Full wwPDB X-ray Structure Validation Report (i)

Mar 6, 2026 – 11:08 AM UTC

PDB ID	:	4V9C / pdb_00004v9c
Title	:	Allosteric control of the ribosome by small-molecule antibiotics
Authors	:	Cate, J.H.D.; Pulk, A.; Blanchard, S.C.; Wang, L.; Feldman, M.B.; Wasserman, M.R.; Altman, R.
Deposited on	:	2012-07-25
Resolution	:	3.30 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 (i) 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 (i)) were used in the production of this report:

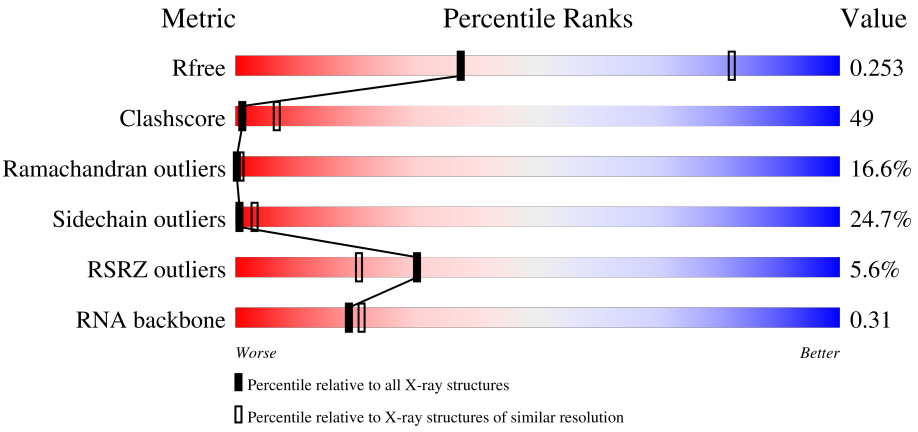
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal 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 3.30 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	1169 (3.32-3.28)
Clashscore	190562	1209 (3.32-3.28)
Ramachandran outliers	187476	1188 (3.32-3.28)
Sidechain outliers	187428	1187 (3.32-3.28)
RSRZ outliers	180081	1169 (3.32-3.28)
RNA backbone	3983	1048 (3.60-3.00)

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

Mol	Chain	Length	Quality of chain
1	AA	1542	11% 60% 29%
1	CA	1542	% 14% 57% 29%
2	AB	241	5% 11% 43% 28% 8% 10%
2	CB	241	4% 16% 42% 29% • 10%

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Mol	Chain	Length	Quality of chain
3	AC	233	7% 22% 43% 20% 12%
3	CC	233	3% 22% 41% 22% 12%
4	AD	206	25% 9% 49% 30% 11%
4	CD	206	19% 13% 40% 40% 7%
5	AE	167	8% 21% 38% 31% 10%
5	CE	167	11% 19% 51% 18% 10%
6	AF	135	2% 14% 36% 22% 26%
6	CF	135	6% 13% 30% 27% 5% 26%
7	AG	179	8% 24% 40% 17% 16%
7	CG	179	16% 15% 45% 22% 16%
8	AH	130	10% 21% 38% 32% 8%
8	CH	130	5% 29% 42% 26%
9	AI	130	17% 17% 48% 30%
9	CI	130	23% 22% 41% 32%
10	AJ	103	9% 25% 48% 21% 5%
10	CJ	103	26% 26% 42% 21% 6% 5%
11	AK	129	5% 21% 47% 21% 9%
11	CK	129	10% 16% 47% 21% 7% 9%
12	AL	124	9% 13% 40% 37% 9%
12	CL	124	15% 15% 49% 31% 5%
13	AM	118	14% 19% 50% 25%
13	CM	118	20% 13% 43% 33% 8%
14	AN	101	20% 18% 47% 26% 5% 5%
14	CN	101	28% 14% 50% 26% 5% 5%
15	AO	89	10% 25% 45% 25%

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Mol	Chain	Length	Quality of chain
15	CO	89	15% 15% 45% 35%
16	AP	82	26% 21% 48% 27% 5%
16	CP	82	15% 20% 45% 29% 6%
17	AQ	84	11% 21% 45% 26% 5%
17	CQ	84	13% 12% 50% 24% 10% 5%
18	AR	75	4% 11% 35% 23% 5% 27%
18	CR	75	5% 11% 33% 25% 27%
19	AS	92	14% 12% 46% 28% 14%
19	CS	92	16% 16% 42% 22% 5% 14%
20	AT	87	25% 15% 51% 30%
20	CT	87	13% 20% 52% 15% 11%
21	AU	71	17% 6% 38% 24% 28%
21	CU	71	18% 8% 35% 23% 6% 28%
22	AV	76	34% 46% 20%
22	CV	76	11% 11% 51% 38%
23	AX	24	4% 17% 25% 25% 33%
23	CX	24	8% 12% 38% 12% 38%
24	BA	2904	16% 57% 26%
24	DA	2904	2% 21% 55% 24%
25	BB	120	14% 65% 19%
25	DB	120	22% 64% 12%
26	BC	273	12% 23% 46% 26%
26	DC	273	8% 23% 47% 23% 6%
27	BD	209	3% 31% 47% 21%
27	DD	209	3% 33% 45% 20%

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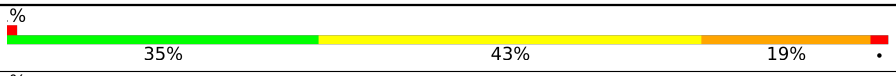
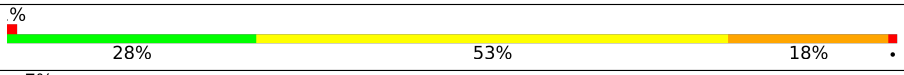
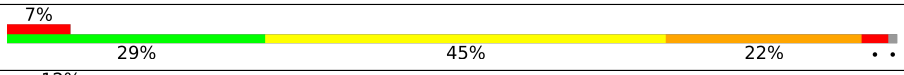
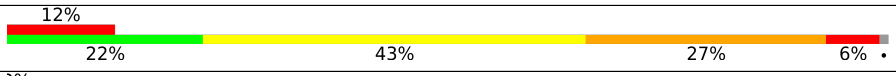
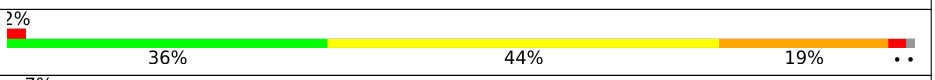
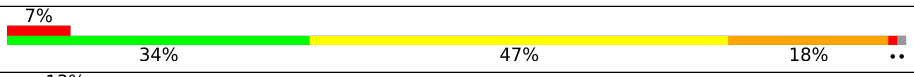
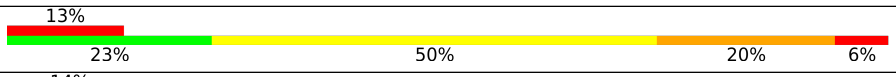
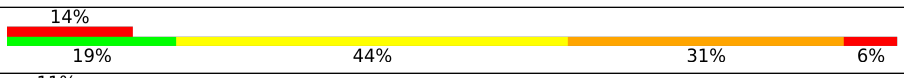
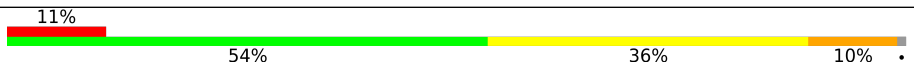
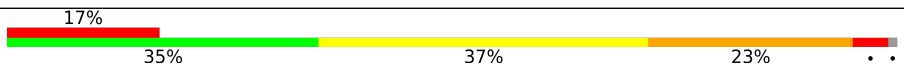
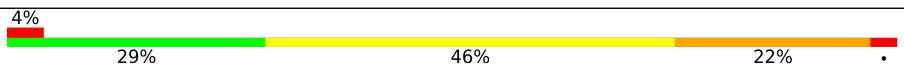
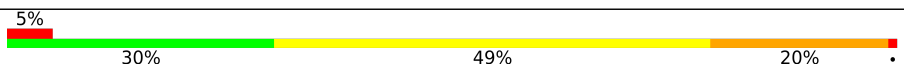
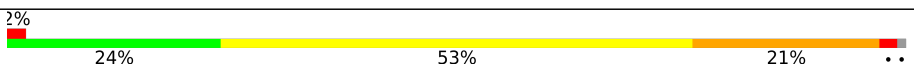
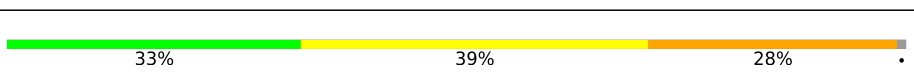
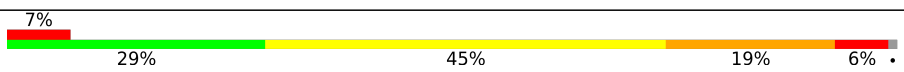
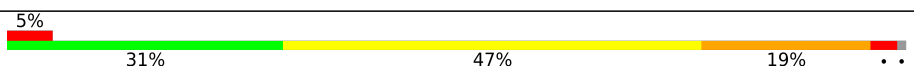
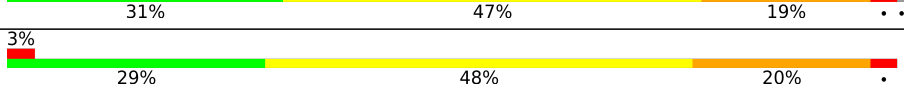
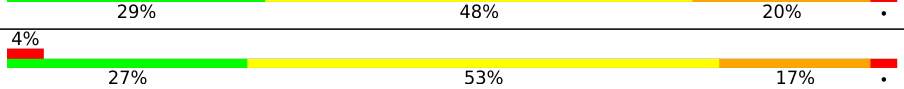
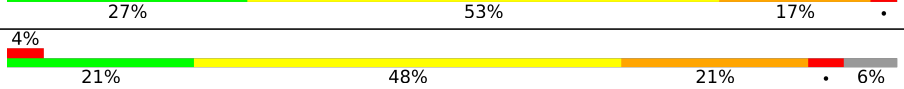
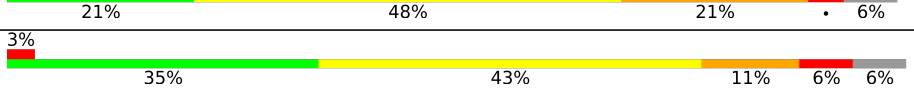
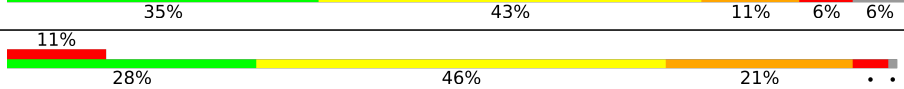
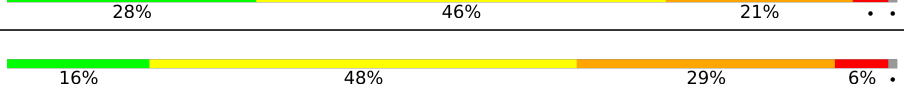
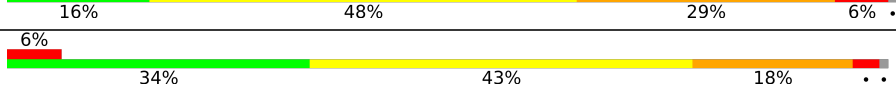
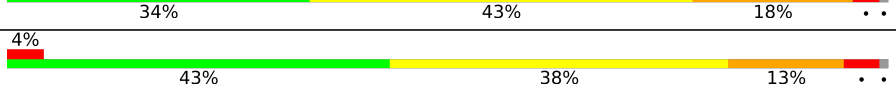
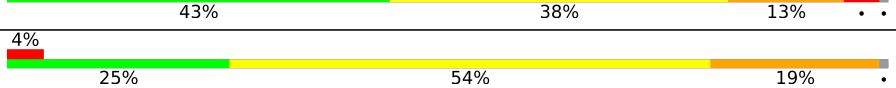
Mol	Chain	Length	Quality of chain
28	BE	201	
28	DE	201	
29	BF	179	
29	DF	179	
30	BG	177	
30	DG	177	
31	BH	149	
31	DH	149	
32	BI	142	
32	DI	142	
33	BJ	142	
33	DJ	142	
34	BK	123	
34	DK	123	
35	BL	144	
35	DL	144	
36	BM	136	
36	DM	136	
37	BN	127	
37	DN	127	
38	BO	117	
38	DO	117	
39	BP	115	
39	DP	115	
40	BQ	118	

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Mol	Chain	Length	Quality of chain
40	DQ	118	3% 25% 53% 18%
41	BR	103	3% 39% 45% 13%
41	DR	103	4% 28% 46% 24%
42	BS	110	5% 20% 45% 34%
42	DS	110	% 28% 48% 22%
43	BT	100	14% 28% 40% 21% 7%
43	DT	100	8% 31% 41% 17% 7%
44	BU	104	13% 18% 52% 24%
44	DU	104	7% 37% 38% 19% 5%
45	BV	94	4% 34% 37% 26%
45	DV	94	3% 36% 48% 15%
46	BW	85	6% 39% 34% 14% 12%
46	DW	85	9% 28% 42% 15% 11%
47	BX	78	15% 24% 50% 21%
47	DX	78	3% 21% 58% 18%
48	BY	63	3% 27% 60% 10%
48	DY	63	8% 11% 59% 24% 6%
49	BZ	59	3% 31% 51% 17%
49	DZ	59	2% 34% 53% 10%
50	B0	57	7% 39% 40% 11% 9%
50	D0	57	7% 33% 40% 19% 5%
51	B1	55	11% 29% 51% 9% 9%
51	D1	55	11% 25% 42% 20% 9%
52	B2	46	11% 30% 33% 33%
52	D2	46	13% 22% 61% 17%

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Mol	Chain	Length	Quality of chain
53	B3	65	12% 26% 49% 23%
53	D3	65	12% 31% 29% 34% 5%
54	B4	38	11% 34% 47% 16%
54	D4	38	3% 21% 55% 18% 5%
55	CY	185	6% 16% 50% 30%

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
56	MG	BA	3027	-	-	-	X
56	MG	BA	3037	-	-	-	X
56	MG	BA	3059	-	-	-	X
56	MG	BA	3135	-	-	-	X
56	MG	BA	3152	-	-	-	X
56	MG	BA	3155	-	-	-	X
56	MG	BA	3157	-	-	-	X
56	MG	CA	1629	-	-	-	X
56	MG	DA	3057	-	-	-	X
56	MG	DA	3081	-	-	-	X
56	MG	DA	3095	-	-	-	X
56	MG	DA	3129	-	-	-	X
56	MG	DA	3150	-	-	-	X
56	MG	DL	201	-	-	-	X
57	NMY	AA	1655	-	-	X	-
57	NMY	BA	3165	-	-	X	-
57	NMY	DA	3190	-	-	X	-

2 Entry composition (i)

There are 59 unique types of molecules in this entry. The entry contains 293103 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1539	Total	C	N	O	P	0	0	0
			33015	14725	6052	10699	1539			
1	CA	1538	Total	C	N	O	P	0	0	0
			32995	14716	6050	10691	1538			

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AG	151	Total	C	N	O	S	0	0	0
			1181	735	227	215	4			
7	CG	151	Total	C	N	O	S	0	0	0
			1181	735	227	215	4			

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

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	114	Total	C	N	O	S	0	0	0
			883	546	178	156	3			
13	CM	114	Total	C	N	O	S	0	0	0
			883	546	178	156	3			

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- Molecule 22 is a RNA chain called Phenylalanine specific transfer RNA, tRNA-Phe.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AV	76	Total	C	N	O	P	0	0	0
			1623	723	290	534	76			
22	CV	76	Total	C	N	O	P	0	0	0
			1623	723	290	534	76			

- Molecule 23 is a RNA chain called Messenger RNA, mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AX	16	Total	C	N	O	P	0	0	0
			346	155	66	109	16			
23	CX	15	Total	C	N	O	P	0	0	0
			324	145	61	103	15			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	BA	2897	Total	C	N	O	P	0	0	0
			62195	27745	11446	20107	2897			
24	DA	2897	Total	C	N	O	P	0	0	0
			62195	27745	11446	20107	2897			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BB	118	Total	C	N	O	P	0	0	0
			2529	1126	464	821	118			
25	DB	119	Total	C	N	O	P	0	0	0
			2549	1135	466	829	119			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BB	12	C	A	SEE REMARK 999	GB AP012306
DB	12	C	A	SEE REMARK 999	GB AP012306

- 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	177	Total	C	N	O	S	0	0	0
			1410	899	249	256	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
			1110	699	197	213	1			
31	DH	149	Total	C	N	O	S	0	0	0
			1110	699	197	213	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			
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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
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	75	Total	C	N	O	S	0	0	0
			569	353	113	102	1			
46	DW	76	Total	C	N	O	S	0	0	0
			580	359	117	103	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			
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			

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

- Molecule 55 is a protein called Ribosome recycling factor, RRF.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	CY	183	Total	C	N	O	S	0	0	0
			1423	874	260	283	6			

- Molecule 56 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	AA	54	Total	Mg	0	0
			54	54		
56	AD	1	Total	Mg	0	0
			1	1		
56	AN	1	Total	Mg	0	0
			1	1		
56	BA	163	Total	Mg	0	0
			163	163		
56	BB	3	Total	Mg	0	0
			3	3		
56	BC	1	Total	Mg	0	0
			1	1		
56	BQ	1	Total	Mg	0	0
			1	1		

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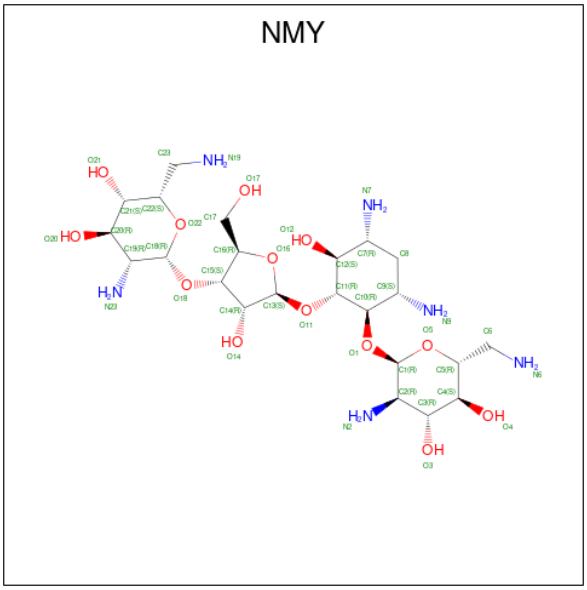
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	CA	71	Total Mg 71 71	0	0
56	CX	1	Total Mg 1 1	0	0
56	DA	187	Total Mg 187 187	0	0
56	DB	4	Total Mg 4 4	0	0
56	DE	1	Total Mg 1 1	0	0
56	DL	1	Total Mg 1 1	0	0
56	DO	1	Total Mg 1 1	0	0

- Molecule 57 is NEOMYCIN (CCD ID: NMY) (formula: $C_{23}H_{46}N_6O_{13}$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	AA	1	Total C N O 42 23 6 13	0	0
57	AA	1	Total C N O 42 23 6 13	0	0
57	AA	1	Total C N O 42 23 6 13	0	0
57	BA	1	Total C N O 42 23 6 13	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	BA	1	Total C N O 42 23 6 13	0	0
57	BA	1	Total C N O 42 23 6 13	0	0
57	BA	1	Total C N O 42 23 6 13	0	0
57	BA	1	Total C N O 42 23 6 13	0	0
57	BA	1	Total C N O 42 23 6 13	0	0
57	BA	1	Total C N O 42 23 6 13	0	0
57	CA	1	Total C N O 42 23 6 13	0	0
57	DA	1	Total C N O 42 23 6 13	0	0
57	DA	1	Total C N O 42 23 6 13	0	0
57	DA	1	Total C N O 42 23 6 13	0	0
57	DA	1	Total C N O 42 23 6 13	0	0
57	DA	1	Total C N O 42 23 6 13	0	0
57	DA	1	Total C N O 42 23 6 13	0	0
57	DA	1	Total C N O 42 23 6 13	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	AA	188	Total O 188 188	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	AD	2	Total O 2 2	0	0
59	AK	1	Total O 1 1	0	0
59	AN	4	Total O 4 4	0	0
59	AT	2	Total O 2 2	0	0
59	AU	1	Total O 1 1	0	0
59	BA	616	Total O 616 616	0	0
59	BB	13	Total O 13 13	0	0
59	BC	10	Total O 10 10	0	0
59	BD	4	Total O 4 4	0	0
59	BL	4	Total O 4 4	0	0
59	BN	1	Total O 1 1	0	0
59	BT	3	Total O 3 3	0	0
59	BU	3	Total O 3 3	0	0
59	BV	1	Total O 1 1	0	0
59	B0	1	Total O 1 1	0	0
59	B3	1	Total O 1 1	0	0
59	B4	1	Total O 1 1	0	0
59	CA	192	Total O 192 192	0	0
59	CC	1	Total O 1 1	0	0
59	CE	1	Total O 1 1	0	0
59	CL	1	Total O 1 1	0	0

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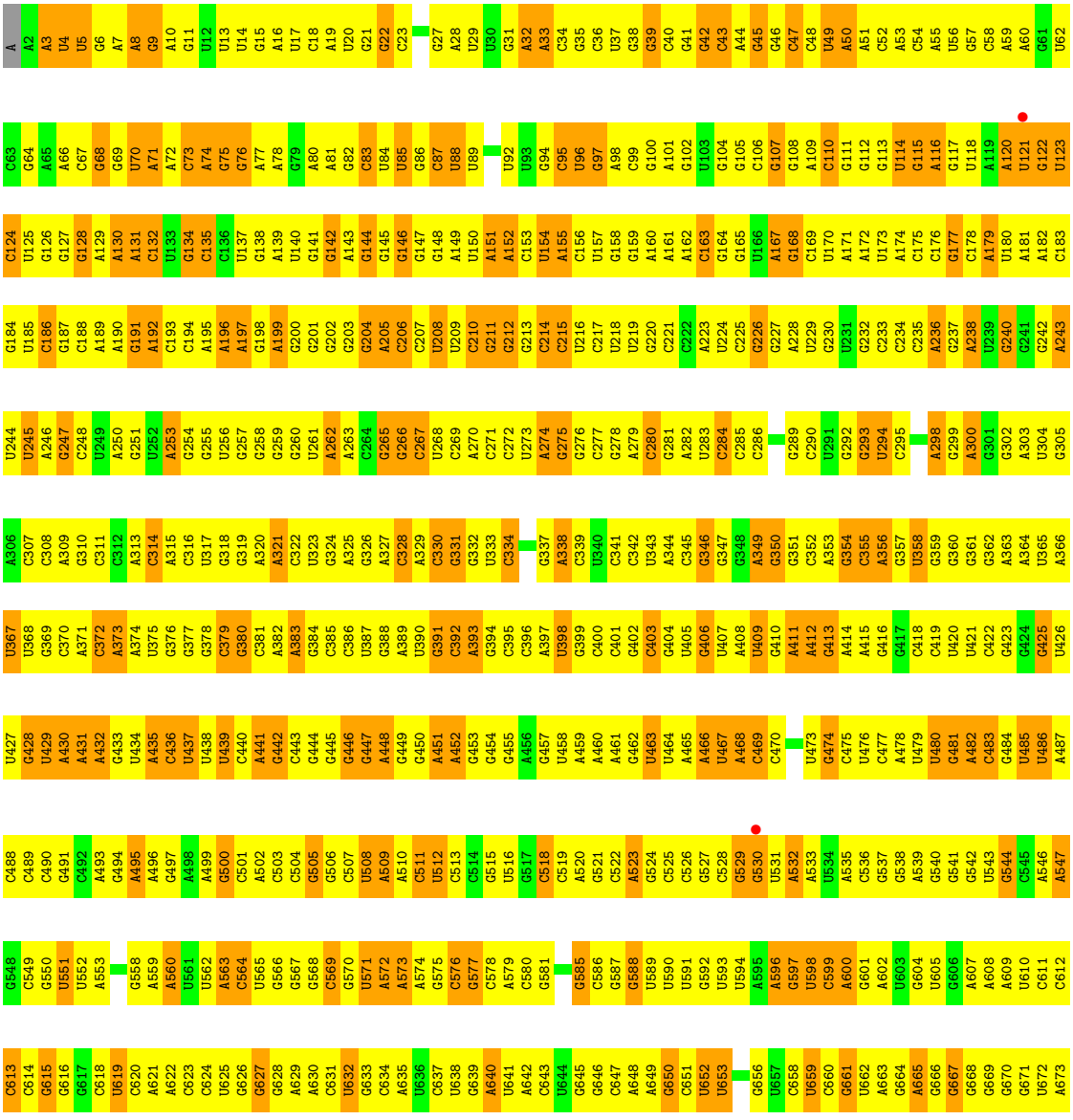
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	CN	6	Total O 6 6	0	0
59	CT	2	Total O 2 2	0	0
59	DA	627	Total O 627 627	0	0
59	DB	13	Total O 13 13	0	0
59	DC	4	Total O 4 4	0	0
59	DD	2	Total O 2 2	0	0
59	DE	4	Total O 4 4	0	0
59	DF	1	Total O 1 1	0	0
59	DL	7	Total O 7 7	0	0
59	DN	2	Total O 2 2	0	0
59	DQ	1	Total O 1 1	0	0
59	DS	1	Total O 1 1	0	0
59	DT	1	Total O 1 1	0	0
59	DU	1	Total O 1 1	0	0
59	DV	1	Total O 1 1	0	0
59	D3	2	Total O 2 2	0	0
59	D4	1	Total O 1 1	0	0

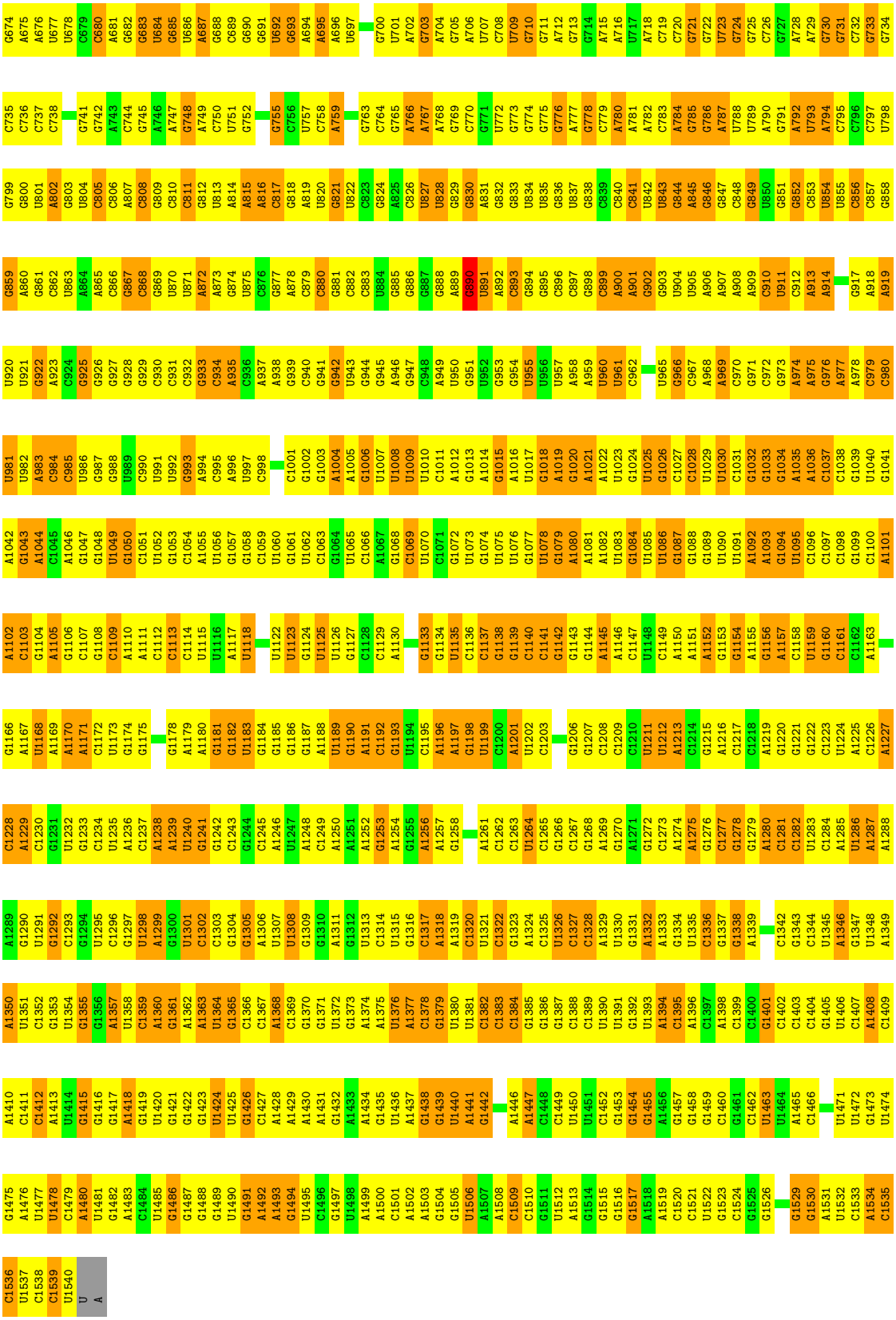
3 Residue-property plots (i)

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

- Molecule 1: 16S ribosomal RNA

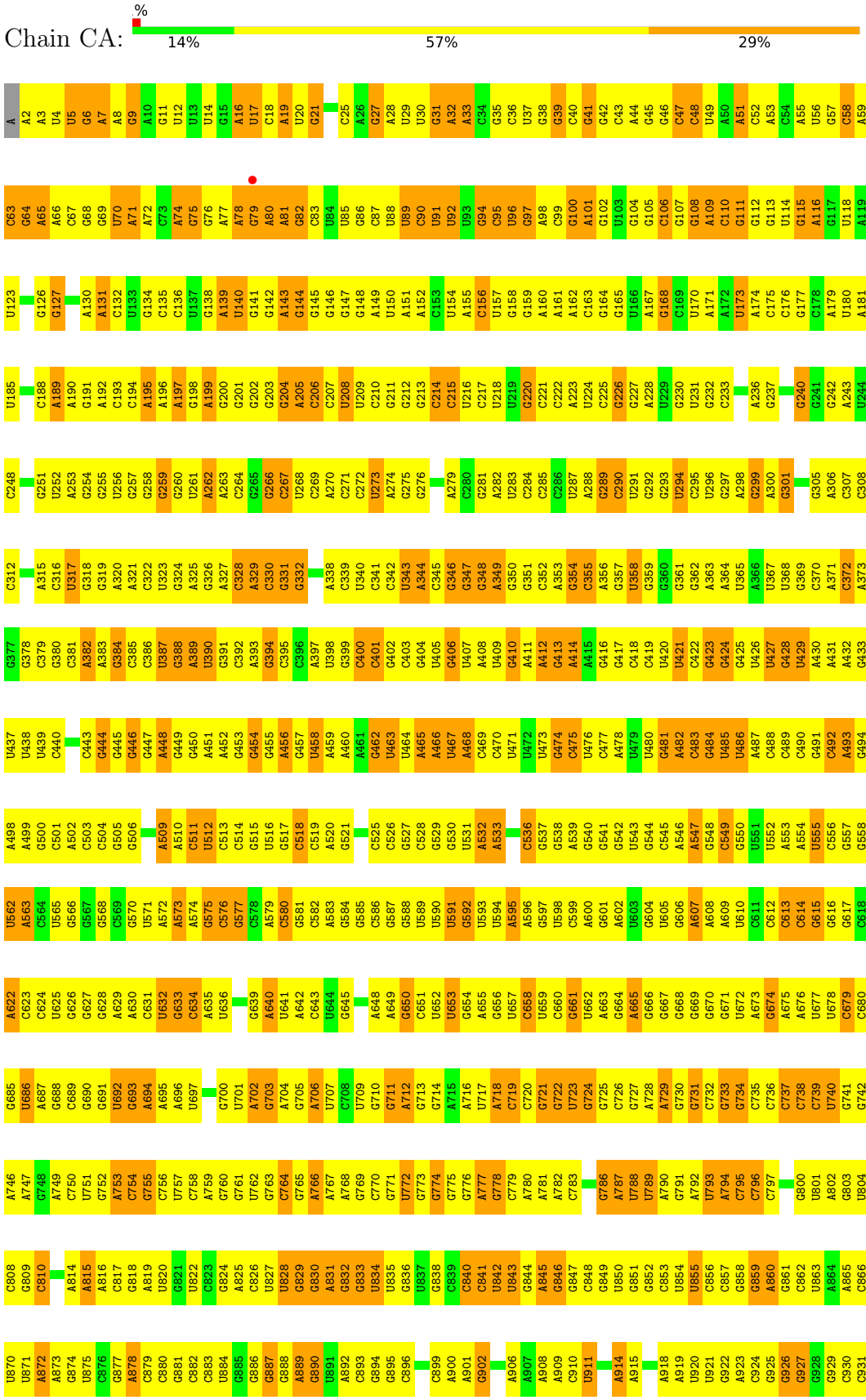
Chain AA: 11% 60% 29%

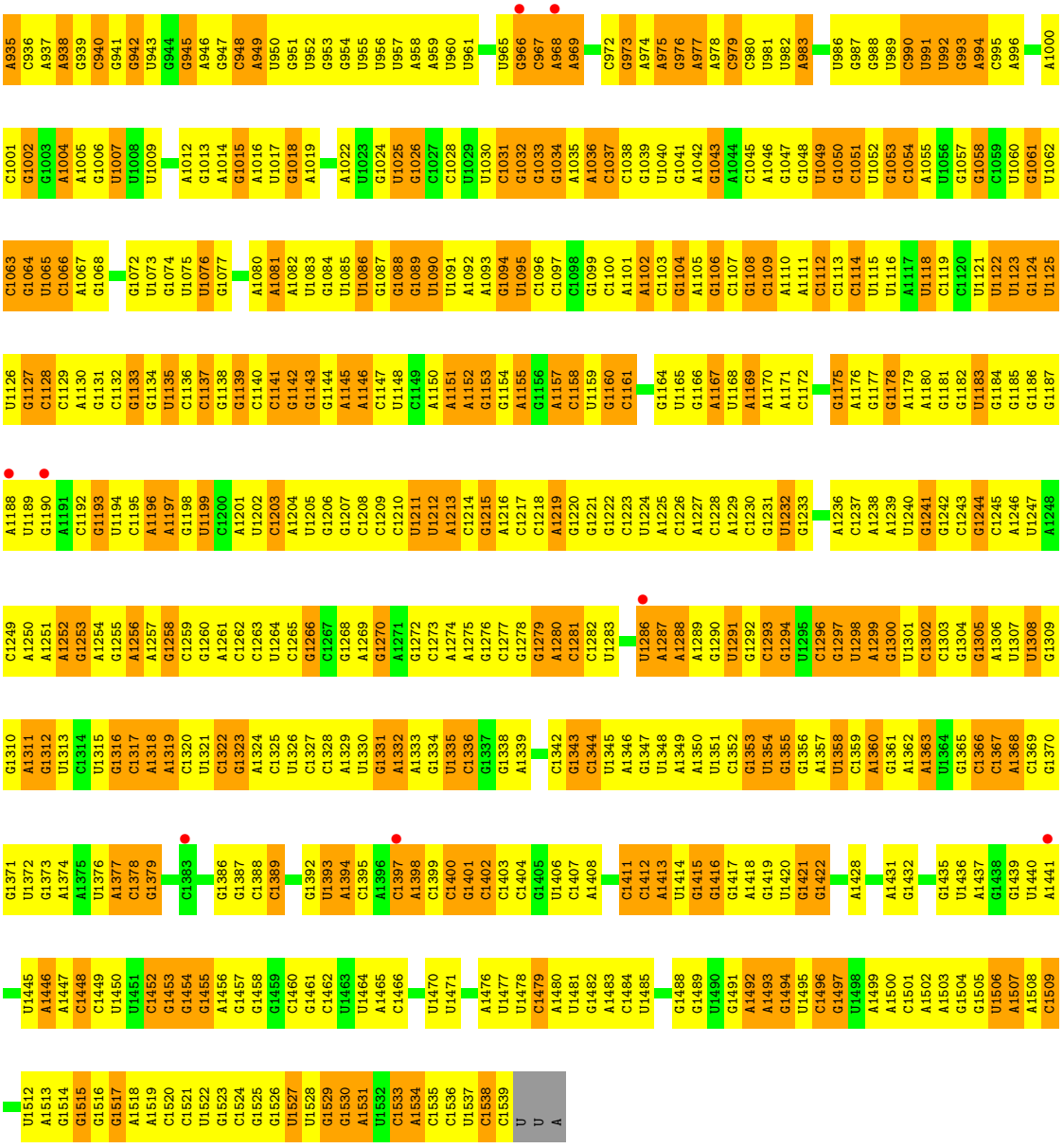




• Molecule 1: 16S ribosomal RNA

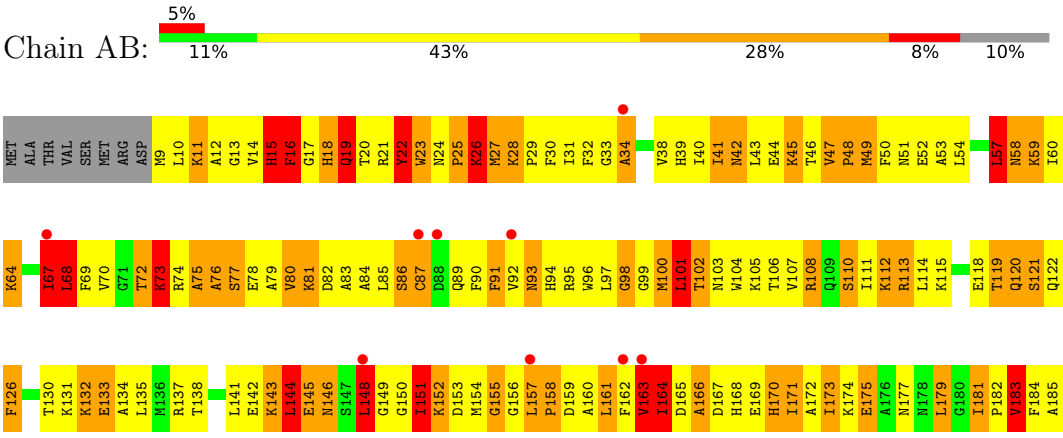
Chain CA:

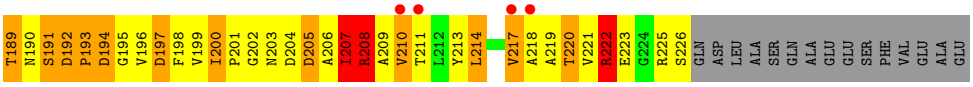




• Molecule 2: 30S ribosomal protein S2

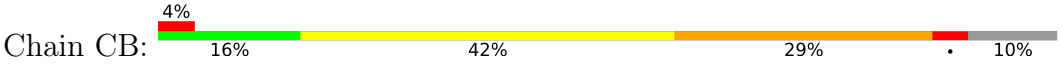
Chain AB:

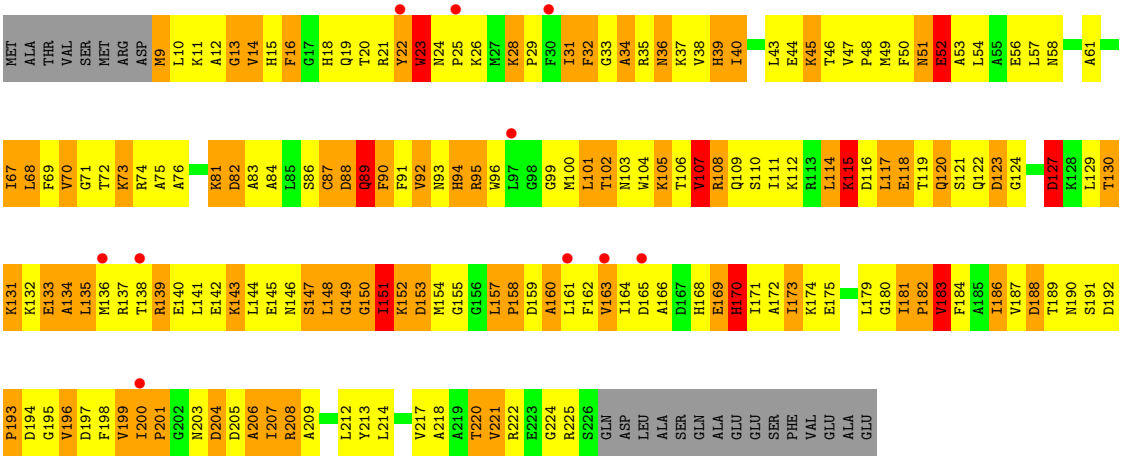




• Molecule 2: 30S ribosomal protein S2

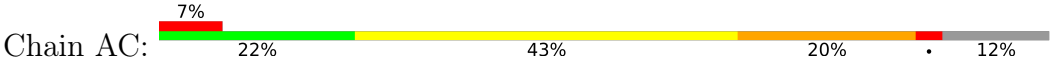
Chain CB:

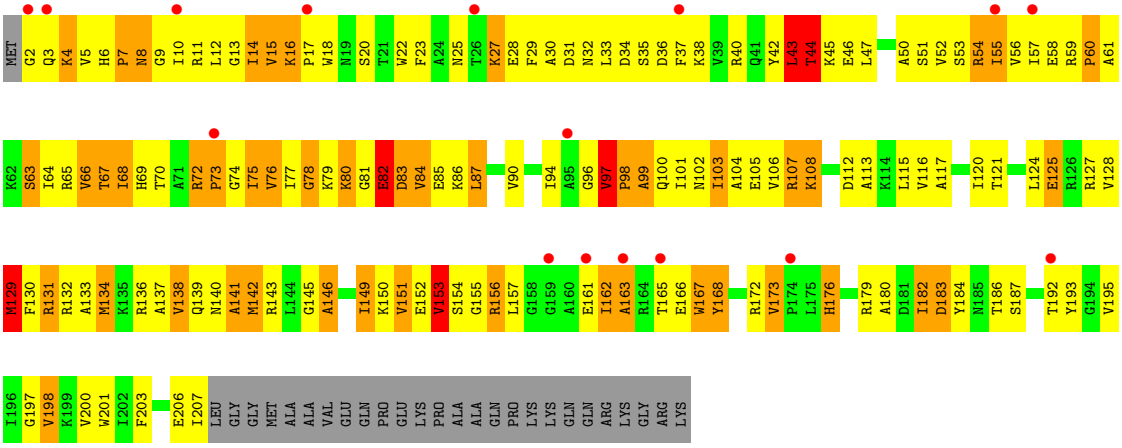




• Molecule 3: 30S ribosomal protein S3

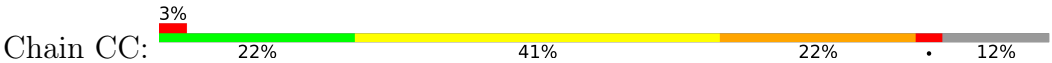
Chain AC:

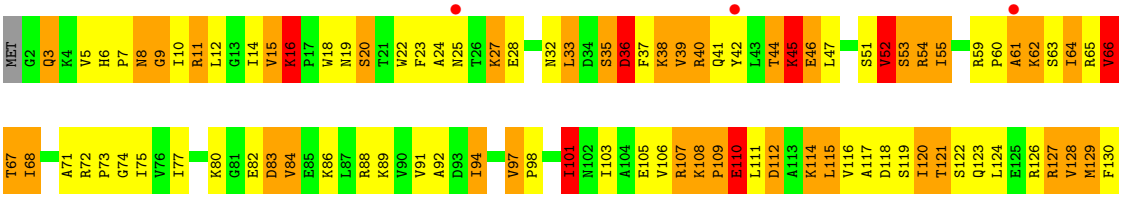


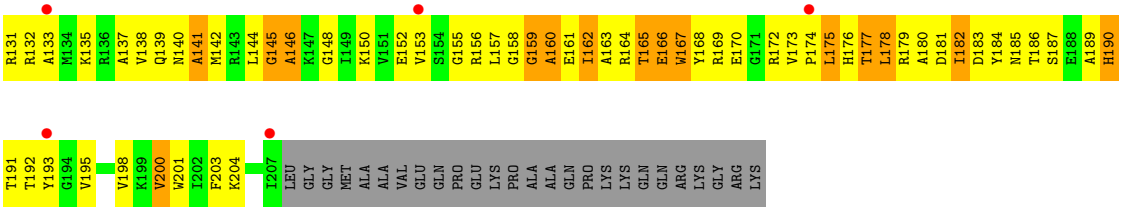


• Molecule 3: 30S ribosomal protein S3

Chain CC:

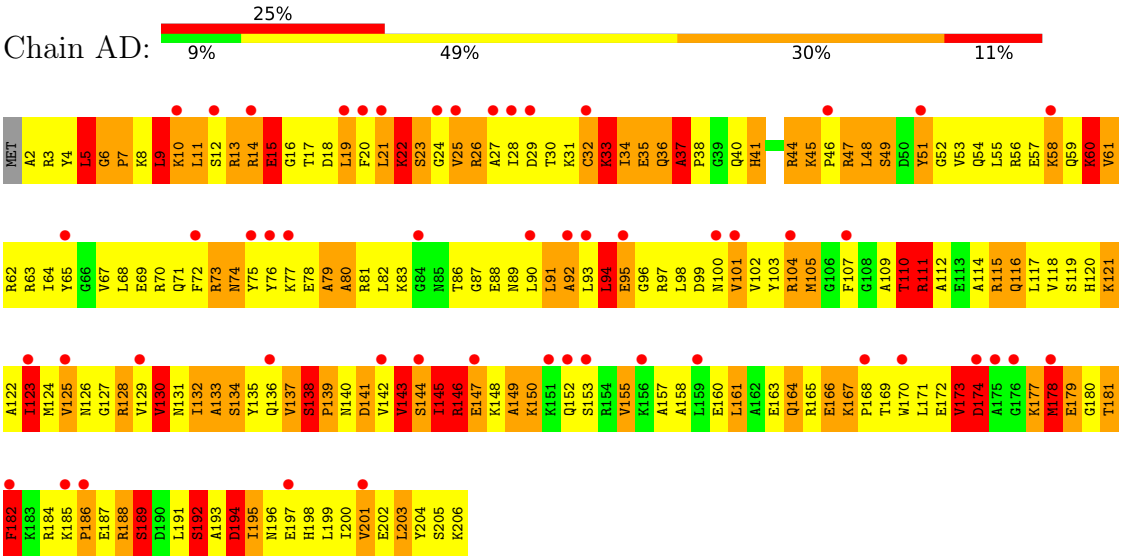






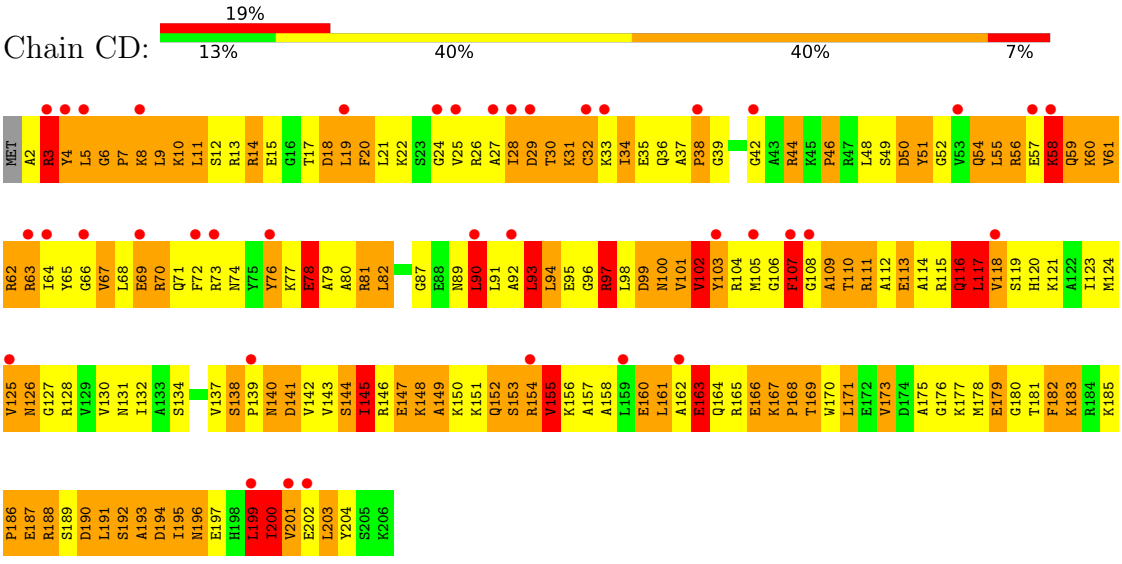
• Molecule 4: 30S ribosomal protein S4

Chain AD:



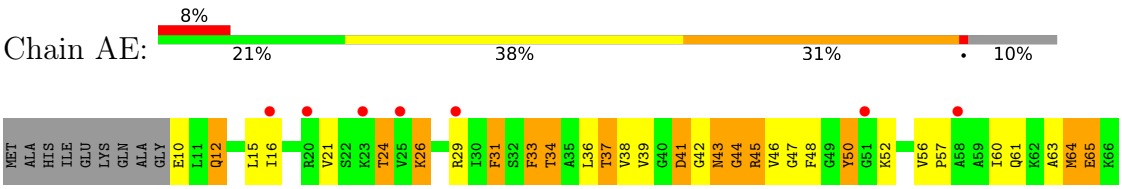
• Molecule 4: 30S ribosomal protein S4

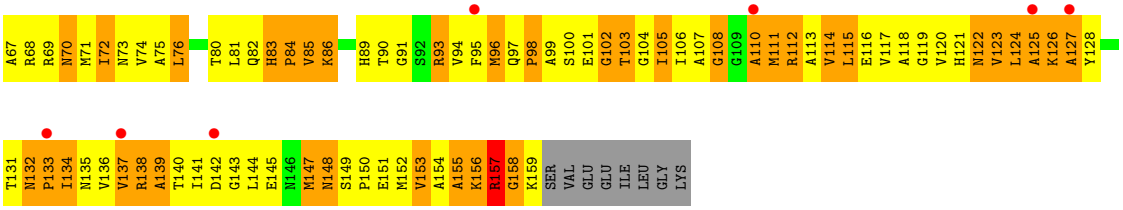
Chain CD:



• Molecule 5: 30S ribosomal protein S5

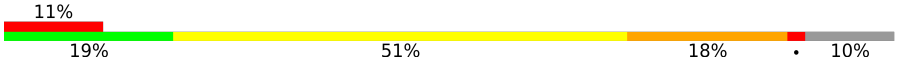
Chain AE:

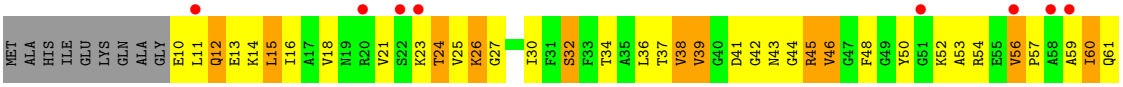


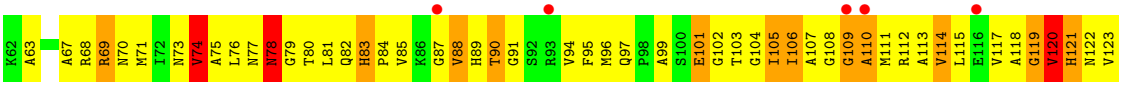


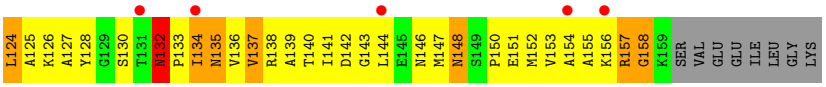
• Molecule 5: 30S ribosomal protein S5

Chain CE:



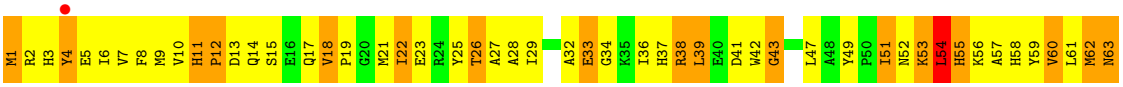


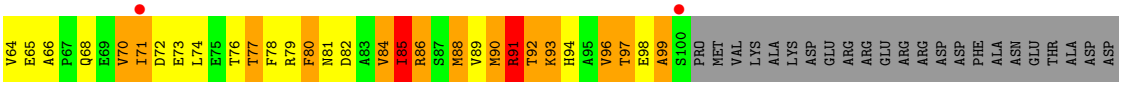




• Molecule 6: 30S ribosomal protein S6

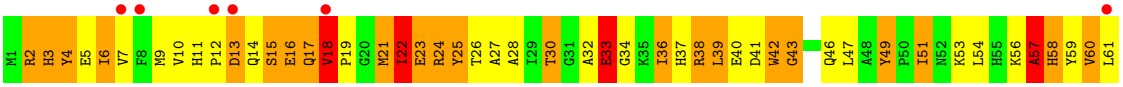
Chain AF:

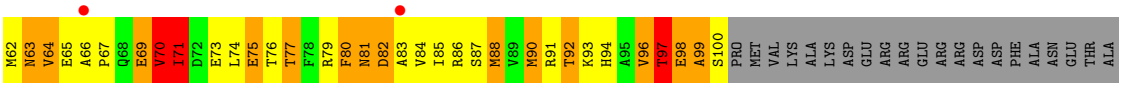




• Molecule 6: 30S ribosomal protein S6

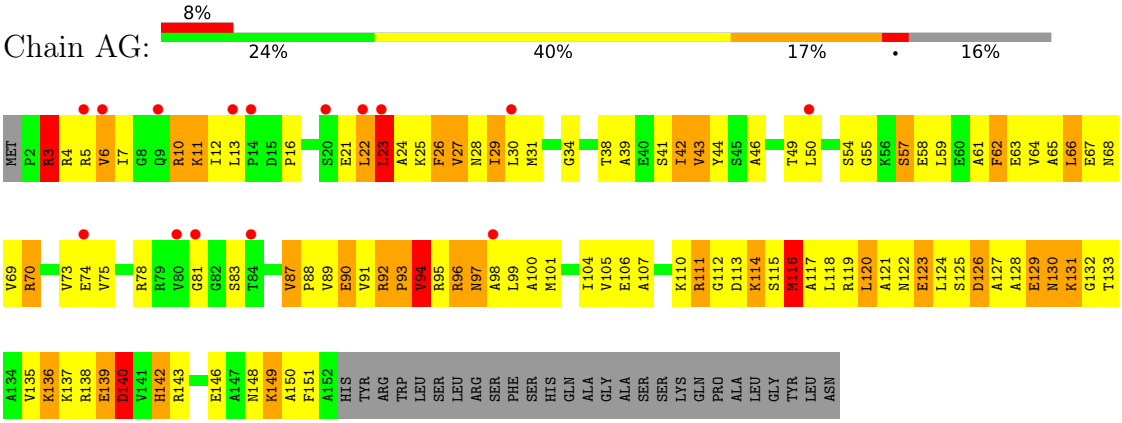
Chain CF:





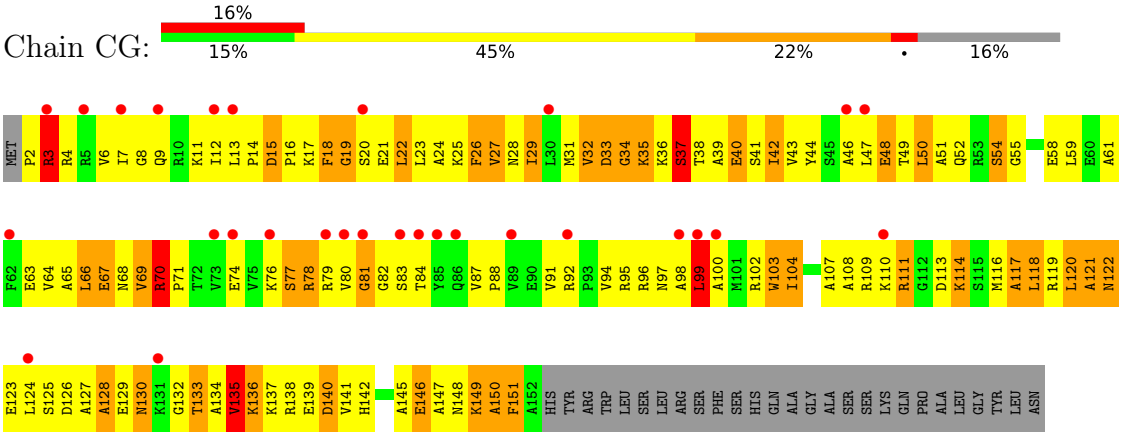
• Molecule 7: 30S ribosomal protein S7

Chain AG:



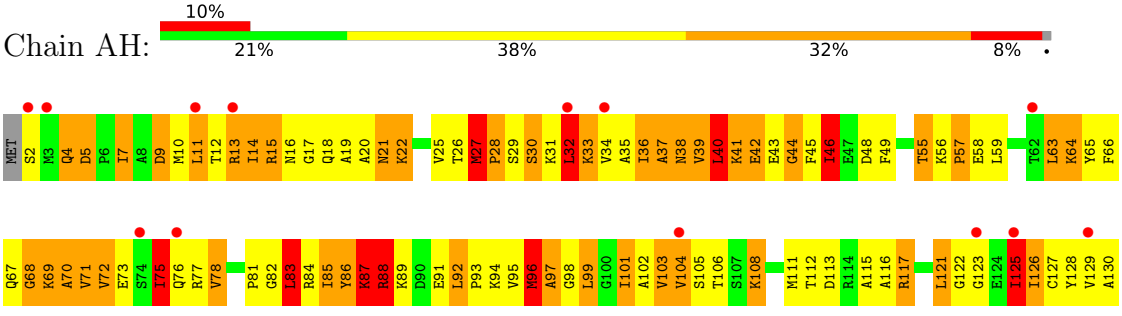
• Molecule 7: 30S ribosomal protein S7

Chain CG:



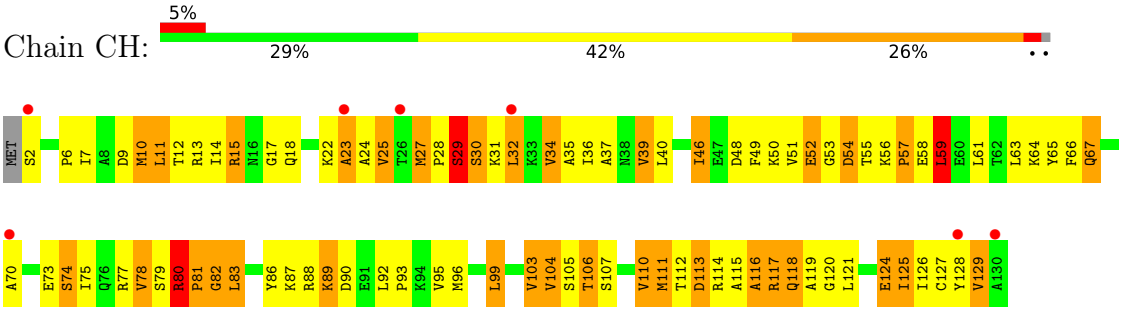
• Molecule 8: 30S ribosomal protein S8

Chain AH:

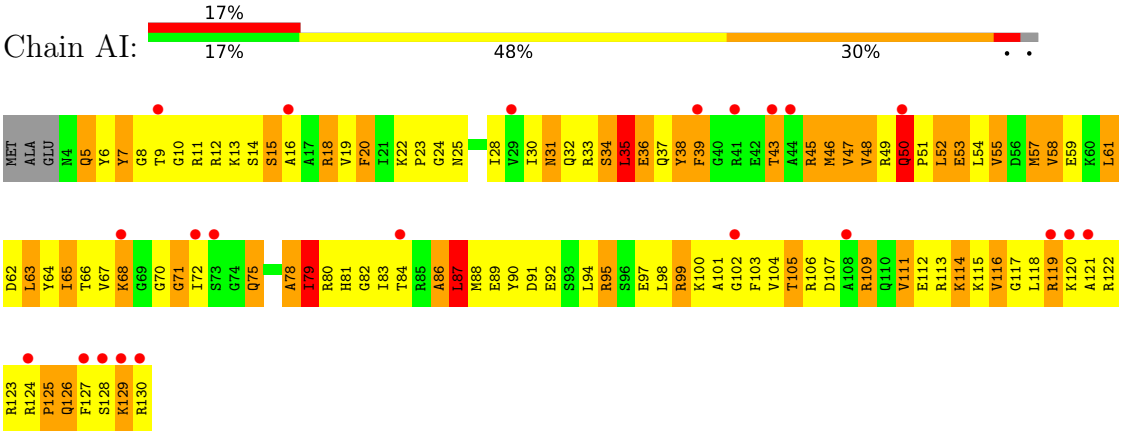


• Molecule 8: 30S ribosomal protein S8

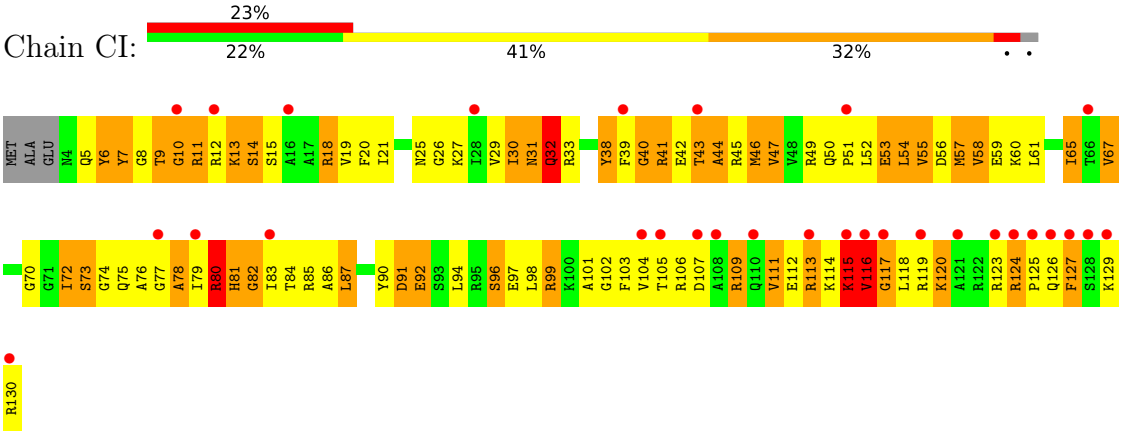
Chain CH:



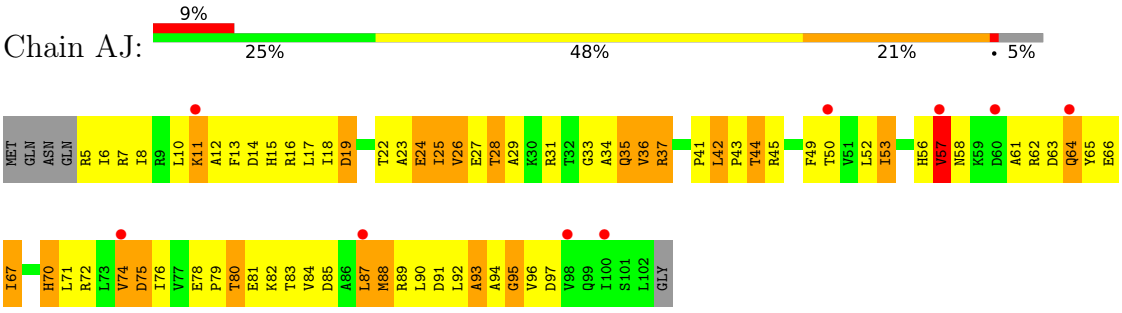
• Molecule 9: 30S ribosomal protein S9



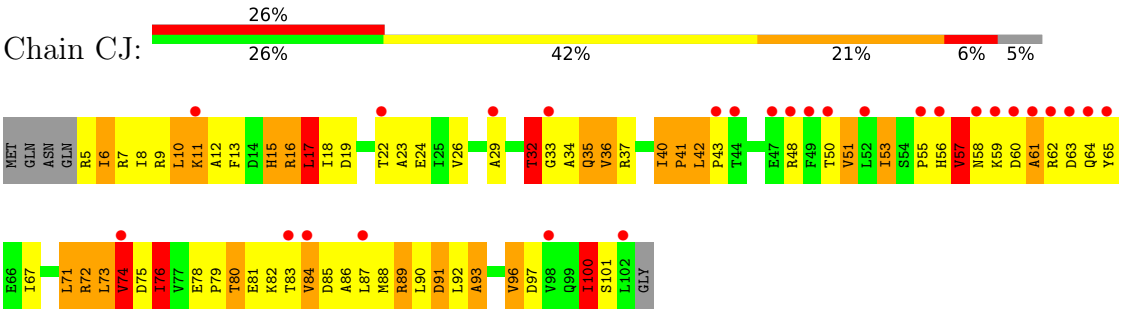
• Molecule 9: 30S ribosomal protein S9



• Molecule 10: 30S ribosomal protein S10

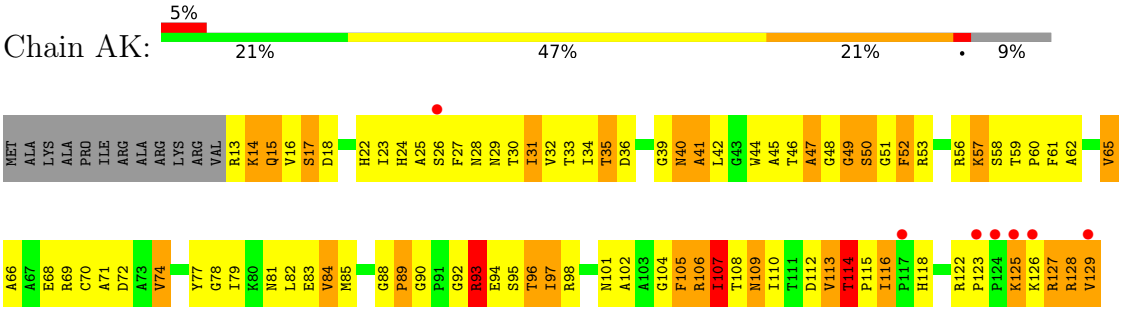


• Molecule 10: 30S ribosomal protein S10



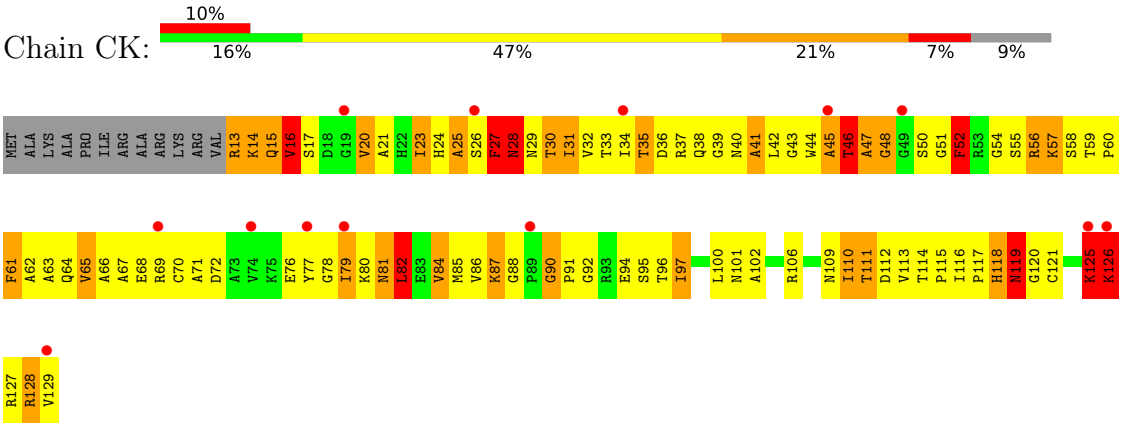
• Molecule 11: 30S ribosomal protein S11

Chain AK:



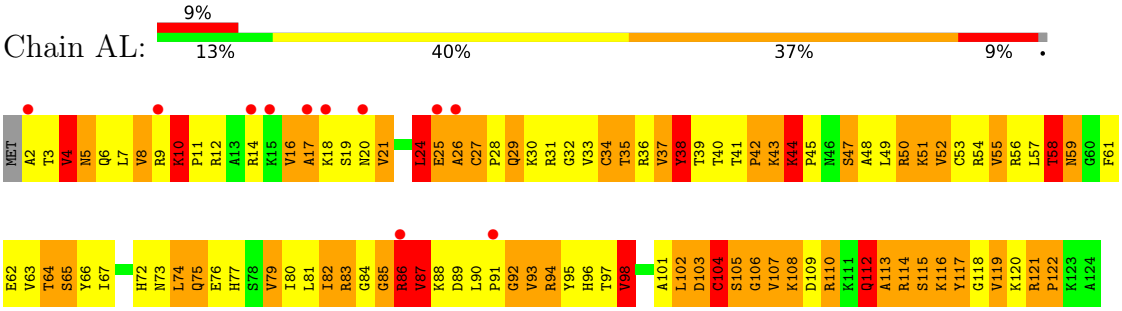
• Molecule 11: 30S ribosomal protein S11

Chain CK:



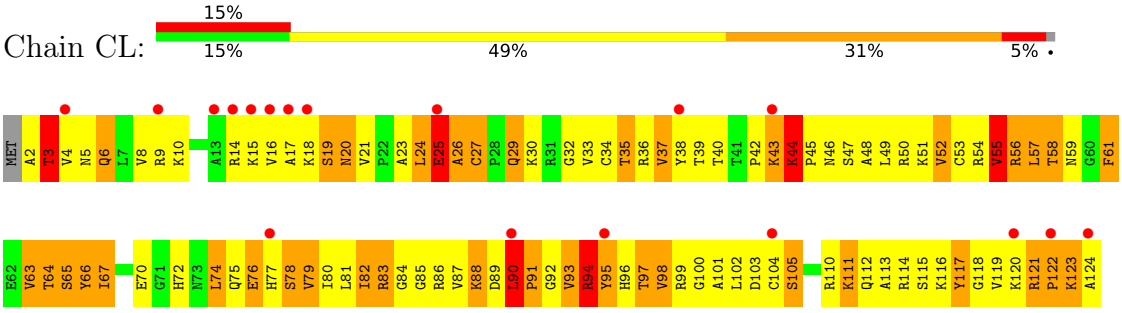
• Molecule 12: 30S ribosomal protein S12

Chain AL:



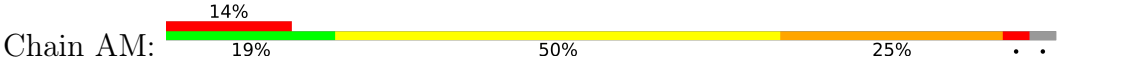
• Molecule 12: 30S ribosomal protein S12

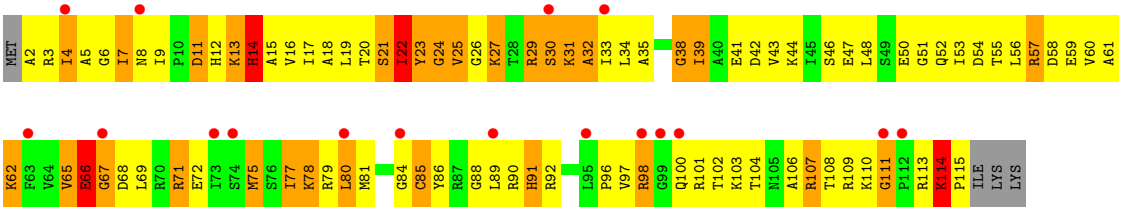
Chain CL:



• Molecule 13: 30S ribosomal protein S13

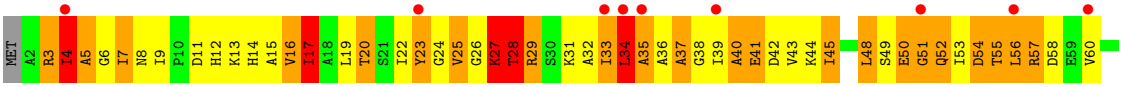
Chain AM:

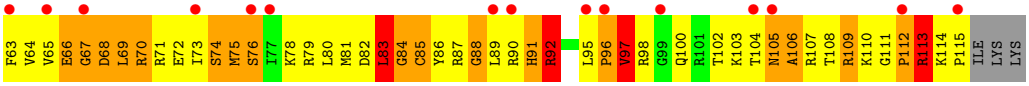




• Molecule 13: 30S ribosomal protein S13

Chain CM:



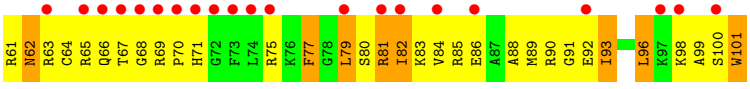


• Molecule 14: 30S ribosomal protein S14

Chain AN:

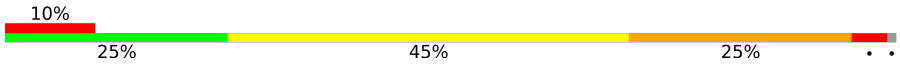
• Molecule 14: 30S ribosomal protein S14

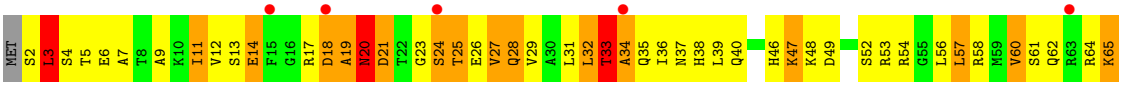
Chain CN:



• Molecule 15: 30S ribosomal protein S15

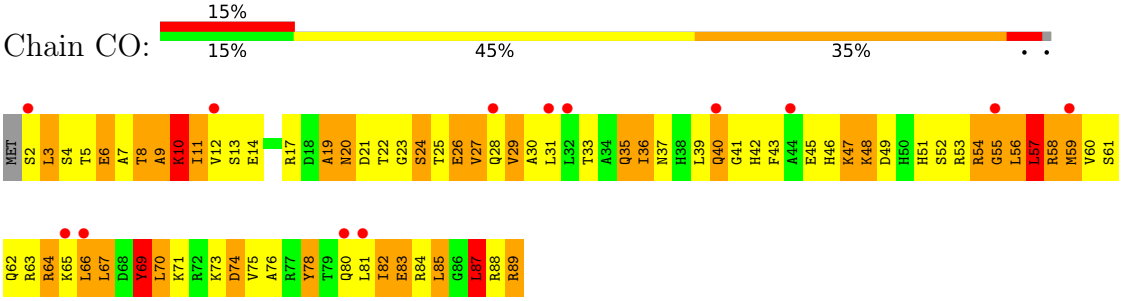
Chain AO:





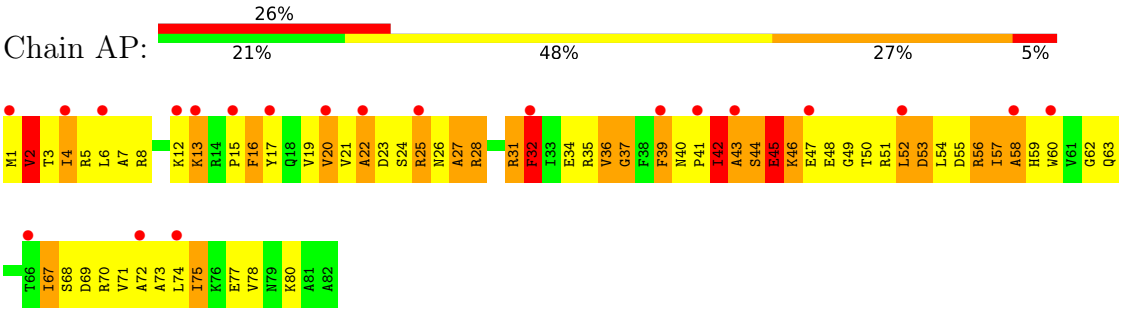
• Molecule 15: 30S ribosomal protein S15

Chain CO:



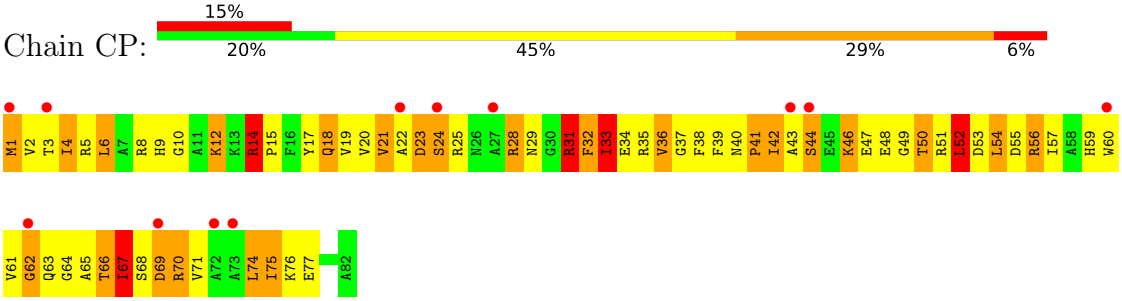
• Molecule 16: 30S ribosomal protein S16

Chain AP:



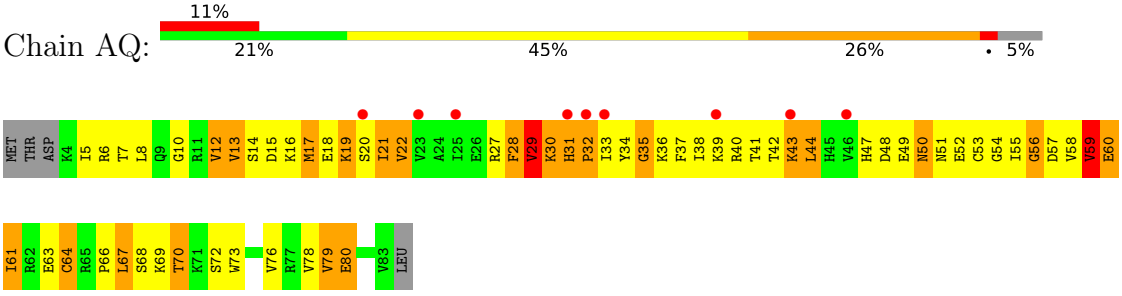
• Molecule 16: 30S ribosomal protein S16

Chain CP:



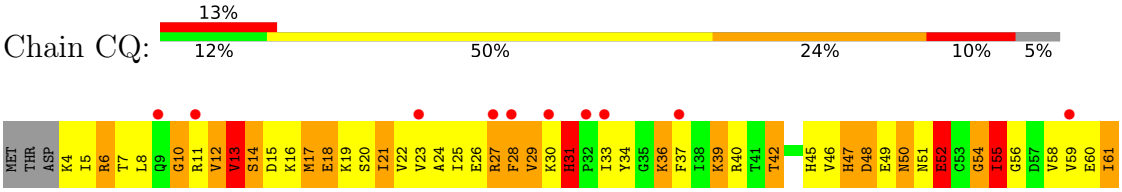
• Molecule 17: 30S ribosomal protein S17

Chain AQ:

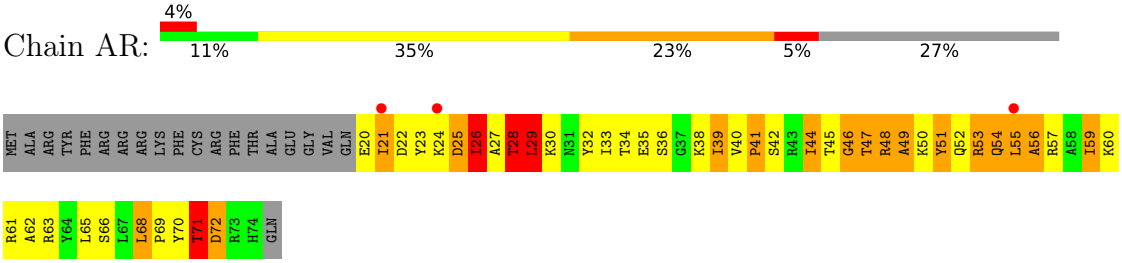


• Molecule 17: 30S ribosomal protein S17

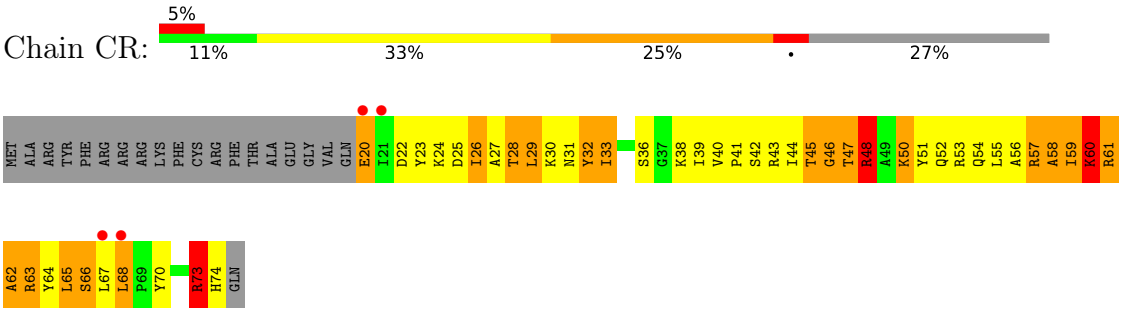
Chain CQ:



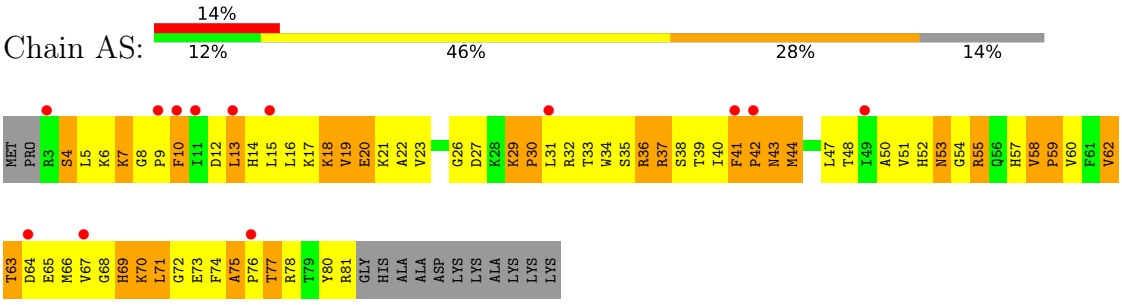
• Molecule 18: 30S ribosomal protein S18



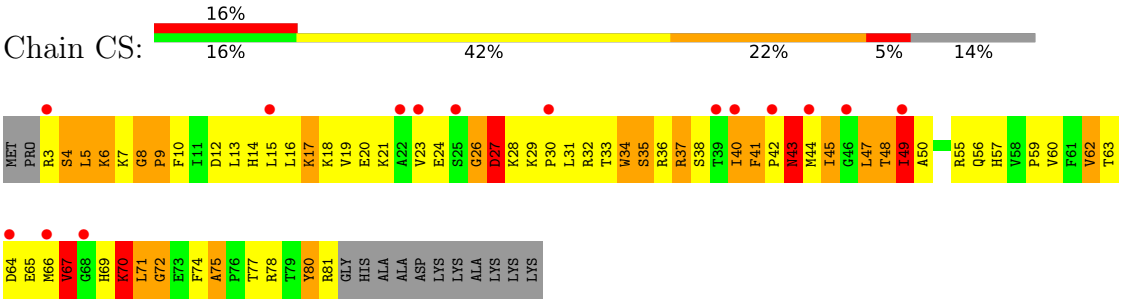
• Molecule 18: 30S ribosomal protein S18



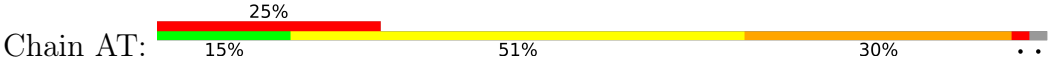
• Molecule 19: 30S ribosomal protein S19

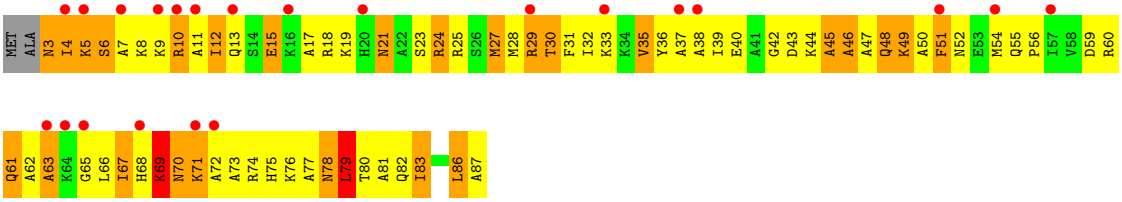


• Molecule 19: 30S ribosomal protein S19



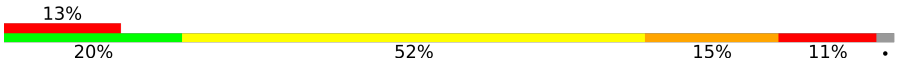
• Molecule 20: 30S ribosomal protein S20

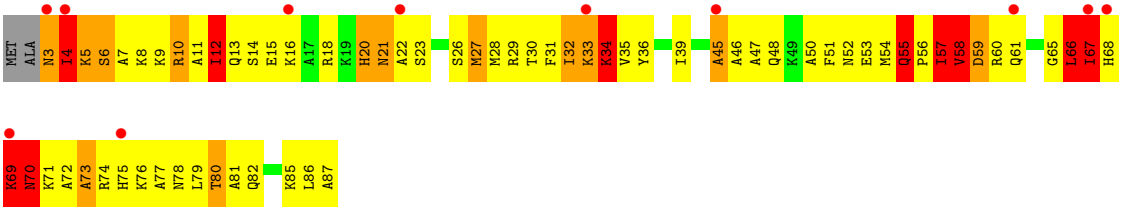




• Molecule 20: 30S ribosomal protein S20

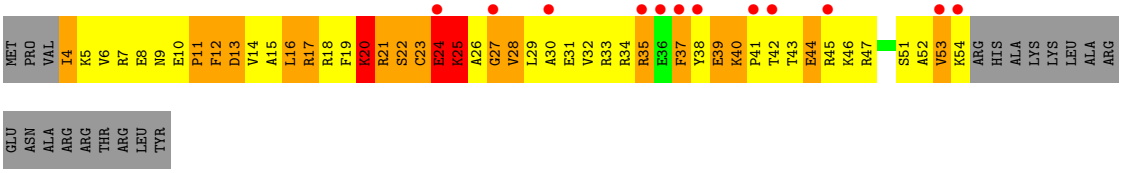
Chain CT:





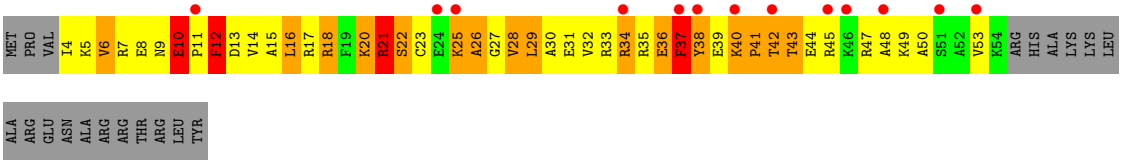
• Molecule 21: 30S ribosomal protein S21

Chain AU:



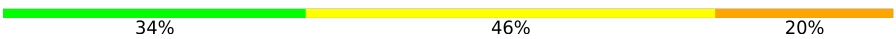
• Molecule 21: 30S ribosomal protein S21

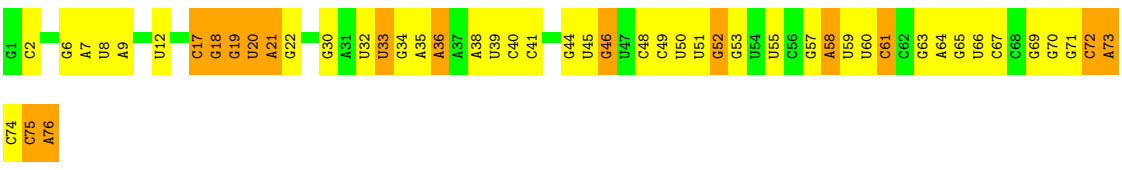
Chain CU:



• Molecule 22: Phenylalanine specific transfer RNA, tRNA-Phe

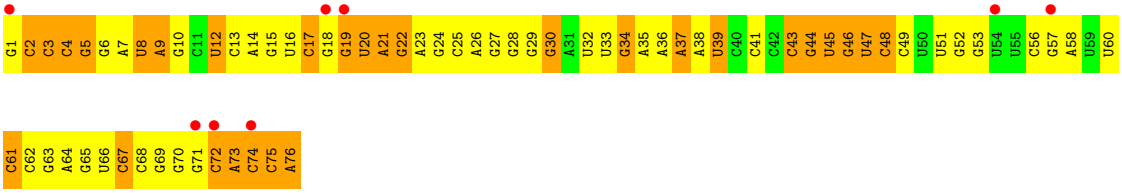
Chain AV:





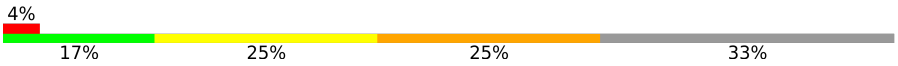
• Molecule 22: Phenylalanine specific transfer RNA, tRNA-Phe

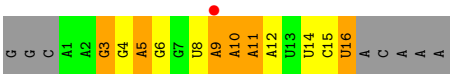
Chain CV:



• Molecule 23: Messenger RNA, mRNA

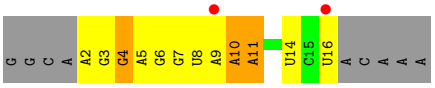
Chain AX:





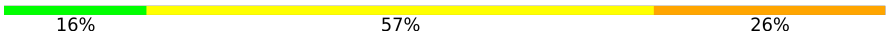
• Molecule 23: Messenger RNA, mRNA

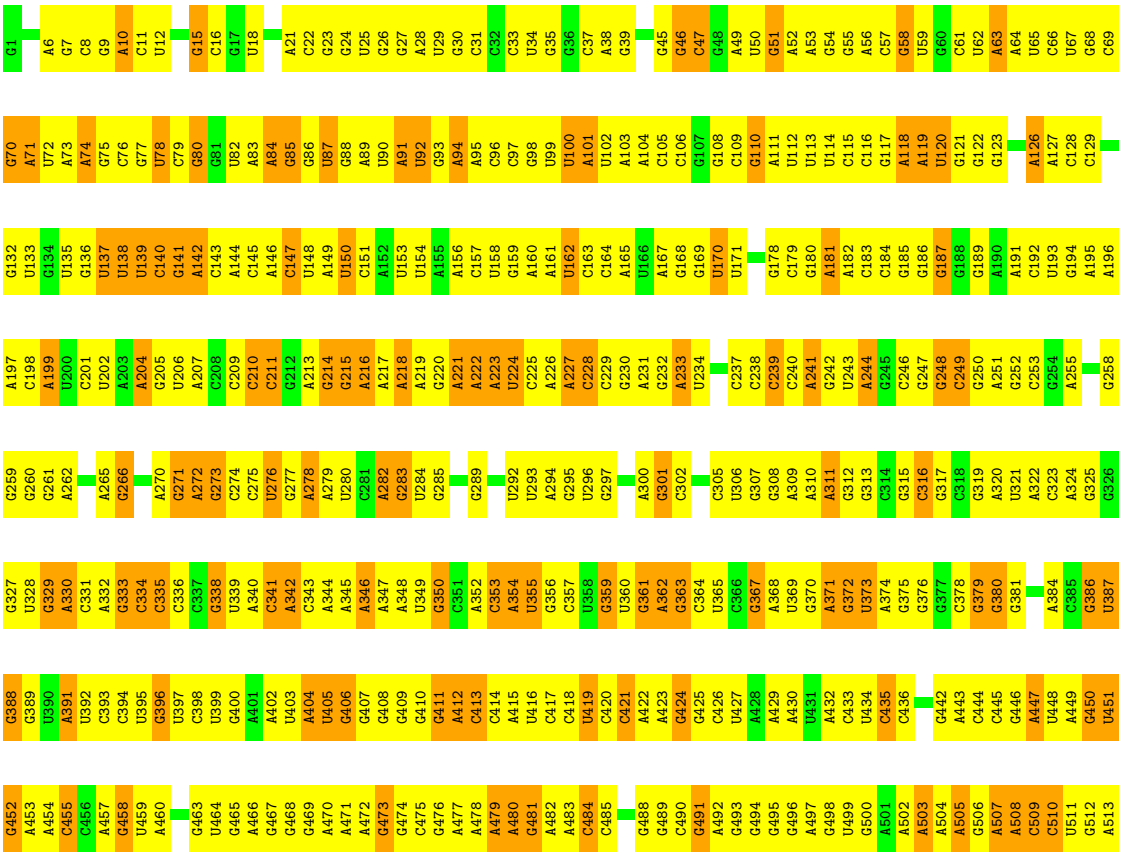
Chain CX:

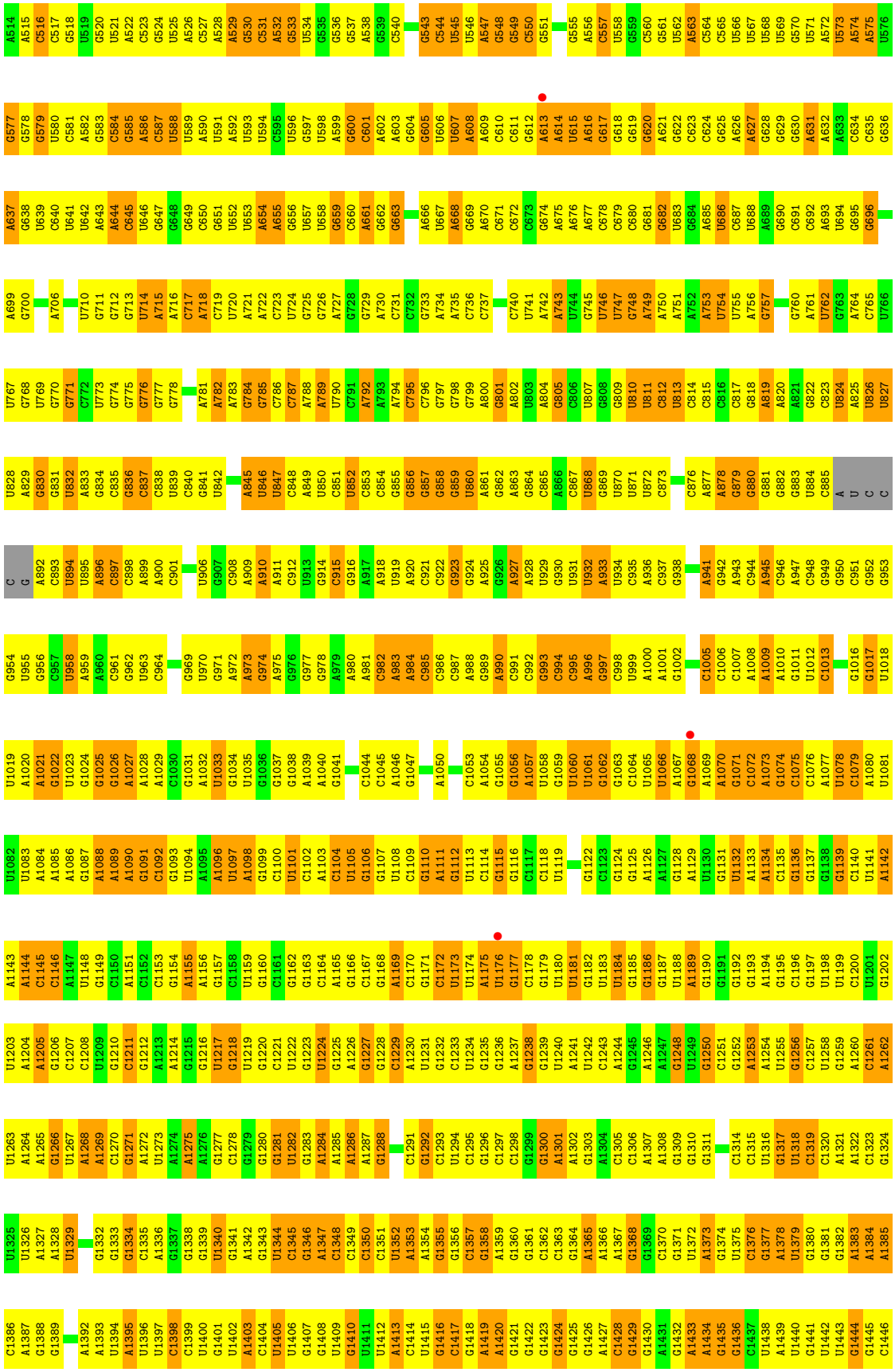


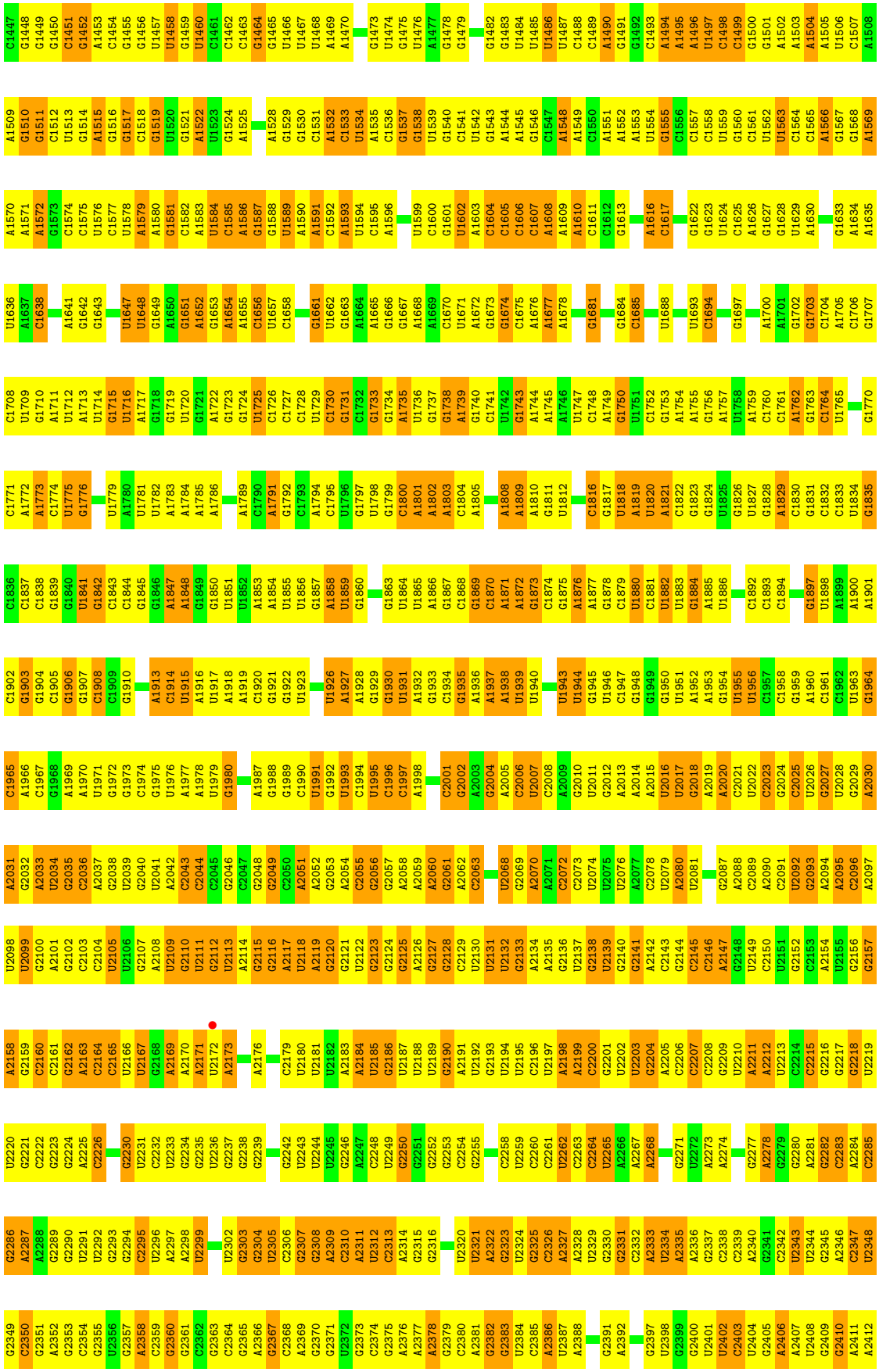
• Molecule 24: 23S ribosomal RNA

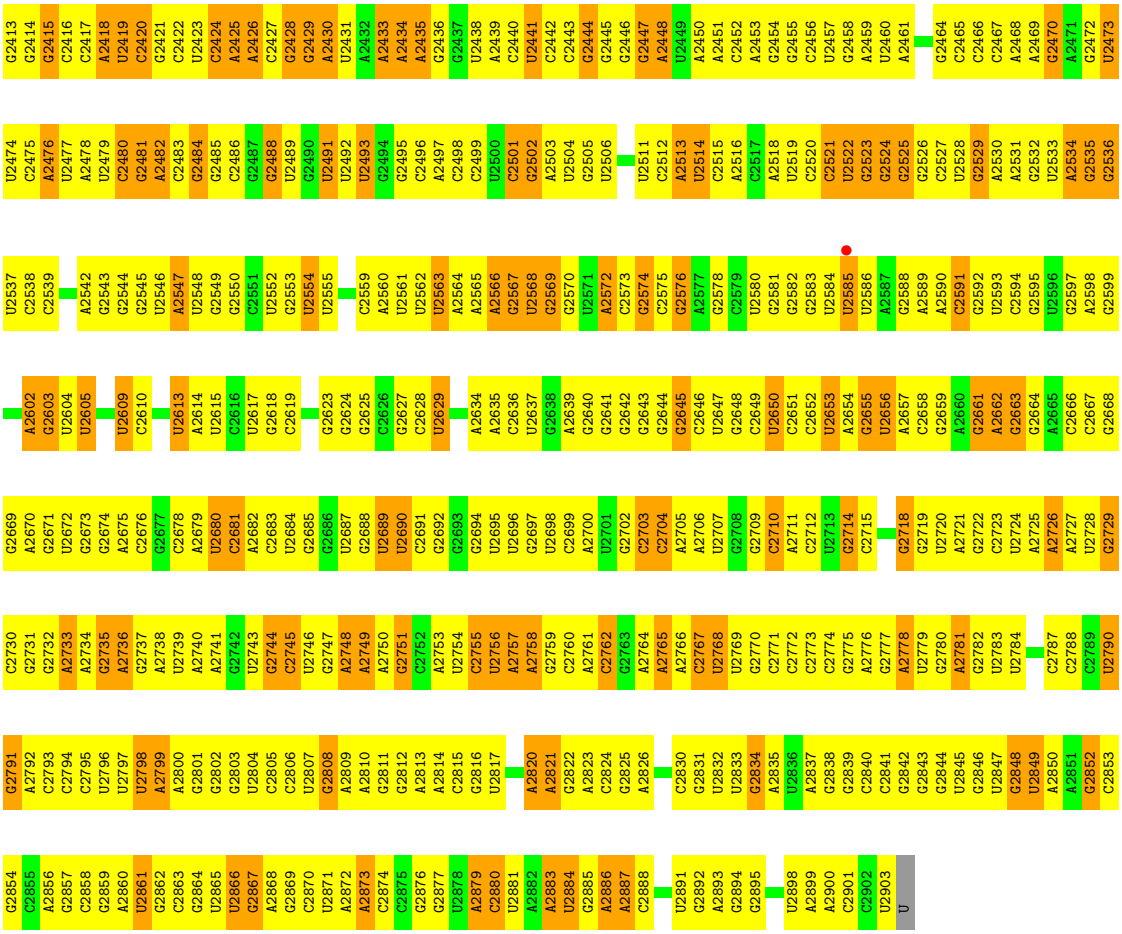
Chain BA:





