	0
59	MG	DA	3030	1/1	0.66	0.13	68,68,68,68	0
59	MG	DA	3122	1/1	0.67	0.37	153,153,153,153	0
59	MG	DA	3046	1/1	0.68	0.17	151,151,151,151	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	DA	3119	1/1	0.69	0.19	93,93,93,93	0
59	MG	CA	1615	1/1	0.69	0.15	172,172,172,172	0
59	MG	CA	1616	1/1	0.69	0.39	254,254,254,254	0
59	MG	CA	1634	1/1	0.70	0.14	131,131,131,131	0
59	MG	CA	1627	1/1	0.70	0.38	181,181,181,181	0
59	MG	DA	3042	1/1	0.70	0.24	161,161,161,161	0
59	MG	DA	3132	1/1	0.70	0.35	174,174,174,174	0
59	MG	DA	3015	1/1	0.70	0.24	183,183,183,183	0
59	MG	DA	3056	1/1	0.71	0.43	197,197,197,197	0
59	MG	CA	1629	1/1	0.71	0.12	197,197,197,197	0
59	MG	DA	3117	1/1	0.71	0.22	71,71,71,71	0
59	MG	CA	1636	1/1	0.71	0.29	181,181,181,181	0
59	MG	CA	1632	1/1	0.71	0.24	156,156,156,156	0
59	MG	DA	3075	1/1	0.72	0.69	174,174,174,174	0
59	MG	CA	1624	1/1	0.72	0.69	165,165,165,165	0
59	MG	DA	3027	1/1	0.72	0.61	253,253,253,253	0
59	MG	DA	3048	1/1	0.72	0.32	218,218,218,218	0
59	MG	DA	3087	1/1	0.73	0.27	179,179,179,179	0
59	MG	BA	3011	1/1	0.73	0.21	102,102,102,102	0
59	MG	DA	3109	1/1	0.73	0.31	174,174,174,174	0
59	MG	CA	1618	1/1	0.74	0.29	113,113,113,113	0
59	MG	DA	3004	1/1	0.74	0.12	114,114,114,114	0
59	MG	CA	1614	1/1	0.74	0.26	210,210,210,210	0
59	MG	DA	3105	1/1	0.74	0.23	262,262,262,262	0
59	MG	DA	3028	1/1	0.74	0.35	143,143,143,143	0
59	MG	DA	3107	1/1	0.76	0.48	161,161,161,161	0
59	MG	DA	3049	1/1	0.76	0.23	172,172,172,172	0
59	MG	DE	301	1/1	0.76	0.47	131,131,131,131	0
59	MG	BA	3117	1/1	0.76	0.27	157,157,157,157	0
59	MG	DA	3029	1/1	0.77	0.19	112,112,112,112	0
59	MG	CA	1637	1/1	0.77	0.22	74,74,74,74	0
59	MG	DA	3038	1/1	0.77	0.14	102,102,102,102	0
59	MG	CA	1623	1/1	0.77	0.16	124,124,124,124	0
59	MG	DA	3114	1/1	0.78	0.30	167,167,167,167	0
59	MG	DA	3059	1/1	0.78	0.82	200,200,200,200	0
59	MG	DA	3006	1/1	0.78	0.11	211,211,211,211	0
59	MG	DA	3072	1/1	0.78	0.07	187,187,187,187	0
59	MG	CA	1628	1/1	0.78	1.37	260,260,260,260	0
