Full wwPDB X-ray Structure Validation Report ⓘ

Mar 6, 2026 – 01:07 AM UTC

PDB ID	:	4V6D / pdb_00004v6d
Title	:	Crystal structure of the E. coli 70S ribosome in an intermediate state of ratcheting
Authors	:	Zhang, W.; Dunkle, J.A.; Cate, J.H.D.
Deposited on	:	2009-06-27
Resolution	:	3.81 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:

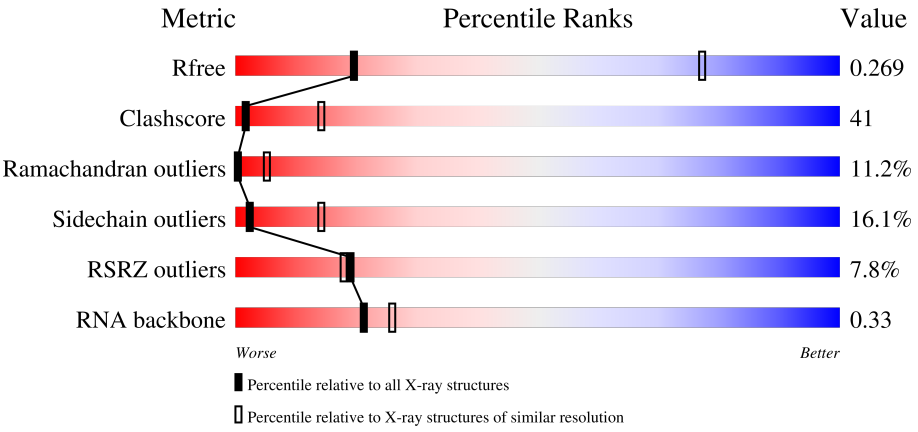
MolProbity	:	4-5-2 with Phenix2.0
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

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 3.81 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}	180053	1043 (3.98-3.66)
Clashscore	190562	1075 (3.98-3.66)
Ramachandran outliers	187476	1029 (3.98-3.66)
Sidechain outliers	187428	1024 (3.98-3.66)
RSRZ outliers	180081	1042 (3.98-3.66)
RNA backbone	3983	1009 (4.52-3.10)

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	AB	241	26% 17% 54% 17% • 10%
1	CB	241	9% 19% 58% 13% • 10%
2	AC	233	32% 43% 11% • 12%
2	CC	233	% 30% 46% 12% 12%

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Mol	Chain	Length	Quality of chain
3	AD	206	6% 25% 55% 18%
3	CD	206	4% 34% 52% 10%
4	AE	167	51% 17% 49% 22% 10%
4	CE	167	18% 29% 46% 15% 10%
5	AF	135	6% 22% 40% 10% 26%
5	CF	135	3% 18% 44% 11% 26%
6	AG	179	3% 31% 46% 6% 16%
6	CG	179	18% 16% 46% 20% 16%
7	AH	130	3% 34% 53% 12%
7	CH	130	5% 34% 52% 12%
8	AI	130	6% 24% 58% 13%
8	CI	130	12% 21% 66% 10%
9	AJ	103	6% 31% 40% 22% 5%
9	CJ	103	12% 17% 61% 15% 5%
10	AK	129	32% 50% 9% 9%
10	CK	129	5% 31% 45% 15% 9%
11	AL	124	7% 35% 44% 17%
11	CL	124	3% 32% 52% 15%
12	AM	118	6% 36% 48% 11%
12	CM	118	8% 18% 57% 19%
13	AN	101	2% 38% 47% 9% 5%
13	CN	101	16% 22% 58% 14% 6%
14	AO	89	% 30% 61% 8%
14	CO	89	2% 49% 47%
15	AP	82	11% 28% 54% 16%

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Mol	Chain	Length	Quality of chain
15	CP	82	10% 27% 52% 18%
16	AQ	84	5% 23% 48% 21% 5%
16	CQ	84	% 33% 49% 12% 5%
17	AR	75	% 20% 49% 27%
17	CR	75	3% 24% 41% 8% 27%
18	AS	92	7% 34% 43% 9% 14%
18	CS	92	4% 27% 45% 14% 14%
19	AT	87	3% 31% 54% 11%
19	CT	87	8% 43% 47% 7%
20	AU	71	13% 13% 41% 17% 28%
20	CU	71	14% 20% 27% 21% 28%
21	AA	1533	2% 20% 48% 19% 13%
22	AV	17	41% 59%
22	CV	17	41% 59%
23	AW	6	67% 33%
23	CW	6	67% 33%
24	BA	2903	2% 19% 44% 20% 15%
24	DA	2903	5% 17% 46% 21% 15%
25	BB	118	% 27% 42% 18% 14%
26	BC	273	6% 37% 42% 17%
26	DC	273	13% 28% 58% 13%
27	BD	209	% 32% 40% 22% 5%
27	DD	209	13% 31% 48% 20%
28	BE	201	2% 34% 43% 21%
28	DE	201	17% 28% 54% 17%

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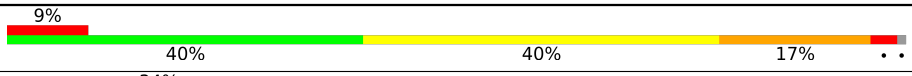
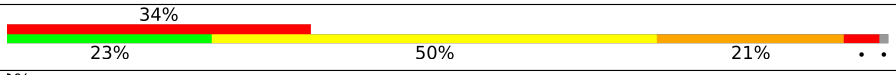
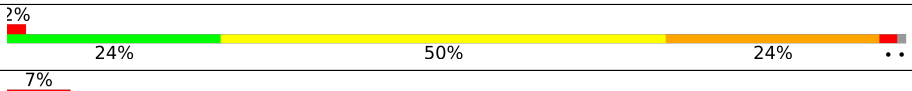
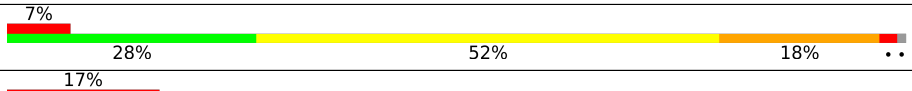
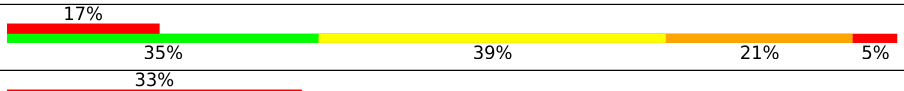
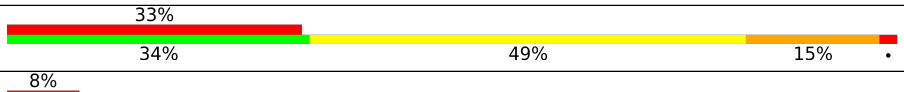
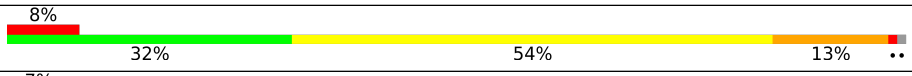
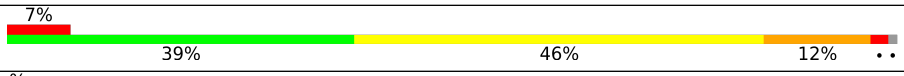
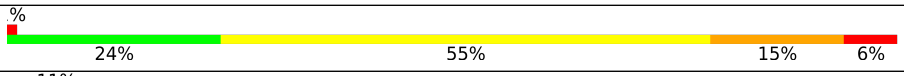
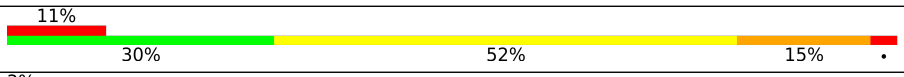
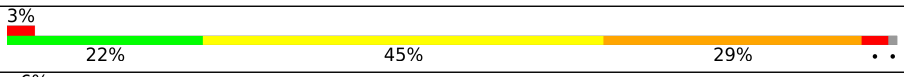
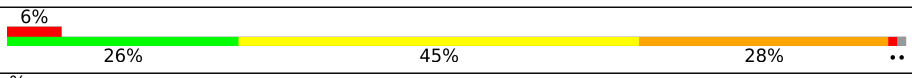
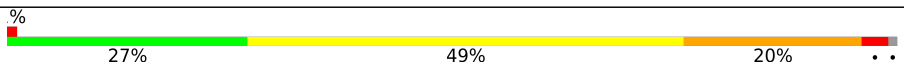
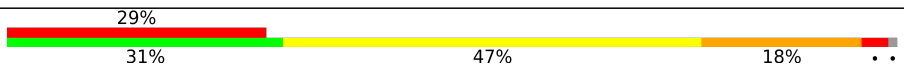
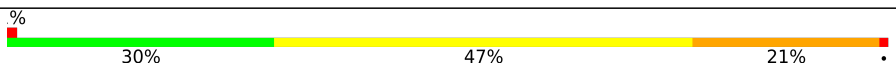
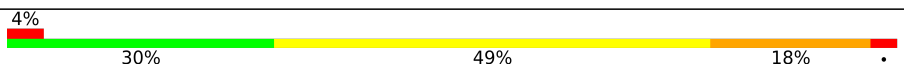
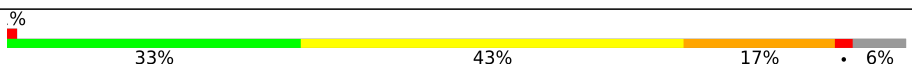
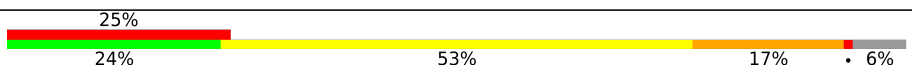
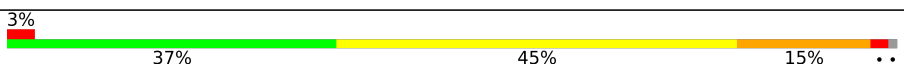
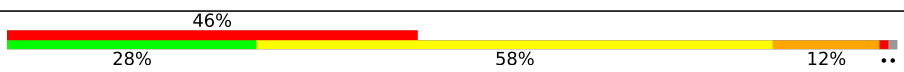
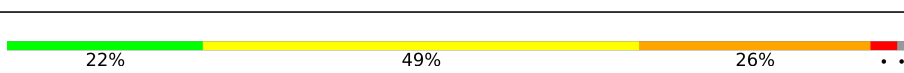
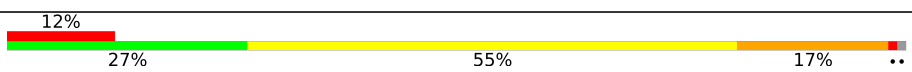
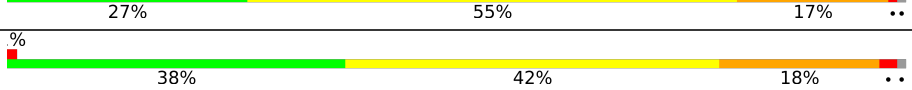
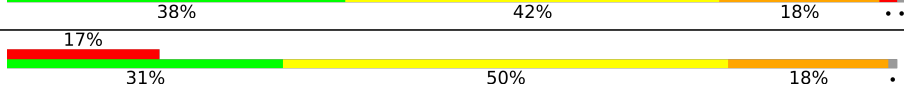
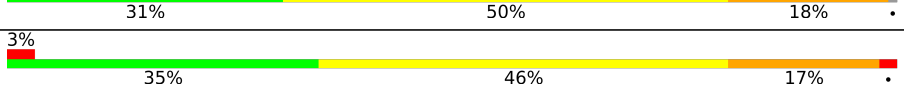
Mol	Chain	Length	Quality of chain
29	BF	179	
29	DF	179	
30	BG	177	
30	DG	177	
31	BH	149	
31	DH	149	
32	BI	142	
32	DI	142	
33	BJ	142	
33	DJ	142	
34	BK	123	
34	DK	123	
35	BL	144	
35	DL	144	
36	BM	136	
36	DM	136	
37	BN	127	
37	DN	127	
38	BO	117	
38	DO	117	
39	BP	115	
39	DP	115	
40	BQ	118	
40	DQ	118	
41	BR	103	

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Mol	Chain	Length	Quality of chain
41	DR	103	22% 28% 54% 17%
42	BS	110	% 37% 45% 15%
42	DS	110	14% 31% 52% 15%
43	BT	100	14% 27% 36% 27% 7%
43	DT	100	34% 23% 52% 15% 7%
44	BU	104	8% 32% 45% 19%
44	DU	104	34% 27% 45% 23%
45	BV	94	2% 43% 41% 15%
45	DV	94	40% 28% 55% 14%
46	BW	85	13% 13% 34% 40% 6% 7%
46	DW	85	15% 24% 42% 24% 7%
47	BX	78	26% 56% 17%
47	DX	78	32% 27% 55% 15%
48	BY	63	21% 16% 56% 24% 5%
48	DY	63	16% 29% 59% 13%
49	BZ	59	27% 47% 22%
49	DZ	59	7% 37% 42% 17%
50	B0	57	39% 46% 14%
50	D0	57	11% 32% 53% 14%
51	B1	55	4% 29% 40% 20% 9%
51	D1	55	15% 40% 44% 7% 9%
52	B2	46	4% 41% 46% 13%
52	D2	46	41% 41% 50% 9%
53	B3	65	40% 51% 5%
53	D3	65	35% 37% 45% 15%

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Mol	Chain	Length	Quality of chain
54	B4	38	45% 32% 21%
54	D4	38	34% 47% 29% 24%
55	CA	1530	4% 20% 47% 20% 13%
56	DB	117	18% 44% 21% 18%

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
57	MG	BA	3015	-	-	-	X
57	MG	BA	3131	-	-	-	X
57	MG	BA	3132	-	-	-	X
57	MG	BA	3133	-	-	-	X
57	MG	CA	1624	-	-	-	X
57	MG	DA	3004	-	-	-	X
57	MG	DA	3016	-	-	-	X
57	MG	DA	3062	-	-	-	X
57	MG	DA	3065	-	-	-	X
57	MG	DA	3076	-	-	-	X
57	MG	DA	3110	-	-	-	X
57	MG	DA	3131	-	-	-	X
57	MG	DA	3134	-	-	-	X

2 Entry composition (i)

There are 59 unique types of molecules in this entry. The entry contains 285420 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 protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AB	218	Total	C	N	O	S	0	0	0
			1704	1081	305	311	7			
1	CB	218	Total	C	N	O	S	0	0	0
			1704	1081	305	311	7			

- Molecule 2 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AC	206	Total	C	N	O	S	0	0	0
			1624	1028	305	288	3			
2	CC	206	Total	C	N	O	S	0	0	0
			1624	1028	305	288	3			

- Molecule 3 is a protein called 30S ribosomal protein S4.

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

- Molecule 4 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AE	150	Total	C	N	O	S	0	0	0
			1105	687	211	201	6			
4	CE	150	Total	C	N	O	S	0	0	0
			1105	687	211	201	6			

- Molecule 5 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AF	100	Total	C	N	O	S	0	0	0
			817	515	148	148	6			
5	CF	100	Total	C	N	O	S	0	0	0
			817	515	148	148	6			

- Molecule 6 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AG	151	Total	C	N	O	S	0	0	0
			1181	735	227	215	4			
6	CG	150	Total	C	N	O	S	0	0	0
			1174	730	226	214	4			

- Molecule 7 is a protein called 30S ribosomal protein S8.

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

- Molecule 8 is a protein called 30S ribosomal protein S9.

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

- Molecule 9 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	AJ	98	Total	C	N	O	S	0	0	0
			786	493	150	142	1			
9	CJ	98	Total	C	N	O	S	0	0	0
			786	493	150	142	1			

- Molecule 10 is a protein called 30S ribosomal protein S11.

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

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

- Molecule 11 is a protein called 30S ribosomal protein S12.

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

- Molecule 12 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AM	114	Total	C	N	O	S	0	0	0
			883	546	178	156	3			
12	CM	113	Total	C	N	O	S	0	0	0
			876	541	177	155	3			

- Molecule 13 is a protein called 30S ribosomal protein S14.

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

- Molecule 14 is a protein called 30S ribosomal protein S15.

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

- Molecule 15 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			
15	CP	80	Total	C	N	O	S	0	0	0
			638	400	126	111	1			

- Molecule 16 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AQ	80	Total	C	N	O	S	0	0	0
			648	411	121	113	3			
16	CQ	80	Total	C	N	O	S	0	0	0
			648	411	121	113	3			

- Molecule 17 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
17	AR	55	Total	C	N	O	0	0	0
			455	288	86	81			
17	CR	55	Total	C	N	O	0	0	0
			455	288	86	81			

- Molecule 18 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	AS	79	Total	C	N	O	S	0	0	0
			637	408	120	107	2			
18	CS	79	Total	C	N	O	S	0	0	0
			637	408	120	107	2			

- Molecule 19 is a protein called 30S ribosomal protein S20.

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

- Molecule 20 is a protein called 30S ribosomal protein S21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AU	51	Total	C	N	O	S	0	0	0
			425	265	86	73	1			
20	CU	51	Total	C	N	O	S	0	0	0
			425	265	86	73	1			

- Molecule 21 is a RNA chain called 16S rRNA.

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

- Molecule 22 is a RNA chain called P-site tRNA ASL fragment.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AV	17	Total	C	N	O	P	0	0	0
			360	161	64	118	17			
22	CV	17	Total	C	N	O	P	0	0	0
			360	161	64	118	17			

- Molecule 23 is a RNA chain called messenger RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AW	6	Total	C	N	O	P	0	0	0
			125	56	18	45	6			
23	CW	6	Total	C	N	O	P	0	0	0
			125	56	18	45	6			

- Molecule 24 is a RNA chain called 23S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	BA	2854	Total	C	N	O	P	0	0	0
			61274	27334	11279	19807	2854			
24	DA	2841	Total	C	N	O	P	0	0	0
			60995	27210	11229	19715	2841			

- Molecule 25 is a RNA chain called 5S rRNA.

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

- Molecule 26 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	BC	271	Total	C	N	O	S	0	0	0
			2082	1288	423	364	7			
26	DC	271	Total	C	N	O	S	0	0	0
			2082	1288	423	364	7			

- Molecule 27 is a protein called 50S ribosomal protein L3.

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

- Molecule 28 is a protein called 50S ribosomal protein L4.

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

- Molecule 29 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	BF	177	Total	C	N	O	S	0	0	0
			1410	899	249	256	6			
29	DF	178	Total	C	N	O	S	0	0	0
			1420	905	251	258	6			

- Molecule 30 is a protein called 50S ribosomal protein L6.

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

- Molecule 31 is a protein called 50S ribosomal protein L9.

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

- Molecule 32 is a protein called 50S ribosomal protein L11.

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

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

- Molecule 33 is a protein called 50S ribosomal protein L13.

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

- Molecule 34 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BK	122	Total	C	N	O	S	0	0	0
			938	587	180	165	6			
34	DK	122	Total	C	N	O	S	0	0	0
			938	587	180	165	6			

- Molecule 35 is a protein called 50S ribosomal protein L15.

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

- Molecule 36 is a protein called 50S ribosomal protein L16.

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

- Molecule 37 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BN	120	Total	C	N	O	S	0	0	0
			960	593	196	166	5			
37	DN	120	Total	C	N	O	S	0	0	0
			960	593	196	166	5			

- Molecule 38 is a protein called 50S ribosomal protein L18.

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

- Molecule 39 is a protein called 50S ribosomal protein L19.

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

- Molecule 40 is a protein called 50S ribosomal protein L20.

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

- Molecule 41 is a protein called 50S ribosomal protein L21.

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

- Molecule 42 is a protein called 50S ribosomal protein L22.

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

- Molecule 43 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BT	93	Total	C	N	O	S	0	0	0
			738	466	139	131	2			
43	DT	93	Total	C	N	O	S	0	0	0
			738	466	139	131	2			

- Molecule 44 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
44	BU	102	Total	C	N	O	0	0	0
			779	492	146	141			
44	DU	102	Total	C	N	O	0	0	0
			779	492	146	141			

- Molecule 45 is a protein called 50S ribosomal protein L25.

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

- Molecule 46 is a protein called 50S ribosomal protein L27.

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

- Molecule 47 is a protein called 50S ribosomal protein L28.

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

- Molecule 48 is a protein called 50S ribosomal protein L29.

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

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

- Molecule 49 is a protein called 50S ribosomal protein L30.

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

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

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

- Molecule 51 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
51	B1	50	Total	C	N	O	0	0	0
			409	263	75	71			
51	D1	50	Total	C	N	O	0	0	0
			409	263	75	71			

- Molecule 52 is a protein called 50S ribosomal protein L34.

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

- Molecule 53 is a protein called 50S ribosomal protein L35.

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

- Molecule 54 is a protein called 50S ribosomal protein L36.

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

- Molecule 55 is a RNA chain called 16S rRNA.

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

- Molecule 56 is a RNA chain called 5S rRNA.

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

- Molecule 57 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	AA	43	Total 43	Mg 43	0	0
57	BA	136	Total 136	Mg 136	0	0
57	BB	4	Total 4	Mg 4	0	0
57	BD	1	Total 1	Mg 1	0	0
57	CA	42	Total 42	Mg 42	0	0
57	DC	1	Total 1	Mg 1	0	0
57	DJ	1	Total 1	Mg 1	0	0
57	DA	134	Total 134	Mg 134	0	0
57	DB	1	Total 1	Mg 1	0	0

- Molecule 58 is ZINC ION (CCD ID: ZN) (formula: Zn).

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

- Molecule 59 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	AE	1	Total O 1 1	0	0
59	AL	3	Total O 3 3	0	0
59	AN	5	Total O 5 5	0	0
59	AT	3	Total O 3 3	0	0
59	AU	1	Total O 1 1	0	0
59	AA	195	Total O 195 195	0	0
59	BA	615	Total O 615 615	0	0
59	BB	19	Total O 19 19	0	0
59	BC	7	Total O 7 7	0	0
59	BD	2	Total O 2 2	0	0
59	BE	1	Total O 1 1	0	0
59	BL	4	Total O 4 4	0	0
59	BN	2	Total O 2 2	0	0
59	BQ	1	Total O 1 1	0	0
59	BT	1	Total O 1 1	0	0
59	BV	1	Total O 1 1	0	0
59	B2	2	Total O 2 2	0	0
59	B3	3	Total O 3 3	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	B4	2	Total O 2 2	0	0
59	CE	3	Total O 3 3	0	0
59	CI	1	Total O 1 1	0	0
59	CL	1	Total O 1 1	0	0
59	CN	2	Total O 2 2	0	0
59	CT	2	Total O 2 2	0	0
59	CU	2	Total O 2 2	0	0
59	CA	196	Total O 196 196	0	0
59	DC	14	Total O 14 14	0	0
59	DD	4	Total O 4 4	0	0
59	DE	2	Total O 2 2	0	0
59	DJ	3	Total O 3 3	0	0
59	DL	5	Total O 5 5	0	0
59	DN	2	Total O 2 2	0	0
59	DT	2	Total O 2 2	0	0
59	DU	1	Total O 1 1	0	0
59	DV	1	Total O 1 1	0	0
59	D2	1	Total O 1 1	0	0
59	D3	1	Total O 1 1	0	0
59	D4	5	Total O 5 5	0	0
59	DA	598	Total O 598 598	0	0

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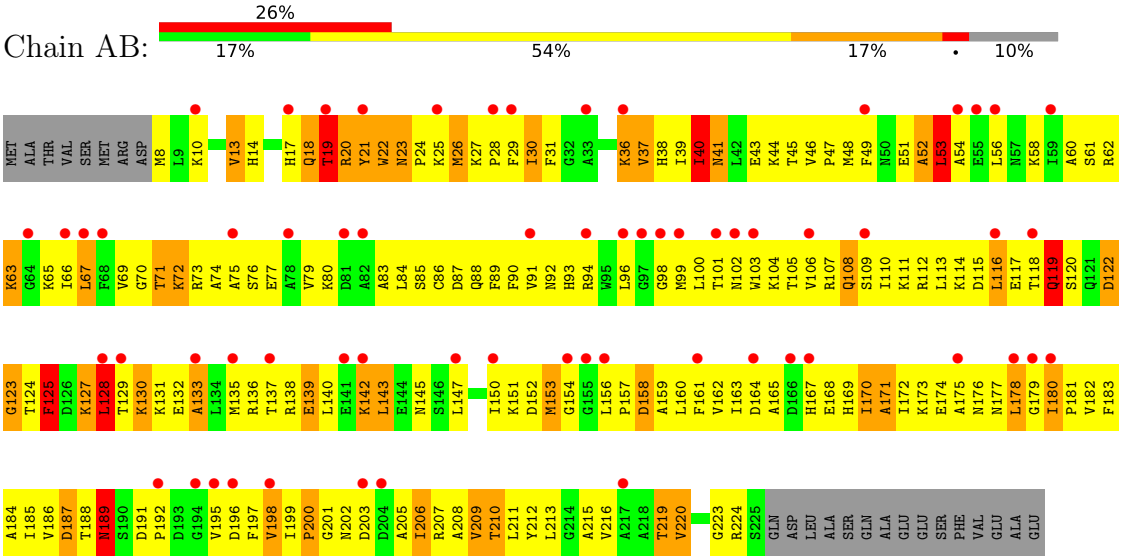
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	DB	4	Total O 4 4	0	0

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.

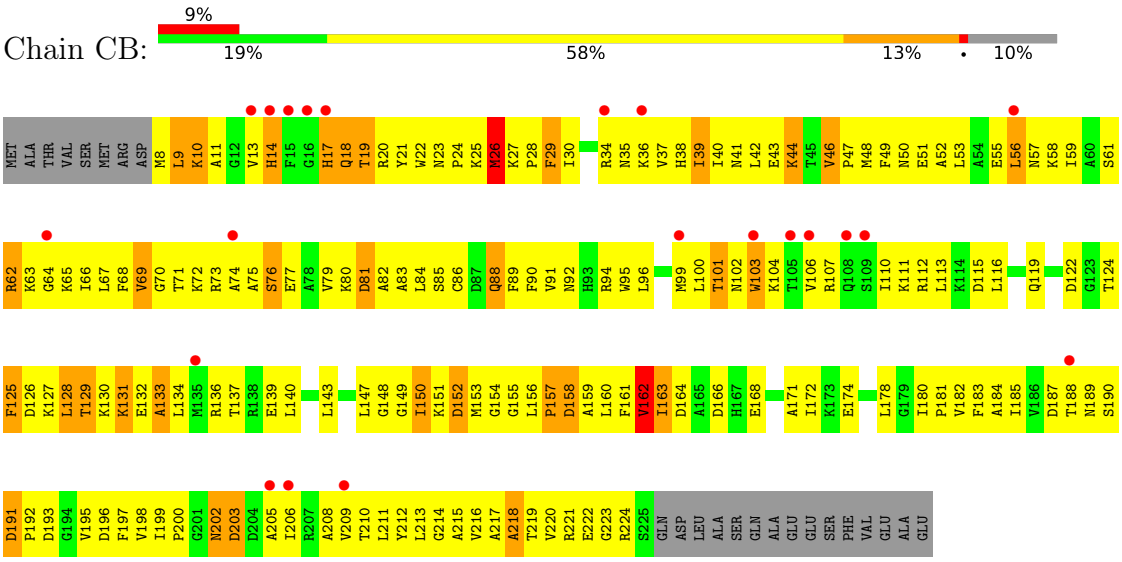
• Molecule 1: 30S ribosomal protein S2

Chain AB:



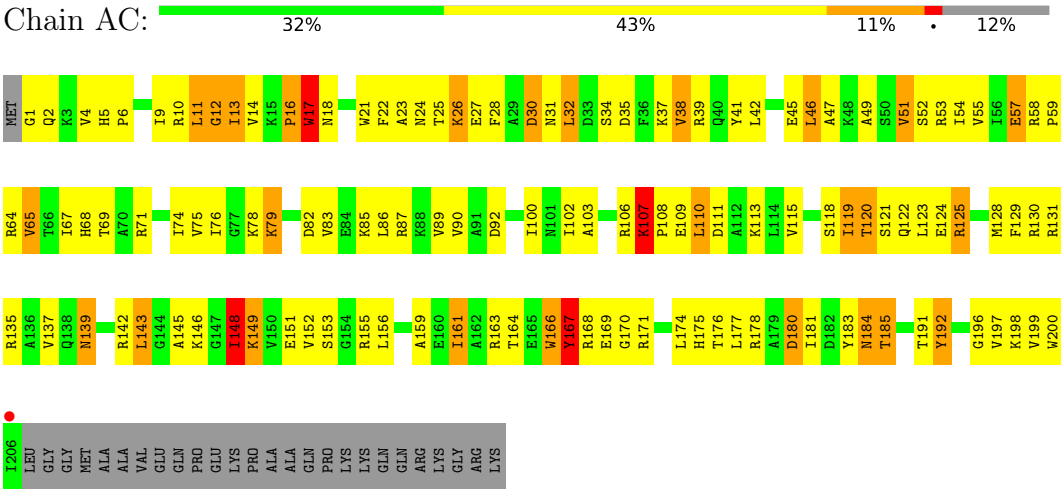
• Molecule 1: 30S ribosomal protein S2

Chain CB:



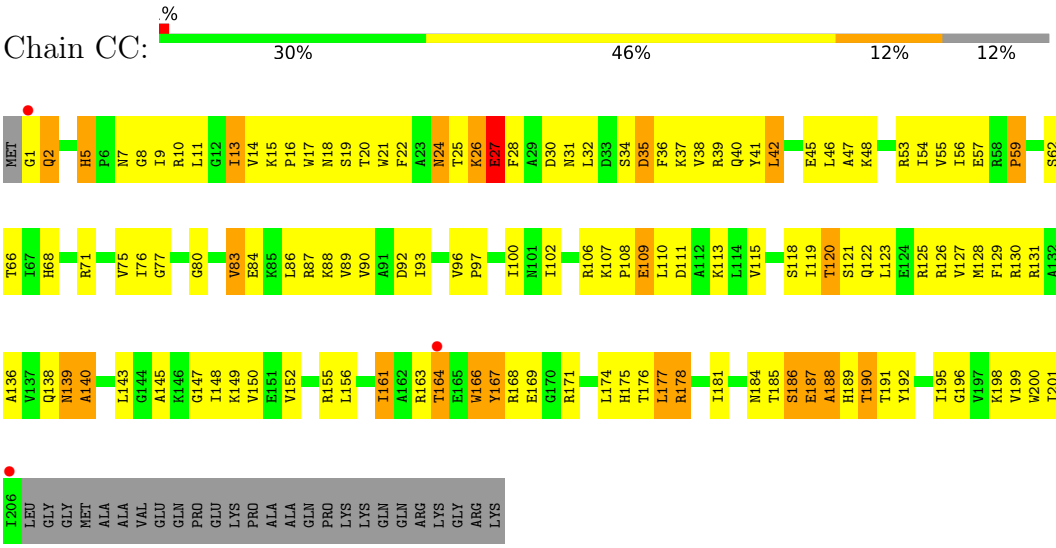
• Molecule 2: 30S ribosomal protein S3

Chain AC:



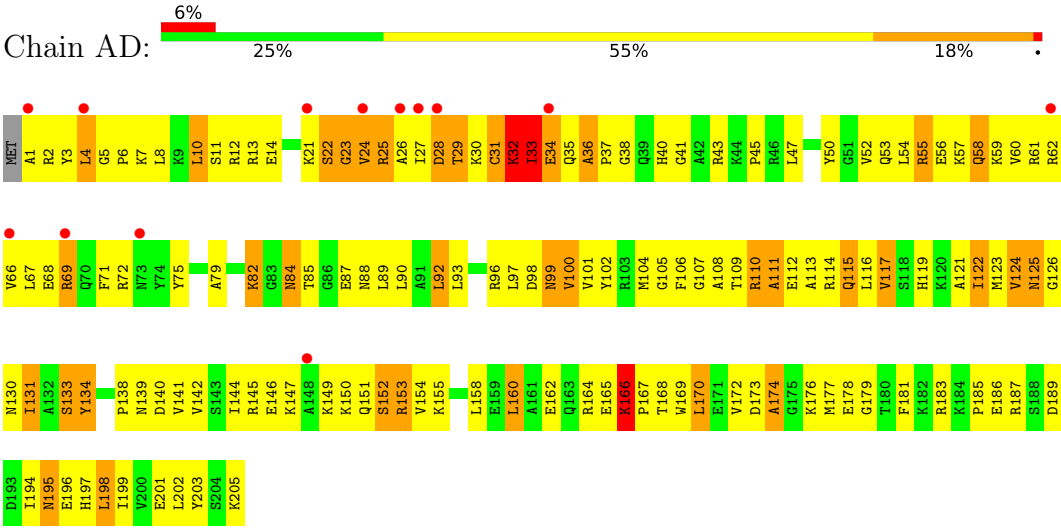
• Molecule 2: 30S ribosomal protein S3

Chain CC:



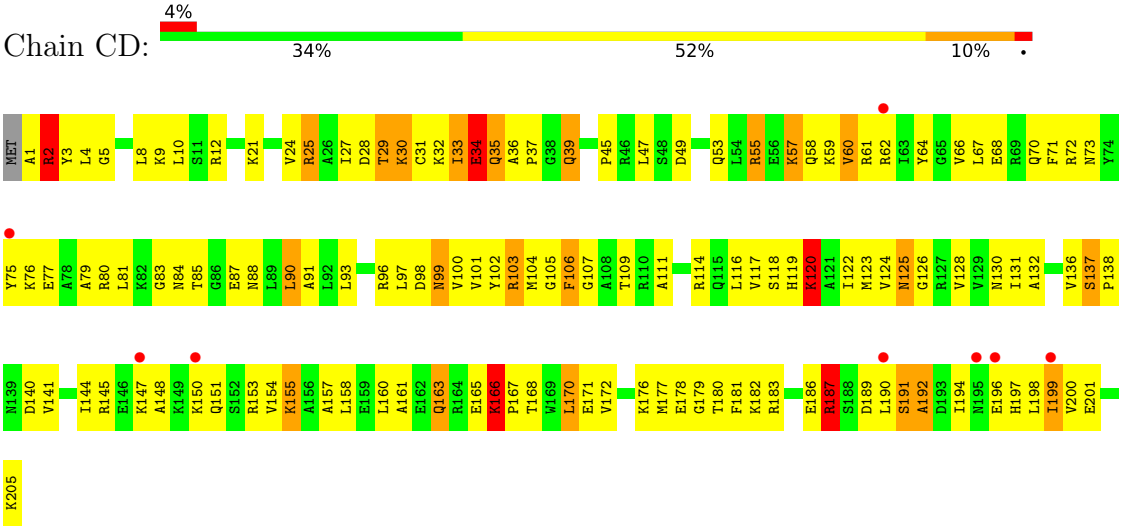
• Molecule 3: 30S ribosomal protein S4

Chain AD:



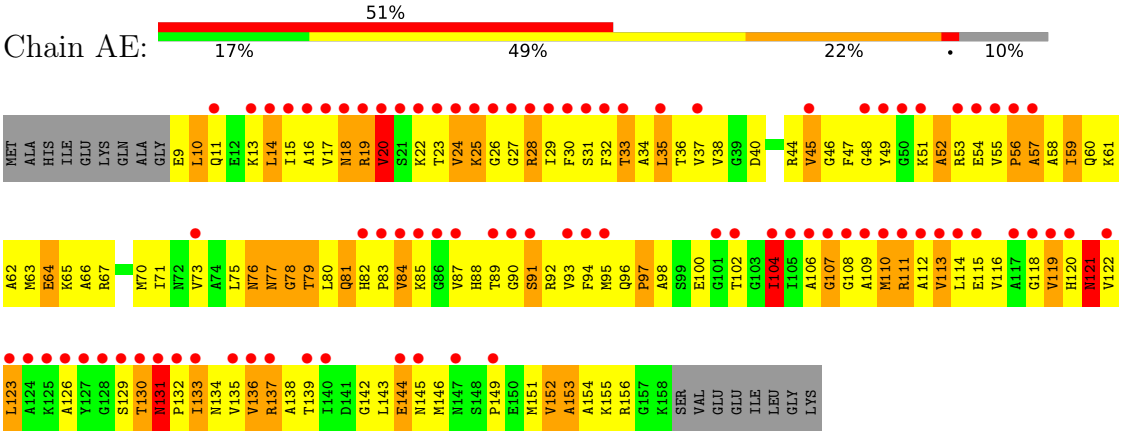
• Molecule 3: 30S ribosomal protein S4

Chain CD:



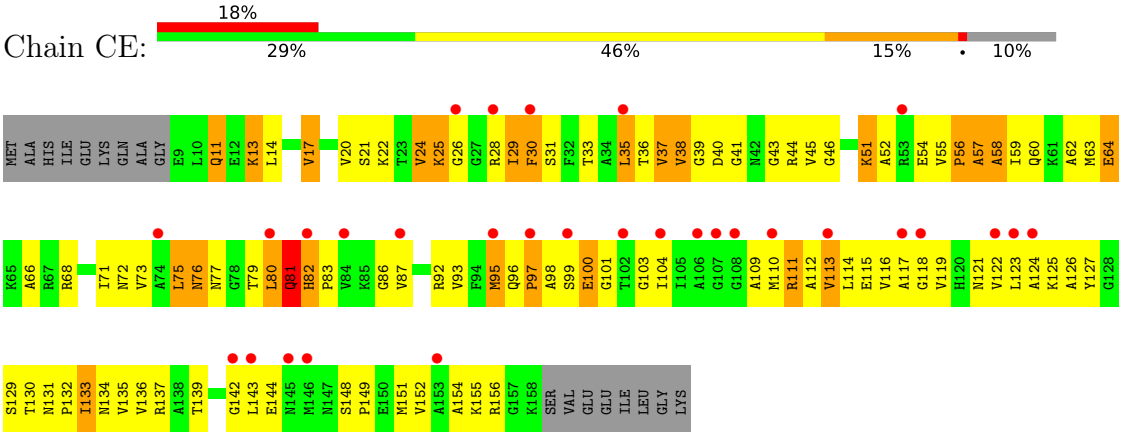
• Molecule 4: 30S ribosomal protein S5

Chain AE:



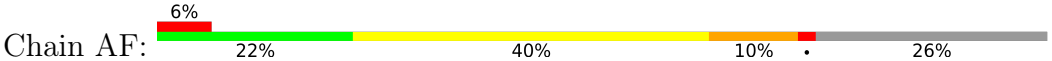
• Molecule 4: 30S ribosomal protein S5

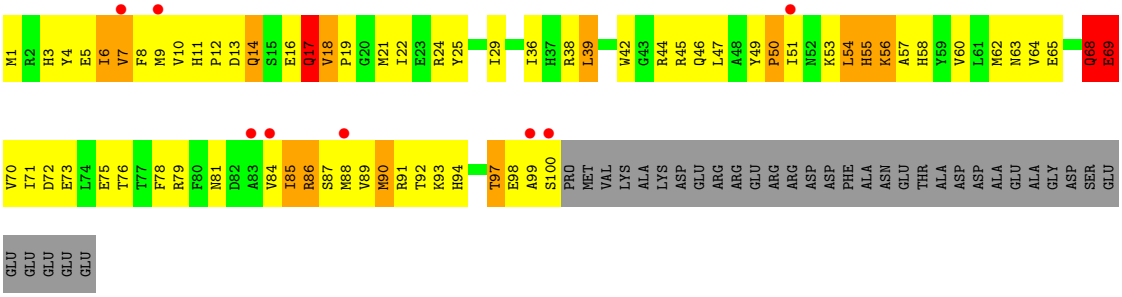
Chain CE:



• Molecule 5: 30S ribosomal protein S6

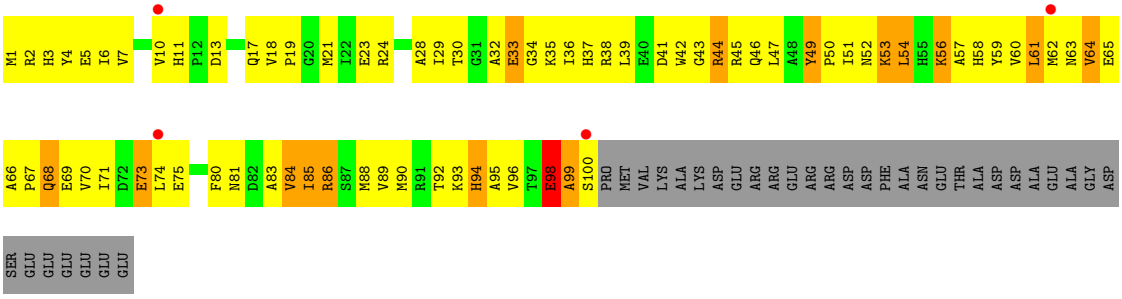
Chain AF:





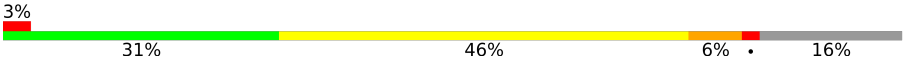
• Molecule 5: 30S ribosomal protein S6

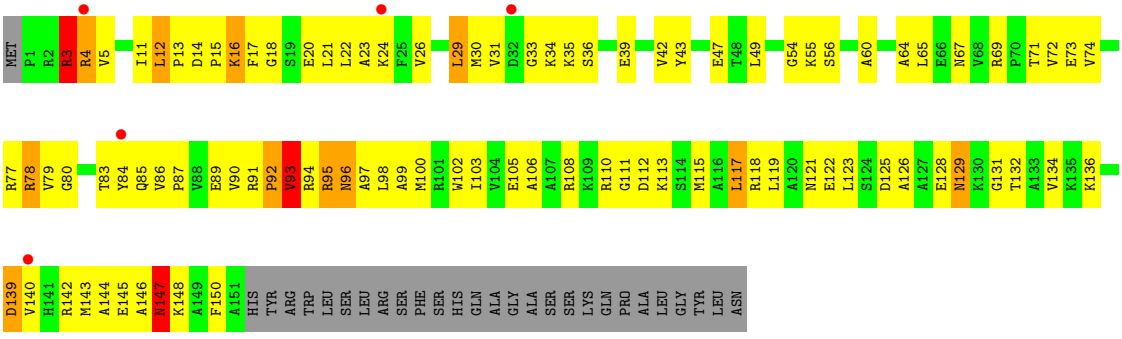
Chain CF:



• Molecule 6: 30S ribosomal protein S7

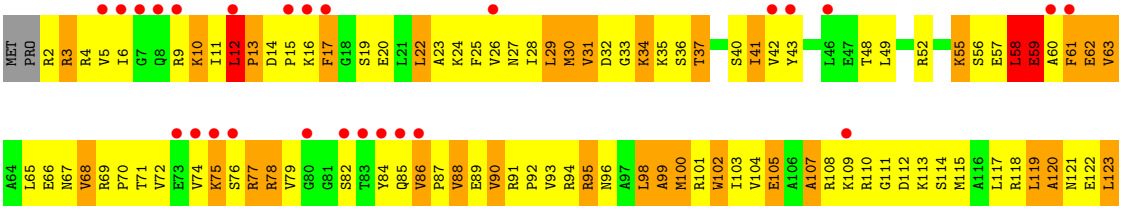
Chain AG:

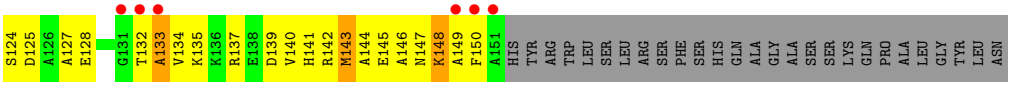




• Molecule 6: 30S ribosomal protein S7

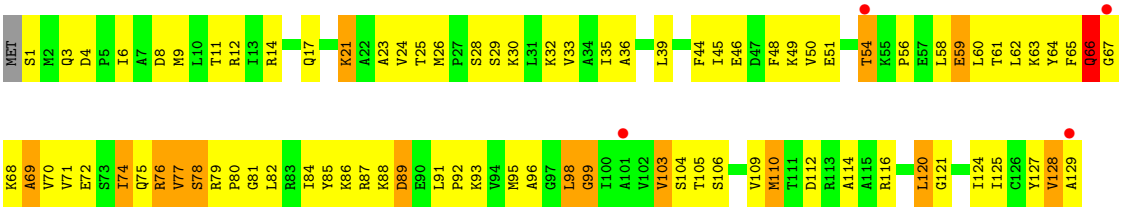
Chain CG:





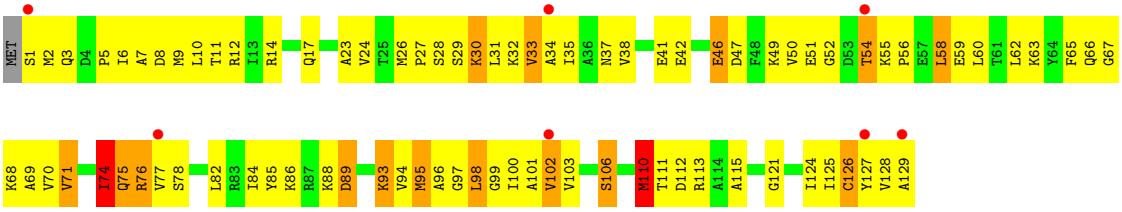
• Molecule 7: 30S ribosomal protein S8

Chain AH:



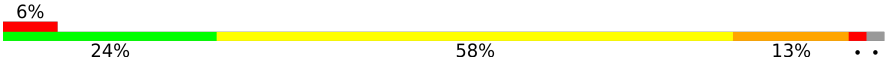
• Molecule 7: 30S ribosomal protein S8

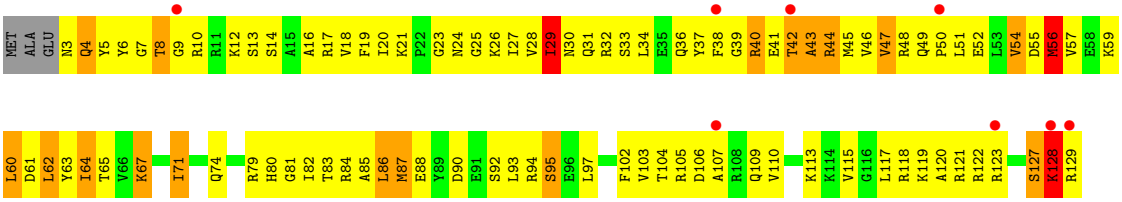
Chain CH:



• Molecule 8: 30S ribosomal protein S9

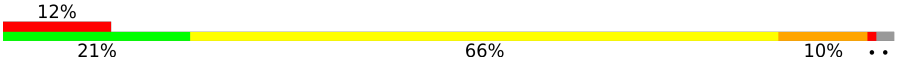
Chain AI:

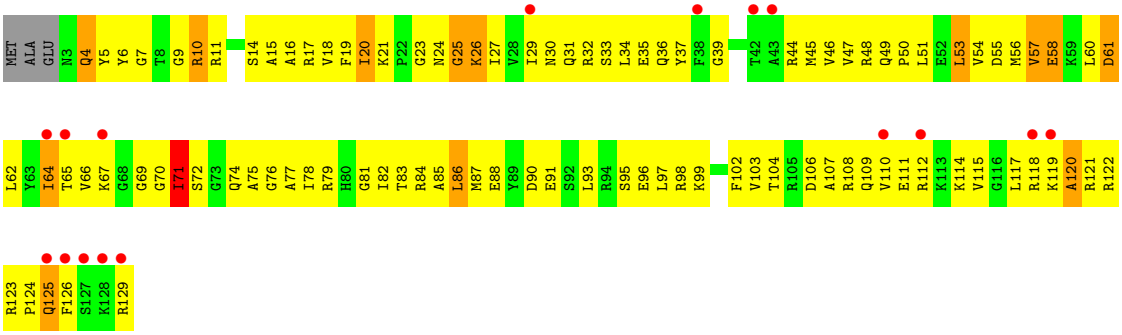




• Molecule 8: 30S ribosomal protein S9

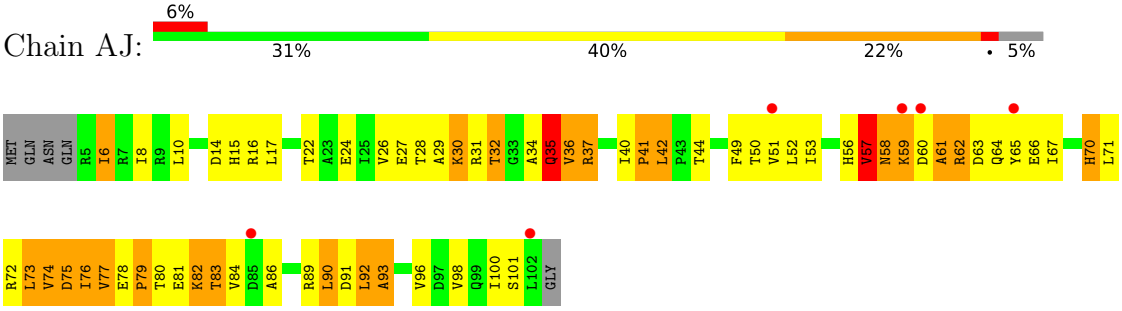
Chain CI:





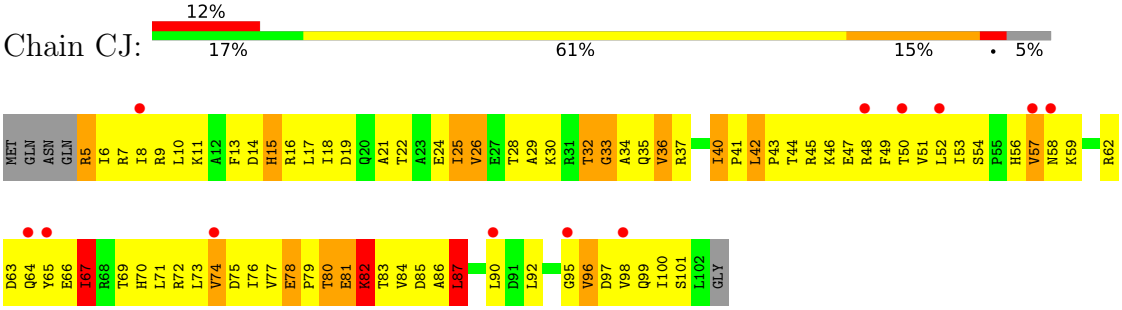
• Molecule 9: 30S ribosomal protein S10

Chain AJ:



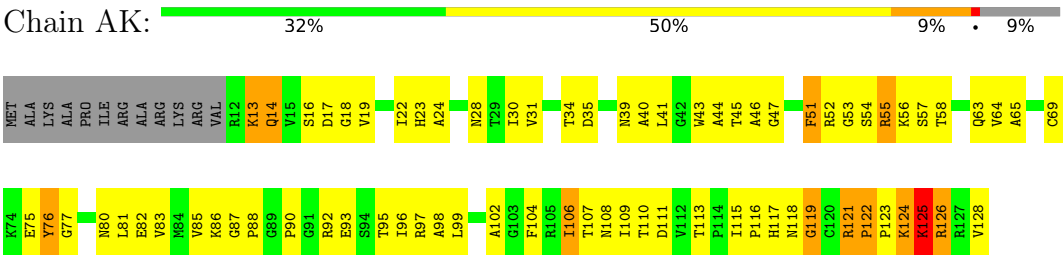
• Molecule 9: 30S ribosomal protein S10

Chain CJ:



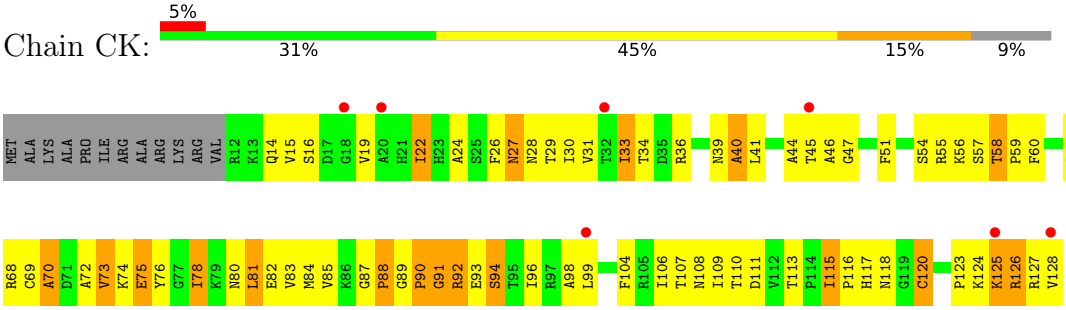
• Molecule 10: 30S ribosomal protein S11

Chain AK:



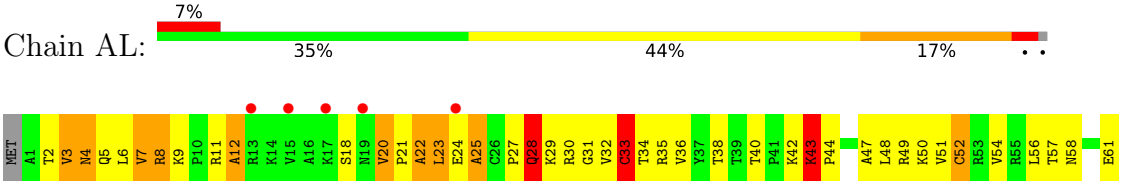
• Molecule 10: 30S ribosomal protein S11

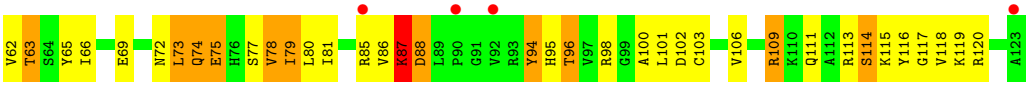
Chain CK:



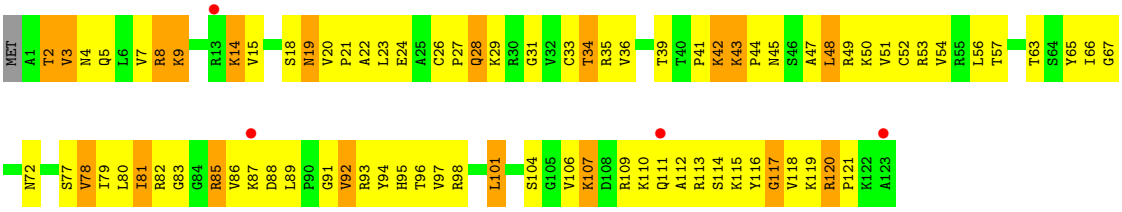
• Molecule 11: 30S ribosomal protein S12

Chain AL:

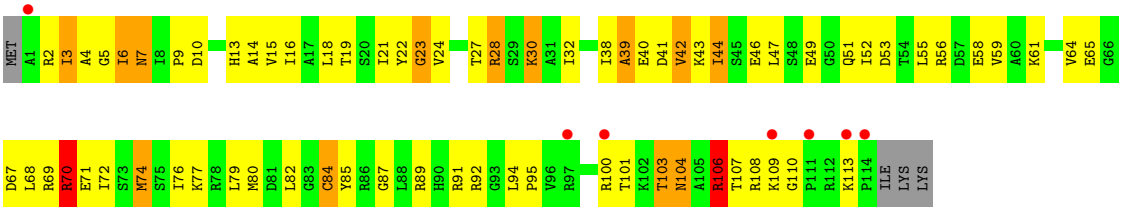




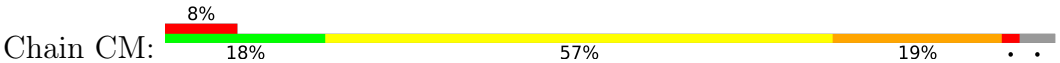
• Molecule 11: 30S ribosomal protein S12

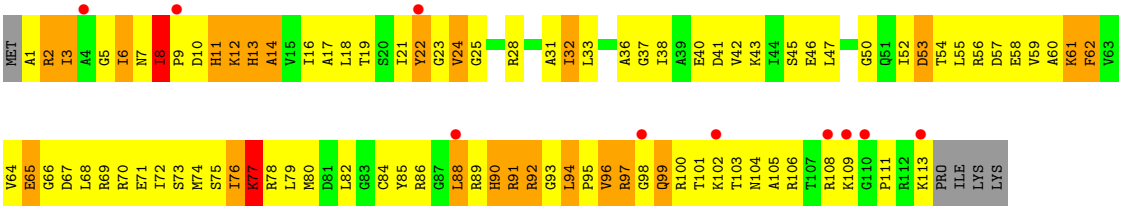


• Molecule 12: 30S ribosomal protein S13

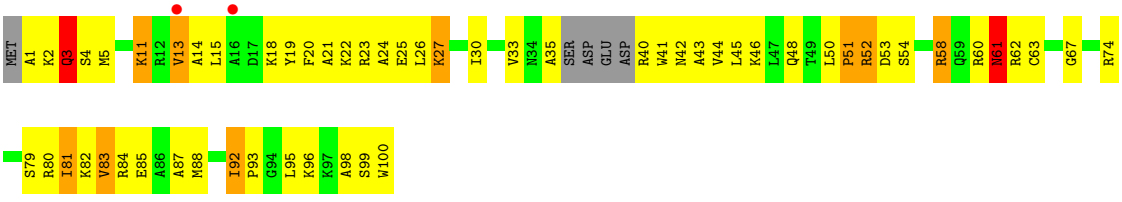


• Molecule 12: 30S ribosomal protein S13

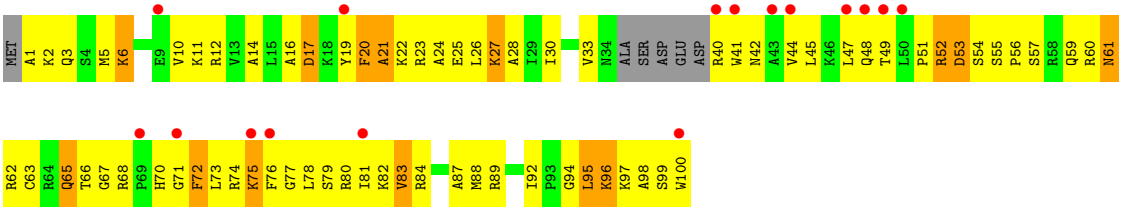




• Molecule 13: 30S ribosomal protein S14



• Molecule 13: 30S ribosomal protein S14

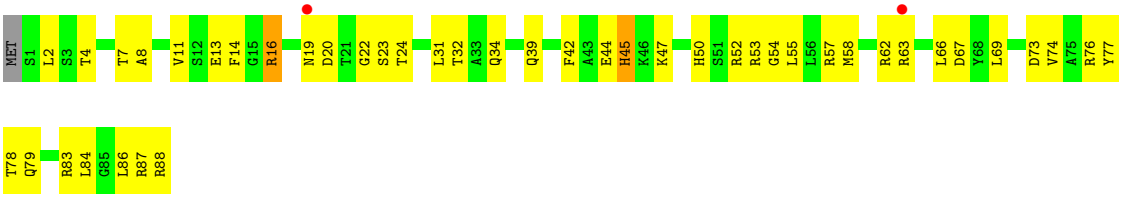


• Molecule 14: 30S ribosomal protein S15

Chain AO:

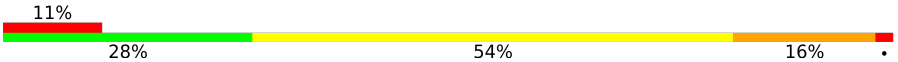
• Molecule 14: 30S ribosomal protein S15

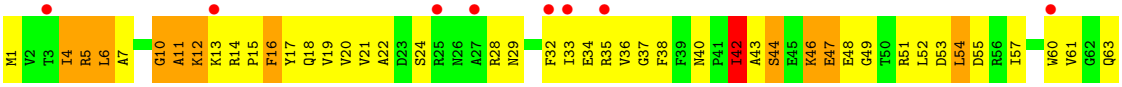
Chain CO:



• Molecule 15: 30S ribosomal protein S16

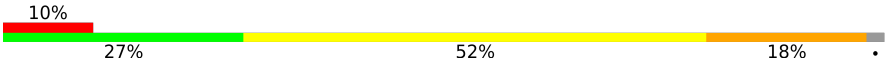
Chain AP:

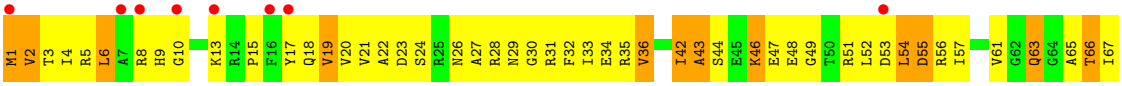




• Molecule 15: 30S ribosomal protein S16

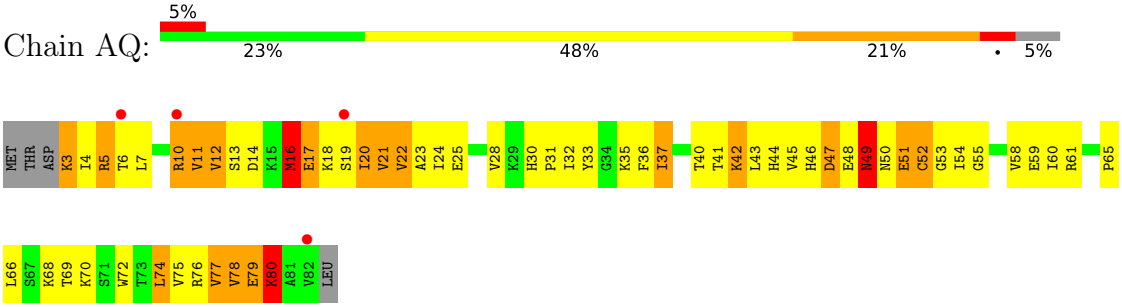
Chain CP:





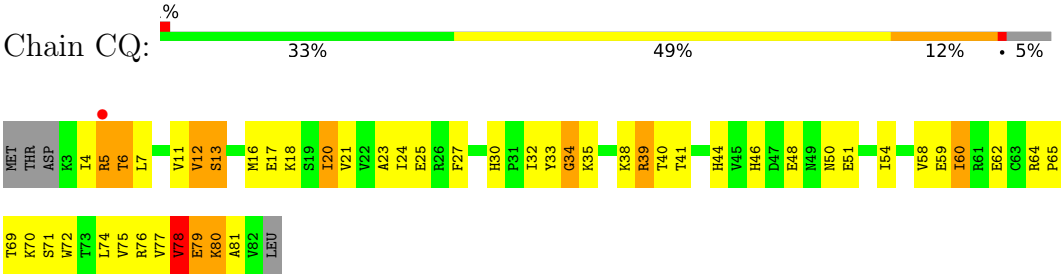
• Molecule 16: 30S ribosomal protein S17

Chain AQ:



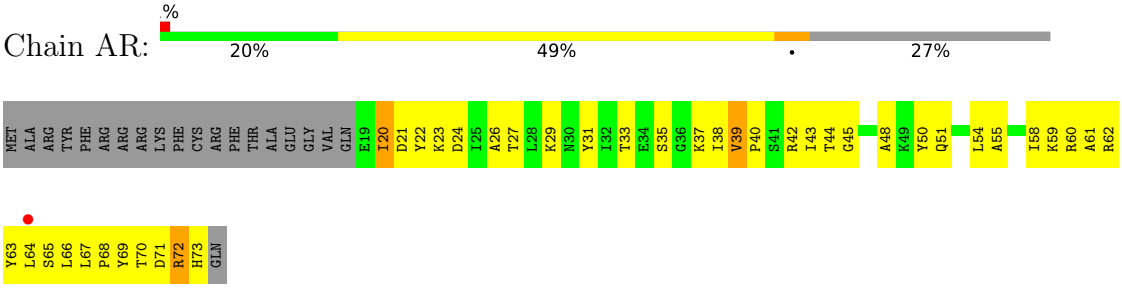
• Molecule 16: 30S ribosomal protein S17

Chain CQ:



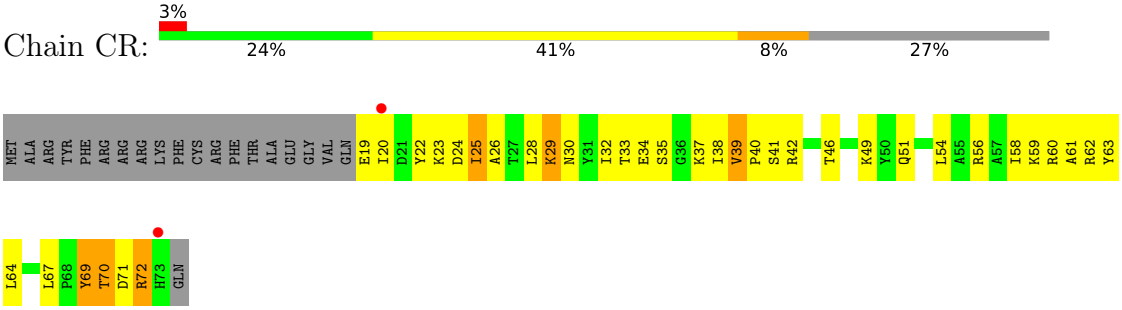
• Molecule 17: 30S ribosomal protein S18

Chain AR:



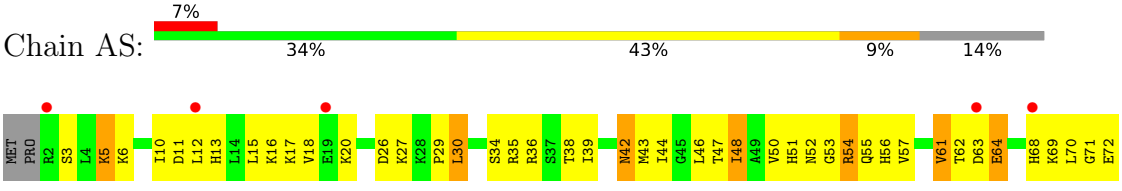
• Molecule 17: 30S ribosomal protein S18

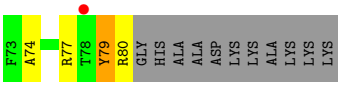
Chain CR:



• Molecule 18: 30S ribosomal protein S19

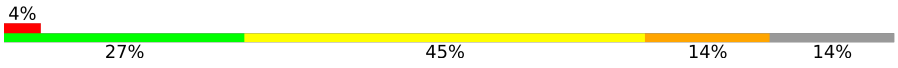
Chain AS:

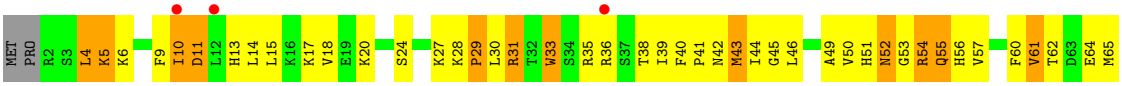


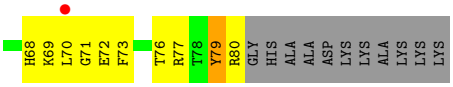


• Molecule 18: 30S ribosomal protein S19

Chain CS:

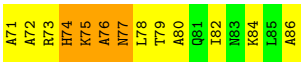






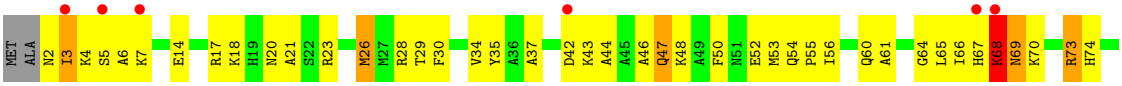
• Molecule 19: 30S ribosomal protein S20

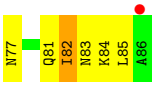
Chain AT:



• Molecule 19: 30S ribosomal protein S20

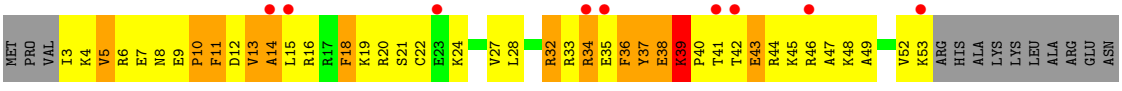
Chain CT:





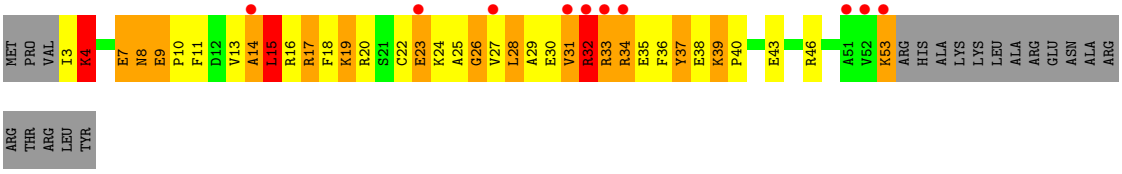
• Molecule 20: 30S ribosomal protein S21

Chain AU:



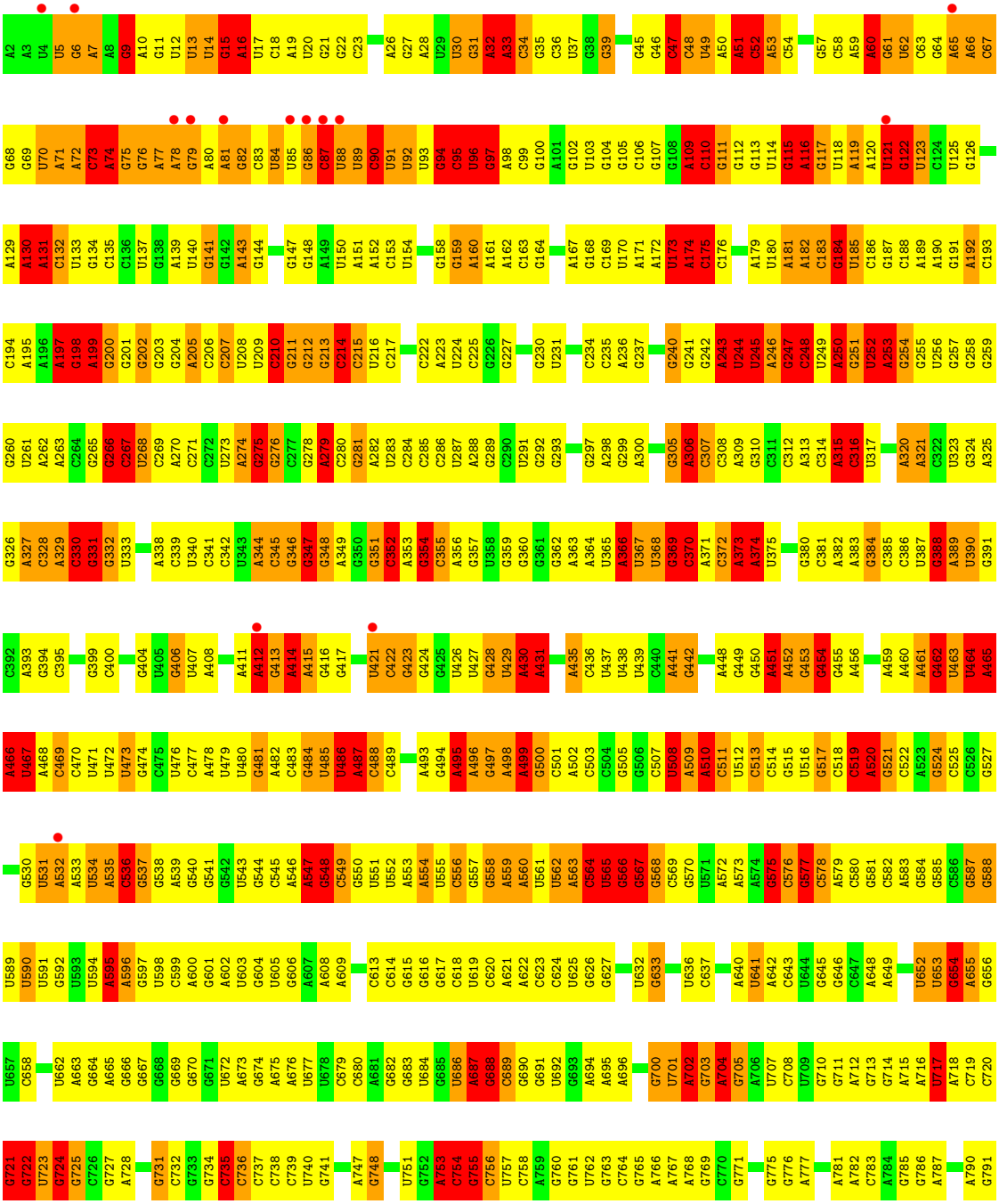
• Molecule 20: 30S ribosomal protein S21

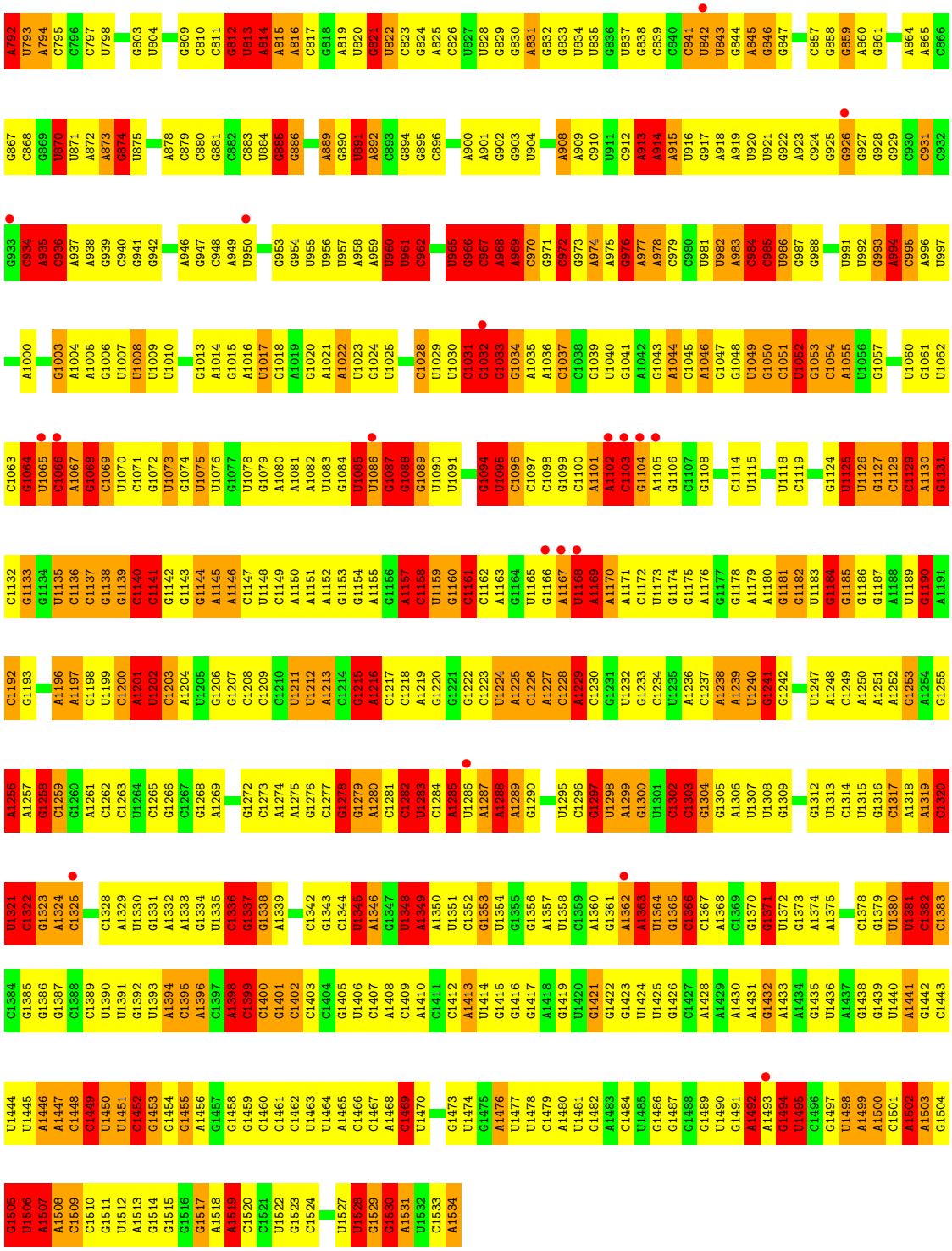
Chain CU:



• Molecule 21: 16S rRNA

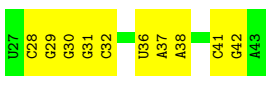
Chain AA:





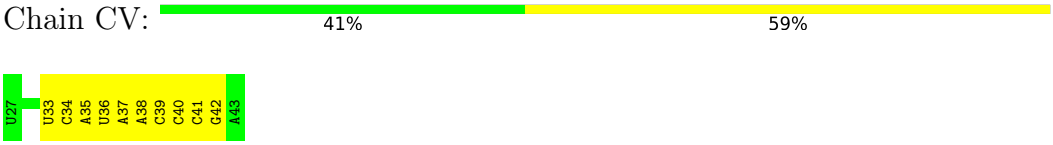
• Molecule 22: P-site tRNA ASL fragment

Chain AV:



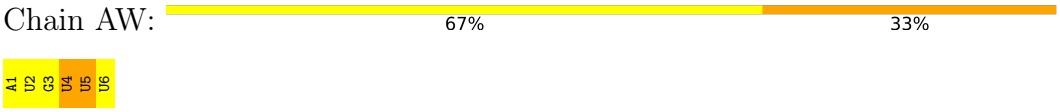
• Molecule 22: P-site tRNA ASL fragment

Chain CV:



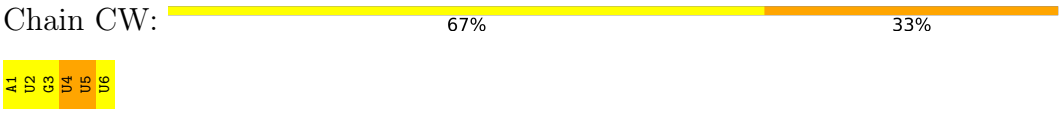
• Molecule 23: messenger RNA

Chain AW:



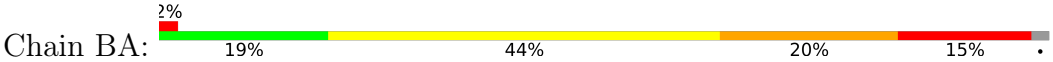
• Molecule 23: messenger RNA

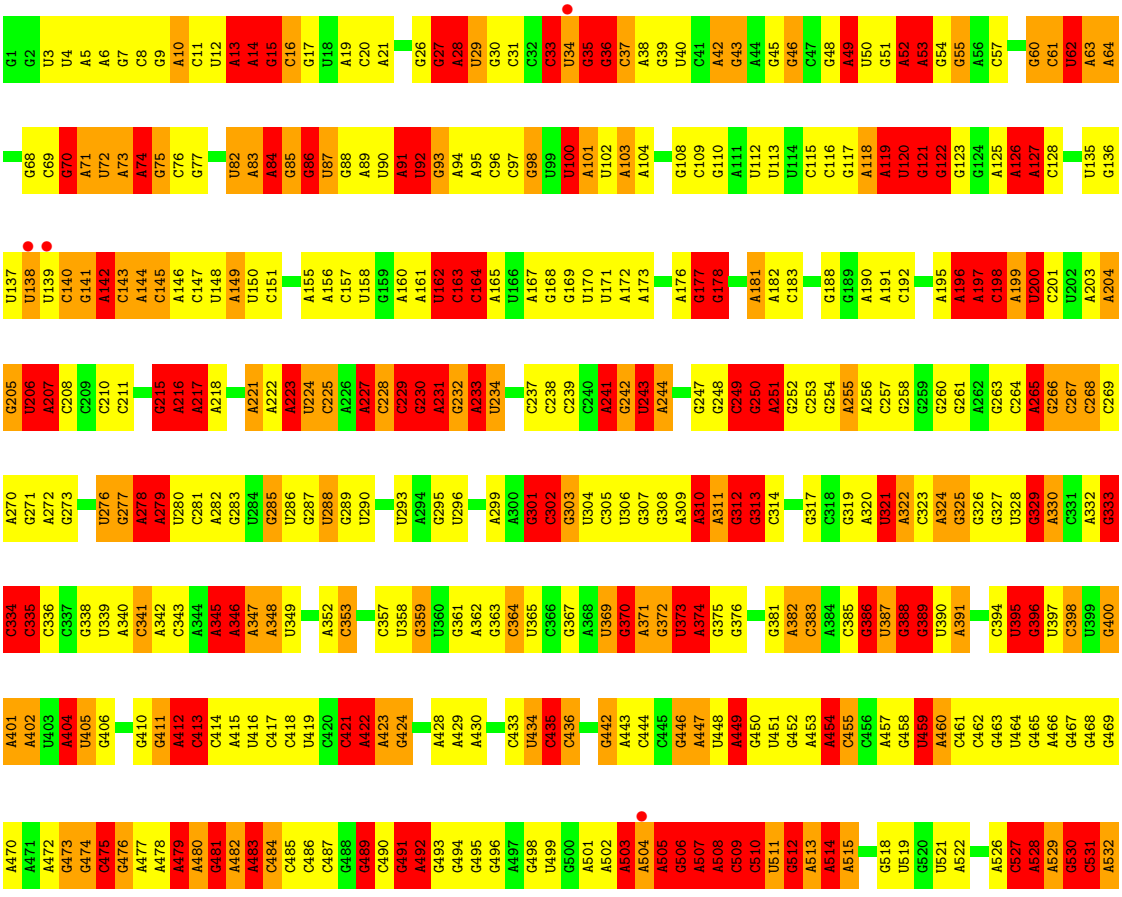
Chain CW:

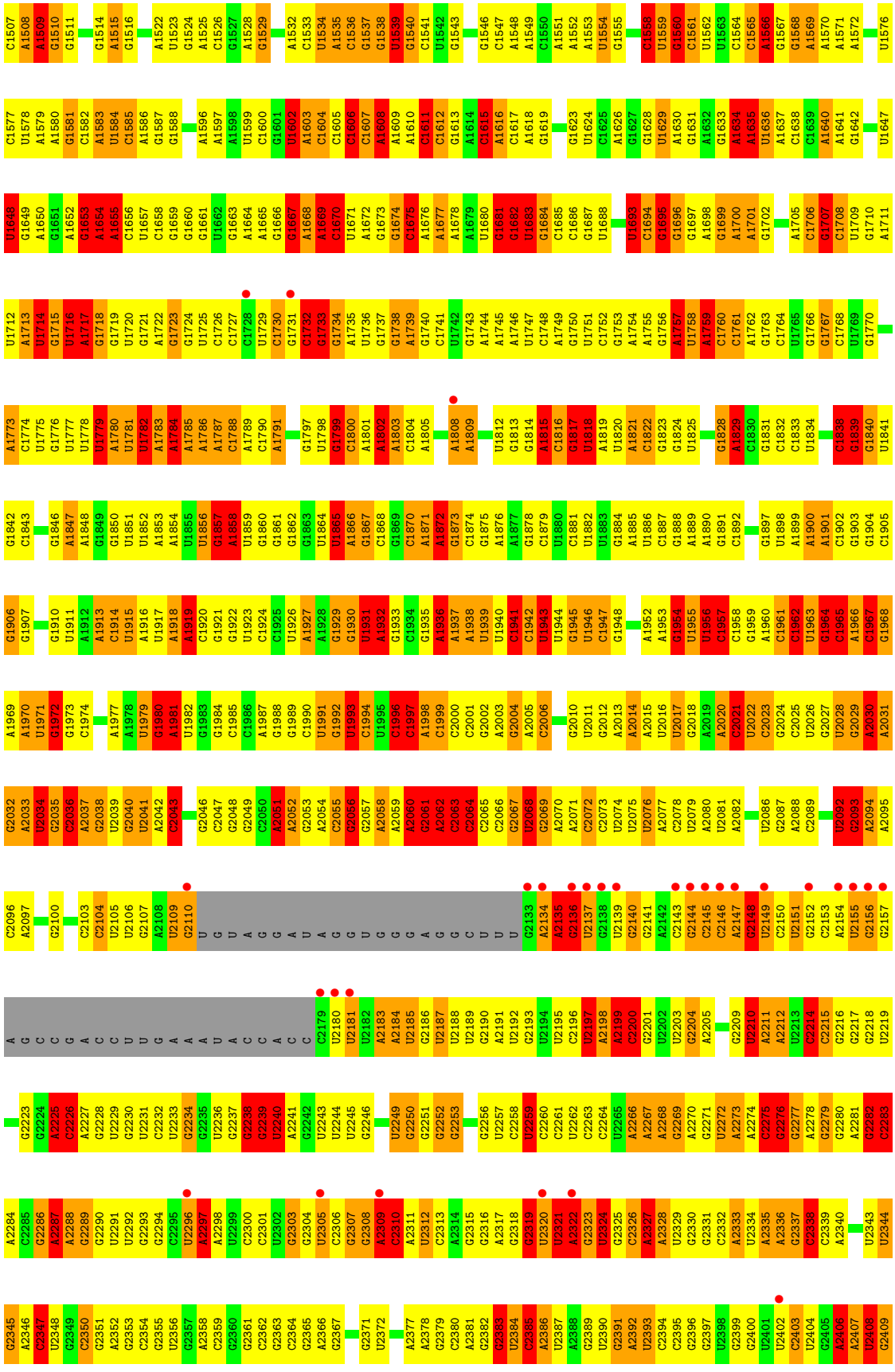


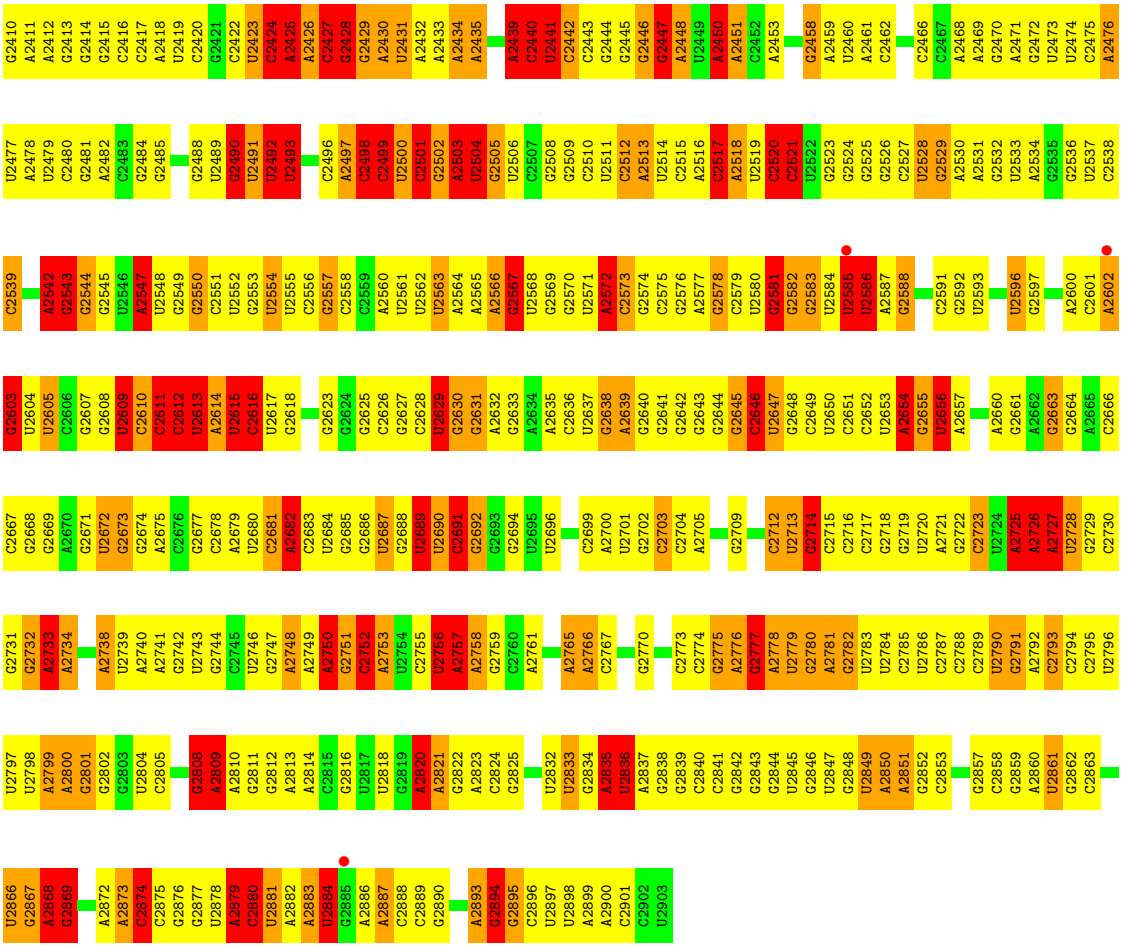
• Molecule 24: 23S rRNA

Chain BA:



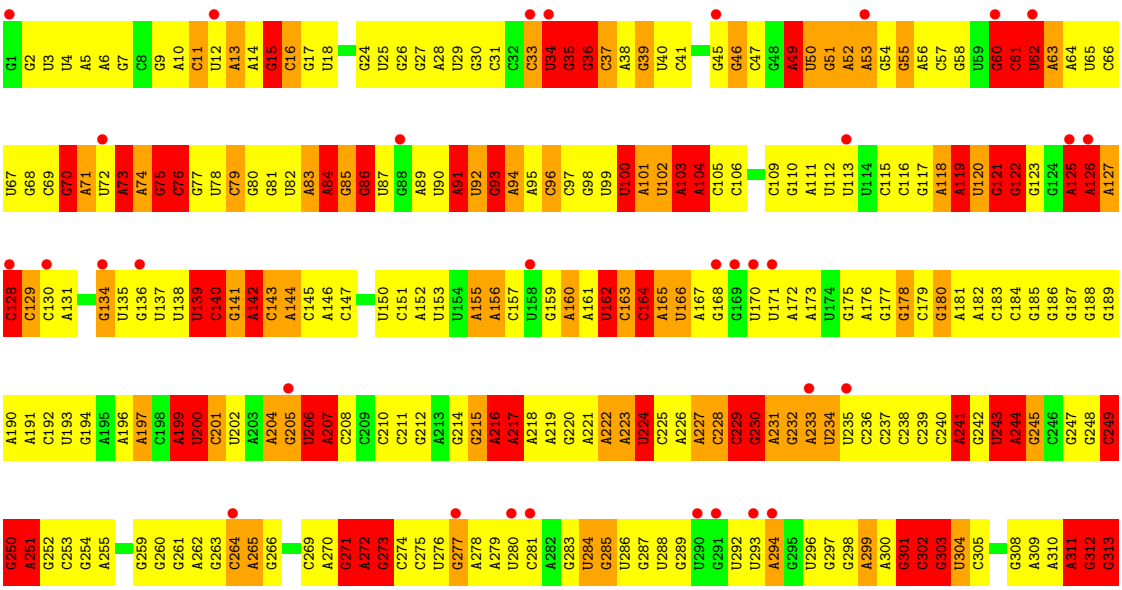


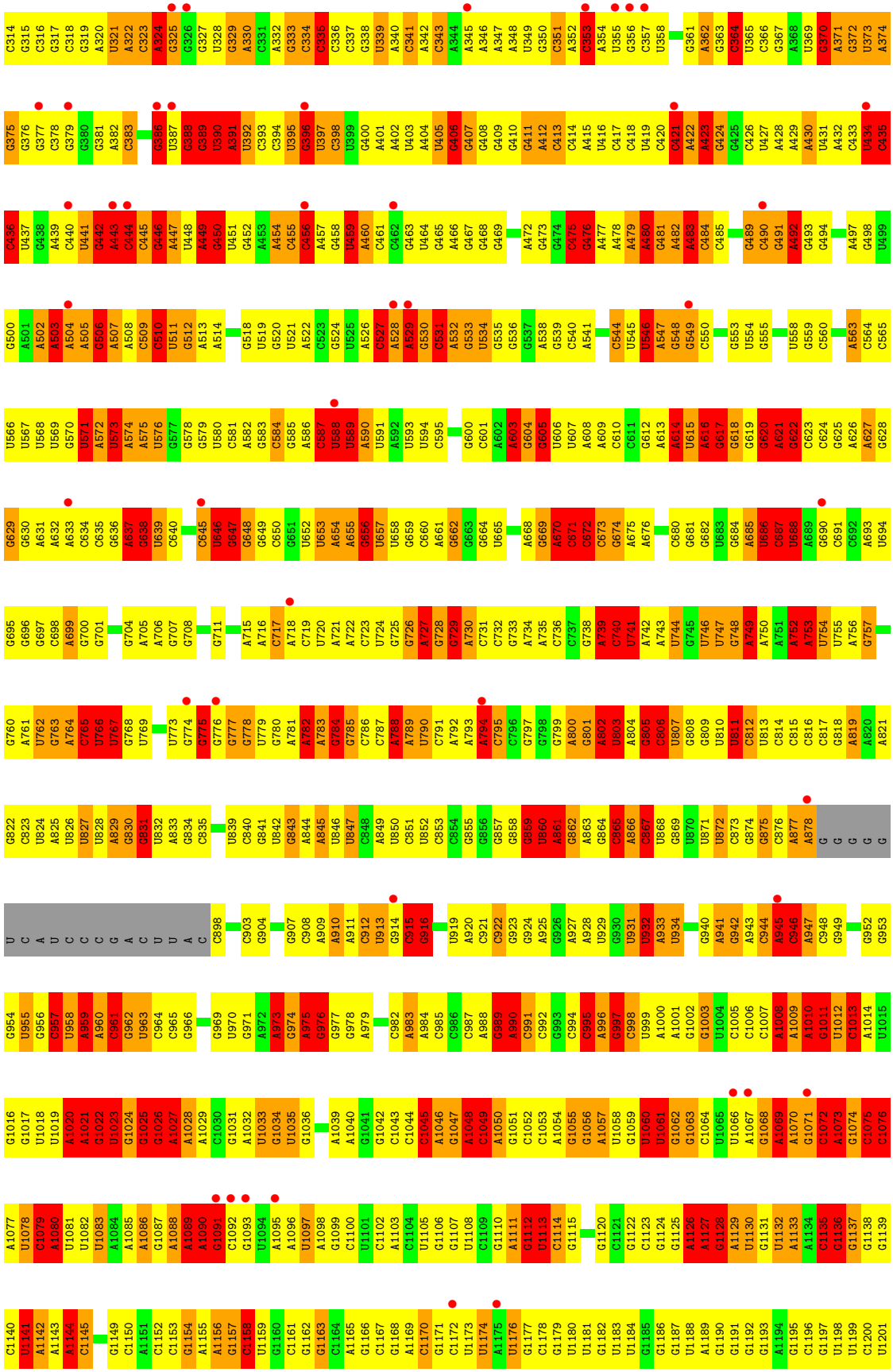


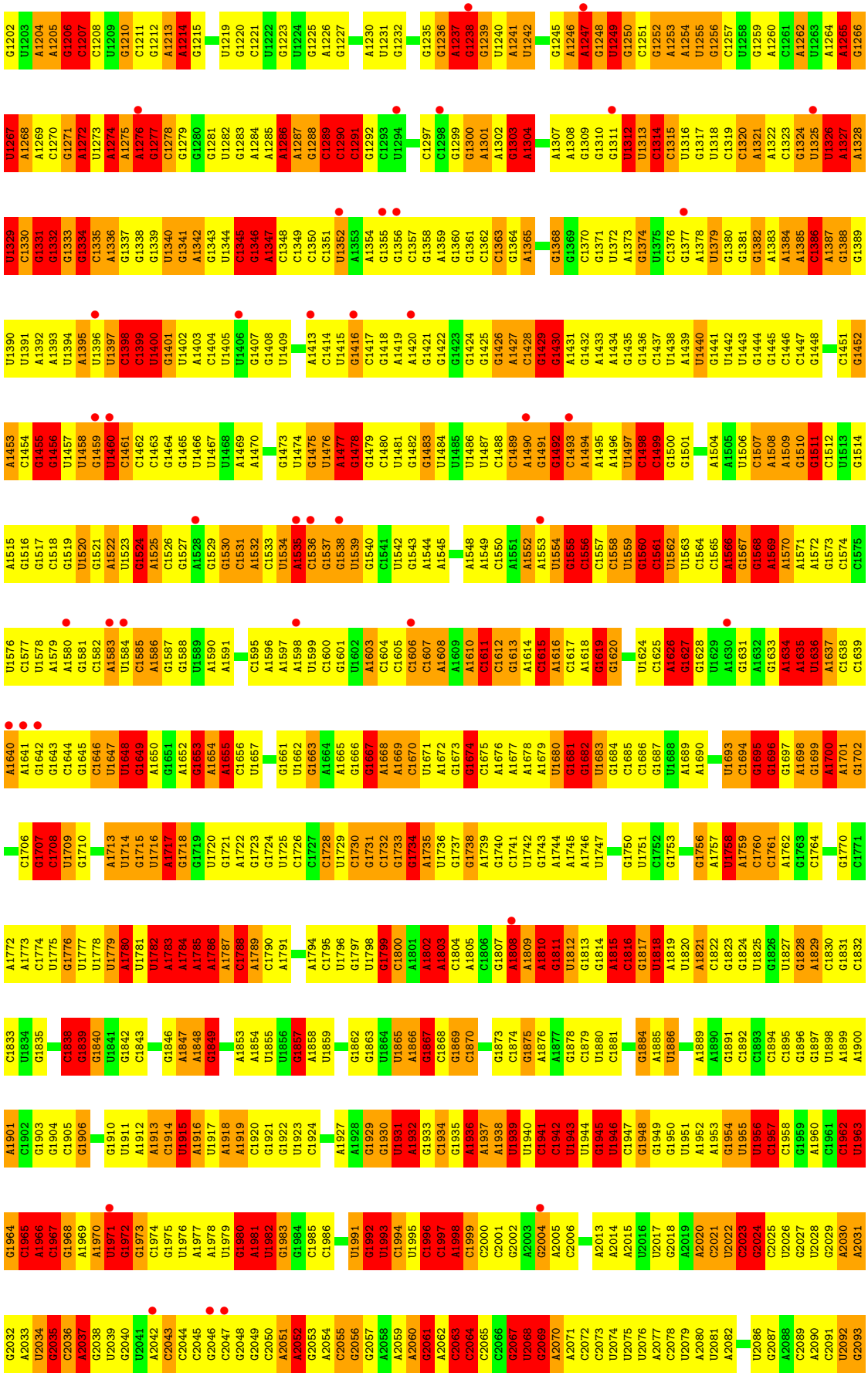


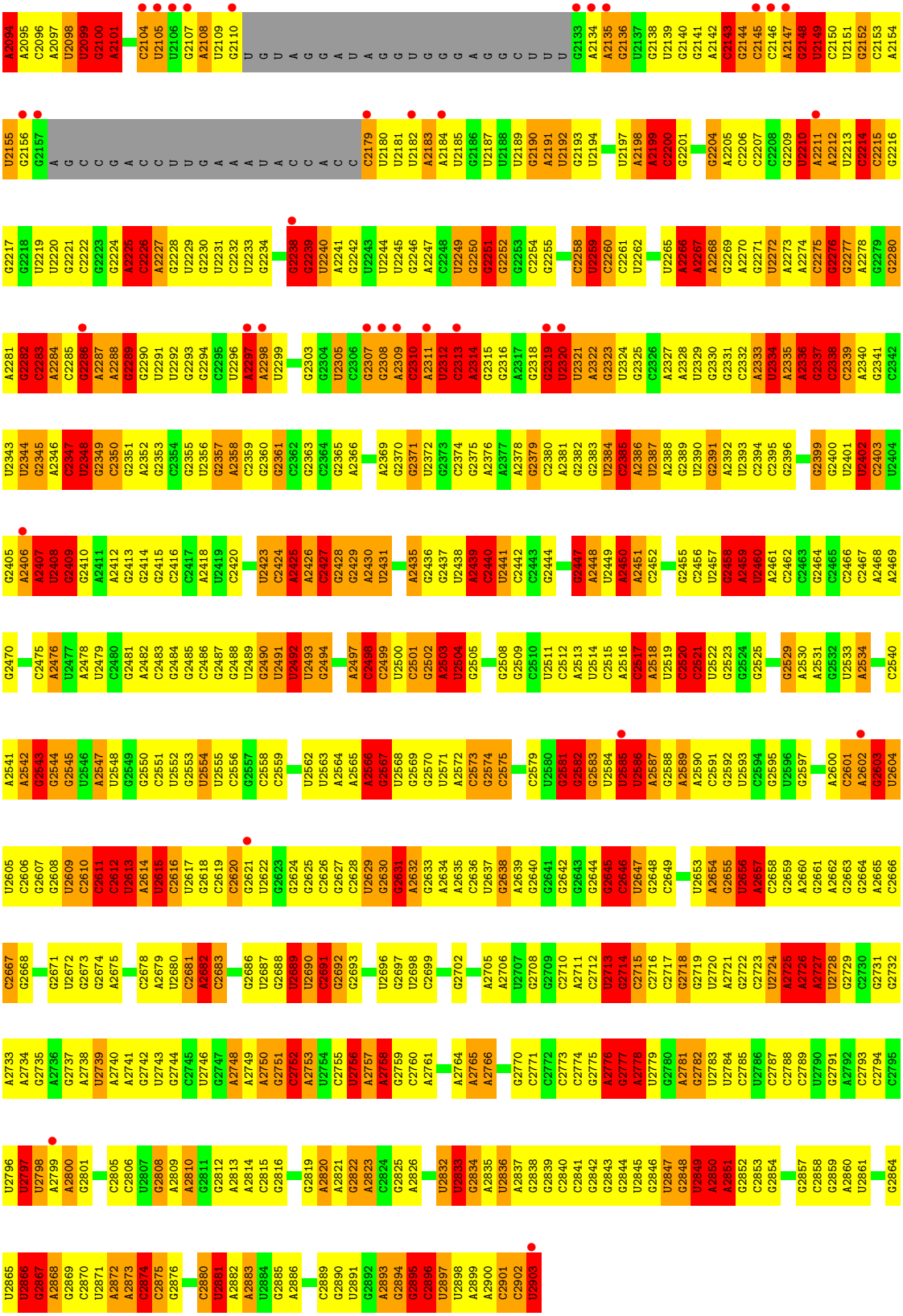
• Molecule 24: 23S rRNA

Chain DA:



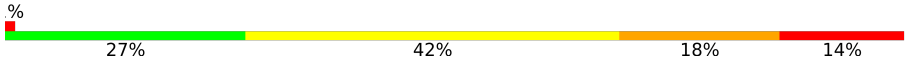


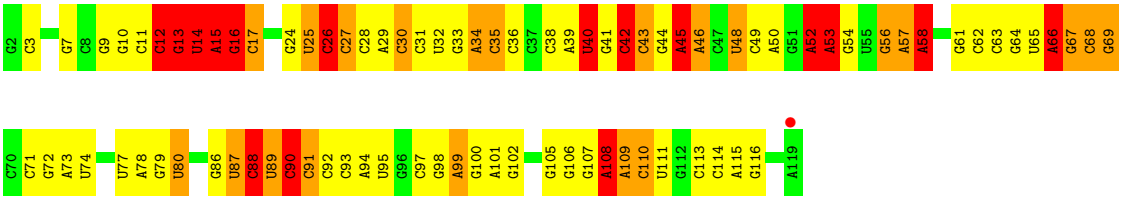




• Molecule 25: 5S rRNA

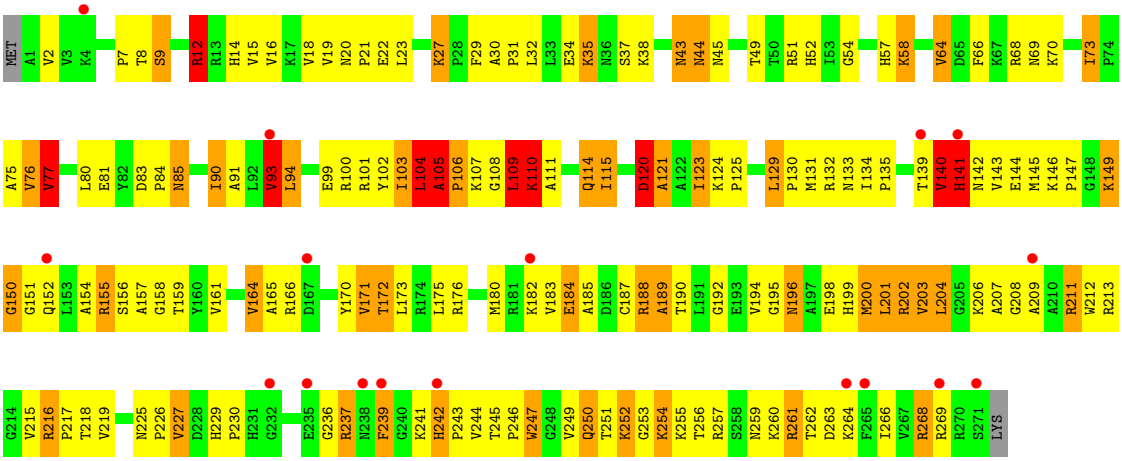
Chain BB:





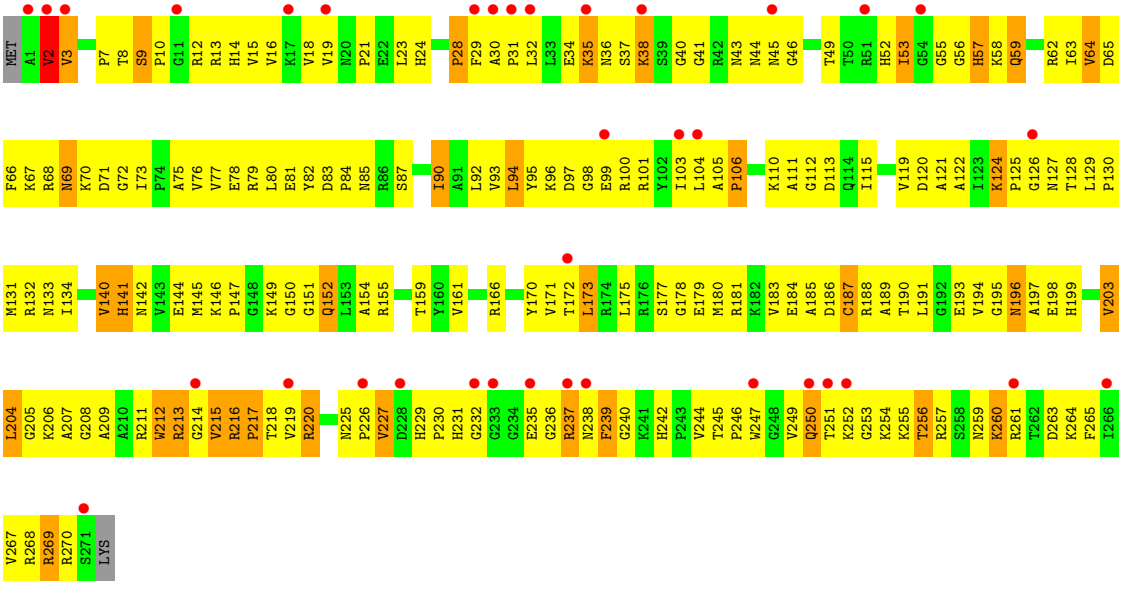
• Molecule 26: 50S ribosomal protein L2

Chain BC:



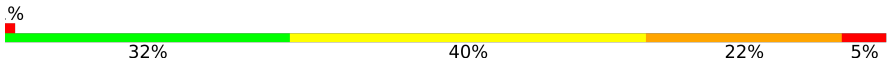
• Molecule 26: 50S ribosomal protein L2

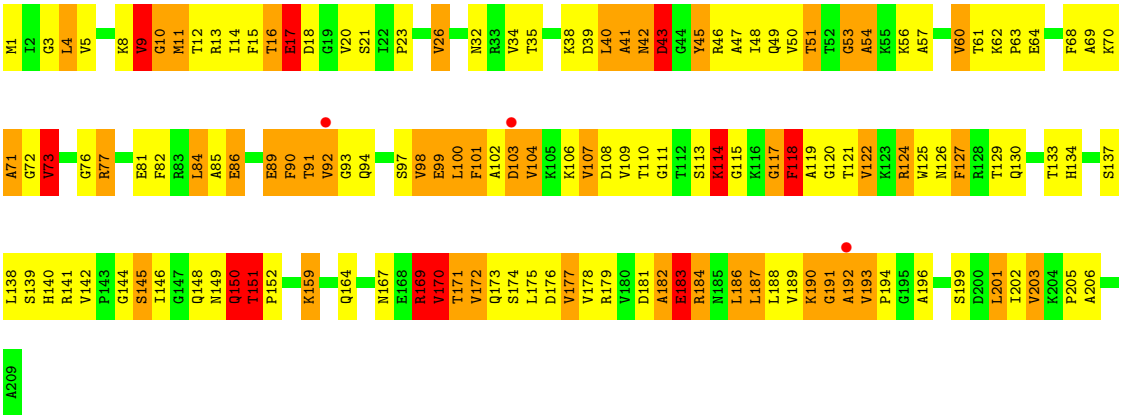
Chain DC:



• Molecule 27: 50S ribosomal protein L3

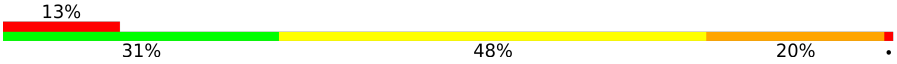
Chain BD:

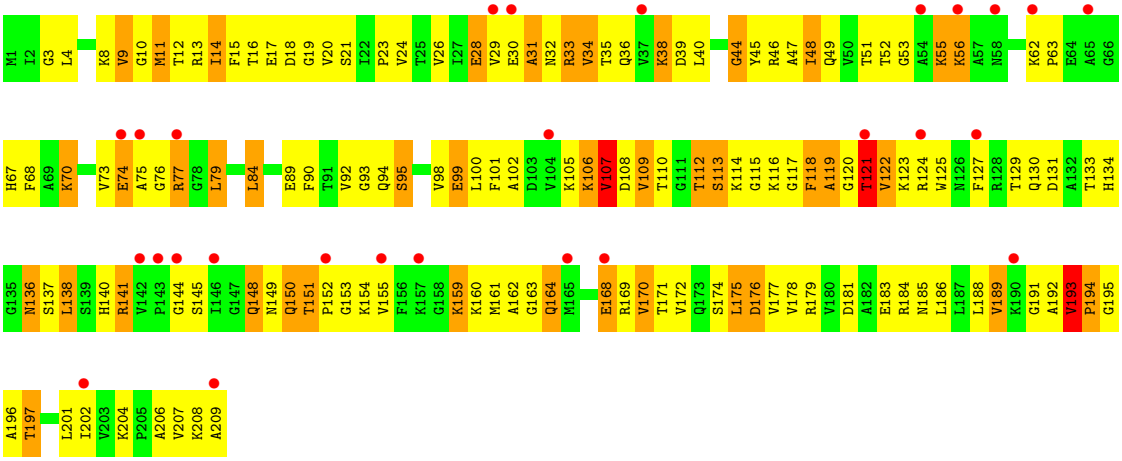




• Molecule 27: 50S ribosomal protein L3

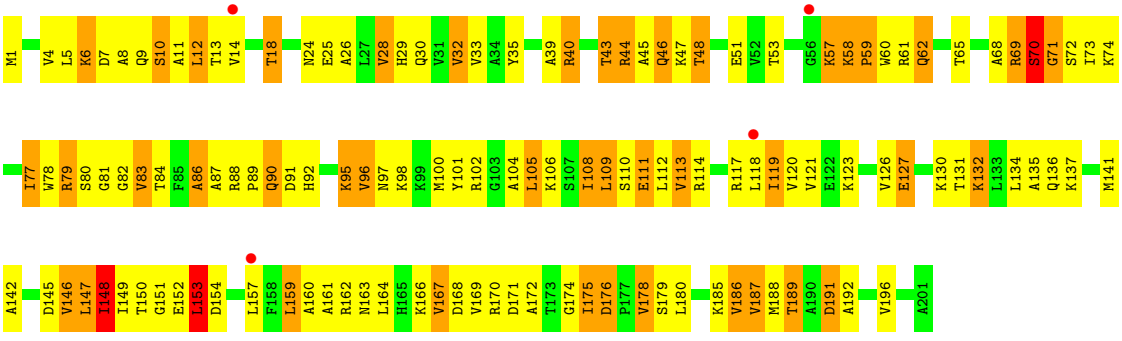
Chain DD:





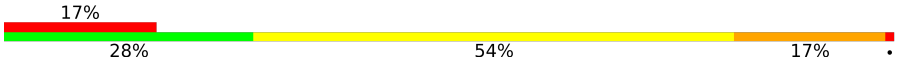
• Molecule 28: 50S ribosomal protein L4

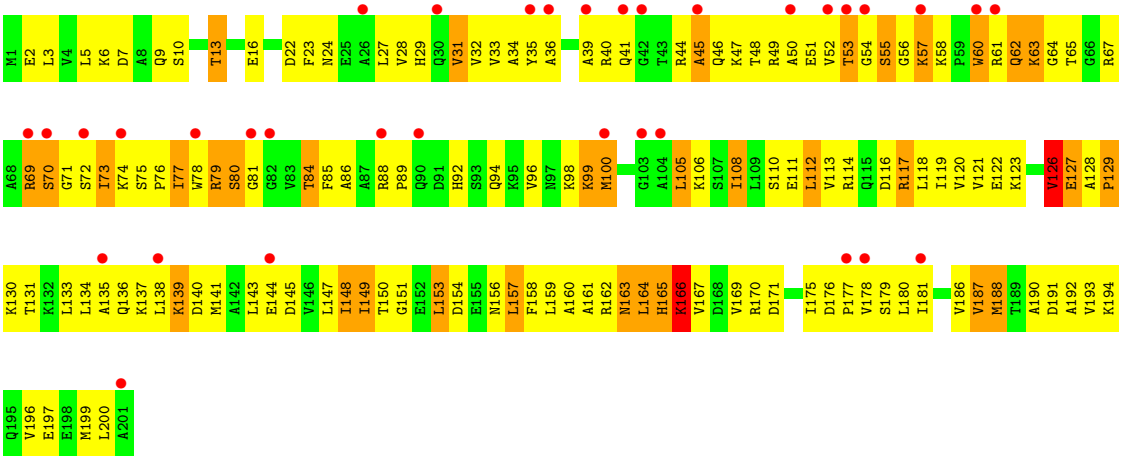
Chain BE:



• Molecule 28: 50S ribosomal protein L4

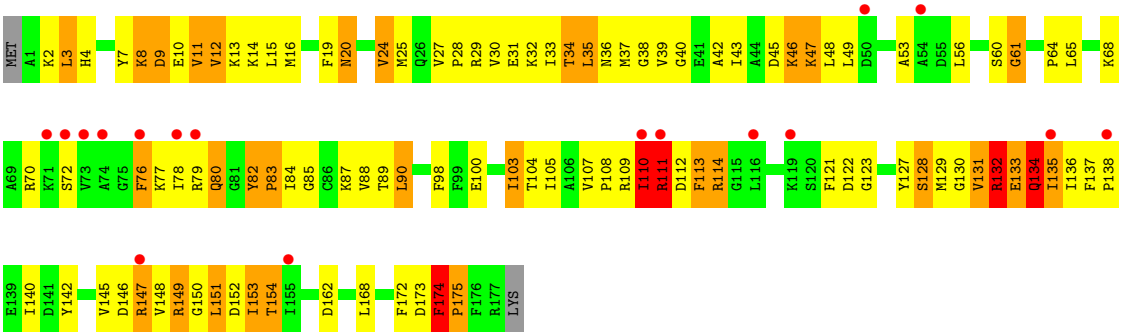
Chain DE:





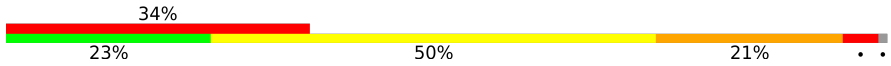
• Molecule 29: 50S ribosomal protein L5

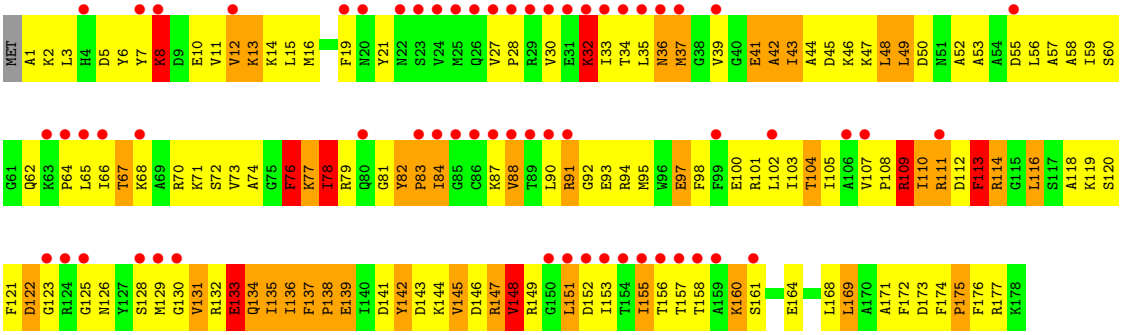
Chain BF:



• Molecule 29: 50S ribosomal protein L5

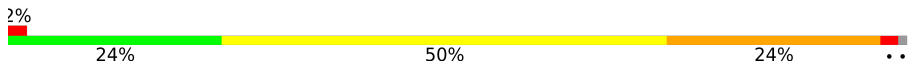
Chain DF:

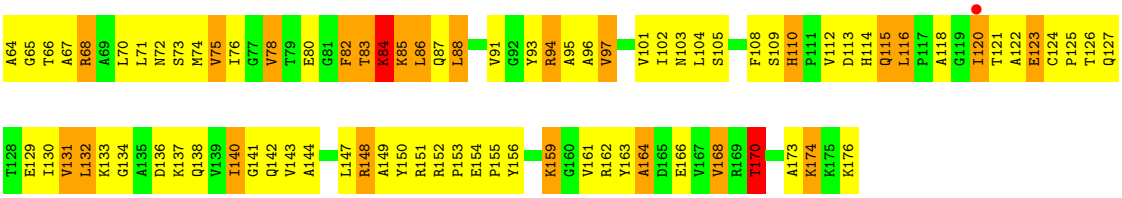




• Molecule 30: 50S ribosomal protein L6

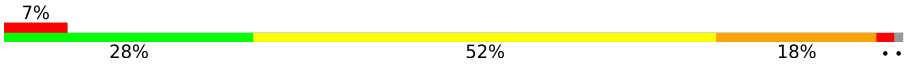
Chain BG:

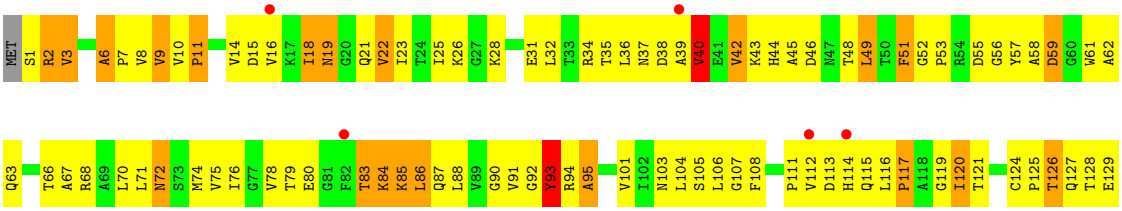


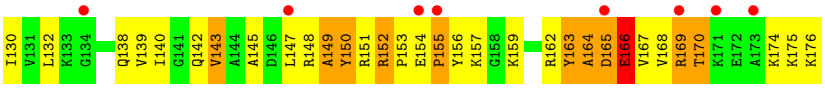


• Molecule 30: 50S ribosomal protein L6

Chain DG:

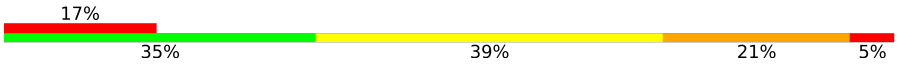


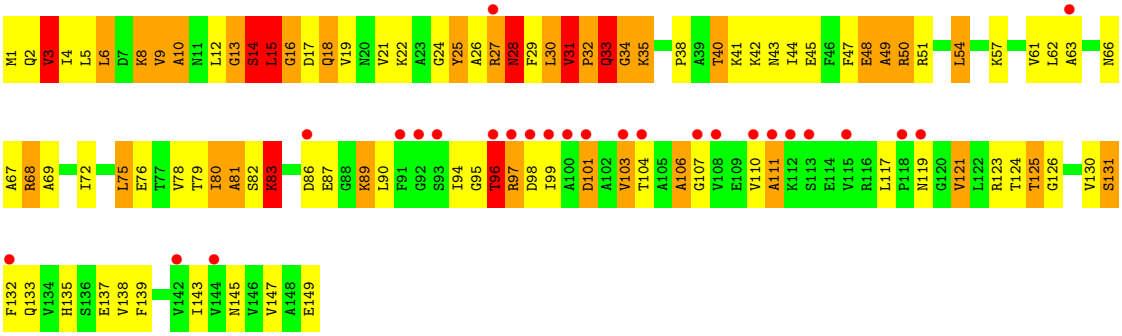




• Molecule 31: 50S ribosomal protein L9

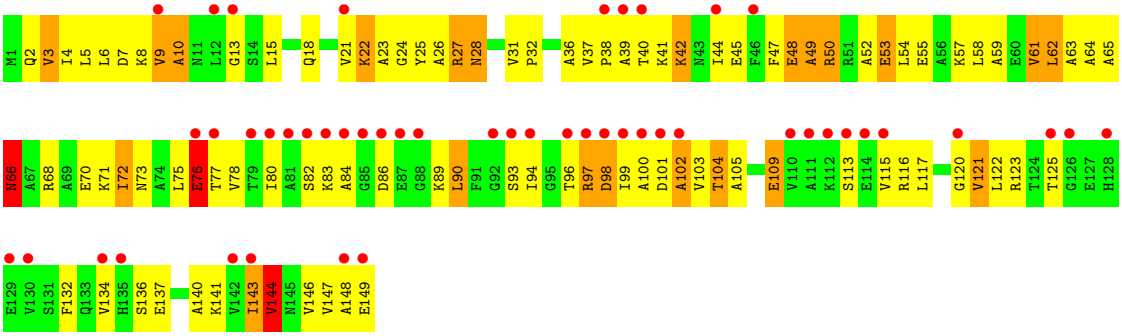
Chain BH:





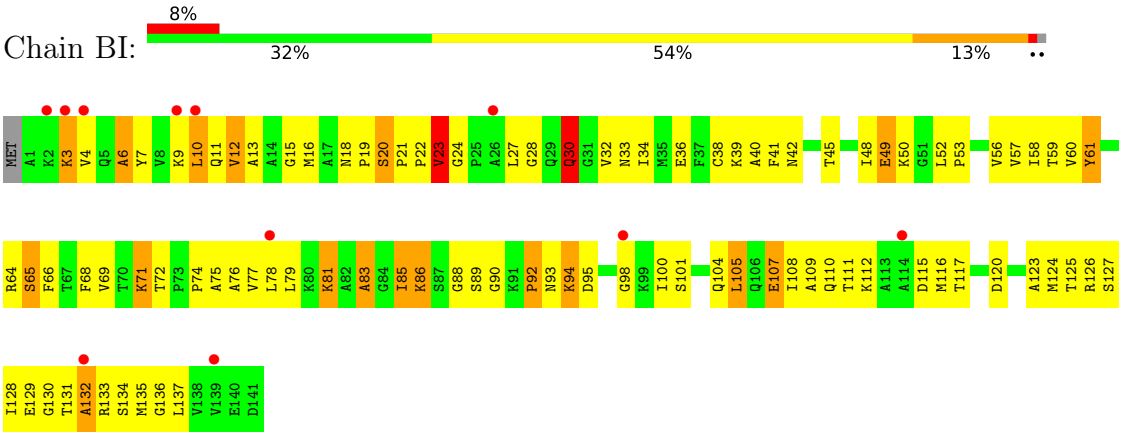
• Molecule 31: 50S ribosomal protein L9

Chain DH:



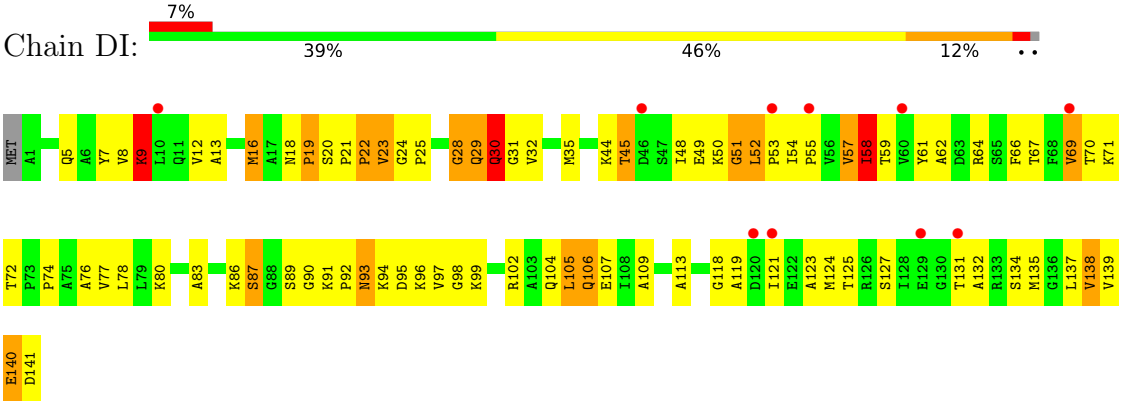
• Molecule 32: 50S ribosomal protein L11

Chain BI:



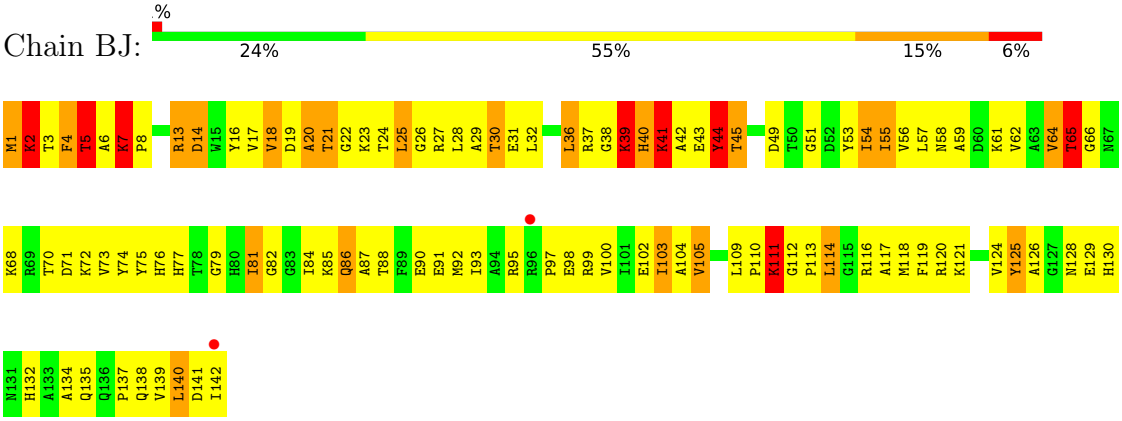
• Molecule 32: 50S ribosomal protein L11

Chain DI:



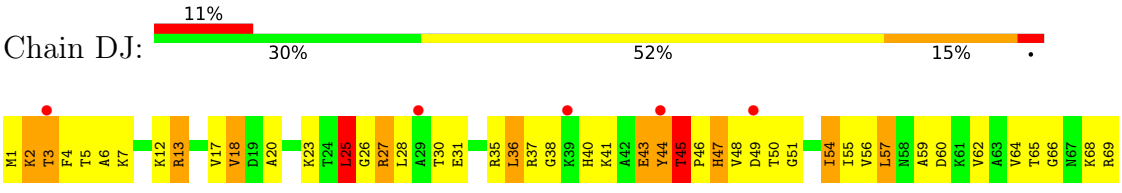
• Molecule 33: 50S ribosomal protein L13

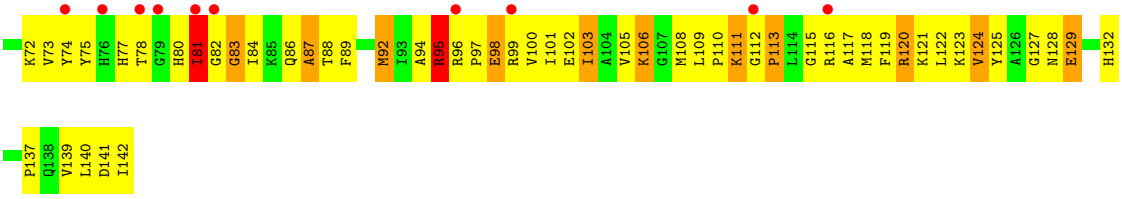
Chain BJ:



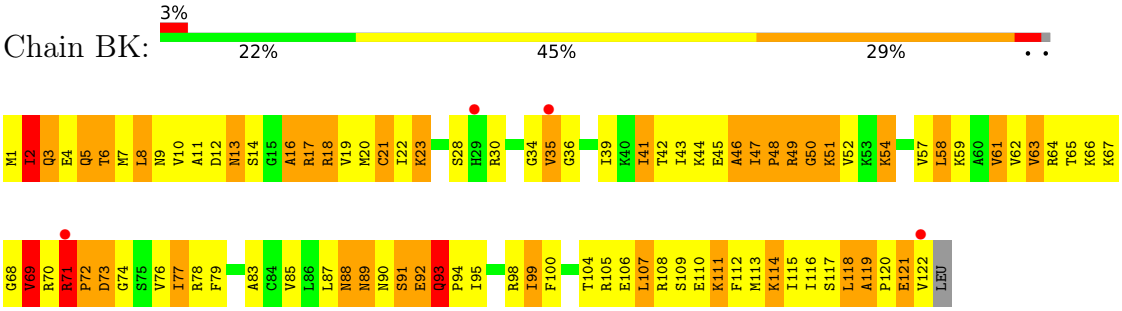
• Molecule 33: 50S ribosomal protein L13

Chain DJ:

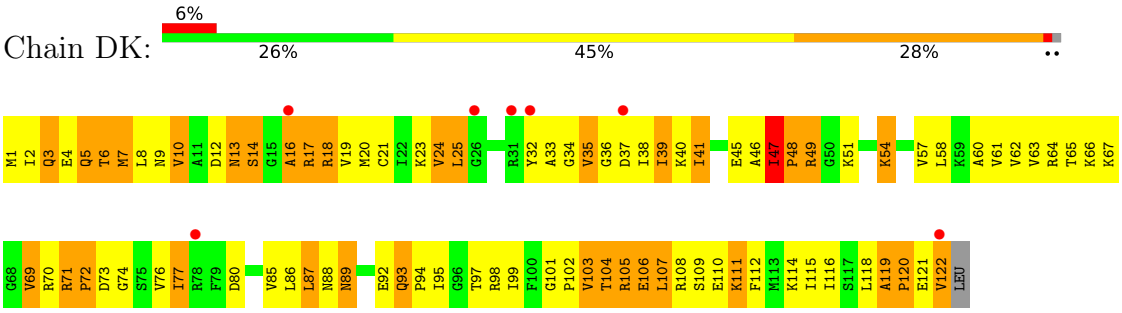




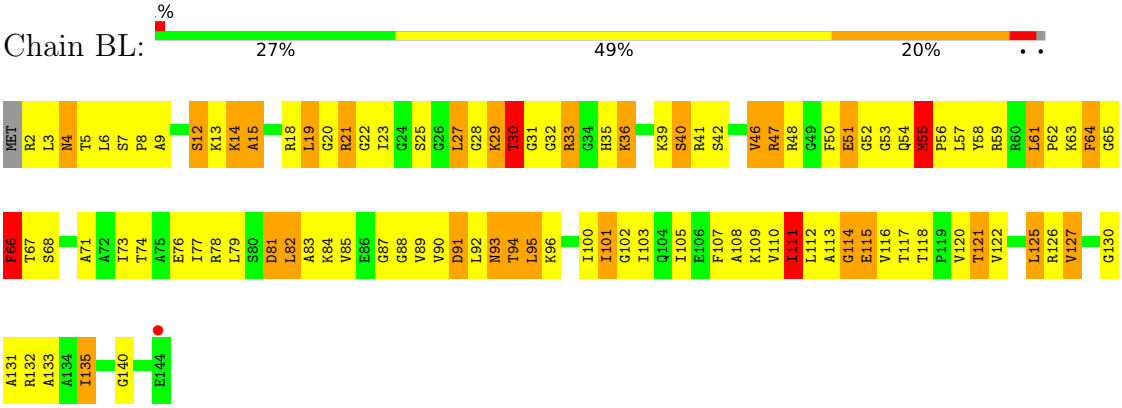
• Molecule 34: 50S ribosomal protein L14



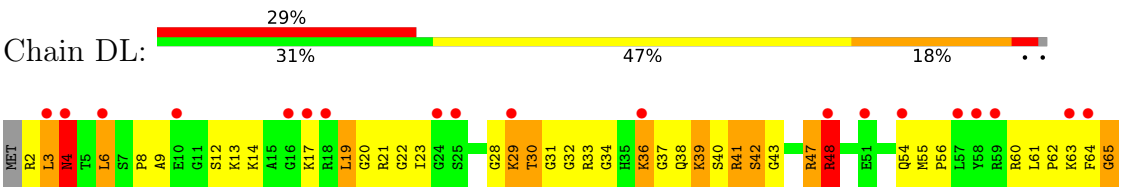
• Molecule 34: 50S ribosomal protein L14

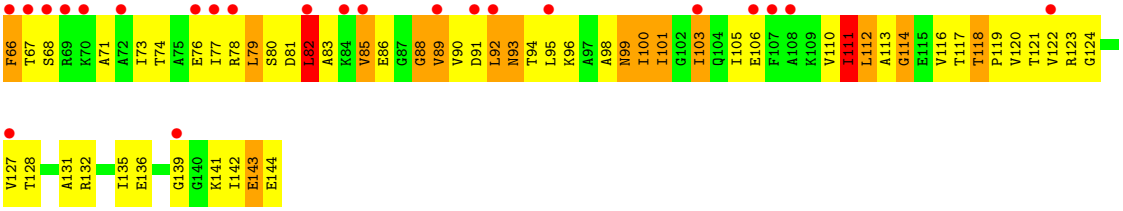


• Molecule 35: 50S ribosomal protein L15



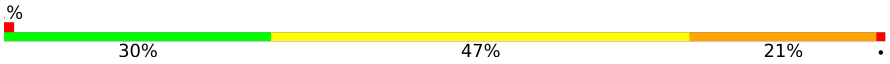
• Molecule 35: 50S ribosomal protein L15

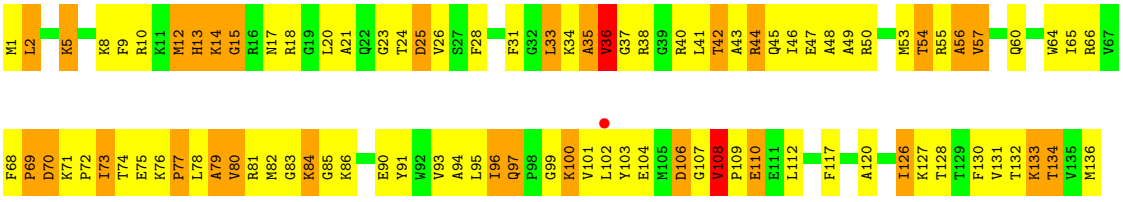




• Molecule 36: 50S ribosomal protein L16

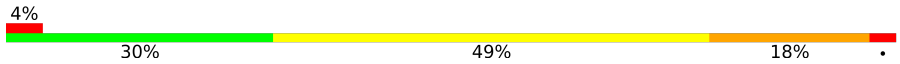
Chain BM:

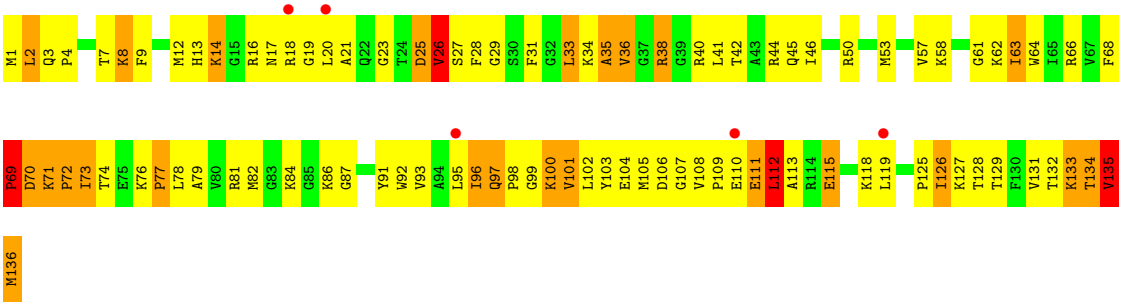




• Molecule 36: 50S ribosomal protein L16

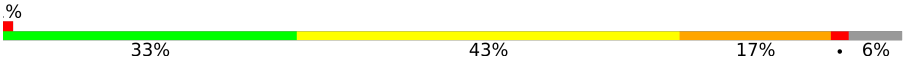
Chain DM:

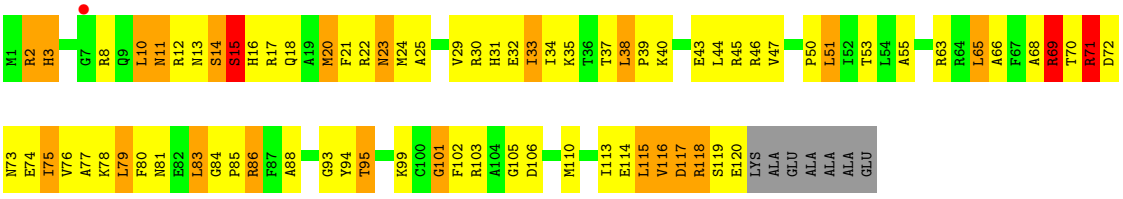




• Molecule 37: 50S ribosomal protein L17

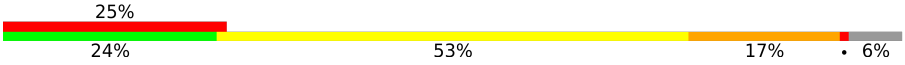
Chain BN:

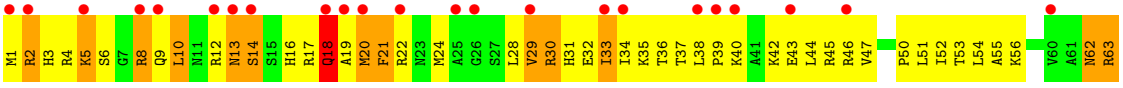


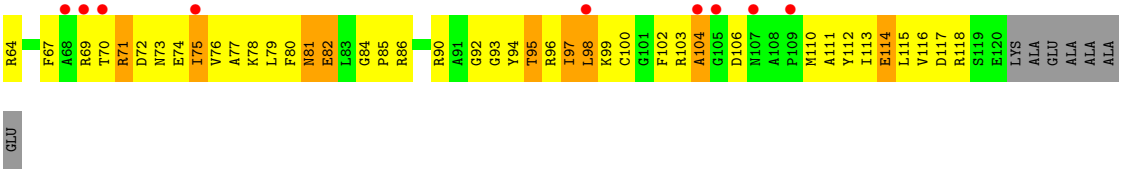


• Molecule 37: 50S ribosomal protein L17

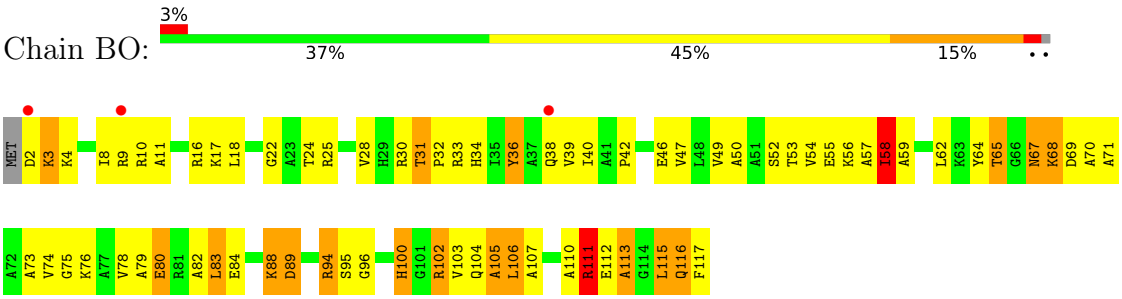
Chain DN:



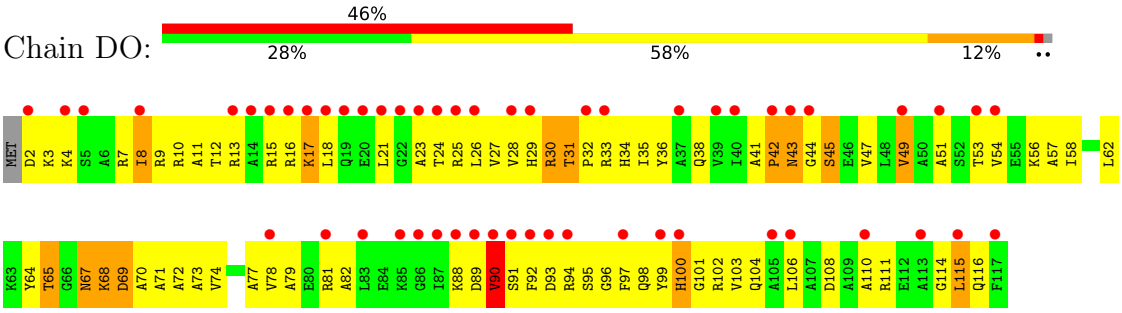




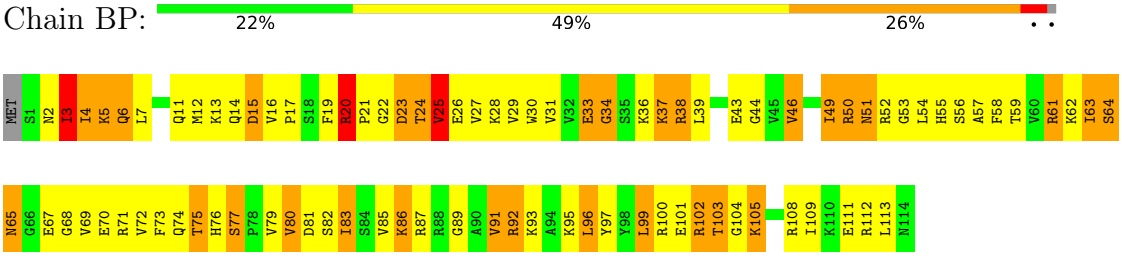
• Molecule 38: 50S ribosomal protein L18



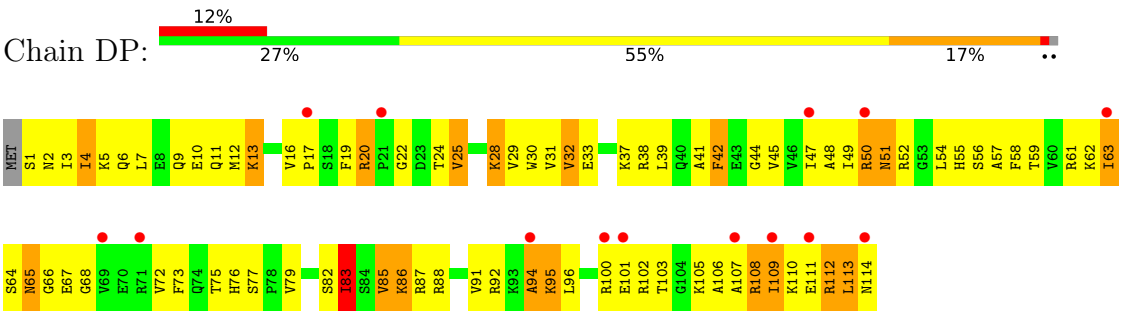
• Molecule 38: 50S ribosomal protein L18



• Molecule 39: 50S ribosomal protein L19

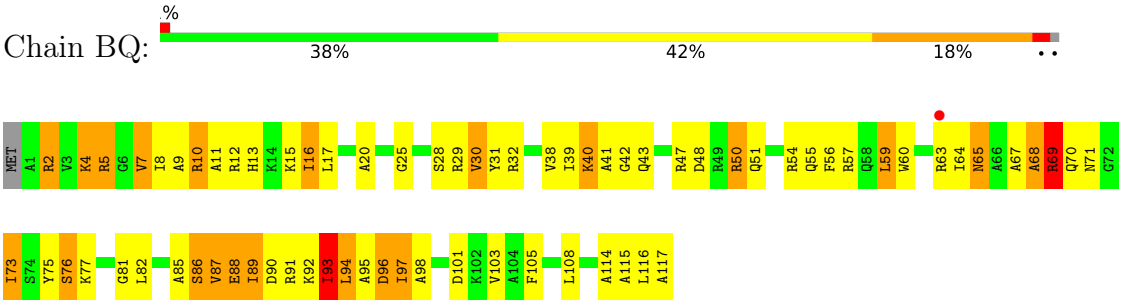


• Molecule 39: 50S ribosomal protein L19



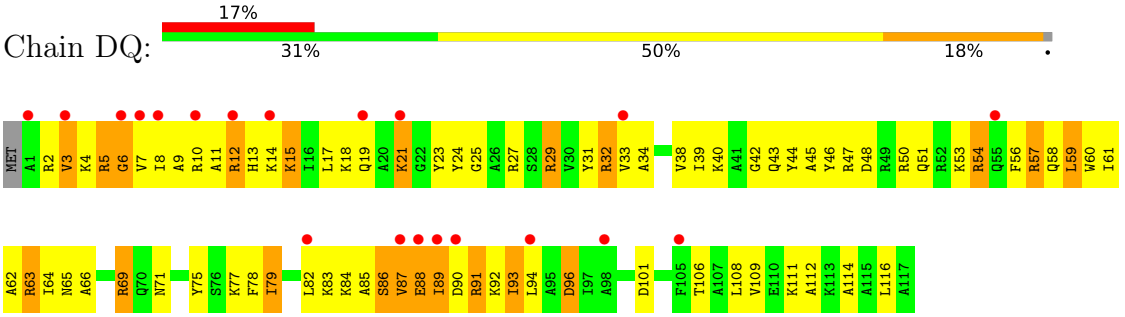
• Molecule 40: 50S ribosomal protein L20

Chain BQ:



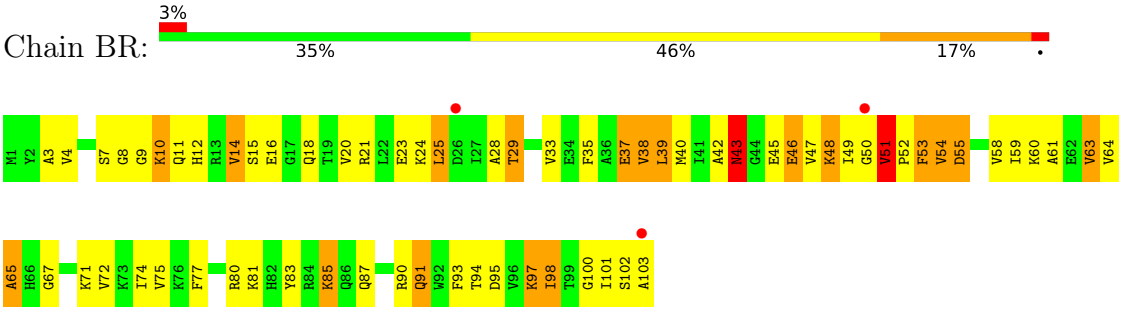
• Molecule 40: 50S ribosomal protein L20

Chain DQ:



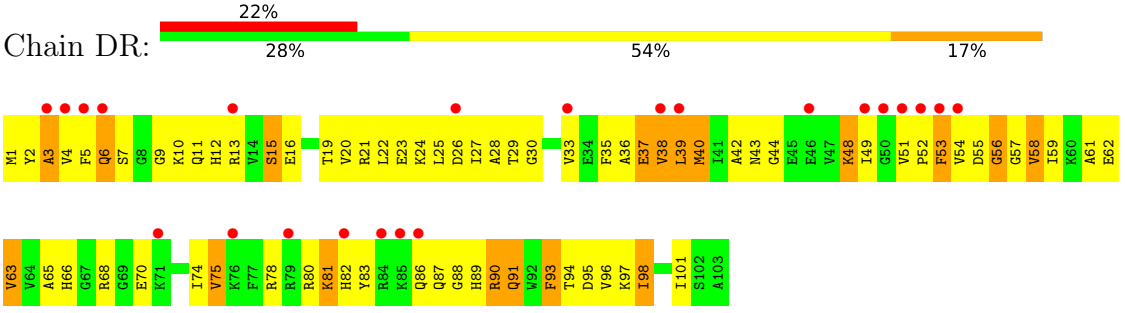
• Molecule 41: 50S ribosomal protein L21

Chain BR:



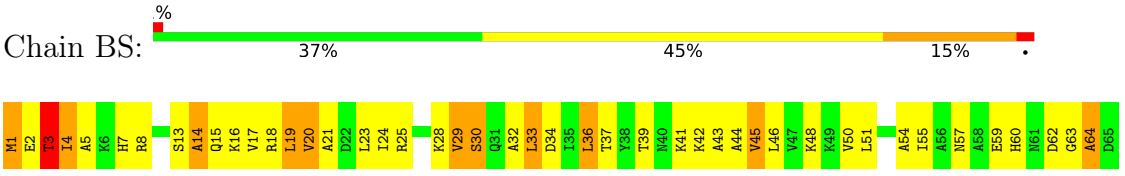
• Molecule 41: 50S ribosomal protein L21

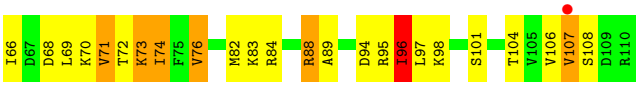
Chain DR:



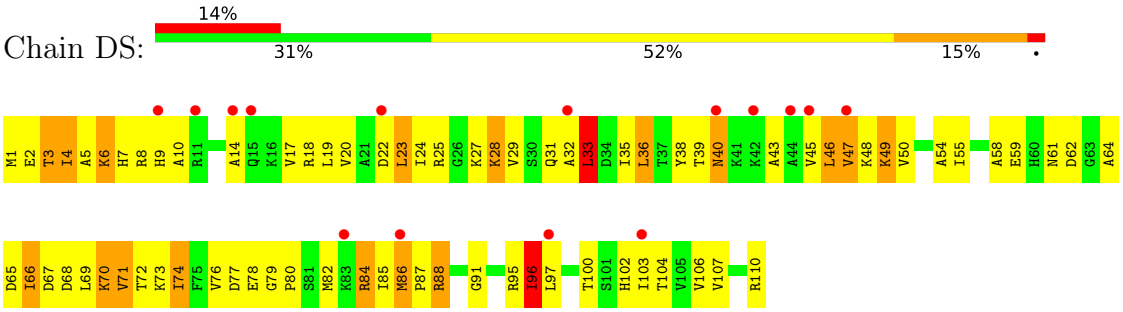
• Molecule 42: 50S ribosomal protein L22

Chain BS:

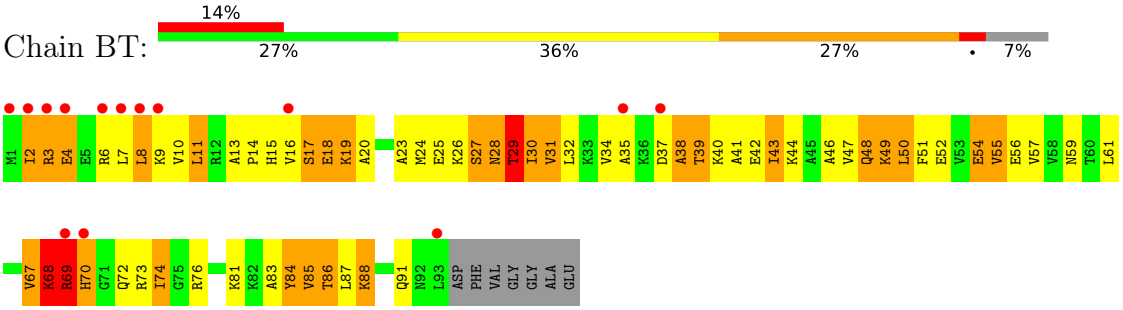




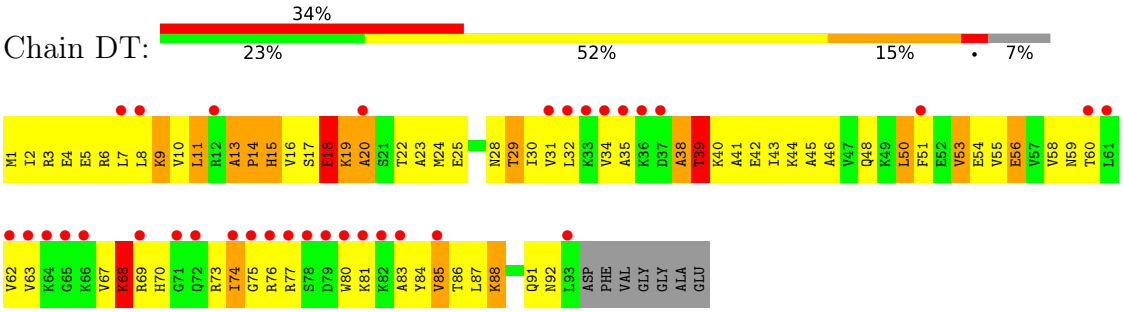
• Molecule 42: 50S ribosomal protein L22



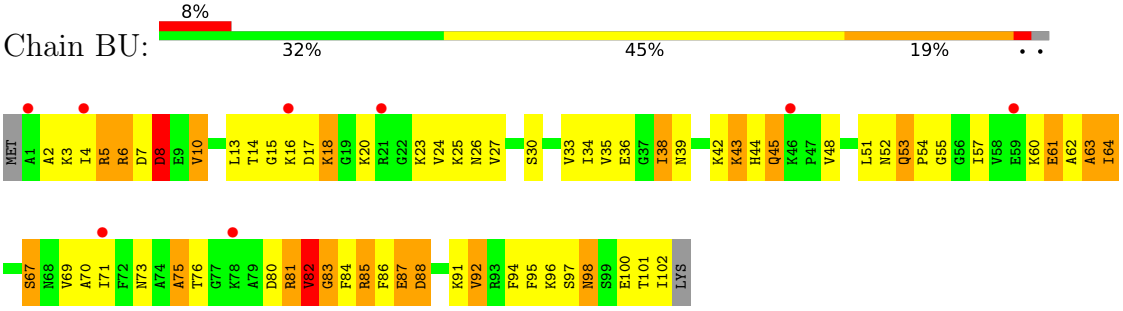
• Molecule 43: 50S ribosomal protein L23



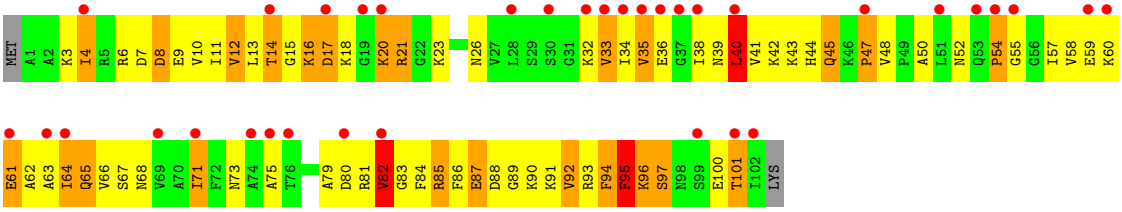
• Molecule 43: 50S ribosomal protein L23



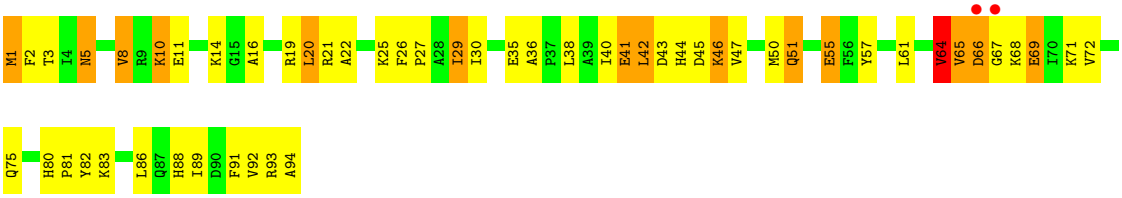
• Molecule 44: 50S ribosomal protein L24



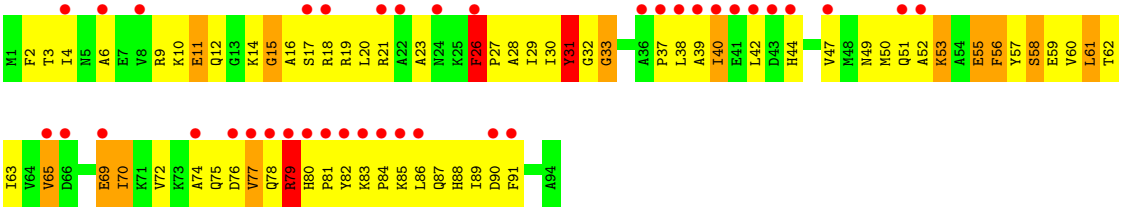
• Molecule 44: 50S ribosomal protein L24



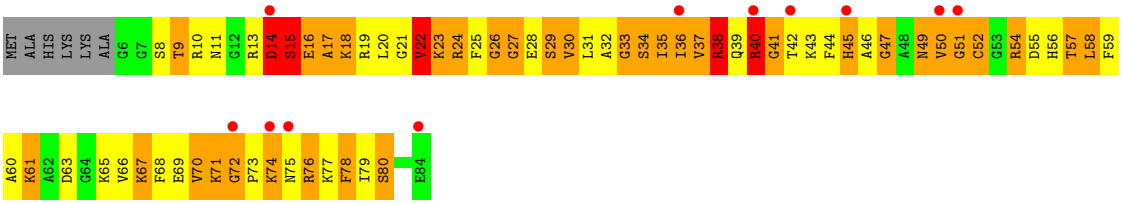
• Molecule 45: 50S ribosomal protein L25



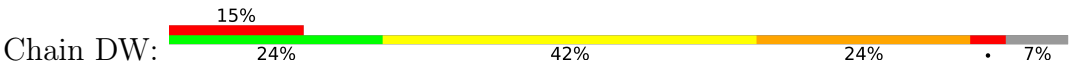
• Molecule 45: 50S ribosomal protein L25

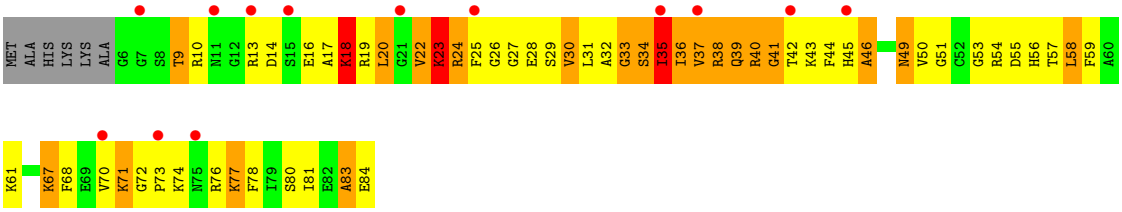


• Molecule 46: 50S ribosomal protein L27



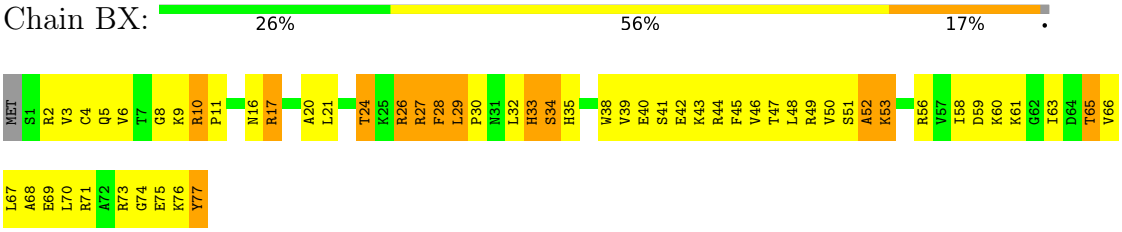
• Molecule 46: 50S ribosomal protein L27





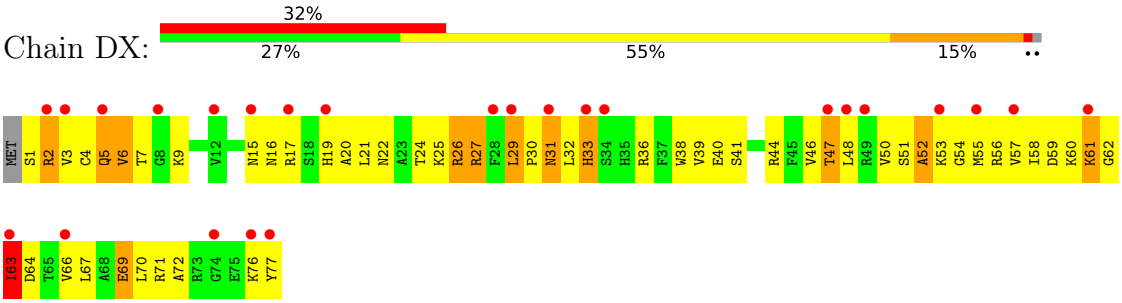
• Molecule 47: 50S ribosomal protein L28

Chain BX:



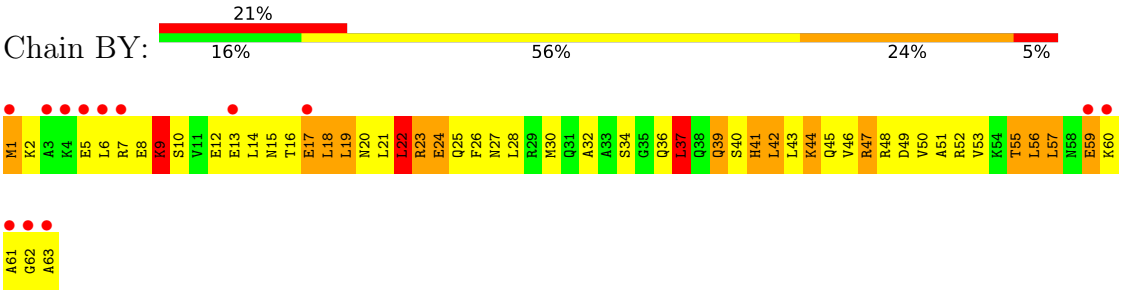
• Molecule 47: 50S ribosomal protein L28

Chain DX:



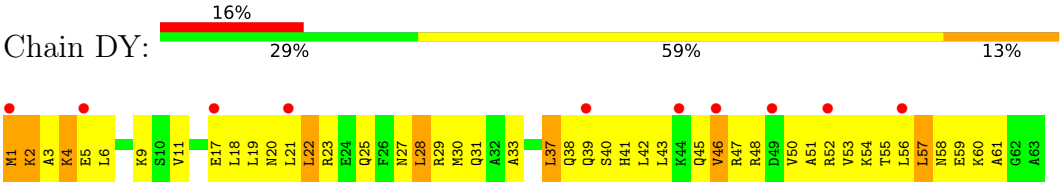
• Molecule 48: 50S ribosomal protein L29

Chain BY:



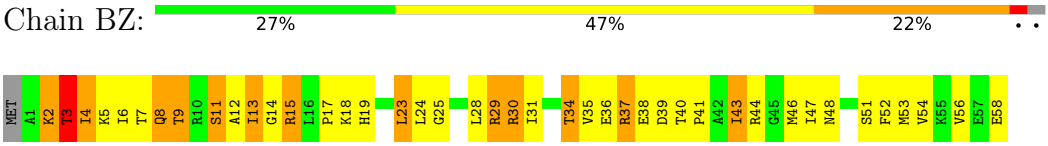
• Molecule 48: 50S ribosomal protein L29

Chain DY:



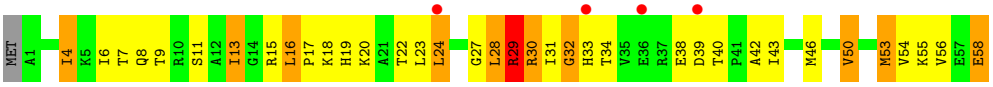
• Molecule 49: 50S ribosomal protein L30

Chain BZ:



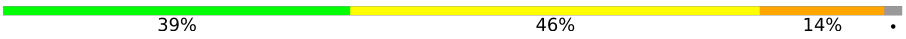
• Molecule 49: 50S ribosomal protein L30

Chain DZ:



• Molecule 50: 50S ribosomal protein L32

Chain B0:

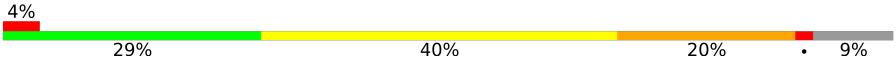


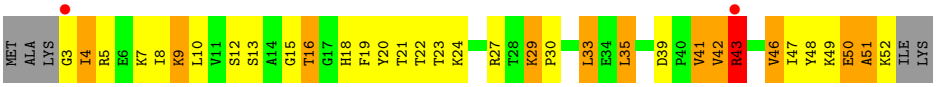
• Molecule 50: 50S ribosomal protein L32

Chain D0:

• Molecule 51: 50S ribosomal protein L33

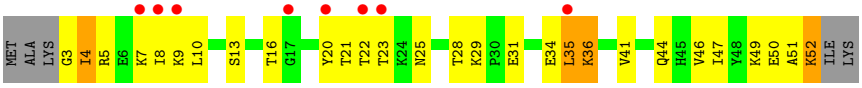
Chain B1:





• Molecule 51: 50S ribosomal protein L33

Chain D1:

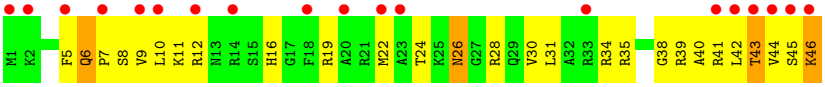


• Molecule 52: 50S ribosomal protein L34

Chain B2:

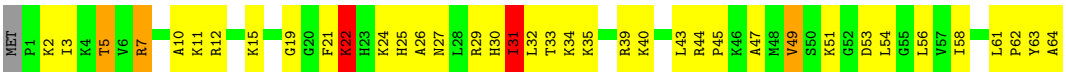
• Molecule 52: 50S ribosomal protein L34

Chain D2:



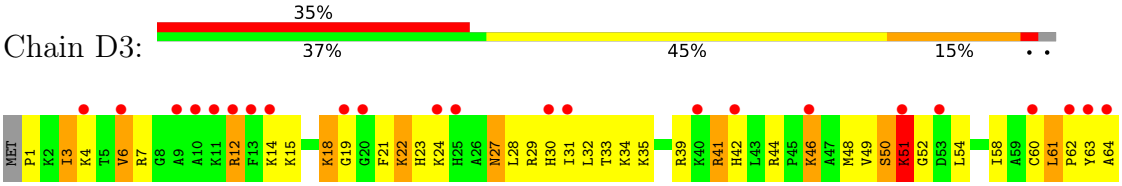
• Molecule 53: 50S ribosomal protein L35

Chain B3:



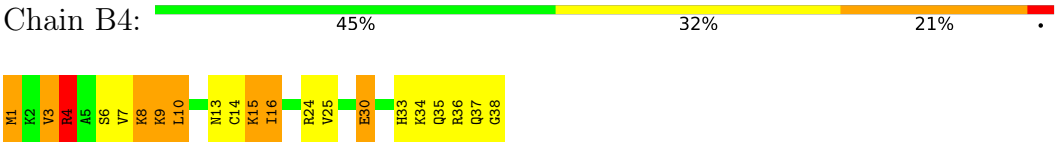
• Molecule 53: 50S ribosomal protein L35

Chain D3:



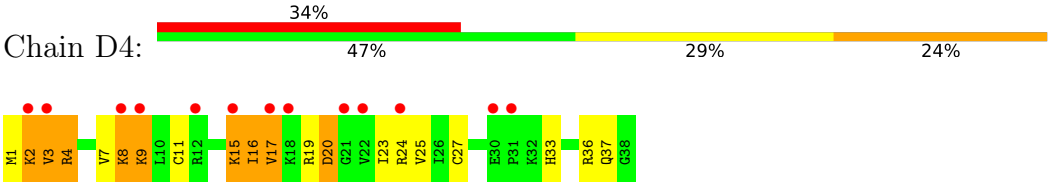
• Molecule 54: 50S ribosomal protein L36

Chain B4:



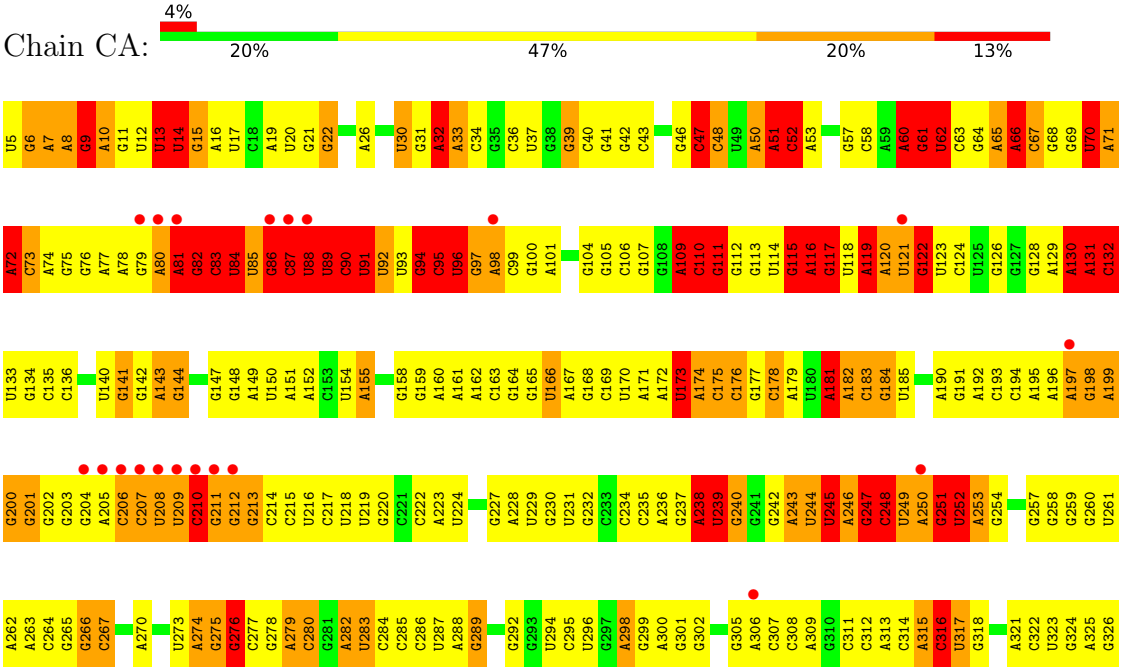
• Molecule 54: 50S ribosomal protein L36

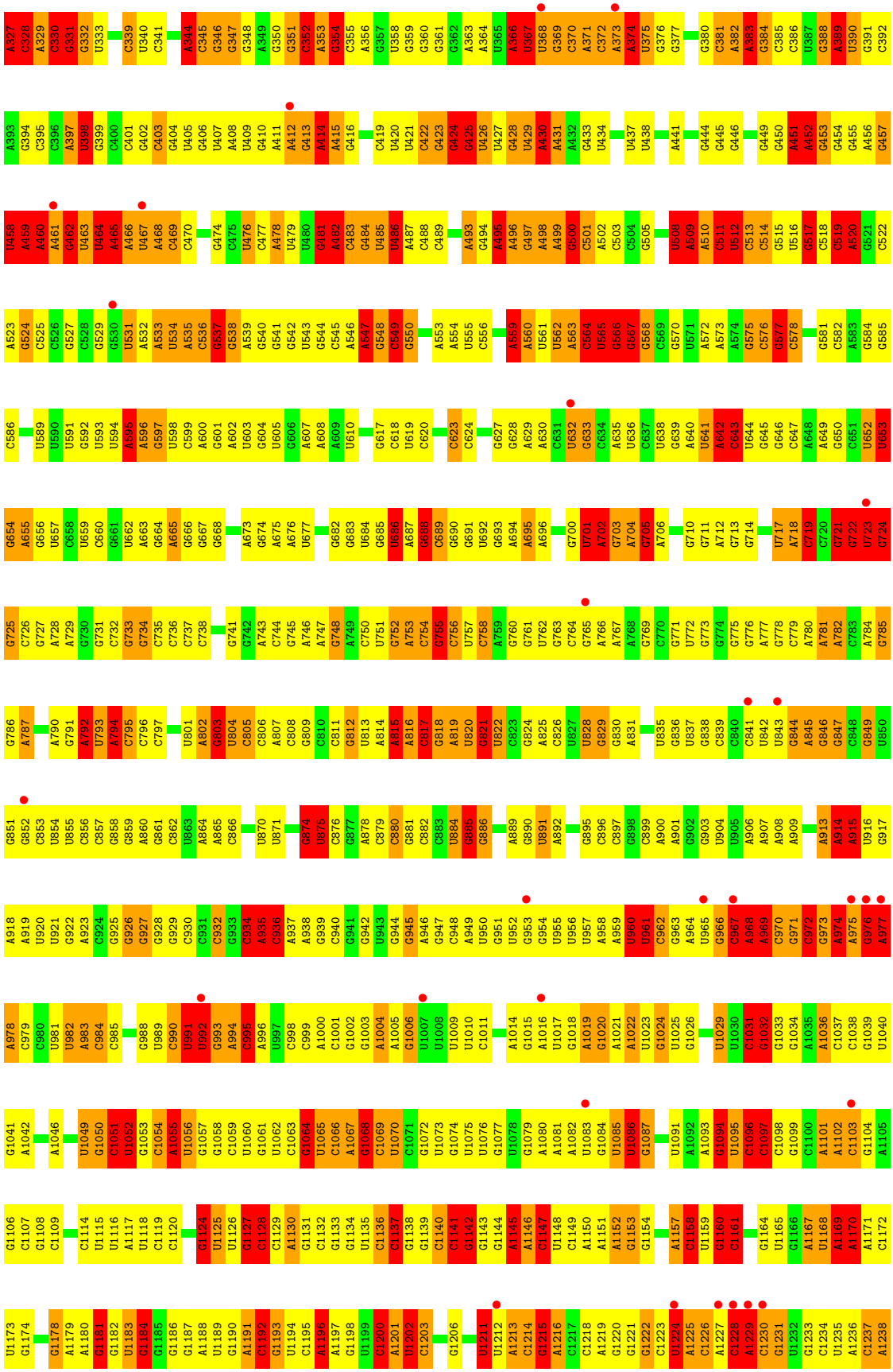
Chain D4:

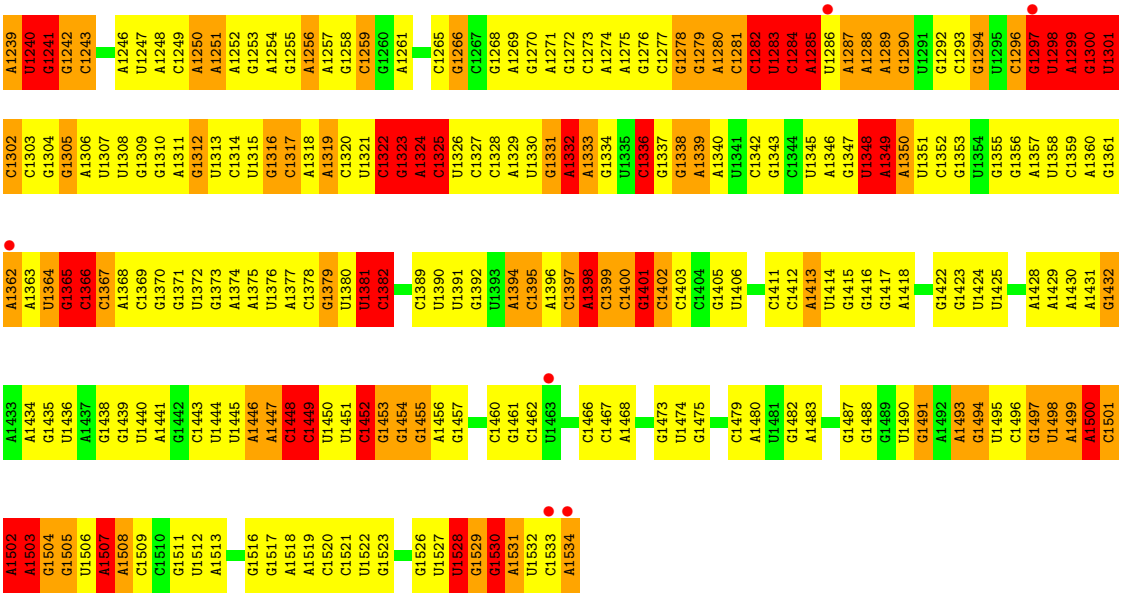


• Molecule 55: 16S rRNA

Chain CA:

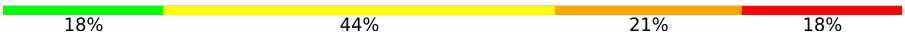


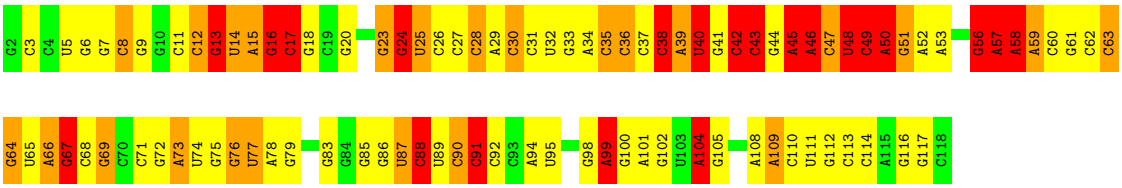




- Molecule 56: 5S rRNA

Chain DB:





4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	210.72Å 435.07Å 628.73Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	75.71 – 3.81 75.71 – 3.81	Depositor EDS
% Data completeness (in resolution range)	78.6 (75.71-3.81) 78.6 (75.71-3.81)	Depositor EDS
R_{merge}	0.11	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.59 (at 3.77Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.207 , 0.253 0.226 , 0.269	Depositor DCC
R_{free} test set	8842 reflections (2.02%)	wwPDB-VP
Wilson B-factor (Å^2)	99.2	Xtriage
Anisotropy	0.140	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.24 , 67.1	EDS
L-test for twinning[2]	$< \|L\| > = 0.46$, $< L^2 > = 0.28$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.92	EDS
Total number of atoms	285420	wwPDB-VP
Average B, all atoms (Å^2)	125.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.11% 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

5.1 Standard geometry

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

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	AB	0.38	0/1735	0.86	5/2338 (0.2%)
1	CB	0.38	0/1735	0.89	4/2338 (0.2%)
2	AC	0.39	0/1651	0.84	2/2225 (0.1%)
2	CC	0.39	0/1651	0.81	2/2225 (0.1%)
3	AD	0.38	0/1665	0.77	1/2227 (0.0%)
3	CD	0.45	0/1665	0.85	2/2227 (0.1%)
4	AE	0.53	0/1118	1.02	6/1504 (0.4%)
4	CE	0.47	0/1118	0.87	2/1504 (0.1%)
5	AF	0.37	0/835	0.80	2/1128 (0.2%)
5	CF	0.35	0/835	0.83	3/1128 (0.3%)
6	AG	0.35	0/1195	0.77	0/1602
6	CG	0.38	0/1187	0.80	2/1591 (0.1%)
7	AH	0.38	0/989	0.80	1/1326 (0.1%)
7	CH	0.40	0/989	0.87	1/1326 (0.1%)
8	AI	0.34	0/1034	0.78	1/1375 (0.1%)
8	CI	0.33	0/1034	0.77	0/1375
9	AJ	0.35	0/796	0.84	2/1077 (0.2%)
9	CJ	0.35	0/796	0.84	2/1077 (0.2%)
10	AK	0.36	0/893	0.88	4/1205 (0.3%)
10	CK	0.40	0/893	0.85	0/1205
11	AL	0.45	0/969	0.93	2/1300 (0.2%)
11	CL	0.41	0/969	0.94	2/1300 (0.2%)
12	AM	0.38	0/892	0.87	4/1193 (0.3%)
12	CM	0.45	1/884 (0.1%)	1.04	7/1181 (0.6%)
13	AN	0.35	0/785	0.84	2/1043 (0.2%)
13	CN	0.34	0/780	0.83	2/1036 (0.2%)
14	AO	0.34	0/722	0.79	2/964 (0.2%)
14	CO	0.35	0/722	0.83	2/964 (0.2%)
15	AP	0.39	0/659	0.89	5/884 (0.6%)
15	CP	0.43	0/648	0.82	0/870
16	AQ	0.40	0/657	0.88	0/881
16	CQ	0.37	0/657	0.84	2/881 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	AR	0.33	0/462	0.83	2/621 (0.3%)
17	CR	0.39	0/462	0.83	0/621
18	AS	0.33	0/652	0.76	0/877
18	CS	0.31	0/652	0.84	2/877 (0.2%)
19	AT	0.40	0/671	0.89	3/888 (0.3%)
19	CT	0.35	0/671	0.81	2/888 (0.2%)
20	AU	0.35	0/430	0.86	2/570 (0.4%)
20	CU	0.39	0/430	0.89	1/570 (0.2%)
21	AA	0.38	0/36834	1.04	312/57462 (0.5%)
22	AV	0.38	0/401	0.79	0/622
22	CV	0.32	0/401	0.72	0/622
23	AW	0.56	0/138	1.24	3/212 (1.4%)
23	CW	0.60	0/138	1.50	2/212 (0.9%)
24	BA	0.46	6/68626 (0.0%)	1.18	808/107056 (0.8%)
24	DA	0.38	1/68314 (0.0%)	1.08	649/106569 (0.6%)
25	BB	0.43	0/2828	1.11	31/4410 (0.7%)
26	BC	0.63	0/2121	1.09	17/2852 (0.6%)
26	DC	0.47	0/2121	0.96	6/2852 (0.2%)
27	BD	0.69	0/1586	1.12	4/2134 (0.2%)
27	DD	0.42	0/1586	0.95	7/2134 (0.3%)
28	BE	0.58	0/1571	1.02	7/2113 (0.3%)
28	DE	0.45	0/1571	0.87	2/2113 (0.1%)
29	BF	0.53	1/1434 (0.1%)	0.93	5/1926 (0.3%)
29	DF	0.67	3/1444 (0.2%)	0.99	4/1937 (0.2%)
30	BG	0.53	0/1343	1.00	8/1816 (0.4%)
30	DG	0.38	0/1343	0.85	4/1816 (0.2%)
31	BH	0.70	3/1122 (0.3%)	0.94	2/1515 (0.1%)
31	DH	0.55	2/1122 (0.2%)	0.80	0/1515
32	BI	0.38	0/1046	0.90	2/1410 (0.1%)
32	DI	0.36	0/1046	0.80	2/1410 (0.1%)
33	BJ	0.73	0/1152	1.14	5/1551 (0.3%)
33	DJ	0.50	0/1152	0.97	5/1551 (0.3%)
34	BK	0.72	0/947	1.17	5/1268 (0.4%)
34	DK	0.44	0/947	0.96	3/1268 (0.2%)
35	BL	0.63	0/1054	1.15	5/1403 (0.4%)
35	DL	0.43	0/1054	0.83	0/1403
36	BM	0.63	0/1093	1.11	10/1460 (0.7%)
36	DM	0.56	0/1093	0.99	7/1460 (0.5%)
37	BN	0.65	0/973	1.05	8/1301 (0.6%)
37	DN	0.42	0/973	0.93	2/1301 (0.2%)
38	BO	0.56	0/902	0.92	3/1209 (0.2%)
38	DO	0.59	1/902 (0.1%)	0.95	1/1209 (0.1%)
39	BP	0.60	0/929	1.08	5/1242 (0.4%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
39	DP	0.41	0/929	0.81	1/1242 (0.1%)
40	BQ	0.79	1/960 (0.1%)	1.05	2/1278 (0.2%)
40	DQ	0.48	0/960	0.86	1/1278 (0.1%)
41	BR	0.72	0/829	1.09	3/1107 (0.3%)
41	DR	0.45	0/829	0.86	0/1107
42	BS	0.77	0/864	1.08	1/1156 (0.1%)
42	DS	0.40	0/864	0.84	1/1156 (0.1%)
43	BT	0.57	0/744	1.02	2/994 (0.2%)
43	DT	0.36	0/744	0.84	2/994 (0.2%)
44	BU	0.56	0/787	1.13	4/1051 (0.4%)
44	DU	0.42	0/787	0.86	0/1051
45	BV	0.61	0/766	1.04	5/1025 (0.5%)
45	DV	0.65	1/766 (0.1%)	0.99	3/1025 (0.3%)
46	BW	0.67	0/603	1.20	4/797 (0.5%)
46	DW	0.44	0/603	0.83	2/797 (0.3%)
47	BX	0.57	0/635	0.98	2/848 (0.2%)
47	DX	0.43	0/635	0.92	4/848 (0.5%)
48	BY	0.58	0/510	0.96	2/677 (0.3%)
48	DY	0.38	0/510	0.81	0/677
49	BZ	0.66	0/453	1.04	1/605 (0.2%)
49	DZ	0.42	0/453	0.82	0/605
50	B0	0.54	0/450	1.00	2/599 (0.3%)
50	D0	0.38	0/450	0.87	0/599
51	B1	0.50	0/416	0.97	2/554 (0.4%)
51	D1	0.38	0/416	0.83	0/554
52	B2	0.61	0/380	1.14	3/498 (0.6%)
52	D2	0.41	0/380	0.96	2/498 (0.4%)
53	B3	0.60	0/513	0.98	0/676
53	D3	0.50	0/513	0.89	0/676
54	B4	0.76	0/303	1.29	3/397 (0.8%)
54	D4	0.57	0/303	0.84	0/397
55	CA	0.37	2/36762 (0.0%)	1.05	311/57350 (0.5%)
56	DB	0.43	1/2803 (0.0%)	1.23	45/4371 (1.0%)
All	All	0.43	23/307815 (0.0%)	1.06	2426/460233 (0.5%)

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
27	BD	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
29	DF	0	1
36	DM	0	1
All	All	0	4

All (23) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
29	DF	78	ILE	CA-CB	14.39	1.68	1.54
31	BH	48	GLU	C-O	-10.48	1.11	1.23
31	BH	48	GLU	CA-C	-8.49	1.42	1.52
31	DH	53	GLU	N-CA	-6.38	1.38	1.46
45	DV	31	TYR	CE1-CZ	6.07	1.52	1.38
55	CA	1301	U	C1'-N1	5.77	1.57	1.48
24	BA	1606	C	C1'-N1	5.70	1.57	1.48
24	BA	2884	U	C1'-N1	5.47	1.56	1.48
38	DO	67	ASN	CA-C	5.38	1.59	1.52
29	DF	109	ARG	CZ-NH2	5.29	1.40	1.33
31	BH	47	PHE	C-O	-5.28	1.17	1.24
24	BA	1779	U	C1'-N1	-5.28	1.40	1.48
56	DB	8	C	C1'-N1	5.27	1.56	1.48
24	BA	746	U	C1'-N1	5.24	1.55	1.47
29	DF	109	ARG	CZ-NH1	-5.20	1.25	1.32
24	BA	2573	C	C1'-N1	5.13	1.56	1.48
31	DH	52	ALA	N-CA	5.12	1.52	1.46
24	DA	955	U	C1'-N1	5.11	1.56	1.48
40	BQ	39	ILE	CA-CB	-5.09	1.48	1.54
24	BA	1178	C	C1'-N1	5.08	1.56	1.48
12	CM	3	ILE	CA-CB	5.02	1.61	1.54
29	BF	76	PHE	CA-C	5.00	1.59	1.52
55	CA	88	U	C1'-N1	5.00	1.54	1.47

All (2426) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	DF	78	ILE	CB-CA-C	-15.63	88.10	111.08
44	BU	82	VAL	N-CA-C	14.12	124.58	111.45
24	BA	1330	C	N1-C1'-C2'	-13.65	91.53	112.00
56	DB	49	C	O3'-P-O5'	12.90	123.35	104.00
12	CM	2	ARG	NE-CZ-NH1	-12.44	109.06	121.50
24	DA	1214	A	P-O3'-C3'	-12.27	101.80	120.20
56	DB	104	A	P-O3'-C3'	-12.27	101.80	120.20
21	AA	1103	C	N1-C1'-C2'	-12.18	93.73	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
21	AA	972	C	N1-C1'-C2'	-12.07	93.90	112.00
55	CA	352	C	N1-C1'-C2'	-11.93	94.11	112.00
24	BA	249	C	P-O3'-C3'	11.65	137.67	120.20
24	DA	961	C	P-O3'-C3'	11.64	137.66	120.20
24	BA	1681	G	P-O3'-C3'	11.53	137.49	120.20
24	BA	373	U	N1-C1'-C2'	-11.51	94.73	112.00
24	BA	1461	C	N1-C1'-C2'	-11.47	94.80	112.00
24	DA	1325	U	P-O3'-C3'	11.35	137.22	120.20
24	BA	2616	C	N1-C1'-C2'	-11.23	95.16	112.00
55	CA	913	A	P-O3'-C3'	11.23	137.04	120.20
12	CM	2	ARG	NE-CZ-NH2	11.20	129.28	119.20
24	DA	2460	U	N1-C1'-C2'	-11.19	95.22	112.00
24	DA	364	C	N1-C1'-C2'	-11.12	95.33	112.00
24	BA	1956	U	N1-C1'-C2'	-11.08	95.38	112.00
24	BA	1250	G	P-O3'-C3'	11.03	136.74	120.20
24	BA	2493	U	P-O3'-C3'	-10.98	103.72	120.20
25	BB	52	A	P-O3'-C3'	10.97	136.66	120.20
24	BA	2447	G	P-O3'-C3'	10.95	136.63	120.20
24	BA	2691	C	N1-C1'-C2'	-10.93	95.61	112.00
21	AA	1140	C	N1-C1'-C2'	-10.91	95.64	112.00
24	BA	2036	C	N1-C1'-C2'	-10.88	95.69	112.00
24	DA	1536	C	P-O3'-C3'	10.88	136.51	120.20
29	BF	110	ILE	CB-CA-C	-10.85	98.38	111.08
24	BA	1698	A	P-O3'-C3'	10.73	136.30	120.20
24	DA	1997	C	N1-C1'-C2'	-10.66	96.00	112.00
24	DA	1499	C	N1-C1'-C2'	-10.56	96.17	112.00
55	CA	1381	U	N1-C1'-C2'	-10.48	96.27	112.00
24	DA	2497	A	P-O3'-C3'	10.45	135.88	120.20
24	BA	2283	C	N1-C1'-C2'	-10.45	96.32	112.00
24	DA	2881	U	P-O3'-C3'	-10.44	104.55	120.20
24	BA	2310	C	N1-C1'-C2'	10.43	127.64	112.00
24	DA	739	A	P-O3'-C3'	10.42	135.82	120.20
24	BA	2200	C	N1-C1'-C2'	-10.41	96.39	112.00
55	CA	972	C	N1-C1'-C2'	-10.37	96.44	112.00
24	BA	2645	G	P-O3'-C3'	10.36	135.73	120.20
24	DA	2849	U	P-O3'-C3'	10.36	135.74	120.20
24	BA	2440	C	N1-C1'-C2'	-10.34	96.50	112.00
56	DB	90	C	N1-C1'-C2'	-10.31	96.54	112.00
24	DA	250	G	P-O3'-C3'	-10.30	104.75	120.20
24	BA	790	U	N1-C1'-C2'	-10.26	96.61	112.00
24	DA	2440	C	N1-C1'-C2'	-10.24	96.64	112.00
24	BA	790	U	P-O3'-C3'	-10.23	104.85	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	DA	1803	A	P-O3'-C3'	-10.23	104.86	120.20
31	BH	49	ALA	N-CA-C	-10.21	100.94	113.50
24	BA	53	A	P-O3'-C3'	-10.16	104.96	120.20
21	AA	431	A	P-O3'-C3'	-10.15	104.98	120.20
24	BA	2424	C	N1-C1'-C2'	-10.13	96.81	112.00
24	BA	2504	U	N1-C1'-C2'	-10.13	96.81	112.00
24	BA	413	C	P-O3'-C3'	-10.12	105.02	120.20
21	AA	577	G	P-O3'-C3'	-10.12	105.03	120.20
55	CA	425	G	P-O3'-C3'	-10.11	105.04	120.20
27	BD	172	VAL	N-CA-C	10.09	119.59	111.62
29	DF	109	ARG	NE-CZ-NH2	10.09	128.28	119.20
35	BL	55	MET	CA-C-N	10.07	130.02	119.85
35	BL	55	MET	C-N-CA	10.07	130.02	119.85
55	CA	1301	U	P-O3'-C3'	-10.05	105.12	120.20
55	CA	398	U	N1-C1'-C2'	-10.04	96.93	112.00
24	BA	1972	G	P-O3'-C3'	-10.03	105.16	120.20
24	BA	2725	A	P-O3'-C3'	10.03	135.24	120.20
24	BA	812	C	N1-C1'-C2'	-10.00	97.00	112.00
24	DA	1966	A	P-O3'-C3'	9.99	135.19	120.20
56	DB	17	C	N1-C1'-C2'	-9.98	97.03	112.00
55	CA	1283	U	N1-C1'-C2'	-9.97	97.05	112.00
24	DA	2836	U	N1-C1'-C2'	-9.96	97.06	112.00
24	DA	1810	A	P-O3'-C3'	-9.95	105.28	120.20
21	AA	1159	U	P-O3'-C3'	9.93	135.09	120.20
21	AA	352	C	N1-C1'-C2'	-9.93	97.11	112.00
55	CA	1224	U	P-O3'-C3'	9.92	135.08	120.20
23	CW	5	U	P-O3'-C3'	9.92	135.07	120.20
24	DA	2520	C	N1-C1'-C2'	-9.92	97.12	112.00
24	BA	70	G	P-O3'-C3'	9.90	135.05	120.20
24	DA	364	C	P-O3'-C3'	-9.89	105.36	120.20
24	BA	481	G	P-O3'-C3'	9.89	135.03	120.20
24	BA	217	A	P-O3'-C3'	-9.89	105.37	120.20
24	DA	313	G	P-O3'-C3'	-9.87	105.39	120.20
14	AO	79	GLN	OE1-CD-NE2	-9.82	112.78	122.60
55	CA	915	A	P-O3'-C3'	-9.81	105.49	120.20
14	CO	79	GLN	OE1-CD-NE2	-9.79	112.81	122.60
24	BA	2441	U	N1-C1'-C2'	-9.78	97.33	112.00
24	DA	589	U	N1-C1'-C2'	-9.78	97.33	112.00
55	CA	1228	C	N1-C1'-C2'	-9.78	97.34	112.00
24	DA	670	A	P-O3'-C3'	9.78	134.86	120.20
24	BA	196	A	P-O3'-C3'	9.77	134.85	120.20
24	BA	2383	G	P-O3'-C3'	-9.73	105.61	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BA	991	C	N1-C1'-C2'	-9.72	97.42	112.00
55	CA	328	C	P-O3'-C3'	9.71	134.76	120.20
24	DA	2283	C	N1-C1'-C2'	-9.70	97.46	112.00
24	DA	2314	A	P-O3'-C3'	-9.68	105.68	120.20
55	CA	117	G	P-O3'-C3'	-9.66	105.70	120.20
24	DA	1556	C	P-O3'-C3'	-9.66	105.71	120.20
24	DA	1972	G	P-O3'-C3'	-9.64	105.73	120.20
24	BA	2752	C	N1-C1'-C2'	-9.62	97.56	112.00
24	BA	2428	G	P-O3'-C3'	-9.61	105.79	120.20
24	DA	224	U	P-O3'-C3'	-9.60	105.80	120.20
55	CA	962	C	P-O3'-C3'	-9.60	105.81	120.20
24	BA	571	U	P-O3'-C3'	9.58	134.57	120.20
24	BA	1386	C	N1-C1'-C2'	-9.58	97.63	112.00
24	BA	200	U	N1-C1'-C2'	-9.57	97.64	112.00
55	CA	245	U	N1-C1'-C2'	-9.57	97.64	112.00
55	CA	317	U	N1-C1'-C2'	-9.57	97.65	112.00
24	BA	946	C	N1-C1'-C2'	-9.56	97.65	112.00
24	BA	435	C	N1-C1'-C2'	-9.56	97.66	112.00
24	BA	1345	C	P-O5'-C5'	-9.56	106.56	120.90
24	DA	806	C	N1-C1'-C2'	-9.54	97.69	112.00
21	AA	1033	G	P-O3'-C3'	-9.53	105.91	120.20
21	AA	1495	U	P-O3'-C3'	-9.53	105.91	120.20
24	DA	766	U	N1-C1'-C2'	-9.53	97.71	112.00
24	BA	589	U	N1-C1'-C2'	-9.51	97.73	112.00
55	CA	753	A	P-O3'-C3'	9.51	134.47	120.20
24	DA	1023	U	N1-C1'-C2'	-9.51	97.74	112.00
24	BA	2646	C	N1-C1'-C2'	-9.51	97.74	112.00
24	BA	2214	C	N1-C1'-C2'	-9.49	97.76	112.00
24	BA	2893	A	P-O3'-C3'	9.47	134.41	120.20
24	BA	1499	C	N1-C1'-C2'	-9.47	97.80	112.00
24	DA	2338	C	N1-C1'-C2'	-9.47	97.80	112.00
24	DA	436	C	N1-C1'-C2'	-9.46	97.80	112.00
55	CA	1068	G	P-O3'-C3'	-9.46	106.01	120.20
24	DA	224	U	N1-C1'-C2'	-9.45	97.82	112.00
24	DA	588	U	N1-C1'-C2'	-9.45	97.82	112.00
55	CA	1503	A	P-O3'-C3'	9.45	134.37	120.20
21	AA	122	G	P-O3'-C3'	-9.44	106.04	120.20
21	AA	331	G	P-O3'-C3'	-9.44	106.04	120.20
24	DA	76	C	N1-C1'-C2'	-9.42	97.87	112.00
21	AA	454	G	P-O3'-C3'	-9.42	106.08	120.20
24	BA	531	C	N1-C1'-C2'	9.42	128.12	114.00
24	BA	142	A	P-O3'-C3'	-9.41	106.08	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BA	2542	A	P-O3'-C3'	9.40	134.31	120.20
24	DA	2024	G	P-O3'-C3'	-9.40	106.10	120.20
24	DA	2752	C	N1-C1'-C2'	-9.39	97.92	112.00
24	BA	509	C	P-O3'-C3'	-9.38	106.12	120.20
21	AA	370	C	N1-C1'-C2'	-9.38	97.93	112.00
24	BA	2326	C	P-O3'-C3'	9.38	134.27	120.20
24	BA	2586	U	N1-C1'-C2'	-9.37	97.94	112.00
24	BA	302	C	N1-C1'-C2'	-9.33	98.00	112.00
21	AA	812	G	P-O3'-C3'	9.31	134.17	120.20
24	BA	279	A	P-O3'-C3'	-9.31	106.24	120.20
21	AA	985	C	P-O3'-C3'	-9.30	106.25	120.20
24	BA	2879	A	P-O3'-C3'	9.29	134.14	120.20
55	CA	1141	C	N1-C1'-C2'	-9.28	98.09	112.00
24	BA	1635	A	P-O3'-C3'	-9.27	106.29	120.20
24	BA	1331	G	P-O3'-C3'	-9.26	106.31	120.20
21	AA	330	C	N1-C1'-C2'	-9.24	98.13	112.00
24	BA	1732	C	P-O3'-C3'	9.24	134.07	120.20
24	BA	1272	A	P-O3'-C3'	9.23	134.05	120.20
55	CA	1298	U	P-O3'-C3'	9.20	134.01	120.20
24	BA	251	A	P-O3'-C3'	-9.18	106.43	120.20
24	BA	739	A	P-O3'-C3'	9.17	133.96	120.20
24	BA	1838	C	P-O3'-C3'	9.17	133.96	120.20
24	BA	803	U	N1-C1'-C2'	-9.13	98.30	112.00
55	CA	184	G	P-O3'-C3'	-9.13	106.50	120.20
24	BA	800	A	P-O3'-C3'	9.13	133.89	120.20
24	DA	740	C	N1-C1'-C2'	-9.11	98.33	112.00
24	BA	449	A	P-O3'-C3'	-9.11	106.53	120.20
24	DA	1478	G	P-O3'-C3'	-9.11	106.54	120.20
21	AA	565	U	N1-C1'-C2'	-9.10	98.35	112.00
21	AA	1345	U	P-O3'-C3'	9.09	133.84	120.20
24	BA	2338	C	N1-C1'-C2'	-9.09	98.36	112.00
24	DA	1849	G	P-O3'-C3'	-9.08	106.59	120.20
24	DA	2334	U	P-O3'-C3'	9.08	133.81	120.20
55	CA	520	A	P-O3'-C3'	-9.07	106.60	120.20
24	DA	2023	C	N1-C1'-C2'	-9.06	98.42	112.00
24	BA	91	A	P-O3'-C3'	9.05	133.78	120.20
24	BA	1398	C	N1-C1'-C2'	-9.05	98.42	112.00
24	DA	2572	A	P-O3'-C3'	9.05	133.78	120.20
21	AA	984	C	N1-C1'-C2'	-9.05	98.43	112.00
21	AA	735	C	N1-C1'-C2'	-9.02	98.47	112.00
24	BA	2497	A	P-O3'-C3'	9.01	133.72	120.20
21	AA	590	U	N1-C1'-C2'	-9.00	98.49	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	BH	48	GLU	O-C-N	8.99	131.11	121.85
55	CA	1161	C	P-O3'-C3'	-8.98	106.73	120.20
55	CA	995	C	P-O3'-C3'	-8.97	106.74	120.20
24	BA	1399	C	N1-C1'-C2'	-8.97	98.55	112.00
24	DA	2646	C	N1-C1'-C2'	-8.94	98.58	112.00
24	BA	1129	A	P-O3'-C3'	-8.94	106.80	120.20
24	DA	2504	U	N1-C1'-C2'	-8.93	98.60	112.00
36	BM	71	LYS	CA-C-N	8.93	131.00	119.84
36	BM	71	LYS	C-N-CA	8.93	131.00	119.84
55	CA	1202	U	N1-C1'-C2'	-8.93	98.60	112.00
55	CA	1449	C	N1-C1'-C2'	-8.93	98.61	112.00
55	CA	132	C	N1-C1'-C2'	-8.93	98.61	112.00
21	AA	14	U	N1-C1'-C2'	-8.92	98.62	112.00
55	CA	96	U	N1-C1'-C2'	-8.92	98.62	112.00
24	DA	2037	A	P-O3'-C3'	-8.91	106.84	120.20
24	BA	2347	C	N1-C1'-C2'	-8.91	98.64	112.00
24	DA	2200	C	N1-C1'-C2'	-8.90	98.65	112.00
55	CA	565	U	N1-C1'-C2'	-8.89	98.66	112.00
21	AA	245	U	N1-C1'-C2'	-8.88	98.68	112.00
55	CA	1096	C	N1-C1'-C2'	-8.87	98.69	112.00
24	DA	229	C	N1-C1'-C2'	-8.85	98.72	112.00
24	BA	589	U	P-O3'-C3'	-8.85	106.92	120.20
24	BA	2866	U	P-O3'-C3'	8.84	133.46	120.20
24	DA	859	G	P-O3'-C3'	8.84	133.45	120.20
24	DA	1963	U	N1-C1'-C2'	-8.83	98.76	112.00
24	DA	1265	A	P-O3'-C3'	8.82	133.43	120.20
24	DA	2251	G	P-O3'-C3'	-8.82	106.98	120.20
55	CA	1142	G	P-O3'-C3'	-8.80	107.00	120.20
55	CA	52	C	N1-C1'-C2'	-8.79	98.82	112.00
24	BA	961	C	P-O3'-C3'	8.78	133.36	120.20
24	BA	231	A	P-O3'-C3'	-8.76	107.06	120.20
24	DA	2611	C	N1-C1'-C2'	-8.76	98.85	112.00
21	AA	97	G	P-O3'-C3'	-8.76	107.06	120.20
24	DA	1049	C	N1-C1'-C2'	-8.76	98.87	112.00
24	BA	795	C	P-O3'-C3'	-8.75	107.08	120.20
24	DA	1956	U	N1-C1'-C2'	-8.74	98.88	112.00
51	B1	39	ASP	CA-C-N	8.72	128.44	119.19
51	B1	39	ASP	C-N-CA	8.72	128.44	119.19
41	BR	9	GLY	N-CA-C	-8.71	102.64	115.63
24	DA	976	G	P-O3'-C3'	-8.70	107.14	120.20
55	CA	111	G	P-O3'-C3'	-8.70	107.15	120.20
24	DA	1386	C	N1-C1'-C2'	-8.70	98.95	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BA	2836	U	P-O5'-C5'	-8.69	107.86	120.90
24	BA	1997	C	P-O3'-C3'	-8.69	107.16	120.20
21	AA	1192	C	N1-C1'-C2'	-8.69	98.97	112.00
55	CA	248	C	P-O3'-C3'	-8.69	107.17	120.20
55	CA	1086	U	N1-C1'-C2'	-8.68	98.97	112.00
24	BA	803	U	P-O3'-C3'	-8.68	107.18	120.20
24	DA	2851	A	P-O3'-C3'	-8.67	107.19	120.20
24	BA	1967	C	N1-C1'-C2'	-8.63	99.05	112.00
24	DA	2347	C	N1-C1'-C2'	-8.63	99.06	112.00
21	AA	122	G	P-O5'-C5'	-8.61	107.98	120.90
55	CA	995	C	N1-C1'-C2'	-8.61	99.08	112.00
21	AA	130	A	P-O3'-C3'	8.61	133.12	120.20
24	DA	1799	G	P-O3'-C3'	8.61	133.11	120.20
56	DB	91	C	N1-C1'-C2'	-8.60	99.10	112.00
55	CA	705	G	P-O3'-C3'	-8.59	107.32	120.20
24	BA	1206	G	P-O3'-C3'	-8.58	107.33	120.20
56	DB	90	C	P-O3'-C3'	-8.57	107.34	120.20
24	BA	73	A	P-O3'-C3'	-8.57	107.35	120.20
24	DA	1304	A	P-O3'-C3'	-8.56	107.36	120.20
24	DA	2581	G	P-O3'-C3'	8.55	133.03	120.20
21	AA	1506	U	P-O3'-C3'	8.55	133.02	120.20
24	DA	435	C	N1-C1'-C2'	-8.53	99.21	112.00
24	BA	1247	A	P-O3'-C3'	8.52	132.98	120.20
24	BA	2820	A	P-O3'-C3'	8.52	132.98	120.20
21	AA	934	C	P-O3'-C3'	8.52	132.97	120.20
24	BA	1648	U	N1-C1'-C2'	-8.51	99.23	112.00
24	BA	1022	G	P-O3'-C3'	8.51	132.97	120.20
24	BA	1499	C	P-O3'-C3'	-8.51	107.44	120.20
24	BA	932	U	P-O3'-C3'	8.50	132.95	120.20
55	CA	1325	C	N1-C1'-C2'	-8.50	99.25	112.00
24	BA	1210	G	P-O3'-C3'	8.49	132.94	120.20
33	BJ	27	ARG	N-CA-C	-8.49	103.05	113.41
24	DA	688	U	N1-C1'-C2'	-8.48	99.28	112.00
55	CA	330	C	N1-C1'-C2'	-8.48	99.29	112.00
55	CA	547	A	P-O3'-C3'	8.48	132.91	120.20
21	AA	1066	C	P-O3'-C3'	-8.47	107.49	120.20
24	DA	241	A	P-O3'-C3'	8.47	132.91	120.20
24	DA	2492	U	N1-C1'-C2'	-8.46	99.30	112.00
24	BA	763	G	P-O3'-C3'	-8.46	107.51	120.20
24	BA	962	G	P-O3'-C3'	-8.46	107.51	120.20
21	AA	52	C	N1-C1'-C2'	-8.46	99.31	112.00
24	BA	92	U	N1-C1'-C2'	-8.46	99.31	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BA	74	A	P-O3'-C3'	8.45	132.88	120.20
21	AA	354	G	P-O3'-C3'	-8.45	107.53	120.20
24	DA	483	A	P-O3'-C3'	-8.44	107.54	120.20
24	DA	1649	G	P-O3'-C3'	-8.44	107.55	120.20
21	AA	1494	G	P-O3'-C3'	-8.42	107.57	120.20
24	BA	990	A	P-O5'-C5'	-8.41	108.28	120.90
24	BA	1931	U	N1-C1'-C2'	-8.40	99.40	112.00
24	BA	2423	U	N1-C1'-C2'	8.39	126.58	114.00
21	AA	1366	C	P-O3'-C3'	-8.38	107.62	120.20
24	DA	1249	U	N1-C1'-C2'	-8.38	99.43	112.00
21	AA	119	A	P-O3'-C3'	8.38	132.76	120.20
21	AA	1161	C	P-O3'-C3'	-8.37	107.64	120.20
24	BA	1329	U	P-O3'-C3'	8.37	132.75	120.20
55	CA	1153	G	P-O3'-C3'	-8.36	107.66	120.20
24	DA	775	G	P-O3'-C3'	8.36	132.74	120.20
24	DA	812	C	N1-C1'-C2'	-8.34	99.49	112.00
24	DA	1788	C	N1-C1'-C2'	-8.34	99.49	112.00
24	BA	2517	C	P-O3'-C3'	8.34	132.70	120.20
55	CA	1147	C	N1-C1'-C2'	-8.33	99.50	112.00
24	BA	944	C	P-O5'-C5'	-8.33	108.41	120.90
21	AA	1283	U	P-O3'-C3'	-8.32	107.72	120.20
24	BA	764	A	P-O3'-C3'	8.32	132.68	120.20
55	CA	537	G	P-O3'-C3'	-8.32	107.73	120.20
24	DA	1020	A	P-O3'-C3'	8.31	132.67	120.20
24	DA	2310	C	N1-C1'-C2'	-8.30	99.55	112.00
24	BA	1654	A	P-O3'-C3'	-8.30	107.75	120.20
24	DA	36	G	P-O3'-C3'	-8.30	107.75	120.20
21	AA	374	A	P-O3'-C3'	-8.29	107.76	120.20
55	CA	13	U	P-O3'-C3'	8.29	132.64	120.20
24	BA	1326	U	P-O3'-C3'	-8.29	107.76	120.20
24	BA	241	A	P-O3'-C3'	8.29	132.63	120.20
55	CA	961	U	N1-C1'-C2'	-8.29	99.56	112.00
24	DA	1314	C	P-O3'-C3'	-8.29	107.77	120.20
21	AA	1495	U	N1-C1'-C2'	-8.29	99.57	112.00
24	DA	1566	A	P-O3'-C3'	8.29	132.63	120.20
21	AA	891	U	N1-C1'-C2'	-8.28	99.59	112.00
42	BS	20	VAL	N-CA-C	-8.28	102.27	110.30
24	BA	227	A	P-O3'-C3'	8.27	132.61	120.20
24	BA	1759	A	P-O3'-C3'	-8.27	107.80	120.20
24	BA	2408	U	N1-C1'-C2'	-8.27	99.60	112.00
24	BA	1033	U	P-O3'-C3'	8.27	132.60	120.20
24	BA	531	C	P-O3'-C3'	8.26	132.59	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	DA	1967	C	N1-C1'-C2'	-8.26	99.61	112.00
24	BA	1524	G	P-O3'-C3'	-8.25	107.82	120.20
24	DA	2586	U	N1-C1'-C2'	-8.25	99.63	112.00
44	BU	84	PHE	N-CA-C	8.24	121.69	109.24
24	BA	1289	C	N1-C1'-C2'	-8.24	99.64	112.00
24	DA	915	C	N1-C1'-C2'	-8.24	99.64	112.00
21	AA	370	C	P-O3'-C3'	-8.24	107.85	120.20
24	DA	1782	U	N1-C1'-C2'	-8.23	99.65	112.00
24	DA	1648	U	N1-C1'-C2'	-8.22	99.67	112.00
34	BK	71	ARG	CA-C-N	-8.21	109.57	119.84
34	BK	71	ARG	C-N-CA	-8.21	109.57	119.84
21	AA	961	U	N1-C1'-C2'	-8.21	99.69	112.00
24	BA	1112	G	P-O3'-C3'	-8.20	107.89	120.20
21	AA	1202	U	N1-C1'-C2'	-8.20	99.70	112.00
24	BA	1993	U	N1-C1'-C2'	-8.20	99.70	112.00
19	AT	68	LYS	CB-CA-C	-8.19	107.12	116.63
24	BA	197	A	P-O3'-C3'	-8.20	107.91	120.20
24	BA	1023	U	N1-C1'-C2'	-8.19	99.71	112.00
55	CA	719	C	P-O3'-C3'	-8.20	107.91	120.20
24	BA	1675	C	N1-C1'-C2'	-8.19	99.71	112.00
24	DA	1867	G	P-O3'-C3'	-8.19	107.91	120.20
24	BA	586	A	P-O5'-C5'	-8.18	108.63	120.90
24	BA	335	C	N1-C1'-C2'	-8.18	99.74	112.00
21	AA	814	A	P-O3'-C3'	-8.16	107.95	120.20
24	BA	2894	G	P-O3'-C3'	-8.16	107.95	120.20
24	DA	622	G	P-O3'-C3'	-8.16	107.96	120.20
24	DA	1681	G	P-O3'-C3'	8.16	132.44	120.20
24	BA	1602	U	P-O3'-C3'	8.15	132.43	120.20
24	BA	2808	G	P-O3'-C3'	8.15	132.42	120.20
28	BE	176	ASP	CA-C-N	8.15	127.44	118.97
28	BE	176	ASP	C-N-CA	8.15	127.44	118.97
24	BA	313	G	P-O3'-C3'	-8.14	107.99	120.20
24	DA	741	U	N1-C1'-C2'	-8.14	99.79	112.00
26	BC	12	ARG	N-CA-C	-8.14	103.95	114.04
27	BD	117	GLY	N-CA-C	8.13	124.61	114.37
21	AA	1528	U	N1-C1'-C2'	8.12	126.19	114.00
24	BA	2581	G	P-O3'-C3'	8.12	132.39	120.20
47	DX	29	LEU	N-CA-C	8.12	115.30	108.07
24	DA	2403	C	N1-C1'-C2'	-8.11	99.83	112.00
24	DA	1811	G	P-O3'-C3'	-8.11	108.03	120.20
21	AA	495	A	P-O3'-C3'	8.10	132.34	120.20
21	AA	347	G	P-O3'-C3'	-8.09	108.06	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	DA	752	A	P-O3'-C3'	8.09	132.33	120.20
56	DB	102	G	O3'-P-O5'	-8.09	91.87	104.00
24	BA	806	C	N1-C1'-C2'	-8.09	99.87	112.00
24	BA	2439	A	P-O3'-C3'	8.09	132.33	120.20
24	DA	646	U	P-O3'-C3'	8.08	132.32	120.20
24	DA	2402	U	N1-C1'-C2'	-8.07	99.90	112.00
24	BA	1385	A	P-O3'-C3'	8.06	132.29	120.20
24	BA	2585	U	P-O3'-C3'	8.06	132.28	120.20
24	DA	860	U	N1-C1'-C2'	-8.05	99.92	112.00
55	CA	962	C	N1-C1'-C2'	-8.04	99.94	112.00
24	DA	2320	U	O3'-P-O5'	-8.04	91.94	104.00
3	CD	166	LYS	CA-C-N	8.04	128.52	119.92
3	CD	166	LYS	C-N-CA	8.04	128.52	119.92
24	DA	128	C	N1-C1'-C2'	-8.03	99.95	112.00
24	BA	2517	C	O3'-P-O5'	-8.02	91.97	104.00
24	BA	1981	A	P-O5'-C5'	-8.02	108.87	120.90
24	DA	2069	G	P-O3'-C3'	-8.02	108.17	120.20
21	AA	1455	G	P-O3'-C3'	-8.02	108.18	120.20
24	DA	2778	A	P-O3'-C3'	8.02	132.22	120.20
24	DA	638	G	P-O3'-C3'	-8.01	108.18	120.20
56	DB	48	U	P-O3'-C3'	-8.01	108.18	120.20
25	BB	16	G	P-O3'-C3'	-8.01	108.19	120.20
24	DA	2337	G	P-O3'-C3'	-8.00	108.20	120.20
24	DA	973	A	P-O3'-C3'	7.99	132.19	120.20
55	CA	936	C	N1-C1'-C2'	-7.99	100.02	112.00
45	DV	26	PHE	CA-C-N	7.98	128.60	120.14
45	DV	26	PHE	C-N-CA	7.98	128.60	120.14
24	BA	1345	C	N1-C1'-C2'	-7.98	100.03	112.00
24	BA	1273	U	P-O5'-C5'	-7.98	108.93	120.90
55	CA	821	G	P-O3'-C3'	-7.97	108.24	120.20
24	DA	1013	C	N1-C1'-C2'	-7.97	100.04	112.00
56	DB	50	A	P-O3'-C3'	7.97	132.15	120.20
24	DA	1569	A	P-O3'-C3'	-7.96	108.26	120.20
24	BA	1539	U	N1-C1'-C2'	-7.96	100.06	112.00
24	BA	2287	A	P-O3'-C3'	7.96	132.14	120.20
24	DA	390	U	P-O3'-C3'	7.96	132.13	120.20
24	DA	1080	A	P-O3'-C3'	-7.95	108.27	120.20
26	BC	93	VAL	N-CA-C	7.95	118.80	112.12
24	BA	27	G	P-O3'-C3'	7.94	132.12	120.20
24	BA	1634	A	P-O3'-C3'	7.94	132.12	120.20
24	BA	805	G	P-O3'-C3'	7.94	132.11	120.20
24	DA	688	U	P-O3'-C3'	-7.94	108.29	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
41	BR	51	VAL	CA-C-N	-7.94	111.72	120.14
41	BR	51	VAL	C-N-CA	-7.94	111.72	120.14
24	DA	1708	C	P-O3'-C3'	-7.94	108.29	120.20
24	DA	2034	U	N1-C1'-C2'	-7.93	100.11	112.00
24	BA	2408	U	P-O3'-C3'	-7.93	108.31	120.20
21	AA	315	A	P-O3'-C3'	7.92	132.08	120.20
24	BA	933	A	P-O3'-C3'	-7.92	108.32	120.20
24	BA	1013	C	N1-C1'-C2'	-7.92	100.12	112.00
24	BA	267	C	N1-C1'-C2'	-7.91	100.14	112.00
55	CA	1259	C	P-O3'-C3'	-7.90	108.35	120.20
55	CA	1382	C	N1-C1'-C2'	-7.90	100.15	112.00
21	AA	316	C	N1-C1'-C2'	-7.90	100.15	112.00
24	BA	784	G	P-O3'-C3'	7.90	132.05	120.20
24	BA	2249	U	N1-C1'-C2'	7.90	125.85	114.00
24	BA	752	A	P-O3'-C3'	7.90	132.04	120.20
24	BA	782	A	P-O3'-C3'	7.90	132.04	120.20
55	CA	1161	C	N1-C1'-C2'	-7.89	100.16	112.00
56	DB	49	C	P-O5'-C5'	7.88	132.73	120.90
24	BA	301	G	P-O3'-C3'	7.88	132.02	120.20
55	CA	460	A	P-O3'-C3'	-7.88	108.38	120.20
21	AA	451	A	P-O3'-C3'	7.88	132.01	120.20
24	BA	603	A	P-O3'-C3'	7.87	132.00	120.20
21	AA	266	G	P-O3'-C3'	7.87	132.00	120.20
55	CA	1192	C	P-O3'-C3'	-7.87	108.40	120.20
21	AA	812	G	O3'-P-O5'	-7.87	92.20	104.00
24	DA	1247	A	P-O3'-C3'	7.87	132.00	120.20
24	DA	1158	C	N1-C1'-C2'	-7.86	100.21	112.00
55	CA	1215	G	P-O3'-C3'	-7.85	108.42	120.20
21	AA	536	C	N1-C1'-C2'	-7.85	100.22	112.00
24	DA	2200	C	P-O3'-C3'	-7.85	108.42	120.20
55	CA	643	C	N1-C1'-C2'	-7.85	100.22	112.00
24	DA	865	C	P-O3'-C3'	7.84	131.97	120.20
24	DA	997	G	P-O3'-C3'	-7.84	108.44	120.20
24	DA	164	C	P-O3'-C3'	-7.83	108.45	120.20
24	DA	104	A	P-O3'-C3'	-7.83	108.45	120.20
24	BA	976	G	P-O5'-C5'	-7.83	109.16	120.90
55	CA	1285	A	P-O3'-C3'	7.82	131.93	120.20
24	DA	1615	C	N1-C1'-C2'	7.81	125.71	114.00
24	DA	1932	A	P-O3'-C3'	-7.80	108.50	120.20
24	BA	2498	C	N1-C1'-C2'	-7.79	100.31	112.00
24	DA	2249	U	P-O3'-C3'	7.79	131.89	120.20
24	DA	423	A	P-O3'-C3'	-7.79	108.52	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	DA	217	A	P-O3'-C3'	-7.79	108.52	120.20
56	DB	88	C	N1-C1'-C2'	7.79	125.68	114.00
21	AA	965	U	P-O3'-C3'	7.78	131.87	120.20
24	BA	369	U	N1-C1'-C2'	7.78	123.67	112.00
55	CA	87	C	N1-C1'-C2'	-7.77	100.34	112.00
24	DA	1957	C	P-O3'-C3'	-7.77	108.55	120.20
25	BB	90	C	N1-C1'-C2'	-7.76	100.36	112.00
24	DA	503	A	P-O3'-C3'	7.76	131.84	120.20
55	CA	510	A	P-O5'-C5'	-7.76	109.27	120.90
24	BA	1965	C	P-O3'-C3'	-7.75	108.57	120.20
55	CA	701	U	P-O3'-C3'	7.75	131.83	120.20
55	CA	1192	C	N1-C1'-C2'	-7.75	100.37	112.00
24	BA	374	A	P-O3'-C3'	-7.74	108.58	120.20
24	DA	1931	U	P-O3'-C3'	-7.74	108.58	120.20
24	DA	1158	C	P-O3'-C3'	-7.74	108.59	120.20
24	DA	1267	U	N1-C1'-C2'	-7.74	100.39	112.00
24	DA	527	C	P-O3'-C3'	7.74	131.81	120.20
24	DA	200	U	N1-C1'-C2'	-7.74	100.40	112.00
24	DA	1758	U	N1-C1'-C2'	7.74	125.60	114.00
55	CA	316	C	N1-C1'-C2'	-7.73	100.40	112.00
21	AA	1337	G	P-O3'-C3'	-7.73	108.60	120.20
24	DA	2061	G	P-O3'-C3'	7.72	131.78	120.20
24	BA	483	A	P-O3'-C3'	-7.72	108.62	120.20
21	AA	47	C	P-O3'-C3'	7.71	131.77	120.20
55	CA	1382	C	P-O3'-C3'	-7.71	108.63	120.20
24	BA	555	G	P-O3'-C3'	7.71	131.76	120.20
24	DA	1524	G	P-O3'-C3'	-7.70	108.64	120.20
24	DA	389	G	P-O3'-C3'	-7.70	108.65	120.20
24	BA	506	G	P-O3'-C3'	7.70	131.75	120.20
24	BA	1287	A	P-O3'-C3'	-7.70	108.65	120.20
55	CA	717	U	N1-C1'-C2'	7.70	125.55	114.00
24	DA	1971	U	N1-C1'-C2'	-7.70	100.45	112.00
24	BA	2612	C	P-O3'-C3'	-7.70	108.66	120.20
21	AA	1401	G	P-O3'-C3'	-7.69	108.67	120.20
24	DA	2777	G	P-O3'-C3'	-7.69	108.67	120.20
24	BA	2681	C	P-O3'-C3'	7.68	131.72	120.20
24	BA	2266	A	P-O3'-C3'	7.68	131.72	120.20
24	DA	1982	U	N1-C1'-C2'	-7.68	100.48	112.00
24	DA	2068	U	N1-C1'-C2'	-7.67	100.49	112.00
24	DA	2101	A	P-O3'-C3'	-7.67	108.69	120.20
24	DA	1126	A	P-O3'-C3'	7.65	131.68	120.20
24	BA	1268	A	P-O3'-C3'	-7.65	108.72	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	DA	2501	C	N1-C1'-C2'	7.65	123.48	112.00
24	BA	1072	C	P-O3'-C3'	-7.65	108.73	120.20
55	CA	110	C	N1-C1'-C2'	-7.65	100.53	112.00
24	DA	916	G	P-O3'-C3'	-7.65	108.73	120.20
24	BA	138	U	N1-C1'-C2'	-7.64	100.54	112.00
24	DA	1936	A	P-O3'-C3'	7.63	131.64	120.20
24	DA	243	U	N1-C1'-C2'	-7.63	100.56	112.00
24	BA	84	A	P-O3'-C3'	7.62	131.64	120.20
24	DA	1491	G	P-O3'-C3'	-7.62	108.77	120.20
55	CA	992	U	P-O3'-C3'	7.61	131.62	120.20
24	DA	1207	C	P-O3'-C3'	-7.61	108.78	120.20
24	BA	1027	A	P-O3'-C3'	-7.61	108.78	120.20
24	BA	334	C	N1-C1'-C2'	-7.61	100.59	112.00
24	DA	2896	C	N1-C1'-C2'	-7.60	100.60	112.00
21	AA	244	U	P-O5'-C5'	-7.60	109.51	120.90
24	BA	2136	G	P-O3'-C3'	-7.59	108.81	120.20
52	D2	6	GLN	CA-C-N	7.59	127.64	119.90
52	D2	6	GLN	C-N-CA	7.59	127.64	119.90
24	BA	811	U	N1-C1'-C2'	7.58	125.37	114.00
24	BA	1965	C	N1-C1'-C2'	-7.58	100.63	112.00
55	CA	936	C	P-O3'-C3'	-7.58	108.83	120.20
24	DA	2613	U	P-O3'-C3'	7.58	131.57	120.20
24	BA	1675	C	P-O3'-C3'	-7.57	108.84	120.20
21	AA	687	A	P-O3'-C3'	7.57	131.55	120.20
24	BA	2447	G	O3'-P-O5'	7.57	115.35	104.00
56	DB	8	C	N1-C1'-C2'	7.57	123.35	112.00
21	AA	513	C	P-O3'-C3'	-7.57	108.85	120.20
21	AA	115	G	P-O3'-C3'	7.56	131.55	120.20
24	BA	1267	U	N1-C1'-C2'	-7.56	100.66	112.00
55	CA	132	C	P-O3'-C3'	-7.56	108.86	120.20
24	DA	802	A	P-O3'-C3'	-7.56	108.86	120.20
24	DA	2297	A	P-O3'-C3'	-7.56	108.86	120.20
24	BA	1865	U	N1-C1'-C2'	7.55	125.33	114.00
24	DA	2312	U	C5'-C4'-C3'	-7.55	104.67	116.00
24	BA	1021	A	P-O3'-C3'	-7.55	108.87	120.20
21	AA	547	A	P-O3'-C3'	7.54	131.50	120.20
21	AA	1303	C	P-O3'-C3'	-7.53	108.90	120.20
24	DA	2713	U	N1-C1'-C2'	7.53	125.30	114.00
55	CA	1301	U	P-O5'-C5'	-7.53	109.61	120.90
24	DA	989	G	P-O3'-C3'	7.53	131.50	120.20
27	DD	151	THR	CA-C-N	-7.53	110.43	119.84
27	DD	151	THR	C-N-CA	-7.53	110.43	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BA	931	U	N1-C1'-C2'	7.52	123.28	112.00
24	BA	206	U	N1-C1'-C2'	-7.52	100.72	112.00
21	AA	486	U	P-O5'-C5'	-7.51	109.63	120.90
24	BA	2520	C	N1-C1'-C2'	-7.51	100.73	112.00
24	DA	2585	U	P-O3'-C3'	7.51	131.47	120.20
24	BA	2275	C	P-O3'-C3'	7.51	131.47	120.20
24	DA	62	U	P-O3'-C3'	-7.51	108.94	120.20
24	DA	142	A	P-O3'-C3'	-7.51	108.94	120.20
21	AA	422	C	P-O3'-C3'	7.51	131.46	120.20
24	BA	2874	C	N1-C1'-C2'	-7.51	100.74	112.00
24	BA	2273	A	P-O5'-C5'	-7.50	109.65	120.90
55	CA	1052	U	P-O3'-C3'	-7.50	108.95	120.20
55	CA	84	U	P-O3'-C3'	7.49	131.43	120.20
55	CA	276	G	P-O3'-C3'	-7.49	108.97	120.20
24	BA	1462	C	N1-C1'-C2'	-7.49	100.77	112.00
24	DA	1511	G	P-O3'-C3'	-7.49	108.97	120.20
55	CA	62	U	P-O3'-C3'	-7.48	108.98	120.20
24	DA	206	U	N1-C1'-C2'	-7.48	100.78	112.00
55	CA	210	C	P-O3'-C3'	7.48	131.42	120.20
24	BA	1126	A	P-O3'-C3'	7.47	131.41	120.20
21	AA	753	A	P-O3'-C3'	7.47	131.40	120.20
21	AA	564	C	N1-C1'-C2'	-7.47	100.80	112.00
55	CA	565	U	P-O3'-C3'	-7.46	109.00	120.20
24	DA	2586	U	P-O3'-C3'	-7.46	109.01	120.20
24	DA	273	G	P-O3'-C3'	-7.46	109.01	120.20
24	BA	765	C	N1-C1'-C2'	-7.45	100.83	112.00
24	DA	1607	C	P-O3'-C3'	7.45	131.37	120.20
30	BG	22	VAL	CB-CA-C	-7.45	102.95	111.59
55	CA	1284	C	N1-C1'-C2'	-7.45	100.83	112.00
24	BA	398	C	P-O5'-C5'	-7.44	109.73	120.90
55	CA	317	U	P-O3'-C3'	-7.43	109.06	120.20
55	CA	723	U	N1-C1'-C2'	-7.42	100.86	112.00
24	DA	436	C	P-O3'-C3'	-7.42	109.07	120.20
55	CA	1259	C	N1-C1'-C2'	-7.42	100.87	112.00
24	BA	1667	G	P-O3'-C3'	7.42	131.32	120.20
24	DA	672	C	P-O3'-C3'	-7.41	109.08	120.20
24	DA	2280	G	P-O3'-C3'	-7.41	109.08	120.20
24	DA	1931	U	N1-C1'-C2'	-7.41	100.88	112.00
43	DT	13	ALA	N-CA-C	7.41	114.79	108.13
24	BA	913	U	P-O3'-C3'	7.40	131.31	120.20
24	DA	729	G	P-O3'-C3'	-7.40	109.10	120.20
24	BA	1971	U	P-O3'-C3'	-7.40	109.10	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	CA	96	U	P-O3'-C3'	-7.40	109.10	120.20
24	DA	2850	A	P-O5'-C5'	-7.40	109.81	120.90
24	BA	2319	G	P-O3'-C3'	7.39	131.29	120.20
21	AA	5	U	P-O3'-C3'	7.39	131.29	120.20
55	CA	1097	C	N1-C1'-C2'	-7.39	100.91	112.00
24	BA	1009	A	P-O5'-C5'	-7.38	109.83	120.90
24	DA	1655	A	P-O3'-C3'	-7.38	109.13	120.20
24	BA	645	C	N1-C1'-C2'	7.38	125.07	114.00
54	B4	30	GLU	CA-C-N	7.38	127.73	119.32
54	B4	30	GLU	C-N-CA	7.38	127.73	119.32
21	AA	1201	A	P-O3'-C3'	7.38	131.26	120.20
24	DA	1207	C	N1-C1'-C2'	-7.38	100.93	112.00
24	BA	1345	C	P-O3'-C3'	-7.38	109.14	120.20
24	BA	62	U	P-O3'-C3'	7.37	131.25	120.20
28	BE	39	ALA	N-CA-C	-7.37	103.76	112.89
24	BA	1962	C	P-O3'-C3'	7.36	131.24	120.20
12	CM	2	ARG	CB-CG-CD	-7.36	94.37	111.30
24	DA	531	C	N1-C1'-C2'	7.36	125.04	114.00
24	DA	867	C	P-O3'-C3'	-7.35	109.17	120.20
21	AA	467	U	N1-C1'-C2'	-7.35	100.98	112.00
24	BA	1113	U	P-O3'-C3'	-7.34	109.18	120.20
24	BA	1802	A	P-O3'-C3'	-7.34	109.18	120.20
55	CA	935	A	P-O3'-C3'	-7.34	109.19	120.20
24	BA	784	G	O3'-P-O5'	-7.34	92.99	104.00
27	DD	193	VAL	CA-C-N	7.34	129.01	119.84
27	DD	193	VAL	C-N-CA	7.34	129.01	119.84
25	BB	14	U	P-O3'-C3'	7.33	131.19	120.20
21	AA	513	C	N1-C1'-C2'	-7.33	101.01	112.00
24	BA	1265	A	P-O3'-C3'	7.32	131.18	120.20
55	CA	130	A	P-O3'-C3'	7.32	131.18	120.20
55	CA	81	A	P-O3'-C3'	7.32	131.17	120.20
24	BA	1954	G	P-O3'-C3'	7.30	131.15	120.20
55	CA	960	U	O4'-C1'-N1	7.30	119.16	108.20
21	AA	754	C	P-O3'-C3'	-7.30	109.25	120.20
24	DA	1400	U	P-O3'-C3'	-7.30	109.25	120.20
24	DA	1400	U	N1-C1'-C2'	-7.30	101.05	112.00
16	CQ	30	HIS	CA-C-N	7.29	128.96	119.84
16	CQ	30	HIS	C-N-CA	7.29	128.96	119.84
55	CA	549	C	N1-C1'-C2'	-7.29	101.06	112.00
55	CA	1052	U	N1-C1'-C2'	-7.29	101.06	112.00
24	DA	1611	C	N1-C1'-C2'	-7.29	101.06	112.00
21	AA	1288	A	P-O3'-C3'	-7.29	109.27	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BA	1997	C	N1-C1'-C2'	-7.28	101.08	112.00
24	DA	2238	G	O3'-P-O5'	7.28	114.92	104.00
24	BA	1964	G	P-O3'-C3'	7.28	131.12	120.20
5	CF	49	TYR	CA-C-N	7.28	128.93	119.84
5	CF	49	TYR	C-N-CA	7.28	128.93	119.84
21	AA	109	A	P-O3'-C3'	7.27	131.11	120.20
55	CA	251	G	P-O3'-C3'	7.27	131.11	120.20
24	DA	60	G	P-O3'-C3'	7.26	131.09	120.20
24	BA	1784	A	P-O3'-C3'	7.26	131.09	120.20
24	DA	946	C	N1-C1'-C2'	-7.26	101.12	112.00
56	DB	28	C	P-O5'-C5'	-7.25	110.02	120.90
1	AB	23	ASN	CA-C-N	7.25	126.92	119.82
1	AB	23	ASN	C-N-CA	7.25	126.92	119.82
24	DA	1498	C	N1-C1'-C2'	-7.25	101.13	112.00
55	CA	210	C	N1-C1'-C2'	7.24	122.86	112.00
9	CJ	40	ILE	CA-C-N	7.24	126.74	118.85
9	CJ	40	ILE	C-N-CA	7.24	126.74	118.85
24	DA	2214	C	N1-C1'-C2'	-7.24	101.14	112.00
21	AA	1278	G	P-O3'-C3'	7.24	131.06	120.20
24	DA	2239	G	P-O3'-C3'	-7.24	109.34	120.20
24	BA	990	A	P-O3'-C3'	-7.24	109.35	120.20
24	BA	2539	C	P-O3'-C3'	-7.24	109.35	120.20
55	CA	1200	C	N1-C1'-C2'	7.24	122.85	112.00
55	CA	1124	G	P-O3'-C3'	7.23	131.04	120.20
24	DA	2691	C	N1-C1'-C2'	-7.22	101.16	112.00
24	DA	476	G	P-O3'-C3'	-7.22	109.37	120.20
24	DA	2322	A	P-O3'-C3'	-7.22	109.37	120.20
24	DA	1291	C	N1-C1'-C2'	-7.22	101.17	112.00
24	DA	1993	U	N1-C1'-C2'	-7.22	101.17	112.00
24	BA	2051	A	P-O3'-C3'	7.21	131.02	120.20
24	BA	2239	G	P-O5'-C5'	-7.21	110.08	120.90
24	DA	1839	G	P-O5'-C5'	-7.21	110.08	120.90
24	BA	1156	A	P-O5'-C5'	7.21	131.71	120.90
24	DA	271	G	P-O3'-C3'	7.21	131.01	120.20
24	DA	1556	C	N1-C1'-C2'	-7.21	101.19	112.00
24	BA	2499	C	P-O5'-C5'	-7.21	110.09	120.90
24	BA	2492	U	N1-C1'-C2'	-7.20	101.20	112.00
21	AA	13	U	P-O3'-C3'	7.20	131.00	120.20
55	CA	874	G	P-O3'-C3'	-7.20	109.40	120.20
24	BA	1957	C	P-O3'-C3'	-7.20	109.41	120.20
55	CA	331	G	P-O3'-C3'	-7.20	109.41	120.20
24	BA	783	A	P-O3'-C3'	-7.19	109.41	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BA	795	C	N1-C1'-C2'	-7.19	101.22	112.00
25	BB	42	C	N1-C1'-C2'	-7.18	101.22	112.00
55	CA	688	G	P-O3'-C3'	-7.18	109.43	120.20
24	DA	1636	U	N1-C1'-C2'	-7.18	101.22	112.00
24	BA	1558	C	P-O3'-C3'	7.17	130.96	120.20
24	DA	1499	C	P-O3'-C3'	-7.17	109.44	120.20
21	AA	1141	C	N1-C1'-C2'	-7.16	101.25	112.00
21	AA	962	C	P-O3'-C3'	-7.16	109.46	120.20
24	BA	2197	U	P-O3'-C3'	7.16	130.94	120.20
24	BA	2629	U	P-O3'-C3'	7.16	130.94	120.20
24	BA	2385	C	P-O3'-C3'	-7.16	109.47	120.20
21	AA	1303	C	N1-C1'-C2'	-7.15	101.27	112.00
24	BA	224	U	N1-C1'-C2'	-7.15	101.28	112.00
55	CA	1096	C	P-O3'-C3'	-7.15	109.48	120.20
21	AA	1095	U	N1-C1'-C2'	-7.14	101.28	112.00
24	BA	2450	A	P-O3'-C3'	-7.14	109.48	120.20
24	DA	86	G	P-O3'-C3'	-7.14	109.49	120.20
24	DA	774	G	P-O3'-C3'	7.14	130.91	120.20
24	BA	335	C	P-O3'-C3'	-7.14	109.49	120.20
24	BA	1716	U	N1-C1'-C2'	-7.14	101.29	112.00
55	CA	1324	A	P-O5'-C5'	-7.14	110.19	120.90
55	CA	967	C	N1-C1'-C2'	-7.13	101.30	112.00
55	CA	252	U	N1-C1'-C2'	-7.13	101.31	112.00
24	BA	1091	G	P-O3'-C3'	-7.13	109.51	120.20
55	CA	510	A	P-O3'-C3'	-7.13	109.51	120.20
55	CA	517	G	P-O3'-C3'	7.13	130.89	120.20
21	AA	14	U	P-O3'-C3'	-7.13	109.51	120.20
24	DA	1455	G	P-O3'-C3'	-7.12	109.51	120.20
24	BA	2572	A	P-O3'-C3'	7.12	130.89	120.20
55	CA	1145	A	P-O3'-C3'	7.12	130.88	120.20
24	DA	2439	A	P-O3'-C3'	7.12	130.89	120.20
55	CA	500	G	P-O3'-C3'	-7.12	109.52	120.20
24	BA	740	C	P-O5'-C5'	-7.12	110.23	120.90
38	BO	105	ALA	N-CA-C	-7.12	101.15	110.33
24	DA	2407	A	P-O3'-C3'	-7.11	109.53	120.20
24	BA	2832	U	P-O3'-C3'	7.11	130.86	120.20
27	BD	202	ILE	CB-CA-C	-7.10	102.73	111.32
21	AA	1192	C	P-O3'-C3'	-7.10	109.56	120.20
24	BA	1329	U	N1-C1'-C2'	7.09	124.64	114.00
55	CA	653	U	P-O3'-C3'	7.09	130.83	120.20
55	CA	686	U	N1-C1'-C2'	7.09	124.63	114.00
24	DA	229	C	P-O3'-C3'	-7.09	109.57	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BL	95	LEU	N-CA-C	-7.09	102.60	111.11
24	DA	103	A	P-O3'-C3'	-7.09	109.57	120.20
24	BA	1455	G	P-O3'-C3'	-7.08	109.57	120.20
24	BA	2615	U	N1-C1'-C2'	-7.08	101.37	112.00
24	DA	861	A	P-O3'-C3'	-7.08	109.58	120.20
36	BM	108	VAL	CA-C-N	7.08	127.47	119.83
36	BM	108	VAL	C-N-CA	7.08	127.47	119.83
24	BA	2501	C	N1-C1'-C2'	7.07	122.61	112.00
55	CA	422	C	N1-C1'-C2'	7.07	124.60	114.00
24	DA	2681	C	P-O3'-C3'	7.07	130.80	120.20
24	DA	1236	G	P-O3'-C3'	7.06	130.79	120.20
24	DA	2312	U	P-O3'-C3'	-7.06	109.61	120.20
24	DA	686	U	N1-C1'-C2'	-7.06	103.41	114.00
24	BA	2210	U	P-O3'-C3'	7.05	130.78	120.20
21	AA	247	G	P-O3'-C3'	-7.05	109.62	120.20
24	BA	995	C	P-O3'-C3'	7.05	130.78	120.20
24	BA	2458	G	P-O3'-C3'	7.05	130.78	120.20
24	BA	389	G	P-O3'-C3'	-7.05	109.63	120.20
34	DK	47	ILE	CA-C-N	7.05	128.65	119.84
34	DK	47	ILE	C-N-CA	7.05	128.65	119.84
25	BB	48	U	P-O5'-C5'	-7.04	110.33	120.90
55	CA	1381	U	P-O3'-C3'	-7.04	109.64	120.20
24	DA	335	C	P-O3'-C3'	-7.04	109.64	120.20
24	BA	604	G	P-O3'-C3'	-7.04	109.64	120.20
24	BA	2064	C	P-O3'-C3'	-7.04	109.64	120.20
55	CA	347	G	P-O3'-C3'	-7.04	109.64	120.20
24	BA	215	G	P-O3'-C3'	7.03	130.75	120.20
24	DA	830	G	P-O3'-C3'	7.03	130.75	120.20
24	BA	2326	C	N1-C1'-C2'	7.03	124.55	114.00
24	BA	2880	C	P-O5'-C5'	-7.03	110.36	120.90
24	BA	859	G	P-O3'-C3'	7.02	130.73	120.20
56	DB	56	G	P-O3'-C3'	7.02	130.73	120.20
55	CA	238	A	P-O3'-C3'	7.02	130.73	120.20
24	DA	492	A	P-O3'-C3'	-7.02	109.67	120.20
24	DA	2447	G	P-O3'-C3'	7.02	130.73	120.20
21	AA	962	C	N1-C1'-C2'	-7.02	101.48	112.00
21	AA	1297	G	P-O3'-C3'	7.01	130.72	120.20
55	CA	1196	A	O3'-P-O5'	-7.01	93.48	104.00
24	BA	620	G	O3'-P-O5'	7.01	114.52	104.00
21	AA	914	A	P-O3'-C3'	-7.01	109.68	120.20
24	BA	2757	A	P-O3'-C3'	-7.01	109.69	120.20
24	BA	1113	U	P-O5'-C5'	-7.01	110.39	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	DA	444	C	N1-C1'-C2'	-7.01	101.49	112.00
24	BA	656	G	P-O3'-C3'	-7.01	109.69	120.20
30	BG	152	ARG	CA-C-N	7.01	128.60	119.84
30	BG	152	ARG	C-N-CA	7.01	128.60	119.84
21	AA	1452	C	P-O3'-C3'	7.00	130.71	120.20
24	BA	1761	C	N1-C1'-C2'	7.00	122.50	112.00
55	CA	577	G	P-O3'-C3'	-7.00	109.70	120.20
55	CA	1055	A	P-O3'-C3'	-7.00	109.70	120.20
24	BA	100	U	P-O3'-C3'	6.99	130.69	120.20
24	BA	364	C	N1-C1'-C2'	-6.99	101.51	112.00
24	DA	1110	G	P-O3'-C3'	6.99	130.69	120.20
13	AN	92	ILE	CA-C-N	6.99	128.58	119.84
13	AN	92	ILE	C-N-CA	6.99	128.58	119.84
55	CA	1449	C	P-O3'-C3'	-6.98	109.73	120.20
24	DA	510	C	N1-C1'-C2'	-6.98	101.53	112.00
24	BA	61	C	N1-C1'-C2'	-6.98	101.53	112.00
24	BA	2296	U	N1-C1'-C2'	6.98	124.47	114.00
24	BA	1971	U	N1-C1'-C2'	-6.98	101.53	112.00
24	DA	603	A	P-O3'-C3'	6.97	130.66	120.20
24	DA	2408	U	N1-C1'-C2'	-6.97	101.54	112.00
24	BA	1683	U	N1-C1'-C2'	-6.97	101.55	112.00
21	AA	813	U	P-O5'-C5'	-6.95	110.47	120.90
55	CA	723	U	P-O3'-C3'	-6.95	109.78	120.20
24	DA	945	A	P-O3'-C3'	6.94	130.61	120.20
24	DA	207	A	P-O3'-C3'	-6.94	109.79	120.20
24	BA	36	G	P-O3'-C3'	-6.94	109.80	120.20
24	DA	450	G	P-O3'-C3'	-6.94	109.80	120.20
24	BA	2021	C	P-O3'-C3'	6.93	130.60	120.20
24	DA	2726	A	P-O3'-C3'	6.92	130.59	120.20
21	AA	199	A	P-O3'-C3'	-6.92	109.81	120.20
24	DA	1026	G	P-O3'-C3'	-6.92	109.83	120.20
24	DA	1320	C	P-O3'-C3'	6.92	130.57	120.20
55	CA	724	G	P-O3'-C3'	-6.91	109.83	120.20
24	BA	413	C	N1-C1'-C2'	-6.91	101.64	112.00
24	BA	1653	G	P-O3'-C3'	6.91	130.56	120.20
24	DA	2881	U	N1-C1'-C2'	-6.91	101.64	112.00
24	BA	2064	C	P-O5'-C5'	-6.90	110.55	120.90
24	BA	1714	U	P-O3'-C3'	-6.90	109.85	120.20
24	BA	568	U	N1-C1'-C2'	6.90	122.35	112.00
24	BA	728	G	P-O3'-C3'	6.89	130.54	120.20
24	DA	2585	U	N1-C1'-C2'	6.89	124.34	114.00
24	BA	1498	C	N1-C1'-C2'	-6.89	101.67	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BA	2756	U	P-O3'-C3'	6.89	130.53	120.20
21	AA	121	U	P-O3'-C3'	-6.89	109.87	120.20
24	BA	1757	A	P-O3'-C3'	6.88	130.53	120.20
24	BA	1359	A	P-O3'-C3'	-6.88	109.88	120.20
24	BA	2611	C	N1-C1'-C2'	-6.88	101.68	112.00
55	CA	1137	C	N1-C1'-C2'	6.88	122.32	112.00
24	DA	2689	U	O3'-P-O5'	-6.88	93.68	104.00
56	DB	43	C	P-O3'-C3'	-6.88	109.88	120.20
4	AE	131	ASN	CA-C-N	6.87	128.43	119.84
4	AE	131	ASN	C-N-CA	6.87	128.43	119.84
55	CA	508	U	P-O3'-C3'	6.87	130.51	120.20
24	DA	1277	G	P-O3'-C3'	-6.87	109.89	120.20
24	DA	1536	C	P-O5'-C5'	6.87	131.21	120.90
55	CA	1184	G	P-O3'-C3'	-6.87	109.89	120.20
24	BA	2273	A	P-O3'-C3'	-6.86	109.91	120.20
24	BA	1333	G	P-O3'-C3'	-6.86	109.91	120.20
56	DB	42	C	P-O3'-C3'	-6.86	109.91	120.20
24	BA	931	U	O4'-C1'-N1	-6.86	98.22	108.50
24	BA	1045	C	P-O3'-C3'	6.86	130.48	120.20
21	AA	976	G	P-O3'-C3'	-6.85	109.92	120.20
24	DA	2282	G	P-O3'-C3'	6.85	130.48	120.20
24	BA	204	A	P-O3'-C3'	6.85	130.48	120.20
24	BA	459	U	N1-C1'-C2'	-6.85	101.73	112.00
55	CA	1127	G	P-O3'-C3'	-6.84	109.94	120.20
24	DA	1667	G	P-O3'-C3'	6.84	130.46	120.20
24	DA	140	C	N1-C1'-C2'	6.83	124.25	114.00
24	DA	2645	G	P-O3'-C3'	6.83	130.44	120.20
24	BA	970	U	P-O3'-C3'	-6.83	109.96	120.20
24	BA	1213	A	P-O3'-C3'	-6.83	109.96	120.20
24	BA	685	A	P-O3'-C3'	6.82	130.44	120.20
24	DA	311	A	P-O3'-C3'	6.82	130.44	120.20
55	CA	1283	U	P-O3'-C3'	-6.82	109.97	120.20
55	CA	1300	G	P-O3'-C3'	-6.82	109.97	120.20
24	BA	1180	U	N1-C1'-C2'	6.82	122.23	112.00
50	B0	6	LYS	CA-C-N	6.82	126.84	119.89
50	B0	6	LYS	C-N-CA	6.82	126.84	119.89
24	DA	975	A	P-O3'-C3'	-6.82	109.98	120.20
24	BA	1648	U	P-O3'-C3'	-6.81	109.98	120.20
24	BA	973	A	P-O3'-C3'	6.81	130.42	120.20
24	DA	122	G	P-O3'-C3'	-6.81	109.99	120.20
24	DA	2657	A	P-O3'-C3'	-6.81	109.99	120.20
24	BA	976	G	P-O3'-C3'	-6.80	109.99	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
21	AA	412	A	P-O5'-C5'	-6.80	110.71	120.90
24	BA	2567	G	P-O3'-C3'	-6.79	110.01	120.20
24	BA	1782	U	N1-C1'-C2'	-6.79	101.81	112.00
24	DA	84	A	P-O3'-C3'	6.79	130.39	120.20
1	CB	158	ASP	N-CA-C	-6.79	105.94	114.56
24	BA	335	C	P-O5'-C5'	-6.79	110.72	120.90
55	CA	564	C	P-O3'-C3'	-6.79	110.02	120.20
21	AA	214	C	N1-C1'-C2'	-6.79	101.82	112.00
24	DA	589	U	P-O3'-C3'	-6.79	110.02	120.20
24	BA	746	U	P-O3'-C3'	6.78	130.37	120.20
55	CA	1401	G	P-O3'-C3'	-6.78	110.04	120.20
24	BA	2586	U	P-O3'-C3'	-6.77	110.04	120.20
21	AA	1348	U	P-O3'-C3'	-6.76	110.05	120.20
24	BA	2017	U	N1-C1'-C2'	6.76	122.14	112.00
55	CA	1332	A	P-O3'-C3'	-6.76	110.06	120.20
21	AA	74	A	P-O3'-C3'	-6.76	110.06	120.20
24	DA	647	G	P-O3'-C3'	-6.76	110.06	120.20
24	DA	1073	A	P-O3'-C3'	-6.76	110.06	120.20
55	CA	519	C	N1-C1'-C2'	-6.75	101.87	112.00
24	DA	73	A	P-O3'-C3'	-6.75	110.07	120.20
24	DA	1555	G	P-O3'-C3'	-6.75	110.07	120.20
21	AA	1320	C	N1-C1'-C2'	-6.75	101.87	112.00
24	BA	2503	A	P-O3'-C3'	6.75	130.33	120.20
21	AA	548	G	P-O3'-C3'	-6.75	110.08	120.20
24	BA	2063	C	N1-C1'-C2'	-6.75	101.88	112.00
24	DA	616	A	P-O3'-C3'	-6.75	110.08	120.20
24	DA	2307	G	P-O3'-C3'	6.75	130.32	120.20
55	CA	641	U	O3'-P-O5'	6.74	114.11	104.00
24	DA	671	C	N1-C1'-C2'	-6.74	101.89	112.00
24	DA	251	A	P-O3'-C3'	-6.74	110.09	120.20
24	DA	2249	U	N1-C1'-C2'	6.74	124.11	114.00
24	DA	335	C	N1-C1'-C2'	-6.74	101.90	112.00
24	BA	1606	C	P-O3'-C3'	6.73	130.30	120.20
25	BB	40	U	P-O3'-C3'	6.73	130.29	120.20
24	BA	1695	G	P-O3'-C3'	-6.73	110.11	120.20
24	BA	2344	U	P-O3'-C3'	6.73	130.29	120.20
24	BA	2836	U	P-O3'-C3'	-6.72	110.11	120.20
24	DA	1896	G	P-O3'-C3'	-6.72	110.12	120.20
21	AA	267	C	N1-C1'-C2'	-6.72	101.93	112.00
24	BA	2656	U	P-O3'-C3'	-6.71	110.13	120.20
24	DA	933	A	P-O3'-C3'	-6.71	110.13	120.20
24	BA	1461	C	P-O3'-C3'	-6.70	110.15	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	CA	1366	C	P-O3'-C3'	-6.70	110.15	120.20
21	AA	51	A	P-O3'-C3'	6.70	130.25	120.20
24	BA	14	A	P-O5'-C5'	-6.70	110.86	120.90
56	DB	17	C	P-O3'-C3'	-6.70	110.16	120.20
24	DA	2833	U	P-O3'-C3'	6.69	130.24	120.20
55	CA	1399	C	P-O3'-C3'	6.69	130.24	120.20
24	BA	436	C	N1-C1'-C2'	-6.69	101.97	112.00
55	CA	965	U	P-O3'-C3'	6.69	130.23	120.20
24	DA	139	U	N1-C1'-C2'	6.69	122.03	112.00
24	BA	2225	A	P-O3'-C3'	6.68	130.22	120.20
24	DA	1291	C	P-O3'-C3'	-6.68	110.18	120.20
55	CA	721	G	P-O3'-C3'	6.68	130.21	120.20
24	DA	614	A	P-O3'-C3'	6.68	130.22	120.20
21	AA	968	A	P-O3'-C3'	6.67	130.21	120.20
24	BA	1858	A	P-O3'-C3'	-6.67	110.19	120.20
46	BW	38	ARG	N-CA-C	-6.67	102.27	111.28
21	AA	110	C	N1-C1'-C2'	-6.67	101.99	112.00
24	BA	740	C	P-O3'-C3'	-6.67	110.19	120.20
24	BA	2034	U	N1-C1'-C2'	-6.67	102.00	112.00
55	CA	366	A	P-O3'-C3'	6.67	130.20	120.20
21	AA	1052	U	P-O3'-C3'	-6.66	110.20	120.20
14	AO	79	GLN	CG-CD-NE2	6.66	126.39	116.40
24	DA	605	G	P-O3'-C3'	-6.66	110.21	120.20
24	BA	92	U	P-O3'-C3'	-6.66	110.22	120.20
14	CO	79	GLN	CG-CD-NE2	6.66	126.39	116.40
55	CA	1528	U	P-O3'-C3'	6.66	130.18	120.20
24	BA	207	A	N9-C1'-C2'	-6.65	102.02	112.00
24	BA	127	A	P-O3'-C3'	-6.65	110.22	120.20
24	BA	2639	A	P-O3'-C3'	-6.65	110.22	120.20
24	BA	2424	C	P-O3'-C3'	-6.65	110.23	120.20
24	DA	162	U	N1-C1'-C2'	6.65	121.97	112.00
21	AA	96	U	N1-C1'-C2'	-6.64	102.03	112.00
21	AA	1469	C	P-O5'-C5'	-6.64	110.93	120.90
55	CA	14	U	N1-C1'-C2'	-6.64	102.03	112.00
55	CA	595	A	P-O3'-C3'	6.64	130.17	120.20
24	DA	2503	A	P-O3'-C3'	6.64	130.16	120.20
24	DA	2348	U	N1-C1'-C2'	-6.64	102.04	112.00
24	BA	1072	C	N1-C1'-C2'	-6.63	102.05	112.00
24	BA	620	G	P-O3'-C3'	6.63	130.15	120.20
55	CA	32	A	P-O3'-C3'	-6.63	110.25	120.20
21	AA	1363	A	P-O3'-C3'	6.62	130.14	120.20
24	BA	230	G	P-O3'-C3'	-6.62	110.26	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	DA	2847	U	P-O3'-C3'	6.62	130.14	120.20
55	CA	122	G	P-O3'-C3'	-6.62	110.27	120.20
24	BA	436	C	P-O3'-C3'	-6.62	110.27	120.20
24	DA	1615	C	P-O3'-C3'	6.62	130.13	120.20
24	DA	442	G	P-O3'-C3'	6.62	130.13	120.20
24	BA	476	G	P-O3'-C3'	-6.62	110.28	120.20
21	AA	1087	G	P-O3'-C3'	-6.61	110.29	120.20
24	BA	1313	U	P-O3'-C3'	-6.61	110.29	120.20
24	BA	1965	C	P-O5'-C5'	-6.61	110.99	120.90
21	AA	1228	C	N1-C1'-C2'	-6.60	102.09	112.00
24	BA	2588	G	P-O5'-C5'	-6.60	110.99	120.90
24	DA	1010	A	P-O3'-C3'	-6.60	110.29	120.20
24	DA	2656	U	N1-C1'-C2'	-6.60	102.10	112.00
21	AA	116	A	P-O3'-C3'	-6.60	110.30	120.20
21	AA	94	G	P-O3'-C3'	6.59	130.09	120.20
21	AA	1085	U	N1-C1'-C2'	6.59	123.89	114.00
24	BA	1344	U	N1-C1'-C2'	-6.59	104.11	114.00
24	BA	2566	A	P-O3'-C3'	6.59	130.09	120.20
24	DA	1144	A	P-O3'-C3'	-6.59	110.31	120.20
24	DA	1498	C	P-O3'-C3'	-6.59	110.31	120.20
21	AA	1095	U	P-O3'-C3'	-6.59	110.31	120.20
55	CA	1365	G	P-O3'-C3'	-6.58	110.33	120.20
24	BA	865	C	P-O3'-C3'	6.58	130.07	120.20
24	BA	61	C	P-O3'-C3'	-6.58	110.34	120.20
24	BA	503	A	P-O3'-C3'	6.57	130.06	120.20
24	BA	1981	A	P-O3'-C3'	-6.57	110.34	120.20
39	BP	49	ILE	N-CA-C	6.57	117.35	107.75
24	DA	1129	A	P-O3'-C3'	-6.57	110.34	120.20
21	AA	755	G	P-O3'-C3'	-6.57	110.34	120.20
21	AA	15	G	P-O3'-C3'	-6.57	110.34	120.20
24	DA	1079	C	N1-C1'-C2'	-6.57	102.15	112.00
24	DA	1135	C	N1-C1'-C2'	-6.57	102.15	112.00
24	BA	1490	A	P-O3'-C3'	6.55	130.03	120.20
24	DA	1091	G	P-O3'-C3'	-6.55	110.38	120.20
24	BA	1427	A	P-O3'-C3'	6.55	130.02	120.20
19	AT	70	LYS	N-CA-C	-6.54	104.23	111.82
55	CA	934	C	P-O3'-C3'	6.54	130.01	120.20
27	DD	113	SER	N-CA-C	6.54	118.47	108.07
24	DA	803	U	N1-C1'-C2'	-6.54	102.19	112.00
21	AA	1216	A	P-O3'-C3'	-6.54	110.39	120.20
24	BA	657	U	N1-C1'-C2'	6.54	121.81	112.00
24	BA	1311	G	P-O3'-C3'	6.54	130.01	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	DA	2850	A	P-O3'-C3'	-6.54	110.39	120.20
21	AA	1182	G	P-O3'-C3'	6.54	130.00	120.20
24	DA	272	A	P-O3'-C3'	-6.54	110.40	120.20
21	AA	960	U	N1-C1'-C2'	6.53	123.80	114.00
21	AA	508	U	N1-C1'-C2'	6.53	123.80	114.00
24	BA	1963	U	P-O3'-C3'	-6.53	110.40	120.20
55	CA	875	U	P-O5'-C5'	-6.53	111.10	120.90
21	AA	1451	U	N1-C1'-C2'	6.53	121.79	112.00
25	BB	53	A	P-O3'-C3'	-6.53	110.41	120.20
24	BA	613	A	P-O3'-C3'	6.53	129.99	120.20
24	BA	2613	U	O3'-P-O5'	-6.53	94.21	104.00
21	AA	1158	C	P-O3'-C3'	-6.52	110.42	120.20
24	BA	627	A	P-O3'-C3'	6.51	129.97	120.20
21	AA	510	A	P-O3'-C3'	-6.51	110.43	120.20
55	CA	531	U	P-O3'-C3'	6.51	129.97	120.20
24	DA	2310	C	P-O3'-C3'	-6.51	110.43	120.20
24	DA	2631	G	P-O3'-C3'	-6.51	110.43	120.20
21	AA	913	A	P-O3'-C3'	6.51	129.97	120.20
56	DB	91	C	P-O3'-C3'	-6.51	110.44	120.20
24	BA	1315	C	P-O5'-C5'	-6.51	111.14	120.90
24	DA	958	U	P-O3'-C3'	-6.51	110.44	120.20
21	AA	87	C	N1-C1'-C2'	-6.51	102.24	112.00
24	BA	2199	A	P-O5'-C5'	-6.50	111.14	120.90
21	AA	1228	C	P-O3'-C3'	-6.50	110.44	120.20
55	CA	367	U	P-O3'-C3'	6.50	129.96	120.20
24	DA	746	U	N1-C1'-C2'	6.50	123.76	114.00
24	DA	2712	C	N1-C1'-C2'	6.50	121.75	112.00
24	BA	2605	U	P-O3'-C3'	-6.50	110.46	120.20
24	BA	1158	C	N1-C1'-C2'	-6.49	102.26	112.00
24	DA	1290	C	N1-C1'-C2'	-6.49	102.26	112.00
24	DA	1915	U	N1-C1'-C2'	-6.49	102.26	112.00
24	DA	2459	A	P-O3'-C3'	-6.49	110.46	120.20
24	BA	2609	U	N1-C1'-C2'	6.49	123.74	114.00
24	DA	1560	G	P-O3'-C3'	-6.49	110.47	120.20
24	DA	2615	U	P-O3'-C3'	-6.49	110.47	120.20
21	AA	1432	G	P-O3'-C3'	6.49	129.93	120.20
24	BA	2521	C	N1-C1'-C2'	6.48	121.72	112.00
24	BA	671	C	P-O3'-C3'	-6.48	110.48	120.20
55	CA	566	G	P-O3'-C3'	6.48	129.91	120.20
21	AA	169	C	O4'-C1'-N1	6.48	118.21	108.50
24	DA	984	A	P-O3'-C3'	6.47	129.91	120.20
17	AR	39	VAL	CA-C-N	6.47	127.93	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
17	AR	39	VAL	C-N-CA	6.47	127.93	119.84
21	AA	967	C	N1-C1'-C2'	-6.47	102.30	112.00
26	BC	184	GLU	N-CA-C	6.47	120.63	112.87
55	CA	722	G	P-O3'-C3'	-6.47	110.50	120.20
24	BA	1640	A	P-O5'-C5'	-6.47	111.20	120.90
24	BA	1339	G	P-O3'-C3'	-6.47	110.50	120.20
24	BA	2572	A	O3'-P-O5'	-6.47	94.30	104.00
24	BA	2712	C	P-O3'-C3'	6.47	129.90	120.20
24	DA	2036	C	N1-C1'-C2'	-6.47	102.30	112.00
21	AA	1088	G	P-O3'-C3'	-6.46	110.51	120.20
24	DA	2266	A	P-O3'-C3'	6.46	129.89	120.20
24	BA	386	G	P-O5'-C5'	6.46	130.59	120.90
55	CA	1202	U	P-O3'-C3'	-6.46	110.52	120.20
24	DA	1346	G	P-O3'-C3'	-6.46	110.52	120.20
24	BA	164	C	P-O3'-C3'	-6.45	110.52	120.20
24	BA	1286	A	P-O3'-C3'	6.45	129.88	120.20
55	CA	1160	G	P-O3'-C3'	-6.45	110.52	120.20
55	CA	512	U	N1-C1'-C2'	-6.45	102.33	112.00
24	BA	1020	A	P-O3'-C3'	6.44	129.86	120.20
24	BA	1024	G	P-O3'-C3'	-6.44	110.54	120.20
55	CA	61	G	P-O3'-C3'	-6.44	110.55	120.20
24	BA	687	C	P-O5'-C5'	-6.43	111.25	120.90
24	BA	489	G	P-O3'-C3'	6.43	129.85	120.20
24	BA	2542	A	O3'-P-O5'	6.43	113.65	104.00
55	CA	451	A	P-O3'-C3'	6.43	129.84	120.20
24	DA	2603	G	P-O3'-C3'	-6.43	110.56	120.20
24	DA	1818	U	N1-C1'-C2'	6.43	121.64	112.00
21	AA	1321	U	N1-C1'-C2'	-6.42	102.36	112.00
55	CA	481	G	P-O3'-C3'	6.42	129.84	120.20
55	CA	1284	C	P-O3'-C3'	-6.42	110.57	120.20
24	DA	1045	C	N1-C1'-C2'	6.42	123.63	114.00
24	BA	1979	U	P-O5'-C5'	-6.42	111.27	120.90
21	AA	534	U	N1-C1'-C2'	-6.42	102.38	112.00
24	BA	1554	U	P-O3'-C3'	6.42	129.82	120.20
21	AA	936	C	P-O3'-C3'	-6.41	110.58	120.20
21	AA	173	U	O4'-C1'-N1	6.41	117.81	108.20
36	BM	24	THR	N-CA-C	6.41	121.25	113.17
24	BA	178	G	P-O3'-C3'	-6.41	110.59	120.20
24	DA	2572	A	O3'-P-O5'	-6.41	94.39	104.00
55	CA	89	U	N1-C1'-C2'	-6.40	102.40	112.00
26	DC	56	GLY	N-CA-C	6.40	117.56	111.67
24	BA	2423	U	P-O3'-C3'	6.40	129.80	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	CA	794	A	P-O3'-C3'	-6.40	110.60	120.20
24	DA	1740	G	P-O3'-C3'	-6.40	110.60	120.20
24	BA	1670	C	P-O5'-C5'	6.40	130.50	120.90
24	BA	2868	A	P-O3'-C3'	-6.40	110.60	120.20
24	DA	125	A	P-O3'-C3'	6.40	129.80	120.20
24	BA	1817	G	P-O3'-C3'	-6.40	110.61	120.20
25	BB	90	C	P-O3'-C3'	-6.39	110.61	120.20
21	AA	566	G	P-O3'-C3'	6.39	129.79	120.20
24	DA	91	A	P-O3'-C3'	6.39	129.78	120.20
21	AA	414	A	P-O3'-C3'	-6.39	110.62	120.20
21	AA	969	A	P-O3'-C3'	-6.39	110.62	120.20
21	AA	1381	U	N1-C1'-C2'	-6.38	102.42	112.00
24	BA	1300	G	P-O3'-C3'	6.38	129.78	120.20
24	DA	49	A	P-O3'-C3'	6.38	129.77	120.20
21	AA	1449	C	N1-C1'-C2'	-6.38	102.43	112.00
24	DA	765	C	N1-C1'-C2'	-6.37	102.44	112.00
24	BA	442	G	P-O3'-C3'	6.37	129.76	120.20
24	BA	759	G	P-O5'-C5'	-6.37	111.34	120.90
24	BA	49	A	O3'-P-O5'	-6.37	94.45	104.00
21	AA	464	U	P-O3'-C3'	-6.37	110.65	120.20
21	AA	1241	G	P-O3'-C3'	-6.37	110.65	120.20
21	AA	1528	U	P-O3'-C3'	6.37	129.75	120.20
24	BA	2060	A	P-O3'-C3'	6.37	129.75	120.20
45	BV	64	VAL	CB-CA-C	-6.37	103.25	111.53
55	CA	464	U	P-O3'-C3'	-6.37	110.65	120.20
24	DA	1957	C	N1-C1'-C2'	-6.37	102.45	112.00
55	CA	403	C	P-O3'-C3'	-6.36	110.65	120.20
56	DB	16	G	P-O3'-C3'	-6.36	110.65	120.20
55	CA	974	A	P-O3'-C3'	6.36	129.74	120.20
24	BA	2777	G	P-O3'-C3'	-6.36	110.66	120.20
24	BA	2836	U	N1-C1'-C2'	-6.36	102.46	112.00
24	DA	789	A	O3'-P-O5'	-6.36	94.46	104.00
24	DA	1072	C	N1-C1'-C2'	-6.36	102.46	112.00
21	AA	1530	G	P-O3'-C3'	-6.36	110.67	120.20
24	BA	162	U	P-O3'-C3'	6.36	129.73	120.20
24	BA	1340	U	P-O3'-C3'	6.35	129.73	120.20
56	DB	51	G	P-O5'-C5'	-6.35	111.37	120.90
24	BA	2276	G	P-O3'-C3'	-6.35	110.68	120.20
21	AA	1068	G	P-O3'-C3'	-6.34	110.69	120.20
55	CA	968	A	P-O5'-C5'	-6.34	111.38	120.90
24	DA	688	U	P-O5'-C5'	-6.34	111.39	120.90
55	CA	992	U	N1-C1'-C2'	6.34	123.51	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
21	AA	1380	U	P-O3'-C3'	6.34	129.71	120.20
24	DA	1430	G	P-O3'-C3'	-6.33	110.70	120.20
24	DA	1312	U	P-O3'-C3'	6.33	129.70	120.20
55	CA	381	C	N1-C1'-C2'	6.33	123.49	114.00
24	BA	121	G	P-O3'-C3'	-6.33	110.71	120.20
24	BA	2056	G	P-O5'-C5'	-6.33	111.41	120.90
21	AA	275	G	P-O3'-C3'	-6.32	110.71	120.20
55	CA	1452	C	P-O3'-C3'	6.32	129.69	120.20
24	DA	2427	C	P-O3'-C3'	-6.32	110.72	120.20
21	AA	1283	U	N1-C1'-C2'	-6.32	102.52	112.00
24	BA	233	A	P-O3'-C3'	-6.32	110.72	120.20
24	DA	241	A	O3'-P-O5'	-6.32	94.52	104.00
24	BA	1799	G	P-O3'-C3'	6.32	129.68	120.20
24	DA	164	C	N1-C1'-C2'	-6.32	102.52	112.00
24	BA	1204	A	P-O3'-C3'	6.31	129.67	120.20
24	DA	1021	A	P-O3'-C3'	-6.31	110.73	120.20
25	BB	58	A	P-O3'-C3'	-6.31	110.73	120.20
24	DA	811	U	P-O3'-C3'	6.31	129.67	120.20
24	DA	75	G	P-O3'-C3'	-6.31	110.74	120.20
24	DA	2520	C	P-O3'-C3'	-6.31	110.74	120.20
21	AA	1349	A	P-O3'-C3'	-6.30	110.75	120.20
24	BA	345	A	P-O3'-C3'	6.30	129.64	120.20
24	BA	1936	A	P-O3'-C3'	6.29	129.64	120.20
24	BA	2238	G	P-O3'-C3'	6.29	129.64	120.20
24	DA	2239	G	P-O5'-C5'	-6.29	111.46	120.90
24	BA	1963	U	N1-C1'-C2'	-6.29	102.57	112.00
55	CA	495	A	P-O3'-C3'	6.29	129.63	120.20
55	CA	875	U	N1-C1'-C2'	-6.28	102.58	112.00
24	BA	2874	C	P-O3'-C3'	-6.28	110.78	120.20
24	BA	1375	U	N1-C1'-C2'	6.28	121.42	112.00
37	BN	47	VAL	CB-CA-C	-6.28	103.69	111.92
37	BN	79	LEU	N-CA-C	-6.28	102.08	110.24
24	DA	2903	U	P-O5'-C5'	6.28	130.32	120.90
21	AA	510	A	P-O5'-C5'	-6.28	111.48	120.90
24	BA	302	C	P-O3'-C3'	-6.27	110.79	120.20
24	BA	1971	U	O3'-P-O5'	-6.27	94.59	104.00
24	BA	2585	U	N1-C1'-C2'	6.27	123.41	114.00
21	AA	575	G	P-O3'-C3'	6.27	129.60	120.20
24	BA	1568	G	P-O5'-C5'	-6.27	111.50	120.90
24	BA	1606	C	N1-C1'-C2'	6.27	121.40	112.00
55	CA	422	C	P-O3'-C3'	6.27	129.60	120.20
55	CA	511	C	N1-C1'-C2'	6.27	123.40	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	DA	1734	G	P-O3'-C3'	-6.27	110.80	120.20
55	CA	1297	G	P-O3'-C3'	6.26	129.60	120.20
24	BA	812	C	P-O3'-C3'	-6.26	110.81	120.20
24	BA	1340	U	O3'-P-O5'	-6.26	94.61	104.00
55	CA	972	C	P-O3'-C3'	-6.26	110.81	120.20
25	BB	68	C	P-O3'-C3'	-6.26	110.81	120.20
24	DA	1326	U	N1-C1'-C2'	-6.26	102.61	112.00
56	DB	50	A	O3'-P-O5'	6.26	113.39	104.00
24	BA	2490	G	P-O3'-C3'	6.26	129.59	120.20
55	CA	82	G	P-O3'-C3'	-6.26	110.81	120.20
45	BV	36	ALA	CA-C-N	6.25	127.20	120.13
45	BV	36	ALA	C-N-CA	6.25	127.20	120.13
55	CA	632	U	P-O3'-C3'	-6.25	110.82	120.20
21	AA	131	A	P-O3'-C3'	-6.25	110.82	120.20
55	CA	354	G	P-O5'-C5'	-6.25	111.52	120.90
24	BA	508	A	P-O3'-C3'	-6.24	110.83	120.20
24	BA	514	A	P-O3'-C3'	-6.24	110.83	120.20
24	BA	1495	A	P-O3'-C3'	-6.24	110.83	120.20
24	DA	957	C	P-O3'-C3'	6.24	129.57	120.20
24	BA	588	U	N1-C1'-C2'	-6.24	102.64	112.00
24	BA	2723	C	P-O5'-C5'	-6.24	111.54	120.90
24	BA	422	A	P-O3'-C3'	-6.24	110.84	120.20
24	BA	1238	G	P-O3'-C3'	-6.24	110.84	120.20
24	BA	1539	U	P-O3'-C3'	-6.24	110.84	120.20
55	CA	305	G	P-O3'-C3'	6.24	129.56	120.20
24	DA	529	A	P-O3'-C3'	6.24	129.55	120.20
24	DA	1962	C	P-O3'-C3'	6.24	129.55	120.20
24	DA	2866	U	P-O3'-C3'	6.24	129.56	120.20
24	BA	1174	U	N1-C1'-C2'	-6.23	102.65	112.00
24	DA	1013	C	P-O3'-C3'	-6.23	110.86	120.20
24	DA	1027	A	P-O3'-C3'	-6.23	110.86	120.20
24	DA	2689	U	P-O3'-C3'	6.23	129.54	120.20
34	DK	77	ILE	CB-CA-C	-6.23	104.18	111.09
24	DA	995	C	P-O3'-C3'	6.22	129.54	120.20
24	DA	2063	C	P-O3'-C3'	-6.22	110.86	120.20
24	BA	931	U	P-O3'-C3'	6.22	129.53	120.20
24	BA	2518	A	P-O5'-C5'	-6.22	111.57	120.90
55	CA	1240	U	P-O3'-C3'	6.22	129.53	120.20
24	DA	2403	C	P-O3'-C3'	-6.22	110.87	120.20
24	BA	729	G	P-O3'-C3'	-6.21	110.88	120.20
24	BA	588	U	P-O3'-C3'	-6.21	110.89	120.20
55	CA	1448	C	N1-C1'-C2'	-6.21	102.69	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	DA	766	U	P-O3'-C3'	-6.21	110.89	120.20
24	BA	196	A	O3'-P-O5'	-6.21	94.69	104.00
24	DA	2199	A	P-O3'-C3'	-6.21	110.89	120.20
24	BA	364	C	P-O3'-C3'	-6.20	110.90	120.20
24	BA	475	C	P-O3'-C3'	-6.20	110.90	120.20
24	DA	2408	U	P-O3'-C3'	-6.19	110.91	120.20
15	AP	14	ARG	CA-C-N	6.19	127.58	119.84
15	AP	14	ARG	C-N-CA	6.19	127.58	119.84
24	BA	943	A	P-O5'-C5'	-6.19	111.61	120.90
56	DB	51	G	O4'-C1'-N9	6.19	117.78	108.50
24	DA	1829	A	P-O3'-C3'	-6.19	110.92	120.20
24	DA	302	C	N1-C1'-C2'	-6.19	102.72	112.00
24	DA	1738	G	P-O3'-C3'	6.18	129.47	120.20
24	BA	589	U	P-O5'-C5'	-6.18	111.63	120.90
35	BL	23	ILE	N-CA-C	6.17	116.65	110.23
55	CA	792	A	P-O3'-C3'	6.17	129.46	120.20
24	BA	653	U	N1-C1'-C2'	-6.17	102.74	112.00
24	BA	1943	U	P-O3'-C3'	6.17	129.46	120.20
24	BA	119	A	P-O3'-C3'	6.17	129.45	120.20
24	DA	1272	A	P-O3'-C3'	6.17	129.45	120.20
24	DA	2849	U	P-O5'-C5'	6.17	130.15	120.90
24	BA	2733	A	N9-C1'-C2'	-6.17	102.75	112.00
55	CA	66	A	P-O3'-C3'	-6.17	110.95	120.20
21	AA	813	U	P-O3'-C3'	-6.16	110.95	120.20
39	DP	49	ILE	N-CA-C	6.16	117.47	108.53
24	DA	1634	A	P-O3'-C3'	6.16	129.44	120.20
21	AA	121	U	N1-C1'-C2'	-6.16	102.76	112.00
24	BA	1818	U	P-O3'-C3'	6.16	129.44	120.20
24	DA	2713	U	P-O5'-C5'	-6.16	111.66	120.90
21	AA	701	U	N1-C1'-C2'	6.16	121.24	112.00
21	AA	1190	G	P-O3'-C3'	6.16	129.43	120.20
24	BA	1332	G	P-O3'-C3'	6.15	129.43	120.20
24	BA	2492	U	P-O3'-C3'	-6.15	110.97	120.20
24	DA	867	C	N1-C1'-C2'	-6.15	102.77	112.00
21	AA	520	A	P-O3'-C3'	-6.15	110.97	120.20
24	DA	656	G	P-O3'-C3'	-6.15	110.97	120.20
24	DA	1998	A	P-O3'-C3'	-6.15	110.97	120.20
21	AA	517	G	P-O3'-C3'	6.15	129.42	120.20
21	AA	1075	U	P-O3'-C3'	-6.15	110.98	120.20
47	DX	52	ALA	N-CA-C	-6.15	101.99	110.35
24	DA	1740	G	N9-C1'-C2'	-6.15	102.78	112.00
24	DA	2458	G	P-O3'-C3'	6.15	129.42	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
43	BT	85	VAL	N-CA-C	6.14	117.28	112.12
55	CA	652	U	N1-C1'-C2'	6.14	121.22	112.00
21	AA	1141	C	P-O3'-C3'	-6.14	110.99	120.20
24	DA	459	U	P-O3'-C3'	-6.14	110.99	120.20
37	BN	69	ARG	N-CA-C	-6.14	101.38	110.46
55	CA	173	U	O4'-C1'-N1	6.14	117.40	108.20
55	CA	891	U	N1-C1'-C2'	-6.14	102.80	112.00
56	DB	104	A	N9-C1'-C2'	6.14	121.20	112.00
21	AA	199	A	P-O5'-C5'	-6.13	111.70	120.90
21	AA	870	U	P-O3'-C3'	6.13	129.40	120.20
24	BA	1127	A	P-O3'-C3'	-6.13	111.00	120.20
24	DA	672	C	N1-C1'-C2'	-6.13	102.80	112.00
24	BA	2682	A	P-O3'-C3'	-6.13	111.00	120.20
24	DA	1289	C	N1-C1'-C2'	-6.13	102.81	112.00
7	CH	110	MET	N-CA-C	6.12	116.36	108.34
24	BA	1110	G	P-O3'-C3'	6.12	129.39	120.20
24	DA	2334	U	N1-C1'-C2'	6.12	123.19	114.00
24	BA	628	G	P-O3'-C3'	-6.12	111.02	120.20
24	BA	2869	G	P-O3'-C3'	-6.12	111.02	120.20
24	BA	1141	U	P-O3'-C3'	6.12	129.38	120.20
24	BA	1636	U	P-O5'-C5'	-6.12	111.73	120.90
24	BA	671	C	C2'-C3'-O3'	-6.11	104.53	113.70
55	CA	534	U	N1-C1'-C2'	-6.11	102.83	112.00
24	BA	2344	U	O3'-P-O5'	6.11	113.17	104.00
24	BA	2517	C	O4'-C1'-N1	6.11	117.37	108.20
24	BA	1941	C	P-O3'-C3'	-6.11	111.03	120.20
55	CA	1398	A	P-O3'-C3'	-6.11	111.04	120.20
24	DA	70	G	P-O3'-C3'	6.11	129.36	120.20
24	DA	446	G	P-O3'-C3'	6.11	129.36	120.20
56	DB	58	A	P-O3'-C3'	-6.11	111.04	120.20
55	CA	91	U	P-O3'-C3'	-6.10	111.05	120.20
24	BA	2525	G	P-O3'-C3'	-6.10	111.06	120.20
55	CA	967	C	P-O3'-C3'	-6.09	111.06	120.20
24	DA	2409	G	P-O3'-C3'	-6.09	111.06	120.20
55	CA	567	G	C3'-C2'-C1'	6.09	107.39	101.30
55	CA	430	A	P-O3'-C3'	-6.09	111.07	120.20
24	BA	1839	G	P-O5'-C5'	-6.08	111.78	120.90
24	BA	2528	U	P-O5'-C5'	-6.08	111.78	120.90
24	DA	527	C	O4'-C1'-N1	6.08	117.33	108.20
24	BA	2326	C	C2'-C3'-O3'	6.08	118.62	109.50
24	BA	2226	C	N1-C1'-C2'	-6.08	102.88	112.00
24	BA	955	U	P-O3'-C3'	-6.07	111.09	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
21	AA	1184	G	P-O3'-C3'	-6.07	111.09	120.20
24	BA	1872	A	P-O3'-C3'	-6.07	111.09	120.20
46	BW	72	GLY	CA-C-N	-6.07	112.25	119.84
46	BW	72	GLY	C-N-CA	-6.07	112.25	119.84
24	DA	2258	C	P-O3'-C3'	6.07	129.31	120.20
24	BA	2240	U	N1-C1'-C2'	-6.07	102.90	112.00
24	BA	2573	C	N1-C1'-C2'	6.07	121.10	112.00
24	BA	1615	C	N1-C1'-C2'	6.06	123.10	114.00
46	BW	21	GLY	N-CA-C	-6.06	104.26	112.57
24	DA	1456	G	P-O3'-C3'	-6.06	111.11	120.20
24	BA	2040	G	P-O3'-C3'	-6.06	111.11	120.20
24	BA	200	U	P-O5'-C5'	-6.06	111.81	120.90
24	DA	2498	C	N1-C1'-C2'	-6.06	102.92	112.00
25	BB	69	G	P-O3'-C3'	-6.05	111.12	120.20
26	BC	44	ASN	N-CA-C	-6.05	105.65	113.16
55	CA	701	U	N1-C1'-C2'	6.05	121.08	112.00
24	DA	767	U	N1-C1'-C2'	-6.05	102.92	112.00
21	AA	985	C	N1-C1'-C2'	-6.05	102.93	112.00
25	BB	13	G	P-O5'-C5'	-6.05	111.83	120.90
24	BA	83	A	O3'-P-O5'	-6.04	94.93	104.00
24	BA	312	G	P-O3'-C3'	-6.04	111.14	120.20
24	BA	1123	C	P-O5'-C5'	-6.04	111.83	120.90
24	BA	2064	C	N1-C1'-C2'	-6.04	102.94	112.00
25	BB	87	U	N1-C1'-C2'	6.04	121.06	112.00
55	CA	1348	U	N1-C1'-C2'	-6.04	102.94	112.00
36	DM	26	VAL	CB-CA-C	-6.04	104.96	112.45
24	DA	313	G	P-O5'-C5'	-6.04	111.84	120.90
24	DA	2612	C	N1-C1'-C2'	-6.04	102.94	112.00
24	BA	229	C	N1-C1'-C2'	-6.04	102.95	112.00
24	BA	2324	U	N1-C1'-C2'	6.04	121.05	112.00
24	DA	2267	A	N9-C1'-C2'	-6.04	102.94	112.00
24	BA	2727	A	P-O3'-C3'	-6.03	111.15	120.20
26	BC	242	HIS	CA-C-N	6.03	127.38	119.84
26	BC	242	HIS	C-N-CA	6.03	127.38	119.84
24	DA	1286	A	P-O3'-C3'	6.03	129.25	120.20
24	DA	1128	G	P-O5'-C5'	-6.03	111.86	120.90
24	BA	421	C	N1-C1'-C2'	6.03	123.04	114.00
37	DN	18	GLN	N-CA-C	-6.03	105.17	113.18
24	DA	1020	A	O3'-P-O5'	6.03	113.04	104.00
55	CA	47	C	P-O3'-C3'	6.02	129.24	120.20
24	DA	303	G	P-O3'-C3'	-6.02	111.17	120.20
2	AC	107	LYS	CA-C-N	6.02	125.58	119.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AC	107	LYS	C-N-CA	6.02	125.58	119.19
24	DA	617	G	P-O3'-C3'	-6.02	111.17	120.20
24	DA	1399	C	N1-C1'-C2'	-6.02	102.97	112.00
24	BA	1664	A	O3'-P-O5'	-6.02	94.97	104.00
55	CA	60	A	P-O3'-C3'	6.02	129.22	120.20
24	DA	2521	C	P-O5'-C5'	-6.02	111.88	120.90
24	BA	1828	G	P-O3'-C3'	6.01	129.22	120.20
21	AA	874	G	P-O3'-C3'	-6.01	111.18	120.20
24	BA	1156	A	P-O3'-C3'	6.01	129.21	120.20
24	BA	1320	C	N1-C1'-C2'	6.01	121.01	112.00
47	DX	55	MET	N-CA-C	-6.01	105.98	113.55
24	BA	581	C	N1-C1'-C2'	6.01	121.01	112.00
21	AA	373	A	P-O3'-C3'	-6.01	111.19	120.20
24	DA	741	U	P-O3'-C3'	-6.00	111.19	120.20
21	AA	33	A	P-O3'-C3'	-6.00	111.19	120.20
24	BA	783	A	N9-C1'-C2'	-6.00	103.00	112.00
24	BA	2712	C	N1-C1'-C2'	6.00	123.00	114.00
55	CA	1181	G	P-O3'-C3'	6.00	129.20	120.20
24	DA	406	G	P-O3'-C3'	-6.00	111.20	120.20
32	BI	94	LYS	N-CA-C	-6.00	105.78	114.12
13	CN	68	ARG	CA-C-N	6.00	125.48	119.24
13	CN	68	ARG	C-N-CA	6.00	125.48	119.24
24	DA	1821	A	P-O3'-C3'	-6.00	111.20	120.20
21	AA	95	C	P-O3'-C3'	-6.00	111.20	120.20
24	BA	514	A	P-O5'-C5'	-6.00	111.90	120.90
24	BA	2656	U	N1-C1'-C2'	-6.00	103.01	112.00
21	AA	1161	C	N1-C1'-C2'	-5.99	103.01	112.00
24	DA	2099	U	N1-C1'-C2'	-5.99	103.02	112.00
24	DA	2492	U	P-O3'-C3'	-5.99	111.22	120.20
24	BA	2493	U	N1-C1'-C2'	-5.99	103.02	112.00
24	BA	60	G	P-O3'-C3'	5.99	129.18	120.20
24	DA	1312	U	O3'-P-O5'	5.98	112.98	104.00
28	BE	117	ARG	N-CA-C	-5.98	105.56	112.92
55	CA	1097	C	P-O3'-C3'	-5.98	111.23	120.20
24	BA	1566	A	P-O3'-C3'	-5.98	111.23	120.20
55	CA	374	A	P-O3'-C3'	-5.98	111.23	120.20
24	BA	2279	G	O3'-P-O5'	-5.98	95.03	104.00
55	CA	327	A	P-O3'-C3'	5.98	129.16	120.20
24	DA	1075	C	N1-C1'-C2'	-5.97	103.04	112.00
21	AA	243	A	P-O3'-C3'	5.97	129.16	120.20
24	BA	2734	A	P-O3'-C3'	-5.97	111.24	120.20
33	DJ	45	THR	CA-C-N	-5.97	113.97	119.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	DJ	45	THR	C-N-CA	-5.97	113.97	119.82
24	DA	1076	C	P-O3'-C3'	-5.97	111.24	120.20
21	AA	330	C	P-O3'-C3'	-5.97	111.25	120.20
24	BA	646	U	N1-C1'-C2'	-5.97	103.05	112.00
24	BA	1048	A	P-O3'-C3'	-5.97	111.25	120.20
24	DA	244	A	P-O3'-C3'	-5.97	111.25	120.20
29	DF	109	ARG	CD-NE-CZ	-5.97	116.05	124.40
24	BA	2726	A	P-O3'-C3'	5.96	129.15	120.20
24	DA	2425	A	P-O3'-C3'	5.96	129.15	120.20
24	BA	2579	C	P-O3'-C3'	-5.96	111.26	120.20
24	DA	1327	A	P-O3'-C3'	-5.96	111.27	120.20
21	AA	1064	G	P-O3'-C3'	5.96	129.13	120.20
21	AA	722	G	P-O3'-C3'	-5.95	111.27	120.20
24	BA	33	C	N1-C1'-C2'	5.95	122.93	114.00
39	BP	3	ILE	N-CA-C	-5.95	104.29	113.16
24	DA	335	C	P-O5'-C5'	-5.95	111.97	120.90
21	AA	717	U	P-O3'-C3'	5.95	129.12	120.20
21	AA	972	C	P-O3'-C3'	-5.95	111.28	120.20
21	AA	1168	U	P-O3'-C3'	5.95	129.12	120.20
24	BA	1240	U	N1-C1'-C2'	5.95	120.92	112.00
24	BA	1693	U	O3'-P-O5'	-5.95	95.08	104.00
21	AA	422	C	N1-C1'-C2'	5.94	122.92	114.00
44	BU	75	ALA	N-CA-C	-5.94	106.67	114.04
24	BA	1809	A	P-O5'-C5'	-5.94	111.99	120.90
21	AA	369	G	P-O3'-C3'	-5.94	111.29	120.20
56	DB	46	A	P-O3'-C3'	-5.94	111.29	120.20
24	BA	1006	C	P-O3'-C3'	-5.94	111.30	120.20
24	BA	321	U	P-O3'-C3'	5.93	129.10	120.20
24	BA	2327	A	P-O3'-C3'	-5.93	111.30	120.20
24	DA	1008	A	P-O3'-C3'	5.93	129.10	120.20
24	BA	479	A	O3'-P-O5'	5.93	112.90	104.00
12	CM	8	ILE	CB-CA-C	-5.93	100.57	111.36
55	CA	1141	C	P-O3'-C3'	-5.93	111.31	120.20
24	DA	2289	G	P-O3'-C3'	-5.93	111.31	120.20
24	DA	2313	C	N1-C1'-C2'	-5.93	103.11	112.00
24	BA	638	G	P-O3'-C3'	-5.93	111.31	120.20
4	AE	111	ARG	N-CA-C	-5.92	103.83	113.19
24	BA	2440	C	P-O5'-C5'	-5.92	112.01	120.90
21	AA	1229	A	P-O3'-C3'	-5.92	111.31	120.20
24	BA	2043	C	N1-C1'-C2'	5.92	120.88	112.00
55	CA	51	A	P-O3'-C3'	5.92	129.08	120.20
24	DA	1695	G	P-O3'-C3'	-5.92	111.32	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BA	35	G	P-O3'-C3'	-5.92	111.33	120.20
24	BA	436	C	P-O5'-C5'	-5.92	112.03	120.90
24	DA	449	A	P-O3'-C3'	-5.92	111.32	120.20
24	DA	2100	G	P-O3'-C3'	-5.92	111.33	120.20
24	BA	754	U	P-O3'-C3'	-5.91	111.33	120.20
24	DA	687	C	N1-C1'-C2'	-5.91	103.13	112.00
24	DA	2037	A	P-O5'-C5'	-5.91	112.03	120.90
24	DA	803	U	P-O3'-C3'	-5.91	111.33	120.20
21	AA	81	A	P-O3'-C3'	5.91	129.07	120.20
55	CA	1031	C	P-O3'-C3'	5.91	129.07	120.20
23	AW	5	U	N1-C1'-C2'	5.91	122.86	114.00
24	DA	959	A	P-O3'-C3'	-5.91	111.34	120.20
24	BA	1509	A	P-O3'-C3'	5.91	129.06	120.20
24	BA	945	A	P-O3'-C3'	5.90	129.05	120.20
56	DB	40	U	P-O3'-C3'	5.90	129.04	120.20
55	CA	181	A	P-O3'-C3'	5.90	129.04	120.20
24	DA	1619	G	P-O3'-C3'	-5.89	111.36	120.20
21	AA	688	G	P-O3'-C3'	-5.89	111.36	120.20
24	BA	1615	C	P-O3'-C3'	5.89	129.04	120.20
55	CA	95	C	N1-C1'-C2'	-5.89	103.16	112.00
24	DA	492	A	P-O5'-C5'	-5.89	112.06	120.90
24	DA	2336	A	O3'-P-O5'	-5.89	95.16	104.00
24	BA	2490	G	O3'-P-O5'	5.89	112.83	104.00
24	BA	2068	U	N1-C1'-C2'	-5.88	103.17	112.00
24	BA	2654	A	P-O3'-C3'	5.88	129.02	120.20
21	AA	1103	C	P-O3'-C3'	-5.88	111.38	120.20
21	AA	1131	G	N9-C1'-C2'	-5.88	103.18	112.00
25	BB	88	C	O4'-C1'-N1	-5.88	99.39	108.20
24	DA	2758	A	P-O3'-C3'	-5.88	111.39	120.20
21	AA	704	A	P-O3'-C3'	-5.87	111.39	120.20
24	BA	1129	A	P-O5'-C5'	-5.87	112.09	120.90
55	CA	86	G	P-O3'-C3'	5.87	129.01	120.20
24	DA	1696	G	P-O3'-C3'	-5.87	111.39	120.20
24	BA	1665	A	P-O5'-C5'	-5.87	112.10	120.90
24	DA	2797	U	N1-C1'-C2'	5.86	120.79	112.00
56	DB	42	C	N1-C1'-C2'	-5.86	103.20	112.00
24	BA	177	G	P-O3'-C3'	5.86	128.99	120.20
24	BA	396	G	P-O3'-C3'	-5.86	111.41	120.20
56	DB	87	U	P-O3'-C3'	5.86	128.98	120.20
24	DA	1049	C	P-O3'-C3'	-5.85	111.42	120.20
24	DA	2439	A	O3'-P-O5'	5.85	112.78	104.00
21	AA	1348	U	N1-C1'-C2'	-5.85	103.23	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
21	AA	430	A	P-O3'-C3'	-5.85	111.43	120.20
30	BG	56	GLY	N-CA-C	-5.85	107.73	114.69
24	DA	629	G	P-O3'-C3'	-5.85	111.43	120.20
37	BN	115	LEU	N-CA-C	-5.84	102.81	110.53
24	BA	1254	A	C3'-C2'-C1'	5.84	107.14	101.30
24	BA	479	A	P-O3'-C3'	5.84	128.96	120.20
21	AA	1492	A	P-O3'-C3'	5.83	128.95	120.20
55	CA	1211	U	P-O3'-C3'	5.83	128.95	120.20
24	DA	100	U	P-O3'-C3'	5.83	128.95	120.20
24	DA	645	C	N1-C1'-C2'	5.83	120.75	112.00
24	DA	1399	C	P-O3'-C3'	-5.83	111.45	120.20
24	DA	932	U	P-O5'-C5'	-5.83	112.16	120.90
24	DA	2283	C	P-O3'-C3'	-5.83	111.46	120.20
24	DA	1963	U	P-O3'-C3'	-5.83	111.46	120.20
24	BA	2259	U	P-O3'-C3'	-5.83	111.46	120.20
55	CA	564	C	N1-C1'-C2'	-5.83	103.26	112.00
24	DA	1942	C	P-O3'-C3'	-5.82	111.46	120.20
56	DB	67	G	P-O3'-C3'	-5.82	111.47	120.20
21	AA	974	A	P-O3'-C3'	5.82	128.93	120.20
24	BA	1324	G	P-O3'-C3'	5.82	128.93	120.20
24	DA	1946	U	P-O3'-C3'	-5.82	111.47	120.20
48	BY	59	GLU	N-CA-C	-5.82	107.17	114.56
55	CA	1086	U	P-O3'-C3'	-5.82	111.47	120.20
24	BA	122	G	P-O3'-C3'	-5.82	111.47	120.20
24	DA	1708	C	N1-C1'-C2'	-5.82	103.27	112.00
24	DA	2867	G	P-O3'-C3'	-5.81	111.48	120.20
21	AA	721	G	P-O3'-C3'	5.81	128.91	120.20
24	DA	571	U	N1-C1'-C2'	5.81	122.71	114.00
24	DA	2064	C	P-O3'-C3'	-5.81	111.48	120.20
56	DB	17	C	O4'-C1'-N1	5.81	117.22	108.50
21	AA	1157	A	P-O3'-C3'	5.81	128.91	120.20
21	AA	1215	G	P-O3'-C3'	-5.81	111.49	120.20
34	BK	2	ILE	N-CA-C	5.81	116.45	110.82
24	BA	412	A	P-O5'-C5'	-5.80	112.19	120.90
24	BA	2036	C	C3'-C2'-C1'	5.80	107.10	101.30
24	BA	2282	G	P-O3'-C3'	5.80	128.91	120.20
24	DA	2567	G	P-O3'-C3'	-5.80	111.49	120.20
24	BA	163	C	N1-C1'-C2'	-5.80	105.30	114.00
24	BA	2750	A	P-O3'-C3'	5.80	128.90	120.20
24	DA	434	U	N1-C1'-C2'	5.80	122.70	114.00
24	BA	120	U	P-O5'-C5'	-5.80	112.20	120.90
24	BA	747	U	P-O3'-C3'	-5.80	111.50	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BA	1992	G	P-O3'-C3'	5.80	128.90	120.20
24	BA	2406	A	P-O3'-C3'	5.80	128.90	120.20
38	BO	88	LYS	N-CA-C	-5.80	100.25	109.07
21	AA	1192	C	P-O5'-C5'	-5.80	112.21	120.90
24	BA	1213	A	P-O5'-C5'	-5.80	112.20	120.90
24	BA	2514	U	P-O5'-C5'	-5.80	112.20	120.90
24	BA	2689	U	P-O3'-C3'	5.80	128.90	120.20
24	BA	2808	G	O3'-P-O5'	-5.80	95.31	104.00
25	BB	26	C	N1-C1'-C2'	-5.80	103.30	112.00
24	DA	2276	G	P-O3'-C3'	-5.80	111.50	120.20
55	CA	817	C	P-O5'-C5'	-5.79	112.21	120.90
24	DA	2067	G	P-O3'-C3'	5.79	128.89	120.20
24	DA	2800	A	N9-C1'-C2'	-5.79	103.31	112.00
21	AA	73	C	P-O3'-C3'	-5.79	111.51	120.20
24	BA	2638	G	P-O3'-C3'	5.79	128.88	120.20
24	DA	2776	A	P-O3'-C3'	5.79	128.88	120.20
24	DA	1290	C	P-O3'-C3'	-5.79	111.52	120.20
55	CA	1325	C	P-O5'-C5'	-5.78	112.22	120.90
24	DA	2101	A	N9-C1'-C2'	-5.78	103.33	112.00
24	DA	2179	C	C3'-C2'-C1'	5.78	107.08	101.30
4	AE	18	ASN	N-CA-C	5.78	118.06	108.99
24	BA	1396	U	P-O3'-C3'	5.78	128.87	120.20
24	BA	1060	U	N1-C1'-C2'	5.78	122.67	114.00
24	DA	1943	U	P-O3'-C3'	5.78	128.86	120.20
24	BA	528	A	P-O3'-C3'	-5.77	111.54	120.20
55	CA	72	A	P-O3'-C3'	-5.77	111.55	120.20
55	CA	915	A	P-O5'-C5'	-5.77	112.24	120.90
21	AA	1505	G	P-O3'-C3'	-5.77	111.55	120.20
24	BA	2263	C	P-O5'-C5'	-5.77	112.25	120.90
24	BA	265	A	P-O3'-C3'	5.76	128.85	120.20
24	BA	1669	A	P-O3'-C3'	-5.76	111.56	120.20
24	BA	2016	U	N1-C1'-C2'	5.76	120.65	112.00
21	AA	1169	A	P-O3'-C3'	-5.76	111.56	120.20
24	BA	1301	A	P-O3'-C3'	5.76	128.84	120.20
24	DA	199	A	P-O3'-C3'	5.76	128.84	120.20
24	DA	1276	A	P-O3'-C3'	-5.76	111.56	120.20
25	BB	53	A	N9-C1'-C2'	-5.76	103.36	112.00
21	AA	984	C	P-O3'-C3'	-5.76	111.56	120.20
11	AL	40	THR	CA-C-N	5.75	127.03	119.84
11	AL	40	THR	C-N-CA	5.75	127.03	119.84
21	AA	1502	A	P-O3'-C3'	5.75	128.83	120.20
24	DA	1477	A	P-O3'-C3'	-5.75	111.57	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	DA	1803	A	P-O5'-C5'	-5.75	112.27	120.90
24	BA	2385	C	N1-C1'-C2'	-5.74	103.38	112.00
24	DA	782	A	P-O3'-C3'	5.74	128.82	120.20
56	DB	99	A	P-O3'-C3'	5.74	128.82	120.20
24	BA	946	C	C3'-C2'-C1'	5.74	107.04	101.30
55	CA	1299	A	P-O3'-C3'	-5.74	111.59	120.20
21	AA	1031	C	P-O3'-C3'	5.74	128.81	120.20
24	BA	1313	U	P-O5'-C5'	-5.74	112.29	120.90
24	BA	1770	G	P-O3'-C3'	-5.74	111.59	120.20
24	BA	1838	C	O3'-P-O5'	5.74	112.61	104.00
24	BA	2338	C	P-O5'-C5'	-5.74	112.29	120.90
29	BF	82	TYR	CA-C-N	5.74	127.01	119.84
29	BF	82	TYR	C-N-CA	5.74	127.01	119.84
24	DA	637	A	P-O3'-C3'	5.74	128.81	120.20
24	BA	794	A	P-O3'-C3'	-5.74	111.59	120.20
24	BA	1781	U	P-O5'-C5'	-5.74	112.29	120.90
21	AA	1131	G	P-O3'-C3'	-5.74	111.60	120.20
44	BU	5	ARG	N-CA-C	5.74	117.99	108.99
26	DC	216	ARG	CA-C-N	5.74	127.01	119.84
26	DC	216	ARG	C-N-CA	5.74	127.01	119.84
25	BB	66	A	P-O3'-C3'	5.73	128.80	120.20
24	DA	622	G	N9-C1'-C2'	-5.73	103.40	112.00
24	DA	1329	U	P-O3'-C3'	5.73	128.80	120.20
55	CA	109	A	P-O3'-C3'	5.73	128.79	120.20
24	DA	1802	A	P-O3'-C3'	-5.73	111.61	120.20
24	DA	2497	A	O3'-P-O5'	5.73	112.59	104.00
24	BA	1249	U	N1-C1'-C2'	-5.72	103.41	112.00
21	AA	462	G	P-O3'-C3'	5.72	128.78	120.20
24	BA	958	U	P-O5'-C5'	-5.72	112.31	120.90
24	DA	2756	U	N1-C1'-C2'	5.72	122.58	114.00
24	BA	2240	U	P-O5'-C5'	-5.72	112.32	120.90
55	CA	642	A	P-O5'-C5'	-5.72	112.32	120.90
55	CA	1239	A	P-O3'-C3'	5.72	128.78	120.20
24	DA	572	A	P-O3'-C3'	-5.72	111.62	120.20
24	DA	1022	G	P-O3'-C3'	5.72	128.78	120.20
24	DA	2402	U	P-O3'-C3'	-5.72	111.62	120.20
24	BA	492	A	P-O3'-C3'	-5.72	111.62	120.20
55	CA	14	U	P-O3'-C3'	-5.72	111.63	120.20
24	DA	480	A	P-O3'-C3'	-5.72	111.63	120.20
24	DA	1331	G	P-O3'-C3'	-5.72	111.63	120.20
24	DA	1674	G	P-O3'-C3'	5.72	128.78	120.20
24	DA	1606	C	P-O3'-C3'	5.71	128.77	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BA	512	G	P-O3'-C3'	5.71	128.77	120.20
24	BA	989	G	P-O3'-C3'	5.71	128.77	120.20
24	BA	1732	C	O3'-P-O5'	-5.71	95.43	104.00
55	CA	70	U	P-O3'-C3'	5.71	128.77	120.20
24	DA	15	G	P-O3'-C3'	-5.71	111.63	120.20
24	DA	2752	C	O4'-C1'-N1	5.71	117.07	108.50
36	DM	112	LEU	N-CA-C	-5.71	106.16	113.01
24	DA	216	A	P-O3'-C3'	-5.71	111.64	120.20
24	DA	1942	C	N1-C1'-C2'	-5.70	103.45	112.00
24	BA	1462	C	P-O3'-C3'	-5.70	111.65	120.20
21	AA	1421	G	P-O3'-C3'	-5.70	111.65	120.20
24	BA	1252	G	P-O5'-C5'	-5.70	112.35	120.90
24	DA	353	C	N1-C1'-C2'	5.70	120.55	112.00
55	CA	83	C	P-O3'-C3'	5.70	128.74	120.20
24	DA	1325	U	N1-C1'-C2'	5.70	122.54	114.00
24	BA	310	A	P-O3'-C3'	5.69	128.73	120.20
24	BA	1829	A	P-O3'-C3'	-5.69	111.67	120.20
24	DA	2897	U	P-O3'-C3'	-5.69	111.67	120.20
24	DA	646	U	N1-C1'-C2'	5.69	120.53	112.00
24	DA	2272	U	O4'-C1'-N1	-5.69	99.97	108.50
24	BA	2249	U	P-O3'-C3'	5.68	128.73	120.20
21	AA	286	C	P-O3'-C3'	-5.68	111.67	120.20
24	BA	2286	G	O3'-P-O5'	5.68	112.52	104.00
24	DA	620	G	P-O3'-C3'	5.68	128.72	120.20
24	BA	474	G	P-O3'-C3'	5.68	128.72	120.20
21	AA	115	G	O3'-P-O5'	5.68	112.52	104.00
24	DA	1345	C	N1-C1'-C2'	-5.68	103.48	112.00
24	DA	1398	C	P-O3'-C3'	-5.68	111.68	120.20
21	AA	1336	C	P-O3'-C3'	5.68	128.71	120.20
56	DB	91	C	P-O5'-C5'	-5.68	112.39	120.90
24	DA	1997	C	P-O3'-C3'	-5.67	111.69	120.20
55	CA	94	G	P-O3'-C3'	5.67	128.71	120.20
24	BA	1303	G	P-O5'-C5'	-5.67	112.39	120.90
24	DA	1981	A	P-O3'-C3'	-5.67	111.69	120.20
24	BA	507	A	P-O5'-C5'	-5.67	112.39	120.90
24	BA	510	C	N1-C1'-C2'	-5.67	103.50	112.00
24	BA	461	C	O3'-P-O5'	-5.67	95.50	104.00
28	BE	58	LYS	CA-C-N	5.67	126.92	119.84
28	BE	58	LYS	C-N-CA	5.67	126.92	119.84
55	CA	752	G	P-O3'-C3'	5.67	128.70	120.20
24	DA	788	A	P-O3'-C3'	5.67	128.70	120.20
24	BA	459	U	P-O5'-C5'	-5.66	112.41	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BA	915	C	P-O5'-C5'	-5.66	112.41	120.90
24	DA	1785	A	P-O3'-C3'	-5.66	111.71	120.20
24	BA	1714	U	N1-C1'-C2'	-5.66	103.51	112.00
24	DA	546	U	P-O3'-C3'	5.66	128.69	120.20
24	DA	391	A	P-O3'-C3'	-5.66	111.71	120.20
24	BA	1362	C	O3'-P-O5'	-5.66	95.52	104.00
24	DA	942	G	P-O3'-C3'	-5.66	111.72	120.20
24	DA	1839	G	N9-C1'-C2'	-5.66	103.52	112.00
55	CA	460	A	P-O5'-C5'	-5.65	112.42	120.90
21	AA	9	G	P-O3'-C3'	-5.65	111.72	120.20
24	BA	1654	A	N9-C1'-C2'	-5.65	103.52	112.00
24	BA	1947	C	P-O5'-C5'	-5.65	112.42	120.90
24	DA	2713	U	O4'-C1'-N1	-5.65	99.72	108.20
24	BA	1157	G	N9-C1'-C2'	-5.65	103.53	112.00
24	BA	1717	A	P-O3'-C3'	-5.65	111.73	120.20
21	AA	486	U	N1-C1'-C2'	-5.65	103.53	112.00
24	DA	767	U	P-O3'-C3'	-5.65	111.73	120.20
21	AA	252	U	N1-C1'-C2'	-5.65	103.53	112.00
21	AA	1448	C	N1-C1'-C2'	-5.65	103.53	112.00
55	CA	389	A	P-O3'-C3'	-5.65	111.73	120.20
24	DA	2585	U	P-O5'-C5'	-5.64	112.43	120.90
21	AA	266	G	C2'-C3'-O3'	5.64	117.96	109.50
24	BA	957	C	N1-C1'-C2'	5.64	122.46	114.00
24	BA	2498	C	P-O5'-C5'	-5.64	112.44	120.90
30	DG	52	GLY	CA-C-N	5.64	126.89	119.84
30	DG	52	GLY	C-N-CA	5.64	126.89	119.84
24	BA	1829	A	P-O5'-C5'	-5.64	112.44	120.90
24	BA	2439	A	O3'-P-O5'	5.64	112.46	104.00
55	CA	559	A	P-O3'-C3'	5.64	128.66	120.20
24	BA	959	A	P-O3'-C3'	-5.64	111.75	120.20
24	DA	1561	C	N1-C1'-C2'	-5.63	103.55	112.00
24	DA	2613	U	O3'-P-O5'	-5.63	95.55	104.00
24	BA	28	A	C2'-C3'-O3'	-5.63	105.25	113.70
55	CA	1502	A	P-O3'-C3'	5.63	128.65	120.20
24	DA	1489	C	N1-C1'-C2'	5.63	120.45	112.00
24	BA	404	A	P-O3'-C3'	5.63	128.64	120.20
37	BN	94	TYR	N-CA-C	-5.62	106.39	113.20
55	CA	1336	C	N1-C1'-C2'	5.62	122.44	114.00
26	DC	215	VAL	N-CA-C	5.62	116.40	108.36
21	AA	1507	A	P-O3'-C3'	-5.62	111.77	120.20
24	BA	1451	C	N1-C1'-C2'	5.62	122.43	114.00
55	CA	1500	A	P-O3'-C3'	-5.62	111.77	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	AM	42	VAL	N-CA-C	5.62	112.22	106.21
26	BC	58	LYS	N-CA-C	5.62	117.27	111.03
21	AA	567	G	P-O3'-C3'	-5.62	111.77	120.20
24	BA	505	A	P-O5'-C5'	-5.62	112.48	120.90
24	DA	2724	U	P-O3'-C3'	5.61	128.62	120.20
21	AA	1095	U	P-O5'-C5'	-5.61	112.48	120.90
24	BA	595	C	P-O5'-C5'	-5.61	112.49	120.90
24	DA	128	C	P-O3'-C3'	-5.61	111.79	120.20
24	BA	1062	G	P-O3'-C3'	-5.61	111.79	120.20
55	CA	976	G	P-O3'-C3'	-5.61	111.79	120.20
55	CA	1241	G	P-O3'-C3'	-5.61	111.79	120.20
47	BX	28	PHE	N-CA-C	-5.60	100.57	109.59
55	CA	653	U	N1-C1'-C2'	5.60	122.41	114.00
24	DA	2638	G	P-O3'-C3'	5.60	128.60	120.20
24	BA	329	G	P-O3'-C3'	5.60	128.60	120.20
24	BA	974	G	P-O3'-C3'	5.60	128.60	120.20
24	DA	2143	C	P-O3'-C3'	5.60	128.59	120.20
55	CA	1170	A	P-O3'-C3'	-5.59	111.81	120.20
21	AA	1399	C	P-O3'-C3'	5.59	128.59	120.20
24	BA	1455	G	P-O5'-C5'	-5.59	112.51	120.90
40	BQ	30	VAL	CB-CA-C	-5.59	103.32	110.98
21	AA	641	U	P-O3'-C3'	5.59	128.59	120.20
21	AA	1366	C	N1-C1'-C2'	-5.59	103.61	112.00
24	BA	1330	C	P-O3'-C3'	-5.59	111.82	120.20
24	BA	1626	A	P-O3'-C3'	5.59	128.58	120.20
24	DA	1240	U	N1-C1'-C2'	5.59	120.38	112.00
24	BA	527	C	P-O3'-C3'	5.59	128.58	120.20
24	BA	1009	A	C3'-C2'-C1'	5.59	106.89	101.30
21	AA	686	U	N1-C1'-C2'	5.58	120.38	112.00
55	CA	116	A	P-O5'-C5'	-5.58	112.52	120.90
21	AA	74	A	N9-C1'-C2'	-5.58	103.63	112.00
21	AA	816	A	P-O5'-C5'	-5.58	112.53	120.90
24	BA	461	C	P-O3'-C3'	-5.58	111.83	120.20
24	BA	934	U	N1-C1'-C2'	-5.58	103.62	112.00
24	BA	2030	A	P-O3'-C3'	5.58	128.57	120.20
24	BA	2835	A	P-O3'-C3'	5.58	128.57	120.20
24	BA	1239	G	P-O5'-C5'	-5.58	112.53	120.90
24	BA	2061	G	O3'-P-O5'	-5.58	95.63	104.00
24	BA	2809	A	P-O5'-C5'	-5.58	112.53	120.90
24	DA	2756	U	P-O3'-C3'	5.58	128.57	120.20
55	CA	459	A	P-O3'-C3'	5.58	128.56	120.20
24	DA	1993	U	P-O5'-C5'	-5.58	112.54	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
15	AP	5	ARG	N-CA-C	5.57	116.72	108.86
24	BA	229	C	P-O3'-C3'	-5.57	111.84	120.20
24	DA	1011	G	P-O3'-C3'	5.57	128.56	120.20
21	AA	90	C	P-O3'-C3'	-5.57	111.85	120.20
24	BA	1815	A	P-O3'-C3'	5.57	128.55	120.20
21	AA	554	A	P-O5'-C5'	-5.57	112.55	120.90
24	BA	49	A	P-O3'-C3'	5.57	128.55	120.20
24	DA	1626	A	P-O3'-C3'	5.57	128.55	120.20
24	BA	1335	C	P-O5'-C5'	-5.56	112.55	120.90
55	CA	344	A	P-O3'-C3'	5.56	128.55	120.20
26	DC	242	HIS	CA-C-N	5.56	125.84	119.83
26	DC	242	HIS	C-N-CA	5.56	125.84	119.83
24	DA	2895	G	P-O3'-C3'	-5.56	111.85	120.20
24	BA	279	A	N9-C1'-C2'	-5.56	103.66	112.00
24	DA	531	C	P-O3'-C3'	5.56	128.54	120.20
24	BA	1956	U	C3'-C2'-C1'	5.56	106.86	101.30
24	BA	2049	G	P-O5'-C5'	-5.56	112.56	120.90
24	DA	1635	A	P-O3'-C3'	-5.55	111.87	120.20
24	DA	1048	A	P-O3'-C3'	-5.55	111.87	120.20
24	DA	1956	U	C3'-C2'-C1'	5.55	106.85	101.30
55	CA	248	C	N1-C1'-C2'	-5.55	103.67	112.00
24	DA	1141	U	P-O3'-C3'	5.55	128.53	120.20
21	AA	654	G	P-O3'-C3'	-5.55	111.88	120.20
18	CS	33	TRP	N-CA-C	-5.55	106.39	112.72
24	BA	2793	C	N1-C1'-C2'	5.55	120.32	112.00
6	CG	12	LEU	CA-C-N	5.55	126.77	119.84
6	CG	12	LEU	C-N-CA	5.55	126.77	119.84
24	BA	695	G	P-O3'-C3'	-5.54	111.88	120.20
25	BB	108	A	P-O3'-C3'	5.54	128.52	120.20
38	BO	102	ARG	N-CA-C	-5.54	106.02	112.89
12	CM	88	LEU	N-CA-C	-5.54	106.21	114.64
24	BA	932	U	O5'-C5'-C4'	-5.54	103.38	111.70
24	BA	2450	A	P-O5'-C5'	-5.54	112.58	120.90
21	AA	33	A	P-O5'-C5'	-5.54	112.59	120.90
20	CU	46	ARG	N-CA-C	-5.54	106.36	113.23
25	BB	88	C	P-O3'-C3'	5.54	128.51	120.20
55	CA	368	U	N1-C1'-C2'	-5.54	103.69	112.00
24	BA	278	A	P-O3'-C3'	5.54	128.50	120.20
24	BA	1174	U	P-O3'-C3'	-5.54	111.90	120.20
55	CA	1128	C	N1-C1'-C2'	-5.54	103.70	112.00
24	BA	1267	U	P-O3'-C3'	-5.53	111.90	120.20
55	CA	464	U	N1-C1'-C2'	-5.53	103.70	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BC	140	VAL	N-CA-C	5.53	120.85	109.34
24	DA	1021	A	N9-C1'-C2'	-5.53	103.70	112.00
21	AA	1449	C	P-O3'-C3'	-5.53	111.90	120.20
24	BA	1767	G	P-O3'-C3'	-5.53	111.91	120.20
24	BA	2035	G	P-O3'-C3'	5.53	128.50	120.20
9	AJ	42	LEU	CA-C-N	5.53	125.45	119.76
9	AJ	42	LEU	C-N-CA	5.53	125.45	119.76
37	BN	105	GLY	N-CA-C	5.52	119.57	112.83
24	DA	2023	C	O4'-C1'-N1	5.52	116.78	108.50
21	AA	184	G	P-O3'-C3'	-5.52	111.92	120.20
21	AA	1046	A	P-O5'-C5'	-5.52	112.62	120.90
24	BA	791	C	P-O5'-C5'	-5.52	112.62	120.90
24	BA	1251	C	P-O5'-C5'	-5.52	112.62	120.90
24	DA	1808	A	P-O3'-C3'	5.52	128.48	120.20
24	DA	1816	C	N1-C1'-C2'	-5.52	105.73	114.00
24	BA	2738	A	P-O5'-C5'	-5.51	112.63	120.90
33	DJ	111	LYS	N-CA-C	5.51	118.28	109.02
24	DA	1992	G	P-O5'-C5'	5.51	129.17	120.90
24	DA	2550	G	P-O3'-C3'	-5.51	111.94	120.20
1	AB	180	ILE	CA-C-N	5.50	126.72	119.84
1	AB	180	ILE	C-N-CA	5.50	126.72	119.84
25	BB	80	U	N1-C1'-C2'	5.50	120.26	112.00
24	BA	1289	C	C3'-C2'-C1'	5.50	106.80	101.30
24	BA	1707	G	N9-C1'-C2'	-5.50	103.74	112.00
40	DQ	96	ASP	N-CA-C	-5.50	106.52	113.18
24	DA	1113	U	P-O3'-C3'	-5.50	111.94	120.20
24	BA	15	G	N9-C1'-C2'	-5.50	103.75	112.00
24	BA	1394	U	O4'-C1'-N1	-5.50	100.25	108.50
24	BA	1654	A	C3'-C2'-C1'	5.50	106.80	101.30
39	BP	25	VAL	N-CA-C	5.50	120.78	109.34
24	DA	2319	G	P-O3'-C3'	5.50	128.45	120.20
24	DA	2391	G	P-O5'-C5'	-5.50	112.65	120.90
1	CB	62	ARG	N-CA-C	-5.50	106.42	114.39
55	CA	991	U	N1-C1'-C2'	5.50	120.25	112.00
24	DA	93	G	P-O3'-C3'	-5.50	111.95	120.20
24	DA	2136	G	P-O3'-C3'	-5.50	111.95	120.20
24	DA	2874	C	N1-C1'-C2'	-5.50	103.75	112.00
21	AA	366	A	P-O3'-C3'	5.50	128.44	120.20
21	AA	1399	C	N1-C1'-C2'	5.50	122.24	114.00
24	BA	1655	A	P-O3'-C3'	-5.50	111.95	120.20
28	BE	32	VAL	CB-CA-C	-5.50	104.94	111.97
24	DA	230	G	P-O3'-C3'	-5.50	111.96	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	DA	805	G	P-O3'-C3'	5.50	128.45	120.20
24	DA	1303	G	P-O3'-C3'	-5.50	111.95	120.20
24	BA	2053	G	P-O3'-C3'	-5.49	111.96	120.20
1	CB	162	VAL	N-CA-C	5.49	115.55	107.75
55	CA	755	G	P-O3'-C3'	-5.49	111.96	120.20
24	DA	860	U	P-O3'-C3'	-5.49	111.96	120.20
24	DA	2286	G	P-O3'-C3'	5.49	128.44	120.20
24	BA	974	G	C3'-C2'-C1'	-5.49	96.01	101.50
55	CA	1158	C	P-O3'-C3'	-5.49	111.97	120.20
24	DA	749	A	P-O3'-C3'	-5.49	111.97	120.20
7	AH	89	ASP	N-CA-C	-5.49	106.56	113.20
21	AA	248	C	P-O3'-C3'	-5.48	111.98	120.20
24	BA	1351	C	P-O5'-C5'	-5.48	112.68	120.90
24	BA	2687	U	N1-C1'-C2'	5.48	120.22	112.00
24	BA	435	C	P-O3'-C3'	-5.48	111.98	120.20
24	BA	1568	G	P-O3'-C3'	-5.48	111.98	120.20
24	DA	1475	G	P-O3'-C3'	5.48	128.42	120.20
24	DA	2615	U	N1-C1'-C2'	-5.48	103.78	112.00
24	BA	671	C	P-O5'-C5'	-5.48	112.68	120.90
24	BA	2498	C	P-O3'-C3'	-5.48	111.98	120.20
28	DE	39	ALA	N-CA-C	-5.48	105.47	111.82
56	DB	45	A	P-O3'-C3'	-5.48	111.98	120.20
24	BA	373	U	P-O3'-C3'	-5.47	111.99	120.20
55	CA	1128	C	P-O5'-C5'	-5.47	112.69	120.90
24	BA	687	C	P-O3'-C3'	-5.47	111.99	120.20
24	BA	2563	U	N1-C1'-C2'	5.47	120.21	112.00
24	DA	2712	C	P-O3'-C3'	5.47	128.41	120.20
24	DA	1045	C	P-O3'-C3'	5.47	128.41	120.20
21	AA	1256	A	P-O3'-C3'	5.47	128.41	120.20
24	BA	1682	G	C3'-C2'-C1'	5.47	106.77	101.30
24	BA	2076	U	P-O3'-C3'	-5.47	112.00	120.20
24	BA	2425	A	P-O3'-C3'	5.47	128.41	120.20
24	DA	200	U	P-O3'-C3'	-5.47	112.00	120.20
55	CA	969	A	P-O3'-C3'	-5.47	112.00	120.20
24	BA	2275	C	O4'-C1'-N1	5.46	116.40	108.20
24	BA	1779	U	P-O5'-C5'	-5.46	112.71	120.90
24	DA	915	C	P-O3'-C3'	-5.46	112.01	120.20
24	BA	86	G	P-O3'-C3'	-5.46	112.01	120.20
24	BA	1782	U	C3'-C2'-C1'	5.46	106.76	101.30
24	DA	671	C	C3'-C2'-C1'	5.46	106.76	101.30
24	BA	370	G	P-O3'-C3'	5.46	128.38	120.20
43	BT	35	ALA	CB-CA-C	-5.46	109.30	115.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
21	AA	344	A	P-O3'-C3'	5.46	128.38	120.20
56	DB	104	A	O4'-C4'-C3'	5.46	109.45	104.00
24	BA	15	G	P-O3'-C3'	-5.45	112.02	120.20
24	BA	2021	C	O3'-P-O5'	-5.45	95.82	104.00
4	CE	82	HIS	CA-C-N	5.45	125.63	119.90
4	CE	82	HIS	C-N-CA	5.45	125.63	119.90
24	DA	958	U	N1-C1'-C2'	-5.45	103.82	112.00
25	BB	88	C	N1-C1'-C2'	5.45	122.17	114.00
1	CB	21	TYR	N-CA-C	-5.45	106.83	112.93
24	DA	1784	A	P-O3'-C3'	5.45	128.37	120.20
55	CA	815	A	P-O3'-C3'	5.45	128.37	120.20
24	DA	1207	C	P-O5'-C5'	-5.45	112.73	120.90
21	AA	1398	A	P-O3'-C3'	-5.45	112.03	120.20
24	BA	654	A	P-O3'-C3'	-5.45	112.03	120.20
24	BA	753	A	P-O3'-C3'	-5.45	112.03	120.20
24	BA	777	G	N9-C1'-C2'	-5.45	103.83	112.00
24	DA	1089	A	P-O3'-C3'	5.45	128.37	120.20
55	CA	1169	A	C3'-C2'-C1'	5.44	106.74	101.30
21	AA	422	C	C2'-C3'-O3'	5.44	117.66	109.50
21	AA	1452	C	O3'-P-O5'	-5.44	95.84	104.00
24	BA	975	A	P-O3'-C3'	-5.44	112.04	120.20
24	BA	2321	U	P-O3'-C3'	-5.44	112.04	120.20
4	AE	91	SER	N-CA-C	5.44	117.61	107.99
24	BA	249	C	N1-C1'-C2'	5.44	122.16	114.00
55	CA	1052	U	P-O5'-C5'	-5.44	112.74	120.90
30	DG	6	ALA	CA-C-N	5.44	126.64	119.84
30	DG	6	ALA	C-N-CA	5.44	126.64	119.84
24	DA	2874	C	C3'-C2'-C1'	5.44	106.74	101.30
37	BN	43	GLU	N-CA-C	-5.44	106.78	113.41
55	CA	1229	A	N9-C1'-C2'	-5.44	103.85	112.00
24	BA	61	C	P-O5'-C5'	-5.43	112.75	120.90
24	BA	831	G	P-O3'-C3'	-5.43	112.05	120.20
55	CA	15	G	P-O3'-C3'	-5.43	112.05	120.20
24	DA	1136	G	P-O3'-C3'	-5.43	112.05	120.20
24	DA	1568	G	P-O3'-C3'	-5.43	112.05	120.20
24	DA	990	A	P-O5'-C5'	-5.43	112.75	120.90
24	BA	860	U	P-O3'-C3'	-5.43	112.06	120.20
24	DA	1072	C	P-O3'-C3'	-5.43	112.06	120.20
24	DA	1535	A	P-O3'-C3'	5.43	128.35	120.20
24	DA	1993	U	C3'-C2'-C1'	5.43	106.73	101.30
19	AT	68	LYS	N-CA-C	5.43	117.25	108.08
25	BB	26	C	P-O3'-C3'	-5.43	112.06	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BA	1012	U	O4'-C1'-N1	5.42	116.34	108.20
24	BA	1387	A	P-O5'-C5'	-5.42	112.76	120.90
39	BP	102	ARG	N-CA-C	5.42	122.35	110.80
24	DA	2063	C	N1-C1'-C2'	-5.42	103.86	112.00
55	CA	169	C	O4'-C1'-N1	5.42	116.63	108.50
33	DJ	111	LYS	CB-CA-C	-5.42	108.73	115.89
20	AU	32	ARG	N-CA-C	-5.42	104.63	113.19
21	AA	214	C	P-O3'-C3'	-5.42	112.07	120.20
21	AA	724	G	P-O3'-C3'	-5.42	112.07	120.20
24	BA	2092	U	P-O3'-C3'	5.42	128.33	120.20
24	DA	2691	C	P-O3'-C3'	-5.42	112.07	120.20
33	BJ	7	LYS	CA-C-N	5.42	126.61	119.84
33	BJ	7	LYS	C-N-CA	5.42	126.61	119.84
24	DA	2210	U	O3'-P-O5'	5.42	112.12	104.00
24	DA	1060	U	N1-C1'-C2'	5.42	122.12	114.00
21	AA	1282	C	N1-C1'-C2'	-5.41	103.88	112.00
24	BA	2251	G	P-O3'-C3'	-5.41	112.08	120.20
24	BA	962	G	P-O5'-C5'	-5.41	112.78	120.90
24	BA	216	A	C3'-C2'-C1'	5.41	106.71	101.30
45	BV	47	VAL	CB-CA-C	-5.41	104.76	112.22
21	AA	792	A	P-O3'-C3'	5.41	128.31	120.20
24	BA	934	U	P-O3'-C3'	-5.41	112.09	120.20
38	DO	67	ASN	N-CA-C	5.40	117.89	109.52
21	AA	821	G	N9-C1'-C2'	-5.40	103.90	112.00
24	BA	2359	C	N1-C1'-C2'	5.40	120.10	112.00
55	CA	641	U	P-O3'-C3'	5.40	128.31	120.20
24	BA	748	G	C3'-C2'-C1'	5.40	106.70	101.30
24	BA	2543	G	P-O5'-C5'	-5.40	112.80	120.90
24	DA	396	G	P-O3'-C3'	-5.40	112.10	120.20
24	DA	753	A	C3'-C2'-C1'	5.40	106.70	101.30
24	BA	1157	G	C3'-C2'-C1'	5.40	106.70	101.30
24	DA	273	G	N9-C1'-C2'	-5.40	103.90	112.00
24	BA	1457	U	N1-C1'-C2'	5.40	120.09	112.00
24	BA	2093	G	N9-C1'-C2'	-5.40	103.90	112.00
24	BA	2303	G	P-O3'-C3'	-5.40	112.10	120.20
12	CM	96	VAL	N-CA-C	-5.40	108.58	113.71
55	CA	1530	G	P-O3'-C3'	-5.40	112.10	120.20
24	BA	2322	A	P-O3'-C3'	-5.40	112.11	120.20
21	AA	84	U	N1-C1'-C2'	5.39	120.09	112.00
24	BA	103	A	P-O3'-C3'	-5.39	112.11	120.20
55	CA	566	G	O4'-C1'-C2'	5.39	111.19	105.80
45	DV	11	GLU	N-CA-C	5.39	115.25	108.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BA	13	A	P-O3'-C3'	5.39	128.29	120.20
21	AA	1211	U	N1-C1'-C2'	5.39	120.09	112.00
24	BA	937	C	P-O3'-C3'	-5.39	112.11	120.20
24	BA	964	C	P-O5'-C5'	-5.39	112.81	120.90
24	BA	1699	G	P-O3'-C3'	5.39	128.29	120.20
5	CF	28	ALA	N-CA-C	-5.39	107.72	114.56
24	DA	961	C	C4'-C3'-O3'	5.39	117.48	109.40
55	CA	115	G	P-O3'-C3'	5.39	128.28	120.20
24	DA	2896	C	P-O3'-C3'	-5.39	112.12	120.20
24	BA	562	U	N1-C1'-C2'	5.39	120.08	112.00
24	BA	1475	G	P-O3'-C3'	5.39	128.28	120.20
55	CA	511	C	P-O3'-C3'	5.39	128.28	120.20
55	CA	62	U	N1-C1'-C2'	-5.38	103.92	112.00
24	DA	386	G	P-O3'-C3'	5.38	128.28	120.20
24	DA	390	U	N1-C1'-C2'	5.38	122.08	114.00
21	AA	1102	A	C3'-C2'-C1'	5.38	106.68	101.30
24	BA	1254	A	P-O5'-C5'	-5.38	112.83	120.90
24	DA	2225	A	P-O3'-C3'	5.38	128.27	120.20
24	DA	475	C	P-O5'-C5'	-5.38	112.83	120.90
21	AA	18	C	P-O3'-C3'	-5.38	112.13	120.20
21	AA	60	A	P-O3'-C3'	5.38	128.27	120.20
24	BA	374	A	N9-C1'-C2'	-5.38	103.93	112.00
24	BA	815	C	P-O3'-C3'	-5.38	112.13	120.20
24	DA	301	G	P-O3'-C3'	5.38	128.27	120.20
24	DA	1274	A	P-O3'-C3'	-5.38	112.13	120.20
24	DA	2226	C	N1-C1'-C2'	-5.38	103.93	112.00
24	DA	2682	A	C3'-C2'-C1'	5.38	106.68	101.30
24	BA	535	G	P-O5'-C5'	-5.38	112.84	120.90
24	DA	506	G	P-O5'-C5'	-5.38	112.84	120.90
21	AA	499	A	P-O3'-C3'	5.37	128.26	120.20
21	AA	1229	A	P-O5'-C5'	-5.37	112.84	120.90
24	DA	35	G	C3'-C2'-C1'	5.37	106.67	101.30
24	DA	1941	C	N1-C1'-C2'	-5.37	103.94	112.00
56	DB	24	G	P-O3'-C3'	5.37	128.26	120.20
21	AA	1302	C	N1-C1'-C2'	-5.37	103.94	112.00
21	AA	9	G	N9-C1'-C2'	-5.37	103.95	112.00
21	AA	198	G	P-O3'-C3'	-5.37	112.15	120.20
48	BY	16	THR	N-CA-C	-5.37	105.33	111.07
55	CA	1349	A	P-O3'-C3'	-5.37	112.15	120.20
55	CA	1500	A	C3'-C2'-C1'	5.37	106.67	101.30
24	DA	1238	G	C3'-C2'-C1'	5.37	106.67	101.30
21	AA	173	U	P-O3'-C3'	5.37	128.25	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
21	AA	519	C	N1-C1'-C2'	-5.37	103.95	112.00
25	BB	15	A	P-O5'-C5'	-5.37	112.85	120.90
24	BA	1494	A	C3'-C2'-C1'	5.37	106.67	101.30
24	BA	1073	A	P-O3'-C3'	-5.36	112.16	120.20
21	AA	279	A	P-O3'-C3'	5.36	128.24	120.20
21	AA	595	A	P-O3'-C3'	5.36	128.24	120.20
21	AA	1140	C	O4'-C1'-N1	5.36	116.54	108.50
24	BA	1282	U	P-O5'-C5'	-5.36	112.86	120.90
24	BA	2200	C	P-O3'-C3'	-5.36	112.16	120.20
55	CA	52	C	P-O3'-C3'	-5.36	112.16	120.20
24	BA	1332	G	C4'-C3'-C2'	5.36	107.96	102.60
55	CA	424	G	P-O3'-C3'	-5.36	112.16	120.20
24	BA	2611	C	C3'-C2'-C1'	5.36	106.66	101.30
55	CA	462	G	P-O3'-C3'	5.36	128.23	120.20
24	DA	475	C	N1-C1'-C2'	-5.35	103.97	112.00
24	BA	53	A	N9-C1'-C2'	-5.35	103.97	112.00
24	BA	1957	C	N1-C1'-C2'	-5.35	103.97	112.00
24	BA	530	G	P-O3'-C3'	-5.35	112.17	120.20
24	DA	271	G	C2'-C3'-O3'	5.35	117.53	109.50
55	CA	367	U	O3'-P-O5'	-5.35	95.98	104.00
24	DA	1812	U	N1-C1'-C2'	5.35	120.02	112.00
24	DA	2238	G	P-O3'-C3'	5.35	128.22	120.20
30	BG	154	GLU	CA-C-N	5.35	126.39	120.45
30	BG	154	GLU	C-N-CA	5.35	126.39	120.45
24	DA	1332	G	P-O3'-C3'	5.35	128.22	120.20
24	BA	1142	A	C8-N9-C1'	5.35	143.74	127.70
24	DA	249	C	P-O3'-C3'	5.35	128.22	120.20
24	BA	1210	G	O3'-P-O5'	-5.34	95.98	104.00
24	DA	1329	U	N1-C1'-C2'	5.34	120.02	112.00
21	AA	590	U	P-O3'-C3'	-5.34	112.19	120.20
55	CA	705	G	P-O5'-C5'	-5.34	112.89	120.90
24	BA	2029	G	P-O5'-C5'	-5.34	112.89	120.90
25	BB	58	A	N9-C1'-C2'	-5.34	103.99	112.00
24	BA	572	A	P-O3'-C3'	-5.34	112.19	120.20
24	DA	1627	G	P-O3'-C3'	-5.34	112.19	120.20
24	DA	1815	A	P-O3'-C3'	5.34	128.21	120.20
21	AA	388	G	P-O3'-C3'	5.34	128.20	120.20
21	AA	487	A	C3'-C2'-C1'	5.34	106.64	101.30
21	AA	495	A	O3'-P-O5'	5.34	112.01	104.00
21	AA	1094	G	P-O3'-C3'	5.34	128.21	120.20
24	DA	1069	A	O3'-P-O5'	5.34	112.00	104.00
56	DB	76	G	N9-C1'-C2'	-5.34	104.00	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BA	1180	U	P-O3'-C3'	5.33	128.20	120.20
24	BA	2135	A	P-O3'-C3'	-5.33	112.20	120.20
24	DA	476	G	N9-C1'-C2'	-5.33	104.00	112.00
24	DA	2543	G	P-O3'-C3'	5.33	128.19	120.20
55	CA	383	A	C3'-C2'-C1'	5.33	106.63	101.30
5	AF	17	GLN	N-CA-C	-5.32	106.82	113.15
24	BA	765	C	C3'-C2'-C1'	5.32	106.62	101.30
55	CA	702	A	P-O3'-C3'	5.32	128.18	120.20
56	DB	38	C	O4'-C1'-N1	5.32	116.48	108.50
30	BG	22	VAL	N-CA-C	5.32	114.03	106.53
24	BA	1073	A	N9-C1'-C2'	-5.32	104.02	112.00
24	BA	35	G	C3'-C2'-C1'	5.32	106.61	101.30
24	BA	2492	U	C3'-C2'-C1'	5.32	106.62	101.30
24	DA	1061	U	P-O3'-C3'	-5.32	112.23	120.20
24	DA	2148	G	P-O3'-C3'	-5.31	112.23	120.20
24	DA	2348	U	P-O3'-C3'	-5.31	112.23	120.20
24	BA	207	A	C3'-C2'-C1'	5.31	106.61	101.30
10	AK	121	ARG	CA-C-N	5.31	125.85	120.38
10	AK	121	ARG	C-N-CA	5.31	125.85	120.38
24	BA	1008	A	P-O3'-C3'	5.31	128.16	120.20
55	CA	414	A	C3'-C2'-C1'	5.31	106.61	101.30
27	DD	168	GLU	CB-CA-C	-5.31	108.79	116.54
21	AA	641	U	N1-C1'-C2'	5.31	119.96	112.00
24	DA	1857	G	P-O3'-C3'	5.31	128.16	120.20
24	BA	692	C	P-O5'-C5'	-5.30	112.94	120.90
23	CW	4	U	N1-C1'-C2'	5.30	119.95	112.00
24	DA	2450	A	C3'-C2'-C1'	5.30	106.60	101.30
24	BA	2058	A	P-O5'-C5'	-5.30	112.94	120.90
21	AA	1168	U	O3'-P-O5'	-5.30	96.05	104.00
24	BA	1932	A	C3'-C2'-C1'	5.30	106.60	101.30
24	BA	1980	G	P-O3'-C3'	5.30	128.15	120.20
21	AA	1258	G	C3'-C2'-C1'	5.30	106.60	101.30
24	BA	2873	A	P-O3'-C3'	5.30	128.15	120.20
24	BA	2880	C	N1-C1'-C2'	-5.30	104.05	112.00
55	CA	914	A	C3'-C2'-C1'	5.30	106.60	101.30
24	DA	2714	G	P-O3'-C3'	-5.30	112.25	120.20
24	BA	1223	G	P-O3'-C3'	-5.30	112.25	120.20
55	CA	509	A	P-O5'-C5'	-5.30	112.95	120.90
21	AA	966	G	P-O3'-C3'	-5.30	112.25	120.20
39	BP	46	VAL	CB-CA-C	-5.30	105.51	111.23
24	DA	2035	G	P-O3'-C3'	-5.30	112.26	120.20
24	BA	227	A	C2'-C3'-O3'	5.29	117.44	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BA	2780	G	P-O5'-C5'	-5.29	112.96	120.90
24	DA	449	A	C3'-C2'-C1'	5.29	106.59	101.30
24	DA	2094	A	P-O3'-C3'	-5.29	112.26	120.20
24	BA	616	A	P-O3'-C3'	-5.29	112.26	120.20
24	BA	2310	C	O3'-P-O5'	-5.29	96.06	104.00
24	BA	373	U	C3'-C2'-C1'	5.29	106.59	101.30
24	BA	2612	C	P-O5'-C5'	-5.29	112.96	120.90
29	BF	174	PHE	CA-C-N	5.29	126.45	119.84
29	BF	174	PHE	C-N-CA	5.29	126.45	119.84
21	AA	253	A	P-O3'-C3'	-5.29	112.27	120.20
24	BA	512	G	O3'-P-O5'	-5.29	96.07	104.00
24	BA	223	A	C3'-C2'-C1'	5.29	106.58	101.30
24	BA	749	A	N9-C1'-C2'	-5.29	104.07	112.00
24	BA	2603	G	N9-C1'-C2'	-5.29	104.07	112.00
24	BA	762	U	P-O3'-C3'	5.28	128.12	120.20
32	DI	105	LEU	N-CA-C	-5.28	106.51	113.17
24	DA	647	G	C3'-C2'-C1'	5.28	106.58	101.30
24	BA	491	G	P-O3'-C3'	-5.28	112.28	120.20
24	BA	766	U	P-O3'-C3'	-5.28	112.28	120.20
24	BA	1996	C	P-O3'-C3'	5.28	128.12	120.20
46	DW	72	GLY	CA-C-N	5.28	125.18	119.85
46	DW	72	GLY	C-N-CA	5.28	125.18	119.85
24	BA	382	A	P-O3'-C3'	-5.28	112.28	120.20
55	CA	173	U	P-O3'-C3'	5.28	128.12	120.20
24	DA	1780	A	P-O3'-C3'	5.28	128.12	120.20
24	DA	1785	A	O3'-P-O5'	-5.28	96.08	104.00
55	CA	1025	U	N1-C1'-C2'	5.28	119.91	112.00
24	BA	1173	U	N1-C1'-C2'	5.27	119.91	112.00
24	BA	2283	C	P-O3'-C3'	-5.27	112.29	120.20
40	BQ	93	ILE	CB-CA-C	-5.27	104.35	112.05
24	BA	388	G	P-O5'-C5'	-5.27	112.99	120.90
24	DA	2338	C	O4'-C1'-N1	5.27	116.41	108.50
21	AA	94	G	O3'-P-O5'	5.27	111.91	104.00
21	AA	267	C	C3'-C2'-C1'	5.27	106.57	101.30
24	DA	727	A	C3'-C2'-C1'	5.27	106.57	101.30
24	DA	1025	G	P-O3'-C3'	5.27	128.10	120.20
24	BA	1319	C	P-O5'-C5'	-5.27	113.00	120.90
36	BM	126	ILE	N-CA-C	5.27	116.07	108.48
24	BA	1290	C	P-O3'-C3'	-5.27	112.30	120.20
24	DA	2259	U	C3'-C2'-C1'	5.27	106.57	101.30
21	AA	885	G	N9-C1'-C2'	-5.26	104.10	112.00
24	BA	386	G	O3'-P-O5'	-5.26	96.10	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	DA	1786	A	P-O3'-C3'	5.26	128.10	120.20
55	CA	1322	C	P-O3'-C3'	5.26	128.09	120.20
24	DA	2573	C	N1-C1'-C2'	5.26	119.89	112.00
24	DA	2727	A	C3'-C2'-C1'	5.26	106.56	101.30
26	BC	105	ALA	CA-C-N	5.26	126.42	119.84
26	BC	105	ALA	C-N-CA	5.26	126.42	119.84
34	BK	22	ILE	CB-CA-C	-5.26	104.68	111.20
18	CS	79	TYR	N-CA-C	5.26	115.08	108.45
55	CA	1323	G	P-O3'-C3'	5.26	128.09	120.20
24	DA	2406	A	P-O3'-C3'	5.26	128.09	120.20
24	BA	198	C	P-O5'-C5'	5.26	128.79	120.90
24	BA	2337	G	C3'-C2'-C1'	5.26	106.56	101.30
32	BI	132	ALA	N-CA-C	-5.26	106.63	112.57
33	DJ	27	ARG	N-CA-C	-5.26	106.12	112.54
21	AA	908	A	P-O5'-C5'	-5.26	113.01	120.90
24	DA	1133	A	P-O5'-C5'	-5.26	113.02	120.90
24	BA	811	U	P-O5'-C5'	-5.25	113.02	120.90
24	DA	806	C	C3'-C2'-C1'	5.25	106.56	101.30
21	AA	306	A	P-O3'-C3'	-5.25	112.33	120.20
24	DA	244	A	C3'-C2'-C1'	5.25	106.55	101.30
24	DA	2385	C	C3'-C2'-C1'	5.25	106.55	101.30
21	AA	931	C	O4'-C1'-N1	5.25	116.37	108.50
37	BN	101	GLY	N-CA-C	5.25	125.61	113.18
24	DA	741	U	P-O5'-C5'	-5.25	113.03	120.90
24	BA	836	G	P-O3'-C3'	5.24	128.06	120.20
24	BA	1290	C	N1-C1'-C2'	-5.24	104.14	112.00
24	BA	2520	C	P-O3'-C3'	-5.24	112.33	120.20
24	BA	2775	G	P-O5'-C5'	-5.24	113.03	120.90
55	CA	1401	G	C3'-C2'-C1'	5.24	106.54	101.30
43	DT	85	VAL	N-CA-C	5.24	115.45	110.42
24	DA	1112	G	C3'-C2'-C1'	5.24	106.54	101.30
24	DA	1965	C	P-O3'-C3'	-5.24	112.33	120.20
24	DA	251	A	P-O5'-C5'	-5.24	113.04	120.90
21	AA	1125	U	P-O3'-C3'	5.24	128.06	120.20
24	BA	2615	U	C3'-C2'-C1'	5.24	106.54	101.30
30	BG	82	PHE	N-CA-C	5.24	118.28	109.95
36	BM	42	THR	N-CA-C	5.24	118.80	111.30
55	CA	354	G	P-O3'-C3'	-5.24	112.34	120.20
24	DA	456	C	P-O5'-C5'	-5.24	113.04	120.90
24	BA	748	G	P-O5'-C5'	-5.24	113.04	120.90
24	DA	961	C	O4'-C1'-N1	5.24	116.06	108.20
21	AA	1320	C	P-O3'-C3'	-5.24	112.35	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BA	533	G	N9-C1'-C2'	-5.24	104.15	112.00
24	BA	866	A	P-O3'-C3'	-5.23	112.35	120.20
55	CA	1032	G	P-O3'-C3'	5.23	128.05	120.20
55	CA	1440	U	N1-C1'-C2'	5.23	119.85	112.00
24	DA	2023	C	C3'-C2'-C1'	5.23	106.53	101.30
24	BA	454	A	O3'-P-O5'	-5.23	96.15	104.00
24	DA	388	G	C3'-C2'-C1'	5.23	106.53	101.30
24	DA	1334	G	P-O3'-C3'	-5.23	112.35	120.20
21	AA	465	A	P-O3'-C3'	-5.23	112.36	120.20
21	AA	1530	G	N9-C1'-C2'	-5.23	104.16	112.00
55	CA	977	A	P-O3'-C3'	-5.23	112.36	120.20
24	DA	1386	C	C3'-C2'-C1'	5.23	106.53	101.30
21	AA	654	G	C3'-C2'-C1'	5.23	106.53	101.30
24	BA	1130	U	P-O5'-C5'	-5.23	113.06	120.90
24	BA	2616	C	C3'-C2'-C1'	5.22	106.53	101.30
24	BA	485	C	P-O3'-C3'	-5.22	112.36	120.20
24	BA	614	A	P-O3'-C3'	5.22	128.03	120.20
24	DA	2566	A	P-O3'-C3'	5.22	128.03	120.20
55	CA	1051	C	N1-C1'-C2'	-5.22	104.17	112.00
24	DA	1838	C	O3'-P-O5'	5.22	111.83	104.00
24	DA	1079	C	P-O3'-C3'	-5.22	112.37	120.20
24	DA	1980	G	P-O3'-C3'	5.22	128.03	120.20
24	BA	527	C	O3'-P-O5'	5.21	111.82	104.00
24	BA	1039	A	P-O3'-C3'	-5.21	112.38	120.20
24	BA	1856	U	O4'-C1'-N1	5.21	116.32	108.50
25	BB	12	C	P-O3'-C3'	5.21	128.02	120.20
55	CA	1397	C	N1-C1'-C2'	-5.21	106.18	114.00
24	DA	370	G	O4'-C1'-C2'	5.21	111.02	105.80
20	AU	20	ARG	N-CA-C	-5.21	107.22	113.21
24	BA	713	G	P-O5'-C5'	-5.21	113.08	120.90
24	BA	2062	A	P-O3'-C3'	-5.21	112.38	120.20
24	BA	2197	U	O3'-P-O5'	5.21	111.82	104.00
24	BA	974	G	N9-C1'-C2'	5.21	121.82	114.00
24	BA	249	C	C2'-C3'-O3'	5.21	117.31	109.50
55	CA	482	A	P-O5'-C5'	-5.21	113.08	120.90
24	BA	250	G	C3'-C2'-C1'	5.21	106.51	101.30
24	BA	1062	G	C3'-C2'-C1'	5.21	106.51	101.30
24	DA	34	U	N1-C1'-C2'	-5.21	106.19	114.00
24	DA	1682	G	P-O3'-C3'	-5.21	112.39	120.20
24	DA	2582	G	C3'-C2'-C1'	5.21	106.51	101.30
19	CT	5	SER	N-CA-C	-5.21	106.98	113.38
24	BA	2714	G	P-O3'-C3'	-5.21	112.39	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	DA	121	G	P-O3'-C3'	-5.21	112.39	120.20
8	AI	95	SER	N-CA-C	-5.20	108.19	114.75
21	AA	1519	A	P-O3'-C3'	-5.20	112.39	120.20
24	DA	789	A	P-O3'-C3'	5.20	128.00	120.20
24	BA	1560	G	C3'-C2'-C1'	5.20	106.50	101.30
24	BA	1818	U	N1-C1'-C2'	5.20	121.80	114.00
15	AP	40	ASN	CA-C-N	5.20	124.86	119.56
15	AP	40	ASN	C-N-CA	5.20	124.86	119.56
24	BA	481	G	C2'-C3'-O3'	5.20	117.30	109.50
24	BA	1799	G	O3'-P-O5'	5.20	111.80	104.00
24	BA	1857	G	P-O3'-C3'	5.20	128.00	120.20
21	AA	250	A	P-O3'-C3'	5.20	128.00	120.20
24	BA	1707	G	C3'-C2'-C1'	5.20	106.50	101.30
24	DA	955	U	N1-C1'-C2'	5.20	119.80	112.00
24	DA	1946	U	P-O5'-C5'	-5.20	113.10	120.90
24	BA	591	U	N1-C1'-C2'	5.20	119.80	112.00
24	BA	181	A	P-O5'-C5'	-5.20	113.11	120.90
21	AA	210	C	N1-C1'-C2'	5.19	119.79	112.00
21	AA	1398	A	N9-C1'-C2'	-5.19	104.22	112.00
55	CA	1064	G	P-O3'-C3'	5.19	127.98	120.20
24	BA	2427	C	C3'-C2'-C1'	5.19	106.49	101.30
24	DA	1395	A	P-O3'-C3'	5.19	127.98	120.20
25	BB	45	A	C3'-C2'-C1'	5.19	106.49	101.30
55	CA	452	A	C3'-C2'-C1'	5.19	106.49	101.30
24	DA	1702	G	P-O3'-C3'	-5.19	112.42	120.20
24	BA	1839	G	C3'-C2'-C1'	5.18	106.48	101.30
24	DA	206	U	C3'-C2'-C1'	5.18	106.48	101.30
24	DA	946	C	C3'-C2'-C1'	5.18	106.48	101.30
21	AA	5	U	N1-C1'-C2'	5.18	119.78	112.00
33	BJ	18	VAL	CB-CA-C	-5.18	102.90	110.62
24	DA	2403	C	P-O5'-C5'	-5.18	113.13	120.90
24	BA	346	A	C3'-C2'-C1'	5.18	106.48	101.30
56	DB	88	C	P-O3'-C3'	5.18	127.97	120.20
1	AB	118	THR	N-CA-C	-5.18	105.68	112.72
21	AA	513	C	P-O5'-C5'	-5.18	113.13	120.90
24	BA	2450	A	C2'-C3'-O3'	-5.18	105.93	113.70
45	BV	8	VAL	CB-CA-C	-5.18	104.42	111.15
55	CA	498	A	P-O5'-C5'	-5.18	113.14	120.90
24	BA	121	G	C3'-C2'-C1'	5.17	106.47	101.30
26	BC	27	LYS	CA-C-N	5.17	126.31	119.84
26	BC	27	LYS	C-N-CA	5.17	126.31	119.84
26	BC	83	ASP	CA-C-N	5.17	125.25	119.87