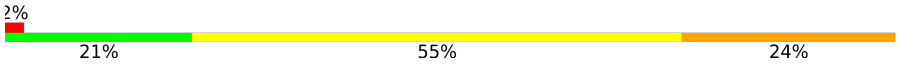


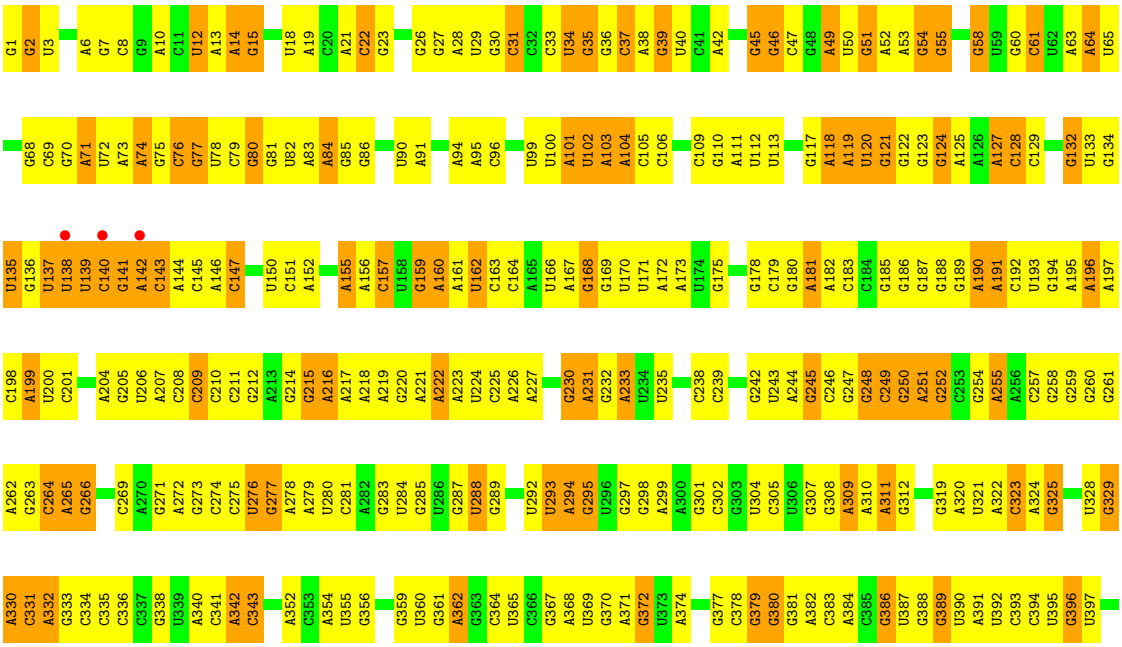


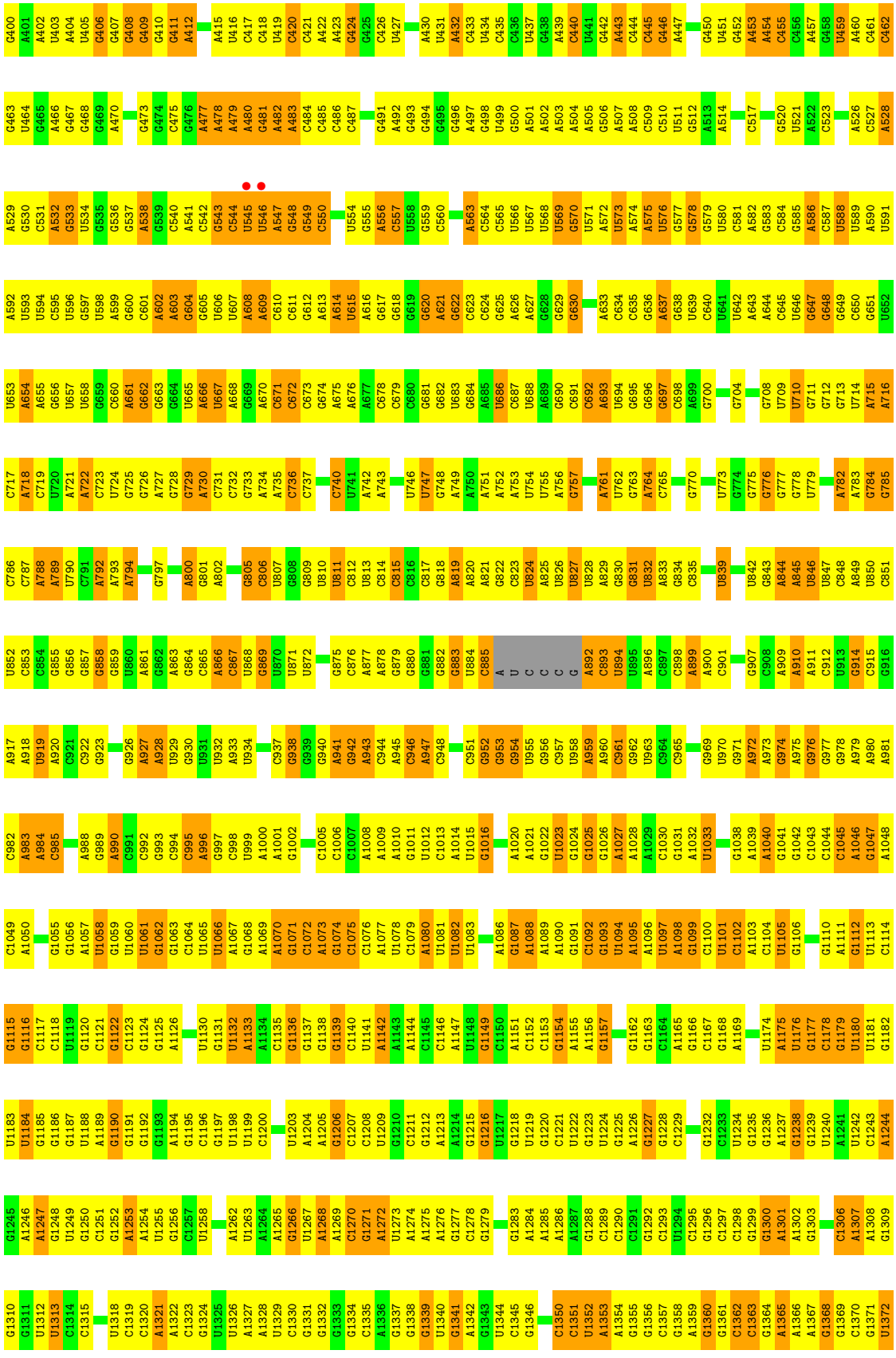


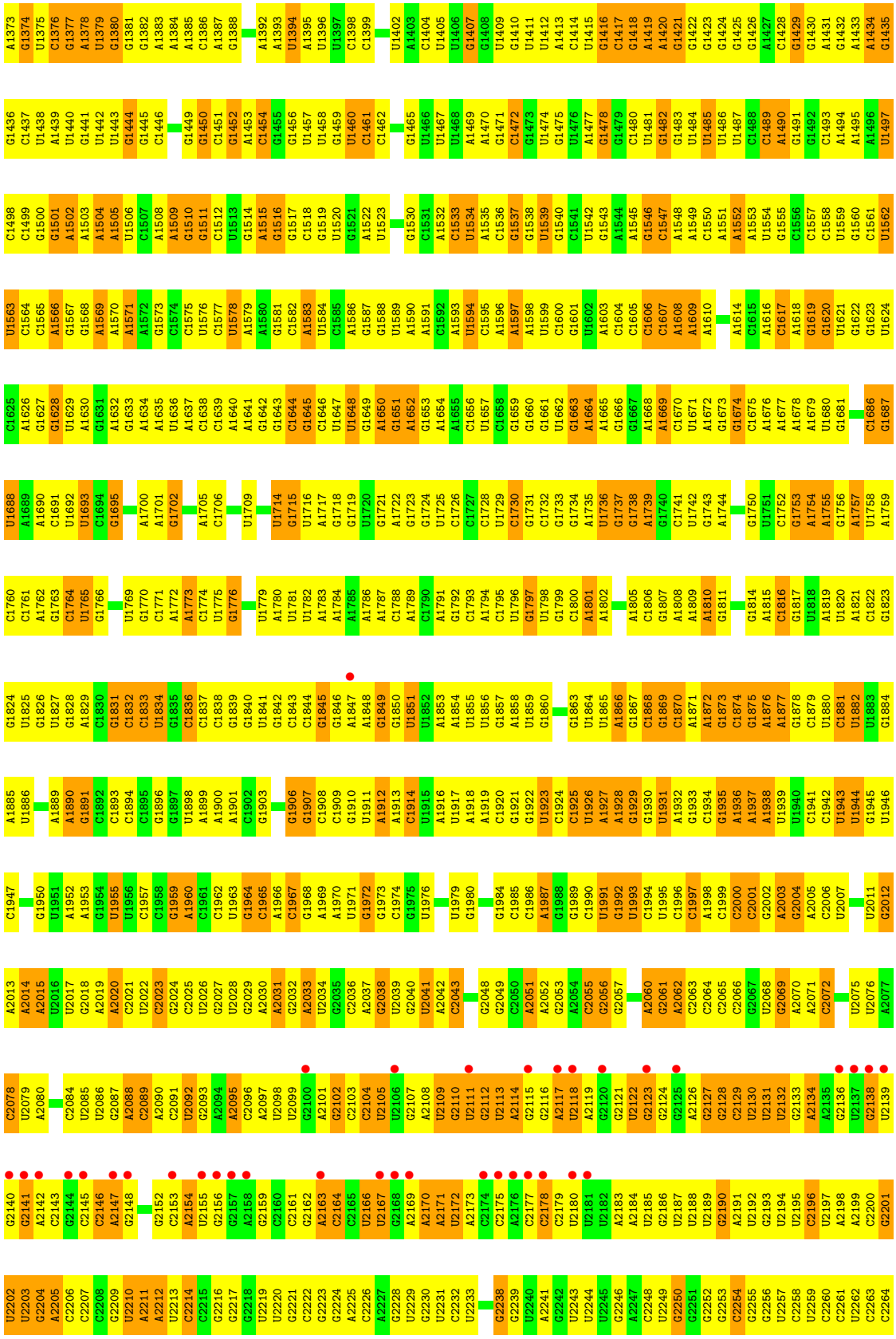
• Molecule 24: 23S ribosomal RNA

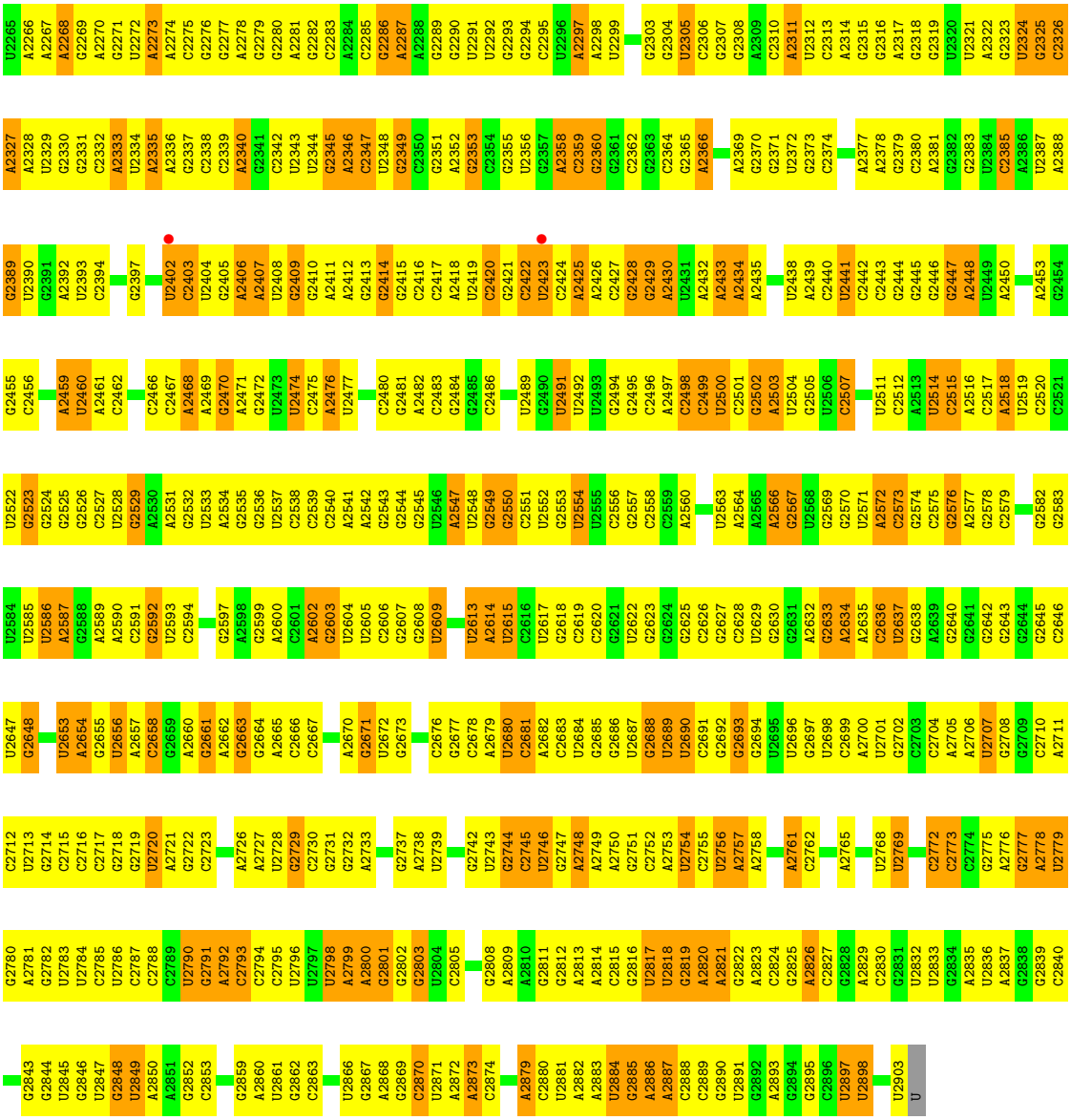
Chain DA:





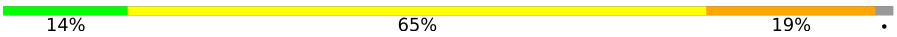






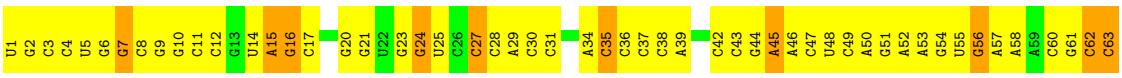
• Molecule 25: 5S ribosomal RNA

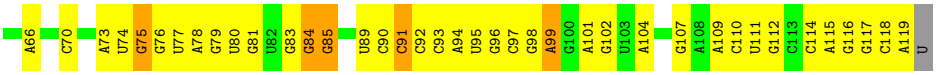
Chain BB:



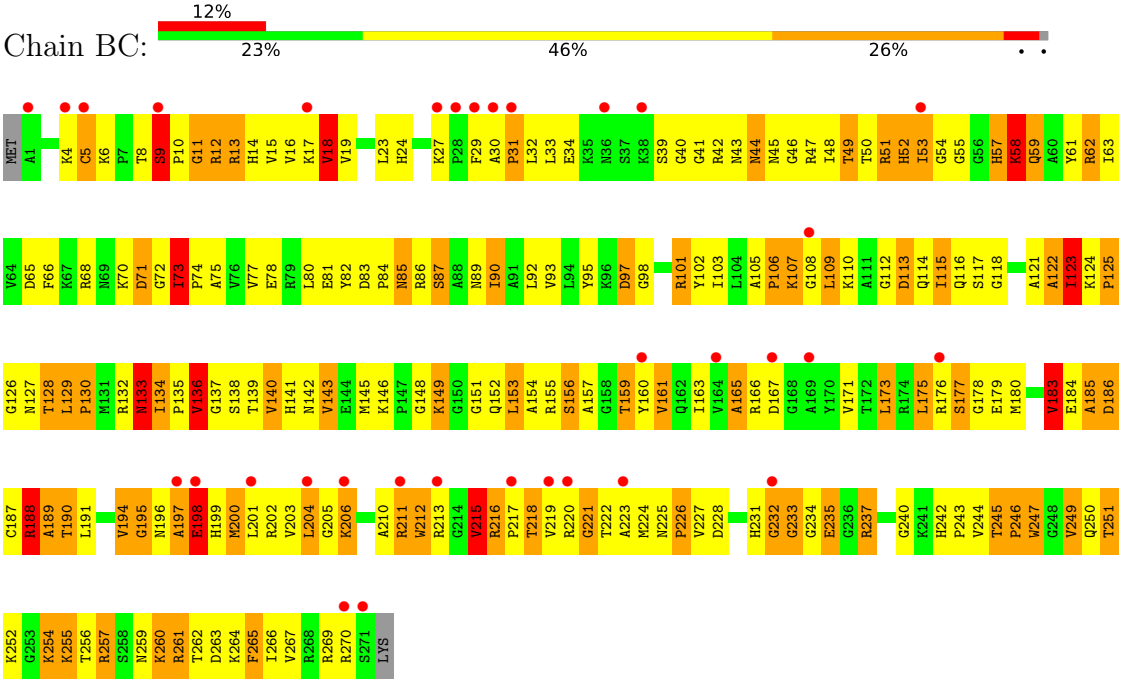
• Molecule 25: 5S ribosomal RNA

Chain DB:

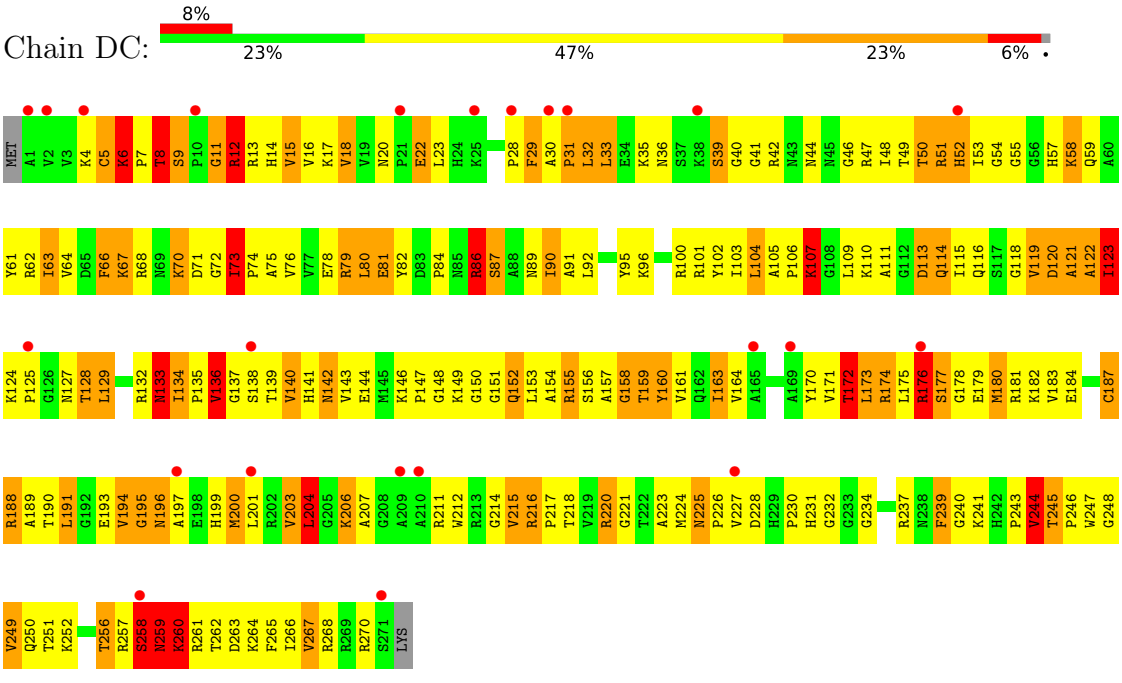




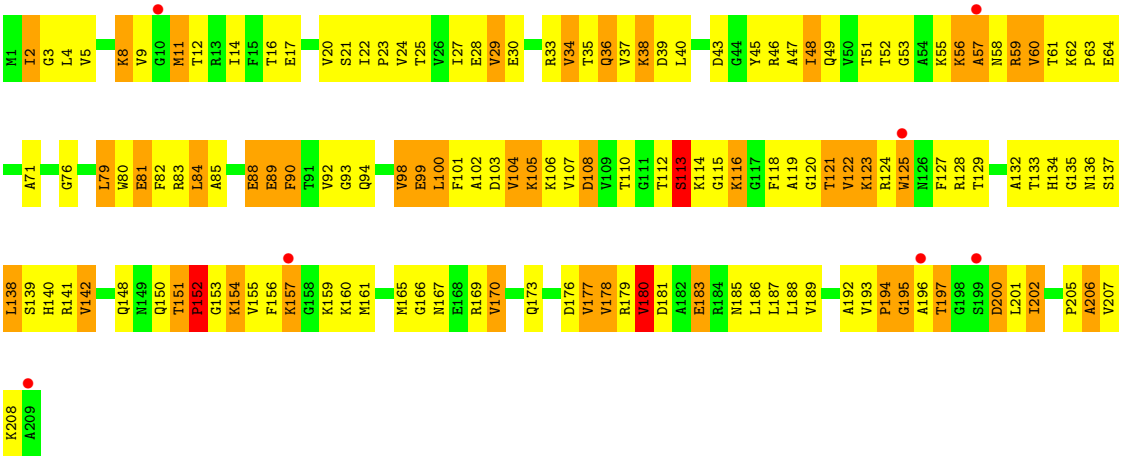
• Molecule 26: 50S ribosomal protein L2



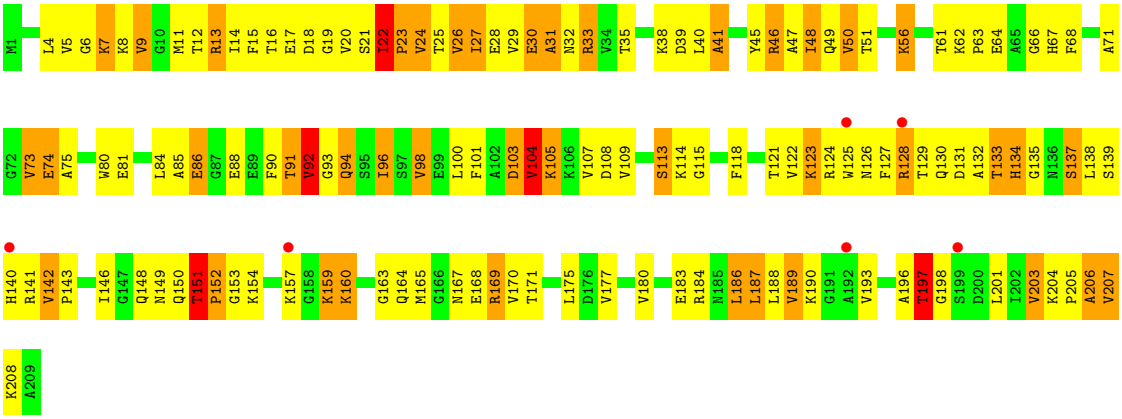
• Molecule 26: 50S ribosomal protein L2



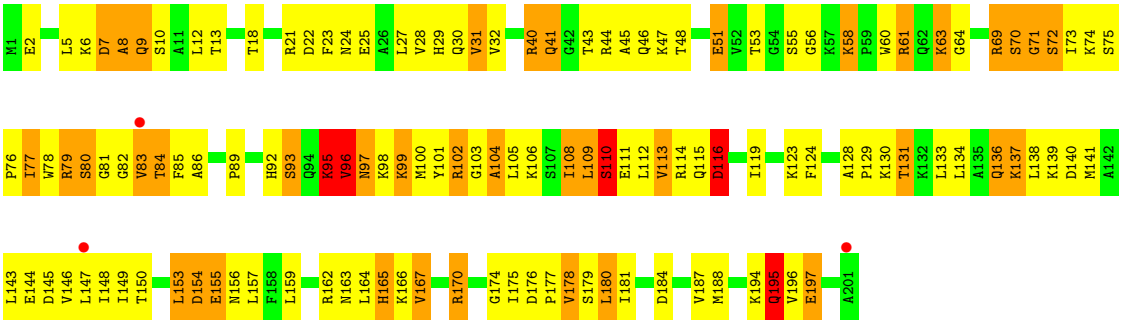
• Molecule 27: 50S ribosomal protein L3



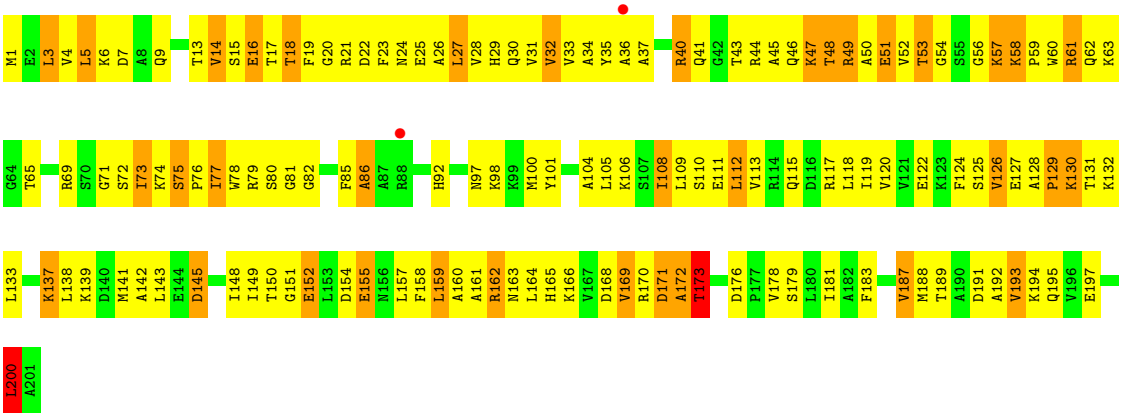
• Molecule 27: 50S ribosomal protein L3



• Molecule 28: 50S ribosomal protein L4

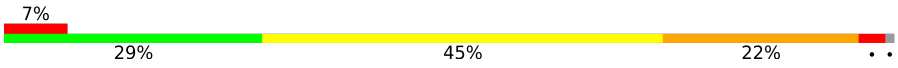


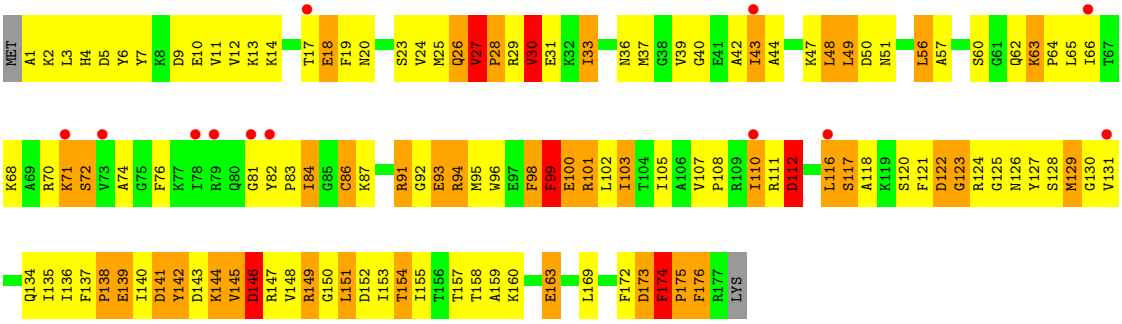
• Molecule 28: 50S ribosomal protein L4



• Molecule 29: 50S ribosomal protein L5

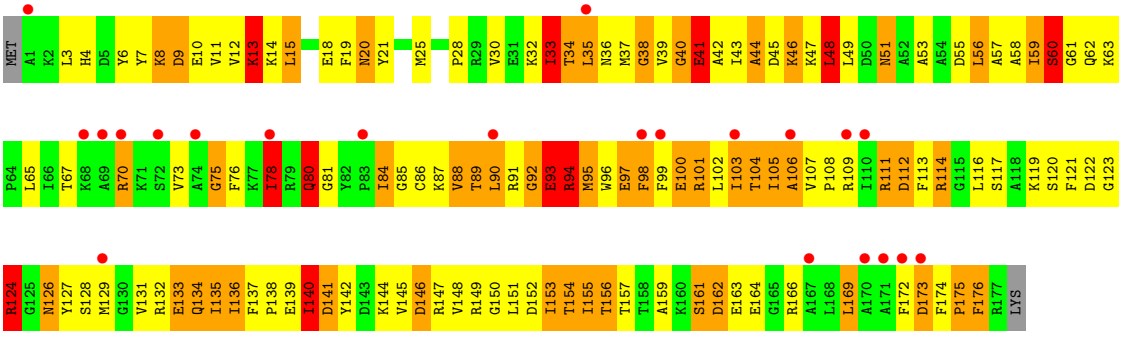
Chain BF:





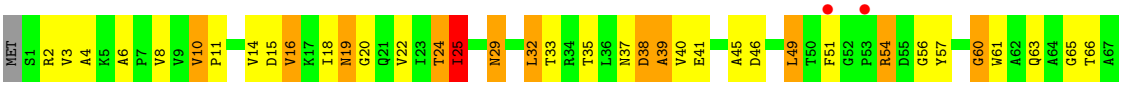
• Molecule 29: 50S ribosomal protein L5

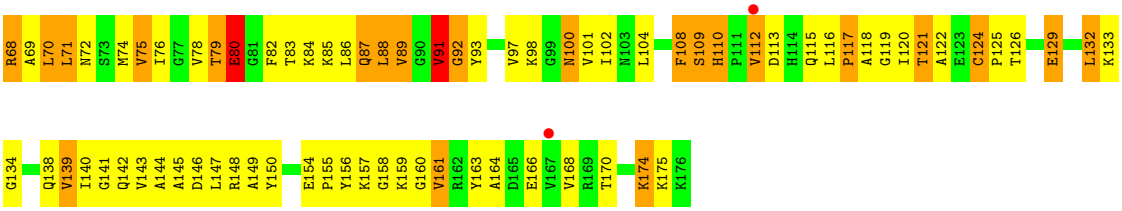
Chain DF:



• Molecule 30: 50S ribosomal protein L6

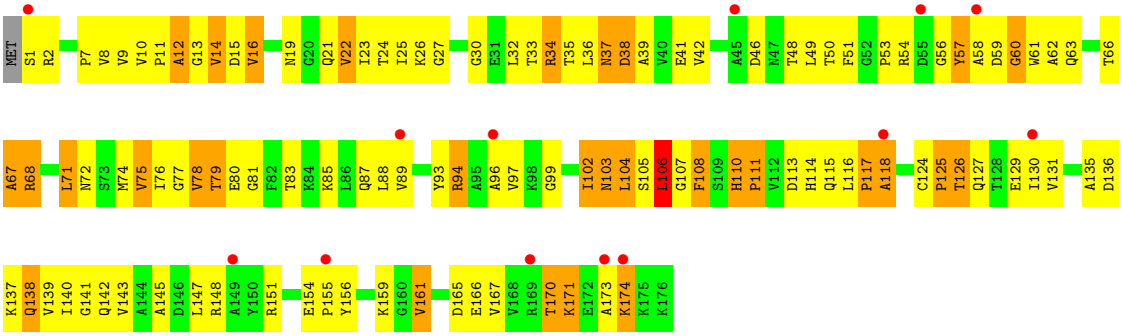
Chain BG:





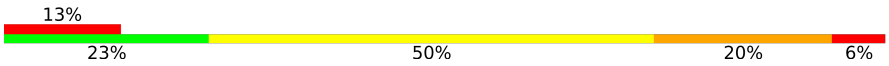
• Molecule 30: 50S ribosomal protein L6

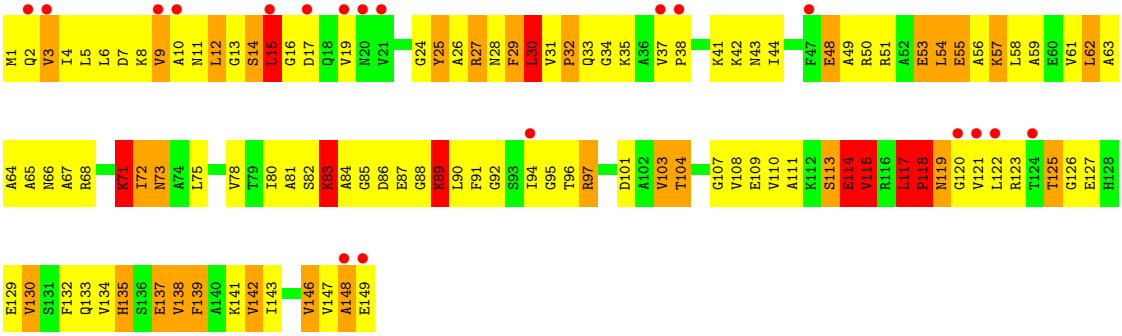
Chain DG:



• Molecule 31: 50S ribosomal protein L9

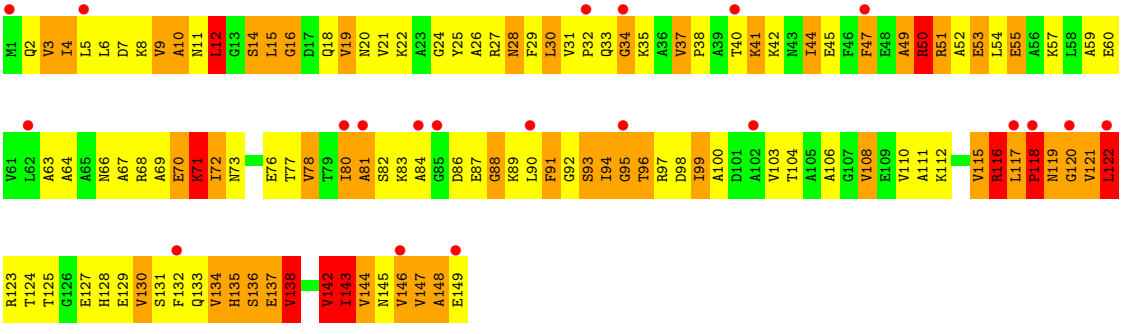
Chain BH:





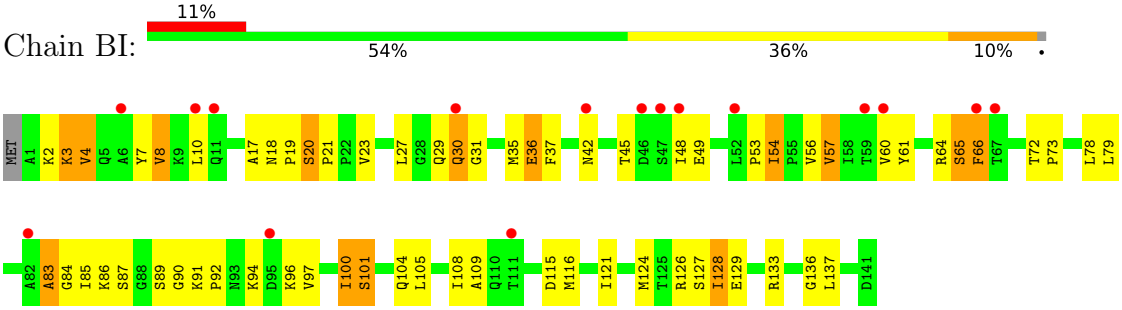
• Molecule 31: 50S ribosomal protein L9

Chain DH:



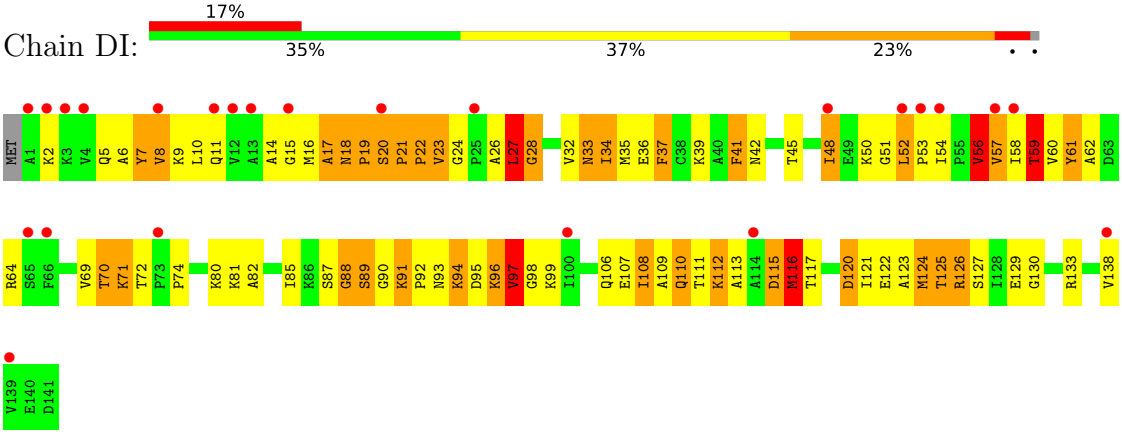
• Molecule 32: 50S ribosomal protein L11

Chain BI:



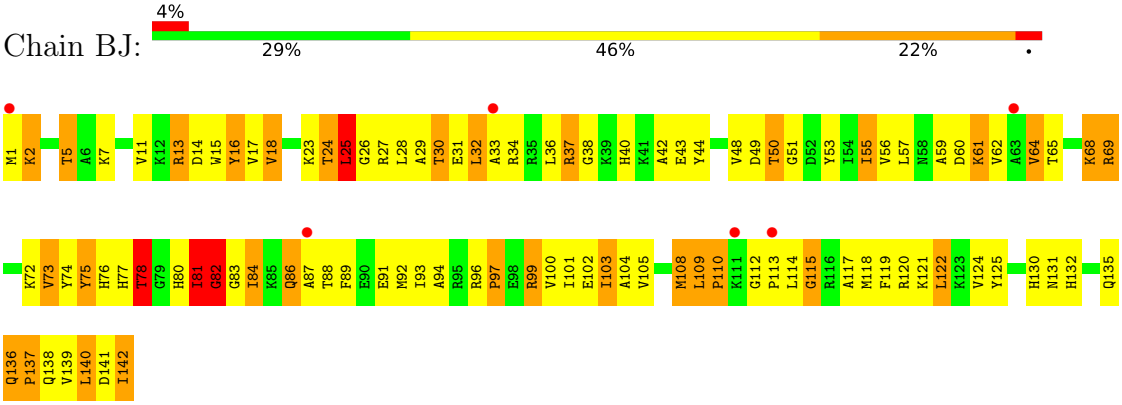
• Molecule 32: 50S ribosomal protein L11

Chain DI:



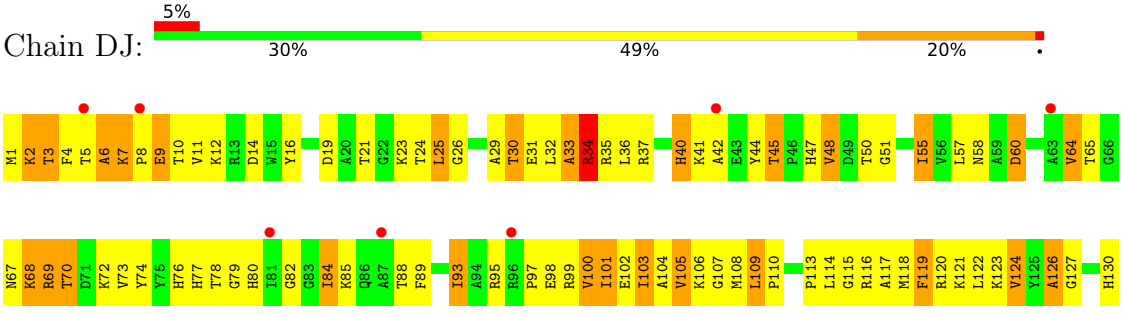
• Molecule 33: 50S ribosomal protein L13

Chain BJ:



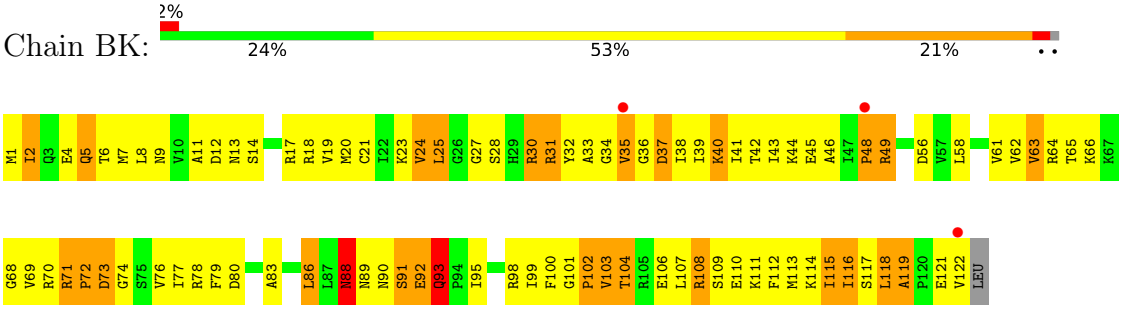
• Molecule 33: 50S ribosomal protein L13

Chain DJ:



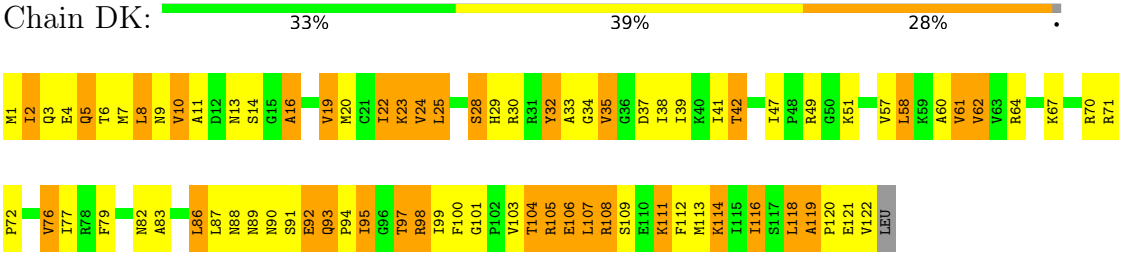
• Molecule 34: 50S ribosomal protein L14

Chain BK:



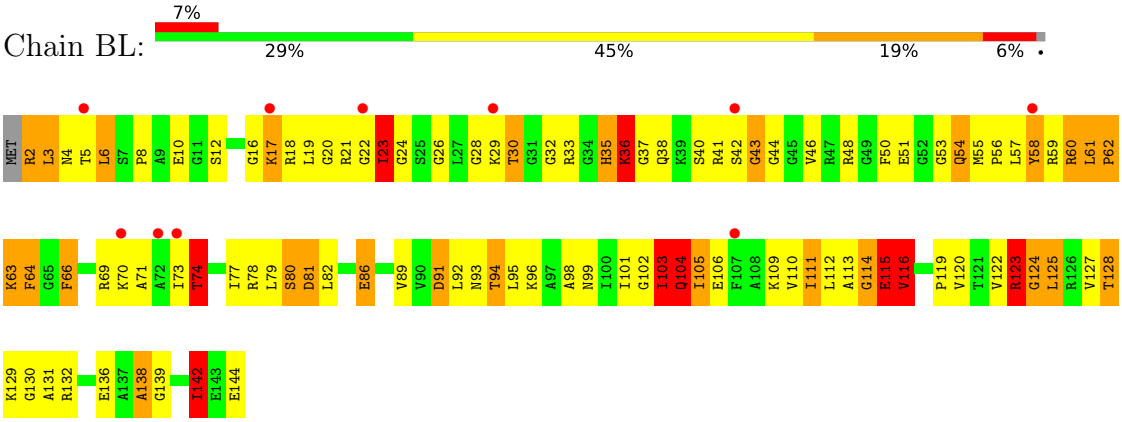
• Molecule 34: 50S ribosomal protein L14

Chain DK:



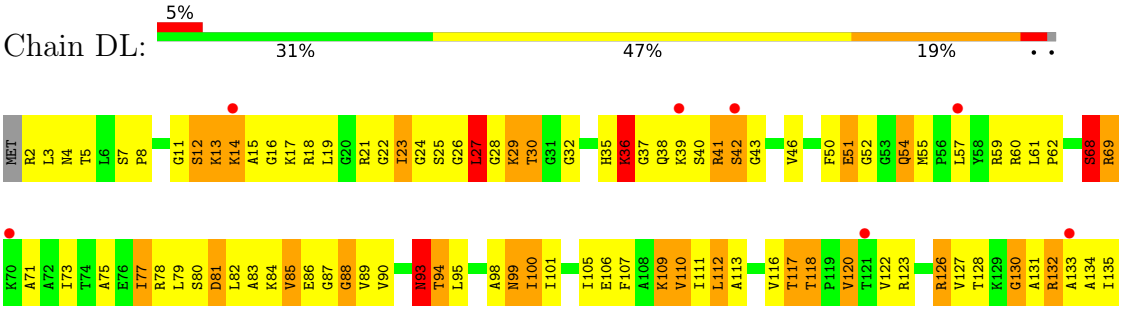
• Molecule 35: 50S ribosomal protein L15

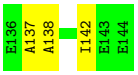
Chain BL:



• Molecule 35: 50S ribosomal protein L15

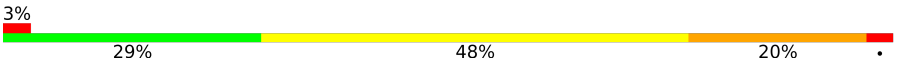
Chain DL:

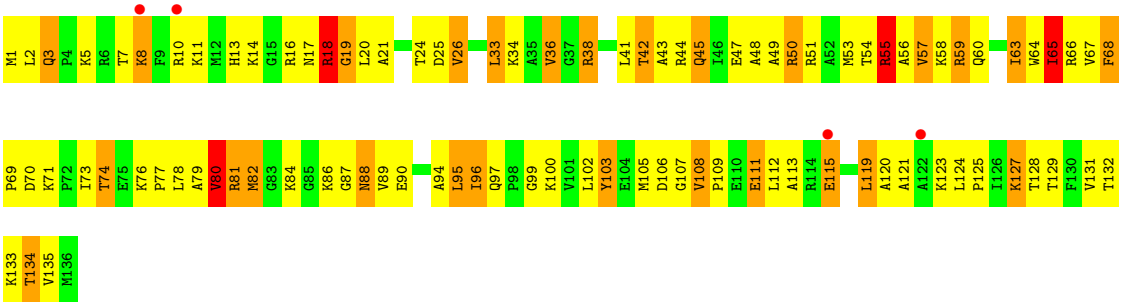




• Molecule 36: 50S ribosomal protein L16

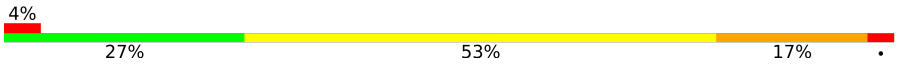
Chain BM:

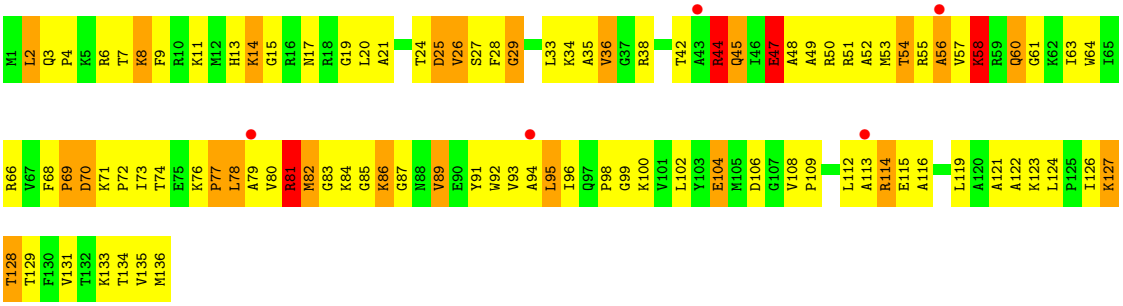




• Molecule 36: 50S ribosomal protein L16

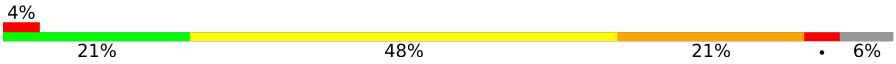
Chain DM:

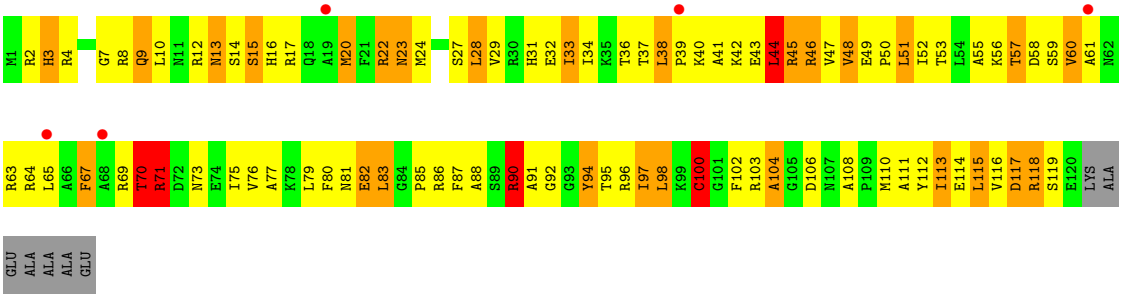




• Molecule 37: 50S ribosomal protein L17

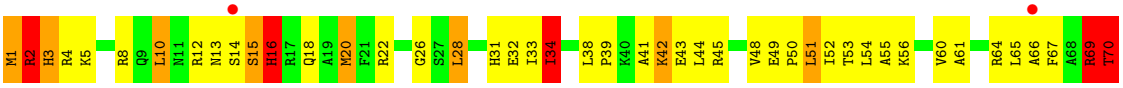
Chain BN:

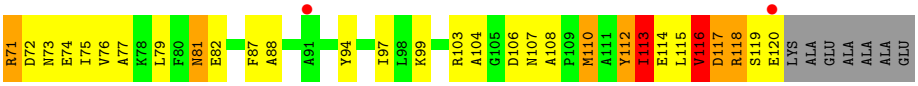




• Molecule 37: 50S ribosomal protein L17

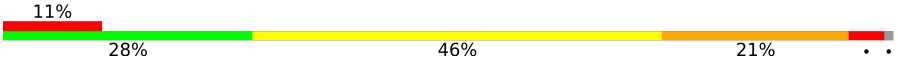
Chain DN:

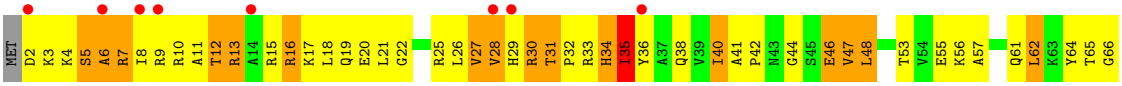


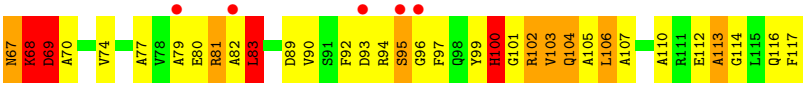


• Molecule 38: 50S ribosomal protein L18

Chain BO:

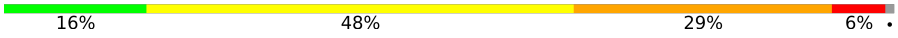


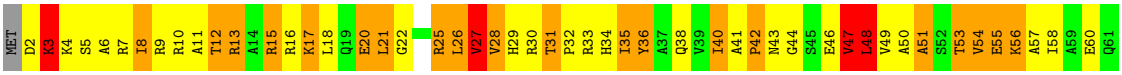


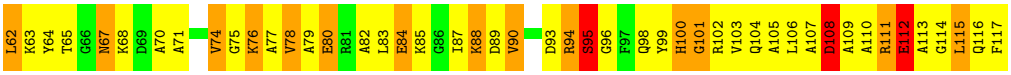


• Molecule 38: 50S ribosomal protein L18

Chain DO:

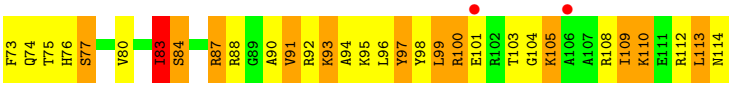






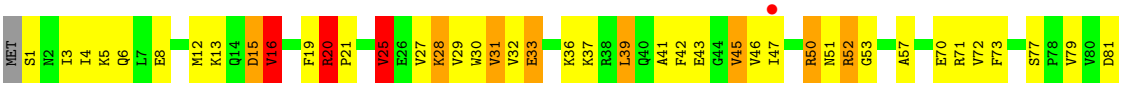
• Molecule 39: 50S ribosomal protein L19

Chain BP:



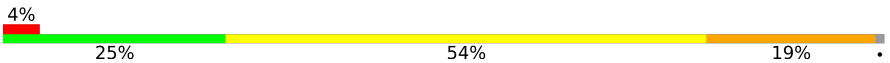
• Molecule 39: 50S ribosomal protein L19

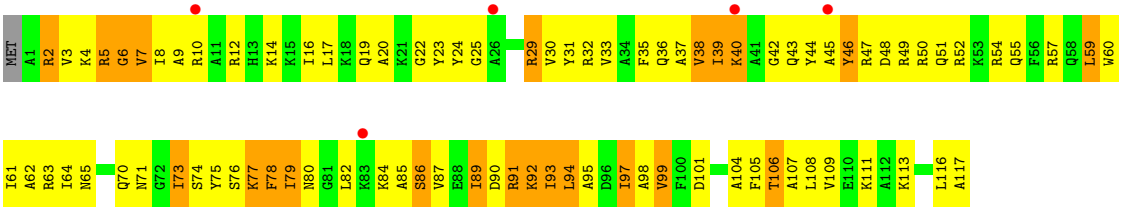
Chain DP:

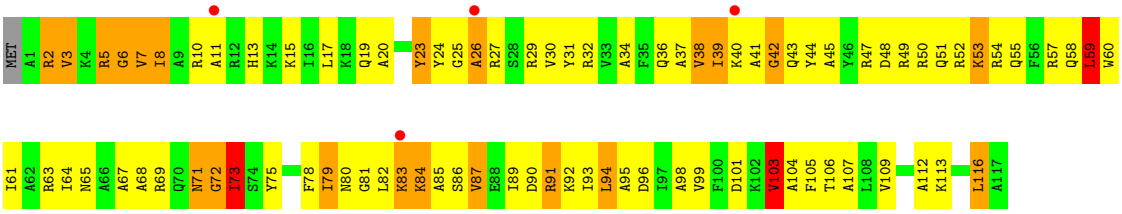


• Molecule 40: 50S ribosomal protein L20

Chain BQ:

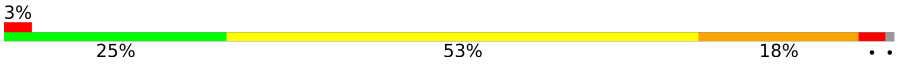






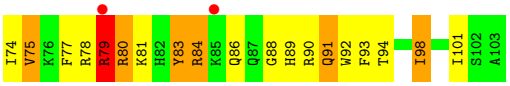
• Molecule 40: 50S ribosomal protein L20

Chain DQ:



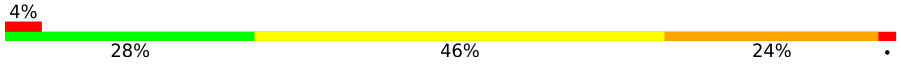
• Molecule 41: 50S ribosomal protein L21

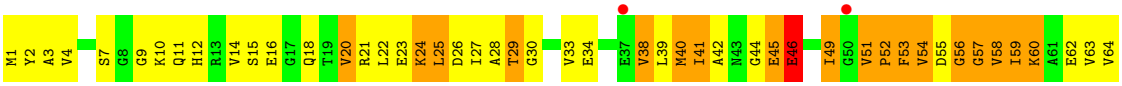
Chain BR:

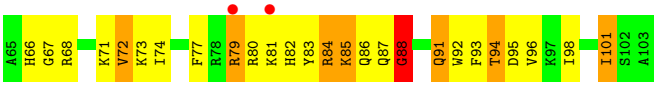


• Molecule 41: 50S ribosomal protein L21

Chain DR:

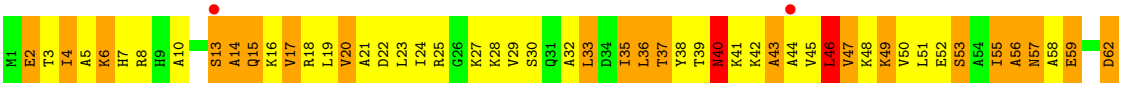


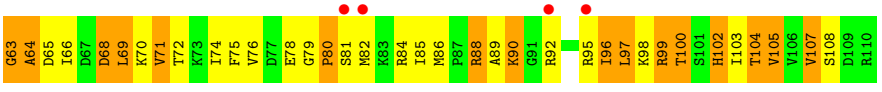




• Molecule 42: 50S ribosomal protein L22

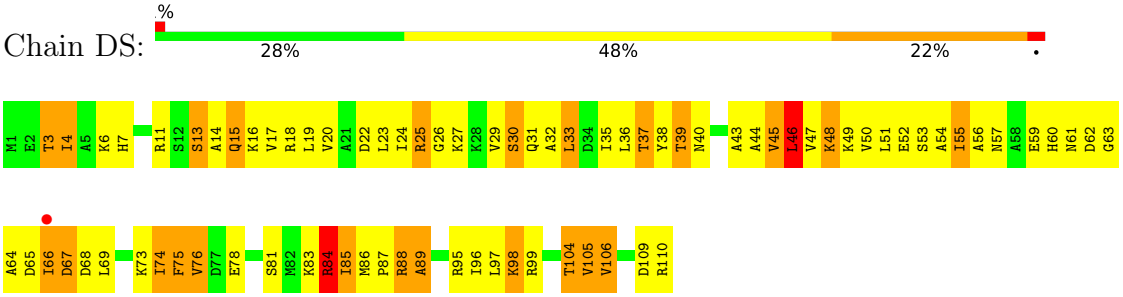
Chain BS:





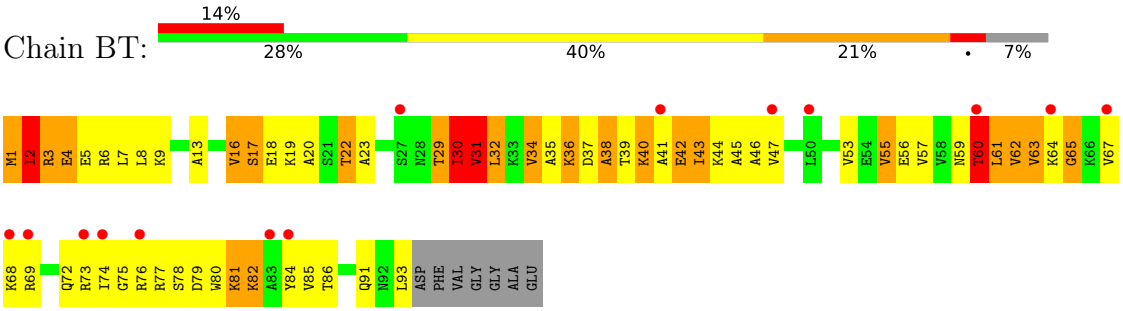
• Molecule 42: 50S ribosomal protein L22

Chain DS:



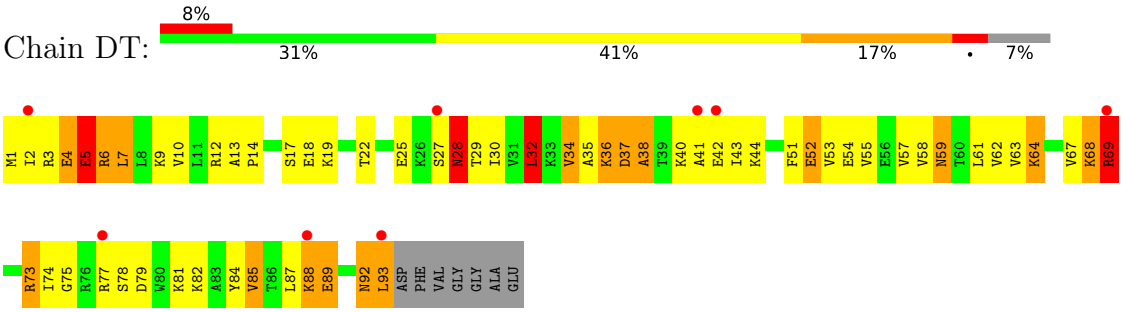
• Molecule 43: 50S ribosomal protein L23

Chain BT:



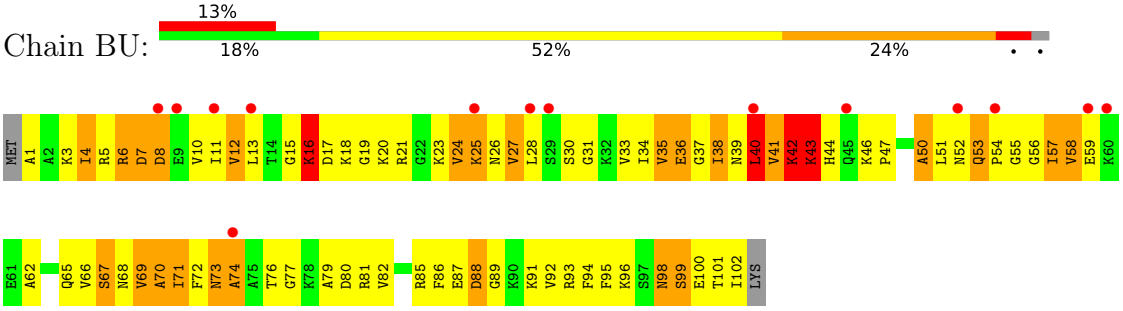
• Molecule 43: 50S ribosomal protein L23

Chain DT:



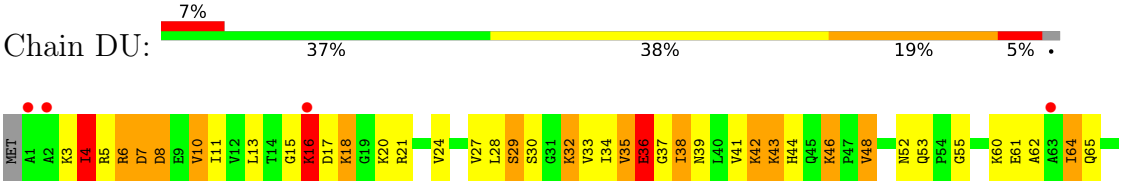
• Molecule 44: 50S ribosomal protein L24

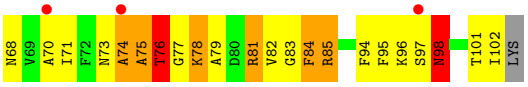
Chain BU:



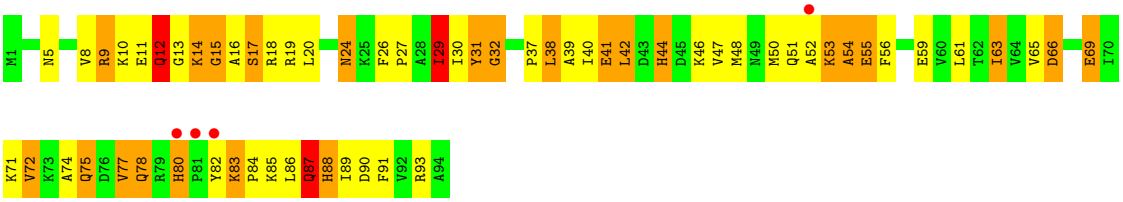
• Molecule 44: 50S ribosomal protein L24

Chain DU:

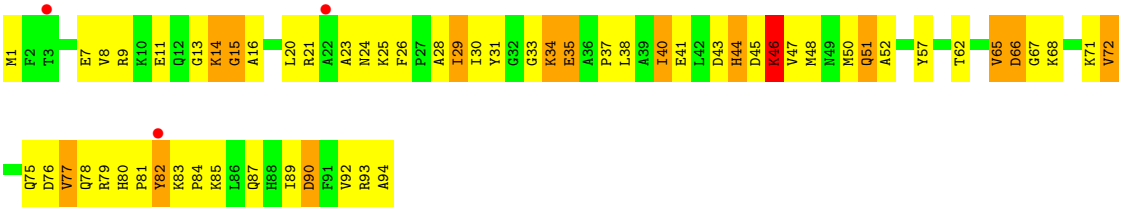




• Molecule 45: 50S ribosomal protein L25

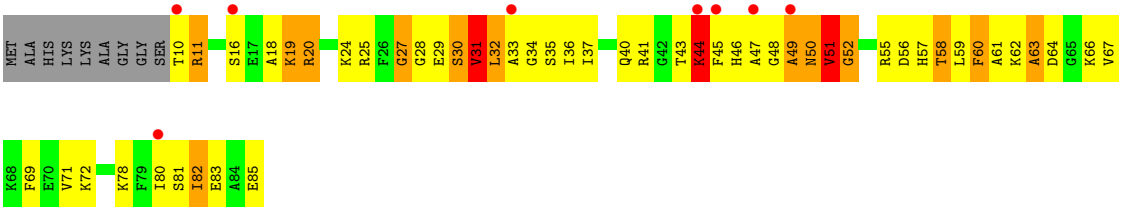


• Molecule 45: 50S ribosomal protein L25

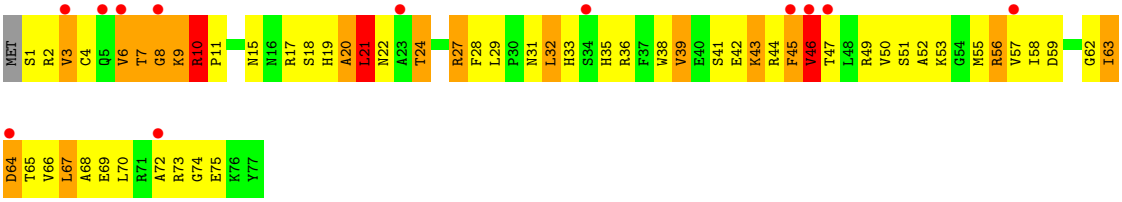


• Molecule 46: 50S ribosomal protein L27

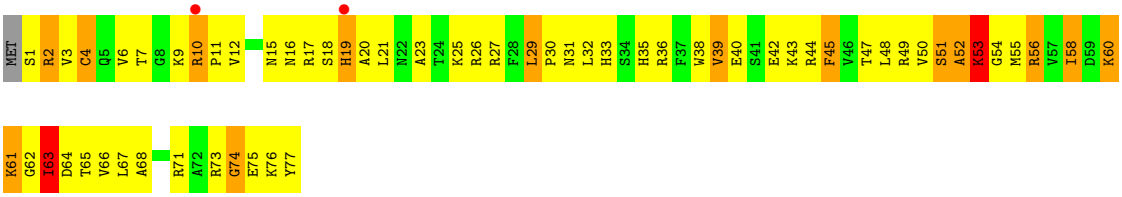
• Molecule 46: 50S ribosomal protein L27



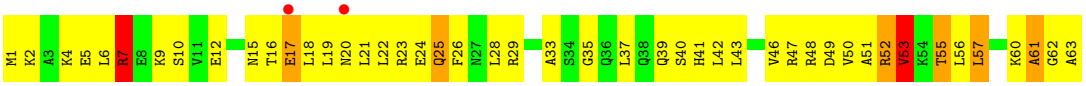
• Molecule 47: 50S ribosomal protein L28



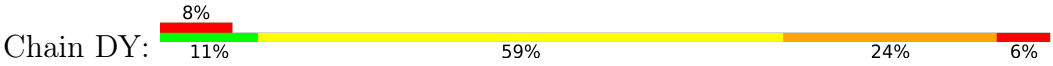
• Molecule 47: 50S ribosomal protein L28

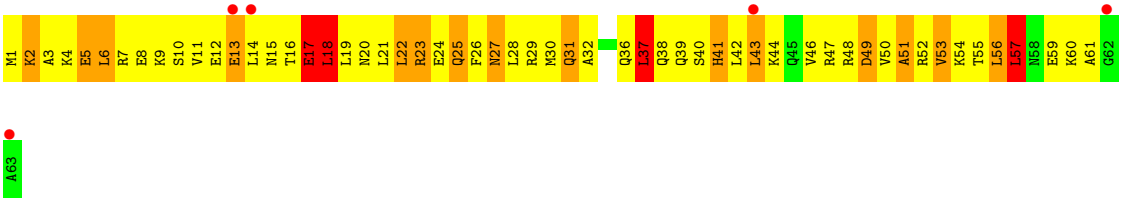


• Molecule 48: 50S ribosomal protein L29

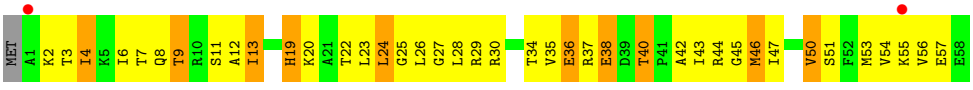


• Molecule 48: 50S ribosomal protein L29

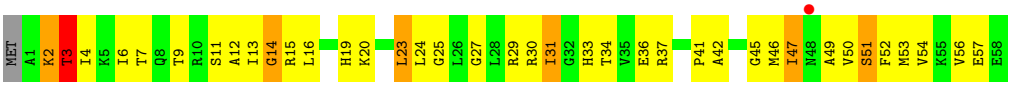




• Molecule 49: 50S ribosomal protein L30

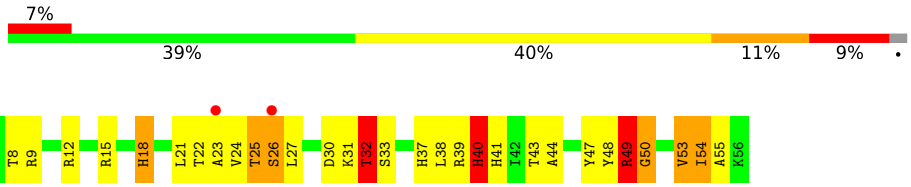


• Molecule 49: 50S ribosomal protein L30



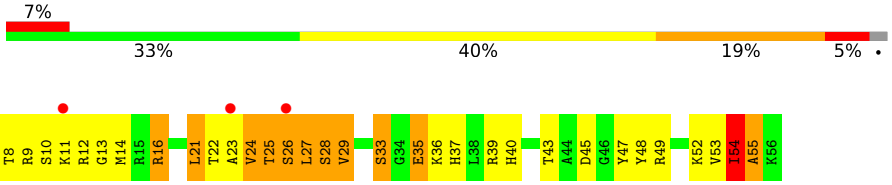
• Molecule 50: 50S ribosomal protein L32

Chain B0:



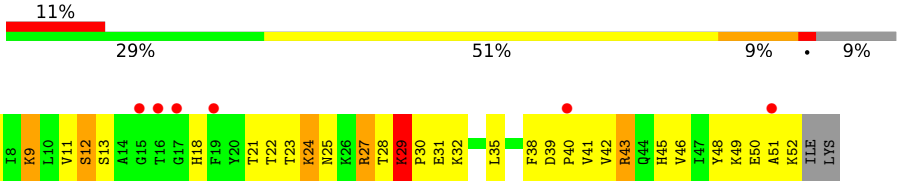
• Molecule 50: 50S ribosomal protein L32

Chain D0:



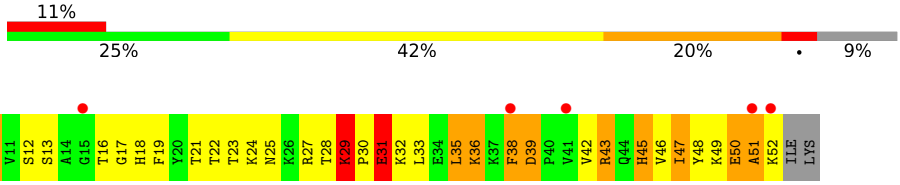
• Molecule 51: 50S ribosomal protein L33

Chain B1:



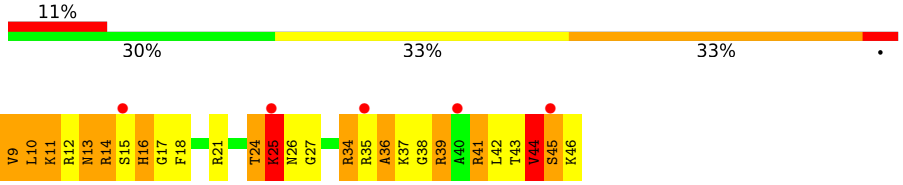
• Molecule 51: 50S ribosomal protein L33

Chain D1:



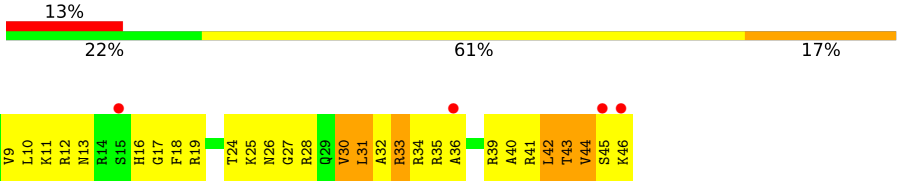
• Molecule 52: 50S ribosomal protein L34

Chain B2:



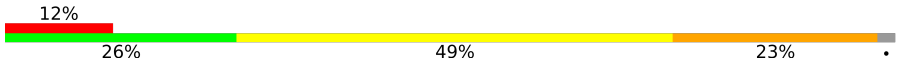
• Molecule 52: 50S ribosomal protein L34

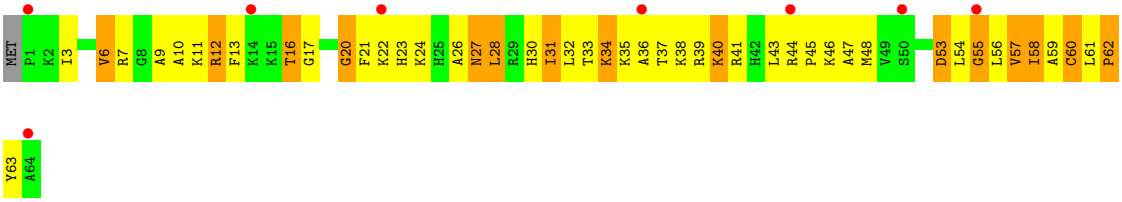
Chain D2:



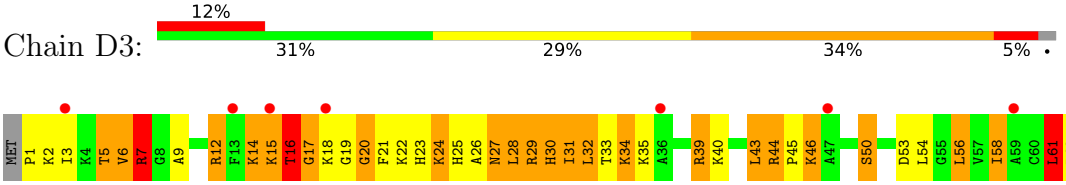
• Molecule 53: 50S ribosomal protein L35

Chain B3:

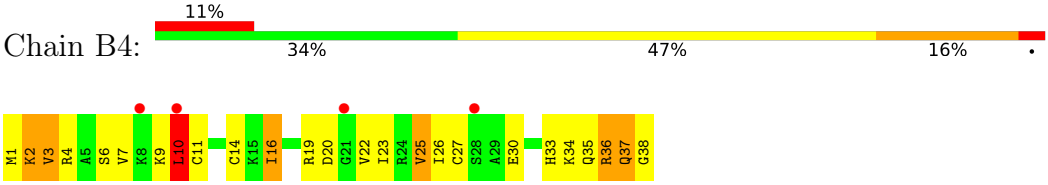




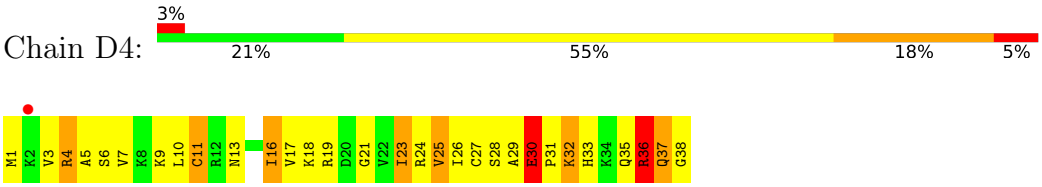
• Molecule 53: 50S ribosomal protein L35



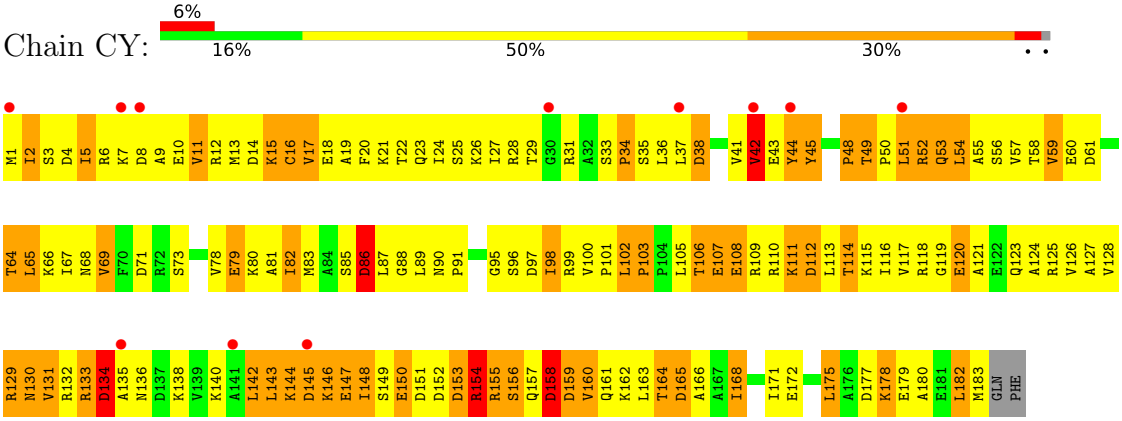
• Molecule 54: 50S ribosomal protein L36



• Molecule 54: 50S ribosomal protein L36



• Molecule 55: Ribosome recycling factor, RRF



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	212.18Å 433.90Å 608.03Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	70.00 – 3.30 70.00 – 3.30	Depositor EDS
% Data completeness (in resolution range)	(Not available) (70.00-3.30) 95.2 (70.00-3.30)	Depositor EDS
R_{merge}	0.18	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.71 (at 3.33Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.206 , 0.255 0.203 , 0.253	Depositor DCC
R_{free} test set	2000 reflections (0.24%)	wwPDB-VP
Wilson B-factor (Å^2)	96.3	Xtriage
Anisotropy	0.202	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.26 , 117.8	EDS
L-test for twinning[2]	$< \|L\| > = 0.43$, $< L^2 > = 0.26$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.95	EDS
Total number of atoms	293103	wwPDB-VP
Average B, all atoms (Å^2)	129.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.61% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality (i)

5.1 Standard geometry (i)

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	AA	0.18	0/36966	0.44	1/57666 (0.0%)
1	CA	0.18	0/36944	0.42	0/57632
2	AB	0.40	0/1735	0.95	12/2338 (0.5%)
2	CB	0.37	0/1735	0.83	4/2338 (0.2%)
3	AC	0.40	0/1651	0.91	5/2225 (0.2%)
3	CC	0.40	0/1651	0.86	3/2225 (0.1%)
4	AD	0.46	0/1665	1.03	11/2227 (0.5%)
4	CD	0.39	0/1665	0.90	5/2227 (0.2%)
5	AE	0.39	0/1118	0.97	4/1504 (0.3%)
5	CE	0.42	0/1118	0.93	3/1504 (0.2%)
6	AF	0.46	0/835	1.00	4/1128 (0.4%)
6	CF	0.51	0/835	0.89	3/1128 (0.3%)
7	AG	0.36	0/1195	0.81	1/1602 (0.1%)
7	CG	0.39	0/1195	0.86	2/1602 (0.1%)
8	AH	0.41	0/989	0.92	4/1326 (0.3%)
8	CH	0.40	0/989	0.93	1/1326 (0.1%)
9	AI	0.34	0/1034	0.90	6/1375 (0.4%)
9	CI	0.36	0/1034	0.89	5/1375 (0.4%)
10	AJ	0.38	0/796	0.87	0/1077
10	CJ	0.36	0/796	0.83	2/1077 (0.2%)
11	AK	0.50	0/893	1.07	6/1205 (0.5%)
11	CK	0.41	0/893	0.95	8/1205 (0.7%)
12	AL	0.44	0/969	1.06	9/1300 (0.7%)
12	CL	0.50	0/969	1.06	9/1300 (0.7%)
13	AM	0.36	0/892	0.78	1/1193 (0.1%)
13	CM	0.37	0/892	0.93	3/1193 (0.3%)
14	AN	0.34	0/785	0.76	0/1043
14	CN	0.33	0/785	0.92	4/1043 (0.4%)
15	AO	0.37	0/722	0.76	1/964 (0.1%)
15	CO	0.36	0/722	0.73	1/964 (0.1%)
16	AP	0.42	0/659	0.89	0/884
16	CP	0.39	0/659	0.86	1/884 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| >5$	RMSZ	$\#\|Z\| >5$
17	AQ	0.37	0/657	0.90	2/881 (0.2%)
17	CQ	0.41	0/657	1.04	6/881 (0.7%)
18	AR	0.44	0/462	0.89	1/621 (0.2%)
18	CR	0.35	0/462	0.80	2/621 (0.3%)
19	AS	0.36	0/652	0.97	7/877 (0.8%)
19	CS	0.34	0/652	0.91	3/877 (0.3%)
20	AT	0.42	0/671	0.80	0/888
20	CT	0.36	0/671	0.83	3/888 (0.3%)
21	AU	0.46	0/430	0.97	1/570 (0.2%)
21	CU	0.42	0/430	0.83	0/570
22	AV	0.17	0/1813	0.42	0/2823
22	CV	0.12	0/1813	0.32	0/2823
23	AX	0.17	0/388	0.40	0/603
23	CX	0.15	0/363	0.36	0/564
24	BA	0.19	0/69659	0.44	0/108672
24	DA	0.22	0/69659	0.48	0/108672
25	BB	0.15	0/2828	0.36	0/4410
25	DB	0.19	0/2850	0.43	0/4444
26	BC	0.39	0/2121	0.95	3/2852 (0.1%)
26	DC	0.47	0/2121	1.08	10/2852 (0.4%)
27	BD	0.42	0/1586	0.94	5/2134 (0.2%)
27	DD	0.49	0/1586	1.02	7/2134 (0.3%)
28	BE	0.40	0/1571	0.86	4/2113 (0.2%)
28	DE	0.43	0/1571	0.95	4/2113 (0.2%)
29	BF	0.33	0/1434	0.80	3/1926 (0.2%)
29	DF	0.40	0/1434	0.90	1/1926 (0.1%)
30	BG	0.38	0/1343	0.87	4/1816 (0.2%)
30	DG	0.42	0/1343	0.97	4/1816 (0.2%)
31	BH	0.39	1/1121 (0.1%)	0.81	3/1515 (0.2%)
31	DH	0.45	1/1121 (0.1%)	0.87	3/1515 (0.2%)
32	BI	0.33	0/1046	0.82	2/1410 (0.1%)
32	DI	0.36	0/1046	0.90	3/1410 (0.2%)
33	BJ	0.41	0/1152	0.95	2/1551 (0.1%)
33	DJ	0.43	0/1152	0.97	4/1551 (0.3%)
34	BK	0.40	0/947	0.93	1/1268 (0.1%)
34	DK	0.47	0/947	0.94	4/1268 (0.3%)
35	BL	0.39	0/1054	0.99	5/1403 (0.4%)
35	DL	0.43	0/1054	1.04	3/1403 (0.2%)
36	BM	0.39	0/1093	0.91	6/1460 (0.4%)
36	DM	0.48	0/1093	1.04	4/1460 (0.3%)
37	BN	0.39	0/973	0.90	2/1301 (0.2%)
37	DN	0.46	0/973	0.99	3/1301 (0.2%)
38	BO	0.32	0/902	0.79	0/1209

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	DO	0.47	0/902	0.87	1/1209 (0.1%)
39	BP	0.43	0/929	0.91	2/1242 (0.2%)
39	DP	0.48	0/929	0.93	2/1242 (0.2%)
40	BQ	0.41	0/960	0.83	1/1278 (0.1%)
40	DQ	0.43	0/960	0.96	1/1278 (0.1%)
41	BR	0.40	0/829	0.97	4/1107 (0.4%)
41	DR	0.47	0/829	0.99	3/1107 (0.3%)
42	BS	0.43	0/864	0.96	1/1156 (0.1%)
42	DS	0.50	0/864	0.98	2/1156 (0.2%)
43	BT	0.41	0/744	0.92	2/994 (0.2%)
43	DT	0.44	0/744	0.91	2/994 (0.2%)
44	BU	0.38	0/787	0.86	2/1051 (0.2%)
44	DU	0.41	0/787	0.96	2/1051 (0.2%)
45	BV	0.37	0/766	0.86	2/1025 (0.2%)
45	DV	0.42	0/766	0.90	0/1025
46	BW	0.38	0/576	0.85	2/762 (0.3%)
46	DW	0.46	0/587	1.03	2/776 (0.3%)
47	BX	0.42	0/635	0.95	2/848 (0.2%)
47	DX	0.39	0/635	0.91	0/848
48	BY	0.32	0/510	0.86	0/677
48	DY	0.37	0/510	0.97	2/677 (0.3%)
49	BZ	0.44	0/453	0.90	0/605
49	DZ	0.44	0/453	1.05	3/605 (0.5%)
50	B0	0.38	0/450	0.92	1/599 (0.2%)
50	D0	0.42	0/450	0.89	1/599 (0.2%)
51	B1	0.41	0/416	0.81	0/554
51	D1	0.37	0/416	0.88	1/554 (0.2%)
52	B2	0.38	0/380	0.95	0/498
52	D2	0.41	0/380	0.87	0/498
53	B3	0.38	0/513	0.89	1/676 (0.1%)
53	D3	0.49	0/513	1.08	4/676 (0.6%)
54	B4	0.39	0/303	0.85	0/397
54	D4	0.49	0/303	1.03	2/397 (0.5%)
55	CY	0.40	0/1434	0.97	6/1929 (0.3%)
All	All	0.28	2/315264 (0.0%)	0.61	288/471562 (0.1%)

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
2	AB	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	CB	0	1
3	CC	0	1
4	CD	0	2
5	AE	0	1
8	AH	0	3
9	CI	0	1
12	AL	0	1
13	CM	0	1
16	AP	0	1
16	CP	0	1
26	BC	0	1
26	DC	0	3
27	BD	0	1
27	DD	0	1
31	BH	0	1
31	DH	0	2
33	DJ	0	1
37	BN	0	1
37	DN	0	1
39	DP	0	1
42	DS	0	1
50	D0	0	1
All	All	0	29

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
31	DH	118	PRO	N-CD	5.32	1.55	1.47
31	BH	118	PRO	N-CD	5.04	1.54	1.47

All (288) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	AD	37	ALA	CA-C-N	10.44	132.90	119.84
4	AD	37	ALA	C-N-CA	10.44	132.90	119.84
13	CM	106	ALA	N-CA-C	-9.71	102.68	112.97
12	AL	44	LYS	CA-C-N	-9.59	109.68	120.04
12	AL	44	LYS	C-N-CA	-9.59	109.68	120.04
41	BR	51	VAL	CA-C-N	-9.44	111.17	120.52
41	BR	51	VAL	C-N-CA	-9.44	111.17	120.52
6	AF	90	MET	N-CA-C	9.19	120.38	108.34
27	DD	123	LYS	N-CA-C	-8.84	99.54	110.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	157	LEU	CA-C-N	8.63	130.63	119.84
2	AB	157	LEU	C-N-CA	8.63	130.63	119.84
46	DW	44	LYS	N-CA-C	-8.61	101.89	111.28
5	AE	153	VAL	N-CA-C	-8.42	105.71	113.71
55	CY	158	ASP	N-CA-C	-8.41	99.76	110.19
3	AC	120	ILE	N-CA-C	-8.36	104.37	111.56
26	DC	258	SER	N-CA-C	8.35	118.92	107.73
9	CI	117	GLY	N-CA-C	-8.35	104.26	115.36
55	CY	145	ASP	N-CA-C	-8.22	104.25	112.97
50	B0	2	VAL	N-CA-C	8.19	118.54	108.06
27	DD	142	VAL	CA-C-N	8.14	127.86	119.64
27	DD	142	VAL	C-N-CA	8.14	127.86	119.64
32	DI	52	LEU	CA-C-N	8.02	129.86	119.84
32	DI	52	LEU	C-N-CA	8.02	129.86	119.84
29	DF	100	GLU	N-CA-C	-7.99	103.10	113.17
9	CI	7	TYR	N-CA-C	7.89	118.31	107.73
48	DY	6	LEU	N-CA-C	-7.82	102.84	112.38
6	AF	11	HIS	CA-C-N	7.74	129.51	119.84
6	AF	11	HIS	C-N-CA	7.74	129.51	119.84
9	AI	124	ARG	CA-C-N	7.70	129.47	119.84
9	AI	124	ARG	C-N-CA	7.70	129.47	119.84
37	DN	16	HIS	N-CA-C	-7.66	103.01	111.36
53	B3	55	GLY	N-CA-C	-7.59	103.58	112.83
11	AK	90	GLY	CA-C-N	7.52	129.24	119.84
11	AK	90	GLY	C-N-CA	7.52	129.24	119.84
26	DC	225	ASN	CA-C-N	-7.41	112.07	119.56
26	DC	225	ASN	C-N-CA	-7.41	112.07	119.56
12	CL	10	LYS	CA-C-N	7.40	127.44	119.89
12	CL	10	LYS	C-N-CA	7.40	127.44	119.89
28	DE	75	SER	CA-C-N	-7.39	112.02	119.56
28	DE	75	SER	C-N-CA	-7.39	112.02	119.56
44	BU	43	LYS	N-CA-C	7.37	117.61	107.73
26	DC	260	LYS	N-CA-C	-7.37	95.11	110.80
2	AB	192	ASP	CA-C-N	7.33	129.00	119.84
2	AB	192	ASP	C-N-CA	7.33	129.00	119.84
12	CL	44	LYS	CA-C-N	-7.26	112.70	119.82
12	CL	44	LYS	C-N-CA	-7.26	112.70	119.82
43	DT	32	LEU	N-CA-C	7.23	119.38	108.46
13	CM	38	GLY	N-CA-C	7.21	120.22	111.93
17	CQ	54	GLY	N-CA-C	-7.20	102.88	112.82
35	BL	61	LEU	CA-C-N	7.16	128.79	119.84
35	BL	61	LEU	C-N-CA	7.16	128.79	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	DD	153	GLY	N-CA-C	-7.12	103.35	114.10
41	BR	24	LYS	N-CA-C	7.09	118.98	110.19
11	AK	66	ALA	N-CA-C	-7.00	103.73	111.36
19	AS	41	PHE	CA-C-N	7.00	128.59	119.84
19	AS	41	PHE	C-N-CA	7.00	128.59	119.84
13	CM	92	ARG	N-CA-C	-6.97	103.16	113.40
4	CD	200	ILE	N-CA-C	-6.93	105.09	111.67
42	DS	86	MET	CA-C-N	-6.92	111.19	119.84
42	DS	86	MET	C-N-CA	-6.92	111.19	119.84
41	DR	46	GLU	N-CA-C	6.92	119.38	108.79
43	BT	4	GLU	N-CA-C	-6.90	104.12	112.54
4	AD	60	LYS	N-CA-C	-6.87	103.79	111.28
35	BL	63	LYS	N-CA-C	-6.86	99.12	108.38
36	DM	19	GLY	N-CA-C	6.83	119.49	111.63
7	CG	87	VAL	N-CA-C	6.83	115.37	109.02
11	CK	90	GLY	CA-C-N	6.82	128.36	119.84
11	CK	90	GLY	C-N-CA	6.82	128.36	119.84
9	CI	112	GLU	N-CA-C	6.79	119.82	108.20
14	CN	93	ILE	CA-C-N	6.77	127.15	119.83
14	CN	93	ILE	C-N-CA	6.77	127.15	119.83
53	D3	61	LEU	CA-C-N	6.72	127.26	119.47
53	D3	61	LEU	C-N-CA	6.72	127.26	119.47
18	AR	42	SER	N-CA-C	-6.68	105.25	113.41
30	DG	75	VAL	N-CA-C	-6.64	104.05	110.42
8	AH	27	MET	CA-C-N	6.61	128.11	119.84
8	AH	27	MET	C-N-CA	6.61	128.11	119.84
11	CK	118	HIS	N-CA-C	-6.60	102.50	111.55
30	DG	39	ALA	N-CA-C	-6.60	104.98	113.16
27	BD	153	GLY	N-CA-C	-6.57	103.57	114.48
4	AD	6	GLY	CA-C-N	6.56	128.04	119.84
4	AD	6	GLY	C-N-CA	6.56	128.04	119.84
46	BW	73	GLY	CA-C-N	6.51	127.98	119.84
46	BW	73	GLY	C-N-CA	6.51	127.98	119.84
26	BC	165	ALA	N-CA-C	6.46	116.39	107.73
18	CR	54	GLN	N-CA-C	-6.44	104.68	112.54
26	DC	6	LYS	CA-C-N	6.42	127.86	119.84
26	DC	6	LYS	C-N-CA	6.42	127.86	119.84
27	BD	154	LYS	N-CA-C	-6.37	99.04	108.79
31	BH	71	LYS	N-CA-C	-6.35	103.49	111.11
17	CQ	27	ARG	N-CA-C	-6.35	101.39	110.59
54	D4	9	LYS	N-CA-C	-6.35	101.03	110.23
4	AD	138	SER	CA-C-N	6.32	127.75	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	AD	138	SER	C-N-CA	6.32	127.75	119.84
5	CE	132	ASN	CA-C-N	6.31	125.53	118.97
5	CE	132	ASN	C-N-CA	6.31	125.53	118.97
4	AD	104	ARG	N-CA-C	-6.30	106.29	112.97
10	CJ	40	ILE	CA-C-N	6.29	127.70	119.84
10	CJ	40	ILE	C-N-CA	6.29	127.70	119.84
47	BX	10	ARG	CA-C-N	6.27	126.30	119.90
47	BX	10	ARG	C-N-CA	6.27	126.30	119.90
11	CK	46	THR	N-CA-C	6.24	118.56	109.07
31	DH	117	LEU	CA-C-N	-6.24	112.04	119.84
31	DH	117	LEU	C-N-CA	-6.24	112.04	119.84
40	DQ	39	ILE	N-CA-C	-6.21	104.46	110.42
35	DL	118	THR	N-CA-C	6.20	115.27	108.14
51	D1	38	PHE	N-CA-C	6.20	118.12	111.36
34	DK	16	ALA	N-CA-C	-6.18	102.21	110.55
7	CG	65	ALA	N-CA-C	-6.16	104.13	112.26
4	AD	177	LYS	N-CA-C	-6.14	104.50	111.07
2	CB	200	ILE	CA-C-N	6.10	127.47	119.84
2	CB	200	ILE	C-N-CA	6.10	127.47	119.84
30	BG	56	GLY	N-CA-C	-6.08	103.65	112.17
3	CC	110	GLU	N-CA-C	-6.07	105.45	112.92
34	BK	74	GLY	N-CA-C	-6.06	107.04	114.92
26	DC	215	VAL	N-CA-C	6.05	116.34	106.72
5	AE	112	ARG	N-CA-C	-6.05	104.60	111.07
55	CY	16	CYS	N-CA-C	-6.04	105.56	113.17
43	BT	60	THR	N-CA-C	6.03	118.29	108.76
6	CF	30	THR	N-CA-C	-6.01	106.08	113.41
29	BF	174	PHE	CA-C-N	6.01	127.35	119.84
29	BF	174	PHE	C-N-CA	6.01	127.35	119.84
50	D0	2	VAL	N-CA-C	6.00	116.48	108.27
17	CQ	31	HIS	CA-C-N	5.99	127.33	119.84
17	CQ	31	HIS	C-N-CA	5.99	127.33	119.84
12	CL	27	CYS	CA-C-N	5.99	125.69	119.05
12	CL	27	CYS	C-N-CA	5.99	125.69	119.05
9	AI	50	GLN	CA-C-N	-5.98	113.02	119.24
9	AI	50	GLN	C-N-CA	-5.98	113.02	119.24
33	DJ	109	LEU	CA-C-N	-5.95	114.48	120.31
33	DJ	109	LEU	C-N-CA	-5.95	114.48	120.31
36	BM	19	GLY	N-CA-C	5.94	119.27	110.42
2	CB	121	SER	N-CA-C	-5.94	106.03	113.28
15	AO	40	GLN	N-CA-C	-5.92	103.80	111.02
43	DT	4	GLU	N-CA-C	-5.91	104.47	111.03

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	DZ	33	HIS	N-CA-C	-5.90	99.66	109.46
49	DZ	31	ILE	N-CA-CB	5.90	117.28	110.49
3	AC	82	GLU	N-CA-C	5.89	118.15	110.43
2	AB	62	SER	N-CA-C	-5.88	104.46	111.69
2	AB	41	ILE	N-CA-C	5.88	119.56	112.80
30	DG	110	HIS	CA-C-N	5.88	127.19	119.84
30	DG	110	HIS	C-N-CA	5.88	127.19	119.84
17	AQ	31	HIS	CA-C-N	5.87	127.17	119.84
17	AQ	31	HIS	C-N-CA	5.87	127.17	119.84
53	D3	44	ARG	CA-C-N	-5.87	114.70	120.98
53	D3	44	ARG	C-N-CA	-5.87	114.70	120.98
21	AU	37	PHE	N-CA-C	-5.85	106.18	113.55
36	BM	108	VAL	CA-C-N	5.84	126.17	119.93
36	BM	108	VAL	C-N-CA	5.84	126.17	119.93
11	AK	114	THR	CA-C-N	-5.82	113.79	119.78
11	AK	114	THR	C-N-CA	-5.82	113.79	119.78
2	CB	139	ARG	N-CA-C	-5.80	103.68	112.04
8	CH	80	ARG	N-CA-C	5.80	113.23	108.07
3	CC	101	ILE	N-CA-C	5.79	116.28	108.17
16	CP	65	ALA	N-CA-C	5.78	118.66	110.50
30	BG	108	PHE	N-CA-C	-5.76	100.81	109.79
2	AB	110	SER	N-CA-C	-5.76	106.09	113.23
12	AL	121	ARG	CA-C-N	5.76	127.03	119.84
12	AL	121	ARG	C-N-CA	5.76	127.03	119.84
35	DL	93	ASN	N-CA-C	-5.76	102.41	110.35
37	BN	94	TYR	N-CA-C	-5.75	106.87	112.97
4	AD	51	TYR	N-CA-C	-5.75	106.61	113.97
4	CD	200	ILE	CB-CA-C	-5.75	105.02	111.80
32	BI	4	VAL	N-CA-C	5.75	115.01	106.85
36	BM	68	PHE	CA-C-N	5.73	127.00	119.84
36	BM	68	PHE	C-N-CA	5.73	127.00	119.84
12	CL	55	VAL	N-CA-C	5.71	115.38	108.06
35	BL	94	THR	N-CA-C	-5.69	105.16	111.36
2	AB	101	LEU	N-CA-C	-5.67	104.36	112.13
27	BD	180	VAL	N-CA-C	-5.66	107.22	112.43
37	BN	67	PHE	N-CA-C	-5.66	106.30	113.43
39	DP	25	VAL	N-CA-C	5.66	115.69	107.88
45	BV	63	ILE	N-CA-C	5.65	114.96	106.42
27	BD	193	VAL	CA-C-N	5.65	126.90	119.84
27	BD	193	VAL	C-N-CA	5.65	126.90	119.84
33	DJ	2	LYS	N-CA-C	-5.64	102.68	110.35
6	CF	77	THR	N-CA-C	-5.64	106.75	113.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	DN	112	TYR	N-CA-C	-5.62	103.28	110.53
12	AL	98	VAL	N-CA-CB	5.62	117.46	110.05
35	DL	68	SER	N-CA-C	5.62	117.26	111.03
5	AE	139	ALA	N-CA-C	-5.61	104.54	111.33
14	CN	6	LYS	N-CA-C	-5.59	107.11	114.04
26	BC	53	ILE	N-CA-C	5.58	116.62	108.53
28	DE	82	GLY	N-CA-C	-5.57	104.09	112.89
26	DC	177	SER	N-CA-C	-5.56	106.26	113.16
3	AC	153	VAL	N-CA-C	-5.56	99.78	108.95
12	AL	38	TYR	N-CA-C	5.56	116.51	108.34
28	DE	27	LEU	CB-CA-C	-5.54	102.42	110.96
34	DK	37	ASP	N-CA-C	5.54	118.02	110.55
36	DM	47	GLU	N-CA-C	-5.52	105.16	111.07
33	BJ	37	ARG	N-CA-C	-5.52	106.55	113.28
45	BV	29	ILE	N-CA-C	5.51	115.58	107.75
12	AL	114	ARG	N-CA-C	5.50	117.08	111.14
42	BS	46	LEU	N-CA-C	-5.50	103.09	110.24
26	BC	54	GLY	N-CA-C	5.50	117.17	111.95
54	D4	36	ARG	N-CA-C	5.50	115.28	108.19
11	CK	56	ARG	N-CA-C	-5.49	105.80	113.37
17	CQ	28	PHE	N-CA-C	-5.48	101.17	108.74
3	AC	173	VAL	CA-C-N	-5.47	113.00	119.84
3	AC	173	VAL	C-N-CA	-5.47	113.00	119.84
19	AS	67	VAL	N-CA-C	-5.46	107.48	113.43
2	AB	183	VAL	N-CA-C	5.45	115.04	108.06
5	CE	46	VAL	CB-CA-C	-5.45	103.72	111.19
41	DR	91	GLN	N-CA-C	5.43	118.66	109.76
55	CY	131	VAL	N-CA-C	-5.42	104.44	110.62
38	DO	25	ARG	N-CA-C	5.41	117.41	109.24
33	DJ	126	ALA	N-CA-C	-5.40	105.47	111.36
44	DU	35	VAL	N-CA-C	5.40	116.25	108.48
4	CD	19	LEU	N-CA-C	-5.39	101.00	109.25
20	CT	55	GLN	CA-C-N	-5.39	113.10	119.84
20	CT	55	GLN	C-N-CA	-5.39	113.10	119.84
9	CI	116	VAL	N-CA-C	5.39	114.28	107.70
28	BE	102	ARG	N-CA-C	-5.38	105.08	111.69
15	CO	87	LEU	N-CA-C	5.37	117.49	108.73
11	CK	88	GLY	CA-C-N	5.37	126.55	119.84
11	CK	88	GLY	C-N-CA	5.37	126.55	119.84
39	BP	91	VAL	N-CA-C	5.37	116.76	108.44
27	DD	22	ILE	CA-C-N	5.35	126.53	119.84
27	DD	22	ILE	C-N-CA	5.35	126.53	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
8	AH	42	GLU	N-CA-C	-5.35	106.59	113.01
19	CS	65	GLU	N-CA-C	-5.34	106.08	112.59
41	DR	88	GLY	N-CA-C	-5.30	100.62	113.18
36	DM	44	ARG	NE-CZ-NH2	5.29	123.97	119.20
2	AB	200	ILE	CA-C-N	5.28	126.44	119.84
2	AB	200	ILE	C-N-CA	5.28	126.44	119.84
41	BR	22	LEU	N-CA-C	5.28	116.30	108.60
39	DP	20	ARG	NE-CZ-NH2	5.27	123.94	119.20
55	CY	108	GLU	N-CA-C	-5.27	105.55	112.72
6	CF	57	ALA	N-CA-C	5.26	121.99	110.80
39	BP	100	ARG	N-CA-C	-5.25	105.72	111.82
9	CI	97	GLU	N-CA-C	-5.25	106.72	113.23
32	BI	66	PHE	N-CA-C	5.25	115.99	108.74
27	DD	151	THR	N-CA-C	-5.25	102.39	110.01
9	AI	7	TYR	N-CA-C	5.24	116.48	108.52
30	BG	124	CYS	CA-C-N	-5.24	113.29	119.84
30	BG	124	CYS	C-N-CA	-5.24	113.29	119.84
13	AM	30	SER	N-CA-C	-5.23	105.05	111.75
29	BF	123	GLY	N-CA-C	-5.23	107.67	113.79
5	AE	72	ILE	N-CA-C	5.23	115.89	108.42
12	AL	106	GLY	N-CA-C	-5.22	100.80	113.18
49	DZ	47	ILE	CB-CA-C	-5.21	105.30	111.81
28	BE	41	GLN	N-CA-C	-5.21	103.16	110.50
19	CS	8	GLY	CA-C-N	5.21	126.35	119.84
19	CS	8	GLY	C-N-CA	5.21	126.35	119.84
36	DM	81	ARG	N-CA-C	5.21	117.80	108.17
3	CC	64	ILE	N-CA-C	5.20	115.39	108.11
4	CD	60	LYS	N-CA-C	-5.20	107.00	113.55
31	BH	117	LEU	CA-C-N	-5.20	113.34	119.84
31	BH	117	LEU	C-N-CA	-5.20	113.34	119.84
32	DI	71	LYS	N-CA-C	5.18	115.38	108.38
8	AH	45	PHE	N-CA-C	-5.18	106.19	112.88
55	CY	65	LEU	N-CA-C	5.18	116.72	108.79
12	CL	37	VAL	N-CA-C	5.18	114.24	106.42
37	DN	76	VAL	N-CA-C	-5.17	104.52	111.44
35	BL	123	ARG	CB-CA-C	-5.16	109.00	116.54
4	AD	130	VAL	N-CA-C	5.16	115.70	108.17
19	AS	75	ALA	CA-C-N	5.16	126.29	119.84
19	AS	75	ALA	C-N-CA	5.16	126.29	119.84
40	BQ	92	LYS	N-CA-C	-5.16	105.09	111.33
18	CR	60	LYS	N-CA-C	-5.15	105.11	111.40
26	DC	160	TYR	N-CA-C	5.15	115.14	107.88

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	890	G	O4'-C1'-N9	5.15	115.92	108.20
33	BJ	82	GLY	N-CA-C	-5.15	100.98	113.18
2	AB	26	LYS	N-CA-C	-5.15	106.97	113.20
12	CL	40	THR	N-CA-C	5.13	116.72	110.41
44	BU	31	GLY	N-CA-C	-5.12	108.20	115.43
34	DK	101	GLY	CA-C-N	5.11	125.11	119.90
34	DK	101	GLY	C-N-CA	5.11	125.11	119.90
20	CT	12	ILE	CB-CA-C	-5.11	105.24	112.14
6	AF	84	VAL	CB-CA-C	-5.10	105.79	111.35
4	CD	196	ASN	N-CA-C	5.10	116.84	108.52
44	DU	52	ASN	N-CA-C	-5.10	106.64	112.86
19	AS	58	VAL	CA-C-N	5.10	126.21	119.84
19	AS	58	VAL	C-N-CA	5.10	126.21	119.84
17	CQ	10	GLY	N-CA-C	5.08	118.63	112.48
48	DY	57	LEU	N-CA-C	-5.07	99.99	110.80
11	CK	126	LYS	N-CA-C	5.07	121.59	110.80
46	DW	58	THR	N-CA-C	-5.06	102.79	110.28
11	AK	108	THR	N-CA-C	5.05	116.78	111.28
7	AG	55	GLY	N-CA-C	-5.03	107.67	115.67
28	BE	58	LYS	CA-C-N	5.03	125.10	119.87
28	BE	58	LYS	C-N-CA	5.03	125.10	119.87
12	AL	38	TYR	CB-CA-C	-5.03	109.20	116.54
14	CN	50	THR	N-CA-C	-5.02	105.81	112.34
31	DH	93	SER	N-CA-C	5.02	114.78	108.45
9	AI	61	LEU	N-CA-C	5.02	116.14	108.42
26	DC	80	LEU	N-CA-C	5.01	120.11	112.54
36	BM	7	THR	N-CA-C	5.00	116.45	108.79

There are no chirality outliers.