59	MG	DA	3018	1/1	0.79	0.17	226,226,226,226	0
59	MG	AA	1627	1/1	0.79	0.18	132,132,132,132	0
59	MG	DA	3062	1/1	0.79	1.49	211,211,211,211	0
59	MG	DA	3077	1/1	0.80	0.54	222,222,222,222	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	DC	301	1/1	0.80	0.25	145,145,145,145	0
59	MG	DA	3008	1/1	0.81	0.13	148,148,148,148	0
59	MG	DA	3086	1/1	0.81	0.17	139,139,139,139	0
59	MG	BA	3131	1/1	0.81	0.27	154,154,154,154	0
59	MG	DA	3121	1/1	0.81	0.12	84,84,84,84	0
59	MG	CA	1620	1/1	0.81	0.13	168,168,168,168	0
59	MG	DA	3026	1/1	0.81	0.12	109,109,109,109	0
59	MG	DA	3063	1/1	0.82	0.44	278,278,278,278	0
59	MG	DA	3094	1/1	0.82	0.20	107,107,107,107	0
59	MG	DA	3092	1/1	0.83	0.27	229,229,229,229	0
59	MG	DA	3093	1/1	0.83	0.13	114,114,114,114	0
59	MG	BB	201	1/1	0.83	0.32	222,222,222,222	0
59	MG	DA	3097	1/1	0.83	0.22	144,144,144,144	0
59	MG	AA	1610	1/1	0.83	0.09	190,190,190,190	0
59	MG	DA	3128	1/1	0.83	0.72	214,214,214,214	0
59	MG	AN	201	1/1	0.83	0.25	159,159,159,159	0
59	MG	BA	3003	1/1	0.83	0.11	69,69,69,69	0
59	MG	DA	3021	1/1	0.83	0.38	199,199,199,199	0
59	MG	AA	1618	1/1	0.83	0.60	197,197,197,197	0
59	MG	AA	1619	1/1	0.83	0.11	156,156,156,156	0
59	MG	AA	1607	1/1	0.83	0.15	103,103,103,103	0
59	MG	BA	3001	1/1	0.84	0.13	116,116,116,116	0
59	MG	DA	3126	1/1	0.84	0.67	200,200,200,200	0
59	MG	DA	3127	1/1	0.84	0.25	142,142,142,142	0
59	MG	BA	3091	1/1	0.84	0.07	32,32,32,32	0
59	MG	CA	1622	1/1	0.84	0.14	226,226,226,226	0
59	MG	AA	1603	1/1	0.84	0.10	111,111,111,111	0
59	MG	DA	3083	1/1	0.84	0.17	204,204,204,204	0
59	MG	CA	1604	1/1	0.84	0.06	74,74,74,74	0
59	MG	DA	3041	1/1	0.84	0.17	82,82,82,82	0
59	MG	DA	3074	1/1	0.84	0.35	190,190,190,190	0
59	MG	DA	3058	1/1	0.85	0.18	204,204,204,204	0
59	MG	BA	3096	1/1	0.85	0.16	102,102,102,102	0
59	MG	DA	3070	1/1	0.85	0.13	56,56,56,56	0
59	MG	DA	3037	1/1	0.85	0.13	197,197,197,197	0
59	MG	DA	3100	1/1	0.85	0.12	78,78,78,78	0
59	MG	DA	3125	1/1	0.86	0.16	82,82,82,82	0