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BC	83	ASP	C-N-CA	5.17	125.25	119.87
49	BZ	25	GLY	N-CA-C	-5.17	107.90	114.16
24	DA	1347	A	P-O3'-C3'	-5.17	112.44	120.20
24	BA	1476	U	C3'-C2'-C1'	5.17	106.47	101.30
24	BA	2543	G	P-O3'-C3'	-5.17	112.44	120.20
24	DA	1783	A	P-O3'-C3'	-5.17	112.44	120.20
23	AW	4	U	N1-C1'-C2'	5.17	119.75	112.00
36	BM	57	VAL	N-CA-C	-5.17	106.85	112.80
24	DA	1611	C	C3'-C2'-C1'	5.17	106.47	101.30
24	DA	1090	A	P-O3'-C3'	-5.17	112.45	120.20
24	DA	2620	C	N1-C1'-C2'	5.17	119.75	112.00
21	AA	567	G	C2'-C3'-O3'	-5.17	105.95	113.70
21	AA	567	G	C3'-C2'-C1'	5.17	106.47	101.30
24	BA	14	A	C3'-C2'-C1'	5.17	106.47	101.30
24	DA	831	G	P-O3'-C3'	-5.17	112.45	120.20
24	DA	1237	A	P-O3'-C3'	5.17	127.95	120.20
24	DA	2517	C	N1-C1'-C2'	5.17	121.75	114.00
56	DB	13	G	P-O3'-C3'	-5.17	112.45	120.20
24	BA	1611	C	C3'-C2'-C1'	5.16	106.46	101.30
36	DM	71	LYS	CA-C-N	5.16	126.29	119.84
36	DM	71	LYS	C-N-CA	5.16	126.29	119.84
56	DB	76	G	O3'-P-O5'	5.16	111.74	104.00
56	DB	77	U	P-O5'-C5'	5.16	128.64	120.90
21	AA	1285	A	P-O3'-C3'	5.16	127.94	120.20
24	BA	1144	A	N9-C1'-C2'	-5.16	104.26	112.00
24	BA	2214	C	C3'-C2'-C1'	5.16	106.46	101.30
35	BL	52	GLY	N-CA-C	-5.16	103.45	112.53
24	DA	621	A	C3'-C2'-C1'	5.16	106.46	101.30
55	CA	686	U	P-O3'-C3'	5.16	127.94	120.20
55	CA	1094	G	O3'-P-O5'	-5.16	96.26	104.00
55	CA	1366	C	N1-C1'-C2'	-5.16	104.26	112.00
24	BA	126	A	P-O3'-C3'	-5.16	112.47	120.20
21	AA	914	A	C3'-C2'-C1'	5.15	106.45	101.30
24	BA	507	A	P-O3'-C3'	-5.15	112.47	120.20
24	DA	1700	A	C3'-C2'-C1'	5.15	106.45	101.30
21	AA	889	A	P-O3'-C3'	5.15	127.93	120.20
21	AA	1182	G	O3'-P-O5'	-5.15	96.27	104.00
27	BD	10	GLY	N-CA-C	5.15	125.39	113.18
24	DA	119	A	P-O3'-C3'	5.15	127.93	120.20
24	BA	2041	U	P-O5'-C5'	-5.15	113.18	120.90
19	CT	68	LYS	CB-CA-C	-5.15	110.62	116.54
55	CA	537	G	P-O5'-C5'	-5.15	113.18	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	DA	775	G	O4'-C1'-N9	5.15	115.92	108.20
24	DA	2259	U	N1-C1'-C2'	-5.15	104.28	112.00
24	DA	122	G	N9-C1'-C2'	-5.14	104.28	112.00
24	DA	1127	A	C3'-C2'-C1'	5.14	106.44	101.30
21	AA	702	A	O3'-P-O5'	-5.14	96.29	104.00
24	BA	557	C	O3'-P-O5'	-5.14	96.29	104.00
24	DA	794	A	C3'-C2'-C1'	5.14	106.44	101.30
24	DA	421	C	P-O3'-C3'	5.14	127.91	120.20
24	BA	1999	C	P-O5'-C5'	-5.14	113.19	120.90
24	DA	2492	U	C3'-C2'-C1'	5.14	106.44	101.30
24	DA	2833	U	P-O5'-C5'	5.14	128.61	120.90
21	AA	1046	A	P-O3'-C3'	-5.13	112.50	120.20
24	BA	2756	U	N1-C1'-C2'	5.13	121.70	114.00
21	AA	369	G	N9-C1'-C2'	-5.13	104.30	112.00
24	BA	656	G	P-O5'-C5'	-5.13	113.20	120.90
25	BB	67	G	P-O3'-C3'	-5.13	112.50	120.20
55	CA	122	G	P-O5'-C5'	-5.13	113.20	120.90
55	CA	248	C	P-O5'-C5'	-5.13	113.20	120.90
24	DA	1021	A	C2'-C3'-O3'	-5.13	106.00	113.70
24	DA	2226	C	C3'-C2'-C1'	5.13	106.43	101.30
24	DA	376	G	P-O3'-C3'	-5.13	112.51	120.20
24	DA	2004	G	P-O3'-C3'	-5.13	112.51	120.20
24	BA	52	A	C3'-C2'-C1'	5.13	106.43	101.30
24	DA	1948	G	P-O3'-C3'	-5.13	112.51	120.20
21	AA	1279	G	P-O3'-C3'	5.12	127.89	120.20
24	BA	2550	G	P-O3'-C3'	-5.12	112.51	120.20
24	DA	1945	G	C3'-C2'-C1'	5.12	106.42	101.30
23	AW	5	U	P-O3'-C3'	5.12	127.89	120.20
24	BA	1629	U	P-O5'-C5'	-5.12	113.21	120.90
24	DA	324	A	P-O3'-C3'	-5.12	112.52	120.20
24	DA	1941	C	P-O3'-C3'	-5.12	112.52	120.20
21	AA	1052	U	N1-C1'-C2'	-5.12	104.32	112.00
24	BA	2148	G	C3'-C2'-C1'	5.12	106.42	101.30
24	DA	302	C	P-O3'-C3'	-5.12	112.52	120.20
24	DA	2440	C	C3'-C2'-C1'	5.12	106.42	101.30
21	AA	1211	U	P-O3'-C3'	5.12	127.88	120.20
24	BA	967	U	P-O5'-C5'	-5.12	113.22	120.90
55	CA	91	U	N1-C1'-C2'	-5.12	104.32	112.00
21	AA	1371	G	P-O5'-C5'	-5.12	113.22	120.90
24	BA	1238	G	N9-C1'-C2'	-5.12	104.32	112.00
55	CA	1094	G	P-O3'-C3'	5.12	127.88	120.20
21	AA	175	C	N1-C1'-C2'	-5.12	104.33	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	CA	1282	C	P-O3'-C3'	-5.12	112.53	120.20
24	DA	587	C	P-O3'-C3'	5.12	127.88	120.20
4	AE	153	ALA	N-CA-C	5.11	117.59	111.71
24	BA	333	G	C3'-C2'-C1'	5.11	106.41	101.30
55	CA	486	U	P-O3'-C3'	-5.11	112.53	120.20
24	DA	370	G	C4'-C3'-C2'	5.11	107.71	102.60
24	DA	573	U	P-O3'-C3'	5.11	127.87	120.20
5	AF	90	MET	N-CA-C	5.11	121.68	110.80
24	BA	1638	C	P-O5'-C5'	-5.11	113.23	120.90
24	BA	1733	G	C3'-C2'-C1'	5.11	106.41	101.30
24	BA	2319	G	C2'-C3'-O3'	5.11	117.17	109.50
24	DA	2673	G	P-O3'-C3'	-5.11	112.53	120.20
24	BA	1033	U	N1-C1'-C2'	5.11	121.66	114.00
24	BA	2868	A	C2'-C3'-O3'	-5.11	106.04	113.70
55	CA	90	C	C3'-C2'-C1'	5.11	106.41	101.30
21	AA	197	A	P-O3'-C3'	5.11	127.86	120.20
24	BA	1303	G	P-O3'-C3'	-5.11	112.54	120.20
55	CA	1395	C	P-O3'-C3'	-5.11	112.54	120.20
32	DI	106	GLN	N-CA-C	-5.11	108.08	114.56
24	DA	1996	C	P-O3'-C3'	5.11	127.86	120.20
21	AA	935	A	P-O3'-C3'	-5.10	112.54	120.20
24	BA	1659	G	P-O5'-C5'	-5.10	113.25	120.90
24	BA	2093	G	C3'-C2'-C1'	5.10	106.40	101.30
55	CA	1322	C	N1-C1'-C2'	5.10	119.65	112.00
24	BA	1290	C	P-O5'-C5'	-5.10	113.25	120.90
24	BA	1416	G	P-O3'-C3'	5.10	127.84	120.20
24	DA	396	G	C3'-C2'-C1'	5.10	106.40	101.30
24	DA	1606	C	N1-C1'-C2'	5.10	119.64	112.00
12	AM	110	GLY	CA-C-N	5.09	125.37	119.92
12	AM	110	GLY	C-N-CA	5.09	125.37	119.92
55	CA	119	A	P-O3'-C3'	5.09	127.84	120.20
47	DX	6	VAL	CB-CA-C	-5.09	105.34	112.02
24	DA	2725	A	P-O3'-C3'	5.09	127.84	120.20
55	CA	247	G	C3'-C2'-C1'	5.09	106.39	101.30
24	DA	1277	G	P-O5'-C5'	-5.09	113.26	120.90
24	BA	2809	A	P-O3'-C3'	-5.09	112.56	120.20
24	BA	2547	A	P-O5'-C5'	-5.09	113.27	120.90
24	BA	2777	G	P-O5'-C5'	-5.09	113.27	120.90
55	CA	803	G	C3'-C2'-C1'	5.09	106.39	101.30
24	DA	2586	U	C3'-C2'-C1'	5.09	106.39	101.30
24	BA	1939	U	P-O5'-C5'	-5.09	113.27	120.90
24	BA	395	U	N1-C1'-C2'	5.09	121.63	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BA	1025	G	O4'-C1'-C2'	5.09	110.89	105.80
55	CA	486	U	N1-C1'-C2'	-5.09	104.37	112.00
55	CA	534	U	P-O3'-C3'	-5.09	112.57	120.20
10	AK	122	PRO	CA-C-N	5.08	126.20	119.84
10	AK	122	PRO	C-N-CA	5.08	126.20	119.84
24	DA	1206	G	C3'-C2'-C1'	5.08	106.39	101.30
25	BB	77	U	P-O3'-C3'	-5.08	112.57	120.20
24	BA	510	C	C3'-C2'-C1'	5.08	106.38	101.30
24	BA	1015	U	P-O5'-C5'	-5.08	113.28	120.90
24	DA	61	C	P-O5'-C5'	-5.08	113.28	120.90
56	DB	40	U	N1-C1'-C2'	5.08	121.62	114.00
24	BA	816	C	P-O5'-C5'	-5.08	113.28	120.90
24	BA	2297	A	P-O3'-C3'	-5.08	112.58	120.20
24	BA	1261	C	P-O5'-C5'	-5.08	113.28	120.90
55	CA	821	G	P-O5'-C5'	-5.08	113.28	120.90
24	DA	1499	C	P-O5'-C5'	-5.08	113.28	120.90
24	BA	1654	A	C2'-C3'-O3'	-5.08	106.09	113.70
24	BA	1919	A	P-O3'-C3'	-5.08	112.59	120.20
24	BA	1967	C	P-O3'-C3'	-5.08	112.59	120.20
56	DB	57	A	C3'-C2'-C1'	5.08	106.38	101.30
24	BA	138	U	P-O3'-C3'	-5.07	112.59	120.20
24	BA	1629	U	P-O3'-C3'	-5.07	112.59	120.20
55	CA	458	U	N1-C1'-C2'	5.07	119.61	112.00
55	CA	567	G	C2'-C3'-O3'	-5.07	106.09	113.70
24	DA	122	G	P-O5'-C5'	-5.07	113.29	120.90
24	DA	2752	C	C3'-C2'-C1'	5.07	106.37	101.30
21	AA	32	A	C3'-C2'-C1'	5.07	106.37	101.30
24	BA	2563	U	P-O5'-C5'	-5.07	113.29	120.90
21	AA	1382	C	N1-C1'-C2'	-5.07	104.39	112.00
24	BA	1385	A	O3'-P-O5'	5.07	111.61	104.00
24	BA	2832	U	N1-C1'-C2'	5.07	119.61	112.00
24	BA	846	U	N1-C1'-C2'	5.07	119.60	112.00
24	BA	2874	C	P-O5'-C5'	-5.07	113.30	120.90
36	BM	44	ARG	N-CA-C	-5.07	105.26	111.75
55	CA	131	A	C3'-C2'-C1'	5.07	106.37	101.30
36	DM	68	PHE	CA-C-N	5.07	126.18	119.84
36	DM	68	PHE	C-N-CA	5.07	126.18	119.84
21	AA	316	C	C3'-C2'-C1'	5.07	106.37	101.30
26	BC	76	VAL	N-CA-C	5.07	117.09	112.43
37	DN	21	PHE	N-CA-C	-5.07	107.39	113.21
42	DS	64	ALA	CA-C-O	5.07	120.88	117.94
24	DA	1607	C	N1-C1'-C2'	5.07	121.60	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
21	AA	210	C	P-O3'-C3'	5.06	127.80	120.20
24	BA	2866	U	O4'-C1'-N1	5.06	115.80	108.20
55	CA	1296	C	P-O3'-C3'	5.06	127.80	120.20
21	AA	885	G	C3'-C2'-C1'	5.06	106.36	101.30
24	BA	645	C	P-O3'-C3'	5.06	127.80	120.20
24	BA	2335	A	C3'-C2'-C1'	5.06	106.36	101.30
24	DA	1460	U	P-O3'-C3'	5.06	127.79	120.20
24	DA	2214	C	C3'-C2'-C1'	5.06	106.36	101.30
56	DB	43	C	N1-C1'-C2'	-5.06	104.41	112.00
11	CL	26	CYS	CA-C-N	5.06	124.50	119.24
11	CL	26	CYS	C-N-CA	5.06	124.50	119.24
24	BA	1759	A	C3'-C2'-C1'	5.06	106.36	101.30
55	CA	465	A	P-O3'-C3'	-5.06	112.61	120.20
24	DA	748	G	P-O3'-C3'	-5.06	112.61	120.20
24	DA	913	U	P-O3'-C3'	5.06	127.79	120.20
24	BA	1941	C	N1-C1'-C2'	-5.06	104.41	112.00
24	BA	2580	U	N1-C1'-C2'	5.06	119.59	112.00
52	B2	6	GLN	CA-C-N	5.06	124.96	119.85
52	B2	6	GLN	C-N-CA	5.06	124.96	119.85
12	CM	2	ARG	N-CA-C	-5.06	106.89	113.16
24	DA	436	C	P-O5'-C5'	-5.06	113.31	120.90
24	DA	1788	C	C3'-C2'-C1'	5.06	106.36	101.30
24	DA	2052	A	P-O5'-C5'	-5.06	113.31	120.90
24	DA	1334	G	C3'-C2'-C1'	5.06	106.36	101.30
21	AA	466	A	O3'-P-O5'	-5.05	96.42	104.00
24	BA	1955	U	N1-C1'-C2'	5.05	121.58	114.00
2	CC	5	HIS	CA-C-N	5.05	125.08	119.32
2	CC	5	HIS	C-N-CA	5.05	125.08	119.32
24	BA	2497	A	P-O5'-C5'	5.05	128.48	120.90
25	BB	14	U	O3'-P-O5'	-5.05	96.42	104.00
55	CA	239	U	P-O3'-C3'	5.05	127.78	120.20
55	CA	425	G	O5'-C5'-C4'	5.05	119.08	111.50
24	DA	1653	G	P-O3'-C3'	5.05	127.78	120.20
21	AA	821	G	C3'-C2'-C1'	5.05	106.35	101.30
24	BA	1330	C	C3'-C2'-C1'	5.05	106.35	101.30
29	DF	6	TYR	N-CA-C	-5.05	106.40	113.37
24	DA	1636	U	P-O3'-C3'	-5.05	112.63	120.20
21	AA	1506	U	O4'-C1'-N1	5.05	115.77	108.20
24	BA	621	A	C3'-C2'-C1'	5.05	106.35	101.30
24	BA	2703	C	P-O5'-C5'	-5.05	113.33	120.90
36	BM	106	ASP	N-CA-C	5.05	118.69	111.02
24	DA	443	A	P-O3'-C3'	-5.05	112.63	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	DA	782	A	O3'-P-O5'	5.05	111.57	104.00
24	DA	784	G	P-O3'-C3'	5.05	127.77	120.20
24	DA	1717	A	C3'-C2'-C1'	5.05	106.35	101.30
24	DA	2149	U	N1-C1'-C2'	5.05	119.57	112.00
28	DE	100	MET	N-CA-C	-5.04	107.12	113.28
3	AD	110	ARG	N-CA-C	-5.04	105.97	111.82
24	BA	27	G	C2'-C3'-O3'	5.04	117.06	109.50
24	BA	924	G	P-O5'-C5'	-5.04	113.33	120.90
25	BB	16	G	C3'-C2'-C1'	5.04	106.34	101.30
56	DB	51	G	P-O3'-C3'	5.04	127.77	120.20
24	BA	1919	A	P-O5'-C5'	-5.04	113.34	120.90
54	B4	15	LYS	N-CA-C	5.04	120.96	114.56
24	BA	1979	U	N1-C1'-C2'	5.04	119.56	112.00
55	CA	509	A	C3'-C2'-C1'	5.04	106.34	101.30
55	CA	1336	C	P-O3'-C3'	5.04	127.76	120.20
34	BK	121	GLU	N-CA-C	5.04	116.33	109.18
24	BA	243	U	P-O3'-C3'	-5.04	112.65	120.20
24	BA	421	C	P-O3'-C3'	5.04	127.75	120.20
24	BA	2200	C	P-O5'-C5'	-5.04	113.35	120.90
24	BA	2682	A	C3'-C2'-C1'	5.04	106.33	101.30
26	BC	143	VAL	CB-CA-C	-5.04	103.99	110.84
24	DA	1939	U	P-O3'-C3'	5.04	127.75	120.20
55	CA	1507	A	C3'-C2'-C1'	5.03	106.33	101.30
55	CA	885	G	P-O3'-C3'	-5.03	112.65	120.20
24	BA	2596	U	N1-C1'-C2'	5.03	119.55	112.00
24	DA	1429	G	C3'-C2'-C1'	5.03	106.33	101.30
24	DA	126	A	P-O5'-C5'	-5.03	113.36	120.90
24	BA	1222	U	N1-C1'-C2'	-5.03	104.46	112.00
33	BJ	5	THR	CB-CA-C	-5.03	103.80	110.79
12	AM	70	ARG	N-CA-C	-5.03	105.47	112.45
55	CA	755	G	C3'-C2'-C1'	5.03	106.33	101.30
36	DM	118	LYS	N-CA-C	-5.03	106.84	113.12
24	BA	2309	A	C3'-C2'-C1'	5.02	106.32	101.30
47	BX	52	ALA	N-CA-C	-5.02	103.52	110.35
24	DA	1492	G	P-O5'-C5'	-5.02	113.36	120.90
24	BA	671	C	C3'-C2'-C1'	5.02	106.32	101.30
24	BA	2063	C	C3'-C2'-C1'	5.02	106.32	101.30
26	BC	54	GLY	N-CA-C	5.02	118.43	111.00
21	AA	994	A	P-O3'-C3'	-5.02	112.67	120.20
24	BA	1343	G	C3'-C2'-C1'	5.02	106.32	101.30
55	CA	30	U	O3'-P-O5'	-5.02	96.47	104.00
24	DA	2036	C	C3'-C2'-C1'	5.02	106.32	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
21	AA	587	G	P-O3'-C3'	5.02	127.72	120.20
55	CA	486	U	P-O5'-C5'	-5.02	113.38	120.90
21	AA	1032	G	C3'-C2'-C1'	5.01	106.31	101.30
21	AA	1087	G	N9-C1'-C2'	-5.01	104.48	112.00
24	BA	1541	C	P-O3'-C3'	-5.01	112.68	120.20
55	CA	9	G	C3'-C2'-C1'	5.01	106.31	101.30
52	B2	10	LEU	N-CA-C	-5.01	104.90	111.02
21	AA	1322	C	P-O3'-C3'	5.01	127.72	120.20
55	CA	110	C	C3'-C2'-C1'	5.01	106.31	101.30
55	CA	1160	G	N9-C1'-C2'	-5.01	104.48	112.00
21	AA	174	A	C3'-C2'-C1'	5.01	106.31	101.30
21	AA	704	A	C3'-C2'-C1'	5.01	106.31	101.30
21	AA	961	U	C3'-C2'-C1'	5.01	106.31	101.30
24	DA	1707	G	C3'-C2'-C1'	5.01	106.31	101.30
24	BA	1608	A	P-O5'-C5'	-5.01	113.39	120.90
24	DA	312	G	C3'-C2'-C1'	5.01	106.31	101.30
21	AA	965	U	O4'-C1'-N1	5.00	115.71	108.20
21	AA	1129	C	P-O3'-C3'	5.00	127.71	120.20
24	BA	1683	U	C3'-C2'-C1'	5.00	106.30	101.30
55	CA	14	U	C3'-C2'-C1'	5.00	106.30	101.30
27	DD	153	GLY	N-CA-C	-5.00	107.20	114.90
21	AA	16	A	P-O5'-C5'	-5.00	113.40	120.90
55	CA	968	A	P-O3'-C3'	-5.00	112.70	120.20
24	DA	1127	A	P-O3'-C3'	-5.00	112.70	120.20

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
27	BD	10	GLY	Peptide
27	BD	9	VAL	Peptide
29	DF	78	ILE	Peptide
36	DM	135	VAL	Peptide

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	AB	1704	0	1732	284	0
1	CB	1704	0	1732	222	0
2	AC	1624	0	1699	148	0
2	CC	1624	0	1699	164	0
3	AD	1643	0	1710	184	0
3	CD	1643	0	1710	157	0
4	AE	1105	0	1148	255	0
4	CE	1105	0	1148	131	0
5	AF	817	0	808	89	0
5	CF	817	0	808	84	0
6	AG	1181	0	1240	105	0
6	CG	1174	0	1230	162	0
7	AH	979	0	1034	122	0
7	CH	979	0	1034	99	0
8	AI	1022	0	1070	125	0
8	CI	1022	0	1070	149	0
9	AJ	786	0	828	79	0
9	CJ	786	0	828	124	0
10	AK	877	0	887	89	0
10	CK	877	0	887	105	0
11	AL	955	0	1019	101	0
11	CL	955	0	1019	103	0
12	AM	883	0	944	75	0
12	CM	876	0	937	144	0
13	AN	774	0	827	87	0
13	CN	769	0	822	96	0
14	AO	714	0	737	60	0
14	CO	714	0	737	41	0
15	AP	649	0	666	56	0
15	CP	638	0	656	70	0
16	AQ	648	0	691	84	0
16	CQ	648	0	691	49	0
17	AR	455	0	478	46	0
17	CR	455	0	478	45	0
18	AS	637	0	665	52	0
18	CS	637	0	665	82	0
19	AT	665	0	714	68	0
19	CT	665	0	714	53	0
20	AU	425	0	449	70	0
20	CU	425	0	449	78	0
21	AA	32895	0	16553	1702	0
22	AV	360	0	185	10	0
22	CV	360	0	185	12	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
23	AW	125	0	63	4	0
23	CW	125	0	63	6	0
24	BA	61274	0	30819	3140	0
24	DA	60995	0	30677	3532	0
25	BB	2529	0	1281	108	0
26	BC	2082	0	2157	212	0
26	DC	2082	0	2157	228	0
27	BD	1565	0	1616	204	0
27	DD	1565	0	1616	172	0
28	BE	1552	0	1619	158	0
28	DE	1552	0	1619	176	0
29	BF	1410	0	1447	130	0
29	DF	1420	0	1460	204	0
30	BG	1323	0	1374	176	0
30	DG	1323	0	1374	149	0
31	BH	1111	0	1148	123	0
31	DH	1111	0	1148	113	0
32	BI	1032	0	1088	116	0
32	DI	1032	0	1088	72	0
33	BJ	1129	0	1162	167	0
33	DJ	1129	0	1162	124	0
34	BK	938	0	1012	118	0
34	DK	938	0	1012	114	0
35	BL	1045	0	1117	134	0
35	DL	1045	0	1117	149	0
36	BM	1074	0	1157	114	0
36	DM	1074	0	1157	118	0
37	BN	960	0	1000	101	0
37	DN	960	0	1000	119	0
38	BO	892	0	923	73	0
38	DO	892	0	923	157	0
39	BP	917	0	965	143	0
39	DP	917	0	965	107	0
40	BQ	947	0	1022	129	0
40	DQ	947	0	1022	137	0
41	BR	816	0	839	93	0
41	DR	816	0	839	98	0
42	BS	857	0	922	73	0
42	DS	857	0	922	72	0
43	BT	738	0	807	112	0
43	DT	738	0	807	100	0
44	BU	779	0	834	60	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
44	DU	779	0	834	112	0
45	BV	753	0	780	59	0
45	DV	753	0	780	123	0
46	BW	596	0	610	186	0
46	DW	596	0	610	124	0
47	BX	625	0	655	73	0
47	DX	625	0	655	76	0
48	BY	509	0	543	72	0
48	DY	509	0	543	71	0
49	BZ	449	0	491	49	0
49	DZ	449	0	491	41	0
50	B0	444	0	461	36	0
50	D0	444	0	461	52	0
51	B1	409	0	440	40	0
51	D1	409	0	440	34	0
52	B2	377	0	418	33	0
52	D2	377	0	418	36	0
53	B3	504	0	574	51	0
53	D3	504	0	574	51	0
54	B4	302	0	340	33	0
54	D4	302	0	340	26	0
55	CA	32831	0	16521	1803	0
56	DB	2507	0	1270	203	0
57	AA	43	0	0	0	0
57	BA	136	0	0	0	0
57	BB	4	0	0	0	0
57	BD	1	0	0	0	0
57	CA	42	0	0	0	0
57	DA	134	0	0	0	0
57	DB	1	0	0	0	0
57	DC	1	0	0	0	0
57	DJ	1	0	0	0	0
58	B4	1	0	0	0	0
58	D4	1	0	0	0	0
59	AA	195	0	0	7	0
59	AE	1	0	0	0	0
59	AL	3	0	0	1	0
59	AN	5	0	0	0	0
59	AT	3	0	0	0	0
59	AU	1	0	0	0	0
59	B2	2	0	0	0	0
59	B3	3	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	B4	2	0	0	0	0
59	BA	615	0	0	31	0
59	BB	19	0	0	0	0
59	BC	7	0	0	1	0
59	BD	2	0	0	3	0
59	BE	1	0	0	1	0
59	BL	4	0	0	1	0
59	BN	2	0	0	0	0
59	BQ	1	0	0	0	0
59	BT	1	0	0	1	0
59	BV	1	0	0	1	0
59	CA	196	0	0	4	0
59	CE	3	0	0	1	0
59	CI	1	0	0	0	0
59	CL	1	0	0	0	0
59	CN	2	0	0	0	0
59	CT	2	0	0	0	0
59	CU	2	0	0	0	0
59	D2	1	0	0	0	0
59	D3	1	0	0	0	0
59	D4	5	0	0	0	0
59	DA	598	0	0	14	0
59	DB	4	0	0	0	0
59	DC	14	0	0	2	0
59	DD	4	0	0	1	0
59	DE	2	0	0	0	0
59	DJ	3	0	0	0	0
59	DL	5	0	0	0	0
59	DN	2	0	0	0	0
59	DT	2	0	0	0	0
59	DU	1	0	0	0	0
59	DV	1	0	0	0	0
All	All	285420	0	191332	19508	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 41.

All (19508) 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)
24:DA:1439:A:C2	24:DA:1552:A:C6	2.21	1.28