All (29) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	AB	162	PHE	Peptide
5	AE	157	ARG	Peptide
8	AH	125	ILE	Peptide
8	AH	87	LYS	Peptide
8	AH	88	ARG	Peptide
12	AL	38	TYR	Peptide
16	AP	31	ARG	Peptide
26	BC	195	GLY	Peptide
27	BD	151	THR	Peptide
31	BH	148	ALA	Peptide

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Mol	Chain	Res	Type	Group
37	BN	100	CYS	Peptide
2	CB	92	VAL	Peptide
3	CC	128	VAL	Peptide
4	CD	199	LEU	Peptide
4	CD	56	ARG	Peptide
9	CI	111	VAL	Peptide
13	CM	91	HIS	Peptide
16	CP	64	GLY	Peptide
50	D0	2	VAL	Peptide
26	DC	231	HIS	Peptide
26	DC	258	SER	Peptide
26	DC	86	ARG	Peptide
27	DD	151	THR	Peptide
31	DH	118	PRO	Peptide
31	DH	119	ASN	Peptide
33	DJ	1	MET	Peptide
37	DN	113	ILE	Peptide
39	DP	95	LYS	Peptide
42	DS	75	PHE	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	AA	33015	0	16617	2764	0
1	CA	32995	0	16607	2608	2
2	AB	1704	0	1732	300	0
2	CB	1704	0	1732	240	0
3	AC	1624	0	1696	207	0
3	CC	1624	0	1696	194	0
4	AD	1643	0	1707	395	0
4	CD	1643	0	1707	380	0
5	AE	1105	0	1148	166	0
5	CE	1105	0	1148	137	0
6	AF	817	0	808	136	0
6	CF	817	0	808	128	0
7	AG	1181	0	1238	108	0
7	CG	1181	0	1238	158	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
8	AH	979	0	1031	212	0
8	CH	979	0	1031	140	0
9	AI	1022	0	1070	153	0
9	CI	1022	0	1070	169	0
10	AJ	786	0	828	74	0
10	CJ	786	0	828	98	0
11	AK	877	0	887	154	0
11	CK	877	0	887	213	0
12	AL	955	0	1016	160	0
12	CL	955	0	1016	188	0
13	AM	883	0	941	150	0
13	CM	883	0	941	184	0
14	AN	774	0	827	124	0
14	CN	774	0	827	148	0
15	AO	714	0	734	80	0
15	CO	714	0	734	135	0
16	AP	649	0	666	105	0
16	CP	649	0	666	101	0
17	AQ	648	0	691	87	0
17	CQ	648	0	691	102	0
18	AR	455	0	478	75	0
18	CR	455	0	478	69	0
19	AS	637	0	665	117	0
19	CS	637	0	665	136	0
20	AT	665	0	714	133	0
20	CT	665	0	714	109	0
21	AU	425	0	449	103	0
21	CU	425	0	449	92	0
22	AV	1623	0	821	69	0
22	CV	1623	0	821	171	0
23	AX	346	0	173	39	0
23	CX	324	0	162	15	0
24	BA	62195	0	31280	4111	1
24	DA	62195	0	31280	3382	1
25	BB	2529	0	1281	204	0
25	DB	2549	0	1291	113	0
26	BC	2082	0	2157	305	0
26	DC	2082	0	2157	293	0
27	BD	1565	0	1616	190	0
27	DD	1565	0	1616	157	0
28	BE	1552	0	1619	189	0
28	DE	1552	0	1619	174	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
29	BF	1410	0	1447	229	0
29	DF	1410	0	1447	269	0
30	BG	1323	0	1374	141	0
30	DG	1323	0	1374	113	0
31	BH	1110	0	1148	145	1
31	DH	1110	0	1148	246	0
32	BI	1032	0	1088	44	0
32	DI	1032	0	1088	90	0
33	BJ	1129	0	1162	140	0
33	DJ	1129	0	1162	111	0
34	BK	938	0	1012	128	0
34	DK	938	0	1012	106	0
35	BL	1045	0	1117	149	0
35	DL	1045	0	1117	127	0
36	BM	1074	0	1157	124	0
36	DM	1074	0	1157	124	0
37	BN	960	0	1000	144	0
37	DN	960	0	1000	107	0
38	BO	892	0	923	157	0
38	DO	892	0	923	131	0
39	BP	917	0	965	104	0
39	DP	917	0	965	76	0
40	BQ	947	0	1022	108	0
40	DQ	947	0	1022	140	0
41	BR	816	0	839	84	0
41	DR	816	0	839	129	0
42	BS	857	0	922	119	0
42	DS	857	0	922	98	0
43	BT	738	0	807	90	0
43	DT	738	0	807	82	0
44	BU	779	0	834	114	0
44	DU	779	0	834	112	0
45	BV	753	0	780	89	0
45	DV	753	0	780	67	1
46	BW	569	0	581	55	0
46	DW	580	0	594	83	0
47	BX	625	0	655	87	0
47	DX	625	0	655	86	0
48	BY	509	0	543	65	0
48	DY	509	0	543	81	0
49	BZ	449	0	491	60	0
49	DZ	449	0	491	36	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
50	B0	444	0	461	43	0
50	D0	444	0	461	39	0
51	B1	409	0	440	54	0
51	D1	409	0	440	41	0
52	B2	377	0	418	56	0
52	D2	377	0	418	43	0
53	B3	504	0	574	67	0
53	D3	504	0	574	71	0
54	B4	302	0	340	35	0
54	D4	302	0	340	41	0
55	CY	1423	0	1476	190	0
56	AA	54	0	0	0	0
56	AD	1	0	0	0	0
56	AN	1	0	0	0	0
56	BA	163	0	0	0	0
56	BB	3	0	0	0	0
56	BC	1	0	0	0	0
56	BQ	1	0	0	0	0
56	CA	71	0	0	0	0
56	CX	1	0	0	0	0
56	DA	187	0	0	0	0
56	DB	4	0	0	0	0
56	DE	1	0	0	0	0
56	DL	1	0	0	0	0
56	DO	1	0	0	0	0
57	AA	126	0	135	48	0
57	BA	294	0	317	87	0
57	CA	42	0	46	7	0
57	DA	294	0	311	106	0
58	B4	1	0	0	0	0
58	D4	1	0	0	0	0
59	AA	188	0	0	29	0
59	AD	2	0	0	2	0
59	AK	1	0	0	1	0
59	AN	4	0	0	1	0
59	AT	2	0	0	0	0
59	AU	1	0	0	0	0
59	B0	1	0	0	0	0
59	B3	1	0	0	0	0
59	B4	1	0	0	0	0
59	BA	616	0	0	116	0
59	BB	13	0	0	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	BC	10	0	0	6	0
59	BD	4	0	0	0	0
59	BL	4	0	0	2	0
59	BN	1	0	0	0	0
59	BT	3	0	0	2	0
59	BU	3	0	0	0	0
59	BV	1	0	0	0	0
59	CA	192	0	0	32	0
59	CC	1	0	0	1	0
59	CE	1	0	0	0	0
59	CL	1	0	0	1	0
59	CN	6	0	0	0	0
59	CT	2	0	0	1	0
59	D3	2	0	0	0	0
59	D4	1	0	0	0	0
59	DA	627	0	0	120	0
59	DB	13	0	0	4	0
59	DC	4	0	0	0	0
59	DD	2	0	0	1	0
59	DE	4	0	0	1	0
59	DF	1	0	0	0	0
59	DL	7	0	0	4	0
59	DN	2	0	0	0	0
59	DQ	1	0	0	0	0
59	DS	1	0	0	0	0
59	DT	1	0	0	0	0
59	DU	1	0	0	0	0
59	DV	1	0	0	0	0
All	All	293103	0	196267	23787	3

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 49.