59	MG	DA	3057	1/1	0.86	0.52	227,227,227,227	0
59	MG	CA	1603	1/1	0.86	0.29	162,162,162,162	0
59	MG	CA	1617	1/1	0.86	0.23	199,199,199,199	0
59	MG	AA	1636	1/1	0.86	0.18	124,124,124,124	0
59	MG	DA	3045	1/1	0.86	0.20	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	CA	1639	1/1	0.86	0.14	165,165,165,165	0
59	MG	CA	1607	1/1	0.86	0.25	121,121,121,121	0
59	MG	DC	302	1/1	0.86	0.27	129,129,129,129	0
59	MG	CA	1601	1/1	0.86	0.17	156,156,156,156	0
59	MG	BA	3085	1/1	0.86	0.22	100,100,100,100	0
59	MG	BA	3090	1/1	0.87	0.18	128,128,128,128	0
59	MG	BA	3074	1/1	0.87	0.24	93,93,93,93	0
59	MG	BA	3068	1/1	0.87	0.13	117,117,117,117	0
59	MG	DA	3071	1/1	0.88	0.11	133,133,133,133	0
59	MG	DA	3091	1/1	0.88	0.20	116,116,116,116	0
59	MG	DA	3106	1/1	0.88	0.20	92,92,92,92	0
59	MG	DA	3040	1/1	0.88	0.14	70,70,70,70	0
59	MG	DA	3034	1/1	0.88	0.26	125,125,125,125	0
59	MG	BA	3069	1/1	0.88	0.33	151,151,151,151	0
59	MG	DA	3064	1/1	0.88	0.14	70,70,70,70	0
59	MG	DA	3014	1/1	0.88	0.31	172,172,172,172	0
59	MG	BA	3026	1/1	0.89	0.27	133,133,133,133	0
59	MG	AA	1614	1/1	0.89	0.25	194,194,194,194	0
59	MG	CA	1633	1/1	0.89	0.13	63,63,63,63	0
59	MG	DA	3047	1/1	0.89	0.18	95,95,95,95	0
59	MG	DA	3022	1/1	0.89	0.12	69,69,69,69	0
59	MG	DA	3111	1/1	0.89	0.15	109,109,109,109	0
59	MG	DA	3096	1/1	0.89	0.16	102,102,102,102	0
59	MG	DA	3115	1/1	0.89	0.16	65,65,65,65	0
59	MG	AA	1612	1/1	0.89	0.20	105,105,105,105	0
59	MG	BA	3110	1/1	0.89	0.25	92,92,92,92	0
59	MG	AA	1628	1/1	0.89	0.11	69,69,69,69	0
59	MG	BA	3024	1/1	0.89	0.58	166,166,166,166	0
59	MG	CA	1625	1/1	0.90	0.22	100,100,100,100	0
59	MG	AA	1631	1/1	0.90	0.12	91,91,91,91	0
59	MG	AA	1635	1/1	0.90	0.18	194,194,194,194	0
59	MG	AA	1617	1/1	0.90	0.17	115,115,115,115	0
59	MG	AA	1639	1/1	0.90	0.08	108,108,108,108	0
59	MG	DA	3032	1/1	0.90	0.18	121,121,121,121	0
59	MG	DA	3011	1/1	0.90	0.17	127,127,127,127	0
59	MG	DA	3035	1/1	0.90	0.41	194,194,194,194	0
59	MG	DA	3099	1/1	0.90	0.14	68,68,68,68	0