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1439:A:N1	24:DA:1552:A:C5	2.03	1.26
24:DA:1439:A:C2	24:DA:1552:A:C5	2.25	1.25
38:DO:100:HIS:CE1	56:DB:48:U:O2'	1.89	1.25
38:DO:30:ARG:HB2	38:DO:30:ARG:NH1	1.53	1.21
24:BA:855:G:H21	46:BW:23:LYS:HG2	1.04	1.19
24:DA:2313:C:O2'	24:DA:2314:A:H5'	1.43	1.19
24:DA:2308:G:O6	24:DA:2311:A:C6	1.96	1.18
24:DA:616:A:H2'	24:DA:617:G:C8	1.79	1.16
24:DA:1439:A:H2	24:DA:1552:A:C6	1.60	1.14
29:DF:109:ARG:CZ	29:DF:109:ARG:CB	2.23	1.14
21:AA:967:C:H2'	21:AA:968:A:C8	1.83	1.13
35:DL:47:ARG:HH21	35:DL:47:ARG:HG2	1.15	1.12
33:BJ:73:VAL:HG23	33:BJ:74:TYR:H	1.14	1.12
3:CD:2:ARG:HH21	3:CD:114:ARG:HD3	1.07	1.11
41:DR:27:ILE:HG22	41:DR:28:ALA:H	1.16	1.11
37:BN:103:ARG:HB2	37:BN:110:MET:HE3	1.29	1.11
56:DB:104:A:H2'	56:DB:105:G:O4'	1.51	1.10
24:DA:2867:G:H2'	24:DA:2867:G:N3	1.54	1.10
29:DF:73:VAL:H	29:DF:78:ILE:HD12	1.13	1.10
12:AM:74:MET:HE2	12:AM:74:MET:HA	1.25	1.09
26:BC:251:THR:HG22	26:BC:252:LYS:H	1.13	1.09
29:DF:109:ARG:CZ	29:DF:109:ARG:HB2	1.77	1.09
24:DA:1537:G:H2'	24:DA:1538:G:H4'	1.13	1.09
6:CG:3:ARG:HD3	55:CA:932:C:H5'	1.33	1.08
16:AQ:12:VAL:HG13	16:AQ:13:SER:H	1.14	1.08
11:CL:43:LYS:HB3	11:CL:44:PRO:HD2	1.18	1.08
12:CM:2:ARG:HG3	12:CM:8:ILE:HG12	1.28	1.08
24:BA:919:U:H2'	24:BA:920:A:H8	1.18	1.07
24:DA:479:A:O2'	24:DA:480:A:H5'	1.54	1.07
5:AF:16:GLU:HG2	3:CD:191:SER:HB2	1.35	1.07
10:AK:87:GLY:H	10:AK:113:THR:HG22	1.14	1.07
29:BF:35:LEU:HB3	29:BF:153:ILE:HG22	1.15	1.07
27:DD:119:ALA:HB3	27:DD:163:GLY:H	1.20	1.07
24:BA:2136:G:H2'	24:BA:2137:U:H5	1.18	1.07
2:CC:106:ARG:HD3	2:CC:106:ARG:H	1.13	1.07
46:DW:28:GLU:H	46:DW:31:LEU:HD21	1.19	1.06
24:BA:1179:G:H3'	24:BA:1180:U:H4'	1.35	1.06
1:CB:47:PRO:HA	1:CB:50:ASN:HB2	1.36	1.06
9:CJ:52:LEU:HB2	13:CN:80:ARG:HE	1.20	1.06
40:DQ:87:VAL:HG21	41:DR:52:PRO:HD3	1.32	1.06
24:DA:740:C:H5'	24:DA:1784:A:H3'	1.37	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AP:5:ARG:HH12	15:AP:24:SER:HA	1.16	1.06
55:CA:82:G:H2'	55:CA:83:C:H4'	1.37	1.05
31:BH:31:VAL:HB	31:BH:32:PRO:HD2	1.35	1.05
34:DK:71:ARG:HB3	34:DK:72:PRO:HD3	1.36	1.05
45:DV:29:ILE:HD13	45:DV:31:TYR:CE2	1.91	1.05
24:BA:2136:G:H2'	24:BA:2137:U:C5	1.90	1.05
33:BJ:81:ILE:HG23	33:BJ:82:GLY:H	1.17	1.05
55:CA:974:A:H5"	55:CA:975:A:H5'	1.35	1.05
40:DQ:61:ILE:HD11	40:DQ:92:LYS:HD3	1.36	1.05
10:AK:119:GLY:HA2	21:AA:716:A:H1'	1.36	1.04
46:DW:40:ARG:HH11	46:DW:40:ARG:HG2	0.98	1.04
24:BA:2726:A:O2'	24:BA:2727:A:H5'	1.57	1.04
3:CD:2:ARG:NH2	3:CD:114:ARG:HD3	1.71	1.04
38:DO:68:LYS:N	56:DB:50:A:OP1	1.89	1.04
24:DA:1439:A:N1	24:DA:1552:A:N7	2.06	1.04
24:DA:2092:U:H4'	24:DA:2093:G:H5"	1.34	1.04
24:DA:1056:G:H1'	24:DA:1103:A:H61	1.22	1.04
27:BD:114:LYS:HE3	27:BD:114:LYS:N	1.71	1.04
20:AU:40:PRO:HA	20:AU:43:GLU:HB2	1.40	1.03
5:AF:3:HIS:H	5:AF:92:THR:HG23	1.21	1.03
46:DW:27:GLY:HA2	46:DW:31:LEU:HD11	1.39	1.03
24:BA:1330:C:O2'	24:BA:1331:G:H5'	1.57	1.03
46:BW:28:GLU:HB3	46:BW:31:LEU:HD21	1.38	1.03
47:DX:53:LYS:HA	47:DX:56:ARG:HB3	1.38	1.03
30:BG:84:LYS:HG3	30:BG:132:LEU:H	1.21	1.03
36:DM:136:MET:OXT	36:DM:136:MET:HG2	1.52	1.02
34:BK:18:ARG:HH11	34:BK:18:ARG:HG3	1.20	1.02
34:BK:111:LYS:HE2	34:BK:111:LYS:H	1.22	1.02
15:CP:22:ALA:HA	15:CP:33:ILE:HG13	1.40	1.02
24:DA:1782:U:O2'	24:DA:1783:A:H5'	1.59	1.02
21:AA:1007:U:H2'	21:AA:1008:U:H5"	1.42	1.01
26:BC:141:HIS:HD2	26:BC:192:GLY:O	1.42	1.01
26:BC:68:ARG:HD3	26:BC:103:ILE:HD11	1.42	1.01
52:B2:43:THR:O	52:B2:44:VAL:HB	1.61	1.01
39:BP:50:ARG:CB	39:BP:57:ALA:H	1.74	1.01
55:CA:1218:C:H2'	55:CA:1219:A:C8	1.94	1.01
37:DN:28:LEU:HD21	37:DN:115:LEU:HD21	1.43	1.01
50:D0:39:ARG:HD3	24:DA:2886:A:H62	1.24	1.01
39:BP:4:ILE:HG22	39:BP:5:LYS:H	1.23	1.01
56:DB:58:A:H2'	56:DB:59:A:C8	1.95	1.01
47:BX:34:SER:HA	47:BX:49:ARG:HA	1.43	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CJ:52:LEU:HB2	13:CN:80:ARG:NE	1.76	1.01
55:CA:183:C:O2'	55:CA:184:G:H5'	1.61	1.01
33:DJ:44:TYR:HB2	40:DQ:63:ARG:CZ	1.90	1.01
34:DK:111:LYS:H	34:DK:111:LYS:HE3	1.26	1.01
55:CA:684:U:H3	55:CA:706:A:H61	1.03	1.00
55:CA:1101:A:H4'	55:CA:1102:A:O5'	1.61	1.00
43:BT:39:THR:HB	43:BT:42:GLU:HB2	1.43	1.00
55:CA:764:C:H3'	55:CA:765:G:H21	1.24	1.00
29:DF:74:ALA:H	29:DF:78:ILE:CD1	1.73	1.00
24:DA:2307:G:H1'	24:DA:2308:G:C5	1.95	1.00
21:AA:204:G:H3'	21:AA:205:A:H5"	1.44	1.00
24:BA:860:U:O2'	24:BA:861:A:H5'	1.62	1.00
26:DC:122:ALA:HB3	26:DC:127:ASN:ND2	1.77	1.00
35:DL:78:ARG:HH12	24:DA:627:A:H5"	1.25	1.00
24:DA:1537:G:C2'	24:DA:1538:G:H4'	1.91	1.00
46:BW:23:LYS:O	46:BW:66:VAL:HB	1.62	1.00
1:AB:158:ASP:HA	1:AB:180:ILE:HD12	1.43	0.99
21:AA:274:A:O2'	21:AA:275:G:H8	1.43	0.99
24:BA:919:U:C2	24:BA:920:A:N7	2.30	0.99
6:CG:118:ARG:HH22	55:CA:1239:A:H3'	1.20	0.99
29:DF:73:VAL:N	29:DF:78:ILE:HD12	1.76	0.99
12:AM:27:THR:HG21	21:AA:1328:C:H5"	1.43	0.99
24:BA:1179:G:C5	24:BA:1180:U:H1'	1.96	0.99
24:BA:2353:G:H1'	46:BW:30:VAL:CG1	1.92	0.99
3:AD:109:THR:HG23	3:AD:112:GLU:H	1.24	0.99
34:BK:63:VAL:HG22	34:BK:107:LEU:HD21	1.45	0.99
35:DL:79:LEU:HB2	35:DL:113:ALA:H	1.27	0.99
26:DC:146:LYS:HB2	26:DC:149:LYS:HB2	1.45	0.99
1:CB:162:VAL:HG13	1:CB:184:ALA:HB2	1.43	0.99
52:D2:19:ARG:HH21	52:D2:19:ARG:HB3	1.28	0.99
24:DA:1784:A:H4'	24:DA:1785:A:O5'	1.60	0.99
1:CB:79:VAL:HA	1:CB:213:LEU:HD21	1.40	0.99
27:BD:99:GLU:HG3	27:BD:100:LEU:H	1.22	0.98
35:BL:93:ASN:HD22	35:BL:94:THR:N	1.60	0.98
38:BO:31:THR:HG22	38:BO:34:HIS:H	1.27	0.98
40:BQ:63:ARG:NH1	40:BQ:96:ASP:HA	1.78	0.98
29:DF:137:PHE:HB2	29:DF:138:PRO:HD2	1.42	0.98
37:DN:45:ARG:HH22	24:DA:2838:G:H1'	1.26	0.98
55:CA:1493:A:H3'	24:DA:1913:A:N6	1.77	0.98
40:DQ:91:ARG:HD2	24:DA:996:A:H4'	1.45	0.98
24:BA:2680:U:P	27:BD:114:LYS:HE2	2.04	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AL:42:LYS:HE2	11:AL:43:LYS:HZ2	1.29	0.98
9:CJ:47:GLU:HB2	9:CJ:67:ILE:HG13	1.45	0.98
39:DP:20:ARG:HG2	39:DP:112:ARG:HH12	1.27	0.98
30:BG:8:VAL:HG11	30:BG:49:LEU:HB2	1.44	0.98
1:AB:67:LEU:HB3	1:AB:160:LEU:HD12	1.45	0.97
46:DW:27:GLY:CA	46:DW:31:LEU:HD11	1.93	0.97
46:BW:19:ARG:HA	46:BW:34:SER:HA	1.43	0.97
1:CB:19:THR:HB	1:CB:37:VAL:HA	1.43	0.97
33:DJ:117:ALA:HA	33:DJ:120:ARG:HD2	1.43	0.97
21:AA:982:U:H4'	21:AA:983:A:O5'	1.64	0.97
24:BA:1023:U:H5'	24:BA:1023:U:H6	1.26	0.97
46:DW:40:ARG:NH2	24:DA:2332:C:H4'	1.78	0.97
24:DA:1913:A:H4'	24:DA:1914:C:OP1	1.60	0.97
46:BW:37:VAL:HG12	46:BW:38:ARG:H	1.23	0.97
24:DA:616:A:H2'	24:DA:617:G:H8	1.18	0.97
46:BW:47:GLY:H	46:BW:80:SER:HB3	1.30	0.97
4:CE:149:PRO:HA	4:CE:152:VAL:HB	1.43	0.97
24:BA:491:G:H2'	24:BA:492:A:C8	2.00	0.97
24:DA:1654:A:O2'	24:DA:1655:A:H8	1.46	0.97
30:BG:120:ILE:HD11	30:BG:132:LEU:HB2	1.46	0.97
1:AB:40:ILE:HD13	1:AB:201:GLY:HA2	1.46	0.96
37:BN:24:MET:HG2	37:BN:44:LEU:HD22	1.47	0.96
38:DO:100:HIS:HE1	56:DB:48:U:O2'	1.48	0.96
9:AJ:10:LEU:HG	9:AJ:98:VAL:HG12	1.44	0.96
29:DF:72:SER:H	29:DF:78:ILE:HG21	1.29	0.96
51:D1:7:LYS:HD3	53:D3:33:THR:HG21	1.44	0.96
1:AB:158:ASP:C	1:AB:180:ILE:HG23	1.90	0.96
33:BJ:77:HIS:HD2	33:BJ:79:GLY:H	1.04	0.96
43:DT:39:THR:HG21	43:DT:42:GLU:HB2	1.44	0.96
40:BQ:4:LYS:HG3	40:BQ:5:ARG:H	1.30	0.96
14:CO:2:LEU:HD13	14:CO:34:GLN:HG2	1.48	0.96
24:DA:243:U:O2'	24:DA:244:A:H5'	1.64	0.96
4:AE:93:VAL:HG11	4:AE:139:THR:HG22	1.46	0.96
24:BA:859:G:O2'	24:BA:860:U:OP2	1.83	0.96
56:DB:42:C:H2'	56:DB:43:C:C6	2.00	0.96
2:AC:42:LEU:HD21	2:AC:67:ILE:HD11	1.43	0.96
21:AA:1441:A:H62	21:AA:1461:G:H21	1.09	0.96
21:AA:212:G:O2'	21:AA:213:G:H8	1.48	0.96
27:BD:106:LYS:HB3	27:BD:206:ALA:HB3	1.45	0.96
7:CH:106:SER:HA	55:CA:642:A:N7	1.81	0.96
46:DW:37:VAL:HG12	46:DW:55:ASP:HB2	1.48	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DY:20:ASN:HD22	48:DY:50:VAL:HG22	1.28	0.96
29:DF:109:ARG:NH2	29:DF:109:ARG:HB3	1.81	0.95
31:DH:115:VAL:HG12	31:DH:132:PHE:HB2	1.47	0.95
16:AQ:22:VAL:HG21	16:AQ:60:ILE:HD11	1.48	0.95
24:DA:1731:G:O2'	24:DA:1732:C:H5"	1.67	0.95
24:BA:762:U:H4'	24:BA:763:G:O5'	1.63	0.95
27:BD:5:VAL:H	27:BD:32:ASN:HD21	1.02	0.95
9:CJ:42:LEU:HD22	9:CJ:71:LEU:HD23	1.44	0.95
55:CA:1378:C:H3'	55:CA:1379:G:H5"	1.48	0.95
1:AB:168:GLU:HB3	1:AB:171:ALA:HB3	1.48	0.95
43:BT:32:LEU:H	43:BT:83:ALA:HB3	1.31	0.95
24:DA:172:A:H2'	24:DA:173:A:H8	1.26	0.95
24:DA:302:C:O2'	24:DA:303:G:H8	1.47	0.95
24:DA:2585:U:O2'	24:DA:2586:U:H5'	1.65	0.95
31:BH:31:VAL:HB	31:BH:32:PRO:CD	1.97	0.95
54:B4:36:ARG:HG2	54:B4:37:GLN:H	1.30	0.95
46:DW:9:THR:HG23	46:DW:10:ARG:HG3	1.46	0.95
1:AB:137:THR:HA	1:AB:140:LEU:HD13	1.48	0.95
24:DA:729:G:H2'	24:DA:729:G:N3	1.78	0.95
24:BA:2425:A:H5'	24:BA:2427:C:H5'	1.48	0.95
43:BT:50:LEU:H	43:BT:50:LEU:HD12	1.31	0.95
24:DA:547:A:H2'	24:DA:548:G:H5'	1.49	0.95
38:DO:67:ASN:H	38:DO:70:ALA:HB3	1.30	0.94
39:DP:91:VAL:HG22	39:DP:109:ILE:HG21	1.48	0.94
24:BA:216:A:H2'	24:BA:217:A:C8	2.02	0.94
24:DA:363:G:O2'	24:DA:364:C:H5'	1.67	0.94
24:DA:721:A:H2'	24:DA:722:A:H8	1.32	0.94
3:CD:109:THR:HG22	3:CD:111:ALA:H	1.31	0.94
20:CU:36:PHE:HB3	20:CU:40:PRO:HD3	1.50	0.94
44:DU:16:LYS:HB2	24:DA:329:G:O6	1.67	0.94
12:CM:102:LYS:HG2	55:CA:1226:C:H41	1.32	0.94
24:DA:142:A:H2'	24:DA:143:C:C6	2.02	0.94
21:AA:94:G:H4'	21:AA:95:C:C5'	1.97	0.94
33:BJ:77:HIS:CD2	33:BJ:79:GLY:H	1.86	0.94
34:BK:21:CYS:HB2	34:BK:39:ILE:HD11	1.49	0.94
12:CM:47:LEU:HD11	12:CM:52:ILE:HB	1.48	0.94
32:DI:9:LYS:HD3	24:DA:1061:U:C6	2.01	0.94
36:DM:17:ASN:HB3	36:DM:38:ARG:HH22	1.29	0.94
24:DA:740:C:O2'	24:DA:741:U:H5'	1.66	0.94
31:BH:32:PRO:HB3	47:BX:38:TRP:HB3	1.50	0.94
24:DA:2199:A:H2'	24:DA:2200:C:H6	1.33	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AB:20:ARG:HB3	21:AA:831:A:H5”	1.50	0.94
24:BA:142:A:H2’	24:BA:143:C:C6	2.03	0.94
40:DQ:69:ARG:HB2	40:DQ:69:ARG:HH21	1.33	0.94
24:DA:140:C:H5’	24:DA:141:G:H21	1.32	0.94
21:AA:563:A:H2’	21:AA:563:A:N3	1.82	0.93
26:DC:73:ILE:HD12	24:DA:1490:A:H8	1.31	0.93
41:DR:39:LEU:HA	41:DR:49:ILE:HG21	1.49	0.93
1:AB:94:ARG:HG2	21:AA:1100:C:OP1	1.68	0.93
24:DA:1476:U:O2’	24:DA:1477:A:O5’	1.86	0.93
46:DW:40:ARG:HG2	46:DW:40:ARG:NH1	1.78	0.93
24:DA:1381:G:H2’	24:DA:1382:G:H5’	1.50	0.93
35:DL:124:GLY:H	35:DL:143:GLU:HG3	1.33	0.93
36:DM:42:THR:HG22	36:DM:44:ARG:H	1.33	0.93
21:AA:926:G:C5	21:AA:1505:G:O6	2.21	0.93
24:BA:1784:A:H4’	24:BA:1785:A:O5’	1.67	0.93
34:BK:21:CYS:HA	34:BK:41:ILE:HD12	1.50	0.93
45:BV:80:HIS:HD2	45:BV:83:LYS:H	0.95	0.93
24:DA:2313:C:HO2’	24:DA:2314:A:H5’	1.34	0.93
24:DA:1716:U:O2’	24:DA:1717:A:H8	1.50	0.93
10:CK:70:ALA:HA	10:CK:73:VAL:HG22	1.48	0.93
55:CA:1278:G:H4’	55:CA:1279:G:O5’	1.68	0.93
27:DD:36:GLN:HE21	27:DD:38:LYS:HZ1	1.15	0.93
2:AC:76:ILE:HA	2:AC:83:VAL:HG23	1.50	0.93
1:CB:39:ILE:HD13	1:CB:40:ILE:H	1.32	0.93
24:DA:2143:C:H5’	24:DA:2144:G:OP2	1.69	0.93
11:AL:113:ARG:HB3	11:AL:118:VAL:HB	1.51	0.93
33:BJ:77:HIS:HD2	33:BJ:79:GLY:N	1.67	0.93
24:DA:1326:U:HO2’	24:DA:1327:A:H8	1.02	0.93
3:AD:69:ARG:HA	3:AD:69:ARG:HE	1.34	0.93
21:AA:202:G:H21	21:AA:466:A:H61	1.17	0.93
32:BI:15:GLY:HA2	32:BI:50:LYS:HB3	1.50	0.93
55:CA:664:G:H22	55:CA:741:G:H1	0.96	0.93
38:DO:30:ARG:HH22	38:DO:103:VAL:HG23	1.30	0.93
43:BT:29:THR:HB	43:BT:86:THR:HG22	1.49	0.92
35:BL:29:LYS:O	35:BL:31:GLY:N	2.03	0.92
24:BA:1064:C:H4’	32:BI:90:GLY:H	1.34	0.92
32:BI:79:LEU:HA	32:BI:83:ALA:HB3	1.48	0.92
24:DA:1290:C:HO2’	24:DA:1291:C:H6	0.96	0.92
37:BN:20:MET:HG3	37:BN:21:PHE:N	1.83	0.92
17:CR:72:ARG:HE	17:CR:72:ARG:H	1.05	0.92
54:D4:16:ILE:HG12	54:D4:25:VAL:HG22	1.52	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:946:C:O2'	24:BA:947:A:H5'	1.68	0.92
24:DA:1112:G:H2'	24:DA:1113:U:C6	2.05	0.92
30:DG:124:CYS:HB3	30:DG:130:ILE:HA	1.51	0.92
21:AA:274:A:HO2'	21:AA:275:G:H8	1.04	0.92
9:CJ:82:LYS:HA	9:CJ:86:ALA:HB3	1.50	0.92
26:DC:119:VAL:HG13	26:DC:133:ASN:HD21	1.34	0.92
34:DK:61:VAL:HG11	34:DK:112:PHE:HE2	1.34	0.92
1:AB:84:LEU:HD13	1:AB:90:PHE:HE2	1.31	0.92
33:BJ:44:TYR:HB2	40:BQ:63:ARG:HB3	1.51	0.92
4:AE:37:VAL:HG21	4:AE:113:VAL:HG12	1.52	0.92
4:AE:76:ASN:HB3	4:AE:81:GLN:CG	1.99	0.92
4:CE:110:MET:HG2	4:CE:139:THR:HG21	1.52	0.92
55:CA:1157:A:H4'	55:CA:1158:C:O5'	1.67	0.92
44:DU:84:PHE:HB2	24:DA:297:G:H5"	1.52	0.92
24:DA:668:A:H2'	24:DA:670:A:H62	1.35	0.92
24:DA:687:C:H2'	24:DA:688:U:C6	2.05	0.92
24:BA:276:U:H1'	24:BA:278:A:H62	1.35	0.92
26:BC:12:ARG:HH11	26:BC:12:ARG:HG2	1.34	0.92
55:CA:496:A:N3	55:CA:496:A:H2'	1.84	0.92
37:DN:62:ASN:O	37:DN:63:ARG:HB2	1.69	0.92
21:AA:158:G:H2'	21:AA:159:G:H5"	1.48	0.91
21:AA:484:G:H4'	21:AA:485:U:O5'	1.70	0.91
30:DG:93:TYR:H	30:DG:93:TYR:HD2	1.15	0.91
24:DA:1676:A:C2	24:DA:1993:U:H5'	2.05	0.91
24:DA:2199:A:H2'	24:DA:2200:C:C6	2.05	0.91
4:AE:83:PRO:HD3	4:AE:97:PRO:HG3	1.50	0.91
34:BK:18:ARG:H	34:BK:45:GLU:HB2	1.35	0.91
36:BM:35:ALA:O	36:BM:36:VAL:HB	1.71	0.91
46:BW:29:SER:HA	46:BW:63:ASP:HB3	1.52	0.91
38:DO:102:ARG:HB2	56:DB:49:C:OP1	1.70	0.91
6:AG:78:ARG:HD2	6:AG:83:THR:HA	1.52	0.91
8:AI:9:GLY:HA2	8:AI:80:HIS:HD2	1.35	0.91
24:BA:1731:G:O2'	24:BA:1732:C:H5"	1.69	0.91
56:DB:12:C:H4'	56:DB:13:G:OP1	1.70	0.91
29:BF:104:THR:HG22	29:BF:105:ILE:HG23	1.50	0.91
24:BA:1287:A:H5'	37:BN:103:ARG:HD2	1.51	0.91
36:BM:69:PRO:HA	36:BM:94:ALA:HB2	1.50	0.91
43:DT:29:THR:HB	43:DT:87:LEU:H	1.33	0.91
21:AA:1338:G:H2'	21:AA:1339:A:C8	2.05	0.91
46:BW:51:GLY:HA3	46:BW:59:PHE:CE2	2.04	0.91
24:DA:593:U:H2'	24:DA:594:U:C6	2.06	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BV:80:HIS:CD2	45:BV:83:LYS:H	1.88	0.91
24:DA:1312:U:O2'	24:DA:1314:C:N4	2.04	0.91
24:DA:2051:A:H4'	24:DA:2052:A:OP1	1.70	0.91
49:BZ:29:ARG:HH21	49:BZ:29:ARG:HG3	1.36	0.91
36:DM:17:ASN:HB3	36:DM:38:ARG:NH2	1.83	0.91
42:DS:88:ARG:HG2	24:DA:747:U:O2'	1.71	0.91
45:DV:31:TYR:HD1	45:DV:31:TYR:O	1.52	0.91
24:DA:802:A:H2'	24:DA:803:U:C6	2.05	0.91
3:AD:36:ALA:HA	3:AD:41:GLY:HA3	1.52	0.91
10:AK:23:HIS:HB3	10:AK:30:ILE:HG13	1.50	0.91
24:BA:1458:U:H4'	24:BA:1459:G:O5'	1.69	0.91
11:CL:43:LYS:HB3	11:CL:44:PRO:CD	2.00	0.91
46:DW:39:GLN:HE22	46:DW:58:LEU:HD23	1.35	0.90
40:BQ:63:ARG:HH12	40:BQ:96:ASP:HB2	1.36	0.90
9:CJ:84:VAL:HG23	9:CJ:85:ASP:H	1.34	0.90
18:CS:52:ASN:HD21	18:CS:55:GLN:H	1.20	0.90
24:DA:2581:G:H2'	24:DA:2610:C:H41	1.34	0.90
21:AA:531:U:H4'	21:AA:532:A:O5'	1.68	0.90
29:BF:134:GLN:HG2	29:BF:135:ILE:H	1.35	0.90
55:CA:181:A:HO2'	55:CA:182:A:H2	1.13	0.90
36:DM:64:TRP:HE1	24:DA:873:C:H4'	1.35	0.90
38:DO:30:ARG:HB2	38:DO:30:ARG:CZ	1.98	0.90
29:DF:109:ARG:CZ	29:DF:109:ARG:HB3	1.98	0.90
28:BE:146:VAL:HG23	28:BE:167:VAL:HG23	1.53	0.90
55:CA:1361:G:H2'	55:CA:1362:A:H5"	1.54	0.90
36:DM:64:TRP:NE1	24:DA:873:C:H4'	1.87	0.90
1:AB:48:MET:HG2	1:AB:198:VAL:HG13	1.53	0.90
21:AA:1140:C:HO2'	21:AA:1141:C:H6	0.94	0.90
24:BA:855:G:N2	46:BW:23:LYS:HG2	1.85	0.90
24:BA:1063:G:H2'	24:BA:1064:C:O4'	1.72	0.90
8:CI:66:VAL:HG21	8:CI:74:GLN:HB3	1.52	0.90
38:DO:115:LEU:H	38:DO:115:LEU:HD13	1.34	0.90
20:AU:52:VAL:HG13	20:AU:53:LYS:H	1.37	0.90
36:DM:7:THR:HG22	36:DM:9:PHE:H	1.34	0.90
21:AA:1382:C:HO2'	21:AA:1383:C:H6	0.98	0.90
50:B0:43:THR:HG23	50:B0:47:TYR:O	1.71	0.90
40:DQ:4:LYS:HZ2	40:DQ:6:GLY:HA3	1.33	0.90
24:BA:545:U:H6	24:BA:545:U:H3'	1.35	0.90
44:BU:73:ASN:ND2	44:BU:76:THR:HG23	1.87	0.90
35:DL:23:ILE:HG13	41:DR:82:HIS:CE1	2.07	0.90
42:DS:86:MET:HE2	42:DS:87:PRO:HD2	1.52	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:491:G:H2'	24:DA:492:A:C8	2.07	0.90
24:DA:1069:A:O2'	24:DA:1070:A:H5'	1.72	0.90
24:DA:2631:G:H2'	24:DA:2632:A:H5"	1.52	0.90
55:CA:977:A:H8	55:CA:1223:C:N3	1.68	0.89
24:BA:919:U:H2'	24:BA:920:A:C8	2.06	0.89
6:CG:118:ARG:NH2	55:CA:1239:A:H3'	1.87	0.89
55:CA:1213:A:O2'	55:CA:1214:C:H5'	1.71	0.89
24:DA:250:G:H2'	24:DA:251:A:C8	2.06	0.89
56:DB:45:A:O2'	56:DB:46:A:H8	1.53	0.89
24:BA:1073:A:H2'	24:BA:1074:G:H5"	1.55	0.89
24:BA:1931:U:O2'	24:BA:1932:A:H5'	1.73	0.89
46:BW:39:GLN:HG2	46:BW:41:GLY:H	1.36	0.89
16:CQ:75:VAL:HG23	16:CQ:76:ARG:HG2	1.54	0.89
17:CR:71:ASP:HB3	17:CR:72:ARG:HH21	1.37	0.89
55:CA:977:A:H8	55:CA:1223:C:C4	1.90	0.89
55:CA:1322:C:O2'	55:CA:1323:G:H5'	1.72	0.89
26:BC:12:ARG:HH11	26:BC:12:ARG:CG	1.84	0.89
26:DC:144:GLU:HA	26:DC:151:GLY:HA2	1.52	0.89
24:DA:1328:A:H2'	24:DA:1330:C:C5	2.08	0.89
9:CJ:9:ARG:HH12	55:CA:1279:G:H5'	1.37	0.89
32:BI:23:VAL:HB	32:BI:27:LEU:HB3	1.53	0.89
55:CA:116:A:H2'	55:CA:117:G:H8	1.37	0.89
36:DM:27:SER:H	36:DM:66:ARG:NH2	1.70	0.89
24:DA:1669:A:H2'	24:DA:1669:A:N3	1.88	0.89
24:DA:2093:G:HO2'	24:DA:2094:A:H8	0.90	0.89
30:BG:60:GLY:O	30:BG:61:TRP:HB2	1.72	0.89
24:DA:1311:G:H21	24:DA:1603:A:H62	1.18	0.89
10:AK:22:ILE:HD11	10:AK:85:VAL:HG22	1.54	0.89
24:BA:250:G:H2'	24:BA:251:A:C8	2.08	0.89
39:BP:50:ARG:HB3	39:BP:57:ALA:H	1.35	0.89
12:AM:74:MET:HA	12:AM:74:MET:CE	2.03	0.89
24:BA:855:G:N3	46:BW:23:LYS:HD3	1.88	0.89
24:BA:2800:A:C2	24:BA:2895:G:H1'	2.08	0.89
30:BG:84:LYS:HG3	30:BG:132:LEU:N	1.88	0.89
5:CF:92:THR:HG22	5:CF:94:HIS:H	1.36	0.89
8:CI:90:ASP:HB3	8:CI:93:LEU:HD23	1.52	0.89
39:DP:63:ILE:HA	39:DP:68:GLY:HA2	1.54	0.89
24:DA:2211:A:OP2	24:DA:2211:A:H4'	1.69	0.89
1:AB:22:TRP:HA	1:AB:189:ASN:HA	1.54	0.89
3:AD:160:LEU:HD22	3:AD:160:LEU:H	1.38	0.89
7:AH:74:ILE:HD13	7:AH:128:VAL:HG13	1.52	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:1076:U:H5	59:AA:1788:HOH:O	1.55	0.89
52:D2:19:ARG:HB3	52:D2:19:ARG:NH2	1.87	0.89
24:DA:962:G:H2'	24:DA:963:U:C6	2.07	0.89
24:DA:2714:G:H2'	24:DA:2715:C:C6	2.07	0.89
24:BA:1461:C:HO2'	24:BA:1462:C:H6	0.93	0.88
4:AE:96:GLN:HB2	4:AE:123:LEU:O	1.72	0.88
31:DH:97:ARG:O	31:DH:98:ASP:HB2	1.73	0.88
24:DA:1447:C:H2'	24:DA:1448:G:C8	2.08	0.88
28:BE:58:LYS:HG3	28:BE:71:GLY:HA2	1.54	0.88
29:BF:35:LEU:HB3	29:BF:153:ILE:CG2	2.03	0.88
34:DK:7:MET:HE1	34:DK:20:MET:HB2	1.54	0.88
21:AA:453:G:H2'	21:AA:454:G:H8	1.36	0.88
33:DJ:64:VAL:HG22	33:DJ:68:LYS:HE2	1.55	0.88
24:DA:411:G:H4'	24:DA:412:A:OP1	1.74	0.88
21:AA:89:U:O2'	21:AA:90:C:H5"	1.74	0.88
26:BC:244:VAL:HG12	26:BC:250:GLN:HA	1.53	0.88
26:DC:128:THR:HG22	26:DC:188:ARG:HB3	1.53	0.88
31:BH:96:THR:N	31:BH:97:ARG:HH12	1.72	0.88
50:B0:9:ARG:HH21	50:B0:9:ARG:HG3	1.38	0.88
24:BA:216:A:H2'	24:BA:217:A:H8	1.35	0.88
25:BB:90:C:H5"	25:BB:90:C:H6	1.36	0.88
37:BN:73:ASN:HA	37:BN:76:VAL:HG12	1.54	0.88
41:BR:49:ILE:HD12	41:BR:52:PRO:HA	1.56	0.88
24:DA:657:U:H2'	24:DA:658:U:C6	2.07	0.88
21:AA:463:U:O2'	21:AA:464:U:H5'	1.72	0.88
21:AA:1446:A:H2'	21:AA:1447:A:H5"	1.52	0.88
24:BA:2492:U:O2'	24:BA:2493:U:H5'	1.72	0.88
11:AL:33:CYS:HA	11:AL:54:VAL:HA	1.53	0.88
46:BW:9:THR:HG23	46:BW:10:ARG:HD3	1.53	0.88
24:DA:449:A:H2'	24:DA:450:G:H8	1.37	0.88
24:DA:1062:G:O4'	24:DA:1088:A:N7	2.07	0.88
24:DA:2267:A:C3'	24:DA:2267:A:C8	2.57	0.88
46:DW:19:ARG:HA	46:DW:34:SER:HA	1.56	0.88
5:AF:16:GLU:CG	3:CD:191:SER:HB2	2.04	0.87
12:AM:106:ARG:HA	12:AM:106:ARG:HH11	1.39	0.87
13:AN:60:ARG:O	13:AN:61:ASN:HB2	1.72	0.87
26:BC:246:PRO:HG2	26:BC:247:TRP:CZ3	2.09	0.87
9:CJ:80:THR:HG22	9:CJ:82:LYS:HZ1	1.39	0.87
49:DZ:23:LEU:HD21	49:DZ:53:MET:HE1	1.56	0.87
24:BA:869:G:H4'	36:BM:8:LYS:HE2	1.56	0.87
24:BA:1757:A:H3'	24:BA:1758:U:H5'	1.56	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BW:37:VAL:HG12	46:BW:38:ARG:N	1.88	0.87
17:AR:62:ARG:HH11	17:AR:69:TYR:HA	1.40	0.87
8:AI:113:LYS:HG3	8:AI:119:LYS:HA	1.53	0.87
24:BA:197:A:H62	24:BA:2430:A:H2'	1.38	0.87
39:BP:3:ILE:HD13	39:BP:3:ILE:O	1.74	0.87
48:BY:9:LYS:HB3	48:BY:12:GLU:HB2	1.55	0.87
46:DW:17:ALA:O	46:DW:18:LYS:HB3	1.74	0.87
21:AA:94:G:H4'	21:AA:95:C:H5"	1.53	0.87
24:BA:459:U:O2'	24:BA:460:A:H5'	1.74	0.87
24:BA:959:A:H2'	24:BA:960:A:C8	2.10	0.87
35:BL:29:LYS:HG2	35:BL:30:THR:HG23	1.57	0.87
55:CA:149:A:H1'	55:CA:1446:A:H2	1.38	0.87
24:DA:351:C:H2'	24:DA:352:A:C8	2.10	0.87
24:DA:1676:A:H2	24:DA:1993:U:H5'	1.36	0.87
6:AG:108:ARG:HH21	6:AG:118:ARG:HH22	1.17	0.87
21:AA:1319:A:H4'	21:AA:1320:C:OP1	1.75	0.87
21:AA:1513:A:H2'	21:AA:1514:G:H8	1.37	0.87
39:BP:29:VAL:HG12	39:BP:30:TRP:O	1.74	0.87
32:DI:45:THR:HG23	32:DI:54:ILE:HD13	1.56	0.87
24:DA:2502:G:H5'	24:DA:2503:A:H5"	1.57	0.87
1:AB:63:LYS:HG2	1:AB:224:ARG:CZ	2.05	0.87
21:AA:182:A:C6	21:AA:194:C:N4	2.41	0.87
24:BA:83:A:OP1	44:BU:91:LYS:HE3	1.74	0.87
24:BA:2502:G:H5'	24:BA:2503:A:H5"	1.56	0.87
24:BA:2615:U:O2'	24:BA:2616:C:H5'	1.74	0.87
52:B2:3:ARG:HH21	52:B2:3:ARG:HG2	1.40	0.87
1:CB:39:ILE:HD13	1:CB:40:ILE:N	1.88	0.87
5:CF:42:TRP:HE1	5:CF:61:LEU:HD23	1.38	0.87
28:DE:130:LYS:HB3	28:DE:133:LEU:HB3	1.55	0.87
24:DA:1508:A:H4'	24:DA:1509:A:OP1	1.72	0.87
8:AI:23:GLY:H	8:AI:60:LEU:HA	1.40	0.87
55:CA:275:G:H2'	55:CA:276:G:H8	1.39	0.87
21:AA:1125:U:O2'	21:AA:1126:U:O5'	1.93	0.87
1:CB:79:VAL:HA	1:CB:213:LEU:CD2	2.04	0.87
27:DD:184:ARG:HH22	39:DP:6:GLN:HE21	1.22	0.87
46:DW:40:ARG:HH11	46:DW:40:ARG:CG	1.87	0.87
24:DA:36:G:O2'	24:DA:37:C:H5'	1.75	0.87
24:DA:103:A:H2'	24:DA:104:A:H8	1.39	0.87
24:DA:241:A:H1'	24:DA:243:U:C5	2.10	0.87
24:DA:459:U:H2'	24:DA:460:A:H8	1.37	0.87
24:DA:2307:G:H1'	24:DA:2308:G:N7	1.89	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2324:U:H5'	24:DA:2325:G:H5"	1.57	0.87
21:AA:977:A:O2'	21:AA:978:A:H5"	1.75	0.86
21:AA:1138:G:N3	21:AA:1138:G:H2'	1.86	0.86
32:BI:100:ILE:HG22	32:BI:101:SER:H	1.40	0.86
12:CM:2:ARG:HD3	12:CM:2:ARG:N	1.89	0.86
24:BA:2292:U:H2'	24:BA:2293:G:H8	1.40	0.86
45:BV:80:HIS:HD2	45:BV:83:LYS:N	1.73	0.86
34:DK:66:LYS:HD2	24:DA:1665:A:H5"	1.58	0.86
24:DA:1312:U:H4'	24:DA:1313:U:O5'	1.74	0.86
55:CA:575:G:H4'	55:CA:576:C:O5'	1.73	0.86
38:DO:11:ALA:HB2	38:DO:96:GLY:N	1.90	0.86
38:DO:30:ARG:NH1	38:DO:30:ARG:CB	2.38	0.86
46:DW:40:ARG:CZ	24:DA:2332:C:H4'	2.05	0.86
41:BR:42:ALA:HA	41:BR:46:GLU:HB2	1.57	0.86
24:DA:1056:G:H1'	24:DA:1103:A:N6	1.90	0.86
7:AH:24:VAL:HG23	7:AH:62:LEU:HD21	1.55	0.86
21:AA:466:A:H5'	21:AA:467:U:OP2	1.75	0.86
24:BA:528:A:OP2	33:BJ:116:ARG:NH2	2.07	0.86
54:B4:9:LYS:CD	54:B4:9:LYS:H	1.89	0.86
24:DA:589:U:HO2'	24:DA:590:A:H8	1.21	0.86
21:AA:967:C:H2'	21:AA:968:A:H8	1.33	0.86
21:AA:1239:A:H62	21:AA:1299:A:H62	1.23	0.86
24:BA:1060:U:H4'	24:BA:1061:U:H5'	1.55	0.86
24:BA:2269:G:H4'	46:BW:18:LYS:HE2	1.57	0.86
26:BC:109:LEU:HD23	26:BC:110:LYS:H	1.40	0.86
1:CB:130:LYS:HA	1:CB:133:ALA:HB3	1.57	0.86
24:DA:216:A:HO2'	24:DA:217:A:H8	0.90	0.86
2:AC:69:THR:HG21	2:AC:75:VAL:HG21	1.56	0.86
20:AU:39:LYS:H	20:AU:40:PRO:HD2	1.39	0.86
24:BA:2615:U:C2	50:B0:3:GLN:HA	2.10	0.86
34:DK:70:ARG:HB3	34:DK:76:VAL:HG22	1.57	0.86
38:DO:94:ARG:HD2	38:DO:97:PHE:O	1.76	0.86
46:BW:30:VAL:HA	46:BW:60:ALA:HB3	1.56	0.86
5:CF:62:MET:HG3	5:CF:64:VAL:HG13	1.57	0.86
45:DV:31:TYR:OH	45:DV:90:ASP:HB3	1.76	0.86
24:DA:67:U:H2'	24:DA:68:G:H8	1.39	0.86
24:DA:1346:G:HO2'	24:DA:1347:A:H8	1.20	0.86
4:AE:155:LYS:HD2	4:AE:156:ARG:HG2	1.55	0.86
6:AG:69:ARG:HG3	6:AG:95:ARG:HG2	1.58	0.86
21:AA:913:A:H4'	21:AA:914:A:O5'	1.73	0.86
3:CD:39:GLN:H	55:CA:426:U:H4'	1.40	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CI:35:GLU:HA	8:CI:39:GLY:HA3	1.58	0.86
12:CM:2:ARG:CG	12:CM:8:ILE:HG12	2.05	0.86
55:CA:792:A:O2'	55:CA:794:A:N7	2.09	0.86
34:DK:13:ASN:HD21	34:DK:97:THR:H	1.19	0.86
46:DW:18:LYS:H	46:DW:36:ILE:HG12	1.38	0.86
24:DA:2064:C:H2'	24:DA:2065:C:C6	2.11	0.86
24:DA:2591:C:H2'	24:DA:2592:G:H8	1.40	0.86
21:AA:1239:A:H62	21:AA:1299:A:N6	1.73	0.86
33:BJ:81:ILE:HG23	33:BJ:82:GLY:N	1.89	0.86
55:CA:1096:C:O2'	55:CA:1097:C:H6	1.56	0.86
34:DK:35:VAL:HG23	34:DK:36:GLY:H	1.39	0.86
4:AE:37:VAL:HG11	4:AE:113:VAL:HA	1.58	0.85
8:AI:7:GLY:HA3	8:AI:85:ALA:HB2	1.58	0.85
8:AI:17:ARG:NH2	21:AA:1129:C:H5"	1.91	0.85
1:CB:160:LEU:HB2	1:CB:182:VAL:HG12	1.57	0.85
24:DA:1062:G:O2'	24:DA:1063:G:H8	1.58	0.85
7:AH:6:ILE:HB	7:AH:76:ARG:HH12	1.41	0.85
29:BF:110:ILE:HG22	29:BF:110:ILE:O	1.76	0.85
39:BP:25:VAL:HG11	39:BP:46:VAL:HG23	1.58	0.85
24:BA:802:A:H2'	24:BA:803:U:H6	1.42	0.85
28:BE:161:ALA:HA	28:BE:164:LEU:HB2	1.57	0.85
33:BJ:18:VAL:HG22	33:BJ:140:LEU:CD1	2.05	0.85
55:CA:1065:U:H5"	55:CA:1190:G:N2	1.91	0.85
55:CA:1528:U:O2'	55:CA:1529:G:H3'	1.76	0.85
24:DA:1270:C:H5"	24:DA:1271:G:H5'	1.57	0.85
24:DA:1945:G:O2'	24:DA:1946:U:H5'	1.74	0.85
21:AA:721:G:H4'	21:AA:722:G:O5'	1.75	0.85
39:BP:50:ARG:CG	39:BP:57:ALA:H	1.89	0.85
39:BP:50:ARG:HD3	39:BP:56:SER:HB3	1.55	0.85
40:BQ:25:GLY:O	40:BQ:29:ARG:HG3	1.76	0.85
55:CA:484:G:H4'	55:CA:485:U:O5'	1.74	0.85
1:AB:163:ILE:HG23	1:AB:164:ASP:H	1.42	0.85
21:AA:329:A:H2'	21:AA:332:G:N7	1.90	0.85
21:AA:822:U:H2'	21:AA:823:C:H6	1.38	0.85
28:DE:6:LYS:HB2	28:DE:121:VAL:HG12	1.59	0.85
4:AE:80:LEU:HD12	4:AE:146:MET:HE1	1.58	0.85
4:AE:155:LYS:HD3	7:AH:63:LYS:HZ3	1.39	0.85
21:AA:412:A:H4'	21:AA:413:G:O5'	1.75	0.85
24:BA:477:A:H2'	24:BA:478:A:C8	2.11	0.85
45:BV:44:HIS:HE1	45:BV:86:LEU:H	1.20	0.85
24:DA:2023:C:HO2'	24:DA:2024:G:H8	0.88	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2286:G:H4'	24:DA:2287:A:O4'	1.75	0.85
24:BA:782:A:H4'	24:BA:783:A:O5'	1.76	0.85
24:BA:848:C:H2'	24:BA:849:A:C8	2.11	0.85
26:BC:251:THR:HG22	26:BC:252:LYS:N	1.90	0.85
2:CC:166:TRP:O	2:CC:167:TYR:HB2	1.73	0.85
55:CA:1422:G:H5"	34:DK:48:PRO:HB3	1.59	0.85
26:DC:144:GLU:HB3	26:DC:187:CYS:HB2	1.58	0.85
29:DF:91:ARG:HH21	29:DF:91:ARG:HB3	1.40	0.85
33:DJ:25:LEU:HD22	33:DJ:26:GLY:N	1.91	0.85
36:DM:34:LYS:HD3	36:DM:131:VAL:HG21	1.59	0.85
56:DB:42:C:H2'	56:DB:43:C:H6	1.42	0.85
21:AA:550:G:H2'	21:AA:551:U:H6	1.42	0.85
17:CR:29:LYS:HE3	17:CR:30:ASN:N	1.92	0.85
55:CA:1258:G:O2'	55:CA:1259:C:H5'	1.76	0.85
38:DO:30:ARG:HB2	38:DO:30:ARG:HH11	1.40	0.85
21:AA:548:G:H2'	21:AA:549:C:H6	1.39	0.85
24:BA:1936:A:H5"	24:BA:1937:A:H5'	1.59	0.85
24:BA:2868:A:H2'	24:BA:2869:G:C8	2.12	0.85
1:CB:107:ARG:HA	1:CB:110:ILE:HG13	1.56	0.85
55:CA:1169:A:H2'	55:CA:1170:A:C8	2.12	0.85
37:DN:33:ILE:HG23	37:DN:114:GLU:HB2	1.58	0.85
45:DV:31:TYR:O	45:DV:31:TYR:CD1	2.29	0.85
45:DV:77:VAL:HA	45:DV:89:ILE:HG22	1.59	0.85
24:DA:2490:G:H4'	24:DA:2491:U:OP1	1.76	0.85
4:AE:155:LYS:HG2	7:AH:65:PHE:HB2	1.56	0.85
24:BA:347:A:H2'	24:BA:348:A:H8	1.40	0.85
24:BA:740:C:H5'	24:BA:1784:A:H3'	1.59	0.85
24:BA:2096:C:H2'	24:BA:2097:A:C8	2.10	0.85
8:CI:75:ALA:HA	8:CI:78:ILE:HD12	1.56	0.85
40:DQ:91:ARG:HG3	41:DR:11:GLN:CD	2.01	0.85
24:DA:103:A:H2'	24:DA:104:A:C8	2.12	0.85
35:BL:27:LEU:H	35:BL:27:LEU:HD12	1.42	0.84
55:CA:994:A:O2'	55:CA:995:C:H5'	1.76	0.84
27:DD:106:LYS:HB3	27:DD:206:ALA:HB3	1.58	0.84
46:DW:13:ARG:HG3	46:DW:14:ASP:H	1.42	0.84
24:DA:172:A:H2'	24:DA:173:A:C8	2.10	0.84
4:AE:84:VAL:HB	4:AE:146:MET:HE3	1.59	0.84
24:BA:784:G:C6	26:BC:227:VAL:HG11	2.11	0.84
24:BA:1447:C:H2'	24:BA:1448:G:H8	1.42	0.84
34:DK:67:LYS:NZ	24:DA:2726:A:O2'	2.10	0.84
52:D2:31:LEU:HA	52:D2:34:ARG:HB2	1.58	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:170:U:H2'	24:DA:171:U:H6	1.41	0.84
39:BP:67:GLU:HG3	39:BP:68:GLY:H	1.41	0.84
41:BR:24:LYS:HA	41:BR:94:THR:HG23	1.59	0.84
38:DO:44:GLY:HA2	56:DB:8:C:O2'	1.77	0.84
24:DA:206:U:O2'	24:DA:207:A:H5'	1.78	0.84
24:DA:1024:G:H3'	24:DA:1025:G:H5"	1.60	0.84
24:DA:2591:C:H2'	24:DA:2592:G:C8	2.12	0.84
8:AI:6:TYR:HE2	8:AI:17:ARG:HB2	1.42	0.84
35:DL:54:GLN:HE22	24:DA:2358:A:H61	1.25	0.84
24:DA:2267:A:H3'	24:DA:2267:A:H8	1.41	0.84
21:AA:60:A:H4'	21:AA:61:G:O5'	1.77	0.84
21:AA:243:A:H4'	21:AA:244:U:H5'	1.57	0.84
24:BA:118:A:C8	24:BA:119:A:C8	2.66	0.84
11:CL:80:LEU:HB2	11:CL:101:LEU:HD23	1.59	0.84
55:CA:211:G:H2'	55:CA:211:G:N3	1.90	0.84
55:CA:664:G:N2	55:CA:741:G:H1	1.75	0.84
4:AE:133:ILE:H	4:AE:133:ILE:HD12	1.41	0.84
24:BA:1427:A:H4'	24:BA:1428:C:O5'	1.76	0.84
34:BK:18:ARG:HH11	34:BK:18:ARG:CG	1.89	0.84
34:BK:71:ARG:HB2	34:BK:72:PRO:HD3	1.58	0.84
17:CR:62:ARG:HB3	17:CR:69:TYR:CE1	2.13	0.84
20:CU:24:LYS:HG3	20:CU:25:ALA:H	1.42	0.84
24:DA:333:G:O2'	24:DA:334:C:H5'	1.76	0.84
24:DA:1477:A:H2'	24:DA:1478:G:O4'	1.78	0.84
1:AB:168:GLU:HB2	1:AB:172:ILE:HG13	1.60	0.84
7:AH:106:SER:HA	21:AA:642:A:N7	1.93	0.84
21:AA:1399:C:H4'	21:AA:1400:C:O5'	1.78	0.84
34:BK:18:ARG:HG3	34:BK:18:ARG:NH1	1.89	0.84
34:BK:57:VAL:C	34:BK:58:LEU:HD23	2.03	0.84
52:B2:24:THR:HG23	52:B2:27:GLY:H	1.41	0.84
1:CB:90:PHE:HE1	1:CB:92:ASN:HD22	1.26	0.84
7:CH:76:ARG:HD3	7:CH:77:VAL:N	1.92	0.84
27:BD:5:VAL:N	27:BD:32:ASN:HD21	1.74	0.84
4:CE:95:MET:HA	4:CE:124:ALA:HB2	1.59	0.84
28:DE:148:ILE:HD13	28:DE:187:VAL:HG21	1.60	0.84
45:DV:14:LYS:CB	56:DB:98:G:H1	1.89	0.84
24:DA:685:A:H5'	24:DA:686:U:OP1	1.78	0.84
3:AD:10:LEU:HD21	3:AD:62:ARG:HG3	1.60	0.84
8:AI:113:LYS:HE2	8:AI:118:ARG:O	1.78	0.84
21:AA:373:A:HO2'	21:AA:374:A:H8	0.87	0.84
4:CE:45:VAL:HB	4:CE:117:ALA:HB2	1.59	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:198:G:O2'	55:CA:199:A:H8	1.61	0.84
55:CA:1157:A:H1'	55:CA:1181:G:N2	1.93	0.84
24:DA:2023:C:O2'	24:DA:2024:G:H8	1.59	0.84
4:AE:79:THR:HA	4:AE:119:VAL:HB	1.58	0.84
21:AA:704:A:H2'	21:AA:705:G:H8	1.41	0.84
51:D1:5:ARG:HH21	51:D1:23:THR:HB	1.43	0.84
24:DA:1346:G:O2'	24:DA:1347:A:H8	1.60	0.84
24:DA:2267:A:C8	24:DA:2267:A:H3'	2.12	0.84
1:AB:24:PRO:HG3	21:AA:830:G:H5'	1.60	0.83
36:BM:66:ARG:HG3	36:BM:101:VAL:HG13	1.59	0.83
7:CH:17:GLN:HE21	7:CH:71:VAL:HG23	1.41	0.83
8:CI:118:ARG:HG3	8:CI:124:PRO:HG3	1.59	0.83
39:DP:59:THR:OG1	39:DP:72:VAL:HG12	1.77	0.83
44:DU:35:VAL:HB	44:DU:38:ILE:HD13	1.60	0.83
8:AI:59:LYS:HD2	8:AI:60:LEU:HD22	1.58	0.83
29:BF:132:ARG:O	29:BF:133:GLU:HB3	1.76	0.83
31:BH:96:THR:HG22	31:BH:97:ARG:NH1	1.93	0.83
17:CR:26:ALA:O	17:CR:29:LYS:HE2	1.78	0.83
20:CU:39:LYS:H	20:CU:40:PRO:HD2	1.40	0.83
30:DG:66:THR:HG22	24:DA:2748:A:H1'	1.58	0.83
32:DI:91:LYS:HB3	32:DI:94:LYS:HB2	1.61	0.83
24:DA:1429:G:HO2'	24:DA:1430:G:H8	0.85	0.83
21:AA:94:G:H4'	21:AA:95:C:O5'	1.78	0.83
24:BA:1956:U:O2'	24:BA:1957:C:H5'	1.77	0.83
24:BA:2305:U:H2'	24:BA:2306:C:O4'	1.78	0.83
33:BJ:6:ALA:HB3	33:BJ:45:THR:HG21	1.58	0.83
44:BU:97:SER:O	44:BU:98:ASN:HB3	1.76	0.83
12:CM:86:ARG:HD3	12:CM:96:VAL:HG11	1.59	0.83
24:DA:140:C:H5'	24:DA:141:G:N2	1.92	0.83
24:DA:1062:G:C8	24:DA:1088:A:C8	2.67	0.83
24:DA:1935:G:H1'	24:DA:1964:G:N2	1.92	0.83
56:DB:45:A:HO2'	56:DB:46:A:H8	0.86	0.83
1:AB:107:ARG:HE	1:AB:108:GLN:NE2	1.75	0.83
13:AN:20:PHE:C	13:AN:22:LYS:H	1.85	0.83
16:AQ:12:VAL:HG13	16:AQ:13:SER:N	1.93	0.83
20:AU:36:PHE:HA	20:AU:39:LYS:HE3	1.59	0.83
6:CG:14:ASP:HB2	6:CG:22:LEU:HD22	1.60	0.83
55:CA:90:C:H2'	55:CA:91:U:C6	2.13	0.83
55:CA:517:G:H5'	55:CA:519:C:C2	2.12	0.83
33:DJ:81:ILE:HG22	24:DA:2515:C:OP1	1.77	0.83
45:DV:80:HIS:HD2	45:DV:82:TYR:H	1.24	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:435:C:O2'	24:DA:436:C:H5'	1.79	0.83
24:DA:1956:U:O2'	24:DA:1957:C:H5'	1.77	0.83
24:DA:2776:A:H4'	24:DA:2777:G:O5'	1.77	0.83
9:AJ:35:GLN:HG2	9:AJ:77:VAL:HB	1.60	0.83
24:BA:1179:G:C6	24:BA:1180:U:H1'	2.12	0.83
33:BJ:65:THR:HG22	33:BJ:68:LYS:HE3	1.61	0.83
37:BN:33:ILE:HG23	37:BN:114:GLU:HB3	1.61	0.83
48:BY:47:ARG:HH21	48:BY:47:ARG:HG3	1.43	0.83
32:DI:104:GLN:HA	32:DI:107:GLU:HB2	1.61	0.83
24:DA:364:C:H2'	24:DA:365:U:C6	2.12	0.83
24:DA:1476:U:HO2'	24:DA:1477:A:H8	1.27	0.83
5:CF:86:ARG:NH1	17:CR:63:TYR:HB3	1.94	0.83
24:DA:216:A:O2'	24:DA:217:A:H8	1.62	0.83
27:BD:9:VAL:HG22	27:BD:26:VAL:HB	1.60	0.83
34:BK:113:MET:O	34:BK:116:ILE:HG13	1.78	0.83
35:BL:30:THR:O	35:BL:33:ARG:HG2	1.77	0.83
38:BO:49:VAL:HG21	38:BO:82:ALA:HA	1.60	0.83
10:CK:124:LYS:HG3	20:CU:34:ARG:HD2	1.60	0.83
55:CA:275:G:H2'	55:CA:276:G:C8	2.13	0.83
34:DK:80:ASP:HB2	39:DP:67:GLU:OE1	1.78	0.83
24:BA:1026:G:H2'	24:BA:1027:A:H8	1.42	0.83
9:CJ:79:PRO:HA	9:CJ:84:VAL:HG11	1.58	0.83
55:CA:806:C:H2'	55:CA:807:A:H8	1.43	0.83
24:DA:632:A:H2'	24:DA:633:A:C8	2.13	0.83
24:DA:2674:G:H2'	24:DA:2675:A:C8	2.14	0.83
55:CA:565:U:H2'	55:CA:566:G:H8	1.44	0.83
38:DO:64:TYR:HE1	56:DB:52:A:C8	1.95	0.83
40:DQ:24:TYR:O	40:DQ:27:ARG:HB3	1.79	0.83
45:DV:77:VAL:HG11	45:DV:79:ARG:HH21	1.43	0.83
24:DA:176:A:H3'	24:DA:177:G:H21	1.43	0.83
21:AA:174:A:O2'	21:AA:175:C:H5'	1.78	0.83
24:BA:848:C:H2'	24:BA:849:A:H8	1.40	0.83
26:BC:104:LEU:O	26:BC:105:ALA:HB2	1.79	0.83
34:BK:70:ARG:HD3	34:BK:76:VAL:HG22	1.60	0.83
9:CJ:11:LYS:HZ1	9:CJ:99:GLN:HB3	1.44	0.83
55:CA:960:U:O2'	55:CA:1223:C:H5"	1.79	0.83
24:DA:2439:A:H4'	24:DA:2440:C:O5'	1.79	0.83
6:AG:106:ALA:HB1	6:AG:132:THR:HB	1.61	0.82
21:AA:423:G:H2'	21:AA:423:G:N3	1.92	0.82
24:BA:783:A:OP2	59:BA:3316:HOH:O	1.97	0.82
39:BP:50:ARG:HG2	39:BP:57:ALA:N	1.94	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:6:G:H2'	55:CA:6:G:N3	1.93	0.82
55:CA:982:U:H1'	55:CA:983:A:N7	1.94	0.82
55:CA:1493:A:H3'	24:DA:1913:A:H61	1.39	0.82
32:DI:113:ALA:HB1	32:DI:124:MET:SD	2.17	0.82
34:DK:87:LEU:HD12	34:DK:92:GLU:HA	1.60	0.82
24:DA:1595:C:H2'	24:DA:1596:A:H8	1.44	0.82
17:AR:40:PRO:HB2	17:AR:42:ARG:HG2	1.59	0.82
24:BA:1799:G:H4'	24:BA:1800:C:O5'	1.77	0.82
40:BQ:63:ARG:HH22	40:BQ:96:ASP:HB3	1.44	0.82
55:CA:33:A:H2'	55:CA:34:C:H6	1.43	0.82
55:CA:198:G:HO2'	55:CA:199:A:H8	0.84	0.82
33:DJ:18:VAL:HG13	33:DJ:56:VAL:HA	1.60	0.82
24:DA:1744:A:H3'	24:DA:1745:A:H8	1.43	0.82
55:CA:565:U:H2'	55:CA:566:G:C8	2.13	0.82
24:DA:1639:C:H2'	24:DA:1640:A:H5"	1.61	0.82
56:DB:50:A:C5	56:DB:51:G:C8	2.68	0.82
3:AD:61:ARG:HH21	3:AD:67:LEU:HA	1.42	0.82
24:BA:2742:G:O2'	24:BA:2743:U:H5'	1.80	0.82
31:BH:97:ARG:HG2	31:BH:111:ALA:HB1	1.60	0.82
55:CA:977:A:H2'	55:CA:1224:U:O4	1.79	0.82
24:DA:2308:G:C6	24:DA:2311:A:N6	2.48	0.82
46:BW:17:ALA:HA	46:BW:35:ILE:HG23	1.61	0.82
53:B3:26:ALA:O	53:B3:27:ASN:HB2	1.79	0.82
55:CA:747:A:H2'	55:CA:748:G:O4'	1.78	0.82
26:DC:122:ALA:HB3	26:DC:127:ASN:HD22	1.43	0.82
34:DK:25:LEU:HD23	34:DK:25:LEU:H	1.44	0.82
24:DA:2674:G:H2'	24:DA:2675:A:H8	1.42	0.82
4:AE:55:VAL:N	4:AE:56:PRO:HD2	1.95	0.82
7:AH:17:GLN:HE21	7:AH:71:VAL:HG23	1.45	0.82
24:BA:2720:U:H2'	24:BA:2721:A:H8	1.43	0.82
28:BE:95:LYS:O	28:BE:96:VAL:HB	1.78	0.82
33:BJ:73:VAL:HG23	33:BJ:74:TYR:N	1.93	0.82
8:CI:17:ARG:HB2	8:CI:65:THR:HB	1.62	0.82
55:CA:1031:C:H5'	55:CA:1032:G:H5"	1.59	0.82
48:DY:48:ARG:NH2	24:DA:75:G:H4'	1.94	0.82
24:DA:752:A:O2'	24:DA:753:A:OP2	1.97	0.82
2:AC:166:TRP:H	2:AC:166:TRP:HE3	1.25	0.82
4:AE:80:LEU:HD21	4:AE:95:MET:HE2	1.58	0.82
21:AA:345:C:H3'	39:BP:33:GLU:OE1	1.80	0.82
21:AA:859:G:H2'	21:AA:860:A:C8	2.15	0.82
21:AA:1224:U:H4'	21:AA:1225:A:OP2	1.79	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1062:G:H2'	24:BA:1063:G:C8	2.13	0.82
55:CA:1507:A:O2'	55:CA:1508:A:H8	1.61	0.82
27:DD:119:ALA:HB3	27:DD:163:GLY:N	1.95	0.82
29:DF:49:LEU:H	29:DF:49:LEU:HD22	1.41	0.82
30:DG:126:THR:HG22	30:DG:127:GLN:H	1.43	0.82
24:DA:1469:A:H2'	24:DA:1470:A:H8	1.42	0.82
24:BA:1447:C:H2'	24:BA:1448:G:C8	2.15	0.82
24:BA:2210:U:H4'	24:BA:2211:A:H5'	1.59	0.82
24:BA:2211:A:OP2	24:BA:2211:A:H4'	1.79	0.82
24:BA:2352:A:H2'	24:BA:2353:G:O4'	1.79	0.82
11:CL:113:ARG:HB3	11:CL:118:VAL:HB	1.61	0.82
30:DG:120:ILE:HG13	30:DG:140:ILE:HG22	1.61	0.82
46:DW:18:LYS:HD3	46:DW:19:ARG:N	1.93	0.82
24:DA:1437:C:H2'	24:DA:1438:U:C6	2.14	0.82
56:DB:12:C:H5"	56:DB:15:A:N6	1.93	0.82
4:AE:80:LEU:HB2	4:AE:122:VAL:HG11	1.61	0.82
21:AA:792:A:O2'	21:AA:794:A:N7	2.12	0.82
24:BA:1813:G:N3	26:BC:49:THR:HG21	1.95	0.82
56:DB:75:G:O2'	56:DB:76:G:H5'	1.79	0.82
4:AE:38:VAL:HG13	4:AE:66:ALA:HB1	1.61	0.82
21:AA:753:A:H4'	21:AA:754:C:O5'	1.78	0.82
37:BN:73:ASN:O	37:BN:76:VAL:HG12	1.80	0.82
26:DC:73:ILE:HD12	24:DA:1490:A:C8	2.14	0.82
24:DA:142:A:H2'	24:DA:143:C:H6	1.42	0.82
24:DA:2438:U:O2'	24:DA:2439:A:H5"	1.80	0.82
24:BA:27:G:N2	24:BA:512:G:O2'	2.12	0.81
24:BA:675:A:H4'	28:BE:62:GLN:NE2	1.95	0.81
35:BL:74:THR:HG22	35:BL:107:PHE:HB2	1.58	0.81
28:DE:122:GLU:HA	28:DE:190:ALA:HB2	1.62	0.81
37:DN:37:THR:HG22	37:DN:39:PRO:HD2	1.60	0.81
4:AE:25:LYS:HE2	21:AA:923:A:H5"	1.62	0.81
6:CG:91:ARG:HG2	6:CG:92:PRO:HD2	1.61	0.81
24:DA:1817:G:O2'	24:DA:1818:U:H5'	1.79	0.81
21:AA:33:A:H2'	21:AA:34:C:C6	2.15	0.81
21:AA:373:A:O2'	21:AA:374:A:H5'	1.79	0.81
21:AA:513:C:H2'	21:AA:514:C:H6	1.43	0.81
21:AA:1160:G:O2'	21:AA:1161:C:H5'	1.80	0.81
21:AA:1239:A:H4'	21:AA:1240:U:C5'	2.10	0.81
24:BA:1996:C:H4'	24:BA:1997:C:OP1	1.79	0.81
40:BQ:65:ASN:ND2	40:BQ:69:ARG:HH22	1.77	0.81
1:CB:59:ILE:HA	1:CB:62:ARG:HD3	1.60	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DC:140:VAL:HG22	26:DC:161:VAL:O	1.79	0.81
28:DE:79:ARG:HG2	28:DE:80:SER:H	1.45	0.81
44:DU:96:LYS:HD3	24:DA:300:A:OP2	1.80	0.81
24:DA:329:G:OP1	24:DA:329:G:H3'	1.79	0.81
24:DA:1569:A:H2'	24:DA:1570:A:C8	2.14	0.81
24:BA:1026:G:H2'	24:BA:1027:A:C8	2.16	0.81
24:BA:2500:U:H5"	24:BA:2501:C:OP2	1.80	0.81
30:BG:122:ALA:HB2	30:BG:132:LEU:HB3	1.61	0.81
37:BN:103:ARG:CB	37:BN:110:MET:HE3	2.11	0.81
20:CU:24:LYS:HZ2	20:CU:25:ALA:HB2	1.44	0.81
24:DA:2476:A:H2	24:DA:2481:G:H1	1.27	0.81
21:AA:690:G:H2'	21:AA:691:G:O4'	1.80	0.81
21:AA:1225:A:H2'	21:AA:1226:C:C6	2.15	0.81
24:BA:765:C:H2'	24:BA:766:U:H6	1.44	0.81
24:BA:930:G:H1'	49:BZ:24:LEU:HD21	1.60	0.81
2:CC:106:ARG:H	2:CC:106:ARG:CD	1.90	0.81
2:CC:161:ILE:HD13	2:CC:161:ILE:H	1.43	0.81
55:CA:966:G:O2'	55:CA:967:C:H5'	1.80	0.81
44:DU:54:PRO:HG2	44:DU:55:GLY:H	1.45	0.81
24:DA:395:U:O2'	24:DA:396:G:C8	2.33	0.81
24:DA:740:C:HO2'	24:DA:741:U:H6	1.26	0.81
24:DA:1784:A:H4'	24:DA:1785:A:C5'	2.09	0.81
3:AD:187:ARG:HH12	3:AD:191:SER:HA	1.46	0.81
24:BA:2813:A:H2	24:BA:2887:A:H62	1.25	0.81
10:CK:51:PHE:HB3	10:CK:55:ARG:HB3	1.62	0.81
53:D3:1:PRO:HD2	24:DA:591:U:H1'	1.62	0.81
24:DA:1056:G:C1'	24:DA:1103:A:H61	1.93	0.81
24:DA:2225:A:H5'	24:DA:2226:C:H5'	1.61	0.81
1:AB:53:LEU:HA	1:AB:56:LEU:HB3	1.62	0.81
24:BA:859:G:OP2	24:BA:859:G:C8	2.34	0.81
24:DA:2660:A:H2	24:DA:2661:G:C4	1.98	0.81
3:AD:33:ILE:O	3:AD:34:GLU:HB3	1.79	0.81
24:BA:932:U:H4'	24:BA:933:A:O5'	1.81	0.81
26:BC:141:HIS:HB2	26:BC:190:THR:HB	1.63	0.81
42:BS:51:LEU:O	42:BS:55:ILE:HG13	1.81	0.81
27:DD:116:LYS:HD3	37:DN:1:MET:HE1	1.62	0.81
28:DE:170:ARG:HH22	28:DE:176:ASP:HB2	1.46	0.81
34:DK:61:VAL:HG11	34:DK:112:PHE:CE2	2.16	0.81
35:DL:79:LEU:HA	35:DL:82:LEU:HD11	1.61	0.81
21:AA:1444:U:H2'	21:AA:1445:U:H6	1.45	0.81
26:BC:14:HIS:O	26:BC:203:VAL:HG11	1.79	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CB:206:ILE:HA	1:CB:209:VAL:HG22	1.61	0.81
3:CD:25:ARG:HH11	3:CD:30:LYS:HE2	1.44	0.81
55:CA:174:A:O2'	55:CA:175:C:H5'	1.81	0.81
27:DD:8:LYS:HB2	27:DD:201:LEU:HD11	1.62	0.81
44:DU:95:PHE:HD1	44:DU:95:PHE:H	1.29	0.81
3:AD:25:ARG:NH1	3:AD:30:LYS:HE3	1.95	0.81
21:AA:924:C:H2'	21:AA:925:G:C8	2.16	0.81
24:BA:1385:A:O2'	24:BA:1386:C:H5"	1.81	0.81
24:BA:1839:G:H2'	24:BA:1840:G:H8	1.46	0.81
29:DF:74:ALA:HB1	29:DF:76:PHE:CD2	2.16	0.81
24:DA:647:G:HO2'	24:DA:648:G:H8	1.28	0.81
24:DA:1283:G:H22	24:DA:1286:A:H5'	1.44	0.81
24:DA:2239:G:H5"	59:DA:3532:HOH:O	1.81	0.81
4:AE:110:MET:SD	4:AE:139:THR:HG21	2.20	0.80
5:AF:86:ARG:NH1	17:AR:63:TYR:HB3	1.94	0.80
21:AA:702:A:O2'	21:AA:703:G:OP1	1.99	0.80
24:BA:347:A:H2'	24:BA:348:A:C8	2.16	0.80
44:BU:73:ASN:HD22	44:BU:76:THR:H	1.29	0.80
2:CC:109:GLU:HB3	2:CC:143:LEU:HD22	1.62	0.80
4:CE:114:LEU:HD13	4:CE:122:VAL:HG11	1.62	0.80
9:CJ:5:ARG:HH21	9:CJ:77:VAL:HG13	1.45	0.80
7:AH:74:ILE:CD1	7:AH:128:VAL:HG13	2.11	0.80
24:BA:251:A:H2'	24:BA:252:G:O4'	1.81	0.80
4:CE:149:PRO:HG3	7:CH:98:LEU:HD21	1.60	0.80
9:CJ:59:LYS:HG2	55:CA:972:C:H4'	1.63	0.80
29:DF:43:ILE:HG23	29:DF:44:ALA:H	1.46	0.80
34:DK:17:ARG:HG2	34:DK:18:ARG:H	1.45	0.80
24:DA:2498:C:O2'	24:DA:2499:C:H5'	1.81	0.80
1:AB:143:LEU:HB2	1:AB:147:LEU:HD12	1.62	0.80
2:AC:152:VAL:HG12	2:AC:197:VAL:HG22	1.62	0.80
6:AG:94:ARG:HE	6:AG:98:LEU:HD11	1.46	0.80
21:AA:338:A:N1	21:AA:351:G:O6	2.14	0.80
54:B4:9:LYS:H	54:B4:9:LYS:HD3	1.43	0.80
26:DC:159:THR:O	26:DC:194:VAL:HG12	1.81	0.80
48:DY:4:LYS:HZ3	48:DY:4:LYS:HB2	1.44	0.80
53:D3:41:ARG:HG3	53:D3:41:ARG:HH21	1.47	0.80
24:DA:671:C:O2'	24:DA:672:C:H5'	1.81	0.80
21:AA:32:A:H2'	21:AA:33:A:C8	2.16	0.80
21:AA:859:G:H2'	21:AA:860:A:H8	1.46	0.80
24:BA:637:A:H4'	24:BA:638:G:O5'	1.80	0.80
55:CA:78:A:H2'	55:CA:79:G:C8	2.16	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:116:A:H2'	55:CA:117:G:C8	2.16	0.80
28:DE:128:ALA:HB1	28:DE:129:PRO:HD2	1.62	0.80
24:BA:395:U:O2'	24:BA:396:G:N7	2.13	0.80
24:BA:636:G:C6	35:BL:111:ILE:HD11	2.16	0.80
24:BA:1602:U:O4	59:BA:3721:HOH:O	1.99	0.80
39:BP:4:ILE:HG22	39:BP:5:LYS:N	1.97	0.80
45:BV:40:ILE:HG22	45:BV:41:GLU:N	1.95	0.80
13:CN:63:CYS:HB3	13:CN:67:GLY:H	1.46	0.80
28:DE:47:LYS:HB3	28:DE:51:GLU:HB2	1.64	0.80
31:DH:3:VAL:HG12	31:DH:38:PRO:HA	1.64	0.80
24:DA:1407:G:H2'	24:DA:1408:G:H8	1.44	0.80
21:AA:82:G:H21	21:AA:84:U:H3	1.30	0.80
24:BA:206:U:O2'	24:BA:207:A:H5'	1.80	0.80
48:BY:9:LYS:HA	48:BY:9:LYS:CE	2.11	0.80
9:CJ:57:VAL:HG22	9:CJ:58:ASN:H	1.47	0.80
12:CM:82:LEU:HB2	18:CS:73:PHE:HE2	1.45	0.80
55:CA:142:G:C5	55:CA:143:A:C8	2.70	0.80
55:CA:735:C:H2'	55:CA:736:C:H6	1.45	0.80
40:DQ:4:LYS:NZ	40:DQ:6:GLY:HA3	1.96	0.80
13:AN:50:LEU:HB3	13:AN:51:PRO:HD2	1.63	0.80
16:AQ:76:ARG:HG2	16:AQ:77:VAL:H	1.46	0.80
24:BA:181:A:H1'	24:BA:435:C:H5'	1.63	0.80
24:BA:1398:C:O2'	24:BA:1399:C:H5'	1.82	0.80
39:BP:50:ARG:HG2	39:BP:57:ALA:H	1.46	0.80
6:CG:74:VAL:HG13	6:CG:140:VAL:HG13	1.64	0.80
29:DF:64:PRO:HA	29:DF:88:VAL:HG22	1.62	0.80
30:DG:16:VAL:HG11	30:DG:44:HIS:CD2	2.17	0.80
11:AL:21:PRO:HD2	11:AL:94:TYR:OH	1.81	0.80
17:AR:35:SER:HA	17:AR:71:ASP:HB3	1.64	0.80
46:BW:18:LYS:HA	46:BW:36:ILE:HG13	1.64	0.80
9:CJ:52:LEU:CB	13:CN:80:ARG:HE	1.94	0.80
24:DA:477:A:H2'	24:DA:478:A:H8	1.45	0.80
24:DA:616:A:C2'	24:DA:617:G:H8	1.93	0.80
24:DA:1815:A:H4'	24:DA:1816:C:OP1	1.81	0.80
24:DA:2671:G:H2'	24:DA:2672:U:H6	1.45	0.80
24:BA:994:C:H1'	41:BR:10:LYS:NZ	1.97	0.80
33:BJ:21:THR:HG22	33:BJ:22:GLY:N	1.97	0.80
46:BW:24:ARG:HD2	46:BW:25:PHE:N	1.96	0.80
55:CA:818:G:O2'	55:CA:819:A:H5"	1.82	0.80
48:DY:41:HIS:CD2	24:DA:96:C:H4'	2.16	0.80
50:D0:39:ARG:CD	24:DA:2886:A:H62	1.95	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AB:48:MET:HA	1:AB:48:MET:HE3	1.64	0.80
1:AB:162:VAL:HG21	1:AB:172:ILE:HD11	1.62	0.80
5:AF:29:ILE:HG12	5:AF:64:VAL:HG11	1.62	0.80
24:BA:1309:G:OP1	52:B2:9:VAL:HG12	1.81	0.80
26:BC:29:PHE:CE2	26:BC:31:PRO:HG2	2.17	0.80
27:BD:110:THR:HG23	27:BD:171:THR:HG22	1.64	0.80
30:BG:148:ARG:HA	30:BG:161:VAL:HG11	1.62	0.80
46:BW:47:GLY:N	46:BW:80:SER:HB3	1.96	0.80
40:DQ:91:ARG:NH1	41:DR:10:LYS:HB3	1.97	0.80
24:DA:1447:C:H2'	24:DA:1448:G:H8	1.47	0.80
13:AN:42:ASN:HD21	13:AN:46:LYS:NZ	1.80	0.79
24:BA:395:U:O2'	24:BA:396:G:C8	2.36	0.79
24:BA:1026:G:O2'	24:BA:1027:A:H5'	1.82	0.79
24:BA:2543:G:H2'	24:BA:2544:G:C8	2.16	0.79
24:BA:2714:G:O2'	24:BA:2715:C:H5'	1.82	0.79
31:BH:96:THR:C	31:BH:97:ARG:NH1	2.40	0.79
35:BL:81:ASP:O	35:BL:82:LEU:HB3	1.82	0.79
43:BT:61:LEU:C	43:BT:61:LEU:HD12	2.07	0.79
1:CB:128:LEU:HB3	1:CB:131:LYS:HB3	1.64	0.79
12:CM:8:ILE:HD11	29:DF:136:ILE:HG13	1.64	0.79
55:CA:1135:U:H5'	55:CA:1136:C:OP2	1.82	0.79
37:DN:38:LEU:HB3	37:DN:39:PRO:HD3	1.63	0.79
38:DO:30:ARG:HH22	38:DO:103:VAL:CG2	1.95	0.79
24:DA:2308:G:C6	24:DA:2311:A:C6	2.71	0.79
1:AB:159:ALA:HB1	1:AB:183:PHE:HE2	1.47	0.79
21:AA:1046:A:O2'	21:AA:1047:G:H5'	1.82	0.79
24:BA:2210:U:H4'	24:BA:2211:A:C5'	2.11	0.79
24:BA:2355:G:H4'	46:BW:20:LEU:HD13	1.64	0.79
28:BE:148:ILE:HD13	28:BE:187:VAL:HG21	1.65	0.79
30:BG:123:GLU:CD	30:BG:124:CYS:H	1.91	0.79
8:CI:45:MET:HA	8:CI:48:ARG:HG2	1.64	0.79
16:CQ:44:HIS:HB2	16:CQ:69:THR:O	1.81	0.79
18:CS:35:ARG:HA	18:CS:70:LEU:HB2	1.64	0.79
55:CA:874:G:O2'	55:CA:875:U:H5'	1.80	0.79
30:DG:83:THR:C	30:DG:84:LYS:HD3	2.07	0.79
24:DA:973:A:OP1	24:DA:973:A:H8	1.66	0.79
24:DA:1929:G:H4'	24:DA:1930:G:OP1	1.81	0.79
24:DA:2311:A:H5'	24:DA:2312:U:C5	2.17	0.79
24:DA:2671:G:H2'	24:DA:2672:U:C6	2.17	0.79
24:DA:2714:G:H2'	24:DA:2715:C:H6	1.44	0.79
10:AK:83:VAL:HB	10:AK:109:ILE:HG12	1.65	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1157:G:O2'	24:BA:1158:C:H5'	1.81	0.79
28:BE:97:ASN:HB2	28:BE:100:MET:HG3	1.65	0.79
6:CG:101:ARG:HH21	55:CA:940:C:H5'	1.47	0.79
43:DT:69:ARG:HG2	24:DA:64:A:O2'	1.83	0.79
24:BA:161:A:H3'	24:BA:162:U:H5"	1.64	0.79
24:BA:1252:G:N2	40:BQ:32:ARG:HG2	1.97	0.79
10:AK:116:PRO:HB3	21:AA:676:A:H1'	1.64	0.79
24:BA:513:A:O2'	24:BA:514:A:H5'	1.82	0.79
24:BA:2796:U:H3	24:BA:2799:A:H61	1.31	0.79
33:BJ:5:THR:HG22	33:BJ:5:THR:O	1.80	0.79
40:BQ:10:ARG:HB2	40:BQ:10:ARG:NH1	1.97	0.79
11:CL:43:LYS:CB	11:CL:44:PRO:HD2	2.08	0.79
55:CA:33:A:H2'	55:CA:34:C:C6	2.17	0.79
37:DN:45:ARG:NH2	24:DA:2838:G:H1'	1.97	0.79
24:BA:2531:A:H5"	30:BG:156:TYR:CZ	2.18	0.79
38:BO:31:THR:CG2	38:BO:34:HIS:H	1.94	0.79
9:CJ:51:VAL:HB	13:CN:80:ARG:HB2	1.63	0.79
55:CA:243:A:H4'	55:CA:244:U:H5'	1.65	0.79
35:DL:78:ARG:NH1	24:DA:627:A:H5"	1.96	0.79
35:DL:79:LEU:HB3	35:DL:114:GLY:H	1.45	0.79
43:DT:44:LYS:O	43:DT:48:GLN:HG2	1.81	0.79
48:DY:1:MET:N	48:DY:1:MET:HE2	1.97	0.79
24:BA:855:G:H21	46:BW:23:LYS:CG	1.91	0.79
24:BA:1335:C:H2'	24:BA:1336:A:H8	1.46	0.79
24:BA:2291:U:H2'	24:BA:2292:U:C6	2.17	0.79
27:BD:97:SER:C	27:BD:99:GLU:HG2	2.07	0.79
33:BJ:64:VAL:O	33:BJ:65:THR:HB	1.82	0.79
35:BL:93:ASN:HD22	35:BL:94:THR:H	1.30	0.79
42:BS:73:LYS:HE3	42:BS:74:ILE:N	1.97	0.79
2:CC:190:THR:HG22	2:CC:192:TYR:H	1.47	0.79
38:DO:53:THR:HB	38:DO:65:THR:HG22	1.62	0.79
50:D0:12:ARG:HG3	50:D0:15:ARG:HH11	1.48	0.79
24:DA:637:A:N6	24:DA:652:U:H4'	1.98	0.79
24:DA:1499:C:O2'	24:DA:1500:G:H5'	1.83	0.79
7:AH:54:THR:O	7:AH:56:PRO:HD3	1.82	0.79
21:AA:867:G:H2'	21:AA:868:C:H6	1.47	0.79
27:BD:91:THR:O	27:BD:93:GLY:N	2.15	0.79
4:CE:13:LYS:HE2	4:CE:13:LYS:HA	1.63	0.79
55:CA:463:U:H2'	55:CA:464:U:C5	2.17	0.79
42:DS:8:ARG:O	42:DS:9:HIS:HB2	1.82	0.79
44:DU:92:VAL:HB	44:DU:101:THR:HG21	1.64	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:33:C:O2'	24:DA:34:U:H5'	1.82	0.79
24:DA:272:A:O2'	24:DA:273:G:C8	2.36	0.79
24:DA:2491:U:H5"	24:DA:2570:G:H5"	1.64	0.79
26:BC:158:GLY:H	26:BC:194:VAL:HG13	1.47	0.79
35:BL:14:LYS:HG3	35:BL:15:ALA:N	1.98	0.79
47:BX:5:GLN:NE2	47:BX:49:ARG:H	1.80	0.79
29:DF:41:GLU:HG2	29:DF:42:ALA:H	1.48	0.79
21:AA:1412:C:H2'	21:AA:1413:A:C8	2.18	0.79
28:BE:72:SER:C	28:BE:74:LYS:H	1.91	0.79
31:BH:94:ILE:HG21	31:BH:99:ILE:HG12	1.64	0.79
31:BH:96:THR:C	31:BH:97:ARG:HH11	1.90	0.79
17:CR:54:LEU:HG	17:CR:58:ILE:HD11	1.64	0.79
55:CA:10:A:H2'	55:CA:11:G:H8	1.47	0.79
55:CA:120:A:C3'	55:CA:121:U:H5"	2.13	0.79
44:DU:92:VAL:HB	44:DU:101:THR:CG2	2.13	0.79
24:DA:83:A:N6	24:DA:101:A:H5'	1.98	0.79
24:DA:669:G:N2	24:DA:670:A:C2	2.50	0.79
24:DA:1307:A:H62	24:DA:1606:C:H6	1.29	0.79
24:DA:1655:A:H2'	24:DA:1656:C:C6	2.18	0.79
1:AB:84:LEU:HD13	1:AB:90:PHE:CE2	2.17	0.78
21:AA:158:G:C2'	21:AA:159:G:H5"	2.13	0.78
21:AA:922:G:H2'	21:AA:923:A:C8	2.18	0.78
21:AA:1239:A:H1'	21:AA:1241:G:C5	2.18	0.78
24:BA:242:G:N2	24:BA:255:A:OP2	2.14	0.78
28:BE:151:GLY:HA2	28:BE:192:ALA:HB2	1.64	0.78
31:BH:2:GLN:O	31:BH:3:VAL:HG22	1.83	0.78
1:CB:101:THR:HG22	1:CB:178:LEU:HD13	1.62	0.78
2:CC:2:GLN:HB3	55:CA:1191:A:OP1	1.81	0.78
18:CS:35:ARG:NH2	55:CA:1221:G:H4'	1.97	0.78
34:DK:60:ALA:HA	34:DK:87:LEU:CD2	2.13	0.78
56:DB:11:C:C5	56:DB:12:C:H5	2.01	0.78
1:AB:113:LEU:HD13	1:AB:143:LEU:HG	1.63	0.78
4:AE:75:LEU:HD21	4:AE:119:VAL:HG12	1.65	0.78
13:AN:19:TYR:O	13:AN:22:LYS:HB3	1.82	0.78
21:AA:212:G:HO2'	21:AA:213:G:H8	1.14	0.78
21:AA:1441:A:H62	21:AA:1461:G:N2	1.78	0.78
26:BC:123:ILE:O	26:BC:123:ILE:HG12	1.83	0.78
30:BG:23:ILE:H	30:BG:23:ILE:HD12	1.48	0.78
14:CO:45:HIS:HB3	55:CA:668:G:O2'	1.83	0.78
24:BA:1061:U:H3'	24:BA:1062:G:H5"	1.66	0.78
55:CA:1448:C:HO2'	55:CA:1449:C:H6	1.30	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:61:C:O2'	24:DA:62:U:H5'	1.84	0.78
24:DA:616:A:C2'	24:DA:617:G:C8	2.65	0.78
24:DA:627:A:H61	24:DA:636:G:H2'	1.47	0.78
24:DA:2425:A:C5'	24:DA:2427:C:H5'	2.12	0.78
24:DA:2654:A:H4'	24:DA:2655:G:OP1	1.81	0.78
24:BA:1993:U:H2'	24:BA:1994:C:H6	1.48	0.78
27:BD:140:HIS:HE1	59:BD:402:HOH:O	1.67	0.78
28:DE:166:LYS:HE2	28:DE:166:LYS:HA	1.64	0.78
31:DH:41:LYS:HA	31:DH:44:ILE:HG12	1.63	0.78
24:DA:232:G:H4'	24:DA:233:A:OP1	1.82	0.78
1:AB:137:THR:HG22	1:AB:140:LEU:HD22	1.66	0.78
1:AB:209:VAL:HG23	1:AB:210:THR:H	1.48	0.78
21:AA:575:G:H4'	21:AA:576:C:C5'	2.13	0.78
24:BA:675:A:H4'	28:BE:62:GLN:HE22	1.49	0.78
24:BA:989:G:H4'	24:BA:990:A:OP1	1.81	0.78
31:BH:89:LYS:HG2	31:BH:90:LEU:H	1.48	0.78
39:BP:50:ARG:CD	39:BP:51:ASN:H	1.97	0.78
8:CI:109:GLN:HG2	8:CI:110:VAL:H	1.47	0.78
24:DA:223:A:N6	24:DA:422:A:C6	2.52	0.78
24:BA:38:A:O2'	28:BE:43:THR:HA	1.82	0.78
24:BA:1082:U:H5'	32:BI:117:THR:O	1.83	0.78
37:BN:70:THR:HB	37:BN:75:ILE:HD11	1.66	0.78
12:CM:104:ASN:HB3	55:CA:948:C:H5"	1.66	0.78
55:CA:960:U:H5'	55:CA:961:U:H5"	1.65	0.78
55:CA:1507:A:HO2'	55:CA:1508:A:H8	0.80	0.78
44:DU:45:GLN:HA	44:DU:45:GLN:HE21	1.47	0.78
53:D3:61:LEU:HB2	53:D3:64:ALA:HB3	1.65	0.78
56:DB:57:A:H2'	56:DB:58:A:C8	2.17	0.78
4:AE:113:VAL:HG11	4:AE:136:VAL:HG23	1.65	0.78
16:AQ:58:VAL:HG23	16:AQ:76:ARG:O	1.84	0.78
24:BA:802:A:H2'	24:BA:803:U:C6	2.17	0.78
32:BI:115:ASP:O	32:BI:116:MET:HG2	1.84	0.78
35:BL:78:ARG:HB3	35:BL:113:ALA:HB3	1.65	0.78
2:CC:122:GLN:HB2	2:CC:127:VAL:HG21	1.66	0.78
8:CI:51:LEU:HB2	8:CI:56:MET:SD	2.24	0.78
12:CM:64:VAL:HG12	12:CM:65:GLU:HG3	1.66	0.78
55:CA:899:C:H2'	55:CA:900:A:C8	2.18	0.78
54:D4:19:ARG:O	54:D4:20:ASP:HB2	1.80	0.78
24:BA:36:G:O2'	24:BA:37:C:H5'	1.84	0.78
46:BW:50:VAL:HB	46:BW:61:LYS:HZ2	1.48	0.78
18:CS:11:ASP:H	18:CS:14:LEU:HD21	1.49	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1320:C:O2'	24:DA:1321:A:H5"	1.84	0.78
24:DA:2311:A:H2'	24:DA:2311:A:N3	1.98	0.78
24:DA:2579:C:H6	24:DA:2579:C:O5'	1.66	0.78
56:DB:45:A:C2'	56:DB:46:A:H8	1.97	0.78
27:BD:99:GLU:HG3	27:BD:100:LEU:N	1.95	0.78
26:DC:181:ARG:HG3	26:DC:265:PHE:O	1.83	0.78
29:DF:12:VAL:HA	29:DF:15:LEU:HB2	1.65	0.78
48:DY:39:GLN:O	48:DY:42:LEU:HB2	1.83	0.78
24:DA:2638:G:H1'	24:DA:2778:A:N6	1.98	0.78
24:DA:2758:A:O2'	24:DA:2759:G:H5'	1.84	0.78
4:AE:87:VAL:HG12	4:AE:92:ARG:HA	1.65	0.78
24:BA:632:A:H2'	24:BA:633:A:C8	2.19	0.78
32:BI:104:GLN:O	32:BI:105:LEU:HB2	1.84	0.78
2:CC:106:ARG:HD3	2:CC:106:ARG:N	1.97	0.78
38:DO:100:HIS:O	38:DO:100:HIS:CD2	2.36	0.78
46:DW:22:VAL:HG21	24:DA:922:C:H1'	1.65	0.78
2:AC:21:TRP:HB3	2:AC:58:ARG:H	1.50	0.77
24:BA:52:A:O2'	24:BA:53:A:H5'	1.83	0.77
35:BL:29:LYS:C	35:BL:31:GLY:H	1.92	0.77
37:BN:23:ASN:N	37:BN:23:ASN:HD22	1.81	0.77
1:CB:122:ASP:HB3	1:CB:124:THR:HG22	1.66	0.77
3:CD:144:ILE:HD12	3:CD:177:MET:HB3	1.63	0.77
6:CG:71:THR:HG23	6:CG:72:VAL:HG23	1.65	0.77
55:CA:519:C:O2'	55:CA:520:A:H5'	1.83	0.77
55:CA:1299:A:H2'	55:CA:1299:A:N3	1.98	0.77
55:CA:1507:A:N6	55:CA:1530:G:C6	2.51	0.77
27:DD:11:MET:HE1	27:DD:192:ALA:HA	1.64	0.77
27:DD:36:GLN:NE2	27:DD:38:LYS:HZ1	1.81	0.77
36:DM:72:PRO:O	36:DM:73:ILE:HB	1.82	0.77
24:DA:2210:U:H4'	24:DA:2211:A:O5'	1.82	0.77
24:DA:2503:A:H4'	24:DA:2504:U:OP1	1.82	0.77
1:AB:41:ASN:HB3	1:AB:44:LYS:HB3	1.64	0.77
24:DA:449:A:O2'	24:DA:450:G:H5'	1.85	0.77
24:DA:649:G:H2'	24:DA:650:C:C6	2.19	0.77
24:DA:1080:A:H2'	24:DA:1081:U:C6	2.20	0.77
24:DA:1714:U:H3'	24:DA:1715:G:H5'	1.66	0.77
19:AT:68:LYS:HB2	19:AT:68:LYS:NZ	1.99	0.77
24:BA:529:A:H4'	24:BA:530:G:OP1	1.84	0.77
24:BA:571:U:O3'	41:BR:80:ARG:NH2	2.17	0.77
47:BX:34:SER:CA	47:BX:49:ARG:HA	2.14	0.77
34:DK:71:ARG:HB3	34:DK:72:PRO:CD	2.11	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DM:84:LYS:HA	24:DA:2275:C:O2'	1.83	0.77
37:DN:2:ARG:HG2	37:DN:5:LYS:HD3	1.67	0.77
27:BD:99:GLU:CG	27:BD:100:LEU:H	1.98	0.77
35:BL:85:VAL:HG21	35:BL:94:THR:HG23	1.65	0.77
42:BS:96:ILE:O	42:BS:96:ILE:HG13	1.84	0.77
55:CA:1218:C:H2'	55:CA:1219:A:H8	1.43	0.77
28:DE:60:TRP:HZ2	24:DA:675:A:OP1	1.67	0.77
35:DL:73:ILE:O	35:DL:105:ILE:HG23	1.83	0.77
48:DY:28:LEU:HD11	48:DY:43:LEU:HD13	1.66	0.77
24:DA:1515:A:H2'	24:DA:1516:G:O4'	1.84	0.77
37:BN:24:MET:HG2	37:BN:44:LEU:CD2	2.15	0.77
46:BW:46:ALA:HB3	46:BW:79:ILE:O	1.83	0.77
55:CA:721:G:H4'	55:CA:722:G:O5'	1.84	0.77
55:CA:1467:C:H2'	55:CA:1468:A:C8	2.20	0.77
34:DK:87:LEU:HB2	34:DK:92:GLU:O	1.85	0.77
39:DP:88:ARG:HE	39:DP:112:ARG:HH21	1.29	0.77
50:D0:12:ARG:HG3	50:D0:15:ARG:NH1	1.99	0.77
24:DA:1803:A:H5"	24:DA:1804:C:OP2	1.84	0.77
3:AD:119:HIS:CD2	21:AA:438:U:H4'	2.19	0.77
7:AH:98:LEU:HD23	7:AH:98:LEU:N	1.98	0.77
24:BA:742:A:H2'	24:BA:743:A:C8	2.18	0.77
24:BA:2067:G:H4'	24:BA:2068:U:OP2	1.84	0.77
36:BM:73:ILE:HG21	36:BM:91:TYR:CZ	2.20	0.77
54:B4:10:LEU:HD12	54:B4:33:HIS:CD2	2.20	0.77
3:CD:109:THR:HG22	3:CD:111:ALA:N	1.98	0.77
12:CM:21:ILE:HG22	12:CM:23:GLY:H	1.49	0.77
13:CN:52:ARG:NH1	13:CN:52:ARG:HA	2.00	0.77
55:CA:397:A:H3'	55:CA:397:A:N3	1.99	0.77
55:CA:757:U:O2'	55:CA:879:C:H1'	1.85	0.77
39:DP:9:GLN:HA	39:DP:12:MET:HG3	1.64	0.77
40:DQ:87:VAL:HG11	41:DR:52:PRO:HG3	1.67	0.77
50:D0:39:ARG:HD3	24:DA:2886:A:N6	1.97	0.77
21:AA:1098:C:H2'	21:AA:1099:G:H8	1.50	0.77
24:BA:945:A:C4	24:BA:2448:A:C2	2.72	0.77
24:BA:1331:G:O2'	24:BA:1332:G:H3'	1.84	0.77
24:BA:2776:A:O2'	24:BA:2777:G:OP2	2.02	0.77
32:BI:79:LEU:HD13	32:BI:135:MET:SD	2.24	0.77
33:BJ:65:THR:CG2	33:BJ:68:LYS:HZ1	1.97	0.77
41:BR:49:ILE:HB	41:BR:51:VAL:O	1.85	0.77
4:CE:155:LYS:HB3	7:CH:70:VAL:HG23	1.66	0.77
24:DA:800:A:H4'	24:DA:801:G:O5'	1.82	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2689:U:H4'	24:DA:2690:U:OP2	1.84	0.77
21:AA:450:G:N7	21:AA:481:G:O6	2.17	0.77
21:AA:1441:A:N6	21:AA:1461:G:H21	1.82	0.77
24:BA:181:A:H2'	24:BA:182:A:C8	2.19	0.77
24:BA:752:A:O2'	24:BA:753:A:OP2	2.02	0.77
26:BC:230:PRO:HD2	26:BC:246:PRO:HA	1.66	0.77
9:CJ:15:HIS:HA	9:CJ:18:ILE:HG22	1.67	0.77
55:CA:1234:C:H1'	55:CA:1364:U:H6	1.48	0.77
31:DH:90:LEU:HB2	31:DH:123:ARG:HB3	1.66	0.77
11:AL:62:VAL:HG21	11:AL:94:TYR:HE2	1.48	0.77
13:AN:52:ARG:NH2	21:AA:1219:A:H5"	1.99	0.77
21:AA:486:U:C6	21:AA:486:U:H5"	2.18	0.77
24:BA:2096:C:H2'	24:BA:2097:A:H8	1.50	0.77
26:BC:144:GLU:HA	26:BC:151:GLY:HA2	1.67	0.77
42:BS:17:VAL:HG12	42:BS:76:VAL:HG11	1.66	0.77
28:DE:46:GLN:HB3	28:DE:86:ALA:HB1	1.66	0.77
35:DL:47:ARG:HG2	35:DL:47:ARG:NH2	1.95	0.77
41:DR:27:ILE:HG22	41:DR:28:ALA:N	1.96	0.77
24:DA:860:U:O2'	24:DA:861:A:H5'	1.85	0.77
1:AB:113:LEU:HB2	1:AB:143:LEU:HD12	1.65	0.77
4:AE:59:ILE:O	4:AE:62:ALA:HB3	1.85	0.77
21:AA:131:A:H2'	21:AA:132:C:H6	1.49	0.77
24:BA:333:G:O2'	24:BA:334:C:H5'	1.85	0.77
24:BA:1422:G:H2'	24:BA:1423:G:H8	1.48	0.77
24:BA:1967:C:H2'	24:BA:1968:G:H8	1.48	0.77
24:BA:2680:U:OP1	27:BD:114:LYS:HE2	1.84	0.77
25:BB:7:G:O2'	38:BO:38:GLN:NE2	2.17	0.77
25:BB:91:C:H2'	25:BB:92:C:H6	1.48	0.77
27:DD:164:GLN:HE22	24:DA:2822:G:H5"	1.50	0.77
28:DE:108:ILE:HD11	28:DE:181:ILE:HB	1.65	0.77
24:DA:721:A:H2'	24:DA:722:A:C8	2.19	0.77
24:DA:2425:A:H5'	24:DA:2427:C:H5'	1.67	0.77
24:DA:2860:A:H8	24:DA:2860:A:O5'	1.67	0.77
21:AA:451:A:H1'	21:AA:452:A:N7	2.00	0.76
21:AA:519:C:H2'	21:AA:520:A:C8	2.20	0.76
24:BA:2722:G:H2'	24:BA:2723:C:H6	1.49	0.76
24:BA:2726:A:O2'	24:BA:2727:A:C5'	2.33	0.76
28:BE:47:LYS:HB3	28:BE:51:GLU:HG3	1.65	0.76
32:BI:78:LEU:HD13	32:BI:108:ILE:HG23	1.67	0.76
47:BX:32:LEU:O	47:BX:33:HIS:CD2	2.38	0.76
55:CA:373:A:H2'	55:CA:374:A:H8	1.49	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:704:A:H2'	55:CA:705:G:C8	2.20	0.76
28:DE:27:LEU:HD22	24:DA:600:G:H5"	1.67	0.76
46:DW:23:LYS:NZ	24:DA:923:G:H1'	2.00	0.76
46:DW:23:LYS:HD2	46:DW:24:ARG:N	1.99	0.76
24:DA:647:G:H2'	24:DA:648:G:H8	1.48	0.76
24:DA:2800:A:H2'	24:DA:2801:G:O4'	1.85	0.76
1:AB:67:LEU:HB3	1:AB:160:LEU:CD1	2.14	0.76
14:AO:54:GLY:O	14:AO:58:MET:HG3	1.85	0.76
16:AQ:46:HIS:NE2	16:AQ:48:GLU:HB2	1.99	0.76
21:AA:211:G:H2'	21:AA:212:G:O4'	1.85	0.76
21:AA:509:A:O2'	21:AA:510:A:H5'	1.85	0.76
21:AA:1157:A:H1'	21:AA:1181:G:N2	2.00	0.76
24:BA:1286:A:H4'	24:BA:1287:A:OP1	1.85	0.76
30:BG:10:VAL:O	30:BG:10:VAL:HG23	1.83	0.76
13:CN:20:PHE:HE1	13:CN:54:SER:HB2	1.50	0.76
55:CA:1228:C:O2'	55:CA:1229:A:H8	1.67	0.76
29:DF:74:ALA:N	29:DF:78:ILE:CD1	2.48	0.76
32:DI:9:LYS:HD3	24:DA:1061:U:C5	2.21	0.76
24:DA:1079:C:N3	24:DA:1088:A:H2	1.82	0.76
24:DA:2309:A:H2'	24:DA:2310:C:C6	2.19	0.76
3:AD:43:ARG:O	3:AD:45:PRO:HD3	1.85	0.76
21:AA:513:C:H2'	21:AA:514:C:C6	2.20	0.76
21:AA:1215:G:O2'	21:AA:1216:A:H5'	1.85	0.76
24:BA:1495:A:H2'	24:BA:1496:A:C8	2.21	0.76
47:BX:32:LEU:O	47:BX:33:HIS:CG	2.38	0.76
48:BY:45:GLN:O	48:BY:46:VAL:HB	1.84	0.76
18:CS:79:TYR:O	18:CS:80:ARG:HB2	1.82	0.76
55:CA:92:U:H2'	55:CA:93:U:C6	2.20	0.76
55:CA:312:C:H2'	55:CA:313:A:H8	1.51	0.76
28:DE:110:SER:O	28:DE:113:VAL:HG12	1.85	0.76
30:DG:112:VAL:HG12	30:DG:114:HIS:H	1.50	0.76
31:DH:72:ILE:HD11	31:DH:141:LYS:H	1.47	0.76
51:D1:51:ALA:O	51:D1:52:LYS:HB2	1.85	0.76
24:DA:833:A:H2'	24:DA:834:G:C8	2.21	0.76
21:AA:822:U:H2'	21:AA:823:C:C6	2.21	0.76
24:BA:2790:U:H4'	24:BA:2791:G:OP1	1.84	0.76
4:CE:155:LYS:O	4:CE:156:ARG:HG2	1.86	0.76
20:CU:28:LEU:HD23	20:CU:29:ALA:N	2.01	0.76
55:CA:462:G:O5'	55:CA:463:U:OP2	2.03	0.76
55:CA:1018:G:H2'	55:CA:1019:A:O4'	1.86	0.76
35:DL:63:LYS:HE3	24:DA:2394:C:H5"	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DO:30:ARG:CB	38:DO:30:ARG:HH11	1.97	0.76
46:DW:23:LYS:HZ2	24:DA:923:G:H1'	1.49	0.76
24:DA:312:G:H2'	24:DA:313:G:H8	1.50	0.76
24:DA:919:U:H2'	24:DA:920:A:C8	2.20	0.76
24:BA:1079:C:N4	24:BA:1088:A:H2	1.81	0.76
24:BA:1450:G:C6	24:BA:1451:C:N4	2.54	0.76
24:BA:1872:A:H2'	24:BA:1873:G:O4'	1.85	0.76
32:BI:89:SER:HB3	32:BI:92:PRO:HG3	1.67	0.76
49:BZ:29:ARG:HH21	49:BZ:29:ARG:CG	1.99	0.76
13:CN:63:CYS:SG	13:CN:82:LYS:HG3	2.26	0.76
55:CA:1265:C:H2'	55:CA:1266:G:H5'	1.67	0.76
24:DA:303:G:O2'	24:DA:304:U:O4'	2.03	0.76
4:AE:111:ARG:HG2	4:AE:111:ARG:O	1.84	0.76
7:AH:106:SER:HA	21:AA:642:A:C8	2.21	0.76
31:BH:31:VAL:CB	31:BH:32:PRO:HD2	2.16	0.76
39:BP:112:ARG:C	39:BP:113:LEU:HD23	2.11	0.76
6:CG:101:ARG:HB3	6:CG:102:TRP:CD1	2.20	0.76
15:CP:5:ARG:O	15:CP:19:VAL:HA	1.85	0.76
55:CA:495:A:H4'	55:CA:496:A:O5'	1.85	0.76
55:CA:1278:G:H4'	55:CA:1279:G:C5'	2.16	0.76
30:DG:48:THR:O	30:DG:49:LEU:HB2	1.85	0.76
24:DA:477:A:H2'	24:DA:478:A:C8	2.20	0.76
24:DA:2233:U:H2'	24:DA:2234:G:C8	2.20	0.76
24:DA:2638:G:H1'	24:DA:2778:A:H61	1.49	0.76
3:AD:172:VAL:HG22	3:AD:173:ASP:H	1.51	0.76
21:AA:922:G:H2'	21:AA:923:A:H8	1.51	0.76
21:AA:1435:G:H2'	21:AA:1436:U:C6	2.21	0.76
24:BA:831:G:O2'	24:BA:832:U:H5'	1.86	0.76
24:BA:1289:C:O2'	24:BA:1290:C:H5'	1.86	0.76
35:BL:91:ASP:H	35:BL:94:THR:HG21	1.49	0.76
42:BS:73:LYS:HE3	42:BS:74:ILE:H	1.50	0.76
43:BT:29:THR:HB	43:BT:86:THR:CG2	2.15	0.76
26:DC:43:ASN:ND2	26:DC:44:ASN:H	1.83	0.76
33:DJ:73:VAL:HG23	33:DJ:74:TYR:H	1.51	0.76
35:DL:119:PRO:HB3	35:DL:139:GLY:O	1.85	0.76
24:DA:1288:G:C8	24:DA:1327:A:C6	2.74	0.76
24:DA:1469:A:H2'	24:DA:1470:A:C8	2.20	0.76
24:DA:1760:C:H2'	24:DA:1761:C:H6	1.50	0.76
24:DA:2092:U:H5"	24:DA:2093:G:OP1	1.86	0.76
24:DA:2872:A:O2'	24:DA:2873:A:H5'	1.86	0.76
3:AD:96:ARG:HH21	3:AD:114:ARG:HH21	1.32	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:10:LEU:HD23	4:AE:10:LEU:H	1.51	0.76
9:AJ:8:ILE:HB	9:AJ:74:VAL:HG21	1.65	0.76
24:BA:1062:G:O2'	24:BA:1063:G:O4'	2.03	0.76
59:BA:3787:HOH:O	33:BJ:39:LYS:HE3	1.86	0.76
30:BG:84:LYS:O	30:BG:85:LYS:HB2	1.84	0.76
48:BY:7:ARG:H	48:BY:60:LYS:HZ1	1.33	0.76
55:CA:120:A:C2'	55:CA:121:U:H5"	2.16	0.76
24:DA:657:U:H2'	24:DA:658:U:H6	1.48	0.76
24:DA:1313:U:H2'	24:DA:1313:U:O2	1.83	0.76
24:DA:1439:A:H2	24:DA:1552:A:N1	1.82	0.76
8:AI:51:LEU:HA	8:AI:54:VAL:HG23	1.68	0.76
11:AL:11:ARG:HB3	21:AA:562:U:H1'	1.66	0.76
21:AA:1239:A:H1'	21:AA:1241:G:C4	2.21	0.76
24:BA:545:U:H3'	24:BA:545:U:C6	2.20	0.76
24:BA:2239:G:O2'	24:BA:2240:U:H5'	1.86	0.76
27:BD:5:VAL:H	27:BD:32:ASN:ND2	1.81	0.76
36:BM:69:PRO:CA	36:BM:94:ALA:HB2	2.16	0.76
54:B4:3:VAL:O	54:B4:4:ARG:O	2.04	0.76
4:CE:77:ASN:HB3	4:CE:79:THR:HG22	1.67	0.76
55:CA:46:G:C6	55:CA:366:A:C2	2.74	0.76
28:DE:33:VAL:HG11	24:DA:1245:G:H4'	1.66	0.76
29:DF:109:ARG:HH11	29:DF:135:ILE:CG2	1.99	0.76
33:DJ:113:PRO:HD2	24:DA:558:U:OP1	1.84	0.76
36:DM:27:SER:H	36:DM:66:ARG:HH22	1.34	0.76
43:DT:87:LEU:HD23	43:DT:88:LYS:N	1.99	0.76
24:DA:176:A:H3'	24:DA:177:G:N2	2.01	0.76
24:DA:395:U:O2'	24:DA:396:G:H8	1.69	0.76
24:DA:480:A:H3'	24:DA:481:G:H5"	1.67	0.76
24:DA:637:A:H4'	24:DA:638:G:O5'	1.86	0.76
24:DA:1138:G:H2'	24:DA:1139:G:O4'	1.86	0.76
24:DA:1439:A:C2	24:DA:1552:A:N6	2.54	0.76
15:AP:52:LEU:HD21	15:AP:75:ILE:HG12	1.66	0.76
21:AA:1151:A:C4	21:AA:1152:A:N7	2.54	0.76
24:BA:1059:G:H5"	24:BA:1060:U:H3'	1.67	0.76
26:BC:141:HIS:CD2	26:BC:192:GLY:O	2.34	0.76
27:BD:13:ARG:HH12	39:BP:74:GLN:HE21	1.34	0.76
33:BJ:45:THR:O	33:BJ:45:THR:HG23	1.83	0.76
46:BW:37:VAL:CG1	46:BW:38:ARG:H	1.98	0.76
46:BW:51:GLY:HA3	46:BW:59:PHE:CZ	2.20	0.76
55:CA:1096:C:HO2'	55:CA:1097:C:H6	0.78	0.76
55:CA:1119:C:H2'	55:CA:1120:C:H6	1.51	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DX:30:PRO:HG2	47:DX:32:LEU:HD21	1.67	0.76
24:DA:49:A:H4'	24:DA:50:U:O5'	1.84	0.76
24:DA:1853:A:N1	24:DA:2087:G:H1'	2.00	0.76
9:AJ:44:THR:OG1	21:AA:1151:A:H5"	1.86	0.75
24:BA:28:A:O2'	24:BA:29:U:H5'	1.87	0.75
24:BA:928:A:C2	49:BZ:46:MET:HE1	2.20	0.75
24:BA:1132:U:H3'	24:BA:1133:A:H5"	1.66	0.75
30:BG:73:SER:HA	30:BG:76:ILE:CG2	2.16	0.75
34:BK:70:ARG:HD3	34:BK:76:VAL:CG2	2.16	0.75
46:BW:37:VAL:HG22	46:BW:55:ASP:O	1.86	0.75
16:CQ:68:LYS:O	55:CA:254:G:OP1	2.04	0.75
40:DQ:91:ARG:HD3	41:DR:11:GLN:HG3	1.68	0.75
24:DA:279:A:N6	24:DA:361:G:H1'	2.01	0.75
24:DA:480:A:H3'	24:DA:481:G:C5'	2.15	0.75
2:AC:142:ARG:HB3	2:AC:143:LEU:HD13	1.68	0.75
7:AH:95:MET:HE3	7:AH:129:ALA:HB1	1.67	0.75
24:BA:49:A:H5"	24:BA:51:G:H5'	1.69	0.75
24:BA:1105:U:H2'	24:BA:1106:G:H8	1.52	0.75
50:B0:10:SER:O	50:B0:14:MET:HG3	1.84	0.75
6:CG:29:LEU:HD21	6:CG:41:ILE:HD12	1.65	0.75
11:CL:29:LYS:O	11:CL:80:LEU:HD12	1.85	0.75
43:DT:67:VAL:HB	43:DT:76:ARG:HG3	1.69	0.75
24:DA:1011:G:O2'	24:DA:1013:C:H5"	1.86	0.75
24:DA:1662:U:H2'	24:DA:1663:G:H5"	1.69	0.75
24:DA:2230:G:H2'	24:DA:2231:U:C6	2.21	0.75
4:AE:36:THR:OG1	4:AE:66:ALA:HB2	1.87	0.75
24:BA:84:A:H62	24:BA:101:A:H2	1.35	0.75
46:DW:18:LYS:H	46:DW:36:ILE:CG1	1.99	0.75
54:D4:7:VAL:HG13	54:D4:8:LYS:H	1.51	0.75
24:DA:455:C:H4'	24:DA:456:C:OP2	1.86	0.75
24:DA:794:A:H2'	24:DA:795:C:C6	2.22	0.75
24:DA:2430:A:H5'	24:DA:2431:U:OP2	1.86	0.75
24:BA:1784:A:H4'	24:BA:1785:A:C5'	2.15	0.75
8:CI:56:MET:HG3	8:CI:57:VAL:HG23	1.69	0.75
55:CA:908:A:H2'	55:CA:909:A:H8	1.50	0.75
27:DD:125:TRP:CD1	27:DD:160:LYS:HB3	2.22	0.75
24:DA:1177:G:H2'	24:DA:1178:C:C6	2.21	0.75
24:DA:1537:G:C2	24:DA:1538:G:H1'	2.20	0.75
24:BA:1223:G:N2	24:BA:1227:G:C4	2.54	0.75
43:BT:48:GLN:HE21	43:BT:48:GLN:HA	1.51	0.75
1:CB:9:LEU:HD23	1:CB:9:LEU:H	1.50	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CB:67:LEU:HG	1:CB:157:PRO:HB3	1.68	0.75
8:CI:112:ARG:HH22	9:CJ:64:GLN:HE21	1.31	0.75
55:CA:1249:C:H2'	55:CA:1250:A:H5"	1.68	0.75
45:DV:31:TYR:HD1	45:DV:31:TYR:C	1.94	0.75
24:DA:2758:A:C2'	24:DA:2759:G:H5'	2.16	0.75
1:AB:24:PRO:HG2	21:AA:829:G:O2'	1.87	0.75
5:AF:53:LYS:NZ	21:AA:710:G:H5"	2.02	0.75
12:AM:38:ILE:HG13	12:AM:55:LEU:HD21	1.67	0.75
24:BA:1657:U:H2'	24:BA:1658:C:H6	1.51	0.75
28:BE:110:SER:O	28:BE:113:VAL:HG12	1.86	0.75
48:BY:9:LYS:HA	48:BY:9:LYS:NZ	2.02	0.75
1:CB:161:PHE:CE2	1:CB:216:VAL:HG21	2.21	0.75
11:CL:109:ARG:C	11:CL:110:LYS:HD2	2.11	0.75
15:CP:20:VAL:HG21	15:CP:32:PHE:HB2	1.68	0.75
55:CA:1296:C:H1'	55:CA:1302:C:N3	2.01	0.75
33:DJ:127:GLY:O	33:DJ:129:GLU:HG3	1.87	0.75
53:D3:32:LEU:HA	53:D3:35:LYS:HG3	1.67	0.75
24:DA:2216:G:H2'	24:DA:2217:G:C8	2.22	0.75
24:DA:2267:A:C3'	24:DA:2267:A:H8	1.90	0.75
5:AF:97:THR:O	5:AF:98:GLU:HG2	1.87	0.75
21:AA:31:G:H5'	21:AA:306:A:N1	2.00	0.75
21:AA:1007:U:C2'	21:AA:1008:U:H5"	2.15	0.75
24:BA:2259:U:O2'	24:BA:2260:C:H5'	1.86	0.75
27:BD:34:VAL:HA	27:BD:50:VAL:HG12	1.68	0.75
33:BJ:44:TYR:O	33:BJ:45:THR:HB	1.86	0.75
49:DZ:4:ILE:HD12	49:DZ:58:GLU:HA	1.69	0.75
24:DA:2233:U:H2'	24:DA:2234:G:H8	1.50	0.75
2:AC:24:ASN:HD22	2:AC:25:THR:H	1.35	0.75
15:AP:5:ARG:NH1	15:AP:24:SER:HA	1.99	0.75
24:BA:1144:A:H2'	24:BA:1145:C:C6	2.21	0.75
36:BM:2:LEU:HD23	36:BM:69:PRO:HD2	1.69	0.75
38:BO:76:LYS:O	38:BO:80:GLU:HG2	1.86	0.75
48:BY:56:LEU:O	48:BY:57:LEU:HB3	1.86	0.75
27:DD:33:ARG:HD2	27:DD:33:ARG:H	1.52	0.75
34:DK:19:VAL:HG12	34:DK:41:ILE:HG12	1.69	0.75
41:DR:39:LEU:O	41:DR:40:MET:HB2	1.84	0.75
24:DA:373:U:O2'	24:DA:374:A:H8	1.69	0.75
24:DA:647:G:C2'	24:DA:648:G:H8	1.99	0.75
24:DA:2141:G:H2'	24:DA:2142:A:C8	2.22	0.75
26:BC:16:VAL:H	26:BC:203:VAL:HG12	1.52	0.75
30:BG:96:ALA:HB3	30:BG:103:ASN:HB3	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BM:13:HIS:O	36:BM:14:LYS:HB2	1.87	0.75
27:DD:125:TRP:CG	27:DD:160:LYS:HB3	2.21	0.75
35:DL:33:ARG:NH2	24:DA:587:C:N3	2.34	0.75
40:DQ:10:ARG:HA	40:DQ:13:HIS:HB2	1.69	0.75
41:DR:4:VAL:HG23	41:DR:39:LEU:HG	1.69	0.75
24:DA:747:U:C5	24:DA:2613:U:C5	2.75	0.75
24:DA:2063:C:O2'	24:DA:2064:C:H5'	1.86	0.75
21:AA:1227:A:N3	21:AA:1227:A:H2'	2.02	0.74
24:BA:313:G:O2'	24:BA:314:C:H5'	1.86	0.74
24:BA:491:G:H2'	24:BA:492:A:H8	1.52	0.74
24:BA:1654:A:H1'	27:BD:118:PHE:CD1	2.22	0.74
29:BF:134:GLN:HG2	29:BF:135:ILE:N	2.02	0.74
38:BO:67:ASN:O	38:BO:69:ASP:N	2.21	0.74
43:BT:56:GLU:HG2	43:BT:57:VAL:HG12	1.69	0.74
2:CC:18:ASN:HD21	2:CC:53:ARG:NH1	1.85	0.74
11:CL:19:ASN:ND2	11:CL:19:ASN:H	1.85	0.74
55:CA:1269:A:H2	55:CA:1312:G:H21	1.32	0.74
26:DC:94:LEU:HA	26:DC:100:ARG:HG2	1.69	0.74
31:DH:68:ARG:CD	31:DH:71:LYS:HD3	2.17	0.74
34:DK:17:ARG:CG	34:DK:18:ARG:H	1.98	0.74
34:DK:60:ALA:HA	34:DK:87:LEU:HD23	1.67	0.74
42:DS:70:LYS:H	42:DS:70:LYS:HE3	1.50	0.74
24:DA:747:U:C4	24:DA:2613:U:C5	2.74	0.74
4:AE:18:ASN:O	4:AE:32:PHE:HA	1.85	0.74
21:AA:901:A:N7	21:AA:902:G:H1'	2.01	0.74
21:AA:1086:U:O2'	21:AA:1087:G:H5'	1.87	0.74
24:BA:1144:A:H2'	24:BA:1145:C:H6	1.53	0.74
26:BC:257:ARG:NH1	26:BC:263:ASP:OD2	2.21	0.74
39:BP:25:VAL:CG1	39:BP:46:VAL:HG23	2.17	0.74
44:BU:15:GLY:O	44:BU:17:ASP:N	2.20	0.74
3:CD:105:GLY:HA3	3:CD:158:LEU:HD23	1.69	0.74
7:CH:77:VAL:HG12	7:CH:84:ILE:HG13	1.69	0.74
8:CI:50:PRO:HB2	8:CI:51:LEU:HD12	1.68	0.74
35:DL:64:PHE:HD2	53:D3:24:LYS:HG2	1.51	0.74
24:DA:740:C:H5'	24:DA:1784:A:C3'	2.16	0.74
24:DA:1333:G:C8	24:DA:1333:G:H5'	2.23	0.74
24:DA:2713:U:O2'	24:DA:2714:G:OP1	2.04	0.74
24:BA:45:G:H5"	24:BA:46:G:H5'	1.68	0.74
27:BD:69:ALA:HA	27:BD:73:VAL:HG13	1.69	0.74
28:BE:46:GLN:HG3	28:BE:87:ALA:H	1.53	0.74
40:BQ:68:ALA:O	40:BQ:69:ARG:C	2.29	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BT:43:ILE:O	43:BT:47:VAL:HG23	1.86	0.74
2:CC:5:HIS:ND1	13:CN:88:MET:HB3	2.01	0.74
34:DK:99:ILE:HD12	34:DK:118:LEU:HB2	1.67	0.74
24:DA:16:C:O2'	24:DA:17:G:H5'	1.86	0.74
24:DA:1439:A:N7	24:DA:1440:U:H1'	2.02	0.74
24:DA:1760:C:H2'	24:DA:1761:C:C6	2.21	0.74
24:DA:1808:A:H3'	24:DA:1809:A:H8	1.51	0.74
2:AC:5:HIS:HB3	13:AN:88:MET:HE3	1.69	0.74
25:BB:28:C:H2'	25:BB:29:A:O4'	1.87	0.74
28:BE:111:GLU:HG2	28:BE:114:ARG:NH1	2.02	0.74
10:CK:28:ASN:OD1	10:CK:46:ALA:HB3	1.87	0.74
12:CM:23:GLY:HA3	12:CM:64:VAL:HG13	1.67	0.74
26:DC:7:PRO:HB2	24:DA:1695:G:C8	2.23	0.74
27:DD:159:LYS:HE2	27:DD:160:LYS:H	1.52	0.74
3:AD:109:THR:HG23	3:AD:112:GLU:N	2.00	0.74
4:AE:91:SER:OG	4:AE:134:ASN:HB2	1.87	0.74
21:AA:1081:A:C2	21:AA:1082:A:C8	2.75	0.74
24:BA:1073:A:H3'	24:BA:1074:G:C5'	2.16	0.74
40:BQ:63:ARG:HH22	40:BQ:96:ASP:CB	2.00	0.74
40:BQ:85:ALA:O	40:BQ:86:SER:C	2.29	0.74
40:BQ:97:ILE:HD11	40:BQ:105:PHE:HA	1.70	0.74
9:CJ:26:VAL:O	9:CJ:30:LYS:HB3	1.86	0.74
20:CU:24:LYS:CG	20:CU:25:ALA:H	1.99	0.74
35:DL:92:LEU:HD22	35:DL:124:GLY:HA3	1.68	0.74
24:DA:590:A:H2'	24:DA:591:U:C6	2.23	0.74
24:DA:1439:A:N7	24:DA:1440:U:C1'	2.51	0.74
24:DA:1941:C:H5'	24:DA:1941:C:H6	1.50	0.74
56:DB:37:C:C4	56:DB:49:C:O4'	2.40	0.74
21:AA:1140:C:O2'	21:AA:1141:C:H6	1.70	0.74
24:BA:690:G:H2'	24:BA:691:C:O4'	1.86	0.74
24:BA:915:C:H2'	24:BA:915:C:O2	1.88	0.74
24:BA:1790:C:O2'	26:BC:207:ALA:HB2	1.87	0.74
24:BA:2627:G:H2'	24:BA:2628:C:C6	2.23	0.74
30:BG:88:LEU:HD11	30:BG:95:ALA:HB2	1.67	0.74
31:BH:76:GLU:HB3	31:BH:103:VAL:HG12	1.70	0.74
34:BK:72:PRO:O	34:BK:74:GLY:N	2.19	0.74
1:CB:44:LYS:O	1:CB:48:MET:HG3	1.88	0.74
24:DA:1782:U:O2'	24:DA:1783:A:C5'	2.36	0.74
24:DA:2391:G:H2'	24:DA:2424:C:H41	1.53	0.74
4:AE:25:LYS:NZ	4:AE:25:LYS:HB3	2.01	0.74
24:BA:860:U:H2'	24:BA:861:A:H8	1.51	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1238:G:O2'	24:BA:1239:G:H5'	1.88	0.74
27:BD:186:LEU:HD11	39:BP:3:ILE:HD11	1.69	0.74
32:BI:33:ASN:HD22	32:BI:64:ARG:NH2	1.85	0.74
46:BW:39:GLN:C	46:BW:41:GLY:N	2.42	0.74
4:CE:80:LEU:HD12	4:CE:97:PRO:HD3	1.69	0.74
6:CG:88:VAL:HG22	6:CG:89:GLU:H	1.53	0.74
9:CJ:5:ARG:HH22	9:CJ:7:ARG:HH22	1.35	0.74
45:DV:14:LYS:HB3	56:DB:98:G:H1	1.52	0.74
24:DA:120:U:H4'	24:DA:121:G:H5'	1.70	0.74
24:DA:2147:A:N3	24:DA:2147:A:H2'	2.02	0.74
24:DA:2851:A:H2'	24:DA:2852:G:C8	2.22	0.74
13:AN:20:PHE:HA	13:AN:24:ALA:HB3	1.68	0.74
14:AO:63:ARG:HD3	14:AO:87:ARG:HH22	1.51	0.74
21:AA:82:G:N2	21:AA:84:U:H3	1.85	0.74
21:AA:792:A:H4'	21:AA:793:U:O5'	1.87	0.74
24:BA:919:U:C2'	24:BA:920:A:H8	1.98	0.74
24:BA:2183:A:H2'	24:BA:2184:A:C8	2.23	0.74
25:BB:90:C:H5"	25:BB:90:C:C6	2.22	0.74
29:BF:114:ARG:HD2	29:BF:114:ARG:H	1.53	0.74
35:BL:110:VAL:O	35:BL:111:ILE:HB	1.85	0.74
8:CI:33:SER:OG	8:CI:36:GLN:HG2	1.87	0.74
12:CM:77:LYS:HA	12:CM:80:MET:HE2	1.68	0.74
55:CA:977:A:C8	55:CA:1223:C:N3	2.53	0.74
31:DH:8:LYS:C	31:DH:8:LYS:HD2	2.13	0.74
33:DJ:3:THR:HG21	40:DQ:60:TRP:HE1	1.51	0.74
43:DT:3:ARG:HD2	43:DT:42:GLU:HG2	1.70	0.74
43:DT:50:LEU:HD23	43:DT:51:PHE:H	1.53	0.74
45:DV:14:LYS:HA	56:DB:77:U:OP2	1.88	0.74
45:DV:44:HIS:NE2	45:DV:85:LYS:HB2	2.03	0.74
24:DA:638:G:H2'	24:DA:639:U:C6	2.23	0.74
24:DA:2001:C:H4'	24:DA:2689:U:H2'	1.68	0.74
6:AG:115:MET:HA	6:AG:118:ARG:HD3	1.69	0.74
24:BA:320:A:H4'	24:BA:322:A:N7	2.02	0.74
46:BW:39:GLN:HG3	46:BW:42:THR:N	2.03	0.74
6:CG:118:ARG:HH22	55:CA:1239:A:C3'	2.00	0.74
13:CN:40:ARG:NH1	18:CS:6:LYS:HB2	2.02	0.74
42:DS:71:VAL:O	42:DS:71:VAL:HG13	1.87	0.74
45:DV:80:HIS:CD2	45:DV:82:TYR:H	2.05	0.74
24:DA:2713:U:HO2'	24:DA:2714:G:P	2.11	0.74
21:AA:1102:A:H8	21:AA:1102:A:OP2	1.71	0.74
21:AA:1236:A:H4'	21:AA:1304:G:H4'	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1815:A:H1'	24:BA:1817:G:C8	2.23	0.74
24:BA:2104:C:H2'	24:BA:2105:U:O4'	1.86	0.74
25:BB:109:A:H2'	25:BB:110:C:C6	2.23	0.74
36:BM:1:MET:O	36:BM:2:LEU:HB2	1.86	0.74
40:BQ:63:ARG:HH12	40:BQ:96:ASP:CB	1.99	0.74
10:CK:55:ARG:H	10:CK:55:ARG:HD2	1.52	0.74
55:CA:1323:G:H2'	55:CA:1324:A:H8	1.51	0.74
27:DD:105:LYS:HA	27:DD:177:VAL:HG22	1.70	0.74
32:DI:74:PRO:HB2	32:DI:77:VAL:HG22	1.68	0.74
24:DA:414:C:H2'	24:DA:415:A:C8	2.23	0.74
24:DA:2727:A:H2'	24:DA:2728:U:C6	2.23	0.74
24:BA:1213:A:O2'	24:BA:1214:A:H5'	1.88	0.73
24:BA:1656:C:H2'	24:BA:1657:U:C6	2.23	0.73
55:CA:41:G:H2'	55:CA:42:G:H8	1.52	0.73
55:CA:247:G:O2'	55:CA:248:C:H5'	1.88	0.73
24:DA:532:A:N1	24:DA:2020:A:H1'	2.03	0.73
24:DA:1439:A:N1	24:DA:1552:A:C8	2.57	0.73
1:AB:164:ASP:HB3	1:AB:167:HIS:HB3	1.70	0.73
24:BA:1759:A:O2'	24:BA:1760:C:H5'	1.88	0.73
24:BA:2021:C:P	50:B0:8:THR:HG21	2.27	0.73
1:CB:30:ILE:HG21	1:CB:38:HIS:ND1	2.03	0.73
6:CG:101:ARG:HB3	6:CG:102:TRP:HD1	1.53	0.73
8:CI:18:VAL:HG11	8:CI:82:ILE:HA	1.70	0.73
12:CM:96:VAL:C	12:CM:98:GLY:H	1.96	0.73
15:CP:52:LEU:HD21	15:CP:75:ILE:HG12	1.71	0.73
55:CA:990:C:H2'	55:CA:991:U:O4'	1.87	0.73
34:DK:18:ARG:HB2	34:DK:45:GLU:HB2	1.70	0.73
37:DN:2:ARG:HD2	37:DN:5:LYS:HB3	1.70	0.73
24:DA:405:U:H3'	24:DA:406:G:H5'	1.69	0.73
24:DA:1635:A:H2'	24:DA:1636:U:C6	2.23	0.73
21:AA:1055:A:N6	21:AA:1206:G:C6	2.56	0.73
24:BA:1682:G:H2'	24:BA:1683:U:C6	2.24	0.73
24:BA:1853:A:N1	24:BA:2087:G:H1'	2.04	0.73
24:BA:2148:G:H2'	24:BA:2149:U:O4'	1.88	0.73
24:BA:2680:U:OP2	27:BD:114:LYS:HE2	1.87	0.73
26:BC:251:THR:CG2	26:BC:252:LYS:H	1.95	0.73
1:CB:69:VAL:HB	1:CB:162:VAL:HB	1.69	0.73
12:CM:71:GLU:O	12:CM:74:MET:HB3	1.87	0.73
14:CO:24:THR:HG21	14:CO:69:LEU:HB2	1.70	0.73
20:CU:39:LYS:N	20:CU:40:PRO:HD2	2.02	0.73
55:CA:91:U:H2'	55:CA:92:U:C6	2.22	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:122:G:O2'	55:CA:123:U:H5'	1.87	0.73
55:CA:129:A:O2'	55:CA:130:A:C8	2.41	0.73
55:CA:279:A:H5"	55:CA:280:C:H3'	1.71	0.73
55:CA:397:A:N7	55:CA:547:A:O2'	2.20	0.73
24:DA:1537:G:H2'	24:DA:1538:G:C4'	2.08	0.73
8:AI:32:ARG:HG2	8:AI:36:GLN:HB3	1.69	0.73
21:AA:1102:A:H2'	21:AA:1103:C:C5	2.24	0.73
29:BF:9:ASP:O	29:BF:10:GLU:HB2	1.86	0.73
30:BG:22:VAL:HG22	30:BG:36:LEU:HD11	1.68	0.73
31:BH:90:LEU:HB2	31:BH:123:ARG:HB3	1.68	0.73
2:CC:84:GLU:HA	2:CC:87:ARG:HB2	1.69	0.73
3:CD:8:LEU:HB2	55:CA:430:A:OP1	1.89	0.73
55:CA:1062:U:H2'	55:CA:1063:C:C6	2.23	0.73
33:DJ:99:ARG:HA	33:DJ:102:GLU:HB3	1.69	0.73
38:DO:57:ALA:C	38:DO:58:ILE:HD12	2.12	0.73
24:DA:747:U:C5	24:DA:2613:U:H5	2.05	0.73
1:AB:13:VAL:HG23	1:AB:207:ARG:NH2	2.04	0.73
5:AF:71:ILE:HD11	5:AF:89:VAL:HG21	1.71	0.73
21:AA:201:G:H2'	21:AA:202:G:O4'	1.88	0.73
21:AA:1157:A:H4'	21:AA:1158:C:O5'	1.88	0.73
21:AA:1338:G:H2'	21:AA:1339:A:H8	1.53	0.73
24:BA:1032:A:O2'	24:BA:1033:U:H5'	1.88	0.73
26:BC:145:MET:HB2	26:BC:152:GLN:HE22	1.52	0.73
28:BE:147:LEU:HB3	28:BE:186:VAL:HG23	1.69	0.73
39:BP:63:ILE:HA	39:BP:68:GLY:HA2	1.69	0.73
45:BV:26:PHE:CZ	45:BV:42:LEU:HD12	2.22	0.73
55:CA:407:U:H2'	55:CA:408:A:H8	1.53	0.73
55:CA:979:C:H1'	55:CA:1317:C:H41	1.53	0.73
37:DN:5:LYS:HG2	37:DN:6:SER:H	1.51	0.73
38:DO:67:ASN:C	56:DB:50:A:OP1	2.32	0.73
39:DP:56:SER:O	39:DP:75:THR:HG22	1.88	0.73
45:DV:63:ILE:O	45:DV:70:ILE:HD11	1.89	0.73
24:DA:142:A:H5"	24:DA:142:A:H8	1.53	0.73
24:DA:1097:U:H2'	24:DA:1098:A:O4'	1.87	0.73
24:DA:1918:A:O2'	24:DA:1919:A:N7	2.22	0.73
24:DA:2468:A:C8	24:DA:2476:A:N1	2.57	0.73
3:AD:7:LYS:HG2	21:AA:430:A:OP2	1.88	0.73
4:AE:104:ILE:HD11	4:AE:115:GLU:HB2	1.70	0.73
8:AI:34:LEU:HD11	8:AI:47:VAL:HG21	1.69	0.73
16:AQ:10:ARG:NH2	16:AQ:55:GLY:HA2	2.04	0.73
16:AQ:22:VAL:O	16:AQ:42:LYS:HA	1.86	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1011:G:O2'	24:BA:1013:C:H5"	1.88	0.73
27:BD:61:THR:OG1	27:BD:64:GLU:HG3	1.88	0.73
28:BE:148:ILE:HD13	28:BE:187:VAL:CG2	2.18	0.73
40:BQ:63:ARG:CZ	40:BQ:96:ASP:HA	2.18	0.73
46:BW:19:ARG:NH1	46:BW:22:VAL:HG11	2.02	0.73
48:BY:57:LEU:HA	48:BY:60:LYS:HB3	1.69	0.73
12:CM:1:ALA:N	12:CM:2:ARG:NH1	2.36	0.73
12:CM:36:ALA:HB3	12:CM:55:LEU:HD11	1.69	0.73
24:DA:479:A:HO2'	24:DA:480:A:H5'	1.53	0.73
24:DA:633:A:O5'	24:DA:633:A:H8	1.71	0.73
1:AB:185:ILE:HG22	1:AB:199:ILE:HB	1.69	0.73
6:AG:71:THR:O	6:AG:90:VAL:HG12	1.88	0.73
7:AH:112:ASP:HB2	7:AH:116:ARG:HH21	1.54	0.73
21:AA:1323:G:O2'	21:AA:1324:A:H8	1.71	0.73
24:BA:1060:U:H5"	24:BA:1061:U:H5'	1.70	0.73
32:BI:33:ASN:HD22	32:BI:64:ARG:HH22	1.34	0.73
11:CL:27:PRO:HB2	11:CL:28:GLN:OE1	1.89	0.73
12:CM:77:LYS:HE3	12:CM:77:LYS:O	1.88	0.73
55:CA:806:C:H2'	55:CA:807:A:C8	2.23	0.73
55:CA:1508:A:C2	55:CA:1509:C:C2	2.76	0.73
24:DA:979:A:H2'	24:DA:982:C:H41	1.52	0.73
24:DA:1053:C:H2'	24:DA:1054:A:C8	2.24	0.73
24:DA:1220:G:H2'	24:DA:1221:C:C6	2.24	0.73
24:DA:2250:G:H8	24:DA:2250:G:O5'	1.70	0.73
56:DB:58:A:H2'	56:DB:59:A:H8	1.52	0.73
24:BA:869:G:O2'	36:BM:8:LYS:HD3	1.87	0.73
24:BA:1069:A:O2'	24:BA:1070:A:H5"	1.87	0.73
2:CC:149:LYS:HG3	2:CC:168:ARG:HB2	1.69	0.73
8:CI:33:SER:H	8:CI:36:GLN:HG3	1.52	0.73
34:DK:69:VAL:HG11	34:DK:106:GLU:HG2	1.69	0.73
24:DA:1429:G:O2'	24:DA:1430:G:H8	1.67	0.73
1:AB:209:VAL:HB	1:AB:213:LEU:HB2	1.70	0.73
2:AC:143:LEU:H	2:AC:143:LEU:HD22	1.54	0.73
2:AC:146:LYS:HB2	2:AC:202:PHE:CD2	2.24	0.73
4:AE:14:LEU:HD22	4:AE:15:ILE:N	2.04	0.73
5:AF:3:HIS:N	5:AF:92:THR:HG23	2.02	0.73
21:AA:1050:G:O2'	21:AA:1051:C:H6	1.72	0.73
24:BA:1301:A:C2	24:BA:1303:G:C6	2.76	0.73
24:BA:2275:C:O2'	36:BM:84:LYS:HA	1.88	0.73
26:BC:141:HIS:N	26:BC:190:THR:O	2.16	0.73
46:BW:30:VAL:HG22	46:BW:30:VAL:O	1.88	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CC:59:PRO:HG2	2:CC:62:SER:HB3	1.68	0.73
9:CJ:42:LEU:HB3	9:CJ:43:PRO:HD2	1.69	0.73
55:CA:704:A:H2'	55:CA:705:G:H8	1.53	0.73
55:CA:1157:A:H1'	55:CA:1181:G:C2	2.23	0.73
39:DP:9:GLN:HB3	39:DP:12:MET:HE3	1.71	0.73
24:DA:1595:C:H2'	24:DA:1596:A:C8	2.24	0.73
4:AE:155:LYS:CD	7:AH:63:LYS:HZ3	2.02	0.73
21:AA:1157:A:H1'	21:AA:1181:G:C2	2.24	0.73
21:AA:1288:A:O2'	21:AA:1289:A:O4'	2.05	0.73
21:AA:1342:C:H2'	21:AA:1343:G:H8	1.54	0.73
24:BA:928:A:H2	49:BZ:46:MET:HE1	1.53	0.73
24:BA:983:A:C6	24:BA:984:A:C2	2.76	0.73
49:BZ:13:ILE:HG22	49:BZ:14:GLY:N	2.02	0.73
55:CA:1283:U:O2'	55:CA:1284:C:H5'	1.89	0.73
29:DF:46:LYS:O	29:DF:46:LYS:HD3	1.88	0.73
31:DH:21:VAL:HG22	31:DH:22:LYS:H	1.53	0.73
34:DK:63:VAL:HG21	34:DK:85:VAL:HG23	1.71	0.73
44:DU:10:VAL:HG12	44:DU:71:ILE:HA	1.70	0.73
24:DA:2656:U:O2'	24:DA:2657:A:H5'	1.88	0.73
10:AK:124:LYS:HE3	20:AU:34:ARG:HD2	1.71	0.72
12:AM:71:GLU:O	12:AM:74:MET:HB3	1.88	0.72
12:AM:77:LYS:HA	12:AM:80:MET:HE3	1.70	0.72
21:AA:373:A:O2'	21:AA:374:A:H8	1.68	0.72
24:BA:372:G:H5"	47:BX:60:LYS:HE3	1.70	0.72
26:BC:145:MET:HB2	26:BC:152:GLN:NE2	2.05	0.72
40:BQ:56:PHE:O	40:BQ:57:ARG:C	2.32	0.72
46:BW:9:THR:CG2	46:BW:10:ARG:HD3	2.18	0.72
1:CB:9:LEU:HG	1:CB:10:LYS:H	1.53	0.72
12:CM:13:HIS:HA	12:CM:43:LYS:HG2	1.71	0.72
35:DL:20:GLY:HA2	35:DL:28:GLY:HA2	1.71	0.72
39:DP:50:ARG:HB3	39:DP:57:ALA:H	1.53	0.72
24:DA:45:G:H5'	24:DA:46:G:OP1	1.88	0.72
24:DA:2093:G:O2'	24:DA:2094:A:H8	1.69	0.72
11:AL:78:VAL:O	11:AL:102:ASP:HB2	1.89	0.72
21:AA:512:U:H2'	21:AA:513:C:C6	2.23	0.72
24:BA:363:G:O2'	24:BA:364:C:H5'	1.89	0.72
28:BE:148:ILE:HA	28:BE:187:VAL:HB	1.71	0.72
30:BG:86:LEU:HD12	30:BG:86:LEU:N	2.04	0.72
31:BH:27:ARG:NH1	31:BH:38:PRO:HG3	2.04	0.72
33:BJ:73:VAL:CG2	33:BJ:74:TYR:H	1.97	0.72
46:BW:23:LYS:HG3	46:BW:24:ARG:O	1.88	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:219:U:H2'	55:CA:220:G:H8	1.54	0.72
55:CA:346:G:H2'	55:CA:346:G:N3	2.01	0.72
35:DL:100:ILE:O	35:DL:101:ILE:HB	1.87	0.72
24:DA:272:A:O2'	24:DA:273:G:H8	1.72	0.72
24:DA:1069:A:N6	24:DA:1073:A:H5"	2.04	0.72
24:DA:1090:A:H2'	24:DA:1091:G:H5"	1.70	0.72
24:DA:1427:A:H4'	24:DA:1428:C:O5'	1.89	0.72
3:AD:84:ASN:HB3	3:AD:87:GLU:HG2	1.71	0.72
12:AM:5:GLY:HA3	12:AM:65:GLU:HG3	1.70	0.72
21:AA:496:A:H2'	21:AA:496:A:N3	2.04	0.72
24:BA:84:A:H4'	24:BA:85:G:O5'	1.89	0.72
24:BA:1059:G:C8	24:BA:1060:U:H2'	2.24	0.72
24:BA:1169:A:H8	24:BA:1169:A:OP2	1.71	0.72
24:BA:1509:A:O2'	24:BA:1510:G:O5'	2.07	0.72
24:BA:1585:C:H2'	24:BA:1586:A:O4'	1.89	0.72
24:BA:2093:G:C6	24:BA:2225:A:C8	2.77	0.72
24:BA:2386:A:H2'	24:BA:2387:U:H6	1.54	0.72
24:BA:2490:G:H4'	24:BA:2491:U:O5'	1.88	0.72
36:BM:133:LYS:O	36:BM:134:THR:HB	1.90	0.72
43:BT:73:ARG:HB3	43:BT:73:ARG:CZ	2.18	0.72
4:CE:110:MET:HG2	4:CE:139:THR:CG2	2.19	0.72
55:CA:9:G:H2'	55:CA:10:A:H8	1.52	0.72
55:CA:16:A:N1	55:CA:919:A:H2	1.88	0.72
30:DG:1:SER:HB2	30:DG:61:TRP:HB3	1.70	0.72
34:DK:19:VAL:CG1	34:DK:41:ILE:HG12	2.19	0.72
24:DA:419:U:H2'	24:DA:420:C:C6	2.24	0.72
24:DA:1474:U:H2'	24:DA:1475:G:H5'	1.71	0.72
24:DA:1496:A:H4'	24:DA:1497:U:H5	1.54	0.72
24:DA:2308:G:O6	24:DA:2311:A:N6	2.22	0.72
10:AK:44:ALA:HB3	10:AK:69:CYS:HB2	1.72	0.72
24:BA:373:U:O2	24:BA:423:A:H2	1.73	0.72
24:BA:2297:A:C5	24:BA:2320:U:N3	2.57	0.72
30:BG:104:LEU:HB2	30:BG:112:VAL:CG2	2.18	0.72
2:CC:149:LYS:HD2	2:CC:200:TRP:CE3	2.25	0.72
55:CA:794:A:H2'	55:CA:795:C:C6	2.24	0.72
55:CA:815:A:O2'	55:CA:816:A:P	2.47	0.72
34:DK:101:GLY:O	34:DK:120:PRO:HB3	1.90	0.72
39:DP:28:LYS:HB2	39:DP:28:LYS:HZ2	1.54	0.72
40:DQ:44:TYR:CE1	24:DA:533:G:N2	2.56	0.72
43:DT:29:THR:H	43:DT:87:LEU:HB2	1.54	0.72
43:DT:43:ILE:HG21	43:DT:58:VAL:HG11	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DZ:16:LEU:HD23	49:DZ:19:HIS:CD2	2.23	0.72
24:DA:647:G:H2'	24:DA:648:G:C8	2.24	0.72
24:DA:2631:G:C2'	24:DA:2632:A:H5"	2.19	0.72
21:AA:819:A:H4'	21:AA:820:U:OP2	1.88	0.72
24:BA:312:G:O2'	24:BA:313:G:H5'	1.89	0.72
24:BA:1328:A:HO2'	24:BA:1329:U:H6	1.36	0.72
24:BA:2328:A:H2'	24:BA:2329:U:C6	2.23	0.72
32:BI:53:PRO:HD2	32:BI:77:VAL:HG21	1.71	0.72
40:BQ:57:ARG:NH2	40:BQ:92:LYS:HD2	2.03	0.72
8:CI:53:LEU:HD11	8:CI:96:GLU:HB3	1.71	0.72
55:CA:1292:G:H2'	55:CA:1293:C:C6	2.24	0.72
32:DI:57:VAL:HG12	32:DI:58:ILE:H	1.51	0.72
24:DA:685:A:H2'	24:DA:773:U:O4	1.89	0.72
24:DA:1062:G:HO2'	24:DA:1063:G:H8	0.77	0.72
4:AE:76:ASN:HB3	4:AE:81:GLN:HG3	1.71	0.72
11:AL:43:LYS:HD3	11:AL:43:LYS:H	1.51	0.72
13:AN:19:TYR:CD2	13:AN:50:LEU:HD13	2.25	0.72
24:BA:2313:C:H5"	29:BF:87:LYS:HD3	1.71	0.72
24:BA:2440:C:H5'	24:BA:2440:C:H6	1.54	0.72
28:BE:46:GLN:CG	28:BE:87:ALA:H	2.01	0.72
33:BJ:88:THR:HG22	33:BJ:91:GLU:HB2	1.71	0.72
37:BN:73:ASN:HA	37:BN:76:VAL:CG1	2.18	0.72
39:BP:96:LEU:HB3	39:BP:99:LEU:HD22	1.69	0.72
40:BQ:68:ALA:O	40:BQ:71:ASN:N	2.21	0.72
55:CA:814:A:H5'	55:CA:1511:G:H4'	1.72	0.72
55:CA:1255:G:N2	55:CA:1283:U:H3	1.88	0.72
24:DA:13:A:O2'	24:DA:15:G:N7	2.22	0.72
24:DA:1112:G:H2'	24:DA:1113:U:H6	1.54	0.72
3:AD:2:ARG:HH21	3:AD:114:ARG:HD3	1.53	0.72
4:AE:121:ASN:HD22	4:AE:122:VAL:N	1.86	0.72
19:AT:43:LYS:HB3	19:AT:86:ALA:HB1	1.71	0.72
21:AA:204:G:H3'	21:AA:205:A:C5'	2.19	0.72
24:BA:1652:A:H62	37:BN:11:ASN:HD21	1.35	0.72
24:BA:2023:C:O2'	24:BA:2024:G:H5'	1.89	0.72
24:BA:2109:U:H2'	24:BA:2110:G:H5'	1.71	0.72
30:BG:148:ARG:HA	30:BG:161:VAL:CG1	2.19	0.72
34:BK:21:CYS:HB2	34:BK:39:ILE:CD1	2.19	0.72
40:BQ:57:ARG:NH2	40:BQ:92:LYS:CE	2.53	0.72
4:CE:80:LEU:HB3	4:CE:97:PRO:HB3	1.71	0.72
7:CH:65:PHE:CD2	7:CH:66:GLN:HG2	2.25	0.72
55:CA:1228:C:HO2'	55:CA:1229:A:H8	1.34	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DW:31:LEU:C	46:DW:33:GLY:H	1.97	0.72
24:DA:391:A:H2'	24:DA:391:A:N3	2.03	0.72
24:DA:1563:U:H2'	24:DA:1564:C:C6	2.24	0.72
24:DA:1714:U:H3'	24:DA:1715:G:C5'	2.20	0.72
24:DA:1783:A:N1	24:DA:2587:A:H2'	2.04	0.72
24:DA:2199:A:O2'	24:DA:2200:C:H5'	1.89	0.72
24:DA:2682:A:H61	24:DA:2728:U:H1'	1.54	0.72
5:AF:38:ARG:HG3	5:AF:39:LEU:N	2.03	0.72
21:AA:338:A:N1	21:AA:351:G:C6	2.58	0.72
21:AA:841:C:C2	21:AA:843:U:H5'	2.25	0.72
24:BA:2354:C:H4'	46:BW:31:LEU:HD22	1.70	0.72
24:BA:2733:A:H8	24:BA:2733:A:O5'	1.71	0.72
25:BB:45:A:H2'	25:BB:46:A:C8	2.24	0.72
31:BH:8:LYS:O	31:BH:9:VAL:HB	1.89	0.72
35:BL:76:GLU:C	35:BL:77:ILE:HD12	2.14	0.72
46:BW:67:LYS:HB3	46:BW:80:SER:H	1.54	0.72
3:CD:102:TYR:C	3:CD:104:MET:H	1.96	0.72
11:CL:53:ARG:HA	11:CL:63:THR:HG22	1.72	0.72
18:CS:4:LEU:HD11	55:CA:1319:A:OP2	1.90	0.72
18:CS:52:ASN:ND2	18:CS:55:GLN:H	1.87	0.72
27:DD:194:PRO:HA	24:DA:2680:U:H5'	1.72	0.72
37:DN:12:ARG:HG3	37:DN:13:ASN:H	1.53	0.72
40:DQ:60:TRP:O	40:DQ:63:ARG:HG2	1.90	0.72
45:DV:18:ARG:HG3	56:DB:77:U:OP1	1.90	0.72
24:DA:851:C:H2'	24:DA:852:U:C6	2.24	0.72
24:DA:1231:U:H2'	24:DA:1232:G:H8	1.54	0.72
24:DA:1476:U:O2'	24:DA:1477:A:H8	1.72	0.72
24:DA:1938:A:O2'	24:DA:1939:U:H5"	1.90	0.72
4:AE:83:PRO:HG2	7:AH:95:MET:HG2	1.72	0.72
24:BA:2264:C:H41	46:BW:11:ASN:ND2	1.88	0.72
26:BC:20:ASN:HD22	26:BC:20:ASN:C	1.98	0.72
28:DE:71:GLY:H	24:DA:674:G:H5"	1.53	0.72
33:DJ:84:ILE:HG12	24:DA:1132:U:H5"	1.72	0.72
43:DT:14:PRO:O	43:DT:15:HIS:HB2	1.88	0.72
45:DV:31:TYR:CE2	56:DB:73:A:N6	2.57	0.72
24:DA:1127:A:O2'	24:DA:1128:G:H5'	1.89	0.72
24:DA:2499:C:OP2	59:DA:3674:HOH:O	2.07	0.72
1:AB:130:LYS:HA	1:AB:130:LYS:NZ	2.05	0.72
4:AE:11:GLN:O	4:AE:11:GLN:HG3	1.90	0.72
4:AE:132:PRO:HG2	4:AE:133:ILE:HD12	1.72	0.72
8:AI:6:TYR:CE2	8:AI:17:ARG:HB2	2.23	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AJ:62:ARG:NH1	21:AA:1367:C:H5'	2.05	0.72
21:AA:1021:A:H2'	21:AA:1022:A:H5"	1.70	0.72
24:BA:1124:G:H1'	54:B4:38:GLY:OXT	1.90	0.72
24:BA:1287:A:OP2	37:BN:103:ARG:HG3	1.90	0.72
25:BB:79:G:C5	25:BB:80:U:C5	2.77	0.72
26:BC:259:ASN:C	26:BC:261:ARG:H	1.97	0.72
28:BE:72:SER:OG	28:BE:74:LYS:HB2	1.90	0.72
29:BF:7:TYR:OH	29:BF:29:ARG:HB3	1.89	0.72
30:BG:155:PRO:O	30:BG:170:THR:HA	1.88	0.72
36:BM:81:ARG:HG3	36:BM:82:MET:H	1.52	0.72
10:CK:22:ILE:HD11	10:CK:31:VAL:HG22	1.72	0.72
55:CA:209:U:H5"	55:CA:210:C:OP2	1.89	0.72
55:CA:790:A:H2'	55:CA:791:G:C8	2.24	0.72
26:DC:79:ARG:HD3	26:DC:81:GLU:OE1	1.90	0.72
52:D2:19:ARG:HH21	52:D2:19:ARG:CB	2.02	0.72
24:DA:109:C:H4'	24:DA:348:A:H4'	1.72	0.72
24:DA:590:A:H2'	24:DA:591:U:H6	1.55	0.72
24:DA:2148:G:O2'	24:DA:2149:U:C6	2.43	0.72
24:DA:2459:A:O2'	24:DA:2460:U:H5'	1.90	0.72
56:DB:56:G:H4'	56:DB:57:A:O5'	1.90	0.72
1:AB:187:ASP:CG	1:AB:188:THR:H	1.94	0.71
6:AG:74:VAL:HG21	6:AG:143:MET:HG2	1.72	0.71
20:AU:38:GLU:OE2	20:AU:41:THR:HG21	1.90	0.71
24:BA:1584:U:H2'	24:BA:1585:C:H5'	1.72	0.71
24:BA:1717:A:H2'	24:BA:1718:G:O4'	1.89	0.71
26:BC:108:GLY:O	26:BC:109:LEU:HD22	1.90	0.71
1:CB:76:SER:O	1:CB:79:VAL:HG12	1.89	0.71
9:CJ:10:LEU:HB2	9:CJ:72:ARG:HB2	1.72	0.71
12:CM:47:LEU:HD21	12:CM:52:ILE:HG22	1.72	0.71
18:CS:40:PHE:HB3	18:CS:41:PRO:HD2	1.71	0.71
38:DO:64:TYR:HD1	56:DB:52:A:OP2	1.73	0.71
45:DV:31:TYR:CD1	45:DV:31:TYR:C	2.68	0.71
1:AB:212:TYR:HA	1:AB:215:ALA:HB3	1.71	0.71
4:AE:82:HIS:HB2	7:AH:95:MET:SD	2.30	0.71
19:AT:4:LYS:NZ	19:AT:5:SER:HB3	2.03	0.71
21:AA:306:A:H2'	21:AA:307:C:C6	2.25	0.71
24:BA:1060:U:H4'	24:BA:1061:U:C5'	2.20	0.71
24:BA:1461:C:O2'	24:BA:1462:C:H6	1.71	0.71
24:BA:2093:G:O2'	24:BA:2094:A:H5'	1.90	0.71
24:BA:2276:G:OP2	36:BM:83:GLY:O	2.08	0.71
24:BA:2403:C:H2'	24:BA:2404:U:H6	1.54	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BT:32:LEU:N	43:BT:32:LEU:HD23	2.05	0.71
51:B1:47:ILE:HD12	51:B1:47:ILE:H	1.55	0.71
33:DJ:30:THR:HG21	24:DA:1012:U:O4	1.89	0.71
38:DO:45:SER:HA	56:DB:112:G:N2	2.04	0.71
38:DO:64:TYR:CD1	56:DB:51:G:H3'	2.25	0.71
3:AD:164:ARG:HG2	3:AD:165:GLU:H	1.53	0.71
11:AL:111:GLN:HB2	21:AA:538:G:OP2	1.91	0.71
21:AA:1068:G:O2'	21:AA:1069:C:H5'	1.90	0.71
24:BA:470:A:H61	43:BT:72:GLN:HE22	1.37	0.71
24:BA:765:C:H2'	24:BA:766:U:C6	2.23	0.71
27:BD:51:THR:OG1	27:BD:76:GLY:HA3	1.89	0.71
36:BM:64:TRP:CZ3	36:BM:106:ASP:HB2	2.25	0.71
41:BR:39:LEU:CB	41:BR:49:ILE:HD13	2.21	0.71
46:BW:39:GLN:HG3	46:BW:42:THR:HB	1.71	0.71
4:CE:44:ARG:HG2	4:CE:72:ASN:HA	1.72	0.71
5:CF:92:THR:O	5:CF:93:LYS:HG2	1.90	0.71
10:CK:106:ILE:HD11	10:CK:109:ILE:HD11	1.70	0.71
15:CP:74:LEU:O	15:CP:78:VAL:HG23	1.90	0.71
55:CA:451:A:H1'	55:CA:452:A:C8	2.25	0.71
51:D1:34:GLU:HG3	51:D1:49:LYS:HB2	1.72	0.71
24:DA:145:C:H2'	24:DA:146:A:H8	1.55	0.71
24:DA:1078:U:H4'	24:DA:1079:C:O5'	1.90	0.71
24:DA:2850:A:O2'	24:DA:2851:A:H5'	1.90	0.71
21:AA:198:G:HO2'	21:AA:199:A:H8	1.38	0.71
24:BA:2600:A:H2'	24:BA:2601:C:H6	1.55	0.71
34:BK:111:LYS:H	34:BK:111:LYS:CE	2.01	0.71
42:BS:19:LEU:O	50:B0:21:LEU:HD12	1.91	0.71
51:B1:5:ARG:NH1	51:B1:24:LYS:HA	2.05	0.71
10:CK:55:ARG:O	10:CK:58:THR:HG23	1.89	0.71
55:CA:812:G:H2'	55:CA:812:G:N3	2.03	0.71
31:DH:41:LYS:H	31:DH:44:ILE:HG23	1.55	0.71
33:DJ:116:ARG:HG3	33:DJ:120:ARG:HH22	1.56	0.71
37:DN:24:MET:HG2	37:DN:44:LEU:HD22	1.73	0.71
37:DN:63:ARG:O	37:DN:67:PHE:HB2	1.89	0.71
45:DV:9:ARG:HH22	45:DV:17:SER:HB2	1.52	0.71
24:DA:100:U:H1'	24:DA:101:A:C8	2.25	0.71
24:DA:960:A:H2'	24:DA:962:G:H5'	1.72	0.71
2:AC:86:LEU:O	2:AC:90:VAL:HG23	1.90	0.71
4:AE:11:GLN:HG3	4:AE:116:VAL:HG12	1.72	0.71
5:AF:16:GLU:HG2	3:CD:191:SER:CB	2.17	0.71
24:BA:994:C:H1'	41:BR:10:LYS:HZ1	1.53	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:98:VAL:O	27:BD:99:GLU:C	2.34	0.71
27:BD:101:PHE:HE2	27:BD:203:VAL:HG22	1.54	0.71
33:BJ:65:THR:HG22	33:BJ:68:LYS:CE	2.21	0.71
41:BR:90:ARG:O	41:BR:91:GLN:HB3	1.90	0.71
55:CA:328:C:H2'	55:CA:328:C:O2	1.88	0.71
55:CA:1144:G:H21	55:CA:1146:A:H62	1.37	0.71
34:DK:7:MET:HA	34:DK:7:MET:HE3	1.71	0.71
37:DN:37:THR:HB	37:DN:40:LYS:HB2	1.73	0.71
42:DS:6:LYS:NZ	42:DS:104:THR:HG23	2.05	0.71
24:DA:962:G:H2'	24:DA:963:U:H6	1.54	0.71
24:DA:2100:G:O2'	24:DA:2101:A:H5'	1.90	0.71
1:AB:86:CYS:HB2	1:AB:88:GLN:HG3	1.71	0.71
4:AE:89:THR:HG22	4:AE:90:GLY:N	2.06	0.71
17:AR:62:ARG:NH1	17:AR:69:TYR:HA	2.05	0.71
24:BA:871:U:OP1	36:BM:5:LYS:HG3	1.90	0.71
24:BA:1023:U:H5'	24:BA:1023:U:C6	2.19	0.71
24:BA:1064:C:H4'	32:BI:90:GLY:N	2.03	0.71
24:BA:2297:A:C2	24:BA:2298:A:C8	2.78	0.71
26:BC:245:THR:OG1	26:BC:249:VAL:HB	1.90	0.71
30:BG:115:GLN:CD	30:BG:115:GLN:H	1.98	0.71
40:BQ:63:ARG:HD2	40:BQ:64:ILE:N	2.06	0.71
41:BR:39:LEU:HD23	41:BR:39:LEU:N	2.06	0.71
8:CI:30:ASN:O	8:CI:31:GLN:HG3	1.90	0.71
26:DC:52:HIS:HA	26:DC:216:ARG:HB2	1.72	0.71
32:DI:51:GLY:O	32:DI:52:LEU:HB2	1.90	0.71
44:DU:16:LYS:HD3	44:DU:17:ASP:H	1.56	0.71
54:D4:7:VAL:HG12	24:DA:1031:G:O2'	1.90	0.71
24:DA:527:C:OP1	59:DA:3247:HOH:O	2.09	0.71
24:DA:646:U:H2'	24:DA:647:G:O4'	1.89	0.71
24:DA:704:G:H1'	24:DA:727:A:N6	2.06	0.71
24:DA:1341:G:H21	24:DA:1398:C:H4'	1.56	0.71
24:DA:2601:C:H4'	24:DA:2602:A:OP2	1.90	0.71
8:AI:110:VAL:HG21	21:AA:1370:G:O5'	1.89	0.71
12:AM:74:MET:HE1	12:AM:77:LYS:HD3	1.73	0.71
16:AQ:14:ASP:O	16:AQ:20:ILE:HD11	1.90	0.71
19:AT:38:ILE:HD11	19:AT:82:ILE:HG22	1.73	0.71
21:AA:243:A:N3	21:AA:245:U:H2'	2.05	0.71
24:BA:74:A:H4'	24:BA:75:G:O5'	1.89	0.71
27:BD:8:LYS:HB2	27:BD:201:LEU:HD22	1.71	0.71
30:BG:11:PRO:O	30:BG:14:VAL:HG22	1.91	0.71
33:BJ:75:TYR:CD1	33:BJ:86:GLN:HB3	2.25	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BK:111:LYS:HE2	34:BK:111:LYS:N	2.03	0.71
41:BR:16:GLU:HA	41:BR:98:ILE:HG22	1.73	0.71
41:BR:51:VAL:HB	41:BR:52:PRO:CD	2.20	0.71
43:BT:32:LEU:N	43:BT:83:ALA:HB3	2.06	0.71
53:B3:31:ILE:HD11	53:B3:34:LYS:HD2	1.72	0.71
1:CB:208:ALA:HA	1:CB:211:LEU:HB2	1.73	0.71
3:CD:39:GLN:N	55:CA:426:U:H4'	2.06	0.71
29:DF:104:THR:HG22	29:DF:105:ILE:HG13	1.72	0.71
33:DJ:45:THR:HG21	33:DJ:50:THR:HG23	1.72	0.71
37:DN:103:ARG:HD2	24:DA:1287:A:H5'	1.73	0.71
42:DS:24:ILE:HG22	42:DS:35:ILE:HD11	1.71	0.71
44:DU:14:THR:HB	44:DU:68:ASN:HB3	1.73	0.71
47:DX:63:ILE:CD1	47:DX:64:ASP:H	2.04	0.71
24:DA:548:G:H5"	24:DA:549:G:H5'	1.71	0.71
1:AB:108:GLN:NE2	1:AB:108:GLN:H	1.89	0.71
4:AE:37:VAL:HG12	4:AE:116:VAL:HG21	1.73	0.71
4:AE:131:ASN:HD21	4:AE:133:ILE:HD13	1.56	0.71
24:BA:100:U:H4'	24:BA:101:A:O5'	1.91	0.71
24:BA:636:G:C5	35:BL:111:ILE:HD11	2.26	0.71
3:CD:131:ILE:HG21	55:CA:620:C:C2	2.25	0.71
6:CG:3:ARG:CD	55:CA:932:C:H5'	2.17	0.71
7:CH:52:GLY:HA3	7:CH:56:PRO:HA	1.72	0.71
10:CK:44:ALA:HB3	10:CK:69:CYS:HB2	1.72	0.71
27:DD:122:VAL:HA	27:DD:127:PHE:H	1.54	0.71
35:DL:36:LYS:HE2	24:DA:2448:A:H61	1.54	0.71
40:DQ:78:PHE:CE1	40:DQ:82:LEU:HD11	2.25	0.71
45:DV:70:ILE:N	45:DV:70:ILE:HD13	2.05	0.71
24:DA:1068:G:H2'	24:DA:1069:A:C8	2.25	0.71
1:AB:71:THR:HG22	1:AB:72:LYS:H	1.55	0.71
10:AK:87:GLY:N	10:AK:113:THR:HG22	1.98	0.71
21:AA:519:C:O2'	21:AA:520:A:H5'	1.91	0.71
24:BA:282:A:H2'	24:BA:283:G:C8	2.26	0.71
24:BA:1847:A:H8	24:BA:1848:A:N7	1.88	0.71
24:BA:2786:U:H2'	24:BA:2787:C:H6	1.53	0.71
27:BD:110:THR:HA	27:BD:171:THR:HA	1.73	0.71
31:BH:96:THR:CA	31:BH:97:ARG:NH1	2.54	0.71
1:CB:151:LYS:HG3	1:CB:152:ASP:H	1.56	0.71
10:CK:126:ARG:HB2	20:CU:33:ARG:HD2	1.73	0.71
16:CQ:59:GLU:O	16:CQ:75:VAL:HG22	1.91	0.71
55:CA:246:A:C4	55:CA:282:A:N6	2.59	0.71
55:CA:1234:C:H1'	55:CA:1364:U:C6	2.26	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:1349:A:H2'	55:CA:1350:A:H8	1.55	0.71
29:DF:71:LYS:HB3	29:DF:78:ILE:HD13	1.71	0.71
49:DZ:16:LEU:H	49:DZ:16:LEU:HD22	1.56	0.71
24:DA:656:G:H2'	24:DA:657:U:C6	2.26	0.71
24:DA:2660:A:C2	24:DA:2661:G:C4	2.78	0.71
56:DB:75:G:H2'	56:DB:76:G:H8	1.55	0.71
6:AG:139:ASP:HA	6:AG:142:ARG:HB2	1.73	0.71
12:AM:14:ALA:O	12:AM:18:LEU:HD23	1.89	0.71
15:AP:4:ILE:HA	15:AP:20:VAL:O	1.90	0.71
21:AA:198:G:O2'	21:AA:199:A:C8	2.43	0.71
21:AA:1240:U:H3'	21:AA:1241:G:H5'	1.73	0.71
24:BA:250:G:C6	24:BA:251:A:C6	2.78	0.71
24:BA:856:G:H1'	46:BW:23:LYS:HB3	1.73	0.71
36:BM:101:VAL:HG13	36:BM:101:VAL:O	1.90	0.71
55:CA:32:A:H2'	55:CA:33:A:C8	2.26	0.71
55:CA:560:A:H5'	55:CA:566:G:H22	1.53	0.71
26:DC:131:MET:HE2	26:DC:187:CYS:O	1.91	0.71
42:DS:73:LYS:HB2	42:DS:106:VAL:HB	1.72	0.71
43:DT:19:LYS:HE2	43:DT:23:ALA:HB3	1.73	0.71
46:DW:71:LYS:HD3	56:DB:11:C:H5'	1.71	0.71
24:DA:271:G:O2'	24:DA:272:A:H5"	1.91	0.71
24:DA:1241:A:H2'	24:DA:1242:U:H5'	1.73	0.71
1:AB:96:LEU:HB2	1:AB:99:MET:HE2	1.72	0.70
3:AD:169:TRP:CE3	3:AD:185:PRO:HB3	2.26	0.70
13:AN:4:SER:HB2	21:AA:1216:A:OP1	1.91	0.70
21:AA:566:G:H4'	21:AA:567:G:OP1	1.89	0.70
24:BA:976:G:C2	24:BA:977:G:C8	2.78	0.70
24:BA:2225:A:H5'	24:BA:2226:C:H5'	1.73	0.70
27:BD:140:HIS:CE1	59:BD:402:HOH:O	2.43	0.70
5:CF:18:VAL:HG21	5:CF:58:HIS:HD2	1.55	0.70
15:CP:1:MET:HA	15:CP:1:MET:HE3	1.72	0.70
55:CA:566:G:H4'	55:CA:567:G:OP1	1.90	0.70
55:CA:1134:G:C5	55:CA:1135:U:H1'	2.26	0.70
55:CA:1303:C:H3'	55:CA:1304:G:C8	2.26	0.70
53:D3:22:LYS:H	53:D3:48:MET:HB3	1.56	0.70
24:DA:579:G:C8	24:DA:2017:U:C4	2.79	0.70
24:DA:615:U:H3'	24:DA:616:A:H5'	1.73	0.70
1:AB:24:PRO:CG	21:AA:830:G:H5'	2.21	0.70
4:AE:37:VAL:HG21	4:AE:113:VAL:CG1	2.20	0.70
24:BA:2239:G:H5'	24:BA:2239:G:C8	2.26	0.70
24:BA:2291:U:H2'	24:BA:2292:U:C5	2.26	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2756:U:H1'	24:BA:2757:A:H5"	1.72	0.70
32:BI:33:ASN:HB3	32:BI:36:GLU:HB2	1.73	0.70
41:BR:39:LEU:HB3	41:BR:49:ILE:HD13	1.73	0.70
48:BY:61:ALA:C	48:BY:63:ALA:H	1.97	0.70
9:CJ:52:LEU:HD23	9:CJ:62:ARG:HG2	1.71	0.70
55:CA:330:C:O2'	55:CA:331:G:H5'	1.91	0.70
24:DA:197:A:H62	24:DA:2430:A:H2'	1.55	0.70
24:DA:1364:G:H1'	24:DA:1368:G:H22	1.56	0.70
24:DA:1560:G:O2'	24:DA:1561:C:H5'	1.90	0.70
9:AJ:56:HIS:O	9:AJ:57:VAL:HG12	1.91	0.70
11:AL:6:LEU:HD23	16:AQ:33:TYR:CE2	2.27	0.70
24:BA:2060:A:O2'	59:BA:3498:HOH:O	2.09	0.70
24:BA:2197:U:HO2'	24:BA:2198:A:H2'	1.56	0.70
24:BA:2813:A:H2	24:BA:2887:A:N6	1.90	0.70
30:BG:82:PHE:CE2	30:BG:137:LYS:HB2	2.25	0.70
30:BG:126:THR:HG22	30:BG:127:GLN:H	1.54	0.70
32:BI:3:LYS:HD2	32:BI:4:VAL:HG23	1.74	0.70
35:BL:93:ASN:ND2	35:BL:94:THR:N	2.37	0.70
39:BP:24:THR:HG21	39:BP:87:ARG:HB3	1.72	0.70
44:BU:52:ASN:C	44:BU:54:PRO:HD2	2.16	0.70
1:CB:132:GLU:C	1:CB:134:LEU:H	1.98	0.70
55:CA:804:U:H5"	55:CA:805:C:OP2	1.91	0.70
55:CA:1127:G:O2'	55:CA:1128:C:H5'	1.91	0.70
55:CA:1418:A:C2	55:CA:1483:A:C2	2.80	0.70
26:DC:14:HIS:O	26:DC:203:VAL:HG11	1.91	0.70
34:DK:118:LEU:C	34:DK:120:PRO:HD2	2.15	0.70
24:DA:1156:A:OP1	24:DA:1156:A:H8	1.73	0.70
24:DA:2582:G:O2'	24:DA:2583:G:H5'	1.90	0.70
24:BA:2308:G:C6	29:BF:76:PHE:HE2	2.08	0.70
30:BG:140:ILE:HD12	30:BG:141:GLY:N	2.06	0.70
33:BJ:30:THR:HG22	33:BJ:31:GLU:N	2.06	0.70
46:BW:39:GLN:O	46:BW:41:GLY:N	2.25	0.70
51:B1:27:ARG:O	51:B1:30:PRO:HD3	1.91	0.70
14:CO:47:LYS:HD2	14:CO:47:LYS:H	1.55	0.70
26:DC:38:LYS:HE2	26:DC:55:GLY:H	1.55	0.70
27:DD:110:THR:OG1	27:DD:171:THR:HG22	1.91	0.70
34:DK:13:ASN:H	34:DK:13:ASN:HD22	1.39	0.70
24:DA:249:C:H5"	24:DA:2394:C:O2'	1.91	0.70
24:DA:2902:C:O2'	24:DA:2903:U:O4'	2.09	0.70
3:AD:96:ARG:HB3	3:AD:98:ASP:OD1	1.91	0.70
20:AU:36:PHE:HD1	20:AU:39:LYS:HB3	1.57	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:996:A:O3'	40:BQ:91:ARG:HG2	1.92	0.70
24:BA:1235:G:C2	24:BA:1236:G:N2	2.59	0.70
24:BA:1945:G:H2'	24:BA:1946:U:C6	2.26	0.70
24:BA:2502:G:H5'	24:BA:2503:A:C5'	2.20	0.70
24:BA:2512:C:H5"	24:BA:2513:A:OP2	1.90	0.70
50:B0:9:ARG:HH21	50:B0:9:ARG:CG	2.03	0.70
3:CD:8:LEU:O	3:CD:12:ARG:HB2	1.91	0.70
10:CK:16:SER:HA	10:CK:78:ILE:HA	1.73	0.70
12:CM:33:LEU:HB3	12:CM:38:ILE:HB	1.73	0.70
15:CP:6:LEU:HG	55:CA:376:G:OP1	1.91	0.70
20:CU:39:LYS:H	20:CU:40:PRO:CD	2.04	0.70
55:CA:116:A:O2'	55:CA:117:G:H5'	1.91	0.70
28:DE:24:ASN:HB3	28:DE:27:LEU:HB3	1.71	0.70
29:DF:39:VAL:HA	29:DF:49:LEU:HG	1.73	0.70
33:DJ:20:ALA:HA	33:DJ:23:LYS:HG3	1.74	0.70
37:DN:22:ARG:HG3	37:DN:70:THR:HA	1.73	0.70
42:DS:4:ILE:HG22	42:DS:106:VAL:HG13	1.73	0.70
43:DT:20:ALA:HB1	43:DT:31:VAL:HG21	1.74	0.70
45:DV:2:PHE:HD1	45:DV:50:MET:HE3	1.56	0.70
24:DA:449:A:C4	24:DA:450:G:C8	2.79	0.70
24:DA:620:G:H4'	24:DA:621:A:O5'	1.90	0.70
24:DA:2065:C:H1'	24:DA:2449:U:H3	1.56	0.70
24:DA:2311:A:O2'	24:DA:2312:U:OP2	2.08	0.70
56:DB:11:C:C5	56:DB:12:C:C5	2.79	0.70
3:AD:55:ARG:HA	3:AD:55:ARG:HH11	1.54	0.70
16:AQ:45:VAL:HG21	16:AQ:60:ILE:HD13	1.73	0.70
21:AA:428:G:H1'	21:AA:430:A:N7	2.06	0.70
24:BA:2386:A:H2'	24:BA:2387:U:C6	2.27	0.70
24:BA:2834:G:H2'	24:BA:2879:A:N6	2.06	0.70
30:BG:83:THR:HA	30:BG:84:LYS:NZ	2.06	0.70
35:BL:85:VAL:CG2	35:BL:94:THR:HG23	2.21	0.70
38:BO:11:ALA:HB2	38:BO:96:GLY:N	2.07	0.70
40:BQ:91:ARG:NH2	40:BQ:93:ILE:HD13	2.07	0.70
43:BT:87:LEU:HB2	43:BT:91:GLN:HG2	1.71	0.70
26:DC:7:PRO:HB2	24:DA:1695:G:H8	1.57	0.70
26:DC:68:ARG:HD3	26:DC:103:ILE:HD13	1.73	0.70
26:DC:94:LEU:HB2	26:DC:100:ARG:HD2	1.74	0.70
35:DL:66:PHE:HB2	24:DA:2415:G:H4'	1.74	0.70
36:DM:42:THR:HG22	36:DM:44:ARG:N	2.05	0.70
24:DA:279:A:H61	24:DA:361:G:H1'	1.57	0.70
24:DA:478:A:H5"	24:DA:479:A:OP2	1.91	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1314:C:OP1	24:DA:1332:G:H5"	1.90	0.70
24:DA:2210:U:H4'	24:DA:2211:A:C5'	2.20	0.70
3:AD:31:CYS:O	3:AD:32:LYS:HB2	1.90	0.70
4:AE:32:PHE:HD2	4:AE:54:GLU:CA	2.05	0.70
4:AE:156:ARG:HA	7:AH:63:LYS:HE2	1.72	0.70
8:AI:121:ARG:HG3	21:AA:1348:U:H4'	1.72	0.70
12:AM:101:THR:OG1	21:AA:1225:A:H5"	1.91	0.70
21:AA:548:G:H2'	21:AA:549:C:C6	2.26	0.70
24:BA:568:U:O4	41:BR:81:LYS:HE2	1.92	0.70
24:BA:2795:C:C2	24:BA:2802:G:N2	2.59	0.70
29:BF:134:GLN:O	29:BF:136:ILE:N	2.24	0.70
35:BL:96:LYS:HD3	35:BL:103:ILE:HA	1.73	0.70
6:CG:57:GLU:HG3	6:CG:60:ALA:HB2	1.71	0.70
12:CM:2:ARG:HB3	12:CM:6:ILE:HA	1.74	0.70
55:CA:1102:A:H2'	55:CA:1103:C:C6	2.27	0.70
32:DI:55:PRO:HG2	32:DI:70:THR:HG23	1.73	0.70
32:DI:106:GLN:HA	32:DI:109:ALA:HB3	1.72	0.70
33:DJ:110:PRO:HG2	33:DJ:111:LYS:HG2	1.74	0.70
24:DA:656:G:H8	24:DA:656:G:O5'	1.74	0.70
24:DA:1328:A:H2'	24:DA:1330:C:C4	2.26	0.70
24:DA:1654:A:HO2'	24:DA:1655:A:H8	0.74	0.70
6:AG:86:VAL:HG22	6:AG:150:PHE:HB3	1.74	0.70
21:AA:113:G:H2'	21:AA:114:U:H6	1.55	0.70
12:CM:28:ARG:HA	12:CM:31:ALA:HB3	1.74	0.70
12:CM:70:ARG:HH12	29:DF:114:ARG:NH2	1.90	0.70
26:DC:166:ARG:HG3	26:DC:166:ARG:O	1.92	0.70
29:DF:28:PRO:HB2	29:DF:168:LEU:HD21	1.73	0.70
29:DF:91:ARG:HB3	29:DF:91:ARG:NH2	2.06	0.70
35:DL:123:ARG:HA	35:DL:143:GLU:HB3	1.73	0.70
36:DM:17:ASN:CB	36:DM:38:ARG:HH22	2.05	0.70
38:DO:45:SER:OG	56:DB:113:C:H1'	1.92	0.70
40:DQ:69:ARG:HB2	40:DQ:69:ARG:NH2	2.04	0.70
24:DA:1287:A:H2'	24:DA:1288:G:C2	2.26	0.70
24:DA:1731:G:H4'	24:DA:1732:C:OP1	1.89	0.70
24:DA:2460:U:O2	24:DA:2493:U:N3	2.25	0.70
24:DA:2881:U:O2'	24:DA:2882:A:H5'	1.92	0.70
1:AB:29:PHE:HA	1:AB:44:LYS:HG2	1.74	0.70
3:AD:34:GLU:O	3:AD:37:PRO:HD3	1.91	0.70
21:AA:269:C:H2'	21:AA:270:A:C8	2.26	0.70
21:AA:924:C:H2'	21:AA:925:G:H8	1.52	0.70
24:BA:2292:U:H2'	24:BA:2293:G:C8	2.24	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CB:127:LYS:HE3	1:CB:132:GLU:HG3	1.74	0.70
3:CD:34:GLU:O	3:CD:36:ALA:N	2.25	0.70
55:CA:511:C:N3	55:CA:512:U:C4	2.59	0.70
55:CA:1140:C:O2'	55:CA:1141:C:C6	2.43	0.70
44:DU:90:LYS:HE2	44:DU:92:VAL:HG12	1.73	0.70
24:DA:118:A:C8	24:DA:119:A:C8	2.80	0.70
24:DA:740:C:O2'	24:DA:741:U:C5'	2.39	0.70
24:DA:1799:G:N2	24:DA:1818:U:O2'	2.25	0.70
24:DA:2216:G:H2'	24:DA:2217:G:H8	1.57	0.70
4:AE:83:PRO:HD3	4:AE:97:PRO:CG	2.21	0.70
18:AS:77:ARG:HH22	21:AA:1322:C:P	2.15	0.70
21:AA:704:A:H2'	21:AA:705:G:C8	2.25	0.70
21:AA:908:A:H2'	21:AA:909:A:H8	1.57	0.70
24:BA:1048:A:C5	24:BA:1049:C:C5	2.80	0.70
24:BA:2197:U:H1'	24:BA:2198:A:H2'	1.73	0.70
31:BH:31:VAL:O	31:BH:32:PRO:C	2.35	0.70
47:BX:76:LYS:HG3	47:BX:77:TYR:H	1.57	0.70
24:DA:448:U:H4'	24:DA:449:A:OP2	1.91	0.70
56:DB:5:U:H2'	56:DB:6:G:C8	2.27	0.70
4:AE:109:ALA:C	4:AE:111:ARG:H	1.99	0.69
21:AA:269:C:H2'	21:AA:270:A:H8	1.55	0.69
21:AA:1371:G:H5"	21:AA:1372:U:OP2	1.91	0.69
28:BE:24:ASN:C	28:BE:24:ASN:HD22	2.00	0.69
10:CK:74:LYS:HG3	10:CK:78:ILE:HG12	1.72	0.69
10:CK:124:LYS:HE3	20:CU:34:ARG:CZ	2.22	0.69
55:CA:266:G:O2'	55:CA:267:C:H3'	1.92	0.69
55:CA:977:A:C8	55:CA:1223:C:C4	2.78	0.69
55:CA:1152:A:H2'	55:CA:1153:G:C8	2.27	0.69
30:DG:66:THR:CG2	24:DA:2748:A:H1'	2.21	0.69
31:DH:80:ILE:HB	31:DH:101:ASP:CB	2.22	0.69
38:DO:44:GLY:CA	56:DB:8:C:O2'	2.40	0.69
24:DA:1070:A:H5'	24:DA:1071:G:H5"	1.74	0.69
24:DA:2783:U:H2'	24:DA:2784:U:H6	1.56	0.69
11:AL:43:LYS:HD3	11:AL:43:LYS:N	2.07	0.69
16:AQ:12:VAL:CG1	16:AQ:13:SER:H	1.95	0.69
20:AU:38:GLU:HG3	21:AA:1527:U:OP2	1.91	0.69
21:AA:251:G:H4'	21:AA:252:U:O5'	1.92	0.69
21:AA:1478:U:H2'	21:AA:1479:C:H6	1.57	0.69
24:BA:947:A:H2'	24:BA:948:C:C6	2.27	0.69
24:BA:1349:C:H42	24:BA:1382:G:H1	1.39	0.69
24:BA:1737:G:C6	24:BA:1738:G:N2	2.60	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2720:U:H2'	24:BA:2721:A:C8	2.26	0.69
26:BC:188:ARG:O	26:BC:189:ALA:HB2	1.92	0.69
27:BD:182:ALA:O	27:BD:184:ARG:N	2.25	0.69
28:BE:149:ILE:O	28:BE:188:MET:HA	1.92	0.69
1:CB:79:VAL:O	1:CB:83:ALA:HB3	1.92	0.69
55:CA:109:A:H2'	55:CA:326:G:N2	2.07	0.69
55:CA:1038:C:H2'	55:CA:1039:G:C8	2.27	0.69
29:DF:122:ASP:HB3	29:DF:126:ASN:ND2	2.06	0.69
24:DA:973:A:H1'	24:DA:1188:U:C5	2.27	0.69
24:DA:1061:U:O2'	24:DA:1062:G:H5"	1.93	0.69
1:AB:108:GLN:HA	1:AB:111:LYS:HB2	1.74	0.69
4:AE:152:VAL:HG21	4:AE:156:ARG:NH1	2.07	0.69
6:AG:35:LYS:HB2	21:AA:1373:G:H5"	1.74	0.69
21:AA:547:A:H4'	21:AA:548:G:O5'	1.91	0.69
24:BA:686:U:O2	52:B2:6:GLN:O	2.10	0.69
24:BA:856:G:H21	46:BW:19:ARG:HH22	1.39	0.69
24:BA:1073:A:C2'	24:BA:1074:G:H5"	2.22	0.69
24:BA:2021:C:OP1	50:B0:8:THR:HG21	1.92	0.69
24:BA:2183:A:H2'	24:BA:2184:A:H8	1.54	0.69
26:BC:166:ARG:O	26:BC:166:ARG:HG3	1.92	0.69
38:BO:88:LYS:O	38:BO:89:ASP:HB2	1.90	0.69
6:CG:57:GLU:C	6:CG:59:GLU:H	1.98	0.69
6:CG:110:ARG:HG3	6:CG:111:GLY:H	1.56	0.69
16:CQ:46:HIS:HB2	16:CQ:70:LYS:HE3	1.74	0.69
19:CT:70:LYS:HD2	19:CT:73:ARG:HE	1.57	0.69
55:CA:764:C:H2'	55:CA:765:G:H5'	1.74	0.69
46:DW:18:LYS:HE2	24:DA:2269:G:O3'	1.93	0.69
46:DW:23:LYS:HZ2	24:DA:855:G:H21	1.39	0.69
24:DA:152:A:C2	24:DA:175:G:C2	2.80	0.69
24:DA:449:A:H2'	24:DA:450:G:C8	2.25	0.69
24:DA:668:A:H2'	24:DA:670:A:N6	2.07	0.69
24:DA:1399:C:H2'	24:DA:1400:U:C6	2.27	0.69
24:DA:1681:G:O2'	24:DA:1762:A:H2'	1.92	0.69
24:DA:2308:G:O2'	24:DA:2309:A:OP1	2.10	0.69
56:DB:57:A:H2'	56:DB:58:A:H8	1.56	0.69
1:AB:13:VAL:HG23	1:AB:207:ARG:HH22	1.56	0.69
1:AB:174:GLU:O	1:AB:177:ASN:HB3	1.92	0.69
4:AE:19:ARG:HA	4:AE:31:SER:O	1.92	0.69
5:AF:3:HIS:H	5:AF:92:THR:CG2	2.03	0.69
11:AL:23:LEU:HG	11:AL:24:GLU:H	1.58	0.69
33:BJ:2:LYS:HD3	33:BJ:2:LYS:N	2.07	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BQ:68:ALA:HB1	40:BQ:73:ILE:HG23	1.75	0.69
43:BT:30:ILE:HG23	43:BT:85:VAL:HB	1.74	0.69
50:B0:29:VAL:HG13	50:B0:34:GLY:O	1.92	0.69
55:CA:60:A:H4'	55:CA:61:G:O5'	1.91	0.69
26:DC:219:VAL:HG21	24:DA:782:A:N7	2.07	0.69
44:DU:58:VAL:HG12	44:DU:60:LYS:H	1.57	0.69
54:D4:23:ILE:HD13	24:DA:1032:A:H1'	1.74	0.69
24:DA:963:U:H2'	24:DA:964:C:H6	1.57	0.69
24:DA:1275:A:H2'	24:DA:1275:A:N3	2.07	0.69
24:DA:2321:U:H2'	24:DA:2321:U:O2	1.91	0.69
24:BA:1381:G:H2'	24:BA:1382:G:H5'	1.75	0.69
24:BA:1658:C:OP1	59:BA:3660:HOH:O	2.09	0.69
24:BA:2897:U:H2'	24:BA:2898:U:H6	1.57	0.69
42:BS:24:ILE:HD11	42:BS:36:LEU:HD13	1.73	0.69
47:BX:4:CYS:HB2	47:BX:51:SER:HB3	1.75	0.69
16:CQ:17:GLU:HG3	55:CA:254:G:H21	1.57	0.69
17:CR:39:VAL:HG12	17:CR:40:PRO:HD2	1.74	0.69
55:CA:197:A:O2'	55:CA:198:G:C8	2.45	0.69
55:CA:1038:C:H2'	55:CA:1039:G:H8	1.57	0.69
55:CA:1265:C:C2'	55:CA:1266:G:H5'	2.22	0.69
55:CA:1293:C:H2'	55:CA:1294:G:C8	2.27	0.69
26:DC:71:ASP:O	26:DC:73:ILE:HG12	1.93	0.69
29:DF:110:ILE:HD13	29:DF:110:ILE:H	1.58	0.69
39:DP:9:GLN:HB3	39:DP:12:MET:CE	2.22	0.69
24:DA:655:A:O2'	24:DA:656:G:C8	2.44	0.69
24:DA:1519:G:H5'	24:DA:1520:U:OP2	1.93	0.69
13:AN:25:GLU:HG3	13:AN:26:LEU:HD12	1.72	0.69
16:AQ:12:VAL:HG11	16:AQ:21:VAL:HG22	1.73	0.69
16:AQ:79:GLU:O	16:AQ:80:LYS:HD3	1.91	0.69
21:AA:486:U:H5"	21:AA:486:U:H6	1.57	0.69
21:AA:1446:A:C2'	21:AA:1447:A:H5"	2.22	0.69
21:AA:1513:A:H2'	21:AA:1514:G:C8	2.25	0.69
24:BA:976:G:C2	24:BA:977:G:N7	2.61	0.69
24:BA:1343:G:H2'	24:BA:1344:U:H6	1.58	0.69
24:BA:1777:U:O2'	24:BA:1778:U:H5'	1.91	0.69
24:BA:2020:A:H5'	50:B0:8:THR:HG22	1.74	0.69
25:BB:45:A:H2'	25:BB:46:A:H8	1.57	0.69
40:BQ:91:ARG:NH1	41:BR:10:LYS:HB3	2.07	0.69
49:BZ:6:ILE:O	49:BZ:34:THR:HA	1.92	0.69
8:CI:122:ARG:NH1	55:CA:1343:G:H1'	2.06	0.69
17:CR:72:ARG:H	17:CR:72:ARG:NE	1.86	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CU:3:ILE:HG21	20:CU:18:PHE:HB3	1.73	0.69
26:DC:95:TYR:C	26:DC:97:ASP:H	1.97	0.69
27:DD:119:ALA:CB	27:DD:163:GLY:H	2.01	0.69
48:DY:19:LEU:HA	48:DY:22:LEU:HB2	1.73	0.69
24:DA:975:A:H2'	24:DA:976:G:H8	1.58	0.69
24:DA:2628:C:O2'	24:DA:2781:A:H2'	1.93	0.69
2:AC:146:LYS:HB2	2:AC:202:PHE:CE2	2.26	0.69
21:AA:994:A:O2'	21:AA:995:C:H5'	1.93	0.69
21:AA:1089:G:C2	21:AA:1090:U:H1'	2.27	0.69
24:BA:1289:C:HO2'	24:BA:1290:C:H6	1.39	0.69
24:BA:2063:C:O2'	24:BA:2064:C:H5'	1.93	0.69
25:BB:109:A:H2'	25:BB:110:C:H6	1.56	0.69
32:BI:20:SER:HB3	32:BI:21:PRO:HD3	1.74	0.69
36:BM:57:VAL:HA	36:BM:112:LEU:HD21	1.75	0.69
2:CC:126:ARG:HH22	2:CC:190:THR:HG23	1.55	0.69
8:CI:48:ARG:HH21	8:CI:57:VAL:HG21	1.58	0.69
14:CO:77:TYR:OH	14:CO:87:ARG:HD3	1.92	0.69
55:CA:154:U:H2'	55:CA:155:A:H5'	1.75	0.69
55:CA:765:G:C5	55:CA:812:G:C5	2.80	0.69
31:DH:8:LYS:HD2	31:DH:9:VAL:N	2.08	0.69
48:DY:57:LEU:O	48:DY:60:LYS:HB3	1.92	0.69
4:AE:136:VAL:HG22	4:AE:136:VAL:O	1.92	0.69
5:AF:21:MET:HB3	5:AF:25:TYR:CE1	2.27	0.69
7:AH:3:GLN:HA	21:AA:587:G:H4'	1.74	0.69
10:AK:51:PHE:HB2	10:AK:55:ARG:HB3	1.74	0.69
14:AO:52:ARG:O	14:AO:56:LEU:HG	1.93	0.69
19:AT:80:ALA:O	19:AT:84:LYS:HB2	1.93	0.69
21:AA:507:C:H3'	21:AA:508:U:H5"	1.74	0.69
21:AA:1452:C:H5'	21:AA:1453:G:C5	2.28	0.69
24:BA:232:G:H4'	24:BA:233:A:OP1	1.92	0.69
24:BA:1376:C:H2'	24:BA:1377:G:H5'	1.75	0.69
24:BA:1797:G:O3'	26:BC:255:LYS:HA	1.93	0.69
24:BA:2209:G:C2	24:BA:2216:G:C2	2.81	0.69
24:BA:2691:C:H5'	24:BA:2691:C:H6	1.57	0.69
25:BB:57:A:O2'	25:BB:58:A:H5'	1.93	0.69
28:BE:146:VAL:HG23	28:BE:167:VAL:CG2	2.21	0.69
41:BR:25:LEU:H	41:BR:94:THR:HG21	1.56	0.69
46:BW:24:ARG:HB2	46:BW:65:LYS:HD3	1.74	0.69
49:BZ:8:GLN:HG3	49:BZ:28:LEU:HB3	1.73	0.69
52:B2:3:ARG:HG2	52:B2:3:ARG:NH2	2.03	0.69
8:CI:125:GLN:H	8:CI:125:GLN:HE21	1.40	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CL:5:GLN:HE21	55:CA:882:C:H41	1.40	0.69
14:CO:20:ASP:HB2	55:CA:750:C:H4'	1.73	0.69
55:CA:147:G:H2'	55:CA:148:G:C8	2.27	0.69
55:CA:204:G:H2'	55:CA:205:A:O4'	1.93	0.69
55:CA:312:C:H2'	55:CA:313:A:C8	2.28	0.69
55:CA:824:G:O2'	55:CA:825:A:H5'	1.93	0.69
55:CA:1412:C:H2'	55:CA:1413:A:C8	2.28	0.69
37:DN:103:ARG:HG3	37:DN:104:ALA:H	1.57	0.69
38:DO:23:ALA:HB1	38:DO:90:VAL:HG12	1.74	0.69
44:DU:47:PRO:HB3	44:DU:54:PRO:CG	2.21	0.69
46:DW:18:LYS:N	46:DW:36:ILE:HG12	2.07	0.69
24:DA:288:U:H2'	24:DA:289:G:C8	2.26	0.69
24:DA:365:U:H2'	24:DA:366:C:O4'	1.93	0.69
24:DA:412:A:N6	24:DA:2412:A:O4'	2.26	0.69
24:DA:593:U:H2'	24:DA:594:U:H6	1.56	0.69
24:DA:726:G:H3'	24:DA:1432:G:O2'	1.92	0.69
24:DA:827:U:H2'	24:DA:2068:U:C2	2.28	0.69
24:DA:1297:C:OP1	24:DA:2710:C:H4'	1.93	0.69
24:DA:1529:G:H2'	24:DA:1530:G:O4'	1.93	0.69
24:DA:2276:G:O2'	24:DA:2277:G:H5'	1.92	0.69
24:DA:2517:C:O2'	24:DA:2518:A:H3'	1.93	0.69
1:AB:143:LEU:HD23	1:AB:143:LEU:H	1.57	0.69
2:AC:59:PRO:HD2	2:AC:63:ILE:HA	1.74	0.69
5:AF:86:ARG:CZ	17:AR:63:TYR:HB3	2.22	0.69
9:AJ:40:ILE:HD12	9:AJ:73:LEU:HD12	1.75	0.69
20:AU:16:ARG:NH1	20:AU:19:LYS:HG2	2.07	0.69
24:BA:1166:G:C2	24:BA:1184:U:O2	2.46	0.69
24:BA:2146:C:H4'	24:BA:2147:A:O5'	1.91	0.69
34:BK:47:ILE:HG13	34:BK:48:PRO:HD2	1.74	0.69
34:BK:78:ARG:NH1	39:BP:70:GLU:OE2	2.26	0.69
36:BM:49:ALA:HB1	36:BM:120:ALA:HB1	1.74	0.69
40:BQ:16:ILE:O	40:BQ:17:LEU:C	2.34	0.69
43:BT:44:LYS:HG3	43:BT:55:VAL:HG11	1.75	0.69
2:CC:150:VAL:HG12	2:CC:199:VAL:HG12	1.74	0.69
55:CA:313:A:H2'	55:CA:314:C:H6	1.58	0.69
55:CA:560:A:H4'	55:CA:561:U:H5"	1.75	0.69
55:CA:577:G:N2	55:CA:578:C:C2	2.59	0.69
55:CA:1277:C:HO2'	55:CA:1279:G:H8	1.39	0.69
55:CA:1277:C:O2'	55:CA:1279:G:C8	2.44	0.69
55:CA:1303:C:H5'	55:CA:1304:G:OP2	1.93	0.69
28:DE:28:VAL:O	28:DE:32:VAL:HG13	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:52:A:H2'	24:DA:53:A:C8	2.28	0.69
56:DB:17:C:O2'	56:DB:18:G:H5'	1.92	0.69
21:AA:1173:U:H2'	21:AA:1174:G:H8	1.58	0.69
21:AA:1414:U:H2'	21:AA:1415:G:H8	1.57	0.69
24:BA:1429:G:O2'	24:BA:1430:G:H5'	1.93	0.69
24:BA:1667:G:O2'	24:BA:1991:U:O4	2.10	0.69
24:BA:2092:U:H4'	24:BA:2093:G:O5'	1.93	0.69
24:BA:2897:U:H2'	24:BA:2898:U:C6	2.28	0.69
28:BE:32:VAL:HG23	28:BE:33:VAL:N	2.08	0.69
55:CA:1349:A:H2'	55:CA:1350:A:C8	2.27	0.69
26:DC:52:HIS:HD2	26:DC:217:PRO:O	1.76	0.69
29:DF:136:ILE:O	29:DF:137:PHE:O	2.11	0.69
38:DO:67:ASN:H	38:DO:70:ALA:CB	2.03	0.69
24:DA:814:C:H1'	24:DA:1225:G:H21	1.58	0.69
1:AB:30:ILE:HG12	1:AB:39:ILE:O	1.93	0.68
1:AB:185:ILE:HD12	1:AB:202:ASN:O	1.93	0.68
24:BA:503:A:C2	24:BA:505:A:C4	2.81	0.68
33:BJ:18:VAL:HG22	33:BJ:140:LEU:HD12	1.73	0.68
50:B0:5:ASN:O	50:B0:7:PRO:HD3	1.92	0.68
6:CG:102:TRP:CD1	6:CG:102:TRP:N	2.56	0.68
55:CA:958:A:C2'	55:CA:959:A:H5'	2.23	0.68
55:CA:1323:G:H2'	55:CA:1324:A:C8	2.28	0.68
26:DC:15:VAL:HG22	26:DC:205:GLY:HA3	1.75	0.68
27:DD:118:PHE:CD1	27:DD:119:ALA:N	2.61	0.68
27:DD:159:LYS:HE2	27:DD:160:LYS:N	2.06	0.68
30:DG:88:LEU:HD13	30:DG:93:TYR:HB3	1.75	0.68
30:DG:103:ASN:HD22	30:DG:111:PRO:HB2	1.58	0.68
37:DN:103:ARG:HG3	37:DN:104:ALA:N	2.09	0.68
47:DX:27:ARG:NH1	24:DA:1808:A:N7	2.41	0.68
47:DX:52:ALA:O	47:DX:53:LYS:HB3	1.92	0.68
24:DA:661:A:H2'	24:DA:662:G:O4'	1.93	0.68
24:DA:2595:G:N2	24:DA:2597:G:H3'	2.07	0.68
24:DA:2638:G:O2'	24:DA:2639:A:C8	2.46	0.68
24:DA:2868:A:H2'	24:DA:2869:G:C8	2.28	0.68
4:AE:24:VAL:HG23	4:AE:26:GLY:H	1.58	0.68
5:AF:53:LYS:HZ2	21:AA:710:G:H5"	1.56	0.68
8:AI:41:GLU:O	8:AI:44:ARG:HG2	1.93	0.68
13:AN:15:LEU:HD12	13:AN:53:ASP:HB2	1.73	0.68
19:AT:68:LYS:HB2	19:AT:68:LYS:HZ2	1.58	0.68
20:AU:44:ARG:N	20:AU:44:ARG:HD2	2.08	0.68
24:BA:512:G:N7	59:BA:3777:HOH:O	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:585:G:H5"	24:BA:586:A:OP1	1.93	0.68
24:BA:2543:G:H2'	24:BA:2544:G:H8	1.58	0.68
27:BD:106:LYS:O	27:BD:175:LEU:O	2.11	0.68
28:BE:112:LEU:HD13	28:BE:186:VAL:HG11	1.75	0.68
35:BL:91:ASP:H	35:BL:94:THR:CG2	2.04	0.68
3:CD:205:LYS:HG3	55:CA:8:A:C5	2.29	0.68
6:CG:148:LYS:NZ	6:CG:148:LYS:HB2	2.07	0.68
15:CP:19:VAL:HG22	15:CP:36:VAL:HG13	1.75	0.68
55:CA:79:G:H2'	55:CA:80:A:H8	1.58	0.68
55:CA:1241:G:O2'	55:CA:1242:G:H8	1.77	0.68
26:DC:16:VAL:H	26:DC:203:VAL:HG12	1.58	0.68
29:DF:103:ILE:HA	29:DF:107:VAL:HG21	1.75	0.68
41:DR:33:VAL:HG23	41:DR:61:ALA:HB3	1.76	0.68
41:DR:89:HIS:NE2	41:DR:91:GLN:HB2	2.08	0.68
48:DY:18:LEU:O	48:DY:22:LEU:HD13	1.92	0.68
53:D3:3:ILE:HG21	53:D3:62:PRO:HG2	1.75	0.68
56:DB:48:U:H2'	56:DB:48:U:O2	1.93	0.68
3:AD:31:CYS:HA	21:AA:413:G:H1	1.57	0.68
21:AA:1101:A:O2'	21:AA:1102:A:OP2	2.11	0.68
21:AA:1222:G:OP1	21:AA:1321:U:O2'	2.10	0.68
21:AA:1225:A:H2'	21:AA:1226:C:C5	2.28	0.68
24:BA:5:A:H2'	24:BA:6:A:C8	2.29	0.68
24:BA:1576:U:O2'	24:BA:1577:C:H5'	1.94	0.68
24:BA:1681:G:O2'	24:BA:1762:A:O2'	2.12	0.68
24:BA:2197:U:O2'	24:BA:2198:A:H2'	1.93	0.68
24:BA:2574:G:OP1	59:BA:3719:HOH:O	2.11	0.68
33:BJ:31:GLU:HG3	33:BJ:142:ILE:HG21	1.75	0.68
38:BO:68:LYS:O	38:BO:71:ALA:HB3	1.94	0.68
39:BP:24:THR:HG22	39:BP:87:ARG:H	1.57	0.68
48:BY:7:ARG:N	48:BY:60:LYS:HZ1	1.92	0.68
53:B3:56:LEU:HD22	53:B3:56:LEU:H	1.57	0.68
10:CK:74:LYS:HA	10:CK:78:ILE:HD11	1.74	0.68
12:CM:1:ALA:N	12:CM:2:ARG:HH11	1.91	0.68
55:CA:462:G:H3'	55:CA:463:U:C6	2.28	0.68
55:CA:994:A:C5	55:CA:1216:A:H4'	2.29	0.68
28:DE:48:THR:O	28:DE:52:VAL:HG23	1.94	0.68
28:DE:69:ARG:O	28:DE:70:SER:HB3	1.93	0.68
29:DF:73:VAL:H	29:DF:78:ILE:CD1	2.00	0.68
30:DG:164:ALA:O	30:DG:165:ASP:HB2	1.92	0.68
39:DP:50:ARG:HB3	39:DP:57:ALA:N	2.09	0.68
43:DT:18:GLU:HA	43:DT:22:THR:HG21	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:288:U:H2'	24:DA:289:G:H8	1.58	0.68
24:DA:335:C:H2'	24:DA:336:C:H6	1.58	0.68
24:DA:502:A:H5'	24:DA:503:A:OP2	1.94	0.68
24:DA:603:A:H4'	24:DA:604:G:O5'	1.94	0.68
21:AA:1064:G:N2	21:AA:1190:G:O2'	2.26	0.68
21:AA:1171:A:C2	21:AA:1172:C:C2	2.82	0.68
24:BA:702:U:H2'	24:BA:703:U:C6	2.27	0.68
24:BA:923:G:N3	46:BW:23:LYS:HE2	2.08	0.68
24:BA:1656:C:H2'	24:BA:1657:U:H6	1.56	0.68
27:BD:172:VAL:O	27:BD:173:GLN:HB2	1.93	0.68
32:BI:7:TYR:HB3	32:BI:58:ILE:H	1.58	0.68
34:BK:76:VAL:HB	39:BP:72:VAL:CG2	2.24	0.68
51:B1:42:VAL:O	51:B1:42:VAL:CG1	2.40	0.68
3:CD:55:ARG:HA	3:CD:55:ARG:HH11	1.58	0.68
55:CA:21:G:H2'	55:CA:22:G:C8	2.28	0.68
55:CA:1356:G:H2'	55:CA:1357:A:C8	2.29	0.68
28:DE:29:HIS:HA	28:DE:32:VAL:HG22	1.75	0.68
37:DN:93:GLY:HA3	24:DA:2881:U:O4'	1.93	0.68
40:DQ:111:LYS:HE3	41:DR:48:LYS:HD3	1.76	0.68
42:DS:86:MET:CE	42:DS:87:PRO:HD2	2.23	0.68
44:DU:83:GLY:O	44:DU:93:ARG:HA	1.93	0.68
24:DA:273:G:H2'	24:DA:274:C:C6	2.28	0.68
24:DA:800:A:OP1	24:DA:800:A:H8	1.76	0.68
12:AM:82:LEU:HD21	18:AS:64:GLU:OE1	1.92	0.68
21:AA:80:A:C2	21:AA:81:A:H1'	2.28	0.68
21:AA:105:G:H2'	21:AA:106:C:C6	2.29	0.68
21:AA:198:G:O2'	21:AA:199:A:H8	1.75	0.68
21:AA:1389:C:H2'	21:AA:1390:U:O4'	1.92	0.68
21:AA:1499:A:O2'	21:AA:1500:A:H5'	1.94	0.68
24:BA:371:A:H61	24:BA:401:A:H3'	1.59	0.68
24:BA:1085:A:H3'	24:BA:1086:A:H2	1.56	0.68
26:BC:43:ASN:HB3	26:BC:45:ASN:H	1.59	0.68
30:BG:7:PRO:O	30:BG:8:VAL:HB	1.92	0.68
31:BH:18:GLN:HE21	31:BH:18:GLN:HA	1.58	0.68
31:BH:82:SER:O	31:BH:83:LYS:HB2	1.93	0.68
33:BJ:88:THR:HG23	33:BJ:91:GLU:H	1.59	0.68
35:BL:29:LYS:HG2	35:BL:30:THR:CG2	2.23	0.68
43:BT:50:LEU:O	43:BT:51:PHE:HB2	1.93	0.68
52:B2:43:THR:O	52:B2:44:VAL:CB	2.39	0.68
7:CH:54:THR:HG23	7:CH:55:LYS:H	1.59	0.68
12:CM:12:LYS:HA	12:CM:12:LYS:HE3	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CT:26:MET:C	19:CT:26:MET:HE2	2.19	0.68
28:DE:108:ILE:HD13	28:DE:108:ILE:O	1.93	0.68
29:DF:47:LYS:HA	29:DF:50:ASP:HB3	1.75	0.68
45:DV:17:SER:OG	45:DV:27:PRO:HG3	1.93	0.68
24:DA:705:A:N6	24:DA:726:G:H1'	2.08	0.68
24:DA:1386:C:O2'	24:DA:1387:A:H8	1.76	0.68
24:DA:2716:C:O2'	24:DA:2717:C:H5'	1.94	0.68
2:AC:68:HIS:HA	2:AC:103:ALA:O	1.94	0.68
6:AG:12:LEU:H	6:AG:12:LEU:HD22	1.59	0.68
20:AU:44:ARG:HA	20:AU:47:ALA:HB3	1.75	0.68
21:AA:682:G:H2'	21:AA:683:G:H8	1.58	0.68
24:BA:856:G:H21	46:BW:19:ARG:NH2	1.92	0.68
24:BA:1303:G:H2'	24:BA:1304:A:H8	1.59	0.68
24:BA:1340:U:C5	24:BA:1603:A:C8	2.81	0.68
24:BA:2611:C:O2'	24:BA:2612:C:H5'	1.94	0.68
29:BF:37:MET:HE3	29:BF:151:LEU:HB3	1.76	0.68
45:BV:2:PHE:CD1	45:BV:50:MET:HE2	2.29	0.68
48:BY:9:LYS:HA	48:BY:9:LYS:HE3	1.76	0.68
55:CA:147:G:H2'	55:CA:148:G:H8	1.56	0.68
55:CA:724:G:H5"	55:CA:724:G:H8	1.59	0.68
55:CA:920:U:H2'	55:CA:921:U:C6	2.28	0.68
45:DV:79:ARG:HB3	45:DV:79:ARG:CZ	2.23	0.68
24:DA:589:U:O2'	24:DA:590:A:H8	1.76	0.68
24:DA:1906:G:H8	24:DA:1929:G:H2'	1.57	0.68
24:DA:1970:A:H5'	24:DA:1971:U:OP1	1.93	0.68
24:BA:825:A:C2	24:BA:826:U:C2	2.82	0.68
24:BA:2353:G:H1'	46:BW:30:VAL:HG12	1.76	0.68
24:BA:2793:C:H2'	24:BA:2794:C:C6	2.28	0.68
30:BG:33:THR:C	30:BG:34:ARG:HD3	2.19	0.68
31:BH:76:GLU:HG2	31:BH:106:ALA:HB2	1.74	0.68
39:BP:50:ARG:HB3	39:BP:57:ALA:N	2.08	0.68
41:BR:25:LEU:H	41:BR:94:THR:CG2	2.06	0.68
51:B1:12:SER:HB2	51:B1:48:TYR:CZ	2.27	0.68
15:CP:10:GLY:O	55:CA:624:C:H4'	1.93	0.68
55:CA:110:C:H2'	55:CA:111:G:C8	2.28	0.68
55:CA:1084:G:H2'	55:CA:1085:U:H5	1.59	0.68
55:CA:1507:A:C2	55:CA:1508:A:C5	2.82	0.68
35:DL:142:ILE:HG22	35:DL:144:GLU:H	1.58	0.68
43:DT:29:THR:HB	43:DT:87:LEU:N	2.08	0.68
45:DV:61:LEU:HD23	45:DV:61:LEU:H	1.59	0.68
48:DY:1:MET:HE2	48:DY:1:MET:H1	1.57	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:507:A:H5”	24:DA:509:C:O4’	1.94	0.68
24:DA:594:U:H2’	24:DA:595:C:C6	2.29	0.68
24:DA:1407:G:H2’	24:DA:1408:G:C8	2.28	0.68
24:DA:1590:A:H2’	24:DA:1591:A:C8	2.29	0.68
24:DA:2343:U:H2’	24:DA:2344:U:C6	2.29	0.68
21:AA:143:A:N3	21:AA:143:A:H2’	2.09	0.68
24:BA:1050:A:C2	24:BA:2751:G:C4	2.82	0.68
24:BA:1343:G:O2’	24:BA:1344:U:H5’	1.94	0.68
25:BB:79:G:C4	25:BB:80:U:C5	2.81	0.68
27:BD:151:THR:HG22	27:BD:152:PRO:HD3	1.76	0.68
30:BG:8:VAL:HG12	30:BG:49:LEU:H	1.57	0.68
30:BG:104:LEU:HB2	30:BG:112:VAL:HG22	1.75	0.68
35:BL:93:ASN:O	35:BL:95:LEU:N	2.25	0.68
39:BP:37:LYS:N	39:BP:37:LYS:HD3	2.09	0.68
40:BQ:38:VAL:O	40:BQ:41:ALA:HB3	1.94	0.68
2:CC:127:VAL:O	2:CC:128:MET:HB2	1.94	0.68
6:CG:19:SER:OG	6:CG:22:LEU:HB3	1.94	0.68
55:CA:1284:C:H2’	55:CA:1285:A:C8	2.28	0.68
28:DE:84:THR:HG21	24:DA:586:A:H5’	1.74	0.68
29:DF:76:PHE:HD2	29:DF:76:PHE:H	1.41	0.68
31:DH:59:ALA:HA	31:DH:63:ALA:HB3	1.74	0.68
38:DO:33:ARG:HB3	38:DO:34:HIS:ND1	2.07	0.68
47:DX:27:ARG:HD2	24:DA:1808:A:N6	2.08	0.68
52:D2:5:PHE:HZ	52:D2:12:ARG:HH11	1.39	0.68
24:DA:567:U:H4’	24:DA:808:G:OP1	1.94	0.68
24:DA:627:A:O2’	24:DA:628:G:O4’	2.12	0.68
24:DA:1364:G:H1’	24:DA:1368:G:N2	2.07	0.68
24:DA:1376:C:H5”	59:DA:3413:HOH:O	1.94	0.68
24:DA:2337:G:OP1	24:DA:2385:C:H5”	1.93	0.68
24:BA:195:A:N7	59:BA:3767:HOH:O	2.27	0.68
24:BA:528:A:H3’	24:BA:528:A:H8	1.57	0.68
32:BI:74:PRO:O	32:BI:77:VAL:HG22	1.94	0.68
34:BK:34:GLY:O	34:BK:35:VAL:C	2.35	0.68
44:BU:73:ASN:HD22	44:BU:76:THR:N	1.90	0.68
48:BY:7:ARG:H	48:BY:60:LYS:NZ	1.91	0.68
1:CB:103:TRP:HA	1:CB:106:VAL:HG23	1.76	0.68
3:CD:144:ILE:HG22	3:CD:148:ALA:HB3	1.76	0.68
11:CL:72:ASN:HD21	11:CL:104:SER:H	1.39	0.68
29:DF:49:LEU:HA	29:DF:52:ALA:HB3	1.74	0.68
31:DH:78:VAL:HB	31:DH:144:VAL:HA	1.76	0.68
33:DJ:17:VAL:HG23	33:DJ:137:PRO:HB2	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DV:44:HIS:CD2	45:DV:85:LYS:HB2	2.29	0.68
47:DX:63:ILE:HD12	47:DX:64:ASP:H	1.58	0.68
24:DA:262:A:H5'	24:DA:610:C:O2'	1.94	0.68
24:DA:664:G:H4'	24:DA:941:A:OP1	1.94	0.68
24:DA:1060:U:H4'	24:DA:1061:U:C5'	2.24	0.68
24:DA:1181:U:H2'	24:DA:1182:G:C8	2.28	0.68
24:DA:2053:G:C2'	24:DA:2054:A:H5'	2.24	0.68
24:DA:2250:G:OP1	24:DA:2275:C:H2'	1.94	0.68
56:DB:12:C:H5"	56:DB:15:A:H62	1.56	0.68
1:AB:40:ILE:HD13	1:AB:201:GLY:CA	2.21	0.68
6:AG:144:ALA:C	6:AG:146:ALA:H	2.01	0.68
16:AQ:49:ASN:HD21	16:AQ:51:GLU:HB3	1.59	0.68
21:AA:1091:U:H1'	21:AA:1095:U:O2	1.93	0.68
21:AA:1234:C:H1'	21:AA:1364:U:H6	1.59	0.68
24:BA:215:G:H4'	24:BA:216:A:H4'	1.74	0.68
24:BA:1156:A:C8	40:BQ:50:ARG:HG2	2.29	0.68
24:BA:1267:U:O2'	24:BA:1268:A:H5'	1.93	0.68
24:BA:2385:C:O2'	24:BA:2386:A:H5'	1.94	0.68
24:BA:2430:A:H5'	24:BA:2431:U:OP2	1.94	0.68
24:BA:2713:U:H3'	24:BA:2714:G:H5"	1.76	0.68
25:BB:52:A:N7	38:BO:64:TYR:OH	2.27	0.68
29:BF:35:LEU:HD13	29:BF:56:LEU:HD22	1.74	0.68
29:BF:68:LYS:HD2	29:BF:68:LYS:H	1.58	0.68
31:BH:62:LEU:HD12	31:BH:63:ALA:N	2.09	0.68
34:BK:19:VAL:HG22	34:BK:41:ILE:HG13	1.76	0.68
35:BL:78:ARG:HB3	35:BL:113:ALA:CB	2.24	0.68
37:BN:73:ASN:CA	37:BN:76:VAL:HG12	2.24	0.68
53:B3:31:ILE:O	53:B3:35:LYS:HE3	1.94	0.68
6:CG:22:LEU:HD23	6:CG:22:LEU:C	2.19	0.68
15:CP:1:MET:HB2	55:CA:135:C:O2	1.92	0.68
55:CA:1051:C:O2'	55:CA:1052:U:C6	2.46	0.68
55:CA:1287:A:H2'	55:CA:1288:A:C8	2.29	0.68
38:DO:4:LYS:O	38:DO:8:ILE:HD13	1.94	0.68
45:DV:17:SER:HA	45:DV:20:LEU:HG	1.75	0.68
24:DA:178:G:H8	24:DA:178:G:OP2	1.77	0.68
24:DA:718:A:H5'	24:DA:719:C:OP2	1.93	0.68
1:AB:51:GLU:O	1:AB:54:ALA:HB3	1.93	0.67
2:AC:137:VAL:HG22	2:AC:148:ILE:HD13	1.75	0.67
3:AD:53:GLN:HE21	3:AD:202:LEU:HA	1.57	0.67
11:AL:28:GLN:HB2	11:AL:81:ILE:O	1.94	0.67
21:AA:205:A:OP1	21:AA:205:A:H4'	1.92	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:973:A:H1'	24:BA:1188:U:C5	2.29	0.67
24:BA:1474:U:C2'	24:BA:1475:G:H5'	2.24	0.67
27:BD:169:ARG:C	27:BD:170:VAL:HG13	2.19	0.67
30:BG:33:THR:CA	30:BG:34:ARG:HH11	2.07	0.67
30:BG:33:THR:HA	30:BG:34:ARG:HH11	1.57	0.67
8:CI:32:ARG:HH21	8:CI:37:TYR:HB3	1.59	0.67
8:CI:34:LEU:HD11	8:CI:44:ARG:HE	1.58	0.67
20:CU:16:ARG:HG3	20:CU:19:LYS:HG2	1.76	0.67
55:CA:464:U:O4	55:CA:466:A:H4'	1.93	0.67
55:CA:548:G:H2'	55:CA:549:C:C6	2.29	0.67
38:DO:30:ARG:HE	56:DB:48:U:H5'	1.58	0.67
45:DV:2:PHE:CD1	45:DV:50:MET:HE3	2.28	0.67
49:DZ:30:ARG:NH2	49:DZ:33:HIS:HB2	2.09	0.67
53:D3:34:LYS:HE2	24:DA:2390:U:OP2	1.94	0.67
24:DA:639:U:H2'	24:DA:640:C:C6	2.28	0.67
24:DA:671:C:O2'	24:DA:672:C:C5'	2.42	0.67
24:DA:1274:A:O2'	24:DA:1275:A:H5"	1.94	0.67
24:DA:1345:C:HO2'	24:DA:1346:G:H8	1.40	0.67
24:DA:2308:G:O6	24:DA:2311:A:C5	2.46	0.67
1:AB:22:TRP:HA	1:AB:189:ASN:CA	2.24	0.67
10:AK:125:LYS:O	10:AK:126:ARG:HB2	1.93	0.67
21:AA:254:G:O2'	21:AA:255:G:H5'	1.93	0.67
21:AA:1081:A:C2	21:AA:1082:A:N9	2.62	0.67
24:BA:720:U:H2'	24:BA:721:A:C8	2.30	0.67
24:BA:2498:C:O2'	24:BA:2499:C:H5'	1.94	0.67
30:BG:168:VAL:O	30:BG:170:THR:HG23	1.94	0.67
33:BJ:44:TYR:O	33:BJ:45:THR:CB	2.42	0.67
8:CI:44:ARG:HH21	8:CI:48:ARG:NH1	1.92	0.67
8:CI:46:VAL:HG21	8:CI:75:ALA:HB1	1.76	0.67
10:CK:81:LEU:HD21	10:CK:104:PHE:HB3	1.76	0.67
55:CA:1499:A:O2'	55:CA:1500:A:H5'	1.95	0.67
29:DF:65:LEU:HD23	29:DF:65:LEU:H	1.60	0.67
45:DV:57:TYR:HD2	45:DV:74:ALA:CB	2.07	0.67
24:DA:136:G:H2'	24:DA:137:U:C6	2.30	0.67
24:DA:2314:A:H2'	24:DA:2315:G:C8	2.29	0.67
24:DA:2758:A:H2'	24:DA:2759:G:H5'	1.75	0.67
8:AI:46:VAL:HA	8:AI:49:GLN:HE21	1.59	0.67
19:AT:66:ILE:HG13	19:AT:70:LYS:HG2	1.75	0.67
21:AA:183:C:O2'	21:AA:184:G:H5'	1.94	0.67
21:AA:194:C:O2'	21:AA:195:A:H5'	1.94	0.67
24:BA:742:A:H2'	24:BA:743:A:H8	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:974:G:C4	24:BA:1186:G:C2	2.82	0.67
24:BA:2417:C:C2	24:BA:2418:A:C8	2.82	0.67
32:BI:126:ARG:HA	32:BI:129:GLU:HB2	1.77	0.67
43:BT:14:PRO:HD3	48:BY:30:MET:HE1	1.76	0.67
7:CH:9:MET:HA	7:CH:26:MET:HE1	1.75	0.67
7:CH:97:GLY:O	7:CH:99:GLY:N	2.28	0.67
55:CA:9:G:H2'	55:CA:10:A:C8	2.29	0.67
55:CA:95:C:O2'	55:CA:96:U:H5'	1.95	0.67
26:DC:128:THR:CG2	26:DC:188:ARG:HB3	2.23	0.67
41:DR:81:LYS:O	41:DR:82:HIS:C	2.38	0.67
45:DV:55:GLU:O	45:DV:57:TYR:N	2.28	0.67
46:DW:19:ARG:CZ	24:DA:857:G:O2'	2.42	0.67
49:DZ:32:GLY:C	49:DZ:34:THR:H	2.02	0.67
54:D4:7:VAL:HG13	54:D4:8:LYS:N	2.09	0.67
24:DA:77:G:H2'	24:DA:78:U:O4'	1.95	0.67
1:AB:60:ALA:C	1:AB:223:GLY:HA3	2.20	0.67
12:AM:28:ARG:O	12:AM:32:ILE:HG12	1.94	0.67
21:AA:78:A:N6	21:AA:79:G:C6	2.62	0.67
24:BA:373:U:HO2'	24:BA:374:A:H8	1.40	0.67
24:BA:580:U:H2'	24:BA:581:C:H6	1.58	0.67
24:BA:1343:G:H2'	24:BA:1344:U:C6	2.28	0.67
24:BA:1885:A:C2	24:BA:1886:U:H1'	2.29	0.67
30:BG:86:LEU:HD11	30:BG:132:LEU:HD21	1.77	0.67
39:BP:56:SER:O	39:BP:75:THR:HG23	1.94	0.67
46:BW:67:LYS:O	46:BW:68:PHE:HB2	1.93	0.67
5:CF:38:ARG:HH11	5:CF:63:ASN:ND2	1.92	0.67
55:CA:202:G:O2'	55:CA:468:A:C8	2.47	0.67
55:CA:1152:A:H2'	55:CA:1153:G:H8	1.59	0.67
33:DJ:44:TYR:HD1	40:DQ:63:ARG:NH2	1.92	0.67
35:DL:62:PRO:HG2	53:D3:24:LYS:HB3	1.77	0.67
37:DN:98:LEU:O	37:DN:112:TYR:HB2	1.94	0.67
39:DP:52:ARG:NH2	24:DA:2720:U:H5"	2.08	0.67
51:D1:5:ARG:HD2	51:D1:25:ASN:HB2	1.76	0.67
24:DA:351:C:H2'	24:DA:352:A:H8	1.60	0.67
24:DA:573:U:H4'	24:DA:574:A:OP1	1.92	0.67
24:DA:639:U:H2'	24:DA:640:C:H6	1.58	0.67
24:DA:866:A:HO2'	24:DA:867:C:H6	1.42	0.67
24:DA:1335:C:H2'	24:DA:1336:A:C8	2.29	0.67
24:DA:1716:U:HO2'	24:DA:1717:A:H8	0.75	0.67
56:DB:50:A:C6	56:DB:51:G:N7	2.62	0.67
15:AP:21:VAL:HG12	15:AP:33:ILE:HD12	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AS:46:LEU:H	18:AS:61:VAL:HG23	1.59	0.67
21:AA:512:U:H2'	21:AA:513:C:H6	1.60	0.67
21:AA:1005:A:H2'	21:AA:1006:G:O4'	1.94	0.67
21:AA:1234:C:H1'	21:AA:1364:U:C6	2.30	0.67
24:BA:86:G:O2'	24:BA:87:U:H5'	1.94	0.67
24:BA:826:U:O2'	35:BL:53:GLY:HA3	1.94	0.67
24:BA:849:A:H2'	24:BA:850:U:C6	2.29	0.67
24:BA:1328:A:H2'	24:BA:1330:C:C4	2.29	0.67
27:BD:97:SER:OG	27:BD:98:VAL:N	2.28	0.67
30:BG:115:GLN:CD	30:BG:115:GLN:N	2.53	0.67
24:DA:2271:G:O2'	24:DA:2272:U:H5'	1.95	0.67
1:AB:130:LYS:HA	1:AB:130:LYS:HZ2	1.59	0.67
7:AH:28:SER:HB3	7:AH:56:PRO:HB2	1.76	0.67
11:AL:43:LYS:HB2	11:AL:44:PRO:CD	2.24	0.67
13:AN:40:ARG:HG2	13:AN:41:TRP:H	1.59	0.67
21:AA:575:G:C6	21:AA:821:G:N7	2.62	0.67
21:AA:1101:A:H4'	21:AA:1102:A:O5'	1.95	0.67
24:BA:288:U:H2'	24:BA:289:G:H8	1.58	0.67
24:BA:831:G:H2'	24:BA:832:U:H6	1.59	0.67
24:BA:2076:U:H5"	24:BA:2238:G:H22	1.59	0.67
33:BJ:130:HIS:HD2	33:BJ:132:HIS:H	1.43	0.67
34:BK:116:ILE:HD12	34:BK:117:SER:N	2.09	0.67
1:CB:212:TYR:O	1:CB:216:VAL:HG23	1.95	0.67
2:CC:84:GLU:C	2:CC:86:LEU:H	2.03	0.67
4:CE:25:LYS:HB2	4:CE:25:LYS:NZ	2.10	0.67
6:CG:101:ARG:HH12	55:CA:1375:A:H4'	1.57	0.67
17:CR:54:LEU:O	17:CR:58:ILE:HG13	1.94	0.67
29:DF:56:LEU:HD13	29:DF:56:LEU:O	1.95	0.67
38:DO:8:ILE:H	38:DO:8:ILE:HD12	1.59	0.67
38:DO:30:ARG:CZ	38:DO:30:ARG:CB	2.73	0.67
46:DW:18:LYS:HD3	46:DW:19:ARG:HG2	1.76	0.67
24:DA:740:C:O2'	24:DA:741:U:H6	1.76	0.67
21:AA:71:A:HO2'	21:AA:72:A:H8	1.43	0.67
21:AA:867:G:H2'	21:AA:868:C:C6	2.30	0.67
24:BA:404:A:H1'	24:BA:406:G:C5	2.30	0.67
24:BA:854:C:O2	24:BA:924:G:C2	2.47	0.67
24:BA:1832:C:N4	24:BA:1833:C:C4	2.63	0.67
43:BT:28:ASN:OD1	43:BT:29:THR:HG22	1.95	0.67
6:CG:108:ARG:CZ	55:CA:1240:U:C6	2.77	0.67
6:CG:119:LEU:HD23	6:CG:120:ALA:N	2.09	0.67
8:CI:96:GLU:HA	8:CI:99:LYS:HE2	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CJ:9:ARG:HH22	55:CA:1279:G:H5”	1.58	0.67
24:DA:1001:A:H2’	24:DA:1002:G:O4’	1.95	0.67
12:AM:69:ARG:HH22	21:AA:1330:U:H4’	1.60	0.67
18:AS:43:MET:O	18:AS:61:VAL:HG21	1.94	0.67
21:AA:86:G:C2	21:AA:87:C:N4	2.62	0.67
21:AA:131:A:H2’	21:AA:132:C:C6	2.29	0.67
21:AA:1050:G:O2’	21:AA:1051:C:C6	2.46	0.67
24:BA:1023:U:H6	24:BA:1023:U:C5’	2.05	0.67
24:BA:1287:A:O2’	24:BA:1288:G:H5’	1.94	0.67
24:BA:2156:G:H2’	24:BA:2157:G:H21	1.59	0.67
24:BA:2503:A:H4’	24:BA:2504:U:OP1	1.95	0.67
38:BO:31:THR:HG22	38:BO:34:HIS:N	2.07	0.67
40:BQ:48:ASP:HA	40:BQ:51:GLN:HB2	1.77	0.67
51:B1:8:ILE:HG22	51:B1:9:LYS:N	2.09	0.67
6:CG:26:VAL:HG23	6:CG:27:ASN:OD1	1.94	0.67
6:CG:135:LYS:O	6:CG:139:ASP:HB2	1.95	0.67
6:CG:148:LYS:HD2	10:CK:60:PHE:CD2	2.30	0.67
18:CS:20:LYS:NZ	18:CS:27:LYS:HD3	2.10	0.67
30:DG:85:LYS:HG3	30:DG:163:TYR:HB2	1.76	0.67
24:DA:506:G:H4’	24:DA:507:A:H5’	1.75	0.67
24:DA:1565:C:HO2’	24:DA:1566:A:H8	1.43	0.67
24:DA:2311:A:O2’	24:DA:2312:U:P	2.53	0.67
2:AC:34:SER:HA	2:AC:37:LYS:NZ	2.10	0.67
3:AD:8:LEU:HB2	21:AA:430:A:OP1	1.95	0.67
3:AD:57:LYS:HZ2	3:AD:61:ARG:HD3	1.59	0.67
6:AG:129:ASN:HA	6:AG:134:VAL:HG11	1.76	0.67
9:AJ:59:LYS:HG2	21:AA:972:C:H4’	1.76	0.67
10:AK:28:ASN:OD1	10:AK:46:ALA:HB3	1.94	0.67
11:AL:3:VAL:O	11:AL:7:VAL:HG23	1.95	0.67
13:AN:1:ALA:HB2	13:AN:67:GLY:HA3	1.76	0.67
21:AA:1129:C:H2’	21:AA:1139:G:N7	2.10	0.67
24:BA:5:A:H2’	24:BA:6:A:H8	1.60	0.67
24:BA:923:G:H1’	46:BW:23:LYS:HE2	1.77	0.67
24:BA:1057:A:C8	24:BA:1086:A:C8	2.83	0.67
24:BA:1098:A:H3’	24:BA:1099:G:C8	2.29	0.67
24:BA:2185:U:H2’	24:BA:2186:G:H8	1.58	0.67
4:CE:17:VAL:HG23	4:CE:33:THR:O	1.93	0.67
11:CL:49:ARG:HH22	55:CA:522:C:H41	1.39	0.67
11:CL:85:ARG:HG2	11:CL:86:VAL:H	1.59	0.67
24:DA:247:G:C2	24:DA:252:G:O6	2.48	0.67
24:DA:849:A:H2’	24:DA:850:U:H6	1.60	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AL:51:VAL:O	11:AL:66:ILE:HD11	1.95	0.67
16:AQ:76:ARG:HG2	16:AQ:77:VAL:N	2.10	0.67
24:BA:528:A:C2	24:BA:2042:A:H2'	2.29	0.67
24:BA:794:A:H2'	24:BA:795:C:C6	2.30	0.67
24:BA:1569:A:H2'	24:BA:1570:A:C8	2.30	0.67
35:BL:4:ASN:H	35:BL:4:ASN:HD22	1.43	0.67
42:BS:74:ILE:HD12	42:BS:104:THR:O	1.94	0.67
43:BT:50:LEU:HD12	43:BT:50:LEU:N	2.08	0.67
6:CG:108:ARG:HG3	6:CG:115:MET:SD	2.35	0.67
55:CA:14:U:H2'	55:CA:16:A:OP2	1.95	0.67
55:CA:820:U:H4'	55:CA:821:G:OP2	1.95	0.67
26:DC:166:ARG:HB2	26:DC:171:VAL:HG22	1.77	0.67
30:DG:18:ILE:HD12	30:DG:42:VAL:HG13	1.75	0.67
31:DH:48:GLU:O	31:DH:48:GLU:OE1	2.12	0.67
40:DQ:12:ARG:HD2	40:DQ:12:ARG:H	1.60	0.67
24:DA:27:G:C6	24:DA:512:G:C6	2.83	0.67
24:DA:241:A:H1'	24:DA:243:U:C4	2.30	0.67
24:DA:1197:G:H2'	24:DA:1198:U:H6	1.60	0.67
24:DA:2517:C:C2	24:DA:2542:A:N6	2.63	0.67
8:AI:39:GLY:O	8:AI:40:ARG:HB2	1.94	0.66
15:AP:20:VAL:HG23	15:AP:34:GLU:O	1.95	0.66
15:AP:22:ALA:HA	15:AP:33:ILE:HG13	1.76	0.66
21:AA:537:G:H2'	21:AA:538:G:H8	1.60	0.66
21:AA:736:C:H2'	21:AA:737:C:C6	2.30	0.66
21:AA:1239:A:H4'	21:AA:1240:U:O5'	1.94	0.66
24:BA:335:C:H5"	44:BU:81:ARG:HD3	1.76	0.66
24:BA:1514:G:H5"	24:BA:1515:A:OP1	1.95	0.66
24:BA:1757:A:C3'	24:BA:1758:U:H5'	2.22	0.66
24:BA:1817:G:O2'	24:BA:1818:U:H5'	1.95	0.66
29:BF:134:GLN:H	29:BF:134:GLN:NE2	1.94	0.66
47:BX:65:THR:O	47:BX:68:ALA:HB3	1.95	0.66
48:BY:9:LYS:HB3	48:BY:12:GLU:CB	2.24	0.66
3:CD:10:LEU:HD23	3:CD:62:ARG:HD3	1.75	0.66
17:CR:29:LYS:HE3	17:CR:29:LYS:C	2.20	0.66
18:CS:45:GLY:H	18:CS:61:VAL:HB	1.60	0.66
55:CA:262:A:C6	55:CA:263:A:C6	2.83	0.66
55:CA:982:U:H4'	55:CA:983:A:O5'	1.94	0.66
55:CA:994:A:O2'	55:CA:995:C:C5'	2.43	0.66
55:CA:1299:A:HO2'	55:CA:1301:U:H6	1.43	0.66
35:DL:47:ARG:HH21	35:DL:47:ARG:CG	1.97	0.66
24:DA:9:G:H1	24:DA:2629:U:H2'	1.59	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:77:G:N2	24:DA:110:G:H1'	2.10	0.66
24:DA:1000:A:C6	24:DA:1001:A:C6	2.83	0.66
24:DA:1810:A:H8	24:DA:1810:A:H5"	1.60	0.66
3:AD:2:ARG:HB3	3:AD:4:LEU:HD13	1.78	0.66
4:AE:53:ARG:HH21	21:AA:1071:C:H5"	1.59	0.66
7:AH:29:SER:O	7:AH:33:VAL:HG23	1.96	0.66
10:AK:19:VAL:HG22	10:AK:82:GLU:HG2	1.76	0.66
24:BA:749:A:C6	24:BA:1618:A:C2	2.84	0.66
24:BA:769:U:C2	24:BA:770:G:C8	2.83	0.66
24:BA:2404:U:H1'	24:BA:2414:G:N2	2.09	0.66
27:BD:89:GLU:HG3	27:BD:94:GLN:OE1	1.96	0.66
46:BW:28:GLU:HB3	46:BW:31:LEU:CD2	2.22	0.66
2:CC:136:ALA:HA	2:CC:139:ASN:HD21	1.60	0.66
4:CE:76:ASN:O	4:CE:79:THR:HG22	1.93	0.66
19:CT:2:ASN:N	19:CT:7:LYS:HZ3	1.93	0.66
55:CA:243:A:H2	55:CA:245:U:HO2'	1.42	0.66
30:DG:72:ASN:O	30:DG:76:ILE:HG12	1.95	0.66
24:DA:539:G:C5	24:DA:540:C:C5	2.82	0.66
24:DA:1028:A:N6	24:DA:1125:G:H2'	2.11	0.66
24:DA:1345:C:O2'	24:DA:1346:G:H8	1.79	0.66
24:DA:1700:A:H2'	24:DA:1701:A:O4'	1.94	0.66
24:DA:2849:U:O4	24:DA:2867:G:C8	2.48	0.66
24:BA:49:A:H5"	24:BA:51:G:C5'	2.25	0.66
24:BA:528:A:C3'	24:BA:528:A:C8	2.78	0.66
24:BA:2135:A:H2'	24:BA:2136:G:C8	2.30	0.66
36:BM:50:ARG:HA	36:BM:53:MET:HE3	1.77	0.66
43:BT:39:THR:HG22	43:BT:39:THR:O	1.94	0.66
27:DD:112:THR:HG22	27:DD:113:SER:N	2.11	0.66
30:DG:8:VAL:HB	30:DG:49:LEU:HB3	1.77	0.66
42:DS:24:ILE:HG21	42:DS:36:LEU:HD21	1.78	0.66
44:DU:44:HIS:HB3	24:DA:483:A:O4'	1.94	0.66
24:DA:2805:C:H2'	24:DA:2806:C:O4'	1.96	0.66
5:AF:88:MET:HG2	5:AF:90:MET:HE2	1.78	0.66
6:AG:147:ASN:H	6:AG:147:ASN:HD22	1.43	0.66
9:AJ:66:GLU:O	13:AN:95:LEU:HD12	1.93	0.66
11:AL:36:VAL:HG21	11:AL:74:GLN:HA	1.77	0.66
13:AN:46:LYS:HD2	18:AS:12:LEU:HD21	1.78	0.66
21:AA:558:G:OP1	59:AA:1842:HOH:O	2.13	0.66
24:BA:126:A:H5"	24:BA:126:A:H8	1.58	0.66
24:BA:616:A:H2'	24:BA:617:G:C8	2.30	0.66
24:BA:638:G:H2'	24:BA:639:U:C6	2.30	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BB:91:C:H2'	25:BB:92:C:C6	2.29	0.66
26:BC:104:LEU:O	26:BC:105:ALA:CB	2.43	0.66
33:BJ:13:ARG:O	33:BJ:14:ASP:HB2	1.94	0.66
33:BJ:84:ILE:O	33:BJ:84:ILE:HG23	1.95	0.66
48:BY:39:GLN:HB2	48:BY:41:HIS:CD2	2.30	0.66
7:CH:5:PRO:O	7:CH:8:ASP:HB3	1.95	0.66
55:CA:151:A:H2'	55:CA:152:A:O4'	1.95	0.66
55:CA:769:G:H4'	55:CA:1513:A:H4'	1.76	0.66
55:CA:1347:G:N2	55:CA:1373:G:H2'	2.11	0.66
26:DC:103:ILE:HD12	26:DC:104:LEU:H	1.59	0.66
47:DX:30:PRO:HG2	47:DX:32:LEU:CD2	2.26	0.66
47:DX:30:PRO:HA	24:DA:397:U:OP1	1.94	0.66
48:DY:20:ASN:ND2	48:DY:50:VAL:HG22	2.06	0.66
24:DA:70:G:O2'	24:DA:71:A:H5"	1.94	0.66
24:DA:245:G:H22	24:DA:254:G:H1'	1.61	0.66
24:DA:2755:C:HO2'	24:DA:2756:U:H6	1.42	0.66
1:AB:23:ASN:H	1:AB:189:ASN:HA	1.59	0.66
2:AC:52:SER:HB2	2:AC:111:ASP:OD2	1.96	0.66
11:AL:81:ILE:HD11	11:AL:94:TYR:HB2	1.77	0.66
18:AS:5:LYS:HD2	21:AA:1314:C:OP2	1.96	0.66
21:AA:1215:G:C2	21:AA:1216:A:C8	2.83	0.66
21:AA:1486:G:H2'	21:AA:1487:G:O4'	1.96	0.66
24:BA:243:U:OP1	53:B3:5:THR:HG21	1.94	0.66
24:BA:531:C:H5"	24:BA:532:A:C4	2.31	0.66
24:BA:962:G:H2'	24:BA:963:U:C6	2.31	0.66
24:BA:1179:G:H3'	24:BA:1180:U:C4'	2.18	0.66
24:BA:1438:U:O2'	24:BA:1439:A:H5'	1.96	0.66
24:BA:2804:U:C2	24:BA:2805:C:C5	2.84	0.66
28:BE:72:SER:C	28:BE:74:LYS:N	2.53	0.66
43:BT:39:THR:CB	43:BT:42:GLU:HB2	2.22	0.66
2:CC:39:ARG:HG2	2:CC:54:ILE:HD13	1.76	0.66
4:CE:22:LYS:HD2	55:CA:1081:A:H5'	1.77	0.66
8:CI:114:LYS:HD2	8:CI:120:ALA:O	1.96	0.66
55:CA:547:A:H4'	55:CA:548:G:O5'	1.94	0.66
55:CA:1129:C:O2'	55:CA:1130:A:C8	2.47	0.66
55:CA:1533:C:H2'	55:CA:1534:A:H5"	1.78	0.66
46:DW:28:GLU:H	46:DW:31:LEU:CD2	2.02	0.66
24:DA:833:A:H2'	24:DA:834:G:H8	1.57	0.66
24:DA:861:A:H2'	24:DA:862:G:C8	2.30	0.66
24:DA:2741:A:H2'	24:DA:2742:G:O4'	1.96	0.66
1:AB:182:VAL:HG12	1:AB:183:PHE:H	1.59	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AL:20:VAL:HG12	11:AL:94:TYR:CE1	2.31	0.66
12:AM:40:GLU:HG3	12:AM:41:ASP:H	1.59	0.66
21:AA:370:C:O2'	21:AA:371:A:H5'	1.96	0.66
21:AA:760:G:H2'	21:AA:761:G:H5'	1.76	0.66
21:AA:872:A:C5	21:AA:874:G:C8	2.83	0.66
21:AA:946:A:H2'	21:AA:947:G:C8	2.30	0.66
21:AA:1468:A:H8	21:AA:1468:A:O5'	1.78	0.66
24:BA:924:G:H4'	46:BW:24:ARG:HH21	1.59	0.66
25:BB:116:G:H4'	38:BO:54:VAL:HG22	1.77	0.66
54:B4:9:LYS:HD3	54:B4:9:LYS:N	2.11	0.66
1:CB:55:GLU:O	1:CB:58:LYS:HB3	1.95	0.66
2:CC:56:ILE:HG12	2:CC:65:VAL:HG13	1.78	0.66
9:CJ:47:GLU:HB2	9:CJ:67:ILE:CG1	2.24	0.66
11:CL:19:ASN:H	11:CL:19:ASN:HD22	1.41	0.66
15:CP:68:SER:HB3	15:CP:71:VAL:HG12	1.76	0.66
55:CA:383:A:H2'	55:CA:384:G:O4'	1.95	0.66
55:CA:428:G:H1'	55:CA:430:A:N7	2.10	0.66
55:CA:1135:U:H2'	55:CA:1137:C:O2	1.95	0.66
27:DD:29:VAL:HB	27:DD:98:VAL:CG1	2.25	0.66
28:DE:149:ILE:O	28:DE:188:MET:HA	1.95	0.66
34:DK:16:ALA:HB2	34:DK:47:ILE:HG13	1.77	0.66
36:DM:42:THR:HB	36:DM:45:GLN:HG3	1.76	0.66
39:DP:56:SER:HB2	39:DP:75:THR:HG21	1.77	0.66
43:DT:6:ARG:O	43:DT:9:LYS:HD2	1.95	0.66
43:DT:39:THR:HG21	43:DT:42:GLU:CB	2.24	0.66
24:DA:244:A:H2'	24:DA:245:G:O4'	1.95	0.66
24:DA:649:G:H2'	24:DA:650:C:H6	1.59	0.66
24:DA:740:C:C5'	24:DA:1784:A:H3'	2.22	0.66
24:DA:1042:G:H2'	24:DA:1043:C:H6	1.60	0.66
24:DA:1314:C:P	24:DA:1332:G:H5"	2.36	0.66
2:AC:39:ARG:HG2	2:AC:54:ILE:HD11	1.77	0.66
10:AK:88:PRO:HD3	20:AU:28:LEU:HD13	1.76	0.66
21:AA:1323:G:O2'	21:AA:1324:A:C8	2.48	0.66
21:AA:1463:U:H5"	39:BP:108:ARG:HH11	1.60	0.66
24:BA:1062:G:C8	24:BA:1088:A:C8	2.84	0.66
40:BQ:4:LYS:HG3	40:BQ:5:ARG:N	2.06	0.66
8:CI:27:ILE:HD13	8:CI:62:LEU:HB3	1.76	0.66
55:CA:502:A:H2'	55:CA:503:C:O4'	1.96	0.66
24:DA:1312:U:HO2'	24:DA:1314:C:N4	1.92	0.66
24:DA:1496:A:H4'	24:DA:1497:U:C5	2.31	0.66
24:DA:1744:A:H3'	24:DA:1745:A:C8	2.30	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1830:C:H2'	24:DA:1831:G:H8	1.60	0.66
1:AB:139:GLU:O	1:AB:139:GLU:HG2	1.92	0.66
4:AE:49:TYR:HE1	21:AA:1079:G:H5"	1.60	0.66
4:AE:113:VAL:HG11	4:AE:136:VAL:CG2	2.26	0.66
10:AK:88:PRO:HD3	20:AU:28:LEU:CD1	2.25	0.66
17:AR:24:ASP:HB3	17:AR:27:THR:OG1	1.96	0.66
21:AA:366:A:O2'	21:AA:394:G:N2	2.29	0.66
21:AA:1067:A:H1'	21:AA:1068:G:C8	2.31	0.66
21:AA:1394:A:H62	21:AA:1501:C:H4'	1.58	0.66
24:BA:143:C:H2'	24:BA:144:A:H8	1.61	0.66
24:BA:249:C:O2'	24:BA:250:G:OP2	2.13	0.66
24:BA:849:A:H2'	24:BA:850:U:H6	1.60	0.66
24:BA:1599:U:H2'	24:BA:1600:C:C6	2.30	0.66
24:BA:1866:A:C2	24:BA:1867:G:H1'	2.30	0.66
24:BA:2377:A:H2'	24:BA:2378:A:C8	2.31	0.66
25:BB:57:A:H2'	25:BB:58:A:C8	2.31	0.66
26:BC:109:LEU:CD2	26:BC:110:LYS:H	2.08	0.66
28:BE:169:VAL:O	28:BE:170:ARG:HD2	1.95	0.66
32:BI:76:ALA:HB2	32:BI:131:THR:HG23	1.77	0.66
33:BJ:56:VAL:HG12	33:BJ:57:LEU:N	2.11	0.66
36:BM:40:ARG:HD3	36:BM:93:VAL:HG21	1.77	0.66
40:BQ:68:ALA:O	40:BQ:70:GLN:N	2.29	0.66
43:BT:29:THR:HA	43:BT:86:THR:HA	1.78	0.66
46:BW:29:SER:CA	46:BW:63:ASP:HB3	2.24	0.66
1:CB:95:TRP:CH2	1:CB:171:ALA:HA	2.30	0.66
9:CJ:8:ILE:HG22	9:CJ:100:ILE:HG12	1.77	0.66
27:DD:34:VAL:HG12	27:DD:48:ILE:HD11	1.78	0.66
37:DN:73:ASN:HA	37:DN:76:VAL:HG22	1.77	0.66
44:DU:16:LYS:HD3	44:DU:17:ASP:N	2.11	0.66
44:DU:84:PHE:CB	24:DA:297:G:H5"	2.26	0.66
4:AE:31:SER:HB3	4:AE:52:ALA:O	1.96	0.66
11:AL:27:PRO:O	11:AL:28:GLN:HB3	1.95	0.66
20:AU:44:ARG:HD2	20:AU:44:ARG:H	1.61	0.66
21:AA:98:A:H2'	21:AA:99:C:H6	1.61	0.66
24:BA:628:G:O2'	24:BA:629:G:H5'	1.96	0.66
24:BA:1570:A:C6	24:BA:1571:A:C6	2.84	0.66
26:BC:131:MET:HA	26:BC:134:ILE:HD12	1.77	0.66
45:BV:80:HIS:CD2	45:BV:82:TYR:H	2.14	0.66
51:B1:24:LYS:HE2	51:B1:52:LYS:HB2	1.78	0.66
55:CA:428:G:H1'	55:CA:430:A:C8	2.30	0.66
55:CA:895:G:C5	55:CA:896:C:C5	2.83	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DH:57:LYS:O	31:DH:57:LYS:HD2	1.96	0.66
38:DO:64:TYR:CD1	56:DB:52:A:OP2	2.48	0.66
46:DW:40:ARG:NH2	24:DA:2336:A:N7	2.44	0.66
24:DA:191:A:H2'	24:DA:192:C:H6	1.61	0.66
24:DA:456:C:H6	24:DA:456:C:H5"	1.61	0.66
24:DA:1181:U:H2'	24:DA:1182:G:H8	1.60	0.66
24:DA:1268:A:H2'	24:DA:1269:A:C8	2.31	0.66
24:DA:1524:G:H2'	24:DA:1525:A:H8	1.61	0.66
24:DA:2038:G:H2'	24:DA:2039:U:O4'	1.95	0.66
24:DA:2868:A:H2'	24:DA:2869:G:H8	1.61	0.66
7:AH:17:GLN:NE2	7:AH:71:VAL:HG23	2.11	0.66
13:AN:42:ASN:HD21	13:AN:46:LYS:CE	2.09	0.66
19:AT:25:SER:HB3	21:AA:1458:G:H5"	1.77	0.66
24:BA:191:A:H2'	24:BA:192:C:C6	2.31	0.66
24:BA:1252:G:H21	40:BQ:32:ARG:HG2	1.60	0.66
24:BA:1335:C:H2'	24:BA:1336:A:C8	2.29	0.66
24:BA:1964:G:H4'	24:BA:1965:C:OP2	1.95	0.66
28:BE:189:THR:OG1	28:BE:191:ASP:HB3	1.95	0.66
31:BH:97:ARG:NH1	31:BH:97:ARG:N	2.44	0.66
43:BT:15:HIS:O	43:BT:17:SER:N	2.29	0.66
43:BT:50:LEU:H	43:BT:50:LEU:CD1	2.06	0.66
45:BV:44:HIS:CE1	45:BV:86:LEU:H	2.09	0.66
12:CM:18:LEU:H	12:CM:18:LEU:HD12	1.61	0.66
55:CA:499:A:O2'	55:CA:500:G:C8	2.49	0.66
55:CA:563:A:H2'	55:CA:563:A:N3	2.09	0.66
27:DD:124:ARG:HD3	27:DD:125:TRP:CD1	2.31	0.66
30:DG:104:LEU:H	30:DG:112:VAL:HG23	1.61	0.66
30:DG:162:ARG:HB2	30:DG:166:GLU:HB3	1.78	0.66
40:DQ:57:ARG:C	40:DQ:59:LEU:H	2.03	0.66
43:DT:1:MET:HG2	43:DT:4:GLU:HA	1.77	0.66
24:DA:579:G:C8	24:DA:2017:U:O4	2.49	0.66
24:DA:959:A:H2'	24:DA:960:A:C8	2.31	0.66
24:DA:1340:U:H4'	24:DA:1340:U:OP1	1.95	0.66
24:DA:1681:G:O2'	24:DA:1762:A:C2'	2.44	0.66
24:DA:2026:U:H2'	24:DA:2027:G:O4'	1.96	0.66
24:DA:2611:C:O2'	24:DA:2612:C:H5'	1.96	0.66
3:AD:130:ASN:HB3	21:AA:619:U:H3	1.61	0.65
11:AL:51:VAL:O	11:AL:52:CYS:HB3	1.95	0.65
21:AA:1094:G:O2'	21:AA:1095:U:OP2	2.14	0.65
21:AA:1125:U:HO2'	21:AA:1126:U:P	2.19	0.65
21:AA:1343:G:H2'	21:AA:1344:C:C6	2.31	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:90:U:C2	24:BA:91:A:N7	2.64	0.65
29:BF:151:LEU:C	29:BF:151:LEU:HD12	2.21	0.65
30:BG:32:LEU:O	30:BG:33:THR:HG23	1.96	0.65
39:BP:67:GLU:OE1	39:BP:67:GLU:HA	1.95	0.65
40:BQ:63:ARG:HH12	40:BQ:96:ASP:HA	1.57	0.65
43:BT:39:THR:HB	43:BT:42:GLU:H	1.61	0.65
12:CM:2:ARG:HA	12:CM:7:ASN:O	1.95	0.65
13:CN:72:PHE:HE2	13:CN:77:GLY:HA2	1.61	0.65
55:CA:181:A:O2'	55:CA:182:A:H2	1.76	0.65
55:CA:373:A:H2'	55:CA:374:A:C8	2.30	0.65
55:CA:687:A:C2	55:CA:704:A:C5	2.84	0.65
37:DN:96:ARG:HD3	24:DA:2882:A:H5"	1.78	0.65
24:DA:749:A:C2	24:DA:750:A:C8	2.84	0.65
24:DA:979:A:H2'	24:DA:982:C:N4	2.11	0.65
3:AD:109:THR:CG2	3:AD:112:GLU:H	2.05	0.65
21:AA:182:A:N6	21:AA:194:C:H42	1.94	0.65
21:AA:373:A:N3	21:AA:374:A:C8	2.64	0.65
21:AA:1261:A:C2	21:AA:1275:A:C6	2.83	0.65
24:BA:949:G:N2	24:BA:969:G:C4	2.65	0.65
24:BA:1567:G:H2'	26:BC:84:PRO:HG3	1.77	0.65
24:BA:1956:U:O2'	24:BA:1957:C:C5'	2.43	0.65
24:BA:2446:G:H2'	24:BA:2447:G:H5"	1.77	0.65
42:BS:71:VAL:HG22	42:BS:71:VAL:O	1.97	0.65
46:BW:37:VAL:HG13	46:BW:55:ASP:C	2.21	0.65
1:CB:19:THR:HG23	1:CB:20:ARG:H	1.61	0.65
3:CD:21:LYS:HG3	55:CA:409:U:OP2	1.96	0.65
5:CF:17:GLN:O	5:CF:21:MET:HG3	1.96	0.65
28:DE:33:VAL:CG1	24:DA:1245:G:H4'	2.25	0.65
34:DK:108:ARG:HB2	34:DK:116:ILE:HD13	1.78	0.65
45:DV:29:ILE:CD1	45:DV:31:TYR:CE2	2.75	0.65
24:DA:274:C:H2'	24:DA:275:C:O4'	1.96	0.65
24:DA:1441:G:H2'	24:DA:1442:U:C6	2.30	0.65
24:DA:2282:G:H5"	24:DA:2283:C:O4'	1.96	0.65
4:AE:25:LYS:HE2	21:AA:923:A:C5'	2.26	0.65
8:AI:9:GLY:HA2	8:AI:80:HIS:CD2	2.25	0.65
20:AU:33:ARG:HE	20:AU:34:ARG:HG3	1.61	0.65
21:AA:71:A:O2'	21:AA:72:A:H5"	1.96	0.65
21:AA:174:A:H2'	21:AA:175:C:H6	1.60	0.65
21:AA:1084:G:C5	21:AA:1085:U:C4	2.84	0.65
21:AA:1378:C:C5	21:AA:1379:G:C8	2.85	0.65
24:BA:859:G:O2'	24:BA:860:U:P	2.53	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1344:U:O2'	24:BA:1345:C:OP1	2.15	0.65
24:BA:2210:U:H4'	24:BA:2211:A:O5'	1.96	0.65
24:BA:2627:G:H2'	24:BA:2628:C:H6	1.60	0.65
27:BD:113:SER:C	27:BD:114:LYS:HE3	2.21	0.65
29:BF:128:SER:OG	29:BF:154:THR:HB	1.95	0.65
36:BM:21:ALA:HA	36:BM:97:GLN:HG2	1.77	0.65
42:BS:13:SER:O	42:BS:14:ALA:HB2	1.95	0.65
3:CD:124:VAL:O	3:CD:125:ASN:C	2.38	0.65
7:CH:24:VAL:HG12	7:CH:62:LEU:HD21	1.79	0.65
55:CA:71:A:C2	55:CA:72:A:C8	2.84	0.65
55:CA:960:U:O2'	55:CA:1223:C:C5'	2.45	0.65
30:DG:138:GLN:HG3	24:DA:2746:U:H1'	1.77	0.65
40:DQ:24:TYR:HE1	24:DA:17:G:H4'	1.60	0.65
42:DS:5:ALA:HB3	42:DS:54:ALA:HB2	1.78	0.65
44:DU:81:ARG:HB2	44:DU:96:LYS:HD2	1.78	0.65
54:D4:36:ARG:HG2	54:D4:37:GLN:H	1.61	0.65
24:DA:1078:U:H4'	24:DA:1079:C:C5'	2.26	0.65
24:DA:1497:U:H5"	24:DA:1498:C:OP2	1.96	0.65
24:DA:1838:C:N4	24:DA:1899:A:O4'	2.28	0.65
3:AD:153:ARG:NH2	21:AA:437:U:H4'	2.11	0.65
4:AE:19:ARG:HB2	4:AE:32:PHE:CD1	2.32	0.65
6:AG:12:LEU:HB3	6:AG:13:PRO:HD2	1.77	0.65
21:AA:109:A:C6	21:AA:326:G:C6	2.85	0.65
21:AA:982:U:H3	21:AA:1223:C:H42	1.44	0.65
21:AA:1095:U:P	21:AA:1108:G:H22	2.19	0.65
24:BA:1181:U:H2'	24:BA:1182:G:H8	1.61	0.65
24:BA:1993:U:H2'	24:BA:1994:C:C6	2.30	0.65
24:BA:2353:G:H1'	46:BW:30:VAL:HG13	1.75	0.65
42:BS:24:ILE:HG22	42:BS:71:VAL:HG21	1.78	0.65
45:BV:14:LYS:HD2	59:BV:101:HOH:O	1.97	0.65
45:BV:44:HIS:HE1	45:BV:86:LEU:N	1.91	0.65
4:CE:54:GLU:HG3	4:CE:56:PRO:HG2	1.79	0.65
55:CA:1504:G:OP1	55:CA:1507:A:H4'	1.97	0.65
27:DD:169:ARG:O	27:DD:170:VAL:HG22	1.96	0.65
30:DG:162:ARG:H	30:DG:162:ARG:HD2	1.61	0.65
41:DR:27:ILE:CG2	41:DR:28:ALA:H	1.95	0.65
3:AD:121:ALA:HA	3:AD:145:ARG:HG3	1.78	0.65
4:AE:55:VAL:O	4:AE:58:ALA:HB3	1.97	0.65
21:AA:26:A:N6	21:AA:558:G:H1'	2.11	0.65
21:AA:62:U:H2'	21:AA:63:C:H6	1.62	0.65
21:AA:923:A:H2'	21:AA:924:C:C6	2.31	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:49:A:H5"	24:BA:51:G:O4'	1.97	0.65
24:BA:2383:G:H2'	24:BA:2384:U:C6	2.31	0.65
36:BM:54:THR:O	36:BM:56:ALA:N	2.29	0.65
46:BW:8:SER:O	46:BW:9:THR:HB	1.97	0.65
48:BY:17:GLU:HB2	48:BY:53:VAL:HG11	1.78	0.65
48:BY:32:ALA:HB2	48:BY:37:LEU:HD12	1.79	0.65
53:B3:22:LYS:HA	53:B3:47:ALA:O	1.97	0.65
16:CQ:13:SER:HB3	16:CQ:21:VAL:HB	1.79	0.65
55:CA:428:G:C1'	55:CA:430:A:C8	2.79	0.65
55:CA:1003:G:N2	55:CA:1005:A:H5"	2.11	0.65
55:CA:1320:C:H2'	55:CA:1321:U:O4'	1.97	0.65
26:DC:2:VAL:O	26:DC:3:VAL:HB	1.96	0.65
28:DE:130:LYS:H	28:DE:160:ALA:HB2	1.62	0.65
40:DQ:101:ASP:HB2	41:DR:2:TYR:OH	1.96	0.65
41:DR:98:ILE:HG22	41:DR:98:ILE:O	1.96	0.65
42:DS:9:HIS:NE2	24:DA:508:A:N6	2.45	0.65
24:DA:1385:A:H4'	24:DA:1386:C:OP1	1.97	0.65
24:DA:1997:C:O2'	24:DA:1998:A:H8	1.78	0.65
24:DA:2240:U:O2'	24:DA:2241:A:H5'	1.97	0.65
24:DA:2324:U:H5'	24:DA:2325:G:C5'	2.26	0.65
24:DA:2408:U:O2'	24:DA:2409:G:C8	2.48	0.65
24:DA:2588:G:OP2	59:DA:3584:HOH:O	2.13	0.65
24:DA:2626:C:O2'	24:DA:2627:G:H5'	1.95	0.65
24:DA:2752:C:H2'	24:DA:2753:A:C8	2.32	0.65
24:DA:2825:G:H3'	24:DA:2826:A:H8	1.61	0.65
4:AE:139:THR:O	4:AE:143:LEU:HG	1.96	0.65
13:AN:58:ARG:HH21	21:AA:979:C:H2'	1.61	0.65
21:AA:21:G:H1'	21:AA:915:A:H61	1.62	0.65
21:AA:533:A:O2'	21:AA:535:A:OP2	2.13	0.65
24:BA:276:U:H1'	24:BA:278:A:N6	2.10	0.65
24:BA:1064:C:O3'	32:BI:90:GLY:HA2	1.97	0.65
24:BA:1082:U:N3	24:BA:1086:A:C6	2.64	0.65
32:BI:42:ASN:HA	32:BI:45:THR:HB	1.79	0.65
34:BK:70:ARG:CD	34:BK:76:VAL:HG22	2.27	0.65
40:BQ:13:HIS:HD2	40:BQ:31:TYR:CD1	2.14	0.65
42:BS:18:ARG:HA	42:BS:21:ALA:HB3	1.79	0.65
6:CG:77:ARG:CZ	55:CA:1381:U:H3	2.09	0.65
55:CA:275:G:O2'	55:CA:276:G:H5'	1.96	0.65
29:DF:74:ALA:H	29:DF:78:ILE:CG1	2.10	0.65
36:DM:86:LYS:HE3	24:DA:955:U:OP1	1.96	0.65
38:DO:62:LEU:HD11	38:DO:65:THR:N	2.12	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:99:U:O3'	24:DA:100:U:H3'	1.96	0.65
24:DA:126:A:O2'	24:DA:127:A:H5'	1.95	0.65
24:DA:783:A:C4	24:DA:785:G:H1'	2.31	0.65
24:DA:1495:A:C2	24:DA:1578:U:H1'	2.31	0.65
24:DA:1946:U:H2'	24:DA:1947:C:C6	2.32	0.65
1:AB:177:ASN:OD1	1:AB:178:LEU:HD13	1.96	0.65
4:AE:14:LEU:HD22	4:AE:15:ILE:C	2.22	0.65
13:AN:43:ALA:HA	13:AN:46:LYS:HB2	1.77	0.65
21:AA:182:A:N3	21:AA:184:G:C8	2.65	0.65
21:AA:234:C:H2'	21:AA:235:C:H6	1.62	0.65
21:AA:539:A:H2'	21:AA:540:G:C8	2.32	0.65
21:AA:702:A:HO2'	21:AA:703:G:P	2.20	0.65
24:BA:1867:G:N2	24:BA:1875:G:H1'	2.11	0.65
24:BA:2287:A:C4	24:BA:2289:G:N7	2.65	0.65
52:B2:42:LEU:H	52:B2:42:LEU:HD22	1.61	0.65
55:CA:373:A:O2'	55:CA:374:A:H5'	1.95	0.65
55:CA:533:A:O2'	55:CA:535:A:OP2	2.14	0.65
55:CA:1239:A:N7	55:CA:1298:U:N3	2.45	0.65
55:CA:1448:C:O2'	55:CA:1449:C:H6	1.79	0.65
26:DC:52:HIS:NE2	26:DC:218:THR:HG23	2.12	0.65
26:DC:204:LEU:HD12	24:DA:1791:A:H5"	1.77	0.65
27:DD:121:THR:HG21	27:DD:127:PHE:CD1	2.31	0.65
36:DM:61:GLY:HA2	36:DM:107:GLY:HA3	1.78	0.65
52:D2:7:PRO:HB2	24:DA:1309:G:H4'	1.78	0.65
24:DA:463:G:N2	24:DA:466:A:OP2	2.26	0.65
24:DA:548:G:C5'	24:DA:549:G:H5'	2.26	0.65
24:DA:1023:U:H5'	24:DA:1023:U:H6	1.61	0.65
24:DA:1069:A:H4'	24:DA:1070:A:O5'	1.95	0.65
24:DA:2543:G:H2'	24:DA:2544:G:C8	2.31	0.65
24:DA:2783:U:H2'	24:DA:2784:U:C6	2.32	0.65
11:AL:115:LYS:O	11:AL:116:TYR:HB2	1.97	0.65
14:AO:3:SER:OG	14:AO:5:GLU:HG2	1.96	0.65
20:AU:36:PHE:HA	20:AU:39:LYS:CE	2.26	0.65
21:AA:1145:A:O2'	21:AA:1146:A:H8	1.80	0.65
24:BA:1060:U:C4'	24:BA:1061:U:H5'	2.27	0.65
24:BA:1303:G:O2'	24:BA:1304:A:H5'	1.97	0.65
24:BA:2156:G:H2'	24:BA:2157:G:N2	2.12	0.65
24:BA:2304:G:H1'	29:BF:128:SER:HB3	1.77	0.65
24:BA:2742:G:C2'	24:BA:2743:U:H5'	2.27	0.65
28:BE:150:THR:HG21	28:BE:153:LEU:HA	1.78	0.65
30:BG:3:VAL:O	30:BG:68:ARG:HG3	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:67:ALA:HA	31:BH:138:VAL:HB	1.79	0.65
36:BM:132:THR:HG22	36:BM:133:LYS:H	1.61	0.65
1:CB:185:ILE:HA	1:CB:199:ILE:O	1.96	0.65
2:CC:119:ILE:HA	2:CC:122:GLN:CG	2.27	0.65
2:CC:185:THR:HG22	2:CC:186:SER:H	1.60	0.65
13:CN:72:PHE:CE2	13:CN:77:GLY:HA2	2.32	0.65
55:CA:160:A:H2'	55:CA:161:A:O4'	1.96	0.65
27:DD:114:LYS:HD2	27:DD:116:LYS:NZ	2.12	0.65
31:DH:21:VAL:HG22	31:DH:22:LYS:N	2.12	0.65
31:DH:78:VAL:HG22	31:DH:100:ALA:HA	1.79	0.65
46:DW:27:GLY:HA3	46:DW:31:LEU:HD11	1.79	0.65
47:DX:9:LYS:HE2	24:DA:397:U:OP2	1.95	0.65
24:DA:142:A:H5"	24:DA:142:A:C8	2.32	0.65
24:DA:412:A:H2'	24:DA:413:C:C6	2.32	0.65
24:DA:1071:G:N7	24:DA:1089:A:C5	2.65	0.65
24:DA:1331:G:C2	24:DA:1333:G:C8	2.85	0.65
24:DA:1930:G:N2	24:DA:1968:G:H2'	2.12	0.65
1:AB:117:GLU:HA	1:AB:120:SER:HB2	1.78	0.65
7:AH:105:THR:HG21	7:AH:120:LEU:HD13	1.79	0.65
8:AI:54:VAL:HG11	8:AI:86:LEU:HD21	1.79	0.65
21:AA:1170:A:H2'	21:AA:1171:A:O4'	1.97	0.65
24:BA:494:G:OP1	42:BS:8:ARG:HD3	1.97	0.65
24:BA:528:A:H3'	24:BA:528:A:C8	2.32	0.65
26:BC:159:THR:O	26:BC:194:VAL:HG12	1.96	0.65
30:BG:85:LYS:HG2	30:BG:131:VAL:HG12	1.79	0.65
34:BK:61:VAL:HG22	34:BK:87:LEU:HD11	1.78	0.65
37:BN:55:ALA:HA	37:BN:80:PHE:CE1	2.32	0.65
49:BZ:2:LYS:O	49:BZ:2:LYS:HE2	1.96	0.65
1:CB:57:ASN:OD1	1:CB:223:GLY:HA3	1.96	0.65
1:CB:128:LEU:HB2	1:CB:132:GLU:HG2	1.78	0.65
5:CF:68:GLN:O	5:CF:71:ILE:HG22	1.97	0.65
6:CG:100:MET:HA	6:CG:103:ILE:HD12	1.79	0.65
8:CI:10:ARG:HA	8:CI:14:SER:O	1.97	0.65
13:CN:40:ARG:HH12	18:CS:6:LYS:HB2	1.62	0.65
55:CA:197:A:H4'	55:CA:198:G:O5'	1.97	0.65
26:DC:57:HIS:CE1	24:DA:1568:G:H21	2.15	0.65
27:DD:118:PHE:CD1	24:DA:1655:A:H5'	2.32	0.65
33:DJ:44:TYR:O	33:DJ:45:THR:HB	1.95	0.65
36:DM:82:MET:HE2	24:DA:962:G:N2	2.10	0.65
39:DP:50:ARG:HB3	39:DP:56:SER:HB3	1.79	0.65
24:DA:182:A:C6	24:DA:183:C:C4	2.85	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2092:U:H4'	24:DA:2093:G:C5'	2.21	0.65
56:DB:37:C:N4	56:DB:49:C:C1'	2.60	0.65
56:DB:46:A:H2'	56:DB:47:C:C6	2.30	0.65
1:AB:182:VAL:HG12	1:AB:183:PHE:N	2.12	0.65
4:AE:76:ASN:HD22	4:AE:81:GLN:HB3	1.61	0.65
7:AH:79:ARG:HB2	7:AH:80:PRO:HD2	1.79	0.65
8:AI:46:VAL:HA	8:AI:49:GLN:HG3	1.78	0.65
21:AA:143:A:H5'	21:AA:144:G:H5'	1.78	0.65
21:AA:182:A:N6	21:AA:194:C:N4	2.45	0.65
21:AA:579:A:H5'	21:AA:728:A:H1'	1.78	0.65
24:BA:121:G:HO2'	24:BA:122:G:H8	1.42	0.65
24:BA:621:A:H2'	24:BA:622:G:O4'	1.97	0.65
24:BA:790:U:O2'	24:BA:791:C:H5'	1.97	0.65
24:BA:1660:G:H2'	24:BA:1661:G:H8	1.61	0.65
24:BA:1759:A:H2'	24:BA:1760:C:C6	2.31	0.65
24:BA:2389:G:H5"	24:BA:2390:U:H5'	1.78	0.65
24:BA:2630:G:H2'	24:BA:2631:G:H8	1.61	0.65
33:BJ:56:VAL:O	33:BJ:124:VAL:O	2.15	0.65
35:BL:100:ILE:HD12	35:BL:101:ILE:HD13	1.79	0.65
45:BV:10:LYS:HD3	45:BV:10:LYS:H	1.62	0.65
48:BY:9:LYS:CB	48:BY:12:GLU:HG3	2.27	0.65
12:CM:68:LEU:O	12:CM:72:ILE:HG22	1.97	0.65
55:CA:66:A:H2'	55:CA:66:A:N3	2.10	0.65
55:CA:1365:G:O2'	55:CA:1366:C:H5'	1.95	0.65
26:DC:94:LEU:HD13	26:DC:100:ARG:HD3	1.79	0.65
26:DC:259:ASN:C	26:DC:261:ARG:H	2.05	0.65
30:DG:86:LEU:HA	30:DG:163:TYR:HB3	1.79	0.65
31:DH:24:GLY:O	31:DH:26:ALA:O	2.15	0.65
31:DH:48:GLU:O	31:DH:49:ALA:HB2	1.94	0.65
24:DA:545:U:C2	24:DA:547:A:H5"	2.32	0.65
24:DA:1079:C:H41	24:DA:1088:A:H5"	1.61	0.65
24:DA:1439:A:N1	24:DA:1552:A:C4	2.63	0.65
4:AE:108:GLY:HA2	4:AE:111:ARG:HH22	1.61	0.64
4:AE:109:ALA:C	4:AE:111:ARG:N	2.50	0.64
11:AL:22:ALA:O	11:AL:23:LEU:O	2.16	0.64
21:AA:22:G:H4'	21:AA:885:G:C8	2.32	0.64
24:BA:423:A:H5"	24:BA:424:G:H5'	1.78	0.64
24:BA:1833:C:H2'	24:BA:1834:U:H6	1.62	0.64
28:BE:59:PRO:HB2	28:BE:70:SER:OG	1.97	0.64
28:BE:82:GLY:O	28:BE:83:VAL:HB	1.96	0.64
29:BF:34:THR:HG23	29:BF:89:THR:HG23	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BT:40:LYS:CA	43:BT:43:ILE:HG23	2.27	0.64
7:CH:106:SER:HA	55:CA:642:A:C8	2.32	0.64
19:CT:47:GLN:HG2	19:CT:82:ILE:HD12	1.77	0.64
55:CA:41:G:H2'	55:CA:42:G:C8	2.30	0.64
55:CA:248:C:O2'	55:CA:249:U:O5'	2.15	0.64
44:DU:32:LYS:HE2	44:DU:65:GLN:OE1	1.97	0.64
47:DX:31:ASN:HB2	47:DX:33:HIS:HE1	1.62	0.64
24:DA:270:A:N1	24:DA:369:U:H1'	2.12	0.64
24:DA:2458:G:O2'	24:DA:2460:U:O4	2.12	0.64
4:AE:56:PRO:C	4:AE:58:ALA:H	2.03	0.64
12:AM:113:LYS:HE2	12:AM:113:LYS:HA	1.77	0.64
21:AA:351:G:H4'	21:AA:352:C:OP1	1.97	0.64
24:BA:13:A:O2'	24:BA:15:G:N7	2.29	0.64
24:BA:510:C:O2'	24:BA:511:U:H5'	1.97	0.64
24:BA:653:U:H4'	24:BA:653:U:OP1	1.96	0.64
24:BA:729:G:H2'	24:BA:1775:U:H1'	1.79	0.64
24:BA:945:A:H5'	24:BA:946:C:OP2	1.97	0.64
24:BA:1067:A:H3'	24:BA:1068:G:C8	2.32	0.64
24:BA:1687:G:C4	24:BA:1688:U:C5	2.85	0.64
24:BA:1818:U:H2'	26:BC:152:GLN:O	1.96	0.64
24:BA:1839:G:H2'	24:BA:1840:G:C8	2.31	0.64
24:BA:2047:C:O2'	24:BA:2048:G:H5'	1.97	0.64
24:BA:2650:U:H2'	24:BA:2651:C:H6	1.62	0.64
31:BH:5:LEU:HD13	31:BH:13:GLY:HA2	1.77	0.64
2:CC:18:ASN:HD21	2:CC:53:ARG:HH11	1.45	0.64
2:CC:133:MET:HB2	2:CC:150:VAL:HG21	1.80	0.64
7:CH:110:MET:HE1	7:CH:115:ALA:HA	1.79	0.64
12:CM:106:ARG:HD2	55:CA:947:G:OP1	1.97	0.64
55:CA:1117:A:C2	55:CA:1184:G:C6	2.85	0.64
55:CA:1171:A:H2'	55:CA:1172:C:C6	2.32	0.64
27:DD:115:GLY:O	37:DN:3:HIS:HE1	1.80	0.64
30:DG:167:VAL:HG23	30:DG:168:VAL:H	1.62	0.64
39:DP:109:ILE:O	39:DP:110:LYS:HG3	1.97	0.64
47:DX:19:HIS:C	47:DX:21:LEU:H	2.05	0.64
52:D2:34:ARG:HB3	52:D2:42:LEU:HD11	1.78	0.64
24:DA:5:A:C2	24:DA:2899:A:C2	2.85	0.64
24:DA:84:A:C4	24:DA:103:A:N6	2.65	0.64
24:DA:671:C:HO2'	24:DA:672:C:H6	1.40	0.64
24:DA:1457:U:H5"	24:DA:1458:U:OP1	1.96	0.64
24:DA:2658:C:H2'	24:DA:2659:G:O4'	1.96	0.64
56:DB:47:C:H2'	56:DB:48:U:O4'	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:1450:U:H2'	21:AA:1452:C:C5	2.32	0.64
24:BA:93:G:O2'	24:BA:94:A:H5'	1.97	0.64
24:BA:141:G:H5"	24:BA:142:A:C8	2.33	0.64
24:BA:1813:G:N3	26:BC:49:THR:CG2	2.60	0.64
24:BA:2204:G:O5'	26:BC:149:LYS:HE3	1.98	0.64
24:BA:2432:A:N6	24:BA:2433:A:N6	2.45	0.64
27:BD:110:THR:CG2	27:BD:171:THR:HG22	2.27	0.64
29:BF:131:VAL:HG22	29:BF:151:LEU:H	1.60	0.64
30:BG:102:ILE:HD12	30:BG:147:LEU:HD11	1.79	0.64
2:CC:115:VAL:O	2:CC:118:SER:HB3	1.96	0.64
7:CH:85:TYR:HD2	55:CA:598:U:HO2'	1.43	0.64
55:CA:316:C:N4	55:CA:351:G:C6	2.66	0.64
55:CA:1460:C:H2'	55:CA:1461:G:O4'	1.97	0.64
27:DD:106:LYS:HB3	27:DD:206:ALA:CB	2.26	0.64
30:DG:148:ARG:HB2	30:DG:152:ARG:NH2	2.12	0.64
35:DL:17:LYS:NZ	35:DL:19:LEU:HD22	2.13	0.64
38:DO:30:ARG:HH11	38:DO:30:ARG:CG	2.11	0.64
24:DA:275:C:H2'	24:DA:276:U:O4'	1.97	0.64
24:DA:1206:G:H2'	24:DA:1207:C:C6	2.31	0.64
3:AD:109:THR:HG21	21:AA:408:A:P	2.37	0.64
4:AE:76:ASN:O	4:AE:77:ASN:HB3	1.97	0.64
6:AG:23:ALA:O	6:AG:26:VAL:HG22	1.96	0.64
6:AG:108:ARG:NH2	6:AG:118:ARG:HH22	1.92	0.64
7:AH:63:LYS:O	7:AH:70:VAL:HG23	1.98	0.64
24:BA:364:C:H2'	24:BA:365:U:C6	2.31	0.64
24:BA:1011:G:H5"	40:BQ:76:SER:OG	1.97	0.64
24:BA:1919:A:H2'	24:BA:1919:A:N3	2.11	0.64
24:BA:2439:A:H4'	24:BA:2440:C:O5'	1.98	0.64
24:BA:2549:G:N2	24:BA:2560:A:C4	2.65	0.64
24:BA:2602:A:H4'	24:BA:2603:G:H5'	1.78	0.64
26:BC:156:SER:O	26:BC:194:VAL:HG11	1.97	0.64
44:BU:35:VAL:HB	44:BU:38:ILE:HG13	1.79	0.64
54:B4:36:ARG:HG2	54:B4:37:GLN:N	2.09	0.64
1:CB:80:LYS:HD3	1:CB:90:PHE:CZ	2.32	0.64
11:CL:85:ARG:HG2	11:CL:86:VAL:N	2.11	0.64
29:DF:109:ARG:NH1	29:DF:135:ILE:HG22	2.12	0.64
31:DH:68:ARG:HD3	31:DH:71:LYS:HB2	1.80	0.64
43:DT:17:SER:HB3	24:DA:1338:G:H5"	1.77	0.64
24:DA:141:G:H3'	24:DA:142:A:O4'	1.97	0.64
24:DA:511:U:H4'	24:DA:1235:G:H4'	1.79	0.64
24:DA:2384:U:H5"	24:DA:2386:A:OP1	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AB:67:LEU:HD21	1:AB:91:VAL:HG23	1.80	0.64
12:AM:28:ARG:HH11	12:AM:28:ARG:HB3	1.62	0.64
21:AA:95:C:H2'	21:AA:96:U:C6	2.32	0.64
21:AA:1055:A:C5	21:AA:1206:G:C2	2.85	0.64
21:AA:1253:G:N1	21:AA:1285:A:N6	2.44	0.64
21:AA:1261:A:H61	21:AA:1274:A:H2'	1.63	0.64
21:AA:1502:A:H8	21:AA:1505:G:H22	1.44	0.64
24:BA:577:G:N2	24:BA:578:G:C2	2.66	0.64
24:BA:666:A:H4'	35:BL:48:ARG:HD2	1.79	0.64
24:BA:856:G:H2'	24:BA:857:G:C8	2.32	0.64
24:BA:1693:U:O4	24:BA:1977:A:C5	2.50	0.64
24:BA:2037:A:H2'	24:BA:2038:G:C8	2.31	0.64
26:BC:52:HIS:NE2	26:BC:218:THR:HG23	2.12	0.64
28:BE:5:LEU:HD12	28:BE:10:SER:HB3	1.79	0.64
31:BH:117:LEU:HD11	31:BH:130:VAL:HG11	1.79	0.64
32:BI:71:LYS:HG2	32:BI:72:THR:H	1.63	0.64
37:BN:71:ARG:HH21	37:BN:71:ARG:CG	2.11	0.64
41:BR:61:ALA:HB2	41:BR:98:ILE:HA	1.77	0.64
43:BT:32:LEU:H	43:BT:83:ALA:CB	2.07	0.64
1:CB:140:LEU:HA	1:CB:143:LEU:HD12	1.79	0.64
2:CC:90:VAL:HA	2:CC:93:ILE:HG22	1.79	0.64
8:CI:51:LEU:C	8:CI:53:LEU:H	2.06	0.64
55:CA:1239:A:H62	55:CA:1299:A:N6	1.94	0.64
29:DF:74:ALA:HB1	29:DF:76:PHE:CE2	2.33	0.64
30:DG:74:MET:O	30:DG:78:VAL:HG13	1.97	0.64
35:DL:78:ARG:HH12	24:DA:627:A:C5'	2.06	0.64
35:DL:110:VAL:HB	35:DL:127:VAL:HA	1.78	0.64
41:DR:10:LYS:HG2	24:DA:996:A:OP1	1.96	0.64
43:DT:13:ALA:O	43:DT:32:LEU:HB2	1.97	0.64
44:DU:3:LYS:HG2	44:DU:84:PHE:HZ	1.62	0.64
45:DV:31:TYR:OH	45:DV:90:ASP:OD2	2.11	0.64
47:DX:29:LEU:HB2	47:DX:30:PRO:CD	2.27	0.64
47:DX:58:ILE:HA	47:DX:66:VAL:HG21	1.79	0.64
24:DA:33:C:O2'	24:DA:34:U:C5'	2.45	0.64
24:DA:919:U:C2	24:DA:920:A:N7	2.65	0.64
24:DA:1207:C:H2'	24:DA:1208:C:C6	2.31	0.64
24:DA:1324:G:O2'	24:DA:1616:A:C6	2.51	0.64
24:DA:1558:C:H4'	24:DA:1559:U:H5'	1.78	0.64
24:DA:1570:A:H2'	24:DA:1571:A:C8	2.33	0.64
24:DA:1717:A:H2'	24:DA:1718:G:O4'	1.96	0.64
24:DA:2197:U:O2'	24:DA:2198:A:C8	2.49	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2469:A:H2'	24:DA:2470:G:O4'	1.97	0.64
2:AC:6:PRO:O	2:AC:10:ARG:HG2	1.97	0.64
4:AE:32:PHE:CD2	4:AE:54:GLU:HA	2.33	0.64
5:AF:75:GLU:O	5:AF:78:PHE:HB2	1.97	0.64
21:AA:346:G:N2	21:AA:347:G:C4	2.65	0.64
24:BA:321:U:C6	28:BE:159:LEU:HD23	2.33	0.64
24:BA:580:U:H2'	24:BA:581:C:C6	2.32	0.64
24:BA:603:A:H4'	24:BA:604:G:O5'	1.97	0.64
24:BA:1911:U:C2	24:BA:1918:A:C2	2.85	0.64
29:BF:7:TYR:O	29:BF:11:VAL:HB	1.98	0.64
31:BH:96:THR:CG2	31:BH:97:ARG:NH1	2.60	0.64
41:BR:93:PHE:C	41:BR:93:PHE:CD1	2.76	0.64
46:BW:50:VAL:O	46:BW:52:CYS:N	2.27	0.64
3:CD:104:MET:HG2	3:CD:104:MET:O	1.98	0.64
8:CI:6:TYR:HE2	8:CI:17:ARG:HA	1.62	0.64
15:CP:26:ASN:OD1	15:CP:31:ARG:HD3	1.97	0.64
55:CA:451:A:H4'	55:CA:452:A:O5'	1.98	0.64
55:CA:954:G:N1	55:CA:1228:C:N4	2.45	0.64
55:CA:961:U:H5	55:CA:1223:C:H1'	1.61	0.64
30:DG:106:LEU:HB2	30:DG:108:PHE:HE1	1.62	0.64
34:DK:99:ILE:HG13	34:DK:118:LEU:HD12	1.80	0.64
37:DN:114:GLU:HG3	37:DN:118:ARG:HD3	1.78	0.64
40:DQ:91:ARG:CZ	41:DR:11:GLN:H	2.10	0.64
46:DW:30:VAL:HG13	24:DA:2353:G:H1'	1.78	0.64
24:DA:1284:A:C6	24:DA:1285:A:C6	2.86	0.64
24:DA:2183:A:H2'	24:DA:2184:A:C8	2.33	0.64
1:AB:29:PHE:C	1:AB:41:ASN:HB2	2.22	0.64
1:AB:184:ALA:HB3	1:AB:195:VAL:HG22	1.80	0.64
21:AA:284:C:H2'	21:AA:285:C:H6	1.63	0.64
21:AA:501:C:H2'	21:AA:502:A:C8	2.33	0.64
24:BA:171:U:H2'	24:BA:172:A:H8	1.61	0.64
24:BA:205:G:O2'	24:BA:206:U:P	2.56	0.64
24:BA:276:U:O2'	24:BA:278:A:N7	2.29	0.64
24:BA:777:G:H2'	24:BA:778:G:H8	1.62	0.64
24:BA:957:C:C2	24:BA:959:A:C8	2.86	0.64
24:BA:1084:A:H2'	24:BA:1085:A:C8	2.32	0.64
24:BA:1376:C:C2'	24:BA:1377:G:H5'	2.27	0.64
24:BA:2017:U:H4'	50:B0:4:GLN:O	1.98	0.64
24:BA:2074:U:O2'	24:BA:2075:U:H5'	1.98	0.64
42:BS:97:LEU:N	42:BS:97:LEU:HD22	2.13	0.64
47:BX:52:ALA:O	47:BX:53:LYS:HB3	1.95	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CB:53:LEU:HD22	1:CB:212:TYR:OH	1.97	0.64
3:CD:76:LYS:O	3:CD:79:ALA:HB3	1.98	0.64
12:CM:94:LEU:HD22	12:CM:101:THR:HG22	1.79	0.64
55:CA:375:U:C2	55:CA:376:G:C8	2.86	0.64
55:CA:519:C:H2'	55:CA:520:A:C8	2.32	0.64
55:CA:874:G:H2'	55:CA:875:U:H6	1.61	0.64
55:CA:1364:U:O2'	55:CA:1365:G:H5'	1.97	0.64
26:DC:9:SER:O	26:DC:12:ARG:HB2	1.96	0.64
28:DE:63:LYS:HZ2	24:DA:2060:A:H2'	1.63	0.64
29:DF:84:ILE:HD11	24:DA:2307:G:O6	1.98	0.64
29:DF:147:ARG:HG2	29:DF:149:ARG:HH12	1.62	0.64
29:DF:147:ARG:O	29:DF:148:VAL:HG22	1.97	0.64
35:DL:56:PRO:O	35:DL:60:ARG:HG3	1.98	0.64
45:DV:59:GLU:HG2	45:DV:60:VAL:H	1.61	0.64
51:D1:16:THR:CG2	51:D1:41:VAL:HB	2.27	0.64
24:DA:444:C:O2'	24:DA:445:C:H5'	1.98	0.64
24:DA:686:U:H2'	24:DA:788:A:C2	2.32	0.64
24:DA:1364:G:N3	24:DA:1368:G:C2	2.66	0.64
24:DA:2750:A:O2'	24:DA:2752:C:N4	2.30	0.64
24:DA:2793:C:H2'	24:DA:2794:C:C6	2.32	0.64
2:AC:155:ARG:HG2	2:AC:159:ALA:O	1.98	0.64
5:AF:70:VAL:HA	5:AF:73:GLU:HB3	1.79	0.64
21:AA:35:G:C4	21:AA:550:G:N2	2.66	0.64
21:AA:121:U:H6	21:AA:121:U:H5"	1.61	0.64
21:AA:1352:C:H2'	21:AA:1353:G:C8	2.33	0.64
24:BA:563:A:C2	24:BA:564:C:C2	2.86	0.64
24:BA:1310:G:N2	24:BA:1313:U:C5	2.65	0.64
33:BJ:57:LEU:O	33:BJ:58:ASN:HB2	1.97	0.64
33:BJ:77:HIS:CD2	33:BJ:79:GLY:N	2.56	0.64
33:BJ:130:HIS:CD2	33:BJ:132:HIS:H	2.16	0.64
40:BQ:86:SER:HB2	41:BR:50:GLY:O	1.97	0.64
54:B4:33:HIS:O	54:B4:35:GLN:HG3	1.96	0.64
3:CD:2:ARG:HH21	3:CD:114:ARG:CD	1.97	0.64
8:CI:66:VAL:O	8:CI:67:LYS:HD2	1.98	0.64
9:CJ:24:GLU:O	9:CJ:28:THR:HG22	1.97	0.64
12:CM:21:ILE:C	12:CM:23:GLY:H	2.04	0.64
55:CA:920:U:H2'	55:CA:921:U:H6	1.62	0.64
29:DF:59:ILE:HD13	29:DF:137:PHE:HZ	1.62	0.64
35:DL:17:LYS:HZ3	35:DL:19:LEU:HD22	1.62	0.64
39:DP:67:GLU:CD	39:DP:68:GLY:H	2.06	0.64
46:DW:18:LYS:HE3	46:DW:19:ARG:NH2	2.12	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DZ:30:ARG:HH21	49:DZ:33:HIS:HB2	1.62	0.64
24:DA:170:U:H2'	24:DA:171:U:C6	2.30	0.64
24:DA:245:G:N2	24:DA:254:G:H1'	2.13	0.64
24:DA:503:A:N3	24:DA:505:A:H2'	2.13	0.64
24:DA:1080:A:H2'	24:DA:1081:U:H6	1.63	0.64
21:AA:926:G:C6	21:AA:1505:G:O6	2.51	0.64
24:BA:1560:G:H2'	24:BA:1561:C:C6	2.33	0.64
24:BA:1581:G:C6	24:BA:1582:C:N4	2.66	0.64
24:BA:2699:C:H2'	24:BA:2700:A:H8	1.63	0.64
26:BC:20:ASN:CG	26:BC:23:LEU:HD23	2.23	0.64
26:BC:195:GLY:O	26:BC:196:ASN:HB3	1.98	0.64
29:BF:134:GLN:CG	29:BF:135:ILE:H	2.08	0.64
30:BG:35:THR:C	30:BG:36:LEU:HD22	2.22	0.64
30:BG:82:PHE:CZ	30:BG:137:LYS:HB2	2.33	0.64
33:BJ:111:LYS:HD3	33:BJ:112:GLY:H	1.63	0.64
37:BN:32:GLU:OE1	37:BN:86:ARG:NH2	2.31	0.64
38:BO:24:THR:HG22	38:BO:42:PRO:HD3	1.79	0.64
39:BP:83:ILE:C	39:BP:83:ILE:HD13	2.22	0.64
1:CB:19:THR:O	1:CB:38:HIS:HD2	1.81	0.64
1:CB:48:MET:SD	1:CB:200:PRO:HG2	2.38	0.64
2:CC:133:MET:HE2	2:CC:150:VAL:HG23	1.79	0.64
2:CC:155:ARG:HD3	55:CA:1055:A:O2'	1.98	0.64
8:CI:85:ALA:HA	8:CI:88:GLU:OE1	1.98	0.64
10:CK:87:GLY:H	10:CK:113:THR:HG23	1.61	0.64
29:DF:109:ARG:HH11	29:DF:135:ILE:HG22	1.63	0.64
51:D1:5:ARG:NH2	51:D1:23:THR:HB	2.11	0.64
24:DA:374:A:H2'	24:DA:375:G:C8	2.32	0.64
24:DA:975:A:C5	24:DA:990:A:N7	2.65	0.64
24:DA:1608:A:C5	24:DA:1611:C:C4	2.86	0.64
24:DA:1810:A:H2'	24:DA:1811:G:O4'	1.98	0.64
24:DA:2063:C:H2'	24:DA:2064:C:H6	1.63	0.64
3:AD:145:ARG:HH11	3:AD:147:LYS:HE3	1.62	0.64
4:AE:108:GLY:HA2	4:AE:111:ARG:NH2	2.13	0.64
11:AL:42:LYS:HG3	11:AL:88:ASP:O	1.98	0.64
13:AN:20:PHE:C	13:AN:22:LYS:N	2.51	0.64
21:AA:76:G:H2'	21:AA:76:G:N3	2.13	0.64
21:AA:202:G:H21	21:AA:466:A:N6	1.91	0.64
21:AA:486:U:H2'	21:AA:487:A:H8	1.63	0.64
21:AA:1453:G:N3	21:AA:1453:G:H2'	2.13	0.64
24:BA:735:A:N7	24:BA:761:A:H2	1.96	0.64
24:BA:949:G:C2	24:BA:969:G:C2	2.86	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1687:G:H2'	24:BA:1688:U:H6	1.62	0.64
37:BN:79:LEU:O	37:BN:80:PHE:HB2	1.98	0.64
45:BV:40:ILE:CG2	45:BV:41:GLU:N	2.61	0.64
55:CA:90:C:H2'	55:CA:91:U:C5	2.33	0.64
55:CA:93:U:H2'	55:CA:95:C:H5	1.63	0.64
55:CA:927:G:H4'	55:CA:1503:A:N7	2.13	0.64
38:DO:100:HIS:CE1	56:DB:48:U:HO2'	2.15	0.64
41:DR:21:ARG:HB2	41:DR:93:PHE:HD1	1.63	0.64
41:DR:87:GLN:HG2	41:DR:88:GLY:N	2.12	0.64
53:D3:4:LYS:HE2	24:DA:254:G:N7	2.13	0.64
24:DA:374:A:H2'	24:DA:375:G:H8	1.63	0.64
24:DA:2183:A:H2'	24:DA:2184:A:H8	1.61	0.64
24:DA:2756:U:H4'	24:DA:2757:A:O5'	1.98	0.64
9:AJ:36:VAL:HG22	9:AJ:76:ILE:HG23	1.80	0.63
13:AN:20:PHE:HA	13:AN:24:ALA:CB	2.28	0.63
21:AA:1095:U:O2'	21:AA:1096:C:O4'	2.10	0.63
24:BA:991:C:O2'	24:BA:992:C:H5'	1.97	0.63
24:BA:2214:C:H6	24:BA:2214:C:H5'	1.62	0.63
25:BB:49:C:OP1	38:BO:102:ARG:HG3	1.98	0.63
26:BC:20:ASN:HD21	26:BC:22:GLU:HG2	1.62	0.63
32:BI:10:LEU:HD13	32:BI:27:LEU:HA	1.80	0.63
34:BK:12:ASP:OD1	34:BK:14:SER:OG	2.15	0.63
38:BO:67:ASN:O	38:BO:67:ASN:CG	2.41	0.63
53:B3:21:PHE:HB2	53:B3:49:VAL:CG1	2.28	0.63
4:CE:24:VAL:HG23	4:CE:26:GLY:H	1.62	0.63
4:CE:54:GLU:CG	4:CE:56:PRO:HG2	2.28	0.63
4:CE:95:MET:HA	4:CE:124:ALA:CB	2.27	0.63
12:CM:22:TYR:HB2	12:CM:65:GLU:HG2	1.81	0.63
55:CA:143:A:H2'	55:CA:143:A:N3	2.13	0.63
55:CA:775:G:O2'	55:CA:776:G:H5'	1.98	0.63
29:DF:33:ILE:HB	29:DF:90:LEU:HB2	1.80	0.63
30:DG:3:VAL:HG11	24:DA:2751:G:H4'	1.80	0.63
34:DK:17:ARG:HG2	34:DK:18:ARG:N	2.13	0.63
35:DL:30:THR:HG22	24:DA:810:U:O4	1.98	0.63
38:DO:23:ALA:O	38:DO:42:PRO:HG3	1.98	0.63
52:D2:45:SER:C	52:D2:46:LYS:HD2	2.24	0.63
24:DA:615:U:C3'	24:DA:616:A:H5'	2.27	0.63
24:DA:1827:U:H2'	24:DA:1828:G:O4'	1.98	0.63
24:DA:2493:U:H3'	24:DA:2494:G:H5"	1.79	0.63
3:AD:69:ARG:HA	3:AD:69:ARG:NE	2.10	0.63
3:AD:194:ILE:C	3:AD:195:ASN:HD22	2.06	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AG:147:ASN:HD22	6:AG:147:ASN:N	1.96	0.63
9:AJ:40:ILE:HB	9:AJ:73:LEU:CB	2.28	0.63
21:AA:115:G:C2	21:AA:313:A:C2	2.86	0.63
21:AA:130:A:O2'	21:AA:263:A:O2'	2.16	0.63
21:AA:1363:A:C5	21:AA:1365:G:C6	2.86	0.63
24:BA:329:G:O4'	24:BA:477:A:H1'	1.98	0.63
27:BD:182:ALA:C	27:BD:184:ARG:H	2.07	0.63
29:BF:27:VAL:O	29:BF:27:VAL:HG13	1.98	0.63
29:BF:127:TYR:CE2	29:BF:129:MET:HG2	2.33	0.63
46:BW:39:GLN:NE2	46:BW:43:LYS:N	2.45	0.63
6:CG:75:LYS:HB3	6:CG:86:VAL:O	1.98	0.63
9:CJ:53:ILE:HG13	13:CN:84:ARG:CZ	2.27	0.63
15:CP:71:VAL:O	15:CP:75:ILE:HG13	1.98	0.63
55:CA:1084:G:H2'	55:CA:1085:U:C5	2.33	0.63
55:CA:1140:C:HO2'	55:CA:1141:C:H6	1.41	0.63
27:DD:114:LYS:HD3	24:DA:2680:U:OP2	1.98	0.63
36:DM:14:LYS:HB3	24:DA:954:G:OP1	1.97	0.63
41:DR:49:ILE:HB	41:DR:51:VAL:O	1.98	0.63
49:DZ:18:LYS:O	49:DZ:22:THR:HG23	1.98	0.63
49:DZ:40:THR:H	49:DZ:43:ILE:HD11	1.63	0.63
52:D2:46:LYS:HE2	24:DA:126:A:H8	1.63	0.63
24:DA:915:C:H2'	24:DA:916:G:C8	2.34	0.63
24:DA:1311:G:H21	24:DA:1603:A:N6	1.92	0.63
24:DA:1583:A:H4'	24:DA:1585:C:N4	2.13	0.63
24:DA:2385:C:O2'	24:DA:2386:A:H5'	1.97	0.63
24:DA:2895:G:N2	24:DA:2896:C:C2	2.66	0.63
4:AE:73:VAL:HG13	4:AE:143:LEU:HB3	1.79	0.63
21:AA:1087:G:C2	21:AA:1088:G:N7	2.67	0.63
21:AA:1381:U:O2'	21:AA:1382:C:H5'	1.99	0.63
21:AA:1398:A:H8	21:AA:1398:A:H5"	1.62	0.63
24:BA:136:G:C6	24:BA:142:A:N6	2.66	0.63
24:BA:171:U:C2	24:BA:172:A:C8	2.86	0.63
24:BA:271:G:O2'	24:BA:272:A:O5'	2.15	0.63
24:BA:342:A:N1	24:BA:343:C:C2	2.66	0.63
24:BA:659:G:H21	28:BE:30:GLN:HE22	1.45	0.63
24:BA:858:G:H21	24:BA:2268:A:H2'	1.63	0.63
24:BA:1139:G:O2'	24:BA:1140:C:H5'	1.98	0.63
24:BA:1805:A:N3	26:BC:49:THR:HG23	2.13	0.63
24:BA:2305:U:C4	24:BA:2306:C:N3	2.66	0.63
32:BI:105:LEU:HA	32:BI:108:ILE:HB	1.81	0.63
35:BL:18:ARG:O	35:BL:19:LEU:HB3	1.96	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BQ:67:ALA:HB1	40:BQ:105:PHE:CE1	2.32	0.63
41:BR:64:VAL:O	41:BR:65:ALA:HB3	1.98	0.63
43:BT:4:GLU:OE1	43:BT:6:ARG:HG3	1.98	0.63
18:CS:40:PHE:CB	18:CS:41:PRO:HD2	2.27	0.63
55:CA:374:A:H2'	55:CA:375:U:H6	1.63	0.63
40:DQ:44:TYR:HE1	24:DA:533:G:N2	1.94	0.63
43:DT:58:VAL:HG23	43:DT:85:VAL:HA	1.80	0.63
24:DA:72:U:O2'	24:DA:73:A:H5'	1.98	0.63
24:DA:704:G:H1'	24:DA:727:A:H61	1.62	0.63
24:DA:1214:A:H2'	24:DA:1215:G:H8	1.63	0.63
24:DA:2407:A:O2'	24:DA:2408:U:H5'	1.98	0.63
24:DA:2902:C:O2'	24:DA:2903:U:C5'	2.47	0.63
1:AB:53:LEU:HD13	1:AB:56:LEU:HD12	1.81	0.63
10:AK:86:LYS:HE3	21:AA:707:U:OP1	1.99	0.63
21:AA:313:A:H2'	21:AA:314:C:C6	2.33	0.63
21:AA:1145:A:HO2'	21:AA:1146:A:H8	1.47	0.63
24:BA:68:G:H2'	24:BA:69:C:C6	2.33	0.63
24:BA:181:A:H2'	24:BA:182:A:H8	1.63	0.63
24:BA:270:A:H5"	24:BA:271:G:H5"	1.78	0.63
24:BA:656:G:C8	24:BA:656:G:H5"	2.33	0.63
24:BA:752:A:H62	24:BA:2609:U:H3	1.44	0.63
24:BA:836:G:H2'	24:BA:837:C:C6	2.33	0.63
24:BA:1902:C:C5	24:BA:1903:G:C8	2.85	0.63
24:BA:2582:G:C2	24:BA:2583:G:C8	2.87	0.63
24:BA:2602:A:H5"	24:BA:2603:G:H5"	1.80	0.63
26:BC:183:VAL:HG12	26:BC:184:GLU:H	1.62	0.63
34:BK:121:GLU:HG2	34:BK:122:VAL:H	1.63	0.63
37:BN:63:ARG:HA	37:BN:80:PHE:CE2	2.33	0.63
20:CU:38:GLU:HG3	55:CA:1526:G:OP1	1.98	0.63
55:CA:814:A:H2'	55:CA:816:A:H5"	1.80	0.63
55:CA:1414:U:H2'	55:CA:1415:G:H8	1.63	0.63
33:DJ:37:ARG:HG3	33:DJ:118:MET:SD	2.38	0.63
33:DJ:74:TYR:OH	33:DJ:100:VAL:HG13	1.99	0.63
35:DL:112:LEU:HD22	24:DA:637:A:OP2	1.99	0.63
54:D4:36:ARG:HG2	54:D4:37:GLN:N	2.12	0.63
24:DA:3:U:H2'	24:DA:4:U:H6	1.63	0.63
24:DA:412:A:N7	24:DA:2412:A:H1'	2.12	0.63
24:DA:1356:G:H2'	24:DA:1357:C:H6	1.62	0.63
24:DA:1569:A:H2'	24:DA:1570:A:H8	1.63	0.63
4:AE:155:LYS:NZ	4:AE:156:ARG:HH11	1.95	0.63
5:AF:68:GLN:CD	5:AF:68:GLN:H	2.04	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AT:28:ARG:O	19:AT:32:LYS:HG2	1.98	0.63
24:BA:549:G:H5”	24:BA:550:C:C5	2.32	0.63
24:BA:702:U:H2’	24:BA:703:U:H6	1.63	0.63
24:BA:751:A:H5”	24:BA:752:A:OP1	1.98	0.63
24:BA:1060:U:C5’	24:BA:1061:U:H5’	2.28	0.63
24:BA:1085:A:H3’	24:BA:1086:A:C2	2.33	0.63
24:BA:1731:G:C2	24:BA:1733:G:C5	2.86	0.63
24:BA:1779:U:C5	24:BA:1784:A:N7	2.66	0.63
26:BC:16:VAL:HB	26:BC:203:VAL:HB	1.81	0.63
26:BC:77:VAL:HA	26:BC:93:VAL:HA	1.81	0.63
27:BD:107:VAL:O	27:BD:174:SER:O	2.16	0.63
28:BE:40:ARG:NH1	28:BE:92:HIS:CE1	2.66	0.63
36:BM:23:GLY:H	36:BM:100:LYS:NZ	1.97	0.63
45:BV:40:ILE:HG22	45:BV:41:GLU:H	1.62	0.63
54:B4:9:LYS:CD	54:B4:9:LYS:N	2.60	0.63
1:CB:125:PHE:HA	1:CB:136:ARG:HH22	1.63	0.63
1:CB:139:GLU:O	1:CB:143:LEU:HG	1.98	0.63
2:CC:120:THR:HG22	2:CC:120:THR:O	1.98	0.63
4:CE:80:LEU:N	4:CE:121:ASN:HD21	1.94	0.63
55:CA:219:U:H2’	55:CA:220:G:C8	2.34	0.63
55:CA:477:C:H5’	55:CA:478:A:OP1	1.97	0.63
28:DE:105:LEU:HB3	28:DE:200:LEU:HD11	1.81	0.63
29:DF:42:ALA:HB2	29:DF:49:LEU:HD21	1.81	0.63
32:DI:109:ALA:HB1	32:DI:125:THR:HG22	1.79	0.63
33:DJ:44:TYR:HD1	40:DQ:63:ARG:HH21	1.45	0.63
37:DN:16:HIS:HD2	24:DA:1275:A:C4	2.16	0.63
51:D1:5:ARG:HH21	51:D1:23:THR:CB	2.10	0.63
53:D3:54:LEU:O	53:D3:58:ILE:HG13	1.99	0.63
54:D4:1:MET:HG2	54:D4:2:LYS:N	2.12	0.63
24:DA:1289:C:O2’	24:DA:1290:C:H5’	1.97	0.63
24:DA:1524:G:H2’	24:DA:1525:A:C8	2.34	0.63
24:DA:1720:U:H2’	24:DA:1721:G:O4’	1.99	0.63
24:DA:2308:G:H2’	24:DA:2310:C:H5	1.63	0.63
24:DA:2849:U:O4	24:DA:2867:G:H8	1.81	0.63
2:AC:21:TRP:CG	2:AC:58:ARG:HG2	2.33	0.63
5:AF:44:ARG:HA	5:AF:57:ALA:O	1.99	0.63
8:AI:129:ARG:NH2	21:AA:966:G:H21	1.96	0.63
14:AO:18:ALA:O	14:AO:19:ASN:HB2	1.98	0.63
16:AQ:16:MET:HG3	16:AQ:19:SER:C	2.22	0.63
21:AA:600:A:H2’	21:AA:601:G:C8	2.34	0.63
21:AA:1087:G:HO2’	21:AA:1088:G:H8	1.45	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:807:U:OP2	35:BL:36:LYS:HD3	1.99	0.63
24:BA:976:G:H5"	24:BA:977:G:OP2	1.99	0.63
24:BA:1079:C:C4	24:BA:1088:A:H2	2.17	0.63
24:BA:1579:A:H2'	24:BA:1580:A:C8	2.33	0.63
24:BA:1669:A:H2'	24:BA:1669:A:N3	2.12	0.63
24:BA:1779:U:H5	24:BA:1784:A:N7	1.97	0.63
24:BA:2352:A:C6	46:BW:30:VAL:HG11	2.34	0.63
24:BA:2742:G:OP1	54:B4:36:ARG:HD3	1.99	0.63
28:BE:46:GLN:HG3	28:BE:86:ALA:HA	1.80	0.63
32:BI:7:TYR:HA	32:BI:58:ILE:HB	1.80	0.63
40:BQ:69:ARG:HH21	40:BQ:69:ARG:HB2	1.61	0.63
43:BT:32:LEU:O	43:BT:83:ALA:HB2	1.99	0.63
3:CD:29:THR:O	3:CD:30:LYS:HB2	1.99	0.63
11:CL:42:LYS:HG2	11:CL:43:LYS:H	1.64	0.63
15:CP:48:GLU:HG2	15:CP:49:GLY:H	1.63	0.63
55:CA:79:G:H2'	55:CA:80:A:C8	2.33	0.63
26:DC:10:PRO:HB2	24:DA:1774:C:O2	1.98	0.63
30:DG:1:SER:C	30:DG:3:VAL:H	2.07	0.63
41:DR:37:GLU:HB2	41:DR:53:PHE:CD2	2.34	0.63
46:DW:70:VAL:HG22	46:DW:70:VAL:O	1.99	0.63
24:DA:362:A:C4	24:DA:363:G:C8	2.86	0.63
24:DA:973:A:OP1	24:DA:973:A:C8	2.51	0.63
24:DA:1048:A:C2	24:DA:1049:C:N3	2.67	0.63
24:DA:2029:G:H2'	24:DA:2031:A:OP1	1.98	0.63
24:DA:2692:G:O2'	24:DA:2693:G:O4'	2.11	0.63
9:AJ:57:VAL:O	9:AJ:58:ASN:HB2	1.98	0.63
15:AP:10:GLY:O	21:AA:624:C:H4'	1.98	0.63
21:AA:373:A:O2'	21:AA:374:A:C5'	2.46	0.63
21:AA:968:A:H4'	21:AA:969:A:OP2	1.97	0.63
21:AA:1219:A:H2'	21:AA:1220:G:C8	2.34	0.63
24:BA:538:A:O2'	33:BJ:8:PRO:HD2	1.99	0.63
24:BA:709:U:H2'	24:BA:710:U:O4'	1.99	0.63
24:BA:1341:G:N2	43:BT:84:TYR:HB3	2.13	0.63
24:BA:1752:C:O2'	24:BA:1753:G:H5'	1.99	0.63
24:BA:2611:C:O2'	24:BA:2612:C:C5'	2.46	0.63
26:BC:250:GLN:N	26:BC:250:GLN:HE21	1.97	0.63
27:BD:151:THR:HG22	27:BD:152:PRO:CD	2.29	0.63
32:BI:116:MET:HE2	32:BI:116:MET:HA	1.81	0.63
40:BQ:93:ILE:HG12	40:BQ:93:ILE:O	1.98	0.63
40:BQ:96:ASP:C	40:BQ:98:ALA:H	2.07	0.63
50:B0:2:VAL:HG22	50:B0:3:GLN:HG2	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CB:156:LEU:HD23	1:CB:156:LEU:H	1.63	0.63
4:CE:125:LYS:HG2	4:CE:126:ALA:N	2.12	0.63
17:CR:72:ARG:HE	17:CR:72:ARG:N	1.89	0.63
18:CS:9:PHE:C	18:CS:10:ILE:HG13	2.24	0.63
55:CA:250:A:H1'	55:CA:252:U:C4	2.32	0.63
55:CA:415:A:H3'	55:CA:416:G:H8	1.62	0.63
34:DK:104:THR:C	34:DK:106:GLU:H	2.06	0.63
38:DO:92:PHE:HB3	24:DA:2376:A:C2	2.33	0.63
24:DA:373:U:HO2'	24:DA:374:A:H8	1.37	0.63
24:DA:578:G:H21	24:DA:1252:G:N2	1.97	0.63
24:DA:1166:G:C2	24:DA:1184:U:O2	2.52	0.63
24:DA:1291:C:O2'	24:DA:1292:G:H5'	1.99	0.63
1:AB:61:SER:O	1:AB:224:ARG:HB3	1.98	0.63
5:AF:9:MET:HE1	17:AR:64:LEU:HB3	1.80	0.63
7:AH:24:VAL:HB	7:AH:60:LEU:HB2	1.79	0.63
21:AA:6:G:O2'	21:AA:7:A:H8	1.81	0.63
24:BA:1063:G:OP1	32:BI:76:ALA:HB3	1.99	0.63
27:BD:97:SER:H	27:BD:99:GLU:CD	2.06	0.63
36:BM:109:PRO:O	36:BM:110:GLU:C	2.41	0.63
1:CB:216:VAL:O	1:CB:220:VAL:HG23	1.99	0.63
5:CF:3:HIS:CD2	5:CF:95:ALA:HB2	2.34	0.63
5:CF:44:ARG:HD3	5:CF:56:LYS:NZ	2.14	0.63
6:CG:59:GLU:OE2	6:CG:63:VAL:HG23	1.98	0.63
11:CL:51:VAL:HG12	11:CL:52:CYS:N	2.14	0.63
55:CA:370:C:C2'	55:CA:371:A:H5'	2.29	0.63
26:DC:183:VAL:HG13	26:DC:185:ALA:H	1.63	0.63
26:DC:217:PRO:HG3	24:DA:764:A:H2	1.64	0.63
34:DK:1:MET:HB2	34:DK:32:TYR:HB3	1.79	0.63
24:DA:405:U:H3'	24:DA:406:G:C5'	2.28	0.63
24:DA:581:C:H2'	24:DA:582:A:H8	1.63	0.63
24:DA:1256:G:C6	24:DA:1257:C:N4	2.67	0.63
24:DA:1381:G:C2'	24:DA:1382:G:H5'	2.27	0.63
24:DA:1809:A:O2'	24:DA:1810:A:C8	2.51	0.63
24:DA:2048:G:C6	24:DA:2049:G:C5	2.87	0.63
24:DA:2369:A:O2'	24:DA:2370:G:H5'	1.99	0.63
7:AH:36:ALA:HB1	7:AH:48:PHE:HB3	1.80	0.63
7:AH:58:LEU:HD22	7:AH:59:GLU:H	1.64	0.63
8:AI:28:VAL:HB	8:AI:63:TYR:HD2	1.64	0.63
12:AM:76:ILE:HG22	12:AM:80:MET:HE2	1.79	0.63
13:AN:19:TYR:HD2	13:AN:50:LEU:HD13	1.62	0.63
21:AA:1160:G:O2'	21:AA:1161:C:C5'	2.47	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:53:A:O2'	24:BA:54:G:H5'	1.99	0.63
24:BA:434:U:H4'	24:BA:435:C:OP1	1.98	0.63
24:BA:1079:C:C4	24:BA:1080:A:N7	2.67	0.63
24:BA:1328:A:O2'	24:BA:1329:U:H6	1.82	0.63
24:BA:1778:U:C5	24:BA:1784:A:C2	2.87	0.63
24:BA:2100:G:C6	24:BA:2190:G:C6	2.87	0.63
24:BA:2835:A:H4'	24:BA:2836:U:OP1	1.97	0.63
30:BG:15:ASP:CG	30:BG:16:VAL:N	2.57	0.63
31:BH:96:THR:CA	31:BH:97:ARG:HH12	2.10	0.63
35:BL:55:MET:HE2	35:BL:56:PRO:HD2	1.80	0.63
2:CC:178:ARG:HD2	2:CC:205:GLU:O	1.99	0.63
6:CG:75:LYS:HE2	6:CG:76:SER:H	1.63	0.63
8:CI:24:ASN:HB2	8:CI:26:LYS:NZ	2.14	0.63
14:CO:54:GLY:O	14:CO:58:MET:HG3	1.99	0.63
55:CA:150:U:H2'	55:CA:151:A:H8	1.62	0.63
55:CA:374:A:H2'	55:CA:375:U:C6	2.34	0.63
55:CA:812:G:O2'	55:CA:813:U:C6	2.50	0.63
26:DC:119:VAL:HG13	26:DC:133:ASN:ND2	2.11	0.63
27:DD:68:PHE:HB3	27:DD:73:VAL:HA	1.81	0.63
28:DE:147:LEU:HB3	28:DE:186:VAL:HG23	1.81	0.63
29:DF:147:ARG:HD3	29:DF:149:ARG:HH22	1.63	0.63
30:DG:163:TYR:HD2	30:DG:163:TYR:N	1.97	0.63
32:DI:8:VAL:C	32:DI:9:LYS:HG2	2.23	0.63
38:DO:94:ARG:NH1	24:DA:2293:G:O3'	2.32	0.63
46:DW:16:GLU:HG3	24:DA:2356:U:H4'	1.80	0.63
24:DA:575:A:O2'	24:DA:576:U:H5'	1.99	0.63
24:DA:2052:A:O2'	24:DA:2053:G:H5'	1.99	0.63
24:DA:2291:U:H2'	24:DA:2292:U:C6	2.33	0.63
1:AB:107:ARG:HE	1:AB:108:GLN:HE21	1.45	0.62
3:AD:96:ARG:HH21	3:AD:114:ARG:NH2	1.97	0.62
3:AD:195:ASN:HD22	3:AD:195:ASN:N	1.97	0.62
16:AQ:31:PRO:HB2	16:AQ:32:ILE:HD12	1.81	0.62
16:AQ:46:HIS:HE2	16:AQ:48:GLU:HB2	1.63	0.62
18:AS:51:HIS:CD2	18:AS:53:GLY:H	2.17	0.62
21:AA:1444:U:H2'	21:AA:1445:U:C6	2.31	0.62
24:BA:372:G:N2	24:BA:401:A:OP2	2.31	0.62
24:BA:481:G:O2'	24:BA:482:A:OP2	2.17	0.62
24:BA:656:G:H5"	24:BA:656:G:H8	1.63	0.62
24:BA:1016:G:C2	24:BA:1147:A:C2	2.87	0.62
24:BA:1188:U:O2'	24:BA:1189:A:H5'	1.99	0.62
24:BA:2309:A:H2'	24:BA:2310:C:C5	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2757:A:N1	30:BG:66:THR:HG21	2.14	0.62
33:BJ:88:THR:HG22	33:BJ:91:GLU:CB	2.28	0.62
47:BX:34:SER:HA	47:BX:48:LEU:O	1.99	0.62
2:CC:5:HIS:CE1	2:CC:7:ASN:HB3	2.34	0.62
2:CC:166:TRP:HE3	2:CC:166:TRP:H	1.46	0.62
55:CA:120:A:H3'	55:CA:121:U:H5"	1.80	0.62
55:CA:765:G:C4	55:CA:812:G:C6	2.87	0.62
29:DF:74:ALA:N	29:DF:78:ILE:HD11	2.14	0.62
29:DF:122:ASP:HB3	29:DF:126:ASN:HD22	1.64	0.62
30:DG:10:VAL:HB	30:DG:14:VAL:HG21	1.81	0.62
35:DL:81:ASP:O	35:DL:83:ALA:N	2.32	0.62
24:DA:75:G:HO2'	24:DA:76:C:H6	1.46	0.62
24:DA:206:U:H2'	24:DA:207:A:H8	1.63	0.62
24:DA:273:G:H2'	24:DA:274:C:H6	1.64	0.62
24:DA:389:G:C8	24:DA:2413:G:H4'	2.34	0.62
24:DA:547:A:C2'	24:DA:548:G:H5'	2.24	0.62
24:DA:1785:A:H2'	24:DA:1787:A:N7	2.14	0.62
24:DA:1942:C:H6	24:DA:1942:C:O5'	1.81	0.62
24:DA:2307:G:H1'	24:DA:2308:G:C8	2.32	0.62
10:AK:108:ASN:HB3	20:AU:6:ARG:HG2	1.81	0.62
13:AN:52:ARG:C	13:AN:54:SER:H	2.05	0.62
21:AA:1143:G:O2'	21:AA:1144:G:H5'	1.99	0.62
21:AA:1356:G:H2'	21:AA:1357:A:C8	2.33	0.62
24:BA:250:G:OP2	53:B3:12:ARG:NH1	2.32	0.62
24:BA:1349:C:N4	24:BA:1382:G:H1	1.95	0.62
24:BA:2813:A:C2	24:BA:2887:A:N6	2.66	0.62
28:BE:98:LYS:HE2	59:BE:301:HOH:O	1.99	0.62
31:BH:131:SER:HB2	31:BH:139:PHE:HD2	1.64	0.62
40:BQ:94:LEU:C	40:BQ:96:ASP:H	2.05	0.62
43:BT:29:THR:N	43:BT:91:GLN:HE22	1.97	0.62
44:BU:38:ILE:HG22	44:BU:39:ASN:N	2.12	0.62
49:BZ:5:LYS:HD2	49:BZ:5:LYS:H	1.64	0.62
3:CD:2:ARG:CZ	3:CD:114:ARG:HD3	2.29	0.62
4:CE:81:GLN:OE1	4:CE:149:PRO:HD2	1.98	0.62
5:CF:45:ARG:HB3	5:CF:59:TYR:CD1	2.34	0.62
18:CS:14:LEU:HD12	18:CS:15:LEU:N	2.14	0.62
19:CT:66:ILE:HG13	19:CT:67:HIS:H	1.64	0.62
55:CA:120:A:O2'	55:CA:121:U:H5"	1.99	0.62
55:CA:463:U:H2'	55:CA:464:U:C6	2.33	0.62
33:DJ:45:THR:H	33:DJ:46:PRO:HD3	1.64	0.62
33:DJ:94:ALA:O	33:DJ:95:ARG:HB3	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DN:33:ILE:HG23	37:DN:114:GLU:CB	2.29	0.62
24:DA:532:A:H4'	24:DA:533:G:C8	2.35	0.62
24:DA:1994:C:O2'	24:DA:1995:U:H5'	1.99	0.62
24:DA:2267:A:N6	24:DA:2271:G:O6	2.32	0.62
24:DA:2308:G:HO2'	24:DA:2309:A:P	2.22	0.62
11:AL:24:GLU:O	11:AL:25:ALA:C	2.43	0.62
14:AO:23:SER:HA	21:AA:751:U:H4'	1.81	0.62
21:AA:555:U:H2'	21:AA:556:C:C6	2.34	0.62
21:AA:792:A:C2	21:AA:794:A:C2	2.87	0.62
21:AA:1081:A:C2	21:AA:1082:A:C4	2.87	0.62
24:BA:363:G:H2'	24:BA:364:C:C6	2.34	0.62
24:BA:1570:A:H5'	26:BC:35:LYS:HG2	1.82	0.62
35:BL:91:ASP:HB2	35:BL:94:THR:HB	1.81	0.62
36:BM:36:VAL:HG22	45:BV:82:TYR:CD1	2.35	0.62
40:BQ:8:ILE:HG13	40:BQ:9:ALA:N	2.14	0.62
41:BR:14:VAL:HA	41:BR:18:GLN:OE1	1.99	0.62
43:BT:59:ASN:O	43:BT:83:ALA:O	2.18	0.62
9:CJ:48:ARG:HA	13:CN:100:TRP:HZ2	1.64	0.62
10:CK:30:ILE:HG23	10:CK:45:THR:HG22	1.81	0.62
55:CA:970:C:H5"	55:CA:971:G:OP1	1.99	0.62
55:CA:1296:C:O2'	55:CA:1302:C:C4	2.49	0.62
55:CA:1391:U:H2'	55:CA:1392:G:C8	2.34	0.62
55:CA:1490:U:H5'	55:CA:1491:G:OP2	2.00	0.62
27:DD:79:LEU:N	27:DD:79:LEU:HD22	2.13	0.62
27:DD:107:VAL:HG13	27:DD:109:VAL:HG23	1.80	0.62
29:DF:46:LYS:HD3	29:DF:50:ASP:HB2	1.82	0.62
32:DI:71:LYS:HG3	32:DI:72:THR:H	1.64	0.62
33:DJ:7:LYS:HZ3	24:DA:538:A:H5"	1.64	0.62
35:DL:62:PRO:O	53:D3:12:ARG:HB3	1.99	0.62
44:DU:43:LYS:HG2	44:DU:45:GLN:HG2	1.80	0.62
53:D3:41:ARG:HH21	53:D3:41:ARG:CG	2.12	0.62
24:DA:150:U:H2'	24:DA:151:C:C6	2.35	0.62
24:DA:478:A:N6	24:DA:480:A:C6	2.68	0.62
24:DA:627:A:N6	24:DA:636:G:H2'	2.12	0.62
24:DA:1869:G:H5'	24:DA:1870:C:OP2	1.98	0.62
24:DA:2311:A:H4'	24:DA:2312:U:OP2	2.00	0.62
1:AB:46:VAL:HB	1:AB:47:PRO:HD3	1.81	0.62
3:AD:57:LYS:HG2	3:AD:202:LEU:HD22	1.81	0.62
7:AH:29:SER:HB3	7:AH:32:LYS:HG3	1.81	0.62
21:AA:792:A:N3	21:AA:794:A:C6	2.68	0.62
24:BA:401:A:H2'	24:BA:402:A:C8	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:971:G:OP1	24:BA:974:G:O2'	2.16	0.62
24:BA:1071:G:C8	24:BA:1089:A:N6	2.68	0.62
24:BA:1491:G:O2'	24:BA:1492:G:H5'	1.99	0.62
24:BA:1967:C:H2'	24:BA:1968:G:C8	2.31	0.62
24:BA:2059:A:N6	24:BA:2503:A:H2'	2.14	0.62
26:BC:263:ASP:O	26:BC:264:LYS:C	2.42	0.62
31:BH:49:ALA:HB3	31:BH:50:ARG:NH2	2.14	0.62
33:BJ:88:THR:HG22	33:BJ:91:GLU:CG	2.29	0.62
35:BL:28:GLY:O	35:BL:29:LYS:HB3	1.98	0.62
39:BP:4:ILE:O	39:BP:6:GLN:N	2.33	0.62
40:BQ:91:ARG:CZ	40:BQ:93:ILE:HG21	2.29	0.62
53:B3:30:HIS:O	53:B3:31:ILE:C	2.43	0.62
53:B3:31:ILE:CG1	53:B3:34:LYS:HD2	2.30	0.62
1:CB:67:LEU:HD11	1:CB:157:PRO:HG3	1.82	0.62
1:CB:127:LYS:HG2	1:CB:136:ARG:HH21	1.64	0.62
2:CC:119:ILE:C	2:CC:121:SER:H	2.07	0.62
20:CU:39:LYS:N	20:CU:40:PRO:CD	2.61	0.62
55:CA:1446:A:H2'	55:CA:1447:A:H5'	1.81	0.62
27:DD:10:GLY:O	27:DD:11:MET:HB2	1.99	0.62
30:DG:139:VAL:HA	30:DG:142:GLN:HB3	1.80	0.62
32:DI:104:GLN:HA	32:DI:107:GLU:CB	2.28	0.62
35:DL:62:PRO:HG2	53:D3:24:LYS:CB	2.30	0.62
38:DO:26:LEU:HD23	38:DO:92:PHE:CE1	2.34	0.62
40:DQ:2:ARG:HD3	24:DA:446:G:OP1	1.99	0.62
24:DA:1204:A:H4'	24:DA:1205:A:O5'	1.99	0.62
24:DA:1437:C:H2'	24:DA:1438:U:H6	1.58	0.62
24:DA:1560:G:C2'	24:DA:1561:C:H5'	2.29	0.62
24:DA:1598:A:C2	24:DA:1599:U:C2	2.88	0.62
56:DB:45:A:H2'	56:DB:46:A:C8	2.35	0.62
56:DB:104:A:H2'	56:DB:105:G:C4'	2.29	0.62
6:AG:115:MET:HG2	21:AA:1240:U:C5	2.35	0.62
6:AG:143:MET:HA	6:AG:143:MET:HE3	1.81	0.62
8:AI:107:ALA:O	8:AI:109:GLN:HG2	2.00	0.62
9:AJ:52:LEU:HD23	9:AJ:62:ARG:HG3	1.82	0.62
12:AM:18:LEU:O	12:AM:21:ILE:HD13	2.00	0.62
21:AA:908:A:H2'	21:AA:909:A:C8	2.34	0.62
24:BA:28:A:H2'	24:BA:29:U:H6	1.64	0.62
24:BA:1001:A:C2'	24:BA:1002:G:H5'	2.29	0.62
24:BA:1243:C:H1'	35:BL:4:ASN:O	2.00	0.62
24:BA:2650:U:H2'	24:BA:2651:C:C6	2.34	0.62
32:BI:86:LYS:HD2	32:BI:86:LYS:H	1.63	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BK:21:CYS:CB	34:BK:39:ILE:HD11	2.26	0.62
38:BO:53:THR:HB	38:BO:65:THR:HG22	1.81	0.62
44:BU:17:ASP:O	44:BU:18:LYS:C	2.41	0.62
2:CC:118:SER:C	2:CC:122:GLN:HE21	2.07	0.62
7:CH:111:THR:HG21	7:CH:113:ARG:NH2	2.15	0.62
11:CL:50:LYS:HD2	11:CL:50:LYS:N	2.15	0.62
55:CA:1005:A:C5	55:CA:1006:G:H1'	2.34	0.62
29:DF:16:MET:HA	29:DF:21:TYR:HB2	1.81	0.62
32:DI:50:LYS:HA	32:DI:50:LYS:HE2	1.80	0.62
38:DO:33:ARG:O	38:DO:65:THR:OG1	2.17	0.62
44:DU:82:VAL:H	44:DU:96:LYS:HZ2	1.48	0.62
24:DA:607:U:H5	24:DA:619:G:C4	2.18	0.62
24:DA:696:G:N2	24:DA:697:G:H1'	2.14	0.62
24:DA:1135:C:H2'	24:DA:1137:G:OP2	1.99	0.62
24:DA:1645:G:OP1	24:DA:1646:C:H5'	2.00	0.62
24:DA:2584:U:H2'	24:DA:2585:U:H5'	1.80	0.62
21:AA:244:U:C2	21:AA:894:G:N3	2.67	0.62
21:AA:977:A:H8	21:AA:1223:C:C4	2.17	0.62
24:BA:1132:U:C3'	24:BA:1133:A:H5"	2.29	0.62
24:BA:1509:A:O2'	24:BA:1510:G:P	2.58	0.62
28:BE:131:THR:HG22	28:BE:160:ALA:HA	1.81	0.62
35:BL:4:ASN:HD22	35:BL:4:ASN:N	1.98	0.62
5:CF:18:VAL:HA	5:CF:21:MET:SD	2.40	0.62
55:CA:149:A:H1'	55:CA:1446:A:C2	2.28	0.62
55:CA:355:C:O4'	55:CA:388:G:O2'	2.18	0.62
55:CA:430:A:O2'	55:CA:431:A:H5'	2.00	0.62
55:CA:1130:A:C5	55:CA:1146:A:C6	2.88	0.62
24:DA:223:A:C6	24:DA:422:A:C5	2.87	0.62
24:DA:1695:G:H2'	24:DA:1695:G:N3	2.15	0.62
24:DA:2238:G:H8	59:DA:3526:HOH:O	1.80	0.62
3:AD:96:ARG:NH2	3:AD:114:ARG:HH21	1.98	0.62
3:AD:129:VAL:HG13	3:AD:131:ILE:HD12	1.82	0.62
3:AD:192:ALA:C	3:AD:194:ILE:H	2.06	0.62
4:AE:76:ASN:HB3	4:AE:81:GLN:HG2	1.80	0.62
4:AE:155:LYS:O	7:AH:63:LYS:HG2	1.99	0.62
10:AK:35:ASP:OD2	10:AK:39:ASN:HB2	2.00	0.62
11:AL:72:ASN:CG	11:AL:73:LEU:H	2.08	0.62
21:AA:252:U:O2'	21:AA:253:A:H5'	2.00	0.62
24:BA:620:G:H4'	24:BA:621:A:O5'	1.99	0.62
24:BA:1738:G:O2'	24:BA:1739:A:H8	1.82	0.62
24:BA:1840:G:N2	24:BA:1841:U:C2	2.68	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2014:A:H2'	24:BA:2015:A:C8	2.35	0.62
24:BA:2440:C:HO2'	24:BA:2441:U:P	2.21	0.62
24:BA:2804:U:H2'	24:BA:2805:C:C6	2.35	0.62
27:BD:51:THR:HG21	27:BD:68:PHE:HE2	1.64	0.62
33:BJ:74:TYR:HB2	33:BJ:87:ALA:O	1.98	0.62
34:BK:71:ARG:CB	34:BK:72:PRO:HD3	2.30	0.62
37:BN:13:ASN:O	37:BN:14:SER:C	2.42	0.62
43:BT:24:MET:HG3	43:BT:29:THR:HG23	1.82	0.62
50:B0:39:ARG:HB2	50:B0:39:ARG:HH11	1.63	0.62
3:CD:125:ASN:N	3:CD:141:VAL:O	2.31	0.62
55:CA:642:A:C2	55:CA:643:C:C2	2.88	0.62
55:CA:1299:A:C8	55:CA:1301:U:H1'	2.35	0.62
26:DC:58:LYS:O	26:DC:59:GLN:HB2	1.97	0.62
28:DE:55:SER:O	28:DE:74:LYS:NZ	2.27	0.62
28:DE:119:ILE:O	28:DE:119:ILE:HG13	1.99	0.62
33:DJ:111:LYS:HB2	33:DJ:115:GLY:H	1.65	0.62
46:DW:23:LYS:HD2	46:DW:24:ARG:H	1.65	0.62
24:DA:197:A:N6	24:DA:2430:A:H2'	2.13	0.62
24:DA:729:G:N3	24:DA:729:G:C2'	2.60	0.62
24:DA:1535:A:H2'	24:DA:1535:A:N3	2.15	0.62
24:DA:2200:C:O2'	24:DA:2201:G:H5'	2.00	0.62
8:AI:56:MET:HE2	8:AI:57:VAL:H	1.64	0.62
12:AM:15:VAL:HG23	12:AM:16:ILE:HG13	1.80	0.62
20:AU:5:VAL:HG21	20:AU:16:ARG:HD3	1.82	0.62
21:AA:942:G:C2	21:AA:1342:C:C2	2.87	0.62
24:BA:858:G:N2	24:BA:2268:A:H2'	2.14	0.62
24:BA:1343:G:C4	24:BA:1344:U:C5	2.88	0.62
24:BA:1558:C:H4'	24:BA:1559:U:O5'	2.00	0.62
24:BA:1655:A:H4'	27:BD:119:ALA:O	1.99	0.62
24:BA:1782:U:O2'	24:BA:1783:A:H5'	1.98	0.62
24:BA:1945:G:H2'	24:BA:1946:U:H6	1.62	0.62
24:BA:2185:U:H2'	24:BA:2186:G:C8	2.35	0.62
24:BA:2262:U:H4'	24:BA:2328:A:H2	1.64	0.62
27:BD:21:SER:O	27:BD:23:PRO:HD3	2.00	0.62
33:BJ:43:GLU:O	33:BJ:45:THR:N	2.33	0.62
4:CE:80:LEU:HB3	4:CE:97:PRO:CB	2.29	0.62
20:CU:3:ILE:HG22	20:CU:19:LYS:HZ1	1.64	0.62
55:CA:725:G:O2'	55:CA:726:C:H5'	1.99	0.62
26:DC:170:TYR:HD2	26:DC:183:VAL:O	1.81	0.62
30:DG:85:LYS:O	30:DG:86:LEU:HG	1.99	0.62
30:DG:112:VAL:HG13	30:DG:150:TYR:HE1	1.63	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DH:84:ALA:H	31:DH:148:ALA:HA	1.64	0.62
45:DV:29:ILE:HD13	45:DV:31:TYR:HE2	1.55	0.62
24:DA:729:G:O2'	24:DA:1775:U:H1'	2.00	0.62
24:DA:1075:C:O2'	24:DA:1076:C:H5'	1.99	0.62
24:DA:1149:G:H2'	24:DA:1150:C:C6	2.35	0.62
24:DA:1644:C:H2'	24:DA:1644:C:O2	1.99	0.62
24:DA:2860:A:O5'	24:DA:2860:A:C8	2.52	0.62
1:AB:43:GLU:O	1:AB:47:PRO:HG2	2.00	0.62
4:AE:48:GLY:HA3	4:AE:65:LYS:HB2	1.81	0.62
13:AN:74:ARG:HG3	13:AN:74:ARG:HH11	1.65	0.62
21:AA:414:A:O2'	21:AA:415:A:H5'	1.99	0.62
24:BA:1799:G:N2	24:BA:1818:U:O2'	2.33	0.62
26:BC:209:ALA:HA	26:BC:212:TRP:NE1	2.15	0.62
29:BF:72:SER:HB2	29:BF:80:GLN:HB2	1.80	0.62
40:BQ:65:ASN:ND2	40:BQ:69:ARG:NH2	2.48	0.62
42:BS:13:SER:O	42:BS:14:ALA:CB	2.48	0.62
43:BT:51:PHE:O	43:BT:52:GLU:HG2	2.00	0.62
43:BT:68:LYS:HG2	43:BT:69:ARG:H	1.64	0.62
46:BW:14:ASP:O	46:BW:15:SER:HB2	1.98	0.62
53:B3:53:ASP:HA	53:B3:56:LEU:HD23	1.82	0.62
1:CB:64:GLY:HA2	1:CB:158:ASP:OD2	2.00	0.62
2:CC:76:ILE:HD11	2:CC:102:ILE:CD1	2.30	0.62
2:CC:128:MET:HE1	2:CC:131:ARG:HD3	1.80	0.62
55:CA:511:C:C2	55:CA:512:U:C5	2.88	0.62
55:CA:560:A:H5'	55:CA:566:G:N2	2.14	0.62
55:CA:1381:U:O2'	55:CA:1382:C:C5'	2.47	0.62
29:DF:160:LYS:HD3	29:DF:161:SER:N	2.15	0.62
30:DG:115:GLN:HG2	30:DG:116:LEU:N	2.15	0.62
33:DJ:35:ARG:HG2	33:DJ:40:HIS:CD2	2.35	0.62
38:DO:35:ILE:CD1	38:DO:102:ARG:HD2	2.30	0.62
39:DP:5:LYS:HE2	39:DP:9:GLN:HE22	1.65	0.62
49:DZ:7:THR:O	49:DZ:54:VAL:HA	1.99	0.62
24:DA:716:A:H3'	24:DA:717:C:H5"	1.81	0.62
24:DA:1111:A:O2'	24:DA:1112:G:O4'	2.15	0.62
24:DA:1746:A:H2'	24:DA:1747:U:C6	2.35	0.62
24:DA:2808:G:N2	24:DA:2891:U:C6	2.68	0.62
2:AC:78:LYS:HG2	2:AC:79:LYS:HD2	1.80	0.62
4:AE:40:ASP:OD1	4:AE:44:ARG:HB2	2.00	0.62
10:AK:23:HIS:HB3	10:AK:30:ILE:CG1	2.27	0.62
11:AL:79:ILE:HD12	11:AL:96:THR:HG21	1.81	0.62
12:AM:7:ASN:O	12:AM:9:PRO:HD3	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:488:C:H2'	21:AA:489:C:H6	1.64	0.62
21:AA:834:U:H2'	21:AA:835:U:C6	2.35	0.62
21:AA:1229:A:H2'	21:AA:1230:C:H6	1.64	0.62
21:AA:1378:C:H5	21:AA:1379:G:C8	2.17	0.62
21:AA:1504:G:C3'	21:AA:1505:G:H5'	2.30	0.62
24:BA:39:G:H2'	24:BA:40:U:C6	2.35	0.62
24:BA:503:A:H4'	24:BA:504:A:O5'	1.99	0.62
24:BA:2250:G:H8	24:BA:2250:G:O5'	1.82	0.62
31:BH:68:ARG:NH2	31:BH:72:ILE:HG21	2.14	0.62
39:BP:105:LYS:HA	39:BP:108:ARG:HH21	1.65	0.62
7:CH:23:ALA:HA	7:CH:62:LEU:HD23	1.82	0.62
8:CI:11:ARG:HD3	8:CI:106:ASP:OD1	1.99	0.62
11:CL:19:ASN:HD22	11:CL:19:ASN:N	1.96	0.62
12:CM:1:ALA:H3	12:CM:2:ARG:HH11	1.46	0.62
19:CT:4:LYS:NZ	55:CA:107:G:H22	1.98	0.62
19:CT:84:LYS:HB2	19:CT:84:LYS:NZ	2.15	0.62
28:DE:131:THR:HG22	28:DE:161:ALA:H	1.65	0.62
28:DE:133:LEU:O	28:DE:137:LYS:HB2	2.00	0.62
29:DF:129:MET:HE2	29:DF:174:PHE:CZ	2.35	0.62
34:DK:13:ASN:HD22	34:DK:13:ASN:N	1.96	0.62
24:DA:181:A:H1'	24:DA:435:C:O4'	2.00	0.62
24:DA:859:G:HO2'	24:DA:860:U:P	2.23	0.62
24:DA:1157:G:H2'	24:DA:1158:C:C6	2.34	0.62
24:DA:1886:U:H6	24:DA:1886:U:O5'	1.83	0.62
1:AB:110:ILE:HG23	1:AB:113:LEU:HB3	1.82	0.61
1:AB:119:GLN:C	1:AB:119:GLN:HE21	2.07	0.61
3:AD:68:GLU:O	3:AD:72:ARG:HG2	2.01	0.61
3:AD:109:THR:HG21	21:AA:408:A:OP1	2.00	0.61
21:AA:26:A:H61	21:AA:558:G:H1'	1.63	0.61
21:AA:32:A:H2'	21:AA:33:A:H8	1.64	0.61
21:AA:236:A:H2'	21:AA:237:G:C8	2.35	0.61
21:AA:428:G:C2	21:AA:430:A:N6	2.68	0.61
24:BA:286:U:H2'	24:BA:287:G:C8	2.35	0.61
24:BA:1230:A:H2'	24:BA:1231:U:H6	1.65	0.61
24:BA:1258:U:C2	24:BA:1259:G:C8	2.88	0.61
24:BA:1997:C:O2'	24:BA:1998:A:H5'	1.99	0.61
24:BA:2136:G:H8	24:BA:2136:G:H5"	1.65	0.61
24:BA:2287:A:C8	24:BA:2289:G:C8	2.88	0.61
27:BD:186:LEU:HD11	39:BP:3:ILE:CD1	2.30	0.61
39:BP:4:ILE:CG2	39:BP:5:LYS:H	2.07	0.61
46:BW:33:GLY:O	46:BW:34:SER:HB3	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CE:80:LEU:H	4:CE:121:ASN:HD21	1.48	0.61
55:CA:1067:A:H1'	55:CA:1068:G:C8	2.35	0.61
55:CA:1151:A:C6	55:CA:1152:A:N6	2.68	0.61
27:DD:148:GLN:HG2	27:DD:152:PRO:HG2	1.82	0.61
34:DK:41:ILE:HG22	34:DK:58:LEU:O	1.99	0.61
35:DL:3:LEU:HG	35:DL:4:ASN:N	2.15	0.61
35:DL:63:LYS:HB3	53:D3:12:ARG:HD2	1.82	0.61
36:DM:35:ALA:HB3	36:DM:99:GLY:H	1.65	0.61
40:DQ:89:ILE:HG22	40:DQ:91:ARG:H	1.64	0.61
43:DT:24:MET:HE2	43:DT:24:MET:HA	1.82	0.61
51:D1:36:LYS:HD2	24:DA:2344:U:OP1	2.00	0.61
24:DA:85:G:H22	24:DA:98:G:H1'	1.64	0.61
24:DA:324:A:O2'	24:DA:325:G:O4'	2.10	0.61
24:DA:1220:G:H2'	24:DA:1221:C:H6	1.65	0.61
24:DA:2145:C:C2'	24:DA:2146:C:H3'	2.29	0.61
24:DA:2345:G:C6	24:DA:2347:C:N4	2.66	0.61
3:AD:190:LEU:HD12	3:AD:190:LEU:O	2.00	0.61
4:AE:78:GLY:C	4:AE:79:THR:HG22	2.25	0.61
21:AA:284:C:H2'	21:AA:285:C:C6	2.35	0.61
21:AA:448:A:C8	21:AA:487:A:C6	2.87	0.61
21:AA:531:U:C4'	21:AA:532:A:O5'	2.44	0.61
24:BA:447:A:C4	24:BA:473:G:N7	2.69	0.61
24:BA:532:A:N7	24:BA:2021:C:H2'	2.14	0.61
24:BA:827:U:H2'	24:BA:2068:U:O2	2.00	0.61
24:BA:1422:G:H2'	24:BA:1423:G:C8	2.33	0.61
24:BA:1474:U:H2'	24:BA:1475:G:H5'	1.82	0.61
24:BA:1568:G:H1'	26:BC:57:HIS:HE1	1.65	0.61
24:BA:2094:A:H2'	24:BA:2095:A:C8	2.35	0.61
27:BD:133:THR:HG23	27:BD:134:HIS:CD2	2.35	0.61
46:BW:18:LYS:HA	46:BW:36:ILE:CG1	2.30	0.61
1:CB:208:ALA:CA	1:CB:211:LEU:HB2	2.30	0.61
5:CF:44:ARG:HA	5:CF:58:HIS:HA	1.82	0.61
8:CI:47:VAL:HG23	8:CI:48:ARG:HD2	1.81	0.61
10:CK:63:GLN:HG3	10:CK:64:VAL:N	2.15	0.61
10:CK:81:LEU:HD11	10:CK:104:PHE:HD2	1.64	0.61
19:CT:66:ILE:HG13	19:CT:67:HIS:N	2.15	0.61
55:CA:934:C:H4'	55:CA:935:A:OP1	2.00	0.61
55:CA:1072:G:H2'	55:CA:1073:U:C6	2.35	0.61
31:DH:84:ALA:HA	31:DH:89:LYS:O	1.99	0.61
24:DA:52:A:H2	24:DA:179:C:O4'	1.83	0.61
24:DA:79:C:H2'	24:DA:80:G:O4'	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:571:U:H4'	24:DA:573:U:H5	1.65	0.61
24:DA:727:A:H2'	24:DA:728:G:C8	2.35	0.61
24:DA:1713:A:H1'	24:DA:1716:U:H5'	1.82	0.61
24:DA:2770:G:H8	24:DA:2770:G:O5'	1.83	0.61
56:DB:33:G:C2	56:DB:50:A:C2	2.88	0.61
56:DB:45:A:C2'	56:DB:46:A:C8	2.81	0.61
1:AB:86:CYS:C	1:AB:88:GLN:H	2.07	0.61
1:AB:131:LYS:O	1:AB:135:MET:HB2	1.99	0.61
2:AC:42:LEU:HD21	2:AC:67:ILE:CD1	2.25	0.61
2:AC:119:ILE:O	2:AC:122:GLN:HB2	2.00	0.61
13:AN:40:ARG:HH12	13:AN:44:VAL:HG11	1.63	0.61
21:AA:564:C:O2'	21:AA:565:U:H5'	2.00	0.61
21:AA:584:G:H2'	21:AA:585:G:C8	2.35	0.61
24:BA:528:A:C2'	24:BA:529:A:H5"	2.30	0.61
30:BG:84:LYS:CG	30:BG:132:LEU:H	2.05	0.61
40:BQ:91:ARG:HH21	40:BQ:93:ILE:HD13	1.64	0.61
42:BS:42:LYS:O	42:BS:45:VAL:HG13	2.00	0.61
2:CC:181:ILE:HG23	2:CC:201:ILE:C	2.25	0.61
3:CD:29:THR:C	3:CD:30:LYS:HD3	2.25	0.61
7:CH:1:SER:HB3	7:CH:3:GLN:HG3	1.81	0.61
55:CA:974:A:C5'	55:CA:975:A:H5'	2.20	0.61
55:CA:1118:U:H1'	55:CA:1179:A:C4	2.34	0.61
55:CA:1151:A:N6	55:CA:1152:A:N6	2.48	0.61
44:DU:81:ARG:HD2	44:DU:81:ARG:H	1.63	0.61
47:DX:31:ASN:ND2	47:DX:31:ASN:H	1.98	0.61
50:D0:1:ALA:H3	24:DA:2056:G:H21	1.48	0.61
24:DA:459:U:H2'	24:DA:460:A:C8	2.28	0.61
24:DA:1113:U:HO2'	24:DA:1114:C:H6	1.48	0.61
24:DA:1330:C:O2'	24:DA:1331:G:H5'	2.01	0.61
24:DA:1372:U:H2'	24:DA:1373:A:C8	2.35	0.61
24:DA:2145:C:O2'	24:DA:2146:C:H3'	2.00	0.61
24:DA:2798:U:H5'	24:DA:2800:A:C5	2.36	0.61
56:DB:35:C:H2'	56:DB:36:C:H4'	1.82	0.61
56:DB:116:G:H2'	56:DB:117:G:H8	1.64	0.61
3:AD:97:LEU:C	3:AD:97:LEU:HD23	2.25	0.61
8:AI:17:ARG:HH22	21:AA:1129:C:H5"	1.61	0.61
11:AL:43:LYS:HB2	11:AL:44:PRO:HD3	1.82	0.61
11:AL:109:ARG:NH1	21:AA:537:G:H5"	2.15	0.61
21:AA:1081:A:N1	21:AA:1082:A:C5	2.68	0.61
21:AA:1468:A:H3'	21:AA:1469:C:H5"	1.81	0.61
24:BA:10:A:C8	24:BA:2800:A:N6	2.68	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:923:G:N3	46:BW:23:LYS:NZ	2.48	0.61
24:BA:1059:G:O2'	32:BI:128:ILE:HD13	2.01	0.61
24:BA:1181:U:H2'	24:BA:1182:G:C8	2.35	0.61
24:BA:1310:G:N2	24:BA:1313:U:C4	2.68	0.61
24:BA:1332:G:C4	24:BA:1609:A:C2	2.89	0.61
24:BA:1508:A:O2'	24:BA:1509:A:O4'	2.17	0.61
24:BA:1560:G:H2'	24:BA:1561:C:H6	1.66	0.61
24:BA:1681:G:O2'	24:BA:1762:A:C2'	2.49	0.61
24:BA:1962:C:O2'	24:BA:1964:G:OP2	2.18	0.61
24:BA:2309:A:H2'	24:BA:2310:C:C6	2.35	0.61
24:BA:2323:G:C2'	24:BA:2324:U:H5'	2.30	0.61
24:BA:2450:A:O2'	24:BA:2451:A:H5'	2.00	0.61
31:BH:147:VAL:HG12	31:BH:149:GLU:HG3	1.82	0.61
46:BW:50:VAL:HB	46:BW:61:LYS:NZ	2.14	0.61
51:B1:33:LEU:N	51:B1:51:ALA:HB3	2.15	0.61
51:B1:49:LYS:HG2	51:B1:50:GLU:H	1.65	0.61
20:CU:40:PRO:HA	20:CU:43:GLU:CB	2.30	0.61
55:CA:635:A:H2'	55:CA:636:U:C6	2.34	0.61
55:CA:765:G:C6	55:CA:812:G:N7	2.68	0.61
55:CA:1179:A:H2'	55:CA:1180:A:O4'	1.99	0.61
26:DC:63:ILE:O	26:DC:64:VAL:HB	2.01	0.61
28:DE:69:ARG:HB3	24:DA:674:G:H4'	1.82	0.61
34:DK:54:LYS:H	34:DK:54:LYS:HD2	1.65	0.61
34:DK:111:LYS:HE3	34:DK:111:LYS:N	2.07	0.61
41:DR:49:ILE:HD13	41:DR:53:PHE:H	1.66	0.61
24:DA:83:A:H61	24:DA:101:A:H5'	1.64	0.61
24:DA:250:G:H2'	24:DA:251:A:H8	1.64	0.61
24:DA:1090:A:C2'	24:DA:1091:G:H5"	2.31	0.61
24:DA:1303:G:H2'	24:DA:1304:A:H8	1.65	0.61
24:DA:1335:C:H2'	24:DA:1336:A:H8	1.64	0.61
24:DA:1458:U:O3'	24:DA:1459:G:H4'	1.99	0.61
24:DA:1799:G:H4'	24:DA:1800:C:O5'	2.00	0.61
56:DB:24:G:H5'	56:DB:25:U:C5	2.35	0.61
1:AB:14:HIS:O	1:AB:14:HIS:CG	2.54	0.61
13:AN:22:LYS:HG3	13:AN:23:ARG:H	1.64	0.61
21:AA:105:G:H2'	21:AA:106:C:H6	1.64	0.61
21:AA:548:G:O2'	21:AA:549:C:H5'	2.00	0.61
21:AA:1229:A:H2'	21:AA:1230:C:C6	2.35	0.61
24:BA:321:U:O2'	24:BA:340:A:O2'	2.16	0.61
24:BA:528:A:H2'	24:BA:529:A:H5"	1.82	0.61
24:BA:999:U:C5	24:BA:1154:G:C5	2.88	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1059:G:C6	24:BA:1060:U:N3	2.68	0.61
24:BA:2440:C:H2'	24:BA:2441:U:O4'	2.01	0.61
24:BA:2685:G:OP1	34:BK:78:ARG:NH2	2.33	0.61
25:BB:40:U:O2'	25:BB:43:C:C5	2.54	0.61
26:BC:77:VAL:HG22	26:BC:111:ALA:HA	1.81	0.61
27:BD:118:PHE:HD2	27:BD:119:ALA:H	1.45	0.61
27:BD:182:ALA:C	27:BD:184:ARG:N	2.56	0.61
36:BM:42:THR:HG22	36:BM:93:VAL:HG23	1.83	0.61
47:BX:52:ALA:O	47:BX:53:LYS:CB	2.47	0.61
7:CH:11:THR:HG22	7:CH:14:ARG:HH12	1.66	0.61
9:CJ:42:LEU:HD23	55:CA:1280:A:H5'	1.81	0.61
13:CN:96:LYS:HD2	13:CN:96:LYS:H	1.66	0.61
55:CA:735:C:H2'	55:CA:736:C:C6	2.31	0.61
55:CA:881:G:H2'	55:CA:882:C:O4'	2.00	0.61
55:CA:960:U:O2'	55:CA:1223:C:H4'	1.99	0.61
55:CA:1303:C:H3'	55:CA:1304:G:H8	1.64	0.61
55:CA:1381:U:O2'	55:CA:1382:C:H6	1.82	0.61
27:DD:141:ARG:HB2	24:DA:1656:C:H5"	1.82	0.61
27:DD:149:ASN:O	27:DD:152:PRO:HD2	1.99	0.61
31:DH:41:LYS:HA	31:DH:44:ILE:CG1	2.29	0.61
31:DH:102:ALA:C	31:DH:104:THR:H	2.08	0.61
24:DA:69:C:H6	24:DA:69:C:O5'	1.84	0.61
24:DA:279:A:C2	24:DA:362:A:H4'	2.35	0.61
24:DA:478:A:C6	24:DA:480:A:C5	2.89	0.61
24:DA:600:G:H2'	24:DA:601:C:O4'	2.01	0.61
24:DA:615:U:H3'	24:DA:616:A:C5'	2.29	0.61
24:DA:1042:G:H2'	24:DA:1043:C:C6	2.35	0.61
24:DA:1738:G:O2'	24:DA:1739:A:H8	1.83	0.61
6:AG:110:ARG:NH1	6:AG:122:GLU:HG2	2.16	0.61
6:AG:112:ASP:HB2	6:AG:118:ARG:HG2	1.82	0.61
7:AH:46:GLU:HB3	7:AH:61:THR:HB	1.82	0.61
12:AM:44:ILE:HD12	12:AM:44:ILE:N	2.15	0.61
21:AA:1032:G:H2'	21:AA:1033:G:O4'	2.00	0.61
22:AV:37:A:C6	23:AW:1:A:N6	2.68	0.61
24:BA:241:A:O2'	53:B3:2:LYS:NZ	2.34	0.61
24:BA:286:U:H2'	24:BA:287:G:H8	1.65	0.61
24:BA:1122:G:N3	24:BA:1122:G:H2'	2.13	0.61
24:BA:1656:C:O2'	24:BA:1657:U:H5'	1.99	0.61
24:BA:1700:A:H2'	24:BA:1701:A:H5'	1.81	0.61
24:BA:1987:A:H2'	24:BA:1988:G:H8	1.64	0.61
24:BA:2636:C:H4'	27:BD:81:GLU:CD	2.26	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2850:A:H2'	24:BA:2851:A:C8	2.36	0.61
26:BC:106:PRO:HA	26:BC:141:HIS:CE1	2.36	0.61
29:BF:76:PHE:O	29:BF:77:LYS:HB2	2.01	0.61
31:BH:130:VAL:HG23	31:BH:131:SER:H	1.65	0.61
33:BJ:49:ASP:CG	33:BJ:121:LYS:HZ3	2.08	0.61
33:BJ:75:TYR:HD1	33:BJ:86:GLN:HB3	1.66	0.61
34:BK:12:ASP:O	34:BK:13:ASN:O	2.19	0.61
1:CB:139:GLU:HG3	1:CB:140:LEU:N	2.16	0.61
4:CE:39:GLY:HA2	4:CE:44:ARG:O	2.01	0.61
5:CF:63:ASN:HD22	5:CF:96:VAL:HB	1.65	0.61
6:CG:65:LEU:HD11	6:CG:96:ASN:OD1	1.99	0.61
8:CI:125:GLN:HE21	8:CI:125:GLN:N	1.98	0.61
9:CJ:40:ILE:HB	9:CJ:73:LEU:HD12	1.83	0.61
9:CJ:80:THR:HG22	9:CJ:82:LYS:NZ	2.14	0.61
55:CA:582:C:C4	55:CA:760:G:O6	2.54	0.61
55:CA:677:U:H3	55:CA:713:G:H22	1.47	0.61
55:CA:1134:G:C4	55:CA:1135:U:H1'	2.35	0.61
55:CA:1194:U:H2'	55:CA:1195:C:C6	2.35	0.61
55:CA:1528:U:H4'	55:CA:1529:G:OP1	2.00	0.61
31:DH:48:GLU:CD	31:DH:48:GLU:C	2.68	0.61
43:DT:29:THR:H	43:DT:87:LEU:CB	2.14	0.61
46:DW:46:ALA:HA	46:DW:50:VAL:HG12	1.82	0.61
47:DX:53:LYS:HA	47:DX:56:ARG:CB	2.22	0.61
24:DA:312:G:H2'	24:DA:313:G:C8	2.36	0.61
24:DA:479:A:O2'	24:DA:480:A:C5'	2.41	0.61
1:AB:80:LYS:HG3	1:AB:90:PHE:CZ	2.36	0.61
1:AB:137:THR:HA	1:AB:140:LEU:CD1	2.29	0.61
16:AQ:60:ILE:HG22	16:AQ:72:TRP:HE3	1.65	0.61
21:AA:782:A:H2'	21:AA:783:C:O4'	2.00	0.61
24:BA:207:A:H2'	24:BA:208:C:O4'	2.01	0.61
24:BA:273:G:N2	24:BA:365:U:C2	2.69	0.61
24:BA:464:U:O4	24:BA:465:G:N1	2.34	0.61
24:BA:1378:A:O2'	24:BA:1379:U:O5'	2.18	0.61
24:BA:2305:U:C4'	29:BF:130:GLY:HA3	2.30	0.61
25:BB:94:A:H2'	25:BB:95:U:C6	2.36	0.61
26:BC:12:ARG:HG2	26:BC:12:ARG:NH1	2.10	0.61
27:BD:149:ASN:CG	27:BD:150:GLN:H	2.09	0.61
28:BE:24:ASN:O	28:BE:25:GLU:C	2.42	0.61
30:BG:1:SER:O	30:BG:3:VAL:N	2.32	0.61
33:BJ:2:LYS:HD3	33:BJ:2:LYS:H	1.64	0.61
36:BM:78:LEU:C	36:BM:80:VAL:H	2.08	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BQ:57:ARG:HA	40:BQ:60:TRP:CE3	2.36	0.61
42:BS:63:GLY:O	42:BS:64:ALA:HB3	2.00	0.61
48:BY:45:GLN:O	48:BY:46:VAL:CB	2.46	0.61
54:B4:9:LYS:H	54:B4:9:LYS:CE	2.14	0.61
1:CB:44:LYS:O	1:CB:47:PRO:HD2	2.01	0.61
6:CG:3:ARG:HB3	55:CA:932:C:OP1	2.00	0.61
8:CI:9:GLY:HA3	8:CI:16:ALA:HB3	1.82	0.61
12:CM:82:LEU:HD13	18:CS:65:MET:HE1	1.83	0.61
55:CA:725:G:H2'	55:CA:726:C:H6	1.66	0.61
35:DL:3:LEU:HG	35:DL:4:ASN:H	1.66	0.61
35:DL:96:LYS:HD3	35:DL:103:ILE:HA	1.82	0.61
47:DX:39:VAL:O	47:DX:40:GLU:HB2	2.00	0.61
24:DA:56:A:H2'	24:DA:57:C:C6	2.35	0.61
24:DA:391:A:O2'	24:DA:392:U:H5'	2.01	0.61
24:DA:1022:G:C6	24:DA:1140:C:C4	2.88	0.61
24:DA:1430:G:H2'	24:DA:1431:A:C8	2.36	0.61
2:AC:148:ILE:HG12	2:AC:149:LYS:N	2.16	0.61
4:AE:109:ALA:H	4:AE:111:ARG:HH21	1.48	0.61
7:AH:4:ASP:HB2	7:AH:80:PRO:HG3	1.81	0.61
18:AS:36:ARG:O	18:AS:69:LYS:HD2	2.00	0.61
21:AA:98:A:H2'	21:AA:99:C:C6	2.35	0.61
21:AA:1137:C:H4'	21:AA:1138:G:OP1	2.00	0.61
21:AA:1219:A:H2'	21:AA:1220:G:H8	1.66	0.61
21:AA:1253:G:C6	21:AA:1285:A:N6	2.68	0.61
24:BA:288:U:H2'	24:BA:289:G:C8	2.35	0.61
24:BA:855:G:H1'	46:BW:23:LYS:HD3	1.82	0.61
24:BA:2287:A:C5	24:BA:2289:G:C8	2.89	0.61
27:BD:70:LYS:O	27:BD:71:ALA:HB3	1.99	0.61
29:BF:131:VAL:HG22	29:BF:151:LEU:O	2.00	0.61
33:BJ:13:ARG:O	33:BJ:14:ASP:CB	2.48	0.61
39:BP:39:LEU:HD21	39:BP:81:ASP:OD2	2.01	0.61
41:BR:51:VAL:HB	41:BR:52:PRO:HD3	1.82	0.61
46:BW:23:LYS:HD2	46:BW:24:ARG:H	1.66	0.61
3:CD:68:GLU:HB2	55:CA:545:C:H5'	1.81	0.61
3:CD:186:GLU:O	3:CD:187:ARG:CB	2.49	0.61
8:CI:35:GLU:HA	8:CI:39:GLY:CA	2.31	0.61
9:CJ:44:THR:HG22	9:CJ:45:ARG:H	1.66	0.61
13:CN:76:PHE:HE2	13:CN:92:ILE:HG21	1.66	0.61
55:CA:704:A:C2'	55:CA:705:G:H8	2.14	0.61
26:DC:127:ASN:O	26:DC:190:THR:HA	2.01	0.61
27:DD:51:THR:CG2	27:DD:76:GLY:HA3	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DD:114:LYS:HD2	27:DD:116:LYS:HZ2	1.66	0.61
29:DF:32:LYS:HD2	29:DF:156:THR:HG21	1.83	0.61
29:DF:43:ILE:HG12	29:DF:77:LYS:HD3	1.83	0.61
36:DM:69:PRO:O	36:DM:70:ASP:HB3	1.99	0.61
37:DN:12:ARG:HG2	37:DN:16:HIS:CG	2.36	0.61
41:DR:25:LEU:H	41:DR:94:THR:HG21	1.65	0.61
47:DX:6:VAL:HG13	47:DX:7:THR:N	2.16	0.61
54:D4:7:VAL:CG1	54:D4:8:LYS:H	2.14	0.61
24:DA:728:G:O2'	24:DA:730:A:H5"	2.01	0.61
24:DA:1056:G:N2	24:DA:1102:C:H5	1.98	0.61
24:DA:1386:C:C2	24:DA:1387:A:N7	2.69	0.61
24:DA:1439:A:H1'	24:DA:1553:A:N6	2.15	0.61
24:DA:1563:U:H2'	24:DA:1564:C:H6	1.65	0.61
24:DA:1784:A:H4'	24:DA:1785:A:H5"	1.82	0.61
24:DA:2100:G:C6	24:DA:2190:G:C5	2.89	0.61
1:AB:24:PRO:HG3	21:AA:830:G:C5'	2.31	0.61
2:AC:131:ARG:NH2	2:AC:135:ARG:NH2	2.49	0.61
2:AC:139:ASN:HA	2:AC:142:ARG:HB2	1.81	0.61
2:AC:152:VAL:HG12	2:AC:197:VAL:CG2	2.31	0.61
10:AK:88:PRO:HA	20:AU:24:LYS:HE2	1.82	0.61
18:AS:46:LEU:H	18:AS:61:VAL:CG2	2.13	0.61
21:AA:1064:G:C2	21:AA:1066:C:N4	2.69	0.61
24:BA:140:C:H4'	24:BA:141:G:H21	1.66	0.61
24:BA:1274:A:N3	24:BA:1297:C:H1'	2.16	0.61
24:BA:2134:A:N6	24:BA:2157:G:C5	2.69	0.61
24:BA:2654:A:H4'	24:BA:2655:G:OP1	2.00	0.61
33:BJ:3:THR:HB	33:BJ:44:TYR:OH	1.99	0.61
35:BL:95:LEU:HB3	35:BL:100:ILE:HD11	1.82	0.61
38:BO:18:LEU:HD23	38:BO:25:ARG:HD2	1.82	0.61
40:BQ:63:ARG:CZ	40:BQ:95:ALA:O	2.49	0.61
47:BX:2:ARG:O	47:BX:11:PRO:HD3	2.01	0.61
4:CE:55:VAL:N	4:CE:56:PRO:HD2	2.16	0.61
55:CA:1169:A:C2'	55:CA:1170:A:C8	2.83	0.61
28:DE:105:LEU:HD12	28:DE:200:LEU:HD11	1.82	0.61
29:DF:5:ASP:C	29:DF:7:TYR:H	2.09	0.61
30:DG:84:LYS:HB2	30:DG:132:LEU:H	1.66	0.61
30:DG:103:ASN:HA	30:DG:112:VAL:HB	1.83	0.61
30:DG:162:ARG:HG3	30:DG:166:GLU:HG3	1.83	0.61
40:DQ:87:VAL:HG12	40:DQ:88:GLU:H	1.65	0.61
42:DS:14:ALA:O	42:DS:18:ARG:HB2	1.99	0.61
43:DT:5:GLU:HA	43:DT:8:LEU:HD12	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DW:39:GLN:O	46:DW:56:HIS:HB3	2.01	0.61
47:DX:53:LYS:CA	47:DX:56:ARG:HB3	2.24	0.61
49:DZ:23:LEU:HD21	49:DZ:53:MET:CE	2.30	0.61
24:DA:407:G:N2	24:DA:421:C:C2	2.68	0.61
24:DA:520:G:H2'	24:DA:521:U:C6	2.36	0.61
24:DA:1144:A:H2'	24:DA:1145:C:H6	1.64	0.61
24:DA:1237:A:O2'	24:DA:1238:G:O4'	2.18	0.61
24:DA:2210:U:H4'	24:DA:2211:A:H5'	1.81	0.61
24:DA:2705:A:H2'	24:DA:2706:A:O4'	2.01	0.61
21:AA:978:A:OP2	21:AA:1362:A:N6	2.33	0.61
21:AA:1055:A:C6	21:AA:1206:G:C5	2.89	0.61
24:BA:96:C:O2'	24:BA:97:C:H5'	2.01	0.61
24:BA:416:U:H2'	24:BA:417:C:O4'	2.01	0.61
24:BA:979:A:H2'	24:BA:982:C:H42	1.66	0.61
24:BA:1141:U:H4'	24:BA:1142:A:O4'	1.99	0.61
24:BA:1812:U:O2'	26:BC:44:ASN:HB3	2.01	0.61
24:BA:1906:G:C2	24:BA:1907:G:C8	2.89	0.61
24:BA:2267:A:H2'	24:BA:2267:A:N3	2.16	0.61
24:BA:2563:U:O2	24:BA:2565:A:H8	1.84	0.61
24:BA:2702:G:H2'	24:BA:2703:C:C6	2.35	0.61
24:BA:2800:A:H3'	24:BA:2801:G:C5'	2.31	0.61
26:BC:203:VAL:O	26:BC:204:LEU:HB2	2.01	0.61
30:BG:30:GLY:HA3	30:BG:78:VAL:HG12	1.83	0.61
36:BM:132:THR:HG22	36:BM:133:LYS:N	2.16	0.61
55:CA:82:G:C5	55:CA:89:U:C5	2.88	0.61
55:CA:113:G:C2	55:CA:315:A:C2	2.88	0.61
55:CA:397:A:H4'	55:CA:398:U:OP1	2.01	0.61
55:CA:1326:U:C4	55:CA:1327:C:N4	2.69	0.61
27:DD:115:GLY:O	37:DN:3:HIS:CE1	2.53	0.61
31:DH:15:LEU:N	31:DH:15:LEU:HD22	2.16	0.61
33:DJ:55:ILE:O	33:DJ:55:ILE:HG13	2.00	0.61
33:DJ:80:HIS:HB3	33:DJ:81:ILE:HG13	1.83	0.61
34:DK:87:LEU:HD23	34:DK:87:LEU:N	2.14	0.61
41:DR:3:ALA:HB2	41:DR:101:ILE:HD13	1.83	0.61
43:DT:67:VAL:HG23	43:DT:75:GLY:O	2.01	0.61
47:DX:67:LEU:HD22	47:DX:77:TYR:CE1	2.36	0.61
50:D0:4:GLN:HG2	50:D0:4:GLN:O	2.00	0.61
24:DA:100:U:H1'	24:DA:101:A:N7	2.16	0.61
24:DA:1060:U:H4'	24:DA:1061:U:H5"	1.83	0.61
24:DA:1063:G:H2'	24:DA:1064:C:C6	2.36	0.61
24:DA:1698:A:H4'	24:DA:1699:G:O5'	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1738:G:O2'	24:DA:1739:A:C8	2.53	0.61
24:DA:2226:C:H2'	24:DA:2227:A:C8	2.35	0.61
24:DA:2544:G:O2'	24:DA:2545:G:O4'	2.17	0.61
1:AB:110:ILE:HG21	1:AB:151:LYS:O	2.00	0.60
1:AB:110:ILE:CD1	1:AB:147:LEU:HD13	2.31	0.60
21:AA:394:G:C5	21:AA:395:C:C5	2.89	0.60
21:AA:461:A:H3'	21:AA:461:A:N3	2.15	0.60
21:AA:1394:A:H62	21:AA:1501:C:C4'	2.13	0.60
21:AA:1438:G:O2'	21:AA:1439:G:H5'	2.01	0.60
24:BA:1082:U:N3	24:BA:1086:A:C5	2.68	0.60
24:BA:1506:U:H2'	24:BA:1507:C:C6	2.36	0.60
24:BA:2103:C:H2'	24:BA:2104:C:H5'	1.82	0.60
24:BA:2329:U:H2'	24:BA:2330:G:O4'	2.01	0.60
32:BI:123:ALA:C	32:BI:125:THR:H	2.07	0.60
9:CJ:52:LEU:H	13:CN:80:ARG:HD2	1.66	0.60
12:CM:24:VAL:HA	55:CA:1329:A:H5"	1.83	0.60
55:CA:195:A:H2'	55:CA:196:A:C8	2.37	0.60
55:CA:206:C:C6	55:CA:206:C:H3'	2.36	0.60
55:CA:313:A:H2'	55:CA:314:C:C6	2.35	0.60
26:DC:179:GLU:OE1	24:DA:1799:G:H2'	2.00	0.60
28:DE:111:GLU:HA	28:DE:114:ARG:HE	1.65	0.60
29:DF:39:VAL:HG22	29:DF:49:LEU:HG	1.82	0.60
29:DF:74:ALA:H	29:DF:78:ILE:HD12	1.61	0.60
46:DW:38:ARG:HH12	24:DA:2387:U:H1'	1.65	0.60
24:DA:277:G:H2'	24:DA:361:G:C6	2.36	0.60
24:DA:527:C:H1'	24:DA:528:A:C5	2.36	0.60
24:DA:975:A:O2'	24:DA:976:G:H5'	2.01	0.60
24:DA:1017:G:H2'	24:DA:1018:U:H6	1.65	0.60
24:DA:1639:C:C2'	24:DA:1640:A:H5"	2.30	0.60
24:DA:1998:A:H2'	24:DA:1999:C:C6	2.36	0.60
1:AB:8:MET:HE2	1:AB:8:MET:N	2.17	0.60
7:AH:21:LYS:HE2	7:AH:21:LYS:HA	1.81	0.60
21:AA:692:U:H2'	21:AA:694:A:OP2	2.01	0.60
21:AA:1034:G:H2'	21:AA:1035:A:C8	2.37	0.60
21:AA:1374:A:H2'	21:AA:1375:A:H8	1.66	0.60
24:BA:545:U:C6	24:BA:545:U:C3'	2.82	0.60
24:BA:572:A:C2	24:BA:2033:A:C2	2.89	0.60
24:BA:923:G:H4'	46:BW:25:PHE:CZ	2.36	0.60
24:BA:1421:G:C2	24:BA:1422:G:N7	2.69	0.60
24:BA:2346:A:H3'	24:BA:2347:C:H5"	1.81	0.60
24:BA:2889:C:O2'	24:BA:2890:G:H5'	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BC:142:ASN:HB2	26:BC:155:ARG:HD3	1.83	0.60
32:BI:98:GLY:HA3	32:BI:137:LEU:HD23	1.81	0.60
37:BN:103:ARG:HD3	37:BN:110:MET:HE3	1.83	0.60
12:CM:47:LEU:HD21	12:CM:52:ILE:CG2	2.31	0.60
12:CM:52:ILE:HD12	12:CM:55:LEU:HB2	1.83	0.60
12:CM:61:LYS:O	12:CM:62:PHE:HB2	2.01	0.60
12:CM:85:TYR:HE2	12:CM:96:VAL:HG13	1.65	0.60
55:CA:77:A:H2'	55:CA:78:A:C8	2.35	0.60
55:CA:352:C:H6	55:CA:352:C:H5"	1.65	0.60
55:CA:407:U:H2'	55:CA:408:A:C8	2.35	0.60
55:CA:1236:A:H4'	55:CA:1304:G:H4'	1.83	0.60
55:CA:1381:U:O2'	55:CA:1382:C:H5'	2.01	0.60
26:DC:8:THR:O	26:DC:9:SER:HB3	2.02	0.60
27:DD:14:ILE:HG13	39:DP:11:GLN:HE22	1.65	0.60
29:DF:48:LEU:HD23	29:DF:48:LEU:H	1.66	0.60
29:DF:52:ALA:HA	29:DF:55:ASP:HB2	1.82	0.60
30:DG:156:TYR:OH	24:DA:2530:A:C8	2.50	0.60
36:DM:29:GLY:CA	36:DM:64:TRP:HZ3	2.14	0.60
45:DV:56:PHE:C	45:DV:58:SER:H	2.07	0.60
24:DA:85:G:N2	24:DA:98:G:H1'	2.16	0.60
24:DA:271:G:O2'	24:DA:272:A:C5'	2.50	0.60
24:DA:476:G:O2'	24:DA:477:A:C8	2.54	0.60
24:DA:814:C:H1'	24:DA:1225:G:N2	2.16	0.60
24:DA:975:A:C8	24:DA:990:A:N6	2.69	0.60
24:DA:1036:G:H1'	24:DA:1120:G:N2	2.16	0.60
24:DA:1701:A:C8	24:DA:1702:G:C8	2.88	0.60
24:DA:2867:G:N3	24:DA:2867:G:C2'	2.44	0.60
1:AB:53:LEU:HA	1:AB:56:LEU:CB	2.31	0.60
3:AD:1:ALA:O	3:AD:67:LEU:HD11	2.01	0.60
6:AG:86:VAL:HG13	6:AG:150:PHE:O	2.02	0.60
7:AH:95:MET:CE	7:AH:129:ALA:HB1	2.31	0.60
8:AI:5:TYR:CD1	8:AI:88:GLU:HB2	2.37	0.60
21:AA:174:A:H2'	21:AA:175:C:C6	2.37	0.60
21:AA:1508:A:H2'	21:AA:1509:C:O4'	2.01	0.60
24:BA:590:A:H2'	24:BA:591:U:C6	2.36	0.60
24:BA:639:U:H2'	24:BA:640:C:C6	2.35	0.60
24:BA:830:G:H4'	24:BA:831:G:OP2	2.00	0.60
24:BA:1161:C:H1'	41:BR:8:GLY:O	2.01	0.60
24:BA:1289:C:H2'	24:BA:1290:C:C6	2.37	0.60
24:BA:1443:U:H2'	24:BA:1444:G:C8	2.36	0.60
25:BB:40:U:H1'	25:BB:45:A:N6	2.17	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BP:3:ILE:HD13	39:BP:3:ILE:C	2.26	0.60
42:BS:13:SER:OG	42:BS:16:LYS:HD2	2.01	0.60
4:CE:95:MET:CA	4:CE:124:ALA:HB2	2.30	0.60
5:CF:18:VAL:HG21	5:CF:58:HIS:CD2	2.35	0.60
5:CF:52:ASN:O	5:CF:53:LYS:HB3	2.00	0.60
10:CK:15:VAL:HG13	10:CK:36:ARG:HH12	1.66	0.60
13:CN:27:LYS:HD2	13:CN:27:LYS:C	2.26	0.60
55:CA:533:A:C2	55:CA:536:C:C5	2.89	0.60
55:CA:692:U:H2'	55:CA:694:A:OP2	2.00	0.60
55:CA:1215:G:C2	55:CA:1216:A:C8	2.89	0.60
26:DC:130:PRO:N	26:DC:188:ARG:HG3	2.15	0.60
30:DG:38:ASP:OD2	30:DG:63:GLN:NE2	2.34	0.60
35:DL:48:ARG:HG3	35:DL:48:ARG:HH11	1.66	0.60
40:DQ:91:ARG:NE	41:DR:11:GLN:HB2	2.16	0.60
45:DV:14:LYS:HB3	56:DB:98:G:N1	2.15	0.60
24:DA:164:C:H2'	24:DA:165:A:O4'	2.01	0.60
24:DA:822:G:O6	24:DA:943:A:H2	1.84	0.60
24:DA:1024:G:OP2	24:DA:1025:G:H3'	2.01	0.60
24:DA:2402:U:H5'	24:DA:2402:U:H6	1.66	0.60
1:AB:98:GLY:O	1:AB:102:ASN:HB3	2.02	0.60
4:AE:97:PRO:O	4:AE:122:VAL:HG12	2.02	0.60
15:AP:54:LEU:H	15:AP:54:LEU:HD12	1.66	0.60
21:AA:113:G:C4	21:AA:114:U:C6	2.90	0.60
21:AA:1049:U:H4'	21:AA:1050:G:H5'	1.84	0.60
21:AA:1240:U:H3'	21:AA:1241:G:C5'	2.32	0.60
21:AA:1322:C:O2'	21:AA:1323:G:H5'	2.02	0.60
21:AA:1391:U:H2'	21:AA:1392:G:C8	2.36	0.60
24:BA:372:G:O4'	47:BX:60:LYS:HE3	2.01	0.60
24:BA:729:G:H2'	24:BA:729:G:N3	2.17	0.60
24:BA:935:C:H2'	24:BA:936:A:H8	1.66	0.60
24:BA:1630:A:H2'	24:BA:1631:G:H5'	1.82	0.60
24:BA:2086:U:H2'	24:BA:2087:G:C8	2.37	0.60
36:BM:40:ARG:HB2	36:BM:93:VAL:CG2	2.31	0.60
48:BY:9:LYS:HB3	48:BY:12:GLU:HG3	1.83	0.60
2:CC:87:ARG:HG2	2:CC:100:ILE:HG21	1.82	0.60
3:CD:66:VAL:HG13	3:CD:70:GLN:OE1	2.01	0.60
4:CE:38:VAL:O	4:CE:116:VAL:HB	2.01	0.60
6:CG:35:LYS:HB3	55:CA:1373:G:H5"	1.83	0.60
55:CA:89:U:O2'	55:CA:90:C:O4'	2.18	0.60
55:CA:174:A:H2'	55:CA:175:C:H6	1.67	0.60
55:CA:246:A:C6	55:CA:279:A:C5	2.89	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CV:35:A:C2	23:CW:3:G:C2	2.89	0.60
27:DD:118:PHE:CE1	27:DD:119:ALA:O	2.54	0.60
29:DF:74:ALA:HB1	29:DF:76:PHE:HD2	1.66	0.60
36:DM:82:MET:HE1	24:DA:956:G:O4'	2.01	0.60
39:DP:88:ARG:HH11	39:DP:112:ARG:NH2	1.99	0.60
41:DR:48:LYS:HD2	41:DR:48:LYS:H	1.66	0.60
48:DY:48:ARG:HG3	48:DY:48:ARG:HH11	1.63	0.60
24:DA:345:A:O2'	24:DA:346:A:C2	2.52	0.60
24:DA:1024:G:N2	24:DA:1142:A:H2	1.99	0.60
56:DB:38:C:O2'	56:DB:39:A:O5'	2.19	0.60
1:AB:162:VAL:HG21	1:AB:172:ILE:CD1	2.31	0.60
5:AF:78:PHE:HB3	5:AF:79:ARG:HH21	1.66	0.60
9:AJ:44:THR:HG23	9:AJ:70:HIS:HA	1.84	0.60
12:AM:13:HIS:ND1	12:AM:41:ASP:HB2	2.17	0.60
21:AA:1087:G:C2	21:AA:1088:G:C5	2.89	0.60
21:AA:1165:U:H2'	21:AA:1166:G:O4'	2.02	0.60
24:BA:387:U:O2	24:BA:388:G:N7	2.35	0.60
24:BA:669:G:C5	24:BA:801:G:C6	2.89	0.60
24:BA:1581:G:C6	24:BA:1582:C:C4	2.89	0.60
24:BA:1820:U:OP1	26:BC:176:ARG:HG2	2.00	0.60
24:BA:2037:A:O2'	24:BA:2038:G:H5'	2.01	0.60
24:BA:2846:G:H2'	24:BA:2847:U:O4'	2.02	0.60
30:BG:60:GLY:O	30:BG:61:TRP:CB	2.46	0.60
31:BH:78:VAL:HG11	31:BH:145:ASN:HB3	1.84	0.60
45:BV:80:HIS:NE2	45:BV:83:LYS:HG3	2.16	0.60
47:BX:39:VAL:HG22	47:BX:44:ARG:O	2.02	0.60
48:BY:43:LEU:O	48:BY:47:ARG:HB2	2.01	0.60
6:CG:14:ASP:HB2	6:CG:22:LEU:CD2	2.30	0.60
7:CH:12:ARG:NH1	7:CH:26:MET:HB2	2.17	0.60
8:CI:50:PRO:HG3	8:CI:79:ARG:HG3	1.83	0.60
13:CN:20:PHE:HE1	13:CN:54:SER:CB	2.14	0.60
55:CA:79:G:N1	55:CA:80:A:N6	2.49	0.60
55:CA:94:G:H4'	55:CA:95:C:OP1	2.00	0.60
55:CA:496:A:HO2'	55:CA:497:G:H8	1.46	0.60
55:CA:543:U:O2'	55:CA:544:G:H5'	2.02	0.60
55:CA:728:A:H2'	55:CA:729:A:C8	2.37	0.60
28:DE:149:ILE:HG23	28:DE:188:MET:N	2.17	0.60
29:DF:7:TYR:O	29:DF:8:LYS:HG3	2.01	0.60
33:DJ:44:TYR:CD1	40:DQ:63:ARG:NH2	2.69	0.60
36:DM:41:LEU:HD23	36:DM:46:ILE:HG22	1.82	0.60
24:DA:1060:U:H5"	24:DA:1061:U:OP1	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1144:A:H2'	24:DA:1145:C:C6	2.36	0.60
24:DA:2149:U:H2'	24:DA:2150:C:C6	2.36	0.60
9:AJ:37:ARG:HB2	9:AJ:75:ASP:HB3	1.84	0.60
20:AU:35:GLU:O	20:AU:36:PHE:C	2.44	0.60
21:AA:511:C:O2'	21:AA:512:U:O5'	2.20	0.60
21:AA:545:C:H2'	21:AA:545:C:O2	2.02	0.60
21:AA:976:G:N7	21:AA:1358:U:C2	2.70	0.60
21:AA:1064:G:O2'	21:AA:1190:G:N2	2.35	0.60
21:AA:1533:C:H2'	21:AA:1534:A:H5"	1.83	0.60
24:BA:738:G:C6	24:BA:739:A:C2	2.89	0.60
24:BA:1001:A:H2'	24:BA:1002:G:O4'	2.01	0.60
24:BA:2232:C:H2'	24:BA:2233:U:H6	1.65	0.60
24:BA:2297:A:N7	24:BA:2320:U:C4	2.69	0.60
24:BA:2432:A:H2'	24:BA:2433:A:C8	2.36	0.60
24:BA:2553:G:H2'	24:BA:2554:U:O4'	2.02	0.60
26:BC:255:LYS:C	26:BC:257:ARG:H	2.10	0.60
30:BG:120:ILE:HD13	30:BG:121:THR:N	2.16	0.60
31:BH:38:PRO:HB2	31:BH:40:THR:HG23	1.84	0.60
33:BJ:49:ASP:C	33:BJ:49:ASP:OD2	2.45	0.60
34:BK:71:ARG:HG3	34:BK:106:GLU:OE2	2.01	0.60
42:BS:29:VAL:HB	42:BS:69:LEU:O	2.01	0.60
1:CB:86:CYS:SG	1:CB:220:VAL:HB	2.41	0.60
10:CK:106:ILE:O	10:CK:106:ILE:HG23	2.01	0.60
10:CK:126:ARG:HB2	20:CU:33:ARG:CD	2.32	0.60
15:CP:77:GLU:C	15:CP:79:ASN:H	2.08	0.60
55:CA:424:G:H2'	55:CA:425:G:H8	1.66	0.60
55:CA:1333:A:H2'	55:CA:1334:G:O4'	2.02	0.60
26:DC:16:VAL:N	26:DC:203:VAL:HG12	2.17	0.60
31:DH:27:ARG:NH1	47:DX:59:ASP:HA	2.17	0.60
37:DN:20:MET:C	37:DN:22:ARG:H	2.10	0.60
44:DU:39:ASN:HD21	44:DU:64:ILE:HG22	1.66	0.60
44:DU:57:ILE:CG2	24:DA:483:A:H1'	2.31	0.60
24:DA:145:C:H2'	24:DA:146:A:C8	2.36	0.60
24:DA:779:U:O2'	24:DA:780:G:H5'	2.02	0.60
24:DA:1386:C:C2'	24:DA:1387:A:H8	2.13	0.60
24:DA:1558:C:H1'	24:DA:1560:G:N7	2.15	0.60
24:DA:2345:G:N3	24:DA:2381:A:H2'	2.17	0.60
5:AF:86:ARG:HH12	5:AF:88:MET:HE3	1.66	0.60
21:AA:464:U:O2'	21:AA:465:A:H3'	2.01	0.60
21:AA:1342:C:H2'	21:AA:1343:G:C8	2.36	0.60
24:BA:558:U:H5"	33:BJ:111:LYS:HE3	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1070:A:HO2'	24:BA:1071:G:P	2.25	0.60
24:BA:2225:A:H4'	24:BA:2226:C:H6	1.66	0.60
24:BA:2553:G:C2	24:BA:2554:U:O2	2.55	0.60
24:BA:2755:C:HO2'	24:BA:2756:U:H6	1.48	0.60
25:BB:15:A:O2'	25:BB:16:G:H5'	2.01	0.60
39:BP:61:ARG:HG2	39:BP:70:GLU:HG2	1.84	0.60
40:BQ:57:ARG:HH22	40:BQ:92:LYS:CE	2.15	0.60
40:BQ:86:SER:O	40:BQ:88:GLU:N	2.34	0.60
49:BZ:53:MET:O	49:BZ:54:VAL:HG13	2.01	0.60
2:CC:161:ILE:HG12	2:CC:161:ILE:O	2.02	0.60
2:CC:198:LYS:HE2	55:CA:1058:G:OP1	2.01	0.60
7:CH:31:LEU:O	7:CH:35:ILE:HG13	2.02	0.60
7:CH:106:SER:HA	55:CA:642:A:C5	2.35	0.60
8:CI:74:GLN:O	8:CI:78:ILE:HG13	2.02	0.60
9:CJ:37:ARG:HB3	9:CJ:74:VAL:O	2.01	0.60
13:CN:62:ARG:HH12	13:CN:67:GLY:C	2.09	0.60
14:CO:16:ARG:HB2	14:CO:23:SER:HB2	1.83	0.60
20:CU:15:LEU:O	20:CU:15:LEU:HG	2.02	0.60
55:CA:109:A:H61	55:CA:324:G:H1'	1.66	0.60
55:CA:545:C:C2'	55:CA:546:A:H5'	2.32	0.60
34:DK:21:CYS:SG	34:DK:39:ILE:CG2	2.90	0.60
39:DP:95:LYS:HG3	24:DA:2718:G:O3'	2.02	0.60
43:DT:43:ILE:CG2	43:DT:58:VAL:HG11	2.31	0.60
45:DV:16:ALA:HA	45:DV:19:ARG:CZ	2.32	0.60
45:DV:30:ILE:HG13	45:DV:40:ILE:HD11	1.82	0.60
51:D1:5:ARG:HD3	24:DA:2285:C:OP2	2.02	0.60
24:DA:647:G:O2'	24:DA:648:G:H8	1.85	0.60
24:DA:1287:A:H2'	24:DA:1288:G:N3	2.16	0.60
24:DA:2520:C:HO2'	24:DA:2521:C:H6	1.49	0.60
3:AD:2:ARG:NH2	3:AD:114:ARG:HD3	2.17	0.60
3:AD:160:LEU:HD22	3:AD:160:LEU:N	2.06	0.60
4:AE:154:ALA:HB3	7:AH:65:PHE:CD1	2.37	0.60
10:AK:34:THR:OG1	10:AK:39:ASN:N	2.34	0.60
24:BA:265:A:O2'	24:BA:266:G:O4'	2.20	0.60
24:BA:1091:G:O2'	24:BA:1092:C:C6	2.54	0.60
24:BA:1107:G:H2'	24:BA:1108:U:H6	1.67	0.60
24:BA:1155:A:N7	24:BA:1157:G:C6	2.70	0.60
24:BA:1738:G:O2'	24:BA:1739:A:C8	2.53	0.60
24:BA:2051:A:N6	24:BA:2614:A:C8	2.70	0.60
24:BA:2327:A:H2'	24:BA:2328:A:C8	2.37	0.60
24:BA:2557:G:H2'	24:BA:2558:C:C6	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2804:U:H2'	24:BA:2805:C:H6	1.67	0.60
24:BA:2839:G:H2'	24:BA:2840:C:H6	1.66	0.60
26:BC:106:PRO:HA	26:BC:141:HIS:HE2	1.67	0.60
30:BG:59:ASP:HB2	30:BG:63:GLN:HG2	1.84	0.60
37:BN:8:ARG:HB3	37:BN:10:LEU:HD22	1.83	0.60
39:BP:27:VAL:HG22	39:BP:83:ILE:HG12	1.84	0.60
40:BQ:63:ARG:HH12	40:BQ:96:ASP:CA	2.14	0.60
46:BW:14:ASP:OD2	46:BW:16:GLU:OE1	2.20	0.60
48:BY:5:GLU:O	48:BY:8:GLU:HB2	2.02	0.60
1:CB:68:PHE:CE2	1:CB:83:ALA:HB1	2.37	0.60
1:CB:100:LEU:C	1:CB:102:ASN:H	2.10	0.60
4:CE:103:GLY:O	4:CE:104:ILE:HG22	2.01	0.60
7:CH:59:GLU:HG2	7:CH:60:LEU:N	2.16	0.60
7:CH:102:VAL:HG22	7:CH:126:CYS:SG	2.42	0.60
9:CJ:84:VAL:HG23	9:CJ:85:ASP:N	2.13	0.60
10:CK:51:PHE:HB3	10:CK:55:ARG:CB	2.29	0.60
55:CA:701:U:H1'	55:CA:703:G:C2	2.36	0.60
55:CA:977:A:O2'	55:CA:1223:C:N4	2.34	0.60
55:CA:1363:A:C8	55:CA:1365:G:C5	2.89	0.60
28:DE:60:TRP:CZ2	24:DA:675:A:OP1	2.53	0.60
29:DF:76:PHE:HZ	24:DA:2310:C:H42	1.49	0.60
33:DJ:43:GLU:O	33:DJ:44:TYR:C	2.45	0.60
35:DL:93:ASN:CG	35:DL:94:THR:H	2.08	0.60
38:DO:13:ARG:O	38:DO:17:LYS:HB2	2.01	0.60
39:DP:92:ARG:HG2	39:DP:92:ARG:O	2.01	0.60
46:DW:77:LYS:N	46:DW:77:LYS:HZ2	2.00	0.60
24:DA:604:G:N2	24:DA:605:G:C4	2.70	0.60
24:DA:1219:U:C2	24:DA:1220:G:C8	2.89	0.60
24:DA:1661:G:H1'	24:DA:2689:U:O4	2.00	0.60
24:DA:1802:A:C2	24:DA:1803:A:C2	2.90	0.60
24:DA:2098:U:H2'	24:DA:2099:U:C6	2.37	0.60
24:DA:2370:G:C6	24:DA:2371:G:C5	2.89	0.60
24:DA:2447:G:C8	24:DA:2500:U:C6	2.90	0.60
24:DA:2516:A:C4	24:DA:2569:G:N2	2.70	0.60
24:DA:2570:G:N2	24:DA:2571:U:H1'	2.17	0.60
56:DB:73:A:C4	56:DB:104:A:C2	2.90	0.60
1:AB:136:ARG:O	1:AB:140:LEU:HD13	2.02	0.60
3:AD:50:TYR:O	3:AD:53:GLN:HB3	2.02	0.60
5:AF:7:VAL:HG22	5:AF:7:VAL:O	2.00	0.60
10:AK:22:ILE:HG13	10:AK:85:VAL:HA	1.84	0.60
10:AK:52:ARG:O	10:AK:55:ARG:HB2	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AT:2:ASN:CG	19:AT:3:ILE:N	2.59	0.60
24:BA:121:G:O2'	24:BA:122:G:H8	1.85	0.60
24:BA:518:G:H2'	24:BA:519:U:C6	2.36	0.60
24:BA:1636:U:H2'	24:BA:1637:A:H8	1.65	0.60
24:BA:1787:A:C5	24:BA:1788:C:H5	2.20	0.60
24:BA:1967:C:O2'	24:BA:1968:G:H5'	2.02	0.60
24:BA:2471:A:C2	24:BA:2480:C:O2	2.55	0.60
24:BA:2739:U:C2'	24:BA:2740:A:H5'	2.31	0.60
25:BB:79:G:H2'	25:BB:80:U:H6	1.67	0.60
26:BC:106:PRO:HA	26:BC:141:HIS:NE2	2.17	0.60
48:BY:8:GLU:O	48:BY:9:LYS:CB	2.50	0.60
1:CB:158:ASP:C	1:CB:180:ILE:HG23	2.27	0.60
4:CE:156:ARG:HA	7:CH:63:LYS:NZ	2.16	0.60
8:CI:44:ARG:HH21	8:CI:48:ARG:HH11	1.47	0.60
10:CK:82:GLU:HB2	10:CK:108:ASN:O	2.02	0.60
55:CA:1102:A:H8	55:CA:1102:A:H5"	1.67	0.60
26:DC:122:ALA:HB3	26:DC:127:ASN:HD21	1.64	0.60
30:DG:19:ASN:N	30:DG:19:ASN:HD22	2.00	0.60
46:DW:38:ARG:HB3	24:DA:2330:G:H1'	1.83	0.60
24:DA:335:C:H2'	24:DA:336:C:C6	2.35	0.60
24:DA:510:C:H2'	24:DA:511:U:C6	2.37	0.60
24:DA:1313:U:C6	24:DA:1610:A:C8	2.90	0.60
24:DA:2145:C:H3'	24:DA:2147:A:OP2	2.01	0.60
24:DA:2450:A:C2	24:DA:2451:A:C4	2.90	0.60
24:DA:2638:G:H2'	24:DA:2775:G:H22	1.65	0.60
24:DA:2663:G:H2'	24:DA:2664:G:H8	1.66	0.60
3:AD:53:GLN:NE2	3:AD:201:GLU:HG2	2.16	0.60
4:AE:93:VAL:CG1	4:AE:139:THR:HG22	2.29	0.60
21:AA:158:G:H2'	21:AA:159:G:C5'	2.26	0.60
21:AA:172:A:C5	21:AA:174:A:N7	2.70	0.60
21:AA:188:C:O2	21:AA:188:C:H2'	2.02	0.60
24:BA:5:A:C2	24:BA:2899:A:C2	2.90	0.60
24:BA:27:G:O2'	24:BA:28:A:OP2	2.18	0.60
24:BA:42:A:H3'	24:BA:43:G:H5"	1.84	0.60
24:BA:632:A:H2'	24:BA:633:A:N7	2.16	0.60
24:BA:812:C:H4'	40:BQ:12:ARG:HH22	1.66	0.60
24:BA:976:G:N3	24:BA:977:G:C8	2.70	0.60
24:BA:1064:C:C4'	32:BI:90:GLY:H	2.13	0.60
24:BA:1190:G:OP1	35:BL:32:GLY:HA2	2.02	0.60
24:BA:1464:G:H2'	24:BA:1465:G:C8	2.37	0.60
24:BA:1496:A:H2'	24:BA:1498:C:C5	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2747:G:O2'	30:BG:66:THR:HG22	2.01	0.60
27:BD:12:THR:HG22	27:BD:13:ARG:N	2.17	0.60
30:BG:73:SER:HA	30:BG:76:ILE:HG22	1.82	0.60
30:BG:123:GLU:CD	30:BG:124:CYS:N	2.59	0.60
32:BI:120:ASP:HB3	32:BI:123:ALA:HB3	1.82	0.60
33:BJ:111:LYS:HD3	33:BJ:112:GLY:N	2.16	0.60
37:BN:73:ASN:HD22	37:BN:76:VAL:HG11	1.67	0.60
4:CE:110:MET:O	4:CE:114:LEU:HG	2.02	0.60
10:CK:22:ILE:CD1	10:CK:31:VAL:HG22	2.32	0.60
17:CR:38:ILE:HG13	17:CR:62:ARG:HH22	1.67	0.60
18:CS:18:VAL:HG21	18:CS:42:ASN:HB3	1.83	0.60
20:CU:14:ALA:O	20:CU:15:LEU:HG	2.01	0.60
20:CU:24:LYS:HG3	20:CU:25:ALA:N	2.16	0.60
55:CA:577:G:C6	55:CA:812:G:N2	2.70	0.60
55:CA:1160:G:C6	55:CA:1181:G:O6	2.55	0.60
55:CA:1363:A:O2'	55:CA:1364:U:H5"	2.01	0.60
27:DD:149:ASN:O	27:DD:151:THR:N	2.35	0.60
33:DJ:43:GLU:O	33:DJ:45:THR:N	2.34	0.60
34:DK:111:LYS:HG2	34:DK:112:PHE:CD1	2.36	0.60
39:DP:5:LYS:O	39:DP:9:GLN:HG2	2.02	0.60
43:DT:73:ARG:HG3	24:DA:456:C:O2'	2.02	0.60
47:DX:31:ASN:HB2	47:DX:33:HIS:CE1	2.37	0.60
52:D2:46:LYS:HD2	52:D2:46:LYS:N	2.17	0.60
24:DA:810:U:OP1	59:DA:3344:HOH:O	2.17	0.60
24:DA:1033:U:H4'	24:DA:1034:G:OP1	2.01	0.60
24:DA:1847:A:O2'	24:DA:1848:A:C8	2.54	0.60
24:DA:2100:G:H2'	24:DA:2101:A:C8	2.37	0.60
24:DA:2346:A:H3'	24:DA:2347:C:H5"	1.83	0.60
56:DB:50:A:H2'	56:DB:51:G:O4'	2.01	0.60
10:AK:57:SER:O	10:AK:90:PRO:HG3	2.02	0.59
13:AN:2:LYS:HG3	21:AA:1048:G:H5"	1.83	0.59
14:AO:50:HIS:O	14:AO:53:ARG:HB3	2.01	0.59
21:AA:427:U:H2'	21:AA:428:G:C8	2.37	0.59
21:AA:453:G:H2'	21:AA:454:G:C8	2.27	0.59
24:BA:747:U:C5	24:BA:2613:U:C5	2.90	0.59
24:BA:1276:A:O2'	24:BA:1277:G:H5'	2.02	0.59
29:BF:68:LYS:HD2	29:BF:68:LYS:N	2.16	0.59
31:BH:125:THR:HG23	31:BH:126:GLY:H	1.67	0.59
36:BM:53:MET:O	36:BM:56:ALA:HB3	2.00	0.59
40:BQ:63:ARG:NH1	40:BQ:96:ASP:CA	2.60	0.59
3:CD:39:GLN:HA	55:CA:426:U:H4'	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CJ:11:LYS:NZ	9:CJ:99:GLN:HB3	2.15	0.59
11:CL:3:VAL:O	11:CL:7:VAL:HG23	2.02	0.59
15:CP:42:ILE:HG22	15:CP:43:ALA:N	2.15	0.59
55:CA:453:G:H2'	55:CA:454:G:C8	2.37	0.59
55:CA:968:A:N3	55:CA:1062:U:H4'	2.17	0.59
55:CA:981:U:H2'	55:CA:982:U:C5	2.37	0.59
55:CA:1057:G:H2'	55:CA:1058:G:O4'	2.02	0.59
26:DC:7:PRO:O	24:DA:1695:G:H8	1.85	0.59
27:DD:133:THR:HG23	27:DD:134:HIS:N	2.17	0.59
28:DE:98:LYS:O	28:DE:99:LYS:HB2	2.01	0.59
38:DO:45:SER:HA	56:DB:112:G:H21	1.64	0.59
48:DY:28:LEU:HG	48:DY:42:LEU:HD22	1.84	0.59
24:DA:1054:A:C4	24:DA:1055:G:H1'	2.36	0.59
24:DA:1270:C:N3	24:DA:1648:U:C5	2.70	0.59
24:DA:1476:U:H2'	24:DA:1514:G:H22	1.66	0.59
24:DA:2602:A:OP1	24:DA:2602:A:H3'	2.01	0.59
24:DA:2896:C:H2'	24:DA:2897:U:H6	1.66	0.59
56:DB:50:A:C6	56:DB:51:G:C5	2.89	0.59
4:AE:84:VAL:HG11	4:AE:143:LEU:HD23	1.84	0.59
8:AI:32:ARG:HG2	8:AI:36:GLN:CB	2.33	0.59
10:AK:28:ASN:HD21	10:AK:47:GLY:H	1.50	0.59
21:AA:441:A:C2	21:AA:497:G:C6	2.90	0.59
21:AA:948:C:H5'	21:AA:1306:A:O2'	2.01	0.59
21:AA:967:C:H2'	21:AA:968:A:N7	2.16	0.59
24:BA:659:G:H4'	28:BE:95:LYS:HD3	1.84	0.59
24:BA:1223:G:C2	24:BA:1227:G:C5	2.90	0.59
24:BA:1266:G:OP1	50:B0:15:ARG:NE	2.34	0.59
24:BA:1724:G:C6	24:BA:1725:U:C4	2.90	0.59
24:BA:1847:A:C8	24:BA:1848:A:N7	2.69	0.59
24:BA:2308:G:O2'	24:BA:2310:C:H5	1.85	0.59
24:BA:2472:G:C5	24:BA:2475:C:C4	2.90	0.59
28:BE:146:VAL:HA	28:BE:185:LYS:O	2.01	0.59
30:BG:95:ALA:HB2	30:BG:104:LEU:HD23	1.84	0.59
32:BI:126:ARG:HA	32:BI:129:GLU:CG	2.32	0.59
38:BO:36:TYR:CD2	38:BO:36:TYR:N	2.70	0.59
43:BT:73:ARG:NH2	43:BT:74:ILE:H	1.99	0.59
54:B4:7:VAL:HG23	54:B4:8:LYS:H	1.66	0.59
4:CE:95:MET:HE2	4:CE:143:LEU:HD21	1.82	0.59
8:CI:16:ALA:HA	8:CI:65:THR:O	2.01	0.59
10:CK:75:GLU:CD	10:CK:75:GLU:N	2.59	0.59
16:CQ:4:ILE:O	16:CQ:5:ARG:C	2.45	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CT:23:ARG:HB3	19:CT:60:GLN:NE2	2.16	0.59
55:CA:140:U:H2'	55:CA:141:G:O4'	2.02	0.59
55:CA:461:A:N3	55:CA:461:A:H2'	2.16	0.59
55:CA:982:U:O2	55:CA:1222:G:O6	2.20	0.59
55:CA:1031:C:H5'	55:CA:1032:G:C5'	2.31	0.59
55:CA:1326:U:H2'	55:CA:1327:C:C6	2.37	0.59
34:DK:35:VAL:HG23	34:DK:36:GLY:N	2.16	0.59
35:DL:3:LEU:C	35:DL:3:LEU:HD12	2.27	0.59
42:DS:6:LYS:NZ	42:DS:6:LYS:HB3	2.17	0.59
42:DS:6:LYS:HB3	42:DS:6:LYS:HZ3	1.67	0.59
24:DA:167:A:H2'	24:DA:168:G:O4'	2.02	0.59
24:DA:826:U:H5"	24:DA:2429:G:OP2	2.02	0.59
24:DA:1008:A:N6	24:DA:1136:G:C6	2.71	0.59
24:DA:1079:C:C4	24:DA:1088:A:H2	2.20	0.59
24:DA:1549:A:H2'	24:DA:1550:C:C6	2.37	0.59
24:DA:2100:G:O6	24:DA:2190:G:C5	2.55	0.59
2:AC:156:LEU:N	2:AC:156:LEU:HD12	2.17	0.59
4:AE:83:PRO:HB3	4:AE:96:GLN:HA	1.82	0.59
7:AH:9:MET:HG3	7:AH:26:MET:HE1	1.82	0.59
8:AI:71:ILE:HD11	21:AA:1248:A:C2	2.37	0.59
13:AN:51:PRO:O	13:AN:52:ARG:HB2	2.02	0.59
14:AO:21:THR:HG21	21:AA:658:C:H1'	1.83	0.59
16:AQ:13:SER:HB3	16:AQ:16:MET:HE1	1.82	0.59
17:AR:39:VAL:HG13	17:AR:40:PRO:HD2	1.84	0.59
21:AA:600:A:H2'	21:AA:601:G:H8	1.66	0.59
21:AA:1151:A:C5	21:AA:1152:A:N7	2.69	0.59
21:AA:1287:A:H2'	21:AA:1288:A:C8	2.38	0.59
21:AA:1468:A:C3'	21:AA:1469:C:H5"	2.33	0.59
24:BA:92:U:H6	24:BA:92:U:H5"	1.67	0.59
24:BA:228:C:H4'	24:BA:229:C:H5"	1.85	0.59
24:BA:311:A:C8	24:BA:332:A:N7	2.70	0.59
24:BA:628:G:H8	24:BA:628:G:O5'	1.85	0.59
24:BA:675:A:C8	24:BA:804:A:C6	2.90	0.59
24:BA:687:C:O2'	24:BA:1780:A:N1	2.34	0.59
24:BA:807:U:P	35:BL:36:LYS:HD3	2.42	0.59
24:BA:973:A:C5'	41:BR:81:LYS:HZ3	2.16	0.59
24:BA:1787:A:C4	24:BA:1788:C:H5	2.20	0.59
24:BA:1859:U:H2'	24:BA:1860:G:O4'	2.02	0.59
33:BJ:54:ILE:HD11	33:BJ:56:VAL:CG2	2.32	0.59
39:BP:33:GLU:HB2	39:BP:38:ARG:HH11	1.68	0.59
39:BP:59:THR:HG23	39:BP:72:VAL:HG12	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CB:20:ARG:HG3	55:CA:831:A:OP1	2.02	0.59
2:CC:8:GLY:HA2	2:CC:11:LEU:HG	1.83	0.59
55:CA:282:A:H2'	55:CA:283:U:C6	2.38	0.59
55:CA:577:G:O2'	55:CA:578:C:H5'	2.02	0.59
55:CA:1250:A:H2'	55:CA:1251:A:O4'	2.02	0.59
55:CA:1381:U:HO2'	55:CA:1382:C:H6	1.50	0.59
26:DC:110:LYS:HB3	26:DC:113:ASP:OD1	2.02	0.59
26:DC:145:MET:HE3	26:DC:181:ARG:HH22	1.68	0.59
27:DD:38:LYS:HB3	27:DD:38:LYS:NZ	2.16	0.59
27:DD:40:LEU:HA	27:DD:44:GLY:HA2	1.83	0.59
28:DE:69:ARG:HG2	24:DA:674:G:O2'	2.03	0.59
34:DK:57:VAL:O	34:DK:57:VAL:HG13	2.01	0.59
36:DM:26:VAL:HG21	36:DM:132:THR:O	2.02	0.59
38:DO:35:ILE:HD11	38:DO:102:ARG:HD2	1.84	0.59
38:DO:64:TYR:CE1	56:DB:52:A:C8	2.85	0.59
53:D3:23:HIS:O	53:D3:46:LYS:HB2	2.03	0.59
24:DA:191:A:H2'	24:DA:192:C:C6	2.38	0.59
24:DA:1063:G:C6	24:DA:1064:C:N4	2.70	0.59
24:DA:1311:G:N2	24:DA:1603:A:H62	1.96	0.59
24:DA:1952:A:C6	24:DA:1953:A:N1	2.70	0.59
56:DB:34:A:C2	56:DB:49:C:C2	2.91	0.59
2:AC:170:GLY:O	21:AA:1106:G:H4'	2.02	0.59
4:AE:94:PHE:CD1	4:AE:94:PHE:C	2.79	0.59
5:AF:62:MET:O	5:AF:63:ASN:HB2	2.01	0.59
6:AG:29:LEU:HD13	6:AG:42:VAL:HG22	1.84	0.59
9:AJ:65:TYR:HB3	13:AN:95:LEU:HD11	1.83	0.59
20:AU:18:PHE:C	20:AU:19:LYS:HE2	2.27	0.59
21:AA:1073:U:O2'	21:AA:1074:G:H5'	2.01	0.59
21:AA:1184:G:O2'	21:AA:1185:G:H5'	2.02	0.59
21:AA:1247:U:O2'	21:AA:1248:A:H5'	2.02	0.59
24:BA:592:A:O2'	53:B3:2:LYS:HA	2.01	0.59
24:BA:831:G:C5	24:BA:832:U:C5	2.89	0.59
24:BA:1935:G:H1'	24:BA:1964:G:N2	2.17	0.59
24:BA:2027:G:C2	24:BA:2028:U:C6	2.91	0.59
24:BA:2722:G:C4	24:BA:2723:C:C5	2.90	0.59
37:BN:73:ASN:C	37:BN:76:VAL:HG12	2.27	0.59
39:BP:26:GLU:HB2	39:BP:43:GLU:HB2	1.84	0.59
51:B1:35:LEU:O	51:B1:35:LEU:HD23	2.01	0.59
2:CC:185:THR:HG22	2:CC:186:SER:N	2.17	0.59
4:CE:95:MET:HB3	4:CE:124:ALA:HB2	1.84	0.59
4:CE:116:VAL:HG23	4:CE:117:ALA:H	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CT:74:HIS:HE1	55:CA:260:G:OP1	1.84	0.59
55:CA:87:C:O2'	55:CA:88:U:H4'	2.02	0.59
55:CA:356:A:O2'	55:CA:367:U:O2'	2.17	0.59
55:CA:501:C:H2'	55:CA:502:A:C8	2.37	0.59
55:CA:915:A:H2'	55:CA:916:U:O4'	2.02	0.59
55:CA:1453:G:H2'	55:CA:1453:G:N3	2.18	0.59
28:DE:79:ARG:CG	28:DE:80:SER:H	2.14	0.59
28:DE:130:LYS:CB	28:DE:133:LEU:HB3	2.29	0.59
30:DG:163:TYR:N	30:DG:163:TYR:CD2	2.69	0.59
33:DJ:6:ALA:HB3	33:DJ:45:THR:HB	1.83	0.59
34:DK:19:VAL:HG12	34:DK:41:ILE:CG1	2.32	0.59
35:DL:48:ARG:HG3	35:DL:48:ARG:NH1	2.17	0.59
35:DL:79:LEU:CA	35:DL:82:LEU:HD11	2.30	0.59
36:DM:74:THR:HB	36:DM:87:GLY:O	2.02	0.59
44:DU:20:LYS:HD3	44:DU:20:LYS:C	2.27	0.59
54:D4:3:VAL:O	54:D4:4:ARG:HB2	2.02	0.59
24:DA:1079:C:O2'	24:DA:1080:A:C8	2.51	0.59
24:DA:1957:C:H2'	24:DA:1958:C:C6	2.38	0.59
1:AB:67:LEU:HD22	1:AB:160:LEU:HD11	1.83	0.59
2:AC:113:LYS:HB2	2:AC:184:ASN:OD1	2.02	0.59
3:AD:57:LYS:C	3:AD:57:LYS:HD2	2.27	0.59
3:AD:61:ARG:NH2	3:AD:67:LEU:HA	2.14	0.59
4:AE:45:VAL:HG12	4:AE:116:VAL:HG23	1.83	0.59
7:AH:110:MET:HE2	7:AH:114:ALA:HB1	1.83	0.59
9:AJ:28:THR:HG22	9:AJ:86:ALA:HB1	1.83	0.59
16:AQ:49:ASN:C	16:AQ:49:ASN:HD22	2.10	0.59
21:AA:356:A:C2	21:AA:368:U:O2	2.54	0.59
21:AA:390:U:H2'	21:AA:391:G:H8	1.66	0.59
21:AA:487:A:H2'	21:AA:488:C:C6	2.37	0.59
21:AA:625:U:H2'	21:AA:626:G:H8	1.67	0.59
21:AA:803:G:H2'	21:AA:804:U:C6	2.38	0.59
24:BA:323:C:H6	24:BA:1205:A:N1	1.99	0.59
24:BA:324:A:N6	24:BA:338:G:H2'	2.17	0.59
24:BA:1675:C:O5'	24:BA:1675:C:H6	1.85	0.59
24:BA:1941:C:H2'	24:BA:1942:C:C6	2.37	0.59
24:BA:1965:C:H6	24:BA:1965:C:C5'	2.15	0.59
26:BC:109:LEU:HD23	26:BC:110:LYS:N	2.15	0.59
27:BD:150:GLN:O	27:BD:150:GLN:HG3	2.01	0.59
28:BE:83:VAL:HG12	28:BE:86:ALA:H	1.67	0.59
34:BK:112:PHE:O	34:BK:115:ILE:HG22	2.03	0.59
36:BM:80:VAL:HG22	36:BM:81:ARG:O	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BQ:57:ARG:NH2	40:BQ:92:LYS:CD	2.65	0.59
47:BX:30:PRO:HB2	47:BX:32:LEU:CD1	2.33	0.59
1:CB:107:ARG:HA	1:CB:110:ILE:CG1	2.32	0.59
6:CG:59:GLU:HB2	6:CG:62:GLU:HB2	1.85	0.59
10:CK:22:ILE:HB	10:CK:85:VAL:HG22	1.84	0.59
12:CM:13:HIS:HB3	12:CM:16:ILE:HD13	1.85	0.59
12:CM:82:LEU:HB2	18:CS:73:PHE:CE2	2.33	0.59
55:CA:82:G:C2'	55:CA:83:C:H4'	2.25	0.59
55:CA:970:C:H5	55:CA:1231:G:HO2'	1.48	0.59
55:CA:1356:G:H2'	55:CA:1357:A:H8	1.67	0.59
29:DF:56:LEU:O	29:DF:60:SER:HB3	2.02	0.59
30:DG:94:ARG:NH2	30:DG:111:PRO:HB3	2.17	0.59
46:DW:16:GLU:O	46:DW:17:ALA:HB3	2.03	0.59
47:DX:1:SER:HB2	24:DA:1364:G:C5	2.37	0.59
24:DA:311:A:O2'	24:DA:312:G:H5'	2.03	0.59
24:DA:518:G:H2'	24:DA:519:U:C6	2.36	0.59
24:DA:855:G:N2	24:DA:923:G:C4	2.70	0.59
24:DA:1091:G:O2'	24:DA:1092:C:O4'	2.17	0.59
24:DA:1737:G:C6	24:DA:1738:G:N1	2.71	0.59
24:DA:2093:G:C6	24:DA:2225:A:C8	2.90	0.59
56:DB:38:C:O2'	56:DB:39:A:H8	1.86	0.59
56:DB:75:G:H2'	56:DB:76:G:C8	2.37	0.59
4:AE:135:VAL:HG13	4:AE:136:VAL:HG12	1.85	0.59
7:AH:1:SER:OG	21:AA:824:G:H1'	2.02	0.59
21:AA:878:A:H2'	21:AA:879:C:O4'	2.02	0.59
21:AA:895:G:C5	21:AA:896:C:C5	2.90	0.59
24:BA:255:A:C2	24:BA:256:A:C4	2.91	0.59
24:BA:370:G:OP2	24:BA:370:G:C8	2.55	0.59
24:BA:956:G:O2'	36:BM:82:MET:HE1	2.03	0.59
24:BA:2498:C:H6	24:BA:2498:C:O5'	1.85	0.59
29:BF:24:VAL:O	29:BF:27:VAL:HG12	2.02	0.59
29:BF:53:ALA:O	29:BF:64:PRO:HG2	2.03	0.59
35:BL:101:ILE:HG22	35:BL:102:GLY:N	2.18	0.59
47:BX:46:VAL:HG21	47:BX:67:LEU:HD11	1.83	0.59
1:CB:49:PHE:HB3	1:CB:199:ILE:HG22	1.84	0.59
3:CD:106:PHE:HA	3:CD:154:VAL:HG23	1.85	0.59
5:CF:5:GLU:OE2	17:CR:23:LYS:HE2	2.02	0.59
13:CN:61:ASN:C	13:CN:62:ARG:HG3	2.28	0.59
17:CR:63:TYR:CE2	55:CA:734:G:N2	2.68	0.59
55:CA:83:C:O2	55:CA:83:C:H2'	2.02	0.59
55:CA:274:A:O2'	55:CA:275:G:C8	2.54	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:559:A:H4'	55:CA:560:A:O5'	2.01	0.59
55:CA:1067:A:H4'	55:CA:1068:G:O5'	2.02	0.59
27:DD:124:ARG:HD3	27:DD:125:TRP:NE1	2.17	0.59
29:DF:134:GLN:NE2	29:DF:136:ILE:H	1.99	0.59
34:DK:2:ILE:HG22	34:DK:3:GLN:N	2.17	0.59
49:DZ:32:GLY:C	49:DZ:34:THR:N	2.58	0.59
50:D0:30:ASP:OD1	50:D0:47:TYR:HB3	2.03	0.59
51:D1:16:THR:HG21	51:D1:41:VAL:HB	1.85	0.59
54:D4:3:VAL:O	54:D4:4:ARG:CB	2.50	0.59
24:DA:27:G:H1'	24:DA:513:A:N6	2.17	0.59
24:DA:100:U:O2'	24:DA:101:A:P	2.60	0.59
24:DA:357:C:H2'	24:DA:358:U:C6	2.37	0.59
24:DA:1303:G:N3	24:DA:1304:A:C8	2.70	0.59
24:DA:1839:G:O2'	24:DA:1840:G:H5'	2.02	0.59
4:AE:79:THR:HA	4:AE:119:VAL:CB	2.32	0.59
8:AI:104:THR:HG23	21:AA:1179:A:O3'	2.01	0.59
10:AK:34:THR:HG1	10:AK:39:ASN:H	1.49	0.59
21:AA:872:A:C4	21:AA:874:G:N7	2.70	0.59
21:AA:1006:G:H2'	21:AA:1007:U:H6	1.67	0.59
21:AA:1160:G:C6	21:AA:1181:G:O6	2.56	0.59
21:AA:1314:C:H2'	21:AA:1315:U:C6	2.37	0.59
24:BA:309:A:N3	24:BA:329:G:O2'	2.35	0.59
24:BA:919:U:C2	24:BA:920:A:C8	2.91	0.59
24:BA:1027:A:N1	24:BA:1126:A:C4	2.70	0.59
24:BA:1257:C:H2'	24:BA:1258:U:H6	1.67	0.59
24:BA:1867:G:O2'	24:BA:1868:C:H5'	2.03	0.59
24:BA:2259:U:H2'	24:BA:2260:C:H6	1.67	0.59
25:BB:27:C:OP1	38:BO:34:HIS:CE1	2.55	0.59
30:BG:29:ASN:CG	30:BG:30:GLY:N	2.59	0.59
44:BU:3:LYS:HD3	44:BU:82:VAL:HB	1.84	0.59
48:BY:57:LEU:HD12	48:BY:57:LEU:O	2.02	0.59
6:CG:19:SER:O	6:CG:23:ALA:HB2	2.02	0.59
20:CU:16:ARG:CG	20:CU:19:LYS:HG2	2.33	0.59
55:CA:1251:A:H2	55:CA:1369:C:O2	1.84	0.59
26:DC:67:LYS:HB3	26:DC:150:GLY:HA2	1.85	0.59
29:DF:73:VAL:O	29:DF:73:VAL:HG12	2.02	0.59
29:DF:78:ILE:HG22	29:DF:79:ARG:O	2.02	0.59
39:DP:113:LEU:HD23	39:DP:113:LEU:C	2.27	0.59
41:DR:62:GLU:HB3	41:DR:97:LYS:HB3	1.84	0.59
41:DR:68:ARG:CZ	41:DR:90:ARG:HG2	2.33	0.59
47:DX:39:VAL:HG22	47:DX:44:ARG:O	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DY:19:LEU:HG	48:DY:22:LEU:HD22	1.84	0.59
50:D0:2:VAL:HG11	24:DA:2015:A:C2	2.38	0.59
24:DA:571:U:C4	24:DA:575:A:C5	2.90	0.59
24:DA:831:G:O2'	24:DA:832:U:H5'	2.03	0.59
24:DA:2327:A:H2'	24:DA:2328:A:C8	2.38	0.59
24:DA:2615:U:H2'	24:DA:2616:C:C6	2.37	0.59
56:DB:11:C:H3'	56:DB:12:C:H5'	1.85	0.59
4:AE:11:GLN:CG	4:AE:116:VAL:HG12	2.33	0.59
11:AL:74:GLN:O	11:AL:75:GLU:C	2.45	0.59
21:AA:97:G:O2'	21:AA:98:A:H5'	2.03	0.59
21:AA:243:A:C2	21:AA:245:U:H2'	2.37	0.59
21:AA:747:A:H5'	21:AA:748:G:OP2	2.03	0.59
24:BA:869:G:C5	24:BA:870:U:C5	2.91	0.59
24:BA:1936:A:C5	24:BA:1945:G:C6	2.91	0.59
24:BA:2491:U:H5"	24:BA:2570:G:H5"	1.83	0.59
28:BE:152:GLU:O	28:BE:153:LEU:HG	2.02	0.59
33:BJ:88:THR:CG2	33:BJ:90:GLU:HG3	2.33	0.59
34:BK:1:MET:HG3	34:BK:67:LYS:HG3	1.85	0.59
39:BP:28:LYS:HB2	39:BP:82:SER:HB3	1.85	0.59
46:BW:39:GLN:HE21	46:BW:43:LYS:N	2.00	0.59
2:CC:76:ILE:HD11	2:CC:102:ILE:HD13	1.85	0.59
5:CF:66:ALA:HB1	5:CF:70:VAL:HG23	1.85	0.59
6:CG:12:LEU:HD22	6:CG:13:PRO:O	2.02	0.59
6:CG:115:MET:C	6:CG:117:LEU:H	2.10	0.59
7:CH:1:SER:C	7:CH:3:GLN:H	2.09	0.59
10:CK:81:LEU:HD11	10:CK:104:PHE:CD2	2.37	0.59
13:CN:62:ARG:NH1	13:CN:62:ARG:HB3	2.17	0.59
20:CU:24:LYS:CG	20:CU:25:ALA:N	2.66	0.59
55:CA:644:U:H2'	55:CA:645:G:H8	1.68	0.59
55:CA:1117:A:C6	55:CA:1184:G:O6	2.55	0.59
55:CA:1135:U:H3'	55:CA:1137:C:N3	2.17	0.59
26:DC:77:VAL:HG23	26:DC:112:GLY:H	1.67	0.59
31:DH:132:PHE:CZ	31:DH:134:VAL:HB	2.38	0.59
34:DK:87:LEU:HD23	34:DK:87:LEU:H	1.67	0.59
34:DK:104:THR:O	34:DK:107:LEU:HD22	2.02	0.59
36:DM:19:GLY:H	36:DM:38:ARG:HH21	1.51	0.59
40:DQ:10:ARG:CZ	40:DQ:10:ARG:HB2	2.32	0.59
24:DA:1494:A:P	24:DA:1494:A:H3'	2.42	0.59
24:DA:1788:C:H2'	24:DA:1789:A:C8	2.37	0.59
24:DA:1809:A:C2	24:DA:1810:A:C4	2.90	0.59
24:DA:1998:A:H2'	24:DA:1999:C:H6	1.66	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2399:G:C2	24:DA:2418:A:C2	2.90	0.59
4:AE:37:VAL:HG11	4:AE:113:VAL:CA	2.31	0.59
4:AE:49:TYR:CE1	21:AA:1079:G:H5"	2.37	0.59
4:AE:63:MET:O	4:AE:67:ARG:HG2	2.03	0.59
9:AJ:57:VAL:HG22	9:AJ:58:ASN:H	1.68	0.59
11:AL:23:LEU:HG	11:AL:24:GLU:N	2.17	0.59
21:AA:113:G:C4	21:AA:114:U:C5	2.91	0.59
21:AA:682:G:H2'	21:AA:683:G:C8	2.37	0.59
24:BA:391:A:C6	24:BA:411:G:C2	2.91	0.59
24:BA:813:U:H2'	24:BA:814:C:C6	2.38	0.59
24:BA:1700:A:C2'	24:BA:1701:A:H5'	2.31	0.59
36:BM:21:ALA:HB1	36:BM:100:LYS:HG2	1.85	0.59
37:BN:25:ALA:O	37:BN:29:VAL:HG23	2.03	0.59
38:BO:31:THR:HG23	38:BO:33:ARG:H	1.68	0.59
40:BQ:96:ASP:C	40:BQ:98:ALA:N	2.50	0.59
47:BX:53:LYS:HD3	47:BX:53:LYS:C	2.28	0.59
4:CE:82:HIS:HB2	4:CE:83:PRO:HD2	1.84	0.59
55:CA:198:G:N3	55:CA:199:A:C8	2.71	0.59
55:CA:954:G:H1	55:CA:1228:C:N4	2.01	0.59
55:CA:1507:A:C6	55:CA:1530:G:C5	2.90	0.59
28:DE:136:GLN:HA	28:DE:139:LYS:HG2	1.84	0.59
38:DO:21:LEU:HD13	24:DA:2378:A:H2'	1.85	0.59
46:DW:37:VAL:C	46:DW:39:GLN:H	2.09	0.59
47:DX:9:LYS:NZ	24:DA:396:G:OP2	2.36	0.59
48:DY:38:GLN:O	24:DA:95:A:H4'	2.03	0.59
24:DA:70:G:O3'	24:DA:113:U:H4'	2.02	0.59
24:DA:247:G:C2	24:DA:252:G:C6	2.91	0.59
24:DA:422:A:O2'	24:DA:423:A:H5'	2.02	0.59
24:DA:529:A:H4'	24:DA:530:G:OP1	2.02	0.59
24:DA:1023:U:O2'	24:DA:1024:G:H5'	2.03	0.59
24:DA:1071:G:O4'	24:DA:1088:A:O2'	2.21	0.59
24:DA:1178:C:H2'	24:DA:1179:G:O4'	2.03	0.59
24:DA:1511:G:O2'	24:DA:1512:C:O4'	2.21	0.59
24:DA:1916:A:H2'	24:DA:1917:U:O4'	2.01	0.59
24:DA:2074:U:H2'	24:DA:2075:U:C6	2.37	0.59
24:DA:2315:G:H2'	24:DA:2316:G:O4'	2.02	0.59
1:AB:153:MET:HE1	1:AB:157:PRO:HG3	1.85	0.59
4:AE:59:ILE:O	4:AE:59:ILE:HD12	2.03	0.59
8:AI:10:ARG:HG3	8:AI:105:ARG:CZ	2.32	0.59
18:AS:39:ILE:HG13	18:AS:68:HIS:O	2.03	0.59
21:AA:198:G:O2'	21:AA:199:A:C5'	2.51	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:1143:G:H2'	21:AA:1144:G:H8	1.68	0.59
24:BA:655:A:O2'	24:BA:656:G:C8	2.52	0.59
24:BA:1682:G:H2'	24:BA:1683:U:C5	2.38	0.59
24:BA:1716:U:O2'	24:BA:1717:A:H8	1.85	0.59
24:BA:2225:A:H4'	24:BA:2226:C:C6	2.38	0.59
24:BA:2320:U:H4'	24:BA:2321:U:H5"	1.84	0.59
24:BA:2674:G:H2'	24:BA:2675:A:C8	2.38	0.59
24:BA:2691:C:H6	24:BA:2691:C:C5'	2.15	0.59
25:BB:14:U:C3'	25:BB:15:A:H5"	2.31	0.59
31:BH:21:VAL:HG21	31:BH:25:TYR:HD2	1.66	0.59
31:BH:32:PRO:HB3	47:BX:38:TRP:CB	2.29	0.59
38:BO:49:VAL:HG12	38:BO:50:ALA:N	2.18	0.59
8:CI:33:SER:H	8:CI:36:GLN:CG	2.16	0.59
9:CJ:59:LYS:CG	55:CA:972:C:H4'	2.32	0.59
14:CO:7:THR:O	14:CO:11:VAL:HG23	2.03	0.59
55:CA:459:A:O2'	55:CA:460:A:H5'	2.03	0.59
55:CA:640:A:H2	55:CA:642:A:N6	2.00	0.59
55:CA:721:G:H4'	55:CA:722:G:C5'	2.33	0.59
55:CA:817:C:H1'	55:CA:819:A:H5'	1.84	0.59
55:CA:1261:A:N7	55:CA:1274:A:H2	2.01	0.59
26:DC:225:ASN:O	26:DC:226:PRO:C	2.46	0.59
35:DL:141:LYS:C	35:DL:142:ILE:HD12	2.28	0.59
24:DA:277:G:H2'	24:DA:361:G:O6	2.02	0.59
24:DA:394:C:C2'	24:DA:395:U:H5'	2.32	0.59
24:DA:866:A:O2'	24:DA:867:C:H6	1.85	0.59
24:DA:1372:U:O2'	24:DA:2212:A:C8	2.56	0.59
24:DA:1476:U:O2'	24:DA:1477:A:P	2.60	0.59
24:DA:2024:G:C5	24:DA:2040:G:C2	2.91	0.59
56:DB:34:A:C2	56:DB:49:C:O2	2.56	0.59
56:DB:59:A:H2'	56:DB:60:C:C6	2.37	0.59
4:AE:14:LEU:HD13	4:AE:14:LEU:C	2.28	0.58
16:AQ:16:MET:HB2	16:AQ:19:SER:HB3	1.85	0.58
19:AT:4:LYS:HE2	19:AT:5:SER:N	2.18	0.58
21:AA:19:A:H1'	21:AA:917:G:N2	2.17	0.58
21:AA:707:U:H2'	21:AA:708:C:C6	2.38	0.58
21:AA:1348:U:H2'	21:AA:1349:A:C8	2.37	0.58
24:BA:83:A:P	44:BU:91:LYS:HE3	2.42	0.58
24:BA:335:C:O2'	24:BA:336:C:H5'	2.03	0.58
24:BA:669:G:C6	24:BA:801:G:O6	2.56	0.58
24:BA:1317:G:C5	24:BA:1318:U:C5	2.91	0.58
24:BA:1636:U:H2'	24:BA:1637:A:C8	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2003:A:H2'	24:BA:2004:G:O5'	2.02	0.58
24:BA:2071:A:H2'	24:BA:2072:C:C6	2.38	0.58
24:BA:2492:U:O2'	24:BA:2493:U:C5'	2.48	0.58
24:BA:2727:A:O2'	24:BA:2728:U:H5'	2.01	0.58
2:CC:31:ASN:O	2:CC:35:ASP:HB2	2.02	0.58
4:CE:11:GLN:HB2	4:CE:38:VAL:O	2.03	0.58
12:CM:21:ILE:HG22	12:CM:23:GLY:N	2.16	0.58
12:CM:89:ARG:HD3	12:CM:94:LEU:HB2	1.85	0.58
15:CP:20:VAL:HG23	15:CP:34:GLU:O	2.03	0.58
16:CQ:74:LEU:HD12	16:CQ:75:VAL:N	2.18	0.58
55:CA:111:G:H2'	55:CA:112:G:H8	1.67	0.58
55:CA:1365:G:H2'	55:CA:1366:C:C6	2.38	0.58
36:DM:36:VAL:HG22	45:DV:82:TYR:HD1	1.68	0.58
37:DN:37:THR:HA	37:DN:110:MET:HE2	1.85	0.58
40:DQ:9:ALA:C	40:DQ:11:ALA:H	2.10	0.58
47:DX:31:ASN:H	47:DX:31:ASN:HD22	1.50	0.58
24:DA:465:G:H2'	24:DA:466:A:C8	2.38	0.58
24:DA:604:G:C2	24:DA:605:G:C5	2.91	0.58
24:DA:1199:U:H2'	24:DA:1200:C:C6	2.38	0.58
24:DA:2832:U:O4	24:DA:2883:A:H5"	2.02	0.58
56:DB:28:C:H2'	56:DB:29:A:O4'	2.03	0.58
56:DB:46:A:O2'	56:DB:47:C:H5'	2.03	0.58
2:AC:31:ASN:HD21	2:AC:58:ARG:HG3	1.68	0.58
3:AD:110:ARG:O	3:AD:113:ALA:HB3	2.03	0.58
8:AI:19:PHE:O	8:AI:62:LEU:HA	2.03	0.58
17:AR:35:SER:OG	17:AR:37:LYS:HG3	2.03	0.58
18:AS:35:ARG:HB3	18:AS:71:GLY:CA	2.33	0.58
21:AA:524:G:C6	21:AA:525:C:N4	2.71	0.58
21:AA:792:A:C4	21:AA:794:A:C6	2.91	0.58
21:AA:1064:G:OP1	21:AA:1386:G:H4'	2.03	0.58
24:BA:514:A:O2'	24:BA:515:A:H5'	2.03	0.58
24:BA:1079:C:N4	24:BA:1088:A:C2	2.67	0.58
24:BA:1374:G:C5	24:BA:1375:U:C5	2.91	0.58
24:BA:1889:A:C2	24:BA:1890:A:C4	2.90	0.58
24:BA:2821:A:H2'	24:BA:2822:G:O4'	2.03	0.58
26:BC:183:VAL:HG12	26:BC:184:GLU:N	2.17	0.58
33:BJ:6:ALA:CB	33:BJ:45:THR:HG21	2.32	0.58
49:BZ:3:THR:HA	49:BZ:37:ARG:O	2.02	0.58
9:CJ:17:LEU:HG	9:CJ:96:VAL:HG13	1.84	0.58
9:CJ:45:ARG:NH2	55:CA:1279:G:H2'	2.18	0.58
12:CM:102:LYS:HG2	55:CA:1226:C:N4	2.13	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CP:3:THR:OG1	15:CP:66:THR:HB	2.03	0.58
55:CA:84:U:O2'	55:CA:85:U:H5'	2.03	0.58
55:CA:229:U:H2'	55:CA:230:G:O4'	2.02	0.58
55:CA:824:G:H2'	55:CA:825:A:H8	1.67	0.58
37:DN:35:LYS:HG3	24:DA:1279:G:OP1	2.03	0.58
38:DO:99:TYR:CD1	38:DO:99:TYR:O	2.55	0.58
40:DQ:39:ILE:O	40:DQ:43:GLN:HG3	2.03	0.58
40:DQ:91:ARG:CD	41:DR:11:GLN:HG3	2.33	0.58
44:DU:48:VAL:HG22	44:DU:50:ALA:H	1.68	0.58
45:DV:69:GLU:C	45:DV:70:ILE:HD13	2.27	0.58
46:DW:18:LYS:HD3	46:DW:19:ARG:H	1.67	0.58
46:DW:23:LYS:HG2	24:DA:855:G:N3	2.19	0.58
24:DA:428:A:O2'	24:DA:429:A:H5'	2.03	0.58
24:DA:622:G:O2'	24:DA:623:C:H5'	2.03	0.58
24:DA:1492:G:H3'	24:DA:1493:C:C5'	2.32	0.58
24:DA:1557:C:C5	24:DA:1558:C:H2'	2.38	0.58
1:AB:70:GLY:HA3	1:AB:79:VAL:HG21	1.85	0.58
1:AB:113:LEU:HB2	1:AB:143:LEU:CD1	2.31	0.58
2:AC:32:LEU:O	2:AC:35:ASP:HB3	2.03	0.58
4:AE:89:THR:HG22	4:AE:90:GLY:H	1.68	0.58
4:AE:152:VAL:HB	4:AE:155:LYS:NZ	2.17	0.58
6:AG:94:ARG:O	6:AG:95:ARG:C	2.46	0.58
16:AQ:16:MET:HE2	16:AQ:20:ILE:HA	1.84	0.58
16:AQ:78:VAL:HG12	16:AQ:79:GLU:OE1	2.04	0.58
19:AT:4:LYS:HE2	19:AT:4:LYS:C	2.28	0.58
21:AA:96:U:O2'	21:AA:97:G:H8	1.85	0.58
21:AA:1338:G:C2	21:AA:1339:A:C4	2.91	0.58
24:BA:656:G:H2'	24:BA:657:U:O4'	2.04	0.58
24:BA:2297:A:N3	24:BA:2298:A:C8	2.71	0.58
24:BA:2530:A:N6	30:BG:155:PRO:HG3	2.19	0.58
27:BD:121:THR:O	27:BD:122:VAL:HG23	2.03	0.58
27:BD:139:SER:HB3	27:BD:142:VAL:HG21	1.85	0.58
28:BE:83:VAL:HG11	28:BE:86:ALA:HB2	1.85	0.58
37:BN:20:MET:CG	37:BN:21:PHE:N	2.63	0.58
40:BQ:60:TRP:O	40:BQ:63:ARG:HG3	2.02	0.58
43:BT:19:LYS:O	43:BT:20:ALA:C	2.47	0.58
3:CD:148:ALA:O	3:CD:151:GLN:HB2	2.03	0.58
4:CE:11:GLN:HG3	4:CE:39:GLY:C	2.28	0.58
12:CM:65:GLU:O	12:CM:69:ARG:HD3	2.02	0.58
20:CU:3:ILE:CG2	20:CU:19:LYS:HZ1	2.16	0.58
55:CA:960:U:O4	55:CA:1225:A:H1'	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:1134:G:C6	55:CA:1135:U:H1'	2.37	0.58
55:CA:1512:U:H2'	55:CA:1513:A:C8	2.38	0.58
26:DC:145:MET:HE3	26:DC:181:ARG:NH2	2.17	0.58
28:DE:35:TYR:CE1	24:DA:615:U:N3	2.72	0.58
28:DE:40:ARG:NH2	28:DE:92:HIS:NE2	2.51	0.58
30:DG:8:VAL:HA	30:DG:68:ARG:HH21	1.68	0.58
39:DP:91:VAL:HG11	39:DP:96:LEU:HD11	1.85	0.58
44:DU:52:ASN:CG	44:DU:54:PRO:HD3	2.29	0.58
48:DY:2:LYS:HD2	48:DY:4:LYS:HE3	1.85	0.58
24:DA:699:A:H4'	24:DA:1634:A:N7	2.18	0.58
24:DA:1197:G:H2'	24:DA:1198:U:C6	2.38	0.58
24:DA:1627:G:O2'	24:DA:1628:G:H5'	2.02	0.58
24:DA:1866:A:H2'	24:DA:1867:G:C8	2.38	0.58
24:DA:2307:G:C1'	24:DA:2308:G:C5	2.79	0.58
24:DA:2344:U:H4'	24:DA:2345:G:OP1	2.03	0.58
56:DB:37:C:N4	56:DB:49:C:H1'	2.17	0.58
5:AF:14:GLN:OE1	5:AF:17:GLN:HB2	2.03	0.58
11:AL:6:LEU:HB3	16:AQ:33:TYR:CE1	2.39	0.58
21:AA:501:C:H2'	21:AA:502:A:H8	1.67	0.58
21:AA:1138:G:O2'	21:AA:1139:G:H4'	2.04	0.58
24:BA:396:G:OP2	47:BX:9:LYS:NZ	2.33	0.58
24:BA:514:A:H1'	24:BA:581:C:O2'	2.04	0.58
24:BA:533:G:H2'	24:BA:534:U:C6	2.38	0.58
24:BA:753:A:H2'	24:BA:754:U:H6	1.67	0.58
24:BA:999:U:C5	24:BA:1154:G:C6	2.90	0.58
24:BA:2471:A:C2	24:BA:2480:C:C2	2.91	0.58
27:BD:101:PHE:HD1	27:BD:101:PHE:N	2.02	0.58
38:BO:75:GLY:HA3	38:BO:106:LEU:HA	1.84	0.58
38:BO:75:GLY:HA2	38:BO:106:LEU:HD12	1.85	0.58
38:BO:105:ALA:O	38:BO:106:LEU:HB3	2.01	0.58
39:BP:74:GLN:O	39:BP:77:SER:HB3	2.03	0.58
47:BX:3:VAL:HG22	47:BX:10:ARG:HB3	1.84	0.58
51:B1:8:ILE:CG2	51:B1:9:LYS:N	2.66	0.58
1:CB:122:ASP:C	1:CB:124:THR:H	2.12	0.58
4:CE:24:VAL:HA	55:CA:922:G:H4'	1.85	0.58
7:CH:88:LYS:HG3	7:CH:89:ASP:OD1	2.03	0.58
9:CJ:45:ARG:HH21	55:CA:1279:G:H2'	1.68	0.58
13:CN:19:TYR:CE2	13:CN:51:PRO:HB3	2.38	0.58
15:CP:20:VAL:CG2	15:CP:32:PHE:HB2	2.34	0.58
19:CT:54:GLN:N	19:CT:55:PRO:HD2	2.19	0.58
55:CA:705:G:O2'	55:CA:706:A:H5'	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:818:G:C2'	55:CA:819:A:H5"	2.33	0.58
55:CA:1241:G:HO2'	55:CA:1242:G:H8	1.45	0.58
55:CA:1327:C:C4	55:CA:1328:C:N4	2.71	0.58
26:DC:120:ASP:CG	26:DC:121:ALA:H	2.11	0.58
27:DD:208:LYS:O	27:DD:209:ALA:CB	2.51	0.58
28:DE:105:LEU:HD23	28:DE:177:PRO:HG3	1.85	0.58
31:DH:96:THR:O	31:DH:97:ARG:HG3	2.02	0.58
33:DJ:44:TYR:HB2	40:DQ:63:ARG:NH1	2.18	0.58
35:DL:141:LYS:O	35:DL:142:ILE:HD12	2.02	0.58
24:DA:3:U:H2'	24:DA:4:U:C6	2.38	0.58
24:DA:62:U:O2'	24:DA:63:A:O4'	2.22	0.58
24:DA:315:G:H2'	24:DA:316:C:O4'	2.01	0.58
24:DA:337:C:H2'	24:DA:338:G:O4'	2.03	0.58
24:DA:1127:A:C2	24:DA:2518:A:C4	2.91	0.58
24:DA:1436:G:C6	24:DA:1437:C:C4	2.91	0.58
24:DA:2347:C:HO2'	24:DA:2348:U:H6	1.46	0.58
24:DA:2581:G:H2'	24:DA:2610:C:N4	2.12	0.58
24:DA:2691:C:O2'	24:DA:2692:G:H5'	2.03	0.58
24:DA:2733:A:H2'	24:DA:2734:A:O4'	2.03	0.58
24:DA:2901:C:N4	24:DA:2902:C:N4	2.52	0.58
56:DB:28:C:C2	56:DB:29:A:C8	2.92	0.58
56:DB:62:C:H2'	56:DB:63:C:O4'	2.04	0.58
3:AD:196:GLU:C	3:AD:198:LEU:H	2.10	0.58
8:AI:18:VAL:HG22	8:AI:64:ILE:HG23	1.84	0.58
10:AK:22:ILE:HG22	10:AK:31:VAL:HG22	1.83	0.58
12:AM:79:LEU:O	12:AM:87:GLY:HA3	2.03	0.58
14:AO:23:SER:HB3	14:AO:26:VAL:HG23	1.86	0.58
21:AA:731:G:O2'	21:AA:732:C:H5'	2.03	0.58
21:AA:841:C:N3	21:AA:843:U:H5'	2.18	0.58
24:BA:992:C:C2	24:BA:1163:G:C2	2.91	0.58
24:BA:1174:U:H5"	24:BA:1174:U:O2	2.02	0.58
24:BA:1387:A:H2'	24:BA:1388:G:H8	1.67	0.58
24:BA:1668:A:H4'	24:BA:1669:A:H5'	1.84	0.58
24:BA:1735:A:H2'	24:BA:1736:U:C6	2.38	0.58
24:BA:2269:G:O2'	46:BW:18:LYS:HG2	2.02	0.58
24:BA:2560:A:C6	24:BA:2561:U:N3	2.72	0.58
26:BC:227:VAL:HG23	26:BC:227:VAL:O	2.03	0.58
28:BE:119:ILE:HD13	28:BE:119:ILE:H	1.69	0.58
33:BJ:16:TYR:HA	33:BJ:138:GLN:O	2.04	0.58
36:BM:23:GLY:H	36:BM:100:LYS:HZ2	1.52	0.58
40:BQ:81:GLY:HA2	40:BQ:116:LEU:HD13	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BX:39:VAL:C	47:BX:41:SER:H	2.10	0.58
51:B1:3:GLY:C	51:B1:5:ARG:H	2.11	0.58
1:CB:182:VAL:C	1:CB:183:PHE:CD1	2.80	0.58
16:CQ:67:SER:OG	16:CQ:70:LYS:HB2	2.03	0.58
55:CA:751:U:H2'	55:CA:752:G:O4'	2.02	0.58
55:CA:1201:A:O2'	55:CA:1202:U:OP2	2.19	0.58
55:CA:1507:A:N6	55:CA:1530:G:C5	2.70	0.58
26:DC:207:ALA:HB2	24:DA:1790:C:O2'	2.03	0.58
28:DE:126:VAL:HG21	28:DE:134:LEU:HD13	1.85	0.58
29:DF:139:GLU:HB3	29:DF:142:TYR:HB3	1.85	0.58
33:DJ:86:GLN:O	33:DJ:87:ALA:HB2	2.04	0.58
38:DO:62:LEU:HD13	38:DO:64:TYR:N	2.17	0.58
44:DU:3:LYS:HG2	44:DU:84:PHE:CZ	2.39	0.58
24:DA:482:A:N6	24:DA:506:G:C4	2.71	0.58
24:DA:996:A:H2'	24:DA:997:G:H8	1.68	0.58
24:DA:1075:C:O2'	24:DA:1076:C:C5'	2.51	0.58
24:DA:1341:G:N2	24:DA:1398:C:H4'	2.18	0.58
24:DA:1579:A:H2'	24:DA:1580:A:C8	2.37	0.58
24:DA:1707:G:C8	24:DA:1756:G:C5	2.91	0.58
56:DB:13:G:H8	56:DB:13:G:H5"	1.67	0.58
4:AE:71:ILE:CD1	4:AE:144:GLU:HG3	2.33	0.58
4:AE:80:LEU:HD21	4:AE:95:MET:CE	2.32	0.58
4:AE:90:GLY:C	4:AE:129:SER:HG	2.12	0.58
6:AG:110:ARG:HH11	6:AG:122:GLU:HG2	1.68	0.58
8:AI:56:MET:SD	8:AI:57:VAL:N	2.76	0.58
15:AP:19:VAL:HG12	15:AP:37:GLY:C	2.28	0.58
21:AA:182:A:C2	21:AA:184:G:C8	2.91	0.58
21:AA:486:U:H2'	21:AA:487:A:C8	2.39	0.58
21:AA:662:U:H2'	21:AA:663:A:C8	2.37	0.58
21:AA:1211:U:H1'	21:AA:1213:A:C2	2.39	0.58
21:AA:1503:A:H5'	21:AA:1531:A:H1'	1.86	0.58
21:AA:1504:G:H3'	21:AA:1505:G:H5'	1.84	0.58
24:BA:370:G:O2'	24:BA:424:G:OP1	2.22	0.58
24:BA:718:A:H5"	24:BA:719:C:OP2	2.04	0.58
24:BA:770:G:N2	24:BA:771:G:H1'	2.18	0.58
24:BA:1753:G:H5"	39:BP:92:ARG:HE	1.68	0.58
24:BA:1838:C:C2	24:BA:1898:U:C4	2.92	0.58
24:BA:1865:U:HO2'	24:BA:1866:A:H8	1.49	0.58
24:BA:2006:C:O2'	24:BA:2823:A:N3	2.35	0.58
24:BA:2144:G:H22	24:BA:2147:A:H4'	1.67	0.58
24:BA:2197:U:OP1	3:CD:150:LYS:HE3	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2210:U:C5	24:BA:2212:A:N6	2.72	0.58
24:BA:2674:G:H2'	24:BA:2675:A:H8	1.67	0.58
24:BA:2776:A:H4'	24:BA:2777:G:C5'	2.34	0.58
24:BA:2861:U:O2'	24:BA:2862:G:H5'	2.04	0.58
24:BA:2880:C:H2'	24:BA:2881:U:H6	1.69	0.58
30:BG:88:LEU:N	30:BG:88:LEU:HD23	2.19	0.58
34:BK:85:VAL:HG11	34:BK:115:ILE:HD11	1.84	0.58
1:CB:127:LYS:HG2	1:CB:136:ARG:NH2	2.19	0.58
2:CC:27:GLU:HA	2:CC:30:ASP:OD1	2.04	0.58
2:CC:110:LEU:O	2:CC:110:LEU:HD23	2.03	0.58
7:CH:1:SER:H2	55:CA:824:G:H1'	1.69	0.58
8:CI:25:GLY:HA3	8:CI:57:VAL:C	2.28	0.58
20:CU:35:GLU:HG3	20:CU:36:PHE:N	2.19	0.58
55:CA:71:A:C8	55:CA:100:G:C2	2.92	0.58
55:CA:874:G:C5	55:CA:875:U:C5	2.91	0.58
55:CA:1500:A:O2'	55:CA:1501:C:H5'	2.04	0.58
55:CA:1508:A:O2'	55:CA:1509:C:O4'	2.16	0.58
27:DD:39:ASP:CG	27:DD:40:LEU:H	2.10	0.58
28:DE:94:GLN:OE1	24:DA:660:C:H5"	2.03	0.58
35:DL:90:VAL:HG13	35:DL:95:LEU:HD21	1.84	0.58
37:DN:1:MET:N	24:DA:1654:A:OP2	2.27	0.58
39:DP:50:ARG:HA	39:DP:57:ALA:O	2.03	0.58
44:DU:84:PHE:H	24:DA:298:G:P	2.25	0.58
24:DA:172:A:O2'	24:DA:173:A:H5'	2.04	0.58
24:DA:439:A:H2'	24:DA:440:C:O4'	2.03	0.58
24:DA:594:U:H2'	24:DA:595:C:H6	1.67	0.58
24:DA:1130:U:HO2'	24:DA:1131:G:H8	1.48	0.58
24:DA:1707:G:O2'	24:DA:1708:C:H5'	2.03	0.58
24:DA:1807:G:H2'	24:DA:1808:A:H5'	1.86	0.58
24:DA:2425:A:H5"	24:DA:2427:C:H5'	1.86	0.58
24:DA:2630:G:C5	24:DA:2894:G:C6	2.92	0.58
24:DA:2788:C:H2'	24:DA:2789:C:C6	2.39	0.58
1:AB:219:THR:HG23	1:AB:220:VAL:H	1.69	0.58
3:AD:57:LYS:HE3	3:AD:58:GLN:HE21	1.69	0.58
5:AF:18:VAL:HB	5:AF:19:PRO:CD	2.34	0.58
18:AS:48:ILE:HD11	18:AS:61:VAL:HG13	1.86	0.58
21:AA:71:A:O2'	21:AA:72:A:H8	1.87	0.58
24:BA:249:C:HO2'	24:BA:250:G:P	2.26	0.58
24:BA:373:U:O2'	24:BA:374:A:H8	1.86	0.58
24:BA:491:G:N2	24:BA:492:A:H1'	2.19	0.58
24:BA:855:G:N3	46:BW:23:LYS:CD	2.63	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1534:U:H5'	24:BA:1535:A:OP1	2.03	0.58
24:BA:1866:A:O2'	24:BA:1867:G:H5'	2.03	0.58
24:BA:1897:G:C2	24:BA:1898:U:C2	2.92	0.58
24:BA:2064:C:H2'	24:BA:2065:C:C6	2.38	0.58
29:BF:134:GLN:HG3	29:BF:140:ILE:HG12	1.85	0.58
31:BH:9:VAL:O	31:BH:10:ALA:O	2.22	0.58
34:BK:113:MET:SD	34:BK:116:ILE:HD11	2.43	0.58
35:BL:94:THR:HG22	35:BL:95:LEU:H	1.67	0.58
35:BL:114:GLY:C	35:BL:115:GLU:HG3	2.28	0.58
43:BT:48:GLN:HB2	43:BT:49:LYS:HE3	1.84	0.58
49:BZ:43:ILE:HD12	49:BZ:43:ILE:O	2.03	0.58
15:CP:13:LYS:HE2	55:CA:483:C:O2	2.03	0.58
55:CA:274:A:O2'	55:CA:275:G:O5'	2.22	0.58
55:CA:652:U:O2'	55:CA:653:U:H6	1.86	0.58
55:CA:989:U:C2'	55:CA:990:C:H5'	2.33	0.58
55:CA:1130:A:H61	55:CA:1144:G:H1'	1.69	0.58
55:CA:1348:U:HO2'	55:CA:1349:A:H8	1.52	0.58
26:DC:41:GLY:HA3	26:DC:53:ILE:HG21	1.86	0.58
26:DC:77:VAL:HG23	26:DC:111:ALA:HA	1.86	0.58
26:DC:119:VAL:CG1	26:DC:133:ASN:HD21	2.10	0.58
26:DC:204:LEU:CD1	24:DA:1791:A:H5"	2.34	0.58
28:DE:147:LEU:O	28:DE:148:ILE:HB	2.03	0.58
29:DF:72:SER:N	29:DF:78:ILE:HG21	2.11	0.58
29:DF:113:PHE:CE2	29:DF:116:LEU:HD22	2.38	0.58
29:DF:118:ALA:HB2	29:DF:176:PHE:HB3	1.85	0.58
33:DJ:116:ARG:HG3	33:DJ:120:ARG:NH2	2.18	0.58
35:DL:100:ILE:HD12	35:DL:101:ILE:H	1.69	0.58
38:DO:31:THR:HG23	38:DO:34:HIS:C	2.29	0.58
38:DO:71:ALA:CB	38:DO:102:ARG:HB3	2.34	0.58
40:DQ:13:HIS:O	40:DQ:17:LEU:HB2	2.03	0.58
43:DT:28:ASN:HB2	43:DT:87:LEU:HB3	1.84	0.58
44:DU:91:LYS:NZ	24:DA:296:U:H5"	2.18	0.58
45:DV:61:LEU:O	45:DV:72:VAL:HG22	2.04	0.58
48:DY:1:MET:HG2	48:DY:4:LYS:HZ1	1.67	0.58
24:DA:219:A:N3	24:DA:234:U:O2'	2.35	0.58
24:DA:352:A:C4	24:DA:353:C:H1'	2.38	0.58
24:DA:672:C:O2'	24:DA:673:C:O4'	2.21	0.58
24:DA:1069:A:H2'	24:DA:1072:C:OP2	2.04	0.58
24:DA:1439:A:C8	24:DA:1440:U:O4'	2.56	0.58
4:AE:53:ARG:HG2	4:AE:53:ARG:O	2.04	0.58
8:AI:50:PRO:HD3	8:AI:79:ARG:HG2	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:394:G:C4	21:AA:395:C:C5	2.92	0.58
21:AA:591:U:H2'	21:AA:592:G:H8	1.69	0.58
21:AA:959:A:H5"	21:AA:960:U:OP2	2.04	0.58
21:AA:1319:A:H2'	21:AA:1323:G:N7	2.19	0.58
24:BA:1579:A:H2'	24:BA:1580:A:H8	1.69	0.58
24:BA:1605:C:O2'	24:BA:1606:C:H5'	2.04	0.58
24:BA:2636:C:H4'	27:BD:81:GLU:OE1	2.04	0.58
35:BL:79:LEU:HB2	35:BL:114:GLY:O	2.04	0.58
37:BN:2:ARG:O	37:BN:3:HIS:C	2.46	0.58
42:BS:1:MET:HE2	42:BS:1:MET:HA	1.85	0.58
43:BT:26:LYS:O	43:BT:27:SER:HB2	2.03	0.58
46:BW:25:PHE:O	46:BW:26:GLY:C	2.47	0.58
1:CB:96:LEU:HB2	1:CB:99:MET:HE3	1.86	0.58
1:CB:128:LEU:O	1:CB:129:THR:C	2.47	0.58
3:CD:131:ILE:HG21	55:CA:620:C:O2	2.03	0.58
10:CK:110:THR:HG22	20:CU:4:LYS:HA	1.84	0.58
18:CS:10:ILE:HG22	18:CS:14:LEU:HD21	1.86	0.58
55:CA:121:U:OP1	55:CA:121:U:H3'	2.04	0.58
55:CA:936:C:H2'	55:CA:937:A:C8	2.39	0.58
55:CA:1242:G:N2	55:CA:1243:C:H1'	2.17	0.58
55:CA:1450:U:H4'	55:CA:1451:U:H5	1.69	0.58
26:DC:75:ALA:HB2	26:DC:95:TYR:CD1	2.38	0.58
27:DD:16:THR:HG23	27:DD:19:GLY:H	1.67	0.58
29:DF:45:ASP:C	29:DF:47:LYS:H	2.11	0.58
37:DN:71:ARG:HH21	37:DN:71:ARG:HB2	1.68	0.58
37:DN:77:ALA:HB2	24:DA:1453:A:C2	2.38	0.58
42:DS:4:ILE:CG2	42:DS:106:VAL:HG22	2.34	0.58
45:DV:77:VAL:HG23	45:DV:89:ILE:CG2	2.34	0.58
49:DZ:16:LEU:H	49:DZ:16:LEU:CD2	2.17	0.58
24:DA:89:A:C6	24:DA:90:U:C4	2.92	0.58
24:DA:301:G:C5	24:DA:302:C:N4	2.72	0.58
24:DA:2734:A:H2'	24:DA:2735:G:H5'	1.85	0.58
3:AD:82:LYS:HB2	3:AD:82:LYS:NZ	2.19	0.58
4:AE:95:MET:CE	4:AE:143:LEU:HD21	2.33	0.58
4:AE:132:PRO:HG2	4:AE:133:ILE:CD1	2.33	0.58
6:AG:43:TYR:O	6:AG:47:GLU:HB2	2.04	0.58
20:AU:9:GLU:CG	20:AU:10:PRO:HD3	2.34	0.58
21:AA:1425:U:O2'	21:AA:1426:G:H5'	2.04	0.58
24:BA:506:G:H4'	24:BA:509:C:O2	2.04	0.58
24:BA:2280:G:C2	24:BA:2281:A:C8	2.91	0.58
28:BE:108:ILE:HD11	28:BE:180:LEU:HD13	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BM:83:GLY:O	36:BM:85:GLY:N	2.35	0.58
37:BN:20:MET:HE1	37:BN:40:LYS:HE2	1.86	0.58
40:BQ:65:ASN:HD21	40:BQ:69:ARG:HH22	1.50	0.58
48:BY:7:ARG:CA	48:BY:60:LYS:HZ1	2.16	0.58
52:B2:12:ARG:HG2	52:B2:13:ASN:ND2	2.18	0.58
54:B4:9:LYS:C	54:B4:10:LEU:HD23	2.29	0.58
3:CD:8:LEU:HD11	3:CD:31:CYS:HA	1.86	0.58
4:CE:104:ILE:HG23	4:CE:104:ILE:O	2.03	0.58
55:CA:426:U:H2'	55:CA:427:U:C6	2.38	0.58
55:CA:1095:U:O2'	55:CA:1096:C:H5'	2.04	0.58
55:CA:1242:G:C2	55:CA:1243:C:H1'	2.39	0.58
28:DE:119:ILE:HD13	28:DE:143:LEU:HD21	1.86	0.58
30:DG:174:LYS:CD	24:DA:2529:G:H4'	2.34	0.58
33:DJ:66:GLY:C	33:DJ:68:LYS:H	2.12	0.58
37:DN:19:ALA:HA	37:DN:22:ARG:HB3	1.86	0.58
38:DO:94:ARG:NH1	24:DA:2294:G:P	2.77	0.58
45:DV:56:PHE:CD1	45:DV:57:TYR:CE2	2.91	0.58
48:DY:18:LEU:O	48:DY:18:LEU:HD13	2.04	0.58
48:DY:57:LEU:HD13	48:DY:60:LYS:HE3	1.85	0.58
53:D3:41:ARG:HG2	53:D3:44:ARG:NH2	2.19	0.58
24:DA:669:G:N3	24:DA:669:G:H2'	2.19	0.58
24:DA:862:G:H2'	24:DA:863:A:O4'	2.04	0.58
24:DA:1345:C:H5'	24:DA:1396:U:C5	2.38	0.58
56:DB:30:C:H2'	56:DB:31:C:H5'	1.85	0.58
3:AD:57:LYS:HG2	3:AD:202:LEU:CD2	2.34	0.58
8:AI:122:ARG:CZ	21:AA:1343:G:H1'	2.32	0.58
10:AK:124:LYS:HE3	20:AU:34:ARG:CD	2.34	0.58
21:AA:181:A:N6	21:AA:194:C:H3'	2.19	0.58
21:AA:587:G:O2'	21:AA:588:G:H5'	2.03	0.58
21:AA:1157:A:C5	21:AA:1180:A:C6	2.91	0.58
24:BA:653:U:H3'	24:BA:654:A:C5'	2.34	0.58
24:BA:658:U:H2'	24:BA:659:G:O5'	2.04	0.58
24:BA:770:G:C2	24:BA:771:G:C8	2.92	0.58
24:BA:775:G:C4	24:BA:794:A:N7	2.72	0.58
24:BA:786:C:C2'	24:BA:787:C:H5'	2.34	0.58
24:BA:1815:A:C5	24:BA:1817:G:C6	2.92	0.58
24:BA:2393:U:H2'	24:BA:2394:C:H6	1.68	0.58
35:BL:95:LEU:HD22	35:BL:100:ILE:HD11	1.85	0.58
36:BM:65:ILE:HG12	36:BM:103:TYR:CD2	2.39	0.58
41:BR:3:ALA:HA	41:BR:40:MET:O	2.03	0.58
46:BW:40:ARG:HD3	46:BW:45:HIS:CE1	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BX:67:LEU:O	47:BX:69:GLU:O	2.22	0.58
1:CB:206:ILE:C	1:CB:208:ALA:H	2.11	0.58
8:CI:125:GLN:H	8:CI:125:GLN:NE2	2.02	0.58
12:CM:2:ARG:HD2	12:CM:8:ILE:HD13	1.84	0.58
55:CA:441:A:H61	55:CA:493:A:H62	1.50	0.58
55:CA:459:A:C2'	55:CA:460:A:H5'	2.34	0.58
55:CA:1029:U:H4'	55:CA:1032:G:H1	1.69	0.58
55:CA:1094:G:O2'	55:CA:1095:U:OP2	2.22	0.58
31:DH:48:GLU:O	31:DH:48:GLU:CD	2.46	0.58
31:DH:109:GLU:HA	31:DH:109:GLU:OE2	2.03	0.58
32:DI:98:GLY:HA3	32:DI:137:LEU:HA	1.86	0.58
35:DL:3:LEU:O	35:DL:4:ASN:C	2.46	0.58
39:DP:77:SER:OG	39:DP:79:VAL:HG22	2.04	0.58
41:DR:87:GLN:HG2	41:DR:88:GLY:H	1.67	0.58
45:DV:27:PRO:O	45:DV:88:HIS:HA	2.04	0.58
24:DA:952:G:C4	24:DA:966:G:N2	2.71	0.58
24:DA:1196:C:H2'	24:DA:1197:G:C8	2.38	0.58
24:DA:1334:G:H2'	24:DA:1335:C:C6	2.39	0.58
24:DA:2312:U:H2'	24:DA:2312:U:O2	2.04	0.58
24:DA:2875:C:H2'	24:DA:2876:G:H8	1.69	0.58
3:AD:61:ARG:NH1	3:AD:68:GLU:HG2	2.19	0.57
4:AE:32:PHE:HD2	4:AE:54:GLU:HA	1.68	0.57
7:AH:87:ARG:O	7:AH:121:GLY:HA3	2.04	0.57
8:AI:6:TYR:CG	8:AI:7:GLY:N	2.72	0.57
21:AA:342:C:C2	21:AA:348:G:N2	2.72	0.57
24:BA:215:G:H4'	24:BA:216:A:OP1	2.04	0.57
24:BA:1640:A:C2'	24:BA:1641:A:H5'	2.34	0.57
24:BA:1695:G:H5"	24:BA:1695:G:N3	2.19	0.57
24:BA:1695:G:H2'	24:BA:1696:G:O4'	2.04	0.57
24:BA:2834:G:O6	24:BA:2879:A:H2'	2.04	0.57
25:BB:28:C:OP1	38:BO:31:THR:HG21	2.04	0.57
30:BG:72:ASN:O	30:BG:76:ILE:HG22	2.04	0.57
31:BH:32:PRO:O	31:BH:33:GLN:HB2	2.03	0.57
31:BH:94:ILE:HD12	31:BH:98:ASP:O	2.04	0.57
32:BI:23:VAL:HG23	32:BI:24:GLY:H	1.69	0.57
38:BO:30:ARG:HG2	38:BO:31:THR:H	1.69	0.57
45:BV:41:GLU:C	45:BV:42:LEU:HD23	2.29	0.57
47:BX:16:ASN:HB2	47:BX:24:THR:OG1	2.04	0.57
2:CC:108:PRO:C	2:CC:110:LEU:H	2.11	0.57
7:CH:26:MET:HB2	7:CH:27:PRO:HD2	1.86	0.57
11:CL:42:LYS:HD2	11:CL:43:LYS:NZ	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CN:66:THR:HG23	13:CN:82:LYS:HE3	1.86	0.57
15:CP:78:VAL:HG12	15:CP:78:VAL:O	2.03	0.57
18:CS:20:LYS:HZ2	18:CS:27:LYS:HD3	1.69	0.57
19:CT:47:GLN:HG2	19:CT:82:ILE:CD1	2.34	0.57
55:CA:524:G:C6	55:CA:525:C:N4	2.72	0.57
55:CA:1129:C:O2'	55:CA:1130:A:H8	1.85	0.57
55:CA:1223:C:H3'	55:CA:1224:U:H5'	1.86	0.57
55:CA:1237:C:O2'	55:CA:1300:G:N2	2.37	0.57
26:DC:99:GLU:HG2	26:DC:100:ARG:N	2.19	0.57
29:DF:91:ARG:HA	29:DF:95:MET:SD	2.44	0.57
34:DK:66:LYS:CD	24:DA:1665:A:H5"	2.32	0.57
43:DT:25:GLU:HA	43:DT:29:THR:O	2.03	0.57
24:DA:730:A:O2'	24:DA:731:C:H5'	2.04	0.57
24:DA:1028:A:H2'	24:DA:1029:A:C8	2.38	0.57
24:DA:2297:A:N6	24:DA:2319:G:O2'	2.37	0.57
24:DA:2333:A:H1'	24:DA:2335:A:C8	2.39	0.57
56:DB:7:G:H2'	56:DB:8:C:O4'	2.04	0.57
1:AB:22:TRP:CA	1:AB:189:ASN:HA	2.30	0.57
13:AN:42:ASN:HD21	13:AN:46:LYS:HE2	1.68	0.57
21:AA:246:A:C4	21:AA:282:A:N6	2.72	0.57
21:AA:429:U:H1'	21:AA:430:A:H5"	1.86	0.57
21:AA:521:G:O2'	21:AA:522:C:H5'	2.05	0.57
21:AA:577:G:N2	21:AA:578:C:C2	2.72	0.57
21:AA:1028:C:C2	21:AA:1034:G:C2	2.93	0.57
21:AA:1314:C:O2'	21:AA:1315:U:H5'	2.03	0.57
24:BA:30:G:H2'	24:BA:31:C:C6	2.38	0.57
24:BA:1422:G:C4	24:BA:1423:G:C8	2.92	0.57
24:BA:1561:C:H2'	24:BA:1562:U:C6	2.39	0.57
24:BA:1747:U:O2'	24:BA:1748:C:H5'	2.03	0.57
24:BA:1937:A:C8	24:BA:1939:U:C6	2.92	0.57
24:BA:1965:C:H6	24:BA:1965:C:H5"	1.67	0.57
24:BA:2068:U:H6	24:BA:2068:U:H5"	1.69	0.57
24:BA:2078:C:H2'	24:BA:2079:U:O4'	2.04	0.57
24:BA:2252:G:C2'	24:BA:2253:G:H5'	2.35	0.57
24:BA:2355:G:H4'	46:BW:20:LEU:CD1	2.32	0.57
24:BA:2428:G:H5"	24:BA:2429:G:OP1	2.04	0.57
24:BA:2889:C:C2'	24:BA:2890:G:H5'	2.34	0.57
26:BC:158:GLY:N	26:BC:194:VAL:HG13	2.19	0.57
43:BT:39:THR:HB	43:BT:42:GLU:CB	2.26	0.57
53:B3:15:LYS:HE2	53:B3:19:GLY:HA2	1.85	0.57
1:CB:59:ILE:HA	1:CB:62:ARG:CD	2.33	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CG:100:MET:CE	6:CG:100:MET:H	2.17	0.57
8:CI:44:ARG:NH2	8:CI:48:ARG:HH11	2.02	0.57
12:CM:103:THR:HG22	12:CM:104:ASN:H	1.68	0.57
18:CS:43:MET:H	18:CS:43:MET:HE3	1.69	0.57
55:CA:702:A:O2'	55:CA:703:G:OP1	2.20	0.57
55:CA:1150:A:H1'	55:CA:1280:A:N6	2.19	0.57
36:DM:42:THR:HB	36:DM:45:GLN:CG	2.34	0.57
36:DM:53:MET:HE1	36:DM:103:TYR:CG	2.39	0.57
39:DP:1:SER:HB3	39:DP:4:ILE:HB	1.86	0.57
39:DP:2:ASN:HD21	24:DA:2876:G:H4'	1.69	0.57
43:DT:2:ILE:HD12	24:DA:141:G:H1	1.68	0.57
45:DV:42:LEU:HD13	45:DV:47:VAL:HG21	1.85	0.57
24:DA:199:A:O2'	24:DA:200:U:H5'	2.04	0.57
24:DA:861:A:H2'	24:DA:862:G:H8	1.67	0.57
24:DA:1078:U:H4'	24:DA:1079:C:H5"	1.86	0.57
24:DA:2104:C:HO2'	24:DA:2105:U:H6	1.46	0.57
24:DA:2135:A:H8	24:DA:2135:A:OP2	1.87	0.57
24:DA:2212:A:N7	24:DA:2214:C:N4	2.52	0.57
24:DA:2297:A:N6	24:DA:2319:G:H1'	2.20	0.57
24:DA:2395:C:H2'	24:DA:2396:G:O4'	2.03	0.57
4:AE:79:THR:CB	4:AE:121:ASN:HD21	2.16	0.57
6:AG:145:GLU:HA	6:AG:148:LYS:HB2	1.86	0.57
18:AS:10:ILE:HD11	18:AS:15:LEU:HD22	1.87	0.57
21:AA:359:G:O2'	21:AA:360:G:H5'	2.04	0.57
21:AA:1089:G:N2	21:AA:1090:U:H1'	2.18	0.57
21:AA:1324:A:O2'	21:AA:1325:C:C6	2.56	0.57
24:BA:1250:G:OP2	35:BL:21:ARG:NH2	2.37	0.57
24:BA:1682:G:H2'	24:BA:1683:U:H6	1.69	0.57
24:BA:2259:U:O4'	24:BA:2427:C:H2'	2.05	0.57
24:BA:2523:G:O2'	24:BA:2524:G:H5'	2.04	0.57
24:BA:2603:G:O2'	24:BA:2604:U:H5'	2.04	0.57
24:BA:2630:G:H2'	24:BA:2631:G:C8	2.38	0.57
24:BA:2722:G:H2'	24:BA:2723:C:C6	2.37	0.57
24:BA:2748:A:C2	24:BA:2749:A:C4	2.92	0.57
29:BF:76:PHE:O	29:BF:77:LYS:CB	2.52	0.57
29:BF:110:ILE:O	29:BF:111:ARG:C	2.47	0.57
34:BK:9:ASN:O	34:BK:83:ALA:HA	2.04	0.57
35:BL:14:LYS:HG3	35:BL:15:ALA:H	1.68	0.57
35:BL:101:ILE:CG2	35:BL:102:GLY:N	2.67	0.57
36:BM:40:ARG:HB2	36:BM:93:VAL:HG22	1.86	0.57
39:BP:85:VAL:O	39:BP:86:LYS:HB2	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BQ:77:LYS:HE2	40:BQ:116:LEU:HD23	1.85	0.57
43:BT:28:ASN:HA	43:BT:91:GLN:NE2	2.19	0.57
52:B2:12:ARG:NH2	52:B2:12:ARG:HB2	2.19	0.57
2:CC:10:ARG:HG2	2:CC:177:LEU:HD23	1.86	0.57
6:CG:100:MET:H	6:CG:100:MET:HE2	1.69	0.57
11:CL:80:LEU:O	11:CL:97:VAL:HG22	2.04	0.57
55:CA:16:A:C2'	55:CA:17:U:H5'	2.33	0.57
55:CA:977:A:H5"	55:CA:977:A:N3	2.19	0.57
55:CA:1269:A:C2	55:CA:1313:U:H1'	2.39	0.57
55:CA:1434:A:H2'	55:CA:1435:G:O4'	2.03	0.57
26:DC:144:GLU:HG3	26:DC:151:GLY:CA	2.34	0.57
30:DG:15:ASP:HB3	30:DG:26:LYS:H	1.69	0.57
31:DH:96:THR:O	31:DH:97:ARG:CG	2.53	0.57
33:DJ:64:VAL:HG11	33:DJ:69:ARG:HA	1.86	0.57
37:DN:110:MET:HE2	37:DN:110:MET:HA	1.86	0.57
38:DO:11:ALA:HB2	38:DO:96:GLY:H	1.66	0.57
38:DO:101:GLY:HA3	56:DB:49:C:C5'	2.34	0.57
24:DA:300:A:N7	24:DA:334:C:H4'	2.19	0.57
24:DA:323:C:OP1	24:DA:324:A:H8	1.87	0.57
24:DA:433:C:H2'	24:DA:434:U:H6	1.69	0.57
24:DA:726:G:O2'	24:DA:727:A:P	2.61	0.57
24:DA:800:A:OP1	24:DA:800:A:C8	2.57	0.57
24:DA:1069:A:O2'	24:DA:1071:G:H5"	2.04	0.57
24:DA:1878:G:C6	24:DA:1879:C:C4	2.92	0.57
24:DA:2552:U:N3	24:DA:2554:U:H5'	2.18	0.57
24:DA:2815:C:C2	24:DA:2816:G:C8	2.92	0.57
56:DB:42:C:O2'	56:DB:43:C:H5'	2.03	0.57
2:AC:34:SER:HA	2:AC:37:LYS:HZ2	1.67	0.57
4:AE:36:THR:HG23	4:AE:62:ALA:CB	2.33	0.57
7:AH:24:VAL:O	7:AH:59:GLU:HA	2.05	0.57
21:AA:399:G:H2'	21:AA:400:C:H6	1.68	0.57
21:AA:606:G:H1'	21:AA:633:G:C2	2.40	0.57
21:AA:922:G:C6	21:AA:923:A:C6	2.91	0.57
24:BA:720:U:H2'	24:BA:721:A:H8	1.67	0.57
24:BA:976:G:N3	24:BA:976:G:H2'	2.17	0.57
24:BA:1278:C:H2'	24:BA:1279:G:H8	1.69	0.57
24:BA:1653:G:H4'	24:BA:1654:A:O5'	2.04	0.57
24:BA:1725:U:H2'	24:BA:1726:C:C6	2.40	0.57
24:BA:2356:U:H4'	46:BW:16:GLU:HG3	1.86	0.57
27:BD:117:GLY:C	27:BD:118:PHE:CD1	2.82	0.57
35:BL:109:LYS:HG2	35:BL:126:ARG:HB3	1.84	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BR:23:GLU:O	41:BR:25:LEU:HD13	2.03	0.57
44:BU:10:VAL:HB	44:BU:70:ALA:O	2.05	0.57
53:B3:31:ILE:CD1	53:B3:34:LYS:HD2	2.34	0.57
3:CD:31:CYS:O	3:CD:32:LYS:HB2	2.04	0.57
4:CE:111:ARG:NH2	55:CA:8:A:C2	2.69	0.57
15:CP:54:LEU:HG	15:CP:55:ASP:H	1.68	0.57
55:CA:247:G:O6	55:CA:278:G:C6	2.58	0.57
23:CW:1:A:H2'	23:CW:2:U:H6	1.69	0.57
28:DE:158:PHE:HA	28:DE:169:VAL:HG11	1.86	0.57
33:DJ:30:THR:HG23	33:DJ:31:GLU:N	2.19	0.57
33:DJ:92:MET:HE2	33:DJ:92:MET:HA	1.85	0.57
39:DP:5:LYS:HE2	39:DP:9:GLN:NE2	2.19	0.57
40:DQ:59:LEU:C	40:DQ:59:LEU:HD13	2.30	0.57
24:DA:449:A:O2'	24:DA:450:G:C5'	2.50	0.57
24:DA:482:A:C6	24:DA:506:G:C4	2.92	0.57
24:DA:1079:C:N4	24:DA:1088:A:N3	2.52	0.57
24:DA:1510:G:C8	24:DA:1510:G:H5'	2.39	0.57
24:DA:1662:U:C2'	24:DA:1663:G:H5"	2.33	0.57
1:AB:133:ALA:O	1:AB:137:THR:HG23	2.04	0.57
3:AD:56:GLU:OE2	3:AD:194:ILE:HA	2.05	0.57
4:AE:17:VAL:HA	4:AE:33:THR:O	2.05	0.57
5:AF:69:GLU:H	5:AF:71:ILE:HG22	1.70	0.57
16:AQ:49:ASN:ND2	16:AQ:51:GLU:HB3	2.19	0.57
21:AA:589:U:O2'	21:AA:590:U:H5'	2.05	0.57
21:AA:925:G:H1'	21:AA:1502:A:C4	2.40	0.57
21:AA:1517:G:H1'	24:BA:1919:A:O3'	2.05	0.57
24:BA:415:A:C2	24:BA:2409:G:C2	2.92	0.57
24:BA:565:C:H4'	59:BA:3336:HOH:O	2.04	0.57
24:BA:1062:G:C6	24:BA:1063:G:C6	2.92	0.57
24:BA:1073:A:C3'	24:BA:1074:G:H5"	2.35	0.57
24:BA:1301:A:C4	24:BA:1303:G:N7	2.73	0.57
24:BA:1317:G:C4	24:BA:1318:U:C6	2.93	0.57
25:BB:74:U:O2	45:BV:29:ILE:HD12	2.04	0.57
33:BJ:17:VAL:HG23	33:BJ:137:PRO:HB2	1.87	0.57
39:BP:80:VAL:HG12	39:BP:81:ASP:N	2.18	0.57
5:CF:86:ARG:HH12	17:CR:63:TYR:HB3	1.70	0.57
6:CG:118:ARG:NH1	55:CA:1240:U:OP1	2.37	0.57
7:CH:28:SER:HA	7:CH:58:LEU:HD12	1.86	0.57
12:CM:102:LYS:HA	55:CA:1226:C:C5	2.39	0.57
16:CQ:74:LEU:HD12	16:CQ:75:VAL:H	1.68	0.57
55:CA:82:G:N7	55:CA:89:U:C4	2.73	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:227:G:H2'	55:CA:228:A:O4'	2.04	0.57
55:CA:710:G:H2'	55:CA:711:G:O4'	2.05	0.57
55:CA:1091:U:C2	55:CA:1093:A:OP2	2.58	0.57
55:CA:1401:G:C2	55:CA:1402:C:H1'	2.40	0.57
26:DC:75:ALA:HB1	26:DC:93:VAL:HG22	1.86	0.57
29:DF:109:ARG:NH1	29:DF:135:ILE:CG2	2.66	0.57
42:DS:7:HIS:CE1	42:DS:10:ALA:HA	2.39	0.57
43:DT:40:LYS:O	43:DT:43:ILE:HG22	2.05	0.57
24:DA:68:G:C2	24:DA:69:C:C2	2.93	0.57
24:DA:91:A:O2'	24:DA:92:U:H5"	2.05	0.57
24:DA:204:A:H4'	24:DA:205:G:OP1	2.04	0.57
24:DA:755:U:H2'	24:DA:756:A:H8	1.69	0.57
24:DA:1060:U:C4'	24:DA:1061:U:H5"	2.35	0.57
24:DA:1283:G:N2	24:DA:1286:A:H5'	2.16	0.57
24:DA:2142:A:C5	24:DA:2143:C:O2'	2.57	0.57
24:DA:2615:U:H2'	24:DA:2616:C:H6	1.69	0.57
5:AF:98:GLU:HG3	5:AF:99:ALA:N	2.19	0.57
10:AK:124:LYS:HG2	20:AU:34:ARG:HG2	1.87	0.57
19:AT:66:ILE:HD12	19:AT:70:LYS:HE3	1.86	0.57
19:AT:82:ILE:O	19:AT:86:ALA:HB3	2.05	0.57
21:AA:113:G:C5	21:AA:114:U:C5	2.93	0.57
21:AA:720:C:N3	21:AA:721:G:C6	2.73	0.57
21:AA:1033:G:H2'	21:AA:1033:G:N3	2.17	0.57
21:AA:1169:A:C2	21:AA:1170:A:C4	2.93	0.57
21:AA:1202:U:H2'	21:AA:1203:C:C6	2.40	0.57
21:AA:1498:U:H2'	23:AW:2:U:OP1	2.03	0.57
24:BA:364:C:H2'	24:BA:365:U:H6	1.69	0.57
24:BA:1847:A:H2'	24:BA:1848:A:H8	1.70	0.57
24:BA:2393:U:O2'	24:BA:2394:C:H5'	2.05	0.57
25:BB:57:A:O2'	25:BB:58:A:C5'	2.52	0.57
32:BI:58:ILE:O	32:BI:60:VAL:HG23	2.04	0.57
35:BL:47:ARG:HG3	35:BL:50:PHE:HB2	1.87	0.57
41:BR:48:LYS:O	41:BR:48:LYS:HD2	2.03	0.57
46:BW:39:GLN:NE2	46:BW:43:LYS:H	2.03	0.57
54:B4:10:LEU:HD12	54:B4:33:HIS:HD2	1.68	0.57
3:CD:170:LEU:O	3:CD:170:LEU:HD12	2.04	0.57
16:CQ:7:LEU:HB2	16:CQ:60:ILE:HD11	1.86	0.57
55:CA:505:G:C6	55:CA:535:A:C2	2.93	0.57
55:CA:540:G:C6	55:CA:541:G:C5	2.93	0.57
55:CA:597:G:C2	55:CA:644:U:C2	2.93	0.57
30:DG:162:ARG:HB2	30:DG:166:GLU:CB	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DM:40:ARG:HB2	36:DM:93:VAL:HG21	1.86	0.57
38:DO:18:LEU:HD21	38:DO:91:SER:HB2	1.86	0.57
41:DR:36:ALA:HA	41:DR:58:VAL:HA	1.86	0.57
24:DA:753:A:H2'	24:DA:754:U:C6	2.39	0.57
24:DA:973:A:H1'	24:DA:1188:U:C6	2.39	0.57
24:DA:1717:A:C2	24:DA:1718:G:H1'	2.39	0.57
24:DA:2691:C:O2'	24:DA:2692:G:C5'	2.52	0.57
2:AC:151:GLU:O	2:AC:197:VAL:HA	2.05	0.57
3:AD:114:ARG:HA	3:AD:117:VAL:HG23	1.85	0.57
7:AH:92:PRO:HG3	7:AH:124:ILE:HG21	1.85	0.57
13:AN:22:LYS:HG3	13:AN:23:ARG:N	2.19	0.57
18:AS:68:HIS:HD2	18:AS:72:GLU:OE1	1.87	0.57
21:AA:22:G:H5'	21:AA:885:G:H5'	1.87	0.57
21:AA:89:U:O2'	21:AA:90:C:C5'	2.49	0.57
21:AA:190:A:H8	21:AA:190:A:O5'	1.86	0.57
21:AA:1323:G:H4'	21:AA:1362:A:C2	2.38	0.57
24:BA:141:G:O6	43:BT:2:ILE:HD12	2.04	0.57
24:BA:509:C:H5"	24:BA:509:C:H6	1.70	0.57
24:BA:804:A:H5"	24:BA:805:G:OP1	2.03	0.57
24:BA:2244:U:H2'	24:BA:2245:U:H6	1.68	0.57
24:BA:2274:A:C5	24:BA:2276:G:C8	2.93	0.57
24:BA:2572:A:C8	27:BD:149:ASN:ND2	2.73	0.57
24:BA:2752:C:C5	24:BA:2753:A:N7	2.72	0.57
25:BB:73:A:C5	25:BB:74:U:C5	2.92	0.57
26:BC:141:HIS:CB	26:BC:190:THR:HB	2.33	0.57
27:BD:70:LYS:O	27:BD:71:ALA:CB	2.52	0.57
27:BD:169:ARG:O	27:BD:170:VAL:HG13	2.04	0.57
32:BI:48:ILE:HG13	32:BI:49:GLU:H	1.69	0.57
32:BI:135:MET:HG2	32:BI:137:LEU:HG	1.86	0.57
34:BK:63:VAL:HG12	34:BK:64:ARG:HG3	1.86	0.57
34:BK:118:LEU:O	34:BK:119:ALA:O	2.22	0.57
36:BM:64:TRP:CH2	36:BM:106:ASP:HB2	2.40	0.57
38:BO:111:ARG:O	38:BO:113:ALA:N	2.38	0.57
2:CC:84:GLU:C	2:CC:86:LEU:N	2.60	0.57
2:CC:133:MET:HE1	2:CC:152:VAL:H	1.68	0.57
2:CC:177:LEU:O	2:CC:178:ARG:HB3	2.05	0.57
4:CE:98:ALA:HB2	4:CE:123:LEU:HG	1.85	0.57
8:CI:4:GLN:NE2	8:CI:21:LYS:HD3	2.20	0.57
13:CN:19:TYR:CZ	13:CN:51:PRO:HB3	2.40	0.57
55:CA:1134:G:C2	55:CA:1141:C:C2	2.93	0.57
27:DD:4:LEU:HD23	27:DD:101:PHE:CE1	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:118:LEU:HD21	28:DE:188:MET:HE1	1.86	0.57
35:DL:38:GLN:O	35:DL:40:SER:N	2.36	0.57
36:DM:8:LYS:HA	36:DM:8:LYS:HE3	1.87	0.57
36:DM:126:ILE:O	36:DM:128:THR:HG23	2.05	0.57
39:DP:50:ARG:CB	39:DP:57:ALA:H	2.17	0.57
42:DS:22:ASP:HA	42:DS:25:ARG:HH12	1.70	0.57
46:DW:18:LYS:CD	46:DW:19:ARG:HG2	2.35	0.57
24:DA:1079:C:H41	24:DA:1088:A:C5'	2.17	0.57
1:AB:129:THR:O	1:AB:132:GLU:HB3	2.05	0.57
2:AC:28:PHE:HZ	13:AN:93:PRO:HD2	1.69	0.57
3:AD:187:ARG:HH22	3:AD:194:ILE:HG13	1.68	0.57
6:AG:49:LEU:CD1	6:AG:60:ALA:HB1	2.34	0.57
21:AA:192:A:H5'	21:AA:193:C:OP2	2.04	0.57
21:AA:984:C:HO2'	21:AA:985:C:H6	1.52	0.57
24:BA:36:G:C2	24:BA:37:C:C6	2.93	0.57
24:BA:447:A:C4	24:BA:473:G:C8	2.93	0.57
24:BA:615:U:C4	28:BE:35:TYR:CE1	2.93	0.57
24:BA:633:A:H8	24:BA:633:A:O5'	1.88	0.57
24:BA:770:G:H21	24:BA:771:G:H1'	1.69	0.57
24:BA:860:U:C4	24:BA:2268:A:C5	2.93	0.57
24:BA:1316:U:H2'	24:BA:1317:G:H8	1.70	0.57
24:BA:1787:A:C4	24:BA:1788:C:C5	2.93	0.57
24:BA:2362:C:H2'	24:BA:2363:G:O4'	2.05	0.57
25:BB:40:U:O2'	25:BB:43:C:H5	1.88	0.57
26:BC:229:HIS:HD2	26:BC:246:PRO:HB3	1.70	0.57
28:BE:153:LEU:C	28:BE:153:LEU:HD12	2.30	0.57
35:BL:94:THR:CG2	35:BL:95:LEU:N	2.66	0.57
36:BM:64:TRP:HZ3	36:BM:106:ASP:HB2	1.68	0.57
37:BN:74:GLU:O	37:BN:77:ALA:HB3	2.05	0.57
43:BT:34:VAL:O	43:BT:34:VAL:HG23	2.03	0.57
43:BT:67:VAL:HG12	43:BT:76:ARG:HG3	1.85	0.57
46:BW:9:THR:OG1	46:BW:10:ARG:N	2.37	0.57
10:CK:124:LYS:HA	20:CU:34:ARG:HG3	1.87	0.57
55:CA:80:A:C6	55:CA:81:A:O2'	2.58	0.57
55:CA:315:A:N7	55:CA:330:C:H5"	2.19	0.57
55:CA:495:A:O2'	55:CA:496:A:H5"	2.05	0.57
55:CA:1266:G:N1	55:CA:1270:G:C6	2.73	0.57
55:CA:1406:U:H1'	55:CA:1518:A:H4'	1.85	0.57
55:CA:1505:G:OP2	59:CA:1873:HOH:O	2.17	0.57
30:DG:174:LYS:HD3	24:DA:2529:G:H4'	1.85	0.57
37:DN:71:ARG:HB2	37:DN:71:ARG:NH2	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DO:94:ARG:HH11	24:DA:2294:G:P	2.28	0.57
45:DV:14:LYS:NZ	56:DB:79:G:N7	2.53	0.57
45:DV:17:SER:CB	56:DB:76:G:H5"	2.35	0.57
53:D3:41:ARG:HG2	53:D3:44:ARG:HH22	1.70	0.57
24:DA:100:U:HO2'	24:DA:101:A:C5'	2.18	0.57
24:DA:356:G:H2'	24:DA:357:C:O4'	2.05	0.57
24:DA:655:A:O2'	24:DA:656:G:N7	2.36	0.57
24:DA:1087:G:H1'	24:DA:1089:A:H1'	1.87	0.57
24:DA:2023:C:O2'	24:DA:2024:G:H5'	2.04	0.57
24:DA:2468:A:C8	24:DA:2476:A:C2	2.92	0.57
3:AD:10:LEU:CD2	3:AD:62:ARG:HG3	2.34	0.57
3:AD:97:LEU:HD23	3:AD:97:LEU:O	2.04	0.57
3:AD:138:PRO:O	3:AD:139:ASN:HB2	2.05	0.57
9:AJ:40:ILE:HB	9:AJ:73:LEU:HB3	1.86	0.57
16:AQ:45:VAL:HG21	16:AQ:60:ILE:CD1	2.35	0.57
21:AA:212:G:O2'	21:AA:213:G:C8	2.31	0.57
21:AA:1171:A:H2'	21:AA:1172:C:C6	2.40	0.57
21:AA:1189:U:H5"	21:AA:1190:G:OP2	2.04	0.57
21:AA:1192:C:N4	21:AA:1193:G:C4	2.73	0.57
21:AA:1299:A:H2'	21:AA:1299:A:N3	2.20	0.57
24:BA:2046:G:O2'	24:BA:2047:C:H5'	2.05	0.57
24:BA:2776:A:H4'	24:BA:2777:G:H5"	1.87	0.57
24:BA:2799:A:C5	24:BA:2801:G:C8	2.93	0.57
26:BC:20:ASN:HD22	26:BC:21:PRO:N	2.01	0.57
34:BK:18:ARG:N	34:BK:45:GLU:HB2	2.13	0.57
36:BM:35:ALA:HB3	36:BM:99:GLY:H	1.70	0.57
37:BN:24:MET:HE3	37:BN:44:LEU:HB2	1.85	0.57
53:B3:25:HIS:HB3	53:B3:43:LEU:HD22	1.87	0.57
4:CE:96:GLN:NE2	4:CE:97:PRO:HG2	2.19	0.57
6:CG:101:ARG:NH2	55:CA:940:C:H5'	2.17	0.57
7:CH:11:THR:HG21	55:CA:876:C:H1'	1.86	0.57
7:CH:101:ALA:O	7:CH:112:ASP:HB2	2.04	0.57
8:CI:114:LYS:HB2	8:CI:117:LEU:HD12	1.87	0.57
12:CM:18:LEU:HD12	12:CM:18:LEU:N	2.18	0.57
55:CA:545:C:H2'	55:CA:546:A:H5'	1.87	0.57
55:CA:956:U:H2'	55:CA:957:U:C6	2.40	0.57
55:CA:1507:A:O2'	55:CA:1508:A:C8	2.43	0.57
26:DC:196:ASN:OD1	26:DC:199:HIS:HB2	2.04	0.57
27:DD:29:VAL:HB	27:DD:98:VAL:HG12	1.86	0.57
29:DF:11:VAL:HG12	29:DF:12:VAL:N	2.19	0.57
29:DF:129:MET:HE2	29:DF:174:PHE:HZ	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DG:94:ARG:CZ	30:DG:105:SER:HB2	2.35	0.57
31:DH:7:ASP:O	31:DH:15:LEU:HA	2.05	0.57
35:DL:105:ILE:HG22	35:DL:106:GLU:N	2.19	0.57
39:DP:51:ASN:HB2	24:DA:2846:G:OP1	2.04	0.57
43:DT:10:VAL:HG23	43:DT:11:LEU:H	1.70	0.57
24:DA:260:G:N2	24:DA:261:G:H1'	2.20	0.57
24:DA:1213:A:O2'	24:DA:1214:A:H5'	2.04	0.57
24:DA:1510:G:H5'	24:DA:1510:G:H8	1.70	0.57
24:DA:1809:A:H2'	24:DA:1810:A:C8	2.40	0.57
24:DA:2645:G:H4'	24:DA:2732:G:H2'	1.87	0.57
56:DB:18:G:C2	56:DB:67:G:C6	2.93	0.57
56:DB:50:A:C6	56:DB:51:G:C8	2.92	0.57
4:AE:38:VAL:HG22	4:AE:46:GLY:O	2.05	0.57
6:AG:145:GLU:CA	6:AG:148:LYS:HB2	2.35	0.57
12:AM:68:LEU:C	12:AM:70:ARG:H	2.12	0.57
15:AP:28:ARG:HH11	15:AP:29:ASN:HD21	1.52	0.57
20:AU:10:PRO:O	20:AU:11:PHE:HB3	2.05	0.57
21:AA:207:C:H2'	21:AA:208:U:N3	2.19	0.57
21:AA:241:G:C2	21:AA:242:G:C4	2.92	0.57
21:AA:407:U:H2'	21:AA:408:A:H8	1.70	0.57
21:AA:428:G:H1'	21:AA:430:A:C8	2.40	0.57
21:AA:438:U:C5	21:AA:494:G:C6	2.93	0.57
21:AA:830:G:H2'	21:AA:831:A:C8	2.40	0.57
21:AA:1350:A:C5	21:AA:1351:U:C4	2.92	0.57
24:BA:608:A:C6	24:BA:609:A:C6	2.93	0.57
24:BA:740:C:C6	24:BA:1981:A:C2	2.92	0.57
24:BA:1842:G:H2'	24:BA:1843:C:C6	2.40	0.57
24:BA:2056:G:H2'	24:BA:2056:G:N3	2.18	0.57
24:BA:2748:A:N1	24:BA:2749:A:C4	2.73	0.57
26:BC:151:GLY:C	26:BC:152:GLN:HG3	2.30	0.57
33:BJ:64:VAL:O	33:BJ:65:THR:CB	2.53	0.57
40:BQ:57:ARG:NH2	40:BQ:92:LYS:HE2	2.19	0.57
47:BX:26:ARG:NH2	47:BX:28:PHE:CE2	2.73	0.57
11:CL:72:ASN:ND2	11:CL:104:SER:H	2.03	0.57
13:CN:74:ARG:C	13:CN:76:PHE:H	2.12	0.57
16:CQ:46:HIS:NE2	16:CQ:48:GLU:HG2	2.20	0.57
55:CA:16:A:H2'	55:CA:17:U:H5'	1.87	0.57
55:CA:512:U:O2'	55:CA:513:C:C6	2.55	0.57
55:CA:938:A:C6	55:CA:939:G:C5	2.93	0.57
55:CA:1063:C:H2'	55:CA:1064:G:C8	2.39	0.57
55:CA:1140:C:O2'	55:CA:1141:C:H6	1.84	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:1479:C:H2'	55:CA:1480:A:H8	1.70	0.57
30:DG:149:ALA:O	30:DG:151:ARG:N	2.38	0.57
31:DH:24:GLY:O	31:DH:25:TYR:C	2.47	0.57
31:DH:136:SER:C	31:DH:137:GLU:HG3	2.30	0.57
32:DI:76:ALA:HB2	32:DI:131:THR:HB	1.87	0.57
36:DM:29:GLY:N	36:DM:64:TRP:CZ3	2.73	0.57
38:DO:62:LEU:HD13	38:DO:62:LEU:C	2.30	0.57
40:DQ:84:LYS:C	40:DQ:86:SER:H	2.12	0.57
45:DV:88:HIS:CD2	56:DB:75:G:H21	2.23	0.57
51:D1:25:ASN:HB3	51:D1:28:THR:OG1	2.05	0.57
52:D2:22:MET:HG2	52:D2:22:MET:O	2.03	0.57
53:D3:18:LYS:HD2	53:D3:19:GLY:H	1.69	0.57
24:DA:66:C:C4	24:DA:67:U:C4	2.92	0.57
24:DA:1313:U:O2	24:DA:1313:U:C2'	2.51	0.57
24:DA:1669:A:N3	24:DA:1669:A:C2'	2.65	0.57
24:DA:2210:U:O2	24:DA:2212:A:H5"	2.05	0.57
4:AE:36:THR:HG23	4:AE:62:ALA:HB1	1.86	0.56
4:AE:155:LYS:HZ2	4:AE:156:ARG:HH11	1.51	0.56
15:AP:6:LEU:HD13	15:AP:71:VAL:HG22	1.87	0.56
21:AA:315:A:O2'	21:AA:316:C:OP2	2.20	0.56
21:AA:430:A:O2'	21:AA:431:A:H5'	2.05	0.56
21:AA:677:U:H3	21:AA:713:G:H22	1.53	0.56
21:AA:920:U:H2'	21:AA:921:U:C6	2.40	0.56
21:AA:954:G:C6	21:AA:955:U:N3	2.73	0.56
21:AA:1084:G:C5	21:AA:1085:U:O4	2.58	0.56
24:BA:163:C:HO2'	24:BA:164:C:H5"	1.70	0.56
24:BA:1230:A:H2'	24:BA:1231:U:C6	2.40	0.56
24:BA:1243:C:H2'	24:BA:1244:A:O4'	2.05	0.56
24:BA:1476:U:O2'	24:BA:1477:A:H5'	2.04	0.56
24:BA:2046:G:H2'	24:BA:2047:C:C6	2.40	0.56
24:BA:2197:U:O2'	24:BA:2198:A:P	2.63	0.56
25:BB:33:G:C2'	25:BB:34:A:H5'	2.35	0.56
25:BB:110:C:H2'	25:BB:111:U:O4'	2.05	0.56
26:BC:259:ASN:C	26:BC:261:ARG:N	2.63	0.56
29:BF:107:VAL:CG1	29:BF:113:PHE:CZ	2.87	0.56
30:BG:35:THR:O	30:BG:36:LEU:HD22	2.04	0.56
3:CD:102:TYR:C	3:CD:104:MET:N	2.63	0.56
6:CG:124:SER:O	6:CG:128:GLU:HG2	2.05	0.56
8:CI:72:SER:HB2	55:CA:1372:U:OP1	2.05	0.56
11:CL:51:VAL:HG12	11:CL:52:CYS:H	1.67	0.56
11:CL:65:TYR:HB3	11:CL:95:HIS:CD2	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:373:A:N3	55:CA:374:A:C8	2.72	0.56
55:CA:1213:A:C4	55:CA:1215:G:C8	2.93	0.56
55:CA:1242:G:H2'	55:CA:1243:C:O5'	2.05	0.56
26:DC:44:ASN:C	26:DC:46:GLY:H	2.13	0.56
26:DC:77:VAL:CG2	26:DC:112:GLY:H	2.17	0.56
27:DD:9:VAL:O	39:DP:4:ILE:HD11	2.05	0.56
30:DG:84:LYS:O	30:DG:85:LYS:HB3	2.05	0.56
33:DJ:89:PHE:HE2	33:DJ:100:VAL:HG11	1.69	0.56
35:DL:81:ASP:C	35:DL:82:LEU:HD12	2.30	0.56
36:DM:71:LYS:HD3	36:DM:95:LEU:HD13	1.87	0.56
41:DR:24:LYS:HA	41:DR:94:THR:HG23	1.86	0.56
45:DV:30:ILE:HG12	45:DV:91:PHE:HB2	1.87	0.56
48:DY:4:LYS:HD3	48:DY:4:LYS:H	1.69	0.56
53:D3:22:LYS:H	53:D3:48:MET:CB	2.17	0.56
24:DA:308:G:C6	24:DA:309:A:C6	2.93	0.56
24:DA:476:G:N2	24:DA:479:A:O4'	2.36	0.56
24:DA:664:G:H2'	24:DA:665:U:H6	1.71	0.56
24:DA:686:U:H6	24:DA:788:A:N1	2.03	0.56
24:DA:708:G:N2	24:DA:724:U:H1'	2.19	0.56
24:DA:792:A:C3'	24:DA:793:A:H5'	2.34	0.56
24:DA:1506:U:H2'	24:DA:1507:C:O4'	2.05	0.56
24:DA:1862:G:C2	24:DA:1881:C:C2	2.92	0.56
24:DA:2314:A:H2'	24:DA:2315:G:H8	1.70	0.56
24:DA:2686:G:H2'	24:DA:2687:U:C6	2.40	0.56
1:AB:75:ALA:O	1:AB:79:VAL:HG23	2.06	0.56
1:AB:202:ASN:ND2	1:AB:205:ALA:HB2	2.21	0.56
10:AK:24:ALA:O	10:AK:88:PRO:O	2.22	0.56
13:AN:50:LEU:O	13:AN:51:PRO:C	2.47	0.56
21:AA:71:A:N3	21:AA:72:A:C8	2.73	0.56
21:AA:584:G:H2'	21:AA:585:G:H8	1.68	0.56
21:AA:830:G:H2'	21:AA:831:A:H8	1.69	0.56
21:AA:1021:A:C2'	21:AA:1022:A:H5"	2.35	0.56
21:AA:1154:G:C2	21:AA:1155:A:C8	2.93	0.56
24:BA:271:G:C6	24:BA:272:A:N6	2.73	0.56
24:BA:527:C:H4'	24:BA:528:A:O5'	2.04	0.56
24:BA:1380:G:C2	24:BA:1381:G:C8	2.93	0.56
24:BA:1906:G:C6	24:BA:1907:G:N7	2.73	0.56
24:BA:2060:A:O2'	24:BA:2061:G:OP2	2.18	0.56
24:BA:2256:G:H2'	24:BA:2257:U:H6	1.70	0.56
24:BA:2551:C:H2'	24:BA:2552:U:C6	2.40	0.56
25:BB:99:A:H3'	25:BB:100:G:H8	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BC:230:PRO:CD	26:BC:246:PRO:HA	2.34	0.56
27:BD:35:THR:CG2	27:BD:51:THR:HG22	2.35	0.56
27:BD:137:SER:O	27:BD:138:LEU:HB2	2.05	0.56
28:BE:134:LEU:HD21	28:BE:161:ALA:HB2	1.88	0.56
32:BI:53:PRO:O	32:BI:74:PRO:HD2	2.04	0.56
33:BJ:93:ILE:O	33:BJ:97:PRO:HG3	2.05	0.56
37:BN:75:ILE:HG13	37:BN:76:VAL:N	2.19	0.56
48:BY:40:SER:O	48:BY:42:LEU:N	2.38	0.56
1:CB:9:LEU:O	1:CB:10:LYS:HB3	2.04	0.56
1:CB:90:PHE:HE1	1:CB:92:ASN:ND2	1.98	0.56
6:CG:78:ARG:HA	6:CG:84:TYR:HB2	1.87	0.56
6:CG:107:ALA:HB1	6:CG:115:MET:HE1	1.88	0.56
20:CU:19:LYS:HZ3	20:CU:19:LYS:N	2.03	0.56
55:CA:129:A:O2'	55:CA:130:A:H8	1.85	0.56
55:CA:452:A:H2'	55:CA:453:G:O4'	2.05	0.56
55:CA:511:C:O2'	55:CA:512:U:H5"	2.05	0.56
55:CA:1064:G:O2'	55:CA:1190:G:N2	2.38	0.56
55:CA:1293:C:H2'	55:CA:1294:G:H8	1.69	0.56
26:DC:82:TYR:O	26:DC:84:PRO:HD3	2.05	0.56
26:DC:144:GLU:HG3	26:DC:151:GLY:N	2.19	0.56
26:DC:147:PRO:HD3	26:DC:184:GLU:HG3	1.85	0.56
29:DF:136:ILE:HG22	29:DF:142:TYR:CG	2.40	0.56
33:DJ:43:GLU:O	33:DJ:45:THR:HG22	2.05	0.56
36:DM:41:LEU:C	36:DM:93:VAL:HG23	2.30	0.56
39:DP:22:GLY:HA3	39:DP:91:VAL:CG2	2.35	0.56
40:DQ:50:ARG:HD2	40:DQ:50:ARG:N	2.20	0.56
40:DQ:78:PHE:CZ	40:DQ:82:LEU:HD11	2.40	0.56
42:DS:66:ILE:HA	42:DS:69:LEU:HD13	1.86	0.56
43:DT:69:ARG:O	43:DT:74:ILE:HD12	2.04	0.56
46:DW:18:LYS:HZ3	46:DW:18:LYS:HB2	1.68	0.56
49:DZ:38:GLU:CD	49:DZ:39:ASP:H	2.12	0.56
50:D0:38:LEU:N	50:D0:41:HIS:CE1	2.73	0.56
24:DA:1310:G:N2	24:DA:1605:C:C2	2.74	0.56
24:DA:1386:C:HO2'	24:DA:1387:A:H8	1.52	0.56
24:DA:2043:C:C2	24:DA:2044:C:C5	2.93	0.56
24:DA:2064:C:H2'	24:DA:2065:C:H6	1.66	0.56
24:DA:2825:G:H2'	24:DA:2826:A:O4'	2.04	0.56
1:AB:137:THR:CA	1:AB:140:LEU:HD13	2.29	0.56
1:AB:205:ALA:HB3	1:AB:208:ALA:HB2	1.87	0.56
1:AB:206:ILE:HD13	1:AB:206:ILE:H	1.70	0.56
4:AE:45:VAL:CG1	4:AE:116:VAL:HG23	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AF:55:HIS:O	5:AF:56:LYS:HB2	2.05	0.56
7:AH:17:GLN:CD	7:AH:69:ALA:HB1	2.30	0.56
8:AI:6:TYR:HD2	8:AI:19:PHE:CE1	2.22	0.56
9:AJ:29:ALA:C	9:AJ:31:ARG:H	2.12	0.56
12:AM:19:THR:HA	12:AM:24:VAL:HG23	1.86	0.56
12:AM:21:ILE:O	12:AM:24:VAL:HG22	2.05	0.56
12:AM:67:ASP:O	12:AM:70:ARG:HB3	2.06	0.56
15:AP:4:ILE:HD12	15:AP:67:ILE:HD13	1.86	0.56
20:AU:9:GLU:HG3	20:AU:10:PRO:HD3	1.87	0.56
20:AU:36:PHE:CD1	20:AU:39:LYS:HB3	2.40	0.56
21:AA:382:A:O2'	21:AA:383:A:H5'	2.06	0.56
21:AA:532:A:C6	21:AA:1207:G:H4'	2.40	0.56
21:AA:669:G:H2'	21:AA:670:G:H8	1.71	0.56
21:AA:821:G:N1	21:AA:822:U:C4	2.73	0.56
21:AA:1098:C:H2'	21:AA:1099:G:C8	2.35	0.56
21:AA:1256:A:C6	21:AA:1278:G:C2	2.93	0.56
21:AA:1367:C:H2'	21:AA:1368:A:O4'	2.05	0.56
21:AA:1501:C:C2	21:AA:1504:G:C6	2.94	0.56
24:BA:397:U:H2'	24:BA:398:C:H6	1.69	0.56
24:BA:448:U:H4'	24:BA:449:A:OP2	2.05	0.56
24:BA:532:A:C8	24:BA:2021:C:C6	2.93	0.56
24:BA:646:U:H3'	24:BA:647:G:H5"	1.86	0.56
24:BA:686:U:H4'	24:BA:687:C:OP2	2.04	0.56
24:BA:923:G:N3	46:BW:23:LYS:CE	2.67	0.56
24:BA:975:A:C2	24:BA:990:A:C8	2.93	0.56
24:BA:1062:G:H1'	32:BI:134:SER:HB3	1.87	0.56
24:BA:1313:U:H2'	24:BA:1313:U:O2	2.04	0.56
24:BA:1324:G:C4	24:BA:1328:A:N6	2.74	0.56
24:BA:1350:C:N3	24:BA:1382:G:C2	2.73	0.56
24:BA:1421:G:N2	24:BA:1422:G:C8	2.74	0.56
24:BA:1712:U:C4	24:BA:1713:A:C6	2.93	0.56
24:BA:1735:A:H2'	24:BA:1736:U:H6	1.70	0.56
24:BA:1748:C:H2'	24:BA:1749:A:C8	2.41	0.56
24:BA:1797:G:H5'	26:BC:253:GLY:HA2	1.86	0.56
24:BA:1874:C:H2'	24:BA:1875:G:O4'	2.05	0.56
24:BA:1936:A:C2	24:BA:1945:G:C8	2.93	0.56
24:BA:2320:U:C2	24:BA:2333:A:N6	2.70	0.56
24:BA:2321:U:H5"	24:BA:2321:U:H6	1.70	0.56
24:BA:2756:U:H1'	24:BA:2757:A:C5'	2.34	0.56
24:BA:2756:U:C1'	24:BA:2757:A:H5"	2.35	0.56
26:BC:12:ARG:CG	26:BC:12:ARG:NH1	2.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BC:141:HIS:HB2	26:BC:190:THR:CB	2.35	0.56
28:BE:132:LYS:O	28:BE:135:ALA:HB3	2.05	0.56
29:BF:46:LYS:HD2	29:BF:46:LYS:H	1.69	0.56
33:BJ:37:ARG:HA	33:BJ:118:MET:HE2	1.86	0.56
33:BJ:88:THR:O	33:BJ:92:MET:HG2	2.05	0.56
38:BO:116:GLN:O	38:BO:117:PHE:HB3	2.06	0.56
43:BT:29:THR:HA	43:BT:86:THR:H	1.71	0.56
48:BY:18:LEU:O	48:BY:22:LEU:HB2	2.05	0.56
1:CB:14:HIS:CE1	1:CB:39:ILE:HD11	2.40	0.56
1:CB:128:LEU:HB3	1:CB:131:LYS:CB	2.35	0.56
2:CC:118:SER:O	2:CC:122:GLN:HG2	2.05	0.56
3:CD:192:ALA:C	3:CD:194:ILE:H	2.11	0.56
4:CE:155:LYS:C	4:CE:156:ARG:HG2	2.31	0.56
8:CI:48:ARG:NH2	8:CI:57:VAL:HG21	2.20	0.56
11:CL:49:ARG:HG2	11:CL:89:LEU:HD21	1.87	0.56
12:CM:60:ALA:O	12:CM:62:PHE:N	2.39	0.56
15:CP:19:VAL:HG13	15:CP:36:VAL:O	2.05	0.56
55:CA:177:G:H2'	55:CA:178:C:H5'	1.86	0.56
55:CA:202:G:H21	55:CA:465:A:H61	1.51	0.56
55:CA:205:A:C6	55:CA:206:C:N4	2.72	0.56
55:CA:366:A:O2'	55:CA:394:G:N2	2.38	0.56
55:CA:375:U:C4	55:CA:376:G:N7	2.73	0.56
55:CA:451:A:C1'	55:CA:452:A:C8	2.88	0.56
55:CA:750:C:H2'	55:CA:751:U:H6	1.71	0.56
55:CA:794:A:H2'	55:CA:795:C:H6	1.66	0.56
55:CA:1050:G:C2	55:CA:1051:C:C4	2.93	0.56
55:CA:1233:G:H2'	55:CA:1234:C:H6	1.70	0.56
55:CA:1306:A:N6	55:CA:1331:G:H1'	2.20	0.56
55:CA:1378:C:H3'	55:CA:1379:G:C5'	2.29	0.56
55:CA:1449:C:O2'	55:CA:1450:U:H5'	2.06	0.56
55:CA:1504:G:C3'	55:CA:1505:G:H5'	2.35	0.56
27:DD:133:THR:CG2	24:DA:1993:U:H4'	2.35	0.56
27:DD:202:ILE:HD12	27:DD:202:ILE:N	2.19	0.56
28:DE:126:VAL:HG22	28:DE:127:GLU:OE2	2.06	0.56
28:DE:149:ILE:HG23	28:DE:188:MET:CA	2.35	0.56
30:DG:58:ALA:O	30:DG:59:ASP:C	2.49	0.56
35:DL:128:THR:HG21	24:DA:636:G:H3'	1.87	0.56
38:DO:24:THR:HG22	38:DO:41:ALA:HA	1.86	0.56
38:DO:67:ASN:HB2	56:DB:51:G:P	2.46	0.56
40:DQ:12:ARG:CZ	24:DA:1227:G:OP1	2.53	0.56
45:DV:31:TYR:OH	45:DV:90:ASP:CB	2.51	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DW:14:ASP:C	46:DW:16:GLU:H	2.13	0.56
48:DY:51:ALA:HB1	24:DA:72:U:O2	2.04	0.56
49:DZ:6:ILE:O	49:DZ:34:THR:HA	2.05	0.56
54:D4:19:ARG:O	54:D4:20:ASP:CB	2.50	0.56
24:DA:84:A:C5	24:DA:103:A:N6	2.73	0.56
24:DA:608:A:H2'	24:DA:609:A:C8	2.39	0.56
24:DA:686:U:C6	24:DA:788:A:N1	2.73	0.56
24:DA:777:G:H2'	24:DA:778:G:H8	1.69	0.56
24:DA:843:G:C2	24:DA:844:A:C5	2.94	0.56
24:DA:956:G:C2	24:DA:962:G:O6	2.57	0.56
24:DA:1326:U:O2'	24:DA:1327:A:H5'	2.06	0.56
24:DA:1378:A:C5	24:DA:1380:G:C5	2.93	0.56
24:DA:2271:G:C2'	24:DA:2272:U:H5'	2.35	0.56
24:DA:2308:G:H2'	24:DA:2310:C:C5	2.40	0.56
24:DA:2425:A:H5'	24:DA:2427:C:O4'	2.06	0.56
24:DA:2833:U:H4'	24:DA:2834:G:OP2	2.04	0.56
1:AB:159:ALA:HB1	1:AB:183:PHE:CE2	2.36	0.56
3:AD:25:ARG:NH1	3:AD:30:LYS:CE	2.69	0.56
4:AE:47:PHE:HZ	4:AE:137:ARG:CZ	2.18	0.56
4:AE:57:ALA:O	4:AE:61:LYS:HB2	2.04	0.56
4:AE:57:ALA:HB1	4:AE:61:LYS:HZ2	1.69	0.56
11:AL:38:THR:HG22	11:AL:50:LYS:HA	1.87	0.56
16:AQ:30:HIS:HB2	16:AQ:37:ILE:HD11	1.87	0.56
21:AA:791:G:C6	21:AA:792:A:N7	2.73	0.56
21:AA:1323:G:C2	21:AA:1324:A:C5	2.94	0.56
24:BA:548:G:O2'	24:BA:549:G:C5	2.59	0.56
24:BA:1154:G:O5'	24:BA:1154:G:H8	1.88	0.56
24:BA:1608:A:C5	24:BA:1611:C:C4	2.94	0.56
24:BA:1710:G:C2	24:BA:1749:A:C2	2.93	0.56
24:BA:2250:G:OP1	36:BM:84:LYS:NZ	2.26	0.56
24:BA:2274:A:C6	24:BA:2276:G:C8	2.93	0.56
24:BA:2277:G:C6	24:BA:2278:A:N7	2.74	0.56
24:BA:2308:G:C5	29:BF:76:PHE:HE2	2.23	0.56
24:BA:2649:C:H2'	24:BA:2650:U:C6	2.40	0.56
30:BG:54:ARG:HD3	30:BG:54:ARG:C	2.31	0.56
34:BK:11:ALA:O	34:BK:99:ILE:HA	2.04	0.56
35:BL:73:ILE:C	35:BL:105:ILE:HD13	2.31	0.56
35:BL:116:VAL:O	35:BL:116:VAL:HG13	2.06	0.56
40:BQ:114:ALA:O	40:BQ:116:LEU:N	2.38	0.56
46:BW:37:VAL:CG2	46:BW:55:ASP:O	2.54	0.56
49:BZ:9:THR:HG22	49:BZ:53:MET:C	2.30	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CB:80:LYS:O	1:CB:81:ASP:C	2.49	0.56
2:CC:125:ARG:HB2	2:CC:127:VAL:HG13	1.87	0.56
9:CJ:28:THR:O	9:CJ:32:THR:HG22	2.05	0.56
12:CM:47:LEU:HD23	12:CM:47:LEU:C	2.31	0.56
14:CO:45:HIS:CB	55:CA:668:G:O2'	2.54	0.56
17:CR:22:TYR:CD1	17:CR:23:LYS:N	2.74	0.56
55:CA:98:A:H2'	55:CA:99:C:H6	1.69	0.56
55:CA:373:A:C8	55:CA:482:A:C8	2.94	0.56
55:CA:596:A:C6	55:CA:645:G:C2	2.94	0.56
55:CA:878:A:H2'	55:CA:879:C:H6	1.69	0.56
55:CA:1400:C:C5	22:CV:34:C:N3	2.74	0.56
26:DC:218:THR:O	24:DA:1789:A:H5"	2.05	0.56
27:DD:141:ARG:NH2	24:DA:1998:A:OP2	2.38	0.56
28:DE:23:PHE:HB2	28:DE:114:ARG:HH22	1.70	0.56
29:DF:58:ALA:HB1	29:DF:139:GLU:HG2	1.87	0.56
32:DI:28:GLY:O	32:DI:30:GLN:HG3	2.06	0.56
34:DK:87:LEU:HD12	34:DK:92:GLU:CA	2.34	0.56
43:DT:62:VAL:HG12	43:DT:63:VAL:N	2.20	0.56
51:D1:8:ILE:HD11	51:D1:52:LYS:HE3	1.87	0.56
24:DA:402:A:H2'	24:DA:403:U:O4'	2.05	0.56
24:DA:671:C:O2'	24:DA:672:C:H6	1.87	0.56
24:DA:1095:A:N6	24:DA:1096:A:H62	2.03	0.56
24:DA:1430:G:H2'	24:DA:1431:A:H8	1.70	0.56
24:DA:1823:G:O2'	24:DA:1824:G:H5'	2.05	0.56
24:DA:2297:A:H61	24:DA:2319:G:H1'	1.70	0.56
24:DA:2369:A:H2'	24:DA:2370:G:H8	1.71	0.56
24:DA:2797:U:HO2'	24:DA:2798:U:P	2.28	0.56
56:DB:24:G:H5'	56:DB:25:U:H5	1.70	0.56
3:AD:36:ALA:C	3:AD:38:GLY:H	2.13	0.56
4:AE:155:LYS:CG	7:AH:65:PHE:HB2	2.32	0.56
21:AA:265:G:O2'	21:AA:266:G:H5'	2.05	0.56
21:AA:530:G:H3'	21:AA:530:G:N3	2.21	0.56
21:AA:563:A:N3	21:AA:563:A:C2'	2.63	0.56
21:AA:1138:G:N3	21:AA:1138:G:C2'	2.66	0.56
21:AA:1142:G:C2	21:AA:1143:G:H1'	2.40	0.56
24:BA:15:G:N2	24:BA:16:C:C2	2.73	0.56
24:BA:264:C:H2'	24:BA:265:A:H5"	1.88	0.56
24:BA:548:G:H5"	24:BA:549:G:H5'	1.87	0.56
24:BA:684:G:N1	24:BA:774:G:C2	2.73	0.56
24:BA:711:G:H8	24:BA:711:G:OP2	1.88	0.56
24:BA:752:A:O2'	24:BA:753:A:P	2.64	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:827:U:H2'	24:BA:2068:U:C2	2.41	0.56
24:BA:839:U:H2'	24:BA:840:C:H6	1.70	0.56
24:BA:996:A:C6	24:BA:1160:G:C2	2.94	0.56
24:BA:1495:A:O2'	24:BA:1496:A:O4'	2.21	0.56
24:BA:2386:A:O2'	24:BA:2387:U:H5'	2.04	0.56
24:BA:2432:A:C6	24:BA:2433:A:C6	2.93	0.56
24:BA:2510:C:C4	24:BA:2511:U:C4	2.93	0.56
24:BA:2734:A:H61	24:BA:2770:G:H1'	1.69	0.56
24:BA:2845:U:O2'	24:BA:2846:G:H5'	2.06	0.56
31:BH:66:ASN:C	31:BH:68:ARG:H	2.13	0.56
32:BI:104:GLN:O	32:BI:105:LEU:CB	2.53	0.56
33:BJ:38:GLY:O	33:BJ:43:GLU:HB2	2.05	0.56
38:BO:88:LYS:HE2	38:BO:116:GLN:HE22	1.70	0.56
46:BW:72:GLY:C	46:BW:74:LYS:N	2.64	0.56
48:BY:8:GLU:O	48:BY:9:LYS:HB3	2.06	0.56
6:CG:61:PHE:O	6:CG:63:VAL:N	2.38	0.56
6:CG:87:PRO:HB3	6:CG:144:ALA:HA	1.87	0.56
20:CU:40:PRO:HA	20:CU:43:GLU:HB3	1.86	0.56
55:CA:39:G:C5	55:CA:40:C:C5	2.94	0.56
55:CA:315:A:C5	55:CA:330:C:H5"	2.40	0.56
55:CA:764:C:H3'	55:CA:765:G:N2	2.07	0.56
55:CA:954:G:C5	55:CA:955:U:C4	2.94	0.56
55:CA:992:U:O2'	55:CA:993:G:OP2	2.20	0.56
55:CA:1316:G:N2	55:CA:1319:A:OP2	2.38	0.56
27:DD:89:GLU:HG2	27:DD:94:GLN:NE2	2.20	0.56
33:DJ:44:TYR:HB2	40:DQ:63:ARG:NH2	2.19	0.56
34:DK:13:ASN:H	34:DK:13:ASN:ND2	2.02	0.56
36:DM:29:GLY:N	36:DM:64:TRP:HZ3	2.03	0.56
37:DN:2:ARG:CD	37:DN:5:LYS:HB3	2.36	0.56
37:DN:82:GLU:C	37:DN:85:PRO:HD2	2.30	0.56
40:DQ:9:ALA:C	40:DQ:11:ALA:N	2.58	0.56
53:D3:6:VAL:HG23	53:D3:60:CYS:O	2.05	0.56
24:DA:75:G:O2'	24:DA:76:C:H6	1.89	0.56
24:DA:1130:U:C2	24:DA:2025:C:H5"	2.41	0.56
24:DA:1395:A:H4'	24:DA:1397:U:C5	2.40	0.56
24:DA:1637:A:H2'	24:DA:1638:C:O4'	2.05	0.56
24:DA:1787:A:H2'	24:DA:1788:C:C6	2.40	0.56
24:DA:2298:A:H2'	24:DA:2299:U:C6	2.41	0.56
24:DA:2357:G:C2	24:DA:2361:G:C6	2.93	0.56
24:DA:2385:C:H2'	24:DA:2386:A:C8	2.41	0.56
24:DA:2391:G:HO2'	24:DA:2392:A:H8	1.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AC:110:LEU:HD21	2:AC:143:LEU:HD23	1.86	0.56
2:AC:119:ILE:HA	2:AC:122:GLN:HG3	1.87	0.56
3:AD:191:SER:O	3:AD:192:ALA:HB2	2.05	0.56
8:AI:9:GLY:CA	8:AI:80:HIS:HD2	2.13	0.56
8:AI:9:GLY:HA3	8:AI:81:GLY:CA	2.35	0.56
11:AL:50:LYS:N	11:AL:50:LYS:HD2	2.21	0.56
21:AA:299:G:H2'	21:AA:300:A:C8	2.41	0.56
21:AA:374:A:H2'	21:AA:375:U:C6	2.40	0.56
21:AA:928:G:N1	21:AA:1390:U:C2	2.74	0.56
21:AA:1102:A:O2'	21:AA:1103:C:H5'	2.06	0.56
24:BA:364:C:O2'	24:BA:365:U:O4'	2.20	0.56
24:BA:1002:G:H2'	24:BA:1003:G:O5'	2.05	0.56
24:BA:1083:U:O2	24:BA:1086:A:N6	2.38	0.56
24:BA:1186:G:H5"	24:BA:1187:G:OP2	2.06	0.56
24:BA:1399:C:O2'	24:BA:1400:U:H5'	2.06	0.56
24:BA:1993:U:H4'	27:BD:133:THR:CG2	2.36	0.56
24:BA:2682:A:C8	27:BD:11:MET:CG	2.89	0.56
24:BA:2725:A:C4	24:BA:2727:A:C8	2.93	0.56
25:BB:62:C:H2'	25:BB:63:C:H6	1.70	0.56
27:BD:53:GLY:HA3	27:BD:77:ARG:HB2	1.87	0.56
30:BG:23:ILE:HD12	30:BG:23:ILE:N	2.20	0.56
33:BJ:44:TYR:C	33:BJ:44:TYR:HD1	2.13	0.56
39:BP:57:ALA:HB1	39:BP:73:PHE:O	2.06	0.56
39:BP:89:GLY:O	39:BP:112:ARG:CD	2.53	0.56
40:BQ:10:ARG:HB2	40:BQ:10:ARG:HH11	1.70	0.56
46:BW:72:GLY:N	46:BW:73:PRO:HD2	2.20	0.56
48:BY:9:LYS:HB3	48:BY:12:GLU:CG	2.36	0.56
2:CC:166:TRP:CG	2:CC:167:TYR:H	2.23	0.56
4:CE:55:VAL:O	4:CE:59:ILE:HG22	2.05	0.56
8:CI:5:TYR:O	8:CI:19:PHE:HA	2.06	0.56
55:CA:1400:C:C5	22:CV:34:C:C4	2.94	0.56
55:CA:1498:U:H2'	23:CW:2:U:OP1	2.05	0.56
27:DD:138:LEU:N	27:DD:138:LEU:HD13	2.21	0.56
28:DE:27:LEU:HD22	24:DA:600:G:C5'	2.34	0.56
28:DE:128:ALA:HB1	28:DE:129:PRO:CD	2.34	0.56
30:DG:3:VAL:CG1	24:DA:2751:G:H4'	2.36	0.56
34:DK:76:VAL:HB	39:DP:72:VAL:CG2	2.35	0.56
38:DO:4:LYS:HG3	38:DO:8:ILE:HD11	1.87	0.56
46:DW:25:PHE:O	46:DW:27:GLY:N	2.37	0.56
50:D0:28:SER:HB3	50:D0:39:ARG:NH2	2.21	0.56
24:DA:121:G:H2'	24:DA:122:G:C8	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:327:G:H2'	24:DA:328:U:H6	1.70	0.56
24:DA:634:C:H2'	24:DA:635:C:C6	2.40	0.56
24:DA:941:A:H2'	24:DA:942:G:O4'	2.05	0.56
24:DA:1009:A:H8	24:DA:1009:A:H5'	1.71	0.56
24:DA:1290:C:O2'	24:DA:1291:C:H6	1.74	0.56
24:DA:1884:G:H8	24:DA:1884:G:OP2	1.89	0.56
24:DA:2025:C:H2'	24:DA:2026:U:C6	2.41	0.56
1:AB:108:GLN:HA	1:AB:111:LYS:CB	2.36	0.56
3:AD:187:ARG:NH2	3:AD:194:ILE:HG13	2.20	0.56
5:AF:21:MET:HB3	5:AF:25:TYR:CZ	2.40	0.56
7:AH:58:LEU:HD22	7:AH:59:GLU:N	2.20	0.56
10:AK:63:GLN:HG3	10:AK:98:ALA:CB	2.36	0.56
11:AL:87:LYS:HB2	11:AL:87:LYS:NZ	2.21	0.56
15:AP:73:ALA:O	15:AP:77:GLU:HB2	2.05	0.56
21:AA:96:U:HO2'	21:AA:97:G:H8	1.45	0.56
21:AA:373:A:C2	21:AA:374:A:C8	2.94	0.56
21:AA:1438:G:C2'	21:AA:1439:G:H5'	2.35	0.56
24:BA:90:U:C6	24:BA:91:A:C8	2.94	0.56
24:BA:324:A:H61	24:BA:338:G:C2'	2.18	0.56
24:BA:1538:G:N2	24:BA:1539:U:C2	2.74	0.56
24:BA:1677:A:C6	24:BA:1678:A:C6	2.94	0.56
24:BA:2239:G:H5'	24:BA:2239:G:H8	1.69	0.56
24:BA:2743:U:H2'	24:BA:2744:G:O4'	2.06	0.56
26:BC:229:HIS:CD2	26:BC:246:PRO:HB3	2.41	0.56
27:BD:4:LEU:HD13	27:BD:100:LEU:HD23	1.87	0.56
31:BH:14:SER:O	31:BH:16:GLY:N	2.39	0.56
33:BJ:43:GLU:O	33:BJ:44:TYR:C	2.48	0.56
33:BJ:44:TYR:C	33:BJ:44:TYR:CD1	2.83	0.56
37:BN:17:ARG:HH21	37:BN:17:ARG:HG3	1.70	0.56
45:BV:40:ILE:CG2	45:BV:41:GLU:H	2.18	0.56
46:BW:72:GLY:O	46:BW:74:LYS:N	2.37	0.56
49:BZ:36:GLU:C	49:BZ:37:ARG:HD2	2.31	0.56
51:B1:42:VAL:C	51:B1:43:ARG:HE	2.13	0.56
7:CH:63:LYS:HB2	7:CH:70:VAL:HG11	1.87	0.56
12:CM:80:MET:SD	12:CM:91:ARG:HB3	2.45	0.56
13:CN:25:GLU:HA	13:CN:28:ALA:HB2	1.87	0.56
13:CN:65:GLN:HE21	13:CN:78:LEU:HD21	1.71	0.56
19:CT:20:ASN:HD22	55:CA:323:U:H5"	1.71	0.56
55:CA:198:G:O6	55:CA:220:G:C4	2.59	0.56
55:CA:441:A:H61	55:CA:493:A:N6	2.04	0.56
55:CA:1005:A:H4'	55:CA:1037:C:O2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DF:136:ILE:HD13	29:DF:145:VAL:HG11	1.88	0.56
34:DK:62:VAL:HG11	34:DK:65:THR:HG23	1.87	0.56
36:DM:38:ARG:O	36:DM:126:ILE:HG21	2.05	0.56
41:DR:7:SER:OG	41:DR:12:HIS:CE1	2.59	0.56
24:DA:74:A:H4'	24:DA:75:G:O5'	2.04	0.56
24:DA:192:C:N4	24:DA:193:U:C2	2.73	0.56
24:DA:1053:C:H2'	24:DA:1054:A:H8	1.71	0.56
24:DA:1631:G:H1'	24:DA:1635:A:N6	2.21	0.56
24:DA:2219:U:H2'	24:DA:2220:U:O4'	2.06	0.56
24:DA:2600:A:C2	24:DA:2601:C:C2	2.94	0.56
24:DA:2692:G:OP1	24:DA:2871:U:H5'	2.05	0.56
24:DA:2758:A:H2'	24:DA:2759:G:C5'	2.36	0.56
1:AB:150:ILE:HG12	1:AB:150:ILE:O	2.06	0.56
1:AB:187:ASP:CG	1:AB:188:THR:N	2.63	0.56
2:AC:57:GLU:HG2	2:AC:64:ARG:HB3	1.87	0.56
10:AK:110:THR:HG22	20:AU:4:LYS:HA	1.87	0.56
16:AQ:6:THR:C	16:AQ:7:LEU:HD12	2.31	0.56
21:AA:115:G:H4'	21:AA:116:A:O5'	2.05	0.56
21:AA:159:G:H8	21:AA:159:G:H5'	1.70	0.56
21:AA:811:C:C5	21:AA:812:G:C6	2.94	0.56
24:BA:117:G:C6	24:BA:119:A:N6	2.74	0.56
24:BA:276:U:C1'	24:BA:278:A:H62	2.15	0.56
24:BA:528:A:H8	24:BA:528:A:C3'	2.18	0.56
24:BA:1326:U:H2'	24:BA:1327:A:H8	1.71	0.56
24:BA:1406:U:H2'	24:BA:1407:G:H8	1.71	0.56
24:BA:1748:C:H2'	24:BA:1749:A:H8	1.71	0.56
24:BA:2032:G:H1'	27:BD:150:GLN:OE1	2.05	0.56
24:BA:2209:G:C6	24:BA:2210:U:C4	2.94	0.56
24:BA:2268:A:H8	24:BA:2268:A:O5'	1.89	0.56
24:BA:2305:U:C5	24:BA:2306:C:C4	2.94	0.56
24:BA:2442:C:H2'	24:BA:2443:C:H6	1.70	0.56
25:BB:30:C:H2'	25:BB:31:C:H5'	1.87	0.56
27:BD:114:LYS:HE3	27:BD:114:LYS:H	1.62	0.56
29:BF:10:GLU:O	29:BF:11:VAL:HB	2.06	0.56
29:BF:35:LEU:HD12	29:BF:88:VAL:HB	1.88	0.56
33:BJ:25:LEU:HD22	33:BJ:25:LEU:C	2.31	0.56
39:BP:50:ARG:HD2	39:BP:51:ASN:H	1.70	0.56
46:BW:8:SER:O	46:BW:9:THR:CB	2.53	0.56
52:B2:12:ARG:HB2	52:B2:12:ARG:HH21	1.71	0.56
2:CC:46:LEU:HD22	2:CC:75:VAL:HG22	1.87	0.56
6:CG:57:GLU:C	6:CG:59:GLU:N	2.63	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CI:11:ARG:HB3	8:CI:77:ALA:N	2.20	0.56
13:CN:30:ILE:HB	13:CN:45:LEU:HD21	1.88	0.56
14:CO:8:ALA:O	14:CO:11:VAL:HB	2.06	0.56
16:CQ:25:GLU:HA	16:CQ:39:ARG:O	2.04	0.56
18:CS:5:LYS:HA	55:CA:1313:U:OP2	2.05	0.56
55:CA:109:A:N6	55:CA:324:G:H1'	2.20	0.56
55:CA:413:G:N2	55:CA:428:G:O2'	2.39	0.56
55:CA:764:C:C4	55:CA:812:G:O6	2.59	0.56
55:CA:954:G:N2	55:CA:1228:C:C4	2.74	0.56
55:CA:1268:G:H2'	55:CA:1269:A:C8	2.40	0.56
27:DD:107:VAL:H	27:DD:206:ALA:H	1.51	0.56
28:DE:29:HIS:HA	28:DE:32:VAL:CG2	2.36	0.56
34:DK:104:THR:OG1	34:DK:106:GLU:HB2	2.06	0.56
38:DO:7:ARG:NH2	38:DO:29:HIS:HD2	2.03	0.56
44:DU:95:PHE:N	44:DU:95:PHE:CD1	2.68	0.56
44:DU:95:PHE:O	44:DU:97:SER:N	2.38	0.56
47:DX:52:ALA:C	47:DX:54:GLY:H	2.13	0.56
24:DA:82:U:H2'	24:DA:83:A:H5"	1.87	0.56
24:DA:390:U:O2'	24:DA:391:A:C8	2.59	0.56
24:DA:624:C:O2'	24:DA:657:U:H5"	2.05	0.56
24:DA:1241:A:N3	24:DA:1241:A:H5'	2.20	0.56
24:DA:1432:G:H2'	24:DA:1433:A:C8	2.40	0.56
24:DA:1956:U:H2'	24:DA:1957:C:C6	2.41	0.56
24:DA:2053:G:O2'	24:DA:2054:A:H5'	2.05	0.56
24:DA:2902:C:OP2	24:DA:2902:C:H6	1.89	0.56
56:DB:111:U:H2'	56:DB:112:G:C8	2.40	0.56
1:AB:26:MET:CE	1:AB:192:PRO:HG3	2.36	0.56
3:AD:40:HIS:O	3:AD:43:ARG:HB2	2.05	0.56
6:AG:146:ALA:C	6:AG:148:LYS:H	2.12	0.56
7:AH:12:ARG:HH21	21:AA:826:C:H5'	1.70	0.56
7:AH:49:LYS:HD3	7:AH:51:GLU:OE1	2.06	0.56
12:AM:18:LEU:O	12:AM:24:VAL:HG21	2.05	0.56
15:AP:57:ILE:O	15:AP:61:VAL:HG23	2.06	0.56
19:AT:66:ILE:O	19:AT:70:LYS:HB3	2.06	0.56
21:AA:215:C:H2'	21:AA:216:U:O4'	2.06	0.56
21:AA:384:G:H2'	21:AA:385:C:C6	2.41	0.56
21:AA:953:G:C5	21:AA:954:G:C5	2.94	0.56
21:AA:1491:G:H5'	21:AA:1492:A:OP1	2.06	0.56
24:BA:521:U:H2'	24:BA:522:A:H8	1.70	0.56
24:BA:572:A:OP2	41:BR:80:ARG:NH2	2.39	0.56
24:BA:729:G:C4	24:BA:1775:U:O2	2.59	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:857:G:H5"	24:BA:858:G:OP2	2.06	0.56
24:BA:935:C:H2'	24:BA:936:A:C8	2.40	0.56
24:BA:1265:A:N6	24:BA:2014:A:OP2	2.25	0.56
24:BA:1734:G:H2'	24:BA:1735:A:H8	1.71	0.56
24:BA:1784:A:H4'	24:BA:1785:A:H5"	1.87	0.56
24:BA:1952:A:C6	24:BA:1953:A:N1	2.74	0.56
24:BA:2567:G:H2'	24:BA:2568:U:C6	2.41	0.56
24:BA:2780:G:OP2	33:BJ:120:ARG:HD3	2.06	0.56
26:BC:77:VAL:HG22	26:BC:77:VAL:O	2.06	0.56
29:BF:133:GLU:H	29:BF:150:GLY:HA3	1.71	0.56
33:BJ:25:LEU:HD22	33:BJ:26:GLY:N	2.21	0.56
41:BR:4:VAL:HG23	41:BR:4:VAL:O	2.05	0.56
47:BX:29:LEU:HB2	47:BX:30:PRO:CD	2.36	0.56
53:B3:54:LEU:O	53:B3:58:ILE:HG13	2.05	0.56
6:CG:10:LYS:H	6:CG:10:LYS:HE3	1.71	0.56
6:CG:105:GLU:O	6:CG:109:LYS:HD3	2.05	0.56
14:CO:50:HIS:ND1	55:CA:667:G:H4'	2.21	0.56
17:CR:60:ARG:HA	17:CR:63:TYR:HD1	1.70	0.56
20:CU:8:ASN:CG	20:CU:9:GLU:H	2.14	0.56
30:DG:7:PRO:O	30:DG:8:VAL:HB	2.05	0.56
41:DR:61:ALA:HB1	41:DR:96:VAL:HB	1.88	0.56
43:DT:18:GLU:HA	43:DT:22:THR:CG2	2.36	0.56
46:DW:37:VAL:CG2	46:DW:38:ARG:NH1	2.68	0.56
50:D0:26:SER:O	50:D0:27:LEU:HD13	2.05	0.56
24:DA:121:G:H2'	24:DA:122:G:H8	1.71	0.56
24:DA:1713:A:H4'	24:DA:1714:U:OP1	2.04	0.56
24:DA:1770:G:C6	24:DA:1983:G:C5	2.94	0.56
24:DA:1833:C:O2	24:DA:1969:A:H2	1.89	0.56
24:DA:2093:G:O2'	24:DA:2094:A:O5'	2.24	0.56
24:DA:2226:C:O2'	24:DA:2227:A:O4'	2.23	0.56
24:DA:2720:U:C2	24:DA:2872:A:C5	2.94	0.56
5:AF:50:PRO:HD2	17:AR:73:HIS:CD2	2.40	0.56
21:AA:370:C:O2'	21:AA:371:A:C5'	2.54	0.56
21:AA:1055:A:N6	21:AA:1206:G:C5	2.74	0.56
21:AA:1238:A:N3	21:AA:1238:A:H2'	2.21	0.56
24:BA:250:G:H2'	24:BA:251:A:H8	1.63	0.56
24:BA:494:G:N2	42:BS:57:ASN:HD21	2.03	0.56
24:BA:528:A:H2	24:BA:2042:A:H2'	1.71	0.56
24:BA:616:A:H2'	24:BA:617:G:H8	1.68	0.56
24:BA:626:A:H2'	35:BL:78:ARG:NH1	2.21	0.56
24:BA:920:A:C2	24:BA:921:C:N1	2.73	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1178:C:O2	24:BA:1179:G:N7	2.39	0.56
24:BA:1623:G:C2	24:BA:1624:U:C6	2.93	0.56
24:BA:1731:G:C2'	24:BA:1732:C:H5"	2.34	0.56
24:BA:2063:C:H5'	24:BA:2063:C:H6	1.70	0.56
24:BA:2784:U:H4'	27:BD:42:ASN:ND2	2.20	0.56
27:BD:45:TYR:N	27:BD:45:TYR:CD1	2.74	0.56
27:BD:174:SER:O	27:BD:175:LEU:HB2	2.05	0.56
28:BE:174:GLY:O	28:BE:175:ILE:O	2.24	0.56
30:BG:132:LEU:N	30:BG:132:LEU:HD23	2.21	0.56
31:BH:81:ALA:HB2	31:BH:147:VAL:HG23	1.87	0.56
33:BJ:55:ILE:O	33:BJ:55:ILE:HG13	2.05	0.56
35:BL:92:LEU:HA	35:BL:125:LEU:HD21	1.87	0.56
37:BN:50:PRO:O	37:BN:51:LEU:C	2.49	0.56
41:BR:11:GLN:C	41:BR:12:HIS:ND1	2.64	0.56
42:BS:2:GLU:O	42:BS:107:VAL:O	2.23	0.56
1:CB:14:HIS:O	1:CB:14:HIS:CG	2.59	0.56
2:CC:188:ALA:O	2:CC:189:HIS:C	2.49	0.56
3:CD:205:LYS:HG3	55:CA:8:A:N7	2.21	0.56
4:CE:82:HIS:ND1	7:CH:95:MET:HG2	2.21	0.56
5:CF:7:VAL:HA	5:CF:60:VAL:O	2.06	0.56
6:CG:108:ARG:HH22	55:CA:1240:U:H3'	1.70	0.56
8:CI:21:LYS:O	8:CI:60:LEU:HB2	2.06	0.56
12:CM:104:ASN:C	12:CM:106:ARG:H	2.11	0.56
55:CA:190:A:O5'	55:CA:190:A:H8	1.89	0.56
55:CA:211:G:N3	55:CA:211:G:C2'	2.65	0.56
55:CA:704:A:HO2'	55:CA:705:G:H8	1.54	0.56
55:CA:1229:A:C2	55:CA:1230:C:C2	2.94	0.56
55:CA:1288:A:HO2'	55:CA:1289:A:H8	1.52	0.56
31:DH:22:LYS:O	31:DH:24:GLY:N	2.39	0.56
33:DJ:44:TYR:C	33:DJ:44:TYR:CD2	2.84	0.56
35:DL:9:ALA:HB3	35:DL:12:SER:HB3	1.88	0.56
37:DN:97:ILE:HD11	37:DN:99:LYS:NZ	2.21	0.56
37:DN:103:ARG:HG3	24:DA:1287:A:OP1	2.06	0.56
43:DT:18:GLU:HG3	24:DA:1338:G:O2'	2.06	0.56
44:DU:3:LYS:HD3	44:DU:82:VAL:HG21	1.87	0.56
50:D0:31:LYS:HG2	24:DA:2885:G:N2	2.21	0.56
51:D1:5:ARG:NH2	51:D1:23:THR:CB	2.69	0.56
24:DA:61:C:O2'	24:DA:62:U:C5'	2.51	0.56
24:DA:93:G:H2'	24:DA:94:A:H8	1.71	0.56
24:DA:915:C:H6	24:DA:915:C:H5"	1.70	0.56
24:DA:1087:G:C5	24:DA:1089:A:C2	2.94	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2607:G:H2'	24:DA:2608:G:O4'	2.05	0.56
3:AD:29:THR:HB	3:AD:30:LYS:HD3	1.87	0.55
7:AH:95:MET:HB2	7:AH:98:LEU:O	2.06	0.55
21:AA:214:C:HO2'	21:AA:215:C:H6	1.53	0.55
21:AA:330:C:O2'	21:AA:331:G:H5'	2.05	0.55
21:AA:441:A:H5'	21:AA:442:G:OP2	2.06	0.55
21:AA:1478:U:H2'	21:AA:1479:C:C6	2.39	0.55
24:BA:860:U:C4	24:BA:2268:A:C4	2.94	0.55
24:BA:1235:G:C6	24:BA:1236:G:N1	2.74	0.55
24:BA:1635:A:C6	24:BA:1636:U:C2	2.93	0.55
24:BA:2338:C:O2'	24:BA:2339:C:H5'	2.06	0.55
24:BA:2392:A:H2'	24:BA:2392:A:N3	2.22	0.55
24:BA:2426:A:H3'	24:BA:2427:C:H5'	1.88	0.55
24:BA:2722:G:C5	24:BA:2723:C:C5	2.93	0.55
24:BA:2746:U:H2'	24:BA:2747:G:H5'	1.88	0.55
42:BS:25:ARG:HE	42:BS:73:LYS:HZ1	1.54	0.55
46:BW:72:GLY:C	46:BW:74:LYS:H	2.13	0.55
2:CC:168:ARG:HG2	2:CC:168:ARG:HH11	1.70	0.55
8:CI:61:ASP:C	8:CI:62:LEU:HD22	2.30	0.55
18:CS:5:LYS:HE3	18:CS:6:LYS:N	2.21	0.55
18:CS:41:PRO:O	18:CS:44:ILE:HB	2.06	0.55
55:CA:82:G:C2	55:CA:83:C:O2'	2.58	0.55
55:CA:312:C:C2	55:CA:313:A:C8	2.94	0.55
55:CA:1051:C:O2'	55:CA:1052:U:O5'	2.24	0.55
55:CA:1096:C:O2'	55:CA:1097:C:O5'	2.25	0.55
38:DO:25:ARG:HB3	38:DO:93:ASP:HB2	1.88	0.55
40:DQ:40:LYS:HD2	40:DQ:44:TYR:CE2	2.41	0.55
40:DQ:57:ARG:O	40:DQ:61:ILE:HD13	2.06	0.55
45:DV:14:LYS:H	56:DB:98:G:H1	1.52	0.55
24:DA:63:A:N6	24:DA:91:A:N6	2.54	0.55
24:DA:216:A:O2'	24:DA:217:A:O5'	2.24	0.55
24:DA:217:A:H2'	24:DA:218:A:O4'	2.06	0.55
24:DA:309:A:N3	24:DA:329:G:O2'	2.32	0.55
24:DA:436:C:O2'	24:DA:437:U:H5'	2.06	0.55
24:DA:945:A:H5'	24:DA:946:C:OP2	2.05	0.55
24:DA:1111:A:O2'	24:DA:1112:G:O5'	2.24	0.55
24:DA:1682:G:C8	24:DA:1757:A:N3	2.74	0.55
24:DA:2660:A:C2	24:DA:2661:G:C5	2.94	0.55
1:AB:52:ALA:C	1:AB:54:ALA:H	2.13	0.55
5:AF:51:ILE:HG13	21:AA:674:G:OP1	2.06	0.55
21:AA:184:G:O2'	21:AA:185:U:H6	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:544:G:C5	21:AA:545:C:C5	2.94	0.55
21:AA:613:C:O5'	21:AA:613:C:H6	1.89	0.55
21:AA:1417:G:C6	21:AA:1482:G:C6	2.94	0.55
24:BA:117:G:C6	24:BA:119:A:C6	2.94	0.55
24:BA:1314:C:C2	24:BA:1339:G:N2	2.74	0.55
24:BA:1870:C:H3'	24:BA:1871:A:C2	2.41	0.55
28:BE:111:GLU:HG2	28:BE:114:ARG:HH12	1.69	0.55
31:BH:41:LYS:HA	31:BH:44:ILE:HG12	1.88	0.55
32:BI:89:SER:OG	32:BI:135:MET:HA	2.06	0.55
34:BK:54:LYS:NZ	34:BK:54:LYS:HB3	2.20	0.55
35:BL:57:LEU:HD22	53:B3:53:ASP:HB3	1.87	0.55
36:BM:108:VAL:HG13	36:BM:109:PRO:HD2	1.88	0.55
37:BN:106:ASP:OD1	37:BN:106:ASP:C	2.49	0.55
40:BQ:43:GLN:NE2	41:BR:77:PHE:HB3	2.21	0.55
46:BW:17:ALA:HB1	46:BW:36:ILE:HA	1.86	0.55
46:BW:47:GLY:CA	46:BW:80:SER:HB3	2.35	0.55
1:CB:58:LYS:O	1:CB:62:ARG:HG3	2.06	0.55
1:CB:65:LYS:HE2	1:CB:89:PHE:HE1	1.71	0.55
3:CD:125:ASN:HB2	3:CD:141:VAL:H	1.72	0.55
5:CF:23:GLU:HG3	5:CF:24:ARG:H	1.72	0.55
5:CF:51:ILE:O	5:CF:54:LEU:HB2	2.07	0.55
6:CG:10:LYS:HE3	6:CG:10:LYS:N	2.21	0.55
9:CJ:15:HIS:O	9:CJ:19:ASP:HB2	2.06	0.55
12:CM:96:VAL:C	12:CM:98:GLY:N	2.60	0.55
14:CO:73:ASP:HB3	14:CO:76:ARG:HD3	1.87	0.55
55:CA:47:C:H4'	55:CA:48:C:O5'	2.07	0.55
55:CA:1236:A:O2'	55:CA:1237:C:H5'	2.06	0.55
26:DC:220:ARG:HD3	24:DA:1789:A:OP1	2.06	0.55
26:DC:257:ARG:NH1	24:DA:1799:G:OP1	2.39	0.55
29:DF:169:LEU:HB3	29:DF:174:PHE:HB2	1.88	0.55
31:DH:31:VAL:HB	31:DH:32:PRO:HD3	1.87	0.55
35:DL:38:GLN:C	35:DL:40:SER:H	2.13	0.55
38:DO:97:PHE:HA	56:DB:48:U:OP2	2.06	0.55
47:DX:15:ASN:HD22	24:DA:381:G:H5'	1.72	0.55
24:DA:563:A:C4	24:DA:2018:G:C2	2.93	0.55
24:DA:1051:G:H5'	24:DA:2752:C:H1'	1.88	0.55
24:DA:1474:U:C2'	24:DA:1475:G:H5'	2.36	0.55
24:DA:1633:G:C6	24:DA:1635:A:C5	2.94	0.55
24:DA:2287:A:N7	24:DA:2289:G:C8	2.74	0.55
1:AB:26:MET:HE1	1:AB:192:PRO:HG3	1.89	0.55
6:AG:144:ALA:C	6:AG:146:ALA:N	2.65	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AS:17:LYS:HB3	18:AS:30:LEU:HD23	1.88	0.55
19:AT:38:ILE:CD1	19:AT:82:ILE:HG22	2.36	0.55
24:BA:604:G:C5	24:BA:625:G:C2	2.94	0.55
24:BA:839:U:H2'	24:BA:840:C:C6	2.41	0.55
24:BA:923:G:N2	46:BW:23:LYS:HZ3	2.05	0.55
24:BA:1022:G:N2	24:BA:1142:A:N1	2.54	0.55
24:BA:2070:A:H2'	24:BA:2071:A:C8	2.41	0.55
24:BA:2136:G:H2'	24:BA:2137:U:C6	2.38	0.55
26:BC:147:PRO:HD3	26:BC:187:CYS:SG	2.46	0.55
27:BD:104:VAL:O	27:BD:177:VAL:HG21	2.06	0.55
28:BE:7:ASP:O	28:BE:9:GLN:N	2.39	0.55
28:BE:149:ILE:HG23	28:BE:188:MET:HG3	1.88	0.55
37:BN:38:LEU:O	37:BN:39:PRO:C	2.48	0.55
40:BQ:67:ALA:O	40:BQ:70:GLN:N	2.39	0.55
41:BR:39:LEU:HA	41:BR:49:ILE:HG21	1.87	0.55
43:BT:13:ALA:HB1	43:BT:14:PRO:HD2	1.87	0.55
1:CB:103:TRP:HA	1:CB:106:VAL:CG2	2.37	0.55
1:CB:133:ALA:HA	1:CB:137:THR:HG21	1.88	0.55
2:CC:18:ASN:HD22	2:CC:55:VAL:HG12	1.71	0.55
3:CD:197:HIS:O	3:CD:200:VAL:HB	2.06	0.55
5:CF:90:MET:HE3	5:CF:93:LYS:NZ	2.22	0.55
6:CG:32:ASP:CG	55:CA:1351:U:H4'	2.31	0.55
7:CH:6:ILE:HB	7:CH:76:ARG:HH12	1.72	0.55
8:CI:29:ILE:HG13	8:CI:64:ILE:HG22	1.89	0.55
10:CK:74:LYS:HD2	10:CK:104:PHE:CE1	2.40	0.55
12:CM:28:ARG:O	12:CM:28:ARG:HD2	2.05	0.55
55:CA:424:G:H2'	55:CA:425:G:C8	2.41	0.55
55:CA:582:C:C4	55:CA:760:G:C6	2.95	0.55
55:CA:754:C:H2'	55:CA:754:C:O2	2.05	0.55
55:CA:815:A:C2	55:CA:1529:G:C2	2.94	0.55
55:CA:819:A:N7	55:CA:1529:G:C2	2.75	0.55
55:CA:1084:G:C5	55:CA:1085:U:C4	2.95	0.55
55:CA:1283:U:O2'	55:CA:1284:C:C5'	2.55	0.55
55:CA:1452:C:H4'	55:CA:1453:G:O5'	2.06	0.55
22:CV:38:A:C8	22:CV:39:C:C5	2.93	0.55
26:DC:229:HIS:ND1	26:DC:230:PRO:HD2	2.21	0.55
29:DF:60:SER:C	29:DF:62:GLN:H	2.14	0.55
31:DH:66:ASN:HD22	31:DH:137:GLU:HB3	1.72	0.55
39:DP:64:SER:O	39:DP:66:GLY:N	2.39	0.55
45:DV:77:VAL:HG23	45:DV:89:ILE:HG21	1.89	0.55
48:DY:48:ARG:HH11	48:DY:48:ARG:CG	2.19	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:11:C:H2'	24:DA:12:U:H5'	1.89	0.55
24:DA:310:A:C8	24:DA:312:G:C6	2.94	0.55
24:DA:508:A:H3'	24:DA:509:C:H5'	1.88	0.55
24:DA:1062:G:OP1	24:DA:1070:A:OP2	2.25	0.55
24:DA:1092:C:H2'	24:DA:1093:G:O4'	2.06	0.55
24:DA:1401:G:C5	24:DA:1402:U:C4	2.95	0.55
24:DA:1421:G:N3	24:DA:1421:G:H2'	2.21	0.55
24:DA:2230:G:H2'	24:DA:2231:U:H6	1.70	0.55
24:DA:2251:G:H2'	24:DA:2252:G:C8	2.42	0.55
24:DA:2822:G:H2'	24:DA:2823:A:H5"	1.88	0.55
4:AE:155:LYS:HB2	7:AH:63:LYS:HB3	1.88	0.55
5:AF:91:ARG:HG2	5:AF:93:LYS:HE2	1.89	0.55
19:AT:53:MET:HA	19:AT:56:ILE:HG22	1.89	0.55
21:AA:160:A:OP1	21:AA:160:A:H8	1.89	0.55
21:AA:309:A:H2'	21:AA:310:G:H8	1.71	0.55
21:AA:550:G:C4	21:AA:551:U:C5	2.95	0.55
21:AA:554:A:O2'	21:AA:555:U:H5'	2.06	0.55
21:AA:1006:G:H2'	21:AA:1007:U:C6	2.40	0.55
21:AA:1151:A:N6	21:AA:1152:A:H62	2.05	0.55
21:AA:1345:U:H4'	21:AA:1346:A:O5'	2.06	0.55
21:AA:1408:A:N1	21:AA:1494:G:C6	2.75	0.55
24:BA:141:G:H3'	24:BA:142:A:C5'	2.37	0.55
24:BA:334:C:O2'	24:BA:335:C:P	2.63	0.55
24:BA:466:A:N3	24:BA:683:U:H1'	2.21	0.55
24:BA:612:G:C6	24:BA:614:A:C2	2.95	0.55
24:BA:1612:C:H4'	52:B2:5:PHE:O	2.07	0.55
24:BA:1778:U:C5	24:BA:1784:A:N3	2.75	0.55
24:BA:1865:U:C5	24:BA:1875:G:N1	2.74	0.55
24:BA:2311:A:H5'	24:BA:2312:U:OP2	2.06	0.55
30:BG:34:ARG:HD3	30:BG:34:ARG:N	2.22	0.55
34:BK:7:MET:HE1	34:BK:44:LYS:HG3	1.88	0.55
35:BL:27:LEU:HD12	35:BL:27:LEU:N	2.13	0.55
36:BM:1:MET:O	36:BM:2:LEU:CB	2.53	0.55
42:BS:63:GLY:O	42:BS:64:ALA:CB	2.53	0.55
44:BU:100:GLU:O	44:BU:101:THR:HB	2.07	0.55
47:BX:48:LEU:HD11	47:BX:67:LEU:HD21	1.89	0.55
5:CF:42:TRP:HB2	5:CF:59:TYR:HB2	1.87	0.55
6:CG:140:VAL:C	6:CG:142:ARG:H	2.13	0.55
8:CI:112:ARG:HH22	9:CJ:64:GLN:NE2	2.01	0.55
9:CJ:80:THR:C	9:CJ:84:VAL:HG22	2.31	0.55
9:CJ:81:GLU:C	9:CJ:83:THR:H	2.15	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:243:A:H5”	55:CA:244:U:H5’	1.87	0.55
55:CA:307:C:H5”	55:CA:308:C:OP2	2.06	0.55
55:CA:857:C:N4	55:CA:858:G:C6	2.74	0.55
55:CA:1400:C:C5	22:CV:34:C:C2	2.94	0.55
27:DD:108:ASP:N	27:DD:204:LYS:O	2.35	0.55
27:DD:148:GLN:CG	27:DD:152:PRO:HG2	2.36	0.55
27:DD:178:VAL:HG12	27:DD:179:ARG:HG3	1.88	0.55
33:DJ:119:PHE:O	33:DJ:121:LYS:N	2.40	0.55
35:DL:47:ARG:NH2	35:DL:47:ARG:CG	2.62	0.55
35:DL:88:GLY:O	35:DL:89:VAL:HG12	2.06	0.55
37:DN:51:LEU:HA	37:DN:54:LEU:CD2	2.36	0.55
47:DX:29:LEU:HB2	47:DX:30:PRO:HD2	1.87	0.55
48:DY:41:HIS:HD2	24:DA:96:C:H4’	1.70	0.55
24:DA:2:G:C6	24:DA:3:U:C4	2.94	0.55
24:DA:301:G:C6	24:DA:302:C:N4	2.75	0.55
24:DA:346:A:C8	24:DA:347:A:C8	2.94	0.55
24:DA:454:A:H4’	24:DA:455:C:OP2	2.05	0.55
24:DA:849:A:H2’	24:DA:850:U:C6	2.41	0.55
24:DA:1303:G:C2’	24:DA:1304:A:H8	2.19	0.55
24:DA:1496:A:O3’	24:DA:1497:U:H6	1.88	0.55
1:AB:182:VAL:O	1:AB:196:ASP:HB2	2.07	0.55
2:AC:168:ARG:HH22	21:AA:1106:G:H1’	1.70	0.55
3:AD:100:VAL:HG12	3:AD:100:VAL:O	2.06	0.55
5:AF:21:MET:HE3	5:AF:25:TYR:OH	2.06	0.55
8:AI:14:SER:HA	8:AI:67:LYS:O	2.06	0.55
8:AI:56:MET:CE	8:AI:57:VAL:H	2.19	0.55
12:AM:95:PRO:HG3	12:AM:101:THR:HG22	1.89	0.55
18:AS:5:LYS:HA	21:AA:1313:U:OP2	2.06	0.55
21:AA:390:U:H2’	21:AA:391:G:C8	2.40	0.55
24:BA:143:C:H2’	24:BA:144:A:C8	2.42	0.55
24:BA:264:C:C2’	24:BA:265:A:H5”	2.36	0.55
24:BA:677:A:O2’	24:BA:678:C:H5’	2.07	0.55
24:BA:838:C:O2’	24:BA:839:U:H5’	2.06	0.55
24:BA:1105:U:C2	24:BA:1106:G:C8	2.95	0.55
24:BA:1233:C:H2’	24:BA:1234:U:H6	1.71	0.55
24:BA:1289:C:H2’	24:BA:1290:C:H6	1.71	0.55
24:BA:1509:A:C4	24:BA:1510:G:C8	2.94	0.55
24:BA:2702:G:H2’	24:BA:2703:C:H6	1.72	0.55
28:BE:108:ILE:CD1	28:BE:180:LEU:HD13	2.37	0.55
32:BI:60:VAL:HG22	32:BI:66:PHE:HB2	1.88	0.55
1:CB:89:PHE:HB3	1:CB:150:ILE:HA	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CB:99:MET:HA	1:CB:106:VAL:HG21	1.88	0.55
3:CD:102:TYR:O	3:CD:104:MET:N	2.37	0.55
4:CE:87:VAL:HG12	4:CE:92:ARG:HA	1.89	0.55
7:CH:76:ARG:HD3	7:CH:77:VAL:H	1.72	0.55
18:CS:31:ARG:HD3	18:CS:33:TRP:HH2	1.72	0.55
55:CA:90:C:C2'	55:CA:91:U:C6	2.89	0.55
55:CA:155:A:C6	55:CA:167:A:C6	2.94	0.55
55:CA:243:A:N3	55:CA:245:U:H2'	2.21	0.55
55:CA:596:A:N6	55:CA:645:G:N1	2.53	0.55
55:CA:1055:A:N7	55:CA:1206:G:C2	2.75	0.55
55:CA:1361:G:C2'	55:CA:1362:A:H5"	2.32	0.55
55:CA:1375:A:H2'	55:CA:1376:U:C6	2.41	0.55
26:DC:212:TRP:C	26:DC:212:TRP:CD1	2.83	0.55
26:DC:255:LYS:C	26:DC:256:THR:HG23	2.31	0.55
26:DC:255:LYS:O	24:DA:1797:G:O3'	2.23	0.55
28:DE:126:VAL:HG13	28:DE:127:GLU:N	2.22	0.55
36:DM:1:MET:O	36:DM:2:LEU:O	2.24	0.55
40:DQ:87:VAL:HG11	41:DR:52:PRO:CG	2.36	0.55
44:DU:6:ARG:HB2	24:DA:85:G:OP2	2.07	0.55
47:DX:51:SER:OG	47:DX:54:GLY:HA3	2.06	0.55
24:DA:1071:G:N7	24:DA:1089:A:C6	2.75	0.55
24:DA:1103:A:H8	24:DA:1103:A:O5'	1.90	0.55
24:DA:1206:G:C2	24:DA:1207:C:C2	2.95	0.55
24:DA:1479:G:O2'	24:DA:1480:C:H5'	2.05	0.55
24:DA:1499:C:C4	24:DA:1500:G:N7	2.75	0.55
24:DA:1802:A:O2'	24:DA:1803:A:O4'	2.22	0.55
24:DA:2287:A:O2'	24:DA:2288:A:O5'	2.25	0.55
24:DA:2449:U:H4'	24:DA:2450:A:OP1	2.07	0.55
56:DB:16:G:O2'	56:DB:17:C:H5'	2.07	0.55
56:DB:65:U:H2'	56:DB:108:A:N6	2.21	0.55
1:AB:28:PRO:O	1:AB:44:LYS:HE2	2.06	0.55
2:AC:68:HIS:CD2	2:AC:68:HIS:H	2.24	0.55
5:AF:5:GLU:HG3	5:AF:63:ASN:OD1	2.06	0.55
6:AG:131:GLY:O	6:AG:134:VAL:HG22	2.07	0.55
16:AQ:16:MET:SD	16:AQ:20:ILE:HG13	2.47	0.55
21:AA:502:A:H2'	21:AA:503:C:O4'	2.06	0.55
21:AA:550:G:H2'	21:AA:551:U:C6	2.32	0.55
21:AA:550:G:C5	21:AA:551:U:C5	2.95	0.55
24:BA:704:G:O2'	24:BA:726:G:N2	2.39	0.55
24:BA:1163:G:H2'	24:BA:1164:C:H6	1.72	0.55
24:BA:1430:G:H2'	24:BA:1431:A:O4'	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1731:G:C4	24:BA:1733:G:N7	2.75	0.55
24:BA:2776:A:H4'	24:BA:2777:G:O5'	2.06	0.55
25:BB:71:C:H2'	25:BB:72:G:H5'	1.88	0.55
26:BC:66:PHE:HB3	26:BC:150:GLY:O	2.06	0.55
26:BC:91:ALA:HB3	26:BC:103:ILE:HG22	1.87	0.55
29:BF:45:ASP:HB2	29:BF:48:LEU:HB2	1.88	0.55
30:BG:27:GLY:O	30:BG:28:LYS:C	2.49	0.55
33:BJ:29:ALA:O	33:BJ:30:THR:C	2.49	0.55
35:BL:55:MET:CE	35:BL:55:MET:HA	2.37	0.55
38:BO:70:ALA:O	38:BO:73:ALA:HB3	2.06	0.55
40:BQ:40:LYS:O	40:BQ:43:GLN:HB2	2.07	0.55
44:BU:94:PHE:CD1	44:BU:94:PHE:O	2.59	0.55
44:BU:97:SER:O	44:BU:98:ASN:CB	2.50	0.55
48:BY:47:ARG:HH21	48:BY:47:ARG:CG	2.17	0.55
3:CD:53:GLN:HG2	3:CD:198:LEU:HD22	1.88	0.55
55:CA:1052:U:O2'	55:CA:1055:A:OP2	2.20	0.55
55:CA:1352:C:O2	55:CA:1371:G:C2	2.60	0.55
27:DD:137:SER:C	27:DD:138:LEU:HD22	2.32	0.55
35:DL:117:THR:HG22	35:DL:118:THR:H	1.70	0.55
43:DT:1:MET:HE3	43:DT:5:GLU:HG2	1.88	0.55
43:DT:29:THR:N	43:DT:87:LEU:HB2	2.20	0.55
43:DT:67:VAL:O	43:DT:68:LYS:HG3	2.05	0.55
44:DU:15:GLY:O	44:DU:16:LYS:C	2.46	0.55
47:DX:6:VAL:HG13	47:DX:7:THR:H	1.71	0.55
49:DZ:28:LEU:HD23	49:DZ:28:LEU:N	2.21	0.55
24:DA:218:A:H2'	24:DA:219:A:H8	1.71	0.55
24:DA:300:A:C5	24:DA:334:C:H4'	2.41	0.55
24:DA:1707:G:H2'	24:DA:1708:C:C6	2.41	0.55
24:DA:2281:A:C2	24:DA:2282:G:C5	2.95	0.55
24:DA:2553:G:N1	24:DA:2554:U:O2	2.40	0.55
24:DA:2592:G:C6	24:DA:2593:U:C4	2.94	0.55
56:DB:40:U:O2'	56:DB:45:A:N6	2.32	0.55
1:AB:70:GLY:HA2	1:AB:163:ILE:HG22	1.88	0.55
1:AB:138:ARG:NH2	21:AA:1170:A:OP1	2.36	0.55
4:AE:13:LYS:HE2	4:AE:112:ALA:CB	2.36	0.55
4:AE:75:LEU:HA	4:AE:81:GLN:HE21	1.71	0.55
13:AN:44:VAL:HG23	13:AN:45:LEU:H	1.72	0.55
17:AR:24:ASP:O	17:AR:27:THR:N	2.39	0.55
20:AU:33:ARG:HG2	20:AU:34:ARG:H	1.70	0.55
21:AA:32:A:C2'	21:AA:33:A:H8	2.20	0.55
21:AA:636:U:H2'	21:AA:637:C:C6	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:794:A:O2'	21:AA:795:C:H5'	2.06	0.55
21:AA:953:G:H2'	21:AA:954:G:O4'	2.06	0.55
21:AA:1406:U:C5	21:AA:1407:C:C5	2.95	0.55
24:BA:10:A:C4	24:BA:2800:A:C6	2.95	0.55
24:BA:590:A:H2'	24:BA:591:U:H6	1.71	0.55
24:BA:609:A:H2'	24:BA:610:C:O4'	2.06	0.55
24:BA:627:A:C6	24:BA:637:A:C8	2.94	0.55
24:BA:1022:G:O2'	24:BA:1023:U:OP2	2.23	0.55
24:BA:1258:U:O2	24:BA:1259:G:C8	2.60	0.55
24:BA:1570:A:H8	24:BA:1570:A:O5'	1.90	0.55
24:BA:1829:A:N3	26:BC:14:HIS:HE1	2.04	0.55
24:BA:2383:G:H2'	24:BA:2384:U:H6	1.71	0.55
26:BC:250:GLN:H	26:BC:250:GLN:NE2	2.05	0.55
26:BC:261:ARG:O	26:BC:261:ARG:HG2	2.05	0.55
40:BQ:98:ALA:HB2	40:BQ:105:PHE:CE2	2.42	0.55
42:BS:3:THR:HB	42:BS:62:ASP:OD2	2.07	0.55
45:BV:80:HIS:CD2	45:BV:83:LYS:HG3	2.41	0.55
46:BW:13:ARG:O	46:BW:14:ASP:C	2.50	0.55
48:BY:48:ARG:O	48:BY:51:ALA:HB3	2.07	0.55
53:B3:56:LEU:HD22	53:B3:56:LEU:N	2.22	0.55
4:CE:22:LYS:O	4:CE:29:ILE:HB	2.06	0.55
5:CF:3:HIS:ND1	5:CF:92:THR:HG23	2.21	0.55
9:CJ:5:ARG:C	9:CJ:6:ILE:HD12	2.31	0.55
9:CJ:10:LEU:HD23	9:CJ:98:VAL:HG22	1.87	0.55
11:CL:19:ASN:ND2	11:CL:19:ASN:N	2.51	0.55
11:CL:56:LEU:HD11	11:CL:81:ILE:HG21	1.87	0.55
11:CL:98:ARG:O	11:CL:117:GLY:HA3	2.05	0.55
17:CR:46:THR:HG21	17:CR:51:GLN:OE1	2.06	0.55
18:CS:51:HIS:CD2	18:CS:53:GLY:H	2.25	0.55
55:CA:1086:U:O2'	55:CA:1087:G:H5'	2.07	0.55
55:CA:1241:G:C2	55:CA:1242:G:C5	2.95	0.55
28:DE:164:LEU:HD12	28:DE:167:VAL:HG12	1.89	0.55
30:DG:138:GLN:HE21	24:DA:2746:U:H1'	1.70	0.55
35:DL:128:THR:HG21	24:DA:637:A:P	2.46	0.55
45:DV:30:ILE:HD12	45:DV:38:LEU:HD23	1.89	0.55
46:DW:73:PRO:HA	56:DB:12:C:N3	2.22	0.55
48:DY:4:LYS:HB2	48:DY:4:LYS:NZ	2.20	0.55
52:D2:41:ARG:HH12	24:DA:460:A:P	2.30	0.55
24:DA:216:A:C2'	24:DA:217:A:H8	2.19	0.55
24:DA:634:C:H2'	24:DA:635:C:H6	1.71	0.55
24:DA:1492:G:C5	24:DA:1496:A:N6	2.74	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2094:A:H2'	24:DA:2095:A:H8	1.72	0.55
24:DA:2283:C:C5	24:DA:2389:G:C4	2.95	0.55
24:DA:2638:G:O2'	24:DA:2639:A:H8	1.88	0.55
24:DA:2665:A:C2	24:DA:2666:C:C2	2.94	0.55
24:DA:2731:G:N2	24:DA:2732:G:N7	2.55	0.55
4:AE:79:THR:CA	4:AE:119:VAL:HB	2.33	0.55
5:AF:72:ASP:O	5:AF:76:THR:HG23	2.07	0.55
12:AM:44:ILE:HG22	12:AM:44:ILE:O	2.06	0.55
19:AT:79:THR:HA	19:AT:82:ILE:HG12	1.89	0.55
21:AA:591:U:O2'	21:AA:592:G:H5'	2.07	0.55
24:BA:270:A:H5"	24:BA:271:G:C5'	2.36	0.55
24:BA:335:C:H2'	24:BA:336:C:H6	1.72	0.55
24:BA:612:G:O6	24:BA:614:A:C2	2.60	0.55
24:BA:651:G:C6	24:BA:652:U:C4	2.95	0.55
24:BA:675:A:OP1	28:BE:58:LYS:HE2	2.05	0.55
24:BA:882:G:H2'	24:BA:883:G:H8	1.71	0.55
24:BA:1027:A:C6	24:BA:1126:A:N3	2.74	0.55
24:BA:1731:G:N3	24:BA:1733:G:C8	2.74	0.55
24:BA:1867:G:C2'	24:BA:1868:C:H5'	2.37	0.55
24:BA:2271:G:H2'	24:BA:2272:U:C6	2.42	0.55
24:BA:2470:G:O2'	24:BA:2471:A:H5'	2.07	0.55
29:BF:133:GLU:H	29:BF:150:GLY:CA	2.19	0.55
31:BH:67:ALA:C	31:BH:69:ALA:H	2.15	0.55
33:BJ:65:THR:HG21	33:BJ:68:LYS:HZ1	1.72	0.55
35:BL:77:ILE:O	35:BL:110:VAL:O	2.25	0.55
37:BN:18:GLN:HE21	37:BN:22:ARG:NH1	2.05	0.55
39:BP:50:ARG:HD2	39:BP:51:ASN:N	2.21	0.55
40:BQ:10:ARG:HB2	40:BQ:10:ARG:CZ	2.37	0.55
40:BQ:97:ILE:HD11	40:BQ:105:PHE:CA	2.37	0.55
44:BU:43:LYS:O	44:BU:57:ILE:HA	2.07	0.55
1:CB:160:LEU:O	1:CB:183:PHE:HD1	1.90	0.55
4:CE:96:GLN:CD	4:CE:96:GLN:C	2.75	0.55
6:CG:12:LEU:HD13	6:CG:12:LEU:O	2.06	0.55
6:CG:29:LEU:HG	55:CA:1240:U:C4	2.42	0.55
8:CI:109:GLN:HG2	8:CI:110:VAL:N	2.20	0.55
13:CN:100:TRP:C	13:CN:100:TRP:CD1	2.85	0.55
17:CR:70:THR:OG1	17:CR:71:ASP:N	2.39	0.55
55:CA:653:U:O2'	55:CA:654:G:H5'	2.06	0.55
55:CA:725:G:N3	55:CA:726:C:C6	2.74	0.55
55:CA:1102:A:O2'	55:CA:1103:C:H5'	2.07	0.55
55:CA:1305:G:H22	55:CA:1331:G:H2'	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:1338:G:C2	55:CA:1339:A:C2	2.95	0.55
55:CA:1493:A:C3'	24:DA:1913:A:N6	2.63	0.55
26:DC:52:HIS:CD2	26:DC:217:PRO:O	2.59	0.55
30:DG:62:ALA:O	30:DG:66:THR:HG23	2.06	0.55
33:DJ:45:THR:C	33:DJ:47:HIS:N	2.63	0.55
34:DK:2:ILE:HD11	34:DK:65:THR:HG22	1.88	0.55
34:DK:14:SER:OG	34:DK:51:LYS:N	2.40	0.55
36:DM:23:GLY:O	36:DM:101:VAL:HG12	2.07	0.55
39:DP:22:GLY:HA3	39:DP:91:VAL:HG21	1.88	0.55
41:DR:1:MET:HG3	41:DR:101:ILE:HD12	1.89	0.55
42:DS:55:ILE:O	42:DS:59:GLU:HG2	2.06	0.55
46:DW:30:VAL:CG1	24:DA:2353:G:H1'	2.36	0.55
46:DW:39:GLN:HG2	46:DW:42:THR:HB	1.89	0.55
24:DA:600:G:C6	24:DA:601:C:N3	2.74	0.55
24:DA:825:A:C6	24:DA:826:U:C4	2.95	0.55
24:DA:1465:G:H2'	24:DA:1466:U:O4'	2.06	0.55
24:DA:1483:G:C2	24:DA:1484:U:C2	2.95	0.55
24:DA:1880:U:H2'	24:DA:1881:C:C6	2.42	0.55
24:DA:2097:A:H2'	24:DA:2098:U:C6	2.41	0.55
24:DA:2287:A:C8	24:DA:2289:G:C8	2.95	0.55
24:DA:2691:C:O2'	24:DA:2692:G:H8	1.89	0.55
24:DA:2758:A:HO2'	24:DA:2759:G:H5'	1.72	0.55
1:AB:202:ASN:HB3	1:AB:208:ALA:HB2	1.89	0.55
4:AE:82:HIS:O	4:AE:146:MET:HE1	2.07	0.55
4:AE:85:LYS:HD3	4:AE:94:PHE:HB2	1.89	0.55
8:AI:122:ARG:NH1	21:AA:1343:G:H1'	2.22	0.55
15:AP:68:SER:HB2	15:AP:71:VAL:HG23	1.89	0.55
20:AU:19:LYS:C	20:AU:21:SER:H	2.14	0.55
21:AA:90:C:O2'	21:AA:91:U:C6	2.56	0.55
21:AA:98:A:H2'	21:AA:99:C:O4'	2.06	0.55
21:AA:438:U:C5	21:AA:494:G:C5	2.95	0.55
21:AA:815:A:C2	21:AA:1529:G:C4	2.94	0.55
21:AA:1363:A:C8	21:AA:1365:G:C5	2.94	0.55
24:BA:42:A:C3'	24:BA:43:G:H5"	2.37	0.55
24:BA:141:G:N1	43:BT:2:ILE:HG23	2.22	0.55
24:BA:754:U:H2'	24:BA:755:U:C6	2.42	0.55
24:BA:827:U:H1'	24:BA:2246:G:O2'	2.06	0.55
24:BA:960:A:H5"	24:BA:961:C:OP2	2.06	0.55
24:BA:1421:G:C2	24:BA:1422:G:C8	2.95	0.55
24:BA:1465:G:N1	24:BA:1466:U:C2	2.75	0.55
24:BA:1566:A:O2'	24:BA:1567:G:H5'	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2093:G:C6	24:BA:2225:A:N7	2.74	0.55
24:BA:2717:C:H2'	24:BA:2718:G:O4'	2.07	0.55
24:BA:2801:G:O2'	24:BA:2802:G:H5'	2.06	0.55
26:BC:199:HIS:O	26:BC:202:ARG:HG3	2.07	0.55
27:BD:42:ASN:O	27:BD:43:ASP:O	2.24	0.55
28:BE:60:TRP:CZ2	28:BE:70:SER:HB3	2.42	0.55
31:BH:96:THR:O	31:BH:97:ARG:HG3	2.06	0.55
40:BQ:42:GLY:HA3	41:BR:75:VAL:HG21	1.87	0.55
40:BQ:57:ARG:HH22	40:BQ:92:LYS:NZ	2.04	0.55
46:BW:35:ILE:O	46:BW:37:VAL:N	2.40	0.55
2:CC:19:SER:HB3	2:CC:21:TRP:NE1	2.21	0.55
8:CI:4:GLN:HB3	8:CI:21:LYS:CG	2.37	0.55
8:CI:90:ASP:CB	8:CI:93:LEU:HD23	2.33	0.55
13:CN:30:ILE:O	13:CN:45:LEU:HD11	2.07	0.55
55:CA:243:A:C4'	55:CA:244:U:H5'	2.35	0.55
55:CA:250:A:H1'	55:CA:252:U:N3	2.22	0.55
55:CA:385:C:N4	55:CA:386:C:N4	2.55	0.55
33:DJ:4:PHE:CG	33:DJ:5:THR:N	2.75	0.55
34:DK:38:ILE:HG12	34:DK:61:VAL:HG12	1.88	0.55
36:DM:19:GLY:H	36:DM:38:ARG:NH2	2.05	0.55
43:DT:55:VAL:HG23	43:DT:86:THR:O	2.07	0.55
50:D0:1:ALA:N	24:DA:2056:G:N2	2.55	0.55
24:DA:755:U:H2'	24:DA:756:A:C8	2.41	0.55
24:DA:1210:G:H21	24:DA:1212:G:H22	1.55	0.55
24:DA:1363:C:H2'	24:DA:1364:G:O4'	2.07	0.55
24:DA:1945:G:H2'	24:DA:1946:U:C6	2.42	0.55
24:DA:2287:A:C5	24:DA:2289:G:C8	2.95	0.55
4:AE:59:ILE:HD11	4:AE:63:MET:HE2	1.89	0.55
5:AF:4:TYR:O	5:AF:63:ASN:HA	2.06	0.55
8:AI:44:ARG:HB2	8:AI:45:MET:HE3	1.89	0.55
8:AI:83:THR:HG21	8:AI:102:PHE:HB3	1.88	0.55
21:AA:792:A:C2	21:AA:794:A:N1	2.75	0.55
21:AA:1087:G:N2	21:AA:1088:G:C5	2.75	0.55
21:AA:1256:A:C5	21:AA:1278:G:C4	2.95	0.55
24:BA:216:A:C2'	24:BA:217:A:H8	2.14	0.55
24:BA:401:A:H2'	24:BA:402:A:H8	1.72	0.55
24:BA:764:A:C2	24:BA:781:A:C2	2.94	0.55
24:BA:973:A:H8	24:BA:973:A:OP1	1.90	0.55
24:BA:1179:G:N7	24:BA:1180:U:H1'	2.22	0.55
24:BA:1653:G:H3'	37:BN:2:ARG:HG3	1.88	0.55
24:BA:1715:G:N2	24:BA:1743:G:H2'	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1933:G:N2	24:BA:1968:G:H1'	2.23	0.55
26:BC:80:LEU:HA	26:BC:90:ILE:O	2.07	0.55
31:BH:43:ASN:N	31:BH:43:ASN:HD22	2.05	0.55
35:BL:87:GLY:O	35:BL:89:VAL:N	2.40	0.55
54:B4:37:GLN:O	54:B4:37:GLN:HG2	2.06	0.55
7:CH:33:VAL:HG22	7:CH:58:LEU:HD11	1.88	0.55
11:CL:49:ARG:HH12	55:CA:523:A:H61	1.54	0.55
13:CN:60:ARG:NH2	55:CA:977:A:OP2	2.41	0.55
55:CA:205:A:C5	55:CA:206:C:N4	2.75	0.55
55:CA:332:G:O2'	55:CA:333:U:H5'	2.07	0.55
55:CA:465:A:O2'	55:CA:467:U:OP2	2.24	0.55
55:CA:724:G:H2'	55:CA:725:G:H8	1.72	0.55
55:CA:815:A:C2	55:CA:1529:G:C4	2.95	0.55
28:DE:5:LEU:HA	28:DE:120:VAL:HG13	1.89	0.55
31:DH:80:ILE:HB	31:DH:101:ASP:HB3	1.89	0.55
39:DP:102:ARG:HD2	39:DP:106:ALA:O	2.06	0.55
44:DU:54:PRO:HG2	44:DU:55:GLY:N	2.20	0.55
44:DU:81:ARG:HD2	44:DU:81:ARG:N	2.21	0.55
24:DA:78:U:C2'	24:DA:79:C:H5'	2.37	0.55
24:DA:186:G:N2	24:DA:211:C:C2	2.75	0.55
24:DA:188:G:H2'	24:DA:189:G:H5'	1.88	0.55
24:DA:214:G:N2	24:DA:215:G:C2	2.74	0.55
24:DA:333:G:C4	24:DA:334:C:C5	2.94	0.55
24:DA:335:C:O2'	24:DA:336:C:H5'	2.07	0.55
24:DA:476:G:HO2'	24:DA:477:A:H8	1.53	0.55
24:DA:739:A:H8	24:DA:739:A:OP2	1.90	0.55
24:DA:805:G:O2'	24:DA:831:G:H4'	2.07	0.55
24:DA:1051:G:H2'	24:DA:1052:C:C6	2.42	0.55
24:DA:1062:G:C8	24:DA:1088:A:H8	2.23	0.55
24:DA:1238:G:O2'	24:DA:1239:G:C5'	2.55	0.55
24:DA:1733:G:C2	24:DA:1734:G:C8	2.95	0.55
24:DA:2553:G:H2'	24:DA:2554:U:O4'	2.07	0.55
1:AB:63:LYS:HZ3	1:AB:224:ARG:NH2	2.05	0.54
3:AD:186:GLU:H	3:AD:189:ASP:CG	2.15	0.54
10:AK:125:LYS:O	10:AK:126:ARG:CB	2.55	0.54
14:AO:86:LEU:C	14:AO:88:ARG:H	2.13	0.54
16:AQ:18:LYS:HA	16:AQ:47:ASP:HB2	1.90	0.54
18:AS:5:LYS:HD3	21:AA:1314:C:C6	2.42	0.54
21:AA:94:G:C4'	21:AA:95:C:H5"	2.32	0.54
21:AA:199:A:O2'	21:AA:200:G:O4'	2.23	0.54
21:AA:1078:U:H2'	21:AA:1079:G:O4'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:1169:A:H2'	21:AA:1170:A:C8	2.41	0.54
24:BA:169:G:H2'	24:BA:170:U:H6	1.72	0.54
24:BA:795:C:O2'	24:BA:796:C:H5'	2.06	0.54
24:BA:1073:A:H3'	24:BA:1074:G:H5"	1.89	0.54
24:BA:1131:G:OP1	33:BJ:82:GLY:HA2	2.07	0.54
24:BA:1179:G:C5	24:BA:1180:U:C1'	2.83	0.54
24:BA:1489:C:O2'	24:BA:1490:A:H5'	2.07	0.54
24:BA:2822:G:P	27:BD:115:GLY:HA3	2.47	0.54
25:BB:13:G:O2'	25:BB:14:U:H5"	2.06	0.54
33:BJ:81:ILE:CG2	33:BJ:82:GLY:N	2.60	0.54
33:BJ:110:PRO:HB2	33:BJ:111:LYS:HG3	1.88	0.54
34:BK:12:ASP:HA	34:BK:98:ARG:O	2.07	0.54
34:BK:17:ARG:HG3	34:BK:47:ILE:HD13	1.89	0.54
35:BL:82:LEU:C	35:BL:84:LYS:H	2.15	0.54
36:BM:17:ASN:O	36:BM:38:ARG:HD3	2.07	0.54
40:BQ:91:ARG:NH2	40:BQ:93:ILE:HG21	2.22	0.54
42:BS:70:LYS:N	42:BS:70:LYS:HD2	2.22	0.54
44:BU:25:LYS:O	44:BU:26:ASN:HB3	2.07	0.54
46:BW:37:VAL:HG13	46:BW:55:ASP:O	2.07	0.54
46:BW:77:LYS:O	46:BW:78:PHE:HB2	2.05	0.54
51:B1:9:LYS:NZ	51:B1:50:GLU:OE2	2.34	0.54
1:CB:49:PHE:HA	1:CB:52:ALA:HB3	1.88	0.54
1:CB:132:GLU:C	1:CB:134:LEU:N	2.66	0.54
19:CT:81:GLN:HA	19:CT:84:LYS:NZ	2.22	0.54
55:CA:247:G:O2'	55:CA:248:C:C5'	2.55	0.54
55:CA:369:G:N2	55:CA:370:C:C2	2.75	0.54
55:CA:1068:G:N2	55:CA:1069:C:C2	2.75	0.54
55:CA:1475:G:H4'	24:DA:1689:A:H4'	1.88	0.54
27:DD:89:GLU:HG2	27:DD:94:GLN:HE22	1.71	0.54
28:DE:57:LYS:HG2	24:DA:797:G:OP1	2.07	0.54
29:DF:78:ILE:O	29:DF:79:ARG:HG2	2.07	0.54
35:DL:92:LEU:CD2	35:DL:124:GLY:HA3	2.37	0.54
36:DM:57:VAL:HA	36:DM:112:LEU:HD11	1.89	0.54
44:DU:95:PHE:HD1	44:DU:95:PHE:N	2.01	0.54
45:DV:6:ALA:HB3	45:DV:65:VAL:HB	1.89	0.54
48:DY:17:GLU:HG3	48:DY:53:VAL:HG11	1.89	0.54
50:D0:37:HIS:CG	50:D0:43:THR:HG22	2.42	0.54
52:D2:12:ARG:HG3	24:DA:686:U:O4	2.06	0.54
24:DA:167:A:C6	24:DA:168:G:C4	2.95	0.54
24:DA:531:C:O5'	24:DA:532:A:C8	2.60	0.54
24:DA:544:C:OP1	24:DA:544:C:H4'	2.06	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1846:G:H5”	24:DA:1847:A:OP2	2.07	0.54
24:DA:2184:A:H2’	24:DA:2185:U:C6	2.42	0.54
15:AP:33:ILE:O	15:AP:34:GLU:HB3	2.08	0.54
18:AS:35:ARG:HB2	21:AA:1320:C:N4	2.21	0.54
21:AA:32:A:C2’	21:AA:33:A:C8	2.89	0.54
21:AA:49:U:O4	21:AA:362:G:N2	2.32	0.54
24:BA:1017:G:C5	24:BA:1018:U:C5	2.96	0.54
24:BA:1315:C:OP2	59:BA:3770:HOH:O	2.18	0.54
24:BA:1433:A:H2’	24:BA:1434:A:O4’	2.06	0.54
24:BA:1608:A:C8	24:BA:1611:C:N4	2.75	0.54
24:BA:2214:C:H2’	24:BA:2215:C:C6	2.42	0.54
24:BA:2391:G:O6	24:BA:2425:A:H8	1.91	0.54
24:BA:2800:A:H2	24:BA:2895:G:H1’	1.66	0.54
33:BJ:26:GLY:HA2	33:BJ:29:ALA:HB3	1.89	0.54
35:BL:61:LEU:O	53:B3:12:ARG:HD3	2.06	0.54
36:BM:126:ILE:O	36:BM:128:THR:HG23	2.07	0.54
37:BN:65:LEU:O	37:BN:68:ALA:N	2.40	0.54
45:BV:75:GLN:HB2	45:BV:92:VAL:HG23	1.87	0.54
51:B1:8:ILE:HG23	51:B1:51:ALA:HA	1.89	0.54
6:CG:22:LEU:HD23	6:CG:23:ALA:N	2.23	0.54
6:CG:59:GLU:HG3	6:CG:60:ALA:H	1.71	0.54
15:CP:1:MET:HE2	15:CP:2:VAL:O	2.07	0.54
16:CQ:68:LYS:HG2	16:CQ:69:THR:HG23	1.89	0.54
55:CA:737:C:H2’	55:CA:738:C:C6	2.42	0.54
55:CA:1064:G:H4’	55:CA:1065:U:O5’	2.06	0.54
55:CA:1239:A:H62	55:CA:1299:A:H62	1.55	0.54
55:CA:1365:G:O2’	55:CA:1366:C:C5’	2.54	0.54
55:CA:1390:U:H2’	55:CA:1391:U:C6	2.42	0.54
29:DF:101:ARG:HH11	29:DF:138:PRO:HB3	1.71	0.54
31:DH:125:THR:HG22	31:DH:146:VAL:HG11	1.88	0.54
40:DQ:59:LEU:O	40:DQ:62:ALA:HB3	2.08	0.54
43:DT:10:VAL:HG23	43:DT:11:LEU:CD1	2.36	0.54
43:DT:45:ALA:HA	43:DT:48:GLN:CG	2.36	0.54
48:DY:1:MET:HE2	48:DY:1:MET:H3	1.71	0.54
52:D2:10:LEU:HG	24:DA:125:A:C2	2.43	0.54
24:DA:27:G:H1’	24:DA:513:A:H61	1.72	0.54
24:DA:518:G:H2’	24:DA:519:U:H6	1.72	0.54
24:DA:915:C:H3’	24:DA:916:G:H8	1.71	0.54
24:DA:1051:G:H2’	24:DA:1052:C:H6	1.73	0.54
24:DA:1057:A:C8	24:DA:1086:A:C8	2.95	0.54
24:DA:1060:U:O4’	24:DA:1061:U:H2’	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1555:G:H2'	24:DA:1556:C:C6	2.43	0.54
24:DA:2064:C:H1'	24:DA:2450:A:C6	2.42	0.54
24:DA:2273:A:H2'	24:DA:2274:A:C8	2.42	0.54
24:DA:2691:C:HO2'	24:DA:2692:G:H8	1.55	0.54
1:AB:46:VAL:HG13	1:AB:49:PHE:CZ	2.42	0.54
1:AB:52:ALA:HA	1:AB:197:PHE:CD1	2.42	0.54
1:AB:142:LYS:HE2	21:AA:1098:C:OP2	2.07	0.54
1:AB:162:VAL:CG2	1:AB:172:ILE:HD11	2.36	0.54
1:AB:187:ASP:HB2	1:AB:203:ASP:CG	2.32	0.54
3:AD:169:TRP:CD2	3:AD:185:PRO:HB3	2.41	0.54
17:AR:54:LEU:O	17:AR:58:ILE:HG13	2.06	0.54
21:AA:918:A:H2'	21:AA:919:A:C8	2.42	0.54
21:AA:1349:A:O2'	21:AA:1350:A:H5'	2.08	0.54
21:AA:1391:U:H2'	21:AA:1392:G:H8	1.72	0.54
21:AA:1421:G:C2	21:AA:1480:A:C2	2.95	0.54
24:BA:102:U:O4	48:BY:2:LYS:HB2	2.08	0.54
24:BA:447:A:C8	24:BA:473:G:C6	2.96	0.54
24:BA:1536:C:H4'	24:BA:1537:G:O5'	2.06	0.54
24:BA:1676:A:C2	24:BA:1993:U:H5'	2.42	0.54
24:BA:2453:A:O2'	24:BA:2572:A:H1'	2.07	0.54
26:BC:242:HIS:O	26:BC:244:VAL:HG13	2.07	0.54
28:BE:151:GLY:CA	28:BE:192:ALA:HB2	2.36	0.54
35:BL:14:LYS:CG	35:BL:15:ALA:N	2.70	0.54
39:BP:37:LYS:HD3	39:BP:37:LYS:H	1.68	0.54
43:BT:61:LEU:HA	59:BT:201:HOH:O	2.07	0.54
45:BV:38:LEU:CD2	45:BV:40:ILE:HD11	2.37	0.54
52:B2:3:ARG:HH21	52:B2:3:ARG:CG	2.15	0.54
2:CC:83:VAL:HA	2:CC:86:LEU:HD12	1.89	0.54
3:CD:187:ARG:HG3	3:CD:191:SER:OG	2.08	0.54
4:CE:131:ASN:HD22	4:CE:132:PRO:CD	2.19	0.54
11:CL:87:LYS:HG2	11:CL:87:LYS:O	2.08	0.54
12:CM:69:ARG:HD2	12:CM:69:ARG:N	2.23	0.54
15:CP:36:VAL:HG13	15:CP:36:VAL:O	2.07	0.54
16:CQ:12:VAL:HG22	16:CQ:12:VAL:O	2.07	0.54
55:CA:10:A:N3	55:CA:11:G:C8	2.74	0.54
55:CA:1168:U:O2'	55:CA:1169:A:H5'	2.07	0.54
55:CA:1234:C:C1'	55:CA:1364:U:H6	2.20	0.54
55:CA:1312:G:H2'	55:CA:1313:U:H6	1.72	0.54
29:DF:131:VAL:C	29:DF:133:GLU:H	2.16	0.54
33:DJ:123:LYS:HG2	33:DJ:132:HIS:NE2	2.22	0.54
36:DM:136:MET:OXT	36:DM:136:MET:CG	2.39	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DT:38:ALA:HB1	43:DT:81:LYS:NZ	2.22	0.54
44:DU:14:THR:HG23	44:DU:15:GLY:H	1.72	0.54
45:DV:82:TYR:CE1	45:DV:83:LYS:HG2	2.42	0.54
24:DA:60:G:HO2'	24:DA:61:C:P	2.31	0.54
24:DA:866:A:O2'	24:DA:867:C:C5'	2.56	0.54
24:DA:987:C:H2'	24:DA:988:A:O4'	2.06	0.54
24:DA:1289:C:HO2'	24:DA:1290:C:H6	1.54	0.54
24:DA:1331:G:N3	24:DA:1333:G:C8	2.75	0.54
24:DA:1333:G:O2'	24:DA:1334:G:H5'	2.07	0.54
24:DA:1399:C:H2'	24:DA:1400:U:H6	1.70	0.54
24:DA:1830:C:H2'	24:DA:1831:G:C8	2.42	0.54
24:DA:1993:U:H2'	24:DA:1994:C:C6	2.42	0.54
24:DA:2068:U:H5"	24:DA:2068:U:H6	1.72	0.54
24:DA:2756:U:H1'	24:DA:2757:A:H5"	1.88	0.54
24:DA:2821:A:H2'	24:DA:2822:G:O4'	2.07	0.54
1:AB:170:ILE:HD13	1:AB:170:ILE:H	1.71	0.54
2:AC:22:PHE:CG	2:AC:23:ALA:N	2.74	0.54
4:AE:29:ILE:HG13	4:AE:30:PHE:N	2.22	0.54
4:AE:83:PRO:CG	7:AH:95:MET:HG2	2.37	0.54
12:AM:89:ARG:HD2	12:AM:95:PRO:O	2.08	0.54
13:AN:14:ALA:HB1	13:AN:18:LYS:NZ	2.22	0.54
16:AQ:40:THR:HG22	16:AQ:41:THR:N	2.23	0.54
19:AT:26:MET:HA	19:AT:29:THR:OG1	2.07	0.54
21:AA:158:G:C3'	21:AA:159:G:H5"	2.37	0.54
21:AA:844:G:C2	21:AA:846:G:O2'	2.61	0.54
21:AA:1088:G:C2	21:AA:1089:G:C8	2.95	0.54
21:AA:1361:G:H2'	21:AA:1362:A:H5"	1.89	0.54
24:BA:975:A:C5	24:BA:990:A:N7	2.75	0.54
24:BA:1061:U:H3'	24:BA:1062:G:C5'	2.37	0.54
24:BA:1285:A:N7	24:BA:1329:U:N3	2.56	0.54
24:BA:1498:C:O4'	24:BA:1577:C:H4'	2.07	0.54
24:BA:2392:A:H4'	53:B3:27:ASN:ND2	2.23	0.54
41:BR:28:ALA:O	41:BR:63:VAL:HG21	2.06	0.54
41:BR:67:GLY:HA3	41:BR:93:PHE:CZ	2.43	0.54
45:BV:51:GLN:C	45:BV:51:GLN:CD	2.75	0.54
2:CC:63:ILE:HG12	2:CC:65:VAL:HG23	1.87	0.54
2:CC:120:THR:HG23	2:CC:187:GLU:O	2.08	0.54
7:CH:121:GLY:HA3	55:CA:599:C:H4'	1.88	0.54
8:CI:51:LEU:HG	8:CI:86:LEU:HD22	1.88	0.54
10:CK:64:VAL:O	10:CK:68:ARG:HB2	2.07	0.54
11:CL:85:ARG:HA	11:CL:93:ARG:HA	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CN:52:ARG:HA	13:CN:52:ARG:HH11	1.72	0.54
55:CA:242:G:C2	55:CA:245:U:C4	2.95	0.54
55:CA:979:C:C6	55:CA:1318:A:N1	2.76	0.54
55:CA:1125:U:C2	55:CA:1127:G:N7	2.76	0.54
55:CA:1167:A:N7	55:CA:1169:A:N6	2.56	0.54
55:CA:1258:G:O2'	55:CA:1259:C:C5'	2.52	0.54
55:CA:1363:A:C5	55:CA:1365:G:C6	2.95	0.54
33:DJ:119:PHE:C	33:DJ:121:LYS:N	2.65	0.54
38:DO:43:ASN:OD1	38:DO:44:GLY:N	2.40	0.54
39:DP:61:ARG:CZ	39:DP:100:ARG:HA	2.37	0.54
41:DR:23:GLU:O	41:DR:25:LEU:HD22	2.06	0.54
42:DS:84:ARG:HB3	42:DS:96:ILE:HG23	1.87	0.54
43:DT:9:LYS:HG3	48:DY:21:LEU:HD13	1.88	0.54
44:DU:40:LEU:HA	44:DU:61:GLU:HA	1.90	0.54
49:DZ:4:ILE:CG2	49:DZ:56:VAL:HG13	2.37	0.54
24:DA:411:G:O2'	24:DA:412:A:H5'	2.08	0.54
24:DA:866:A:O2'	24:DA:867:C:H5'	2.07	0.54
24:DA:1314:C:C2	24:DA:1339:G:N2	2.76	0.54
24:DA:2100:G:C6	24:DA:2190:G:C6	2.96	0.54
24:DA:2370:G:O6	24:DA:2371:G:C6	2.60	0.54
24:DA:2408:U:O2'	24:DA:2409:G:H8	1.90	0.54
24:DA:2542:A:H5"	24:DA:2543:G:OP1	2.08	0.54
1:AB:71:THR:O	1:AB:72:LYS:HG2	2.07	0.54
1:AB:172:ILE:O	1:AB:175:ALA:HB3	2.08	0.54
6:AG:74:VAL:HG12	6:AG:87:PRO:HA	1.90	0.54
8:AI:27:ILE:HD13	8:AI:34:LEU:HB2	1.89	0.54
21:AA:412:A:H4'	21:AA:413:G:C5'	2.38	0.54
21:AA:476:U:H2'	21:AA:477:C:C6	2.43	0.54
21:AA:483:C:N3	21:AA:484:G:C6	2.75	0.54
21:AA:583:A:H2'	21:AA:584:G:O4'	2.07	0.54
21:AA:642:A:H2'	21:AA:643:C:C6	2.43	0.54
21:AA:766:A:C2	21:AA:814:A:C2	2.95	0.54
21:AA:1023:U:H2'	21:AA:1024:G:C8	2.43	0.54
21:AA:1084:G:C6	21:AA:1085:U:O4	2.60	0.54
21:AA:1158:C:N3	21:AA:1160:G:C8	2.76	0.54
21:AA:1323:G:C2'	21:AA:1324:A:H8	2.19	0.54
21:AA:1350:A:C6	21:AA:1351:U:C4	2.95	0.54
21:AA:1422:G:C6	21:AA:1423:G:N7	2.76	0.54
24:BA:9:G:C6	24:BA:2629:U:C6	2.95	0.54
24:BA:753:A:H2'	24:BA:754:U:C6	2.42	0.54
24:BA:856:G:C1'	46:BW:23:LYS:HB3	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:858:G:N2	24:BA:2269:G:OP2	2.39	0.54
24:BA:914:G:C8	24:BA:914:G:H5"	2.42	0.54
24:BA:923:G:H21	46:BW:23:LYS:HZ3	1.55	0.54
24:BA:942:G:C5	24:BA:943:A:C8	2.95	0.54
24:BA:1328:A:H2'	24:BA:1330:C:C5	2.42	0.54
24:BA:1628:G:H2'	24:BA:1629:U:H6	1.71	0.54
24:BA:1798:U:OP1	26:BC:257:ARG:HB2	2.07	0.54
24:BA:2036:C:O2'	24:BA:2037:A:H5'	2.07	0.54
24:BA:2200:C:O2'	24:BA:2201:G:H5'	2.07	0.54
25:BB:12:C:H4'	25:BB:13:G:OP1	2.08	0.54
25:BB:54:G:H21	29:BF:25:MET:HE3	1.72	0.54
30:BG:148:ARG:HD2	30:BG:163:TYR:CE2	2.43	0.54
33:BJ:65:THR:HG22	33:BJ:68:LYS:HZ1	1.71	0.54
39:BP:95:LYS:HG2	39:BP:97:TYR:CZ	2.43	0.54
47:BX:5:GLN:HE21	47:BX:49:ARG:HB3	1.73	0.54
1:CB:65:LYS:HE2	1:CB:89:PHE:CE1	2.42	0.54
1:CB:218:ALA:HA	1:CB:221:ARG:CZ	2.38	0.54
3:CD:205:LYS:HD3	55:CA:8:A:N6	2.23	0.54
10:CK:91:GLY:O	10:CK:93:GLU:N	2.41	0.54
19:CT:30:PHE:CE2	19:CT:52:GLU:HG2	2.42	0.54
20:CU:34:ARG:HG2	20:CU:35:GLU:N	2.23	0.54
55:CA:22:G:H4'	55:CA:885:G:C8	2.42	0.54
55:CA:213:G:H2'	55:CA:213:G:N3	2.21	0.54
55:CA:554:A:C2	55:CA:555:U:C4	2.96	0.54
55:CA:1072:G:C5	55:CA:1073:U:C4	2.95	0.54
55:CA:1258:G:N2	55:CA:1259:C:C2	2.75	0.54
26:DC:28:PRO:HB3	26:DC:62:ARG:HH22	1.72	0.54
26:DC:58:LYS:HB2	24:DA:1568:G:H4'	1.89	0.54
27:DD:140:HIS:NE2	59:DD:302:HOH:O	2.33	0.54
28:DE:45:ALA:HB1	24:DA:37:C:O2'	2.08	0.54
30:DG:84:LYS:HB3	30:DG:132:LEU:O	2.07	0.54
36:DM:9:PHE:CD1	24:DA:911:A:C6	2.95	0.54
46:DW:16:GLU:OE2	24:DA:2271:G:H5'	2.07	0.54
46:DW:40:ARG:HB3	24:DA:2331:G:O2'	2.08	0.54
49:DZ:46:MET:HE3	24:DA:850:U:O2'	2.07	0.54
24:DA:155:A:C2'	24:DA:156:A:H5'	2.38	0.54
24:DA:352:A:C6	24:DA:353:C:C2	2.96	0.54
24:DA:845:A:C2	24:DA:847:U:N1	2.75	0.54
24:DA:999:U:O2	24:DA:1157:G:C2	2.61	0.54
24:DA:1055:G:H2'	24:DA:1055:G:N3	2.21	0.54
24:DA:1079:C:C4	24:DA:1088:A:C2	2.96	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1441:G:H2'	24:DA:1442:U:H6	1.73	0.54
24:DA:1668:A:O4'	24:DA:1669:A:C2	2.60	0.54
24:DA:1760:C:H2'	24:DA:1761:C:O4'	2.07	0.54
24:DA:2135:A:OP2	24:DA:2135:A:C8	2.60	0.54
24:DA:2287:A:HO2'	24:DA:2288:A:P	2.31	0.54
24:DA:2333:A:H4'	24:DA:2334:U:H3'	1.89	0.54
24:DA:2347:C:O2'	24:DA:2348:U:H6	1.90	0.54
24:DA:2467:C:H2'	24:DA:2468:A:O4'	2.08	0.54
24:DA:2513:A:C6	24:DA:2514:U:C4	2.95	0.54
56:DB:76:G:C2	56:DB:77:U:C2	2.95	0.54
1:AB:52:ALA:HB2	1:AB:197:PHE:HB3	1.89	0.54
1:AB:63:LYS:NZ	1:AB:224:ARG:NH2	2.56	0.54
1:AB:137:THR:O	1:AB:140:LEU:HB2	2.08	0.54
8:AI:49:GLN:N	8:AI:50:PRO:HD2	2.22	0.54
9:AJ:6:ILE:HD12	9:AJ:76:ILE:HB	1.88	0.54
17:AR:38:ILE:HD13	17:AR:55:ALA:HA	1.88	0.54
21:AA:481:G:H2'	21:AA:482:A:C8	2.42	0.54
21:AA:1052:U:H5'	21:AA:1053:G:OP2	2.08	0.54
21:AA:1350:A:C6	21:AA:1351:U:N3	2.76	0.54
21:AA:1494:G:HO2'	21:AA:1495:U:H6	1.55	0.54
24:BA:112:U:H2'	24:BA:113:U:H5'	1.89	0.54
24:BA:301:G:OP2	44:BU:81:ARG:NH1	2.41	0.54
24:BA:747:U:C4	24:BA:2613:U:C5	2.96	0.54
24:BA:1760:C:H2'	24:BA:1761:C:O4'	2.07	0.54
24:BA:2652:C:C4	24:BA:2653:U:C4	2.95	0.54
24:BA:2784:U:H4'	27:BD:42:ASN:HD21	1.73	0.54
25:BB:15:A:H1'	25:BB:109:A:N7	2.23	0.54
25:BB:66:A:H61	25:BB:107:G:H3'	1.71	0.54
28:BE:12:LEU:O	28:BE:13:THR:HB	2.06	0.54
28:BE:58:LYS:HE3	28:BE:62:GLN:HE21	1.73	0.54
28:BE:104:ALA:O	28:BE:108:ILE:HG22	2.07	0.54
29:BF:84:ILE:O	29:BF:84:ILE:HG13	2.08	0.54
30:BG:86:LEU:HD12	30:BG:86:LEU:H	1.72	0.54
33:BJ:19:ASP:C	33:BJ:21:THR:H	2.15	0.54
36:BM:72:PRO:O	36:BM:91:TYR:O	2.25	0.54
37:BN:23:ASN:N	37:BN:23:ASN:ND2	2.52	0.54
41:BR:49:ILE:CB	41:BR:51:VAL:O	2.55	0.54
42:BS:19:LEU:C	50:B0:21:LEU:HD12	2.31	0.54
45:BV:1:MET:HG3	45:BV:2:PHE:N	2.23	0.54
51:B1:29:LYS:NZ	51:B1:29:LYS:HB3	2.22	0.54
53:B3:7:ARG:O	53:B3:10:ALA:HB3	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B3:56:LEU:H	53:B3:56:LEU:CD2	2.19	0.54
2:CC:166:TRP:O	2:CC:167:TYR:CB	2.50	0.54
4:CE:80:LEU:CB	4:CE:97:PRO:HB3	2.38	0.54
6:CG:114:SER:O	6:CG:118:ARG:HG3	2.07	0.54
6:CG:140:VAL:C	6:CG:142:ARG:N	2.66	0.54
7:CH:34:ALA:O	7:CH:38:VAL:HG23	2.07	0.54
7:CH:65:PHE:C	7:CH:67:GLY:H	2.16	0.54
8:CI:51:LEU:HD13	8:CI:56:MET:SD	2.48	0.54
9:CJ:9:ARG:NH1	55:CA:1279:G:H5'	2.15	0.54
20:CU:3:ILE:O	20:CU:4:LYS:HG2	2.08	0.54
55:CA:10:A:H2'	55:CA:11:G:C8	2.36	0.54
55:CA:428:G:C8	55:CA:430:A:C4	2.95	0.54
55:CA:565:U:C6	55:CA:566:G:C8	2.95	0.54
28:DE:170:ARG:NH2	28:DE:176:ASP:HB2	2.21	0.54
30:DG:90:GLY:HA2	30:DG:159:LYS:HE3	1.89	0.54
30:DG:120:ILE:O	30:DG:120:ILE:HG23	2.06	0.54
30:DG:159:LYS:NZ	24:DA:2657:A:O3'	2.41	0.54
31:DH:2:GLN:O	31:DH:3:VAL:O	2.26	0.54
36:DM:135:VAL:HB	45:DV:57:TYR:HE1	1.72	0.54
37:DN:72:ASP:O	37:DN:76:VAL:HG13	2.08	0.54
38:DO:67:ASN:OD1	38:DO:68:LYS:N	2.40	0.54
43:DT:10:VAL:HG23	43:DT:11:LEU:HD12	1.89	0.54
44:DU:33:VAL:O	44:DU:34:ILE:HG13	2.07	0.54
51:D1:5:ARG:NH2	24:DA:2285:C:C5	2.76	0.54
24:DA:85:G:O2'	24:DA:86:G:C8	2.60	0.54
24:DA:373:U:H2'	24:DA:400:G:H22	1.72	0.54
24:DA:1010:A:O2'	24:DA:1011:G:H5"	2.07	0.54
24:DA:1087:G:H2'	24:DA:1089:A:C8	2.42	0.54
24:DA:1277:G:H2'	24:DA:1278:C:C6	2.42	0.54
24:DA:1326:U:O2'	24:DA:1327:A:H8	1.80	0.54
24:DA:1383:A:C2	24:DA:1384:A:C5	2.95	0.54
24:DA:1561:C:H2'	24:DA:1562:U:C6	2.42	0.54
24:DA:1731:G:C2	24:DA:1733:G:N7	2.76	0.54
24:DA:2148:G:O3'	24:DA:2149:U:O4'	2.25	0.54
24:DA:2574:G:O2'	24:DA:2575:C:H5'	2.07	0.54
24:DA:2815:C:H2'	24:DA:2816:G:H8	1.71	0.54
24:DA:2896:C:H2'	24:DA:2897:U:C6	2.42	0.54
3:AD:99:ASN:C	3:AD:101:VAL:H	2.16	0.54
7:AH:9:MET:HE1	7:AH:32:LYS:HA	1.90	0.54
12:AM:94:LEU:HD22	12:AM:95:PRO:HD2	1.90	0.54
13:AN:52:ARG:C	13:AN:54:SER:N	2.65	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AU:48:LYS:HD3	21:AA:723:U:OP1	2.08	0.54
21:AA:9:G:N7	21:AA:558:G:O2'	2.39	0.54
21:AA:198:G:O2'	21:AA:199:A:H5'	2.08	0.54
21:AA:255:G:H2'	21:AA:256:U:H6	1.72	0.54
21:AA:282:A:H2'	21:AA:283:U:C6	2.43	0.54
21:AA:428:G:C4	21:AA:430:A:C6	2.95	0.54
21:AA:842:U:O2'	21:AA:846:G:N1	2.41	0.54
24:BA:1338:G:O2'	24:BA:1339:G:H5'	2.07	0.54
24:BA:1548:A:H2'	24:BA:1549:A:C8	2.42	0.54
24:BA:1670:C:O2'	24:BA:1994:C:H4'	2.08	0.54
24:BA:1695:G:H8	26:BC:7:PRO:O	1.90	0.54
24:BA:2001:C:H4'	24:BA:2689:U:H2'	1.89	0.54
24:BA:2094:A:H2'	24:BA:2095:A:H8	1.71	0.54
24:BA:2406:A:O2'	24:BA:2407:A:OP2	2.26	0.54
35:BL:47:ARG:NH2	35:BL:47:ARG:HG2	2.22	0.54
46:BW:17:ALA:O	46:BW:18:LYS:HB3	2.08	0.54
49:BZ:48:ASN:O	49:BZ:51:SER:HB3	2.08	0.54
2:CC:22:PHE:HD1	9:CJ:13:PHE:CD1	2.26	0.54
4:CE:80:LEU:H	4:CE:121:ASN:ND2	2.05	0.54
7:CH:1:SER:N	55:CA:824:G:H1'	2.23	0.54
8:CI:53:LEU:HD13	8:CI:53:LEU:O	2.08	0.54
13:CN:30:ILE:O	13:CN:40:ARG:HA	2.08	0.54
15:CP:4:ILE:HG23	15:CP:19:VAL:HG23	1.90	0.54
55:CA:51:A:H4'	55:CA:52:C:C5'	2.37	0.54
55:CA:113:G:H2'	55:CA:114:U:C6	2.42	0.54
55:CA:242:G:C6	55:CA:245:U:O4	2.61	0.54
55:CA:339:C:H2'	55:CA:340:U:H6	1.73	0.54
29:DF:35:LEU:HD11	29:DF:153:ILE:HG23	1.90	0.54
30:DG:78:VAL:HG23	30:DG:79:THR:HG23	1.90	0.54
32:DI:16:MET:SD	32:DI:19:PRO:HG2	2.48	0.54
34:DK:24:VAL:HG13	34:DK:33:ALA:HB2	1.89	0.54
38:DO:28:VAL:HG23	38:DO:106:LEU:HD23	1.89	0.54
41:DR:7:SER:OG	41:DR:12:HIS:HE1	1.91	0.54
46:DW:28:GLU:N	46:DW:31:LEU:HD21	2.04	0.54
49:DZ:53:MET:O	49:DZ:54:VAL:HG13	2.07	0.54
24:DA:1126:A:H4'	24:DA:1127:A:O5'	2.08	0.54
24:DA:1475:G:H4'	24:DA:1732:C:H5	1.73	0.54
24:DA:1735:A:C2	24:DA:1736:U:C2	2.96	0.54
24:DA:2052:A:C2	24:DA:2053:G:C8	2.95	0.54
24:DA:2626:C:C2'	24:DA:2627:G:H5'	2.37	0.54
24:DA:2654:A:H1'	24:DA:2656:U:C5	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AB:103:TRP:CZ2	1:AB:154:GLY:HA2	2.43	0.54
1:AB:186:VAL:CG2	1:AB:198:VAL:HG23	2.38	0.54
3:AD:131:ILE:HG21	21:AA:620:C:C2	2.42	0.54
5:AF:99:ALA:O	5:AF:100:SER:CB	2.56	0.54
6:AG:31:VAL:C	6:AG:33:GLY:H	2.16	0.54
7:AH:62:LEU:N	7:AH:62:LEU:HD22	2.23	0.54
10:AK:117:HIS:NE2	21:AA:675:A:H1'	2.23	0.54
14:AO:40:GLY:O	14:AO:43:ALA:HB3	2.07	0.54
21:AA:245:U:O2'	21:AA:246:A:H5'	2.08	0.54
21:AA:645:G:C2'	21:AA:646:G:H5'	2.38	0.54
21:AA:654:G:H2'	21:AA:655:A:C8	2.43	0.54
24:BA:96:C:H4'	48:BY:41:HIS:ND1	2.23	0.54
24:BA:463:G:N1	24:BA:467:G:C6	2.76	0.54
24:BA:533:G:H5"	24:BA:533:G:H8	1.73	0.54
24:BA:786:C:O2'	24:BA:787:C:H5'	2.07	0.54
24:BA:811:U:N3	35:BL:21:ARG:NH2	2.56	0.54
24:BA:852:U:C2	24:BA:926:G:N2	2.76	0.54
24:BA:1374:G:C6	24:BA:1375:U:C4	2.95	0.54
24:BA:1820:U:C2	26:BC:200:MET:HB2	2.43	0.54
24:BA:2355:G:C6	24:BA:2356:U:C4	2.96	0.54
24:BA:2836:U:H2'	24:BA:2837:A:H8	1.71	0.54
26:BC:146:LYS:O	26:BC:147:PRO:C	2.48	0.54
34:BK:69:VAL:O	34:BK:76:VAL:HA	2.08	0.54
37:BN:45:ARG:HG2	37:BN:95:THR:HG21	1.90	0.54
1:CB:104:LYS:HD2	1:CB:104:LYS:H	1.73	0.54
3:CD:118:SER:HA	3:CD:130:ASN:HB2	1.89	0.54
3:CD:205:LYS:HB2	55:CA:8:A:H62	1.72	0.54
5:CF:43:GLY:HA2	5:CF:58:HIS:CE1	2.42	0.54
5:CF:98:GLU:O	5:CF:99:ALA:HB3	2.07	0.54
6:CG:143:MET:O	6:CG:147:ASN:HB3	2.08	0.54
10:CK:19:VAL:HB	10:CK:34:THR:O	2.08	0.54
10:CK:124:LYS:HG3	20:CU:34:ARG:CD	2.36	0.54
55:CA:70:U:H4'	55:CA:71:A:OP1	2.07	0.54
55:CA:1097:C:O2'	55:CA:1098:C:H5'	2.08	0.54
26:DC:30:ALA:HB3	26:DC:31:PRO:HD3	1.90	0.54
26:DC:171:VAL:N	26:DC:185:ALA:HB2	2.22	0.54
29:DF:164:GLU:O	29:DF:168:LEU:HD12	2.07	0.54
31:DH:68:ARG:CG	31:DH:71:LYS:HD3	2.37	0.54
41:DR:4:VAL:HG22	41:DR:40:MET:HB3	1.89	0.54
43:DT:84:TYR:CE2	24:DA:1341:G:C4	2.96	0.54
44:DU:81:ARG:CB	44:DU:96:LYS:HD2	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DY:31:GLN:C	48:DY:33:ALA:H	2.15	0.54
48:DY:58:ASN:C	48:DY:60:LYS:N	2.64	0.54
24:DA:693:A:C5	24:DA:694:U:C5	2.95	0.54
24:DA:760:G:H2'	24:DA:761:A:O4'	2.08	0.54
24:DA:763:G:C5	24:DA:765:C:C4	2.96	0.54
24:DA:794:A:H2'	24:DA:795:C:C5	2.42	0.54
24:DA:1009:A:H5'	24:DA:1009:A:C8	2.42	0.54
24:DA:1385:A:C4	24:DA:1386:C:C5	2.95	0.54
24:DA:1956:U:O2'	24:DA:1957:C:C5'	2.52	0.54
24:DA:2189:U:H2'	24:DA:2190:G:H5"	1.90	0.54
24:DA:2308:G:O6	24:DA:2311:A:N1	2.38	0.54
24:DA:2727:A:H2'	24:DA:2728:U:H6	1.73	0.54
24:DA:2797:U:O2	24:DA:2797:U:H2'	2.06	0.54
56:DB:23:G:O6	56:DB:59:A:N6	2.41	0.54
6:AG:102:TRP:CD1	6:AG:136:LYS:HG2	2.43	0.54
15:AP:10:GLY:HA3	15:AP:15:PRO:HA	1.90	0.54
15:AP:28:ARG:NH1	15:AP:29:ASN:HD21	2.06	0.54
15:AP:46:LYS:HD3	15:AP:46:LYS:C	2.33	0.54
21:AA:34:C:H2'	21:AA:35:G:H8	1.72	0.54
21:AA:66:A:O2'	21:AA:67:C:H5'	2.07	0.54
21:AA:323:U:H2'	21:AA:324:G:O4'	2.08	0.54
21:AA:1082:A:C6	21:AA:1083:U:C4	2.96	0.54
21:AA:1262:C:C5	21:AA:1263:C:C4	2.96	0.54
24:BA:90:U:H2'	24:BA:91:A:C8	2.43	0.54
24:BA:455:C:H42	24:BA:472:A:H2'	1.73	0.54
24:BA:807:U:C2	24:BA:808:G:C8	2.96	0.54
24:BA:1022:G:C2	24:BA:1141:U:C4	2.96	0.54
24:BA:2013:A:C2'	24:BA:2014:A:H5'	2.38	0.54
24:BA:2585:U:O2'	24:BA:2586:U:H5'	2.08	0.54
26:BC:16:VAL:N	26:BC:203:VAL:HG12	2.22	0.54
26:BC:195:GLY:O	26:BC:196:ASN:CB	2.56	0.54
31:BH:95:GLY:C	31:BH:97:ARG:H	2.16	0.54
33:BJ:65:THR:CG2	33:BJ:68:LYS:HE3	2.36	0.54
34:BK:59:LYS:HG3	34:BK:89:ASN:HD22	1.73	0.54
42:BS:14:ALA:O	42:BS:15:GLN:C	2.50	0.54
45:BV:88:HIS:CG	45:BV:89:ILE:N	2.76	0.54
48:BY:34:SER:O	48:BY:36:GLN:HG3	2.08	0.54
3:CD:39:GLN:CA	55:CA:426:U:H4'	2.38	0.54
6:CG:2:ARG:HG2	6:CG:3:ARG:N	2.22	0.54
6:CG:59:GLU:HG3	6:CG:60:ALA:N	2.23	0.54
9:CJ:48:ARG:HA	13:CN:100:TRP:CZ2	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CJ:78:GLU:HB3	9:CJ:80:THR:OG1	2.07	0.54
19:CT:3:ILE:O	19:CT:4:LYS:HG2	2.08	0.54
19:CT:26:MET:HE1	19:CT:56:ILE:HD13	1.90	0.54
20:CU:9:GLU:HB3	20:CU:10:PRO:HD2	1.88	0.54
55:CA:79:G:N2	55:CA:91:U:C2	2.76	0.54
55:CA:298:A:H2'	55:CA:299:G:O4'	2.07	0.54
55:CA:1375:A:H2'	55:CA:1376:U:H6	1.73	0.54
55:CA:1508:A:H2'	55:CA:1509:C:C6	2.43	0.54
27:DD:185:ASN:O	27:DD:186:LEU:HD12	2.08	0.54
28:DE:188:MET:HE3	28:DE:193:VAL:HG22	1.90	0.54
31:DH:93:SER:CB	31:DH:121:VAL:HG21	2.38	0.54
32:DI:98:GLY:HA2	32:DI:137:LEU:HD23	1.90	0.54
33:DJ:119:PHE:C	33:DJ:121:LYS:H	2.16	0.54
36:DM:99:GLY:HA2	45:DV:82:TYR:HB3	1.89	0.54
41:DR:37:GLU:O	41:DR:53:PHE:CD1	2.61	0.54
42:DS:47:VAL:O	42:DS:50:VAL:HB	2.08	0.54
42:DS:55:ILE:HG23	42:DS:66:ILE:HG21	1.90	0.54
44:DU:91:LYS:O	44:DU:92:VAL:HG22	2.08	0.54
47:DX:1:SER:O	47:DX:3:VAL:N	2.41	0.54
49:DZ:23:LEU:HD12	49:DZ:28:LEU:HD21	1.90	0.54
49:DZ:31:ILE:O	49:DZ:31:ILE:HG13	2.08	0.54
51:D1:13:SER:OG	51:D1:46:VAL:HG22	2.08	0.54
24:DA:219:A:C6	24:DA:220:G:C6	2.96	0.54
24:DA:362:A:C5	24:DA:363:G:N7	2.76	0.54
24:DA:648:G:O2'	24:DA:649:G:H5'	2.08	0.54
24:DA:1189:A:H2'	24:DA:1190:G:O4'	2.08	0.54
24:DA:1192:G:C2'	24:DA:1193:G:H5'	2.38	0.54
24:DA:1390:U:O2'	24:DA:1391:U:H5'	2.08	0.54
24:DA:1439:A:C6	24:DA:1552:A:N7	2.73	0.54
24:DA:1555:G:N2	24:DA:1556:C:C2	2.75	0.54
24:DA:1808:A:H3'	24:DA:1809:A:C8	2.39	0.54
24:DA:1867:G:H2'	24:DA:1868:C:C6	2.43	0.54
24:DA:2552:U:C2	24:DA:2554:U:H5'	2.42	0.54
24:DA:2663:G:H2'	24:DA:2664:G:C8	2.43	0.54
1:AB:127:LYS:HG3	1:AB:128:LEU:H	1.71	0.54
2:AC:46:LEU:HB3	2:AC:49:ALA:HB3	1.90	0.54
3:AD:116:LEU:HB3	3:AD:122:ILE:HD11	1.90	0.54
3:AD:151:GLN:O	3:AD:152:SER:C	2.50	0.54
7:AH:30:LYS:HG2	21:AA:590:U:OP1	2.08	0.54
8:AI:93:LEU:HD12	8:AI:94:ARG:N	2.23	0.54
10:AK:124:LYS:HA	20:AU:34:ARG:HG2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AO:79:GLN:O	14:AO:83:ARG:HB2	2.07	0.54
21:AA:984:C:O2'	21:AA:985:C:H6	1.91	0.54
21:AA:1202:U:O2'	21:AA:1203:C:O4'	2.25	0.54
24:BA:19:A:H2'	24:BA:20:C:H6	1.73	0.54
24:BA:197:A:N6	24:BA:2430:A:H2'	2.16	0.54
24:BA:1020:A:H4'	24:BA:1021:A:O5'	2.07	0.54
24:BA:1106:G:O2'	24:BA:1107:G:H5'	2.08	0.54
24:BA:1465:G:N1	24:BA:1466:U:O2	2.41	0.54
24:BA:2055:C:N3	59:BA:3539:HOH:O	2.34	0.54
24:BA:2209:G:C6	24:BA:2210:U:N3	2.76	0.54
24:BA:2472:G:C8	24:BA:2475:C:N4	2.76	0.54
24:BA:2592:G:C6	24:BA:2593:U:C4	2.96	0.54
25:BB:53:A:H8	25:BB:53:A:O5'	1.91	0.54
26:BC:106:PRO:CA	26:BC:141:HIS:CE1	2.91	0.54
27:BD:106:LYS:H	27:BD:106:LYS:HD2	1.73	0.54
29:BF:47:LYS:HB3	29:BF:47:LYS:NZ	2.23	0.54
30:BG:136:ASP:OD1	30:BG:136:ASP:C	2.51	0.54
33:BJ:4:PHE:CG	33:BJ:5:THR:N	2.76	0.54
44:BU:73:ASN:C	44:BU:75:ALA:H	2.15	0.54
1:CB:111:LYS:HD3	1:CB:111:LYS:C	2.33	0.54
2:CC:136:ALA:CA	2:CC:139:ASN:HD21	2.21	0.54
6:CG:14:ASP:OD1	6:CG:22:LEU:HD21	2.08	0.54
8:CI:93:LEU:HD13	8:CI:96:GLU:HG3	1.90	0.54
12:CM:94:LEU:HD21	55:CA:1226:C:C5'	2.38	0.54
12:CM:101:THR:HG21	55:CA:1225:A:H3'	1.90	0.54
13:CN:20:PHE:C	13:CN:24:ALA:HB2	2.32	0.54
55:CA:536:C:OP1	59:CA:1886:HOH:O	2.18	0.54
55:CA:560:A:C8	55:CA:566:G:C2	2.95	0.54
55:CA:1015:G:H2'	55:CA:1016:A:C8	2.42	0.54
55:CA:1306:A:H61	55:CA:1331:G:H1'	1.72	0.54
55:CA:1493:A:H3'	24:DA:1913:A:H62	1.68	0.54
55:CA:1521:C:C4	55:CA:1522:U:C5	2.96	0.54
26:DC:211:ARG:C	26:DC:213:ARG:H	2.16	0.54
27:DD:121:THR:CG2	27:DD:127:PHE:CD1	2.91	0.54
30:DG:43:LYS:O	30:DG:49:LEU:HD12	2.07	0.54
30:DG:95:ALA:HB3	30:DG:127:GLN:HA	1.89	0.54
31:DH:5:LEU:HD11	31:DH:13:GLY:HA3	1.90	0.54
31:DH:93:SER:HB3	31:DH:121:VAL:HG21	1.88	0.54
36:DM:36:VAL:HG22	45:DV:82:TYR:CD1	2.43	0.54
36:DM:64:TRP:CD1	24:DA:873:C:H4'	2.42	0.54
40:DQ:79:ILE:HD13	40:DQ:79:ILE:C	2.33	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DV:77:VAL:HG11	45:DV:79:ARG:NH2	2.19	0.54
24:DA:181:A:C2	24:DA:182:A:C4	2.96	0.54
24:DA:647:G:C2'	24:DA:648:G:C8	2.86	0.54
24:DA:716:A:C3'	24:DA:717:C:H5"	2.37	0.54
24:DA:749:A:N7	24:DA:1618:A:C6	2.76	0.54
24:DA:765:C:O2'	24:DA:766:U:C6	2.57	0.54
24:DA:1085:A:H3'	24:DA:1086:A:N3	2.22	0.54
24:DA:1385:A:C4	24:DA:1386:C:C4	2.96	0.54
24:DA:1932:A:H2'	24:DA:1933:G:O4'	2.08	0.54
24:DA:2259:U:C4	24:DA:2427:C:N4	2.76	0.54
24:DA:2590:A:H2'	24:DA:2591:C:C6	2.42	0.54
24:DA:2893:A:H5"	24:DA:2894:G:H5'	1.89	0.54
1:AB:71:THR:HG22	1:AB:72:LYS:N	2.20	0.53
3:AD:90:LEU:HD21	3:AD:194:ILE:HD12	1.89	0.53
3:AD:116:LEU:HB3	3:AD:122:ILE:CD1	2.37	0.53
4:AE:17:VAL:HG23	4:AE:33:THR:O	2.08	0.53
4:AE:25:LYS:HB3	4:AE:25:LYS:HZ3	1.73	0.53
4:AE:31:SER:CB	4:AE:52:ALA:O	2.56	0.53
5:AF:81:ASN:HB3	5:AF:84:VAL:HG12	1.89	0.53
8:AI:51:LEU:HB3	8:AI:56:MET:CG	2.38	0.53
14:AO:42:PHE:HE1	14:AO:55:LEU:HD22	1.73	0.53
21:AA:955:U:H2'	21:AA:956:U:H6	1.72	0.53
21:AA:1089:G:C2	21:AA:1090:U:C1'	2.91	0.53
24:BA:483:A:C2	24:BA:484:C:H1'	2.43	0.53
24:BA:686:U:H2'	24:BA:788:A:C2	2.44	0.53
24:BA:831:G:C4	24:BA:832:U:C6	2.97	0.53
24:BA:923:G:H21	46:BW:23:LYS:NZ	2.06	0.53
24:BA:1187:G:H5"	41:BR:83:TYR:CE2	2.43	0.53
24:BA:1316:U:C2	24:BA:1317:G:C8	2.96	0.53
24:BA:1359:A:H2'	24:BA:1360:G:O4'	2.08	0.53
24:BA:1746:A:H2'	24:BA:1747:U:C6	2.43	0.53
24:BA:1773:A:H2'	24:BA:1774:C:O4'	2.08	0.53
24:BA:1936:A:C4	24:BA:1945:G:C5	2.96	0.53
24:BA:2024:G:N2	24:BA:2040:G:H1'	2.23	0.53
24:BA:2839:G:H2'	24:BA:2840:C:C6	2.43	0.53
24:BA:2897:U:C2	24:BA:2898:U:C6	2.96	0.53
27:BD:101:PHE:N	27:BD:101:PHE:CD1	2.73	0.53
33:BJ:4:PHE:O	33:BJ:44:TYR:HE1	1.91	0.53
33:BJ:45:THR:O	33:BJ:45:THR:CG2	2.55	0.53
37:BN:73:ASN:ND2	37:BN:76:VAL:HG11	2.22	0.53
53:B3:21:PHE:HB2	53:B3:49:VAL:HG11	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CB:26:MET:HA	1:CB:29:PHE:CE2	2.43	0.53
3:CD:124:VAL:O	3:CD:126:GLY:N	2.41	0.53
4:CE:39:GLY:HA2	4:CE:45:VAL:HA	1.89	0.53
55:CA:190:A:H2'	55:CA:191:G:O4'	2.08	0.53
55:CA:325:A:H2'	55:CA:326:G:O4'	2.08	0.53
55:CA:483:C:C4	55:CA:484:G:C6	2.96	0.53
55:CA:539:A:H2'	55:CA:540:G:C8	2.42	0.53
55:CA:988:G:H2'	55:CA:989:U:O4'	2.07	0.53
55:CA:1238:A:OP1	55:CA:1336:C:H5	1.92	0.53
27:DD:184:ARG:HH22	39:DP:6:GLN:NE2	2.01	0.53
34:DK:94:PRO:HG3	34:DK:115:ILE:HD12	1.89	0.53
40:DQ:40:LYS:HD2	40:DQ:44:TYR:HE2	1.73	0.53
42:DS:66:ILE:HD13	42:DS:66:ILE:H	1.73	0.53
52:D2:16:HIS:CE1	24:DA:684:G:H5'	2.43	0.53
54:D4:16:ILE:CG1	54:D4:25:VAL:HG22	2.31	0.53
24:DA:871:U:H2'	24:DA:872:U:C6	2.43	0.53
24:DA:1264:A:N7	24:DA:1265:A:C5	2.76	0.53
24:DA:1517:G:C5	24:DA:1518:C:C5	2.96	0.53
24:DA:1775:U:C2'	24:DA:1776:G:O5'	2.55	0.53
24:DA:2313:C:O2'	24:DA:2314:A:C5'	2.37	0.53
24:DA:2752:C:H2'	24:DA:2753:A:H8	1.72	0.53
56:DB:43:C:H2'	56:DB:45:A:N7	2.23	0.53
7:AH:58:LEU:HD11	7:AH:60:LEU:HG	1.90	0.53
8:AI:18:VAL:HG22	8:AI:64:ILE:CG2	2.38	0.53
12:AM:21:ILE:HB	12:AM:24:VAL:CG2	2.39	0.53
13:AN:14:ALA:O	13:AN:18:LYS:HG3	2.07	0.53
21:AA:15:G:C5	21:AA:1396:A:C2	2.97	0.53
21:AA:20:U:H2'	21:AA:21:G:O4'	2.07	0.53
21:AA:27:G:H2'	21:AA:28:A:O4'	2.08	0.53
21:AA:451:A:N6	21:AA:481:G:O4'	2.41	0.53
21:AA:722:G:N3	21:AA:722:G:H2'	2.22	0.53
21:AA:926:G:C5	21:AA:1505:G:C6	2.96	0.53
21:AA:953:G:C6	21:AA:954:G:C5	2.96	0.53
21:AA:1530:G:O2'	21:AA:1531:A:H8	1.92	0.53
24:BA:37:C:O2'	24:BA:38:A:H5'	2.08	0.53
24:BA:243:U:O2'	24:BA:244:A:H5'	2.08	0.53
24:BA:1381:G:C2'	24:BA:1382:G:H5'	2.37	0.53
24:BA:1459:G:C5	24:BA:1461:C:C4	2.96	0.53
24:BA:1493:C:H4'	24:BA:1494:A:OP2	2.08	0.53
24:BA:1857:G:O2'	24:BA:1858:A:H8	1.91	0.53
24:BA:2093:G:O2'	24:BA:2094:A:C5'	2.56	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2231:U:OP1	47:BX:29:LEU:HD23	2.08	0.53
24:BA:2262:U:H4'	24:BA:2328:A:C2	2.43	0.53
24:BA:2531:A:C5'	30:BG:156:TYR:CZ	2.90	0.53
26:BC:81:GLU:N	26:BC:90:ILE:O	2.41	0.53
27:BD:90:PHE:HB2	27:BD:92:VAL:HG23	1.89	0.53
28:BE:83:VAL:CG1	28:BE:86:ALA:HB2	2.38	0.53
31:BH:96:THR:CG2	31:BH:97:ARG:HH11	2.20	0.53
33:BJ:38:GLY:C	33:BJ:40:HIS:H	2.15	0.53
48:BY:17:GLU:HG3	48:BY:18:LEU:N	2.22	0.53
1:CB:56:LEU:HD23	1:CB:183:PHE:CE1	2.43	0.53
6:CG:142:ARG:O	6:CG:146:ALA:HB3	2.09	0.53
9:CJ:54:SER:HB2	55:CA:1060:U:H4'	1.91	0.53
16:CQ:18:LYS:HE3	16:CQ:48:GLU:OE2	2.08	0.53
55:CA:174:A:H2'	55:CA:175:C:C6	2.43	0.53
55:CA:330:C:O2'	55:CA:331:G:C5'	2.56	0.53
55:CA:330:C:HO2'	55:CA:331:G:H8	1.55	0.53
55:CA:596:A:N6	55:CA:645:G:C6	2.77	0.53
55:CA:815:A:HO2'	55:CA:816:A:P	2.31	0.53
55:CA:936:C:O2'	55:CA:937:A:H5'	2.08	0.53
55:CA:1096:C:O2'	55:CA:1097:C:C6	2.43	0.53
55:CA:1347:G:H22	55:CA:1373:G:H2'	1.73	0.53
31:DH:61:VAL:HG13	31:DH:62:LEU:HG	1.89	0.53
38:DO:30:ARG:HG2	38:DO:31:THR:N	2.22	0.53
40:DQ:59:LEU:O	40:DQ:59:LEU:HD22	2.08	0.53
53:D3:15:LYS:NZ	53:D3:19:GLY:HA2	2.23	0.53
24:DA:35:G:O4'	24:DA:454:A:H1'	2.09	0.53
24:DA:239:C:H1'	24:DA:259:G:N2	2.22	0.53
24:DA:447:A:C2	24:DA:473:G:C8	2.96	0.53
24:DA:1049:C:O2	24:DA:1113:U:H4'	2.08	0.53
24:DA:1313:U:O2'	24:DA:1314:C:H5'	2.08	0.53
24:DA:2584:U:C2'	24:DA:2585:U:H5'	2.38	0.53
24:DA:2636:C:H2'	24:DA:2637:U:C6	2.44	0.53
2:AC:4:VAL:HG12	21:AA:1190:G:OP1	2.08	0.53
2:AC:82:ASP:O	2:AC:86:LEU:HG	2.07	0.53
3:AD:151:GLN:H	3:AD:154:VAL:HG12	1.73	0.53
4:AE:55:VAL:N	4:AE:56:PRO:CD	2.71	0.53
7:AH:81:GLY:O	16:AQ:35:LYS:HE2	2.08	0.53
10:AK:124:LYS:O	20:AU:33:ARG:NE	2.41	0.53
17:AR:51:GLN:HA	17:AR:51:GLN:OE1	2.07	0.53
19:AT:78:LEU:O	19:AT:82:ILE:HG23	2.07	0.53
21:AA:10:A:H2'	21:AA:11:G:H8	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:62:U:H2'	21:AA:63:C:C6	2.43	0.53
21:AA:88:U:O2	21:AA:89:U:C6	2.61	0.53
21:AA:483:C:C4	21:AA:484:G:C6	2.97	0.53
21:AA:493:A:C5	21:AA:494:G:C6	2.97	0.53
21:AA:560:A:H5'	21:AA:566:G:N2	2.23	0.53
21:AA:1022:A:H2'	21:AA:1023:U:O4'	2.08	0.53
21:AA:1125:U:O2'	21:AA:1126:U:P	2.66	0.53
21:AA:1322:C:O4'	21:AA:1322:C:O2	2.24	0.53
24:BA:122:G:O2'	24:BA:123:G:H5'	2.08	0.53
24:BA:279:A:H2'	24:BA:280:U:H6	1.73	0.53
24:BA:455:C:N3	24:BA:472:A:H2'	2.23	0.53
24:BA:585:G:N2	24:BA:1256:G:C6	2.76	0.53
24:BA:723:C:H2'	24:BA:724:U:O4'	2.08	0.53
24:BA:959:A:C6	24:BA:960:A:C6	2.96	0.53
24:BA:1840:G:C2	24:BA:1841:U:C2	2.95	0.53
24:BA:1915:U:O5'	24:BA:1915:U:H6	1.92	0.53
24:BA:1987:A:H2'	24:BA:1988:G:C8	2.42	0.53
24:BA:2064:C:O2	24:BA:2450:A:N6	2.41	0.53
24:BA:2307:G:C2	24:BA:2311:A:N7	2.76	0.53
24:BA:2411:A:H2'	24:BA:2412:A:C8	2.44	0.53
24:BA:2749:A:C5	24:BA:2750:A:N7	2.76	0.53
37:BN:22:ARG:HG3	37:BN:70:THR:H	1.74	0.53
41:BR:67:GLY:C	41:BR:93:PHE:CE2	2.86	0.53
1:CB:14:HIS:HE1	1:CB:42:LEU:CD2	2.21	0.53
1:CB:103:TRP:O	1:CB:107:ARG:HG2	2.08	0.53
1:CB:159:ALA:O	1:CB:160:LEU:HD12	2.09	0.53
3:CD:49:ASP:O	3:CD:53:GLN:HG3	2.09	0.53
6:CG:30:MET:O	6:CG:31:VAL:HB	2.08	0.53
9:CJ:65:TYR:HB3	13:CN:95:LEU:HD11	1.90	0.53
55:CA:351:G:H4'	55:CA:352:C:OP1	2.08	0.53
55:CA:881:G:C4	55:CA:882:C:C6	2.96	0.53
55:CA:1126:U:O2'	55:CA:1127:G:H5'	2.08	0.53
55:CA:1251:A:C8	55:CA:1252:A:N7	2.76	0.53
55:CA:1372:U:C5	55:CA:1373:G:C5	2.96	0.53
55:CA:1446:A:H2'	55:CA:1447:A:C5'	2.38	0.53
26:DC:212:TRP:CD1	26:DC:212:TRP:O	2.61	0.53
26:DC:239:PHE:HD1	26:DC:240:GLY:H	1.54	0.53
29:DF:107:VAL:N	29:DF:108:PRO:CD	2.71	0.53
31:DH:2:GLN:HB3	31:DH:18:GLN:HG2	1.90	0.53
33:DJ:45:THR:C	33:DJ:47:HIS:H	2.15	0.53
33:DJ:57:LEU:HG	33:DJ:128:ASN:H	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DJ:74:TYR:HE2	33:DJ:103:ILE:HD11	1.74	0.53
34:DK:118:LEU:O	34:DK:120:PRO:HD2	2.07	0.53
37:DN:62:ASN:O	37:DN:63:ARG:CB	2.50	0.53
40:DQ:24:TYR:CE1	24:DA:17:G:H4'	2.42	0.53
40:DQ:85:ALA:O	40:DQ:86:SER:O	2.27	0.53
45:DV:14:LYS:HB2	56:DB:98:G:H1	1.71	0.53
50:D0:18:HIS:HE1	24:DA:2624:G:H1'	1.73	0.53
52:D2:19:ARG:HB2	24:DA:125:A:H5"	1.91	0.53
24:DA:57:C:H2'	24:DA:58:G:O4'	2.08	0.53
24:DA:705:A:H61	24:DA:726:G:H1'	1.73	0.53
24:DA:1056:G:H1'	24:DA:1103:A:C6	2.43	0.53
24:DA:1510:G:O2'	24:DA:1511:G:H5'	2.08	0.53
2:AC:121:SER:HA	2:AC:124:GLU:HB2	1.89	0.53
3:AD:117:VAL:N	3:AD:122:ILE:HD11	2.23	0.53
4:AE:20:VAL:HG11	21:AA:1080:A:H4'	1.89	0.53
4:AE:132:PRO:HA	4:AE:135:VAL:HG12	1.91	0.53
6:AG:11:ILE:HD11	6:AG:24:LYS:HG2	1.91	0.53
9:AJ:41:PRO:O	9:AJ:42:LEU:HB2	2.07	0.53
21:AA:113:G:O4'	21:AA:354:G:H4'	2.09	0.53
21:AA:247:G:O6	21:AA:278:G:C6	2.62	0.53
21:AA:315:A:HO2'	21:AA:316:C:P	2.31	0.53
21:AA:764:C:C2	21:AA:765:G:C8	2.96	0.53
21:AA:1306:A:N6	21:AA:1331:G:H1'	2.23	0.53
24:BA:301:G:O2'	24:BA:302:C:O5'	2.25	0.53
24:BA:479:A:O2'	24:BA:481:G:H5'	2.08	0.53
24:BA:489:G:C5	24:BA:1284:A:C2	2.95	0.53
24:BA:817:C:P	59:BA:3588:HOH:O	2.66	0.53
24:BA:954:G:C5	24:BA:955:U:C5	2.96	0.53
24:BA:1131:G:C4	33:BJ:77:HIS:ND1	2.76	0.53
24:BA:1471:G:O2'	24:BA:1472:C:H5'	2.08	0.53
24:BA:1693:U:O4	24:BA:1977:A:N7	2.42	0.53
24:BA:2088:A:H2'	24:BA:2089:C:C6	2.44	0.53
24:BA:2136:G:O6	24:BA:2156:G:N2	2.41	0.53
24:BA:2488:G:C2'	24:BA:2489:U:H5'	2.39	0.53
24:BA:2668:G:H21	24:BA:2669:G:H1'	1.72	0.53
24:BA:2786:U:H2'	24:BA:2787:C:C6	2.40	0.53
26:BC:250:GLN:N	26:BC:250:GLN:NE2	2.57	0.53
28:BE:57:LYS:HG3	28:BE:58:LYS:N	2.23	0.53
43:BT:39:THR:O	43:BT:39:THR:CG2	2.57	0.53
46:BW:23:LYS:HD2	46:BW:24:ARG:N	2.23	0.53
1:CB:19:THR:HA	1:CB:38:HIS:H	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CB:53:LEU:HD11	1:CB:219:THR:HG21	1.90	0.53
1:CB:115:ASP:O	1:CB:119:GLN:HB2	2.07	0.53
1:CB:151:LYS:C	1:CB:153:MET:H	2.16	0.53
2:CC:63:ILE:HG12	2:CC:65:VAL:CG2	2.39	0.53
5:CF:45:ARG:N	5:CF:57:ALA:O	2.38	0.53
7:CH:89:ASP:OD1	7:CH:89:ASP:N	2.40	0.53
11:CL:5:GLN:NE2	55:CA:882:C:H41	2.06	0.53
12:CM:67:ASP:HA	12:CM:70:ARG:HB3	1.90	0.53
55:CA:105:G:C6	55:CA:106:C:C4	2.95	0.53
55:CA:193:C:H2'	55:CA:194:C:C6	2.43	0.53
55:CA:423:G:H2'	55:CA:423:G:N3	2.22	0.53
55:CA:865:A:C5	55:CA:866:C:C4	2.97	0.53
55:CA:1507:A:N3	55:CA:1508:A:C8	2.76	0.53
27:DD:115:GLY:N	24:DA:2821:A:OP2	2.41	0.53
32:DI:12:VAL:HG12	32:DI:13:ALA:N	2.23	0.53
37:DN:90:ARG:NH2	37:DN:116:VAL:HG11	2.23	0.53
38:DO:69:ASP:O	38:DO:70:ALA:C	2.50	0.53
38:DO:111:ARG:HA	38:DO:115:LEU:O	2.09	0.53
41:DR:9:GLY:H	41:DR:10:LYS:HD2	1.74	0.53
42:DS:8:ARG:HA	42:DS:102:HIS:ND1	2.23	0.53
43:DT:29:THR:CB	43:DT:86:THR:H	2.21	0.53
44:DU:16:LYS:O	44:DU:18:LYS:N	2.42	0.53
44:DU:58:VAL:HG13	44:DU:60:LYS:HG2	1.89	0.53
44:DU:91:LYS:HZ2	24:DA:83:A:P	2.31	0.53
44:DU:100:GLU:O	44:DU:101:THR:C	2.52	0.53
47:DX:69:GLU:O	47:DX:71:ARG:N	2.42	0.53
50:D0:3:GLN:HA	24:DA:2615:U:C2	2.43	0.53
50:D0:38:LEU:HB2	50:D0:41:HIS:CE1	2.44	0.53
24:DA:81:G:H2'	24:DA:82:U:O4'	2.08	0.53
24:DA:91:A:HO2'	24:DA:92:U:H6	1.54	0.53
24:DA:323:C:OP1	24:DA:324:A:C8	2.62	0.53
24:DA:357:C:H2'	24:DA:358:U:H6	1.74	0.53
24:DA:1238:G:O2'	24:DA:1239:G:H5'	2.09	0.53
24:DA:1346:G:O2'	24:DA:1347:A:C8	2.43	0.53
24:DA:1500:G:N1	24:DA:1501:G:C5	2.77	0.53
24:DA:1750:G:O2'	24:DA:1751:U:H5'	2.09	0.53
24:DA:1805:A:C2	24:DA:1813:G:C2	2.96	0.53
24:DA:2720:U:C2	24:DA:2872:A:C6	2.97	0.53
2:AC:10:ARG:NH2	2:AC:181:ILE:HG13	2.24	0.53
2:AC:24:ASN:HD22	2:AC:25:THR:N	2.03	0.53
6:AG:102:TRP:NE1	6:AG:136:LYS:HG2	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AI:29:ILE:HA	8:AI:64:ILE:O	2.08	0.53
11:AL:32:VAL:O	11:AL:33:CYS:O	2.27	0.53
12:AM:2:ARG:C	12:AM:3:ILE:HG12	2.34	0.53
20:AU:52:VAL:HG13	20:AU:53:LYS:N	2.15	0.53
21:AA:345:C:H3'	39:BP:33:GLU:CD	2.33	0.53
21:AA:925:G:H5"	21:AA:926:G:OP1	2.09	0.53
21:AA:1200:C:O3'	21:AA:1201:A:H3'	2.08	0.53
21:AA:1385:G:H2'	21:AA:1386:G:O4'	2.09	0.53
21:AA:1506:U:H3'	59:AA:1802:HOH:O	2.09	0.53
24:BA:92:U:H5"	24:BA:92:U:C6	2.44	0.53
24:BA:150:U:N3	24:BA:151:C:C5	2.76	0.53
24:BA:161:A:C3'	24:BA:162:U:H5"	2.36	0.53
24:BA:477:A:H2'	24:BA:478:A:H8	1.68	0.53
24:BA:654:A:N3	24:BA:654:A:H5'	2.23	0.53
24:BA:923:G:H5'	46:BW:25:PHE:CZ	2.43	0.53
24:BA:1600:C:OP1	43:BT:81:LYS:NZ	2.42	0.53
24:BA:1660:G:H2'	24:BA:1661:G:C8	2.42	0.53
24:BA:1788:C:O2'	24:BA:1789:A:H5'	2.09	0.53
24:BA:1851:U:C4	24:BA:1852:U:C4	2.97	0.53
24:BA:1998:A:OP2	27:BD:141:ARG:NH2	2.41	0.53
24:BA:2149:U:H2'	24:BA:2150:C:O4'	2.08	0.53
24:BA:2252:G:H2'	24:BA:2253:G:H5'	1.91	0.53
24:BA:2352:A:N1	46:BW:30:VAL:HG21	2.23	0.53
24:BA:2519:U:C6	24:BA:2542:A:N6	2.76	0.53
29:BF:134:GLN:H	29:BF:134:GLN:HE21	1.57	0.53
32:BI:15:GLY:CA	32:BI:50:LYS:HB3	2.31	0.53
35:BL:2:ARG:HA	35:BL:5:THR:OG1	2.09	0.53
43:BT:68:LYS:O	43:BT:69:ARG:O	2.26	0.53
4:CE:131:ASN:HD21	4:CE:133:ILE:HG23	1.73	0.53
15:CP:20:VAL:HA	15:CP:36:VAL:HG12	1.89	0.53
18:CS:33:TRP:NE1	18:CS:56:HIS:CE1	2.77	0.53
55:CA:501:C:O2'	55:CA:502:A:H5'	2.07	0.53
55:CA:581:G:H8	55:CA:581:G:O5'	1.91	0.53
55:CA:604:G:C2	55:CA:635:A:C2	2.97	0.53
55:CA:649:A:H2'	55:CA:650:G:O4'	2.09	0.53
55:CA:725:G:C2	55:CA:726:C:C6	2.96	0.53
55:CA:976:G:N2	55:CA:1362:A:H2'	2.24	0.53
55:CA:1015:G:H2'	55:CA:1016:A:H8	1.72	0.53
55:CA:1021:A:C2	55:CA:1022:A:H1'	2.42	0.53
55:CA:1391:U:H2'	55:CA:1392:G:H8	1.73	0.53
28:DE:77:ILE:HG22	24:DA:1256:G:N3	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DP:88:ARG:NE	39:DP:112:ARG:HH21	2.04	0.53
49:DZ:4:ILE:CD1	49:DZ:58:GLU:HA	2.39	0.53
50:D0:47:TYR:CE2	50:D0:52:LYS:HG3	2.43	0.53
52:D2:12:ARG:HB2	24:DA:686:U:H3	1.74	0.53
24:DA:6:A:C6	24:DA:7:G:C6	2.96	0.53
24:DA:444:C:O2'	24:DA:445:C:C5'	2.56	0.53
24:DA:845:A:N6	24:DA:932:U:C2	2.77	0.53
24:DA:1430:G:O2'	24:DA:1431:A:O4'	2.24	0.53
24:DA:1555:G:H2'	24:DA:1556:C:H6	1.72	0.53
24:DA:1684:G:H2'	24:DA:1685:C:C6	2.42	0.53
24:DA:1917:U:C2'	24:DA:1918:A:H5'	2.39	0.53
24:DA:2022:U:O2'	24:DA:2617:U:H5'	2.09	0.53
56:DB:36:C:H5'	56:DB:38:C:H41	1.74	0.53
3:AD:105:GLY:C	3:AD:107:GLY:H	2.16	0.53
3:AD:125:ASN:OD1	3:AD:140:ASP:HA	2.08	0.53
4:AE:121:ASN:HD22	4:AE:122:VAL:H	1.53	0.53
11:AL:85:ARG:CZ	11:AL:87:LYS:HB3	2.38	0.53
18:AS:30:LEU:HD12	18:AS:30:LEU:N	2.23	0.53
21:AA:399:G:H2'	21:AA:400:C:C6	2.43	0.53
21:AA:513:C:C2	21:AA:514:C:C5	2.97	0.53
21:AA:575:G:H4'	21:AA:576:C:H5"	1.90	0.53
21:AA:669:G:H2'	21:AA:670:G:C8	2.43	0.53
21:AA:1016:A:H3'	21:AA:1017:U:O4'	2.09	0.53
21:AA:1131:G:C2'	21:AA:1132:C:O5'	2.56	0.53
24:BA:171:U:H2'	24:BA:172:A:C8	2.42	0.53
24:BA:1017:G:C4	24:BA:1018:U:C5	2.97	0.53
24:BA:1687:G:C5	24:BA:1688:U:C5	2.96	0.53
24:BA:1816:C:O2'	24:BA:1817:G:P	2.67	0.53
24:BA:1824:G:C5	24:BA:1825:U:C5	2.96	0.53
24:BA:2063:C:O2	24:BA:2450:A:N1	2.42	0.53
24:BA:2630:G:C5	24:BA:2894:G:C6	2.97	0.53
25:BB:105:G:C2'	25:BB:106:G:H5'	2.38	0.53
26:BC:34:GLU:O	26:BC:35:LYS:O	2.27	0.53
27:BD:117:GLY:C	27:BD:118:PHE:CG	2.86	0.53
27:BD:191:GLY:O	27:BD:192:ALA:HB3	2.09	0.53
29:BF:42:ALA:HA	29:BF:45:ASP:O	2.09	0.53
40:BQ:67:ALA:O	40:BQ:68:ALA:C	2.51	0.53
42:BS:20:VAL:HG21	42:BS:43:ALA:HB3	1.89	0.53
44:BU:27:VAL:HG23	44:BU:33:VAL:HG12	1.91	0.53
46:BW:39:GLN:O	46:BW:40:ARG:C	2.52	0.53
3:CD:71:PHE:HZ	3:CD:199:ILE:HD12	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CI:51:LEU:HD22	8:CI:56:MET:HE3	1.89	0.53
9:CJ:5:ARG:NH1	9:CJ:7:ARG:HH12	2.06	0.53
11:CL:109:ARG:O	11:CL:110:LYS:HD2	2.09	0.53
55:CA:98:A:H2'	55:CA:99:C:C6	2.43	0.53
55:CA:159:G:H5'	55:CA:160:A:OP2	2.09	0.53
55:CA:192:A:H8	55:CA:192:A:O5'	1.91	0.53
55:CA:516:U:C4	55:CA:517:G:C6	2.97	0.53
55:CA:536:C:O2'	55:CA:537:G:H5'	2.09	0.53
55:CA:903:G:C6	55:CA:904:U:C4	2.96	0.53
55:CA:1102:A:H2'	55:CA:1103:C:H6	1.73	0.53
55:CA:1297:G:C8	55:CA:1297:G:OP2	2.62	0.53
26:DC:179:GLU:HA	26:DC:269:ARG:O	2.07	0.53
29:DF:42:ALA:CB	29:DF:49:LEU:HD21	2.39	0.53
29:DF:147:ARG:HD2	29:DF:147:ARG:H	1.74	0.53
33:DJ:7:LYS:NZ	24:DA:538:A:H5"	2.23	0.53
33:DJ:99:ARG:HG2	33:DJ:102:GLU:OE2	2.09	0.53
35:DL:79:LEU:C	35:DL:82:LEU:HD11	2.32	0.53
42:DS:68:ASP:OD1	42:DS:68:ASP:N	2.42	0.53
46:DW:44:PHE:HB3	46:DW:78:PHE:CD1	2.44	0.53
24:DA:55:G:C2	24:DA:116:C:C2	2.97	0.53
24:DA:237:C:N3	24:DA:238:C:C5	2.76	0.53
24:DA:871:U:H2'	24:DA:872:U:H6	1.74	0.53
24:DA:1021:A:H2'	24:DA:1022:G:H4'	1.91	0.53
24:DA:1347:A:O2'	24:DA:1348:C:H5'	2.08	0.53
24:DA:1386:C:H2'	24:DA:1387:A:C8	2.44	0.53
24:DA:1552:A:O2'	24:DA:1553:A:H5'	2.09	0.53
24:DA:1753:G:N2	24:DA:1756:G:OP2	2.39	0.53
24:DA:1814:G:C6	24:DA:1815:A:C6	2.97	0.53
24:DA:1854:A:H2	24:DA:2087:G:N3	2.07	0.53
24:DA:1992:G:C4	24:DA:1997:C:N4	2.77	0.53
24:DA:2098:U:C2	24:DA:2099:U:C4	2.97	0.53
24:DA:2204:G:H2'	24:DA:2205:A:H8	1.73	0.53
24:DA:2438:U:O3'	24:DA:2439:A:H3'	2.09	0.53
24:DA:2850:A:N7	24:DA:2868:A:O2'	2.35	0.53
1:AB:45:THR:HA	1:AB:200:PRO:HG2	1.91	0.53
5:AF:98:GLU:HG3	5:AF:99:ALA:H	1.73	0.53
6:AG:15:PRO:O	6:AG:16:LYS:HB2	2.07	0.53
6:AG:30:MET:HE1	21:AA:1374:A:H1'	1.90	0.53
14:AO:85:GLY:O	14:AO:86:LEU:HB3	2.09	0.53
18:AS:50:VAL:HG21	18:AS:70:LEU:HB3	1.91	0.53
21:AA:187:G:C2	21:AA:191:G:C6	2.97	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:485:U:O2'	21:AA:486:U:OP1	2.25	0.53
21:AA:1144:G:N2	21:AA:1146:A:H62	2.06	0.53
21:AA:1504:G:O4'	21:AA:1505:G:C2	2.61	0.53
24:BA:3:U:H2'	24:BA:4:U:C6	2.43	0.53
24:BA:278:A:N3	24:BA:278:A:H2'	2.23	0.53
24:BA:586:A:C2	24:BA:1254:A:C2	2.97	0.53
24:BA:656:G:H8	24:BA:656:G:C5'	2.22	0.53
24:BA:714:U:H5'	24:BA:715:A:OP2	2.08	0.53
24:BA:975:A:H2'	24:BA:976:G:H8	1.74	0.53
24:BA:1062:G:N9	24:BA:1088:A:N7	2.56	0.53
24:BA:2365:G:H4'	46:BW:59:PHE:CE2	2.43	0.53
24:BA:2725:A:O2'	24:BA:2726:A:H2'	2.09	0.53
25:BB:65:U:C4	25:BB:108:A:C4	2.97	0.53
28:BE:48:THR:HG22	28:BE:86:ALA:HB3	1.90	0.53
29:BF:30:VAL:O	29:BF:30:VAL:HG13	2.08	0.53
29:BF:45:ASP:CB	29:BF:48:LEU:HB2	2.37	0.53
42:BS:69:LEU:HG	42:BS:107:VAL:HG13	1.89	0.53
43:BT:40:LYS:HA	43:BT:43:ILE:HG23	1.91	0.53
49:BZ:5:LYS:HA	49:BZ:35:VAL:O	2.09	0.53
50:B0:24:VAL:C	50:B0:25:THR:HG23	2.33	0.53
2:CC:80:GLY:HA2	2:CC:83:VAL:HG13	1.91	0.53
2:CC:149:LYS:CG	2:CC:168:ARG:HB2	2.37	0.53
10:CK:26:PHE:CE1	10:CK:88:PRO:HG2	2.44	0.53
12:CM:96:VAL:O	12:CM:98:GLY:N	2.42	0.53
14:CO:62:ARG:HH22	14:CO:88:ARG:NH2	2.06	0.53
16:CQ:66:LEU:HB2	16:CQ:70:LYS:HE2	1.91	0.53
55:CA:928:G:C2	55:CA:1390:U:O2	2.62	0.53
55:CA:1055:A:C8	55:CA:1206:G:N2	2.77	0.53
55:CA:1077:G:N2	55:CA:1081:A:C4	2.76	0.53
55:CA:1229:A:H2'	55:CA:1230:C:C6	2.44	0.53
26:DC:180:MET:CE	26:DC:268:ARG:HE	2.21	0.53
29:DF:134:GLN:HB2	29:DF:137:PHE:HE2	1.73	0.53
37:DN:96:ARG:HD3	24:DA:2882:A:C5'	2.39	0.53
38:DO:21:LEU:HD22	24:DA:2379:G:H4'	1.91	0.53
46:DW:31:LEU:C	46:DW:33:GLY:N	2.65	0.53
24:DA:332:A:C5	24:DA:335:C:N4	2.77	0.53
24:DA:673:C:C2'	24:DA:674:G:H5'	2.38	0.53
24:DA:1105:U:H2'	24:DA:1106:G:C8	2.43	0.53
24:DA:2138:G:C6	24:DA:2139:U:C4	2.97	0.53
24:DA:2144:G:N3	24:DA:2147:A:OP1	2.42	0.53
24:DA:2358:A:H2'	24:DA:2359:C:O4'	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DB:46:A:O2'	56:DB:47:C:C5'	2.56	0.53
1:AB:19:THR:HG23	1:AB:21:TYR:HE1	1.73	0.53
1:AB:22:TRP:CG	1:AB:38:HIS:CE1	2.96	0.53
2:AC:39:ARG:CG	2:AC:54:ILE:HD11	2.39	0.53
2:AC:196:GLY:HA3	21:AA:1057:G:O3'	2.09	0.53
4:AE:22:LYS:HE2	21:AA:1082:A:P	2.48	0.53
4:AE:95:MET:HE3	4:AE:114:LEU:HD21	1.90	0.53
5:AF:11:HIS:CE1	5:AF:13:ASP:HB2	2.44	0.53
6:AG:79:VAL:HG12	6:AG:80:GLY:N	2.23	0.53
8:AI:21:LYS:NZ	8:AI:23:GLY:HA3	2.24	0.53
15:AP:21:VAL:HG21	15:AP:60:TRP:CD1	2.44	0.53
17:AR:20:ILE:HD12	17:AR:21:ASP:H	1.72	0.53
19:AT:26:MET:O	19:AT:27:MET:C	2.51	0.53
20:AU:16:ARG:HH11	20:AU:16:ARG:HG2	1.74	0.53
21:AA:66:A:N6	21:AA:104:G:C2	2.77	0.53
21:AA:140:U:H2'	21:AA:141:G:O4'	2.08	0.53
21:AA:367:U:O4'	21:AA:394:G:N2	2.41	0.53
21:AA:384:G:H2'	21:AA:385:C:H6	1.73	0.53
21:AA:909:A:H2'	21:AA:910:C:O4'	2.09	0.53
21:AA:1268:G:C6	21:AA:1269:A:N6	2.77	0.53
21:AA:1382:C:O2'	21:AA:1383:C:H5'	2.09	0.53
24:BA:322:A:H5'	24:BA:340:A:H1'	1.90	0.53
24:BA:2668:G:N2	24:BA:2669:G:H1'	2.23	0.53
24:BA:2839:G:C5	24:BA:2840:C:C5	2.97	0.53
24:BA:2839:G:OP1	37:BN:46:ARG:HD2	2.09	0.53
26:BC:8:THR:O	26:BC:9:SER:HB3	2.08	0.53
28:BE:168:ASP:OD1	28:BE:169:VAL:N	2.39	0.53
29:BF:19:PHE:O	29:BF:20:ASN:C	2.52	0.53
29:BF:38:GLY:HA2	29:BF:85:GLY:HA3	1.90	0.53
30:BG:164:ALA:C	30:BG:166:GLU:H	2.17	0.53
33:BJ:44:TYR:O	33:BJ:45:THR:HG22	2.09	0.53
37:BN:103:ARG:CD	37:BN:110:MET:HE3	2.38	0.53
45:BV:10:LYS:H	45:BV:10:LYS:CD	2.21	0.53
46:BW:29:SER:N	46:BW:63:ASP:HB3	2.24	0.53
53:B3:3:ILE:CG2	53:B3:62:PRO:HG3	2.39	0.53
3:CD:205:LYS:HA	55:CA:8:A:N7	2.24	0.53
6:CG:29:LEU:O	6:CG:30:MET:O	2.27	0.53
8:CI:44:ARG:HA	8:CI:46:VAL:HG22	1.90	0.53
8:CI:44:ARG:O	8:CI:47:VAL:HG22	2.09	0.53
9:CJ:26:VAL:HG13	9:CJ:30:LYS:CB	2.39	0.53
9:CJ:35:GLN:OE1	9:CJ:77:VAL:HB	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CJ:56:HIS:ND1	55:CA:973:G:H1'	2.23	0.53
10:CK:24:ALA:HA	10:CK:29:THR:HG23	1.90	0.53
10:CK:92:ARG:HH22	20:CU:19:LYS:HD2	1.73	0.53
16:CQ:78:VAL:O	16:CQ:80:LYS:N	2.42	0.53
55:CA:274:A:O2'	55:CA:275:G:H8	1.92	0.53
55:CA:425:G:H2'	55:CA:426:U:C6	2.44	0.53
55:CA:908:A:C4	55:CA:909:A:C8	2.96	0.53
55:CA:969:A:O2'	55:CA:970:C:H5'	2.08	0.53
55:CA:1049:U:H4'	55:CA:1050:G:OP2	2.09	0.53
55:CA:1160:G:O2'	55:CA:1161:C:C5'	2.56	0.53
55:CA:1444:U:H2'	55:CA:1445:U:C6	2.43	0.53
26:DC:179:GLU:OE1	24:DA:1799:G:H8	1.91	0.53
27:DD:45:TYR:HE2	27:DD:47:ALA:HB3	1.74	0.53
28:DE:151:GLY:HA3	28:DE:191:ASP:OD1	2.08	0.53
36:DM:34:LYS:O	36:DM:128:THR:HB	2.08	0.53
36:DM:76:LYS:NZ	36:DM:84:LYS:H	2.07	0.53
38:DO:7:ARG:HH22	38:DO:29:HIS:HD2	1.57	0.53
38:DO:26:LEU:HD23	38:DO:92:PHE:HE1	1.74	0.53
39:DP:19:PHE:O	39:DP:20:ARG:HB3	2.09	0.53
44:DU:11:ILE:HG21	44:DU:79:ALA:HB2	1.90	0.53
44:DU:26:ASN:OD1	44:DU:34:ILE:HD12	2.09	0.53
45:DV:9:ARG:HD3	45:DV:39:ALA:HB1	1.91	0.53
45:DV:21:ARG:C	45:DV:23:ALA:H	2.17	0.53
24:DA:455:C:N3	24:DA:472:A:H2'	2.23	0.53
24:DA:750:A:OP1	24:DA:1615:C:N4	2.41	0.53
24:DA:927:A:H2'	24:DA:928:A:C8	2.44	0.53
24:DA:1073:A:H3'	24:DA:1074:G:C8	2.42	0.53
24:DA:1643:G:C5	24:DA:1644:C:C5	2.97	0.53
24:DA:1682:G:C8	24:DA:1757:A:C2	2.96	0.53
24:DA:1760:C:O2'	24:DA:1761:C:H5'	2.09	0.53
24:DA:2064:C:H1'	24:DA:2450:A:C5	2.44	0.53
24:DA:2311:A:O3'	24:DA:2312:U:H6	1.91	0.53
24:DA:2447:G:O6	24:DA:2504:U:O4	2.25	0.53
24:DA:2555:U:H2'	24:DA:2556:C:H5'	1.91	0.53
4:AE:35:LEU:HD11	4:AE:47:PHE:CD2	2.44	0.53
7:AH:23:ALA:N	7:AH:62:LEU:HD23	2.24	0.53
8:AI:79:ARG:HD3	8:AI:102:PHE:CD1	2.44	0.53
13:AN:60:ARG:O	13:AN:61:ASN:CB	2.53	0.53
21:AA:116:A:H2'	21:AA:117:G:H8	1.73	0.53
21:AA:253:A:HO2'	21:AA:254:G:H8	1.57	0.53
21:AA:382:A:C6	21:AA:383:A:C6	2.97	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:833:G:C6	21:AA:834:U:C4	2.97	0.53
21:AA:1394:A:H62	21:AA:1501:C:C5'	2.22	0.53
24:BA:143:C:O5'	24:BA:143:C:H6	1.92	0.53
24:BA:564:C:H5"	41:BR:77:PHE:HE1	1.74	0.53
24:BA:1021:A:H5"	24:BA:1021:A:N3	2.24	0.53
24:BA:1031:G:O2'	54:B4:7:VAL:HG22	2.09	0.53
24:BA:1291:C:O2'	24:BA:1292:G:H5'	2.09	0.53
24:BA:1296:G:H2'	24:BA:1297:C:H6	1.74	0.53
24:BA:1787:A:C2	24:BA:1788:C:C5	2.97	0.53
24:BA:2027:G:C2'	24:BA:2028:U:H5'	2.39	0.53
24:BA:2287:A:N7	24:BA:2289:G:C8	2.77	0.53
26:BC:144:GLU:HA	26:BC:151:GLY:CA	2.39	0.53
27:BD:118:PHE:CD2	27:BD:119:ALA:N	2.76	0.53
32:BI:64:ARG:HG3	32:BI:65:SER:N	2.24	0.53
37:BN:33:ILE:HG12	37:BN:118:ARG:CZ	2.39	0.53
43:BT:28:ASN:HA	43:BT:91:GLN:CD	2.33	0.53
43:BT:61:LEU:HD12	43:BT:61:LEU:O	2.09	0.53
46:BW:30:VAL:CA	46:BW:60:ALA:HB3	2.33	0.53
4:CE:56:PRO:O	4:CE:58:ALA:N	2.41	0.53
11:CL:116:TYR:O	11:CL:118:VAL:HG23	2.08	0.53
13:CN:72:PHE:HA	13:CN:79:SER:HA	1.91	0.53
17:CR:56:ARG:O	17:CR:60:ARG:HG3	2.09	0.53
17:CR:59:LYS:HD3	55:CA:735:C:H5'	1.91	0.53
26:DC:220:ARG:NH1	59:DC:407:HOH:O	2.41	0.53
28:DE:46:GLN:HB3	28:DE:86:ALA:CB	2.36	0.53
30:DG:8:VAL:HG11	30:DG:49:LEU:HD23	1.90	0.53
31:DH:4:ILE:O	31:DH:36:ALA:HB1	2.08	0.53
34:DK:80:ASP:CB	39:DP:67:GLU:OE1	2.56	0.53
35:DL:33:ARG:NH2	24:DA:671:C:C5	2.77	0.53
35:DL:93:ASN:O	35:DL:94:THR:HB	2.09	0.53
41:DR:21:ARG:HB2	41:DR:93:PHE:CD1	2.43	0.53
50:D0:38:LEU:O	50:D0:41:HIS:ND1	2.42	0.53
24:DA:140:C:C5'	24:DA:141:G:H21	2.14	0.53
24:DA:156:A:H2'	24:DA:157:C:O4'	2.08	0.53
24:DA:223:A:C5	24:DA:422:A:N7	2.77	0.53
24:DA:329:G:H4'	24:DA:330:A:OP1	2.08	0.53
24:DA:533:G:H2'	24:DA:534:U:C6	2.44	0.53
24:DA:860:U:O2'	24:DA:861:A:C5'	2.55	0.53
24:DA:1517:G:H2'	24:DA:1518:C:H6	1.73	0.53
24:DA:1663:G:H5'	24:DA:1663:G:H8	1.74	0.53
24:DA:1707:G:O2'	24:DA:1708:C:C5'	2.57	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1723:G:H2'	24:DA:1724:G:H8	1.73	0.53
24:DA:1759:A:C2	24:DA:1760:C:C2	2.97	0.53
24:DA:2287:A:O2'	24:DA:2288:A:H3'	2.09	0.53
56:DB:63:C:O2	56:DB:63:C:H2'	2.08	0.53
4:AE:97:PRO:HG2	7:AH:96:ALA:HB3	1.91	0.53
6:AG:71:THR:C	6:AG:90:VAL:HG12	2.33	0.53
6:AG:87:PRO:HD2	6:AG:150:PHE:HB2	1.91	0.53
21:AA:6:G:HO2'	21:AA:7:A:P	2.31	0.53
21:AA:328:C:O2	21:AA:328:C:H2'	2.08	0.53
21:AA:1198:G:C6	21:AA:1199:U:C4	2.97	0.53
24:BA:90:U:H2'	24:BA:91:A:H8	1.74	0.53
24:BA:279:A:C5	24:BA:280:U:C5	2.97	0.53
24:BA:352:A:C6	24:BA:353:C:C4	2.97	0.53
24:BA:387:U:C2	24:BA:388:G:N7	2.77	0.53
24:BA:684:G:O2'	24:BA:788:A:N7	2.41	0.53
24:BA:765:C:C2	24:BA:766:U:C6	2.97	0.53
24:BA:1583:A:H1'	24:BA:1585:C:N4	2.24	0.53
24:BA:2404:U:H2'	24:BA:2404:U:O2	2.07	0.53
24:BA:2419:U:O2'	24:BA:2420:C:H5'	2.08	0.53
24:BA:2570:G:N1	24:BA:2571:U:C2	2.77	0.53
26:BC:120:ASP:O	26:BC:121:ALA:O	2.26	0.53
29:BF:134:GLN:HE22	29:BF:150:GLY:H	1.55	0.53
35:BL:93:ASN:O	35:BL:94:THR:HG22	2.09	0.53
52:B2:34:ARG:NH1	52:B2:39:ARG:HG2	2.24	0.53
1:CB:187:ASP:HB3	1:CB:189:ASN:OD1	2.09	0.53
1:CB:209:VAL:HG23	1:CB:210:THR:N	2.24	0.53
5:CF:45:ARG:HB3	5:CF:59:TYR:CE1	2.44	0.53
7:CH:54:THR:OG1	7:CH:55:LYS:HD3	2.08	0.53
13:CN:55:SER:O	13:CN:59:GLN:HG3	2.09	0.53
55:CA:120:A:O2'	55:CA:121:U:H4'	2.09	0.53
55:CA:202:G:O2'	55:CA:468:A:H8	1.89	0.53
55:CA:684:U:H3	55:CA:706:A:N6	1.88	0.53
55:CA:775:G:HO2'	55:CA:776:G:H5'	1.74	0.53
55:CA:818:G:C3'	55:CA:819:A:H5"	2.39	0.53
55:CA:1449:C:C2	55:CA:1455:G:C2	2.96	0.53
26:DC:95:TYR:C	26:DC:97:ASP:N	2.65	0.53
29:DF:102:LEU:HB3	29:DF:103:ILE:HD12	1.90	0.53
29:DF:129:MET:HG3	29:DF:153:ILE:HD12	1.91	0.53
32:DI:32:VAL:HG22	32:DI:58:ILE:HG21	1.90	0.53
32:DI:57:VAL:O	32:DI:58:ILE:HG13	2.09	0.53
34:DK:119:ALA:O	34:DK:120:PRO:C	2.52	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DP:29:VAL:HG11	39:DP:73:PHE:HE1	1.74	0.53
40:DQ:32:ARG:HG2	24:DA:1252:G:N3	2.24	0.53
42:DS:1:MET:HE2	42:DS:1:MET:N	2.24	0.53
46:DW:49:ASN:ND2	46:DW:81:ILE:HG23	2.24	0.53
51:D1:5:ARG:NH2	24:DA:2285:C:H5	2.07	0.53
24:DA:492:A:H2'	24:DA:493:G:O4'	2.09	0.53
24:DA:604:G:H2'	24:DA:605:G:C8	2.44	0.53
24:DA:687:C:O2'	24:DA:688:U:O4'	2.22	0.53
24:DA:1014:A:C2	24:DA:1149:G:C2	2.96	0.53
24:DA:2522:U:O2'	24:DA:2647:U:OP1	2.24	0.53
24:DA:2900:A:H2'	24:DA:2901:C:C6	2.44	0.53
1:AB:23:ASN:N	1:AB:189:ASN:HA	2.22	0.52
3:AD:63:ILE:HG23	3:AD:64:TYR:CD1	2.43	0.52
3:AD:145:ARG:C	3:AD:147:LYS:N	2.64	0.52
4:AE:81:GLN:CD	4:AE:81:GLN:H	2.16	0.52
4:AE:155:LYS:HB3	7:AH:64:TYR:C	2.35	0.52
6:AG:26:VAL:HG12	6:AG:42:VAL:HG11	1.91	0.52
14:AO:73:ASP:CG	14:AO:76:ARG:HG3	2.34	0.52
17:AR:48:ALA:HB2	21:AA:834:U:OP1	2.08	0.52
21:AA:132:C:C2	21:AA:133:U:C6	2.97	0.52
21:AA:339:C:H2'	21:AA:340:U:H6	1.74	0.52
21:AA:928:G:N2	21:AA:1390:U:H1'	2.23	0.52
21:AA:1014:A:N7	21:AA:1015:G:C6	2.77	0.52
21:AA:1036:A:H3'	21:AA:1037:C:C6	2.44	0.52
21:AA:1460:C:C2	21:AA:1461:G:C8	2.97	0.52
21:AA:1476:A:H2'	21:AA:1477:U:O4'	2.09	0.52
21:AA:1504:G:H4'	21:AA:1505:G:N3	2.25	0.52
24:BA:77:G:C4	24:BA:110:G:N2	2.77	0.52
24:BA:233:A:C2	24:BA:234:U:C6	2.97	0.52
24:BA:587:C:OP2	35:BL:21:ARG:NH1	2.42	0.52
24:BA:860:U:H2'	24:BA:861:A:C8	2.38	0.52
24:BA:945:A:C5	24:BA:2448:A:C2	2.97	0.52
24:BA:998:C:N4	59:BA:3365:HOH:O	2.41	0.52
24:BA:1309:G:H4'	52:B2:7:PRO:HB2	1.91	0.52
24:BA:1417:C:H2'	24:BA:1418:G:O4'	2.09	0.52
24:BA:1571:A:H2'	24:BA:1572:A:C8	2.43	0.52
24:BA:1682:G:C4	24:BA:1683:U:C5	2.97	0.52
24:BA:1785:A:O2'	24:BA:1786:A:H2'	2.09	0.52
24:BA:1998:A:H2'	24:BA:1999:C:H6	1.74	0.52
24:BA:2134:A:O2'	24:BA:2135:A:O4'	2.24	0.52
24:BA:2345:G:C4	24:BA:2381:A:C2	2.96	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BC:19:VAL:HG23	26:BC:19:VAL:O	2.09	0.52
26:BC:185:ALA:C	26:BC:187:CYS:H	2.17	0.52
27:BD:63:PRO:O	27:BD:64:GLU:C	2.51	0.52
27:BD:107:VAL:HG13	27:BD:203:VAL:HG23	1.90	0.52
32:BI:100:ILE:HG22	32:BI:101:SER:N	2.18	0.52
37:BN:38:LEU:HB3	37:BN:39:PRO:HD3	1.91	0.52
38:BO:3:LYS:HG3	38:BO:4:LYS:H	1.73	0.52
41:BR:93:PHE:CD1	41:BR:93:PHE:O	2.62	0.52
42:BS:17:VAL:CG1	42:BS:76:VAL:HG11	2.36	0.52
3:CD:31:CYS:C	3:CD:33:ILE:H	2.18	0.52
4:CE:41:GLY:HA2	4:CE:118:GLY:HA3	1.90	0.52
7:CH:93:LYS:HD3	7:CH:93:LYS:N	2.23	0.52
10:CK:83:VAL:HB	10:CK:109:ILE:HG12	1.91	0.52
11:CL:107:LYS:HD2	11:CL:107:LYS:H	1.74	0.52
16:CQ:12:VAL:HA	16:CQ:54:ILE:HG13	1.91	0.52
18:CS:36:ARG:HE	55:CA:1320:C:N4	2.06	0.52
55:CA:128:G:C2	55:CA:234:C:C2	2.97	0.52
55:CA:261:U:H2'	55:CA:263:A:OP2	2.09	0.52
55:CA:308:C:H2'	55:CA:309:A:C8	2.44	0.52
55:CA:908:A:H2'	55:CA:909:A:C8	2.39	0.52
55:CA:995:C:N3	55:CA:1046:A:O2'	2.42	0.52
55:CA:1467:C:H2'	55:CA:1468:A:H8	1.73	0.52
55:CA:1504:G:H3'	55:CA:1505:G:H5'	1.91	0.52
28:DE:129:PRO:HD3	28:DE:156:ASN:OD1	2.09	0.52
34:DK:62:VAL:HG12	34:DK:63:VAL:N	2.24	0.52
35:DL:3:LEU:CG	35:DL:4:ASN:N	2.71	0.52
36:DM:19:GLY:O	36:DM:20:LEU:HB2	2.09	0.52
37:DN:33:ILE:HA	37:DN:114:GLU:HB2	1.91	0.52
37:DN:72:ASP:O	37:DN:75:ILE:HG13	2.09	0.52
43:DT:63:VAL:HG21	43:DT:80:TRP:CE2	2.43	0.52
24:DA:79:C:O2'	24:DA:346:A:H1'	2.08	0.52
24:DA:167:A:C2	24:DA:168:G:H1'	2.43	0.52
24:DA:265:A:N7	24:DA:427:U:O2'	2.41	0.52
24:DA:535:G:C6	24:DA:559:G:C6	2.98	0.52
24:DA:876:C:H2'	24:DA:877:A:OP1	2.09	0.52
24:DA:1311:G:H1'	24:DA:1313:U:O4	2.08	0.52
24:DA:1346:G:O2'	24:DA:1347:A:O5'	2.26	0.52
24:DA:1673:G:H2'	24:DA:1674:G:H5'	1.91	0.52
56:DB:13:G:H5"	56:DB:13:G:C8	2.44	0.52
1:AB:63:LYS:NZ	1:AB:224:ARG:HH22	2.07	0.52
1:AB:163:ILE:HG23	1:AB:164:ASP:N	2.18	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:109:ALA:O	4:AE:111:ARG:N	2.42	0.52
21:AA:463:U:H2'	21:AA:464:U:C6	2.43	0.52
21:AA:1348:U:H2'	21:AA:1349:A:H8	1.75	0.52
21:AA:1405:G:O4'	21:AA:1519:A:H4'	2.09	0.52
21:AA:1442:G:H2'	21:AA:1443:C:H6	1.75	0.52
24:BA:52:A:O2'	24:BA:53:A:C5'	2.55	0.52
24:BA:313:G:C6	24:BA:314:C:N3	2.77	0.52
24:BA:464:U:O2	24:BA:464:U:H2'	2.07	0.52
24:BA:746:U:O2'	24:BA:747:U:P	2.68	0.52
24:BA:966:G:C6	24:BA:967:U:N3	2.78	0.52
24:BA:1011:G:C2	24:BA:1013:C:C2	2.97	0.52
24:BA:1071:G:H4'	24:BA:1088:A:O2'	2.09	0.52
24:BA:1072:C:N4	24:BA:1093:G:H1	2.07	0.52
24:BA:1333:G:H2'	24:BA:1334:G:H8	1.74	0.52
24:BA:1422:G:N3	24:BA:1423:G:C8	2.77	0.52
24:BA:1650:A:H5'	37:BN:106:ASP:OD2	2.09	0.52
24:BA:1676:A:H2	24:BA:1993:U:H5'	1.73	0.52
24:BA:2067:G:C4'	24:BA:2068:U:OP2	2.56	0.52
24:BA:2197:U:OP1	3:CD:150:LYS:HG3	2.07	0.52
24:BA:2260:C:H2'	24:BA:2261:C:H6	1.74	0.52
24:BA:2858:C:H2'	24:BA:2859:G:O4'	2.09	0.52
30:BG:8:VAL:CG1	30:BG:9:VAL:N	2.73	0.52
32:BI:105:LEU:HD23	32:BI:108:ILE:HG21	1.90	0.52
33:BJ:98:GLU:CD	33:BJ:126:ALA:HB2	2.34	0.52
36:BM:117:PHE:HD2	36:BM:130:PHE:CE1	2.28	0.52
41:BR:21:ARG:HG3	41:BR:95:ASP:OD1	2.10	0.52
44:BU:6:ARG:HG3	44:BU:7:ASP:H	1.74	0.52
45:BV:5:ASN:ND2	45:BV:5:ASN:H	2.08	0.52
47:BX:40:GLU:O	47:BX:43:LYS:HD2	2.09	0.52
49:BZ:52:PHE:CD2	49:BZ:52:PHE:C	2.88	0.52
1:CB:116:LEU:HA	1:CB:119:GLN:HB3	1.90	0.52
5:CF:68:GLN:HG2	5:CF:69:GLU:H	1.73	0.52
6:CG:108:ARG:NH2	55:CA:1240:U:H3'	2.24	0.52
8:CI:51:LEU:HD11	8:CI:82:ILE:CG2	2.39	0.52
9:CJ:52:LEU:HB2	13:CN:80:ARG:CD	2.37	0.52
11:CL:82:ARG:N	11:CL:95:HIS:O	2.34	0.52
12:CM:13:HIS:NE2	12:CM:41:ASP:HA	2.24	0.52
14:CO:73:ASP:CG	14:CO:76:ARG:HG3	2.34	0.52
19:CT:20:ASN:ND2	55:CA:323:U:H5"	2.24	0.52
55:CA:90:C:O2'	55:CA:91:U:O4'	2.28	0.52
55:CA:204:G:C6	55:CA:465:A:C2	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:937:A:H1'	55:CA:1379:G:N2	2.24	0.52
55:CA:1058:G:C6	55:CA:1059:C:N3	2.77	0.52
55:CA:1126:U:O2'	55:CA:1127:G:H8	1.91	0.52
55:CA:1253:G:N1	55:CA:1285:A:N6	2.57	0.52
27:DD:48:ILE:HG12	27:DD:48:ILE:O	2.08	0.52
28:DE:60:TRP:CZ2	28:DE:71:GLY:HA2	2.44	0.52
32:DI:96:LYS:HE2	32:DI:138:VAL:HG11	1.92	0.52
41:DR:55:ASP:CG	41:DR:56:GLY:H	2.17	0.52
46:DW:23:LYS:HE3	24:DA:855:G:N3	2.23	0.52
46:DW:51:GLY:HA3	46:DW:59:PHE:HB3	1.91	0.52
24:DA:25:U:H2'	24:DA:26:G:O4'	2.10	0.52
24:DA:85:G:O2'	24:DA:86:G:H8	1.92	0.52
24:DA:227:A:H61	24:DA:410:G:H1'	1.73	0.52
24:DA:288:U:H2'	24:DA:289:G:O4'	2.09	0.52
24:DA:484:C:O2'	24:DA:485:C:H5'	2.09	0.52
24:DA:526:A:N6	24:DA:2626:C:H4'	2.24	0.52
24:DA:1020:A:H4'	24:DA:1021:A:O5'	2.08	0.52
24:DA:1026:G:O2'	24:DA:1027:A:H5'	2.09	0.52
24:DA:1223:G:C6	24:DA:1227:G:C6	2.96	0.52
24:DA:1498:C:O2'	24:DA:1499:C:O4'	2.27	0.52
24:DA:2093:G:O6	24:DA:2225:A:C8	2.62	0.52
24:DA:2182:U:H2'	24:DA:2183:A:C8	2.44	0.52
24:DA:2547:A:C8	24:DA:2566:A:C8	2.97	0.52
1:AB:110:ILE:HD11	1:AB:147:LEU:HD13	1.91	0.52
1:AB:137:THR:HG22	1:AB:140:LEU:CD2	2.37	0.52
2:AC:128:MET:HG2	2:AC:131:ARG:HG3	1.90	0.52
3:AD:115:GLN:HE21	3:AD:115:GLN:HA	1.73	0.52
3:AD:116:LEU:O	3:AD:117:VAL:C	2.51	0.52
4:AE:90:GLY:C	4:AE:129:SER:OG	2.53	0.52
11:AL:54:VAL:O	11:AL:61:GLU:HA	2.10	0.52
15:AP:80:LYS:HB2	15:AP:80:LYS:NZ	2.25	0.52
21:AA:576:C:H3'	21:AA:577:G:H5"	1.90	0.52
21:AA:754:C:O2'	21:AA:755:G:OP1	2.27	0.52
21:AA:1320:C:O2'	21:AA:1321:U:O4'	2.26	0.52
21:AA:1459:G:H2'	21:AA:1460:C:H6	1.74	0.52
24:BA:373:U:O2	24:BA:423:A:C2	2.60	0.52
24:BA:1059:G:H1'	32:BI:127:SER:HB2	1.90	0.52
24:BA:1105:U:O2	24:BA:1106:G:C8	2.62	0.52
24:BA:2024:G:OP2	24:BA:2034:U:H4'	2.08	0.52
24:BA:2704:C:H2'	24:BA:2705:A:O4'	2.09	0.52
59:BA:3241:HOH:O	28:BE:81:GLY:HA2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BB:88:C:O2'	25:BB:89:U:OP2	2.26	0.52
26:BC:129:LEU:HD23	26:BC:130:PRO:HD2	1.92	0.52
27:BD:16:THR:HG23	27:BD:18:ASP:OD1	2.09	0.52
31:BH:82:SER:HA	31:BH:101:ASP:OD1	2.09	0.52
32:BI:126:ARG:HA	32:BI:129:GLU:CD	2.35	0.52
37:BN:65:LEU:HD11	37:BN:69:ARG:NH2	2.24	0.52
37:BN:114:GLU:HB2	37:BN:118:ARG:HD3	1.90	0.52
39:BP:25:VAL:HG11	39:BP:46:VAL:CG2	2.34	0.52
39:BP:113:LEU:O	39:BP:113:LEU:HG	2.10	0.52
45:BV:25:LYS:HD3	45:BV:43:ASP:HA	1.91	0.52
49:BZ:15:ARG:N	49:BZ:15:ARG:HD2	2.22	0.52
4:CE:80:LEU:HD21	4:CE:143:LEU:CD2	2.39	0.52
8:CI:4:GLN:HB3	8:CI:21:LYS:HD3	1.91	0.52
8:CI:109:GLN:O	55:CA:1347:G:H3'	2.10	0.52
8:CI:121:ARG:HG3	55:CA:1348:U:H4'	1.91	0.52
12:CM:23:GLY:CA	12:CM:64:VAL:HG13	2.36	0.52
12:CM:103:THR:HG22	12:CM:104:ASN:N	2.24	0.52
18:CS:39:ILE:HG12	18:CS:68:HIS:O	2.09	0.52
19:CT:68:LYS:HD3	55:CA:262:A:H5'	1.92	0.52
19:CT:81:GLN:HE22	55:CA:259:G:P	2.32	0.52
55:CA:61:G:H2'	55:CA:62:U:C6	2.44	0.52
55:CA:62:U:H4'	55:CA:385:C:O2	2.09	0.52
55:CA:262:A:H2'	55:CA:263:A:C8	2.44	0.52
55:CA:959:A:O2'	55:CA:984:C:O2'	2.23	0.52
55:CA:1064:G:C4	55:CA:1066:C:C4	2.97	0.52
55:CA:1256:A:C4	55:CA:1278:G:C6	2.98	0.52
55:CA:1275:A:H2'	55:CA:1276:G:O4'	2.09	0.52
55:CA:1327:C:H2'	55:CA:1328:C:C6	2.43	0.52
28:DE:117:ARG:NH2	35:DL:2:ARG:HB3	2.23	0.52
29:DF:113:PHE:O	29:DF:114:ARG:CB	2.58	0.52
31:DH:5:LEU:HD22	31:DH:9:VAL:HG21	1.92	0.52
33:DJ:92:MET:HE1	33:DJ:99:ARG:HH21	1.74	0.52
36:DM:40:ARG:HB2	36:DM:93:VAL:CG2	2.39	0.52
46:DW:19:ARG:NE	24:DA:857:G:H1'	2.25	0.52
48:DY:47:ARG:O	48:DY:50:VAL:N	2.40	0.52
24:DA:223:A:N6	24:DA:422:A:C5	2.76	0.52
24:DA:484:C:H2'	24:DA:485:C:H6	1.73	0.52
24:DA:1231:U:H2'	24:DA:1232:G:C8	2.40	0.52
24:DA:1356:G:H2'	24:DA:1357:C:C6	2.43	0.52
24:DA:2447:G:C4	24:DA:2500:U:C5	2.97	0.52
24:DA:2468:A:O2'	24:DA:2469:A:H8	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2522:U:H1'	24:DA:2647:U:OP1	2.09	0.52
24:DA:2720:U:H2'	24:DA:2721:A:C8	2.43	0.52
1:AB:131:LYS:HG3	1:AB:135:MET:HE3	1.90	0.52
11:AL:2:THR:HG22	11:AL:4:ASN:N	2.24	0.52
17:AR:66:LEU:O	17:AR:67:LEU:HD23	2.10	0.52
20:AU:39:LYS:N	20:AU:40:PRO:HD2	2.14	0.52
21:AA:147:G:H2'	21:AA:148:G:C8	2.45	0.52
21:AA:737:C:H2'	21:AA:738:C:H6	1.73	0.52
21:AA:765:G:H5"	21:AA:766:A:OP1	2.09	0.52
21:AA:939:G:H2'	21:AA:940:C:C6	2.45	0.52
21:AA:1052:U:H6	21:AA:1052:U:H5"	1.73	0.52
21:AA:1281:C:O2'	21:AA:1282:C:H5'	2.08	0.52
21:AA:1394:A:HO2'	21:AA:1395:C:P	2.32	0.52
21:AA:1414:U:H2'	21:AA:1415:G:C8	2.41	0.52
21:AA:1432:G:H1'	21:AA:1468:A:N6	2.23	0.52
24:BA:675:A:C8	24:BA:804:A:N1	2.78	0.52
24:BA:728:G:HO2'	24:BA:730:A:H8	1.57	0.52
24:BA:794:A:C2	24:BA:795:C:C2	2.98	0.52
24:BA:1073:A:C3'	24:BA:1074:G:C5'	2.87	0.52
24:BA:1745:A:H8	24:BA:1745:A:O5'	1.92	0.52
24:BA:1842:G:H2'	24:BA:1843:C:H6	1.74	0.52
24:BA:2134:A:C6	24:BA:2135:A:C6	2.98	0.52
24:BA:2246:G:N2	24:BA:2426:A:H1'	2.24	0.52
24:BA:2371:G:C2	24:BA:2372:U:C6	2.98	0.52
24:BA:2536:G:C6	24:BA:2537:U:N3	2.77	0.52
24:BA:2582:G:N3	24:BA:2583:G:C8	2.78	0.52
24:BA:2836:U:H2'	24:BA:2837:A:C8	2.44	0.52
26:BC:144:GLU:CA	26:BC:151:GLY:HA2	2.38	0.52
26:BC:252:LYS:HZ3	26:BC:252:LYS:HB2	1.74	0.52
35:BL:66:PHE:C	35:BL:66:PHE:CD1	2.85	0.52
39:BP:12:MET:HE3	39:BP:76:HIS:HE2	1.74	0.52
39:BP:62:LYS:O	39:BP:63:ILE:C	2.52	0.52
41:BR:49:ILE:HG21	41:BR:53:PHE:N	2.24	0.52
43:BT:28:ASN:HA	43:BT:91:GLN:OE1	2.10	0.52
44:BU:53:GLN:N	44:BU:54:PRO:CD	2.72	0.52
2:CC:1:GLY:N	55:CA:1060:U:C6	2.72	0.52
7:CH:75:GLN:HA	7:CH:75:GLN:OE1	2.10	0.52
8:CI:49:GLN:HB2	8:CI:50:PRO:HD3	1.90	0.52
8:CI:56:MET:O	8:CI:58:GLU:HG2	2.09	0.52
15:CP:6:LEU:HD11	55:CA:375:U:O3'	2.09	0.52
16:CQ:4:ILE:HG22	16:CQ:5:ARG:N	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DC:93:VAL:HG12	26:DC:101:ARG:H	1.74	0.52
26:DC:259:ASN:O	26:DC:261:ARG:N	2.42	0.52
28:DE:16:GLU:HG3	28:DE:16:GLU:O	2.10	0.52
28:DE:100:MET:HG2	24:DA:600:G:H1'	1.91	0.52
29:DF:67:THR:O	29:DF:84:ILE:HG22	2.09	0.52
32:DI:21:PRO:N	32:DI:22:PRO:HD2	2.25	0.52
33:DJ:74:TYR:CE2	33:DJ:103:ILE:HD11	2.45	0.52
34:DK:8:LEU:HD12	34:DK:8:LEU:N	2.24	0.52
34:DK:40:LYS:NZ	34:DK:89:ASN:HD21	2.07	0.52
34:DK:104:THR:C	34:DK:106:GLU:N	2.62	0.52
38:DO:94:ARG:CD	38:DO:97:PHE:O	2.53	0.52
40:DQ:34:ALA:O	40:DQ:38:VAL:HG23	2.10	0.52
40:DQ:91:ARG:HE	41:DR:11:GLN:HB2	1.74	0.52
43:DT:9:LYS:HG2	43:DT:9:LYS:O	2.09	0.52
44:DU:86:PHE:HB2	44:DU:92:VAL:HG22	1.91	0.52
47:DX:5:GLN:O	47:DX:70:LEU:HD21	2.08	0.52
24:DA:233:A:H2'	24:DA:234:U:C6	2.44	0.52
24:DA:250:G:C6	24:DA:251:A:C6	2.97	0.52
24:DA:412:A:H2'	24:DA:413:C:H6	1.71	0.52
24:DA:698:C:H5"	24:DA:1634:A:H61	1.74	0.52
24:DA:814:C:C1'	24:DA:1225:G:H21	2.23	0.52
24:DA:2335:A:H2'	24:DA:2337:G:N7	2.25	0.52
24:DA:2385:C:H2'	24:DA:2386:A:H8	1.73	0.52
24:DA:2512:C:H2'	24:DA:2513:A:O4'	2.09	0.52
24:DA:2688:G:N1	24:DA:2720:U:OP2	2.42	0.52
56:DB:11:C:OP2	56:DB:11:C:H6	1.92	0.52
2:AC:119:ILE:HD11	2:AC:133:MET:HA	1.91	0.52
3:AD:109:THR:CG2	3:AD:111:ALA:HB3	2.39	0.52
5:AF:50:PRO:HD2	17:AR:73:HIS:HD2	1.75	0.52
9:AJ:65:TYR:CB	13:AN:95:LEU:HD11	2.39	0.52
11:AL:23:LEU:HB3	11:AL:58:ASN:HD22	1.74	0.52
13:AN:2:LYS:O	13:AN:3:GLN:C	2.52	0.52
16:AQ:60:ILE:HG22	16:AQ:61:ARG:N	2.25	0.52
21:AA:1131:G:H2'	21:AA:1132:C:O5'	2.09	0.52
21:AA:1151:A:C6	21:AA:1152:A:N6	2.78	0.52
21:AA:1408:A:C5	21:AA:1409:C:C5	2.98	0.52
24:BA:685:A:C8	24:BA:773:U:C4	2.98	0.52
24:BA:705:A:N6	24:BA:726:G:H1'	2.24	0.52
24:BA:1279:G:H5'	37:BN:34:ILE:HG22	1.91	0.52
24:BA:1682:G:O2'	24:BA:1683:U:H5'	2.10	0.52
24:BA:1821:A:H2'	24:BA:1822:C:C6	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2199:A:O2'	47:BX:35:HIS:NE2	2.41	0.52
24:BA:2900:A:H2'	24:BA:2901:C:O4'	2.09	0.52
25:BB:9:G:C4	25:BB:10:G:C8	2.97	0.52
28:BE:119:ILE:O	28:BE:187:VAL:O	2.27	0.52
30:BG:112:VAL:HG23	30:BG:113:ASP:N	2.25	0.52
31:BH:12:LEU:HB2	31:BH:19:VAL:HG11	1.91	0.52
35:BL:65:GLY:O	35:BL:66:PHE:HB3	2.10	0.52
35:BL:127:VAL:HG23	35:BL:131:ALA:HB3	1.90	0.52
36:BM:101:VAL:O	36:BM:101:VAL:CG1	2.58	0.52
36:BM:108:VAL:HG13	36:BM:112:LEU:HB3	1.91	0.52
38:BO:11:ALA:HB2	38:BO:96:GLY:CA	2.39	0.52
39:BP:19:PHE:CE2	39:BP:83:ILE:HD12	2.44	0.52
40:BQ:94:LEU:C	40:BQ:96:ASP:N	2.65	0.52
42:BS:82:MET:HB2	42:BS:98:LYS:HB2	1.91	0.52
47:BX:50:VAL:CG1	47:BX:51:SER:N	2.72	0.52
48:BY:6:LEU:O	48:BY:7:ARG:HB3	2.09	0.52
48:BY:61:ALA:O	48:BY:63:ALA:N	2.43	0.52
51:B1:7:LYS:HE3	53:B3:33:THR:HG21	1.90	0.52
2:CC:125:ARG:HB2	2:CC:127:VAL:CG1	2.40	0.52
2:CC:147:GLY:HA3	2:CC:171:ARG:O	2.08	0.52
5:CF:2:ARG:HG2	5:CF:4:TYR:CZ	2.43	0.52
6:CG:118:ARG:O	6:CG:122:GLU:HB3	2.09	0.52
8:CI:34:LEU:HD11	8:CI:44:ARG:NE	2.22	0.52
9:CJ:25:ILE:HG22	9:CJ:25:ILE:O	2.09	0.52
11:CL:114:SER:OG	55:CA:501:C:O3'	2.28	0.52
16:CQ:18:LYS:HE3	16:CQ:48:GLU:CD	2.35	0.52
18:CS:31:ARG:HA	18:CS:49:ALA:HB3	1.91	0.52
55:CA:513:C:O2'	55:CA:514:C:O4'	2.25	0.52
55:CA:599:C:H2'	55:CA:600:A:H8	1.74	0.52
55:CA:666:G:C6	55:CA:741:G:C6	2.97	0.52
28:DE:108:ILE:O	28:DE:112:LEU:HB2	2.10	0.52
29:DF:56:LEU:HD13	29:DF:56:LEU:C	2.35	0.52
29:DF:67:THR:OG1	29:DF:84:ILE:HG22	2.09	0.52
31:DH:22:LYS:NZ	31:DH:22:LYS:HB3	2.24	0.52
31:DH:68:ARG:HD3	31:DH:71:LYS:HD3	1.89	0.52
31:DH:116:ARG:O	31:DH:117:LEU:HG	2.09	0.52
31:DH:143:ILE:O	31:DH:144:VAL:HG13	2.08	0.52
36:DM:72:PRO:HA	36:DM:92:TRP:CE3	2.45	0.52
37:DN:56:LYS:HA	37:DN:84:GLY:HA2	1.92	0.52
38:DO:35:ILE:HD11	38:DO:102:ARG:CD	2.40	0.52
40:DQ:3:VAL:HB	24:DA:1249:U:H4'	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DT:18:GLU:CD	24:DA:1338:G:H4'	2.35	0.52
44:DU:47:PRO:HB3	44:DU:54:PRO:HG2	1.91	0.52
45:DV:21:ARG:NH2	45:DV:87:GLN:O	2.42	0.52
47:DX:4:CYS:HB3	47:DX:9:LYS:N	2.24	0.52
50:D0:29:VAL:HG21	50:D0:34:GLY:HA2	1.90	0.52
24:DA:301:G:N2	24:DA:317:G:H1'	2.25	0.52
24:DA:803:U:O2'	24:DA:804:A:H5'	2.10	0.52
24:DA:1534:U:H2'	24:DA:1534:U:O2	2.09	0.52
24:DA:1900:A:C2	24:DA:1970:A:C5	2.98	0.52
24:DA:2150:C:H2'	24:DA:2151:U:O4'	2.09	0.52
24:DA:2547:A:H1'	24:DA:2566:A:C6	2.45	0.52
24:DA:2617:U:H2'	24:DA:2618:G:H5'	1.91	0.52
3:AD:121:ALA:HA	3:AD:145:ARG:CG	2.40	0.52
9:AJ:53:ILE:HG22	9:AJ:61:ALA:HB1	1.90	0.52
10:AK:95:THR:HG23	10:AK:96:ILE:N	2.24	0.52
10:AK:96:ILE:HD11	20:AU:14:ALA:HB2	1.91	0.52
12:AM:84:CYS:SG	12:AM:85:TYR:N	2.82	0.52
21:AA:594:U:H2'	21:AA:595:A:O4'	2.08	0.52
24:BA:341:C:H2'	24:BA:342:A:O4'	2.10	0.52
24:BA:684:G:C6	24:BA:774:G:C4	2.98	0.52
24:BA:790:U:O2'	24:BA:791:C:C5'	2.57	0.52
24:BA:813:U:H2'	24:BA:814:C:H6	1.74	0.52
24:BA:1712:U:C4	24:BA:1713:A:C5	2.97	0.52
24:BA:1778:U:O4	24:BA:1784:A:H1'	2.10	0.52
24:BA:2103:C:C2'	24:BA:2104:C:H5'	2.39	0.52
24:BA:2581:G:C8	24:BA:2610:C:N4	2.78	0.52
24:BA:2755:C:O2'	24:BA:2756:U:H6	1.93	0.52
27:BD:13:ARG:HD2	39:BP:55:HIS:ND1	2.25	0.52
29:BF:27:VAL:O	29:BF:27:VAL:CG1	2.57	0.52
33:BJ:4:PHE:O	33:BJ:44:TYR:CE1	2.63	0.52
3:CD:66:VAL:HG22	3:CD:96:ARG:NH1	2.25	0.52
3:CD:186:GLU:O	3:CD:187:ARG:HB3	2.10	0.52
15:CP:22:ALA:HA	15:CP:33:ILE:CG1	2.27	0.52
55:CA:367:U:C2	55:CA:394:G:C2	2.97	0.52
55:CA:496:A:N3	55:CA:496:A:C2'	2.68	0.52
55:CA:666:G:C2	55:CA:741:G:C4	2.98	0.52
55:CA:695:A:H61	55:CA:797:C:H1'	1.75	0.52
28:DE:29:HIS:CA	28:DE:32:VAL:HG22	2.38	0.52
28:DE:60:TRP:CH2	24:DA:674:G:O3'	2.62	0.52
29:DF:84:ILE:HG12	24:DA:2312:U:H1'	1.92	0.52
31:DH:9:VAL:CG1	31:DH:10:ALA:N	2.72	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DH:54:LEU:HA	31:DH:57:LYS:CG	2.40	0.52
35:DL:29:LYS:HG2	35:DL:30:THR:HG23	1.91	0.52
37:DN:33:ILE:CG2	37:DN:114:GLU:HB2	2.33	0.52
37:DN:45:ARG:HG2	37:DN:95:THR:HG21	1.92	0.52
40:DQ:56:PHE:O	40:DQ:60:TRP:CD2	2.63	0.52
42:DS:29:VAL:HG23	42:DS:69:LEU:O	2.10	0.52
44:DU:17:ASP:HB2	44:DU:38:ILE:HA	1.91	0.52
47:DX:48:LEU:O	47:DX:50:VAL:HG13	2.09	0.52
24:DA:52:A:H2'	24:DA:53:A:H8	1.75	0.52
24:DA:123:G:H4'	24:DA:1376:C:O5'	2.09	0.52
24:DA:346:A:H2'	24:DA:347:A:O4'	2.09	0.52
24:DA:720:U:H2'	24:DA:721:A:C8	2.44	0.52
24:DA:1062:G:O2'	24:DA:1063:G:C8	2.46	0.52
24:DA:1936:A:H5"	24:DA:1937:A:H5'	1.91	0.52
24:DA:2145:C:H2'	24:DA:2146:C:H3'	1.91	0.52
24:DA:2718:G:C6	24:DA:2719:G:C4	2.98	0.52
3:AD:79:ALA:HA	3:AD:85:THR:HG23	1.92	0.52
3:AD:124:VAL:C	3:AD:126:GLY:H	2.17	0.52
16:AQ:44:HIS:HD2	16:AQ:69:THR:HG22	1.74	0.52
21:AA:49:U:O4	21:AA:365:U:C5	2.63	0.52
21:AA:252:U:H6	21:AA:252:U:H5"	1.75	0.52
21:AA:704:A:O2'	21:AA:705:G:H5'	2.09	0.52
21:AA:987:G:H2'	21:AA:988:G:H8	1.74	0.52
24:BA:447:A:N9	24:BA:473:G:N7	2.58	0.52
24:BA:1990:C:H2'	24:BA:1991:U:C6	2.45	0.52
24:BA:2271:G:H2'	24:BA:2272:U:H6	1.74	0.52
24:BA:2748:A:O3'	30:BG:3:VAL:HG11	2.10	0.52
24:BA:2874:C:H2'	24:BA:2875:C:H6	1.74	0.52
33:BJ:75:TYR:CD1	33:BJ:86:GLN:CB	2.92	0.52
37:BN:103:ARG:HB2	37:BN:110:MET:CE	2.20	0.52
39:BP:64:SER:O	39:BP:65:ASN:C	2.52	0.52
51:B1:24:LYS:NZ	51:B1:51:ALA:O	2.38	0.52
2:CC:196:GLY:H	55:CA:1057:G:H4'	1.74	0.52
3:CD:57:LYS:O	3:CD:57:LYS:HD2	2.10	0.52
6:CG:55:LYS:O	6:CG:56:SER:HB3	2.10	0.52
9:CJ:53:ILE:HD11	55:CA:1060:U:OP1	2.09	0.52
10:CK:19:VAL:HB	10:CK:34:THR:HG23	1.91	0.52
14:CO:84:LEU:HB3	14:CO:86:LEU:HG	1.90	0.52
18:CS:18:VAL:HG21	18:CS:42:ASN:CB	2.39	0.52
55:CA:745:G:H2'	55:CA:746:A:C8	2.45	0.52
26:DC:124:LYS:NZ	26:DC:124:LYS:HB3	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DC:212:TRP:O	26:DC:212:TRP:HD1	1.91	0.52
35:DL:12:SER:C	35:DL:13:LYS:HD3	2.34	0.52
40:DQ:42:GLY:HA3	41:DR:75:VAL:HG21	1.91	0.52
41:DR:70:GLU:CD	41:DR:70:GLU:H	2.17	0.52
42:DS:3:THR:HG21	42:DS:58:ALA:HB2	1.92	0.52
45:DV:37:PRO:HB3	56:DB:73:A:C2	2.44	0.52
48:DY:6:LEU:HD21	48:DY:56:LEU:HD12	1.92	0.52
24:DA:27:G:N2	24:DA:512:G:H2'	2.25	0.52
24:DA:82:U:H5"	24:DA:296:U:H5"	1.90	0.52
24:DA:247:G:C5	24:DA:249:C:H1'	2.45	0.52
24:DA:447:A:N3	24:DA:473:G:C8	2.78	0.52
24:DA:584:C:N4	24:DA:585:G:C6	2.77	0.52
24:DA:604:G:O6	24:DA:625:G:C6	2.62	0.52
24:DA:1494:A:H3'	24:DA:1494:A:OP2	2.09	0.52
24:DA:1709:U:H2'	24:DA:1710:G:H8	1.73	0.52
24:DA:2097:A:H2'	24:DA:2098:U:H6	1.75	0.52
24:DA:2407:A:H2'	24:DA:2408:U:C6	2.44	0.52
24:DA:2450:A:O2'	24:DA:2451:A:H5'	2.09	0.52
56:DB:109:A:H2'	56:DB:110:C:C6	2.44	0.52
6:AG:131:GLY:H	6:AG:134:VAL:HG22	1.75	0.52
13:AN:42:ASN:ND2	13:AN:46:LYS:NZ	2.55	0.52
19:AT:34:VAL:O	19:AT:38:ILE:HG12	2.09	0.52
21:AA:71:A:O2'	21:AA:72:A:C5'	2.58	0.52
21:AA:206:C:H2'	21:AA:207:C:O4'	2.10	0.52
21:AA:423:G:N3	21:AA:423:G:C2'	2.69	0.52
21:AA:821:G:C2	21:AA:822:U:C4	2.97	0.52
21:AA:941:G:H2'	21:AA:942:G:O5'	2.09	0.52
21:AA:977:A:HO2'	21:AA:978:A:H5"	1.74	0.52
21:AA:1151:A:O2'	21:AA:1152:A:O5'	2.27	0.52
21:AA:1171:A:H2'	21:AA:1172:C:H6	1.75	0.52
24:BA:342:A:C2	24:BA:343:C:C2	2.97	0.52
24:BA:465:G:H21	24:BA:684:G:H1'	1.74	0.52
24:BA:479:A:C8	24:BA:481:G:C8	2.97	0.52
24:BA:874:G:O2'	24:BA:875:G:H5'	2.10	0.52
24:BA:1024:G:N2	24:BA:1142:A:H2	2.07	0.52
24:BA:1465:G:C6	24:BA:1466:U:N3	2.78	0.52
24:BA:1754:A:N1	24:BA:1755:A:C2	2.77	0.52
24:BA:2020:A:O2'	24:BA:2021:C:H5'	2.10	0.52
24:BA:2054:A:H2'	50:B0:4:GLN:OE1	2.10	0.52
24:BA:2533:U:H2'	24:BA:2534:A:O4'	2.10	0.52
27:BD:107:VAL:H	27:BD:206:ALA:H	1.58	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BG:44:HIS:O	30:BG:45:ALA:O	2.27	0.52
32:BI:32:VAL:HG22	32:BI:66:PHE:CG	2.45	0.52
34:BK:34:GLY:O	34:BK:36:GLY:N	2.43	0.52
37:BN:114:GLU:OE2	37:BN:118:ARG:NE	2.36	0.52
38:BO:2:ASP:OD1	38:BO:3:LYS:HG2	2.10	0.52
38:BO:40:ILE:HG12	38:BO:47:VAL:HG12	1.91	0.52
39:BP:37:LYS:N	39:BP:37:LYS:CD	2.73	0.52
45:BV:80:HIS:CD2	45:BV:83:LYS:N	2.63	0.52
46:BW:19:ARG:HA	46:BW:34:SER:CA	2.30	0.52
47:BX:73:ARG:HG2	47:BX:75:GLU:HG3	1.92	0.52
52:B2:24:THR:HG23	52:B2:27:GLY:N	2.17	0.52
4:CE:21:SER:HB3	55:CA:16:A:C4'	2.40	0.52
4:CE:95:MET:HE1	4:CE:114:LEU:HD21	1.92	0.52
5:CF:43:GLY:O	5:CF:44:ARG:C	2.53	0.52
5:CF:61:LEU:HD13	5:CF:62:MET:H	1.75	0.52
11:CL:45:ASN:HA	55:CA:529:G:O6	2.10	0.52
19:CT:46:ALA:C	19:CT:48:LYS:H	2.17	0.52
20:CU:16:ARG:HA	20:CU:16:ARG:NE	2.24	0.52
55:CA:67:C:OP1	55:CA:199:A:H5"	2.10	0.52
55:CA:142:G:C6	55:CA:143:A:C8	2.97	0.52
55:CA:1055:A:N6	55:CA:1206:G:C5	2.78	0.52
55:CA:1282:C:O2'	55:CA:1283:U:C6	2.62	0.52
55:CA:1348:U:H2'	55:CA:1349:A:H8	1.75	0.52
27:DD:106:LYS:HD3	27:DD:106:LYS:N	2.25	0.52
27:DD:118:PHE:CG	27:DD:119:ALA:N	2.78	0.52
28:DE:131:THR:HG22	28:DE:161:ALA:N	2.24	0.52
32:DI:86:LYS:O	32:DI:87:SER:HB2	2.10	0.52
34:DK:7:MET:HE1	34:DK:20:MET:CB	2.35	0.52
35:DL:67:THR:HG21	24:DA:245:G:OP2	2.10	0.52
35:DL:68:SER:OG	24:DA:632:A:H5"	2.10	0.52
36:DM:41:LEU:O	36:DM:93:VAL:HG23	2.09	0.52
38:DO:67:ASN:N	38:DO:70:ALA:HB3	2.13	0.52
38:DO:69:ASP:O	38:DO:73:ALA:N	2.30	0.52
51:D1:8:ILE:CD1	51:D1:52:LYS:HG3	2.40	0.52
24:DA:698:C:H5"	24:DA:1634:A:N6	2.24	0.52
24:DA:779:U:C2'	24:DA:780:G:H5'	2.40	0.52
24:DA:963:U:O2'	24:DA:964:C:H5'	2.09	0.52
24:DA:1062:G:OP1	24:DA:1070:A:H4'	2.09	0.52
24:DA:1210:G:C2	24:DA:1237:A:C8	2.98	0.52
24:DA:1214:A:H2'	24:DA:1215:G:C8	2.44	0.52
24:DA:1495:A:H2	24:DA:1578:U:H1'	1.72	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2244:U:H2'	24:DA:2245:U:O4'	2.10	0.52
24:DA:2331:G:H2'	24:DA:2332:C:H6	1.75	0.52
24:DA:2718:G:C6	24:DA:2719:G:C5	2.97	0.52
3:AD:2:ARG:CB	3:AD:4:LEU:HD13	2.40	0.52
4:AE:48:GLY:CA	4:AE:65:LYS:HB2	2.40	0.52
9:AJ:80:THR:HB	9:AJ:83:THR:HB	1.92	0.52
11:AL:20:VAL:HG12	11:AL:94:TYR:CD1	2.44	0.52
12:AM:109:LYS:NZ	21:AA:1227:A:H5'	2.25	0.52
18:AS:29:PRO:HA	18:AS:47:THR:O	2.10	0.52
19:AT:54:GLN:N	19:AT:55:PRO:HD2	2.24	0.52
21:AA:537:G:H2'	21:AA:538:G:C8	2.43	0.52
21:AA:557:G:C6	21:AA:558:G:N1	2.78	0.52
21:AA:791:G:C5	21:AA:792:A:N7	2.78	0.52
21:AA:1046:A:O2'	21:AA:1047:G:C5'	2.56	0.52
21:AA:1365:G:C2	21:AA:1366:C:C2	2.98	0.52
24:BA:62:U:H4'	24:BA:63:A:OP1	2.10	0.52
24:BA:1024:G:C6	24:BA:1025:G:C6	2.98	0.52
24:BA:1027:A:C2	24:BA:1126:A:C4	2.98	0.52
24:BA:1069:A:N1	24:BA:1073:A:N6	2.56	0.52
24:BA:1499:C:O2'	24:BA:1500:G:C5'	2.58	0.52
24:BA:2134:A:N6	24:BA:2135:A:N6	2.58	0.52
24:BA:2816:G:O3'	37:BN:99:LYS:HE2	2.10	0.52
25:BB:105:G:O2'	25:BB:106:G:H5'	2.10	0.52
27:BD:85:ALA:O	27:BD:86:GLU:HB2	2.10	0.52
32:BI:19:PRO:HG2	32:BI:23:VAL:CG2	2.39	0.52
32:BI:27:LEU:C	32:BI:27:LEU:HD12	2.35	0.52
39:BP:19:PHE:HE1	39:BP:58:PHE:CD2	2.27	0.52
39:BP:26:GLU:CB	39:BP:43:GLU:HB2	2.40	0.52
39:BP:44:GLY:HA3	39:BP:61:ARG:O	2.10	0.52
46:BW:39:GLN:HG3	46:BW:42:THR:CB	2.37	0.52
5:CF:4:TYR:O	5:CF:63:ASN:HA	2.10	0.52
5:CF:7:VAL:O	5:CF:7:VAL:HG13	2.10	0.52
5:CF:88:MET:HE2	17:CR:64:LEU:HD21	1.91	0.52
6:CG:78:ARG:HG2	6:CG:79:VAL:N	2.25	0.52
11:CL:33:CYS:H	11:CL:54:VAL:HG13	1.74	0.52
15:CP:6:LEU:CD1	55:CA:375:U:O3'	2.58	0.52
18:CS:52:ASN:HD22	18:CS:52:ASN:C	2.18	0.52
19:CT:30:PHE:HE2	19:CT:52:GLU:HG2	1.74	0.52
20:CU:36:PHE:HA	20:CU:39:LYS:HE2	1.92	0.52
55:CA:299:G:C6	55:CA:300:A:C6	2.97	0.52
55:CA:553:A:C5	55:CA:554:A:N7	2.78	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:815:A:C2	55:CA:1529:G:N3	2.78	0.52
55:CA:1041:G:N1	55:CA:1042:A:C6	2.78	0.52
55:CA:1084:G:OP1	55:CA:1086:U:C6	2.62	0.52
26:DC:93:VAL:CG1	26:DC:101:ARG:H	2.22	0.52
29:DF:110:ILE:H	29:DF:110:ILE:CD1	2.22	0.52
30:DG:66:THR:OG1	30:DG:67:ALA:N	2.42	0.52
30:DG:167:VAL:HG23	30:DG:168:VAL:N	2.25	0.52
40:DQ:27:ARG:NH1	24:DA:532:A:H2'	2.25	0.52
46:DW:51:GLY:HA2	46:DW:59:PHE:HD2	1.74	0.52
47:DX:20:ALA:O	47:DX:21:LEU:HB2	2.09	0.52
24:DA:78:U:O2'	24:DA:79:C:H5'	2.09	0.52
24:DA:352:A:C2	24:DA:353:C:H1'	2.45	0.52
24:DA:363:G:O2'	24:DA:364:C:C5'	2.51	0.52
24:DA:467:G:H2'	24:DA:468:G:H8	1.74	0.52
24:DA:1090:A:C6	24:DA:1102:C:O2	2.62	0.52
24:DA:1759:A:H2'	24:DA:1760:C:C5	2.45	0.52
24:DA:1949:G:H2'	24:DA:1950:G:C8	2.45	0.52
24:DA:1995:U:C2	24:DA:1996:C:C5	2.98	0.52
24:DA:2026:U:C2	24:DA:2027:G:C8	2.97	0.52
24:DA:2595:G:H22	24:DA:2597:G:H3'	1.75	0.52
24:DA:2738:A:H2'	24:DA:2739:U:O5'	2.10	0.52
4:AE:94:PHE:CZ	4:AE:95:MET:O	2.63	0.52
11:AL:11:ARG:O	11:AL:12:ALA:HB2	2.09	0.52
16:AQ:12:VAL:HG12	16:AQ:21:VAL:O	2.09	0.52
20:AU:13:VAL:HG13	20:AU:15:LEU:HD11	1.91	0.52
21:AA:205:A:H2'	21:AA:206:C:O4'	2.09	0.52
21:AA:367:U:O2'	21:AA:368:U:H4'	2.09	0.52
21:AA:373:A:N7	21:AA:482:A:C8	2.78	0.52
21:AA:374:A:OP1	21:AA:452:A:N1	2.43	0.52
21:AA:1087:G:O2'	21:AA:1088:G:H8	1.93	0.52
21:AA:1261:A:C2	21:AA:1275:A:C5	2.97	0.52
24:BA:228:C:H4'	24:BA:229:C:C5'	2.40	0.52
24:BA:475:C:H6	24:BA:475:C:O5'	1.93	0.52
24:BA:571:U:H4'	24:BA:572:A:OP1	2.09	0.52
24:BA:962:G:H2'	24:BA:963:U:H6	1.73	0.52
24:BA:997:G:O2'	24:BA:998:C:H5'	2.10	0.52
24:BA:1011:G:H4'	24:BA:1012:U:OP1	2.09	0.52
24:BA:1020:A:C2	24:BA:1141:U:O2	2.63	0.52
24:BA:2033:A:H5"	59:BA:3485:HOH:O	2.09	0.52
24:BA:2061:G:H5"	24:BA:2503:A:C2	2.45	0.52
24:BA:2077:A:C8	24:BA:2435:A:C4	2.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2520:C:O2'	24:BA:2521:C:H5'	2.10	0.52
24:BA:2810:A:H2'	24:BA:2811:G:O4'	2.09	0.52
24:BA:2821:A:H2'	24:BA:2822:G:C8	2.45	0.52
27:BD:39:ASP:CG	27:BD:40:LEU:HD12	2.35	0.52
27:BD:181:ASP:C	27:BD:182:ALA:O	2.53	0.52
30:BG:116:LEU:HD23	30:BG:121:THR:HA	1.90	0.52
33:BJ:19:ASP:O	33:BJ:21:THR:N	2.42	0.52
35:BL:20:GLY:O	35:BL:21:ARG:NE	2.43	0.52
38:BO:75:GLY:HA2	38:BO:106:LEU:CD1	2.40	0.52
39:BP:17:PRO:HG3	39:BP:83:ILE:O	2.10	0.52
49:BZ:13:ILE:C	49:BZ:15:ARG:H	2.18	0.52
1:CB:68:PHE:HB2	1:CB:90:PHE:HA	1.92	0.52
3:CD:137:SER:O	3:CD:140:ASP:HB2	2.10	0.52
5:CF:81:ASN:O	5:CF:84:VAL:HG12	2.10	0.52
8:CI:79:ARG:O	8:CI:83:THR:HG22	2.10	0.52
9:CJ:30:LYS:HG2	9:CJ:36:VAL:HG22	1.92	0.52
12:CM:47:LEU:CD1	12:CM:52:ILE:HB	2.31	0.52
55:CA:78:A:H2'	55:CA:79:G:H8	1.68	0.52
55:CA:92:U:H2'	55:CA:93:U:H6	1.69	0.52
55:CA:373:A:C2	55:CA:482:A:C6	2.97	0.52
55:CA:375:U:N3	55:CA:376:G:N7	2.57	0.52
55:CA:939:G:H2'	55:CA:940:C:C6	2.44	0.52
55:CA:1277:C:O2'	55:CA:1279:G:H8	1.83	0.52
29:DF:3:LEU:HG	29:DF:100:GLU:CD	2.35	0.52
29:DF:11:VAL:HG22	29:DF:171:ALA:HA	1.91	0.52
33:DJ:27:ARG:O	33:DJ:30:THR:HG22	2.09	0.52
35:DL:40:SER:O	35:DL:41:ARG:C	2.53	0.52
36:DM:135:VAL:HB	45:DV:57:TYR:CE1	2.45	0.52
37:DN:3:HIS:CD2	24:DA:2820:A:O2'	2.63	0.52
38:DO:34:HIS:HA	38:DO:65:THR:HB	1.92	0.52
38:DO:92:PHE:HB3	24:DA:2376:A:H2	1.75	0.52
38:DO:100:HIS:O	38:DO:100:HIS:CG	2.54	0.52
46:DW:9:THR:CG2	46:DW:10:ARG:HG3	2.31	0.52
47:DX:15:ASN:HD22	24:DA:381:G:C5'	2.23	0.52
24:DA:687:C:O2'	24:DA:688:U:H5'	2.10	0.52
24:DA:1799:G:O6	24:DA:1819:A:H2'	2.10	0.52
24:DA:1885:A:N7	24:DA:1886:U:C4	2.79	0.52
24:DA:2430:A:H3'	24:DA:2431:U:H5'	1.92	0.52
1:AB:19:THR:HG23	1:AB:21:TYR:CE1	2.45	0.51
1:AB:24:PRO:CG	21:AA:829:G:O2'	2.57	0.51
3:AD:121:ALA:O	3:AD:122:ILE:HD13	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AF:6:ILE:HG12	5:AF:89:VAL:HG23	1.92	0.51
8:AI:21:LYS:C	8:AI:21:LYS:HD2	2.36	0.51
11:AL:81:ILE:HD11	11:AL:94:TYR:CB	2.39	0.51
11:AL:109:ARG:HH12	21:AA:537:G:H5"	1.75	0.51
17:AR:39:VAL:CG1	17:AR:40:PRO:HD2	2.39	0.51
19:AT:4:LYS:HZ1	19:AT:5:SER:HB3	1.74	0.51
21:AA:112:G:C2	21:AA:113:G:C8	2.99	0.51
21:AA:202:G:C6	21:AA:203:G:C5	2.98	0.51
21:AA:253:A:N6	21:AA:274:A:C6	2.78	0.51
21:AA:255:G:H2'	21:AA:256:U:C6	2.44	0.51
21:AA:648:A:O2'	21:AA:649:A:H5'	2.11	0.51
21:AA:872:A:C8	21:AA:874:G:C8	2.99	0.51
21:AA:1082:A:C2	21:AA:1083:U:C2	2.99	0.51
21:AA:1084:G:C8	21:AA:1085:U:C5	2.98	0.51
21:AA:1258:G:O2'	21:AA:1259:C:H5'	2.10	0.51
21:AA:1428:A:C2	21:AA:1473:G:C2	2.98	0.51
24:BA:38:A:N3	28:BE:43:THR:HB	2.25	0.51
24:BA:852:U:O2	24:BA:926:G:N2	2.43	0.51
24:BA:1062:G:C8	24:BA:1088:A:H8	2.28	0.51
24:BA:1615:C:C6	24:BA:1617:C:C5	2.98	0.51
24:BA:2004:G:C5	24:BA:2005:A:C8	2.98	0.51
24:BA:2364:C:OP1	46:BW:54:ARG:HD2	2.10	0.51
27:BD:35:THR:OG1	27:BD:49:GLN:HG2	2.09	0.51
31:BH:4:ILE:HG23	31:BH:17:ASP:O	2.09	0.51
32:BI:130:GLY:HA2	32:BI:133:ARG:HB3	1.91	0.51
33:BJ:44:TYR:O	33:BJ:45:THR:CG2	2.58	0.51
35:BL:93:ASN:ND2	35:BL:94:THR:H	2.01	0.51
35:BL:120:VAL:CG1	35:BL:121:THR:N	2.72	0.51
36:BM:46:ILE:C	36:BM:46:ILE:HD12	2.35	0.51
38:BO:105:ALA:O	38:BO:107:ALA:N	2.43	0.51
41:BR:45:GLU:OE2	41:BR:45:GLU:HA	2.10	0.51
1:CB:103:TRP:CZ3	1:CB:156:LEU:HB3	2.45	0.51
2:CC:41:TYR:HD1	2:CC:90:VAL:HG12	1.75	0.51
3:CD:90:LEU:HD21	3:CD:196:GLU:HB3	1.92	0.51
3:CD:106:PHE:CD1	3:CD:144:ILE:HD11	2.44	0.51
3:CD:131:ILE:HG12	55:CA:619:U:O2	2.11	0.51
4:CE:37:VAL:HG11	4:CE:113:VAL:HG13	1.92	0.51
8:CI:70:GLY:O	8:CI:71:ILE:HD12	2.10	0.51
9:CJ:59:LYS:HE2	55:CA:972:C:C5'	2.40	0.51
12:CM:95:PRO:HD3	12:CM:108:ARG:HG2	1.91	0.51
15:CP:68:SER:HB3	15:CP:71:VAL:CG1	2.39	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:CQ:20:ILE:N	16:CQ:20:ILE:HD13	2.24	0.51
55:CA:166:U:H2'	55:CA:167:A:H5'	1.91	0.51
55:CA:380:G:N2	55:CA:384:G:C5	2.79	0.51
55:CA:1405:G:H1'	55:CA:1518:A:O2'	2.10	0.51
27:DD:11:MET:HB3	24:DA:2682:A:H5'	1.92	0.51
28:DE:98:LYS:HB3	24:DA:607:U:OP1	2.10	0.51
32:DI:57:VAL:HG21	32:DI:69:VAL:H	1.74	0.51
33:DJ:110:PRO:HB3	24:DA:1007:C:H4'	1.92	0.51
34:DK:17:ARG:HD3	34:DK:18:ARG:HG3	1.92	0.51
35:DL:93:ASN:CG	35:DL:94:THR:N	2.68	0.51
37:DN:38:LEU:HB3	37:DN:39:PRO:CD	2.36	0.51
43:DT:29:THR:HA	43:DT:87:LEU:HB2	1.92	0.51
43:DT:40:LYS:C	43:DT:43:ILE:HG22	2.34	0.51
46:DW:9:THR:HG23	46:DW:10:ARG:N	2.25	0.51
53:D3:21:PHE:O	53:D3:22:LYS:O	2.27	0.51
24:DA:116:C:C4	24:DA:117:G:C5	2.98	0.51
24:DA:449:A:C5	24:DA:450:G:N7	2.79	0.51
24:DA:765:C:H2'	24:DA:766:U:C5	2.45	0.51
24:DA:785:G:C6	24:DA:786:C:C4	2.98	0.51
24:DA:845:A:C2	24:DA:847:U:C2	2.97	0.51
24:DA:1655:A:H2'	24:DA:1656:C:H6	1.75	0.51
24:DA:1775:U:H2'	24:DA:1776:G:O5'	2.09	0.51
24:DA:1985:C:N3	24:DA:1986:C:C5	2.78	0.51
24:DA:2813:A:H2'	24:DA:2814:A:C8	2.45	0.51
56:DB:39:A:O2'	56:DB:46:A:N1	2.43	0.51
4:AE:61:LYS:HD3	21:AA:1073:U:OP2	2.11	0.51
6:AG:72:VAL:O	6:AG:140:VAL:HG12	2.10	0.51
6:AG:74:VAL:HA	6:AG:87:PRO:HA	1.92	0.51
8:AI:104:THR:HG22	8:AI:105:ARG:N	2.25	0.51
8:AI:121:ARG:HB2	21:AA:1348:U:O3'	2.09	0.51
9:AJ:35:GLN:HG2	9:AJ:77:VAL:CB	2.37	0.51
9:AJ:86:ALA:O	9:AJ:90:LEU:HD12	2.11	0.51
11:AL:86:VAL:O	11:AL:88:ASP:N	2.43	0.51
14:AO:1:SER:O	14:AO:2:LEU:HB2	2.08	0.51
16:AQ:12:VAL:CG1	16:AQ:21:VAL:HG22	2.40	0.51
21:AA:293:G:C6	21:AA:305:G:C2	2.98	0.51
21:AA:1401:G:C2	21:AA:1402:C:H1'	2.46	0.51
24:BA:30:G:H2'	24:BA:31:C:H6	1.75	0.51
24:BA:93:G:N2	24:BA:94:A:H1'	2.25	0.51
24:BA:580:U:O3'	40:BQ:30:VAL:CG1	2.59	0.51
24:BA:748:G:O5'	42:BS:89:ALA:HB2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:978:G:C6	24:BA:979:A:C5	2.98	0.51
24:BA:996:A:N6	24:BA:1160:G:C6	2.77	0.51
24:BA:1048:A:C6	24:BA:1049:C:C5	2.98	0.51
24:BA:1458:U:C4'	24:BA:1459:G:O5'	2.51	0.51
24:BA:1605:C:C2'	24:BA:1606:C:H5'	2.40	0.51
24:BA:1936:A:H2	24:BA:1943:U:C5	2.28	0.51
24:BA:2297:A:C5	24:BA:2320:U:C2	2.99	0.51
24:BA:2641:G:OP1	33:BJ:76:HIS:HE1	1.93	0.51
26:BC:180:MET:HE2	26:BC:268:ARG:HH12	1.75	0.51
27:BD:151:THR:CG2	27:BD:152:PRO:HD3	2.40	0.51
28:BE:88:ARG:O	28:BE:89:PRO:C	2.53	0.51
29:BF:114:ARG:HD2	29:BF:114:ARG:N	2.23	0.51
36:BM:70:ASP:OD1	36:BM:70:ASP:C	2.54	0.51
36:BM:73:ILE:HG21	36:BM:91:TYR:CE2	2.45	0.51
41:BR:49:ILE:HG21	41:BR:53:PHE:H	1.75	0.51
42:BS:4:ILE:HG22	42:BS:106:VAL:HG13	1.92	0.51
43:BT:11:LEU:HG	43:BT:46:ALA:HB1	1.92	0.51
45:BV:11:GLU:HB3	45:BV:16:ALA:HB2	1.92	0.51
46:BW:24:ARG:HD3	46:BW:65:LYS:CD	2.40	0.51
47:BX:39:VAL:O	47:BX:41:SER:N	2.38	0.51
50:B0:34:GLY:O	50:B0:35:GLU:O	2.28	0.51
3:CD:84:ASN:HD22	3:CD:85:THR:N	2.07	0.51
6:CG:77:ARG:CZ	55:CA:1381:U:N3	2.74	0.51
9:CJ:15:HIS:HA	9:CJ:18:ILE:CG2	2.39	0.51
13:CN:76:PHE:CE2	13:CN:92:ILE:HG21	2.45	0.51
55:CA:90:C:O2'	55:CA:91:U:H5'	2.11	0.51
55:CA:939:G:C6	55:CA:940:C:N4	2.78	0.51
55:CA:1005:A:C4	55:CA:1006:G:H1'	2.45	0.51
55:CA:1114:C:H2'	55:CA:1115:U:O4'	2.10	0.51
55:CA:1117:A:N1	55:CA:1184:G:C6	2.77	0.51
23:CW:1:A:H2'	23:CW:2:U:C6	2.46	0.51
27:DD:116:LYS:HD3	37:DN:1:MET:CE	2.38	0.51
29:DF:137:PHE:HB2	29:DF:138:PRO:CD	2.28	0.51
38:DO:64:TYR:HE1	56:DB:52:A:N7	2.07	0.51
40:DQ:59:LEU:HD13	40:DQ:60:TRP:N	2.24	0.51
42:DS:71:VAL:O	42:DS:71:VAL:CG1	2.59	0.51
45:DV:9:ARG:NH2	45:DV:17:SER:HB2	2.25	0.51
24:DA:100:U:O2'	24:DA:101:A:C5'	2.58	0.51
24:DA:333:G:O2'	24:DA:334:C:C5'	2.55	0.51
24:DA:1057:A:C8	24:DA:1086:A:H2'	2.45	0.51
24:DA:1342:A:C6	24:DA:1397:U:C5	2.98	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1455:G:N2	24:DA:1456:G:C4	2.78	0.51
24:DA:2630:G:C6	24:DA:2894:G:C6	2.98	0.51
2:AC:28:PHE:CZ	13:AN:93:PRO:HD2	2.44	0.51
3:AD:24:VAL:HG12	3:AD:25:ARG:HG3	1.91	0.51
4:AE:25:LYS:HB3	4:AE:25:LYS:HZ2	1.73	0.51
5:AF:25:TYR:O	5:AF:29:ILE:HD12	2.11	0.51
5:AF:50:PRO:HD2	17:AR:73:HIS:HB3	1.92	0.51
12:AM:70:ARG:HG3	29:BF:111:ARG:O	2.09	0.51
15:AP:70:ARG:O	15:AP:74:LEU:HG	2.10	0.51
16:AQ:10:ARG:HG3	16:AQ:23:ALA:HB3	1.92	0.51
20:AU:46:ARG:C	20:AU:48:LYS:H	2.18	0.51
21:AA:84:U:O2	21:AA:84:U:H2'	2.10	0.51
21:AA:307:C:H5"	21:AA:308:C:OP2	2.10	0.51
21:AA:1277:C:O2'	21:AA:1279:G:H8	1.93	0.51
24:BA:142:A:H2'	24:BA:143:C:C5	2.43	0.51
24:BA:341:C:C2	24:BA:342:A:C8	2.98	0.51
24:BA:372:G:N2	24:BA:400:G:H2'	2.26	0.51
24:BA:521:U:H2'	24:BA:522:A:C8	2.45	0.51
24:BA:836:G:C5	24:BA:837:C:C4	2.98	0.51
24:BA:1028:A:N6	24:BA:1125:G:H2'	2.26	0.51
24:BA:1444:G:H2'	24:BA:1445:G:C8	2.46	0.51
24:BA:1551:A:O2'	24:BA:1552:A:H5'	2.10	0.51
24:BA:1997:C:H2'	24:BA:1998:A:H8	1.74	0.51
24:BA:2232:C:H2'	24:BA:2233:U:C6	2.46	0.51
27:BD:92:VAL:HG12	27:BD:92:VAL:O	2.10	0.51
32:BI:126:ARG:HA	32:BI:129:GLU:CB	2.40	0.51
33:BJ:74:TYR:OH	33:BJ:100:VAL:HG13	2.10	0.51
35:BL:95:LEU:HD22	35:BL:100:ILE:CD1	2.40	0.51
39:BP:5:LYS:C	39:BP:7:LEU:N	2.66	0.51
39:BP:50:ARG:O	39:BP:51:ASN:HB2	2.09	0.51
39:BP:101:GLU:O	39:BP:102:ARG:HG2	2.10	0.51
40:BQ:114:ALA:C	40:BQ:116:LEU:H	2.18	0.51
41:BR:61:ALA:CB	41:BR:98:ILE:HA	2.40	0.51
46:BW:24:ARG:HD2	46:BW:24:ARG:C	2.36	0.51
49:BZ:35:VAL:HG22	49:BZ:36:GLU:H	1.76	0.51
54:B4:4:ARG:HG3	54:B4:6:SER:O	2.11	0.51
2:CC:119:ILE:C	2:CC:121:SER:N	2.69	0.51
9:CJ:26:VAL:HG13	9:CJ:30:LYS:HB3	1.91	0.51
18:CS:20:LYS:O	18:CS:20:LYS:HD3	2.10	0.51
18:CS:68:HIS:HB3	18:CS:72:GLU:HG3	1.90	0.51
55:CA:243:A:H2	55:CA:245:U:O2'	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:345:C:H4'	55:CA:346:G:H5"	1.93	0.51
55:CA:644:U:H2'	55:CA:645:G:C8	2.45	0.51
55:CA:979:C:C4	55:CA:1318:A:N6	2.79	0.51
55:CA:1039:G:H2'	55:CA:1040:U:O4'	2.10	0.51
55:CA:1417:G:C6	55:CA:1482:G:C6	2.98	0.51
27:DD:16:THR:HG22	27:DD:20:VAL:N	2.25	0.51
28:DE:73:ILE:O	28:DE:73:ILE:HG13	2.10	0.51
29:DF:35:LEU:HA	29:DF:152:ASP:O	2.10	0.51
30:DG:22:VAL:HG12	30:DG:23:ILE:H	1.75	0.51
30:DG:138:GLN:HG3	24:DA:2746:U:C1'	2.41	0.51
38:DO:31:THR:HG23	38:DO:34:HIS:O	2.10	0.51
39:DP:83:ILE:HD13	39:DP:83:ILE:O	2.10	0.51
47:DX:4:CYS:HA	47:DX:32:LEU:HD11	1.93	0.51
24:DA:286:U:H2'	24:DA:287:G:C8	2.45	0.51
24:DA:619:G:H3'	24:DA:620:G:H21	1.75	0.51
24:DA:753:A:H2'	24:DA:754:U:H6	1.74	0.51
24:DA:858:G:C4	24:DA:2268:A:C2	2.98	0.51
24:DA:996:A:N3	24:DA:997:G:C8	2.79	0.51
24:DA:1055:G:C3'	24:DA:1056:G:H5'	2.40	0.51
24:DA:1098:A:H2'	24:DA:1099:G:O4'	2.10	0.51
24:DA:1777:U:O2'	24:DA:1778:U:H5'	2.10	0.51
24:DA:1789:A:H2'	24:DA:1790:C:O4'	2.11	0.51
24:DA:2370:G:C5	24:DA:2371:G:C5	2.99	0.51
24:DA:2459:A:H2'	24:DA:2460:U:C6	2.45	0.51
24:DA:2493:U:C3'	24:DA:2494:G:H5"	2.40	0.51
24:DA:2798:U:H5'	24:DA:2800:A:C6	2.45	0.51
56:DB:78:A:C2	56:DB:99:A:C4	2.99	0.51
1:AB:99:MET:HA	1:AB:106:VAL:HG21	1.92	0.51
1:AB:165:ALA:HB3	1:AB:186:VAL:HG12	1.92	0.51
3:AD:170:LEU:HD12	3:AD:170:LEU:O	2.10	0.51
4:AE:24:VAL:HA	21:AA:922:G:H4'	1.92	0.51
8:AI:9:GLY:HA3	8:AI:81:GLY:HA2	1.91	0.51
10:AK:34:THR:HG1	10:AK:35:ASP:H	1.58	0.51
10:AK:39:ASN:O	21:AA:684:U:H1'	2.10	0.51
13:AN:26:LEU:HA	13:AN:30:ILE:HD13	1.92	0.51
15:AP:52:LEU:HG	15:AP:57:ILE:HD11	1.93	0.51
16:AQ:32:ILE:HG22	16:AQ:33:TYR:CD2	2.45	0.51
17:AR:35:SER:HB3	20:AU:3:ILE:HG13	1.92	0.51
17:AR:71:ASP:OD1	17:AR:72:ARG:HD2	2.10	0.51
21:AA:113:G:N3	21:AA:114:U:C6	2.78	0.51
21:AA:406:G:H1'	21:AA:495:A:N1	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:451:A:C1'	21:AA:452:A:N7	2.72	0.51
21:AA:1016:A:C8	21:AA:1017:U:H1'	2.46	0.51
21:AA:1206:G:H2'	21:AA:1207:G:O4'	2.09	0.51
21:AA:1314:C:H2'	21:AA:1315:U:H6	1.75	0.51
21:AA:1353:G:C2	21:AA:1354:U:C6	2.99	0.51
24:BA:250:G:P	53:B3:12:ARG:NH1	2.83	0.51
24:BA:626:A:H2'	35:BL:78:ARG:CZ	2.40	0.51
24:BA:784:G:O6	26:BC:227:VAL:HG11	2.09	0.51
24:BA:920:A:C2	24:BA:921:C:C2	2.98	0.51
24:BA:1105:U:C2	24:BA:1106:G:N7	2.79	0.51
24:BA:1787:A:C5	24:BA:1788:C:C5	2.98	0.51
24:BA:2081:U:C5	24:BA:2237:G:N1	2.78	0.51
24:BA:2134:A:N6	24:BA:2157:G:C6	2.79	0.51
24:BA:2308:G:O2'	24:BA:2310:C:C5	2.63	0.51
24:BA:2481:G:O5'	24:BA:2481:G:H8	1.94	0.51
24:BA:2492:U:H2'	24:BA:2493:U:C6	2.46	0.51
24:BA:2689:U:H4'	24:BA:2690:U:OP2	2.09	0.51
26:BC:180:MET:HG3	26:BC:268:ARG:NH1	2.25	0.51
27:BD:38:LYS:O	27:BD:46:ARG:HA	2.11	0.51
32:BI:58:ILE:HG22	32:BI:60:VAL:HG23	1.91	0.51
34:BK:77:ILE:HD11	39:BP:71:ARG:NE	2.25	0.51
36:BM:42:THR:O	36:BM:44:ARG:N	2.42	0.51
37:BN:23:ASN:HD22	37:BN:23:ASN:H	1.58	0.51
39:BP:111:GLU:CD	39:BP:111:GLU:N	2.68	0.51
43:BT:68:LYS:CG	43:BT:69:ARG:H	2.18	0.51
44:BU:85:ARG:NH1	44:BU:91:LYS:HA	2.26	0.51
46:BW:23:LYS:CG	46:BW:24:ARG:N	2.73	0.51
4:CE:82:HIS:CE1	7:CH:95:MET:HG2	2.45	0.51
4:CE:86:GLY:O	4:CE:93:VAL:HG22	2.10	0.51
9:CJ:30:LYS:CG	9:CJ:36:VAL:HG22	2.41	0.51
13:CN:62:ARG:HB3	13:CN:62:ARG:HH11	1.75	0.51
20:CU:19:LYS:N	20:CU:19:LYS:NZ	2.58	0.51
55:CA:117:G:O2'	55:CA:118:U:H5'	2.11	0.51
55:CA:231:U:O2'	55:CA:232:G:H5'	2.10	0.51
28:DE:75:SER:O	28:DE:78:TRP:HB2	2.10	0.51
35:DL:40:SER:O	35:DL:41:ARG:O	2.28	0.51
40:DQ:87:VAL:HG12	40:DQ:88:GLU:N	2.24	0.51
42:DS:17:VAL:HG11	42:DS:103:ILE:HG13	1.92	0.51
50:D0:37:HIS:HB2	50:D0:41:HIS:HE1	1.74	0.51
24:DA:100:U:O2'	24:DA:101:A:O5'	2.24	0.51
24:DA:181:A:C4	24:DA:435:C:C6	2.98	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:265:A:N6	24:DA:427:U:O2'	2.38	0.51
24:DA:279:A:N6	24:DA:361:G:O2'	2.44	0.51
24:DA:379:G:C6	24:DA:396:G:O6	2.63	0.51
24:DA:616:A:O2'	24:DA:617:G:O4'	2.26	0.51
24:DA:1343:G:C8	24:DA:1597:A:C5	2.99	0.51
24:DA:1389:G:O2'	24:DA:1390:U:H5'	2.11	0.51
24:DA:1429:G:O2'	24:DA:1430:G:H5'	2.10	0.51
24:DA:1565:C:O2'	24:DA:1566:A:H8	1.91	0.51
24:DA:2757:A:O2'	24:DA:2758:A:H5'	2.10	0.51
56:DB:17:C:O2'	56:DB:18:G:C5'	2.58	0.51
2:AC:24:ASN:ND2	2:AC:25:THR:H	2.06	0.51
2:AC:63:ILE:HG12	2:AC:65:VAL:HG23	1.92	0.51
4:AE:60:GLN:C	4:AE:62:ALA:H	2.18	0.51
6:AG:97:ALA:HA	6:AG:100:MET:HE2	1.92	0.51
7:AH:12:ARG:NH2	21:AA:826:C:H5'	2.25	0.51
7:AH:78:SER:CB	7:AH:84:ILE:H	2.23	0.51
10:AK:13:LYS:O	10:AK:14:GLN:CB	2.58	0.51
11:AL:27:PRO:HB2	11:AL:28:GLN:OE1	2.11	0.51
13:AN:81:ILE:O	13:AN:85:GLU:HG2	2.10	0.51
16:AQ:46:HIS:HB2	16:AQ:66:LEU:HD12	1.93	0.51
21:AA:451:A:H1'	21:AA:452:A:C8	2.46	0.51
21:AA:463:U:H2'	21:AA:464:U:C5	2.45	0.51
21:AA:679:C:O2'	21:AA:680:C:H5'	2.11	0.51
21:AA:834:U:H2'	21:AA:835:U:H6	1.74	0.51
21:AA:1103:C:O2'	21:AA:1104:G:O5'	2.28	0.51
24:BA:528:A:H2	24:BA:2043:C:H5'	1.73	0.51
24:BA:570:G:C4	24:BA:2030:A:N7	2.78	0.51
24:BA:1235:G:N1	24:BA:1236:G:N2	2.58	0.51
24:BA:1682:G:C8	24:BA:1757:A:C2	2.97	0.51
24:BA:2426:A:H3'	24:BA:2427:C:C5'	2.41	0.51
24:BA:2441:U:O2'	24:BA:2442:C:H5'	2.11	0.51
27:BD:101:PHE:CE2	27:BD:203:VAL:HG22	2.41	0.51
33:BJ:32:LEU:O	33:BJ:36:LEU:HB2	2.11	0.51
33:BJ:70:THR:C	33:BJ:71:ASP:OD2	2.54	0.51
35:BL:77:ILE:HD12	35:BL:77:ILE:N	2.26	0.51
37:BN:69:ARG:O	37:BN:70:THR:OG1	2.26	0.51
40:BQ:93:ILE:HG23	40:BQ:94:LEU:N	2.25	0.51
43:BT:9:LYS:O	43:BT:9:LYS:HG3	2.09	0.51
46:BW:51:GLY:O	46:BW:52:CYS:C	2.51	0.51
47:BX:20:ALA:O	47:BX:21:LEU:HB2	2.11	0.51
48:BY:5:GLU:O	48:BY:6:LEU:C	2.54	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BZ:35:VAL:HG22	49:BZ:36:GLU:N	2.25	0.51
51:B1:16:THR:HB	51:B1:41:VAL:HG21	1.92	0.51
1:CB:25:LYS:HD2	1:CB:25:LYS:N	2.26	0.51
1:CB:70:GLY:HA3	1:CB:163:ILE:HG13	1.92	0.51
2:CC:128:MET:CE	2:CC:131:ARG:HD3	2.40	0.51
6:CG:120:ALA:C	6:CG:122:GLU:H	2.18	0.51
10:CK:80:ASN:C	10:CK:81:LEU:HD13	2.34	0.51
12:CM:28:ARG:HG2	12:CM:31:ALA:HB3	1.92	0.51
20:CU:23:GLU:O	20:CU:26:GLY:HA3	2.10	0.51
55:CA:9:G:C6	55:CA:26:A:N6	2.78	0.51
55:CA:70:U:C2	55:CA:94:G:C5	2.97	0.51
55:CA:91:U:C4	55:CA:92:U:C4	2.99	0.51
55:CA:577:G:C8	55:CA:816:A:C6	2.98	0.51
55:CA:602:A:C2	55:CA:603:U:C2	2.98	0.51
55:CA:819:A:C5	55:CA:1529:G:C6	2.99	0.51
55:CA:1479:C:H2'	55:CA:1480:A:C8	2.45	0.51
28:DE:48:THR:C	28:DE:50:ALA:H	2.18	0.51
30:DG:44:HIS:HA	30:DG:49:LEU:HA	1.93	0.51
34:DK:107:LEU:C	34:DK:109:SER:H	2.17	0.51
36:DM:38:ARG:CZ	36:DM:38:ARG:HB3	2.39	0.51
37:DN:82:GLU:O	37:DN:85:PRO:HD2	2.11	0.51
40:DQ:90:ASP:O	40:DQ:94:LEU:HB2	2.10	0.51
43:DT:50:LEU:HD23	43:DT:51:PHE:N	2.21	0.51
44:DU:12:VAL:HG21	44:DU:38:ILE:HG12	1.92	0.51
52:D2:9:VAL:HG12	24:DA:1309:G:OP1	2.11	0.51
24:DA:64:A:H2'	24:DA:65:U:H6	1.76	0.51
24:DA:100:U:O2'	24:DA:101:A:H5"	2.09	0.51
24:DA:1199:U:H2'	24:DA:1200:C:H6	1.74	0.51
24:DA:1759:A:C8	24:DA:2696:U:H1'	2.46	0.51
24:DA:1874:C:H2'	24:DA:1875:G:O4'	2.10	0.51
24:DA:1982:U:O2'	24:DA:1983:G:H5'	2.10	0.51
24:DA:2142:A:C3'	24:DA:2143:C:H4'	2.40	0.51
24:DA:2849:U:C4	24:DA:2867:G:H1'	2.46	0.51
56:DB:36:C:C5	56:DB:37:C:H5	2.28	0.51
2:AC:156:LEU:HD12	2:AC:156:LEU:H	1.76	0.51
3:AD:47:LEU:HD23	3:AD:47:LEU:H	1.76	0.51
3:AD:130:ASN:OD1	3:AD:130:ASN:C	2.54	0.51
4:AE:109:ALA:H	4:AE:111:ARG:NH2	2.08	0.51
4:AE:133:ILE:CG2	21:AA:1078:U:O2'	2.59	0.51
9:AJ:27:GLU:C	9:AJ:29:ALA:H	2.18	0.51
21:AA:234:C:H2'	21:AA:235:C:C6	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:559:A:C4	21:AA:561:U:C5	2.98	0.51
21:AA:652:U:O2'	21:AA:653:U:O5'	2.28	0.51
24:BA:63:A:H2'	24:BA:64:A:H8	1.76	0.51
24:BA:293:U:C4	24:BA:345:A:N1	2.78	0.51
24:BA:794:A:H2'	24:BA:795:C:C5	2.45	0.51
24:BA:1079:C:C2	24:BA:1080:A:C8	2.98	0.51
24:BA:1088:A:O4'	24:BA:1088:A:N3	2.44	0.51
24:BA:1257:C:O2'	28:BE:79:ARG:N	2.43	0.51
24:BA:1280:G:N2	24:BA:1281:G:H1'	2.25	0.51
24:BA:1400:U:O2'	24:BA:1401:G:H5'	2.10	0.51
24:BA:2067:G:O3'	24:BA:2068:U:H4'	2.11	0.51
24:BA:2199:A:C8	24:BA:2199:A:H5"	2.46	0.51
24:BA:2305:U:C4	24:BA:2306:C:C4	2.99	0.51
24:BA:2393:U:H2'	24:BA:2394:C:C6	2.44	0.51
24:BA:2691:C:C4	24:BA:2719:G:N2	2.78	0.51
24:BA:2766:A:C5	24:BA:2767:C:C5	2.98	0.51
27:BD:140:HIS:CE1	59:BD:401:HOH:O	2.64	0.51
28:BE:150:THR:HA	28:BE:189:THR:HG22	1.92	0.51
30:BG:84:LYS:HD2	30:BG:133:LYS:HG2	1.93	0.51
33:BJ:13:ARG:HD3	33:BJ:51:GLY:O	2.10	0.51
38:BO:78:VAL:O	38:BO:79:ALA:C	2.53	0.51
2:CC:181:ILE:HG12	2:CC:202:PHE:HA	1.92	0.51
5:CF:38:ARG:HD2	5:CF:63:ASN:HB2	1.93	0.51
8:CI:71:ILE:CD1	8:CI:72:SER:H	2.22	0.51
10:CK:59:PRO:HD3	10:CK:90:PRO:HB3	1.92	0.51
14:CO:2:LEU:CD1	14:CO:34:GLN:HG2	2.32	0.51
16:CQ:23:ALA:C	16:CQ:24:ILE:HD12	2.35	0.51
55:CA:83:C:C2	55:CA:87:C:N4	2.79	0.51
55:CA:457:G:OP2	55:CA:457:G:C8	2.64	0.51
55:CA:640:A:C2	55:CA:642:A:N6	2.79	0.51
55:CA:754:C:HO2'	55:CA:755:G:P	2.34	0.51
55:CA:838:G:H2'	55:CA:839:C:C6	2.45	0.51
27:DD:184:ARG:NH2	39:DP:6:GLN:HE21	2.01	0.51
29:DF:134:GLN:HE22	29:DF:136:ILE:H	1.59	0.51
30:DG:169:ARG:O	30:DG:170:THR:HB	2.11	0.51
33:DJ:43:GLU:O	33:DJ:43:GLU:CG	2.58	0.51
35:DL:65:GLY:O	35:DL:66:PHE:HB2	2.11	0.51
40:DQ:4:LYS:HE3	40:DQ:7:VAL:HG13	1.92	0.51
41:DR:26:ASP:O	41:DR:27:ILE:HD13	2.10	0.51
47:DX:31:ASN:HD22	47:DX:31:ASN:N	2.06	0.51
48:DY:18:LEU:HD13	48:DY:22:LEU:HD13	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DY:58:ASN:C	48:DY:60:LYS:H	2.19	0.51
50:D0:2:VAL:CG1	24:DA:2015:A:C2	2.93	0.51
24:DA:178:G:OP2	24:DA:178:G:C8	2.60	0.51
24:DA:304:U:H2'	24:DA:305:C:C6	2.46	0.51
24:DA:416:U:H2'	24:DA:417:C:C6	2.45	0.51
24:DA:573:U:N3	24:DA:2030:A:H3'	2.24	0.51
24:DA:635:C:O2	24:DA:639:U:H5"	2.10	0.51
24:DA:721:A:C4	24:DA:722:A:C8	2.99	0.51
24:DA:1005:C:H2'	24:DA:1006:C:H6	1.75	0.51
24:DA:1386:C:H2'	24:DA:1387:A:H8	1.74	0.51
24:DA:2533:U:H5"	24:DA:2534:A:OP2	2.11	0.51
1:AB:209:VAL:O	1:AB:211:LEU:N	2.44	0.51
4:AE:88:HIS:HB2	4:AE:138:ALA:HB2	1.91	0.51
4:AE:152:VAL:HB	4:AE:155:LYS:HZ2	1.76	0.51
11:AL:62:VAL:HG21	11:AL:94:TYR:CE2	2.37	0.51
14:AO:5:GLU:O	14:AO:9:LYS:HG3	2.11	0.51
16:AQ:16:MET:HG2	16:AQ:20:ILE:HD12	1.93	0.51
16:AQ:51:GLU:HG2	16:AQ:52:CYS:SG	2.51	0.51
18:AS:52:ASN:OD1	18:AS:54:ARG:HG3	2.11	0.51
21:AA:150:U:C4	21:AA:170:U:C4	2.99	0.51
21:AA:213:G:H2'	21:AA:214:C:C6	2.46	0.51
21:AA:291:U:O2'	21:AA:292:G:H5'	2.10	0.51
21:AA:984:C:O2'	21:AA:985:C:H5'	2.10	0.51
24:BA:115:C:O2'	24:BA:116:C:H5'	2.10	0.51
24:BA:638:G:H2'	24:BA:639:U:H6	1.73	0.51
24:BA:923:G:H4'	46:BW:25:PHE:CE1	2.44	0.51
24:BA:1079:C:C4	24:BA:1088:A:C2	2.98	0.51
24:BA:1865:U:C5	24:BA:1875:G:C2	2.98	0.51
24:BA:2281:A:C2	24:BA:2282:G:C5	2.99	0.51
24:BA:2286:G:O6	51:B1:22:THR:HG21	2.11	0.51
24:BA:2682:A:C8	27:BD:11:MET:HG2	2.46	0.51
27:BD:124:ARG:HG2	27:BD:125:TRP:NE1	2.25	0.51
29:BF:112:ASP:OD2	29:BF:114:ARG:HG3	2.11	0.51
39:BP:87:ARG:NH2	39:BP:111:GLU:HG3	2.26	0.51
46:BW:44:PHE:O	46:BW:78:PHE:HA	2.10	0.51
47:BX:5:GLN:HE21	47:BX:49:ARG:H	1.56	0.51
1:CB:113:LEU:HD13	1:CB:143:LEU:HB2	1.92	0.51
2:CC:148:ILE:HG23	2:CC:169:GLU:HB3	1.93	0.51
3:CD:10:LEU:CD2	3:CD:62:ARG:HD3	2.41	0.51
3:CD:136:VAL:HG12	3:CD:137:SER:N	2.26	0.51
4:CE:59:ILE:O	4:CE:62:ALA:HB3	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CG:68:VAL:O	6:CG:68:VAL:HG12	2.10	0.51
7:CH:124:ILE:C	7:CH:125:ILE:HG13	2.36	0.51
14:CO:22:GLY:O	14:CO:23:SER:C	2.54	0.51
19:CT:60:GLN:HA	19:CT:60:GLN:OE1	2.10	0.51
55:CA:206:C:C6	55:CA:206:C:C3'	2.94	0.51
55:CA:413:G:O2'	55:CA:428:G:N2	2.43	0.51
55:CA:764:C:C2'	55:CA:765:G:H5'	2.41	0.51
55:CA:919:A:O2'	55:CA:920:U:H5'	2.11	0.51
55:CA:1116:U:O2'	55:CA:1117:A:H5'	2.11	0.51
27:DD:3:GLY:O	27:DD:4:LEU:HD13	2.10	0.51
28:DE:72:SER:C	28:DE:74:LYS:H	2.18	0.51
29:DF:8:LYS:HB2	29:DF:8:LYS:NZ	2.26	0.51
31:DH:24:GLY:O	31:DH:28:ASN:HB2	2.10	0.51
31:DH:49:ALA:HB3	31:DH:50:ARG:HH22	1.76	0.51
33:DJ:124:VAL:HG22	33:DJ:125:TYR:O	2.09	0.51
35:DL:79:LEU:HB2	35:DL:113:ALA:N	2.10	0.51
35:DL:117:THR:HG22	35:DL:118:THR:N	2.25	0.51
36:DM:46:ILE:HD11	36:DM:69:PRO:HG3	1.92	0.51
38:DO:68:LYS:CA	56:DB:50:A:OP1	2.58	0.51
44:DU:85:ARG:HA	44:DU:85:ARG:HE	1.75	0.51
48:DY:1:MET:HG2	48:DY:4:LYS:NZ	2.25	0.51
24:DA:182:A:C2	24:DA:183:C:C2	2.99	0.51
24:DA:680:C:H2'	24:DA:681:G:H8	1.75	0.51
24:DA:874:G:H5'	24:DA:875:G:OP2	2.10	0.51
24:DA:1210:G:H21	24:DA:1212:G:N2	2.08	0.51
24:DA:1967:C:H2'	24:DA:1968:G:C8	2.46	0.51
24:DA:2204:G:C5	24:DA:2221:G:C2	2.98	0.51
24:DA:2330:G:N1	24:DA:2386:A:C6	2.79	0.51
4:AE:14:LEU:HD22	4:AE:15:ILE:H	1.72	0.51
4:AE:19:ARG:HB2	4:AE:32:PHE:CE1	2.44	0.51
7:AH:3:GLN:CA	21:AA:587:G:H4'	2.39	0.51
9:AJ:52:LEU:HB2	13:AN:80:ARG:HD2	1.92	0.51
21:AA:167:A:H2'	21:AA:168:G:O4'	2.11	0.51
21:AA:339:C:H2'	21:AA:340:U:C6	2.46	0.51
21:AA:559:A:C4	21:AA:561:U:H5	2.29	0.51
21:AA:563:A:N6	59:AA:1819:HOH:O	2.43	0.51
21:AA:934:C:C5	21:AA:1344:C:C2	2.99	0.51
21:AA:1039:G:C6	21:AA:1040:U:C4	2.99	0.51
21:AA:1261:A:H2'	21:AA:1262:C:O4'	2.11	0.51
24:BA:301:G:O2'	24:BA:302:C:P	2.69	0.51
24:BA:566:U:H2'	24:BA:567:U:O4'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:696:G:O2'	24:BA:697:G:H5'	2.11	0.51
24:BA:1169:A:OP2	24:BA:1169:A:C8	2.58	0.51
24:BA:1257:C:C2	24:BA:1258:U:C5	2.99	0.51
24:BA:1267:U:O2'	24:BA:1268:A:C5'	2.59	0.51
24:BA:1720:U:H2'	24:BA:1721:G:O4'	2.11	0.51
24:BA:1737:G:C6	24:BA:1738:G:C2	2.99	0.51
24:BA:2461:A:H2'	24:BA:2462:C:C6	2.46	0.51
26:BC:29:PHE:CZ	26:BC:31:PRO:HG2	2.46	0.51
26:BC:171:VAL:O	26:BC:182:LYS:HA	2.10	0.51
27:BD:111:GLY:O	27:BD:169:ARG:O	2.29	0.51
30:BG:120:ILE:HG21	30:BG:143:VAL:HG21	1.91	0.51
32:BI:56:VAL:HG11	32:BI:68:PHE:HD2	1.75	0.51
39:BP:52:ARG:O	39:BP:53:GLY:C	2.51	0.51
39:BP:89:GLY:O	39:BP:112:ARG:HD3	2.11	0.51
40:BQ:68:ALA:C	40:BQ:70:GLN:N	2.66	0.51
43:BT:19:LYS:O	43:BT:23:ALA:N	2.41	0.51
45:BV:72:VAL:HG12	45:BV:93:ARG:HA	1.92	0.51
47:BX:69:GLU:O	47:BX:71:ARG:N	2.44	0.51
1:CB:162:VAL:CG2	1:CB:163:ILE:N	2.73	0.51
10:CK:33:ILE:O	10:CK:41:LEU:HB2	2.10	0.51
55:CA:75:G:N2	55:CA:96:U:C2	2.79	0.51
55:CA:394:G:H2'	55:CA:395:C:C6	2.46	0.51
55:CA:1368:A:O2'	55:CA:1369:C:H5'	2.11	0.51
30:DG:1:SER:C	30:DG:3:VAL:N	2.68	0.51
32:DI:83:ALA:HB2	32:DI:99:LYS:O	2.11	0.51
34:DK:60:ALA:HB1	34:DK:85:VAL:O	2.11	0.51
35:DL:23:ILE:HG13	41:DR:82:HIS:ND1	2.26	0.51
40:DQ:54:ARG:HE	24:DA:1156:A:P	2.33	0.51
42:DS:19:LEU:HG	50:D0:21:LEU:HG	1.93	0.51
42:DS:28:LYS:HA	42:DS:70:LYS:HA	1.91	0.51
46:DW:37:VAL:HG23	46:DW:38:ARG:HD2	1.93	0.51
49:DZ:20:LYS:O	49:DZ:24:LEU:HD13	2.11	0.51
24:DA:27:G:O2'	24:DA:28:A:H8	1.94	0.51
24:DA:292:U:H2'	24:DA:293:U:C6	2.45	0.51
24:DA:458:G:N2	24:DA:469:G:H2'	2.25	0.51
24:DA:762:U:H4'	24:DA:763:G:O5'	2.11	0.51
24:DA:1071:G:O2'	24:DA:1072:C:H5'	2.11	0.51
24:DA:1917:U:H2'	24:DA:1918:A:H5'	1.93	0.51
24:DA:2553:G:H2'	24:DA:2554:U:C4'	2.41	0.51
2:AC:168:ARG:HD2	2:AC:169:GLU:N	2.26	0.51
2:AC:180:ASP:O	2:AC:181:ILE:HD13	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:56:PRO:O	4:AE:58:ALA:N	2.44	0.51
4:AE:145:ASN:HB2	7:AH:68:LYS:HE2	1.93	0.51
6:AG:121:ASN:O	6:AG:125:ASP:HB2	2.11	0.51
21:AA:860:A:H2'	21:AA:861:G:O4'	2.11	0.51
24:BA:13:A:C2	24:BA:526:A:C8	2.98	0.51
24:BA:229:C:H2'	24:BA:230:G:O4'	2.11	0.51
24:BA:646:U:H3'	24:BA:647:G:C5'	2.40	0.51
24:BA:721:A:H2'	24:BA:722:A:C8	2.45	0.51
24:BA:725:G:C6	24:BA:726:G:N1	2.79	0.51
24:BA:735:A:H3'	24:BA:736:C:C6	2.45	0.51
24:BA:910:A:C4	36:BM:13:HIS:CE1	2.99	0.51
24:BA:1439:A:C2	24:BA:1553:A:C5	2.99	0.51
24:BA:1581:G:C4	24:BA:1582:C:C5	2.98	0.51
24:BA:1713:A:O2'	24:BA:1715:G:H5'	2.11	0.51
24:BA:1820:U:O2	26:BC:200:MET:HB2	2.11	0.51
24:BA:2060:A:C2	24:BA:2502:G:C5	2.99	0.51
24:BA:2392:A:C8	24:BA:2429:G:N1	2.79	0.51
24:BA:2680:U:H5'	27:BD:194:PRO:HA	1.92	0.51
24:BA:2722:G:C2'	24:BA:2723:C:H5'	2.41	0.51
24:BA:2788:C:H2'	24:BA:2789:C:C6	2.46	0.51
25:BB:16:G:O2'	25:BB:17:C:O5'	2.29	0.51
29:BF:107:VAL:HG13	29:BF:113:PHE:CZ	2.46	0.51
29:BF:148:VAL:O	29:BF:150:GLY:N	2.44	0.51
30:BG:96:ALA:O	30:BG:97:VAL:HB	2.11	0.51
32:BI:60:VAL:HG22	32:BI:66:PHE:CB	2.41	0.51
34:BK:10:VAL:HB	34:BK:16:ALA:HB1	1.93	0.51
35:BL:82:LEU:C	35:BL:84:LYS:N	2.68	0.51
36:BM:21:ALA:HA	36:BM:97:GLN:CG	2.40	0.51
39:BP:56:SER:C	39:BP:75:THR:HG23	2.35	0.51
39:BP:67:GLU:CG	39:BP:68:GLY:H	2.15	0.51
43:BT:24:MET:HG3	43:BT:29:THR:CG2	2.41	0.51
43:BT:32:LEU:O	43:BT:34:VAL:HG13	2.10	0.51
44:BU:98:ASN:C	44:BU:98:ASN:OD1	2.54	0.51
46:BW:22:VAL:HG22	46:BW:23:LYS:N	2.24	0.51
48:BY:26:PHE:HD1	48:BY:27:ASN:HD22	1.59	0.51
49:BZ:8:GLN:O	49:BZ:53:MET:O	2.29	0.51
51:B1:42:VAL:O	51:B1:42:VAL:HG12	2.10	0.51
1:CB:187:ASP:C	1:CB:189:ASN:H	2.18	0.51
3:CD:100:VAL:O	3:CD:104:MET:HB3	2.11	0.51
4:CE:38:VAL:HG12	4:CE:39:GLY:N	2.26	0.51
4:CE:40:ASP:H	4:CE:117:ALA:HA	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CE:56:PRO:O	4:CE:57:ALA:C	2.53	0.51
5:CF:86:ARG:HD2	55:CA:673:A:H4'	1.91	0.51
6:CG:92:PRO:HA	6:CG:95:ARG:HB2	1.91	0.51
7:CH:26:MET:SD	7:CH:32:LYS:HD3	2.50	0.51
7:CH:33:VAL:HG22	7:CH:58:LEU:CD1	2.41	0.51
11:CL:9:LYS:HD3	11:CL:9:LYS:H	1.76	0.51
17:CR:23:LYS:C	17:CR:25:ILE:H	2.19	0.51
20:CU:53:LYS:HB2	20:CU:53:LYS:NZ	2.25	0.51
55:CA:39:G:H2'	55:CA:40:C:H6	1.76	0.51
55:CA:419:C:C5	55:CA:420:U:C5	2.98	0.51
55:CA:881:G:C5	55:CA:882:C:C5	2.99	0.51
55:CA:977:A:C2'	55:CA:1223:C:H42	2.24	0.51
55:CA:1276:G:C2'	55:CA:1277:C:H5'	2.40	0.51
27:DD:19:GLY:O	34:DK:72:PRO:HB2	2.11	0.51
28:DE:178:VAL:HG13	28:DE:179:SER:N	2.26	0.51
29:DF:113:PHE:HE2	29:DF:116:LEU:HB2	1.76	0.51
30:DG:104:LEU:N	30:DG:112:VAL:HG23	2.24	0.51
35:DL:73:ILE:O	35:DL:105:ILE:HA	2.11	0.51
35:DL:100:ILE:O	35:DL:101:ILE:CB	2.59	0.51
36:DM:133:LYS:O	36:DM:134:THR:HB	2.11	0.51
43:DT:30:ILE:HD12	43:DT:31:VAL:H	1.76	0.51
24:DA:301:G:O2'	24:DA:302:C:P	2.69	0.51
24:DA:500:G:H1'	24:DA:505:A:N6	2.25	0.51
24:DA:518:G:C4	24:DA:519:U:C5	2.99	0.51
24:DA:867:C:O2	24:DA:867:C:H2'	2.11	0.51
24:DA:876:C:H3'	24:DA:877:A:H8	1.75	0.51
24:DA:1572:A:H2'	24:DA:1573:G:H8	1.76	0.51
24:DA:1931:U:H2'	24:DA:1932:A:C8	2.45	0.51
24:DA:2078:C:C4	24:DA:2079:U:C4	2.98	0.51
24:DA:2091:C:OP2	24:DA:2092:U:H3'	2.10	0.51
1:AB:209:VAL:O	1:AB:210:THR:C	2.53	0.51
3:AD:125:ASN:HA	3:AD:141:VAL:CG2	2.41	0.51
4:AE:67:ARG:O	4:AE:70:MET:HE3	2.11	0.51
7:AH:121:GLY:O	21:AA:599:C:H4'	2.11	0.51
16:AQ:68:LYS:HD3	21:AA:253:A:OP2	2.11	0.51
18:AS:10:ILE:HD11	18:AS:15:LEU:HD13	1.91	0.51
21:AA:15:G:C5	21:AA:1396:A:N1	2.80	0.51
21:AA:22:G:C5	21:AA:23:C:C5	2.98	0.51
21:AA:453:G:C4	21:AA:454:G:C8	2.98	0.51
21:AA:517:G:O2'	21:AA:530:G:H4'	2.10	0.51
21:AA:1051:C:O2'	21:AA:1052:U:C6	2.64	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:1169:A:O2'	21:AA:1170:A:H5'	2.11	0.51
21:AA:1324:A:O2'	21:AA:1325:C:O4'	2.29	0.51
24:BA:141:G:H5"	24:BA:142:A:N9	2.26	0.51
24:BA:322:A:OP1	28:BE:162:ARG:NE	2.44	0.51
24:BA:627:A:O2'	24:BA:628:G:C8	2.62	0.51
24:BA:653:U:C5'	24:BA:654:A:H2	2.24	0.51
24:BA:671:C:H3'	35:BL:42:SER:OG	2.11	0.51
24:BA:919:U:N3	24:BA:920:A:N7	2.58	0.51
24:BA:1239:G:H2'	24:BA:1240:U:O4'	2.11	0.51
24:BA:1467:U:C4	24:BA:1546:G:C2	2.99	0.51
24:BA:1472:C:H2'	24:BA:1473:G:H8	1.76	0.51
24:BA:1731:G:N3	24:BA:1733:G:N7	2.58	0.51
24:BA:1766:G:C2	24:BA:1767:G:C8	2.99	0.51
24:BA:2256:G:C5	24:BA:2257:U:C5	2.99	0.51
26:BC:20:ASN:C	26:BC:20:ASN:ND2	2.67	0.51
28:BE:72:SER:HG	28:BE:74:LYS:HB2	1.76	0.51
29:BF:46:LYS:HD2	29:BF:46:LYS:N	2.25	0.51
33:BJ:88:THR:HG21	33:BJ:90:GLU:HG3	1.93	0.51
39:BP:91:VAL:O	39:BP:92:ARG:HG2	2.11	0.51
40:BQ:63:ARG:NH2	40:BQ:96:ASP:CA	2.74	0.51
41:BR:39:LEU:HA	41:BR:49:ILE:CG2	2.41	0.51
42:BS:20:VAL:HA	42:BS:23:LEU:HD12	1.93	0.51
46:BW:39:GLN:HG3	46:BW:42:THR:CA	2.41	0.51
47:BX:77:TYR:O	47:BX:77:TYR:CG	2.64	0.51
1:CB:67:LEU:CD1	1:CB:157:PRO:HG3	2.40	0.51
2:CC:25:THR:HG23	13:CN:75:LYS:HD2	1.93	0.51
2:CC:187:GLU:O	2:CC:188:ALA:HB2	2.11	0.51
3:CD:84:ASN:HD22	3:CD:84:ASN:C	2.18	0.51
5:CF:23:GLU:HG3	5:CF:24:ARG:N	2.26	0.51
8:CI:25:GLY:HA3	8:CI:58:GLU:N	2.25	0.51
11:CL:2:THR:O	11:CL:5:GLN:HB3	2.11	0.51
11:CL:41:PRO:HD2	11:CL:47:ALA:O	2.10	0.51
12:CM:47:LEU:HD23	12:CM:47:LEU:O	2.11	0.51
15:CP:5:ARG:NH1	15:CP:24:SER:HA	2.26	0.51
55:CA:100:G:C6	55:CA:101:A:C5	2.99	0.51
55:CA:129:A:O2'	55:CA:130:A:O5'	2.29	0.51
55:CA:403:C:O2'	55:CA:404:G:H5'	2.11	0.51
55:CA:629:A:H2'	55:CA:630:A:C8	2.47	0.51
55:CA:892:A:C2	55:CA:907:A:C4	2.99	0.51
55:CA:1026:G:H22	55:CA:1036:A:H61	1.58	0.51
55:CA:1068:G:O2'	55:CA:1069:C:H5'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DD:172:VAL:HG21	27:DD:194:PRO:HD2	1.91	0.51
27:DD:181:ASP:C	27:DD:183:GLU:H	2.17	0.51
28:DE:60:TRP:O	28:DE:67:ARG:NH1	2.44	0.51
28:DE:139:LYS:HB2	28:DE:139:LYS:NZ	2.25	0.51
29:DF:48:LEU:HG	29:DF:49:LEU:HD22	1.93	0.51
30:DG:70:LEU:O	30:DG:74:MET:HB2	2.11	0.51
32:DI:5:GLN:OE1	32:DI:59:THR:HG21	2.11	0.51
40:DQ:47:ARG:NH1	24:DA:560:C:H1'	2.25	0.51
40:DQ:111:LYS:CE	41:DR:48:LYS:HD3	2.41	0.51
41:DR:68:ARG:NH1	41:DR:90:ARG:HG2	2.25	0.51
43:DT:39:THR:OG1	43:DT:42:GLU:HG3	2.10	0.51
43:DT:60:THR:HG22	43:DT:83:ALA:HA	1.93	0.51
46:DW:33:GLY:O	46:DW:34:SER:CB	2.58	0.51
46:DW:37:VAL:CG1	46:DW:55:ASP:HB2	2.31	0.51
47:DX:19:HIS:O	47:DX:20:ALA:HB3	2.11	0.51
49:DZ:16:LEU:HD21	56:DB:83:G:OP1	2.11	0.51
53:D3:41:ARG:CG	53:D3:41:ARG:NH2	2.74	0.51
24:DA:17:G:H2'	24:DA:18:U:C6	2.46	0.51
24:DA:227:A:H4'	24:DA:228:C:OP1	2.10	0.51
24:DA:243:U:O2'	24:DA:244:A:C5'	2.50	0.51
24:DA:363:G:H2'	24:DA:364:C:C5	2.46	0.51
24:DA:749:A:C4	24:DA:750:A:C8	2.99	0.51
24:DA:1060:U:O2'	24:DA:1061:U:H5"	2.10	0.51
24:DA:1392:A:N6	24:DA:1393:A:N6	2.59	0.51
24:DA:1847:A:O2'	24:DA:1848:A:N7	2.41	0.51
24:DA:1891:G:H2'	24:DA:1892:C:C6	2.46	0.51
24:DA:2430:A:C3'	24:DA:2431:U:H5'	2.41	0.51
24:DA:2485:G:O2'	24:DA:2486:C:H5'	2.11	0.51
1:AB:71:THR:C	1:AB:72:LYS:HG2	2.36	0.50
10:AK:124:LYS:O	10:AK:125:LYS:O	2.28	0.50
14:AO:24:THR:O	14:AO:28:VAL:HG23	2.11	0.50
16:AQ:66:LEU:HB2	16:AQ:70:LYS:HG2	1.92	0.50
21:AA:355:C:O4'	21:AA:388:G:O2'	2.29	0.50
21:AA:1151:A:N6	21:AA:1152:A:N6	2.59	0.50
22:AV:37:A:H2'	22:AV:38:A:O4'	2.10	0.50
24:BA:19:A:H2'	24:BA:20:C:C6	2.46	0.50
24:BA:302:C:H2'	24:BA:303:G:H8	1.75	0.50
24:BA:492:A:H2'	24:BA:493:G:O4'	2.11	0.50
24:BA:914:G:H5"	24:BA:914:G:H8	1.76	0.50
24:BA:995:C:H42	33:BJ:2:LYS:HB2	1.76	0.50
24:BA:1286:A:O2'	24:BA:1288:G:OP2	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1387:A:H2'	24:BA:1388:G:C8	2.45	0.50
24:BA:1499:C:H2'	24:BA:1500:G:H8	1.76	0.50
24:BA:1525:A:H2'	24:BA:1526:C:O4'	2.10	0.50
24:BA:1821:A:O2'	24:BA:1822:C:O4'	2.21	0.50
24:BA:2422:C:N4	24:BA:2424:C:N4	2.58	0.50
24:BA:2562:U:H1'	34:BK:23:LYS:HD3	1.93	0.50
24:BA:2586:U:H6	24:BA:2586:U:O5'	1.94	0.50
24:BA:2734:A:N6	24:BA:2770:G:H1'	2.26	0.50
26:BC:252:LYS:HB2	26:BC:252:LYS:NZ	2.26	0.50
27:BD:113:SER:HB2	27:BD:114:LYS:HZ1	1.75	0.50
30:BG:33:THR:HA	30:BG:34:ARG:NH1	2.26	0.50
32:BI:126:ARG:HD3	32:BI:126:ARG:H	1.76	0.50
33:BJ:54:ILE:HD11	33:BJ:56:VAL:HG22	1.92	0.50
38:BO:3:LYS:HG3	38:BO:4:LYS:N	2.26	0.50
39:BP:50:ARG:CD	39:BP:56:SER:HB3	2.35	0.50
40:BQ:13:HIS:HD2	40:BQ:31:TYR:CE1	2.29	0.50
43:BT:54:GLU:O	43:BT:55:VAL:HB	2.10	0.50
3:CD:28:ASP:O	3:CD:29:THR:O	2.28	0.50
4:CE:77:ASN:HB3	4:CE:79:THR:CG2	2.38	0.50
5:CF:44:ARG:HD3	5:CF:56:LYS:HZ1	1.76	0.50
8:CI:51:LEU:C	8:CI:53:LEU:N	2.68	0.50
55:CA:128:G:N2	55:CA:234:C:C2	2.78	0.50
55:CA:1033:G:H2'	55:CA:1034:G:O4'	2.11	0.50
55:CA:1213:A:C8	55:CA:1215:G:N7	2.79	0.50
28:DE:49:ARG:HH12	28:DE:72:SER:CB	2.24	0.50
29:DF:32:LYS:HB2	29:DF:32:LYS:NZ	2.26	0.50
29:DF:111:ARG:HG3	29:DF:135:ILE:HG12	1.93	0.50
33:DJ:25:LEU:HD22	33:DJ:26:GLY:H	1.72	0.50
35:DL:33:ARG:NH1	24:DA:671:C:OP1	2.40	0.50
37:DN:1:MET:O	37:DN:2:ARG:CB	2.59	0.50
53:D3:33:THR:HB	24:DA:2420:C:OP1	2.11	0.50
24:DA:67:U:H2'	24:DA:68:G:C8	2.31	0.50
24:DA:116:C:N4	24:DA:117:G:C6	2.79	0.50
24:DA:379:G:C6	24:DA:396:G:C6	3.00	0.50
24:DA:638:G:O2'	24:DA:639:U:H5'	2.11	0.50
24:DA:1791:A:N6	24:DA:1828:G:O2'	2.44	0.50
24:DA:2226:C:H2'	24:DA:2227:A:H8	1.74	0.50
24:DA:2797:U:O2'	24:DA:2798:U:P	2.69	0.50
3:AD:3:TYR:OH	3:AD:6:PRO:HD2	2.11	0.50
7:AH:17:GLN:HE21	7:AH:71:VAL:CG2	2.20	0.50
8:AI:51:LEU:HB3	8:AI:56:MET:HG2	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AK:43:TRP:CZ3	10:AK:45:THR:HG23	2.46	0.50
11:AL:42:LYS:HE2	11:AL:43:LYS:NZ	2.14	0.50
12:AM:68:LEU:C	12:AM:70:ARG:N	2.69	0.50
21:AA:33:A:C2	21:AA:34:C:C2	2.99	0.50
21:AA:1049:U:O2'	21:AA:1050:G:OP2	2.28	0.50
21:AA:1130:A:C5	21:AA:1146:A:C6	2.99	0.50
21:AA:1211:U:O2'	21:AA:1212:U:OP2	2.23	0.50
21:AA:1213:A:C8	21:AA:1215:G:C5	2.99	0.50
24:BA:481:G:HO2'	24:BA:482:A:P	2.33	0.50
24:BA:1110:G:O2'	24:BA:1111:A:C8	2.65	0.50
24:BA:1232:G:C6	24:BA:1233:C:C4	3.00	0.50
24:BA:1250:G:N7	35:BL:18:ARG:NH1	2.59	0.50
24:BA:1340:U:C5	24:BA:1603:A:H8	2.29	0.50
24:BA:1630:A:C2'	24:BA:1631:G:H5'	2.41	0.50
24:BA:1694:C:H4'	24:BA:1695:G:O5'	2.11	0.50
24:BA:1866:A:H2'	24:BA:1867:G:O4'	2.12	0.50
24:BA:2038:G:H2'	24:BA:2039:U:O4'	2.11	0.50
24:BA:2062:A:O2'	24:BA:2063:C:H5'	2.11	0.50
25:BB:42:C:H2'	25:BB:43:C:C6	2.47	0.50
26:BC:208:GLY:HA2	26:BC:211:ARG:HB2	1.92	0.50
28:BE:147:LEU:O	28:BE:148:ILE:C	2.54	0.50
30:BG:37:ASN:HB3	30:BG:40:VAL:HG13	1.92	0.50
30:BG:75:VAL:HG12	30:BG:76:ILE:N	2.27	0.50
31:BH:8:LYS:O	31:BH:9:VAL:CB	2.58	0.50
32:BI:3:LYS:CD	32:BI:4:VAL:HG23	2.41	0.50
32:BI:56:VAL:HG23	32:BI:69:VAL:O	2.11	0.50
36:BM:25:ASP:N	36:BM:25:ASP:OD2	2.44	0.50
40:BQ:63:ARG:NH1	40:BQ:96:ASP:HB2	2.18	0.50
43:BT:29:THR:CA	43:BT:86:THR:HA	2.41	0.50
48:BY:40:SER:C	48:BY:42:LEU:N	2.69	0.50
1:CB:26:MET:HE3	1:CB:192:PRO:HG3	1.94	0.50
1:CB:66:ILE:HB	1:CB:88:GLN:HB3	1.93	0.50
1:CB:208:ALA:O	1:CB:211:LEU:HB3	2.11	0.50
4:CE:28:ARG:HG2	4:CE:29:ILE:N	2.27	0.50
8:CI:44:ARG:NH1	8:CI:44:ARG:HB3	2.27	0.50
12:CM:52:ILE:C	12:CM:54:THR:H	2.17	0.50
20:CU:31:VAL:O	20:CU:33:ARG:N	2.43	0.50
20:CU:43:GLU:CD	55:CA:1534:A:N6	2.69	0.50
55:CA:93:U:C2	55:CA:95:C:N4	2.79	0.50
55:CA:577:G:C8	55:CA:816:A:N1	2.79	0.50
55:CA:610:U:O2	55:CA:610:U:O4'	2.30	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:964:A:OP1	59:CA:1837:HOH:O	2.19	0.50
55:CA:977:A:H4'	55:CA:981:U:O2	2.11	0.50
55:CA:1157:A:C2	55:CA:1181:G:C4	2.99	0.50
55:CA:1200:C:O2'	55:CA:1201:A:OP2	2.26	0.50
26:DC:8:THR:O	26:DC:9:SER:CB	2.60	0.50
26:DC:43:ASN:ND2	26:DC:44:ASN:N	2.57	0.50
27:DD:17:GLU:CD	27:DD:17:GLU:H	2.19	0.50
27:DD:94:GLN:O	27:DD:95:SER:C	2.53	0.50
27:DD:137:SER:HB3	27:DD:138:LEU:HD22	1.93	0.50
29:DF:107:VAL:C	29:DF:109:ARG:H	2.18	0.50
33:DJ:123:LYS:N	33:DJ:123:LYS:HD2	2.26	0.50
35:DL:20:GLY:CA	35:DL:28:GLY:HA2	2.40	0.50
37:DN:45:ARG:C	37:DN:47:VAL:H	2.18	0.50
39:DP:55:HIS:HB3	24:DA:2683:C:H5'	1.92	0.50
43:DT:75:GLY:HA3	24:DA:65:U:H5'	1.94	0.50
44:DU:26:ASN:O	44:DU:34:ILE:HB	2.11	0.50
45:DV:57:TYR:CD2	45:DV:74:ALA:CB	2.93	0.50
46:DW:30:VAL:HG21	24:DA:2353:G:H21	1.74	0.50
46:DW:54:ARG:HG3	24:DA:2365:G:OP1	2.11	0.50
47:DX:24:THR:O	47:DX:25:LYS:C	2.54	0.50
48:DY:53:VAL:O	48:DY:57:LEU:HB2	2.11	0.50
24:DA:28:A:O2'	24:DA:583:G:H5'	2.11	0.50
24:DA:503:A:H4'	24:DA:504:A:O5'	2.11	0.50
24:DA:783:A:C2	24:DA:785:G:H1'	2.46	0.50
24:DA:1517:G:H2'	24:DA:1518:C:C6	2.45	0.50
24:DA:1682:G:H2'	24:DA:1683:U:C6	2.46	0.50
24:DA:1809:A:C2'	24:DA:1810:A:C8	2.94	0.50
24:DA:2100:G:O6	24:DA:2190:G:C6	2.65	0.50
24:DA:2319:G:H8	24:DA:2319:G:OP2	1.94	0.50
24:DA:2407:A:O2'	24:DA:2408:U:C5'	2.59	0.50
1:AB:46:VAL:HA	1:AB:49:PHE:CE2	2.46	0.50
1:AB:89:PHE:CE1	1:AB:153:MET:HG3	2.46	0.50
4:AE:33:THR:HG22	4:AE:51:LYS:CB	2.41	0.50
8:AI:79:ARG:CZ	8:AI:102:PHE:HD1	2.25	0.50
9:AJ:10:LEU:HD12	9:AJ:10:LEU:N	2.26	0.50
13:AN:48:GLN:HA	13:AN:48:GLN:NE2	2.25	0.50
20:AU:5:VAL:CG2	20:AU:16:ARG:HD3	2.41	0.50
21:AA:33:A:H2'	21:AA:34:C:H6	1.68	0.50
21:AA:737:C:H2'	21:AA:738:C:C6	2.46	0.50
21:AA:738:C:C2	21:AA:739:C:C5	3.00	0.50
21:AA:1157:A:N6	21:AA:1178:G:H1'	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:1238:A:H5'	21:AA:1336:C:H41	1.77	0.50
21:AA:1322:C:O2'	21:AA:1323:G:C5'	2.59	0.50
21:AA:1357:A:C5	21:AA:1358:U:C4	2.99	0.50
24:BA:301:G:HO2'	24:BA:302:C:C5'	2.23	0.50
24:BA:585:G:C2	24:BA:1256:G:C6	3.00	0.50
24:BA:619:G:H5"	24:BA:620:G:OP2	2.11	0.50
24:BA:644:A:H2'	24:BA:645:C:O4'	2.11	0.50
24:BA:959:A:N6	36:BM:82:MET:HE3	2.27	0.50
24:BA:1076:C:H4'	32:BI:94:LYS:HE2	1.93	0.50
24:BA:1957:C:H2'	24:BA:1958:C:C6	2.47	0.50
24:BA:2188:U:H2'	24:BA:2189:U:O4'	2.12	0.50
24:BA:2203:U:H5"	24:BA:2204:G:OP1	2.10	0.50
24:BA:2276:G:O2'	24:BA:2277:G:H5'	2.11	0.50
24:BA:2352:A:C2	46:BW:30:VAL:HG11	2.46	0.50
25:BB:78:A:H2'	25:BB:79:G:O4'	2.11	0.50
27:BD:133:THR:HG23	27:BD:134:HIS:HD2	1.73	0.50
29:BF:79:ARG:O	29:BF:82:TYR:HB2	2.11	0.50
29:BF:168:LEU:O	29:BF:168:LEU:HD12	2.11	0.50
33:BJ:65:THR:HG22	33:BJ:68:LYS:NZ	2.25	0.50
35:BL:94:THR:HG22	35:BL:95:LEU:N	2.26	0.50
38:BO:59:ALA:HA	38:BO:62:LEU:HD12	1.93	0.50
38:BO:104:GLN:C	38:BO:105:ALA:O	2.51	0.50
42:BS:37:THR:O	42:BS:37:THR:HG22	2.11	0.50
50:B0:16:ARG:O	50:B0:18:HIS:N	2.43	0.50
2:CC:18:ASN:HB3	2:CC:39:ARG:NH2	2.27	0.50
4:CE:43:GLY:O	4:CE:73:VAL:HB	2.11	0.50
4:CE:131:ASN:HD22	4:CE:132:PRO:HD2	1.76	0.50
7:CH:121:GLY:C	55:CA:599:C:H4'	2.36	0.50
8:CI:23:GLY:H	8:CI:61:ASP:H	1.57	0.50
10:CK:78:ILE:N	10:CK:78:ILE:HD13	2.27	0.50
16:CQ:7:LEU:HB2	16:CQ:60:ILE:CD1	2.41	0.50
18:CS:28:LYS:HB3	18:CS:29:PRO:HD2	1.93	0.50
20:CU:40:PRO:HA	20:CU:43:GLU:HB2	1.93	0.50
55:CA:462:G:C5	55:CA:463:U:C4	2.99	0.50
55:CA:519:C:H6	55:CA:519:C:H5"	1.76	0.50
55:CA:793:U:O2	55:CA:1516:G:H4'	2.11	0.50
55:CA:966:G:H2'	55:CA:967:C:C6	2.46	0.50
55:CA:1024:G:H8	55:CA:1024:G:OP2	1.93	0.50
55:CA:1051:C:O2'	55:CA:1052:U:H6	1.92	0.50
55:CA:1082:A:O2'	55:CA:1083:U:H5'	2.11	0.50
55:CA:1398:A:H5"	55:CA:1398:A:H8	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:63:LYS:NZ	24:DA:2060:A:C8	2.80	0.50
28:DE:165:HIS:CE1	24:DA:1205:A:C6	2.99	0.50
31:DH:41:LYS:N	31:DH:44:ILE:HG23	2.25	0.50
31:DH:120:GLY:O	31:DH:121:VAL:HB	2.12	0.50
32:DI:118:GLY:O	32:DI:123:ALA:HB3	2.10	0.50
33:DJ:45:THR:HG21	33:DJ:50:THR:CG2	2.40	0.50
33:DJ:82:GLY:O	33:DJ:84:ILE:N	2.42	0.50
33:DJ:97:PRO:C	33:DJ:99:ARG:H	2.18	0.50
43:DT:39:THR:C	43:DT:41:ALA:H	2.18	0.50
46:DW:9:THR:OG1	46:DW:10:ARG:N	2.43	0.50
24:DA:155:A:H2'	24:DA:156:A:C8	2.47	0.50
24:DA:283:G:C5	24:DA:284:U:C4	2.99	0.50
24:DA:647:G:O2'	24:DA:648:G:O4'	2.30	0.50
24:DA:1022:G:C6	24:DA:1140:C:C5	3.00	0.50
24:DA:1057:A:N3	24:DA:1082:U:C2	2.79	0.50
24:DA:1107:G:H2'	24:DA:1108:U:O4'	2.12	0.50
24:DA:1906:G:C8	24:DA:1929:G:C4	2.99	0.50
24:DA:2067:G:C4	24:DA:2444:G:N2	2.79	0.50
3:AD:68:GLU:HG3	21:AA:545:C:H5'	1.93	0.50
3:AD:145:ARG:C	3:AD:147:LYS:H	2.19	0.50
6:AG:14:ASP:HB3	6:AG:18:GLY:N	2.27	0.50
6:AG:21:LEU:HD23	6:AG:24:LYS:HE2	1.92	0.50
6:AG:91:ARG:O	6:AG:93:VAL:N	2.44	0.50
8:AI:28:VAL:O	8:AI:29:ILE:C	2.54	0.50
8:AI:117:LEU:HD22	8:AI:123:ARG:HD3	1.93	0.50
21:AA:6:G:O2'	21:AA:7:A:O5'	2.27	0.50
21:AA:211:G:N2	21:AA:212:G:C4	2.80	0.50
21:AA:214:C:O2'	21:AA:215:C:H6	1.94	0.50
21:AA:797:C:O2'	21:AA:798:U:H5'	2.11	0.50
21:AA:1319:A:C4'	21:AA:1320:C:OP1	2.55	0.50
22:AV:36:U:C4	22:AV:37:A:N7	2.80	0.50
22:AV:41:C:C2	22:AV:42:G:C8	3.00	0.50
24:BA:301:G:O2'	24:BA:302:C:C5'	2.59	0.50
24:BA:358:U:H2'	24:BA:359:G:O4'	2.11	0.50
24:BA:394:C:H2'	24:BA:395:U:O4'	2.10	0.50
24:BA:529:A:C4	24:BA:2023:C:C5	2.99	0.50
24:BA:615:U:C4	28:BE:35:TYR:CZ	3.00	0.50
24:BA:659:G:H21	28:BE:30:GLN:NE2	2.07	0.50
24:BA:809:G:O2'	24:BA:810:U:H5'	2.11	0.50
24:BA:1300:G:N2	24:BA:1634:A:C4	2.80	0.50
24:BA:1322:A:C5	24:BA:1323:C:C5	2.99	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2076:U:H5”	24:BA:2238:G:N2	2.24	0.50
24:BA:2210:U:C2	24:BA:2212:A:N7	2.80	0.50
24:BA:2330:G:H21	46:BW:38:ARG:HA	1.76	0.50
24:BA:2385:C:H2’	24:BA:2386:A:C8	2.45	0.50
24:BA:2842:G:O2’	24:BA:2843:G:H5’	2.11	0.50
28:BE:46:GLN:HG2	28:BE:87:ALA:H	1.75	0.50
28:BE:83:VAL:HG12	28:BE:86:ALA:N	2.25	0.50
30:BG:102:ILE:HD12	30:BG:147:LEU:CD1	2.41	0.50
31:BH:68:ARG:HH21	31:BH:69:ALA:HA	1.75	0.50
32:BI:24:GLY:O	32:BI:27:LEU:HG	2.11	0.50
40:BQ:114:ALA:C	40:BQ:116:LEU:N	2.68	0.50
42:BS:73:LYS:HB3	42:BS:106:VAL:HB	1.93	0.50
46:BW:19:ARG:NH1	46:BW:22:VAL:CG1	2.74	0.50
1:CB:161:PHE:CZ	1:CB:216:VAL:HG21	2.46	0.50
2:CC:18:ASN:ND2	2:CC:53:ARG:HD3	2.26	0.50
5:CF:49:TYR:HE1	17:CR:62:ARG:O	1.95	0.50
6:CG:115:MET:C	6:CG:117:LEU:N	2.70	0.50
8:CI:24:ASN:ND2	8:CI:26:LYS:HD2	2.26	0.50
11:CL:8:ARG:HB3	11:CL:9:LYS:HD3	1.93	0.50
20:CU:24:LYS:C	20:CU:26:GLY:N	2.67	0.50
55:CA:428:G:O4’	55:CA:430:A:C8	2.65	0.50
55:CA:949:A:H2’	55:CA:950:U:H6	1.76	0.50
55:CA:1255:G:N2	55:CA:1283:U:N3	2.57	0.50
26:DC:43:ASN:CG	26:DC:44:ASN:H	2.19	0.50
28:DE:131:THR:OG1	24:DA:320:A:H2’	2.10	0.50
29:DF:135:ILE:O	29:DF:137:PHE:N	2.37	0.50
31:DH:68:ARG:CD	31:DH:71:LYS:HB2	2.41	0.50
33:DJ:65:THR:O	33:DJ:68:LYS:NZ	2.43	0.50
43:DT:76:ARG:HG2	43:DT:77:ARG:N	2.27	0.50
45:DV:63:ILE:HD13	45:DV:72:VAL:CG2	2.41	0.50
46:DW:18:LYS:HE3	46:DW:19:ARG:CZ	2.42	0.50
24:DA:271:G:O2’	24:DA:272:A:P	2.69	0.50
24:DA:391:A:N3	24:DA:391:A:C2’	2.74	0.50
24:DA:483:A:H2’	24:DA:483:A:N3	2.26	0.50
24:DA:559:G:O2’	24:DA:560:C:H5’	2.11	0.50
24:DA:653:U:OP1	24:DA:653:U:H4’	2.11	0.50
24:DA:699:A:H2’	24:DA:700:G:O4’	2.12	0.50
24:DA:704:G:O2’	24:DA:726:G:N2	2.45	0.50
24:DA:975:A:H2’	24:DA:976:G:C8	2.42	0.50
24:DA:2147:A:OP1	24:DA:2147:A:H4’	2.12	0.50
24:DA:2605:U:C2	24:DA:2606:C:C5	2.99	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AB:165:ALA:HA	1:AB:172:ILE:CD1	2.42	0.50
4:AE:18:ASN:ND2	4:AE:19:ARG:H	2.10	0.50
10:AK:119:GLY:CA	21:AA:716:A:H1'	2.26	0.50
21:AA:97:G:H2'	21:AA:98:A:O4'	2.12	0.50
21:AA:261:U:H2'	21:AA:263:A:OP2	2.11	0.50
21:AA:372:C:H2'	21:AA:387:U:O4	2.11	0.50
21:AA:1087:G:N2	21:AA:1088:G:C4	2.80	0.50
24:BA:71:A:H4'	24:BA:72:U:H5"	1.92	0.50
24:BA:532:A:C8	24:BA:2021:C:C5	3.00	0.50
24:BA:728:G:O2'	24:BA:730:A:H8	1.95	0.50
24:BA:1178:C:O2	24:BA:1178:C:H2'	2.09	0.50
24:BA:1184:U:O2'	24:BA:1185:G:H5'	2.11	0.50
24:BA:1288:G:C8	24:BA:1327:A:C6	3.00	0.50
24:BA:1425:G:H2'	24:BA:1426:G:C8	2.47	0.50
24:BA:1469:A:H2'	24:BA:1470:A:C8	2.47	0.50
24:BA:1471:G:C6	24:BA:1472:C:C4	2.99	0.50
24:BA:1730:C:H1'	24:BA:1731:G:C2	2.46	0.50
24:BA:2209:G:C5	24:BA:2210:U:C4	2.99	0.50
24:BA:2327:A:H5"	24:BA:2327:A:H8	1.75	0.50
24:BA:2358:A:H61	35:BL:54:GLN:HE22	1.58	0.50
24:BA:2395:C:H2'	24:BA:2396:G:O4'	2.11	0.50
25:BB:90:C:H6	25:BB:90:C:C5'	2.18	0.50
27:BD:20:VAL:HG12	27:BD:21:SER:N	2.25	0.50
29:BF:7:TYR:O	29:BF:12:VAL:HG12	2.12	0.50
29:BF:40:GLY:CA	29:BF:84:ILE:HD11	2.42	0.50
30:BG:10:VAL:O	30:BG:10:VAL:CG2	2.54	0.50
30:BG:21:GLN:O	30:BG:36:LEU:HD13	2.11	0.50
36:BM:14:LYS:O	36:BM:15:GLY:O	2.30	0.50
38:BO:33:ARG:HG2	38:BO:34:HIS:ND1	2.27	0.50
39:BP:12:MET:HE3	39:BP:76:HIS:NE2	2.26	0.50
39:BP:57:ALA:HA	39:BP:75:THR:HG22	1.92	0.50
40:BQ:91:ARG:HB3	40:BQ:93:ILE:HG22	1.93	0.50
44:BU:3:LYS:O	44:BU:82:VAL:HG21	2.11	0.50
48:BY:7:ARG:HA	48:BY:60:LYS:HZ1	1.77	0.50
48:BY:12:GLU:O	48:BY:15:ASN:HB2	2.10	0.50
51:B1:3:GLY:O	51:B1:5:ARG:N	2.43	0.50
3:CD:59:LYS:O	3:CD:60:VAL:C	2.52	0.50
3:CD:167:PRO:CG	3:CD:170:LEU:HD11	2.41	0.50
8:CI:18:VAL:HG13	8:CI:64:ILE:HG13	1.94	0.50
11:CL:29:LYS:O	11:CL:81:ILE:HG22	2.11	0.50
11:CL:111:GLN:HB3	55:CA:538:G:OP2	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CN:23:ARG:HA	13:CN:26:LEU:HB2	1.94	0.50
13:CN:82:LYS:O	13:CN:83:VAL:C	2.55	0.50
55:CA:113:G:H1'	55:CA:354:G:H5'	1.94	0.50
55:CA:585:G:C2	55:CA:586:C:C2	3.00	0.50
55:CA:892:A:O2'	55:CA:1415:G:H4'	2.11	0.50
55:CA:914:A:O2'	55:CA:915:A:H5'	2.11	0.50
27:DD:161:MET:HG3	24:DA:2620:C:H1'	1.94	0.50
40:DQ:9:ALA:O	40:DQ:11:ALA:N	2.45	0.50
40:DQ:77:LYS:HE2	40:DQ:116:LEU:HD11	1.93	0.50
41:DR:38:VAL:O	41:DR:53:PHE:HA	2.11	0.50
43:DT:7:LEU:O	43:DT:7:LEU:HD23	2.12	0.50
45:DV:31:TYR:CD2	56:DB:73:A:N6	2.75	0.50
47:DX:4:CYS:HB3	47:DX:9:LYS:H	1.76	0.50
24:DA:215:G:O2'	24:DA:216:A:O5'	2.23	0.50
24:DA:218:A:H2'	24:DA:219:A:C8	2.46	0.50
24:DA:475:C:C5	24:DA:476:G:C6	2.99	0.50
24:DA:621:A:H2'	24:DA:622:G:O4'	2.11	0.50
24:DA:931:U:H4'	24:DA:932:U:OP2	2.08	0.50
24:DA:1168:G:C2	24:DA:1182:G:C2	2.99	0.50
24:DA:1210:G:C2	24:DA:1237:A:N7	2.79	0.50
24:DA:1587:G:H2'	24:DA:1588:G:H8	1.75	0.50
24:DA:2191:A:H3'	24:DA:2192:U:H6	1.76	0.50
24:DA:2691:C:C4	24:DA:2719:G:N2	2.80	0.50
24:DA:2869:G:H2'	24:DA:2870:C:O4'	2.11	0.50
1:AB:22:TRP:HA	1:AB:188:THR:C	2.36	0.50
1:AB:22:TRP:HA	1:AB:188:THR:O	2.12	0.50
4:AE:64:GLU:OE2	21:AA:1074:G:OP1	2.30	0.50
8:AI:127:SER:OG	8:AI:128:LYS:HD2	2.12	0.50
14:AO:3:SER:HB3	14:AO:6:ALA:CB	2.42	0.50
21:AA:355:C:C2	21:AA:356:A:C8	3.00	0.50
21:AA:369:G:OP2	21:AA:388:G:N2	2.43	0.50
21:AA:393:A:C2	21:AA:394:G:C8	3.00	0.50
21:AA:1061:G:C5	21:AA:1062:U:C4	3.00	0.50
24:BA:169:G:H2'	24:BA:170:U:C6	2.47	0.50
24:BA:681:G:C2	24:BA:682:G:H1'	2.47	0.50
24:BA:983:A:N6	24:BA:984:A:N1	2.59	0.50
24:BA:1076:C:H2'	24:BA:1077:A:O4'	2.11	0.50
24:BA:1334:G:C2'	24:BA:1335:C:H5'	2.41	0.50
24:BA:1494:A:O2'	24:BA:1495:A:C8	2.61	0.50
24:BA:1778:U:C5	24:BA:1784:A:C4	3.00	0.50
24:BA:1839:G:C4	24:BA:1840:G:C8	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BB:33:G:N2	25:BB:50:A:C4	2.80	0.50
25:BB:97:C:H2'	25:BB:98:G:C5'	2.42	0.50
26:BC:170:TYR:CD2	26:BC:184:GLU:HA	2.47	0.50
34:BK:19:VAL:HG23	34:BK:43:ILE:HA	1.94	0.50
36:BM:14:LYS:O	36:BM:15:GLY:C	2.54	0.50
38:BO:2:ASP:O	38:BO:3:LYS:HB3	2.11	0.50
38:BO:16:ARG:C	38:BO:18:LEU:H	2.19	0.50
39:BP:19:PHE:O	39:BP:20:ARG:HB3	2.10	0.50
41:BR:4:VAL:HA	41:BR:12:HIS:O	2.11	0.50
46:BW:41:GLY:HA2	46:BW:44:PHE:CE2	2.47	0.50
46:BW:46:ALA:HB3	46:BW:79:ILE:C	2.37	0.50
1:CB:79:VAL:CA	1:CB:213:LEU:HD21	2.28	0.50
2:CC:122:GLN:O	2:CC:127:VAL:HG22	2.12	0.50
11:CL:33:CYS:N	11:CL:54:VAL:HG13	2.27	0.50
13:CN:20:PHE:CA	13:CN:24:ALA:HB2	2.41	0.50
16:CQ:18:LYS:HB3	16:CQ:46:HIS:CE1	2.47	0.50
16:CQ:18:LYS:O	16:CQ:46:HIS:ND1	2.44	0.50
19:CT:84:LYS:HB2	19:CT:84:LYS:HZ2	1.75	0.50
55:CA:71:A:C5	55:CA:100:G:C4	3.00	0.50
55:CA:380:G:N2	55:CA:384:G:C6	2.80	0.50
55:CA:449:G:H2'	55:CA:450:G:C8	2.47	0.50
55:CA:682:G:C2	55:CA:683:G:C8	3.00	0.50
55:CA:977:A:H2'	55:CA:1224:U:C4	2.46	0.50
55:CA:1211:U:H1'	55:CA:1213:A:C2	2.47	0.50
26:DC:189:ALA:O	26:DC:190:THR:CB	2.58	0.50
28:DE:60:TRP:HH2	24:DA:674:G:O3'	1.95	0.50
28:DE:88:ARG:HB3	28:DE:89:PRO:HD2	1.94	0.50
30:DG:87:GLN:HA	30:DG:129:GLU:HA	1.94	0.50
30:DG:126:THR:HG22	30:DG:127:GLN:N	2.20	0.50
31:DH:22:LYS:C	31:DH:24:GLY:H	2.20	0.50
31:DH:62:LEU:C	31:DH:64:ALA:H	2.19	0.50
33:DJ:44:TYR:O	33:DJ:45:THR:CB	2.60	0.50
35:DL:94:THR:O	35:DL:98:ALA:N	2.44	0.50
36:DM:57:VAL:HG12	36:DM:112:LEU:HD13	1.94	0.50
37:DN:8:ARG:HG2	37:DN:10:LEU:HD22	1.93	0.50
37:DN:103:ARG:HB2	37:DN:110:MET:CG	2.41	0.50
39:DP:25:VAL:HA	39:DP:85:VAL:HA	1.94	0.50
40:DQ:57:ARG:C	40:DQ:59:LEU:N	2.69	0.50
48:DY:52:ARG:C	48:DY:54:LYS:H	2.20	0.50
52:D2:19:ARG:HG3	24:DA:126:A:O5'	2.12	0.50
24:DA:9:G:C6	24:DA:2629:U:C6	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:82:U:H5”	24:DA:296:U:C5’	2.42	0.50
24:DA:118:A:OP2	24:DA:119:A:H3’	2.12	0.50
24:DA:253:C:H2’	24:DA:254:G:O4’	2.12	0.50
24:DA:475:C:C5	24:DA:476:G:C5	2.99	0.50
24:DA:628:G:C6	24:DA:636:G:C2	3.00	0.50
24:DA:1003:G:N2	24:DA:1153:C:C2	2.79	0.50
24:DA:1013:C:O2’	24:DA:1014:A:H5’	2.11	0.50
24:DA:1534:U:H1’	24:DA:1538:G:N2	2.26	0.50
24:DA:1838:C:C4	24:DA:1899:A:C4	2.99	0.50
24:DA:1985:C:C2	24:DA:1986:C:C5	2.99	0.50
24:DA:2061:G:C4	24:DA:2063:C:N4	2.80	0.50