All (23787) 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)
29:BF:96:TRP:CE3	29:BF:99:PHE:CE2	1.79	1.66
29:BF:96:TRP:CZ3	29:BF:99:PHE:HE2	1.31	1.48
31:BH:121:VAL:HB	31:BH:122:LEU:CD2	1.41	1.47
29:BF:96:TRP:CD2	29:BF:99:PHE:CZ	2.03	1.47
31:BH:121:VAL:CB	31:BH:122:LEU:HD23	1.49	1.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:1655:NMY:N6	24:BA:1913:A:N7	1.75	1.35
29:BF:96:TRP:CE3	29:BF:99:PHE:CZ	2.17	1.30
24:BA:1157:G:OP1	57:BA:3162:NMY:H81	1.28	1.27
31:DH:116:ARG:NH2	31:DH:132:PHE:O	1.69	1.25
57:AA:1655:NMY:H19	57:AA:1655:NMY:C16	1.61	1.25
29:BF:96:TRP:CZ3	29:BF:99:PHE:CE2	2.12	1.25
1:AA:1405:G:P	57:AA:1655:NMY:N19	2.11	1.24
24:DA:1921:G:N7	57:DA:3184:NMY:N7	1.86	1.24
24:DA:322:A:OP2	28:DE:162:ARG:NH2	1.71	1.22
54:D4:11:CYS:SG	54:D4:33:HIS:ND1	2.13	1.21
31:DH:117:LEU:CD2	31:DH:120:GLY:HA2	1.71	1.21
57:AA:1655:NMY:H16	57:AA:1655:NMY:C19	1.65	1.20
29:BF:96:TRP:CE2	29:BF:99:PHE:HZ	1.58	1.20
1:AA:1220:G:O2'	19:AS:36:ARG:NH2	1.75	1.19
31:DH:93:SER:OG	31:DH:122:LEU:HD12	1.37	1.19
29:BF:93:GLU:O	29:BF:95:MET:N	1.76	1.17
15:AO:67:LEU:O	15:AO:78:TYR:OH	1.61	1.17
1:AA:1317:C:O2'	14:AN:49:GLN:NE2	1.78	1.17
24:DA:250:G:OP2	53:D3:12:ARG:NH1	1.76	1.15
29:BF:3:LEU:CD1	29:BF:96:TRP:CZ2	2.30	1.15
24:DA:690:G:O3'	26:DC:216:ARG:NH2	1.78	1.14
25:BB:69:G:O6	25:BB:107:G:N2	1.81	1.14
29:BF:3:LEU:HD12	29:BF:96:TRP:CZ2	1.82	1.14
22:CV:7:A:H3'	22:CV:8:U:H5'	1.20	1.13
29:BF:42:ALA:O	29:BF:82:TYR:OH	1.66	1.13
24:BA:2418:A:O3'	53:B3:40:LYS:NZ	1.82	1.13
2:CB:84:ALA:O	2:CB:89:GLN:NE2	1.81	1.11
31:DH:120:GLY:O	31:DH:122:LEU:CD2	1.98	1.11
8:AH:39:VAL:O	8:AH:41:LYS:N	1.83	1.11
26:BC:9:SER:OG	26:BC:12:ARG:NH1	1.84	1.11
29:BF:96:TRP:CE3	29:BF:99:PHE:HE2	1.39	1.11
12:CL:24:LEU:O	12:CL:26:ALA:N	1.81	1.10
31:DH:120:GLY:O	31:DH:122:LEU:HD23	1.47	1.10
24:DA:85:G:OP2	44:DU:5:ARG:NH2	1.84	1.10
1:AA:265:G:O2'	17:AQ:67:LEU:O	1.68	1.09
24:DA:2496:C:OP1	36:DM:81:ARG:NH2	1.84	1.09
37:DN:13:ASN:O	37:DN:15:SER:N	1.86	1.09
23:CX:10:A:O2'	23:CX:11:A:OP2	1.68	1.09
24:BA:1730:C:O2'	24:BA:1731:G:OP2	1.71	1.08
7:AG:26:PHE:O	7:AG:28:ASN:N	1.87	1.08
24:BA:2466:C:OP2	54:B4:4:ARG:NH1	1.86	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DH:93:SER:OG	31:DH:122:LEU:HB2	1.53	1.08
8:AH:88:ARG:NH2	8:AH:122:GLY:O	1.86	1.08
1:AA:1079:G:O2'	1:AA:1080:A:O5'	1.70	1.08
31:DH:88:GLY:HA2	31:DH:125:THR:CG2	1.83	1.07
1:CA:1530:G:O2'	1:CA:1531:A:OP2	1.71	1.07
1:AA:332:G:O2'	20:AT:10:ARG:NH2	1.88	1.06
39:BP:8:GLU:O	39:BP:10:GLU:N	1.89	1.06
1:CA:405:U:OP2	4:CD:3:ARG:NH2	1.87	1.06
1:CA:1118:U:O4'	9:CI:106:ARG:NH2	1.87	1.06
15:CO:73:LYS:O	15:CO:78:TYR:OH	1.73	1.06
24:DA:614:A:O2'	24:DA:615:U:OP2	1.72	1.06
24:DA:1509:A:O2'	24:DA:1510:G:OP2	1.73	1.06
31:DH:88:GLY:HA2	31:DH:125:THR:HG21	1.12	1.06
31:DH:116:ARG:NH2	31:DH:132:PHE:C	2.14	1.06
22:AV:18:G:O2'	22:AV:57:G:N2	1.88	1.06
23:AX:10:A:O2'	23:AX:11:A:OP2	1.71	1.05
57:BA:3161:NMY:O14	57:BA:3161:NMY:C19	2.03	1.05
6:AF:73:GLU:O	6:AF:76:THR:OG1	1.71	1.05
31:DH:120:GLY:O	31:DH:122:LEU:N	1.90	1.05
1:AA:1203:C:OP1	14:AN:1:ALA:N	1.90	1.04
24:BA:83:A:OP1	44:BU:1:ALA:N	1.89	1.04
13:CM:85:CYS:SG	13:CM:86:TYR:N	2.29	1.04
31:DH:94:ILE:HG13	31:DH:122:LEU:HB3	1.37	1.04
24:BA:1723:G:O6	24:BA:1737:G:O2'	1.73	1.04
37:BN:114:GLU:OE2	37:BN:118:ARG:NH2	1.91	1.04
31:DH:117:LEU:HD22	31:DH:120:GLY:HA2	1.38	1.04
24:DA:1064:C:N4	24:DA:1070:A:OP1	1.89	1.03
24:DA:1420:A:O2'	24:DA:1421:G:O5'	1.73	1.03
1:AA:153:C:N4	1:AA:168:G:O6	1.89	1.03
24:BA:1155:A:O3'	40:BQ:54:ARG:NH2	1.89	1.03
4:AD:29:ASP:O	4:AD:31:LYS:N	1.91	1.03
24:BA:2484:G:OP2	36:BM:44:ARG:NH1	1.90	1.03
1:CA:346:G:OP2	34:DK:108:ARG:NH2	1.91	1.03
24:DA:944:C:P	59:DA:3260:HOH:O	2.16	1.03
6:CF:15:SER:O	6:CF:17:GLN:N	1.92	1.02
2:AB:169:GLU:O	2:AB:171:ILE:N	1.93	1.02
57:BA:3161:NMY:O14	57:BA:3161:NMY:H19	1.57	1.02
57:DA:3184:NMY:N2	57:DA:3184:NMY:O16	1.92	1.02
4:AD:124:MET:SD	4:AD:146:ARG:NH2	2.32	1.02
24:BA:864:G:O2'	24:BA:914:G:O6	1.76	1.02
14:AN:61:ARG:NH1	59:AN:302:HOH:O	1.91	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:831:G:OP1	59:BA:3266:HOH:O	1.75	1.02
31:DH:88:GLY:CA	31:DH:125:THR:HG21	1.88	1.02
24:BA:733:G:N7	59:BA:3302:HOH:O	1.91	1.01
24:BA:819:A:OP2	24:BA:1187:G:N2	1.92	1.01
24:BA:1044:C:O2'	24:BA:1111:A:N1	1.93	1.01
55:CY:111:LYS:O	55:CY:113:LEU:N	1.94	1.01
31:DH:93:SER:OG	31:DH:122:LEU:CD1	2.07	1.01
8:AH:36:ILE:O	8:AH:38:ASN:N	1.92	1.01
15:AO:46:HIS:O	15:AO:48:LYS:N	1.93	1.01
1:CA:738:C:O2'	1:CA:739:C:O5'	1.78	1.01
1:CA:1303:C:O2'	59:CA:1868:HOH:O	1.77	1.01
3:AC:106:VAL:O	3:AC:108:LYS:N	1.93	1.01
7:AG:5:ARG:O	7:AG:7:ILE:N	1.94	1.01
24:DA:2256:G:O3'	46:DW:11:ARG:NH2	1.94	1.01
9:AI:57:MET:SD	9:AI:58:VAL:N	2.34	1.00
24:BA:1157:G:OP1	57:BA:3162:NMY:C8	2.08	1.00
24:DA:548:G:O2'	24:DA:549:G:N2	1.94	1.00
1:CA:1270:G:O2'	1:CA:1313:U:O2'	1.80	1.00
4:CD:4:TYR:OH	4:CD:62:ARG:NH1	1.93	1.00
29:BF:96:TRP:CD2	29:BF:99:PHE:HZ	1.60	1.00
22:CV:7:A:C3'	22:CV:8:U:H5'	1.92	1.00
4:CD:147:GLU:O	4:CD:149:ALA:N	1.95	1.00
1:AA:902:G:OP1	57:AA:1657:NMY:N7	1.94	1.00
27:DD:133:THR:O	27:DD:135:GLY:N	1.93	1.00
24:BA:2278:A:OP1	36:BM:10:ARG:NE	1.94	0.99
1:CA:946:A:O2'	1:CA:1333:A:N3	1.95	0.99
1:AA:1226:C:O2'	13:AM:102:THR:O	1.78	0.99
1:AA:375:U:O3'	16:AP:5:ARG:NH2	1.96	0.99
2:AB:148:LEU:O	2:AB:150:GLY:N	1.95	0.99
4:AD:15:GLU:OE2	4:AD:63:ARG:NH2	1.95	0.99
1:AA:261:U:OP2	20:AT:74:ARG:NH2	1.96	0.99
15:CO:89:ARG:NH2	24:DA:716:A:OP2	1.95	0.99
4:CD:117:LEU:O	4:CD:119:SER:N	1.95	0.99
1:AA:927:G:O2'	1:AA:1503:A:N7	1.95	0.99
38:BO:80:GLU:O	38:BO:83:LEU:N	1.95	0.99
24:DA:806:C:OP2	35:DL:41:ARG:NH2	1.95	0.99
57:AA:1656:NMY:H16	57:AA:1656:NMY:C23	1.93	0.98
2:AB:78:GLU:OE2	2:AB:81:LYS:NZ	1.97	0.98
8:AH:96:MET:O	8:AH:98:GLY:N	1.96	0.98
31:DH:117:LEU:HD21	31:DH:120:GLY:CA	1.93	0.98
19:CS:34:TRP:O	19:CS:36:ARG:N	1.96	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:278:A:N1	24:DA:361:G:O2'	1.95	0.98
57:DA:3188:NMY:O3	49:DZ:30:ARG:NH1	1.96	0.98
24:BA:1029:A:N1	24:BA:2465:C:O2'	1.96	0.98
22:CV:14:A:H2'	22:CV:15:G:O4'	1.63	0.98
1:AA:276:G:OP1	17:AQ:14:SER:OG	1.82	0.98
26:DC:51:ARG:O	26:DC:53:ILE:N	1.96	0.97
31:BH:121:VAL:CB	31:BH:122:LEU:CD2	2.23	0.97
55:CY:155:ARG:O	55:CY:157:GLN:N	1.96	0.97
24:BA:2171:A:O2'	24:BA:2173:A:OP1	1.82	0.97
4:CD:77:LYS:O	4:CD:79:ALA:N	1.97	0.97
31:DH:123:ARG:HG3	31:DH:124:THR:H	1.29	0.97
24:BA:1923:U:O4	57:BA:3161:NMY:N9	1.96	0.97
11:AK:105:PHE:O	11:AK:107:ILE:N	1.98	0.97
24:BA:1204:A:N3	57:BA:3163:NMY:O4	1.96	0.97
1:AA:1015:G:OP1	19:AS:14:HIS:NE2	1.98	0.97
26:DC:49:THR:O	26:DC:51:ARG:NH1	1.98	0.97
24:BA:2731:G:N7	57:BA:3165:NMY:H21	1.78	0.96
6:CF:81:ASN:O	6:CF:83:ALA:N	1.98	0.96
6:AF:77:THR:O	6:AF:79:ARG:N	1.98	0.96
4:AD:13:ARG:NH2	4:AD:32:CYS:SG	2.39	0.96
20:AT:48:GLN:O	20:AT:50:ALA:N	1.99	0.96
1:AA:981:U:OP1	14:AN:8:ARG:NH2	1.98	0.96
24:BA:27:G:O2'	24:BA:28:A:OP2	1.83	0.96
24:DA:1997:C:OP1	27:DD:128:ARG:NE	1.98	0.96
24:DA:2706:A:N6	59:DA:3684:HOH:O	1.98	0.96
25:DB:60:C:N4	59:DB:303:HOH:O	1.99	0.96
24:BA:2060:A:N3	59:BA:3494:HOH:O	1.97	0.96
24:DA:834:G:HO2'	24:DA:2358:A:HO2'	1.14	0.96
24:DA:1376:C:OP2	59:DA:3399:HOH:O	1.81	0.96
24:DA:395:U:O2'	24:DA:396:G:N7	1.98	0.96
4:CD:187:GLU:O	4:CD:189:SER:N	1.99	0.95
1:AA:626:G:OP1	16:AP:35:ARG:NH2	1.97	0.95
24:BA:526:A:O2'	24:BA:2043:C:O2	1.83	0.95
24:DA:1239:G:N7	57:DA:3190:NMY:H62	1.80	0.95
24:DA:564:C:O3'	41:DR:79:ARG:NE	1.99	0.95
57:DA:3184:NMY:N2	57:DA:3184:NMY:O17	1.99	0.95
1:AA:1405:G:O5'	57:AA:1655:NMY:N19	1.98	0.95
24:BA:76:C:OP1	48:BY:48:ARG:NH2	1.99	0.95
35:DL:36:LYS:NZ	59:DL:302:HOH:O	1.97	0.95
37:DN:77:ALA:O	37:DN:81:ASN:ND2	1.98	0.95
24:BA:2499:C:OP2	59:BA:3686:HOH:O	1.82	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:D0:33:SER:OG	50:D0:35:GLU:OE2	1.82	0.95
1:CA:451:A:OP2	16:CP:70:ARG:NH2	1.99	0.95
1:CA:877:G:O3'	8:CH:80:ARG:NH2	1.98	0.95
9:CI:9:THR:O	9:CI:85:ARG:NH1	1.98	0.95
24:DA:1715:G:N2	24:DA:1744:A:OP2	2.00	0.95
1:CA:429:U:H4'	4:CD:9:LEU:HD23	1.48	0.95
1:CA:501:C:OP1	12:CL:121:ARG:NE	1.99	0.95
1:CA:702:A:O2'	1:CA:703:G:OP1	1.85	0.95
24:BA:2728:U:O2'	24:BA:2729:G:OP2	1.82	0.95
31:BH:119:ASN:O	31:BH:121:VAL:N	1.99	0.95
26:BC:9:SER:HG	26:BC:12:ARG:NH1	1.60	0.94
57:CA:1672:NMY:N2	57:CA:1672:NMY:O16	1.98	0.94
24:DA:1652:A:OP1	37:DN:8:ARG:NE	2.01	0.94
31:DH:117:LEU:HD11	31:DH:121:VAL:HG12	1.47	0.94
24:BA:361:G:O2'	24:BA:362:A:O5'	1.84	0.94
28:BE:8:ALA:O	28:BE:10:SER:N	2.00	0.94
1:AA:412:A:OP2	11:CK:16:VAL:HG11	1.66	0.94
11:AK:56:ARG:O	11:AK:58:SER:N	2.00	0.94
24:DA:2021:C:OP2	50:D0:11:LYS:NZ	2.00	0.94
2:AB:57:LEU:O	2:AB:59:LYS:N	2.01	0.94
31:BH:121:VAL:HB	31:BH:122:LEU:CG	1.97	0.94
1:AA:1420:U:O4	57:AA:1656:NMY:H81	1.66	0.94
7:AG:22:LEU:O	7:AG:24:ALA:N	2.01	0.94
57:BA:3165:NMY:O3	57:BA:3165:NMY:N6	1.98	0.94
1:CA:8:A:N6	4:CD:202:GLU:O	2.01	0.94
21:CU:41:PRO:O	21:CU:44:GLU:N	2.00	0.94
1:AA:515:G:N2	1:AA:537:G:N3	2.16	0.94
1:AA:1005:A:OP2	1:AA:1024:G:N2	2.00	0.94
24:BA:1253:A:N7	59:BA:3337:HOH:O	2.01	0.94
24:BA:2780:G:OP2	33:BJ:120:ARG:NH2	2.01	0.94
7:CG:145:ALA:O	7:CG:147:ALA:N	2.00	0.94
32:DI:41:PHE:O	32:DI:45:THR:OG1	1.84	0.94
53:D3:35:LYS:O	53:D3:40:LYS:NZ	1.99	0.94
1:CA:237:G:OP1	17:CQ:42:THR:OG1	1.85	0.94
24:DA:2683:C:O2	34:DK:70:ARG:NH2	2.00	0.94
12:CL:94:ARG:O	12:CL:94:ARG:NH1	2.00	0.94
1:AA:885:G:O2'	1:AA:914:A:N1	2.00	0.93
51:D1:30:PRO:O	51:D1:32:LYS:N	2.02	0.93
57:DA:3186:NMY:HN21	57:DA:3186:NMY:C11	1.80	0.93
12:CL:87:VAL:HG23	12:CL:90:LEU:HD11	1.50	0.93
22:CV:37:A:H3'	22:CV:38:A:H8	1.33	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CV:44:G:H4'	22:CV:45:U:OP1	1.68	0.93
24:BA:528:A:C2	24:BA:2043:C:H4'	2.02	0.93
24:BA:1275:A:N1	24:BA:1295:C:O2'	2.01	0.93
24:DA:762:U:OP1	59:DA:3696:HOH:O	1.84	0.93
29:BF:3:LEU:HD11	29:BF:96:TRP:CH2	2.02	0.93
51:B1:25:ASN:ND2	51:B1:28:THR:OG1	2.00	0.93
15:CO:7:ALA:O	15:CO:8:THR:OG1	1.86	0.93
24:BA:944:C:OP2	59:BA:3263:HOH:O	1.85	0.93
1:CA:259:G:OP1	20:CT:36:TYR:OH	1.84	0.93
19:CS:44:MET:SD	19:CS:45:ILE:N	2.42	0.93
24:BA:1454:C:O5'	37:BN:63:ARG:NH2	2.02	0.93
49:BZ:2:LYS:NZ	49:BZ:3:THR:O	2.02	0.93
24:DA:182:A:HO2'	24:DA:433:C:HO2'	0.95	0.93
44:DU:32:LYS:HZ3	44:DU:64:ILE:C	1.74	0.93
25:BB:91:C:OP1	36:BM:18:ARG:NH1	2.01	0.93
1:CA:869:G:N7	59:CA:1821:HOH:O	2.02	0.93
1:CA:1307:U:O5'	13:CM:98:ARG:NH2	2.02	0.93
24:DA:1922:G:O6	57:DA:3184:NMY:N9	2.02	0.93
33:DJ:31:GLU:OE2	33:DJ:35:ARG:NH1	2.02	0.92
24:DA:2822:G:O6	37:DN:2:ARG:NH1	2.02	0.92
6:CF:59:TYR:O	6:CF:60:VAL:HG12	1.70	0.92
24:DA:2333:A:O3'	38:DO:9:ARG:NH2	2.03	0.92
24:BA:729:G:OP1	26:BC:12:ARG:NE	2.02	0.92
24:BA:906:U:O2'	36:BM:66:ARG:NH2	2.03	0.92
24:DA:2402:U:O2'	24:DA:2403:C:O5'	1.86	0.92
9:AI:86:ALA:O	9:AI:88:MET:N	2.02	0.92
57:BA:3162:NMY:N6	59:BA:3600:HOH:O	2.03	0.92
1:CA:693:G:OP1	11:CK:127:ARG:NH2	2.03	0.92
24:DA:787:C:OP1	59:DA:3761:HOH:O	1.88	0.92
24:BA:811:U:OP1	35:BL:29:LYS:N	2.02	0.92
18:CR:25:ASP:O	18:CR:27:ALA:N	2.03	0.92
1:AA:938:A:N3	1:AA:1376:U:O2'	2.03	0.92
1:CA:690:G:H2'	1:CA:691:G:O4'	1.68	0.92
24:DA:60:G:O2'	24:DA:61:C:O5'	1.88	0.92
26:DC:149:LYS:O	26:DC:149:LYS:CG	2.18	0.92
24:BA:614:A:O2'	24:BA:615:U:OP2	1.86	0.92
31:BH:121:VAL:CG1	31:BH:122:LEU:HD23	1.99	0.92
4:CD:97:ARG:NH1	4:CD:99:ASP:OD2	2.03	0.92
25:BB:8:C:OP1	38:BO:29:HIS:NE2	2.03	0.91
1:AA:1330:U:H4'	13:AM:23:TYR:CE1	2.05	0.91
41:DR:73:LYS:NZ	41:DR:86:GLN:OE1	2.04	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:510:A:OP2	59:AA:1762:HOH:O	1.88	0.91
1:CA:378:G:C2	1:CA:386:C:O2	2.24	0.91
22:CV:27:G:H1	22:CV:43:C:H42	1.17	0.91
1:CA:428:G:H4'	4:CD:9:LEU:HD22	1.50	0.91
9:CI:57:MET:O	9:CI:59:GLU:N	2.03	0.91
7:AG:127:ALA:HA	7:AG:135:VAL:HG11	1.53	0.91
1:CA:795:C:O2	11:CK:128:ARG:NH2	2.04	0.91
19:CS:3:ARG:O	19:CS:4:SER:OG	1.88	0.91
22:CV:15:G:H2'	22:CV:16:U:C4	2.06	0.91
29:BF:3:LEU:HD11	29:BF:96:TRP:CZ2	2.01	0.91
4:CD:185:LYS:O	4:CD:187:GLU:N	2.03	0.91
57:BA:3161:NMY:O14	57:BA:3161:NMY:N23	2.02	0.91
1:AA:1535:C:O2'	1:AA:1536:C:OP2	1.87	0.91
14:CN:64:CYS:SG	14:CN:83:LYS:NZ	2.42	0.91
57:DA:3190:NMY:H91	57:DA:3190:NMY:H5	1.36	0.91
26:DC:144:GLU:OE1	26:DC:148:GLY:N	2.04	0.91
1:AA:1364:U:O2'	1:AA:1365:G:O5'	1.89	0.90
1:CA:537:G:OP1	12:CL:110:ARG:NH2	2.04	0.90
1:CA:1129:C:O2	1:CA:1130:A:N6	2.04	0.90
1:CA:1524:C:P	11:CK:125:LYS:HE3	2.12	0.90
25:BB:51:G:OP2	38:BO:67:ASN:ND2	2.04	0.90
24:BA:636:G:OP2	35:BL:109:LYS:NZ	2.03	0.90
9:CI:25:ASN:O	9:CI:60:LYS:N	2.05	0.90
24:DA:1875:G:HO2'	24:DA:1876:A:P	1.94	0.90
4:AD:103:TYR:OH	4:AD:111:ARG:N	2.05	0.90
24:BA:1356:G:C2	24:BA:1376:C:O2	2.24	0.90
1:CA:1491:G:OP1	12:CL:43:LYS:NZ	2.03	0.90
57:DA:3186:NMY:H172	33:DJ:2:LYS:HZ2	1.36	0.90
1:AA:1135:U:O2'	1:AA:1138:G:O6	1.90	0.90
1:AA:1405:G:P	57:AA:1655:NMY:H192	1.86	0.90
24:BA:63:A:H4'	43:BT:77:ARG:HD3	1.50	0.90
4:CD:54:GLN:O	4:CD:58:LYS:NZ	2.05	0.90
10:CJ:5:ARG:N	10:CJ:76:ILE:O	2.03	0.90
24:BA:2286:G:OP2	51:B1:24:LYS:NZ	2.04	0.90
21:CU:41:PRO:O	21:CU:43:THR:N	2.03	0.90
24:BA:2349:G:OP2	53:B3:41:ARG:NH2	2.05	0.90
57:BA:3161:NMY:H19	57:BA:3161:NMY:C14	2.02	0.90
4:CD:32:CYS:SG	4:CD:33:LYS:N	2.43	0.90
2:CB:203:ASN:OD1	2:CB:204:ASP:N	2.04	0.90
31:DH:88:GLY:O	31:DH:125:THR:HG23	1.72	0.90
24:DA:1385:A:O2'	24:DA:1396:U:O2	1.90	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2646:C:OP2	24:DA:2732:G:O2'	1.90	0.90
8:AH:31:LYS:O	8:AH:33:LYS:N	2.05	0.89
24:BA:308:G:O2'	44:BU:16:LYS:NZ	2.04	0.89
1:AA:1079:G:HO2'	1:AA:1080:A:C5'	1.85	0.89
24:BA:1185:G:O2'	59:BA:3373:HOH:O	1.90	0.89
12:CL:87:VAL:HG22	12:CL:93:VAL:HG21	1.54	0.89
24:DA:221:A:N1	24:DA:265:A:O2'	2.05	0.89
24:BA:2721:A:O2'	24:BA:2873:A:O2'	1.90	0.89
24:DA:971:G:OP2	24:DA:974:G:N2	2.06	0.89
24:DA:2211:A:O2'	24:DA:2212:A:OP1	1.87	0.89
24:DA:2758:A:O4'	59:DA:3822:HOH:O	1.89	0.89
46:DW:20:ARG:HH11	46:DW:20:ARG:CG	1.84	0.89
1:AA:547:A:OP1	4:AD:70:ARG:NH1	2.04	0.89
24:BA:2117:A:N6	24:BA:2170:A:N1	2.19	0.89
1:CA:410:G:OP1	4:CD:26:ARG:NH2	2.04	0.89
2:CB:101:LEU:HG	2:CB:102:THR:N	1.85	0.89
1:AA:673:A:H2'	1:AA:674:G:C8	2.06	0.89
5:CE:77:ASN:O	5:CE:79:GLY:N	2.05	0.89
1:AA:689:C:OP2	11:AK:53:ARG:NH2	2.05	0.89
18:AR:25:ASP:O	18:AR:27:ALA:N	2.06	0.89
29:BF:100:GLU:O	29:BF:102:LEU:N	2.06	0.89
1:CA:1089:G:O2'	1:CA:1090:U:O5'	1.88	0.89
55:CY:164:THR:O	55:CY:166:ALA:N	2.05	0.89
1:AA:855:U:H2'	1:AA:856:C:H6	1.38	0.89
25:BB:45:A:C8	29:BF:91:ARG:CZ	2.56	0.89
15:CO:89:ARG:NH1	24:DA:714:U:C4	2.41	0.89
22:CV:5:G:H2'	22:CV:6:G:H8	1.36	0.89
29:DF:109:ARG:NH2	29:DF:136:ILE:O	2.05	0.89
34:DK:28:SER:O	34:DK:30:ARG:N	2.05	0.89
38:DO:107:ALA:O	38:DO:109:ALA:N	2.04	0.89
4:AD:146:ARG:O	4:AD:150:LYS:NZ	2.05	0.89
24:BA:733:G:C6	24:BA:761:A:N7	2.40	0.89
24:BA:2313:C:H5'	29:BF:87:LYS:HE2	1.53	0.89
24:DA:2330:G:O2'	46:DW:44:LYS:NZ	2.05	0.89
1:AA:390:U:O2'	16:AP:28:ARG:NH1	2.05	0.89
3:AC:63:SER:HA	3:AC:97:VAL:HG13	1.55	0.89
24:BA:2720:U:OP1	39:BP:52:ARG:NH2	2.06	0.89
25:DB:45:A:OP1	29:DF:91:ARG:HD3	1.73	0.89
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.08	0.88
1:AA:1432:G:OP2	39:BP:105:LYS:NZ	2.06	0.88
24:BA:2850:A:N7	24:BA:2868:A:O2'	2.05	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:72:ILE:O	9:CI:74:GLY:N	2.06	0.88
31:DH:93:SER:OG	31:DH:122:LEU:CB	2.20	0.88
31:DH:94:ILE:H	31:DH:122:LEU:CB	1.86	0.88
24:DA:2788:C:O2'	24:DA:2809:A:N3	2.06	0.88
44:DU:32:LYS:NZ	44:DU:64:ILE:O	2.07	0.88
24:DA:1115:G:O2'	24:DA:1116:G:OP2	1.90	0.88
22:CV:20:U:H3'	22:CV:21:A:H5"	1.53	0.88
36:DM:66:ARG:NH1	36:DM:104:GLU:OE1	2.07	0.88
1:AA:376:G:H5"	16:AP:5:ARG:NE	1.89	0.88
1:CA:274:A:H4'	17:CQ:16:LYS:CE	2.04	0.88
8:CH:115:ALA:O	8:CH:117:ARG:N	2.06	0.88
24:DA:1857:G:N2	24:DA:1884:G:O2'	2.07	0.88
31:DH:117:LEU:HD21	31:DH:120:GLY:HA2	1.47	0.88
24:BA:2262:U:OP2	46:BW:16:SER:OG	1.90	0.88
1:CA:215:C:O2'	1:CA:465:A:N7	2.05	0.88
9:CI:53:GLU:O	9:CI:55:VAL:N	2.06	0.88
26:DC:118:GLY:O	26:DC:120:ASP:N	2.07	0.88
32:DI:122:GLU:O	32:DI:125:THR:OG1	1.92	0.88
35:BL:80:SER:O	35:BL:82:LEU:N	2.07	0.88
48:DY:9:LYS:N	48:DY:12:GLU:OE1	2.07	0.88
1:AA:993:G:O2'	1:AA:994:A:N7	2.07	0.88
21:AU:24:GLU:OE2	21:AU:25:LYS:N	2.07	0.88
3:CC:60:PRO:O	3:CC:62:LYS:N	2.07	0.88
21:CU:20:LYS:O	21:CU:22:SER:N	2.06	0.88
24:DA:507:A:C6	57:DA:3189:NMY:N23	2.42	0.88
1:AA:1061:G:OP2	3:AC:3:GLN:NE2	2.06	0.88
39:BP:105:LYS:O	39:BP:108:ARG:NH2	2.06	0.88
1:CA:878:A:P	8:CH:80:ARG:NH2	2.46	0.88
2:CB:101:LEU:O	2:CB:103:ASN:N	2.07	0.88
4:CD:4:TYR:OH	4:CD:67:VAL:O	1.92	0.88
18:CR:29:LEU:O	18:CR:31:ASN:N	2.07	0.88
24:DA:1859:U:O4	57:DA:3187:NMY:N7	2.05	0.88
31:DH:121:VAL:HG13	31:DH:122:LEU:HD23	1.55	0.88
1:CA:1131:G:O6	1:CA:1143:G:N2	2.07	0.87
24:DA:568:U:O2'	24:DA:570:G:N7	2.05	0.87
38:DO:53:THR:O	38:DO:55:GLU:N	2.07	0.87
24:BA:2248:C:OP2	59:BA:3509:HOH:O	1.91	0.87
30:BG:41:GLU:OE1	30:BG:54:ARG:N	2.06	0.87
24:BA:517:C:OP2	50:B0:9:ARG:NH2	2.07	0.87
57:AA:1655:NMY:C16	57:AA:1655:NMY:C19	2.35	0.87
29:BF:3:LEU:HD12	29:BF:96:TRP:HZ2	1.34	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2757:A:N1	30:DG:66:THR:HG21	1.89	0.87
1:AA:854:U:O2'	1:AA:855:U:H5'	1.74	0.87
43:BT:19:LYS:HA	43:BT:22:THR:HG22	1.55	0.87
1:AA:1435:G:O6	1:AA:1465:A:N6	2.07	0.87
24:BA:545:U:H2'	24:BA:547:A:H5'	1.57	0.87
29:BF:96:TRP:CE2	29:BF:99:PHE:CZ	2.46	0.87
24:DA:1093:G:O2'	24:DA:1098:A:N1	2.07	0.87
13:AM:11:ASP:OD1	13:AM:44:LYS:NZ	2.07	0.87
24:DA:2504:U:OP2	59:DA:3487:HOH:O	1.93	0.87
38:DO:47:VAL:HG13	38:DO:48:LEU:N	1.87	0.87
24:BA:1511:G:O2'	24:BA:1512:C:O4'	1.91	0.87
1:AA:901:A:H5"	1:AA:902:G:OP2	1.74	0.86
1:CA:1147:C:O2	9:CI:18:ARG:NH1	2.08	0.86
31:DH:117:LEU:HD23	31:DH:118:PRO:C	2.00	0.86
24:BA:2658:C:O3'	30:BG:157:LYS:NZ	2.08	0.86
1:CA:1250:A:N3	1:CA:1370:G:O2'	2.09	0.86
15:CO:89:ARG:CZ	24:DA:716:A:OP2	2.23	0.86
24:DA:948:C:O2	24:DA:984:A:O2'	1.93	0.86
24:DA:1875:G:O2'	24:DA:1876:A:O5'	1.91	0.86
19:AS:17:LYS:O	19:AS:19:VAL:N	2.08	0.86
24:BA:84:A:OP1	44:BU:5:ARG:NH2	2.08	0.86
8:CH:80:ARG:CZ	8:CH:80:ARG:HB2	2.05	0.86
55:CY:28:ARG:NH2	55:CY:103:PRO:O	2.08	0.86
26:DC:175:LEU:O	26:DC:177:SER:N	2.07	0.86
1:AA:1178:G:N2	1:AA:1181:G:OP2	2.09	0.86
5:AE:157:ARG:O	5:AE:159:LYS:N	2.08	0.86
24:BA:2528:U:N3	24:BA:2535:G:O6	2.08	0.86
28:BE:83:VAL:HG13	28:BE:86:ALA:HB2	1.57	0.86
26:DC:149:LYS:O	26:DC:149:LYS:HG3	1.72	0.86
24:DA:2313:C:O4'	29:DF:36:ASN:ND2	2.09	0.86
38:DO:34:HIS:CE1	38:DO:54:VAL:CG1	2.58	0.86
24:DA:1998:A:OP2	27:DD:141:ARG:NH2	2.09	0.86
57:AA:1657:NMY:H5	57:AA:1657:NMY:H91	1.39	0.86
34:DK:111:LYS:O	34:DK:114:LYS:NZ	2.07	0.86
1:AA:1264:U:O2	1:AA:1272:G:N2	2.09	0.86
24:BA:2297:A:C2	24:BA:2298:A:C8	2.63	0.86
25:BB:2:G:N2	25:BB:3:C:O2	2.09	0.86
1:CA:933:G:OP2	7:CG:3:ARG:NE	2.08	0.86
24:DA:2062:A:OP2	59:DA:3490:HOH:O	1.94	0.86
1:AA:869:G:N7	59:AA:1819:HOH:O	2.08	0.86
24:BA:2594:C:N4	59:BA:3791:HOH:O	2.09	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:19:LEU:O	4:CD:21:LEU:N	2.08	0.86
1:CA:844:G:N7	1:CA:846:G:O2'	2.09	0.86
55:CY:149:SER:O	55:CY:151:ASP:N	2.08	0.86
24:BA:798:G:N7	59:BA:3325:HOH:O	2.08	0.85
41:BR:49:ILE:HG13	41:BR:52:PRO:C	2.01	0.85
22:CV:17:C:H5'	22:CV:18:G:H5"	1.58	0.85
20:AT:70:ASN:O	20:AT:72:ALA:N	2.08	0.85
24:BA:1265:A:OP2	59:BA:3751:HOH:O	1.94	0.85
1:CA:378:G:N2	1:CA:386:C:O2	2.09	0.85
31:DH:117:LEU:CD2	31:DH:120:GLY:CA	2.50	0.85
1:AA:783:C:C2'	1:AA:784:A:H5'	2.06	0.85
1:AA:1494:G:N7	57:AA:1655:NMY:N9	2.24	0.85
4:AD:148:LYS:O	4:AD:150:LYS:NZ	2.08	0.85
5:AE:154:ALA:O	5:AE:157:ARG:N	2.08	0.85
24:BA:2740:A:C6	24:BA:2764:A:C8	2.63	0.85
11:CK:118:HIS:O	11:CK:119:ASN:ND2	2.09	0.85
14:CN:45:VAL:O	14:CN:47:LYS:N	2.08	0.85
36:BM:58:LYS:O	36:BM:60:GLN:N	2.08	0.85
1:CA:1089:G:C2'	1:CA:1090:U:O5'	2.24	0.85
1:CA:1250:A:N1	1:CA:1353:G:N2	2.23	0.85
24:DA:6:A:O2'	33:DJ:135:GLN:OE1	1.94	0.85
2:AB:21:ARG:O	2:AB:190:ASN:ND2	2.09	0.85
24:BA:787:C:OP1	59:BA:3759:HOH:O	1.95	0.85
1:CA:859:G:O2'	1:CA:860:A:O5'	1.94	0.85
5:AE:68:ARG:O	5:AE:70:ASN:N	2.09	0.85
7:AG:74:GLU:O	7:AG:89:VAL:HG12	1.76	0.85
4:CD:187:GLU:OE2	4:CD:188:ARG:NH1	2.09	0.85
4:AD:32:CYS:SG	4:AD:33:LYS:N	2.49	0.85
7:CG:2:PRO:O	7:CG:4:ARG:N	2.08	0.85
2:AB:99:GLY:O	2:AB:103:ASN:N	2.09	0.85
59:BA:3263:HOH:O	35:BL:36:LYS:NZ	2.09	0.85
1:CA:1244:G:O6	1:CA:1293:C:N4	2.10	0.85
24:DA:587:C:C3'	24:DA:588:U:H5'	2.07	0.85
24:DA:2269:G:OP1	59:DA:3511:HOH:O	1.94	0.85
20:AT:3:ASN:O	20:AT:5:LYS:N	2.10	0.85
1:CA:967:C:C1'	9:CI:129:LYS:HE2	2.06	0.85
20:CT:32:ILE:N	20:CT:54:MET:SD	2.50	0.85
31:DH:121:VAL:O	31:DH:123:ARG:N	2.10	0.85
1:AA:263:A:OP2	20:AT:74:ARG:NH1	2.10	0.84
26:BC:62:ARG:O	26:BC:62:ARG:NH2	2.09	0.84
27:BD:137:SER:O	27:BD:139:SER:N	2.10	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BN:56:LYS:O	37:BN:57:THR:OG1	1.94	0.84
1:CA:1317:C:O5'	14:CN:56:SER:OG	1.94	0.84
10:CJ:34:ALA:O	10:CJ:35:GLN:NE2	2.09	0.84
35:DL:36:LYS:NZ	59:DL:303:HOH:O	1.95	0.84
1:AA:1501:C:OP2	1:AA:1504:G:O2'	1.95	0.84
11:AK:13:ARG:O	11:AK:15:GLN:N	2.10	0.84
1:CA:493:A:H2'	1:CA:494:G:C4	2.11	0.84
1:CA:506:G:OP1	59:CA:1762:HOH:O	1.94	0.84
15:CO:57:LEU:O	15:CO:60:VAL:N	2.10	0.84
1:AA:215:C:O2	1:AA:465:A:N6	2.09	0.84
24:BA:2298:A:OP1	29:BF:70:ARG:NH2	2.10	0.84
1:CA:201:G:N1	1:CA:217:C:O2	2.09	0.84
4:CD:115:ARG:O	4:CD:117:LEU:N	2.09	0.84
1:AA:323:U:OP1	20:AT:25:ARG:NH2	2.09	0.84
24:BA:2133:G:O2'	24:BA:2158:A:N6	2.11	0.84
24:DA:1604:C:OP1	59:DA:3406:HOH:O	1.93	0.84
24:BA:2144:G:N2	24:BA:2146:C:O2	2.09	0.84
24:BA:2676:C:OP1	34:BK:31:ARG:NH2	2.11	0.84
1:CA:1221:G:OP1	19:CS:36:ARG:NH2	2.09	0.84
22:CV:74:C:H4'	22:CV:75:C:OP2	1.77	0.84
24:DA:2230:G:H1'	47:DX:31:ASN:HB3	1.57	0.84
39:BP:64:SER:O	39:BP:66:GLY:N	2.11	0.84
39:BP:83:ILE:O	39:BP:84:SER:OG	1.95	0.84
24:DA:587:C:H3'	24:DA:588:U:H5'	1.57	0.84
30:DG:94:ARG:O	30:DG:105:SER:OG	1.96	0.84
13:AM:77:ILE:O	13:AM:79:ARG:N	2.09	0.84
24:BA:1009:A:OP2	59:BA:3783:HOH:O	1.94	0.84
35:BL:29:LYS:NZ	59:BL:303:HOH:O	2.09	0.84
35:BL:96:LYS:NZ	35:BL:103:ILE:O	2.10	0.84
1:AA:1014:A:OP1	19:AS:18:LYS:NZ	2.11	0.84
29:BF:96:TRP:HE3	29:BF:99:PHE:CE2	1.93	0.84
9:CI:25:ASN:O	9:CI:61:LEU:N	2.10	0.84
24:DA:2499:C:OP2	59:DA:3686:HOH:O	1.95	0.84
57:DA:3188:NMY:O22	57:DA:3188:NMY:O14	1.96	0.84
1:AA:332:G:O2'	20:AT:10:ARG:CZ	2.26	0.84
1:AA:980:C:H3'	1:AA:981:U:C6	2.13	0.84
4:AD:70:ARG:NH1	59:AD:401:HOH:O	2.10	0.84
24:BA:993:G:OP1	40:BQ:49:ARG:NH2	2.11	0.84
1:CA:967:C:O4'	9:CI:129:LYS:HE2	1.78	0.84
2:CB:135:LEU:O	2:CB:139:ARG:N	2.10	0.84
16:CP:52:LEU:O	16:CP:54:LEU:N	2.11	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:D4:11:CYS:SG	54:D4:33:HIS:CE1	2.71	0.84
22:CV:37:A:H3'	22:CV:38:A:C8	2.12	0.84
24:DA:189:G:OP2	47:DX:25:LYS:NZ	2.11	0.84
27:BD:98:VAL:O	27:BD:100:LEU:N	2.11	0.83
1:CA:536:C:OP1	59:CA:1767:HOH:O	1.95	0.83
24:DA:2355:G:O3'	46:DW:24:LYS:NZ	2.11	0.83
57:DA:3186:NMY:N2	57:DA:3186:NMY:O11	2.10	0.83
1:AA:627:G:OP1	16:AP:51:ARG:NH1	2.11	0.83
24:BA:2230:G:H1'	47:BX:31:ASN:HB3	1.60	0.83
24:DA:2204:G:H2'	24:DA:2205:A:H8	1.42	0.83
1:AA:980:C:O2'	1:AA:981:U:OP1	1.96	0.83
23:AX:4:G:C2'	23:AX:5:A:H5'	2.08	0.83
1:CA:501:C:P	12:CL:121:ARG:NE	2.52	0.83
16:AP:42:ILE:O	16:AP:44:SER:N	2.11	0.83
30:BG:118:ALA:O	30:BG:120:ILE:N	2.10	0.83
39:BP:90:ALA:HB2	39:BP:112:ARG:HA	1.60	0.83
24:DA:1737:G:H2'	24:DA:1738:G:C4	2.13	0.83
31:DH:40:THR:O	31:DH:42:LYS:N	2.10	0.83
13:AM:114:LYS:HB3	13:AM:115:PRO:CD	2.08	0.83
38:BO:103:VAL:O	38:BO:105:ALA:N	2.11	0.83
1:CA:751:U:C4	1:CA:752:G:C6	2.66	0.83
24:BA:537:G:OP2	57:BA:3166:NMY:O4	1.95	0.83
24:DA:578:G:OP1	59:DA:3269:HOH:O	1.96	0.83
24:DA:733:G:C6	24:DA:761:A:N7	2.47	0.83
24:DA:1188:U:C2'	24:DA:1189:A:H5'	2.09	0.83
24:BA:2718:G:O3'	39:BP:95:LYS:NZ	2.10	0.83
30:BG:138:GLN:OE1	30:BG:139:VAL:N	2.11	0.83
34:BK:92:GLU:N	34:BK:92:GLU:OE1	2.12	0.83
22:CV:32:U:H2'	22:CV:33:U:H5'	1.59	0.83
13:AM:20:THR:O	13:AM:22:ILE:N	2.10	0.83
16:AP:5:ARG:NH2	16:AP:6:LEU:HB2	1.94	0.83
24:BA:1393:A:N1	43:BT:19:LYS:NZ	2.26	0.83
26:BC:184:GLU:O	26:BC:186:ASP:N	2.12	0.83
10:CJ:73:LEU:O	10:CJ:74:VAL:HG12	1.79	0.83
24:DA:1837:C:O2'	24:DA:1927:A:N3	2.12	0.83
24:DA:2315:G:O2'	29:DF:124:ARG:CZ	2.26	0.83
1:AA:354:G:C2	1:AA:355:C:C6	2.66	0.83
11:CK:27:PHE:O	11:CK:29:ASN:N	2.12	0.83
14:CN:32:ASP:O	14:CN:34:ASN:N	2.11	0.83
24:DA:2571:U:O2'	27:DD:151:THR:CG2	2.27	0.83
57:DA:3188:NMY:H172	57:DA:3188:NMY:H1	1.61	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:82:GLY:O	28:BE:84:THR:N	2.11	0.82
4:CD:63:ARG:NE	4:CD:63:ARG:HA	1.94	0.82
6:CF:74:LEU:O	6:CF:77:THR:N	2.12	0.82
57:DA:3186:NMY:H172	33:DJ:2:LYS:NZ	1.94	0.82
25:DB:45:A:OP1	29:DF:91:ARG:NH2	2.11	0.82
31:DH:81:ALA:HB1	31:DH:149:GLU:OE1	1.79	0.82
16:AP:19:VAL:HG21	16:AP:37:GLY:N	1.94	0.82
48:BY:16:THR:O	48:BY:20:ASN:N	2.12	0.82
1:CA:346:G:P	34:DK:108:ARG:NH2	2.52	0.82
3:CC:39:VAL:O	3:CC:41:GLN:N	2.12	0.82
24:DA:1239:G:C5	57:DA:3190:NMY:H62	2.14	0.82
24:BA:1371:G:N7	59:BA:3405:HOH:O	2.12	0.82
7:CG:122:ASN:O	7:CG:125:SER:OG	1.98	0.82
24:DA:2840:C:H5”	37:DN:53:THR:HG21	1.59	0.82
26:DC:5:CYS:SG	26:DC:15:VAL:HG12	2.19	0.82
1:AA:1043:G:C6	1:AA:1044:A:N6	2.48	0.82
20:CT:60:ARG:NH2	59:CT:102:HOH:O	2.12	0.82
24:DA:2330:G:O3’	46:DW:44:LYS:NZ	2.12	0.82
24:DA:2655:G:O2’	24:DA:2656:U:OP2	1.96	0.82
24:BA:2719:G:H5’	39:BP:95:LYS:HZ3	1.44	0.82
28:BE:170:ARG:NH1	28:BE:179:SER:OG	2.13	0.82
24:DA:1869:G:N2	24:DA:1873:G:N7	2.28	0.82
1:AA:1032:G:N2	1:AA:1033:G:O4’	2.12	0.82
1:AA:1388:C:H2’	1:AA:1389:C:H6	1.44	0.82
35:BL:123:ARG:O	35:BL:125:LEU:N	2.12	0.82
1:CA:763:G:H2’	1:CA:764:C:C6	2.15	0.82
1:AA:846:G:N1	1:AA:847:G:N7	2.27	0.82
1:AA:889:A:H5’	1:AA:891:U:H1’	1.61	0.82
4:AD:58:LYS:HA	4:AD:200:ILE:CG1	2.10	0.82
24:BA:2294:G:O5’	38:BO:10:ARG:NH2	2.13	0.82
3:AC:73:PRO:O	3:AC:75:ILE:N	2.13	0.82
24:BA:2872:A:H2’	24:BA:2873:A:H5’	1.60	0.82
28:BE:46:GLN:CB	28:BE:83:VAL:HG11	2.08	0.82
35:BL:78:ARG:HB2	35:BL:113:ALA:HB2	1.60	0.82
24:DA:944:C:P	59:DA:3262:HOH:O	2.36	0.82
24:DA:2483:C:O4’	36:DM:51:ARG:NH2	2.12	0.82
1:AA:642:A:N1	8:AH:86:TYR:OH	2.12	0.82
8:AH:88:ARG:HB2	8:AH:88:ARG:HH11	1.44	0.82
12:AL:33:VAL:HG22	12:AL:56:ARG:HB3	1.61	0.82
25:BB:113:C:O2’	38:BO:46:GLU:OE1	1.98	0.82
12:CL:5:ASN:O	12:CL:8:VAL:HG12	1.78	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:861:A:N3	25:DB:79:G:O2'	2.11	0.82
24:DA:1205:A:H5'	57:DA:3190:NMY:H14	1.62	0.82
4:AD:58:LYS:HA	4:AD:200:ILE:HG12	1.62	0.82
21:AU:14:VAL:HG23	21:AU:16:LEU:CD2	2.08	0.82
24:BA:78:U:OP2	48:BY:2:LYS:NZ	2.11	0.82
24:BA:2472:G:H3'	24:BA:2473:U:H5'	1.60	0.82
24:DA:118:A:C8	24:DA:119:A:C8	2.68	0.82
26:DC:259:ASN:CG	26:DC:262:THR:HG1	1.87	0.82
30:DG:36:LEU:O	30:DG:38:ASP:N	2.13	0.82
1:AA:132:C:OP1	20:AT:69:LYS:NZ	2.12	0.81
24:BA:858:G:O2'	24:BA:2268:A:O2'	1.98	0.81
6:CF:91:ARG:O	6:CF:92:THR:OG1	1.98	0.81
29:DF:48:LEU:N	29:DF:51:ASN:OD1	2.12	0.81
8:AH:10:MET:HE2	8:AH:33:LYS:HG2	1.61	0.81
13:AM:98:ARG:NE	13:AM:100:GLN:OE1	2.13	0.81
24:BA:2290:G:N2	24:BA:2373:G:O2'	2.11	0.81
26:BC:43:ASN:O	26:BC:45:ASN:N	2.12	0.81
1:CA:948:C:OP2	13:CM:107:ARG:N	2.12	0.81
6:CF:21:MET:O	6:CF:23:GLU:N	2.13	0.81
12:CL:114:ARG:CZ	12:CL:121:ARG:HG3	2.09	0.81
16:CP:1:MET:H3	16:CP:1:MET:HE3	1.43	0.81
24:DA:1068:G:O6	24:DA:1069:A:N6	2.13	0.81
24:DA:1239:G:N7	57:DA:3190:NMY:C6	2.42	0.81
1:AA:783:C:H2'	1:AA:784:A:H5'	1.60	0.81
24:BA:669:G:H2'	24:BA:669:G:N3	1.95	0.81
24:BA:2094:A:H5"	31:BH:25:TYR:CE2	2.15	0.81
29:BF:116:LEU:O	29:BF:118:ALA:N	2.12	0.81
13:CM:68:ASP:O	13:CM:70:ARG:N	2.13	0.81
38:DO:34:HIS:CE1	38:DO:54:VAL:HG12	2.15	0.81
40:DQ:83:LYS:HE3	40:DQ:84:LYS:HB2	1.61	0.81
6:AF:70:VAL:O	6:AF:73:GLU:N	2.14	0.81
14:AN:3:GLN:N	14:AN:3:GLN:OE1	2.13	0.81
57:BA:3162:NMY:O11	57:BA:3162:NMY:H1	1.81	0.81
45:BV:83:LYS:O	45:BV:85:LYS:N	2.13	0.81
1:CA:966:G:H2'	9:CI:129:LYS:NZ	1.96	0.81
24:DA:1394:U:OP1	59:DA:3406:HOH:O	1.97	0.81
24:DA:1997:C:OP2	27:DD:129:THR:HG22	1.79	0.81
27:DD:101:PHE:HB3	27:DD:104:VAL:HG21	1.62	0.81
9:AI:35:LEU:O	9:AI:38:TYR:N	2.13	0.81
24:BA:636:G:HO2'	24:BA:638:G:HO2'	1.12	0.81
24:BA:1176:U:O2'	24:BA:1177:G:O4'	1.98	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2377:A:N3	38:BO:92:PHE:CE2	2.48	0.81
57:BA:3165:NMY:O17	57:BA:3165:NMY:H2	1.78	0.81
1:AA:377:G:N2	1:AA:387:U:O2	2.14	0.81
1:AA:1124:G:O2'	1:AA:1145:A:N6	2.12	0.81
1:AA:1160:G:OP1	2:AB:132:LYS:NZ	2.13	0.81
24:BA:1188:U:H2'	24:BA:1189:A:H5'	1.63	0.81
24:BA:1666:G:O3'	34:BK:6:THR:HG23	1.79	0.81
24:DA:301:G:OP2	44:DU:81:ARG:NH1	2.13	0.81
38:DO:108:ASP:O	38:DO:111:ARG:N	2.14	0.81
4:AD:165:ARG:O	4:AD:167:LYS:N	2.12	0.81
24:BA:1070:A:O2'	24:BA:1097:U:O3'	1.98	0.81
24:BA:2010:G:C4	24:BA:2011:U:O2	2.33	0.81
24:BA:2315:G:O2'	29:BF:124:ARG:NE	2.14	0.81
1:CA:995:C:N3	1:CA:1046:A:O2'	2.12	0.81
2:CB:146:ASN:O	2:CB:147:SER:OG	1.99	0.81
22:CV:20:U:H3'	22:CV:21:A:C5'	2.10	0.81
24:DA:1450:G:C6	24:DA:1451:C:N4	2.49	0.81
27:DD:137:SER:OG	59:DD:302:HOH:O	1.98	0.81
31:DH:88:GLY:CA	31:DH:125:THR:CG2	2.51	0.81
32:DI:129:GLU:OE1	32:DI:133:ARG:NH2	2.14	0.81
46:DW:20:ARG:HH11	46:DW:20:ARG:HG3	1.45	0.81
1:AA:44:A:OP2	16:AP:12:LYS:NZ	2.12	0.81
3:AC:59:ARG:O	3:AC:61:ALA:N	2.14	0.81
24:BA:760:G:OP2	59:BA:3301:HOH:O	1.97	0.81
24:BA:1365:A:OP1	47:BX:27:ARG:NH2	2.13	0.81
44:BU:98:ASN:O	44:BU:99:SER:OG	1.96	0.81
1:AA:855:U:H2'	1:AA:856:C:C6	2.16	0.81
57:AA:1657:NMY:H91	57:AA:1657:NMY:C5	1.94	0.81
2:AB:83:ALA:O	2:AB:89:GLN:NE2	2.13	0.81
2:AB:151:ILE:O	2:AB:153:ASP:N	2.14	0.81
24:BA:1859:U:O4	57:BA:3167:NMY:N7	2.14	0.81
38:BO:103:VAL:O	38:BO:106:LEU:N	2.13	0.81
1:CA:1242:G:N1	1:CA:1296:C:O2	2.13	0.81
2:CB:18:HIS:O	2:CB:189:THR:OG1	1.97	0.81
12:CL:102:LEU:HD12	12:CL:103:ASP:CB	2.11	0.81
55:CY:51:LEU:O	55:CY:53:GLN:N	2.14	0.81
24:DA:372:G:O2'	24:DA:400:G:O6	1.97	0.81
24:DA:1060:U:C6	24:DA:1062:G:H5'	2.15	0.81
57:AA:1655:NMY:H19	57:AA:1655:NMY:H16	0.83	0.81
24:BA:2286:G:P	51:B1:29:LYS:NZ	2.54	0.81
1:CA:328:C:H4'	1:CA:329:A:H5"	1.63	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1857:G:N2	24:DA:1884:G:N3	2.29	0.81
34:DK:107:LEU:O	34:DK:109:SER:N	2.13	0.81
44:DU:5:ARG:HD2	44:DU:6:ARG:N	1.95	0.81
6:AF:3:HIS:NE2	6:AF:65:GLU:OE1	2.14	0.80
24:BA:2230:G:H1'	47:BX:31:ASN:CB	2.12	0.80
24:BA:2485:G:OP1	36:BM:45:GLN:NE2	2.14	0.80
47:BX:31:ASN:OD1	47:BX:52:ALA:HB2	1.80	0.80
24:DA:2091:C:H4'	47:DX:55:MET:CE	2.11	0.80
4:AD:93:LEU:O	4:AD:95:GLU:N	2.12	0.80
22:AV:55:U:O2'	22:AV:57:G:N7	2.13	0.80
1:CA:667:G:H4'	15:CO:51:HIS:CD2	2.16	0.80
22:CV:5:G:H2'	22:CV:6:G:C8	2.16	0.80
25:DB:23:G:O6	59:DB:304:HOH:O	1.99	0.80
37:DN:2:ARG:O	37:DN:5:LYS:N	2.13	0.80
6:AF:6:ILE:HD12	6:AF:89:VAL:HG22	1.62	0.80
1:CA:1221:G:OP1	19:CS:36:ARG:NE	2.14	0.80
24:DA:548:G:O2'	24:DA:549:G:C2	2.33	0.80
24:DA:585:G:N7	40:DQ:5:ARG:NH1	2.28	0.80
20:AT:7:ALA:O	20:AT:9:LYS:N	2.13	0.80
24:BA:1417:C:O2'	24:BA:1587:G:O2'	1.97	0.80
7:CG:77:SER:O	7:CG:79:ARG:N	2.14	0.80
19:CS:48:THR:OG1	19:CS:49:ILE:N	2.09	0.80
24:DA:1178:C:H2'	24:DA:1179:G:C8	2.15	0.80
31:DH:93:SER:OG	31:DH:122:LEU:CG	2.30	0.80
44:DU:32:LYS:HA	44:DU:32:LYS:HZ2	1.46	0.80
1:AA:1046:A:N6	1:AA:1211:U:O2	2.14	0.80
2:AB:193:PRO:O	2:AB:195:GLY:N	2.15	0.80
1:CA:705:G:C6	11:CK:44:TRP:CZ3	2.68	0.80
1:CA:1114:C:H2'	1:CA:1114:C:O2	1.81	0.80
13:CM:14:HIS:HB3	13:CM:17:ILE:HD11	1.64	0.80
55:CY:82:ILE:O	55:CY:85:SER:OG	1.99	0.80
24:DA:815:C:OP2	41:DR:85:LYS:NZ	2.15	0.80
12:AL:116:LYS:O	12:AL:117:TYR:CG	2.35	0.80
24:BA:77:G:H5"	48:BY:2:LYS:CD	2.11	0.80
1:CA:711:G:O2'	1:CA:712:A:OP1	1.99	0.80
1:CA:1223:C:OP2	19:CS:78:ARG:NH2	2.15	0.80
31:DH:9:VAL:O	31:DH:10:ALA:O	2.00	0.80
35:DL:87:GLY:O	35:DL:89:VAL:N	2.15	0.80
4:CD:160:GLU:OE2	4:CD:161:LEU:N	2.15	0.80
5:CE:146:ASN:OD1	5:CE:147:MET:N	2.14	0.80
24:DA:1010:A:OP2	59:DA:3784:HOH:O	1.97	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1997:C:OP1	27:DD:128:ARG:CZ	2.29	0.80
28:DE:131:THR:OG1	28:DE:162:ARG:NH1	2.15	0.80
24:BA:2313:C:C5'	29:BF:87:LYS:HE2	2.11	0.80
1:CA:1431:A:N6	1:CA:1432:G:O6	2.14	0.80
2:CB:10:LEU:O	2:CB:12:ALA:N	2.15	0.80
14:CN:41:ARG:O	14:CN:43:ASN:N	2.15	0.80
22:CV:56:C:H2'	22:CV:57:G:H5'	1.62	0.80
24:DA:1358:G:N7	59:DA:3400:HOH:O	2.13	0.80
24:DA:2484:G:OP1	36:DM:44:ARG:HD3	1.81	0.80
1:AA:413:G:O2'	1:AA:428:G:N2	2.14	0.80
24:BA:1188:U:C2'	24:BA:1189:A:H5'	2.12	0.80
24:BA:2872:A:C2'	24:BA:2873:A:H5'	2.12	0.80
1:CA:613:C:OP2	4:CD:81:ARG:NH2	2.15	0.80
24:DA:1737:G:C4	24:DA:1738:G:N2	2.50	0.80
24:DA:1901:A:OP2	26:DC:252:LYS:NZ	2.14	0.80
24:DA:2849:U:O2'	24:DA:2866:U:O2	2.00	0.80
41:DR:42:ALA:HA	41:DR:46:GLU:HB2	1.62	0.80
1:AA:511:C:C2	1:AA:512:U:C6	2.70	0.79
1:AA:1328:C:O3'	13:AM:29:ARG:NH1	2.14	0.79
12:AL:25:GLU:O	12:AL:27:CYS:N	2.15	0.79
42:BS:47:VAL:O	42:BS:50:VAL:N	2.15	0.79
14:CN:64:CYS:O	14:CN:83:LYS:NZ	2.15	0.79
24:DA:587:C:OP2	35:DL:21:ARG:NH1	2.15	0.79
1:AA:509:A:OP1	4:AD:51:TYR:OH	2.00	0.79
9:AI:35:LEU:O	9:AI:37:GLN:N	2.15	0.79
31:BH:119:ASN:O	31:BH:121:VAL:HG13	1.82	0.79
1:CA:501:C:P	12:CL:121:ARG:CZ	2.70	0.79
8:CH:117:ARG:O	8:CH:120:GLY:N	2.16	0.79
35:DL:77:ILE:HG22	35:DL:110:VAL:HB	1.63	0.79
42:DS:109:ASP:OD1	42:DS:110:ARG:N	2.14	0.79
1:AA:509:A:P	4:AD:51:TYR:OH	2.40	0.79
1:AA:664:G:OP1	18:AR:53:ARG:NH2	2.15	0.79
1:AA:706:A:C5	1:AA:707:U:C5	2.71	0.79
24:DA:2825:G:C3'	24:DA:2826:A:H5'	2.12	0.79
1:AA:174:A:C5	1:AA:175:C:C5	2.70	0.79
1:AA:981:U:C5	1:AA:982:U:C2	2.70	0.79
13:AM:18:ALA:O	13:AM:21:SER:OG	2.01	0.79
26:BC:97:ASP:OD1	26:BC:97:ASP:N	2.16	0.79
26:BC:220:ARG:NH2	59:BC:408:HOH:O	2.15	0.79
1:CA:722:G:OP1	18:CR:43:ARG:NH2	2.16	0.79
22:CV:15:G:H2'	22:CV:16:U:C5	2.17	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:525:C:OP1	12:AL:86:ARG:NH2	2.16	0.79
28:BE:96:VAL:O	28:BE:97:ASN:HB2	1.81	0.79
1:CA:1237:C:OP1	59:CA:1868:HOH:O	2.00	0.79
1:CA:1279:G:OP1	10:CJ:9:ARG:NH2	2.15	0.79
26:DC:156:SER:O	26:DC:194:VAL:HG11	1.81	0.79
1:AA:56:U:C4	31:DH:91:PHE:CZ	2.70	0.79
1:AA:601:G:N2	1:AA:638:U:O2	2.15	0.79
57:AA:1656:NMY:H16	57:AA:1656:NMY:H232	1.64	0.79
2:AB:115:LYS:NZ	1:CA:841:C:O2'	2.14	0.79
15:AO:87:LEU:O	15:AO:89:ARG:N	2.14	0.79
24:BA:797:G:OP1	28:BE:55:SER:OG	2.00	0.79
24:BA:2483:C:O2	36:BM:123:LYS:NZ	2.14	0.79
33:BJ:56:VAL:HG22	33:BJ:124:VAL:HA	1.64	0.79
7:CG:111:ARG:NH1	7:CG:119:ARG:O	2.15	0.79
9:CI:130:ARG:NH2	22:CV:33:U:OP2	2.16	0.79
24:DA:85:G:P	44:DU:5:ARG:HD3	2.23	0.79
1:AA:376:G:H5"	16:AP:5:ARG:CD	2.12	0.79
1:AA:376:G:C5'	16:AP:5:ARG:NE	2.46	0.79
1:AA:975:A:N1	1:AA:1366:C:O2'	2.15	0.79
1:AA:979:C:H3'	1:AA:980:C:O4'	1.83	0.79
1:AA:1286:U:O2'	1:AA:1287:A:OP1	2.00	0.79
1:AA:1305:G:N1	1:AA:1331:G:O2'	2.15	0.79
4:CD:110:THR:OG1	4:CD:113:GLU:OE2	2.00	0.79
24:DA:538:A:OP2	57:DA:3186:NMY:H16	1.81	0.79
37:DN:2:ARG:O	37:DN:3:HIS:C	2.25	0.79
39:DP:92:ARG:O	39:DP:93:LYS:HB2	1.83	0.79
44:DU:75:ALA:O	44:DU:77:GLY:N	2.16	0.79
24:BA:475:C:O4'	24:BA:509:C:C5	2.36	0.79
24:BA:1059:G:O6	24:BA:1079:C:N4	2.16	0.79
24:BA:1131:G:OP1	33:BJ:82:GLY:HA2	1.82	0.79
43:BT:60:THR:O	59:BT:203:HOH:O	1.99	0.79
1:CA:203:G:N2	1:CA:215:C:C2	2.50	0.79
30:DG:108:PHE:CZ	30:DG:111:PRO:HA	2.16	0.79
25:BB:44:G:OP1	29:BF:94:ARG:NH1	2.16	0.79
24:DA:2243:U:OP1	59:DA:3743:HOH:O	2.00	0.79
1:AA:1080:A:OP2	5:AE:52:LYS:NZ	2.15	0.79
24:BA:391:A:C5	24:BA:392:U:C6	2.70	0.79
29:BF:163:GLU:N	29:BF:163:GLU:OE1	2.16	0.79
4:CD:77:LYS:O	4:CD:80:ALA:N	2.16	0.79
12:CL:98:VAL:CG2	12:CL:101:ALA:HB2	2.13	0.79
14:CN:81:ARG:O	14:CN:83:LYS:N	2.16	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CV:47:U:H4'	22:CV:48:C:OP2	1.83	0.79
24:DA:492:A:OP2	57:DA:3189:NMY:O3	2.01	0.79
24:BA:1115:G:O2'	24:BA:1116:G:OP2	2.01	0.78
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.17	0.78
36:DM:81:ARG:CZ	36:DM:81:ARG:HA	2.13	0.78
6:AF:91:ARG:O	6:AF:92:THR:OG1	2.00	0.78
24:BA:588:U:H1'	28:BE:85:PHE:CD1	2.19	0.78
1:CA:75:G:N1	1:CA:96:U:O4	2.17	0.78
12:CL:102:LEU:HD12	12:CL:103:ASP:HB3	1.64	0.78
4:AD:10:LYS:O	4:AD:12:SER:N	2.17	0.78
24:BA:657:U:H2'	24:BA:658:U:C6	2.18	0.78
24:BA:997:G:OP1	40:BQ:91:ARG:HG2	1.84	0.78
24:BA:2667:C:N3	30:BG:109:SER:OG	2.16	0.78
29:BF:14:LYS:NZ	29:BF:18:GLU:OE2	2.16	0.78
1:CA:722:G:O2'	1:CA:723:U:O5'	2.00	0.78
20:CT:32:ILE:HA	20:CT:54:MET:SD	2.23	0.78
2:AB:84:ALA:HA	2:AB:218:ALA:CB	2.13	0.78
24:BA:1210:G:H4'	24:BA:1211:C:H5'	1.64	0.78
35:BL:51:GLU:OE1	35:BL:60:ARG:NH1	2.16	0.78
1:CA:736:C:H2'	1:CA:737:C:C6	2.19	0.78
1:CA:1099:G:C2	1:CA:1100:C:O2	2.36	0.78
9:CI:54:LEU:O	9:CI:56:ASP:N	2.15	0.78
24:DA:1666:G:O3'	34:DK:6:THR:HG22	1.83	0.78
35:DL:39:LYS:NZ	59:DL:307:HOH:O	2.17	0.78
1:AA:537:G:OP1	12:AL:110:ARG:NH2	2.16	0.78
5:AE:104:GLY:HA2	5:AE:122:ASN:HA	1.66	0.78
24:BA:58:G:N3	24:BA:70:G:N2	2.30	0.78
24:BA:545:U:C4	24:BA:547:A:O2'	2.35	0.78
24:DA:536:G:OP2	57:DA:3186:NMY:H81	1.83	0.78
24:DA:2627:G:C2	24:DA:2628:C:O2	2.36	0.78
42:DS:25:ARG:NH1	42:DS:74:ILE:O	2.16	0.78
1:AA:182:A:N1	1:AA:223:A:O2'	2.16	0.78
12:AL:110:ARG:NH1	12:AL:112:GLN:O	2.16	0.78
16:AP:5:ARG:CZ	16:AP:6:LEU:HB2	2.12	0.78
16:AP:43:ALA:O	16:AP:44:SER:OG	2.00	0.78
24:BA:822:G:OP2	59:BA:3341:HOH:O	2.02	0.78
24:BA:1417:C:HO2'	24:BA:1587:G:HO2'	1.29	0.78
24:DA:1068:G:C6	24:DA:1069:A:C6	2.72	0.78
57:DA:3188:NMY:H1	57:DA:3188:NMY:C17	2.13	0.78
31:DH:14:SER:O	31:DH:16:GLY:N	2.17	0.78
36:DM:44:ARG:HG3	36:DM:44:ARG:HH21	1.47	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DN:2:ARG:HA	37:DN:5:LYS:CD	2.14	0.78
1:AA:52:C:N4	1:AA:359:G:O6	2.15	0.78
4:AD:109:ALA:O	4:AD:110:THR:HB	1.84	0.78
6:AF:77:THR:HB	6:AF:80:PHE:CE1	2.18	0.78
24:BA:2207:C:N3	24:BA:2218:G:C2	2.52	0.78
24:BA:2470:G:O6	24:BA:2476:A:O2'	2.01	0.78
27:BD:125:TRP:CG	27:BD:160:LYS:HG2	2.19	0.78
24:DA:1032:A:O2'	24:DA:1033:U:H5'	1.84	0.78
24:DA:1154:G:OP2	40:DQ:57:ARG:NH1	2.17	0.78
24:DA:1653:G:O5'	37:DN:2:ARG:NH2	2.16	0.78
46:DW:56:ASP:HB3	46:DW:58:THR:HG23	1.64	0.78
1:AA:375:U:O3'	16:AP:5:ARG:CZ	2.32	0.78
12:AL:50:ARG:NH1	12:AL:89:ASP:OD2	2.17	0.78
24:BA:674:G:H1'	28:BE:69:ARG:HD3	1.65	0.78
24:BA:859:G:O2'	24:BA:860:U:OP2	2.01	0.78
24:BA:1202:G:OP2	57:BA:3163:NMY:N6	2.17	0.78
1:CA:386:C:H2'	1:CA:387:U:H5'	1.64	0.78
1:CA:878:A:OP1	8:CH:80:ARG:CZ	2.32	0.78
4:CD:22:LYS:HZ1	4:CD:26:ARG:HB2	1.48	0.78
7:CG:48:GLU:OE2	7:CG:49:THR:N	2.17	0.78
24:DA:195:A:N7	59:DA:3763:HOH:O	2.17	0.78
24:DA:2061:G:OP2	59:DA:3491:HOH:O	2.00	0.78
1:AA:324:G:N2	1:AA:327:A:C8	2.52	0.78
1:AA:1179:A:O3'	9:AI:105:THR:OG1	2.00	0.78
5:AE:104:GLY:CA	5:AE:122:ASN:HA	2.14	0.78
21:AU:17:ARG:CZ	21:AU:17:ARG:HA	2.14	0.78
24:BA:2197:U:O2'	24:BA:2198:A:OP2	2.02	0.78
1:CA:1397:C:O2'	1:CA:1398:A:OP1	2.02	0.78
24:DA:544:C:O2'	24:DA:545:U:OP1	2.01	0.78
25:BB:91:C:OP1	36:BM:18:ARG:CZ	2.31	0.78
24:DA:602:A:O2'	24:DA:604:G:O2'	2.01	0.78
31:DH:117:LEU:HD21	31:DH:121:VAL:N	1.98	0.78
49:DZ:13:ILE:O	49:DZ:15:ARG:N	2.16	0.78
1:AA:913:A:H4'	1:AA:914:A:OP1	1.82	0.77
1:AA:1249:C:O2'	9:AI:71:GLY:O	2.01	0.77
24:BA:320:A:C4	28:BE:131:THR:HG21	2.19	0.77
24:BA:993:G:P	40:BQ:49:ARG:HH21	2.07	0.77
24:BA:2418:A:O2'	24:BA:2419:U:OP1	2.02	0.77
24:BA:2526:G:N3	54:B4:1:MET:N	2.32	0.77
24:BA:2831:G:OP1	27:BD:56:LYS:HE2	1.84	0.77
4:CD:54:GLN:NE2	4:CD:202:GLU:OE2	2.17	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:43:ASN:O	19:CS:43:ASN:ND2	2.17	0.77
24:DA:2597:G:H5"	26:DC:239:PHE:O	1.83	0.77
37:DN:2:ARG:HA	37:DN:5:LYS:HD3	1.66	0.77
46:DW:56:ASP:CB	46:DW:58:THR:HG23	2.13	0.77
1:AA:620:C:H1'	4:AD:132:ILE:HG12	1.65	0.77
1:AA:846:G:C6	1:AA:847:G:N7	2.53	0.77
24:BA:413:C:N4	59:BA:3566:HOH:O	2.17	0.77
28:BE:194:LYS:O	28:BE:197:GLU:N	2.16	0.77
24:DA:2014:A:H2'	24:DA:2015:A:C8	2.18	0.77
24:DA:2730:C:C5	57:DA:3185:NMY:H22	2.19	0.77
29:DF:155:ILE:C	29:DF:155:ILE:HD12	2.09	0.77
1:AA:299:G:H2'	1:AA:300:A:C8	2.18	0.77
15:AO:78:TYR:O	15:AO:80:GLN:N	2.16	0.77
24:BA:612:G:H2'	24:BA:614:A:C8	2.18	0.77
24:BA:2874:C:OP1	59:BA:3808:HOH:O	2.01	0.77
1:CA:200:G:N2	1:CA:218:U:O2	2.17	0.77
38:DO:53:THR:OG1	38:DO:54:VAL:N	2.13	0.77
1:AA:1122:U:H2'	1:AA:1123:U:H5"	1.66	0.77
15:AO:71:LYS:N	15:AO:78:TYR:OH	2.18	0.77
1:CA:857:C:H2'	1:CA:858:G:O4'	1.84	0.77
1:CA:1307:U:P	13:CM:98:ARG:NH2	2.57	0.77
7:CG:120:LEU:O	7:CG:122:ASN:N	2.16	0.77
11:CK:101:ASN:ND2	21:CU:13:ASP:OD1	2.17	0.77
12:CL:98:VAL:HG22	12:CL:101:ALA:CB	2.15	0.77
13:CM:17:ILE:HD12	13:CM:17:ILE:N	1.98	0.77
41:DR:52:PRO:O	41:DR:53:PHE:CD1	2.38	0.77
1:AA:9:G:N2	1:AA:10:A:C4	2.52	0.77
1:AA:671:G:O2'	6:AF:79:ARG:NH2	2.16	0.77
1:AA:793:U:O2	1:AA:1516:G:H4'	1.84	0.77
9:AI:130:ARG:NH2	22:AV:33:U:C5	2.52	0.77
15:AO:33:THR:OG1	15:AO:34:ALA:N	2.13	0.77
24:BA:1827:U:H5'	24:BA:1971:U:H5"	1.64	0.77
29:BF:172:PHE:O	29:BF:174:PHE:N	2.18	0.77
24:DA:31:C:O3'	24:DA:1238:G:H5"	1.82	0.77
24:DA:297:G:O3'	44:DU:84:PHE:CG	2.37	0.77
24:DA:446:G:OP2	40:DQ:2:ARG:NE	2.18	0.77
1:AA:1350:A:OP1	9:AI:123:ARG:NH1	2.17	0.77
24:BA:1183:U:OP1	49:BZ:30:ARG:NH2	2.17	0.77
24:BA:2703:C:O2'	24:BA:2704:C:O5'	2.02	0.77
57:BA:3161:NMY:N2	57:BA:3161:NMY:O17	2.17	0.77
16:CP:6:LEU:HD13	16:CP:17:TYR:CD2	2.19	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:159:G:O2'	24:DA:160:A:O5'	2.01	0.77
24:DA:600:G:H1'	28:DE:100:MET:HE2	1.66	0.77
30:DG:97:VAL:HG23	30:DG:124:CYS:SG	2.25	0.77
31:DH:117:LEU:CD1	31:DH:121:VAL:HG12	2.15	0.77
57:BA:3162:NMY:N6	59:BA:3601:HOH:O	2.18	0.77
1:CA:1317:C:P	14:CN:56:SER:HG	2.07	0.77
55:CY:44:TYR:OH	55:CY:49:THR:O	2.01	0.77
24:DA:1132:U:O2'	24:DA:1133:A:H5'	1.84	0.77
41:DR:52:PRO:O	41:DR:53:PHE:CG	2.36	0.77
1:AA:279:A:N3	1:AA:281:G:N2	2.33	0.77
4:AD:71:GLN:O	4:AD:74:ASN:ND2	2.18	0.77
24:BA:387:U:C2	24:BA:388:G:N7	2.52	0.77
1:CA:1321:U:O2	19:CS:36:ARG:NH2	2.17	0.77
5:CE:108:GLY:O	5:CE:110:ALA:N	2.17	0.77
24:DA:732:C:H2'	24:DA:733:G:O4'	1.85	0.77
24:DA:734:A:H2'	24:DA:735:A:H5'	1.66	0.77
24:DA:2057:G:OP2	59:DA:3488:HOH:O	2.02	0.77
24:DA:2868:A:C2	24:DA:2869:G:C4	2.73	0.77
31:DH:120:GLY:O	31:DH:122:LEU:CG	2.32	0.77
42:DS:84:ARG:HB3	42:DS:96:ILE:HG22	1.67	0.77
50:D0:24:VAL:O	50:D0:26:SER:N	2.16	0.77
53:D3:56:LEU:N	53:D3:56:LEU:HD23	2.00	0.77
1:AA:846:G:C2	1:AA:847:G:C8	2.72	0.77
12:AL:43:LYS:O	12:AL:45:PRO:CD	2.33	0.77
24:BA:1428:C:C5	24:BA:1569:A:H5"	2.20	0.77
24:BA:2425:A:O4'	24:BA:2427:C:C6	2.38	0.77
22:CV:13:C:O2'	22:CV:14:A:H5'	1.85	0.77
24:DA:1188:U:H2'	24:DA:1189:A:H5'	1.66	0.77
24:DA:2429:G:OP1	59:DA:3700:HOH:O	2.02	0.77
1:AA:267:C:N4	59:AA:1723:HOH:O	2.18	0.77
1:AA:435:A:C2	1:AA:436:C:C2	2.73	0.77
10:AJ:19:ASP:OD1	10:AJ:72:ARG:NH2	2.18	0.77
12:AL:101:ALA:C	12:AL:102:LEU:HG	2.10	0.77
24:DA:198:C:OP2	59:DA:3763:HOH:O	2.01	0.77
24:DA:1439:A:C2	24:DA:1553:A:C4	2.73	0.77
24:DA:2091:C:H4'	47:DX:55:MET:HE1	1.67	0.77
30:DG:105:SER:HA	30:DG:108:PHE:CE2	2.20	0.77
34:DK:97:THR:O	34:DK:98:ARG:HB3	1.81	0.77
1:AA:1493:A:OP2	57:AA:1655:NMY:O4	2.03	0.76
21:AU:40:LYS:O	21:AU:44:GLU:N	2.18	0.76
24:BA:434:U:O2	24:BA:436:C:N4	2.18	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BU:15:GLY:O	44:BU:17:ASP:N	2.18	0.76
1:CA:428:G:H4'	4:CD:9:LEU:CD2	2.14	0.76
14:CN:55:SER:O	14:CN:60:GLN:NE2	2.18	0.76
22:CV:27:G:H1	22:CV:43:C:N4	1.83	0.76
24:DA:910:A:C4	36:DM:13:HIS:CE1	2.73	0.76
24:DA:1737:G:N3	24:DA:1738:G:N2	2.33	0.76
24:DA:2371:G:H1'	51:D1:38:PHE:CE2	2.21	0.76
30:DG:10:VAL:HG23	30:DG:48:THR:HA	1.66	0.76
4:AD:69:GLU:HA	4:AD:72:PHE:CE1	2.19	0.76
24:BA:1651:G:OP1	37:BN:37:THR:HG21	1.84	0.76
24:BA:2681:C:OP1	27:BD:8:LYS:NZ	2.18	0.76
1:AA:1428:A:C2	1:AA:1473:G:C2	2.74	0.76
5:AE:101:GLU:O	5:AE:103:THR:N	2.17	0.76
8:AH:5:ASP:OD2	8:AH:77:ARG:NH1	2.18	0.76
24:BA:247:G:C8	24:BA:249:C:C6	2.73	0.76
24:BA:2280:G:C2	24:BA:2281:A:C8	2.74	0.76
24:BA:2375:G:N2	24:BA:2378:A:OP2	2.18	0.76
26:BC:44:ASN:OD1	26:BC:45:ASN:N	2.18	0.76
28:BE:136:GLN:O	28:BE:138:LEU:N	2.18	0.76
29:BF:125:GLY:O	29:BF:126:ASN:ND2	2.19	0.76
1:CA:1134:G:C2	1:CA:1141:C:N4	2.53	0.76
22:CV:27:G:O6	22:CV:43:C:N4	2.18	0.76
24:DA:1968:G:OP1	59:DA:3464:HOH:O	2.01	0.76
24:DA:2504:U:OP2	59:DA:3670:HOH:O	2.01	0.76
24:DA:2825:G:H2'	24:DA:2826:A:H5'	1.67	0.76
11:AK:22:HIS:ND1	11:AK:35:THR:HG21	1.99	0.76
24:BA:108:G:O2'	24:BA:347:A:N3	2.17	0.76
36:BM:80:VAL:O	36:BM:82:MET:N	2.18	0.76
37:BN:67:PHE:CE2	37:BN:73:ASN:HB3	2.20	0.76
46:BW:75:LYS:O	46:BW:77:ARG:N	2.19	0.76
5:CE:41:ASP:OD1	5:CE:43:ASN:N	2.18	0.76
24:DA:507:A:N1	57:DA:3189:NMY:N23	2.33	0.76
24:DA:2728:U:OP1	57:DA:3185:NMY:O4	2.03	0.76
26:DC:68:ARG:HG3	26:DC:128:THR:HG21	1.66	0.76
18:AR:47:THR:O	18:AR:49:ALA:N	2.18	0.76
1:CA:1109:C:OP2	3:CC:176:HIS:CD2	2.39	0.76
1:AA:867:G:N2	1:AA:868:C:C2	2.53	0.76
1:AA:1122:U:H2'	1:AA:1123:U:C5'	2.16	0.76
4:AD:171:LEU:HD13	4:AD:173:VAL:HG22	1.68	0.76
14:AN:25:GLU:O	14:AN:27:LYS:N	2.17	0.76
24:BA:181:A:C2	24:BA:182:A:C4	2.73	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:856:G:N2	24:BA:922:C:C2	2.54	0.76
24:BA:1347:A:C2	24:BA:1348:C:C2	2.74	0.76
24:BA:1789:A:OP2	26:BC:220:ARG:NH2	2.19	0.76
7:CG:49:THR:O	7:CG:51:ALA:N	2.18	0.76
28:DE:15:SER:O	28:DE:17:THR:N	2.19	0.76
31:DH:116:ARG:NH1	31:DH:133:GLN:HG2	2.00	0.76
1:AA:401:C:N4	59:AA:1775:HOH:O	2.19	0.76
21:AU:16:LEU:O	21:AU:17:ARG:NH1	2.19	0.76
24:BA:479:A:N3	24:BA:481:G:H5'	2.01	0.76
24:BA:845:A:C6	24:BA:847:U:C6	2.74	0.76
31:BH:26:ALA:O	31:BH:28:ASN:N	2.17	0.76
3:CC:3:GLN:N	3:CC:3:GLN:OE1	2.19	0.76
22:CV:43:C:H5'	22:CV:44:G:OP2	1.85	0.76
24:DA:565:C:P	41:DR:79:ARG:NE	2.59	0.76
41:DR:16:GLU:HA	41:DR:98:ILE:HD11	1.68	0.76
41:DR:77:PHE:CZ	41:DR:79:ARG:HD3	2.21	0.76
24:BA:1188:U:O2'	24:BA:1189:A:H5'	1.86	0.76
24:BA:1352:U:O2'	24:BA:1353:A:H5'	1.86	0.76
8:CH:23:ALA:HA	8:CH:63:LEU:HD23	1.67	0.76
24:DA:481:G:C4	24:DA:507:A:C2	2.74	0.76
1:AA:455:G:C2	1:AA:478:A:C2	2.73	0.76
24:BA:78:U:OP2	48:BY:2:LYS:CE	2.33	0.76
24:BA:570:G:C4	24:BA:2030:A:N7	2.54	0.76
40:BQ:87:VAL:HG12	40:BQ:89:ILE:HG23	1.66	0.76
1:CA:1303:C:O3'	59:CA:1866:HOH:O	2.02	0.76
22:CV:25:C:H2'	22:CV:26:A:C8	2.19	0.76
1:AA:564:C:C5	1:AA:565:U:C5	2.73	0.76
24:BA:1172:C:C4	24:BA:1173:U:C2	2.74	0.76
24:BA:2704:C:C4	24:BA:2705:A:C2	2.74	0.76
24:BA:2731:G:C6	24:BA:2732:G:O6	2.39	0.76
1:CA:195:A:OP2	59:CA:1714:HOH:O	2.04	0.76
2:CB:144:LEU:HD12	2:CB:145:GLU:N	2.01	0.76
15:CO:6:GLU:OE1	15:CO:7:ALA:N	2.19	0.76
15:CO:89:ARG:CZ	24:DA:714:U:C5	2.69	0.76
1:AA:17:U:H1'	1:AA:1080:A:N3	2.01	0.75
24:BA:1693:U:O2'	26:BC:13:ARG:NH2	2.19	0.75
24:BA:2639:A:O3'	33:BJ:96:ARG:NH2	2.19	0.75
24:BA:2758:A:C2	24:BA:2759:G:H1'	2.21	0.75
39:BP:87:ARG:NH2	39:BP:110:LYS:O	2.18	0.75
3:CC:42:TYR:O	3:CC:45:LYS:NZ	2.16	0.75
4:CD:186:PRO:O	4:CD:188:ARG:N	2.19	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:48:GLY:N	11:CK:57:LYS:HE2	2.00	0.75
20:CT:57:ILE:O	20:CT:59:ASP:N	2.18	0.75
24:DA:1175:A:OP1	24:DA:1176:U:O2'	2.04	0.75
57:DA:3190:NMY:N2	57:DA:3190:NMY:O16	2.19	0.75
1:AA:889:A:H5'	1:AA:891:U:C1'	2.16	0.75
1:AA:1036:A:N7	1:AA:1037:C:N4	2.34	0.75
1:AA:1222:G:OP1	19:AS:78:ARG:NH1	2.18	0.75
4:AD:120:HIS:O	4:AD:121:LYS:HB2	1.84	0.75
24:BA:2080:A:O5'	47:BX:18:SER:OG	2.04	0.75
1:CA:389:A:H2'	1:CA:390:U:H5'	1.68	0.75
12:CL:98:VAL:HG22	12:CL:101:ALA:HB2	1.66	0.75
22:CV:23:A:H2'	22:CV:24:G:C8	2.20	0.75
1:AA:1182:G:C4'	1:AA:1183:U:H5'	2.16	0.75
24:BA:2702:G:C6	24:BA:2703:C:C4	2.74	0.75
1:CA:974:A:OP1	14:CN:81:ARG:NH2	2.19	0.75
1:CA:1014:A:C4	19:CS:34:TRP:CZ2	2.74	0.75
2:CB:101:LEU:O	2:CB:104:TRP:N	2.19	0.75
24:DA:1857:G:N3	24:DA:1884:G:C2	2.54	0.75
57:DA:3185:NMY:C23	57:DA:3185:NMY:H16	2.15	0.75
38:DO:53:THR:OG1	38:DO:65:THR:HG21	1.87	0.75
1:AA:519:C:OP2	12:AL:47:SER:OG	2.04	0.75
24:BA:1653:G:O5'	37:BN:2:ARG:NH1	2.19	0.75
24:BA:2263:C:H2'	24:BA:2264:C:H5'	1.67	0.75
38:BO:6:ALA:O	38:BO:8:ILE:N	2.19	0.75
2:CB:162:PHE:HA	2:CB:184:PHE:O	1.84	0.75
24:DA:784:G:OP2	59:DA:3312:HOH:O	2.04	0.75
24:DA:1274:A:OP1	24:DA:1646:C:N4	2.19	0.75
24:DA:1604:C:OP2	59:DA:3410:HOH:O	2.05	0.75
24:DA:1997:C:OP1	27:DD:128:ARG:NH2	2.19	0.75
24:DA:2066:C:OP1	59:DA:3508:HOH:O	2.05	0.75
24:DA:2483:C:O3'	36:DM:44:ARG:NH2	2.20	0.75
31:DH:135:HIS:O	31:DH:137:GLU:N	2.19	0.75
1:AA:55:A:N6	31:DH:91:PHE:HA	2.01	0.75
1:AA:430:A:OP1	4:AD:9:LEU:N	2.19	0.75
1:AA:789:U:O2'	1:AA:791:G:N7	2.16	0.75
1:AA:858:G:N7	1:AA:869:G:C5	2.54	0.75
1:AA:1256:A:N6	1:AA:1277:C:C2	2.54	0.75
24:BA:749:A:N1	24:BA:753:A:O2'	2.18	0.75
24:BA:2415:G:C5	24:BA:2416:C:C5	2.75	0.75
24:BA:2721:A:N3	24:BA:2873:A:C8	2.55	0.75
28:BE:46:GLN:HB3	28:BE:83:VAL:HG11	1.68	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BJ:49:ASP:OD1	33:BJ:121:LYS:NZ	2.20	0.75
1:CA:787:A:H2'	1:CA:788:U:H5'	1.68	0.75
1:CA:795:C:O2'	11:CK:128:ARG:HG3	1.85	0.75
1:CA:918:A:H2'	1:CA:919:A:C8	2.21	0.75
1:CA:1215:G:C2	1:CA:1216:A:C8	2.75	0.75
1:CA:1224:U:O2'	1:CA:1322:C:OP1	2.05	0.75
22:CV:65:G:N1	22:CV:66:U:O2	2.20	0.75
1:AA:154:U:O2	1:AA:168:G:N2	2.18	0.75
5:AE:83:HIS:HB3	8:AH:96:MET:SD	2.27	0.75
5:AE:114:VAL:O	5:AE:118:ALA:N	2.19	0.75
24:BA:2055:C:N4	59:BA:3532:HOH:O	2.19	0.75
14:CN:57:PRO:O	14:CN:59:ARG:N	2.19	0.75
19:CS:62:VAL:HG12	19:CS:66:MET:SD	2.26	0.75
22:CV:8:U:O2	22:CV:21:A:H2	1.68	0.75
24:DA:545:U:C6	24:DA:547:A:H4'	2.21	0.75
24:DA:1014:A:OP2	59:DA:3604:HOH:O	2.05	0.75
24:DA:1076:C:O3'	32:DI:93:ASN:ND2	2.19	0.75
24:DA:1238:G:C6	57:DA:3190:NMY:N6	2.55	0.75
24:DA:1889:A:N3	24:DA:2086:U:O2'	2.16	0.75
24:DA:2402:U:O2'	24:DA:2403:C:C5'	2.35	0.75
43:DT:6:ARG:CD	43:DT:6:ARG:C	2.59	0.75
1:AA:416:G:N7	59:AA:1757:HOH:O	2.18	0.75
1:AA:979:C:N4	1:AA:980:C:N3	2.34	0.75
57:AA:1657:NMY:H5	57:AA:1657:NMY:N9	2.01	0.75
16:AP:19:VAL:CG2	16:AP:36:VAL:HG23	2.17	0.75
24:BA:226:A:C6	24:BA:227:A:C6	2.75	0.75
34:DK:76:VAL:HB	39:DP:72:VAL:CG2	2.16	0.75
1:AA:625:U:H4'	16:AP:16:PHE:CE2	2.22	0.75
1:AA:976:G:C2	1:AA:1363:A:C2	2.75	0.75
1:CA:692:U:O2'	1:CA:694:A:N7	2.17	0.75
1:CA:1202:U:OP2	14:CN:69:ARG:NH2	2.20	0.75
8:CH:78:VAL:HG12	8:CH:127:CYS:HA	1.69	0.75
11:CK:15:GLN:O	11:CK:16:VAL:HG13	1.86	0.75
13:CM:8:ASN:ND2	13:CM:66:GLU:OE2	2.19	0.75
24:DA:944:C:OP1	59:DA:3262:HOH:O	2.04	0.75
24:DA:1864:U:OP1	24:DA:2410:G:O2'	2.05	0.75
24:DA:2710:C:OP2	59:DA:3547:HOH:O	2.04	0.75
25:DB:58:A:OP2	59:DB:301:HOH:O	2.05	0.75
26:DC:244:VAL:HG22	26:DC:245:THR:O	1.87	0.75
31:DH:120:GLY:C	31:DH:122:LEU:H	1.93	0.75
41:DR:20:VAL:HG12	41:DR:22:LEU:HD13	1.67	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DS:45:VAL:O	42:DS:47:VAL:N	2.20	0.75
24:BA:1857:G:H1'	24:BA:1884:G:N2	2.02	0.75
1:CA:619:U:N3	4:CD:131:ASN:OD1	2.19	0.75
22:CV:72:C:O2'	22:CV:73:A:OP1	2.03	0.75
24:DA:140:C:O2'	24:DA:141:G:OP1	2.04	0.75
24:DA:265:A:H4'	24:DA:266:G:OP1	1.85	0.75
25:DB:57:A:OP2	59:DB:301:HOH:O	2.05	0.75
31:DH:95:GLY:HA2	31:DH:122:LEU:HD21	1.69	0.75
41:DR:49:ILE:HG12	41:DR:53:PHE:N	2.01	0.75
45:DV:48:MET:HA	45:DV:51:GLN:OE1	1.87	0.75
1:AA:1149:C:OP1	9:AI:11:ARG:NH1	2.20	0.74
4:AD:25:VAL:O	4:AD:26:ARG:O	2.05	0.74
9:AI:12:ARG:NH1	9:AI:107:ASP:OD2	2.19	0.74
24:BA:1177:G:H2'	24:BA:1178:C:O4'	1.87	0.74
25:BB:24:G:N2	25:BB:28:C:O2	2.20	0.74
26:BC:51:ARG:O	26:BC:53:ILE:N	2.20	0.74
34:BK:88:ASN:O	34:BK:90:ASN:N	2.19	0.74
51:B1:31:GLU:N	51:B1:31:GLU:OE2	2.20	0.74
1:CA:78:A:N6	1:CA:91:U:O4	2.20	0.74
1:CA:692:U:H1'	1:CA:695:A:N7	2.02	0.74
24:DA:112:U:C5	24:DA:113:U:C5	2.74	0.74
24:DA:407:G:N2	24:DA:421:C:C2	2.55	0.74
24:DA:532:A:N1	24:DA:2020:A:H1'	2.02	0.74
24:DA:833:A:H2'	24:DA:834:G:C8	2.22	0.74
27:DD:101:PHE:HD1	27:DD:104:VAL:HG11	1.52	0.74
46:DW:44:LYS:HE2	46:DW:44:LYS:N	2.02	0.74
1:AA:905:U:C5	1:AA:906:A:C8	2.74	0.74
1:CA:266:G:O6	1:CA:270:A:N6	2.20	0.74
4:CD:51:TYR:HA	4:CD:54:GLN:HB2	1.68	0.74
4:CD:57:GLU:O	4:CD:59:GLN:N	2.20	0.74
59:DA:3822:HOH:O	30:DG:63:GLN:NE2	2.14	0.74
24:BA:2377:A:N3	38:BO:92:PHE:CZ	2.55	0.74
25:BB:45:A:C2	25:BB:46:A:C4	2.74	0.74
28:BE:7:ASP:O	28:BE:9:GLN:N	2.20	0.74
45:BV:54:ALA:O	45:BV:56:PHE:N	2.20	0.74
1:CA:319:G:N7	59:CA:1735:HOH:O	2.20	0.74
1:CA:1064:G:O6	1:CA:1193:G:N2	2.20	0.74
11:CK:20:VAL:HG13	11:CK:35:THR:CG2	2.17	0.74
24:DA:602:A:HO2'	24:DA:604:G:HO2'	1.34	0.74
24:DA:1867:G:C2'	24:DA:1868:C:H5'	2.16	0.74
24:DA:2093:G:OP2	31:DH:22:LYS:CE	2.36	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DH:117:LEU:HD21	31:DH:120:GLY:C	2.12	0.74
35:DL:2:ARG:O	35:DL:5:THR:N	2.19	0.74
1:AA:55:A:C4	31:DH:91:PHE:CD2	2.75	0.74
1:AA:412:A:P	11:CK:16:VAL:HG11	2.27	0.74
24:BA:685:A:O2'	24:BA:773:U:O4	2.01	0.74
24:BA:857:G:H5"	46:BW:69:PHE:CD2	2.22	0.74
24:BA:1497:U:O2'	24:BA:1498:C:OP1	2.05	0.74
25:BB:11:C:O2'	25:BB:15:A:N6	2.20	0.74
40:BQ:39:ILE:HD11	41:BR:77:PHE:CG	2.23	0.74
20:CT:57:ILE:O	20:CT:60:ARG:N	2.20	0.74
24:DA:544:C:O3'	24:DA:545:U:C2	2.41	0.74
24:DA:1272:A:OP1	59:DA:3383:HOH:O	2.04	0.74
29:DF:8:LYS:O	29:DF:10:GLU:N	2.20	0.74
34:DK:97:THR:O	34:DK:98:ARG:CB	2.33	0.74
1:AA:68:G:C5	1:AA:69:G:H1'	2.22	0.74
8:AH:86:TYR:CE2	8:AH:123:GLY:HA2	2.21	0.74
21:AU:10:GLU:HB2	21:AU:11:PRO:HD3	1.69	0.74
24:BA:391:A:H1'	24:BA:411:G:O4'	1.88	0.74
24:BA:1268:A:OP1	59:BA:3382:HOH:O	2.05	0.74
1:CA:58:C:O2'	1:CA:388:G:N7	2.18	0.74
22:CV:57:G:H2'	22:CV:58:A:H5"	1.68	0.74
24:DA:1471:G:C5	24:DA:1472:C:C5	2.75	0.74
34:DK:113:MET:SD	34:DK:116:ILE:HD11	2.27	0.74
1:AA:1505:G:OP2	59:AA:1877:HOH:O	2.05	0.74
4:AD:171:LEU:HD13	4:AD:173:VAL:CG2	2.17	0.74
46:BW:24:LYS:HD2	46:BW:25:ARG:HG2	1.68	0.74
1:CA:711:G:HO2'	1:CA:712:A:P	2.10	0.74
1:CA:790:A:N7	1:CA:791:G:C6	2.55	0.74
1:CA:1062:U:H2'	1:CA:1063:C:C5	2.22	0.74
24:DA:1277:G:C5'	37:DN:20:MET:HE2	2.16	0.74
24:DA:2407:A:OP1	59:DA:3563:HOH:O	2.05	0.74
1:AA:1124:G:C2	1:AA:1127:G:N2	2.55	0.74
1:AA:1249:C:O2'	9:AI:70:GLY:O	2.05	0.74
4:AD:49:SER:HB2	4:AD:51:TYR:CE2	2.22	0.74
24:BA:398:C:OP1	47:BX:31:ASN:ND2	2.20	0.74
1:CA:509:A:OP2	59:CA:1760:HOH:O	2.05	0.74
1:CA:706:A:N3	11:CK:44:TRP:CZ2	2.55	0.74
24:DA:2425:A:O4'	24:DA:2427:C:C6	2.41	0.74
1:AA:356:A:N3	1:AA:368:U:O2'	2.20	0.74
1:AA:378:G:C2	1:AA:386:C:O2	2.41	0.74
24:BA:58:G:C2	24:BA:70:G:C2	2.74	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:63:A:O4'	43:BT:77:ARG:NH1	2.21	0.74
24:BA:308:G:N2	24:BA:477:A:C8	2.56	0.74
24:BA:527:C:OP1	59:BA:3248:HOH:O	2.04	0.74
24:BA:1361:G:N7	59:BA:3616:HOH:O	2.19	0.74
24:BA:2744:G:N2	30:BG:142:GLN:OE1	2.20	0.74
2:CB:127:ASP:OD2	2:CB:131:LYS:NZ	2.20	0.74
7:CG:134:ALA:O	7:CG:137:LYS:N	2.21	0.74
8:CH:110:VAL:O	8:CH:111:MET:CB	2.36	0.74
22:CV:17:C:O2	22:CV:17:C:H2'	1.86	0.74
24:DA:2627:G:O2'	24:DA:2781:A:N1	2.16	0.74
1:AA:106:C:H2'	1:AA:107:G:H5'	1.69	0.74
1:AA:664:G:P	18:AR:53:ARG:NH2	2.60	0.74
1:AA:957:U:H1'	1:AA:960:U:C4	2.23	0.74
24:BA:2333:A:O3'	38:BO:9:ARG:NH1	2.20	0.74
24:BA:2727:A:C6	24:BA:2728:U:O4	2.41	0.74
1:CA:1112:C:H5"	1:CA:1113:C:OP2	1.87	0.74
1:CA:1241:G:O2'	59:CA:1869:HOH:O	2.06	0.74
2:CB:50:PHE:O	2:CB:52:GLU:N	2.21	0.74
11:CK:24:HIS:O	11:CK:26:SER:N	2.20	0.74
55:CY:156:SER:O	55:CY:160:VAL:HB	1.88	0.74
24:DA:1709:U:O2	24:DA:2859:G:N2	2.20	0.74
31:DH:123:ARG:HG3	31:DH:124:THR:N	2.02	0.74
44:DU:85:ARG:NH1	44:DU:101:THR:OG1	2.21	0.74
1:AA:613:C:N4	1:AA:627:G:O6	2.20	0.74
1:AA:1405:G:OP1	57:AA:1655:NMY:N19	2.20	0.74
57:AA:1656:NMY:H16	57:AA:1656:NMY:O22	1.86	0.74
8:AH:88:ARG:HG2	8:AH:89:LYS:N	2.03	0.74
24:BA:572:A:H3'	24:BA:573:U:O4'	1.88	0.74
24:BA:630:G:OP2	53:B3:22:LYS:NZ	2.20	0.74
6:CF:37:HIS:O	6:CF:63:ASN:ND2	2.21	0.74
22:CV:23:A:H2'	22:CV:24:G:H8	1.53	0.74
26:DC:105:ALA:O	26:DC:195:GLY:HA2	1.87	0.74
27:DD:151:THR:HG23	27:DD:152:PRO:HD2	1.70	0.74
1:AA:292:G:N2	1:AA:309:A:C4	2.56	0.73
1:AA:368:U:C6	31:DH:92:GLY:HA3	2.23	0.73
1:AA:382:A:C5	1:AA:383:A:N7	2.55	0.73
1:AA:1317:C:OP1	14:AN:56:SER:OG	2.03	0.73
11:AK:125:LYS:O	21:AU:34:ARG:NE	2.20	0.73
12:AL:4:VAL:HG13	12:AL:5:ASN:H	1.51	0.73
24:BA:1355:G:O2'	24:BA:1356:G:H5'	1.87	0.73
24:BA:1531:C:N4	24:BA:1532:A:C2	2.56	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:121:VAL:HB	31:BH:122:LEU:HD23	0.75	0.73
1:CA:414:A:C6	1:CA:431:A:C2	2.76	0.73
1:CA:958:A:N6	19:CS:77:THR:O	2.19	0.73
24:DA:690:G:C3'	26:DC:216:ARG:NH2	2.51	0.73
1:AA:976:G:OP2	1:AA:1358:U:O2'	2.06	0.73
24:BA:1220:G:C2	24:BA:1221:C:C2	2.76	0.73
24:BA:2407:A:C2	24:BA:2408:U:C6	2.76	0.73
24:BA:2657:A:C5'	30:BG:91:VAL:HG21	2.18	0.73
57:BA:3165:NMY:N6	57:BA:3165:NMY:H1	2.03	0.73
33:BJ:99:ARG:O	33:BJ:103:ILE:HG23	1.87	0.73
1:CA:152:A:N6	1:CA:170:U:C2	2.56	0.73
2:CB:22:TYR:HB3	2:CB:190:ASN:HB2	1.70	0.73
6:CF:74:LEU:O	6:CF:76:THR:N	2.21	0.73
24:DA:993:G:H1'	41:DR:91:GLN:NE2	2.03	0.73
41:DR:77:PHE:CE1	41:DR:79:ARG:HD3	2.23	0.73
52:D2:13:ASN:O	52:D2:17:GLY:N	2.20	0.73
4:AD:125:VAL:HG13	4:AD:126:ASN:H	1.53	0.73
24:BA:616:A:OP2	59:BA:3294:HOH:O	2.05	0.73
24:BA:2286:G:C8	51:B1:24:LYS:HE2	2.24	0.73
24:BA:2831:G:OP2	27:BD:59:ARG:NH2	2.21	0.73
29:BF:138:PRO:O	29:BF:140:ILE:N	2.20	0.73
34:BK:4:GLU:O	34:BK:5:GLN:HB2	1.87	0.73
37:BN:73:ASN:O	37:BN:76:VAL:HG22	1.88	0.73
1:CA:722:G:HO2'	1:CA:723:U:P	2.11	0.73
24:DA:2204:G:O2'	24:DA:2205:A:O5'	2.06	0.73
24:DA:2825:G:C2'	24:DA:2826:A:H5'	2.18	0.73
1:AA:1423:G:C5	1:AA:1424:U:C5	2.76	0.73
24:BA:454:A:H4'	24:BA:455:C:OP2	1.86	0.73
24:BA:572:A:C2	24:BA:2033:A:C2	2.76	0.73
29:BF:103:ILE:HG21	29:BF:174:PHE:CE1	2.24	0.73
1:CA:154:U:O2	1:CA:168:G:N2	2.22	0.73
15:CO:11:ILE:HD12	15:CO:12:VAL:N	2.04	0.73
22:CV:60:U:H5"	22:CV:61:C:H5	1.53	0.73
24:DA:1059:G:C5	24:DA:1060:U:C4	2.76	0.73
1:AA:345:C:OP2	39:BP:38:ARG:NH2	2.21	0.73
24:BA:76:C:O3'	48:BY:52:ARG:NH2	2.20	0.73
24:BA:532:A:H2'	24:BA:532:A:N3	2.03	0.73
24:BA:1760:C:C5	24:BA:1761:C:C5	2.75	0.73
1:CA:74:A:C2	1:CA:97:G:C5	2.77	0.73
1:CA:532:A:H3'	1:CA:533:A:C5'	2.18	0.73
1:CA:674:G:H2'	1:CA:675:A:C8	2.24	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1228:C:OP2	13:CM:110:LYS:NZ	2.20	0.73
14:CN:81:ARG:O	14:CN:84:VAL:N	2.21	0.73
24:DA:528:A:C2	24:DA:2043:C:H4'	2.23	0.73
24:DA:1153:C:OP2	59:DA:3358:HOH:O	2.05	0.73
24:DA:1671:U:O4	59:DA:3725:HOH:O	2.06	0.73
24:DA:2532:G:O2'	24:DA:2657:A:N1	2.22	0.73
2:AB:73:LYS:HG2	2:AB:164:ILE:CD1	2.18	0.73
2:AB:151:ILE:O	2:AB:154:MET:N	2.21	0.73
25:BB:66:A:C2	25:BB:108:A:C2	2.76	0.73
1:CA:1179:A:H2'	1:CA:1180:A:O4'	1.87	0.73
5:CE:39:VAL:CG2	5:CE:67:ALA:HB1	2.19	0.73
24:DA:1131:G:OP1	33:DJ:82:GLY:HA2	1.89	0.73
45:DV:14:LYS:O	45:DV:16:ALA:N	2.21	0.73
1:AA:71:A:C8	1:AA:100:G:C2	2.77	0.73
1:AA:508:U:H4'	4:AD:51:TYR:CZ	2.23	0.73
1:AA:1359:C:O3'	59:AA:1839:HOH:O	2.06	0.73
9:AI:84:THR:O	9:AI:87:LEU:HD23	1.89	0.73
24:BA:1515:A:H1'	24:BA:1557:C:H1'	1.69	0.73
25:BB:60:C:N4	59:BB:301:HOH:O	2.22	0.73
28:BE:176:ASP:OD2	28:BE:179:SER:OG	2.04	0.73
13:CM:72:GLU:O	13:CM:76:SER:OG	2.03	0.73
24:DA:1428:C:O2'	24:DA:1569:A:OP2	2.06	0.73
1:AA:950:U:O5'	13:AM:101:ARG:NH2	2.21	0.73
16:AP:52:LEU:HD23	16:AP:78:VAL:HG11	1.71	0.73
24:BA:2208:C:C2	24:BA:2217:G:N2	2.57	0.73
24:BA:2407:A:C2	24:BA:2408:U:C5	2.77	0.73
1:CA:104:G:C2'	1:CA:105:G:H5'	2.19	0.73
1:CA:980:C:O3'	14:CN:12:ARG:NH2	2.21	0.73
24:DA:2282:G:C4	24:DA:2425:A:N6	2.56	0.73
57:DA:3185:NMY:H16	57:DA:3185:NMY:H232	1.70	0.73
29:DF:67:THR:OG1	29:DF:85:GLY:O	2.06	0.73
1:AA:412:A:OP1	11:CK:14:LYS:NZ	2.22	0.73
1:AA:504:C:O4'	1:AA:510:A:C2	2.41	0.73
24:BA:2303:G:O2'	29:BF:120:SER:OG	2.07	0.73
27:BD:61:THR:HG1	27:BD:64:GLU:CD	1.97	0.73
39:BP:96:LEU:O	39:BP:98:TYR:N	2.22	0.73
1:CA:966:G:C2	9:CI:129:LYS:HE3	2.24	0.73
2:CB:106:THR:O	2:CB:108:ARG:N	2.21	0.73
4:CD:73:ARG:O	4:CD:76:TYR:CD2	2.41	0.73
4:CD:104:ARG:CZ	4:CD:170:TRP:CE2	2.72	0.73
5:CE:41:ASP:OD1	5:CE:42:GLY:N	2.21	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CN:16:ALA:HA	14:CN:20:PHE:CE2	2.24	0.73
24:DA:761:A:OP2	59:DA:3292:HOH:O	2.05	0.73
24:DA:1070:A:H3'	24:DA:1071:G:C5'	2.19	0.73
24:DA:1419:A:OP1	24:DA:1419:A:H4'	1.89	0.73
24:DA:2848:G:H4'	24:DA:2849:U:OP1	1.88	0.73
30:DG:54:ARG:HD2	30:DG:57:TYR:CE2	2.24	0.73
1:AA:17:U:O2'	1:AA:1079:G:N3	2.22	0.73
1:AA:403:C:O2'	1:AA:404:G:H5'	1.89	0.73
24:BA:550:C:H5"	57:BA:3166:NMY:O12	1.87	0.73
24:BA:983:A:C6	24:BA:984:A:C2	2.77	0.73
24:BA:1383:A:N1	24:BA:1384:A:C2	2.57	0.73
1:CA:261:U:C4	20:CT:74:ARG:NH2	2.57	0.73
12:CL:57:LEU:O	12:CL:59:ASN:N	2.21	0.73
19:CS:31:LEU:O	19:CS:50:ALA:N	2.22	0.73
22:CV:64:A:C2'	22:CV:65:G:H5'	2.19	0.73
24:DA:464:U:H5'	52:D2:5:PHE:CD1	2.24	0.73
24:DA:2310:C:C2	29:DF:76:PHE:CE2	2.77	0.73
24:DA:2591:C:H2'	24:DA:2592:G:C8	2.23	0.73
28:DE:40:ARG:HD2	28:DE:92:HIS:CD2	2.24	0.73
1:AA:929:G:C5	1:AA:930:C:C5	2.77	0.72
24:BA:762:U:OP1	59:BA:3697:HOH:O	2.06	0.72
24:BA:2702:G:C5	24:BA:2703:C:C4	2.76	0.72
39:BP:20:ARG:HB3	39:BP:21:PRO:CD	2.19	0.72
42:BS:37:THR:HG22	42:BS:38:TYR:CD1	2.23	0.72
1:CA:1100:C:N4	1:CA:1103:C:OP1	2.21	0.72
24:DA:2345:G:H4'	24:DA:2346:A:H5"	1.71	0.72
1:AA:403:C:C2'	1:AA:404:G:H5'	2.18	0.72
24:BA:1288:G:C4	24:BA:1327:A:C2	2.76	0.72
24:BA:2824:C:N4	24:BA:2825:G:N7	2.36	0.72
25:BB:10:G:C8	25:BB:11:C:C5	2.76	0.72
1:CA:271:C:H2'	1:CA:272:C:C6	2.23	0.72
1:CA:1222:G:OP1	19:CS:78:ARG:NH1	2.22	0.72
4:CD:192:SER:OG	4:CD:193:ALA:N	2.21	0.72
15:CO:89:ARG:NH2	24:DA:716:A:P	2.62	0.72
24:DA:1050:A:C2	24:DA:2751:G:C4	2.77	0.72
24:DA:1275:A:N1	24:DA:1295:C:O2'	2.19	0.72
24:DA:2707:U:O2	37:DN:71:ARG:NH1	2.22	0.72
41:DR:21:ARG:NH2	41:DR:93:PHE:CZ	2.58	0.72
1:AA:518:C:OP2	1:AA:530:G:O2'	2.08	0.72
1:AA:625:U:H4'	16:AP:16:PHE:CZ	2.24	0.72
1:AA:838:G:C4	1:AA:849:G:N2	2.57	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:103:TYR:CZ	4:AD:111:ARG:HA	2.24	0.72
1:CA:1048:G:H5"	14:CN:2:LYS:HD3	1.70	0.72
12:CL:52:VAL:HG23	12:CL:65:SER:O	1.89	0.72
13:CM:104:THR:O	13:CM:106:ALA:N	2.22	0.72
14:CN:15:LEU:O	14:CN:55:SER:OG	2.06	0.72
17:CQ:12:VAL:HG12	17:CQ:13:VAL:N	2.05	0.72
24:DA:601:C:O2	24:DA:605:G:H4'	1.89	0.72
24:DA:953:G:C2'	24:DA:954:G:H5'	2.19	0.72
24:DA:999:U:OP2	59:DA:3356:HOH:O	2.07	0.72
34:DK:8:LEU:HD12	34:DK:19:VAL:O	1.89	0.72
53:D3:26:ALA:O	53:D3:27:ASN:HB2	1.89	0.72
2:AB:209:ALA:O	2:AB:213:TYR:CD2	2.42	0.72
4:AD:203:LEU:CD1	4:AD:204:TYR:CD1	2.72	0.72
14:AN:46:LEU:O	14:AN:48:LEU:N	2.22	0.72
17:AQ:18:GLU:O	17:AQ:19:LYS:CB	2.36	0.72
24:BA:230:G:C2	24:BA:231:A:C8	2.77	0.72
35:BL:96:LYS:NZ	35:BL:105:ILE:O	2.23	0.72
1:CA:673:A:C4	1:CA:734:G:N2	2.57	0.72
1:CA:771:G:C2	1:CA:809:G:C2	2.76	0.72
4:CD:22:LYS:HZ1	4:CD:26:ARG:CG	2.03	0.72
13:CM:3:ARG:NH1	13:CM:4:ILE:O	2.23	0.72
24:DA:85:G:OP1	44:DU:5:ARG:HD3	1.88	0.72
24:DA:910:A:C6	24:DA:911:A:C6	2.77	0.72
24:DA:1009:A:N3	24:DA:1153:C:O2'	2.23	0.72
24:DA:1071:G:OP2	24:DA:1088:A:O2'	2.07	0.72
24:DA:1370:C:OP2	59:DA:3402:HOH:O	2.06	0.72
24:DA:1648:U:OP1	59:DA:3383:HOH:O	2.06	0.72
27:DD:14:ILE:HB	27:DD:22:ILE:HG23	1.71	0.72
3:AC:43:LEU:O	3:AC:46:GLU:N	2.22	0.72
24:BA:630:G:H3'	24:BA:631:A:H5"	1.72	0.72
1:CA:735:C:H2'	1:CA:736:C:C6	2.24	0.72
1:CA:738:C:O2'	1:CA:739:C:C5'	2.36	0.72
2:CB:83:ALA:O	2:CB:86:SER:N	2.22	0.72
15:CO:75:VAL:HA	15:CO:78:TYR:CZ	2.23	0.72
24:DA:1471:G:C6	24:DA:1472:C:C4	2.78	0.72
24:DA:2308:G:O6	24:DA:2311:A:N7	2.23	0.72
3:AC:100:GLN:HG2	3:AC:101:ILE:N	2.04	0.72
13:AM:88:GLY:O	13:AM:91:HIS:N	2.22	0.72
17:AQ:17:MET:SD	17:AQ:20:SER:OG	2.48	0.72
24:BA:2702:G:C5	24:BA:2703:C:C5	2.77	0.72
38:BO:17:LYS:O	38:BO:20:GLU:N	2.22	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:10:LYS:O	4:CD:14:ARG:N	2.23	0.72
11:CK:36:ASP:OD1	11:CK:40:ASN:N	2.22	0.72
24:DA:1031:G:H4'	54:D4:6:SER:HB2	1.70	0.72
41:DR:77:PHE:CZ	41:DR:79:ARG:CD	2.72	0.72
1:AA:382:A:C4	1:AA:383:A:N7	2.58	0.72
1:AA:1095:U:OP2	59:AA:1852:HOH:O	2.05	0.72
24:BA:132:G:N2	24:BA:148:U:C2	2.58	0.72
24:BA:1786:A:C5	24:BA:1938:A:C2	2.77	0.72
24:BA:2011:U:C5	24:BA:2012:G:C4	2.77	0.72
24:BA:2332:C:OP1	46:BW:77:ARG:NH1	2.22	0.72
24:BA:2345:G:C4	24:BA:2381:A:C2	2.77	0.72
24:BA:2554:U:C4	24:BA:2555:U:O4	2.43	0.72
28:BE:70:SER:OG	28:BE:71:GLY:N	2.18	0.72
1:CA:563:A:N6	59:CA:1704:HOH:O	2.23	0.72
2:CB:23:TRP:HA	2:CB:190:ASN:HA	1.72	0.72
2:CB:43:LEU:O	2:CB:45:LYS:N	2.23	0.72
24:DA:944:C:OP2	59:DA:3260:HOH:O	2.02	0.72
1:AA:1140:C:O2'	1:AA:1141:C:O5'	2.06	0.72
2:AB:225:ARG:O	2:AB:226:SER:OG	2.02	0.72
13:AM:31:LYS:O	13:AM:33:ILE:N	2.23	0.72
24:BA:258:G:O2'	35:BL:104:GLN:NE2	2.23	0.72
24:BA:1530:G:O6	24:BA:1541:C:N4	2.22	0.72
24:BA:2343:U:O2'	24:BA:2373:G:O2'	2.08	0.72
1:CA:671:G:H4'	6:CF:79:ARG:CZ	2.19	0.72
1:CA:947:G:HO2'	1:CA:1306:A:HO2'	1.32	0.72
1:CA:958:A:C8	19:CS:55:ARG:NH2	2.58	0.72
1:CA:1349:A:OP2	9:CI:120:LYS:NZ	2.20	0.72
24:DA:1357:C:OP2	59:DA:3401:HOH:O	2.08	0.72
24:DA:1939:U:OP1	24:DA:2604:U:O2'	2.06	0.72
24:DA:2203:U:H5"	24:DA:2204:G:OP1	1.90	0.72
46:DW:51:VAL:CG2	46:DW:51:VAL:O	2.37	0.72
1:AA:687:A:N1	1:AA:700:G:O2'	2.23	0.72
8:AH:32:LEU:O	8:AH:35:ALA:N	2.23	0.72
12:AL:107:VAL:HG12	12:AL:108:LYS:N	2.04	0.72
31:BH:122:LEU:O	31:BH:123:ARG:HG2	1.89	0.72
43:BT:30:ILE:O	43:BT:31:VAL:HG13	1.89	0.72
1:CA:533:A:OP1	59:CA:1763:HOH:O	2.08	0.72
3:CC:156:ARG:HG2	3:CC:193:TYR:CE1	2.25	0.72
4:CD:58:LYS:CD	4:CD:203:LEU:HD13	2.20	0.72
24:DA:1420:A:HO2'	24:DA:1421:G:P	2.13	0.72
24:DA:1857:G:C2	24:DA:1884:G:N3	2.58	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:155:A:C2	1:AA:167:A:C2	2.77	0.72
15:AO:31:LEU:HD12	15:AO:32:LEU:N	2.04	0.72
24:BA:1006:C:OP1	59:BA:3782:HOH:O	2.06	0.72
24:BA:2641:G:O3'	33:BJ:78:THR:OG1	2.08	0.72
29:BF:28:PRO:HA	29:BF:158:THR:HB	1.70	0.72
31:BH:29:PHE:CG	31:BH:30:LEU:N	2.57	0.72
36:BM:81:ARG:O	36:BM:82:MET:HG2	1.89	0.72
1:CA:386:C:H2'	1:CA:387:U:C5'	2.20	0.72
2:CB:218:ALA:O	2:CB:222:ARG:HG2	1.90	0.72
4:CD:62:ARG:HD3	4:CD:72:PHE:CE2	2.25	0.72
20:CT:26:SER:O	20:CT:30:THR:OG1	2.08	0.72
31:DH:82:SER:HB3	31:DH:146:VAL:CG2	2.20	0.72
1:AA:390:U:C2	1:AA:391:G:C8	2.78	0.71
1:AA:1388:C:H2'	1:AA:1389:C:C6	2.25	0.71
4:AD:101:VAL:O	4:AD:101:VAL:HG13	1.89	0.71
5:AE:156:LYS:HE3	8:AH:44:GLY:HA3	1.72	0.71
24:BA:812:C:H4'	40:BQ:12:ARG:HH12	1.55	0.71
24:BA:2073:C:H5"	26:BC:227:VAL:HG22	1.72	0.71
24:BA:2415:G:C4	24:BA:2416:C:C5	2.77	0.71
26:BC:220:ARG:NE	59:BC:407:HOH:O	2.23	0.71
40:BQ:71:ASN:OD1	40:BQ:106:THR:HG23	1.90	0.71
1:CA:413:G:O2'	1:CA:414:A:OP1	2.07	0.71
8:CH:51:VAL:O	8:CH:53:GLY:N	2.23	0.71
13:CM:49:SER:O	13:CM:51:GLY:N	2.23	0.71
55:CY:80:LYS:HG3	55:CY:81:ALA:N	2.05	0.71
24:DA:733:G:C6	24:DA:761:A:C8	2.78	0.71
24:DA:2034:U:O4	59:DA:3576:HOH:O	2.07	0.71
1:AA:59:A:C5	1:AA:354:G:C6	2.78	0.71
1:AA:411:A:H4'	1:AA:412:A:OP1	1.90	0.71
1:AA:542:G:C2	1:AA:543:U:C5	2.77	0.71
13:AM:68:ASP:O	13:AM:71:ARG:N	2.23	0.71
15:AO:89:ARG:NH2	24:BA:714:U:OP2	2.22	0.71
24:BA:63:A:H4'	43:BT:77:ARG:CD	2.19	0.71
24:BA:1267:U:H2'	24:BA:1268:A:H5"	1.71	0.71
24:BA:1440:U:O4	59:BA:3634:HOH:O	2.08	0.71
26:BC:259:ASN:O	26:BC:261:ARG:N	2.23	0.71
1:CA:135:C:N3	16:CP:1:MET:HB2	2.05	0.71
4:CD:200:ILE:O	4:CD:203:LEU:N	2.22	0.71
13:CM:33:ILE:O	13:CM:35:ALA:N	2.23	0.71
13:CM:54:ASP:OD1	13:CM:55:THR:N	2.23	0.71
24:DA:2201:G:C4	24:DA:2202:U:C6	2.78	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:163:C:H2'	1:AA:163:C:O2	1.89	0.71
1:AA:720:C:H1'	18:AR:39:ILE:HD11	1.72	0.71
24:BA:85:G:OP2	44:BU:6:ARG:NH2	2.23	0.71
24:BA:250:G:C6	24:BA:251:A:C6	2.79	0.71
24:BA:1394:U:H4'	24:BA:1603:A:H4'	1.71	0.71
24:BA:1866:A:C2	24:BA:1876:A:C4	2.78	0.71
24:BA:2125:G:O2'	24:BA:2173:A:N1	2.23	0.71