59	MG	AA	1622	1/1	0.90	0.06	76,76,76,76	0
59	MG	DA	3101	1/1	0.90	0.10	67,67,67,67	0
59	MG	AA	1626	1/1	0.90	0.30	117,117,117,117	0
59	MG	DA	3068	1/1	0.91	0.39	209,209,209,209	0
59	MG	DA	3050	1/1	0.91	0.14	106,106,106,106	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	DA	3053	1/1	0.91	0.07	67,67,67,67	0
59	MG	BA	3089	1/1	0.91	0.12	80,80,80,80	0
59	MG	AA	1608	1/1	0.91	0.26	68,68,68,68	0
59	MG	BB	202	1/1	0.91	0.09	50,50,50,50	0
59	MG	CA	1610	1/1	0.91	0.14	152,152,152,152	0
59	MG	DA	3130	1/1	0.91	0.15	85,85,85,85	0
59	MG	DA	3095	1/1	0.91	0.09	95,95,95,95	0
59	MG	CA	1612	1/1	0.91	0.35	136,136,136,136	0
59	MG	DB	201	1/1	0.91	0.09	104,104,104,104	0
59	MG	BA	3072	1/1	0.91	0.16	139,139,139,139	0
59	MG	DA	3039	1/1	0.91	0.20	65,65,65,65	0
59	MG	BA	3129	1/1	0.91	1.04	214,214,214,214	0
59	MG	DA	3066	1/1	0.91	0.12	61,61,61,61	0
59	MG	AA	1604	1/1	0.92	0.12	124,124,124,124	0
59	MG	CA	1640	1/1	0.92	0.15	157,157,157,157	0
59	MG	AA	1640	1/1	0.92	0.09	154,154,154,154	0
59	MG	DA	3023	1/1	0.92	0.10	87,87,87,87	0
59	MG	CA	1631	1/1	0.92	0.23	93,93,93,93	0
59	MG	DA	3123	1/1	0.92	0.13	61,61,61,61	0
59	MG	BA	3082	1/1	0.92	0.16	114,114,114,114	0
59	MG	DA	3036	1/1	0.92	0.17	82,82,82,82	0
59	MG	DA	3112	1/1	0.92	0.14	131,131,131,131	0
59	MG	CA	1638	1/1	0.92	0.10	130,130,130,130	0
59	MG	BA	3086	1/1	0.93	0.16	131,131,131,131	0
59	MG	DA	3020	1/1	0.93	0.22	49,49,49,49	0
59	MG	BA	3088	1/1	0.93	0.10	50,50,50,50	0
59	MG	DA	3009	1/1	0.93	0.10	69,69,69,69	0
59	MG	DA	3089	1/1	0.93	0.09	99,99,99,99	0
59	MG	BA	3124	1/1	0.93	0.11	25,25,25,25	0
59	MG	BA	3014	1/1	0.93	0.13	68,68,68,68	0
59	MG	BA	3103	1/1	0.93	0.15	4,4,4,4	0
59	MG	CA	1606	1/1	0.93	0.09	64,64,64,64	0
59	MG	BA	3133	1/1	0.93	0.12	139,139,139,139	0
59	MG	DA	3076	1/1	0.93	0.17	93,93,93,93	0
59	MG	CA	1609	1/1	0.93	0.11	83,83,83,83	0
59	MG	DA	3079	1/1	0.93	0.12	142,142,142,142	0
59	MG	DA	3118	1/1	0.93	0.12	76,76,76,76	0
59	MG	BA	3105	1/1	0.93	0.15	42,42,42,42	0