24:DA:2540:C:C2	24:DA:2541:A:C8	2.99	0.50
24:DA:2740:A:C6	24:DA:2741:A:C6	2.99	0.50
24:DA:2902:C:O2’	24:DA:2903:U:P	2.69	0.50
4:AE:22:LYS:HE2	21:AA:1082:A:OP2	2.12	0.50
4:AE:61:LYS:HE2	21:AA:1073:U:OP1	2.12	0.50
7:AH:46:GLU:OE2	7:AH:61:THR:HG21	2.12	0.50
15:AP:46:LYS:HZ1	15:AP:48:GLU:H	1.59	0.50
21:AA:134:G:H1’	21:AA:325:A:C5	2.46	0.50
21:AA:214:C:H2’	21:AA:215:C:C5	2.46	0.50
21:AA:654:G:H2’	21:AA:655:A:H8	1.76	0.50
21:AA:785:G:C2’	21:AA:786:G:H5’	2.41	0.50
21:AA:872:A:C4	21:AA:874:G:C8	2.99	0.50
21:AA:1031:C:H4’	21:AA:1032:G:C4	2.47	0.50
21:AA:1422:G:C2	21:AA:1423:G:C8	2.99	0.50
21:AA:1510:C:H2’	21:AA:1511:G:C8	2.46	0.50
24:BA:289:G:C6	24:BA:290:U:C4	3.00	0.50
24:BA:614:A:H5”	24:BA:616:A:C6	2.46	0.50
24:BA:693:A:O2’	24:BA:694:U:H5’	2.11	0.50
24:BA:1018:U:C2	24:BA:1019:U:C6	2.99	0.50
24:BA:1097:U:C5	24:BA:1098:A:H1’	2.47	0.50
24:BA:1259:G:C2	24:BA:1260:A:C4	3.00	0.50
24:BA:1287:A:O2’	24:BA:1288:G:C5’	2.59	0.50
24:BA:1946:U:H2’	24:BA:1947:C:C6	2.47	0.50
24:BA:2026:U:H2’	24:BA:2027:G:H8	1.77	0.50
24:BA:2041:U:H2’	24:BA:2042:A:H8	1.77	0.50
24:BA:2571:U:C4	24:BA:2574:G:C8	2.99	0.50
24:BA:2720:U:H5”	39:BP:52:ARG:NH2	2.27	0.50
24:BA:2757:A:H2’	24:BA:2757:A:N3	2.27	0.50
26:BC:255:LYS:O	26:BC:257:ARG:N	2.43	0.50
28:BE:150:THR:HA	28:BE:189:THR:CG2	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BG:149:ALA:O	30:BG:150:TYR:C	2.54	0.50
31:BH:1:MET:HE1	47:BX:59:ASP:HB3	1.94	0.50
34:BK:85:VAL:CB	34:BK:115:ILE:HD11	2.42	0.50
36:BM:13:HIS:O	36:BM:14:LYS:CB	2.57	0.50
37:BN:75:ILE:O	37:BN:79:LEU:HD12	2.12	0.50
39:BP:33:GLU:CD	39:BP:33:GLU:C	2.78	0.50
40:BQ:69:ARG:HH21	40:BQ:69:ARG:CB	2.25	0.50
43:BT:51:PHE:C	43:BT:52:GLU:HG2	2.36	0.50
45:BV:80:HIS:CD2	45:BV:83:LYS:HB2	2.46	0.50
46:BW:22:VAL:CG2	46:BW:23:LYS:N	2.73	0.50
1:CB:59:ILE:HG22	1:CB:62:ARG:HD3	1.93	0.50
3:CD:9:LYS:HE3	55:CA:428:G:O5'	2.11	0.50
3:CD:64:TYR:CE2	3:CD:93:LEU:HB3	2.47	0.50
5:CF:10:VAL:HG12	5:CF:11:HIS:N	2.27	0.50
5:CF:44:ARG:N	5:CF:58:HIS:ND1	2.60	0.50
5:CF:70:VAL:O	5:CF:73:GLU:HB2	2.10	0.50
6:CG:55:LYS:N	6:CG:55:LYS:HD2	2.27	0.50
6:CG:115:MET:HG2	55:CA:1240:U:OP1	2.12	0.50
6:CG:142:ARG:C	6:CG:144:ALA:H	2.20	0.50
9:CJ:28:THR:HG23	9:CJ:29:ALA:H	1.76	0.50
15:CP:5:ARG:HH12	15:CP:24:SER:HA	1.77	0.50
55:CA:257:G:C2	55:CA:270:A:C2	2.99	0.50
55:CA:380:G:C2	55:CA:384:G:C6	3.00	0.50
55:CA:677:U:H3	55:CA:713:G:N2	2.09	0.50
55:CA:1309:G:C5	55:CA:1310:G:N7	2.79	0.50
55:CA:1403:C:N4	23:CW:3:G:OP1	2.45	0.50
55:CA:1423:G:H2'	55:CA:1424:U:H6	1.76	0.50
33:DJ:5:THR:HA	33:DJ:44:TYR:CD2	2.47	0.50
34:DK:92:GLU:O	34:DK:93:GLN:C	2.54	0.50
35:DL:41:ARG:HD3	35:DL:41:ARG:H	1.77	0.50
38:DO:51:ALA:HB3	38:DO:78:VAL:HG22	1.94	0.50
38:DO:64:TYR:CE1	56:DB:52:A:N7	2.79	0.50
39:DP:3:ILE:C	39:DP:5:LYS:H	2.20	0.50
39:DP:87:ARG:HG2	39:DP:88:ARG:H	1.77	0.50
41:DR:33:VAL:CG2	41:DR:61:ALA:HB3	2.39	0.50
43:DT:34:VAL:O	43:DT:35:ALA:HB3	2.12	0.50
24:DA:63:A:C8	24:DA:64:A:N7	2.79	0.50
24:DA:444:C:OP2	24:DA:444:C:H4'	2.12	0.50
24:DA:1300:G:C2	24:DA:1626:A:C5	3.00	0.50
24:DA:1548:A:C2	24:DA:1549:A:C4	3.00	0.50
24:DA:2875:C:H2'	24:DA:2876:G:C8	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AB:86:CYS:C	1:AB:88:GLN:N	2.70	0.50
1:AB:93:HIS:HB2	1:AB:145:ASN:O	2.12	0.50
1:AB:159:ALA:N	1:AB:180:ILE:HG23	2.26	0.50
3:AD:24:VAL:HG12	3:AD:25:ARG:N	2.25	0.50
3:AD:68:GLU:CG	21:AA:545:C:H5'	2.42	0.50
6:AG:14:ASP:C	6:AG:14:ASP:OD2	2.54	0.50
6:AG:22:LEU:O	6:AG:26:VAL:HG13	2.12	0.50
8:AI:54:VAL:HG11	8:AI:86:LEU:CD2	2.41	0.50
8:AI:80:HIS:HE1	8:AI:103:VAL:O	1.94	0.50
9:AJ:59:LYS:HE3	21:AA:972:C:P	2.51	0.50
18:AS:51:HIS:CD2	21:AA:1220:G:H1'	2.47	0.50
21:AA:235:C:H2'	21:AA:236:A:C8	2.47	0.50
21:AA:655:A:H2'	21:AA:656:G:O4'	2.12	0.50
21:AA:769:G:H4'	21:AA:1513:A:H4'	1.93	0.50
21:AA:857:C:H2'	21:AA:858:G:O4'	2.12	0.50
21:AA:1063:C:H2'	21:AA:1064:G:C8	2.47	0.50
21:AA:1395:C:H5'	21:AA:1401:G:H21	1.77	0.50
24:BA:161:A:OP2	24:BA:162:U:H3'	2.12	0.50
24:BA:199:A:O2'	24:BA:200:U:H5'	2.11	0.50
24:BA:306:U:H2'	24:BA:307:G:O4'	2.12	0.50
24:BA:411:G:OP2	24:BA:2407:A:OP2	2.30	0.50
24:BA:800:A:H4'	24:BA:801:G:O5'	2.12	0.50
24:BA:851:C:O2'	24:BA:852:U:H5'	2.12	0.50
24:BA:1070:A:O2'	24:BA:1071:G:P	2.70	0.50
24:BA:1317:G:C4	24:BA:1318:U:C5	2.99	0.50
24:BA:1655:A:H5'	27:BD:118:PHE:CD2	2.47	0.50
24:BA:1668:A:C5	24:BA:1674:G:C5	3.00	0.50
24:BA:2270:A:H2'	24:BA:2271:G:C8	2.47	0.50
24:BA:2699:C:H2'	24:BA:2700:A:C8	2.45	0.50
25:BB:15:A:H1'	25:BB:109:A:C8	2.46	0.50
25:BB:114:C:H2'	25:BB:115:A:H8	1.76	0.50
27:BD:149:ASN:O	27:BD:151:THR:N	2.45	0.50
27:BD:178:VAL:N	27:BD:188:LEU:O	2.30	0.50
27:BD:189:VAL:O	27:BD:191:GLY:N	2.38	0.50
29:BF:134:GLN:C	29:BF:136:ILE:N	2.70	0.50
41:BR:15:SER:H	41:BR:18:GLN:NE2	2.09	0.50
1:CB:174:GLU:O	1:CB:178:LEU:HB2	2.12	0.50
5:CF:52:ASN:O	5:CF:53:LYS:CB	2.60	0.50
8:CI:33:SER:O	8:CI:36:GLN:HB2	2.12	0.50
8:CI:33:SER:HG	8:CI:36:GLN:HG2	1.77	0.50
8:CI:112:ARG:NH2	9:CJ:64:GLN:HE21	2.06	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CN:63:CYS:O	13:CN:67:GLY:HA2	2.12	0.50
15:CP:73:ALA:O	15:CP:77:GLU:HG3	2.12	0.50
20:CU:35:GLU:O	20:CU:36:PHE:CD2	2.65	0.50
55:CA:544:G:C2	55:CA:545:C:C2	2.99	0.50
55:CA:821:G:O2'	55:CA:822:U:O4'	2.29	0.50
55:CA:1124:G:O2'	55:CA:1125:U:H5	1.94	0.50
55:CA:1126:U:HO2'	55:CA:1127:G:H8	1.58	0.50
55:CA:1304:G:C2'	55:CA:1333:A:H61	2.24	0.50
55:CA:1306:A:N1	55:CA:1307:U:C2	2.80	0.50
55:CA:1363:A:C8	55:CA:1365:G:N7	2.80	0.50
27:DD:10:GLY:O	27:DD:11:MET:CB	2.60	0.50
27:DD:56:LYS:NZ	27:DD:56:LYS:HB3	2.27	0.50
28:DE:128:ALA:O	28:DE:130:LYS:HG2	2.12	0.50
30:DG:116:LEU:HD13	30:DG:121:THR:HA	1.93	0.50
32:DI:74:PRO:O	32:DI:78:LEU:HG	2.12	0.50
33:DJ:94:ALA:O	33:DJ:95:ARG:CB	2.59	0.50
40:DQ:82:LEU:O	40:DQ:85:ALA:HB3	2.11	0.50
44:DU:43:LYS:HE3	44:DU:45:GLN:CD	2.37	0.50
45:DV:21:ARG:HE	45:DV:87:GLN:CB	2.24	0.50
45:DV:30:ILE:HB	45:DV:38:LEU:HB3	1.94	0.50
45:DV:78:GLN:HE22	56:DB:76:G:H21	1.60	0.50
24:DA:64:A:H2'	24:DA:65:U:C6	2.46	0.50
24:DA:271:G:C6	24:DA:272:A:N6	2.80	0.50
24:DA:433:C:H2'	24:DA:434:U:C6	2.46	0.50
24:DA:484:C:N4	24:DA:497:A:C2	2.80	0.50
24:DA:753:A:HO2'	24:DA:754:U:H6	1.59	0.50
24:DA:777:G:H2'	24:DA:778:G:C8	2.47	0.50
24:DA:957:C:H2'	24:DA:959:A:C8	2.47	0.50
24:DA:1016:G:C6	24:DA:1017:G:N7	2.79	0.50
24:DA:1034:G:H2'	24:DA:1035:U:C6	2.46	0.50
24:DA:1299:G:O6	24:DA:1639:C:H5"	2.11	0.50
24:DA:1343:G:H2'	24:DA:1344:U:C5	2.47	0.50
24:DA:1880:U:H2'	24:DA:1881:C:H6	1.76	0.50
56:DB:26:C:C5	56:DB:27:C:C5	3.00	0.50
1:AB:115:ASP:O	1:AB:119:GLN:HB3	2.12	0.50
3:AD:40:HIS:HB3	3:AD:43:ARG:HG3	1.92	0.50
3:AD:102:TYR:HB3	3:AD:110:ARG:HG3	1.94	0.50
10:AK:13:LYS:NZ	55:CA:412:A:H8	2.09	0.50
11:AL:21:PRO:HD2	11:AL:94:TYR:HH	1.77	0.50
11:AL:115:LYS:O	11:AL:116:TYR:CB	2.60	0.50
12:AM:30:LYS:HA	12:AM:30:LYS:HE3	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AN:15:LEU:HD23	13:AN:18:LYS:CE	2.42	0.50
13:AN:63:CYS:HB2	13:AN:79:SER:OG	2.12	0.50
14:AO:26:VAL:HG12	14:AO:30:LEU:HD11	1.93	0.50
16:AQ:68:LYS:O	21:AA:254:G:OP1	2.30	0.50
21:AA:1186:G:C4	21:AA:1187:G:C8	3.00	0.50
21:AA:1230:C:OP1	22:AV:30:G:H4'	2.12	0.50
22:AV:37:A:N1	23:AW:1:A:N6	2.60	0.50
24:BA:498:G:O2'	24:BA:499:U:H5'	2.12	0.50
24:BA:570:G:OP1	24:BA:972:A:O2'	2.23	0.50
24:BA:691:C:O2'	24:BA:692:C:H5'	2.12	0.50
24:BA:999:U:H5	24:BA:1154:G:C5	2.30	0.50
24:BA:1090:A:C6	24:BA:1102:C:C2	3.00	0.50
24:BA:1993:U:H4'	27:BD:133:THR:HG21	1.93	0.50
24:BA:1997:C:OP2	27:BD:129:THR:OG1	2.24	0.50
24:BA:2243:U:H2'	24:BA:2244:U:C6	2.47	0.50
24:BA:2283:C:O2'	24:BA:2284:A:H5'	2.11	0.50
24:BA:2432:A:C6	24:BA:2433:A:N6	2.80	0.50
24:BA:2731:G:N2	24:BA:2732:G:C2	2.80	0.50
30:BG:59:ASP:O	30:BG:60:GLY:C	2.54	0.50
31:BH:75:LEU:HD22	31:BH:143:ILE:HG12	1.93	0.50
32:BI:72:THR:HB	32:BI:112:LYS:NZ	2.27	0.50
34:BK:91:SER:O	34:BK:92:GLU:C	2.54	0.50
35:BL:9:ALA:HB3	35:BL:12:SER:HB2	1.94	0.50
36:BM:76:LYS:O	36:BM:77:PRO:O	2.30	0.50
37:BN:85:PRO:HA	37:BN:88:ALA:HB2	1.93	0.50
38:BO:49:VAL:CG1	38:BO:50:ALA:N	2.74	0.50
38:BO:79:ALA:HB2	38:BO:110:ALA:HA	1.93	0.50
39:BP:22:GLY:C	39:BP:23:ASP:O	2.53	0.50
40:BQ:76:SER:O	40:BQ:77:LYS:C	2.52	0.50
1:CB:100:LEU:O	1:CB:102:ASN:N	2.44	0.50
2:CC:190:THR:CG2	2:CC:191:THR:N	2.75	0.50
3:CD:34:GLU:O	3:CD:37:PRO:HD3	2.12	0.50
4:CE:83:PRO:HB3	4:CE:96:GLN:HG2	1.93	0.50
12:CM:69:ARG:HH22	55:CA:1330:U:H5'	1.77	0.50
12:CM:90:HIS:HA	12:CM:108:ARG:NH2	2.27	0.50
15:CP:51:ARG:HD3	15:CP:52:LEU:H	1.75	0.50
55:CA:84:U:N3	55:CA:87:C:H1'	2.27	0.50
55:CA:234:C:H2'	55:CA:235:C:H6	1.75	0.50
55:CA:484:G:C4'	55:CA:485:U:O5'	2.53	0.50
55:CA:687:A:C2	55:CA:704:A:C6	2.99	0.50
55:CA:954:G:C6	55:CA:955:U:N3	2.80	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DC:66:PHE:HB3	26:DC:150:GLY:O	2.12	0.50
29:DF:107:VAL:C	29:DF:109:ARG:N	2.66	0.50
33:DJ:20:ALA:HA	33:DJ:23:LYS:CG	2.40	0.50
34:DK:13:ASN:HD21	34:DK:97:THR:N	1.99	0.50
35:DL:103:ILE:HD12	35:DL:103:ILE:N	2.26	0.50
35:DL:128:THR:CG2	24:DA:636:G:H3'	2.42	0.50
37:DN:39:PRO:O	37:DN:43:GLU:HG2	2.12	0.50
48:DY:60:LYS:HG2	48:DY:60:LYS:O	2.12	0.50
24:DA:46:G:H2'	24:DA:47:C:H6	1.77	0.50
24:DA:273:G:O2'	24:DA:274:C:O4'	2.26	0.50
24:DA:293:U:H5"	24:DA:294:A:OP2	2.12	0.50
24:DA:1127:A:C2	24:DA:2518:A:C5	2.99	0.50
24:DA:1331:G:C4	24:DA:1333:G:C8	3.00	0.50
24:DA:1730:C:O2'	24:DA:1731:G:H5'	2.11	0.50
24:DA:1731:G:C4'	24:DA:1732:C:OP1	2.58	0.50
24:DA:2024:G:C4	24:DA:2040:G:N2	2.80	0.50
24:DA:2214:C:O2'	24:DA:2215:C:H5'	2.12	0.50
24:DA:2261:C:C2	24:DA:2280:G:N2	2.80	0.50
2:AC:171:ARG:HG2	2:AC:171:ARG:O	2.11	0.49
3:AD:169:TRP:HB2	3:AD:183:ARG:O	2.12	0.49
9:AJ:96:VAL:O	9:AJ:96:VAL:HG23	2.12	0.49
14:AO:44:GLU:O	14:AO:45:HIS:HB2	2.11	0.49
16:AQ:60:ILE:HG21	16:AQ:72:TRP:HB3	1.94	0.49
21:AA:51:A:H4'	21:AA:52:C:O5'	2.12	0.49
21:AA:61:G:O6	21:AA:107:G:C6	2.65	0.49
21:AA:184:G:H2'	21:AA:185:U:C5	2.47	0.49
21:AA:453:G:O6	21:AA:480:U:C4	2.65	0.49
21:AA:552:U:H2'	21:AA:553:A:C8	2.47	0.49
21:AA:984:C:O2'	21:AA:985:C:C5'	2.59	0.49
21:AA:1444:U:O2	21:AA:1459:G:C2	2.65	0.49
24:BA:191:A:H2'	24:BA:192:C:H6	1.74	0.49
24:BA:265:A:C8	24:BA:428:A:C2	3.00	0.49
24:BA:463:G:C2	24:BA:467:G:C6	2.99	0.49
24:BA:611:C:H2'	24:BA:612:G:O4'	2.12	0.49
24:BA:768:G:H2'	24:BA:769:U:H6	1.77	0.49
24:BA:835:C:C4	24:BA:836:G:N7	2.80	0.49
24:BA:1070:A:C2	32:BI:9:LYS:CG	2.95	0.49
24:BA:1085:A:H2'	24:BA:1086:A:N3	2.27	0.49
24:BA:1897:G:O2'	24:BA:1898:U:H5'	2.12	0.49
24:BA:2013:A:H2'	24:BA:2014:A:H5'	1.93	0.49
24:BA:2081:U:H2'	24:BA:2082:A:C8	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2602:A:H4'	24:BA:2603:G:OP2	2.10	0.49
24:BA:2844:G:O2'	24:BA:2845:U:H5'	2.12	0.49
25:BB:16:G:C5	25:BB:69:G:C2	3.00	0.49
25:BB:86:G:C6	25:BB:91:C:N3	2.80	0.49
27:BD:108:ASP:OD2	27:BD:173:GLN:HA	2.12	0.49
28:BE:46:GLN:HG3	28:BE:87:ALA:N	2.24	0.49
34:BK:99:ILE:CG2	34:BK:100:PHE:N	2.73	0.49
34:BK:118:LEU:HD12	34:BK:118:LEU:N	2.27	0.49
36:BM:37:GLY:O	36:BM:96:ILE:HD11	2.11	0.49
37:BN:33:ILE:HD11	37:BN:118:ARG:NH2	2.26	0.49
37:BN:71:ARG:CG	37:BN:71:ARG:NH2	2.74	0.49
43:BT:2:ILE:HG13	43:BT:3:ARG:CZ	2.42	0.49
46:BW:24:ARG:HD3	46:BW:65:LYS:CE	2.42	0.49
53:B3:61:LEU:C	53:B3:63:TYR:N	2.70	0.49
53:B3:61:LEU:O	53:B3:63:TYR:N	2.45	0.49
54:B4:9:LYS:O	54:B4:10:LEU:HD23	2.12	0.49
1:CB:11:ALA:C	1:CB:13:VAL:H	2.20	0.49
1:CB:69:VAL:HG23	1:CB:161:PHE:O	2.11	0.49
1:CB:208:ALA:HA	1:CB:211:LEU:HD22	1.94	0.49
9:CJ:66:GLU:HG2	9:CJ:67:ILE:N	2.27	0.49
11:CL:41:PRO:HG2	11:CL:45:ASN:O	2.12	0.49
55:CA:415:A:H3'	55:CA:416:G:C8	2.46	0.49
55:CA:567:G:HO2'	55:CA:568:G:C4'	2.25	0.49
55:CA:1086:U:H2'	55:CA:1087:G:C8	2.47	0.49
55:CA:1168:U:O2	55:CA:1168:U:C2'	2.60	0.49
55:CA:1215:G:N3	55:CA:1216:A:C8	2.80	0.49
55:CA:1254:A:H2'	55:CA:1255:G:C8	2.46	0.49
55:CA:1346:A:O3'	55:CA:1347:G:H4'	2.12	0.49
27:DD:51:THR:HG21	27:DD:75:ALA:O	2.11	0.49
28:DE:79:ARG:O	28:DE:80:SER:C	2.54	0.49
31:DH:83:LYS:HE2	31:DH:149:GLU:HB3	1.94	0.49
32:DI:52:LEU:HD11	32:DI:78:LEU:CD2	2.42	0.49
35:DL:93:ASN:O	35:DL:95:LEU:N	2.43	0.49
36:DM:3:GLN:NE2	36:DM:92:TRP:CD1	2.80	0.49
38:DO:95:SER:C	38:DO:97:PHE:H	2.20	0.49
39:DP:32:VAL:HA	39:DP:37:LYS:HA	1.93	0.49
43:DT:48:GLN:HA	43:DT:48:GLN:HE21	1.77	0.49
44:DU:64:ILE:O	44:DU:65:GLN:O	2.30	0.49
46:DW:40:ARG:CZ	24:DA:2336:A:N7	2.75	0.49
48:DY:52:ARG:C	48:DY:54:LYS:N	2.67	0.49
53:D3:18:LYS:CD	53:D3:19:GLY:H	2.24	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:327:G:C5	24:DA:328:U:C5	3.00	0.49
24:DA:559:G:H2'	24:DA:560:C:O4'	2.11	0.49
24:DA:706:A:C2	24:DA:707:G:H1'	2.47	0.49
24:DA:726:G:O2'	24:DA:727:A:OP2	2.30	0.49
24:DA:802:A:C2	24:DA:803:U:C2	3.00	0.49
24:DA:845:A:H2	24:DA:934:U:O2	1.95	0.49
24:DA:1019:U:O2'	24:DA:1021:A:C2	2.64	0.49
24:DA:1135:C:N4	24:DA:1139:G:C6	2.79	0.49
24:DA:1278:C:H2'	24:DA:1279:G:C8	2.47	0.49
24:DA:1364:G:C2	24:DA:1368:G:N1	2.79	0.49
24:DA:1542:U:H2'	24:DA:1543:G:O4'	2.12	0.49
24:DA:1619:G:O2'	24:DA:1620:G:H5'	2.12	0.49
24:DA:1689:A:H2'	24:DA:1690:A:H8	1.77	0.49
24:DA:1835:G:C4	24:DA:1931:U:C4	3.00	0.49
24:DA:1885:A:C8	24:DA:1886:U:C5	3.00	0.49
24:DA:2558:C:H2'	24:DA:2559:C:O4'	2.12	0.49
2:AC:118:SER:O	2:AC:122:GLN:HG2	2.12	0.49
4:AE:56:PRO:C	4:AE:58:ALA:N	2.68	0.49
7:AH:33:VAL:C	7:AH:35:ILE:N	2.70	0.49
21:AA:35:G:C6	21:AA:36:C:N4	2.80	0.49
21:AA:70:U:O2'	21:AA:71:A:C8	2.63	0.49
21:AA:567:G:O2'	21:AA:568:G:O5'	2.30	0.49
21:AA:618:C:N3	21:AA:622:A:N6	2.60	0.49
21:AA:792:A:C4	21:AA:794:A:N6	2.80	0.49
21:AA:987:G:H2'	21:AA:988:G:C8	2.46	0.49
21:AA:1051:C:O2'	21:AA:1052:U:H6	1.94	0.49
21:AA:1054:C:H1'	21:AA:1196:A:C6	2.47	0.49
21:AA:1074:G:C2	21:AA:1102:A:C5	3.00	0.49
21:AA:1491:G:H5'	21:AA:1492:A:P	2.52	0.49
24:BA:282:A:H2'	24:BA:283:G:H8	1.75	0.49
24:BA:514:A:O2'	24:BA:515:A:C5'	2.60	0.49
24:BA:575:A:C2	24:BA:576:U:C6	3.00	0.49
24:BA:636:G:OP2	35:BL:109:LYS:NZ	2.44	0.49
24:BA:806:C:H2'	24:BA:807:U:H6	1.77	0.49
24:BA:969:G:N2	24:BA:970:U:O2	2.45	0.49
24:BA:969:G:OP1	49:BZ:17:PRO:HG3	2.12	0.49
24:BA:1670:C:H5"	24:BA:1671:U:OP2	2.13	0.49
24:BA:2136:G:C8	24:BA:2136:G:H5"	2.46	0.49
24:BA:2186:G:C6	24:BA:2187:U:C2	3.00	0.49
24:BA:2232:C:P	47:BX:26:ARG:HH22	2.35	0.49
24:BA:2282:G:O2'	24:BA:2390:U:O4	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2643:G:H2'	24:BA:2644:G:O4'	2.12	0.49
24:BA:2884:U:O4	50:B0:37:HIS:HE1	1.95	0.49
25:BB:88:C:HO2'	25:BB:89:U:P	2.34	0.49
26:BC:107:LYS:O	26:BC:109:LEU:HD13	2.12	0.49
27:BD:53:GLY:O	27:BD:54:ALA:HB2	2.12	0.49
30:BG:31:GLU:O	30:BG:32:LEU:C	2.55	0.49
30:BG:84:LYS:N	30:BG:84:LYS:HE2	2.27	0.49
30:BG:163:TYR:O	30:BG:164:ALA:HB2	2.12	0.49
31:BH:6:LEU:O	31:BH:15:LEU:HA	2.12	0.49
32:BI:79:LEU:HD22	32:BI:137:LEU:CD1	2.43	0.49
36:BM:12:MET:HB2	36:BM:72:PRO:HD2	1.94	0.49
37:BN:32:GLU:CD	37:BN:86:ARG:HH22	2.20	0.49
39:BP:92:ARG:O	39:BP:92:ARG:CG	2.60	0.49
41:BR:97:LYS:O	41:BR:98:ILE:HB	2.12	0.49
44:BU:73:ASN:ND2	44:BU:75:ALA:HB3	2.26	0.49
6:CG:4:ARG:HG3	6:CG:6:ILE:CG2	2.42	0.49
10:CK:26:PHE:CZ	10:CK:88:PRO:HG2	2.47	0.49
15:CP:51:ARG:HA	15:CP:51:ARG:NE	2.26	0.49
17:CR:33:THR:C	17:CR:35:SER:H	2.21	0.49
55:CA:1151:A:H2'	55:CA:1152:A:H8	1.77	0.49
55:CA:1319:A:C6	55:CA:1323:G:C4	2.99	0.49
55:CA:1473:G:O2'	55:CA:1474:U:H5'	2.11	0.49
55:CA:1532:U:C6	55:CA:1534:A:OP2	2.65	0.49
26:DC:106:PRO:HB3	26:DC:141:HIS:CE1	2.47	0.49
26:DC:215:VAL:HG12	26:DC:216:ARG:O	2.12	0.49
29:DF:64:PRO:HA	29:DF:88:VAL:CG2	2.36	0.49
29:DF:136:ILE:HG22	29:DF:142:TYR:HB2	1.93	0.49
30:DG:145:ALA:HA	30:DG:148:ARG:HG2	1.94	0.49
31:DH:5:LEU:O	31:DH:6:LEU:HD12	2.12	0.49
31:DH:27:ARG:HB2	31:DH:27:ARG:HH21	1.77	0.49
31:DH:147:VAL:O	31:DH:148:ALA:HB3	2.13	0.49
34:DK:10:VAL:HG13	34:DK:12:ASP:OD1	2.12	0.49
37:DN:32:GLU:OE1	37:DN:115:LEU:HD12	2.11	0.49
38:DO:18:LEU:HD21	38:DO:91:SER:CB	2.42	0.49
38:DO:56:LYS:HD3	38:DO:56:LYS:O	2.12	0.49
39:DP:86:LYS:HA	39:DP:86:LYS:HZ2	1.77	0.49
40:DQ:12:ARG:H	40:DQ:12:ARG:CD	2.22	0.49
40:DQ:65:ASN:HA	40:DQ:75:TYR:HB2	1.93	0.49
42:DS:36:LEU:C	42:DS:38:TYR:N	2.69	0.49
42:DS:80:PRO:HD2	42:DS:100:THR:OG1	2.12	0.49
47:DX:52:ALA:C	47:DX:54:GLY:N	2.70	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:D1:34:GLU:HG3	51:D1:49:LYS:CB	2.39	0.49
24:DA:12:U:O2	24:DA:12:U:H2'	2.12	0.49
24:DA:35:G:C2'	24:DA:36:G:O5'	2.60	0.49
24:DA:308:G:N1	24:DA:309:A:C2	2.80	0.49
24:DA:1440:U:C2	24:DA:1441:G:C8	3.00	0.49
24:DA:1848:A:H2'	24:DA:1849:G:H8	1.78	0.49
24:DA:2312:U:P	24:DA:2312:U:O4'	2.70	0.49
2:AC:10:ARG:O	2:AC:11:LEU:C	2.54	0.49
2:AC:71:ARG:O	2:AC:74:ILE:HG22	2.11	0.49
4:AE:154:ALA:HB3	7:AH:65:PHE:CE1	2.48	0.49
5:AF:10:VAL:HG12	5:AF:11:HIS:N	2.26	0.49
5:AF:62:MET:HG3	5:AF:64:VAL:HG23	1.94	0.49
5:AF:62:MET:HG3	5:AF:64:VAL:CG2	2.42	0.49
8:AI:119:LYS:O	8:AI:120:ALA:HB3	2.11	0.49
11:AL:23:LEU:C	11:AL:25:ALA:N	2.68	0.49
19:AT:4:LYS:O	19:AT:5:SER:C	2.54	0.49
20:AU:7:GLU:HA	20:AU:7:GLU:OE1	2.12	0.49
21:AA:1173:U:H2'	21:AA:1174:G:C8	2.41	0.49
21:AA:1394:A:N7	21:AA:1501:C:H4'	2.27	0.49
24:BA:585:G:N2	24:BA:1256:G:C5	2.80	0.49
24:BA:704:G:H2'	24:BA:726:G:H22	1.77	0.49
24:BA:775:G:C4	24:BA:794:A:C8	3.00	0.49
24:BA:954:G:N2	24:BA:964:C:H1'	2.28	0.49
24:BA:1499:C:O2'	24:BA:1500:G:H5'	2.12	0.49
24:BA:1551:A:C2'	24:BA:1552:A:H5'	2.42	0.49
24:BA:1914:C:C5	24:BA:1915:U:C4	3.00	0.49
24:BA:2468:A:HO2'	24:BA:2469:A:H8	1.60	0.49
26:BC:209:ALA:HA	26:BC:212:TRP:CE2	2.48	0.49
35:BL:62:PRO:HG2	53:B3:24:LYS:HB3	1.94	0.49
43:BT:40:LYS:O	43:BT:44:LYS:N	2.46	0.49
46:BW:28:GLU:OE2	46:BW:28:GLU:HA	2.12	0.49
1:CB:153:MET:HE3	1:CB:155:GLY:O	2.13	0.49
3:CD:10:LEU:HD12	3:CD:10:LEU:N	2.26	0.49
7:CH:62:LEU:HD22	7:CH:62:LEU:H	1.76	0.49
10:CK:27:ASN:ND2	10:CK:27:ASN:H	2.10	0.49
14:CO:47:LYS:HE2	55:CA:808:C:OP1	2.11	0.49
14:CO:66:LEU:HD22	14:CO:77:TYR:CE1	2.47	0.49
16:CQ:17:GLU:O	55:CA:254:G:O2'	2.30	0.49
18:CS:5:LYS:HE3	18:CS:6:LYS:H	1.76	0.49
20:CU:3:ILE:O	20:CU:3:ILE:HG23	2.11	0.49
55:CA:51:A:H4'	55:CA:52:C:H5'	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:200:G:H2'	55:CA:200:G:N3	2.28	0.49
55:CA:302:G:O2'	55:CA:556:C:H5"	2.12	0.49
55:CA:564:C:O2'	55:CA:565:U:H5'	2.11	0.49
55:CA:828:U:O4	55:CA:859:G:C8	2.64	0.49
55:CA:1095:U:H5"	55:CA:1109:C:O2	2.11	0.49
55:CA:1526:G:C6	55:CA:1527:U:C4	3.00	0.49
27:DD:133:THR:HG21	24:DA:1993:U:H4'	1.94	0.49
28:DE:46:GLN:CB	28:DE:86:ALA:HB1	2.38	0.49
29:DF:28:PRO:CB	29:DF:168:LEU:HD21	2.42	0.49
29:DF:74:ALA:H	29:DF:78:ILE:HG13	1.76	0.49
30:DG:86:LEU:HD12	30:DG:132:LEU:HD11	1.94	0.49
30:DG:104:LEU:HG	30:DG:112:VAL:HG21	1.94	0.49
33:DJ:97:PRO:C	33:DJ:99:ARG:N	2.69	0.49
35:DL:61:LEU:HD21	53:D3:23:HIS:ND1	2.27	0.49
37:DN:72:ASP:OD2	37:DN:74:GLU:HB3	2.12	0.49
42:DS:79:GLY:HA3	42:DS:100:THR:OG1	2.11	0.49
43:DT:15:HIS:CE1	43:DT:80:TRP:CH2	2.99	0.49
44:DU:91:LYS:HZ3	24:DA:296:U:H4'	1.77	0.49
46:DW:44:PHE:HE2	46:DW:76:ARG:HE	1.58	0.49
24:DA:34:U:O2'	24:DA:35:G:OP1	2.25	0.49
24:DA:49:A:H1'	24:DA:51:G:C5	2.47	0.49
24:DA:297:G:C2	24:DA:342:A:C2	3.00	0.49
24:DA:475:C:H4'	24:DA:509:C:O2'	2.12	0.49
24:DA:695:G:C2	24:DA:696:G:C8	3.00	0.49
24:DA:1581:G:C6	24:DA:1582:C:C4	3.00	0.49
24:DA:1947:C:N3	24:DA:1960:A:C2	2.80	0.49
24:DA:2142:A:H2'	24:DA:2144:G:OP1	2.12	0.49
24:DA:2609:U:H5'	24:DA:2610:C:OP2	2.12	0.49
24:DA:2627:G:O2'	24:DA:2781:A:N1	2.39	0.49
24:DA:2756:U:H3	24:DA:2758:A:H62	1.59	0.49
1:AB:52:ALA:C	1:AB:54:ALA:N	2.70	0.49
2:AC:9:ILE:HG23	2:AC:10:ARG:HD3	1.93	0.49
2:AC:11:LEU:O	2:AC:12:GLY:C	2.55	0.49
4:AE:76:ASN:O	4:AE:77:ASN:CB	2.58	0.49
5:AF:54:LEU:HD22	5:AF:55:HIS:H	1.77	0.49
7:AH:45:ILE:HD12	7:AH:60:LEU:HD22	1.94	0.49
11:AL:23:LEU:O	11:AL:25:ALA:N	2.45	0.49
18:AS:35:ARG:NH1	21:AA:1320:C:N3	2.60	0.49
20:AU:48:LYS:HG2	21:AA:723:U:O5'	2.12	0.49
21:AA:67:C:OP1	21:AA:199:A:H5"	2.12	0.49
21:AA:92:U:OP2	21:AA:92:U:H6	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:92:U:H2'	21:AA:93:U:C6	2.48	0.49
24:BA:89:A:O2'	24:BA:90:U:H5'	2.13	0.49
24:BA:449:A:H4'	40:BQ:2:ARG:NH1	2.27	0.49
24:BA:769:U:N3	24:BA:770:G:N7	2.60	0.49
24:BA:883:G:C2	24:BA:894:U:O2	2.65	0.49
24:BA:1046:A:H3'	24:BA:1047:G:C5'	2.41	0.49
24:BA:1113:U:O2'	24:BA:1114:C:H5'	2.11	0.49
24:BA:1179:G:C3'	24:BA:1180:U:H4'	2.23	0.49
24:BA:1731:G:HO2'	24:BA:1732:C:H5"	1.75	0.49
24:BA:1753:G:N2	24:BA:1756:G:OP2	2.44	0.49
24:BA:2154:A:H5'	24:BA:2155:U:OP2	2.13	0.49
24:BA:2485:G:H5"	36:BM:45:GLN:HE21	1.78	0.49
24:BA:2671:G:H2'	24:BA:2672:U:O4'	2.11	0.49
25:BB:57:A:H2'	25:BB:58:A:H8	1.76	0.49
25:BB:71:C:C2'	25:BB:72:G:H5'	2.43	0.49
26:BC:266:ILE:HG22	26:BC:266:ILE:O	2.11	0.49
29:BF:112:ASP:CG	29:BF:113:PHE:N	2.70	0.49
30:BG:102:ILE:HD13	30:BG:130:ILE:HD13	1.94	0.49
32:BI:93:ASN:OD1	32:BI:136:GLY:HA2	2.12	0.49
32:BI:109:ALA:HB2	32:BI:128:ILE:HG13	1.95	0.49
32:BI:123:ALA:C	32:BI:125:THR:N	2.71	0.49
35:BL:47:ARG:HH21	35:BL:47:ARG:CG	2.26	0.49
36:BM:69:PRO:HA	36:BM:94:ALA:CB	2.33	0.49
38:BO:88:LYS:O	38:BO:89:ASP:CB	2.60	0.49
40:BQ:65:ASN:CG	40:BQ:75:TYR:HB2	2.37	0.49
46:BW:49:ASN:ND2	46:BW:49:ASN:C	2.66	0.49
48:BY:19:LEU:HA	48:BY:22:LEU:HB3	1.93	0.49
49:BZ:43:ILE:HD12	49:BZ:43:ILE:C	2.37	0.49
1:CB:22:TRP:CG	1:CB:23:ASN:N	2.75	0.49
10:CK:123:PRO:O	10:CK:124:LYS:C	2.56	0.49
10:CK:124:LYS:HE3	20:CU:34:ARG:NH1	2.27	0.49
12:CM:21:ILE:C	12:CM:23:GLY:N	2.70	0.49
55:CA:577:G:C8	55:CA:816:A:C2	3.01	0.49
55:CA:632:U:H3'	55:CA:633:G:H5'	1.94	0.49
55:CA:903:G:C5	55:CA:904:U:C5	3.01	0.49
55:CA:908:A:N3	55:CA:909:A:C8	2.80	0.49
55:CA:958:A:H2'	55:CA:959:A:H5'	1.93	0.49
55:CA:1321:U:C2	55:CA:1322:C:N3	2.80	0.49
26:DC:44:ASN:C	26:DC:46:GLY:N	2.70	0.49
26:DC:94:LEU:HA	26:DC:100:ARG:CG	2.39	0.49
26:DC:131:MET:HE1	26:DC:183:VAL:HG11	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DD:21:SER:O	27:DD:23:PRO:HD3	2.12	0.49
28:DE:138:LEU:HD23	28:DE:141:MET:HE1	1.94	0.49
29:DF:84:ILE:CD1	24:DA:2307:G:O6	2.61	0.49
29:DF:113:PHE:CZ	29:DF:116:LEU:HD22	2.47	0.49
30:DG:115:GLN:HG2	30:DG:116:LEU:H	1.77	0.49
37:DN:12:ARG:HB3	37:DN:16:HIS:ND1	2.27	0.49
41:DR:35:PHE:HB3	41:DR:37:GLU:OE2	2.11	0.49
42:DS:68:ASP:O	42:DS:69:LEU:HD12	2.11	0.49
43:DT:38:ALA:HB1	43:DT:81:LYS:HZ3	1.75	0.49
45:DV:53:LYS:HA	45:DV:53:LYS:HZ2	1.77	0.49
24:DA:121:G:C2	24:DA:131:A:C4	3.00	0.49
24:DA:215:G:H4'	24:DA:216:A:OP1	2.13	0.49
24:DA:317:G:N2	24:DA:318:C:H1'	2.26	0.49
24:DA:319:G:C4	24:DA:333:G:N2	2.80	0.49
24:DA:377:G:C6	24:DA:378:C:C4	3.01	0.49
24:DA:753:A:O2'	24:DA:754:U:O4'	2.29	0.49
24:DA:1398:C:O2'	24:DA:1399:C:O5'	2.28	0.49
24:DA:1838:C:C2	24:DA:1899:A:C2	3.01	0.49
24:DA:1999:C:H4'	24:DA:2723:C:O2	2.12	0.49
24:DA:2649:C:O5'	24:DA:2649:C:H6	1.95	0.49
56:DB:33:G:N2	56:DB:50:A:C4	2.81	0.49
56:DB:45:A:O2'	56:DB:46:A:O5'	2.29	0.49
3:AD:123:MET:O	3:AD:142:VAL:HA	2.13	0.49
4:AE:142:GLY:O	4:AE:143:LEU:HD23	2.12	0.49
10:AK:106:ILE:HD13	10:AK:106:ILE:C	2.38	0.49
11:AL:79:ILE:HG22	11:AL:103:CYS:HB2	1.95	0.49
12:AM:28:ARG:HB3	12:AM:28:ARG:NH1	2.27	0.49
15:AP:51:ARG:HG2	15:AP:52:LEU:N	2.27	0.49
17:AR:21:ASP:OD1	17:AR:22:TYR:N	2.45	0.49
19:AT:16:ALA:O	19:AT:17:ARG:C	2.55	0.49
21:AA:15:G:H5'	21:AA:1396:A:O2'	2.13	0.49
21:AA:515:G:H2'	21:AA:516:U:O4'	2.13	0.49
21:AA:915:A:H2'	21:AA:916:U:O4'	2.13	0.49
21:AA:954:G:C2	21:AA:955:U:C2	3.00	0.49
21:AA:1192:C:C5	21:AA:1193:G:C8	3.00	0.49
21:AA:1238:A:C8	21:AA:1303:C:H1'	2.46	0.49
21:AA:1338:G:C2	21:AA:1339:A:C5	3.00	0.49
21:AA:1365:G:O2'	21:AA:1366:C:O4'	2.30	0.49
21:AA:1494:G:O2'	21:AA:1495:U:H5'	2.12	0.49
24:BA:83:A:C2	24:BA:101:A:C2	3.01	0.49
24:BA:833:A:H2'	24:BA:834:G:C8	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:927:A:O2'	24:BA:928:A:H5'	2.11	0.49
24:BA:952:G:C5	24:BA:953:G:C8	3.00	0.49
24:BA:980:A:C6	24:BA:981:A:N1	2.80	0.49
24:BA:1131:G:O2'	24:BA:2026:U:H5'	2.13	0.49
24:BA:1223:G:C2	24:BA:1227:G:C4	3.00	0.49
24:BA:1417:C:C4'	24:BA:1587:G:H21	2.25	0.49
24:BA:1528:A:H2'	24:BA:1529:G:O4'	2.12	0.49
24:BA:1668:A:N7	24:BA:1674:G:C6	2.80	0.49
24:BA:1916:A:H2'	24:BA:1917:U:H6	1.77	0.49
24:BA:2294:G:H5"	38:BO:10:ARG:HD3	1.94	0.49
24:BA:2350:C:H2'	24:BA:2351:G:H5'	1.94	0.49
25:BB:40:U:H2'	25:BB:43:C:OP2	2.12	0.49
26:BC:85:ASN:OD1	26:BC:85:ASN:N	2.45	0.49
30:BG:51:PHE:CE2	30:BG:68:ARG:HA	2.48	0.49
32:BI:75:ALA:HA	32:BI:78:LEU:HD12	1.95	0.49
33:BJ:56:VAL:CG1	33:BJ:57:LEU:N	2.75	0.49
40:BQ:20:ALA:HB1	40:BQ:28:SER:HA	1.95	0.49
42:BS:4:ILE:HG13	42:BS:5:ALA:N	2.27	0.49
43:BT:61:LEU:C	43:BT:61:LEU:CD1	2.82	0.49
48:BY:23:ARG:O	48:BY:24:GLU:C	2.56	0.49
53:B3:44:ARG:N	53:B3:45:PRO:HD2	2.26	0.49
1:CB:159:ALA:C	1:CB:160:LEU:HD12	2.36	0.49
3:CD:88:ASN:O	3:CD:91:ALA:HB3	2.13	0.49
3:CD:141:VAL:HG22	3:CD:180:THR:HG23	1.95	0.49
4:CE:14:LEU:HA	4:CE:36:THR:HG22	1.94	0.49
4:CE:25:LYS:HB2	4:CE:25:LYS:HZ2	1.77	0.49
4:CE:38:VAL:HG23	4:CE:66:ALA:HB1	1.95	0.49
4:CE:45:VAL:HG22	4:CE:46:GLY:N	2.27	0.49
9:CJ:41:PRO:HA	9:CJ:72:ARG:HD3	1.93	0.49
12:CM:53:ASP:HA	12:CM:56:ARG:CZ	2.42	0.49
12:CM:64:VAL:O	12:CM:66:GLY:N	2.46	0.49
13:CN:77:GLY:C	13:CN:78:LEU:HD12	2.38	0.49
18:CS:70:LEU:C	18:CS:72:GLU:H	2.21	0.49
55:CA:1268:G:C6	55:CA:1269:A:N6	2.81	0.49
55:CA:1312:G:H2'	55:CA:1313:U:C6	2.47	0.49
55:CA:1319:A:N1	55:CA:1323:G:H1'	2.28	0.49
26:DC:154:ALA:HA	24:DA:1819:A:OP1	2.12	0.49
26:DC:173:LEU:H	26:DC:173:LEU:HD22	1.78	0.49
28:DE:34:ALA:HA	28:DE:94:GLN:HG3	1.95	0.49
29:DF:131:VAL:O	29:DF:132:ARG:HB2	2.13	0.49
37:DN:103:ARG:CG	37:DN:104:ALA:N	2.75	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DO:79:ALA:HB1	38:DO:114:GLY:HA3	1.93	0.49
49:DZ:22:THR:HG22	24:DA:850:U:O2'	2.12	0.49
52:D2:46:LYS:HE2	24:DA:126:A:C8	2.45	0.49
24:DA:96:C:H2'	24:DA:97:C:C6	2.46	0.49
24:DA:287:G:O2'	24:DA:288:U:H5'	2.12	0.49
24:DA:323:C:H3'	24:DA:323:C:OP2	2.13	0.49
24:DA:540:C:O2'	24:DA:541:A:H5'	2.12	0.49
24:DA:747:U:C2	24:DA:2613:U:O4	2.65	0.49
24:DA:817:C:H2'	24:DA:818:G:O4'	2.13	0.49
24:DA:961:C:H5	24:DA:2456:C:H4'	1.77	0.49
24:DA:1555:G:O2'	24:DA:1556:C:H5'	2.13	0.49
24:DA:1722:A:N6	24:DA:1738:G:H1'	2.27	0.49
24:DA:2151:U:H2'	24:DA:2152:G:O4'	2.12	0.49
24:DA:2370:G:C5	24:DA:2371:G:N7	2.80	0.49
24:DA:2547:A:H2'	24:DA:2548:U:C6	2.48	0.49
24:DA:2630:G:HO2'	24:DA:2631:G:C5'	2.26	0.49
56:DB:20:G:H8	56:DB:20:G:O5'	1.95	0.49
1:AB:209:VAL:O	1:AB:212:TYR:N	2.44	0.49
2:AC:41:TYR:OH	2:AC:89:VAL:HG21	2.12	0.49
2:AC:86:LEU:O	2:AC:87:ARG:C	2.56	0.49
4:AE:149:PRO:C	4:AE:152:VAL:HG13	2.37	0.49
6:AG:143:MET:O	6:AG:146:ALA:HB3	2.13	0.49
9:AJ:17:LEU:HD23	9:AJ:17:LEU:C	2.37	0.49
19:AT:27:MET:HE2	19:AT:66:ILE:HD13	1.93	0.49
21:AA:87:C:H2'	21:AA:88:U:O4'	2.13	0.49
21:AA:173:U:C2	21:AA:197:A:C2	3.00	0.49
21:AA:591:U:H2'	21:AA:592:G:C8	2.48	0.49
21:AA:672:U:H2'	21:AA:673:A:H8	1.78	0.49
21:AA:996:A:H2'	21:AA:997:U:H6	1.78	0.49
21:AA:1143:G:C2'	21:AA:1144:G:H5'	2.42	0.49
21:AA:1237:C:OP1	21:AA:1238:A:H1'	2.12	0.49
24:BA:572:A:P	41:BR:80:ARG:NH2	2.85	0.49
24:BA:950:G:H2'	24:BA:951:C:C6	2.47	0.49
24:BA:1260:A:C6	24:BA:1261:C:C4	3.01	0.49
24:BA:1889:A:C2	24:BA:1890:A:N3	2.80	0.49
24:BA:2336:A:N6	46:BW:40:ARG:HD2	2.27	0.49
24:BA:2478:A:H2'	24:BA:2479:U:O4'	2.13	0.49
24:BA:2602:A:H4'	24:BA:2603:G:C5'	2.41	0.49
24:BA:2671:G:C2'	24:BA:2672:U:H5'	2.42	0.49
24:BA:2722:G:C4	24:BA:2723:C:C6	3.01	0.49
35:BL:120:VAL:HG12	35:BL:121:THR:N	2.26	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BM:74:THR:HG21	36:BM:86:LYS:HE3	1.94	0.49
42:BS:20:VAL:HG11	42:BS:44:ALA:HA	1.94	0.49
42:BS:42:LYS:O	42:BS:42:LYS:HD3	2.12	0.49
44:BU:25:LYS:HG2	44:BU:36:GLU:HB3	1.95	0.49
45:BV:88:HIS:CD2	45:BV:89:ILE:N	2.80	0.49
12:CM:53:ASP:OD2	12:CM:53:ASP:N	2.41	0.49
14:CO:42:PHE:CE1	14:CO:55:LEU:HD22	2.48	0.49
55:CA:553:A:H2'	55:CA:554:A:H8	1.77	0.49
55:CA:1180:A:H5"	55:CA:1181:G:OP2	2.13	0.49
29:DF:137:PHE:O	29:DF:138:PRO:C	2.56	0.49
30:DG:39:ALA:O	30:DG:40:VAL:HG13	2.13	0.49
31:DH:42:LYS:NZ	31:DH:42:LYS:HB3	2.27	0.49
35:DL:76:GLU:O	35:DL:76:GLU:HG3	2.12	0.49
36:DM:97:GLN:HB2	36:DM:98:PRO:HD2	1.95	0.49
41:DR:39:LEU:H	41:DR:39:LEU:HD23	1.78	0.49
42:DS:6:LYS:HZ1	42:DS:104:THR:HG23	1.75	0.49
44:DU:3:LYS:HD3	44:DU:82:VAL:CG2	2.43	0.49
44:DU:39:ASN:O	44:DU:40:LEU:C	2.55	0.49
53:D3:21:PHE:O	53:D3:22:LYS:C	2.54	0.49
24:DA:40:U:H2'	24:DA:41:C:C6	2.48	0.49
24:DA:237:C:C2	24:DA:238:C:C5	3.01	0.49
24:DA:299:A:N6	24:DA:322:A:O2'	2.45	0.49
24:DA:478:A:C6	24:DA:480:A:C6	3.00	0.49
24:DA:631:A:N3	24:DA:2415:G:O2'	2.44	0.49
24:DA:1096:A:C6	24:DA:1097:U:C2	3.01	0.49
24:DA:1141:U:H5"	24:DA:1142:A:OP1	2.13	0.49
24:DA:1204:A:N9	24:DA:1206:G:C6	2.81	0.49
24:DA:1284:A:N6	24:DA:1285:A:C6	2.80	0.49
24:DA:1286:A:O2'	24:DA:1288:G:N2	2.45	0.49
24:DA:2069:G:OP1	24:DA:2069:G:H4'	2.13	0.49
24:DA:2099:U:O2'	24:DA:2100:G:H8	1.95	0.49
24:DA:2254:C:H2'	24:DA:2255:G:O4'	2.12	0.49
24:DA:2866:U:H4'	24:DA:2867:G:O5'	2.12	0.49
24:DA:2902:C:O2'	24:DA:2903:U:O5'	2.31	0.49
56:DB:14:U:H3'	56:DB:15:A:H5"	1.94	0.49
56:DB:100:G:H2'	56:DB:101:A:O4'	2.13	0.49
4:AE:133:ILE:HB	21:AA:1078:U:O2'	2.13	0.49
6:AG:3:ARG:O	6:AG:5:VAL:N	2.45	0.49
6:AG:22:LEU:O	6:AG:22:LEU:HD23	2.13	0.49
13:AN:99:SER:HB2	21:AA:1187:G:O2'	2.13	0.49
21:AA:203:G:H4'	21:AA:466:A:H2	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:207:C:H2'	21:AA:208:U:C4	2.47	0.49
21:AA:453:G:C5	21:AA:454:G:N7	2.81	0.49
21:AA:803:G:C5	21:AA:804:U:C4	3.01	0.49
21:AA:1096:C:O2'	21:AA:1097:C:H5'	2.12	0.49
24:BA:28:A:H2'	24:BA:29:U:C6	2.44	0.49
24:BA:182:A:C2	24:BA:183:C:C2	3.01	0.49
24:BA:324:A:N6	24:BA:338:G:C2'	2.76	0.49
24:BA:421:C:O2'	24:BA:422:A:OP2	2.28	0.49
24:BA:735:A:H3'	24:BA:736:C:H6	1.78	0.49
24:BA:1316:U:H2'	24:BA:1317:G:C8	2.48	0.49
24:BA:1559:U:H4'	24:BA:1560:G:OP2	2.12	0.49
24:BA:1754:A:C6	24:BA:1755:A:C6	3.01	0.49
24:BA:1833:C:C4	24:BA:1834:U:C5	3.01	0.49
24:BA:2287:A:O2'	24:BA:2288:A:H3'	2.12	0.49
24:BA:2312:U:OP1	29:BF:70:ARG:HB3	2.13	0.49
24:BA:2385:C:H2'	24:BA:2386:A:H8	1.77	0.49
24:BA:2392:A:C8	24:BA:2429:G:C2	3.00	0.49
24:BA:2688:G:N1	24:BA:2720:U:OP2	2.42	0.49
27:BD:151:THR:HG22	27:BD:152:PRO:N	2.28	0.49
29:BF:46:LYS:H	29:BF:46:LYS:CD	2.25	0.49
29:BF:60:SER:O	29:BF:61:GLY:C	2.55	0.49
29:BF:127:TYR:O	29:BF:128:SER:HB2	2.13	0.49
30:BG:120:ILE:HD11	30:BG:132:LEU:CB	2.31	0.49
35:BL:30:THR:O	35:BL:33:ARG:CG	2.56	0.49
37:BN:14:SER:O	37:BN:15:SER:C	2.54	0.49
39:BP:50:ARG:HD3	39:BP:56:SER:CB	2.36	0.49
42:BS:25:ARG:HE	42:BS:73:LYS:NZ	2.10	0.49
43:BT:28:ASN:C	43:BT:91:GLN:HE22	2.20	0.49
1:CB:9:LEU:O	1:CB:10:LYS:CB	2.59	0.49
2:CC:133:MET:CE	2:CC:152:VAL:HG13	2.43	0.49
6:CG:75:LYS:CE	6:CG:76:SER:H	2.25	0.49
10:CK:14:GLN:HA	10:CK:76:TYR:O	2.12	0.49
12:CM:104:ASN:HB3	55:CA:948:C:OP2	2.12	0.49
12:CM:106:ARG:HB2	55:CA:948:C:P	2.52	0.49
18:CS:6:LYS:H	18:CS:6:LYS:HD2	1.77	0.49
19:CT:26:MET:HE2	19:CT:26:MET:O	2.13	0.49
55:CA:83:C:O2	55:CA:83:C:C2'	2.60	0.49
55:CA:372:C:H4'	55:CA:373:A:H5'	1.93	0.49
55:CA:1004:A:C4	55:CA:1026:G:N7	2.81	0.49
55:CA:1195:C:H5"	55:CA:1196:A:OP2	2.13	0.49
55:CA:1322:C:H2'	55:CA:1322:C:O2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:1402:C:N3	55:CA:1403:C:O2	2.45	0.49
55:CA:1414:U:H2'	55:CA:1415:G:C8	2.44	0.49
55:CA:1448:C:O2'	55:CA:1449:C:H5'	2.12	0.49
29:DF:90:LEU:O	29:DF:95:MET:HE3	2.13	0.49
29:DF:103:ILE:HG22	29:DF:103:ILE:O	2.13	0.49
29:DF:122:ASP:HB2	29:DF:126:ASN:HB2	1.93	0.49
30:DG:143:VAL:O	30:DG:147:LEU:HG	2.13	0.49
33:DJ:89:PHE:CE2	33:DJ:100:VAL:HG11	2.47	0.49
35:DL:9:ALA:HB3	35:DL:12:SER:CB	2.42	0.49
38:DO:68:LYS:N	56:DB:50:A:P	2.84	0.49
40:DQ:59:LEU:C	40:DQ:59:LEU:HD22	2.35	0.49
44:DU:94:PHE:O	44:DU:95:PHE:C	2.55	0.49
24:DA:732:C:H2'	24:DA:733:G:O4'	2.12	0.49
24:DA:852:U:H2'	24:DA:853:C:C6	2.48	0.49
24:DA:871:U:C2	24:DA:907:G:C6	3.00	0.49
24:DA:1130:U:O2'	24:DA:1131:G:C8	2.66	0.49
24:DA:1204:A:C4	24:DA:1206:G:C6	3.01	0.49
24:DA:1667:G:O2'	24:DA:1991:U:O4	2.27	0.49
24:DA:1770:G:C6	24:DA:1983:G:C6	3.00	0.49
24:DA:2633:G:H2'	24:DA:2634:A:O4'	2.13	0.49
3:AD:32:LYS:HE3	21:AA:413:G:C6	2.47	0.49
3:AD:72:ARG:O	3:AD:75:TYR:HB3	2.13	0.49
3:AD:124:VAL:O	3:AD:126:GLY:N	2.41	0.49
4:AE:76:ASN:HB3	4:AE:81:GLN:CB	2.42	0.49
4:AE:79:THR:HG21	4:AE:121:ASN:OD1	2.12	0.49
4:AE:156:ARG:HA	7:AH:63:LYS:CE	2.41	0.49
5:AF:11:HIS:CD2	5:AF:12:PRO:HD2	2.48	0.49
11:AL:27:PRO:O	11:AL:28:GLN:CB	2.60	0.49
19:AT:84:LYS:O	19:AT:84:LYS:HD2	2.12	0.49
21:AA:53:A:C6	21:AA:359:G:C6	3.01	0.49
21:AA:174:A:O2'	21:AA:175:C:C5'	2.57	0.49
21:AA:341:C:O2'	21:AA:342:C:H5'	2.12	0.49
21:AA:394:G:H2'	21:AA:395:C:H6	1.78	0.49
21:AA:1150:A:H1'	21:AA:1280:A:N6	2.27	0.49
21:AA:1351:U:O2'	21:AA:1352:C:H5'	2.13	0.49
24:BA:221:A:H1'	24:BA:233:A:H1'	1.94	0.49
24:BA:265:A:N6	24:BA:428:A:C8	2.80	0.49
24:BA:332:A:O2'	24:BA:334:C:OP2	2.31	0.49
24:BA:676:A:H2	24:BA:2069:G:HO2'	1.53	0.49
24:BA:735:A:C8	24:BA:736:C:C5	3.00	0.49
24:BA:1204:A:H1'	24:BA:1206:G:C5	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1342:A:C6	24:BA:1397:U:C5	3.01	0.49
24:BA:1566:A:HO2'	24:BA:1567:G:H5'	1.77	0.49
24:BA:2632:A:H2'	24:BA:2633:G:H8	1.78	0.49
25:BB:66:A:N6	25:BB:107:G:H3'	2.28	0.49
27:BD:97:SER:O	27:BD:99:GLU:HG2	2.13	0.49
27:BD:169:ARG:C	27:BD:170:VAL:CG1	2.86	0.49
28:BE:150:THR:HG23	28:BE:153:LEU:H	1.77	0.49
29:BF:39:VAL:HG13	29:BF:40:GLY:N	2.28	0.49
30:BG:112:VAL:O	30:BG:113:ASP:HB2	2.11	0.49
38:BO:3:LYS:CG	38:BO:4:LYS:H	2.25	0.49
38:BO:16:ARG:C	38:BO:18:LEU:N	2.70	0.49
39:BP:92:ARG:O	39:BP:92:ARG:HG3	2.11	0.49
41:BR:61:ALA:HB1	41:BR:98:ILE:H	1.78	0.49
42:BS:29:VAL:HG12	42:BS:30:SER:N	2.28	0.49
44:BU:94:PHE:O	44:BU:94:PHE:CG	2.66	0.49
46:BW:37:VAL:HG11	46:BW:55:ASP:HB2	1.94	0.49
53:B3:29:ARG:HA	59:B3:101:HOH:O	2.13	0.49
53:B3:31:ILE:O	53:B3:31:ILE:HG13	2.12	0.49
2:CC:26:LYS:HA	2:CC:26:LYS:HE3	1.95	0.49
2:CC:119:ILE:HA	2:CC:122:GLN:HG2	1.93	0.49
3:CD:141:VAL:CG2	3:CD:180:THR:HG23	2.43	0.49
6:CG:94:ARG:O	6:CG:98:LEU:HB2	2.12	0.49
7:CH:26:MET:O	7:CH:58:LEU:N	2.46	0.49
12:CM:89:ARG:CD	12:CM:94:LEU:HB2	2.43	0.49
55:CA:328:C:O2	55:CA:328:C:C2'	2.60	0.49
55:CA:787:A:C2	55:CA:796:C:N3	2.81	0.49
55:CA:1214:C:O4'	55:CA:1214:C:O2	2.31	0.49
55:CA:1281:C:C3'	55:CA:1282:C:H5'	2.43	0.49
55:CA:1350:A:C2	55:CA:1351:U:C2	3.00	0.49
26:DC:43:ASN:HD21	24:DA:1812:U:H1'	1.77	0.49
26:DC:146:LYS:HB2	26:DC:149:LYS:CB	2.31	0.49
27:DD:55:LYS:HB3	27:DD:75:ALA:HB1	1.94	0.49
29:DF:32:LYS:NZ	29:DF:32:LYS:CB	2.75	0.49
33:DJ:110:PRO:CG	33:DJ:111:LYS:HG2	2.42	0.49
36:DM:57:VAL:HG12	36:DM:112:LEU:CD1	2.43	0.49
38:DO:49:VAL:HG11	38:DO:81:ARG:HB3	1.94	0.49
39:DP:4:ILE:HG22	39:DP:4:ILE:O	2.13	0.49
39:DP:54:LEU:HA	39:DP:76:HIS:CD2	2.48	0.49
40:DQ:27:ARG:HA	40:DQ:33:VAL:CG1	2.42	0.49
40:DQ:59:LEU:O	40:DQ:63:ARG:HD3	2.13	0.49
40:DQ:69:ARG:HH21	40:DQ:69:ARG:CB	2.17	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DR:5:PHE:HB3	41:DR:59:ILE:HD12	1.94	0.49
44:DU:16:LYS:CD	44:DU:17:ASP:OD1	2.61	0.49
44:DU:39:ASN:HB3	44:DU:62:ALA:HB3	1.94	0.49
46:DW:18:LYS:HB2	46:DW:18:LYS:NZ	2.28	0.49
52:D2:31:LEU:CA	52:D2:34:ARG:HB2	2.38	0.49
24:DA:55:G:C2	24:DA:56:A:C8	3.01	0.49
24:DA:370:G:N1	24:DA:424:G:C5	2.81	0.49
24:DA:535:G:C6	24:DA:559:G:O6	2.65	0.49
24:DA:1219:U:N3	24:DA:1220:G:N7	2.60	0.49
24:DA:1439:A:H2	24:DA:1552:A:C5	1.93	0.49
24:DA:1678:A:H2'	24:DA:1679:A:H8	1.78	0.49
24:DA:1943:U:O2	24:DA:1943:U:O4'	2.30	0.49
24:DA:2225:A:C5'	24:DA:2226:C:H5'	2.38	0.49
24:DA:2815:C:H2'	24:DA:2816:G:C8	2.46	0.49
56:DB:37:C:C4	56:DB:49:C:C1'	2.96	0.49
1:AB:22:TRP:HB3	1:AB:38:HIS:NE2	2.27	0.49
1:AB:105:THR:HA	1:AB:108:GLN:OE1	2.12	0.49
1:AB:169:HIS:O	1:AB:173:LYS:CB	2.61	0.49
2:AC:152:VAL:HG23	2:AC:156:LEU:HD23	1.93	0.49
3:AD:96:ARG:HE	3:AD:114:ARG:HH21	1.60	0.49
3:AD:125:ASN:HA	3:AD:141:VAL:HG23	1.95	0.49
7:AH:85:TYR:C	7:AH:86:LYS:HD2	2.38	0.49
9:AJ:32:THR:HG23	9:AJ:83:THR:OG1	2.13	0.49
11:AL:118:VAL:O	21:AA:36:C:H4'	2.13	0.49
14:AO:9:LYS:O	14:AO:13:GLU:HG3	2.12	0.49
14:AO:68:TYR:O	14:AO:71:ARG:HG2	2.13	0.49
15:AP:6:LEU:HB2	21:AA:375:U:O3'	2.13	0.49
16:AQ:11:VAL:HG12	16:AQ:12:VAL:HG12	1.93	0.49
21:AA:65:A:C6	21:AA:381:C:N3	2.81	0.49
21:AA:197:A:H4'	21:AA:198:G:O5'	2.11	0.49
21:AA:338:A:C5	21:AA:339:C:C5	3.01	0.49
21:AA:640:A:C2'	21:AA:641:U:H5'	2.43	0.49
21:AA:926:G:C4	21:AA:1505:G:C6	3.00	0.49
21:AA:1055:A:C6	21:AA:1206:G:C4	3.00	0.49
21:AA:1258:G:O2'	21:AA:1259:C:C5'	2.61	0.49
21:AA:1333:A:H2'	21:AA:1334:G:O4'	2.12	0.49
21:AA:1365:G:H2'	21:AA:1366:C:C6	2.48	0.49
21:AA:1381:U:O2'	21:AA:1382:C:C5'	2.60	0.49
24:BA:20:C:H2'	24:BA:21:A:H8	1.77	0.49
24:BA:372:G:O5'	47:BX:61:LYS:NZ	2.46	0.49
24:BA:463:G:N2	24:BA:467:G:C4	2.80	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1022:G:C2	24:BA:1141:U:C5	3.01	0.49
24:BA:1071:G:C5	24:BA:1089:A:N1	2.80	0.49
24:BA:1759:A:C8	24:BA:2696:U:H1'	2.48	0.49
24:BA:2231:U:N3	24:BA:2232:C:C5	2.81	0.49
24:BA:2672:U:H2'	24:BA:2673:G:O5'	2.12	0.49
24:BA:2860:A:H8	24:BA:2860:A:O5'	1.95	0.49
27:BD:148:GLN:HB2	27:BD:152:PRO:HG2	1.95	0.49
28:BE:95:LYS:O	28:BE:96:VAL:CB	2.56	0.49
29:BF:40:GLY:C	29:BF:84:ILE:HD11	2.37	0.49
29:BF:131:VAL:CG2	29:BF:151:LEU:H	2.25	0.49
30:BG:52:GLY:O	30:BG:53:PRO:O	2.30	0.49
36:BM:78:LEU:C	36:BM:80:VAL:N	2.71	0.49
43:BT:8:LEU:HD13	43:BT:46:ALA:HA	1.95	0.49
47:BX:39:VAL:HG21	47:BX:42:GLU:HB2	1.93	0.49
49:BZ:7:THR:HG23	49:BZ:34:THR:OG1	2.13	0.49
52:B2:24:THR:HG23	52:B2:24:THR:O	2.12	0.49
1:CB:137:THR:O	1:CB:140:LEU:HB3	2.13	0.49
3:CD:154:VAL:O	3:CD:157:ALA:HB3	2.12	0.49
5:CF:18:VAL:N	5:CF:19:PRO:HD2	2.28	0.49
6:CG:19:SER:CB	6:CG:22:LEU:HB3	2.42	0.49
6:CG:91:ARG:CG	6:CG:92:PRO:HD2	2.40	0.49
6:CG:102:TRP:HD1	6:CG:102:TRP:N	2.10	0.49
12:CM:100:ARG:HD3	12:CM:102:LYS:HB2	1.95	0.49
55:CA:276:G:H2'	55:CA:277:C:H6	1.78	0.49
55:CA:330:C:H5'	55:CA:330:C:H6	1.78	0.49
55:CA:502:A:H4'	55:CA:550:G:H4'	1.94	0.49
55:CA:1091:U:O2	55:CA:1093:A:C8	2.66	0.49
32:DI:109:ALA:HB1	32:DI:125:THR:HA	1.95	0.49
35:DL:120:VAL:HG12	35:DL:121:THR:N	2.28	0.49
46:DW:77:LYS:O	46:DW:78:PHE:HB2	2.12	0.49
24:DA:71:A:OP2	24:DA:113:U:H5'	2.12	0.49
24:DA:86:G:N2	24:DA:97:C:C2	2.80	0.49
24:DA:222:A:C2	24:DA:224:U:H1'	2.47	0.49
24:DA:554:U:H2'	24:DA:555:G:O4'	2.13	0.49
24:DA:687:C:O2'	24:DA:688:U:C5'	2.60	0.49
24:DA:1275:A:O2'	24:DA:1276:A:H4'	2.12	0.49
24:DA:1331:G:C4	24:DA:1333:G:N7	2.81	0.49
24:DA:1333:G:C2	24:DA:1334:G:C5	3.01	0.49
24:DA:1377:G:H8	24:DA:1377:G:O5'	1.96	0.49
24:DA:1810:A:H5"	24:DA:1810:A:C8	2.44	0.49
24:DA:2048:G:O6	24:DA:2049:G:C6	2.66	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2078:C:N4	24:DA:2079:U:O4	2.46	0.49
24:DA:2415:G:H2'	24:DA:2416:C:H6	1.77	0.49
24:DA:2543:G:O4'	24:DA:2766:A:H5"	2.13	0.49
24:DA:2720:U:C4	24:DA:2872:A:N1	2.81	0.49
24:DA:2812:G:N2	24:DA:2889:C:C2	2.81	0.49
24:DA:2898:U:H2'	24:DA:2899:A:C8	2.48	0.49
56:DB:75:G:C2'	56:DB:76:G:H5'	2.43	0.49
1:AB:163:ILE:HD11	1:AB:203:ASP:O	2.12	0.49
2:AC:13:ILE:HG12	2:AC:14:VAL:HG22	1.94	0.49
2:AC:120:THR:C	2:AC:122:GLN:H	2.20	0.49
4:AE:37:VAL:CG1	4:AE:113:VAL:HA	2.39	0.49
4:AE:152:VAL:CG2	4:AE:156:ARG:NH1	2.76	0.49
6:AG:36:SER:HA	6:AG:39:GLU:OE1	2.12	0.49
7:AH:14:ARG:HB2	7:AH:74:ILE:CG2	2.42	0.49
10:AK:106:ILE:HD13	10:AK:106:ILE:O	2.12	0.49
19:AT:74:HIS:O	19:AT:75:LYS:C	2.56	0.49
21:AA:144:G:C2	21:AA:179:A:C4	3.01	0.49
21:AA:1105:A:C2	21:AA:1106:G:N7	2.81	0.49
21:AA:1157:A:C5	21:AA:1180:A:N1	2.81	0.49
21:AA:1160:G:O6	21:AA:1181:G:C6	2.66	0.49
21:AA:1167:A:N7	21:AA:1169:A:N6	2.60	0.49
21:AA:1463:U:H5"	39:BP:108:ARG:NH1	2.26	0.49
24:BA:279:A:O2'	24:BA:280:U:H5'	2.13	0.49
24:BA:811:U:C4	35:BL:21:ARG:NH2	2.81	0.49
24:BA:923:G:H5'	46:BW:25:PHE:HZ	1.77	0.49
24:BA:957:C:N3	24:BA:959:A:C8	2.81	0.49
24:BA:1142:A:C4	24:BA:1144:A:N7	2.81	0.49
24:BA:1824:G:H2'	24:BA:1825:U:H6	1.78	0.49
24:BA:1947:C:H2'	24:BA:1948:G:H8	1.77	0.49
24:BA:2002:G:OP1	37:BN:13:ASN:HA	2.12	0.49
24:BA:2190:G:O2'	24:BA:2191:A:H5'	2.12	0.49
24:BA:2350:C:C2'	24:BA:2351:G:H5'	2.42	0.49
24:BA:2432:A:H2'	24:BA:2433:A:H8	1.75	0.49
24:BA:2542:A:H4'	24:BA:2543:G:O5'	2.13	0.49
24:BA:2799:A:C6	24:BA:2801:G:C5	3.01	0.49
26:BC:94:LEU:HB2	26:BC:100:ARG:HD3	1.94	0.49
28:BE:47:LYS:O	28:BE:83:VAL:HB	2.12	0.49
29:BF:134:GLN:HE22	29:BF:149:ARG:HB3	1.77	0.49
33:BJ:88:THR:CG2	33:BJ:91:GLU:H	2.24	0.49
33:BJ:99:ARG:O	33:BJ:103:ILE:HG23	2.13	0.49
34:BK:85:VAL:HG21	34:BK:115:ILE:HD11	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BL:7:SER:HB2	35:BL:8:PRO:HD2	1.94	0.49
36:BM:33:LEU:CD2	36:BM:128:THR:HB	2.43	0.49
43:BT:11:LEU:HD11	43:BT:47:VAL:HG22	1.95	0.49
43:BT:29:THR:CB	43:BT:86:THR:HG22	2.34	0.49
44:BU:5:ARG:O	44:BU:6:ARG:O	2.31	0.49
1:CB:162:VAL:HG23	1:CB:163:ILE:N	2.28	0.49
10:CK:74:LYS:O	10:CK:74:LYS:HG2	2.13	0.49
12:CM:94:LEU:HD21	55:CA:1226:C:H5'	1.94	0.49
15:CP:44:SER:HB2	15:CP:46:LYS:HG2	1.94	0.49
55:CA:104:G:O2'	55:CA:105:G:H5'	2.13	0.49
55:CA:687:A:N1	55:CA:704:A:N7	2.61	0.49
55:CA:989:U:H2'	55:CA:990:C:H5'	1.95	0.49
26:DC:147:PRO:HA	26:DC:187:CYS:HB3	1.95	0.49
26:DC:196:ASN:O	26:DC:197:ALA:HB3	2.13	0.49
28:DE:44:ARG:HH21	28:DE:44:ARG:HG3	1.78	0.49
29:DF:92:GLY:O	29:DF:95:MET:HB3	2.12	0.49
29:DF:102:LEU:C	29:DF:103:ILE:HD12	2.38	0.49
34:DK:104:THR:O	34:DK:106:GLU:N	2.46	0.49
36:DM:3:GLN:O	36:DM:4:PRO:C	2.56	0.49
38:DO:30:ARG:CG	38:DO:31:THR:N	2.75	0.49
53:D3:28:LEU:HA	53:D3:32:LEU:HD21	1.95	0.49
24:DA:38:A:H2'	24:DA:39:G:O4'	2.13	0.49
24:DA:70:G:O2'	24:DA:71:A:C5'	2.61	0.49
24:DA:94:A:H2'	24:DA:95:A:O4'	2.12	0.49
24:DA:660:C:H2'	24:DA:661:A:C8	2.48	0.49
24:DA:819:A:C4	24:DA:1189:A:C2	3.01	0.49
24:DA:945:A:C4	24:DA:2448:A:C2	3.01	0.49
24:DA:1680:U:H2'	24:DA:1681:G:O4'	2.12	0.49
24:DA:2618:G:H2'	24:DA:2619:C:H6	1.78	0.49
24:DA:2660:A:H2'	24:DA:2660:A:N3	2.28	0.49
24:DA:2857:G:N2	24:DA:2860:A:OP2	2.45	0.49
56:DB:35:C:H3'	56:DB:36:C:H5"	1.95	0.49
5:AF:18:VAL:HG11	5:AF:58:HIS:NE2	2.28	0.48
5:AF:55:HIS:N	5:AF:55:HIS:ND1	2.60	0.48
7:AH:125:ILE:HD12	7:AH:125:ILE:N	2.27	0.48
8:AI:18:VAL:HA	8:AI:64:ILE:HG23	1.95	0.48
11:AL:6:LEU:HB3	16:AQ:33:TYR:CZ	2.47	0.48
19:AT:75:LYS:O	19:AT:76:ALA:C	2.56	0.48
21:AA:172:A:C5	21:AA:174:A:C8	3.00	0.48
21:AA:174:A:OP1	21:AA:175:C:OP2	2.30	0.48
21:AA:354:G:O2'	21:AA:355:C:H5'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:473:U:H2'	21:AA:474:G:C8	2.48	0.48
21:AA:581:G:C5	21:AA:758:C:C5	3.01	0.48
21:AA:837:U:O2'	21:AA:838:G:H5'	2.12	0.48
21:AA:1045:C:O2'	21:AA:1046:A:H5'	2.13	0.48
21:AA:1158:C:O2	21:AA:1158:C:H2'	2.13	0.48
24:BA:70:G:H5"	24:BA:112:U:O2	2.13	0.48
24:BA:1205:A:H4'	24:BA:1206:G:OP2	2.13	0.48
24:BA:1223:G:O6	41:BR:71:LYS:NZ	2.43	0.48
24:BA:1232:G:C5	24:BA:1233:C:C5	3.01	0.48
24:BA:1289:C:C2'	24:BA:1290:C:H6	2.25	0.48
24:BA:1327:A:N6	24:BA:1328:A:C2	2.81	0.48
24:BA:1331:G:C5	24:BA:1333:G:N7	2.81	0.48
24:BA:1904:G:H1'	24:BA:1927:A:N1	2.28	0.48
24:BA:2037:A:O2'	24:BA:2038:G:C5'	2.61	0.48
24:BA:2195:U:H2'	24:BA:2196:C:H6	1.78	0.48
24:BA:2384:U:H5"	24:BA:2386:A:OP1	2.13	0.48
24:BA:2691:C:H5'	24:BA:2691:C:C6	2.43	0.48
24:BA:2714:G:P	59:BA:3555:HOH:O	2.71	0.48
26:BC:188:ARG:O	26:BC:189:ALA:CB	2.58	0.48
30:BG:83:THR:HA	30:BG:84:LYS:CE	2.42	0.48
30:BG:93:TYR:O	30:BG:94:ARG:O	2.31	0.48
34:BK:12:ASP:OD1	34:BK:12:ASP:O	2.30	0.48
46:BW:40:ARG:HD3	46:BW:45:HIS:HE1	1.78	0.48
46:BW:41:GLY:O	46:BW:42:THR:C	2.56	0.48
1:CB:43:GLU:O	1:CB:44:LYS:HB2	2.13	0.48
7:CH:85:TYR:CD2	55:CA:598:U:H4'	2.47	0.48
8:CI:30:ASN:O	8:CI:32:ARG:HG2	2.13	0.48
12:CM:70:ARG:HH12	29:DF:114:ARG:HH22	1.59	0.48
16:CQ:64:ARG:HG3	16:CQ:65:PRO:HD2	1.95	0.48
18:CS:39:ILE:HD12	18:CS:65:MET:HG3	1.95	0.48
55:CA:604:G:C6	55:CA:605:U:N3	2.81	0.48
55:CA:652:U:O2'	55:CA:653:U:O5'	2.28	0.48
55:CA:690:G:H2'	55:CA:691:G:O4'	2.13	0.48
55:CA:1239:A:N6	55:CA:1299:A:H62	2.11	0.48
55:CA:1296:C:H1'	55:CA:1302:C:C2	2.48	0.48
55:CA:1306:A:C6	55:CA:1307:U:C2	3.01	0.48
26:DC:171:VAL:HG23	26:DC:185:ALA:HB1	1.95	0.48
27:DD:112:THR:HG22	27:DD:113:SER:H	1.76	0.48
27:DD:117:GLY:O	27:DD:119:ALA:N	2.42	0.48
28:DE:27:LEU:O	28:DE:31:VAL:HG13	2.13	0.48
28:DE:85:PHE:O	28:DE:86:ALA:C	2.55	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:150:THR:O	28:DE:192:ALA:HB2	2.12	0.48
34:DK:17:ARG:O	34:DK:18:ARG:C	2.55	0.48
36:DM:17:ASN:O	36:DM:18:ARG:HG2	2.12	0.48
36:DM:73:ILE:HG21	36:DM:91:TYR:CZ	2.48	0.48
42:DS:24:ILE:HG22	42:DS:35:ILE:CD1	2.39	0.48
44:DU:47:PRO:HB3	44:DU:54:PRO:HG3	1.92	0.48
46:DW:23:LYS:HG2	24:DA:855:G:C2	2.48	0.48
46:DW:30:VAL:CG2	24:DA:2353:G:H21	2.26	0.48
46:DW:54:ARG:C	46:DW:56:HIS:H	2.20	0.48
24:DA:98:G:O2'	24:DA:103:A:C8	2.66	0.48
24:DA:226:A:C2	24:DA:230:G:O6	2.66	0.48
24:DA:777:G:O2'	24:DA:778:G:O4'	2.16	0.48
24:DA:953:G:C2	24:DA:954:G:C8	3.01	0.48
24:DA:1046:A:C3'	24:DA:1047:G:H5"	2.42	0.48
24:DA:1225:G:C6	24:DA:1226:A:C6	3.01	0.48
24:DA:1303:G:H2'	24:DA:1304:A:C8	2.47	0.48
24:DA:1508:A:C4'	24:DA:1509:A:OP1	2.55	0.48
24:DA:1707:G:C5	24:DA:1756:G:C6	3.01	0.48
1:AB:79:VAL:HG12	1:AB:79:VAL:O	2.13	0.48
3:AD:116:LEU:O	3:AD:119:HIS:N	2.46	0.48
4:AE:57:ALA:HB1	4:AE:61:LYS:NZ	2.28	0.48
4:AE:152:VAL:HB	4:AE:155:LYS:HE3	1.95	0.48
7:AH:98:LEU:C	7:AH:99:GLY:O	2.56	0.48
11:AL:58:ASN:OD1	11:AL:58:ASN:C	2.55	0.48
13:AN:79:SER:O	13:AN:80:ARG:C	2.55	0.48
17:AR:44:THR:O	17:AR:45:GLY:C	2.56	0.48
17:AR:70:THR:OG1	17:AR:72:ARG:HG2	2.13	0.48
21:AA:1006:G:H2'	21:AA:1007:U:O4'	2.13	0.48
21:AA:1010:U:C2	21:AA:1020:G:C2	3.01	0.48
24:BA:27:G:C4	24:BA:512:G:N2	2.81	0.48
24:BA:77:G:O4'	48:BY:55:THR:HG21	2.12	0.48
24:BA:310:A:HO2'	24:BA:311:A:P	2.36	0.48
24:BA:770:G:C2	24:BA:771:G:N9	2.81	0.48
24:BA:783:A:H2'	24:BA:784:G:O5'	2.12	0.48
24:BA:843:G:H2'	24:BA:844:A:C8	2.47	0.48
24:BA:1717:A:C2	24:BA:1718:G:H1'	2.48	0.48
24:BA:2063:C:H6	24:BA:2063:C:C5'	2.26	0.48
24:BA:2210:U:N1	24:BA:2212:A:N7	2.61	0.48
24:BA:2232:C:O2'	24:BA:2233:U:H5'	2.13	0.48
24:BA:2469:A:C2	24:BA:2482:A:C4	3.01	0.48
24:BA:2691:C:H2'	24:BA:2692:G:H8	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:24:ASN:C	28:BE:24:ASN:ND2	2.66	0.48
28:BE:137:LYS:O	28:BE:141:MET:HG3	2.12	0.48
31:BH:94:ILE:HG23	31:BH:98:ASP:HB3	1.95	0.48
31:BH:96:THR:N	31:BH:97:ARG:NH1	2.48	0.48
33:BJ:53:TYR:CE1	33:BJ:121:LYS:HG2	2.49	0.48
36:BM:35:ALA:O	36:BM:128:THR:HA	2.12	0.48
39:BP:72:VAL:O	39:BP:72:VAL:HG23	2.12	0.48
40:BQ:67:ALA:CB	40:BQ:105:PHE:CE1	2.95	0.48
48:BY:47:ARG:HG3	48:BY:47:ARG:NH2	2.22	0.48
52:B2:22:MET:SD	52:B2:28:ARG:HG2	2.53	0.48
5:CF:43:GLY:HA2	5:CF:58:HIS:HE1	1.78	0.48
8:CI:69:GLY:O	55:CA:1250:A:H4'	2.14	0.48
10:CK:27:ASN:H	10:CK:27:ASN:HD22	1.59	0.48
11:CL:82:ARG:HH11	11:CL:82:ARG:HG2	1.79	0.48
12:CM:23:GLY:HA3	12:CM:64:VAL:CG1	2.42	0.48
20:CU:35:GLU:HG3	20:CU:36:PHE:H	1.78	0.48
55:CA:373:A:C4	55:CA:482:A:N7	2.80	0.48
55:CA:665:A:C8	55:CA:733:G:N3	2.82	0.48
55:CA:853:C:H2'	55:CA:854:U:H6	1.78	0.48
55:CA:1010:U:C2	55:CA:1020:G:N2	2.81	0.48
55:CA:1309:G:C6	55:CA:1310:G:C5	3.02	0.48
26:DC:245:THR:C	26:DC:247:TRP:H	2.22	0.48
28:DE:196:VAL:HA	28:DE:199:MET:HB3	1.94	0.48
29:DF:43:ILE:HD13	29:DF:82:TYR:CE2	2.48	0.48
29:DF:103:ILE:HG21	29:DF:173:ASP:O	2.13	0.48
30:DG:106:LEU:HB2	30:DG:108:PHE:CE1	2.45	0.48
30:DG:138:GLN:CD	24:DA:2759:G:H21	2.21	0.48
32:DI:18:ASN:HB3	32:DI:19:PRO:HD3	1.94	0.48
32:DI:52:LEU:O	32:DI:54:ILE:HD12	2.13	0.48
32:DI:89:SER:HB3	32:DI:97:VAL:HG11	1.94	0.48
34:DK:64:ARG:HD2	34:DK:102:PRO:O	2.13	0.48
35:DL:62:PRO:CG	53:D3:24:LYS:HB3	2.43	0.48
41:DR:37:GLU:HB2	41:DR:53:PHE:CG	2.48	0.48
41:DR:43:ASN:ND2	41:DR:44:GLY:H	2.11	0.48
43:DT:69:ARG:HG3	43:DT:70:HIS:N	2.28	0.48
46:DW:56:HIS:O	46:DW:58:LEU:N	2.46	0.48
24:DA:271:G:N2	24:DA:367:G:H1'	2.28	0.48
24:DA:529:A:C8	24:DA:2023:C:N4	2.82	0.48
24:DA:627:A:H61	24:DA:636:G:C2'	2.22	0.48
24:DA:672:C:C2	24:DA:809:G:N2	2.81	0.48
24:DA:965:C:O5'	24:DA:2273:A:H1'	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:999:U:C2	24:DA:1157:G:N1	2.81	0.48
24:DA:1113:U:O2'	24:DA:1114:C:H6	1.96	0.48
24:DA:1122:G:H2'	24:DA:1122:G:N3	2.28	0.48
24:DA:1206:G:C6	24:DA:1207:C:C4	3.01	0.48
24:DA:1210:G:N2	24:DA:1212:G:N2	2.62	0.48
24:DA:1635:A:O2'	24:DA:1636:U:H5'	2.13	0.48
24:DA:1667:G:H8	24:DA:1667:G:OP2	1.95	0.48
24:DA:1722:A:C5	24:DA:1739:A:C5	3.01	0.48
24:DA:1858:A:C2	24:DA:1859:U:H1'	2.48	0.48
24:DA:2332:C:H5"	24:DA:2333:A:P	2.53	0.48
24:DA:2340:A:H2'	24:DA:2341:G:H8	1.77	0.48
24:DA:2812:G:C2	24:DA:2889:C:C2	3.00	0.48
1:AB:170:ILE:HG12	1:AB:171:ALA:N	2.29	0.48
2:AC:24:ASN:O	2:AC:25:THR:C	2.56	0.48
2:AC:27:GLU:O	2:AC:31:ASN:HB2	2.13	0.48
8:AI:10:ARG:HD2	21:AA:1118:U:OP1	2.12	0.48
15:AP:22:ALA:CB	15:AP:32:PHE:HA	2.42	0.48
19:AT:53:MET:HE3	19:AT:57:VAL:HG21	1.94	0.48
20:AU:33:ARG:NE	20:AU:34:ARG:HG3	2.28	0.48
21:AA:110:C:O2'	21:AA:111:G:H5'	2.13	0.48
21:AA:212:G:N3	21:AA:213:G:N7	2.61	0.48
21:AA:374:A:H2'	21:AA:375:U:H6	1.78	0.48
21:AA:652:U:HO2'	21:AA:653:U:P	2.36	0.48
21:AA:1130:A:C8	21:AA:1130:A:H5"	2.48	0.48
24:BA:434:U:C4'	24:BA:435:C:OP1	2.62	0.48
24:BA:1007:C:H3'	24:BA:1008:A:H8	1.79	0.48
24:BA:1149:G:C2	24:BA:1150:C:C2	3.01	0.48
24:BA:1847:A:H2'	24:BA:1848:A:C8	2.48	0.48
24:BA:2144:G:C2'	24:BA:2148:G:O6	2.62	0.48
24:BA:2282:G:H5"	24:BA:2283:C:O4'	2.13	0.48
24:BA:2352:A:N1	46:BW:30:VAL:HG11	2.28	0.48
24:BA:2407:A:O2'	24:BA:2408:U:H5'	2.14	0.48
24:BA:2440:C:H5'	24:BA:2440:C:C6	2.43	0.48
27:BD:90:PHE:C	27:BD:92:VAL:N	2.71	0.48
28:BE:149:ILE:HD11	28:BE:172:ALA:HA	1.95	0.48
33:BJ:54:ILE:HD11	33:BJ:56:VAL:HG23	1.94	0.48
34:BK:121:GLU:HG2	34:BK:122:VAL:N	2.27	0.48
35:BL:68:SER:HB3	35:BL:71:ALA:HB3	1.94	0.48
37:BN:69:ARG:C	37:BN:71:ARG:H	2.20	0.48
38:BO:54:VAL:HG22	38:BO:54:VAL:O	2.12	0.48
41:BR:39:LEU:O	41:BR:40:MET:HB2	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BV:38:LEU:HG	45:BV:40:ILE:HD11	1.94	0.48
46:BW:47:GLY:HA3	46:BW:80:SER:HB3	1.95	0.48
46:BW:76:ARG:HG3	46:BW:76:ARG:NH2	2.28	0.48
50:B0:9:ARG:CG	50:B0:9:ARG:NH2	2.69	0.48
1:CB:68:PHE:CE2	1:CB:213:LEU:HD11	2.48	0.48
2:CC:83:VAL:O	2:CC:87:ARG:HG3	2.12	0.48
3:CD:84:ASN:C	3:CD:84:ASN:ND2	2.70	0.48
4:CE:152:VAL:HG21	7:CH:98:LEU:HD22	1.96	0.48
5:CF:68:GLN:HG2	5:CF:69:GLU:N	2.29	0.48
7:CH:37:ASN:HD22	7:CH:37:ASN:C	2.20	0.48
55:CA:198:G:O2'	55:CA:199:A:O5'	2.31	0.48
55:CA:414:A:C5	55:CA:415:A:C2	3.00	0.48
55:CA:519:C:O2'	55:CA:520:A:C5'	2.57	0.48
55:CA:1095:U:H2'	55:CA:1096:C:C6	2.48	0.48
55:CA:1167:A:C8	55:CA:1169:A:N6	2.80	0.48
26:DC:77:VAL:CG2	26:DC:111:ALA:HA	2.42	0.48
29:DF:36:ASN:O	29:DF:37:MET:HB3	2.13	0.48
29:DF:59:ILE:HG23	29:DF:137:PHE:HE1	1.77	0.48
32:DI:28:GLY:O	32:DI:29:GLN:C	2.56	0.48
38:DO:34:HIS:O	38:DO:35:ILE:HG12	2.13	0.48
39:DP:10:GLU:HG2	39:DP:10:GLU:O	2.13	0.48
39:DP:13:LYS:HD2	39:DP:13:LYS:H	1.77	0.48
41:DR:51:VAL:HB	41:DR:52:PRO:HD2	1.95	0.48
44:DU:90:LYS:HB2	44:DU:92:VAL:HG13	1.96	0.48
52:D2:16:HIS:CD2	24:DA:465:G:H4'	2.49	0.48
53:D3:50:SER:O	53:D3:52:GLY:N	2.47	0.48
24:DA:5:A:H2'	24:DA:6:A:C8	2.48	0.48
24:DA:152:A:C5	24:DA:153:U:C5	3.01	0.48
24:DA:161:A:C6	24:DA:162:U:O4	2.65	0.48
24:DA:223:A:C5	24:DA:422:A:C8	3.02	0.48
24:DA:633:A:C8	24:DA:633:A:O5'	2.59	0.48
24:DA:700:G:C6	24:DA:701:G:C5	3.01	0.48
24:DA:1067:A:H2'	24:DA:1068:G:H5"	1.96	0.48
24:DA:1127:A:N7	24:DA:2488:G:O2'	2.46	0.48
24:DA:1249:U:O2'	24:DA:1250:G:C8	2.65	0.48
24:DA:1278:C:H2'	24:DA:1279:G:H8	1.78	0.48
24:DA:1388:G:C6	24:DA:1389:G:N7	2.81	0.48
24:DA:2098:U:N3	24:DA:2099:U:O4	2.46	0.48
24:DA:2209:G:C2	24:DA:2216:G:C2	3.01	0.48
24:DA:2464:G:C4	24:DA:2487:G:N2	2.81	0.48
24:DA:2611:C:O2'	24:DA:2612:C:C5'	2.62	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DB:50:A:N6	56:DB:51:G:C5	2.81	0.48
3:AD:68:GLU:HB2	21:AA:546:A:P	2.53	0.48
7:AH:65:PHE:CG	7:AH:66:GLN:N	2.80	0.48
9:AJ:91:ASP:C	9:AJ:92:LEU:HG	2.38	0.48
10:AK:117:HIS:CD2	21:AA:675:A:H1'	2.48	0.48
13:AN:14:ALA:HB1	13:AN:18:LYS:HZ3	1.78	0.48
15:AP:10:GLY:O	15:AP:11:ALA:HB2	2.12	0.48
15:AP:80:LYS:HB2	15:AP:80:LYS:HZ3	1.77	0.48
16:AQ:58:VAL:CG2	16:AQ:74:LEU:HB2	2.44	0.48
18:AS:5:LYS:HD3	21:AA:1314:C:C5	2.48	0.48
20:AU:46:ARG:C	20:AU:48:LYS:N	2.72	0.48
21:AA:6:G:O2'	21:AA:7:A:C8	2.64	0.48
21:AA:172:A:N7	21:AA:174:A:N7	2.61	0.48
21:AA:949:A:C4	21:AA:1233:G:N2	2.81	0.48
21:AA:1091:U:H1'	21:AA:1095:U:C2	2.49	0.48
24:BA:49:A:N6	24:BA:177:G:C8	2.82	0.48
24:BA:504:A:C2	24:BA:1234:U:H5"	2.49	0.48
24:BA:794:A:O2'	24:BA:795:C:H5'	2.14	0.48
24:BA:961:C:C2	24:BA:2031:A:C6	3.00	0.48
24:BA:1060:U:O4'	24:BA:1062:G:C5'	2.62	0.48
24:BA:1570:A:H2'	24:BA:1571:A:C8	2.48	0.48
24:BA:1757:A:O2'	24:BA:1758:U:OP1	2.25	0.48
24:BA:1891:G:C5	24:BA:1892:C:C5	3.00	0.48
24:BA:2531:A:C6	24:BA:2532:G:C5	3.02	0.48
24:BA:2583:G:C2	24:BA:2584:U:C2	3.00	0.48
24:BA:2602:A:H5"	24:BA:2603:G:C5'	2.44	0.48
25:BB:61:G:C6	25:BB:62:C:C4	3.01	0.48
27:BD:40:LEU:O	27:BD:41:ALA:C	2.56	0.48
27:BD:196:ALA:O	27:BD:199:SER:OG	2.20	0.48
29:BF:173:ASP:O	29:BF:174:PHE:C	2.56	0.48
30:BG:18:ILE:HD12	30:BG:42:VAL:HG13	1.95	0.48
30:BG:29:ASN:CG	30:BG:30:GLY:H	2.20	0.48
30:BG:97:VAL:O	30:BG:97:VAL:HG12	2.12	0.48
33:BJ:124:VAL:O	33:BJ:125:TYR:HB2	2.12	0.48
34:BK:12:ASP:OD1	34:BK:12:ASP:C	2.56	0.48
34:BK:76:VAL:HB	39:BP:72:VAL:HG21	1.95	0.48
39:BP:83:ILE:O	39:BP:83:ILE:HG23	2.13	0.48
41:BR:42:ALA:HA	41:BR:46:GLU:CB	2.36	0.48
43:BT:32:LEU:N	43:BT:32:LEU:CD2	2.76	0.48
51:B1:33:LEU:H	51:B1:51:ALA:HB3	1.78	0.48
53:B3:21:PHE:O	53:B3:22:LYS:O	2.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CF:6:ILE:HD12	5:CF:6:ILE:N	2.29	0.48
5:CF:6:ILE:HB	5:CF:62:MET:CB	2.44	0.48
6:CG:149:ALA:HB1	10:CK:55:ARG:HA	1.95	0.48
9:CJ:7:ARG:N	9:CJ:7:ARG:HD2	2.28	0.48
55:CA:73:C:O2'	55:CA:74:A:H5'	2.14	0.48
55:CA:373:A:C4	55:CA:482:A:C5	3.02	0.48
55:CA:390:U:O2'	55:CA:391:G:H5'	2.14	0.48
55:CA:394:G:H2'	55:CA:395:C:H6	1.77	0.48
55:CA:452:A:HO2'	55:CA:453:G:P	2.36	0.48
55:CA:493:A:N1	55:CA:494:G:C6	2.81	0.48
55:CA:812:G:H4'	55:CA:812:G:OP1	2.14	0.48
55:CA:1237:C:OP1	55:CA:1238:A:H1'	2.13	0.48
22:CV:38:A:H2'	22:CV:39:C:H5'	1.95	0.48
26:DC:131:MET:HG2	26:DC:134:ILE:HD11	1.95	0.48
30:DG:66:THR:HG21	24:DA:2757:A:N1	2.28	0.48
30:DG:85:LYS:HD3	30:DG:164:ALA:HB3	1.96	0.48
31:DH:3:VAL:O	31:DH:3:VAL:HG23	2.13	0.48
33:DJ:12:LYS:HB2	33:DJ:41:LYS:HZ2	1.79	0.48
33:DJ:23:LYS:HB3	33:DJ:28:LEU:HD13	1.93	0.48
35:DL:79:LEU:HD12	35:DL:112:LEU:HA	1.94	0.48
35:DL:85:VAL:O	35:DL:86:GLU:HB2	2.13	0.48
38:DO:70:ALA:O	38:DO:74:VAL:HG23	2.13	0.48
40:DQ:46:TYR:HD1	41:DR:74:ILE:HG23	1.78	0.48
41:DR:6:GLN:HA	41:DR:6:GLN:HE21	1.78	0.48
41:DR:54:VAL:O	41:DR:55:ASP:C	2.56	0.48
42:DS:49:LYS:HB3	42:DS:49:LYS:NZ	2.28	0.48
43:DT:40:LYS:HA	43:DT:43:ILE:HG22	1.95	0.48
45:DV:14:LYS:HB2	56:DB:98:G:H22	1.77	0.48
48:DY:21:LEU:HA	48:DY:25:GLN:HB3	1.95	0.48
49:DZ:40:THR:C	49:DZ:42:ALA:N	2.69	0.48
50:D0:2:VAL:HG11	24:DA:2015:A:C4	2.48	0.48
54:D4:16:ILE:O	54:D4:17:VAL:HG13	2.13	0.48
24:DA:46:G:H2'	24:DA:47:C:C6	2.48	0.48
24:DA:95:A:H2'	24:DA:96:C:O4'	2.13	0.48
24:DA:155:A:O2'	24:DA:156:A:H5'	2.14	0.48
24:DA:799:G:C6	24:DA:800:A:C6	3.01	0.48
24:DA:1223:G:C6	24:DA:1227:G:O6	2.66	0.48
24:DA:1259:G:H2'	24:DA:1260:A:C8	2.48	0.48
24:DA:1378:A:C4	24:DA:1380:G:N7	2.82	0.48
24:DA:1521:G:C6	24:DA:1522:A:N6	2.81	0.48
24:DA:1935:G:C6	24:DA:1962:C:C6	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2021:C:H4'	24:DA:2022:U:OP2	2.13	0.48
24:DA:2307:G:O2'	24:DA:2308:G:OP2	2.31	0.48
24:DA:2656:U:O2'	24:DA:2657:A:C5'	2.60	0.48
1:AB:131:LYS:HE2	1:AB:135:MET:HG2	1.95	0.48
1:AB:164:ASP:HB3	1:AB:167:HIS:CB	2.41	0.48
2:AC:149:LYS:HG3	2:AC:200:TRP:CE3	2.49	0.48
2:AC:166:TRP:HE3	2:AC:166:TRP:N	2.04	0.48
4:AE:30:PHE:N	4:AE:30:PHE:CD1	2.81	0.48
7:AH:112:ASP:O	7:AH:116:ARG:HB2	2.12	0.48
8:AI:37:TYR:OH	8:AI:74:GLN:NE2	2.46	0.48
9:AJ:80:THR:O	9:AJ:83:THR:HG22	2.13	0.48
11:AL:119:LYS:HG2	21:AA:36:C:O3'	2.13	0.48
12:AM:23:GLY:HA3	12:AM:64:VAL:HG12	1.96	0.48
15:AP:6:LEU:HD13	15:AP:71:VAL:CG2	2.43	0.48
16:AQ:14:ASP:C	16:AQ:16:MET:SD	2.97	0.48
17:AR:22:TYR:HB2	17:AR:61:ALA:HB2	1.94	0.48
18:AS:30:LEU:N	18:AS:30:LEU:CD1	2.77	0.48
21:AA:79:G:C4	21:AA:80:A:C8	3.02	0.48
21:AA:373:A:C8	21:AA:482:A:C8	3.01	0.48
21:AA:519:C:O2'	21:AA:520:A:C5'	2.59	0.48
21:AA:652:U:H1'	21:AA:653:U:C5	2.49	0.48
21:AA:966:G:O2'	21:AA:967:C:O5'	2.30	0.48
24:BA:63:A:C2	24:BA:64:A:C8	3.02	0.48
24:BA:203:A:H8	24:BA:203:A:O5'	1.96	0.48
24:BA:411:G:O2'	24:BA:412:A:H5"	2.13	0.48
24:BA:463:G:N2	24:BA:467:G:C5	2.82	0.48
24:BA:542:C:H2'	24:BA:542:C:O2	2.13	0.48
24:BA:927:A:C6	24:BA:928:A:C6	3.01	0.48
24:BA:954:G:N7	24:BA:955:U:C5	2.81	0.48
24:BA:1060:U:C5'	24:BA:1061:U:OP1	2.62	0.48
24:BA:1112:G:H2'	24:BA:1113:U:C6	2.49	0.48
24:BA:1213:A:C2	24:BA:1214:A:C4	3.00	0.48
24:BA:1300:G:N2	24:BA:1634:A:N3	2.62	0.48
24:BA:1342:A:N6	24:BA:1397:U:C5	2.81	0.48
24:BA:1443:U:H2'	24:BA:1444:G:H8	1.77	0.48
24:BA:1467:U:C4	24:BA:1468:U:C5	3.01	0.48
24:BA:1655:A:H4'	27:BD:119:ALA:C	2.39	0.48
24:BA:1864:U:OP1	24:BA:2410:G:O2'	2.30	0.48
24:BA:1886:U:H2'	24:BA:1887:C:H6	1.78	0.48
24:BA:2305:U:N3	24:BA:2306:C:C2	2.81	0.48
24:BA:2432:A:C4	24:BA:2433:A:N7	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2478:A:C8	24:BA:2529:G:N7	2.81	0.48
25:BB:26:C:H2'	25:BB:27:C:C6	2.48	0.48
26:BC:105:ALA:O	26:BC:106:PRO:O	2.30	0.48
27:BD:129:THR:HG22	27:BD:130:GLN:O	2.13	0.48
30:BG:82:PHE:HB2	30:BG:134:GLY:O	2.13	0.48
32:BI:105:LEU:HA	32:BI:108:ILE:HD12	1.95	0.48
42:BS:107:VAL:O	42:BS:107:VAL:HG12	2.13	0.48
43:BT:23:ALA:C	43:BT:25:GLU:H	2.21	0.48
49:BZ:18:LYS:O	49:BZ:19:HIS:C	2.55	0.48
4:CE:35:LEU:HD11	4:CE:136:VAL:HG11	1.96	0.48
4:CE:80:LEU:HD13	4:CE:80:LEU:O	2.14	0.48
6:CG:4:ARG:CZ	6:CG:6:ILE:HG22	2.43	0.48
6:CG:132:THR:O	6:CG:133:ALA:HB2	2.14	0.48
7:CH:28:SER:HB3	7:CH:56:PRO:HB2	1.95	0.48
7:CH:94:VAL:HG21	7:CH:100:ILE:O	2.13	0.48
17:CR:40:PRO:HB2	17:CR:42:ARG:HG2	1.95	0.48
19:CT:66:ILE:HD12	19:CT:70:LYS:HB3	1.95	0.48
19:CT:81:GLN:NE2	55:CA:258:G:H5'	2.28	0.48
20:CU:36:PHE:HB3	20:CU:40:PRO:CD	2.34	0.48
55:CA:9:G:N3	55:CA:10:A:C8	2.81	0.48
55:CA:177:G:C2'	55:CA:178:C:H5'	2.43	0.48
55:CA:247:G:C2	55:CA:248:C:C6	3.01	0.48
55:CA:286:C:H2'	55:CA:287:U:O4'	2.13	0.48
55:CA:726:C:H2'	55:CA:727:G:O4'	2.13	0.48
55:CA:959:A:C5	55:CA:1222:G:O2'	2.66	0.48
26:DC:155:ARG:N	24:DA:1819:A:OP1	2.45	0.48
26:DC:173:LEU:HD22	26:DC:181:ARG:O	2.13	0.48
27:DD:16:THR:HG22	27:DD:20:VAL:H	1.78	0.48
28:DE:71:GLY:N	24:DA:674:G:H5"	2.26	0.48
28:DE:134:LEU:HA	28:DE:137:LYS:HB2	1.95	0.48
30:DG:175:LYS:HD3	30:DG:175:LYS:C	2.38	0.48
32:DI:48:ILE:HG13	32:DI:49:GLU:N	2.28	0.48
37:DN:42:LYS:HA	37:DN:45:ARG:HD3	1.96	0.48
37:DN:72:ASP:OD1	37:DN:75:ILE:HG23	2.14	0.48
42:DS:2:GLU:HA	42:DS:2:GLU:OE2	2.13	0.48
43:DT:19:LYS:HZ1	24:DA:1391:U:H4'	1.78	0.48
44:DU:34:ILE:HG12	44:DU:63:ALA:HA	1.96	0.48
46:DW:76:ARG:C	46:DW:77:LYS:HZ2	2.22	0.48
47:DX:22:ASN:ND2	24:DA:2079:U:O2'	2.46	0.48
24:DA:38:A:C2	24:DA:442:G:C2	3.02	0.48
24:DA:82:U:H2'	24:DA:83:A:O4'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:215:G:C4'	24:DA:216:A:H4'	2.44	0.48
24:DA:285:G:H2'	24:DA:286:U:H6	1.79	0.48
24:DA:1068:G:C8	24:DA:1069:A:N7	2.81	0.48
24:DA:1204:A:N1	24:DA:1241:A:N1	2.60	0.48
24:DA:1370:C:H2'	24:DA:1371:G:O4'	2.12	0.48
24:DA:1403:A:C6	24:DA:1404:C:C4	3.02	0.48
24:DA:1965:C:H2'	24:DA:1966:A:C8	2.48	0.48
24:DA:2239:G:H2'	24:DA:2240:U:C6	2.49	0.48
24:DA:2311:A:H5'	24:DA:2312:U:C6	2.49	0.48
24:DA:2379:G:H2'	24:DA:2380:C:H6	1.78	0.48
24:DA:2586:U:H2'	24:DA:2587:A:C8	2.47	0.48
24:DA:2720:U:C4	24:DA:2872:A:C2	3.01	0.48
24:DA:2788:C:H2'	24:DA:2789:C:H6	1.77	0.48
24:DA:2825:G:C4	24:DA:2826:A:C8	3.01	0.48
56:DB:52:A:H1'	56:DB:53:A:N7	2.29	0.48
56:DB:64:G:H5"	56:DB:65:U:OP2	2.12	0.48
2:AC:131:ARG:O	2:AC:135:ARG:HG2	2.13	0.48
2:AC:133:MET:HE3	2:AC:167:TYR:HD1	1.77	0.48
3:AD:114:ARG:O	3:AD:115:GLN:C	2.57	0.48
3:AD:168:THR:HG22	3:AD:183:ARG:NH2	2.29	0.48
3:AD:196:GLU:C	3:AD:198:LEU:N	2.71	0.48
4:AE:20:VAL:HG21	21:AA:1081:A:P	2.54	0.48
6:AG:90:VAL:HG23	6:AG:94:ARG:HD3	1.96	0.48
10:AK:115:ILE:HG22	10:AK:115:ILE:O	2.13	0.48
13:AN:52:ARG:HH22	21:AA:1219:A:H5"	1.76	0.48
13:AN:81:ILE:HG21	21:AA:1202:U:N3	2.29	0.48
16:AQ:61:ARG:O	16:AQ:72:TRP:CE3	2.67	0.48
19:AT:60:GLN:O	19:AT:63:LYS:HB2	2.13	0.48
21:AA:80:A:C2	21:AA:90:C:C2	3.01	0.48
21:AA:250:A:H4'	21:AA:251:G:O5'	2.13	0.48
21:AA:253:A:O2'	21:AA:254:G:H8	1.97	0.48
21:AA:372:C:H4'	21:AA:373:A:OP1	2.13	0.48
21:AA:928:G:C2	21:AA:1390:U:O2	2.66	0.48
21:AA:1323:G:C2'	21:AA:1324:A:C8	2.97	0.48
24:BA:85:G:O6	24:BA:98:G:C6	2.67	0.48
24:BA:308:G:H1'	24:BA:501:A:OP1	2.14	0.48
24:BA:309:A:C4	24:BA:330:A:C2	3.01	0.48
24:BA:341:C:H2'	24:BA:342:A:H8	1.79	0.48
24:BA:452:G:C6	24:BA:453:A:C6	3.02	0.48
24:BA:527:C:N3	24:BA:2779:U:H2'	2.29	0.48
24:BA:738:G:N2	24:BA:759:G:C4	2.82	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:850:U:O2	49:BZ:46:MET:HE2	2.13	0.48
24:BA:858:G:C5	24:BA:2268:A:C2	3.02	0.48
24:BA:969:G:C2	24:BA:970:U:C2	3.02	0.48
24:BA:1135:C:N4	24:BA:1139:G:C6	2.82	0.48
24:BA:1142:A:C4	24:BA:1144:A:C8	3.02	0.48
24:BA:1570:A:N6	24:BA:1571:A:N6	2.61	0.48
24:BA:1905:C:H2'	24:BA:1930:G:C8	2.49	0.48
24:BA:1954:G:O2'	24:BA:1956:U:O4	2.24	0.48
24:BA:1957:C:H2'	24:BA:1958:C:H6	1.78	0.48
24:BA:2134:A:N6	24:BA:2135:A:C6	2.82	0.48
24:BA:2264:C:H41	46:BW:11:ASN:HD21	1.58	0.48
24:BA:2715:C:H2'	24:BA:2716:C:O4'	2.13	0.48
24:BA:2823:A:H2'	24:BA:2824:C:H5'	1.96	0.48
25:BB:113:C:H1'	38:BO:46:GLU:HA	1.94	0.48
27:BD:101:PHE:HE2	27:BD:203:VAL:CG2	2.23	0.48
28:BE:44:ARG:HG3	28:BE:44:ARG:NH2	2.29	0.48
30:BG:25:ILE:HD11	30:BG:71:LEU:HD12	1.96	0.48
32:BI:6:ALA:HB3	32:BI:60:VAL:H	1.79	0.48
34:BK:118:LEU:N	34:BK:118:LEU:CD1	2.77	0.48
35:BL:55:MET:HE2	35:BL:56:PRO:CD	2.44	0.48
39:BP:46:VAL:O	39:BP:46:VAL:HG12	2.14	0.48
46:BW:22:VAL:O	46:BW:23:LYS:C	2.56	0.48
52:B2:22:MET:SD	52:B2:31:LEU:HD12	2.53	0.48
2:CC:88:LYS:HD3	2:CC:88:LYS:C	2.39	0.48
2:CC:175:HIS:CD2	55:CA:1189:U:O2'	2.67	0.48
6:CG:42:VAL:HG12	6:CG:43:TYR:CD2	2.49	0.48
10:CK:90:PRO:O	10:CK:92:ARG:N	2.47	0.48
12:CM:97:ARG:CZ	55:CA:1308:U:C5	2.96	0.48
13:CN:12:ARG:HG2	13:CN:53:ASP:OD1	2.12	0.48
15:CP:20:VAL:HG23	15:CP:34:GLU:C	2.39	0.48
16:CQ:46:HIS:HB2	16:CQ:70:LYS:CE	2.43	0.48
55:CA:94:G:O2'	55:CA:95:C:H5'	2.13	0.48
55:CA:198:G:O6	55:CA:220:G:C5	2.67	0.48
55:CA:846:G:O2'	55:CA:847:G:H5'	2.12	0.48
55:CA:945:G:C2	55:CA:1337:G:C2	3.01	0.48
55:CA:1288:A:H2'	55:CA:1289:A:H8	1.78	0.48
55:CA:1443:C:H2'	55:CA:1444:U:O4'	2.14	0.48
55:CA:1496:C:H2'	55:CA:1497:G:O4'	2.13	0.48
28:DE:106:LYS:HG3	28:DE:200:LEU:HD12	1.96	0.48
34:DK:17:ARG:CG	34:DK:18:ARG:N	2.70	0.48
37:DN:71:ARG:NH2	24:DA:2708:G:H1'	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DP:52:ARG:HH11	39:DP:52:ARG:HG2	1.79	0.48
40:DQ:25:GLY:C	40:DQ:27:ARG:H	2.20	0.48
41:DR:19:THR:HG22	41:DR:20:VAL:N	2.28	0.48
41:DR:24:LYS:HA	41:DR:94:THR:CG2	2.44	0.48
44:DU:16:LYS:CB	24:DA:329:G:O6	2.50	0.48
44:DU:91:LYS:HZ3	24:DA:296:U:C4'	2.26	0.48
45:DV:69:GLU:HG2	45:DV:70:ILE:N	2.29	0.48
46:DW:37:VAL:O	46:DW:38:ARG:HB2	2.13	0.48
47:DX:2:ARG:HG2	24:DA:1365:A:OP2	2.14	0.48
47:DX:31:ASN:HB3	24:DA:2230:G:H1'	1.96	0.48
47:DX:77:TYR:CD1	47:DX:77:TYR:C	2.91	0.48
24:DA:93:G:N2	24:DA:94:A:H1'	2.29	0.48
24:DA:324:A:N6	24:DA:339:U:H5'	2.28	0.48
24:DA:734:A:C4	24:DA:735:A:C8	3.01	0.48
24:DA:783:A:H2'	24:DA:784:G:H4'	1.95	0.48
24:DA:1267:U:O2'	24:DA:1268:A:H5'	2.13	0.48
24:DA:1269:A:H2'	24:DA:1270:C:C6	2.48	0.48
24:DA:1439:A:C2	24:DA:1552:A:C4	2.96	0.48
24:DA:1496:A:O3'	24:DA:1497:U:C6	2.67	0.48
24:DA:1572:A:H2'	24:DA:1573:G:C8	2.48	0.48
24:DA:1816:C:O2'	24:DA:1817:G:P	2.71	0.48
24:DA:2204:G:H2'	24:DA:2205:A:C8	2.49	0.48
24:DA:2311:A:N3	24:DA:2311:A:C2'	2.74	0.48
24:DA:2338:C:O2'	24:DA:2339:C:H6	1.97	0.48
24:DA:2544:G:HO2'	24:DA:2545:G:H8	1.59	0.48
3:AD:75:TYR:CG	3:AD:203:TYR:HD1	2.32	0.48
4:AE:80:LEU:HD23	4:AE:122:VAL:HG21	1.95	0.48
4:AE:96:GLN:OE1	4:AE:97:PRO:HD2	2.14	0.48
6:AG:3:ARG:O	6:AG:5:VAL:HG13	2.14	0.48
7:AH:6:ILE:HB	7:AH:76:ARG:NH1	2.20	0.48
7:AH:17:GLN:OE1	7:AH:69:ALA:HB1	2.14	0.48
8:AI:25:GLY:HA2	8:AI:60:LEU:O	2.14	0.48
15:AP:42:ILE:C	15:AP:44:SER:H	2.21	0.48
21:AA:77:A:H8	21:AA:77:A:OP2	1.96	0.48
21:AA:363:A:N6	21:AA:364:A:C6	2.81	0.48
21:AA:414:A:N6	21:AA:431:A:N3	2.62	0.48
21:AA:1168:U:H5"	21:AA:1169:A:OP2	2.14	0.48
21:AA:1365:G:O2'	21:AA:1366:C:H6	1.96	0.48
21:AA:1365:G:O2'	21:AA:1366:C:O5'	2.32	0.48
24:BA:163:C:O2'	24:BA:164:C:H5"	2.12	0.48
24:BA:176:A:H2'	24:BA:177:G:O4'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:210:C:H2'	24:BA:211:C:H6	1.77	0.48
24:BA:237:C:O2'	24:BA:238:C:H5'	2.13	0.48
24:BA:600:G:C6	24:BA:601:C:C4	3.01	0.48
24:BA:646:U:H6	24:BA:646:U:H5"	1.77	0.48
24:BA:682:G:C2	24:BA:683:U:C6	3.01	0.48
24:BA:704:G:C2'	24:BA:726:G:H22	2.26	0.48
24:BA:876:C:H2'	24:BA:877:A:O4'	2.14	0.48
24:BA:1071:G:C4	24:BA:1089:A:C6	3.02	0.48
24:BA:1192:G:O2'	24:BA:1193:G:H5'	2.13	0.48
24:BA:1386:C:HO2'	24:BA:1387:A:H8	1.60	0.48
24:BA:1444:G:H2'	24:BA:1445:G:H8	1.78	0.48
24:BA:1705:A:N6	24:BA:1706:C:N4	2.62	0.48
24:BA:1735:A:C6	24:BA:1736:U:C4	3.01	0.48
24:BA:2216:G:H2'	24:BA:2217:G:C8	2.49	0.48
24:BA:2587:A:H5"	24:BA:2588:G:OP2	2.14	0.48
25:BB:56:G:H5"	25:BB:57:A:OP1	2.13	0.48
27:BD:90:PHE:C	27:BD:92:VAL:H	2.21	0.48
27:BD:114:LYS:N	27:BD:114:LYS:CE	2.61	0.48
30:BG:115:GLN:O	30:BG:116:LEU:C	2.57	0.48
31:BH:12:LEU:HD12	31:BH:19:VAL:HG11	1.94	0.48
31:BH:96:THR:H	31:BH:97:ARG:HH12	1.54	0.48
35:BL:22:GLY:O	35:BL:25:SER:OG	2.27	0.48
38:BO:30:ARG:HG2	38:BO:31:THR:N	2.27	0.48
39:BP:30:TRP:CD1	39:BP:81:ASP:HB2	2.49	0.48
39:BP:80:VAL:O	39:BP:81:ASP:HB3	2.11	0.48
40:BQ:17:LEU:O	40:BQ:20:ALA:HB3	2.13	0.48
40:BQ:91:ARG:NH2	40:BQ:93:ILE:CD1	2.74	0.48
42:BS:51:LEU:O	42:BS:51:LEU:HD12	2.13	0.48
46:BW:18:LYS:O	46:BW:19:ARG:C	2.57	0.48
46:BW:19:ARG:NH2	46:BW:22:VAL:HG21	2.28	0.48
1:CB:57:ASN:OD1	1:CB:219:THR:O	2.32	0.48
1:CB:103:TRP:CH2	1:CB:156:LEU:HB3	2.49	0.48
6:CG:98:LEU:O	6:CG:99:ALA:C	2.57	0.48
6:CG:113:LYS:O	6:CG:118:ARG:NH2	2.37	0.48
7:CH:76:ARG:HD3	7:CH:76:ARG:C	2.38	0.48
10:CK:44:ALA:HB1	10:CK:68:ARG:NH2	2.28	0.48
16:CQ:78:VAL:HG12	16:CQ:79:GLU:H	1.79	0.48
18:CS:77:ARG:HH21	55:CA:1222:G:H5'	1.78	0.48
55:CA:111:G:H2'	55:CA:112:G:C8	2.48	0.48
55:CA:216:U:H2'	55:CA:217:C:C6	2.48	0.48
55:CA:259:G:H2'	55:CA:260:G:C8	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:584:G:H2'	55:CA:585:G:H8	1.78	0.48
55:CA:695:A:N1	55:CA:696:A:C2	2.82	0.48
55:CA:713:G:H2'	55:CA:714:G:C8	2.48	0.48
55:CA:754:C:O2	55:CA:754:C:C2'	2.62	0.48
55:CA:960:U:C4	55:CA:1225:A:H1'	2.49	0.48
55:CA:1101:A:C4'	55:CA:1102:A:O5'	2.49	0.48
55:CA:1265:C:N4	55:CA:1266:G:O6	2.46	0.48
55:CA:1430:A:H2'	55:CA:1430:A:N3	2.29	0.48
55:CA:1487:G:C6	55:CA:1488:G:N7	2.82	0.48
26:DC:166:ARG:CB	26:DC:171:VAL:HG22	2.44	0.48
27:DD:118:PHE:HE1	27:DD:119:ALA:O	1.96	0.48
28:DE:63:LYS:NZ	24:DA:2060:A:H2'	2.27	0.48
29:DF:19:PHE:HB3	29:DF:21:TYR:CE2	2.49	0.48
30:DG:71:LEU:HD13	30:DG:71:LEU:C	2.39	0.48
31:DH:54:LEU:HA	31:DH:57:LYS:HG3	1.94	0.48
31:DH:57:LYS:HE3	31:DH:58:LEU:HD13	1.95	0.48
33:DJ:12:LYS:HB2	33:DJ:41:LYS:NZ	2.28	0.48
34:DK:76:VAL:HB	39:DP:72:VAL:HG22	1.96	0.48
35:DL:21:ARG:NH1	24:DA:811:U:C4	2.82	0.48
37:DN:78:LYS:O	37:DN:82:GLU:HB3	2.14	0.48
38:DO:25:ARG:HA	38:DO:91:SER:O	2.13	0.48
40:DQ:4:LYS:O	40:DQ:5:ARG:HB2	2.14	0.48
40:DQ:77:LYS:CE	40:DQ:116:LEU:HD11	2.44	0.48
41:DR:37:GLU:C	41:DR:53:PHE:CD1	2.91	0.48
42:DS:32:ALA:O	42:DS:33:LEU:HB2	2.12	0.48
46:DW:38:ARG:NH2	24:DA:2262:U:H5"	2.28	0.48
49:DZ:4:ILE:HG21	49:DZ:56:VAL:HG13	1.95	0.48
52:D2:43:THR:O	52:D2:44:VAL:C	2.57	0.48
24:DA:876:C:H3'	24:DA:877:A:C8	2.49	0.48
24:DA:1316:U:O2'	24:DA:1317:G:H5'	2.13	0.48
24:DA:1611:C:O2'	24:DA:1612:C:H5'	2.14	0.48
24:DA:1775:U:OP1	24:DA:1979:U:O2'	2.30	0.48
24:DA:2051:A:H61	24:DA:2614:A:C2'	2.26	0.48
24:DA:2283:C:O2'	24:DA:2284:A:H5'	2.14	0.48
1:AB:180:ILE:HG22	1:AB:180:ILE:O	2.13	0.48
2:AC:21:TRP:HB3	2:AC:57:GLU:HA	1.95	0.48
3:AD:55:ARG:HH12	3:AD:58:GLN:HG2	1.79	0.48
6:AG:92:PRO:O	6:AG:93:VAL:HG13	2.14	0.48
8:AI:79:ARG:NH1	8:AI:102:PHE:HD1	2.12	0.48
12:AM:14:ALA:HB3	12:AM:40:GLU:O	2.14	0.48
12:AM:80:MET:HG2	12:AM:91:ARG:HB2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AU:10:PRO:HG3	2:CC:48:LYS:HE2	1.95	0.48
21:AA:150:U:H2'	21:AA:151:A:H8	1.79	0.48
21:AA:274:A:O2'	21:AA:275:G:C8	2.28	0.48
21:AA:390:U:O2'	21:AA:391:G:H5'	2.14	0.48
21:AA:481:G:HO2'	21:AA:482:A:H8	1.59	0.48
21:AA:775:G:C2'	21:AA:776:G:H5'	2.44	0.48
21:AA:1084:G:N7	21:AA:1085:U:C4	2.81	0.48
21:AA:1239:A:H4'	21:AA:1240:U:H5'	1.95	0.48
21:AA:1489:G:C2'	21:AA:1490:U:H5'	2.44	0.48
24:BA:49:A:C5'	24:BA:51:G:H5'	2.42	0.48
24:BA:96:C:H2'	24:BA:97:C:H6	1.79	0.48
24:BA:357:C:H2'	24:BA:358:U:C6	2.49	0.48
24:BA:858:G:C2	24:BA:2268:A:H2'	2.49	0.48
24:BA:960:A:H2'	24:BA:962:G:H5'	1.96	0.48
24:BA:1021:A:H61	24:BA:1142:A:H61	1.61	0.48
24:BA:1079:C:N3	24:BA:1080:A:C8	2.82	0.48
24:BA:1344:U:O2'	24:BA:1345:C:P	2.71	0.48
24:BA:1428:C:C5	24:BA:1569:A:H5"	2.48	0.48
24:BA:1439:A:C8	24:BA:1440:U:C6	3.01	0.48
24:BA:2197:U:P	3:CD:150:LYS:HE3	2.54	0.48
24:BA:2345:G:C5	24:BA:2381:A:C2	3.02	0.48
24:BA:2560:A:C6	24:BA:2561:U:C4	3.01	0.48
24:BA:2581:G:C5	24:BA:2610:C:C4	3.02	0.48
24:BA:2839:G:C4	24:BA:2840:C:C6	3.02	0.48
26:BC:35:LYS:HZ1	26:BC:37:SER:HB2	1.78	0.48
28:BE:32:VAL:HG23	28:BE:33:VAL:H	1.79	0.48
28:BE:108:ILE:HD13	28:BE:109:LEU:N	2.29	0.48
28:BE:145:ASP:HA	28:BE:166:LYS:O	2.12	0.48
36:BM:12:MET:HB2	36:BM:72:PRO:HG2	1.95	0.48
38:BO:57:ALA:C	38:BO:59:ALA:H	2.22	0.48
43:BT:29:THR:HA	43:BT:86:THR:CA	2.42	0.48
45:BV:93:ARG:O	45:BV:94:ALA:HB2	2.13	0.48
48:BY:19:LEU:O	48:BY:20:ASN:C	2.54	0.48
1:CB:34:ARG:HD3	1:CB:35:ASN:N	2.28	0.48
2:CC:156:LEU:HD23	2:CC:156:LEU:N	2.28	0.48
3:CD:84:ASN:ND2	4:CE:101:GLY:O	2.47	0.48
3:CD:117:VAL:O	3:CD:130:ASN:HA	2.14	0.48
4:CE:44:ARG:CG	4:CE:72:ASN:HA	2.42	0.48
4:CE:82:HIS:CE1	7:CH:95:MET:HE3	2.48	0.48
6:CG:9:ARG:HG3	6:CG:10:LYS:N	2.28	0.48
7:CH:68:LYS:HD3	7:CH:69:ALA:H	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CI:47:VAL:C	8:CI:50:PRO:HD2	2.38	0.48
8:CI:119:LYS:NZ	55:CA:1351:U:H5	2.11	0.48
9:CJ:9:ARG:HH21	9:CJ:71:LEU:CD2	2.27	0.48
11:CL:112:ALA:HB2	55:CA:503:C:OP2	2.13	0.48
12:CM:18:LEU:HB3	12:CM:21:ILE:HD12	1.95	0.48
12:CM:92:ARG:HA	12:CM:92:ARG:NE	2.29	0.48
18:CS:28:LYS:O	18:CS:30:LEU:HD12	2.14	0.48
55:CA:382:A:N7	55:CA:383:A:C6	2.82	0.48
55:CA:953:G:N2	55:CA:1229:A:C4	2.82	0.48
55:CA:961:U:O5'	55:CA:961:U:H6	1.96	0.48
55:CA:1023:U:H2'	55:CA:1024:G:C8	2.49	0.48
55:CA:1183:U:O2'	55:CA:1184:G:OP1	2.31	0.48
55:CA:1246:A:H2'	55:CA:1247:U:O4'	2.14	0.48
55:CA:1248:A:C5	55:CA:1290:G:N2	2.82	0.48
26:DC:130:PRO:CD	26:DC:188:ARG:HG3	2.44	0.48
27:DD:4:LEU:HD12	27:DD:32:ASN:OD1	2.14	0.48
27:DD:38:LYS:HB3	27:DD:38:LYS:HZ3	1.77	0.48
28:DE:57:LYS:HZ2	28:DE:58:LYS:H	1.62	0.48
28:DE:63:LYS:HE2	28:DE:63:LYS:HA	1.96	0.48
31:DH:104:THR:O	31:DH:104:THR:HG23	2.12	0.48
36:DM:81:ARG:NH2	36:DM:84:LYS:HE2	2.29	0.48
36:DM:108:VAL:HG11	36:DM:112:LEU:HD12	1.96	0.48
37:DN:1:MET:O	37:DN:2:ARG:HB2	2.14	0.48
37:DN:47:VAL:C	37:DN:50:PRO:HD2	2.38	0.48
40:DQ:47:ARG:NE	40:DQ:48:ASP:OD2	2.47	0.48
42:DS:9:HIS:H	42:DS:102:HIS:CE1	2.32	0.48
43:DT:34:VAL:O	43:DT:34:VAL:HG12	2.14	0.48
45:DV:26:PHE:CE2	45:DV:42:LEU:HD12	2.48	0.48
46:DW:20:LEU:HD11	46:DW:35:ILE:HG13	1.96	0.48
46:DW:37:VAL:CG2	46:DW:38:ARG:HH11	2.26	0.48
48:DY:17:GLU:HG2	48:DY:50:VAL:HG13	1.96	0.48
24:DA:105:C:H2'	24:DA:106:C:H6	1.79	0.48
24:DA:142:A:H8	24:DA:142:A:C5'	2.25	0.48
24:DA:170:U:H6	24:DA:170:U:O5'	1.97	0.48
24:DA:223:A:C6	24:DA:422:A:N7	2.81	0.48
24:DA:365:U:H2'	24:DA:366:C:C6	2.49	0.48
24:DA:612:G:N2	24:DA:614:A:H1'	2.29	0.48
24:DA:970:U:H2'	24:DA:971:G:H8	1.77	0.48
24:DA:1275:A:O2'	24:DA:1276:A:C4'	2.62	0.48
24:DA:1361:G:C6	24:DA:1362:C:C4	3.02	0.48
24:DA:1731:G:N3	24:DA:1733:G:C8	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1835:G:H1'	24:DA:1931:U:C2	2.48	0.48
24:DA:1865:U:C4	24:DA:1875:G:C2	3.02	0.48
24:DA:2271:G:H2'	24:DA:2272:U:C6	2.49	0.48
24:DA:2511:U:H2'	24:DA:2512:C:O4'	2.14	0.48
24:DA:2618:G:C5	24:DA:2619:C:C5	3.02	0.48
24:DA:2696:U:H2'	24:DA:2697:G:C8	2.49	0.48
24:DA:2728:U:H2'	24:DA:2729:G:C8	2.49	0.48
56:DB:49:C:C6	56:DB:49:C:OP2	2.67	0.48
1:AB:183:PHE:N	1:AB:183:PHE:CD2	2.81	0.48
2:AC:119:ILE:HA	2:AC:122:GLN:CG	2.44	0.48
3:AD:36:ALA:HB1	21:AA:426:U:H5"	1.95	0.48
3:AD:187:ARG:NH1	3:AD:190:LEU:O	2.47	0.48
11:AL:30:ARG:NH1	59:AL:201:HOH:O	2.46	0.48
13:AN:20:PHE:O	13:AN:22:LYS:N	2.46	0.48
19:AT:79:THR:HA	19:AT:82:ILE:CG1	2.43	0.48
21:AA:20:U:C4	21:AA:21:G:C5	3.02	0.48
21:AA:33:A:O2'	21:AA:34:C:H5'	2.14	0.48
21:AA:212:G:O2'	21:AA:213:G:O5'	2.32	0.48
21:AA:493:A:C6	21:AA:494:G:N1	2.82	0.48
21:AA:786:G:N2	21:AA:787:A:H1'	2.29	0.48
21:AA:1510:C:H2'	21:AA:1511:G:H8	1.79	0.48
24:BA:397:U:H2'	24:BA:398:C:C6	2.48	0.48
24:BA:515:A:H2	24:BA:1260:A:N3	2.11	0.48
24:BA:580:U:O3'	40:BQ:30:VAL:HG13	2.14	0.48
24:BA:695:G:OP1	24:BA:1380:G:O2'	2.28	0.48
24:BA:809:G:C5	24:BA:810:U:C5	3.02	0.48
24:BA:906:U:C2'	24:BA:907:G:O5'	2.62	0.48
24:BA:1060:U:O4'	24:BA:1062:G:H5"	2.14	0.48
24:BA:1392:A:C6	24:BA:1393:A:N6	2.81	0.48
24:BA:1683:U:O2'	24:BA:1684:G:C8	2.62	0.48
24:BA:1739:A:H2'	24:BA:1740:G:C8	2.49	0.48
24:BA:1856:U:H3	24:BA:1886:U:H3	1.60	0.48
24:BA:1871:A:H2'	24:BA:1872:A:C8	2.49	0.48
24:BA:2075:U:H2'	24:BA:2077:A:OP1	2.13	0.48
24:BA:2153:C:O5'	24:BA:2153:C:H6	1.95	0.48
24:BA:2311:A:C8	29:BF:76:PHE:CZ	3.02	0.48
25:BB:12:C:C5	46:BW:72:GLY:HA3	2.48	0.48
26:BC:114:GLN:O	26:BC:115:ILE:HD12	2.14	0.48
27:BD:49:GLN:HB2	27:BD:81:GLU:HG2	1.96	0.48
29:BF:107:VAL:HG11	29:BF:175:PRO:HG2	1.96	0.48
33:BJ:25:LEU:HB2	33:BJ:62:VAL:CG2	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BJ:88:THR:HG23	33:BJ:90:GLU:HG3	1.95	0.48
43:BT:18:GLU:O	43:BT:19:LYS:C	2.56	0.48
46:BW:49:ASN:ND2	46:BW:50:VAL:N	2.62	0.48
49:BZ:12:ALA:HA	49:BZ:15:ARG:HD3	1.96	0.48
54:B4:1:MET:SD	54:B4:36:ARG:HB2	2.54	0.48
1:CB:11:ALA:HB1	1:CB:211:LEU:HD21	1.95	0.48
2:CC:18:ASN:ND2	2:CC:53:ARG:HH11	2.08	0.48
4:CE:38:VAL:HG21	4:CE:66:ALA:O	2.12	0.48
4:CE:129:SER:HA	59:CE:201:HOH:O	2.14	0.48
7:CH:29:SER:HB3	55:CA:589:U:H5"	1.96	0.48
8:CI:98:ARG:CZ	55:CA:1178:G:H5"	2.43	0.48
12:CM:21:ILE:HB	12:CM:24:VAL:HG23	1.95	0.48
14:CO:31:LEU:HD22	14:CO:58:MET:HB3	1.95	0.48
19:CT:2:ASN:ND2	55:CA:351:G:OP1	2.46	0.48
55:CA:363:A:H2'	55:CA:364:A:O4'	2.13	0.48
55:CA:755:G:C2	55:CA:756:C:C4	3.01	0.48
55:CA:880:C:H2'	55:CA:881:G:H5'	1.95	0.48
55:CA:956:U:H2'	55:CA:957:U:H6	1.77	0.48
55:CA:1193:G:C2	55:CA:1194:U:C6	3.02	0.48
55:CA:1435:G:C6	55:CA:1436:U:C4	3.02	0.48
55:CA:1460:C:C2	55:CA:1461:G:C8	3.02	0.48
55:CA:1462:C:H4'	39:DP:111:GLU:OE1	2.14	0.48
29:DF:5:ASP:C	29:DF:7:TYR:N	2.71	0.48
29:DF:36:ASN:O	29:DF:37:MET:CB	2.61	0.48
30:DG:117:PRO:HD2	30:DG:120:ILE:CG2	2.44	0.48
34:DK:9:ASN:HD21	34:DK:17:ARG:CZ	2.27	0.48
38:DO:4:LYS:HG3	38:DO:8:ILE:CD1	2.43	0.48
38:DO:94:ARG:HD3	38:DO:99:TYR:HB2	1.96	0.48
43:DT:40:LYS:HA	43:DT:43:ILE:CG2	2.44	0.48
45:DV:26:PHE:HA	45:DV:27:PRO:HD2	1.75	0.48
46:DW:44:PHE:CE2	46:DW:76:ARG:NE	2.82	0.48
48:DY:40:SER:HB2	24:DA:95:A:H1'	1.96	0.48
51:D1:34:GLU:C	51:D1:35:LEU:HD23	2.39	0.48
24:DA:55:G:H2'	24:DA:55:G:N3	2.29	0.48
24:DA:126:A:O2'	24:DA:127:A:C5'	2.62	0.48
24:DA:802:A:C5	24:DA:803:U:C4	3.02	0.48
24:DA:1089:A:H2	24:DA:1090:A:H62	1.62	0.48
24:DA:1424:G:H2'	24:DA:1425:G:C8	2.49	0.48
24:DA:1725:U:H2'	24:DA:1726:C:C6	2.49	0.48
24:DA:1775:U:H2'	24:DA:1776:G:O4'	2.14	0.48
24:DA:1931:U:O2'	24:DA:1932:A:H5'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1945:G:O2'	24:DA:1946:U:C5'	2.53	0.48
24:DA:2189:U:C2	24:DA:2190:G:C8	3.02	0.48
24:DA:2358:A:N7	24:DA:2359:C:C5	2.82	0.48
24:DA:2370:G:C6	24:DA:2371:G:C6	3.01	0.48
24:DA:2385:C:O2'	24:DA:2386:A:C5'	2.60	0.48
2:AC:106:ARG:HG2	2:AC:106:ARG:O	2.14	0.48
2:AC:148:ILE:HA	2:AC:200:TRP:O	2.14	0.48
4:AE:14:LEU:HD22	4:AE:16:ALA:N	2.28	0.48
4:AE:60:GLN:C	4:AE:62:ALA:N	2.71	0.48
10:AK:97:ARG:C	10:AK:99:LEU:H	2.22	0.48
12:AM:103:THR:O	12:AM:104:ASN:C	2.57	0.48
21:AA:54:C:N4	21:AA:352:C:H2'	2.29	0.48
21:AA:91:U:H3'	21:AA:92:U:C6	2.49	0.48
21:AA:109:A:H3'	21:AA:110:C:H5'	1.95	0.48
21:AA:463:U:O2'	21:AA:464:U:C5'	2.53	0.48
21:AA:484:G:O2'	21:AA:485:U:OP2	2.30	0.48
21:AA:568:G:N2	21:AA:883:C:C2	2.82	0.48
21:AA:704:A:C4	21:AA:705:G:C8	3.02	0.48
21:AA:961:U:O2'	21:AA:962:C:C5'	2.62	0.48
21:AA:1158:C:C4	21:AA:1160:G:C8	3.02	0.48
21:AA:1251:A:H2'	21:AA:1252:A:H8	1.79	0.48
21:AA:1423:G:H2'	21:AA:1424:U:H6	1.79	0.48
24:BA:150:U:C2	24:BA:151:C:C5	3.01	0.48
24:BA:587:C:H2'	35:BL:19:LEU:HD22	1.96	0.48
24:BA:787:C:C5	24:BA:791:C:N3	2.82	0.48
24:BA:977:G:C6	24:BA:987:C:N3	2.82	0.48
24:BA:1026:G:H8	24:BA:1026:G:O5'	1.96	0.48
24:BA:1036:G:C5	24:BA:1120:G:C6	3.02	0.48
24:BA:1070:A:C6	24:BA:1097:U:H4'	2.49	0.48
24:BA:1076:C:H2'	24:BA:1077:A:C8	2.48	0.48
24:BA:1570:A:C6	24:BA:1571:A:N6	2.82	0.48
24:BA:1628:G:H2'	24:BA:1629:U:C6	2.48	0.48
24:BA:1936:A:C2	24:BA:1943:U:H5	2.32	0.48
24:BA:2076:U:O5'	24:BA:2076:U:O2	2.32	0.48
24:BA:2366:A:H2'	24:BA:2367:G:H5'	1.96	0.48
25:BB:10:G:H5"	25:BB:11:C:OP2	2.14	0.48
29:BF:123:GLY:HA2	29:BF:162:ASP:OD2	2.14	0.48
30:BG:86:LEU:CD1	30:BG:132:LEU:HD21	2.43	0.48
30:BG:148:ARG:CD	30:BG:163:TYR:CE2	2.97	0.48
32:BI:16:MET:O	32:BI:19:PRO:HD3	2.12	0.48
35:BL:77:ILE:HG12	35:BL:95:LEU:HD13	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BO:33:ARG:HG2	38:BO:34:HIS:HD1	1.78	0.48
40:BQ:86:SER:O	40:BQ:87:VAL:C	2.57	0.48
40:BQ:87:VAL:HB	41:BR:52:PRO:HG3	1.96	0.48
1:CB:77:GLU:HG3	1:CB:80:LYS:HE3	1.96	0.48
6:CG:108:ARG:HH21	55:CA:1240:U:H5"	1.78	0.48
9:CJ:66:GLU:CG	9:CJ:67:ILE:N	2.77	0.48
10:CK:126:ARG:O	20:CU:33:ARG:CZ	2.62	0.48
11:CL:33:CYS:HA	11:CL:54:VAL:HA	1.95	0.48
17:CR:22:TYR:HA	17:CR:28:LEU:HD21	1.96	0.48
18:CS:33:TRP:CD1	18:CS:56:HIS:HE1	2.32	0.48
55:CA:177:G:C3'	55:CA:178:C:H5'	2.43	0.48
55:CA:488:C:O2'	55:CA:489:C:H5'	2.13	0.48
55:CA:864:A:C2	55:CA:917:G:N3	2.82	0.48
55:CA:1032:G:H2'	55:CA:1033:G:O4'	2.13	0.48
27:DD:32:ASN:HB3	27:DD:52:THR:OG1	2.13	0.48
30:DG:163:TYR:O	30:DG:164:ALA:C	2.57	0.48
31:DH:48:GLU:O	31:DH:49:ALA:CB	2.61	0.48
33:DJ:4:PHE:O	33:DJ:44:TYR:CZ	2.67	0.48
33:DJ:57:LEU:HD11	33:DJ:129:GLU:H	1.79	0.48
34:DK:118:LEU:HD23	34:DK:118:LEU:N	2.29	0.48
34:DK:121:GLU:O	34:DK:122:VAL:C	2.57	0.48
37:DN:97:ILE:HD11	37:DN:99:LYS:HZ1	1.78	0.48
37:DN:106:ASP:O	37:DN:106:ASP:OD1	2.32	0.48
38:DO:115:LEU:H	38:DO:115:LEU:CD1	2.13	0.48
39:DP:16:VAL:HG13	39:DP:19:PHE:HE2	1.79	0.48
44:DU:39:ASN:OD1	44:DU:64:ILE:HB	2.14	0.48
44:DU:82:VAL:HG23	44:DU:83:GLY:H	1.79	0.48
44:DU:84:PHE:HD1	24:DA:298:G:OP2	1.97	0.48
46:DW:43:LYS:HD3	46:DW:43:LYS:HA	1.73	0.48
47:DX:6:VAL:HG22	47:DX:7:THR:HG23	1.95	0.48
51:D1:47:ILE:HD12	51:D1:47:ILE:N	2.29	0.48
24:DA:847:U:O4'	24:DA:847:U:O2	2.28	0.48
24:DA:1020:A:OP1	24:DA:1034:G:N2	2.41	0.48
24:DA:1358:G:O2'	24:DA:1359:A:H5'	2.14	0.48
24:DA:1532:A:H2'	24:DA:1533:C:C6	2.48	0.48
24:DA:1627:G:C6	24:DA:1640:A:C5	3.01	0.48
24:DA:1684:G:H2'	24:DA:1685:C:H6	1.78	0.48
24:DA:2069:G:O2'	24:DA:2070:A:H5'	2.14	0.48
24:DA:2880:C:O2'	24:DA:2881:U:H5'	2.14	0.48
1:AB:20:ARG:O	1:AB:21:TYR:C	2.57	0.47
3:AD:84:ASN:HB3	3:AD:87:GLU:CG	2.41	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:71:ILE:HD13	4:AE:144:GLU:HG3	1.96	0.47
4:AE:93:VAL:HA	4:AE:126:ALA:CB	2.44	0.47
4:AE:152:VAL:HB	4:AE:155:LYS:CE	2.44	0.47
5:AF:11:HIS:ND1	5:AF:13:ASP:HB2	2.28	0.47
8:AI:60:LEU:HD23	8:AI:60:LEU:N	2.29	0.47
9:AJ:49:PHE:HE1	9:AJ:67:ILE:HG13	1.79	0.47
9:AJ:52:LEU:HA	9:AJ:62:ARG:HA	1.96	0.47
11:AL:29:LYS:O	11:AL:80:LEU:HD12	2.13	0.47
14:AO:81:ILE:HG13	14:AO:82:GLU:N	2.28	0.47
21:AA:102:G:C6	21:AA:103:U:C4	3.02	0.47
21:AA:109:A:N1	21:AA:326:G:C6	2.82	0.47
21:AA:702:A:N6	24:BA:1846:G:O2'	2.34	0.47
21:AA:957:U:H2'	21:AA:959:A:OP2	2.13	0.47
21:AA:1213:A:C4	21:AA:1215:G:C8	3.02	0.47
21:AA:1295:U:H2'	21:AA:1296:C:H6	1.79	0.47
24:BA:149:A:C4	24:BA:150:U:C6	3.02	0.47
24:BA:190:A:N1	24:BA:191:A:C2	2.82	0.47
24:BA:341:C:O2'	24:BA:342:A:H5'	2.14	0.47
24:BA:529:A:C8	24:BA:2023:C:N4	2.82	0.47
24:BA:729:G:C4	24:BA:1775:U:C2	3.02	0.47
24:BA:1153:C:H2'	24:BA:1154:G:C8	2.48	0.47
24:BA:1198:U:H2'	24:BA:1199:U:C6	2.49	0.47
24:BA:1257:C:H5'	28:BE:78:TRP:CZ3	2.48	0.47
24:BA:1329:U:HO2'	24:BA:1330:C:P	2.37	0.47
24:BA:1342:A:C2	24:BA:1345:C:C5	3.03	0.47
24:BA:1354:A:H2'	24:BA:1355:G:O4'	2.14	0.47
24:BA:1386:C:H2'	24:BA:1387:A:C8	2.48	0.47
24:BA:1936:A:H5"	24:BA:1937:A:C5'	2.39	0.47
24:BA:2720:U:C2	24:BA:2872:A:C6	3.01	0.47
24:BA:2774:C:H2'	24:BA:2775:G:O4'	2.14	0.47
25:BB:14:U:H3'	25:BB:15:A:H5"	1.95	0.47
26:BC:156:SER:O	26:BC:159:THR:HG23	2.14	0.47
27:BD:4:LEU:HD21	27:BD:97:SER:O	2.14	0.47
28:BE:29:HIS:O	28:BE:32:VAL:HG22	2.14	0.47
33:BJ:44:TYR:HB2	40:BQ:63:ARG:CB	2.35	0.47
35:BL:47:ARG:HG2	35:BL:47:ARG:HH21	1.79	0.47
35:BL:77:ILE:CD1	35:BL:108:ALA:HB1	2.43	0.47
36:BM:77:PRO:HD2	36:BM:80:VAL:HG11	1.94	0.47
42:BS:7:HIS:HB2	42:BS:50:VAL:CG2	2.44	0.47
43:BT:39:THR:O	43:BT:40:LYS:HB2	2.14	0.47
47:BX:39:VAL:C	47:BX:41:SER:N	2.72	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BZ:13:ILE:O	49:BZ:15:ARG:N	2.47	0.47
1:CB:13:VAL:HG23	1:CB:211:LEU:CD2	2.44	0.47
3:CD:71:PHE:CZ	3:CD:199:ILE:HD12	2.49	0.47
7:CH:17:GLN:NE2	7:CH:71:VAL:HG23	2.21	0.47
11:CL:56:LEU:HD11	11:CL:81:ILE:HD13	1.96	0.47
15:CP:28:ARG:NH2	55:CA:390:U:H4'	2.29	0.47
15:CP:48:GLU:OE1	15:CP:51:ARG:HB2	2.13	0.47
17:CR:61:ALA:HB3	17:CR:67:LEU:HD12	1.95	0.47
20:CU:7:GLU:HB3	20:CU:11:PHE:HZ	1.79	0.47
55:CA:438:U:C5	55:CA:494:G:C5	3.02	0.47
55:CA:444:G:C2	55:CA:445:G:C8	3.02	0.47
55:CA:458:U:H2'	55:CA:459:A:C8	2.49	0.47
55:CA:704:A:O2'	55:CA:705:G:C5'	2.62	0.47
55:CA:1009:U:H2'	55:CA:1010:U:C6	2.49	0.47
55:CA:1131:G:H2'	55:CA:1132:C:H5'	1.96	0.47
26:DC:9:SER:O	26:DC:10:PRO:C	2.56	0.47
26:DC:24:HIS:N	26:DC:80:LEU:O	2.45	0.47
27:DD:76:GLY:O	27:DD:77:ARG:C	2.57	0.47
28:DE:133:LEU:HD23	28:DE:133:LEU:C	2.38	0.47
28:DE:149:ILE:O	28:DE:149:ILE:HG12	2.14	0.47
32:DI:105:LEU:HD23	32:DI:105:LEU:O	2.14	0.47
33:DJ:45:THR:OG1	33:DJ:48:VAL:HB	2.14	0.47
34:DK:60:ALA:HB2	34:DK:86:LEU:HA	1.95	0.47
35:DL:3:LEU:O	35:DL:6:LEU:HB2	2.14	0.47
36:DM:41:LEU:HB3	36:DM:46:ILE:HG23	1.96	0.47
44:DU:54:PRO:CG	44:DU:55:GLY:H	2.22	0.47
45:DV:56:PHE:C	45:DV:58:SER:N	2.72	0.47
46:DW:34:SER:O	46:DW:35:ILE:O	2.32	0.47
49:DZ:16:LEU:HD22	49:DZ:16:LEU:N	2.27	0.47
24:DA:38:A:C5	24:DA:39:G:C8	3.02	0.47
24:DA:362:A:C5	24:DA:363:G:C8	3.02	0.47
24:DA:417:C:H2'	24:DA:418:C:O4'	2.14	0.47
24:DA:671:C:O2'	24:DA:672:C:C6	2.59	0.47
24:DA:724:U:H2'	24:DA:725:G:O4'	2.14	0.47
24:DA:729:G:C4	24:DA:1775:U:O2	2.67	0.47
24:DA:1000:A:H2'	24:DA:1001:A:C8	2.49	0.47
24:DA:1417:C:H2'	24:DA:1418:G:C8	2.49	0.47
24:DA:1973:G:H2'	24:DA:1974:C:H6	1.79	0.47
24:DA:2519:U:N3	24:DA:2541:A:C2	2.82	0.47
24:DA:2728:U:H2'	24:DA:2729:G:H8	1.79	0.47
1:AB:164:ASP:O	1:AB:168:GLU:HG2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AC:14:VAL:HG21	2:AC:177:LEU:O	2.14	0.47
2:AC:28:PHE:HE1	13:AN:93:PRO:HG2	1.79	0.47
4:AE:24:VAL:HG23	4:AE:25:LYS:N	2.28	0.47
4:AE:33:THR:HG22	4:AE:51:LYS:HB2	1.94	0.47
6:AG:94:ARG:NE	6:AG:98:LEU:HD11	2.23	0.47
7:AH:9:MET:HE1	7:AH:35:ILE:HD12	1.96	0.47
7:AH:98:LEU:N	7:AH:98:LEU:CD2	2.68	0.47
8:AI:12:LYS:HG2	21:AA:1371:G:OP1	2.14	0.47
11:AL:5:GLN:O	11:AL:8:ARG:HB2	2.13	0.47
12:AM:28:ARG:HH12	12:AM:32:ILE:HD11	1.78	0.47
13:AN:22:LYS:CG	13:AN:23:ARG:H	2.27	0.47
17:AR:20:ILE:HD12	17:AR:21:ASP:N	2.29	0.47
21:AA:570:G:C6	21:AA:873:A:C2	3.02	0.47
21:AA:919:A:C2'	21:AA:920:U:H5'	2.44	0.47
21:AA:1202:U:O2'	21:AA:1203:C:C5'	2.62	0.47
24:BA:308:G:H2'	24:BA:309:A:O4'	2.14	0.47
24:BA:404:A:O2'	24:BA:405:U:OP2	2.28	0.47
24:BA:447:A:N1	24:BA:454:A:H2'	2.29	0.47
24:BA:563:A:N1	24:BA:564:C:N3	2.62	0.47
24:BA:831:G:C4	24:BA:832:U:C5	3.02	0.47
24:BA:1002:G:C2'	24:BA:1003:G:O5'	2.62	0.47
24:BA:1135:C:H6	24:BA:1135:C:H5"	1.77	0.47
24:BA:1252:G:C2	40:BQ:32:ARG:HG2	2.48	0.47
24:BA:1360:G:N7	24:BA:1371:G:N2	2.62	0.47
24:BA:1462:C:H2'	24:BA:1463:C:H6	1.78	0.47
24:BA:1672:A:C6	24:BA:1673:G:C6	3.02	0.47
24:BA:1840:G:C6	24:BA:1841:U:C4	3.03	0.47
24:BA:2446:G:C2'	24:BA:2447:G:H5"	2.42	0.47
24:BA:2738:A:N1	24:BA:2739:U:C2	2.82	0.47
24:BA:2746:U:C2'	24:BA:2747:G:H5'	2.44	0.47
25:BB:116:G:H4'	38:BO:54:VAL:O	2.14	0.47
27:BD:15:PHE:H	39:BP:11:GLN:HE22	1.61	0.47
32:BI:79:LEU:HD11	32:BI:132:ALA:HA	1.96	0.47
37:BN:17:ARG:HG3	37:BN:17:ARG:NH2	2.29	0.47
39:BP:50:ARG:CB	39:BP:57:ALA:N	2.58	0.47
40:BQ:63:ARG:CZ	40:BQ:96:ASP:CA	2.92	0.47
43:BT:38:ALA:HB1	43:BT:43:ILE:HG22	1.95	0.47
45:BV:20:LEU:HD13	45:BV:27:PRO:HB3	1.95	0.47
47:BX:30:PRO:HB2	47:BX:32:LEU:HD11	1.96	0.47
51:B1:22:THR:OG1	51:B1:23:THR:N	2.47	0.47
52:B2:42:LEU:HD22	52:B2:42:LEU:N	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CB:27:LYS:N	1:CB:28:PRO:CD	2.77	0.47
1:CB:104:LYS:HD2	1:CB:104:LYS:N	2.28	0.47
2:CC:161:ILE:H	2:CC:161:ILE:CD1	2.22	0.47
3:CD:117:VAL:HG11	3:CD:132:ALA:HA	1.96	0.47
4:CE:110:MET:O	4:CE:111:ARG:C	2.56	0.47
4:CE:142:GLY:C	4:CE:144:GLU:H	2.21	0.47
8:CI:106:ASP:C	8:CI:108:ARG:H	2.21	0.47
11:CL:115:LYS:O	11:CL:116:TYR:HB2	2.14	0.47
19:CT:35:TYR:OH	55:CA:259:G:OP1	2.32	0.47
55:CA:78:A:C6	55:CA:79:G:C6	3.02	0.47
55:CA:780:A:C2	55:CA:803:G:C6	3.02	0.47
55:CA:1091:U:H2'	55:CA:1093:A:OP2	2.13	0.47
55:CA:1215:G:H2'	55:CA:1216:A:H8	1.79	0.47
55:CA:1390:U:H2'	55:CA:1391:U:H6	1.79	0.47
55:CA:1499:A:H2'	55:CA:1500:A:H8	1.79	0.47
26:DC:29:PHE:CE2	26:DC:31:PRO:HG2	2.49	0.47
26:DC:105:ALA:HA	26:DC:106:PRO:HD3	1.72	0.47
28:DE:2:GLU:HG2	28:DE:13:THR:HA	1.95	0.47
28:DE:165:HIS:CG	24:DA:1205:A:N7	2.82	0.47
31:DH:83:LYS:HG3	31:DH:149:GLU:HB2	1.97	0.47
36:DM:35:ALA:O	36:DM:128:THR:HG22	2.14	0.47
36:DM:134:THR:HG21	45:DV:79:ARG:CZ	2.43	0.47
38:DO:62:LEU:HD11	38:DO:64:TYR:C	2.38	0.47
44:DU:3:LYS:O	44:DU:4:ILE:C	2.56	0.47
44:DU:16:LYS:HD2	44:DU:17:ASP:OD1	2.13	0.47
50:D0:14:MET:HB3	24:DA:2045:C:O3'	2.14	0.47
24:DA:30:G:H2'	24:DA:31:C:O4'	2.13	0.47
24:DA:120:U:O4	24:DA:177:G:C8	2.67	0.47
24:DA:190:A:H2'	24:DA:191:A:O4'	2.14	0.47
24:DA:565:C:H4'	24:DA:1253:A:N6	2.28	0.47
24:DA:607:U:H3	24:DA:620:G:H1'	1.79	0.47
24:DA:722:A:C2	24:DA:723:C:C2	3.02	0.47
24:DA:1600:C:C2	24:DA:1601:G:C8	3.02	0.47
24:DA:1808:A:H5"	24:DA:1809:A:N7	2.28	0.47
24:DA:2073:C:H2'	24:DA:2074:U:H6	1.79	0.47
24:DA:2328:A:H2'	24:DA:2329:U:C6	2.49	0.47
24:DA:2654:A:C4	24:DA:2656:U:N3	2.83	0.47
24:DA:2848:G:H1'	24:DA:2868:A:N6	2.29	0.47
24:DA:2901:C:N4	24:DA:2902:C:H41	2.12	0.47
1:AB:29:PHE:HD1	1:AB:44:LYS:HG3	1.78	0.47
1:AB:124:THR:O	1:AB:125:PHE:HB3	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AF:38:ARG:HH11	5:AF:38:ARG:HG2	1.79	0.47
5:AF:64:VAL:HG12	5:AF:65:GLU:N	2.29	0.47
6:AG:74:VAL:CG2	6:AG:143:MET:HG2	2.41	0.47
6:AG:83:THR:HG22	6:AG:85:GLN:H	1.79	0.47
8:AI:51:LEU:HD13	8:AI:56:MET:HG2	1.96	0.47
12:AM:2:ARG:O	12:AM:3:ILE:HG12	2.14	0.47
21:AA:102:G:C5	21:AA:103:U:C5	3.02	0.47
21:AA:181:A:N6	21:AA:195:A:OP2	2.47	0.47
21:AA:199:A:O2'	21:AA:200:G:O5'	2.33	0.47
21:AA:203:G:N2	21:AA:215:C:C2	2.82	0.47
21:AA:370:C:H2'	21:AA:371:A:H8	1.78	0.47
21:AA:781:A:H2'	21:AA:782:A:H5'	1.96	0.47
21:AA:1218:C:H2'	21:AA:1219:A:C8	2.49	0.47
21:AA:1514:G:C2	21:AA:1515:G:C8	3.02	0.47
22:AV:31:G:H2'	22:AV:32:C:H6	1.79	0.47
24:BA:16:C:C3'	50:B0:10:SER:HG	2.27	0.47
24:BA:30:G:C5	24:BA:31:C:C4	3.01	0.47
24:BA:34:U:H4'	24:BA:35:G:OP2	2.14	0.47
24:BA:846:U:O4	24:BA:927:A:OP2	2.32	0.47
24:BA:915:C:O2	24:BA:915:C:C2'	2.54	0.47
24:BA:999:U:P	59:BA:3363:HOH:O	2.72	0.47
24:BA:1005:C:C2	24:BA:1143:A:C6	3.02	0.47
24:BA:1027:A:N1	24:BA:1126:A:N9	2.62	0.47
24:BA:1301:A:C2	24:BA:1303:G:C5	3.02	0.47
24:BA:1738:G:O2'	24:BA:1739:A:O5'	2.31	0.47
24:BA:1857:G:O2'	24:BA:1858:A:P	2.72	0.47
24:BA:2069:G:O2'	24:BA:2070:A:H5'	2.14	0.47
24:BA:2297:A:O2'	24:BA:2298:A:H5'	2.14	0.47
24:BA:2331:G:C2	24:BA:2332:C:C2	3.02	0.47
24:BA:2447:G:H4'	24:BA:2448:A:O5'	2.14	0.47
24:BA:2591:C:OP1	26:BC:237:ARG:HG3	2.13	0.47
24:BA:2628:C:O2'	24:BA:2781:A:H2'	2.14	0.47
24:BA:2748:A:C6	24:BA:2749:A:C5	3.02	0.47
24:BA:2839:G:C6	24:BA:2840:C:C4	3.02	0.47
26:BC:211:ARG:HA	26:BC:211:ARG:HD2	1.49	0.47
38:BO:88:LYS:HE2	38:BO:116:GLN:NE2	2.28	0.47
39:BP:50:ARG:HB2	39:BP:56:SER:HA	1.96	0.47
42:BS:29:VAL:O	42:BS:33:LEU:HD22	2.14	0.47
43:BT:32:LEU:HD23	43:BT:83:ALA:CB	2.45	0.47
53:B3:3:ILE:HG22	53:B3:62:PRO:HG3	1.96	0.47
10:CK:117:HIS:CE1	55:CA:675:A:H1'	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CL:20:VAL:N	11:CL:21:PRO:CD	2.76	0.47
11:CL:33:CYS:HB3	11:CL:77:SER:O	2.13	0.47
14:CO:54:GLY:O	14:CO:57:ARG:HB3	2.13	0.47
14:CO:63:ARG:HG3	14:CO:67:ASP:OD1	2.14	0.47
16:CQ:41:THR:HG23	55:CA:237:G:OP1	2.14	0.47
55:CA:757:U:OP1	55:CA:822:U:O2'	2.28	0.47
55:CA:1215:G:O2'	55:CA:1216:A:H5'	2.15	0.47
55:CA:1228:C:O2'	55:CA:1229:A:H5'	2.14	0.47
55:CA:1348:U:C2'	55:CA:1349:A:H8	2.28	0.47
55:CA:1507:A:C2	55:CA:1508:A:N7	2.82	0.47
22:CV:38:A:N7	22:CV:39:C:C5	2.83	0.47
33:DJ:30:THR:HG23	33:DJ:31:GLU:H	1.79	0.47
33:DJ:77:HIS:CE1	33:DJ:83:GLY:HA3	2.49	0.47
37:DN:36:THR:O	37:DN:111:ALA:N	2.45	0.47
37:DN:92:GLY:H	37:DN:94:TYR:HE1	1.58	0.47
40:DQ:8:ILE:HG12	40:DQ:8:ILE:O	2.14	0.47
43:DT:17:SER:C	43:DT:18:GLU:HG2	2.38	0.47
44:DU:44:HIS:CD2	24:DA:483:A:C8	3.01	0.47
47:DX:36:ARG:HG2	47:DX:47:THR:HB	1.95	0.47
24:DA:28:A:N6	24:DA:512:G:H1'	2.30	0.47
24:DA:235:U:C2	24:DA:430:A:C2	3.03	0.47
24:DA:285:G:H2'	24:DA:286:U:C6	2.49	0.47
24:DA:310:A:C2	24:DA:330:A:C4	3.02	0.47
24:DA:600:G:C6	24:DA:601:C:C2	3.02	0.47
24:DA:629:G:H2'	24:DA:630:G:C8	2.50	0.47
24:DA:704:G:HO2'	24:DA:705:A:P	2.37	0.47
24:DA:982:C:H5"	24:DA:983:A:OP1	2.13	0.47
24:DA:1022:G:O6	24:DA:1140:C:C5	2.68	0.47
24:DA:1259:G:C6	24:DA:1260:A:C6	3.02	0.47
24:DA:1320:C:H5	24:DA:1329:U:H5"	1.79	0.47
24:DA:1714:U:C3'	24:DA:1715:G:C5'	2.90	0.47
24:DA:1759:A:H2'	24:DA:1760:C:C6	2.49	0.47
24:DA:1906:G:C8	24:DA:1929:G:H2'	2.45	0.47
24:DA:2051:A:H2'	24:DA:2614:A:N6	2.29	0.47
24:DA:2093:G:O2'	24:DA:2094:A:C8	2.54	0.47
24:DA:2336:A:H4'	24:DA:2337:G:OP2	2.13	0.47
56:DB:12:C:C5'	56:DB:15:A:H62	2.26	0.47
3:AD:66:VAL:HG12	3:AD:71:PHE:HB2	1.95	0.47
3:AD:149:LYS:HZ3	3:AD:177:MET:HG3	1.80	0.47
3:AD:172:VAL:HG22	3:AD:173:ASP:N	2.26	0.47
4:AE:35:LEU:HD11	4:AE:47:PHE:HD2	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AH:50:VAL:HG22	7:AH:50:VAL:O	2.13	0.47
7:AH:75:GLN:OE1	7:AH:75:GLN:HA	2.14	0.47
9:AJ:91:ASP:O	9:AJ:92:LEU:HG	2.15	0.47
11:AL:100:ALA:HB1	11:AL:101:LEU:HD13	1.96	0.47
14:AO:69:LEU:HD21	14:AO:76:ARG:HB2	1.96	0.47
18:AS:68:HIS:HD2	18:AS:72:GLU:CD	2.23	0.47
21:AA:208:U:H5	21:AA:210:C:C6	2.32	0.47
21:AA:254:G:H2'	21:AA:255:G:H8	1.79	0.47
21:AA:359:G:H2'	21:AA:360:G:O4'	2.14	0.47
21:AA:406:G:N2	21:AA:407:U:C2	2.82	0.47
21:AA:407:U:H2'	21:AA:408:A:C8	2.49	0.47
21:AA:436:C:O2'	21:AA:437:U:H5'	2.14	0.47
21:AA:1013:G:N2	21:AA:1015:G:H3'	2.29	0.47
21:AA:1533:C:C3'	21:AA:1534:A:H5"	2.44	0.47
24:BA:16:C:O3'	50:B0:10:SER:OG	2.27	0.47
24:BA:532:A:N1	24:BA:2020:A:H1'	2.30	0.47
24:BA:558:U:H5"	33:BJ:111:LYS:CE	2.44	0.47
24:BA:686:U:C2	52:B2:6:GLN:O	2.66	0.47
24:BA:821:A:N7	24:BA:946:C:N3	2.62	0.47
24:BA:1213:A:O2'	24:BA:1214:A:C5'	2.60	0.47
24:BA:1301:A:C4	24:BA:1303:G:C8	3.03	0.47
24:BA:1322:A:O3'	42:BS:84:ARG:NH1	2.48	0.47
24:BA:1831:G:C6	24:BA:1832:C:N4	2.82	0.47
24:BA:1881:C:N4	24:BA:1882:U:C4	2.82	0.47
24:BA:1916:A:H2'	24:BA:1917:U:O4'	2.14	0.47
24:BA:2027:G:H2'	24:BA:2028:U:H5'	1.95	0.47
24:BA:2076:U:O2	24:BA:2076:U:O4'	2.32	0.47
24:BA:2391:G:OP2	53:B3:34:LYS:NZ	2.44	0.47
27:BD:91:THR:C	27:BD:93:GLY:N	2.71	0.47
28:BE:32:VAL:CG2	28:BE:33:VAL:N	2.74	0.47
28:BE:44:ARG:HG3	28:BE:44:ARG:HH21	1.80	0.47
30:BG:82:PHE:CZ	30:BG:137:LYS:HD2	2.49	0.47
31:BH:79:THR:HG22	31:BH:80:ILE:HG12	1.96	0.47
33:BJ:58:ASN:HD21	33:BJ:128:ASN:HB2	1.79	0.47
34:BK:107:LEU:C	34:BK:109:SER:H	2.21	0.47
37:BN:73:ASN:HD22	37:BN:76:VAL:CG1	2.26	0.47
41:BR:14:VAL:HG23	41:BR:18:GLN:OE1	2.14	0.47
43:BT:49:LYS:HB2	43:BT:50:LEU:HD12	1.96	0.47
1:CB:75:ALA:HB2	1:CB:209:VAL:HG11	1.96	0.47
2:CC:10:ARG:HG2	2:CC:177:LEU:CD2	2.45	0.47
2:CC:131:ARG:O	2:CC:135:ARG:HB2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CD:155:LYS:HG2	3:CD:177:MET:HE1	1.97	0.47
4:CE:151:MET:O	4:CE:154:ALA:HB3	2.13	0.47
12:CM:32:ILE:HD13	12:CM:32:ILE:O	2.15	0.47
55:CA:68:G:C5	55:CA:69:G:H1'	2.49	0.47
55:CA:110:C:O2'	55:CA:111:G:O4'	2.22	0.47
55:CA:294:U:C4	55:CA:295:C:N4	2.82	0.47
55:CA:300:A:H1'	55:CA:565:U:O2	2.14	0.47
55:CA:983:A:O2'	55:CA:984:C:H5'	2.14	0.47
55:CA:1055:A:C6	55:CA:1206:G:C5	3.02	0.47
55:CA:1124:G:O2'	55:CA:1125:U:C5	2.67	0.47
55:CA:1151:A:C4	55:CA:1152:A:N7	2.82	0.47
55:CA:1438:G:C4	55:CA:1439:G:C8	3.02	0.47
27:DD:94:GLN:O	27:DD:94:GLN:HG2	2.14	0.47
27:DD:148:GLN:OE1	27:DD:152:PRO:HG2	2.14	0.47
28:DE:29:HIS:O	28:DE:32:VAL:HG22	2.14	0.47
30:DG:70:LEU:HD12	30:DG:71:LEU:N	2.30	0.47
31:DH:2:GLN:HB3	31:DH:18:GLN:CD	2.39	0.47
36:DM:21:ALA:HB3	36:DM:99:GLY:HA3	1.95	0.47
36:DM:28:PHE:HB2	36:DM:104:GLU:OE1	2.14	0.47
37:DN:114:GLU:HG2	37:DN:115:LEU:N	2.30	0.47
38:DO:101:GLY:HA3	56:DB:49:C:H5'	1.96	0.47
39:DP:28:LYS:NZ	39:DP:82:SER:HB2	2.30	0.47
42:DS:7:HIS:HB2	42:DS:50:VAL:CG2	2.44	0.47
49:DZ:6:ILE:HG22	49:DZ:7:THR:N	2.30	0.47
54:D4:7:VAL:CG1	54:D4:8:LYS:N	2.73	0.47
24:DA:104:A:H2'	24:DA:105:C:C6	2.49	0.47
24:DA:177:G:N2	24:DA:177:G:OP2	2.43	0.47
24:DA:309:A:H1'	24:DA:329:G:N3	2.29	0.47
24:DA:680:C:H2'	24:DA:681:G:C8	2.49	0.47
24:DA:802:A:H2'	24:DA:803:U:C5	2.48	0.47
24:DA:860:U:C2	24:DA:2268:A:C8	3.02	0.47
24:DA:1079:C:N4	24:DA:1088:A:C2	2.82	0.47
24:DA:1252:G:H5"	59:DA:3289:HOH:O	2.13	0.47
24:DA:1378:A:C4	24:DA:1380:G:C8	3.02	0.47
24:DA:1998:A:C2	24:DA:1999:C:C2	3.03	0.47
24:DA:2001:C:C2	24:DA:2002:G:C8	3.02	0.47
24:DA:2080:A:H2'	24:DA:2081:U:C6	2.49	0.47
24:DA:2148:G:O2'	24:DA:2149:U:C5	2.66	0.47
24:DA:2239:G:H2'	24:DA:2240:U:H6	1.79	0.47
24:DA:2713:U:O2'	24:DA:2714:G:P	2.66	0.47
56:DB:76:G:H2'	56:DB:77:U:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AC:4:VAL:O	2:AC:4:VAL:HG13	2.13	0.47
3:AD:90:LEU:CD2	3:AD:194:ILE:HD12	2.45	0.47
4:AE:156:ARG:CA	7:AH:63:LYS:HE2	2.44	0.47
6:AG:3:ARG:CG	6:AG:4:ARG:H	2.27	0.47
8:AI:20:ILE:HD12	8:AI:85:ALA:O	2.15	0.47
8:AI:93:LEU:C	8:AI:95:SER:H	2.22	0.47
11:AL:27:PRO:C	11:AL:28:GLN:CD	2.83	0.47
19:AT:5:SER:C	19:AT:7:LYS:H	2.22	0.47
21:AA:253:A:C2'	21:AA:254:G:H8	2.28	0.47
21:AA:466:A:O2'	21:AA:467:U:C5	2.67	0.47
21:AA:498:A:H8	21:AA:498:A:OP2	1.97	0.47
21:AA:499:A:O2'	21:AA:500:G:C8	2.62	0.47
21:AA:544:G:C4	21:AA:545:C:C6	3.02	0.47
21:AA:715:A:H8	21:AA:715:A:O5'	1.98	0.47
21:AA:1066:C:H2'	21:AA:1067:A:C8	2.50	0.47
21:AA:1118:U:H2'	21:AA:1119:C:O4'	2.14	0.47
21:AA:1151:A:C4	21:AA:1152:A:C8	3.03	0.47
21:AA:1203:C:H2'	21:AA:1204:A:O4'	2.14	0.47
21:AA:1442:G:H2'	21:AA:1443:C:C6	2.50	0.47
21:AA:1500:A:C2'	21:AA:1501:C:H5'	2.44	0.47
24:BA:14:A:H2'	24:BA:15:G:O4'	2.15	0.47
24:BA:49:A:H5"	24:BA:51:G:C4'	2.44	0.47
24:BA:149:A:C5	24:BA:150:U:C5	3.03	0.47
24:BA:263:G:C2	24:BA:264:C:C2	3.02	0.47
24:BA:289:G:C5	24:BA:290:U:C5	3.02	0.47
24:BA:1063:G:O2'	32:BI:89:SER:N	2.43	0.47
24:BA:1228:G:H2'	24:BA:1229:C:C6	2.50	0.47
24:BA:1351:C:H2'	24:BA:1352:U:O4'	2.14	0.47
24:BA:1705:A:C6	24:BA:1706:C:C4	3.02	0.47
24:BA:1714:U:C6	24:BA:1714:U:H5"	2.49	0.47
24:BA:1754:A:N6	24:BA:1755:A:N1	2.63	0.47
24:BA:2270:A:H2'	24:BA:2271:G:O4'	2.15	0.47
24:BA:2308:G:O6	29:BF:76:PHE:CE2	2.67	0.47
24:BA:2345:G:H4'	24:BA:2346:A:O5'	2.13	0.47
24:BA:2508:G:C2	24:BA:2582:G:C6	3.03	0.47
24:BA:2852:G:H2'	24:BA:2853:C:O4'	2.15	0.47
26:BC:73:ILE:H	26:BC:73:ILE:HG12	1.50	0.47
26:BC:131:MET:HA	26:BC:134:ILE:CD1	2.45	0.47
29:BF:4:HIS:O	29:BF:7:TYR:HB3	2.14	0.47
32:BI:12:VAL:HG23	32:BI:13:ALA:H	1.79	0.47
34:BK:20:MET:O	34:BK:42:THR:HG22	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BM:34:LYS:HD3	45:BV:81:PRO:O	2.14	0.47
43:BT:43:ILE:O	43:BT:43:ILE:HG13	2.14	0.47
44:BU:60:LYS:HD2	44:BU:60:LYS:HA	1.64	0.47
44:BU:61:GLU:H	44:BU:61:GLU:HG2	1.49	0.47
46:BW:19:ARG:HH12	46:BW:22:VAL:HG11	1.78	0.47
48:BY:13:GLU:C	48:BY:15:ASN:H	2.22	0.47
51:B1:33:LEU:C	51:B1:33:LEU:HD12	2.40	0.47
1:CB:55:GLU:CD	1:CB:55:GLU:N	2.72	0.47
1:CB:69:VAL:O	1:CB:162:VAL:HA	2.15	0.47
2:CC:24:ASN:O	2:CC:28:PHE:HB2	2.15	0.47
3:CD:97:LEU:HD11	3:CD:122:ILE:HG21	1.96	0.47
5:CF:99:ALA:O	5:CF:100:SER:HB2	2.14	0.47
9:CJ:28:THR:HG23	9:CJ:29:ALA:N	2.29	0.47
9:CJ:56:HIS:O	9:CJ:57:VAL:HG12	2.14	0.47
11:CL:82:ARG:HB2	11:CL:97:VAL:HG13	1.97	0.47
13:CN:11:LYS:O	13:CN:14:ALA:HB3	2.15	0.47
18:CS:14:LEU:HD12	18:CS:14:LEU:C	2.39	0.47
18:CS:76:THR:HB	55:CA:1222:G:P	2.54	0.47
55:CA:86:G:O2'	55:CA:87:C:OP2	2.31	0.47
55:CA:199:A:C2	55:CA:200:G:C8	3.02	0.47
55:CA:496:A:O2'	55:CA:497:G:H8	1.98	0.47
55:CA:878:A:H2'	55:CA:879:C:C6	2.50	0.47
55:CA:920:U:O2'	55:CA:921:U:H5'	2.15	0.47
55:CA:958:A:O2'	55:CA:959:A:H5'	2.13	0.47
28:DE:135:ALA:C	28:DE:137:LYS:H	2.21	0.47
29:DF:121:PHE:CZ	24:DA:2303:G:H5"	2.49	0.47
33:DJ:45:THR:O	33:DJ:45:THR:HG23	2.14	0.47
33:DJ:65:THR:C	33:DJ:68:LYS:HZ3	2.22	0.47
34:DK:6:THR:HA	24:DA:1666:G:O3'	2.15	0.47
37:DN:75:ILE:HD12	37:DN:79:LEU:HD12	1.97	0.47
40:DQ:4:LYS:HE3	40:DQ:7:VAL:HG22	1.97	0.47
42:DS:70:LYS:HD2	42:DS:110:ARG:O	2.15	0.47
43:DT:4:GLU:HG3	43:DT:6:ARG:NH2	2.30	0.47
44:DU:9:GLU:OE1	44:DU:23:LYS:HA	2.14	0.47
44:DU:10:VAL:O	44:DU:21:ARG:HA	2.14	0.47
44:DU:92:VAL:CB	44:DU:101:THR:HG21	2.41	0.47
45:DV:29:ILE:HG22	45:DV:39:ALA:HA	1.97	0.47
24:DA:271:G:HO2'	24:DA:272:A:H5"	1.80	0.47
24:DA:686:U:H2'	24:DA:788:A:N1	2.29	0.47
24:DA:957:C:H2'	24:DA:959:A:H8	1.79	0.47
24:DA:1311:G:O2'	24:DA:1312:U:H6	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1363:C:O2'	24:DA:1809:A:H1'	2.13	0.47
24:DA:1797:G:C6	24:DA:1798:U:C4	3.03	0.47
24:DA:2025:C:H2'	24:DA:2026:U:H6	1.77	0.47
24:DA:2308:G:N1	24:DA:2311:A:N6	2.62	0.47
24:DA:2321:U:O2	24:DA:2321:U:C2'	2.61	0.47
24:DA:2371:G:N2	24:DA:2372:U:C2	2.83	0.47
56:DB:16:G:C6	56:DB:69:G:C4	3.03	0.47
3:AD:58:GLN:HE21	3:AD:58:GLN:HA	1.79	0.47
6:AG:92:PRO:HG3	6:AG:95:ARG:NH2	2.29	0.47
9:AJ:8:ILE:HG12	9:AJ:100:ILE:HG22	1.95	0.47
9:AJ:53:ILE:HG23	21:AA:1060:U:H4'	1.96	0.47
9:AJ:67:ILE:HG13	13:AN:95:LEU:HD13	1.97	0.47
11:AL:43:LYS:HG3	21:AA:1492:A:OP1	2.15	0.47
11:AL:50:LYS:O	11:AL:66:ILE:HG13	2.13	0.47
13:AN:52:ARG:HG3	13:AN:58:ARG:NH1	2.29	0.47
14:AO:35:ILE:HG13	14:AO:58:MET:HE2	1.96	0.47
21:AA:1256:A:C6	21:AA:1278:G:N3	2.83	0.47
21:AA:1481:U:O2'	21:AA:1482:G:H5'	2.15	0.47
24:BA:221:A:C4	24:BA:266:G:N7	2.83	0.47
24:BA:467:G:H8	24:BA:467:G:O5'	1.97	0.47
24:BA:482:A:N6	24:BA:506:G:C1'	2.78	0.47
24:BA:734:A:C5	24:BA:735:A:C8	3.03	0.47
24:BA:789:A:H5"	59:BA:3765:HOH:O	2.15	0.47
24:BA:1097:U:H3'	24:BA:1098:A:H4'	1.95	0.47
24:BA:1125:G:C6	24:BA:1126:A:N6	2.83	0.47
24:BA:1128:G:O2'	24:BA:1129:A:H5"	2.14	0.47
24:BA:1166:G:C6	24:BA:1167:C:N4	2.83	0.47
24:BA:1334:G:C6	24:BA:1335:C:C4	3.03	0.47
24:BA:1394:U:C5	24:BA:1395:A:C5	3.03	0.47
24:BA:1474:U:C3'	24:BA:1475:G:H5'	2.43	0.47
24:BA:1757:A:C3'	24:BA:1758:U:C5'	2.92	0.47
24:BA:2758:A:C2'	24:BA:2759:G:H5'	2.44	0.47
27:BD:9:VAL:CG2	27:BD:26:VAL:HB	2.37	0.47
27:BD:12:THR:CG2	27:BD:13:ARG:N	2.78	0.47
28:BE:189:THR:OG1	28:BE:191:ASP:CB	2.62	0.47
29:BF:15:LEU:O	29:BF:16:MET:C	2.57	0.47
29:BF:151:LEU:C	29:BF:151:LEU:CD1	2.87	0.47
30:BG:83:THR:O	30:BG:84:LYS:HB3	2.14	0.47
33:BJ:54:ILE:O	33:BJ:54:ILE:HG13	2.12	0.47
39:BP:54:LEU:O	39:BP:54:LEU:HG	2.15	0.47
43:BT:40:LYS:H	43:BT:43:ILE:CG2	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BU:44:HIS:O	44:BU:45:GLN:C	2.57	0.47
51:B1:42:VAL:O	51:B1:42:VAL:HG13	2.12	0.47
52:B2:31:LEU:O	52:B2:32:ALA:C	2.56	0.47
1:CB:17:HIS:CD2	1:CB:17:HIS:H	2.33	0.47
2:CC:27:GLU:CD	2:CC:27:GLU:N	2.72	0.47
7:CH:9:MET:SD	7:CH:32:LYS:HG3	2.55	0.47
9:CJ:11:LYS:HE2	9:CJ:97:ASP:OD1	2.14	0.47
10:CK:126:ARG:O	20:CU:33:ARG:NH2	2.47	0.47
11:CL:4:ASN:HD21	55:CA:585:G:H4'	1.77	0.47
13:CN:47:LEU:O	13:CN:49:THR:N	2.46	0.47
13:CN:52:ARG:HA	13:CN:52:ARG:CZ	2.42	0.47
13:CN:94:GLY:O	13:CN:95:LEU:C	2.58	0.47
55:CA:104:G:H4'	55:CA:174:A:O4'	2.15	0.47
55:CA:212:G:C2	55:CA:213:G:C8	3.03	0.47
55:CA:247:G:N3	55:CA:248:C:C6	2.82	0.47
55:CA:370:C:O2'	55:CA:371:A:H5'	2.14	0.47
55:CA:428:G:C5	55:CA:430:A:C6	3.02	0.47
55:CA:501:C:H1'	55:CA:549:C:H1'	1.97	0.47
55:CA:592:G:H2'	55:CA:593:U:H6	1.79	0.47
55:CA:1125:U:C5	55:CA:1127:G:C6	3.03	0.47
55:CA:1145:A:H5'	55:CA:1146:A:OP1	2.14	0.47
55:CA:1281:C:H3'	55:CA:1282:C:H5'	1.95	0.47
55:CA:1348:U:H2'	55:CA:1349:A:C8	2.49	0.47
27:DD:107:VAL:O	27:DD:107:VAL:HG12	2.13	0.47
28:DE:79:ARG:HG2	28:DE:80:SER:N	2.16	0.47
30:DG:66:THR:HG22	24:DA:2748:A:C1'	2.39	0.47
33:DJ:23:LYS:HE2	33:DJ:142:ILE:HG13	1.97	0.47
33:DJ:106:LYS:HB2	33:DJ:119:PHE:HE2	1.79	0.47
35:DL:98:ALA:O	35:DL:100:ILE:HG22	2.15	0.47
35:DL:111:ILE:HA	35:DL:128:THR:OG1	2.13	0.47
36:DM:35:ALA:HB3	36:DM:99:GLY:N	2.29	0.47
38:DO:35:ILE:HD11	38:DO:102:ARG:CZ	2.45	0.47
38:DO:47:VAL:HB	56:DB:114:C:O2'	2.15	0.47
38:DO:99:TYR:O	38:DO:99:TYR:CG	2.65	0.47
38:DO:100:HIS:CA	38:DO:104:GLN:HB2	2.44	0.47
40:DQ:53:LYS:HG2	24:DA:995:C:H5"	1.96	0.47
44:DU:35:VAL:HG12	44:DU:36:GLU:N	2.30	0.47
46:DW:44:PHE:HE2	46:DW:76:ARG:NE	2.12	0.47
50:D0:55:ALA:HB3	50:D0:56:LYS:NZ	2.29	0.47
24:DA:30:G:H4'	24:DA:1214:A:O2'	2.14	0.47
24:DA:364:C:O2'	24:DA:365:U:O4'	2.22	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1056:G:H21	24:DA:1102:C:H41	1.63	0.47
24:DA:1179:G:O2'	24:DA:1180:U:H5'	2.15	0.47
24:DA:1430:G:O2'	24:DA:1431:A:H5'	2.14	0.47
24:DA:1438:U:C4	24:DA:1552:A:N1	2.83	0.47
24:DA:1663:G:H8	24:DA:1663:G:C5'	2.28	0.47
24:DA:1693:U:H4'	24:DA:1694:C:OP2	2.15	0.47
56:DB:71:C:N4	56:DB:72:G:C6	2.83	0.47
1:AB:13:VAL:CG2	1:AB:207:ARG:HH22	2.23	0.47
1:AB:19:THR:OG1	1:AB:20:ARG:N	2.47	0.47
3:AD:57:LYS:HG3	3:AD:58:GLN:N	2.30	0.47
4:AE:19:ARG:CZ	4:AE:19:ARG:O	2.63	0.47
4:AE:37:VAL:HG11	4:AE:113:VAL:CB	2.43	0.47
4:AE:82:HIS:CE1	4:AE:146:MET:HE2	2.49	0.47
8:AI:8:THR:O	8:AI:16:ALA:O	2.32	0.47
8:AI:30:ASN:OD1	8:AI:65:THR:HA	2.15	0.47
13:AN:42:ASN:HD21	13:AN:46:LYS:HZ1	1.59	0.47
16:AQ:17:GLU:OE1	21:AA:273:U:H1'	2.15	0.47
21:AA:159:G:N2	21:AA:162:A:OP2	2.47	0.47
21:AA:240:G:C6	21:AA:241:G:N7	2.83	0.47
21:AA:428:G:C1'	21:AA:430:A:C8	2.98	0.47
21:AA:483:C:H2'	21:AA:484:G:C8	2.49	0.47
21:AA:616:G:C2	21:AA:617:G:C8	3.03	0.47
21:AA:792:A:H4'	21:AA:793:U:C5'	2.44	0.47
21:AA:885:G:N2	21:AA:886:G:C4	2.82	0.47
21:AA:1049:U:H4'	21:AA:1050:G:C5'	2.44	0.47
21:AA:1251:A:H2'	21:AA:1252:A:C8	2.49	0.47
21:AA:1533:C:H3'	21:AA:1534:A:H5"	1.97	0.47
24:BA:68:G:H2'	24:BA:69:C:O4'	2.15	0.47
24:BA:411:G:HO2'	24:BA:412:A:C5'	2.28	0.47
24:BA:603:A:C8	24:BA:655:A:C6	3.02	0.47
24:BA:751:A:C5'	24:BA:752:A:OP1	2.63	0.47
24:BA:784:G:C5	26:BC:227:VAL:HG11	2.48	0.47
24:BA:806:C:O2'	24:BA:2445:G:H4'	2.14	0.47
24:BA:962:G:N2	24:BA:2250:G:H1	2.13	0.47
24:BA:1008:A:H4'	24:BA:1009:A:OP1	2.14	0.47
24:BA:1252:G:O2'	24:BA:1253:A:C8	2.68	0.47
24:BA:1294:U:O2	24:BA:1294:U:H2'	2.13	0.47
24:BA:1301:A:C4	24:BA:1303:G:C5	3.03	0.47
24:BA:1328:A:H2'	24:BA:1330:C:N4	2.30	0.47
24:BA:1332:G:C5	24:BA:1609:A:C2	3.03	0.47
24:BA:1332:G:OP1	59:BA:3770:HOH:O	2.20	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1334:G:O2'	24:BA:1335:C:H5'	2.14	0.47
24:BA:1353:A:C2	24:BA:1354:A:C4	3.03	0.47
24:BA:1392:A:C6	24:BA:1393:A:C6	3.02	0.47
24:BA:1423:G:C4	24:BA:1424:G:C8	3.02	0.47
24:BA:1786:A:C4	24:BA:1938:A:C6	3.02	0.47
24:BA:1831:G:C6	24:BA:1832:C:C4	3.02	0.47
24:BA:1831:G:C4	24:BA:1832:C:C5	3.03	0.47
24:BA:1959:G:C4	24:BA:1960:A:C8	3.02	0.47
24:BA:2300:C:H2'	24:BA:2301:C:O4'	2.14	0.47
24:BA:2404:U:C1'	24:BA:2414:G:N2	2.75	0.47
24:BA:2453:A:H2	24:BA:2504:U:N3	2.13	0.47
24:BA:2538:C:H2'	24:BA:2539:C:H6	1.79	0.47
24:BA:2555:U:C5	24:BA:2556:C:C2	3.03	0.47
24:BA:2586:U:C5	24:BA:2608:G:N2	2.83	0.47
24:BA:2596:U:H2'	24:BA:2597:G:O4'	2.14	0.47
24:BA:2615:U:O2'	24:BA:2616:C:C5'	2.56	0.47
26:BC:64:VAL:O	26:BC:64:VAL:HG12	2.15	0.47
26:BC:103:ILE:O	26:BC:104:LEU:O	2.33	0.47
26:BC:171:VAL:CG2	26:BC:185:ALA:HA	2.45	0.47
27:BD:48:ILE:HG23	27:BD:84:LEU:HD21	1.96	0.47
27:BD:103:ASP:CG	27:BD:104:VAL:N	2.71	0.47
28:BE:150:THR:CG2	28:BE:153:LEU:HA	2.45	0.47
29:BF:35:LEU:HD23	29:BF:98:PHE:CZ	2.50	0.47
29:BF:43:ILE:HA	29:BF:82:TYR:CE1	2.49	0.47
30:BG:4:ALA:HB2	30:BG:65:GLY:HA2	1.96	0.47
31:BH:8:LYS:O	31:BH:13:GLY:HA3	2.15	0.47
31:BH:26:ALA:O	31:BH:28:ASN:N	2.41	0.47
31:BH:81:ALA:O	31:BH:101:ASP:OD2	2.32	0.47
34:BK:17:ARG:HB3	34:BK:45:GLU:HB3	1.97	0.47
34:BK:42:THR:O	34:BK:42:THR:HG23	2.14	0.47
39:BP:33:GLU:OE1	39:BP:33:GLU:C	2.58	0.47
41:BR:60:LYS:H	41:BR:100:GLY:HA3	1.80	0.47
45:BV:64:VAL:HG12	45:BV:67:GLY:HA2	1.97	0.47
46:BW:39:GLN:C	46:BW:41:GLY:H	2.23	0.47
47:BX:50:VAL:HG12	47:BX:51:SER:O	2.14	0.47
48:BY:18:LEU:O	48:BY:18:LEU:HD13	2.14	0.47
51:B1:10:LEU:O	51:B1:19:PHE:HB2	2.15	0.47
54:B4:7:VAL:HG23	54:B4:8:LYS:N	2.29	0.47
1:CB:153:MET:O	1:CB:154:GLY:C	2.56	0.47
4:CE:95:MET:CB	4:CE:124:ALA:HB2	2.43	0.47
4:CE:154:ALA:HB1	7:CH:65:PHE:CZ	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CF:36:ILE:HG23	5:CF:64:VAL:HG12	1.97	0.47
6:CG:42:VAL:O	6:CG:43:TYR:HB2	2.14	0.47
6:CG:67:ASN:C	6:CG:69:ARG:H	2.21	0.47
6:CG:101:ARG:C	6:CG:102:TRP:HD1	2.23	0.47
8:CI:24:ASN:HB2	8:CI:26:LYS:HZ3	1.80	0.47
8:CI:24:ASN:HD22	8:CI:26:LYS:HD2	1.79	0.47
9:CJ:56:HIS:CE1	55:CA:963:G:H21	2.33	0.47
9:CJ:80:THR:O	9:CJ:81:GLU:C	2.57	0.47
12:CM:53:ASP:HA	12:CM:56:ARG:NE	2.30	0.47
16:CQ:59:GLU:C	16:CQ:75:VAL:HG22	2.40	0.47
17:CR:61:ALA:HB1	17:CR:67:LEU:HG	1.95	0.47
19:CT:17:ARG:HG2	55:CA:322:C:O3'	2.15	0.47
20:CU:17:ARG:O	20:CU:20:ARG:N	2.47	0.47
55:CA:19:A:C5	55:CA:20:U:C5	3.02	0.47
55:CA:115:G:H1'	55:CA:116:A:N7	2.30	0.47
55:CA:172:A:C5	55:CA:174:A:N7	2.83	0.47
55:CA:201:G:N2	55:CA:469:C:O2	2.45	0.47
55:CA:376:G:N2	55:CA:377:G:C4	2.83	0.47
55:CA:555:U:H2'	55:CA:556:C:C6	2.48	0.47
55:CA:652:U:H1'	55:CA:653:U:C6	2.49	0.47
55:CA:949:A:H2'	55:CA:950:U:C6	2.49	0.47
55:CA:949:A:C5	55:CA:950:U:C5	3.03	0.47
55:CA:1182:G:C4'	55:CA:1183:U:H5'	2.44	0.47
55:CA:1183:U:O2'	55:CA:1184:G:P	2.73	0.47
55:CA:1202:U:N3	55:CA:1203:C:C2	2.82	0.47
55:CA:1466:C:N4	59:CA:1842:HOH:O	2.48	0.47
55:CA:1483:A:H8	55:CA:1483:A:O5'	1.97	0.47
26:DC:57:HIS:CE1	24:DA:1568:G:N3	2.83	0.47
26:DC:140:VAL:CG2	26:DC:161:VAL:HB	2.45	0.47
26:DC:208:GLY:CA	24:DA:764:A:H5'	2.45	0.47
26:DC:209:ALA:HA	26:DC:212:TRP:CE2	2.50	0.47
26:DC:227:VAL:HG13	24:DA:2073:C:H5"	1.96	0.47
28:DE:49:ARG:NH1	28:DE:72:SER:CB	2.78	0.47
29:DF:11:VAL:C	29:DF:13:LYS:H	2.21	0.47
29:DF:37:MET:N	29:DF:151:LEU:HB3	2.30	0.47
29:DF:57:ALA:HB2	29:DF:64:PRO:HG2	1.97	0.47
31:DH:53:GLU:C	31:DH:55:GLU:N	2.72	0.47
31:DH:68:ARG:CZ	31:DH:68:ARG:HB3	2.44	0.47
32:DI:52:LEU:HD12	32:DI:53:PRO:HD2	1.97	0.47
33:DJ:73:VAL:HG23	33:DJ:74:TYR:N	2.24	0.47
34:DK:39:ILE:HD11	34:DK:62:VAL:HG23	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DK:97:THR:O	34:DK:98:ARG:HB2	2.14	0.47
35:DL:68:SER:HB3	24:DA:633:A:OP1	2.15	0.47
35:DL:127:VAL:HG13	35:DL:132:ARG:HB2	1.97	0.47
36:DM:57:VAL:O	36:DM:58:LYS:HB2	2.15	0.47
37:DN:4:ARG:HA	24:DA:2820:A:OP1	2.15	0.47
37:DN:29:VAL:O	37:DN:30:ARG:HB2	2.13	0.47
38:DO:24:THR:OG1	38:DO:90:VAL:HG11	2.15	0.47
38:DO:49:VAL:CG1	38:DO:81:ARG:HB3	2.44	0.47
39:DP:28:LYS:NZ	39:DP:28:LYS:H	2.12	0.47
40:DQ:6:GLY:C	40:DQ:8:ILE:H	2.22	0.47
40:DQ:63:ARG:O	40:DQ:64:ILE:C	2.54	0.47
41:DR:82:HIS:O	41:DR:82:HIS:CG	2.67	0.47
41:DR:97:LYS:HG2	41:DR:97:LYS:O	2.14	0.47
45:DV:30:ILE:HG22	45:DV:31:TYR:N	2.29	0.47
45:DV:70:ILE:N	45:DV:70:ILE:CD1	2.73	0.47
24:DA:187:G:C2	24:DA:210:C:C2	3.03	0.47
24:DA:252:G:H2'	24:DA:253:C:H6	1.79	0.47
24:DA:409:G:O2'	24:DA:410:G:H5'	2.15	0.47
24:DA:420:C:C2	24:DA:421:C:C5	3.02	0.47
24:DA:675:A:C6	24:DA:676:A:C6	3.02	0.47
24:DA:763:G:C6	24:DA:765:C:N3	2.83	0.47
24:DA:809:G:C2'	24:DA:810:U:H5'	2.45	0.47
24:DA:823:C:H2'	24:DA:824:U:H6	1.79	0.47
24:DA:977:G:C2	24:DA:987:C:C2	3.02	0.47
24:DA:1168:G:C2	24:DA:1182:G:N3	2.82	0.47
24:DA:1360:G:C6	24:DA:1372:U:C2	3.03	0.47
24:DA:1394:U:C4	24:DA:1395:A:N6	2.82	0.47
24:DA:1422:G:H1'	24:DA:1495:A:H61	1.79	0.47
24:DA:1422:G:H4'	24:DA:1493:C:OP1	2.14	0.47
24:DA:1435:G:H2'	24:DA:1436:G:H8	1.79	0.47
24:DA:1500:G:C6	24:DA:1501:G:C5	3.03	0.47
24:DA:1638:C:H4'	24:DA:2710:C:O2	2.14	0.47
24:DA:1935:G:H1'	24:DA:1964:G:C2	2.49	0.47
24:DA:1941:C:C5	24:DA:1942:C:C4	3.03	0.47
24:DA:2070:A:O2'	24:DA:2071:A:H5'	2.14	0.47
24:DA:2265:U:C4	24:DA:2266:A:C5	3.03	0.47
24:DA:2291:U:O2'	24:DA:2374:C:H1'	2.15	0.47
24:DA:2334:U:H4'	24:DA:2335:A:OP2	2.14	0.47
24:DA:2355:G:C5	24:DA:2356:U:C5	3.02	0.47
24:DA:2896:C:O2'	24:DA:2897:U:H5'	2.15	0.47
3:AD:151:GLN:O	3:AD:153:ARG:N	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:22:LYS:HG3	21:AA:1081:A:H5'	1.97	0.47
6:AG:20:GLU:O	6:AG:23:ALA:HB3	2.15	0.47
7:AH:30:LYS:N	21:AA:590:U:OP1	2.46	0.47
7:AH:30:LYS:HD2	7:AH:30:LYS:HA	1.71	0.47
9:AJ:50:THR:HA	9:AJ:63:ASP:O	2.14	0.47
10:AK:121:ARG:HH21	20:AU:35:GLU:HB2	1.79	0.47
11:AL:74:GLN:HG3	11:AL:75:GLU:HG2	1.96	0.47
12:AM:47:LEU:HD23	12:AM:51:GLN:HB3	1.97	0.47
14:AO:16:ARG:HD3	14:AO:20:ASP:OD2	2.14	0.47
14:AO:59:VAL:O	14:AO:63:ARG:HB2	2.15	0.47
21:AA:161:A:H2'	21:AA:162:A:C8	2.50	0.47
21:AA:244:U:C2	21:AA:894:G:C2	3.02	0.47
21:AA:268:U:H2'	21:AA:269:C:O4'	2.15	0.47
21:AA:357:G:H1'	21:AA:368:U:O2	2.15	0.47
21:AA:672:U:H2'	21:AA:673:A:C8	2.50	0.47
21:AA:738:C:H2'	21:AA:739:C:H6	1.79	0.47
21:AA:914:A:C2	21:AA:915:A:C4	3.03	0.47
21:AA:1071:C:O2'	21:AA:1072:G:H5'	2.15	0.47
21:AA:1130:A:H5"	21:AA:1130:A:H8	1.78	0.47
21:AA:1299:A:O2'	21:AA:1300:G:H4'	2.15	0.47
21:AA:1328:C:H2'	21:AA:1329:A:O4'	2.13	0.47
24:BA:346:A:H2'	24:BA:347:A:H8	1.78	0.47
24:BA:464:U:O4	24:BA:465:G:C2	2.67	0.47
24:BA:651:G:C5	24:BA:652:U:C5	3.03	0.47
24:BA:1059:G:C6	24:BA:1080:A:C6	3.03	0.47
24:BA:1119:U:H6	24:BA:1119:U:H5"	1.79	0.47
24:BA:1459:G:O2'	24:BA:1460:U:H5"	2.15	0.47
24:BA:1565:C:O2'	24:BA:1566:A:H2'	2.15	0.47
24:BA:2078:C:C4	24:BA:2079:U:C4	3.03	0.47
24:BA:2145:C:OP1	24:BA:2148:G:C5	2.68	0.47
24:BA:2315:G:O2'	24:BA:2316:G:H5'	2.15	0.47
24:BA:2365:G:H4'	46:BW:59:PHE:CZ	2.50	0.47
24:BA:2510:C:C5	24:BA:2511:U:C4	3.03	0.47
24:BA:2567:G:H2'	24:BA:2568:U:C5	2.50	0.47
26:BC:90:ILE:CG2	26:BC:102:TYR:CD1	2.98	0.47
26:BC:108:GLY:C	26:BC:109:LEU:HD22	2.40	0.47
27:BD:34:VAL:HG22	27:BD:94:GLN:H	1.80	0.47
28:BE:126:VAL:HG22	28:BE:127:GLU:H	1.78	0.47
32:BI:32:VAL:HG13	32:BI:66:PHE:CE2	2.49	0.47
40:BQ:89:ILE:H	40:BQ:89:ILE:HG12	1.62	0.47
42:BS:20:VAL:CG2	42:BS:43:ALA:HB3	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BW:58:LEU:HD13	46:BW:58:LEU:N	2.30	0.47
2:CC:178:ARG:O	2:CC:205:GLU:O	2.32	0.47
5:CF:30:THR:C	5:CF:32:ALA:H	2.22	0.47
6:CG:26:VAL:O	6:CG:29:LEU:HB3	2.15	0.47
6:CG:31:VAL:HG22	6:CG:32:ASP:N	2.29	0.47
9:CJ:5:ARG:NH2	9:CJ:77:VAL:HG13	2.24	0.47
9:CJ:9:ARG:HH21	9:CJ:71:LEU:HD22	1.78	0.47
12:CM:1:ALA:H2	12:CM:2:ARG:NH1	2.12	0.47
17:CR:24:ASP:C	17:CR:26:ALA:H	2.23	0.47
18:CS:18:VAL:C	18:CS:20:LYS:H	2.23	0.47
19:CT:73:ARG:NH1	55:CA:261:U:C5	2.83	0.47
55:CA:93:U:H2'	55:CA:95:C:C5	2.47	0.47
55:CA:438:U:C6	55:CA:494:G:C6	3.03	0.47
55:CA:945:G:N2	55:CA:1337:G:N2	2.62	0.47
26:DC:253:GLY:HA3	24:DA:1843:C:O2'	2.15	0.47
29:DF:34:THR:O	29:DF:35:LEU:HB2	2.13	0.47
29:DF:66:ILE:HG13	29:DF:83:PRO:HB3	1.97	0.47
30:DG:112:VAL:HG13	30:DG:150:TYR:CE1	2.48	0.47
37:DN:16:HIS:CD2	24:DA:1275:A:C4	3.01	0.47
39:DP:63:ILE:HA	39:DP:68:GLY:CA	2.37	0.47
40:DQ:83:LYS:HE3	40:DQ:89:ILE:HD11	1.97	0.47
44:DU:86:PHE:CG	44:DU:87:GLU:N	2.83	0.47
53:D3:30:HIS:HB3	53:D3:31:ILE:H	1.48	0.47
53:D3:42:HIS:HE1	24:DA:2351:G:O6	1.97	0.47
53:D3:51:LYS:O	53:D3:52:GLY:C	2.57	0.47
24:DA:377:G:H22	24:DA:398:C:H1'	1.80	0.47
24:DA:719:C:H2'	24:DA:720:U:H6	1.80	0.47
24:DA:747:U:C4	24:DA:2613:U:C4	3.03	0.47
24:DA:1010:A:O2'	24:DA:1011:G:C5'	2.63	0.47
24:DA:1058:U:H2'	24:DA:1059:G:O4'	2.14	0.47
24:DA:1301:A:C4	24:DA:1303:G:N7	2.83	0.47
24:DA:1303:G:C4	24:DA:1304:A:C8	3.02	0.47
24:DA:1341:G:H2'	24:DA:1398:C:H5'	1.95	0.47
24:DA:1346:G:O2'	24:DA:1347:A:P	2.72	0.47
24:DA:1420:A:N3	24:DA:2211:A:N7	2.63	0.47
24:DA:1770:G:C5	24:DA:1983:G:C6	3.02	0.47
24:DA:1945:G:H2'	24:DA:1946:U:H6	1.80	0.47
24:DA:2074:U:C6	24:DA:2436:G:N2	2.83	0.47
24:DA:2543:G:N3	24:DA:2765:A:H2'	2.30	0.47
24:DA:2748:A:H2'	24:DA:2749:A:O4'	2.15	0.47
56:DB:16:G:C5	56:DB:69:G:C2	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DB:58:A:O2'	56:DB:59:A:O4'	2.31	0.47
56:DB:104:A:H2'	56:DB:105:G:C5'	2.45	0.47
1:AB:60:ALA:HB3	1:AB:223:GLY:HA3	1.97	0.47
1:AB:105:THR:CG2	21:AA:1104:G:H1'	2.45	0.47
1:AB:169:HIS:O	1:AB:173:LYS:HB3	2.15	0.47
2:AC:4:VAL:HB	21:AA:1190:G:OP2	2.15	0.47
3:AD:192:ALA:C	3:AD:194:ILE:N	2.71	0.47
6:AG:34:LYS:NZ	21:AA:1290:G:H5'	2.30	0.47
6:AG:146:ALA:C	6:AG:148:LYS:N	2.73	0.47
10:AK:30:ILE:HD12	10:AK:30:ILE:O	2.15	0.47
16:AQ:74:LEU:C	16:AQ:74:LEU:HD22	2.40	0.47
19:AT:15:LYS:HD3	19:AT:15:LYS:C	2.40	0.47
21:AA:234:C:O2'	21:AA:235:C:H5'	2.15	0.47
21:AA:460:A:O3'	21:AA:462:G:OP2	2.32	0.47
21:AA:710:G:H2'	21:AA:711:G:O4'	2.15	0.47
21:AA:757:U:H5"	21:AA:822:U:O2	2.14	0.47
21:AA:763:G:H2'	21:AA:764:C:H6	1.80	0.47
21:AA:926:G:H2'	21:AA:1505:G:C4	2.49	0.47
21:AA:1324:A:O2'	21:AA:1325:C:H6	1.96	0.47
24:BA:112:U:C2'	24:BA:113:U:H5'	2.45	0.47
24:BA:301:G:O2'	24:BA:302:C:H5"	2.14	0.47
24:BA:467:G:O2'	24:BA:468:G:H5'	2.14	0.47
24:BA:593:U:H2'	24:BA:594:U:C6	2.50	0.47
24:BA:995:C:HO2'	24:BA:996:A:P	2.37	0.47
24:BA:1255:U:C5	28:BE:68:ALA:HA	2.49	0.47
24:BA:1857:G:H1'	24:BA:1885:A:N6	2.29	0.47
24:BA:2069:G:C2'	24:BA:2070:A:H5'	2.44	0.47
24:BA:2485:G:C5'	36:BM:45:GLN:HE21	2.28	0.47
24:BA:2521:C:C2	24:BA:2545:G:N2	2.83	0.47
26:BC:18:VAL:O	26:BC:18:VAL:HG13	2.15	0.47
26:BC:225:ASN:O	26:BC:227:VAL:N	2.47	0.47
29:BF:43:ILE:HG23	29:BF:84:ILE:HD13	1.96	0.47
31:BH:50:ARG:HH11	31:BH:50:ARG:HG3	1.80	0.47
33:BJ:18:VAL:CG2	33:BJ:140:LEU:CD1	2.86	0.47
33:BJ:28:LEU:O	33:BJ:29:ALA:C	2.57	0.47
33:BJ:105:VAL:HG23	33:BJ:109:LEU:HD12	1.96	0.47
37:BN:31:HIS:O	37:BN:33:ILE:HD12	2.15	0.47
42:BS:37:THR:O	42:BS:37:THR:CG2	2.62	0.47
43:BT:32:LEU:HD23	43:BT:83:ALA:HB3	1.96	0.47
44:BU:5:ARG:O	44:BU:6:ARG:C	2.58	0.47
44:BU:81:ARG:O	44:BU:96:LYS:HG2	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:B2:24:THR:O	52:B2:25:LYS:C	2.58	0.47
1:CB:68:PHE:HE2	1:CB:213:LEU:CD1	2.28	0.47
2:CC:2:GLN:O	55:CA:1190:G:H3'	2.15	0.47
7:CH:12:ARG:HH11	7:CH:26:MET:HB2	1.80	0.47
9:CJ:42:LEU:HB3	9:CJ:43:PRO:CD	2.41	0.47
13:CN:63:CYS:HB3	13:CN:67:GLY:N	2.23	0.47
55:CA:80:A:N6	55:CA:90:C:N3	2.63	0.47
55:CA:104:G:C2'	55:CA:105:G:H5'	2.45	0.47
55:CA:142:G:H2'	55:CA:143:A:O4'	2.15	0.47
55:CA:744:C:H2'	55:CA:745:G:C8	2.49	0.47
55:CA:755:G:C2	55:CA:756:C:C5	3.03	0.47
55:CA:1213:A:C8	55:CA:1215:G:C5	3.03	0.47
55:CA:1213:A:N7	55:CA:1215:G:C5	2.83	0.47
55:CA:1322:C:HO2'	55:CA:1323:G:H5'	1.79	0.47
55:CA:1533:C:C2'	55:CA:1534:A:H5"	2.43	0.47
26:DC:159:THR:OG1	26:DC:194:VAL:HG11	2.15	0.47
30:DG:152:ARG:HD2	30:DG:153:PRO:CD	2.45	0.47
33:DJ:13:ARG:HG2	33:DJ:51:GLY:O	2.15	0.47
34:DK:108:ARG:HA	34:DK:116:ILE:HD13	1.96	0.47
42:DS:66:ILE:HD13	42:DS:66:ILE:N	2.29	0.47
46:DW:18:LYS:HG2	24:DA:2270:A:H5'	1.96	0.47
46:DW:35:ILE:HB	46:DW:36:ILE:H	1.48	0.47
48:DY:48:ARG:CG	48:DY:48:ARG:NH1	2.77	0.47
24:DA:54:G:H2'	24:DA:55:G:O4'	2.15	0.47
24:DA:71:A:C8	24:DA:73:A:N6	2.82	0.47
24:DA:117:G:N1	24:DA:119:A:N6	2.62	0.47
24:DA:179:C:H2'	24:DA:180:G:O4'	2.15	0.47
24:DA:604:G:O2'	24:DA:605:G:H5'	2.15	0.47
24:DA:617:G:O2'	24:DA:618:G:O4'	2.21	0.47
24:DA:675:A:N6	24:DA:676:A:N6	2.63	0.47
24:DA:786:C:H5"	24:DA:1780:A:N7	2.30	0.47
24:DA:1083:U:H1'	24:DA:1086:A:C2	2.50	0.47
24:DA:1435:G:H2'	24:DA:1436:G:C8	2.50	0.47
24:DA:1693:U:O4	24:DA:1977:A:C5	2.67	0.47
24:DA:1827:U:O4'	24:DA:1970:A:O2'	2.32	0.47
24:DA:1930:G:H22	24:DA:1968:G:H2'	1.79	0.47
24:DA:2037:A:O2'	24:DA:2038:G:H5'	2.15	0.47
24:DA:2394:C:C2'	24:DA:2395:C:H5'	2.44	0.47
24:DA:2466:C:H2'	24:DA:2467:C:H6	1.80	0.47
24:DA:2711:A:N6	24:DA:2714:G:C5	2.83	0.47
24:DA:2848:G:C4	24:DA:2849:U:H5	2.33	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DB:50:A:C5	56:DB:51:G:N7	2.81	0.47
56:DB:66:A:H2'	56:DB:67:G:OP2	2.14	0.47
1:AB:185:ILE:HG22	1:AB:199:ILE:CB	2.41	0.47
2:AC:51:VAL:HG23	2:AC:68:HIS:O	2.14	0.47
4:AE:88:HIS:HB3	4:AE:134:ASN:HB3	1.97	0.47
7:AH:85:TYR:O	7:AH:86:LYS:HD2	2.15	0.47
7:AH:106:SER:O	21:AA:641:U:H4'	2.15	0.47
10:AK:121:ARG:NH2	20:AU:35:GLU:HB2	2.30	0.47
11:AL:2:THR:HB	11:AL:5:GLN:HG3	1.96	0.47
13:AN:74:ARG:HG3	13:AN:74:ARG:NH1	2.29	0.47
13:AN:100:TRP:C	21:AA:1186:G:H21	2.23	0.47
16:AQ:16:MET:O	16:AQ:17:GLU:C	2.57	0.47
17:AR:35:SER:CA	17:AR:71:ASP:HB3	2.42	0.47
18:AS:10:ILE:CD1	18:AS:15:LEU:HD13	2.45	0.47
20:AU:10:PRO:HB2	2:CC:71:ARG:HH22	1.80	0.47
21:AA:21:G:H2'	21:AA:22:G:C8	2.50	0.47
21:AA:187:G:N2	21:AA:191:G:C6	2.83	0.47
21:AA:608:A:C5	21:AA:609:A:C8	3.03	0.47
21:AA:1053:G:O5'	21:AA:1054:C:H3'	2.15	0.47
21:AA:1239:A:N6	21:AA:1299:A:H62	2.03	0.47
21:AA:1444:U:H1'	21:AA:1459:G:N2	2.30	0.47
21:AA:1449:C:O2'	21:AA:1450:U:O4'	2.24	0.47
21:AA:1494:G:O2'	21:AA:1495:U:C5'	2.62	0.47
24:BA:85:G:C2	24:BA:86:G:C8	3.03	0.47
24:BA:937:C:O5'	24:BA:937:C:H6	1.98	0.47
24:BA:1031:G:H4'	54:B4:6:SER:HB2	1.96	0.47
24:BA:1406:U:H2'	24:BA:1407:G:C8	2.49	0.47
24:BA:1615:C:C5	24:BA:1617:C:C4	3.03	0.47
24:BA:2279:G:N2	24:BA:2280:G:H1'	2.30	0.47
24:BA:2298:A:N1	24:BA:2321:U:N3	2.63	0.47
24:BA:2428:G:H8	24:BA:2428:G:O5'	1.97	0.47
24:BA:2673:G:C2	24:BA:2674:G:C8	3.03	0.47
24:BA:2691:C:H2'	24:BA:2692:G:C8	2.50	0.47
26:BC:140:VAL:HA	26:BC:190:THR:O	2.14	0.47
27:BD:118:PHE:HD2	27:BD:119:ALA:N	2.10	0.47
28:BE:119:ILE:O	28:BE:119:ILE:HG12	2.15	0.47
29:BF:35:LEU:CD2	29:BF:98:PHE:CZ	2.98	0.47
31:BH:99:ILE:HG22	31:BH:99:ILE:O	2.15	0.47
32:BI:19:PRO:HG2	32:BI:23:VAL:HG22	1.96	0.47
32:BI:78:LEU:HD23	32:BI:81:LYS:HE3	1.96	0.47
33:BJ:25:LEU:HB2	33:BJ:62:VAL:HG22	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BK:35:VAL:HG12	34:BK:36:GLY:N	2.30	0.47
40:BQ:81:GLY:O	40:BQ:85:ALA:N	2.40	0.47
44:BU:73:ASN:C	44:BU:75:ALA:N	2.72	0.47
48:BY:17:GLU:HB2	48:BY:53:VAL:CG1	2.45	0.47
51:B1:10:LEU:HB3	51:B1:48:TYR:HB3	1.97	0.47
51:B1:42:VAL:O	51:B1:43:ARG:C	2.58	0.47
2:CC:55:VAL:CG2	2:CC:66:THR:HB	2.45	0.47
8:CI:98:ARG:HG2	8:CI:103:VAL:HG21	1.96	0.47
12:CM:19:THR:C	12:CM:21:ILE:H	2.23	0.47
12:CM:22:TYR:CD1	55:CA:1331:G:OP1	2.68	0.47
14:CO:44:GLU:O	14:CO:45:HIS:C	2.57	0.47
19:CT:66:ILE:HD12	19:CT:70:LYS:HG2	1.96	0.47
55:CA:170:U:O2'	55:CA:171:A:H5'	2.14	0.47
55:CA:182:A:C2	55:CA:184:G:C6	3.03	0.47
55:CA:198:G:O2'	55:CA:199:A:C5'	2.62	0.47
55:CA:246:A:C5	55:CA:279:A:C6	3.02	0.47
55:CA:355:C:C4	55:CA:356:A:N7	2.83	0.47
55:CA:495:A:C2	55:CA:496:A:N6	2.83	0.47
55:CA:756:C:H2'	55:CA:757:U:O4'	2.15	0.47
55:CA:1133:G:N2	55:CA:1142:G:C4	2.83	0.47
55:CA:1363:A:C4	55:CA:1365:G:O6	2.68	0.47
27:DD:119:ALA:HB2	27:DD:163:GLY:C	2.40	0.47
28:DE:24:ASN:HB3	28:DE:27:LEU:CB	2.42	0.47
28:DE:53:THR:OG1	28:DE:54:GLY:N	2.47	0.47
34:DK:34:GLY:H	34:DK:37:ASP:HB2	1.80	0.47
34:DK:119:ALA:N	34:DK:120:PRO:HD2	2.29	0.47
36:DM:50:ARG:O	36:DM:53:MET:HB3	2.16	0.47
36:DM:126:ILE:O	36:DM:127:LYS:C	2.58	0.47
45:DV:80:HIS:CD2	45:DV:81:PRO:HD2	2.50	0.47
47:DX:1:SER:C	47:DX:3:VAL:N	2.71	0.47
48:DY:58:ASN:HD21	24:DA:112:U:H5'	1.80	0.47
50:D0:39:ARG:O	50:D0:40:HIS:HB2	2.14	0.47
24:DA:121:G:C4	24:DA:131:A:C6	3.02	0.47
24:DA:170:U:C2	24:DA:171:U:C5	3.02	0.47
24:DA:184:C:H2'	24:DA:185:G:H8	1.79	0.47
24:DA:350:G:H2'	24:DA:351:C:O4'	2.15	0.47
24:DA:463:G:C2	24:DA:467:G:C6	3.03	0.47
24:DA:605:G:H1'	24:DA:657:U:H1'	1.97	0.47
24:DA:664:G:H2'	24:DA:665:U:C6	2.48	0.47
24:DA:858:G:C5	24:DA:2268:A:C2	3.03	0.47
24:DA:928:A:H2'	24:DA:929:U:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1021:A:H2'	24:DA:1021:A:H8	1.42	0.47
24:DA:1135:C:H5"	24:DA:1135:C:H6	1.80	0.47
24:DA:1338:G:C2'	24:DA:1339:G:H5'	2.44	0.47
24:DA:1358:G:H8	24:DA:1358:G:O5'	1.97	0.47
24:DA:1673:G:C2'	24:DA:1674:G:H5'	2.44	0.47
24:DA:2468:A:O2'	24:DA:2469:A:C8	2.67	0.47
24:DA:2486:C:H2'	24:DA:2487:G:O4'	2.15	0.47
1:AB:105:THR:HG21	21:AA:1104:G:H1'	1.97	0.46
1:AB:159:ALA:HA	1:AB:181:PRO:O	2.15	0.46
2:AC:68:HIS:CD2	2:AC:68:HIS:N	2.83	0.46
3:AD:146:GLU:HA	3:AD:149:LYS:HD2	1.97	0.46
4:AE:32:PHE:CD2	4:AE:54:GLU:CA	2.90	0.46
4:AE:83:PRO:HB3	4:AE:97:PRO:HD3	1.95	0.46
6:AG:34:LYS:HZ2	21:AA:1290:G:H5'	1.80	0.46
9:AJ:82:LYS:H	9:AJ:82:LYS:HG3	1.55	0.46
11:AL:111:GLN:HB2	21:AA:538:G:P	2.54	0.46
17:AR:40:PRO:HG2	17:AR:43:ILE:HG12	1.95	0.46
17:AR:66:LEU:C	17:AR:67:LEU:HD23	2.40	0.46
21:AA:242:G:N2	21:AA:285:C:C2	2.82	0.46
21:AA:583:A:C8	21:AA:584:G:C8	3.03	0.46
21:AA:1157:A:C6	21:AA:1180:A:C6	3.03	0.46
21:AA:1265:C:C4	21:AA:1266:G:N7	2.83	0.46
21:AA:1365:G:O2'	21:AA:1366:C:C6	2.68	0.46
24:BA:155:A:O2'	24:BA:156:A:H5'	2.15	0.46
24:BA:198:C:H6	24:BA:198:C:O5'	1.98	0.46
24:BA:287:G:O2'	24:BA:288:U:H5'	2.15	0.46
24:BA:566:U:H4'	24:BA:809:G:OP2	2.14	0.46
24:BA:634:C:H2'	24:BA:635:C:C6	2.50	0.46
24:BA:658:U:C2'	24:BA:659:G:O5'	2.62	0.46
24:BA:928:A:H2'	24:BA:929:U:O4'	2.14	0.46
24:BA:983:A:C6	24:BA:984:A:N1	2.83	0.46
24:BA:1416:G:O2'	24:BA:1417:C:O4'	2.33	0.46
24:BA:1445:G:C2'	24:BA:1446:C:H5'	2.45	0.46
24:BA:1445:G:O2'	24:BA:1446:C:H5'	2.14	0.46
24:BA:1734:G:H2'	24:BA:1735:A:C8	2.48	0.46
24:BA:1984:G:C6	24:BA:1985:C:C5	3.03	0.46
24:BA:2297:A:N7	24:BA:2320:U:N3	2.63	0.46
24:BA:2428:G:C5'	24:BA:2429:G:OP1	2.62	0.46
24:BA:2577:A:N1	24:BA:2614:A:C2	2.83	0.46
25:BB:12:C:C6	46:BW:72:GLY:HA3	2.50	0.46
25:BB:35:C:H2'	25:BB:36:C:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:121:THR:O	27:BD:122:VAL:CB	2.62	0.46
28:BE:176:ASP:OD1	28:BE:178:VAL:HG13	2.15	0.46
30:BG:25:ILE:HG22	30:BG:78:VAL:HG21	1.97	0.46
31:BH:18:GLN:HE21	31:BH:18:GLN:CA	2.26	0.46
32:BI:57:VAL:HG12	32:BI:58:ILE:N	2.30	0.46
35:BL:28:GLY:C	35:BL:29:LYS:O	2.55	0.46
35:BL:59:ARG:HA	53:B3:12:ARG:NH2	2.30	0.46
37:BN:71:ARG:HH21	37:BN:71:ARG:HG2	1.78	0.46
38:BO:94:ARG:O	38:BO:95:SER:C	2.57	0.46
39:BP:24:THR:CG2	39:BP:87:ARG:HB3	2.44	0.46
40:BQ:85:ALA:O	40:BQ:86:SER:O	2.34	0.46
46:BW:23:LYS:CE	46:BW:24:ARG:HG3	2.45	0.46
47:BX:30:PRO:CG	47:BX:32:LEU:HD11	2.45	0.46
49:BZ:11:SER:OG	49:BZ:12:ALA:N	2.47	0.46
49:BZ:40:THR:O	49:BZ:41:PRO:C	2.58	0.46
1:CB:14:HIS:HE1	1:CB:42:LEU:HD21	1.79	0.46
1:CB:46:VAL:HG13	1:CB:47:PRO:HD3	1.97	0.46
1:CB:147:LEU:HD12	1:CB:147:LEU:H	1.81	0.46
2:CC:55:VAL:O	2:CC:65:VAL:HA	2.15	0.46
5:CF:66:ALA:HA	5:CF:67:PRO:HD2	1.82	0.46
11:CL:49:ARG:N	11:CL:49:ARG:HD2	2.30	0.46
12:CM:64:VAL:HG12	12:CM:65:GLU:N	2.30	0.46
13:CN:27:LYS:HB2	13:CN:45:LEU:HD22	1.97	0.46
13:CN:81:ILE:HD12	13:CN:82:LYS:N	2.30	0.46
15:CP:17:TYR:O	15:CP:18:GLN:HG3	2.15	0.46
16:CQ:46:HIS:HB3	16:CQ:66:LEU:CD1	2.45	0.46
55:CA:217:C:O5'	55:CA:217:C:H6	1.98	0.46
55:CA:728:A:C6	55:CA:729:A:C6	3.04	0.46
55:CA:937:A:C2	55:CA:1379:G:C6	3.03	0.46
55:CA:1130:A:C5	55:CA:1146:A:N6	2.83	0.46
55:CA:1172:C:H2'	55:CA:1173:U:C6	2.50	0.46
55:CA:1284:C:H2'	55:CA:1285:A:H8	1.80	0.46
26:DC:181:ARG:HE	26:DC:265:PHE:HB2	1.80	0.46
26:DC:231:HIS:CE1	24:DA:1825:U:O3'	2.68	0.46
27:DD:207:VAL:HG11	24:DA:2771:C:H5"	1.97	0.46
28:DE:29:HIS:CD2	35:DL:8:PRO:HB3	2.51	0.46
29:DF:32:LYS:HB3	29:DF:156:THR:HB	1.96	0.46
31:DH:68:ARG:O	31:DH:68:ARG:HD2	2.14	0.46
36:DM:61:GLY:CA	36:DM:107:GLY:HA3	2.44	0.46
38:DO:30:ARG:NE	56:DB:48:U:H5'	2.28	0.46
38:DO:45:SER:CB	56:DB:112:G:H21	2.28	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DP:107:ALA:O	39:DP:108:ARG:C	2.59	0.46
41:DR:49:ILE:O	41:DR:49:ILE:HG13	2.15	0.46
43:DT:19:LYS:NZ	24:DA:1391:U:H4'	2.31	0.46
43:DT:55:VAL:HG21	43:DT:85:VAL:O	2.15	0.46
46:DW:27:GLY:HA2	46:DW:31:LEU:CD1	2.28	0.46
50:D0:18:HIS:CE1	24:DA:2624:G:H1'	2.50	0.46
50:D0:20:ALA:HB2	24:DA:15:G:OP1	2.16	0.46
24:DA:283:G:C6	24:DA:284:U:C4	3.04	0.46
24:DA:377:G:C5	24:DA:378:C:C4	3.03	0.46
24:DA:412:A:C5	24:DA:2412:A:H1'	2.50	0.46
24:DA:706:A:H2'	24:DA:707:G:O4'	2.15	0.46
24:DA:1385:A:C5	24:DA:1386:C:N4	2.84	0.46
24:DA:1432:G:H2'	24:DA:1433:A:H8	1.80	0.46
24:DA:1464:G:H2'	24:DA:1465:G:H8	1.80	0.46
24:DA:2357:G:N2	24:DA:2361:G:C5	2.83	0.46
24:DA:2489:U:O2'	24:DA:2491:U:H5	1.97	0.46
24:DA:2756:U:C1'	24:DA:2757:A:H5"	2.45	0.46
24:DA:2813:A:H2'	24:DA:2814:A:H8	1.80	0.46
24:DA:2896:C:HO2'	24:DA:2897:U:H6	1.63	0.46
56:DB:88:C:P	56:DB:88:C:H3'	2.55	0.46
56:DB:112:G:H2'	56:DB:113:C:C6	2.50	0.46
4:AE:36:THR:O	4:AE:37:VAL:HG23	2.15	0.46
7:AH:124:ILE:HD12	7:AH:127:TYR:OH	2.15	0.46
8:AI:94:ARG:HA	8:AI:97:LEU:HB3	1.97	0.46
11:AL:23:LEU:C	11:AL:25:ALA:H	2.23	0.46
12:AM:58:GLU:HA	12:AM:61:LYS:HE3	1.95	0.46
14:AO:24:THR:HB	14:AO:69:LEU:HD12	1.97	0.46
19:AT:60:GLN:HA	19:AT:63:LYS:HB2	1.97	0.46
20:AU:27:VAL:HG12	20:AU:27:VAL:O	2.16	0.46
21:AA:373:A:C5	21:AA:482:A:C5	3.02	0.46
21:AA:389:A:H2'	21:AA:390:U:H5'	1.98	0.46
21:AA:484:G:HO2'	21:AA:485:U:P	2.37	0.46
21:AA:513:C:C2	21:AA:514:C:C6	3.02	0.46
21:AA:1273:C:H2'	21:AA:1274:A:O4'	2.16	0.46
21:AA:1361:G:C2'	21:AA:1362:A:H5"	2.45	0.46
24:BA:11:C:H2'	24:BA:12:U:H5'	1.98	0.46
24:BA:163:C:O2'	24:BA:164:C:C5'	2.63	0.46
24:BA:285:G:C6	24:BA:286:U:C4	3.03	0.46
24:BA:329:G:H4'	24:BA:330:A:OP1	2.15	0.46
24:BA:559:G:H2'	24:BA:560:C:O4'	2.14	0.46
24:BA:917:A:H5"	24:BA:2268:A:H61	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:973:A:H1'	24:BA:1188:U:C6	2.50	0.46
24:BA:1041:G:N2	24:BA:1115:G:C2	2.83	0.46
24:BA:1070:A:C2	32:BI:9:LYS:HG2	2.51	0.46
24:BA:1724:G:C5	24:BA:1725:U:C4	3.04	0.46
24:BA:2041:U:H2'	24:BA:2042:A:C8	2.49	0.46
24:BA:2297:A:C5	24:BA:2320:U:C4	3.03	0.46
24:BA:2508:G:H2'	24:BA:2509:G:O4'	2.15	0.46
24:BA:2663:G:C4	24:BA:2664:G:C8	3.04	0.46
24:BA:2834:G:H2'	24:BA:2879:A:H61	1.77	0.46
26:BC:134:ILE:O	26:BC:135:PRO:C	2.58	0.46
26:BC:268:ARG:HH11	26:BC:268:ARG:HB3	1.79	0.46
31:BH:68:ARG:NH2	31:BH:69:ALA:HA	2.30	0.46
40:BQ:75:TYR:CD2	40:BQ:75:TYR:C	2.93	0.46
45:BV:68:LYS:O	45:BV:69:GLU:C	2.57	0.46
2:CC:38:VAL:HG23	2:CC:39:ARG:N	2.31	0.46
3:CD:25:ARG:NH1	3:CD:30:LYS:HE2	2.22	0.46
5:CF:99:ALA:O	5:CF:100:SER:CB	2.63	0.46
8:CI:88:GLU:CD	8:CI:88:GLU:H	2.22	0.46
9:CJ:35:GLN:NE2	9:CJ:78:GLU:HB2	2.29	0.46
13:CN:22:LYS:O	13:CN:26:LEU:HB2	2.15	0.46
13:CN:27:LYS:HZ3	13:CN:28:ALA:N	2.13	0.46
17:CR:34:GLU:HB2	20:CU:18:PHE:CZ	2.51	0.46
55:CA:238:A:H2'	55:CA:239:U:O4'	2.16	0.46
55:CA:582:C:N3	55:CA:760:G:C6	2.84	0.46
55:CA:1424:U:H2'	55:CA:1425:U:O4'	2.14	0.46
55:CA:1508:A:H2'	55:CA:1509:C:H6	1.81	0.46
26:DC:64:VAL:HG11	26:DC:66:PHE:CZ	2.51	0.46
28:DE:9:GLN:O	28:DE:9:GLN:HG3	2.16	0.46
28:DE:147:LEU:CB	28:DE:186:VAL:HG23	2.43	0.46
30:DG:116:LEU:HD13	30:DG:120:ILE:O	2.15	0.46
31:DH:61:VAL:HG13	31:DH:62:LEU:N	2.30	0.46
32:DI:52:LEU:HD11	32:DI:78:LEU:HD21	1.98	0.46
34:DK:77:ILE:HD12	34:DK:105:ARG:HH12	1.80	0.46
35:DL:78:ARG:C	35:DL:80:SER:H	2.23	0.46
37:DN:4:ARG:C	37:DN:5:LYS:O	2.58	0.46
40:DQ:60:TRP:O	40:DQ:61:ILE:C	2.58	0.46
40:DQ:61:ILE:HD12	40:DQ:61:ILE:N	2.31	0.46
51:D1:5:ARG:NH2	51:D1:23:THR:OG1	2.48	0.46
54:D4:15:LYS:O	54:D4:16:ILE:HB	2.14	0.46
24:DA:56:A:H2'	24:DA:57:C:H6	1.76	0.46
24:DA:101:A:H8	24:DA:101:A:H2'	1.65	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:261:G:N1	24:DA:262:A:C5	2.82	0.46
24:DA:431:U:H6	24:DA:431:U:O5'	1.98	0.46
24:DA:1152:C:H2'	24:DA:1153:C:H6	1.79	0.46
24:DA:1161:C:O2'	24:DA:1162:G:H5'	2.14	0.46
24:DA:1722:A:C6	24:DA:1739:A:C8	3.03	0.46
24:DA:1734:G:H2'	24:DA:1735:A:H8	1.79	0.46
24:DA:1936:A:C4	24:DA:1940:U:C5	3.02	0.46
24:DA:1945:G:N2	24:DA:1946:U:C2	2.83	0.46
24:DA:2147:A:OP1	24:DA:2148:G:C8	2.69	0.46
24:DA:2221:G:C5	24:DA:2222:C:C5	3.03	0.46
24:DA:2345:G:C4	24:DA:2381:A:C2	3.03	0.46
24:DA:2391:G:O2'	24:DA:2392:A:H8	1.97	0.46
24:DA:2438:U:HO2'	24:DA:2439:A:H5"	1.80	0.46
24:DA:2784:U:H2'	24:DA:2785:C:C6	2.50	0.46
56:DB:31:C:O2	56:DB:52:A:C2	2.68	0.46
1:AB:61:SER:HA	1:AB:223:GLY:C	2.40	0.46
2:AC:78:LYS:O	2:AC:79:LYS:HB2	2.14	0.46
5:AF:47:LEU:HD12	5:AF:55:HIS:HA	1.97	0.46
6:AG:119:LEU:HD23	6:AG:119:LEU:C	2.40	0.46
6:AG:131:GLY:H	6:AG:134:VAL:CG2	2.28	0.46
7:AH:49:LYS:HB3	7:AH:51:GLU:OE1	2.15	0.46
7:AH:124:ILE:O	7:AH:124:ILE:HG13	2.15	0.46
11:AL:62:VAL:HG22	11:AL:63:THR:N	2.30	0.46
12:AM:44:ILE:HD12	12:AM:44:ILE:H	1.79	0.46
15:AP:1:MET:HB2	21:AA:135:C:O2	2.15	0.46
19:AT:2:ASN:OD1	19:AT:3:ILE:N	2.48	0.46
19:AT:43:LYS:CB	19:AT:86:ALA:HB1	2.43	0.46
21:AA:569:C:H5"	21:AA:570:G:OP1	2.16	0.46
21:AA:756:C:H2'	21:AA:757:U:O4'	2.15	0.46
21:AA:1054:C:O2	21:AA:1196:A:C5	2.69	0.46
21:AA:1296:C:H5"	21:AA:1297:G:OP2	2.16	0.46
21:AA:1432:G:O2'	21:AA:1433:A:OP2	2.27	0.46
24:BA:86:G:C2	24:BA:87:U:C5	3.03	0.46
24:BA:382:A:C6	24:BA:383:C:C5	3.04	0.46
24:BA:856:G:N2	24:BA:857:G:C2	2.84	0.46
24:BA:944:C:H2'	59:BA:3355:HOH:O	2.14	0.46
24:BA:1060:U:H5"	24:BA:1061:U:OP1	2.15	0.46
24:BA:1063:G:C6	24:BA:1064:C:N3	2.83	0.46
24:BA:1303:G:C4	24:BA:1304:A:C8	3.04	0.46
24:BA:1681:G:HO2'	24:BA:1762:A:HO2'	1.57	0.46
24:BA:1754:A:C6	24:BA:1755:A:N1	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2024:G:C6	24:BA:2025:C:C4	3.04	0.46
24:BA:2071:A:C6	24:BA:2072:C:N4	2.84	0.46
24:BA:2072:C:C2'	24:BA:2073:C:H5'	2.46	0.46
24:BA:2210:U:C6	24:BA:2212:A:N7	2.83	0.46
24:BA:2287:A:O2'	24:BA:2288:A:H5"	2.15	0.46
24:BA:2320:U:H4'	24:BA:2321:U:H6	1.80	0.46
24:BA:2515:C:O2	24:BA:2570:G:C2	2.69	0.46
26:BC:165:ALA:HB3	26:BC:172:THR:HG23	1.97	0.46
28:BE:83:VAL:HG12	28:BE:83:VAL:O	2.15	0.46
33:BJ:37:ARG:HA	33:BJ:118:MET:CE	2.45	0.46
36:BM:132:THR:CG2	36:BM:133:LYS:H	2.28	0.46
41:BR:52:PRO:O	41:BR:53:PHE:HB2	2.16	0.46
41:BR:74:ILE:HD12	41:BR:74:ILE:N	2.30	0.46
1:CB:51:GLU:C	1:CB:55:GLU:OE1	2.57	0.46
1:CB:187:ASP:O	1:CB:189:ASN:N	2.48	0.46
2:CC:96:VAL:HB	2:CC:97:PRO:HD2	1.98	0.46
3:CD:137:SER:HB2	3:CD:138:PRO:HD2	1.96	0.46
4:CE:56:PRO:O	4:CE:59:ILE:N	2.48	0.46
4:CE:111:ARG:O	4:CE:112:ALA:C	2.59	0.46
14:CO:87:ARG:HA	14:CO:87:ARG:HD2	1.53	0.46
16:CQ:18:LYS:HE3	16:CQ:48:GLU:OE1	2.15	0.46
17:CR:41:SER:HA	17:CR:46:THR:HG22	1.98	0.46
18:CS:33:TRP:N	18:CS:33:TRP:CE3	2.84	0.46
20:CU:43:GLU:CD	55:CA:1534:A:H62	2.23	0.46
55:CA:71:A:N3	55:CA:72:A:C8	2.83	0.46
55:CA:161:A:H2'	55:CA:162:A:H8	1.81	0.46
55:CA:495:A:C2	55:CA:496:A:C6	3.03	0.46
55:CA:686:U:O2	55:CA:687:A:C5	2.68	0.46
55:CA:718:A:O2'	55:CA:719:C:H5'	2.14	0.46
55:CA:736:C:H2'	55:CA:737:C:C6	2.51	0.46
55:CA:1182:G:C3'	55:CA:1183:U:H5'	2.45	0.46
55:CA:1366:C:O2'	55:CA:1367:C:O4'	2.32	0.46
55:CA:1500:A:O2'	55:CA:1501:C:C5'	2.63	0.46
26:DC:212:TRP:C	26:DC:212:TRP:HD1	2.22	0.46
27:DD:196:ALA:O	27:DD:197:THR:C	2.57	0.46
29:DF:19:PHE:HB3	29:DF:21:TYR:CZ	2.50	0.46
29:DF:76:PHE:CD2	29:DF:76:PHE:N	2.80	0.46
32:DI:58:ILE:HG23	32:DI:66:PHE:CD2	2.51	0.46
33:DJ:95:ARG:O	33:DJ:96:ARG:C	2.57	0.46
34:DK:25:LEU:H	34:DK:25:LEU:CD2	2.21	0.46
37:DN:31:HIS:O	37:DN:33:ILE:HG13	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DP:28:LYS:HZ3	39:DP:82:SER:HB2	1.80	0.46
40:DQ:87:VAL:CG1	40:DQ:88:GLU:H	2.26	0.46
45:DV:29:ILE:HG13	45:DV:88:HIS:CE1	2.50	0.46
45:DV:32:GLY:O	45:DV:33:GLY:C	2.58	0.46
46:DW:40:ARG:CZ	24:DA:2332:C:C4'	2.86	0.46
52:D2:5:PHE:CD2	24:DA:464:U:H5'	2.50	0.46
24:DA:324:A:H2'	24:DA:325:G:C8	2.51	0.46
24:DA:442:G:C6	24:DA:444:C:N4	2.83	0.46
24:DA:493:G:H2'	24:DA:494:G:O4'	2.16	0.46
24:DA:690:G:H4'	24:DA:780:G:H5"	1.96	0.46
24:DA:735:A:H3'	24:DA:736:C:C6	2.50	0.46
24:DA:768:G:C6	24:DA:769:U:C4	3.04	0.46
24:DA:783:A:N3	24:DA:785:G:H1'	2.30	0.46
24:DA:1003:G:H2'	24:DA:1010:A:C2	2.51	0.46
24:DA:1009:A:C2	24:DA:1010:A:C2	3.03	0.46
24:DA:1024:G:N2	24:DA:1142:A:C2	2.82	0.46
24:DA:1460:U:OP2	24:DA:1460:U:C2	2.68	0.46
24:DA:1486:U:H2'	24:DA:1487:U:C6	2.49	0.46
24:DA:1608:A:C8	24:DA:1611:C:N4	2.83	0.46
24:DA:1649:G:O2'	24:DA:1650:A:H5'	2.15	0.46
24:DA:1709:U:H2'	24:DA:1710:G:C8	2.51	0.46
24:DA:1827:U:C4'	24:DA:1970:A:O2'	2.64	0.46
24:DA:2621:G:H2'	24:DA:2622:U:C6	2.50	0.46
24:DA:2646:C:O5'	24:DA:2646:C:H6	1.97	0.46
1:AB:19:THR:CG2	1:AB:21:TYR:HE1	2.28	0.46
2:AC:28:PHE:O	2:AC:32:LEU:HB2	2.15	0.46
3:AD:109:THR:HG21	3:AD:111:ALA:HB3	1.98	0.46
4:AE:47:PHE:CZ	4:AE:137:ARG:CZ	2.99	0.46
5:AF:49:TYR:CE2	5:AF:51:ILE:HB	2.50	0.46
11:AL:109:ARG:NH2	21:AA:537:G:OP1	2.49	0.46
14:AO:41:HIS:ND1	21:AA:739:C:O2'	2.49	0.46
15:AP:7:ALA:O	15:AP:17:TYR:HA	2.16	0.46
19:AT:53:MET:O	19:AT:57:VAL:HG23	2.16	0.46
19:AT:75:LYS:HG3	19:AT:76:ALA:H	1.79	0.46
21:AA:511:C:C4	21:AA:512:U:O4	2.68	0.46
21:AA:536:C:H2'	21:AA:537:G:H8	1.80	0.46
21:AA:829:G:C6	21:AA:858:G:C2	3.04	0.46
21:AA:1316:G:N2	21:AA:1318:A:H3'	2.31	0.46
21:AA:1533:C:C2'	21:AA:1534:A:H5"	2.44	0.46
24:BA:48:G:C6	24:BA:178:G:O6	2.68	0.46
24:BA:199:A:C6	24:BA:2434:A:C6	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:229:C:C2’	24:BA:230:G:O5’	2.63	0.46
24:BA:250:G:P	53:B3:12:ARG:HH12	2.39	0.46
24:BA:486:C:H2’	24:BA:487:C:C6	2.50	0.46
24:BA:508:A:H4’	24:BA:509:C:OP2	2.15	0.46
24:BA:549:G:H5”	24:BA:550:C:C6	2.50	0.46
24:BA:1266:G:H5”	42:BS:15:GLN:HE22	1.80	0.46
24:BA:1766:G:N2	24:BA:1767:G:C4	2.83	0.46
24:BA:2026:U:H2’	24:BA:2027:G:O4’	2.15	0.46
24:BA:2046:G:H2’	24:BA:2047:C:H6	1.79	0.46
24:BA:2312:U:C2’	24:BA:2313:C:H5’	2.45	0.46
24:BA:2417:C:H2’	24:BA:2418:A:H8	1.80	0.46
24:BA:2557:G:N2	24:BA:2558:C:C2	2.84	0.46
24:BA:2574:G:C4	24:BA:2575:C:C6	3.03	0.46
24:BA:2686:G:C5	24:BA:2687:U:C5	3.03	0.46
27:BD:151:THR:O	27:BD:152:PRO:C	2.58	0.46
29:BF:131:VAL:O	29:BF:132:ARG:C	2.59	0.46
31:BH:9:VAL:O	31:BH:10:ALA:C	2.59	0.46
31:BH:132:PHE:CG	31:BH:133:GLN:N	2.84	0.46
33:BJ:97:PRO:C	33:BJ:99:ARG:N	2.73	0.46
33:BJ:105:VAL:HG23	33:BJ:109:LEU:CD1	2.46	0.46
37:BN:15:SER:O	37:BN:16:HIS:C	2.59	0.46
42:BS:62:ASP:O	42:BS:63:GLY:C	2.58	0.46
43:BT:14:PRO:HA	43:BT:32:LEU:CB	2.45	0.46
43:BT:31:VAL:HA	43:BT:84:TYR:H	1.80	0.46
46:BW:37:VAL:C	46:BW:38:ARG:CG	2.88	0.46
47:BX:44:ARG:CG	47:BX:45:PHE:N	2.79	0.46
1:CB:26:MET:C	1:CB:28:PRO:HD2	2.40	0.46
1:CB:40:ILE:HG22	1:CB:41:ASN:N	2.31	0.46
1:CB:61:SER:OG	1:CB:224:ARG:HA	2.15	0.46
3:CD:1:ALA:HB2	55:CA:404:G:O6	2.15	0.46
3:CD:3:TYR:CD1	3:CD:3:TYR:C	2.93	0.46
4:CE:116:VAL:HG23	4:CE:117:ALA:N	2.31	0.46
6:CG:110:ARG:HG3	6:CG:111:GLY:N	2.28	0.46
8:CI:117:LEU:CD2	8:CI:123:ARG:HE	2.28	0.46
12:CM:94:LEU:CD2	12:CM:101:THR:HG22	2.45	0.46
55:CA:168:G:H8	55:CA:168:G:OP2	1.99	0.46
55:CA:567:G:O2’	55:CA:568:G:O5’	2.33	0.46
55:CA:836:G:C6	55:CA:837:U:C2	3.04	0.46
55:CA:977:A:H3’	55:CA:1362:A:N6	2.30	0.46
55:CA:1119:C:H2’	55:CA:1120:C:C6	2.39	0.46
55:CA:1186:G:N2	55:CA:1187:G:H1’	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:1298:U:H4'	55:CA:1299:A:O5'	2.15	0.46
55:CA:1360:A:H2'	55:CA:1361:G:O4'	2.16	0.46
26:DC:183:VAL:HG22	26:DC:184:GLU:H	1.81	0.46
26:DC:257:ARG:NH2	26:DC:263:ASP:OD2	2.46	0.46
36:DM:31:PHE:O	36:DM:104:GLU:HA	2.16	0.46
43:DT:8:LEU:HD22	43:DT:46:ALA:HA	1.97	0.46
44:DU:12:VAL:O	44:DU:12:VAL:HG12	2.15	0.46
44:DU:32:LYS:HE2	44:DU:65:GLN:CD	2.40	0.46
47:DX:58:ILE:HG12	47:DX:66:VAL:HG11	1.98	0.46
52:D2:19:ARG:HB2	24:DA:126:A:OP2	2.15	0.46
24:DA:476:G:C4	24:DA:478:A:OP2	2.69	0.46
24:DA:815:C:H2'	24:DA:816:C:H6	1.79	0.46
24:DA:843:G:H2'	24:DA:844:A:C8	2.50	0.46
24:DA:1082:U:N3	24:DA:1086:A:C5	2.83	0.46
24:DA:1247:A:N7	24:DA:1249:U:C4	2.83	0.46
24:DA:1254:A:H3'	24:DA:1255:U:C5'	2.45	0.46
24:DA:1322:A:H2'	24:DA:1323:C:O4'	2.15	0.46
24:DA:1335:C:H2'	24:DA:1336:A:O4'	2.16	0.46
24:DA:1473:G:C2	24:DA:1519:G:C2	3.02	0.46
24:DA:1511:G:O2'	24:DA:1512:C:C5'	2.64	0.46
24:DA:1678:A:H2'	24:DA:1679:A:O4'	2.15	0.46
24:DA:1866:A:H61	24:DA:1875:G:C2'	2.28	0.46
24:DA:2144:G:HO2'	24:DA:2145:C:H3'	1.80	0.46
24:DA:2228:G:C6	24:DA:2229:U:C4	3.03	0.46
24:DA:2261:C:O2'	24:DA:2262:U:H5'	2.15	0.46
24:DA:2307:G:C8	24:DA:2312:U:C5	3.03	0.46
24:DA:2521:C:C2	24:DA:2545:G:N2	2.84	0.46
56:DB:37:C:N4	56:DB:49:C:O4'	2.48	0.46
1:AB:30:ILE:HD11	1:AB:38:HIS:CD2	2.50	0.46
1:AB:202:ASN:O	1:AB:208:ALA:HB1	2.16	0.46
2:AC:32:LEU:O	2:AC:32:LEU:HD12	2.16	0.46
2:AC:45:GLU:C	2:AC:47:ALA:H	2.23	0.46
10:AK:96:ILE:CD1	20:AU:14:ALA:HB2	2.45	0.46
13:AN:35:ALA:HB2	13:AN:40:ARG:HD3	1.96	0.46
13:AN:42:ASN:C	13:AN:44:VAL:H	2.24	0.46
14:AO:7:THR:O	14:AO:11:VAL:HG23	2.15	0.46
14:AO:34:GLN:O	14:AO:35:ILE:C	2.58	0.46
21:AA:279:A:O5'	21:AA:281:G:H5'	2.15	0.46
21:AA:1067:A:N1	21:AA:1108:G:O2'	2.48	0.46
21:AA:1139:G:C2	21:AA:1141:C:N4	2.84	0.46
21:AA:1200:C:HO2'	21:AA:1201:A:P	2.39	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:1464:U:O2'	21:AA:1465:A:H5'	2.15	0.46
24:BA:54:G:H2'	24:BA:55:G:O5'	2.15	0.46
24:BA:532:A:O2'	24:BA:2021:C:H5	1.97	0.46
24:BA:542:C:O2	24:BA:542:C:C2'	2.63	0.46
24:BA:679:C:O2	24:BA:799:G:C2	2.69	0.46
24:BA:953:G:N2	24:BA:954:G:C4	2.84	0.46
24:BA:1075:C:H2'	24:BA:1076:C:C6	2.51	0.46
24:BA:1401:G:C5	24:BA:1402:U:C5	3.04	0.46
24:BA:1494:A:H2'	24:BA:1495:A:C8	2.50	0.46
24:BA:1722:A:N1	24:BA:1739:A:C8	2.84	0.46
24:BA:1854:A:N6	24:BA:1888:G:H1'	2.31	0.46
24:BA:1906:G:N1	24:BA:1907:G:N7	2.63	0.46
24:BA:1998:A:H2'	24:BA:1999:C:C6	2.51	0.46
24:BA:2151:U:H2'	24:BA:2152:G:O4'	2.16	0.46
24:BA:2520:C:H2'	24:BA:2521:C:H6	1.81	0.46
24:BA:2523:G:C2'	24:BA:2524:G:H5'	2.45	0.46
24:BA:2529:G:OP2	24:BA:2530:A:H5"	2.16	0.46
24:BA:2625:G:H2'	24:BA:2626:C:C6	2.51	0.46
24:BA:2749:A:OP1	30:BG:3:VAL:HG12	2.15	0.46
24:BA:2776:A:C2	24:BA:2778:A:C4	3.04	0.46
26:BC:106:PRO:HD3	26:BC:141:HIS:CE1	2.50	0.46
26:BC:259:ASN:O	26:BC:260:LYS:HB2	2.16	0.46
27:BD:39:ASP:OD2	27:BD:40:LEU:HD12	2.14	0.46
28:BE:127:GLU:H	28:BE:127:GLU:CD	2.24	0.46
29:BF:7:TYR:CD2	29:BF:11:VAL:HG11	2.51	0.46
29:BF:134:GLN:NE2	29:BF:150:GLY:H	2.14	0.46
31:BH:94:ILE:HG23	31:BH:98:ASP:C	2.40	0.46
32:BI:107:GLU:HA	32:BI:110:GLN:HB3	1.96	0.46
34:BK:21:CYS:HA	34:BK:41:ILE:CD1	2.33	0.46
35:BL:40:SER:O	35:BL:41:ARG:HB2	2.15	0.46
35:BL:57:LEU:C	35:BL:59:ARG:H	2.24	0.46
40:BQ:63:ARG:NH1	40:BQ:96:ASP:CB	2.73	0.46
41:BR:39:LEU:HB2	41:BR:49:ILE:HD13	1.98	0.46
41:BR:102:SER:O	41:BR:103:ALA:O	2.33	0.46
45:BV:21:ARG:HA	45:BV:25:LYS:O	2.15	0.46
46:BW:76:ARG:HG3	46:BW:76:ARG:HH21	1.79	0.46
49:BZ:56:VAL:O	49:BZ:56:VAL:HG13	2.15	0.46
50:B0:53:VAL:O	50:B0:54:ILE:C	2.58	0.46
51:B1:9:LYS:HG2	51:B1:9:LYS:O	2.15	0.46
1:CB:81:ASP:CG	1:CB:82:ALA:H	2.23	0.46
1:CB:115:ASP:O	1:CB:119:GLN:CB	2.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CB:116:LEU:HD13	1:CB:140:LEU:HB2	1.98	0.46
4:CE:14:LEU:HD12	4:CE:35:LEU:O	2.15	0.46
4:CE:98:ALA:HA	4:CE:123:LEU:HD12	1.96	0.46
9:CJ:57:VAL:HG23	55:CA:972:C:H1'	1.97	0.46
10:CK:84:MET:HG2	10:CK:110:THR:OG1	2.16	0.46
11:CL:48:LEU:HD23	11:CL:48:LEU:N	2.30	0.46
11:CL:78:VAL:O	11:CL:101:LEU:HB3	2.14	0.46
11:CL:91:GLY:O	11:CL:92:VAL:C	2.58	0.46
12:CM:59:VAL:HG13	12:CM:60:ALA:N	2.31	0.46
15:CP:61:VAL:C	15:CP:63:GLN:H	2.23	0.46
18:CS:5:LYS:HB2	18:CS:6:LYS:H	1.48	0.46
18:CS:11:ASP:N	18:CS:11:ASP:OD1	2.49	0.46
55:CA:57:G:C5	55:CA:58:C:C5	3.03	0.46
55:CA:61:G:O6	55:CA:107:G:C6	2.68	0.46
55:CA:158:G:H2'	55:CA:159:G:O4'	2.16	0.46
55:CA:243:A:C5'	55:CA:244:U:H5'	2.46	0.46
55:CA:449:G:N1	55:CA:450:G:C6	2.83	0.46
55:CA:481:G:H4'	55:CA:482:A:OP1	2.16	0.46
55:CA:536:C:H2'	55:CA:537:G:C8	2.51	0.46
55:CA:686:U:O2'	55:CA:687:A:O5'	2.33	0.46
55:CA:1077:G:C2	55:CA:1081:A:C2	3.03	0.46
55:CA:1307:U:H2'	55:CA:1308:U:H5'	1.98	0.46
26:DC:197:ALA:O	26:DC:199:HIS:N	2.48	0.46
27:DD:193:VAL:O	27:DD:194:PRO:O	2.33	0.46
28:DE:154:ASP:C	28:DE:156:ASN:H	2.23	0.46
29:DF:32:LYS:CB	29:DF:32:LYS:HZ2	2.28	0.46
35:DL:32:GLY:CA	24:DA:1190:G:H5"	2.45	0.46
37:DN:55:ALA:HA	37:DN:80:PHE:CE1	2.51	0.46
38:DO:9:ARG:HA	38:DO:12:THR:OG1	2.15	0.46
38:DO:18:LEU:HD13	38:DO:25:ARG:HD2	1.97	0.46
38:DO:88:LYS:O	38:DO:89:ASP:HB3	2.13	0.46
39:DP:24:THR:O	39:DP:25:VAL:C	2.59	0.46
41:DR:78:ARG:HB3	41:DR:83:TYR:CD1	2.50	0.46
43:DT:18:GLU:OE2	24:DA:1338:G:H4'	2.16	0.46
47:DX:26:ARG:NH1	24:DA:2232:C:P	2.89	0.46
48:DY:22:LEU:HG	48:DY:23:ARG:H	1.80	0.46
24:DA:53:A:H3'	24:DA:54:G:H8	1.81	0.46
24:DA:58:G:N2	24:DA:70:G:C4	2.83	0.46
24:DA:804:A:H2'	24:DA:806:C:N4	2.31	0.46
24:DA:1059:G:C2	24:DA:1080:A:C2	3.04	0.46
24:DA:1073:A:H3'	24:DA:1074:G:H8	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1207:C:H2'	24:DA:1208:C:H6	1.77	0.46
24:DA:1597:A:O3'	24:DA:1598:A:H8	1.99	0.46
24:DA:1869:G:C2	24:DA:1873:G:C6	3.03	0.46
24:DA:2345:G:H4'	24:DA:2346:A:O5'	2.15	0.46
24:DA:2770:G:O5'	24:DA:2770:G:C8	2.68	0.46
56:DB:50:A:C4	56:DB:51:G:C8	3.03	0.46
1:AB:24:PRO:CB	21:AA:829:G:O2'	2.64	0.46
1:AB:80:LYS:HG3	1:AB:90:PHE:CE1	2.50	0.46
2:AC:107:LYS:NZ	2:AC:107:LYS:HB2	2.29	0.46
2:AC:146:LYS:HB2	2:AC:202:PHE:HD2	1.76	0.46
4:AE:17:VAL:HG21	4:AE:55:VAL:HG13	1.97	0.46
4:AE:19:ARG:HB2	4:AE:31:SER:O	2.16	0.46
5:AF:45:ARG:HG2	5:AF:46:GLN:N	2.31	0.46
5:AF:85:ILE:O	5:AF:86:ARG:C	2.58	0.46
6:AG:128:GLU:O	6:AG:129:ASN:C	2.58	0.46
8:AI:43:ALA:HB1	8:AI:46:VAL:HG22	1.97	0.46
8:AI:94:ARG:HG2	8:AI:94:ARG:O	2.16	0.46
8:AI:117:LEU:O	8:AI:118:ARG:C	2.59	0.46
9:AJ:50:THR:HG22	9:AJ:64:GLN:HG2	1.98	0.46
10:AK:53:GLY:N	10:AK:56:LYS:HG2	2.31	0.46
12:AM:59:VAL:C	12:AM:61:LYS:H	2.23	0.46
16:AQ:74:LEU:HD22	16:AQ:75:VAL:N	2.30	0.46
17:AR:26:ALA:HA	17:AR:29:LYS:HE2	1.97	0.46
21:AA:471:U:C2'	21:AA:472:U:H5'	2.45	0.46
21:AA:891:U:O2'	21:AA:892:A:H5'	2.15	0.46
21:AA:935:A:O2'	21:AA:936:C:O4'	2.30	0.46
21:AA:1316:G:H5'	21:AA:1317:C:OP2	2.15	0.46
21:AA:1323:G:H2'	21:AA:1324:A:C8	2.50	0.46
21:AA:1363:A:C4	21:AA:1365:G:C6	3.04	0.46
21:AA:1502:A:HO2'	21:AA:1503:A:P	2.38	0.46
24:BA:141:G:C5'	24:BA:142:A:C8	2.97	0.46
24:BA:382:A:C6	24:BA:383:C:C6	3.03	0.46
24:BA:477:A:C6	24:BA:478:A:C6	3.03	0.46
24:BA:763:G:O2'	24:BA:765:C:H5'	2.15	0.46
24:BA:783:A:C2'	24:BA:784:G:O5'	2.63	0.46
24:BA:1000:A:C6	24:BA:1001:A:C6	3.04	0.46
24:BA:1165:A:H2'	24:BA:1166:G:H8	1.80	0.46
24:BA:1676:A:N6	24:BA:1677:A:C6	2.83	0.46
24:BA:1802:A:O2'	24:BA:1803:A:C5'	2.63	0.46
24:BA:1867:G:H22	24:BA:1875:G:H1'	1.77	0.46
24:BA:1942:C:O5'	24:BA:1942:C:H6	1.99	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1964:G:O2'	24:BA:1967:C:OP1	2.28	0.46
24:BA:1966:A:H1'	24:BA:2593:U:H5'	1.97	0.46
24:BA:2243:U:H2'	24:BA:2244:U:H6	1.80	0.46
24:BA:2275:C:HO2'	36:BM:84:LYS:HA	1.80	0.46
24:BA:2354:C:C4'	46:BW:31:LEU:HD22	2.43	0.46
24:BA:2750:A:O2'	24:BA:2752:C:N4	2.48	0.46
24:BA:2845:U:O3'	39:BP:52:ARG:NH1	2.48	0.46
24:BA:2860:A:C3'	24:BA:2860:A:C8	2.99	0.46
24:BA:2897:U:C2	24:BA:2898:U:C5	3.04	0.46
28:BE:1:MET:CG	28:BE:14:VAL:HG23	2.45	0.46
28:BE:83:VAL:HG11	28:BE:86:ALA:CB	2.45	0.46
28:BE:97:ASN:O	28:BE:98:LYS:C	2.58	0.46
29:BF:76:PHE:HB2	29:BF:78:ILE:HG12	1.98	0.46
30:BG:84:LYS:HG2	30:BG:85:LYS:N	2.31	0.46
31:BH:21:VAL:HG22	31:BH:22:LYS:N	2.30	0.46
33:BJ:112:GLY:O	33:BJ:113:PRO:C	2.58	0.46
35:BL:55:MET:HA	35:BL:55:MET:HE3	1.98	0.46
37:BN:72:ASP:OD1	37:BN:75:ILE:HG23	2.16	0.46
38:BO:36:TYR:N	38:BO:36:TYR:HD2	2.13	0.46
38:BO:110:ALA:O	38:BO:113:ALA:HB3	2.16	0.46
40:BQ:81:GLY:O	40:BQ:85:ALA:HB2	2.16	0.46
42:BS:54:ALA:O	42:BS:55:ILE:C	2.58	0.46
45:BV:66:ASP:OD1	45:BV:68:LYS:HG3	2.15	0.46
45:BV:80:HIS:CD2	45:BV:83:LYS:CB	2.99	0.46
47:BX:69:GLU:O	47:BX:70:LEU:HB2	2.16	0.46
48:BY:42:LEU:O	48:BY:43:LEU:C	2.58	0.46
49:BZ:9:THR:CG2	49:BZ:53:MET:C	2.88	0.46
1:CB:68:PHE:HB2	1:CB:90:PHE:CB	2.46	0.46
1:CB:71:THR:O	1:CB:72:LYS:C	2.58	0.46
1:CB:71:THR:N	1:CB:168:GLU:OE2	2.49	0.46
1:CB:166:ASP:HB2	1:CB:190:SER:HB2	1.97	0.46
2:CC:195:ILE:HG22	2:CC:195:ILE:O	2.15	0.46
3:CD:61:ARG:HG3	3:CD:71:PHE:CD2	2.51	0.46
3:CD:153:ARG:NH1	55:CA:437:U:H4'	2.31	0.46
4:CE:56:PRO:O	4:CE:59:ILE:HG22	2.14	0.46
8:CI:93:LEU:O	8:CI:97:LEU:HG	2.15	0.46
8:CI:104:THR:HG23	55:CA:1180:A:OP1	2.15	0.46
12:CM:75:SER:O	12:CM:79:LEU:HG	2.15	0.46
55:CA:70:U:N3	55:CA:94:G:C5	2.83	0.46
55:CA:199:A:O2'	55:CA:200:G:O4'	2.23	0.46
55:CA:229:U:C4	55:CA:230:G:N7	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:508:U:H4'	55:CA:509:A:OP1	2.14	0.46
55:CA:517:G:H5'	55:CA:519:C:N3	2.28	0.46
55:CA:537:G:HO2'	55:CA:538:G:C5'	2.29	0.46
55:CA:705:G:C2'	55:CA:706:A:H5'	2.45	0.46
55:CA:1142:G:C2	55:CA:1143:G:H1'	2.51	0.46
55:CA:1229:A:H2'	55:CA:1230:C:H6	1.80	0.46
55:CA:1256:A:C4	55:CA:1278:G:C5	3.04	0.46
26:DC:152:GLN:HA	26:DC:155:ARG:HD3	1.98	0.46
26:DC:251:THR:CG2	24:DA:1824:G:H21	2.28	0.46
28:DE:148:ILE:HA	28:DE:187:VAL:HB	1.97	0.46
31:DH:38:PRO:O	31:DH:40:THR:N	2.48	0.46
38:DO:71:ALA:HB1	38:DO:102:ARG:HB3	1.96	0.46
45:DV:9:ARG:HG2	45:DV:39:ALA:O	2.16	0.46
53:D3:3:ILE:CG2	53:D3:4:LYS:N	2.77	0.46
53:D3:33:THR:HG23	53:D3:34:LYS:N	2.30	0.46
24:DA:104:A:O2'	24:DA:105:C:H5'	2.16	0.46
24:DA:117:G:C2	24:DA:119:A:N6	2.84	0.46
24:DA:206:U:H2'	24:DA:207:A:C8	2.48	0.46
24:DA:464:U:H2'	24:DA:465:G:O4'	2.16	0.46
24:DA:512:G:OP2	24:DA:1235:G:H5'	2.16	0.46
24:DA:792:A:C5	24:DA:2440:C:C2	3.03	0.46
24:DA:809:G:O2'	24:DA:810:U:H5'	2.15	0.46
24:DA:817:C:O2'	24:DA:839:U:H5"	2.16	0.46
24:DA:1070:A:C8	24:DA:1097:U:H4'	2.51	0.46
24:DA:1288:G:C8	24:DA:1327:A:N6	2.84	0.46
24:DA:1633:G:C5	24:DA:1635:A:N7	2.83	0.46
24:DA:2095:A:C6	24:DA:2096:C:C4	3.04	0.46
24:DA:2319:G:O2'	24:DA:2320:U:P	2.73	0.46
24:DA:2674:G:C2'	24:DA:2675:A:H8	2.22	0.46
24:DA:2690:U:N3	24:DA:2873:A:C2	2.83	0.46
1:AB:27:LYS:HB3	1:AB:28:PRO:HD3	1.96	0.46
1:AB:216:VAL:O	1:AB:220:VAL:HG23	2.15	0.46
4:AE:32:PHE:O	4:AE:52:ALA:N	2.48	0.46
4:AE:106:ALA:O	4:AE:107:GLY:O	2.34	0.46
4:AE:131:ASN:HA	4:AE:132:PRO:HD2	1.55	0.46
4:AE:152:VAL:HG21	4:AE:156:ARG:HH12	1.76	0.46
7:AH:8:ASP:O	7:AH:11:THR:HG22	2.15	0.46
10:AK:34:THR:HA	10:AK:41:LEU:HG	1.98	0.46
12:AM:49:GLU:O	12:AM:52:ILE:HG22	2.16	0.46
15:AP:77:GLU:C	15:AP:79:ASN:H	2.24	0.46
17:AR:42:ARG:HG3	17:AR:43:ILE:HG12	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AS:18:VAL:HG11	18:AS:43:MET:HG2	1.97	0.46
18:AS:50:VAL:CG2	18:AS:70:LEU:HB3	2.46	0.46
21:AA:34:C:H2'	21:AA:35:G:C8	2.50	0.46
21:AA:202:G:O6	21:AA:203:G:C6	2.69	0.46
21:AA:507:C:C3'	21:AA:508:U:H5"	2.42	0.46
21:AA:601:G:H2'	21:AA:602:A:C8	2.50	0.46
21:AA:912:C:H6	21:AA:912:C:O5'	1.99	0.46
21:AA:1051:C:O2'	21:AA:1052:U:C5'	2.64	0.46
21:AA:1103:C:C2'	21:AA:1104:G:O5'	2.64	0.46
21:AA:1232:U:H2'	21:AA:1233:G:O4'	2.16	0.46
21:AA:1476:A:C5	21:AA:1477:U:C5	3.03	0.46
24:BA:35:G:O2'	24:BA:36:G:O5'	2.34	0.46
24:BA:227:A:H61	24:BA:410:G:H1'	1.80	0.46
24:BA:551:G:O2'	24:BA:552:U:H5'	2.16	0.46
24:BA:1028:A:O2'	24:BA:1029:A:H5'	2.15	0.46
24:BA:1528:A:OP2	24:BA:1543:G:N2	2.47	0.46
24:BA:1561:C:H2'	24:BA:1562:U:H6	1.79	0.46
24:BA:1693:U:H4'	24:BA:1694:C:OP2	2.15	0.46
24:BA:2056:G:N2	24:BA:2057:G:N9	2.64	0.46
24:BA:2318:G:C6	24:BA:2319:G:N1	2.83	0.46
24:BA:2461:A:H1'	24:BA:2492:U:C2	2.51	0.46
27:BD:53:GLY:HA3	27:BD:77:ARG:H	1.81	0.46
30:BG:66:THR:O	30:BG:67:ALA:C	2.58	0.46
31:BH:86:ASP:O	31:BH:87:GLU:C	2.58	0.46
32:BI:33:ASN:HB3	32:BI:36:GLU:CB	2.43	0.46
32:BI:72:THR:HB	32:BI:112:LYS:HZ2	1.81	0.46
34:BK:104:THR:HB	34:BK:106:GLU:OE1	2.15	0.46
36:BM:35:ALA:HB3	36:BM:99:GLY:N	2.31	0.46
36:BM:41:LEU:HG	36:BM:96:ILE:HG21	1.98	0.46
36:BM:47:GLU:O	36:BM:48:ALA:C	2.58	0.46
37:BN:20:MET:HE2	37:BN:20:MET:HB2	1.69	0.46
41:BR:35:PHE:HB2	41:BR:59:ILE:HB	1.97	0.46
41:BR:49:ILE:HG22	41:BR:54:VAL:HG12	1.98	0.46
43:BT:28:ASN:HA	43:BT:91:GLN:HE22	1.80	0.46
48:BY:20:ASN:O	48:BY:21:LEU:C	2.59	0.46
52:B2:44:VAL:O	52:B2:44:VAL:HG12	2.15	0.46
1:CB:53:LEU:CG	1:CB:219:THR:HG21	2.46	0.46
2:CC:20:THR:CG2	2:CC:57:GLU:HG2	2.45	0.46
6:CG:24:LYS:O	6:CG:28:ILE:HG12	2.16	0.46
7:CH:11:THR:HA	7:CH:14:ARG:NH1	2.31	0.46
8:CI:48:ARG:C	8:CI:50:PRO:HD2	2.41	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CJ:66:GLU:OE2	13:CN:96:LYS:HD3	2.16	0.46
13:CN:55:SER:C	13:CN:57:SER:H	2.24	0.46
18:CS:33:TRP:CD1	18:CS:56:HIS:CE1	3.03	0.46
18:CS:33:TRP:HB2	55:CA:1014:A:C2	2.50	0.46
55:CA:570:G:H1'	55:CA:820:U:C4	2.50	0.46
55:CA:763:G:C2	55:CA:764:C:C6	3.04	0.46
55:CA:899:C:H2'	55:CA:900:A:H8	1.79	0.46
55:CA:922:G:N1	55:CA:923:A:C2	2.83	0.46
55:CA:1219:A:C6	55:CA:1220:G:C5	3.04	0.46
55:CA:1432:G:H1'	55:CA:1468:A:H61	1.81	0.46
26:DC:78:GLU:OE2	26:DC:94:LEU:HD22	2.16	0.46
29:DF:155:ILE:H	29:DF:155:ILE:HD12	1.80	0.46
31:DH:7:ASP:O	31:DH:15:LEU:HD13	2.16	0.46
35:DL:91:ASP:O	35:DL:92:LEU:C	2.58	0.46
36:DM:27:SER:N	36:DM:66:ARG:HH22	2.10	0.46
37:DN:20:MET:C	37:DN:22:ARG:N	2.74	0.46
40:DQ:86:SER:O	40:DQ:87:VAL:C	2.59	0.46
44:DU:44:HIS:HD2	44:DU:57:ILE:HG21	1.81	0.46
47:DX:1:SER:O	47:DX:2:ARG:C	2.58	0.46
48:DY:21:LEU:HD23	48:DY:25:GLN:CD	2.40	0.46
51:D1:8:ILE:HD12	51:D1:52:LYS:HG3	1.97	0.46
24:DA:164:C:O2'	24:DA:165:A:H5'	2.16	0.46
24:DA:178:G:O2'	24:DA:179:C:H5'	2.16	0.46
24:DA:237:C:N4	24:DA:238:C:H41	2.13	0.46
24:DA:342:A:H2'	24:DA:343:C:O4'	2.15	0.46
24:DA:407:G:C2	24:DA:421:C:N3	2.84	0.46
24:DA:445:C:H2'	24:DA:446:G:O4'	2.15	0.46
24:DA:697:G:H2'	24:DA:698:C:C6	2.50	0.46
24:DA:749:A:N3	24:DA:750:A:C8	2.83	0.46
24:DA:1173:U:N3	24:DA:1174:U:H1'	2.31	0.46
24:DA:1311:G:O2'	24:DA:1312:U:C6	2.67	0.46
24:DA:1315:C:H2'	24:DA:1316:U:H6	1.80	0.46
24:DA:1343:G:C5	24:DA:1597:A:N6	2.84	0.46
24:DA:1348:C:C5	24:DA:1349:C:C2	3.04	0.46
24:DA:1649:G:H2'	24:DA:1650:A:H8	1.81	0.46
24:DA:1672:A:C2'	24:DA:1673:G:H5'	2.45	0.46
24:DA:1713:A:C1'	24:DA:1716:U:H5'	2.44	0.46
24:DA:1741:C:H2'	24:DA:1742:U:O4'	2.16	0.46
24:DA:2140:G:C5	24:DA:2152:G:N1	2.83	0.46
24:DA:2308:G:C6	24:DA:2311:A:C5	3.03	0.46
24:DA:2574:G:C5	24:DA:2575:C:C5	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DB:57:A:O2'	56:DB:58:A:H5'	2.15	0.46
56:DB:111:U:H2'	56:DB:112:G:H8	1.80	0.46
1:AB:17:HIS:CD2	1:AB:202:ASN:HD21	2.34	0.46
2:AC:74:ILE:O	2:AC:74:ILE:HG12	2.16	0.46
2:AC:119:ILE:HG21	2:AC:197:VAL:HG11	1.98	0.46
2:AC:120:THR:C	2:AC:122:GLN:N	2.73	0.46
3:AD:115:GLN:CD	3:AD:119:HIS:HE1	2.24	0.46
3:AD:149:LYS:NZ	3:AD:177:MET:HG3	2.30	0.46
5:AF:99:ALA:O	5:AF:100:SER:HB2	2.15	0.46
9:AJ:50:THR:HG22	9:AJ:64:GLN:CG	2.46	0.46
9:AJ:51:VAL:HB	13:AN:80:ARG:HB2	1.98	0.46
20:AU:16:ARG:NH1	20:AU:16:ARG:HG2	2.30	0.46
21:AA:19:A:H4'	21:AA:864:A:O4'	2.16	0.46
21:AA:32:A:C2	21:AA:33:A:C5	3.04	0.46
21:AA:48:C:H5	21:AA:364:A:H2	1.64	0.46
21:AA:284:C:H6	21:AA:284:C:O5'	1.99	0.46
21:AA:902:G:H2'	21:AA:903:G:H8	1.81	0.46
21:AA:1158:C:C2	21:AA:1160:G:C8	3.03	0.46
21:AA:1252:A:C2	21:AA:1253:G:C8	3.04	0.46
24:BA:7:G:H2'	24:BA:8:C:C6	2.51	0.46
24:BA:94:A:H2'	24:BA:95:A:C8	2.51	0.46
24:BA:545:U:H2'	24:BA:546:U:H4'	1.98	0.46
24:BA:976:G:C2	24:BA:977:G:C5	3.03	0.46
24:BA:1313:U:O2	24:BA:1313:U:C2'	2.62	0.46
24:BA:1417:C:H4'	24:BA:1587:G:H21	1.80	0.46
24:BA:1596:A:N6	24:BA:1597:A:N6	2.64	0.46
24:BA:1813:G:H21	26:BC:49:THR:HG22	1.81	0.46
24:BA:1945:G:C4	24:BA:1946:U:C5	3.04	0.46
24:BA:2197:U:HO2'	24:BA:2198:A:C2'	2.27	0.46
24:BA:2686:G:H2'	24:BA:2687:U:H6	1.81	0.46
24:BA:2874:C:H2'	24:BA:2875:C:C6	2.51	0.46
27:BD:92:VAL:O	27:BD:93:GLY:C	2.58	0.46
27:BD:103:ASP:O	27:BD:104:VAL:O	2.34	0.46
29:BF:142:TYR:HA	29:BF:145:VAL:HG13	1.98	0.46
30:BG:10:VAL:HB	30:BG:14:VAL:HG21	1.97	0.46
30:BG:54:ARG:HG3	30:BG:57:TYR:HD1	1.81	0.46
31:BH:66:ASN:C	31:BH:68:ARG:N	2.72	0.46
34:BK:108:ARG:HH21	39:BP:34:GLY:HA3	1.79	0.46
37:BN:32:GLU:C	37:BN:33:ILE:HG13	2.40	0.46
39:BP:33:GLU:CG	39:BP:34:GLY:N	2.76	0.46
39:BP:62:LYS:O	39:BP:62:LYS:HG2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CC:14:VAL:O	2:CC:15:LYS:HB2	2.15	0.46
4:CE:21:SER:HB3	55:CA:16:A:O4'	2.15	0.46
7:CH:47:ASP:OD2	7:CH:47:ASP:C	2.59	0.46
8:CI:6:TYR:HA	8:CI:18:VAL:O	2.16	0.46
8:CI:39:GLY:HA2	8:CI:44:ARG:HD3	1.98	0.46
10:CK:115:ILE:HD12	20:CU:23:GLU:HG2	1.98	0.46
11:CL:119:LYS:HG3	55:CA:36:C:OP1	2.16	0.46
12:CM:7:ASN:C	12:CM:9:PRO:HD3	2.40	0.46
55:CA:61:G:C6	55:CA:107:G:C2	3.04	0.46
55:CA:173:U:C2	55:CA:197:A:C2	3.04	0.46
55:CA:259:G:H2'	55:CA:260:G:H8	1.81	0.46
55:CA:275:G:O2'	55:CA:276:G:C5'	2.62	0.46
55:CA:484:G:C5	55:CA:486:U:H1'	2.51	0.46
55:CA:695:A:C6	55:CA:696:A:C6	3.04	0.46
55:CA:874:G:C4	55:CA:875:U:C5	3.04	0.46
55:CA:985:C:C2	55:CA:1221:G:N2	2.83	0.46
55:CA:1338:G:O2'	55:CA:1339:A:O4'	2.30	0.46
28:DE:64:GLY:HA2	24:DA:2059:A:O3'	2.16	0.46
28:DE:129:PRO:HG3	28:DE:159:LEU:HD23	1.98	0.46
33:DJ:106:LYS:HE2	33:DJ:106:LYS:HA	1.97	0.46
37:DN:16:HIS:CD2	24:DA:1275:A:N9	2.84	0.46
38:DO:31:THR:HG21	38:DO:36:TYR:HE2	1.81	0.46
53:D3:23:HIS:ND1	53:D3:24:LYS:O	2.49	0.46
53:D3:34:LYS:CE	24:DA:2390:U:OP2	2.63	0.46
24:DA:38:A:C2	24:DA:39:G:H1'	2.51	0.46
24:DA:146:A:C6	24:DA:147:C:C4	3.04	0.46
24:DA:320:A:H5"	24:DA:321:U:OP1	2.16	0.46
24:DA:608:A:C8	24:DA:621:A:N6	2.84	0.46
24:DA:673:C:H2'	24:DA:674:G:H5'	1.98	0.46
24:DA:843:G:N2	24:DA:844:A:C4	2.84	0.46
24:DA:915:C:H3'	24:DA:916:G:C8	2.50	0.46
24:DA:1002:G:H2'	24:DA:1003:G:O4'	2.16	0.46
24:DA:1050:A:C4	24:DA:2751:G:N2	2.83	0.46
24:DA:1347:A:O2'	24:DA:1348:C:C5'	2.63	0.46
24:DA:2028:U:H2'	24:DA:2029:G:C8	2.51	0.46
24:DA:2147:A:N3	24:DA:2147:A:C2'	2.76	0.46
24:DA:2447:G:C5	24:DA:2500:U:C5	3.04	0.46
1:AB:24:PRO:HB3	21:AA:830:G:H5'	1.98	0.46
1:AB:84:LEU:O	1:AB:84:LEU:HG	2.15	0.46
3:AD:111:ALA:O	3:AD:112:GLU:C	2.59	0.46
4:AE:151:MET:O	4:AE:153:ALA:N	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AH:66:GLN:HB3	7:AH:67:GLY:H	1.48	0.46
10:AK:98:ALA:O	10:AK:102:ALA:HB2	2.16	0.46
15:AP:78:VAL:O	15:AP:78:VAL:HG13	2.14	0.46
20:AU:28:LEU:HD23	20:AU:28:LEU:HA	1.65	0.46
21:AA:75:G:N2	21:AA:96:U:C2	2.84	0.46
21:AA:104:G:O2'	21:AA:105:G:H5'	2.16	0.46
21:AA:110:C:H2'	21:AA:111:G:C8	2.51	0.46
21:AA:243:A:H4'	21:AA:244:U:C5'	2.38	0.46
21:AA:555:U:H2'	21:AA:556:C:H6	1.77	0.46
21:AA:608:A:C4	21:AA:609:A:C8	3.03	0.46
21:AA:621:A:C6	21:AA:622:A:C6	3.04	0.46
21:AA:695:A:H2'	21:AA:696:A:O4'	2.16	0.46
21:AA:1051:C:O2'	21:AA:1052:U:H5"	2.16	0.46
21:AA:1144:G:H21	21:AA:1146:A:H62	1.62	0.46
24:BA:373:U:C5	24:BA:400:G:N2	2.84	0.46
24:BA:381:G:OP1	47:BX:17:ARG:HD3	2.16	0.46
24:BA:467:G:C2'	24:BA:468:G:H5'	2.45	0.46
24:BA:833:A:O2'	35:BL:51:GLU:HB3	2.16	0.46
24:BA:1005:C:N3	24:BA:1143:A:C2	2.84	0.46
24:BA:1709:U:H2'	24:BA:1710:G:C8	2.51	0.46
24:BA:2201:G:C6	24:BA:2223:G:C6	3.04	0.46
24:BA:2646:C:H6	24:BA:2646:C:C5'	2.29	0.46
24:BA:2713:U:H3'	24:BA:2714:G:C5'	2.45	0.46
24:BA:2793:C:H2'	24:BA:2794:C:H6	1.76	0.46
24:BA:2821:A:H2'	24:BA:2822:G:H8	1.79	0.46
25:BB:12:C:OP2	25:BB:12:C:H6	1.99	0.46
25:BB:48:U:H2'	25:BB:49:C:C6	2.50	0.46
25:BB:64:G:H2'	25:BB:65:U:C6	2.50	0.46
26:BC:12:ARG:HH11	26:BC:12:ARG:HG3	1.76	0.46
26:BC:147:PRO:HD2	26:BC:184:GLU:OE2	2.15	0.46
26:BC:184:GLU:HB2	26:BC:187:CYS:SG	2.56	0.46
27:BD:182:ALA:O	27:BD:183:GLU:C	2.59	0.46
34:BK:59:LYS:HE2	34:BK:89:ASN:O	2.16	0.46
35:BL:65:GLY:O	35:BL:66:PHE:CB	2.64	0.46
36:BM:49:ALA:O	36:BM:50:ARG:C	2.59	0.46
41:BR:59:ILE:HG12	41:BR:101:ILE:HD13	1.97	0.46
43:BT:31:VAL:C	43:BT:32:LEU:HD23	2.41	0.46
1:CB:208:ALA:HA	1:CB:211:LEU:CB	2.42	0.46
3:CD:34:GLU:O	3:CD:35:GLN:C	2.58	0.46
6:CG:115:MET:HA	6:CG:118:ARG:HD2	1.97	0.46
8:CI:51:LEU:HD12	8:CI:51:LEU:N	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CI:126:PHE:HE2	55:CA:1343:G:OP1	1.99	0.46
10:CK:96:ILE:O	10:CK:99:LEU:HB3	2.16	0.46
11:CL:119:LYS:HA	55:CA:36:C:H5"	1.98	0.46
12:CM:12:LYS:HB3	12:CM:17:ALA:HB2	1.97	0.46
12:CM:72:ILE:HG13	55:CA:1309:G:O2'	2.15	0.46
55:CA:200:G:C2	55:CA:218:U:O2	2.69	0.46
55:CA:251:G:H4'	55:CA:252:U:H5'	1.98	0.46
55:CA:1202:U:O2'	55:CA:1203:C:H5'	2.16	0.46
55:CA:1308:U:O2	55:CA:1330:U:C2	2.69	0.46
55:CA:1389:C:H2'	55:CA:1390:U:O4'	2.16	0.46
27:DD:107:VAL:CG1	27:DD:109:VAL:HG23	2.46	0.46
27:DD:208:LYS:O	27:DD:209:ALA:HB2	2.16	0.46
33:DJ:77:HIS:O	33:DJ:78:THR:C	2.59	0.46
34:DK:5:GLN:HA	34:DK:20:MET:SD	2.56	0.46
34:DK:98:ARG:C	34:DK:99:ILE:HG13	2.41	0.46
35:DL:41:ARG:HB3	24:DA:805:G:OP2	2.16	0.46
40:DQ:60:TRP:CZ2	40:DQ:93:ILE:HB	2.50	0.46
44:DU:34:ILE:HG12	44:DU:62:ALA:O	2.16	0.46
53:D3:63:TYR:O	53:D3:64:ALA:O	2.34	0.46
24:DA:181:A:H3'	24:DA:182:A:H8	1.80	0.46
24:DA:241:A:H1'	24:DA:243:U:C6	2.50	0.46
24:DA:460:A:H61	24:DA:469:G:H1'	1.81	0.46
24:DA:528:A:H2	24:DA:2043:C:O5'	1.98	0.46
24:DA:581:C:H2'	24:DA:582:A:C8	2.46	0.46
24:DA:749:A:H4'	24:DA:1271:G:N3	2.29	0.46
24:DA:1180:U:C4	24:DA:1181:U:C4	3.03	0.46
24:DA:1558:C:H1'	24:DA:1560:G:C5	2.50	0.46
24:DA:1670:C:C4	24:DA:1671:U:N3	2.84	0.46
24:DA:1745:A:C2	24:DA:1746:A:C8	3.04	0.46
24:DA:1904:G:O2'	24:DA:1905:C:H5'	2.16	0.46
24:DA:2046:G:H2'	24:DA:2047:C:C6	2.51	0.46
24:DA:2461:A:H1'	24:DA:2492:U:C2	2.50	0.46
24:DA:2773:C:H2'	24:DA:2774:C:H6	1.81	0.46
1:AB:30:ILE:HA	1:AB:40:ILE:O	2.16	0.46
1:AB:72:LYS:C	1:AB:74:ALA:H	2.23	0.46
3:AD:144:ILE:O	3:AD:145:ARG:C	2.59	0.46
3:AD:173:ASP:CG	3:AD:174:ALA:H	2.24	0.46
4:AE:131:ASN:HD21	4:AE:133:ILE:CD1	2.27	0.46
8:AI:8:THR:HB	8:AI:84:ARG:HH12	1.80	0.46
8:AI:45:MET:SD	8:AI:45:MET:N	2.89	0.46
10:AK:13:LYS:HD3	55:CA:412:A:H5"	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AL:6:LEU:HD23	16:AQ:33:TYR:CZ	2.50	0.46
15:AP:5:ARG:O	15:AP:19:VAL:HA	2.16	0.46
16:AQ:3:LYS:O	16:AQ:3:LYS:HD2	2.16	0.46
18:AS:6:LYS:HE2	18:AS:6:LYS:HA	1.98	0.46
21:AA:16:A:C2	21:AA:17:U:C6	3.03	0.46
21:AA:346:G:H2'	21:AA:346:G:N3	2.31	0.46
21:AA:1043:G:C6	21:AA:1044:A:N6	2.84	0.46
21:AA:1283:U:O2'	21:AA:1284:C:O4'	2.29	0.46
24:BA:42:A:C6	24:BA:43:G:N7	2.84	0.46
24:BA:269:C:H2'	24:BA:270:A:O4'	2.16	0.46
24:BA:270:A:N1	24:BA:369:U:H1'	2.31	0.46
24:BA:412:A:C2	24:BA:413:C:H1'	2.51	0.46
24:BA:481:G:O2'	24:BA:482:A:P	2.73	0.46
24:BA:503:A:C2	24:BA:505:A:H2'	2.51	0.46
24:BA:608:A:N6	24:BA:609:A:C6	2.84	0.46
24:BA:1154:G:H5"	24:BA:1155:A:OP2	2.16	0.46
24:BA:1253:A:H4'	24:BA:1254:A:OP2	2.15	0.46
24:BA:1255:U:OP2	24:BA:2502:G:N2	2.47	0.46
24:BA:1291:C:C2	24:BA:1292:G:C8	3.04	0.46
24:BA:1303:G:H2'	24:BA:1304:A:C8	2.45	0.46
24:BA:1640:A:O2'	24:BA:1641:A:H5'	2.17	0.46
24:BA:1680:U:H2'	24:BA:1681:G:O4'	2.16	0.46
24:BA:1776:G:OP2	59:BA:3455:HOH:O	2.21	0.46
24:BA:2051:A:C6	24:BA:2614:A:C5	3.04	0.46
24:BA:2063:C:C2'	24:BA:2064:C:H5'	2.46	0.46
24:BA:2070:A:C2	24:BA:2442:C:C2	3.04	0.46
24:BA:2093:G:C5	24:BA:2225:A:C8	3.04	0.46
24:BA:2236:U:O2'	24:BA:2237:G:H5'	2.16	0.46
24:BA:2556:C:C5	24:BA:2557:G:N7	2.84	0.46
24:BA:2787:C:H1'	27:BD:63:PRO:HG3	1.97	0.46
26:BC:196:ASN:C	26:BC:198:GLU:H	2.23	0.46
27:BD:149:ASN:O	27:BD:150:GLN:C	2.59	0.46
27:BD:184:ARG:HH11	39:BP:6:GLN:CD	2.23	0.46
32:BI:107:GLU:O	32:BI:111:THR:HG23	2.16	0.46
33:BJ:137:PRO:HG2	33:BJ:137:PRO:O	2.15	0.46
40:BQ:54:ARG:O	40:BQ:55:GLN:C	2.58	0.46
42:BS:84:ARG:O	42:BS:95:ARG:O	2.34	0.46
43:BT:29:THR:HA	43:BT:86:THR:N	2.30	0.46
44:BU:13:LEU:HD12	44:BU:69:VAL:CA	2.46	0.46
54:B4:9:LYS:HB3	54:B4:14:CYS:CB	2.46	0.46
1:CB:49:PHE:O	1:CB:53:LEU:N	2.38	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CC:106:ARG:O	2:CC:107:LYS:C	2.58	0.46
2:CC:111:ASP:C	2:CC:111:ASP:OD2	2.59	0.46
3:CD:119:HIS:O	3:CD:120:LYS:C	2.59	0.46
3:CD:155:LYS:HG2	3:CD:177:MET:CE	2.46	0.46
9:CJ:49:PHE:HE2	13:CN:73:LEU:HD22	1.81	0.46
9:CJ:81:GLU:O	9:CJ:83:THR:N	2.49	0.46
10:CK:54:SER:O	10:CK:55:ARG:C	2.59	0.46
12:CM:101:THR:CG2	55:CA:1225:A:H5'	2.45	0.46
13:CN:1:ALA:O	13:CN:2:LYS:HB3	2.15	0.46
15:CP:44:SER:HB2	15:CP:46:LYS:CG	2.45	0.46
15:CP:54:LEU:O	15:CP:56:ARG:N	2.48	0.46
19:CT:28:ARG:O	19:CT:29:THR:C	2.59	0.46
55:CA:204:G:H3'	55:CA:205:A:H8	1.81	0.46
55:CA:344:A:H4'	55:CA:345:C:OP2	2.14	0.46
55:CA:401:C:O2'	55:CA:402:G:H5'	2.16	0.46
55:CA:684:U:H2'	55:CA:685:G:C8	2.51	0.46
26:DC:206:LYS:HB2	24:DA:729:G:C6	2.50	0.46
26:DC:237:ARG:HD2	24:DA:2591:C:OP1	2.16	0.46
27:DD:36:GLN:HE21	27:DD:38:LYS:NZ	1.98	0.46
27:DD:90:PHE:C	27:DD:92:VAL:H	2.24	0.46
35:DL:32:GLY:HA2	24:DA:1190:G:H5"	1.98	0.46
36:DM:134:THR:O	36:DM:135:VAL:O	2.34	0.46
38:DO:90:VAL:HB	38:DO:91:SER:H	1.56	0.46
39:DP:9:GLN:C	39:DP:11:GLN:N	2.73	0.46
39:DP:32:VAL:O	39:DP:32:VAL:HG13	2.16	0.46
39:DP:47:ILE:HA	39:DP:96:LEU:HB2	1.98	0.46
41:DR:2:TYR:O	41:DR:3:ALA:HB2	2.16	0.46
41:DR:49:ILE:HG22	41:DR:54:VAL:N	2.31	0.46
42:DS:59:GLU:CD	42:DS:66:ILE:HG23	2.41	0.46
42:DS:82:MET:HE2	42:DS:84:ARG:HH12	1.81	0.46
44:DU:14:THR:HB	44:DU:68:ASN:CB	2.45	0.46
45:DV:56:PHE:CD1	45:DV:57:TYR:CD2	3.04	0.46
46:DW:23:LYS:HD2	46:DW:24:ARG:HB2	1.98	0.46
47:DX:26:ARG:HG3	47:DX:27:ARG:N	2.30	0.46
24:DA:411:G:C4'	24:DA:412:A:OP1	2.55	0.46
24:DA:571:U:C5	24:DA:575:A:C6	3.03	0.46
24:DA:607:U:H5	24:DA:619:G:C2	2.34	0.46
24:DA:607:U:O4	24:DA:619:G:H2'	2.15	0.46
24:DA:963:U:H2'	24:DA:964:C:C6	2.46	0.46
24:DA:1178:C:C4	24:DA:1179:G:N7	2.84	0.46
24:DA:1245:G:H2'	24:DA:1246:A:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1429:G:O2'	24:DA:1430:G:C8	2.53	0.46
24:DA:1439:A:C8	24:DA:1439:A:C3'	2.97	0.46
24:DA:2023:C:O2'	24:DA:2024:G:C5'	2.64	0.46
24:DA:2389:G:O5'	24:DA:2390:U:H5'	2.16	0.46
24:DA:2391:G:H2'	24:DA:2424:C:N4	2.28	0.46
24:DA:2517:C:C2	24:DA:2542:A:C6	3.03	0.46
24:DA:2776:A:H4'	24:DA:2777:G:C5'	2.46	0.46
1:AB:77:GLU:HB2	1:AB:80:LYS:HE2	1.97	0.45
2:AC:129:PHE:CZ	2:AC:130:ARG:HD2	2.51	0.45
2:AC:176:THR:CG2	2:AC:178:ARG:HG2	2.45	0.45
4:AE:34:ALA:C	4:AE:49:TYR:HD2	2.24	0.45
7:AH:49:LYS:HB3	7:AH:51:GLU:OE2	2.16	0.45
11:AL:87:LYS:O	11:AL:87:LYS:HG3	2.16	0.45
14:AO:42:PHE:CE1	14:AO:55:LEU:CD2	2.99	0.45
14:AO:55:LEU:O	14:AO:59:VAL:HG23	2.16	0.45
15:AP:53:ASP:O	15:AP:55:ASP:N	2.49	0.45
16:AQ:79:GLU:C	16:AQ:80:LYS:HD3	2.41	0.45
21:AA:22:G:C6	21:AA:23:C:C4	3.04	0.45
21:AA:30:U:H4'	21:AA:31:G:OP1	2.12	0.45
21:AA:580:C:H2'	21:AA:581:G:O4'	2.16	0.45
21:AA:587:G:C2	21:AA:755:G:C5	3.04	0.45
21:AA:597:G:H2'	21:AA:598:U:H5'	1.97	0.45
21:AA:841:C:C4	21:AA:843:U:H5'	2.51	0.45
24:BA:42:A:C5	24:BA:43:G:C8	3.04	0.45
24:BA:197:A:N3	24:BA:197:A:H2'	2.29	0.45
24:BA:382:A:N6	24:BA:383:C:C4	2.84	0.45
24:BA:704:G:H1'	24:BA:727:A:N6	2.31	0.45
24:BA:777:G:H2'	24:BA:778:G:C8	2.45	0.45
24:BA:849:A:C4	24:BA:930:G:N2	2.85	0.45
24:BA:869:G:C4	24:BA:870:U:C6	3.03	0.45
24:BA:923:G:H1'	46:BW:23:LYS:CE	2.46	0.45
24:BA:923:G:C4'	46:BW:25:PHE:CZ	2.98	0.45
24:BA:950:G:H2'	24:BA:951:C:H6	1.80	0.45
24:BA:995:C:O2'	24:BA:996:A:OP2	2.33	0.45
24:BA:1197:G:C2	24:BA:1250:G:C2	3.04	0.45
24:BA:1256:G:O2'	28:BE:77:ILE:HD11	2.15	0.45
24:BA:1462:C:H2'	24:BA:1463:C:C6	2.51	0.45
24:BA:1711:A:N6	24:BA:1746:A:H61	2.14	0.45
24:BA:1722:A:H2'	24:BA:1723:G:O4'	2.16	0.45
24:BA:1787:A:C6	24:BA:1788:C:C5	3.04	0.45
24:BA:2140:G:C2	24:BA:2141:G:C4	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2538:C:H2'	24:BA:2539:C:C6	2.51	0.45
24:BA:2728:U:C2	24:BA:2729:G:N7	2.84	0.45
29:BF:146:ASP:O	29:BF:147:ARG:HB2	2.16	0.45
30:BG:9:VAL:O	30:BG:11:PRO:HD3	2.15	0.45
34:BK:3:GLN:HG3	34:BK:4:GLU:N	2.31	0.45
34:BK:43:ILE:HG21	34:BK:46:ALA:HB2	1.98	0.45
39:BP:31:VAL:O	39:BP:31:VAL:HG13	2.17	0.45
39:BP:59:THR:HG23	39:BP:72:VAL:CG1	2.45	0.45
40:BQ:63:ARG:NH2	40:BQ:96:ASP:CB	2.74	0.45
45:BV:26:PHE:CE1	45:BV:42:LEU:HD12	2.51	0.45
51:B1:12:SER:HB2	51:B1:48:TYR:CE1	2.51	0.45
2:CC:175:HIS:CE1	55:CA:1190:G:H5'	2.51	0.45
2:CC:177:LEU:O	2:CC:178:ARG:CB	2.62	0.45
3:CD:29:THR:C	3:CD:31:CYS:N	2.73	0.45
3:CD:161:ALA:C	3:CD:163:GLN:N	2.73	0.45
4:CE:127:TYR:CZ	55:CA:560:A:C6	3.04	0.45
5:CF:92:THR:HG22	5:CF:93:LYS:N	2.31	0.45
7:CH:94:VAL:HB	7:CH:99:GLY:O	2.16	0.45
11:CL:110:LYS:HD2	11:CL:110:LYS:N	2.31	0.45
12:CM:32:ILE:HG13	12:CM:59:VAL:HB	1.97	0.45
12:CM:88:LEU:O	12:CM:92:ARG:HB2	2.15	0.45
15:CP:22:ALA:HB2	15:CP:32:PHE:HA	1.98	0.45
18:CS:15:LEU:C	18:CS:17:LYS:H	2.23	0.45
18:CS:40:PHE:HB3	18:CS:41:PRO:CD	2.45	0.45
55:CA:71:A:C6	55:CA:100:G:C5	3.04	0.45
55:CA:123:U:H2'	55:CA:124:C:H6	1.81	0.45
55:CA:199:A:N3	55:CA:200:G:C8	2.84	0.45
55:CA:638:U:H2'	55:CA:639:G:H8	1.81	0.45
55:CA:674:G:H2'	55:CA:675:A:H8	1.82	0.45
55:CA:1160:G:H2'	55:CA:1161:C:C6	2.51	0.45
55:CA:1487:G:C5	55:CA:1488:G:C8	3.04	0.45
26:DC:28:PRO:HB3	26:DC:62:ARG:NH2	2.30	0.45
27:DD:63:PRO:HG3	24:DA:2787:C:H1'	1.97	0.45
27:DD:119:ALA:CB	27:DD:163:GLY:C	2.88	0.45
30:DG:94:ARG:HG2	30:DG:104:LEU:HA	1.99	0.45
39:DP:9:GLN:C	39:DP:11:GLN:H	2.24	0.45
40:DQ:91:ARG:HG3	41:DR:11:GLN:CG	2.46	0.45
47:DX:69:GLU:HA	47:DX:72:ALA:HB3	1.97	0.45
52:D2:22:MET:SD	24:DA:118:A:OP1	2.74	0.45
53:D3:22:LYS:N	53:D3:48:MET:HB3	2.29	0.45
24:DA:181:A:C4	24:DA:435:C:C5	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:301:G:C2	24:DA:317:G:C4	3.04	0.45
24:DA:302:C:O2'	24:DA:303:G:O5'	2.33	0.45
24:DA:449:A:N3	24:DA:450:G:C8	2.84	0.45
24:DA:978:G:C6	24:DA:979:A:C5	3.04	0.45
24:DA:1204:A:C1'	24:DA:1206:G:C5	2.99	0.45
24:DA:1210:G:N3	24:DA:1212:G:N2	2.63	0.45
24:DA:1385:A:H1'	24:DA:1386:C:C6	2.51	0.45
24:DA:1526:C:H2'	24:DA:1527:G:O4'	2.16	0.45
24:DA:1920:C:H6	24:DA:1920:C:O5'	1.98	0.45
24:DA:1935:G:C1'	24:DA:1964:G:N2	2.73	0.45
24:DA:2142:A:H3'	24:DA:2143:C:H4'	1.97	0.45
24:DA:2311:A:C3'	24:DA:2312:U:H6	2.28	0.45
24:DA:2328:A:C2	24:DA:2329:U:C2	3.04	0.45
24:DA:2764:A:N7	24:DA:2766:A:N6	2.64	0.45
56:DB:28:C:H6	56:DB:28:C:O5'	1.99	0.45
3:AD:3:TYR:CZ	3:AD:5:GLY:HA3	2.51	0.45
5:AF:6:ILE:HD12	5:AF:62:MET:HG2	1.98	0.45
8:AI:21:LYS:HZ1	8:AI:23:GLY:HA3	1.79	0.45
9:AJ:59:LYS:CG	21:AA:972:C:H4'	2.46	0.45
11:AL:106:VAL:CG2	11:AL:116:TYR:HB3	2.45	0.45
16:AQ:44:HIS:CD2	16:AQ:69:THR:HG22	2.50	0.45
21:AA:57:G:C6	21:AA:58:C:C4	3.04	0.45
21:AA:123:U:OP1	21:AA:312:C:H5'	2.16	0.45
21:AA:137:U:O2	21:AA:227:G:C2	2.69	0.45
21:AA:367:U:C6	21:AA:394:G:N2	2.84	0.45
21:AA:382:A:H2'	21:AA:383:A:C8	2.51	0.45
21:AA:536:C:H2'	21:AA:537:G:C8	2.52	0.45
21:AA:760:G:H2'	21:AA:761:G:C5'	2.46	0.45
21:AA:1000:A:C2	21:AA:1041:G:C2	3.04	0.45
21:AA:1136:C:H5"	21:AA:1137:C:P	2.57	0.45
21:AA:1239:A:C5	21:AA:1298:U:C5	3.04	0.45
21:AA:1517:G:C8	24:BA:1920:C:OP1	2.69	0.45
24:BA:82:U:H2'	24:BA:83:A:C8	2.51	0.45
24:BA:221:A:H2'	24:BA:266:G:N7	2.31	0.45
24:BA:305:C:C2	24:BA:313:G:C2	3.04	0.45
24:BA:325:G:H2'	24:BA:326:G:H8	1.81	0.45
24:BA:611:C:C2	24:BA:618:G:N2	2.84	0.45
24:BA:818:G:C2'	24:BA:819:A:H5"	2.46	0.45
24:BA:910:A:N3	36:BM:13:HIS:CE1	2.83	0.45
24:BA:1026:G:C2'	24:BA:1027:A:H8	2.22	0.45
24:BA:1059:G:N2	24:BA:1080:A:H1'	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1378:A:N3	24:BA:1379:U:C2	2.84	0.45
24:BA:1450:G:C6	24:BA:1451:C:C4	3.04	0.45
24:BA:1486:U:H2'	24:BA:1487:U:C6	2.50	0.45
24:BA:1606:C:O2'	24:BA:1607:C:H5'	2.17	0.45
24:BA:1641:A:H2'	24:BA:1642:G:O4'	2.16	0.45
24:BA:1700:A:H5"	24:BA:1700:A:H8	1.80	0.45
24:BA:1923:U:H2'	24:BA:1924:C:H6	1.81	0.45
24:BA:2531:A:C5'	30:BG:156:TYR:CE2	2.98	0.45
24:BA:2585:U:O2'	24:BA:2586:U:C5'	2.65	0.45
25:BB:65:U:H3'	25:BB:108:A:N6	2.31	0.45
27:BD:3:GLY:C	27:BD:82:PHE:CE1	2.94	0.45
28:BE:72:SER:O	28:BE:74:LYS:N	2.49	0.45
29:BF:3:LEU:HD23	29:BF:100:GLU:HB2	1.98	0.45
30:BG:86:LEU:HB3	30:BG:162:ARG:O	2.16	0.45
30:BG:123:GLU:OE1	30:BG:124:CYS:N	2.47	0.45
31:BH:72:ILE:O	31:BH:72:ILE:HG12	2.17	0.45
31:BH:119:ASN:C	31:BH:121:VAL:H	2.24	0.45
33:BJ:55:ILE:C	33:BJ:55:ILE:HD12	2.41	0.45
33:BJ:56:VAL:HG12	33:BJ:57:LEU:H	1.80	0.45
34:BK:6:THR:O	34:BK:6:THR:HG22	2.15	0.45
34:BK:68:GLY:O	34:BK:69:VAL:HG23	2.16	0.45
37:BN:12:ARG:HE	37:BN:16:HIS:CD2	2.35	0.45
39:BP:22:GLY:O	39:BP:23:ASP:O	2.33	0.45
40:BQ:10:ARG:O	40:BQ:11:ALA:C	2.59	0.45
41:BR:4:VAL:HG23	41:BR:39:LEU:HG	1.98	0.45
48:BY:39:GLN:HB2	48:BY:41:HIS:HD2	1.75	0.45
49:BZ:39:ASP:CG	49:BZ:44:ARG:HH11	2.24	0.45
1:CB:17:HIS:O	1:CB:18:GLN:HB2	2.17	0.45
1:CB:212:TYR:C	1:CB:215:ALA:H	2.24	0.45
2:CC:22:PHE:HD1	9:CJ:13:PHE:CE1	2.33	0.45
2:CC:38:VAL:O	2:CC:42:LEU:HD23	2.16	0.45
2:CC:57:GLU:O	2:CC:63:ILE:HA	2.16	0.45
4:CE:136:VAL:HG13	4:CE:137:ARG:H	1.82	0.45
6:CG:101:ARG:NH2	55:CA:1375:A:O2'	2.50	0.45
7:CH:23:ALA:HA	7:CH:62:LEU:CD2	2.46	0.45
9:CJ:15:HIS:ND1	9:CJ:70:HIS:CD2	2.84	0.45
10:CK:19:VAL:O	10:CK:33:ILE:HA	2.15	0.45
13:CN:71:GLY:O	13:CN:79:SER:HA	2.16	0.45
15:CP:54:LEU:CG	15:CP:55:ASP:H	2.26	0.45
18:CS:60:PHE:CG	18:CS:61:VAL:N	2.83	0.45
55:CA:100:G:C5	55:CA:101:A:N7	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:724:G:H5"	55:CA:724:G:C8	2.45	0.45
55:CA:861:G:C6	55:CA:862:C:C4	3.04	0.45
55:CA:994:A:N7	55:CA:1216:A:H4'	2.31	0.45
55:CA:1055:A:C5	55:CA:1206:G:C2	3.04	0.45
55:CA:1086:U:H2'	55:CA:1087:G:H8	1.80	0.45
55:CA:1288:A:O2'	55:CA:1289:A:C8	2.68	0.45
26:DC:119:VAL:CG1	26:DC:133:ASN:ND2	2.75	0.45
27:DD:53:GLY:HA3	27:DD:77:ARG:HG3	1.98	0.45
29:DF:2:LYS:HD3	29:DF:2:LYS:H	1.80	0.45
29:DF:134:GLN:HG3	29:DF:149:ARG:O	2.15	0.45
30:DG:154:GLU:O	30:DG:156:TYR:N	2.50	0.45
32:DI:20:SER:OG	32:DI:25:PRO:HG2	2.16	0.45
36:DM:23:GLY:N	36:DM:100:LYS:HZ3	2.14	0.45
38:DO:108:ASP:C	38:DO:110:ALA:H	2.23	0.45
39:DP:58:PHE:CD2	39:DP:58:PHE:N	2.81	0.45
40:DQ:44:TYR:HD1	24:DA:533:G:H21	1.49	0.45
40:DQ:61:ILE:O	40:DQ:62:ALA:C	2.60	0.45
41:DR:78:ARG:HD3	24:DA:974:G:P	2.56	0.45
43:DT:18:GLU:C	43:DT:22:THR:OG1	2.58	0.45
45:DV:21:ARG:C	45:DV:23:ALA:N	2.74	0.45
46:DW:81:ILE:C	46:DW:81:ILE:HD12	2.41	0.45
50:D0:28:SER:HB3	50:D0:39:ARG:NE	2.31	0.45
52:D2:41:ARG:NH1	24:DA:460:A:OP2	2.47	0.45
24:DA:60:G:O2'	24:DA:61:C:P	2.74	0.45
24:DA:216:A:C2'	24:DA:217:A:C8	2.98	0.45
24:DA:464:U:C4	24:DA:465:G:C6	3.04	0.45
24:DA:924:G:C2'	24:DA:925:A:H5'	2.46	0.45
24:DA:1019:U:H2'	24:DA:1021:A:N1	2.32	0.45
24:DA:1254:A:H3'	24:DA:1255:U:H5"	1.97	0.45
24:DA:1286:A:O2'	24:DA:1288:G:OP2	2.32	0.45
24:DA:1315:C:H2'	24:DA:1316:U:C6	2.51	0.45
24:DA:1319:C:H1'	24:DA:1334:G:N2	2.31	0.45
24:DA:1327:A:O2'	24:DA:1328:A:O5'	2.34	0.45
24:DA:1439:A:H5"	24:DA:1440:U:OP2	2.17	0.45
24:DA:1779:U:C5	24:DA:1784:A:N7	2.85	0.45
1:AB:131:LYS:HG2	1:AB:135:MET:HB2	1.97	0.45
2:AC:57:GLU:OE2	2:AC:64:ARG:HB3	2.16	0.45
3:AD:10:LEU:O	3:AD:11:SER:C	2.59	0.45
3:AD:63:ILE:O	3:AD:63:ILE:HG12	2.15	0.45
3:AD:96:ARG:CZ	3:AD:98:ASP:OD1	2.64	0.45
4:AE:96:GLN:O	4:AE:122:VAL:HB	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AH:8:ASP:HA	7:AH:11:THR:HG22	1.97	0.45
7:AH:98:LEU:O	7:AH:99:GLY:O	2.35	0.45
7:AH:120:LEU:H	7:AH:120:LEU:HD12	1.80	0.45
9:AJ:34:ALA:HB3	9:AJ:78:GLU:HB3	1.99	0.45
11:AL:5:GLN:HA	11:AL:8:ARG:HH11	1.81	0.45
11:AL:119:LYS:HG2	21:AA:37:U:P	2.57	0.45
14:AO:3:SER:O	14:AO:7:THR:HG23	2.16	0.45
14:AO:18:ALA:O	14:AO:19:ASN:CB	2.64	0.45
17:AR:71:ASP:OD1	20:AU:3:ILE:HG21	2.17	0.45
21:AA:174:A:C4	21:AA:175:C:C6	3.05	0.45
21:AA:471:U:H2'	21:AA:472:U:O4'	2.16	0.45
21:AA:509:A:N3	21:AA:543:U:O2'	2.40	0.45
21:AA:941:G:C2'	21:AA:942:G:O5'	2.64	0.45
21:AA:1055:A:C8	21:AA:1206:G:N2	2.85	0.45
21:AA:1089:G:C6	21:AA:1090:U:C2	3.04	0.45
21:AA:1152:A:N3	21:AA:1153:G:C8	2.85	0.45
24:BA:370:G:OP2	24:BA:370:G:H8	1.99	0.45
24:BA:693:A:C2'	24:BA:694:U:H5'	2.45	0.45
24:BA:825:A:C6	24:BA:833:A:N1	2.84	0.45
24:BA:1071:G:C8	24:BA:1089:A:C6	3.05	0.45
24:BA:1148:U:O2'	24:BA:1149:G:H5'	2.17	0.45
24:BA:1296:G:OP1	24:BA:2709:G:O2'	2.29	0.45
24:BA:1342:A:C2	24:BA:1345:C:C6	3.05	0.45
24:BA:1670:C:O2	24:BA:1670:C:H2'	2.16	0.45
24:BA:1988:G:C6	24:BA:1989:G:C5	3.04	0.45
24:BA:2093:G:C5	24:BA:2225:A:N7	2.84	0.45
24:BA:2313:C:H5"	29:BF:87:LYS:CD	2.45	0.45
24:BA:2397:G:C6	24:BA:2420:C:N3	2.84	0.45
24:BA:2543:G:H5'	24:BA:2766:A:H4'	1.96	0.45
24:BA:2796:U:H3	24:BA:2799:A:N6	2.08	0.45
24:BA:2887:A:H2'	24:BA:2887:A:N3	2.31	0.45
26:BC:246:PRO:HG2	26:BC:247:TRP:CE3	2.50	0.45
28:BE:172:ALA:HB2	28:BE:192:ALA:HB1	1.98	0.45
30:BG:17:LYS:HB2	30:BG:17:LYS:HE3	1.63	0.45
31:BH:57:LYS:O	31:BH:61:VAL:HG23	2.16	0.45
31:BH:147:VAL:CG1	31:BH:149:GLU:HG3	2.45	0.45
32:BI:21:PRO:HB2	32:BI:22:PRO:HD3	1.98	0.45
32:BI:30:GLN:NE2	32:BI:32:VAL:HB	2.31	0.45
33:BJ:1:MET:O	33:BJ:2:LYS:C	2.60	0.45
33:BJ:128:ASN:O	33:BJ:128:ASN:CG	2.59	0.45
34:BK:8:LEU:O	34:BK:19:VAL:HG12	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BL:125:LEU:HD23	35:BL:125:LEU:N	2.31	0.45
36:BM:2:LEU:HD23	36:BM:69:PRO:CD	2.42	0.45
39:BP:3:ILE:O	39:BP:7:LEU:HB2	2.16	0.45
40:BQ:82:LEU:O	40:BQ:85:ALA:HB3	2.16	0.45
45:BV:38:LEU:HD12	45:BV:38:LEU:HA	1.71	0.45
54:B4:15:LYS:HE3	54:B4:15:LYS:HB3	1.78	0.45
2:CC:168:ARG:HG2	2:CC:168:ARG:NH1	2.31	0.45
3:CD:8:LEU:CD1	3:CD:31:CYS:HA	2.45	0.45
3:CD:25:ARG:NH1	3:CD:30:LYS:HG2	2.32	0.45
3:CD:103:ARG:O	3:CD:167:PRO:HG3	2.16	0.45
4:CE:152:VAL:O	4:CE:155:LYS:HB2	2.15	0.45
7:CH:121:GLY:CA	55:CA:599:C:H4'	2.46	0.45
8:CI:29:ILE:HA	8:CI:64:ILE:O	2.16	0.45
9:CJ:53:ILE:HG22	9:CJ:62:ARG:H	1.81	0.45
10:CK:96:ILE:HD13	10:CK:109:ILE:HD13	1.99	0.45
12:CM:25:GLY:H	55:CA:1329:A:H5"	1.81	0.45
12:CM:101:THR:HG23	55:CA:1225:A:H5'	1.99	0.45
14:CO:42:PHE:HE1	14:CO:55:LEU:HD22	1.82	0.45
15:CP:48:GLU:CG	15:CP:49:GLY:H	2.29	0.45
16:CQ:7:LEU:N	16:CQ:59:GLU:OE1	2.50	0.45
55:CA:75:G:C2	55:CA:96:U:N3	2.83	0.45
55:CA:149:A:C1'	55:CA:1446:A:H2	2.19	0.45
55:CA:222:C:O2	55:CA:223:A:C8	2.69	0.45
55:CA:339:C:H2'	55:CA:340:U:C6	2.50	0.45
55:CA:1055:A:N6	55:CA:1206:G:C6	2.84	0.45
55:CA:1093:A:N3	55:CA:1095:U:H5'	2.31	0.45
55:CA:1213:A:C5	55:CA:1215:G:C8	3.04	0.45
55:CA:1258:G:C2	55:CA:1278:G:N2	2.84	0.45
55:CA:1307:U:C2'	55:CA:1308:U:H5'	2.46	0.45
55:CA:1423:G:O2'	55:CA:1424:U:H5'	2.16	0.45
55:CA:1429:A:H2'	55:CA:1430:A:O4'	2.16	0.45
28:DE:147:LEU:HB2	28:DE:186:VAL:HA	1.98	0.45
28:DE:194:LYS:O	28:DE:197:GLU:HB3	2.17	0.45
29:DF:101:ARG:HH11	29:DF:138:PRO:CB	2.29	0.45
30:DG:92:GLY:O	30:DG:93:TYR:C	2.59	0.45
31:DH:53:GLU:C	31:DH:55:GLU:H	2.23	0.45
33:DJ:59:ALA:O	33:DJ:62:VAL:HG12	2.16	0.45
34:DK:19:VAL:CG1	34:DK:41:ILE:CG1	2.92	0.45
34:DK:88:ASN:O	34:DK:89:ASN:HB3	2.16	0.45
34:DK:108:ARG:CB	34:DK:116:ILE:HD13	2.46	0.45
42:DS:36:LEU:HB3	42:DS:48:LYS:HD2	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DW:42:THR:O	46:DW:43:LYS:HG2	2.16	0.45
24:DA:27:G:H22	24:DA:512:G:H2'	1.82	0.45
24:DA:121:G:C2	24:DA:131:A:C5	3.04	0.45
24:DA:363:G:N3	24:DA:364:C:C5	2.85	0.45
24:DA:377:G:C5	24:DA:378:C:C5	3.04	0.45
24:DA:687:C:H2'	24:DA:688:U:C5	2.48	0.45
24:DA:792:A:H3'	24:DA:793:A:H5'	1.98	0.45
24:DA:996:A:C2	24:DA:997:G:C8	3.05	0.45
24:DA:1284:A:N1	24:DA:1285:A:C2	2.84	0.45
24:DA:1663:G:C6	24:DA:1998:A:N6	2.85	0.45
24:DA:1677:A:C6	24:DA:1678:A:C6	3.04	0.45
24:DA:1842:G:N2	24:DA:1901:A:C4	2.84	0.45
24:DA:1954:G:O2'	24:DA:1955:U:OP2	2.33	0.45
24:DA:2067:G:H4'	24:DA:2068:U:OP2	2.16	0.45
24:DA:2847:U:H2'	24:DA:2848:G:H5'	1.98	0.45
24:DA:2859:G:C6	24:DA:2860:A:N1	2.84	0.45
1:AB:23:ASN:O	1:AB:26:MET:HB2	2.16	0.45
1:AB:24:PRO:HB2	21:AA:829:G:O2'	2.17	0.45
1:AB:137:THR:HA	1:AB:140:LEU:HD22	1.98	0.45
1:AB:209:VAL:HG23	1:AB:210:THR:N	2.25	0.45
3:AD:35:GLN:O	3:AD:36:ALA:HB2	2.16	0.45
7:AH:78:SER:HB2	7:AH:84:ILE:H	1.81	0.45
16:AQ:36:PHE:N	16:AQ:36:PHE:CD2	2.84	0.45
21:AA:109:A:C6	21:AA:326:G:C5	3.05	0.45
21:AA:416:G:H2'	21:AA:417:G:O4'	2.16	0.45
21:AA:558:G:OP2	21:AA:559:A:H2'	2.17	0.45
21:AA:891:U:O2'	21:AA:892:A:C5'	2.64	0.45
21:AA:903:G:C6	21:AA:904:U:C4	3.04	0.45
21:AA:1250:A:C5	21:AA:1287:A:C5	3.05	0.45
24:BA:118:A:N3	24:BA:178:G:H1'	2.32	0.45
24:BA:256:A:O2'	24:BA:257:C:H5'	2.15	0.45
24:BA:310:A:O2'	24:BA:311:A:O5'	2.35	0.45
24:BA:806:C:O2	24:BA:2444:G:O2'	2.33	0.45
24:BA:829:A:H5'	24:BA:831:G:N7	2.30	0.45
24:BA:845:A:C5	24:BA:847:U:C6	3.04	0.45
24:BA:942:G:N7	24:BA:943:A:N7	2.65	0.45
24:BA:951:C:C2'	24:BA:952:G:H5'	2.45	0.45
24:BA:1301:A:C8	24:BA:1303:G:C8	3.05	0.45
24:BA:1329:U:O2'	24:BA:1330:C:OP1	2.35	0.45
24:BA:1334:G:C6	24:BA:1335:C:N4	2.85	0.45
24:BA:1476:U:O2'	24:BA:1477:A:C5'	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1734:G:O2'	24:BA:1735:A:H5'	2.16	0.45
24:BA:2287:A:C5	24:BA:2289:G:N7	2.83	0.45
24:BA:2425:A:C5'	24:BA:2427:C:H5'	2.31	0.45
26:BC:156:SER:O	26:BC:157:ALA:C	2.58	0.45
26:BC:170:TYR:HD2	26:BC:183:VAL:C	2.25	0.45
28:BE:83:VAL:CG1	28:BE:86:ALA:CA	2.94	0.45
31:BH:78:VAL:CG1	31:BH:145:ASN:HB3	2.47	0.45
33:BJ:40:HIS:H	33:BJ:40:HIS:CD2	2.33	0.45
33:BJ:65:THR:HG23	33:BJ:66:GLY:N	2.31	0.45
37:BN:51:LEU:HD21	37:BN:70:THR:HG22	1.98	0.45
39:BP:13:LYS:HE3	39:BP:76:HIS:HA	1.98	0.45
44:BU:27:VAL:HG23	44:BU:33:VAL:CG1	2.45	0.45
1:CB:191:ASP:HA	1:CB:192:PRO:HD2	1.84	0.45
1:CB:214:GLY:HA2	1:CB:217:ALA:HB3	1.99	0.45
3:CD:119:HIS:CD2	55:CA:438:U:H4'	2.51	0.45
6:CG:88:VAL:HG22	6:CG:89:GLU:N	2.28	0.45
7:CH:46:GLU:OE2	7:CH:46:GLU:HA	2.16	0.45
7:CH:100:ILE:C	7:CH:100:ILE:HD12	2.40	0.45
9:CJ:40:ILE:HA	9:CJ:41:PRO:HD2	1.81	0.45
9:CJ:53:ILE:O	9:CJ:53:ILE:HG12	2.17	0.45
10:CK:34:THR:HB	10:CK:40:ALA:HA	1.99	0.45
55:CA:134:G:H1'	55:CA:325:A:C5	2.51	0.45
55:CA:165:G:H2'	55:CA:166:U:C6	2.52	0.45
55:CA:382:A:C8	55:CA:383:A:C6	3.05	0.45
55:CA:496:A:O2'	55:CA:497:G:C8	2.63	0.45
55:CA:845:A:H2'	55:CA:845:A:N3	2.31	0.45
55:CA:880:C:C2'	55:CA:881:G:H5'	2.47	0.45
55:CA:1242:G:N2	55:CA:1302:C:O2	2.49	0.45
55:CA:1242:G:C2'	55:CA:1243:C:O5'	2.65	0.45
55:CA:1258:G:N1	55:CA:1278:G:N1	2.63	0.45
27:DD:106:LYS:O	27:DD:107:VAL:HB	2.16	0.45
30:DG:107:GLY:O	24:DA:2666:C:N4	2.41	0.45
31:DH:68:ARG:HG2	31:DH:71:LYS:HD3	1.98	0.45
33:DJ:56:VAL:CG2	33:DJ:124:VAL:HA	2.47	0.45
35:DL:105:ILE:CG2	35:DL:106:GLU:N	2.80	0.45
36:DM:44:ARG:HD3	24:DA:2484:G:OP1	2.17	0.45
36:DM:108:VAL:HG21	36:DM:112:LEU:HB3	1.98	0.45
37:DN:73:ASN:CA	37:DN:76:VAL:HG22	2.44	0.45
38:DO:47:VAL:CG2	56:DB:114:C:H1'	2.46	0.45
39:DP:50:ARG:CA	39:DP:57:ALA:H	2.29	0.45
45:DV:63:ILE:HD13	45:DV:72:VAL:HG22	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DW:30:VAL:O	46:DW:30:VAL:HG22	2.16	0.45
46:DW:37:VAL:HG21	46:DW:38:ARG:NH1	2.30	0.45
47:DX:26:ARG:HH12	24:DA:2232:C:P	2.39	0.45
52:D2:35:ARG:HG3	52:D2:42:LEU:HD21	1.97	0.45
24:DA:93:G:O2'	24:DA:94:A:O4'	2.33	0.45
24:DA:134:G:H2'	24:DA:135:U:C6	2.52	0.45
24:DA:319:G:C6	24:DA:333:G:C2	3.04	0.45
24:DA:394:C:H2'	24:DA:395:U:H5'	1.97	0.45
24:DA:589:U:O2'	24:DA:590:A:H5'	2.16	0.45
24:DA:909:A:C6	24:DA:912:C:C2	3.04	0.45
24:DA:1029:A:H8	24:DA:1029:A:O5'	1.99	0.45
24:DA:1055:G:H2'	24:DA:1056:G:H5'	1.97	0.45
24:DA:1289:C:O2'	24:DA:1290:C:C5'	2.64	0.45
24:DA:1343:G:C5	24:DA:1597:A:C6	3.04	0.45
24:DA:1360:G:H2'	24:DA:1361:G:H5'	1.98	0.45
24:DA:1496:A:H2'	24:DA:1498:C:C5	2.52	0.45
24:DA:1507:C:H3'	24:DA:1508:A:C4'	2.47	0.45
24:DA:1596:A:N6	24:DA:1597:A:N6	2.64	0.45
24:DA:1686:C:H2'	24:DA:1687:G:O4'	2.17	0.45
24:DA:1687:G:N1	24:DA:1700:A:OP1	2.40	0.45
24:DA:2046:G:C2	24:DA:2047:C:C2	3.04	0.45
24:DA:2204:G:C6	24:DA:2221:G:C2	3.04	0.45
24:DA:2349:G:C2	24:DA:2369:A:C2	3.04	0.45
1:AB:143:LEU:HD23	1:AB:143:LEU:N	2.27	0.45
4:AE:110:MET:SD	4:AE:135:VAL:HG22	2.57	0.45
9:AJ:40:ILE:HB	9:AJ:73:LEU:HB2	1.98	0.45
10:AK:17:ASP:HA	10:AK:80:ASN:O	2.16	0.45
14:AO:42:PHE:CE1	14:AO:55:LEU:HD23	2.51	0.45
14:AO:44:GLU:HG3	14:AO:45:HIS:ND1	2.32	0.45
16:AQ:65:PRO:HD2	21:AA:130:A:N7	2.31	0.45
19:AT:4:LYS:HZ3	19:AT:5:SER:HB3	1.79	0.45
20:AU:7:GLU:HB2	20:AU:11:PHE:CZ	2.50	0.45
20:AU:39:LYS:HE2	20:AU:39:LYS:HB2	1.81	0.45
21:AA:71:A:C2	21:AA:72:A:C8	3.04	0.45
21:AA:172:A:C6	21:AA:174:A:C8	3.04	0.45
21:AA:372:C:H5'	21:AA:373:A:OP1	2.17	0.45
21:AA:595:A:H1'	21:AA:596:A:N7	2.32	0.45
21:AA:632:U:O2	21:AA:632:U:H2'	2.15	0.45
21:AA:811:C:H4'	21:AA:900:A:N6	2.31	0.45
21:AA:821:G:N2	21:AA:822:U:C2	2.84	0.45
21:AA:929:G:C2	21:AA:1389:C:C2	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:953:G:N3	21:AA:1229:A:C2	2.84	0.45
21:AA:1033:G:N3	21:AA:1033:G:C2'	2.79	0.45
21:AA:1055:A:C6	21:AA:1206:G:C6	3.04	0.45
21:AA:1138:G:C2	21:AA:1140:C:C5	3.05	0.45
21:AA:1161:C:O2'	21:AA:1162:C:O4'	2.29	0.45
24:BA:33:C:N4	24:BA:446:G:O2'	2.48	0.45
24:BA:197:A:N7	24:BA:2430:A:C4	2.85	0.45
24:BA:263:G:H2'	24:BA:264:C:O4'	2.16	0.45
24:BA:334:C:O2'	24:BA:335:C:OP1	2.34	0.45
24:BA:745:G:H2'	24:BA:746:U:H5'	1.98	0.45
24:BA:808:G:O2'	24:BA:809:G:H5'	2.17	0.45
24:BA:842:U:O4	59:BA:3593:HOH:O	2.17	0.45
24:BA:900:A:H2'	24:BA:901:C:O4'	2.16	0.45
24:BA:954:G:C8	24:BA:955:U:C5	3.05	0.45
24:BA:1223:G:C2	24:BA:1227:G:C6	3.05	0.45
24:BA:1256:G:C2'	28:BE:77:ILE:HD11	2.46	0.45
24:BA:1429:G:N2	24:BA:1430:G:C4	2.85	0.45
24:BA:1515:A:H2'	24:BA:1516:G:O4'	2.17	0.45
24:BA:1733:G:O2'	24:BA:1734:G:H5'	2.17	0.45
24:BA:1861:G:C2	24:BA:1862:G:C8	3.04	0.45
24:BA:2231:U:C4	24:BA:2232:C:C5	3.03	0.45
26:BC:211:ARG:NH1	26:BC:216:ARG:HD2	2.31	0.45
30:BG:109:SER:O	30:BG:110:HIS:HB3	2.16	0.45
30:BG:112:VAL:HG23	30:BG:113:ASP:H	1.81	0.45
32:BI:61:TYR:N	32:BI:61:TYR:CD2	2.84	0.45
33:BJ:32:LEU:HD22	33:BJ:54:ILE:HG12	1.99	0.45
44:BU:33:VAL:O	44:BU:64:ILE:HG22	2.16	0.45
48:BY:25:GLN:O	48:BY:25:GLN:HG2	2.17	0.45
49:BZ:53:MET:O	49:BZ:54:VAL:CG1	2.65	0.45
53:B3:40:LYS:O	53:B3:43:LEU:N	2.45	0.45
1:CB:73:ARG:HG3	1:CB:74:ALA:N	2.32	0.45
3:CD:171:GLU:HG2	3:CD:180:THR:HB	1.97	0.45
8:CI:44:ARG:NH2	8:CI:48:ARG:NH1	2.61	0.45
11:CL:45:ASN:HD22	11:CL:88:ASP:CG	2.24	0.45
12:CM:13:HIS:HB3	12:CM:16:ILE:HB	1.98	0.45
17:CR:35:SER:O	17:CR:71:ASP:HB2	2.15	0.45
19:CT:4:LYS:HB3	19:CT:6:ALA:H	1.81	0.45
19:CT:69:ASN:H	19:CT:69:ASN:HD22	1.63	0.45
55:CA:11:G:C6	55:CA:12:U:C4	3.05	0.45
55:CA:68:G:N7	55:CA:69:G:C8	2.85	0.45
55:CA:204:G:O6	55:CA:215:C:H1'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:292:G:C2	55:CA:309:A:C2	3.04	0.45
55:CA:803:G:H2'	55:CA:804:U:C6	2.51	0.45
55:CA:1130:A:H2'	55:CA:1131:G:H5'	1.98	0.45
55:CA:1311:A:H2'	55:CA:1312:G:O4'	2.17	0.45
28:DE:28:VAL:O	28:DE:31:VAL:HG22	2.17	0.45
28:DE:53:THR:HG23	24:DA:452:G:OP1	2.16	0.45
28:DE:134:LEU:HA	28:DE:137:LYS:CB	2.47	0.45
31:DH:32:PRO:HA	47:DX:38:TRP:HD1	1.81	0.45
32:DI:61:TYR:HE2	32:DI:67:THR:H	1.63	0.45
36:DM:71:LYS:HD3	36:DM:95:LEU:CD1	2.46	0.45
37:DN:62:ASN:OD1	37:DN:62:ASN:N	2.48	0.45
37:DN:64:ARG:NH1	24:DA:1455:G:N7	2.65	0.45
38:DO:64:TYR:CB	56:DB:51:G:H5"	2.47	0.45
38:DO:89:ASP:O	38:DO:90:VAL:HG13	2.15	0.45
39:DP:102:ARG:O	39:DP:103:THR:CB	2.65	0.45
40:DQ:25:GLY:C	40:DQ:27:ARG:N	2.75	0.45
44:DU:57:ILE:HG21	24:DA:483:A:H1'	1.99	0.45
47:DX:9:LYS:HD2	47:DX:53:LYS:HE3	1.97	0.45
49:DZ:11:SER:HB2	24:DA:989:G:OP2	2.16	0.45
50:D0:2:VAL:HG11	24:DA:2015:A:N3	2.31	0.45
50:D0:28:SER:HB3	50:D0:39:ARG:HH21	1.80	0.45
51:D1:34:GLU:CG	51:D1:49:LYS:HB2	2.45	0.45
24:DA:66:C:C4	24:DA:67:U:N3	2.84	0.45
24:DA:348:A:H2'	24:DA:349:U:O4'	2.17	0.45
24:DA:355:U:O2'	24:DA:356:G:H5'	2.16	0.45
24:DA:574:A:H4'	24:DA:575:A:H5'	1.97	0.45
24:DA:604:G:H2'	24:DA:605:G:H8	1.82	0.45
24:DA:747:U:H3	24:DA:2014:A:H1'	1.81	0.45
24:DA:845:A:C2	24:DA:847:U:C6	3.05	0.45
24:DA:920:A:H2'	24:DA:921:C:C6	2.51	0.45
24:DA:1048:A:C5	24:DA:1111:A:C2	3.04	0.45
24:DA:1059:G:C5	24:DA:1060:U:C2	3.04	0.45
24:DA:1517:G:C6	24:DA:1518:C:C4	3.05	0.45
24:DA:1558:C:O2	24:DA:1560:G:C6	2.70	0.45
24:DA:1608:A:C5	24:DA:1611:C:N4	2.85	0.45
24:DA:1734:G:N2	24:DA:1735:A:C4	2.84	0.45
24:DA:1862:G:O2'	24:DA:1863:G:H5'	2.16	0.45
24:DA:1936:A:H5"	24:DA:1937:A:C5'	2.46	0.45
24:DA:2287:A:O2'	24:DA:2288:A:P	2.74	0.45
24:DA:2360:G:C2	24:DA:2428:G:N1	2.85	0.45
24:DA:2415:G:H2'	24:DA:2416:C:C6	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2662:A:H2'	24:DA:2663:G:O4'	2.17	0.45
1:AB:137:THR:CG2	1:AB:140:LEU:HD22	2.42	0.45
2:AC:76:ILE:C	2:AC:82:ASP:HB2	2.41	0.45
2:AC:139:ASN:N	2:AC:139:ASN:HD22	2.15	0.45
3:AD:88:ASN:O	3:AD:92:LEU:HD22	2.17	0.45
4:AE:155:LYS:HD3	7:AH:63:LYS:NZ	2.22	0.45
7:AH:93:LYS:O	7:AH:93:LYS:HG3	2.17	0.45
7:AH:104:SER:OG	7:AH:109:VAL:HG22	2.16	0.45
8:AI:74:GLN:OE1	21:AA:1249:C:O3'	2.35	0.45
11:AL:49:ARG:NH2	21:AA:522:C:H41	2.14	0.45
11:AL:98:ARG:HB2	11:AL:116:TYR:HA	1.99	0.45
12:AM:39:ALA:HB3	12:AM:42:VAL:CG1	2.47	0.45
15:AP:12:LYS:O	15:AP:13:LYS:HB2	2.17	0.45
18:AS:62:THR:HG22	18:AS:63:ASP:N	2.32	0.45
21:AA:251:G:H4'	21:AA:252:U:C5'	2.47	0.45
21:AA:517:G:O2'	21:AA:530:G:C4'	2.64	0.45
21:AA:603:U:C2	21:AA:604:G:C8	3.05	0.45
21:AA:859:G:O6	21:AA:870:U:H5	2.00	0.45
21:AA:892:A:O2'	21:AA:1415:G:H4'	2.17	0.45
21:AA:1213:A:C2'	21:AA:1215:G:N7	2.80	0.45
21:AA:1518:A:C2	21:AA:1519:A:C2	3.04	0.45
22:AV:28:C:H2'	22:AV:29:G:C8	2.52	0.45
24:BA:63:A:N3	24:BA:64:A:C8	2.85	0.45
24:BA:311:A:C8	24:BA:332:A:C5	3.04	0.45
24:BA:422:A:C2	24:BA:423:A:C4	3.04	0.45
24:BA:459:U:H2'	24:BA:460:A:H8	1.80	0.45
24:BA:600:G:C5	24:BA:601:C:C4	3.04	0.45
24:BA:856:G:O2'	46:BW:22:VAL:HG23	2.16	0.45
24:BA:879:G:H2'	24:BA:880:G:C8	2.51	0.45
24:BA:1011:G:C2	24:BA:1013:C:O2	2.70	0.45
24:BA:1022:G:N1	24:BA:1141:U:C5	2.85	0.45
24:BA:1059:G:OP2	24:BA:1060:U:O3'	2.35	0.45
24:BA:1398:C:O2'	24:BA:1399:C:C5'	2.58	0.45
24:BA:1477:A:C2	24:BA:1515:A:C5	3.05	0.45
24:BA:2093:G:O6	24:BA:2225:A:C8	2.69	0.45
24:BA:2556:C:H2'	24:BA:2557:G:H5'	1.98	0.45
26:BC:254:LYS:HE3	26:BC:254:LYS:HB3	1.77	0.45
27:BD:13:ARG:HH12	39:BP:74:GLN:NE2	2.06	0.45
28:BE:5:LEU:O	28:BE:6:LYS:C	2.59	0.45
28:BE:119:ILE:CD1	28:BE:187:VAL:HA	2.47	0.45
29:BF:3:LEU:HD13	29:BF:3:LEU:HA	1.42	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BF:128:SER:HA	29:BF:154:THR:HA	1.99	0.45
30:BG:83:THR:C	30:BG:84:LYS:HE2	2.41	0.45
35:BL:53:GLY:O	35:BL:54:GLN:C	2.59	0.45
37:BN:32:GLU:HB3	37:BN:115:LEU:HD12	1.99	0.45
37:BN:73:ASN:O	37:BN:74:GLU:C	2.57	0.45
37:BN:103:ARG:HD3	37:BN:110:MET:CE	2.46	0.45
39:BP:61:ARG:NH1	39:BP:100:ARG:HA	2.32	0.45
40:BQ:56:PHE:O	40:BQ:59:LEU:N	2.49	0.45
40:BQ:101:ASP:C	40:BQ:101:ASP:OD2	2.60	0.45
48:BY:1:MET:C	48:BY:2:LYS:HD2	2.41	0.45
2:CC:108:PRO:O	2:CC:110:LEU:N	2.48	0.45
5:CF:54:LEU:HD12	5:CF:56:LYS:O	2.16	0.45
9:CJ:53:ILE:HG12	55:CA:1060:U:H5"	1.99	0.45
10:CK:115:ILE:O	10:CK:115:ILE:HG12	2.14	0.45
12:CM:5:GLY:O	12:CM:7:ASN:N	2.49	0.45
12:CM:8:ILE:HD11	29:DF:136:ILE:CG1	2.40	0.45
16:CQ:24:ILE:HD12	16:CQ:24:ILE:N	2.32	0.45
20:CU:3:ILE:C	20:CU:4:LYS:HG2	2.41	0.45
55:CA:144:G:C2	55:CA:179:A:N3	2.85	0.45
55:CA:895:G:C6	55:CA:896:C:C4	3.05	0.45
55:CA:1170:A:O2'	55:CA:1171:A:H5'	2.17	0.45
55:CA:1233:G:H2'	55:CA:1234:C:C6	2.51	0.45
55:CA:1493:A:C3'	24:DA:1913:A:H62	2.29	0.45
26:DC:32:LEU:HB3	26:DC:63:ILE:HG12	1.99	0.45
26:DC:84:PRO:CB	24:DA:1567:G:H5"	2.46	0.45
30:DG:28:LYS:H	30:DG:79:THR:HG22	1.82	0.45
30:DG:116:LEU:HA	30:DG:117:PRO:HD3	1.71	0.45
31:DH:32:PRO:HA	47:DX:38:TRP:CD1	2.52	0.45
34:DK:1:MET:HA	34:DK:33:ALA:O	2.17	0.45
34:DK:38:ILE:C	34:DK:39:ILE:HD13	2.41	0.45
35:DL:122:VAL:O	35:DL:122:VAL:HG23	2.16	0.45
38:DO:15:ARG:HG2	38:DO:93:ASP:OD1	2.17	0.45
39:DP:9:GLN:HB3	39:DP:12:MET:HE2	1.97	0.45
46:DW:30:VAL:HG11	24:DA:2352:A:C6	2.51	0.45
47:DX:67:LEU:HD22	47:DX:77:TYR:CD1	2.52	0.45
49:DZ:17:PRO:HG3	24:DA:969:G:OP1	2.16	0.45
51:D1:3:GLY:C	51:D1:5:ARG:H	2.25	0.45
24:DA:138:U:H2'	24:DA:140:C:H1'	1.98	0.45
24:DA:352:A:N3	24:DA:353:C:H1'	2.31	0.45
24:DA:529:A:C6	24:DA:2023:C:C2	3.04	0.45
24:DA:756:A:H2'	24:DA:757:G:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:834:G:H1'	24:DA:2358:A:N3	2.32	0.45
24:DA:1072:C:O2'	24:DA:1093:G:O6	2.33	0.45
24:DA:1105:U:H2'	24:DA:1106:G:H8	1.80	0.45
24:DA:1199:U:C2	24:DA:1200:C:C5	3.05	0.45
24:DA:1248:G:H3'	24:DA:1249:U:C5'	2.47	0.45
24:DA:1301:A:C5	24:DA:1303:G:C8	3.04	0.45
24:DA:1533:C:C4	24:DA:1534:U:H5	2.33	0.45
24:DA:1656:C:H2'	24:DA:1657:U:H6	1.81	0.45
24:DA:1735:A:H2'	24:DA:1736:U:O4'	2.16	0.45
24:DA:1794:A:H2'	24:DA:1795:C:C6	2.52	0.45
24:DA:1997:C:O2'	24:DA:1998:A:O5'	2.32	0.45
24:DA:1997:C:HO2'	24:DA:1998:A:P	2.39	0.45
24:DA:2458:G:H2'	24:DA:2490:G:H1	1.81	0.45
24:DA:2459:A:C2	24:DA:2460:U:C1'	2.99	0.45
24:DA:2516:A:C2	24:DA:2517:C:C2	3.05	0.45
24:DA:2521:C:O2'	24:DA:2522:U:H5'	2.17	0.45
24:DA:2563:U:H2'	24:DA:2565:A:OP2	2.17	0.45
24:DA:2693:G:N2	24:DA:2717:C:C2	2.85	0.45
1:AB:20:ARG:O	1:AB:22:TRP:N	2.50	0.45
1:AB:58:LYS:HZ1	1:AB:62:ARG:HD2	1.82	0.45
1:AB:66:ILE:O	1:AB:67:LEU:CB	2.64	0.45
1:AB:104:LYS:HB3	1:AB:104:LYS:HE2	1.81	0.45
1:AB:110:ILE:O	1:AB:114:LYS:N	2.50	0.45
1:AB:128:LEU:HD12	1:AB:132:GLU:HB2	1.99	0.45
2:AC:131:ARG:NH2	2:AC:135:ARG:HH21	2.13	0.45
3:AD:170:LEU:HB3	3:AD:181:PHE:HA	1.98	0.45
5:AF:90:MET:HB3	5:AF:91:ARG:H	1.37	0.45
14:AO:3:SER:HB3	14:AO:6:ALA:HB3	1.98	0.45
16:AQ:61:ARG:C	16:AQ:72:TRP:CE3	2.95	0.45
19:AT:66:ILE:CG1	19:AT:70:LYS:HG2	2.45	0.45
21:AA:19:A:C2	21:AA:20:U:C2	3.05	0.45
21:AA:222:C:C2	21:AA:223:A:C8	3.05	0.45
21:AA:408:A:N3	21:AA:408:A:H2'	2.32	0.45
21:AA:427:U:C4	21:AA:428:G:C6	3.04	0.45
21:AA:481:G:H2'	21:AA:482:A:N7	2.31	0.45
21:AA:559:A:N3	21:AA:561:U:H5	2.14	0.45
21:AA:993:G:H4'	21:AA:994:A:OP2	2.17	0.45
21:AA:1087:G:C6	21:AA:1099:G:C2	3.04	0.45
21:AA:1152:A:C2	21:AA:1153:G:C4	3.04	0.45
21:AA:1306:A:N7	21:AA:1307:U:C5	2.85	0.45
21:AA:1346:A:C4	21:AA:1348:U:C4	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AW:1:A:C2	23:AW:2:U:C2	3.04	0.45
24:BA:190:A:C8	24:BA:207:A:C6	3.05	0.45
24:BA:736:C:H2'	24:BA:737:C:H6	1.81	0.45
24:BA:1392:A:N6	24:BA:1393:A:N6	2.65	0.45
24:BA:1419:A:C8	24:BA:1421:G:C6	3.05	0.45
24:BA:1419:A:N7	24:BA:1421:G:C6	2.84	0.45
24:BA:1759:A:O2'	24:BA:1760:C:C5'	2.60	0.45
24:BA:1865:U:O2'	24:BA:1866:A:H8	1.99	0.45
24:BA:2379:G:C5	24:BA:2380:C:C5	3.04	0.45
24:BA:2630:G:O2'	24:BA:2631:G:H5'	2.16	0.45
24:BA:2640:G:C2	24:BA:2641:G:C8	3.05	0.45
24:BA:2776:A:HO2'	24:BA:2777:G:P	2.37	0.45
24:BA:2782:G:C2	24:BA:2783:U:C6	3.04	0.45
25:BB:73:A:N7	25:BB:74:U:C5	2.85	0.45
26:BC:141:HIS:HB3	26:BC:142:ASN:H	1.30	0.45
30:BG:108:PHE:CE2	30:BG:151:ARG:NH2	2.85	0.45
30:BG:159:LYS:HB3	30:BG:159:LYS:HE2	1.78	0.45
31:BH:24:GLY:O	31:BH:28:ASN:HB2	2.16	0.45
34:BK:99:ILE:HG23	34:BK:100:PHE:N	2.31	0.45
37:BN:117:ASP:OD2	37:BN:118:ARG:N	2.47	0.45
39:BP:85:VAL:HG13	39:BP:86:LYS:N	2.32	0.45
45:BV:19:ARG:O	45:BV:22:ALA:HB3	2.17	0.45
46:BW:39:GLN:HG3	46:BW:42:THR:H	1.78	0.45
46:BW:40:ARG:HH11	46:BW:45:HIS:CE1	2.34	0.45
47:BX:26:ARG:CZ	47:BX:28:PHE:CE2	2.99	0.45
50:B0:13:GLY:O	50:B0:16:ARG:N	2.49	0.45
4:CE:116:VAL:C	4:CE:118:GLY:H	2.24	0.45
5:CF:29:ILE:HG22	5:CF:30:THR:N	2.30	0.45
6:CG:108:ARG:HA	6:CG:118:ARG:HD3	1.99	0.45
7:CH:62:LEU:HD22	7:CH:62:LEU:N	2.32	0.45
8:CI:18:VAL:HG21	8:CI:81:GLY:C	2.41	0.45
10:CK:88:PRO:HG3	20:CU:28:LEU:HD11	1.97	0.45
11:CL:98:ARG:HB2	11:CL:116:TYR:HA	1.98	0.45
13:CN:6:LYS:O	13:CN:10:VAL:HG23	2.17	0.45
55:CA:11:G:C5	55:CA:12:U:C5	3.05	0.45
55:CA:126:G:C2	55:CA:236:A:C2	3.05	0.45
55:CA:384:G:H2'	55:CA:385:C:C6	2.51	0.45
55:CA:737:C:H2'	55:CA:738:C:H6	1.79	0.45
55:CA:826:C:H2'	55:CA:826:C:O2	2.16	0.45
55:CA:1148:U:H2'	55:CA:1149:C:O4'	2.17	0.45
55:CA:1241:G:O2'	55:CA:1242:G:O5'	2.35	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:1259:C:O2'	55:CA:1283:U:O2	2.28	0.45
55:CA:1305:G:N2	55:CA:1332:A:OP2	2.50	0.45
26:DC:244:VAL:HB	26:DC:249:VAL:H	1.82	0.45
27:DD:15:PHE:HA	27:DD:20:VAL:O	2.16	0.45
27:DD:148:GLN:CD	27:DD:152:PRO:HG2	2.42	0.45
37:DN:28:LEU:HD23	37:DN:28:LEU:C	2.42	0.45
41:DR:38:VAL:HG22	41:DR:40:MET:H	1.81	0.45
43:DT:59:ASN:ND2	24:DA:1398:C:OP1	2.50	0.45
45:DV:87:GLN:O	45:DV:88:HIS:HB2	2.16	0.45
24:DA:10:A:O2'	24:DA:11:C:H5'	2.17	0.45
24:DA:56:A:C2	24:DA:115:C:C2	3.05	0.45
24:DA:216:A:H2'	24:DA:217:A:C8	2.51	0.45
24:DA:396:G:O2'	24:DA:397:U:C5'	2.65	0.45
24:DA:521:U:H2'	24:DA:522:A:H8	1.82	0.45
24:DA:659:G:C2	24:DA:660:C:C2	3.04	0.45
24:DA:1034:G:O6	24:DA:1122:G:C6	2.70	0.45
24:DA:1225:G:C6	24:DA:1226:A:N1	2.84	0.45
24:DA:1315:C:C2	24:DA:1316:U:C5	3.04	0.45
24:DA:1507:C:H5'	24:DA:1508:A:OP2	2.17	0.45
24:DA:2338:C:HO2'	24:DA:2339:C:H6	1.65	0.45
24:DA:2634:A:H2'	24:DA:2635:A:C8	2.52	0.45
24:DA:2874:C:H2'	24:DA:2875:C:C6	2.52	0.45
56:DB:16:G:N2	56:DB:69:G:H1'	2.32	0.45
56:DB:17:C:H2'	56:DB:18:G:H8	1.82	0.45
1:AB:107:ARG:HE	1:AB:108:GLN:HE22	1.59	0.45
2:AC:107:LYS:HA	2:AC:108:PRO:HD2	1.83	0.45
3:AD:12:ARG:NH1	3:AD:36:ALA:O	2.50	0.45
3:AD:117:VAL:HG12	3:AD:130:ASN:O	2.17	0.45
4:AE:91:SER:OG	4:AE:134:ASN:CB	2.62	0.45
10:AK:73:VAL:C	10:AK:75:GLU:H	2.23	0.45
12:AM:13:HIS:NE2	21:AA:1296:C:H5'	2.31	0.45
12:AM:92:ARG:NH1	18:AS:79:TYR:CZ	2.84	0.45
19:AT:18:LYS:O	19:AT:21:ALA:HB3	2.17	0.45
19:AT:45:ALA:O	19:AT:48:LYS:HB3	2.17	0.45
21:AA:16:A:O2'	21:AA:17:U:H5'	2.17	0.45
21:AA:162:A:H8	21:AA:162:A:O5'	2.00	0.45
21:AA:222:C:O2'	21:AA:223:A:H5'	2.17	0.45
21:AA:275:G:O2'	21:AA:276:G:H5'	2.16	0.45
21:AA:613:C:H2'	21:AA:614:C:O4'	2.16	0.45
21:AA:843:U:H2'	21:AA:844:G:H5'	1.99	0.45
21:AA:1054:C:H6	21:AA:1054:C:H2'	1.23	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:1069:C:H2'	21:AA:1070:U:O5'	2.17	0.45
21:AA:1175:G:O2'	21:AA:1176:A:H5'	2.17	0.45
21:AA:1180:A:H5"	21:AA:1181:G:OP2	2.15	0.45
21:AA:1323:G:H4'	21:AA:1362:A:N3	2.31	0.45
24:BA:160:A:C6	24:BA:161:A:C6	3.05	0.45
24:BA:167:A:C2	24:BA:168:G:H1'	2.51	0.45
24:BA:447:A:C2	24:BA:454:A:C8	3.05	0.45
24:BA:575:A:C2	24:BA:576:U:C5	3.05	0.45
24:BA:858:G:C6	24:BA:920:A:N6	2.85	0.45
24:BA:863:A:O2'	24:BA:864:G:H5'	2.16	0.45
24:BA:923:G:C1'	46:BW:23:LYS:HE2	2.45	0.45
24:BA:949:G:N2	24:BA:969:G:N3	2.65	0.45
24:BA:1223:G:N2	24:BA:1227:G:C5	2.84	0.45
24:BA:1230:A:C5	24:BA:1231:U:C5	3.05	0.45
24:BA:2276:G:P	36:BM:83:GLY:O	2.75	0.45
24:BA:2281:A:O2'	24:BA:2282:G:H5'	2.17	0.45
24:BA:2305:U:H4'	29:BF:130:GLY:HA3	1.98	0.45
24:BA:2508:G:N1	24:BA:2582:G:O6	2.50	0.45
24:BA:2527:C:H2'	24:BA:2528:U:O4'	2.17	0.45
24:BA:2626:C:C2	24:BA:2627:G:C8	3.05	0.45
24:BA:2679:A:C2	24:BA:2680:U:C2	3.05	0.45
25:BB:32:U:H2'	25:BB:33:G:O4'	2.16	0.45
27:BD:61:THR:HG1	27:BD:64:GLU:HG3	1.80	0.45
28:BE:113:VAL:CG1	28:BE:114:ARG:N	2.78	0.45
30:BG:124:CYS:HA	30:BG:125:PRO:HD2	1.86	0.45
33:BJ:58:ASN:OD1	33:BJ:128:ASN:ND2	2.49	0.45
33:BJ:141:ASP:HB3	33:BJ:142:ILE:H	1.54	0.45
34:BK:41:ILE:HD12	34:BK:41:ILE:HA	1.82	0.45
39:BP:33:GLU:CB	39:BP:38:ARG:HH11	2.29	0.45
51:B1:24:LYS:HE2	51:B1:52:LYS:CB	2.47	0.45
1:CB:131:LYS:O	1:CB:131:LYS:HE3	2.17	0.45
1:CB:187:ASP:C	1:CB:189:ASN:N	2.75	0.45
3:CD:105:GLY:O	3:CD:106:PHE:C	2.59	0.45
4:CE:71:ILE:O	4:CE:71:ILE:CG2	2.65	0.45
5:CF:3:HIS:CD2	5:CF:65:GLU:HG3	2.52	0.45
5:CF:53:LYS:HD3	5:CF:53:LYS:C	2.42	0.45
5:CF:67:PRO:O	5:CF:68:GLN:C	2.59	0.45
9:CJ:14:ASP:O	9:CJ:18:ILE:HB	2.17	0.45
9:CJ:42:LEU:HD23	55:CA:1280:A:C5'	2.46	0.45
9:CJ:48:ARG:HD3	55:CA:1253:G:H4'	1.99	0.45
11:CL:45:ASN:ND2	11:CL:88:ASP:OD1	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CM:104:ASN:C	12:CM:106:ARG:N	2.75	0.45
15:CP:66:THR:HG22	15:CP:67:ILE:N	2.32	0.45
17:CR:23:LYS:H	17:CR:23:LYS:HG2	1.55	0.45
17:CR:32:ILE:O	17:CR:32:ILE:HD12	2.17	0.45
18:CS:46:LEU:HD23	18:CS:46:LEU:H	1.81	0.45
19:CT:4:LYS:HZ2	55:CA:107:G:H22	1.64	0.45
55:CA:128:G:C2	55:CA:234:C:N3	2.84	0.45
55:CA:308:C:H2'	55:CA:309:A:H8	1.82	0.45
55:CA:367:U:C6	55:CA:394:G:N2	2.84	0.45
55:CA:451:A:H61	55:CA:481:G:H5'	1.81	0.45
55:CA:646:G:C6	55:CA:647:C:C4	3.04	0.45
55:CA:812:G:N3	55:CA:812:G:C2'	2.77	0.45
55:CA:936:C:H2'	55:CA:937:A:H8	1.82	0.45
55:CA:961:U:OP1	55:CA:961:U:H3'	2.17	0.45
55:CA:1144:G:N2	55:CA:1146:A:H62	2.10	0.45
55:CA:1160:G:HO2'	55:CA:1161:C:H6	1.64	0.45
55:CA:1531:A:C2'	55:CA:1532:U:H5'	2.47	0.45
28:DE:44:ARG:H	28:DE:89:PRO:HA	1.82	0.45
28:DE:61:ARG:HE	28:DE:65:THR:HB	1.82	0.45
28:DE:144:GLU:O	28:DE:145:ASP:C	2.60	0.45
28:DE:196:VAL:HG13	28:DE:200:LEU:HD23	1.99	0.45
29:DF:37:MET:HE3	29:DF:56:LEU:HD23	1.98	0.45
30:DG:84:LYS:O	30:DG:85:LYS:CB	2.64	0.45
32:DI:127:SER:O	32:DI:131:THR:HG23	2.16	0.45
33:DJ:45:THR:OG1	33:DJ:48:VAL:N	2.49	0.45
40:DQ:109:VAL:O	40:DQ:112:ALA:HB3	2.17	0.45
42:DS:62:ASP:OD1	42:DS:62:ASP:N	2.49	0.45
45:DV:26:PHE:HE2	45:DV:42:LEU:HD12	1.82	0.45
45:DV:29:ILE:HG21	56:DB:75:G:H1'	1.98	0.45
45:DV:32:GLY:HA2	56:DB:104:A:O2'	2.16	0.45
45:DV:44:HIS:CE1	45:DV:86:LEU:O	2.70	0.45
49:DZ:29:ARG:H	49:DZ:29:ARG:CZ	2.30	0.45
50:D0:28:SER:HB3	50:D0:39:ARG:CZ	2.47	0.45
24:DA:15:G:O2'	24:DA:16:C:H5'	2.17	0.45
24:DA:201:C:C5	24:DA:202:U:C5	3.04	0.45
24:DA:219:A:N6	24:DA:220:G:C6	2.85	0.45
24:DA:223:A:C2	24:DA:408:G:O4'	2.70	0.45
24:DA:476:G:C2'	24:DA:477:A:O5'	2.65	0.45
24:DA:1178:C:C2	24:DA:1179:G:C8	3.05	0.45
24:DA:1443:U:C2	24:DA:1444:G:C8	3.05	0.45
24:DA:1652:A:H3'	24:DA:1653:G:C8	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2270:A:H2'	24:DA:2271:G:O4'	2.17	0.45
24:DA:2460:U:O2'	24:DA:2461:A:H5'	2.17	0.45
24:DA:2751:G:N3	24:DA:2751:G:H2'	2.31	0.45
56:DB:66:A:C2'	56:DB:67:G:OP2	2.65	0.45
3:AD:102:TYR:CB	3:AD:110:ARG:HG3	2.47	0.45
4:AE:120:HIS:O	4:AE:121:ASN:CB	2.64	0.45
9:AJ:65:TYR:HB3	13:AN:95:LEU:CD1	2.46	0.45
10:AK:82:GLU:HB2	10:AK:108:ASN:O	2.17	0.45
11:AL:109:ARG:NH2	11:AL:116:TYR:CE2	2.83	0.45
13:AN:22:LYS:O	13:AN:25:GLU:HG2	2.17	0.45
20:AU:19:LYS:HE2	20:AU:19:LYS:N	2.31	0.45
21:AA:487:A:O2'	21:AA:488:C:H5'	2.17	0.45
21:AA:615:G:C2	21:AA:626:G:C4	3.05	0.45
21:AA:626:G:C6	21:AA:627:G:C5	3.05	0.45
21:AA:738:C:N3	21:AA:739:C:C5	2.85	0.45
21:AA:768:A:OP1	21:AA:804:U:H4'	2.17	0.45
21:AA:935:A:C2	21:AA:936:C:C2	3.05	0.45
21:AA:1053:G:N7	21:AA:1199:U:H3'	2.32	0.45
21:AA:1075:U:C2'	21:AA:1076:U:H5'	2.47	0.45
24:BA:13:A:C2	24:BA:526:A:N7	2.85	0.45
24:BA:577:G:H2'	24:BA:578:G:C8	2.52	0.45
24:BA:775:G:C2	24:BA:794:A:C8	3.05	0.45
24:BA:945:A:C4	24:BA:2448:A:N3	2.84	0.45
24:BA:959:A:H2'	24:BA:960:A:H8	1.74	0.45
24:BA:1013:C:H2'	24:BA:1014:A:C8	2.52	0.45
24:BA:1309:G:H21	24:BA:1611:C:H5'	1.81	0.45
24:BA:1420:A:C6	24:BA:2211:A:C2	3.05	0.45
24:BA:1450:G:O6	24:BA:1451:C:N4	2.50	0.45
24:BA:1599:U:H2'	24:BA:1600:C:H6	1.78	0.45
24:BA:1693:U:C4	24:BA:1977:A:C5	3.05	0.45
24:BA:1759:A:H2'	24:BA:1760:C:H6	1.81	0.45
24:BA:1960:A:H2'	24:BA:1960:A:N3	2.31	0.45
24:BA:2048:G:H4'	24:BA:2823:A:C2	2.52	0.45
24:BA:2197:U:O2'	24:BA:2198:A:C2'	2.64	0.45
24:BA:2323:G:H2'	24:BA:2324:U:H5'	1.97	0.45
24:BA:2578:G:H2'	24:BA:2578:G:N3	2.31	0.45
24:BA:2582:G:C2	24:BA:2583:G:N7	2.85	0.45
24:BA:2692:G:C6	24:BA:2718:G:N1	2.85	0.45
25:BB:73:A:C4	25:BB:74:U:C6	3.05	0.45
27:BD:39:ASP:OD2	27:BD:40:LEU:N	2.50	0.45
30:BG:84:LYS:HZ2	30:BG:133:LYS:HE3	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BG:85:LYS:HA	30:BG:130:ILE:O	2.16	0.45
30:BG:93:TYR:O	30:BG:105:SER:O	2.35	0.45
32:BI:57:VAL:HG12	32:BI:58:ILE:H	1.82	0.45
33:BJ:42:ALA:C	33:BJ:44:TYR:N	2.73	0.45
39:BP:16:VAL:HA	39:BP:17:PRO:HD2	1.83	0.45
39:BP:50:ARG:HD3	39:BP:51:ASN:H	1.79	0.45
43:BT:44:LYS:O	43:BT:48:GLN:HG2	2.17	0.45
44:BU:2:ALA:HB3	44:BU:5:ARG:NH2	2.32	0.45
46:BW:55:ASP:O	46:BW:56:HIS:C	2.60	0.45
53:B3:61:LEU:C	53:B3:63:TYR:H	2.23	0.45
2:CC:176:THR:O	2:CC:178:ARG:N	2.49	0.45
3:CD:57:LYS:HE2	3:CD:58:GLN:OE1	2.17	0.45
4:CE:51:LYS:NZ	55:CA:1080:A:OP1	2.42	0.45
8:CI:44:ARG:CA	8:CI:46:VAL:HG22	2.47	0.45
11:CL:2:THR:HB	11:CL:5:GLN:H	1.81	0.45
11:CL:82:ARG:HB2	11:CL:97:VAL:CG1	2.47	0.45
12:CM:57:ASP:O	12:CM:61:LYS:HG3	2.17	0.45
12:CM:85:TYR:HB2	18:CS:72:GLU:O	2.16	0.45
18:CS:11:ASP:HB2	18:CS:14:LEU:HG	1.98	0.45
55:CA:13:U:O2'	55:CA:14:U:H5'	2.16	0.45
55:CA:150:U:H2'	55:CA:151:A:C8	2.48	0.45
55:CA:618:C:H5"	55:CA:619:U:H5"	1.99	0.45
55:CA:676:A:H2'	55:CA:677:U:C6	2.52	0.45
55:CA:1054:C:OP1	55:CA:1198:G:OP2	2.34	0.45
55:CA:1237:C:H1'	55:CA:1334:G:O2'	2.17	0.45
55:CA:1253:G:C6	55:CA:1285:A:N6	2.85	0.45
55:CA:1276:G:O2'	55:CA:1277:C:H5'	2.17	0.45
55:CA:1428:A:C6	55:CA:1429:A:C5	3.05	0.45
26:DC:260:LYS:HA	26:DC:263:ASP:CG	2.42	0.45
28:DE:76:PRO:HD2	24:DA:673:C:H5'	1.98	0.45
31:DH:65:ALA:O	31:DH:66:ASN:C	2.60	0.45
36:DM:25:ASP:OD2	36:DM:25:ASP:N	2.49	0.45
36:DM:35:ALA:HA	36:DM:102:LEU:HD21	1.99	0.45
38:DO:102:ARG:H	56:DB:49:C:P	2.39	0.45
40:DQ:15:LYS:HD2	40:DQ:19:GLN:HE21	1.82	0.45
41:DR:19:THR:HA	41:DR:96:VAL:O	2.16	0.45
42:DS:24:ILE:HB	42:DS:32:ALA:HB1	1.98	0.45
24:DA:269:C:C2	24:DA:270:A:C8	3.04	0.45
24:DA:372:G:N2	24:DA:401:A:OP2	2.48	0.45
24:DA:478:A:N1	24:DA:480:A:C4	2.84	0.45
24:DA:845:A:N6	24:DA:932:U:N3	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:849:A:C4	24:DA:850:U:C5	3.05	0.45
24:DA:1054:A:N3	24:DA:1055:G:H1'	2.31	0.45
24:DA:1074:G:H2'	24:DA:1075:C:C5	2.51	0.45
24:DA:1415:U:O3'	24:DA:1416:G:H4'	2.17	0.45
24:DA:1418:G:N2	24:DA:1579:A:C8	2.85	0.45
24:DA:1420:A:C2	24:DA:2211:A:N7	2.85	0.45
24:DA:1431:A:C2	24:DA:1432:G:C4	3.05	0.45
24:DA:1668:A:O2'	24:DA:1674:G:N7	2.36	0.45
24:DA:1973:G:C5	24:DA:1974:C:C5	3.05	0.45
24:DA:2140:G:C6	24:DA:2152:G:C6	3.05	0.45
24:DA:2215:C:O2'	24:DA:2216:G:H5'	2.17	0.45
24:DA:2408:U:O2'	24:DA:2409:G:C5'	2.65	0.45
56:DB:32:U:C2	56:DB:51:G:C2	3.05	0.45
1:AB:165:ALA:HA	1:AB:172:ILE:HD11	1.99	0.45
2:AC:128:MET:CG	2:AC:131:ARG:HG3	2.46	0.45
4:AE:71:ILE:HD11	4:AE:144:GLU:HG3	1.97	0.45
8:AI:49:GLN:C	8:AI:51:LEU:N	2.75	0.45
12:AM:3:ILE:HA	12:AM:56:ARG:HG3	1.98	0.45
13:AN:42:ASN:C	13:AN:44:VAL:N	2.75	0.45
14:AO:46:LYS:O	14:AO:52:ARG:NH2	2.50	0.45
18:AS:11:ASP:OD1	18:AS:34:SER:HB2	2.17	0.45
18:AS:50:VAL:O	18:AS:56:HIS:HA	2.17	0.45
21:AA:381:C:H2'	21:AA:382:A:O4'	2.17	0.45
21:AA:953:G:C6	21:AA:954:G:C6	3.05	0.45
21:AA:1174:G:C2	21:AA:1175:G:C4	3.05	0.45
21:AA:1226:C:H4'	21:AA:1227:A:OP1	2.17	0.45
21:AA:1234:C:H4'	21:AA:1364:U:H1'	1.98	0.45
21:AA:1256:A:C8	21:AA:1278:G:C8	3.05	0.45
21:AA:1489:G:H2'	21:AA:1490:U:H5'	1.99	0.45
21:AA:1512:U:C2	21:AA:1513:A:N7	2.85	0.45
22:AV:41:C:H2'	22:AV:42:G:C8	2.52	0.45
24:BA:37:C:C2'	24:BA:38:A:H5'	2.47	0.45
24:BA:126:A:O2'	24:BA:127:A:H5'	2.16	0.45
24:BA:312:G:H2'	24:BA:313:G:C8	2.52	0.45
24:BA:531:C:H5"	24:BA:532:A:C5	2.52	0.45
24:BA:688:U:O2	24:BA:787:C:H4'	2.17	0.45
24:BA:821:A:N7	24:BA:946:C:C4	2.85	0.45
24:BA:915:C:O2'	25:BB:100:G:H5"	2.16	0.45
24:BA:1534:U:C4	24:BA:1536:C:N4	2.86	0.45
24:BA:1628:G:C4	24:BA:1629:U:C5	3.05	0.45
24:BA:1821:A:H8	24:BA:1821:A:O5'	2.00	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1931:U:O2'	24:BA:1932:A:C5'	2.55	0.45
24:BA:1936:A:N3	24:BA:1945:G:N7	2.64	0.45
24:BA:2303:G:H2'	24:BA:2304:G:O4'	2.17	0.45
24:BA:2307:G:N2	24:BA:2311:A:C8	2.85	0.45
24:BA:2478:A:N7	24:BA:2529:G:C6	2.84	0.45
24:BA:2632:A:N1	24:BA:2787:C:C4	2.85	0.45
24:BA:2699:C:O2	24:BA:2709:G:C2	2.69	0.45
24:BA:2741:A:H2'	24:BA:2742:G:O4'	2.16	0.45
27:BD:133:THR:CG2	27:BD:134:HIS:HD2	2.29	0.45
28:BE:112:LEU:HD13	28:BE:186:VAL:CG1	2.45	0.45
31:BH:16:GLY:C	31:BH:51:ARG:HH21	2.25	0.45
31:BH:40:THR:O	31:BH:42:LYS:N	2.45	0.45
38:BO:67:ASN:O	38:BO:68:LYS:C	2.60	0.45
43:BT:24:MET:HE3	43:BT:24:MET:HA	1.99	0.45
47:BX:42:GLU:O	47:BX:43:LYS:C	2.59	0.45
49:BZ:29:ARG:HG3	49:BZ:29:ARG:NH2	2.16	0.45
49:BZ:37:ARG:HD2	49:BZ:37:ARG:N	2.32	0.45
3:CD:4:LEU:HD11	55:CA:405:U:C5	2.52	0.45
3:CD:153:ARG:HH22	55:CA:437:U:H1'	1.82	0.45
5:CF:2:ARG:HG2	5:CF:4:TYR:OH	2.17	0.45
5:CF:75:GLU:OE2	5:CF:89:VAL:HG11	2.17	0.45
6:CG:78:ARG:HG3	6:CG:82:SER:O	2.16	0.45
7:CH:30:LYS:O	7:CH:31:LEU:C	2.60	0.45
7:CH:86:LYS:HB2	7:CH:124:ILE:HD11	1.98	0.45
9:CJ:21:ALA:O	9:CJ:25:ILE:HG13	2.17	0.45
10:CK:127:ARG:O	10:CK:128:VAL:C	2.59	0.45
11:CL:31:GLY:HA2	11:CL:56:LEU:HD23	1.99	0.45
55:CA:61:G:C5	55:CA:107:G:C2	3.05	0.45
55:CA:80:A:H3'	55:CA:81:A:H4'	1.98	0.45
55:CA:206:C:O5'	55:CA:207:C:OP2	2.35	0.45
55:CA:295:C:O2'	55:CA:296:U:H5'	2.16	0.45
55:CA:712:A:N1	55:CA:713:G:C2	2.85	0.45
55:CA:801:U:C2'	55:CA:802:A:H5'	2.47	0.45
55:CA:1095:U:O2'	55:CA:1096:C:C5'	2.65	0.45
55:CA:1170:A:H2'	55:CA:1171:A:O4'	2.17	0.45
55:CA:1236:A:C2'	55:CA:1237:C:H5'	2.47	0.45
55:CA:1319:A:C5	55:CA:1323:G:C4	3.04	0.45
26:DC:83:ASP:OD1	26:DC:85:ASN:OD1	2.34	0.45
26:DC:93:VAL:HG13	26:DC:94:LEU:N	2.31	0.45
27:DD:117:GLY:HA2	27:DD:164:GLN:OE1	2.16	0.45
27:DD:118:PHE:CD1	24:DA:1655:A:C5'	2.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DD:121:THR:HG21	27:DD:127:PHE:HD1	1.80	0.45
28:DE:36:ALA:HB1	24:DA:443:A:N6	2.32	0.45
28:DE:49:ARG:HH12	28:DE:72:SER:HB2	1.81	0.45
28:DE:163:ASN:HD21	24:DA:322:A:H3'	1.82	0.45
29:DF:15:LEU:O	29:DF:27:VAL:HG12	2.17	0.45
29:DF:113:PHE:O	29:DF:114:ARG:HB3	2.17	0.45
30:DG:11:PRO:HD2	30:DG:14:VAL:HG11	1.99	0.45
35:DL:17:LYS:O	35:DL:17:LYS:HG3	2.17	0.45
38:DO:77:ALA:O	38:DO:81:ARG:HG3	2.17	0.45
42:DS:27:LYS:O	42:DS:28:LYS:O	2.35	0.45
45:DV:29:ILE:CD1	45:DV:31:TYR:HE2	2.22	0.45
51:D1:28:THR:C	51:D1:29:LYS:HG2	2.42	0.45
24:DA:128:C:H2'	24:DA:129:C:C6	2.51	0.45
24:DA:143:C:N4	24:DA:144:A:N6	2.65	0.45
24:DA:322:A:O4'	24:DA:340:A:H1'	2.17	0.45
24:DA:1008:A:H5"	24:DA:1009:A:OP1	2.16	0.45
24:DA:1142:A:C4	24:DA:1144:A:N7	2.85	0.45
24:DA:1182:G:H2'	24:DA:1183:U:O4'	2.17	0.45
24:DA:1272:A:OP2	24:DA:1646:C:H2'	2.17	0.45
24:DA:1695:G:HO2'	24:DA:1696:G:P	2.40	0.45
24:DA:1848:A:N3	24:DA:1849:G:C8	2.85	0.45
24:DA:2298:A:N1	24:DA:2321:U:C5	2.85	0.45
1:AB:24:PRO:CB	21:AA:830:G:H5'	2.47	0.44
1:AB:105:THR:HG22	1:AB:105:THR:O	2.17	0.44
3:AD:101:VAL:HG12	3:AD:113:ALA:HB1	1.98	0.44
4:AE:15:ILE:HD13	4:AE:35:LEU:HD23	1.99	0.44
6:AG:85:GLN:O	6:AG:85:GLN:HG3	2.16	0.44
10:AK:122:PRO:HA	10:AK:123:PRO:HD2	1.76	0.44
11:AL:120:ARG:NH1	21:AA:500:G:H5"	2.32	0.44
14:AO:69:LEU:HD23	14:AO:69:LEU:O	2.17	0.44
15:AP:44:SER:OG	15:AP:46:LYS:HG3	2.17	0.44
18:AS:79:TYR:O	18:AS:80:ARG:HB3	2.17	0.44
21:AA:45:G:O2'	21:AA:46:G:H5'	2.17	0.44
21:AA:67:C:O2'	21:AA:171:A:N3	2.45	0.44
21:AA:306:A:H2'	21:AA:307:C:H6	1.77	0.44
21:AA:625:U:H2'	21:AA:626:G:C8	2.48	0.44
21:AA:686:U:O4	21:AA:703:G:H1'	2.17	0.44
21:AA:934:C:C5	21:AA:1344:C:C4	3.05	0.44
21:AA:1072:G:C2	21:AA:1104:G:N3	2.85	0.44
21:AA:1272:G:H2'	21:AA:1273:C:C6	2.51	0.44
24:BA:9:G:C5	24:BA:2629:U:C5	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:31:C:H4'	24:BA:1238:G:H4'	1.98	0.44
24:BA:322:A:C2	24:BA:340:A:C6	3.05	0.44
24:BA:375:G:C6	24:BA:376:G:N7	2.85	0.44
24:BA:447:A:N3	24:BA:473:G:C8	2.85	0.44
24:BA:677:A:O2'	24:BA:2071:A:H5'	2.17	0.44
24:BA:768:G:C5	24:BA:769:U:C5	3.06	0.44
24:BA:948:C:O2	24:BA:984:A:O2'	2.34	0.44
24:BA:1050:A:N3	24:BA:2751:G:C2	2.85	0.44
24:BA:1082:U:C2	24:BA:1086:A:N6	2.85	0.44
24:BA:1197:G:N2	24:BA:1250:G:C4	2.86	0.44
24:BA:1253:A:C5	59:BA:3336:HOH:O	2.69	0.44
24:BA:1323:C:H2'	24:BA:1323:C:O2	2.16	0.44
24:BA:1346:G:C6	24:BA:1347:A:C5	3.05	0.44
24:BA:1687:G:O2'	24:BA:1688:U:H5'	2.17	0.44
24:BA:1973:G:C6	24:BA:1974:C:C4	3.05	0.44
24:BA:2293:G:C6	24:BA:2340:A:N1	2.85	0.44
24:BA:2386:A:N3	46:BW:38:ARG:HD2	2.32	0.44
24:BA:2415:G:C6	24:BA:2416:C:C4	3.05	0.44
24:BA:2468:A:O2'	24:BA:2469:A:O5'	2.35	0.44
24:BA:2647:U:O2'	24:BA:2648:G:H5'	2.17	0.44
24:BA:2818:U:H4'	24:BA:2837:A:C4'	2.47	0.44
24:BA:2837:A:C2	24:BA:2838:G:C5	3.05	0.44
25:BB:92:C:O2'	25:BB:93:C:H5'	2.18	0.44
28:BE:12:LEU:HD22	28:BE:12:LEU:HA	1.69	0.44
29:BF:43:ILE:HG22	29:BF:82:TYR:CE1	2.52	0.44
29:BF:121:PHE:C	29:BF:123:GLY:H	2.26	0.44
33:BJ:95:ARG:O	33:BJ:95:ARG:HG3	2.17	0.44
33:BJ:134:ALA:HB3	33:BJ:135:GLN:OE1	2.16	0.44
35:BL:101:ILE:HD12	35:BL:101:ILE:HA	1.70	0.44
39:BP:7:LEU:HA	39:BP:7:LEU:HD12	1.72	0.44
42:BS:14:ALA:O	42:BS:17:VAL:N	2.50	0.44
48:BY:13:GLU:C	48:BY:15:ASN:N	2.74	0.44
50:B0:43:THR:O	50:B0:44:ALA:C	2.60	0.44
4:CE:22:LYS:HB3	4:CE:29:ILE:HG22	1.98	0.44
7:CH:85:TYR:HD2	55:CA:598:U:O2'	1.97	0.44
8:CI:9:GLY:HA3	8:CI:77:ALA:O	2.17	0.44
8:CI:16:ALA:O	8:CI:18:VAL:HG23	2.17	0.44
9:CJ:57:VAL:HG13	9:CJ:58:ASN:N	2.31	0.44
10:CK:70:ALA:C	10:CK:72:ALA:N	2.73	0.44
10:CK:117:HIS:ND1	55:CA:675:A:H1'	2.32	0.44
12:CM:11:HIS:O	12:CM:12:LYS:HG2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CM:52:ILE:HG23	12:CM:56:ARG:HH21	1.82	0.44
14:CO:39:GLN:HE21	14:CO:39:GLN:HB2	1.62	0.44
14:CO:74:VAL:O	14:CO:78:THR:HG23	2.18	0.44
15:CP:77:GLU:C	15:CP:79:ASN:N	2.74	0.44
18:CS:49:ALA:HB1	18:CS:56:HIS:HB3	1.99	0.44
18:CS:77:ARG:NH2	55:CA:1222:G:H5'	2.32	0.44
20:CU:35:GLU:C	20:CU:36:PHE:HD2	2.24	0.44
55:CA:154:U:C2'	55:CA:155:A:H5'	2.43	0.44
55:CA:585:G:N3	55:CA:879:C:H4'	2.31	0.44
55:CA:704:A:C2'	55:CA:705:G:C8	2.93	0.44
55:CA:811:C:O2'	55:CA:901:A:N1	2.48	0.44
55:CA:815:A:N1	55:CA:1529:G:H2'	2.32	0.44
55:CA:914:A:O2'	55:CA:915:A:C5'	2.65	0.44
55:CA:1269:A:C2	55:CA:1313:U:C1'	3.00	0.44
55:CA:1355:G:C6	55:CA:1356:G:C5	3.05	0.44
55:CA:1456:A:H2'	55:CA:1457:G:O4'	2.17	0.44
27:DD:118:PHE:CD1	27:DD:119:ALA:C	2.96	0.44
27:DD:133:THR:HG23	27:DD:134:HIS:H	1.83	0.44
30:DG:2:ARG:NH2	24:DA:2751:G:N3	2.66	0.44
30:DG:55:ASP:O	30:DG:57:TYR:CD2	2.70	0.44
30:DG:120:ILE:O	30:DG:120:ILE:HD13	2.17	0.44
33:DJ:80:HIS:CE1	24:DA:2642:G:H5'	2.52	0.44
35:DL:112:LEU:O	35:DL:112:LEU:HD23	2.18	0.44
36:DM:108:VAL:HA	36:DM:109:PRO:HD3	1.83	0.44
37:DN:16:HIS:C	37:DN:18:GLN:H	2.24	0.44
38:DO:4:LYS:O	38:DO:8:ILE:CD1	2.65	0.44
38:DO:51:ALA:HB3	38:DO:78:VAL:CG2	2.47	0.44
42:DS:19:LEU:HD11	50:D0:19:ASP:O	2.17	0.44
53:D3:48:MET:HB3	53:D3:48:MET:HE3	1.71	0.44
24:DA:207:A:H2'	24:DA:208:C:C6	2.51	0.44
24:DA:475:C:N3	24:DA:481:G:C6	2.85	0.44
24:DA:867:C:O2	24:DA:867:C:C2'	2.66	0.44
24:DA:959:A:N3	24:DA:2457:U:O2'	2.50	0.44
24:DA:970:U:H2'	24:DA:971:G:C8	2.52	0.44
24:DA:996:A:O2'	24:DA:997:G:H5'	2.16	0.44
24:DA:1087:G:C6	24:DA:1089:A:C2	3.05	0.44
24:DA:1241:A:H2'	24:DA:1242:U:C5'	2.47	0.44
24:DA:1517:G:C5	24:DA:1518:C:C4	3.05	0.44
24:DA:2061:G:N7	24:DA:2501:C:H4'	2.31	0.44
24:DA:2310:C:HO2'	24:DA:2311:A:P	2.40	0.44
24:DA:2375:G:N2	24:DA:2378:A:OP2	2.41	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2688:G:H1'	24:DA:2721:A:N6	2.33	0.44
24:DA:2781:A:O3'	24:DA:2782:G:H8	2.01	0.44
24:DA:2845:U:H2'	24:DA:2846:G:C8	2.52	0.44
24:DA:2850:A:OP2	24:DA:2866:U:N3	2.49	0.44
1:AB:48:MET:HA	1:AB:48:MET:CE	2.41	0.44
1:AB:53:LEU:HD13	1:AB:56:LEU:CD1	2.46	0.44
1:AB:60:ALA:CB	1:AB:223:GLY:HA3	2.47	0.44
1:AB:65:LYS:HG2	1:AB:153:MET:SD	2.57	0.44
1:AB:175:ALA:O	1:AB:176:ASN:C	2.60	0.44
4:AE:93:VAL:HA	4:AE:126:ALA:HB1	1.98	0.44
8:AI:45:MET:C	8:AI:47:VAL:H	2.25	0.44
10:AK:92:ARG:NH1	10:AK:111:ASP:OD2	2.48	0.44
11:AL:33:CYS:O	11:AL:33:CYS:SG	2.75	0.44
12:AM:59:VAL:C	12:AM:61:LYS:N	2.74	0.44
14:AO:68:TYR:HD1	14:AO:71:ARG:NH1	2.15	0.44
16:AQ:16:MET:HE3	21:AA:276:G:OP1	2.17	0.44
21:AA:86:G:N3	21:AA:87:C:C5	2.85	0.44
21:AA:154:U:C2	21:AA:168:G:N2	2.86	0.44
21:AA:279:A:H5"	21:AA:281:G:O4'	2.17	0.44
21:AA:493:A:C6	21:AA:494:G:C6	3.05	0.44
21:AA:901:A:C8	21:AA:902:G:H1'	2.51	0.44
21:AA:1114:C:H2'	21:AA:1115:U:O4'	2.17	0.44
21:AA:1425:U:O2	21:AA:1476:A:C2	2.71	0.44
24:BA:10:A:C5	24:BA:2800:A:C6	3.06	0.44
24:BA:215:G:C4'	24:BA:216:A:H4'	2.43	0.44
24:BA:558:U:OP1	33:BJ:113:PRO:HD2	2.17	0.44
24:BA:604:G:O6	24:BA:625:G:C6	2.70	0.44
24:BA:1009:A:O2'	24:BA:1010:A:H5'	2.18	0.44
24:BA:1206:G:H2'	24:BA:1207:C:C6	2.51	0.44
24:BA:1724:G:O6	24:BA:1737:G:N3	2.50	0.44
24:BA:1730:C:H4'	24:BA:1730:C:OP1	2.16	0.44
24:BA:1740:G:O2'	24:BA:1741:C:H5'	2.17	0.44
24:BA:1743:G:O2'	24:BA:1744:A:O4'	2.34	0.44
24:BA:1778:U:H5	24:BA:1784:A:C2	2.35	0.44
24:BA:1786:A:C2	24:BA:1938:A:C5	3.04	0.44
24:BA:2312:U:H2'	24:BA:2313:C:H5'	1.99	0.44
24:BA:2531:A:H5'	30:BG:156:TYR:CE2	2.52	0.44
24:BA:2800:A:H3'	24:BA:2801:G:H5"	1.99	0.44
26:BC:32:LEU:HD11	26:BC:101:ARG:HA	1.98	0.44
27:BD:124:ARG:HG2	27:BD:125:TRP:CD1	2.53	0.44
31:BH:21:VAL:HG21	31:BH:25:TYR:CD2	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BJ:103:ILE:HG13	33:BJ:104:ALA:N	2.32	0.44
34:BK:18:ARG:HA	34:BK:18:ARG:HD2	1.65	0.44
39:BP:22:GLY:O	39:BP:23:ASP:C	2.60	0.44
40:BQ:97:ILE:HG13	40:BQ:98:ALA:N	2.30	0.44
43:BT:24:MET:O	43:BT:28:ASN:O	2.34	0.44
46:BW:25:PHE:O	46:BW:27:GLY:N	2.50	0.44
47:BX:50:VAL:HG12	47:BX:51:SER:N	2.31	0.44
1:CB:26:MET:HE1	1:CB:192:PRO:HB3	2.00	0.44
1:CB:39:ILE:CD1	1:CB:40:ILE:N	2.72	0.44
2:CC:53:ARG:HG3	2:CC:68:HIS:CD2	2.53	0.44
2:CC:185:THR:O	2:CC:186:SER:HB2	2.15	0.44
7:CH:1:SER:C	7:CH:3:GLN:N	2.74	0.44
9:CJ:40:ILE:HG12	55:CA:1125:U:C6	2.52	0.44
11:CL:65:TYR:HD1	11:CL:67:GLY:N	2.15	0.44
12:CM:64:VAL:O	12:CM:65:GLU:C	2.61	0.44
14:CO:84:LEU:HD23	14:CO:84:LEU:HA	1.77	0.44
16:CQ:38:LYS:O	16:CQ:39:ARG:HD2	2.16	0.44
20:CU:27:VAL:O	20:CU:31:VAL:HG23	2.18	0.44
55:CA:215:C:H2'	55:CA:216:U:O4'	2.17	0.44
55:CA:389:A:N3	55:CA:389:A:H2'	2.31	0.44
55:CA:784:A:H2'	55:CA:785:G:O4'	2.17	0.44
55:CA:855:U:O2'	55:CA:856:C:H5'	2.17	0.44
55:CA:1087:G:OP1	55:CA:1389:C:H4'	2.17	0.44
55:CA:1151:A:N6	55:CA:1152:A:H62	2.16	0.44
55:CA:1168:U:O2'	55:CA:1169:A:C5'	2.64	0.44
55:CA:1169:A:H2'	55:CA:1170:A:H8	1.78	0.44
55:CA:1261:A:N7	55:CA:1274:A:C2	2.83	0.44
26:DC:179:GLU:OE1	24:DA:1799:G:C8	2.70	0.44
27:DD:179:ARG:H	27:DD:188:LEU:HB2	1.82	0.44
28:DE:157:LEU:C	28:DE:157:LEU:HD12	2.42	0.44
29:DF:35:LEU:CD1	29:DF:153:ILE:HG23	2.47	0.44
30:DG:71:LEU:O	30:DG:74:MET:HB3	2.17	0.44
31:DH:90:LEU:HB3	31:DH:123:ARG:HD2	1.99	0.44
32:DI:78:LEU:C	32:DI:80:LYS:H	2.25	0.44
33:DJ:105:VAL:HG11	33:DJ:122:LEU:CD2	2.47	0.44
37:DN:86:ARG:NE	37:DN:117:ASP:OD1	2.49	0.44
38:DO:21:LEU:CD1	24:DA:2378:A:N3	2.79	0.44
38:DO:97:PHE:HB3	56:DB:48:U:OP1	2.16	0.44
39:DP:24:THR:HA	39:DP:44:GLY:O	2.18	0.44
40:DQ:61:ILE:H	40:DQ:61:ILE:CD1	2.30	0.44
40:DQ:77:LYS:HE2	40:DQ:116:LEU:HD21	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DS:9:HIS:CE1	24:DA:508:A:N6	2.86	0.44
43:DT:77:ARG:HG2	24:DA:64:A:P	2.56	0.44
44:DU:85:ARG:HA	44:DU:85:ARG:NE	2.33	0.44
49:DZ:29:ARG:H	49:DZ:29:ARG:NH2	2.16	0.44
54:D4:3:VAL:O	54:D4:4:ARG:HG3	2.16	0.44
24:DA:76:C:N3	24:DA:111:A:C2	2.84	0.44
24:DA:161:A:C5	24:DA:162:U:C4	3.05	0.44
24:DA:340:A:H2'	24:DA:341:C:C5'	2.48	0.44
24:DA:447:A:C5	24:DA:454:A:N7	2.85	0.44
24:DA:615:U:C3'	24:DA:616:A:C5'	2.92	0.44
24:DA:630:G:C5	24:DA:632:A:OP2	2.70	0.44
24:DA:721:A:C5	24:DA:722:A:N7	2.85	0.44
24:DA:1165:A:H2'	24:DA:1166:G:H8	1.82	0.44
24:DA:1230:A:C5	24:DA:1231:U:C4	3.05	0.44
24:DA:1555:G:N3	24:DA:1556:C:C6	2.85	0.44
24:DA:1603:A:OP2	24:DA:1604:C:OP2	2.34	0.44
24:DA:2096:C:H2'	24:DA:2097:A:H8	1.83	0.44
24:DA:2482:A:C2'	24:DA:2483:C:H5'	2.47	0.44
24:DA:2714:G:O2'	24:DA:2715:C:H5'	2.17	0.44
24:DA:2720:U:H2'	24:DA:2721:A:H8	1.80	0.44
24:DA:2725:A:C4	24:DA:2727:A:N7	2.86	0.44
24:DA:2842:G:H2'	24:DA:2843:G:O4'	2.17	0.44
56:DB:61:G:C6	56:DB:62:C:N3	2.85	0.44
1:AB:71:THR:O	1:AB:72:LYS:O	2.36	0.44
1:AB:160:LEU:HG	1:AB:161:PHE:N	2.32	0.44
2:AC:30:ASP:OD1	2:AC:30:ASP:N	2.50	0.44
2:AC:166:TRP:N	2:AC:166:TRP:CE3	2.84	0.44
3:AD:68:GLU:HB2	21:AA:546:A:OP2	2.17	0.44
3:AD:166:LYS:C	3:AD:166:LYS:HD2	2.42	0.44
6:AG:77:ARG:HG3	6:AG:86:VAL:HG23	1.99	0.44
8:AI:45:MET:C	8:AI:47:VAL:N	2.73	0.44
9:AJ:26:VAL:O	9:AJ:30:LYS:HG2	2.17	0.44
9:AJ:29:ALA:O	9:AJ:31:ARG:N	2.49	0.44
9:AJ:81:GLU:HA	9:AJ:84:VAL:HG12	1.99	0.44
10:AK:107:THR:HG22	10:AK:108:ASN:ND2	2.33	0.44
13:AN:83:VAL:HG12	13:AN:84:ARG:N	2.33	0.44
16:AQ:28:VAL:O	16:AQ:36:PHE:HA	2.17	0.44
19:AT:73:ARG:NE	21:AA:261:U:C5	2.85	0.44
21:AA:68:G:C5	21:AA:69:G:H1'	2.52	0.44
21:AA:82:G:N2	21:AA:84:U:N3	2.59	0.44
21:AA:241:G:N2	21:AA:242:G:C4	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:552:U:H2'	21:AA:553:A:H8	1.81	0.44
21:AA:692:U:O2	21:AA:694:A:C8	2.71	0.44
21:AA:734:G:C2	21:AA:735:C:C2	3.05	0.44
21:AA:914:A:O2'	21:AA:915:A:C5'	2.66	0.44
21:AA:1014:A:N7	21:AA:1015:G:C5	2.85	0.44
21:AA:1091:U:C2	21:AA:1095:U:N3	2.86	0.44
21:AA:1102:A:H2'	21:AA:1103:C:C6	2.53	0.44
21:AA:1157:A:C2	21:AA:1181:G:C4	3.06	0.44
21:AA:1449:C:O2'	21:AA:1450:U:C5'	2.66	0.44
21:AA:1505:G:H5"	59:AA:1802:HOH:O	2.17	0.44
24:BA:10:A:N9	24:BA:2800:A:N6	2.65	0.44
24:BA:49:A:C6	24:BA:177:G:C5	3.06	0.44
24:BA:310:A:C2	24:BA:330:A:C8	3.05	0.44
24:BA:362:A:H2'	24:BA:363:G:H8	1.82	0.44
24:BA:404:A:O4'	24:BA:404:A:N3	2.49	0.44
24:BA:783:A:C4	24:BA:785:G:H1'	2.52	0.44
24:BA:831:G:N3	24:BA:832:U:C6	2.86	0.44
24:BA:834:G:C2	24:BA:835:C:C2	3.05	0.44
24:BA:1067:A:H3'	24:BA:1068:G:H8	1.78	0.44
24:BA:1419:A:H2'	24:BA:1421:G:C8	2.52	0.44
24:BA:1439:A:C2	24:BA:1553:A:C6	3.05	0.44
24:BA:1453:A:H5"	59:BA:3419:HOH:O	2.18	0.44
24:BA:2077:A:H1'	24:BA:2435:A:O4'	2.17	0.44
24:BA:2496:C:OP1	36:BM:82:MET:HB2	2.16	0.44
24:BA:2556:C:H2'	24:BA:2557:G:C5'	2.48	0.44
26:BC:21:PRO:C	26:BC:23:LEU:H	2.26	0.44
26:BC:35:LYS:NZ	26:BC:37:SER:HB2	2.33	0.44
26:BC:132:ARG:HD3	26:BC:132:ARG:O	2.18	0.44
27:BD:61:THR:O	27:BD:62:LYS:C	2.60	0.44
28:BE:12:LEU:O	28:BE:12:LEU:HD13	2.16	0.44
31:BH:27:ARG:HG3	47:BX:59:ASP:OD1	2.17	0.44
31:BH:41:LYS:O	31:BH:44:ILE:HG12	2.17	0.44
34:BK:114:LYS:O	34:BK:118:LEU:HD13	2.17	0.44
38:BO:55:GLU:O	38:BO:56:LYS:C	2.61	0.44
39:BP:19:PHE:HE2	39:BP:83:ILE:HD12	1.79	0.44
41:BR:90:ARG:O	41:BR:91:GLN:CB	2.61	0.44
42:BS:36:LEU:HD12	42:BS:36:LEU:HA	1.54	0.44
47:BX:11:PRO:HB3	47:BX:29:LEU:HB3	1.98	0.44
54:B4:25:VAL:O	54:B4:34:LYS:HA	2.17	0.44
1:CB:163:ILE:HG22	1:CB:164:ASP:N	2.32	0.44
1:CB:195:VAL:HG12	1:CB:197:PHE:H	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CC:20:THR:HG23	2:CC:57:GLU:HG2	1.99	0.44
2:CC:166:TRP:CG	2:CC:167:TYR:N	2.85	0.44
5:CF:1:MET:HE1	5:CF:34:GLY:HA2	1.99	0.44
5:CF:71:ILE:HD12	5:CF:74:LEU:HB3	2.00	0.44
6:CG:68:VAL:O	6:CG:70:PRO:HD3	2.17	0.44
6:CG:108:ARG:CZ	55:CA:1240:U:H6	2.28	0.44
6:CG:142:ARG:C	6:CG:144:ALA:N	2.74	0.44
8:CI:6:TYR:CE1	55:CA:1147:C:H4'	2.52	0.44
8:CI:11:ARG:HG2	8:CI:76:GLY:HA3	1.98	0.44
14:CO:32:THR:HA	14:CO:62:ARG:HH11	1.82	0.44
14:CO:88:ARG:HD3	14:CO:88:ARG:N	2.32	0.44
15:CP:27:ALA:HB3	15:CP:30:GLY:HA3	2.00	0.44
18:CS:62:THR:C	18:CS:64:GLU:N	2.75	0.44
55:CA:7:A:H5'	55:CA:298:A:O4'	2.17	0.44
55:CA:177:G:O2'	55:CA:1448:C:H4'	2.17	0.44
55:CA:515:G:H2'	55:CA:516:U:O4'	2.18	0.44
55:CA:878:A:C5	55:CA:879:C:C5	3.06	0.44
55:CA:1130:A:C4	55:CA:1146:A:C6	3.05	0.44
55:CA:1311:A:C2	55:CA:1312:G:H1'	2.53	0.44
27:DD:28:GLU:OE2	27:DD:30:GLU:HG3	2.17	0.44
27:DD:154:LYS:HE2	24:DA:2025:C:OP1	2.18	0.44
28:DE:40:ARG:NE	24:DA:443:A:H2'	2.31	0.44
28:DE:137:LYS:O	28:DE:140:ASP:HB2	2.17	0.44
30:DG:8:VAL:O	30:DG:9:VAL:HB	2.17	0.44
30:DG:53:PRO:HB3	30:DG:61:TRP:H	1.82	0.44
30:DG:88:LEU:HD12	30:DG:88:LEU:O	2.17	0.44
35:DL:100:ILE:HD12	35:DL:101:ILE:N	2.32	0.44
36:DM:71:LYS:HA	36:DM:72:PRO:HD3	1.86	0.44
38:DO:64:TYR:CG	56:DB:51:G:H3'	2.52	0.44
39:DP:37:LYS:O	39:DP:38:ARG:HB3	2.18	0.44
40:DQ:12:ARG:HD2	40:DQ:12:ARG:N	2.30	0.44
40:DQ:108:LEU:O	40:DQ:108:LEU:HD23	2.16	0.44
41:DR:66:HIS:CD2	41:DR:94:THR:HG22	2.52	0.44
45:DV:14:LYS:O	45:DV:15:GLY:C	2.60	0.44
45:DV:37:PRO:HB3	56:DB:73:A:H2	1.83	0.44
45:DV:80:HIS:CG	45:DV:81:PRO:HD2	2.53	0.44
47:DX:19:HIS:C	47:DX:21:LEU:N	2.71	0.44
50:D0:15:ARG:HH22	24:DA:1264:A:C5'	2.31	0.44
50:D0:33:SER:HB3	50:D0:34:GLY:H	1.58	0.44
52:D2:16:HIS:HD2	24:DA:465:G:H4'	1.82	0.44
52:D2:35:ARG:NH1	24:DA:53:A:H2	2.15	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:30:G:C5	24:DA:31:C:C4	3.05	0.44
24:DA:215:G:H4'	24:DA:216:A:H4'	2.00	0.44
24:DA:370:G:OP2	24:DA:370:G:C8	2.70	0.44
24:DA:390:U:O2'	24:DA:391:A:OP2	2.35	0.44
24:DA:1060:U:C3'	24:DA:1061:U:H5"	2.48	0.44
24:DA:1087:G:N2	24:DA:1103:A:H1'	2.32	0.44
24:DA:1180:U:H2'	24:DA:1181:U:O4'	2.17	0.44
24:DA:1462:C:O2'	24:DA:1463:C:H5'	2.17	0.44
24:DA:1463:C:H2'	24:DA:1464:G:O4'	2.18	0.44
24:DA:1475:G:N3	24:DA:1475:G:H2'	2.33	0.44
24:DA:1615:C:O2'	24:DA:1616:A:P	2.74	0.44
24:DA:1891:G:C5	24:DA:1892:C:C4	3.06	0.44
24:DA:1999:C:O2	24:DA:2687:U:O2'	2.35	0.44
24:DA:2660:A:C2	24:DA:2661:G:C8	3.05	0.44
56:DB:91:C:HO2'	56:DB:92:C:H6	1.59	0.44
2:AC:21:TRP:HB3	2:AC:58:ARG:N	2.26	0.44
7:AH:14:ARG:HE	7:AH:74:ILE:HG23	1.82	0.44
8:AI:6:TYR:CD2	8:AI:19:PHE:CE1	3.04	0.44
8:AI:8:THR:HG21	8:AI:10:ARG:HH21	1.83	0.44
8:AI:43:ALA:HB1	8:AI:46:VAL:CG2	2.47	0.44
14:AO:26:VAL:HG12	14:AO:30:LEU:CD1	2.46	0.44
15:AP:10:GLY:HA2	15:AP:16:PHE:HB3	2.00	0.44
18:AS:10:ILE:HG22	18:AS:38:THR:N	2.32	0.44
19:AT:18:LYS:O	19:AT:19:HIS:C	2.60	0.44
21:AA:61:G:H2'	21:AA:62:U:C6	2.52	0.44
21:AA:430:A:O2'	21:AA:431:A:C5'	2.65	0.44
21:AA:450:G:C5	21:AA:481:G:O6	2.71	0.44
21:AA:965:U:H5"	21:AA:966:G:OP1	2.18	0.44
21:AA:1360:A:C4	21:AA:1361:G:C8	3.06	0.44
24:BA:26:G:C6	24:BA:27:G:N1	2.86	0.44
24:BA:333:G:C6	24:BA:334:C:N4	2.85	0.44
24:BA:449:A:C4'	40:BQ:2:ARG:NH1	2.81	0.44
24:BA:555:G:O2'	24:BA:556:A:OP2	2.30	0.44
24:BA:558:U:O5'	24:BA:558:U:H6	2.00	0.44
24:BA:634:C:H6	24:BA:634:C:O5'	2.00	0.44
24:BA:683:U:C2	24:BA:684:G:C8	3.05	0.44
24:BA:705:A:H61	24:BA:726:G:H1'	1.83	0.44
24:BA:945:A:C2	24:BA:2448:A:C4	3.06	0.44
24:BA:963:U:H2'	24:BA:964:C:H6	1.81	0.44
24:BA:1062:G:C4	24:BA:1088:A:N7	2.85	0.44
24:BA:1064:C:H5'	32:BI:88:GLY:HA3	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1444:G:C2	24:BA:1548:A:C2	3.06	0.44
24:BA:1657:U:H2'	24:BA:1658:C:C6	2.42	0.44
24:BA:1672:A:H2'	24:BA:1673:G:O4'	2.17	0.44
24:BA:2197:U:P	3:CD:150:LYS:HG3	2.58	0.44
24:BA:2484:G:OP1	36:BM:44:ARG:HD3	2.18	0.44
24:BA:2607:G:H2'	24:BA:2608:G:O4'	2.18	0.44
24:BA:2678:C:H2'	24:BA:2679:A:O4'	2.17	0.44
24:BA:2879:A:H4'	24:BA:2880:C:OP1	2.17	0.44
25:BB:53:A:O5'	25:BB:53:A:C8	2.70	0.44
29:BF:82:TYR:HA	29:BF:83:PRO:HD2	1.68	0.44
29:BF:172:PHE:O	29:BF:173:ASP:C	2.60	0.44
30:BG:33:THR:N	30:BG:34:ARG:HH11	2.15	0.44
31:BH:67:ALA:C	31:BH:69:ALA:N	2.75	0.44
32:BI:77:VAL:C	32:BI:79:LEU:H	2.25	0.44
32:BI:115:ASP:OD1	32:BI:115:ASP:C	2.61	0.44
33:BJ:7:LYS:HA	33:BJ:8:PRO:HD3	1.78	0.44
34:BK:105:ARG:HD3	34:BK:105:ARG:H	1.82	0.44
39:BP:20:ARG:HG2	39:BP:21:PRO:N	2.32	0.44
39:BP:91:VAL:O	39:BP:92:ARG:C	2.61	0.44
40:BQ:17:LEU:HD13	40:BQ:17:LEU:HA	1.75	0.44
41:BR:37:GLU:OE1	41:BR:37:GLU:O	2.35	0.44
41:BR:42:ALA:CA	41:BR:46:GLU:HB2	2.37	0.44
41:BR:49:ILE:HG22	41:BR:53:PHE:C	2.42	0.44
46:BW:9:THR:HG23	46:BW:10:ARG:CD	2.36	0.44
46:BW:22:VAL:O	46:BW:25:PHE:HD2	2.00	0.44
47:BX:38:TRP:HE3	47:BX:45:PHE:CE2	2.35	0.44
47:BX:58:ILE:HD11	47:BX:66:VAL:HG11	1.99	0.44
49:BZ:30:ARG:HE	49:BZ:30:ARG:HB2	1.45	0.44
1:CB:44:LYS:C	1:CB:47:PRO:HD2	2.42	0.44
1:CB:161:PHE:C	1:CB:162:VAL:HG12	2.43	0.44
4:CE:71:ILE:O	4:CE:71:ILE:HG23	2.16	0.44
5:CF:44:ARG:HD3	5:CF:56:LYS:HZ2	1.80	0.44
6:CG:58:LEU:HD12	6:CG:59:GLU:HG2	2.00	0.44
6:CG:145:GLU:C	6:CG:147:ASN:H	2.24	0.44
9:CJ:76:ILE:HG22	9:CJ:77:VAL:N	2.32	0.44
10:CK:117:HIS:CD2	55:CA:718:A:C5	3.05	0.44
10:CK:117:HIS:O	10:CK:118:ASN:HB2	2.18	0.44
55:CA:19:A:C4	55:CA:20:U:C5	3.06	0.44
55:CA:89:U:O2'	55:CA:90:C:O5'	2.36	0.44
55:CA:391:G:C6	55:CA:392:C:C4	3.05	0.44
55:CA:642:A:C2	55:CA:643:C:N3	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:981:U:C5	55:CA:982:U:C2	3.06	0.44
55:CA:1181:G:O2'	55:CA:1182:G:O4'	2.35	0.44
26:DC:64:VAL:HG22	26:DC:90:ILE:HD11	1.98	0.44
27:DD:49:GLN:NE2	27:DD:79:LEU:HB3	2.33	0.44
27:DD:179:ARG:NH1	39:DP:7:LEU:HD11	2.33	0.44
29:DF:43:ILE:HD13	29:DF:82:TYR:HE2	1.82	0.44
29:DF:111:ARG:H	29:DF:111:ARG:NE	2.16	0.44
30:DG:93:TYR:CD2	30:DG:93:TYR:N	2.67	0.44
30:DG:148:ARG:HB2	30:DG:152:ARG:HH21	1.80	0.44
32:DI:9:LYS:HE3	32:DI:9:LYS:HB3	1.73	0.44
33:DJ:27:ARG:C	33:DJ:30:THR:HG22	2.42	0.44
35:DL:63:LYS:HB3	53:D3:12:ARG:CD	2.46	0.44
37:DN:97:ILE:HG13	37:DN:98:LEU:N	2.31	0.44
43:DT:74:ILE:HG13	43:DT:75:GLY:H	1.81	0.44
44:DU:48:VAL:C	44:DU:50:ALA:H	2.25	0.44
47:DX:31:ASN:ND2	47:DX:31:ASN:N	2.61	0.44
48:DY:23:ARG:O	48:DY:27:ASN:HB2	2.17	0.44
50:D0:38:LEU:HB2	50:D0:41:HIS:NE2	2.32	0.44
51:D1:3:GLY:O	51:D1:4:ILE:HB	2.17	0.44
53:D3:39:ARG:HD2	24:DA:2363:G:OP1	2.17	0.44
24:DA:2:G:C5	24:DA:3:U:C4	3.05	0.44
24:DA:128:C:H2'	24:DA:129:C:H6	1.83	0.44
24:DA:340:A:H2'	24:DA:341:C:H5'	1.99	0.44
24:DA:749:A:O2'	24:DA:750:A:H5'	2.18	0.44
24:DA:1112:G:O2'	24:DA:1113:U:H5'	2.17	0.44
24:DA:1327:A:O2'	24:DA:1328:A:O4'	2.29	0.44
24:DA:1351:C:H2'	24:DA:1352:U:O4'	2.16	0.44
24:DA:1558:C:C2	24:DA:1560:G:C6	3.05	0.44
24:DA:1997:C:HO2'	24:DA:1998:A:H8	1.61	0.44
24:DA:2031:A:C5	24:DA:2498:C:H1'	2.53	0.44
24:DA:2197:U:C2	24:DA:2224:G:C2	3.06	0.44
24:DA:2292:U:C2	24:DA:2293:G:C8	3.06	0.44
24:DA:2312:U:OP1	24:DA:2312:U:C4'	2.65	0.44
24:DA:2357:G:C2	24:DA:2361:G:C5	3.06	0.44
24:DA:2552:U:C2	24:DA:2554:U:C5'	3.00	0.44
24:DA:2590:A:C2	24:DA:2591:C:C4	3.04	0.44
24:DA:2734:A:N7	24:DA:2735:G:C8	2.86	0.44
1:AB:24:PRO:HG3	21:AA:830:G:C4'	2.48	0.44
1:AB:67:LEU:HD21	1:AB:91:VAL:CG2	2.46	0.44
3:AD:62:ARG:NE	3:AD:62:ARG:HA	2.31	0.44
3:AD:82:LYS:HB2	3:AD:82:LYS:HZ2	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:81:GLN:H	4:AE:81:GLN:NE2	2.16	0.44
4:AE:107:GLY:O	4:AE:108:GLY:C	2.60	0.44
5:AF:47:LEU:HB3	17:AR:65:SER:OG	2.18	0.44
6:AG:77:ARG:HA	6:AG:77:ARG:HE	1.82	0.44
7:AH:120:LEU:HB2	7:AH:121:GLY:H	1.64	0.44
8:AI:59:LYS:HB3	8:AI:60:LEU:CD2	2.48	0.44
12:AM:43:LYS:HE2	12:AM:43:LYS:HB3	1.83	0.44
14:AO:42:PHE:HE1	14:AO:55:LEU:CD2	2.29	0.44
14:AO:63:ARG:O	14:AO:67:ASP:OD1	2.35	0.44
16:AQ:28:VAL:O	16:AQ:37:ILE:HD12	2.17	0.44
21:AA:91:U:C5	21:AA:92:U:C4	3.05	0.44
21:AA:213:G:C2'	21:AA:214:C:O5'	2.66	0.44
21:AA:270:A:H2'	21:AA:271:C:C6	2.53	0.44
21:AA:496:A:N3	21:AA:496:A:C2'	2.78	0.44
21:AA:568:G:C6	21:AA:569:C:N4	2.86	0.44
21:AA:575:G:C4	21:AA:881:G:C2	3.05	0.44
21:AA:1142:G:H2'	21:AA:1143:G:O4'	2.17	0.44
21:AA:1534:A:H2'	21:AA:1534:A:N3	2.32	0.44
24:BA:84:A:N6	24:BA:101:A:H2	2.11	0.44
24:BA:257:C:H2'	24:BA:258:G:O4'	2.17	0.44
24:BA:382:A:C5	24:BA:383:C:C6	3.05	0.44
24:BA:400:G:O6	47:BX:56:ARG:NH1	2.51	0.44
24:BA:572:A:C6	24:BA:573:U:C4	3.06	0.44
24:BA:868:U:C4	24:BA:869:G:N7	2.86	0.44
24:BA:1036:G:C6	24:BA:1120:G:C6	3.06	0.44
24:BA:1076:C:H2'	24:BA:1077:A:H8	1.82	0.44
24:BA:1107:G:H2'	24:BA:1108:U:C6	2.50	0.44
24:BA:1753:G:OP1	39:BP:92:ARG:HD3	2.17	0.44
24:BA:1759:A:C8	24:BA:2696:U:O2	2.71	0.44
24:BA:2532:G:C5	24:BA:2533:U:C5	3.06	0.44
24:BA:2592:G:C5	24:BA:2593:U:C5	3.06	0.44
24:BA:2632:A:H2'	24:BA:2633:G:C8	2.53	0.44
24:BA:2692:G:N3	24:BA:2847:U:O2'	2.51	0.44
26:BC:69:ASN:O	26:BC:70:LYS:C	2.59	0.44
27:BD:179:ARG:HB3	27:BD:188:LEU:HD12	1.99	0.44
28:BE:161:ALA:O	28:BE:164:LEU:O	2.34	0.44
34:BK:5:GLN:O	34:BK:6:THR:HB	2.16	0.44
35:BL:131:ALA:O	35:BL:132:ARG:C	2.58	0.44
36:BM:66:ARG:HB2	36:BM:101:VAL:O	2.17	0.44
41:BR:49:ILE:HG22	41:BR:54:VAL:N	2.32	0.44
44:BU:71:ILE:HD12	44:BU:95:PHE:CD2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CC:41:TYR:CD1	2:CC:90:VAL:HG12	2.53	0.44
3:CD:189:ASP:OD1	3:CD:189:ASP:N	2.50	0.44
6:CG:107:ALA:O	6:CG:118:ARG:HB3	2.18	0.44
7:CH:7:ALA:O	7:CH:11:THR:HG23	2.17	0.44
7:CH:95:MET:O	7:CH:96:ALA:C	2.61	0.44
8:CI:29:ILE:O	8:CI:32:ARG:HB2	2.18	0.44
8:CI:117:LEU:HD21	8:CI:123:ARG:HE	1.83	0.44
12:CM:2:ARG:HB3	12:CM:6:ILE:CA	2.45	0.44
16:CQ:71:SER:OG	55:CA:235:C:H5'	2.18	0.44
55:CA:198:G:C4	55:CA:199:A:C8	3.06	0.44
55:CA:601:G:N2	55:CA:638:U:C2	2.85	0.44
55:CA:665:A:C2	55:CA:732:C:C2	3.05	0.44
55:CA:838:G:C4	55:CA:849:G:C2	3.05	0.44
55:CA:1106:G:C6	55:CA:1107:C:C4	3.04	0.44
55:CA:1167:A:C2'	55:CA:1168:U:OP1	2.66	0.44
55:CA:1394:A:OP1	55:CA:1394:A:H8	2.00	0.44
26:DC:19:VAL:O	26:DC:21:PRO:HD3	2.18	0.44
26:DC:171:VAL:HG23	26:DC:185:ALA:CB	2.48	0.44
27:DD:141:ARG:HH11	27:DD:141:ARG:HB3	1.81	0.44
30:DG:94:ARG:NH1	30:DG:105:SER:HB2	2.32	0.44
31:DH:84:ALA:N	31:DH:148:ALA:HA	2.30	0.44
36:DM:1:MET:O	36:DM:2:LEU:C	2.60	0.44
38:DO:2:ASP:O	38:DO:4:LYS:N	2.50	0.44
41:DR:39:LEU:HD22	41:DR:53:PHE:CE1	2.53	0.44
43:DT:68:LYS:HB3	43:DT:69:ARG:H	1.50	0.44
46:DW:37:VAL:C	46:DW:39:GLN:N	2.75	0.44
50:D0:37:HIS:HB2	50:D0:41:HIS:CE1	2.52	0.44
54:D4:24:ARG:HG2	54:D4:36:ARG:HG3	1.99	0.44
24:DA:55:G:N2	24:DA:116:C:C2	2.85	0.44
24:DA:535:G:H2'	24:DA:536:G:O4'	2.17	0.44
24:DA:578:G:N2	24:DA:1252:G:N2	2.66	0.44
24:DA:628:G:C5	24:DA:636:G:N2	2.86	0.44
24:DA:831:G:C6	24:DA:832:U:C4	3.06	0.44
24:DA:948:C:O5'	24:DA:948:C:H6	2.00	0.44
24:DA:1005:C:O2	24:DA:1143:A:C6	2.70	0.44
24:DA:1056:G:OP2	24:DA:1056:G:H3'	2.17	0.44
24:DA:1303:G:HO2'	24:DA:1304:A:H8	1.65	0.44
24:DA:1557:C:C6	24:DA:1558:C:H2'	2.52	0.44
24:DA:1613:G:C6	24:DA:1619:G:O6	2.71	0.44
24:DA:1689:A:H2'	24:DA:1690:A:C8	2.52	0.44
24:DA:1787:A:C2	24:DA:1788:C:C4	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1869:G:H3'	24:DA:1870:C:C5'	2.47	0.44
24:DA:1935:G:H1	24:DA:1962:C:H2'	1.82	0.44
24:DA:2241:A:H2'	24:DA:2242:G:C8	2.51	0.44
24:DA:2516:A:N9	24:DA:2569:G:N2	2.66	0.44
24:DA:2734:A:C8	24:DA:2735:G:C8	3.06	0.44
24:DA:2796:U:C5	24:DA:2798:U:C4	3.06	0.44
56:DB:45:A:C4	56:DB:46:A:C8	3.06	0.44
56:DB:49:C:OP2	56:DB:49:C:C5	2.70	0.44
1:AB:80:LYS:O	1:AB:80:LYS:HG2	2.16	0.44
1:AB:110:ILE:HD12	1:AB:110:ILE:N	2.32	0.44
3:AD:130:ASN:ND2	21:AA:439:U:O2'	2.50	0.44
6:AG:31:VAL:C	6:AG:33:GLY:N	2.75	0.44
9:AJ:41:PRO:O	9:AJ:71:LEU:O	2.35	0.44
9:AJ:52:LEU:HD22	9:AJ:59:LYS:HA	1.98	0.44
12:AM:13:HIS:CE1	12:AM:41:ASP:HB2	2.52	0.44
14:AO:11:VAL:C	14:AO:13:GLU:H	2.25	0.44
18:AS:51:HIS:HB2	18:AS:56:HIS:CD2	2.52	0.44
19:AT:16:ALA:O	19:AT:19:HIS:HB3	2.18	0.44
21:AA:139:A:C5	21:AA:140:U:C5	3.05	0.44
21:AA:214:C:H2'	21:AA:215:C:C6	2.53	0.44
21:AA:686:U:O2'	21:AA:687:A:O4'	2.36	0.44
21:AA:712:A:H2'	21:AA:713:G:C8	2.53	0.44
21:AA:724:G:H2'	21:AA:725:G:C8	2.52	0.44
21:AA:934:C:H5	21:AA:1344:C:C2	2.36	0.44
21:AA:1127:G:O2'	21:AA:1128:C:H5'	2.17	0.44
21:AA:1133:G:N2	21:AA:1142:G:C4	2.86	0.44
21:AA:1166:G:H8	21:AA:1166:G:O5'	2.01	0.44
21:AA:1504:G:OP1	21:AA:1507:A:H4'	2.17	0.44
24:BA:119:A:H4'	24:BA:120:U:O5'	2.16	0.44
24:BA:699:A:H1'	24:BA:1634:A:H2'	2.00	0.44
24:BA:770:G:N3	24:BA:771:G:C8	2.86	0.44
24:BA:1021:A:H61	24:BA:1142:A:N6	2.16	0.44
24:BA:1269:A:H8	24:BA:1269:A:O5'	2.00	0.44
24:BA:1496:A:C8	24:BA:1498:C:N4	2.86	0.44
24:BA:1942:C:C4	24:BA:1943:U:C4	3.05	0.44
24:BA:2328:A:O2'	24:BA:2329:U:O4'	2.23	0.44
24:BA:2392:A:C5	24:BA:2429:G:C5	3.06	0.44
24:BA:2415:G:H4'	35:BL:66:PHE:HB2	1.99	0.44
24:BA:2419:U:OP2	53:B3:32:LEU:HD13	2.18	0.44
24:BA:2574:G:H2'	24:BA:2575:C:O4'	2.18	0.44
24:BA:2739:U:H2'	24:BA:2740:A:H5'	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2862:G:H2'	24:BA:2863:C:C6	2.53	0.44
25:BB:16:G:O2'	25:BB:17:C:C5'	2.66	0.44
29:BF:103:ILE:H	29:BF:103:ILE:HG12	1.68	0.44
30:BG:72:ASN:C	30:BG:72:ASN:HD22	2.24	0.44
31:BH:62:LEU:HD12	31:BH:62:LEU:C	2.42	0.44
32:BI:56:VAL:HG22	32:BI:57:VAL:N	2.32	0.44
32:BI:85:ILE:HD13	32:BI:88:GLY:HA2	2.00	0.44
33:BJ:119:PHE:CD1	33:BJ:119:PHE:C	2.96	0.44
34:BK:108:ARG:O	34:BK:108:ARG:HG3	2.17	0.44
37:BN:55:ALA:HB1	37:BN:80:PHE:N	2.33	0.44
39:BP:15:ASP:OD1	39:BP:15:ASP:C	2.59	0.44
45:BV:80:HIS:HE2	45:BV:83:LYS:HG3	1.81	0.44
46:BW:30:VAL:HG23	46:BW:59:PHE:HD1	1.82	0.44
1:CB:55:GLU:HA	1:CB:58:LYS:HB3	2.00	0.44
2:CC:131:ARG:HA	2:CC:134:LYS:HB3	1.99	0.44
3:CD:29:THR:C	3:CD:31:CYS:H	2.25	0.44
3:CD:32:LYS:HE3	55:CA:413:G:C2	2.53	0.44
3:CD:66:VAL:HG12	3:CD:70:GLN:HB3	1.99	0.44
3:CD:176:LYS:O	3:CD:176:LYS:HG3	2.18	0.44
4:CE:63:MET:O	4:CE:64:GLU:C	2.60	0.44
6:CG:119:LEU:O	6:CG:123:LEU:N	2.50	0.44
8:CI:24:ASN:O	8:CI:61:ASP:HA	2.17	0.44
10:CK:81:LEU:HD13	10:CK:81:LEU:N	2.33	0.44
11:CL:34:THR:HB	11:CL:53:ARG:HB3	1.99	0.44
55:CA:238:A:H3'	55:CA:239:U:H5"	1.98	0.44
55:CA:313:A:C4	55:CA:314:C:C5	3.05	0.44
55:CA:469:C:H2'	55:CA:470:C:O4'	2.18	0.44
55:CA:659:U:H2'	55:CA:660:C:H6	1.83	0.44
55:CA:1116:U:C2'	55:CA:1117:A:H5'	2.48	0.44
27:DD:99:GLU:HG3	27:DD:100:LEU:N	2.33	0.44
29:DF:43:ILE:HG23	29:DF:44:ALA:N	2.24	0.44
29:DF:48:LEU:HB2	29:DF:149:ARG:NH2	2.32	0.44
29:DF:74:ALA:CB	29:DF:76:PHE:CD2	2.96	0.44
35:DL:34:GLY:HA3	24:DA:943:A:OP1	2.17	0.44
40:DQ:8:ILE:O	40:DQ:8:ILE:HG23	2.18	0.44
40:DQ:31:TYR:C	40:DQ:33:VAL:N	2.76	0.44
40:DQ:48:ASP:HA	40:DQ:51:GLN:HB2	2.00	0.44
43:DT:32:LEU:HD23	43:DT:32:LEU:N	2.32	0.44
45:DV:14:LYS:CB	56:DB:98:G:N1	2.68	0.44
45:DV:28:ALA:HA	45:DV:88:HIS:CE1	2.53	0.44
51:D1:29:LYS:HE2	51:D1:31:GLU:OE2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:D4:20:ASP:HA	24:DA:2757:A:OP1	2.18	0.44
24:DA:28:A:HO2'	24:DA:583:G:H5'	1.82	0.44
24:DA:301:G:O2'	24:DA:302:C:C5'	2.66	0.44
24:DA:524:G:H5'	24:DA:539:G:N2	2.32	0.44
24:DA:565:C:H2'	24:DA:566:U:O4'	2.18	0.44
24:DA:743:A:O2'	24:DA:744:U:H5'	2.17	0.44
24:DA:1424:G:C5	24:DA:1425:G:C5	3.06	0.44
24:DA:1495:A:H2'	24:DA:1496:A:C8	2.53	0.44
24:DA:1970:A:H1'	24:DA:1972:G:C8	2.53	0.44
24:DA:1980:G:C5	24:DA:1982:U:O4	2.71	0.44
24:DA:2287:A:C4	24:DA:2289:G:N7	2.86	0.44
24:DA:2308:G:O2'	24:DA:2309:A:P	2.74	0.44
24:DA:2311:A:O3'	24:DA:2312:U:C6	2.71	0.44
24:DA:2345:G:H4'	24:DA:2346:A:C5'	2.48	0.44
24:DA:2423:U:H1'	24:DA:2425:A:C5	2.52	0.44
24:DA:2567:G:H2'	24:DA:2568:U:C6	2.52	0.44
24:DA:2570:G:O2'	24:DA:2571:U:H5'	2.16	0.44
24:DA:2584:U:H5	59:DA:3697:HOH:O	2.01	0.44
24:DA:2865:U:C5	24:DA:2866:U:C2	3.06	0.44
1:AB:63:LYS:HZ3	1:AB:224:ARG:HH22	1.65	0.44
1:AB:108:GLN:HB2	1:AB:111:LYS:HD3	1.98	0.44
1:AB:110:ILE:HD13	1:AB:150:ILE:HD13	1.98	0.44
2:AC:79:LYS:HE3	2:AC:79:LYS:HA	2.00	0.44
2:AC:129:PHE:CZ	2:AC:130:ARG:CD	3.01	0.44
3:AD:166:LYS:HB3	3:AD:166:LYS:NZ	2.33	0.44
4:AE:152:VAL:HG21	4:AE:156:ARG:CZ	2.48	0.44
4:AE:155:LYS:HD3	7:AH:70:VAL:HG21	1.99	0.44
4:AE:155:LYS:CD	4:AE:156:ARG:HG2	2.38	0.44
5:AF:8:PHE:H	5:AF:8:PHE:HD2	1.66	0.44
8:AI:51:LEU:HB3	8:AI:56:MET:HG3	1.99	0.44
8:AI:79:ARG:NH1	8:AI:102:PHE:CD1	2.86	0.44
9:AJ:6:ILE:HD11	9:AJ:79:PRO:HA	1.99	0.44
10:AK:22:ILE:CG1	10:AK:85:VAL:HA	2.45	0.44
10:AK:121:ARG:HA	10:AK:122:PRO:HD2	1.82	0.44
10:AK:126:ARG:HB2	20:AU:33:ARG:NH1	2.32	0.44
11:AL:113:ARG:O	11:AL:114:SER:C	2.60	0.44
17:AR:21:ASP:OD1	17:AR:23:LYS:HG3	2.18	0.44
17:AR:61:ALA:O	17:AR:66:LEU:HB2	2.17	0.44
19:AT:26:MET:CE	19:AT:30:PHE:HE1	2.30	0.44
21:AA:11:G:C6	21:AA:12:U:C4	3.05	0.44
21:AA:49:U:O4	21:AA:365:U:H5	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:266:G:O2'	21:AA:267:C:P	2.76	0.44
21:AA:511:C:C4	21:AA:512:U:C4	3.06	0.44
21:AA:636:U:O2'	21:AA:637:C:H5'	2.18	0.44
21:AA:664:G:H22	21:AA:741:G:H1	1.65	0.44
21:AA:1088:G:N2	21:AA:1089:G:C4	2.86	0.44
21:AA:1158:C:O2	21:AA:1158:C:C2'	2.64	0.44
21:AA:1323:G:H2'	21:AA:1324:A:H8	1.81	0.44
24:BA:447:A:C5	24:BA:473:G:C5	3.05	0.44
24:BA:604:G:C6	24:BA:625:G:C2	3.05	0.44
24:BA:643:A:C2	24:BA:644:A:C4	3.06	0.44
24:BA:954:G:C5	24:BA:955:U:C4	3.06	0.44
24:BA:1018:U:N3	24:BA:1019:U:C5	2.86	0.44
24:BA:1070:A:C2	24:BA:1097:U:H4'	2.53	0.44
24:BA:1229:C:H2'	24:BA:1230:A:H8	1.82	0.44
24:BA:1486:U:H2'	24:BA:1487:U:H6	1.82	0.44
24:BA:1714:U:C6	24:BA:1714:U:C5'	3.01	0.44
24:BA:1866:A:H61	24:BA:1875:G:C2'	2.31	0.44
24:BA:1885:A:H2'	24:BA:1886:U:O4'	2.17	0.44
24:BA:1901:A:O2'	24:BA:1902:C:H5'	2.18	0.44
24:BA:2037:A:H2'	24:BA:2038:G:H8	1.76	0.44
24:BA:2051:A:H8	24:BA:2051:A:OP2	2.01	0.44
24:BA:2290:G:N2	24:BA:2343:U:H1'	2.32	0.44
24:BA:2725:A:H2'	24:BA:2727:A:N7	2.33	0.44
24:BA:2823:A:C2'	24:BA:2824:C:H5'	2.48	0.44
27:BD:186:LEU:HA	27:BD:186:LEU:HD12	1.78	0.44
28:BE:175:ILE:O	28:BE:175:ILE:HG23	2.16	0.44
30:BG:38:ASP:OD1	30:BG:38:ASP:N	2.51	0.44
32:BI:78:LEU:HD13	32:BI:108:ILE:CG2	2.44	0.44
34:BK:51:LYS:HG3	34:BK:95:ILE:CG1	2.48	0.44
34:BK:59:LYS:HG3	34:BK:89:ASN:ND2	2.33	0.44
37:BN:69:ARG:C	37:BN:70:THR:HG23	2.43	0.44
38:BO:71:ALA:C	38:BO:73:ALA:N	2.75	0.44
40:BQ:116:LEU:HD12	40:BQ:116:LEU:HA	1.92	0.44
43:BT:34:VAL:HG21	43:BT:43:ILE:HD12	2.00	0.44
46:BW:67:LYS:HG3	46:BW:69:GLU:HG3	1.99	0.44
48:BY:7:ARG:N	48:BY:60:LYS:NZ	2.59	0.44
53:B3:11:LYS:C	53:B3:12:ARG:HG3	2.42	0.44
1:CB:53:LEU:CD1	1:CB:219:THR:HG21	2.48	0.44
1:CB:100:LEU:C	1:CB:102:ASN:N	2.75	0.44
3:CD:192:ALA:C	3:CD:194:ILE:N	2.76	0.44
4:CE:148:SER:O	4:CE:151:MET:N	2.39	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CG:94:ARG:HB3	6:CG:98:LEU:CD1	2.48	0.44
6:CG:118:ARG:CZ	55:CA:1239:A:H3'	2.46	0.44
8:CI:27:ILE:HD13	8:CI:62:LEU:CB	2.46	0.44
10:CK:63:GLN:HB2	10:CK:98:ALA:CB	2.48	0.44
12:CM:78:ARG:HD2	18:CS:64:GLU:HB3	1.99	0.44
13:CN:25:GLU:HA	13:CN:28:ALA:CB	2.48	0.44
19:CT:35:TYR:OH	55:CA:259:G:P	2.76	0.44
55:CA:84:U:C2	55:CA:87:C:H1'	2.52	0.44
55:CA:119:A:N7	55:CA:240:G:C6	2.86	0.44
55:CA:202:G:N2	55:CA:465:A:H61	2.13	0.44
55:CA:236:A:H2'	55:CA:237:G:H8	1.83	0.44
55:CA:273:U:C4	55:CA:274:A:N7	2.86	0.44
55:CA:495:A:H4'	55:CA:496:A:C5'	2.47	0.44
55:CA:602:A:O2'	55:CA:603:U:H5'	2.17	0.44
55:CA:676:A:H2'	55:CA:677:U:H6	1.83	0.44
55:CA:758:C:H4'	55:CA:880:C:O2'	2.18	0.44
55:CA:1288:A:O2'	55:CA:1289:A:O4'	2.35	0.44
55:CA:1348:U:O2'	55:CA:1349:A:H8	2.00	0.44
55:CA:1400:C:C6	22:CV:34:C:N3	2.85	0.44
55:CA:1473:G:H2'	55:CA:1474:U:O4'	2.17	0.44
55:CA:1511:G:H2'	55:CA:1512:U:O4'	2.18	0.44
26:DC:44:ASN:O	26:DC:46:GLY:N	2.50	0.44
26:DC:67:LYS:CB	26:DC:150:GLY:HA2	2.46	0.44
26:DC:175:LEU:O	26:DC:178:GLY:N	2.37	0.44
27:DD:107:VAL:HG11	27:DD:189:VAL:HG11	2.00	0.44
28:DE:119:ILE:CD1	28:DE:143:LEU:HD21	2.48	0.44
28:DE:162:ARG:C	28:DE:164:LEU:H	2.25	0.44
30:DG:6:ALA:HA	30:DG:7:PRO:HD3	1.64	0.44
31:DH:83:LYS:HZ2	31:DH:90:LEU:HD23	1.83	0.44
32:DI:22:PRO:HB2	32:DI:23:VAL:H	1.58	0.44
34:DK:60:ALA:HA	34:DK:87:LEU:HD21	1.98	0.44
35:DL:41:ARG:O	35:DL:42:SER:C	2.60	0.44
35:DL:77:ILE:O	35:DL:110:VAL:O	2.35	0.44
35:DL:78:ARG:NH2	24:DA:627:A:OP1	2.51	0.44
36:DM:25:ASP:OD2	45:DV:79:ARG:HD2	2.17	0.44
39:DP:91:VAL:O	39:DP:92:ARG:HB3	2.18	0.44
43:DT:53:VAL:HG21	43:DT:92:ASN:HD22	1.81	0.44
46:DW:14:ASP:C	46:DW:16:GLU:N	2.75	0.44
47:DX:1:SER:HB2	24:DA:1364:G:N7	2.32	0.44
54:D4:9:LYS:O	54:D4:9:LYS:HD3	2.18	0.44
54:D4:27:CYS:CB	54:D4:33:HIS:HB2	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:93:G:C4	24:DA:94:A:C8	3.06	0.44
24:DA:160:A:N6	24:DA:167:A:H1'	2.33	0.44
24:DA:181:A:N3	24:DA:181:A:H2'	2.33	0.44
24:DA:310:A:HO2'	24:DA:311:A:H8	1.63	0.44
24:DA:363:G:H2'	24:DA:364:C:C6	2.52	0.44
24:DA:587:C:H5"	24:DA:588:U:H5'	1.99	0.44
24:DA:919:U:H2'	24:DA:920:A:O4'	2.18	0.44
24:DA:1182:G:C6	24:DA:1183:U:N3	2.86	0.44
24:DA:1269:A:OP2	59:DA:3399:HOH:O	2.21	0.44
24:DA:1572:A:O2'	24:DA:1573:G:H5'	2.18	0.44
24:DA:1585:C:H2'	24:DA:1586:A:O5'	2.17	0.44
24:DA:1641:A:H2'	24:DA:1642:G:O4'	2.18	0.44
24:DA:1708:C:H2'	24:DA:1709:U:C6	2.53	0.44
24:DA:1788:C:O5'	24:DA:1788:C:H6	2.01	0.44
24:DA:1809:A:C2	24:DA:1810:A:C5	3.06	0.44
24:DA:1817:G:C2'	24:DA:1818:U:H5'	2.47	0.44
24:DA:1838:C:H5"	24:DA:1839:G:OP1	2.17	0.44
24:DA:1981:A:H8	24:DA:1981:A:H2'	1.68	0.44
24:DA:2056:G:C2	24:DA:2057:G:C8	3.06	0.44
24:DA:2097:A:C4	24:DA:2098:U:C5	3.06	0.44
24:DA:2141:G:H2'	24:DA:2142:A:H8	1.80	0.44
24:DA:2155:U:H6	24:DA:2155:U:OP2	2.00	0.44
24:DA:2212:A:C8	24:DA:2214:C:C5	3.06	0.44
24:DA:2348:U:O2'	24:DA:2349:G:O4'	2.23	0.44
24:DA:2508:G:C6	24:DA:2582:G:O6	2.70	0.44
56:DB:73:A:C4	56:DB:104:A:N1	2.86	0.44
1:AB:29:PHE:O	1:AB:41:ASN:HB2	2.18	0.44
4:AE:155:LYS:HZ2	4:AE:156:ARG:CG	2.31	0.44
5:AF:16:GLU:C	5:AF:18:VAL:H	2.24	0.44
11:AL:21:PRO:O	11:AL:23:LEU:N	2.50	0.44
13:AN:92:ILE:HG21	13:AN:95:LEU:HD22	2.00	0.44
15:AP:5:ARG:HB3	15:AP:68:SER:OG	2.18	0.44
15:AP:35:ARG:HH21	15:AP:51:ARG:NH1	2.16	0.44
21:AA:184:G:HO2'	21:AA:185:U:H6	1.65	0.44
21:AA:320:A:H2'	21:AA:321:A:C8	2.52	0.44
21:AA:765:G:C6	21:AA:812:G:C4	3.06	0.44
21:AA:1262:C:C5	21:AA:1263:C:C5	3.05	0.44
21:AA:1519:A:C8	21:AA:1520:C:H1'	2.53	0.44
24:BA:255:A:N1	24:BA:256:A:C4	2.86	0.44
24:BA:669:G:C4	24:BA:801:G:C6	3.06	0.44
24:BA:749:A:C5	24:BA:1618:A:C2	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:795:C:H2'	24:BA:796:C:C6	2.53	0.44
24:BA:1001:A:H2'	24:BA:1002:G:H5'	1.99	0.44
24:BA:1026:G:C4	24:BA:1027:A:N7	2.85	0.44
24:BA:1086:A:H4'	24:BA:1103:A:N1	2.33	0.44
24:BA:1107:G:O2'	24:BA:1108:U:H5'	2.17	0.44
24:BA:1331:G:C4	24:BA:1333:G:C8	3.06	0.44
24:BA:1865:U:C4	24:BA:1875:G:C2	3.06	0.44
24:BA:1921:G:H2'	24:BA:1922:G:O4'	2.17	0.44
24:BA:2246:G:N2	24:BA:2426:A:C1'	2.80	0.44
24:BA:2280:G:H2'	24:BA:2280:G:N3	2.32	0.44
24:BA:2305:U:H6	29:BF:152:ASP:HB3	1.82	0.44
24:BA:2308:G:C6	29:BF:76:PHE:CE2	2.96	0.44
24:BA:2328:A:H2'	24:BA:2329:U:H6	1.81	0.44
26:BC:124:LYS:O	26:BC:125:PRO:C	2.61	0.44
26:BC:151:GLY:O	26:BC:152:GLN:HG3	2.18	0.44
30:BG:61:TRP:HA	30:BG:61:TRP:CE3	2.53	0.44
33:BJ:84:ILE:O	33:BJ:84:ILE:CG2	2.64	0.44
34:BK:4:GLU:HA	34:BK:21:CYS:SG	2.58	0.44
35:BL:82:LEU:HD23	35:BL:83:ALA:N	2.33	0.44
36:BM:78:LEU:O	36:BM:80:VAL:N	2.51	0.44
37:BN:93:GLY:C	37:BN:95:THR:H	2.24	0.44
40:BQ:105:PHE:O	40:BQ:108:LEU:HB2	2.18	0.44
42:BS:70:LYS:O	42:BS:72:THR:HG23	2.17	0.44
42:BS:97:LEU:N	42:BS:97:LEU:CD2	2.79	0.44
44:BU:48:VAL:O	44:BU:53:GLN:HB3	2.18	0.44
1:CB:102:ASN:O	1:CB:104:LYS:N	2.51	0.44
2:CC:18:ASN:HD21	2:CC:53:ARG:HD3	1.83	0.44
2:CC:76:ILE:HG23	2:CC:80:GLY:HA2	1.98	0.44
6:CG:77:ARG:NE	55:CA:1381:U:H3	2.16	0.44
6:CG:78:ARG:HB2	6:CG:82:SER:O	2.18	0.44
6:CG:104:VAL:HA	6:CG:107:ALA:HB2	1.99	0.44
8:CI:24:ASN:O	8:CI:26:LYS:HG2	2.17	0.44
10:CK:124:LYS:HA	20:CU:34:ARG:CB	2.47	0.44
12:CM:36:ALA:HB2	12:CM:55:LEU:HD21	1.99	0.44
13:CN:80:ARG:HG2	13:CN:81:ILE:N	2.33	0.44
55:CA:79:G:N3	55:CA:80:A:N7	2.66	0.44
55:CA:397:A:N3	55:CA:397:A:C3'	2.77	0.44
55:CA:524:G:H2'	55:CA:525:C:C6	2.52	0.44
55:CA:926:G:H2'	55:CA:1505:G:N3	2.32	0.44
55:CA:1366:C:HO2'	55:CA:1367:C:H6	1.61	0.44
26:DC:84:PRO:HG3	24:DA:1567:G:H3'	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DC:131:MET:HA	26:DC:134:ILE:HG12	1.98	0.44
27:DD:148:GLN:O	24:DA:2575:C:H4'	2.17	0.44
34:DK:2:ILE:HD12	34:DK:2:ILE:N	2.33	0.44
35:DL:103:ILE:HD12	35:DL:103:ILE:H	1.83	0.44
41:DR:20:VAL:O	41:DR:95:ASP:HA	2.18	0.44
43:DT:29:THR:CA	43:DT:87:LEU:HB2	2.46	0.44
43:DT:31:VAL:C	43:DT:32:LEU:HD23	2.42	0.44
45:DV:61:LEU:HG	45:DV:72:VAL:O	2.17	0.44
50:D0:15:ARG:NH2	24:DA:1264:A:H5"	2.33	0.44
24:DA:140:C:O2'	24:DA:141:G:P	2.75	0.44
24:DA:272:A:O2'	24:DA:273:G:O5'	2.36	0.44
24:DA:277:G:H4'	24:DA:278:A:C8	2.53	0.44
24:DA:1270:C:C4	24:DA:1648:U:H5	2.35	0.44
24:DA:1311:G:HO2'	24:DA:1312:U:H6	1.55	0.44
24:DA:1488:C:H2'	24:DA:1489:C:O4'	2.18	0.44
24:DA:1538:G:O2'	24:DA:1539:U:O5'	2.35	0.44
24:DA:1548:A:C6	24:DA:1549:A:C5	3.05	0.44
24:DA:1624:U:H2'	24:DA:1625:C:H6	1.83	0.44
24:DA:2051:A:H2'	24:DA:2614:A:H61	1.83	0.44
24:DA:2093:G:C6	24:DA:2225:A:N7	2.86	0.44
24:DA:2105:U:H2'	24:DA:2105:U:O2	2.18	0.44
24:DA:2147:A:H4'	24:DA:2148:G:C8	2.52	0.44
24:DA:2311:A:H3'	24:DA:2312:U:C6	2.53	0.44
24:DA:2570:G:C5	24:DA:2571:U:C5	3.05	0.44
24:DA:2698:U:H2'	24:DA:2699:C:C6	2.52	0.44
24:DA:2751:G:O2'	24:DA:2752:C:H5'	2.18	0.44
1:AB:136:ARG:HD3	1:AB:139:GLU:OE1	2.18	0.44
2:AC:83:VAL:O	2:AC:86:LEU:HB2	2.18	0.44
2:AC:139:ASN:HD22	2:AC:139:ASN:H	1.66	0.44
2:AC:192:TYR:HA	21:AA:1206:G:O2'	2.17	0.44
3:AD:34:GLU:CD	3:AD:34:GLU:C	2.86	0.44
4:AE:31:SER:HA	4:AE:53:ARG:HA	2.00	0.44
4:AE:116:VAL:C	4:AE:118:GLY:N	2.75	0.44
6:AG:15:PRO:HG2	6:AG:43:TYR:OH	2.17	0.44
8:AI:42:THR:O	8:AI:43:ALA:HB2	2.17	0.44
9:AJ:15:HIS:CG	9:AJ:16:ARG:N	2.85	0.44
10:AK:63:GLN:HG3	10:AK:98:ALA:HB2	1.98	0.44
15:AP:17:TYR:N	15:AP:17:TYR:CD1	2.86	0.44
16:AQ:11:VAL:HG21	16:AQ:53:GLY:O	2.18	0.44
16:AQ:22:VAL:HG12	16:AQ:24:ILE:HG13	2.00	0.44
21:AA:161:A:C6	21:AA:162:A:C6	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:448:A:H2'	21:AA:449:G:O4'	2.18	0.44
21:AA:625:U:O2'	21:AA:626:G:H5'	2.18	0.44
21:AA:1225:A:H2'	21:AA:1225:A:N3	2.33	0.44
21:AA:1323:G:C4	21:AA:1324:A:N7	2.86	0.44
21:AA:1423:G:O2'	21:AA:1424:U:H5'	2.18	0.44
21:AA:1493:A:H2'	21:AA:1494:G:C5'	2.47	0.44
21:AA:1499:A:H1'	21:AA:1520:C:O5'	2.17	0.44
21:AA:1512:U:C2	21:AA:1513:A:C8	3.05	0.44
24:BA:26:G:O2'	24:BA:27:G:H5'	2.18	0.44
24:BA:77:G:C4	24:BA:110:G:C2	3.06	0.44
24:BA:118:A:N7	24:BA:119:A:C8	2.86	0.44
24:BA:327:G:N2	44:BU:67:SER:OG	2.51	0.44
24:BA:482:A:N6	24:BA:506:G:H1'	2.32	0.44
24:BA:514:A:C2	24:BA:515:A:C2	3.06	0.44
24:BA:633:A:H8	24:BA:633:A:C5'	2.31	0.44
24:BA:729:G:C6	26:BC:206:LYS:HB2	2.52	0.44
24:BA:1090:A:N6	24:BA:1102:C:N3	2.65	0.44
24:BA:1177:G:H2'	24:BA:1178:C:O4'	2.18	0.44
24:BA:1213:A:N7	24:BA:1237:A:C5	2.86	0.44
24:BA:1220:G:H2'	24:BA:1221:C:O4'	2.18	0.44
24:BA:1229:C:H2'	24:BA:1230:A:C8	2.53	0.44
24:BA:1886:U:H2'	24:BA:1887:C:C6	2.53	0.44
24:BA:1997:C:O2'	24:BA:1998:A:C5'	2.66	0.44
24:BA:2064:C:H2'	24:BA:2065:C:C5	2.52	0.44
24:BA:2259:U:C4	24:BA:2260:C:C5	3.06	0.44
24:BA:2286:G:H5"	24:BA:2287:A:O5'	2.17	0.44
24:BA:2392:A:N9	24:BA:2429:G:C6	2.86	0.44
24:BA:2512:C:H2'	24:BA:2513:A:O4'	2.18	0.44
24:BA:2574:G:C5	24:BA:2575:C:C5	3.06	0.44
24:BA:2701:U:H3'	24:BA:2702:G:H5"	2.00	0.44
24:BA:2748:A:C6	24:BA:2757:A:N7	2.86	0.44
26:BC:29:PHE:CZ	26:BC:31:PRO:CG	3.01	0.44
30:BG:120:ILE:HD13	30:BG:120:ILE:C	2.43	0.44
31:BH:137:GLU:HG3	31:BH:138:VAL:N	2.32	0.44
33:BJ:21:THR:C	33:BJ:23:LYS:H	2.26	0.44
33:BJ:64:VAL:CG1	33:BJ:65:THR:N	2.80	0.44
35:BL:14:LYS:O	35:BL:15:ALA:O	2.35	0.44
36:BM:126:ILE:O	36:BM:127:LYS:C	2.61	0.44
37:BN:77:ALA:O	37:BN:81:ASN:HB2	2.18	0.44
41:BR:46:GLU:HG2	41:BR:47:VAL:N	2.32	0.44
43:BT:39:THR:HG22	43:BT:41:ALA:HB3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CC:32:LEU:HD22	2:CC:36:PHE:HZ	1.83	0.44
7:CH:65:PHE:CE2	7:CH:66:GLN:HG2	2.52	0.44
10:CK:22:ILE:HA	10:CK:22:ILE:HD12	1.71	0.44
12:CM:62:PHE:O	12:CM:64:VAL:HG23	2.18	0.44
13:CN:66:THR:CG2	13:CN:82:LYS:HE3	2.47	0.44
16:CQ:60:ILE:HG12	16:CQ:72:TRP:CE3	2.53	0.44
55:CA:207:C:O2	55:CA:207:C:H2'	2.17	0.44
55:CA:257:G:C2	55:CA:258:G:C5	3.06	0.44
55:CA:358:U:H2'	55:CA:359:G:C8	2.53	0.44
55:CA:627:G:H2'	55:CA:628:G:H8	1.83	0.44
55:CA:655:A:H2'	55:CA:656:G:O4'	2.18	0.44
55:CA:1299:A:N3	55:CA:1299:A:C2'	2.75	0.44
26:DC:43:ASN:CG	26:DC:44:ASN:N	2.75	0.44
27:DD:23:PRO:HB3	24:DA:2682:A:C2	2.52	0.44
27:DD:34:VAL:CG1	27:DD:48:ILE:HD11	2.46	0.44
29:DF:46:LYS:HD3	29:DF:46:LYS:C	2.43	0.44
29:DF:128:SER:HA	29:DF:153:ILE:O	2.18	0.44
29:DF:136:ILE:CG2	29:DF:142:TYR:HB2	2.48	0.44
30:DG:168:VAL:HG12	30:DG:168:VAL:O	2.17	0.44
32:DI:132:ALA:C	32:DI:134:SER:H	2.26	0.44
38:DO:30:ARG:HA	38:DO:35:ILE:HD13	1.99	0.44
38:DO:45:SER:CA	56:DB:112:G:H21	2.28	0.44
39:DP:16:VAL:HA	39:DP:17:PRO:HD3	1.68	0.44
40:DQ:57:ARG:NH1	24:DA:1154:G:OP2	2.51	0.44
43:DT:55:VAL:HG22	43:DT:56:GLU:N	2.33	0.44
44:DU:90:LYS:HB2	44:DU:92:VAL:CG1	2.48	0.44
45:DV:30:ILE:O	45:DV:31:TYR:HB3	2.18	0.44
46:DW:9:THR:HG23	46:DW:10:ARG:CG	2.32	0.44
24:DA:193:U:C4	24:DA:194:G:N7	2.86	0.44
24:DA:197:A:C8	24:DA:2430:A:N7	2.85	0.44
24:DA:656:G:O5'	24:DA:656:G:C8	2.64	0.44
24:DA:823:C:H2'	24:DA:824:U:C6	2.53	0.44
24:DA:991:C:OP2	24:DA:1186:G:OP2	2.35	0.44
24:DA:1039:A:C2	24:DA:1040:A:C4	3.05	0.44
24:DA:1142:A:C4	24:DA:1144:A:C8	3.06	0.44
24:DA:1267:U:O2'	24:DA:1268:A:C5'	2.66	0.44
24:DA:1370:C:O4'	24:DA:1810:A:H2	2.01	0.44
24:DA:1643:G:C6	24:DA:1644:C:C5	3.06	0.44
24:DA:1996:C:O2'	24:DA:1997:C:O4'	2.31	0.44
24:DA:2639:A:H2'	24:DA:2640:G:O4'	2.18	0.44
24:DA:2659:G:N2	24:DA:2661:G:H5"	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DB:45:A:C4	56:DB:46:A:N7	2.86	0.44
1:AB:30:ILE:HA	1:AB:40:ILE:C	2.43	0.43
1:AB:56:LEU:C	1:AB:56:LEU:HD13	2.43	0.43
1:AB:60:ALA:O	1:AB:224:ARG:N	2.50	0.43
2:AC:111:ASP:O	2:AC:115:VAL:HG23	2.18	0.43
3:AD:36:ALA:C	3:AD:38:GLY:N	2.73	0.43
4:AE:84:VAL:CB	4:AE:146:MET:HE3	2.40	0.43
5:AF:18:VAL:HB	5:AF:19:PRO:HD2	2.00	0.43
7:AH:103:VAL:O	7:AH:109:VAL:HG13	2.18	0.43
8:AI:6:TYR:OH	21:AA:1148:U:H5'	2.18	0.43
8:AI:12:LYS:O	8:AI:13:SER:HB3	2.18	0.43
10:AK:56:LYS:C	10:AK:58:THR:H	2.26	0.43
12:AM:21:ILE:HB	12:AM:24:VAL:HG21	1.99	0.43
16:AQ:46:HIS:CD2	16:AQ:48:GLU:HB2	2.53	0.43
17:AR:55:ALA:O	17:AR:59:LYS:HG3	2.18	0.43
18:AS:44:ILE:HA	18:AS:61:VAL:HB	1.99	0.43
21:AA:76:G:N1	21:AA:95:C:N4	2.66	0.43
21:AA:109:A:C4	21:AA:327:A:C2	3.06	0.43
21:AA:122:G:H2'	21:AA:123:U:C6	2.53	0.43
21:AA:599:C:H2'	21:AA:600:A:H8	1.83	0.43
21:AA:724:G:H2'	21:AA:725:G:H8	1.83	0.43
21:AA:1072:G:C6	21:AA:1104:G:C6	3.06	0.43
21:AA:1238:A:C2	21:AA:1241:G:H1'	2.52	0.43
21:AA:1337:G:H8	21:AA:1337:G:H2'	1.55	0.43
24:BA:223:A:C6	24:BA:422:A:C5	3.06	0.43
24:BA:478:A:C6	24:BA:480:A:C6	3.06	0.43
24:BA:480:A:H3'	24:BA:481:G:C5'	2.48	0.43
24:BA:483:A:H2'	24:BA:484:C:O4'	2.18	0.43
24:BA:656:G:C8	24:BA:656:G:C5'	2.99	0.43
24:BA:863:A:H2'	24:BA:864:G:C8	2.52	0.43
24:BA:995:C:N3	33:BJ:2:LYS:HA	2.33	0.43
24:BA:1019:U:H2'	24:BA:1020:A:C8	2.53	0.43
24:BA:1022:G:C6	24:BA:1140:C:C4	3.06	0.43
24:BA:1291:C:C2'	24:BA:1292:G:H5'	2.47	0.43
24:BA:1300:G:H4'	24:BA:1301:A:H5'	2.00	0.43
24:BA:1330:C:O2'	24:BA:1331:G:C5'	2.46	0.43
24:BA:1438:U:C2'	24:BA:1439:A:H5'	2.48	0.43
24:BA:1669:A:N3	24:BA:1669:A:C2'	2.80	0.43
24:BA:1687:G:C5	24:BA:1688:U:H5	2.35	0.43
24:BA:1900:A:H2	24:BA:1970:A:C2	2.35	0.43
24:BA:2564:A:C6	24:BA:2565:A:N1	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2564:A:OP1	24:BA:2648:G:H4'	2.18	0.43
24:BA:2880:C:H2'	24:BA:2881:U:C6	2.52	0.43
25:BB:38:C:H2'	25:BB:39:A:C8	2.53	0.43
26:BC:16:VAL:N	26:BC:203:VAL:CG1	2.81	0.43
27:BD:16:THR:O	27:BD:17:GLU:C	2.61	0.43
27:BD:57:ALA:O	27:BD:60:VAL:HG12	2.17	0.43
27:BD:85:ALA:O	27:BD:86:GLU:CB	2.66	0.43
28:BE:154:ASP:C	28:BE:154:ASP:OD2	2.60	0.43
29:BF:33:ILE:O	29:BF:90:LEU:HB2	2.18	0.43
30:BG:6:ALA:O	30:BG:7:PRO:O	2.36	0.43
30:BG:93:TYR:HD2	30:BG:93:TYR:HA	1.67	0.43
34:BK:3:GLN:C	34:BK:21:CYS:HG	2.26	0.43
34:BK:49:ARG:O	34:BK:50:GLY:O	2.36	0.43
35:BL:64:PHE:CD1	35:BL:64:PHE:O	2.71	0.43
36:BM:12:MET:HB2	36:BM:72:PRO:CD	2.48	0.43
39:BP:80:VAL:O	39:BP:82:SER:N	2.46	0.43
40:BQ:47:ARG:O	40:BQ:50:ARG:HB2	2.17	0.43
46:BW:71:LYS:O	46:BW:75:ASN:O	2.36	0.43
47:BX:44:ARG:HG2	47:BX:45:PHE:N	2.32	0.43
51:B1:46:VAL:HG12	51:B1:47:ILE:N	2.33	0.43
1:CB:34:ARG:HD3	1:CB:35:ASN:HB2	1.99	0.43
1:CB:139:GLU:O	1:CB:140:LEU:C	2.60	0.43
2:CC:13:ILE:HG22	2:CC:14:VAL:HG23	1.99	0.43
6:CG:108:ARG:HH22	55:CA:1240:U:C3'	2.30	0.43
9:CJ:6:ILE:HB	9:CJ:76:ILE:HB	1.98	0.43
10:CK:22:ILE:CB	10:CK:85:VAL:HG22	2.47	0.43
12:CM:52:ILE:C	12:CM:54:THR:N	2.76	0.43
13:CN:2:LYS:O	13:CN:5:MET:HB2	2.18	0.43
13:CN:55:SER:C	13:CN:57:SER:N	2.76	0.43
15:CP:6:LEU:HG	15:CP:6:LEU:H	1.76	0.43
18:CS:20:LYS:HD3	18:CS:20:LYS:C	2.43	0.43
18:CS:38:THR:HG1	18:CS:40:PHE:HD1	1.65	0.43
19:CT:34:VAL:O	19:CT:37:ALA:HB3	2.18	0.43
20:CU:22:CYS:O	20:CU:23:GLU:O	2.36	0.43
55:CA:80:A:C5	55:CA:81:A:H1'	2.51	0.43
55:CA:198:G:C6	55:CA:220:G:N3	2.85	0.43
55:CA:781:A:H2'	55:CA:782:A:O5'	2.17	0.43
55:CA:1036:A:O2'	55:CA:1037:C:H5'	2.17	0.43
55:CA:1055:A:C8	55:CA:1206:G:C2	3.06	0.43
55:CA:1495:U:O2	24:DA:1919:A:H2	2.00	0.43
55:CA:1499:A:H2'	55:CA:1500:A:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:55:SER:CB	24:DA:468:G:H5”	2.47	0.43
31:DH:73:ASN:C	31:DH:75:LEU:H	2.25	0.43
35:DL:85:VAL:O	35:DL:85:VAL:HG22	2.18	0.43
35:DL:90:VAL:HB	35:DL:122:VAL:HA	2.00	0.43
36:DM:66:ARG:CZ	36:DM:101:VAL:HG11	2.48	0.43
39:DP:105:LYS:HA	39:DP:108:ARG:NE	2.33	0.43
42:DS:8:ARG:HB3	42:DS:102:HIS:CE1	2.54	0.43
43:DT:4:GLU:HG3	43:DT:6:ARG:HH21	1.82	0.43
48:DY:55:THR:HG21	24:DA:77:G:O4’	2.18	0.43
24:DA:361:G:HO2’	24:DA:362:A:P	2.41	0.43
24:DA:668:A:N3	24:DA:670:A:N6	2.66	0.43
24:DA:815:C:C2	24:DA:816:C:C5	3.06	0.43
24:DA:1616:A:H4’	24:DA:1617:C:OP2	2.18	0.43
24:DA:1915:U:O2’	24:DA:1916:A:H5’	2.18	0.43
24:DA:1934:C:H4’	24:DA:1974:C:O3’	2.17	0.43
24:DA:2482:A:O2’	24:DA:2483:C:H5’	2.17	0.43
24:DA:2665:A:C2	24:DA:2666:C:N3	2.86	0.43
2:AC:41:TYR:CD1	2:AC:41:TYR:C	2.96	0.43
12:AM:7:ASN:C	12:AM:9:PRO:HD3	2.43	0.43
12:AM:100:ARG:CZ	21:AA:950:U:C5	3.01	0.43
19:AT:25:SER:O	19:AT:28:ARG:HG3	2.17	0.43
21:AA:253:A:H2’	21:AA:254:G:H8	1.83	0.43
21:AA:782:A:H4’	21:AA:1514:G:O2’	2.17	0.43
21:AA:922:G:C5	21:AA:923:A:C5	3.05	0.43
21:AA:986:U:H2’	21:AA:987:G:O4’	2.18	0.43
21:AA:1502:A:H8	21:AA:1505:G:N2	2.14	0.43
24:BA:374:A:H61	24:BA:400:G:H1’	1.83	0.43
24:BA:477:A:C2’	24:BA:478:A:C8	2.94	0.43
24:BA:1152:C:H2’	24:BA:1153:C:C6	2.53	0.43
24:BA:1257:C:O5’	24:BA:1257:C:H6	2.01	0.43
24:BA:1347:A:O2’	24:BA:1348:C:H5’	2.18	0.43
24:BA:1477:A:H2’	24:BA:1478:G:O4’	2.18	0.43
24:BA:1537:G:H5”	24:BA:1537:G:N3	2.33	0.43
24:BA:1814:G:C6	24:BA:1815:A:C6	3.06	0.43
24:BA:1979:U:H2’	24:BA:1980:G:H5’	2.00	0.43
24:BA:2055:C:C4	59:BA:3539:HOH:O	2.70	0.43
24:BA:2636:C:H2’	24:BA:2637:U:C6	2.53	0.43
24:BA:2663:G:C6	24:BA:2664:G:C4	3.06	0.43
24:BA:2701:U:H3’	24:BA:2702:G:C5’	2.49	0.43
25:BB:79:G:C4	25:BB:80:U:C6	3.06	0.43
26:BC:15:VAL:HA	26:BC:203:VAL:CG1	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:35:TYR:C	28:BE:35:TYR:CD1	2.96	0.43
31:BH:8:LYS:HB3	31:BH:9:VAL:H	1.51	0.43
31:BH:34:GLY:O	31:BH:35:LYS:HG3	2.17	0.43
33:BJ:40:HIS:CD2	33:BJ:40:HIS:N	2.86	0.43
33:BJ:40:HIS:C	33:BJ:41:LYS:HG2	2.42	0.43
38:BO:52:SER:OG	38:BO:54:VAL:HG12	2.18	0.43
40:BQ:15:LYS:O	40:BQ:15:LYS:HG2	2.18	0.43
42:BS:73:LYS:O	42:BS:106:VAL:N	2.47	0.43
43:BT:40:LYS:N	43:BT:43:ILE:HG23	2.33	0.43
45:BV:2:PHE:HD1	45:BV:50:MET:HE2	1.80	0.43
45:BV:42:LEU:HD23	45:BV:42:LEU:N	2.32	0.43
47:BX:46:VAL:HG11	47:BX:77:TYR:CE1	2.52	0.43
52:B2:42:LEU:H	52:B2:42:LEU:CD2	2.29	0.43
53:B3:35:LYS:HG2	53:B3:39:ARG:NH2	2.33	0.43
1:CB:28:PRO:HB2	1:CB:29:PHE:CD1	2.54	0.43
1:CB:59:ILE:CA	1:CB:62:ARG:HD3	2.41	0.43
3:CD:81:LEU:O	3:CD:83:GLY:N	2.47	0.43
3:CD:166:LYS:HA	3:CD:167:PRO:HD2	1.62	0.43
4:CE:57:ALA:HA	4:CE:60:GLN:HB3	1.99	0.43
4:CE:80:LEU:HD21	4:CE:143:LEU:HD22	1.98	0.43
7:CH:30:LYS:O	7:CH:33:VAL:N	2.51	0.43
7:CH:46:GLU:N	7:CH:63:LYS:HG3	2.33	0.43
11:CL:80:LEU:HB3	11:CL:97:VAL:CG2	2.48	0.43
12:CM:16:ILE:H	12:CM:16:ILE:HD12	1.82	0.43
12:CM:36:ALA:O	12:CM:37:GLY:C	2.60	0.43
12:CM:86:ARG:C	12:CM:88:LEU:H	2.26	0.43
15:CP:54:LEU:O	15:CP:57:ILE:HG12	2.17	0.43
19:CT:2:ASN:O	19:CT:3:ILE:C	2.61	0.43
19:CT:46:ALA:C	19:CT:48:LYS:N	2.75	0.43
19:CT:65:LEU:HD23	19:CT:65:LEU:N	2.33	0.43
55:CA:39:G:C4	55:CA:40:C:C5	3.06	0.43
55:CA:65:A:H4'	55:CA:66:A:O5'	2.18	0.43
55:CA:193:C:H2'	55:CA:194:C:H6	1.82	0.43
55:CA:499:A:C2	55:CA:547:A:C4	3.06	0.43
55:CA:607:A:C2	55:CA:608:A:C4	3.06	0.43
55:CA:686:U:O2'	55:CA:687:A:C8	2.66	0.43
55:CA:978:A:OP2	55:CA:1362:A:N6	2.51	0.43
55:CA:1065:U:H5"	55:CA:1190:G:H22	1.75	0.43
55:CA:1153:G:N2	55:CA:1154:G:H1'	2.33	0.43
55:CA:1187:G:C4	55:CA:1188:A:C8	3.06	0.43
26:DC:79:ARG:C	26:DC:80:LEU:HD12	2.43	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:99:LYS:HD3	24:DA:606:U:OP1	2.18	0.43
35:DL:12:SER:O	35:DL:13:LYS:HD3	2.19	0.43
35:DL:29:LYS:HG2	35:DL:29:LYS:O	2.17	0.43
35:DL:103:ILE:H	35:DL:103:ILE:CD1	2.30	0.43
40:DQ:24:TYR:CG	40:DQ:25:GLY:N	2.85	0.43
43:DT:28:ASN:HB3	43:DT:91:GLN:HE22	1.83	0.43
43:DT:74:ILE:HG23	43:DT:75:GLY:N	2.33	0.43
45:DV:56:PHE:HD1	45:DV:57:TYR:CD2	2.36	0.43
52:D2:11:LYS:O	52:D2:12:ARG:C	2.60	0.43
24:DA:216:A:O2'	24:DA:217:A:C8	2.50	0.43
24:DA:216:A:C6	24:DA:432:A:C4	3.06	0.43
24:DA:239:C:C2	24:DA:259:G:C2	3.06	0.43
24:DA:301:G:C4	24:DA:302:C:C4	3.06	0.43
24:DA:859:G:O2'	24:DA:916:G:N1	2.47	0.43
24:DA:1055:G:C4	24:DA:1056:G:H8	2.36	0.43
24:DA:1219:U:H2'	24:DA:1220:G:H8	1.83	0.43
24:DA:1326:U:O2'	24:DA:1327:A:C5'	2.65	0.43
24:DA:1644:C:O2	24:DA:1644:C:C2'	2.66	0.43
24:DA:2021:C:H5"	24:DA:2022:U:OP2	2.18	0.43
24:DA:2092:U:C5'	24:DA:2093:G:OP1	2.61	0.43
24:DA:2205:A:C6	24:DA:2206:C:C4	3.07	0.43
24:DA:2287:A:C6	24:DA:2289:G:C5	3.06	0.43
24:DA:2337:G:N3	24:DA:2337:G:H2'	2.32	0.43
24:DA:2520:C:O2'	24:DA:2521:C:H6	1.99	0.43
24:DA:2748:A:C6	24:DA:2757:A:N7	2.86	0.43
24:DA:2870:C:C4	24:DA:2871:U:C4	3.06	0.43
1:AB:110:ILE:C	1:AB:112:ARG:N	2.75	0.43
1:AB:125:PHE:CD2	1:AB:125:PHE:N	2.86	0.43
2:AC:21:TRP:CB	2:AC:58:ARG:H	2.25	0.43
2:AC:52:SER:O	2:AC:53:ARG:HB2	2.18	0.43
2:AC:185:THR:HG23	2:AC:198:LYS:HG2	1.98	0.43
3:AD:57:LYS:C	3:AD:57:LYS:CD	2.91	0.43
3:AD:178:GLU:HG2	3:AD:179:GLY:H	1.83	0.43
3:AD:191:SER:OG	3:AD:192:ALA:N	2.49	0.43
8:AI:43:ALA:HA	8:AI:46:VAL:HG13	2.00	0.43
10:AK:18:GLY:C	10:AK:81:LEU:HB2	2.43	0.43
10:AK:22:ILE:HD12	10:AK:95:THR:HG21	2.00	0.43
11:AL:2:THR:O	11:AL:6:LEU:HD13	2.19	0.43
12:AM:9:PRO:O	12:AM:10:ASP:HB2	2.18	0.43
12:AM:39:ALA:HB3	12:AM:42:VAL:HG13	1.99	0.43
12:AM:108:ARG:HD2	12:AM:108:ARG:HA	1.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AR:60:ARG:O	17:AR:64:LEU:HG	2.18	0.43
18:AS:42:ASN:N	18:AS:42:ASN:HD22	2.15	0.43
21:AA:412:A:N3	21:AA:412:A:O4'	2.50	0.43
21:AA:495:A:H4'	21:AA:496:A:O5'	2.19	0.43
21:AA:587:G:N1	21:AA:755:G:C6	2.86	0.43
21:AA:965:U:O2	21:AA:969:A:C6	2.72	0.43
21:AA:1008:U:H2'	21:AA:1009:U:O4'	2.18	0.43
21:AA:1102:A:C2	21:AA:1103:C:N3	2.86	0.43
21:AA:1148:U:H2'	21:AA:1149:C:O4'	2.18	0.43
21:AA:1215:G:N3	21:AA:1216:A:C8	2.85	0.43
21:AA:1295:U:H2'	21:AA:1296:C:C6	2.53	0.43
21:AA:1416:G:O6	21:AA:1417:G:N1	2.51	0.43
21:AA:1480:A:N7	21:AA:1481:U:C5	2.86	0.43
21:AA:1494:G:O2'	21:AA:1495:U:H6	2.02	0.43
24:BA:15:G:C2	24:BA:16:C:C2	3.06	0.43
24:BA:388:G:H8	24:BA:388:G:H2'	1.63	0.43
24:BA:756:A:C6	24:BA:757:G:C5	3.07	0.43
24:BA:809:G:C6	24:BA:810:U:C4	3.06	0.43
24:BA:900:A:C4	24:BA:901:C:C6	3.06	0.43
24:BA:1005:C:O2'	24:BA:1012:U:C5	2.66	0.43
24:BA:1109:C:C4	24:BA:1110:G:N1	2.86	0.43
24:BA:1253:A:C3'	24:BA:1254:A:H5'	2.46	0.43
24:BA:1465:G:C2	24:BA:1466:U:O2	2.72	0.43
24:BA:1496:A:C4	24:BA:1498:C:N4	2.86	0.43
24:BA:1815:A:C4	24:BA:1817:G:C5	3.07	0.43
24:BA:1839:G:C5	24:BA:1840:G:N7	2.86	0.43
24:BA:1850:G:C5	24:BA:1851:U:C5	3.07	0.43
24:BA:2003:A:C2'	24:BA:2004:G:O5'	2.65	0.43
24:BA:2020:A:C6	24:BA:2022:U:C2	3.06	0.43
24:BA:2054:A:C2	24:BA:2616:C:C2	3.06	0.43
24:BA:2469:A:C2	24:BA:2482:A:N3	2.86	0.43
24:BA:2641:G:N2	24:BA:2642:G:H1'	2.33	0.43
24:BA:2887:A:H5'	24:BA:2888:C:OP2	2.18	0.43
25:BB:25:U:O2'	25:BB:26:C:H5'	2.19	0.43
26:BC:140:VAL:CG1	26:BC:189:ALA:HB1	2.48	0.43
29:BF:168:LEU:HD12	29:BF:168:LEU:C	2.42	0.43
30:BG:54:ARG:HG3	30:BG:57:TYR:CD1	2.53	0.43
30:BG:61:TRP:O	30:BG:62:ALA:C	2.59	0.43
30:BG:70:LEU:HD23	30:BG:70:LEU:HA	1.75	0.43
31:BH:8:LYS:C	31:BH:13:GLY:HA3	2.43	0.43
31:BH:24:GLY:O	31:BH:25:TYR:C	2.61	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:101:ASP:C	31:BH:104:THR:HB	2.43	0.43
32:BI:18:ASN:ND2	32:BI:38:CYS:HB3	2.32	0.43
33:BJ:3:THR:O	33:BJ:4:PHE:O	2.36	0.43
33:BJ:65:THR:CG2	33:BJ:68:LYS:NZ	2.73	0.43
33:BJ:99:ARG:O	33:BJ:102:GLU:N	2.51	0.43
34:BK:21:CYS:SG	34:BK:21:CYS:O	2.74	0.43
35:BL:19:LEU:HD23	35:BL:19:LEU:C	2.43	0.43
35:BL:89:VAL:HA	35:BL:121:THR:O	2.18	0.43
41:BR:54:VAL:O	41:BR:55:ASP:C	2.61	0.43
46:BW:39:GLN:CG	46:BW:42:THR:N	2.77	0.43
49:BZ:43:ILE:O	49:BZ:47:ILE:HG13	2.18	0.43
50:B0:39:ARG:HG2	50:B0:40:HIS:ND1	2.33	0.43
2:CC:163:ARG:C	2:CC:164:THR:HG22	2.43	0.43
3:CD:187:ARG:C	3:CD:189:ASP:H	2.27	0.43
5:CF:53:LYS:HD3	5:CF:53:LYS:O	2.17	0.43
6:CG:79:VAL:H	6:CG:82:SER:HB2	1.83	0.43
8:CI:79:ARG:CZ	8:CI:102:PHE:CD1	3.01	0.43
10:CK:88:PRO:HB2	10:CK:89:GLY:H	1.42	0.43
11:CL:29:LYS:CB	11:CL:56:LEU:HD13	2.49	0.43
11:CL:34:THR:HB	11:CL:35:ARG:H	1.60	0.43
12:CM:85:TYR:O	12:CM:88:LEU:HB2	2.19	0.43
18:CS:42:ASN:HB2	18:CS:43:MET:HE3	1.99	0.43
55:CA:39:G:C4	55:CA:40:C:C6	3.06	0.43
55:CA:72:A:OP1	55:CA:72:A:H4'	2.19	0.43
55:CA:142:G:C2	55:CA:143:A:H1'	2.52	0.43
55:CA:246:A:O3'	55:CA:247:G:C4'	2.66	0.43
55:CA:253:A:H2'	55:CA:254:G:H8	1.84	0.43
55:CA:284:C:H2'	55:CA:285:C:H6	1.83	0.43
55:CA:836:G:C5	55:CA:851:G:C6	3.06	0.43
55:CA:1253:G:H1'	55:CA:1355:G:O2'	2.19	0.43
55:CA:1487:G:C6	55:CA:1488:G:C8	3.05	0.43
26:DC:84:PRO:HB3	24:DA:1567:G:H5"	2.00	0.43
26:DC:141:HIS:HB3	26:DC:190:THR:HB	1.99	0.43
27:DD:73:VAL:O	27:DD:74:GLU:HB2	2.17	0.43
27:DD:136:ASN:HA	24:DA:2579:C:O2'	2.18	0.43
29:DF:41:GLU:HG2	29:DF:42:ALA:N	2.26	0.43
32:DI:49:GLU:HG3	32:DI:54:ILE:HD11	1.99	0.43
35:DL:23:ILE:HG13	41:DR:82:HIS:HE1	1.75	0.43
35:DL:39:LYS:NZ	24:DA:833:A:OP2	2.51	0.43
35:DL:64:PHE:HD2	53:D3:24:LYS:CG	2.26	0.43
38:DO:7:ARG:HH21	38:DO:95:SER:HB3	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DP:75:THR:HG23	39:DP:76:HIS:CD2	2.53	0.43
39:DP:86:LYS:HA	39:DP:86:LYS:NZ	2.34	0.43
41:DR:48:LYS:H	41:DR:48:LYS:CD	2.27	0.43
42:DS:33:LEU:HA	42:DS:36:LEU:HD23	2.00	0.43
44:DU:58:VAL:HG12	44:DU:59:GLU:N	2.33	0.43
52:D2:28:ARG:C	52:D2:30:VAL:N	2.76	0.43
24:DA:85:G:O2'	24:DA:86:G:O4'	2.35	0.43
24:DA:311:A:H2'	24:DA:312:G:H8	1.84	0.43
24:DA:323:C:N4	24:DA:333:G:C5	2.87	0.43
24:DA:570:G:O2'	24:DA:571:U:H5'	2.19	0.43
24:DA:752:A:O2'	24:DA:753:A:P	2.76	0.43
24:DA:765:C:HO2'	24:DA:766:U:H6	1.57	0.43
24:DA:1210:G:H5'	24:DA:1212:G:H5'	2.00	0.43
24:DA:1358:G:H1'	24:DA:1374:G:N2	2.33	0.43
24:DA:1438:U:H2'	24:DA:1439:A:O4'	2.18	0.43
24:DA:1492:G:C6	24:DA:1496:A:N6	2.86	0.43
24:DA:1865:U:O4	24:DA:1875:G:C4	2.72	0.43
24:DA:2691:C:N4	24:DA:2719:G:N2	2.66	0.43
1:AB:20:ARG:CZ	1:AB:20:ARG:HA	2.49	0.43
1:AB:63:LYS:HZ2	1:AB:87:ASP:HB3	1.82	0.43
1:AB:143:LEU:O	1:AB:147:LEU:HB2	2.17	0.43
2:AC:67:ILE:O	2:AC:67:ILE:HG22	2.18	0.43
4:AE:155:LYS:HB3	7:AH:65:PHE:N	2.33	0.43
5:AF:22:ILE:HD12	5:AF:22:ILE:N	2.33	0.43
6:AG:30:MET:HG2	6:AG:31:VAL:N	2.33	0.43
6:AG:113:LYS:HB2	6:AG:117:LEU:HD12	2.00	0.43
9:AJ:17:LEU:HD23	9:AJ:17:LEU:O	2.18	0.43
9:AJ:22:THR:O	9:AJ:26:VAL:HG23	2.18	0.43
14:AO:50:HIS:ND1	21:AA:667:G:H4'	2.32	0.43
15:AP:44:SER:O	15:AP:46:LYS:HG3	2.18	0.43
16:AQ:32:ILE:HD12	16:AQ:32:ILE:N	2.33	0.43
19:AT:4:LYS:O	19:AT:6:ALA:N	2.52	0.43
20:AU:52:VAL:CG1	20:AU:53:LYS:H	2.18	0.43
21:AA:122:G:C6	21:AA:123:U:C4	3.06	0.43
21:AA:622:A:H2'	21:AA:623:C:O4'	2.18	0.43
21:AA:1225:A:N3	21:AA:1225:A:C2'	2.80	0.43
21:AA:1473:G:O2'	21:AA:1474:U:H5'	2.18	0.43
21:AA:1512:U:H2'	21:AA:1513:A:C8	2.53	0.43
24:BA:475:C:N3	24:BA:481:G:C6	2.86	0.43
24:BA:551:G:H2'	24:BA:552:U:O4'	2.18	0.43
24:BA:749:A:C5	24:BA:1618:A:N1	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:932:U:O2'	24:BA:934:U:O4	2.35	0.43
24:BA:1564:C:H2'	24:BA:1565:C:C6	2.54	0.43
24:BA:1587:G:C2	24:BA:1588:G:C8	3.06	0.43
24:BA:1655:A:O2'	24:BA:1656:C:H5'	2.18	0.43
24:BA:1788:C:H2'	24:BA:1789:A:O4'	2.18	0.43
24:BA:1824:G:C4	24:BA:1825:U:C5	3.06	0.43
24:BA:1923:U:H2'	24:BA:1924:C:C6	2.53	0.43
24:BA:2488:G:C6	24:BA:2489:U:C4	3.06	0.43
24:BA:2572:A:N7	27:BD:150:GLN:HB3	2.33	0.43
24:BA:2627:G:O2'	24:BA:2781:A:N1	2.49	0.43
24:BA:2740:A:N6	24:BA:2741:A:C6	2.86	0.43
27:BD:72:GLY:O	27:BD:73:VAL:O	2.36	0.43
28:BE:44:ARG:HH21	28:BE:44:ARG:CG	2.32	0.43
30:BG:75:VAL:O	30:BG:76:ILE:C	2.61	0.43
30:BG:87:GLN:HB3	30:BG:129:GLU:HG2	2.01	0.43
31:BH:68:ARG:HH21	31:BH:72:ILE:HG21	1.83	0.43
34:BK:2:ILE:HG21	34:BK:39:ILE:HD12	2.01	0.43
34:BK:36:GLY:HA2	34:BK:62:VAL:O	2.18	0.43
35:BL:67:THR:CG2	35:BL:68:SER:N	2.81	0.43
36:BM:43:ALA:HA	36:BM:46:ILE:HG13	2.00	0.43
37:BN:65:LEU:HD11	37:BN:69:ARG:HH22	1.83	0.43
37:BN:116:VAL:O	37:BN:116:VAL:HG22	2.18	0.43
46:BW:16:GLU:C	46:BW:17:ALA:O	2.60	0.43
46:BW:28:GLU:OE2	46:BW:29:SER:N	2.51	0.43
49:BZ:3:THR:C	49:BZ:4:ILE:HG22	2.43	0.43
50:B0:2:VAL:O	50:B0:3:GLN:O	2.37	0.43
50:B0:12:ARG:O	50:B0:13:GLY:C	2.59	0.43
51:B1:3:GLY:C	51:B1:5:ARG:N	2.77	0.43
52:B2:2:LYS:O	52:B2:2:LYS:HG2	2.18	0.43
2:CC:56:ILE:HA	2:CC:65:VAL:HA	2.00	0.43
2:CC:110:LEU:HD23	2:CC:110:LEU:C	2.43	0.43
3:CD:120:LYS:O	3:CD:145:ARG:HD3	2.18	0.43
4:CE:136:VAL:HG13	4:CE:137:ARG:N	2.34	0.43
6:CG:2:ARG:CG	6:CG:3:ARG:N	2.81	0.43
6:CG:143:MET:C	6:CG:147:ASN:HB3	2.44	0.43
8:CI:119:LYS:O	8:CI:119:LYS:HG3	2.18	0.43
13:CN:19:TYR:C	13:CN:21:ALA:H	2.26	0.43
19:CT:3:ILE:O	19:CT:3:ILE:HG22	2.18	0.43
20:CU:24:LYS:O	20:CU:28:LEU:HB3	2.19	0.43
55:CA:148:G:N2	55:CA:1447:A:H2	2.16	0.43
55:CA:460:A:O3'	55:CA:462:G:OP2	2.37	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:922:G:C2	55:CA:923:A:C4	3.06	0.43
55:CA:1061:G:C5	55:CA:1062:U:C4	3.06	0.43
55:CA:1160:G:O2'	55:CA:1161:C:O5'	2.36	0.43
55:CA:1172:C:H2'	55:CA:1173:U:H6	1.83	0.43
55:CA:1201:A:H4'	55:CA:1202:U:O5'	2.19	0.43
55:CA:1250:A:C4	55:CA:1287:A:N7	2.87	0.43
55:CA:1533:C:H2'	55:CA:1533:C:O2	2.17	0.43
26:DC:257:ARG:HG3	24:DA:1799:G:OP1	2.17	0.43
28:DE:2:GLU:HA	28:DE:13:THR:HA	2.00	0.43
28:DE:55:SER:HB3	24:DA:469:G:OP2	2.19	0.43
29:DF:65:LEU:H	29:DF:65:LEU:CD2	2.29	0.43
30:DG:154:GLU:C	30:DG:156:TYR:H	2.26	0.43
31:DH:2:GLN:HB3	31:DH:18:GLN:CG	2.47	0.43
31:DH:68:ARG:HG3	31:DH:68:ARG:HH11	1.84	0.43
35:DL:71:ALA:HA	35:DL:74:THR:HB	2.00	0.43
36:DM:1:MET:HB3	36:DM:2:LEU:H	1.58	0.43
36:DM:76:LYS:HA	36:DM:77:PRO:HD3	1.85	0.43
37:DN:21:PHE:N	37:DN:21:PHE:CD1	2.86	0.43
38:DO:24:THR:O	38:DO:90:VAL:HB	2.18	0.43
38:DO:30:ARG:HE	56:DB:48:U:C5'	2.29	0.43
39:DP:87:ARG:HG2	39:DP:88:ARG:N	2.33	0.43
42:DS:6:LYS:HZ2	42:DS:104:THR:HG23	1.80	0.43
43:DT:19:LYS:HA	43:DT:19:LYS:HD3	1.73	0.43
44:DU:23:LYS:N	44:DU:36:GLU:OE1	2.38	0.43
44:DU:33:VAL:HG13	44:DU:66:VAL:HB	2.00	0.43
44:DU:84:PHE:O	24:DA:297:G:H4'	2.18	0.43
45:DV:53:LYS:C	45:DV:55:GLU:N	2.76	0.43
46:DW:67:LYS:HB3	46:DW:80:SER:HB2	2.00	0.43
47:DX:60:LYS:O	47:DX:61:LYS:C	2.60	0.43
24:DA:45:G:H5'	24:DA:46:G:H5'	2.00	0.43
24:DA:370:G:C6	24:DA:424:G:N7	2.86	0.43
24:DA:455:C:C4'	24:DA:456:C:OP2	2.59	0.43
24:DA:807:U:H2'	24:DA:808:G:O4'	2.17	0.43
24:DA:945:A:C5	24:DA:2448:A:C2	3.06	0.43
24:DA:1173:U:C4	24:DA:1174:U:O2	2.71	0.43
24:DA:1320:C:H5	24:DA:1329:U:C5'	2.31	0.43
24:DA:1670:C:C4	24:DA:1671:U:C2	3.07	0.43
24:DA:2027:G:C6	24:DA:2028:U:C4	3.07	0.43
24:DA:2271:G:H2'	24:DA:2272:U:H6	1.82	0.43
24:DA:2305:U:O4	24:DA:2312:U:C2	2.71	0.43
24:DA:2331:G:H2'	24:DA:2332:C:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DB:38:C:O2'	56:DB:39:A:O4'	2.36	0.43
56:DB:85:G:O2'	56:DB:86:G:H5'	2.17	0.43
1:AB:142:LYS:HE2	21:AA:1098:C:P	2.59	0.43
2:AC:1:GLY:HA3	21:AA:1060:U:C5	2.54	0.43
2:AC:113:LYS:HB2	2:AC:184:ASN:CG	2.44	0.43
3:AD:60:VAL:O	3:AD:63:ILE:HG22	2.18	0.43
4:AE:136:VAL:O	4:AE:136:VAL:CG2	2.64	0.43
5:AF:38:ARG:HG2	5:AF:38:ARG:NH1	2.34	0.43
5:AF:86:ARG:NH1	5:AF:88:MET:HE3	2.32	0.43
6:AG:14:ASP:HA	6:AG:15:PRO:HD2	1.85	0.43
8:AI:129:ARG:NH2	21:AA:966:G:N2	2.65	0.43
10:AK:107:THR:HG22	10:AK:108:ASN:CG	2.43	0.43
21:AA:15:G:C6	21:AA:1396:A:N1	2.87	0.43
21:AA:86:G:N2	21:AA:87:C:N4	2.66	0.43
21:AA:406:G:C8	21:AA:495:A:C2	3.07	0.43
21:AA:578:C:O2'	21:AA:728:A:N3	2.45	0.43
21:AA:679:C:H2'	21:AA:680:C:H6	1.83	0.43
21:AA:1251:A:H2'	21:AA:1252:A:O4'	2.18	0.43
24:BA:49:A:H61	24:BA:177:G:H2'	1.84	0.43
24:BA:172:A:H2'	24:BA:173:A:C8	2.53	0.43
24:BA:370:G:C6	24:BA:424:G:N7	2.86	0.43
24:BA:467:G:H2'	24:BA:468:G:O4'	2.18	0.43
24:BA:960:A:H5"	24:BA:961:C:P	2.58	0.43
24:BA:1327:A:OP2	59:BA:3618:HOH:O	2.21	0.43
24:BA:1456:G:C2	24:BA:1457:U:C6	3.06	0.43
24:BA:1465:G:C6	24:BA:1466:U:C2	3.06	0.43
24:BA:1467:U:C5	24:BA:1468:U:C5	3.06	0.43
24:BA:1668:A:C8	24:BA:1674:G:C6	3.07	0.43
24:BA:1824:G:C4	24:BA:1825:U:C6	3.07	0.43
24:BA:1926:U:O2	24:BA:1929:G:C2	2.71	0.43
24:BA:2407:A:H2'	24:BA:2408:U:C6	2.53	0.43
27:BD:113:SER:O	27:BD:167:ASN:N	2.47	0.43
27:BD:189:VAL:C	27:BD:191:GLY:H	2.26	0.43
31:BH:89:LYS:O	31:BH:90:LEU:HD12	2.17	0.43
31:BH:131:SER:CB	31:BH:139:PHE:HD2	2.30	0.43
33:BJ:59:ALA:O	33:BJ:61:LYS:N	2.52	0.43
36:BM:25:ASP:O	36:BM:26:VAL:C	2.62	0.43
37:BN:30:ARG:HE	37:BN:30:ARG:HB2	1.51	0.43
38:BO:82:ALA:O	38:BO:83:LEU:C	2.60	0.43
43:BT:38:ALA:HB1	43:BT:43:ILE:CG2	2.49	0.43
46:BW:37:VAL:HG22	46:BW:57:THR:OG1	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:B1:18:HIS:HE1	51:B1:20:TYR:CE2	2.37	0.43
6:CG:110:ARG:HG2	6:CG:112:ASP:OD1	2.18	0.43
8:CI:9:GLY:CA	8:CI:16:ALA:HB3	2.46	0.43
8:CI:102:PHE:C	8:CI:104:THR:H	2.27	0.43
9:CJ:37:ARG:HB3	9:CJ:75:ASP:HB3	2.00	0.43
11:CL:14:LYS:HE3	11:CL:14:LYS:HB2	1.84	0.43
11:CL:42:LYS:HG2	11:CL:43:LYS:N	2.32	0.43
12:CM:105:ALA:CB	12:CM:109:LYS:HD3	2.49	0.43
15:CP:67:ILE:HG12	15:CP:72:ALA:HB2	2.01	0.43
55:CA:161:A:H2'	55:CA:162:A:C8	2.54	0.43
55:CA:372:C:H4'	55:CA:373:A:C5'	2.48	0.43
55:CA:891:U:O2'	55:CA:892:A:H5'	2.17	0.43
55:CA:1064:G:C8	55:CA:1066:C:C2	3.06	0.43
55:CA:1102:A:H5"	55:CA:1102:A:C8	2.52	0.43
55:CA:1256:A:N1	55:CA:1278:G:H2'	2.34	0.43
26:DC:130:PRO:C	26:DC:132:ARG:N	2.76	0.43
29:DF:1:ALA:HA	29:DF:97:GLU:HB3	2.00	0.43
33:DJ:75:TYR:CE1	33:DJ:86:GLN:HG3	2.54	0.43
35:DL:32:GLY:HA2	24:DA:1190:G:OP1	2.18	0.43
35:DL:121:THR:OG1	35:DL:141:LYS:HB3	2.17	0.43
36:DM:34:LYS:HB2	36:DM:131:VAL:CG2	2.48	0.43
36:DM:62:LYS:C	36:DM:63:ILE:HD12	2.43	0.43
36:DM:72:PRO:O	36:DM:73:ILE:CB	2.57	0.43
38:DO:30:ARG:HH11	38:DO:30:ARG:HG3	1.82	0.43
38:DO:54:VAL:HG21	56:DB:27:C:H5"	2.01	0.43
40:DQ:18:LYS:HD2	40:DQ:18:LYS:C	2.43	0.43
40:DQ:96:ASP:OD1	40:DQ:96:ASP:C	2.62	0.43
44:DU:58:VAL:CG1	44:DU:60:LYS:HG2	2.49	0.43
46:DW:37:VAL:O	46:DW:38:ARG:CB	2.65	0.43
47:DX:60:LYS:O	47:DX:62:GLY:N	2.51	0.43
53:D3:15:LYS:HZ1	53:D3:19:GLY:HA2	1.82	0.43
24:DA:31:C:H5"	24:DA:1239:G:OP1	2.17	0.43
24:DA:187:G:C2	24:DA:210:C:O2	2.71	0.43
24:DA:414:C:H2'	24:DA:415:A:H8	1.78	0.43
24:DA:533:G:H8	24:DA:533:G:H5"	1.84	0.43
24:DA:717:C:C5	24:DA:718:A:C4	3.06	0.43
24:DA:1091:G:H2'	24:DA:1092:C:H6	1.82	0.43
24:DA:1095:A:C6	24:DA:1096:A:N6	2.85	0.43
24:DA:1276:A:C2	24:DA:1277:G:C5	3.06	0.43
24:DA:1343:G:N3	24:DA:1344:U:C5	2.87	0.43
24:DA:1616:A:H2	24:DA:1647:U:H5	1.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1668:A:C6	24:DA:1993:U:C6	3.07	0.43
24:DA:1796:U:H2'	24:DA:1797:G:C8	2.53	0.43
24:DA:2144:G:N2	24:DA:2148:G:O6	2.52	0.43
24:DA:2204:G:O6	24:DA:2221:G:C6	2.72	0.43
24:DA:2229:U:H2'	24:DA:2230:G:H8	1.84	0.43
24:DA:2547:A:N7	24:DA:2566:A:C8	2.87	0.43
24:DA:2564:A:OP1	24:DA:2648:G:H4'	2.18	0.43
24:DA:2570:G:C2	24:DA:2571:U:N1	2.87	0.43
24:DA:2667:C:H2'	24:DA:2668:G:O4'	2.19	0.43
24:DA:2717:C:H2'	24:DA:2718:G:O4'	2.18	0.43
24:DA:2742:G:O2'	24:DA:2743:U:H5'	2.18	0.43
24:DA:2783:U:C2	24:DA:2784:U:C5	3.06	0.43
24:DA:2858:C:C5	24:DA:2859:G:C5	3.06	0.43
1:AB:70:GLY:HA2	1:AB:163:ILE:CG2	2.48	0.43
1:AB:85:SER:H	1:AB:88:GLN:NE2	2.16	0.43
1:AB:142:LYS:NZ	21:AA:1098:C:P	2.91	0.43
2:AC:175:HIS:ND1	21:AA:1108:G:H5"	2.34	0.43
3:AD:106:PHE:HB3	3:AD:144:ILE:HD11	2.01	0.43
3:AD:111:ALA:O	3:AD:114:ARG:N	2.45	0.43
4:AE:89:THR:CG2	4:AE:90:GLY:H	2.29	0.43
8:AI:27:ILE:N	8:AI:27:ILE:HD12	2.34	0.43
8:AI:61:ASP:C	8:AI:62:LEU:HD23	2.43	0.43
14:AO:86:LEU:O	14:AO:88:ARG:N	2.43	0.43
19:AT:47:GLN:NE2	19:AT:82:ILE:HD13	2.33	0.43
21:AA:35:G:C6	21:AA:36:C:C4	3.07	0.43
21:AA:47:C:H4'	21:AA:48:C:O5'	2.18	0.43
21:AA:212:G:O2'	21:AA:213:G:P	2.75	0.43
21:AA:479:U:O2'	21:AA:480:U:H5'	2.18	0.43
21:AA:481:G:O2'	21:AA:482:A:H8	2.00	0.43
21:AA:767:A:H2'	21:AA:768:A:O4'	2.18	0.43
21:AA:786:G:C2	21:AA:787:A:H1'	2.54	0.43
21:AA:1408:A:C2	21:AA:1494:G:C5	3.07	0.43
24:BA:88:G:C2	24:BA:89:A:C8	3.07	0.43
24:BA:273:G:C2	24:BA:365:U:N3	2.87	0.43
24:BA:328:U:H2'	24:BA:329:G:OP1	2.19	0.43
24:BA:494:G:H21	42:BS:57:ASN:HD21	1.65	0.43
24:BA:514:A:C2	24:BA:515:A:C6	3.07	0.43
24:BA:547:A:C8	24:BA:548:G:N3	2.87	0.43
24:BA:627:A:HO2'	24:BA:628:G:H8	1.57	0.43
24:BA:859:G:OP2	24:BA:859:G:H8	1.93	0.43
24:BA:1163:G:O2'	24:BA:1164:C:H5'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1716:U:O2'	24:BA:1717:A:C8	2.69	0.43
24:BA:1935:G:C6	24:BA:1962:C:C6	3.07	0.43
24:BA:2024:G:C6	24:BA:2025:C:N3	2.86	0.43
24:BA:2476:A:C2	24:BA:2477:U:C6	3.06	0.43
24:BA:2539:C:H4'	54:B4:36:ARG:HH22	1.83	0.43
24:BA:2687:U:C4	24:BA:2688:G:C6	3.07	0.43
24:BA:2739:U:O2'	24:BA:2740:A:H5'	2.18	0.43
27:BD:126:ASN:O	27:BD:127:PHE:C	2.62	0.43
28:BE:24:ASN:HD21	28:BE:26:ALA:HB3	1.83	0.43
28:BE:83:VAL:HG11	28:BE:86:ALA:CA	2.48	0.43
31:BH:2:GLN:C	31:BH:3:VAL:HG13	2.43	0.43
32:BI:56:VAL:CG2	32:BI:68:PHE:HB2	2.48	0.43
33:BJ:49:ASP:OD2	33:BJ:121:LYS:NZ	2.43	0.43
34:BK:76:VAL:HB	39:BP:72:VAL:HG22	2.00	0.43
34:BK:99:ILE:HG22	34:BK:119:ALA:HA	2.00	0.43
35:BL:117:THR:O	35:BL:118:THR:C	2.61	0.43
36:BM:31:PHE:O	36:BM:104:GLU:HA	2.19	0.43
36:BM:69:PRO:O	36:BM:70:ASP:CG	2.62	0.43
36:BM:117:PHE:HD2	36:BM:130:PHE:HE1	1.65	0.43
37:BN:70:THR:CB	37:BN:75:ILE:HD11	2.44	0.43
39:BP:28:LYS:O	39:BP:80:VAL:O	2.37	0.43
39:BP:50:ARG:HG2	39:BP:57:ALA:C	2.44	0.43
45:BV:51:GLN:NE2	45:BV:51:GLN:O	2.52	0.43
1:CB:94:ARG:NH2	55:CA:1099:G:H5"	2.34	0.43
1:CB:133:ALA:HA	1:CB:137:THR:CG2	2.49	0.43
6:CG:13:PRO:HA	6:CG:23:ALA:CB	2.48	0.43
7:CH:17:GLN:HE21	7:CH:71:VAL:CG2	2.23	0.43
7:CH:95:MET:SD	7:CH:129:ALA:HB1	2.58	0.43
10:CK:34:THR:OG1	10:CK:39:ASN:C	2.62	0.43
10:CK:91:GLY:O	10:CK:94:SER:N	2.51	0.43
12:CM:94:LEU:HD21	55:CA:1226:C:H5"	2.00	0.43
55:CA:37:U:O2	55:CA:548:G:C2	2.72	0.43
55:CA:71:A:C2	55:CA:72:A:N7	2.87	0.43
55:CA:131:A:H2'	55:CA:132:C:C5	2.54	0.43
55:CA:264:C:N4	55:CA:265:G:C6	2.87	0.43
55:CA:512:U:O2'	55:CA:513:C:H5'	2.18	0.43
55:CA:885:G:C2	55:CA:886:G:C8	3.07	0.43
55:CA:1020:G:C6	55:CA:1021:A:C6	3.07	0.43
55:CA:1095:U:C2	55:CA:1096:C:C4	3.06	0.43
55:CA:1314:C:O2'	55:CA:1315:U:H5'	2.19	0.43
55:CA:1381:U:O2'	55:CA:1382:C:O5'	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DC:213:ARG:HB3	26:DC:214:GLY:H	1.47	0.43
28:DE:63:LYS:HA	28:DE:63:LYS:CE	2.49	0.43
29:DF:49:LEU:HD13	29:DF:49:LEU:N	2.33	0.43
29:DF:58:ALA:HB1	29:DF:139:GLU:CG	2.48	0.43
30:DG:62:ALA:HB2	24:DA:2749:A:H4'	1.99	0.43
30:DG:104:LEU:HB3	30:DG:106:LEU:HD21	2.00	0.43
32:DI:20:SER:N	32:DI:21:PRO:CD	2.81	0.43
33:DJ:45:THR:H	33:DJ:46:PRO:CD	2.30	0.43
35:DL:32:GLY:C	24:DA:1190:G:H5"	2.44	0.43
35:DL:54:GLN:O	35:DL:55:MET:C	2.60	0.43
36:DM:76:LYS:HZ3	36:DM:84:LYS:H	1.67	0.43
36:DM:111:GLU:C	36:DM:113:ALA:N	2.77	0.43
37:DN:79:LEU:O	37:DN:80:PHE:HB2	2.17	0.43
40:DQ:57:ARG:NH2	24:DA:998:C:OP2	2.51	0.43
40:DQ:112:ALA:C	40:DQ:114:ALA:N	2.75	0.43
46:DW:19:ARG:HE	24:DA:857:G:H1'	1.83	0.43
46:DW:22:VAL:O	46:DW:23:LYS:HG3	2.19	0.43
46:DW:37:VAL:HG23	46:DW:38:ARG:NH1	2.34	0.43
48:DY:1:MET:H2	48:DY:5:GLU:HG3	1.84	0.43
24:DA:28:A:H1'	24:DA:513:A:C2	2.54	0.43
24:DA:129:C:O2'	24:DA:130:C:H5'	2.18	0.43
24:DA:167:A:C5	24:DA:168:G:C8	3.06	0.43
24:DA:743:A:C2'	24:DA:744:U:H5'	2.48	0.43
24:DA:755:U:C2	24:DA:756:A:N7	2.87	0.43
24:DA:868:U:C4	24:DA:869:G:N7	2.86	0.43
24:DA:878:A:H4'	24:DA:898:C:H42	1.82	0.43
24:DA:1291:C:O2'	24:DA:1292:G:C5'	2.64	0.43
24:DA:1401:G:C6	24:DA:1402:U:C4	3.06	0.43
24:DA:1440:U:H2'	24:DA:1441:G:O5'	2.18	0.43
24:DA:1662:U:C3'	24:DA:1663:G:H5"	2.49	0.43
24:DA:1722:A:H2'	24:DA:1723:G:C8	2.54	0.43
24:DA:2100:G:H2'	24:DA:2101:A:H8	1.83	0.43
24:DA:2266:A:H4'	24:DA:2267:A:O5'	2.18	0.43
24:DA:2874:C:O2'	24:DA:2875:C:O4'	2.32	0.43
56:DB:46:A:H2'	56:DB:47:C:H6	1.79	0.43
1:AB:41:ASN:HB3	1:AB:44:LYS:CB	2.41	0.43
1:AB:136:ARG:HD2	1:AB:136:ARG:C	2.44	0.43
1:AB:186:VAL:HG22	1:AB:198:VAL:HG23	2.01	0.43
2:AC:26:LYS:NZ	2:AC:26:LYS:HB3	2.33	0.43
3:AD:22:SER:O	3:AD:23:GLY:C	2.62	0.43
5:AF:86:ARG:C	5:AF:86:ARG:HD3	2.43	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AK:46:ALA:HA	10:AK:65:ALA:HB2	2.01	0.43
11:AL:31:GLY:HA2	11:AL:56:LEU:HA	2.01	0.43
13:AN:3:GLN:O	13:AN:4:SER:C	2.61	0.43
16:AQ:61:ARG:O	16:AQ:72:TRP:HE3	2.02	0.43
17:AR:29:LYS:C	17:AR:31:TYR:H	2.26	0.43
21:AA:39:G:C6	21:AA:404:G:C6	3.06	0.43
21:AA:59:A:C5	21:AA:354:G:C6	3.07	0.43
21:AA:92:U:H2'	21:AA:93:U:O4'	2.18	0.43
21:AA:346:G:OP1	39:BP:33:GLU:OE1	2.37	0.43
21:AA:524:G:H8	21:AA:524:G:O5'	2.01	0.43
21:AA:676:A:O2'	21:AA:677:U:H5'	2.19	0.43
21:AA:713:G:N2	21:AA:714:G:C2	2.87	0.43
21:AA:942:G:C2	21:AA:1342:C:O2	2.72	0.43
21:AA:1021:A:C3'	21:AA:1022:A:H5"	2.49	0.43
21:AA:1394:A:N6	21:AA:1501:C:H5'	2.34	0.43
21:AA:1528:U:O2'	21:AA:1529:G:H3'	2.19	0.43
24:BA:16:C:O2'	24:BA:17:G:H5'	2.18	0.43
24:BA:346:A:H2'	24:BA:347:A:C8	2.53	0.43
24:BA:780:G:H8	24:BA:780:G:O5'	2.02	0.43
24:BA:843:G:H2'	24:BA:844:A:H8	1.83	0.43
24:BA:911:A:C5	36:BM:9:PHE:CE2	3.07	0.43
24:BA:975:A:C4	24:BA:990:A:N7	2.87	0.43
24:BA:1005:C:H1'	24:BA:1012:U:C4	2.53	0.43
24:BA:1482:G:N3	24:BA:1509:A:N1	2.67	0.43
24:BA:1902:C:C6	24:BA:1903:G:C8	3.06	0.43
24:BA:1911:U:H2'	24:BA:1918:A:N1	2.33	0.43
24:BA:1960:A:C2	24:BA:1961:C:C2	3.07	0.43
24:BA:2023:C:H4'	24:BA:2617:U:O3'	2.19	0.43
24:BA:2355:G:C4'	46:BW:20:LEU:HD13	2.41	0.43
24:BA:2648:G:H2'	24:BA:2649:C:C6	2.54	0.43
24:BA:2730:C:H2'	24:BA:2731:G:H8	1.83	0.43
24:BA:2788:C:O2'	24:BA:2789:C:H5'	2.19	0.43
25:BB:114:C:H2'	25:BB:115:A:C8	2.54	0.43
27:BD:106:LYS:HB2	27:BD:206:ALA:H	1.84	0.43
27:BD:121:THR:O	27:BD:122:VAL:CG2	2.66	0.43
27:BD:121:THR:O	27:BD:122:VAL:HB	2.19	0.43
27:BD:149:ASN:CG	27:BD:150:GLN:N	2.76	0.43
29:BF:110:ILE:O	29:BF:111:ARG:O	2.37	0.43
30:BG:67:ALA:O	30:BG:68:ARG:C	2.62	0.43
32:BI:52:LEU:HD12	32:BI:52:LEU:N	2.33	0.43
37:BN:83:LEU:HA	37:BN:83:LEU:HD12	1.63	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BN:116:VAL:O	37:BN:117:ASP:CB	2.66	0.43
39:BP:37:LYS:HG2	39:BP:37:LYS:O	2.19	0.43
41:BR:38:VAL:HG22	41:BR:54:VAL:HG13	2.00	0.43
43:BT:7:LEU:O	43:BT:10:VAL:HG13	2.18	0.43
43:BT:48:GLN:CB	43:BT:49:LYS:HE3	2.49	0.43
43:BT:52:GLU:O	43:BT:52:GLU:HG3	2.18	0.43
44:BU:52:ASN:C	44:BU:54:PRO:CD	2.90	0.43
45:BV:38:LEU:HG	45:BV:40:ILE:CD1	2.48	0.43
48:BY:2:LYS:HG3	48:BY:52:ARG:HD3	2.00	0.43
49:BZ:8:GLN:O	49:BZ:9:THR:HG22	2.18	0.43
50:B0:39:ARG:O	50:B0:40:HIS:HB2	2.18	0.43
1:CB:148:GLY:O	1:CB:150:ILE:N	2.52	0.43
3:CD:3:TYR:CZ	3:CD:5:GLY:HA3	2.53	0.43
3:CD:58:GLN:O	3:CD:62:ARG:HG2	2.18	0.43
6:CG:34:LYS:NZ	55:CA:1240:U:O2'	2.50	0.43
6:CG:78:ARG:HG3	6:CG:82:SER:H	1.84	0.43
9:CJ:70:HIS:CE1	55:CA:1152:A:P	3.11	0.43
13:CN:55:SER:HA	13:CN:56:PRO:HD2	1.71	0.43
13:CN:99:SER:HB3	55:CA:1114:C:O2	2.19	0.43
13:CN:100:TRP:CD1	13:CN:100:TRP:O	2.71	0.43
15:CP:6:LEU:O	15:CP:6:LEU:HD12	2.18	0.43
16:CQ:18:LYS:HA	16:CQ:50:ASN:OD1	2.18	0.43
55:CA:117:G:H2'	55:CA:118:U:C6	2.53	0.43
55:CA:246:A:C4	55:CA:279:A:N6	2.87	0.43
55:CA:295:C:H2'	55:CA:296:U:O4'	2.19	0.43
55:CA:428:G:C8	55:CA:430:A:C5	3.07	0.43
55:CA:656:G:C5	55:CA:657:U:C5	3.07	0.43
55:CA:906:A:C2'	55:CA:907:A:O5'	2.67	0.43
55:CA:1270:G:H2'	55:CA:1271:A:C8	2.54	0.43
55:CA:1358:U:C5	55:CA:1359:C:C4	3.07	0.43
26:DC:149:LYS:HE3	26:DC:152:GLN:CD	2.44	0.43
27:DD:74:GLU:O	27:DD:75:ALA:C	2.60	0.43
27:DD:181:ASP:C	27:DD:183:GLU:N	2.77	0.43
28:DE:3:LEU:HD12	28:DE:3:LEU:HA	1.92	0.43
28:DE:6:LYS:HE3	28:DE:7:ASP:OD2	2.19	0.43
30:DG:156:TYR:CZ	24:DA:2531:A:H5"	2.54	0.43
31:DH:117:LEU:HD22	31:DH:122:LEU:HD12	2.01	0.43
35:DL:43:GLY:HA2	24:DA:670:A:H3'	2.00	0.43
35:DL:110:VAL:O	35:DL:111:ILE:HG12	2.18	0.43
37:DN:8:ARG:NH2	37:DN:39:PRO:HA	2.33	0.43
37:DN:22:ARG:HG2	37:DN:22:ARG:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DO:33:ARG:CA	56:DB:52:A:H62	2.31	0.43
42:DS:8:ARG:O	42:DS:9:HIS:CB	2.58	0.43
43:DT:18:GLU:HB2	43:DT:19:LYS:H	1.41	0.43
44:DU:35:VAL:HG12	44:DU:36:GLU:H	1.83	0.43
47:DX:67:LEU:CD2	47:DX:77:TYR:CE1	3.02	0.43
48:DY:31:GLN:C	48:DY:33:ALA:N	2.75	0.43
24:DA:123:G:O3'	24:DA:1376:C:H4'	2.19	0.43
24:DA:211:C:H2'	24:DA:212:G:O4'	2.19	0.43
24:DA:388:G:C4	24:DA:390:U:C4	3.07	0.43
24:DA:521:U:H2'	24:DA:522:A:C8	2.53	0.43
24:DA:635:C:O2	24:DA:639:U:C5'	2.67	0.43
24:DA:753:A:C2'	24:DA:754:U:H6	2.31	0.43
24:DA:946:C:H2'	24:DA:947:A:C8	2.54	0.43
24:DA:1063:G:C6	24:DA:1064:C:C4	3.06	0.43
24:DA:1398:C:O2'	24:DA:1399:C:O4'	2.37	0.43
24:DA:1794:A:H2'	24:DA:1795:C:H6	1.83	0.43
24:DA:1838:C:N4	24:DA:1898:U:H2'	2.34	0.43
24:DA:1912:A:N6	24:DA:1918:A:H1'	2.33	0.43
24:DA:1977:A:N6	24:DA:1978:A:C6	2.86	0.43
24:DA:2098:U:N3	24:DA:2099:U:C4	2.87	0.43
24:DA:2319:G:OP2	24:DA:2319:G:C8	2.71	0.43
24:DA:2323:G:H2'	24:DA:2324:U:O4'	2.19	0.43
24:DA:2388:A:N7	24:DA:2389:G:C6	2.87	0.43
24:DA:2579:C:O5'	24:DA:2579:C:C6	2.58	0.43
24:DA:2882:A:H2'	24:DA:2883:A:O5'	2.18	0.43
24:DA:2897:U:N3	24:DA:2898:U:C4	2.86	0.43
24:DA:2899:A:H2'	24:DA:2900:A:C8	2.54	0.43
1:AB:58:LYS:HZ1	1:AB:62:ARG:CD	2.32	0.43
1:AB:162:VAL:HG21	1:AB:172:ILE:CG1	2.48	0.43
4:AE:44:ARG:HA	4:AE:71:ILE:O	2.18	0.43
4:AE:61:LYS:NZ	21:AA:1073:U:OP2	2.49	0.43
4:AE:151:MET:C	4:AE:153:ALA:H	2.26	0.43
6:AG:108:ARG:HH21	6:AG:118:ARG:NH2	1.99	0.43
11:AL:98:ARG:HA	11:AL:103:CYS:SG	2.58	0.43
19:AT:72:ALA:O	19:AT:73:ARG:C	2.61	0.43
21:AA:234:C:C2	21:AA:235:C:C5	3.07	0.43
21:AA:287:U:H2'	21:AA:288:A:H8	1.83	0.43
21:AA:454:G:O2'	21:AA:455:G:H5'	2.19	0.43
21:AA:587:G:C2	21:AA:755:G:C6	3.07	0.43
21:AA:1082:A:C6	21:AA:1083:U:N3	2.87	0.43
21:AA:1208:C:N4	21:AA:1209:C:N4	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:1272:G:C2	21:AA:1273:C:C2	3.06	0.43
24:BA:199:A:C4	24:BA:2433:A:C2	3.06	0.43
24:BA:486:C:H2'	24:BA:487:C:H6	1.84	0.43
24:BA:777:G:O2'	24:BA:778:G:C5'	2.67	0.43
24:BA:911:A:C5	36:BM:9:PHE:CD2	3.07	0.43
24:BA:1373:A:H2'	24:BA:1374:G:O4'	2.19	0.43
24:BA:1509:A:N3	24:BA:1510:G:C8	2.86	0.43
24:BA:1537:G:H2'	24:BA:1538:G:O4'	2.18	0.43
24:BA:1538:G:O2'	24:BA:1539:U:C6	2.64	0.43
24:BA:1961:C:H5"	24:BA:1962:C:OP2	2.19	0.43
24:BA:1969:A:O2'	24:BA:1972:G:O2'	2.34	0.43
24:BA:2064:C:H1'	24:BA:2450:A:C6	2.53	0.43
24:BA:2321:U:H3'	24:BA:2322:A:C5'	2.47	0.43
24:BA:2686:G:H2'	24:BA:2687:U:O4'	2.18	0.43
24:BA:2720:U:C2	24:BA:2872:A:C5	3.07	0.43
27:BD:1:MET:HG2	27:BD:205:PRO:HG3	2.01	0.43
27:BD:101:PHE:O	27:BD:102:ALA:C	2.62	0.43
28:BE:101:TYR:O	28:BE:102:ARG:C	2.62	0.43
29:BF:37:MET:HG3	29:BF:56:LEU:HD11	2.01	0.43
30:BG:37:ASN:OD1	30:BG:37:ASN:N	2.51	0.43
30:BG:124:CYS:SG	30:BG:130:ILE:HG12	2.58	0.43
32:BI:56:VAL:HG11	32:BI:68:PHE:CD2	2.52	0.43
33:BJ:49:ASP:HB2	33:BJ:114:LEU:HD21	2.01	0.43
36:BM:21:ALA:CA	36:BM:97:GLN:HG2	2.46	0.43
38:BO:34:HIS:CD2	38:BO:53:THR:OG1	2.72	0.43
41:BR:38:VAL:CG1	41:BR:59:ILE:HG13	2.49	0.43
42:BS:44:ALA:O	42:BS:45:VAL:C	2.62	0.43
42:BS:69:LEU:HG	42:BS:107:VAL:CG1	2.48	0.43
43:BT:87:LEU:O	43:BT:88:LYS:C	2.61	0.43
44:BU:94:PHE:CD1	44:BU:94:PHE:C	2.97	0.43
46:BW:32:ALA:O	46:BW:34:SER:N	2.52	0.43
46:BW:47:GLY:H	46:BW:80:SER:CB	2.14	0.43
47:BX:8:GLY:O	47:BX:9:LYS:C	2.62	0.43
48:BY:8:GLU:O	48:BY:12:GLU:HB2	2.19	0.43
53:B3:7:ARG:HA	53:B3:7:ARG:HD2	1.33	0.43
2:CC:150:VAL:CG1	2:CC:199:VAL:HG12	2.46	0.43
4:CE:30:PHE:N	4:CE:30:PHE:CD1	2.86	0.43
5:CF:47:LEU:HD23	5:CF:59:TYR:OH	2.19	0.43
5:CF:49:TYR:CE1	17:CR:62:ARG:O	2.72	0.43
8:CI:45:MET:O	8:CI:49:GLN:HG3	2.19	0.43
8:CI:70:GLY:O	8:CI:71:ILE:C	2.61	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CI:110:VAL:HA	55:CA:1348:U:OP1	2.19	0.43
10:CK:74:LYS:HD2	10:CK:104:PHE:CZ	2.54	0.43
10:CK:127:ARG:HB3	55:CA:796:C:OP1	2.18	0.43
12:CM:75:SER:C	12:CM:77:LYS:H	2.25	0.43
16:CQ:33:TYR:O	16:CQ:34:GLY:C	2.61	0.43
20:CU:3:ILE:O	20:CU:4:LYS:O	2.36	0.43
20:CU:27:VAL:O	20:CU:27:VAL:HG12	2.17	0.43
55:CA:50:A:N6	55:CA:361:G:H4'	2.34	0.43
55:CA:71:A:N6	55:CA:100:G:N7	2.65	0.43
55:CA:374:A:C2	55:CA:375:U:C2	3.07	0.43
55:CA:428:G:H8	55:CA:428:G:OP1	2.02	0.43
55:CA:584:G:H2'	55:CA:585:G:C8	2.54	0.43
55:CA:853:C:C2	55:CA:854:U:C6	3.07	0.43
55:CA:970:C:H5	55:CA:1231:G:O2'	2.00	0.43
55:CA:976:G:O5'	55:CA:1358:U:O2'	2.37	0.43
55:CA:994:A:C2	55:CA:995:C:C6	3.07	0.43
55:CA:1143:G:O2'	55:CA:1144:G:H5'	2.19	0.43
55:CA:1428:A:N6	55:CA:1429:A:N6	2.67	0.43
55:CA:1447:A:O3'	55:CA:1448:C:H6	2.01	0.43
26:DC:230:PRO:HA	59:DC:405:HOH:O	2.19	0.43
26:DC:245:THR:O	26:DC:247:TRP:N	2.52	0.43
30:DG:120:ILE:HD11	30:DG:132:LEU:HB3	2.01	0.43
30:DG:152:ARG:HD2	30:DG:153:PRO:HD3	1.99	0.43
31:DH:102:ALA:C	31:DH:104:THR:N	2.76	0.43
36:DM:33:LEU:CD2	36:DM:128:THR:HB	2.49	0.43
37:DN:10:LEU:HA	37:DN:10:LEU:HD13	1.78	0.43
37:DN:24:MET:CG	37:DN:44:LEU:HD22	2.44	0.43
38:DO:64:TYR:HE1	56:DB:52:A:H8	1.59	0.43
53:D3:54:LEU:HG	53:D3:58:ILE:HD11	2.01	0.43
24:DA:28:A:N1	24:DA:29:U:C2	2.87	0.43
24:DA:271:G:C2	24:DA:367:G:N3	2.87	0.43
24:DA:482:A:OP2	24:DA:507:A:N6	2.52	0.43
24:DA:571:U:C4	24:DA:2030:A:C6	3.06	0.43
24:DA:792:A:C6	24:DA:2440:C:C6	3.06	0.43
24:DA:844:A:H2'	24:DA:845:A:O4'	2.19	0.43
24:DA:1303:G:O2'	24:DA:1304:A:H8	2.01	0.43
24:DA:1682:G:H2'	24:DA:1683:U:C5	2.54	0.43
24:DA:1891:G:C6	24:DA:1892:C:C4	3.07	0.43
24:DA:1921:G:O2'	24:DA:1922:G:H5'	2.19	0.43
24:DA:1935:G:C6	24:DA:1962:C:C5	3.06	0.43
24:DA:2190:G:H5'	24:DA:2191:A:OP2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2224:G:H4'	24:DA:2226:C:C2	2.54	0.43
24:DA:2270:A:N6	24:DA:2271:G:C6	2.87	0.43
24:DA:2551:C:H2'	24:DA:2552:U:C6	2.54	0.43
24:DA:2653:U:N3	24:DA:2654:A:C6	2.87	0.43
24:DA:2660:A:C2	24:DA:2661:G:N9	2.87	0.43
24:DA:2809:A:N7	24:DA:2890:G:C2	2.86	0.43
24:DA:2850:A:H2'	24:DA:2851:A:C8	2.53	0.43
24:DA:2859:G:N1	24:DA:2860:A:C2	2.87	0.43
56:DB:17:C:H2'	56:DB:18:G:C8	2.53	0.43
1:AB:147:LEU:HD22	1:AB:150:ILE:HG21	2.00	0.43
2:AC:109:GLU:H	2:AC:109:GLU:CD	2.27	0.43
2:AC:137:VAL:HG22	2:AC:148:ILE:CD1	2.46	0.43
4:AE:36:THR:OG1	4:AE:62:ALA:O	2.37	0.43
4:AE:83:PRO:HG3	7:AH:95:MET:HA	2.00	0.43
7:AH:1:SER:HB2	21:AA:824:G:N3	2.33	0.43
7:AH:91:LEU:HD12	7:AH:116:ARG:HD3	1.99	0.43
8:AI:83:THR:HB	8:AI:97:LEU:HD21	1.99	0.43
18:AS:62:THR:O	18:AS:63:ASP:C	2.62	0.43
19:AT:12:GLN:C	19:AT:14:GLU:H	2.26	0.43
21:AA:71:A:C2	21:AA:72:A:C5	3.06	0.43
21:AA:79:G:C5	21:AA:80:A:N7	2.87	0.43
21:AA:230:G:H2'	21:AA:231:U:O4'	2.18	0.43
21:AA:683:G:C2	21:AA:708:C:O2	2.72	0.43
21:AA:918:A:N1	21:AA:919:A:C2	2.87	0.43
21:AA:994:A:C5	21:AA:1216:A:H4'	2.54	0.43
21:AA:1099:G:C6	21:AA:1100:C:C4	3.07	0.43
21:AA:1462:C:C4	21:AA:1463:U:C4	3.06	0.43
24:BA:414:C:H1'	24:BA:1864:U:O2'	2.19	0.43
24:BA:602:A:H4'	24:BA:604:G:O3'	2.19	0.43
24:BA:644:A:H2'	24:BA:645:C:C4'	2.49	0.43
24:BA:811:U:C2	24:BA:1251:C:C5	3.07	0.43
24:BA:950:G:C2	24:BA:951:C:C2	3.06	0.43
24:BA:999:U:O2	24:BA:1157:G:C2	2.72	0.43
24:BA:1317:G:H2'	24:BA:1318:U:H6	1.84	0.43
24:BA:1682:G:C2	24:BA:1683:U:C4	3.07	0.43
24:BA:1878:G:H2'	24:BA:1879:C:O4'	2.18	0.43
24:BA:2032:G:H4'	59:BA:3484:HOH:O	2.19	0.43
24:BA:2070:A:N3	24:BA:2442:C:O2	2.51	0.43
24:BA:2215:C:O2'	24:BA:2216:G:H5'	2.19	0.43
24:BA:2440:C:O2'	24:BA:2441:U:OP1	2.35	0.43
24:BA:2578:G:OP2	24:BA:2578:G:H4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2818:U:O2'	24:BA:2837:A:H5'	2.19	0.43
24:BA:2847:U:H2'	24:BA:2848:G:H5'	2.01	0.43
26:BC:199:HIS:O	26:BC:201:LEU:N	2.52	0.43
28:BE:132:LYS:NZ	28:BE:132:LYS:HB3	2.34	0.43
29:BF:162:ASP:OD1	29:BF:162:ASP:N	2.52	0.43
31:BH:40:THR:O	31:BH:41:LYS:HB2	2.19	0.43
32:BI:56:VAL:HG22	32:BI:68:PHE:HB2	2.01	0.43
32:BI:123:ALA:HA	32:BI:126:ARG:CZ	2.48	0.43
35:BL:29:LYS:C	35:BL:31:GLY:N	2.59	0.43
35:BL:63:LYS:HA	53:B3:11:LYS:O	2.19	0.43
39:BP:22:GLY:O	39:BP:109:ILE:HD11	2.18	0.43
39:BP:33:GLU:HG3	39:BP:34:GLY:H	1.84	0.43
40:BQ:7:VAL:HG22	40:BQ:8:ILE:N	2.33	0.43
40:BQ:13:HIS:CD2	40:BQ:31:TYR:CG	3.07	0.43
40:BQ:63:ARG:HH22	40:BQ:96:ASP:CA	2.31	0.43
46:BW:39:GLN:HG2	46:BW:40:ARG:N	2.32	0.43
47:BX:58:ILE:HG13	47:BX:66:VAL:HG21	2.01	0.43
1:CB:151:LYS:HG3	1:CB:152:ASP:N	2.29	0.43
2:CC:34:SER:HA	2:CC:37:LYS:HB2	2.01	0.43
2:CC:113:LYS:HG3	2:CC:184:ASN:ND2	2.34	0.43
4:CE:51:LYS:HG2	4:CE:52:ALA:N	2.29	0.43
4:CE:99:SER:O	4:CE:100:GLU:C	2.60	0.43
5:CF:37:HIS:O	5:CF:38:ARG:HB3	2.19	0.43
7:CH:77:VAL:HG21	7:CH:127:TYR:CE1	2.54	0.43
7:CH:124:ILE:H	7:CH:124:ILE:HG12	1.61	0.43
8:CI:4:GLN:H	8:CI:4:GLN:HG2	1.58	0.43
8:CI:29:ILE:HD11	8:CI:66:VAL:CG1	2.49	0.43
9:CJ:63:ASP:OD2	13:CN:84:ARG:NH1	2.51	0.43
9:CJ:87:LEU:HD22	9:CJ:87:LEU:HA	1.91	0.43
11:CL:49:ARG:HH12	55:CA:523:A:N6	2.16	0.43
12:CM:17:ALA:HB3	12:CM:18:LEU:HD12	2.00	0.43
12:CM:98:GLY:O	12:CM:99:GLN:HB2	2.18	0.43
13:CN:2:LYS:HD3	13:CN:5:MET:HG2	2.01	0.43
13:CN:62:ARG:HH11	13:CN:62:ARG:CB	2.31	0.43
17:CR:59:LYS:HD3	55:CA:734:G:O2'	2.18	0.43
55:CA:120:A:H3'	55:CA:121:U:C5'	2.48	0.43
55:CA:183:C:O2'	55:CA:184:G:C5'	2.48	0.43
55:CA:595:A:H5"	55:CA:596:A:OP1	2.19	0.43
55:CA:944:G:H3'	55:CA:945:G:H5'	1.99	0.43
55:CA:1157:A:N3	55:CA:1181:G:C4	2.87	0.43
55:CA:1284:C:H2'	55:CA:1285:A:N7	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:1332:A:N6	55:CA:1333:A:C4	2.87	0.43
26:DC:13:ARG:NH2	24:DA:1695:G:N7	2.67	0.43
27:DD:125:TRP:CD2	27:DD:160:LYS:HB3	2.53	0.43
27:DD:138:LEU:HD13	27:DD:138:LEU:H	1.84	0.43
27:DD:169:ARG:O	27:DD:170:VAL:CG2	2.65	0.43
29:DF:11:VAL:CG1	29:DF:12:VAL:N	2.82	0.43
30:DG:1:SER:O	30:DG:3:VAL:HG22	2.18	0.43
30:DG:44:HIS:HD2	30:DG:49:LEU:HD13	1.84	0.43
31:DH:62:LEU:HD12	31:DH:63:ALA:N	2.33	0.43
32:DI:95:ASP:CG	32:DI:96:LYS:H	2.26	0.43
35:DL:61:LEU:HD23	53:D3:23:HIS:HB2	2.01	0.43
37:DN:104:ALA:HB3	24:DA:1287:A:OP1	2.19	0.43
38:DO:26:LEU:HB3	38:DO:92:PHE:CD1	2.54	0.43
40:DQ:4:LYS:CD	40:DQ:7:VAL:HG22	2.49	0.43
41:DR:30:GLY:HA2	41:DR:63:VAL:O	2.19	0.43
41:DR:51:VAL:HB	41:DR:52:PRO:CD	2.49	0.43
44:DU:96:LYS:O	44:DU:97:SER:HB3	2.18	0.43
45:DV:49:ASN:O	45:DV:52:ALA:HB3	2.18	0.43
24:DA:159:G:H1'	24:DA:167:A:H61	1.83	0.43
24:DA:564:C:C2'	24:DA:565:C:H5'	2.49	0.43
24:DA:734:A:H2'	24:DA:735:A:H8	1.84	0.43
24:DA:741:U:O2'	24:DA:742:A:O4'	2.19	0.43
24:DA:778:G:H5"	24:DA:779:U:OP2	2.18	0.43
24:DA:962:G:C5	24:DA:963:U:C4	3.07	0.43
24:DA:1055:G:C5	24:DA:1056:G:C8	3.06	0.43
24:DA:1266:G:N2	24:DA:2013:A:OP2	2.44	0.43
24:DA:1431:A:H2'	24:DA:1432:G:O4'	2.19	0.43
24:DA:1758:U:O2	24:DA:1758:U:O4'	2.37	0.43
24:DA:1828:G:H8	24:DA:1828:G:OP2	2.01	0.43
24:DA:1862:G:N2	24:DA:1881:C:C2	2.87	0.43
24:DA:1970:A:C5'	24:DA:1971:U:OP1	2.65	0.43
24:DA:1999:C:H2'	24:DA:2000:C:O4'	2.19	0.43
24:DA:2089:C:N4	24:DA:2090:A:N6	2.67	0.43
24:DA:2246:G:H2'	24:DA:2247:A:C8	2.54	0.43
24:DA:2259:U:O4'	24:DA:2427:C:H2'	2.18	0.43
24:DA:2345:G:C5	24:DA:2347:C:C5	3.06	0.43
24:DA:2394:C:O2'	24:DA:2395:C:H5'	2.19	0.43
24:DA:2414:G:O2'	24:DA:2415:G:H5'	2.18	0.43
24:DA:2450:A:C2	24:DA:2451:A:C8	3.07	0.43
24:DA:2692:G:OP1	24:DA:2870:C:O2'	2.34	0.43
24:DA:2851:A:C5	24:DA:2852:G:C5	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AB:69:VAL:HG21	1:AB:160:LEU:HD21	1.99	0.43
1:AB:160:LEU:HG	1:AB:161:PHE:H	1.83	0.43
3:AD:21:LYS:O	3:AD:22:SER:C	2.62	0.43
7:AH:49:LYS:HB3	7:AH:51:GLU:CD	2.44	0.43
8:AI:17:ARG:HH22	21:AA:1129:C:C5'	2.30	0.43
8:AI:113:LYS:O	21:AA:1368:A:P	2.77	0.43
14:AO:38:LEU:HB3	14:AO:55:LEU:HD22	2.00	0.43
16:AQ:11:VAL:HG12	16:AQ:12:VAL:N	2.33	0.43
16:AQ:74:LEU:HD13	16:AQ:74:LEU:O	2.18	0.43
20:AU:39:LYS:H	20:AU:40:PRO:CD	2.21	0.43
21:AA:222:C:HO2'	21:AA:223:A:H5'	1.84	0.43
21:AA:355:C:N3	21:AA:356:A:N7	2.67	0.43
21:AA:502:A:C6	21:AA:503:C:C4	3.07	0.43
21:AA:544:G:C6	21:AA:545:C:C5	3.07	0.43
21:AA:606:G:H1'	21:AA:633:G:N2	2.34	0.43
21:AA:900:A:H2'	21:AA:901:A:O4'	2.17	0.43
21:AA:1007:U:C3'	21:AA:1008:U:H5"	2.48	0.43
21:AA:1504:G:O4'	21:AA:1505:G:N2	2.51	0.43
24:BA:16:C:H2'	24:BA:17:G:H8	1.83	0.43
24:BA:465:G:N2	24:BA:684:G:H1'	2.33	0.43
24:BA:495:G:C6	24:BA:496:G:N7	2.87	0.43
24:BA:565:C:P	41:BR:80:ARG:H	2.42	0.43
24:BA:613:A:OP2	24:BA:614:A:C8	2.72	0.43
24:BA:754:U:H2'	24:BA:755:U:H6	1.81	0.43
24:BA:760:G:H2'	24:BA:761:A:O4'	2.19	0.43
24:BA:845:A:C6	24:BA:847:U:C6	3.07	0.43
24:BA:1160:G:C6	24:BA:1161:C:C4	3.07	0.43
24:BA:1640:A:H2'	24:BA:1641:A:H5'	2.00	0.43
24:BA:1726:C:H2'	24:BA:1727:C:O4'	2.19	0.43
24:BA:2392:A:C8	24:BA:2429:G:C6	3.07	0.43
24:BA:2582:G:H2'	24:BA:2583:G:H8	1.83	0.43
26:BC:216:ARG:HB3	26:BC:217:PRO:HD2	2.00	0.43
27:BD:118:PHE:O	27:BD:120:GLY:N	2.51	0.43
28:BE:72:SER:OG	28:BE:74:LYS:CB	2.64	0.43
34:BK:119:ALA:HA	34:BK:120:PRO:HD2	1.82	0.43
40:BQ:85:ALA:O	40:BQ:88:GLU:HB2	2.19	0.43
43:BT:69:ARG:NE	43:BT:70:HIS:H	2.17	0.43
48:BY:21:LEU:O	48:BY:22:LEU:C	2.61	0.43
51:B1:35:LEU:N	51:B1:35:LEU:CD2	2.81	0.43
54:B4:15:LYS:O	54:B4:16:ILE:O	2.37	0.43
1:CB:56:LEU:HD23	1:CB:183:PHE:CZ	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CB:221:ARG:HG3	1:CB:222:GLU:H	1.82	0.43
3:CD:199:ILE:O	3:CD:199:ILE:HG13	2.18	0.43
4:CE:22:LYS:HB3	4:CE:29:ILE:CG2	2.49	0.43
4:CE:131:ASN:O	4:CE:132:PRO:C	2.62	0.43
6:CG:148:LYS:NZ	6:CG:148:LYS:O	2.32	0.43
11:CL:116:TYR:O	11:CL:117:GLY:C	2.62	0.43
12:CM:7:ASN:HB3	12:CM:9:PRO:HD3	2.01	0.43
12:CM:89:ARG:HE	12:CM:94:LEU:HD13	1.84	0.43
13:CN:87:ALA:C	13:CN:88:MET:HE2	2.44	0.43
19:CT:26:MET:HG3	55:CA:1457:G:O2'	2.19	0.43
55:CA:483:C:H2'	55:CA:484:G:C8	2.54	0.43
55:CA:951:G:C6	55:CA:952:U:C4	3.07	0.43
55:CA:1075:U:H2'	55:CA:1076:U:H6	1.84	0.43
55:CA:1103:C:C4	55:CA:1104:G:N7	2.87	0.43
55:CA:1316:G:N1	55:CA:1319:A:OP2	2.51	0.43
55:CA:1349:A:C2	55:CA:1374:A:C4	3.06	0.43
26:DC:208:GLY:HA3	24:DA:764:A:H5'	2.01	0.43
27:DD:12:THR:HG22	27:DD:13:ARG:O	2.19	0.43
27:DD:114:LYS:HB2	27:DD:116:LYS:HE3	2.01	0.43
28:DE:29:HIS:C	28:DE:32:VAL:HG22	2.44	0.43
29:DF:122:ASP:CB	29:DF:126:ASN:ND2	2.80	0.43
30:DG:94:ARG:O	30:DG:95:ALA:HB2	2.18	0.43
32:DI:32:VAL:HG13	32:DI:58:ILE:HD12	2.00	0.43
34:DK:92:GLU:O	34:DK:93:GLN:O	2.36	0.43
35:DL:124:GLY:H	35:DL:143:GLU:CG	2.17	0.43
36:DM:12:MET:HA	24:DA:910:A:H62	1.83	0.43
36:DM:34:LYS:HD3	36:DM:131:VAL:CG2	2.41	0.43
37:DN:96:ARG:O	37:DN:113:ILE:HA	2.18	0.43
39:DP:30:TRP:HD1	39:DP:39:LEU:HD12	1.83	0.43
39:DP:92:ARG:HE	24:DA:1753:G:H5"	1.84	0.43
41:DR:16:GLU:HG3	41:DR:16:GLU:O	2.19	0.43
42:DS:36:LEU:C	42:DS:38:TYR:H	2.27	0.43
43:DT:17:SER:O	43:DT:18:GLU:C	2.61	0.43
44:DU:84:PHE:HA	44:DU:92:VAL:O	2.19	0.43
45:DV:29:ILE:CG2	56:DB:75:G:H1'	2.49	0.43
46:DW:20:LEU:HD12	46:DW:20:LEU:N	2.33	0.43
48:DY:1:MET:H2	48:DY:5:GLU:CG	2.32	0.43
49:DZ:13:ILE:HD12	24:DA:988:A:C8	2.54	0.43
52:D2:28:ARG:C	52:D2:30:VAL:H	2.27	0.43
24:DA:3:U:H2'	24:DA:4:U:O4'	2.18	0.43
24:DA:85:G:N1	24:DA:98:G:C4	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:155:A:C6	24:DA:156:A:C6	3.07	0.43
24:DA:283:G:H8	24:DA:283:G:OP2	2.02	0.43
24:DA:1055:G:C4	24:DA:1056:G:C8	3.07	0.43
24:DA:1085:A:H2'	24:DA:1086:A:N3	2.34	0.43
24:DA:1170:C:H6	24:DA:1170:C:OP2	2.02	0.43
24:DA:1341:G:H5"	24:DA:1342:A:OP2	2.19	0.43
24:DA:1392:A:C6	24:DA:1393:A:C6	3.07	0.43
24:DA:1682:G:C2	24:DA:1683:U:N3	2.87	0.43
24:DA:1911:U:C2	24:DA:1918:A:C2	3.06	0.43
24:DA:1923:U:H2'	24:DA:1924:C:H6	1.84	0.43
24:DA:2184:A:C5	24:DA:2185:U:C4	3.07	0.43
24:DA:2345:G:H4'	24:DA:2346:A:H5"	2.00	0.43
24:DA:2348:U:O2'	24:DA:2349:G:C5'	2.67	0.43
24:DA:2542:A:H4'	24:DA:2543:G:H5'	2.01	0.43
24:DA:2603:G:C6	24:DA:2604:U:C4	3.06	0.43
24:DA:2657:A:O2'	24:DA:2658:C:H5'	2.19	0.43
24:DA:2840:C:O2'	24:DA:2841:C:H5'	2.19	0.43
56:DB:50:A:N6	56:DB:51:G:N7	2.67	0.43
1:AB:22:TRP:CG	1:AB:22:TRP:O	2.71	0.42
1:AB:182:VAL:CG1	1:AB:183:PHE:H	2.29	0.42
3:AD:176:LYS:O	3:AD:177:MET:C	2.62	0.42
4:AE:61:LYS:NZ	21:AA:1073:U:P	2.92	0.42
4:AE:81:GLN:O	7:AH:98:LEU:HD11	2.19	0.42
9:AJ:66:GLU:O	13:AN:95:LEU:HA	2.19	0.42
11:AL:42:LYS:O	11:AL:43:LYS:C	2.62	0.42
14:AO:9:LYS:HB3	14:AO:9:LYS:NZ	2.34	0.42
14:AO:55:LEU:O	14:AO:55:LEU:HD12	2.19	0.42
15:AP:52:LEU:CD2	15:AP:75:ILE:HG12	2.42	0.42
18:AS:29:PRO:HA	18:AS:47:THR:OG1	2.19	0.42
19:AT:77:ASN:HD22	19:AT:78:LEU:N	2.17	0.42
21:AA:125:U:H2'	21:AA:126:G:O4'	2.18	0.42
21:AA:174:A:C5	21:AA:175:C:C5	3.07	0.42
21:AA:187:G:N2	21:AA:191:G:C5	2.87	0.42
21:AA:201:G:C2	21:AA:217:C:O2	2.72	0.42
21:AA:363:A:H2'	21:AA:364:A:O4'	2.19	0.42
21:AA:416:G:O6	21:AA:428:G:O6	2.36	0.42
21:AA:931:C:O2	21:AA:1387:G:C2	2.72	0.42
21:AA:1064:G:O6	21:AA:1193:G:N1	2.52	0.42
21:AA:1201:A:H1'	21:AA:1202:U:OP2	2.19	0.42
24:BA:418:C:H2'	24:BA:419:U:H6	1.83	0.42
24:BA:608:A:C8	24:BA:621:A:N6	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:818:G:C2	24:BA:1190:G:O6	2.72	0.42
24:BA:910:A:C6	24:BA:911:A:C6	3.07	0.42
24:BA:1157:G:N2	24:BA:1158:C:C2	2.86	0.42
24:BA:1565:C:C4	24:BA:1567:G:C5	3.07	0.42
24:BA:1603:A:H2'	24:BA:1604:C:H6	1.83	0.42
24:BA:2218:G:O2'	24:BA:2219:U:H5'	2.18	0.42
24:BA:2276:G:OP2	24:BA:2276:G:H4'	2.19	0.42
24:BA:2399:G:H2'	24:BA:2400:G:O4'	2.19	0.42
24:BA:2646:C:H6	24:BA:2646:C:O5'	2.02	0.42
24:BA:2876:G:C6	24:BA:2877:G:C5	3.06	0.42
26:BC:75:ALA:O	26:BC:115:ILE:N	2.47	0.42
26:BC:94:LEU:HD13	26:BC:100:ARG:HH11	1.83	0.42
26:BC:115:ILE:HD12	26:BC:115:ILE:HA	1.75	0.42
27:BD:182:ALA:C	27:BD:183:GLU:HG3	2.43	0.42
28:BE:127:GLU:CD	28:BE:127:GLU:N	2.77	0.42
28:BE:130:LYS:O	28:BE:131:THR:C	2.60	0.42
28:BE:131:THR:CG2	28:BE:160:ALA:HA	2.48	0.42
30:BG:122:ALA:HA	30:BG:132:LEU:HA	2.01	0.42
31:BH:101:ASP:O	31:BH:104:THR:HB	2.19	0.42
32:BI:19:PRO:HB2	32:BI:22:PRO:HD2	2.01	0.42
32:BI:24:GLY:O	32:BI:34:ILE:HD12	2.19	0.42
33:BJ:40:HIS:C	33:BJ:41:LYS:CG	2.91	0.42
33:BJ:44:TYR:C	33:BJ:45:THR:HG22	2.44	0.42
34:BK:85:VAL:CG1	34:BK:115:ILE:HD11	2.47	0.42
35:BL:77:ILE:HD11	35:BL:101:ILE:HD11	2.01	0.42
35:BL:85:VAL:HG21	35:BL:94:THR:CG2	2.42	0.42
36:BM:8:LYS:HA	36:BM:8:LYS:HD2	1.78	0.42
37:BN:117:ASP:O	37:BN:119:SER:N	2.50	0.42
41:BR:39:LEU:C	41:BR:49:ILE:HG23	2.44	0.42
41:BR:64:VAL:O	41:BR:65:ALA:CB	2.62	0.42
42:BS:72:THR:HG21	42:BS:108:SER:OG	2.19	0.42
44:BU:3:LYS:NZ	44:BU:83:GLY:H	2.17	0.42
46:BW:14:ASP:HB3	46:BW:15:SER:H	1.29	0.42
46:BW:17:ALA:O	46:BW:18:LYS:CB	2.66	0.42
47:BX:32:LEU:HD12	47:BX:32:LEU:H	1.84	0.42
1:CB:111:LYS:HD3	1:CB:111:LYS:O	2.19	0.42
1:CB:116:LEU:HB3	1:CB:140:LEU:HD13	2.00	0.42
2:CC:22:PHE:CD1	9:CJ:13:PHE:CE1	3.07	0.42
3:CD:55:ARG:O	3:CD:59:LYS:N	2.52	0.42
3:CD:161:ALA:C	3:CD:163:GLN:H	2.27	0.42
6:CG:9:ARG:C	6:CG:10:LYS:HG3	2.44	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CI:44:ARG:C	8:CI:46:VAL:N	2.74	0.42
10:CK:91:GLY:O	10:CK:92:ARG:C	2.62	0.42
11:CL:115:LYS:O	11:CL:116:TYR:CB	2.66	0.42
12:CM:12:LYS:HA	12:CM:12:LYS:CE	2.48	0.42
14:CO:62:ARG:O	14:CO:66:LEU:HG	2.19	0.42
16:CQ:25:GLU:HG2	16:CQ:40:THR:HG22	2.01	0.42
17:CR:60:ARG:HA	17:CR:63:TYR:CD1	2.50	0.42
20:CU:35:GLU:C	20:CU:36:PHE:CD2	2.97	0.42
55:CA:246:A:N9	55:CA:282:A:N6	2.67	0.42
55:CA:350:G:C6	55:CA:351:G:C6	3.07	0.42
55:CA:414:A:N6	55:CA:431:A:C4	2.87	0.42
55:CA:483:C:H2'	55:CA:484:G:N7	2.34	0.42
55:CA:513:C:HO2'	55:CA:514:C:H6	1.66	0.42
55:CA:745:G:H2'	55:CA:746:A:H8	1.82	0.42
55:CA:923:A:H8	55:CA:923:A:O5'	2.01	0.42
55:CA:1011:C:N3	55:CA:1019:A:C2	2.87	0.42
55:CA:1336:C:H1'	55:CA:1337:G:N1	2.34	0.42
55:CA:1513:A:N1	55:CA:1523:G:C6	2.87	0.42
22:CV:40:C:H2'	22:CV:41:C:H6	1.84	0.42
26:DC:67:LYS:CG	26:DC:150:GLY:HA2	2.49	0.42
26:DC:263:ASP:O	26:DC:264:LYS:C	2.62	0.42
28:DE:45:ALA:CB	24:DA:37:C:O2'	2.67	0.42
29:DF:71:LYS:O	29:DF:72:SER:HB3	2.19	0.42
33:DJ:38:GLY:O	33:DJ:43:GLU:HB2	2.19	0.42
33:DJ:105:VAL:O	33:DJ:109:LEU:HG	2.19	0.42
35:DL:79:LEU:HD23	35:DL:82:LEU:CD1	2.48	0.42
40:DQ:2:ARG:HA	24:DA:1248:G:H2'	2.00	0.42
46:DW:70:VAL:O	46:DW:70:VAL:CG2	2.66	0.42
47:DX:31:ASN:HB3	24:DA:2230:G:C1'	2.48	0.42
50:D0:38:LEU:H	50:D0:41:HIS:CE1	2.37	0.42
51:D1:8:ILE:O	51:D1:21:THR:HA	2.19	0.42
51:D1:46:VAL:HG22	51:D1:47:ILE:H	1.84	0.42
24:DA:185:G:H4'	24:DA:218:A:H4'	2.01	0.42
24:DA:301:G:C5	24:DA:302:C:C4	3.07	0.42
24:DA:371:A:C8	24:DA:373:U:N3	2.87	0.42
24:DA:686:U:H2'	24:DA:686:U:H6	1.39	0.42
24:DA:739:A:HO2'	24:DA:740:C:H5	1.63	0.42
24:DA:825:A:C5	24:DA:826:U:C4	3.07	0.42
24:DA:1017:G:N3	24:DA:1018:U:C6	2.87	0.42
24:DA:1378:A:O2'	24:DA:1379:U:C6	2.64	0.42
24:DA:1496:A:C2	24:DA:1498:C:N3	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1534:U:O2	24:DA:1534:U:C2'	2.67	0.42
24:DA:1535:A:N1	24:DA:1537:G:C5	2.87	0.42
24:DA:1689:A:C6	24:DA:1700:A:C2	3.07	0.42
24:DA:1894:C:C2'	24:DA:1895:C:H5'	2.49	0.42
24:DA:2147:A:H4'	24:DA:2148:G:H8	1.84	0.42
24:DA:2900:A:H2'	24:DA:2901:C:H6	1.84	0.42
1:AB:36:LYS:HA	1:AB:36:LYS:HE3	2.00	0.42
1:AB:136:ARG:HD3	1:AB:139:GLU:CD	2.44	0.42
1:AB:182:VAL:CG1	1:AB:183:PHE:N	2.81	0.42
2:AC:18:ASN:O	2:AC:55:VAL:HA	2.19	0.42
4:AE:116:VAL:C	4:AE:118:GLY:H	2.28	0.42
5:AF:6:ILE:H	5:AF:6:ILE:HG13	1.51	0.42
6:AG:21:LEU:HD23	6:AG:21:LEU:HA	1.86	0.42
7:AH:48:PHE:O	7:AH:49:LYS:HG3	2.19	0.42
8:AI:61:ASP:CG	8:AI:62:LEU:N	2.77	0.42
9:AJ:10:LEU:HB2	9:AJ:72:ARG:HB2	2.00	0.42
9:AJ:52:LEU:HD23	9:AJ:62:ARG:CG	2.48	0.42
9:AJ:66:GLU:CG	13:AN:98:ALA:HB2	2.49	0.42
13:AN:87:ALA:HB2	13:AN:92:ILE:HD12	2.00	0.42
15:AP:70:ARG:HA	15:AP:70:ARG:HD2	1.90	0.42
16:AQ:13:SER:O	16:AQ:16:MET:SD	2.77	0.42
16:AQ:43:LEU:HD23	16:AQ:43:LEU:HA	1.89	0.42
18:AS:51:HIS:HD2	21:AA:1220:G:O2'	2.01	0.42
21:AA:82:G:N1	21:AA:88:U:H1'	2.34	0.42
21:AA:430:A:H2'	21:AA:431:A:H8	1.84	0.42
21:AA:511:C:C6	21:AA:512:U:C5	3.06	0.42
21:AA:513:C:N3	21:AA:514:C:C5	2.87	0.42
21:AA:561:U:H6	21:AA:561:U:H2'	1.63	0.42
21:AA:717:U:N3	21:AA:734:G:N7	2.67	0.42
21:AA:961:U:O2'	21:AA:962:C:H5'	2.19	0.42
21:AA:1255:G:O2'	21:AA:1258:G:H1'	2.19	0.42
21:AA:1382:C:O2'	21:AA:1383:C:C5'	2.68	0.42
21:AA:1430:A:N3	21:AA:1430:A:H2'	2.33	0.42
22:AV:29:G:C4	22:AV:30:G:C8	3.07	0.42
24:BA:247:G:H4'	24:BA:386:G:C5	2.53	0.42
24:BA:320:A:O2'	24:BA:322:A:H8	2.00	0.42
24:BA:397:U:O5'	24:BA:397:U:H6	2.02	0.42
24:BA:415:A:C5	24:BA:416:U:C4	3.07	0.42
24:BA:465:G:C6	24:BA:466:A:N6	2.87	0.42
24:BA:657:U:H2'	24:BA:658:U:C6	2.55	0.42
24:BA:681:G:H2'	24:BA:682:G:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:729:G:N3	24:BA:1775:U:H1'	2.34	0.42
24:BA:1022:G:C5	24:BA:1140:C:C4	3.07	0.42
24:BA:1062:G:C8	24:BA:1088:A:N7	2.87	0.42
24:BA:1063:G:C6	24:BA:1064:C:C2	3.07	0.42
24:BA:1073:A:N7	24:BA:1074:G:H8	2.16	0.42
24:BA:1268:A:H61	24:BA:2012:G:H1'	1.83	0.42
24:BA:1351:C:O2'	24:BA:1571:A:H1'	2.19	0.42
24:BA:1425:G:H8	24:BA:1425:G:O5'	2.03	0.42
24:BA:1465:G:C2'	24:BA:1466:U:H5'	2.50	0.42
24:BA:1802:A:O2'	24:BA:1803:A:H5'	2.19	0.42
24:BA:1804:C:H6	24:BA:1804:C:O5'	2.02	0.42
24:BA:1815:A:C4	24:BA:1817:G:C6	3.08	0.42
24:BA:1871:A:H2'	24:BA:1871:A:H8	1.63	0.42
24:BA:2655:G:O2'	24:BA:2656:U:P	2.77	0.42
24:BA:2691:C:C6	24:BA:2691:C:C3'	3.02	0.42
24:BA:2748:A:N6	24:BA:2749:A:C6	2.88	0.42
25:BB:29:A:OP2	38:BO:32:PRO:HD2	2.19	0.42
25:BB:92:C:H2'	25:BB:93:C:H6	1.84	0.42
27:BD:99:GLU:CG	27:BD:100:LEU:N	2.65	0.42
28:BE:5:LEU:CD1	28:BE:10:SER:HB3	2.47	0.42
28:BE:46:GLN:HB2	28:BE:83:VAL:HG11	2.01	0.42
29:BF:134:GLN:C	29:BF:136:ILE:H	2.14	0.42
29:BF:137:PHE:HA	29:BF:138:PRO:HD3	1.89	0.42
30:BG:1:SER:O	30:BG:3:VAL:HG12	2.18	0.42
30:BG:49:LEU:HD23	30:BG:49:LEU:HA	1.66	0.42
30:BG:84:LYS:CG	30:BG:85:LYS:N	2.80	0.42
30:BG:102:ILE:HG21	30:BG:130:ILE:HD13	2.01	0.42
33:BJ:130:HIS:HD2	33:BJ:132:HIS:N	2.11	0.42
39:BP:5:LYS:C	39:BP:7:LEU:H	2.26	0.42
39:BP:33:GLU:OE2	39:BP:38:ARG:NH1	2.52	0.42
41:BR:49:ILE:HD12	41:BR:52:PRO:CA	2.39	0.42
51:B1:13:SER:HB3	51:B1:47:ILE:O	2.19	0.42
52:B2:21:ARG:HG2	52:B2:31:LEU:HG	2.01	0.42
2:CC:9:ILE:HD13	13:CN:97:LYS:HD3	2.01	0.42
3:CD:29:THR:O	3:CD:30:LYS:CB	2.67	0.42
3:CD:77:GLU:C	3:CD:79:ALA:N	2.74	0.42
6:CG:91:ARG:HG2	6:CG:92:PRO:CD	2.42	0.42
8:CI:10:ARG:NH1	55:CA:1149:C:OP2	2.52	0.42
8:CI:44:ARG:C	8:CI:46:VAL:HG22	2.44	0.42
9:CJ:48:ARG:H	9:CJ:48:ARG:HG2	1.53	0.42
11:CL:2:THR:CB	11:CL:5:GLN:HB2	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CL:34:THR:OG1	11:CL:53:ARG:HG3	2.19	0.42
11:CL:81:ILE:HD11	11:CL:94:TYR:CG	2.53	0.42
20:CU:53:LYS:HD3	20:CU:53:LYS:HA	1.90	0.42
55:CA:100:G:H2'	55:CA:101:A:O4'	2.19	0.42
55:CA:245:U:O2'	55:CA:246:A:H5'	2.19	0.42
55:CA:316:C:C5	55:CA:351:G:C5	3.07	0.42
55:CA:429:U:H4'	55:CA:430:A:O5'	2.18	0.42
55:CA:476:U:C6	55:CA:476:U:OP2	2.72	0.42
55:CA:702:A:HO2'	55:CA:703:G:P	2.41	0.42
55:CA:773:G:N2	55:CA:807:A:C4	2.87	0.42
55:CA:801:U:O2'	55:CA:802:A:H5'	2.19	0.42
55:CA:1402:C:O2'	55:CA:1403:C:H5'	2.19	0.42
55:CA:1438:G:C5	55:CA:1439:G:N7	2.86	0.42
55:CA:1453:G:N3	55:CA:1453:G:C2'	2.81	0.42
26:DC:225:ASN:OD1	24:DA:784:G:H5"	2.19	0.42
27:DD:150:GLN:O	27:DD:151:THR:C	2.62	0.42
28:DE:73:ILE:HG23	28:DE:74:LYS:HG3	2.00	0.42
29:DF:102:LEU:N	29:DF:102:LEU:HD22	2.34	0.42
33:DJ:44:TYR:CD1	40:DQ:59:LEU:HD11	2.54	0.42
34:DK:7:MET:HA	34:DK:7:MET:CE	2.46	0.42
35:DL:4:ASN:HD22	35:DL:4:ASN:HA	1.59	0.42
36:DM:79:ALA:HA	24:DA:2494:G:O2'	2.18	0.42
36:DM:82:MET:HE1	24:DA:956:G:C4'	2.49	0.42
39:DP:91:VAL:HG21	39:DP:96:LEU:HD21	2.01	0.42
41:DR:10:LYS:HE2	24:DA:994:C:H1'	2.00	0.42
45:DV:29:ILE:HD13	45:DV:31:TYR:CD2	2.47	0.42
50:D0:54:ILE:O	50:D0:55:ALA:HB2	2.19	0.42
52:D2:34:ARG:HH21	24:DA:466:A:P	2.42	0.42
24:DA:303:G:C6	24:DA:315:G:C6	3.06	0.42
24:DA:573:U:C4	24:DA:2030:A:H3'	2.54	0.42
24:DA:580:U:H2'	24:DA:581:C:C6	2.54	0.42
24:DA:711:G:C6	24:DA:721:A:N1	2.87	0.42
24:DA:871:U:O2	24:DA:907:G:C6	2.72	0.42
24:DA:1270:C:H2'	24:DA:1648:U:H5"	2.01	0.42
24:DA:1452:G:C4	24:DA:2702:G:C6	3.07	0.42
24:DA:1544:A:C6	24:DA:1545:A:C6	3.07	0.42
24:DA:1608:A:C6	24:DA:1611:C:C4	3.07	0.42
24:DA:1731:G:N3	24:DA:1731:G:O4'	2.53	0.42
24:DA:1787:A:H2'	24:DA:1788:C:C5	2.54	0.42
24:DA:2307:G:O2'	24:DA:2308:G:C8	2.65	0.42
24:DA:2318:G:C6	24:DA:2319:G:N1	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2318:G:H2'	24:DA:2319:G:O4'	2.19	0.42
24:DA:2333:A:C1'	24:DA:2335:A:C8	3.01	0.42
24:DA:2570:G:C4	24:DA:2571:U:C6	3.07	0.42
24:DA:2644:G:H2'	24:DA:2645:G:O4'	2.19	0.42
24:DA:2692:G:H1'	24:DA:2847:U:O2'	2.19	0.42
56:DB:59:A:C5	56:DB:60:C:C4	3.06	0.42
56:DB:73:A:C8	56:DB:74:U:C5	3.07	0.42
1:AB:86:CYS:H	1:AB:88:GLN:HE21	1.66	0.42
1:AB:106:VAL:O	1:AB:106:VAL:HG12	2.19	0.42
1:AB:202:ASN:HB3	1:AB:208:ALA:CB	2.48	0.42
3:AD:119:HIS:HD2	21:AA:438:U:H4'	1.81	0.42
4:AE:89:THR:HB	4:AE:134:ASN:ND2	2.33	0.42
6:AG:16:LYS:NZ	6:AG:17:PHE:HE1	2.17	0.42
8:AI:49:GLN:O	8:AI:51:LEU:N	2.51	0.42
11:AL:2:THR:HB	11:AL:5:GLN:CG	2.49	0.42
17:AR:50:TYR:O	17:AR:54:LEU:HD23	2.19	0.42
18:AS:43:MET:O	18:AS:46:LEU:HB2	2.20	0.42
20:AU:46:ARG:HG3	20:AU:49:ALA:HB3	2.00	0.42
21:AA:153:C:O2'	21:AA:154:U:H5'	2.19	0.42
21:AA:258:G:C4	21:AA:259:G:C8	3.07	0.42
21:AA:262:A:H2'	21:AA:263:A:C8	2.54	0.42
21:AA:484:G:OP1	21:AA:484:G:H8	2.02	0.42
21:AA:568:G:C2	21:AA:883:C:C2	3.07	0.42
21:AA:582:C:C2	21:AA:583:A:C8	3.07	0.42
21:AA:771:G:C6	21:AA:809:G:C6	3.07	0.42
21:AA:790:A:C6	21:AA:791:G:C6	3.07	0.42
21:AA:955:U:H2'	21:AA:956:U:C6	2.53	0.42
21:AA:1034:G:H2'	21:AA:1035:A:H8	1.83	0.42
21:AA:1074:G:N2	21:AA:1102:A:C5	2.88	0.42
21:AA:1089:G:N1	21:AA:1090:U:C2	2.87	0.42
21:AA:1153:G:N2	21:AA:1154:G:H1'	2.35	0.42
21:AA:1167:A:C8	21:AA:1169:A:N6	2.87	0.42
21:AA:1363:A:C8	21:AA:1365:G:N7	2.87	0.42
21:AA:1401:G:N2	21:AA:1402:C:H1'	2.34	0.42
24:BA:10:A:C4	24:BA:2800:A:C5	3.07	0.42
24:BA:312:G:H2'	24:BA:313:G:H8	1.84	0.42
24:BA:464:U:N3	24:BA:465:G:C2	2.87	0.42
24:BA:860:U:N3	24:BA:2268:A:N7	2.66	0.42
24:BA:971:G:C2'	24:BA:972:A:H5'	2.49	0.42
24:BA:1059:G:C2	24:BA:1080:A:N3	2.87	0.42
24:BA:1165:A:C2	24:BA:1185:G:C2	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1165:A:N1	24:BA:1185:G:C6	2.88	0.42
24:BA:1344:U:HO2'	24:BA:1345:C:P	2.39	0.42
24:BA:1353:A:C8	24:BA:1378:A:N6	2.87	0.42
24:BA:1374:G:C4	24:BA:1375:U:C5	3.07	0.42
24:BA:1378:A:C2	24:BA:1379:U:O2	2.72	0.42
24:BA:1565:C:HO2'	24:BA:1566:A:C5'	2.32	0.42
24:BA:2180:U:H2'	24:BA:2181:U:C5	2.54	0.42
24:BA:2210:U:C2	24:BA:2212:A:C8	3.08	0.42
24:BA:2404:U:N1	24:BA:2414:G:N2	2.67	0.42
24:BA:2447:G:C8	24:BA:2501:C:C6	3.06	0.42
24:BA:2677:G:O2'	24:BA:2678:C:H5'	2.18	0.42
25:BB:62:C:O2'	25:BB:63:C:H5'	2.20	0.42
25:BB:92:C:O2	25:BB:93:C:C6	2.71	0.42
26:BC:184:GLU:O	26:BC:185:ALA:HB3	2.19	0.42
27:BD:149:ASN:OD1	27:BD:150:GLN:N	2.52	0.42
27:BD:159:LYS:C	27:BD:159:LYS:HD3	2.44	0.42
30:BG:4:ALA:C	30:BG:6:ALA:H	2.27	0.42
30:BG:168:VAL:O	30:BG:168:VAL:HG23	2.19	0.42
31:BH:27:ARG:NH1	47:BX:59:ASP:O	2.51	0.42
33:BJ:40:HIS:H	33:BJ:40:HIS:HD2	1.65	0.42
37:BN:78:LYS:HG2	37:BN:83:LEU:HD22	2.01	0.42
38:BO:55:GLU:OE1	38:BO:58:ILE:HD11	2.19	0.42
40:BQ:69:ARG:HA	40:BQ:69:ARG:HD3	1.67	0.42
41:BR:43:ASN:HD22	41:BR:43:ASN:HA	1.50	0.42
44:BU:13:LEU:HD12	44:BU:69:VAL:C	2.44	0.42
51:B1:8:ILE:CG2	51:B1:9:LYS:H	2.31	0.42
54:B4:1:MET:CE	54:B4:34:LYS:HG2	2.50	0.42
3:CD:107:GLY:N	3:CD:157:ALA:HB1	2.33	0.42
3:CD:141:VAL:HG13	3:CD:179:GLY:O	2.19	0.42
4:CE:149:PRO:HA	4:CE:152:VAL:CB	2.32	0.42
5:CF:32:ALA:O	5:CF:33:GLU:HB2	2.18	0.42
6:CG:63:VAL:HG11	6:CG:127:ALA:HB2	2.01	0.42
6:CG:91:ARG:C	6:CG:95:ARG:HG3	2.44	0.42
9:CJ:40:ILE:HD11	55:CA:1124:G:H4'	1.99	0.42
10:CK:124:LYS:O	20:CU:33:ARG:NE	2.52	0.42
11:CL:42:LYS:HD2	11:CL:43:LYS:HZ2	1.84	0.42
13:CN:16:ALA:HB2	13:CN:59:GLN:NE2	2.34	0.42
13:CN:63:CYS:HG	13:CN:82:LYS:HG3	1.82	0.42
13:CN:65:GLN:NE2	13:CN:78:LEU:HD21	2.35	0.42
55:CA:22:G:H1'	55:CA:914:A:N6	2.35	0.42
55:CA:257:G:H2'	55:CA:258:G:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:540:G:C4	55:CA:541:G:C8	3.08	0.42
55:CA:553:A:C4	55:CA:554:A:C8	3.07	0.42
55:CA:932:C:H2'	55:CA:932:C:O2	2.19	0.42
55:CA:1321:U:O5'	55:CA:1321:U:H6	2.01	0.42
26:DC:49:THR:HB	24:DA:1813:G:N3	2.34	0.42
26:DC:57:HIS:HE1	24:DA:1568:G:N3	2.18	0.42
26:DC:94:LEU:CD1	26:DC:100:ARG:HD3	2.47	0.42
27:DD:9:VAL:HG22	39:DP:4:ILE:HD11	2.01	0.42
29:DF:33:ILE:HB	29:DF:90:LEU:HD23	2.02	0.42
29:DF:147:ARG:HG2	29:DF:149:ARG:NH1	2.33	0.42
29:DF:160:LYS:HD3	29:DF:161:SER:H	1.83	0.42
30:DG:157:LYS:HE2	30:DG:157:LYS:HB2	1.85	0.42
33:DJ:43:GLU:O	33:DJ:43:GLU:HG2	2.18	0.42
35:DL:135:ILE:HG23	35:DL:136:GLU:N	2.34	0.42
37:DN:5:LYS:CG	37:DN:6:SER:H	2.26	0.42
37:DN:73:ASN:HA	37:DN:76:VAL:CG2	2.48	0.42
41:DR:43:ASN:HD22	41:DR:44:GLY:H	1.68	0.42
43:DT:28:ASN:C	43:DT:29:THR:HG22	2.44	0.42
48:DY:40:SER:C	48:DY:42:LEU:H	2.25	0.42
48:DY:59:GLU:C	48:DY:61:ALA:H	2.27	0.42
24:DA:70:G:H5"	24:DA:113:U:H1'	2.01	0.42
24:DA:128:C:H6	24:DA:128:C:H5"	1.83	0.42
24:DA:152:A:C2	24:DA:175:G:N3	2.86	0.42
24:DA:426:C:O2'	24:DA:427:U:H5'	2.19	0.42
24:DA:475:C:N3	24:DA:481:G:O6	2.52	0.42
24:DA:502:A:C5'	24:DA:503:A:OP2	2.66	0.42
24:DA:657:U:C2	24:DA:658:U:C5	3.07	0.42
24:DA:753:A:O2'	24:DA:754:U:C5'	2.68	0.42
24:DA:766:U:O2'	24:DA:767:U:C5'	2.67	0.42
24:DA:783:A:H2'	24:DA:783:A:H8	1.52	0.42
24:DA:1023:U:H5'	24:DA:1023:U:C6	2.47	0.42
24:DA:1091:G:O2'	24:DA:1092:C:H5'	2.19	0.42
24:DA:1167:C:C2'	24:DA:1168:G:H5'	2.50	0.42
24:DA:1288:G:N7	24:DA:1327:A:C6	2.88	0.42
24:DA:1289:C:O2'	24:DA:1290:C:H6	2.02	0.42
24:DA:1511:G:H2'	24:DA:1512:C:H6	1.85	0.42
24:DA:1680:U:C4	24:DA:1681:G:C6	3.08	0.42
24:DA:1786:A:C2	24:DA:1938:A:C5	3.06	0.42
24:DA:1848:A:C2	24:DA:1849:G:C4	3.07	0.42
24:DA:2291:U:H2'	24:DA:2292:U:H6	1.80	0.42
24:DA:2478:A:H2'	24:DA:2479:U:H5'	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2631:G:N3	24:DA:2810:A:H2	2.17	0.42
24:DA:2723:C:C4	24:DA:2724:U:C4	3.07	0.42
56:DB:38:C:O2'	56:DB:39:A:C8	2.64	0.42
56:DB:57:A:O2'	56:DB:58:A:C5'	2.67	0.42
2:AC:166:TRP:CG	2:AC:167:TYR:N	2.87	0.42
5:AF:21:MET:O	5:AF:24:ARG:HB2	2.18	0.42
5:AF:36:ILE:HG22	5:AF:64:VAL:HG22	2.01	0.42
12:AM:21:ILE:HD12	12:AM:21:ILE:N	2.34	0.42
13:AN:41:TRP:O	13:AN:44:VAL:HG13	2.19	0.42
13:AN:83:VAL:O	13:AN:84:ARG:C	2.62	0.42
19:AT:53:MET:HE3	19:AT:57:VAL:CG2	2.50	0.42
19:AT:72:ALA:O	19:AT:75:LYS:HG3	2.19	0.42
21:AA:9:G:C6	21:AA:26:A:N6	2.87	0.42
21:AA:53:A:N6	21:AA:359:G:O6	2.53	0.42
21:AA:880:C:O2'	21:AA:881:G:H5'	2.19	0.42
21:AA:983:A:O2'	21:AA:984:C:H5'	2.19	0.42
21:AA:1162:C:H2'	21:AA:1163:A:O4'	2.19	0.42
21:AA:1402:C:H2'	21:AA:1403:C:O4'	2.19	0.42
21:AA:1417:G:N2	21:AA:1484:C:C4	2.87	0.42
24:BA:303:G:C5	24:BA:304:U:C5	3.06	0.42
24:BA:464:U:O2	24:BA:464:U:C2'	2.66	0.42
24:BA:538:A:C2	24:BA:556:A:C4	3.07	0.42
24:BA:669:G:H2'	24:BA:669:G:N3	2.34	0.42
24:BA:863:A:H2'	24:BA:864:G:H8	1.84	0.42
24:BA:1027:A:C6	24:BA:1126:A:C4	3.07	0.42
24:BA:1095:A:H2'	24:BA:1096:A:C8	2.54	0.42
24:BA:1203:U:C4	24:BA:1204:A:C5	3.07	0.42
24:BA:1300:G:H5"	24:BA:1301:A:H5"	2.01	0.42
24:BA:1654:A:H4'	27:BD:118:PHE:CZ	2.54	0.42
24:BA:1731:G:O2'	24:BA:1732:C:C5'	2.56	0.42
24:BA:1881:C:H2'	24:BA:1882:U:O4'	2.19	0.42
24:BA:2020:A:N6	24:BA:2022:U:C2	2.87	0.42
24:BA:2474:U:H5"	24:BA:2475:C:OP2	2.19	0.42
24:BA:2635:A:O2'	27:BD:81:GLU:HG3	2.18	0.42
24:BA:2691:C:O2'	24:BA:2692:G:H5'	2.18	0.42
24:BA:2742:G:P	54:B4:24:ARG:HH12	2.42	0.42
24:BA:2836:U:C2	24:BA:2883:A:C2	3.07	0.42
24:BA:2837:A:N1	24:BA:2838:G:C5	2.87	0.42
26:BC:164:VAL:O	26:BC:165:ALA:HB2	2.19	0.42
30:BG:38:ASP:CG	30:BG:39:ALA:H	2.27	0.42
31:BH:27:ARG:HG3	47:BX:59:ASP:CG	2.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:95:GLY:O	31:BH:97:ARG:N	2.52	0.42
34:BK:7:MET:SD	34:BK:20:MET:HB2	2.59	0.42
34:BK:49:ARG:HB3	34:BK:50:GLY:H	1.62	0.42
35:BL:21:ARG:HD3	35:BL:21:ARG:HA	1.24	0.42
35:BL:67:THR:HG22	35:BL:68:SER:N	2.34	0.42
42:BS:4:ILE:CG1	42:BS:5:ALA:N	2.80	0.42
46:BW:19:ARG:CA	46:BW:34:SER:HA	2.32	0.42
1:CB:67:LEU:HG	1:CB:157:PRO:CB	2.44	0.42
1:CB:88:GLN:C	1:CB:89:PHE:CD1	2.98	0.42
1:CB:104:LYS:H	1:CB:104:LYS:CD	2.33	0.42
1:CB:191:ASP:C	1:CB:193:ASP:H	2.27	0.42
2:CC:108:PRO:C	2:CC:110:LEU:N	2.77	0.42
2:CC:135:ARG:O	2:CC:139:ASN:ND2	2.53	0.42
3:CD:12:ARG:NH2	3:CD:36:ALA:O	2.52	0.42
3:CD:97:LEU:O	3:CD:101:VAL:HG23	2.18	0.42
5:CF:41:ASP:C	5:CF:41:ASP:OD2	2.62	0.42
6:CG:94:ARG:C	6:CG:96:ASN:N	2.77	0.42
8:CI:45:MET:O	8:CI:46:VAL:C	2.63	0.42
8:CI:79:ARG:NH2	8:CI:102:PHE:HA	2.34	0.42
9:CJ:57:VAL:HG22	9:CJ:58:ASN:N	2.25	0.42
11:CL:42:LYS:HD2	11:CL:43:LYS:HZ3	1.84	0.42
11:CL:86:VAL:HG11	11:CL:89:LEU:HD23	2.01	0.42
13:CN:33:VAL:HG21	55:CA:1271:A:O2'	2.19	0.42
14:CO:7:THR:O	14:CO:11:VAL:N	2.47	0.42
15:CP:53:ASP:O	15:CP:54:LEU:C	2.63	0.42
19:CT:77:ASN:OD1	19:CT:77:ASN:N	2.44	0.42
55:CA:209:U:OP2	55:CA:210:C:C5	2.72	0.42
55:CA:246:A:C4	55:CA:282:A:C6	3.08	0.42
55:CA:446:G:N2	55:CA:489:C:C2	2.88	0.42
55:CA:722:G:H2'	55:CA:722:G:N3	2.34	0.42
55:CA:761:G:C6	55:CA:762:U:C4	3.07	0.42
55:CA:970:C:C5	55:CA:1231:G:O2'	2.67	0.42
55:CA:1144:G:H21	55:CA:1146:A:N6	2.12	0.42
55:CA:1423:G:H2'	55:CA:1424:U:C6	2.54	0.42
55:CA:1526:G:C5	55:CA:1527:U:C5	3.07	0.42
26:DC:252:LYS:HZ2	24:DA:1795:C:H1'	1.84	0.42
27:DD:12:THR:OG1	39:DP:4:ILE:HG23	2.20	0.42
27:DD:46:ARG:HB3	27:DD:84:LEU:HD12	2.00	0.42
30:DG:87:GLN:HA	30:DG:128:THR:O	2.19	0.42
30:DG:112:VAL:O	30:DG:113:ASP:HB2	2.18	0.42
30:DG:138:GLN:HG2	30:DG:138:GLN:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DH:125:THR:CG2	31:DH:146:VAL:HG11	2.49	0.42
32:DI:102:ARG:HG2	32:DI:141:ASP:O	2.19	0.42
35:DL:54:GLN:NE2	24:DA:2428:G:C2	2.87	0.42
38:DO:18:LEU:HD13	38:DO:25:ARG:HG2	2.01	0.42
38:DO:35:ILE:HD11	38:DO:102:ARG:NE	2.35	0.42
38:DO:97:PHE:O	38:DO:98:GLN:C	2.63	0.42
39:DP:19:PHE:CD2	39:DP:19:PHE:N	2.87	0.42
40:DQ:89:ILE:O	40:DQ:91:ARG:N	2.52	0.42
40:DQ:91:ARG:HG3	41:DR:11:GLN:NE2	2.31	0.42
41:DR:55:ASP:CG	41:DR:56:GLY:N	2.77	0.42
42:DS:91:GLY:HA2	24:DA:1614:A:N6	2.34	0.42
43:DT:5:GLU:CD	48:DY:18:LEU:HD21	2.43	0.42
45:DV:57:TYR:CD2	45:DV:74:ALA:HB1	2.55	0.42
47:DX:26:ARG:O	47:DX:27:ARG:HB3	2.19	0.42
48:DY:50:VAL:HA	48:DY:53:VAL:HG23	2.01	0.42
24:DA:66:C:C5	24:DA:67:U:C4	3.07	0.42
24:DA:191:A:O2'	24:DA:192:C:H5'	2.19	0.42
24:DA:240:C:H3'	24:DA:241:A:H5"	2.01	0.42
24:DA:244:A:C2'	24:DA:245:G:O5'	2.67	0.42
24:DA:389:G:O2'	24:DA:390:U:H5'	2.19	0.42
24:DA:464:U:O2	24:DA:788:A:N6	2.52	0.42
24:DA:476:G:O2'	24:DA:477:A:H8	1.96	0.42
24:DA:953:G:N2	24:DA:954:G:C4	2.88	0.42
24:DA:1112:G:O2'	24:DA:1113:U:C5'	2.68	0.42
24:DA:1187:G:H8	24:DA:1187:G:O5'	2.02	0.42
24:DA:1331:G:O2'	24:DA:1332:G:H3'	2.19	0.42
24:DA:1668:A:H4'	24:DA:1669:A:O5'	2.19	0.42
24:DA:1685:C:H2'	24:DA:1686:C:H6	1.85	0.42
24:DA:1760:C:C2'	24:DA:1761:C:O4'	2.67	0.42
24:DA:2074:U:C2	24:DA:2075:U:C5	3.08	0.42
24:DA:2311:A:H3'	24:DA:2312:U:H6	1.84	0.42
24:DA:2523:G:H1'	24:DA:2765:A:N7	2.35	0.42
24:DA:2740:A:C8	24:DA:2764:A:N6	2.87	0.42
24:DA:2896:C:C2	24:DA:2897:U:C5	3.08	0.42
3:AD:162:GLU:C	3:AD:164:ARG:H	2.27	0.42
4:AE:149:PRO:HA	4:AE:152:VAL:CG1	2.50	0.42
5:AF:1:MET:HE3	5:AF:1:MET:HB2	1.89	0.42
5:AF:4:TYR:CE2	5:AF:71:ILE:HG12	2.55	0.42
5:AF:92:THR:HG22	5:AF:93:LYS:N	2.34	0.42
6:AG:113:LYS:HE2	21:AA:1298:U:H2'	2.00	0.42
7:AH:109:VAL:O	7:AH:109:VAL:HG12	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AI:56:MET:O	8:AI:57:VAL:HB	2.20	0.42
11:AL:81:ILE:HG13	11:AL:95:HIS:O	2.20	0.42
21:AA:212:G:N2	21:AA:213:G:C5	2.88	0.42
21:AA:258:G:N2	21:AA:259:G:H1'	2.34	0.42
21:AA:367:U:OP1	21:AA:395:C:H1'	2.19	0.42
21:AA:469:C:O2'	21:AA:470:C:H5'	2.19	0.42
21:AA:594:U:H1'	21:AA:646:G:N2	2.35	0.42
21:AA:626:G:C6	21:AA:627:G:C6	3.07	0.42
21:AA:739:C:C2	21:AA:740:U:C6	3.07	0.42
21:AA:781:A:H4'	21:AA:1522:U:O2'	2.18	0.42
21:AA:1071:C:C2	21:AA:1105:A:C2	3.08	0.42
21:AA:1074:G:H21	21:AA:1101:A:H1'	1.83	0.42
21:AA:1172:C:H2'	21:AA:1173:U:C6	2.55	0.42
21:AA:1265:C:H2'	21:AA:1266:G:H8	1.84	0.42
24:BA:45:G:N2	24:BA:434:U:C2	2.87	0.42
24:BA:51:G:H4'	24:BA:52:A:H5'	2.01	0.42
24:BA:63:A:C2	24:BA:64:A:C5	3.08	0.42
24:BA:90:U:C4	24:BA:91:A:C5	3.07	0.42
24:BA:115:C:C2'	24:BA:116:C:H5'	2.49	0.42
24:BA:196:A:C2	24:BA:805:G:C6	3.07	0.42
24:BA:197:A:C6	24:BA:2430:A:C2	3.08	0.42
24:BA:374:A:O2'	24:BA:375:G:H5'	2.19	0.42
24:BA:501:A:C6	24:BA:502:A:C6	3.08	0.42
24:BA:1224:U:C4	24:BA:1225:G:C6	3.08	0.42
24:BA:1238:G:O2'	24:BA:1239:G:C5'	2.63	0.42
24:BA:1263:U:H2'	24:BA:1264:A:C8	2.55	0.42
24:BA:1630:A:H2'	24:BA:1631:G:C5'	2.48	0.42
24:BA:1707:G:H2'	24:BA:1708:C:C6	2.55	0.42
24:BA:1754:A:N1	24:BA:2716:C:O2'	2.53	0.42
24:BA:1803:A:H2	24:BA:1822:C:O2	2.03	0.42
24:BA:1936:A:C2	24:BA:1943:U:C5	3.07	0.42
24:BA:2553:G:N1	24:BA:2554:U:O2	2.51	0.42
24:BA:2641:G:H2'	24:BA:2642:G:O4'	2.19	0.42
24:BA:2839:G:C5	24:BA:2840:C:C4	3.08	0.42
25:BB:56:G:H4'	25:BB:57:A:O5'	2.19	0.42
26:BC:109:LEU:CD2	26:BC:110:LYS:N	2.78	0.42
26:BC:247:TRP:C	26:BC:249:VAL:H	2.27	0.42
27:BD:103:ASP:O	27:BD:104:VAL:C	2.61	0.42
28:BE:119:ILE:HD11	28:BE:187:VAL:HG22	2.01	0.42
29:BF:31:GLU:HG2	29:BF:32:LYS:HG2	2.02	0.42
29:BF:87:LYS:HG3	29:BF:88:VAL:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:29:PHE:O	31:BH:33:GLN:HB3	2.19	0.42
33:BJ:64:VAL:HG13	33:BJ:65:THR:N	2.33	0.42
35:BL:77:ILE:O	35:BL:77:ILE:HG22	2.20	0.42
35:BL:130:GLY:O	35:BL:133:ALA:HB3	2.19	0.42
36:BM:108:VAL:HA	36:BM:109:PRO:HD3	1.81	0.42
37:BN:14:SER:O	37:BN:15:SER:O	2.37	0.42
38:BO:3:LYS:CG	38:BO:4:LYS:N	2.81	0.42
41:BR:48:LYS:CD	41:BR:48:LYS:H	2.31	0.42
42:BS:59:GLU:HA	42:BS:64:ALA:HA	2.01	0.42
46:BW:50:VAL:C	46:BW:52:CYS:N	2.77	0.42
46:BW:70:VAL:C	46:BW:71:LYS:HD2	2.44	0.42
1:CB:27:LYS:N	1:CB:28:PRO:HD2	2.34	0.42
2:CC:119:ILE:O	2:CC:121:SER:N	2.52	0.42
3:CD:2:ARG:HE	3:CD:114:ARG:CD	2.32	0.42
3:CD:31:CYS:C	3:CD:33:ILE:N	2.77	0.42
3:CD:57:LYS:CB	3:CD:199:ILE:HB	2.49	0.42
3:CD:163:GLN:HE21	3:CD:163:GLN:HB2	1.59	0.42
3:CD:200:VAL:O	3:CD:201:GLU:C	2.62	0.42
4:CE:63:MET:HA	4:CE:66:ALA:HB3	2.01	0.42
6:CG:13:PRO:HA	6:CG:23:ALA:HB2	2.00	0.42
6:CG:59:GLU:O	6:CG:60:ALA:HB3	2.20	0.42
6:CG:108:ARG:NH2	55:CA:1240:U:C3'	2.82	0.42
10:CK:47:GLY:HA3	10:CK:56:LYS:HE3	2.02	0.42
10:CK:124:LYS:HA	20:CU:34:ARG:CG	2.48	0.42
11:CL:119:LYS:HE3	55:CA:36:C:OP1	2.19	0.42
13:CN:26:LEU:O	13:CN:30:ILE:HG12	2.19	0.42
18:CS:36:ARG:HE	55:CA:1320:C:H41	1.67	0.42
20:CU:32:ARG:HD3	20:CU:33:ARG:HB2	2.01	0.42
55:CA:87:C:O2'	55:CA:88:U:P	2.78	0.42
55:CA:198:G:C6	55:CA:220:G:C4	3.07	0.42
55:CA:207:C:C4	55:CA:208:U:O4	2.72	0.42
55:CA:249:U:O2	55:CA:276:G:C2	2.73	0.42
55:CA:367:U:H6	55:CA:367:U:H2'	1.50	0.42
55:CA:642:A:O2'	55:CA:643:C:O5'	2.37	0.42
55:CA:688:G:C6	55:CA:700:G:C6	3.07	0.42
55:CA:754:C:O2'	55:CA:755:G:OP1	2.38	0.42
55:CA:1117:A:C2	55:CA:1184:G:C5	3.07	0.42
55:CA:1173:U:C2	55:CA:1174:G:C8	3.08	0.42
26:DC:92:LEU:HD12	26:DC:92:LEU:HA	1.81	0.42
27:DD:36:GLN:OE1	27:DD:67:HIS:HE1	2.01	0.42
28:DE:134:LEU:O	28:DE:138:LEU:HG	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DF:28:PRO:HA	29:DF:158:THR:OG1	2.19	0.42
29:DF:65:LEU:HD11	29:DF:87:LYS:NZ	2.34	0.42
30:DG:112:VAL:HG12	30:DG:114:HIS:HB3	2.01	0.42
30:DG:154:GLU:HA	30:DG:155:PRO:HD2	1.86	0.42
33:DJ:18:VAL:CG1	33:DJ:54:ILE:HD11	2.49	0.42
35:DL:3:LEU:HD12	35:DL:4:ASN:N	2.34	0.42
36:DM:96:ILE:CD1	36:DM:102:LEU:HD11	2.49	0.42
39:DP:62:LYS:O	39:DP:63:ILE:HB	2.19	0.42
40:DQ:50:ARG:O	40:DQ:51:GLN:C	2.62	0.42
40:DQ:71:ASN:ND2	40:DQ:106:THR:HA	2.35	0.42
40:DQ:79:ILE:HA	40:DQ:82:LEU:HD12	2.02	0.42
40:DQ:90:ASP:O	40:DQ:91:ARG:O	2.36	0.42
41:DR:81:LYS:HG2	24:DA:973:A:H5'	2.02	0.42
42:DS:39:THR:O	42:DS:40:ASN:HB3	2.20	0.42
45:DV:63:ILE:HD12	45:DV:63:ILE:N	2.34	0.42
50:D0:21:LEU:HB3	50:D0:22:THR:H	1.55	0.42
54:D4:1:MET:HE3	54:D4:1:MET:HB3	1.75	0.42
24:DA:65:U:N3	24:DA:66:C:C5	2.87	0.42
24:DA:135:U:H2'	24:DA:136:G:C8	2.55	0.42
24:DA:165:A:C5	24:DA:166:U:C5	3.07	0.42
24:DA:205:G:O2'	24:DA:206:U:P	2.78	0.42
24:DA:570:G:C2'	24:DA:571:U:H5'	2.48	0.42
24:DA:959:A:C6	24:DA:960:A:C6	3.07	0.42
24:DA:1008:A:OP1	24:DA:1008:A:H8	2.03	0.42
24:DA:1207:C:H2'	24:DA:1208:C:C5	2.54	0.42
24:DA:1213:A:H2'	24:DA:1214:A:C8	2.54	0.42
24:DA:1230:A:C6	24:DA:1231:U:C4	3.07	0.42
24:DA:1287:A:O2'	24:DA:1288:G:H5'	2.20	0.42
24:DA:1522:A:H1'	24:DA:1524:G:C5	2.55	0.42
24:DA:1735:A:H2'	24:DA:1736:U:C6	2.54	0.42
24:DA:1894:C:O2'	24:DA:1895:C:H5'	2.19	0.42
24:DA:1910:G:N2	24:DA:1921:G:C4	2.87	0.42
24:DA:2014:A:C2	24:DA:2015:A:N1	2.87	0.42
24:DA:2077:A:C8	24:DA:2435:A:C4	3.07	0.42
24:DA:2230:G:C5	24:DA:2231:U:C4	3.07	0.42
24:DA:2230:G:C6	24:DA:2231:U:C4	3.07	0.42
24:DA:2260:C:O2'	24:DA:2261:C:H5'	2.19	0.42
24:DA:2311:A:C3'	24:DA:2312:U:C6	3.03	0.42
24:DA:2733:A:H3'	24:DA:2733:A:C8	2.55	0.42
24:DA:2843:G:C6	24:DA:2844:G:C5	3.07	0.42
24:DA:2896:C:O2'	24:DA:2897:U:C5'	2.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AB:163:ILE:CG2	1:AB:164:ASP:H	2.23	0.42
2:AC:123:LEU:C	2:AC:125:ARG:N	2.77	0.42
5:AF:97:THR:O	5:AF:98:GLU:CG	2.64	0.42
6:AG:64:ALA:HB1	6:AG:126:ALA:HB3	2.00	0.42
6:AG:91:ARG:HA	6:AG:92:PRO:HD3	1.91	0.42
11:AL:49:ARG:HG3	11:AL:65:TYR:OH	2.18	0.42
12:AM:44:ILE:N	12:AM:44:ILE:CD1	2.83	0.42
14:AO:37:HIS:C	14:AO:39:GLN:N	2.77	0.42
15:AP:42:ILE:HB	15:AP:43:ALA:H	1.58	0.42
20:AU:21:SER:C	20:AU:22:CYS:SG	3.02	0.42
20:AU:40:PRO:C	20:AU:42:THR:N	2.75	0.42
21:AA:109:A:N1	21:AA:326:G:O6	2.53	0.42
21:AA:184:G:H2'	21:AA:185:U:C6	2.54	0.42
21:AA:235:C:H2'	21:AA:236:A:H8	1.83	0.42
21:AA:451:A:C6	21:AA:480:U:H2'	2.55	0.42
21:AA:520:A:H2'	21:AA:521:G:O4'	2.20	0.42
21:AA:540:G:C6	21:AA:541:G:C5	3.07	0.42
21:AA:994:A:H2'	21:AA:995:C:H6	1.84	0.42
24:BA:9:G:C6	24:BA:2629:U:C5	3.08	0.42
24:BA:163:C:O2'	24:BA:164:C:P	2.78	0.42
24:BA:225:C:C2	24:BA:231:A:C2	3.08	0.42
24:BA:503:A:N3	24:BA:505:A:H2'	2.34	0.42
24:BA:768:G:H2'	24:BA:769:U:C6	2.54	0.42
24:BA:993:G:OP1	40:BQ:50:ARG:NH2	2.53	0.42
24:BA:1140:C:OP1	33:BJ:25:LEU:O	2.38	0.42
24:BA:1222:U:O2'	24:BA:1223:G:H5'	2.18	0.42
24:BA:1471:G:HO2'	24:BA:1472:C:H5'	1.83	0.42
24:BA:1648:U:H6	24:BA:1648:U:H5"	1.84	0.42
24:BA:1709:U:H2'	24:BA:1710:G:H8	1.85	0.42
24:BA:1714:U:C5'	24:BA:1714:U:H6	2.32	0.42
24:BA:1754:A:N6	24:BA:1755:A:C6	2.87	0.42
24:BA:2082:A:H8	24:BA:2082:A:O5'	2.02	0.42
24:BA:2196:C:O3'	3:CD:150:LYS:HG3	2.19	0.42
24:BA:2305:U:H2'	24:BA:2306:C:C6	2.54	0.42
24:BA:2543:G:C6	24:BA:2765:A:C5	3.08	0.42
24:BA:2834:G:O3'	27:BD:56:LYS:NZ	2.53	0.42
24:BA:2849:U:O4	39:BP:20:ARG:NH1	2.52	0.42
24:BA:2868:A:H2'	24:BA:2869:G:H8	1.76	0.42
25:BB:66:A:H61	25:BB:107:G:C3'	2.31	0.42
25:BB:90:C:H5'	36:BM:18:ARG:HG2	2.00	0.42
26:BC:194:VAL:HG22	26:BC:195:GLY:N	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:106:LYS:HB3	27:BD:206:ALA:CB	2.31	0.42
28:BE:1:MET:HG3	28:BE:14:VAL:HG23	2.01	0.42
29:BF:135:ILE:C	29:BF:137:PHE:N	2.73	0.42
30:BG:23:ILE:H	30:BG:23:ILE:CD1	2.26	0.42
31:BH:75:LEU:HD22	31:BH:143:ILE:CG1	2.50	0.42
33:BJ:39:LYS:HA	33:BJ:43:GLU:HB2	2.02	0.42
34:BK:63:VAL:HG22	34:BK:107:LEU:CD2	2.33	0.42
41:BR:64:VAL:O	41:BR:64:VAL:HG12	2.19	0.42
42:BS:18:ARG:HG2	42:BS:76:VAL:HG13	2.00	0.42
46:BW:28:GLU:O	46:BW:30:VAL:N	2.53	0.42
52:B2:6:GLN:HA	52:B2:7:PRO:HD2	1.92	0.42
52:B2:41:ARG:O	52:B2:42:LEU:C	2.61	0.42
4:CE:149:PRO:C	4:CE:151:MET:H	2.28	0.42
5:CF:45:ARG:HG2	5:CF:46:GLN:N	2.35	0.42
6:CG:4:ARG:HG3	6:CG:6:ILE:HG22	2.01	0.42
6:CG:32:ASP:O	6:CG:33:GLY:C	2.61	0.42
6:CG:113:LYS:NZ	55:CA:1297:G:N3	2.54	0.42
8:CI:35:GLU:O	8:CI:36:GLN:C	2.63	0.42
8:CI:47:VAL:O	8:CI:50:PRO:HD2	2.20	0.42
11:CL:18:SER:O	11:CL:21:PRO:HD3	2.19	0.42
12:CM:10:ASP:O	12:CM:11:HIS:C	2.62	0.42
13:CN:74:ARG:C	13:CN:76:PHE:N	2.77	0.42
13:CN:75:LYS:C	13:CN:76:PHE:CD1	2.98	0.42
18:CS:35:ARG:HA	18:CS:70:LEU:CB	2.39	0.42
19:CT:42:ASP:O	19:CT:44:ALA:N	2.52	0.42
20:CU:19:LYS:HD3	20:CU:19:LYS:HA	1.85	0.42
55:CA:32:A:C2	55:CA:33:A:C5	3.08	0.42
55:CA:37:U:C2	55:CA:548:G:N1	2.88	0.42
55:CA:79:G:C2	55:CA:80:A:N7	2.87	0.42
55:CA:106:C:C2'	55:CA:107:G:H5'	2.50	0.42
55:CA:203:G:N2	55:CA:215:C:C2	2.87	0.42
55:CA:288:A:H2'	55:CA:289:G:H4'	2.01	0.42
55:CA:353:A:O2'	55:CA:354:G:OP2	2.35	0.42
55:CA:374:A:OP1	55:CA:452:A:N6	2.52	0.42
55:CA:689:C:O5'	55:CA:689:C:H6	2.03	0.42
55:CA:796:C:O5'	55:CA:796:C:H6	2.03	0.42
55:CA:835:U:C2	55:CA:852:G:N1	2.87	0.42
55:CA:944:G:C2	55:CA:1340:A:C6	3.08	0.42
55:CA:1119:C:O2'	55:CA:1120:C:H5'	2.20	0.42
55:CA:1223:C:H3'	55:CA:1224:U:C5'	2.50	0.42
55:CA:1328:C:H2'	55:CA:1329:A:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:1448:C:O2'	55:CA:1449:C:C5'	2.67	0.42
55:CA:1495:U:O2'	55:CA:1496:C:H5'	2.19	0.42
26:DC:76:VAL:O	26:DC:76:VAL:HG23	2.19	0.42
26:DC:236:GLY:O	26:DC:238:ASN:N	2.53	0.42
27:DD:118:PHE:CE1	24:DA:1655:A:C5'	3.03	0.42
28:DE:61:ARG:O	28:DE:62:GLN:C	2.62	0.42
28:DE:111:GLU:HB2	28:DE:114:ARG:HH21	1.85	0.42
28:DE:130:LYS:O	28:DE:134:LEU:HB3	2.19	0.42
29:DF:27:VAL:O	29:DF:27:VAL:HG23	2.19	0.42
29:DF:32:LYS:HB3	29:DF:32:LYS:HZ2	1.85	0.42
31:DH:57:LYS:HD2	31:DH:57:LYS:C	2.44	0.42
31:DH:62:LEU:C	31:DH:64:ALA:N	2.76	0.42
32:DI:140:GLU:O	32:DI:141:ASP:C	2.63	0.42
33:DJ:36:LEU:HD13	33:DJ:36:LEU:HA	1.74	0.42
33:DJ:64:VAL:HG13	33:DJ:65:THR:N	2.34	0.42
38:DO:74:VAL:O	38:DO:78:VAL:HG23	2.19	0.42
38:DO:82:ALA:HB3	38:DO:115:LEU:HD11	2.00	0.42
39:DP:20:ARG:HG2	39:DP:112:ARG:NH1	2.11	0.42
40:DQ:29:ARG:HD2	50:D0:9:ARG:NH1	2.35	0.42
41:DR:49:ILE:HG22	41:DR:54:VAL:HB	2.02	0.42
42:DS:77:ASP:HB3	24:DA:24:G:O2'	2.20	0.42
46:DW:18:LYS:HD3	46:DW:18:LYS:C	2.44	0.42
48:DY:27:ASN:O	48:DY:31:GLN:HG3	2.19	0.42
48:DY:28:LEU:HD23	48:DY:42:LEU:HD13	2.01	0.42
24:DA:161:A:O2'	24:DA:2207:C:O2	2.34	0.42
24:DA:309:A:C2	24:DA:329:G:O2'	2.73	0.42
24:DA:324:A:C2	24:DA:325:G:H1'	2.55	0.42
24:DA:528:A:C2	24:DA:2042:A:H2'	2.54	0.42
24:DA:574:A:H4'	24:DA:575:A:C5'	2.49	0.42
24:DA:775:G:O6	24:DA:787:C:C2	2.72	0.42
24:DA:1009:A:H3'	59:DA:3764:HOH:O	2.19	0.42
24:DA:1057:A:C4	24:DA:1082:U:N3	2.88	0.42
24:DA:1268:A:H1'	24:DA:2613:U:O2	2.19	0.42
24:DA:1341:G:N2	24:DA:1398:C:C4'	2.82	0.42
24:DA:2098:U:C4	24:DA:2099:U:O4	2.72	0.42
24:DA:2379:G:H2'	24:DA:2380:C:C6	2.54	0.42
24:DA:2464:G:C2	24:DA:2487:G:C2	3.08	0.42
24:DA:2589:A:N1	24:DA:2606:C:N4	2.67	0.42
24:DA:2696:U:H2'	24:DA:2697:G:H8	1.85	0.42
24:DA:2760:C:C2'	24:DA:2761:A:H5'	2.49	0.42
56:DB:45:A:O2'	56:DB:46:A:C5'	2.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AB:25:LYS:NZ	1:AB:25:LYS:HB3	2.34	0.42
1:AB:182:VAL:C	1:AB:183:PHE:CD2	2.98	0.42
2:AC:191:THR:HG21	21:AA:421:U:O2	2.19	0.42
3:AD:89:LEU:O	3:AD:93:LEU:HG	2.19	0.42
3:AD:168:THR:HG22	3:AD:183:ARG:HH21	1.84	0.42
4:AE:19:ARG:CB	4:AE:31:SER:O	2.67	0.42
4:AE:130:THR:O	4:AE:131:ASN:C	2.62	0.42
5:AF:71:ILE:O	5:AF:75:GLU:HG3	2.20	0.42
10:AK:28:ASN:HD21	10:AK:47:GLY:N	2.17	0.42
10:AK:73:VAL:C	10:AK:75:GLU:N	2.74	0.42
13:AN:5:MET:HE1	21:AA:981:U:H5"	2.02	0.42
13:AN:5:MET:HE3	13:AN:62:ARG:NH2	2.34	0.42
13:AN:13:VAL:HG12	13:AN:14:ALA:N	2.35	0.42
14:AO:61:GLN:O	14:AO:65:LEU:HD23	2.19	0.42
17:AR:72:ARG:O	17:AR:73:HIS:C	2.63	0.42
19:AT:24:ARG:O	19:AT:27:MET:HB3	2.19	0.42
19:AT:43:LYS:HB3	19:AT:43:LYS:HE2	1.89	0.42
20:AU:9:GLU:H	20:AU:9:GLU:HG2	1.68	0.42
21:AA:117:G:H5"	21:AA:118:U:OP2	2.19	0.42
21:AA:241:G:N1	21:AA:242:G:C5	2.88	0.42
21:AA:581:G:C6	21:AA:758:C:C5	3.08	0.42
21:AA:623:C:H2'	21:AA:624:C:H6	1.84	0.42
21:AA:838:G:H2'	21:AA:839:C:C6	2.54	0.42
21:AA:969:A:H2'	21:AA:970:C:C6	2.54	0.42
21:AA:1049:U:O2'	21:AA:1050:G:P	2.78	0.42
24:BA:36:G:N3	24:BA:37:C:C6	2.87	0.42
24:BA:263:G:C2'	24:BA:264:C:O5'	2.67	0.42
24:BA:295:G:C2	24:BA:296:U:C6	3.08	0.42
24:BA:324:A:C2	24:BA:325:G:H1'	2.55	0.42
24:BA:326:G:C2	24:BA:327:G:C8	3.07	0.42
24:BA:372:G:P	47:BX:61:LYS:NZ	2.93	0.42
24:BA:744:U:H2'	24:BA:745:G:O4'	2.19	0.42
24:BA:807:U:H2'	24:BA:808:G:H8	1.84	0.42
24:BA:874:G:C6	24:BA:904:G:C6	3.08	0.42
24:BA:951:C:H2'	24:BA:952:G:H5'	2.01	0.42
24:BA:1007:C:H5"	33:BJ:37:ARG:NH2	2.34	0.42
24:BA:1151:A:C2	24:BA:1152:C:C2	3.08	0.42
24:BA:1171:G:C6	24:BA:1172:C:N4	2.88	0.42
24:BA:1681:G:O2'	24:BA:1762:A:H2'	2.17	0.42
24:BA:1750:G:O2'	24:BA:1751:U:H5'	2.19	0.42
24:BA:1782:U:C5	24:BA:2587:A:C2	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1815:A:OP1	24:BA:1822:C:H4'	2.20	0.42
24:BA:1862:G:N2	24:BA:1881:C:H1'	2.35	0.42
24:BA:2318:G:H2'	24:BA:2319:G:O4'	2.20	0.42
24:BA:2631:G:H2'	24:BA:2632:A:O4'	2.19	0.42
24:BA:2641:G:C2	24:BA:2642:G:C4	3.07	0.42
25:BB:38:C:H2'	25:BB:39:A:H8	1.85	0.42
25:BB:73:A:C5	25:BB:74:U:C6	3.07	0.42
26:BC:236:GLY:O	26:BC:237:ARG:HB2	2.19	0.42
26:BC:255:LYS:C	26:BC:257:ARG:N	2.74	0.42
27:BD:170:VAL:O	27:BD:170:VAL:CG2	2.66	0.42
28:BE:25:GLU:O	28:BE:28:VAL:CG1	2.67	0.42
29:BF:40:GLY:HA2	29:BF:84:ILE:HD11	2.02	0.42
30:BG:54:ARG:O	30:BG:55:ASP:C	2.62	0.42
30:BG:71:LEU:N	30:BG:71:LEU:HD22	2.35	0.42
30:BG:166:GLU:OE2	30:BG:166:GLU:C	2.62	0.42
39:BP:83:ILE:C	39:BP:83:ILE:CD1	2.92	0.42
43:BT:28:ASN:CA	43:BT:91:GLN:HE22	2.33	0.42
44:BU:73:ASN:O	44:BU:75:ALA:N	2.53	0.42
45:BV:65:VAL:C	45:BV:67:GLY:N	2.78	0.42
46:BW:30:VAL:HA	46:BW:60:ALA:CB	2.40	0.42
49:BZ:46:MET:O	49:BZ:47:ILE:C	2.63	0.42
51:B1:15:GLY:O	51:B1:16:THR:C	2.63	0.42
2:CC:2:GLN:HB3	2:CC:2:GLN:HE21	1.52	0.42
2:CC:15:LYS:HA	2:CC:16:PRO:HD3	1.70	0.42
2:CC:45:GLU:C	2:CC:47:ALA:H	2.28	0.42
3:CD:87:GLU:OE2	3:CD:187:ARG:HB2	2.19	0.42
6:CG:148:LYS:HB2	6:CG:148:LYS:HZ3	1.81	0.42
7:CH:30:LYS:HE3	55:CA:591:U:OP1	2.20	0.42
10:CK:125:LYS:O	10:CK:126:ARG:C	2.63	0.42
11:CL:120:ARG:HG2	11:CL:121:PRO:O	2.19	0.42
12:CM:19:THR:HA	12:CM:25:GLY:O	2.20	0.42
13:CN:74:ARG:O	13:CN:76:PHE:N	2.52	0.42
14:CO:83:ARG:HG2	14:CO:83:ARG:O	2.20	0.42
16:CQ:44:HIS:CB	16:CQ:69:THR:O	2.61	0.42
55:CA:174:A:C2	55:CA:175:C:C6	3.08	0.42
55:CA:327:A:O3'	55:CA:328:C:C4'	2.67	0.42
55:CA:385:C:C4	55:CA:386:C:C5	3.08	0.42
55:CA:725:G:C2	55:CA:726:C:C5	3.07	0.42
55:CA:765:G:C5	55:CA:812:G:C6	3.08	0.42
55:CA:915:A:C2	55:CA:916:U:H1'	2.54	0.42
55:CA:927:G:H2'	55:CA:928:G:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:1097:C:O2'	55:CA:1098:C:C5'	2.68	0.42
55:CA:1219:A:N6	55:CA:1220:G:O6	2.52	0.42
55:CA:1361:G:H2'	55:CA:1362:A:C5'	2.37	0.42
55:CA:1429:A:C4	55:CA:1430:A:C8	3.07	0.42
29:DF:12:VAL:CG1	29:DF:16:MET:HG3	2.49	0.42
29:DF:122:ASP:HB3	29:DF:123:GLY:H	1.35	0.42
29:DF:137:PHE:CB	29:DF:138:PRO:HD2	2.27	0.42
29:DF:144:LYS:O	29:DF:145:VAL:C	2.62	0.42
30:DG:37:ASN:HD22	30:DG:40:VAL:CG2	2.33	0.42
31:DH:53:GLU:HB3	31:DH:54:LEU:H	1.64	0.42
31:DH:132:PHE:HB3	31:DH:140:ALA:CB	2.50	0.42
33:DJ:36:LEU:HD21	33:DJ:122:LEU:HD13	2.01	0.42
33:DJ:60:ASP:OD1	33:DJ:60:ASP:N	2.52	0.42
34:DK:20:MET:O	34:DK:41:ILE:HG13	2.19	0.42
37:DN:3:HIS:HD2	24:DA:2820:A:O2'	2.03	0.42
37:DN:9:GLN:C	37:DN:10:LEU:O	2.62	0.42
37:DN:24:MET:HG2	37:DN:44:LEU:CD2	2.47	0.42
38:DO:7:ARG:O	38:DO:8:ILE:C	2.62	0.42
39:DP:48:ALA:HB3	39:DP:59:THR:HB	2.01	0.42
39:DP:94:ALA:HB2	24:DA:2847:U:H3'	2.02	0.42
40:DQ:112:ALA:C	40:DQ:114:ALA:H	2.26	0.42
42:DS:95:ARG:CG	42:DS:97:LEU:HD22	2.49	0.42
45:DV:4:ILE:HD11	45:DV:50:MET:HE1	2.02	0.42
45:DV:20:LEU:HD12	45:DV:27:PRO:HD3	2.02	0.42
45:DV:44:HIS:CE1	45:DV:85:LYS:HD3	2.55	0.42
48:DY:57:LEU:O	48:DY:60:LYS:HE3	2.20	0.42
24:DA:207:A:H2'	24:DA:208:C:H6	1.84	0.42
24:DA:491:G:H2'	24:DA:492:A:H8	1.72	0.42
24:DA:804:A:C2'	24:DA:806:C:C4	3.03	0.42
24:DA:1006:C:O2	24:DA:1006:C:H2'	2.20	0.42
24:DA:1495:A:N1	24:DA:1496:A:C2	2.88	0.42
24:DA:1576:U:C2	24:DA:1577:C:C5	3.08	0.42
24:DA:1667:G:OP2	24:DA:1667:G:C8	2.72	0.42
24:DA:1680:U:O4	24:DA:1681:G:N1	2.52	0.42
24:DA:1693:U:OP2	24:DA:1694:C:N4	2.52	0.42
24:DA:1857:G:O2'	24:DA:1884:G:N2	2.50	0.42
24:DA:1915:U:H2'	24:DA:1916:A:O4'	2.20	0.42
24:DA:2004:G:C2	24:DA:2005:A:H1'	2.55	0.42
24:DA:2100:G:C2	24:DA:2101:A:C5	3.08	0.42
24:DA:2315:G:C4	24:DA:2316:G:C8	3.07	0.42
24:DA:2345:G:C5	24:DA:2381:A:C2	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2407:A:C2	24:DA:2408:U:C4	3.07	0.42
24:DA:2435:A:C6	24:DA:2436:G:C5	3.08	0.42
24:DA:2459:A:H2'	24:DA:2459:A:N3	2.34	0.42
24:DA:2679:A:N3	24:DA:2729:G:C2	2.88	0.42
1:AB:106:VAL:O	1:AB:109:SER:HB2	2.19	0.42
2:AC:85:LYS:O	2:AC:89:VAL:HG22	2.19	0.42
3:AD:54:LEU:C	3:AD:56:GLU:N	2.75	0.42
4:AE:111:ARG:O	4:AE:111:ARG:CG	2.63	0.42
6:AG:29:LEU:HD11	6:AG:119:LEU:HD12	2.02	0.42
10:AK:76:TYR:O	10:AK:77:GLY:C	2.63	0.42
11:AL:50:LYS:HB3	11:AL:66:ILE:HD12	2.02	0.42
11:AL:57:THR:HG21	21:AA:363:A:OP1	2.19	0.42
11:AL:81:ILE:HD11	11:AL:94:TYR:CG	2.55	0.42
17:AR:67:LEU:HA	17:AR:68:PRO:HD3	1.86	0.42
21:AA:99:C:H2'	21:AA:100:G:OP2	2.19	0.42
21:AA:393:A:C6	21:AA:394:G:N7	2.87	0.42
21:AA:872:A:N7	21:AA:874:G:C8	2.88	0.42
21:AA:938:A:H2'	21:AA:939:G:O4'	2.20	0.42
21:AA:959:A:O3'	21:AA:960:U:H4'	2.20	0.42
21:AA:1003:G:N2	21:AA:1005:A:H5'	2.35	0.42
21:AA:1200:C:O2'	21:AA:1201:A:OP2	2.38	0.42
24:BA:10:A:C4	24:BA:2800:A:N6	2.88	0.42
24:BA:108:G:C5	24:BA:109:C:C5	3.07	0.42
24:BA:268:C:O2	24:BA:268:C:H2'	2.20	0.42
24:BA:373:U:C2'	24:BA:374:A:H8	2.32	0.42
24:BA:417:C:H2'	24:BA:418:C:H6	1.84	0.42
24:BA:608:A:C4	24:BA:621:A:C6	3.07	0.42
24:BA:687:C:C4	24:BA:688:U:C4	3.08	0.42
24:BA:734:A:C4	24:BA:735:A:C8	3.08	0.42
24:BA:993:G:C6	24:BA:1162:G:C6	3.07	0.42
24:BA:1003:G:C2'	24:BA:1004:U:H5'	2.50	0.42
24:BA:1016:G:C6	24:BA:1017:G:C5	3.07	0.42
24:BA:1507:C:H5'	24:BA:1508:A:OP2	2.19	0.42
24:BA:1568:G:H4'	26:BC:58:LYS:HB3	2.02	0.42
24:BA:1652:A:N6	37:BN:11:ASN:HD21	2.10	0.42
24:BA:1740:G:H2'	24:BA:1741:C:C6	2.54	0.42
24:BA:1870:C:H5"	24:BA:1871:A:C6	2.55	0.42
24:BA:2027:G:N3	24:BA:2028:U:C6	2.87	0.42
24:BA:2070:A:H2'	24:BA:2071:A:O4'	2.20	0.42
24:BA:2210:U:C4'	24:BA:2211:A:H5'	2.41	0.42
24:BA:2303:G:O4'	29:BF:122:ASP:HA	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2379:G:C6	24:BA:2380:C:C4	3.08	0.42
24:BA:2392:A:C2	24:BA:2393:U:N1	2.88	0.42
24:BA:2403:C:C2	24:BA:2404:U:C6	3.08	0.42
24:BA:2404:U:H1'	24:BA:2414:G:H21	1.83	0.42
24:BA:2488:G:O2'	24:BA:2489:U:H5'	2.19	0.42
24:BA:2617:U:C4	24:BA:2618:G:N7	2.88	0.42
24:BA:2641:G:H21	24:BA:2642:G:H1'	1.85	0.42
24:BA:2684:U:C4	24:BA:2685:G:N7	2.88	0.42
24:BA:2858:C:C5	24:BA:2859:G:C5	3.08	0.42
25:BB:97:C:H2'	25:BB:98:G:O5'	2.19	0.42
26:BC:43:ASN:CG	26:BC:44:ASN:H	2.28	0.42
27:BD:47:ALA:HA	27:BD:84:LEU:HG	2.01	0.42
29:BF:37:MET:HG3	29:BF:56:LEU:CD1	2.50	0.42
30:BG:10:VAL:O	30:BG:11:PRO:C	2.63	0.42
30:BG:25:ILE:HD13	30:BG:75:VAL:HG23	2.02	0.42
30:BG:115:GLN:N	30:BG:115:GLN:OE1	2.53	0.42
30:BG:142:GLN:O	30:BG:143:VAL:C	2.63	0.42
31:BH:9:VAL:O	31:BH:13:GLY:N	2.50	0.42
34:BK:61:VAL:CG2	34:BK:87:LEU:HD11	2.46	0.42
35:BL:58:TYR:C	35:BL:59:ARG:HG2	2.45	0.42
39:BP:21:PRO:HD3	39:BP:49:ILE:HD12	2.01	0.42
39:BP:50:ARG:CD	39:BP:51:ASN:N	2.71	0.42
41:BR:49:ILE:O	41:BR:49:ILE:HG13	2.20	0.42
42:BS:28:LYS:HB3	42:BS:28:LYS:HE3	1.88	0.42
43:BT:88:LYS:HD3	43:BT:88:LYS:HA	1.82	0.42
44:BU:6:ARG:O	44:BU:7:ASP:C	2.63	0.42
46:BW:9:THR:HG23	46:BW:10:ARG:N	2.35	0.42
49:BZ:30:ARG:O	49:BZ:31:ILE:C	2.61	0.42
53:B3:61:LEU:HB3	53:B3:64:ALA:HB2	2.00	0.42
1:CB:23:ASN:HA	1:CB:24:PRO:HD3	1.80	0.42
1:CB:51:GLU:HG2	1:CB:51:GLU:O	2.20	0.42
2:CC:80:GLY:O	2:CC:83:VAL:HG22	2.20	0.42
2:CC:150:VAL:HG12	2:CC:199:VAL:CG1	2.46	0.42
2:CC:181:ILE:HA	2:CC:201:ILE:O	2.20	0.42
3:CD:25:ARG:NE	55:CA:410:G:OP1	2.45	0.42
3:CD:73:ASN:O	3:CD:76:LYS:HB3	2.20	0.42
3:CD:75:TYR:CD1	3:CD:75:TYR:C	2.96	0.42
3:CD:187:ARG:C	3:CD:189:ASP:N	2.77	0.42
5:CF:11:HIS:O	5:CF:13:ASP:N	2.53	0.42
12:CM:14:ALA:HB1	12:CM:33:LEU:HD13	2.01	0.42
12:CM:18:LEU:O	12:CM:21:ILE:HB	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CP:54:LEU:O	15:CP:57:ILE:N	2.47	0.42
18:CS:18:VAL:C	18:CS:20:LYS:N	2.78	0.42
18:CS:20:LYS:HZ3	18:CS:27:LYS:HD3	1.80	0.42
55:CA:223:A:C6	55:CA:224:U:C4	3.07	0.42
55:CA:279:A:C5'	55:CA:280:C:H3'	2.46	0.42
55:CA:373:A:C5	55:CA:482:A:C5	3.08	0.42
55:CA:775:G:C2'	55:CA:776:G:H5'	2.50	0.42
55:CA:938:A:N6	55:CA:939:G:C6	2.88	0.42
55:CA:953:G:N1	55:CA:1229:A:C6	2.88	0.42
55:CA:958:A:C2	55:CA:959:A:C2	3.08	0.42
55:CA:1084:G:OP1	55:CA:1086:U:C5	2.72	0.42
55:CA:1164:G:C6	55:CA:1165:U:C4	3.07	0.42
55:CA:1183:U:H6	55:CA:1183:U:H2'	1.34	0.42
55:CA:1183:U:H3'	55:CA:1184:G:H5"	2.01	0.42
55:CA:1306:A:C6	55:CA:1307:U:N3	2.88	0.42
22:CV:37:A:C6	23:CW:1:A:N6	2.88	0.42
26:DC:184:GLU:O	26:DC:185:ALA:C	2.60	0.42
26:DC:252:LYS:NZ	24:DA:1795:C:H1'	2.35	0.42
27:DD:131:ASP:OD2	27:DD:131:ASP:N	2.53	0.42
29:DF:139:GLU:CB	29:DF:142:TYR:HB3	2.49	0.42
30:DG:22:VAL:HG12	30:DG:23:ILE:N	2.34	0.42
32:DI:44:LYS:O	32:DI:48:ILE:HG12	2.19	0.42
32:DI:102:ARG:CZ	32:DI:105:LEU:HD22	2.50	0.42
33:DJ:30:THR:CG2	33:DJ:31:GLU:N	2.83	0.42
33:DJ:44:TYR:C	33:DJ:44:TYR:HD2	2.27	0.42
33:DJ:140:LEU:HD22	33:DJ:141:ASP:N	2.35	0.42
36:DM:45:GLN:OE1	36:DM:125:PRO:HG3	2.19	0.42
38:DO:10:ARG:HD3	24:DA:2294:G:H5"	2.01	0.42
38:DO:98:GLN:HB2	56:DB:47:C:O3'	2.20	0.42
39:DP:45:VAL:N	39:DP:61:ARG:O	2.53	0.42
39:DP:65:ASN:N	39:DP:65:ASN:HD22	2.18	0.42
41:DR:2:TYR:CD2	41:DR:42:ALA:HB2	2.54	0.42
44:DU:7:ASP:O	44:DU:8:ASP:HB2	2.19	0.42
44:DU:15:GLY:C	44:DU:16:LYS:O	2.63	0.42
45:DV:10:LYS:C	45:DV:11:GLU:HG2	2.45	0.42
45:DV:19:ARG:O	45:DV:23:ALA:HB3	2.20	0.42
46:DW:25:PHE:CE1	46:DW:27:GLY:HA2	2.55	0.42
47:DX:16:ASN:O	47:DX:17:ARG:HB2	2.20	0.42
54:D4:9:LYS:HD3	54:D4:9:LYS:C	2.44	0.42
24:DA:17:G:C6	24:DA:524:G:C6	3.08	0.42
24:DA:91:A:N3	24:DA:91:A:O4'	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:251:A:H2'	24:DA:252:G:O4'	2.20	0.42
24:DA:449:A:C2'	24:DA:450:G:H8	2.19	0.42
24:DA:579:G:C5	24:DA:1262:A:C6	3.08	0.42
24:DA:657:U:H2'	24:DA:658:U:C5	2.51	0.42
24:DA:783:A:O2'	24:DA:784:G:O5'	2.38	0.42
24:DA:919:U:H2'	24:DA:920:A:H8	1.77	0.42
24:DA:946:C:H2'	24:DA:947:A:H8	1.85	0.42
24:DA:1022:G:C5	24:DA:1140:C:N4	2.88	0.42
24:DA:1176:U:H2'	24:DA:1177:G:C8	2.55	0.42
24:DA:1461:C:H2'	24:DA:1462:C:H6	1.85	0.42
24:DA:1535:A:N1	24:DA:1537:G:N7	2.68	0.42
24:DA:2098:U:H2'	24:DA:2099:U:C5	2.55	0.42
24:DA:2100:G:C5	24:DA:2190:G:N1	2.88	0.42
24:DA:2553:G:C2	24:DA:2554:U:O2	2.73	0.42
24:DA:2627:G:H2'	24:DA:2628:C:C6	2.55	0.42
24:DA:2628:C:H1'	24:DA:2781:A:C4	2.54	0.42
24:DA:2848:G:O2'	24:DA:2849:U:C6	2.73	0.42
1:AB:23:ASN:HA	1:AB:24:PRO:HD3	1.71	0.42
1:AB:157:PRO:O	1:AB:180:ILE:HG13	2.20	0.42
2:AC:153:SER:HB3	2:AC:164:THR:HA	2.02	0.42
2:AC:161:ILE:CD1	2:AC:163:ARG:HG3	2.49	0.42
3:AD:160:LEU:H	3:AD:160:LEU:CD2	2.12	0.42
5:AF:85:ILE:O	5:AF:87:SER:N	2.52	0.42
6:AG:96:ASN:O	6:AG:97:ALA:C	2.62	0.42
7:AH:44:PHE:HD1	7:AH:71:VAL:HG22	1.85	0.42
8:AI:6:TYR:CE1	21:AA:1147:C:H4'	2.55	0.42
8:AI:110:VAL:HG11	21:AA:1370:G:H3'	2.02	0.42
9:AJ:35:GLN:HE21	9:AJ:35:GLN:HB2	1.63	0.42
9:AJ:67:ILE:CG1	13:AN:95:LEU:HD13	2.49	0.42
11:AL:3:VAL:O	11:AL:4:ASN:C	2.63	0.42
12:AM:74:MET:CE	12:AM:74:MET:CA	2.80	0.42
14:AO:78:THR:O	14:AO:79:GLN:C	2.63	0.42
15:AP:66:THR:O	15:AP:67:ILE:HB	2.19	0.42
20:AU:33:ARG:CG	20:AU:34:ARG:H	2.33	0.42
21:AA:297:G:N2	21:AA:300:A:OP2	2.53	0.42
21:AA:481:G:C2'	21:AA:482:A:C8	3.02	0.42
21:AA:508:U:O2'	21:AA:509:A:C8	2.72	0.42
21:AA:585:G:O2'	21:AA:879:C:H5"	2.19	0.42
21:AA:761:G:C5	21:AA:762:U:C5	3.07	0.42
21:AA:844:G:H2'	21:AA:844:G:N3	2.34	0.42
21:AA:858:G:C2'	21:AA:859:G:H5'	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:946:A:H2'	21:AA:947:G:H8	1.83	0.42
21:AA:976:G:O5'	21:AA:1358:U:O2'	2.38	0.42
21:AA:1095:U:C4	21:AA:1096:C:N4	2.88	0.42
21:AA:1322:C:O2'	21:AA:1323:G:O5'	2.37	0.42
21:AA:1366:C:H2'	21:AA:1367:C:C6	2.55	0.42
21:AA:1374:A:C4	21:AA:1375:A:C8	3.07	0.42
24:BA:35:G:C5	24:BA:454:A:C2	3.08	0.42
24:BA:447:A:C8	24:BA:473:G:C5	3.08	0.42
24:BA:458:G:N2	24:BA:469:G:H2'	2.35	0.42
24:BA:558:U:H2'	24:BA:559:G:H8	1.84	0.42
24:BA:1085:A:H2'	24:BA:1086:A:C2	2.55	0.42
24:BA:1321:A:C4	24:BA:1322:A:C8	3.08	0.42
24:BA:1427:A:C4	24:BA:1428:C:N4	2.88	0.42
24:BA:1454:C:H5'	37:BN:63:ARG:CD	2.50	0.42
24:BA:1498:C:O4'	24:BA:1577:C:C4'	2.68	0.42
24:BA:1782:U:C4	24:BA:2587:A:C2	3.07	0.42
24:BA:1838:C:C5	24:BA:1899:A:C5	3.07	0.42
24:BA:2010:G:C5	24:BA:2011:U:C5	3.08	0.42
24:BA:2052:A:OP1	27:BD:145:SER:HA	2.20	0.42
24:BA:2134:A:O2'	24:BA:2135:A:C5'	2.68	0.42
24:BA:2200:C:O2	24:BA:2226:C:N4	2.53	0.42
24:BA:2231:U:C2	24:BA:2232:C:C6	3.08	0.42
24:BA:2716:C:O2'	24:BA:2717:C:H5'	2.18	0.42
24:BA:2824:C:H2'	24:BA:2825:G:O4'	2.20	0.42
24:BA:2840:C:H5"	37:BN:53:THR:HG21	2.01	0.42
25:BB:29:A:N3	25:BB:29:A:H2'	2.34	0.42
25:BB:65:U:C4	25:BB:108:A:N3	2.88	0.42
26:BC:90:ILE:HD13	26:BC:90:ILE:HA	1.67	0.42
27:BD:4:LEU:HD12	27:BD:4:LEU:HA	1.74	0.42
27:BD:4:LEU:CD1	27:BD:100:LEU:HD23	2.50	0.42
28:BE:134:LEU:O	28:BE:135:ALA:C	2.63	0.42
28:BE:141:MET:O	28:BE:142:ALA:HB3	2.19	0.42
30:BG:36:LEU:HD13	30:BG:36:LEU:HA	1.69	0.42
31:BH:27:ARG:HH12	31:BH:38:PRO:HG3	1.81	0.42
33:BJ:43:GLU:O	33:BJ:45:THR:HG22	2.19	0.42
35:BL:79:LEU:HD23	35:BL:79:LEU:HA	1.83	0.42
36:BM:126:ILE:O	36:BM:126:ILE:HD12	2.20	0.42
41:BR:4:VAL:O	41:BR:4:VAL:CG2	2.68	0.42
42:BS:45:VAL:HG22	42:BS:46:LEU:N	2.35	0.42
44:BU:6:ARG:O	44:BU:24:VAL:HB	2.20	0.42
45:BV:30:ILE:HA	45:BV:91:PHE:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:B4:9:LYS:HB3	54:B4:14:CYS:HB3	2.02	0.42
2:CC:17:TRP:N	2:CC:17:TRP:CE3	2.88	0.42
2:CC:88:LYS:O	2:CC:92:ASP:HB2	2.19	0.42
2:CC:136:ALA:HA	2:CC:139:ASN:ND2	2.30	0.42
5:CF:10:VAL:HG12	5:CF:11:HIS:H	1.85	0.42
7:CH:10:LEU:HD22	7:CH:74:ILE:HD11	2.02	0.42
7:CH:111:THR:HG21	7:CH:113:ARG:HH21	1.84	0.42
9:CJ:65:TYR:HB3	13:CN:95:LEU:CD1	2.49	0.42
11:CL:97:VAL:O	11:CL:97:VAL:HG23	2.20	0.42
12:CM:69:ARG:O	12:CM:73:SER:HB3	2.20	0.42
12:CM:84:CYS:HB2	18:CS:73:PHE:CZ	2.55	0.42
12:CM:86:ARG:CD	12:CM:96:VAL:HG11	2.40	0.42
12:CM:106:ARG:HB3	55:CA:947:G:H5"	2.02	0.42
14:CO:14:PHE:CZ	14:CO:84:LEU:HD21	2.55	0.42
16:CQ:62:GLU:N	16:CQ:72:TRP:CZ3	2.87	0.42
17:CR:19:GLU:CD	17:CR:20:ILE:H	2.27	0.42
17:CR:23:LYS:C	17:CR:25:ILE:N	2.78	0.42
20:CU:13:VAL:O	20:CU:13:VAL:HG13	2.19	0.42
55:CA:10:A:C2	55:CA:11:G:C8	3.08	0.42
55:CA:47:C:O2'	55:CA:48:C:H5'	2.20	0.42
55:CA:92:U:H2'	55:CA:93:U:C5	2.54	0.42
55:CA:100:G:C5	55:CA:101:A:C5	3.08	0.42
55:CA:105:G:C5	55:CA:106:C:C4	3.08	0.42
55:CA:593:U:H2'	55:CA:594:U:O4'	2.20	0.42
55:CA:689:C:H2'	55:CA:690:G:O4'	2.20	0.42
55:CA:704:A:O2'	55:CA:705:G:H8	2.03	0.42
55:CA:896:C:C2	55:CA:897:C:C6	3.08	0.42
55:CA:953:G:C2	55:CA:1229:A:C4	3.08	0.42
55:CA:1160:G:H2'	55:CA:1161:C:H6	1.84	0.42
26:DC:52:HIS:HB3	26:DC:216:ARG:O	2.20	0.42
26:DC:231:HIS:HE1	24:DA:1825:U:O3'	2.03	0.42
26:DC:244:VAL:HB	26:DC:249:VAL:N	2.35	0.42
27:DD:30:GLU:O	27:DD:31:ALA:O	2.37	0.42
31:DH:45:GLU:C	31:DH:47:PHE:H	2.28	0.42
34:DK:87:LEU:C	34:DK:89:ASN:H	2.28	0.42
34:DK:118:LEU:O	34:DK:120:PRO:CD	2.67	0.42
35:DL:36:LYS:CE	24:DA:2448:A:H61	2.27	0.42
37:DN:67:PHE:C	37:DN:67:PHE:CD1	2.98	0.42
39:DP:41:ALA:O	39:DP:42:PHE:HB2	2.20	0.42
43:DT:1:MET:HA	24:DA:139:U:N3	2.35	0.42
43:DT:9:LYS:O	43:DT:9:LYS:CG	2.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DU:45:GLN:HA	44:DU:45:GLN:NE2	2.26	0.42
46:DW:23:LYS:HD3	24:DA:855:G:O2'	2.19	0.42
48:DY:28:LEU:C	48:DY:30:MET:H	2.26	0.42
49:DZ:15:ARG:N	49:DZ:15:ARG:HD2	2.34	0.42
49:DZ:46:MET:HE3	24:DA:850:U:HO2'	1.85	0.42
53:D3:27:ASN:HD22	53:D3:27:ASN:HA	1.69	0.42
24:DA:953:G:C2	24:DA:954:G:N7	2.88	0.42
24:DA:954:G:C5	24:DA:955:U:C5	3.08	0.42
24:DA:1045:C:O5'	24:DA:1046:A:H5"	2.20	0.42
24:DA:1130:U:O2'	24:DA:1131:G:H8	2.00	0.42
24:DA:1399:C:O2'	24:DA:1400:U:H5'	2.19	0.42
24:DA:1408:G:H2'	24:DA:1409:U:C6	2.54	0.42
24:DA:1560:G:H2'	24:DA:1561:C:C6	2.55	0.42
24:DA:1707:G:C2	24:DA:1708:C:C2	3.08	0.42
24:DA:1805:A:C2	24:DA:1813:G:C4	3.08	0.42
24:DA:1809:A:O2'	24:DA:1810:A:H8	1.97	0.42
24:DA:1831:G:C6	24:DA:1832:C:C4	3.08	0.42
24:DA:1859:U:H6	24:DA:1859:U:O5'	2.03	0.42
24:DA:1956:U:H2'	24:DA:1957:C:H6	1.84	0.42
24:DA:2268:A:H8	24:DA:2268:A:O5'	2.02	0.42
24:DA:2347:C:OP1	24:DA:2347:C:H4'	2.20	0.42
24:DA:2531:A:H2	24:DA:2658:C:O2	2.02	0.42
24:DA:2591:C:O2'	24:DA:2592:G:H5'	2.20	0.42
24:DA:2720:U:N3	24:DA:2872:A:C2	2.88	0.42
24:DA:2738:A:C2'	24:DA:2739:U:O5'	2.67	0.42
3:AD:10:LEU:HD11	3:AD:62:ARG:HE	1.85	0.42
3:AD:54:LEU:C	3:AD:54:LEU:HD23	2.44	0.42
4:AE:20:VAL:HG11	21:AA:1080:A:C5'	2.50	0.42
4:AE:20:VAL:O	4:AE:30:PHE:CD2	2.73	0.42
4:AE:81:GLN:HG2	4:AE:149:PRO:HG3	2.02	0.42
13:AN:82:LYS:HE2	13:AN:82:LYS:HA	2.01	0.42
16:AQ:58:VAL:HG22	16:AQ:59:GLU:N	2.34	0.42
16:AQ:80:LYS:HB2	16:AQ:80:LYS:NZ	2.34	0.42
18:AS:42:ASN:HD22	18:AS:43:MET:N	2.18	0.42
21:AA:48:C:C5	21:AA:364:A:H2	2.37	0.42
21:AA:251:G:N1	21:AA:266:G:O6	2.53	0.42
21:AA:669:G:C4	21:AA:670:G:C8	3.08	0.42
21:AA:1069:C:C2'	21:AA:1070:U:O5'	2.68	0.42
21:AA:1074:G:N1	21:AA:1102:A:C6	2.88	0.42
21:AA:1083:U:C5	21:AA:1084:G:C5	3.08	0.42
21:AA:1135:U:H3	21:AA:1140:C:H42	1.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:1412:C:H2'	21:AA:1413:A:H8	1.75	0.42
24:BA:192:C:H6	24:BA:192:C:O5'	2.03	0.42
24:BA:253:C:H2'	24:BA:254:G:H5'	2.01	0.42
24:BA:265:A:N6	24:BA:428:A:N9	2.68	0.42
24:BA:276:U:O2'	24:BA:277:G:O5'	2.38	0.42
24:BA:310:A:O2'	24:BA:311:A:P	2.78	0.42
24:BA:633:A:H2'	24:BA:634:C:O4'	2.20	0.42
24:BA:823:C:C4	24:BA:824:U:C4	3.07	0.42
24:BA:971:G:H2'	24:BA:972:A:H5'	2.02	0.42
24:BA:1152:C:H3'	59:BA:3364:HOH:O	2.18	0.42
24:BA:1257:C:N3	24:BA:1258:U:C5	2.87	0.42
24:BA:1496:A:C5	24:BA:1498:C:N4	2.88	0.42
24:BA:1633:G:O6	24:BA:1635:A:C2	2.72	0.42
24:BA:1730:C:H1'	24:BA:1731:G:N2	2.35	0.42
24:BA:1900:A:C2	24:BA:1970:A:C4	3.08	0.42
24:BA:1998:A:C6	24:BA:1999:C:C4	3.08	0.42
24:BA:2004:G:N7	24:BA:2005:A:N7	2.68	0.42
24:BA:2146:C:O2	24:BA:2146:C:O4'	2.34	0.42
24:BA:2192:U:O2'	24:BA:2193:G:H5'	2.20	0.42
24:BA:2259:U:H2'	24:BA:2260:C:C6	2.51	0.42
24:BA:2261:C:N4	46:BW:10:ARG:HB3	2.35	0.42
24:BA:2502:G:H5'	24:BA:2503:A:O5'	2.20	0.42
24:BA:2555:U:H5	24:BA:2556:C:C4	2.37	0.42
24:BA:2898:U:O2	24:BA:2898:U:H2'	2.19	0.42
25:BB:88:C:O2'	25:BB:89:U:P	2.77	0.42
25:BB:99:A:C2	25:BB:100:G:H1'	2.55	0.42
26:BC:106:PRO:N	26:BC:141:HIS:HE1	2.18	0.42
26:BC:259:ASN:O	26:BC:261:ARG:N	2.39	0.42
26:BC:262:THR:O	26:BC:263:ASP:C	2.63	0.42
27:BD:3:GLY:O	27:BD:82:PHE:CE1	2.72	0.42
27:BD:20:VAL:CG1	27:BD:21:SER:N	2.83	0.42
27:BD:62:LYS:HB2	27:BD:63:PRO:HD3	2.02	0.42
28:BE:18:THR:HG22	28:BE:106:LYS:HE3	2.02	0.42
28:BE:174:GLY:O	28:BE:175:ILE:C	2.62	0.42
28:BE:178:VAL:O	28:BE:179:SER:C	2.63	0.42
29:BF:127:TYR:O	29:BF:128:SER:CB	2.68	0.42
30:BG:88:LEU:HD11	30:BG:95:ALA:CB	2.45	0.42
36:BM:40:ARG:HB2	36:BM:93:VAL:HG21	2.00	0.42
39:BP:112:ARG:O	39:BP:113:LEU:C	2.63	0.42
40:BQ:63:ARG:NH2	40:BQ:95:ALA:O	2.53	0.42
42:BS:88:ARG:NE	42:BS:94:ASP:OD1	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BY:60:LYS:O	48:BY:63:ALA:OXT	2.37	0.42
54:B4:1:MET:HE2	54:B4:34:LYS:HG2	2.02	0.42
1:CB:13:VAL:HG21	1:CB:211:LEU:CD1	2.50	0.42
1:CB:77:GLU:HA	1:CB:80:LYS:HE2	2.01	0.42
1:CB:159:ALA:HA	1:CB:181:PRO:O	2.19	0.42
1:CB:199:ILE:HA	1:CB:200:PRO:HD3	1.84	0.42
2:CC:18:ASN:ND2	2:CC:53:ARG:NH1	2.60	0.42
6:CG:65:LEU:HD21	6:CG:96:ASN:OD1	2.20	0.42
6:CG:77:ARG:NH1	55:CA:1381:U:O4	2.52	0.42
6:CG:149:ALA:C	6:CG:150:PHE:CG	2.98	0.42
14:CO:20:ASP:CB	55:CA:750:C:H4'	2.47	0.42
55:CA:33:A:O2'	55:CA:34:C:H5'	2.19	0.42
55:CA:174:A:N3	55:CA:175:C:C6	2.88	0.42
55:CA:193:C:H2'	55:CA:194:C:C5	2.55	0.42
55:CA:247:G:C2	55:CA:248:C:C5	3.08	0.42
55:CA:369:G:OP2	55:CA:388:G:N1	2.43	0.42
55:CA:423:G:H2'	55:CA:424:G:O4'	2.20	0.42
55:CA:623:C:N4	55:CA:624:C:N4	2.68	0.42
55:CA:771:G:C2	55:CA:809:G:N3	2.88	0.42
55:CA:819:A:C8	55:CA:1529:G:C2	3.07	0.42
55:CA:938:A:C4	55:CA:939:G:C8	3.08	0.42
55:CA:1256:A:C5	55:CA:1278:G:C5	3.08	0.42
55:CA:1444:U:H2'	55:CA:1445:U:H6	1.83	0.42
55:CA:1460:C:C4	55:CA:1461:G:C5	3.07	0.42
26:DC:125:PRO:HA	26:DC:191:LEU:HB2	2.02	0.42
26:DC:130:PRO:HD3	26:DC:188:ARG:HG3	2.02	0.42
26:DC:131:MET:HE3	26:DC:131:MET:HB2	1.93	0.42
28:DE:55:SER:OG	28:DE:56:GLY:N	2.52	0.42
29:DF:49:LEU:HD22	29:DF:49:LEU:N	2.20	0.42
29:DF:82:TYR:HA	29:DF:83:PRO:HD2	1.82	0.42
29:DF:107:VAL:N	29:DF:108:PRO:HD2	2.34	0.42
30:DG:138:GLN:NE2	24:DA:2759:G:H21	2.17	0.42
31:DH:77:THR:HG22	31:DH:143:ILE:HD11	2.02	0.42
32:DI:102:ARG:HD2	32:DI:105:LEU:HB3	2.02	0.42
33:DJ:18:VAL:HG12	33:DJ:54:ILE:HD11	2.01	0.42
34:DK:9:ASN:ND2	34:DK:17:ARG:CZ	2.83	0.42
35:DL:119:PRO:HB3	35:DL:139:GLY:C	2.45	0.42
36:DM:36:VAL:HG13	45:DV:82:TYR:CE1	2.55	0.42
37:DN:47:VAL:O	37:DN:50:PRO:HD2	2.20	0.42
37:DN:52:ILE:HA	37:DN:55:ALA:HB3	2.01	0.42
38:DO:8:ILE:HD12	38:DO:8:ILE:N	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DO:51:ALA:HB2	38:DO:81:ARG:HD2	2.02	0.42
40:DQ:31:TYR:O	40:DQ:33:VAL:N	2.53	0.42
40:DQ:84:LYS:C	40:DQ:86:SER:N	2.76	0.42
42:DS:95:ARG:HG3	42:DS:97:LEU:HD22	2.01	0.42
43:DT:19:LYS:HB2	24:DA:1393:A:N6	2.35	0.42
44:DU:23:LYS:HB2	44:DU:36:GLU:CD	2.45	0.42
45:DV:14:LYS:N	56:DB:98:G:H1	2.18	0.42
46:DW:49:ASN:OD1	46:DW:80:SER:HA	2.20	0.42
50:D0:4:GLN:OE1	24:DA:2054:A:H2'	2.20	0.42
52:D2:6:GLN:HA	52:D2:7:PRO:HD2	1.77	0.42
54:D4:11:CYS:HB3	54:D4:33:HIS:HE1	1.85	0.42
24:DA:159:G:O2'	24:DA:160:A:H5"	2.20	0.42
24:DA:182:A:C5	24:DA:183:C:C5	3.08	0.42
24:DA:235:U:H2'	24:DA:236:C:C6	2.55	0.42
24:DA:303:G:H2'	24:DA:304:U:C6	2.54	0.42
24:DA:312:G:O2'	24:DA:313:G:H5'	2.19	0.42
24:DA:333:G:H2'	24:DA:334:C:H6	1.85	0.42
24:DA:607:U:H3	24:DA:620:G:C1'	2.32	0.42
24:DA:690:G:C4'	24:DA:780:G:H5"	2.50	0.42
24:DA:704:G:C2'	24:DA:726:G:H22	2.33	0.42
24:DA:727:A:C2'	24:DA:728:G:C8	3.02	0.42
24:DA:1270:C:N3	24:DA:1648:U:H5	2.16	0.42
24:DA:1324:G:H1'	24:DA:1616:A:N6	2.35	0.42
24:DA:1332:G:N7	24:DA:1610:A:H2	2.18	0.42
24:DA:1333:G:C2	24:DA:1334:G:N7	2.88	0.42
24:DA:1480:C:H2'	24:DA:1481:U:O4'	2.20	0.42
24:DA:1733:G:HO2'	24:DA:1734:G:P	2.43	0.42
24:DA:1784:A:C4'	24:DA:1785:A:H5"	2.49	0.42
24:DA:1889:A:H1'	24:DA:2087:G:C4'	2.50	0.42
24:DA:2072:C:C4	24:DA:2073:C:C5	3.07	0.42
24:DA:2076:U:OP2	24:DA:2238:G:N2	2.53	0.42
24:DA:2108:A:H4'	24:DA:2151:U:H4'	2.01	0.42
24:DA:2149:U:O2'	24:DA:2150:C:H5'	2.20	0.42
24:DA:2282:G:O2'	24:DA:2283:C:OP2	2.38	0.42
24:DA:2287:A:C5	24:DA:2289:G:N7	2.88	0.42
24:DA:2399:G:H5'	24:DA:2400:G:OP2	2.20	0.42
24:DA:2500:U:H5"	24:DA:2501:C:OP2	2.20	0.42
24:DA:2511:U:H2'	24:DA:2512:C:C6	2.55	0.42
56:DB:43:C:C5	56:DB:45:A:N6	2.88	0.42
56:DB:60:C:H2'	56:DB:61:G:C8	2.54	0.42
1:AB:25:LYS:HB3	1:AB:25:LYS:HZ2	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AB:40:ILE:CD1	1:AB:201:GLY:HA2	2.33	0.41
1:AB:96:LEU:N	1:AB:99:MET:HE3	2.35	0.41
1:AB:212:TYR:HA	1:AB:215:ALA:CB	2.44	0.41
2:AC:6:PRO:HG2	2:AC:183:TYR:CD2	2.55	0.41
3:AD:102:TYR:C	3:AD:104:MET:H	2.27	0.41
4:AE:95:MET:HE2	4:AE:143:LEU:HD21	2.01	0.41
6:AG:3:ARG:HG3	6:AG:4:ARG:H	1.86	0.41
6:AG:119:LEU:HD23	6:AG:119:LEU:O	2.19	0.41
8:AI:17:ARG:NH2	21:AA:1129:C:C5'	2.75	0.41
9:AJ:92:LEU:HD12	9:AJ:93:ALA:N	2.35	0.41
14:AO:45:HIS:C	14:AO:47:LYS:H	2.28	0.41
17:AR:62:ARG:HA	17:AR:67:LEU:O	2.20	0.41
18:AS:13:HIS:O	18:AS:16:LYS:HB2	2.20	0.41
21:AA:112:G:C2	21:AA:330:C:C4	3.08	0.41
21:AA:143:A:N3	21:AA:143:A:C2'	2.82	0.41
21:AA:341:C:C2	21:AA:349:A:C2	3.08	0.41
21:AA:645:G:H2'	21:AA:646:G:H5'	2.01	0.41
21:AA:819:A:N7	21:AA:1529:G:C2	2.88	0.41
21:AA:1140:C:O2'	21:AA:1141:C:C5'	2.68	0.41
21:AA:1151:A:HO2'	21:AA:1152:A:P	2.43	0.41
21:AA:1431:A:C2	21:AA:1470:U:O4	2.73	0.41
21:AA:1492:A:N1	24:BA:1913:A:C4	2.88	0.41
24:BA:30:G:C8	24:BA:31:C:C5	3.07	0.41
24:BA:117:G:N1	24:BA:119:A:N6	2.68	0.41
24:BA:514:A:O2'	24:BA:515:A:O4'	2.33	0.41
24:BA:1024:G:N2	24:BA:1142:A:C2	2.87	0.41
24:BA:1455:G:C4	24:BA:1456:G:C8	3.08	0.41
24:BA:1635:A:H2'	24:BA:1636:U:O4'	2.20	0.41
24:BA:1666:G:O2'	34:BK:6:THR:OG1	2.36	0.41
24:BA:2225:A:C5'	24:BA:2226:C:H5'	2.46	0.41
24:BA:2313:C:H4'	29:BF:87:LYS:HD2	2.01	0.41
24:BA:2417:C:N3	24:BA:2418:A:N7	2.68	0.41
24:BA:2466:C:OP1	54:B4:4:ARG:HB2	2.20	0.41
24:BA:2679:A:C2	24:BA:2680:U:O2	2.73	0.41
24:BA:2833:U:C3'	24:BA:2834:G:H5'	2.50	0.41
24:BA:2842:G:H2'	24:BA:2843:G:O4'	2.20	0.41
26:BC:20:ASN:HA	26:BC:21:PRO:HD2	1.93	0.41
26:BC:159:THR:N	26:BC:194:VAL:CG1	2.83	0.41
26:BC:211:ARG:C	26:BC:213:ARG:H	2.28	0.41
26:BC:225:ASN:ND2	59:BC:303:HOH:O	2.53	0.41
28:BE:108:ILE:HD11	28:BE:180:LEU:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BG:8:VAL:O	30:BG:9:VAL:O	2.38	0.41
34:BK:88:ASN:ND2	34:BK:90:ASN:H	2.18	0.41
36:BM:20:LEU:HD13	36:BM:20:LEU:HA	1.93	0.41
36:BM:132:THR:CG2	36:BM:133:LYS:N	2.83	0.41
40:BQ:63:ARG:HD2	40:BQ:64:ILE:HG13	2.02	0.41
40:BQ:114:ALA:O	40:BQ:117:ALA:N	2.51	0.41
41:BR:49:ILE:HD12	41:BR:53:PHE:H	1.85	0.41
41:BR:49:ILE:O	41:BR:50:GLY:C	2.62	0.41
47:BX:71:ARG:HH11	47:BX:71:ARG:HG2	1.85	0.41
48:BY:22:LEU:O	48:BY:23:ARG:O	2.37	0.41
48:BY:26:PHE:CD1	48:BY:26:PHE:C	2.98	0.41
49:BZ:7:THR:OG1	49:BZ:34:THR:HG23	2.19	0.41
53:B3:61:LEU:O	53:B3:62:PRO:C	2.63	0.41
1:CB:218:ALA:O	1:CB:219:THR:C	2.63	0.41
3:CD:72:ARG:O	3:CD:73:ASN:C	2.63	0.41
4:CE:13:LYS:HA	4:CE:13:LYS:CE	2.36	0.41
7:CH:46:GLU:OE2	7:CH:63:LYS:HG2	2.19	0.41
7:CH:100:ILE:HD11	7:CH:128:VAL:HB	2.02	0.41
7:CH:125:ILE:HG22	7:CH:126:CYS:SG	2.60	0.41
8:CI:46:VAL:CG2	8:CI:75:ALA:HB1	2.48	0.41
8:CI:125:GLN:HB3	55:CA:1342:C:H4’	2.02	0.41
9:CJ:37:ARG:HD2	9:CJ:37:ARG:HA	1.85	0.41
11:CL:34:THR:HG22	11:CL:35:ARG:HG2	2.00	0.41
13:CN:33:VAL:HG22	13:CN:40:ARG:NH2	2.35	0.41
13:CN:61:ASN:CG	13:CN:72:PHE:CE1	2.98	0.41
15:CP:18:GLN:HE21	15:CP:35:ARG:HH12	1.68	0.41
55:CA:52:C:C4	55:CA:360:G:N2	2.88	0.41
55:CA:86:G:H1’	55:CA:87:C:O5’	2.20	0.41
55:CA:900:A:N1	55:CA:901:A:C2	2.88	0.41
55:CA:925:G:N2	55:CA:1392:G:C4	2.88	0.41
55:CA:946:A:O2’	55:CA:1333:A:O2’	2.38	0.41
55:CA:978:A:OP2	55:CA:1224:U:O4	2.38	0.41
55:CA:1158:C:O2	55:CA:1158:C:C2’	2.64	0.41
55:CA:1239:A:H1’	55:CA:1241:G:C4	2.55	0.41
55:CA:1325:C:O2’	55:CA:1326:U:H5’	2.20	0.41
26:DC:149:LYS:CE	26:DC:152:GLN:NE2	2.83	0.41
27:DD:175:LEU:HB3	27:DD:176:ASP:H	1.64	0.41
28:DE:175:ILE:HD11	28:DE:180:LEU:HD11	2.02	0.41
31:DH:82:SER:O	31:DH:83:LYS:HB3	2.19	0.41
33:DJ:2:LYS:HB2	33:DJ:2:LYS:NZ	2.35	0.41
34:DK:107:LEU:C	34:DK:109:SER:N	2.78	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DL:128:THR:HG21	24:DA:637:A:OP2	2.20	0.41
36:DM:76:LYS:O	36:DM:77:PRO:O	2.38	0.41
37:DN:67:PHE:HE2	37:DN:73:ASN:HD21	1.67	0.41
39:DP:57:ALA:HA	39:DP:75:THR:HB	2.02	0.41
40:DQ:2:ARG:HB3	40:DQ:3:VAL:H	1.64	0.41
42:DS:27:LYS:O	42:DS:28:LYS:C	2.62	0.41
42:DS:43:ALA:HA	42:DS:46:LEU:HB3	2.02	0.41
48:DY:3:ALA:HA	48:DY:6:LEU:HD12	2.02	0.41
50:D0:46:GLY:HA3	50:D0:54:ILE:HG13	2.02	0.41
51:D1:36:LYS:HA	51:D1:47:ILE:HA	2.02	0.41
53:D3:7:ARG:HH22	24:DA:243:U:H3'	1.85	0.41
24:DA:101:A:O2'	24:DA:102:U:P	2.78	0.41
24:DA:223:A:C4	24:DA:408:G:H1'	2.55	0.41
24:DA:250:G:C2	24:DA:251:A:C4	3.07	0.41
24:DA:412:A:O2'	24:DA:413:C:H5'	2.19	0.41
24:DA:434:U:O2'	24:DA:435:C:P	2.78	0.41
24:DA:531:C:P	24:DA:532:A:C8	3.13	0.41
24:DA:546:U:H5'	24:DA:547:A:OP1	2.19	0.41
24:DA:924:G:O2'	24:DA:925:A:H5'	2.20	0.41
24:DA:1332:G:C8	24:DA:1610:A:C2	3.08	0.41
24:DA:1343:G:N2	24:DA:1344:U:C2	2.88	0.41
24:DA:1352:U:C5	24:DA:1377:G:C6	3.08	0.41
24:DA:1395:A:H4'	24:DA:1397:U:C4	2.55	0.41
24:DA:1404:C:O2'	24:DA:1405:U:H5'	2.19	0.41
24:DA:1438:U:O4	24:DA:1552:A:N1	2.53	0.41
24:DA:1439:A:C8	24:DA:1439:A:H3'	2.55	0.41
24:DA:1531:C:H2'	24:DA:1532:A:O4'	2.20	0.41
24:DA:1535:A:C2	24:DA:1537:G:C5	3.08	0.41
24:DA:1798:U:O2'	24:DA:1802:A:H1'	2.19	0.41
24:DA:1854:A:H2'	24:DA:1855:U:H5'	2.01	0.41
24:DA:2043:C:C4	24:DA:2777:G:C2	3.08	0.41
24:DA:2441:U:O2'	24:DA:2442:C:H5'	2.19	0.41
24:DA:2839:G:N1	24:DA:2880:C:N4	2.67	0.41
24:DA:2852:G:H2'	24:DA:2853:C:O4'	2.20	0.41
24:DA:2880:C:H2'	24:DA:2881:U:C6	2.54	0.41
1:AB:44:LYS:CA	1:AB:47:PRO:HD2	2.49	0.41
1:AB:49:PHE:HA	1:AB:52:ALA:HB3	2.02	0.41
1:AB:219:THR:O	1:AB:220:VAL:C	2.63	0.41
2:AC:16:PRO:HB2	2:AC:17:TRP:H	1.50	0.41
4:AE:14:LEU:HB3	4:AE:59:ILE:HD13	2.02	0.41
5:AF:16:GLU:HG2	3:CD:191:SER:C	2.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AF:22:ILE:HD12	5:AF:22:ILE:H	1.86	0.41
8:AI:40:ARG:HA	8:AI:44:ARG:HB3	2.02	0.41
9:AJ:81:GLU:O	9:AJ:84:VAL:HG12	2.20	0.41
15:AP:38:PHE:CZ	15:AP:51:ARG:HB2	2.56	0.41
16:AQ:51:GLU:O	16:AQ:52:CYS:O	2.37	0.41
21:AA:79:G:C6	21:AA:80:A:C5	3.08	0.41
21:AA:204:G:N2	21:AA:465:A:C8	2.88	0.41
21:AA:313:A:O2'	21:AA:314:C:H5'	2.20	0.41
21:AA:352:C:H5"	21:AA:352:C:H6	1.85	0.41
21:AA:382:A:C2	21:AA:383:A:C4	3.08	0.41
21:AA:435:A:H8	21:AA:435:A:OP2	2.02	0.41
21:AA:864:A:H2'	21:AA:865:A:C8	2.55	0.41
21:AA:1089:G:H2'	21:AA:1090:U:H5'	2.03	0.41
21:AA:1125:U:O2'	21:AA:1126:U:H2'	2.19	0.41
21:AA:1153:G:C2	21:AA:1154:G:N9	2.88	0.41
21:AA:1258:G:C4	21:AA:1259:C:C5	3.08	0.41
21:AA:1501:C:H3'	21:AA:1504:G:N7	2.35	0.41
21:AA:1519:A:H5"	21:AA:1520:C:OP2	2.19	0.41
24:BA:182:A:H2'	24:BA:183:C:O4'	2.20	0.41
24:BA:389:G:C8	24:BA:2413:G:H4'	2.54	0.41
24:BA:397:U:H2'	24:BA:398:C:O4'	2.20	0.41
24:BA:543:G:N3	24:BA:551:G:C2	2.88	0.41
24:BA:726:G:C2'	24:BA:727:A:OP2	2.68	0.41
24:BA:1248:G:C6	28:BE:46:GLN:OE1	2.73	0.41
24:BA:1376:C:H2'	24:BA:1377:G:C5'	2.48	0.41
24:BA:1439:A:C2	24:BA:1553:A:C4	3.08	0.41
24:BA:1492:G:C6	24:BA:1499:C:N3	2.88	0.41
24:BA:1500:G:C4	24:BA:1501:G:C8	3.08	0.41
24:BA:1731:G:H1'	24:BA:1733:G:C8	2.55	0.41
24:BA:1767:G:C6	24:BA:1768:C:C5	3.08	0.41
24:BA:2140:G:N2	24:BA:2141:G:H1'	2.35	0.41
24:BA:2199:A:H1'	31:BH:28:ASN:OD1	2.20	0.41
24:BA:2488:G:H2'	24:BA:2489:U:H5'	2.02	0.41
26:BC:139:THR:O	26:BC:140:VAL:O	2.38	0.41
27:BD:110:THR:OG1	27:BD:171:THR:CG2	2.68	0.41
27:BD:148:GLN:CD	27:BD:148:GLN:N	2.78	0.41
27:BD:151:THR:CB	27:BD:152:PRO:HD3	2.50	0.41
27:BD:201:LEU:HA	27:BD:201:LEU:HD12	1.62	0.41
28:BE:58:LYS:HE3	28:BE:62:GLN:NE2	2.33	0.41
30:BG:86:LEU:N	30:BG:86:LEU:CD1	2.77	0.41
30:BG:143:VAL:O	30:BG:144:ALA:C	2.62	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BI:58:ILE:HG22	32:BI:60:VAL:CG2	2.50	0.41
34:BK:71:ARG:CB	34:BK:72:PRO:CD	2.97	0.41
37:BN:23:ASN:ND2	37:BN:23:ASN:H	2.16	0.41
38:BO:79:ALA:HA	38:BO:115:LEU:HD13	2.02	0.41
41:BR:3:ALA:HB3	41:BR:59:ILE:HD11	2.02	0.41
1:CB:80:LYS:O	1:CB:84:LEU:HB3	2.20	0.41
3:CD:1:ALA:O	3:CD:2:ARG:C	2.63	0.41
4:CE:132:PRO:O	4:CE:135:VAL:N	2.53	0.41
6:CG:25:PHE:CD2	6:CG:25:PHE:C	2.98	0.41
6:CG:149:ALA:CB	10:CK:55:ARG:HG3	2.49	0.41
8:CI:30:ASN:HD21	8:CI:66:VAL:H	1.68	0.41
8:CI:66:VAL:CG2	8:CI:74:GLN:HB3	2.35	0.41
8:CI:81:GLY:HA2	8:CI:84:ARG:HB2	2.01	0.41
8:CI:123:ARG:O	55:CA:1343:G:H4'	2.20	0.41
10:CK:124:LYS:O	20:CU:34:ARG:HB2	2.20	0.41
11:CL:51:VAL:CG1	11:CL:52:CYS:N	2.82	0.41
13:CN:42:ASN:C	13:CN:44:VAL:N	2.78	0.41
14:CO:19:ASN:O	14:CO:19:ASN:CG	2.62	0.41
15:CP:1:MET:HE1	55:CA:136:C:H1'	2.02	0.41
15:CP:9:HIS:CE1	15:CP:29:ASN:HD22	2.38	0.41
17:CR:33:THR:OG1	17:CR:37:LYS:HB2	2.19	0.41
18:CS:33:TRP:CE2	18:CS:56:HIS:CE1	3.08	0.41
19:CT:35:TYR:OH	55:CA:258:G:O3'	2.37	0.41
55:CA:96:U:O2'	55:CA:97:G:C5'	2.68	0.41
55:CA:327:A:O2'	55:CA:329:A:H5"	2.20	0.41
55:CA:477:C:H5'	55:CA:478:A:P	2.60	0.41
55:CA:563:A:H1'	55:CA:566:G:O2'	2.19	0.41
55:CA:764:C:H2'	55:CA:765:G:C5'	2.48	0.41
55:CA:944:G:H3'	55:CA:945:G:C5'	2.50	0.41
55:CA:1101:A:H1'	55:CA:1102:A:O4'	2.20	0.41
55:CA:1304:G:C6	55:CA:1305:G:N1	2.88	0.41
55:CA:1432:G:H1'	55:CA:1468:A:N6	2.34	0.41
55:CA:1449:C:HO2'	55:CA:1450:U:H5'	1.84	0.41
55:CA:1494:G:C6	55:CA:1495:U:C4	3.08	0.41
22:CV:41:C:H2'	22:CV:42:G:C8	2.55	0.41
26:DC:103:ILE:HG13	26:DC:104:LEU:N	2.35	0.41
28:DE:165:HIS:O	28:DE:167:VAL:N	2.54	0.41
29:DF:30:VAL:HA	29:DF:157:THR:HG22	2.01	0.41
30:DG:31:GLU:O	30:DG:32:LEU:HB2	2.19	0.41
31:DH:132:PHE:HB3	31:DH:140:ALA:HB3	2.02	0.41
35:DL:19:LEU:HD11	35:DL:31:GLY:CA	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DL:116:VAL:HG13	35:DL:117:THR:H	1.84	0.41
36:DM:33:LEU:HD23	36:DM:129:THR:O	2.20	0.41
36:DM:111:GLU:O	36:DM:115:GLU:HB2	2.19	0.41
37:DN:46:ARG:H	37:DN:46:ARG:HG3	1.51	0.41
37:DN:81:ASN:OD1	37:DN:81:ASN:N	2.53	0.41
42:DS:20:VAL:HG23	42:DS:23:LEU:HD12	2.03	0.41
44:DU:73:ASN:HB3	44:DU:95:PHE:HE2	1.85	0.41
45:DV:17:SER:HB3	56:DB:76:G:H5"	2.00	0.41
46:DW:28:GLU:HG3	46:DW:29:SER:H	1.86	0.41
46:DW:77:LYS:O	46:DW:78:PHE:CB	2.68	0.41
48:DY:11:VAL:HG12	48:DY:11:VAL:O	2.20	0.41
51:D1:8:ILE:HG22	51:D1:9:LYS:N	2.35	0.41
24:DA:220:G:C2	24:DA:427:U:C2	3.09	0.41
24:DA:231:A:H2'	24:DA:232:G:O4'	2.20	0.41
24:DA:263:G:H2'	24:DA:264:C:O4'	2.20	0.41
24:DA:727:A:O2'	24:DA:728:G:O4'	2.38	0.41
24:DA:760:G:H4'	24:DA:1776:G:OP1	2.20	0.41
24:DA:811:U:O2'	24:DA:1251:C:H5'	2.20	0.41
24:DA:839:U:H1'	24:DA:1191:G:H1'	2.02	0.41
24:DA:1022:G:C5	24:DA:1140:C:C4	3.08	0.41
24:DA:1062:G:O2'	24:DA:1063:G:O5'	2.38	0.41
24:DA:1126:A:H4'	24:DA:1127:A:C5'	2.51	0.41
24:DA:1346:G:C6	24:DA:1601:G:C6	3.09	0.41
24:DA:1354:A:H2'	24:DA:1355:G:O4'	2.20	0.41
24:DA:1364:G:N3	24:DA:1368:G:N2	2.68	0.41
24:DA:1364:G:C1'	24:DA:1368:G:H22	2.29	0.41
24:DA:1413:A:C6	24:DA:1414:C:N4	2.89	0.41
24:DA:1426:G:C2'	24:DA:1572:A:H61	2.34	0.41
24:DA:1434:A:N7	24:DA:1435:G:C5	2.88	0.41
24:DA:1616:A:C2	24:DA:1647:U:H5	2.38	0.41
24:DA:1639:C:C3'	24:DA:1640:A:H5"	2.51	0.41
24:DA:1911:U:C4	24:DA:1918:A:C5	3.08	0.41
24:DA:1931:U:H2'	24:DA:1932:A:H8	1.83	0.41
24:DA:2073:C:C2	24:DA:2437:G:C2	3.08	0.41
24:DA:2142:A:H2'	24:DA:2144:G:P	2.60	0.41
24:DA:2313:C:HO2'	24:DA:2314:A:C5'	2.17	0.41
24:DA:2458:G:C2'	24:DA:2490:G:H1	2.33	0.41
24:DA:2740:A:H2'	24:DA:2741:A:C8	2.55	0.41
1:AB:107:ARG:C	1:AB:109:SER:H	2.28	0.41
1:AB:112:ARG:C	1:AB:114:LYS:N	2.75	0.41
1:AB:116:LEU:HG	1:AB:140:LEU:HG	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:32:PHE:N	4:AE:52:ALA:O	2.41	0.41
7:AH:77:VAL:HB	7:AH:124:ILE:O	2.20	0.41
7:AH:85:TYR:CD1	21:AA:598:U:H4'	2.55	0.41
8:AI:84:ARG:O	8:AI:87:MET:HB3	2.20	0.41
9:AJ:50:THR:HG22	9:AJ:64:GLN:CB	2.50	0.41
9:AJ:62:ARG:HH11	21:AA:1367:C:H5'	1.81	0.41
10:AK:93:GLU:O	10:AK:96:ILE:HG12	2.20	0.41
11:AL:18:SER:C	11:AL:20:VAL:H	2.28	0.41
11:AL:69:GLU:HG2	21:AA:521:G:H4'	2.02	0.41
14:AO:86:LEU:C	14:AO:88:ARG:N	2.78	0.41
19:AT:2:ASN:OD1	19:AT:3:ILE:C	2.63	0.41
19:AT:54:GLN:N	19:AT:55:PRO:CD	2.83	0.41
20:AU:32:ARG:O	20:AU:32:ARG:HG2	2.20	0.41
21:AA:338:A:H2'	21:AA:339:C:O4'	2.21	0.41
21:AA:380:G:N2	21:AA:384:G:C5	2.88	0.41
21:AA:1087:G:N3	21:AA:1088:G:C8	2.89	0.41
21:AA:1137:C:C4'	21:AA:1138:G:OP1	2.68	0.41
21:AA:1258:G:O2'	21:AA:1259:C:H6	2.02	0.41
21:AA:1394:A:N6	21:AA:1500:A:O2'	2.53	0.41
21:AA:1409:C:C2	21:AA:1410:A:C8	3.08	0.41
24:BA:95:A:N6	24:BA:96:C:C4	2.88	0.41
24:BA:182:A:H2'	24:BA:183:C:C6	2.56	0.41
24:BA:223:A:C5	24:BA:422:A:C8	3.08	0.41
24:BA:532:A:O2'	24:BA:2021:C:C5	2.73	0.41
24:BA:541:A:C6	24:BA:553:G:C6	3.09	0.41
24:BA:593:U:H2'	24:BA:594:U:H6	1.85	0.41
24:BA:608:A:N9	24:BA:621:A:N6	2.68	0.41
24:BA:670:A:H4'	24:BA:671:C:O5'	2.20	0.41
24:BA:893:C:H2'	24:BA:894:U:O4'	2.20	0.41
24:BA:1029:A:H8	24:BA:1029:A:O5'	2.02	0.41
24:BA:1050:A:C2	24:BA:2751:G:N3	2.88	0.41
24:BA:1165:A:H2'	24:BA:1166:G:C8	2.54	0.41
24:BA:1188:U:C2'	24:BA:1189:A:H5'	2.50	0.41
24:BA:1203:U:O4	24:BA:1204:A:C6	2.73	0.41
24:BA:1455:G:OP2	59:BA:3418:HOH:O	2.21	0.41
24:BA:1500:G:C6	24:BA:1501:G:N7	2.88	0.41
24:BA:2297:A:C4	24:BA:2320:U:C2	3.08	0.41
24:BA:2301:C:C2	24:BA:2316:G:C2	3.09	0.41
24:BA:2305:U:C4	29:BF:151:LEU:HA	2.55	0.41
24:BA:2353:G:O2'	46:BW:31:LEU:HD23	2.19	0.41
24:BA:2505:G:O6	24:BA:2576:G:C8	2.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2601:C:O2	24:BA:2601:C:H2'	2.20	0.41
24:BA:2660:A:H2'	24:BA:2661:G:O4'	2.21	0.41
24:BA:2714:G:H2'	24:BA:2715:C:C6	2.55	0.41
24:BA:2820:A:O2'	37:BN:3:HIS:CD2	2.73	0.41
28:BE:58:LYS:CG	28:BE:71:GLY:HA2	2.38	0.41
31:BH:124:THR:O	31:BH:125:THR:C	2.64	0.41
33:BJ:55:ILE:O	33:BJ:55:ILE:CG1	2.68	0.41
34:BK:76:VAL:O	39:BP:72:VAL:HG22	2.19	0.41
34:BK:88:ASN:ND2	34:BK:88:ASN:C	2.78	0.41
38:BO:71:ALA:C	38:BO:73:ALA:H	2.28	0.41
39:BP:33:GLU:HG3	39:BP:34:GLY:N	2.35	0.41
39:BP:103:THR:HG23	39:BP:103:THR:O	2.20	0.41
40:BQ:60:TRP:CH2	40:BQ:93:ILE:HB	2.55	0.41
42:BS:19:LEU:HA	42:BS:19:LEU:HD12	1.81	0.41
43:BT:48:GLN:HA	43:BT:48:GLN:NE2	2.28	0.41
45:BV:45:ASP:O	45:BV:46:LYS:C	2.63	0.41
46:BW:33:GLY:O	46:BW:34:SER:CB	2.67	0.41
48:BY:9:LYS:HA	48:BY:9:LYS:HZ1	1.78	0.41
50:B0:39:ARG:HB2	50:B0:39:ARG:NH1	2.34	0.41
2:CC:36:PHE:O	2:CC:40:GLN:HB2	2.20	0.41
4:CE:62:ALA:O	4:CE:66:ALA:HB2	2.20	0.41
6:CG:70:PRO:O	6:CG:90:VAL:HG21	2.20	0.41
6:CG:123:LEU:HD22	6:CG:123:LEU:HA	1.83	0.41
6:CG:142:ARG:O	6:CG:144:ALA:N	2.53	0.41
7:CH:11:THR:HG21	55:CA:876:C:C1'	2.50	0.41
9:CJ:50:THR:HG22	9:CJ:64:GLN:OE1	2.20	0.41
9:CJ:65:TYR:O	13:CN:98:ALA:HB2	2.20	0.41
10:CK:27:ASN:HD22	10:CK:27:ASN:C	2.28	0.41
10:CK:109:ILE:HG22	10:CK:110:THR:N	2.35	0.41
11:CL:106:VAL:HG12	11:CL:107:LYS:N	2.34	0.41
14:CO:53:ARG:NH2	55:CA:728:A:C8	2.88	0.41
14:CO:66:LEU:HD22	14:CO:77:TYR:HE1	1.84	0.41
55:CA:42:G:C6	55:CA:43:C:C4	3.08	0.41
55:CA:80:A:N1	55:CA:81:A:O2'	2.53	0.41
55:CA:86:G:C2	55:CA:87:C:C5	3.08	0.41
55:CA:113:G:H21	55:CA:353:A:H8	1.68	0.41
55:CA:131:A:H2'	55:CA:132:C:C6	2.56	0.41
55:CA:316:C:N4	55:CA:351:G:O6	2.53	0.41
55:CA:354:G:N3	55:CA:354:G:H2'	2.34	0.41
55:CA:485:U:H6	55:CA:485:U:H2'	1.52	0.41
55:CA:577:G:N9	55:CA:816:A:C2	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:662:U:H2'	55:CA:663:A:C8	2.55	0.41
55:CA:663:A:C2	55:CA:743:A:C2	3.08	0.41
55:CA:733:G:O2'	55:CA:734:G:H5"	2.21	0.41
55:CA:966:G:H2'	55:CA:967:C:C5	2.55	0.41
55:CA:1001:C:H2'	55:CA:1002:G:O4'	2.20	0.41
55:CA:1057:G:H2'	55:CA:1058:G:C8	2.54	0.41
55:CA:1160:G:O2'	55:CA:1161:C:H6	2.03	0.41
55:CA:1169:A:O2'	55:CA:1170:A:C8	2.72	0.41
55:CA:1237:C:H4'	55:CA:1334:G:N2	2.35	0.41
55:CA:1276:G:O5'	55:CA:1276:G:H8	2.03	0.41
55:CA:1288:A:H2'	55:CA:1289:A:C8	2.55	0.41
55:CA:1296:C:O2'	55:CA:1302:C:N4	2.54	0.41
26:DC:184:GLU:HB2	26:DC:187:CYS:SG	2.60	0.41
29:DF:78:ILE:HG22	29:DF:79:ARG:N	2.36	0.41
31:DH:71:LYS:CD	31:DH:71:LYS:N	2.82	0.41
33:DJ:12:LYS:HB2	33:DJ:13:ARG:H	1.74	0.41
33:DJ:25:LEU:C	33:DJ:27:ARG:N	2.79	0.41
33:DJ:73:VAL:HB	33:DJ:75:TYR:CE2	2.55	0.41
34:DK:4:GLU:O	34:DK:5:GLN:HG2	2.20	0.41
35:DL:37:GLY:HA3	59:DA:3788:HOH:O	2.19	0.41
35:DL:63:LYS:C	35:DL:65:GLY:H	2.29	0.41
35:DL:77:ILE:HG22	35:DL:78:ARG:N	2.33	0.41
38:DO:7:ARG:HA	38:DO:10:ARG:NH2	2.35	0.41
38:DO:29:HIS:HB3	38:DO:36:TYR:HB2	2.02	0.41
40:DQ:10:ARG:O	40:DQ:14:LYS:HB2	2.21	0.41
40:DQ:91:ARG:NH2	40:DQ:93:ILE:HD13	2.35	0.41
43:DT:18:GLU:C	43:DT:22:THR:HG1	2.27	0.41
44:DU:73:ASN:C	44:DU:75:ALA:H	2.28	0.41
45:DV:12:GLN:HG2	56:DB:75:G:OP1	2.20	0.41
24:DA:17:G:N2	24:DA:524:G:C4	2.89	0.41
24:DA:26:G:N1	24:DA:27:G:N2	2.69	0.41
24:DA:301:G:O2'	24:DA:302:C:O5'	2.38	0.41
24:DA:391:A:C2	24:DA:392:U:O4'	2.73	0.41
24:DA:416:U:H2'	24:DA:417:C:O4'	2.21	0.41
24:DA:441:U:H2'	24:DA:442:G:C8	2.55	0.41
24:DA:944:C:H2'	59:DA:3356:HOH:O	2.20	0.41
24:DA:1031:G:N2	24:DA:1124:G:C4	2.87	0.41
24:DA:1048:A:N6	24:DA:1111:A:C4	2.88	0.41
24:DA:1080:A:O2'	24:DA:1081:U:O4'	2.26	0.41
24:DA:1299:G:H5'	24:DA:1301:A:O4'	2.20	0.41
24:DA:1301:A:C4	24:DA:1303:G:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1319:C:H1'	24:DA:1334:G:H22	1.85	0.41
24:DA:1429:G:O2'	24:DA:1430:G:C5'	2.68	0.41
24:DA:1440:U:C2'	24:DA:1441:G:O5'	2.68	0.41
24:DA:1653:G:H4'	24:DA:1654:A:OP1	2.20	0.41
24:DA:2004:G:C6	24:DA:2005:A:C4	3.08	0.41
24:DA:2024:G:H2'	24:DA:2025:C:C6	2.55	0.41
24:DA:2490:G:C4'	24:DA:2491:U:OP1	2.58	0.41
24:DA:2517:C:C5	24:DA:2542:A:C5	3.09	0.41
24:DA:2564:A:C6	24:DA:2565:A:N1	2.88	0.41
24:DA:2638:G:N1	24:DA:2775:G:H2'	2.36	0.41
56:DB:64:G:C6	56:DB:65:U:C4	3.08	0.41
1:AB:52:ALA:CB	1:AB:197:PHE:HB3	2.50	0.41
1:AB:60:ALA:CB	1:AB:220:VAL:O	2.68	0.41
2:AC:129:PHE:CD2	2:AC:129:PHE:C	2.98	0.41
7:AH:54:THR:C	7:AH:56:PRO:HD3	2.44	0.41
7:AH:110:MET:H	7:AH:110:MET:HG3	1.58	0.41
8:AI:49:GLN:C	8:AI:51:LEU:H	2.28	0.41
8:AI:90:ASP:OD2	8:AI:92:SER:HB3	2.18	0.41
10:AK:52:ARG:NH1	21:AA:689:C:OP2	2.54	0.41
11:AL:106:VAL:HG21	11:AL:116:TYR:HB3	2.02	0.41
12:AM:6:ILE:HD12	12:AM:7:ASN:N	2.36	0.41
14:AO:37:HIS:O	14:AO:38:LEU:C	2.64	0.41
16:AQ:51:GLU:N	16:AQ:51:GLU:OE1	2.52	0.41
19:AT:33:LYS:HE2	19:AT:33:LYS:N	2.35	0.41
19:AT:71:ALA:O	19:AT:72:ALA:C	2.62	0.41
20:AU:8:ASN:HB3	20:AU:9:GLU:H	1.53	0.41
21:AA:154:U:O2	21:AA:168:G:N2	2.53	0.41
21:AA:179:A:H2'	21:AA:180:U:C6	2.55	0.41
21:AA:393:A:H5'	21:AA:483:C:O2'	2.21	0.41
21:AA:557:G:N1	21:AA:558:G:C2	2.87	0.41
21:AA:775:G:O2'	21:AA:776:G:H5'	2.21	0.41
21:AA:996:A:C4	21:AA:997:U:C5	3.08	0.41
21:AA:1040:U:H2'	21:AA:1041:G:C8	2.56	0.41
21:AA:1054:C:OP2	21:AA:1197:A:OP2	2.37	0.41
21:AA:1055:A:N7	21:AA:1206:G:C2	2.88	0.41
21:AA:1297:G:OP1	21:AA:1302:C:N4	2.49	0.41
21:AA:1439:G:C6	21:AA:1440:U:C2	3.08	0.41
24:BA:16:C:H4'	50:B0:10:SER:OG	2.19	0.41
24:BA:145:C:H2'	24:BA:146:A:H8	1.84	0.41
24:BA:147:C:H2'	24:BA:148:U:H6	1.85	0.41
24:BA:464:U:C4	24:BA:465:G:C2	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:553:G:H2'	24:BA:554:U:O4'	2.20	0.41
24:BA:584:C:N4	24:BA:585:G:C6	2.89	0.41
24:BA:706:A:H2'	24:BA:707:G:O4'	2.19	0.41
24:BA:870:U:H2'	24:BA:871:U:H5'	2.01	0.41
24:BA:1007:C:C6	24:BA:1008:A:C8	3.09	0.41
24:BA:1166:G:H2'	24:BA:1167:C:C6	2.56	0.41
24:BA:1565:C:O2'	24:BA:1566:A:O5'	2.32	0.41
24:BA:1823:G:C5	24:BA:1824:G:N7	2.88	0.41
24:BA:1910:G:C2	24:BA:1911:U:C2	3.08	0.41
24:BA:2086:U:C4	24:BA:2234:G:O6	2.73	0.41
24:BA:2144:G:H2'	24:BA:2148:G:O6	2.20	0.41
24:BA:2228:G:H2'	24:BA:2229:U:C6	2.54	0.41
24:BA:2432:A:C6	24:BA:2433:A:C5	3.09	0.41
24:BA:2639:A:H2'	24:BA:2640:G:O4'	2.20	0.41
24:BA:2672:U:C2'	24:BA:2673:G:O5'	2.68	0.41
24:BA:2746:U:O2	24:BA:2759:G:C2	2.73	0.41
24:BA:2857:G:C5	24:BA:2859:G:OP2	2.73	0.41
25:BB:49:C:O5'	25:BB:49:C:H6	2.04	0.41
26:BC:114:GLN:HE21	26:BC:114:GLN:HB2	1.59	0.41
28:BE:147:LEU:HB3	28:BE:186:VAL:CG2	2.44	0.41
29:BF:107:VAL:N	29:BF:108:PRO:CD	2.83	0.41
30:BG:123:GLU:OE2	30:BG:123:GLU:HA	2.20	0.41
30:BG:164:ALA:C	30:BG:166:GLU:N	2.78	0.41
31:BH:78:VAL:HG11	31:BH:145:ASN:CB	2.49	0.41
34:BK:4:GLU:O	34:BK:5:GLN:HB2	2.21	0.41
34:BK:10:VAL:HG12	34:BK:12:ASP:H	1.85	0.41
40:BQ:86:SER:HB3	41:BR:51:VAL:HG12	2.02	0.41
46:BW:72:GLY:N	46:BW:73:PRO:CD	2.83	0.41
1:CB:101:THR:O	55:CA:1074:G:H4'	2.20	0.41
1:CB:212:TYR:HA	1:CB:215:ALA:HB3	2.03	0.41
2:CC:166:TRP:HE3	2:CC:166:TRP:N	2.14	0.41
3:CD:114:ARG:O	3:CD:117:VAL:HB	2.20	0.41
3:CD:141:VAL:HA	3:CD:180:THR:HA	2.01	0.41
6:CG:17:PHE:HB2	6:CG:43:TYR:OH	2.20	0.41
6:CG:37:THR:O	6:CG:40:SER:HB2	2.21	0.41
8:CI:4:GLN:HB3	8:CI:21:LYS:CD	2.50	0.41
8:CI:25:GLY:HA2	8:CI:60:LEU:O	2.20	0.41
8:CI:98:ARG:NH2	55:CA:1178:G:C5'	2.83	0.41
9:CJ:6:ILE:HD13	9:CJ:84:VAL:HG12	2.02	0.41
9:CJ:52:LEU:O	13:CN:80:ARG:HG3	2.21	0.41
13:CN:70:HIS:HB2	55:CA:976:G:OP2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CP:47:GLU:OE1	15:CP:47:GLU:HA	2.21	0.41
15:CP:54:LEU:O	15:CP:55:ASP:C	2.62	0.41
20:CU:34:ARG:CG	20:CU:35:GLU:N	2.84	0.41
55:CA:132:C:O2'	55:CA:133:U:H5'	2.20	0.41
55:CA:142:G:N7	55:CA:143:A:C8	2.89	0.41
55:CA:628:G:N2	55:CA:629:A:H1'	2.34	0.41
55:CA:918:A:H2'	55:CA:919:A:C8	2.54	0.41
55:CA:1017:U:OP2	55:CA:1017:U:H6	2.02	0.41
55:CA:1219:A:C5	55:CA:1220:G:N7	2.88	0.41
55:CA:1241:G:O2'	55:CA:1242:G:C8	2.58	0.41
55:CA:1430:A:C2'	55:CA:1431:A:H5'	2.51	0.41
26:DC:216:ARG:NH2	24:DA:781:A:OP1	2.53	0.41
26:DC:251:THR:HG22	26:DC:252:LYS:N	2.34	0.41
27:DD:39:ASP:CG	27:DD:40:LEU:N	2.78	0.41
27:DD:125:TRP:CE3	27:DD:160:LYS:HD3	2.55	0.41
30:DG:88:LEU:N	30:DG:128:THR:O	2.53	0.41
37:DN:97:ILE:O	37:DN:98:LEU:C	2.63	0.41
38:DO:79:ALA:HB1	38:DO:114:GLY:CA	2.51	0.41
39:DP:112:ARG:HD2	39:DP:114:ASN:HD21	1.86	0.41
40:DQ:3:VAL:CB	24:DA:1249:U:H4'	2.50	0.41
40:DQ:4:LYS:O	40:DQ:5:ARG:CB	2.68	0.41
43:DT:10:VAL:HG23	43:DT:11:LEU:N	2.34	0.41
51:D1:22:THR:HG23	51:D1:23:THR:N	2.35	0.41
24:DA:28:A:H61	24:DA:512:G:H1'	1.86	0.41
24:DA:184:C:H2'	24:DA:185:G:C8	2.54	0.41
24:DA:217:A:N6	24:DA:218:A:C2	2.88	0.41
24:DA:239:C:O2	24:DA:259:G:C2	2.73	0.41
24:DA:329:G:H5'	24:DA:477:A:H4'	2.03	0.41
24:DA:489:G:H4'	24:DA:490:C:OP1	2.20	0.41
24:DA:528:A:H2	24:DA:2043:C:C5'	2.33	0.41
24:DA:528:A:C2	24:DA:2043:C:O5'	2.73	0.41
24:DA:579:G:C4	24:DA:1262:A:C6	3.08	0.41
24:DA:903:C:H2'	24:DA:904:G:H8	1.85	0.41
24:DA:1022:G:O2'	24:DA:1023:U:P	2.78	0.41
24:DA:1071:G:O6	24:DA:1091:G:N7	2.54	0.41
24:DA:1270:C:C4	24:DA:1648:U:C5	3.09	0.41
24:DA:1525:A:C5	24:DA:1526:C:C5	3.08	0.41
24:DA:1585:C:C2'	24:DA:1586:A:O5'	2.68	0.41
24:DA:2450:A:N1	24:DA:2451:A:C5	2.88	0.41
24:DA:2617:U:C2'	24:DA:2618:G:H5'	2.50	0.41
24:DA:2721:A:H2'	24:DA:2722:G:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DB:74:U:H2'	56:DB:75:G:O4'	2.20	0.41
1:AB:36:LYS:NZ	21:AA:847:G:OP1	2.53	0.41
1:AB:122:ASP:O	1:AB:123:GLY:C	2.63	0.41
1:AB:139:GLU:O	1:AB:143:LEU:HD21	2.20	0.41
2:AC:53:ARG:HG2	2:AC:54:ILE:N	2.36	0.41
2:AC:110:LEU:CD2	2:AC:143:LEU:HD23	2.49	0.41
4:AE:37:VAL:HG11	4:AE:113:VAL:HB	2.01	0.41
4:AE:37:VAL:CG2	4:AE:113:VAL:HG12	2.35	0.41
4:AE:79:THR:HB	4:AE:121:ASN:ND2	2.35	0.41
6:AG:83:THR:O	6:AG:84:TYR:C	2.63	0.41
7:AH:48:PHE:HA	7:AH:60:LEU:HD23	2.02	0.41
7:AH:77:VAL:HG11	7:AH:124:ILE:CD1	2.51	0.41
7:AH:85:TYR:CG	21:AA:598:U:H4'	2.55	0.41
8:AI:17:ARG:HE	8:AI:65:THR:HB	1.85	0.41
8:AI:24:ASN:C	8:AI:26:LYS:H	2.28	0.41
9:AJ:15:HIS:CD2	21:AA:1152:A:H5'	2.56	0.41
11:AL:35:ARG:O	11:AL:52:CYS:HB2	2.20	0.41
12:AM:89:ARG:HD3	12:AM:89:ARG:HA	1.89	0.41
13:AN:96:LYS:O	13:AN:96:LYS:HD2	2.20	0.41
17:AR:43:ILE:C	17:AR:45:GLY:H	2.29	0.41
19:AT:54:GLN:HB3	19:AT:55:PRO:HD3	2.01	0.41
21:AA:74:A:C2	21:AA:97:G:C5	3.09	0.41
21:AA:224:U:O2'	21:AA:225:C:H5'	2.20	0.41
21:AA:414:A:C6	21:AA:431:A:C2	3.08	0.41
21:AA:452:A:O2'	21:AA:453:G:O5'	2.38	0.41
21:AA:946:A:C2	21:AA:1236:A:C2	3.07	0.41
21:AA:1075:U:H2'	21:AA:1076:U:H5'	2.01	0.41
21:AA:1153:G:C2	21:AA:1154:G:C8	3.08	0.41
21:AA:1217:C:H2'	21:AA:1218:C:C6	2.56	0.41
21:AA:1250:A:C8	21:AA:1287:A:N7	2.88	0.41
24:BA:197:A:N7	24:BA:2430:A:C5	2.89	0.41
24:BA:372:G:P	47:BX:61:LYS:HZ2	2.43	0.41
24:BA:946:C:O2'	24:BA:947:A:C5'	2.53	0.41
24:BA:967:U:C4	24:BA:968:C:N4	2.88	0.41
24:BA:994:C:H1'	41:BR:10:LYS:HZ3	1.83	0.41
24:BA:1027:A:N1	24:BA:1126:A:C1'	2.83	0.41
24:BA:1091:G:O2'	24:BA:1092:C:H6	1.99	0.41
24:BA:1171:G:N2	24:BA:1179:G:C6	2.89	0.41
24:BA:1183:U:H2'	24:BA:1184:U:C6	2.55	0.41
24:BA:1581:G:H2'	24:BA:1582:C:C6	2.56	0.41
24:BA:1663:G:C6	24:BA:1998:A:C6	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2052:A:H4'	27:BD:148:GLN:O	2.20	0.41
24:BA:2432:A:C5	24:BA:2433:A:N7	2.88	0.41
24:BA:2570:G:C2	24:BA:2571:U:C2	3.08	0.41
24:BA:2776:A:O2'	24:BA:2777:G:P	2.78	0.41
26:BC:255:LYS:C	26:BC:256:THR:HG23	2.45	0.41
29:BF:27:VAL:O	29:BF:28:PRO:C	2.61	0.41
30:BG:162:ARG:NH1	30:BG:168:VAL:HG21	2.36	0.41
31:BH:26:ALA:HA	31:BH:30:LEU:HB2	2.01	0.41
31:BH:86:ASP:HB3	31:BH:89:LYS:HB3	2.02	0.41
32:BI:52:LEU:HD11	32:BI:81:LYS:HE2	2.02	0.41
32:BI:124:MET:SD	32:BI:124:MET:C	3.04	0.41
35:BL:58:TYR:O	35:BL:59:ARG:HG2	2.20	0.41
35:BL:95:LEU:HD11	35:BL:125:LEU:HD11	2.02	0.41
35:BL:120:VAL:O	35:BL:140:GLY:HA2	2.20	0.41
39:BP:50:ARG:H	39:BP:50:ARG:HG3	1.69	0.41
43:BT:83:ALA:O	43:BT:84:TYR:HB2	2.19	0.41
45:BV:5:ASN:ND2	45:BV:5:ASN:N	2.68	0.41
45:BV:66:ASP:O	45:BV:66:ASP:CG	2.63	0.41
46:BW:17:ALA:CA	46:BW:35:ILE:HG23	2.43	0.41
47:BX:5:GLN:HE21	47:BX:49:ARG:CB	2.33	0.41
48:BY:44:LYS:O	48:BY:47:ARG:HB3	2.19	0.41
49:BZ:23:LEU:HD21	49:BZ:53:MET:CE	2.51	0.41
1:CB:172:ILE:H	1:CB:172:ILE:HG12	1.66	0.41
3:CD:66:VAL:CG1	3:CD:70:GLN:HB3	2.49	0.41
3:CD:71:PHE:HZ	3:CD:199:ILE:CD1	2.33	0.41
3:CD:123:MET:HE2	3:CD:126:GLY:O	2.21	0.41
4:CE:134:ASN:O	4:CE:137:ARG:HG2	2.20	0.41
6:CG:113:LYS:HA	55:CA:1298:U:C5	2.56	0.41
6:CG:148:LYS:HD3	6:CG:148:LYS:C	2.46	0.41
9:CJ:17:LEU:HD21	9:CJ:95:GLY:HA3	2.03	0.41
10:CK:63:GLN:HB2	10:CK:98:ALA:HB2	2.03	0.41
18:CS:35:ARG:HG3	18:CS:35:ARG:O	2.21	0.41
18:CS:52:ASN:HD21	18:CS:55:GLN:N	2.02	0.41
19:CT:18:LYS:O	19:CT:21:ALA:HB3	2.20	0.41
19:CT:82:ILE:HG13	19:CT:83:ASN:N	2.35	0.41
55:CA:152:A:N6	55:CA:170:U:C2	2.89	0.41
55:CA:175:C:O2'	55:CA:176:C:C6	2.68	0.41
55:CA:194:C:O2'	55:CA:195:A:H5'	2.21	0.41
55:CA:229:U:H2'	55:CA:230:G:H8	1.83	0.41
55:CA:242:G:N1	55:CA:245:U:C4	2.88	0.41
55:CA:414:A:N6	55:CA:431:A:N3	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:1011:C:C2	55:CA:1019:A:C2	3.09	0.41
55:CA:1521:C:H2'	55:CA:1522:U:O4'	2.20	0.41
26:DC:2:VAL:HB	26:DC:3:VAL:H	1.53	0.41
26:DC:93:VAL:HG12	26:DC:101:ARG:N	2.36	0.41
29:DF:41:GLU:O	29:DF:43:ILE:N	2.53	0.41
35:DL:29:LYS:C	35:DL:30:THR:HG23	2.45	0.41
36:DM:3:GLN:HE21	36:DM:3:GLN:HB3	1.68	0.41
37:DN:4:ARG:O	37:DN:5:LYS:O	2.39	0.41
40:DQ:45:ALA:O	40:DQ:46:TYR:C	2.64	0.41
41:DR:38:VAL:N	41:DR:53:PHE:HB3	2.35	0.41
44:DU:67:SER:HB2	24:DA:327:G:H21	1.85	0.41
48:DY:25:GLN:O	48:DY:29:ARG:HD3	2.21	0.41
48:DY:45:GLN:C	48:DY:47:ARG:N	2.77	0.41
48:DY:45:GLN:C	48:DY:46:VAL:HG23	2.45	0.41
50:D0:55:ALA:HB3	50:D0:56:LYS:HZ2	1.86	0.41
24:DA:382:A:H2'	24:DA:383:C:C5'	2.50	0.41
24:DA:513:A:N6	24:DA:514:A:N6	2.69	0.41
24:DA:521:U:O2'	24:DA:522:A:H5'	2.21	0.41
24:DA:1028:A:H61	24:DA:1125:G:H2'	1.81	0.41
24:DA:1034:G:O2'	24:DA:1035:U:O5'	2.36	0.41
24:DA:1136:G:N2	24:DA:1137:G:C4	2.88	0.41
24:DA:1223:G:N1	24:DA:1227:G:C6	2.89	0.41
24:DA:1247:A:C5	24:DA:1249:U:C4	3.09	0.41
24:DA:1268:A:C6	24:DA:2013:A:C8	3.08	0.41
24:DA:1445:G:C6	24:DA:1446:C:C4	3.08	0.41
24:DA:1689:A:C5	24:DA:1700:A:C6	3.08	0.41
24:DA:2423:U:H5"	24:DA:2424:C:OP1	2.20	0.41
24:DA:2617:U:C4	24:DA:2618:G:N7	2.88	0.41
24:DA:2819:G:C6	24:DA:2821:A:C2	3.08	0.41
56:DB:58:A:O2'	56:DB:59:A:H5'	2.21	0.41
1:AB:24:PRO:C	1:AB:26:MET:H	2.28	0.41
2:AC:38:VAL:O	2:AC:42:LEU:HB2	2.21	0.41
2:AC:49:ALA:HB1	2:AC:75:VAL:HG22	2.03	0.41
2:AC:108:PRO:C	2:AC:110:LEU:H	2.29	0.41
3:AD:155:LYS:HA	3:AD:158:LEU:HD12	2.03	0.41
3:AD:178:GLU:HG2	3:AD:179:GLY:N	2.35	0.41
4:AE:15:ILE:N	4:AE:15:ILE:HD12	2.35	0.41
4:AE:27:GLY:C	4:AE:28:ARG:HG2	2.45	0.41
10:AK:76:TYR:CD1	10:AK:76:TYR:N	2.88	0.41
11:AL:28:GLN:OE1	21:AA:363:A:H1'	2.21	0.41
11:AL:43:LYS:HE2	11:AL:44:PRO:CD	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AP:79:ASN:O	15:AP:80:LYS:HB2	2.20	0.41
20:AU:36:PHE:O	20:AU:39:LYS:HE2	2.20	0.41
21:AA:72:A:C6	21:AA:73:C:C4	3.09	0.41
21:AA:148:G:O2'	21:AA:1446:A:N3	2.47	0.41
21:AA:248:C:C4	21:AA:249:U:C5	3.08	0.41
21:AA:342:C:C2	21:AA:348:G:C2	3.08	0.41
21:AA:382:A:N1	21:AA:383:A:C6	2.88	0.41
21:AA:429:U:C1'	21:AA:430:A:H5"	2.51	0.41
21:AA:575:G:C5	21:AA:881:G:C2	3.09	0.41
21:AA:597:G:N7	21:AA:598:U:C5	2.89	0.41
21:AA:601:G:O2'	21:AA:602:A:H5'	2.20	0.41
21:AA:690:G:H2'	21:AA:691:G:C8	2.55	0.41
21:AA:690:G:C2'	21:AA:691:G:O4'	2.61	0.41
21:AA:953:G:N1	21:AA:1229:A:C6	2.89	0.41
21:AA:955:U:C5	21:AA:956:U:C5	3.09	0.41
21:AA:1065:U:O4	21:AA:1190:G:O4'	2.38	0.41
21:AA:1312:G:N2	21:AA:1313:U:C2	2.89	0.41
21:AA:1419:G:C5	21:AA:1482:G:C2	3.09	0.41
21:AA:1501:C:C2	21:AA:1504:G:O6	2.73	0.41
21:AA:1523:G:C5	21:AA:1524:C:C5	3.08	0.41
24:BA:157:C:C2	24:BA:158:U:C6	3.08	0.41
24:BA:428:A:C6	24:BA:429:A:C6	3.09	0.41
24:BA:460:A:P	52:B2:41:ARG:HH12	2.43	0.41
24:BA:481:G:C4	24:BA:507:A:C2	3.08	0.41
24:BA:579:G:N2	24:BA:580:U:C2	2.88	0.41
24:BA:612:G:C6	24:BA:614:A:N3	2.89	0.41
24:BA:815:C:OP2	41:BR:85:LYS:HE3	2.19	0.41
24:BA:874:G:C2	24:BA:904:G:C2	3.08	0.41
24:BA:932:U:H4'	24:BA:933:A:C5'	2.49	0.41
24:BA:945:A:N3	24:BA:2448:A:N3	2.69	0.41
24:BA:1016:G:N1	24:BA:1147:A:C2	2.88	0.41
24:BA:1037:G:C2	24:BA:1119:U:O2	2.74	0.41
24:BA:1056:G:H21	24:BA:1103:A:H62	1.69	0.41
24:BA:1097:U:H3'	24:BA:1098:A:C4'	2.50	0.41
24:BA:1131:G:C8	33:BJ:77:HIS:CE1	3.08	0.41
24:BA:1142:A:C5	24:BA:1144:A:C5	3.08	0.41
24:BA:1456:G:C2'	24:BA:1457:U:H5'	2.51	0.41
24:BA:1718:G:N2	24:BA:1719:G:H1'	2.36	0.41
24:BA:1808:A:N6	47:BX:27:ARG:NE	2.69	0.41
24:BA:1959:G:C5	24:BA:1960:A:C8	3.09	0.41
24:BA:2039:U:H2'	24:BA:2040:G:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2256:G:C4	24:BA:2257:U:C6	3.09	0.41
24:BA:2432:A:C4	24:BA:2433:A:C8	3.09	0.41
24:BA:2569:G:C2	24:BA:2570:G:C8	3.07	0.41
24:BA:2751:G:N3	24:BA:2751:G:H2'	2.36	0.41
24:BA:2773:C:H5"	27:BD:169:ARG:HB3	2.03	0.41
24:BA:2824:C:C5	24:BA:2825:G:C5	3.09	0.41
26:BC:239:PHE:O	26:BC:241:LYS:HG2	2.20	0.41
27:BD:69:ALA:CA	27:BD:73:VAL:HG13	2.45	0.41
29:BF:133:GLU:HA	29:BF:148:VAL:O	2.20	0.41
29:BF:168:LEU:HD11	29:BF:172:PHE:HE1	1.85	0.41
31:BH:48:GLU:HA	31:BH:51:ARG:HG3	2.02	0.41
31:BH:86:ASP:CB	31:BH:89:LYS:HB3	2.50	0.41
33:BJ:114:LEU:O	33:BJ:117:ALA:N	2.54	0.41
33:BJ:141:ASP:C	33:BJ:142:ILE:O	2.63	0.41
34:BK:3:GLN:CG	34:BK:4:GLU:N	2.83	0.41
36:BM:28:PHE:HB3	36:BM:64:TRP:CE2	2.56	0.41
36:BM:107:GLY:O	36:BM:108:VAL:HG23	2.21	0.41
40:BQ:57:ARG:NH2	40:BQ:92:LYS:NZ	2.66	0.41
47:BX:30:PRO:HG2	47:BX:32:LEU:HD11	2.02	0.41
47:BX:70:LEU:O	47:BX:74:GLY:N	2.51	0.41
51:B1:27:ARG:C	51:B1:29:LYS:H	2.29	0.41
1:CB:122:ASP:C	1:CB:124:THR:N	2.77	0.41
2:CC:120:THR:O	2:CC:120:THR:CG2	2.66	0.41
7:CH:12:ARG:HH12	7:CH:27:PRO:HD2	1.85	0.41
7:CH:94:VAL:HB	7:CH:99:GLY:C	2.46	0.41
12:CM:55:LEU:O	12:CM:59:VAL:HG12	2.21	0.41
15:CP:1:MET:O	15:CP:1:MET:HG3	2.20	0.41
15:CP:46:LYS:HB2	15:CP:47:GLU:H	1.67	0.41
55:CA:183:C:O2	55:CA:183:C:H2'	2.19	0.41
55:CA:723:U:O5'	55:CA:723:U:C6	2.73	0.41
55:CA:881:G:O2'	55:CA:882:C:H5'	2.20	0.41
55:CA:998:C:H2'	55:CA:999:C:C6	2.56	0.41
55:CA:1091:U:O2	55:CA:1093:A:H8	2.04	0.41
55:CA:1312:G:C4	55:CA:1313:U:C5	3.09	0.41
55:CA:1415:G:O2'	55:CA:1416:G:H5'	2.20	0.41
55:CA:1487:G:C4	55:CA:1488:G:C8	3.09	0.41
55:CA:1505:G:H8	55:CA:1505:G:H2'	1.75	0.41
26:DC:250:GLN:HG3	26:DC:254:LYS:HG3	2.02	0.41
28:DE:196:VAL:HA	28:DE:199:MET:CB	2.50	0.41
29:DF:78:ILE:O	29:DF:79:ARG:CG	2.68	0.41
32:DI:76:ALA:O	32:DI:135:MET:HE1	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DI:93:ASN:HD22	32:DI:93:ASN:HA	1.69	0.41
33:DJ:111:LYS:HB2	33:DJ:115:GLY:N	2.33	0.41
37:DN:14:SER:C	37:DN:16:HIS:N	2.77	0.41
37:DN:24:MET:HG2	37:DN:24:MET:O	2.20	0.41
37:DN:31:HIS:C	37:DN:33:ILE:H	2.29	0.41
38:DO:12:THR:O	38:DO:16:ARG:HB2	2.20	0.41
38:DO:26:LEU:HA	38:DO:38:GLN:O	2.20	0.41
41:DR:15:SER:O	41:DR:98:ILE:HG21	2.20	0.41
43:DT:62:VAL:HG12	43:DT:63:VAL:H	1.84	0.41
46:DW:45:HIS:HB3	46:DW:58:LEU:HD11	2.01	0.41
47:DX:29:LEU:C	47:DX:29:LEU:HD12	2.45	0.41
48:DY:58:ASN:ND2	24:DA:112:U:H5'	2.36	0.41
49:DZ:28:LEU:N	49:DZ:28:LEU:CD2	2.83	0.41
50:D0:38:LEU:N	50:D0:41:HIS:HE1	2.17	0.41
51:D1:47:ILE:HD12	51:D1:47:ILE:H	1.85	0.41
24:DA:17:G:N1	24:DA:524:G:C6	2.88	0.41
24:DA:67:U:C2	24:DA:68:G:C8	3.08	0.41
24:DA:204:A:O4'	24:DA:206:U:C6	2.74	0.41
24:DA:251:A:H8	24:DA:251:A:O5'	2.04	0.41
24:DA:382:A:C2	24:DA:393:C:C2	3.09	0.41
24:DA:449:A:C4	24:DA:450:G:N7	2.88	0.41
24:DA:482:A:N6	24:DA:506:G:N9	2.68	0.41
24:DA:539:G:C4	24:DA:540:C:C5	3.08	0.41
24:DA:569:U:H2'	24:DA:570:G:O4'	2.20	0.41
24:DA:627:A:O2'	24:DA:628:G:C8	2.73	0.41
24:DA:682:G:H2'	24:DA:682:G:N3	2.35	0.41
24:DA:749:A:H1'	24:DA:1618:A:OP1	2.21	0.41
24:DA:811:U:H1'	24:DA:1251:C:C6	2.56	0.41
24:DA:834:G:H2'	24:DA:835:C:O4'	2.21	0.41
24:DA:992:C:C2	24:DA:1163:G:C2	3.08	0.41
24:DA:1176:U:O2'	24:DA:1177:G:H5'	2.20	0.41
24:DA:1394:U:C4	24:DA:1395:A:C6	3.09	0.41
24:DA:1537:G:C3'	24:DA:1538:G:H4'	2.47	0.41
24:DA:1654:A:O2'	24:DA:1655:A:O5'	2.38	0.41
24:DA:1734:G:H2'	24:DA:1735:A:C8	2.55	0.41
24:DA:1782:U:C5	24:DA:2587:A:C2	3.08	0.41
24:DA:2307:G:H1'	24:DA:2308:G:C4	2.48	0.41
24:DA:2452:C:H42	24:DA:2504:U:H3	1.68	0.41
24:DA:2455:G:H2'	24:DA:2456:C:H6	1.86	0.41
24:DA:2462:C:H6	24:DA:2462:C:O5'	2.04	0.41
24:DA:2592:G:C5	24:DA:2593:U:C5	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2653:U:C4	24:DA:2654:A:C5	3.09	0.41
24:DA:2812:G:C6	24:DA:2813:A:C5	3.08	0.41
24:DA:2838:G:C4	24:DA:2839:G:C8	3.08	0.41
24:DA:2897:U:C2	24:DA:2898:U:C5	3.09	0.41
56:DB:6:G:H4'	56:DB:28:C:H4'	2.02	0.41
1:AB:107:ARG:NE	1:AB:108:GLN:NE2	2.56	0.41
1:AB:108:GLN:NE2	1:AB:108:GLN:N	2.65	0.41
1:AB:119:GLN:C	1:AB:119:GLN:NE2	2.75	0.41
1:AB:185:ILE:CD1	1:AB:203:ASP:HA	2.50	0.41
3:AD:10:LEU:HD11	3:AD:62:ARG:NE	2.35	0.41
3:AD:14:GLU:OE1	3:AD:14:GLU:HA	2.21	0.41
4:AE:82:HIS:CE1	4:AE:146:MET:CE	3.04	0.41
7:AH:14:ARG:HB2	7:AH:74:ILE:HG23	2.02	0.41
8:AI:67:LYS:HD3	8:AI:67:LYS:N	2.35	0.41
9:AJ:53:ILE:HG13	13:AN:84:ARG:NH1	2.36	0.41
12:AM:69:ARG:NH2	21:AA:1330:U:H4'	2.32	0.41
16:AQ:58:VAL:HG21	16:AQ:74:LEU:HB2	2.02	0.41
21:AA:78:A:H8	21:AA:78:A:O5'	2.02	0.41
21:AA:254:G:H2'	21:AA:255:G:C8	2.55	0.41
21:AA:332:G:C2	21:AA:333:U:C6	3.09	0.41
21:AA:813:U:HO2'	21:AA:814:A:P	2.43	0.41
21:AA:845:A:H3'	21:AA:846:G:O4'	2.20	0.41
21:AA:977:A:H8	21:AA:1223:C:C2	2.39	0.41
21:AA:977:A:H8	21:AA:1223:C:N3	2.18	0.41
21:AA:1072:G:H2'	21:AA:1073:U:C6	2.56	0.41
21:AA:1163:A:C2	21:AA:1174:G:C6	3.09	0.41
21:AA:1186:G:C6	21:AA:1187:G:N7	2.88	0.41
21:AA:1363:A:C4	21:AA:1365:G:O6	2.74	0.41
21:AA:1408:A:N7	21:AA:1409:C:C5	2.89	0.41
21:AA:1466:C:H2'	21:AA:1467:C:O4'	2.21	0.41
24:BA:20:C:C2	24:BA:21:A:C8	3.08	0.41
24:BA:27:G:C2	24:BA:512:G:O2'	2.71	0.41
24:BA:35:G:O6	24:BA:446:G:C2	2.74	0.41
24:BA:96:C:H4'	48:BY:41:HIS:CE1	2.56	0.41
24:BA:479:A:N3	24:BA:481:G:H5"	2.35	0.41
24:BA:675:A:C4	24:BA:804:A:C2	3.09	0.41
24:BA:684:G:C2	24:BA:774:G:C2	3.08	0.41
24:BA:726:G:O2'	24:BA:727:A:P	2.78	0.41
24:BA:782:A:C8	26:BC:219:VAL:HG21	2.55	0.41
24:BA:835:C:N4	24:BA:836:G:O6	2.54	0.41
24:BA:959:A:C2	24:BA:960:A:C4	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1141:U:C4'	24:BA:1142:A:O4'	2.68	0.41
24:BA:1257:C:O2'	28:BE:79:ARG:HB2	2.21	0.41
24:BA:1341:G:H21	43:BT:84:TYR:HB3	1.85	0.41
24:BA:1416:G:O2'	24:BA:1417:C:O5'	2.38	0.41
24:BA:1456:G:C5	24:BA:1457:U:C5	3.09	0.41
24:BA:1685:C:H2'	24:BA:1686:C:C6	2.56	0.41
24:BA:2059:A:H61	24:BA:2503:A:H2'	1.84	0.41
24:BA:2301:C:O2	24:BA:2316:G:C2	2.74	0.41
24:BA:2345:G:N3	24:BA:2381:A:H2'	2.35	0.41
24:BA:2404:U:O2	24:BA:2404:U:C2'	2.69	0.41
24:BA:2453:A:C2	24:BA:2504:U:N3	2.87	0.41
24:BA:2468:A:O2'	24:BA:2469:A:P	2.78	0.41
24:BA:2680:U:OP2	27:BD:114:LYS:CE	2.65	0.41
24:BA:2746:U:H2'	24:BA:2747:G:C5'	2.51	0.41
24:BA:2758:A:O2'	24:BA:2759:G:H5'	2.21	0.41
26:BC:183:VAL:CG1	26:BC:184:GLU:H	2.32	0.41
27:BD:35:THR:HG21	27:BD:51:THR:HG22	2.01	0.41
27:BD:193:VAL:HB	27:BD:194:PRO:HD2	2.02	0.41
28:BE:105:LEU:HD23	28:BE:105:LEU:HA	1.68	0.41
29:BF:39:VAL:CG1	29:BF:49:LEU:HD13	2.51	0.41
30:BG:174:LYS:HE2	30:BG:176:LYS:OXT	2.21	0.41
31:BH:43:ASN:C	31:BH:45:GLU:N	2.77	0.41
31:BH:95:GLY:C	31:BH:97:ARG:N	2.77	0.41
32:BI:41:PHE:N	32:BI:68:PHE:HZ	2.18	0.41
33:BJ:20:ALA:O	33:BJ:21:THR:O	2.38	0.41
34:BK:88:ASN:C	34:BK:88:ASN:HD22	2.29	0.41
40:BQ:98:ALA:HB2	40:BQ:105:PHE:CD2	2.56	0.41
42:BS:60:HIS:ND1	42:BS:60:HIS:O	2.54	0.41
44:BU:39:ASN:HB3	44:BU:62:ALA:O	2.20	0.41
46:BW:30:VAL:HA	46:BW:60:ALA:O	2.19	0.41
46:BW:40:ARG:O	46:BW:44:PHE:CE1	2.74	0.41
48:BY:56:LEU:O	48:BY:57:LEU:CB	2.61	0.41
52:B2:25:LYS:HA	52:B2:28:ARG:NH2	2.36	0.41
53:B3:31:ILE:C	53:B3:31:ILE:HD12	2.46	0.41
1:CB:68:PHE:HB2	1:CB:90:PHE:CA	2.50	0.41
1:CB:184:ALA:O	1:CB:199:ILE:HG12	2.21	0.41
2:CC:126:ARG:NH2	2:CC:190:THR:HG23	2.28	0.41
2:CC:133:MET:HE3	2:CC:152:VAL:HG13	2.01	0.41
4:CE:41:GLY:HA2	4:CE:118:GLY:CA	2.51	0.41
5:CF:44:ARG:NH1	5:CF:56:LYS:NZ	2.69	0.41
5:CF:67:PRO:O	5:CF:70:VAL:HG22	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CG:62:GLU:O	6:CG:63:VAL:C	2.64	0.41
9:CJ:59:LYS:HE2	55:CA:972:C:H4'	2.01	0.41
10:CK:127:ARG:O	10:CK:127:ARG:HG2	2.21	0.41
11:CL:23:LEU:O	11:CL:24:GLU:C	2.63	0.41
11:CL:43:LYS:CB	11:CL:44:PRO:CD	2.79	0.41
12:CM:69:ARG:O	12:CM:73:SER:CB	2.69	0.41
18:CS:35:ARG:NH1	18:CS:76:THR:HG22	2.35	0.41
19:CT:64:GLY:HA2	19:CT:67:HIS:HD2	1.86	0.41
55:CA:64:G:N7	55:CA:99:C:C4	2.89	0.41
55:CA:123:U:OP1	55:CA:311:C:O2'	2.37	0.41
55:CA:243:A:H4'	55:CA:244:U:OP2	2.20	0.41
55:CA:324:G:N2	55:CA:326:G:H3'	2.36	0.41
55:CA:340:U:N3	55:CA:341:C:C4	2.89	0.41
55:CA:596:A:H2'	55:CA:597:G:H8	1.86	0.41
55:CA:859:G:H2'	55:CA:860:A:C8	2.56	0.41
55:CA:952:U:H5'	55:CA:972:C:N4	2.36	0.41
55:CA:1250:A:C5	55:CA:1287:A:N7	2.89	0.41
55:CA:1319:A:C6	55:CA:1323:G:N3	2.88	0.41
55:CA:1342:C:O2'	55:CA:1343:G:H5'	2.21	0.41
26:DC:65:ASP:OD2	26:DC:101:ARG:NH2	2.50	0.41
26:DC:72:GLY:O	26:DC:73:ILE:HD13	2.20	0.41
26:DC:144:GLU:HG3	26:DC:151:GLY:HA2	2.03	0.41
27:DD:113:SER:OG	27:DD:114:LYS:N	2.54	0.41
28:DE:5:LEU:CD1	28:DE:10:SER:HB2	2.51	0.41
28:DE:162:ARG:C	28:DE:164:LEU:N	2.79	0.41
30:DG:75:VAL:HA	30:DG:78:VAL:HG22	2.03	0.41
30:DG:139:VAL:HG12	30:DG:143:VAL:HG13	2.02	0.41
30:DG:163:TYR:O	30:DG:165:ASP:N	2.54	0.41
31:DH:70:GLU:HB2	31:DH:71:LYS:HD2	2.02	0.41
31:DH:71:LYS:N	31:DH:71:LYS:HD2	2.35	0.41
31:DH:90:LEU:CB	31:DH:123:ARG:HB3	2.43	0.41
32:DI:64:ARG:CZ	32:DI:64:ARG:HB2	2.51	0.41
32:DI:71:LYS:HG3	32:DI:72:THR:N	2.32	0.41
32:DI:102:ARG:HH11	32:DI:105:LEU:HD13	1.86	0.41
32:DI:132:ALA:HA	32:DI:137:LEU:HD12	2.02	0.41
34:DK:21:CYS:SG	34:DK:39:ILE:HG22	2.61	0.41
36:DM:73:ILE:HD13	36:DM:73:ILE:HA	1.90	0.41
38:DO:28:VAL:HG11	38:DO:103:VAL:HG13	2.03	0.41
38:DO:101:GLY:HA3	56:DB:49:C:H5"	2.03	0.41
42:DS:78:GLU:O	24:DA:25:U:H5'	2.21	0.41
45:DV:21:ARG:HE	45:DV:87:GLN:HB3	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DW:35:ILE:HG13	46:DW:35:ILE:H	1.65	0.41
46:DW:77:LYS:HB2	46:DW:77:LYS:NZ	2.36	0.41
47:DX:76:LYS:O	47:DX:77:TYR:CG	2.74	0.41
49:DZ:53:MET:O	49:DZ:54:VAL:CG1	2.68	0.41
52:D2:26:ASN:OD1	24:DA:682:G:H5'	2.21	0.41
24:DA:71:A:O4'	24:DA:73:A:N7	2.54	0.41
24:DA:93:G:O2'	24:DA:94:A:C5'	2.69	0.41
24:DA:716:A:C6	24:DA:717:C:C2	3.08	0.41
24:DA:722:A:N3	24:DA:722:A:H2'	2.35	0.41
24:DA:784:G:O2'	24:DA:785:G:H5"	2.20	0.41
24:DA:785:G:C6	24:DA:786:C:N4	2.89	0.41
24:DA:964:C:O2'	24:DA:2273:A:N3	2.47	0.41
24:DA:1069:A:H2	24:DA:1097:U:OP1	2.03	0.41
24:DA:1192:G:O2'	24:DA:1193:G:H5'	2.20	0.41
24:DA:1380:G:C2	24:DA:1381:G:C8	3.09	0.41
24:DA:1415:U:O2	24:DA:1588:G:C6	2.74	0.41
24:DA:1424:G:C6	24:DA:1425:G:C2	3.08	0.41
24:DA:1555:G:C2	24:DA:1556:C:C6	3.09	0.41
24:DA:2498:C:OP2	24:DA:2499:C:OP2	2.38	0.41
24:DA:2502:G:C5'	24:DA:2503:A:H5"	2.40	0.41
24:DA:2737:G:C2'	24:DA:2738:A:H5'	2.51	0.41
1:AB:73:ARG:H	1:AB:94:ARG:HH12	1.67	0.41
5:AF:53:LYS:O	5:AF:54:LEU:HB3	2.21	0.41
6:AG:99:ALA:O	6:AG:103:ILE:HG13	2.21	0.41
14:AO:38:LEU:HD13	14:AO:38:LEU:HA	1.86	0.41
18:AS:50:VAL:HB	18:AS:74:ALA:HB2	2.03	0.41
21:AA:71:A:C4	21:AA:72:A:C8	3.09	0.41
21:AA:259:G:N2	21:AA:260:G:H1'	2.35	0.41
21:AA:275:G:C2	21:AA:276:G:C4	3.09	0.41
21:AA:453:G:N1	21:AA:480:U:C2	2.89	0.41
21:AA:824:G:O2'	21:AA:825:A:H5'	2.20	0.41
21:AA:1074:G:N2	21:AA:1101:A:H1'	2.36	0.41
21:AA:1250:A:C4	21:AA:1287:A:C6	3.08	0.41
24:BA:10:A:N3	24:BA:2800:A:C5	2.89	0.41
24:BA:150:U:N3	24:BA:151:C:C4	2.89	0.41
24:BA:364:C:O2'	24:BA:365:U:H5'	2.21	0.41
24:BA:370:G:C6	24:BA:424:G:C8	3.08	0.41
24:BA:557:C:H6	24:BA:557:C:O5'	2.03	0.41
24:BA:775:G:H2'	24:BA:794:A:H62	1.85	0.41
24:BA:1295:C:H2'	24:BA:1296:G:H8	1.85	0.41
24:BA:1532:A:C2	24:BA:1540:G:C2	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1616:A:H4'	24:BA:1617:C:OP2	2.21	0.41
24:BA:1789:A:H2'	24:BA:1790:C:O4'	2.21	0.41
24:BA:1866:A:O2'	24:BA:1867:G:C5'	2.68	0.41
24:BA:1932:A:H2'	24:BA:1933:G:O4'	2.21	0.41
24:BA:2547:A:O2'	24:BA:2548:U:H5'	2.20	0.41
24:BA:2785:C:H2'	24:BA:2786:U:O4'	2.20	0.41
28:BE:157:LEU:HG	28:BE:169:VAL:HG11	2.02	0.41
28:BE:159:LEU:HD12	28:BE:159:LEU:HA	1.68	0.41
30:BG:64:ALA:O	30:BG:65:GLY:C	2.63	0.41
31:BH:14:SER:C	31:BH:16:GLY:H	2.29	0.41
35:BL:131:ALA:O	35:BL:135:ILE:HD12	2.20	0.41
36:BM:28:PHE:N	36:BM:104:GLU:OE2	2.54	0.41
40:BQ:13:HIS:CD2	40:BQ:31:TYR:CD1	3.02	0.41
41:BR:29:THR:HG22	41:BR:29:THR:O	2.21	0.41
42:BS:32:ALA:O	42:BS:33:LEU:C	2.62	0.41
45:BV:65:VAL:O	45:BV:66:ASP:OD1	2.38	0.41
47:BX:34:SER:HA	47:BX:49:ARG:CA	2.31	0.41
48:BY:28:LEU:HD23	48:BY:28:LEU:HA	1.95	0.41
49:BZ:4:ILE:HG23	49:BZ:37:ARG:O	2.20	0.41
52:B2:19:ARG:HH21	52:B2:19:ARG:HD3	1.74	0.41
1:CB:24:PRO:HG3	55:CA:829:G:O2'	2.21	0.41
1:CB:112:ARG:O	1:CB:112:ARG:HG3	2.20	0.41
2:CC:84:GLU:C	2:CC:87:ARG:H	2.27	0.41
6:CG:92:PRO:O	6:CG:93:VAL:C	2.62	0.41
6:CG:148:LYS:HD2	10:CK:60:PHE:CG	2.56	0.41
8:CI:15:ALA:O	8:CI:66:VAL:HG23	2.21	0.41
9:CJ:33:GLY:O	9:CJ:35:GLN:N	2.53	0.41
9:CJ:53:ILE:HG12	55:CA:1060:U:C5'	2.51	0.41
9:CJ:73:LEU:O	9:CJ:75:ASP:N	2.53	0.41
11:CL:112:ALA:HA	55:CA:502:A:OP1	2.20	0.41
12:CM:13:HIS:O	12:CM:14:ALA:C	2.63	0.41
17:CR:19:GLU:CD	17:CR:20:ILE:N	2.78	0.41
17:CR:24:ASP:C	17:CR:26:ALA:N	2.79	0.41
18:CS:33:TRP:H	18:CS:33:TRP:HE3	1.69	0.41
18:CS:35:ARG:HB2	18:CS:71:GLY:N	2.36	0.41
55:CA:9:G:C6	55:CA:26:A:C6	3.08	0.41
55:CA:70:U:O2	55:CA:94:G:O6	2.38	0.41
55:CA:246:A:O3'	55:CA:247:G:H4'	2.20	0.41
55:CA:486:U:OP2	55:CA:486:U:H6	2.04	0.41
55:CA:511:C:C2	55:CA:512:U:C4	3.08	0.41
55:CA:512:U:O2'	55:CA:513:C:H6	1.99	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:666:G:O2'	55:CA:667:G:H5'	2.20	0.41
55:CA:761:G:C5	55:CA:762:U:C5	3.08	0.41
55:CA:844:G:H3'	55:CA:844:G:OP2	2.20	0.41
55:CA:878:A:C4	55:CA:879:C:C5	3.09	0.41
55:CA:1079:G:H2'	55:CA:1080:A:C8	2.56	0.41
55:CA:1530:G:O2'	55:CA:1531:A:C8	2.68	0.41
27:DD:155:VAL:HG21	24:DA:2618:G:H21	1.84	0.41
28:DE:163:ASN:OD1	24:DA:323:C:H5'	2.21	0.41
28:DE:165:HIS:C	28:DE:167:VAL:H	2.29	0.41
29:DF:1:ALA:HB3	29:DF:93:GLU:OE2	2.20	0.41
29:DF:35:LEU:O	29:DF:87:LYS:HA	2.21	0.41
29:DF:53:ALA:O	29:DF:56:LEU:HB3	2.20	0.41
29:DF:146:ASP:HB3	29:DF:147:ARG:H	1.57	0.41
30:DG:117:PRO:HG2	30:DG:143:VAL:CG1	2.50	0.41
32:DI:24:GLY:HA3	32:DI:25:PRO:HD3	1.94	0.41
32:DI:29:GLN:O	32:DI:30:GLN:HB3	2.20	0.41
32:DI:90:GLY:O	32:DI:92:PRO:HD3	2.21	0.41
32:DI:139:VAL:O	32:DI:140:GLU:HB2	2.21	0.41
33:DJ:4:PHE:HB3	40:DQ:63:ARG:HH22	1.85	0.41
36:DM:35:ALA:O	36:DM:128:THR:HA	2.21	0.41
39:DP:9:GLN:HA	39:DP:12:MET:CG	2.44	0.41
46:DW:73:PRO:O	46:DW:74:LYS:C	2.64	0.41
48:DY:30:MET:SD	48:DY:30:MET:O	2.79	0.41
24:DA:271:G:H1'	24:DA:272:A:C8	2.55	0.41
24:DA:298:G:N2	24:DA:341:C:N4	2.68	0.41
24:DA:315:G:C2	24:DA:316:C:C2	3.09	0.41
24:DA:319:G:C6	24:DA:333:G:N1	2.89	0.41
24:DA:410:G:C2	24:DA:2407:A:C5	3.08	0.41
24:DA:508:A:H3'	24:DA:509:C:C5'	2.50	0.41
24:DA:804:A:H5"	24:DA:805:G:OP1	2.21	0.41
24:DA:822:G:H2'	24:DA:823:C:C6	2.56	0.41
24:DA:949:G:C6	24:DA:969:G:C6	3.09	0.41
24:DA:998:C:H2'	24:DA:999:U:O4'	2.20	0.41
24:DA:1123:C:H2'	24:DA:1124:G:C8	2.54	0.41
24:DA:1317:G:H2'	24:DA:1318:U:O4'	2.21	0.41
24:DA:1392:A:H62	24:DA:1393:A:N6	2.18	0.41
24:DA:1438:U:O4	24:DA:1552:A:C2	2.73	0.41
24:DA:1456:G:H2'	24:DA:1457:U:C6	2.56	0.41
24:DA:1759:A:N7	24:DA:2696:U:O2'	2.52	0.41
24:DA:1848:A:H2'	24:DA:1849:G:C8	2.55	0.41
24:DA:1885:A:C6	24:DA:1886:U:C2	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1940:U:H1'	24:DA:1942:C:N4	2.36	0.41
24:DA:1963:U:O2'	24:DA:1964:G:C5'	2.68	0.41
24:DA:1975:G:C5	24:DA:1976:U:C5	3.09	0.41
24:DA:2095:A:C2	24:DA:2096:C:C2	3.09	0.41
24:DA:2096:C:H2'	24:DA:2097:A:C8	2.56	0.41
24:DA:2155:U:OP2	24:DA:2155:U:C6	2.74	0.41
24:DA:2292:U:N3	24:DA:2293:G:N7	2.68	0.41
24:DA:2340:A:H2'	24:DA:2341:G:C8	2.56	0.41
24:DA:2358:A:C5	24:DA:2359:C:C5	3.09	0.41
24:DA:2414:G:C2'	24:DA:2415:G:H5'	2.51	0.41
24:DA:2757:A:C2'	24:DA:2758:A:H5'	2.51	0.41
24:DA:2854:G:C6	24:DA:2864:G:C6	3.09	0.41
56:DB:76:G:H2'	56:DB:76:G:N3	2.35	0.41
1:AB:104:LYS:HG2	1:AB:104:LYS:O	2.20	0.41
1:AB:191:ASP:HA	1:AB:192:PRO:HD2	1.86	0.41
2:AC:1:GLY:N	21:AA:1060:U:C5	2.83	0.41
2:AC:149:LYS:HB3	2:AC:168:ARG:HG2	2.01	0.41
2:AC:156:LEU:HD13	2:AC:163:ARG:HB2	2.03	0.41
3:AD:96:ARG:HH21	3:AD:114:ARG:HE	1.69	0.41
4:AE:19:ARG:CG	4:AE:30:PHE:HB3	2.51	0.41
4:AE:35:LEU:HA	4:AE:48:GLY:O	2.21	0.41
4:AE:38:VAL:HG22	4:AE:66:ALA:O	2.21	0.41
4:AE:84:VAL:CG1	4:AE:142:GLY:O	2.68	0.41
4:AE:84:VAL:O	4:AE:95:MET:HG2	2.21	0.41
4:AE:104:ILE:CD1	4:AE:115:GLU:HB2	2.44	0.41
4:AE:110:MET:SD	4:AE:135:VAL:O	2.79	0.41
5:AF:19:PRO:C	5:AF:21:MET:H	2.29	0.41
5:AF:39:LEU:HD13	5:AF:39:LEU:HA	1.81	0.41
8:AI:30:ASN:O	8:AI:31:GLN:C	2.64	0.41
8:AI:55:ASP:CG	8:AI:56:MET:N	2.79	0.41
8:AI:59:LYS:HB3	8:AI:60:LEU:HD22	2.03	0.41
9:AJ:59:LYS:HD2	9:AJ:59:LYS:C	2.46	0.41
10:AK:14:GLN:O	55:CA:412:A:H3'	2.21	0.41
10:AK:65:ALA:O	10:AK:69:CYS:HB2	2.21	0.41
10:AK:81:LEU:CD2	10:AK:104:PHE:HB3	2.50	0.41
15:AP:18:GLN:HE21	15:AP:35:ARG:HD2	1.85	0.41
15:AP:46:LYS:HB2	15:AP:47:GLU:H	1.71	0.41
16:AQ:16:MET:O	16:AQ:19:SER:N	2.54	0.41
19:AT:70:LYS:HZ2	19:AT:70:LYS:HG3	1.65	0.41
21:AA:80:A:H2'	21:AA:80:A:N3	2.35	0.41
21:AA:186:C:N3	21:AA:192:A:N1	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:198:G:O2'	21:AA:199:A:O5'	2.39	0.41
21:AA:386:C:H2'	21:AA:387:U:H5'	2.01	0.41
21:AA:449:G:O6	21:AA:486:U:C4	2.74	0.41
21:AA:710:G:C6	21:AA:711:G:C5	3.09	0.41
21:AA:731:G:OP1	21:AA:766:A:H1'	2.21	0.41
21:AA:820:U:H4'	21:AA:821:G:OP2	2.21	0.41
21:AA:824:G:H2'	21:AA:825:A:C8	2.56	0.41
21:AA:832:G:N2	21:AA:833:G:H1'	2.36	0.41
21:AA:900:A:O2'	21:AA:901:A:H5'	2.21	0.41
21:AA:936:C:C5	21:AA:937:A:N7	2.89	0.41
21:AA:977:A:C8	21:AA:1223:C:C4	3.04	0.41
21:AA:1046:A:H2'	21:AA:1047:G:H8	1.85	0.41
21:AA:1275:A:N6	21:AA:1276:G:C6	2.88	0.41
21:AA:1306:A:C8	21:AA:1307:U:C5	3.09	0.41
21:AA:1309:G:C6	21:AA:1329:A:C2	3.08	0.41
21:AA:1469:C:H2'	21:AA:1470:U:H5'	2.01	0.41
21:AA:1504:G:C4'	21:AA:1505:G:N3	2.84	0.41
24:BA:63:A:O2'	24:BA:64:A:H5'	2.21	0.41
24:BA:217:A:H5"	24:BA:218:A:OP2	2.20	0.41
24:BA:255:A:C2	24:BA:256:A:N9	2.89	0.41
24:BA:260:G:H2'	24:BA:261:G:O5'	2.20	0.41
24:BA:322:A:H1'	24:BA:339:U:O2	2.21	0.41
24:BA:362:A:H2'	24:BA:363:G:C8	2.56	0.41
24:BA:482:A:N6	24:BA:506:G:N9	2.69	0.41
24:BA:493:G:H2'	24:BA:494:G:O4'	2.21	0.41
24:BA:527:C:C2	24:BA:2779:U:O2'	2.68	0.41
24:BA:529:A:C4'	24:BA:530:G:OP1	2.64	0.41
24:BA:610:C:H2'	24:BA:611:C:H6	1.84	0.41
24:BA:632:A:O2'	24:BA:633:A:H5'	2.20	0.41
24:BA:666:A:C2'	24:BA:667:U:H5'	2.51	0.41
24:BA:736:C:C2	24:BA:737:C:C5	3.08	0.41
24:BA:740:C:O2'	24:BA:741:U:H5'	2.21	0.41
24:BA:855:G:C1'	46:BW:23:LYS:HD3	2.51	0.41
24:BA:933:A:N3	24:BA:933:A:H2'	2.34	0.41
24:BA:1022:G:N2	24:BA:1142:A:C2	2.89	0.41
24:BA:1070:A:O2'	24:BA:1071:G:OP2	2.37	0.41
24:BA:1179:G:N7	24:BA:1180:U:C1'	2.83	0.41
24:BA:1181:U:C2'	24:BA:1182:G:H8	2.31	0.41
24:BA:1235:G:C5	24:BA:1236:G:N1	2.89	0.41
24:BA:1257:C:C4	24:BA:1258:U:C5	3.09	0.41
24:BA:1323:C:O2	24:BA:1323:C:C2'	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1380:G:C2	24:BA:1381:G:N7	2.89	0.41
24:BA:1419:A:C8	24:BA:1579:A:C6	3.08	0.41
24:BA:1452:G:C4	24:BA:2702:G:C6	3.09	0.41
24:BA:1475:G:O2'	24:BA:1476:U:OP2	2.33	0.41
24:BA:1496:A:H2'	24:BA:1498:C:C4	2.56	0.41
24:BA:1497:U:H5"	24:BA:1498:C:OP2	2.21	0.41
24:BA:1660:G:N2	24:BA:2001:C:C2	2.88	0.41
24:BA:1663:G:C6	24:BA:1998:A:N6	2.88	0.41
24:BA:1731:G:H1'	24:BA:1733:G:H8	1.86	0.41
24:BA:1745:A:H2'	24:BA:1746:A:H8	1.86	0.41
24:BA:1746:A:C2	24:BA:1747:U:N3	2.89	0.41
24:BA:1778:U:C4	24:BA:1784:A:C4	3.08	0.41
24:BA:1790:C:O3'	24:BA:1791:A:C8	2.74	0.41
24:BA:1818:U:O2'	24:BA:1819:A:OP2	2.39	0.41
24:BA:1833:C:C2	24:BA:1834:U:C5	3.09	0.41
24:BA:1906:G:H2'	24:BA:1907:G:O5'	2.21	0.41
24:BA:1911:U:C4	24:BA:1918:A:C4	3.08	0.41
24:BA:2024:G:C4	24:BA:2040:G:N2	2.89	0.41
24:BA:2144:G:H3'	24:BA:2144:G:N3	2.35	0.41
24:BA:2151:U:C4	24:BA:2152:G:N7	2.89	0.41
24:BA:2204:G:H2'	24:BA:2205:A:H8	1.86	0.41
24:BA:2209:G:N2	24:BA:2216:G:N3	2.68	0.41
24:BA:2230:G:H2'	24:BA:2231:U:H6	1.86	0.41
24:BA:2403:C:N3	24:BA:2415:G:C2	2.89	0.41
24:BA:2442:C:H2'	24:BA:2443:C:C6	2.51	0.41
24:BA:2526:G:C2	24:BA:2538:C:O2	2.74	0.41
24:BA:2646:C:OP2	24:BA:2732:G:O2'	2.35	0.41
24:BA:2682:A:C8	27:BD:11:MET:HG3	2.56	0.41
24:BA:2729:G:H2'	24:BA:2730:C:O4'	2.21	0.41
24:BA:2808:G:O2'	24:BA:2809:A:OP2	2.39	0.41
24:BA:2840:C:H2'	24:BA:2841:C:C6	2.56	0.41
25:BB:42:C:O2'	25:BB:43:C:C5'	2.69	0.41
25:BB:79:G:C6	25:BB:80:U:C4	3.08	0.41
26:BC:68:ARG:HD3	26:BC:103:ILE:CD1	2.31	0.41
26:BC:76:VAL:O	26:BC:77:VAL:O	2.39	0.41
27:BD:107:VAL:HG13	27:BD:203:VAL:CG2	2.51	0.41
28:BE:25:GLU:O	28:BE:28:VAL:HG13	2.20	0.41
28:BE:88:ARG:O	28:BE:90:GLN:HG2	2.21	0.41
28:BE:154:ASP:OD2	28:BE:157:LEU:HB3	2.20	0.41
30:BG:73:SER:HA	30:BG:76:ILE:HG21	1.99	0.41
30:BG:108:PHE:CZ	30:BG:151:ARG:CZ	3.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:42:LYS:HG2	31:BH:43:ASN:HD22	1.86	0.41
32:BI:79:LEU:HD22	32:BI:137:LEU:HD11	2.02	0.41
34:BK:85:VAL:HG11	34:BK:115:ILE:CD1	2.50	0.41
35:BL:46:VAL:O	35:BL:47:ARG:C	2.63	0.41
36:BM:42:THR:H	36:BM:45:GLN:HB2	1.84	0.41
37:BN:32:GLU:CB	37:BN:115:LEU:HD12	2.51	0.41
37:BN:79:LEU:O	37:BN:80:PHE:CB	2.69	0.41
42:BS:34:ASP:OD2	50:B0:36:LYS:NZ	2.47	0.41
44:BU:62:ALA:O	44:BU:63:ALA:C	2.63	0.41
44:BU:87:GLU:O	44:BU:88:ASP:O	2.38	0.41
46:BW:15:SER:C	46:BW:16:GLU:HG2	2.46	0.41
46:BW:75:ASN:O	46:BW:76:ARG:CB	2.68	0.41
48:BY:49:ASP:O	48:BY:50:VAL:C	2.62	0.41
50:B0:2:VAL:O	50:B0:3:GLN:C	2.63	0.41
52:B2:21:ARG:O	52:B2:27:GLY:HA3	2.20	0.41
53:B3:31:ILE:HG13	53:B3:34:LYS:HD2	2.03	0.41
1:CB:55:GLU:C	1:CB:58:LYS:HB3	2.46	0.41
1:CB:72:LYS:O	1:CB:73:ARG:C	2.63	0.41
1:CB:96:LEU:HB2	1:CB:99:MET:HB2	2.03	0.41
1:CB:209:VAL:CG2	1:CB:210:THR:N	2.84	0.41
2:CC:32:LEU:O	2:CC:36:PHE:CD2	2.74	0.41
2:CC:41:TYR:OH	2:CC:89:VAL:HG11	2.21	0.41
4:CE:45:VAL:O	4:CE:71:ILE:HG22	2.20	0.41
4:CE:131:ASN:HA	4:CE:132:PRO:HD2	1.78	0.41
5:CF:10:VAL:HG13	5:CF:83:ALA:O	2.20	0.41
5:CF:93:LYS:O	5:CF:94:HIS:HB3	2.21	0.41
8:CI:20:ILE:C	8:CI:21:LYS:HG3	2.46	0.41
8:CI:20:ILE:HG13	8:CI:60:LEU:HD13	2.03	0.41
9:CJ:66:GLU:HB2	13:CN:100:TRP:CZ3	2.55	0.41
10:CK:22:ILE:HG21	10:CK:85:VAL:HG13	2.02	0.41
10:CK:27:ASN:ND2	10:CK:27:ASN:N	2.66	0.41
10:CK:126:ARG:HH12	55:CA:693:G:P	2.42	0.41
11:CL:49:ARG:NH1	55:CA:523:A:H61	2.18	0.41
11:CL:66:ILE:HA	11:CL:96:THR:OG1	2.21	0.41
13:CN:83:VAL:O	13:CN:87:ALA:N	2.37	0.41
15:CP:6:LEU:HB2	15:CP:17:TYR:HB3	2.03	0.41
16:CQ:62:GLU:HB2	16:CQ:72:TRP:CH2	2.56	0.41
18:CS:62:THR:C	18:CS:64:GLU:H	2.28	0.41
19:CT:35:TYR:HH	55:CA:259:G:P	2.42	0.41
19:CT:50:PHE:O	19:CT:53:MET:HG3	2.21	0.41
20:CU:3:ILE:HG21	20:CU:18:PHE:CB	2.47	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CU:15:LEU:O	20:CU:15:LEU:CG	2.68	0.41
20:CU:24:LYS:CD	20:CU:25:ALA:H	2.34	0.41
55:CA:71:A:C2'	55:CA:72:A:O5'	2.69	0.41
55:CA:122:G:O5'	55:CA:122:G:C8	2.73	0.41
55:CA:243:A:C2	55:CA:245:U:O2'	2.69	0.41
55:CA:247:G:C6	55:CA:278:G:C2	3.08	0.41
55:CA:346:G:N3	55:CA:346:G:C2'	2.79	0.41
55:CA:370:C:H2'	55:CA:371:A:H5'	2.03	0.41
55:CA:409:U:H2'	55:CA:410:G:O4'	2.20	0.41
55:CA:425:G:H2'	55:CA:426:U:H6	1.84	0.41
55:CA:449:G:C2	55:CA:450:G:C5	3.09	0.41
55:CA:597:G:C2	55:CA:644:U:O2	2.74	0.41
55:CA:643:C:O2'	55:CA:644:U:H5'	2.21	0.41
55:CA:817:C:H4'	55:CA:818:G:OP1	2.19	0.41
55:CA:819:A:N6	55:CA:1529:G:C5	2.89	0.41
55:CA:874:G:HO2'	55:CA:875:U:H5'	1.79	0.41
55:CA:922:G:C6	55:CA:923:A:C6	3.09	0.41
55:CA:979:C:C5	55:CA:1318:A:N1	2.89	0.41
55:CA:1050:G:N2	55:CA:1051:C:C2	2.89	0.41
55:CA:1107:C:C4	55:CA:1108:G:N7	2.88	0.41
55:CA:1118:U:H1'	55:CA:1179:A:N9	2.36	0.41
55:CA:1234:C:H4'	55:CA:1364:U:H1'	2.03	0.41
55:CA:1288:A:C2'	55:CA:1289:A:H8	2.34	0.41
55:CA:1502:A:O2'	55:CA:1503:A:OP1	2.38	0.41
26:DC:103:ILE:CD1	26:DC:104:LEU:H	2.29	0.41
26:DC:115:ILE:HB	26:DC:126:GLY:O	2.21	0.41
26:DC:141:HIS:HB3	26:DC:142:ASN:H	1.68	0.41
26:DC:211:ARG:C	26:DC:213:ARG:N	2.77	0.41
26:DC:237:ARG:HG3	24:DA:2590:A:H5"	2.03	0.41
26:DC:264:LYS:HG3	26:DC:265:PHE:CD2	2.56	0.41
27:DD:48:ILE:O	27:DD:48:ILE:HG23	2.20	0.41
27:DD:129:THR:HG22	27:DD:130:GLN:O	2.21	0.41
27:DD:174:SER:O	27:DD:175:LEU:C	2.64	0.41
28:DE:24:ASN:CB	28:DE:27:LEU:HB3	2.44	0.41
28:DE:165:HIS:ND1	24:DA:1205:A:N6	2.68	0.41
29:DF:65:LEU:HG	29:DF:66:ILE:N	2.36	0.41
29:DF:103:ILE:HG12	29:DF:175:PRO:HD3	2.03	0.41
30:DG:2:ARG:NH2	24:DA:2751:G:C2	2.88	0.41
30:DG:36:LEU:N	30:DG:36:LEU:HD12	2.35	0.41
30:DG:56:GLY:C	30:DG:57:TYR:HD2	2.29	0.41
30:DG:94:ARG:HH21	30:DG:111:PRO:HB3	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DG:103:ASN:HD22	30:DG:111:PRO:CB	2.31	0.41
32:DI:5:GLN:HB2	32:DI:7:TYR:CE2	2.55	0.41
32:DI:69:VAL:O	32:DI:69:VAL:HG13	2.20	0.41
33:DJ:3:THR:HG23	24:DA:995:C:O2	2.21	0.41
34:DK:70:ARG:NH1	34:DK:74:GLY:O	2.54	0.41
35:DL:22:GLY:C	35:DL:23:ILE:HD12	2.46	0.41
35:DL:36:LYS:HB3	35:DL:37:GLY:H	1.73	0.41
36:DM:86:LYS:HG3	24:DA:956:G:OP1	2.21	0.41
36:DM:96:ILE:HD12	36:DM:102:LEU:HD11	2.03	0.41
40:DQ:21:LYS:HD2	40:DQ:21:LYS:HA	1.85	0.41
40:DQ:61:ILE:N	40:DQ:61:ILE:CD1	2.84	0.41
42:DS:95:ARG:HG2	42:DS:97:LEU:HD21	2.03	0.41
45:DV:26:PHE:CD2	45:DV:42:LEU:HB2	2.56	0.41
46:DW:38:ARG:HH22	24:DA:2262:U:H5"	1.86	0.41
46:DW:41:GLY:C	46:DW:43:LYS:N	2.78	0.41
48:DY:27:ASN:HD22	48:DY:27:ASN:HA	1.70	0.41
49:DZ:8:GLN:O	49:DZ:9:THR:OG1	2.31	0.41
49:DZ:38:GLU:OE1	49:DZ:39:ASP:N	2.52	0.41
50:D0:4:GLN:NE2	24:DA:2055:C:OP1	2.53	0.41
54:D4:36:ARG:HD3	24:DA:2742:G:OP1	2.21	0.41
24:DA:98:G:H2'	24:DA:98:G:N3	2.35	0.41
24:DA:155:A:N6	24:DA:156:A:N6	2.69	0.41
24:DA:222:A:C6	24:DA:224:U:C2	3.08	0.41
24:DA:377:G:N2	24:DA:398:C:H1'	2.36	0.41
24:DA:553:G:H2'	24:DA:554:U:O4'	2.21	0.41
24:DA:567:U:C4	24:DA:568:U:C5	3.09	0.41
24:DA:693:A:C4	24:DA:694:U:C5	3.09	0.41
24:DA:821:A:C8	24:DA:946:C:C5	3.09	0.41
24:DA:840:C:H2'	24:DA:841:G:H8	1.86	0.41
24:DA:907:G:O2'	24:DA:908:C:H5'	2.21	0.41
24:DA:915:C:H5"	24:DA:915:C:C6	2.55	0.41
24:DA:1023:U:H6	24:DA:1023:U:C5'	2.30	0.41
24:DA:1071:G:O6	24:DA:1089:A:C2	2.74	0.41
24:DA:1157:G:O2'	24:DA:1158:C:H5'	2.21	0.41
24:DA:1225:G:C6	24:DA:1226:A:N6	2.88	0.41
24:DA:1345:C:P	24:DA:1345:C:H3'	2.61	0.41
24:DA:1466:U:H5"	24:DA:1467:U:O4'	2.20	0.41
24:DA:1495:A:N3	24:DA:1578:U:H1'	2.35	0.41
24:DA:1500:G:C2	24:DA:1501:G:C4	3.08	0.41
24:DA:1568:G:H8	24:DA:1568:G:H2'	1.61	0.41
24:DA:1648:U:C2	24:DA:1649:G:C8	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1715:G:C2	24:DA:1743:G:C5	3.09	0.41
24:DA:1717:A:O2'	24:DA:1718:G:H5'	2.21	0.41
24:DA:1827:U:H4'	24:DA:1970:A:O2'	2.21	0.41
24:DA:1947:C:C2	24:DA:1948:G:C8	3.09	0.41
24:DA:1973:G:C4	24:DA:1974:C:C5	3.09	0.41
24:DA:1980:G:C6	24:DA:1982:U:O4	2.73	0.41
24:DA:2067:G:C6	24:DA:2069:G:C5	3.09	0.41
24:DA:2298:A:C2	24:DA:2321:U:C5	3.09	0.41
24:DA:2760:C:H2'	24:DA:2761:A:H5'	2.03	0.41
24:DA:2800:A:C2'	24:DA:2801:G:O4'	2.64	0.41
24:DA:2881:U:O2'	24:DA:2882:A:C5'	2.65	0.41
56:DB:32:U:N3	56:DB:51:G:C2	2.89	0.41
56:DB:61:G:C6	56:DB:62:C:C4	3.09	0.41
1:AB:24:PRO:HB3	21:AA:829:G:O3'	2.21	0.41
1:AB:86:CYS:HB3	1:AB:87:ASP:H	1.76	0.41
2:AC:17:TRP:O	2:AC:18:ASN:C	2.64	0.41
2:AC:123:LEU:H	2:AC:123:LEU:HG	1.61	0.41
3:AD:27:ILE:O	3:AD:28:ASP:C	2.64	0.41
5:AF:69:GLU:OE1	5:AF:69:GLU:C	2.63	0.41
6:AG:97:ALA:HA	6:AG:100:MET:CE	2.50	0.41
6:AG:110:ARG:HG2	6:AG:111:GLY:H	1.86	0.41
6:AG:113:LYS:HD3	6:AG:113:LYS:HA	1.74	0.41
7:AH:39:LEU:HB2	7:AH:45:ILE:HD11	2.02	0.41
8:AI:3:ASN:O	8:AI:4:GLN:HG2	2.20	0.41
8:AI:80:HIS:C	8:AI:82:ILE:H	2.28	0.41
9:AJ:24:GLU:OE1	9:AJ:92:LEU:HD11	2.21	0.41
9:AJ:53:ILE:HG13	13:AN:84:ARG:CZ	2.51	0.41
10:AK:16:SER:HA	10:AK:77:GLY:O	2.21	0.41
13:AN:30:ILE:HG23	13:AN:44:VAL:HG12	2.03	0.41
15:AP:10:GLY:HA3	15:AP:15:PRO:C	2.46	0.41
18:AS:42:ASN:ND2	18:AS:43:MET:HG3	2.36	0.41
19:AT:22:SER:O	19:AT:25:SER:HB3	2.21	0.41
21:AA:65:A:C5	21:AA:381:C:C4	3.08	0.41
21:AA:75:G:C2	21:AA:96:U:C2	3.08	0.41
21:AA:414:A:O2'	21:AA:415:A:C5'	2.66	0.41
21:AA:451:A:C8	21:AA:481:G:N2	2.89	0.41
21:AA:604:G:N1	21:AA:605:U:C2	2.89	0.41
21:AA:1073:U:H2'	21:AA:1074:G:H8	1.86	0.41
21:AA:1365:G:O2'	21:AA:1366:C:C5'	2.69	0.41
21:AA:1453:G:N3	21:AA:1453:G:C2'	2.82	0.41
21:AA:1480:A:C5	21:AA:1481:U:C5	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:263:G:H1'	24:BA:430:A:N3	2.35	0.41
24:BA:301:G:C5	24:BA:302:C:C4	3.09	0.41
24:BA:569:U:H1'	24:BA:947:A:O4'	2.21	0.41
24:BA:608:A:N1	24:BA:609:A:C2	2.89	0.41
24:BA:633:A:C8	24:BA:633:A:C4'	3.03	0.41
24:BA:740:C:C5	24:BA:1981:A:C2	3.09	0.41
24:BA:831:G:C2	24:BA:832:U:C6	3.09	0.41
24:BA:1022:G:O6	24:BA:1140:C:C6	2.74	0.41
24:BA:1059:G:H2'	32:BI:131:THR:OG1	2.20	0.41
24:BA:1255:U:H3	24:BA:2060:A:H5'	1.84	0.41
24:BA:1266:G:N2	24:BA:2012:G:H2'	2.36	0.41
24:BA:1275:A:N1	24:BA:1295:C:O2'	2.54	0.41
24:BA:1740:G:H2'	24:BA:1741:C:H6	1.86	0.41
24:BA:1910:G:C6	24:BA:1911:U:C4	3.09	0.41
24:BA:1999:C:O2'	24:BA:2000:C:H5'	2.21	0.41
24:BA:2058:A:O5'	24:BA:2058:A:H8	2.04	0.41
24:BA:2184:A:H8	24:BA:2184:A:OP2	2.04	0.41
24:BA:2556:C:C2'	24:BA:2557:G:H5'	2.50	0.41
24:BA:2627:G:N2	24:BA:2777:G:OP1	2.51	0.41
25:BB:12:C:C4'	25:BB:13:G:OP1	2.69	0.41
26:BC:7:PRO:C	26:BC:9:SER:H	2.29	0.41
27:BD:108:ASP:CG	27:BD:206:ALA:HA	2.46	0.41
28:BE:58:LYS:HA	28:BE:59:PRO:HD2	1.79	0.41
30:BG:114:HIS:CD2	30:BG:115:GLN:HE22	2.38	0.41
31:BH:43:ASN:C	31:BH:45:GLU:H	2.28	0.41
31:BH:110:VAL:O	31:BH:111:ALA:HB2	2.21	0.41
32:BI:32:VAL:HG22	32:BI:66:PHE:CD1	2.56	0.41
32:BI:53:PRO:HB2	32:BI:74:PRO:CG	2.51	0.41
34:BK:18:ARG:CG	34:BK:18:ARG:NH1	2.59	0.41
34:BK:18:ARG:HB2	34:BK:45:GLU:CG	2.51	0.41
37:BN:24:MET:HB3	37:BN:44:LEU:HD13	2.02	0.41
38:BO:33:ARG:HG2	38:BO:34:HIS:CE1	2.55	0.41
39:BP:24:THR:O	39:BP:44:GLY:O	2.39	0.41
43:BT:2:ILE:HG13	43:BT:3:ARG:NH2	2.36	0.41
43:BT:40:LYS:N	43:BT:43:ILE:CG2	2.84	0.41
44:BU:54:PRO:HG2	44:BU:55:GLY:H	1.86	0.41
46:BW:30:VAL:O	46:BW:30:VAL:CG2	2.60	0.41
54:B4:30:GLU:HB3	54:B4:33:HIS:ND1	2.35	0.41
1:CB:9:LEU:HD23	1:CB:9:LEU:N	2.29	0.41
1:CB:28:PRO:HB2	1:CB:29:PHE:CE1	2.56	0.41
1:CB:202:ASN:O	1:CB:203:ASP:HB3	2.22	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CC:115:VAL:O	2:CC:119:ILE:HG13	2.20	0.41
2:CC:134:LYS:O	2:CC:138:GLN:OE1	2.39	0.41
2:CC:161:ILE:HD13	2:CC:161:ILE:N	2.21	0.41
3:CD:106:PHE:CD1	3:CD:106:PHE:N	2.85	0.41
4:CE:13:LYS:HD3	4:CE:14:LEU:O	2.20	0.41
4:CE:56:PRO:C	4:CE:58:ALA:N	2.77	0.41
4:CE:114:LEU:CD1	4:CE:122:VAL:HG11	2.42	0.41
5:CF:1:MET:HE1	5:CF:33:GLU:O	2.21	0.41
6:CG:20:GLU:O	6:CG:23:ALA:HB3	2.21	0.41
9:CJ:11:LYS:HD3	9:CJ:11:LYS:H	1.85	0.41
9:CJ:40:ILE:HG22	9:CJ:42:LEU:HD12	2.03	0.41
10:CK:115:ILE:HA	10:CK:116:PRO:HD2	1.91	0.41
15:CP:4:ILE:HD11	15:CP:21:VAL:HG22	2.02	0.41
16:CQ:6:THR:C	16:CQ:7:LEU:HD22	2.46	0.41
18:CS:13:HIS:CD2	55:CA:1014:A:H4'	2.56	0.41
55:CA:16:A:C2	55:CA:17:U:C6	3.09	0.41
55:CA:163:C:H6	55:CA:163:C:O5'	2.04	0.41
55:CA:210:C:O2'	55:CA:211:G:OP2	2.33	0.41
55:CA:330:C:O2'	55:CA:331:G:H8	2.04	0.41
55:CA:704:A:O2'	55:CA:705:G:H5'	2.21	0.41
55:CA:864:A:H2	55:CA:917:G:N3	2.18	0.41
55:CA:927:G:H2'	55:CA:928:G:H8	1.86	0.41
55:CA:1228:C:O2'	55:CA:1229:A:C5'	2.68	0.41
55:CA:1432:G:H5"	39:DP:105:LYS:HG2	2.03	0.41
26:DC:2:VAL:O	26:DC:3:VAL:CB	2.66	0.41
26:DC:34:GLU:HG3	26:DC:35:LYS:N	2.35	0.41
26:DC:84:PRO:HG3	24:DA:1567:G:H5"	2.01	0.41
26:DC:181:ARG:NE	26:DC:265:PHE:HB2	2.36	0.41
26:DC:244:VAL:HG12	26:DC:250:GLN:HA	2.03	0.41
27:DD:4:LEU:HB3	27:DD:32:ASN:HD21	1.85	0.41
27:DD:70:LYS:HD3	24:DA:2785:C:O3'	2.21	0.41
28:DE:77:ILE:H	28:DE:77:ILE:HG12	1.61	0.41
28:DE:153:LEU:HB2	28:DE:171:ASP:HB3	2.03	0.41
29:DF:100:GLU:O	29:DF:100:GLU:HG2	2.19	0.41
29:DF:141:ASP:C	29:DF:143:ASP:H	2.29	0.41
30:DG:25:ILE:HG22	30:DG:78:VAL:HG11	2.03	0.41
30:DG:25:ILE:CG2	30:DG:78:VAL:HG21	2.50	0.41
30:DG:83:THR:HB	30:DG:84:LYS:H	1.70	0.41
31:DH:96:THR:HA	31:DH:113:SER:OG	2.21	0.41
32:DI:44:LYS:O	32:DI:44:LYS:HD3	2.20	0.41
33:DJ:86:GLN:O	33:DJ:87:ALA:CB	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DO:102:ARG:N	56:DB:49:C:H5"	2.36	0.41
39:DP:50:ARG:CB	39:DP:56:SER:HB3	2.48	0.41
39:DP:52:ARG:HG2	39:DP:52:ARG:NH1	2.36	0.41
39:DP:111:GLU:CD	39:DP:111:GLU:N	2.79	0.41
40:DQ:63:ARG:O	40:DQ:66:ALA:N	2.50	0.41
47:DX:76:LYS:O	47:DX:77:TYR:CD2	2.74	0.41
47:DX:76:LYS:HG3	47:DX:77:TYR:N	2.36	0.41
24:DA:70:G:H3'	24:DA:113:U:O2'	2.21	0.41
24:DA:165:A:C4	24:DA:166:U:C6	3.09	0.41
24:DA:233:A:O2'	24:DA:234:U:O4'	2.33	0.41
24:DA:298:G:N2	24:DA:341:C:C4	2.88	0.41
24:DA:783:A:O2'	24:DA:784:G:O3'	2.35	0.41
24:DA:804:A:H2'	24:DA:806:C:C4	2.56	0.41
24:DA:825:A:C2	24:DA:826:U:C2	3.09	0.41
24:DA:864:G:C6	24:DA:865:C:N4	2.89	0.41
24:DA:940:G:N3	24:DA:1191:G:H4'	2.35	0.41
24:DA:1021:A:H1'	24:DA:1023:U:O4'	2.21	0.41
24:DA:1213:A:O2'	24:DA:1214:A:C5'	2.69	0.41
24:DA:1349:C:H2'	24:DA:1350:C:C6	2.56	0.41
24:DA:1558:C:H1'	24:DA:1560:G:C8	2.56	0.41
24:DA:1627:G:C2	24:DA:1628:G:C8	3.09	0.41
24:DA:1965:C:H5'	24:DA:1966:A:H5"	2.03	0.41
24:DA:2100:G:C5	24:DA:2190:G:C2	3.09	0.41
24:DA:2144:G:O2'	24:DA:2145:C:H5'	2.21	0.41
24:DA:2149:U:O2'	24:DA:2150:C:O4'	2.32	0.41
24:DA:2358:A:H8	24:DA:2358:A:OP1	2.04	0.41
24:DA:2508:G:H2'	24:DA:2509:G:O4'	2.21	0.41
24:DA:2774:C:N4	24:DA:2775:G:C6	2.90	0.41
56:DB:94:A:C5	56:DB:95:U:C4	3.08	0.41
1:AB:151:LYS:HG3	1:AB:152:ASP:N	2.36	0.40
3:AD:133:SER:O	3:AD:134:TYR:C	2.64	0.40
4:AE:87:VAL:HG11	4:AE:92:ARG:HD2	2.04	0.40
5:AF:8:PHE:CB	5:AF:87:SER:HB2	2.51	0.40
6:AG:24:LYS:HB2	6:AG:100:MET:HE1	2.03	0.40
6:AG:54:GLY:O	6:AG:56:SER:N	2.53	0.40
7:AH:85:TYR:HD1	16:AQ:36:PHE:CZ	2.39	0.40
10:AK:70:ALA:C	10:AK:73:VAL:HG22	2.46	0.40
10:AK:95:THR:HG23	10:AK:96:ILE:H	1.86	0.40
11:AL:42:LYS:HB3	11:AL:43:LYS:NZ	2.36	0.40
12:AM:22:TYR:HB2	12:AM:65:GLU:HA	2.03	0.40
12:AM:53:ASP:HA	12:AM:56:ARG:HB2	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AM:72:ILE:C	12:AM:74:MET:N	2.79	0.40
13:AN:1:ALA:CB	13:AN:67:GLY:HA3	2.48	0.40
14:AO:35:ILE:HG22	14:AO:36:ASN:HD22	1.86	0.40
18:AS:57:VAL:O	18:AS:57:VAL:HG23	2.20	0.40
18:AS:79:TYR:CE1	18:AS:80:ARG:HB2	2.56	0.40
19:AT:5:SER:O	19:AT:7:LYS:N	2.52	0.40
19:AT:77:ASN:HD22	19:AT:77:ASN:C	2.29	0.40
21:AA:257:G:H2'	21:AA:258:G:H8	1.86	0.40
21:AA:324:G:O6	59:AA:1848:HOH:O	2.21	0.40
21:AA:374:A:C2	21:AA:375:U:C2	3.09	0.40
21:AA:563:A:H1'	21:AA:566:G:O2'	2.21	0.40
21:AA:613:C:H2'	21:AA:614:C:H6	1.86	0.40
21:AA:666:G:C6	21:AA:741:G:C6	3.10	0.40
21:AA:688:G:C5	21:AA:700:G:C2	3.09	0.40
21:AA:727:G:C2	21:AA:731:G:C2	3.09	0.40
21:AA:996:A:H2'	21:AA:997:U:C6	2.54	0.40
21:AA:1062:U:H2'	21:AA:1063:C:C6	2.56	0.40
21:AA:1097:C:C4	21:AA:1098:C:N4	2.89	0.40
21:AA:1102:A:C2	21:AA:1103:C:C4	3.08	0.40
21:AA:1239:A:C6	21:AA:1298:U:C5	3.09	0.40
21:AA:1392:G:C6	21:AA:1393:U:C4	3.09	0.40
24:BA:93:G:C2	24:BA:94:A:C4	3.09	0.40
24:BA:237:C:C2'	24:BA:238:C:H5'	2.51	0.40
24:BA:281:C:H2'	24:BA:282:A:C8	2.56	0.40
24:BA:475:C:C2	24:BA:481:G:C6	3.08	0.40
24:BA:628:G:O2'	24:BA:629:G:C5'	2.68	0.40
24:BA:681:G:N2	24:BA:682:G:H1'	2.36	0.40
24:BA:741:U:O2'	24:BA:742:A:H5'	2.20	0.40
24:BA:1153:C:H2'	24:BA:1154:G:O4'	2.22	0.40
24:BA:1786:A:H1'	24:BA:1938:A:N6	2.36	0.40
24:BA:1937:A:C4	24:BA:1939:U:C5	3.10	0.40
24:BA:2046:G:N1	24:BA:2623:G:C4	2.89	0.40
24:BA:2443:C:O2'	24:BA:2444:G:H5'	2.21	0.40
24:BA:2516:A:O2'	24:BA:2517:C:H5'	2.21	0.40
25:BB:9:G:C2	25:BB:10:G:C8	3.09	0.40
25:BB:40:U:H1'	25:BB:45:A:H62	1.83	0.40
25:BB:49:C:OP1	38:BO:102:ARG:CG	2.69	0.40
26:BC:70:LYS:HD2	26:BC:99:GLU:OE1	2.21	0.40
26:BC:252:LYS:NZ	26:BC:252:LYS:CB	2.85	0.40
27:BD:68:PHE:HB3	27:BD:73:VAL:HA	2.04	0.40
27:BD:187:LEU:HA	27:BD:187:LEU:HD12	1.89	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:5:LEU:HD23	28:BE:120:VAL:O	2.20	0.40
28:BE:134:LEU:CD2	28:BE:161:ALA:HB2	2.50	0.40
29:BF:132:ARG:O	29:BF:133:GLU:CB	2.56	0.40
30:BG:33:THR:N	30:BG:34:ARG:NH1	2.69	0.40
30:BG:71:LEU:HD13	30:BG:71:LEU:HA	1.87	0.40
30:BG:83:THR:HA	30:BG:84:LYS:HE2	2.01	0.40
33:BJ:124:VAL:HG23	33:BJ:125:TYR:H	1.86	0.40
33:BJ:125:TYR:OH	33:BJ:132:HIS:NE2	2.54	0.40
36:BM:43:ALA:C	36:BM:45:GLN:N	2.73	0.40
36:BM:78:LEU:HB3	36:BM:79:ALA:H	1.76	0.40
37:BN:66:ALA:O	37:BN:69:ARG:O	2.40	0.40
39:BP:105:LYS:HA	39:BP:108:ARG:HD3	2.03	0.40
43:BT:14:PRO:HA	43:BT:32:LEU:HB3	2.02	0.40
43:BT:37:ASP:C	43:BT:38:ALA:O	2.64	0.40
48:BY:9:LYS:NZ	48:BY:9:LYS:CA	2.81	0.40
48:BY:40:SER:C	48:BY:42:LEU:H	2.29	0.40
53:B3:53:ASP:O	53:B3:54:LEU:C	2.64	0.40
1:CB:59:ILE:HA	1:CB:62:ARG:CG	2.51	0.40
1:CB:164:ASP:OD2	1:CB:203:ASP:HB2	2.21	0.40
2:CC:199:VAL:O	2:CC:199:VAL:HG23	2.20	0.40
6:CG:137:ARG:HE	6:CG:137:ARG:HB3	1.71	0.40
8:CI:91:GLU:HG3	8:CI:91:GLU:O	2.21	0.40
9:CJ:90:LEU:HD23	9:CJ:90:LEU:O	2.20	0.40
10:CK:22:ILE:CG2	10:CK:85:VAL:HG13	2.51	0.40
15:CP:8:ARG:CZ	15:CP:15:PRO:HB3	2.51	0.40
16:CQ:58:VAL:HG12	16:CQ:77:VAL:HG13	2.01	0.40
18:CS:69:LYS:O	18:CS:72:GLU:HB2	2.21	0.40
55:CA:66:A:O4'	55:CA:173:U:C4	2.73	0.40
55:CA:433:G:C6	55:CA:434:U:C4	3.08	0.40
55:CA:562:U:O4	55:CA:884:U:C6	2.74	0.40
55:CA:627:G:H2'	55:CA:628:G:C8	2.56	0.40
55:CA:881:G:H2'	55:CA:882:C:H6	1.85	0.40
55:CA:945:G:C2	55:CA:1337:G:N2	2.89	0.40
55:CA:953:G:C2	55:CA:1229:A:C5	3.09	0.40
55:CA:995:C:H42	55:CA:1046:A:H1'	1.85	0.40
55:CA:1041:G:C2	55:CA:1042:A:C5	3.10	0.40
55:CA:1060:U:N3	55:CA:1198:G:C6	2.89	0.40
55:CA:1062:U:H2'	55:CA:1063:C:C5	2.55	0.40
55:CA:1201:A:H5'	55:CA:1203:C:OP2	2.22	0.40
55:CA:1235:U:H2'	55:CA:1236:A:C8	2.55	0.40
55:CA:1352:C:H2'	55:CA:1353:G:C8	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:1446:A:N6	55:CA:1447:A:N6	2.70	0.40
26:DC:206:LYS:HB2	24:DA:729:G:O6	2.21	0.40
26:DC:229:HIS:CG	26:DC:230:PRO:HD2	2.56	0.40
27:DD:119:ALA:HB3	27:DD:163:GLY:CA	2.50	0.40
27:DD:191:GLY:HA3	24:DA:2729:G:O2'	2.21	0.40
28:DE:5:LEU:HD23	28:DE:120:VAL:HG13	2.03	0.40
28:DE:69:ARG:O	28:DE:70:SER:CB	2.64	0.40
28:DE:100:MET:HE3	24:DA:600:G:O4'	2.20	0.40
28:DE:163:ASN:ND2	24:DA:322:A:H3'	2.35	0.40
29:DF:2:LYS:HD3	29:DF:2:LYS:N	2.36	0.40
29:DF:60:SER:OG	29:DF:88:VAL:HG11	2.21	0.40
29:DF:113:PHE:CE2	29:DF:116:LEU:HB2	2.55	0.40
33:DJ:37:ARG:O	33:DJ:37:ARG:HG2	2.21	0.40
41:DR:4:VAL:HG23	41:DR:4:VAL:O	2.20	0.40
41:DR:33:VAL:HG23	41:DR:33:VAL:O	2.21	0.40
41:DR:37:GLU:HB2	41:DR:53:PHE:CE2	2.56	0.40
44:DU:18:LYS:O	44:DU:20:LYS:N	2.53	0.40
45:DV:3:THR:HA	45:DV:62:THR:O	2.21	0.40
45:DV:10:LYS:O	45:DV:10:LYS:HG3	2.21	0.40
49:DZ:40:THR:C	49:DZ:42:ALA:H	2.29	0.40
24:DA:28:A:C6	24:DA:29:U:C2	3.09	0.40
24:DA:308:G:C6	24:DA:309:A:N1	2.89	0.40
24:DA:402:A:C2'	24:DA:403:U:H5'	2.51	0.40
24:DA:459:U:C2	24:DA:460:A:C8	3.10	0.40
24:DA:492:A:O2'	24:DA:493:G:H5'	2.21	0.40
24:DA:527:C:H1'	24:DA:528:A:C6	2.56	0.40
24:DA:829:A:N7	24:DA:2247:A:O2'	2.54	0.40
24:DA:1011:G:HO2'	24:DA:1013:C:H5"	1.83	0.40
24:DA:1056:G:N2	24:DA:1102:C:C5	2.83	0.40
24:DA:1079:C:O2'	24:DA:1080:A:H8	2.02	0.40
24:DA:1204:A:C2	24:DA:1206:G:C2	3.09	0.40
24:DA:1281:G:H2'	24:DA:1282:U:C6	2.56	0.40
24:DA:1616:A:C2	24:DA:1647:U:C5	3.09	0.40
24:DA:1701:A:N7	24:DA:1702:G:C8	2.89	0.40
24:DA:1772:A:C2	24:DA:1980:G:C2	3.09	0.40
24:DA:1974:C:C2	24:DA:1975:G:C8	3.09	0.40
24:DA:2143:C:C5'	24:DA:2144:G:OP2	2.55	0.40
24:DA:2261:C:N3	24:DA:2280:G:C2	2.89	0.40
24:DA:2335:A:O2'	24:DA:2336:A:H2'	2.22	0.40
24:DA:2349:G:O6	24:DA:2350:C:C4	2.74	0.40
24:DA:2627:G:C5	24:DA:2628:C:C5	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2630:G:O2'	24:DA:2631:G:C5'	2.70	0.40
24:DA:2686:G:H2'	24:DA:2687:U:H6	1.85	0.40
1:AB:127:LYS:HG3	1:AB:128:LEU:N	2.36	0.40
5:AF:22:ILE:H	5:AF:22:ILE:CD1	2.34	0.40
6:AG:26:VAL:HG12	6:AG:42:VAL:HG21	2.02	0.40
6:AG:83:THR:HG22	6:AG:85:GLN:N	2.36	0.40
8:AI:83:THR:HG21	8:AI:102:PHE:CB	2.49	0.40
8:AI:104:THR:CG2	8:AI:105:ARG:N	2.83	0.40
8:AI:129:ARG:HH11	8:AI:129:ARG:HA	1.86	0.40
9:AJ:29:ALA:C	9:AJ:31:ARG:N	2.78	0.40
9:AJ:74:VAL:HB	9:AJ:75:ASP:H	1.69	0.40
9:AJ:89:ARG:HB2	9:AJ:89:ARG:NH1	2.36	0.40
14:AO:23:SER:CA	21:AA:751:U:H4'	2.51	0.40
19:AT:66:ILE:CD1	19:AT:70:LYS:HE3	2.52	0.40
20:AU:16:ARG:HH12	20:AU:19:LYS:HG2	1.85	0.40
21:AA:267:C:H2'	21:AA:268:U:C6	2.56	0.40
21:AA:345:C:O2'	34:BK:116:ILE:HD13	2.21	0.40
21:AA:380:G:C2	21:AA:384:G:C6	3.09	0.40
21:AA:469:C:H2'	21:AA:470:C:O4'	2.21	0.40
21:AA:794:A:H2'	21:AA:795:C:C6	2.56	0.40
21:AA:809:G:O2'	21:AA:810:C:H5'	2.21	0.40
21:AA:1009:U:H6	21:AA:1009:U:OP2	2.04	0.40
21:AA:1088:G:O2'	21:AA:1089:G:O5'	2.39	0.40
21:AA:1256:A:H62	21:AA:1278:G:H5"	1.87	0.40
21:AA:1322:C:O2'	21:AA:1323:G:P	2.80	0.40
24:BA:45:G:H5"	24:BA:46:G:OP1	2.20	0.40
24:BA:264:C:C3'	24:BA:265:A:H5"	2.51	0.40
24:BA:571:U:C4	24:BA:575:A:C5	3.08	0.40
24:BA:806:C:H2'	24:BA:807:U:C6	2.56	0.40
24:BA:860:U:H5'	24:BA:860:U:H6	1.86	0.40
24:BA:1084:A:H2'	24:BA:1085:A:H8	1.82	0.40
24:BA:1166:G:C6	24:BA:1167:C:C4	3.08	0.40
24:BA:1181:U:C2'	24:BA:1182:G:C8	3.04	0.40
24:BA:1309:G:C4	24:BA:1310:G:C8	3.09	0.40
24:BA:1310:G:H1'	24:BA:1611:C:H5"	2.03	0.40
24:BA:1494:A:C2'	24:BA:1495:A:C8	3.04	0.40
24:BA:1537:G:N3	24:BA:1537:G:H2'	2.36	0.40
24:BA:1566:A:C6	26:BC:212:TRP:CE3	3.10	0.40
24:BA:1609:A:H5"	59:BA:3654:HOH:O	2.20	0.40
24:BA:1738:G:O2'	24:BA:1739:A:P	2.80	0.40
24:BA:2145:C:OP1	24:BA:2148:G:C6	2.75	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2782:G:N2	24:BA:2783:U:C2	2.90	0.40
24:BA:2868:A:O2'	24:BA:2869:G:O4'	2.34	0.40
26:BC:154:ALA:HB2	26:BC:161:VAL:HG23	2.03	0.40
26:BC:269:ARG:HA	26:BC:269:ARG:HD3	1.82	0.40
27:BD:110:THR:OG1	27:BD:171:THR:HB	2.20	0.40
28:BE:157:LEU:HG	28:BE:157:LEU:O	2.20	0.40
30:BG:86:LEU:HD13	30:BG:130:ILE:HB	2.02	0.40
33:BJ:42:ALA:C	33:BJ:44:TYR:HB3	2.46	0.40
33:BJ:44:TYR:CD2	40:BQ:63:ARG:HG2	2.57	0.40
34:BK:10:VAL:CB	34:BK:16:ALA:HB1	2.51	0.40
34:BK:66:LYS:HA	34:BK:79:PHE:O	2.21	0.40
36:BM:31:PHE:CE2	36:BM:110:GLU:HG2	2.56	0.40
36:BM:68:PHE:CD2	36:BM:68:PHE:C	3.00	0.40
44:BU:15:GLY:C	44:BU:17:ASP:N	2.79	0.40
46:BW:28:GLU:CG	46:BW:29:SER:H	2.33	0.40
48:BY:42:LEU:O	48:BY:45:GLN:O	2.39	0.40
49:BZ:13:ILE:C	49:BZ:15:ARG:N	2.77	0.40
53:B3:21:PHE:O	53:B3:22:LYS:HG2	2.21	0.40
1:CB:71:THR:HA	1:CB:92:ASN:O	2.21	0.40
1:CB:163:ILE:O	1:CB:185:ILE:HG12	2.21	0.40
3:CD:61:ARG:CG	3:CD:71:PHE:CD2	3.04	0.40
6:CG:67:ASN:O	6:CG:137:ARG:CZ	2.69	0.40
6:CG:135:LYS:O	6:CG:139:ASP:N	2.52	0.40
8:CI:6:TYR:CE2	8:CI:17:ARG:HA	2.49	0.40
8:CI:129:ARG:HD2	22:CV:33:U:OP2	2.21	0.40
10:CK:19:VAL:N	10:CK:34:THR:O	2.53	0.40
10:CK:96:ILE:HD13	10:CK:109:ILE:CD1	2.50	0.40
11:CL:53:ARG:HE	11:CL:63:THR:CG2	2.34	0.40
12:CM:2:ARG:NH2	29:DF:109:ARG:HD2	2.36	0.40
12:CM:82:LEU:CD2	18:CS:60:PHE:HB3	2.52	0.40
12:CM:95:PRO:HB3	55:CA:1308:U:OP1	2.22	0.40
18:CS:42:ASN:HB2	18:CS:43:MET:CE	2.52	0.40
20:CU:24:LYS:HD2	20:CU:24:LYS:HA	1.72	0.40
55:CA:39:G:C6	55:CA:40:C:C4	3.09	0.40
55:CA:95:C:HO2'	55:CA:96:U:H5'	1.86	0.40
55:CA:262:A:N6	55:CA:263:A:C6	2.89	0.40
55:CA:355:C:N4	55:CA:356:A:N6	2.69	0.40
55:CA:542:G:C2	55:CA:543:U:C5	3.09	0.40
55:CA:682:G:C2	55:CA:683:G:N7	2.90	0.40
55:CA:763:G:C5	55:CA:764:C:C5	3.09	0.40
55:CA:778:G:H2'	55:CA:779:C:O4'	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CA:929:G:C6	55:CA:930:C:C4	3.10	0.40
55:CA:953:G:C6	55:CA:1229:A:C6	3.09	0.40
55:CA:982:U:C1'	55:CA:983:A:N7	2.77	0.40
55:CA:1049:U:O2'	55:CA:1050:G:P	2.79	0.40
55:CA:1191:A:O2'	55:CA:1192:C:H5'	2.21	0.40
55:CA:1220:G:H2'	55:CA:1221:G:O4'	2.21	0.40
55:CA:1237:C:H2'	55:CA:1238:A:OP1	2.21	0.40
55:CA:1265:C:N4	55:CA:1266:G:C6	2.89	0.40
26:DC:120:ASP:CG	26:DC:121:ALA:N	2.78	0.40
26:DC:244:VAL:HG12	26:DC:249:VAL:C	2.46	0.40
26:DC:245:THR:C	26:DC:247:TRP:N	2.78	0.40
27:DD:16:THR:HG23	27:DD:18:ASP:H	1.86	0.40
27:DD:121:THR:O	27:DD:123:LYS:N	2.54	0.40
27:DD:148:GLN:HG2	27:DD:149:ASN:H	1.86	0.40
27:DD:150:GLN:HE21	27:DD:150:GLN:HB2	1.65	0.40
28:DE:47:LYS:CB	28:DE:51:GLU:HB2	2.42	0.40
29:DF:95:MET:HA	29:DF:98:PHE:HB3	2.03	0.40
29:DF:131:VAL:C	29:DF:133:GLU:N	2.78	0.40
31:DH:22:LYS:C	31:DH:24:GLY:N	2.79	0.40
34:DK:23:LYS:HE2	24:DA:2562:U:H1'	2.02	0.40
35:DL:93:ASN:O	35:DL:95:LEU:HG	2.20	0.40
36:DM:71:LYS:HG3	36:DM:72:PRO:HD2	2.02	0.40
36:DM:86:LYS:O	36:DM:87:GLY:C	2.64	0.40
36:DM:97:GLN:HB2	36:DM:98:PRO:CD	2.51	0.40
41:DR:7:SER:HB2	41:DR:22:LEU:HB2	2.03	0.40
43:DT:43:ILE:HG23	43:DT:44:LYS:N	2.36	0.40
44:DU:18:LYS:C	44:DU:20:LYS:H	2.28	0.40
44:DU:80:ASP:OD1	44:DU:80:ASP:N	2.53	0.40
45:DV:79:ARG:CZ	45:DV:79:ARG:CB	2.97	0.40
46:DW:30:VAL:HG12	24:DA:2352:A:C2	2.56	0.40
46:DW:83:ALA:O	46:DW:84:GLU:HB2	2.22	0.40
48:DY:37:LEU:HD13	48:DY:42:LEU:CD1	2.52	0.40
50:D0:1:ALA:H3	24:DA:2056:G:N2	2.09	0.40
24:DA:139:U:H5"	24:DA:140:C:C5	2.57	0.40
24:DA:163:C:O2'	24:DA:164:C:O5'	2.38	0.40
24:DA:247:G:H4'	24:DA:386:G:C5	2.57	0.40
24:DA:694:U:H4'	24:DA:1378:A:C2	2.55	0.40
24:DA:738:G:C6	24:DA:739:A:C6	3.09	0.40
24:DA:821:A:N7	24:DA:946:C:C4	2.88	0.40
24:DA:832:U:O2'	24:DA:833:A:H5'	2.21	0.40
24:DA:953:G:O2'	24:DA:954:G:H5'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1206:G:C5	24:DA:1207:C:C4	3.09	0.40
24:DA:1219:U:C2	24:DA:1220:G:N7	2.89	0.40
24:DA:1275:A:H4'	24:DA:1276:A:OP1	2.21	0.40
24:DA:1364:G:C2	24:DA:1368:G:C2	3.10	0.40
24:DA:1479:G:H2'	24:DA:1480:C:O4'	2.21	0.40
24:DA:1670:C:C5	24:DA:1671:U:C4	3.09	0.40
24:DA:1885:A:H3'	24:DA:1886:U:C5	2.56	0.40
24:DA:1904:G:C2'	24:DA:1905:C:H5'	2.51	0.40
24:DA:1951:U:H2'	24:DA:1953:A:OP2	2.21	0.40
24:DA:2033:A:H1'	24:DA:2035:G:OP2	2.21	0.40
24:DA:2051:A:H61	24:DA:2614:A:H2'	1.84	0.40
24:DA:2140:G:C4	24:DA:2152:G:C2	3.09	0.40
24:DA:2149:U:H2'	24:DA:2150:C:H6	1.85	0.40
24:DA:2221:G:C2'	24:DA:2222:C:H5'	2.51	0.40
24:DA:2246:G:N2	24:DA:2426:A:H1'	2.36	0.40
24:DA:2259:U:C6	24:DA:2427:C:C5	3.10	0.40
24:DA:2517:C:N3	24:DA:2542:A:C6	2.89	0.40
24:DA:2678:C:H2'	24:DA:2679:A:O4'	2.21	0.40
24:DA:2725:A:C4	24:DA:2727:A:C8	3.08	0.40
56:DB:45:A:H2'	56:DB:46:A:H8	1.69	0.40
1:AB:18:GLN:O	1:AB:37:VAL:HG23	2.21	0.40
2:AC:168:ARG:HD2	2:AC:168:ARG:C	2.46	0.40
3:AD:13:ARG:HG2	3:AD:55:ARG:HH21	1.87	0.40
3:AD:61:ARG:O	3:AD:65:GLY:N	2.49	0.40
4:AE:14:LEU:C	4:AE:15:ILE:HD12	2.46	0.40
5:AF:8:PHE:HA	5:AF:87:SER:HB2	2.03	0.40
6:AG:73:GLU:HA	6:AG:140:VAL:HG12	2.04	0.40
6:AG:112:ASP:HB2	6:AG:118:ARG:CG	2.50	0.40
7:AH:32:LYS:O	7:AH:35:ILE:HB	2.21	0.40
7:AH:105:THR:HB	7:AH:120:LEU:HD22	2.03	0.40
8:AI:83:THR:HB	8:AI:97:LEU:CD2	2.51	0.40
9:AJ:14:ASP:CB	9:AJ:17:LEU:HB3	2.51	0.40
10:AK:63:GLN:HG3	10:AK:98:ALA:HB3	2.03	0.40
10:AK:88:PRO:HD3	20:AU:28:LEU:HD12	2.02	0.40
12:AM:69:ARG:HH22	21:AA:1330:U:C4'	2.31	0.40
13:AN:15:LEU:HD12	13:AN:53:ASP:CB	2.48	0.40
21:AA:52:C:H2'	21:AA:53:A:H8	1.86	0.40
21:AA:298:A:H2'	21:AA:299:G:O4'	2.21	0.40
21:AA:481:G:O2'	21:AA:482:A:C8	2.71	0.40
21:AA:771:G:C6	21:AA:809:G:N1	2.89	0.40
21:AA:833:G:H2'	21:AA:834:U:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:1161:C:O2'	21:AA:1162:C:H5'	2.21	0.40
21:AA:1216:A:C2	21:AA:1217:C:C4	3.10	0.40
24:BA:221:A:N6	24:BA:265:A:C2	2.89	0.40
24:BA:319:G:O2'	24:BA:320:A:H5'	2.22	0.40
24:BA:473:G:H2'	24:BA:473:G:N3	2.36	0.40
24:BA:495:G:C6	24:BA:496:G:C5	3.09	0.40
24:BA:616:A:H4'	28:BE:101:TYR:CE2	2.57	0.40
24:BA:766:U:N3	24:BA:767:U:C4	2.89	0.40
24:BA:933:A:H3'	24:BA:934:U:C5'	2.50	0.40
24:BA:995:C:O2'	24:BA:996:A:P	2.80	0.40
24:BA:1171:G:C6	24:BA:1172:C:C4	3.09	0.40
24:BA:1831:G:C5	24:BA:1832:C:C5	3.10	0.40
24:BA:1999:C:H2'	24:BA:2000:C:O4'	2.21	0.40
24:BA:2397:G:C2	24:BA:2420:C:O2	2.75	0.40
24:BA:2403:C:C2	24:BA:2415:G:C2	3.10	0.40
24:BA:2588:G:O6	24:BA:2607:G:C6	2.75	0.40
24:BA:2666:C:H5"	24:BA:2667:C:OP2	2.20	0.40
24:BA:2799:A:C5	24:BA:2801:G:N7	2.90	0.40
24:BA:2812:G:OP2	24:BA:2812:G:H8	2.04	0.40
26:BC:29:PHE:O	26:BC:30:ALA:C	2.63	0.40
26:BC:219:VAL:O	26:BC:219:VAL:HG12	2.20	0.40
27:BD:190:LYS:O	27:BD:190:LYS:HG3	2.21	0.40
28:BE:111:GLU:OE2	28:BE:114:ARG:HD2	2.21	0.40
28:BE:113:VAL:HG12	28:BE:114:ARG:N	2.36	0.40
29:BF:13:LYS:HD2	29:BF:13:LYS:C	2.46	0.40
29:BF:107:VAL:N	29:BF:108:PRO:HD2	2.36	0.40
30:BG:18:ILE:O	30:BG:18:ILE:HG12	2.18	0.40
32:BI:40:ALA:HB3	32:BI:68:PHE:CE1	2.56	0.40
32:BI:58:ILE:HG23	32:BI:66:PHE:CD1	2.57	0.40
34:BK:51:LYS:HD2	34:BK:51:LYS:O	2.21	0.40
35:BL:64:PHE:CD1	35:BL:64:PHE:C	2.99	0.40
41:BR:8:GLY:C	41:BR:10:LYS:HD2	2.46	0.40
41:BR:48:LYS:HD2	41:BR:48:LYS:H	1.85	0.40
44:BU:73:ASN:HD21	44:BU:76:THR:HG23	1.74	0.40
46:BW:37:VAL:O	46:BW:38:ARG:C	2.63	0.40
50:B0:16:ARG:O	50:B0:17:SER:C	2.63	0.40
1:CB:68:PHE:CE2	1:CB:213:LEU:CD1	3.04	0.40
1:CB:151:LYS:C	1:CB:153:MET:N	2.79	0.40
3:CD:190:LEU:O	3:CD:190:LEU:HD23	2.21	0.40
5:CF:80:PHE:N	5:CF:80:PHE:CD1	2.89	0.40
7:CH:49:LYS:O	7:CH:59:GLU:HB3	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CH:78:SER:HA	7:CH:84:ILE:HG12	2.03	0.40
8:CI:95:SER:C	8:CI:97:LEU:H	2.28	0.40
9:CJ:7:ARG:HB2	9:CJ:101:SER:O	2.20	0.40
12:CM:61:LYS:O	12:CM:62:PHE:CB	2.67	0.40
15:CP:54:LEU:HD23	15:CP:54:LEU:N	2.36	0.40
19:CT:61:ALA:O	19:CT:67:HIS:HA	2.21	0.40
55:CA:455:G:C2	55:CA:478:A:N1	2.90	0.40
55:CA:766:A:H2'	55:CA:767:A:O4'	2.22	0.40
55:CA:928:G:H5'	55:CA:1503:A:H62	1.86	0.40
55:CA:1095:U:H2'	55:CA:1096:C:C5	2.55	0.40
55:CA:1349:A:C2'	55:CA:1350:A:H8	2.26	0.40
55:CA:1363:A:C2'	55:CA:1365:G:N7	2.84	0.40
26:DC:103:ILE:CG1	26:DC:104:LEU:N	2.84	0.40
26:DC:177:SER:O	26:DC:270:ARG:HG3	2.21	0.40
26:DC:220:ARG:HD3	24:DA:1789:A:P	2.61	0.40
27:DD:10:GLY:HA3	27:DD:26:VAL:HB	2.04	0.40
27:DD:98:VAL:O	27:DD:99:GLU:C	2.64	0.40
27:DD:161:MET:CE	24:DA:2050:C:H1'	2.52	0.40
27:DD:194:PRO:HB2	27:DD:195:GLY:H	1.67	0.40
28:DE:40:ARG:CZ	28:DE:92:HIS:NE2	2.85	0.40
28:DE:147:LEU:CB	28:DE:186:VAL:HA	2.51	0.40
29:DF:11:VAL:O	29:DF:13:LYS:HD2	2.21	0.40
31:DH:78:VAL:HG11	31:DH:144:VAL:HG12	2.03	0.40
33:DJ:88:THR:O	33:DJ:89:PHE:C	2.63	0.40
34:DK:93:GLN:HA	34:DK:94:PRO:HD2	1.85	0.40
35:DL:131:ALA:O	35:DL:135:ILE:HG22	2.20	0.40
36:DM:17:ASN:OD1	36:DM:95:LEU:HB3	2.22	0.40
37:DN:96:ARG:NH1	37:DN:116:VAL:HG13	2.36	0.40
37:DN:100:CYS:O	50:D0:41:HIS:HD2	2.04	0.40
40:DQ:91:ARG:HD2	24:DA:996:A:C4'	2.32	0.40
44:DU:33:VAL:O	44:DU:34:ILE:CG1	2.70	0.40
48:DY:45:GLN:C	48:DY:47:ARG:H	2.28	0.40
24:DA:37:C:O2'	24:DA:38:A:H5'	2.21	0.40
24:DA:136:G:N2	24:DA:144:A:C2	2.89	0.40
24:DA:207:A:H2'	24:DA:208:C:O4'	2.22	0.40
24:DA:229:C:HO2'	24:DA:230:G:P	2.44	0.40
24:DA:339:U:H2'	24:DA:340:A:C8	2.56	0.40
24:DA:370:G:C6	24:DA:424:G:C5	3.09	0.40
24:DA:600:G:N2	24:DA:605:G:O3'	2.54	0.40
24:DA:605:G:H2'	24:DA:606:U:H6	1.86	0.40
24:DA:625:G:C4	24:DA:626:A:C8	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:952:G:C2	24:DA:966:G:C2	3.09	0.40
24:DA:1286:A:C6	24:DA:1329:U:C2	3.09	0.40
24:DA:1312:U:HO2'	24:DA:1314:C:H41	1.59	0.40
24:DA:1328:A:O3'	24:DA:1329:U:H6	2.03	0.40
24:DA:1336:A:N3	24:DA:1336:A:H2'	2.35	0.40
24:DA:2250:G:O5'	24:DA:2250:G:C8	2.61	0.40
24:DA:2312:U:OP1	24:DA:2312:U:H4'	2.21	0.40
24:DA:2345:G:O6	24:DA:2347:C:N4	2.54	0.40
24:DA:2459:A:N3	24:DA:2459:A:C2'	2.83	0.40
24:DA:2570:G:C6	24:DA:2571:U:C4	3.09	0.40
24:DA:2748:A:C2	24:DA:2757:A:C5	3.10	0.40
24:DA:2815:C:C2	24:DA:2816:G:N7	2.90	0.40
2:AC:6:PRO:HB3	2:AC:174:LEU:CD1	2.52	0.40
2:AC:39:ARG:HG2	2:AC:54:ILE:CD1	2.48	0.40
2:AC:131:ARG:HH21	2:AC:135:ARG:HH21	1.68	0.40
4:AE:38:VAL:CG1	4:AE:66:ALA:HB1	2.42	0.40
6:AG:89:GLU:H	6:AG:89:GLU:CD	2.29	0.40
10:AK:22:ILE:CD1	10:AK:95:THR:HG21	2.51	0.40
10:AK:30:ILE:HG22	10:AK:45:THR:HB	2.03	0.40
13:AN:11:LYS:HB2	13:AN:11:LYS:NZ	2.37	0.40
15:AP:6:LEU:CD1	15:AP:71:VAL:HG22	2.51	0.40
15:AP:76:LYS:HD3	15:AP:76:LYS:HA	1.92	0.40
16:AQ:4:ILE:HG22	16:AQ:5:ARG:HG3	2.02	0.40
21:AA:511:C:N3	21:AA:541:G:C2	2.89	0.40
21:AA:582:C:N3	21:AA:583:A:C8	2.90	0.40
21:AA:632:U:H5"	21:AA:633:G:C8	2.56	0.40
21:AA:727:G:N2	21:AA:731:G:C4	2.89	0.40
21:AA:953:G:C2	21:AA:1229:A:C2	3.09	0.40
21:AA:1094:G:O2'	21:AA:1095:U:P	2.79	0.40
21:AA:1172:C:C2	21:AA:1173:U:C5	3.09	0.40
21:AA:1238:A:H2	21:AA:1241:G:N3	2.19	0.40
24:BA:6:A:O3'	33:BJ:132:HIS:CE1	2.75	0.40
24:BA:15:G:O2'	24:BA:16:C:H5'	2.21	0.40
24:BA:141:G:H3'	24:BA:142:A:H5"	2.03	0.40
24:BA:287:G:H2'	24:BA:288:U:C6	2.56	0.40
24:BA:478:A:N1	24:BA:480:A:C5	2.89	0.40
24:BA:571:U:C2	24:BA:575:A:N7	2.89	0.40
24:BA:611:C:C2	24:BA:618:G:C2	3.09	0.40
24:BA:860:U:C2	24:BA:2268:A:C8	3.09	0.40
24:BA:920:A:N3	24:BA:921:C:C6	2.90	0.40
24:BA:980:A:C5	24:BA:981:A:C6	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1083:U:C6	24:BA:1085:A:OP2	2.74	0.40
24:BA:1149:G:O2'	24:BA:1150:C:H5'	2.22	0.40
24:BA:1236:G:O2'	24:BA:1237:A:C8	2.74	0.40
24:BA:1333:G:H2'	24:BA:1334:G:C8	2.56	0.40
24:BA:1461:C:O2'	24:BA:1462:C:C5'	2.70	0.40
24:BA:1501:G:O2'	24:BA:1502:A:H5'	2.21	0.40
24:BA:1565:C:C2	24:BA:1567:G:C8	3.10	0.40
24:BA:1778:U:O2'	24:BA:1779:U:H5'	2.20	0.40
24:BA:1782:U:H5'	24:BA:2609:U:N3	2.36	0.40
24:BA:1889:A:C2	24:BA:1890:A:C2	3.09	0.40
24:BA:1998:A:O2'	24:BA:1999:C:H5'	2.21	0.40
24:BA:2024:G:C2	24:BA:2025:C:C2	3.10	0.40
24:BA:2145:C:P	24:BA:2148:G:C6	3.14	0.40
24:BA:2310:C:H6	24:BA:2310:C:O5'	2.05	0.40
24:BA:2320:U:H4'	24:BA:2321:U:C6	2.55	0.40
24:BA:2350:C:H2'	24:BA:2351:G:C5'	2.50	0.40
24:BA:2550:G:P	59:BA:3729:HOH:O	2.79	0.40
24:BA:2694:G:C2	24:BA:2716:C:O2	2.74	0.40
24:BA:2749:A:C8	24:BA:2750:A:C8	3.10	0.40
24:BA:2837:A:N6	24:BA:2882:A:N6	2.70	0.40
24:BA:2849:U:N3	24:BA:2867:G:O4'	2.49	0.40
24:BA:2897:U:H2'	24:BA:2898:U:O4'	2.22	0.40
25:BB:101:A:H2'	25:BB:102:G:O4'	2.21	0.40
26:BC:139:THR:O	26:BC:161:VAL:O	2.40	0.40
27:BD:129:THR:HG23	27:BD:140:HIS:O	2.21	0.40
30:BG:74:MET:O	30:BG:75:VAL:C	2.63	0.40
31:BH:14:SER:OG	31:BH:17:ASP:HB2	2.21	0.40
33:BJ:121:LYS:HB2	33:BJ:121:LYS:HE3	1.70	0.40
34:BK:21:CYS:CA	34:BK:41:ILE:HD12	2.36	0.40
34:BK:93:GLN:HG3	34:BK:94:PRO:HD2	2.03	0.40
34:BK:110:GLU:C	34:BK:112:PHE:H	2.29	0.40
35:BL:90:VAL:O	35:BL:90:VAL:HG12	2.20	0.40
35:BL:93:ASN:C	35:BL:95:LEU:N	2.79	0.40
35:BL:120:VAL:O	35:BL:140:GLY:CA	2.69	0.40
37:BN:51:LEU:HD12	37:BN:51:LEU:HA	1.63	0.40
40:BQ:73:ILE:HD11	40:BQ:77:LYS:HB3	2.04	0.40
42:BS:25:ARG:NE	42:BS:73:LYS:HZ1	2.16	0.40
43:BT:8:LEU:N	43:BT:8:LEU:HD23	2.37	0.40
43:BT:38:ALA:HB3	43:BT:81:LYS:HE2	2.03	0.40
44:BU:5:ARG:O	44:BU:8:ASP:HB2	2.21	0.40
44:BU:94:PHE:CB	44:BU:101:THR:HA	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BV:1:MET:HE3	45:BV:1:MET:HB2	1.87	0.40
46:BW:47:GLY:C	46:BW:49:ASN:H	2.29	0.40
49:BZ:8:GLN:HB3	49:BZ:31:ILE:HA	2.03	0.40
1:CB:9:LEU:HD12	1:CB:11:ALA:C	2.46	0.40
1:CB:22:TRP:HE1	55:CA:830:G:H5'	1.87	0.40
1:CB:65:LYS:NZ	1:CB:153:MET:O	2.54	0.40
2:CC:138:GLN:O	2:CC:140:ALA:N	2.52	0.40
3:CD:1:ALA:O	3:CD:2:ARG:O	2.39	0.40
3:CD:2:ARG:NE	3:CD:114:ARG:HD3	2.36	0.40
3:CD:99:ASN:HD21	3:CD:103:ARG:HG3	1.85	0.40
4:CE:115:GLU:O	4:CE:115:GLU:HG3	2.21	0.40
6:CG:94:ARG:HB3	6:CG:98:LEU:HG	2.02	0.40
8:CI:6:TYR:CG	8:CI:7:GLY:N	2.89	0.40
11:CL:79:ILE:HD12	11:CL:96:THR:CG2	2.52	0.40
11:CL:101:LEU:HD13	11:CL:101:LEU:HA	1.91	0.40
16:CQ:16:MET:HB3	55:CA:254:G:H1'	2.01	0.40
55:CA:374:A:OP1	55:CA:452:A:N1	2.55	0.40
55:CA:541:G:H2'	55:CA:542:G:O4'	2.21	0.40
55:CA:929:G:C5	55:CA:930:C:C5	3.09	0.40
55:CA:1056:U:O2'	55:CA:1057:G:H5'	2.22	0.40
55:CA:1069:C:C4	55:CA:1070:U:C5	3.09	0.40
55:CA:1075:U:H2'	55:CA:1076:U:C6	2.57	0.40
55:CA:1194:U:H2'	55:CA:1195:C:H6	1.86	0.40
55:CA:1265:C:C3'	55:CA:1266:G:H5'	2.50	0.40
55:CA:1272:G:H2'	55:CA:1273:C:H5'	2.04	0.40
55:CA:1453:G:H2'	55:CA:1454:G:O4'	2.22	0.40
26:DC:40:GLY:HA3	24:DA:691:C:O2'	2.22	0.40
26:DC:110:LYS:HB3	26:DC:113:ASP:CG	2.46	0.40
27:DD:175:LEU:O	27:DD:176:ASP:HB2	2.21	0.40
29:DF:110:ILE:HB	29:DF:113:PHE:HB2	2.02	0.40
30:DG:7:PRO:HB3	30:DG:48:THR:HB	2.04	0.40
31:DH:2:GLN:O	31:DH:3:VAL:C	2.63	0.40
31:DH:75:LEU:O	31:DH:76:GLU:HB2	2.20	0.40
33:DJ:48:VAL:HG12	33:DJ:49:ASP:N	2.36	0.40
37:DN:28:LEU:HD21	37:DN:115:LEU:CD2	2.32	0.40
38:DO:17:LYS:O	38:DO:17:LYS:HE3	2.22	0.40
39:DP:57:ALA:HB1	39:DP:73:PHE:O	2.21	0.40
42:DS:4:ILE:HG21	42:DS:106:VAL:HG22	2.03	0.40
44:DU:16:LYS:HD3	44:DU:17:ASP:OD1	2.22	0.40
45:DV:80:HIS:HA	45:DV:81:PRO:HD3	1.93	0.40
47:DX:2:ARG:HA	47:DX:2:ARG:HD3	1.94	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DX:62:GLY:O	47:DX:63:ILE:C	2.65	0.40
48:DY:43:LEU:HD22	48:DY:43:LEU:H	1.87	0.40
24:DA:95:A:C5	24:DA:96:C:C6	3.08	0.40
24:DA:319:G:H2'	24:DA:320:A:O4'	2.22	0.40
24:DA:418:C:H2'	24:DA:419:U:C6	2.56	0.40
24:DA:447:A:C4	24:DA:473:G:N7	2.90	0.40
24:DA:693:A:C6	24:DA:694:U:C4	3.09	0.40
24:DA:743:A:H2'	24:DA:744:U:O4'	2.22	0.40
24:DA:790:U:H6	24:DA:790:U:H2'	1.49	0.40
24:DA:969:G:C2	24:DA:970:U:C2	3.09	0.40
24:DA:1112:G:H2'	24:DA:1113:U:C5	2.53	0.40
24:DA:1142:A:C5	24:DA:1144:A:C5	3.09	0.40
24:DA:1264:A:C6	24:DA:1265:A:N6	2.90	0.40
24:DA:1274:A:O5'	24:DA:1274:A:H8	2.03	0.40
24:DA:1278:C:O2'	24:DA:1279:G:H5'	2.22	0.40
24:DA:1378:A:N7	24:DA:1380:G:C6	2.90	0.40
24:DA:1492:G:C6	24:DA:1496:A:C6	3.10	0.40
24:DA:1557:C:H2'	24:DA:1558:C:C6	2.56	0.40
24:DA:1698:A:H1'	24:DA:1700:A:OP2	2.21	0.40
24:DA:2024:G:C6	24:DA:2040:G:C2	3.09	0.40
24:DA:2037:A:H2'	24:DA:2038:G:C8	2.56	0.40
24:DA:2082:A:H8	24:DA:2082:A:O5'	2.04	0.40
24:DA:2199:A:C4	24:DA:2200:C:C6	3.09	0.40
24:DA:2740:A:C5	24:DA:2764:A:C5	3.09	0.40
24:DA:2743:U:H2'	24:DA:2744:G:O5'	2.21	0.40
24:DA:2848:G:O2'	24:DA:2849:U:O5'	2.39	0.40
56:DB:49:C:O5'	56:DB:49:C:H6	2.05	0.40
1:AB:19:THR:HG23	1:AB:20:ARG:H	1.84	0.40
1:AB:76:SER:O	1:AB:92:ASN:HB2	2.22	0.40
1:AB:79:VAL:O	1:AB:83:ALA:HB3	2.22	0.40
2:AC:16:PRO:O	2:AC:17:TRP:HB2	2.21	0.40
4:AE:32:PHE:HD2	4:AE:54:GLU:C	2.28	0.40
4:AE:80:LEU:CD1	4:AE:84:VAL:HG12	2.51	0.40
6:AG:65:LEU:C	6:AG:67:ASN:H	2.27	0.40
16:AQ:4:ILE:O	16:AQ:5:ARG:O	2.39	0.40
17:AR:38:ILE:HD13	17:AR:58:ILE:HD12	2.04	0.40
18:AS:35:ARG:NH1	21:AA:1321:U:O2	2.55	0.40
21:AA:75:G:N3	21:AA:76:G:H1'	2.37	0.40
21:AA:150:U:N3	21:AA:170:U:N3	2.69	0.40
21:AA:279:A:N3	21:AA:281:G:N2	2.70	0.40
21:AA:329:A:C8	21:AA:332:G:C6	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AA:438:U:C6	21:AA:494:G:C6	3.09	0.40
21:AA:494:G:N3	21:AA:496:A:C8	2.90	0.40
21:AA:500:G:H8	21:AA:500:G:O5'	2.05	0.40
21:AA:510:A:OP2	59:AA:1722:HOH:O	2.21	0.40
21:AA:724:G:N2	21:AA:725:G:C4	2.89	0.40
21:AA:938:A:C4	21:AA:939:G:C8	3.10	0.40
21:AA:985:C:O2'	21:AA:986:U:H5'	2.21	0.40
21:AA:1054:C:O2	21:AA:1196:A:N7	2.54	0.40
21:AA:1088:G:HO2'	21:AA:1089:G:P	2.43	0.40
21:AA:1160:G:O6	21:AA:1181:G:O6	2.39	0.40
21:AA:1319:A:C5	21:AA:1323:G:C5	3.09	0.40
24:BA:279:A:C4	24:BA:280:U:C6	3.09	0.40
24:BA:301:G:C2	24:BA:317:G:C4	3.09	0.40
24:BA:483:A:O2'	24:BA:484:C:H5'	2.22	0.40
24:BA:509:C:H5"	24:BA:509:C:C6	2.54	0.40
24:BA:659:G:C6	24:BA:660:C:C4	3.10	0.40
24:BA:738:G:C2	24:BA:759:G:C5	3.10	0.40
24:BA:752:A:N6	24:BA:2609:U:H3	2.17	0.40
24:BA:947:A:O2'	24:BA:948:C:H5'	2.21	0.40
24:BA:1155:A:C5	24:BA:1157:G:C5	3.10	0.40
24:BA:1178:C:O2	24:BA:1178:C:C2'	2.69	0.40
24:BA:1289:C:C2	24:BA:1290:C:C5	3.10	0.40
24:BA:1445:G:C6	24:BA:1446:C:C4	3.09	0.40
24:BA:1486:U:O2	24:BA:1504:A:C2	2.75	0.40
24:BA:1853:A:N6	24:BA:1889:A:C8	2.89	0.40
24:BA:1857:G:HO2'	24:BA:1858:A:H8	1.60	0.40
24:BA:2065:C:H2'	24:BA:2066:C:H6	1.86	0.40
24:BA:2303:G:C5	24:BA:2304:G:N7	2.89	0.40
24:BA:2321:U:H3'	24:BA:2322:A:H5'	2.04	0.40
24:BA:2536:G:C6	24:BA:2537:U:C4	3.09	0.40
24:BA:2552:U:H2'	24:BA:2554:U:OP2	2.21	0.40
24:BA:2557:G:C2	24:BA:2558:C:C2	3.09	0.40
24:BA:2663:G:C6	24:BA:2664:G:C5	3.09	0.40
24:BA:2814:A:O5'	24:BA:2814:A:H8	2.05	0.40
24:BA:2896:C:H2'	24:BA:2897:U:H6	1.87	0.40
26:BC:105:ALA:HA	26:BC:106:PRO:HD2	1.82	0.40
26:BC:257:ARG:HG3	26:BC:269:ARG:HH22	1.87	0.40
27:BD:76:GLY:O	27:BD:77:ARG:C	2.65	0.40
29:BF:10:GLU:O	29:BF:11:VAL:CB	2.69	0.40
31:BH:33:GLN:HB2	31:BH:33:GLN:HE21	1.70	0.40
32:BI:135:MET:HE3	32:BI:135:MET:HB3	1.93	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BJ:18:VAL:CG2	33:BJ:140:LEU:HD11	2.51	0.40
35:BL:35:HIS:O	59:BL:202:HOH:O	2.22	0.40
36:BM:136:MET:HE2	45:BV:57:TYR:CD2	2.55	0.40
38:BO:31:THR:HG22	38:BO:34:HIS:O	2.22	0.40
43:BT:23:ALA:C	43:BT:25:GLU:N	2.79	0.40
44:BU:100:GLU:O	44:BU:101:THR:CB	2.70	0.40
45:BV:55:GLU:H	45:BV:55:GLU:HG3	1.60	0.40
46:BW:37:VAL:CG1	46:BW:55:ASP:O	2.70	0.40
2:CC:123:LEU:HD21	2:CC:129:PHE:HB3	2.02	0.40
4:CE:80:LEU:HD21	4:CE:143:LEU:HD21	2.03	0.40
4:CE:82:HIS:HD1	7:CH:95:MET:HG2	1.86	0.40
5:CF:98:GLU:O	5:CF:99:ALA:CB	2.69	0.40
6:CG:123:LEU:C	6:CG:125:ASP:N	2.76	0.40
9:CJ:59:LYS:HE2	55:CA:972:C:C4'	2.51	0.40
10:CK:15:VAL:HG13	10:CK:36:ARG:NH1	2.34	0.40
10:CK:39:ASN:HA	55:CA:683:G:N2	2.37	0.40
10:CK:89:GLY:O	10:CK:90:PRO:O	2.39	0.40
10:CK:90:PRO:O	10:CK:91:GLY:C	2.65	0.40
11:CL:109:ARG:HD2	11:CL:109:ARG:HA	1.91	0.40
14:CO:52:ARG:NH1	24:DA:715:A:N1	2.70	0.40
15:CP:44:SER:H	15:CP:46:LYS:HZ3	1.69	0.40
15:CP:54:LEU:HG	15:CP:55:ASP:N	2.36	0.40
15:CP:65:ALA:C	15:CP:66:THR:O	2.64	0.40
17:CR:24:ASP:O	17:CR:26:ALA:N	2.55	0.40
18:CS:33:TRP:NE1	18:CS:56:HIS:HE1	2.18	0.40
18:CS:50:VAL:O	18:CS:56:HIS:HA	2.22	0.40
19:CT:69:ASN:ND2	19:CT:69:ASN:C	2.77	0.40
55:CA:57:G:C6	55:CA:58:C:C4	3.10	0.40
55:CA:184:G:H2'	55:CA:185:U:C6	2.56	0.40
55:CA:772:U:H2'	55:CA:773:G:O4'	2.21	0.40
55:CA:1096:C:O2'	55:CA:1097:C:P	2.78	0.40
55:CA:1169:A:H2'	55:CA:1170:A:N7	2.34	0.40
55:CA:1223:C:N4	55:CA:1224:U:H5	2.18	0.40
55:CA:1376:U:H2'	55:CA:1377:A:H8	1.86	0.40
26:DC:69:ASN:O	26:DC:70:LYS:C	2.65	0.40
28:DE:147:LEU:HD21	28:DE:179:SER:HB2	2.03	0.40
30:DG:42:VAL:HA	30:DG:51:PHE:HD1	1.86	0.40
34:DK:4:GLU:O	34:DK:5:GLN:CB	2.70	0.40
38:DO:8:ILE:H	38:DO:8:ILE:CD1	2.29	0.40
39:DP:52:ARG:HD3	39:DP:52:ARG:HA	1.76	0.40
42:DS:65:ASP:C	42:DS:67:ASP:N	2.78	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DW:61:LYS:HE2	24:DA:2366:A:H4'	2.04	0.40
48:DY:40:SER:C	48:DY:42:LEU:N	2.79	0.40
50:D0:15:ARG:HH22	24:DA:1264:A:H5"	1.87	0.40
53:D3:27:ASN:N	24:DA:2393:U:OP1	2.55	0.40
24:DA:247:G:N7	24:DA:249:C:H1'	2.36	0.40
24:DA:352:A:H2'	24:DA:353:C:H4'	2.02	0.40
24:DA:452:G:C2	24:DA:458:G:C5	3.10	0.40
24:DA:510:C:O5'	24:DA:510:C:H6	2.04	0.40
24:DA:513:A:O5'	24:DA:513:A:H8	2.03	0.40
24:DA:604:G:N2	24:DA:605:G:C5	2.90	0.40
24:DA:604:G:C6	24:DA:625:G:N1	2.90	0.40
24:DA:648:G:C2	24:DA:649:G:C5	3.09	0.40
24:DA:654:A:H2'	24:DA:655:A:O5'	2.22	0.40
24:DA:811:U:H5"	59:DA:3346:HOH:O	2.21	0.40
24:DA:841:G:O2'	24:DA:842:U:H5'	2.21	0.40
24:DA:1141:U:H4'	24:DA:1142:A:O4'	2.22	0.40
24:DA:1171:G:C6	24:DA:1179:G:C2	3.10	0.40
24:DA:1201:U:H2'	24:DA:1202:G:C8	2.57	0.40
24:DA:1307:A:C4	24:DA:1308:A:C8	3.10	0.40
24:DA:1548:A:N1	24:DA:1549:A:C5	2.90	0.40
24:DA:1554:U:H5"	24:DA:1555:G:OP2	2.22	0.40
24:DA:1652:A:C2	24:DA:2006:C:N3	2.89	0.40
24:DA:1665:A:C2'	24:DA:1666:G:H5'	2.52	0.40
24:DA:1728:C:H2'	24:DA:1730:C:O2	2.22	0.40
24:DA:1889:A:N3	24:DA:2086:U:O2'	2.49	0.40
24:DA:2056:G:N2	24:DA:2057:G:N9	2.69	0.40
24:DA:2291:U:H5"	24:DA:2380:C:O2'	2.21	0.40
24:DA:2330:G:N1	24:DA:2386:A:N6	2.69	0.40
24:DA:2345:G:C5	24:DA:2347:C:N4	2.90	0.40
24:DA:2407:A:C4	24:DA:2408:U:C5	3.10	0.40
24:DA:2637:U:O4	24:DA:2638:G:C2	2.75	0.40
56:DB:47:C:H5"	56:DB:48:U:OP2	2.22	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
1	AB	216/241 (90%)	128 (59%)	60 (28%)	28 (13%)	0 3
1	CB	216/241 (90%)	145 (67%)	49 (23%)	22 (10%)	0 7
2	AC	204/233 (88%)	139 (68%)	51 (25%)	14 (7%)	1 13
2	CC	204/233 (88%)	146 (72%)	41 (20%)	17 (8%)	0 10
3	AD	203/206 (98%)	126 (62%)	52 (26%)	25 (12%)	0 4
3	CD	203/206 (98%)	141 (70%)	40 (20%)	22 (11%)	0 6
4	AE	148/167 (89%)	100 (68%)	31 (21%)	17 (12%)	0 5
4	CE	148/167 (89%)	98 (66%)	37 (25%)	13 (9%)	0 9
5	AF	98/135 (73%)	62 (63%)	25 (26%)	11 (11%)	0 5
5	CF	98/135 (73%)	65 (66%)	21 (21%)	12 (12%)	0 4
6	AG	149/179 (83%)	109 (73%)	29 (20%)	11 (7%)	1 12
6	CG	148/179 (83%)	80 (54%)	44 (30%)	24 (16%)	0 2
7	AH	127/130 (98%)	97 (76%)	22 (17%)	8 (6%)	1 14
7	CH	127/130 (98%)	96 (76%)	24 (19%)	7 (6%)	1 16
8	AI	125/130 (96%)	80 (64%)	34 (27%)	11 (9%)	0 9
8	CI	125/130 (96%)	86 (69%)	33 (26%)	6 (5%)	2 18
9	AJ	96/103 (93%)	69 (72%)	12 (12%)	15 (16%)	0 2
9	CJ	96/103 (93%)	61 (64%)	20 (21%)	15 (16%)	0 2
10	AK	115/129 (89%)	86 (75%)	22 (19%)	7 (6%)	1 15
10	CK	115/129 (89%)	74 (64%)	31 (27%)	10 (9%)	0 9
11	AL	121/124 (98%)	80 (66%)	24 (20%)	17 (14%)	0 3
11	CL	121/124 (98%)	86 (71%)	25 (21%)	10 (8%)	0 10
12	AM	112/118 (95%)	87 (78%)	16 (14%)	9 (8%)	1 11
12	CM	111/118 (94%)	65 (59%)	30 (27%)	16 (14%)	0 3
13	AN	92/101 (91%)	58 (63%)	25 (27%)	9 (10%)	0 7
13	CN	91/101 (90%)	59 (65%)	24 (26%)	8 (9%)	0 9
14	AO	86/89 (97%)	64 (74%)	17 (20%)	5 (6%)	1 15
14	CO	86/89 (97%)	72 (84%)	13 (15%)	1 (1%)	10 40
15	AP	80/82 (98%)	54 (68%)	15 (19%)	11 (14%)	0 3