1:CA:376:G:H4'	16:CP:5:ARG:HD2	1.70	0.71
1:CA:1221:G:OP1	19:CS:36:ARG:CZ	2.38	0.71
26:DC:116:GLN:O	26:DC:127:ASN:ND2	2.23	0.71
47:DX:52:ALA:O	47:DX:53:LYS:C	2.33	0.71
24:BA:547:A:N7	24:BA:548:G:N3	2.37	0.71
24:BA:584:C:P	40:BQ:5:ARG:HD3	2.30	0.71
24:BA:630:G:H3'	24:BA:631:A:C5'	2.20	0.71
24:BA:2529:G:O4'	30:BG:174:LYS:HD2	1.90	0.71
1:CA:176:C:O2	1:CA:177:G:C4	2.43	0.71
1:CA:362:G:O3'	12:CL:30:LYS:NZ	2.24	0.71
1:CA:688:G:N1	1:CA:700:G:N7	2.38	0.71
12:CL:87:VAL:CG2	12:CL:90:LEU:HD11	2.21	0.71
13:CM:31:LYS:O	13:CM:33:ILE:N	2.23	0.71
24:DA:142:A:C2'	24:DA:143:C:O5'	2.39	0.71
24:DA:1301:A:O2'	24:DA:1302:A:H3'	1.90	0.71
24:DA:1824:G:OP1	26:DC:51:ARG:HD3	1.89	0.71
33:DJ:115:GLY:HA2	33:DJ:118:MET:HE2	1.72	0.71
1:AA:337:G:C6	1:AA:338:A:N6	2.59	0.71
1:AA:428:G:H5'	4:AD:9:LEU:HD11	1.71	0.71
2:AB:111:ILE:HA	2:AB:114:LEU:CD2	2.21	0.71
4:AD:14:ARG:HG3	4:AD:38:PRO:HB3	1.70	0.71
9:AI:57:MET:O	9:AI:59:GLU:N	2.22	0.71
24:BA:2263:C:C2'	24:BA:2264:C:H5'	2.20	0.71
24:BA:2352:A:H2'	24:BA:2353:G:H5'	1.72	0.71
24:BA:2376:A:C2	38:BO:99:TYR:CZ	2.78	0.71
28:BE:84:THR:HG22	28:BE:85:PHE:CD2	2.25	0.71
1:CA:189:A:N6	1:CA:190:A:N1	2.38	0.71
1:CA:782:A:N7	1:CA:783:C:N3	2.39	0.71
1:CA:825:A:O2'	8:CH:9:ASP:OD1	2.06	0.71
1:CA:1239:A:N6	1:CA:1297:G:O4'	2.23	0.71
9:CI:130:ARG:NH1	22:CV:35:A:OP2	2.23	0.71
24:DA:2591:C:H2'	24:DA:2592:G:H8	1.54	0.71
1:AA:933:G:OP1	7:AG:5:ARG:NH2	2.24	0.71
2:AB:51:ASN:OD1	2:AB:52:GLU:N	2.23	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:149:SER:O	5:AE:153:VAL:N	2.23	0.71
16:AP:39:PHE:C	16:AP:39:PHE:CD1	2.68	0.71
21:AU:33:ARG:NH1	23:AX:6:G:OP1	2.24	0.71
24:BA:9:G:C6	24:BA:2629:U:C6	2.78	0.71
24:BA:2311:A:O2'	24:BA:2312:U:O4'	2.09	0.71
24:BA:2387:U:O2'	46:BW:41:ARG:NH1	2.24	0.71
1:CA:585:G:N3	1:CA:879:C:H4'	2.05	0.71
35:DL:78:ARG:N	35:DL:81:ASP:OD2	2.23	0.71
1:AA:377:G:C2	1:AA:387:U:O2	2.43	0.71
1:AA:1015:G:OP1	19:AS:14:HIS:CE1	2.44	0.71
15:AO:33:THR:O	15:AO:36:ILE:N	2.23	0.71
19:AS:17:LYS:HG3	19:AS:18:LYS:N	2.04	0.71
22:AV:72:C:H2'	22:AV:73:A:O5'	1.90	0.71
24:BA:2014:A:C2	24:BA:2015:A:N1	2.59	0.71
26:BC:107:LYS:O	26:BC:109:LEU:N	2.23	0.71
31:BH:14:SER:O	31:BH:16:GLY:N	2.23	0.71
16:CP:1:MET:HE3	16:CP:1:MET:N	2.06	0.71
16:CP:18:GLN:OE1	16:CP:35:ARG:NH1	2.24	0.71
24:DA:866:A:C2'	24:DA:867:C:O5'	2.39	0.71
24:DA:1002:G:N7	59:DA:3739:HOH:O	2.23	0.71
24:DA:2204:G:O6	24:DA:2221:G:C4	2.42	0.71
24:DA:2307:G:N2	24:DA:2311:A:O2'	2.23	0.71
1:AA:177:G:H2'	1:AA:178:C:H5'	1.71	0.71
8:AH:40:LEU:CB	8:AH:46:ILE:HG21	2.21	0.71
20:AT:79:LEU:O	20:AT:82:GLN:N	2.23	0.71
24:BA:991:C:N4	57:BA:3162:NMY:H14	2.06	0.71
44:BU:43:LYS:O	44:BU:58:VAL:N	2.23	0.71
1:CA:258:G:OP2	59:CA:1723:HOH:O	2.08	0.71
1:CA:592:G:C6	1:CA:593:U:C2	2.79	0.71
1:CA:716:A:N3	11:CK:120:GLY:HA2	2.06	0.71
13:CM:19:LEU:O	13:CM:25:VAL:HG11	1.91	0.71
14:CN:96:LEU:C	14:CN:96:LEU:HD12	2.15	0.71
21:CU:37:PHE:CD1	21:CU:38:TYR:N	2.58	0.71
26:DC:123:ILE:O	26:DC:123:ILE:HG23	1.89	0.71
39:DP:29:VAL:HG13	39:DP:79:VAL:HG12	1.73	0.71
50:D0:25:THR:O	50:D0:27:LEU:N	2.24	0.71
1:AA:509:A:H2'	1:AA:510:A:C8	2.25	0.71
1:AA:515:G:C2	1:AA:537:G:N3	2.59	0.71
24:BA:91:A:H4'	24:BA:92:U:O5'	1.88	0.71
24:BA:1163:G:C2	24:BA:1164:C:C6	2.79	0.71
30:BG:97:VAL:HG23	30:BG:124:CYS:SG	2.31	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BV:51:GLN:HA	45:BV:56:PHE:CD2	2.26	0.71
1:CA:686:U:O2	1:CA:687:A:N7	2.23	0.71
8:CH:40:LEU:HB3	8:CH:46:ILE:HG12	1.72	0.71
24:DA:2012:G:OP1	42:DS:98:LYS:CD	2.39	0.71
24:DA:2886:A:C2	24:DA:2887:A:H1'	2.26	0.71
57:DA:3190:NMY:O16	57:DA:3190:NMY:C1	2.38	0.71
47:DX:4:CYS:SG	47:DX:7:THR:HG22	2.30	0.71
1:AA:1492:A:C2'	1:AA:1493:A:O5'	2.39	0.71
2:AB:76:ALA:HB1	2:AB:210:VAL:HG11	1.73	0.71
3:AC:56:VAL:O	3:AC:66:VAL:O	2.09	0.71
3:AC:78:GLY:O	23:CX:2:A:N6	2.23	0.71
4:AD:91:LEU:O	4:AD:93:LEU:N	2.23	0.71
9:AI:46:MET:SD	9:AI:49:ARG:HB2	2.31	0.71
14:AN:24:ALA:O	14:AN:26:LEU:N	2.23	0.71
24:BA:1805:A:N3	26:BC:49:THR:CG2	2.54	0.71
24:BA:2015:A:C2	50:B0:2:VAL:CG2	2.73	0.71
25:BB:91:C:P	36:BM:18:ARG:CZ	2.78	0.71
42:BS:36:LEU:O	42:BS:37:THR:C	2.33	0.71
2:CB:91:PHE:O	2:CB:150:GLY:N	2.24	0.71
4:CD:17:THR:O	4:CD:18:ASP:CB	2.39	0.71
24:DA:691:C:O2'	24:DA:692:C:H5'	1.90	0.71
24:DA:1356:G:C2	24:DA:1357:C:C2	2.79	0.71
24:DA:1420:A:O2'	24:DA:1421:G:P	2.48	0.71
1:AA:431:A:H2'	1:AA:432:A:O4'	1.90	0.70
1:AA:1181:G:O2'	1:AA:1182:G:C5	2.43	0.70
1:AA:1530:G:O2'	1:AA:1531:A:OP2	2.09	0.70
3:AC:40:ARG:O	3:AC:44:THR:OG1	2.09	0.70
24:BA:1298:C:C2	24:BA:1643:G:N2	2.59	0.70
24:BA:1647:U:OP1	59:BA:3390:HOH:O	2.09	0.70
24:BA:1959:G:C2'	24:BA:1960:A:H5'	2.21	0.70
24:BA:2346:A:H3'	24:BA:2347:C:H5"	1.71	0.70
24:BA:2691:C:N3	24:BA:2719:G:N2	2.38	0.70
24:BA:2757:A:C2	24:BA:2758:A:C8	2.78	0.70
30:BG:116:LEU:CD2	30:BG:121:THR:HA	2.21	0.70
55:CY:28:ARG:NH1	55:CY:29:THR:O	2.23	0.70
24:DA:1309:G:OP1	52:D2:9:VAL:HG12	1.91	0.70
24:DA:1361:G:C6	24:DA:1362:C:N4	2.58	0.70
24:DA:1601:G:OP1	43:DT:62:VAL:HG21	1.89	0.70
24:DA:1857:G:N3	24:DA:1884:G:N2	2.39	0.70
24:DA:2204:G:O6	24:DA:2221:G:C5	2.44	0.70
33:DJ:23:LYS:HE3	33:DJ:142:ILE:HG22	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DS:73:LYS:HB2	42:DS:106:VAL:CG1	2.20	0.70
1:AA:175:C:H2'	1:AA:176:C:H6	1.55	0.70
1:AA:394:G:N2	1:AA:395:C:H1'	2.06	0.70
1:AA:532:A:C2	1:AA:1207:G:H4'	2.26	0.70
1:AA:1104:G:N2	1:AA:1105:A:C4	2.59	0.70
1:AA:1320:C:C2	19:AS:72:GLY:HA3	2.26	0.70
57:AA:1655:NMY:H1	57:AA:1655:NMY:O11	1.90	0.70
24:BA:996:A:C2	24:BA:997:G:C8	2.79	0.70
24:BA:1303:G:HO2'	24:BA:1642:G:HO2'	1.37	0.70
29:BF:121:PHE:O	29:BF:123:GLY:N	2.24	0.70
34:BK:39:ILE:CG2	34:BK:40:LYS:N	2.54	0.70
45:BV:14:LYS:O	45:BV:16:ALA:N	2.25	0.70
1:CA:484:G:H4'	1:CA:485:U:H5'	1.73	0.70
1:CA:666:G:C2	1:CA:741:G:C4	2.79	0.70
3:CC:153:VAL:O	3:CC:165:THR:O	2.09	0.70
24:DA:733:G:O6	24:DA:761:A:C8	2.44	0.70
29:DF:35:LEU:HA	29:DF:153:ILE:HA	1.72	0.70
51:D1:3:GLY:O	51:D1:5:ARG:N	2.23	0.70
24:BA:71:A:O3'	43:BT:6:ARG:NH2	2.23	0.70
24:BA:811:U:OP1	35:BL:29:LYS:HG3	1.91	0.70
24:BA:1186:G:OP1	59:BA:3578:HOH:O	2.09	0.70
24:BA:1414:C:N3	24:BA:1588:G:N2	2.38	0.70
24:BA:1857:G:N2	24:BA:1884:G:O2'	2.24	0.70
24:BA:2446:G:OP2	59:BA:3496:HOH:O	2.09	0.70
29:BF:96:TRP:CG	29:BF:99:PHE:CZ	2.78	0.70
24:DA:1079:C:N4	24:DA:1088:A:OP1	2.25	0.70
24:DA:2066:C:OP1	59:DA:3506:HOH:O	2.09	0.70
38:DO:84:GLU:OE1	38:DO:85:LYS:N	2.24	0.70
1:AA:8:A:N6	4:AD:202:GLU:O	2.23	0.70
1:AA:243:A:C2	1:AA:246:A:C8	2.79	0.70
1:AA:711:G:O2'	1:AA:712:A:H5'	1.91	0.70
12:AL:87:VAL:HG13	12:AL:93:VAL:HG13	1.73	0.70
24:BA:1183:U:O2'	24:BA:1184:U:O5'	2.04	0.70
30:BG:60:GLY:O	30:BG:63:GLN:N	2.24	0.70
1:CA:939:G:H2'	1:CA:940:C:H5'	1.72	0.70
1:CA:1127:G:H2'	1:CA:1127:G:N3	2.05	0.70
1:CA:1524:C:OP2	11:CK:125:LYS:HE3	1.90	0.70
9:CI:9:THR:O	9:CI:85:ARG:CZ	2.39	0.70
24:DA:1205:A:H3'	24:DA:1206:G:H5'	1.73	0.70
24:DA:1359:A:OP1	59:DA:3617:HOH:O	2.10	0.70
24:DA:1491:G:N7	24:DA:1500:G:N2	2.40	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2297:A:N1	24:DA:2321:U:C5	2.59	0.70
1:AA:404:G:H2'	1:AA:405:U:C6	2.27	0.70
1:AA:479:U:H2'	1:AA:480:U:H5"	1.74	0.70
1:AA:1321:U:O2'	19:AS:78:ARG:NH1	2.24	0.70
18:AR:45:THR:O	18:AR:47:THR:OG1	2.07	0.70
24:BA:9:G:C6	24:BA:2629:U:C5	2.80	0.70
24:BA:453:A:OP1	59:BA:3244:HOH:O	2.09	0.70
1:CA:390:U:O3'	16:CP:28:ARG:NH1	2.24	0.70
1:CA:1288:A:N3	1:CA:1352:C:O2'	2.21	0.70
1:CA:1411:C:H2'	1:CA:1412:C:H5'	1.72	0.70
5:CE:104:GLY:O	5:CE:105:ILE:HG22	1.92	0.70
7:CG:21:GLU:O	7:CG:24:ALA:N	2.24	0.70
10:CJ:8:ILE:HB	10:CJ:74:VAL:HG11	1.74	0.70
13:CM:20:THR:HA	13:CM:25:VAL:HB	1.72	0.70
24:DA:1327:A:H2'	24:DA:1328:A:O4'	1.90	0.70
57:DA:3190:NMY:O16	57:DA:3190:NMY:H1	1.92	0.70
30:DG:8:VAL:HG21	30:DG:72:ASN:HA	1.73	0.70
34:DK:103:VAL:O	34:DK:122:VAL:HB	1.91	0.70
5:AE:157:ARG:C	5:AE:159:LYS:N	2.50	0.70
10:AJ:23:ALA:O	10:AJ:25:ILE:N	2.25	0.70
14:AN:61:ARG:O	14:AN:62:ASN:CG	2.34	0.70
24:BA:1097:U:N3	32:BI:7:TYR:O	2.24	0.70
24:BA:1824:G:O2'	26:BC:245:THR:CG2	2.40	0.70
24:BA:2355:G:H5'	46:BW:24:LYS:HE2	1.74	0.70
24:BA:2429:G:OP1	59:BA:3702:HOH:O	2.08	0.70
24:BA:2466:C:OP1	54:B4:4:ARG:CG	2.40	0.70
24:BA:2585:U:O2'	24:BA:2586:U:H5'	1.92	0.70
5:CE:148:ASN:OD1	5:CE:148:ASN:N	2.24	0.70
8:CH:29:SER:OG	8:CH:30:SER:N	2.20	0.70
22:CV:19:G:O2'	22:CV:20:U:OP1	2.10	0.70
55:CY:44:TYR:N	55:CY:44:TYR:HD1	1.88	0.70
24:DA:1489:C:O2	24:DA:1501:G:N1	2.23	0.70
1:AA:465:A:H2'	1:AA:466:A:C8	2.26	0.70
1:AA:482:A:H2'	1:AA:483:C:O5'	1.91	0.70
1:AA:932:C:OP1	7:AG:4:ARG:HB2	1.92	0.70
1:AA:1053:G:O3'	59:AA:1848:HOH:O	2.09	0.70
1:AA:1198:G:O5'	59:AA:1835:HOH:O	2.09	0.70
1:AA:1350:A:C2	1:AA:1351:U:C2	2.80	0.70
23:AX:4:G:O2'	23:AX:5:A:H5'	1.90	0.70
24:BA:72:U:OP2	43:BT:6:ARG:NH2	2.25	0.70
24:BA:415:A:C2	24:BA:2409:G:C2	2.80	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:459:U:H4'	43:BT:73:ARG:NH1	2.07	0.70
24:BA:1010:A:OP2	59:BA:3783:HOH:O	2.09	0.70
24:BA:2639:A:H5"	33:BJ:96:ARG:NH1	2.07	0.70
57:BA:3165:NMY:O17	57:BA:3165:NMY:C1	2.40	0.70
35:BL:35:HIS:O	59:BL:301:HOH:O	2.08	0.70
40:BQ:37:ALA:HA	40:BQ:40:LYS:HE3	1.73	0.70
1:CA:1152:A:O3'	10:CJ:15:HIS:NE2	2.25	0.70
1:CA:1465:A:H2'	1:CA:1466:C:C6	2.26	0.70
1:AA:929:G:H4'	1:AA:1535:C:H5"	1.73	0.70
10:AJ:18:ILE:O	10:AJ:22:THR:N	2.25	0.70
18:AR:28:THR:O	18:AR:30:LYS:N	2.25	0.70
24:BA:774:G:OP1	26:BC:47:ARG:NH1	2.25	0.70
24:BA:1494:A:C6	24:BA:1495:A:C5	2.80	0.70
24:BA:2550:G:OP2	59:BA:3725:HOH:O	2.09	0.70
28:BE:108:ILE:HD11	28:BE:180:LEU:HB3	1.73	0.70
29:BF:96:TRP:CZ3	29:BF:99:PHE:CZ	2.67	0.70
34:BK:76:VAL:HG12	39:BP:72:VAL:CG2	2.21	0.70
1:CA:6:G:O2'	1:CA:7:A:O5'	2.06	0.70
11:CK:65:VAL:CG2	11:CK:65:VAL:O	2.40	0.70
22:CV:7:A:H3'	22:CV:8:U:C5'	2.11	0.70
28:DE:29:HIS:CE1	28:DE:33:VAL:HG21	2.27	0.70
37:DN:55:ALA:HB1	37:DN:79:LEU:O	1.92	0.70
1:AA:71:A:N1	1:AA:99:C:O2'	2.24	0.70
1:AA:567:G:O2'	59:AA:1705:HOH:O	2.09	0.70
5:AE:57:PRO:O	5:AE:60:ILE:HG13	1.92	0.70
24:BA:1156:A:P	40:BQ:54:ARG:HH21	2.14	0.70
24:BA:1824:G:O2'	26:BC:245:THR:HG23	1.90	0.70
24:BA:2259:U:C5	24:BA:2427:C:N4	2.60	0.70
24:BA:2788:C:O2'	24:BA:2809:A:O2'	2.10	0.70
1:CA:173:U:C6	1:CA:197:A:C2	2.80	0.70
1:CA:597:G:C1'	17:CQ:28:PHE:HE1	2.05	0.70
2:CB:19:GLN:NE2	2:CB:204:ASP:OD1	2.25	0.70
22:CV:60:U:P	22:CV:61:C:H41	2.15	0.70
24:DA:2287:A:C8	24:DA:2289:G:C8	2.80	0.70
26:DC:14:HIS:O	26:DC:203:VAL:CG1	2.39	0.70
48:DY:48:ARG:O	48:DY:51:ALA:HB3	1.92	0.70
1:AA:74:A:C2	1:AA:97:G:N1	2.60	0.70
1:AA:510:A:N7	59:AA:1760:HOH:O	2.25	0.70
1:AA:652:U:O2'	1:AA:653:U:P	2.48	0.70
1:AA:786:G:C2	1:AA:797:C:O2	2.45	0.70
1:AA:1493:A:H5"	1:AA:1494:G:OP2	1.91	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:944:C:OP2	59:BA:3265:HOH:O	2.09	0.70
24:BA:987:C:H2'	24:BA:988:A:O4'	1.92	0.70
24:BA:1342:A:OP2	59:BA:3717:HOH:O	2.10	0.70
24:BA:1413:A:C6	24:BA:1590:A:C2	2.80	0.70
29:BF:120:SER:HB3	29:BF:127:TYR:CE1	2.26	0.70
1:CA:14:U:H2'	1:CA:14:U:O2	1.92	0.70
1:CA:131:A:H2'	1:CA:132:C:C6	2.27	0.70
1:CA:1338:G:H2'	1:CA:1339:A:C8	2.27	0.70
22:CV:17:C:C5'	22:CV:18:G:H5"	2.21	0.70
55:CY:13:MET:O	55:CY:16:CYS:N	2.21	0.70
24:DA:951:C:H2'	24:DA:952:G:H5'	1.73	0.70
24:DA:1358:G:C6	24:DA:1371:G:C8	2.80	0.70
24:DA:1386:C:OP2	24:DA:1396:U:N3	2.22	0.70
24:DA:1509:A:O2'	24:DA:1510:G:P	2.50	0.70
24:DA:2483:C:C1'	36:DM:51:ARG:NH2	2.55	0.70
26:DC:20:ASN:HB3	26:DC:23:LEU:CD1	2.22	0.70
4:AD:103:TYR:CE2	4:AD:111:ARG:HB3	2.26	0.69
4:AD:139:PRO:O	4:AD:182:PHE:CE1	2.44	0.69
24:BA:991:C:H41	57:BA:3162:NMY:H14	1.56	0.69
24:BA:1022:G:C5	24:BA:1140:C:C4	2.80	0.69
24:BA:1394:U:OP1	59:BA:3413:HOH:O	2.09	0.69
1:CA:598:U:H4'	8:CH:86:TYR:CD2	2.27	0.69
1:CA:1321:U:C4	1:CA:1322:C:C5	2.79	0.69
5:CE:39:VAL:HG22	5:CE:67:ALA:HB1	1.73	0.69
24:DA:397:U:OP2	47:DX:9:LYS:NZ	2.23	0.69
24:DA:585:G:H5"	24:DA:586:A:OP1	1.92	0.69
26:DC:14:HIS:O	26:DC:203:VAL:HG11	1.91	0.69
31:DH:123:ARG:CG	31:DH:124:THR:H	2.05	0.69
1:AA:689:C:OP1	11:AK:46:THR:OG1	2.08	0.69
1:AA:708:C:C2	1:AA:709:U:C5	2.80	0.69
2:AB:99:GLY:N	2:AB:175:GLU:OE2	2.25	0.69
4:AD:9:LEU:C	4:AD:13:ARG:NH1	2.49	0.69
5:AE:50:TYR:O	5:AE:63:ALA:HA	1.92	0.69
13:AM:9:ILE:HG21	29:BF:142:TYR:CD1	2.27	0.69
22:AV:35:A:H2'	22:AV:36:A:H5"	1.72	0.69
24:BA:577:G:N2	24:BA:578:G:C2	2.60	0.69
24:BA:2728:U:OP1	57:BA:3165:NMY:O4	2.10	0.69
25:BB:33:G:C2	25:BB:50:A:C2	2.79	0.69
1:CA:673:A:H5"	6:CF:86:ARG:NH1	2.07	0.69
11:CK:125:LYS:C	21:CU:35:ARG:HE	2.00	0.69
24:DA:1474:U:C4	24:DA:1475:G:N2	2.59	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1817:G:OP1	26:DC:86:ARG:NH2	2.24	0.69
31:DH:116:ARG:NH1	31:DH:133:GLN:CG	2.55	0.69
53:D3:31:ILE:C	53:D3:31:ILE:HD12	2.17	0.69
1:AA:1412:C:H2'	1:AA:1413:A:H8	1.57	0.69
1:AA:1420:U:O4	57:AA:1656:NMY:C8	2.40	0.69
2:AB:207:ILE:O	2:AB:209:ALA:N	2.25	0.69
6:AF:6:ILE:CD1	6:AF:89:VAL:HG22	2.21	0.69
11:AK:24:HIS:CE1	11:AK:26:SER:HB3	2.26	0.69
11:AK:81:ASN:HB2	11:AK:106:ARG:HB3	1.74	0.69
12:AL:75:GLN:CG	12:AL:76:GLU:N	2.54	0.69
17:AQ:30:LYS:HG3	17:AQ:37:PHE:CE1	2.27	0.69
24:BA:362:A:H3'	24:BA:363:G:H5'	1.75	0.69
24:BA:1357:C:OP2	59:BA:3408:HOH:O	2.09	0.69
24:BA:1603:A:H2'	24:BA:1604:C:H5'	1.74	0.69
24:BA:1604:C:OP1	59:BA:3413:HOH:O	2.08	0.69
24:BA:1667:G:N1	59:BA:3430:HOH:O	2.24	0.69
24:BA:2658:C:OP1	30:BG:159:LYS:NZ	2.25	0.69
57:BA:3165:NMY:O17	57:BA:3165:NMY:C2	2.40	0.69
26:BC:62:ARG:NH1	26:BC:83:ASP:OD2	2.25	0.69
34:BK:103:VAL:O	34:BK:122:VAL:HB	1.91	0.69
1:CA:676:A:C2	1:CA:677:U:N3	2.61	0.69
20:CT:55:GLN:HG3	20:CT:56:PRO:CD	2.22	0.69
24:DA:431:U:H2'	24:DA:432:A:C5'	2.22	0.69
24:DA:2800:A:C2	24:DA:2895:G:H1'	2.28	0.69
24:DA:2869:G:C2	24:DA:2870:C:C2	2.80	0.69
31:DH:117:LEU:HD11	31:DH:120:GLY:C	2.16	0.69
40:DQ:87:VAL:HG23	41:DR:49:ILE:HG21	1.74	0.69
1:AA:202:G:N2	1:AA:216:U:O2	2.26	0.69
1:AA:338:A:H2'	1:AA:339:C:O4'	1.93	0.69
1:AA:446:G:O6	1:AA:488:C:N4	2.26	0.69
1:AA:499:A:C6	1:AA:547:A:C8	2.80	0.69
1:AA:1054:C:OP2	59:AA:1849:HOH:O	2.10	0.69
1:AA:1077:G:C2	1:AA:1081:A:C2	2.80	0.69
5:AE:156:LYS:HD2	5:AE:156:LYS:C	2.16	0.69
24:BA:145:C:H2'	24:BA:146:A:H8	1.57	0.69
24:BA:192:C:C5	24:BA:193:U:C6	2.81	0.69
24:BA:1799:G:OP1	26:BC:257:ARG:NH2	2.24	0.69
1:CA:1160:G:O2'	1:CA:1161:C:P	2.50	0.69
1:CA:1226:C:C5	13:CM:103:LYS:HB3	2.27	0.69
1:CA:1308:U:O3'	13:CM:87:ARG:NH2	2.25	0.69
2:CB:50:PHE:O	2:CB:53:ALA:N	2.26	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:81:HIS:O	9:CI:84:THR:N	2.25	0.69
24:DA:993:G:O2'	41:DR:91:GLN:NE2	2.25	0.69
24:DA:1372:U:O2'	24:DA:1373:A:H5'	1.92	0.69
24:DA:1450:G:O6	24:DA:1451:C:N4	2.26	0.69
30:DG:71:LEU:HA	30:DG:74:MET:HG2	1.74	0.69
1:AA:14:U:O2	1:AA:14:U:H2'	1.91	0.69
1:AA:724:G:C2	1:AA:725:G:C8	2.80	0.69
1:AA:1211:U:O2'	1:AA:1212:U:OP2	2.10	0.69
1:AA:1348:U:C5	1:AA:1373:G:N2	2.61	0.69
2:AB:84:ALA:HA	2:AB:218:ALA:HB2	1.75	0.69
21:AU:30:ALA:HA	21:AU:33:ARG:CZ	2.22	0.69
24:BA:1169:A:C2	24:BA:1181:U:O2	2.45	0.69
24:BA:1203:U:O4	24:BA:1204:A:C6	2.45	0.69
24:BA:1340:U:C5	24:BA:1603:A:C8	2.81	0.69
24:BA:1351:C:N3	24:BA:1381:G:C6	2.60	0.69
24:BA:1378:A:O2'	24:BA:1380:G:N7	2.25	0.69
10:CJ:37:ARG:N	10:CJ:75:ASP:OD2	2.26	0.69
12:CL:25:GLU:O	12:CL:27:CYS:N	2.25	0.69
16:CP:54:LEU:O	16:CP:57:ILE:N	2.26	0.69
24:DA:866:A:H2'	24:DA:867:C:O5'	1.92	0.69
24:DA:911:A:C5	36:DM:9:PHE:CD2	2.80	0.69
57:DA:3190:NMY:H1	57:DA:3190:NMY:O17	1.92	0.69
34:DK:64:ARG:HB2	34:DK:79:PHE:CG	2.27	0.69
35:DL:110:VAL:HG13	35:DL:127:VAL:HG22	1.73	0.69
37:DN:69:ARG:O	37:DN:71:ARG:N	2.22	0.69
46:DW:69:PHE:CE2	46:DW:80:ILE:HD11	2.28	0.69
6:AF:38:ARG:CZ	6:AF:96:VAL:HG22	2.23	0.69
24:BA:1001:A:OP2	59:BA:3739:HOH:O	2.09	0.69
24:BA:2502:G:H5'	24:BA:2503:A:H5"	1.72	0.69
26:BC:123:ILE:HG22	26:BC:123:ILE:O	1.92	0.69
1:CA:283:U:C5	1:CA:284:C:C5	2.80	0.69
2:CB:103:ASN:OD1	2:CB:106:THR:OG1	2.11	0.69
11:CK:35:THR:HG23	11:CK:36:ASP:N	2.07	0.69
24:DA:192:C:OP1	59:DA:3743:HOH:O	2.11	0.69
24:DA:898:C:N4	24:DA:899:A:C5	2.59	0.69
1:AA:151:A:OP2	1:AA:169:C:N4	2.25	0.69
1:AA:874:G:C6	1:AA:875:U:C4	2.81	0.69
8:AH:85:ILE:CG2	8:AH:86:TYR:N	2.55	0.69
8:AH:125:ILE:O	8:AH:125:ILE:HG13	1.91	0.69
24:BA:168:G:O2'	24:BA:2209:G:O2'	2.10	0.69
25:BB:43:C:C2	25:BB:45:A:N7	2.61	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BS:23:LEU:O	42:BS:23:LEU:HD23	1.93	0.69
1:CA:82:G:C6	1:CA:88:U:C2	2.81	0.69
1:CA:553:A:O2'	12:CL:26:ALA:O	2.10	0.69
1:CA:700:G:H2'	1:CA:700:G:N3	2.07	0.69
48:DY:28:LEU:O	48:DY:31:GLN:N	2.26	0.69
1:AA:506:G:H2'	1:AA:507:C:C6	2.28	0.69
1:AA:725:G:C2	1:AA:726:C:C6	2.81	0.69
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.27	0.69
1:AA:1493:A:C5'	1:AA:1494:G:OP2	2.41	0.69
57:AA:1655:NMY:H19	57:AA:1655:NMY:C17	2.21	0.69
2:AB:131:LYS:O	2:AB:135:LEU:N	2.23	0.69
4:AD:35:GLU:O	4:AD:37:ALA:N	2.26	0.69
4:AD:125:VAL:HG13	4:AD:126:ASN:N	2.08	0.69
4:AD:142:VAL:C	4:AD:143:VAL:HG13	2.17	0.69
6:AF:4:TYR:OH	6:AF:64:VAL:HB	1.93	0.69
8:AH:55:THR:C	8:AH:57:PRO:HD3	2.18	0.69
11:AK:81:ASN:CB	11:AK:106:ARG:HB3	2.23	0.69
19:AS:70:LYS:O	19:AS:71:LEU:HD13	1.93	0.69
22:AV:72:C:O2'	22:AV:73:A:H5'	1.92	0.69
24:BA:991:C:C5	24:BA:1185:G:C6	2.81	0.69
24:BA:1176:U:H2'	24:BA:1177:G:C8	2.27	0.69
24:BA:1228:G:C2'	24:BA:1229:C:H5'	2.23	0.69
24:BA:1820:U:H4'	24:BA:1821:A:OP2	1.93	0.69
24:BA:2038:G:OP1	59:BA:3253:HOH:O	2.11	0.69
24:BA:2352:A:C2'	24:BA:2353:G:H5'	2.23	0.69
57:BA:3165:NMY:N19	57:BA:3165:NMY:O21	2.26	0.69
30:BG:18:ILE:O	30:BG:20:GLY:N	2.26	0.69
39:BP:92:ARG:O	39:BP:93:LYS:CB	2.41	0.69
45:BV:55:GLU:OE2	45:BV:55:GLU:N	2.26	0.69
1:CA:532:A:H3'	1:CA:533:A:H5"	1.74	0.69
1:CA:666:G:C6	1:CA:741:G:C5	2.81	0.69
1:CA:722:G:H3'	21:CU:45:ARG:NH2	2.08	0.69
3:CC:6:HIS:CD2	14:CN:89:MET:HB3	2.27	0.69
4:CD:113:GLU:CD	4:CD:113:GLU:N	2.50	0.69
4:CD:194:ASP:O	4:CD:195:ILE:HG13	1.92	0.69
6:CF:70:VAL:O	6:CF:74:LEU:N	2.26	0.69
13:CM:6:GLY:O	13:CM:8:ASN:N	2.25	0.69
15:CO:27:VAL:HG23	15:CO:28:GLN:H	1.58	0.69
15:CO:49:ASP:OD1	15:CO:52:SER:OG	2.03	0.69
21:CU:8:GLU:HG3	21:CU:16:LEU:HD11	1.74	0.69
24:DA:475:C:C4	24:DA:481:G:O6	2.45	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1604:C:OP1	59:DA:3405:HOH:O	2.08	0.69
24:DA:1857:G:C2	24:DA:1884:G:C2	2.80	0.69
24:DA:2204:G:H2'	24:DA:2205:A:C8	2.27	0.69
29:DF:102:LEU:O	29:DF:102:LEU:HD12	1.92	0.69
34:DK:25:LEU:HD11	34:DK:38:ILE:HG22	1.74	0.69
39:DP:21:PRO:HA	39:DP:46:VAL:HG23	1.75	0.69
40:DQ:80:ASN:O	40:DQ:83:LYS:HG3	1.91	0.69
1:AA:50:A:N6	1:AA:361:G:H4'	2.07	0.69
1:AA:1015:G:OP2	1:AA:1015:G:C8	2.46	0.69
2:AB:80:VAL:O	2:AB:80:VAL:CG1	2.40	0.69
14:AN:41:ARG:O	14:AN:42:TRP:CD2	2.45	0.69
20:AT:43:ASP:OD1	20:AT:46:ALA:N	2.26	0.69
24:BA:1539:U:H2'	24:BA:1540:G:C8	2.27	0.69
24:BA:1779:U:H5	24:BA:1784:A:N7	1.91	0.69
24:BA:2004:G:H2'	24:BA:2005:A:H5'	1.73	0.69
1:CA:410:G:H1'	1:CA:432:A:N6	2.08	0.69
1:CA:878:A:OP1	8:CH:80:ARG:NH2	2.26	0.69
1:CA:1306:A:C2	1:CA:1332:A:C4	2.81	0.69
1:CA:1431:A:C6	1:CA:1432:G:C6	2.81	0.69
4:CD:22:LYS:HZ1	4:CD:26:ARG:CB	2.06	0.69
6:CF:39:LEU:HD13	6:CF:40:GLU:N	2.08	0.69
7:CG:123:GLU:HA	7:CG:126:ASP:CG	2.18	0.69
24:DA:445:C:C2'	24:DA:446:G:O5'	2.41	0.69
24:DA:572:A:H5"	24:DA:573:U:OP2	1.93	0.69
24:DA:1420:A:O2'	24:DA:1421:G:C5'	2.41	0.69
24:DA:1605:C:H2'	24:DA:1606:C:H5'	1.74	0.69
24:DA:1921:G:C5	57:DA:3184:NMY:N7	2.42	0.69
57:DA:3188:NMY:O22	57:DA:3188:NMY:C14	2.40	0.69
1:AA:328:C:O2	1:AA:328:C:H2'	1.92	0.69
1:AA:858:G:O6	1:AA:869:G:C8	2.46	0.69
1:AA:1423:G:C4	1:AA:1424:U:C6	2.80	0.69
24:BA:370:G:O6	24:BA:424:G:C5	2.45	0.69
57:BA:3165:NMY:HN61	57:BA:3165:NMY:C3	2.04	0.69
27:BD:98:VAL:O	27:BD:101:PHE:N	2.26	0.69
29:BF:96:TRP:CZ2	29:BF:99:PHE:HZ	2.11	0.69
33:BJ:56:VAL:HG21	33:BJ:124:VAL:HG13	1.76	0.69
45:BV:55:GLU:O	45:BV:59:GLU:N	2.26	0.69
1:CA:632:U:OP1	1:CA:633:G:C8	2.46	0.69
1:CA:1293:C:H2'	1:CA:1294:G:H5'	1.73	0.69
12:CL:87:VAL:HG23	12:CL:90:LEU:CD1	2.23	0.69
22:CV:70:G:H2'	22:CV:71:G:O4'	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:620:G:H4'	24:DA:621:A:O5'	1.93	0.69
24:DA:1590:A:N6	59:DA:3619:HOH:O	2.24	0.69
24:DA:2615:U:OP1	59:DA:3754:HOH:O	2.11	0.69
28:DE:1:MET:CE	28:DE:19:PHE:HB2	2.23	0.69
47:DX:31:ASN:O	47:DX:33:HIS:CE1	2.46	0.69
1:AA:246:A:C5	1:AA:279:A:C2	2.81	0.68
2:AB:22:TYR:N	2:AB:22:TYR:CD1	2.56	0.68
24:BA:1667:G:O2'	24:BA:1991:U:O4	2.05	0.68
1:CA:1130:A:N1	1:CA:1144:G:O2'	2.26	0.68
9:CI:10:GLY:HA3	9:CI:85:ARG:NE	2.09	0.68
24:DA:1497:U:OP2	24:DA:1498:C:C5	2.46	0.68
24:DA:1992:G:N2	24:DA:1996:C:O2'	2.26	0.68
24:DA:2796:U:C5	24:DA:2798:U:C4	2.81	0.68
26:DC:116:GLN:N	26:DC:127:ASN:HD21	1.90	0.68
30:DG:148:ARG:HA	30:DG:161:VAL:CG2	2.23	0.68
1:AA:412:A:H4'	11:CK:16:VAL:HG13	1.74	0.68
1:AA:1278:G:OP1	1:AA:1281:C:N4	2.25	0.68
21:AU:14:VAL:HG23	21:AU:16:LEU:HG	1.75	0.68
24:BA:198:C:OP2	59:BA:3763:HOH:O	2.12	0.68
31:BH:147:VAL:HG22	31:BH:148:ALA:H	1.58	0.68
1:CA:579:A:C2	1:CA:580:C:C6	2.81	0.68
24:DA:404:A:C8	24:DA:406:G:C6	2.81	0.68
24:DA:1379:U:C6	24:DA:1379:U:OP1	2.46	0.68
24:DA:1420:A:HO2'	24:DA:1421:G:C5'	2.04	0.68
24:DA:2413:G:H2'	24:DA:2414:G:H5'	1.74	0.68
29:DF:119:LYS:O	29:DF:121:PHE:N	2.25	0.68
1:AA:100:G:N7	1:AA:101:A:N7	2.42	0.68
1:AA:159:G:O2'	1:AA:161:A:N7	2.23	0.68
4:AD:171:LEU:C	4:AD:171:LEU:HD12	2.18	0.68
13:AM:2:ALA:HB3	13:AM:9:ILE:HD12	1.73	0.68
17:AQ:18:GLU:O	17:AQ:19:LYS:HB3	1.92	0.68
24:BA:609:A:C5	24:BA:610:C:O2	2.46	0.68
24:BA:1346:G:H2'	24:BA:1347:A:C8	2.29	0.68
24:BA:1844:C:OP1	26:BC:254:LYS:NZ	2.23	0.68
1:CA:17:U:H2'	1:CA:18:C:C6	2.28	0.68
1:CA:953:G:C4	1:CA:1229:A:C2	2.81	0.68
1:CA:1411:C:C2'	1:CA:1412:C:H5'	2.23	0.68
9:CI:73:SER:O	9:CI:77:GLY:N	2.26	0.68
22:CV:64:A:H2'	22:CV:65:G:H5'	1.76	0.68
55:CY:1:MET:SD	55:CY:1:MET:N	2.60	0.68
24:DA:355:U:H2'	24:DA:356:G:C8	2.28	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1873:G:C5	24:DA:1874:C:C5	2.81	0.68
24:DA:2005:A:OP1	59:DA:3381:HOH:O	2.11	0.68
24:DA:2298:A:C4	24:DA:2321:U:C5	2.81	0.68
57:DA:3185:NMY:H232	57:DA:3185:NMY:C16	2.24	0.68
31:DH:116:ARG:O	31:DH:118:PRO:HD3	1.91	0.68
1:AA:32:A:N6	1:AA:553:A:N1	2.42	0.68
1:AA:980:C:N4	59:AA:1842:HOH:O	2.26	0.68
4:AD:200:ILE:O	4:AD:202:GLU:N	2.26	0.68
5:AE:156:LYS:C	5:AE:156:LYS:CD	2.67	0.68
8:AH:40:LEU:O	8:AH:44:GLY:N	2.26	0.68
9:AI:49:ARG:O	9:AI:52:LEU:N	2.25	0.68
15:AO:33:THR:O	15:AO:35:GLN:N	2.26	0.68
24:BA:483:A:C2	24:BA:484:C:C1'	2.76	0.68
24:BA:640:C:C5	24:BA:641:U:C5	2.81	0.68
24:BA:1266:G:OP1	50:B0:15:ARG:NE	2.27	0.68
32:BI:29:GLN:N	32:BI:29:GLN:OE1	2.27	0.68
1:CA:1014:A:N3	19:CS:34:TRP:CZ2	2.62	0.68
2:CB:188:ASP:OD1	2:CB:188:ASP:N	2.24	0.68
3:CC:117:ALA:HB2	3:CC:200:VAL:HG21	1.73	0.68
15:CO:36:ILE:HG22	15:CO:37:ASN:N	2.09	0.68
21:CU:40:LYS:N	21:CU:41:PRO:CD	2.56	0.68
24:DA:1773:A:H2'	24:DA:1774:C:H5'	1.74	0.68
24:DA:2343:U:O2'	24:DA:2373:G:O2'	2.10	0.68
24:DA:2756:U:OP2	54:D4:19:ARG:NE	2.25	0.68
26:DC:104:LEU:N	26:DC:104:LEU:CD1	2.57	0.68
29:DF:40:GLY:HA2	29:DF:84:ILE:HD11	1.75	0.68
51:D1:13:SER:OG	51:D1:47:ILE:O	2.10	0.68
53:D3:6:VAL:HG12	53:D3:9:ALA:HB3	1.74	0.68
1:AA:684:U:C2'	1:AA:685:G:O5'	2.41	0.68
1:AA:1068:G:C2'	1:AA:1069:C:H5'	2.23	0.68
5:AE:157:ARG:HG2	5:AE:158:GLY:N	2.07	0.68
24:BA:1533:C:N4	24:BA:1538:G:O6	2.27	0.68
1:CA:922:G:O2'	1:CA:923:A:H5'	1.94	0.68
2:CB:87:CYS:SG	2:CB:218:ALA:HB1	2.34	0.68
4:CD:203:LEU:HD23	4:CD:204:TYR:CD2	2.29	0.68
8:CH:112:THR:O	8:CH:116:ALA:N	2.26	0.68
22:CV:4:C:O2'	22:CV:5:G:H8	1.77	0.68
24:DA:58:G:OP1	43:DT:78:SER:OG	2.08	0.68
24:DA:194:G:OP2	59:DA:3765:HOH:O	2.10	0.68
24:DA:2221:G:C5	24:DA:2222:C:C5	2.82	0.68
24:DA:2794:C:O2	24:DA:2803:G:C2	2.45	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DH:117:LEU:HD23	31:DH:117:LEU:C	2.18	0.68
36:DM:108:VAL:HG12	36:DM:109:PRO:HD2	1.75	0.68
1:AA:552:U:H2'	1:AA:553:A:C8	2.29	0.68
1:AA:985:C:C2	1:AA:1221:G:C2	2.82	0.68
1:AA:1035:A:H2'	1:AA:1036:A:C4'	2.24	0.68
1:AA:1047:G:HO2'	1:AA:1215:G:HO2'	1.39	0.68
1:AA:1182:G:H4'	1:AA:1183:U:H5'	1.73	0.68
24:BA:1869:G:C2	24:BA:1873:G:C6	2.82	0.68
28:BE:82:GLY:O	28:BE:83:VAL:C	2.36	0.68
54:B4:11:CYS:SG	54:B4:33:HIS:CE1	2.87	0.68
1:CA:9:G:OP2	5:CE:126:LYS:NZ	2.24	0.68
1:CA:778:G:C2	1:CA:779:C:C2	2.82	0.68
6:CF:70:VAL:O	6:CF:73:GLU:N	2.27	0.68
22:CV:37:A:C3'	22:CV:38:A:H8	2.04	0.68
24:DA:58:G:O2'	24:DA:73:A:N1	2.24	0.68
24:DA:2033:A:O2'	59:DA:3471:HOH:O	2.11	0.68
24:DA:2420:C:OP1	53:D3:33:THR:HG23	1.92	0.68
24:DA:2498:C:C2'	24:DA:2499:C:H5'	2.23	0.68
28:DE:35:TYR:CE2	28:DE:176:ASP:HB2	2.29	0.68
1:AA:874:G:C5	1:AA:875:U:C5	2.81	0.68
2:AB:47:VAL:HB	2:AB:48:PRO:CD	2.23	0.68
3:AC:155:GLY:O	3:AC:157:LEU:N	2.26	0.68
8:AH:39:VAL:O	8:AH:42:GLU:N	2.26	0.68
8:AH:111:MET:HE1	8:AH:116:ALA:HA	1.76	0.68
11:AK:48:GLY:O	11:AK:50:SER:N	2.26	0.68
13:AM:8:ASN:ND2	13:AM:21:SER:O	2.27	0.68
20:AT:5:LYS:O	20:AT:5:LYS:HD3	1.93	0.68
24:BA:309:A:N3	24:BA:329:G:O2'	2.26	0.68
24:BA:327:G:N2	44:BU:67:SER:OG	2.27	0.68
24:BA:2407:A:OP1	59:BA:3565:HOH:O	2.10	0.68
36:BM:127:LYS:HD2	36:BM:127:LYS:N	2.08	0.68
22:CV:4:C:O2'	22:CV:5:G:H5"	1.92	0.68
24:DA:1358:G:C6	24:DA:1371:G:N7	2.61	0.68
26:DC:66:PHE:CZ	26:DC:155:ARG:CZ	2.77	0.68
37:DN:26:GLY:HA2	37:DN:75:ILE:HD11	1.75	0.68
39:DP:15:ASP:OD1	39:DP:15:ASP:N	2.25	0.68
1:AA:207:C:H2'	1:AA:207:C:O2	1.92	0.68
1:AA:376:G:OP1	16:AP:5:ARG:CZ	2.42	0.68
4:AD:26:ARG:NH1	4:AD:27:ALA:O	2.25	0.68
6:AF:18:VAL:HG13	6:AF:19:PRO:CD	2.23	0.68
24:BA:243:U:OP2	53:B3:7:ARG:NH1	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:784:G:OP2	59:BA:3316:HOH:O	2.11	0.68
24:BA:1799:G:N2	24:BA:1819:A:OP2	2.26	0.68
24:BA:2093:G:H4'	31:BH:24:GLY:HA3	1.75	0.68
25:BB:71:C:H2'	25:BB:72:G:H5'	1.74	0.68
31:BH:83:LYS:O	31:BH:83:LYS:HE3	1.93	0.68
38:BO:17:LYS:HG3	38:BO:21:LEU:HD11	1.76	0.68
46:BW:43:THR:O	46:BW:43:THR:HG23	1.94	0.68
48:BY:26:PHE:O	48:BY:29:ARG:HG2	1.93	0.68
1:CA:539:A:H2'	1:CA:540:G:C8	2.28	0.68
1:CA:1114:C:O2	1:CA:1115:U:C6	2.47	0.68
9:CI:30:ILE:O	9:CI:31:ASN:C	2.37	0.68
15:CO:29:VAL:HG12	15:CO:30:ALA:N	2.09	0.68
24:DA:1805:A:O2'	24:DA:1806:C:H5'	1.93	0.68
24:DA:2352:A:C4	24:DA:2366:A:C2	2.82	0.68
57:DA:3190:NMY:H5	57:DA:3190:NMY:N9	2.09	0.68
31:DH:82:SER:CB	31:DH:146:VAL:CG2	2.72	0.68
38:DO:49:VAL:HG21	38:DO:82:ALA:HA	1.74	0.68
40:DQ:37:ALA:O	40:DQ:38:VAL:HB	1.92	0.68
43:DT:4:GLU:CD	48:DY:18:LEU:HD21	2.19	0.68
1:AA:50:A:N6	1:AA:361:G:C4'	2.57	0.68
1:AA:652:U:C2	1:AA:752:G:N2	2.62	0.68
1:AA:933:G:P	7:AG:5:ARG:NH2	2.67	0.68
4:AD:36:GLN:O	4:AD:37:ALA:CB	2.41	0.68
8:AH:94:LYS:HD3	8:AH:113:ASP:OD2	1.94	0.68
13:AM:68:ASP:OD1	13:AM:69:LEU:N	2.26	0.68
21:AU:41:PRO:O	21:AU:45:ARG:HB3	1.94	0.68
24:BA:197:A:OP1	59:BA:3763:HOH:O	2.12	0.68
24:BA:860:U:H2'	24:BA:860:U:O2	1.93	0.68
24:BA:1359:A:OP1	59:BA:3618:HOH:O	2.11	0.68
24:BA:1617:C:N3	59:BA:3314:HOH:O	2.26	0.68
25:BB:7:G:O2'	38:BO:38:GLN:OE1	2.06	0.68
25:BB:83:G:C2	25:BB:94:A:C2	2.82	0.68
28:BE:47:LYS:HB3	28:BE:51:GLU:HB2	1.76	0.68
1:CA:679:C:N3	1:CA:712:A:N1	2.42	0.68
1:CA:855:U:C2	1:CA:856:C:C5	2.81	0.68
4:CD:22:LYS:HG2	4:CD:25:VAL:HG13	1.75	0.68
11:CK:28:ASN:O	11:CK:58:SER:OG	2.11	0.68
11:CK:112:ASP:OD1	21:CU:25:LYS:NZ	2.27	0.68
22:CV:17:C:H5'	22:CV:18:G:C5'	2.23	0.68
24:DA:190:A:N3	24:DA:679:C:O2'	2.23	0.68
24:DA:195:A:OP2	59:DA:3764:HOH:O	2.11	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1780:A:N6	59:DA:3759:HOH:O	2.26	0.68
31:DH:120:GLY:O	31:DH:122:LEU:HG	1.93	0.68
1:AA:711:G:C2'	1:AA:712:A:H5'	2.24	0.68
1:AA:786:G:C5	1:AA:787:A:C8	2.81	0.68
1:AA:981:U:OP1	14:AN:8:ARG:CZ	2.42	0.68
1:AA:1386:G:N7	59:AA:1866:HOH:O	2.26	0.68
4:AD:23:SER:O	4:AD:25:VAL:N	2.27	0.68
11:AK:82:LEU:CD2	11:AK:105:PHE:CG	2.76	0.68
11:AK:125:LYS:HB2	21:AU:35:ARG:NE	2.09	0.68
24:BA:1006:C:O2'	33:BJ:108:MET:O	2.11	0.68
24:BA:1239:G:H2'	24:BA:1240:U:O4'	1.94	0.68
24:BA:2345:G:H4'	24:BA:2346:A:H5"	1.76	0.68
25:BB:15:A:C8	25:BB:109:A:C6	2.83	0.68
39:BP:51:ASN:O	39:BP:52:ARG:HD3	1.93	0.68
1:CA:757:U:O2'	1:CA:758:C:H5'	1.93	0.68
1:CA:855:U:H2'	1:CA:856:C:H6	1.57	0.68
1:CA:935:A:N6	7:CG:3:ARG:HD3	2.09	0.68
1:CA:1399:C:H4'	1:CA:1400:C:C5'	2.24	0.68
1:CA:1537:U:O2	23:CX:6:G:N2	2.27	0.68
8:CH:89:LYS:HA	8:CH:92:LEU:HD13	1.76	0.68
13:CM:112:PRO:O	13:CM:114:LYS:N	2.27	0.68
15:CO:57:LEU:O	15:CO:58:ARG:C	2.37	0.68
46:DW:69:PHE:CE2	46:DW:80:ILE:CD1	2.77	0.68
1:AA:574:A:N3	1:AA:883:C:H1'	2.09	0.67
2:AB:73:LYS:HD3	2:AB:75:ALA:HB3	1.76	0.67
24:BA:1505:A:C6	24:BA:1506:U:N3	2.62	0.67
24:BA:1876:A:H2'	24:BA:1877:A:O4'	1.94	0.67
24:BA:2304:G:O5'	29:BF:120:SER:OG	2.12	0.67
24:BA:2414:G:N2	24:BA:2415:G:H1'	2.09	0.67
24:BA:2734:A:N7	24:BA:2735:G:C8	2.62	0.67
1:CA:668:G:O2'	1:CA:669:G:H5'	1.94	0.67
1:CA:1299:A:O2'	1:CA:1300:G:OP1	2.11	0.67
3:CC:44:THR:O	3:CC:45:LYS:C	2.37	0.67
3:CC:52:VAL:O	3:CC:115:LEU:HD11	1.94	0.67
3:CC:173:VAL:O	3:CC:175:LEU:N	2.27	0.67
13:CM:3:ARG:O	13:CM:8:ASN:O	2.12	0.67
18:CR:48:ARG:HG3	18:CR:51:TYR:HB2	1.76	0.67
55:CY:119:GLY:O	55:CY:121:ALA:N	2.26	0.67
24:DA:1269:A:N7	59:DA:3382:HOH:O	2.26	0.67
24:DA:2013:A:H2'	24:DA:2014:A:H5'	1.76	0.67
24:DA:2055:C:H5'	24:DA:2056:G:H5"	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DC:6:LYS:HB2	26:DC:7:PRO:HD2	1.75	0.67
29:DF:60:SER:OG	29:DF:61:GLY:N	2.26	0.67
31:DH:115:VAL:O	31:DH:133:GLN:HG3	1.95	0.67
43:DT:51:PHE:O	43:DT:52:GLU:C	2.36	0.67
1:AA:371:A:C2	1:AA:372:C:C5	2.83	0.67
1:AA:570:G:H1'	1:AA:820:U:C4	2.29	0.67
1:AA:672:U:H2'	1:AA:673:A:C8	2.29	0.67
1:AA:1364:U:HO2'	1:AA:1365:G:C5'	2.06	0.67
2:AB:43:LEU:O	2:AB:46:THR:N	2.28	0.67
3:AC:47:LEU:HB3	3:AC:50:ALA:HB3	1.76	0.67
9:AI:35:LEU:O	9:AI:36:GLU:C	2.37	0.67
10:AJ:42:LEU:HG	10:AJ:43:PRO:HD2	1.74	0.67
16:AP:32:PHE:C	16:AP:32:PHE:CD1	2.72	0.67
24:BA:1255:U:O2'	59:BA:3275:HOH:O	2.12	0.67
24:BA:1913:A:O2'	24:BA:1914:C:P	2.51	0.67
24:BA:2311:A:O2'	24:BA:2312:U:P	2.51	0.67
25:BB:9:G:O2'	38:BO:44:GLY:O	2.07	0.67
46:BW:24:LYS:CD	46:BW:25:ARG:HG2	2.24	0.67
1:CA:1238:A:H5"	1:CA:1336:C:N4	2.09	0.67
1:CA:1324:A:C2	1:CA:1325:C:H1'	2.29	0.67
6:CF:69:GLU:O	6:CF:71:ILE:N	2.28	0.67
12:CL:63:VAL:HG12	12:CL:64:THR:N	2.09	0.67
21:CU:25:LYS:O	21:CU:27:GLY:N	2.27	0.67
24:DA:2661:G:N1	24:DA:2662:A:C2	2.62	0.67
26:DC:184:GLU:O	26:DC:187:CYS:SG	2.52	0.67
31:DH:93:SER:OG	31:DH:94:ILE:N	2.26	0.67
35:DL:41:ARG:O	35:DL:43:GLY:N	2.27	0.67
37:DN:103:ARG:HB2	37:DN:110:MET:HE3	1.76	0.67
1:AA:1140:C:O2'	1:AA:1141:C:P	2.52	0.67
8:AH:85:ILE:HG22	8:AH:86:TYR:N	2.10	0.67
8:AH:101:ILE:HG13	8:AH:112:THR:HB	1.76	0.67
24:BA:555:G:O2'	24:BA:556:A:OP2	2.13	0.67
24:BA:635:C:O2	24:BA:639:U:H4'	1.95	0.67
24:BA:852:U:C5	24:BA:853:C:C4	2.82	0.67
24:BA:2730:C:C4	57:BA:3165:NMY:O20	2.46	0.67
37:BN:24:MET:HE3	37:BN:44:LEU:HD13	1.77	0.67
44:BU:57:ILE:HD12	44:BU:57:ILE:N	2.10	0.67
1:CA:475:C:H2'	1:CA:476:U:C6	2.29	0.67
1:CA:787:A:H2'	1:CA:788:U:C5'	2.25	0.67
7:CG:58:GLU:O	7:CG:61:ALA:N	2.26	0.67
55:CY:44:TYR:N	55:CY:44:TYR:CD1	2.60	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:480:A:O3'	44:DU:43:LYS:NZ	2.26	0.67
24:DA:1072:C:O2	24:DA:1093:G:N1	2.26	0.67
24:DA:1857:G:N2	24:DA:1884:G:C4	2.63	0.67
24:DA:2318:G:C6	24:DA:2319:G:N1	2.62	0.67
24:DA:2344:U:H4'	24:DA:2345:G:OP1	1.92	0.67
28:DE:171:ASP:O	28:DE:172:ALA:C	2.37	0.67
29:DF:34:THR:HB	29:DF:89:THR:CG2	2.25	0.67
31:DH:119:ASN:O	31:DH:121:VAL:N	2.27	0.67
1:AA:338:A:OP2	34:BK:98:ARG:NH2	2.27	0.67
1:AA:376:G:OP1	16:AP:5:ARG:NH1	2.28	0.67
1:AA:508:U:H5'	4:AD:51:TYR:CZ	2.29	0.67
1:AA:607:A:C4	1:AA:608:A:C8	2.82	0.67
1:AA:815:A:O2'	1:AA:816:A:OP1	2.12	0.67
3:AC:100:GLN:CG	3:AC:101:ILE:N	2.57	0.67
4:AD:170:TRP:CE2	4:AD:186:PRO:HD3	2.29	0.67
17:AQ:49:GLU:O	17:AQ:51:ASN:N	2.27	0.67
21:AU:37:PHE:O	21:AU:38:TYR:CG	2.48	0.67
24:BA:121:G:H4'	24:BA:149:A:H5'	1.77	0.67
24:BA:363:G:C2	24:BA:364:C:C2	2.83	0.67
24:BA:453:A:OP1	59:BA:3245:HOH:O	2.12	0.67
24:BA:533:G:H5'	40:BQ:23:TYR:CE1	2.29	0.67
24:BA:720:U:H2'	24:BA:721:A:C8	2.30	0.67
24:BA:729:G:H2'	24:BA:1775:U:H1'	1.77	0.67
24:BA:1141:U:H4'	24:BA:1142:A:O5'	1.93	0.67
24:BA:1188:U:H2'	24:BA:1189:A:C5'	2.24	0.67
24:BA:1827:U:C5'	24:BA:1971:U:H5"	2.23	0.67
24:BA:2582:G:C2	24:BA:2583:G:C8	2.83	0.67
38:BO:80:GLU:O	38:BO:82:ALA:N	2.27	0.67
50:B0:39:ARG:O	50:B0:41:HIS:N	2.27	0.67
1:CA:858:G:O6	59:CA:1819:HOH:O	2.08	0.67
1:CA:858:G:C6	1:CA:869:G:C8	2.82	0.67
6:CF:3:HIS:O	6:CF:92:THR:OG1	2.12	0.67
12:CL:65:SER:HB2	12:CL:95:TYR:HB3	1.75	0.67
24:DA:1340:U:C5	24:DA:1603:A:C8	2.82	0.67
24:DA:1794:A:O4'	24:DA:1900:A:C2	2.47	0.67
42:DS:45:VAL:O	42:DS:46:LEU:C	2.36	0.67
1:AA:325:A:N6	1:AA:326:G:N1	2.41	0.67
1:AA:542:G:C2	1:AA:543:U:C6	2.83	0.67
1:AA:1426:G:C2	1:AA:1427:C:O2	2.47	0.67
8:AH:10:MET:HE2	8:AH:33:LYS:CG	2.24	0.67
16:AP:24:SER:O	16:AP:26:ASN:N	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:71:LEU:HA	19:AS:73:GLU:OE2	1.95	0.67
22:AV:72:C:C2'	22:AV:73:A:O5'	2.43	0.67
24:BA:1206:G:C5	24:BA:1207:C:C4	2.82	0.67
24:BA:1263:U:O2'	50:B0:3:GLN:NE2	2.24	0.67
24:BA:1303:G:O2'	24:BA:1642:G:O2'	2.10	0.67
24:BA:2138:G:C2	24:BA:2154:A:C2	2.82	0.67
49:BZ:50:VAL:HG22	49:BZ:50:VAL:O	1.92	0.67
1:CA:722:G:N3	21:CU:45:ARG:NH2	2.42	0.67
1:CA:827:U:C4	1:CA:870:U:C2	2.83	0.67
1:CA:1309:G:C2	1:CA:1329:A:C8	2.83	0.67
4:CD:81:ARG:HG3	4:CD:82:LEU:N	2.09	0.67
4:CD:151:LYS:NZ	4:CD:175:ALA:O	2.26	0.67
55:CY:121:ALA:CB	55:CY:175:LEU:HD12	2.25	0.67
24:DA:1181:U:H2'	24:DA:1182:G:C8	2.30	0.67
24:DA:2362:C:OP1	53:D3:39:ARG:NH2	2.26	0.67
32:DI:107:GLU:N	32:DI:107:GLU:OE1	2.28	0.67
43:DT:73:ARG:HG2	43:DT:74:ILE:N	2.08	0.67
1:AA:150:U:H2'	1:AA:151:A:H8	1.60	0.67
1:AA:490:C:C2	1:AA:491:G:C8	2.81	0.67
24:BA:642:U:O2'	24:BA:644:A:N7	2.25	0.67
24:BA:883:G:C2	24:BA:894:U:C2	2.81	0.67
24:BA:1045:C:O2	24:BA:1047:G:C2	2.48	0.67
24:BA:1421:G:C2	24:BA:1422:G:C8	2.82	0.67
24:BA:1760:C:C6	24:BA:1761:C:C5	2.82	0.67
26:BC:142:ASN:ND2	26:BC:142:ASN:O	2.28	0.67
34:BK:13:ASN:OD1	34:BK:98:ARG:N	2.28	0.67
38:BO:67:ASN:O	38:BO:69:ASP:N	2.28	0.67
42:BS:2:GLU:OE2	42:BS:2:GLU:N	2.28	0.67
1:CA:765:G:H5"	1:CA:766:A:OP1	1.94	0.67
1:CA:966:G:N3	9:CI:129:LYS:HE3	2.10	0.67
6:CF:11:HIS:ND1	6:CF:13:ASP:OD1	2.27	0.67
14:CN:17:ASP:O	14:CN:22:LYS:NZ	2.28	0.67
20:CT:32:ILE:CA	20:CT:54:MET:SD	2.82	0.67
24:DA:532:A:N3	24:DA:532:A:H2'	2.10	0.67
24:DA:734:A:C2'	24:DA:735:A:H5'	2.24	0.67
24:DA:2230:G:H1'	47:DX:31:ASN:CB	2.24	0.67
24:DA:2407:A:C4	24:DA:2408:U:C5	2.82	0.67
1:AA:181:A:N1	1:AA:195:A:C8	2.63	0.67
1:AA:560:A:C5'	1:AA:566:G:N2	2.58	0.67
4:AD:103:TYR:CZ	4:AD:111:ARG:CA	2.78	0.67
6:AF:18:VAL:HG13	6:AF:19:PRO:HD3	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1157:G:H2'	24:BA:1157:G:N3	2.10	0.67
24:BA:1205:A:C6	28:BE:165:HIS:CE1	2.83	0.67
24:BA:2259:U:C6	24:BA:2427:C:C4	2.82	0.67
24:BA:2657:A:O3'	30:BG:159:LYS:NZ	2.27	0.67
36:BM:1:MET:CE	36:BM:44:ARG:HG2	2.25	0.67
1:CA:966:G:H2'	9:CI:129:LYS:CD	2.24	0.67
13:CM:75:MET:O	13:CM:79:ARG:N	2.27	0.67
15:CO:78:TYR:N	15:CO:78:TYR:CD1	2.59	0.67
19:CS:18:LYS:O	19:CS:21:LYS:N	2.28	0.67
24:DA:713:G:C6	24:DA:714:U:O4	2.47	0.67
24:DA:2484:G:OP1	36:DM:44:ARG:CD	2.43	0.67
52:D2:34:ARG:NH1	52:D2:39:ARG:HD2	2.10	0.67
1:AA:402:G:O2'	4:AD:132:ILE:CD1	2.43	0.67
1:AA:1084:G:N7	1:AA:1085:U:C2	2.62	0.67
1:AA:1492:A:O2'	1:AA:1493:A:O5'	2.12	0.67
10:AJ:12:ALA:HB2	10:AJ:96:VAL:HG12	1.76	0.67
12:AL:50:ARG:HG2	12:AL:90:LEU:HD11	1.77	0.67
24:BA:167:A:C5	24:BA:168:G:C8	2.81	0.67
24:BA:483:A:N1	24:BA:484:C:C2	2.63	0.67
24:BA:827:U:OP2	59:BA:3702:HOH:O	2.11	0.67
24:BA:1268:A:OP1	59:BA:3383:HOH:O	2.12	0.67
24:BA:2285:C:OP2	51:B1:5:ARG:CZ	2.42	0.67
34:BK:64:ARG:HD2	34:BK:79:PHE:CD2	2.29	0.67
38:BO:11:ALA:O	38:BO:13:ARG:N	2.27	0.67
44:BU:95:PHE:CE1	44:BU:102:ILE:HD13	2.30	0.67
1:CA:939:G:C2'	1:CA:940:C:H5'	2.23	0.67
1:CA:1306:A:C5	1:CA:1332:A:C2	2.83	0.67
1:CA:1408:A:C2	1:CA:1494:G:C5	2.83	0.67
11:CK:55:SER:C	11:CK:57:LYS:H	2.01	0.67
55:CY:44:TYR:CE2	55:CY:54:LEU:HD11	2.30	0.67
24:DA:31:C:H4'	24:DA:1238:G:H4'	1.75	0.67
24:DA:77:G:O3'	48:DY:2:LYS:HD3	1.95	0.67
24:DA:244:A:C2	24:DA:255:A:C4	2.83	0.67
24:DA:998:C:C2'	24:DA:999:U:O5'	2.43	0.67
24:DA:1738:G:O2'	24:DA:1739:A:O5'	2.13	0.67
24:DA:2201:G:C5	24:DA:2202:U:C5	2.83	0.67
24:DA:2204:G:N3	24:DA:2205:A:C8	2.63	0.67
24:DA:2748:A:H1'	30:DG:66:THR:CG2	2.25	0.67
24:DA:2885:G:H2'	24:DA:2886:A:H5'	1.77	0.67
31:DH:11:ASN:O	31:DH:12:LEU:HB3	1.94	0.67
38:DO:64:TYR:O	38:DO:67:ASN:ND2	2.26	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:175:C:H2'	1:AA:176:C:C6	2.30	0.67
1:AA:786:G:H2'	1:AA:787:A:O5'	1.95	0.67
1:AA:1522:U:H2'	1:AA:1523:G:H8	1.60	0.67
57:AA:1656:NMY:H16	57:AA:1656:NMY:N19	2.10	0.67
20:AT:39:ILE:O	20:AT:42:GLY:N	2.27	0.67
24:BA:480:A:O2'	24:BA:481:G:OP1	2.13	0.67
24:BA:733:G:C6	24:BA:761:A:C8	2.83	0.67
24:BA:1262:A:OP2	42:BS:99:ARG:NH2	2.27	0.67
24:BA:1291:C:C2	24:BA:1292:G:C8	2.82	0.67
24:BA:1730:C:HO2'	24:BA:1731:G:P	2.15	0.67
24:BA:2514:U:H2'	24:BA:2515:C:C6	2.29	0.67
27:BD:120:GLY:O	27:BD:122:VAL:N	2.26	0.67
34:BK:107:LEU:O	34:BK:109:SER:N	2.28	0.67
1:CA:954:G:C6	1:CA:955:U:C4	2.83	0.67
13:CM:75:MET:SD	29:DF:111:ARG:CZ	2.82	0.67
24:DA:998:C:H2'	24:DA:999:U:O5'	1.94	0.67
24:DA:1619:G:H2'	24:DA:1620:G:O5'	1.95	0.67
24:DA:1931:U:H5"	57:DA:3184:NMY:H192	1.59	0.67
24:DA:2122:U:O2'	24:DA:2123:G:P	2.52	0.67
24:DA:2292:U:H2'	24:DA:2293:G:C8	2.29	0.67
24:DA:2657:A:O2'	30:DG:159:LYS:NZ	2.28	0.67
29:DF:161:SER:O	29:DF:162:ASP:C	2.37	0.67
36:DM:83:GLY:O	36:DM:85:GLY:N	2.28	0.67
47:DX:32:LEU:HA	47:DX:50:VAL:O	1.94	0.67
1:AA:328:C:H4'	1:AA:329:A:H5'	1.76	0.67
1:AA:802:A:H2'	1:AA:803:G:H5'	1.77	0.67
1:AA:1082:A:H2'	1:AA:1083:U:H5'	1.76	0.67
4:AD:99:ASP:HB2	4:AD:115:ARG:CZ	2.25	0.67
24:BA:84:A:H4'	44:BU:5:ARG:HD3	1.77	0.67
24:BA:1416:G:C8	24:BA:1417:C:C5	2.83	0.67
24:BA:1579:A:C2	24:BA:1580:A:C2	2.83	0.67
24:BA:2204:G:C4	24:BA:2205:A:C8	2.83	0.67
24:BA:2250:G:OP1	36:BM:84:LYS:NZ	2.29	0.67
24:BA:2294:G:OP1	38:BO:10:ARG:NE	2.28	0.67
24:BA:2376:A:H2'	24:BA:2377:A:O4'	1.94	0.67
31:BH:27:ARG:O	31:BH:32:PRO:CG	2.43	0.67
1:CA:842:U:H3'	1:CA:843:U:H4'	1.76	0.67
1:CA:919:A:O2'	1:CA:920:U:H5'	1.95	0.67
4:CD:19:LEU:HD12	4:CD:64:ILE:HA	1.77	0.67
10:CJ:65:TYR:HB3	14:CN:96:LEU:HD13	1.76	0.67
19:CS:3:ARG:C	19:CS:4:SER:HG	1.98	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CV:56:C:C2'	22:CV:57:G:H5'	2.25	0.67
24:DA:64:A:H2'	24:DA:65:U:C6	2.29	0.67
24:DA:446:G:P	40:DQ:2:ARG:HG3	2.34	0.67
24:DA:943:A:OP2	35:DL:39:LYS:NZ	2.27	0.67
24:DA:2413:G:C2'	24:DA:2414:G:H5'	2.25	0.67
24:DA:2575:C:OP2	59:DA:3714:HOH:O	2.13	0.67
24:DA:2593:U:H2'	24:DA:2594:C:C6	2.30	0.67
24:DA:2655:G:O2'	24:DA:2656:U:P	2.52	0.67
40:DQ:82:LEU:HG	40:DQ:87:VAL:HG11	1.76	0.67
1:AA:73:C:O2'	1:AA:74:A:O5'	2.13	0.66
1:AA:508:U:C5'	4:AD:51:TYR:CZ	2.78	0.66
1:AA:784:A:H2'	1:AA:785:G:O4'	1.95	0.66
6:AF:92:THR:O	6:AF:94:HIS:N	2.27	0.66
8:AH:83:LEU:HD13	8:AH:83:LEU:C	2.18	0.66
9:AI:45:ARG:O	9:AI:47:VAL:N	2.27	0.66
12:AL:116:LYS:O	12:AL:117:TYR:CB	2.43	0.66
13:AM:66:GLU:O	13:AM:68:ASP:N	2.27	0.66
15:AO:11:ILE:HD11	15:AO:31:LEU:HB3	1.75	0.66
24:BA:53:A:C8	24:BA:54:G:C8	2.83	0.66
24:BA:215:G:O3'	24:BA:216:A:H4'	1.95	0.66
24:BA:404:A:C2	24:BA:406:G:N1	2.64	0.66
24:BA:616:A:H4'	28:BE:101:TYR:CE2	2.29	0.66
24:BA:1349:C:H2'	24:BA:1350:C:H5'	1.77	0.66
24:BA:1799:G:N1	24:BA:1819:A:OP2	2.28	0.66
24:BA:2563:U:C2	24:BA:2565:A:OP2	2.48	0.66
34:BK:34:GLY:O	34:BK:36:GLY:N	2.27	0.66
4:CD:69:GLU:HA	4:CD:72:PHE:CE2	2.30	0.66
4:CD:171:LEU:C	4:CD:171:LEU:HD12	2.20	0.66
5:CE:74:VAL:HG23	5:CE:75:ALA:N	2.08	0.66
13:CM:87:ARG:NH2	13:CM:97:VAL:HG11	2.10	0.66
19:CS:60:VAL:HG12	19:CS:62:VAL:HG13	1.77	0.66
55:CY:61:ASP:OD1	55:CY:64:THR:N	2.28	0.66
24:DA:355:U:H2'	24:DA:356:G:H8	1.60	0.66
24:DA:397:U:OP2	47:DX:9:LYS:CE	2.43	0.66
24:DA:1326:U:O2	59:DA:3824:HOH:O	2.11	0.66
24:DA:1371:G:O2'	24:DA:1372:U:H5'	1.95	0.66
43:DT:51:PHE:O	43:DT:53:VAL:N	2.28	0.66
1:AA:508:U:H4'	4:AD:51:TYR:OH	1.95	0.66
1:AA:1232:U:C4	1:AA:1233:G:N7	2.63	0.66
2:AB:99:GLY:CA	2:AB:175:GLU:OE2	2.42	0.66
3:AC:20:SER:HA	3:AC:57:ILE:CG1	2.25	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:101:VAL:O	4:AD:101:VAL:CG1	2.43	0.66
17:AQ:78:VAL:O	17:AQ:79:VAL:HG22	1.95	0.66
24:BA:992:C:O3'	41:BR:74:ILE:CD1	2.43	0.66
24:BA:1044:C:C2	24:BA:1112:G:N2	2.63	0.66
24:BA:1505:A:C6	24:BA:1506:U:C4	2.84	0.66
24:BA:2418:A:HO2'	24:BA:2419:U:P	2.18	0.66
24:BA:2759:G:N2	30:BG:138:GLN:HG3	2.11	0.66
27:BD:114:LYS:HG3	27:BD:196:ALA:HB2	1.75	0.66
30:BG:79:THR:CG2	30:BG:79:THR:O	2.43	0.66
31:BH:147:VAL:HG22	31:BH:148:ALA:N	2.10	0.66
1:CA:63:C:H2'	1:CA:64:G:C5'	2.25	0.66
1:CA:1377:A:OP1	7:CG:92:ARG:NH2	2.28	0.66
5:CE:45:ARG:NH2	5:CE:73:ASN:OD1	2.28	0.66
12:CL:100:GLY:N	12:CL:104:CYS:SG	2.68	0.66
13:CM:14:HIS:HB3	13:CM:17:ILE:CD1	2.25	0.66
24:DA:983:A:C6	24:DA:984:A:C2	2.83	0.66
24:DA:1858:A:C4	24:DA:1859:U:C6	2.82	0.66
24:DA:1929:G:H3'	57:DA:3184:NMY:O3	1.94	0.66
24:DA:2656:U:C5	24:DA:2664:G:N2	2.63	0.66
25:DB:94:A:H2'	25:DB:95:U:O4'	1.95	0.66
26:DC:123:ILE:O	26:DC:123:ILE:CG2	2.42	0.66
31:DH:88:GLY:O	31:DH:125:THR:CG2	2.42	0.66
43:DT:35:ALA:O	43:DT:36:LYS:O	2.14	0.66
44:DU:97:SER:O	44:DU:98:ASN:HB3	1.94	0.66
1:AA:108:G:H5'	1:AA:109:A:C5'	2.26	0.66
1:AA:451:A:C2	1:AA:480:U:C5	2.83	0.66
1:AA:479:U:C2'	1:AA:480:U:H5"	2.25	0.66
1:AA:980:C:HO2'	1:AA:981:U:P	2.18	0.66
1:AA:1493:A:H5"	24:BA:1913:A:H61	1.60	0.66
2:AB:60:ILE:O	2:AB:60:ILE:HG23	1.94	0.66
5:AE:141:ILE:O	5:AE:143:GLY:N	2.29	0.66
15:AO:70:LEU:HB3	15:AO:78:TYR:CE1	2.30	0.66
24:BA:77:G:H5"	48:BY:2:LYS:HD3	1.77	0.66
24:BA:412:A:N6	24:BA:2412:A:O4'	2.28	0.66
24:BA:997:G:OP1	40:BQ:91:ARG:CG	2.42	0.66
25:BB:53:A:C5	25:BB:54:G:N7	2.63	0.66
1:CA:5:U:H4'	1:CA:6:G:O5'	1.92	0.66
1:CA:258:G:C4	1:CA:259:G:C8	2.83	0.66
1:CA:662:U:H2'	1:CA:663:A:C8	2.30	0.66
1:CA:1169:A:C6	1:CA:1170:A:C2	2.83	0.66
3:CC:156:ARG:NH2	3:CC:193:TYR:CE2	2.64	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:757:G:N7	59:DA:3301:HOH:O	2.27	0.66
24:DA:1187:G:N7	59:DA:3580:HOH:O	2.28	0.66
24:DA:1362:C:O2'	24:DA:1363:C:H5'	1.94	0.66
24:DA:2731:G:C6	24:DA:2732:G:O6	2.49	0.66
38:DO:47:VAL:CG1	38:DO:48:LEU:N	2.59	0.66
1:AA:35:G:C6	1:AA:36:C:C4	2.84	0.66
1:AA:370:C:C2	1:AA:371:A:C8	2.83	0.66
1:AA:389:A:H2'	1:AA:390:U:H5'	1.77	0.66
4:AD:124:MET:SD	4:AD:127:GLY:HA2	2.36	0.66
16:AP:77:GLU:HG2	16:AP:77:GLU:O	1.96	0.66
24:BA:1921:G:N7	57:BA:3161:NMY:N7	2.43	0.66
27:BD:115:GLY:O	37:BN:3:HIS:NE2	2.26	0.66
1:CA:37:U:OP1	12:CL:120:LYS:CD	2.43	0.66
1:CA:1254:A:C2	1:CA:1255:G:C4	2.83	0.66
2:CB:24:ASN:ND2	2:CB:192:ASP:OD1	2.28	0.66
9:CI:39:PHE:O	9:CI:41:ARG:N	2.27	0.66
11:CK:45:ALA:O	11:CK:69:ARG:NH1	2.28	0.66
24:DA:947:A:HO2'	24:DA:984:A:H2	1.43	0.66
24:DA:1059:G:C5'	24:DA:1060:U:H2'	2.25	0.66
24:DA:1064:C:H2'	24:DA:1064:C:O2	1.95	0.66
24:DA:1303:G:HO2'	24:DA:1642:G:HO2'	1.42	0.66
31:DH:82:SER:OG	31:DH:83:LYS:N	2.22	0.66
47:DX:1:SER:O	47:DX:3:VAL:N	2.28	0.66
1:AA:880:C:H2'	1:AA:881:G:H5'	1.78	0.66
14:AN:57:PRO:O	14:AN:59:ARG:N	2.28	0.66
21:AU:14:VAL:HG23	21:AU:16:LEU:CG	2.25	0.66
24:BA:464:U:H5'	52:B2:5:PHE:CD2	2.29	0.66
24:BA:2820:A:O2'	24:BA:2821:A:P	2.53	0.66
1:CA:79:G:O2'	1:CA:80:A:O5'	2.09	0.66
1:CA:258:G:N7	59:CA:1717:HOH:O	2.28	0.66
1:CA:833:G:C2'	1:CA:834:U:O5'	2.44	0.66
4:CD:12:SER:OG	4:CD:18:ASP:HA	1.96	0.66
4:CD:111:ARG:O	4:CD:114:ALA:HB3	1.96	0.66
7:CG:103:TRP:CZ2	7:CG:133:THR:C	2.74	0.66
8:CH:115:ALA:O	8:CH:118:GLN:N	2.28	0.66
24:DA:784:G:OP1	59:DA:3315:HOH:O	2.14	0.66
24:DA:866:A:C8	24:DA:914:G:C2	2.84	0.66
24:DA:995:C:O2	33:DJ:3:THR:OG1	2.13	0.66
24:DA:1312:U:C4	43:DT:64:LYS:HD3	2.30	0.66
24:DA:1827:U:OP2	26:DC:220:ARG:NH1	2.27	0.66
24:DA:2297:A:N1	24:DA:2321:U:H5	1.93	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2729:G:O2'	24:DA:2730:C:H5'	1.95	0.66
38:DO:2:ASP:HB3	38:DO:5:SER:HB3	1.78	0.66
41:DR:20:VAL:CG1	41:DR:22:LEU:HD13	2.24	0.66
1:AA:59:A:C2	1:AA:331:G:C2	2.84	0.66
1:AA:132:C:H5'	1:AA:262:A:O2'	1.95	0.66
1:AA:157:U:O2	1:AA:165:G:C6	2.48	0.66
1:AA:357:G:C2'	1:AA:358:U:H5'	2.25	0.66
13:AM:4:ILE:O	13:AM:6:GLY:N	2.29	0.66
19:AS:32:ARG:HA	19:AS:57:HIS:CE1	2.31	0.66
19:AS:36:ARG:HA	19:AS:71:LEU:HB2	1.76	0.66
19:AS:70:LYS:C	19:AS:71:LEU:HD22	2.20	0.66
24:BA:691:C:P	26:BC:216:ARG:HH22	2.18	0.66
24:BA:726:G:O2'	24:BA:727:A:OP2	2.13	0.66
24:BA:2531:A:N3	24:BA:2658:C:O2'	2.28	0.66
25:BB:57:A:O4'	29:BF:26:GLN:CD	2.38	0.66
33:BJ:125:TYR:CE2	33:BJ:130:HIS:HA	2.30	0.66
41:BR:80:ARG:HG2	41:BR:80:ARG:O	1.96	0.66
1:CA:1048:G:C5'	14:CN:2:LYS:HD3	2.25	0.66
1:CA:1342:C:O2'	1:CA:1343:G:H5'	1.96	0.66
2:CB:88:ASP:N	2:CB:89:GLN:OE1	2.29	0.66
4:CD:58:LYS:HZ3	4:CD:203:LEU:HB2	1.59	0.66
21:CU:50:ALA:O	21:CU:53:VAL:HG12	1.95	0.66
24:DA:560:C:O2	40:DQ:47:ARG:NH1	2.29	0.66
24:DA:756:A:N7	59:DA:3301:HOH:O	2.28	0.66
24:DA:1152:C:H5"	40:DQ:79:ILE:HG21	1.76	0.66
24:DA:2012:G:OP1	42:DS:98:LYS:HG3	1.96	0.66
24:DA:2365:G:H4'	46:DW:60:PHE:CZ	2.30	0.66
36:DM:136:MET:CE	45:DV:57:TYR:CD1	2.78	0.66
39:DP:13:LYS:NZ	39:DP:77:SER:O	2.23	0.66
46:DW:48:GLY:CA	46:DW:80:ILE:O	2.43	0.66
1:AA:45:G:O2'	1:AA:46:G:H5'	1.96	0.66
1:AA:354:G:N3	1:AA:355:C:C6	2.63	0.66
1:AA:376:G:P	16:AP:5:ARG:CZ	2.83	0.66
1:AA:1048:G:OP2	14:AN:3:GLN:NE2	2.29	0.66
1:AA:1237:C:OP1	1:AA:1303:C:O2'	2.10	0.66
3:AC:79:LYS:NZ	1:CA:1539:C:OP2	2.27	0.66
4:AD:185:LYS:O	4:AD:187:GLU:N	2.29	0.66
9:AI:75:GLN:O	9:AI:78:ALA:N	2.28	0.66
11:AK:126:LYS:O	11:AK:127:ARG:CG	2.44	0.66
20:AT:70:ASN:O	20:AT:73:ALA:N	2.29	0.66
24:BA:1839:G:C8	24:BA:1927:A:H1'	2.31	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:BA:3298:HOH:O	35:BL:99:ASN:ND2	2.29	0.66
25:BB:51:G:O6	25:BB:52:A:N6	2.29	0.66
1:CA:57:G:C6	1:CA:58:C:N3	2.64	0.66
1:CA:261:U:OP2	20:CT:71:LYS:NZ	2.29	0.66
1:CA:1241:G:H2'	1:CA:1242:G:C8	2.30	0.66
4:CD:19:LEU:HD22	4:CD:21:LEU:HG	1.78	0.66
22:CV:72:C:O2'	22:CV:73:A:P	2.53	0.66
24:DA:215:G:O3'	24:DA:216:A:H4'	1.95	0.66
24:DA:726:G:O2'	24:DA:727:A:OP2	2.13	0.66
24:DA:2550:G:OP2	59:DA:3726:HOH:O	2.12	0.66
27:DD:14:ILE:O	27:DD:22:ILE:HG22	1.95	0.66
41:DR:16:GLU:HA	41:DR:98:ILE:CD1	2.24	0.66
49:DZ:3:THR:O	49:DZ:3:THR:OG1	2.09	0.66
1:AA:376:G:C5'	16:AP:5:ARG:HE	2.09	0.66
1:AA:474:G:C5	1:AA:475:C:C5	2.84	0.66
1:AA:515:G:C2	1:AA:537:G:C2	2.84	0.66
1:AA:1360:A:C5	1:AA:1361:G:H1'	2.31	0.66
2:AB:188:ASP:OD1	2:AB:189:THR:N	2.29	0.66
11:AK:88:GLY:O	11:AK:93:ARG:CZ	2.44	0.66
13:AM:23:TYR:CD1	13:AM:69:LEU:HD22	2.31	0.66
24:BA:184:C:H2'	24:BA:185:G:H8	1.59	0.66
24:BA:397:U:OP2	47:BX:9:LYS:NZ	2.29	0.66
24:BA:1422:G:H1'	24:BA:1495:A:N1	2.10	0.66
24:BA:1505:A:C2	24:BA:1506:U:C2	2.84	0.66
24:BA:1996:C:H4'	24:BA:1997:C:OP1	1.96	0.66
24:BA:2038:G:C5	24:BA:2039:U:C5	2.83	0.66
24:BA:2703:C:H2'	24:BA:2704:C:C6	2.30	0.66
44:BU:35:VAL:HG22	44:BU:35:VAL:O	1.94	0.66
1:CA:325:A:H2'	1:CA:326:G:O4'	1.96	0.66
1:CA:327:A:C4	1:CA:329:A:C8	2.84	0.66
1:CA:1097:C:H1'	1:CA:1170:A:H1'	1.77	0.66
1:CA:1332:A:N6	1:CA:1333:A:C6	2.64	0.66
2:CB:159:ASP:O	2:CB:160:ALA:CB	2.43	0.66
11:CK:26:SER:O	11:CK:27:PHE:CB	2.44	0.66
24:DA:2512:C:O2'	27:DD:159:LYS:NZ	2.27	0.66
27:DD:133:THR:CG2	27:DD:134:HIS:N	2.58	0.66
27:DD:197:THR:O	27:DD:197:THR:OG1	2.14	0.66
31:DH:88:GLY:C	31:DH:125:THR:CG2	2.69	0.66
35:DL:35:HIS:O	35:DL:36:LYS:O	2.13	0.66
48:DY:13:GLU:C	48:DY:15:ASN:H	2.04	0.66
50:D0:29:VAL:HG23	50:D0:36:LYS:HB3	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1018:G:C6	1:AA:1019:A:C6	2.84	0.66
12:AL:85:GLY:O	12:AL:96:HIS:CD2	2.49	0.66
19:AS:36:ARG:HB2	19:AS:72:GLY:N	2.11	0.66
20:AT:7:ALA:O	20:AT:10:ARG:N	2.27	0.66
24:BA:871:U:H5"	36:BM:68:PHE:CZ	2.31	0.66
24:BA:1952:A:N3	24:BA:2560:A:O2'	2.29	0.66
24:BA:2640:G:P	33:BJ:96:ARG:HH12	2.18	0.66
26:BC:81:GLU:OE1	26:BC:102:TYR:OH	2.06	0.66
28:BE:46:GLN:HB2	28:BE:83:VAL:HG11	1.75	0.66
34:BK:21:CYS:HA	34:BK:41:ILE:HG22	1.78	0.66
37:BN:52:ILE:O	37:BN:55:ALA:N	2.29	0.66
39:BP:83:ILE:HD13	39:BP:84:SER:N	2.10	0.66
1:CA:597:G:H1'	17:CQ:28:PHE:CE1	2.31	0.66
2:CB:101:LEU:HD21	2:CB:175:GLU:CD	2.21	0.66
8:CH:111:MET:SD	8:CH:116:ALA:HA	2.36	0.66
12:CL:82:ILE:HG12	12:CL:95:TYR:CG	2.30	0.66
22:CV:57:G:C2'	22:CV:58:A:H5"	2.25	0.66
24:DA:332:A:O2'	24:DA:334:C:OP2	2.14	0.66
24:DA:943:A:OP2	35:DL:39:LYS:CE	2.44	0.66
24:DA:1066:U:N3	24:DA:1069:A:OP2	2.29	0.66
24:DA:1623:G:O2'	24:DA:1624:U:H5'	1.96	0.66
29:DF:131:VAL:CG2	29:DF:151:LEU:HB3	2.26	0.66
31:DH:146:VAL:HG13	31:DH:147:VAL:H	1.61	0.66
38:DO:87:ILE:HD12	38:DO:88:LYS:N	2.10	0.66
1:AA:4:U:H5"	1:AA:5:U:C4	2.31	0.66
1:AA:317:U:O2	1:AA:318:G:C8	2.49	0.66
24:BA:782:A:C2	26:BC:224:MET:HE2	2.31	0.66
24:BA:1378:A:N3	24:BA:1380:G:C8	2.63	0.66
24:BA:1670:C:C5	24:BA:1671:U:C4	2.84	0.66
24:BA:1995:U:OP1	27:BD:128:ARG:NE	2.29	0.66
26:BC:16:VAL:HB	26:BC:203:VAL:HG22	1.77	0.66
26:BC:81:GLU:HB3	26:BC:90:ILE:HD11	1.77	0.66
39:BP:38:ARG:HG3	39:BP:39:LEU:N	2.10	0.66
41:BR:52:PRO:HG2	41:BR:53:PHE:CD2	2.31	0.66
45:BV:72:VAL:HG21	45:BV:91:PHE:HB3	1.78	0.66
1:CA:443:C:C2'	1:CA:444:G:H5'	2.25	0.66
1:CA:719:C:O2'	18:CR:38:LYS:HG2	1.96	0.66
4:CD:104:ARG:NH2	4:CD:170:TRP:CD2	2.64	0.66
7:CG:68:ASN:ND2	7:CG:130:ASN:OD1	2.29	0.66
7:CG:77:SER:O	7:CG:78:ARG:C	2.38	0.66
12:CL:102:LEU:HD12	12:CL:103:ASP:N	2.11	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:73:ILE:CG1	28:DE:73:ILE:O	2.43	0.66
29:DF:121:PHE:CZ	29:DF:127:TYR:CE1	2.83	0.66
35:DL:132:ARG:NH1	35:DL:142:ILE:HD11	2.11	0.66
1:AA:451:A:C2	1:AA:480:U:C4	2.84	0.65
1:AA:980:C:H2'	1:AA:981:U:O5'	1.96	0.65
1:AA:992:U:O2	1:AA:993:G:N1	2.29	0.65
1:AA:1315:U:C5	1:AA:1316:G:C5	2.84	0.65
1:AA:1516:G:N3	1:AA:1516:G:H2'	2.11	0.65
2:AB:221:VAL:O	2:AB:223:GLU:N	2.29	0.65
3:AC:98:PRO:O	3:AC:99:ALA:CB	2.43	0.65
4:AD:4:TYR:CE2	4:AD:6:GLY:O	2.49	0.65
8:AH:38:ASN:O	8:AH:42:GLU:HB2	1.96	0.65
13:AM:71:ARG:NH1	13:AM:72:GLU:OE2	2.28	0.65
24:BA:686:U:O4	52:B2:12:ARG:HB2	1.96	0.65
24:BA:2243:U:OP1	59:BA:3745:HOH:O	2.14	0.65
24:BA:2521:C:C2'	24:BA:2522:U:O5'	2.43	0.65
1:CA:375:U:H2'	1:CA:376:G:H5"	1.78	0.65
1:CA:1090:U:H2'	1:CA:1091:U:C6	2.31	0.65
1:CA:1309:G:OP1	13:CM:87:ARG:NH1	2.29	0.65
1:CA:1344:C:O5'	9:CI:124:ARG:NH2	2.29	0.65
1:CA:1523:G:O3'	11:CK:125:LYS:CE	2.44	0.65
6:CF:51:ILE:O	6:CF:54:LEU:N	2.29	0.65
24:DA:973:A:H5"	41:DR:81:LYS:HG3	1.78	0.65
24:DA:1060:U:H4'	24:DA:1061:U:H5'	1.77	0.65
24:DA:1345:C:C2	24:DA:1346:G:C8	2.83	0.65
29:DF:126:ASN:HB3	29:DF:155:ILE:CD1	2.26	0.65
47:DX:71:ARG:NH1	47:DX:77:TYR:OH	2.29	0.65
1:AA:425:G:O2'	1:AA:426:U:H5'	1.96	0.65
1:AA:560:A:H5'	1:AA:566:G:N2	2.11	0.65
1:AA:801:U:C2'	1:AA:802:A:O5'	2.43	0.65
1:AA:862:C:C4	1:AA:863:U:C5	2.84	0.65
2:AB:206:ALA:O	2:AB:210:VAL:HG22	1.97	0.65
4:AD:56:ARG:O	4:AD:60:LYS:N	2.29	0.65
8:AH:14:ILE:O	8:AH:17:GLY:N	2.30	0.65
12:AL:40:THR:HG22	12:AL:41:THR:N	2.12	0.65
24:BA:373:U:OP1	47:BX:53:LYS:NZ	2.28	0.65
24:BA:447:A:OP2	59:BA:3210:HOH:O	2.13	0.65
28:BE:83:VAL:O	28:BE:86:ALA:N	2.29	0.65
1:CA:141:G:N2	1:CA:222:C:N3	2.42	0.65
1:CA:274:A:H4'	17:CQ:16:LYS:HE3	1.76	0.65
1:CA:437:U:C4	1:CA:438:U:H5	2.14	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:619:U:H4'	4:CD:128:ARG:NH2	2.11	0.65
1:CA:1308:U:OP1	13:CM:97:VAL:HG12	1.95	0.65
3:CC:131:ARG:NH2	3:CC:166:GLU:OE2	2.28	0.65
4:CD:196:ASN:HB3	4:CD:199:LEU:HB2	1.77	0.65
7:CG:35:LYS:O	7:CG:37:SER:N	2.29	0.65
12:CL:87:VAL:HG22	12:CL:93:VAL:CG2	2.25	0.65
12:CL:104:CYS:O	12:CL:105:SER:CB	2.43	0.65
15:CO:56:LEU:O	15:CO:58:ARG:N	2.28	0.65
24:DA:594:U:H2'	24:DA:595:C:C6	2.31	0.65
24:DA:657:U:H2'	24:DA:658:U:C6	2.31	0.65
24:DA:1152:C:H5"	40:DQ:79:ILE:CG2	2.26	0.65
24:DA:1489:C:O2	24:DA:1501:G:N2	2.29	0.65
24:DA:2370:G:N2	51:D1:38:PHE:CE2	2.64	0.65
28:DE:24:ASN:CG	28:DE:27:LEU:CD1	2.69	0.65
29:DF:122:ASP:OD2	29:DF:124:ARG:NE	2.29	0.65
38:DO:50:ALA:O	38:DO:51:ALA:HB2	1.96	0.65
1:AA:958:A:OP1	19:AS:55:ARG:NH2	2.30	0.65
1:AA:958:A:N1	19:AS:54:GLY:CA	2.60	0.65
4:AD:166:GLU:OE1	6:CF:11:HIS:NE2	2.29	0.65
13:AM:88:GLY:O	13:AM:90:ARG:N	2.30	0.65
16:AP:32:PHE:C	16:AP:32:PHE:HD1	2.03	0.65
24:BA:2734:A:C3'	24:BA:2735:G:H5'	2.26	0.65
24:BA:2755:C:O2'	24:BA:2756:U:H2'	1.96	0.65
30:BG:39:ALA:HA	30:BG:57:TYR:CD2	2.31	0.65
53:B3:22:LYS:HA	53:B3:47:ALA:O	1.96	0.65
1:CA:790:A:C8	1:CA:791:G:N7	2.64	0.65
1:CA:982:U:H4'	1:CA:983:A:H5'	1.78	0.65
1:CA:1084:G:C5	1:CA:1085:U:C4	2.85	0.65
8:CH:14:ILE:HD11	8:CH:75:ILE:HG12	1.78	0.65
22:CV:17:C:O2	22:CV:17:C:C2'	2.44	0.65
24:DA:565:C:OP1	41:DR:79:ARG:NE	2.29	0.65
24:DA:565:C:OP1	41:DR:79:ARG:HD2	1.97	0.65
24:DA:892:A:O2'	24:DA:893:C:OP1	2.08	0.65
24:DA:1351:C:OP2	59:DA:3397:HOH:O	2.14	0.65
24:DA:1937:A:OP1	59:DA:3459:HOH:O	2.13	0.65
31:DH:146:VAL:HG13	31:DH:147:VAL:N	2.11	0.65
1:AA:17:U:H2'	1:AA:18:C:C6	2.31	0.65
1:AA:1082:A:C2'	1:AA:1083:U:H5'	2.26	0.65
57:AA:1655:NMY:N6	24:BA:1913:A:C5	2.62	0.65
12:AL:38:TYR:OH	12:AL:54:ARG:NH2	2.29	0.65
12:AL:43:LYS:O	12:AL:45:PRO:HD2	1.95	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1038:G:H2'	24:BA:1039:A:C8	2.31	0.65
24:BA:1327:A:N6	24:BA:1328:A:C2	2.64	0.65
24:BA:1799:G:N7	26:BC:177:SER:CB	2.60	0.65
24:BA:1906:G:H2'	24:BA:1907:G:H5'	1.78	0.65
24:BA:2705:A:H2'	24:BA:2706:A:H5'	1.77	0.65
25:BB:73:A:C8	25:BB:104:A:C6	2.85	0.65
26:BC:81:GLU:CB	26:BC:90:ILE:HD11	2.25	0.65
28:BE:30:GLN:OE1	28:BE:95:LYS:NZ	2.30	0.65
38:BO:10:ARG:HG3	38:BO:11:ALA:N	2.09	0.65
38:BO:103:VAL:HG23	38:BO:104:GLN:H	1.61	0.65
40:BQ:89:ILE:CD1	40:BQ:93:ILE:HB	2.27	0.65
1:CA:113:G:N2	1:CA:114:U:O2	2.29	0.65
1:CA:161:A:N1	1:CA:347:G:O2'	2.29	0.65
1:CA:418:C:O2'	1:CA:540:G:H1'	1.95	0.65
1:CA:671:G:H4'	6:CF:79:ARG:NH2	2.11	0.65
1:CA:1251:A:N3	1:CA:1369:C:O2'	2.28	0.65
1:CA:1421:G:H2'	1:CA:1422:G:O5'	1.96	0.65
5:CE:133:PRO:O	5:CE:135:ASN:N	2.29	0.65
11:CK:94:GLU:N	11:CK:94:GLU:OE1	2.30	0.65
18:CR:55:LEU:O	18:CR:59:ILE:N	2.30	0.65
18:CR:66:SER:OG	18:CR:66:SER:O	2.14	0.65
24:DA:537:G:OP2	57:DA:3186:NMY:O12	2.14	0.65
24:DA:2359:C:O3'	53:D3:50:SER:OG	2.13	0.65
29:DF:107:VAL:CG1	29:DF:108:PRO:HD3	2.27	0.65
29:DF:107:VAL:HG12	29:DF:108:PRO:HD3	1.78	0.65
29:DF:131:VAL:HG22	29:DF:151:LEU:HB3	1.79	0.65
40:DQ:75:TYR:OH	40:DQ:91:ARG:NH1	2.28	0.65
1:AA:550:G:C6	1:AA:551:U:C4	2.85	0.65
1:AA:671:G:N1	1:AA:672:U:O2	2.30	0.65
1:AA:1068:G:H2'	1:AA:1069:C:H5'	1.77	0.65
1:AA:1083:U:C2'	1:AA:1084:G:O5'	2.44	0.65
4:AD:58:LYS:HD2	4:AD:203:LEU:HD21	1.77	0.65
6:AF:74:LEU:O	6:AF:77:THR:OG1	2.12	0.65
11:AK:16:VAL:O	11:AK:17:SER:CB	2.44	0.65
24:BA:381:G:OP1	47:BX:17:ARG:NH2	2.30	0.65
24:BA:1727:C:N4	24:BA:1728:C:N3	2.44	0.65
24:BA:1798:U:O4	26:BC:270:ARG:NH1	2.29	0.65
24:BA:2194:U:H2'	24:BA:2195:U:C6	2.31	0.65
33:BJ:78:THR:HG22	33:BJ:83:GLY:O	1.97	0.65
1:CA:204:G:H3'	1:CA:205:A:H5"	1.79	0.65
1:CA:259:G:N2	1:CA:260:G:H1'	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:706:A:C2	1:CA:707:U:C2	2.84	0.65
6:CF:36:ILE:HG13	6:CF:37:HIS:N	2.10	0.65
14:CN:49:GLN:C	14:CN:51:LEU:N	2.52	0.65
22:CV:15:G:H2'	22:CV:16:U:N3	2.11	0.65
22:CV:47:U:C4'	22:CV:48:C:OP2	2.44	0.65
55:CY:120:GLU:O	55:CY:123:GLN:N	2.30	0.65
24:DA:445:C:O2'	24:DA:446:G:O5'	2.14	0.65
24:DA:1501:G:H2'	24:DA:1502:A:O5'	1.97	0.65
24:DA:1725:U:C4	24:DA:1726:C:C5	2.84	0.65
24:DA:1867:G:H2'	24:DA:1868:C:H5'	1.78	0.65
24:DA:2205:A:H2'	24:DA:2206:C:H6	1.61	0.65
24:DA:2425:A:H5"	24:DA:2427:C:O4'	1.95	0.65
27:DD:27:ILE:CG2	27:DD:29:VAL:HG23	2.25	0.65
1:AA:215:C:O2'	1:AA:216:U:H5'	1.96	0.65
1:AA:790:A:H2'	1:AA:791:G:C8	2.32	0.65
1:AA:1307:U:O2'	1:AA:1308:U:O5'	2.14	0.65
4:AD:14:ARG:CG	4:AD:38:PRO:HB3	2.27	0.65
6:AF:36:ILE:HG22	6:AF:64:VAL:HG13	1.79	0.65
15:AO:71:LYS:N	15:AO:78:TYR:CZ	2.65	0.65
17:AQ:52:GLU:N	17:AQ:52:GLU:OE2	2.29	0.65
24:BA:564:C:P	41:BR:79:ARG:NH1	2.70	0.65
24:BA:729:G:P	26:BC:12:ARG:NE	2.70	0.65
24:BA:747:U:C4	24:BA:2613:U:C5	2.84	0.65
24:BA:811:U:H2'	35:BL:21:ARG:HA	1.78	0.65
24:BA:835:C:C2'	24:BA:836:G:H5'	2.27	0.65
24:BA:1204:A:C2	57:BA:3163:NMY:O4	2.47	0.65
24:BA:1366:A:C2	24:BA:1367:A:H1'	2.32	0.65
24:BA:2415:G:C6	24:BA:2416:C:C4	2.84	0.65
24:BA:2702:G:C4	24:BA:2703:C:C5	2.85	0.65
25:BB:44:G:H4'	29:BF:91:ARG:CZ	2.25	0.65
26:BC:140:VAL:HG21	26:BC:189:ALA:HB1	1.78	0.65
26:BC:173:LEU:N	26:BC:173:LEU:CD1	2.59	0.65
30:BG:71:LEU:O	30:BG:74:MET:N	2.30	0.65
31:BH:81:ALA:HB2	31:BH:147:VAL:CG1	2.27	0.65
41:BR:45:GLU:N	41:BR:45:GLU:OE1	2.30	0.65
42:BS:41:LYS:O	42:BS:44:ALA:HB3	1.96	0.65
46:BW:33:ALA:N	46:BW:64:ASP:OD1	2.30	0.65
1:CA:376:G:O3'	16:CP:5:ARG:HD2	1.96	0.65
1:CA:446:G:N2	1:CA:489:C:C2	2.64	0.65
1:CA:506:G:OP1	59:CA:1759:HOH:O	2.13	0.65
1:CA:1350:A:OP1	9:CI:123:ARG:NE	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:18:U:O2'	24:DA:19:A:H5'	1.97	0.65
24:DA:1079:C:C4	24:DA:1080:A:N7	2.65	0.65
24:DA:1187:G:O6	59:DA:3577:HOH:O	2.11	0.65
24:DA:2051:A:N7	59:DA:3481:HOH:O	2.29	0.65
24:DA:2305:U:C2	29:DF:150:GLY:HA3	2.31	0.65
24:DA:2356:U:O3'	46:DW:20:ARG:HD3	1.97	0.65
24:DA:2614:A:N7	59:DA:3481:HOH:O	2.30	0.65
1:AA:174:A:C4	1:AA:175:C:C6	2.85	0.65
1:AA:445:G:C2	1:AA:446:G:C4	2.85	0.65
1:AA:751:U:C5	1:AA:752:G:C5	2.85	0.65
1:AA:1088:G:N1	1:AA:1089:G:C5	2.65	0.65
1:AA:1151:A:N3	1:AA:1152:A:C8	2.65	0.65
24:BA:362:A:C3'	24:BA:363:G:H5'	2.27	0.65
24:BA:1379:U:C6	24:BA:1379:U:OP1	2.49	0.65
27:BD:122:VAL:HG12	27:BD:123:LYS:N	2.10	0.65
33:BJ:36:LEU:HD21	33:BJ:122:LEU:HB2	1.78	0.65
35:BL:128:THR:HG22	35:BL:131:ALA:HB3	1.77	0.65
1:CA:113:G:C2	1:CA:114:U:C2	2.85	0.65
1:CA:142:G:C4	1:CA:143:A:C8	2.84	0.65
1:CA:510:A:OP2	59:CA:1760:HOH:O	2.14	0.65
1:CA:666:G:C5	1:CA:741:G:C6	2.85	0.65
1:CA:993:G:O2'	1:CA:994:A:N7	2.30	0.65
1:CA:1228:C:O2	1:CA:1228:C:H2'	1.97	0.65
1:CA:1494:G:C2	1:CA:1495:U:C6	2.85	0.65
3:CC:108:LYS:N	3:CC:109:PRO:HD3	2.10	0.65
8:CH:73:GLU:O	8:CH:74:SER:CB	2.45	0.65
24:DA:297:G:H4'	44:DU:84:PHE:CD2	2.32	0.65
24:DA:565:C:C2'	24:DA:566:U:H5'	2.27	0.65
26:DC:143:VAL:HB	26:DC:153:LEU:HB2	1.79	0.65
29:DF:121:PHE:CD2	29:DF:127:TYR:CZ	2.84	0.65
40:DQ:39:ILE:O	40:DQ:43:GLN:HG3	1.97	0.65
1:AA:979:C:C4	1:AA:980:C:C2	2.85	0.65
1:AA:980:C:C2'	1:AA:981:U:O5'	2.44	0.65
4:AD:124:MET:HG3	4:AD:125:VAL:N	2.12	0.65
6:AF:10:VAL:HG21	6:AF:21:MET:CE	2.27	0.65
24:BA:182:A:C5	24:BA:183:C:C4	2.85	0.65
24:BA:1421:G:C2	24:BA:1422:G:N7	2.64	0.65
24:BA:1914:C:O2	24:BA:1914:C:O5'	2.15	0.65
24:BA:2221:G:C2'	24:BA:2222:C:H5'	2.27	0.65
24:BA:2641:G:OP1	33:BJ:76:HIS:NE2	2.28	0.65
24:BA:2753:A:C5	24:BA:2754:U:C5	2.84	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:275:G:O5'	17:CQ:16:LYS:HG2	1.97	0.65
1:CA:430:A:OP2	4:CD:8:LYS:HG2	1.97	0.65
1:CA:652:U:O4	1:CA:752:G:O2'	2.15	0.65
1:CA:684:U:O2'	11:CK:41:ALA:O	2.15	0.65
1:CA:966:G:O2'	9:CI:129:LYS:HG2	1.97	0.65
1:CA:1107:C:H3'	1:CA:1108:G:H5"	1.79	0.65
11:CK:27:PHE:CD1	11:CK:28:ASN:N	2.65	0.65
12:CL:21:VAL:O	12:CL:21:VAL:HG23	1.96	0.65
12:CL:51:LYS:N	12:CL:51:LYS:HD2	2.11	0.65
22:CV:74:C:H2'	22:CV:74:C:O2	1.95	0.65
24:DA:329:G:O6	44:DU:16:LYS:HB2	1.96	0.65
24:DA:364:C:H2'	24:DA:365:U:C6	2.32	0.65
24:DA:603:A:N1	24:DA:625:G:O2'	2.26	0.65
24:DA:1081:U:H1'	32:DI:127:SER:HB3	1.79	0.65
24:DA:1439:A:C8	24:DA:1440:U:C6	2.85	0.65
24:DA:1587:G:C4	24:DA:1588:G:C8	2.85	0.65
24:DA:1931:U:H5"	57:DA:3184:NMY:N19	2.12	0.65
24:DA:2507:C:OP1	59:DA:3713:HOH:O	2.15	0.65
26:DC:225:ASN:O	26:DC:228:ASP:HB2	1.97	0.65
46:DW:48:GLY:O	46:DW:50:ASN:N	2.30	0.65
1:AA:35:G:N2	12:AL:115:SER:OG	2.28	0.65
1:AA:244:U:H4'	1:AA:245:U:C5'	2.27	0.65
1:AA:577:G:C4	1:AA:816:A:C2	2.85	0.65
1:AA:1054:C:H5'	1:AA:1196:A:N3	2.11	0.65
1:AA:1056:U:OP1	3:AC:163:ALA:N	2.29	0.65
2:AB:47:VAL:O	2:AB:49:MET:N	2.29	0.65
3:AC:66:VAL:O	3:AC:67:THR:HB	1.96	0.65
24:BA:347:A:C2	24:BA:348:A:C4	2.85	0.65
24:BA:1380:G:OP2	59:BA:3755:HOH:O	2.13	0.65
24:BA:1410:G:N7	59:BA:3620:HOH:O	2.30	0.65
24:BA:1627:G:C2	24:BA:1628:G:C8	2.84	0.65
24:BA:2720:U:H5"	39:BP:52:ARG:NH2	2.11	0.65
24:BA:2821:A:OP2	37:BN:3:HIS:CE1	2.50	0.65
43:BT:37:ASP:OD1	43:BT:38:ALA:N	2.30	0.65
47:BX:4:CYS:SG	47:BX:51:SER:HB3	2.37	0.65
47:BX:7:THR:O	47:BX:9:LYS:N	2.29	0.65
1:CA:37:U:OP1	12:CL:120:LYS:HD3	1.97	0.65
1:CA:1083:U:C5	1:CA:1084:G:C5	2.85	0.65
1:CA:1197:A:H2'	1:CA:1198:G:H5'	1.78	0.65
1:CA:1255:G:N2	1:CA:1277:C:O2	2.29	0.65
2:CB:89:GLN:N	2:CB:89:GLN:CD	2.54	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:146:ASN:O	2:CB:147:SER:CB	2.44	0.65
7:CG:37:SER:OG	7:CG:38:THR:N	2.26	0.65
9:CI:124:ARG:HB2	9:CI:125:PRO:CD	2.27	0.65
15:CO:66:LEU:O	15:CO:69:TYR:HB3	1.97	0.65
19:CS:30:PRO:O	19:CS:48:THR:OG1	2.14	0.65
55:CY:142:LEU:O	55:CY:142:LEU:HG	1.94	0.65
24:DA:1369:G:C5	24:DA:1370:C:C5	2.85	0.65
24:DA:2286:G:OP2	51:D1:29:LYS:NZ	2.30	0.65
26:DC:146:LYS:HB2	26:DC:149:LYS:HD3	1.77	0.65
31:DH:28:ASN:N	31:DH:32:PRO:HG2	2.12	0.65
31:DH:117:LEU:HD21	31:DH:121:VAL:H	1.59	0.65
34:DK:113:MET:HA	34:DK:116:ILE:HD11	1.77	0.65
35:DL:77:ILE:CG2	35:DL:110:VAL:HB	2.26	0.65
1:AA:55:A:C5	31:DH:91:PHE:CD2	2.85	0.65
1:AA:374:A:C4	1:AA:375:U:C5	2.85	0.65
1:AA:1226:C:C2'	13:AM:102:THR:O	2.44	0.65
1:AA:1248:A:C2	9:AI:72:ILE:HD11	2.31	0.65
1:AA:1494:G:C8	24:BA:1913:A:N7	2.65	0.65
2:AB:144:LEU:HD23	2:AB:144:LEU:N	2.11	0.65
19:AS:13:LEU:HD11	19:AS:14:HIS:CE1	2.32	0.65
24:BA:84:A:C2	24:BA:103:A:C6	2.85	0.65
24:BA:120:U:H5"	24:BA:122:G:OP2	1.96	0.65
24:BA:1220:G:N2	24:BA:1221:C:O2	2.30	0.65
24:BA:2073:C:O2'	26:BC:226:PRO:HB3	1.97	0.65
36:BM:97:GLN:CD	36:BM:97:GLN:N	2.54	0.65
1:CA:173:U:C5	1:CA:197:A:C2	2.85	0.65
1:CA:174:A:C5	1:CA:175:C:C5	2.85	0.65
1:CA:787:A:C5	1:CA:788:U:C6	2.85	0.65
1:CA:854:U:H3'	1:CA:871:U:H3	1.62	0.65
1:CA:1290:G:H2'	1:CA:1291:U:H5'	1.78	0.65
1:CA:1312:G:N7	19:CS:3:ARG:N	2.44	0.65
2:CB:96:TRP:CH2	2:CB:100:MET:HG2	2.32	0.65
8:CH:95:VAL:HG22	8:CH:128:TYR:CD2	2.32	0.65
11:CK:27:PHE:CD1	11:CK:27:PHE:C	2.71	0.65
21:CU:36:GLU:O	21:CU:37:PHE:CD2	2.50	0.65
55:CY:132:ARG:NH2	24:DA:1942:C:O4'	2.30	0.65
24:DA:84:A:H3'	44:DU:5:ARG:HD3	1.78	0.65
24:DA:605:G:N7	24:DA:606:U:C5	2.65	0.65
24:DA:2356:U:O3'	46:DW:20:ARG:CD	2.44	0.65
24:DA:2422:C:O2'	24:DA:2423:U:OP1	2.15	0.65
24:DA:2550:G:O3'	59:DA:3430:HOH:O	2.14	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2772:C:H2'	24:DA:2773:C:C6	2.32	0.65
31:DH:82:SER:HB3	31:DH:146:VAL:HG22	1.77	0.65
34:DK:88:ASN:OD1	34:DK:89:ASN:N	2.30	0.65
1:AA:705:G:C5	1:AA:706:A:C8	2.85	0.64
11:AK:16:VAL:O	11:AK:17:SER:OG	2.15	0.64
24:BA:192:C:OP1	59:BA:3745:HOH:O	2.15	0.64
24:BA:659:G:O2'	28:BE:95:LYS:CE	2.45	0.64
24:BA:1346:G:C4	24:BA:1347:A:N7	2.66	0.64
24:BA:2734:A:H2'	24:BA:2735:G:H5'	1.80	0.64
26:BC:83:ASP:OD2	26:BC:86:ARG:NE	2.30	0.64
38:BO:4:LYS:O	38:BO:7:ARG:NH2	2.30	0.64
42:BS:39:THR:HG23	42:BS:40:ASN:N	2.12	0.64
42:BS:46:LEU:O	42:BS:47:VAL:HB	1.97	0.64
1:CA:174:A:C5	1:CA:175:C:C6	2.85	0.64
1:CA:525:C:OP1	12:CL:88:LYS:HE2	1.97	0.64
1:CA:597:G:C1'	17:CQ:28:PHE:CE1	2.81	0.64
1:CA:1298:U:H4'	1:CA:1299:A:C4	2.32	0.64
2:CB:165:ASP:HB3	2:CB:168:HIS:HB3	1.79	0.64
2:CB:206:ALA:O	2:CB:208:ARG:N	2.29	0.64
22:CV:32:U:C2'	22:CV:33:U:H5'	2.26	0.64
55:CY:95:GLY:O	55:CY:97:ASP:N	2.30	0.64
24:DA:159:G:HO2'	24:DA:160:A:P	2.19	0.64
24:DA:674:G:H5"	28:DE:71:GLY:N	2.12	0.64
24:DA:1450:G:C2	24:DA:1462:C:C2	2.86	0.64
24:DA:1474:U:O4	24:DA:1475:G:N2	2.31	0.64
24:DA:2573:C:OP1	59:DA:3714:HOH:O	2.14	0.64
24:DA:2728:U:O2'	24:DA:2729:G:P	2.55	0.64
26:DC:20:ASN:CB	26:DC:23:LEU:CD1	2.74	0.64
26:DC:246:PRO:HG2	26:DC:247:TRP:CE3	2.31	0.64
27:DD:27:ILE:HG22	27:DD:29:VAL:HG23	1.79	0.64
28:DE:48:THR:O	28:DE:50:ALA:N	2.30	0.64
41:DR:20:VAL:CG1	41:DR:22:LEU:CD1	2.75	0.64
1:AA:86:G:O2'	1:AA:87:C:P	2.54	0.64
6:AF:42:TRP:CZ3	18:AR:24:LYS:HE3	2.32	0.64
8:AH:88:ARG:HB2	8:AH:88:ARG:NH1	2.11	0.64
24:BA:578:G:OP1	59:BA:3277:HOH:O	2.15	0.64
24:BA:826:U:O2'	35:BL:53:GLY:HA3	1.98	0.64
24:BA:1220:G:N2	24:BA:1221:C:C2	2.65	0.64
24:BA:1383:A:C2	24:BA:1384:A:C4	2.85	0.64
24:BA:1386:C:H2'	24:BA:1387:A:C8	2.32	0.64
24:BA:2286:G:OP1	51:B1:29:LYS:NZ	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2703:C:C2'	24:BA:2704:C:O5'	2.44	0.64
25:BB:45:A:N7	29:BF:91:ARG:CZ	2.60	0.64
26:BC:203:VAL:O	26:BC:205:GLY:N	2.31	0.64
28:BE:31:VAL:HG21	28:BE:104:ALA:HB2	1.79	0.64
33:BJ:73:VAL:HG12	33:BJ:86:GLN:HG3	1.79	0.64
39:BP:90:ALA:HB2	39:BP:112:ARG:CA	2.28	0.64
41:BR:51:VAL:HB	41:BR:52:PRO:HD2	1.79	0.64
46:BW:24:LYS:NZ	46:BW:35:SER:HB3	2.11	0.64
53:B3:16:THR:HG21	53:B3:48:MET:HE1	1.78	0.64
1:CA:164:G:N2	1:CA:165:G:H1'	2.12	0.64
1:CA:428:G:O4'	1:CA:430:A:C8	2.50	0.64
1:CA:1358:U:C6	1:CA:1359:C:C6	2.85	0.64
1:CA:1513:A:O2'	1:CA:1514:G:H5'	1.97	0.64
1:CA:1523:G:OP1	11:CK:126:LYS:HG3	1.96	0.64
4:CD:117:LEU:O	4:CD:120:HIS:N	2.28	0.64
4:CD:138:SER:O	4:CD:182:PHE:CZ	2.51	0.64
4:CD:190:ASP:C	4:CD:190:ASP:OD1	2.40	0.64
19:CS:74:PHE:O	19:CS:75:ALA:CB	2.45	0.64
24:DA:831:G:O2'	35:DL:38:GLN:NE2	2.28	0.64
24:DA:1859:U:H2'	24:DA:1860:G:C8	2.32	0.64
57:AA:1657:NMY:N2	57:AA:1657:NMY:H172	2.12	0.64
4:AD:170:TRP:O	4:AD:170:TRP:CD1	2.50	0.64
24:BA:591:U:C2	24:BA:592:A:C8	2.85	0.64
24:BA:1375:U:H2'	24:BA:1376:C:H5"	1.78	0.64
24:BA:2734:A:C5	24:BA:2735:G:C8	2.85	0.64
24:BA:2748:A:H1'	30:BG:66:THR:CG2	2.26	0.64
29:BF:11:VAL:HG21	29:BF:172:PHE:CZ	2.32	0.64
34:BK:35:VAL:HG23	34:BK:36:GLY:H	1.62	0.64
40:BQ:39:ILE:HD11	41:BR:77:PHE:CD2	2.33	0.64
1:CA:195:A:C5	1:CA:196:A:N1	2.64	0.64
1:CA:1329:A:C6	1:CA:1330:U:C2	2.85	0.64
4:CD:10:LYS:CG	4:CD:11:LEU:N	2.60	0.64
24:DA:501:A:N6	24:DA:502:A:C6	2.66	0.64
25:DB:114:C:C4'	38:DO:47:VAL:HG11	2.27	0.64
32:DI:106:GLN:NE2	32:DI:107:GLU:OE2	2.30	0.64
41:DR:67:GLY:C	41:DR:93:PHE:CE2	2.75	0.64
48:DY:24:GLU:O	48:DY:25:GLN:C	2.40	0.64
1:AA:226:G:C2	1:AA:227:G:C8	2.86	0.64
1:AA:371:A:H1'	1:AA:482:A:H1'	1.79	0.64
1:AA:946:A:OP2	13:AM:107:ARG:NH2	2.30	0.64
1:AA:1089:G:C5	1:AA:1090:U:C5	2.86	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1352:C:O2	1:AA:1371:G:C2	2.50	0.64
6:AF:96:VAL:HG23	6:AF:97:THR:N	2.12	0.64
24:BA:630:G:C5	24:BA:632:A:OP2	2.51	0.64
24:BA:1370:C:H2'	24:BA:1371:G:O4'	1.97	0.64
24:BA:1605:C:H2'	24:BA:1606:C:O5'	1.98	0.64
24:BA:1993:U:H4'	27:BD:133:THR:CG2	2.27	0.64
24:BA:2788:C:HO2'	24:BA:2809:A:HO2'	1.46	0.64
27:BD:22:ILE:HG22	27:BD:24:VAL:HG13	1.80	0.64
30:BG:163:TYR:HB2	30:BG:166:GLU:HB2	1.79	0.64
33:BJ:80:HIS:O	33:BJ:82:GLY:N	2.31	0.64
33:BJ:114:LEU:HG	33:BJ:118:MET:HE3	1.79	0.64
35:BL:42:SER:O	35:BL:44:GLY:N	2.30	0.64
41:BR:46:GLU:C	41:BR:46:GLU:CD	2.64	0.64
41:BR:78:ARG:O	41:BR:80:ARG:N	2.31	0.64
4:CD:10:LYS:HG3	4:CD:11:LEU:N	2.12	0.64
4:CD:117:LEU:O	4:CD:118:VAL:C	2.39	0.64
15:CO:69:TYR:C	15:CO:69:TYR:CD1	2.72	0.64
21:CU:17:ARG:HG2	21:CU:20:LYS:HD3	1.78	0.64
22:CV:4:C:H1'	22:CV:5:G:OP1	1.97	0.64
24:DA:742:A:H2'	24:DA:743:A:C8	2.33	0.64
24:DA:839:U:O2'	24:DA:1191:G:H1'	1.97	0.64
24:DA:1726:C:N3	24:DA:1735:A:C2	2.65	0.64
24:DA:2204:G:C2	24:DA:2205:A:C8	2.85	0.64
24:DA:2589:A:OP2	59:DA:3311:HOH:O	2.14	0.64
26:DC:71:ASP:O	26:DC:73:ILE:HD12	1.98	0.64
31:DH:80:ILE:HG13	31:DH:145:ASN:O	1.97	0.64
31:DH:95:GLY:CA	31:DH:122:LEU:HD21	2.27	0.64
1:AA:114:U:C2'	1:AA:115:G:O5'	2.45	0.64