59	MG	CA	1611	1/1	0.93	0.22	112,112,112,112	0
61	ZN	D4	101	1/1	0.93	0.07	161,161,161,161	0
59	MG	CA	1621	1/1	0.94	0.22	46,46,46,46	0
59	MG	BA	3046	1/1	0.94	0.07	149,149,149,149	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	BA	3056	1/1	0.94	0.16	169,169,169,169	0
59	MG	DA	3060	1/1	0.94	0.11	105,105,105,105	0
59	MG	DA	3080	1/1	0.94	0.20	108,108,108,108	0
59	MG	BA	3111	1/1	0.94	0.21	77,77,77,77	0
59	MG	DA	3043	1/1	0.94	0.19	100,100,100,100	0
59	MG	AA	1642	1/1	0.94	0.10	37,37,37,37	0
59	MG	DA	3084	1/1	0.94	0.40	144,144,144,144	0
59	MG	DA	3031	1/1	0.94	0.17	105,105,105,105	0
59	MG	AA	1630	1/1	0.94	0.16	189,189,189,189	0
59	MG	DA	3067	1/1	0.94	0.10	83,83,83,83	0
59	MG	DA	3088	1/1	0.94	0.20	87,87,87,87	0
59	MG	DA	3033	1/1	0.94	0.10	95,95,95,95	0
59	MG	BA	3070	1/1	0.94	0.13	53,53,53,53	0
59	MG	AA	1615	1/1	0.94	0.06	120,120,120,120	0
59	MG	AA	1625	1/1	0.94	0.23	30,30,30,30	0
59	MG	DA	3024	1/1	0.94	0.14	89,89,89,89	0
59	MG	BA	3033	1/1	0.94	0.32	162,162,162,162	0
59	MG	DA	3120	1/1	0.95	0.19	109,109,109,109	0
59	MG	AA	1609	1/1	0.95	0.13	46,46,46,46	0
59	MG	BA	3058	1/1	0.95	0.18	107,107,107,107	0
59	MG	BA	3060	1/1	0.95	0.31	210,210,210,210	0
59	MG	DA	3065	1/1	0.95	0.09	49,49,49,49	0
59	MG	DA	3103	1/1	0.95	0.20	44,44,44,44	0
59	MG	AA	1602	1/1	0.95	0.10	152,152,152,152	0
59	MG	AA	1620	1/1	0.95	0.08	117,117,117,117	0
59	MG	BA	3007	1/1	0.95	0.10	80,80,80,80	0
59	MG	DA	3052	1/1	0.95	0.18	89,89,89,89	0
59	MG	BA	3093	1/1	0.95	0.09	36,36,36,36	0
59	MG	DA	3054	1/1	0.95	0.10	96,96,96,96	0
59	MG	DA	3055	1/1	0.95	0.12	120,120,120,120	0
59	MG	BA	3134	1/1	0.95	0.20	219,219,219,219	0
59	MG	CA	1642	1/1	0.95	0.07	82,82,82,82	0
59	MG	AA	1606	1/1	0.95	0.11	62,62,62,62	0
59	MG	BA	3102	1/1	0.95	0.17	3,3,3,3	0
59	MG	BA	3049	1/1	0.95	0.13	66,66,66,66	0
59	MG	BA	3054	1/1	0.95	0.33	189,189,189,189	0
59	MG	AA	1613	1/1	0.96	0.07	56,56,56,56	0
59	MG	DA	3078	1/1	0.96	0.34	180,180,180,180	0
59	MG	BA	3106	1/1	0.96	0.12	13,13,13,13	0