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
15	CP	78/82 (95%)	56 (72%)	14 (18%)	8 (10%)	0 7
16	AQ	78/84 (93%)	48 (62%)	21 (27%)	9 (12%)	0 5
16	CQ	78/84 (93%)	59 (76%)	13 (17%)	6 (8%)	1 11
17	AR	53/75 (71%)	40 (76%)	11 (21%)	2 (4%)	2 21
17	CR	53/75 (71%)	44 (83%)	6 (11%)	3 (6%)	1 16
18	AS	77/92 (84%)	67 (87%)	6 (8%)	4 (5%)	1 17
18	CS	77/92 (84%)	54 (70%)	19 (25%)	4 (5%)	1 17
19	AT	83/87 (95%)	55 (66%)	21 (25%)	7 (8%)	0 9
19	CT	83/87 (95%)	59 (71%)	21 (25%)	3 (4%)	2 22
20	AU	49/71 (69%)	22 (45%)	18 (37%)	9 (18%)	0 1
20	CU	49/71 (69%)	20 (41%)	17 (35%)	12 (24%)	0 0
26	BC	269/273 (98%)	184 (68%)	59 (22%)	26 (10%)	0 8
26	DC	269/273 (98%)	181 (67%)	60 (22%)	28 (10%)	0 6
27	BD	207/209 (99%)	141 (68%)	32 (16%)	34 (16%)	0 2
27	DD	207/209 (99%)	132 (64%)	45 (22%)	30 (14%)	0 3
28	BE	199/201 (99%)	151 (76%)	24 (12%)	24 (12%)	0 4
28	DE	199/201 (99%)	130 (65%)	43 (22%)	26 (13%)	0 3
29	BF	175/179 (98%)	133 (76%)	25 (14%)	17 (10%)	0 8
29	DF	176/179 (98%)	97 (55%)	45 (26%)	34 (19%)	0 1
30	BG	174/177 (98%)	112 (64%)	35 (20%)	27 (16%)	0 2
30	DG	174/177 (98%)	105 (60%)	41 (24%)	28 (16%)	0 2
31	BH	147/149 (99%)	62 (42%)	54 (37%)	31 (21%)	0 1
31	DH	147/149 (99%)	76 (52%)	50 (34%)	21 (14%)	0 3
32	BI	139/142 (98%)	84 (60%)	44 (32%)	11 (8%)	1 11
32	DI	139/142 (98%)	81 (58%)	39 (28%)	19 (14%)	0 3
33	BJ	140/142 (99%)	106 (76%)	20 (14%)	14 (10%)	0 7
33	DJ	140/142 (99%)	95 (68%)	33 (24%)	12 (9%)	0 9
34	BK	120/123 (98%)	84 (70%)	18 (15%)	18 (15%)	0 2
34	DK	120/123 (98%)	80 (67%)	21 (18%)	19 (16%)	0 2
35	BL	141/144 (98%)	101 (72%)	28 (20%)	12 (8%)	0 9
35	DL	141/144 (98%)	83 (59%)	37 (26%)	21 (15%)	0 3