1:AA:368:U:C2	31:DH:91:PHE:O	2.51	0.64
1:AA:676:A:H5"	11:AK:115:PRO:HB3	1.79	0.64
1:AA:1068:G:O2'	1:AA:1191:A:N1	2.21	0.64
1:AA:1105:A:C2	1:AA:1106:G:C8	2.86	0.64
1:AA:1374:A:C2	1:AA:1375:A:C8	2.86	0.64
1:AA:1436:U:H2'	1:AA:1437:A:C8	2.32	0.64
4:AD:137:VAL:HG12	4:AD:182:PHE:CZ	2.31	0.64
24:BA:2121:G:C6	24:BA:2122:U:C2	2.85	0.64
25:BB:57:A:O4'	29:BF:26:GLN:NE2	2.31	0.64
26:BC:237:ARG:NH2	59:BC:404:HOH:O	2.30	0.64
30:BG:157:LYS:O	30:BG:159:LYS:N	2.30	0.64
44:BU:69:VAL:O	44:BU:70:ALA:CB	2.45	0.64
54:B4:11:CYS:SG	54:B4:33:HIS:ND1	2.71	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:31:G:H3'	1:CA:32:A:H5"	1.78	0.64
1:CA:640:A:O2'	8:CH:107:SER:HB2	1.98	0.64
1:CA:717:U:H2'	1:CA:734:G:C8	2.31	0.64
1:CA:829:G:C2'	1:CA:830:G:H5'	2.28	0.64
1:CA:1083:U:H5	1:CA:1084:G:C4	2.15	0.64
4:CD:9:LEU:HD12	4:CD:10:LYS:N	2.13	0.64
4:CD:32:CYS:SG	4:CD:34:ILE:N	2.70	0.64
10:CJ:35:GLN:O	10:CJ:36:VAL:HB	1.96	0.64
12:CL:44:LYS:CB	12:CL:45:PRO:HD3	2.28	0.64
24:DA:408:G:H2'	24:DA:409:G:O5'	1.97	0.64
24:DA:898:C:C4	24:DA:899:A:C8	2.86	0.64
24:DA:1239:G:C6	57:DA:3190:NMY:H62	2.32	0.64
24:DA:2093:G:OP2	31:DH:22:LYS:CG	2.45	0.64
24:DA:2330:G:C2'	46:DW:44:LYS:HZ2	2.10	0.64
24:DA:2544:G:O2'	24:DA:2545:G:H5'	1.97	0.64
26:DC:11:GLY:O	26:DC:12:ARG:HB2	1.96	0.64
47:DX:67:LEU:HD22	47:DX:77:TYR:CE2	2.33	0.64
50:D0:54:ILE:HG22	50:D0:55:ALA:N	2.12	0.64
1:AA:317:U:C2	1:AA:318:G:C8	2.86	0.64
1:AA:409:U:H5"	4:AD:25:VAL:HG12	1.79	0.64
1:AA:475:C:H2'	1:AA:476:U:C6	2.32	0.64
1:AA:484:G:H4'	1:AA:485:U:O5'	1.97	0.64
1:AA:522:C:O4'	1:AA:536:C:H4'	1.98	0.64
1:AA:560:A:N1	1:AA:566:G:H5'	2.13	0.64
1:AA:925:G:H1'	1:AA:1502:A:C4	2.31	0.64
1:AA:980:C:H5"	1:AA:981:U:C5	2.33	0.64
1:AA:1028:C:O2	1:AA:1033:G:N2	2.31	0.64
4:AD:31:LYS:NZ	11:CK:37:ARG:CZ	2.61	0.64
11:AK:88:GLY:C	11:AK:93:ARG:NH2	2.56	0.64
24:BA:89:A:C2	24:BA:90:U:C6	2.85	0.64
24:BA:182:A:H2'	24:BA:183:C:C6	2.33	0.64
24:BA:322:A:H5'	24:BA:340:A:H1'	1.80	0.64
24:BA:508:A:H3'	24:BA:509:C:H5'	1.78	0.64
24:BA:686:U:OP2	59:BA:3723:HOH:O	2.15	0.64
24:BA:1422:G:N1	24:BA:1423:G:C5	2.66	0.64
24:BA:1824:G:OP2	26:BC:52:HIS:CE1	2.50	0.64
24:BA:1860:G:C6	24:BA:1883:U:O2	2.51	0.64
24:BA:2303:G:C2	24:BA:2304:G:C4	2.86	0.64
42:BS:3:THR:CB	42:BS:58:ALA:HB1	2.28	0.64
4:CD:98:LEU:O	4:CD:100:ASN:N	2.31	0.64
13:CM:109:ARG:O	13:CM:109:ARG:NH1	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CN:20:PHE:O	14:CN:21:ALA:HB3	1.97	0.64
15:CO:66:LEU:O	15:CO:69:TYR:N	2.29	0.64
24:DA:322:A:P	28:DE:162:ARG:HH21	2.21	0.64
24:DA:1238:G:O6	57:DA:3190:NMY:N6	2.31	0.64
24:DA:1386:C:O2'	24:DA:1469:A:N3	2.31	0.64
24:DA:2080:A:OP1	47:DX:19:HIS:CE1	2.51	0.64
24:DA:2201:G:N3	24:DA:2202:U:C6	2.65	0.64
28:DE:61:ARG:NH2	28:DE:63:LYS:O	2.31	0.64
35:DL:81:ASP:HA	35:DL:84:LYS:HG3	1.79	0.64
42:DS:49:LYS:HA	42:DS:52:GLU:HG2	1.78	0.64
1:AA:14:U:O2	1:AA:14:U:C2'	2.46	0.64
1:AA:158:G:C5	1:AA:159:G:N7	2.66	0.64
1:AA:259:G:OP2	59:AA:1724:HOH:O	2.15	0.64
1:AA:669:G:OP1	15:AO:48:LYS:NZ	2.21	0.64
1:AA:1268:G:H2'	1:AA:1269:A:C8	2.32	0.64
1:AA:1432:G:OP2	39:BP:105:LYS:CE	2.46	0.64
2:AB:169:GLU:O	2:AB:170:HIS:C	2.40	0.64
4:AD:22:LYS:O	4:AD:23:SER:C	2.41	0.64
6:AF:64:VAL:HG12	6:AF:65:GLU:N	2.13	0.64
13:AM:85:CYS:HB2	19:AS:73:GLU:HG3	1.78	0.64
24:BA:109:C:C4	24:BA:110:G:N7	2.65	0.64
24:BA:566:U:O2'	24:BA:567:U:H5'	1.98	0.64
24:BA:1291:C:H2'	24:BA:1292:G:O4'	1.98	0.64
24:BA:1602:U:H3'	24:BA:1603:A:H5'	1.77	0.64
24:BA:1779:U:C5	24:BA:1784:A:N7	2.65	0.64
24:BA:2709:G:C4	24:BA:2710:C:C5	2.85	0.64
27:BD:47:ALA:C	27:BD:84:LEU:HD22	2.22	0.64
51:B1:39:ASP:OD1	51:B1:41:VAL:N	2.31	0.64
53:B3:16:THR:OG1	53:B3:17:GLY:N	2.28	0.64
1:CA:274:A:H4'	17:CQ:16:LYS:HE2	1.79	0.64
1:CA:751:U:C5	1:CA:752:G:C6	2.84	0.64
1:CA:958:A:C4	19:CS:55:ARG:CZ	2.80	0.64
1:CA:1268:G:C6	1:CA:1269:A:N6	2.66	0.64
1:CA:1329:A:N6	1:CA:1330:U:O2	2.31	0.64
3:CC:66:VAL:O	3:CC:67:THR:HB	1.97	0.64
24:DA:205:G:HO2'	24:DA:206:U:P	2.21	0.64
24:DA:2334:U:OP2	38:DO:9:ARG:CZ	2.45	0.64
31:DH:76:GLU:N	31:DH:76:GLU:OE1	2.31	0.64
35:DL:79:LEU:HB2	35:DL:113:ALA:O	1.98	0.64
46:DW:51:VAL:O	46:DW:51:VAL:HG23	1.98	0.64
1:AA:663:A:O3'	18:AR:53:ARG:NH2	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1372:U:C5	1:AA:1373:G:N7	2.66	0.64
57:AA:1656:NMY:H14	57:AA:1656:NMY:N2	2.12	0.64
9:AI:14:SER:O	9:AI:70:GLY:N	2.31	0.64
16:AP:51:ARG:HG2	16:AP:52:LEU:H	1.63	0.64
24:BA:118:A:C8	24:BA:119:A:C8	2.85	0.64
24:BA:532:A:N1	24:BA:2020:A:H1'	2.12	0.64
24:BA:818:G:N7	24:BA:1187:G:C6	2.66	0.64
24:BA:829:A:C8	24:BA:2248:C:H5'	2.33	0.64
24:BA:1309:G:OP1	52:B2:9:VAL:HG22	1.98	0.64
24:BA:2215:C:N4	24:BA:2216:G:O6	2.30	0.64
24:BA:2519:U:C5	24:BA:2542:A:C5	2.86	0.64
33:BJ:114:LEU:O	33:BJ:117:ALA:N	2.31	0.64
42:BS:17:VAL:CG2	42:BS:76:VAL:HG11	2.28	0.64
45:BV:29:ILE:HG23	45:BV:30:ILE:N	2.13	0.64
1:CA:761:G:C2	1:CA:762:U:C6	2.85	0.64
1:CA:966:G:N3	22:CV:34:G:H4'	2.13	0.64
1:CA:1130:A:N6	1:CA:1131:G:O6	2.31	0.64
1:CA:1357:A:N6	1:CA:1363:A:N7	2.46	0.64
1:CA:1399:C:H4'	1:CA:1400:C:H5"	1.80	0.64
12:CL:101:ALA:O	12:CL:102:LEU:HG	1.96	0.64
13:CM:54:ASP:CG	13:CM:55:THR:N	2.55	0.64
24:DA:309:A:O3'	44:DU:15:GLY:HA2	1.97	0.64
24:DA:627:A:C6	24:DA:637:A:C8	2.86	0.64
24:DA:833:A:H2'	24:DA:834:G:H8	1.62	0.64
24:DA:1334:G:C6	24:DA:1335:C:C4	2.85	0.64
24:DA:2549:G:O2'	24:DA:2550:G:H5'	1.98	0.64
25:DB:83:G:C2'	25:DB:84:G:H5"	2.28	0.64
25:DB:114:C:H4'	38:DO:47:VAL:HG11	1.80	0.64
29:DF:105:ILE:O	29:DF:107:VAL:N	2.30	0.64
36:DM:44:ARG:HG3	36:DM:44:ARG:NH2	2.10	0.64
43:DT:36:LYS:O	43:DT:37:ASP:C	2.40	0.64
44:DU:95:PHE:CE2	44:DU:102:ILE:HG13	2.33	0.64
1:AA:403:C:H2'	1:AA:404:G:H5'	1.79	0.64
1:AA:1014:A:C4	19:AS:34:TRP:CH2	2.86	0.64
1:AA:1381:U:H1'	7:AG:78:ARG:NH1	2.13	0.64
8:AH:111:MET:CE	8:AH:116:ALA:HA	2.27	0.64
24:BA:247:G:C8	24:BA:249:C:C5	2.86	0.64
24:BA:378:C:H2'	24:BA:379:G:C5'	2.28	0.64
24:BA:2466:C:OP1	54:B4:4:ARG:HG3	1.96	0.64
24:BA:2543:G:H2'	24:BA:2544:G:C8	2.33	0.64
24:BA:2674:G:OP2	57:BA:3165:NMY:O12	2.13	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BC:232:GLY:O	26:BC:233:GLY:C	2.41	0.64
29:BF:36:ASN:CG	29:BF:87:LYS:HE3	2.23	0.64
53:B3:16:THR:HG22	53:B3:20:GLY:C	2.23	0.64
1:CA:195:A:N7	1:CA:196:A:C6	2.65	0.64
1:CA:202:G:C2	1:CA:203:G:H1'	2.33	0.64
1:CA:1082:A:P	5:CE:23:LYS:NZ	2.71	0.64
1:CA:1253:G:C2	1:CA:1254:A:N7	2.66	0.64
1:CA:1344:C:P	9:CI:124:ARG:NH2	2.71	0.64
3:CC:66:VAL:HG22	3:CC:67:THR:N	2.13	0.64
8:CH:18:GLN:OE1	8:CH:70:ALA:HB1	1.98	0.64
12:CL:55:VAL:HG22	12:CL:56:ARG:O	1.97	0.64
14:CN:1:ALA:O	14:CN:2:LYS:HB3	1.98	0.64
22:CV:45:U:H3'	22:CV:46:G:C5'	2.28	0.64
22:CV:64:A:H1'	51:D1:4:ILE:HD11	1.80	0.64
24:DA:855:G:C4	24:DA:923:G:N2	2.66	0.64
24:DA:1023:U:H2'	24:DA:1024:G:H5'	1.79	0.64
24:DA:1047:G:HO2'	24:DA:1110:G:H1	1.43	0.64
24:DA:2599:G:N7	26:DC:234:GLY:O	2.30	0.64
24:DA:2722:G:H4'	37:DN:3:HIS:O	1.98	0.64
31:DH:49:ALA:O	31:DH:50:ARG:C	2.40	0.64
35:DL:98:ALA:O	35:DL:99:ASN:C	2.39	0.64
41:DR:55:ASP:O	41:DR:57:GLY:N	2.31	0.64
1:AA:539:A:N6	1:AA:540:G:O6	2.31	0.64
1:AA:543:U:P	4:AD:14:ARG:HH12	2.19	0.64
1:AA:687:A:O2'	1:AA:701:U:O4	2.09	0.64
1:AA:799:G:N7	59:AA:1810:HOH:O	2.30	0.64
1:AA:1492:A:H5'	12:AL:44:LYS:HA	1.80	0.64
4:AD:132:ILE:O	4:AD:134:SER:N	2.31	0.64
9:AI:38:TYR:OH	9:AI:75:GLN:OE1	2.12	0.64
13:AM:29:ARG:HB3	13:AM:29:ARG:CZ	2.26	0.64
24:BA:1266:G:O2'	24:BA:2012:G:O6	2.11	0.64
24:BA:1365:A:N6	24:BA:1366:A:C6	2.66	0.64
24:BA:1474:U:C4	24:BA:1475:G:C2	2.86	0.64
24:BA:2204:G:OP2	26:BC:146:LYS:NZ	2.22	0.64
24:BA:2406:A:C8	35:BL:69:ARG:NH2	2.66	0.64
24:BA:2861:U:C2	24:BA:2862:G:C8	2.86	0.64
1:CA:642:A:N3	8:CH:105:SER:HB3	2.13	0.64
1:CA:790:A:C5	1:CA:791:G:C6	2.86	0.64
4:CD:54:GLN:O	4:CD:58:LYS:CE	2.44	0.64
5:CE:87:GLY:C	5:CE:88:VAL:HG12	2.23	0.64
13:CM:54:ASP:O	13:CM:57:ARG:NH1	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:74:A:H5"	24:DA:74:A:N3	2.13	0.64
24:DA:321:U:H4'	28:DE:162:ARG:HH21	1.62	0.64
24:DA:1475:G:O2'	24:DA:1514:G:O6	2.12	0.64
24:DA:1596:A:C2'	24:DA:1597:A:H5'	2.28	0.64
24:DA:1693:U:O4	24:DA:1976:U:O2'	2.12	0.64
30:DG:34:ARG:HH11	30:DG:34:ARG:CG	2.11	0.64
35:DL:22:GLY:O	35:DL:25:SER:OG	2.16	0.64
1:AA:458:U:H2'	1:AA:459:A:C8	2.33	0.63
1:AA:980:C:H5"	1:AA:981:U:C4	2.32	0.63
5:AE:64:MET:O	5:AE:67:ALA:N	2.32	0.63
8:AH:12:THR:O	8:AH:13:ARG:C	2.41	0.63
8:AH:36:ILE:O	8:AH:37:ALA:C	2.40	0.63
11:AK:46:THR:HG23	11:AK:49:GLY:N	2.12	0.63
16:AP:44:SER:O	16:AP:45:GLU:C	2.41	0.63
24:BA:776:G:H4'	24:BA:777:G:O5'	1.98	0.63
24:BA:1263:U:O4	42:BS:95:ARG:NH1	2.31	0.63
24:BA:1266:G:O6	42:BS:13:SER:HB3	1.97	0.63
24:BA:1605:C:H2'	24:BA:1606:C:C5'	2.28	0.63
25:BB:34:A:C5	25:BB:44:G:C8	2.86	0.63
28:BE:178:VAL:HG12	28:BE:179:SER:N	2.12	0.63
1:CA:64:G:C4	1:CA:99:C:N4	2.67	0.63
1:CA:456:A:N6	1:CA:476:U:C4	2.65	0.63
1:CA:774:G:O6	1:CA:805:C:N4	2.30	0.63
1:CA:862:C:C4	1:CA:863:U:C5	2.86	0.63
1:CA:1309:G:C4	1:CA:1329:A:C5	2.86	0.63
1:CA:1506:U:H4'	11:CK:128:ARG:HD3	1.79	0.63
9:CI:126:GLN:O	9:CI:127:PHE:HB3	1.96	0.63
11:CK:67:ALA:O	11:CK:71:ALA:N	2.30	0.63
17:CQ:4:LYS:NZ	17:CQ:5:ILE:O	2.31	0.63
24:DA:818:G:OP2	59:DA:3577:HOH:O	2.15	0.63
24:DA:1423:G:N7	59:DA:3630:HOH:O	2.30	0.63
24:DA:2210:U:H4'	24:DA:2211:A:H5'	1.80	0.63
24:DA:2321:U:H5'	24:DA:2322:A:OP2	1.97	0.63
24:DA:2638:G:O2'	24:DA:2775:G:N2	2.30	0.63
25:DB:43:C:O3'	29:DF:94:ARG:NH2	2.30	0.63
31:DH:88:GLY:C	31:DH:125:THR:HG21	2.22	0.63
31:DH:108:VAL:HG22	31:DH:108:VAL:O	1.97	0.63
36:DM:81:ARG:HA	36:DM:81:ARG:NH1	2.12	0.63
37:DN:2:ARG:NH1	37:DN:2:ARG:HB3	2.13	0.63
37:DN:66:ALA:O	37:DN:70:THR:HG22	1.97	0.63
44:DU:43:LYS:HD3	44:DU:44:HIS:N	2.12	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:108:G:H5'	1:AA:109:A:H5"	1.81	0.63
1:AA:1361:G:C5	1:AA:1362:A:C8	2.86	0.63
2:AB:54:LEU:HD12	2:AB:54:LEU:N	2.14	0.63
3:AC:96:GLY:O	3:AC:97:VAL:HG23	1.99	0.63
22:AV:32:U:C3'	22:AV:33:U:H5"	2.28	0.63
24:BA:881:G:N2	24:BA:895:U:O2	2.31	0.63
24:BA:1163:G:C6	24:BA:1164:C:C5	2.85	0.63
24:BA:1188:U:C2'	24:BA:1189:A:C5'	2.76	0.63
24:BA:1421:G:N3	24:BA:1422:G:C8	2.66	0.63
24:BA:1653:G:P	37:BN:2:ARG:NH1	2.71	0.63
24:BA:2466:C:P	54:B4:4:ARG:HG3	2.38	0.63
24:BA:2885:G:N2	50:B0:31:LYS:HB3	2.13	0.63
1:CA:1111:A:N1	3:CC:177:THR:HG22	2.13	0.63
1:CA:1178:G:N7	9:CI:99:ARG:CZ	2.61	0.63
4:CD:58:LYS:CB	4:CD:200:ILE:HG12	2.27	0.63
15:CO:10:LYS:N	15:CO:10:LYS:HD3	2.13	0.63
55:CY:65:LEU:HD23	55:CY:66:LYS:N	2.13	0.63
24:DA:84:A:C3'	44:DU:5:ARG:HD3	2.29	0.63
24:DA:1277:G:H5'	37:DN:20:MET:HE2	1.78	0.63
24:DA:1345:C:N3	24:DA:1346:G:N7	2.47	0.63
24:DA:1459:G:C2	24:DA:1461:C:C2	2.87	0.63
24:DA:1550:C:C2	24:DA:1551:A:C8	2.86	0.63
24:DA:1928:A:H4'	24:DA:1929:G:OP1	1.98	0.63
24:DA:2280:G:C2	24:DA:2281:A:C8	2.86	0.63
57:DA:3190:NMY:O16	57:DA:3190:NMY:C2	2.46	0.63
28:DE:48:THR:C	28:DE:50:ALA:H	2.06	0.63
29:DF:111:ARG:C	29:DF:113:PHE:N	2.54	0.63
29:DF:122:ASP:OD2	29:DF:124:ARG:NH2	2.31	0.63
36:DM:81:ARG:CZ	36:DM:81:ARG:CA	2.77	0.63
40:DQ:80:ASN:CG	40:DQ:83:LYS:HE2	2.22	0.63
43:DT:13:ALA:O	43:DT:32:LEU:HB2	1.97	0.63
54:D4:10:LEU:HD12	54:D4:33:HIS:CE1	2.33	0.63
1:AA:337:G:C2'	1:AA:338:A:O5'	2.46	0.63
1:AA:594:U:O2	1:AA:646:G:N1	2.31	0.63
1:AA:709:U:O2'	1:AA:710:G:H5'	1.99	0.63
1:AA:958:A:C6	1:AA:959:A:C6	2.86	0.63
4:AD:79:ALA:O	4:AD:81:ARG:N	2.32	0.63
4:AD:107:PHE:CE1	4:AD:155:VAL:HG11	2.34	0.63
9:AI:50:GLN:NE2	9:AI:80:ARG:NH1	2.47	0.63
24:BA:247:G:H4'	24:BA:386:G:C5	2.33	0.63
24:BA:663:G:OP1	35:BL:17:LYS:HB3	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1345:C:C4	24:BA:1346:G:N7	2.65	0.63
24:BA:1407:G:C2	24:BA:1596:A:C2	2.86	0.63
24:BA:2199:A:O2'	47:BX:35:HIS:NE2	2.31	0.63
25:BB:23:G:N1	25:BB:24:G:O6	2.32	0.63
26:BC:141:HIS:HB3	26:BC:194:VAL:HG12	1.81	0.63
27:BD:155:VAL:CG1	27:BD:155:VAL:O	2.47	0.63
30:BG:102:ILE:O	30:BG:113:ASP:HA	1.97	0.63
31:BH:53:GLU:OE1	31:BH:54:LEU:N	2.32	0.63
54:B4:10:LEU:HD22	54:B4:33:HIS:CD2	2.33	0.63
1:CA:36:C:H4'	12:CL:119:VAL:O	1.97	0.63
1:CA:255:G:H4'	17:CQ:19:LYS:HG2	1.79	0.63
1:CA:356:A:H2	1:CA:368:U:O2	1.81	0.63
1:CA:771:G:C4	1:CA:809:G:N2	2.66	0.63
1:CA:858:G:OP2	59:CA:1818:HOH:O	2.15	0.63
1:CA:1014:A:H5"	19:CS:14:HIS:CD2	2.34	0.63
1:CA:1310:G:O5'	13:CM:79:ARG:NH2	2.31	0.63
2:CB:67:ILE:O	2:CB:68:LEU:HB3	1.97	0.63
4:CD:9:LEU:CD1	4:CD:10:LYS:N	2.61	0.63
24:DA:782:A:C2	26:DC:224:MET:HG2	2.33	0.63
24:DA:983:A:N6	24:DA:984:A:N1	2.46	0.63
24:DA:1853:A:H2'	24:DA:1854:A:C8	2.34	0.63
24:DA:2365:G:H4'	46:DW:60:PHE:CE2	2.33	0.63
24:DA:2420:C:OP1	53:D3:33:THR:CG2	2.46	0.63
29:DF:93:GLU:O	29:DF:96:TRP:N	2.31	0.63
32:DI:111:THR:O	32:DI:112:LYS:C	2.40	0.63
36:DM:21:ALA:CB	36:DM:100:LYS:N	2.60	0.63
40:DQ:86:SER:O	41:DR:52:PRO:HB3	1.98	0.63
1:AA:64:G:C8	1:AA:99:C:N4	2.66	0.63
1:AA:580:C:H4'	15:AO:57:LEU:HD11	1.79	0.63
1:AA:652:U:O2'	1:AA:653:U:O5'	2.16	0.63
1:AA:958:A:N1	19:AS:54:GLY:HA3	2.13	0.63
1:AA:1008:U:C2	1:AA:1022:A:N3	2.67	0.63
3:AC:184:TYR:CD1	3:AC:201:TRP:NE1	2.66	0.63
6:AF:3:HIS:O	6:AF:4:TYR:HB3	1.97	0.63
21:AU:14:VAL:HG23	21:AU:16:LEU:HD23	1.79	0.63
24:BA:469:G:O2'	24:BA:470:A:O4'	2.15	0.63
24:BA:513:A:O2'	40:BQ:10:ARG:NH1	2.32	0.63
24:BA:612:G:C6	24:BA:614:A:C2	2.86	0.63
24:BA:1662:U:O2	24:BA:2687:U:H5"	1.98	0.63
24:BA:2119:A:O2'	24:BA:2120:G:O5'	2.13	0.63
24:BA:2407:A:OP1	59:BA:3567:HOH:O	2.15	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2483:C:C2	36:BM:123:LYS:HE3	2.34	0.63
24:BA:2580:U:OP1	27:BD:137:SER:OG	2.14	0.63
24:BA:2774:C:H2'	24:BA:2775:G:O4'	1.99	0.63
24:BA:2821:A:OP2	37:BN:3:HIS:NE2	2.31	0.63
26:BC:68:ARG:NH1	26:BC:128:THR:OG1	2.31	0.63
30:BG:118:ALA:O	30:BG:120:ILE:HG22	1.98	0.63
45:BV:54:ALA:O	45:BV:55:GLU:C	2.40	0.63
48:BY:24:GLU:O	48:BY:25:GLN:C	2.42	0.63
1:CA:149:A:C2	1:CA:150:U:C2	2.87	0.63
1:CA:556:C:O2'	1:CA:557:G:H5'	1.98	0.63
4:CD:162:ALA:O	4:CD:165:ARG:N	2.31	0.63
8:CH:110:VAL:O	8:CH:111:MET:HB3	1.98	0.63
15:CO:10:LYS:O	15:CO:12:VAL:N	2.31	0.63
21:CU:7:ARG:O	21:CU:7:ARG:HG3	1.97	0.63
21:CU:41:PRO:O	21:CU:42:THR:C	2.42	0.63
24:DA:1020:A:C2	24:DA:1141:U:C2	2.86	0.63
24:DA:1277:G:H5'	37:DN:20:MET:CE	2.29	0.63
24:DA:1490:A:N3	24:DA:1490:A:H2'	2.12	0.63
24:DA:1502:A:C2	24:DA:1503:A:C5	2.86	0.63
24:DA:1605:C:C2'	24:DA:1606:C:H5'	2.28	0.63
24:DA:1927:A:C6	24:DA:1928:A:C6	2.86	0.63
40:DQ:82:LEU:CD1	40:DQ:112:ALA:HB2	2.28	0.63
42:DS:85:ILE:HD12	42:DS:85:ILE:N	2.13	0.63
1:AA:229:U:H2'	1:AA:230:G:O4'	1.97	0.63
1:AA:330:C:C2'	1:AA:331:G:H5'	2.29	0.63
1:AA:442:G:N1	1:AA:493:A:C2	2.66	0.63
14:AN:73:PHE:C	14:AN:73:PHE:CD1	2.77	0.63
24:BA:58:G:N2	24:BA:70:G:N3	2.46	0.63
24:BA:141:G:N2	43:BT:1:MET:SD	2.71	0.63
24:BA:784:G:H5'	26:BC:225:ASN:OD1	1.99	0.63
24:BA:1097:U:C4	24:BA:1098:A:H1'	2.34	0.63
24:BA:1157:G:OP1	57:BA:3162:NMY:C9	2.46	0.63
24:BA:1176:U:C2	24:BA:1177:G:C5	2.86	0.63
24:BA:1269:A:OP2	59:BA:3388:HOH:O	2.15	0.63
24:BA:1326:U:O2'	24:BA:1327:A:H5'	1.98	0.63
24:BA:1355:G:C2'	24:BA:1356:G:H5'	2.28	0.63
24:BA:1488:C:O2	24:BA:1502:A:C2	2.52	0.63
24:BA:1623:G:C2	24:BA:1624:U:C2	2.87	0.63
24:BA:2415:G:C4	24:BA:2416:C:C6	2.87	0.63
24:BA:2799:A:O2'	24:BA:2800:A:H5"	1.99	0.63
28:BE:79:ARG:O	28:BE:80:SER:HB2	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BQ:89:ILE:HD11	40:BQ:93:ILE:HB	1.81	0.63
1:CA:179:A:H2'	1:CA:180:U:O4'	1.97	0.63
8:CH:89:LYS:HD3	8:CH:90:ASP:N	2.13	0.63
22:CV:18:G:N2	22:CV:58:A:O4'	2.31	0.63
24:DA:410:G:H5"	24:DA:411:G:H5'	1.80	0.63
24:DA:690:G:H4'	26:DC:216:ARG:NH2	2.14	0.63
24:DA:2108:A:N7	24:DA:2178:C:N4	2.47	0.63
24:DA:2328:A:H2'	24:DA:2329:U:C6	2.33	0.63
26:DC:75:ALA:HB2	26:DC:95:TYR:CD1	2.34	0.63
1:AA:391:G:C2	1:AA:392:C:H1'	2.33	0.63
1:AA:487:A:C6	1:AA:488:C:C2	2.86	0.63
1:AA:1269:A:C2	1:AA:1313:U:H1'	2.34	0.63
4:AD:145:ILE:O	4:AD:146:ARG:HG2	1.98	0.63
13:AM:77:ILE:O	13:AM:80:LEU:N	2.32	0.63
24:BA:165:A:N3	47:BX:43:LYS:NZ	2.46	0.63
24:BA:189:G:O6	24:BA:205:G:O2'	2.11	0.63
24:BA:537:G:OP2	57:BA:3166:NMY:N6	2.31	0.63
24:BA:613:A:N7	24:BA:616:A:N1	2.47	0.63
24:BA:659:G:O3'	28:BE:95:LYS:HG2	1.98	0.63
24:BA:1820:U:OP1	26:BC:176:ARG:HG2	1.98	0.63
24:BA:2043:C:OP1	24:BA:2777:G:O2'	2.12	0.63
24:BA:2709:G:C5	24:BA:2710:C:C5	2.86	0.63
27:BD:49:GLN:NE2	27:BD:79:LEU:HD13	2.14	0.63
29:BF:36:ASN:CB	29:BF:87:LYS:HE3	2.28	0.63
37:BN:22:ARG:O	37:BN:24:MET:N	2.31	0.63
1:CA:110:C:O2'	16:CP:25:ARG:O	2.17	0.63
1:CA:269:C:H2'	1:CA:270:A:C8	2.34	0.63
1:CA:742:G:OP1	15:CO:58:ARG:NH1	2.32	0.63
1:CA:800:G:O6	59:CA:1809:HOH:O	2.14	0.63
1:CA:1219:A:C5	1:CA:1220:G:N7	2.67	0.63
1:CA:1329:A:OP1	13:CM:28:THR:OG1	2.16	0.63
1:CA:1330:U:OP1	13:CM:24:GLY:N	2.32	0.63
4:CD:164:GLN:CD	4:CD:165:ARG:N	2.57	0.63
22:CV:73:A:H3'	22:CV:73:A:N3	2.12	0.63
55:CY:142:LEU:HD21	55:CY:148:ILE:HD11	1.79	0.63
24:DA:583:G:OP1	40:DQ:6:GLY:HA2	1.98	0.63
24:DA:733:G:O6	59:DA:3292:HOH:O	2.14	0.63
31:DH:72:ILE:HD12	31:DH:73:ASN:N	2.14	0.63
38:DO:117:PHE:CD1	38:DO:117:PHE:O	2.52	0.63
41:DR:41:ILE:HD11	41:DR:54:VAL:HG11	1.79	0.63
1:AA:1088:G:C6	1:AA:1089:G:N7	2.67	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1349:A:H2'	1:AA:1350:A:H5'	1.80	0.63
3:AC:7:PRO:O	3:AC:11:ARG:HG2	1.98	0.63
4:AD:49:SER:CB	4:AD:51:TYR:CE2	2.82	0.63
13:AM:22:ILE:C	13:AM:22:ILE:HD12	2.24	0.63
24:BA:630:G:C3'	24:BA:631:A:H5"	2.28	0.63
24:BA:1277:G:H5'	37:BN:20:MET:CE	2.27	0.63
24:BA:1344:U:H5'	24:BA:1384:A:C6	2.33	0.63
26:BC:62:ARG:HG2	26:BC:62:ARG:HH21	1.62	0.63
34:BK:88:ASN:O	34:BK:88:ASN:CG	2.40	0.63
37:BN:97:ILE:HD11	37:BN:111:ALA:HB1	1.81	0.63
1:CA:406:G:C2	1:CA:407:U:C6	2.87	0.63
1:CA:779:C:H2'	1:CA:780:A:O4'	1.99	0.63
11:CK:24:HIS:CE1	11:CK:31:ILE:HB	2.34	0.63
24:DA:431:U:C2'	24:DA:432:A:H5"	2.28	0.63
24:DA:623:C:H2'	24:DA:624:C:H6	1.64	0.63
24:DA:1501:G:O2'	24:DA:1502:A:H5'	1.99	0.63
24:DA:1733:G:C6	24:DA:1734:G:C5	2.87	0.63
24:DA:2406:A:C2	35:DL:69:ARG:NH2	2.66	0.63
30:DG:19:ASN:O	30:DG:22:VAL:HG23	1.98	0.63
30:DG:87:GLN:C	30:DG:88:LEU:HD12	2.24	0.63
38:DO:111:ARG:O	38:DO:114:GLY:N	2.32	0.63
41:DR:25:LEU:HD12	41:DR:94:THR:OG1	1.99	0.63
41:DR:68:ARG:HD3	41:DR:92:TRP:CE2	2.33	0.63
1:AA:35:G:C6	1:AA:36:C:N4	2.67	0.63
1:AA:309:A:C2	1:AA:310:G:N7	2.66	0.63
1:AA:508:U:C4'	4:AD:51:TYR:OH	2.47	0.63
1:AA:683:G:C2'	1:AA:684:U:O5'	2.46	0.63
1:AA:946:A:N3	1:AA:1236:A:C2	2.67	0.63
2:AB:218:ALA:HA	2:AB:221:VAL:HG12	1.81	0.63
8:AH:11:LEU:HD13	8:AH:15:ARG:NH2	2.14	0.63
20:AT:27:MET:SD	20:AT:27:MET:O	2.56	0.63
24:BA:58:G:OP1	43:BT:78:SER:HB2	1.99	0.63
24:BA:145:C:H2'	24:BA:146:A:C8	2.34	0.63
24:BA:609:A:C6	24:BA:610:C:O2	2.52	0.63
24:BA:846:U:H2'	24:BA:846:U:O2	1.99	0.63
24:BA:1186:G:H2'	24:BA:1187:G:H5'	1.80	0.63
24:BA:1504:A:C6	24:BA:1505:A:C6	2.87	0.63
24:BA:1833:C:O2'	24:BA:1969:A:N1	2.28	0.63
24:BA:2413:G:C2'	24:BA:2414:G:H5'	2.29	0.63
24:BA:2416:C:C2	24:BA:2417:C:C5	2.87	0.63
24:BA:2448:A:OP2	59:BA:3688:HOH:O	2.16	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BJ:130:HIS:ND1	33:BJ:130:HIS:O	2.31	0.63
42:BS:3:THR:HB	42:BS:58:ALA:CB	2.29	0.63
52:B2:44:VAL:O	52:B2:45:SER:OG	2.12	0.63
1:CA:49:U:C4	1:CA:364:A:C6	2.86	0.63
1:CA:544:G:OP1	4:CD:59:GLN:NE2	2.31	0.63
1:CA:858:G:C6	1:CA:869:G:N7	2.67	0.63
1:CA:1238:A:H2'	1:CA:1239:A:H5"	1.80	0.63
1:CA:1506:U:H3'	59:CA:1886:HOH:O	1.99	0.63
11:CK:20:VAL:HG13	11:CK:35:THR:HG23	1.81	0.63
11:CK:46:THR:CG2	11:CK:47:ALA:N	2.61	0.63
20:CT:67:ILE:HG12	20:CT:71:LYS:HG2	1.80	0.63
21:CU:17:ARG:CG	21:CU:20:LYS:HD3	2.29	0.63
24:DA:1909:C:C2	24:DA:1922:G:N2	2.66	0.63
24:DA:2093:G:OP2	31:DH:22:LYS:HE2	1.98	0.63
24:DA:2293:G:OP1	38:DO:94:ARG:NH2	2.32	0.63
57:DA:3190:NMY:H2	57:DA:3190:NMY:C17	2.29	0.63
25:DB:37:C:C5	25:DB:38:C:C5	2.87	0.63
26:DC:175:LEU:C	26:DC:177:SER:H	2.06	0.63
38:DO:108:ASP:HA	38:DO:111:ARG:HB2	1.81	0.63
1:AA:246:A:N3	1:AA:247:G:H1'	2.13	0.63
1:AA:1014:A:C4	19:AS:34:TRP:CZ2	2.86	0.63
1:AA:1124:G:OP1	10:AJ:37:ARG:O	2.16	0.63
1:AA:1304:G:N1	1:AA:1305:G:N2	2.47	0.63
2:AB:23:TRP:O	2:AB:23:TRP:CG	2.51	0.63
3:AC:79:LYS:HZ1	1:CA:1539:C:P	2.22	0.63
4:AD:138:SER:O	4:AD:182:PHE:CZ	2.52	0.63
4:AD:171:LEU:CD1	4:AD:173:VAL:CG2	2.77	0.63
7:AG:26:PHE:O	7:AG:27:VAL:C	2.41	0.63
9:AI:79:ILE:O	9:AI:82:GLY:N	2.32	0.63
13:AM:85:CYS:O	13:AM:88:GLY:N	2.31	0.63
24:BA:122:G:O6	24:BA:129:C:N4	2.31	0.63
24:BA:230:G:N3	24:BA:231:A:C8	2.67	0.63
24:BA:276:U:O2	24:BA:277:G:C8	2.51	0.63
24:BA:479:A:N3	24:BA:481:G:C5'	2.61	0.63
24:BA:811:U:C4	35:BL:21:ARG:NH2	2.66	0.63
24:BA:1356:G:C2	24:BA:1357:C:C2	2.87	0.63
24:BA:2502:G:H5'	24:BA:2503:A:C5'	2.29	0.63
28:BE:113:VAL:O	28:BE:116:ASP:N	2.30	0.63
28:BE:165:HIS:CD2	28:BE:165:HIS:N	2.66	0.63
30:BG:139:VAL:O	30:BG:142:GLN:N	2.32	0.63
31:BH:5:LEU:O	31:BH:6:LEU:HD12	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BL:61:LEU:O	53:B3:12:ARG:HD3	1.98	0.63
36:BM:64:TRP:O	36:BM:65:ILE:HG13	1.99	0.63
1:CA:933:G:OP2	7:CG:3:ARG:HG2	1.99	0.63
4:CD:197:GLU:N	4:CD:197:GLU:OE1	2.32	0.63
12:CL:82:ILE:HG23	12:CL:95:TYR:CE1	2.33	0.63
16:CP:40:ASN:O	16:CP:42:ILE:N	2.31	0.63
17:CQ:11:ARG:NH1	17:CQ:56:GLY:O	2.31	0.63
24:DA:378:C:H2'	24:DA:379:G:H5'	1.80	0.63
24:DA:674:G:H1'	28:DE:69:ARG:CD	2.29	0.63
24:DA:690:G:C3'	26:DC:216:ARG:HH21	2.11	0.63
24:DA:1563:U:H2'	24:DA:1564:C:H6	1.64	0.63
24:DA:1567:G:H2'	26:DC:84:PRO:HG3	1.81	0.63
24:DA:1728:C:O2'	24:DA:1731:G:O6	2.03	0.63
24:DA:1878:G:C6	24:DA:1879:C:C4	2.86	0.63
24:DA:2093:G:OP2	31:DH:22:LYS:HG3	1.99	0.63
24:DA:2684:U:C4	24:DA:2685:G:N7	2.67	0.63
38:DO:100:HIS:CD2	38:DO:101:GLY:N	2.66	0.63
38:DO:111:ARG:O	38:DO:113:ALA:N	2.32	0.63
47:DX:68:ALA:HA	47:DX:71:ARG:NH2	2.14	0.63
1:AA:32:A:H2	1:AA:33:A:C4	2.16	0.62
1:AA:844:G:N2	1:AA:846:G:O2'	2.32	0.62
1:AA:993:G:H2'	1:AA:993:G:N3	2.14	0.62
1:AA:1178:G:H2'	1:AA:1180:A:OP2	1.98	0.62
1:AA:1304:G:C6	1:AA:1305:G:C2	2.87	0.62
1:AA:1424:U:O2	1:AA:1424:U:H2'	1.99	0.62
4:AD:5:LEU:O	4:AD:8:LYS:NZ	2.32	0.62
4:AD:25:VAL:CG2	4:AD:26:ARG:N	2.61	0.62
11:AK:126:LYS:NZ	59:AK:201:HOH:O	2.31	0.62
24:BA:219:A:N3	24:BA:234:U:O2'	2.27	0.62
24:BA:679:C:O2'	24:BA:680:C:H5'	1.98	0.62
24:BA:725:G:C6	24:BA:726:G:N1	2.67	0.62
24:BA:1102:C:H2'	24:BA:1103:A:C8	2.33	0.62
24:BA:1105:U:H2'	24:BA:1106:G:C8	2.34	0.62
24:BA:1993:U:H4'	27:BD:133:THR:HG22	1.80	0.62
31:BH:114:GLU:OE1	31:BH:134:VAL:N	2.32	0.62
42:BS:7:HIS:CD2	42:BS:10:ALA:HB2	2.34	0.62
1:CA:684:U:H2'	1:CA:685:G:O4'	1.99	0.62
1:CA:790:A:N7	1:CA:791:G:C5	2.67	0.62
1:CA:791:G:C5	1:CA:792:A:N7	2.67	0.62
1:CA:855:U:H2'	1:CA:856:C:C6	2.33	0.62
1:CA:926:G:C5'	1:CA:927:G:O5'	2.46	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1033:G:H2'	1:CA:1034:G:H5'	1.81	0.62
1:CA:1309:G:N2	1:CA:1328:C:C2	2.67	0.62
1:CA:1330:U:C4	1:CA:1331:G:C6	2.87	0.62
1:CA:1402:C:H2'	1:CA:1403:C:O4'	1.99	0.62
3:CC:40:ARG:O	3:CC:44:THR:OG1	2.16	0.62
5:CE:45:ARG:HH12	5:CE:74:VAL:HG22	1.64	0.62
7:CG:43:VAL:O	7:CG:46:ALA:N	2.32	0.62
19:CS:6:LYS:HG3	19:CS:7:LYS:N	2.12	0.62
24:DA:686:U:H2'	24:DA:788:A:N1	2.14	0.62
24:DA:1921:G:O6	57:DA:3184:NMY:H81	1.98	0.62
24:DA:2881:U:O2'	24:DA:2882:A:H5'	1.99	0.62
43:DT:14:PRO:HA	43:DT:32:LEU:HB3	1.81	0.62
1:AA:100:G:C8	1:AA:101:A:C8	2.87	0.62
1:AA:382:A:H2'	1:AA:383:A:C8	2.34	0.62
1:AA:600:A:OP1	8:AH:88:ARG:HD2	1.99	0.62
1:AA:662:U:H2'	1:AA:663:A:C8	2.34	0.62
1:AA:801:U:H2'	1:AA:802:A:O5'	1.99	0.62
1:AA:1256:A:C4	1:AA:1278:G:C6	2.87	0.62
1:AA:1355:G:C6	1:AA:1368:A:C2	2.86	0.62
57:AA:1655:NMY:HN61	24:BA:1913:A:H62	1.46	0.62
4:AD:51:TYR:CD1	4:AD:51:TYR:C	2.77	0.62
9:AI:28:ILE:HA	9:AI:63:LEU:HD21	1.80	0.62
11:AK:125:LYS:HG3	11:AK:126:LYS:N	2.14	0.62
20:AT:76:LYS:HA	20:AT:79:LEU:HD11	1.81	0.62
24:BA:63:A:C4'	43:BT:77:ARG:HH11	2.11	0.62
24:BA:2113:U:C4	24:BA:2114:A:N7	2.67	0.62
24:BA:2294:G:P	38:BO:10:ARG:NH2	2.72	0.62
24:BA:2466:C:OP1	54:B4:4:ARG:HG2	2.00	0.62
25:BB:51:G:H5"	38:BO:64:TYR:CG	2.34	0.62
27:BD:3:GLY:C	27:BD:82:PHE:CE2	2.77	0.62
30:BG:3:VAL:HG12	30:BG:68:ARG:HG2	1.79	0.62
39:BP:48:ALA:HA	39:BP:95:LYS:HG2	1.80	0.62
41:BR:68:ARG:HD3	41:BR:92:TRP:CZ2	2.33	0.62
1:CA:594:U:N3	1:CA:595:A:N1	2.47	0.62
1:CA:706:A:C4	11:CK:44:TRP:CH2	2.87	0.62
1:CA:787:A:C2'	1:CA:788:U:H5'	2.28	0.62
1:CA:1309:G:H1'	1:CA:1329:A:C2	2.34	0.62
12:CL:89:ASP:O	12:CL:91:PRO:N	2.32	0.62
24:DA:181:A:C2	24:DA:182:A:C4	2.87	0.62
24:DA:379:G:H2'	24:DA:380:G:O5'	1.99	0.62
24:DA:453:A:H5"	24:DA:454:A:OP2	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1026:G:OP1	59:DA:3711:HOH:O	2.15	0.62
24:DA:2298:A:H2'	24:DA:2299:U:O4'	1.99	0.62
24:DA:2315:G:H4'	29:DF:124:ARG:HH12	1.64	0.62
26:DC:5:CYS:SG	26:DC:15:VAL:CG1	2.86	0.62
30:DG:103:ASN:ND2	30:DG:113:ASP:OD1	2.31	0.62
31:DH:77:THR:HG23	31:DH:143:ILE:HD11	1.81	0.62
35:DL:46:VAL:HG21	35:DL:50:PHE:CD1	2.33	0.62
37:DN:97:ILE:O	37:DN:112:TYR:O	2.17	0.62
54:D4:30:GLU:N	54:D4:30:GLU:OE1	2.32	0.62
1:AA:332:G:OP2	20:AT:5:LYS:HD2	1.98	0.62
1:AA:466:A:C4	1:AA:468:A:C2	2.87	0.62
1:AA:538:G:OP1	12:AL:110:ARG:HD2	1.99	0.62
1:AA:984:C:O2	1:AA:1222:G:C2	2.52	0.62
4:AD:26:ARG:NH2	4:AD:29:ASP:O	2.33	0.62
4:AD:131:ASN:O	4:AD:133:ALA:N	2.32	0.62
9:AI:32:GLN:OE1	9:AI:64:TYR:OH	2.03	0.62
9:AI:130:ARG:NH2	22:AV:35:A:P	2.73	0.62
16:AP:67:ILE:HG22	16:AP:71:VAL:CG2	2.29	0.62
23:AX:8:U:H3'	23:AX:9:A:C5'	2.27	0.62
24:BA:1217:U:H2'	24:BA:1218:G:O5'	2.00	0.62
24:BA:1602:U:C3'	24:BA:1603:A:H5'	2.29	0.62
24:BA:1853:A:N3	24:BA:2233:U:O2'	2.32	0.62
24:BA:2204:G:C2	24:BA:2205:A:C8	2.87	0.62
24:BA:2652:C:C2'	24:BA:2653:U:H5'	2.28	0.62
24:BA:2799:A:C6	24:BA:2801:G:C5	2.87	0.62
25:BB:75:G:O4'	45:BV:29:ILE:CD1	2.48	0.62
27:BD:56:LYS:O	27:BD:58:ASN:N	2.32	0.62
30:BG:102:ILE:HG21	30:BG:104:LEU:HD13	1.80	0.62
31:BH:121:VAL:CG1	31:BH:122:LEU:CD2	2.71	0.62
1:CA:459:A:H2'	1:CA:460:A:C8	2.33	0.62
1:CA:1169:A:C5	1:CA:1170:A:C2	2.87	0.62
5:CE:78:ASN:OD1	5:CE:78:ASN:N	2.32	0.62
11:CK:81:ASN:CB	11:CK:106:ARG:CZ	2.77	0.62
55:CY:64:THR:HG23	55:CY:65:LEU:N	2.14	0.62
24:DA:321:U:H4'	28:DE:162:ARG:NH2	2.15	0.62
24:DA:477:A:H2'	24:DA:478:A:C8	2.34	0.62
24:DA:1105:U:H2'	24:DA:1106:G:H8	1.64	0.62
25:DB:44:G:OP1	29:DF:94:ARG:NH2	2.32	0.62
33:DJ:76:HIS:CE1	33:DJ:85:LYS:HB2	2.33	0.62
40:DQ:39:ILE:HD13	41:DR:77:PHE:CE2	2.35	0.62
1:AA:70:U:OP2	1:AA:70:U:C6	2.52	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:215:C:H2'	1:AA:216:U:O4'	2.00	0.62
1:AA:734:G:O2'	18:AR:60:LYS:CE	2.47	0.62
1:AA:978:A:P	1:AA:1362:A:N6	2.72	0.62
24:BA:61:C:C2	24:BA:94:A:C2	2.87	0.62
24:BA:69:C:HO2'	24:BA:73:A:HO2'	1.43	0.62
24:BA:223:A:N6	24:BA:422:A:C2	2.67	0.62
24:BA:227:A:C2	24:BA:2407:A:H1'	2.35	0.62
24:BA:867:C:H2'	24:BA:868:U:H5'	1.82	0.62
24:BA:948:C:C2	24:BA:949:G:C8	2.87	0.62
24:BA:2285:C:OP2	51:B1:5:ARG:NH1	2.32	0.62
24:BA:2495:G:O3'	36:BM:81:ARG:O	2.16	0.62
24:BA:2719:G:C5'	39:BP:95:LYS:HZ3	2.12	0.62
24:BA:2795:C:O2	24:BA:2802:G:N2	2.33	0.62
26:BC:116:GLN:N	26:BC:127:ASN:OD1	2.32	0.62
26:BC:188:ARG:O	26:BC:189:ALA:HB2	1.99	0.62
38:BO:6:ALA:O	38:BO:7:ARG:C	2.42	0.62
44:BU:85:ARG:O	44:BU:87:GLU:N	2.32	0.62
1:CA:262:A:C6	1:CA:263:A:N6	2.66	0.62
1:CA:501:C:OP2	12:CL:121:ARG:CZ	2.48	0.62
1:CA:615:G:C2	1:CA:616:G:C8	2.86	0.62
1:CA:751:U:H4'	15:CO:24:SER:CA	2.29	0.62
1:CA:751:U:H4'	15:CO:24:SER:HA	1.81	0.62
1:CA:1082:A:OP1	5:CE:23:LYS:NZ	2.32	0.62
12:CL:44:LYS:O	12:CL:46:ASN:N	2.32	0.62
22:CV:8:U:O2	22:CV:21:A:C2	2.53	0.62
24:DA:408:G:C2'	24:DA:409:G:O5'	2.46	0.62
24:DA:2443:C:O2'	24:DA:2444:G:H5'	2.00	0.62
24:DA:2693:G:N2	24:DA:2717:C:C2	2.67	0.62
27:DD:101:PHE:O	27:DD:103:ASP:N	2.33	0.62
27:DD:160:LYS:HZ2	27:DD:160:LYS:H	1.45	0.62
43:DT:2:ILE:HA	43:DT:3:ARG:C	2.25	0.62
47:DX:32:LEU:HA	47:DX:51:SER:HA	1.81	0.62
53:D3:14:LYS:O	53:D3:15:LYS:O	2.18	0.62
1:AA:318:G:N1	1:AA:319:G:C5	2.68	0.62
2:AB:130:THR:OG1	2:AB:131:LYS:N	2.30	0.62
6:AF:43:GLY:HA2	6:AF:58:HIS:CD2	2.34	0.62
7:AG:93:PRO:O	7:AG:95:ARG:N	2.33	0.62
15:AO:70:LEU:C	15:AO:78:TYR:HE1	2.07	0.62
19:AS:15:LEU:HG	19:AS:33:THR:HG21	1.82	0.62
20:AT:7:ALA:C	20:AT:9:LYS:N	2.57	0.62
24:BA:1995:U:OP1	27:BD:128:ARG:NH2	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2207:C:C2	24:BA:2218:G:N2	2.67	0.62
24:BA:2286:G:P	51:B1:29:LYS:HZ3	2.21	0.62
24:BA:2304:G:O2'	29:BF:129:MET:C	2.43	0.62
26:BC:106:PRO:O	26:BC:107:LYS:O	2.17	0.62
27:BD:125:TRP:CB	27:BD:160:LYS:HG2	2.29	0.62
41:BR:49:ILE:HG12	41:BR:54:VAL:N	2.14	0.62
42:BS:13:SER:O	42:BS:15:GLN:N	2.33	0.62
1:CA:375:U:C3'	1:CA:376:G:H5"	2.29	0.62
1:CA:400:C:H2'	1:CA:401:C:O5'	1.98	0.62
1:CA:493:A:C4	1:CA:494:G:N1	2.67	0.62
1:CA:536:C:OP1	59:CA:1771:HOH:O	2.15	0.62
1:CA:966:G:N3	9:CI:129:LYS:CE	2.63	0.62
3:CC:176:HIS:NE2	59:CC:301:HOH:O	2.30	0.62
8:CH:51:VAL:O	8:CH:52:GLU:C	2.40	0.62
10:CJ:42:LEU:CD2	10:CJ:71:LEU:HD22	2.29	0.62
11:CK:24:HIS:HA	11:CK:87:LYS:HG2	1.82	0.62
24:DA:608:A:O2'	24:DA:609:A:O5'	2.17	0.62
24:DA:1055:G:C6	24:DA:1056:G:C4	2.88	0.62
1:AA:294:U:C2	1:AA:295:C:C5	2.87	0.62
4:AD:59:GLN:O	4:AD:63:ARG:NE	2.32	0.62
4:AD:93:LEU:C	4:AD:95:GLU:N	2.56	0.62
24:BA:96:C:H4'	48:BY:41:HIS:CE1	2.35	0.62
24:BA:109:C:N3	24:BA:110:G:N7	2.47	0.62
24:BA:1383:A:N3	24:BA:1405:U:O2'	2.30	0.62
24:BA:1564:C:H2'	24:BA:1565:C:C6	2.35	0.62
24:BA:1566:A:P	26:BC:213:ARG:NH2	2.73	0.62
24:BA:2167:U:H1'	24:BA:2170:A:N7	2.13	0.62
24:BA:2861:U:N3	24:BA:2862:G:N7	2.48	0.62
25:BB:14:U:C2'	25:BB:14:U:O2	2.47	0.62
33:BJ:30:THR:HG22	33:BJ:31:GLU:N	2.14	0.62
1:CA:448:A:C8	1:CA:487:A:N1	2.67	0.62
1:CA:666:G:H5'	1:CA:726:C:H1'	1.82	0.62
1:CA:1366:C:OP2	9:CI:119:ARG:NH1	2.32	0.62
3:CC:11:ARG:NH2	3:CC:178:LEU:HA	2.14	0.62
12:CL:93:VAL:HG22	12:CL:94:ARG:N	2.13	0.62
20:CT:20:HIS:O	20:CT:21:ASN:C	2.43	0.62
23:CX:10:A:O2'	23:CX:11:A:P	2.57	0.62
24:DA:564:C:H5"	41:DR:79:ARG:HG2	1.81	0.62
24:DA:597:G:C5	24:DA:598:U:C4	2.87	0.62
24:DA:1918:A:O2'	24:DA:1920:C:N4	2.32	0.62
57:DA:3186:NMY:HN21	57:DA:3186:NMY:H11	1.59	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DD:22:ILE:C	27:DD:22:ILE:HD12	2.23	0.62
29:DF:87:LYS:HG2	29:DF:88:VAL:N	2.13	0.62
29:DF:96:TRP:HA	29:DF:99:PHE:CZ	2.34	0.62
38:DO:12:THR:HA	38:DO:15:ARG:HB2	1.79	0.62
40:DQ:81:GLY:HA2	40:DQ:116:LEU:HD23	1.80	0.62
1:AA:489:C:O2	1:AA:490:C:C6	2.53	0.62
1:AA:618:C:H3'	1:AA:619:U:C5'	2.30	0.62
1:AA:788:U:C2'	1:AA:789:U:H5'	2.30	0.62
1:AA:846:G:OP2	18:AR:48:ARG:NH2	2.33	0.62
1:AA:958:A:C6	19:AS:54:GLY:HA3	2.35	0.62
1:AA:1275:A:C5	1:AA:1276:G:N7	2.68	0.62
24:BA:729:G:O5'	26:BC:12:ARG:NH2	2.32	0.62
24:BA:847:U:O2	24:BA:847:U:H2'	1.97	0.62
24:BA:2335:A:N6	24:BA:2337:G:H1'	2.14	0.62
26:BC:81:GLU:HB2	26:BC:90:ILE:CD1	2.28	0.62
29:BF:3:LEU:CD1	29:BF:96:TRP:CH2	2.72	0.62
29:BF:92:GLY:O	29:BF:93:GLU:HB2	2.00	0.62
40:BQ:31:TYR:CD1	40:BQ:31:TYR:C	2.78	0.62
1:CA:530:G:H2'	1:CA:530:G:N3	2.15	0.62
1:CA:697:U:O4'	1:CA:786:G:O2'	2.18	0.62
1:CA:1064:G:OP1	1:CA:1386:G:H4'	1.99	0.62
1:CA:1086:U:O2'	1:CA:1087:G:H5'	1.99	0.62
6:CF:23:GLU:O	6:CF:24:ARG:O	2.17	0.62
6:CF:71:ILE:O	6:CF:75:GLU:N	2.32	0.62
9:CI:47:VAL:HG12	9:CI:80:ARG:HG3	1.82	0.62
13:CM:11:ASP:HB2	13:CM:45:ILE:HG12	1.81	0.62
22:CV:43:C:H2'	22:CV:43:C:O2	2.00	0.62
24:DA:298:G:P	44:DU:84:PHE:HB3	2.39	0.62
24:DA:359:G:H2'	24:DA:360:U:H5'	1.81	0.62
24:DA:636:G:OP2	35:DL:109:LYS:NZ	2.28	0.62
24:DA:1068:G:O2'	24:DA:1096:A:H4'	2.00	0.62
24:DA:1359:A:N7	24:DA:1360:G:C8	2.67	0.62
24:DA:2128:G:N7	24:DA:2129:C:C4	2.67	0.62
24:DA:2420:C:P	53:D3:33:THR:HG23	2.39	0.62
27:DD:13:ARG:HD3	27:DD:21:SER:OG	2.00	0.62
37:DN:16:HIS:CD2	37:DN:16:HIS:C	2.78	0.62
43:DT:30:ILE:HG13	43:DT:85:VAL:CG1	2.30	0.62
43:DT:61:LEU:CD1	43:DT:82:LYS:HB3	2.28	0.62
46:DW:29:GLU:O	46:DW:30:SER:O	2.16	0.62
53:D3:43:LEU:N	53:D3:43:LEU:HD13	2.14	0.62
1:AA:106:C:C2'	1:AA:107:G:H5'	2.30	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:79:LYS:O	3:AC:81:GLY:N	2.32	0.62
15:AO:54:ARG:O	15:AO:57:LEU:HG	1.99	0.62
24:BA:359:G:N1	24:BA:360:U:C2	2.68	0.62
24:BA:1178:C:H2'	24:BA:1179:G:C8	2.35	0.62
24:BA:2091:C:H4'	47:BX:55:MET:HE1	1.82	0.62
24:BA:2531:A:H5'	30:BG:156:TYR:CE2	2.35	0.62
24:BA:2808:G:N2	24:BA:2891:U:C6	2.68	0.62
26:BC:140:VAL:CG2	26:BC:189:ALA:HB1	2.30	0.62
31:BH:148:ALA:O	31:BH:149:GLU:HG3	2.00	0.62
35:BL:78:ARG:HB2	35:BL:113:ALA:CB	2.28	0.62
40:BQ:5:ARG:O	40:BQ:6:GLY:C	2.42	0.62
1:CA:452:A:O4'	16:CP:70:ARG:NH1	2.33	0.62
1:CA:628:G:H2'	1:CA:629:A:C8	2.35	0.62
1:CA:1109:C:C5	1:CA:1110:A:N7	2.67	0.62
8:CH:40:LEU:CB	8:CH:46:ILE:HG12	2.29	0.62
11:CK:24:HIS:NE2	11:CK:33:THR:OG1	2.25	0.62
12:CL:121:ARG:O	12:CL:122:PRO:C	2.42	0.62
22:CV:13:C:C2'	22:CV:14:A:H5'	2.29	0.62
24:DA:387:U:C6	24:DA:388:G:C6	2.88	0.62
24:DA:431:U:H2'	24:DA:432:A:H5'	1.80	0.62
24:DA:1319:C:C2'	24:DA:1320:C:H5'	2.29	0.62
24:DA:1414:C:C6	24:DA:1415:U:C5	2.88	0.62
24:DA:1577:C:H2'	24:DA:1578:U:O4'	2.00	0.62
24:DA:1797:G:C5	24:DA:1798:U:C5	2.88	0.62
24:DA:2122:U:O2'	24:DA:2123:G:OP1	2.16	0.62
26:DC:15:VAL:HG22	26:DC:204:LEU:O	2.00	0.62
26:DC:196:ASN:OD1	26:DC:196:ASN:C	2.43	0.62
27:DD:9:VAL:HG13	27:DD:26:VAL:O	1.98	0.62
29:DF:37:MET:O	29:DF:39:VAL:N	2.33	0.62
31:DH:116:ARG:HH11	31:DH:133:GLN:HG2	1.63	0.62
40:DQ:65:ASN:ND2	40:DQ:75:TYR:HB3	2.13	0.62
48:DY:49:ASP:O	48:DY:53:VAL:HG12	1.99	0.62
1:AA:101:A:C5	1:AA:102:G:N7	2.68	0.62
1:AA:682:G:C2'	1:AA:683:G:H5'	2.29	0.62
1:AA:1106:G:H2'	1:AA:1107:C:C6	2.34	0.62
9:AI:46:MET:SD	9:AI:48:VAL:HG22	2.39	0.62
21:AU:11:PRO:C	21:AU:12:PHE:CD1	2.77	0.62
24:BA:825:A:O2'	24:BA:826:U:O5'	2.18	0.62
24:BA:858:G:N2	24:BA:919:U:O4	2.33	0.62
24:BA:1719:G:C5	24:BA:1720:U:C5	2.88	0.62
24:BA:1906:G:C2'	24:BA:1907:G:H5'	2.30	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2091:C:H4'	47:BX:55:MET:CE	2.29	0.62
24:BA:2290:G:N1	24:BA:2343:U:O2	2.32	0.62
24:BA:2409:G:O6	24:BA:2410:G:C6	2.53	0.62
26:BC:8:THR:O	26:BC:9:SER:HB3	2.00	0.62
34:BK:12:ASP:OD1	34:BK:14:SER:OG	2.14	0.62
42:BS:84:ARG:HB2	42:BS:96:ILE:HG22	1.81	0.62
1:CA:260:G:H2'	1:CA:261:U:C6	2.33	0.62
1:CA:429:U:OP1	4:CD:9:LEU:HD22	2.00	0.62
1:CA:965:U:O2'	1:CA:966:G:OP2	2.13	0.62
1:CA:1169:A:N6	1:CA:1170:A:C2	2.67	0.62
1:CA:1178:G:N7	9:CI:99:ARG:NH1	2.47	0.62
3:CC:53:SER:HB2	3:CC:115:LEU:HD21	1.82	0.62
4:CD:58:LYS:CE	4:CD:203:LEU:HD13	2.30	0.62
8:CH:104:VAL:HG22	8:CH:105:SER:O	1.99	0.62
12:CL:52:VAL:CG2	12:CL:53:CYS:N	2.62	0.62
16:CP:66:THR:C	16:CP:67:ILE:HG13	2.24	0.62
22:CV:4:C:O2'	22:CV:5:G:C5'	2.46	0.62
24:DA:63:A:C2	24:DA:64:A:C5	2.87	0.62
24:DA:1361:G:C6	24:DA:1362:C:C4	2.88	0.62
24:DA:2636:C:O2'	27:DD:45:TYR:OH	2.18	0.62
27:DD:16:THR:O	27:DD:19:GLY:N	2.33	0.62
29:DF:121:PHE:CZ	29:DF:162:ASP:O	2.53	0.62
45:DV:23:ALA:O	45:DV:25:LYS:N	2.31	0.62
1:AA:419:C:N4	1:AA:420:U:C4	2.67	0.62
1:AA:436:C:C2	1:AA:437:U:C5	2.87	0.62
1:AA:441:A:C2	1:AA:497:G:N1	2.68	0.62
1:AA:574:A:H1'	1:AA:883:C:O4'	1.99	0.62
1:AA:632:U:H5"	1:AA:633:G:C8	2.35	0.62
1:AA:1197:A:OP2	59:AA:1846:HOH:O	2.16	0.62
1:AA:1305:G:O6	59:AA:1861:HOH:O	2.14	0.62
8:AH:40:LEU:HB3	8:AH:46:ILE:HG21	1.82	0.62
12:AL:80:ILE:HA	12:AL:102:LEU:HD11	1.82	0.62
24:BA:69:C:O2'	24:BA:73:A:O2'	2.15	0.62
24:BA:273:G:C5	24:BA:274:C:C4	2.87	0.62
24:BA:835:C:H2'	24:BA:836:G:H5'	1.82	0.62
24:BA:1142:A:C4	24:BA:1144:A:C8	2.87	0.62
24:BA:1666:G:OP2	34:BK:66:LYS:NZ	2.32	0.62
24:BA:2004:G:C2'	24:BA:2005:A:H5'	2.29	0.62
24:BA:2309:A:H2'	24:BA:2310:C:O5'	1.99	0.62
24:BA:2748:A:H1'	30:BG:66:THR:HG23	1.82	0.62
24:BA:2761:A:C6	24:BA:2762:C:C5	2.88	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BS:74:ILE:HD13	42:BS:105:VAL:CG2	2.30	0.62
47:BX:51:SER:OG	47:BX:52:ALA:N	2.30	0.62
52:B2:35:ARG:O	52:B2:38:GLY:N	2.33	0.62
1:CA:1055:A:H1'	3:CC:193:TYR:OH	2.00	0.62
1:CA:1160:G:O2'	1:CA:1161:C:O5'	2.16	0.62
1:CA:1189:U:OP1	14:CN:98:LYS:NZ	2.27	0.62
1:CA:1354:U:C2'	1:CA:1355:G:O5'	2.47	0.62
1:CA:1539:C:O3'	21:CU:18:ARG:O	2.11	0.62
6:CF:18:VAL:O	6:CF:21:MET:HB2	2.00	0.62
7:CG:17:LYS:HB2	7:CG:44:TYR:CZ	2.34	0.62
9:CI:30:ILE:O	9:CI:33:ARG:N	2.32	0.62
9:CI:82:GLY:CA	9:CI:85:ARG:NH1	2.63	0.62
11:CK:27:PHE:C	11:CK:27:PHE:HD1	2.08	0.62
19:CS:27:ASP:OD1	19:CS:27:ASP:N	2.33	0.62
20:CT:54:MET:HG2	20:CT:54:MET:O	2.00	0.62
24:DA:748:G:OP1	42:DS:88:ARG:NH1	2.32	0.62
24:DA:974:G:O2'	24:DA:989:G:N2	2.32	0.62
24:DA:1952:A:N3	24:DA:2560:A:O2'	2.31	0.62
24:DA:2335:A:N7	24:DA:2337:G:C5	2.68	0.62
24:DA:2576:G:O2'	24:DA:2579:C:OP2	2.13	0.62
36:DM:77:PRO:O	36:DM:80:VAL:HG12	2.00	0.62
46:DW:18:ALA:O	46:DW:20:ARG:NH1	2.32	0.62
46:DW:20:ARG:CG	46:DW:20:ARG:NH1	2.51	0.62
1:AA:782:A:C2	1:AA:801:U:C2	2.88	0.61
1:AA:1416:G:C2	1:AA:1485:U:O2	2.52	0.61
3:AC:47:LEU:HB3	3:AC:50:ALA:CB	2.30	0.61
12:AL:34:CYS:O	12:AL:34:CYS:SG	2.57	0.61
13:AM:114:LYS:HB3	13:AM:115:PRO:HD2	1.82	0.61
14:AN:52:PRO:O	14:AN:55:SER:OG	2.14	0.61
24:BA:564:C:O2'	24:BA:565:C:H5'	2.00	0.61
24:BA:601:C:O2'	24:BA:605:G:OP1	2.13	0.61
24:BA:1571:A:C2	24:BA:1572:A:C5	2.87	0.61
24:BA:1953:A:H2	24:BA:2549:G:N3	1.97	0.61
24:BA:2484:G:P	36:BM:44:ARG:NH1	2.73	0.61
24:BA:2846:G:OP2	39:BP:51:ASN:HB2	1.99	0.61
29:BF:23:SER:HB3	29:BF:26:GLN:NE2	2.15	0.61
34:BK:64:ARG:HB3	34:BK:79:PHE:HD2	1.65	0.61
42:BS:47:VAL:O	42:BS:51:LEU:N	2.33	0.61
44:BU:10:VAL:HG12	44:BU:71:ILE:HA	1.81	0.61
47:BX:11:PRO:HB3	47:BX:29:LEU:HD21	1.79	0.61
1:CA:65:A:C5	1:CA:381:C:C4	2.88	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:263:A:P	20:CT:74:ARG:NH2	2.73	0.61
1:CA:340:U:C2	1:CA:350:G:N2	2.68	0.61
1:CA:671:G:C2	1:CA:736:C:C2	2.87	0.61
1:CA:1055:A:C6	1:CA:1206:G:C5	2.88	0.61
7:CG:103:TRP:HZ2	7:CG:133:THR:C	2.07	0.61
24:DA:298:G:OP1	44:DU:84:PHE:CD1	2.53	0.61
24:DA:1300:G:H4'	24:DA:1301:A:H5"	1.80	0.61
24:DA:1351:C:O2'	24:DA:1571:A:N3	2.30	0.61
29:DF:112:ASP:O	29:DF:114:ARG:NH2	2.33	0.61
44:DU:98:ASN:OD1	44:DU:98:ASN:C	2.43	0.61
1:AA:391:G:H5'	16:AP:8:ARG:NH2	2.15	0.61
1:AA:612:C:H2'	1:AA:613:C:H5'	1.80	0.61
1:AA:692:U:O2	1:AA:694:A:C8	2.52	0.61
1:AA:1332:A:H2'	1:AA:1333:A:O4'	2.00	0.61
1:AA:1360:A:N7	1:AA:1361:G:N3	2.49	0.61
4:AD:72:PHE:HA	4:AD:75:TYR:HB2	1.82	0.61
5:AE:154:ALA:C	5:AE:156:LYS:N	2.55	0.61
13:AM:52:GLN:O	13:AM:55:THR:OG1	2.18	0.61
21:AU:26:ALA:CB	23:AX:5:A:H5"	2.30	0.61
24:BA:340:A:N7	24:BA:341:C:C5	2.68	0.61
24:BA:458:G:O2'	24:BA:459:U:P	2.58	0.61
24:BA:1449:G:N2	24:BA:1463:C:C2	2.68	0.61
24:BA:1735:A:C6	24:BA:1736:U:C2	2.89	0.61
24:BA:2125:G:N1	24:BA:2171:A:OP1	2.33	0.61
31:BH:31:VAL:HB	31:BH:32:PRO:HD3	1.82	0.61
1:CA:544:G:C5	1:CA:545:C:C5	2.88	0.61
1:CA:1076:U:C2	1:CA:1082:A:C2	2.88	0.61
1:CA:1126:U:H4'	1:CA:1127:G:OP2	1.99	0.61
1:CA:1145:A:H1'	1:CA:1146:A:OP2	2.00	0.61
1:CA:1170:A:N7	1:CA:1171:A:C4	2.68	0.61
2:CB:132:LYS:C	2:CB:134:ALA:N	2.55	0.61
4:CD:5:LEU:HD12	4:CD:6:GLY:O	2.00	0.61
4:CD:22:LYS:NZ	4:CD:26:ARG:HB2	2.14	0.61
11:CK:40:ASN:O	11:CK:41:ALA:CB	2.47	0.61
11:CK:46:THR:HG23	11:CK:47:ALA:N	2.14	0.61
12:CL:37:VAL:O	12:CL:37:VAL:HG23	2.00	0.61
12:CL:80:ILE:HD12	12:CL:97:THR:CG2	2.31	0.61
18:CR:56:ALA:HA	18:CR:59:ILE:HG22	1.81	0.61
24:DA:1334:G:C5	24:DA:1335:C:C5	2.88	0.61
24:DA:1559:U:H3'	24:DA:1560:G:H5'	1.82	0.61
24:DA:2314:A:C6	24:DA:2315:G:C5	2.88	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2345:G:H4'	24:DA:2346:A:C5'	2.30	0.61
24:DA:2517:C:C6	24:DA:2542:A:N7	2.68	0.61
24:DA:2747:G:O2'	30:DG:66:THR:HG22	2.00	0.61
24:DA:2748:A:H1'	30:DG:66:THR:HG22	1.81	0.61
57:DA:3189:NMY:H61	57:DA:3189:NMY:H2	1.82	0.61
30:DG:138:GLN:HG2	30:DG:139:VAL:N	2.15	0.61
37:DN:53:THR:O	37:DN:56:LYS:HB2	2.00	0.61
44:DU:32:LYS:HZ2	44:DU:32:LYS:CA	2.13	0.61
53:D3:6:VAL:O	53:D3:6:VAL:CG1	2.48	0.61
1:AA:38:G:N2	1:AA:397:A:C4	2.68	0.61
1:AA:1051:C:H2'	1:AA:1052:U:C6	2.36	0.61
1:AA:1102:A:C5	1:AA:1103:C:C5	2.88	0.61
1:AA:1234:C:H1'	1:AA:1364:U:H6	1.66	0.61
2:AB:61:ALA:HA	2:AB:64:LYS:HA	1.81	0.61
2:AB:163:VAL:HG13	2:AB:164:ILE:N	2.13	0.61
11:AK:45:ALA:HB1	11:AK:69:ARG:HG2	1.83	0.61
17:AQ:28:PHE:O	17:AQ:29:VAL:HB	1.98	0.61
24:BA:817:C:O2'	24:BA:839:U:H5"	2.00	0.61
24:BA:973:A:OP1	59:BA:3776:HOH:O	2.16	0.61
24:BA:1220:G:H2'	24:BA:1221:C:O4'	1.98	0.61
24:BA:1410:G:O6	59:BA:3622:HOH:O	2.10	0.61
24:BA:2414:G:C4	24:BA:2415:G:C8	2.87	0.61
29:BF:92:GLY:O	29:BF:93:GLU:CB	2.48	0.61
43:BT:67:VAL:HG22	43:BT:76:ARG:HB3	1.82	0.61
1:CA:154:U:C2	1:CA:168:G:N2	2.67	0.61
1:CA:354:G:C6	1:CA:355:C:C4	2.88	0.61
1:CA:468:A:C2	1:CA:469:C:C4	2.88	0.61
1:CA:786:G:C6	1:CA:787:A:C8	2.88	0.61
1:CA:1492:A:N1	1:CA:1493:A:C2	2.68	0.61
1:CA:1523:G:O3'	11:CK:125:LYS:NZ	2.34	0.61
3:CC:160:ALA:C	3:CC:162:ILE:H	2.09	0.61
24:DA:260:G:C6	24:DA:261:G:N7	2.68	0.61
24:DA:321:U:OP2	28:DE:130:LYS:CE	2.48	0.61
24:DA:572:A:C2	24:DA:2033:A:C2	2.88	0.61
24:DA:2055:C:H5'	24:DA:2056:G:OP1	1.99	0.61
24:DA:2324:U:O2'	24:DA:2325:G:P	2.57	0.61
57:DA:3189:NMY:N9	57:DA:3189:NMY:O4	2.33	0.61
25:DB:77:U:O5'	45:DV:14:LYS:NZ	2.32	0.61
27:DD:12:THR:HG21	39:DP:8:GLU:HG2	1.81	0.61
29:DF:155:ILE:C	29:DF:155:ILE:CD1	2.72	0.61
31:DH:31:VAL:CG1	31:DH:32:PRO:HD3	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:8:A:H4'	5:AE:126:LYS:HA	1.82	0.61
1:AA:337:G:H2'	1:AA:338:A:C8	2.35	0.61
1:AA:1151:A:C2	1:AA:1152:A:C5	2.89	0.61
2:AB:143:LYS:O	2:AB:145:GLU:N	2.33	0.61
3:AC:140:ASN:O	3:AC:141:ALA:HB2	2.00	0.61
3:AC:192:THR:HG23	3:AC:193:TYR:CD1	2.35	0.61
4:AD:55:LEU:O	4:AD:58:LYS:N	2.33	0.61
11:AK:39:GLY:O	11:AK:41:ALA:N	2.34	0.61
12:AL:72:HIS:CE1	12:AL:74:LEU:HD12	2.35	0.61
24:BA:659:G:O2'	28:BE:95:LYS:NZ	2.33	0.61
24:BA:784:G:O2'	24:BA:785:G:OP2	2.18	0.61
24:BA:959:A:N3	24:BA:2457:U:O2'	2.33	0.61
24:BA:2191:A:C2	24:BA:2192:U:C2	2.88	0.61
24:BA:2290:G:O2'	24:BA:2381:A:H1'	2.01	0.61
24:BA:2602:A:C4'	24:BA:2603:G:OP2	2.48	0.61
24:BA:2652:C:H2'	24:BA:2653:U:H5'	1.81	0.61
29:BF:130:GLY:HA2	29:BF:152:ASP:HA	1.82	0.61
37:BN:59:SER:O	37:BN:63:ARG:HB2	2.00	0.61
40:BQ:47:ARG:NH2	40:BQ:48:ASP:OD1	2.33	0.61
49:BZ:9:THR:HG23	49:BZ:53:MET:C	2.26	0.61
1:CA:613:C:P	4:CD:81:ARG:NH2	2.73	0.61
1:CA:1354:U:O2'	1:CA:1355:G:O5'	2.18	0.61
4:CD:162:ALA:O	4:CD:164:GLN:N	2.34	0.61
9:CI:81:HIS:HB3	9:CI:85:ARG:NH2	2.15	0.61
21:CU:33:ARG:HG2	21:CU:34:ARG:N	2.15	0.61
24:DA:1045:C:C4'	24:DA:1046:A:H5'	2.31	0.61
24:DA:1489:C:O2	24:DA:1501:G:C2	2.53	0.61
24:DA:1985:C:O2'	24:DA:1986:C:H5'	2.01	0.61
24:DA:2163:A:OP1	24:DA:2170:A:O2'	2.18	0.61
24:DA:2747:G:C2	24:DA:2756:U:C5	2.89	0.61
57:DA:3190:NMY:H191	57:DA:3190:NMY:HN31	1.46	0.61
27:DD:125:TRP:CD2	27:DD:160:LYS:HG2	2.35	0.61
52:D2:43:THR:O	52:D2:44:VAL:HB	1.99	0.61
1:AA:56:U:N3	31:DH:91:PHE:CE1	2.67	0.61
1:AA:106:C:H2'	1:AA:107:G:C5'	2.29	0.61
1:AA:719:C:O2'	18:AR:38:LYS:HG3	2.01	0.61
1:AA:1004:A:O2'	1:AA:1036:A:N1	2.32	0.61
1:AA:1331:G:OP1	13:AM:23:TYR:CD2	2.53	0.61
5:AE:83:HIS:CD2	5:AE:84:PRO:HD2	2.35	0.61
11:AK:31:ILE:HG22	11:AK:46:THR:HA	1.82	0.61
18:AR:26:ILE:N	18:AR:29:LEU:HD13	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:532:A:C8	24:BA:2021:C:C6	2.88	0.61
24:BA:1175:A:OP1	24:BA:1176:U:O2'	2.19	0.61
24:BA:1608:A:C5	24:BA:1611:C:C4	2.88	0.61
24:BA:1663:G:C6	24:BA:1992:G:C8	2.88	0.61
24:BA:2484:G:H1'	36:BM:123:LYS:HE2	1.83	0.61
24:BA:2779:U:C4'	24:BA:2781:A:C8	2.84	0.61
25:BB:57:A:H2'	25:BB:58:A:O4'	2.00	0.61
37:BN:70:THR:O	37:BN:71:ARG:CB	2.48	0.61
38:BO:117:PHE:OXT	38:BO:117:PHE:CD1	2.53	0.61
44:BU:7:ASP:O	44:BU:8:ASP:CG	2.44	0.61
1:CA:40:C:H2'	1:CA:41:G:C8	2.35	0.61
1:CA:725:G:O2'	1:CA:726:C:H5'	2.00	0.61
1:CA:754:C:C2'	1:CA:755:G:OP1	2.48	0.61
1:CA:1014:A:H5"	19:CS:14:HIS:CG	2.36	0.61
1:CA:1064:G:O4'	1:CA:1066:C:C6	2.53	0.61
1:CA:1106:G:O2'	3:CC:169:ARG:NH1	2.34	0.61
7:CG:26:PHE:O	7:CG:28:ASN:N	2.33	0.61
14:CN:9:GLU:OE2	14:CN:12:ARG:NH1	2.33	0.61
16:CP:33:ILE:HD12	16:CP:33:ILE:N	2.15	0.61
24:DA:299:A:N3	24:DA:319:G:O2'	2.33	0.61
24:DA:1244:A:OP1	35:DL:7:SER:HB2	2.01	0.61
24:DA:1509:A:HO2'	24:DA:1510:G:P	2.18	0.61
24:DA:1809:A:C6	24:DA:1810:A:C6	2.89	0.61
24:DA:1814:G:H5"	26:DC:53:ILE:CD1	2.31	0.61
24:DA:2657:A:O3'	30:DG:159:LYS:NZ	2.29	0.61
57:DA:3189:NMY:H171	57:DA:3189:NMY:H231	1.80	0.61
27:DD:22:ILE:HD11	27:DD:190:LYS:CG	2.30	0.61
35:DL:68:SER:O	35:DL:69:ARG:CB	2.48	0.61
38:DO:74:VAL:O	38:DO:78:VAL:HG23	2.00	0.61
1:AA:75:G:C2	1:AA:96:U:C2	2.88	0.61
1:AA:76:G:N2	1:AA:95:C:C2	2.68	0.61
1:AA:781:A:C4	1:AA:802:A:C2	2.88	0.61
1:AA:959:A:H4'	1:AA:985:C:H5'	1.83	0.61
1:AA:1079:G:HO2'	1:AA:1080:A:P	2.21	0.61
2:AB:73:LYS:HG2	2:AB:164:ILE:HD13	1.80	0.61
5:AE:24:THR:HA	5:AE:29:ARG:HA	1.82	0.61
5:AE:82:GLN:O	5:AE:83:HIS:CB	2.49	0.61
5:AE:106:ILE:HD11	5:AE:124:LEU:HD22	1.82	0.61
6:AF:23:GLU:N	6:AF:23:GLU:OE1	2.34	0.61
7:AG:27:VAL:HG13	7:AG:28:ASN:N	2.14	0.61
10:AJ:57:VAL:HG13	10:AJ:58:ASN:N	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:113:VAL:HG22	11:AK:114:THR:N	2.16	0.61
12:AL:88:LYS:O	12:AL:89:ASP:HB3	1.99	0.61
12:AL:115:SER:OG	12:AL:116:LYS:NZ	2.33	0.61
21:AU:24:GLU:O	21:AU:25:LYS:HB3	2.00	0.61
24:BA:480:A:O3'	44:BU:43:LYS:HG2	2.00	0.61
24:BA:572:A:O3'	24:BA:573:U:H4'	1.99	0.61
24:BA:1467:U:C4	24:BA:1468:U:C5	2.89	0.61
24:BA:2441:U:H2'	24:BA:2442:C:H5'	1.82	0.61
24:BA:2732:G:H3'	24:BA:2733:A:H5'	1.82	0.61
25:BB:22:U:N3	59:BB:304:HOH:O	2.31	0.61
29:BF:98:PHE:O	29:BF:100:GLU:N	2.34	0.61
31:BH:24:GLY:O	31:BH:26:ALA:O	2.17	0.61
32:BI:115:ASP:OD1	32:BI:116:MET:N	2.34	0.61
37:BN:52:ILE:O	37:BN:53:THR:C	2.44	0.61
1:CA:63:C:H2'	1:CA:64:G:O5'	2.01	0.61
1:CA:104:G:H2'	1:CA:105:G:H5'	1.81	0.61
1:CA:328:C:H4'	1:CA:329:A:C5'	2.31	0.61
1:CA:588:G:C8	1:CA:753:A:C2	2.89	0.61
1:CA:780:A:N7	1:CA:800:G:C6	2.69	0.61
1:CA:966:G:H2'	9:CI:129:LYS:HZ3	1.64	0.61
3:CC:112:ASP:OD1	3:CC:114:LYS:HG2	2.00	0.61
24:DA:144:A:N3	43:DT:3:ARG:NH2	2.48	0.61
24:DA:419:U:H2'	24:DA:420:C:C6	2.36	0.61
24:DA:1969:A:O2'	24:DA:1972:G:N3	2.28	0.61
24:DA:2051:A:OP2	59:DA:3484:HOH:O	2.16	0.61
24:DA:2078:C:H2'	24:DA:2079:U:O4'	2.01	0.61
24:DA:2445:G:OP1	28:DE:69:ARG:NH2	2.33	0.61
30:DG:34:ARG:HH11	30:DG:34:ARG:HG3	1.66	0.61
35:DL:81:ASP:O	35:DL:83:ALA:N	2.33	0.61
38:DO:100:HIS:CG	38:DO:101:GLY:N	2.65	0.61
42:DS:17:VAL:HG12	42:DS:76:VAL:HG21	1.83	0.61
52:D2:45:SER:O	52:D2:46:LYS:C	2.42	0.61
1:AA:86:G:O2'	1:AA:87:C:O5'	2.19	0.61
1:AA:110:C:N3	1:AA:111:G:C5	2.69	0.61
1:AA:409:U:C5'	4:AD:25:VAL:HG12	2.30	0.61
1:AA:576:C:N4	1:AA:759:A:OP1	2.33	0.61
3:AC:20:SER:HA	3:AC:57:ILE:HG13	1.81	0.61
3:AC:64:ILE:HG23	3:AC:97:VAL:HG11	1.82	0.61
4:AD:36:GLN:O	4:AD:37:ALA:HB3	2.01	0.61
6:AF:64:VAL:CG1	6:AF:65:GLU:N	2.63	0.61
21:AU:5:LYS:HD2	21:AU:5:LYS:N	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AU:18:ARG:O	21:AU:20:LYS:N	2.34	0.61
22:AV:50:U:C2	22:AV:65:G:N2	2.69	0.61
23:AX:4:G:H2'	23:AX:5:A:H5'	1.83	0.61
24:BA:72:U:P	43:BT:6:ARG:NH2	2.74	0.61
24:BA:348:A:N7	24:BA:349:U:C5	2.69	0.61
24:BA:621:A:H2'	24:BA:622:G:H5'	1.83	0.61
24:BA:767:U:O2'	24:BA:768:G:H5'	2.00	0.61
24:BA:1356:G:N1	24:BA:1357:C:C2	2.69	0.61
24:BA:2365:G:H4'	46:BW:60:PHE:CZ	2.35	0.61
24:BA:2441:U:C2'	24:BA:2442:C:H5'	2.31	0.61
57:BA:3163:NMY:H1	57:BA:3163:NMY:O17	2.01	0.61
25:BB:50:A:OP1	38:BO:68:LYS:N	2.31	0.61
26:BC:221:GLY:O	26:BC:224:MET:CG	2.48	0.61
27:BD:125:TRP:CD2	27:BD:160:LYS:HG2	2.35	0.61
47:BX:4:CYS:SG	47:BX:51:SER:N	2.71	0.61
1:CA:573:A:O2'	1:CA:574:A:H5'	2.01	0.61
7:CG:21:GLU:O	7:CG:23:LEU:N	2.34	0.61
15:CO:29:VAL:O	15:CO:33:THR:HG23	2.01	0.61
22:CV:7:A:C3'	22:CV:8:U:C5'	2.73	0.61
24:DA:788:A:P	24:DA:790:U:O4	2.58	0.61
24:DA:900:A:C4	24:DA:901:C:C6	2.89	0.61
24:DA:1501:G:C2'	24:DA:1502:A:O5'	2.48	0.61
24:DA:1735:A:C6	24:DA:1736:U:C6	2.89	0.61
24:DA:1779:U:H5	24:DA:1784:A:N7	1.98	0.61
24:DA:2727:A:O2'	24:DA:2728:U:H5'	2.01	0.61
29:DF:58:ALA:O	29:DF:59:ILE:C	2.43	0.61
29:DF:147:ARG:HG2	29:DF:148:VAL:N	2.15	0.61
39:DP:91:VAL:CG2	39:DP:109:ILE:HD12	2.31	0.61
1:AA:799:G:H2'	1:AA:800:G:H5'	1.82	0.61
1:AA:981:U:OP1	14:AN:8:ARG:NH1	2.34	0.61
1:AA:1265:C:N4	1:AA:1266:G:O6	2.33	0.61
1:AA:1346:A:H5'	1:AA:1348:U:H1'	1.81	0.61
57:AA:1656:NMY:H16	57:AA:1656:NMY:C22	2.30	0.61
2:AB:133:GLU:O	2:AB:137:ARG:HB2	2.00	0.61
9:AI:18:ARG:O	9:AI:65:ILE:HG22	2.01	0.61
11:AK:39:GLY:O	11:AK:40:ASN:C	2.44	0.61
12:AL:118:GLY:O	12:AL:119:VAL:HB	2.00	0.61
24:BA:204:A:H4'	24:BA:205:G:OP1	2.01	0.61
24:BA:278:A:N6	24:BA:362:A:N7	2.48	0.61
24:BA:463:G:N2	24:BA:466:A:OP2	2.33	0.61
24:BA:1319:C:O2'	24:BA:1320:C:H5'	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1474:U:O4	24:BA:1475:G:N2	2.33	0.61
24:BA:2044:C:C2	24:BA:2625:G:N2	2.69	0.61
24:BA:2117:A:N1	24:BA:2171:A:C6	2.68	0.61
24:BA:2278:A:OP1	36:BM:10:ARG:CZ	2.48	0.61
24:BA:2617:U:C2'	24:BA:2618:G:H5'	2.30	0.61
24:BA:2791:G:N1	24:BA:2806:C:O2	2.34	0.61
33:BJ:97:PRO:O	33:BJ:100:VAL:HG12	2.01	0.61
52:B2:3:ARG:CZ	52:B2:3:ARG:HB3	2.29	0.61
1:CA:538:G:H5"	12:CL:111:LYS:HG2	1.82	0.61
1:CA:645:G:O6	59:CA:1795:HOH:O	2.13	0.61
1:CA:728:A:C6	1:CA:729:A:C6	2.89	0.61
1:CA:923:A:O4'	1:CA:1398:A:C2	2.53	0.61
1:CA:957:U:H2'	1:CA:957:U:O2	2.01	0.61
1:CA:958:A:N7	1:CA:959:A:C6	2.69	0.61
1:CA:1111:A:C2	3:CC:177:THR:HB	2.36	0.61
1:CA:1134:G:C2	1:CA:1135:U:H1'	2.36	0.61
1:CA:1321:U:O2	19:CS:36:ARG:NH1	2.34	0.61
1:CA:1501:C:C5	1:CA:1504:G:C4	2.89	0.61
3:CC:7:PRO:O	3:CC:11:ARG:HD3	2.01	0.61
4:CD:17:THR:O	4:CD:18:ASP:HB2	2.01	0.61
5:CE:118:ALA:O	5:CE:120:VAL:HG22	2.01	0.61
24:DA:953:G:H2'	24:DA:954:G:H5'	1.81	0.61
24:DA:1059:G:H3'	24:DA:1060:U:C6	2.35	0.61
24:DA:1235:G:C6	24:DA:1236:G:N1	2.69	0.61
24:DA:1654:A:C2	27:DD:118:PHE:CD2	2.89	0.61
24:DA:2117:A:O2'	24:DA:2118:U:OP2	2.15	0.61
24:DA:2323:G:H2'	24:DA:2324:U:H5'	1.82	0.61
48:DY:21:LEU:HA	48:DY:25:GLN:HB3	1.82	0.61
50:D0:54:ILE:O	50:D0:55:ALA:HB3	2.00	0.61
1:AA:505:G:C6	1:AA:535:A:C2	2.89	0.61
1:AA:946:A:N1	1:AA:1235:U:O4	2.34	0.61
1:AA:978:A:OP1	1:AA:1362:A:N6	2.32	0.61
1:AA:1023:U:H2'	1:AA:1024:G:C8	2.36	0.61
1:AA:1079:G:C2'	1:AA:1080:A:O5'	2.49	0.61
4:AD:93:LEU:C	4:AD:95:GLU:H	2.08	0.61
8:AH:5:ASP:O	8:AH:5:ASP:CG	2.44	0.61
8:AH:88:ARG:NH2	8:AH:122:GLY:C	2.58	0.61
9:AI:86:ALA:C	9:AI:88:MET:H	2.07	0.61
14:AN:46:LEU:HD12	14:AN:46:LEU:N	2.15	0.61
20:AT:76:LYS:CA	20:AT:79:LEU:HD11	2.30	0.61
24:BA:320:A:C5	28:BE:131:THR:HG21	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:617:G:C2'	24:BA:618:G:O5'	2.49	0.61
24:BA:992:C:N4	57:BA:3162:NMY:O14	2.34	0.61
24:BA:1203:U:C4	24:BA:1204:A:C6	2.88	0.61
24:BA:2302:U:H2'	24:BA:2303:G:C5'	2.30	0.61
44:BU:35:VAL:O	44:BU:36:GLU:C	2.44	0.61
44:BU:66:VAL:O	44:BU:68:ASN:N	2.34	0.61
45:BV:51:GLN:HA	45:BV:56:PHE:CE2	2.35	0.61
1:CA:790:A:OP1	22:CV:38:A:O2'	2.13	0.61
1:CA:1315:U:H2'	1:CA:1316:G:O4'	2.01	0.61
4:CD:77:LYS:C	4:CD:79:ALA:N	2.58	0.61
7:CG:76:LYS:O	7:CG:77:SER:CB	2.49	0.61
8:CH:111:MET:HE1	8:CH:119:ALA:HB2	1.83	0.61
12:CL:50:ARG:NH2	12:CL:89:ASP:OD2	2.32	0.61
17:CQ:69:LYS:O	17:CQ:70:THR:HB	1.99	0.61
24:DA:226:A:C6	24:DA:227:A:C6	2.89	0.61
24:DA:565:C:P	41:DR:79:ARG:CD	2.89	0.61
24:DA:1062:G:N7	24:DA:1070:A:O5'	2.34	0.61
24:DA:1319:C:H2'	24:DA:1320:C:H5'	1.82	0.61
24:DA:1340:U:H5	24:DA:1603:A:C8	2.19	0.61
24:DA:1801:A:C8	24:DA:2203:U:C6	2.89	0.61
24:DA:2230:G:C1'	47:DX:31:ASN:HB3	2.27	0.61
24:DA:2315:G:O2'	29:DF:124:ARG:NH1	2.34	0.61
30:DG:51:PHE:CE1	30:DG:68:ARG:HA	2.36	0.61
31:DH:117:LEU:HD23	31:DH:119:ASN:N	2.15	0.61
31:DH:127:GLU:HA	31:DH:144:VAL:O	1.99	0.61
31:DH:148:ALA:O	31:DH:149:GLU:HB3	2.00	0.61
32:DI:56:VAL:HG21	32:DI:70:THR:HA	1.82	0.61
34:DK:14:SER:HA	34:DK:51:LYS:NZ	2.16	0.61
37:DN:3:HIS:O	37:DN:4:ARG:HB2	2.01	0.61
41:DR:77:PHE:CZ	41:DR:79:ARG:NE	2.69	0.61
1:AA:278:G:OP2	17:AQ:43:LYS:NZ	2.31	0.61
1:AA:342:C:H2'	1:AA:343:U:H5'	1.81	0.61
1:AA:682:G:H2'	1:AA:683:G:H5'	1.82	0.61
1:AA:1101:A:N1	2:AB:99:GLY:HA3	2.16	0.61
6:AF:38:ARG:HD3	6:AF:97:THR:HA	1.82	0.61
7:AG:57:SER:OG	7:AG:58:GLU:N	2.31	0.61
7:AG:75:VAL:HA	7:AG:87:VAL:O	2.01	0.61
19:AS:81:ARG:NH2	24:BA:885:C:OP2	2.33	0.61
20:AT:48:GLN:O	20:AT:49:LYS:C	2.44	0.61
22:AV:32:U:H3'	22:AV:33:U:H5"	1.83	0.61
24:BA:238:C:C2'	24:BA:239:C:O5'	2.49	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:378:C:H2'	24:BA:379:G:H5'	1.83	0.61
24:BA:804:A:H5"	24:BA:805:G:OP1	2.01	0.61
24:BA:980:A:C4	24:BA:1136:G:O4'	2.54	0.61
24:BA:2112:G:OP1	24:BA:2115:G:N1	2.33	0.61
24:BA:2409:G:C6	24:BA:2410:G:C5	2.88	0.61
24:BA:2417:C:H2'	24:BA:2418:A:C8	2.36	0.61
31:BH:97:ARG:NH2	31:BH:101:ASP:OD2	2.33	0.61
34:BK:39:ILE:HG22	34:BK:40:LYS:N	2.15	0.61
37:BN:97:ILE:HD11	37:BN:111:ALA:CB	2.31	0.61
38:BO:103:VAL:O	38:BO:104:GLN:C	2.42	0.61
41:BR:66:HIS:CD2	41:BR:94:THR:HG23	2.35	0.61
42:BS:39:THR:CG2	42:BS:44:ALA:HB1	2.30	0.61
44:BU:73:ASN:O	44:BU:74:ALA:CB	2.48	0.61
44:BU:98:ASN:O	44:BU:99:SER:CB	2.49	0.61
49:BZ:9:THR:CG2	49:BZ:53:MET:C	2.74	0.61
1:CA:59:A:H2'	1:CA:59:A:N3	2.16	0.61
1:CA:587:G:C2	1:CA:755:G:C5	2.89	0.61
1:CA:1309:G:C5	1:CA:1329:A:C5	2.88	0.61
4:CD:76:TYR:CD1	4:CD:76:TYR:C	2.78	0.61
8:CH:83:LEU:HD22	12:CL:4:VAL:HG21	1.82	0.61
13:CM:66:GLU:O	13:CM:67:GLY:C	2.44	0.61
24:DA:485:C:C2	24:DA:496:G:N2	2.69	0.61
24:DA:608:A:C2'	24:DA:609:A:O5'	2.49	0.61
24:DA:636:G:C6	35:DL:111:ILE:HD11	2.36	0.61
24:DA:1738:G:HO2'	24:DA:1739:A:P	2.23	0.61
24:DA:2633:G:H1'	27:DD:63:PRO:CB	2.31	0.61
24:DA:2681:C:OP1	27:DD:8:LYS:NZ	2.34	0.61
24:DA:2768:U:H2'	24:DA:2769:U:O5'	2.01	0.61
30:DG:85:LYS:HG2	30:DG:131:VAL:HG22	1.82	0.61
44:DU:5:ARG:HD2	44:DU:6:ARG:H	1.66	0.61
54:D4:33:HIS:O	54:D4:35:GLN:HG3	1.99	0.61
1:AA:599:C:H4'	8:AH:88:ARG:NH1	2.16	0.60
1:AA:1068:G:N2	1:AA:1108:G:H1'	2.16	0.60
1:AA:1095:U:H5'	1:AA:1109:C:O2	2.01	0.60
2:AB:10:LEU:O	2:AB:12:ALA:N	2.34	0.60
4:AD:62:ARG:HD2	4:AD:72:PHE:CE1	2.36	0.60
11:AK:107:ILE:HG23	11:AK:107:ILE:O	2.01	0.60
13:AM:22:ILE:HD11	13:AM:65:VAL:HB	1.83	0.60
14:AN:9:GLU:O	14:AN:12:ARG:N	2.34	0.60
20:AT:27:MET:O	20:AT:27:MET:CG	2.49	0.60
24:BA:551:G:OP1	57:BA:3166:NMY:H7	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:608:A:C6	24:BA:609:A:C6	2.89	0.60
24:BA:856:G:C2	24:BA:922:C:N3	2.69	0.60
24:BA:860:U:O2'	24:BA:2267:A:H5'	2.01	0.60
24:BA:1402:U:H2'	24:BA:1403:A:C5'	2.31	0.60
24:BA:2429:G:OP2	24:BA:2430:A:OP2	2.19	0.60
26:BC:30:ALA:O	26:BC:32:LEU:N	2.34	0.60
26:BC:62:ARG:HH21	26:BC:62:ARG:C	2.08	0.60
26:BC:212:TRP:C	26:BC:212:TRP:CD1	2.79	0.60
26:BC:231:HIS:O	26:BC:232:GLY:C	2.42	0.60
33:BJ:84:ILE:O	33:BJ:84:ILE:HG23	2.01	0.60
1:CA:446:G:N2	1:CA:489:C:O2	2.34	0.60
1:CA:575:G:H4'	1:CA:576:C:OP1	2.00	0.60
1:CA:865:A:C5	1:CA:866:C:C5	2.88	0.60
1:CA:1254:A:C2	1:CA:1255:G:C5	2.89	0.60
1:CA:1524:C:P	11:CK:125:LYS:CE	2.88	0.60
4:CD:148:LYS:O	4:CD:149:ALA:CB	2.48	0.60
5:CE:82:GLN:CD	5:CE:150:PRO:HD3	2.25	0.60
5:CE:133:PRO:O	5:CE:137:VAL:HG12	2.01	0.60
8:CH:82:GLY:O	8:CH:83:LEU:CB	2.48	0.60
13:CM:22:ILE:H	13:CM:25:VAL:HG21	1.65	0.60
13:CM:112:PRO:O	13:CM:113:ARG:C	2.43	0.60
15:CO:19:ALA:O	15:CO:20:ASN:ND2	2.34	0.60
17:CQ:46:VAL:HG22	17:CQ:74:THR:HA	1.83	0.60
17:CQ:50:ASN:O	17:CQ:50:ASN:ND2	2.34	0.60
19:CS:4:SER:O	19:CS:5:LEU:CB	2.48	0.60
55:CY:158:ASP:O	55:CY:159:ASP:HB3	1.99	0.60
24:DA:12:U:O2	24:DA:12:U:H2'	2.01	0.60
24:DA:773:U:H4'	26:DC:46:GLY:HA3	1.83	0.60
24:DA:847:U:H2'	24:DA:847:U:O2	2.01	0.60
24:DA:847:U:O2	24:DA:934:U:H1'	2.01	0.60
24:DA:1342:A:OP2	59:DA:3716:HOH:O	2.16	0.60
1:AA:246:A:H4'	1:AA:247:G:OP1	2.00	0.60
1:AA:482:A:C2'	1:AA:483:C:O5'	2.48	0.60
1:AA:585:G:O2'	12:AL:5:ASN:ND2	2.34	0.60
1:AA:863:U:H2'	1:AA:863:U:O2	2.00	0.60
1:AA:1256:A:O2'	1:AA:1278:G:O6	2.09	0.60
1:AA:1446:A:H2'	1:AA:1446:A:N3	2.15	0.60
3:AC:63:SER:CA	3:AC:97:VAL:HG13	2.31	0.60
6:AF:4:TYR:CD2	6:AF:4:TYR:C	2.79	0.60
6:AF:25:TYR:O	6:AF:26:THR:C	2.44	0.60
6:AF:51:ILE:CG1	6:AF:51:ILE:O	2.48	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:40:LEU:HB2	8:AH:46:ILE:HG21	1.82	0.60
12:AL:19:SER:C	12:AL:21:VAL:H	2.08	0.60
22:AV:75:C:H5"	22:AV:76:A:OP2	2.01	0.60
24:BA:218:A:N6	24:BA:219:A:C6	2.69	0.60
24:BA:241:A:C8	24:BA:243:U:C2	2.89	0.60
24:BA:276:U:O2	24:BA:276:U:H2'	1.99	0.60
24:BA:1609:A:C2	24:BA:1616:A:C8	2.89	0.60
24:BA:2376:A:C4	38:BO:99:TYR:CE2	2.89	0.60
29:BF:37:MET:SD	29:BF:56:LEU:CD2	2.89	0.60
1:CA:584:G:H2'	1:CA:585:G:C8	2.36	0.60
1:CA:1508:A:C5	1:CA:1509:C:C5	2.88	0.60
3:CC:77:ILE:HA	3:CC:84:VAL:HG13	1.81	0.60
3:CC:120:ILE:O	3:CC:121:THR:C	2.43	0.60
7:CG:27:VAL:CG2	7:CG:40:GLU:HB3	2.31	0.60
8:CH:110:VAL:HG12	8:CH:111:MET:N	2.14	0.60
16:CP:54:LEU:O	16:CP:56:ARG:N	2.34	0.60
17:CQ:29:VAL:HG22	17:CQ:30:LYS:O	2.01	0.60
22:CV:15:G:H2'	22:CV:16:U:C6	2.35	0.60
22:CV:21:A:O4'	22:CV:48:C:N4	2.33	0.60
24:DA:297:G:H5"	44:DU:84:PHE:HB2	1.83	0.60
24:DA:1358:G:H1'	24:DA:1374:G:N2	2.16	0.60
24:DA:1725:U:O4	24:DA:1726:C:N4	2.33	0.60
24:DA:1736:U:O2	24:DA:1736:U:H2'	2.01	0.60
24:DA:1824:G:OP2	26:DC:52:HIS:NE2	2.34	0.60
24:DA:1931:U:C5'	57:DA:3184:NMY:H192	2.14	0.60
24:DA:2122:U:HO2'	24:DA:2123:G:P	2.24	0.60
24:DA:2394:C:OP2	53:D3:29:ARG:HD3	2.01	0.60
24:DA:2514:U:H2'	24:DA:2515:C:H6	1.66	0.60
24:DA:2523:G:O2'	24:DA:2524:G:H5'	2.01	0.60
57:DA:3185:NMY:H232	57:DA:3185:NMY:O18	2.00	0.60
29:DF:33:ILE:HD12	29:DF:99:PHE:CE1	2.36	0.60
1:AA:394:G:C2	1:AA:395:C:C2	2.89	0.60
1:AA:543:U:H5"	4:AD:14:ARG:NH2	2.16	0.60
1:AA:642:A:N3	8:AH:105:SER:O	2.34	0.60
1:AA:905:U:C6	1:AA:906:A:C8	2.89	0.60
3:AC:30:ALA:O	3:AC:33:LEU:N	2.34	0.60
4:AD:19:LEU:HD12	4:AD:19:LEU:N	2.16	0.60
4:AD:55:LEU:HD23	4:AD:56:ARG:N	2.16	0.60
5:AE:64:MET:O	5:AE:67:ALA:HB3	2.02	0.60
10:AJ:28:THR:O	10:AJ:28:THR:OG1	2.16	0.60
11:AK:46:THR:O	11:AK:50:SER:OG	2.18	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:107:VAL:HG23	12:AL:117:TYR:HB3	1.82	0.60
24:BA:322:A:OP1	28:BE:162:ARG:NH2	2.34	0.60
24:BA:1438:U:C5	24:BA:1552:A:N1	2.70	0.60
24:BA:1603:A:C2'	24:BA:1604:C:H5'	2.31	0.60
24:BA:2776:A:N7	24:BA:2782:G:C5	2.69	0.60
27:BD:125:TRP:CD1	27:BD:160:LYS:CE	2.85	0.60
27:BD:179:ARG:HG3	27:BD:188:LEU:HD12	1.83	0.60
29:BF:100:GLU:O	29:BF:101:ARG:C	2.45	0.60
31:BH:4:ILE:CD1	31:BH:17:ASP:C	2.75	0.60
31:BH:107:GLY:O	31:BH:109:GLU:N	2.34	0.60
35:BL:111:ILE:HA	35:BL:128:THR:HG21	1.84	0.60
1:CA:188:C:H2'	1:CA:189:A:O4'	2.01	0.60
1:CA:264:C:O3'	17:CQ:65:ARG:NH1	2.33	0.60
1:CA:450:G:C8	1:CA:481:G:O6	2.55	0.60
1:CA:1309:G:C2	1:CA:1329:A:N9	2.69	0.60
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.37	0.60
1:CA:1491:G:OP1	12:CL:43:LYS:CE	2.49	0.60
2:CB:72:THR:OG1	2:CB:73:LYS:N	2.35	0.60
3:CC:180:ALA:HB1	3:CC:203:PHE:CE1	2.37	0.60
4:CD:81:ARG:C	4:CD:82:LEU:HG	2.26	0.60
20:CT:20:HIS:O	20:CT:22:ALA:N	2.34	0.60
24:DA:402:A:C2'	24:DA:403:U:H5'	2.32	0.60
24:DA:882:G:N1	24:DA:894:U:O2	2.34	0.60
24:DA:1890:A:C5	24:DA:1891:G:C8	2.89	0.60
25:DB:46:A:C5	25:DB:47:C:C4	2.90	0.60
25:DB:83:G:H2'	25:DB:84:G:C5'	2.31	0.60
35:DL:126:ARG:C	35:DL:127:VAL:HG23	2.27	0.60
41:DR:51:VAL:HB	41:DR:52:PRO:CD	2.31	0.60
42:DS:35:ILE:O	42:DS:39:THR:OG1	2.18	0.60
43:DT:27:SER:O	43:DT:29:THR:N	2.35	0.60
47:DX:31:ASN:O	47:DX:33:HIS:ND1	2.33	0.60
1:AA:55:A:C4	31:DH:91:PHE:CE2	2.90	0.60
1:AA:468:A:N7	1:AA:469:C:C2	2.69	0.60
1:AA:980:C:O2'	1:AA:981:U:P	2.59	0.60
1:AA:1092:A:C4	1:AA:1183:U:C4	2.90	0.60
1:AA:1425:U:O2'	1:AA:1426:G:H5'	2.02	0.60
2:AB:222:ARG:HD3	2:AB:222:ARG:N	2.17	0.60
4:AD:79:ALA:HB2	4:AD:90:LEU:HA	1.82	0.60
5:AE:104:GLY:HA3	5:AE:122:ASN:HA	1.84	0.60
8:AH:12:THR:O	8:AH:14:ILE:N	2.34	0.60
24:BA:186:G:H2'	24:BA:187:G:H5'	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:422:A:C6	24:BA:423:A:N1	2.69	0.60
24:BA:458:G:OP1	24:BA:458:G:H4'	1.99	0.60
24:BA:819:A:C4	24:BA:1189:A:C2	2.89	0.60
24:BA:943:A:C2'	24:BA:944:C:H5'	2.31	0.60
24:BA:1203:U:C4	24:BA:1204:A:C5	2.89	0.60
24:BA:1240:U:O4	57:BA:3163:NMY:H9	2.00	0.60
24:BA:1494:A:N6	24:BA:1495:A:C6	2.69	0.60
24:BA:2293:G:P	38:BO:94:ARG:NH1	2.73	0.60
24:BA:2740:A:N6	24:BA:2741:A:N1	2.50	0.60
40:BQ:51:GLN:O	40:BQ:54:ARG:HG3	2.02	0.60
1:CA:1329:A:N6	1:CA:1330:U:C2	2.69	0.60
1:CA:1452:C:H4'	1:CA:1453:G:C4	2.36	0.60
3:CC:28:GLU:N	3:CC:28:GLU:OE1	2.35	0.60
6:CF:88:MET:HE3	6:CF:90:MET:HE1	1.84	0.60
10:CJ:42:LEU:HD22	10:CJ:71:LEU:HD22	1.83	0.60
12:CL:77:HIS:O	12:CL:78:SER:C	2.45	0.60
24:DA:103:A:H2'	24:DA:104:A:O5'	2.01	0.60
24:DA:444:C:H2'	24:DA:445:C:H5'	1.83	0.60
24:DA:1418:G:C5'	24:DA:1419:A:OP2	2.48	0.60
24:DA:2597:G:H5'	26:DC:240:GLY:HA3	1.82	0.60
24:DA:2738:A:H2'	24:DA:2739:U:O5'	2.00	0.60
26:DC:20:ASN:HB2	26:DC:23:LEU:HD13	1.83	0.60
28:DE:149:ILE:CG1	28:DE:188:MET:HG2	2.32	0.60
30:DG:142:GLN:O	30:DG:145:ALA:N	2.34	0.60
33:DJ:101:ILE:HG22	33:DJ:102:GLU:N	2.16	0.60
34:DK:90:ASN:O	34:DK:91:SER:OG	2.19	0.60
37:DN:12:ARG:HD3	37:DN:16:HIS:NE2	2.16	0.60
41:DR:16:GLU:CA	41:DR:98:ILE:HD11	2.31	0.60
45:DV:8:VAL:HA	45:DV:40:ILE:HG22	1.83	0.60
1:AA:356:A:H4'	1:AA:367:U:C5	2.37	0.60
1:AA:485:U:OP2	1:AA:485:U:H4'	2.02	0.60
1:AA:908:A:N3	1:AA:909:A:C8	2.69	0.60
1:AA:1015:G:OP1	19:AS:14:HIS:CD2	2.54	0.60
3:AC:14:ILE:HG22	3:AC:15:VAL:HG13	1.82	0.60
5:AE:126:LYS:O	5:AE:127:ALA:CB	2.49	0.60
16:AP:19:VAL:HG23	16:AP:36:VAL:HG23	1.82	0.60
18:AR:56:ALA:HA	18:AR:59:ILE:CG2	2.31	0.60
21:AU:26:ALA:HA	21:AU:30:ALA:H	1.66	0.60
24:BA:453:A:H1'	24:BA:457:A:C2	2.36	0.60
24:BA:568:U:C6	24:BA:570:G:OP2	2.55	0.60
24:BA:604:G:C2'	24:BA:605:G:O5'	2.50	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1415:U:C2	24:BA:1588:G:N2	2.69	0.60
24:BA:1453:A:C2	37:BN:77:ALA:CB	2.84	0.60
24:BA:1605:C:H2'	24:BA:1606:C:H5'	1.83	0.60
24:BA:1709:U:C2	24:BA:1750:G:N2	2.69	0.60
24:BA:1881:C:H2'	24:BA:1882:U:O4'	2.02	0.60
24:BA:2020:A:C2	24:BA:2035:G:N1	2.69	0.60
24:BA:2242:G:N7	59:BA:3503:HOH:O	2.31	0.60
24:BA:2331:G:C4	24:BA:2332:C:C5	2.89	0.60
57:BA:3165:NMY:O17	57:BA:3165:NMY:H1	2.00	0.60
1:CA:74:A:C2	1:CA:97:G:C4	2.89	0.60
1:CA:259:G:C4	1:CA:260:G:C8	2.89	0.60
1:CA:466:A:H2'	1:CA:467:U:C5	2.36	0.60
1:CA:673:A:O3'	6:CF:86:ARG:NH2	2.35	0.60
1:CA:718:A:C2	11:CK:118:HIS:CE1	2.89	0.60
1:CA:753:A:H5"	1:CA:754:C:N3	2.16	0.60
1:CA:805:C:H2'	1:CA:806:C:C6	2.36	0.60
4:CD:164:GLN:CD	4:CD:164:GLN:C	2.69	0.60
6:CF:4:TYR:N	6:CF:4:TYR:CD1	2.70	0.60
8:CH:66:PHE:O	8:CH:67:GLN:C	2.43	0.60
24:DA:247:G:N7	24:DA:249:C:C2	2.69	0.60
24:DA:402:A:H2'	24:DA:403:U:H5'	1.83	0.60
24:DA:1023:U:C2'	24:DA:1024:G:H5'	2.32	0.60
24:DA:1131:G:O2'	24:DA:2026:U:H5'	2.01	0.60
24:DA:1183:U:H2'	24:DA:1184:U:C6	2.35	0.60
24:DA:1414:C:C5	24:DA:1415:U:C5	2.89	0.60
24:DA:1471:G:C5	24:DA:1472:C:C4	2.89	0.60
25:DB:28:C:H2'	25:DB:29:A:O4'	2.01	0.60
31:DH:71:LYS:O	31:DH:72:ILE:HG13	2.01	0.60
31:DH:94:ILE:H	31:DH:122:LEU:HB3	1.64	0.60
34:DK:64:ARG:HB2	34:DK:79:PHE:CD2	2.37	0.60
1:AA:127:G:C6	1:AA:128:G:N7	2.69	0.60
1:AA:177:G:H2'	1:AA:178:C:C5'	2.31	0.60
1:AA:203:G:O2'	1:AA:465:A:N1	2.34	0.60
1:AA:238:A:OP1	17:AQ:40:ARG:NH2	2.35	0.60
1:AA:309:A:C2	1:AA:310:G:C8	2.89	0.60
1:AA:311:C:OP1	16:AP:31:ARG:HD2	2.02	0.60
4:AD:55:LEU:HD23	4:AD:55:LEU:C	2.27	0.60
4:AD:55:LEU:HA	4:AD:58:LYS:HB3	1.84	0.60
4:AD:177:LYS:O	4:AD:178:MET:CB	2.48	0.60
4:AD:200:ILE:C	4:AD:202:GLU:N	2.58	0.60
7:AG:97:ASN:C	7:AG:101:MET:HE3	2.27	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:67:ILE:CG2	10:AJ:67:ILE:O	2.48	0.60
16:AP:39:PHE:C	16:AP:39:PHE:HD1	2.09	0.60
24:BA:126:A:OP1	52:B2:17:GLY:HA3	2.02	0.60
24:BA:1264:A:OP1	50:B0:15:ARG:NH1	2.34	0.60
24:BA:1360:G:C8	24:BA:1361:G:C8	2.90	0.60
24:BA:1952:A:OP1	34:BK:44:LYS:NZ	2.34	0.60
24:BA:2108:A:H2'	24:BA:2109:U:C6	2.36	0.60
24:BA:2209:G:C2	24:BA:2216:G:C2	2.90	0.60
24:BA:2478:A:C2	24:BA:2529:G:H2'	2.36	0.60
24:BA:2732:G:H3'	24:BA:2733:A:C5'	2.32	0.60
34:BK:106:GLU:N	34:BK:106:GLU:OE1	2.34	0.60
1:CA:719:C:H1'	18:CR:38:LYS:HG3	1.83	0.60
1:CA:1082:A:C4	1:CA:1083:U:O2	2.55	0.60
1:CA:1147:C:O2'	9:CI:18:ARG:HD3	2.02	0.60
1:CA:1367:C:OP1	9:CI:116:VAL:HG22	2.00	0.60
2:CB:183:VAL:HG22	2:CB:184:PHE:N	2.16	0.60
4:CD:106:GLY:O	4:CD:107:PHE:C	2.45	0.60
9:CI:79:ILE:O	9:CI:80:ARG:C	2.43	0.60
10:CJ:63:ASP:HB3	10:CJ:65:TYR:CE1	2.37	0.60
11:CK:13:ARG:N	11:CK:76:GLU:OE2	2.35	0.60
20:CT:45:ALA:O	20:CT:48:GLN:NE2	2.34	0.60
55:CY:144:LYS:C	55:CY:146:LYS:H	2.10	0.60
24:DA:1425:G:C6	24:DA:1426:G:C2	2.90	0.60
24:DA:1734:G:C6	24:DA:1735:A:C8	2.90	0.60
24:DA:2243:U:H2'	24:DA:2244:U:C6	2.36	0.60
24:DA:2654:A:H5'	24:DA:2656:U:H1'	1.83	0.60
26:DC:30:ALA:O	26:DC:32:LEU:N	2.34	0.60
28:DE:200:LEU:HD23	28:DE:200:LEU:N	2.17	0.60
37:DN:33:ILE:O	37:DN:34:ILE:HG12	2.02	0.60
48:DY:6:LEU:HD13	48:DY:56:LEU:HD22	1.84	0.60
53:D3:28:LEU:HD22	53:D3:43:LEU:HB2	1.83	0.60
1:AA:126:G:H2'	1:AA:127:G:O4'	2.02	0.60
1:AA:254:G:OP1	17:AQ:70:THR:OG1	2.09	0.60
1:AA:651:C:C5	1:AA:752:G:O2'	2.55	0.60
1:AA:658:C:C2'	1:AA:659:U:H5'	2.31	0.60
1:AA:1015:G:P	19:AS:14:HIS:CE1	2.95	0.60
1:AA:1061:G:P	3:AC:3:GLN:NE2	2.74	0.60
2:AB:82:ASP:OD1	2:AB:82:ASP:N	2.31	0.60
4:AD:123:ILE:HA	4:AD:145:ILE:HA	1.82	0.60
6:AF:70:VAL:O	6:AF:71:ILE:C	2.44	0.60
7:AG:30:LEU:CD2	7:AG:42:ILE:HD11	2.32	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:137:LYS:HA	7:AG:140:ASP:HB2	1.83	0.60
15:AO:70:LEU:C	15:AO:78:TYR:CE1	2.80	0.60
18:AR:40:VAL:HG22	18:AR:41:PRO:HD2	1.82	0.60
24:BA:67:U:H1'	24:BA:88:G:N2	2.17	0.60
24:BA:147:C:C4	24:BA:148:U:C5	2.90	0.60
24:BA:596:U:C2	24:BA:662:G:N2	2.70	0.60
24:BA:1062:G:C2	24:BA:1063:G:C6	2.90	0.60
24:BA:1079:C:N4	24:BA:1088:A:O4'	2.35	0.60
24:BA:1240:U:O2	24:BA:1240:U:H2'	2.02	0.60
24:BA:2294:G:P	38:BO:10:ARG:CZ	2.89	0.60
24:BA:2572:A:OP1	24:BA:2574:G:H4'	2.02	0.60
57:BA:3165:NMY:O5	57:BA:3165:NMY:N9	2.28	0.60
25:BB:76:G:O2'	45:BV:78:GLN:OE1	2.11	0.60
28:BE:149:ILE:O	28:BE:149:ILE:HD12	2.02	0.60
28:BE:154:ASP:O	28:BE:155:GLU:C	2.44	0.60
30:BG:51:PHE:CE2	30:BG:68:ARG:HB2	2.37	0.60
37:BN:57:THR:HG22	37:BN:57:THR:O	2.01	0.60
41:BR:79:ARG:HA	41:BR:79:ARG:NE	2.16	0.60
1:CA:32:A:OP1	1:CA:398:U:H1'	2.01	0.60
1:CA:635:A:O2'	17:CQ:6:ARG:NH2	2.35	0.60
1:CA:1232:U:OP1	9:CI:126:GLN:HG3	2.02	0.60
3:CC:66:VAL:CG1	3:CC:101:ILE:HA	2.32	0.60
14:CN:41:ARG:CG	14:CN:42:TRP:N	2.64	0.60
55:CY:78:VAL:O	55:CY:81:ALA:N	2.35	0.60
24:DA:570:G:H2'	24:DA:2030:A:N7	2.15	0.60
24:DA:571:U:C5	24:DA:575:A:C6	2.90	0.60
24:DA:608:A:H2'	24:DA:609:A:C8	2.36	0.60
24:DA:947:A:O2'	24:DA:984:A:H2	1.84	0.60
24:DA:1601:G:N7	59:DA:3717:HOH:O	2.31	0.60
24:DA:2885:G:H2'	24:DA:2886:A:C5'	2.32	0.60
26:DC:20:ASN:CB	26:DC:23:LEU:HD13	2.31	0.60
29:DF:95:MET:HG3	29:DF:96:TRP:N	2.16	0.60
38:DO:26:LEU:O	38:DO:38:GLN:O	2.19	0.60
41:DR:4:VAL:HG22	41:DR:4:VAL:O	2.01	0.60
46:DW:24:LYS:O	46:DW:25:ARG:HD3	2.02	0.60
1:AA:363:A:N7	12:AL:27:CYS:SG	2.75	0.60
1:AA:448:A:C8	1:AA:487:A:C6	2.89	0.60
1:AA:620:C:N4	1:AA:621:A:C6	2.70	0.60
1:AA:788:U:H2'	1:AA:789:U:H5'	1.83	0.60
1:AA:911:U:H2'	1:AA:912:C:C6	2.37	0.60
1:AA:977:A:OP1	14:AN:71:HIS:NE2	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1375:A:C4	1:AA:1376:U:C6	2.90	0.60
4:AD:102:VAL:HG12	4:AD:102:VAL:O	2.01	0.60
12:AL:32:GLY:HA3	12:AL:56:ARG:O	2.02	0.60
21:AU:25:LYS:NZ	23:AX:5:A:H4'	2.17	0.60
24:BA:146:A:C2	24:BA:147:C:C2	2.90	0.60
24:BA:402:A:H2'	24:BA:403:U:H5'	1.82	0.60
24:BA:1512:C:C2'	24:BA:1513:U:H5'	2.32	0.60
24:BA:2125:G:N2	24:BA:2171:A:O5'	2.33	0.60
24:BA:2198:A:N3	31:BH:29:PHE:HB3	2.16	0.60