59	MG	BA	3108	1/1	0.96	0.09	48,48,48,48	0
59	MG	DA	3051	1/1	0.96	0.11	57,57,57,57	0
59	MG	DA	3113	1/1	0.96	0.07	148,148,148,148	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	BA	3027	1/1	0.96	0.18	46,46,46,46	0
59	MG	BA	3030	1/1	0.96	0.09	21,21,21,21	0
59	MG	CA	1641	1/1	0.96	0.22	79,79,79,79	0
59	MG	BA	3116	1/1	0.96	0.10	76,76,76,76	0
59	MG	BA	3010	1/1	0.96	0.08	29,29,29,29	0
59	MG	BA	3123	1/1	0.96	0.15	11,11,11,11	0
59	MG	BA	3077	1/1	0.96	0.10	30,30,30,30	0
59	MG	BA	3078	1/1	0.96	0.13	20,20,20,20	0
59	MG	BA	3035	1/1	0.96	0.53	171,171,171,171	0
59	MG	BA	3132	1/1	0.96	0.15	1,1,1,1	0
59	MG	BA	3039	1/1	0.96	0.22	6,6,6,6	0
59	MG	AA	1616	1/1	0.96	0.14	98,98,98,98	0
59	MG	BA	3012	1/1	0.96	0.10	1,1,1,1	0
59	MG	BA	3050	1/1	0.96	0.11	10,10,10,10	0
59	MG	BL	201	1/1	0.96	0.13	53,53,53,53	0
59	MG	DA	3012	1/1	0.96	0.15	64,64,64,64	0
59	MG	BA	3002	1/1	0.96	0.15	85,85,85,85	0
59	MG	BA	3055	1/1	0.96	0.23	205,205,205,205	0
59	MG	CA	1630	1/1	0.96	0.06	131,131,131,131	0
59	MG	BA	3015	1/1	0.96	0.06	55,55,55,55	0
59	MG	BA	3016	1/1	0.96	0.07	2,2,2,2	0
59	MG	BA	3022	1/1	0.96	0.07	8,8,8,8	0
59	MG	AA	1638	1/1	0.96	0.10	116,116,116,116	0
59	MG	CA	1635	1/1	0.96	0.13	95,95,95,95	0
59	MG	AA	1634	1/1	0.97	0.06	72,72,72,72	0
59	MG	BA	3008	1/1	0.97	0.13	7,7,7,7	0
59	MG	CA	1626	1/1	0.97	0.22	23,23,23,23	0
59	MG	BA	3009	1/1	0.97	0.13	6,6,6,6	0
59	MG	AA	1624	1/1	0.97	0.11	82,82,82,82	0
59	MG	AA	1605	1/1	0.97	0.14	39,39,39,39	0
59	MG	BA	3066	1/1	0.97	0.12	10,10,10,10	0
59	MG	BA	3097	1/1	0.97	0.15	45,45,45,45	0
59	MG	BA	3099	1/1	0.97	0.16	1,1,1,1	0
59	MG	AA	1637	1/1	0.97	0.14	27,27,27,27	0
59	MG	BA	3034	1/1	0.97	0.10	5,5,5,5	0
59	MG	BA	3104	1/1	0.97	0.13	3,3,3,3	0
59	MG	AA	1611	1/1	0.97	0.07	62,62,62,62	0
59	MG	BA	3036	1/1	0.97	0.14	4,4,4,4	0
59	MG	CA	1608	1/1	0.97	0.22	41,41,41,41	0
59	MG	BA	3107	1/1	0.97	0.18	5,5,5,5	0
59	MG	BA	3037	1/1	0.97	0.11	5,5,5,5	0