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
36	BM	134/136 (98%)	94 (70%)	25 (19%)	15 (11%)	0 5
36	DM	134/136 (98%)	92 (69%)	25 (19%)	17 (13%)	0 4
37	BN	118/127 (93%)	87 (74%)	21 (18%)	10 (8%)	0 9
37	DN	118/127 (93%)	71 (60%)	35 (30%)	12 (10%)	0 7
38	BO	114/117 (97%)	79 (69%)	26 (23%)	9 (8%)	1 11
38	DO	114/117 (97%)	76 (67%)	29 (25%)	9 (8%)	1 11
39	BP	112/115 (97%)	71 (63%)	22 (20%)	19 (17%)	0 2
39	DP	112/115 (97%)	67 (60%)	28 (25%)	17 (15%)	0 2
40	BQ	115/118 (98%)	88 (76%)	18 (16%)	9 (8%)	1 11
40	DQ	115/118 (98%)	79 (69%)	26 (23%)	10 (9%)	0 9
41	BR	101/103 (98%)	79 (78%)	14 (14%)	8 (8%)	1 11
41	DR	101/103 (98%)	72 (71%)	19 (19%)	10 (10%)	0 7
42	BS	108/110 (98%)	76 (70%)	27 (25%)	5 (5%)	2 19
42	DS	108/110 (98%)	81 (75%)	18 (17%)	9 (8%)	0 10
43	BT	91/100 (91%)	53 (58%)	23 (25%)	15 (16%)	0 2
43	DT	91/100 (91%)	48 (53%)	28 (31%)	15 (16%)	0 2
44	BU	100/104 (96%)	71 (71%)	13 (13%)	16 (16%)	0 2
44	DU	100/104 (96%)	51 (51%)	28 (28%)	21 (21%)	0 1
45	BV	92/94 (98%)	75 (82%)	15 (16%)	2 (2%)	5 30
45	DV	92/94 (98%)	59 (64%)	26 (28%)	7 (8%)	1 11
46	BW	77/85 (91%)	29 (38%)	22 (29%)	26 (34%)	0 0
46	DW	77/85 (91%)	32 (42%)	27 (35%)	18 (23%)	0 0
47	BX	75/78 (96%)	59 (79%)	13 (17%)	3 (4%)	2 21
47	DX	75/78 (96%)	48 (64%)	21 (28%)	6 (8%)	1 11
48	BY	61/63 (97%)	36 (59%)	17 (28%)	8 (13%)	0 3
48	DY	61/63 (97%)	44 (72%)	12 (20%)	5 (8%)	0 10
49	BZ	56/59 (95%)	39 (70%)	13 (23%)	4 (7%)	1 12
49	DZ	56/59 (95%)	31 (55%)	18 (32%)	7 (12%)	0 4
50	B0	54/57 (95%)	39 (72%)	9 (17%)	6 (11%)	0 5
50	D0	54/57 (95%)	40 (74%)	8 (15%)	6 (11%)	0 5
51	B1	48/55 (87%)	37 (77%)	7 (15%)	4 (8%)	0 10