36:BM:81:ARG:O	36:BM:82:MET:CG	2.49	0.60
36:BM:106:ASP:OD1	36:BM:107:GLY:N	2.35	0.60
37:BN:13:ASN:OD1	37:BN:13:ASN:N	2.33	0.60
1:CA:149:A:N3	1:CA:149:A:H2'	2.17	0.60
1:CA:606:G:C2'	1:CA:607:A:OP1	2.50	0.60
1:CA:842:U:C2	1:CA:844:G:OP1	2.54	0.60
1:CA:987:G:C2	1:CA:1219:A:C2	2.90	0.60
1:CA:1089:G:H2'	1:CA:1090:U:O5'	2.02	0.60
1:CA:1309:G:C5	1:CA:1329:A:C6	2.90	0.60
4:CD:149:ALA:HA	4:CD:152:GLN:NE2	2.16	0.60
5:CE:25:VAL:O	5:CE:27:GLY:N	2.34	0.60
7:CG:71:PRO:HD3	7:CG:138:ARG:NH2	2.17	0.60
9:CI:91:ASP:O	9:CI:94:LEU:HG	2.02	0.60
12:CL:114:ARG:NE	12:CL:121:ARG:HG3	2.17	0.60
16:CP:38:PHE:C	16:CP:38:PHE:CD1	2.79	0.60
18:CR:31:ASN:O	18:CR:32:TYR:CG	2.54	0.60
24:DA:1484:U:O2	24:DA:1484:U:H2'	2.01	0.60
24:DA:2129:C:H2'	24:DA:2130:U:H5"	1.82	0.60
24:DA:2511:U:O4	24:DA:2575:C:N3	2.34	0.60
24:DA:2782:G:N2	24:DA:2783:U:C2	2.69	0.60
26:DC:259:ASN:O	26:DC:260:LYS:HB3	2.00	0.60
28:DE:27:LEU:O	28:DE:30:GLN:N	2.35	0.60
40:DQ:13:HIS:O	40:DQ:17:LEU:HD12	2.02	0.60
43:DT:30:ILE:HG13	43:DT:85:VAL:HG13	1.84	0.60
1:AA:60:A:C2	1:AA:107:G:N3	2.70	0.60
1:AA:176:C:O2	1:AA:177:G:C2	2.55	0.60
1:AA:255:G:O6	1:AA:271:C:N4	2.35	0.60
1:AA:929:G:C6	1:AA:930:C:C5	2.90	0.60
1:AA:1316:G:N1	1:AA:1319:A:OP2	2.34	0.60
13:AM:26:GLY:O	13:AM:30:SER:OG	2.20	0.60
15:AO:25:THR:O	15:AO:28:GLN:N	2.35	0.60
24:BA:122:G:O6	24:BA:129:C:N3	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:589:U:H2'	24:BA:590:A:C8	2.35	0.60
24:BA:656:G:C5	24:BA:657:U:C5	2.89	0.60
24:BA:784:G:C5'	26:BC:225:ASN:OD1	2.49	0.60
24:BA:813:U:H2'	24:BA:814:C:C6	2.37	0.60
24:BA:1113:U:H2'	24:BA:1114:C:C6	2.37	0.60
24:BA:1171:G:C2	24:BA:1179:G:C2	2.90	0.60
25:BB:29:A:OP2	38:BO:31:THR:OG1	2.09	0.60
30:BG:3:VAL:O	30:BG:68:ARG:HD3	2.01	0.60
31:BH:83:LYS:O	31:BH:90:LEU:HB2	2.02	0.60
34:BK:8:LEU:HD12	34:BK:8:LEU:N	2.17	0.60
34:BK:39:ILE:CG2	34:BK:41:ILE:HG23	2.32	0.60
40:BQ:116:LEU:O	40:BQ:117:ALA:C	2.45	0.60
43:BT:19:LYS:CA	43:BT:22:THR:HG22	2.31	0.60
43:BT:35:ALA:O	43:BT:37:ASP:N	2.35	0.60
46:BW:16:SER:O	46:BW:17:GLU:C	2.45	0.60
47:BX:45:PHE:O	47:BX:46:VAL:HG22	2.02	0.60
1:CA:580:C:H2'	1:CA:581:G:O4'	2.02	0.60
1:CA:929:G:N2	1:CA:1389:C:C2	2.70	0.60
1:CA:1083:U:C5	1:CA:1084:G:C4	2.90	0.60
1:CA:1506:U:OP2	11:CK:128:ARG:NH2	2.33	0.60
4:CD:4:TYR:OH	4:CD:68:LEU:HA	2.01	0.60
4:CD:181:THR:OG1	4:CD:182:PHE:N	2.34	0.60
7:CG:17:LYS:HB2	7:CG:44:TYR:CE1	2.36	0.60
8:CH:53:GLY:O	8:CH:54:ASP:CB	2.50	0.60
12:CL:76:GLU:CD	12:CL:77:HIS:N	2.60	0.60
15:CO:54:ARG:O	15:CO:56:LEU:N	2.35	0.60
20:CT:67:ILE:HG23	20:CT:71:LYS:HB3	1.84	0.60
22:CV:44:G:C4'	22:CV:45:U:OP1	2.48	0.60
22:CV:60:U:H5"	22:CV:61:C:C5	2.35	0.60
24:DA:85:G:P	44:DU:5:ARG:CD	2.89	0.60
24:DA:634:C:H2'	24:DA:635:C:C6	2.35	0.60
24:DA:749:A:H4'	24:DA:1271:G:N3	2.17	0.60
24:DA:1082:U:OP1	32:DI:123:ALA:HB1	2.02	0.60
25:DB:21:G:N2	25:DB:63:C:C2	2.70	0.60
25:DB:34:A:N3	25:DB:36:C:N4	2.49	0.60
29:DF:67:THR:HG1	29:DF:85:GLY:C	2.09	0.60
31:DH:134:VAL:CG1	31:DH:138:VAL:HG21	2.32	0.60
37:DN:2:ARG:CZ	37:DN:2:ARG:HB2	2.30	0.60
37:DN:66:ALA:O	37:DN:70:THR:CG2	2.49	0.60
38:DO:79:ALA:HA	38:DO:115:LEU:CD1	2.32	0.60
43:DT:73:ARG:HG2	43:DT:74:ILE:H	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:46:G:N2	1:AA:396:C:N3	2.50	0.60
1:AA:405:U:OP1	1:AA:406:G:O2'	2.17	0.60
1:AA:580:C:H2'	1:AA:581:G:O4'	2.02	0.60
1:AA:786:G:C2'	1:AA:787:A:O5'	2.49	0.60
57:AA:1656:NMY:O22	57:AA:1656:NMY:C16	2.49	0.60
2:AB:143:LYS:O	2:AB:144:LEU:C	2.45	0.60
5:AE:111:MET:O	5:AE:115:LEU:HD22	2.02	0.60
7:AG:101:MET:O	7:AG:105:VAL:HG13	2.01	0.60
8:AH:19:ALA:O	8:AH:20:ALA:C	2.44	0.60
15:AO:29:VAL:O	15:AO:32:LEU:N	2.35	0.60
24:BA:481:G:P	44:BU:43:LYS:CG	2.89	0.60
24:BA:1205:A:N3	57:BA:3163:NMY:O20	2.23	0.60
24:BA:1228:G:H2'	24:BA:1229:C:H5'	1.83	0.60
24:BA:1599:U:P	43:BT:40:LYS:HG3	2.42	0.60
24:BA:1654:A:C2	27:BD:118:PHE:CD2	2.90	0.60
24:BA:2734:A:C2'	24:BA:2735:G:H5'	2.32	0.60
28:BE:44:ARG:O	28:BE:45:ALA:HB2	2.00	0.60
28:BE:149:ILE:HG12	28:BE:188:MET:HG2	1.83	0.60
30:BG:82:PHE:HB3	30:BG:140:ILE:HD11	1.84	0.60
31:BH:2:GLN:O	31:BH:3:VAL:C	2.45	0.60
38:BO:5:SER:O	38:BO:6:ALA:C	2.44	0.60
1:CA:353:A:H2'	1:CA:354:G:OP2	2.02	0.60
1:CA:1103:C:N4	1:CA:1104:G:C6	2.70	0.60
1:CA:1133:G:C2	1:CA:1142:G:C2	2.89	0.60
11:CK:52:PHE:CD1	11:CK:57:LYS:HE3	2.37	0.60
14:CN:56:SER:O	14:CN:57:PRO:C	2.45	0.60
17:CQ:81:LYS:O	17:CQ:83:VAL:N	2.35	0.60
24:DA:320:A:H4'	24:DA:322:A:N7	2.17	0.60
24:DA:549:G:H3'	24:DA:549:G:OP2	2.02	0.60
24:DA:753:A:H2'	24:DA:754:U:H6	1.67	0.60
26:DC:23:LEU:HD12	26:DC:23:LEU:N	2.17	0.60
26:DC:70:LYS:HD2	26:DC:95:TYR:CD1	2.35	0.60
37:DN:103:ARG:CZ	37:DN:110:MET:HE1	2.32	0.60
51:D1:21:THR:OG1	53:D3:33:THR:CG2	2.50	0.60
1:AA:749:A:O2'	15:AO:20:ASN:ND2	2.34	0.59
1:AA:1157:A:C2	1:AA:1181:G:C8	2.90	0.59
1:AA:1275:A:C6	1:AA:1276:G:C5	2.90	0.59
6:AF:43:GLY:HA2	6:AF:58:HIS:CE1	2.36	0.59
24:BA:227:A:C4	24:BA:2407:A:H1'	2.37	0.59
24:BA:391:A:C4	24:BA:392:U:C6	2.90	0.59
24:BA:1103:A:C8	24:BA:1104:C:C5	2.90	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1587:G:C5	24:BA:1588:G:N7	2.70	0.59
24:BA:1599:U:C5	24:BA:1600:C:C5	2.90	0.59
24:BA:1893:C:C5	24:BA:1894:C:C5	2.90	0.59
25:BB:94:A:H2'	25:BB:95:U:O4'	2.02	0.59
33:BJ:93:ILE:HD12	33:BJ:94:ALA:N	2.16	0.59
1:CA:66:A:H4'	1:CA:173:U:C4	2.37	0.59
1:CA:533:A:C2	1:CA:536:C:C5	2.90	0.59
1:CA:828:U:OP1	1:CA:828:U:H4'	2.01	0.59
2:CB:22:TYR:O	2:CB:23:TRP:CB	2.50	0.59
4:CD:22:LYS:HZ1	4:CD:26:ARG:CD	2.15	0.59
5:CE:46:VAL:HG13	5:CE:118:ALA:HB2	1.84	0.59
8:CH:10:MET:SD	8:CH:36:ILE:CD1	2.90	0.59
12:CL:90:LEU:C	12:CL:90:LEU:HD13	2.27	0.59
15:CO:39:LEU:O	15:CO:42:HIS:HB3	2.02	0.59
23:CX:10:A:HO2'	23:CX:11:A:P	2.20	0.59
24:DA:674:G:H1'	28:DE:69:ARG:HD3	1.84	0.59
24:DA:1251:C:OP2	40:DQ:5:ARG:HD2	2.01	0.59
24:DA:1619:G:C2'	24:DA:1620:G:O5'	2.50	0.59
24:DA:2359:C:O2'	53:D3:53:ASP:OD2	2.14	0.59
24:DA:2768:U:C2'	24:DA:2769:U:O5'	2.50	0.59
33:DJ:12:LYS:O	33:DJ:41:LYS:NZ	2.35	0.59
38:DO:25:ARG:NH2	38:DO:40:ILE:HD11	2.17	0.59
1:AA:109:A:C6	1:AA:326:G:C6	2.90	0.59
1:AA:207:C:H1'	1:AA:213:G:N2	2.17	0.59
1:AA:261:U:C5	20:AT:74:ARG:NH1	2.71	0.59
1:AA:496:A:H2'	1:AA:497:G:C8	2.37	0.59
1:AA:597:G:H3'	1:AA:598:U:O4'	2.02	0.59
1:AA:693:G:C2	23:AX:10:A:N6	2.69	0.59
1:AA:1245:C:C4	1:AA:1246:A:N7	2.70	0.59
1:AA:1360:A:OP1	14:AN:58:SER:OG	2.19	0.59
2:AB:189:THR:HG23	2:AB:190:ASN:ND2	2.17	0.59
3:AC:6:HIS:HB3	14:AN:89:MET:CE	2.32	0.59
4:AD:203:LEU:HD12	4:AD:204:TYR:CD1	2.37	0.59
6:AF:10:VAL:CG2	6:AF:21:MET:HE1	2.32	0.59
8:AH:37:ALA:C	8:AH:39:VAL:H	2.10	0.59
15:AO:78:TYR:O	15:AO:79:THR:C	2.44	0.59
21:AU:5:LYS:N	21:AU:5:LYS:CD	2.64	0.59
24:BA:324:A:C6	24:BA:325:G:C4	2.90	0.59
24:BA:528:A:OP1	59:BA:3247:HOH:O	2.17	0.59
24:BA:670:A:H3'	35:BL:43:GLY:HA2	1.84	0.59
24:BA:1386:C:O2'	24:BA:1469:A:N3	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2734:A:H3'	24:BA:2735:G:H5'	1.84	0.59
35:BL:78:ARG:CB	35:BL:113:ALA:HB2	2.32	0.59
37:BN:70:THR:OG1	37:BN:71:ARG:N	2.33	0.59
40:BQ:24:TYR:CD1	40:BQ:25:GLY:N	2.70	0.59
44:BU:35:VAL:O	44:BU:35:VAL:CG2	2.50	0.59
48:BY:49:ASP:HA	48:BY:52:ARG:HD3	1.84	0.59
49:BZ:50:VAL:O	49:BZ:50:VAL:CG2	2.49	0.59
1:CA:409:U:OP1	4:CD:22:LYS:HA	2.02	0.59
1:CA:429:U:P	4:CD:9:LEU:HD22	2.43	0.59
1:CA:1215:G:C2'	1:CA:1216:A:H5'	2.32	0.59
2:CB:157:LEU:O	2:CB:159:ASP:N	2.35	0.59
4:CD:160:GLU:OE2	4:CD:161:LEU:HD22	2.02	0.59
6:CF:56:LYS:O	6:CF:57:ALA:HB2	2.02	0.59
7:CG:66:LEU:O	7:CG:68:ASN:N	2.33	0.59
7:CG:123:GLU:N	7:CG:123:GLU:OE1	2.35	0.59
12:CL:102:LEU:CD1	12:CL:103:ASP:HB3	2.31	0.59
24:DA:137:U:H2'	24:DA:140:C:C2	2.38	0.59
24:DA:238:C:O2'	24:DA:608:A:H1'	2.02	0.59
24:DA:292:U:C2'	24:DA:293:U:H5'	2.32	0.59
24:DA:682:G:O6	24:DA:794:A:N6	2.35	0.59
24:DA:1028:A:N6	24:DA:1125:G:H2'	2.17	0.59
24:DA:1182:G:C2'	24:DA:1183:U:H5'	2.31	0.59
24:DA:1439:A:C2	24:DA:1553:A:C5	2.89	0.59
24:DA:1632:A:O2'	24:DA:1633:G:H5'	2.01	0.59
29:DF:99:PHE:O	29:DF:103:ILE:HD11	2.02	0.59
30:DG:11:PRO:O	30:DG:14:VAL:CG1	2.49	0.59
37:DN:2:ARG:NH1	37:DN:2:ARG:CB	2.66	0.59
44:DU:35:VAL:HB	44:DU:38:ILE:CG1	2.32	0.59
1:AA:838:G:C2	1:AA:849:G:C2	2.91	0.59
1:AA:1049:U:OP1	14:AN:1:ALA:HB3	2.01	0.59
1:AA:1125:U:O2'	1:AA:1126:U:H2'	2.02	0.59
1:AA:1152:A:C2	1:AA:1153:G:C8	2.89	0.59
1:AA:1211:U:C2'	1:AA:1212:U:OP2	2.50	0.59
1:AA:1493:A:H3'	24:BA:1913:A:N1	2.18	0.59
1:AA:1505:G:H4'	1:AA:1506:U:H5"	1.84	0.59
2:AB:163:VAL:HG11	2:AB:185:ALA:CB	2.32	0.59
6:AF:14:GLN:OE1	6:AF:17:GLN:CG	2.50	0.59
6:AF:38:ARG:HD3	6:AF:97:THR:CA	2.31	0.59
8:AH:101:ILE:HG12	8:AH:112:THR:CG2	2.33	0.59
14:AN:20:PHE:CD1	14:AN:55:SER:O	2.55	0.59
19:AS:15:LEU:CD2	19:AS:35:SER:HB2	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:7:G:C5	24:BA:8:C:C5	2.91	0.59
24:BA:348:A:H2'	24:BA:349:U:O4'	2.01	0.59
24:BA:590:A:H2'	24:BA:591:U:C6	2.38	0.59
24:BA:1301:A:C8	24:BA:1303:G:C8	2.89	0.59
24:BA:1478:G:C2	24:BA:1479:G:N7	2.70	0.59
24:BA:1869:G:N2	24:BA:1873:G:C5	2.70	0.59
24:BA:2311:A:C2	29:BF:76:PHE:HB3	2.36	0.59
26:BC:196:ASN:O	26:BC:198:GLU:N	2.34	0.59
37:BN:32:GLU:OE2	37:BN:86:ARG:NH1	2.35	0.59
42:BS:19:LEU:C	50:B0:21:LEU:HD12	2.27	0.59
46:BW:56:ASP:OD2	46:BW:58:THR:OG1	2.20	0.59
1:CA:20:U:C4	1:CA:21:G:C6	2.89	0.59
1:CA:420:U:O2'	1:CA:421:U:H5"	2.02	0.59
1:CA:854:U:C6	1:CA:871:U:O4	2.55	0.59
1:CA:938:A:N6	59:CA:1832:HOH:O	2.35	0.59
1:CA:1309:G:N1	1:CA:1329:A:C8	2.70	0.59
1:CA:1538:C:O2	21:CU:21:ARG:NH2	2.35	0.59
2:CB:111:ILE:HG12	2:CB:151:ILE:HG12	1.83	0.59
11:CK:50:SER:O	11:CK:52:PHE:CE1	2.56	0.59
12:CL:65:SER:HB3	12:CL:82:ILE:HD11	1.83	0.59
18:CR:62:ALA:HB1	18:CR:67:LEU:HD11	1.83	0.59
24:DA:278:A:C2	24:DA:362:A:H1'	2.37	0.59
24:DA:946:C:C2'	24:DA:947:A:O5'	2.49	0.59
24:DA:1190:G:OP1	35:DL:32:GLY:HA2	2.02	0.59
24:DA:2201:G:C4	24:DA:2202:U:C5	2.90	0.59
24:DA:2230:G:H5"	47:DX:29:LEU:HD13	1.84	0.59
57:DA:3190:NMY:N19	57:DA:3190:NMY:O21	2.35	0.59
26:DC:258:SER:O	26:DC:259:ASN:HB3	2.02	0.59
28:DE:149:ILE:HG12	28:DE:188:MET:HE2	1.84	0.59
33:DJ:16:TYR:HA	33:DJ:138:GLN:O	2.03	0.59
33:DJ:130:HIS:CD2	33:DJ:132:HIS:HB2	2.37	0.59
37:DN:2:ARG:CZ	37:DN:2:ARG:CB	2.80	0.59
53:D3:6:VAL:HG12	53:D3:9:ALA:CB	2.32	0.59
1:AA:56:U:N3	31:DH:91:PHE:CZ	2.70	0.59
1:AA:461:A:C4	1:AA:462:G:C8	2.91	0.59
3:AC:167:TRP:CE3	3:AC:167:TRP:O	2.56	0.59
5:AE:107:ALA:O	5:AE:108:GLY:O	2.19	0.59
5:AE:114:VAL:HG23	5:AE:115:LEU:N	2.17	0.59
7:AG:93:PRO:C	7:AG:94:VAL:HG23	2.28	0.59
24:BA:572:A:C6	24:BA:573:U:N3	2.71	0.59
24:BA:1026:G:C8	24:BA:1134:A:C4	2.90	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1367:A:C5	24:BA:1368:G:H1'	2.38	0.59
24:BA:1505:A:C5	24:BA:1506:U:C4	2.91	0.59
24:BA:2107:G:C2	24:BA:2108:A:C4	2.90	0.59
24:BA:2748:A:C2'	24:BA:2749:A:O5'	2.50	0.59
26:BC:81:GLU:CB	26:BC:90:ILE:CD1	2.80	0.59
27:BD:33:ARG:HG2	27:BD:51:THR:HG22	1.83	0.59
27:BD:124:ARG:HG3	27:BD:165:MET:HE2	1.85	0.59
28:BE:146:VAL:HG22	28:BE:147:LEU:N	2.17	0.59
30:BG:8:VAL:HG23	30:BG:49:LEU:HB2	1.84	0.59
34:BK:7:MET:HA	34:BK:8:LEU:HD12	1.83	0.59
46:BW:82:ILE:HG22	46:BW:82:ILE:O	2.02	0.59
48:BY:61:ALA:O	48:BY:63:ALA:N	2.36	0.59
1:CA:444:G:C2	1:CA:445:G:C4	2.90	0.59
1:CA:485:U:O4'	1:CA:485:U:O2	2.18	0.59
1:CA:626:G:C2	1:CA:627:G:C5	2.91	0.59
1:CA:774:G:C5	1:CA:775:G:N7	2.71	0.59
1:CA:782:A:C2	1:CA:801:U:C2	2.90	0.59
1:CA:925:G:H2'	1:CA:927:G:H5"	1.85	0.59
1:CA:1109:C:OP1	3:CC:176:HIS:CE1	2.56	0.59
1:CA:1187:G:N3	14:CN:100:SER:OG	2.26	0.59
1:CA:1500:A:OP1	1:CA:1505:G:OP1	2.20	0.59
3:CC:73:PRO:O	3:CC:77:ILE:HG12	2.01	0.59
4:CD:63:ARG:HA	4:CD:63:ARG:CZ	2.32	0.59
4:CD:105:MET:HE2	4:CD:107:PHE:CZ	2.37	0.59
15:CO:82:ILE:O	15:CO:85:LEU:N	2.34	0.59
16:CP:50:THR:O	16:CP:50:THR:OG1	2.11	0.59
55:CY:106:THR:O	55:CY:107:GLU:HB2	2.03	0.59
55:CY:155:ARG:O	55:CY:156:SER:C	2.44	0.59
24:DA:1183:U:H2'	24:DA:1184:U:H6	1.65	0.59
24:DA:1568:G:H4'	26:DC:58:LYS:HZ3	1.68	0.59
24:DA:2128:G:C2'	24:DA:2129:C:O5'	2.50	0.59
24:DA:2808:G:O2'	24:DA:2890:G:O6	2.18	0.59
26:DC:80:LEU:CD2	26:DC:91:ALA:HB2	2.33	0.59
27:DD:104:VAL:O	27:DD:105:LYS:HB2	2.01	0.59
29:DF:84:ILE:O	29:DF:84:ILE:HG13	2.02	0.59
30:DG:41:GLU:OE2	30:DG:54:ARG:NH1	2.35	0.59
35:DL:116:VAL:HG13	35:DL:138:ALA:HB2	1.84	0.59
40:DQ:25:GLY:O	40:DQ:26:ALA:C	2.44	0.59
1:AA:32:A:C2	1:AA:33:A:C5	2.90	0.59
1:AA:152:A:N6	1:AA:170:U:C2	2.70	0.59
1:AA:257:G:C2	1:AA:258:G:N7	2.71	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:466:A:C5	1:AA:468:A:C2	2.90	0.59
1:AA:508:U:H5'	4:AD:51:TYR:CE2	2.38	0.59
1:AA:612:C:C2'	1:AA:613:C:H5'	2.33	0.59
1:AA:958:A:C6	1:AA:959:A:N1	2.71	0.59
1:AA:1303:C:OP1	59:AA:1862:HOH:O	2.17	0.59
4:AD:170:TRP:NE1	4:AD:186:PRO:HD3	2.18	0.59
5:AE:71:MET:C	5:AE:72:ILE:HD12	2.27	0.59
7:AG:30:LEU:CD1	7:AG:120:LEU:HD12	2.33	0.59
11:AK:70:CYS:O	11:AK:74:VAL:HG22	2.03	0.59
12:AL:67:ILE:HG22	12:AL:97:THR:HB	1.83	0.59
12:AL:110:ARG:O	12:AL:114:ARG:HG2	2.01	0.59
13:AM:16:VAL:O	13:AM:19:LEU:HB2	2.02	0.59
14:AN:80:SER:O	14:AN:82:ILE:N	2.36	0.59
20:AT:45:ALA:O	20:AT:46:ALA:C	2.45	0.59
24:BA:608:A:H2'	24:BA:609:A:C8	2.37	0.59
24:BA:920:A:C6	24:BA:921:C:C4	2.91	0.59
24:BA:988:A:C6	49:BZ:13:ILE:HD11	2.37	0.59
24:BA:1401:G:C5	24:BA:1402:U:C5	2.90	0.59
24:BA:1544:A:N6	24:BA:1545:A:C6	2.71	0.59
24:BA:1710:G:C2	24:BA:1749:A:N3	2.71	0.59
24:BA:1725:U:H2'	24:BA:1726:C:C1'	2.32	0.59
24:BA:1835:G:C8	24:BA:1835:G:H5'	2.37	0.59
24:BA:2528:U:C2	24:BA:2535:G:O6	2.55	0.59
25:BB:23:G:C6	25:BB:24:G:O6	2.56	0.59
29:BF:98:PHE:C	29:BF:100:GLU:H	2.09	0.59
31:BH:57:LYS:HD2	31:BH:57:LYS:C	2.27	0.59
33:BJ:18:VAL:HG12	33:BJ:55:ILE:O	2.03	0.59
1:CA:66:A:C2	1:CA:67:C:C6	2.90	0.59
1:CA:112:G:O2'	1:CA:113:G:H5'	2.03	0.59
1:CA:583:A:C2	1:CA:584:G:H1'	2.37	0.59
1:CA:680:C:O2	1:CA:711:G:C2	2.56	0.59
1:CA:966:G:N2	9:CI:129:LYS:HE3	2.15	0.59
1:CA:980:C:C5	1:CA:981:U:C2	2.91	0.59
3:CC:159:GLY:O	3:CC:160:ALA:O	2.21	0.59
4:CD:7:PRO:O	4:CD:9:LEU:HG	2.03	0.59
5:CE:45:ARG:NH1	5:CE:74:VAL:HG22	2.18	0.59
8:CH:78:VAL:HG22	8:CH:79:SER:N	2.16	0.59
9:CI:130:ARG:CZ	22:CV:33:U:C5	2.86	0.59
22:CV:65:G:C2	22:CV:66:U:H1'	2.38	0.59
24:DA:443:A:OP1	28:DE:40:ARG:HG2	2.02	0.59
24:DA:493:G:N7	57:DA:3189:NMY:H4	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:630:G:H4'	24:DA:640:C:H4'	1.84	0.59
24:DA:1440:U:O4	59:DA:3633:HOH:O	2.11	0.59
24:DA:2012:G:OP1	42:DS:98:LYS:CG	2.50	0.59
24:DA:2786:U:O2'	24:DA:2787:C:H5'	2.02	0.59
24:DA:2825:G:H3'	24:DA:2826:A:H5'	1.85	0.59
28:DE:44:ARG:O	28:DE:45:ALA:HB2	2.03	0.59
28:DE:161:ALA:N	28:DE:162:ARG:HE	2.00	0.59
36:DM:115:GLU:O	36:DM:116:ALA:C	2.46	0.59
41:DR:82:HIS:ND1	41:DR:82:HIS:O	2.35	0.59
1:AA:592:G:C6	1:AA:593:U:N3	2.71	0.59
1:AA:973:G:C5	1:AA:974:A:N7	2.71	0.59
1:AA:1141:C:O2'	1:AA:1142:G:P	2.61	0.59
1:AA:1265:C:N4	1:AA:1266:G:C6	2.70	0.59
57:AA:1657:NMY:H14	57:AA:1657:NMY:HN32	1.68	0.59
5:AE:137:VAL:O	5:AE:137:VAL:HG13	2.00	0.59
6:AF:38:ARG:N	6:AF:63:ASN:OD1	2.36	0.59
8:AH:78:VAL:HG21	8:AH:128:TYR:CE1	2.38	0.59
9:AI:6:TYR:CG	9:AI:89:GLU:CD	2.81	0.59
24:BA:477:A:C6	24:BA:478:A:C6	2.91	0.59
24:BA:629:G:H1'	24:BA:639:U:H1'	1.83	0.59
24:BA:690:G:O3'	26:BC:216:ARG:NH2	2.36	0.59
24:BA:2502:G:C5'	24:BA:2503:A:H5"	2.32	0.59
24:BA:2520:C:H2'	24:BA:2521:C:H5'	1.83	0.59
34:BK:7:MET:HG2	34:BK:20:MET:HA	1.84	0.59
53:B3:16:THR:CG2	53:B3:20:GLY:C	2.75	0.59
1:CA:184:G:C6	1:CA:185:U:C4	2.90	0.59
1:CA:373:A:C2	1:CA:374:A:C8	2.91	0.59
1:CA:425:G:C5	1:CA:426:U:C5	2.91	0.59
1:CA:855:U:C2	1:CA:856:C:H5	2.20	0.59
1:CA:1073:U:O2'	2:CB:103:ASN:ND2	2.35	0.59
1:CA:1305:G:O2'	1:CA:1306:A:O4'	2.21	0.59
4:CD:29:ASP:N	4:CD:29:ASP:OD1	2.35	0.59
9:CI:31:ASN:O	9:CI:32:GLN:C	2.44	0.59
9:CI:78:ALA:O	9:CI:81:HIS:HB2	2.03	0.59
12:CL:63:VAL:O	12:CL:64:THR:HB	2.03	0.59
12:CL:116:LYS:C	12:CL:117:TYR:CD1	2.81	0.59
15:CO:56:LEU:O	15:CO:57:LEU:C	2.45	0.59
22:CV:65:G:N2	22:CV:66:U:H1'	2.18	0.59
24:DA:454:A:H4'	24:DA:455:C:OP2	2.02	0.59
24:DA:651:G:OP1	53:D3:16:THR:CG2	2.51	0.59
24:DA:1424:G:N7	59:DA:3627:HOH:O	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1581:G:C6	24:DA:1582:C:C4	2.91	0.59
24:DA:1753:G:N1	24:DA:1756:G:OP2	2.35	0.59
24:DA:2359:C:HO2'	53:D3:53:ASP:CG	2.09	0.59
24:DA:2468:A:H2'	24:DA:2476:A:C6	2.37	0.59
29:DF:93:GLU:O	29:DF:95:MET:N	2.35	0.59
29:DF:155:ILE:CD1	29:DF:156:THR:N	2.64	0.59
42:DS:55:ILE:HD13	42:DS:66:ILE:HG21	1.84	0.59
42:DS:105:VAL:CG1	42:DS:105:VAL:O	2.50	0.59
53:D3:31:ILE:O	53:D3:33:THR:N	2.34	0.59
1:AA:253:A:N6	1:AA:274:A:C6	2.71	0.59
1:AA:410:G:N2	1:AA:432:A:C8	2.70	0.59
1:AA:572:A:N3	1:AA:917:G:H1'	2.17	0.59
1:AA:607:A:C5	1:AA:608:A:N7	2.71	0.59
1:AA:728:A:C6	1:AA:729:A:C6	2.91	0.59
1:AA:1159:U:N3	1:AA:1182:G:C4	2.71	0.59
1:AA:1379:G:C6	1:AA:1380:U:O4	2.56	0.59
2:AB:10:LEU:HA	2:AB:43:LEU:HD13	1.84	0.59
17:AQ:28:PHE:O	17:AQ:29:VAL:CB	2.50	0.59
24:BA:1385:A:C2	24:BA:1386:C:C2	2.90	0.59
24:BA:1474:U:O4	24:BA:1475:G:C2	2.56	0.59
24:BA:2209:G:N1	24:BA:2216:G:C2	2.71	0.59
24:BA:2681:C:C2	24:BA:2724:U:O4	2.55	0.59
33:BJ:53:TYR:HA	33:BJ:121:LYS:HB3	1.85	0.59
1:CA:52:C:H2'	1:CA:53:A:C8	2.38	0.59
1:CA:416:G:O2'	1:CA:417:G:H5'	2.02	0.59
1:CA:782:A:N7	1:CA:783:C:C2	2.71	0.59
1:CA:967:C:O4'	9:CI:129:LYS:CE	2.50	0.59
1:CA:1169:A:N6	1:CA:1170:A:N1	2.50	0.59
1:CA:1350:A:C2	1:CA:1351:U:O2	2.54	0.59
6:CF:37:HIS:O	6:CF:38:ARG:HB3	2.03	0.59
9:CI:117:GLY:C	9:CI:118:LEU:HD12	2.28	0.59
10:CJ:43:PRO:O	10:CJ:71:LEU:HD11	2.03	0.59
11:CK:128:ARG:HD2	11:CK:128:ARG:C	2.28	0.59
22:CV:12:U:H2'	22:CV:13:C:O4'	2.03	0.59
23:CX:5:A:H2'	23:CX:6:G:C8	2.38	0.59
24:DA:31:C:O3'	24:DA:1238:G:C5'	2.49	0.59
24:DA:46:G:N2	24:DA:47:C:C2	2.70	0.59
24:DA:387:U:C5	24:DA:388:G:O6	2.55	0.59
24:DA:446:G:OP1	40:DQ:2:ARG:HG3	2.03	0.59
24:DA:627:A:C5	24:DA:637:A:N7	2.71	0.59
24:DA:643:A:N1	24:DA:2369:A:O2'	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1921:G:C6	57:DA:3184:NMY:N7	2.63	0.59
24:DA:2526:G:O2'	54:D4:1:MET:N	2.30	0.59
26:DC:197:ALA:O	26:DC:200:MET:CE	2.51	0.59
31:DH:77:THR:HG22	31:DH:78:VAL:N	2.18	0.59
31:DH:82:SER:CB	31:DH:146:VAL:HG23	2.33	0.59
37:DN:60:VAL:O	37:DN:61:ALA:C	2.45	0.59
40:DQ:87:VAL:HA	41:DR:49:ILE:HG21	1.84	0.59
48:DY:22:LEU:HD23	48:DY:23:ARG:N	2.17	0.59
1:AA:59:A:N7	1:AA:354:G:C6	2.70	0.59
1:AA:631:C:OP1	1:AA:632:U:O4'	2.21	0.59
1:AA:983:A:C2'	1:AA:983:A:N3	2.66	0.59
1:AA:1077:G:C2	1:AA:1081:A:N3	2.71	0.59
1:AA:1078:U:O2'	1:AA:1079:G:P	2.61	0.59
1:AA:1367:C:H5"	9:AI:116:VAL:HG23	1.84	0.59
1:AA:1398:A:N6	5:AE:26:LYS:O	2.35	0.59
11:AK:33:THR:HG22	11:AK:44:TRP:HB3	1.83	0.59
13:AM:16:VAL:HG12	13:AM:34:LEU:CD1	2.33	0.59
18:AR:71:THR:OG1	18:AR:72:ASP:N	2.35	0.59
23:AX:10:A:N3	23:AX:11:A:C8	2.71	0.59
24:BA:9:G:N1	24:BA:2629:U:C6	2.71	0.59
24:BA:55:G:C2	24:BA:56:A:C8	2.90	0.59
24:BA:110:G:C2	24:BA:111:A:C8	2.91	0.59
24:BA:308:G:C2'	44:BU:16:LYS:NZ	2.65	0.59
24:BA:1281:G:H2'	24:BA:1282:U:H6	1.68	0.59
24:BA:1808:A:H3'	24:BA:1809:A:C8	2.38	0.59
24:BA:2098:U:C5	24:BA:2099:U:C5	2.90	0.59
24:BA:2294:G:H3'	38:BO:10:ARG:HH22	1.67	0.59
24:BA:2680:U:C2'	24:BA:2681:C:O5'	2.50	0.59
24:BA:2738:A:C2	24:BA:2739:U:H1'	2.38	0.59
24:BA:2780:G:H4'	24:BA:2781:A:OP2	2.02	0.59
24:BA:2835:A:N6	24:BA:2879:A:OP2	2.36	0.59
25:BB:20:G:C2	25:BB:21:G:C4	2.91	0.59
26:BC:83:ASP:CG	26:BC:86:ARG:HG2	2.27	0.59
26:BC:87:SER:HB2	26:BC:157:ALA:HB2	1.84	0.59
28:BE:170:ARG:NH2	28:BE:174:GLY:O	2.35	0.59
29:BF:107:VAL:N	29:BF:108:PRO:CD	2.66	0.59
29:BF:122:ASP:OD1	29:BF:125:GLY:N	2.36	0.59
30:BG:88:LEU:HD12	30:BG:88:LEU:N	2.16	0.59
31:BH:81:ALA:HB2	31:BH:147:VAL:HG13	1.84	0.59
33:BJ:109:LEU:HB3	33:BJ:110:PRO:CD	2.32	0.59
42:BS:63:GLY:O	42:BS:64:ALA:HB3	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BW:24:LYS:HD2	46:BW:36:ILE:O	2.03	0.59
46:BW:34:GLY:HA2	46:BW:61:ALA:O	2.02	0.59
48:BY:16:THR:O	48:BY:19:LEU:N	2.36	0.59
1:CA:181:A:H1'	1:CA:194:C:N4	2.18	0.59
1:CA:381:C:H2'	1:CA:382:A:O4'	2.03	0.59
1:CA:701:U:H4'	1:CA:703:G:N7	2.18	0.59
1:CA:1170:A:N7	1:CA:1171:A:N9	2.51	0.59
1:CA:1315:U:HO2'	1:CA:1360:A:HO2'	1.48	0.59
1:CA:1513:A:H2'	1:CA:1514:G:H8	1.67	0.59
2:CB:114:LEU:HD13	2:CB:144:LEU:CD1	2.33	0.59
2:CB:193:PRO:O	2:CB:195:GLY:N	2.36	0.59
4:CD:102:VAL:HG11	4:CD:114:ALA:HB2	1.84	0.59
4:CD:191:LEU:O	4:CD:192:SER:CB	2.51	0.59
7:CG:26:PHE:HA	7:CG:29:ILE:HG22	1.85	0.59
7:CG:145:ALA:O	7:CG:146:GLU:C	2.44	0.59
15:CO:46:HIS:C	15:CO:47:LYS:HG3	2.28	0.59
15:CO:75:VAL:HA	15:CO:78:TYR:OH	2.03	0.59
20:CT:31:PHE:HB3	20:CT:54:MET:HG3	1.83	0.59
24:DA:29:U:O2'	24:DA:30:G:H5'	2.01	0.59
24:DA:323:C:N4	24:DA:333:G:C8	2.71	0.59
24:DA:782:A:N3	26:DC:224:MET:HG2	2.17	0.59
24:DA:2124:G:N2	24:DA:2175:C:O2	2.35	0.59
24:DA:2250:G:O2'	24:DA:2496:C:OP1	2.16	0.59
26:DC:114:GLN:O	26:DC:124:LYS:CE	2.50	0.59
28:DE:151:GLY:HA3	28:DE:191:ASP:CG	2.27	0.59
29:DF:153:ILE:C	29:DF:153:ILE:HD12	2.27	0.59
31:DH:121:VAL:C	31:DH:123:ARG:H	2.11	0.59
36:DM:73:ILE:HD13	36:DM:93:VAL:HG13	1.84	0.59
45:DV:29:ILE:HD12	45:DV:90:ASP:HA	1.83	0.59
47:DX:32:LEU:CD1	47:DX:49:ARG:HE	2.16	0.59
52:D2:24:THR:HG23	52:D2:27:GLY:HA3	1.84	0.59
1:AA:4:U:H5"	1:AA:5:U:O4	2.03	0.59
1:AA:49:U:C4	1:AA:364:A:C6	2.90	0.59
1:AA:74:A:N3	1:AA:97:G:C2	2.70	0.59
1:AA:121:U:O2'	1:AA:122:G:P	2.61	0.59
1:AA:552:U:C2	1:AA:553:A:C8	2.90	0.59
1:AA:1371:G:OP1	9:AI:13:LYS:NZ	2.33	0.59
1:AA:1372:U:C4	1:AA:1373:G:N7	2.71	0.59
2:AB:47:VAL:HB	2:AB:48:PRO:HD2	1.85	0.59
2:AB:72:THR:O	2:AB:73:LYS:CG	2.51	0.59
4:AD:9:LEU:HB2	4:AD:13:ARG:CZ	2.33	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:91:LEU:C	4:AD:93:LEU:N	2.60	0.59
5:AE:75:ALA:HB1	5:AE:149:SER:HA	1.83	0.59
8:AH:32:LEU:O	8:AH:36:ILE:N	2.30	0.59
9:AI:35:LEU:C	9:AI:35:LEU:HD12	2.27	0.59
10:AJ:6:ILE:HG22	10:AJ:7:ARG:N	2.18	0.59
12:AL:107:VAL:HG12	12:AL:108:LYS:H	1.67	0.59
16:AP:43:ALA:O	16:AP:44:SER:CB	2.51	0.59
20:AT:17:ALA:O	20:AT:21:ASN:HB2	2.02	0.59
20:AT:78:ASN:O	20:AT:79:LEU:C	2.45	0.59
24:BA:995:C:N4	57:BA:3166:NMY:N6	2.51	0.59
24:BA:1010:A:N7	59:BA:3781:HOH:O	2.31	0.59
24:BA:1069:A:N1	24:BA:1074:G:C4	2.70	0.59
24:BA:1281:G:H2'	24:BA:1282:U:C6	2.38	0.59
24:BA:2218:G:OP1	47:BX:45:PHE:CE1	2.55	0.59
24:BA:2414:G:C2	24:BA:2415:G:N9	2.70	0.59
24:BA:2466:C:OP2	54:B4:4:ARG:CZ	2.51	0.59
25:BB:34:A:C4	25:BB:44:G:N7	2.71	0.59
29:BF:100:GLU:O	29:BF:103:ILE:N	2.35	0.59
33:BJ:81:ILE:HG13	33:BJ:82:GLY:H	1.68	0.59
38:BO:27:VAL:HG13	38:BO:93:ASP:OD2	2.02	0.59
1:CA:77:A:N6	1:CA:91:U:O4	2.36	0.59
1:CA:96:U:O2'	1:CA:97:G:P	2.61	0.59
1:CA:188:C:N3	1:CA:189:A:C2	2.70	0.59
1:CA:204:G:H3'	1:CA:205:A:C5'	2.33	0.59
1:CA:214:C:O2'	1:CA:215:C:OP1	2.21	0.59
1:CA:722:G:O2'	1:CA:723:U:P	2.60	0.59
1:CA:922:G:H4'	5:CE:25:VAL:HA	1.83	0.59
1:CA:1204:A:OP2	59:CA:1844:HOH:O	2.17	0.59
1:CA:1299:A:O2'	1:CA:1300:G:P	2.61	0.59
3:CC:106:VAL:CG1	3:CC:109:PRO:HB3	2.33	0.59
4:CD:9:LEU:O	4:CD:11:LEU:N	2.36	0.59
11:CK:33:THR:HG22	11:CK:44:TRP:CG	2.38	0.59
14:CN:29:ILE:O	14:CN:34:ASN:ND2	2.36	0.59
19:CS:18:LYS:CD	19:CS:31:LEU:HD13	2.33	0.59
19:CS:42:PRO:HD3	19:CS:67:VAL:CG2	2.33	0.59
20:CT:11:ALA:O	20:CT:14:SER:OG	2.18	0.59
24:DA:211:C:O2'	24:DA:212:G:H5'	2.03	0.59
24:DA:1082:U:OP1	32:DI:123:ALA:CB	2.51	0.59
24:DA:1268:A:OP1	59:DA:3378:HOH:O	2.16	0.59
24:DA:1549:A:C6	24:DA:1550:C:C4	2.91	0.59
24:DA:1725:U:C4	24:DA:1726:C:C4	2.91	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2063:C:O2	24:DA:2450:A:N1	2.35	0.59
24:DA:2088:A:C6	24:DA:2089:C:N4	2.71	0.59
24:DA:2204:G:H4'	26:DC:149:LYS:HB2	1.85	0.59
24:DA:2379:G:H4'	38:DO:21:LEU:HD21	1.85	0.59
29:DF:36:ASN:OD1	29:DF:37:MET:N	2.35	0.59
39:DP:92:ARG:O	39:DP:93:LYS:CB	2.49	0.59
46:DW:20:ARG:HH11	46:DW:20:ARG:HG2	1.66	0.59
1:AA:294:U:O2	1:AA:294:U:H2'	2.02	0.59
1:AA:664:G:C5'	18:AR:53:ARG:NH2	2.66	0.59
1:AA:675:A:H1'	11:AK:118:HIS:CG	2.38	0.59
1:AA:1009:U:O2	1:AA:1021:A:N1	2.35	0.59
1:AA:1060:U:C5'	10:AJ:53:ILE:HG12	2.33	0.59
1:AA:1181:G:H4'	1:AA:1182:G:OP1	2.03	0.59
4:AD:107:PHE:O	4:AD:155:VAL:HG12	2.02	0.59
5:AE:82:GLN:O	5:AE:83:HIS:HB2	2.03	0.59
6:AF:80:PHE:C	6:AF:80:PHE:CD1	2.78	0.59
24:BA:409:G:N2	24:BA:410:G:C4	2.71	0.59
24:BA:555:G:HO2'	24:BA:556:A:P	2.26	0.59
24:BA:733:G:OP2	59:BA:3300:HOH:O	2.17	0.59
24:BA:748:G:C8	42:BS:89:ALA:HB1	2.38	0.59
24:BA:943:A:H2'	24:BA:944:C:H5'	1.84	0.59
24:BA:1512:C:H2'	24:BA:1513:U:H5'	1.84	0.59
24:BA:1569:A:N6	24:BA:1570:A:C6	2.71	0.59
24:BA:2286:G:C8	51:B1:24:LYS:CE	2.86	0.59
24:BA:2591:C:H2'	24:BA:2592:G:C8	2.38	0.59
24:BA:2734:A:H2'	24:BA:2735:G:C5'	2.33	0.59
25:BB:43:C:C4	25:BB:45:A:N6	2.70	0.59
27:BD:133:THR:HG23	27:BD:134:HIS:N	2.18	0.59
39:BP:27:VAL:HG21	39:BP:73:PHE:CE1	2.38	0.59
42:BS:56:ALA:O	42:BS:57:ASN:C	2.45	0.59
42:BS:74:ILE:HD13	42:BS:105:VAL:HG22	1.85	0.59
44:BU:53:GLN:N	44:BU:54:PRO:CD	2.66	0.59
1:CA:443:C:H2'	1:CA:444:G:H5'	1.85	0.59
1:CA:595:A:O2'	1:CA:596:A:OP2	2.21	0.59
1:CA:1309:G:N3	1:CA:1329:A:C4	2.71	0.59
1:CA:1358:U:H6	1:CA:1359:C:C6	2.20	0.59
2:CB:149:GLY:O	2:CB:150:GLY:C	2.45	0.59
5:CE:74:VAL:HG23	5:CE:76:LEU:HD12	1.84	0.59
12:CL:82:ILE:HG12	12:CL:95:TYR:CD1	2.38	0.59
17:CQ:25:ILE:HG22	17:CQ:26:GLU:N	2.17	0.59
17:CQ:45:HIS:CB	17:CQ:71:LYS:HB3	2.33	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:CU:17:ARG:HG2	21:CU:20:LYS:CD	2.33	0.59
22:CV:63:G:H2'	22:CV:64:A:C8	2.38	0.59
55:CY:17:VAL:HG12	55:CY:171:ILE:HG12	1.85	0.59
24:DA:565:C:OP1	41:DR:79:ARG:CD	2.51	0.59
24:DA:782:A:O2'	26:DC:223:ALA:HB1	2.02	0.59
24:DA:846:U:H2'	24:DA:846:U:O2	2.03	0.59
24:DA:1099:G:N7	24:DA:1100:C:C2	2.71	0.59
24:DA:1565:C:OP1	26:DC:17:LYS:NZ	2.35	0.59
24:DA:2209:G:C5	24:DA:2210:U:C4	2.90	0.59
24:DA:2221:G:C4	24:DA:2222:C:C6	2.91	0.59
57:DA:3185:NMY:H5	57:DA:3185:NMY:H91	1.68	0.59
25:DB:45:A:P	29:DF:91:ARG:HD3	2.43	0.59
27:DD:124:ARG:HG2	27:DD:125:TRP:CD1	2.38	0.59
28:DE:73:ILE:O	28:DE:73:ILE:HG12	2.02	0.59
29:DF:91:ARG:HG3	29:DF:92:GLY:N	2.18	0.59
31:DH:90:LEU:HB2	31:DH:92:GLY:O	2.03	0.59
37:DN:67:PHE:HA	37:DN:70:THR:HG22	1.83	0.59
1:AA:19:A:H5"	5:AE:91:GLY:HA3	1.83	0.58
1:AA:345:C:O4'	1:AA:346:G:N1	2.36	0.58
1:AA:389:A:C2'	1:AA:390:U:H5'	2.31	0.58
1:AA:393:A:C6	1:AA:394:G:N7	2.71	0.58
1:AA:799:G:C2'	1:AA:800:G:H5'	2.32	0.58
1:AA:950:U:C6	13:AM:101:ARG:NH2	2.71	0.58
1:AA:1010:U:N3	1:AA:1020:G:N2	2.51	0.58
1:AA:1215:G:C4	1:AA:1216:A:C8	2.91	0.58
1:AA:1287:A:C6	1:AA:1288:A:C6	2.91	0.58
5:AE:83:HIS:CB	8:AH:96:MET:SD	2.91	0.58
8:AH:70:ALA:O	8:AH:72:VAL:N	2.34	0.58
13:AM:77:ILE:O	13:AM:78:LYS:C	2.46	0.58
21:AU:4:ILE:HD13	21:AU:4:ILE:N	2.18	0.58
22:AV:75:C:H3'	22:AV:76:A:H3'	1.85	0.58
24:BA:880:G:N2	24:BA:898:C:C2	2.70	0.58
24:BA:1005:C:O2	24:BA:1005:C:H2'	2.03	0.58
24:BA:1381:G:N2	24:BA:1382:G:H1'	2.17	0.58
24:BA:1410:G:N2	24:BA:1592:C:N3	2.51	0.58
24:BA:1438:U:C5	24:BA:1552:A:C2	2.90	0.58
24:BA:2297:A:N1	24:BA:2321:U:H5	2.01	0.58
24:BA:2307:G:C2	24:BA:2311:A:N7	2.71	0.58
24:BA:2492:U:C2'	24:BA:2493:U:H5'	2.33	0.58
24:BA:2725:A:N1	24:BA:2727:A:H1'	2.18	0.58
25:BB:105:G:N2	25:BB:106:G:C4	2.71	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BN:52:ILE:HG21	37:BN:94:TYR:CD2	2.38	0.58
42:BS:32:ALA:O	42:BS:35:ILE:HB	2.02	0.58
1:CA:194:C:OP1	20:CT:60:ARG:NH2	2.36	0.58
1:CA:246:A:C6	1:CA:279:A:N7	2.71	0.58
1:CA:407:U:O3'	4:CD:113:GLU:OE1	2.21	0.58
1:CA:560:A:C5	5:CE:128:TYR:CE2	2.91	0.58
1:CA:672:U:HO2'	18:CR:64:TYR:HH	1.48	0.58
1:CA:1051:C:C4	1:CA:1052:U:C5	2.91	0.58
1:CA:1253:G:H2'	1:CA:1254:A:H8	1.67	0.58
5:CE:46:VAL:O	5:CE:71:MET:HA	2.03	0.58
7:CG:2:PRO:C	7:CG:4:ARG:N	2.61	0.58
11:CK:81:ASN:HB2	11:CK:106:ARG:CZ	2.33	0.58
15:CO:89:ARG:CZ	24:DA:714:U:C6	2.86	0.58
24:DA:2577:A:H5"	24:DA:2578:G:H5'	1.84	0.58
27:DD:85:ALA:O	27:DD:86:GLU:CB	2.50	0.58
28:DE:145:ASP:OD1	28:DE:145:ASP:C	2.46	0.58
29:DF:147:ARG:CG	29:DF:148:VAL:N	2.65	0.58
31:DH:3:VAL:HG23	31:DH:37:VAL:C	2.27	0.58
31:DH:145:ASN:CG	31:DH:146:VAL:N	2.61	0.58
44:DU:73:ASN:CG	44:DU:76:THR:HG21	2.27	0.58
48:DY:17:GLU:O	48:DY:20:ASN:N	2.36	0.58
49:DZ:50:VAL:O	49:DZ:52:PHE:N	2.36	0.58
1:AA:540:G:C6	1:AA:541:G:C5	2.91	0.58
1:AA:680:C:H2'	1:AA:681:A:O4'	2.04	0.58
1:AA:1133:G:H3'	1:AA:1134:G:C8	2.38	0.58
1:AA:1158:C:C5	1:AA:1160:G:H1'	2.38	0.58
3:AC:6:HIS:ND1	14:AN:89:MET:HB3	2.18	0.58
4:AD:203:LEU:CD1	4:AD:203:LEU:C	2.76	0.58
8:AH:36:ILE:O	8:AH:39:VAL:N	2.36	0.58
11:AK:93:ARG:NE	11:AK:93:ARG:HA	2.18	0.58
15:AO:87:LEU:O	15:AO:88:ARG:C	2.46	0.58
19:AS:63:THR:N	19:AS:66:MET:SD	2.76	0.58
24:BA:391:A:C5	24:BA:392:U:C5	2.91	0.58
24:BA:410:G:C2	24:BA:2407:A:N7	2.71	0.58
24:BA:492:A:OP2	57:BA:3164:NMY:N7	2.35	0.58
24:BA:729:G:OP1	26:BC:11:GLY:O	2.21	0.58
24:BA:878:A:C4	24:BA:879:G:H1'	2.38	0.58
24:BA:1218:G:N2	24:BA:1232:G:C4	2.71	0.58
24:BA:1341:G:N2	43:BT:84:TYR:HB3	2.18	0.58
24:BA:1378:A:O3'	59:BA:3755:HOH:O	2.17	0.58
24:BA:1448:G:N1	24:BA:1464:G:C2	2.71	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2323:G:C6	24:BA:2324:U:N3	2.70	0.58
25:BB:26:C:C4	25:BB:27:C:C4	2.91	0.58
26:BC:18:VAL:O	26:BC:18:VAL:HG12	2.03	0.58
33:BJ:29:ALA:HA	33:BJ:32:LEU:CD1	2.34	0.58
34:BK:91:SER:OG	34:BK:93:GLN:OE1	2.21	0.58
47:BX:4:CYS:SG	47:BX:51:SER:CB	2.91	0.58
1:CA:70:U:C6	1:CA:70:U:OP2	2.56	0.58
1:CA:405:U:OP1	1:CA:406:G:O2'	2.18	0.58
1:CA:430:A:OP1	4:CD:9:LEU:HB3	2.03	0.58
9:CI:124:ARG:CB	9:CI:125:PRO:CD	2.81	0.58
21:CU:37:PHE:O	21:CU:39:GLU:N	2.36	0.58
24:DA:146:A:C2	24:DA:147:C:C2	2.91	0.58
24:DA:735:A:C8	24:DA:736:C:C5	2.91	0.58
24:DA:953:G:O2'	24:DA:954:G:H5'	2.03	0.58
24:DA:1059:G:H5"	24:DA:1060:U:H2'	1.84	0.58
24:DA:1299:G:O2'	24:DA:1640:A:N6	2.36	0.58
24:DA:1378:A:C8	24:DA:1380:G:N7	2.71	0.58
24:DA:1619:G:O2'	24:DA:1620:G:H5'	2.03	0.58
24:DA:2482:A:C2	36:DM:51:ARG:NH2	2.71	0.58
26:DC:121:ALA:O	26:DC:122:ALA:O	2.21	0.58
33:DJ:30:THR:HG22	33:DJ:31:GLU:N	2.19	0.58
44:DU:5:ARG:CZ	44:DU:6:ARG:HB3	2.33	0.58
1:AA:16:A:C5	1:AA:17:U:C5	2.91	0.58
1:AA:198:G:C2	1:AA:199:A:C8	2.91	0.58
1:AA:511:C:O2'	1:AA:512:U:OP2	2.20	0.58
1:AA:539:A:C6	1:AA:540:G:C6	2.92	0.58
1:AA:684:U:H2'	1:AA:685:G:O5'	2.03	0.58
3:AC:154:SER:HB3	3:AC:165:THR:HG22	1.84	0.58
8:AH:94:LYS:CG	8:AH:98:GLY:HA2	2.34	0.58
13:AM:22:ILE:O	13:AM:24:GLY:N	2.36	0.58
24:BA:168:G:N2	24:BA:169:G:H1'	2.18	0.58
24:BA:604:G:H2'	24:BA:605:G:O5'	2.03	0.58
24:BA:1343:G:C6	24:BA:1344:U:C4	2.90	0.58
24:BA:1711:A:C2	24:BA:1748:C:C2	2.91	0.58
24:BA:1946:U:O2'	24:BA:1947:C:H5'	2.03	0.58
24:BA:2531:A:H4'	30:BG:156:TYR:CD2	2.38	0.58
24:BA:2722:G:H4'	37:BN:4:ARG:HB2	1.84	0.58
26:BC:180:MET:O	26:BC:267:VAL:HB	2.03	0.58
27:BD:125:TRP:HB2	27:BD:160:LYS:HG2	1.85	0.58
28:BE:164:LEU:HD11	28:BE:167:VAL:HB	1.84	0.58
41:BR:21:ARG:NH2	41:BR:93:PHE:CE2	2.71	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:401:C:OP2	4:CD:70:ARG:NE	2.36	0.58
1:CA:825:A:O2'	8:CH:13:ARG:NH1	2.36	0.58
1:CA:1287:A:N6	1:CA:1288:A:N6	2.51	0.58
2:CB:184:PHE:CZ	2:CB:198:PHE:CD2	2.90	0.58
4:CD:58:LYS:HE2	4:CD:203:LEU:CB	2.33	0.58
11:CK:23:ILE:HD12	11:CK:96:THR:HG21	1.85	0.58
11:CK:87:LYS:HA	11:CK:114:THR:HG22	1.84	0.58
16:CP:49:GLY:C	16:CP:50:THR:CG2	2.76	0.58
17:CQ:28:PHE:HA	17:CQ:39:LYS:HA	1.85	0.58
20:CT:35:VAL:O	20:CT:39:ILE:HD12	2.03	0.58
20:CT:66:LEU:O	20:CT:67:ILE:HB	2.03	0.58
22:CV:2:C:C6	22:CV:2:C:OP2	2.56	0.58
24:DA:77:G:O3'	48:DY:2:LYS:CD	2.51	0.58
24:DA:205:G:O2'	24:DA:206:U:OP2	2.14	0.58
24:DA:1069:A:C5	24:DA:1074:G:C5	2.91	0.58
24:DA:1176:U:H2'	24:DA:1177:G:C8	2.37	0.58
24:DA:1724:G:N1	24:DA:1736:U:O2	2.37	0.58
24:DA:2314:A:N6	24:DA:2315:G:O6	2.37	0.58
24:DA:2523:G:C2'	24:DA:2524:G:H5'	2.34	0.58
28:DE:159:LEU:C	28:DE:159:LEU:HD13	2.28	0.58
38:DO:8:ILE:HD12	38:DO:12:THR:HG23	1.85	0.58
49:DZ:6:ILE:HG22	49:DZ:54:VAL:CG2	2.33	0.58
1:AA:293:G:C4	1:AA:305:G:N2	2.71	0.58
1:AA:812:G:OP1	1:AA:903:G:H1'	2.03	0.58
1:AA:992:U:C6	1:AA:1043:G:N7	2.70	0.58
1:AA:1156:G:H5"	1:AA:1157:A:OP2	2.04	0.58
4:AD:194:ASP:N	4:AD:194:ASP:OD1	2.34	0.58
12:AL:9:ARG:O	12:AL:10:LYS:CB	2.50	0.58
13:AM:114:LYS:CB	13:AM:115:PRO:CD	2.79	0.58
18:AR:33:ILE:HD12	18:AR:34:THR:O	2.03	0.58
24:BA:485:C:N3	24:BA:496:G:C2	2.71	0.58
24:BA:1335:C:P	43:BT:68:LYS:HE3	2.44	0.58
24:BA:1974:C:C4	24:BA:1975:G:N7	2.71	0.58
24:BA:2291:U:H2'	24:BA:2292:U:C6	2.38	0.58
24:BA:2562:U:C4	24:BA:2563:U:C5	2.91	0.58
25:BB:8:C:OP1	38:BO:29:HIS:CD2	2.56	0.58
36:BM:64:TRP:O	36:BM:65:ILE:O	2.21	0.58
37:BN:117:ASP:O	37:BN:118:ARG:CB	2.50	0.58
1:CA:115:G:H4'	1:CA:116:A:O5'	2.03	0.58
1:CA:375:U:C2'	1:CA:376:G:H5"	2.33	0.58
1:CA:590:U:H2'	1:CA:591:U:C6	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:639:G:C2	1:CA:640:A:C8	2.91	0.58
1:CA:966:G:C2'	9:CI:129:LYS:HG2	2.33	0.58
1:CA:982:U:H4'	1:CA:983:A:C5'	2.34	0.58
1:CA:1041:G:C6	1:CA:1042:A:C5	2.91	0.58
1:CA:1092:A:C4	1:CA:1183:U:C4	2.91	0.58
1:CA:1223:C:P	1:CA:1224:U:H2'	2.43	0.58
6:CF:74:LEU:C	6:CF:74:LEU:HD23	2.28	0.58
14:CN:22:LYS:HG2	14:CN:23:ARG:N	2.18	0.58
17:CQ:11:ARG:HD2	17:CQ:56:GLY:HA2	1.85	0.58
24:DA:71:A:OP1	24:DA:72:U:H2'	2.04	0.58
24:DA:408:G:C2	24:DA:420:C:O2	2.57	0.58
24:DA:581:C:H2'	24:DA:582:A:C8	2.38	0.58
24:DA:597:G:C6	24:DA:598:U:C4	2.92	0.58
24:DA:783:A:H2'	24:DA:784:G:H4'	1.83	0.58
24:DA:1068:G:O6	24:DA:1069:A:C6	2.57	0.58
24:DA:1502:A:C2	24:DA:1503:A:C4	2.92	0.58
24:DA:1511:G:C2	24:DA:1512:C:C2	2.91	0.58
24:DA:1947:C:C2	24:DA:1960:A:C2	2.91	0.58
33:DJ:69:ARG:HA	33:DJ:89:PHE:CD2	2.39	0.58
34:DK:4:GLU:O	34:DK:5:GLN:CB	2.51	0.58
36:DM:134:THR:OG1	45:DV:79:ARG:NH2	2.36	0.58
37:DN:117:ASP:O	37:DN:119:SER:N	2.36	0.58
42:DS:55:ILE:C	42:DS:55:ILE:HD12	2.27	0.58
1:AA:32:A:C5'	1:AA:398:U:HO2'	2.16	0.58
1:AA:442:G:C6	1:AA:443:C:C4	2.92	0.58
1:AA:451:A:H1'	1:AA:452:A:N7	2.18	0.58
1:AA:695:A:C6	1:AA:696:A:C6	2.91	0.58
1:AA:767:A:O2'	1:AA:1524:C:O2	2.21	0.58
1:AA:947:G:OP2	13:AM:107:ARG:NE	2.36	0.58
1:AA:994:A:N3	14:AN:4:SER:OG	2.34	0.58
1:AA:1126:U:O2	1:AA:1126:U:O2'	2.18	0.58
1:AA:1207:G:H2'	1:AA:1208:C:O4'	2.02	0.58
1:AA:1394:A:H4'	1:AA:1395:C:OP2	2.02	0.58
3:AC:6:HIS:HB3	14:AN:89:MET:HE2	1.85	0.58
5:AE:114:VAL:CG2	5:AE:115:LEU:N	2.66	0.58
6:AF:1:MET:SD	6:AF:66:ALA:HA	2.43	0.58
8:AH:82:GLY:O	8:AH:83:LEU:CB	2.51	0.58
24:BA:199:A:C8	24:BA:2433:A:N6	2.71	0.58
24:BA:480:A:O3'	44:BU:43:LYS:CG	2.51	0.58
24:BA:674:G:C1'	28:BE:69:ARG:HD3	2.32	0.58
24:BA:1071:G:C8	24:BA:1089:A:C5	2.91	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1183:U:H2'	24:BA:1184:U:C6	2.38	0.58
24:BA:2294:G:H5"	38:BO:10:ARG:NH1	2.18	0.58
24:BA:2310:C:H2'	24:BA:2311:A:H5"	1.84	0.58
24:BA:2820:A:HO2'	24:BA:2821:A:P	2.26	0.58
24:BA:2841:C:C2	24:BA:2877:G:N2	2.72	0.58
24:BA:2861:U:O2'	24:BA:2862:G:H5'	2.03	0.58
29:BF:173:ASP:O	29:BF:174:PHE:C	2.46	0.58
33:BJ:56:VAL:CG2	33:BJ:124:VAL:HG13	2.32	0.58
35:BL:129:LYS:HD3	35:BL:130:GLY:N	2.18	0.58
41:BR:1:MET:SD	41:BR:43:ASN:HB2	2.43	0.58
1:CA:258:G:C5	1:CA:259:G:C8	2.90	0.58
1:CA:370:C:C4	1:CA:371:A:N7	2.72	0.58
1:CA:675:A:O2'	11:CK:116:ILE:O	2.17	0.58
1:CA:719:C:H1'	18:CR:38:LYS:CG	2.33	0.58
1:CA:775:G:C2	1:CA:776:G:C5	2.91	0.58
1:CA:793:U:H3'	1:CA:794:A:H5"	1.84	0.58
1:CA:795:C:HO2'	11:CK:128:ARG:HG3	1.68	0.58
1:CA:859:G:H2'	1:CA:860:A:C8	2.39	0.58
1:CA:946:A:H2'	1:CA:947:G:C8	2.38	0.58
2:CB:119:THR:O	2:CB:120:GLN:HB3	2.02	0.58
2:CB:166:ALA:HB3	2:CB:191:SER:CB	2.33	0.58
7:CG:21:GLU:O	7:CG:22:LEU:C	2.46	0.58
7:CG:48:GLU:OE2	7:CG:49:THR:OG1	2.21	0.58
11:CK:67:ALA:O	11:CK:68:GLU:C	2.46	0.58
55:CY:13:MET:HG3	55:CY:131:VAL:HG11	1.84	0.58
24:DA:285:G:C6	24:DA:356:G:C6	2.92	0.58
24:DA:575:A:C2'	24:DA:576:U:H5'	2.33	0.58
24:DA:1362:C:H2'	24:DA:1363:C:O5'	2.04	0.58
24:DA:2017:U:OP2	59:DA:3272:HOH:O	2.17	0.58
27:DD:133:THR:O	27:DD:134:HIS:C	2.46	0.58
27:DD:186:LEU:HD21	39:DP:3:ILE:HG21	1.86	0.58
28:DE:18:THR:HG22	28:DE:19:PHE:CE2	2.38	0.58
28:DE:28:VAL:O	28:DE:32:VAL:HG13	2.03	0.58
36:DM:53:MET:O	36:DM:56:ALA:HB3	2.03	0.58
1:AA:32:A:H2	1:AA:33:A:C5	2.21	0.58
1:AA:53:A:C2	1:AA:359:G:C2	2.91	0.58
1:AA:149:A:C2	1:AA:150:U:C2	2.91	0.58
1:AA:846:G:C2	1:AA:847:G:N7	2.72	0.58
1:AA:891:U:H2'	1:AA:892:A:H5'	1.85	0.58
4:AD:44:ARG:O	4:AD:45:LYS:C	2.46	0.58
9:AI:51:PRO:O	9:AI:55:VAL:HG12	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:11:ASP:C	13:AM:44:LYS:HZ1	2.12	0.58
16:AP:68:SER:OG	16:AP:69:ASP:N	2.36	0.58
19:AS:73:GLU:OE2	19:AS:74:PHE:CD2	2.57	0.58
24:BA:611:C:C5	24:BA:612:G:C5	2.92	0.58
24:BA:1355:G:C6	24:BA:1377:G:N2	2.71	0.58
24:BA:1429:G:C5	24:BA:1568:G:C6	2.90	0.58
24:BA:1799:G:P	26:BC:257:ARG:HH22	2.26	0.58
24:BA:2370:G:H2'	24:BA:2371:G:O4'	2.04	0.58
24:BA:2467:C:N4	24:BA:2468:A:C6	2.72	0.58
57:BA:3165:NMY:O22	57:BA:3165:NMY:O14	2.20	0.58
28:BE:113:VAL:CG2	28:BE:114:ARG:N	2.66	0.58
31:BH:8:LYS:O	31:BH:13:GLY:HA3	2.03	0.58
38:BO:40:ILE:HD12	38:BO:44:GLY:HA2	1.85	0.58
42:BS:70:LYS:C	42:BS:107:VAL:HG23	2.29	0.58
1:CA:246:A:N6	1:CA:279:A:C8	2.71	0.58
1:CA:484:G:H4'	1:CA:485:U:C5'	2.33	0.58
1:CA:579:A:N3	1:CA:580:C:C6	2.72	0.58
1:CA:706:A:O2'	11:CK:33:THR:HG21	2.03	0.58
1:CA:844:G:H2'	1:CA:845:A:H5"	1.84	0.58
1:CA:958:A:C5	19:CS:55:ARG:CZ	2.87	0.58
1:CA:1107:C:C3'	1:CA:1108:G:H5"	2.34	0.58
1:CA:1349:A:P	9:CI:120:LYS:CE	2.91	0.58
1:CA:1354:U:O2'	1:CA:1355:G:P	2.60	0.58
4:CD:64:ILE:CG2	4:CD:65:TYR:CD2	2.87	0.58
4:CD:113:GLU:N	4:CD:113:GLU:OE1	2.37	0.58
8:CH:95:VAL:HG22	8:CH:128:TYR:CE2	2.38	0.58
10:CJ:73:LEU:O	10:CJ:74:VAL:CG1	2.51	0.58
11:CK:33:THR:HG22	11:CK:44:TRP:CD2	2.38	0.58
24:DA:77:G:O3'	48:DY:2:LYS:NZ	2.36	0.58
24:DA:1320:C:N3	24:DA:1331:G:O6	2.35	0.58
24:DA:1421:G:C2	24:DA:1422:G:C8	2.91	0.58
24:DA:1921:G:O6	57:DA:3184:NMY:C7	2.51	0.58
24:DA:2211:A:O2'	24:DA:2212:A:P	2.60	0.58
26:DC:57:HIS:CD2	26:DC:58:LYS:N	2.72	0.58
33:DJ:36:LEU:O	33:DJ:51:GLY:HA3	2.02	0.58
35:DL:109:LYS:NZ	35:DL:128:THR:HG22	2.19	0.58
36:DM:57:VAL:HG12	36:DM:112:LEU:HD23	1.85	0.58
42:DS:73:LYS:HB2	42:DS:106:VAL:HG11	1.84	0.58
44:DU:82:VAL:CG1	44:DU:83:GLY:N	2.67	0.58
1:AA:220:G:C6	1:AA:221:C:C4	2.92	0.58
1:AA:445:G:C6	1:AA:446:G:C5	2.91	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:1656:NMY:N19	57:AA:1656:NMY:O17	2.37	0.58
2:AB:218:ALA:HA	2:AB:221:VAL:CG1	2.33	0.58
13:AM:92:ARG:NH2	24:BA:885:C:O3'	2.36	0.58
15:AO:71:LYS:N	15:AO:78:TYR:CE1	2.71	0.58
24:BA:238:C:H2'	24:BA:239:C:O5'	2.03	0.58
24:BA:1315:C:C2	24:BA:1338:G:N2	2.72	0.58
24:BA:1343:G:C6	24:BA:1344:U:O4	2.57	0.58
24:BA:1403:A:C2	24:BA:1404:C:C2	2.91	0.58
24:BA:1408:G:C6	24:BA:1409:U:C4	2.92	0.58
24:BA:1445:G:C2	24:BA:1446:C:C2	2.90	0.58
24:BA:1557:C:C2	24:BA:1558:C:C5	2.92	0.58
24:BA:1934:C:H4'	24:BA:1974:C:O3'	2.03	0.58
24:BA:2293:G:H5"	38:BO:94:ARG:NH2	2.18	0.58
24:BA:2403:C:O2	24:BA:2403:C:H2'	2.02	0.58
24:BA:2886:A:C4	24:BA:2887:A:C8	2.91	0.58
27:BD:159:LYS:HD2	27:BD:160:LYS:N	2.19	0.58
28:BE:84:THR:CG2	28:BE:85:PHE:CD2	2.86	0.58
31:BH:62:LEU:HD13	31:BH:63:ALA:N	2.19	0.58
34:BK:118:LEU:O	34:BK:119:ALA:CB	2.51	0.58
40:BQ:37:ALA:O	40:BQ:40:LYS:HG3	2.04	0.58
1:CA:701:U:O2	1:CA:703:G:N1	2.37	0.58
1:CA:728:A:C8	15:CO:54:ARG:NE	2.72	0.58
1:CA:809:G:H2'	1:CA:810:C:O5'	2.03	0.58
1:CA:1206:G:C6	1:CA:1207:G:C5	2.92	0.58
2:CB:93:ASN:HB3	2:CB:94:HIS:CE1	2.39	0.58
7:CG:136:LYS:O	7:CG:139:GLU:N	2.35	0.58
15:CO:7:ALA:O	15:CO:8:THR:CB	2.51	0.58
15:CO:70:LEU:HD13	15:CO:78:TYR:CD1	2.38	0.58
16:CP:67:ILE:HD12	16:CP:67:ILE:N	2.18	0.58
17:CQ:48:ASP:OD1	17:CQ:48:ASP:N	2.35	0.58
18:CR:31:ASN:O	18:CR:32:TYR:CB	2.51	0.58
19:CS:34:TRP:O	19:CS:35:SER:C	2.46	0.58
20:CT:67:ILE:CG2	20:CT:71:LYS:HB3	2.34	0.58
21:CU:10:GLU:CB	21:CU:11:PRO:HD3	2.34	0.58
24:DA:569:U:H2'	24:DA:570:G:O5'	2.03	0.58
24:DA:1386:C:H2'	24:DA:1387:A:C8	2.39	0.58
24:DA:2484:G:P	36:DM:44:ARG:NH2	2.77	0.58
25:DB:8:C:O3'	38:DO:25:ARG:NH1	2.36	0.58
26:DC:230:PRO:O	26:DC:241:LYS:HD3	2.03	0.58
27:DD:35:THR:HA	27:DD:71:ALA:HB1	1.86	0.58
29:DF:121:PHE:CE1	29:DF:127:TYR:CE1	2.91	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DL:110:VAL:CG1	35:DL:127:VAL:HG22	2.34	0.58
36:DM:28:PHE:O	36:DM:29:GLY:O	2.22	0.58
48:DY:26:PHE:CD1	48:DY:26:PHE:C	2.81	0.58
48:DY:39:GLN:HB3	48:DY:42:LEU:HD13	1.86	0.58
49:DZ:31:ILE:O	49:DZ:31:ILE:HG13	2.01	0.58
1:AA:150:U:H2'	1:AA:151:A:C8	2.39	0.58
1:AA:213:G:C8	1:AA:214:C:C5	2.91	0.58
1:AA:445:G:N1	1:AA:446:G:C5	2.72	0.58
1:AA:623:C:N3	1:AA:624:C:C5	2.71	0.58
1:AA:1104:G:C2	1:AA:1105:A:C4	2.92	0.58
1:AA:1322:C:O4'	1:AA:1322:C:O2	2.20	0.58
2:AB:156:GLY:C	2:AB:158:PRO:HD3	2.28	0.58
8:AH:101:ILE:CG1	8:AH:112:THR:HB	2.34	0.58
20:AT:5:LYS:O	20:AT:5:LYS:CG	2.52	0.58
21:AU:33:ARG:CZ	23:AX:6:G:OP1	2.51	0.58
24:BA:118:A:C8	24:BA:119:A:N7	2.72	0.58
24:BA:359:G:C2	24:BA:360:U:C2	2.92	0.58
24:BA:852:U:C5	24:BA:853:C:C5	2.91	0.58
24:BA:1709:U:C2	24:BA:1750:G:C2	2.92	0.58
24:BA:1782:U:O5'	24:BA:1782:U:H6	1.87	0.58
24:BA:2011:U:C5	24:BA:2012:G:N9	2.72	0.58
24:BA:2410:G:H2'	24:BA:2411:A:O4'	2.03	0.58
26:BC:175:LEU:O	26:BC:178:GLY:N	2.37	0.58
27:BD:106:LYS:HB2	27:BD:206:ALA:HB2	1.85	0.58
30:BG:82:PHE:N	30:BG:134:GLY:O	2.37	0.58
33:BJ:56:VAL:CG2	33:BJ:124:VAL:HA	2.33	0.58
39:BP:74:GLN:O	39:BP:77:SER:OG	2.20	0.58
1:CA:934:C:O2'	1:CA:1344:C:OP2	2.22	0.58
1:CA:1112:C:C5'	1:CA:1113:C:OP2	2.51	0.58
1:CA:1333:A:H2'	1:CA:1334:G:O4'	2.04	0.58
1:CA:1539:C:O2	23:CX:4:G:N1	2.37	0.58
4:CD:34:ILE:HD13	4:CD:35:GLU:N	2.19	0.58
11:CK:55:SER:C	11:CK:57:LYS:N	2.62	0.58
12:CL:86:ARG:O	12:CL:87:VAL:HG13	2.04	0.58
55:CY:45:TYR:OH	55:CY:73:SER:O	2.19	0.58
55:CY:82:ILE:HG13	55:CY:83:MET:N	2.19	0.58
55:CY:159:ASP:HA	55:CY:162:LYS:CG	2.34	0.58
24:DA:665:U:C2'	24:DA:666:A:H5'	2.33	0.58
24:DA:671:C:H5'	24:DA:671:C:H6	1.69	0.58
24:DA:1024:G:C6	24:DA:1025:G:C6	2.92	0.58
24:DA:1080:A:C2	24:DA:1081:U:C6	2.92	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1438:U:C5	24:DA:1552:A:C2	2.92	0.58
24:DA:2206:C:O2'	24:DA:2207:C:H5'	2.03	0.58
24:DA:2304:G:H4'	29:DF:128:SER:O	2.03	0.58
24:DA:2311:A:C2	29:DF:40:GLY:CA	2.87	0.58
24:DA:2549:G:C2	24:DA:2550:G:C5	2.92	0.58
25:DB:45:A:OP1	29:DF:91:ARG:CD	2.51	0.58
27:DD:24:VAL:HG21	27:DD:188:LEU:HB3	1.83	0.58
30:DG:24:THR:O	30:DG:25:ILE:HD13	2.03	0.58
31:DH:8:LYS:O	31:DH:9:VAL:C	2.46	0.58
32:DI:125:THR:OG1	32:DI:126:ARG:N	2.37	0.58
34:DK:103:VAL:HG13	34:DK:107:LEU:HD13	1.86	0.58
36:DM:81:ARG:NH2	36:DM:82:MET:N	2.51	0.58
38:DO:34:HIS:CE1	38:DO:54:VAL:HG13	2.39	0.58
42:DS:55:ILE:HD13	42:DS:66:ILE:CG2	2.34	0.58
1:AA:95:C:H2'	1:AA:96:U:H5'	1.86	0.58
1:AA:376:G:N3	1:AA:389:A:C2	2.71	0.58
1:AA:858:G:C6	1:AA:869:G:H2'	2.39	0.58
1:AA:927:G:O2'	1:AA:1503:A:N6	2.36	0.58
1:AA:1275:A:C4	1:AA:1276:G:C8	2.91	0.58
2:AB:19:GLN:NE2	2:AB:204:ASP:OD1	2.37	0.58
4:AD:138:SER:CB	4:AD:139:PRO:CD	2.82	0.58
8:AH:15:ARG:NE	8:AH:75:ILE:HG22	2.19	0.58
24:BA:410:G:N3	24:BA:2407:A:N7	2.52	0.58
24:BA:547:A:C8	24:BA:548:G:N3	2.71	0.58
24:BA:1499:C:H2'	24:BA:1500:G:O4'	2.04	0.58
24:BA:2110:G:N2	24:BA:2180:U:O2	2.37	0.58
25:BB:40:U:N3	25:BB:44:G:OP2	2.35	0.58
27:BD:98:VAL:C	27:BD:100:LEU:N	2.58	0.58
29:BF:127:TYR:O	29:BF:129:MET:HE1	2.04	0.58
30:BG:4:ALA:HB2	30:BG:65:GLY:N	2.19	0.58
33:BJ:15:TRP:CZ2	33:BJ:53:TYR:CD2	2.92	0.58
33:BJ:100:VAL:HG13	33:BJ:101:ILE:N	2.19	0.58
43:BT:64:LYS:HA	43:BT:79:ASP:OD1	2.03	0.58
48:BY:49:ASP:HA	48:BY:52:ARG:HG2	1.85	0.58
53:B3:57:VAL:O	53:B3:60:CYS:N	2.37	0.58
1:CA:939:G:C2	1:CA:940:C:C6	2.92	0.58
3:CC:189:ALA:O	3:CC:190:HIS:CB	2.51	0.58
9:CI:124:ARG:HB2	9:CI:125:PRO:HD2	1.86	0.58
14:CN:45:VAL:O	14:CN:46:LEU:C	2.46	0.58
15:CO:73:LYS:O	15:CO:74:ASP:C	2.45	0.58
16:CP:56:ARG:O	16:CP:59:HIS:HB3	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:60:GLU:C	17:CQ:76:VAL:HG23	2.29	0.58
19:CS:62:VAL:CG1	19:CS:66:MET:SD	2.91	0.58
22:CV:67:C:C2	22:CV:68:C:C5	2.92	0.58
24:DA:142:A:H2'	24:DA:143:C:O5'	2.03	0.58
24:DA:559:G:C6	24:DA:560:C:C4	2.92	0.58
24:DA:579:G:C8	24:DA:2017:U:C4	2.92	0.58
24:DA:805:G:OP2	24:DA:806:C:N4	2.37	0.58
24:DA:819:A:OP2	24:DA:1187:G:N2	2.29	0.58
24:DA:866:A:N7	24:DA:914:G:C6	2.71	0.58
24:DA:1841:U:C2	24:DA:1842:G:C8	2.91	0.58
24:DA:2127:G:O2'	24:DA:2128:G:C8	2.56	0.58
24:DA:2228:G:H2'	24:DA:2229:U:C6	2.39	0.58
24:DA:2303:G:C6	24:DA:2304:G:N7	2.72	0.58
33:DJ:23:LYS:CE	33:DJ:142:ILE:HG22	2.34	0.58
40:DQ:40:LYS:HG3	40:DQ:41:ALA:N	2.19	0.58
41:DR:27:ILE:HB	41:DR:63:VAL:HG21	1.86	0.58
48:DY:21:LEU:HA	48:DY:25:GLN:CB	2.34	0.58
49:DZ:23:LEU:HD21	49:DZ:53:MET:CE	2.33	0.58
1:AA:499:A:C5	1:AA:547:A:N7	2.72	0.58
1:AA:901:A:C5'	1:AA:902:G:OP2	2.49	0.58
2:AB:54:LEU:O	2:AB:57:LEU:HD11	2.03	0.58
3:AC:23:PHE:C	3:AC:23:PHE:CD1	2.82	0.58
4:AD:168:PRO:HG2	4:AD:171:LEU:HD11	1.85	0.58
4:AD:203:LEU:HD12	4:AD:203:LEU:C	2.29	0.58
10:AJ:18:ILE:O	10:AJ:22:THR:HB	2.04	0.58
10:AJ:90:LEU:HD12	10:AJ:91:ASP:N	2.19	0.58
15:AO:78:TYR:C	15:AO:80:GLN:N	2.60	0.58
24:BA:225:C:H2'	24:BA:226:A:O4'	2.04	0.58
24:BA:900:A:C8	24:BA:901:C:C5	2.92	0.58
24:BA:1601:G:OP1	43:BT:62:VAL:HG11	2.04	0.58
24:BA:1760:C:C5	24:BA:1761:C:C4	2.92	0.58
24:BA:1940:U:C2	24:BA:1965:C:OP2	2.56	0.58
24:BA:2339:C:H2'	24:BA:2340:A:C8	2.39	0.58
24:BA:2658:C:P	30:BG:159:LYS:NZ	2.77	0.58
24:BA:2704:C:H2'	24:BA:2705:A:O4'	2.04	0.58
24:BA:2799:A:C4	24:BA:2801:G:C8	2.91	0.58
25:BB:16:G:N2	25:BB:69:G:H1'	2.19	0.58
26:BC:24:HIS:N	26:BC:80:LEU:O	2.36	0.58
26:BC:184:GLU:O	26:BC:185:ALA:C	2.46	0.58
26:BC:265:PHE:N	26:BC:265:PHE:CD1	2.72	0.58
33:BJ:29:ALA:HA	33:BJ:32:LEU:HD12	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BK:7:MET:CG	34:BK:20:MET:HB2	2.34	0.58
46:BW:24:LYS:CD	46:BW:36:ILE:O	2.52	0.58
1:CA:456:A:N6	1:CA:476:U:N3	2.51	0.58
1:CA:622:A:H5"	1:CA:623:C:OP2	2.03	0.58
1:CA:737:C:O2'	1:CA:738:C:P	2.62	0.58
1:CA:972:C:P	10:CJ:59:LYS:HD2	2.43	0.58
1:CA:1327:C:C4	1:CA:1328:C:N4	2.72	0.58
2:CB:38:VAL:O	2:CB:38:VAL:HG13	2.04	0.58
3:CC:107:ARG:O	3:CC:108:LYS:HD2	2.04	0.58
5:CE:44:GLY:O	5:CE:45:ARG:HG2	2.04	0.58
6:CF:18:VAL:O	6:CF:21:MET:CB	2.52	0.58
11:CK:36:ASP:OD2	11:CK:38:GLN:NE2	2.37	0.58
19:CS:40:ILE:CG1	19:CS:67:VAL:HA	2.33	0.58
21:CU:14:VAL:O	21:CU:16:LEU:HD23	2.03	0.58
24:DA:1190:G:H5"	35:DL:32:GLY:HA2	1.85	0.58
24:DA:1444:G:N2	24:DA:1445:G:H1'	2.19	0.58
24:DA:1831:G:H2'	24:DA:1832:C:H6	1.68	0.58
24:DA:2705:A:H2'	24:DA:2706:A:O4'	2.03	0.58
27:DD:196:ALA:O	27:DD:198:GLY:N	2.37	0.58
36:DM:112:LEU:O	36:DM:113:ALA:C	2.47	0.58
38:DO:8:ILE:HD12	38:DO:8:ILE:C	2.29	0.58
52:D2:43:THR:O	52:D2:44:VAL:CB	2.52	0.58
1:AA:3:A:P	4:AD:83:LYS:NZ	2.77	0.57
1:AA:121:U:O2'	1:AA:122:G:O5'	2.22	0.57
1:AA:1144:G:C2	1:AA:1145:A:C2	2.92	0.57
1:AA:1302:C:OP1	13:AM:13:LYS:NZ	2.32	0.57
3:AC:154:SER:CB	3:AC:165:THR:HG22	2.34	0.57
5:AE:85:VAL:HG12	5:AE:96:MET:HG3	1.85	0.57
9:AI:95:ARG:HA	9:AI:98:LEU:HB3	1.86	0.57
9:AI:118:LEU:O	9:AI:119:ARG:C	2.46	0.57
11:AK:61:PHE:O	11:AK:65:VAL:HG12	2.04	0.57
12:AL:37:VAL:HG11	12:AL:75:GLN:HA	1.86	0.57
12:AL:67:ILE:HG22	12:AL:97:THR:CB	2.34	0.57
18:AR:56:ALA:O	18:AR:59:ILE:HG23	2.04	0.57
19:AS:41:PHE:CD1	19:AS:42:PRO:HD2	2.39	0.57
24:BA:167:A:N7	24:BA:168:G:C8	2.72	0.57
24:BA:770:G:N2	24:BA:771:G:H1'	2.19	0.57
24:BA:805:G:OP2	35:BL:41:ARG:HD3	2.04	0.57
24:BA:1335:C:OP1	43:BT:68:LYS:HE3	2.04	0.57
24:BA:1432:G:N2	24:BA:1433:A:C4	2.71	0.57
24:BA:2740:A:C2	24:BA:2764:A:C4	2.91	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BC:173:LEU:N	26:BC:173:LEU:HD13	2.19	0.57
31:BH:4:ILE:HD11	31:BH:17:ASP:N	2.19	0.57
37:BN:100:CYS:N	37:BN:110:MET:O	2.37	0.57
42:BS:74:ILE:HD12	42:BS:104:THR:O	2.04	0.57
43:BT:69:ARG:NH2	59:BT:201:HOH:O	2.37	0.57
52:B2:16:HIS:CB	52:B2:21:ARG:NH1	2.67	0.57
1:CA:174:A:C4	1:CA:175:C:C6	2.92	0.57
1:CA:203:G:N2	1:CA:215:C:O2	2.37	0.57
1:CA:223:A:C5	1:CA:224:U:C5	2.92	0.57
1:CA:582:C:C2	1:CA:583:A:C8	2.92	0.57
1:CA:741:G:H2'	1:CA:742:G:C8	2.39	0.57
1:CA:1138:G:H5'	1:CA:1139:G:OP2	2.04	0.57
2:CB:96:TRP:CD1	2:CB:172:ALA:HB2	2.39	0.57
4:CD:155:VAL:O	4:CD:158:ALA:N	2.37	0.57
6:CF:98:GLU:HG2	6:CF:99:ALA:N	2.19	0.57
8:CH:73:GLU:O	8:CH:74:SER:HB3	2.04	0.57
10:CJ:5:ARG:O	10:CJ:6:ILE:HB	2.04	0.57
13:CM:75:MET:SD	29:DF:111:ARG:HB2	2.44	0.57
15:CO:66:LEU:C	15:CO:66:LEU:HD12	2.29	0.57
22:CV:37:A:C4	22:CV:38:A:C8	2.92	0.57
24:DA:231:A:C6	24:DA:232:G:C2	2.92	0.57
24:DA:273:G:N2	24:DA:365:U:C2	2.72	0.57
24:DA:544:C:H3'	24:DA:545:U:C6	2.38	0.57
24:DA:725:G:C6	24:DA:726:G:N1	2.72	0.57
24:DA:981:A:OP2	24:DA:982:C:N4	2.33	0.57
24:DA:2349:G:OP1	53:D3:44:ARG:NH2	2.35	0.57
25:DB:53:A:C2	25:DB:54:G:C8	2.92	0.57
27:DD:22:ILE:HD11	27:DD:190:LYS:HG3	1.86	0.57
29:DF:126:ASN:OD1	29:DF:126:ASN:N	2.37	0.57
31:DH:96:THR:HA	31:DH:99:ILE:HG22	1.86	0.57
37:DN:72:ASP:CG	37:DN:75:ILE:HG22	2.29	0.57
42:DS:20:VAL:HG11	42:DS:44:ALA:HA	1.86	0.57
42:DS:84:ARG:HB3	42:DS:96:ILE:CG2	2.33	0.57
1:AA:55:A:C6	31:DH:91:PHE:CG	2.92	0.57
1:AA:110:C:C2	1:AA:111:G:C8	2.92	0.57
1:AA:137:U:H2'	1:AA:138:G:H8	1.67	0.57
1:AA:294:U:H5"	1:AA:295:C:OP2	2.04	0.57
1:AA:303:A:C5	1:AA:304:U:C6	2.92	0.57
1:AA:309:A:N3	1:AA:310:G:C8	2.72	0.57
1:AA:401:C:O2'	1:AA:402:G:H5'	2.03	0.57
1:AA:455:G:N2	1:AA:478:A:C2	2.72	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:460:A:C2	1:AA:461:A:C4	2.92	0.57
1:AA:882:C:H2'	1:AA:882:C:O2	2.03	0.57
1:AA:1014:A:O4'	19:AS:34:TRP:CZ3	2.57	0.57
1:AA:1261:A:H1'	1:AA:1283:U:H5"	1.86	0.57
1:AA:1286:U:O2	1:AA:1286:U:H2'	2.03	0.57
1:AA:1374:A:N3	1:AA:1375:A:C8	2.72	0.57
6:AF:96:VAL:HG23	6:AF:97:THR:H	1.68	0.57
15:AO:11:ILE:O	15:AO:14:GLU:N	2.36	0.57
19:AS:35:SER:HB3	19:AS:38:SER:OG	2.04	0.57
24:BA:89:A:C2	24:BA:90:U:C5	2.92	0.57
24:BA:1563:U:H2'	24:BA:1564:C:C6	2.39	0.57
24:BA:2015:A:C2	50:B0:2:VAL:HG21	2.39	0.57
24:BA:2267:A:H5"	24:BA:2268:A:H5'	1.87	0.57
24:BA:2520:C:C2'	24:BA:2521:C:H5'	2.35	0.57
24:BA:2711:A:OP2	59:BA:3553:HOH:O	2.17	0.57
27:BD:27:ILE:HD11	27:BD:187:LEU:HD23	1.86	0.57
31:BH:25:TYR:CD1	31:BH:25:TYR:N	2.70	0.57
36:BM:81:ARG:O	36:BM:82:MET:CB	2.53	0.57
38:BO:67:ASN:N	38:BO:67:ASN:OD1	2.37	0.57
1:CA:49:U:C4	1:CA:364:A:C5	2.92	0.57
1:CA:401:C:O2'	1:CA:621:A:N3	2.31	0.57
1:CA:674:G:H2'	1:CA:675:A:H8	1.68	0.57
1:CA:1225:A:H4'	19:CS:78:ARG:HD3	1.86	0.57
1:CA:1342:C:C2'	1:CA:1343:G:H5'	2.34	0.57
4:CD:105:MET:HE2	4:CD:107:PHE:CE2	2.39	0.57
13:CM:95:LEU:O	13:CM:109:ARG:NH2	2.38	0.57
15:CO:89:ARG:NH2	24:DA:716:A:O5'	2.37	0.57
16:CP:36:VAL:O	16:CP:36:VAL:HG23	2.03	0.57
24:DA:170:U:N3	24:DA:171:U:C5	2.72	0.57
24:DA:227:A:C4	24:DA:2407:A:H1'	2.38	0.57
24:DA:387:U:C5	24:DA:388:G:C6	2.92	0.57
24:DA:704:G:N3	24:DA:726:G:C2	2.73	0.57
24:DA:832:U:O2'	24:DA:833:A:H5'	2.04	0.57
24:DA:911:A:N6	36:DM:11:LYS:O	2.37	0.57
24:DA:2013:A:H2'	24:DA:2014:A:C5'	2.34	0.57
26:DC:114:GLN:O	26:DC:115:ILE:HG23	2.04	0.57
28:DE:176:ASP:OD1	28:DE:179:SER:N	2.36	0.57
29:DF:134:GLN:HG3	29:DF:135:ILE:N	2.19	0.57
40:DQ:79:ILE:HG22	40:DQ:80:ASN:N	2.17	0.57
1:AA:110:C:H2'	1:AA:111:G:C8	2.40	0.57
1:AA:182:A:N7	1:AA:184:G:C5	2.72	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:690:G:H2'	1:AA:691:G:O4'	2.05	0.57
1:AA:1262:C:C2	1:AA:1263:C:C6	2.92	0.57
1:AA:1500:A:OP2	59:AA:1878:HOH:O	2.17	0.57
2:AB:44:GLU:O	2:AB:45:LYS:HB2	2.05	0.57
5:AE:16:ILE:HD13	5:AE:113:ALA:CB	2.34	0.57
13:AM:44:LYS:HE2	13:AM:44:LYS:HA	1.84	0.57
23:AX:11:A:H2'	23:AX:12:A:H5'	1.85	0.57
24:BA:88:G:C6	24:BA:89:A:N7	2.72	0.57
24:BA:606:U:OP2	28:BE:99:LYS:NZ	2.30	0.57
24:BA:1129:A:O2'	24:BA:2515:C:O2	2.20	0.57
24:BA:1258:U:O4'	28:BE:79:ARG:HG2	2.05	0.57
24:BA:1422:G:C2	24:BA:1423:G:C8	2.92	0.57
24:BA:1515:A:H1'	24:BA:1557:C:C1'	2.34	0.57
24:BA:2264:C:H2'	24:BA:2265:U:O5'	2.04	0.57
24:BA:2281:A:N1	24:BA:2282:G:C5	2.72	0.57
25:BB:31:C:OP1	29:BF:29:ARG:NH2	2.37	0.57
28:BE:164:LEU:C	28:BE:164:LEU:HD12	2.30	0.57
49:BZ:9:THR:HG22	49:BZ:54:VAL:N	2.19	0.57
1:CA:6:G:HO2'	1:CA:7:A:P	2.26	0.57
1:CA:341:C:C2	1:CA:349:A:C2	2.92	0.57
1:CA:455:G:N2	1:CA:478:A:C2	2.72	0.57
1:CA:872:A:C4	1:CA:874:G:C8	2.93	0.57
1:CA:927:G:OP2	1:CA:1503:A:C4	2.57	0.57
1:CA:1145:A:O2'	1:CA:1146:A:OP2	2.21	0.57
1:CA:1349:A:OP2	9:CI:120:LYS:CE	2.52	0.57
3:CC:83:ASP:HA	3:CC:86:LYS:HG2	1.87	0.57
4:CD:25:VAL:HG22	4:CD:26:ARG:HG3	1.86	0.57
5:CE:152:MET:HA	5:CE:155:ALA:HB3	1.85	0.57
8:CH:80:ARG:HB2	8:CH:81:PRO:HD2	1.87	0.57
16:CP:71:VAL:O	16:CP:75:ILE:N	2.37	0.57
19:CS:40:ILE:HG22	19:CS:70:LYS:HA	1.86	0.57
22:CV:15:G:H2'	22:CV:16:U:C2	2.39	0.57
24:DA:1001:A:OP2	59:DA:3737:HOH:O	2.17	0.57
24:DA:1866:A:N1	24:DA:1876:A:C8	2.73	0.57
24:DA:1867:G:O2'	24:DA:1868:C:H5'	2.04	0.57
24:DA:1913:A:C2	24:DA:1914:C:C5'	2.87	0.57
24:DA:2728:U:O2'	24:DA:2729:G:OP2	2.21	0.57
24:DA:2835:A:H4'	24:DA:2836:U:OP1	2.02	0.57
25:DB:30:C:H2'	25:DB:31:C:H5'	1.86	0.57
26:DC:140:VAL:HG22	26:DC:190:THR:O	2.04	0.57
29:DF:9:ASP:O	29:DF:13:LYS:HE2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DO:100:HIS:O	38:DO:104:GLN:CB	2.51	0.57
41:DR:28:ALA:O	41:DR:30:GLY:N	2.36	0.57
42:DS:59:GLU:HA	42:DS:64:ALA:HA	1.86	0.57
53:D3:31:ILE:HD12	53:D3:32:LEU:N	2.19	0.57
1:AA:113:G:O4'	1:AA:354:G:H4'	2.04	0.57
1:AA:780:A:OP1	11:AK:125:LYS:CG	2.52	0.57
1:AA:908:A:C2	1:AA:909:A:C8	2.93	0.57
1:AA:933:G:H5"	1:AA:934:C:OP2	2.05	0.57
1:AA:1129:C:O2'	1:AA:1139:G:N7	2.20	0.57
1:AA:1375:A:C5	1:AA:1376:U:C5	2.92	0.57
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.02	0.57
5:AE:131:THR:O	5:AE:132:ASN:O	2.22	0.57
6:AF:4:TYR:CD2	6:AF:5:GLU:N	2.72	0.57
20:AT:44:LYS:HD2	20:AT:87:ALA:HA	1.85	0.57
24:BA:459:U:OP2	24:BA:469:G:N1	2.32	0.57
24:BA:475:C:N4	24:BA:476:G:C6	2.73	0.57
24:BA:1365:A:C6	24:BA:1366:A:C5	2.92	0.57
24:BA:2094:A:C5'	31:BH:25:TYR:CE2	2.86	0.57
24:BA:2205:A:C2	24:BA:2206:C:C2	2.92	0.57
24:BA:2419:U:C6	53:B3:32:LEU:HD22	2.39	0.57
25:BB:4:C:N3	25:BB:116:G:O6	2.37	0.57
26:BC:221:GLY:O	26:BC:224:MET:HG2	2.04	0.57
27:BD:151:THR:HG22	27:BD:152:PRO:HD2	1.86	0.57
29:BF:48:LEU:O	29:BF:50:ASP:N	2.37	0.57
38:BO:8:ILE:O	38:BO:9:ARG:C	2.47	0.57
54:B4:25:VAL:CG1	54:B4:35:GLN:HB2	2.35	0.57
1:CA:455:G:N2	1:CA:478:A:N1	2.52	0.57
1:CA:552:U:O3'	12:CL:84:GLY:HA3	2.05	0.57
1:CA:675:A:O2'	11:CK:116:ILE:HD12	2.04	0.57
1:CA:690:G:OP2	11:CK:29:ASN:ND2	2.37	0.57
1:CA:737:C:C2	1:CA:738:C:C5	2.92	0.57
4:CD:4:TYR:OH	4:CD:62:ARG:CZ	2.52	0.57
4:CD:58:LYS:NZ	4:CD:203:LEU:HD13	2.20	0.57
4:CD:104:ARG:NE	4:CD:170:TRP:CZ2	2.72	0.57
11:CK:46:THR:O	11:CK:50:SER:OG	2.08	0.57
12:CL:66:TYR:CD1	12:CL:66:TYR:C	2.82	0.57
15:CO:27:VAL:O	15:CO:28:GLN:C	2.48	0.57
24:DA:189:G:P	47:DX:25:LYS:NZ	2.77	0.57
24:DA:446:G:P	40:DQ:2:ARG:NE	2.77	0.57
24:DA:911:A:C4	36:DM:9:PHE:CE2	2.93	0.57
24:DA:1215:G:H2'	24:DA:1216:G:H5'	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2229:U:H2'	24:DA:2230:G:C8	2.40	0.57
24:DA:2415:G:O2'	24:DA:2416:C:H5'	2.03	0.57
29:DF:34:THR:HB	29:DF:89:THR:HG22	1.87	0.57
29:DF:122:ASP:OD2	29:DF:124:ARG:CZ	2.52	0.57
35:DL:54:GLN:HG3	35:DL:55:MET:N	2.20	0.57
35:DL:73:ILE:C	35:DL:105:ILE:HD13	2.30	0.57
1:AA:66:A:H4'	1:AA:173:U:C5	2.39	0.57
1:AA:293:G:C5	1:AA:294:U:C5	2.92	0.57
1:AA:865:A:C5	1:AA:866:C:C5	2.93	0.57
1:AA:880:C:OP2	12:AL:3:THR:HG21	2.04	0.57
1:AA:1105:A:C6	1:AA:1106:G:N7	2.73	0.57
1:AA:1133:G:H5'	1:AA:1134:G:OP2	2.05	0.57
1:AA:1153:G:N2	1:AA:1154:G:H1'	2.19	0.57
2:AB:90:PHE:CD2	2:AB:154:MET:HE2	2.39	0.57
2:AB:112:LYS:NZ	1:CA:842:U:OP1	2.37	0.57
3:AC:77:ILE:O	3:AC:78:GLY:C	2.47	0.57
6:AF:6:ILE:HB	6:AF:62:MET:HB2	1.87	0.57
8:AH:92:LEU:HD21	8:AH:116:ALA:HB3	1.87	0.57
12:AL:65:SER:OG	12:AL:97:THR:OG1	2.23	0.57
13:AM:106:ALA:O	13:AM:108:THR:N	2.37	0.57
20:AT:21:ASN:O	20:AT:25:ARG:HB2	2.05	0.57
21:AU:12:PHE:O	21:AU:13:ASP:CB	2.52	0.57
24:BA:78:U:OP2	48:BY:2:LYS:HE2	2.04	0.57
24:BA:157:C:N3	24:BA:158:U:C5	2.72	0.57
24:BA:419:U:H2'	24:BA:420:C:C6	2.38	0.57
24:BA:585:G:H5"	24:BA:586:A:OP1	2.04	0.57
24:BA:1239:G:C4	24:BA:1240:U:C6	2.93	0.57
24:BA:1722:A:C2	24:BA:1739:A:C4	2.92	0.57
24:BA:2044:C:C2	24:BA:2625:G:C2	2.93	0.57
24:BA:2162:G:H4'	24:BA:2163:A:OP1	2.03	0.57
24:BA:2163:A:O3'	24:BA:2170:A:O2'	2.19	0.57
24:BA:2830:C:C6	27:BD:59:ARG:NH1	2.73	0.57
25:BB:2:G:C2	25:BB:3:C:C2	2.92	0.57
26:BC:124:LYS:O	26:BC:126:GLY:N	2.37	0.57
28:BE:145:ASP:HA	28:BE:166:LYS:O	2.05	0.57
29:BF:172:PHE:HB2	29:BF:174:PHE:CE2	2.39	0.57
31:BH:117:LEU:HB2	31:BH:118:PRO:CD	2.35	0.57
39:BP:45:VAL:O	39:BP:60:VAL:HA	2.04	0.57
44:BU:16:LYS:HE2	44:BU:16:LYS:N	2.19	0.57
1:CA:66:A:C4'	1:CA:173:U:C4	2.88	0.57
1:CA:457:G:C2	1:CA:458:U:C2	2.93	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:939:G:C2	1:CA:940:C:C5	2.93	0.57
1:CA:979:C:C6	1:CA:1318:A:N1	2.72	0.57
1:CA:1014:A:H2'	1:CA:1015:G:C1'	2.35	0.57
1:CA:1133:G:C4	1:CA:1134:G:C8	2.92	0.57
1:CA:1148:U:H5"	9:CI:9:THR:HG21	1.86	0.57
2:CB:31:ILE:HD11	2:CB:39:HIS:HB2	1.87	0.57
2:CB:96:TRP:CZ3	2:CB:175:GLU:OE1	2.58	0.57
2:CB:106:THR:O	2:CB:107:VAL:HG13	2.03	0.57
3:CC:63:SER:HA	3:CC:97:VAL:HG11	1.85	0.57
4:CD:3:ARG:O	4:CD:4:TYR:O	2.22	0.57
4:CD:168:PRO:O	4:CD:169:THR:CB	2.52	0.57
14:CN:55:SER:O	14:CN:56:SER:C	2.47	0.57
16:CP:1:MET:N	16:CP:1:MET:CE	2.67	0.57
24:DA:96:C:H4'	48:DY:41:HIS:CD2	2.40	0.57
24:DA:805:G:OP2	35:DL:41:ARG:HG2	2.04	0.57
24:DA:1059:G:C5	24:DA:1060:U:N3	2.72	0.57
24:DA:1180:U:C4	24:DA:1181:U:C4	2.92	0.57
24:DA:1246:A:H2'	24:DA:1247:A:O5'	2.05	0.57
24:DA:2716:C:C2'	24:DA:2717:C:H5'	2.33	0.57
25:DB:39:A:O2'	25:DB:46:A:N1	2.35	0.57
26:DC:64:VAL:CG2	26:DC:66:PHE:CD2	2.87	0.57
29:DF:98:PHE:C	29:DF:98:PHE:CD1	2.82	0.57
36:DM:74:THR:HG21	36:DM:86:LYS:HE2	1.86	0.57
42:DS:39:THR:O	42:DS:44:ALA:CB	2.53	0.57
1:AA:357:G:N2	1:AA:358:U:C2	2.73	0.57
1:AA:600:A:OP1	8:AH:88:ARG:NH1	2.37	0.57
1:AA:623:C:C4	1:AA:624:C:C5	2.93	0.57
1:AA:1273:C:C4	1:AA:1274:A:C8	2.92	0.57
2:AB:68:LEU:HD23	2:AB:158:PRO:HB3	1.86	0.57
2:AB:93:ASN:O	2:AB:94:HIS:ND1	2.37	0.57
4:AD:56:ARG:O	4:AD:63:ARG:NH2	2.37	0.57
4:AD:103:TYR:CZ	4:AD:111:ARG:N	2.72	0.57
4:AD:123:ILE:HG23	4:AD:124:MET:N	2.20	0.57
4:AD:177:LYS:O	4:AD:178:MET:HB3	2.04	0.57
4:AD:192:SER:O	4:AD:193:ALA:HB3	2.04	0.57
7:AG:70:ARG:NH1	7:AG:97:ASN:OD1	2.37	0.57
12:AL:112:GLN:O	12:AL:113:ALA:HB3	2.04	0.57
24:BA:76:C:O2'	24:BA:77:G:H5'	2.04	0.57
24:BA:157:C:C4	24:BA:158:U:C5	2.92	0.57
24:BA:289:G:N2	24:BA:352:A:C4	2.72	0.57
24:BA:444:C:H1'	28:BE:44:ARG:HB2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:584:C:OP2	40:BQ:5:ARG:NH2	2.36	0.57
24:BA:1098:A:O3'	32:BI:4:VAL:CG1	2.53	0.57
24:BA:1532:A:C2	24:BA:1533:C:N3	2.72	0.57
24:BA:1794:A:H1'	24:BA:1900:A:N3	2.19	0.57
24:BA:1857:G:N3	24:BA:1884:G:C2	2.73	0.57
24:BA:2107:G:H2'	24:BA:2108:A:O4'	2.05	0.57
24:BA:2209:G:C5	24:BA:2210:U:C4	2.93	0.57
24:BA:2308:G:H5'	24:BA:2309:A:OP2	2.04	0.57
24:BA:2333:A:C8	24:BA:2335:A:C4	2.92	0.57
24:BA:2657:A:H5"	30:BG:91:VAL:HG21	1.86	0.57
24:BA:2714:G:C5	24:BA:2715:C:C5	2.93	0.57
24:BA:2728:U:O2'	24:BA:2729:G:P	2.62	0.57
24:BA:2748:A:H2'	24:BA:2749:A:O5'	2.05	0.57
34:BK:69:VAL:HG13	34:BK:77:ILE:HB	1.85	0.57
38:BO:40:ILE:CD1	38:BO:44:GLY:HA2	2.34	0.57
47:BX:38:TRP:CZ3	47:BX:44:ARG:O	2.57	0.57
48:BY:2:LYS:O	48:BY:5:GLU:N	2.38	0.57
1:CA:146:G:C2	1:CA:177:G:N7	2.72	0.57
1:CA:487:A:C5	1:CA:488:C:C2	2.93	0.57
1:CA:597:G:H1'	17:CQ:28:PHE:HE1	1.68	0.57
1:CA:1225:A:H2'	1:CA:1226:C:C5	2.39	0.57
1:CA:1226:C:C5	13:CM:103:LYS:CB	2.87	0.57
1:CA:1521:C:N3	1:CA:1522:U:C5	2.73	0.57
4:CD:102:VAL:HG12	4:CD:103:TYR:N	2.19	0.57
5:CE:74:VAL:CG2	5:CE:76:LEU:CD1	2.82	0.57
5:CE:83:HIS:HB2	5:CE:84:PRO:HD2	1.86	0.57
8:CH:48:ASP:OD2	8:CH:50:LYS:NZ	2.38	0.57
11:CK:34:ILE:HG22	11:CK:35:THR:N	2.19	0.57
14:CN:1:ALA:O	14:CN:2:LYS:CB	2.52	0.57
14:CN:32:ASP:CG	14:CN:33:VAL:N	2.63	0.57
22:CV:4:C:C1'	22:CV:5:G:OP1	2.53	0.57
24:DA:945:A:C4	24:DA:2448:A:C2	2.92	0.57
24:DA:1324:G:N3	24:DA:1328:A:N6	2.52	0.57
24:DA:1635:A:C2	24:DA:1636:U:H1'	2.40	0.57
24:DA:1764:C:C2'	24:DA:1765:U:H5'	2.34	0.57
24:DA:1922:G:C6	24:DA:1923:U:C4	2.91	0.57
29:DF:73:VAL:HG22	29:DF:78:ILE:CD1	2.35	0.57
29:DF:121:PHE:CE1	29:DF:127:TYR:CD1	2.93	0.57
32:DI:124:MET:O	32:DI:127:SER:OG	2.22	0.57
35:DL:77:ILE:CD1	35:DL:95:LEU:HD13	2.34	0.57
36:DM:42:THR:OG1	36:DM:45:GLN:HB2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DW:48:GLY:HA2	46:DW:80:ILE:O	2.03	0.57
1:AA:600:A:P	8:AH:88:ARG:HD2	2.45	0.57
1:AA:1026:G:C6	1:AA:1027:C:N3	2.72	0.57
1:AA:1088:G:C6	1:AA:1089:G:C5	2.91	0.57
1:AA:1095:U:C4	1:AA:1096:C:N4	2.73	0.57
1:AA:1330:U:H4'	13:AM:23:TYR:CZ	2.39	0.57
2:AB:17:GLY:CA	2:AB:41:ILE:HD13	2.35	0.57
2:AB:28:LYS:N	2:AB:29:PRO:HD2	2.19	0.57
2:AB:208:ARG:O	2:AB:209:ALA:C	2.47	0.57
4:AD:171:LEU:CD1	4:AD:173:VAL:HG23	2.35	0.57
7:AG:30:LEU:HD21	7:AG:42:ILE:HD11	1.86	0.57
8:AH:95:VAL:O	8:AH:96:MET:CB	2.52	0.57
11:AK:82:LEU:HD22	11:AK:105:PHE:CD1	2.39	0.57
12:AL:9:ARG:O	12:AL:10:LYS:HB2	2.05	0.57
18:AR:20:GLU:O	18:AR:22:ASP:N	2.38	0.57
21:AU:29:LEU:O	21:AU:33:ARG:N	2.37	0.57
22:AV:65:G:C6	22:AV:66:U:C4	2.93	0.57
24:BA:391:A:C2	24:BA:411:G:C5	2.92	0.57
24:BA:686:U:O2	52:B2:8:SER:HB3	2.04	0.57
24:BA:731:C:OP2	59:BA:3695:HOH:O	2.17	0.57
24:BA:1063:G:C8	24:BA:1064:C:C6	2.92	0.57
24:BA:1252:G:O4'	40:BQ:32:ARG:HD3	2.05	0.57
24:BA:1287:A:N1	24:BA:1648:U:O2'	2.34	0.57
24:BA:1310:G:H2'	24:BA:1311:G:H5'	1.87	0.57
24:BA:2732:G:C3'	24:BA:2733:A:H5'	2.35	0.57
24:BA:2831:G:OP1	27:BD:56:LYS:CE	2.53	0.57
26:BC:106:PRO:HD2	26:BC:109:LEU:HD23	1.85	0.57
26:BC:259:ASN:O	26:BC:262:THR:N	2.36	0.57
28:BE:28:VAL:O	28:BE:32:VAL:HG23	2.04	0.57
29:BF:122:ASP:OD1	29:BF:126:ASN:N	2.37	0.57
36:BM:105:MET:HE1	36:BM:113:ALA:HA	1.86	0.57
38:BO:33:ARG:O	38:BO:34:HIS:CG	2.57	0.57
45:BV:30:ILE:O	45:BV:37:PRO:HA	2.05	0.57
52:B2:24:THR:C	52:B2:26:ASN:H	2.12	0.57
1:CA:63:C:H2'	1:CA:64:G:H5'	1.85	0.57
1:CA:656:G:N2	1:CA:751:U:H1'	2.20	0.57
3:CC:45:LYS:O	3:CC:46:GLU:C	2.47	0.57
4:CD:5:LEU:O	4:CD:6:GLY:C	2.46	0.57
8:CH:34:VAL:CG2	8:CH:35:ALA:N	2.68	0.57
9:CI:39:PHE:O	9:CI:42:GLU:N	2.36	0.57
11:CK:26:SER:O	11:CK:27:PHE:HB3	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:10:LYS:N	15:CO:10:LYS:CD	2.65	0.57
16:CP:1:MET:SD	16:CP:2:VAL:HG22	2.45	0.57
24:DA:275:C:H2'	24:DA:275:C:O2	2.04	0.57
24:DA:1456:G:C5	24:DA:1457:U:C5	2.92	0.57
24:DA:1596:A:O2'	24:DA:1597:A:H5'	2.05	0.57
24:DA:2102:G:N2	24:DA:2188:U:O2'	2.37	0.57
24:DA:2311:A:C2	29:DF:40:GLY:HA2	2.39	0.57
29:DF:121:PHE:CE2	29:DF:162:ASP:C	2.83	0.57
34:DK:88:ASN:ND2	34:DK:90:ASN:O	2.38	0.57
47:DX:18:SER:C	47:DX:20:ALA:H	2.11	0.57
47:DX:65:THR:O	47:DX:68:ALA:HB3	2.03	0.57
49:DZ:25:GLY:HA3	49:DZ:46:MET:CE	2.34	0.57
1:AA:279:A:OP1	1:AA:280:C:C2'	2.53	0.57
1:AA:599:C:O2	1:AA:640:A:N1	2.38	0.57
1:AA:906:A:C2'	1:AA:907:A:O5'	2.53	0.57
1:AA:918:A:H2'	1:AA:919:A:C8	2.38	0.57
1:AA:1052:U:H5"	1:AA:1053:G:OP2	2.05	0.57
2:AB:27:MET:C	2:AB:29:PRO:HD2	2.29	0.57
4:AD:90:LEU:HD12	4:AD:90:LEU:C	2.30	0.57
13:AM:34:LEU:HD22	13:AM:39:ILE:HG21	1.85	0.57
24:BA:136:G:C6	24:BA:137:U:O4	2.57	0.57
24:BA:532:A:H1'	24:BA:2021:C:C5	2.40	0.57
24:BA:1287:A:H5'	37:BN:103:ARG:HD2	1.85	0.57
24:BA:1432:G:C2	24:BA:1433:A:C4	2.92	0.57
24:BA:2186:G:H2'	24:BA:2187:U:O4'	2.05	0.57
24:BA:2613:U:OP2	59:BA:3487:HOH:O	2.18	0.57
24:BA:2856:A:N6	24:BA:2857:G:C6	2.73	0.57
31:BH:81:ALA:CB	31:BH:147:VAL:HG13	2.34	0.57
35:BL:53:GLY:O	35:BL:54:GLN:O	2.22	0.57
35:BL:111:ILE:N	35:BL:111:ILE:HD12	2.20	0.57
40:BQ:46:TYR:C	40:BQ:46:TYR:CD1	2.82	0.57
48:BY:21:LEU:HA	48:BY:25:GLN:HB3	1.86	0.57
48:BY:52:ARG:O	48:BY:53:VAL:C	2.48	0.57
1:CA:386:C:C2'	1:CA:387:U:H5'	2.32	0.57
1:CA:469:C:C5	1:CA:470:C:C5	2.93	0.57
1:CA:575:G:H4'	1:CA:576:C:H5"	1.86	0.57
1:CA:958:A:N7	1:CA:959:A:C5	2.73	0.57
1:CA:993:G:O6	1:CA:1045:C:N4	2.37	0.57
1:CA:1273:C:H2'	1:CA:1274:A:O4'	2.05	0.57
1:CA:1418:A:C2	1:CA:1483:A:C2	2.93	0.57
24:DA:994:C:O2	41:DR:10:LYS:CE	2.52	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1563:U:C2	24:DA:1564:C:C5	2.92	0.57
24:DA:1910:G:C2	24:DA:1921:G:C2	2.93	0.57
24:DA:2661:G:O2'	24:DA:2662:A:H5'	2.05	0.57
25:DB:30:C:C5	25:DB:31:C:C6	2.93	0.57
29:DF:33:ILE:CD1	29:DF:99:PHE:CD1	2.87	0.57
29:DF:124:ARG:NH2	29:DF:126:ASN:ND2	2.53	0.57
1:AA:9:G:N2	1:AA:10:A:N9	2.53	0.57
1:AA:101:A:C4	1:AA:102:G:C8	2.93	0.57
1:AA:453:G:C2	1:AA:480:U:O2	2.58	0.57
1:AA:511:C:C2	1:AA:512:U:C5	2.93	0.57
1:AA:575:G:C6	1:AA:821:G:C8	2.93	0.57
1:AA:1118:U:H1'	1:AA:1179:A:C4	2.40	0.57
1:AA:1147:C:O2'	9:AI:18:ARG:HD3	2.04	0.57
4:AD:76:TYR:CE2	4:AD:204:TYR:HB2	2.39	0.57
4:AD:137:VAL:HG12	4:AD:182:PHE:CE2	2.40	0.57
6:AF:38:ARG:HB2	6:AF:63:ASN:OD1	2.05	0.57
9:AI:38:TYR:CD2	9:AI:39:PHE:CE1	2.92	0.57
11:AK:126:LYS:O	11:AK:127:ARG:HG3	2.04	0.57
12:AL:7:LEU:HD13	17:AQ:34:TYR:CE1	2.39	0.57
24:BA:71:A:OP2	24:BA:113:U:H5'	2.04	0.57
24:BA:599:A:C2	24:BA:659:G:C6	2.92	0.57
24:BA:679:C:H2'	24:BA:680:C:H6	1.70	0.57
24:BA:749:A:C6	24:BA:750:A:N7	2.73	0.57
24:BA:846:U:O2'	24:BA:847:U:C5'	2.53	0.57
24:BA:936:A:H2'	24:BA:937:C:H6	1.69	0.57
24:BA:1141:U:OP1	33:BJ:24:THR:HG21	2.05	0.57
24:BA:1206:G:OP2	57:BA:3163:NMY:H231	2.05	0.57
24:BA:1307:A:C4	24:BA:1308:A:C8	2.92	0.57
24:BA:1454:C:P	37:BN:63:ARG:NH2	2.78	0.57
24:BA:1945:G:C6	24:BA:1946:U:C4	2.92	0.57
24:BA:2727:A:C6	24:BA:2728:U:C4	2.93	0.57
36:BM:38:ARG:CZ	36:BM:38:ARG:HB3	2.35	0.57
49:BZ:6:ILE:O	49:BZ:34:THR:HA	2.05	0.57
1:CA:106:C:O2'	1:CA:379:C:H5"	2.04	0.57
1:CA:404:G:P	4:CD:3:ARG:HH12	2.28	0.57
1:CA:413:G:C3'	1:CA:414:A:H5'	2.34	0.57
1:CA:561:U:O2'	1:CA:562:U:OP1	2.17	0.57
1:CA:579:A:C2	1:CA:580:C:C5	2.93	0.57
1:CA:620:C:C2	4:CD:132:ILE:HD12	2.40	0.57
1:CA:1153:G:OP1	10:CJ:15:HIS:CE1	2.58	0.57
1:CA:1321:U:C4	1:CA:1322:C:C6	2.92	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1521:C:C2	1:CA:1522:U:C5	2.93	0.57
3:CC:53:SER:O	3:CC:54:ARG:CB	2.52	0.57
3:CC:66:VAL:HG13	3:CC:101:ILE:HA	1.87	0.57
3:CC:189:ALA:O	3:CC:190:HIS:HB2	2.04	0.57
6:CF:23:GLU:O	6:CF:24:ARG:C	2.47	0.57
9:CI:40:GLY:O	9:CI:41:ARG:HB3	2.04	0.57
9:CI:84:THR:HG21	9:CI:103:PHE:CD1	2.40	0.57
13:CM:81:MET:O	13:CM:82:ASP:C	2.48	0.57
13:CM:81:MET:N	13:CM:83:LEU:CD2	2.68	0.57
20:CT:5:LYS:O	20:CT:7:ALA:N	2.38	0.57
22:CV:60:U:C5'	22:CV:61:C:H5	2.17	0.57
22:CV:64:A:O2'	22:CV:65:G:H5'	2.05	0.57
55:CY:25:SER:C	55:CY:26:LYS:HD2	2.30	0.57
24:DA:81:G:C2	24:DA:82:U:H1'	2.39	0.57
24:DA:565:C:H2'	24:DA:566:U:H5'	1.87	0.57
24:DA:831:G:H2'	24:DA:832:U:O5'	2.05	0.57
24:DA:1372:U:C2'	24:DA:1373:A:H5'	2.34	0.57
24:DA:1775:U:H2'	24:DA:1776:G:C5'	2.35	0.57
24:DA:2564:A:OP1	24:DA:2648:G:H4'	2.05	0.57
24:DA:2820:A:H4'	37:DN:3:HIS:CD2	2.40	0.57
26:DC:4:LYS:O	26:DC:5:CYS:O	2.23	0.57
44:DU:73:ASN:O	44:DU:75:ALA:N	2.38	0.57
1:AA:16:A:C6	1:AA:17:U:C5	2.93	0.57
1:AA:359:G:H5'	31:DH:89:LYS:CD	2.34	0.57
1:AA:430:A:C2'	1:AA:431:A:H5'	2.35	0.57
1:AA:522:C:H1'	1:AA:536:C:H5'	1.87	0.57
1:AA:799:G:H2'	1:AA:800:G:C5'	2.35	0.57
4:AD:25:VAL:HG23	4:AD:26:ARG:H	1.70	0.57
4:AD:182:PHE:N	4:AD:182:PHE:CD1	2.72	0.57
7:AG:5:ARG:O	7:AG:6:VAL:C	2.47	0.57
8:AH:12:THR:HA	8:AH:15:ARG:NH1	2.20	0.57
8:AH:102:ALA:O	8:AH:103:VAL:HB	2.04	0.57
11:AK:16:VAL:HG13	11:AK:17:SER:N	2.20	0.57
11:AK:56:ARG:O	11:AK:57:LYS:C	2.48	0.57
12:AL:75:GLN:HG2	12:AL:76:GLU:N	2.18	0.57
12:AL:114:ARG:O	12:AL:115:SER:C	2.47	0.57
24:BA:395:U:O2'	24:BA:396:G:N7	2.34	0.57