59	MG	BA	3076	1/1	0.97	0.11	114,114,114,114	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	AA	1623	1/1	0.97	0.06	102,102,102,102	0
59	MG	CA	1613	1/1	0.97	0.10	105,105,105,105	0
59	MG	BA	3004	1/1	0.97	0.12	138,138,138,138	0
59	MG	BA	3047	1/1	0.97	0.18	111,111,111,111	0
59	MG	BA	3118	1/1	0.97	0.16	11,11,11,11	0
59	MG	BA	3119	1/1	0.97	0.07	51,51,51,51	0
59	MG	BA	3121	1/1	0.97	0.13	15,15,15,15	0
59	MG	BA	3084	1/1	0.97	0.12	13,13,13,13	0
59	MG	BA	3020	1/1	0.97	0.11	22,22,22,22	0
59	MG	DA	3069	1/1	0.97	0.14	69,69,69,69	0
59	MG	BA	3126	1/1	0.97	0.10	9,9,9,9	0
59	MG	DA	3102	1/1	0.97	0.18	86,86,86,86	0
59	MG	BA	3021	1/1	0.97	0.14	7,7,7,7	0
59	MG	BA	3130	1/1	0.97	0.26	97,97,97,97	0
59	MG	BA	3062	1/1	0.98	0.12	11,11,11,11	0
59	MG	BA	3065	1/1	0.98	0.11	17,17,17,17	0
59	MG	BA	3013	1/1	0.98	0.13	1,1,1,1	0
59	MG	BA	3023	1/1	0.98	0.10	5,5,5,5	0
59	MG	AA	1632	1/1	0.98	0.11	76,76,76,76	0
59	MG	BA	3042	1/1	0.98	0.06	41,41,41,41	0
59	MG	BA	3071	1/1	0.98	0.10	7,7,7,7	0
59	MG	BA	3044	1/1	0.98	0.13	12,12,12,12	0
59	MG	BA	3112	1/1	0.98	0.10	47,47,47,47	0
59	MG	DA	3104	1/1	0.98	0.15	47,47,47,47	0
59	MG	BA	3113	1/1	0.98	0.08	114,114,114,114	0
59	MG	BA	3114	1/1	0.98	0.15	4,4,4,4	0
59	MG	BA	3073	1/1	0.98	0.18	8,8,8,8	0
59	MG	BA	3045	1/1	0.98	0.12	17,17,17,17	0
59	MG	BA	3075	1/1	0.98	0.07	29,29,29,29	0
59	MG	BA	3025	1/1	0.98	0.12	26,26,26,26	0
59	MG	AA	1633	1/1	0.98	0.10	51,51,51,51	0
59	MG	BA	3122	1/1	0.98	0.16	137,137,137,137	0
59	MG	BA	3048	1/1	0.98	0.10	6,6,6,6	0
59	MG	BA	3080	1/1	0.98	0.06	34,34,34,34	0
59	MG	BA	3081	1/1	0.98	0.19	86,86,86,86	0
59	MG	DA	3116	1/1	0.98	0.23	77,77,77,77	0
59	MG	BA	3127	1/1	0.98	0.09	3,3,3,3	0
59	MG	AA	1601	1/1	0.98	0.11	70,70,70,70	0
59	MG	BA	3028	1/1	0.98	0.10	77,77,77,77	0
59	MG	BA	3051	1/1	0.98	0.12	58,58,58,58	0
59	MG	BA	3052	1/1	0.98	0.07	5,5,5,5	0
59	MG	BA	3087	1/1	0.98	0.11	35,35,35,35	0

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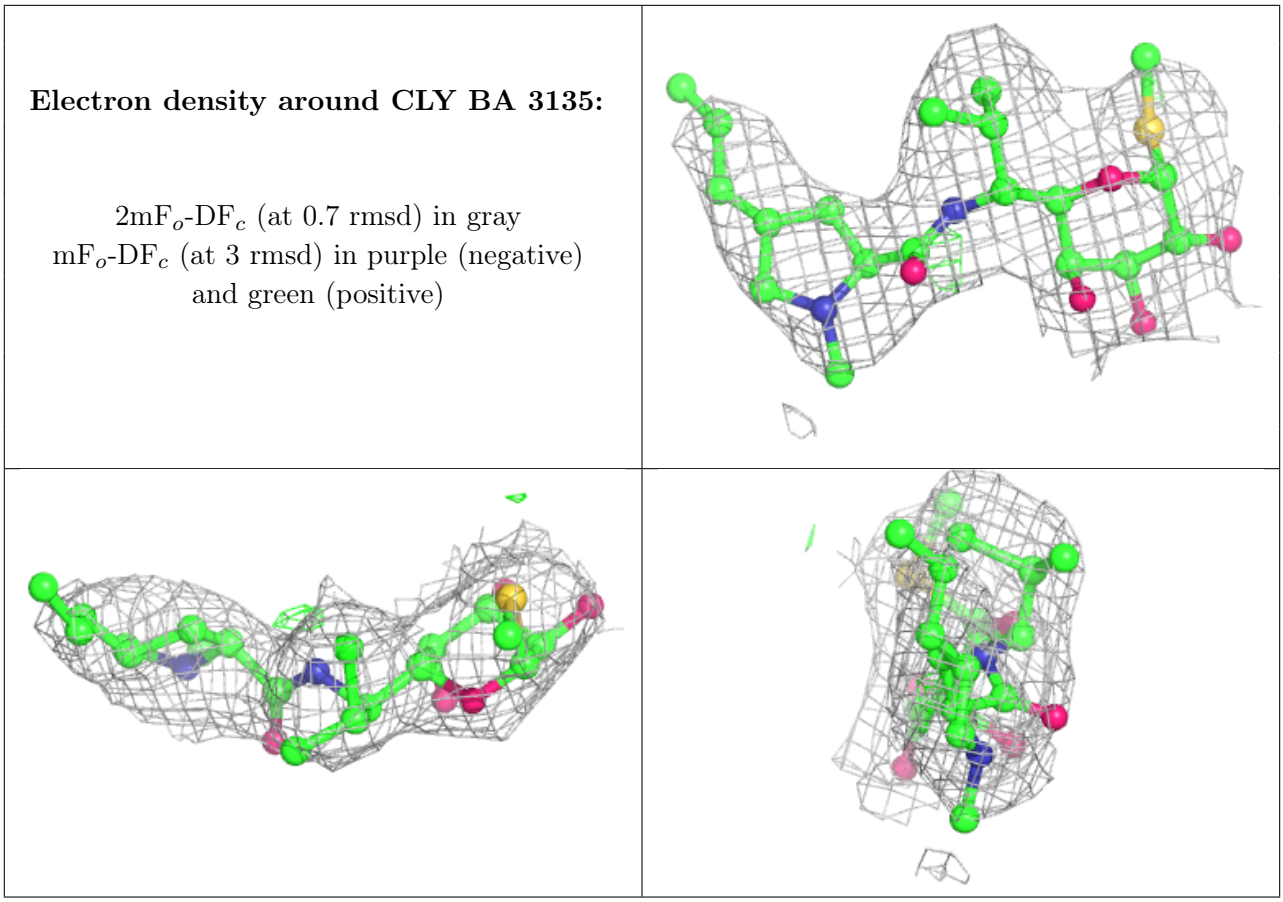