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
51	D1	48/55 (87%)	35 (73%)	9 (19%)	4 (8%)	0 10
52	B2	44/46 (96%)	35 (80%)	8 (18%)	1 (2%)	5 30
52	D2	44/46 (96%)	32 (73%)	7 (16%)	5 (11%)	0 5
53	B3	62/65 (95%)	49 (79%)	11 (18%)	2 (3%)	3 25
53	D3	62/65 (95%)	39 (63%)	17 (27%)	6 (10%)	0 8
54	B4	36/38 (95%)	29 (81%)	4 (11%)	3 (8%)	0 10
54	D4	36/38 (95%)	22 (61%)	9 (25%)	5 (14%)	0 3
All	All	11238/11970 (94%)	7499 (67%)	2485 (22%)	1254 (11%)	0 5

All (1254) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	AB	20	ARG
1	AB	22	TRP
1	AB	40	ILE
1	AB	71	THR
1	AB	72	LYS
1	AB	119	GLN
1	AB	125	PHE
1	AB	127	LYS
1	AB	187	ASP
1	AB	210	THR
2	AC	11	LEU
2	AC	16	PRO
2	AC	17	TRP
2	AC	60	ALA
2	AC	100	ILE
3	AD	24	VAL
3	AD	28	ASP
3	AD	31	CYS
3	AD	34	GLU
3	AD	108	ALA
3	AD	192	ALA
4	AE	77	ASN
4	AE	97	PRO
4	AE	104	ILE
4	AE	121	ASN
4	AE	131	ASN
5	AF	86	ARG
6	AG	4	ARG

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Mol	Chain	Res	Type
6	AG	16	LYS
6	AG	93	VAL
7	AH	66	GLN
7	AH	69	ALA
8	AI	38	PHE
8	AI	40	ARG
8	AI	43	ALA
8	AI	71	ILE
8	AI	128	LYS
9	AJ	57	VAL
9	AJ	101	SER
10	AK	118	ASN
10	AK	125	LYS
10	AK	126	ARG
11	AL	23	LEU
11	AL	33	CYS
11	AL	43	LYS
11	AL	73	LEU
11	AL	75	GLU
11	AL	87	LYS
11	AL	88	ASP
12	AM	46	GLU
13	AN	33	VAL
13	AN	51	PRO
15	AP	47	GLU
16	AQ	5	ARG
16	AQ	12	VAL
16	AQ	16	MET
16	AQ	52	CYS
17	AR	33	THR
18	AS	27	LYS
19	AT	5	SER
20	AU	34	ARG
20	AU	36	PHE
26	BC	35	LYS
26	BC	104	LEU
26	BC	105	ALA
26	BC	106	PRO
26	BC	120	ASP
26	BC	121	ALA
26	BC	140	VAL
26	BC	189	ALA

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Mol	Chain	Res	Type
26	BC	239	PHE
27	BD	17	GLU
27	BD	43	ASP
27	BD	54	ALA
27	BD	73	VAL
27	BD	92	VAL
27	BD	99	GLU
27	BD	103	ASP
27	BD	104	VAL
27	BD	122	VAL
27	BD	169	ARG
27	BD	183	GLU
27	BD	190	LYS
27	BD	191	GLY
28	BE	8	ALA
28	BE	46	GLN
28	BE	70	SER
28	BE	153	LEU
28	BE	175	ILE
29	BF	11	VAL
29	BF	111	ARG
29	BF	134	GLN
30	BG	7	PRO
30	BG	8	VAL
30	BG	28	LYS
30	BG	33	THR
30	BG	45	ALA
30	BG	53	PRO
30	BG	84	LYS
30	BG	94	ARG
30	BG	118	ALA
31	BH	3	VAL
31	BH	8	LYS
31	BH	9	VAL
31	BH	10	ALA
31	BH	14	SER
31	BH	15	LEU
31	BH	28	ASN
31	BH	32	PRO
31	BH	33	GLN
31	BH	121	VAL
32	BI	65	SER

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Mol	Chain	Res	Type
32	BI	92	PRO
33	BJ	4	PHE
33	BJ	14	ASP
33	BJ	21	THR
33	BJ	41	LYS
33	BJ	44	TYR
33	BJ	45	THR
33	BJ	111	LYS
34	BK	13	ASN
34	BK	35	VAL
34	BK	49	ARG
34	BK	71	ARG
34	BK	72	PRO
34	BK	73	ASP
34	BK	118	LEU
34	BK	119	ALA
35	BL	15	ALA
35	BL	30	THR
35	BL	66	PHE
35	BL	88	GLY
36	BM	2	LEU
36	BM	35	ALA
36	BM	36	VAL
36	BM	54	THR
36	BM	55	ARG
36	BM	69	PRO
36	BM	77	PRO
37	BN	117	ASP
38	BO	68	LYS
39	BP	25	VAL
39	BP	33	GLU
39	BP	50	ARG
40	BQ	87	VAL
41	BR	55	ASP
42	BS	3	THR
42	BS	14	ALA
42	BS	64	ALA
43	BT	16	VAL
43	BT	27	SER
43	BT	28	ASN
43	BT	29	THR
43	BT	69	ARG

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Mol	Chain	Res	Type
43	BT	70	HIS
43	BT	88	LYS
44	BU	6	ARG
44	BU	63	ALA
44	BU	88	ASP
44	BU	98	ASN
45	BV	69	GLU
46	BW	9	THR
46	BW	30	VAL
46	BW	34	SER
46	BW	36	ILE
46	BW	40	ARG
46	BW	50	VAL
47	BX	17	ARG
48	BY	22	LEU
48	BY	23	ARG
49	BZ	3	THR
50	B0	3	GLN
50	B0	35	GLU
50	B0	54	ILE
51	B1	4	ILE
53	B3	22	LYS
53	B3	31	ILE
54	B4	4	ARG
1	CB	44	LYS
1	CB	81	ASP
1	CB	129	THR
1	CB	150	ILE
1	CB	202	ASN
2	CC	178	ARG
3	CD	2	ARG
3	CD	25	ARG
3	CD	29	THR
3	CD	33	ILE
3	CD	35	GLN
3	CD	80	ARG
3	CD	125	ASN
3	CD	187	ARG
4	CE	56	PRO
5	CF	68	GLN
6	CG	30	MET
6	CG	52	ARG

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Mol	Chain	Res	Type
6	CG	62	GLU
6	CG	133	ALA
7	CH	98	LEU
8	CI	71	ILE
9	CJ	57	VAL
9	CJ	81	GLU
10	CK	88	PRO
10	CK	90	PRO
10	CK	107	THR
10	CK	126	ARG
11	CL	92	VAL
12	CM	61	LYS
12	CM	65	GLU
15	CP	54	LEU
15	CP	55	ASP
16	CQ	79	GLU
17	CR	70	THR
19	CT	3	ILE
20	CU	4	LYS
20	CU	14	ALA
20	CU	23	GLU
20	CU	31	VAL
20	CU	34	ARG
26	DC	9	SER
26	DC	28	PRO
26	DC	37	SER
26	DC	94	LEU
26	DC	186	ASP
26	DC	269	ARG
27	DD	11	MET
27	DD	14	ILE
27	DD	74	GLU
27	DD	77	ARG
27	DD	150	GLN
27	DD	175	LEU
27	DD	194	PRO
28	DE	41	GLN
28	DE	55	SER
28	DE	99	LYS
28	DE	153	LEU
29	DF	10	GLU
29	DF	12	VAL

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Mol	Chain	Res	Type
29	DF	32	LYS
29	DF	36	ASN
29	DF	42	ALA
29	DF	112	ASP
29	DF	114	ARG
29	DF	122	ASP
29	DF	137	PHE
29	DF	138	PRO
30	DG	49	LEU
30	DG	95	ALA
30	DG	149	ALA
30	DG	164	ALA
30	DG	165	ASP
31	DH	3	VAL
31	DH	9	VAL
31	DH	10	ALA
31	DH	48	GLU
31	DH	49	ALA
31	DH	72	ILE
31	DH	76	GLU
31	DH	98	ASP
31	DH	102	ALA
32	DI	22	PRO
32	DI	23	VAL
32	DI	29	GLN
32	DI	52	LEU
32	DI	58	ILE
32	DI	69	VAL
33	DJ	45	THR
33	DJ	81	ILE
33	DJ	95	ARG
34	DK	18	ARG
34	DK	46	ALA
34	DK	71	ARG
34	DK	93	GLN
34	DK	110	GLU
34	DK	120	PRO
35	DL	4	ASN
35	DL	36	LYS
35	DL	41	ARG
35	DL	82	LEU
35	DL	85	VAL

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Mol	Chain	Res	Type
35	DL	89	VAL
35	DL	111	ILE
36	DM	2	LEU
36	DM	72	PRO
36	DM	77	PRO
36	DM	135	VAL
37	DN	5	LYS
37	DN	30	ARG
37	DN	104	ALA
38	DO	90	VAL
39	DP	25	VAL
39	DP	50	ARG
39	DP	83	ILE
39	DP	109	ILE
39	DP	112	ARG
40	DQ	86	SER
40	DQ	91	ARG
41	DR	3	ALA
42	DS	28	LYS
42	DS	33	LEU
42	DS	72	THR
43	DT	14	PRO
43	DT	15	HIS
43	DT	20	ALA
43	DT	29	THR
43	DT	56	GLU
43	DT	88	LYS
44	DU	17	ASP
44	DU	65	GLN
44	DU	82	VAL
44	DU	92	VAL
44	DU	95	PHE
44	DU	96	LYS
45	DV	56	PHE
45	DV	58	SER
46	DW	9	THR
46	DW	34	SER
46	DW	35	ILE
47	DX	2	ARG
49	DZ	30	ARG
50	D0	54	ILE
51	D1	35	LEU

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Mol	Chain	Res	Type
53	D3	22	LYS
53	D3	29	ARG
54	D4	8	LYS
54	D4	20	ASP
1	AB	18	GLN
1	AB	19	THR
1	AB	21	TYR
1	AB	52	ALA
1	AB	123	GLY
1	AB	171	ALA
1	AB	189	ASN
1	AB	200	PRO
1	AB	209	VAL
2	AC	192	TYR
3	AD	22	SER
3	AD	26	ALA
3	AD	32	LYS
3	AD	100	VAL
3	AD	124	VAL
3	AD	125	ASN
3	AD	174	ALA
4	AE	20	VAL
4	AE	23	THR
4	AE	56	PRO
4	AE	57	ALA
4	AE	98	ALA
4	AE	107	GLY
4	AE	110	MET
4	AE	137	ARG
5	AF	69	GLU
6	AG	129	ASN
7	AH	78	SER
7	AH	99	GLY
8	AI	29	ILE
9	AJ	35	GLN
9	AJ	74	VAL
9	AJ	75	ASP
10	AK	13	LYS
10	AK	119	GLY
11	AL	22	ALA
11	AL	28	GLN
11	AL	117	GLY