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	BA	3053	1/1	0.98	0.09	31,31,31,31	0
59	MG	BA	3029	1/1	0.98	0.18	3,3,3,3	0
59	MG	BA	3018	1/1	0.98	0.29	6,6,6,6	0
59	MG	BB	203	1/1	0.98	0.06	17,17,17,17	0
59	MG	BB	204	1/1	0.98	0.12	41,41,41,41	0
59	MG	BA	3019	1/1	0.98	0.07	15,15,15,15	0
59	MG	BA	3057	1/1	0.98	0.06	48,48,48,48	0
59	MG	BA	3094	1/1	0.98	0.08	9,9,9,9	0
59	MG	BA	3006	1/1	0.98	0.06	39,39,39,39	0
59	MG	BA	3059	1/1	0.98	0.12	190,190,190,190	0
59	MG	CA	1605	1/1	0.98	0.16	37,37,37,37	0
59	MG	BA	3098	1/1	0.98	0.07	15,15,15,15	0
59	MG	AA	1621	1/1	0.98	0.13	25,25,25,25	0
59	MG	BA	3100	1/1	0.98	0.27	89,89,89,89	0
59	MG	BA	3101	1/1	0.98	0.06	11,11,11,11	0
60	CLY	BA	3135	27/27	0.98	0.20	11,17,22,22	0
59	MG	BA	3061	1/1	0.98	0.16	20,20,20,20	0
59	MG	BA	3063	1/1	0.99	0.12	1,1,1,1	0
59	MG	BA	3031	1/1	0.99	0.13	12,12,12,12	0
59	MG	BA	3032	1/1	0.99	0.21	3,3,3,3	0
59	MG	BA	3067	1/1	0.99	0.06	18,18,18,18	0
59	MG	BA	3125	1/1	0.99	0.13	27,27,27,27	0
59	MG	BA	3092	1/1	0.99	0.10	56,56,56,56	0
59	MG	BA	3079	1/1	0.99	0.13	13,13,13,13	0
59	MG	BA	3128	1/1	0.99	0.12	19,19,19,19	0
59	MG	BA	3109	1/1	0.99	0.17	124,124,124,124	0
59	MG	BA	3038	1/1	0.99	0.16	31,31,31,31	0
59	MG	BA	3095	1/1	0.99	0.09	77,77,77,77	0
59	MG	AA	1641	1/1	0.99	0.18	22,22,22,22	0
59	MG	BA	3040	1/1	0.99	0.15	11,11,11,11	0
59	MG	BA	3083	1/1	0.99	0.09	28,28,28,28	0
59	MG	BA	3115	1/1	0.99	0.10	11,11,11,11	0
59	MG	BA	3041	1/1	0.99	0.13	13,13,13,13	0
59	MG	BA	3017	1/1	0.99	0.10	24,24,24,24	0
59	MG	BA	3043	1/1	0.99	0.18	11,11,11,11	0
59	MG	BA	3005	1/1	0.99	0.09	87,87,87,87	0
61	ZN	B4	101	1/1	0.99	0.06	80,80,80,80	0
59	MG	BA	3120	1/1	0.99	0.17	4,4,4,4	0
59	MG	BA	3064	1/1	1.00	0.08	18,18,18,18	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different

orientation to approximate a three-dimensional view.

Electron density around CLY BA 3135:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



6.5 Other polymers

There are no such residues in this entry.