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Mol	Chain	Res	Type
12	AM	3	ILE
13	AN	52	ARG
13	AN	61	ASN
14	AO	86	LEU
15	AP	10	GLY
15	AP	49	GLY
15	AP	54	LEU
15	AP	80	LYS
16	AQ	10	ARG
19	AT	19	HIS
19	AT	67	HIS
19	AT	76	ALA
20	AU	12	ASP
26	BC	9	SER
26	BC	77	VAL
26	BC	94	LEU
26	BC	110	LYS
26	BC	196	ASN
26	BC	200	MET
27	BD	118	PHE
27	BD	127	PHE
27	BD	144	GLY
27	BD	182	ALA
27	BD	187	LEU
27	BD	192	ALA
28	BE	6	LYS
28	BE	43	THR
28	BE	69	ARG
28	BE	79	ARG
28	BE	86	ALA
28	BE	96	VAL
28	BE	123	LYS
29	BF	8	LYS
29	BF	20	ASN
29	BF	149	ARG
30	BG	9	VAL
30	BG	30	GLY
30	BG	164	ALA
30	BG	170	THR
31	BH	31	VAL
31	BH	34	GLY
31	BH	35	LYS

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Mol	Chain	Res	Type
31	BH	54	LEU
31	BH	81	ALA
31	BH	83	LYS
31	BH	101	ASP
31	BH	103	VAL
31	BH	107	GLY
31	BH	111	ALA
31	BH	131	SER
32	BI	30	GLN
33	BJ	20	ALA
33	BJ	81	ILE
34	BK	17	ARG
34	BK	30	ARG
34	BK	46	ALA
34	BK	50	GLY
34	BK	69	VAL
34	BK	93	GLN
35	BL	36	LYS
35	BL	111	ILE
35	BL	114	GLY
36	BM	14	LYS
36	BM	15	GLY
36	BM	56	ALA
37	BN	15	SER
37	BN	101	GLY
37	BN	118	ARG
38	BO	3	LYS
38	BO	22	GLY
38	BO	58	ILE
38	BO	100	HIS
38	BO	112	GLU
39	BP	15	ASP
39	BP	23	ASP
39	BP	65	ASN
39	BP	103	THR
39	BP	105	LYS
40	BQ	86	SER
42	BS	19	LEU
42	BS	96	ILE
43	BT	38	ALA
43	BT	49	LYS
43	BT	68	LYS

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Mol	Chain	Res	Type
44	BU	18	LYS
44	BU	51	LEU
44	BU	87	GLU
44	BU	92	VAL
46	BW	14	ASP
46	BW	15	SER
46	BW	18	LYS
46	BW	23	LYS
46	BW	33	GLY
46	BW	41	GLY
46	BW	47	GLY
46	BW	51	GLY
47	BX	34	SER
49	BZ	13	ILE
50	B0	17	SER
51	B1	43	ARG
51	B1	51	ALA
52	B2	44	VAL
1	CB	26	MET
1	CB	63	LYS
1	CB	76	SER
1	CB	101	THR
1	CB	152	ASP
1	CB	163	ILE
1	CB	188	THR
1	CB	203	ASP
1	CB	218	ALA
2	CC	27	GLU
2	CC	120	THR
2	CC	130	ARG
2	CC	167	TYR
2	CC	177	LEU
2	CC	187	GLU
2	CC	188	ALA
3	CD	24	VAL
3	CD	39	GLN
3	CD	47	LEU
3	CD	103	ARG
4	CE	111	ARG
5	CF	35	LYS
5	CF	44	ARG
5	CF	98	GLU

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Mol	Chain	Res	Type
5	CF	99	ALA
6	CG	17	PHE
6	CG	29	LEU
6	CG	31	VAL
6	CG	36	SER
6	CG	49	LEU
6	CG	99	ALA
6	CG	107	ALA
8	CI	55	ASP
8	CI	58	GLU
9	CJ	34	ALA
9	CJ	67	ILE
9	CJ	82	LYS
9	CJ	87	LEU
10	CK	91	GLY
10	CK	92	ARG
10	CK	125	LYS
11	CL	22	ALA
11	CL	34	THR
11	CL	43	LYS
11	CL	85	ARG
11	CL	117	GLY
12	CM	45	SER
12	CM	62	PHE
12	CM	77	LYS
12	CM	97	ARG
13	CN	21	ALA
13	CN	75	LYS
13	CN	83	VAL
13	CN	95	LEU
14	CO	45	HIS
15	CP	36	VAL
15	CP	42	ILE
15	CP	63	GLN
15	CP	66	THR
17	CR	69	TYR
19	CT	43	LYS
20	CU	7	GLU
20	CU	8	ASN
20	CU	26	GLY
20	CU	32	ARG
26	DC	3	VAL

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Mol	Chain	Res	Type
26	DC	38	LYS
26	DC	45	ASN
26	DC	140	VAL
26	DC	195	GLY
26	DC	239	PHE
27	DD	31	ALA
27	DD	48	ILE
27	DD	93	GLY
27	DD	118	PHE
27	DD	119	ALA
27	DD	120	GLY
27	DD	121	THR
27	DD	136	ASN
27	DD	144	GLY
27	DD	145	SER
27	DD	164	GLN
27	DD	170	VAL
28	DE	62	GLN
28	DE	80	SER
28	DE	81	GLY
28	DE	116	ASP
28	DE	127	GLU
28	DE	165	HIS
28	DE	187	VAL
29	DF	8	LYS
29	DF	37	MET
29	DF	43	ILE
29	DF	67	THR
29	DF	76	PHE
29	DF	113	PHE
29	DF	120	SER
29	DF	133	GLU
29	DF	145	VAL
29	DF	148	VAL
30	DG	40	VAL
30	DG	59	ASP
30	DG	80	GLU
30	DG	83	THR
30	DG	85	LYS
30	DG	86	LEU
30	DG	93	TYR
30	DG	150	TYR

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Mol	Chain	Res	Type
30	DG	166	GLU
31	DH	23	ALA
31	DH	66	ASN
31	DH	97	ARG
31	DH	99	ILE
31	DH	144	VAL
32	DI	30	GLN
32	DI	51	GLY
32	DI	62	ALA
32	DI	140	GLU
33	DJ	83	GLY
33	DJ	87	ALA
33	DJ	120	ARG
34	DK	5	GLN
34	DK	16	ALA
34	DK	35	VAL
34	DK	49	ARG
34	DK	72	PRO
35	DL	39	LYS
35	DL	88	GLY
35	DL	101	ILE
36	DM	13	HIS
36	DM	14	LYS
36	DM	69	PRO
36	DM	73	ILE
37	DN	10	LEU
37	DN	63	ARG
37	DN	71	ARG
38	DO	3	LYS
38	DO	72	ALA
39	DP	33	GLU
39	DP	42	PHE
39	DP	85	VAL
39	DP	108	ARG
40	DQ	23	TYR
40	DQ	29	ARG
40	DQ	32	ARG
41	DR	15	SER
41	DR	40	MET
42	DS	40	ASN
43	DT	19	LYS
43	DT	39	THR

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Mol	Chain	Res	Type
43	DT	68	LYS
44	DU	4	ILE
44	DU	54	PRO
44	DU	64	ILE
44	DU	87	GLU
44	DU	88	ASP
44	DU	89	GLY
44	DU	97	SER
45	DV	33	GLY
45	DV	55	GLU
46	DW	18	LYS
46	DW	23	LYS
46	DW	24	ARG
46	DW	33	GLY
46	DW	39	GLN
46	DW	53	GLY
46	DW	57	THR
46	DW	83	ALA
47	DX	41	SER
48	DY	9	LYS
48	DY	22	LEU
48	DY	37	LEU
49	DZ	4	ILE
50	D0	55	ALA
51	D1	36	LYS
53	D3	51	LYS
54	D4	4	ARG
1	AB	63	LYS
1	AB	67	LEU
1	AB	179	GLY
2	AC	167	TYR
3	AD	84	ASN
3	AD	166	LYS
4	AE	52	ALA
4	AE	152	VAL
5	AF	94	HIS
6	AG	78	ARG
6	AG	147	ASN
8	AI	56	MET
9	AJ	58	ASN
9	AJ	61	ALA
9	AJ	92	LEU

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Mol	Chain	Res	Type
11	AL	8	ARG
11	AL	12	ALA
11	AL	52	CYS
12	AM	4	ALA
12	AM	23	GLY
12	AM	84	CYS
12	AM	106	ARG
13	AN	21	ALA
13	AN	27	LYS
13	AN	83	VAL
14	AO	2	LEU
14	AO	85	GLY
15	AP	11	ALA
16	AQ	17	GLU
16	AQ	49	ASN
17	AR	72	ARG
19	AT	6	ALA
26	BC	141	HIS
26	BC	150	GLY
26	BC	243	PRO
27	BD	11	MET
27	BD	86	GLU
27	BD	107	VAL
27	BD	150	GLN
28	BE	11	ALA
28	BE	45	ALA
28	BE	148	ILE
29	BF	133	GLU
29	BF	174	PHE
29	BF	175	PRO
30	BG	61	TRP
30	BG	85	LYS
30	BG	153	PRO
30	BG	168	VAL
31	BH	30	LEU
31	BH	40	THR
31	BH	106	ALA
32	BI	59	THR
32	BI	105	LEU
33	BJ	2	LYS
33	BJ	39	LYS
33	BJ	65	THR

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Mol	Chain	Res	Type
35	BL	64	PHE
35	BL	81	ASP
36	BM	13	HIS
37	BN	3	HIS
38	BO	113	ALA
39	BP	5	LYS
39	BP	34	GLY
39	BP	86	LYS
40	BQ	5	ARG
40	BQ	68	ALA
40	BQ	69	ARG
40	BQ	76	SER
40	BQ	115	ALA
43	BT	39	THR
43	BT	86	THR
44	BU	8	ASP
46	BW	16	GLU
46	BW	74	LYS
47	BX	33	HIS
48	BY	24	GLU
48	BY	41	HIS
48	BY	44	LYS
49	BZ	34	THR
50	B0	51	ARG
51	B1	50	GLU
54	B4	16	ILE
1	CB	17	HIS
1	CB	85	SER
1	CB	128	LEU
1	CB	133	ALA
1	CB	149	GLY
1	CB	205	ALA
2	CC	140	ALA
2	CC	186	SER
3	CD	120	LYS
3	CD	166	LYS
3	CD	181	PHE
4	CE	30	PHE
4	CE	57	ALA
4	CE	68	ARG
4	CE	81	GLN
5	CF	50	PRO

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Mol	Chain	Res	Type
6	CG	15	PRO
6	CG	59	GLU
6	CG	88	VAL
6	CG	98	LEU
7	CH	2	MET
7	CH	30	LYS
8	CI	120	ALA
9	CJ	33	GLY
10	CK	70	ALA
11	CL	83	GLY
12	CM	93	GLY
12	CM	111	PRO
13	CN	17	ASP
13	CN	48	GLN
13	CN	53	ASP
15	CP	43	ALA
16	CQ	5	ARG
20	CU	15	LEU
26	DC	36	ASN
26	DC	96	LYS
26	DC	141	HIS
26	DC	198	GLU
26	DC	237	ARG
27	DD	95	SER
27	DD	102	ALA
27	DD	107	VAL
27	DD	112	THR
27	DD	197	THR
28	DE	13	THR
28	DE	70	SER
28	DE	79	ARG
28	DE	126	VAL
29	DF	41	GLU
29	DF	70	ARG
29	DF	116	LEU
30	DG	9	VAL
30	DG	11	PRO
30	DG	45	ALA
30	DG	91	VAL
30	DG	117	PRO
30	DG	125	PRO
30	DG	169	ARG

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Mol	Chain	Res	Type
31	DH	86	ASP
32	DI	35	MET
33	DJ	25	LEU
33	DJ	112	GLY
34	DK	6	THR
34	DK	14	SER
34	DK	17	ARG
34	DK	89	ASN
35	DL	29	LYS
35	DL	48	ARG
35	DL	66	PHE
36	DM	110	GLU
37	DN	13	ASN
37	DN	82	GLU
37	DN	102	PHE
38	DO	8	ILE
38	DO	45	SER
39	DP	65	ASN
39	DP	94	ALA
39	DP	113	LEU
40	DQ	58	GLN
40	DQ	87	VAL
40	DQ	88	GLU
41	DR	29	THR
41	DR	53	PHE
41	DR	91	GLN
42	DS	3	THR
42	DS	96	ILE
43	DT	18	GLU
44	DU	8	ASP
44	DU	40	LEU
44	DU	101	THR
45	DV	79	ARG
46	DW	32	ALA
46	DW	36	ILE
46	DW	41	GLY
46	DW	46	ALA
47	DX	61	LYS
47	DX	69	GLU
49	DZ	13	ILE
49	DZ	27	GLY
50	D0	21	LEU

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Mol	Chain	Res	Type
50	D0	32	THR
52	D2	39	ARG
52	D2	40	ALA
53	D3	18	LYS
1	AB	31	PHE
1	AB	53	LEU
1	AB	128	LEU
2	AC	92	ASP
2	AC	145	ALA
3	AD	33	ILE
3	AD	133	SER
3	AD	150	LYS
3	AD	167	PRO
5	AF	54	LEU
5	AF	68	GLN
7	AH	77	VAL
7	AH	88	LYS
8	AI	8	THR
8	AI	52	GLU
9	AJ	30	LYS
9	AJ	93	ALA
10	AK	14	GLN
10	AK	40	ALA
11	AL	25	ALA
11	AL	114	SER
12	AM	39	ALA
12	AM	104	ASN
13	AN	3	GLN
13	AN	81	ILE
14	AO	45	HIS
14	AO	77	TYR
15	AP	36	VAL
15	AP	67	ILE
15	AP	78	VAL
16	AQ	80	LYS
18	AS	3	SER
18	AS	5	LYS
19	AT	44	ALA
19	AT	74	HIS
20	AU	37	TYR
20	AU	43	GLU
26	BC	109	LEU

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Mol	Chain	Res	Type
26	BC	204	LEU
27	BD	41	ALA
27	BD	71	ALA
27	BD	77	ARG
27	BD	100	LEU
27	BD	114	LYS
27	BD	170	VAL
28	BE	73	ILE
28	BE	95	LYS
28	BE	187	VAL
29	BF	2	LYS
29	BF	61	GLY
29	BF	83	PRO
29	BF	132	ARG
29	BF	147	ARG
30	BG	2	ARG
30	BG	97	VAL
30	BG	173	ALA
31	BH	16	GLY
31	BH	27	ARG
31	BH	89	LYS
31	BH	96	THR
32	BI	6	ALA
32	BI	83	ALA
33	BJ	13	ARG
34	BK	5	GLN
34	BK	6	THR
34	BK	16	ALA
36	BM	79	ALA
37	BN	65	LEU
37	BN	71	ARG
38	BO	67	ASN
38	BO	111	ARG
39	BP	6	GLN
39	BP	93	LYS
40	BQ	90	ASP
41	BR	53	PHE
41	BR	91	GLN
43	BT	18	GLU
43	BT	84	TYR
44	BU	16	LYS
44	BU	45	GLN

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Mol	Chain	Res	Type
44	BU	81	ARG
44	BU	83	GLY
46	BW	17	ALA
46	BW	29	SER
48	BY	37	LEU
49	BZ	11	SER
2	CC	59	PRO
2	CC	63	ILE
2	CC	145	ALA
3	CD	34	GLU
6	CG	68	VAL
7	CH	41	GLU
7	CH	58	LEU
8	CI	107	ALA
9	CJ	36	VAL
9	CJ	46	LYS
9	CJ	74	VAL
10	CK	40	ALA
10	CK	120	CYS
11	CL	8	ARG
11	CL	42	LYS
12	CM	11	HIS
12	CM	22	TYR
12	CM	42	VAL
12	CM	50	GLY
13	CN	20	PHE
16	CQ	12	VAL
16	CQ	81	ALA
18	CS	4	LEU
18	CS	24	SER
18	CS	54	ARG
26	DC	69	ASN
26	DC	98	GLY
26	DC	196	ASN
26	DC	204	LEU
26	DC	232	GLY
27	DD	99	GLU
27	DD	122	VAL
27	DD	176	ASP
28	DE	69	ARG
28	DE	148	ILE
28	DE	188	MET

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Mol	Chain	Res	Type
29	DF	83	PRO
29	DF	104	THR
29	DF	130	GLY
29	DF	136	ILE
30	DG	46	ASP
30	DG	119	GLY
31	DH	39	ALA
31	DH	103	VAL
31	DH	121	VAL
32	DI	9	LYS
32	DI	19	PRO
32	DI	87	SER
32	DI	119	ALA
33	DJ	44	TYR
33	DJ	113	PRO
34	DK	103	VAL
34	DK	119	ALA
35	DL	42	SER
36	DM	35	ALA
36	DM	100	LYS
36	DM	111	GLU
37	DN	17	ARG
39	DP	20	ARG
39	DP	51	ASN
40	DQ	5	ARG
41	DR	65	ALA
41	DR	98	ILE
46	DW	26	GLY
46	DW	71	LYS
47	DX	63	ILE
48	DY	2	LYS
48	DY	46	VAL
50	D0	53	VAL
51	D1	4	ILE
51	D1	50	GLU
52	D2	24	THR
53	D3	6	VAL
54	D4	16	ILE
1	AB	37	VAL
1	AB	133	ALA
1	AB	220	VAL
2	AC	148	ILE

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Mol	Chain	Res	Type
3	AD	111	ALA
3	AD	134	TYR
3	AD	197	HIS
4	AE	24	VAL
5	AF	42	TRP
5	AF	60	VAL
6	AG	3	ARG
6	AG	55	LYS
6	AG	95	ARG
6	AG	139	ASP
7	AH	72	GLU
8	AI	33	SER
8	AI	106	ASP
9	AJ	37	ARG
9	AJ	62	ARG
11	AL	47	ALA
11	AL	77	SER
12	AM	107	THR
15	AP	16	PHE
16	AQ	11	VAL
18	AS	26	ASP
20	AU	14	ALA
26	BC	51	ARG
26	BC	64	VAL
26	BC	149	LYS
26	BC	226	PRO
26	BC	237	ARG
27	BD	109	VAL
27	BD	145	SER
27	BD	184	ARG
28	BE	10	SER
28	BE	59	PRO
28	BE	83	VAL
28	BE	191	ASP
29	BF	113	PHE
30	BG	16	VAL
30	BG	31	GLU
30	BG	44	HIS
30	BG	54	ARG
31	BH	25	TYR
32	BI	3	LYS
32	BI	20	SER

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Mol	Chain	Res	Type
33	BJ	125	TYR
34	BK	48	PRO
35	BL	29	LYS
35	BL	40	SER
36	BM	60	GLN
36	BM	84	LYS
37	BN	14	SER
39	BP	2	ASN
39	BP	20	ARG
39	BP	51	ASN
40	BQ	4	LYS
41	BR	7	SER
41	BR	43	ASN
41	BR	51	VAL
41	BR	65	ALA
41	BR	98	ILE
43	BT	55	VAL
44	BU	38	ILE
44	BU	53	GLN
46	BW	37	VAL
46	BW	52	CYS
46	BW	76	ARG
46	BW	78	PHE
48	BY	9	LYS
54	B4	8	LYS
2	CC	24	ASN
2	CC	65	VAL
2	CC	109	GLU
3	CD	178	GLU
3	CD	182	LYS
3	CD	191	SER
4	CE	38	VAL
4	CE	109	ALA
5	CF	39	LEU
5	CF	53	LYS
5	CF	73	GLU
5	CF	85	ILE
5	CF	94	HIS
6	CG	13	PRO
6	CG	58	LEU
6	CG	95	ARG
6	CG	141	HIS

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Mol	Chain	Res	Type
6	CG	143	MET
7	CH	95	MET
9	CJ	16	ARG
9	CJ	25	ILE
9	CJ	42	LEU
11	CL	101	LEU
12	CM	3	ILE
12	CM	14	ALA
12	CM	76	ILE
15	CP	78	VAL
18	CS	29	PRO
20	CU	9	GLU
26	DC	106	PRO
27	DD	44	GLY
28	DE	22	ASP
28	DE	45	ALA
28	DE	60	TRP
28	DE	96	VAL
28	DE	123	LYS
28	DE	166	LYS
29	DF	68	LYS
29	DF	82	TYR
30	DG	126	THR
30	DG	152	ARG
30	DG	155	PRO
30	DG	170	THR
31	DH	61	VAL
31	DH	105	ALA
33	DJ	98	GLU
34	DK	104	THR
35	DL	19	LEU
35	DL	30	THR
35	DL	65	GLY
35	DL	93	ASN
35	DL	99	ASN
36	DM	16	ARG
36	DM	134	THR
37	DN	2	ARG
38	DO	27	VAL
38	DO	43	ASN
39	DP	32	VAL
40	DQ	6	GLY

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Mol	Chain	Res	Type
41	DR	57	GLY
42	DS	61	ASN
42	DS	71	VAL
43	DT	11	LEU
43	DT	38	ALA
44	DU	35	VAL
44	DU	41	VAL
47	DX	27	ARG
50	D0	25	THR
52	D2	43	THR
53	D3	3	ILE
54	D4	3	VAL
2	AC	46	LEU
2	AC	65	VAL
2	AC	107	LYS
3	AD	152	SER
5	AF	50	PRO
5	AF	56	LYS
9	AJ	36	VAL
9	AJ	79	PRO
20	AU	11	PHE
20	AU	39	LYS
26	BC	188	ARG
27	BD	151	THR
29	BF	128	SER
30	BG	83	THR
31	BH	13	GLY
35	BL	12	SER
36	BM	73	ILE
37	BN	84	GLY
37	BN	102	PHE
39	BP	4	ILE
39	BP	63	ILE
44	BU	85	ARG
45	BV	71	LYS
46	BW	26	GLY
48	BY	62	GLY
1	CB	18	GLN
3	CD	192	ALA
4	CE	31	SER
4	CE	58	ALA
4	CE	75	LEU

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Mol	Chain	Res	Type
6	CG	120	ALA
6	CG	121	ASN
8	CI	25	GLY
20	CU	37	TYR
26	DC	59	GLN
26	DC	64	VAL
27	DD	109	VAL
27	DD	162	ALA
29	DF	175	PRO
32	DI	31	GLY
33	DJ	13	ARG
35	DL	100	ILE
36	DM	70	ASP
36	DM	106	ASP
37	DN	8	ARG
39	DP	63	ILE
44	DU	12	VAL
46	DW	49	ASN
49	DZ	29	ARG
3	AD	23	GLY
5	AF	18	VAL
6	AG	92	PRO
7	AH	103	VAL
20	AU	10	PRO
30	BG	110	HIS
50	B0	53	VAL
9	CJ	26	VAL
12	CM	6	ILE
16	CQ	34	GLY
28	DE	73	ILE
28	DE	129	PRO
31	DH	143	ILE
32	DI	138	VAL
39	DP	4	ILE
42	DS	74	ILE
43	DT	16	VAL
3	AD	36	ALA
4	AE	78	GLY
27	BD	53	GLY
28	BE	4	VAL
28	BE	71	GLY
29	BF	135	ILE

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Mol	Chain	Res	Type
31	BH	80	ILE
46	BW	27	GLY
4	CE	24	VAL
26	DC	2	VAL
26	DC	217	PRO
29	DF	81	GLY
29	DF	88	VAL
32	DI	121	ILE
44	DU	47	PRO
39	BP	104	GLY
46	BW	22	VAL
3	CD	45	PRO
7	CH	74	ILE
16	CQ	78	VAL
26	DC	246	PRO
29	DF	84	ILE
38	DO	32	PRO
45	DV	15	GLY
45	DV	84	PRO
52	D2	38	GLY
2	AC	12	GLY
5	AF	7	VAL
30	BG	75	VAL
46	BW	70	VAL
1	CB	157	PRO
2	CC	77	GLY
5	CF	64	VAL
6	CG	134	VAL
9	CJ	96	VAL
19	CT	82	ILE
29	DF	125	GLY
30	DG	3	VAL
32	DI	28	GLY
34	DK	48	PRO
36	DM	36	VAL
38	DO	42	PRO
43	DT	74	ILE
49	DZ	50	VAL
9	AJ	41	PRO
15	AP	42	ILE
32	BI	23	VAL
32	BI	28	GLY

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Mol	Chain	Res	Type
3	CD	27	ILE
4	CE	97	PRO
17	CR	25	ILE
35	DL	114	GLY
41	DR	56	GLY
43	DT	53	VAL
44	DU	33	VAL
49	DZ	32	GLY

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
1	AB	180/199 (90%)	150 (83%)	30 (17%)	2 13
1	CB	180/199 (90%)	158 (88%)	22 (12%)	5 21
2	AC	170/190 (90%)	143 (84%)	27 (16%)	2 15
2	CC	170/190 (90%)	154 (91%)	16 (9%)	8 30
3	AD	172/173 (99%)	145 (84%)	27 (16%)	2 15
3	CD	172/173 (99%)	146 (85%)	26 (15%)	3 16
4	AE	113/126 (90%)	86 (76%)	27 (24%)	1 5
4	CE	113/126 (90%)	93 (82%)	20 (18%)	2 12
5	AF	87/116 (75%)	78 (90%)	9 (10%)	7 27
5	CF	87/116 (75%)	79 (91%)	8 (9%)	8 31
6	AG	124/147 (84%)	115 (93%)	9 (7%)	13 38
6	CG	123/147 (84%)	94 (76%)	29 (24%)	1 5
7	AH	104/105 (99%)	91 (88%)	13 (12%)	4 21
7	CH	104/105 (99%)	86 (83%)	18 (17%)	2 12
8	AI	105/107 (98%)	88 (84%)	17 (16%)	2 14
8	CI	105/107 (98%)	90 (86%)	15 (14%)	3 18
9	AJ	86/90 (96%)	73 (85%)	13 (15%)	3 16

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
9	CJ	86/90 (96%)	75 (87%)	11 (13%)	4 21
10	AK	90/99 (91%)	81 (90%)	9 (10%)	7 28
10	CK	90/99 (91%)	77 (86%)	13 (14%)	3 17
11	AL	103/104 (99%)	85 (82%)	18 (18%)	2 12
11	CL	103/104 (99%)	88 (85%)	15 (15%)	3 17
12	AM	92/96 (96%)	83 (90%)	9 (10%)	7 29
12	CM	91/96 (95%)	74 (81%)	17 (19%)	1 10
13	AN	79/84 (94%)	73 (92%)	6 (8%)	12 37
13	CN	79/84 (94%)	68 (86%)	11 (14%)	3 18
14	AO	76/77 (99%)	73 (96%)	3 (4%)	28 52
14	CO	76/77 (99%)	73 (96%)	3 (4%)	28 52
15	AP	65/65 (100%)	56 (86%)	9 (14%)	3 18
15	CP	65/65 (100%)	57 (88%)	8 (12%)	4 21
16	AQ	74/78 (95%)	56 (76%)	18 (24%)	1 4
16	CQ	74/78 (95%)	62 (84%)	12 (16%)	2 14
17	AR	48/65 (74%)	47 (98%)	1 (2%)	47 64
17	CR	48/65 (74%)	44 (92%)	4 (8%)	10 34
18	AS	70/79 (89%)	61 (87%)	9 (13%)	4 20
18	CS	70/79 (89%)	60 (86%)	10 (14%)	3 18
19	AT	65/66 (98%)	57 (88%)	8 (12%)	4 21
19	CT	65/66 (98%)	58 (89%)	7 (11%)	6 25
20	AU	44/61 (72%)	37 (84%)	7 (16%)	2 15
20	CU	44/61 (72%)	33 (75%)	11 (25%)	0 4
26	BC	216/218 (99%)	176 (82%)	40 (18%)	1 11
26	DC	216/218 (99%)	191 (88%)	25 (12%)	5 22
27	BD	164/164 (100%)	127 (77%)	37 (23%)	1 5
27	DD	164/164 (100%)	141 (86%)	23 (14%)	3 18
28	BE	165/165 (100%)	124 (75%)	41 (25%)	1 4
28	DE	165/165 (100%)	148 (90%)	17 (10%)	7 27
29	BF	148/150 (99%)	123 (83%)	25 (17%)	2 13
29	DF	149/150 (99%)	118 (79%)	31 (21%)	1 7

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
30	BG	137/138 (99%)	110 (80%)	27 (20%)	1 8
30	DG	137/138 (99%)	118 (86%)	19 (14%)	3 18
31	BH	114/114 (100%)	97 (85%)	17 (15%)	3 16
31	DH	114/114 (100%)	100 (88%)	14 (12%)	4 21
32	BI	109/110 (99%)	95 (87%)	14 (13%)	4 21
32	DI	109/110 (99%)	102 (94%)	7 (6%)	16 42
33	BJ	116/116 (100%)	90 (78%)	26 (22%)	1 5
33	DJ	116/116 (100%)	94 (81%)	22 (19%)	1 10
34	BK	103/104 (99%)	75 (73%)	28 (27%)	0 3
34	DK	103/104 (99%)	81 (79%)	22 (21%)	1 6
35	BL	102/103 (99%)	72 (71%)	30 (29%)	0 2
35	DL	102/103 (99%)	87 (85%)	15 (15%)	3 17
36	BM	109/109 (100%)	89 (82%)	20 (18%)	2 11
36	DM	109/109 (100%)	90 (83%)	19 (17%)	2 12
37	BN	100/103 (97%)	80 (80%)	20 (20%)	1 8
37	DN	100/103 (97%)	85 (85%)	15 (15%)	3 16
38	BO	86/87 (99%)	65 (76%)	21 (24%)	1 4
38	DO	86/87 (99%)	75 (87%)	11 (13%)	4 21
39	BP	99/100 (99%)	80 (81%)	19 (19%)	1 9
39	DP	99/100 (99%)	92 (93%)	7 (7%)	13 39
40	BQ	89/90 (99%)	72 (81%)	17 (19%)	1 10
40	DQ	89/90 (99%)	77 (86%)	12 (14%)	4 19
41	BR	84/84 (100%)	65 (77%)	19 (23%)	1 5
41	DR	84/84 (100%)	70 (83%)	14 (17%)	2 13
42	BS	93/93 (100%)	71 (76%)	22 (24%)	1 5
42	DS	93/93 (100%)	73 (78%)	20 (22%)	1 6
43	BT	80/84 (95%)	62 (78%)	18 (22%)	1 5
43	DT	80/84 (95%)	74 (92%)	6 (8%)	12 38
44	BU	83/85 (98%)	65 (78%)	18 (22%)	1 6
44	DU	83/85 (98%)	69 (83%)	14 (17%)	2 13
45	BV	78/78 (100%)	61 (78%)	17 (22%)	1 6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
45	DV	78/78 (100%)	65 (83%)	13 (17%)	2 13
46	BW	59/63 (94%)	43 (73%)	16 (27%)	0 3
46	DW	59/63 (94%)	46 (78%)	13 (22%)	1 6
47	BX	67/68 (98%)	56 (84%)	11 (16%)	2 14
47	DX	67/68 (98%)	59 (88%)	8 (12%)	5 22
48	BY	55/55 (100%)	39 (71%)	16 (29%)	0 2
48	DY	55/55 (100%)	51 (93%)	4 (7%)	13 38
49	BZ	48/49 (98%)	35 (73%)	13 (27%)	0 3
49	DZ	48/49 (98%)	40 (83%)	8 (17%)	2 13
50	B0	47/48 (98%)	42 (89%)	5 (11%)	6 26
50	D0	47/48 (98%)	40 (85%)	7 (15%)	3 16
51	B1	45/49 (92%)	34 (76%)	11 (24%)	1 4
51	D1	45/49 (92%)	41 (91%)	4 (9%)	9 32
52	B2	38/38 (100%)	31 (82%)	7 (18%)	1 11
52	D2	38/38 (100%)	35 (92%)	3 (8%)	11 36
53	B3	51/52 (98%)	45 (88%)	6 (12%)	5 22
53	D3	51/52 (98%)	42 (82%)	9 (18%)	2 12
54	B4	34/34 (100%)	28 (82%)	6 (18%)	2 12
54	D4	34/34 (100%)	30 (88%)	4 (12%)	5 22
All	All	9331/9756 (96%)	7833 (84%)	1498 (16%)	2 14

All (1498) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	AB	10	LYS
1	AB	13	VAL
1	AB	19	THR
1	AB	26	MET
1	AB	30	ILE
1	AB	36	LYS
1	AB	40	ILE
1	AB	41	ASN
1	AB	53	LEU
1	AB	100	LEU
1	AB	101	THR

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Mol	Chain	Res	Type
1	AB	108	GLN
1	AB	116	LEU
1	AB	119	GLN
1	AB	122	ASP
1	AB	125	PHE
1	AB	128	LEU
1	AB	130	LYS
1	AB	139	GLU
1	AB	142	LYS
1	AB	143	LEU
1	AB	153	MET
1	AB	156	LEU
1	AB	158	ASP
1	AB	170	ILE
1	AB	178	LEU
1	AB	189	ASN
1	AB	198	VAL
1	AB	206	ILE
1	AB	219	THR
2	AC	2	GLN
2	AC	13	ILE
2	AC	17	TRP
2	AC	26	LYS
2	AC	30	ASP
2	AC	32	LEU
2	AC	38	VAL
2	AC	51	VAL
2	AC	57	GLU
2	AC	79	LYS
2	AC	102	ILE
2	AC	107	LYS
2	AC	110	LEU
2	AC	119	ILE
2	AC	120	THR
2	AC	125	ARG
2	AC	139	ASN
2	AC	143	LEU
2	AC	148	ILE
2	AC	149	LYS
2	AC	161	ILE
2	AC	166	TRP
2	AC	167	TYR

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Mol	Chain	Res	Type
2	AC	180	ASP
2	AC	184	ASN
2	AC	185	THR
2	AC	199	VAL
3	AD	4	LEU
3	AD	10	LEU
3	AD	25	ARG
3	AD	29	THR
3	AD	32	LYS
3	AD	33	ILE
3	AD	52	VAL
3	AD	55	ARG
3	AD	58	GLN
3	AD	59	LYS
3	AD	69	ARG
3	AD	82	LYS
3	AD	92	LEU
3	AD	99	ASN
3	AD	115	GLN
3	AD	117	VAL
3	AD	122	ILE
3	AD	128	VAL
3	AD	131	ILE
3	AD	153	ARG
3	AD	160	LEU
3	AD	166	LYS
3	AD	170	LEU
3	AD	195	ASN
3	AD	198	LEU
3	AD	199	ILE
3	AD	205	LYS
4	AE	9	GLU
4	AE	10	LEU
4	AE	14	LEU
4	AE	19	ARG
4	AE	20	VAL
4	AE	25	LYS
4	AE	28	ARG
4	AE	33	THR
4	AE	35	LEU
4	AE	45	VAL
4	AE	59	ILE

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Mol	Chain	Res	Type
4	AE	64	GLU
4	AE	76	ASN
4	AE	79	THR
4	AE	81	GLN
4	AE	84	VAL
4	AE	100	GLU
4	AE	102	THR
4	AE	104	ILE
4	AE	113	VAL
4	AE	119	VAL
4	AE	121	ASN
4	AE	123	LEU
4	AE	130	THR
4	AE	133	ILE
4	AE	136	VAL
4	AE	144	GLU
5	AF	6	ILE
5	AF	14	GLN
5	AF	17	GLN
5	AF	39	LEU
5	AF	55	HIS
5	AF	68	GLN
5	AF	69	GLU
5	AF	85	ILE
5	AF	97	THR
6	AG	3	ARG
6	AG	12	LEU
6	AG	29	LEU
6	AG	93	VAL
6	AG	96	ASN
6	AG	105	GLU
6	AG	117	LEU
6	AG	123	LEU
6	AG	147	ASN
7	AH	21	LYS
7	AH	25	THR
7	AH	54	THR
7	AH	59	GLU
7	AH	66	GLN
7	AH	74	ILE
7	AH	76	ARG
7	AH	82	LEU

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Mol	Chain	Res	Type
7	AH	89	ASP
7	AH	98	LEU
7	AH	110	MET
7	AH	120	LEU
7	AH	128	VAL
8	AI	4	GLN
8	AI	29	ILE
8	AI	42	THR
8	AI	44	ARG
8	AI	47	VAL
8	AI	48	ARG
8	AI	54	VAL
8	AI	56	MET
8	AI	60	LEU
8	AI	62	LEU
8	AI	64	ILE
8	AI	67	LYS
8	AI	86	LEU
8	AI	87	MET
8	AI	115	VAL
8	AI	127	SER
8	AI	128	LYS
9	AJ	6	ILE
9	AJ	32	THR
9	AJ	35	GLN
9	AJ	57	VAL
9	AJ	59	LYS
9	AJ	60	ASP
9	AJ	70	HIS
9	AJ	73	LEU
9	AJ	76	ILE
9	AJ	77	VAL
9	AJ	82	LYS
9	AJ	83	THR
9	AJ	90	LEU
10	AK	51	PHE
10	AK	54	SER
10	AK	55	ARG
10	AK	64	VAL
10	AK	76	TYR
10	AK	106	ILE
10	AK	124	LYS

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Mol	Chain	Res	Type
10	AK	125	LYS
10	AK	128	VAL
11	AL	3	VAL
11	AL	4	ASN
11	AL	7	VAL
11	AL	9	LYS
11	AL	20	VAL
11	AL	28	GLN
11	AL	33	CYS
11	AL	34	THR
11	AL	43	LYS
11	AL	48	LEU
11	AL	63	THR
11	AL	74	GLN
11	AL	78	VAL
11	AL	79	ILE
11	AL	87	LYS
11	AL	94	TYR
11	AL	96	THR
11	AL	109	ARG
12	AM	6	ILE
12	AM	7	ASN
12	AM	28	ARG
12	AM	30	LYS
12	AM	44	ILE
12	AM	70	ARG
12	AM	74	MET
12	AM	103	THR
12	AM	106	ARG
13	AN	3	GLN
13	AN	11	LYS
13	AN	13	VAL
13	AN	27	LYS
13	AN	58	ARG
13	AN	61	ASN
14	AO	21	THR
14	AO	38	LEU
14	AO	57	ARG
15	AP	4	ILE
15	AP	6	LEU
15	AP	12	LYS
15	AP	42	ILE

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Mol	Chain	Res	Type
15	AP	44	SER
15	AP	46	LYS
15	AP	63	GLN
15	AP	69	ASP
15	AP	80	LYS
16	AQ	3	LYS
16	AQ	16	MET
16	AQ	20	ILE
16	AQ	21	VAL
16	AQ	22	VAL
16	AQ	25	GLU
16	AQ	37	ILE
16	AQ	42	LYS
16	AQ	47	ASP
16	AQ	49	ASN
16	AQ	50	ASN
16	AQ	51	GLU
16	AQ	54	ILE
16	AQ	74	LEU
16	AQ	77	VAL
16	AQ	78	VAL
16	AQ	79	GLU
16	AQ	80	LYS
17	AR	20	ILE
18	AS	20	LYS
18	AS	30	LEU
18	AS	42	ASN
18	AS	48	ILE
18	AS	54	ARG
18	AS	55	GLN
18	AS	61	VAL
18	AS	64	GLU
18	AS	79	TYR
19	AT	4	LYS
19	AT	11	ILE
19	AT	35	TYR
19	AT	42	ASP
19	AT	67	HIS
19	AT	68	LYS
19	AT	75	LYS
19	AT	77	ASN
20	AU	5	VAL

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Mol	Chain	Res	Type
20	AU	13	VAL
20	AU	18	PHE
20	AU	37	TYR
20	AU	38	GLU
20	AU	39	LYS
20	AU	45	LYS
26	BC	2	VAL
26	BC	12	ARG
26	BC	27	LYS
26	BC	38	LYS
26	BC	43	ASN
26	BC	73	ILE
26	BC	77	VAL
26	BC	85	ASN
26	BC	90	ILE
26	BC	93	VAL
26	BC	103	ILE
26	BC	104	LEU
26	BC	109	LEU
26	BC	110	LYS
26	BC	114	GLN
26	BC	115	ILE
26	BC	120	ASP
26	BC	123	ILE
26	BC	129	LEU
26	BC	133	ASN
26	BC	141	HIS
26	BC	155	ARG
26	BC	164	VAL
26	BC	171	VAL
26	BC	172	THR
26	BC	173	LEU
26	BC	175	LEU
26	BC	201	LEU
26	BC	202	ARG
26	BC	203	VAL
26	BC	211	ARG
26	BC	215	VAL
26	BC	216	ARG
26	BC	227	VAL
26	BC	247	TRP
26	BC	250	GLN

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Mol	Chain	Res	Type
26	BC	252	LYS
26	BC	254	LYS
26	BC	261	ARG
26	BC	268	ARG
27	BD	4	LEU
27	BD	9	VAL
27	BD	14	ILE
27	BD	16	THR
27	BD	17	GLU
27	BD	26	VAL
27	BD	40	LEU
27	BD	42	ASN
27	BD	43	ASP
27	BD	45	TYR
27	BD	51	THR
27	BD	60	VAL
27	BD	73	VAL
27	BD	84	LEU
27	BD	89	GLU
27	BD	90	PHE
27	BD	91	THR
27	BD	98	VAL
27	BD	101	PHE
27	BD	114	LYS
27	BD	118	PHE
27	BD	124	ARG
27	BD	146	ILE
27	BD	150	GLN
27	BD	151	THR
27	BD	159	LYS
27	BD	164	GLN
27	BD	169	ARG
27	BD	170	VAL
27	BD	171	THR
27	BD	176	ASP
27	BD	177	VAL
27	BD	183	GLU
27	BD	186	LEU
27	BD	193	VAL
27	BD	201	LEU
27	BD	203	VAL
28	BE	12	LEU

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Mol	Chain	Res	Type
28	BE	18	THR
28	BE	28	VAL
28	BE	40	ARG
28	BE	44	ARG
28	BE	48	THR
28	BE	53	THR
28	BE	57	LYS
28	BE	61	ARG
28	BE	62	GLN
28	BE	65	THR
28	BE	69	ARG
28	BE	70	SER
28	BE	77	ILE
28	BE	80	SER
28	BE	84	THR
28	BE	90	GLN
28	BE	91	ASP
28	BE	105	LEU
28	BE	108	ILE
28	BE	109	LEU
28	BE	111	GLU
28	BE	113	VAL
28	BE	118	LEU
28	BE	119	ILE
28	BE	121	VAL
28	BE	127	GLU
28	BE	132	LYS
28	BE	136	GLN
28	BE	146	VAL
28	BE	147	LEU
28	BE	148	ILE
28	BE	153	LEU
28	BE	159	LEU
28	BE	163	ASN
28	BE	167	VAL
28	BE	171	ASP
28	BE	178	VAL
28	BE	186	VAL
28	BE	189	THR
28	BE	196	VAL
29	BF	3	LEU
29	BF	8	LYS

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Mol	Chain	Res	Type
29	BF	9	ASP
29	BF	12	VAL
29	BF	14	LYS
29	BF	24	VAL
29	BF	34	THR
29	BF	35	LEU
29	BF	36	ASN
29	BF	46	LYS
29	BF	47	LYS
29	BF	65	LEU
29	BF	80	GLN
29	BF	90	LEU
29	BF	103	ILE
29	BF	109	ARG
29	BF	110	ILE
29	BF	111	ARG
29	BF	114	ARG
29	BF	131	VAL
29	BF	132	ARG
29	BF	134	GLN
29	BF	151	LEU
29	BF	153	ILE
29	BF	154	THR
30	BG	8	VAL
30	BG	15	ASP
30	BG	18	ILE
30	BG	34	ARG
30	BG	35	THR
30	BG	40	VAL
30	BG	59	ASP
30	BG	68	ARG
30	BG	78	VAL
30	BG	80	GLU
30	BG	84	LYS
30	BG	86	LEU
30	BG	88	LEU
30	BG	91	VAL
30	BG	101	VAL
30	BG	115	GLN
30	BG	116	LEU
30	BG	120	ILE
30	BG	123	GLU

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Mol	Chain	Res	Type
30	BG	131	VAL
30	BG	132	LEU
30	BG	138	GLN
30	BG	140	ILE
30	BG	148	ARG
30	BG	159	LYS
30	BG	170	THR
30	BG	174	LYS
31	BH	3	VAL
31	BH	6	LEU
31	BH	14	SER
31	BH	15	LEU
31	BH	18	GLN
31	BH	28	ASN
31	BH	31	VAL
31	BH	33	GLN
31	BH	50	ARG
31	BH	54	LEU
31	BH	68	ARG
31	BH	75	LEU
31	BH	83	LYS
31	BH	96	THR
31	BH	97	ARG
31	BH	125	THR
31	BH	135	HIS
32	BI	10	LEU
32	BI	11	GLN
32	BI	12	VAL
32	BI	23	VAL
32	BI	30	GLN
32	BI	39	LYS
32	BI	49	GLU
32	BI	61	TYR
32	BI	71	LYS
32	BI	81	LYS
32	BI	85	ILE
32	BI	86	LYS
32	BI	95	ASP
32	BI	107	GLU
33	BJ	1	MET
33	BJ	2	LYS
33	BJ	5	THR

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Mol	Chain	Res	Type
33	BJ	7	LYS
33	BJ	24	THR
33	BJ	25	LEU
33	BJ	30	THR
33	BJ	36	LEU
33	BJ	39	LYS
33	BJ	40	HIS
33	BJ	41	LYS
33	BJ	44	TYR
33	BJ	54	ILE
33	BJ	55	ILE
33	BJ	64	VAL
33	BJ	65	THR
33	BJ	72	LYS
33	BJ	85	LYS
33	BJ	86	GLN
33	BJ	103	ILE
33	BJ	105	VAL
33	BJ	111	LYS
33	BJ	114	LEU
33	BJ	129	GLU
33	BJ	139	VAL
33	BJ	140	LEU
34	BK	2	ILE
34	BK	3	GLN
34	BK	8	LEU
34	BK	18	ARG
34	BK	21	CYS
34	BK	23	LYS
34	BK	28	SER
34	BK	41	ILE
34	BK	47	ILE
34	BK	51	LYS
34	BK	52	VAL
34	BK	54	LYS
34	BK	58	LEU
34	BK	61	VAL
34	BK	63	VAL
34	BK	65	THR
34	BK	69	VAL
34	BK	73	ASP
34	BK	77	ILE

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Mol	Chain	Res	Type
34	BK	88	ASN
34	BK	89	ASN
34	BK	91	SER
34	BK	92	GLU
34	BK	93	GLN
34	BK	99	ILE
34	BK	107	LEU
34	BK	111	LYS
34	BK	114	LYS
35	BL	3	LEU
35	BL	4	ASN
35	BL	6	LEU
35	BL	13	LYS
35	BL	14	LYS
35	BL	19	LEU
35	BL	21	ARG
35	BL	27	LEU
35	BL	30	THR
35	BL	33	ARG
35	BL	39	LYS
35	BL	46	VAL
35	BL	47	ARG
35	BL	51	GLU
35	BL	55	MET
35	BL	61	LEU
35	BL	66	PHE
35	BL	82	LEU
35	BL	91	ASP
35	BL	93	ASN
35	BL	94	THR
35	BL	101	ILE
35	BL	111	ILE
35	BL	112	LEU
35	BL	115	GLU
35	BL	121	THR
35	BL	122	VAL
35	BL	125	LEU
35	BL	127	VAL
35	BL	135	ILE
36	BM	5	LYS
36	BM	10	ARG
36	BM	12	MET

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Mol	Chain	Res	Type
36	BM	25	ASP
36	BM	33	LEU
36	BM	36	VAL
36	BM	70	ASP
36	BM	75	GLU
36	BM	80	VAL
36	BM	90	GLU
36	BM	95	LEU
36	BM	96	ILE
36	BM	97	GLN
36	BM	100	LYS
36	BM	102	LEU
36	BM	108	VAL
36	BM	110	GLU
36	BM	131	VAL
36	BM	133	LYS
36	BM	134	THR
37	BN	2	ARG
37	BN	10	LEU
37	BN	11	ASN
37	BN	15	SER
37	BN	20	MET
37	BN	23	ASN
37	BN	33	ILE
37	BN	35	LYS
37	BN	37	THR
37	BN	38	LEU
37	BN	51	LEU
37	BN	69	ARG
37	BN	71	ARG
37	BN	75	ILE
37	BN	83	LEU
37	BN	86	ARG
37	BN	95	THR
37	BN	113	ILE
37	BN	116	VAL
37	BN	120	GLU
38	BO	8	ILE
38	BO	9	ARG
38	BO	17	LYS
38	BO	28	VAL
38	BO	31	THR

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Mol	Chain	Res	Type
38	BO	36	TYR
38	BO	39	VAL
38	BO	58	ILE
38	BO	65	THR
38	BO	74	VAL
38	BO	80	GLU
38	BO	83	LEU
38	BO	84	GLU
38	BO	89	ASP
38	BO	94	ARG
38	BO	100	HIS
38	BO	103	VAL
38	BO	106	LEU
38	BO	111	ARG
38	BO	115	LEU
38	BO	116	GLN
39	BP	3	ILE
39	BP	14	GLN
39	BP	20	ARG
39	BP	24	THR
39	BP	36	LYS
39	BP	37	LYS
39	BP	38	ARG
39	BP	61	ARG
39	BP	64	SER
39	BP	69	VAL
39	BP	75	THR
39	BP	77	SER
39	BP	79	VAL
39	BP	80	VAL
39	BP	83	ILE
39	BP	91	VAL
39	BP	92	ARG
39	BP	96	LEU
39	BP	99	LEU
40	BQ	2	ARG
40	BQ	7	VAL
40	BQ	10	ARG
40	BQ	16	ILE
40	BQ	40	LYS
40	BQ	50	ARG
40	BQ	59	LEU

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Mol	Chain	Res	Type
40	BQ	65	ASN
40	BQ	69	ARG
40	BQ	73	ILE
40	BQ	88	GLU
40	BQ	89	ILE
40	BQ	93	ILE
40	BQ	94	LEU
40	BQ	96	ASP
40	BQ	97	ILE
40	BQ	103	VAL
41	BR	10	LYS
41	BR	14	VAL
41	BR	20	VAL
41	BR	25	LEU
41	BR	29	THR
41	BR	33	VAL
41	BR	37	GLU
41	BR	38	VAL
41	BR	39	LEU
41	BR	43	ASN
41	BR	46	GLU
41	BR	48	LYS
41	BR	54	VAL
41	BR	58	VAL
41	BR	63	VAL
41	BR	72	VAL
41	BR	85	LYS
41	BR	87	GLN
41	BR	97	LYS
42	BS	1	MET
42	BS	3	THR
42	BS	4	ILE
42	BS	29	VAL
42	BS	30	SER
42	BS	33	LEU
42	BS	36	LEU
42	BS	39	THR
42	BS	41	LYS
42	BS	45	VAL
42	BS	48	LYS
42	BS	66	ILE
42	BS	68	ASP

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Mol	Chain	Res	Type
42	BS	71	VAL
42	BS	73	LYS
42	BS	74	ILE
42	BS	76	VAL
42	BS	83	LYS
42	BS	88	ARG
42	BS	96	ILE
42	BS	101	SER
42	BS	107	VAL
43	BT	2	ILE
43	BT	3	ARG
43	BT	4	GLU
43	BT	8	LEU
43	BT	11	LEU
43	BT	17	SER
43	BT	19	LYS
43	BT	29	THR
43	BT	30	ILE
43	BT	31	VAL
43	BT	43	ILE
43	BT	48	GLN
43	BT	50	LEU
43	BT	54	GLU
43	BT	67	VAL
43	BT	68	LYS
43	BT	69	ARG
43	BT	74	ILE
44	BU	4	ILE
44	BU	8	ASP
44	BU	10	VAL
44	BU	14	THR
44	BU	20	LYS
44	BU	23	LYS
44	BU	30	SER
44	BU	34	ILE
44	BU	42	LYS
44	BU	43	LYS
44	BU	61	GLU
44	BU	64	ILE
44	BU	67	SER
44	BU	80	ASP
44	BU	82	VAL

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Mol	Chain	Res	Type
44	BU	86	PHE
44	BU	92	VAL
44	BU	102	ILE
45	BV	1	MET
45	BV	3	THR
45	BV	5	ASN
45	BV	8	VAL
45	BV	10	LYS
45	BV	20	LEU
45	BV	29	ILE
45	BV	35	GLU
45	BV	41	GLU
45	BV	42	LEU
45	BV	46	LYS
45	BV	51	GLN
45	BV	55	GLU
45	BV	61	LEU
45	BV	64	VAL
45	BV	65	VAL
45	BV	66	ASP
46	BW	14	ASP
46	BW	15	SER
46	BW	22	VAL
46	BW	24	ARG
46	BW	35	ILE
46	BW	38	ARG
46	BW	40	ARG
46	BW	45	HIS
46	BW	49	ASN
46	BW	54	ARG
46	BW	57	THR
46	BW	58	LEU
46	BW	61	LYS
46	BW	67	LYS
46	BW	71	LYS
46	BW	80	SER
47	BX	6	VAL
47	BX	10	ARG
47	BX	24	THR
47	BX	26	ARG
47	BX	27	ARG
47	BX	29	LEU

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Mol	Chain	Res	Type
47	BX	47	THR
47	BX	53	LYS
47	BX	63	ILE
47	BX	65	THR
47	BX	77	TYR
48	BY	1	MET
48	BY	9	LYS
48	BY	10	SER
48	BY	14	LEU
48	BY	17	GLU
48	BY	18	LEU
48	BY	19	LEU
48	BY	22	LEU
48	BY	37	LEU
48	BY	39	GLN
48	BY	42	LEU
48	BY	47	ARG
48	BY	55	THR
48	BY	56	LEU
48	BY	57	LEU
48	BY	59	GLU
49	BZ	2	LYS
49	BZ	3	THR
49	BZ	4	ILE
49	BZ	8	GLN
49	BZ	9	THR
49	BZ	15	ARG
49	BZ	23	LEU
49	BZ	29	ARG
49	BZ	30	ARG
49	BZ	37	ARG
49	BZ	38	GLU
49	BZ	43	ILE
49	BZ	58	GLU
50	B0	5	ASN
50	B0	9	ARG
50	B0	22	THR
50	B0	27	LEU
50	B0	39	ARG
51	B1	4	ILE
51	B1	9	LYS
51	B1	16	THR

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Mol	Chain	Res	Type
51	B1	21	THR
51	B1	29	LYS
51	B1	33	LEU
51	B1	35	LEU
51	B1	41	VAL
51	B1	42	VAL
51	B1	43	ARG
51	B1	46	VAL
52	B2	1	MET
52	B2	3	ARG
52	B2	9	VAL
52	B2	12	ARG
52	B2	16	HIS
52	B2	39	ARG
52	B2	45	SER
53	B3	5	THR
53	B3	7	ARG
53	B3	22	LYS
53	B3	31	ILE
53	B3	49	VAL
53	B3	51	LYS
54	B4	1	MET
54	B4	3	VAL
54	B4	4	ARG
54	B4	9	LYS
54	B4	10	LEU
54	B4	13	ASN
1	CB	8	MET
1	CB	9	LEU
1	CB	10	LYS
1	CB	14	HIS
1	CB	19	THR
1	CB	26	MET
1	CB	29	PHE
1	CB	36	LYS
1	CB	39	ILE
1	CB	46	VAL
1	CB	56	LEU
1	CB	69	VAL
1	CB	88	GLN
1	CB	91	VAL
1	CB	103	TRP

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Mol	Chain	Res	Type
1	CB	125	PHE
1	CB	126	ASP
1	CB	131	LYS
1	CB	162	VAL
1	CB	191	ASP
1	CB	196	ASP
1	CB	198	VAL
2	CC	2	GLN
2	CC	13	ILE
2	CC	26	LYS
2	CC	27	GLU
2	CC	35	ASP
2	CC	42	LEU
2	CC	83	VAL
2	CC	134	LYS
2	CC	135	ARG
2	CC	139	ASN
2	CC	161	ILE
2	CC	164	THR
2	CC	166	TRP
2	CC	174	LEU
2	CC	190	THR
2	CC	205	GLU
3	CD	2	ARG
3	CD	30	LYS
3	CD	34	GLU
3	CD	55	ARG
3	CD	57	LYS
3	CD	60	VAL
3	CD	67	LEU
3	CD	90	LEU
3	CD	98	ASP
3	CD	99	ASN
3	CD	106	PHE
3	CD	116	LEU
3	CD	120	LYS
3	CD	128	VAL
3	CD	137	SER
3	CD	147	LYS
3	CD	155	LYS
3	CD	160	LEU
3	CD	163	GLN

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Mol	Chain	Res	Type
3	CD	165	GLU
3	CD	168	THR
3	CD	170	LEU
3	CD	172	VAL
3	CD	183	ARG
3	CD	187	ARG
3	CD	199	ILE
4	CE	11	GLN
4	CE	13	LYS
4	CE	17	VAL
4	CE	20	VAL
4	CE	25	LYS
4	CE	29	ILE
4	CE	35	LEU
4	CE	37	VAL
4	CE	51	LYS
4	CE	64	GLU
4	CE	75	LEU
4	CE	76	ASN
4	CE	80	LEU
4	CE	81	GLN
4	CE	95	MET
4	CE	100	GLU
4	CE	113	VAL
4	CE	119	VAL
4	CE	130	THR
4	CE	133	ILE
5	CF	33	GLU
5	CF	54	LEU
5	CF	56	LYS
5	CF	61	LEU
5	CF	84	VAL
5	CF	85	ILE
5	CF	86	ARG
5	CF	98	GLU
6	CG	3	ARG
6	CG	5	VAL
6	CG	10	LYS
6	CG	11	ILE
6	CG	12	LEU
6	CG	16	LYS
6	CG	22	LEU

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Mol	Chain	Res	Type
6	CG	34	LYS
6	CG	37	THR
6	CG	41	ILE
6	CG	48	THR
6	CG	55	LYS
6	CG	58	LEU
6	CG	59	GLU
6	CG	61	PHE
6	CG	63	VAL
6	CG	66	GLU
6	CG	75	LYS
6	CG	77	ARG
6	CG	78	ARG
6	CG	85	GLN
6	CG	86	VAL
6	CG	90	VAL
6	CG	100	MET
6	CG	102	TRP
6	CG	105	GLU
6	CG	119	LEU
6	CG	123	LEU
6	CG	148	LYS
7	CH	33	VAL
7	CH	42	GLU
7	CH	46	GLU
7	CH	50	VAL
7	CH	51	GLU
7	CH	54	THR
7	CH	71	VAL
7	CH	74	ILE
7	CH	75	GLN
7	CH	76	ARG
7	CH	82	LEU
7	CH	89	ASP
7	CH	93	LYS
7	CH	102	VAL
7	CH	103	VAL
7	CH	106	SER
7	CH	110	MET
7	CH	126	CYS
8	CI	4	GLN
8	CI	10	ARG

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Mol	Chain	Res	Type
8	CI	20	ILE
8	CI	26	LYS
8	CI	53	LEU
8	CI	54	VAL
8	CI	57	VAL
8	CI	61	ASP
8	CI	64	ILE
8	CI	71	ILE
8	CI	86	LEU
8	CI	87	MET
8	CI	111	GLU
8	CI	115	VAL
8	CI	125	GLN
9	CJ	5	ARG
9	CJ	15	HIS
9	CJ	22	THR
9	CJ	32	THR
9	CJ	67	ILE
9	CJ	69	THR
9	CJ	78	GLU
9	CJ	80	THR
9	CJ	82	LYS
9	CJ	87	LEU
9	CJ	92	LEU
10	CK	22	ILE
10	CK	27	ASN
10	CK	33	ILE
10	CK	57	SER
10	CK	58	THR
10	CK	73	VAL
10	CK	75	GLU
10	CK	78	ILE
10	CK	81	LEU
10	CK	94	SER
10	CK	111	ASP
10	CK	115	ILE
10	CK	120	CYS
11	CL	2	THR
11	CL	3	VAL
11	CL	9	LYS
11	CL	14	LYS
11	CL	15	VAL

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Mol	Chain	Res	Type
11	CL	19	ASN
11	CL	28	GLN
11	CL	36	VAL
11	CL	39	THR
11	CL	48	LEU
11	CL	57	THR
11	CL	78	VAL
11	CL	81	ILE
11	CL	107	LYS
11	CL	120	ARG
12	CM	8	ILE
12	CM	12	LYS
12	CM	13	HIS
12	CM	24	VAL
12	CM	32	ILE
12	CM	40	GLU
12	CM	46	GLU
12	CM	53	ASP
12	CM	58	GLU
12	CM	76	ILE
12	CM	77	LYS
12	CM	90	HIS
12	CM	91	ARG
12	CM	92	ARG
12	CM	94	LEU
12	CM	99	GLN
12	CM	113	LYS
13	CN	3	GLN
13	CN	6	LYS
13	CN	17	ASP
13	CN	27	LYS
13	CN	41	TRP
13	CN	52	ARG
13	CN	61	ASN
13	CN	65	GLN
13	CN	72	PHE
13	CN	89	ARG
13	CN	96	LYS
14	CO	4	THR
14	CO	13	GLU
14	CO	16	ARG
15	CP	1	MET

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Mol	Chain	Res	Type
15	CP	2	VAL
15	CP	6	LEU
15	CP	19	VAL
15	CP	23	ASP
15	CP	46	LYS
15	CP	71	VAL
15	CP	75	ILE
16	CQ	6	THR
16	CQ	11	VAL
16	CQ	13	SER
16	CQ	20	ILE
16	CQ	27	PHE
16	CQ	32	ILE
16	CQ	35	LYS
16	CQ	39	ARG
16	CQ	51	GLU
16	CQ	60	ILE
16	CQ	78	VAL
16	CQ	80	LYS
17	CR	29	LYS
17	CR	39	VAL
17	CR	49	LYS
17	CR	72	ARG
18	CS	5	LYS
18	CS	10	ILE
18	CS	11	ASP
18	CS	31	ARG
18	CS	43	MET
18	CS	52	ASN
18	CS	54	ARG
18	CS	55	GLN
18	CS	57	VAL
18	CS	61	VAL
19	CT	14	GLU
19	CT	26	MET
19	CT	47	GLN
19	CT	68	LYS
19	CT	69	ASN
19	CT	73	ARG
19	CT	85	LEU
20	CU	4	LYS
20	CU	15	LEU

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Mol	Chain	Res	Type
20	CU	17	ARG
20	CU	19	LYS
20	CU	28	LEU
20	CU	30	GLU
20	CU	32	ARG
20	CU	33	ARG
20	CU	37	TYR
20	CU	39	LYS
20	CU	53	LYS
26	DC	2	VAL
26	DC	18	VAL
26	DC	23	LEU
26	DC	35	LYS
26	DC	53	ILE
26	DC	57	HIS
26	DC	87	SER
26	DC	90	ILE
26	DC	124	LYS
26	DC	129	LEU
26	DC	152	GLN
26	DC	172	THR
26	DC	173	LEU
26	DC	187	CYS
26	DC	193	GLU
26	DC	203	VAL
26	DC	212	TRP
26	DC	213	ARG
26	DC	220	ARG
26	DC	227	VAL
26	DC	235	GLU
26	DC	250	GLN
26	DC	256	THR
26	DC	260	LYS
26	DC	267	VAL
27	DD	9	VAL
27	DD	24	VAL
27	DD	28	GLU
27	DD	33	ARG
27	DD	34	VAL
27	DD	35	THR
27	DD	38	LYS
27	DD	55	LYS

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Mol	Chain	Res	Type
27	DD	56	LYS
27	DD	62	LYS
27	DD	70	LYS
27	DD	79	LEU
27	DD	84	LEU
27	DD	106	LYS
27	DD	107	VAL
27	DD	121	THR
27	DD	138	LEU
27	DD	141	ARG
27	DD	148	GLN
27	DD	159	LYS
27	DD	168	GLU
27	DD	189	VAL
27	DD	193	VAL
28	DE	31	VAL
28	DE	53	THR
28	DE	57	LYS
28	DE	63	LYS
28	DE	77	ILE
28	DE	84	THR
28	DE	105	LEU
28	DE	108	ILE
28	DE	112	LEU
28	DE	117	ARG
28	DE	126	VAL
28	DE	139	LYS
28	DE	149	ILE
28	DE	157	LEU
28	DE	163	ASN
28	DE	164	LEU
28	DE	166	LYS
29	DF	8	LYS
29	DF	13	LYS
29	DF	14	LYS
29	DF	32	LYS
29	DF	48	LEU
29	DF	49	LEU
29	DF	76	PHE
29	DF	77	LYS
29	DF	78	ILE
29	DF	91	ARG

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Mol	Chain	Res	Type
29	DF	94	ARG
29	DF	97	GLU
29	DF	109	ARG
29	DF	110	ILE
29	DF	111	ARG
29	DF	113	PHE
29	DF	119	LYS
29	DF	131	VAL
29	DF	133	GLU
29	DF	134	GLN
29	DF	135	ILE
29	DF	139	GLU
29	DF	142	TYR
29	DF	147	ARG
29	DF	148	VAL
29	DF	151	LEU
29	DF	155	ILE
29	DF	160	LYS
29	DF	169	LEU
29	DF	172	PHE
29	DF	177	ARG
30	DG	2	ARG
30	DG	18	ILE
30	DG	19	ASN
30	DG	21	GLN
30	DG	22	VAL
30	DG	34	ARG
30	DG	35	THR
30	DG	40	VAL
30	DG	42	VAL
30	DG	51	PHE
30	DG	72	ASN
30	DG	84	LYS
30	DG	93	TYR
30	DG	101	VAL
30	DG	120	ILE
30	DG	143	VAL
30	DG	163	TYR
30	DG	166	GLU
30	DG	176	LYS
31	DH	22	LYS
31	DH	27	ARG

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Mol	Chain	Res	Type
31	DH	28	ASN
31	DH	37	VAL
31	DH	42	LYS
31	DH	50	ARG
31	DH	62	LEU
31	DH	66	ASN
31	DH	76	GLU
31	DH	90	LEU
31	DH	94	ILE
31	DH	104	THR
31	DH	109	GLU
31	DH	144	VAL
32	DI	9	LYS
32	DI	16	MET
32	DI	30	GLN
32	DI	45	THR
32	DI	57	VAL
32	DI	58	ILE
32	DI	93	ASN
33	DJ	1	MET
33	DJ	2	LYS
33	DJ	3	THR
33	DJ	18	VAL
33	DJ	25	LEU
33	DJ	36	LEU
33	DJ	43	GLU
33	DJ	47	HIS
33	DJ	54	ILE
33	DJ	57	LEU
33	DJ	72	LYS
33	DJ	81	ILE
33	DJ	92	MET
33	DJ	95	ARG
33	DJ	98	GLU
33	DJ	101	ILE
33	DJ	103	ILE
33	DJ	106	LYS
33	DJ	108	MET
33	DJ	124	VAL
33	DJ	129	GLU
33	DJ	139	VAL
34	DK	3	GLN

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Mol	Chain	Res	Type
34	DK	7	MET
34	DK	10	VAL
34	DK	13	ASN
34	DK	24	VAL
34	DK	25	LEU
34	DK	39	ILE
34	DK	41	ILE
34	DK	47	ILE
34	DK	49	ARG
34	DK	54	LYS
34	DK	69	VAL
34	DK	73	ASP
34	DK	87	LEU
34	DK	95	ILE
34	DK	103	VAL
34	DK	105	ARG
34	DK	106	GLU
34	DK	107	LEU
34	DK	111	LYS
34	DK	114	LYS
34	DK	122	VAL
35	DL	3	LEU
35	DL	4	ASN
35	DL	6	LEU
35	DL	14	LYS
35	DL	47	ARG
35	DL	48	ARG
35	DL	79	LEU
35	DL	82	LEU
35	DL	92	LEU
35	DL	99	ASN
35	DL	103	ILE
35	DL	111	ILE
35	DL	112	LEU
35	DL	118	THR
35	DL	143	GLU
36	DM	8	LYS
36	DM	25	ASP
36	DM	26	VAL
36	DM	33	LEU
36	DM	38	ARG
36	DM	63	ILE

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Mol	Chain	Res	Type
36	DM	69	PRO
36	DM	78	LEU
36	DM	96	ILE
36	DM	97	GLN
36	DM	101	VAL
36	DM	105	MET
36	DM	112	LEU
36	DM	115	GLU
36	DM	119	LEU
36	DM	126	ILE
36	DM	133	LYS
36	DM	135	VAL
36	DM	136	MET
37	DN	14	SER
37	DN	18	GLN
37	DN	20	MET
37	DN	29	VAL
37	DN	33	ILE
37	DN	34	ILE
37	DN	53	THR
37	DN	62	ASN
37	DN	69	ARG
37	DN	75	ILE
37	DN	81	ASN
37	DN	95	THR
37	DN	97	ILE
37	DN	98	LEU
37	DN	114	GLU
38	DO	17	LYS
38	DO	30	ARG
38	DO	31	THR
38	DO	49	VAL
38	DO	65	THR
38	DO	68	LYS
38	DO	69	ASP
38	DO	90	VAL
38	DO	100	HIS
38	DO	115	LEU
38	DO	116	GLN
39	DP	13	LYS
39	DP	28	LYS
39	DP	31	VAL

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Mol	Chain	Res	Type
39	DP	83	ILE
39	DP	86	LYS
39	DP	95	LYS
39	DP	101	GLU
40	DQ	3	VAL
40	DQ	12	ARG
40	DQ	15	LYS
40	DQ	21	LYS
40	DQ	54	ARG
40	DQ	57	ARG
40	DQ	59	LEU
40	DQ	63	ARG
40	DQ	69	ARG
40	DQ	79	ILE
40	DQ	89	ILE
40	DQ	93	ILE
41	DR	6	GLN
41	DR	13	ARG
41	DR	37	GLU
41	DR	38	VAL
41	DR	39	LEU
41	DR	48	LYS
41	DR	58	VAL
41	DR	63	VAL
41	DR	75	VAL
41	DR	80	ARG
41	DR	81	LYS
41	DR	86	GLN
41	DR	90	ARG
41	DR	93	PHE
42	DS	4	ILE
42	DS	6	LYS
42	DS	23	LEU
42	DS	31	GLN
42	DS	33	LEU
42	DS	36	LEU
42	DS	45	VAL
42	DS	46	LEU
42	DS	47	VAL
42	DS	49	LYS
42	DS	66	ILE
42	DS	70	LYS

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Mol	Chain	Res	Type
42	DS	74	ILE
42	DS	76	VAL
42	DS	84	ARG
42	DS	85	ILE
42	DS	86	MET
42	DS	88	ARG
42	DS	96	ILE
42	DS	107	VAL
43	DT	9	LYS
43	DT	18	GLU
43	DT	39	THR
43	DT	50	LEU
43	DT	54	GLU
43	DT	68	LYS
44	DU	13	LEU
44	DU	14	THR
44	DU	16	LYS
44	DU	20	LYS
44	DU	21	ARG
44	DU	40	LEU
44	DU	42	LYS
44	DU	45	GLN
44	DU	61	GLU
44	DU	71	ILE
44	DU	82	VAL
44	DU	85	ARG
44	DU	94	PHE
44	DU	95	PHE
45	DV	26	PHE
45	DV	31	TYR
45	DV	40	ILE
45	DV	51	GLN
45	DV	53	LYS
45	DV	61	LEU
45	DV	65	VAL
45	DV	69	GLU
45	DV	70	ILE
45	DV	75	GLN
45	DV	76	ASP
45	DV	77	VAL
45	DV	79	ARG
46	DW	18	LYS

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Mol	Chain	Res	Type
46	DW	20	LEU
46	DW	22	VAL
46	DW	23	LYS
46	DW	30	VAL
46	DW	35	ILE
46	DW	37	VAL
46	DW	38	ARG
46	DW	40	ARG
46	DW	58	LEU
46	DW	67	LYS
46	DW	68	PHE
46	DW	77	LYS
47	DX	5	GLN
47	DX	26	ARG
47	DX	31	ASN
47	DX	33	HIS
47	DX	46	VAL
47	DX	47	THR
47	DX	57	VAL
47	DX	63	ILE
48	DY	1	MET
48	DY	4	LYS
48	DY	28	LEU
48	DY	57	LEU
49	DZ	16	LEU
49	DZ	24	LEU
49	DZ	28	LEU
49	DZ	29	ARG
49	DZ	50	VAL
49	DZ	53	MET
49	DZ	55	LYS
49	DZ	58	GLU
50	D0	3	GLN
50	D0	5	ASN
50	D0	9	ARG
50	D0	27	LEU
50	D0	41	HIS
50	D0	42	ILE
50	D0	53	VAL
51	D1	10	LEU
51	D1	20	TYR
51	D1	44	GLN

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Mol	Chain	Res	Type
51	D1	52	LYS
52	D2	8	SER
52	D2	26	ASN
52	D2	46	LYS
53	D3	12	ARG
53	D3	14	LYS
53	D3	27	ASN
53	D3	41	ARG
53	D3	46	LYS
53	D3	49	VAL
53	D3	50	SER
53	D3	51	LYS
53	D3	61	LEU
54	D4	2	LYS
54	D4	9	LYS
54	D4	15	LYS
54	D4	17	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (349) such sidechains are listed below:

Mol	Chain	Res	Type
1	AB	18	GLN
1	AB	23	ASN
1	AB	41	ASN
1	AB	102	ASN
1	AB	108	GLN
1	AB	119	GLN
1	AB	167	HIS
1	AB	202	ASN
2	AC	24	ASN
2	AC	68	HIS
2	AC	139	ASN
3	AD	53	GLN
3	AD	58	GLN
3	AD	70	GLN
3	AD	73	ASN
3	AD	99	ASN
3	AD	115	GLN
3	AD	119	HIS
3	AD	139	ASN
3	AD	195	ASN
4	AE	18	ASN

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Mol	Chain	Res	Type
4	AE	42	ASN
4	AE	72	ASN
4	AE	76	ASN
4	AE	77	ASN
4	AE	81	GLN
4	AE	121	ASN
4	AE	131	ASN
5	AF	11	HIS
5	AF	17	GLN
5	AF	46	GLN
5	AF	52	ASN
5	AF	68	GLN
6	AG	51	GLN
6	AG	121	ASN
6	AG	147	ASN
7	AH	17	GLN
7	AH	20	ASN
7	AH	66	GLN
7	AH	117	GLN
8	AI	3	ASN
8	AI	4	GLN
8	AI	49	GLN
8	AI	74	GLN
8	AI	80	HIS
8	AI	125	GLN
9	AJ	20	GLN
9	AJ	35	GLN
10	AK	21	HIS
10	AK	23	HIS
10	AK	108	ASN
10	AK	118	ASN
11	AL	45	ASN
11	AL	95	HIS
11	AL	111	GLN
13	AN	42	ASN
13	AN	48	GLN
13	AN	61	ASN
14	AO	27	GLN
14	AO	36	ASN
14	AO	49	HIS
14	AO	61	GLN
15	AP	59	HIS

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Mol	Chain	Res	Type
16	AQ	44	HIS
16	AQ	49	ASN
17	AR	30	ASN
18	AS	42	ASN
18	AS	51	HIS
18	AS	55	GLN
18	AS	68	HIS
19	AT	20	ASN
19	AT	54	GLN
19	AT	60	GLN
19	AT	74	HIS
19	AT	77	ASN
20	AU	8	ASN
26	BC	14	HIS
26	BC	20	ASN
26	BC	43	ASN
26	BC	59	GLN
26	BC	69	ASN
26	BC	89	ASN
26	BC	114	GLN
26	BC	141	HIS
26	BC	152	GLN
26	BC	242	HIS
26	BC	250	GLN
26	BC	259	ASN
27	BD	32	ASN
27	BD	49	GLN
27	BD	126	ASN
27	BD	130	GLN
27	BD	134	HIS
28	BE	24	ASN
28	BE	30	GLN
28	BE	41	GLN
28	BE	62	GLN
28	BE	97	ASN
28	BE	136	GLN
29	BF	22	ASN
29	BF	26	GLN
29	BF	62	GLN
29	BF	134	GLN
30	BG	72	ASN
30	BG	115	GLN

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Mol	Chain	Res	Type
30	BG	138	GLN
31	BH	18	GLN
31	BH	33	GLN
31	BH	43	ASN
31	BH	145	ASN
32	BI	5	GLN
32	BI	30	GLN
33	BJ	58	ASN
33	BJ	76	HIS
33	BJ	77	HIS
33	BJ	80	HIS
33	BJ	128	ASN
33	BJ	130	HIS
34	BK	5	GLN
34	BK	88	ASN
34	BK	89	ASN
35	BL	4	ASN
35	BL	54	GLN
35	BL	93	ASN
35	BL	104	GLN
36	BM	13	HIS
37	BN	3	HIS
37	BN	9	GLN
37	BN	11	ASN
37	BN	18	GLN
37	BN	23	ASN
37	BN	62	ASN
37	BN	73	ASN
38	BO	34	HIS
38	BO	38	GLN
38	BO	104	GLN
39	BP	9	GLN
39	BP	74	GLN
40	BQ	13	HIS
40	BQ	51	GLN
40	BQ	65	ASN
41	BR	43	ASN
41	BR	82	HIS
41	BR	87	GLN
42	BS	15	GLN
42	BS	40	ASN
42	BS	57	ASN

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Mol	Chain	Res	Type
42	BS	61	ASN
43	BT	48	GLN
43	BT	70	HIS
43	BT	72	GLN
43	BT	91	GLN
44	BU	52	ASN
44	BU	65	GLN
44	BU	73	ASN
45	BV	5	ASN
45	BV	44	HIS
45	BV	51	GLN
45	BV	80	HIS
45	BV	88	HIS
46	BW	39	GLN
47	BX	5	GLN
48	BY	15	ASN
48	BY	20	ASN
48	BY	27	ASN
48	BY	31	GLN
48	BY	45	GLN
49	BZ	19	HIS
50	B0	3	GLN
50	B0	5	ASN
52	B2	13	ASN
52	B2	16	HIS
53	B3	27	ASN
54	B4	13	ASN
1	CB	14	HIS
1	CB	17	HIS
1	CB	38	HIS
1	CB	145	ASN
2	CC	2	GLN
2	CC	18	ASN
2	CC	31	ASN
2	CC	68	HIS
2	CC	122	GLN
2	CC	139	ASN
2	CC	189	HIS
3	CD	35	GLN
3	CD	39	GLN
3	CD	84	ASN
3	CD	115	GLN

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Mol	Chain	Res	Type
3	CD	119	HIS
3	CD	125	ASN
3	CD	163	GLN
4	CE	11	GLN
4	CE	72	ASN
4	CE	76	ASN
4	CE	77	ASN
4	CE	121	ASN
4	CE	131	ASN
4	CE	147	ASN
5	CF	11	HIS
5	CF	14	GLN
5	CF	63	ASN
5	CF	81	ASN
6	CG	8	GLN
6	CG	67	ASN
7	CH	3	GLN
7	CH	17	GLN
7	CH	37	ASN
8	CI	3	ASN
8	CI	4	GLN
8	CI	49	GLN
8	CI	74	GLN
8	CI	125	GLN
9	CJ	35	GLN
9	CJ	56	HIS
9	CJ	64	GLN
10	CK	21	HIS
10	CK	27	ASN
10	CK	118	ASN
11	CL	4	ASN
11	CL	5	GLN
11	CL	19	ASN
11	CL	72	ASN
11	CL	74	GLN
11	CL	95	HIS
11	CL	111	GLN
12	CM	99	GLN
13	CN	42	ASN
13	CN	65	GLN
13	CN	70	HIS
14	CO	27	GLN

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Mol	Chain	Res	Type
14	CO	37	HIS
14	CO	39	GLN
15	CP	18	GLN
15	CP	29	ASN
16	CQ	49	ASN
18	CS	13	HIS
18	CS	52	ASN
18	CS	68	HIS
19	CT	2	ASN
19	CT	69	ASN
19	CT	81	GLN
19	CT	83	ASN
26	DC	20	ASN
26	DC	43	ASN
26	DC	52	HIS
26	DC	57	HIS
26	DC	85	ASN
26	DC	116	GLN
26	DC	133	ASN
26	DC	152	GLN
26	DC	196	ASN
26	DC	199	HIS
27	DD	36	GLN
27	DD	49	GLN
27	DD	67	HIS
27	DD	150	GLN
28	DE	9	GLN
28	DE	29	HIS
28	DE	30	GLN
28	DE	41	GLN
28	DE	62	GLN
29	DF	4	HIS
29	DF	126	ASN
29	DF	134	GLN
30	DG	19	ASN
30	DG	37	ASN
30	DG	44	HIS
30	DG	103	ASN
30	DG	138	GLN
30	DG	142	GLN
31	DH	2	GLN
31	DH	28	ASN

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Mol	Chain	Res	Type
31	DH	43	ASN
31	DH	66	ASN
31	DH	119	ASN
32	DI	42	ASN
32	DI	93	ASN
32	DI	106	GLN
33	DJ	40	HIS
33	DJ	77	HIS
33	DJ	131	ASN
33	DJ	138	GLN
34	DK	3	GLN
34	DK	9	ASN
34	DK	13	ASN
34	DK	89	ASN
35	DL	4	ASN
35	DL	38	GLN
35	DL	54	GLN
36	DM	3	GLN
36	DM	97	GLN
37	DN	3	HIS
37	DN	11	ASN
37	DN	16	HIS
37	DN	31	HIS
37	DN	73	ASN
37	DN	107	ASN
38	DO	29	HIS
38	DO	100	HIS
39	DP	2	ASN
39	DP	6	GLN
39	DP	9	GLN
39	DP	11	GLN
39	DP	65	ASN
39	DP	114	ASN
40	DQ	19	GLN
40	DQ	43	GLN
40	DQ	80	ASN
41	DR	6	GLN
41	DR	12	HIS
41	DR	66	HIS
41	DR	86	GLN
41	DR	87	GLN
42	DS	31	GLN

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Mol	Chain	Res	Type
42	DS	57	ASN
43	DT	15	HIS
43	DT	48	GLN
43	DT	70	HIS
43	DT	91	GLN
43	DT	92	ASN
44	DU	44	HIS
44	DU	45	GLN
44	DU	53	GLN
44	DU	68	ASN
45	DV	51	GLN
45	DV	78	GLN
45	DV	80	HIS
46	DW	11	ASN
47	DX	15	ASN
47	DX	22	ASN
47	DX	31	ASN
47	DX	33	HIS
48	DY	15	ASN
48	DY	20	ASN
48	DY	39	GLN
48	DY	41	HIS
48	DY	45	GLN
48	DY	58	ASN
49	DZ	19	HIS
49	DZ	33	HIS
50	D0	18	HIS
50	D0	41	HIS
52	D2	6	GLN
53	D3	27	ASN
53	D3	30	HIS
53	D3	42	HIS
54	D4	35	GLN
54	D4	37	GLN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
21	AA	1532/1533 (99%)	497 (32%)	255 (16%)
22	AV	16/17 (94%)	0	0
22	CV	16/17 (94%)	1 (6%)	0

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
23	AW	5/6 (83%)	3 (60%)	1 (20%)
23	CW	5/6 (83%)	3 (60%)	1 (20%)
24	BA	2850/2903 (98%)	1011 (35%)	492 (17%)
24	DA	2838/2903 (97%)	1038 (36%)	519 (18%)
25	BB	117/118 (99%)	36 (30%)	19 (16%)
55	CA	1530/1530 (100%)	533 (34%)	252 (16%)
56	DB	116/117 (99%)	43 (37%)	18 (15%)
All	All	9025/9150 (98%)	3165 (35%)	1557 (17%)

All (3165) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
21	AA	5	U
21	AA	6	G
21	AA	7	A
21	AA	9	G
21	AA	13	U
21	AA	14	U
21	AA	15	G
21	AA	16	A
21	AA	31	G
21	AA	32	A
21	AA	33	A
21	AA	34	C
21	AA	39	G
21	AA	47	C
21	AA	48	C
21	AA	49	U
21	AA	50	A
21	AA	51	A
21	AA	52	C
21	AA	53	A
21	AA	61	G
21	AA	62	U
21	AA	64	G
21	AA	65	A
21	AA	66	A
21	AA	67	C
21	AA	70	U
21	AA	71	A
21	AA	72	A
21	AA	73	C

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Mol	Chain	Res	Type
21	AA	74	A
21	AA	75	G
21	AA	76	G
21	AA	77	A
21	AA	78	A
21	AA	79	G
21	AA	82	G
21	AA	83	C
21	AA	85	U
21	AA	86	G
21	AA	87	C
21	AA	88	U
21	AA	89	U
21	AA	90	C
21	AA	91	U
21	AA	92	U
21	AA	94	G
21	AA	95	C
21	AA	96	U
21	AA	97	G
21	AA	109	A
21	AA	110	C
21	AA	111	G
21	AA	116	A
21	AA	117	G
21	AA	119	A
21	AA	120	A
21	AA	121	U
21	AA	122	G
21	AA	123	U
21	AA	129	A
21	AA	130	A
21	AA	131	A
21	AA	132	C
21	AA	141	G
21	AA	143	A
21	AA	152	A
21	AA	159	G
21	AA	160	A
21	AA	163	C
21	AA	164	G
21	AA	174	A

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Mol	Chain	Res	Type
21	AA	175	C
21	AA	176	C
21	AA	182	A
21	AA	183	C
21	AA	184	G
21	AA	185	U
21	AA	189	A
21	AA	192	A
21	AA	198	G
21	AA	199	A
21	AA	200	G
21	AA	202	G
21	AA	205	A
21	AA	207	C
21	AA	209	U
21	AA	210	C
21	AA	211	G
21	AA	212	G
21	AA	213	G
21	AA	214	C
21	AA	215	C
21	AA	240	G
21	AA	243	A
21	AA	244	U
21	AA	245	U
21	AA	246	A
21	AA	247	G
21	AA	248	C
21	AA	250	A
21	AA	251	G
21	AA	252	U
21	AA	253	A
21	AA	254	G
21	AA	266	G
21	AA	267	C
21	AA	268	U
21	AA	275	G
21	AA	276	G
21	AA	279	A
21	AA	280	C
21	AA	281	G
21	AA	289	G

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Mol	Chain	Res	Type
21	AA	305	G
21	AA	306	A
21	AA	307	C
21	AA	316	C
21	AA	317	U
21	AA	320	A
21	AA	321	A
21	AA	328	C
21	AA	329	A
21	AA	330	C
21	AA	331	G
21	AA	332	G
21	AA	344	A
21	AA	345	C
21	AA	346	G
21	AA	347	G
21	AA	348	G
21	AA	352	C
21	AA	353	A
21	AA	354	G
21	AA	355	C
21	AA	367	U
21	AA	369	G
21	AA	370	C
21	AA	373	A
21	AA	374	A
21	AA	384	G
21	AA	388	G
21	AA	389	A
21	AA	390	U
21	AA	406	G
21	AA	411	A
21	AA	412	A
21	AA	413	G
21	AA	414	A
21	AA	415	A
21	AA	421	U
21	AA	422	C
21	AA	423	G
21	AA	424	G
21	AA	428	G
21	AA	429	U

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Mol	Chain	Res	Type
21	AA	430	A
21	AA	431	A
21	AA	435	A
21	AA	441	A
21	AA	442	G
21	AA	451	A
21	AA	452	A
21	AA	453	G
21	AA	454	G
21	AA	456	A
21	AA	459	A
21	AA	461	A
21	AA	462	G
21	AA	463	U
21	AA	464	U
21	AA	465	A
21	AA	466	A
21	AA	467	U
21	AA	468	A
21	AA	469	C
21	AA	473	U
21	AA	478	A
21	AA	481	G
21	AA	484	G
21	AA	485	U
21	AA	486	U
21	AA	487	A
21	AA	488	C
21	AA	495	A
21	AA	496	A
21	AA	497	G
21	AA	498	A
21	AA	499	A
21	AA	500	G
21	AA	505	G
21	AA	508	U
21	AA	509	A
21	AA	510	A
21	AA	511	C
21	AA	518	C
21	AA	519	C
21	AA	520	A

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Mol	Chain	Res	Type
21	AA	521	G
21	AA	524	G
21	AA	527	G
21	AA	532	A
21	AA	536	C
21	AA	537	G
21	AA	548	G
21	AA	549	C
21	AA	556	C
21	AA	558	G
21	AA	559	A
21	AA	560	A
21	AA	562	U
21	AA	563	A
21	AA	564	C
21	AA	565	U
21	AA	566	G
21	AA	567	G
21	AA	568	G
21	AA	572	A
21	AA	573	A
21	AA	575	G
21	AA	576	C
21	AA	577	G
21	AA	578	C
21	AA	588	G
21	AA	595	A
21	AA	596	A
21	AA	633	G
21	AA	653	U
21	AA	654	G
21	AA	655	A
21	AA	665	A
21	AA	688	G
21	AA	689	C
21	AA	700	G
21	AA	701	U
21	AA	702	A
21	AA	703	G
21	AA	704	A
21	AA	705	G
21	AA	718	A

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Mol	Chain	Res	Type
21	AA	719	C
21	AA	721	G
21	AA	722	G
21	AA	723	U
21	AA	724	G
21	AA	725	G
21	AA	731	G
21	AA	735	C
21	AA	736	C
21	AA	748	G
21	AA	754	C
21	AA	755	G
21	AA	756	C
21	AA	777	A
21	AA	792	A
21	AA	793	U
21	AA	794	A
21	AA	812	G
21	AA	813	U
21	AA	814	A
21	AA	815	A
21	AA	816	A
21	AA	817	C
21	AA	821	G
21	AA	822	U
21	AA	828	U
21	AA	831	A
21	AA	841	C
21	AA	842	U
21	AA	843	U
21	AA	845	A
21	AA	846	G
21	AA	859	G
21	AA	871	U
21	AA	873	A
21	AA	874	G
21	AA	875	U
21	AA	885	G
21	AA	886	G
21	AA	889	A
21	AA	890	G
21	AA	891	U

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Mol	Chain	Res	Type
21	AA	892	A
21	AA	913	A
21	AA	914	A
21	AA	915	A
21	AA	926	G
21	AA	927	G
21	AA	934	C
21	AA	935	A
21	AA	936	C
21	AA	958	A
21	AA	960	U
21	AA	961	U
21	AA	962	C
21	AA	966	G
21	AA	967	C
21	AA	968	A
21	AA	969	A
21	AA	970	C
21	AA	972	C
21	AA	973	G
21	AA	974	A
21	AA	975	A
21	AA	976	G
21	AA	977	A
21	AA	978	A
21	AA	982	U
21	AA	983	A
21	AA	984	C
21	AA	985	C
21	AA	986	U
21	AA	991	U
21	AA	992	U
21	AA	993	G
21	AA	994	A
21	AA	995	C
21	AA	1003	G
21	AA	1004	A
21	AA	1008	U
21	AA	1017	U
21	AA	1018	G
21	AA	1022	A
21	AA	1025	U

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Mol	Chain	Res	Type
21	AA	1028	C
21	AA	1029	U
21	AA	1030	U
21	AA	1031	C
21	AA	1032	G
21	AA	1033	G
21	AA	1034	G
21	AA	1037	C
21	AA	1044	A
21	AA	1050	G
21	AA	1051	C
21	AA	1052	U
21	AA	1053	G
21	AA	1054	C
21	AA	1055	A
21	AA	1064	G
21	AA	1065	U
21	AA	1066	C
21	AA	1067	A
21	AA	1068	G
21	AA	1069	C
21	AA	1073	U
21	AA	1085	U
21	AA	1086	U
21	AA	1087	G
21	AA	1088	G
21	AA	1089	G
21	AA	1094	G
21	AA	1095	U
21	AA	1096	C
21	AA	1101	A
21	AA	1102	A
21	AA	1103	C
21	AA	1104	G
21	AA	1124	G
21	AA	1125	U
21	AA	1126	U
21	AA	1127	G
21	AA	1128	C
21	AA	1130	A
21	AA	1131	G
21	AA	1133	G

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Mol	Chain	Res	Type
21	AA	1135	U
21	AA	1137	C
21	AA	1138	G
21	AA	1139	G
21	AA	1140	C
21	AA	1141	C
21	AA	1144	G
21	AA	1145	A
21	AA	1146	A
21	AA	1158	C
21	AA	1159	U
21	AA	1160	G
21	AA	1161	C
21	AA	1167	A
21	AA	1168	U
21	AA	1169	A
21	AA	1170	A
21	AA	1181	G
21	AA	1182	G
21	AA	1183	U
21	AA	1184	G
21	AA	1185	G
21	AA	1190	G
21	AA	1196	A
21	AA	1197	A
21	AA	1200	C
21	AA	1201	A
21	AA	1202	U
21	AA	1203	C
21	AA	1212	U
21	AA	1213	A
21	AA	1215	G
21	AA	1216	A
21	AA	1225	A
21	AA	1226	C
21	AA	1227	A
21	AA	1228	C
21	AA	1229	A
21	AA	1238	A
21	AA	1240	U
21	AA	1241	G
21	AA	1242	G

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Mol	Chain	Res	Type
21	AA	1253	G
21	AA	1256	A
21	AA	1257	A
21	AA	1258	G
21	AA	1259	C
21	AA	1278	G
21	AA	1280	A
21	AA	1282	C
21	AA	1283	U
21	AA	1285	A
21	AA	1286	U
21	AA	1287	A
21	AA	1288	A
21	AA	1289	A
21	AA	1297	G
21	AA	1298	U
21	AA	1299	A
21	AA	1300	G
21	AA	1303	C
21	AA	1304	G
21	AA	1305	G
21	AA	1308	U
21	AA	1317	C
21	AA	1320	C
21	AA	1321	U
21	AA	1322	C
21	AA	1323	G
21	AA	1324	A
21	AA	1325	C
21	AA	1332	A
21	AA	1336	C
21	AA	1337	G
21	AA	1338	G
21	AA	1346	A
21	AA	1348	U
21	AA	1349	A
21	AA	1353	G
21	AA	1362	A
21	AA	1363	A
21	AA	1364	U
21	AA	1365	G
21	AA	1366	C

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Mol	Chain	Res	Type
21	AA	1371	G
21	AA	1380	U
21	AA	1381	U
21	AA	1382	C
21	AA	1383	C
21	AA	1394	A
21	AA	1395	C
21	AA	1396	A
21	AA	1398	A
21	AA	1399	C
21	AA	1400	C
21	AA	1402	C
21	AA	1413	A
21	AA	1441	A
21	AA	1446	A
21	AA	1447	A
21	AA	1448	C
21	AA	1449	C
21	AA	1450	U
21	AA	1451	U
21	AA	1452	C
21	AA	1453	G
21	AA	1454	G
21	AA	1455	G
21	AA	1456	A
21	AA	1469	C
21	AA	1476	A
21	AA	1492	A
21	AA	1494	G
21	AA	1495	U
21	AA	1497	G
21	AA	1498	U
21	AA	1499	A
21	AA	1500	A
21	AA	1502	A
21	AA	1503	A
21	AA	1505	G
21	AA	1506	U
21	AA	1507	A
21	AA	1508	A
21	AA	1509	C
21	AA	1517	G

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Mol	Chain	Res	Type
21	AA	1519	A
21	AA	1529	G
21	AA	1530	G
21	AA	1531	A
21	AA	1534	A
23	AW	3	G
23	AW	4	U
23	AW	6	U
24	BA	10	A
24	BA	13	A
24	BA	14	A
24	BA	15	G
24	BA	16	C
24	BA	27	G
24	BA	28	A
24	BA	29	U
24	BA	33	C
24	BA	34	U
24	BA	35	G
24	BA	36	G
24	BA	37	C
24	BA	42	A
24	BA	43	G
24	BA	46	G
24	BA	49	A
24	BA	50	U
24	BA	52	A
24	BA	53	A
24	BA	55	G
24	BA	57	C
24	BA	60	G
24	BA	61	C
24	BA	62	U
24	BA	63	A
24	BA	64	A
24	BA	70	G
24	BA	71	A
24	BA	72	U
24	BA	73	A
24	BA	74	A
24	BA	75	G
24	BA	76	C

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Mol	Chain	Res	Type
24	BA	82	U
24	BA	84	A
24	BA	85	G
24	BA	86	G
24	BA	87	U
24	BA	91	A
24	BA	92	U
24	BA	93	G
24	BA	98	G
24	BA	101	A
24	BA	103	A
24	BA	104	A
24	BA	118	A
24	BA	119	A
24	BA	120	U
24	BA	121	G
24	BA	122	G
24	BA	126	A
24	BA	127	A
24	BA	128	C
24	BA	135	U
24	BA	137	U
24	BA	138	U
24	BA	139	U
24	BA	140	C
24	BA	141	G
24	BA	142	A
24	BA	143	C
24	BA	144	A
24	BA	145	C
24	BA	149	A
24	BA	162	U
24	BA	163	C
24	BA	164	C
24	BA	165	A
24	BA	177	G
24	BA	178	G
24	BA	188	G
24	BA	196	A
24	BA	197	A
24	BA	198	C
24	BA	199	A

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Mol	Chain	Res	Type
24	BA	200	U
24	BA	201	C
24	BA	204	A
24	BA	205	G
24	BA	206	U
24	BA	207	A
24	BA	215	G
24	BA	216	A
24	BA	217	A
24	BA	221	A
24	BA	222	A
24	BA	223	A
24	BA	224	U
24	BA	225	C
24	BA	227	A
24	BA	228	C
24	BA	229	C
24	BA	230	G
24	BA	231	A
24	BA	232	G
24	BA	233	A
24	BA	234	U
24	BA	239	C
24	BA	241	A
24	BA	242	G
24	BA	243	U
24	BA	244	A
24	BA	248	G
24	BA	249	C
24	BA	250	G
24	BA	251	A
24	BA	255	A
24	BA	265	A
24	BA	266	G
24	BA	267	C
24	BA	268	C
24	BA	276	U
24	BA	277	G
24	BA	278	A
24	BA	279	A
24	BA	285	G
24	BA	288	U

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Mol	Chain	Res	Type
24	BA	299	A
24	BA	301	G
24	BA	302	C
24	BA	303	G
24	BA	311	A
24	BA	312	G
24	BA	313	G
24	BA	321	U
24	BA	322	A
24	BA	324	A
24	BA	325	G
24	BA	329	G
24	BA	330	A
24	BA	333	G
24	BA	334	C
24	BA	335	C
24	BA	341	C
24	BA	346	A
24	BA	347	A
24	BA	348	A
24	BA	349	U
24	BA	353	C
24	BA	359	G
24	BA	361	G
24	BA	367	G
24	BA	370	G
24	BA	371	A
24	BA	372	G
24	BA	373	U
24	BA	374	A
24	BA	383	C
24	BA	385	C
24	BA	386	G
24	BA	387	U
24	BA	388	G
24	BA	389	G
24	BA	390	U
24	BA	391	A
24	BA	395	U
24	BA	396	G
24	BA	401	A
24	BA	402	A

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Mol	Chain	Res	Type
24	BA	404	A
24	BA	405	U
24	BA	412	A
24	BA	413	C
24	BA	422	A
24	BA	423	A
24	BA	424	G
24	BA	433	C
24	BA	435	C
24	BA	436	C
24	BA	443	A
24	BA	444	C
24	BA	446	G
24	BA	447	A
24	BA	449	A
24	BA	450	G
24	BA	451	U
24	BA	455	C
24	BA	457	A
24	BA	459	U
24	BA	460	A
24	BA	462	C
24	BA	473	G
24	BA	475	C
24	BA	476	G
24	BA	479	A
24	BA	480	A
24	BA	481	G
24	BA	482	A
24	BA	483	A
24	BA	484	C
24	BA	490	C
24	BA	491	G
24	BA	492	A
24	BA	504	A
24	BA	505	A
24	BA	506	G
24	BA	507	A
24	BA	508	A
24	BA	509	C
24	BA	510	C
24	BA	511	U

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Mol	Chain	Res	Type
24	BA	512	G
24	BA	513	A
24	BA	514	A
24	BA	515	A
24	BA	528	A
24	BA	529	A
24	BA	530	G
24	BA	531	C
24	BA	532	A
24	BA	533	G
24	BA	534	U
24	BA	543	G
24	BA	544	C
24	BA	546	U
24	BA	547	A
24	BA	548	G
24	BA	549	G
24	BA	550	C
24	BA	556	A
24	BA	557	C
24	BA	563	A
24	BA	566	U
24	BA	572	A
24	BA	573	U
24	BA	575	A
24	BA	584	C
24	BA	586	A
24	BA	587	C
24	BA	588	U
24	BA	589	U
24	BA	603	A
24	BA	604	G
24	BA	605	G
24	BA	613	A
24	BA	614	A
24	BA	615	U
24	BA	616	A
24	BA	617	G
24	BA	620	G
24	BA	621	A
24	BA	622	G
24	BA	627	A

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Mol	Chain	Res	Type
24	BA	628	G
24	BA	629	G
24	BA	631	A
24	BA	634	C
24	BA	638	G
24	BA	645	C
24	BA	646	U
24	BA	647	G
24	BA	653	U
24	BA	654	A
24	BA	655	A
24	BA	656	G
24	BA	657	U
24	BA	668	A
24	BA	669	G
24	BA	670	A
24	BA	685	A
24	BA	686	U
24	BA	687	C
24	BA	688	U
24	BA	711	G
24	BA	713	G
24	BA	714	U
24	BA	715	A
24	BA	717	C
24	BA	727	A
24	BA	730	A
24	BA	738	G
24	BA	739	A
24	BA	740	C
24	BA	747	U
24	BA	748	G
24	BA	749	A
24	BA	752	A
24	BA	753	A
24	BA	763	G
24	BA	764	A
24	BA	765	C
24	BA	766	U
24	BA	774	G
24	BA	775	G
24	BA	776	G

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Mol	Chain	Res	Type
24	BA	777	G
24	BA	782	A
24	BA	783	A
24	BA	784	G
24	BA	785	G
24	BA	788	A
24	BA	789	A
24	BA	790	U
24	BA	791	C
24	BA	792	A
24	BA	794	A
24	BA	795	C
24	BA	796	C
24	BA	800	A
24	BA	801	G
24	BA	802	A
24	BA	803	U
24	BA	805	G
24	BA	806	C
24	BA	811	U
24	BA	812	C
24	BA	813	U
24	BA	819	A
24	BA	824	U
24	BA	827	U
24	BA	828	U
24	BA	829	A
24	BA	830	G
24	BA	831	G
24	BA	832	U
24	BA	845	A
24	BA	846	U
24	BA	847	U
24	BA	854	C
24	BA	858	G
24	BA	859	G
24	BA	860	U
24	BA	861	A
24	BA	865	C
24	BA	866	A
24	BA	868	U
24	BA	871	U

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Mol	Chain	Res	Type
24	BA	896	A
24	BA	897	C
24	BA	900	A
24	BA	910	A
24	BA	913	U
24	BA	914	G
24	BA	915	C
24	BA	919	U
24	BA	931	U
24	BA	932	U
24	BA	933	A
24	BA	934	U
24	BA	941	A
24	BA	946	C
24	BA	947	A
24	BA	952	G
24	BA	957	C
24	BA	958	U
24	BA	959	A
24	BA	960	A
24	BA	961	C
24	BA	962	G
24	BA	963	U
24	BA	968	C
24	BA	973	A
24	BA	974	G
24	BA	975	A
24	BA	976	G
24	BA	980	A
24	BA	983	A
24	BA	984	A
24	BA	985	C
24	BA	990	A
24	BA	991	C
24	BA	992	C
24	BA	995	C
24	BA	996	A
24	BA	997	G
24	BA	1003	G
24	BA	1007	C
24	BA	1008	A
24	BA	1009	A

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Mol	Chain	Res	Type
24	BA	1010	A
24	BA	1011	G
24	BA	1012	U
24	BA	1013	C
24	BA	1021	A
24	BA	1022	G
24	BA	1023	U
24	BA	1024	G
24	BA	1025	G
24	BA	1026	G
24	BA	1027	A
24	BA	1028	A
24	BA	1030	C
24	BA	1033	U
24	BA	1034	G
24	BA	1040	A
24	BA	1044	C
24	BA	1045	C
24	BA	1046	A
24	BA	1047	G
24	BA	1048	A
24	BA	1060	U
24	BA	1061	U
24	BA	1062	G
24	BA	1063	G
24	BA	1065	U
24	BA	1066	U
24	BA	1070	A
24	BA	1071	G
24	BA	1072	C
24	BA	1073	A
24	BA	1074	G
24	BA	1078	U
24	BA	1083	U
24	BA	1084	A
24	BA	1088	A
24	BA	1091	G
24	BA	1098	A
24	BA	1104	C
24	BA	1110	G
24	BA	1111	A
24	BA	1112	G

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Mol	Chain	Res	Type
24	BA	1113	U
24	BA	1114	C
24	BA	1126	A
24	BA	1127	A
24	BA	1128	G
24	BA	1129	A
24	BA	1130	U
24	BA	1132	U
24	BA	1133	A
24	BA	1135	C
24	BA	1136	G
24	BA	1139	G
24	BA	1142	A
24	BA	1144	A
24	BA	1145	C
24	BA	1154	G
24	BA	1155	A
24	BA	1156	A
24	BA	1157	G
24	BA	1158	C
24	BA	1159	U
24	BA	1169	A
24	BA	1174	U
24	BA	1175	A
24	BA	1176	U
24	BA	1180	U
24	BA	1186	G
24	BA	1204	A
24	BA	1205	A
24	BA	1206	G
24	BA	1207	C
24	BA	1210	G
24	BA	1211	C
24	BA	1212	G
24	BA	1213	A
24	BA	1214	A
24	BA	1231	U
24	BA	1236	G
24	BA	1237	A
24	BA	1238	G
24	BA	1247	A
24	BA	1248	G

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Mol	Chain	Res	Type
24	BA	1249	U
24	BA	1250	G
24	BA	1251	C
24	BA	1252	G
24	BA	1253	A
24	BA	1254	A
24	BA	1255	U
24	BA	1256	G
24	BA	1265	A
24	BA	1266	G
24	BA	1267	U
24	BA	1268	A
24	BA	1271	G
24	BA	1272	A
24	BA	1273	U
24	BA	1274	A
24	BA	1275	A
24	BA	1276	A
24	BA	1277	G
24	BA	1281	G
24	BA	1287	A
24	BA	1288	G
24	BA	1289	C
24	BA	1290	C
24	BA	1300	G
24	BA	1301	A
24	BA	1303	G
24	BA	1304	A
24	BA	1309	G
24	BA	1311	G
24	BA	1312	U
24	BA	1313	U
24	BA	1314	C
24	BA	1321	A
24	BA	1324	G
24	BA	1325	U
24	BA	1326	U
24	BA	1327	A
24	BA	1329	U
24	BA	1330	C
24	BA	1331	G
24	BA	1332	G

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Mol	Chain	Res	Type
24	BA	1333	G
24	BA	1334	G
24	BA	1335	C
24	BA	1336	A
24	BA	1341	G
24	BA	1343	G
24	BA	1344	U
24	BA	1345	C
24	BA	1348	C
24	BA	1349	C
24	BA	1352	U
24	BA	1359	A
24	BA	1360	G
24	BA	1365	A
24	BA	1368	G
24	BA	1378	A
24	BA	1379	U
24	BA	1380	G
24	BA	1383	A
24	BA	1385	A
24	BA	1386	C
24	BA	1387	A
24	BA	1396	U
24	BA	1397	U
24	BA	1398	C
24	BA	1399	C
24	BA	1400	U
24	BA	1416	G
24	BA	1419	A
24	BA	1420	A
24	BA	1427	A
24	BA	1428	C
24	BA	1451	C
24	BA	1452	G
24	BA	1453	A
24	BA	1455	G
24	BA	1456	G
24	BA	1458	U
24	BA	1459	G
24	BA	1460	U
24	BA	1461	C
24	BA	1462	C

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Mol	Chain	Res	Type
24	BA	1475	G
24	BA	1476	U
24	BA	1477	A
24	BA	1478	G
24	BA	1482	G
24	BA	1490	A
24	BA	1491	G
24	BA	1494	A
24	BA	1495	A
24	BA	1496	A
24	BA	1497	U
24	BA	1498	C
24	BA	1499	C
24	BA	1500	G
24	BA	1504	A
24	BA	1508	A
24	BA	1509	A
24	BA	1510	G
24	BA	1511	G
24	BA	1515	A
24	BA	1522	A
24	BA	1523	U
24	BA	1529	G
24	BA	1533	C
24	BA	1534	U
24	BA	1535	A
24	BA	1536	C
24	BA	1537	G
24	BA	1538	G
24	BA	1539	U
24	BA	1540	G
24	BA	1547	C
24	BA	1555	G
24	BA	1558	C
24	BA	1559	U
24	BA	1560	G
24	BA	1561	C
24	BA	1566	A
24	BA	1569	A
24	BA	1578	U
24	BA	1581	G
24	BA	1584	U

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Mol	Chain	Res	Type
24	BA	1585	C
24	BA	1602	U
24	BA	1603	A
24	BA	1604	C
24	BA	1607	C
24	BA	1608	A
24	BA	1610	A
24	BA	1611	C
24	BA	1612	C
24	BA	1613	G
24	BA	1615	C
24	BA	1616	A
24	BA	1635	A
24	BA	1647	U
24	BA	1648	U
24	BA	1649	G
24	BA	1653	G
24	BA	1654	A
24	BA	1655	A
24	BA	1667	G
24	BA	1668	A
24	BA	1669	A
24	BA	1670	C
24	BA	1674	G
24	BA	1675	C
24	BA	1677	A
24	BA	1681	G
24	BA	1682	G
24	BA	1683	U
24	BA	1684	G
24	BA	1694	C
24	BA	1695	G
24	BA	1696	G
24	BA	1697	G
24	BA	1699	G
24	BA	1700	A
24	BA	1701	A
24	BA	1702	G
24	BA	1706	C
24	BA	1707	G
24	BA	1708	C
24	BA	1713	A

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Mol	Chain	Res	Type
24	BA	1714	U
24	BA	1715	G
24	BA	1716	U
24	BA	1717	A
24	BA	1718	G
24	BA	1723	G
24	BA	1729	U
24	BA	1730	C
24	BA	1732	C
24	BA	1733	G
24	BA	1734	G
24	BA	1738	G
24	BA	1739	A
24	BA	1758	U
24	BA	1759	A
24	BA	1760	C
24	BA	1763	G
24	BA	1764	C
24	BA	1773	A
24	BA	1779	U
24	BA	1780	A
24	BA	1781	U
24	BA	1782	U
24	BA	1783	A
24	BA	1785	A
24	BA	1786	A
24	BA	1787	A
24	BA	1788	C
24	BA	1791	A
24	BA	1800	C
24	BA	1801	A
24	BA	1802	A
24	BA	1803	A
24	BA	1808	A
24	BA	1809	A
24	BA	1815	A
24	BA	1816	C
24	BA	1817	G
24	BA	1818	U
24	BA	1821	A
24	BA	1822	C
24	BA	1828	G

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Mol	Chain	Res	Type
24	BA	1829	A
24	BA	1838	C
24	BA	1839	G
24	BA	1840	G
24	BA	1847	A
24	BA	1858	A
24	BA	1866	A
24	BA	1867	G
24	BA	1870	C
24	BA	1871	A
24	BA	1872	A
24	BA	1873	G
24	BA	1876	A
24	BA	1884	G
24	BA	1900	A
24	BA	1901	A
24	BA	1906	G
24	BA	1913	A
24	BA	1914	C
24	BA	1915	U
24	BA	1918	A
24	BA	1919	A
24	BA	1927	A
24	BA	1929	G
24	BA	1930	G
24	BA	1931	U
24	BA	1932	A
24	BA	1937	A
24	BA	1938	A
24	BA	1940	U
24	BA	1941	C
24	BA	1942	C
24	BA	1943	U
24	BA	1944	U
24	BA	1945	G
24	BA	1946	U
24	BA	1954	G
24	BA	1955	U
24	BA	1956	U
24	BA	1957	C
24	BA	1961	C
24	BA	1962	C

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Mol	Chain	Res	Type
24	BA	1963	U
24	BA	1964	G
24	BA	1965	C
24	BA	1966	A
24	BA	1967	C
24	BA	1968	G
24	BA	1970	A
24	BA	1971	U
24	BA	1972	G
24	BA	1981	A
24	BA	1982	U
24	BA	1991	U
24	BA	1992	G
24	BA	1993	U
24	BA	1994	C
24	BA	1996	C
24	BA	1997	C
24	BA	1998	A
24	BA	2004	G
24	BA	2006	C
24	BA	2014	A
24	BA	2018	G
24	BA	2020	A
24	BA	2021	C
24	BA	2022	U
24	BA	2023	C
24	BA	2028	U
24	BA	2029	G
24	BA	2030	A
24	BA	2031	A
24	BA	2032	G
24	BA	2033	A
24	BA	2034	U
24	BA	2035	G
24	BA	2036	C
24	BA	2037	A
24	BA	2038	G
24	BA	2043	C
24	BA	2051	A
24	BA	2052	A
24	BA	2055	C
24	BA	2056	G

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Mol	Chain	Res	Type
24	BA	2060	A
24	BA	2061	G
24	BA	2062	A
24	BA	2063	C
24	BA	2064	C
24	BA	2068	U
24	BA	2069	G
24	BA	2072	C
24	BA	2080	A
24	BA	2092	U
24	BA	2093	G
24	BA	2094	A
24	BA	2104	C
24	BA	2106	U
24	BA	2107	G
24	BA	2109	U
24	BA	2110	G
24	BA	2134	A
24	BA	2135	A
24	BA	2136	G
24	BA	2137	U
24	BA	2139	U
24	BA	2140	G
24	BA	2143	C
24	BA	2144	G
24	BA	2145	C
24	BA	2146	C
24	BA	2147	A
24	BA	2148	G
24	BA	2149	U
24	BA	2151	U
24	BA	2155	U
24	BA	2156	G
24	BA	2181	U
24	BA	2183	A
24	BA	2184	A
24	BA	2185	U
24	BA	2187	U
24	BA	2198	A
24	BA	2199	A
24	BA	2200	C
24	BA	2204	G

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Mol	Chain	Res	Type
24	BA	2210	U
24	BA	2211	A
24	BA	2212	A
24	BA	2214	C
24	BA	2215	C
24	BA	2225	A
24	BA	2226	C
24	BA	2227	A
24	BA	2234	G
24	BA	2238	G
24	BA	2239	G
24	BA	2240	U
24	BA	2241	A
24	BA	2249	U
24	BA	2250	G
24	BA	2252	G
24	BA	2253	G
24	BA	2259	U
24	BA	2266	A
24	BA	2267	A
24	BA	2268	A
24	BA	2269	G
24	BA	2273	A
24	BA	2275	C
24	BA	2276	G
24	BA	2277	G
24	BA	2283	C
24	BA	2287	A
24	BA	2288	A
24	BA	2296	U
24	BA	2297	A
24	BA	2305	U
24	BA	2307	G
24	BA	2308	G
24	BA	2309	A
24	BA	2310	C
24	BA	2312	U
24	BA	2317	A
24	BA	2319	G
24	BA	2320	U
24	BA	2321	U
24	BA	2322	A

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Mol	Chain	Res	Type
24	BA	2323	G
24	BA	2324	U
24	BA	2325	G
24	BA	2327	A
24	BA	2328	A
24	BA	2333	A
24	BA	2334	U
24	BA	2335	A
24	BA	2336	A
24	BA	2337	G
24	BA	2338	C
24	BA	2344	U
24	BA	2345	G
24	BA	2347	C
24	BA	2348	U
24	BA	2350	C
24	BA	2361	G
24	BA	2382	G
24	BA	2383	G
24	BA	2384	U
24	BA	2385	C
24	BA	2386	A
24	BA	2391	G
24	BA	2392	A
24	BA	2393	U
24	BA	2402	U
24	BA	2403	C
24	BA	2406	A
24	BA	2407	A
24	BA	2408	U
24	BA	2409	G
24	BA	2423	U
24	BA	2424	C
24	BA	2425	A
24	BA	2426	A
24	BA	2427	C
24	BA	2428	G
24	BA	2429	G
24	BA	2430	A
24	BA	2431	U
24	BA	2434	A
24	BA	2435	A

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Mol	Chain	Res	Type
24	BA	2439	A
24	BA	2440	C
24	BA	2441	U
24	BA	2442	C
24	BA	2446	G
24	BA	2447	G
24	BA	2448	A
24	BA	2450	A
24	BA	2451	A
24	BA	2458	G
24	BA	2459	A
24	BA	2460	U
24	BA	2473	U
24	BA	2476	A
24	BA	2490	G
24	BA	2491	U
24	BA	2492	U
24	BA	2493	U
24	BA	2497	A
24	BA	2498	C
24	BA	2499	C
24	BA	2500	U
24	BA	2501	C
24	BA	2502	G
24	BA	2503	A
24	BA	2504	U
24	BA	2505	G
24	BA	2506	U
24	BA	2512	C
24	BA	2513	A
24	BA	2517	C
24	BA	2518	A
24	BA	2520	C
24	BA	2521	C
24	BA	2529	G
24	BA	2543	G
24	BA	2544	G
24	BA	2547	A
24	BA	2554	U
24	BA	2557	G
24	BA	2566	A
24	BA	2567	G

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Mol	Chain	Res	Type
24	BA	2572	A
24	BA	2573	C
24	BA	2578	G
24	BA	2582	G
24	BA	2583	G
24	BA	2585	U
24	BA	2586	U
24	BA	2602	A
24	BA	2603	G
24	BA	2605	U
24	BA	2610	C
24	BA	2611	C
24	BA	2612	C
24	BA	2613	U
24	BA	2614	A
24	BA	2615	U
24	BA	2616	C
24	BA	2629	U
24	BA	2630	G
24	BA	2631	G
24	BA	2645	G
24	BA	2646	C
24	BA	2647	U
24	BA	2654	A
24	BA	2655	G
24	BA	2656	U
24	BA	2657	A
24	BA	2663	G
24	BA	2672	U
24	BA	2673	G
24	BA	2681	C
24	BA	2682	A
24	BA	2683	C
24	BA	2689	U
24	BA	2690	U
24	BA	2691	C
24	BA	2692	G
24	BA	2712	C
24	BA	2713	U
24	BA	2714	G
24	BA	2726	A
24	BA	2727	A

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Mol	Chain	Res	Type
24	BA	2728	U
24	BA	2732	G
24	BA	2733	A
24	BA	2748	A
24	BA	2750	A
24	BA	2751	G
24	BA	2752	C
24	BA	2753	A
24	BA	2756	U
24	BA	2757	A
24	BA	2758	A
24	BA	2761	A
24	BA	2765	A
24	BA	2766	A
24	BA	2777	G
24	BA	2778	A
24	BA	2779	U
24	BA	2781	A
24	BA	2782	G
24	BA	2791	G
24	BA	2792	A
24	BA	2798	U
24	BA	2799	A
24	BA	2800	A
24	BA	2801	G
24	BA	2808	G
24	BA	2809	A
24	BA	2820	A
24	BA	2821	A
24	BA	2833	U
24	BA	2835	A
24	BA	2836	U
24	BA	2849	U
24	BA	2850	A
24	BA	2851	A
24	BA	2861	U
24	BA	2866	U
24	BA	2867	G
24	BA	2868	A
24	BA	2869	G
24	BA	2873	A
24	BA	2874	C

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Mol	Chain	Res	Type
24	BA	2878	U
24	BA	2879	A
24	BA	2880	C
24	BA	2881	U
24	BA	2883	A
24	BA	2884	U
24	BA	2886	A
24	BA	2887	A
24	BA	2893	A
24	BA	2894	G
24	BA	2895	G
25	BB	3	C
25	BB	12	C
25	BB	13	G
25	BB	14	U
25	BB	15	A
25	BB	16	G
25	BB	17	C
25	BB	24	G
25	BB	25	U
25	BB	26	C
25	BB	27	C
25	BB	30	C
25	BB	34	A
25	BB	35	C
25	BB	41	G
25	BB	42	C
25	BB	43	C
25	BB	44	G
25	BB	45	A
25	BB	46	A
25	BB	52	A
25	BB	53	A
25	BB	57	A
25	BB	58	A
25	BB	66	A
25	BB	67	G
25	BB	68	C
25	BB	87	U
25	BB	88	C
25	BB	89	U
25	BB	90	C

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Mol	Chain	Res	Type
25	BB	91	C
25	BB	99	A
25	BB	108	A
25	BB	109	A
25	BB	110	C
55	CA	6	G
55	CA	7	A
55	CA	8	A
55	CA	9	G
55	CA	10	A
55	CA	13	U
55	CA	14	U
55	CA	15	G
55	CA	22	G
55	CA	31	G
55	CA	32	A
55	CA	33	A
55	CA	39	G
55	CA	47	C
55	CA	48	C
55	CA	50	A
55	CA	51	A
55	CA	52	C
55	CA	53	A
55	CA	61	G
55	CA	62	U
55	CA	63	C
55	CA	65	A
55	CA	66	A
55	CA	67	C
55	CA	71	A
55	CA	72	A
55	CA	73	C
55	CA	76	G
55	CA	80	A
55	CA	81	A
55	CA	82	G
55	CA	83	C
55	CA	84	U
55	CA	85	U
55	CA	86	G
55	CA	87	C

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Mol	Chain	Res	Type
55	CA	88	U
55	CA	89	U
55	CA	90	C
55	CA	91	U
55	CA	92	U
55	CA	94	G
55	CA	95	C
55	CA	96	U
55	CA	97	G
55	CA	98	A
55	CA	109	A
55	CA	110	C
55	CA	111	G
55	CA	116	A
55	CA	117	G
55	CA	119	A
55	CA	120	A
55	CA	121	U
55	CA	122	G
55	CA	130	A
55	CA	131	A
55	CA	132	C
55	CA	141	G
55	CA	143	A
55	CA	144	G
55	CA	155	A
55	CA	164	G
55	CA	166	U
55	CA	174	A
55	CA	175	C
55	CA	176	C
55	CA	178	C
55	CA	181	A
55	CA	182	A
55	CA	197	A
55	CA	198	G
55	CA	199	A
55	CA	200	G
55	CA	201	G
55	CA	206	C
55	CA	207	C
55	CA	208	U

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Mol	Chain	Res	Type
55	CA	209	U
55	CA	210	C
55	CA	211	G
55	CA	212	G
55	CA	213	G
55	CA	214	C
55	CA	239	U
55	CA	240	G
55	CA	243	A
55	CA	244	U
55	CA	245	U
55	CA	246	A
55	CA	247	G
55	CA	248	C
55	CA	249	U
55	CA	250	A
55	CA	251	G
55	CA	252	U
55	CA	253	A
55	CA	266	G
55	CA	267	C
55	CA	275	G
55	CA	276	G
55	CA	280	C
55	CA	282	A
55	CA	283	U
55	CA	289	G
55	CA	298	A
55	CA	301	G
55	CA	306	A
55	CA	316	C
55	CA	317	U
55	CA	318	G
55	CA	321	A
55	CA	327	A
55	CA	328	C
55	CA	329	A
55	CA	330	C
55	CA	331	G
55	CA	332	G
55	CA	339	C
55	CA	344	A

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Mol	Chain	Res	Type
55	CA	345	C
55	CA	346	G
55	CA	347	G
55	CA	348	G
55	CA	352	C
55	CA	353	A
55	CA	354	G
55	CA	367	U
55	CA	368	U
55	CA	369	G
55	CA	370	C
55	CA	371	A
55	CA	372	C
55	CA	373	A
55	CA	374	A
55	CA	375	U
55	CA	381	C
55	CA	382	A
55	CA	383	A
55	CA	384	G
55	CA	388	G
55	CA	389	A
55	CA	390	U
55	CA	397	A
55	CA	398	U
55	CA	399	G
55	CA	406	G
55	CA	412	A
55	CA	413	G
55	CA	414	A
55	CA	415	A
55	CA	421	U
55	CA	422	C
55	CA	423	G
55	CA	424	G
55	CA	425	G
55	CA	426	U
55	CA	428	G
55	CA	429	U
55	CA	430	A
55	CA	431	A
55	CA	451	A

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Mol	Chain	Res	Type
55	CA	452	A
55	CA	453	G
55	CA	456	A
55	CA	457	G
55	CA	458	U
55	CA	459	A
55	CA	460	A
55	CA	461	A
55	CA	462	G
55	CA	463	U
55	CA	464	U
55	CA	465	A
55	CA	466	A
55	CA	467	U
55	CA	468	A
55	CA	469	C
55	CA	474	G
55	CA	476	U
55	CA	478	A
55	CA	479	U
55	CA	481	G
55	CA	482	A
55	CA	483	C
55	CA	484	G
55	CA	485	U
55	CA	486	U
55	CA	487	A
55	CA	493	A
55	CA	496	A
55	CA	497	G
55	CA	498	A
55	CA	499	A
55	CA	500	G
55	CA	501	C
55	CA	508	U
55	CA	509	A
55	CA	510	A
55	CA	511	C
55	CA	512	U
55	CA	513	C
55	CA	514	C
55	CA	517	G

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Mol	Chain	Res	Type
55	CA	518	C
55	CA	519	C
55	CA	520	A
55	CA	524	G
55	CA	527	G
55	CA	531	U
55	CA	532	A
55	CA	533	A
55	CA	534	U
55	CA	535	A
55	CA	536	C
55	CA	537	G
55	CA	538	G
55	CA	548	G
55	CA	549	C
55	CA	550	G
55	CA	559	A
55	CA	560	A
55	CA	562	U
55	CA	563	A
55	CA	564	C
55	CA	565	U
55	CA	566	G
55	CA	567	G
55	CA	568	G
55	CA	572	A
55	CA	573	A
55	CA	575	G
55	CA	576	C
55	CA	577	G
55	CA	578	C
55	CA	596	A
55	CA	597	G
55	CA	617	G
55	CA	623	C
55	CA	633	G
55	CA	642	A
55	CA	643	C
55	CA	653	U
55	CA	654	G
55	CA	655	A
55	CA	665	A

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Mol	Chain	Res	Type
55	CA	688	G
55	CA	689	C
55	CA	695	A
55	CA	701	U
55	CA	702	A
55	CA	703	G
55	CA	704	A
55	CA	705	G
55	CA	718	A
55	CA	719	C
55	CA	721	G
55	CA	722	G
55	CA	723	U
55	CA	724	G
55	CA	725	G
55	CA	731	G
55	CA	733	G
55	CA	734	G
55	CA	748	G
55	CA	753	A
55	CA	754	C
55	CA	755	G
55	CA	756	C
55	CA	758	C
55	CA	777	A
55	CA	781	A
55	CA	782	A
55	CA	785	G
55	CA	786	G
55	CA	787	A
55	CA	792	A
55	CA	793	U
55	CA	794	A
55	CA	795	C
55	CA	803	G
55	CA	804	U
55	CA	805	C
55	CA	812	G
55	CA	815	A
55	CA	816	A
55	CA	817	C
55	CA	818	G

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Mol	Chain	Res	Type
55	CA	819	A
55	CA	820	U
55	CA	821	G
55	CA	822	U
55	CA	828	U
55	CA	829	G
55	CA	841	C
55	CA	842	U
55	CA	843	U
55	CA	844	G
55	CA	845	A
55	CA	846	G
55	CA	847	G
55	CA	849	G
55	CA	870	U
55	CA	871	U
55	CA	874	G
55	CA	875	U
55	CA	880	C
55	CA	885	G
55	CA	886	G
55	CA	889	A
55	CA	890	G
55	CA	913	A
55	CA	914	A
55	CA	915	A
55	CA	926	G
55	CA	927	G
55	CA	932	C
55	CA	934	C
55	CA	935	A
55	CA	936	C
55	CA	942	G
55	CA	945	G
55	CA	960	U
55	CA	961	U
55	CA	962	C
55	CA	966	G
55	CA	967	C
55	CA	968	A
55	CA	969	A
55	CA	970	C

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Mol	Chain	Res	Type
55	CA	971	G
55	CA	972	C
55	CA	973	G
55	CA	974	A
55	CA	975	A
55	CA	976	G
55	CA	977	A
55	CA	978	A
55	CA	982	U
55	CA	983	A
55	CA	984	C
55	CA	990	C
55	CA	991	U
55	CA	992	U
55	CA	993	G
55	CA	995	C
55	CA	996	A
55	CA	1000	A
55	CA	1004	A
55	CA	1006	G
55	CA	1019	A
55	CA	1020	G
55	CA	1022	A
55	CA	1024	G
55	CA	1029	U
55	CA	1031	C
55	CA	1032	G
55	CA	1036	A
55	CA	1049	U
55	CA	1050	G
55	CA	1051	C
55	CA	1052	U
55	CA	1053	G
55	CA	1054	C
55	CA	1055	A
55	CA	1056	U
55	CA	1064	G
55	CA	1065	U
55	CA	1066	C
55	CA	1067	A
55	CA	1068	G
55	CA	1069	C

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Mol	Chain	Res	Type
55	CA	1070	U
55	CA	1085	U
55	CA	1086	U
55	CA	1087	G
55	CA	1094	G
55	CA	1095	U
55	CA	1096	C
55	CA	1097	C
55	CA	1101	A
55	CA	1102	A
55	CA	1103	C
55	CA	1124	G
55	CA	1125	U
55	CA	1127	G
55	CA	1128	C
55	CA	1130	A
55	CA	1136	C
55	CA	1137	C
55	CA	1138	G
55	CA	1139	G
55	CA	1140	C
55	CA	1141	C
55	CA	1142	G
55	CA	1145	A
55	CA	1146	A
55	CA	1147	C
55	CA	1152	A
55	CA	1158	C
55	CA	1159	U
55	CA	1160	G
55	CA	1161	C
55	CA	1168	U
55	CA	1169	A
55	CA	1170	A
55	CA	1178	G
55	CA	1181	G
55	CA	1183	U
55	CA	1184	G
55	CA	1191	A
55	CA	1192	C
55	CA	1193	G
55	CA	1196	A

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Mol	Chain	Res	Type
55	CA	1197	A
55	CA	1200	C
55	CA	1201	A
55	CA	1202	U
55	CA	1203	C
55	CA	1211	U
55	CA	1212	U
55	CA	1213	A
55	CA	1214	C
55	CA	1215	G
55	CA	1216	A
55	CA	1222	G
55	CA	1224	U
55	CA	1225	A
55	CA	1226	C
55	CA	1227	A
55	CA	1228	C
55	CA	1229	A
55	CA	1230	C
55	CA	1231	G
55	CA	1237	C
55	CA	1238	A
55	CA	1240	U
55	CA	1241	G
55	CA	1242	G
55	CA	1243	C
55	CA	1250	A
55	CA	1251	A
55	CA	1256	A
55	CA	1257	A
55	CA	1266	G
55	CA	1278	G
55	CA	1279	G
55	CA	1280	A
55	CA	1281	C
55	CA	1282	C
55	CA	1283	U
55	CA	1284	C
55	CA	1285	A
55	CA	1286	U
55	CA	1287	A
55	CA	1288	A

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Mol	Chain	Res	Type
55	CA	1289	A
55	CA	1290	G
55	CA	1294	G
55	CA	1297	G
55	CA	1298	U
55	CA	1299	A
55	CA	1300	G
55	CA	1301	U
55	CA	1302	C
55	CA	1305	G
55	CA	1312	G
55	CA	1316	G
55	CA	1317	C
55	CA	1319	A
55	CA	1322	C
55	CA	1323	G
55	CA	1324	A
55	CA	1325	C
55	CA	1332	A
55	CA	1333	A
55	CA	1338	G
55	CA	1339	A
55	CA	1348	U
55	CA	1349	A
55	CA	1350	A
55	CA	1362	A
55	CA	1364	U
55	CA	1365	G
55	CA	1366	C
55	CA	1367	C
55	CA	1370	G
55	CA	1379	G
55	CA	1381	U
55	CA	1382	C
55	CA	1394	A
55	CA	1395	C
55	CA	1396	A
55	CA	1397	C
55	CA	1398	A
55	CA	1399	C
55	CA	1400	C
55	CA	1401	G

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Mol	Chain	Res	Type
55	CA	1402	C
55	CA	1411	C
55	CA	1413	A
55	CA	1432	G
55	CA	1441	A
55	CA	1446	A
55	CA	1447	A
55	CA	1448	C
55	CA	1449	C
55	CA	1452	C
55	CA	1453	G
55	CA	1454	G
55	CA	1455	G
55	CA	1491	G
55	CA	1493	A
55	CA	1494	G
55	CA	1497	G
55	CA	1499	A
55	CA	1500	A
55	CA	1501	C
55	CA	1502	A
55	CA	1503	A
55	CA	1504	G
55	CA	1505	G
55	CA	1506	U
55	CA	1507	A
55	CA	1508	A
55	CA	1517	G
55	CA	1519	A
55	CA	1520	C
55	CA	1529	G
55	CA	1530	G
55	CA	1531	A
55	CA	1534	A
22	CV	36	U
23	CW	4	U
23	CW	5	U
23	CW	6	U
24	DA	11	C
24	DA	13	A
24	DA	14	A
24	DA	15	G

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Mol	Chain	Res	Type
24	DA	16	C
24	DA	34	U
24	DA	35	G
24	DA	36	G
24	DA	37	C
24	DA	39	G
24	DA	46	G
24	DA	49	A
24	DA	50	U
24	DA	51	G
24	DA	52	A
24	DA	53	A
24	DA	55	G
24	DA	61	C
24	DA	62	U
24	DA	63	A
24	DA	71	A
24	DA	73	A
24	DA	74	A
24	DA	75	G
24	DA	76	C
24	DA	79	C
24	DA	83	A
24	DA	84	A
24	DA	85	G
24	DA	86	G
24	DA	87	U
24	DA	91	A
24	DA	92	U
24	DA	93	G
24	DA	94	A
24	DA	96	C
24	DA	100	U
24	DA	101	A
24	DA	102	U
24	DA	103	A
24	DA	104	A
24	DA	118	A
24	DA	119	A
24	DA	120	U
24	DA	121	G
24	DA	122	G

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Mol	Chain	Res	Type
24	DA	126	A
24	DA	127	A
24	DA	128	C
24	DA	129	C
24	DA	134	G
24	DA	139	U
24	DA	140	C
24	DA	141	G
24	DA	142	A
24	DA	143	C
24	DA	144	A
24	DA	155	A
24	DA	156	A
24	DA	160	A
24	DA	162	U
24	DA	163	C
24	DA	164	C
24	DA	165	A
24	DA	166	U
24	DA	178	G
24	DA	180	G
24	DA	196	A
24	DA	197	A
24	DA	199	A
24	DA	200	U
24	DA	201	C
24	DA	204	A
24	DA	205	G
24	DA	206	U
24	DA	207	A
24	DA	216	A
24	DA	217	A
24	DA	221	A
24	DA	222	A
24	DA	223	A
24	DA	224	U
24	DA	225	C
24	DA	227	A
24	DA	228	C
24	DA	229	C
24	DA	230	G
24	DA	231	A

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Mol	Chain	Res	Type
24	DA	233	A
24	DA	234	U
24	DA	241	A
24	DA	242	G
24	DA	243	U
24	DA	244	A
24	DA	245	G
24	DA	248	G
24	DA	249	C
24	DA	250	G
24	DA	251	A
24	DA	255	A
24	DA	264	C
24	DA	265	A
24	DA	266	G
24	DA	271	G
24	DA	272	A
24	DA	273	G
24	DA	277	G
24	DA	280	U
24	DA	281	C
24	DA	284	U
24	DA	285	G
24	DA	294	A
24	DA	299	A
24	DA	301	G
24	DA	302	C
24	DA	303	G
24	DA	304	U
24	DA	311	A
24	DA	312	G
24	DA	313	G
24	DA	314	C
24	DA	322	A
24	DA	323	C
24	DA	324	A
24	DA	325	G
24	DA	329	G
24	DA	330	A
24	DA	334	C
24	DA	335	C
24	DA	339	U

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Mol	Chain	Res	Type
24	DA	341	C
24	DA	343	C
24	DA	351	C
24	DA	353	C
24	DA	354	A
24	DA	362	A
24	DA	364	C
24	DA	370	G
24	DA	371	A
24	DA	372	G
24	DA	374	A
24	DA	375	G
24	DA	383	C
24	DA	386	G
24	DA	387	U
24	DA	388	G
24	DA	389	G
24	DA	391	A
24	DA	392	U
24	DA	396	G
24	DA	397	U
24	DA	398	C
24	DA	404	A
24	DA	405	U
24	DA	406	G
24	DA	407	G
24	DA	412	A
24	DA	413	C
24	DA	421	C
24	DA	422	A
24	DA	423	A
24	DA	424	G
24	DA	430	A
24	DA	435	C
24	DA	436	C
24	DA	441	U
24	DA	443	A
24	DA	444	C
24	DA	445	C
24	DA	446	G
24	DA	447	A
24	DA	449	A

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Mol	Chain	Res	Type
24	DA	450	G
24	DA	451	U
24	DA	455	C
24	DA	456	C
24	DA	457	A
24	DA	459	U
24	DA	460	A
24	DA	461	C
24	DA	475	C
24	DA	476	G
24	DA	479	A
24	DA	480	A
24	DA	481	G
24	DA	482	A
24	DA	483	A
24	DA	484	C
24	DA	489	G
24	DA	490	C
24	DA	491	G
24	DA	492	A
24	DA	498	G
24	DA	502	A
24	DA	504	A
24	DA	505	A
24	DA	506	G
24	DA	507	A
24	DA	509	C
24	DA	510	C
24	DA	511	U
24	DA	512	G
24	DA	527	C
24	DA	528	A
24	DA	529	A
24	DA	530	G
24	DA	531	C
24	DA	532	A
24	DA	533	G
24	DA	534	U
24	DA	544	C
24	DA	546	U
24	DA	547	A
24	DA	548	G

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Mol	Chain	Res	Type
24	DA	549	G
24	DA	550	C
24	DA	563	A
24	DA	571	U
24	DA	572	A
24	DA	573	U
24	DA	574	A
24	DA	575	A
24	DA	576	U
24	DA	584	C
24	DA	587	C
24	DA	588	U
24	DA	589	U
24	DA	590	A
24	DA	603	A
24	DA	604	G
24	DA	605	G
24	DA	613	A
24	DA	614	A
24	DA	615	U
24	DA	616	A
24	DA	617	G
24	DA	618	G
24	DA	620	G
24	DA	621	A
24	DA	622	G
24	DA	627	A
24	DA	638	G
24	DA	639	U
24	DA	645	C
24	DA	646	U
24	DA	647	G
24	DA	648	G
24	DA	653	U
24	DA	654	A
24	DA	655	A
24	DA	656	G
24	DA	657	U
24	DA	662	G
24	DA	669	G
24	DA	670	A
24	DA	671	C

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Mol	Chain	Res	Type
24	DA	672	C
24	DA	673	C
24	DA	674	G
24	DA	686	U
24	DA	687	C
24	DA	688	U
24	DA	699	A
24	DA	717	C
24	DA	726	G
24	DA	727	A
24	DA	728	G
24	DA	729	G
24	DA	730	A
24	DA	739	A
24	DA	740	C
24	DA	741	U
24	DA	744	U
24	DA	747	U
24	DA	748	G
24	DA	749	A
24	DA	752	A
24	DA	753	A
24	DA	754	U
24	DA	757	G
24	DA	763	G
24	DA	764	A
24	DA	765	C
24	DA	766	U
24	DA	767	U
24	DA	775	G
24	DA	776	G
24	DA	777	G
24	DA	778	G
24	DA	782	A
24	DA	783	A
24	DA	784	G
24	DA	785	G
24	DA	789	A
24	DA	790	U
24	DA	791	C
24	DA	794	A
24	DA	795	C

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Mol	Chain	Res	Type
24	DA	800	A
24	DA	801	G
24	DA	802	A
24	DA	803	U
24	DA	805	G
24	DA	806	C
24	DA	807	U
24	DA	812	C
24	DA	813	U
24	DA	819	A
24	DA	827	U
24	DA	828	U
24	DA	830	G
24	DA	831	G
24	DA	843	G
24	DA	845	A
24	DA	846	U
24	DA	847	U
24	DA	859	G
24	DA	860	U
24	DA	861	A
24	DA	862	G
24	DA	866	A
24	DA	867	C
24	DA	872	U
24	DA	875	G
24	DA	877	A
24	DA	878	A
24	DA	910	A
24	DA	912	C
24	DA	913	U
24	DA	914	G
24	DA	915	C
24	DA	916	G
24	DA	922	C
24	DA	932	U
24	DA	933	A
24	DA	934	U
24	DA	941	A
24	DA	944	C
24	DA	946	C
24	DA	947	A

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Mol	Chain	Res	Type
24	DA	958	U
24	DA	959	A
24	DA	960	A
24	DA	961	C
24	DA	962	G
24	DA	963	U
24	DA	973	A
24	DA	974	G
24	DA	975	A
24	DA	976	G
24	DA	983	A
24	DA	985	C
24	DA	990	A
24	DA	991	C
24	DA	995	C
24	DA	996	A
24	DA	997	G
24	DA	998	C
24	DA	1003	G
24	DA	1008	A
24	DA	1009	A
24	DA	1010	A
24	DA	1011	G
24	DA	1012	U
24	DA	1013	C
24	DA	1021	A
24	DA	1022	G
24	DA	1023	U
24	DA	1024	G
24	DA	1025	G
24	DA	1026	G
24	DA	1027	A
24	DA	1028	A
24	DA	1033	U
24	DA	1034	G
24	DA	1035	U
24	DA	1044	C
24	DA	1045	C
24	DA	1046	A
24	DA	1047	G
24	DA	1049	C
24	DA	1050	A

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Mol	Chain	Res	Type
24	DA	1055	G
24	DA	1056	G
24	DA	1057	A
24	DA	1060	U
24	DA	1061	U
24	DA	1062	G
24	DA	1063	G
24	DA	1066	U
24	DA	1068	G
24	DA	1070	A
24	DA	1071	G
24	DA	1072	C
24	DA	1073	A
24	DA	1074	G
24	DA	1075	C
24	DA	1076	C
24	DA	1077	A
24	DA	1079	C
24	DA	1080	A
24	DA	1083	U
24	DA	1086	A
24	DA	1088	A
24	DA	1089	A
24	DA	1090	A
24	DA	1091	G
24	DA	1097	U
24	DA	1100	C
24	DA	1111	A
24	DA	1112	G
24	DA	1113	U
24	DA	1114	C
24	DA	1115	G
24	DA	1126	A
24	DA	1127	A
24	DA	1128	G
24	DA	1129	A
24	DA	1130	U
24	DA	1132	U
24	DA	1133	A
24	DA	1135	C
24	DA	1136	G
24	DA	1137	G

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Mol	Chain	Res	Type
24	DA	1142	A
24	DA	1144	A
24	DA	1145	C
24	DA	1154	G
24	DA	1155	A
24	DA	1157	G
24	DA	1158	C
24	DA	1159	U
24	DA	1163	G
24	DA	1169	A
24	DA	1170	C
24	DA	1172	C
24	DA	1174	U
24	DA	1176	U
24	DA	1195	G
24	DA	1204	A
24	DA	1205	A
24	DA	1206	G
24	DA	1207	C
24	DA	1211	C
24	DA	1213	A
24	DA	1214	A
24	DA	1236	G
24	DA	1237	A
24	DA	1238	G
24	DA	1239	G
24	DA	1241	A
24	DA	1242	U
24	DA	1246	A
24	DA	1247	A
24	DA	1248	G
24	DA	1249	U
24	DA	1250	G
24	DA	1252	G
24	DA	1253	A
24	DA	1254	A
24	DA	1255	U
24	DA	1256	G
24	DA	1262	A
24	DA	1265	A
24	DA	1266	G
24	DA	1267	U

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Mol	Chain	Res	Type
24	DA	1268	A
24	DA	1271	G
24	DA	1272	A
24	DA	1273	U
24	DA	1274	A
24	DA	1275	A
24	DA	1276	A
24	DA	1277	G
24	DA	1278	C
24	DA	1286	A
24	DA	1287	A
24	DA	1288	G
24	DA	1289	C
24	DA	1290	C
24	DA	1291	C
24	DA	1300	G
24	DA	1301	A
24	DA	1302	A
24	DA	1303	G
24	DA	1304	A
24	DA	1313	U
24	DA	1314	C
24	DA	1315	C
24	DA	1321	A
24	DA	1324	G
24	DA	1325	U
24	DA	1326	U
24	DA	1327	A
24	DA	1328	A
24	DA	1329	U
24	DA	1330	C
24	DA	1331	G
24	DA	1332	G
24	DA	1333	G
24	DA	1334	G
24	DA	1335	C
24	DA	1336	A
24	DA	1337	G
24	DA	1340	U
24	DA	1342	A
24	DA	1345	C
24	DA	1346	G

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Mol	Chain	Res	Type
24	DA	1347	A
24	DA	1352	U
24	DA	1363	C
24	DA	1365	A
24	DA	1368	G
24	DA	1374	G
24	DA	1379	U
24	DA	1382	G
24	DA	1384	A
24	DA	1385	A
24	DA	1386	C
24	DA	1387	A
24	DA	1388	G
24	DA	1397	U
24	DA	1398	C
24	DA	1399	C
24	DA	1400	U
24	DA	1401	G
24	DA	1416	G
24	DA	1419	A
24	DA	1426	G
24	DA	1427	A
24	DA	1428	C
24	DA	1429	G
24	DA	1430	G
24	DA	1440	U
24	DA	1452	G
24	DA	1453	A
24	DA	1454	C
24	DA	1455	G
24	DA	1456	G
24	DA	1458	U
24	DA	1459	G
24	DA	1460	U
24	DA	1461	C
24	DA	1476	U
24	DA	1477	A
24	DA	1478	G
24	DA	1482	G
24	DA	1483	G
24	DA	1490	A
24	DA	1491	G

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Mol	Chain	Res	Type
24	DA	1492	G
24	DA	1493	C
24	DA	1494	A
24	DA	1497	U
24	DA	1498	C
24	DA	1499	C
24	DA	1504	A
24	DA	1507	C
24	DA	1508	A
24	DA	1509	A
24	DA	1510	G
24	DA	1511	G
24	DA	1520	U
24	DA	1522	A
24	DA	1523	U
24	DA	1524	G
24	DA	1525	A
24	DA	1530	G
24	DA	1531	C
24	DA	1532	A
24	DA	1534	U
24	DA	1535	A
24	DA	1536	C
24	DA	1537	G
24	DA	1538	G
24	DA	1539	U
24	DA	1540	G
24	DA	1552	A
24	DA	1555	G
24	DA	1556	C
24	DA	1558	C
24	DA	1559	U
24	DA	1560	G
24	DA	1561	C
24	DA	1562	U
24	DA	1566	A
24	DA	1567	G
24	DA	1568	G
24	DA	1569	A
24	DA	1570	A
24	DA	1574	C
24	DA	1583	A

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Mol	Chain	Res	Type
24	DA	1584	U
24	DA	1585	C
24	DA	1586	A
24	DA	1603	A
24	DA	1607	C
24	DA	1608	A
24	DA	1610	A
24	DA	1611	C
24	DA	1612	C
24	DA	1613	G
24	DA	1616	A
24	DA	1619	G
24	DA	1620	G
24	DA	1627	G
24	DA	1634	A
24	DA	1635	A
24	DA	1636	U
24	DA	1637	A
24	DA	1640	A
24	DA	1646	C
24	DA	1647	U
24	DA	1648	U
24	DA	1649	G
24	DA	1653	G
24	DA	1654	A
24	DA	1655	A
24	DA	1663	G
24	DA	1667	G
24	DA	1668	A
24	DA	1669	A
24	DA	1670	C
24	DA	1674	G
24	DA	1675	C
24	DA	1680	U
24	DA	1681	G
24	DA	1682	G
24	DA	1683	U
24	DA	1694	C
24	DA	1695	G
24	DA	1696	G
24	DA	1697	G
24	DA	1698	A

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Mol	Chain	Res	Type
24	DA	1699	G
24	DA	1700	A
24	DA	1701	A
24	DA	1707	G
24	DA	1708	C
24	DA	1709	U
24	DA	1713	A
24	DA	1714	U
24	DA	1715	G
24	DA	1717	A
24	DA	1718	G
24	DA	1728	C
24	DA	1729	U
24	DA	1730	C
24	DA	1731	G
24	DA	1732	C
24	DA	1733	G
24	DA	1734	G
24	DA	1735	A
24	DA	1756	G
24	DA	1758	U
24	DA	1759	A
24	DA	1760	C
24	DA	1761	C
24	DA	1764	C
24	DA	1773	A
24	DA	1776	G
24	DA	1779	U
24	DA	1780	A
24	DA	1781	U
24	DA	1782	U
24	DA	1783	A
24	DA	1784	A
24	DA	1785	A
24	DA	1786	A
24	DA	1787	A
24	DA	1788	C
24	DA	1789	A
24	DA	1800	C
24	DA	1802	A
24	DA	1803	A
24	DA	1808	A

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Mol	Chain	Res	Type
24	DA	1809	A
24	DA	1810	A
24	DA	1811	G
24	DA	1815	A
24	DA	1816	C
24	DA	1817	G
24	DA	1818	U
24	DA	1820	U
24	DA	1821	A
24	DA	1822	C
24	DA	1828	G
24	DA	1829	A
24	DA	1838	C
24	DA	1839	G
24	DA	1840	G
24	DA	1847	A
24	DA	1848	A
24	DA	1849	G
24	DA	1857	G
24	DA	1866	A
24	DA	1867	G
24	DA	1869	G
24	DA	1870	C
24	DA	1875	G
24	DA	1876	A
24	DA	1884	G
24	DA	1886	U
24	DA	1897	G
24	DA	1901	A
24	DA	1903	G
24	DA	1906	G
24	DA	1913	A
24	DA	1914	C
24	DA	1915	U
24	DA	1916	A
24	DA	1918	A
24	DA	1919	A
24	DA	1927	A
24	DA	1929	G
24	DA	1930	G
24	DA	1931	U
24	DA	1932	A

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Mol	Chain	Res	Type
24	DA	1934	C
24	DA	1937	A
24	DA	1938	A
24	DA	1939	U
24	DA	1941	C
24	DA	1942	C
24	DA	1943	U
24	DA	1944	U
24	DA	1945	G
24	DA	1946	U
24	DA	1955	U
24	DA	1956	U
24	DA	1957	C
24	DA	1962	C
24	DA	1963	U
24	DA	1964	G
24	DA	1965	C
24	DA	1966	A
24	DA	1967	C
24	DA	1968	G
24	DA	1970	A
24	DA	1971	U
24	DA	1972	G
24	DA	1973	G
24	DA	1981	A
24	DA	1982	U
24	DA	1983	G
24	DA	1991	U
24	DA	1992	G
24	DA	1993	U
24	DA	1994	C
24	DA	1996	C
24	DA	1997	C
24	DA	1998	A
24	DA	1999	C
24	DA	2020	A
24	DA	2022	U
24	DA	2023	C
24	DA	2024	G
24	DA	2030	A
24	DA	2031	A
24	DA	2032	G

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Mol	Chain	Res	Type
24	DA	2034	U
24	DA	2035	G
24	DA	2036	C
24	DA	2037	A
24	DA	2043	C
24	DA	2051	A
24	DA	2052	A
24	DA	2055	C
24	DA	2056	G
24	DA	2060	A
24	DA	2061	G
24	DA	2062	A
24	DA	2063	C
24	DA	2064	C
24	DA	2067	G
24	DA	2068	U
24	DA	2069	G
24	DA	2070	A
24	DA	2092	U
24	DA	2093	G
24	DA	2094	A
24	DA	2099	U
24	DA	2100	G
24	DA	2101	A
24	DA	2104	C
24	DA	2105	U
24	DA	2107	G
24	DA	2108	A
24	DA	2109	U
24	DA	2110	G
24	DA	2134	A
24	DA	2135	A
24	DA	2136	G
24	DA	2143	C
24	DA	2144	G
24	DA	2145	C
24	DA	2147	A
24	DA	2148	G
24	DA	2149	U
24	DA	2152	G
24	DA	2153	C
24	DA	2154	A

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Mol	Chain	Res	Type
24	DA	2155	U
24	DA	2156	G
24	DA	2180	U
24	DA	2181	U
24	DA	2183	A
24	DA	2187	U
24	DA	2190	G
24	DA	2191	A
24	DA	2192	U
24	DA	2193	G
24	DA	2194	U
24	DA	2198	A
24	DA	2199	A
24	DA	2200	C
24	DA	2204	G
24	DA	2210	U
24	DA	2211	A
24	DA	2212	A
24	DA	2213	U
24	DA	2214	C
24	DA	2215	C
24	DA	2225	A
24	DA	2226	C
24	DA	2227	A
24	DA	2238	G
24	DA	2239	G
24	DA	2240	U
24	DA	2249	U
24	DA	2250	G
24	DA	2251	G
24	DA	2252	G
24	DA	2259	U
24	DA	2260	C
24	DA	2266	A
24	DA	2267	A
24	DA	2268	A
24	DA	2275	C
24	DA	2276	G
24	DA	2277	G
24	DA	2278	A
24	DA	2283	C
24	DA	2284	A

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Mol	Chain	Res	Type
24	DA	2286	G
24	DA	2287	A
24	DA	2288	A
24	DA	2289	G
24	DA	2290	G
24	DA	2297	A
24	DA	2298	A
24	DA	2305	U
24	DA	2308	G
24	DA	2309	A
24	DA	2310	C
24	DA	2311	A
24	DA	2312	U
24	DA	2313	C
24	DA	2314	A
24	DA	2319	G
24	DA	2320	U
24	DA	2321	U
24	DA	2322	A
24	DA	2323	G
24	DA	2333	A
24	DA	2334	U
24	DA	2335	A
24	DA	2337	G
24	DA	2338	C
24	DA	2339	C
24	DA	2345	G
24	DA	2347	C
24	DA	2348	U
24	DA	2349	G
24	DA	2350	C
24	DA	2357	G
24	DA	2358	A
24	DA	2361	G
24	DA	2371	G
24	DA	2379	G
24	DA	2382	G
24	DA	2383	G
24	DA	2384	U
24	DA	2385	C
24	DA	2386	A
24	DA	2387	U

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Mol	Chain	Res	Type
24	DA	2399	G
24	DA	2401	U
24	DA	2402	U
24	DA	2403	C
24	DA	2405	G
24	DA	2406	A
24	DA	2407	A
24	DA	2408	U
24	DA	2409	G
24	DA	2410	G
24	DA	2423	U
24	DA	2424	C
24	DA	2426	A
24	DA	2427	C
24	DA	2428	G
24	DA	2429	G
24	DA	2430	A
24	DA	2431	U
24	DA	2435	A
24	DA	2439	A
24	DA	2440	C
24	DA	2441	U
24	DA	2447	G
24	DA	2448	A
24	DA	2450	A
24	DA	2451	A
24	DA	2458	G
24	DA	2459	A
24	DA	2460	U
24	DA	2475	C
24	DA	2476	A
24	DA	2490	G
24	DA	2491	U
24	DA	2492	U
24	DA	2493	U
24	DA	2494	G
24	DA	2498	C
24	DA	2499	C
24	DA	2502	G
24	DA	2503	A
24	DA	2504	U
24	DA	2505	G

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Mol	Chain	Res	Type
24	DA	2518	A
24	DA	2520	C
24	DA	2521	C
24	DA	2525	G
24	DA	2529	G
24	DA	2534	A
24	DA	2542	A
24	DA	2543	G
24	DA	2544	G
24	DA	2545	G
24	DA	2547	A
24	DA	2554	U
24	DA	2566	A
24	DA	2567	G
24	DA	2573	C
24	DA	2574	G
24	DA	2575	C
24	DA	2581	G
24	DA	2582	G
24	DA	2583	G
24	DA	2585	U
24	DA	2586	U
24	DA	2587	A
24	DA	2589	A
24	DA	2602	A
24	DA	2603	G
24	DA	2604	U
24	DA	2609	U
24	DA	2610	C
24	DA	2611	C
24	DA	2612	C
24	DA	2613	U
24	DA	2614	A
24	DA	2615	U
24	DA	2616	C
24	DA	2625	G
24	DA	2629	U
24	DA	2630	G
24	DA	2631	G
24	DA	2632	A
24	DA	2645	G
24	DA	2646	C

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Mol	Chain	Res	Type
24	DA	2647	U
24	DA	2654	A
24	DA	2655	G
24	DA	2656	U
24	DA	2657	A
24	DA	2667	C
24	DA	2682	A
24	DA	2683	C
24	DA	2689	U
24	DA	2690	U
24	DA	2691	C
24	DA	2692	G
24	DA	2713	U
24	DA	2714	G
24	DA	2715	C
24	DA	2718	G
24	DA	2725	A
24	DA	2726	A
24	DA	2727	A
24	DA	2728	U
24	DA	2739	U
24	DA	2748	A
24	DA	2750	A
24	DA	2751	G
24	DA	2752	C
24	DA	2753	A
24	DA	2757	A
24	DA	2758	A
24	DA	2765	A
24	DA	2766	A
24	DA	2777	G
24	DA	2778	A
24	DA	2779	U
24	DA	2781	A
24	DA	2782	G
24	DA	2791	G
24	DA	2798	U
24	DA	2799	A
24	DA	2808	G
24	DA	2810	A
24	DA	2820	A
24	DA	2822	G

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Mol	Chain	Res	Type
24	DA	2823	A
24	DA	2833	U
24	DA	2834	G
24	DA	2835	A
24	DA	2836	U
24	DA	2837	A
24	DA	2848	G
24	DA	2849	U
24	DA	2850	A
24	DA	2851	A
24	DA	2861	U
24	DA	2866	U
24	DA	2867	G
24	DA	2868	A
24	DA	2872	A
24	DA	2873	A
24	DA	2874	C
24	DA	2875	C
24	DA	2880	C
24	DA	2883	A
24	DA	2894	G
24	DA	2895	G
24	DA	2896	C
24	DA	2901	C
24	DA	2902	C
24	DA	2903	U
56	DB	3	C
56	DB	9	G
56	DB	12	C
56	DB	13	G
56	DB	14	U
56	DB	15	A
56	DB	16	G
56	DB	17	C
56	DB	23	G
56	DB	24	G
56	DB	25	U
56	DB	30	C
56	DB	35	C
56	DB	36	C
56	DB	38	C
56	DB	39	A

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Mol	Chain	Res	Type
56	DB	41	G
56	DB	42	C
56	DB	43	C
56	DB	44	G
56	DB	45	A
56	DB	46	A
56	DB	47	C
56	DB	48	U
56	DB	49	C
56	DB	50	A
56	DB	57	A
56	DB	58	A
56	DB	59	A
56	DB	63	C
56	DB	64	G
56	DB	67	G
56	DB	68	C
56	DB	69	G
56	DB	73	A
56	DB	87	U
56	DB	88	C
56	DB	89	U
56	DB	90	C
56	DB	91	C
56	DB	99	A
56	DB	104	A
56	DB	109	A

All (1557) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
21	AA	13	U
21	AA	14	U
21	AA	15	G
21	AA	30	U
21	AA	32	A
21	AA	33	A
21	AA	47	C
21	AA	51	A
21	AA	52	C
21	AA	60	A
21	AA	61	G

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Mol	Chain	Res	Type
21	AA	64	G
21	AA	66	A
21	AA	70	U
21	AA	72	A
21	AA	73	C
21	AA	87	C
21	AA	90	C
21	AA	94	G
21	AA	95	C
21	AA	96	U
21	AA	109	A
21	AA	110	C
21	AA	115	G
21	AA	116	A
21	AA	119	A
21	AA	121	U
21	AA	122	G
21	AA	129	A
21	AA	130	A
21	AA	131	A
21	AA	173	U
21	AA	174	A
21	AA	175	C
21	AA	181	A
21	AA	184	G
21	AA	197	A
21	AA	198	G
21	AA	199	A
21	AA	211	G
21	AA	212	G
21	AA	213	G
21	AA	214	C
21	AA	243	A
21	AA	245	U
21	AA	247	G
21	AA	250	A
21	AA	252	U
21	AA	253	A
21	AA	266	G
21	AA	267	C
21	AA	274	A
21	AA	275	G

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Mol	Chain	Res	Type
21	AA	279	A
21	AA	305	G
21	AA	306	A
21	AA	315	A
21	AA	316	C
21	AA	327	A
21	AA	330	C
21	AA	331	G
21	AA	344	A
21	AA	346	G
21	AA	347	G
21	AA	351	G
21	AA	352	C
21	AA	353	A
21	AA	354	G
21	AA	366	A
21	AA	368	U
21	AA	369	G
21	AA	372	C
21	AA	373	A
21	AA	388	G
21	AA	412	A
21	AA	414	A
21	AA	422	C
21	AA	423	G
21	AA	428	G
21	AA	429	U
21	AA	430	A
21	AA	451	A
21	AA	452	A
21	AA	453	G
21	AA	463	U
21	AA	464	U
21	AA	465	A
21	AA	466	A
21	AA	467	U
21	AA	484	G
21	AA	486	U
21	AA	487	A
21	AA	495	A
21	AA	496	A
21	AA	497	G

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Mol	Chain	Res	Type
21	AA	499	A
21	AA	508	U
21	AA	509	A
21	AA	510	A
21	AA	519	C
21	AA	520	A
21	AA	531	U
21	AA	534	U
21	AA	535	A
21	AA	536	C
21	AA	547	A
21	AA	548	G
21	AA	559	A
21	AA	563	A
21	AA	564	C
21	AA	566	G
21	AA	567	G
21	AA	575	G
21	AA	577	G
21	AA	595	A
21	AA	652	U
21	AA	654	G
21	AA	687	A
21	AA	688	G
21	AA	702	A
21	AA	704	A
21	AA	717	U
21	AA	718	A
21	AA	721	G
21	AA	722	G
21	AA	723	U
21	AA	724	G
21	AA	735	C
21	AA	753	A
21	AA	754	C
21	AA	755	G
21	AA	792	A
21	AA	794	A
21	AA	812	G
21	AA	813	U
21	AA	815	A
21	AA	821	G

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Mol	Chain	Res	Type
21	AA	870	U
21	AA	874	G
21	AA	884	U
21	AA	885	G
21	AA	889	A
21	AA	891	U
21	AA	913	A
21	AA	914	A
21	AA	934	C
21	AA	935	A
21	AA	960	U
21	AA	961	U
21	AA	965	U
21	AA	966	G
21	AA	968	A
21	AA	969	A
21	AA	971	G
21	AA	972	C
21	AA	974	A
21	AA	976	G
21	AA	977	A
21	AA	982	U
21	AA	984	C
21	AA	985	C
21	AA	991	U
21	AA	994	A
21	AA	1031	C
21	AA	1032	G
21	AA	1033	G
21	AA	1049	U
21	AA	1050	G
21	AA	1051	C
21	AA	1052	U
21	AA	1053	G
21	AA	1054	C
21	AA	1055	A
21	AA	1064	G
21	AA	1066	C
21	AA	1068	G
21	AA	1085	U
21	AA	1087	G
21	AA	1088	G

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Mol	Chain	Res	Type
21	AA	1094	G
21	AA	1095	U
21	AA	1101	A
21	AA	1102	A
21	AA	1103	C
21	AA	1125	U
21	AA	1127	G
21	AA	1129	C
21	AA	1130	A
21	AA	1136	C
21	AA	1138	G
21	AA	1140	C
21	AA	1157	A
21	AA	1158	C
21	AA	1159	U
21	AA	1160	G
21	AA	1167	A
21	AA	1168	U
21	AA	1169	A
21	AA	1182	G
21	AA	1184	G
21	AA	1200	C
21	AA	1201	A
21	AA	1202	U
21	AA	1212	U
21	AA	1215	G
21	AA	1224	U
21	AA	1228	C
21	AA	1239	A
21	AA	1241	G
21	AA	1256	A
21	AA	1258	G
21	AA	1282	C
21	AA	1285	A
21	AA	1287	A
21	AA	1288	A
21	AA	1297	G
21	AA	1299	A
21	AA	1302	C
21	AA	1303	C
21	AA	1319	A
21	AA	1320	C

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Mol	Chain	Res	Type
21	AA	1322	C
21	AA	1323	G
21	AA	1324	A
21	AA	1335	U
21	AA	1336	C
21	AA	1337	G
21	AA	1345	U
21	AA	1348	U
21	AA	1362	A
21	AA	1363	A
21	AA	1365	G
21	AA	1380	U
21	AA	1381	U
21	AA	1382	C
21	AA	1394	A
21	AA	1395	C
21	AA	1398	A
21	AA	1399	C
21	AA	1447	A
21	AA	1448	C
21	AA	1449	C
21	AA	1452	C
21	AA	1453	G
21	AA	1454	G
21	AA	1455	G
21	AA	1494	G
21	AA	1498	U
21	AA	1499	A
21	AA	1502	A
21	AA	1505	G
21	AA	1506	U
21	AA	1507	A
21	AA	1528	U
21	AA	1530	G
23	AW	5	U
24	BA	13	A
24	BA	14	A
24	BA	15	G
24	BA	27	G
24	BA	28	A
24	BA	33	C
24	BA	35	G

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Mol	Chain	Res	Type
24	BA	36	G
24	BA	49	A
24	BA	52	A
24	BA	60	G
24	BA	61	C
24	BA	62	U
24	BA	63	A
24	BA	70	G
24	BA	73	A
24	BA	74	A
24	BA	75	G
24	BA	84	A
24	BA	85	G
24	BA	86	G
24	BA	91	A
24	BA	92	U
24	BA	100	U
24	BA	119	A
24	BA	121	G
24	BA	125	A
24	BA	126	A
24	BA	127	A
24	BA	137	U
24	BA	138	U
24	BA	141	G
24	BA	142	A
24	BA	162	U
24	BA	164	C
24	BA	177	G
24	BA	196	A
24	BA	197	A
24	BA	199	A
24	BA	200	U
24	BA	204	A
24	BA	206	U
24	BA	215	G
24	BA	216	A
24	BA	221	A
24	BA	223	A
24	BA	224	U
24	BA	227	A
24	BA	229	C

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Mol	Chain	Res	Type
24	BA	230	G
24	BA	232	G
24	BA	233	A
24	BA	241	A
24	BA	243	U
24	BA	249	C
24	BA	250	G
24	BA	251	A
24	BA	265	A
24	BA	266	G
24	BA	267	C
24	BA	301	G
24	BA	302	C
24	BA	310	A
24	BA	312	G
24	BA	321	U
24	BA	324	A
24	BA	329	G
24	BA	333	G
24	BA	334	C
24	BA	345	A
24	BA	346	A
24	BA	347	A
24	BA	370	G
24	BA	373	U
24	BA	386	G
24	BA	388	G
24	BA	389	G
24	BA	390	U
24	BA	395	U
24	BA	396	G
24	BA	400	G
24	BA	401	A
24	BA	404	A
24	BA	411	G
24	BA	412	A
24	BA	421	C
24	BA	422	A
24	BA	434	U
24	BA	435	C
24	BA	442	G
24	BA	443	A

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Mol	Chain	Res	Type
24	BA	446	G
24	BA	449	A
24	BA	454	A
24	BA	459	U
24	BA	474	G
24	BA	475	C
24	BA	479	A
24	BA	480	A
24	BA	481	G
24	BA	482	A
24	BA	483	A
24	BA	489	G
24	BA	491	G
24	BA	503	A
24	BA	505	A
24	BA	506	G
24	BA	507	A
24	BA	509	C
24	BA	510	C
24	BA	512	G
24	BA	513	A
24	BA	514	A
24	BA	527	C
24	BA	529	A
24	BA	530	G
24	BA	531	C
24	BA	533	G
24	BA	555	G
24	BA	556	A
24	BA	571	U
24	BA	572	A
24	BA	575	A
24	BA	587	C
24	BA	588	U
24	BA	603	A
24	BA	604	G
24	BA	614	A
24	BA	616	A
24	BA	620	G
24	BA	621	A
24	BA	627	A
24	BA	628	G

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Mol	Chain	Res	Type
24	BA	637	A
24	BA	645	C
24	BA	646	U
24	BA	652	U
24	BA	653	U
24	BA	654	A
24	BA	655	A
24	BA	656	G
24	BA	669	G
24	BA	685	A
24	BA	687	C
24	BA	728	G
24	BA	739	A
24	BA	746	U
24	BA	747	U
24	BA	748	G
24	BA	752	A
24	BA	762	U
24	BA	763	G
24	BA	764	A
24	BA	765	C
24	BA	774	G
24	BA	777	G
24	BA	782	A
24	BA	784	G
24	BA	788	A
24	BA	790	U
24	BA	794	A
24	BA	795	C
24	BA	800	A
24	BA	802	A
24	BA	811	U
24	BA	812	C
24	BA	829	A
24	BA	831	G
24	BA	859	G
24	BA	860	U
24	BA	865	C
24	BA	913	U
24	BA	914	G
24	BA	932	U
24	BA	933	A

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Mol	Chain	Res	Type
24	BA	945	A
24	BA	946	C
24	BA	957	C
24	BA	958	U
24	BA	959	A
24	BA	961	C
24	BA	962	G
24	BA	973	A
24	BA	975	A
24	BA	984	A
24	BA	989	G
24	BA	990	A
24	BA	991	C
24	BA	995	C
24	BA	996	A
24	BA	1008	A
24	BA	1009	A
24	BA	1010	A
24	BA	1011	G
24	BA	1020	A
24	BA	1021	A
24	BA	1022	G
24	BA	1023	U
24	BA	1025	G
24	BA	1026	G
24	BA	1027	A
24	BA	1033	U
24	BA	1045	C
24	BA	1060	U
24	BA	1062	G
24	BA	1070	A
24	BA	1072	C
24	BA	1110	G
24	BA	1112	G
24	BA	1113	U
24	BA	1126	A
24	BA	1127	A
24	BA	1129	A
24	BA	1135	C
24	BA	1141	U
24	BA	1144	A
24	BA	1156	A

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Mol	Chain	Res	Type
24	BA	1157	G
24	BA	1158	C
24	BA	1174	U
24	BA	1204	A
24	BA	1206	G
24	BA	1210	G
24	BA	1213	A
24	BA	1236	G
24	BA	1247	A
24	BA	1249	U
24	BA	1250	G
24	BA	1254	A
24	BA	1265	A
24	BA	1267	U
24	BA	1272	A
24	BA	1273	U
24	BA	1275	A
24	BA	1276	A
24	BA	1286	A
24	BA	1287	A
24	BA	1289	C
24	BA	1300	G
24	BA	1303	G
24	BA	1311	G
24	BA	1313	U
24	BA	1324	G
24	BA	1326	U
24	BA	1329	U
24	BA	1330	C
24	BA	1332	G
24	BA	1333	G
24	BA	1340	U
24	BA	1343	G
24	BA	1359	A
24	BA	1378	A
24	BA	1379	U
24	BA	1385	A
24	BA	1386	C
24	BA	1396	U
24	BA	1398	C
24	BA	1399	C
24	BA	1427	A

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Mol	Chain	Res	Type
24	BA	1451	C
24	BA	1455	G
24	BA	1458	U
24	BA	1459	G
24	BA	1461	C
24	BA	1475	G
24	BA	1476	U
24	BA	1490	A
24	BA	1493	C
24	BA	1494	A
24	BA	1495	A
24	BA	1497	U
24	BA	1498	C
24	BA	1499	C
24	BA	1509	A
24	BA	1510	G
24	BA	1522	A
24	BA	1535	A
24	BA	1537	G
24	BA	1538	G
24	BA	1539	U
24	BA	1554	U
24	BA	1555	G
24	BA	1558	C
24	BA	1560	G
24	BA	1565	C
24	BA	1583	A
24	BA	1602	U
24	BA	1603	A
24	BA	1606	C
24	BA	1611	C
24	BA	1615	C
24	BA	1619	G
24	BA	1634	A
24	BA	1647	U
24	BA	1648	U
24	BA	1653	G
24	BA	1654	A
24	BA	1667	G
24	BA	1669	A
24	BA	1674	G
24	BA	1681	G

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Mol	Chain	Res	Type
24	BA	1682	G
24	BA	1683	U
24	BA	1693	U
24	BA	1695	G
24	BA	1696	G
24	BA	1700	A
24	BA	1706	C
24	BA	1707	G
24	BA	1713	A
24	BA	1714	U
24	BA	1716	U
24	BA	1732	C
24	BA	1733	G
24	BA	1738	G
24	BA	1757	A
24	BA	1758	U
24	BA	1759	A
24	BA	1760	C
24	BA	1780	A
24	BA	1782	U
24	BA	1784	A
24	BA	1785	A
24	BA	1786	A
24	BA	1787	A
24	BA	1799	G
24	BA	1802	A
24	BA	1808	A
24	BA	1809	A
24	BA	1815	A
24	BA	1816	C
24	BA	1817	G
24	BA	1818	U
24	BA	1821	A
24	BA	1828	G
24	BA	1838	C
24	BA	1839	G
24	BA	1857	G
24	BA	1865	U
24	BA	1866	A
24	BA	1870	C
24	BA	1871	A
24	BA	1900	A

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Mol	Chain	Res	Type
24	BA	1901	A
24	BA	1918	A
24	BA	1929	G
24	BA	1931	U
24	BA	1936	A
24	BA	1941	C
24	BA	1943	U
24	BA	1945	G
24	BA	1954	G
24	BA	1956	U
24	BA	1962	C
24	BA	1963	U
24	BA	1964	G
24	BA	1965	C
24	BA	1966	A
24	BA	1967	C
24	BA	1970	A
24	BA	1971	U
24	BA	1980	G
24	BA	1981	A
24	BA	1992	G
24	BA	1993	U
24	BA	1996	C
24	BA	1997	C
24	BA	2021	C
24	BA	2030	A
24	BA	2034	U
24	BA	2035	G
24	BA	2036	C
24	BA	2037	A
24	BA	2051	A
24	BA	2060	A
24	BA	2063	C
24	BA	2064	C
24	BA	2067	G
24	BA	2068	U
24	BA	2092	U
24	BA	2093	G
24	BA	2135	A
24	BA	2136	G
24	BA	2146	C
24	BA	2148	G

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Mol	Chain	Res	Type
24	BA	2197	U
24	BA	2199	A
24	BA	2210	U
24	BA	2214	C
24	BA	2225	A
24	BA	2226	C
24	BA	2238	G
24	BA	2239	G
24	BA	2240	U
24	BA	2249	U
24	BA	2258	C
24	BA	2266	A
24	BA	2267	A
24	BA	2268	A
24	BA	2272	U
24	BA	2275	C
24	BA	2276	G
24	BA	2282	G
24	BA	2287	A
24	BA	2289	G
24	BA	2296	U
24	BA	2297	A
24	BA	2307	G
24	BA	2309	A
24	BA	2319	G
24	BA	2321	U
24	BA	2326	C
24	BA	2327	A
24	BA	2333	A
24	BA	2335	A
24	BA	2337	G
24	BA	2344	U
24	BA	2347	C
24	BA	2382	G
24	BA	2383	G
24	BA	2385	C
24	BA	2391	G
24	BA	2392	A
24	BA	2408	U
24	BA	2423	U
24	BA	2424	C
24	BA	2425	A

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Mol	Chain	Res	Type
24	BA	2427	C
24	BA	2439	A
24	BA	2440	C
24	BA	2447	G
24	BA	2450	A
24	BA	2458	G
24	BA	2490	G
24	BA	2492	U
24	BA	2497	A
24	BA	2498	C
24	BA	2503	A
24	BA	2517	C
24	BA	2520	C
24	BA	2542	A
24	BA	2543	G
24	BA	2566	A
24	BA	2567	G
24	BA	2581	G
24	BA	2582	G
24	BA	2585	U
24	BA	2602	A
24	BA	2609	U
24	BA	2611	C
24	BA	2613	U
24	BA	2615	U
24	BA	2616	C
24	BA	2629	U
24	BA	2630	G
24	BA	2638	G
24	BA	2645	G
24	BA	2646	C
24	BA	2654	A
24	BA	2656	U
24	BA	2681	C
24	BA	2682	A
24	BA	2689	U
24	BA	2691	C
24	BA	2712	C
24	BA	2714	G
24	BA	2725	A
24	BA	2726	A
24	BA	2727	A

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Mol	Chain	Res	Type
24	BA	2732	G
24	BA	2750	A
24	BA	2752	C
24	BA	2756	U
24	BA	2757	A
24	BA	2776	A
24	BA	2777	G
24	BA	2778	A
24	BA	2781	A
24	BA	2790	U
24	BA	2791	G
24	BA	2797	U
24	BA	2800	A
24	BA	2808	G
24	BA	2835	A
24	BA	2850	A
24	BA	2866	U
24	BA	2868	A
24	BA	2873	A
24	BA	2879	A
24	BA	2880	C
24	BA	2893	A
24	BA	2894	G
25	BB	12	C
25	BB	14	U
25	BB	16	G
25	BB	24	G
25	BB	26	C
25	BB	40	U
25	BB	42	C
25	BB	43	C
25	BB	44	G
25	BB	45	A
25	BB	52	A
25	BB	56	G
25	BB	57	A
25	BB	66	A
25	BB	67	G
25	BB	88	C
25	BB	90	C
25	BB	108	A
25	BB	109	A

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Mol	Chain	Res	Type
55	CA	5	U
55	CA	6	G
55	CA	7	A
55	CA	9	G
55	CA	13	U
55	CA	14	U
55	CA	30	U
55	CA	32	A
55	CA	47	C
55	CA	51	A
55	CA	52	C
55	CA	60	A
55	CA	61	G
55	CA	62	U
55	CA	66	A
55	CA	70	U
55	CA	71	A
55	CA	72	A
55	CA	81	A
55	CA	82	G
55	CA	84	U
55	CA	86	G
55	CA	87	C
55	CA	89	U
55	CA	90	C
55	CA	91	U
55	CA	94	G
55	CA	95	C
55	CA	96	U
55	CA	109	A
55	CA	110	C
55	CA	115	G
55	CA	116	A
55	CA	119	A
55	CA	130	A
55	CA	131	A
55	CA	173	U
55	CA	174	A
55	CA	175	C
55	CA	181	A
55	CA	183	C
55	CA	197	A

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Mol	Chain	Res	Type
55	CA	198	G
55	CA	199	A
55	CA	210	C
55	CA	211	G
55	CA	212	G
55	CA	238	A
55	CA	239	U
55	CA	243	A
55	CA	245	U
55	CA	247	G
55	CA	248	C
55	CA	251	G
55	CA	252	U
55	CA	274	A
55	CA	275	G
55	CA	279	A
55	CA	282	A
55	CA	315	A
55	CA	316	C
55	CA	317	U
55	CA	327	A
55	CA	328	C
55	CA	330	C
55	CA	344	A
55	CA	346	G
55	CA	347	G
55	CA	351	G
55	CA	352	C
55	CA	353	A
55	CA	366	A
55	CA	368	U
55	CA	369	G
55	CA	372	C
55	CA	373	A
55	CA	374	A
55	CA	381	C
55	CA	383	A
55	CA	388	G
55	CA	389	A
55	CA	397	A
55	CA	398	U
55	CA	411	A

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Mol	Chain	Res	Type
55	CA	414	A
55	CA	422	C
55	CA	423	G
55	CA	424	G
55	CA	428	G
55	CA	429	U
55	CA	430	A
55	CA	451	A
55	CA	452	A
55	CA	462	G
55	CA	464	U
55	CA	481	G
55	CA	482	A
55	CA	484	G
55	CA	486	U
55	CA	495	A
55	CA	496	A
55	CA	497	G
55	CA	498	A
55	CA	499	A
55	CA	500	G
55	CA	508	U
55	CA	509	A
55	CA	511	C
55	CA	512	U
55	CA	513	C
55	CA	517	G
55	CA	519	C
55	CA	531	U
55	CA	534	U
55	CA	535	A
55	CA	536	C
55	CA	537	G
55	CA	547	A
55	CA	548	G
55	CA	549	C
55	CA	559	A
55	CA	563	A
55	CA	564	C
55	CA	565	U
55	CA	566	G
55	CA	567	G

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Mol	Chain	Res	Type
55	CA	575	G
55	CA	577	G
55	CA	595	A
55	CA	596	A
55	CA	641	U
55	CA	642	A
55	CA	653	U
55	CA	654	G
55	CA	686	U
55	CA	688	G
55	CA	702	A
55	CA	704	A
55	CA	717	U
55	CA	718	A
55	CA	721	G
55	CA	722	G
55	CA	723	U
55	CA	724	G
55	CA	753	A
55	CA	755	G
55	CA	792	A
55	CA	794	A
55	CA	802	A
55	CA	803	G
55	CA	815	A
55	CA	816	A
55	CA	817	C
55	CA	821	G
55	CA	870	U
55	CA	874	G
55	CA	884	U
55	CA	885	G
55	CA	889	A
55	CA	913	A
55	CA	914	A
55	CA	934	C
55	CA	935	A
55	CA	960	U
55	CA	961	U
55	CA	967	C
55	CA	968	A
55	CA	969	A

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Mol	Chain	Res	Type
55	CA	971	G
55	CA	972	C
55	CA	974	A
55	CA	976	G
55	CA	977	A
55	CA	982	U
55	CA	983	A
55	CA	992	U
55	CA	994	A
55	CA	1049	U
55	CA	1050	G
55	CA	1051	C
55	CA	1053	G
55	CA	1055	A
55	CA	1064	G
55	CA	1066	C
55	CA	1067	A
55	CA	1068	G
55	CA	1085	U
55	CA	1086	U
55	CA	1096	C
55	CA	1101	A
55	CA	1102	A
55	CA	1124	G
55	CA	1127	G
55	CA	1140	C
55	CA	1141	C
55	CA	1145	A
55	CA	1146	A
55	CA	1157	A
55	CA	1158	C
55	CA	1160	G
55	CA	1167	A
55	CA	1169	A
55	CA	1181	G
55	CA	1183	U
55	CA	1184	G
55	CA	1192	C
55	CA	1201	A
55	CA	1202	U
55	CA	1211	U
55	CA	1215	G

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Mol	Chain	Res	Type
55	CA	1224	U
55	CA	1228	C
55	CA	1240	U
55	CA	1241	G
55	CA	1278	G
55	CA	1282	C
55	CA	1283	U
55	CA	1285	A
55	CA	1287	A
55	CA	1288	A
55	CA	1298	U
55	CA	1299	A
55	CA	1300	G
55	CA	1331	G
55	CA	1336	C
55	CA	1338	G
55	CA	1345	U
55	CA	1348	U
55	CA	1365	G
55	CA	1366	C
55	CA	1380	U
55	CA	1381	U
55	CA	1394	A
55	CA	1395	C
55	CA	1396	A
55	CA	1398	A
55	CA	1399	C
55	CA	1401	G
55	CA	1447	A
55	CA	1448	C
55	CA	1452	C
55	CA	1453	G
55	CA	1454	G
55	CA	1498	U
55	CA	1499	A
55	CA	1500	A
55	CA	1503	A
55	CA	1505	G
55	CA	1507	A
55	CA	1508	A
55	CA	1528	U
55	CA	1530	G

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Mol	Chain	Res	Type
23	CW	5	U
24	DA	13	A
24	DA	14	A
24	DA	15	G
24	DA	33	C
24	DA	35	G
24	DA	36	G
24	DA	49	A
24	DA	52	A
24	DA	60	G
24	DA	61	C
24	DA	62	U
24	DA	70	G
24	DA	73	A
24	DA	75	G
24	DA	84	A
24	DA	85	G
24	DA	86	G
24	DA	93	G
24	DA	100	U
24	DA	101	A
24	DA	103	A
24	DA	119	A
24	DA	121	G
24	DA	125	A
24	DA	126	A
24	DA	127	A
24	DA	128	C
24	DA	140	C
24	DA	141	G
24	DA	142	A
24	DA	164	C
24	DA	196	A
24	DA	197	A
24	DA	199	A
24	DA	200	U
24	DA	204	A
24	DA	206	U
24	DA	215	G
24	DA	216	A
24	DA	221	A
24	DA	223	A

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Mol	Chain	Res	Type
24	DA	224	U
24	DA	227	A
24	DA	229	C
24	DA	230	G
24	DA	232	G
24	DA	233	A
24	DA	241	A
24	DA	243	U
24	DA	244	A
24	DA	249	C
24	DA	250	G
24	DA	271	G
24	DA	272	A
24	DA	301	G
24	DA	302	C
24	DA	303	G
24	DA	311	A
24	DA	312	G
24	DA	321	U
24	DA	324	A
24	DA	329	G
24	DA	333	G
24	DA	334	C
24	DA	370	G
24	DA	373	U
24	DA	374	A
24	DA	386	G
24	DA	388	G
24	DA	389	G
24	DA	390	U
24	DA	391	A
24	DA	395	U
24	DA	396	G
24	DA	404	A
24	DA	406	G
24	DA	411	G
24	DA	412	A
24	DA	421	C
24	DA	422	A
24	DA	423	A
24	DA	434	U
24	DA	435	C

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Mol	Chain	Res	Type
24	DA	442	G
24	DA	443	A
24	DA	444	C
24	DA	446	G
24	DA	449	A
24	DA	454	A
24	DA	459	U
24	DA	475	C
24	DA	479	A
24	DA	480	A
24	DA	482	A
24	DA	483	A
24	DA	489	G
24	DA	491	G
24	DA	503	A
24	DA	505	A
24	DA	506	G
24	DA	509	C
24	DA	510	C
24	DA	527	C
24	DA	528	A
24	DA	529	A
24	DA	530	G
24	DA	531	C
24	DA	533	G
24	DA	571	U
24	DA	572	A
24	DA	573	U
24	DA	575	A
24	DA	587	C
24	DA	588	U
24	DA	589	U
24	DA	603	A
24	DA	604	G
24	DA	614	A
24	DA	616	A
24	DA	617	G
24	DA	620	G
24	DA	621	A
24	DA	627	A
24	DA	637	A
24	DA	638	G

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Mol	Chain	Res	Type
24	DA	647	G
24	DA	655	A
24	DA	656	G
24	DA	669	G
24	DA	670	A
24	DA	671	C
24	DA	672	C
24	DA	685	A
24	DA	687	C
24	DA	726	G
24	DA	727	A
24	DA	729	G
24	DA	739	A
24	DA	740	C
24	DA	746	U
24	DA	748	G
24	DA	752	A
24	DA	753	A
24	DA	762	U
24	DA	763	G
24	DA	765	C
24	DA	766	U
24	DA	775	G
24	DA	777	G
24	DA	782	A
24	DA	783	A
24	DA	788	A
24	DA	789	A
24	DA	794	A
24	DA	800	A
24	DA	802	A
24	DA	805	G
24	DA	806	C
24	DA	811	U
24	DA	812	C
24	DA	829	A
24	DA	830	G
24	DA	859	G
24	DA	860	U
24	DA	861	A
24	DA	865	C
24	DA	866	A

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Mol	Chain	Res	Type
24	DA	913	U
24	DA	915	C
24	DA	931	U
24	DA	933	A
24	DA	945	A
24	DA	946	C
24	DA	957	C
24	DA	958	U
24	DA	959	A
24	DA	961	C
24	DA	962	G
24	DA	973	A
24	DA	975	A
24	DA	989	G
24	DA	990	A
24	DA	995	C
24	DA	997	G
24	DA	1008	A
24	DA	1009	A
24	DA	1010	A
24	DA	1011	G
24	DA	1020	A
24	DA	1021	A
24	DA	1022	G
24	DA	1023	U
24	DA	1025	G
24	DA	1026	G
24	DA	1027	A
24	DA	1033	U
24	DA	1034	G
24	DA	1045	C
24	DA	1048	A
24	DA	1049	C
24	DA	1060	U
24	DA	1062	G
24	DA	1069	A
24	DA	1071	G
24	DA	1072	C
24	DA	1073	A
24	DA	1075	C
24	DA	1078	U
24	DA	1079	C

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Mol	Chain	Res	Type
24	DA	1089	A
24	DA	1090	A
24	DA	1111	A
24	DA	1112	G
24	DA	1113	U
24	DA	1126	A
24	DA	1127	A
24	DA	1128	G
24	DA	1129	A
24	DA	1135	C
24	DA	1136	G
24	DA	1141	U
24	DA	1144	A
24	DA	1156	A
24	DA	1157	G
24	DA	1158	C
24	DA	1204	A
24	DA	1206	G
24	DA	1210	G
24	DA	1213	A
24	DA	1238	G
24	DA	1247	A
24	DA	1249	U
24	DA	1254	A
24	DA	1255	U
24	DA	1265	A
24	DA	1267	U
24	DA	1272	A
24	DA	1273	U
24	DA	1274	A
24	DA	1275	A
24	DA	1276	A
24	DA	1286	A
24	DA	1287	A
24	DA	1289	C
24	DA	1290	C
24	DA	1300	G
24	DA	1303	G
24	DA	1312	U
24	DA	1313	U
24	DA	1314	C
24	DA	1325	U

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Mol	Chain	Res	Type
24	DA	1326	U
24	DA	1327	A
24	DA	1331	G
24	DA	1332	G
24	DA	1333	G
24	DA	1334	G
24	DA	1341	G
24	DA	1345	C
24	DA	1346	G
24	DA	1385	A
24	DA	1386	C
24	DA	1387	A
24	DA	1398	C
24	DA	1399	C
24	DA	1427	A
24	DA	1429	G
24	DA	1451	C
24	DA	1455	G
24	DA	1476	U
24	DA	1477	A
24	DA	1478	G
24	DA	1490	A
24	DA	1491	G
24	DA	1497	U
24	DA	1498	C
24	DA	1508	A
24	DA	1510	G
24	DA	1511	G
24	DA	1523	U
24	DA	1524	G
24	DA	1535	A
24	DA	1536	C
24	DA	1537	G
24	DA	1538	G
24	DA	1552	A
24	DA	1554	U
24	DA	1555	G
24	DA	1558	C
24	DA	1560	G
24	DA	1561	C
24	DA	1566	A
24	DA	1568	G

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Mol	Chain	Res	Type
24	DA	1569	A
24	DA	1607	C
24	DA	1611	C
24	DA	1615	C
24	DA	1619	G
24	DA	1626	A
24	DA	1627	G
24	DA	1634	A
24	DA	1635	A
24	DA	1636	U
24	DA	1647	U
24	DA	1648	U
24	DA	1653	G
24	DA	1655	A
24	DA	1667	G
24	DA	1669	A
24	DA	1674	G
24	DA	1681	G
24	DA	1682	G
24	DA	1693	U
24	DA	1695	G
24	DA	1696	G
24	DA	1698	A
24	DA	1700	A
24	DA	1706	C
24	DA	1707	G
24	DA	1708	C
24	DA	1713	A
24	DA	1716	U
24	DA	1717	A
24	DA	1731	G
24	DA	1733	G
24	DA	1734	G
24	DA	1758	U
24	DA	1759	A
24	DA	1760	C
24	DA	1780	A
24	DA	1782	U
24	DA	1783	A
24	DA	1784	A
24	DA	1785	A
24	DA	1786	A

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Mol	Chain	Res	Type
24	DA	1788	C
24	DA	1799	G
24	DA	1802	A
24	DA	1808	A
24	DA	1809	A
24	DA	1810	A
24	DA	1815	A
24	DA	1817	G
24	DA	1821	A
24	DA	1828	G
24	DA	1838	C
24	DA	1839	G
24	DA	1857	G
24	DA	1865	U
24	DA	1866	A
24	DA	1913	A
24	DA	1914	C
24	DA	1915	U
24	DA	1918	A
24	DA	1929	G
24	DA	1931	U
24	DA	1936	A
24	DA	1941	C
24	DA	1942	C
24	DA	1943	U
24	DA	1945	G
24	DA	1954	G
24	DA	1956	U
24	DA	1962	C
24	DA	1963	U
24	DA	1965	C
24	DA	1966	A
24	DA	1967	C
24	DA	1970	A
24	DA	1971	U
24	DA	1972	G
24	DA	1980	G
24	DA	1981	A
24	DA	1982	U
24	DA	1992	G
24	DA	1993	U
24	DA	1996	C

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Mol	Chain	Res	Type
24	DA	1997	C
24	DA	1998	A
24	DA	2021	C
24	DA	2023	C
24	DA	2030	A
24	DA	2034	U
24	DA	2036	C
24	DA	2051	A
24	DA	2061	G
24	DA	2063	C
24	DA	2067	G
24	DA	2068	U
24	DA	2069	G
24	DA	2092	U
24	DA	2093	G
24	DA	2098	U
24	DA	2099	U
24	DA	2100	G
24	DA	2135	A
24	DA	2143	C
24	DA	2147	A
24	DA	2148	G
24	DA	2179	C
24	DA	2198	A
24	DA	2199	A
24	DA	2210	U
24	DA	2214	C
24	DA	2225	A
24	DA	2226	C
24	DA	2238	G
24	DA	2239	G
24	DA	2249	U
24	DA	2251	G
24	DA	2258	C
24	DA	2259	U
24	DA	2266	A
24	DA	2275	C
24	DA	2276	G
24	DA	2282	G
24	DA	2283	C
24	DA	2286	G
24	DA	2287	A

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Mol	Chain	Res	Type
24	DA	2289	G
24	DA	2296	U
24	DA	2297	A
24	DA	2308	G
24	DA	2309	A
24	DA	2310	C
24	DA	2311	A
24	DA	2312	U
24	DA	2313	C
24	DA	2319	G
24	DA	2320	U
24	DA	2321	U
24	DA	2322	A
24	DA	2334	U
24	DA	2335	A
24	DA	2336	A
24	DA	2337	G
24	DA	2338	C
24	DA	2344	U
24	DA	2347	C
24	DA	2348	U
24	DA	2382	G
24	DA	2383	G
24	DA	2385	C
24	DA	2386	A
24	DA	2401	U
24	DA	2402	U
24	DA	2406	A
24	DA	2407	A
24	DA	2408	U
24	DA	2425	A
24	DA	2427	C
24	DA	2428	G
24	DA	2439	A
24	DA	2440	C
24	DA	2447	G
24	DA	2450	A
24	DA	2458	G
24	DA	2459	A
24	DA	2490	G
24	DA	2492	U
24	DA	2497	A

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Mol	Chain	Res	Type
24	DA	2498	C
24	DA	2503	A
24	DA	2504	U
24	DA	2517	C
24	DA	2520	C
24	DA	2544	G
24	DA	2566	A
24	DA	2574	G
24	DA	2581	G
24	DA	2582	G
24	DA	2585	U
24	DA	2586	U
24	DA	2601	C
24	DA	2603	G
24	DA	2609	U
24	DA	2611	C
24	DA	2612	C
24	DA	2613	U
24	DA	2615	U
24	DA	2629	U
24	DA	2630	G
24	DA	2645	G
24	DA	2646	C
24	DA	2654	A
24	DA	2656	U
24	DA	2681	C
24	DA	2682	A
24	DA	2689	U
24	DA	2691	C
24	DA	2713	U
24	DA	2714	G
24	DA	2726	A
24	DA	2727	A
24	DA	2750	A
24	DA	2752	C
24	DA	2756	U
24	DA	2757	A
24	DA	2776	A
24	DA	2777	G
24	DA	2778	A
24	DA	2781	A
24	DA	2797	U

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Mol	Chain	Res	Type
24	DA	2798	U
24	DA	2832	U
24	DA	2833	U
24	DA	2834	G
24	DA	2836	U
24	DA	2849	U
24	DA	2850	A
24	DA	2866	U
24	DA	2867	G
24	DA	2873	A
24	DA	2874	C
24	DA	2881	U
24	DA	2893	A
24	DA	2895	G
24	DA	2896	C
24	DA	2902	C
56	DB	12	C
56	DB	13	G
56	DB	16	G
56	DB	38	C
56	DB	40	U
56	DB	41	G
56	DB	42	C
56	DB	43	C
56	DB	44	G
56	DB	45	A
56	DB	46	A
56	DB	56	G
56	DB	57	A
56	DB	58	A
56	DB	66	A
56	DB	67	G
56	DB	88	C
56	DB	90	C

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 oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 365 ligands modelled in this entry, 365 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

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	AB	218/241 (90%)	1.62	63 (28%) 1 2	206, 268, 283, 298	0
1	CB	218/241 (90%)	0.93	21 (9%) 13 16	146, 174, 199, 216	0
2	AC	206/233 (88%)	0.07	1 (0%) 87 71	106, 135, 169, 198	0
2	CC	206/233 (88%)	0.17	3 (1%) 72 50	111, 140, 177, 195	0
3	AD	205/206 (99%)	0.46	13 (6%) 26 22	102, 139, 185, 204	0
3	CD	205/206 (99%)	0.37	8 (3%) 43 31	86, 109, 140, 157	0
4	AE	150/167 (89%)	2.78	86 (57%) 0 0	102, 214, 237, 255	0
4	CE	150/167 (89%)	1.20	30 (20%) 3 5	86, 134, 166, 209	0
5	AF	100/135 (74%)	0.50	8 (8%) 18 18	140, 166, 186, 192	0
5	CF	100/135 (74%)	0.55	4 (4%) 42 30	140, 170, 200, 208	0
6	AG	151/179 (84%)	0.34	5 (3%) 49 34	128, 157, 186, 202	0
6	CG	150/179 (83%)	1.17	32 (21%) 2 4	115, 165, 204, 219	0
7	AH	129/130 (99%)	0.16	4 (3%) 51 35	102, 134, 158, 182	0
7	CH	129/130 (99%)	0.56	7 (5%) 31 24	106, 135, 159, 174	0
8	AI	127/130 (97%)	0.65	8 (6%) 26 22	108, 158, 190, 210	0
8	CI	127/130 (97%)	0.89	16 (12%) 8 12	114, 174, 206, 221	0
9	AJ	98/103 (95%)	0.48	6 (6%) 27 22	105, 150, 194, 211	0
9	CJ	98/103 (95%)	0.77	12 (12%) 8 12	113, 165, 210, 220	0
10	AK	117/129 (90%)	0.07	0 100 100	100, 149, 183, 200	0
10	CK	117/129 (90%)	0.58	7 (5%) 27 22	89, 133, 167, 192	0
11	AL	123/124 (99%)	0.34	9 (7%) 21 19	75, 95, 132, 157	0
11	CL	123/124 (99%)	0.28	4 (3%) 49 34	83, 101, 132, 151	0
12	AM	114/118 (96%)	0.41	7 (6%) 27 22	122, 182, 213, 232	0
12	CM	113/118 (95%)	0.83	10 (8%) 15 17	133, 193, 225, 235	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	AN	96/101 (95%)	0.46	2 (2%) 63 44	111, 142, 184, 210	0
13	CN	95/101 (94%)	1.13	16 (16%) 4 7	117, 149, 199, 207	0
14	AO	88/89 (98%)	0.03	1 (1%) 78 57	105, 133, 163, 199	0
14	CO	88/89 (98%)	0.32	2 (2%) 61 43	113, 141, 174, 197	0
15	AP	82/82 (100%)	0.67	9 (10%) 10 14	95, 127, 165, 208	0
15	CP	80/82 (97%)	0.72	8 (10%) 12 15	98, 122, 156, 189	0
16	AQ	80/84 (95%)	0.28	4 (5%) 34 26	69, 100, 142, 159	0
16	CQ	80/84 (95%)	0.15	1 (1%) 75 53	72, 111, 142, 159	0
17	AR	55/75 (73%)	0.20	1 (1%) 67 47	129, 148, 180, 190	0
17	CR	55/75 (73%)	0.31	2 (3%) 46 32	131, 150, 170, 182	0
18	AS	79/92 (85%)	0.68	6 (7%) 20 18	140, 176, 210, 235	0
18	CS	79/92 (85%)	0.61	4 (5%) 33 25	151, 182, 215, 230	0
19	AT	85/87 (97%)	0.28	3 (3%) 47 33	89, 121, 149, 180	0
19	CT	85/87 (97%)	0.57	7 (8%) 17 17	115, 153, 185, 206	0
20	AU	51/71 (71%)	1.02	9 (17%) 4 6	98, 145, 201, 208	0
20	CU	51/71 (71%)	1.14	10 (19%) 3 5	104, 139, 173, 193	0
21	AA	1533/1533 (100%)	-0.04	33 (2%) 62 44	65, 123, 208, 301	0
22	AV	17/17 (100%)	-0.44	0 100 100	102, 112, 149, 197	0
22	CV	17/17 (100%)	-0.08	0 100 100	99, 104, 145, 179	0
23	AW	6/6 (100%)	0.35	0 100 100	100, 109, 120, 155	0
23	CW	6/6 (100%)	0.43	0 100 100	98, 105, 123, 130	0
24	BA	2854/2903 (98%)	-0.16	64 (2%) 62 44	36, 66, 188, 342	0
24	DA	2841/2903 (97%)	0.60	151 (5%) 32 24	79, 132, 236, 340	0
25	BB	118/118 (100%)	-0.11	1 (0%) 82 63	52, 81, 113, 162	0
26	BC	271/273 (99%)	0.49	17 (6%) 26 22	44, 80, 122, 159	0
26	DC	271/273 (99%)	1.14	36 (13%) 7 10	89, 133, 164, 189	0
27	BD	209/209 (100%)	0.15	3 (1%) 73 52	37, 59, 105, 146	0
27	DD	209/209 (100%)	0.97	27 (12%) 7 11	83, 131, 164, 186	0
28	BE	201/201 (100%)	0.12	4 (1%) 65 45	38, 84, 131, 164	0
28	DE	201/201 (100%)	0.96	34 (16%) 4 7	95, 171, 212, 250	0
29	BF	177/179 (98%)	0.83	17 (9%) 13 16	90, 148, 201, 218	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
29	DF	178/179 (99%)	1.87	61 (34%) 1 1	250, 278, 301, 305	0
30	BG	176/177 (99%)	0.17	4 (2%) 61 43	66, 90, 135, 160	0
30	DG	176/177 (99%)	0.73	13 (7%) 20 19	120, 148, 177, 204	0
31	BH	149/149 (100%)	1.02	26 (17%) 4 6	89, 262, 290, 299	0
31	DH	149/149 (100%)	1.64	49 (32%) 1 2	156, 244, 279, 286	0
32	BI	141/142 (99%)	0.88	11 (7%) 19 18	237, 306, 364, 376	0
32	DI	141/142 (99%)	0.95	10 (7%) 22 19	277, 331, 367, 378	0
33	BJ	142/142 (100%)	0.03	2 (1%) 73 52	41, 57, 102, 157	0
33	DJ	142/142 (100%)	0.75	15 (10%) 11 14	92, 115, 142, 181	0
34	BK	122/123 (99%)	0.14	4 (3%) 49 34	41, 56, 110, 177	0
34	DK	122/123 (99%)	0.64	7 (5%) 29 23	93, 115, 144, 173	0
35	BL	143/144 (99%)	0.20	1 (0%) 84 66	38, 77, 119, 160	0
35	DL	143/144 (99%)	1.53	42 (29%) 1 2	93, 155, 197, 209	0
36	BM	136/136 (100%)	0.17	1 (0%) 84 66	41, 67, 114, 152	0
36	DM	136/136 (100%)	0.50	5 (3%) 45 32	80, 107, 142, 164	0
37	BN	120/127 (94%)	0.16	1 (0%) 82 63	46, 63, 84, 138	0
37	DN	120/127 (94%)	1.32	32 (26%) 1 3	122, 154, 180, 217	0
38	BO	116/117 (99%)	0.18	3 (2%) 57 39	73, 84, 124, 149	0
38	DO	116/117 (99%)	2.09	54 (46%) 0 1	165, 197, 217, 225	0
39	BP	114/115 (99%)	0.00	0 100 100	49, 67, 123, 152	0
39	DP	114/115 (99%)	0.98	14 (12%) 8 12	117, 137, 163, 182	0
40	BQ	117/118 (99%)	-0.06	1 (0%) 81 61	40, 58, 100, 127	0
40	DQ	117/118 (99%)	1.08	20 (17%) 4 7	97, 119, 143, 172	0
41	BR	103/103 (100%)	0.31	3 (2%) 53 37	39, 70, 116, 158	0
41	DR	103/103 (100%)	1.32	23 (22%) 2 4	96, 133, 157, 164	0
42	BS	110/110 (100%)	0.13	1 (0%) 81 61	41, 58, 95, 161	0
42	DS	110/110 (100%)	1.06	15 (13%) 7 10	98, 141, 173, 188	0
43	BT	93/100 (93%)	0.86	14 (15%) 5 8	56, 95, 135, 165	0
43	DT	93/100 (93%)	1.83	34 (36%) 1 1	144, 196, 226, 237	0
44	BU	102/104 (98%)	0.64	8 (7%) 19 18	77, 105, 139, 194	0
44	DU	102/104 (98%)	1.75	35 (34%) 1 1	174, 208, 248, 279	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
45	BV	94/94 (100%)	0.27	2 (2%) 63 44	60, 81, 115, 143	0
45	DV	94/94 (100%)	1.97	38 (40%) 0 1	125, 188, 226, 239	0
46	BW	79/85 (92%)	0.91	11 (13%) 6 10	50, 75, 131, 168	0
46	DW	79/85 (92%)	1.17	13 (16%) 4 7	88, 134, 164, 184	0
47	BX	77/78 (98%)	0.25	0 100 100	50, 84, 126, 147	0
47	DX	77/78 (98%)	1.72	25 (32%) 1 2	110, 157, 187, 203	0
48	BY	63/63 (100%)	0.96	13 (20%) 2 5	87, 109, 154, 163	0
48	DY	63/63 (100%)	1.12	10 (15%) 5 8	196, 218, 251, 257	0
49	BZ	58/59 (98%)	0.19	0 100 100	49, 63, 106, 145	0
49	DZ	58/59 (98%)	0.73	4 (6%) 23 20	97, 116, 142, 155	0
50	B0	56/57 (98%)	0.06	0 100 100	40, 63, 119, 143	0
50	D0	56/57 (98%)	0.84	6 (10%) 11 14	93, 152, 190, 202	0
51	B1	50/55 (90%)	-0.00	2 (4%) 42 30	63, 91, 117, 156	0
51	D1	50/55 (90%)	0.80	8 (16%) 5 8	113, 142, 173, 179	0
52	B2	46/46 (100%)	0.24	2 (4%) 40 29	50, 61, 80, 165	0
52	D2	46/46 (100%)	1.81	19 (41%) 0 1	118, 137, 161, 174	0
53	B3	64/65 (98%)	-0.00	0 100 100	45, 63, 98, 133	0
53	D3	64/65 (98%)	1.65	23 (35%) 1 1	105, 123, 146, 174	0
54	B4	38/38 (100%)	0.33	0 100 100	54, 68, 100, 118	0
54	D4	38/38 (100%)	1.60	13 (34%) 1 2	95, 117, 138, 142	0
55	CA	1530/1530 (100%)	0.31	55 (3%) 46 32	77, 126, 214, 305	0
56	DB	117/117 (100%)	0.23	0 100 100	87, 166, 194, 210	0
All	All	20477/21120 (96%)	0.49	1589 (7%) 19 18	36, 125, 246, 378	0

All (1589) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
48	BY	63	ALA	12.1
29	DF	129	MET	10.8
29	DF	153	ILE	10.8
38	DO	28	VAL	10.5
4	AE	114	LEU	9.8
4	AE	130	THR	9.7
8	AI	129	ARG	9.6

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Mol	Chain	Res	Type	RSRZ
4	AE	113	VAL	9.4
4	AE	108	GLY	9.4
31	BH	100	ALA	9.2
1	AB	106	VAL	9.1
4	AE	106	ALA	8.8
4	AE	109	ALA	8.5
29	DF	155	ILE	8.3
41	DR	52	PRO	8.3
38	DO	22	GLY	7.4
4	AE	110	MET	7.4
29	DF	27	VAL	7.3
29	DF	28	PRO	7.3
45	DV	47	VAL	7.3
42	DS	22	ASP	7.1
4	AE	15	ILE	6.7
11	AL	123	ALA	6.7
43	DT	72	GLN	6.6
45	DV	84	PRO	6.6
4	AE	50	GLY	6.4
8	CI	129	ARG	6.4
4	AE	29	ILE	6.3
1	AB	195	VAL	6.3
6	CG	149	ALA	6.3
4	AE	105	ILE	6.1
45	DV	65	VAL	6.1
15	CP	17	TYR	6.0
21	AA	87	C	6.0
1	AB	103	TRP	5.8
43	DT	36	LYS	5.8
21	AA	78	A	5.8
37	DN	107	ASN	5.7
11	AL	15	VAL	5.7
4	AE	124	ALA	5.7
24	DA	2134	A	5.7
4	CE	30	PHE	5.7
24	DA	2107	G	5.7
33	DJ	44	TYR	5.6
24	BA	2179	C	5.6
46	BW	36	ILE	5.6
21	AA	88	U	5.6
18	AS	2	ARG	5.6
31	DH	99	ILE	5.6

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Mol	Chain	Res	Type	RSRZ
40	DQ	7	VAL	5.6
44	DU	36	GLU	5.5
55	CA	210	C	5.5
38	DO	20	GLU	5.5
41	DR	5	PHE	5.5
4	AE	131	ASN	5.5
31	DH	142	VAL	5.4
24	DA	2799	A	5.4
55	CA	87	C	5.4
21	AA	86	G	5.4
39	DP	109	ILE	5.3
24	BA	2138	G	5.3
31	BH	99	ILE	5.3
29	DF	89	THR	5.2
24	DA	2320	U	5.2
52	D2	41	ARG	5.2
1	AB	194	GLY	5.2
31	DH	100	ALA	5.2
55	CA	1362	A	5.2
44	DU	37	GLY	5.2
47	DX	19	HIS	5.2
40	DQ	90	ASP	5.2
31	DH	98	ASP	5.1
29	DF	33	ILE	5.1
4	AE	128	GLY	5.1
4	AE	107	GLY	5.1
4	AE	26	GLY	5.1
21	AA	1362	A	5.1
6	CG	150	PHE	5.1
24	BA	2146	C	5.1
4	AE	55	VAL	5.1
29	DF	151	LEU	5.0
26	DC	31	PRO	5.0
26	DC	232	GLY	5.0
46	BW	45	HIS	5.0
26	DC	238	ASN	5.0
11	AL	24	GLU	5.0
30	DG	112	VAL	5.0
1	AB	59	ILE	5.0
24	DA	2602	A	5.0
24	DA	2133	G	5.0
39	DP	107	ALA	5.0

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Mol	Chain	Res	Type	RSRZ
38	DO	23	ALA	4.9
38	DO	21	LEU	4.9
8	CI	43	ALA	4.9
52	B2	46	LYS	4.9
4	AE	132	PRO	4.9
43	DT	20	ALA	4.9
4	AE	27	GLY	4.9
29	DF	66	ILE	4.9
1	AB	109	SER	4.9
24	DA	34	U	4.9
4	AE	129	SER	4.8
26	DC	271	SER	4.8
9	AJ	60	ASP	4.8
29	DF	86	CYS	4.8
46	DW	7	GLY	4.8
24	BA	138	U	4.8
4	AE	123	LEU	4.8
29	DF	24	VAL	4.8
53	D3	19	GLY	4.8
24	BA	2154	A	4.8
29	DF	35	LEU	4.8
47	DX	3	VAL	4.7
48	BY	7	ARG	4.7
4	AE	125	LYS	4.7
38	DO	14	ALA	4.7
20	AU	46	ARG	4.7
24	DA	1583	A	4.7
8	CI	128	LYS	4.7
29	DF	85	GLY	4.7
1	CB	209	VAL	4.7
8	CI	126	PHE	4.7
24	BA	2602	A	4.7
4	AE	119	VAL	4.7
38	DO	18	LEU	4.7
4	AE	101	GLY	4.7
24	BA	2180	U	4.6
32	BI	3	LYS	4.6
48	BY	60	LYS	4.6
41	DR	46	GLU	4.6
38	DO	42	PRO	4.6
41	DR	86	GLN	4.6
29	DF	65	LEU	4.6

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Mol	Chain	Res	Type	RSRZ
29	BF	79	ARG	4.6
29	BF	78	ILE	4.6
4	AE	17	VAL	4.6
46	DW	37	VAL	4.6
55	CA	412	A	4.5
1	CB	99	MET	4.5
24	BA	1073	A	4.5
20	CU	27	VAL	4.5
29	DF	26	GLN	4.5
20	AU	23	GLU	4.5
55	CA	86	G	4.5
48	BY	13	GLU	4.5
24	DA	2156	G	4.5
26	DC	237	ARG	4.5
24	DA	1420	A	4.5
35	DL	70	LYS	4.4
1	CB	34	ARG	4.4
29	DF	157	THR	4.4
43	DT	62	VAL	4.4
45	DV	42	LEU	4.4
26	DC	1	ALA	4.4
31	DH	97	ARG	4.4
45	DV	43	ASP	4.4
8	AI	42	THR	4.4
26	DC	29	PHE	4.4
4	AE	49	TYR	4.4
24	DA	2211	A	4.4
43	DT	64	LYS	4.3
4	AE	127	TYR	4.3
31	DH	114	GLU	4.3
24	DA	2106	U	4.3
4	AE	16	ALA	4.3
55	CA	1534	A	4.3
21	AA	79	G	4.3
24	DA	2307	G	4.3
38	DO	26	LEU	4.3
38	DO	87	ILE	4.3
1	CB	56	LEU	4.3
45	DV	44	HIS	4.3
43	DT	33	LYS	4.3
47	DX	12	VAL	4.2
6	CG	85	GLN	4.2

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Mol	Chain	Res	Type	RSRZ
42	DS	40	ASN	4.2
31	BH	103	VAL	4.2
38	DO	2	ASP	4.2
24	BA	1065	U	4.2
4	CE	113	VAL	4.1
39	DP	69	VAL	4.1
44	DU	35	VAL	4.1
29	DF	23	SER	4.1
3	CD	199	ILE	4.1
21	AA	412	A	4.1
38	DO	94	ARG	4.1
55	CA	205	A	4.1
29	DF	30	VAL	4.1
46	DW	45	HIS	4.1
15	AP	13	LYS	4.1
43	DT	76	ARG	4.1
29	DF	90	LEU	4.1
4	AE	54	GLU	4.1
39	DP	111	GLU	4.1
4	AE	90	GLY	4.1
47	DX	28	PHE	4.1
3	AD	1	ALA	4.1
31	BH	115	VAL	4.0
6	CG	7	GLY	4.0
54	D4	2	LYS	4.0
32	DI	10	LEU	4.0
3	AD	24	VAL	4.0
55	CA	209	U	4.0
29	DF	22	ASN	4.0
35	DL	3	LEU	4.0
4	CE	122	VAL	4.0
52	D2	44	VAL	4.0
12	CM	110	GLY	4.0
44	DU	4	ILE	4.0
8	AI	50	PRO	4.0
43	DT	37	ASP	4.0
1	AB	154	GLY	4.0
35	DL	66	PHE	4.0
52	D2	1	MET	4.0
38	BO	2	ASP	4.0
55	CA	965	U	4.0
27	DD	77	ARG	4.0

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Mol	Chain	Res	Type	RSRZ
24	DA	1598	A	3.9
1	AB	81	ASP	3.9
3	AD	26	ALA	3.9
28	DE	41	GLN	3.9
4	AE	30	PHE	3.9
29	DF	7	TYR	3.9
31	DH	111	ALA	3.9
15	CP	16	PHE	3.9
24	DA	2104	C	3.9
52	D2	2	LYS	3.9
3	AD	4	LEU	3.9
31	DH	92	GLY	3.9
1	AB	21	TYR	3.9
27	DD	157	LYS	3.9
38	DO	8	ILE	3.9
1	AB	204	ASP	3.9
24	BA	2139	U	3.9
44	DU	59	GLU	3.9
4	AE	25	LYS	3.9
37	DN	8	ARG	3.9
46	DW	35	ILE	3.9
4	AE	32	PHE	3.9
55	CA	206	C	3.9
33	DJ	81	ILE	3.8
11	CL	111	GLN	3.8
26	DC	250	GLN	3.8
6	CG	75	LYS	3.8
6	CG	86	VAL	3.8
37	DN	29	VAL	3.8
47	DX	57	VAL	3.8
8	CI	38	PHE	3.8
20	CU	23	GLU	3.8
43	DT	82	LYS	3.8
21	AA	1032	G	3.8
32	BI	10	LEU	3.8
41	DR	26	ASP	3.8
4	AE	112	ALA	3.8
31	DH	13	GLY	3.8
47	DX	8	GLY	3.8
13	CN	69	PRO	3.8
4	CE	26	GLY	3.8
4	AE	82	HIS	3.8

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Mol	Chain	Res	Type	RSRZ
24	DA	345	A	3.8
29	DF	107	VAL	3.8
32	BI	4	VAL	3.8
42	DS	45	VAL	3.8
9	CJ	48	ARG	3.8
24	BA	1072	C	3.8
24	DA	2145	C	3.8
46	BW	75	ASN	3.7
31	DH	81	ALA	3.7
35	DL	57	LEU	3.7
38	DO	29	HIS	3.7
5	AF	100	SER	3.7
35	DL	68	SER	3.7
5	CF	62	MET	3.7
35	DL	17	LYS	3.7
1	AB	156	LEU	3.7
24	DA	2311	A	3.7
1	CB	74	ALA	3.7
24	DA	2110	G	3.7
55	CA	204	G	3.7
41	DR	38	VAL	3.7
1	CB	14	HIS	3.7
24	DA	2313	C	3.7
26	BC	269	ARG	3.7
41	DR	4	VAL	3.7
42	DS	11	ARG	3.7
28	DE	144	GLU	3.7
35	DL	36	LYS	3.7
24	DA	2147	A	3.6
28	DE	135	ALA	3.6
53	D3	64	ALA	3.6
21	AA	4	U	3.6
37	DN	46	ARG	3.6
47	DX	49	ARG	3.6
13	CN	76	PHE	3.6
54	D4	30	GLU	3.6
21	AA	926	G	3.6
40	DQ	89	ILE	3.6
47	DX	33	HIS	3.6
6	CG	83	THR	3.6
31	BH	92	GLY	3.6
48	DY	1	MET	3.6

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Mol	Chain	Res	Type	RSRZ
24	DA	529	A	3.6
24	BA	2155	U	3.6
55	CA	723	U	3.6
47	DX	74	GLY	3.6
20	AU	34	ARG	3.6
29	DF	32	LYS	3.6
3	CD	196	GLU	3.6
26	BC	264	LYS	3.6
24	DA	1640	A	3.6
18	CS	70	LEU	3.6
21	AA	421	U	3.6
24	BA	2402	U	3.6
55	CA	121	U	3.6
26	BC	271	SER	3.6
43	BT	4	GLU	3.6
45	DV	86	LEU	3.6
24	DA	1642	G	3.6
1	AB	99	MET	3.6
4	AE	51	LYS	3.6
52	D2	14	ARG	3.6
4	AE	135	VAL	3.6
38	DO	5	SER	3.6
13	CN	48	GLN	3.5
40	DQ	21	LYS	3.5
35	DL	76	GLU	3.5
6	CG	60	ALA	3.5
52	D2	12	ARG	3.5
4	AE	21	SER	3.5
24	DA	504	A	3.5
30	BG	55	ASP	3.5
4	AE	95	MET	3.5
12	AM	100	ARG	3.5
4	AE	57	ALA	3.5
27	DD	65	ALA	3.5
44	BU	1	ALA	3.5
29	DF	123	GLY	3.5
44	DU	55	GLY	3.5
4	AE	11	GLN	3.5
48	DY	49	ASP	3.5
3	AD	69	ARG	3.5
47	DX	2	ARG	3.5
40	DQ	88	GLU	3.5

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Mol	Chain	Res	Type	RSRZ
55	CA	1227	A	3.5
35	DL	77	ILE	3.5
29	DF	128	SER	3.5
15	CP	7	ALA	3.5
43	DT	83	ALA	3.5
31	DH	125	THR	3.5
43	DT	71	GLY	3.5
4	AE	94	PHE	3.5
24	BA	2143	C	3.5
46	DW	73	PRO	3.5
55	CA	207	C	3.5
1	AB	167	HIS	3.5
1	AB	66	ILE	3.4
45	DV	6	ALA	3.4
45	DV	82	TYR	3.4
5	CF	100	SER	3.4
13	CN	47	LEU	3.4
27	DD	121	THR	3.4
29	DF	34	THR	3.4
46	DW	75	ASN	3.4
32	BI	2	LYS	3.4
29	BF	50	ASP	3.4
37	DN	60	VAL	3.4
44	DU	82	VAL	3.4
37	DN	26	GLY	3.4
55	CA	841	C	3.4
46	BW	40	ARG	3.4
8	AI	128	LYS	3.4
24	DA	170	U	3.4
31	DH	94	ILE	3.4
24	DA	1641	A	3.4
36	DM	119	LEU	3.4
33	DJ	112	GLY	3.4
8	CI	118	ARG	3.4
24	DA	2319	G	3.4
6	CG	5	VAL	3.4
24	BA	1075	C	3.4
29	DF	125	GLY	3.4
1	CB	15	PHE	3.4
4	AE	19	ARG	3.4
38	DO	117	PHE	3.4
4	CE	74	ALA	3.4

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Mol	Chain	Res	Type	RSRZ
29	DF	106	ALA	3.4
29	BF	73	VAL	3.4
27	DD	30	GLU	3.4
13	CN	75	LYS	3.4
24	BA	1074	G	3.4
24	DA	1538	G	3.4
3	AD	27	ILE	3.4
13	CN	81	ILE	3.4
24	BA	2137	U	3.4
12	AM	97	ARG	3.4
4	AE	133	ILE	3.3
47	DX	48	LEU	3.3
9	CJ	64	GLN	3.3
40	DQ	98	ALA	3.3
27	DD	142	VAL	3.3
43	BT	16	VAL	3.3
43	DT	34	VAL	3.3
24	DA	1093	G	3.3
24	DA	2157	G	3.3
35	DL	48	ARG	3.3
4	CE	142	GLY	3.3
6	AG	84	TYR	3.3
31	DH	76	GLU	3.3
45	DV	80	HIS	3.3
24	DA	878	A	3.3
1	AB	28	PRO	3.3
38	DO	110	ALA	3.3
51	D1	20	TYR	3.3
42	DS	9	HIS	3.3
24	DA	171	U	3.3
24	DA	2585	U	3.3
1	AB	96	LEU	3.3
40	DQ	8	ILE	3.3
15	CP	10	GLY	3.3
24	DA	2309	A	3.3
45	BV	67	GLY	3.3
16	AQ	6	THR	3.3
1	AB	161	PHE	3.3
26	BC	239	PHE	3.3
13	CN	44	VAL	3.3
54	D4	3	VAL	3.3
28	DE	54	GLY	3.3

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Mol	Chain	Res	Type	RSRZ
35	DL	16	GLY	3.3
4	AE	144	GLU	3.3
26	DC	99	GLU	3.3
4	AE	120	HIS	3.3
6	CG	8	GLN	3.3
24	DA	588	U	3.3
5	AF	51	ILE	3.3
45	DV	77	VAL	3.3
4	AE	48	GLY	3.3
4	CE	108	GLY	3.3
1	CB	108	GLN	3.3
21	AA	1493	A	3.2
24	BA	2322	A	3.2
24	DA	1	G	3.2
45	DV	51	GLN	3.2
43	DT	74	ILE	3.2
44	DU	71	ILE	3.2
28	DE	45	ALA	3.2
1	AB	179	GLY	3.2
18	CS	12	LEU	3.2
28	DE	181	ILE	3.2
41	DR	53	PHE	3.2
24	DA	1396	U	3.2
4	AE	136	VAL	3.2
43	DT	35	ALA	3.2
45	DV	52	ALA	3.2
6	CG	15	PRO	3.2
24	DA	2179	C	3.2
55	CA	1230	C	3.2
5	CF	74	LEU	3.2
35	DL	91	ASP	3.2
27	DD	168	GLU	3.2
29	DF	88	VAL	3.2
43	DT	81	LYS	3.2
1	AB	178	LEU	3.2
55	CA	1224	U	3.2
4	AE	102	THR	3.2
6	CG	43	TYR	3.2
41	DR	6	GLN	3.2
1	AB	25	LYS	3.2
9	AJ	51	VAL	3.2
42	DS	14	ALA	3.2

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Mol	Chain	Res	Type	RSRZ
31	BH	113	SER	3.2
43	DT	66	LYS	3.2
32	DI	55	PRO	3.2
13	CN	41	TRP	3.2
37	DN	75	ILE	3.2
37	DN	18	GLN	3.2
18	AS	63	ASP	3.2
53	D3	63	TYR	3.2
32	DI	129	GLU	3.2
38	DO	4	LYS	3.2
10	CK	128	VAL	3.2
29	DF	12	VAL	3.2
4	AE	149	PRO	3.2
24	DA	1808	A	3.1
10	CK	125	LYS	3.1
12	CM	102	LYS	3.1
40	DQ	87	VAL	3.1
31	BH	118	PRO	3.1
45	DV	81	PRO	3.1
48	BY	62	GLY	3.1
31	DH	112	LYS	3.1
8	CI	127	SER	3.1
28	DE	88	ARG	3.1
43	DT	65	GLY	3.1
31	BH	96	THR	3.1
24	BA	790	U	3.1
24	DA	355	U	3.1
1	AB	196	ASP	3.1
4	AE	28	ARG	3.1
8	AI	123	ARG	3.1
28	DE	42	GLY	3.1
31	DH	128	HIS	3.1
24	DA	1276	A	3.1
1	AB	75	ALA	3.1
4	AE	45	VAL	3.1
6	CG	76	SER	3.1
27	DD	155	VAL	3.1
4	AE	115	GLU	3.1
31	DH	149	GLU	3.1
45	DV	83	LYS	3.1
9	CJ	52	LEU	3.1
44	DU	19	GLY	3.1

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Mol	Chain	Res	Type	RSRZ
24	BA	2296	U	3.1
44	DU	14	THR	3.1
24	DA	169	G	3.1
15	AP	60	TRP	3.1
27	DD	75	ALA	3.1
31	DH	110	VAL	3.1
38	DO	54	VAL	3.1
52	D2	20	ALA	3.1
29	DF	99	PHE	3.1
1	AB	203	ASP	3.1
24	BA	1420	A	3.1
31	BH	86	ASP	3.1
43	BT	37	ASP	3.1
24	DA	1092	C	3.1
30	DG	134	GLY	3.1
10	CK	32	THR	3.1
29	DF	4	HIS	3.1
4	AE	122	VAL	3.0
9	CJ	74	VAL	3.0
13	AN	13	VAL	3.0
44	DU	38	ILE	3.0
1	AB	10	LYS	3.0
44	DU	20	LYS	3.0
53	D3	46	LYS	3.0
21	AA	85	U	3.0
24	BA	2585	U	3.0
38	DO	25	ARG	3.0
45	DV	37	PRO	3.0
24	DA	1356	G	3.0
29	DF	154	THR	3.0
19	CT	3	ILE	3.0
38	DO	17	LYS	3.0
54	D4	9	LYS	3.0
47	DX	17	ARG	3.0
1	AB	67	LEU	3.0
4	CE	80	LEU	3.0
24	DA	456	C	3.0
1	AB	155	GLY	3.0
33	DJ	79	GLY	3.0
46	BW	14	ASP	3.0
26	BC	139	THR	3.0
44	BU	71	ILE	3.0

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Mol	Chain	Res	Type	RSRZ
4	AE	87	VAL	3.0
9	CJ	98	VAL	3.0
55	CA	208	U	3.0
26	DC	30	ALA	3.0
1	AB	147	LEU	3.0
4	AE	137	ARG	3.0
28	DE	78	TRP	3.0
24	DA	356	G	3.0
2	AC	206	ILE	3.0
24	BA	2147	A	3.0
24	DA	125	A	3.0
27	DD	202	ILE	3.0
28	DE	57	LYS	3.0
40	DQ	55	GLN	3.0
31	DH	113	SER	3.0
29	BF	74	ALA	3.0
30	DG	39	ALA	3.0
37	DN	22	ARG	3.0
43	DT	93	LEU	3.0
44	DU	28	LEU	3.0
29	DF	83	PRO	3.0
52	D2	46	LYS	3.0
31	DH	88	GLY	3.0
6	CG	74	VAL	3.0
31	DH	115	VAL	3.0
1	AB	135	MET	3.0
26	DC	51	ARG	3.0
45	DV	74	ALA	3.0
2	CC	206	ILE	3.0
41	DR	85	LYS	3.0
13	CN	71	GLY	3.0
6	AG	140	VAL	3.0
38	DO	19	GLN	3.0
38	DO	24	THR	3.0
4	AE	53	ARG	3.0
27	DD	209	ALA	3.0
28	DE	39	ALA	3.0
50	D0	23	ALA	3.0
29	DF	152	ASP	3.0
47	DX	53	LYS	2.9
31	DH	38	PRO	2.9
49	DZ	36	GLU	2.9

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Mol	Chain	Res	Type	RSRZ
4	CE	143	LEU	2.9
36	BM	102	LEU	2.9
51	D1	35	LEU	2.9
37	DN	20	MET	2.9
38	DO	86	GLY	2.9
1	CB	105	THR	2.9
21	AA	1102	A	2.9
24	DA	633	A	2.9
27	DD	37	VAL	2.9
29	DF	158	THR	2.9
31	DH	82	SER	2.9
44	DU	33	VAL	2.9
47	DX	66	VAL	2.9
8	AI	107	ALA	2.9
32	BI	26	ALA	2.9
38	DO	37	ALA	2.9
53	D3	9	ALA	2.9
24	BA	1093	G	2.9
45	DV	4	ILE	2.9
12	AM	111	PRO	2.9
4	AE	86	GLY	2.9
1	CB	109	SER	2.9
4	AE	20	VAL	2.9
7	CH	1	SER	2.9
11	CL	13	ARG	2.9
15	CP	8	ARG	2.9
28	DE	82	GLY	2.9
4	CE	124	ALA	2.9
43	BT	9	LYS	2.9
1	AB	166	ASP	2.9
17	CR	73	HIS	2.9
4	AE	18	ASN	2.9
55	CA	461	A	2.9
4	CE	53	ARG	2.9
1	AB	19	THR	2.9
24	BA	2885	G	2.9
24	DA	1416	G	2.9
44	DU	74	ALA	2.9
55	CA	530	G	2.9
24	DA	281	C	2.9
24	BA	1078	U	2.9
55	CA	843	U	2.9

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Mol	Chain	Res	Type	RSRZ
31	BH	101	ASP	2.9
35	DL	18	ARG	2.9
43	DT	12	ARG	2.9
29	DF	150	GLY	2.9
46	DW	70	VAL	2.9
4	AE	33	THR	2.9
33	DJ	78	THR	2.9
4	CE	104	ILE	2.9
49	DZ	24	LEU	2.9
9	AJ	85	ASP	2.9
39	DP	21	PRO	2.9
24	DA	434	U	2.9
24	DA	1493	C	2.9
38	BO	38	GLN	2.9
54	D4	18	LYS	2.9
1	CB	103	TRP	2.9
46	BW	42	THR	2.9
4	CE	117	ALA	2.9
19	AT	3	ILE	2.9
34	DK	16	ALA	2.9
41	BR	103	ALA	2.9
4	AE	14	LEU	2.9
29	DF	20	ASN	2.9
30	DG	165	ASP	2.8
51	D1	7	LYS	2.9
1	CB	106	VAL	2.8
15	AP	33	ILE	2.8
27	DD	54	ALA	2.8
31	DH	79	THR	2.8
55	CA	1103	C	2.8
29	DF	111	ARG	2.8
1	AB	192	PRO	2.8
39	DP	17	PRO	2.8
11	AL	19	ASN	2.8
28	BE	118	LEU	2.8
31	DH	12	LEU	2.8
37	DN	105	GLY	2.8
1	AB	82	ALA	2.8
4	CE	95	MET	2.8
53	D3	13	PHE	2.8
9	CJ	8	ILE	2.8
28	DE	52	VAL	2.8

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Mol	Chain	Res	Type	RSRZ
30	BG	16	VAL	2.8
47	DX	34	SER	2.8
24	DA	1971	U	2.8
24	DA	1172	C	2.8
38	DO	92	PHE	2.8
12	CM	109	LYS	2.8
40	DQ	14	LYS	2.8
48	BY	4	LYS	2.8
51	B1	43	ARG	2.8
12	AM	114	PRO	2.8
35	DL	58	TYR	2.8
43	DT	63	VAL	2.8
35	BL	144	GLU	2.8
29	BF	54	ALA	2.8
35	DL	67	THR	2.8
4	AE	83	PRO	2.8
24	DA	130	C	2.8
34	DK	122	VAL	2.8
1	CB	16	GLY	2.8
3	AD	34	GLU	2.8
20	AU	35	GLU	2.8
26	DC	11	GLY	2.8
28	DE	30	GLN	2.8
1	AB	29	PHE	2.8
6	CG	151	ALA	2.8
15	AP	27	ALA	2.8
42	DS	42	LYS	2.8
21	AA	6	G	2.8
21	AA	1104	G	2.8
24	BA	2157	G	2.8
24	DA	60	G	2.8
24	DA	379	G	2.8
40	DQ	10	ARG	2.8
1	CB	205	ALA	2.8
4	AE	85	LYS	2.8
21	AA	950	U	2.8
21	AA	1065	U	2.8
55	CA	467	U	2.8
37	DN	12	ARG	2.7
4	AE	35	LEU	2.7
4	AE	104	ILE	2.7
31	DH	80	ILE	2.7

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Mol	Chain	Res	Type	RSRZ
24	BA	786	C	2.7
4	AE	24	VAL	2.7
52	B2	1	MET	2.7
32	BI	9	LYS	2.7
4	AE	126	ALA	2.7
28	DE	104	ALA	2.7
4	AE	89	THR	2.7
55	CA	211	G	2.7
26	DC	261	ARG	2.7
55	CA	1016	A	2.7
31	BH	142	VAL	2.7
45	DV	17	SER	2.7
47	DX	55	MET	2.7
1	AB	175	ALA	2.7
4	CE	106	ALA	2.7
35	DL	51	GLU	2.7
35	DL	92	LEU	2.7
43	DT	61	LEU	2.7
51	D1	8	ILE	2.7
28	DE	100	MET	2.7
44	DU	30	SER	2.7
45	DV	90	ASP	2.7
4	AE	73	VAL	2.7
21	AA	532	A	2.7
24	DA	2621	G	2.7
26	DC	54	GLY	2.7
29	BF	116	LEU	2.7
33	DJ	116	ARG	2.7
35	DL	72	ALA	2.7
35	DL	78	ARG	2.7
50	D0	1	ALA	2.7
4	AE	139	THR	2.7
55	CA	632	U	2.7
37	DN	5	LYS	2.7
54	D4	15	LYS	2.7
1	AB	49	PHE	2.7
41	DR	54	VAL	2.7
38	DO	32	PRO	2.7
4	AE	111	ARG	2.7
4	AE	117	ALA	2.7
28	DE	81	GLY	2.7
38	DO	113	ALA	2.7

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Mol	Chain	Res	Type	RSRZ
42	DS	44	ALA	2.7
1	AB	55	GLU	2.7
1	AB	129	THR	2.7
35	DL	106	GLU	2.7
14	CO	19	ASN	2.7
11	AL	17	LYS	2.7
29	BF	71	LYS	2.7
31	DH	83	LYS	2.7
5	AF	88	MET	2.7
1	AB	56	LEU	2.7
29	DF	39	VAL	2.7
31	BH	110	VAL	2.7
31	DH	21	VAL	2.7
24	BA	546	U	2.7
24	DA	690	G	2.7
43	DT	32	LEU	2.7
27	DD	143	PRO	2.7
20	CU	32	ARG	2.7
43	BT	6	ARG	2.7
13	CN	43	ALA	2.7
29	DF	159	ALA	2.7
1	AB	142	LYS	2.7
29	DF	8	LYS	2.7
29	DF	63	LYS	2.7
30	DG	171	LYS	2.7
38	DO	88	LYS	2.7
46	DW	11	ASN	2.7
24	DA	444	C	2.7
27	DD	127	PHE	2.7
52	D2	5	PHE	2.7
29	BF	72	SER	2.7
35	DL	6	LEU	2.7
37	DN	38	LEU	2.7
7	CH	77	VAL	2.6
49	DZ	33	HIS	2.6
29	DF	64	PRO	2.6
33	BJ	96	ARG	2.6
44	BU	4	ILE	2.6
45	DV	78	GLN	2.6
12	CM	98	GLY	2.6
37	DN	68	ALA	2.6
45	DV	66	ASP	2.6

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Mol	Chain	Res	Type	RSRZ
18	AS	78	THR	2.6
24	DA	1095	A	2.6
48	BY	59	GLU	2.6
24	DA	62	U	2.6
24	DA	1294	U	2.6
24	DA	1091	G	2.6
24	DA	1377	G	2.6
5	CF	10	VAL	2.6
34	BK	35	VAL	2.6
45	DV	79	ARG	2.6
26	BC	232	GLY	2.6
41	DR	50	GLY	2.6
45	DV	39	ALA	2.6
26	DC	35	LYS	2.6
4	CE	110	MET	2.6
6	CG	12	LEU	2.6
44	DU	51	LEU	2.6
48	DY	21	LEU	2.6
31	BH	93	SER	2.6
38	DO	78	VAL	2.6
45	DV	8	VAL	2.6
35	DL	69	ARG	2.6
35	DL	103	ILE	2.6
37	DN	109	PRO	2.6
43	BT	70	HIS	2.6
6	AG	24	LYS	2.6
24	BA	2320	U	2.6
24	DA	1066	U	2.6
55	CA	88	U	2.6
7	AH	101	ALA	2.6
31	DH	39	ALA	2.6
40	DQ	6	GLY	2.6
53	D3	10	ALA	2.6
8	CI	65	THR	2.6
38	DO	53	THR	2.6
43	BT	1	MET	2.6
1	AB	68	PHE	2.6
30	DG	82	PHE	2.6
24	DA	136	G	2.6
24	DA	1071	G	2.6
3	CD	195	ASN	2.6
39	DP	114	ASN	2.6

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Mol	Chain	Res	Type	RSRZ
34	BK	122	VAL	2.6
15	AP	35	ARG	2.6
29	DF	91	ARG	2.6
38	DO	13	ARG	2.6
26	DC	17	LYS	2.6
24	DA	1606	C	2.6
8	CI	125	GLN	2.6
19	CT	67	HIS	2.6
26	BC	152	GLN	2.6
37	DN	19	ALA	2.6
40	DQ	1	ALA	2.6
31	BH	107	GLY	2.6
48	DY	56	LEU	2.6
52	D2	10	LEU	2.6
37	DN	70	THR	2.6
24	DA	2297	A	2.6
45	DV	76	ASP	2.6
53	D3	53	ASP	2.6
4	CE	87	VAL	2.6
18	CS	36	ARG	2.6
32	DI	69	VAL	2.6
18	AS	12	LEU	2.6
35	DL	54	GLN	2.6
18	AS	68	HIS	2.6
26	DC	214	GLY	2.6
1	AB	101	THR	2.6
24	DA	1311	G	2.6
38	DO	99	TYR	2.6
30	DG	154	GLU	2.6
44	BU	59	GLU	2.6
50	D0	42	ILE	2.6
3	AD	28	ASP	2.6
16	CQ	5	ARG	2.6
19	CT	68	LYS	2.6
20	CU	31	VAL	2.6
20	CU	53	LYS	2.6
29	BF	119	LYS	2.6
29	DF	102	LEU	2.6
21	AA	81	A	2.6
24	BA	2309	A	2.6
24	DA	2298	A	2.6
21	AA	1286	U	2.6

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Mol	Chain	Res	Type	RSRZ
24	DA	12	U	2.6
55	CA	368	U	2.6
30	BG	120	ILE	2.5
6	AG	4	ARG	2.5
8	CI	119	LYS	2.5
39	DP	101	GLU	2.5
42	DS	83	LYS	2.5
47	DX	76	LYS	2.5
5	AF	7	VAL	2.5
27	BD	92	VAL	2.5
42	BS	107	VAL	2.5
31	DH	101	ASP	2.5
30	DG	147	LEU	2.5
35	DL	82	LEU	2.5
24	DA	377	G	2.5
40	DQ	105	PHE	2.5
44	DU	75	ALA	2.5
54	D4	31	PRO	2.5
55	CA	212	G	2.5
55	CA	1297	G	2.5
6	CG	6	ILE	2.5
24	BA	581	C	2.5
24	DA	645	C	2.5
26	DC	251	THR	2.5
53	D3	30	HIS	2.5
9	AJ	65	TYR	2.5
26	DC	252	LYS	2.5
35	DL	84	LYS	2.5
3	AD	62	ARG	2.5
8	CI	112	ARG	2.5
20	CU	33	ARG	2.5
20	CU	34	ARG	2.5
26	DC	247	TRP	2.5
37	DN	2	ARG	2.5
44	DU	99	SER	2.5
38	DO	49	VAL	2.5
41	DR	33	VAL	2.5
48	DY	17	GLU	2.5
24	BA	504	A	2.5
24	BA	2134	A	2.5
24	DA	2182	U	2.5
26	DC	32	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
55	CA	1286	U	2.5
5	AF	9	MET	2.5
52	D2	22	MET	2.5
28	DE	90	GLN	2.5
35	DL	107	PHE	2.5
3	CD	150	LYS	2.5
9	CJ	50	THR	2.5
29	DF	156	THR	2.5
52	D2	43	THR	2.5
1	AB	94	ARG	2.5
6	CG	84	TYR	2.5
40	DQ	12	ARG	2.5
35	DL	25	SER	2.5
4	CE	35	LEU	2.5
37	DN	1	MET	2.5
24	DA	1355	G	2.5
1	AB	164	ASP	2.5
31	BH	98	ASP	2.5
45	BV	66	ASP	2.5
44	DU	63	ALA	2.5
1	CB	64	GLY	2.5
21	AA	121	U	2.5
21	AA	842	U	2.5
1	AB	118	THR	2.5
21	AA	1167	A	2.5
24	DA	53	A	2.5
55	CA	1463	U	2.5
33	DJ	96	ARG	2.5
9	CJ	65	TYR	2.5
37	DN	14	SER	2.5
1	AB	91	VAL	2.5
4	AE	37	VAL	2.5
6	CG	17	PHE	2.5
52	D2	18	PHE	2.5
4	AE	22	LYS	2.5
6	CG	16	LYS	2.5
45	DV	36	ALA	2.5
12	CM	9	PRO	2.5
28	BE	56	GLY	2.5
40	DQ	82	LEU	2.5
44	BU	21	ARG	2.5
4	CE	102	THR	2.5

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Mol	Chain	Res	Type	RSRZ
26	DC	19	VAL	2.5
27	DD	165	MET	2.5
31	DH	135	HIS	2.5
53	D3	25	HIS	2.5
24	BA	1731	G	2.5
24	BA	2144	G	2.5
24	DA	88	G	2.5
24	DA	2046	G	2.5
45	DV	69	GLU	2.5
31	BH	132	PHE	2.5
24	BA	2149	U	2.5
24	BA	1057	A	2.5
24	DA	2406	A	2.5
53	D3	14	LYS	2.5
38	DO	51	ALA	2.5
27	DD	152	PRO	2.5
37	DN	39	PRO	2.5
4	CE	107	GLY	2.5
6	CG	46	LEU	2.5
6	CG	131	GLY	2.5
31	BH	97	ARG	2.5
28	DE	53	THR	2.5
1	AB	17	HIS	2.4
29	BF	76	PHE	2.4
1	AB	36	LYS	2.4
15	CP	13	LYS	2.4
20	AU	53	LYS	2.4
41	DR	71	LYS	2.4
20	AU	14	ALA	2.4
26	BC	238	ASN	2.4
37	DN	25	ALA	2.4
38	DO	105	ALA	2.4
45	DV	24	ASN	2.4
4	CE	123	LEU	2.4
43	BT	8	LEU	2.4
43	DT	77	ARG	2.4
24	BA	885	C	2.4
24	DA	2047	C	2.4
4	CE	99	SER	2.4
15	AP	3	THR	2.4
29	DF	25	MET	2.4
24	BA	2181	U	2.4

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Mol	Chain	Res	Type	RSRZ
24	DA	443	A	2.4
55	CA	80	A	2.4
55	CA	977	A	2.4
44	DU	32	LYS	2.4
6	CG	73	GLU	2.4
13	CN	9	GLU	2.4
29	DF	31	GLU	2.4
36	DM	110	GLU	2.4
44	DU	34	ILE	2.4
38	DO	106	LEU	2.4
29	DF	29	ARG	2.4
31	BH	119	ASN	2.4
31	DH	84	ALA	2.4
48	DY	39	GLN	2.4
52	D2	33	ARG	2.4
31	DH	126	GLY	2.4
6	AG	32	ASP	2.4
19	CT	42	ASP	2.4
50	D0	22	THR	2.4
7	CH	102	VAL	2.4
8	CI	110	VAL	2.4
26	DC	2	VAL	2.4
26	DC	3	VAL	2.4
43	DT	31	VAL	2.4
48	DY	46	VAL	2.4
15	AP	32	PHE	2.4
45	DV	91	PHE	2.4
54	D4	8	LYS	2.4
27	DD	146	ILE	2.4
32	DI	121	ILE	2.4
12	CM	88	LEU	2.4
34	BK	29	HIS	2.4
48	BY	6	LEU	2.4
1	AB	78	ALA	2.4
24	BA	2145	C	2.4
24	DA	1325	U	2.4
27	BD	192	ALA	2.4
31	BH	27	ARG	2.4
42	DS	32	ALA	2.4
43	BT	3	ARG	2.4
24	DA	1580	A	2.4
24	DA	2135	A	2.4

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Mol	Chain	Res	Type	RSRZ
55	CA	975	A	2.4
55	CA	1229	A	2.4
1	AB	64	GLY	2.4
4	AE	31	SER	2.4
24	BA	2133	G	2.4
24	BA	2136	G	2.4
24	DA	134	G	2.4
53	D3	4	LYS	2.4
53	D3	11	LYS	2.4
17	CR	20	ILE	2.4
26	DC	103	ILE	2.4
37	DN	34	ILE	2.4
35	DL	95	LEU	2.4
38	DO	100	HIS	2.4
4	AE	145	ASN	2.4
8	AI	9	GLY	2.4
1	AB	137	THR	2.4
6	CG	26	VAL	2.4
31	BH	108	VAL	2.4
32	DI	60	VAL	2.4
43	DT	60	THR	2.4
45	DV	40	ILE	2.4
13	CN	50	LEU	2.4
38	DO	115	LEU	2.4
43	BT	7	LEU	2.4
34	DK	78	ARG	2.4
1	CB	135	MET	2.4
11	CL	123	ALA	2.4
42	DS	15	GLN	2.4
48	BY	61	ALA	2.4
12	CM	113	LYS	2.4
24	BA	882	G	2.4
24	DA	291	G	2.4
24	DA	2004	G	2.4
53	D3	24	LYS	2.4
55	CA	765	G	2.4
26	DC	45	ASN	2.4
32	DI	53	PRO	2.4
30	BG	25	ILE	2.4
32	BI	78	LEU	2.4
34	DK	31	ARG	2.4
34	DK	32	TYR	2.4

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Mol	Chain	Res	Type	RSRZ
35	DL	59	ARG	2.4
10	CK	20	ALA	2.4
4	AE	13	LYS	2.4
9	AJ	59	LYS	2.4
24	BA	139	U	2.3
24	BA	1082	U	2.3
1	AB	102	ASN	2.3
4	CE	118	GLY	2.3
26	DC	226	PRO	2.3
1	AB	180	ILE	2.3
13	CN	100	TRP	2.3
29	DF	161	SER	2.3
32	BI	98	GLY	2.3
34	DK	26	GLY	2.3
18	CS	10	ILE	2.3
20	AU	15	LEU	2.3
24	DA	294	A	2.3
24	DA	357	C	2.3
24	DA	794	A	2.3
24	DA	1630	A	2.3
44	DU	64	ILE	2.3
20	CU	52	VAL	2.3
27	DD	104	VAL	2.3
31	BH	104	THR	2.3
31	BH	144	VAL	2.3
35	DL	122	VAL	2.3
46	DW	42	THR	2.3
12	CM	108	ARG	2.3
29	DF	37	MET	2.3
6	CG	109	LYS	2.3
13	AN	16	ALA	2.3
24	BA	2156	G	2.3
46	BW	74	LYS	2.3
53	D3	51	LYS	2.3
55	CA	953	G	2.3
47	DX	5	GLN	2.3
1	AB	128	LEU	2.3
4	CE	82	HIS	2.3
6	CG	61	PHE	2.3
31	DH	85	GLY	2.3
33	DJ	82	GLY	2.3
44	DU	40	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
31	DH	9	VAL	2.3
43	DT	80	TRP	2.3
10	CK	45	THR	2.3
54	D4	17	VAL	2.3
13	CN	40	ARG	2.3
24	DA	293	U	2.3
24	DA	387	U	2.3
38	DO	16	ARG	2.3
51	D1	9	LYS	2.3
24	DA	1298	C	2.3
24	DA	1536	C	2.3
28	DE	36	ALA	2.3
48	BY	3	ALA	2.3
55	CA	197	A	2.3
41	BR	26	ASP	2.3
45	DV	41	GLU	2.3
55	CA	1228	C	2.3
55	CA	1533	C	2.3
8	CI	64	ILE	2.3
7	AH	67	GLY	2.3
30	DG	155	PRO	2.3
33	DJ	76	HIS	2.3
37	BN	7	GLY	2.3
29	DF	36	ASN	2.3
35	DL	89	VAL	2.3
6	CG	132	THR	2.3
20	AU	42	THR	2.3
6	CG	9	ARG	2.3
11	CL	87	LYS	2.3
26	BC	4	LYS	2.3
38	DO	15	ARG	2.3
24	BA	880	G	2.3
1	AB	33	ALA	2.3
28	DE	50	ALA	2.3
38	DO	83	LEU	2.3
4	AE	140	ILE	2.3
44	DU	102	ILE	2.3
26	BC	167	ASP	2.3
46	BW	84	GLU	2.3
4	AE	84	VAL	2.3
7	CH	54	THR	2.3
11	AL	13	ARG	2.3

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Mol	Chain	Res	Type	RSRZ
24	DA	2042	A	2.3
37	DN	69	ARG	2.3
38	DO	81	ARG	2.3
45	DV	85	LYS	2.3
55	CA	306	A	2.3
47	DX	29	LEU	2.3
1	CB	206	ILE	2.3
7	CH	34	ALA	2.3
20	CU	51	ALA	2.3
31	BH	111	ALA	2.3
47	DX	77	TYR	2.3
37	DN	9	GLN	2.3
19	CT	5	SER	2.3
38	DO	91	SER	2.3
1	AB	198	VAL	2.3
4	AE	118	GLY	2.3
11	AL	92	VAL	2.3
31	DH	120	GLY	2.3
32	BI	139	VAL	2.3
41	DR	51	VAL	2.3
35	DL	29	LYS	2.3
38	DO	85	LYS	2.3
9	CJ	58	ASN	2.3
26	DC	172	THR	2.3
33	DJ	3	THR	2.3
34	BK	71	ARG	2.3
21	AA	1166	G	2.3
24	BA	1179	G	2.3
24	DA	1238	G	2.3
43	DT	8	LEU	2.3
40	DQ	19	GLN	2.3
6	CG	82	SER	2.3
21	AA	65	A	2.3
24	DA	945	A	2.3
28	DE	70	SER	2.3
28	DE	72	SER	2.3
52	D2	45	SER	2.3
55	CA	250	A	2.3
3	CD	147	LYS	2.3
4	AE	93	VAL	2.3
4	CE	84	VAL	2.3
24	BA	1728	C	2.3

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Mol	Chain	Res	Type	RSRZ
44	BU	78	LYS	2.3
47	DX	61	LYS	2.3
52	D2	7	PRO	2.3
53	D3	62	PRO	2.3
32	DI	46	ASP	2.3
43	DT	79	ASP	2.3
48	DY	52	ARG	2.3
31	BH	91	PHE	2.2
41	DR	49	ILE	2.2
43	DT	51	PHE	2.2
5	AF	99	ALA	2.2
41	DR	3	ALA	2.2
29	DF	80	GLN	2.2
3	AD	21	LYS	2.2
29	DF	87	LYS	2.2
41	DR	76	LYS	2.2
48	DY	5	GLU	2.2
1	AB	98	GLY	2.2
3	CD	62	ARG	2.2
4	CE	97	PRO	2.2
5	AF	84	VAL	2.2
9	CJ	95	GLY	2.2
30	DG	16	VAL	2.2
46	BW	72	GLY	2.2
52	D2	9	VAL	2.2
24	BA	2110	G	2.2
24	DA	205	G	2.2
24	DA	290	U	2.2
24	DA	1406	U	2.2
55	CA	992	U	2.2
8	CI	42	THR	2.2
28	DE	138	LEU	2.2
31	DH	86	ASP	2.2
24	BA	1077	A	2.2
19	CT	86	ALA	2.2
30	DG	173	ALA	2.2
7	CH	127	TYR	2.2
8	CI	67	LYS	2.2
19	CT	7	LYS	2.2
46	DW	15	SER	2.2
6	CG	42	VAL	2.2
26	DC	235	GLU	2.2

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Mol	Chain	Res	Type	RSRZ
29	BF	111	ARG	2.2
29	DF	130	GLY	2.2
35	DL	24	GLY	2.2
41	DR	39	LEU	2.2
42	DS	97	LEU	2.2
7	AH	54	THR	2.2
13	CN	49	THR	2.2
20	AU	41	THR	2.2
31	DH	77	THR	2.2
29	DF	19	PHE	2.2
35	DL	64	PHE	2.2
38	DO	43	ASN	2.2
42	DS	103	ILE	2.2
47	DX	15	ASN	2.2
7	AH	129	ALA	2.2
14	AO	43	ALA	2.2
44	DU	53	GLN	2.2
24	DA	776	G	2.2
36	DM	18	ARG	2.2
41	DR	84	ARG	2.2
43	BT	69	ARG	2.2
54	D4	24	ARG	2.2
55	CA	79	G	2.2
9	CJ	90	LEU	2.2
26	BC	93	VAL	2.2
10	CK	18	GLY	2.2
26	BC	235	GLU	2.2
27	DD	74	GLU	2.2
27	DD	144	GLY	2.2
37	DN	43	GLU	2.2
43	DT	75	GLY	2.2
24	BA	613	A	2.2
24	BA	1808	A	2.2
24	DA	1067	A	2.2
47	DX	63	ILE	2.2
46	DW	25	PHE	2.2
4	CE	145	ASN	2.2
15	AP	79	ASN	2.2
21	AA	1325	C	2.2
24	DA	421	C	2.2
29	DF	68	LYS	2.2
33	DJ	39	LYS	2.2

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Mol	Chain	Res	Type	RSRZ
44	BU	46	LYS	2.2
50	D0	18	HIS	2.2
5	AF	83	ALA	2.2
40	DQ	33	VAL	2.2
2	CC	1	GLY	2.2
28	DE	177	PRO	2.2
46	DW	21	GLY	2.2
8	CI	29	ILE	2.2
24	BA	1094	U	2.2
24	DA	158	U	2.2
47	DX	47	THR	2.2
55	CA	1083	U	2.2
55	CA	1212	U	2.2
27	DD	62	LYS	2.2
3	AD	73	ASN	2.2
19	AT	6	ALA	2.2
19	AT	67	HIS	2.2
39	DP	94	ALA	2.2
45	DV	22	ALA	2.2
21	AA	1105	A	2.2
24	DA	168	G	2.2
24	DA	2184	A	2.2
55	CA	976	G	2.2
4	CE	28	ARG	2.2
33	DJ	74	TYR	2.2
40	DQ	3	VAL	2.2
24	DA	490	C	2.2
29	BF	135	ILE	2.2
53	D3	31	ILE	2.2
48	BY	17	GLU	2.2
55	CA	967	C	2.2
26	BC	265	PHE	2.2
45	DV	26	PHE	2.2
12	AM	109	LYS	2.2
28	DE	74	LYS	2.2
31	BH	112	LYS	2.2
44	BU	16	LYS	2.2
35	DL	4	ASN	2.2
47	DX	31	ASN	2.2
1	AB	116	LEU	2.2
7	CH	129	ALA	2.1
17	AR	64	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
43	DT	7	LEU	2.2
48	BY	1	MET	2.2
28	DE	201	ALA	2.1
32	BI	132	ALA	2.1
1	CB	17	HIS	2.1
11	AL	85	ARG	2.1
15	AP	25	ARG	2.1
26	BC	242	HIS	2.1
31	DH	93	SER	2.1
53	D3	60	CYS	2.1
29	BF	110	ILE	2.1
31	DH	134	VAL	2.1
31	DH	143	ILE	2.1
54	D4	22	VAL	2.1
1	AB	97	GLY	2.1
8	AI	38	PHE	2.1
12	AM	113	LYS	2.1
31	DH	129	GLU	2.1
1	CB	188	THR	2.1
44	DU	76	THR	2.1
24	DA	1413	A	2.1
25	BB	119	A	2.1
55	CA	373	A	2.1
24	BA	1374	G	2.1
24	BA	2152	G	2.1
26	DC	104	LEU	2.1
40	DQ	94	LEU	2.1
55	CA	852	G	2.1
1	AB	133	ALA	2.1
4	AE	147	ASN	2.1
37	DN	104	ALA	2.1
28	DE	69	ARG	2.1
39	DP	71	ARG	2.1
41	DR	79	ARG	2.1
24	DA	462	C	2.1
26	DC	228	ASP	2.1
27	BD	103	ASP	2.1
29	DF	84	ILE	2.1
34	DK	37	ASP	2.1
1	CB	13	VAL	2.1
16	AQ	82	VAL	2.1
37	DN	33	ILE	2.1

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Mol	Chain	Res	Type	RSRZ
42	DS	47	VAL	2.1
31	DH	46	PHE	2.1
44	DU	60	LYS	2.1
53	D3	40	LYS	2.1
35	DL	139	GLY	2.1
41	BR	50	GLY	2.1
24	BA	1081	U	2.1
24	DA	72	U	2.1
24	DA	113	U	2.1
24	DA	1584	U	2.1
28	BE	157	LEU	2.1
3	AD	148	ALA	2.1
12	AM	1	ALA	2.1
26	BC	209	ALA	2.1
27	DD	58	ASN	2.1
27	DD	124	ARG	2.1
43	DT	69	ARG	2.1
45	DV	18	ARG	2.1
52	D2	23	ALA	2.1
16	AQ	19	SER	2.1
33	BJ	142	ILE	2.1
27	DD	190	LYS	2.1
35	DL	63	LYS	2.1
38	DO	90	VAL	2.1
43	DT	85	VAL	2.1
24	DA	126	A	2.1
24	DA	1175	A	2.1
24	DA	1247	A	2.1
38	DO	89	ASP	2.1
55	CA	81	A	2.1
53	D3	20	GLY	2.1
11	AL	90	PRO	2.1
35	DL	10	GLU	2.1
24	DA	45	G	2.1
24	DA	277	G	2.1
24	DA	774	G	2.1
24	DA	1459	G	2.1
24	DA	2308	G	2.1
24	BA	1079	C	2.1
16	AQ	10	ARG	2.1
29	BF	147	ARG	2.1
29	DF	124	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
38	DO	33	ARG	2.1
46	DW	13	ARG	2.1
4	CE	153	ALA	2.1
6	CG	133	ALA	2.1
31	DH	102	ALA	2.1
31	DH	148	ALA	2.1
33	DJ	29	ALA	2.1
24	DA	235	U	2.1
24	DA	280	U	2.1
24	DA	2105	U	2.1
41	DR	82	HIS	2.1
3	CD	190	LEU	2.1
13	CN	19	TYR	2.1
32	DI	120	ASP	2.1
26	DC	233	GLY	2.1
28	DE	103	GLY	2.1
43	BT	93	LEU	2.1
51	B1	3	GLY	2.1
51	D1	17	GLY	2.1
4	CE	146	MET	2.1
29	BF	138	PRO	2.1
42	DS	86	MET	2.1
44	DU	101	THR	2.1
51	D1	22	THR	2.1
51	D1	23	THR	2.1
28	DE	61	ARG	2.1
33	DJ	99	ARG	2.1
41	DR	13	ARG	2.1
45	DV	21	ARG	2.1
24	DA	528	A	2.1
24	DA	718	A	2.1
26	DC	266	ILE	2.1
1	CB	36	LYS	2.1
38	DO	97	PHE	2.1
9	CJ	57	VAL	2.1
28	DE	178	VAL	2.1
35	DL	127	VAL	2.1
10	CK	99	LEU	2.1
15	CP	1	MET	2.1
21	AA	1066	C	2.1
24	DA	33	C	2.1
26	BC	141	HIS	2.1

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Mol	Chain	Res	Type	RSRZ
53	D3	42	HIS	2.1
21	AA	933	G	2.1
24	BA	883	G	2.1
24	BA	1068	G	2.1
24	DA	325	G	2.1
24	DA	326	G	2.1
24	DA	386	G	2.1
24	DA	2286	G	2.1
26	DC	126	GLY	2.1
29	DF	55	ASP	2.1
33	DJ	49	ASP	2.1
44	DU	47	PRO	2.1
44	DU	54	PRO	2.1
49	DZ	39	ASP	2.1
2	CC	164	THR	2.1
4	AE	23	THR	2.1
31	DH	40	THR	2.1
31	DH	96	THR	2.1
30	DG	169	ARG	2.1
39	DP	100	ARG	2.1
1	AB	150	ILE	2.1
21	AA	1168	U	2.1
24	BA	34	U	2.1
24	BA	2305	U	2.1
24	DA	1352	U	2.1
26	BC	182	LYS	2.1
31	DH	44	ILE	2.1
39	DP	63	ILE	2.1
1	AB	217	ALA	2.1
12	CM	4	ALA	2.1
32	BI	114	ALA	2.1
36	DM	95	LEU	2.1
52	D2	42	LEU	2.1
53	D3	6	VAL	2.1
6	CG	80	GLY	2.0
12	CM	22	TYR	2.0
24	DA	1535	A	2.0
24	DA	1553	A	2.0
55	CA	98	A	2.0
14	CO	63	ARG	2.0
15	CP	53	ASP	2.0
31	DH	87	GLU	2.0

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Mol	Chain	Res	Type	RSRZ
37	DN	40	LYS	2.0
44	DU	61	GLU	2.0
48	BY	5	GLU	2.0
48	DY	44	LYS	2.0
4	AE	91	SER	2.0
3	AD	66	VAL	2.0
21	AA	1103	C	2.0
24	DA	264	C	2.0
24	DA	353	C	2.0
24	DA	440	C	2.0
26	DC	219	VAL	2.0
31	DH	130	VAL	2.0
38	DO	39	VAL	2.0
24	DA	396	G	2.0
24	DA	549	G	2.0
24	DA	914	G	2.0
24	DA	2238	G	2.0
50	D0	34	GLY	2.0
54	D4	21	GLY	2.0
4	AE	56	PRO	2.0
28	DE	35	TYR	2.0
26	DC	38	LYS	2.0
29	BF	155	ILE	2.0
38	BO	9	ARG	2.0
38	DO	40	ILE	2.0
53	D3	12	ARG	2.0
54	D4	12	ARG	2.0
1	AB	141	GLU	2.0
44	DU	17	ASP	2.0
20	CU	14	ALA	2.0
28	DE	26	ALA	2.0
35	DL	108	ALA	2.0
36	DM	20	LEU	2.0
37	DN	98	LEU	2.0
43	BT	35	ALA	2.0
45	DV	38	LEU	2.0
24	BA	1095	A	2.0
24	DA	233	A	2.0
24	DA	1490	A	2.0
24	DA	1528	A	2.0
27	DD	29	VAL	2.0
28	BE	14	VAL	2.0

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Mol	Chain	Res	Type	RSRZ
37	DN	13	ASN	2.0
27	DD	56	LYS	2.0
38	DO	44	GLY	2.0
39	DP	47	ILE	2.0
39	DP	50	ARG	2.0
40	BQ	63	ARG	2.0
46	BW	51	GLY	2.0
3	CD	75	TYR	2.0
43	BT	2	ILE	2.0
30	DG	114	HIS	2.0
32	DI	131	THR	2.0
9	AJ	102	LEU	2.0
18	AS	19	GLU	2.0
24	DA	128	C	2.0
24	DA	2146	C	2.0
28	DE	60	TRP	2.0
1	AB	54	ALA	2.0
21	AA	1086	U	2.0
24	DA	1460	U	2.0
24	DA	2903	U	2.0
31	BH	63	ALA	2.0
38	DO	93	ASP	2.0
43	DT	78	SER	2.0
44	DU	80	ASP	2.0
55	CA	1007	U	2.0
35	DL	85	VAL	2.0
44	DU	69	VAL	2.0
46	BW	50	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 oligosaccharides 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
57	MG	DA	3062	1/1	-0.31	0.66	85,85,85,85	0
57	MG	AA	1619	1/1	-0.13	0.33	136,136,136,136	0
57	MG	DA	3076	1/1	-0.07	0.67	109,109,109,109	0
57	MG	CA	1624	1/1	0.08	0.49	79,79,79,79	0
57	MG	DA	3134	1/1	0.17	0.55	126,126,126,126	0
57	MG	DA	3065	1/1	0.22	0.61	84,84,84,84	0
57	MG	DA	3016	1/1	0.28	0.59	96,96,96,96	0
57	MG	BA	3015	1/1	0.30	0.53	38,38,38,38	0
57	MG	DA	3071	1/1	0.31	0.39	94,94,94,94	0
57	MG	DA	3131	1/1	0.39	0.42	103,103,103,103	0
57	MG	CA	1612	1/1	0.41	0.31	86,86,86,86	0
57	MG	BA	3058	1/1	0.42	0.37	44,44,44,44	0
57	MG	DA	3060	1/1	0.43	0.30	96,96,96,96	0
57	MG	CA	1617	1/1	0.51	0.25	130,130,130,130	0
57	MG	DA	3133	1/1	0.51	0.29	115,115,115,115	0
57	MG	DC	301	1/1	0.51	0.20	103,103,103,103	0
57	MG	DA	3004	1/1	0.53	0.42	150,150,150,150	0
57	MG	DA	3093	1/1	0.54	0.28	93,93,93,93	0
57	MG	DA	3040	1/1	0.54	0.37	102,102,102,102	0
57	MG	DA	3110	1/1	0.57	0.56	82,82,82,82	0
57	MG	BB	201	1/1	0.60	0.31	105,105,105,105	0
57	MG	DA	3084	1/1	0.61	0.15	157,157,157,157	0
57	MG	DA	3077	1/1	0.61	0.38	86,86,86,86	0
57	MG	DA	3075	1/1	0.64	0.10	255,255,255,255	0
57	MG	DA	3021	1/1	0.66	0.27	132,132,132,132	0
57	MG	BA	3075	1/1	0.68	0.38	40,40,40,40	0
57	MG	DA	3086	1/1	0.68	0.18	148,148,148,148	0
57	MG	DA	3112	1/1	0.68	0.25	115,115,115,115	0
57	MG	CA	1629	1/1	0.69	0.26	111,111,111,111	0
57	MG	BA	3135	1/1	0.69	0.36	43,43,43,43	0
57	MG	CA	1625	1/1	0.69	0.21	86,86,86,86	0
57	MG	BA	3077	1/1	0.70	0.24	45,45,45,45	0
57	MG	AA	1607	1/1	0.70	0.22	88,88,88,88	0
57	MG	DA	3090	1/1	0.70	0.21	92,92,92,92	0
57	MG	DB	201	1/1	0.70	0.18	108,108,108,108	0
57	MG	DA	3047	1/1	0.71	0.15	148,148,148,148	0
57	MG	AA	1636	1/1	0.71	0.18	120,120,120,120	0
57	MG	BA	3133	1/1	0.71	0.44	53,53,53,53	0
57	MG	DA	3064	1/1	0.72	0.30	87,87,87,87	0
57	MG	DA	3100	1/1	0.72	0.21	149,149,149,149	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	CA	1602	1/1	0.73	0.22	106,106,106,106	0
57	MG	DA	3007	1/1	0.74	0.12	192,192,192,192	0
57	MG	DA	3011	1/1	0.74	0.35	110,110,110,110	0
57	MG	DA	3051	1/1	0.74	0.10	177,177,177,177	0
57	MG	DA	3128	1/1	0.74	0.27	100,100,100,100	0
57	MG	BA	3085	1/1	0.75	0.39	42,42,42,42	0
57	MG	DA	3107	1/1	0.75	0.16	130,130,130,130	0
57	MG	DA	3066	1/1	0.75	0.21	92,92,92,92	0
57	MG	BA	3070	1/1	0.76	0.13	140,140,140,140	0
57	MG	BA	3131	1/1	0.76	0.50	48,48,48,48	0
57	MG	DA	3126	1/1	0.77	0.17	99,99,99,99	0
57	MG	BA	3132	1/1	0.77	0.42	42,42,42,42	0
57	MG	BA	3014	1/1	0.78	0.32	38,38,38,38	0
57	MG	DA	3041	1/1	0.78	0.14	113,113,113,113	0
57	MG	CA	1615	1/1	0.78	0.20	118,118,118,118	0
57	MG	DA	3006	1/1	0.79	0.11	149,149,149,149	0
57	MG	BA	3115	1/1	0.79	0.27	49,49,49,49	0
57	MG	BA	3061	1/1	0.79	0.35	39,39,39,39	0
57	MG	BA	3112	1/1	0.79	0.12	46,46,46,46	0
57	MG	DA	3054	1/1	0.80	0.27	88,88,88,88	0
57	MG	DA	3019	1/1	0.80	0.11	150,150,150,150	0
57	MG	DA	3027	1/1	0.80	0.14	87,87,87,87	0
57	MG	DA	3108	1/1	0.81	0.19	82,82,82,82	0
57	MG	DA	3109	1/1	0.81	0.12	92,92,92,92	0
57	MG	DA	3015	1/1	0.81	0.19	88,88,88,88	0
57	MG	CA	1619	1/1	0.81	0.23	119,119,119,119	0
57	MG	CA	1607	1/1	0.81	0.13	89,89,89,89	0
57	MG	DA	3020	1/1	0.81	0.17	153,153,153,153	0
57	MG	CA	1613	1/1	0.81	0.15	79,79,79,79	0
57	MG	DA	3099	1/1	0.81	0.39	98,98,98,98	0
57	MG	DA	3059	1/1	0.81	0.26	88,88,88,88	0
57	MG	DA	3014	1/1	0.81	0.17	90,90,90,90	0
57	MG	CA	1634	1/1	0.82	0.15	97,97,97,97	0
57	MG	BA	3062	1/1	0.82	0.42	38,38,38,38	0
57	MG	AA	1641	1/1	0.82	0.25	89,89,89,89	0
57	MG	DA	3003	1/1	0.83	0.13	94,94,94,94	0
57	MG	BA	3060	1/1	0.83	0.29	39,39,39,39	0
57	MG	DA	3088	1/1	0.83	0.14	101,101,101,101	0
57	MG	AA	1620	1/1	0.83	0.11	144,144,144,144	0
57	MG	DA	3028	1/1	0.83	0.37	103,103,103,103	0
57	MG	DA	3032	1/1	0.83	0.19	87,87,87,87	0
57	MG	DA	3080	1/1	0.84	0.29	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	BA	3037	1/1	0.84	0.36	42,42,42,42	0
57	MG	DA	3085	1/1	0.84	0.09	190,190,190,190	0
57	MG	CA	1614	1/1	0.84	0.12	114,114,114,114	0
57	MG	DA	3017	1/1	0.84	0.20	102,102,102,102	0
57	MG	DA	3048	1/1	0.85	0.14	131,131,131,131	0
57	MG	DA	3045	1/1	0.85	0.12	141,141,141,141	0
57	MG	BA	3124	1/1	0.85	0.40	41,41,41,41	0
57	MG	DA	3094	1/1	0.86	0.09	126,126,126,126	0
57	MG	DA	3120	1/1	0.86	0.25	96,96,96,96	0
57	MG	DA	3124	1/1	0.86	0.12	133,133,133,133	0
57	MG	AA	1626	1/1	0.86	0.12	107,107,107,107	0
57	MG	BA	3084	1/1	0.86	0.36	49,49,49,49	0
57	MG	AA	1637	1/1	0.86	0.11	87,87,87,87	0
57	MG	BA	3056	1/1	0.86	0.26	45,45,45,45	0
57	MG	DA	3029	1/1	0.86	0.12	108,108,108,108	0
57	MG	DA	3002	1/1	0.86	0.14	125,125,125,125	0
57	MG	CA	1636	1/1	0.87	0.32	88,88,88,88	0
57	MG	DA	3012	1/1	0.87	0.25	96,96,96,96	0
57	MG	CA	1606	1/1	0.87	0.09	85,85,85,85	0
57	MG	DA	3001	1/1	0.87	0.12	115,115,115,115	0
57	MG	BA	3118	1/1	0.87	0.23	42,42,42,42	0
57	MG	BA	3102	1/1	0.87	0.33	40,40,40,40	0
57	MG	BA	3026	1/1	0.87	0.31	41,41,41,41	0
57	MG	BA	3007	1/1	0.87	0.15	90,90,90,90	0
57	MG	CA	1603	1/1	0.87	0.23	92,92,92,92	0
57	MG	DA	3009	1/1	0.87	0.10	121,121,121,121	0
57	MG	DA	3058	1/1	0.87	0.11	96,96,96,96	0
57	MG	CA	1616	1/1	0.88	0.09	136,136,136,136	0
57	MG	DA	3042	1/1	0.88	0.10	101,101,101,101	0
57	MG	AA	1606	1/1	0.88	0.10	96,96,96,96	0
57	MG	BA	3098	1/1	0.88	0.42	52,52,52,52	0
57	MG	CA	1622	1/1	0.88	0.08	138,138,138,138	0
57	MG	AA	1628	1/1	0.88	0.12	107,107,107,107	0
57	MG	AA	1631	1/1	0.88	0.20	98,98,98,98	0
57	MG	CA	1628	1/1	0.88	0.24	79,79,79,79	0
57	MG	DA	3101	1/1	0.88	0.14	82,82,82,82	0
57	MG	DA	3035	1/1	0.88	0.12	88,88,88,88	0
57	MG	AA	1625	1/1	0.88	0.12	90,90,90,90	0
57	MG	BB	202	1/1	0.89	0.12	114,114,114,114	0
57	MG	CA	1638	1/1	0.89	0.09	141,141,141,141	0
57	MG	DA	3010	1/1	0.89	0.11	108,108,108,108	0
57	MG	DA	3050	1/1	0.89	0.12	148,148,148,148	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	DA	3030	1/1	0.89	0.23	101,101,101,101	0
57	MG	DA	3031	1/1	0.89	0.20	98,98,98,98	0
57	MG	DA	3081	1/1	0.89	0.08	87,87,87,87	0
57	MG	DA	3096	1/1	0.89	0.13	120,120,120,120	0
57	MG	DA	3005	1/1	0.90	0.09	157,157,157,157	0
57	MG	DA	3061	1/1	0.90	0.22	84,84,84,84	0
57	MG	BA	3095	1/1	0.90	0.15	75,75,75,75	0
57	MG	BA	3046	1/1	0.90	0.10	63,63,63,63	0
57	MG	DA	3008	1/1	0.90	0.06	177,177,177,177	0
57	MG	CA	1639	1/1	0.90	0.07	165,165,165,165	0
57	MG	BA	3123	1/1	0.90	0.11	63,63,63,63	0
57	MG	DJ	201	1/1	0.90	0.20	101,101,101,101	0
57	MG	DA	3129	1/1	0.90	0.18	83,83,83,83	0
57	MG	CA	1627	1/1	0.90	0.10	106,106,106,106	0
57	MG	BA	3071	1/1	0.90	0.29	38,38,38,38	0
57	MG	CA	1609	1/1	0.90	0.09	96,96,96,96	0
57	MG	AA	1604	1/1	0.90	0.06	126,126,126,126	0
57	MG	DA	3070	1/1	0.91	0.08	94,94,94,94	0
57	MG	DA	3122	1/1	0.91	0.09	142,142,142,142	0
57	MG	BA	3045	1/1	0.91	0.16	62,62,62,62	0
57	MG	BA	3004	1/1	0.91	0.17	69,69,69,69	0
57	MG	DA	3023	1/1	0.91	0.21	101,101,101,101	0
57	MG	DA	3089	1/1	0.91	0.09	110,110,110,110	0
57	MG	DA	3043	1/1	0.91	0.18	107,107,107,107	0
57	MG	AA	1627	1/1	0.91	0.22	109,109,109,109	0
57	MG	BA	3001	1/1	0.91	0.20	45,45,45,45	0
57	MG	DA	3095	1/1	0.91	0.12	159,159,159,159	0
57	MG	CA	1601	1/1	0.92	0.09	142,142,142,142	0
57	MG	DA	3082	1/1	0.92	0.19	83,83,83,83	0
57	MG	CA	1631	1/1	0.92	0.11	91,91,91,91	0
57	MG	AA	1610	1/1	0.92	0.07	125,125,125,125	0
57	MG	BA	3099	1/1	0.92	0.13	41,41,41,41	0
57	MG	DA	3116	1/1	0.92	0.14	98,98,98,98	0
57	MG	CA	1637	1/1	0.92	0.14	83,83,83,83	0
57	MG	BA	3030	1/1	0.92	0.35	41,41,41,41	0
57	MG	AA	1632	1/1	0.92	0.10	95,95,95,95	0
57	MG	CA	1640	1/1	0.92	0.27	87,87,87,87	0
57	MG	DA	3049	1/1	0.92	0.14	150,150,150,150	0
57	MG	DA	3074	1/1	0.92	0.08	98,98,98,98	0
57	MG	DA	3130	1/1	0.92	0.37	85,85,85,85	0
57	MG	BA	3025	1/1	0.92	0.09	41,41,41,41	0
57	MG	BA	3074	1/1	0.92	0.11	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	BA	3119	1/1	0.92	0.28	52,52,52,52	0
57	MG	BA	3121	1/1	0.92	0.12	45,45,45,45	0
57	MG	BA	3035	1/1	0.93	0.20	55,55,55,55	0
57	MG	DA	3115	1/1	0.93	0.14	84,84,84,84	0
57	MG	BA	3107	1/1	0.93	0.11	49,49,49,49	0
57	MG	DA	3034	1/1	0.93	0.13	89,89,89,89	0
57	MG	BA	3047	1/1	0.93	0.08	63,63,63,63	0
57	MG	CA	1604	1/1	0.93	0.06	106,106,106,106	0
57	MG	DA	3078	1/1	0.93	0.21	79,79,79,79	0
57	MG	BA	3113	1/1	0.93	0.15	38,38,38,38	0
57	MG	BA	3091	1/1	0.93	0.08	69,69,69,69	0
57	MG	AA	1630	1/1	0.93	0.10	79,79,79,79	0
57	MG	CA	1626	1/1	0.93	0.08	110,110,110,110	0
57	MG	BA	3136	1/1	0.93	0.31	47,47,47,47	0
57	MG	AA	1618	1/1	0.93	0.08	104,104,104,104	0
57	MG	BA	3080	1/1	0.93	0.07	74,74,74,74	0
57	MG	BA	3011	1/1	0.94	0.32	44,44,44,44	0
57	MG	AA	1614	1/1	0.94	0.07	113,113,113,113	0
57	MG	BA	3055	1/1	0.94	0.17	44,44,44,44	0
57	MG	BA	3005	1/1	0.94	0.14	73,73,73,73	0
57	MG	DA	3111	1/1	0.94	0.10	164,164,164,164	0
57	MG	BA	3109	1/1	0.94	0.11	42,42,42,42	0
57	MG	BA	3126	1/1	0.94	0.13	57,57,57,57	0
57	MG	BA	3111	1/1	0.94	0.10	38,38,38,38	0
57	MG	BA	3019	1/1	0.94	0.07	70,70,70,70	0
57	MG	DA	3121	1/1	0.94	0.13	97,97,97,97	0
57	MG	DA	3067	1/1	0.94	0.07	86,86,86,86	0
57	MG	DA	3068	1/1	0.94	0.07	86,86,86,86	0
57	MG	DA	3026	1/1	0.94	0.09	88,88,88,88	0
57	MG	CA	1623	1/1	0.94	0.09	89,89,89,89	0
57	MG	DA	3072	1/1	0.94	0.07	84,84,84,84	0
57	MG	BA	3092	1/1	0.94	0.08	108,108,108,108	0
57	MG	DA	3098	1/1	0.94	0.09	87,87,87,87	0
57	MG	AA	1638	1/1	0.94	0.08	81,81,81,81	0
57	MG	CA	1610	1/1	0.94	0.06	129,129,129,129	0
57	MG	DA	3013	1/1	0.94	0.08	93,93,93,93	0
57	MG	DA	3025	1/1	0.95	0.12	105,105,105,105	0
57	MG	BA	3076	1/1	0.95	0.09	47,47,47,47	0
57	MG	BA	3059	1/1	0.95	0.14	50,50,50,50	0
57	MG	AA	1633	1/1	0.95	0.07	107,107,107,107	0
57	MG	DA	3052	1/1	0.95	0.08	118,118,118,118	0
57	MG	BA	3081	1/1	0.95	0.19	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	CA	1642	1/1	0.95	0.07	102,102,102,102	0
57	MG	BA	3002	1/1	0.95	0.27	47,47,47,47	0
57	MG	AA	1624	1/1	0.95	0.11	94,94,94,94	0
57	MG	DA	3119	1/1	0.95	0.10	138,138,138,138	0
57	MG	AA	1608	1/1	0.95	0.11	82,82,82,82	0
57	MG	BA	3114	1/1	0.95	0.08	73,73,73,73	0
57	MG	DA	3036	1/1	0.95	0.08	84,84,84,84	0
57	MG	DA	3037	1/1	0.95	0.08	83,83,83,83	0
57	MG	DA	3038	1/1	0.95	0.15	108,108,108,108	0
57	MG	BA	3006	1/1	0.95	0.06	88,88,88,88	0
57	MG	BA	3094	1/1	0.95	0.09	75,75,75,75	0
57	MG	CA	1632	1/1	0.95	0.05	125,125,125,125	0
57	MG	DA	3097	1/1	0.95	0.10	119,119,119,119	0
57	MG	DA	3132	1/1	0.95	0.06	94,94,94,94	0
57	MG	AA	1616	1/1	0.95	0.06	126,126,126,126	0
57	MG	AA	1617	1/1	0.95	0.07	123,123,123,123	0
57	MG	DA	3024	1/1	0.95	0.09	90,90,90,90	0
57	MG	AA	1643	1/1	0.96	0.06	81,81,81,81	0
57	MG	BA	3093	1/1	0.96	0.16	84,84,84,84	0
57	MG	BA	3042	1/1	0.96	0.08	56,56,56,56	0
57	MG	BA	3065	1/1	0.96	0.12	38,38,38,38	0
57	MG	DA	3069	1/1	0.96	0.09	86,86,86,86	0
57	MG	AA	1601	1/1	0.96	0.05	111,111,111,111	0
57	MG	DA	3103	1/1	0.96	0.10	91,91,91,91	0
57	MG	DA	3104	1/1	0.96	0.10	107,107,107,107	0
57	MG	DA	3106	1/1	0.96	0.06	92,92,92,92	0
57	MG	DA	3018	1/1	0.96	0.07	106,106,106,106	0
57	MG	AA	1629	1/1	0.96	0.12	129,129,129,129	0
57	MG	DA	3073	1/1	0.96	0.18	98,98,98,98	0
57	MG	DA	3044	1/1	0.96	0.05	116,116,116,116	0
57	MG	BA	3003	1/1	0.96	0.06	73,73,73,73	0
57	MG	DA	3046	1/1	0.96	0.09	142,142,142,142	0
57	MG	DA	3114	1/1	0.96	0.07	98,98,98,98	0
57	MG	CA	1618	1/1	0.96	0.09	108,108,108,108	0
57	MG	BA	3048	1/1	0.96	0.06	74,74,74,74	0
57	MG	BA	3049	1/1	0.96	0.09	45,45,45,45	0
57	MG	BA	3052	1/1	0.96	0.09	38,38,38,38	0
57	MG	BB	204	1/1	0.96	0.10	57,57,57,57	0
57	MG	BA	3024	1/1	0.96	0.08	42,42,42,42	0
57	MG	AA	1605	1/1	0.96	0.06	103,103,103,103	0
57	MG	DA	3125	1/1	0.96	0.09	90,90,90,90	0
57	MG	DA	3055	1/1	0.96	0.06	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	DA	3127	1/1	0.96	0.14	104,104,104,104	0
57	MG	DA	3087	1/1	0.96	0.07	88,88,88,88	0
57	MG	AA	1611	1/1	0.96	0.07	91,91,91,91	0
57	MG	AA	1621	1/1	0.96	0.10	67,67,67,67	0
57	MG	BA	3089	1/1	0.96	0.14	50,50,50,50	0
57	MG	DA	3091	1/1	0.96	0.06	93,93,93,93	0
57	MG	BA	3090	1/1	0.96	0.07	47,47,47,47	0
57	MG	CA	1608	1/1	0.96	0.11	86,86,86,86	0
57	MG	AA	1642	1/1	0.96	0.07	74,74,74,74	0
57	MG	BA	3086	1/1	0.97	0.08	43,43,43,43	0
57	MG	BA	3088	1/1	0.97	0.07	58,58,58,58	0
57	MG	DA	3057	1/1	0.97	0.07	92,92,92,92	0
57	MG	AA	1635	1/1	0.97	0.05	114,114,114,114	0
57	MG	DA	3083	1/1	0.97	0.10	121,121,121,121	0
57	MG	BA	3028	1/1	0.97	0.19	39,39,39,39	0
57	MG	BA	3029	1/1	0.97	0.13	38,38,38,38	0
57	MG	DA	3113	1/1	0.97	0.09	86,86,86,86	0
57	MG	CA	1620	1/1	0.97	0.12	93,93,93,93	0
57	MG	DA	3039	1/1	0.97	0.12	104,104,104,104	0
57	MG	DA	3063	1/1	0.97	0.09	92,92,92,92	0
57	MG	DA	3117	1/1	0.97	0.09	90,90,90,90	0
57	MG	AA	1609	1/1	0.97	0.07	91,91,91,91	0
57	MG	BA	3032	1/1	0.97	0.05	40,40,40,40	0
57	MG	AA	1615	1/1	0.97	0.05	117,117,117,117	0
57	MG	DA	3092	1/1	0.97	0.09	102,102,102,102	0
57	MG	AA	1603	1/1	0.97	0.07	76,76,76,76	0
57	MG	BA	3097	1/1	0.97	0.06	49,49,49,49	0
57	MG	BA	3079	1/1	0.97	0.05	89,89,89,89	0
57	MG	AA	1640	1/1	0.97	0.06	132,132,132,132	0
57	MG	BA	3044	1/1	0.97	0.07	71,71,71,71	0
57	MG	CA	1630	1/1	0.97	0.25	79,79,79,79	0
57	MG	AA	1602	1/1	0.97	0.15	79,79,79,79	0
57	MG	BA	3134	1/1	0.97	0.06	38,38,38,38	0
57	MG	AA	1623	1/1	0.97	0.08	108,108,108,108	0
57	MG	CA	1635	1/1	0.97	0.04	114,114,114,114	0
57	MG	DA	3053	1/1	0.97	0.10	101,101,101,101	0
57	MG	DA	3105	1/1	0.97	0.10	91,91,91,91	0
57	MG	BA	3101	1/1	0.98	0.05	38,38,38,38	0
57	MG	BA	3009	1/1	0.98	0.06	46,46,46,46	0
57	MG	BA	3105	1/1	0.98	0.07	38,38,38,38	0
57	MG	BA	3034	1/1	0.98	0.05	40,40,40,40	0
57	MG	BA	3063	1/1	0.98	0.10	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	BA	3110	1/1	0.98	0.07	50,50,50,50	0
57	MG	BA	3010	1/1	0.98	0.05	46,46,46,46	0
57	MG	BA	3067	1/1	0.98	0.07	40,40,40,40	0
57	MG	DA	3118	1/1	0.98	0.15	99,99,99,99	0
57	MG	DA	3022	1/1	0.98	0.14	105,105,105,105	0
57	MG	BB	203	1/1	0.98	0.05	57,57,57,57	0
57	MG	AA	1639	1/1	0.98	0.05	119,119,119,119	0
57	MG	BD	301	1/1	0.98	0.11	39,39,39,39	0
57	MG	BA	3051	1/1	0.98	0.11	39,39,39,39	0
57	MG	BA	3039	1/1	0.98	0.06	40,40,40,40	0
57	MG	BA	3053	1/1	0.98	0.09	41,41,41,41	0
57	MG	BA	3040	1/1	0.98	0.04	41,41,41,41	0
57	MG	DA	3102	1/1	0.98	0.07	84,84,84,84	0
57	MG	AA	1612	1/1	0.98	0.05	82,82,82,82	0
57	MG	BA	3122	1/1	0.98	0.05	40,40,40,40	0
57	MG	BA	3043	1/1	0.98	0.06	56,56,56,56	0
57	MG	AA	1634	1/1	0.98	0.05	102,102,102,102	0
57	MG	AA	1613	1/1	0.98	0.04	74,74,74,74	0
57	MG	CA	1633	1/1	0.98	0.09	101,101,101,101	0
57	MG	CA	1611	1/1	0.98	0.06	93,93,93,93	0
57	MG	BA	3038	1/1	0.99	0.06	42,42,42,42	0
57	MG	DA	3056	1/1	0.99	0.08	101,101,101,101	0
57	MG	BA	3127	1/1	0.99	0.08	40,40,40,40	0
57	MG	BA	3128	1/1	0.99	0.05	52,52,52,52	0
57	MG	BA	3130	1/1	0.99	0.09	49,49,49,49	0
57	MG	BA	3027	1/1	0.99	0.06	41,41,41,41	0
57	MG	BA	3072	1/1	0.99	0.17	38,38,38,38	0
57	MG	BA	3073	1/1	0.99	0.04	43,43,43,43	0
57	MG	AA	1622	1/1	0.99	0.08	85,85,85,85	0
57	MG	BA	3041	1/1	0.99	0.12	43,43,43,43	0
57	MG	BA	3100	1/1	0.99	0.03	59,59,59,59	0
57	MG	BA	3020	1/1	0.99	0.04	46,46,46,46	0
57	MG	BA	3057	1/1	0.99	0.22	42,42,42,42	0
57	MG	BA	3103	1/1	0.99	0.06	64,64,64,64	0
57	MG	BA	3104	1/1	0.99	0.09	38,38,38,38	0
57	MG	BA	3078	1/1	0.99	0.07	86,86,86,86	0
57	MG	BA	3106	1/1	0.99	0.05	40,40,40,40	0
57	MG	DA	3033	1/1	0.99	0.08	94,94,94,94	0
57	MG	BA	3021	1/1	0.99	0.07	42,42,42,42	0
57	MG	BA	3108	1/1	0.99	0.06	40,40,40,40	0
57	MG	BA	3022	1/1	0.99	0.05	38,38,38,38	0
57	MG	CA	1605	1/1	0.99	0.14	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	BA	3033	1/1	0.99	0.05	40,40,40,40	0
57	MG	BA	3082	1/1	0.99	0.05	38,38,38,38	0
57	MG	DA	3079	1/1	0.99	0.11	90,90,90,90	0
57	MG	BA	3083	1/1	0.99	0.06	43,43,43,43	0
57	MG	BA	3013	1/1	0.99	0.05	38,38,38,38	0
57	MG	BA	3016	1/1	0.99	0.25	39,39,39,39	0
57	MG	DA	3123	1/1	0.99	0.05	93,93,93,93	0
57	MG	BA	3036	1/1	0.99	0.03	47,47,47,47	0
57	MG	BA	3116	1/1	0.99	0.07	38,38,38,38	0
57	MG	BA	3117	1/1	0.99	0.06	56,56,56,56	0
57	MG	BA	3087	1/1	0.99	0.03	45,45,45,45	0
57	MG	BA	3064	1/1	0.99	0.04	38,38,38,38	0
57	MG	BA	3120	1/1	0.99	0.04	41,41,41,41	0
57	MG	BA	3018	1/1	0.99	0.04	67,67,67,67	0
57	MG	BA	3066	1/1	0.99	0.04	43,43,43,43	0
57	MG	BA	3050	1/1	0.99	0.04	40,40,40,40	0
57	MG	BA	3069	1/1	0.99	0.04	52,52,52,52	0
57	MG	CA	1621	1/1	0.99	0.07	85,85,85,85	0
57	MG	BA	3125	1/1	0.99	0.07	40,40,40,40	0
58	ZN	B4	101	1/1	0.99	0.04	79,79,79,79	0
58	ZN	D4	101	1/1	0.99	0.09	79,79,79,79	0
57	MG	BA	3096	1/1	1.00	0.09	45,45,45,45	0
57	MG	BA	3129	1/1	1.00	0.02	39,39,39,39	0
57	MG	BA	3068	1/1	1.00	0.09	52,52,52,52	0
57	MG	BA	3012	1/1	1.00	0.06	38,38,38,38	0
57	MG	BA	3031	1/1	1.00	0.04	42,42,42,42	0
57	MG	BA	3023	1/1	1.00	0.04	41,41,41,41	0
57	MG	BA	3017	1/1	1.00	0.03	39,39,39,39	0
57	MG	BA	3054	1/1	1.00	0.06	44,44,44,44	0
57	MG	BA	3008	1/1	1.00	0.05	43,43,43,43	0
57	MG	CA	1641	1/1	1.00	0.08	91,91,91,91	0

6.5 Other polymers (i)

There are no such residues in this entry.