24:BA:449:A:H2'	24:BA:450:G:O5'	2.04	0.57
24:BA:506:G:H4'	24:BA:509:C:O2	2.05	0.57
24:BA:607:U:O4	24:BA:620:G:O4'	2.22	0.57
24:BA:674:G:H1'	28:BE:69:ARG:CD	2.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1139:G:P	33:BJ:103:ILE:HD11	2.45	0.57
24:BA:1205:A:N6	28:BE:165:HIS:CD2	2.72	0.57
24:BA:1265:A:O4'	24:BA:1267:U:C6	2.58	0.57
24:BA:2046:G:H1'	50:B0:18:HIS:CD2	2.40	0.57
24:BA:2052:A:C4	27:BD:155:VAL:HG23	2.40	0.57
24:BA:2138:G:N2	24:BA:2139:U:O2	2.38	0.57
24:BA:2323:G:C2'	24:BA:2324:U:H5'	2.35	0.57
24:BA:2639:A:H4'	33:BJ:96:ARG:NH2	2.20	0.57
24:BA:2726:A:HO2'	24:BA:2727:A:C5'	2.18	0.57
30:BG:71:LEU:HD22	30:BG:74:MET:SD	2.45	0.57
44:BU:94:PHE:HA	44:BU:102:ILE:HG12	1.87	0.57
54:B4:36:ARG:O	54:B4:37:GLN:C	2.48	0.57
1:CA:455:G:C2	1:CA:478:A:N1	2.73	0.57
1:CA:666:G:N2	1:CA:741:G:H1'	2.20	0.57
1:CA:878:A:OP2	1:CA:878:A:C8	2.58	0.57
1:CA:1034:G:H2'	1:CA:1035:A:O4'	2.05	0.57
1:CA:1080:A:OP1	5:CE:50:TYR:OH	2.18	0.57
1:CA:1287:A:C6	1:CA:1288:A:C6	2.92	0.57
2:CB:151:ILE:O	2:CB:152:LYS:C	2.48	0.57
3:CC:140:ASN:O	3:CC:141:ALA:HB2	2.05	0.57
4:CD:55:LEU:CB	4:CD:58:LYS:HD2	2.35	0.57
11:CK:17:SER:HB3	11:CK:79:ILE:N	2.20	0.57
12:CL:16:VAL:HG12	12:CL:17:ALA:N	2.20	0.57
15:CO:11:ILE:CG1	15:CO:31:LEU:HD11	2.35	0.57
55:CY:98:ILE:O	55:CY:100:VAL:N	2.38	0.57
24:DA:127:A:H5'	24:DA:128:C:O4'	2.05	0.57
24:DA:444:C:C2'	24:DA:445:C:H5'	2.35	0.57
24:DA:784:G:C6	26:DC:227:VAL:HG11	2.40	0.57
24:DA:1358:G:C5	24:DA:1371:G:N7	2.73	0.57
24:DA:1432:G:O2'	24:DA:1433:A:H5'	2.03	0.57
24:DA:1617:C:OP1	59:DA:3641:HOH:O	2.18	0.57
24:DA:2514:U:H2'	24:DA:2515:C:C6	2.39	0.57
27:DD:50:VAL:CG2	27:DD:51:THR:N	2.67	0.57
29:DF:39:VAL:O	29:DF:41:GLU:N	2.38	0.57
29:DF:121:PHE:CE2	29:DF:162:ASP:O	2.58	0.57
34:DK:3:GLN:O	34:DK:6:THR:OG1	2.12	0.57
34:DK:4:GLU:O	34:DK:5:GLN:HB2	2.05	0.57
35:DL:93:ASN:O	35:DL:94:THR:CB	2.53	0.57
43:DT:30:ILE:CG1	43:DT:85:VAL:HG13	2.35	0.57
47:DX:52:ALA:O	47:DX:55:MET:N	2.38	0.57
51:D1:42:VAL:O	51:D1:43:ARG:C	2.48	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:104:G:H4'	1:AA:174:A:O4'	2.04	0.56
1:AA:505:G:C5	1:AA:535:A:C2	2.92	0.56
1:AA:542:G:C2'	1:AA:543:U:H5'	2.34	0.56
1:AA:741:G:H2'	1:AA:742:G:O4'	2.05	0.56
1:AA:946:A:C2	1:AA:1236:A:C2	2.93	0.56
1:AA:1141:C:O2'	1:AA:1142:G:OP2	2.22	0.56
1:AA:1279:G:H5"	1:AA:1280:A:OP2	2.04	0.56
1:AA:1297:G:OP1	13:AM:13:LYS:HD3	2.05	0.56
3:AC:69:HIS:HA	3:AC:104:ALA:HB3	1.87	0.56
4:AD:69:GLU:HA	4:AD:72:PHE:CZ	2.39	0.56
7:AG:13:LEU:N	7:AG:13:LEU:HD22	2.20	0.56
7:AG:125:SER:C	7:AG:127:ALA:H	2.13	0.56
8:AH:32:LEU:HA	8:AH:35:ALA:HB3	1.87	0.56
11:AK:88:GLY:O	11:AK:93:ARG:NH1	2.38	0.56
20:AT:62:ALA:HA	20:AT:67:ILE:HG23	1.87	0.56
24:BA:672:C:C2	24:BA:809:G:N2	2.73	0.56
24:BA:1071:G:C6	24:BA:1072:C:N3	2.73	0.56
24:BA:1210:G:C4'	24:BA:1211:C:H5'	2.34	0.56
24:BA:1352:U:C2'	24:BA:1353:A:H5'	2.34	0.56
24:BA:1605:C:C2'	24:BA:1606:C:O5'	2.53	0.56
24:BA:2719:G:O2'	24:BA:2720:U:H5'	2.04	0.56
57:BA:3162:NMY:H172	57:BA:3162:NMY:H2	1.86	0.56
26:BC:13:ARG:HG2	26:BC:14:HIS:ND1	2.19	0.56
30:BG:29:ASN:OD1	30:BG:80:GLU:N	2.38	0.56
36:BM:89:VAL:HG12	36:BM:90:GLU:N	2.19	0.56
49:BZ:44:ARG:HA	49:BZ:47:ILE:HG12	1.86	0.56
1:CA:225:C:H2'	1:CA:226:G:O4'	2.05	0.56
1:CA:263:A:O5'	20:CT:74:ARG:NH2	2.38	0.56
1:CA:468:A:H2	1:CA:469:C:C4	2.23	0.56
1:CA:483:C:H3'	1:CA:484:G:C8	2.40	0.56
1:CA:1216:A:N1	1:CA:1217:C:C4	2.73	0.56
1:CA:1306:A:C4	1:CA:1332:A:C2	2.92	0.56
3:CC:107:ARG:O	3:CC:108:LYS:C	2.48	0.56
4:CD:9:LEU:HD12	4:CD:10:LYS:HG2	1.87	0.56
4:CD:58:LYS:NZ	4:CD:203:LEU:HB2	2.19	0.56
4:CD:90:LEU:HD22	4:CD:90:LEU:O	2.05	0.56
5:CE:46:VAL:HG13	5:CE:118:ALA:CB	2.35	0.56
5:CE:134:ILE:HG22	5:CE:134:ILE:O	2.04	0.56
5:CE:136:VAL:HG23	5:CE:137:VAL:N	2.18	0.56
7:CG:70:ARG:NH2	7:CG:96:ARG:O	2.36	0.56
7:CG:97:ASN:O	7:CG:99:LEU:N	2.37	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:93:VAL:CG2	12:CL:94:ARG:N	2.67	0.56
12:CL:99:ARG:HA	12:CL:104:CYS:SG	2.45	0.56
16:CP:70:ARG:O	16:CP:70:ARG:HG3	2.05	0.56
22:CV:37:A:C2	22:CV:38:A:H1'	2.40	0.56
24:DA:341:C:O2'	24:DA:342:A:H5'	2.05	0.56
24:DA:1124:G:H1'	54:D4:38:GLY:OXT	2.05	0.56
24:DA:1532:A:C2	24:DA:1533:C:C2	2.92	0.56
24:DA:1921:G:O6	57:DA:3184:NMY:N7	2.37	0.56
24:DA:2222:C:C2	24:DA:2223:G:C8	2.92	0.56
24:DA:2429:G:OP2	24:DA:2430:A:OP2	2.23	0.56
26:DC:226:PRO:HA	26:DC:232:GLY:HA2	1.87	0.56
27:DD:125:TRP:CE3	27:DD:160:LYS:HG2	2.40	0.56
29:DF:59:ILE:HG23	29:DF:137:PHE:CD2	2.40	0.56
29:DF:123:GLY:HA2	29:DF:162:ASP:CG	2.30	0.56
34:DK:57:VAL:C	34:DK:58:LEU:HD23	2.29	0.56
34:DK:64:ARG:NH2	34:DK:100:PHE:O	2.37	0.56
36:DM:34:LYS:NZ	45:DV:81:PRO:O	2.34	0.56
48:DY:41:HIS:CE1	48:DY:42:LEU:CD1	2.88	0.56
1:AA:22:G:C5	1:AA:23:C:C5	2.93	0.56
1:AA:106:C:C3'	1:AA:107:G:C5'	2.83	0.56
1:AA:124:C:C4	1:AA:125:U:C5	2.93	0.56
1:AA:182:A:C8	1:AA:184:G:C5	2.93	0.56
1:AA:240:G:OP1	1:AA:240:G:H4'	2.05	0.56
1:AA:268:U:H2'	1:AA:269:C:C6	2.40	0.56
1:AA:1224:U:C4	1:AA:1322:C:C2	2.93	0.56
1:AA:1458:G:H2'	1:AA:1459:G:C8	2.40	0.56
3:AC:85:GLU:HG2	3:AC:86:LYS:N	2.19	0.56
3:AC:100:GLN:CG	3:AC:101:ILE:H	2.18	0.56
4:AD:45:LYS:O	4:AD:47:ARG:NH2	2.38	0.56
5:AE:152:MET:HA	5:AE:155:ALA:HB2	1.86	0.56
6:AF:43:GLY:HA2	6:AF:58:HIS:NE2	2.20	0.56
19:AS:29:LYS:O	19:AS:30:PRO:O	2.23	0.56
21:AU:21:ARG:O	21:AU:21:ARG:NH1	2.38	0.56
24:BA:27:G:HO2'	24:BA:28:A:P	2.27	0.56
24:BA:85:G:OP1	44:BU:5:ARG:HB3	2.05	0.56
24:BA:534:U:O2'	40:BQ:48:ASP:OD2	2.18	0.56
24:BA:1047:G:O2'	24:BA:1110:G:N1	2.31	0.56
24:BA:1062:G:N1	24:BA:1077:A:C2	2.74	0.56
24:BA:1744:A:H2'	24:BA:1745:A:O4'	2.05	0.56
24:BA:1876:A:N6	24:BA:1877:A:C6	2.73	0.56
24:BA:2017:U:H5"	24:BA:2018:G:P	2.45	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:3161:NMY:H91	57:BA:3161:NMY:H5	1.68	0.56
41:BR:91:GLN:OE1	41:BR:92:TRP:N	2.38	0.56
51:B1:27:ARG:NE	51:B1:27:ARG:HA	2.19	0.56
53:B3:54:LEU:O	53:B3:58:ILE:HD12	2.05	0.56
1:CA:32:A:C2	1:CA:33:A:C5	2.93	0.56
1:CA:214:C:HO2'	1:CA:215:C:P	2.28	0.56
1:CA:430:A:OP1	4:CD:9:LEU:CB	2.53	0.56
1:CA:469:C:C4	1:CA:470:C:C4	2.93	0.56
1:CA:737:C:HO2'	1:CA:738:C:P	2.27	0.56
1:CA:1299:A:C5	1:CA:1301:U:C2	2.93	0.56
2:CB:73:LYS:O	2:CB:75:ALA:N	2.39	0.56
3:CC:156:ARG:NH1	3:CC:159:GLY:O	2.37	0.56
4:CD:9:LEU:O	4:CD:10:LYS:C	2.48	0.56
4:CD:200:ILE:O	4:CD:202:GLU:N	2.38	0.56
7:CG:2:PRO:O	7:CG:3:ARG:C	2.48	0.56
7:CG:70:ARG:HD3	7:CG:96:ARG:HD3	1.86	0.56
8:CH:111:MET:HE2	8:CH:116:ALA:N	2.19	0.56
13:CM:73:ILE:O	13:CM:74:SER:OG	2.15	0.56
15:CO:9:ALA:O	15:CO:10:LYS:C	2.48	0.56
15:CO:70:LEU:O	15:CO:78:TYR:CE1	2.58	0.56
18:CR:28:THR:OG1	18:CR:29:LEU:N	2.37	0.56
55:CY:164:THR:HG22	55:CY:168:ILE:HD13	1.86	0.56
24:DA:686:U:O2'	52:D2:5:PHE:HA	2.05	0.56
24:DA:788:A:O5'	24:DA:790:U:O4	2.23	0.56
24:DA:947:A:C2	24:DA:948:C:C2	2.93	0.56
24:DA:1366:A:C2	24:DA:1367:A:H1'	2.39	0.56
24:DA:1869:G:C3'	24:DA:1870:C:H5'	2.34	0.56
24:DA:2202:U:O2	24:DA:2202:U:H2'	2.03	0.56
24:DA:2291:U:H2'	24:DA:2292:U:C6	2.40	0.56
24:DA:2586:U:H2'	24:DA:2587:A:O5'	2.05	0.56
57:DA:3190:NMY:H1	57:DA:3190:NMY:C13	2.35	0.56
25:DB:74:U:C2'	25:DB:75:G:H5'	2.36	0.56
26:DC:124:LYS:O	26:DC:125:PRO:C	2.48	0.56
31:DH:88:GLY:HA2	31:DH:125:THR:CB	2.35	0.56
40:DQ:82:LEU:HD11	40:DQ:112:ALA:HB2	1.85	0.56
54:D4:25:VAL:HB	54:D4:35:GLN:HB2	1.87	0.56
1:AA:32:A:H2'	1:AA:32:A:N3	2.20	0.56
1:AA:59:A:C8	1:AA:354:G:N1	2.72	0.56
1:AA:640:A:H5"	1:AA:641:U:OP2	2.05	0.56
1:AA:805:C:C2	1:AA:806:C:C5	2.93	0.56
1:AA:927:G:C2'	1:AA:928:G:H5'	2.34	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:933:G:P	7:AG:5:ARG:HH22	2.27	0.56
1:AA:957:U:H1'	1:AA:960:U:N3	2.21	0.56
1:AA:1122:U:H2'	1:AA:1123:U:H5'	1.86	0.56
1:AA:1124:G:N1	1:AA:1127:G:N2	2.54	0.56
1:AA:1135:U:O2	1:AA:1137:C:N3	2.39	0.56
1:AA:1149:C:P	9:AI:11:ARG:NH1	2.78	0.56
1:AA:1261:A:C6	1:AA:1262:C:C5	2.93	0.56
1:AA:1299:A:O2'	1:AA:1301:U:O4'	2.22	0.56
1:AA:1326:U:H2'	1:AA:1327:C:C6	2.40	0.56
1:AA:1349:A:C2'	1:AA:1350:A:H5'	2.35	0.56
1:AA:1521:C:O2'	1:AA:1522:U:H5'	2.04	0.56
2:AB:31:ILE:HD11	2:AB:189:THR:OG1	2.06	0.56
2:AB:70:VAL:HG12	2:AB:163:VAL:HG23	1.88	0.56
2:AB:72:THR:O	2:AB:73:LYS:CB	2.53	0.56
2:AB:143:LYS:O	2:AB:146:ASN:N	2.33	0.56
3:AC:7:PRO:O	3:AC:10:ILE:HG22	2.05	0.56
4:AD:98:LEU:O	4:AD:98:LEU:HD23	2.05	0.56
4:AD:103:TYR:OH	4:AD:111:ARG:CA	2.52	0.56
4:AD:145:ILE:HG22	4:AD:178:MET:HE1	1.86	0.56
8:AH:15:ARG:HE	8:AH:75:ILE:HG22	1.70	0.56
8:AH:36:ILE:O	8:AH:38:ASN:CA	2.53	0.56
8:AH:64:LYS:C	8:AH:65:TYR:CD1	2.83	0.56
8:AH:94:LYS:CD	8:AH:98:GLY:HA2	2.36	0.56
8:AH:96:MET:O	8:AH:99:LEU:N	2.38	0.56
11:AK:18:ASP:OD1	11:AK:18:ASP:N	2.38	0.56
14:AN:49:GLN:C	14:AN:51:LEU:N	2.57	0.56
16:AP:57:ILE:O	16:AP:58:ALA:C	2.48	0.56
20:AT:75:HIS:O	20:AT:78:ASN:N	2.38	0.56
24:BA:184:C:H2'	24:BA:185:G:C8	2.40	0.56
24:BA:458:G:N2	24:BA:469:G:H2'	2.20	0.56
24:BA:532:A:C8	24:BA:2021:C:C5	2.94	0.56
24:BA:643:A:H1'	51:B1:43:ARG:NH1	2.20	0.56
24:BA:1217:U:C2'	24:BA:1218:G:O5'	2.54	0.56
24:BA:1317:G:C6	24:BA:1318:U:N3	2.73	0.56
24:BA:1336:A:OP2	43:BT:68:LYS:NZ	2.35	0.56
24:BA:1378:A:C4'	24:BA:1379:U:OP1	2.53	0.56
24:BA:1412:U:C2	24:BA:1591:A:C2	2.92	0.56
24:BA:1838:C:O4'	59:BA:3813:HOH:O	2.18	0.56
24:BA:1929:G:H4'	24:BA:1930:G:OP1	2.04	0.56
24:BA:2142:A:C2	24:BA:2150:C:N3	2.73	0.56
24:BA:2379:G:C6	24:BA:2380:C:C4	2.93	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2478:A:C8	24:BA:2479:U:C5	2.93	0.56
24:BA:2543:G:C5	24:BA:2765:A:C2	2.93	0.56
24:BA:2757:A:N1	30:BG:66:THR:HG21	2.20	0.56
25:BB:53:A:C6	25:BB:54:G:N7	2.73	0.56
28:BE:113:VAL:HG22	28:BE:114:ARG:N	2.20	0.56
29:BF:48:LEU:O	29:BF:51:ASN:N	2.39	0.56
30:BG:108:PHE:C	30:BG:110:HIS:N	2.62	0.56
38:BO:67:ASN:ND2	38:BO:69:ASP:OD1	2.38	0.56
39:BP:96:LEU:O	39:BP:97:TYR:C	2.49	0.56
41:BR:51:VAL:HB	41:BR:52:PRO:CD	2.35	0.56
42:BS:23:LEU:HD22	42:BS:35:ILE:CG2	2.36	0.56
42:BS:84:ARG:CB	42:BS:96:ILE:HG22	2.35	0.56
45:BV:31:TYR:OH	45:BV:90:ASP:HB3	2.04	0.56
48:BY:15:ASN:O	48:BY:19:LEU:HG	2.06	0.56
1:CA:263:A:OP2	20:CT:74:ARG:NH1	2.39	0.56
1:CA:317:U:C2	1:CA:318:G:C8	2.93	0.56
1:CA:589:U:O2	1:CA:650:G:N2	2.38	0.56
1:CA:663:A:C6	1:CA:743:A:C2	2.92	0.56
1:CA:889:A:H4’	1:CA:890:G:OP1	2.05	0.56
1:CA:1000:A:C5	1:CA:1001:C:C5	2.94	0.56
1:CA:1239:A:C2	1:CA:1297:G:C2	2.93	0.56
1:CA:1312:G:C8	19:CS:3:ARG:N	2.73	0.56
1:CA:1366:C:O2’	1:CA:1367:C:H5’	2.06	0.56
1:CA:1368:A:OP2	9:CI:115:LYS:O	2.24	0.56
1:CA:1506:U:H2’	59:CA:1884:HOH:O	2.05	0.56
1:CA:1515:G:O6	1:CA:1520:C:N4	2.32	0.56
2:CB:53:ALA:O	2:CB:57:LEU:N	2.38	0.56
3:CC:22:TRP:CD1	3:CC:23:PHE:N	2.74	0.56
4:CD:22:LYS:HZ3	4:CD:25:VAL:HG22	1.69	0.56
4:CD:164:GLN:OE1	4:CD:165:ARG:N	2.38	0.56
6:CF:18:VAL:O	6:CF:21:MET:N	2.38	0.56
6:CF:26:THR:O	6:CF:30:THR:N	2.39	0.56
6:CF:51:ILE:C	6:CF:53:LYS:N	2.64	0.56
7:CG:136:LYS:O	7:CG:140:ASP:OD1	2.23	0.56
11:CK:67:ALA:O	11:CK:70:CYS:N	2.37	0.56
12:CL:25:GLU:O	12:CL:26:ALA:C	2.49	0.56
12:CL:67:ILE:HD12	12:CL:72:HIS:CG	2.41	0.56
12:CL:89:ASP:O	12:CL:90:LEU:C	2.48	0.56
13:CM:49:SER:O	13:CM:50:GLU:C	2.48	0.56
21:CU:5:LYS:CD	21:CU:5:LYS:O	2.53	0.56
24:DA:545:U:C5	24:DA:547:A:H4’	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:784:G:O2'	24:DA:785:G:H5"	2.06	0.56
24:DA:877:A:C6	24:DA:899:A:C6	2.93	0.56
24:DA:1070:A:H61	32:DI:8:VAL:HG12	1.70	0.56
24:DA:1190:G:P	35:DL:32:GLY:HA2	2.45	0.56
24:DA:1395:A:P	59:DA:3408:HOH:O	2.63	0.56
24:DA:1737:G:C4	24:DA:1738:G:C2	2.93	0.56
24:DA:1779:U:C5	24:DA:1784:A:N7	2.73	0.56
24:DA:2093:G:N2	24:DA:2197:U:C2	2.73	0.56
24:DA:2204:G:H21	24:DA:2205:A:H1'	1.70	0.56
24:DA:2205:A:H2'	24:DA:2206:C:C6	2.41	0.56
24:DA:2312:U:OP1	29:DF:70:ARG:N	2.38	0.56
24:DA:2356:U:P	46:DW:24:LYS:NZ	2.79	0.56
24:DA:2633:G:H1'	27:DD:63:PRO:HB3	1.86	0.56
24:DA:2661:G:C6	24:DA:2662:A:C2	2.93	0.56
24:DA:2714:G:O2'	24:DA:2715:C:H5'	2.05	0.56
24:DA:2794:C:O2	24:DA:2803:G:N2	2.38	0.56
24:DA:2820:A:C2'	24:DA:2821:A:OP1	2.52	0.56
26:DC:140:VAL:HG21	26:DC:189:ALA:HB1	1.87	0.56
26:DC:259:ASN:OD1	26:DC:263:ASP:N	2.39	0.56
38:DO:116:GLN:O	38:DO:117:PHE:HB3	2.05	0.56
45:DV:31:TYR:O	45:DV:92:VAL:HA	2.05	0.56
45:DV:44:HIS:O	45:DV:48:MET:N	2.37	0.56
46:DW:20:ARG:NH1	46:DW:20:ARG:HG2	2.19	0.56
46:DW:28:GLY:HA2	46:DW:66:LYS:HG2	1.86	0.56
48:DY:47:ARG:O	48:DY:50:VAL:HG22	2.05	0.56
50:D0:2:VAL:HG22	50:D0:3:GLN:HB3	1.88	0.56
53:D3:20:GLY:O	53:D3:21:PHE:CD1	2.58	0.56
54:D4:3:VAL:HG23	54:D4:3:VAL:O	2.05	0.56
1:AA:376:G:C2	1:AA:389:A:C2	2.93	0.56
1:AA:405:U:OP2	4:AD:3:ARG:HD3	2.05	0.56
1:AA:543:U:H5"	4:AD:14:ARG:CZ	2.35	0.56
1:AA:1083:U:H2'	1:AA:1084:G:O5'	2.05	0.56
1:AA:1189:U:C5'	3:AC:5:VAL:HG21	2.36	0.56
1:AA:1346:A:C2	1:AA:1348:U:O4	2.58	0.56
7:AG:58:GLU:HA	7:AG:61:ALA:HB3	1.86	0.56
16:AP:54:LEU:HD23	16:AP:54:LEU:C	2.30	0.56
20:AT:80:THR:O	20:AT:83:ILE:HG13	2.05	0.56
21:AU:40:LYS:O	21:AU:44:GLU:HB3	2.06	0.56
24:BA:79:C:C4	24:BA:80:G:N7	2.74	0.56
24:BA:396:G:H1'	47:BX:28:PHE:HB3	1.88	0.56
24:BA:409:G:C2	24:BA:410:G:C5	2.94	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:495:G:H1'	42:BS:57:ASN:OD1	2.06	0.56
24:BA:497:A:C4	24:BA:498:G:C8	2.94	0.56
24:BA:607:U:H3'	24:BA:607:U:C6	2.41	0.56
24:BA:617:G:O6	59:BA:3293:HOH:O	2.16	0.56
24:BA:654:A:H3'	24:BA:654:A:N3	2.19	0.56
24:BA:988:A:N6	49:BZ:13:ILE:HD11	2.19	0.56
24:BA:1360:G:N7	24:BA:1361:G:C8	2.73	0.56
24:BA:1443:U:H2'	24:BA:1444:G:O4'	2.06	0.56
24:BA:1657:U:O3'	27:BD:138:LEU:HD23	2.05	0.56
24:BA:2334:U:P	38:BO:9:ARG:NH1	2.79	0.56
24:BA:2472:G:C3'	24:BA:2473:U:H5'	2.34	0.56
24:BA:2524:G:N2	24:BA:2525:G:H1'	2.18	0.56
57:BA:3166:NMY:H14	33:BJ:2:LYS:NZ	2.20	0.56
30:BG:116:LEU:HD23	30:BG:121:THR:HA	1.86	0.56
31:BH:66:ASN:OD1	31:BH:138:VAL:HG11	2.04	0.56
36:BM:11:LYS:HE2	36:BM:87:GLY:O	2.06	0.56
36:BM:19:GLY:O	36:BM:38:ARG:NH2	2.36	0.56
37:BN:29:VAL:HG11	37:BN:79:LEU:CD1	2.36	0.56
46:BW:43:THR:O	46:BW:43:THR:CG2	2.53	0.56
51:B1:18:HIS:CE1	51:B1:40:PRO:HG3	2.41	0.56
53:B3:39:ARG:O	53:B3:43:LEU:HD13	2.06	0.56
1:CA:121:U:O2'	1:CA:122:G:OP1	2.23	0.56
1:CA:754:C:H2'	1:CA:755:G:OP1	2.05	0.56
1:CA:972:C:O5'	10:CJ:59:LYS:HD3	2.04	0.56
1:CA:1118:U:C4'	9:CI:106:ARG:NH2	2.68	0.56
1:CA:1169:A:N7	1:CA:1170:A:C6	2.73	0.56
1:CA:1421:G:C2'	1:CA:1422:G:O5'	2.53	0.56
3:CC:106:VAL:HG12	3:CC:109:PRO:HB3	1.87	0.56
4:CD:182:PHE:O	4:CD:183:LYS:HB3	2.06	0.56
5:CE:81:LEU:HA	5:CE:147:MET:HE1	1.87	0.56
8:CH:82:GLY:O	8:CH:83:LEU:HB2	2.04	0.56
17:CQ:63:GLU:HA	17:CQ:73:TRP:CD2	2.41	0.56
21:CU:20:LYS:O	21:CU:22:SER:OG	2.22	0.56
24:DA:301:G:P	44:DU:81:ARG:NH1	2.78	0.56
24:DA:1056:G:N2	24:DA:1102:C:C5	2.73	0.56
24:DA:1340:U:H4'	24:DA:1341:G:OP2	2.04	0.56
24:DA:1669:A:H5"	24:DA:2550:G:OP1	2.05	0.56
24:DA:1715:G:O2'	24:DA:1716:U:P	2.62	0.56
24:DA:2031:A:N3	24:DA:2455:G:O2'	2.30	0.56
24:DA:2103:C:H2'	24:DA:2104:C:C6	2.41	0.56
24:DA:2267:A:H5"	24:DA:2268:A:H5'	1.85	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DB:15:A:O2'	25:DB:16:G:H5'	2.05	0.56
25:DB:83:G:H2'	25:DB:84:G:H5"	1.86	0.56
29:DF:12:VAL:O	29:DF:13:LYS:C	2.48	0.56
39:DP:112:ARG:O	39:DP:113:LEU:CB	2.53	0.56
44:DU:30:SER:OG	44:DU:32:LYS:HB2	2.05	0.56
1:AA:328:C:O2	1:AA:328:C:C2'	2.54	0.56
1:AA:728:A:N1	1:AA:729:A:C6	2.73	0.56
1:AA:1151:A:N3	1:AA:1152:A:N7	2.54	0.56
1:AA:1372:U:C4	1:AA:1373:G:C5	2.93	0.56
1:AA:1388:C:C2	1:AA:1389:C:C5	2.93	0.56
2:AB:47:VAL:CB	2:AB:48:PRO:CD	2.82	0.56
2:AB:85:LEU:O	2:AB:86:SER:CB	2.54	0.56
4:AD:18:ASP:C	4:AD:19:LEU:HG	2.30	0.56
7:AG:68:ASN:O	7:AG:138:ARG:HD2	2.06	0.56
16:AP:77:GLU:O	16:AP:77:GLU:CG	2.52	0.56
24:BA:89:A:C6	24:BA:90:U:C5	2.94	0.56
24:BA:669:G:C4	24:BA:801:G:C6	2.93	0.56
24:BA:691:C:O2'	24:BA:692:C:H5'	2.06	0.56
24:BA:1284:A:N1	24:BA:1285:A:C2	2.73	0.56
24:BA:1365:A:N6	24:BA:1366:A:N6	2.54	0.56
24:BA:1668:A:O2'	24:BA:1674:G:N7	2.20	0.56
24:BA:1857:G:H1'	24:BA:1884:G:H22	1.69	0.56
24:BA:1878:G:C6	24:BA:1879:C:C4	2.94	0.56
24:BA:2203:U:H5"	24:BA:2204:G:OP1	2.04	0.56
24:BA:2345:G:H4'	24:BA:2346:A:C5'	2.35	0.56
24:BA:2769:U:H2'	24:BA:2769:U:O2	2.03	0.56
28:BE:48:THR:N	28:BE:51:GLU:OE1	2.38	0.56
31:BH:147:VAL:CG2	31:BH:148:ALA:H	2.18	0.56
33:BJ:32:LEU:O	33:BJ:36:LEU:HD12	2.05	0.56
35:BL:35:HIS:O	35:BL:36:LYS:O	2.24	0.56
1:CA:131:A:C2	1:CA:132:C:C4	2.93	0.56
1:CA:451:A:H5'	1:CA:452:A:N3	2.20	0.56
1:CA:909:A:C2'	1:CA:910:C:H5'	2.36	0.56
1:CA:933:G:OP2	7:CG:3:ARG:CG	2.54	0.56
1:CA:1014:A:C2	19:CS:34:TRP:CH2	2.94	0.56
1:CA:1272:G:H2'	1:CA:1273:C:O4'	2.05	0.56
1:CA:1465:A:H2'	1:CA:1466:C:H6	1.69	0.56
2:CB:83:ALA:O	2:CB:84:ALA:C	2.49	0.56
2:CB:96:TRP:CH2	2:CB:101:LEU:HD22	2.40	0.56
3:CC:148:GLY:HA3	3:CC:172:ARG:O	2.05	0.56
5:CE:44:GLY:O	5:CE:45:ARG:CB	2.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:120:LEU:O	7:CG:121:ALA:C	2.47	0.56
10:CJ:35:GLN:O	10:CJ:36:VAL:CB	2.53	0.56
10:CJ:78:GLU:O	10:CJ:80:THR:N	2.38	0.56
15:CO:83:GLU:N	15:CO:83:GLU:OE1	2.38	0.56
15:CO:89:ARG:CZ	24:DA:716:A:P	2.93	0.56
16:CP:23:ASP:O	16:CP:24:SER:C	2.47	0.56
24:DA:84:A:O3'	44:DU:5:ARG:HD3	2.06	0.56
24:DA:112:U:C5	24:DA:113:U:C6	2.94	0.56
24:DA:576:U:H2'	24:DA:577:G:C8	2.40	0.56
24:DA:946:C:H2'	24:DA:947:A:O5'	2.06	0.56
24:DA:1659:G:C4	24:DA:2002:G:N2	2.74	0.56
24:DA:1754:A:HO2'	24:DA:1755:A:P	2.29	0.56
26:DC:140:VAL:CG2	26:DC:189:ALA:HB1	2.35	0.56
31:DH:50:ARG:O	31:DH:51:ARG:C	2.49	0.56
38:DO:100:HIS:O	38:DO:104:GLN:HB3	2.06	0.56
43:DT:32:LEU:CD2	43:DT:32:LEU:N	2.69	0.56
44:DU:5:ARG:NH2	44:DU:6:ARG:CB	2.69	0.56
47:DX:6:VAL:HG12	47:DX:7:THR:N	2.20	0.56
47:DX:16:ASN:OD1	47:DX:26:ARG:HB3	2.05	0.56
48:DY:16:THR:O	48:DY:20:ASN:HB2	2.06	0.56
53:D3:6:VAL:HG12	53:D3:6:VAL:O	2.05	0.56
1:AA:74:A:C2	1:AA:97:G:C2	2.94	0.56
1:AA:451:A:C1'	1:AA:452:A:N7	2.68	0.56
1:AA:701:U:H5"	1:AA:703:G:O4'	2.06	0.56
1:AA:937:A:C2	1:AA:1379:G:C6	2.93	0.56
1:AA:983:A:N3	1:AA:983:A:H2'	2.21	0.56
1:AA:1055:A:N6	1:AA:1206:G:C6	2.73	0.56
1:AA:1081:A:C2'	1:AA:1082:A:H5'	2.36	0.56
1:AA:1179:A:H2'	1:AA:1180:A:O4'	2.05	0.56
1:AA:1368:A:OP2	9:AI:116:VAL:N	2.39	0.56
4:AD:55:LEU:HG	4:AD:58:LYS:HD3	1.87	0.56
4:AD:60:LYS:O	4:AD:64:ILE:HG13	2.06	0.56
4:AD:127:GLY:O	4:AD:128:ARG:CB	2.53	0.56
4:AD:146:ARG:O	4:AD:150:LYS:CE	2.52	0.56
12:AL:85:GLY:O	12:AL:86:ARG:O	2.24	0.56
16:AP:19:VAL:C	16:AP:20:VAL:CG2	2.78	0.56
24:BA:587:C:N3	35:BL:33:ARG:NH2	2.54	0.56
24:BA:621:A:C8	24:BA:622:G:C8	2.94	0.56
24:BA:659:G:H4'	28:BE:95:LYS:HD3	1.87	0.56
24:BA:846:U:O2'	24:BA:847:U:O5'	2.23	0.56
24:BA:1205:A:C5	28:BE:165:HIS:ND1	2.74	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1440:U:O4	59:BA:3632:HOH:O	2.16	0.56
24:BA:1504:A:H3'	24:BA:1505:A:C8	2.41	0.56
24:BA:1623:G:N2	24:BA:1624:U:C2	2.73	0.56
24:BA:1744:A:C2	24:BA:1745:A:C4	2.93	0.56
24:BA:1797:G:H4'	26:BC:254:LYS:O	2.06	0.56
24:BA:1799:G:O2'	26:BC:179:GLU:OE2	2.24	0.56
24:BA:2015:A:N3	50:B0:2:VAL:HG21	2.20	0.56
24:BA:2206:C:C2'	24:BA:2207:C:H5'	2.35	0.56
24:BA:2309:A:C2'	24:BA:2310:C:O5'	2.54	0.56
24:BA:2409:G:O6	24:BA:2410:G:C5	2.59	0.56
24:BA:2649:C:O2'	24:BA:2650:U:H5'	2.05	0.56
25:BB:85:G:N2	25:BB:92:C:C2	2.73	0.56
28:BE:138:LEU:O	28:BE:139:LYS:C	2.49	0.56
31:BH:82:SER:O	31:BH:83:LYS:O	2.24	0.56
35:BL:4:ASN:OD1	35:BL:4:ASN:C	2.48	0.56
35:BL:20:GLY:HA2	35:BL:28:GLY:HA2	1.87	0.56
40:BQ:25:GLY:O	40:BQ:29:ARG:HG3	2.05	0.56
44:BU:94:PHE:C	44:BU:94:PHE:CD1	2.84	0.56
1:CA:112:G:C2'	1:CA:113:G:H5'	2.35	0.56
1:CA:451:A:C8	1:CA:452:A:N1	2.74	0.56
1:CA:456:A:N1	1:CA:477:C:C2	2.73	0.56
1:CA:613:C:C2'	1:CA:614:C:H5'	2.36	0.56
1:CA:706:A:N1	1:CA:707:U:C2	2.74	0.56
1:CA:735:C:H2'	1:CA:736:C:H6	1.70	0.56
1:CA:795:C:O2'	11:CK:128:ARG:CG	2.52	0.56
1:CA:927:G:O2'	1:CA:1503:A:N7	2.38	0.56
1:CA:976:G:C8	1:CA:1362:A:N6	2.74	0.56
1:CA:1053:G:O5'	1:CA:1054:C:H3'	2.06	0.56
1:CA:1209:C:O2'	1:CA:1214:C:N4	2.38	0.56
1:CA:1261:A:C6	1:CA:1275:A:C4	2.93	0.56
1:CA:1539:C:H5"	21:CU:18:ARG:HG3	1.88	0.56
3:CC:63:SER:HB2	3:CC:97:VAL:HG13	1.88	0.56
3:CC:152:GLU:CB	3:CC:167:TRP:HB3	2.36	0.56
4:CD:58:LYS:CB	4:CD:200:ILE:CG1	2.84	0.56
4:CD:91:LEU:C	4:CD:93:LEU:N	2.63	0.56
7:CG:67:GLU:C	7:CG:70:ARG:HB3	2.31	0.56
13:CM:26:GLY:O	13:CM:28:THR:OG1	2.23	0.56
16:CP:68:SER:O	16:CP:71:VAL:HG22	2.06	0.56
55:CY:129:ARG:HH11	55:CY:129:ARG:HG2	1.70	0.56
24:DA:142:A:O2'	24:DA:143:C:O5'	2.23	0.56
24:DA:411:G:OP2	24:DA:2406:A:O2'	2.22	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:493:G:H2'	24:DA:494:G:O4'	2.05	0.56
24:DA:713:G:H2'	24:DA:714:U:C6	2.40	0.56
24:DA:727:A:C6	24:DA:728:G:C6	2.93	0.56
24:DA:1358:G:H8	24:DA:1358:G:O5'	1.89	0.56
24:DA:1570:A:H2'	24:DA:1571:A:C8	2.41	0.56
24:DA:1716:U:OP2	24:DA:1743:G:N1	2.37	0.56
24:DA:1831:G:H2'	24:DA:1832:C:C6	2.41	0.56
24:DA:2799:A:C5	24:DA:2801:G:C8	2.94	0.56
57:DA:3190:NMY:C13	57:DA:3190:NMY:H231	2.36	0.56
26:DC:74:PRO:HB2	26:DC:96:LYS:HE2	1.88	0.56
28:DE:1:MET:CE	28:DE:19:PHE:CB	2.83	0.56
28:DE:24:ASN:CG	28:DE:27:LEU:HD12	2.30	0.56
28:DE:171:ASP:OD1	28:DE:171:ASP:N	2.38	0.56
29:DF:134:GLN:O	29:DF:136:ILE:N	2.36	0.56
31:DH:24:GLY:O	31:DH:27:ARG:O	2.24	0.56
44:DU:17:ASP:OD2	44:DU:38:ILE:O	2.24	0.56
1:AA:46:G:N2	1:AA:396:C:C2	2.73	0.56
1:AA:172:A:N7	1:AA:174:A:N7	2.53	0.56
1:AA:216:U:H2'	1:AA:217:C:C6	2.41	0.56
1:AA:359:G:H5'	31:DH:89:LYS:HD2	1.88	0.56
1:AA:525:C:C4	1:AA:526:C:C5	2.93	0.56
1:AA:541:G:C4	1:AA:542:G:C8	2.93	0.56
1:AA:976:G:N2	1:AA:1363:A:N3	2.54	0.56
1:AA:1086:U:H2'	1:AA:1087:G:C5'	2.36	0.56
11:AK:101:ASN:OD1	11:AK:101:ASN:C	2.49	0.56
19:AS:32:ARG:NH1	19:AS:57:HIS:CD2	2.74	0.56
21:AU:39:GLU:O	21:AU:40:LYS:HG3	2.06	0.56
24:BA:751:A:C5	24:BA:789:A:C2	2.93	0.56
24:BA:1252:G:C2	40:BQ:32:ARG:HG3	2.41	0.56
24:BA:1278:C:H4'	37:BN:34:ILE:HD12	1.87	0.56
24:BA:1285:A:C6	24:BA:1329:U:C5	2.94	0.56
24:BA:1378:A:C4	24:BA:1380:G:N7	2.74	0.56
24:BA:1439:A:N7	24:BA:1440:U:C2	2.74	0.56
24:BA:1712:U:C4	24:BA:1713:A:C5	2.94	0.56
24:BA:1805:A:H5"	26:BC:247:TRP:CE2	2.41	0.56
24:BA:1883:U:C4	24:BA:1884:G:C6	2.94	0.56
24:BA:2378:A:N7	24:BA:2379:G:H1'	2.21	0.56
27:BD:34:VAL:HB	27:BD:48:ILE:HD11	1.88	0.56
30:BG:148:ARG:HA	30:BG:161:VAL:HG11	1.87	0.56
47:BX:42:GLU:O	47:BX:43:LYS:HG3	2.05	0.56
47:BX:64:ASP:N	47:BX:64:ASP:OD1	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BZ:9:THR:CG2	49:BZ:54:VAL:N	2.69	0.56
51:B1:9:LYS:O	51:B1:50:GLU:HG2	2.06	0.56
1:CA:400:C:O2'	1:CA:401:C:H5'	2.05	0.56
1:CA:517:G:N2	1:CA:533:A:OP2	2.32	0.56
1:CA:672:U:O2'	18:CR:64:TYR:OH	2.19	0.56
1:CA:737:C:C2	1:CA:738:C:H5	2.23	0.56
3:CC:191:THR:O	3:CC:192:THR:C	2.49	0.56
4:CD:80:ALA:O	4:CD:81:ARG:O	2.23	0.56
4:CD:173:VAL:HG23	4:CD:179:GLU:O	2.06	0.56
24:DA:929:U:H4'	49:DZ:37:ARG:NH2	2.21	0.56
24:DA:1006:C:O2'	33:DJ:108:MET:O	2.15	0.56
24:DA:1375:U:H2'	24:DA:1376:C:H5"	1.87	0.56
24:DA:1433:A:N1	24:DA:1434:A:N6	2.54	0.56
57:DA:3184:NMY:H1	57:DA:3184:NMY:O11	2.04	0.56
29:DF:19:PHE:O	29:DF:20:ASN:C	2.49	0.56
42:DS:55:ILE:HG13	42:DS:56:ALA:N	2.21	0.56
43:DT:4:GLU:O	43:DT:5:GLU:C	2.49	0.56
45:DV:89:ILE:HG22	45:DV:90:ASP:N	2.21	0.56
46:DW:50:ASN:O	46:DW:50:ASN:CG	2.49	0.56
1:AA:153:C:H2'	1:AA:154:U:C6	2.41	0.56
1:AA:543:U:OP1	4:AD:14:ARG:NH1	2.39	0.56
1:AA:601:G:N2	1:AA:638:U:C2	2.74	0.56
1:AA:782:A:H2'	1:AA:783:C:O4'	2.05	0.56
1:AA:858:G:N1	1:AA:869:G:H2'	2.21	0.56
1:AA:869:G:H4'	1:AA:872:A:C8	2.41	0.56
2:AB:57:LEU:HD13	2:AB:220:THR:O	2.05	0.56
4:AD:9:LEU:CG	4:AD:10:LYS:H	2.19	0.56
4:AD:20:PHE:CE2	4:AD:103:TYR:HD2	2.23	0.56
4:AD:124:MET:HG3	4:AD:125:VAL:H	1.71	0.56
7:AG:101:MET:HA	7:AG:104:ILE:HG12	1.88	0.56
12:AL:97:THR:O	12:AL:98:VAL:C	2.48	0.56
13:AM:110:LYS:O	13:AM:111:GLY:C	2.48	0.56
14:AN:15:LEU:HD22	14:AN:55:SER:HB3	1.88	0.56
16:AP:67:ILE:HG22	16:AP:71:VAL:HG21	1.87	0.56
24:BA:528:A:H2	24:BA:2043:C:H4'	1.62	0.56
24:BA:686:U:O2'	52:B2:5:PHE:HA	2.06	0.56
24:BA:782:A:H4'	24:BA:783:A:O5'	2.06	0.56
24:BA:1091:G:C2	24:BA:1092:C:C4	2.94	0.56
24:BA:1393:A:O2'	59:BA:3410:HOH:O	2.17	0.56
24:BA:1402:U:H2'	24:BA:1403:A:H5"	1.87	0.56
24:BA:1733:G:N7	24:BA:1734:G:N7	2.54	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1922:G:O6	57:BA:3161:NMY:H81	2.05	0.56
24:BA:2232:C:C4	24:BA:2233:U:C5	2.93	0.56
24:BA:2377:A:N3	38:BO:92:PHE:HE2	2.00	0.56
24:BA:2780:G:P	33:BJ:120:ARG:NH2	2.79	0.56
25:BB:71:C:N4	25:BB:72:G:C5	2.73	0.56
29:BF:36:ASN:C	29:BF:36:ASN:OD1	2.49	0.56
31:BH:72:ILE:HG22	31:BH:73:ASN:N	2.19	0.56
34:BK:88:ASN:OD1	34:BK:91:SER:OG	2.16	0.56
38:BO:28:VAL:CG1	38:BO:36:TYR:O	2.54	0.56
40:BQ:86:SER:HB2	41:BR:51:VAL:HA	1.86	0.56
44:BU:71:ILE:HD12	44:BU:71:ILE:N	2.20	0.56
1:CA:29:U:O2'	1:CA:30:U:H5'	2.06	0.56
1:CA:116:A:OP2	1:CA:116:A:C8	2.59	0.56
1:CA:376:G:O5'	16:CP:5:ARG:HG3	2.06	0.56
1:CA:457:G:N2	1:CA:458:U:O2	2.39	0.56
1:CA:725:G:N2	1:CA:726:C:C2	2.74	0.56
1:CA:775:G:N1	1:CA:776:G:C6	2.73	0.56
1:CA:1152:A:C2'	1:CA:1153:G:H5'	2.36	0.56
1:CA:1366:C:H2'	1:CA:1367:C:C6	2.40	0.56
2:CB:101:LEU:O	2:CB:102:THR:C	2.48	0.56
2:CB:150:GLY:O	2:CB:151:ILE:C	2.49	0.56
2:CB:183:VAL:HG13	2:CB:184:PHE:H	1.71	0.56
3:CC:131:ARG:HD3	3:CC:168:TYR:OH	2.06	0.56
6:CF:39:LEU:CD1	6:CF:40:GLU:N	2.68	0.56
6:CF:92:THR:HG22	6:CF:93:LYS:N	2.19	0.56
11:CK:63:ALA:CB	11:CK:92:GLY:HA3	2.36	0.56
13:CM:111:GLY:O	13:CM:112:PRO:C	2.48	0.56
16:CP:61:VAL:C	16:CP:63:GLN:N	2.62	0.56
19:CS:18:LYS:O	19:CS:19:VAL:C	2.49	0.56
24:DA:1215:G:C2'	24:DA:1216:G:H5'	2.34	0.56
24:DA:1416:G:HO2'	24:DA:1417:C:H6	1.53	0.56
24:DA:1450:G:H5'	24:DA:1451:C:OP2	2.06	0.56
29:DF:33:ILE:HB	29:DF:90:LEU:HD11	1.86	0.56
29:DF:73:VAL:CG2	29:DF:78:ILE:CD1	2.84	0.56
36:DM:69:PRO:HA	36:DM:94:ALA:N	2.21	0.56
42:DS:47:VAL:O	42:DS:50:VAL:N	2.39	0.56
1:AA:45:G:N2	1:AA:398:U:C2	2.74	0.56
1:AA:50:A:C6	1:AA:361:G:O4'	2.59	0.56
1:AA:174:A:C5	1:AA:175:C:C6	2.94	0.56
1:AA:186:C:N3	1:AA:191:G:O6	2.39	0.56
1:AA:318:G:C6	1:AA:319:G:N7	2.74	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:345:C:O4'	1:AA:346:G:C2	2.59	0.56
1:AA:768:A:OP1	1:AA:804:U:H4'	2.06	0.56
1:AA:928:G:O2'	1:AA:1533:C:OP1	2.24	0.56
1:AA:1159:U:C2	1:AA:1182:G:N3	2.74	0.56
2:AB:111:ILE:O	2:AB:113:ARG:N	2.39	0.56
3:AC:155:GLY:O	3:AC:156:ARG:C	2.48	0.56
4:AD:103:TYR:OH	4:AD:111:ARG:HA	2.06	0.56
5:AE:134:ILE:HG22	5:AE:135:ASN:N	2.20	0.56
9:AI:10:GLY:HA2	9:AI:81:HIS:CE1	2.41	0.56
12:AL:93:VAL:HG22	12:AL:93:VAL:O	2.06	0.56
20:AT:5:LYS:O	20:AT:5:LYS:CD	2.54	0.56
20:AT:7:ALA:C	20:AT:9:LYS:H	2.14	0.56
24:BA:170:U:O2'	24:BA:171:U:H5'	2.06	0.56
24:BA:411:G:OP1	59:BA:3565:HOH:O	2.17	0.56
24:BA:825:A:C2'	24:BA:826:U:O5'	2.54	0.56
24:BA:833:A:H2'	24:BA:834:G:C8	2.41	0.56
24:BA:1022:G:C6	24:BA:1140:C:C4	2.94	0.56
24:BA:1101:U:H2'	24:BA:1102:C:H5'	1.88	0.56
24:BA:1270:C:H5"	24:BA:1271:G:C5'	2.36	0.56
24:BA:1346:G:H2'	24:BA:1347:A:H8	1.69	0.56
24:BA:1428:C:C5	24:BA:1569:A:C5'	2.88	0.56
24:BA:1440:U:H2'	24:BA:1441:G:C8	2.40	0.56
24:BA:2096:C:H2'	24:BA:2097:A:C8	2.41	0.56
24:BA:2193:G:C6	24:BA:2194:U:C4	2.94	0.56
24:BA:2261:C:H3'	46:BW:16:SER:OG	2.06	0.56
24:BA:2521:C:H2'	24:BA:2522:U:O5'	2.06	0.56
24:BA:2602:A:H4'	24:BA:2603:G:OP2	2.05	0.56
24:BA:2796:U:C5	24:BA:2798:U:C4	2.94	0.56
27:BD:108:ASP:OD2	27:BD:207:VAL:HG12	2.06	0.56
36:BM:26:VAL:HG11	36:BM:132:THR:C	2.31	0.56
48:BY:24:GLU:HA	48:BY:28:LEU:HG	1.88	0.56
50:B0:37:HIS:CD2	50:B0:38:LEU:O	2.59	0.56
1:CA:142:G:C5	1:CA:143:A:C8	2.94	0.56
1:CA:143:A:H2'	1:CA:143:A:N3	2.20	0.56
1:CA:156:C:C4	1:CA:157:U:O2	2.58	0.56
1:CA:451:A:N6	1:CA:481:G:H5'	2.21	0.56
1:CA:630:A:C5	1:CA:631:C:C5	2.94	0.56
1:CA:671:G:O2'	6:CF:79:ARG:NH2	2.36	0.56
1:CA:1261:A:C4	1:CA:1275:A:C2	2.94	0.56
1:CA:1470:U:O2'	1:CA:1471:U:H5'	2.06	0.56
2:CB:67:ILE:O	2:CB:68:LEU:CB	2.54	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:206:ALA:O	2:CB:207:ILE:C	2.48	0.56
4:CD:61:VAL:O	4:CD:64:ILE:HG22	2.05	0.56
10:CJ:10:LEU:HA	10:CJ:97:ASP:O	2.06	0.56
11:CK:47:ALA:HA	11:CK:52:PHE:CE1	2.41	0.56
21:CU:20:LYS:C	21:CU:22:SER:N	2.64	0.56
55:CY:158:ASP:CG	55:CY:159:ASP:N	2.64	0.56
24:DA:457:A:H5'	24:DA:459:U:H1'	1.87	0.56
24:DA:1055:G:O6	24:DA:1056:G:C2	2.59	0.56
24:DA:1060:U:C2	24:DA:1062:G:OP2	2.59	0.56
24:DA:1069:A:N7	24:DA:1074:G:C6	2.73	0.56
24:DA:1362:C:C2'	24:DA:1363:C:O5'	2.54	0.56
24:DA:1530:G:N2	24:DA:1542:U:H1'	2.21	0.56
24:DA:1952:A:O4'	34:DK:42:THR:CG2	2.54	0.56
24:DA:2294:G:C6	24:DA:2295:C:C4	2.94	0.56
24:DA:2552:U:H2'	24:DA:2554:U:OP2	2.06	0.56
24:DA:2556:C:H2'	24:DA:2557:G:O4'	2.05	0.56
26:DC:8:THR:HG22	26:DC:9:SER:OG	2.06	0.56
26:DC:259:ASN:OD1	26:DC:262:THR:OG1	2.02	0.56
29:DF:121:PHE:CD2	29:DF:162:ASP:CG	2.84	0.56
31:DH:12:LEU:HD23	31:DH:12:LEU:C	2.31	0.56
35:DL:126:ARG:C	35:DL:127:VAL:CG2	2.79	0.56
40:DQ:81:GLY:HA2	40:DQ:116:LEU:CD2	2.36	0.56
48:DY:18:LEU:O	48:DY:22:LEU:CB	2.54	0.56
1:AA:9:G:C2	1:AA:10:A:C8	2.94	0.56
1:AA:36:C:H4'	12:AL:119:VAL:O	2.06	0.56
1:AA:198:G:N3	1:AA:199:A:C8	2.74	0.56
1:AA:376:G:H5'	16:AP:5:ARG:HE	1.71	0.56
1:AA:473:U:H2'	1:AA:474:G:C8	2.41	0.56
1:AA:700:G:H4'	1:AA:704:A:H1'	1.88	0.56
1:AA:783:C:O2'	1:AA:784:A:H5'	2.04	0.56
1:AA:1126:U:O2	1:AA:1126:U:C2'	2.53	0.56
4:AD:76:TYR:CG	4:AD:204:TYR:HD2	2.24	0.56
5:AE:106:ILE:HG13	5:AE:124:LEU:HB3	1.88	0.56
5:AE:156:LYS:CE	8:AH:44:GLY:HA3	2.36	0.56
12:AL:52:VAL:CG2	12:AL:53:CYS:N	2.69	0.56
12:AL:88:LYS:O	12:AL:89:ASP:CB	2.53	0.56
20:AT:67:ILE:HG12	20:AT:71:LYS:HD2	1.88	0.56
21:AU:40:LYS:HA	21:AU:43:THR:HB	1.86	0.56
24:BA:77:G:P	48:BY:52:ARG:HH22	2.29	0.56
24:BA:126:A:C6	24:BA:127:A:N1	2.74	0.56
24:BA:276:U:O2	24:BA:276:U:C2'	2.54	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:659:G:H2'	24:BA:660:C:C6	2.41	0.56
24:BA:1280:G:O2'	24:BA:1281:G:H5'	2.06	0.56
24:BA:1439:A:C8	24:BA:1440:U:C6	2.94	0.56
24:BA:2119:A:O2'	24:BA:2120:G:P	2.63	0.56
24:BA:2294:G:OP1	38:BO:10:ARG:CZ	2.54	0.56
24:BA:2326:C:C1'	24:BA:2327:A:OP1	2.53	0.56
24:BA:2365:G:H4'	46:BW:60:PHE:CE2	2.41	0.56
24:BA:2520:C:C6	24:BA:2567:G:H1'	2.41	0.56
27:BD:180:VAL:HG22	27:BD:180:VAL:O	2.06	0.56
28:BE:58:LYS:HG3	28:BE:71:GLY:HA2	1.88	0.56
30:BG:41:GLU:HB2	30:BG:54:ARG:NH2	2.20	0.56
31:BH:32:PRO:HB3	47:BX:38:TRP:HB2	1.88	0.56
32:BI:97:VAL:N	32:BI:136:GLY:O	2.39	0.56
39:BP:29:VAL:O	39:BP:39:LEU:HG	2.06	0.56
42:BS:39:THR:CG2	42:BS:44:ALA:CB	2.84	0.56
1:CA:201:G:C2	1:CA:217:C:O2	2.58	0.56
1:CA:400:C:C2'	1:CA:401:C:O5'	2.54	0.56
1:CA:764:C:H3'	1:CA:765:G:H8	1.70	0.56
1:CA:1160:G:C6	1:CA:1181:G:O6	2.59	0.56
2:CB:22:TYR:O	2:CB:23:TRP:CD1	2.59	0.56
2:CB:22:TYR:O	2:CB:23:TRP:HB3	2.05	0.56
2:CB:90:PHE:N	2:CB:90:PHE:CD1	2.71	0.56
2:CB:217:VAL:O	2:CB:221:VAL:HG12	2.06	0.56
3:CC:59:ARG:HG2	3:CC:64:ILE:HG22	1.88	0.56
3:CC:185:ASN:O	3:CC:200:VAL:HG23	2.06	0.56
4:CD:165:ARG:NH1	4:CD:167:LYS:O	2.38	0.56
4:CD:187:GLU:O	4:CD:188:ARG:C	2.48	0.56
11:CK:40:ASN:O	11:CK:41:ALA:HB3	2.04	0.56
14:CN:48:LEU:O	14:CN:49:GLN:HB3	2.06	0.56
16:CP:36:VAL:O	16:CP:36:VAL:CG2	2.54	0.56
22:CV:61:C:N4	22:CV:62:C:H41	2.04	0.56
55:CY:143:LEU:CD1	55:CY:143:LEU:C	2.78	0.56
24:DA:630:G:OP1	53:D3:46:LYS:NZ	2.39	0.56
24:DA:1306:C:C2'	24:DA:1307:A:H5'	2.35	0.56
24:DA:1735:A:C5	24:DA:1736:U:C6	2.93	0.56
24:DA:2528:U:H1'	24:DA:2536:G:N2	2.21	0.56
24:DA:2738:A:C2'	24:DA:2739:U:O5'	2.54	0.56
57:DA:3186:NMY:N2	57:DA:3186:NMY:C13	2.69	0.56
31:DH:134:VAL:CG1	31:DH:138:VAL:CG2	2.84	0.56
46:DW:48:GLY:HA3	46:DW:80:ILE:O	2.04	0.56
1:AA:74:A:O2'	1:AA:75:G:O4'	2.24	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:95:C:C2'	1:AA:96:U:H5'	2.36	0.55
1:AA:144:G:N3	1:AA:179:A:C2	2.75	0.55
1:AA:293:G:N3	1:AA:294:U:C6	2.74	0.55
1:AA:663:A:H5'	1:AA:836:G:OP1	2.06	0.55
1:AA:671:G:H2'	1:AA:672:U:O4'	2.07	0.55
1:AA:769:G:H4'	1:AA:1513:A:H4'	1.88	0.55
1:AA:897:C:O2	1:AA:903:G:C2	2.59	0.55
1:AA:927:G:O2'	1:AA:1503:A:C5	2.53	0.55
1:AA:949:A:O2'	1:AA:950:U:H5'	2.05	0.55
1:AA:1084:G:N7	1:AA:1085:U:N3	2.54	0.55
1:AA:1151:A:O4'	10:AJ:41:PRO:HB3	2.05	0.55
2:AB:32:PHE:HB2	2:AB:42:ASN:HB2	1.89	0.55
2:AB:133:GLU:CD	2:AB:133:GLU:C	2.74	0.55
7:AG:30:LEU:HD13	7:AG:120:LEU:HD12	1.87	0.55
12:AL:105:SER:OG	12:AL:106:GLY:O	2.18	0.55
15:AO:23:GLY:O	15:AO:25:THR:N	2.40	0.55
19:AS:22:ALA:O	19:AS:26:GLY:N	2.39	0.55
19:AS:41:PHE:O	19:AS:43:ASN:N	2.39	0.55
19:AS:74:PHE:C	19:AS:76:PRO:HD3	2.31	0.55
21:AU:37:PHE:HB3	21:AU:41:PRO:HD3	1.88	0.55
22:AV:57:G:H2'	22:AV:58:A:H5'	1.88	0.55
24:BA:156:A:H2'	24:BA:157:C:O4'	2.06	0.55
24:BA:577:G:N1	24:BA:578:G:C6	2.74	0.55
24:BA:851:C:H2'	24:BA:851:C:O2	2.05	0.55
24:BA:992:C:O2'	41:BR:89:HIS:CD2	2.58	0.55
24:BA:1188:U:O2'	24:BA:1189:A:C5'	2.52	0.55
24:BA:1268:A:C2	24:BA:2013:A:C4	2.94	0.55
24:BA:1287:A:OP1	37:BN:104:ALA:HB3	2.06	0.55
24:BA:1343:G:C5	24:BA:1344:U:C4	2.94	0.55
24:BA:1799:G:P	26:BC:257:ARG:NH2	2.80	0.55
24:BA:1906:G:C5	24:BA:1929:G:N2	2.74	0.55
24:BA:2283:C:C2'	24:BA:2284:A:H5'	2.36	0.55
24:BA:2547:A:C8	24:BA:2566:A:C5	2.94	0.55
24:BA:2779:U:O4'	24:BA:2781:A:C8	2.58	0.55
24:BA:2883:A:OP1	24:BA:2883:A:H4'	2.06	0.55
27:BD:150:GLN:O	27:BD:152:PRO:C	2.48	0.55
38:BO:92:PHE:CD1	38:BO:92:PHE:N	2.74	0.55
41:BR:49:ILE:HG12	41:BR:53:PHE:C	2.31	0.55
44:BU:35:VAL:O	44:BU:38:ILE:HG22	2.06	0.55
1:CA:180:U:O4	59:CA:1714:HOH:O	2.14	0.55
1:CA:579:A:C4	1:CA:580:C:C5	2.93	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:669:G:C6	1:CA:670:G:N7	2.74	0.55
1:CA:762:U:O2	1:CA:763:G:C8	2.59	0.55
1:CA:1160:G:O2'	1:CA:1161:C:OP2	2.24	0.55
9:CI:117:GLY:HA2	10:CJ:60:ASP:OD1	2.06	0.55
11:CK:20:VAL:HG12	11:CK:36:ASP:C	2.32	0.55
13:CM:15:ALA:C	13:CM:17:ILE:HD12	2.31	0.55
13:CM:67:GLY:C	13:CM:71:ARG:NH2	2.64	0.55
16:CP:14:ARG:HG2	16:CP:14:ARG:O	2.06	0.55
24:DA:21:A:C2'	24:DA:22:C:H5'	2.36	0.55
24:DA:323:C:N4	24:DA:333:G:N7	2.53	0.55
24:DA:360:U:C4	24:DA:361:G:C6	2.94	0.55
24:DA:431:U:C2'	24:DA:432:A:C5'	2.84	0.55
24:DA:783:A:H2'	24:DA:784:G:C5'	2.36	0.55
24:DA:1071:G:H3'	24:DA:1072:C:H5"	1.88	0.55
24:DA:1443:U:C2	24:DA:1444:G:C8	2.95	0.55
24:DA:1797:G:O2'	26:DC:256:THR:CG2	2.53	0.55
24:DA:1838:C:C2	24:DA:1898:U:C4	2.95	0.55
24:DA:1856:U:C4	24:DA:1857:G:C6	2.94	0.55
25:DB:42:C:OP2	29:DF:63:LYS:NZ	2.39	0.55
26:DC:176:ARG:NH1	26:DC:177:SER:N	2.54	0.55
27:DD:187:LEU:C	27:DD:187:LEU:HD13	2.31	0.55
31:DH:11:ASN:O	31:DH:12:LEU:CB	2.55	0.55
36:DM:49:ALA:CB	36:DM:124:LEU:HD21	2.36	0.55
42:DS:85:ILE:HD12	42:DS:85:ILE:H	1.70	0.55
48:DY:2:LYS:CE	48:DY:6:LEU:HD22	2.36	0.55
1:AA:59:A:C4	1:AA:331:G:N2	2.75	0.55
1:AA:137:U:H2'	1:AA:138:G:C8	2.41	0.55
1:AA:155:A:C2	1:AA:167:A:N3	2.74	0.55
1:AA:505:G:C8	1:AA:535:A:C4	2.94	0.55
1:AA:572:A:OP1	1:AA:572:A:H4'	2.04	0.55
1:AA:652:U:O2'	1:AA:653:U:OP2	2.24	0.55
1:AA:734:G:O2'	18:AR:60:LYS:HE3	2.06	0.55
1:AA:1374:A:C2	1:AA:1375:A:N9	2.74	0.55
1:AA:1492:A:C5'	12:AL:44:LYS:HA	2.35	0.55
24:BA:100:U:H1'	24:BA:101:A:N7	2.21	0.55
24:BA:560:C:OP1	59:BA:3251:HOH:O	2.18	0.55
24:BA:625:G:C2	24:BA:626:A:C4	2.95	0.55
24:BA:812:C:H5"	24:BA:1250:G:O2'	2.05	0.55
24:BA:1270:C:H5"	24:BA:1271:G:P	2.46	0.55
24:BA:1424:G:H2'	24:BA:1424:G:N3	2.20	0.55
24:BA:1824:G:O2'	26:BC:251:THR:OG1	2.11	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1926:U:H1'	24:BA:1929:G:C6	2.40	0.55
24:BA:2294:G:O5'	38:BO:10:ARG:CZ	2.54	0.55
24:BA:2310:C:C4	29:BF:76:PHE:CE1	2.94	0.55
24:BA:2313:C:C4'	29:BF:87:LYS:HE2	2.36	0.55
24:BA:2796:U:C4	24:BA:2798:U:N3	2.74	0.55
26:BC:265:PHE:N	26:BC:265:PHE:HD1	2.03	0.55
27:BD:125:TRP:CD1	27:BD:160:LYS:HE2	2.41	0.55
35:BL:57:LEU:HG	35:BL:61:LEU:CD1	2.36	0.55
37:BN:36:THR:HG23	37:BN:37:THR:O	2.06	0.55
38:BO:18:LEU:CD1	38:BO:25:ARG:HD2	2.36	0.55
44:BU:73:ASN:HA	44:BU:95:PHE:CE2	2.42	0.55
1:CA:14:U:O2	1:CA:14:U:C2'	2.54	0.55
1:CA:573:A:N3	1:CA:883:C:O2'	2.39	0.55
1:CA:738:C:C2'	1:CA:739:C:O5'	2.54	0.55
1:CA:1197:A:C2'	1:CA:1198:G:H5'	2.36	0.55
1:CA:1321:U:C2	19:CS:36:ARG:NH2	2.74	0.55
1:CA:1349:A:C2	1:CA:1374:A:C4	2.94	0.55
4:CD:3:ARG:CB	4:CD:3:ARG:CZ	2.84	0.55
5:CE:15:LEU:HD22	5:CE:16:ILE:N	2.21	0.55
11:CK:20:VAL:HG13	11:CK:35:THR:HG22	1.86	0.55
24:DA:78:U:H2'	24:DA:79:C:C6	2.42	0.55
24:DA:243:U:OP1	53:D3:5:THR:OG1	2.20	0.55
24:DA:249:C:H5'	24:DA:2394:C:O2'	2.07	0.55
24:DA:407:G:O2'	24:DA:408:G:H5'	2.06	0.55
24:DA:877:A:N6	24:DA:899:A:C6	2.74	0.55
24:DA:900:A:C5	24:DA:901:C:C5	2.94	0.55
24:DA:1517:G:C6	24:DA:1518:C:C4	2.93	0.55
24:DA:1566:A:C6	26:DC:212:TRP:CZ3	2.94	0.55
24:DA:2230:G:H2'	24:DA:2231:U:C6	2.41	0.55
24:DA:2330:G:O2'	46:DW:44:LYS:CE	2.53	0.55
27:DD:160:LYS:HE3	27:DD:160:LYS:N	2.21	0.55
28:DE:52:VAL:O	28:DE:53:THR:C	2.49	0.55
28:DE:171:ASP:O	28:DE:173:THR:N	2.38	0.55
29:DF:134:GLN:HB3	29:DF:149:ARG:O	2.06	0.55
35:DL:77:ILE:HD11	35:DL:95:LEU:HD22	1.86	0.55
38:DO:27:VAL:HG22	38:DO:27:VAL:O	2.06	0.55
44:DU:16:LYS:CD	44:DU:16:LYS:C	2.78	0.55
45:DV:76:ASP:O	45:DV:89:ILE:HG23	2.06	0.55
54:D4:27:CYS:SG	54:D4:30:GLU:CD	2.89	0.55
1:AA:299:G:C6	1:AA:300:A:C6	2.94	0.55
1:AA:435:A:C6	1:AA:436:C:C4	2.95	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:681:A:C6	1:AA:710:G:C6	2.94	0.55
1:AA:927:G:H2'	1:AA:928:G:H5'	1.88	0.55
1:AA:1008:U:C2	1:AA:1022:A:C4	2.95	0.55
1:AA:1324:A:O4'	1:AA:1362:A:H4'	2.05	0.55
1:AA:1367:C:OP1	9:AI:117:GLY:N	2.39	0.55
2:AB:118:GLU:O	2:AB:121:SER:OG	2.25	0.55
5:AE:95:PHE:CE2	5:AE:97:GLN:HG2	2.41	0.55
6:AF:12:PRO:HA	6:AF:15:SER:HB2	1.88	0.55
7:AG:139:GLU:HA	7:AG:142:HIS:CD2	2.41	0.55
12:AL:50:ARG:HG2	12:AL:90:LEU:HD21	1.87	0.55
14:AN:24:ALA:O	14:AN:25:GLU:C	2.49	0.55
21:AU:21:ARG:NH2	23:AX:4:G:O4'	2.39	0.55
22:AV:72:C:H2'	22:AV:73:A:C5'	2.36	0.55
24:BA:89:A:N1	24:BA:90:U:C4	2.74	0.55
24:BA:733:G:H8	24:BA:733:G:O5'	1.89	0.55
24:BA:783:A:H2'	24:BA:784:G:O5'	2.05	0.55
24:BA:864:G:C6	24:BA:865:C:N4	2.74	0.55
24:BA:1230:A:C5	24:BA:1231:U:C4	2.94	0.55
24:BA:1342:A:H3'	24:BA:1343:G:H5"	1.88	0.55
24:BA:1448:G:C2	24:BA:1464:G:C2	2.93	0.55
24:BA:2231:U:OP1	47:BX:29:LEU:N	2.38	0.55
24:BA:2311:A:O2'	24:BA:2312:U:O5'	2.22	0.55
24:BA:2512:C:H4'	27:BD:127:PHE:CE2	2.42	0.55
24:BA:2720:U:H4'	24:BA:2845:U:O2'	2.06	0.55
24:BA:2727:A:N6	24:BA:2728:U:O4	2.40	0.55
25:BB:45:A:C8	29:BF:91:ARG:NH2	2.74	0.55
33:BJ:62:VAL:HG11	33:BJ:101:ILE:HD11	1.88	0.55
35:BL:61:LEU:O	35:BL:62:PRO:O	2.24	0.55
35:BL:79:LEU:HD21	35:BL:112:LEU:HD12	1.87	0.55
35:BL:111:ILE:CG2	35:BL:112:LEU:N	2.69	0.55
36:BM:58:LYS:O	36:BM:59:ARG:C	2.50	0.55
37:BN:28:LEU:C	37:BN:28:LEU:HD13	2.31	0.55
38:BO:17:LYS:HG3	38:BO:21:LEU:CD1	2.36	0.55
1:CA:200:G:C2	1:CA:218:U:O2	2.59	0.55
1:CA:774:G:C4	1:CA:775:G:C8	2.94	0.55
1:CA:1103:C:N4	1:CA:1104:G:C5	2.75	0.55
1:CA:1239:A:H2'	1:CA:1298:U:O4	2.05	0.55
6:CF:38:ARG:NH1	6:CF:98:GLU:O	2.39	0.55
7:CG:27:VAL:HG23	7:CG:40:GLU:HB3	1.88	0.55
18:CR:28:THR:O	18:CR:29:LEU:C	2.49	0.55
19:CS:18:LYS:HD3	19:CS:31:LEU:HD11	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CV:20:U:OP1	22:CV:20:U:C6	2.60	0.55
24:DA:257:C:H2'	24:DA:258:G:O4'	2.06	0.55
24:DA:485:C:C2	24:DA:496:G:C2	2.94	0.55
24:DA:566:U:H2'	24:DA:567:U:O4'	2.07	0.55
24:DA:864:G:C6	24:DA:865:C:N4	2.74	0.55
24:DA:1081:U:H2'	32:DI:117:THR:CG2	2.35	0.55
24:DA:1741:C:C4	24:DA:1742:U:C5	2.94	0.55
24:DA:1769:U:O2'	24:DA:1770:G:H5'	2.06	0.55
24:DA:2879:A:H4'	24:DA:2880:C:OP1	2.06	0.55
36:DM:34:LYS:NZ	36:DM:99:GLY:O	2.35	0.55
42:DS:73:LYS:CB	42:DS:106:VAL:CG1	2.83	0.55
43:DT:61:LEU:HD11	43:DT:82:LYS:HB3	1.88	0.55
50:D0:29:VAL:HG23	50:D0:36:LYS:CB	2.36	0.55
51:D1:33:LEU:HD11	51:D1:35:LEU:HD12	1.89	0.55
52:D2:2:LYS:CE	52:D2:6:GLN:OE1	2.54	0.55
1:AA:71:A:H3'	1:AA:71:A:OP2	2.07	0.55
1:AA:116:A:H2'	1:AA:117:G:O4'	2.07	0.55
1:AA:218:U:C4	1:AA:219:U:O4	2.58	0.55
1:AA:357:G:H2'	1:AA:358:U:H5'	1.86	0.55
1:AA:389:A:C3'	1:AA:390:U:H5'	2.36	0.55
1:AA:506:G:OP1	59:AA:1761:HOH:O	2.18	0.55
1:AA:604:G:N2	1:AA:635:A:N3	2.54	0.55
1:AA:942:G:C6	1:AA:1342:C:N3	2.75	0.55
1:AA:986:U:H2'	1:AA:987:G:C8	2.42	0.55
1:AA:1181:G:N2	1:AA:1182:G:N2	2.54	0.55
1:AA:1476:A:C5	1:AA:1477:U:C5	2.94	0.55
2:AB:90:PHE:CE2	2:AB:154:MET:HG3	2.42	0.55
4:AD:178:MET:HE2	4:AD:178:MET:C	2.32	0.55
6:AF:11:HIS:O	6:AF:13:ASP:N	2.40	0.55
12:AL:44:LYS:HB2	12:AL:45:PRO:HD3	1.89	0.55
20:AT:52:ASN:O	20:AT:56:PRO:CD	2.55	0.55
24:BA:523:C:H5"	24:BA:540:C:O2'	2.07	0.55
24:BA:1241:A:C4	24:BA:1242:U:C6	2.94	0.55
24:BA:1360:G:H2'	24:BA:1361:G:H5'	1.89	0.55
24:BA:1415:U:C2	24:BA:1588:G:C2	2.94	0.55
24:BA:2250:G:O2'	24:BA:2496:C:OP1	2.24	0.55
24:BA:2822:G:OP1	27:BD:115:GLY:C	2.50	0.55
26:BC:62:ARG:NH2	26:BC:62:ARG:HG2	2.22	0.55
29:BF:158:THR:O	29:BF:160:LYS:N	2.39	0.55
34:BK:41:ILE:HD11	34:BK:86:LEU:HD13	1.88	0.55
36:BM:1:MET:HE1	36:BM:44:ARG:HG2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BN:2:ARG:O	37:BN:3:HIS:C	2.48	0.55
39:BP:4:ILE:HG13	39:BP:5:LYS:N	2.22	0.55
1:CA:339:C:OP2	34:DK:98:ARG:NH1	2.39	0.55
1:CA:543:U:C2'	1:CA:544:G:H5'	2.36	0.55
1:CA:769:G:O2'	1:CA:770:C:H5'	2.07	0.55
1:CA:926:G:C6	1:CA:1505:G:C6	2.94	0.55
1:CA:992:U:O2	1:CA:1043:G:N7	2.39	0.55
1:CA:1106:G:C6	1:CA:1107:C:C4	2.95	0.55
1:CA:1343:G:H2'	1:CA:1344:C:C6	2.41	0.55
2:CB:104:TRP:O	2:CB:105:LYS:C	2.50	0.55
4:CD:98:LEU:C	4:CD:100:ASN:N	2.64	0.55
7:CG:17:LYS:CB	7:CG:44:TYR:CE1	2.89	0.55
7:CG:102:ARG:C	7:CG:104:ILE:N	2.63	0.55
12:CL:35:THR:O	12:CL:36:ARG:HG3	2.05	0.55
13:CM:15:ALA:N	13:CM:17:ILE:HD11	2.22	0.55
13:CM:29:ARG:CZ	13:CM:29:ARG:HB2	2.35	0.55
17:CQ:52:GLU:CD	17:CQ:52:GLU:N	2.64	0.55
22:CV:67:C:N4	22:CV:68:C:H41	2.04	0.55
24:DA:587:C:H3'	24:DA:588:U:C5'	2.33	0.55
24:DA:1045:C:C3'	24:DA:1046:A:H5'	2.37	0.55
24:DA:1268:A:C2	24:DA:2013:A:C4	2.95	0.55
24:DA:2205:A:C4	24:DA:2206:C:C5	2.94	0.55
26:DC:170:TYR:HB3	26:DC:183:VAL:O	2.07	0.55
27:DD:123:LYS:HG2	27:DD:165:MET:SD	2.46	0.55
30:DG:105:SER:HA	30:DG:108:PHE:CZ	2.41	0.55
31:DH:136:SER:O	31:DH:137:GLU:CB	2.53	0.55
32:DI:15:GLY:HA2	32:DI:50:LYS:HB3	1.88	0.55
34:DK:8:LEU:HD12	34:DK:8:LEU:N	2.21	0.55
39:DP:92:ARG:HH11	39:DP:92:ARG:HG3	1.70	0.55
1:AA:55:A:C8	31:DH:91:PHE:CE2	2.95	0.55
1:AA:412:A:H5"	11:CK:14:LYS:HZ2	1.72	0.55
1:AA:596:A:N6	1:AA:645:G:C6	2.74	0.55
1:AA:615:G:C6	1:AA:616:G:C5	2.95	0.55
1:AA:978:A:N1	1:AA:1319:A:C4	2.75	0.55
2:AB:41:ILE:CG2	2:AB:41:ILE:O	2.55	0.55
2:AB:163:VAL:CG1	2:AB:185:ALA:HA	2.36	0.55
6:AF:54:LEU:C	6:AF:55:HIS:CG	2.83	0.55
7:AG:5:ARG:O	7:AG:7:ILE:HG23	2.07	0.55
8:AH:4:GLN:OE1	8:AH:4:GLN:N	2.33	0.55
11:AK:97:ILE:C	11:AK:97:ILE:HD12	2.32	0.55
20:AT:75:HIS:O	20:AT:79:LEU:HD11	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:8:C:H5”	33:BJ:53:TYR:OH	2.05	0.55
24:BA:309:A:H5’	44:BU:16:LYS:HD3	1.87	0.55
24:BA:545:U:H2’	24:BA:547:A:C5’	2.34	0.55
24:BA:607:U:OP2	28:BE:98:LYS:HG2	2.07	0.55
24:BA:1053:C:C2	24:BA:1107:G:C2	2.95	0.55
24:BA:1068:G:H2’	24:BA:1068:G:N3	2.21	0.55
24:BA:1883:U:C5	24:BA:1884:G:C6	2.95	0.55
24:BA:2011:U:OP1	42:BS:42:LYS:HD3	2.06	0.55
24:BA:2207:C:C2	24:BA:2218:G:C2	2.93	0.55
24:BA:2311:A:N6	29:BF:40:GLY:HA3	2.21	0.55
24:BA:2506:U:H2’	24:BA:2506:U:O2	2.06	0.55
24:BA:2726:A:O2’	24:BA:2727:A:H5’	2.06	0.55
24:BA:2734:A:C3’	24:BA:2735:G:C5’	2.85	0.55
25:BB:50:A:H2’	25:BB:51:G:O4’	2.07	0.55
27:BD:2:ILE:HG12	27:BD:3:GLY:N	2.21	0.55
30:BG:102:ILE:CG2	30:BG:104:LEU:HD13	2.36	0.55
36:BM:53:MET:SD	36:BM:103:TYR:HD2	2.30	0.55
1:CA:174:A:H2’	1:CA:175:C:H5’	1.88	0.55
1:CA:185:U:H4’	20:CT:69:LYS:CE	2.36	0.55
1:CA:189:A:C6	1:CA:190:A:C2	2.95	0.55
1:CA:202:G:O2’	1:CA:468:A:C8	2.60	0.55
1:CA:254:G:OP1	17:CQ:70:THR:HG21	2.07	0.55
1:CA:440:C:OP1	4:CD:121:LYS:NZ	2.39	0.55
1:CA:745:G:C6	1:CA:746:A:C6	2.95	0.55
1:CA:778:G:N1	1:CA:779:C:C2	2.75	0.55
1:CA:1134:G:N1	1:CA:1135:U:C2	2.74	0.55
1:CA:1243:C:O2	1:CA:1243:C:H3’	2.06	0.55
1:CA:1346:A:C8	1:CA:1348:U:C2	2.94	0.55
1:CA:1366:C:N3	1:CA:1367:C:C4	2.75	0.55
2:CB:23:TRP:CD1	2:CB:23:TRP:C	2.84	0.55
2:CB:68:LEU:CD1	2:CB:70:VAL:CG2	2.84	0.55
4:CD:9:LEU:HD13	4:CD:10:LYS:HB3	1.89	0.55
5:CE:104:GLY:O	5:CE:105:ILE:CG2	2.54	0.55
6:CF:69:GLU:O	6:CF:70:VAL:HG23	2.06	0.55
8:CH:10:MET:SD	8:CH:36:ILE:HD12	2.47	0.55
8:CH:113:ASP:C	8:CH:115:ALA:N	2.64	0.55
11:CK:27:PHE:O	11:CK:28:ASN:C	2.50	0.55
12:CL:93:VAL:C	12:CL:94:ARG:HG3	2.31	0.55
14:CN:3:GLN:HA	14:CN:6:LYS:HZ3	1.71	0.55
15:CO:70:LEU:O	15:CO:78:TYR:CZ	2.59	0.55
20:CT:55:GLN:HG3	20:CT:56:PRO:HD3	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:46:G:C2	24:DA:47:C:C5	2.95	0.55
24:DA:52:A:OP2	24:DA:117:G:N1	2.31	0.55
24:DA:86:G:H4'	24:DA:104:A:O2'	2.07	0.55
24:DA:263:G:H2'	24:DA:264:C:O4'	2.06	0.55
24:DA:1141:U:H4'	24:DA:1142:A:O5'	2.07	0.55
24:DA:1619:G:H2'	24:DA:1620:G:C5'	2.35	0.55
24:DA:1724:G:C5	24:DA:1725:U:C5	2.95	0.55
26:DC:154:ALA:CA	26:DC:159:THR:HG23	2.36	0.55
29:DF:112:ASP:OD2	29:DF:114:ARG:NH2	2.38	0.55
32:DI:32:VAL:CG1	32:DI:33:ASN:N	2.69	0.55
37:DN:115:LEU:O	37:DN:117:ASP:N	2.39	0.55
41:DR:93:PHE:C	41:DR:93:PHE:CD1	2.85	0.55
48:DY:36:GLN:O	48:DY:37:LEU:HB2	2.06	0.55
53:D3:9:ALA:HB1	53:D3:61:LEU:HD21	1.87	0.55
1:AA:393:A:C2	1:AA:394:G:C8	2.95	0.55
1:AA:780:A:OP1	11:AK:125:LYS:HG2	2.07	0.55
1:AA:886:G:C2	1:AA:912:C:C2	2.94	0.55
1:AA:1410:A:H2'	1:AA:1411:C:C6	2.41	0.55
3:AC:106:VAL:O	3:AC:107:ARG:C	2.49	0.55
8:AH:101:ILE:HG12	8:AH:112:THR:HG21	1.89	0.55
9:AI:54:LEU:O	9:AI:55:VAL:HG12	2.06	0.55
13:AM:85:CYS:HB2	19:AS:73:GLU:CG	2.36	0.55
24:BA:230:G:N2	24:BA:231:A:C4	2.75	0.55
24:BA:418:C:H2'	24:BA:419:U:C6	2.42	0.55
24:BA:458:G:O2'	24:BA:459:U:OP2	2.22	0.55
24:BA:674:G:O3'	28:BE:58:LYS:NZ	2.40	0.55
24:BA:1022:G:C5	24:BA:1140:C:N4	2.75	0.55
24:BA:1310:G:N2	24:BA:1605:C:C4	2.75	0.55
24:BA:1511:G:H2'	24:BA:1512:C:C6	2.42	0.55
24:BA:2264:C:C2'	24:BA:2265:U:O5'	2.54	0.55
24:BA:2297:A:N7	24:BA:2320:U:C4	2.75	0.55
24:BA:2705:A:C8	24:BA:2706:A:C8	2.95	0.55
24:BA:2776:A:C8	24:BA:2782:G:C5	2.94	0.55
24:BA:2779:U:O4'	24:BA:2781:A:N7	2.39	0.55
24:BA:2854:G:N2	24:BA:2864:G:C4	2.75	0.55
27:BD:30:GLU:OE1	27:BD:53:GLY:HA2	2.06	0.55
30:BG:15:ASP:OD1	30:BG:16:VAL:N	2.39	0.55
35:BL:50:PHE:C	35:BL:50:PHE:CD1	2.83	0.55
38:BO:100:HIS:CG	38:BO:101:GLY:N	2.74	0.55
41:BR:42:ALA:HA	41:BR:46:GLU:HA	1.88	0.55
49:BZ:44:ARG:O	49:BZ:47:ILE:N	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:B0:43:THR:HG23	50:B0:47:TYR:O	2.07	0.55
1:CA:64:G:C5	1:CA:99:C:N4	2.75	0.55
1:CA:371:A:C2	1:CA:372:C:C5	2.94	0.55
1:CA:503:C:OP1	12:CL:116:LYS:NZ	2.39	0.55
1:CA:529:G:O6	12:CL:46:ASN:HA	2.07	0.55
1:CA:689:C:P	11:CK:48:GLY:HA3	2.45	0.55
1:CA:706:A:C6	1:CA:707:U:N3	2.75	0.55
1:CA:728:A:N1	1:CA:729:A:C6	2.75	0.55
1:CA:1387:G:O2'	1:CA:1388:C:H5'	2.06	0.55
1:CA:1452:C:H4'	1:CA:1453:G:N3	2.22	0.55
4:CD:87:GLY:O	4:CD:90:LEU:HD12	2.07	0.55
5:CE:87:GLY:C	5:CE:88:VAL:CG1	2.80	0.55
5:CE:104:GLY:HA3	5:CE:122:ASN:HB2	1.88	0.55
6:CF:88:MET:O	6:CF:90:MET:CE	2.54	0.55
12:CL:43:LYS:HG3	12:CL:44:LYS:H	1.70	0.55
12:CL:103:ASP:CG	12:CL:103:ASP:O	2.49	0.55
16:CP:71:VAL:HA	16:CP:74:LEU:HB2	1.89	0.55
24:DA:517:C:OP2	50:D0:9:ARG:NH2	2.39	0.55
24:DA:807:U:OP1	24:DA:830:G:N2	2.37	0.55
24:DA:1095:A:C6	24:DA:1096:A:N6	2.75	0.55
24:DA:1434:A:N3	24:DA:1435:G:C8	2.75	0.55
24:DA:2231:U:OP1	47:DX:29:LEU:HD12	2.06	0.55
35:DL:93:ASN:O	35:DL:94:THR:HB	2.06	0.55
42:DS:73:LYS:HB2	42:DS:106:VAL:HG13	1.87	0.55
43:DT:92:ASN:OD1	43:DT:93:LEU:N	2.39	0.55
1:AA:237:G:C6	1:AA:238:A:C6	2.94	0.55
1:AA:429:U:OP1	4:AD:9:LEU:HD13	2.07	0.55
1:AA:435:A:N1	1:AA:436:C:C2	2.73	0.55
1:AA:802:A:C2'	1:AA:803:G:H5'	2.36	0.55
1:AA:1083:U:C5	1:AA:1084:G:C6	2.94	0.55
1:AA:1304:G:C2	1:AA:1305:G:N2	2.75	0.55
1:AA:1361:G:H2'	1:AA:1362:A:H5'	1.87	0.55
2:AB:96:TRP:CH2	2:AB:172:ALA:HA	2.42	0.55
3:AC:64:ILE:HD12	3:AC:66:VAL:HG23	1.89	0.55
3:AC:136:ARG:CZ	3:AC:136:ARG:HB2	2.37	0.55
3:AC:162:ILE:O	3:AC:163:ALA:C	2.50	0.55
8:AH:92:LEU:HD23	8:AH:117:ARG:CZ	2.36	0.55
9:AI:118:LEU:O	9:AI:120:LYS:N	2.39	0.55
10:AJ:53:ILE:HG13	14:AN:85:ARG:NH1	2.21	0.55
11:AK:53:ARG:HA	11:AK:57:LYS:HB3	1.89	0.55
11:AK:113:VAL:O	11:AK:114:THR:O	2.25	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:79:LEU:O	20:AT:80:THR:C	2.49	0.55
21:AU:21:ARG:O	21:AU:21:ARG:CG	2.55	0.55
22:AV:70:G:N1	22:AV:71:G:C5	2.75	0.55
24:BA:27:G:N2	24:BA:512:G:H1'	2.21	0.55
24:BA:322:A:OP2	28:BE:163:ASN:HB2	2.06	0.55
24:BA:444:C:OP1	28:BE:40:ARG:NH1	2.40	0.55
24:BA:489:G:O4'	24:BA:1284:A:C8	2.60	0.55
24:BA:1032:A:H1'	54:B4:23:ILE:CD1	2.37	0.55
24:BA:1142:A:N3	24:BA:1144:A:C8	2.74	0.55
24:BA:1183:U:HO2'	24:BA:1184:U:C5'	2.17	0.55
24:BA:1838:C:H4'	24:BA:1839:G:C8	2.42	0.55
24:BA:2599:G:C8	26:BC:235:GLU:HG2	2.41	0.55
24:BA:2870:C:H2'	24:BA:2871:U:O4'	2.05	0.55
25:BB:75:G:C1'	45:BV:29:ILE:HD12	2.37	0.55
32:BI:79:LEU:HD23	32:BI:137:LEU:CD2	2.37	0.55
39:BP:42:PHE:CE1	39:BP:60:VAL:HG23	2.41	0.55
1:CA:25:C:C5	1:CA:558:G:N2	2.75	0.55
1:CA:655:A:C2	1:CA:656:G:C4	2.94	0.55
1:CA:666:G:H2'	1:CA:667:G:O4'	2.06	0.55
1:CA:833:G:H2'	1:CA:834:U:O5'	2.06	0.55
1:CA:1176:A:N1	1:CA:1177:G:C2	2.75	0.55
5:CE:46:VAL:CG1	5:CE:118:ALA:HB2	2.37	0.55
7:CG:42:ILE:HG13	7:CG:43:VAL:N	2.21	0.55
13:CM:50:GLU:O	13:CM:53:ILE:N	2.40	0.55
15:CO:29:VAL:CG1	15:CO:30:ALA:N	2.70	0.55
15:CO:56:LEU:O	15:CO:59:MET:N	2.39	0.55
17:CQ:16:LYS:O	17:CQ:17:MET:HB2	2.05	0.55
55:CY:134:ASP:O	55:CY:135:ALA:C	2.50	0.55
55:CY:164:THR:O	55:CY:165:ASP:C	2.47	0.55
24:DA:323:C:C4	24:DA:333:G:C8	2.95	0.55
24:DA:446:G:P	40:DQ:2:ARG:HE	2.29	0.55
24:DA:526:A:O2'	24:DA:2043:C:O2	2.21	0.55
24:DA:545:U:H2'	24:DA:546:U:O3'	2.07	0.55
24:DA:845:A:C6	24:DA:847:U:C6	2.94	0.55
24:DA:1071:G:OP2	24:DA:1089:A:N7	2.39	0.55
24:DA:1356:G:N1	24:DA:1357:C:C2	2.75	0.55
24:DA:2080:A:P	47:DX:19:HIS:NE2	2.79	0.55
24:DA:2356:U:OP1	46:DW:24:LYS:NZ	2.38	0.55
24:DA:2772:C:H2'	24:DA:2773:C:H6	1.71	0.55
24:DA:2821:A:OP2	27:DD:115:GLY:HA3	2.06	0.55
28:DE:149:ILE:CD1	28:DE:192:ALA:HB1	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DP:92:ARG:HH11	39:DP:92:ARG:CG	2.20	0.55
41:DR:58:VAL:HG23	41:DR:59:ILE:N	2.22	0.55
50:D0:52:LYS:CE	50:D0:55:ALA:HA	2.36	0.55
1:AA:106:C:C3'	1:AA:107:G:H5'	2.37	0.55
1:AA:167:A:C2	1:AA:168:G:C4	2.95	0.55
1:AA:610:U:C4	1:AA:611:C:N4	2.75	0.55
1:AA:929:G:H4'	1:AA:1535:C:C5'	2.36	0.55
1:AA:1078:U:O2'	1:AA:1079:G:OP1	2.21	0.55
1:AA:1381:U:H1'	7:AG:78:ARG:HH12	1.70	0.55
3:AC:149:ILE:HA	3:AC:201:TRP:O	2.07	0.55
4:AD:11:LEU:CD1	4:AD:63:ARG:HD2	2.36	0.55
6:AF:4:TYR:HE2	6:AF:6:ILE:HG12	1.72	0.55
7:AG:138:ARG:CG	7:AG:139:GLU:N	2.69	0.55
8:AH:9:ASP:OD1	8:AH:9:ASP:C	2.50	0.55
8:AH:83:LEU:C	8:AH:83:LEU:CD1	2.79	0.55
9:AI:112:GLU:OE2	9:AI:122:ARG:NH1	2.40	0.55
13:AM:22:ILE:HD12	13:AM:23:TYR:N	2.22	0.55
15:AO:6:GLU:CD	15:AO:6:GLU:C	2.74	0.55
24:BA:56:A:C6	24:BA:57:C:C4	2.95	0.55
24:BA:186:G:C2'	24:BA:187:G:H5'	2.37	0.55
24:BA:359:G:C2'	24:BA:360:U:H5'	2.37	0.55
24:BA:518:G:O5'	42:BS:18:ARG:NH1	2.40	0.55
24:BA:682:G:H5'	52:B2:26:ASN:ND2	2.22	0.55
24:BA:1142:A:C4	24:BA:1144:A:N7	2.74	0.55
24:BA:2002:G:OP1	37:BN:17:ARG:NH1	2.30	0.55
24:BA:2088:A:H2'	24:BA:2089:C:C6	2.42	0.55
24:BA:2089:C:C2	24:BA:2090:A:C8	2.94	0.55
24:BA:2639:A:C5'	33:BJ:96:ARG:NH1	2.70	0.55
24:BA:2714:G:C4	24:BA:2715:C:C5	2.94	0.55
28:BE:194:LYS:O	28:BE:195:GLN:C	2.49	0.55
33:BJ:103:ILE:HG13	33:BJ:104:ALA:N	2.22	0.55
40:BQ:61:ILE:HG23	40:BQ:75:TYR:CE2	2.41	0.55
41:BR:38:VAL:O	41:BR:53:PHE:HA	2.07	0.55
1:CA:195:A:C5	1:CA:196:A:C2	2.95	0.55
1:CA:258:G:C5	1:CA:259:G:N7	2.74	0.55
1:CA:617:G:H4'	16:CP:46:LYS:HD2	1.87	0.55
1:CA:677:U:C5	1:CA:678:U:C5	2.95	0.55
1:CA:692:U:N3	1:CA:695:A:OP2	2.40	0.55
1:CA:706:A:O2'	11:CK:24:HIS:NE2	2.35	0.55
1:CA:878:A:OP2	1:CA:878:A:H8	1.89	0.55
1:CA:1237:C:O4'	1:CA:1334:G:N2	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1431:A:C6	1:CA:1432:G:O6	2.59	0.55
4:CD:196:ASN:CB	4:CD:199:LEU:HB2	2.36	0.55
8:CH:103:VAL:CG2	8:CH:126:ILE:HB	2.36	0.55
17:CQ:58:VAL:O	17:CQ:58:VAL:HG13	2.07	0.55
18:CR:44:ILE:O	18:CR:45:THR:C	2.49	0.55
21:CU:40:LYS:N	21:CU:41:PRO:HD3	2.22	0.55
22:CV:1:G:H2'	22:CV:2:C:C4	2.42	0.55
24:DA:31:C:O2'	24:DA:1238:G:H5'	2.07	0.55
24:DA:36:G:N3	24:DA:450:G:O2'	2.39	0.55
24:DA:61:C:C5'	48:DY:43:LEU:HD21	2.37	0.55
24:DA:823:C:C4	24:DA:824:U:C4	2.95	0.55
24:DA:1105:U:H2'	24:DA:1106:G:C8	2.42	0.55
24:DA:2080:A:H5'	47:DX:18:SER:HB2	1.89	0.55
24:DA:2201:G:C2	24:DA:2202:U:C6	2.95	0.55
24:DA:2438:U:O3'	24:DA:2439:A:H3'	2.07	0.55
24:DA:2755:C:O2'	24:DA:2756:U:H2'	2.07	0.55
26:DC:158:GLY:HA3	26:DC:197:ALA:CB	2.36	0.55
27:DD:22:ILE:HD11	27:DD:190:LYS:CB	2.37	0.55
28:DE:56:GLY:O	28:DE:57:LYS:C	2.49	0.55
29:DF:84:ILE:O	29:DF:84:ILE:CG1	2.55	0.55
31:DH:136:SER:O	31:DH:137:GLU:HB3	2.05	0.55
38:DO:76:LYS:O	38:DO:78:VAL:N	2.39	0.55
38:DO:83:LEU:HA	38:DO:87:ILE:HG13	1.87	0.55
48:DY:13:GLU:O	48:DY:15:ASN:N	2.40	0.55
1:AA:55:A:N1	31:DH:91:PHE:N	2.55	0.55
1:AA:237:G:O6	1:AA:238:A:N6	2.39	0.55
1:AA:325:A:N6	1:AA:326:G:C2	2.74	0.55
1:AA:371:A:C5'	1:AA:372:C:OP2	2.54	0.55
1:AA:620:C:H2'	1:AA:621:A:O4'	2.07	0.55
1:AA:622:A:C8	1:AA:623:C:C6	2.95	0.55
1:AA:709:U:C2	1:AA:710:G:C8	2.95	0.55
1:AA:734:G:O2'	18:AR:60:LYS:HE2	2.07	0.55
1:AA:780:A:H5"	11:AK:125:LYS:HE2	1.89	0.55
1:AA:811:C:O2'	1:AA:901:A:N1	2.40	0.55
1:AA:980:C:C5'	1:AA:981:U:C5	2.89	0.55
1:AA:1099:G:C6	1:AA:1100:C:C4	2.94	0.55
1:AA:1394:A:C2	1:AA:1501:C:O4'	2.59	0.55
1:AA:1430:A:N6	1:AA:1431:A:C2	2.75	0.55
1:AA:1495:U:O4	57:AA:1655:NMY:N7	2.40	0.55
2:AB:144:LEU:N	2:AB:144:LEU:CD2	2.70	0.55
3:AC:22:TRP:CD1	3:AC:23:PHE:O	2.60	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:79:ALA:HB1	4:AD:86:THR:HG23	1.89	0.55
4:AD:145:ILE:O	4:AD:146:ARG:CG	2.55	0.55
5:AE:38:VAL:HA	5:AE:48:PHE:HA	1.87	0.55
8:AH:66:PHE:O	8:AH:67:GLN:C	2.49	0.55
12:AL:57:LEU:C	12:AL:59:ASN:H	2.14	0.55
19:AS:15:LEU:HD22	19:AS:35:SER:CB	2.37	0.55
24:BA:497:A:H2'	24:BA:498:G:O4'	2.07	0.55
24:BA:581:C:H2'	24:BA:582:A:H8	1.71	0.55
24:BA:629:G:O2'	24:BA:639:U:O2	2.25	0.55
24:BA:786:C:C2'	24:BA:787:C:H5'	2.37	0.55
24:BA:906:U:O2'	36:BM:66:ARG:CZ	2.55	0.55
24:BA:1205:A:C6	28:BE:165:HIS:NE2	2.74	0.55
24:BA:2078:C:H2'	24:BA:2079:U:O4'	2.07	0.55
24:BA:2281:A:N1	24:BA:2282:G:C6	2.75	0.55
24:BA:2452:C:C4	24:BA:2453:A:C6	2.95	0.55
24:BA:2748:A:C2	24:BA:2749:A:C4	2.94	0.55
27:BD:155:VAL:O	27:BD:156:PHE:HB2	2.05	0.55
29:BF:128:SER:C	29:BF:129:MET:HE2	2.31	0.55
30:BG:68:ARG:HG3	30:BG:69:ALA:N	2.22	0.55
31:BH:27:ARG:O	31:BH:32:PRO:HG2	2.06	0.55
1:CA:428:G:C5	1:CA:430:A:C6	2.95	0.55
1:CA:577:G:C4	1:CA:816:A:C2	2.95	0.55
1:CA:714:G:H21	1:CA:777:A:H1'	1.71	0.55
1:CA:840:C:O2'	1:CA:841:C:OP1	2.21	0.55
1:CA:1048:G:O3'	1:CA:1049:U:H3'	2.07	0.55
1:CA:1152:A:O2'	1:CA:1153:G:H5'	2.06	0.55
1:CA:1228:C:O2	1:CA:1228:C:C2'	2.54	0.55
1:CA:1272:G:C6	1:CA:1273:C:C2	2.94	0.55
3:CC:23:PHE:CD2	10:CJ:13:PHE:CZ	2.95	0.55
4:CD:58:LYS:HB3	4:CD:200:ILE:HG13	1.88	0.55
5:CE:25:VAL:HG22	5:CE:26:LYS:N	2.22	0.55
10:CJ:18:ILE:O	10:CJ:22:THR:N	2.40	0.55
12:CL:35:THR:O	12:CL:36:ARG:CG	2.55	0.55
12:CL:36:ARG:NH1	12:CL:76:GLU:HB2	2.22	0.55
24:DA:451:U:C2	24:DA:453:A:N7	2.75	0.55
24:DA:672:C:H5	35:DL:42:SER:CB	2.19	0.55
24:DA:797:G:P	28:DE:57:LYS:HE3	2.47	0.55
24:DA:1056:G:N2	24:DA:1102:C:C4	2.75	0.55
24:DA:1535:A:O2'	24:DA:1537:G:N7	2.40	0.55
24:DA:2093:G:OP2	31:DH:22:LYS:HE3	2.06	0.55
24:DA:2211:A:C2'	24:DA:2212:A:OP1	2.55	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2531:A:C2	24:DA:2532:G:N9	2.75	0.55
31:DH:116:ARG:O	31:DH:118:PRO:CD	2.54	0.55
41:DR:74:ILE:HB	41:DR:87:GLN:HB2	1.87	0.55
46:DW:40:GLN:NE2	46:DW:43:THR:HA	2.21	0.55
1:AA:442:G:C2	1:AA:443:C:C2	2.95	0.55
1:AA:508:U:C4'	4:AD:51:TYR:CZ	2.90	0.55
1:AA:536:C:OP1	59:AA:1768:HOH:O	2.18	0.55
1:AA:590:U:C2	1:AA:650:G:C2	2.95	0.55
1:AA:683:G:H2'	1:AA:684:U:O5'	2.06	0.55
1:AA:683:G:O2'	1:AA:684:U:H5'	2.07	0.55
1:AA:795:C:O3'	11:AK:128:ARG:NH1	2.40	0.55
1:AA:1097:C:N3	1:AA:1098:C:C5	2.74	0.55
1:AA:1152:A:N1	1:AA:1153:G:C5	2.75	0.55
2:AB:177:ASN:ND2	2:AB:195:GLY:O	2.40	0.55
4:AD:7:PRO:HB3	4:AD:9:LEU:CD2	2.36	0.55
5:AE:81:LEU:CD2	5:AE:147:MET:HG2	2.37	0.55
6:AF:4:TYR:CE2	6:AF:6:ILE:CD1	2.90	0.55
11:AK:61:PHE:O	11:AK:65:VAL:CG1	2.55	0.55
15:AO:11:ILE:O	15:AO:14:GLU:HB2	2.07	0.55
18:AR:35:GLU:HB2	21:AU:19:PHE:CZ	2.42	0.55
24:BA:49:A:C8	24:BA:51:G:C2	2.95	0.55
24:BA:858:G:O2'	24:BA:2268:A:C2'	2.55	0.55
24:BA:1733:G:C5	24:BA:1734:G:C5	2.95	0.55
24:BA:2302:U:C4	24:BA:2303:G:N7	2.75	0.55
24:BA:2595:G:N2	24:BA:2598:A:OP2	2.38	0.55
24:BA:2680:U:O2'	24:BA:2681:C:O5'	2.24	0.55
24:BA:2689:U:OP2	24:BA:2719:G:N2	2.36	0.55
24:BA:2748:A:O2'	24:BA:2749:A:H5'	2.07	0.55
26:BC:132:ARG:HB2	26:BC:185:ALA:HB1	1.88	0.55
31:BH:24:GLY:O	31:BH:25:TYR:C	2.49	0.55
32:BI:89:SER:O	32:BI:91:LYS:N	2.39	0.55
35:BL:57:LEU:C	35:BL:59:ARG:H	2.15	0.55
35:BL:103:ILE:O	35:BL:105:ILE:N	2.40	0.55
38:BO:94:ARG:O	38:BO:96:GLY:N	2.40	0.55
39:BP:42:PHE:HE1	39:BP:60:VAL:HG23	1.71	0.55
1:CA:363:A:N7	12:CL:27:CYS:SG	2.79	0.55
1:CA:452:A:C8	1:CA:453:G:C8	2.94	0.55
1:CA:815:A:C2	1:CA:1529:G:C4	2.94	0.55
1:CA:1348:U:C5	1:CA:1373:G:N2	2.75	0.55
8:CH:11:LEU:HD12	8:CH:75:ILE:CG1	2.37	0.55
8:CH:53:GLY:O	8:CH:54:ASP:HB2	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:22:THR:C	10:CJ:24:GLU:H	2.14	0.55
14:CN:19:TYR:C	14:CN:19:TYR:CD1	2.85	0.55
19:CS:37:ARG:O	19:CS:37:ARG:HG3	2.07	0.55
24:DA:189:G:H2'	24:DA:205:G:N2	2.22	0.55
24:DA:248:G:H5"	24:DA:386:G:N2	2.22	0.55
24:DA:279:A:H2'	24:DA:280:U:H5'	1.88	0.55
24:DA:301:G:O5'	44:DU:81:ARG:NH1	2.40	0.55
24:DA:660:C:O2'	24:DA:661:A:H5'	2.08	0.55
24:DA:839:U:O2	24:DA:940:G:C2	2.60	0.55
24:DA:974:G:H8	24:DA:990:A:H62	1.55	0.55
24:DA:1208:C:C2	24:DA:1239:G:C2	2.95	0.55
24:DA:1394:U:C4	24:DA:1395:A:C5	2.95	0.55
24:DA:1415:U:C5	24:DA:1588:G:N1	2.75	0.55
24:DA:1445:G:H2'	24:DA:1446:C:O4'	2.07	0.55
24:DA:2402:U:O2'	24:DA:2403:C:H5"	2.06	0.55
24:DA:2687:U:H2'	24:DA:2688:G:O4'	2.07	0.55
25:DB:61:G:C6	25:DB:62:C:C4	2.95	0.55
28:DE:181:ILE:HG22	35:DL:2:ARG:NH1	2.22	0.55
30:DG:11:PRO:O	30:DG:14:VAL:HG12	2.07	0.55
31:DH:18:GLN:C	31:DH:19:VAL:HG22	2.32	0.55
32:DI:27:LEU:O	32:DI:28:GLY:C	2.50	0.55
38:DO:75:GLY:HA2	38:DO:106:LEU:HD12	1.88	0.55
42:DS:29:VAL:HG23	42:DS:69:LEU:C	2.32	0.55
49:DZ:3:THR:HA	49:DZ:37:ARG:O	2.07	0.55
1:AA:177:G:C2'	1:AA:178:C:H5'	2.38	0.54
1:AA:181:A:N1	1:AA:195:A:N7	2.54	0.54
1:AA:364:A:N3	1:AA:365:U:C5	2.75	0.54
1:AA:790:A:N1	1:AA:1497:G:H5"	2.22	0.54
1:AA:920:U:H2'	1:AA:921:U:C6	2.41	0.54
1:AA:1092:A:C6	1:AA:1093:A:C6	2.95	0.54
2:AB:197:ASP:OD1	2:AB:197:ASP:N	2.37	0.54
3:AC:162:ILE:O	3:AC:162:ILE:CD1	2.55	0.54
17:AQ:12:VAL:HG13	17:AQ:21:ILE:CD1	2.37	0.54
18:AR:45:THR:O	18:AR:46:GLY:C	2.50	0.54
24:BA:146:A:H2	24:BA:147:C:C2	2.25	0.54
24:BA:306:U:H2'	24:BA:307:G:O4'	2.07	0.54
24:BA:813:U:H2'	24:BA:814:C:H6	1.71	0.54
24:BA:1026:G:H1'	24:BA:1134:A:C2	2.41	0.54
24:BA:1314:C:C2	24:BA:1339:G:N2	2.76	0.54
24:BA:1360:G:H2'	24:BA:1361:G:C5'	2.37	0.54
24:BA:1629:U:C2	24:BA:1630:A:C8	2.96	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1797:G:C5	24:BA:1798:U:C5	2.95	0.54
24:BA:2207:C:O2'	24:BA:2208:C:H5'	2.07	0.54
24:BA:2531:A:C5'	30:BG:156:TYR:CE2	2.90	0.54
24:BA:2603:G:O2'	24:BA:2604:U:H5'	2.07	0.54
24:BA:2884:U:O4'	50:B0:49:ARG:NH2	2.40	0.54
24:BA:2898:U:C2	24:BA:2899:A:C8	2.95	0.54
25:BB:15:A:O2'	25:BB:16:G:P	2.64	0.54
26:BC:220:ARG:CZ	59:BC:407:HOH:O	2.54	0.54
27:BD:125:TRP:CG	27:BD:160:LYS:CG	2.90	0.54
38:BO:103:VAL:C	38:BO:105:ALA:N	2.64	0.54
43:BT:35:ALA:O	43:BT:36:LYS:C	2.49	0.54
1:CA:381:C:H2'	1:CA:382:A:C8	2.42	0.54
1:CA:484:G:C4'	1:CA:485:U:H5'	2.36	0.54
1:CA:493:A:C2'	1:CA:494:G:N3	2.70	0.54
1:CA:642:A:H2'	1:CA:643:C:C6	2.43	0.54
1:CA:918:A:H2'	1:CA:919:A:H8	1.66	0.54
1:CA:1299:A:H3'	1:CA:1299:A:N3	2.23	0.54
1:CA:1320:C:H5'	19:CS:70:LYS:CB	2.37	0.54
1:CA:1368:A:OP2	9:CI:116:VAL:HG23	2.07	0.54
2:CB:96:TRP:CD2	2:CB:100:MET:HE3	2.42	0.54
3:CC:138:VAL:HG23	3:CC:139:GLN:N	2.22	0.54
5:CE:13:GLU:HB3	5:CE:39:VAL:HG12	1.89	0.54
6:CF:9:MET:HE1	18:CR:65:LEU:HB2	1.88	0.54
7:CG:67:GLU:O	7:CG:70:ARG:HB3	2.07	0.54
9:CI:75:GLN:O	9:CI:79:ILE:HD12	2.06	0.54
12:CL:56:ARG:O	12:CL:57:LEU:CB	2.55	0.54
19:CS:16:LEU:O	19:CS:18:LYS:N	2.40	0.54
20:CT:34:LYS:HG3	20:CT:35:VAL:N	2.22	0.54
20:CT:75:HIS:O	20:CT:79:LEU:HD12	2.07	0.54
55:CY:108:GLU:O	55:CY:109:ARG:NE	2.40	0.54
24:DA:189:G:P	47:DX:25:LYS:HZ2	2.30	0.54
24:DA:190:A:N6	24:DA:207:A:H1'	2.22	0.54
24:DA:322:A:OP1	28:DE:162:ARG:HG3	2.07	0.54
24:DA:379:G:C2'	24:DA:380:G:O5'	2.55	0.54
24:DA:431:U:H2'	24:DA:432:A:H5"	1.87	0.54
24:DA:527:C:N4	24:DA:2777:G:O2'	2.40	0.54
24:DA:574:A:H4'	24:DA:575:A:O5'	2.07	0.54
24:DA:858:G:N2	24:DA:919:U:O4	2.40	0.54
24:DA:946:C:OP2	59:DA:3346:HOH:O	2.18	0.54
24:DA:1064:C:N4	24:DA:1070:A:P	2.80	0.54
24:DA:1139:G:O3'	33:DJ:26:GLY:HA3	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1180:U:O4	24:DA:1181:U:C4	2.60	0.54
24:DA:1478:G:H2'	24:DA:1478:G:N3	2.22	0.54
24:DA:1505:A:C2	24:DA:1506:U:C2	2.94	0.54
24:DA:1734:G:C5	24:DA:1735:A:C8	2.95	0.54
24:DA:1752:C:C2'	24:DA:1753:G:H5'	2.38	0.54
24:DA:2694:G:C2	24:DA:2716:C:O2	2.60	0.54
24:DA:2783:U:H2'	24:DA:2784:U:H6	1.72	0.54
25:DB:10:G:C5'	25:DB:11:C:OP2	2.55	0.54
25:DB:77:U:OP2	45:DV:14:LYS:HD3	2.08	0.54
26:DC:149:LYS:O	26:DC:149:LYS:HG2	2.05	0.54
27:DD:62:LYS:N	27:DD:63:PRO:HD2	2.22	0.54
31:DH:121:VAL:CG1	31:DH:122:LEU:HD23	2.33	0.54
35:DL:111:ILE:CG2	35:DL:112:LEU:N	2.71	0.54
38:DO:94:ARG:O	38:DO:96:GLY:N	2.40	0.54
39:DP:98:TYR:CE2	39:DP:99:LEU:CD1	2.90	0.54
40:DQ:24:TYR:O	40:DQ:27:ARG:HG3	2.07	0.54
40:DQ:93:ILE:O	40:DQ:95:ALA:N	2.40	0.54
41:DR:68:ARG:HD3	41:DR:92:TRP:CZ2	2.40	0.54
1:AA:50:A:C2	1:AA:52:C:O2	2.60	0.54
1:AA:101:A:C6	1:AA:102:G:N7	2.74	0.54
1:AA:293:G:C2	1:AA:294:U:C6	2.95	0.54
1:AA:441:A:C2	1:AA:497:G:C2	2.96	0.54
1:AA:599:C:H5'	8:AH:88:ARG:NH1	2.21	0.54
1:AA:854:U:O2'	1:AA:855:U:C5'	2.52	0.54
1:AA:893:C:C2'	1:AA:894:G:H5'	2.37	0.54
1:AA:895:G:C6	1:AA:896:C:C4	2.95	0.54
1:AA:1007:U:OP1	14:AN:18:LYS:HE3	2.07	0.54
1:AA:1182:G:C3'	1:AA:1183:U:H5'	2.37	0.54
1:AA:1369:C:H2'	1:AA:1370:G:O4'	2.07	0.54
1:AA:1430:A:H2'	1:AA:1431:A:O4'	2.08	0.54
2:AB:75:ALA:O	2:AB:77:SER:N	2.40	0.54
11:AK:79:ILE:O	11:AK:81:ASN:N	2.38	0.54
14:AN:46:LEU:O	14:AN:49:GLN:HG2	2.07	0.54
20:AT:67:ILE:HD13	20:AT:71:LYS:HE3	1.87	0.54
24:BA:556:A:C8	24:BA:557:C:C5	2.94	0.54
24:BA:930:G:H1'	49:BZ:24:LEU:HD11	1.88	0.54
24:BA:962:G:H4'	24:BA:2496:C:O2'	2.07	0.54
24:BA:1228:G:C5	24:BA:1229:C:C5	2.95	0.54
24:BA:1286:A:C6	24:BA:1329:U:C2	2.96	0.54
24:BA:2142:A:C2	24:BA:2150:C:C2	2.96	0.54
24:BA:2302:U:H2'	24:BA:2303:G:H5"	1.87	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2354:C:O2'	46:BW:36:ILE:HG12	2.08	0.54
24:BA:2467:C:OP2	54:B4:4:ARG:NH2	2.38	0.54
57:BA:3161:NMY:O4	57:BA:3161:NMY:N6	2.40	0.54
25:BB:57:A:O4'	29:BF:26:GLN:CG	2.55	0.54
26:BC:115:ILE:HG21	26:BC:126:GLY:HA3	1.88	0.54
27:BD:155:VAL:O	27:BD:155:VAL:HG12	2.07	0.54
28:BE:145:ASP:HA	28:BE:166:LYS:HB3	1.89	0.54
28:BE:149:ILE:HD11	28:BE:188:MET:HA	1.88	0.54
37:BN:14:SER:O	37:BN:15:SER:C	2.50	0.54
44:BU:39:ASN:O	44:BU:40:LEU:C	2.50	0.54
45:BV:14:LYS:O	45:BV:15:GLY:C	2.48	0.54
49:BZ:11:SER:OG	49:BZ:12:ALA:N	2.37	0.54
1:CA:112:G:H5'	1:CA:389:A:O2'	2.06	0.54
1:CA:734:G:C2	1:CA:735:C:C2	2.95	0.54
1:CA:753:A:H5"	1:CA:754:C:C2	2.42	0.54
1:CA:954:G:C5	1:CA:955:U:C5	2.95	0.54
1:CA:1077:G:C2	1:CA:1081:A:C2	2.96	0.54
1:CA:1084:G:C6	1:CA:1085:U:O4	2.60	0.54
1:CA:1147:C:O2'	9:CI:7:TYR:OH	2.21	0.54
1:CA:1296:C:OP1	13:CM:14:HIS:NE2	2.40	0.54
1:CA:1323:G:H2'	1:CA:1324:A:C8	2.43	0.54
2:CB:114:LEU:HD13	2:CB:144:LEU:CD2	2.37	0.54
4:CD:192:SER:O	4:CD:193:ALA:HB3	2.07	0.54
5:CE:89:HIS:NE2	5:CE:138:ARG:HD3	2.21	0.54
8:CH:17:GLY:O	8:CH:22:LYS:HG2	2.07	0.54
12:CL:65:SER:CB	12:CL:95:TYR:HB3	2.38	0.54
12:CL:90:LEU:O	12:CL:92:GLY:N	2.40	0.54
21:CU:6:VAL:HG21	21:CU:17:ARG:CD	2.38	0.54
24:DA:53:A:C8	24:DA:54:G:C8	2.95	0.54
24:DA:85:G:P	44:DU:5:ARG:NH2	2.80	0.54
24:DA:321:U:OP2	28:DE:130:LYS:HE3	2.07	0.54
24:DA:789:A:H3'	59:DA:3760:HOH:O	2.07	0.54
24:DA:1806:C:H2'	24:DA:1807:G:O5'	2.07	0.54
24:DA:2706:A:O2'	37:DN:64:ARG:HD3	2.06	0.54
27:DD:26:VAL:HB	27:DD:188:LEU:CD2	2.37	0.54
30:DG:85:LYS:CG	30:DG:131:VAL:HG22	2.37	0.54
35:DL:78:ARG:HB3	35:DL:113:ALA:CB	2.37	0.54
35:DL:106:GLU:C	35:DL:107:PHE:CD1	2.86	0.54
37:DN:70:THR:HG23	37:DN:71:ARG:N	2.22	0.54
41:DR:73:LYS:CE	41:DR:86:GLN:OE1	2.55	0.54
1:AA:8:A:O4'	5:AE:107:ALA:HA	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:69:G:H2'	1:AA:69:G:N3	2.23	0.54
1:AA:132:C:OP1	20:AT:69:LYS:CE	2.55	0.54
1:AA:167:A:H2'	1:AA:168:G:O4'	2.07	0.54
1:AA:265:G:N3	17:AQ:69:LYS:HE2	2.23	0.54
1:AA:721:G:H4'	1:AA:722:G:O4'	2.08	0.54
1:AA:784:A:C2	1:AA:785:G:C4	2.96	0.54
1:AA:939:G:C2	1:AA:940:C:C4	2.95	0.54
1:AA:1181:G:N2	1:AA:1182:G:H21	2.05	0.54
2:AB:179:LEU:HB2	2:AB:181:ILE:HG23	1.89	0.54
6:AF:15:SER:O	6:AF:18:VAL:N	2.38	0.54
6:AF:98:GLU:HG2	6:AF:99:ALA:N	2.22	0.54
8:AH:86:TYR:O	8:AH:87:LYS:HB3	2.05	0.54
11:AK:92:GLY:O	11:AK:93:ARG:C	2.50	0.54
24:BA:565:C:O2'	24:BA:566:U:H5'	2.08	0.54
24:BA:588:U:H2'	24:BA:589:U:C6	2.42	0.54
24:BA:1058:U:N3	24:BA:1059:G:N7	2.54	0.54
24:BA:1218:G:C2	24:BA:1232:G:C4	2.95	0.54
24:BA:1248:G:C4	40:BQ:2:ARG:HB2	2.43	0.54
24:BA:1344:U:H5'	24:BA:1384:A:N1	2.21	0.54
24:BA:1347:A:H2'	24:BA:1348:C:H6	1.73	0.54
24:BA:1378:A:O2'	24:BA:1380:G:OP2	2.24	0.54
24:BA:1876:A:C5	24:BA:1877:A:C5	2.95	0.54
24:BA:2284:A:H3'	51:B1:5:ARG:NH1	2.22	0.54
24:BA:2428:G:H5"	24:BA:2429:G:OP1	2.07	0.54
24:BA:2485:G:O3'	36:BM:125:PRO:HB3	2.07	0.54
24:BA:2733:A:C2	24:BA:2734:A:C4	2.95	0.54
24:BA:2769:U:C2	24:BA:2770:G:C8	2.96	0.54
24:BA:2824:C:C4	24:BA:2825:G:C5	2.95	0.54
25:BB:75:G:O2'	45:BV:88:HIS:NE2	2.23	0.54
26:BC:70:LYS:HD3	26:BC:95:TYR:CD2	2.42	0.54
27:BD:38:LYS:HG3	27:BD:43:ASP:CG	2.32	0.54
27:BD:57:ALA:O	27:BD:60:VAL:HG12	2.07	0.54
29:BF:98:PHE:C	29:BF:100:GLU:N	2.64	0.54
34:BK:103:VAL:CG2	34:BK:107:LEU:CD1	2.85	0.54
37:BN:44:LEU:HA	37:BN:47:VAL:HG12	1.89	0.54
41:BR:4:VAL:HG12	41:BR:40:MET:HB3	1.88	0.54
53:B3:56:LEU:O	53:B3:57:VAL:HG23	2.07	0.54
1:CA:57:G:C5	1:CA:58:C:C4	2.95	0.54
1:CA:194:C:H5"	20:CT:60:ARG:NH1	2.22	0.54
1:CA:355:C:H2'	1:CA:356:A:C8	2.42	0.54
1:CA:509:A:C6	1:CA:510:A:C6	2.95	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:712:A:N6	1:CA:713:G:N1	2.55	0.54
1:CA:967:C:H3'	1:CA:968:A:H5"	1.89	0.54
1:CA:1216:A:C6	1:CA:1217:C:N4	2.75	0.54
1:CA:1238:A:C2	1:CA:1303:C:H4'	2.42	0.54
1:CA:1272:G:C6	1:CA:1273:C:N3	2.76	0.54
1:CA:1312:G:N7	19:CS:3:ARG:CA	2.71	0.54
1:CA:1313:U:OP2	19:CS:6:LYS:HG2	2.07	0.54
4:CD:54:GLN:O	4:CD:58:LYS:HE3	2.07	0.54
5:CE:60:ILE:O	5:CE:63:ALA:N	2.41	0.54
9:CI:53:GLU:O	9:CI:55:VAL:HG22	2.07	0.54
11:CK:27:PHE:O	11:CK:30:THR:N	2.40	0.54
12:CL:67:ILE:HD12	12:CL:72:HIS:CE1	2.42	0.54
13:CM:89:LEU:C	13:CM:91:HIS:N	2.63	0.54
19:CS:44:MET:CG	19:CS:45:ILE:H	2.21	0.54
22:CV:25:C:H2'	22:CV:26:A:H8	1.69	0.54
55:CY:7:LYS:HG3	55:CY:8:ASP:N	2.21	0.54
55:CY:20:PHE:CE2	55:CY:121:ALA:HA	2.43	0.54
24:DA:190:A:H2'	24:DA:191:A:C8	2.42	0.54
24:DA:559:G:C2'	24:DA:560:C:H5'	2.37	0.54
24:DA:1324:G:C2	24:DA:1328:A:N6	2.75	0.54
24:DA:1582:C:H3'	24:DA:1583:A:H5"	1.88	0.54
24:DA:1737:G:H2'	24:DA:1738:G:N3	2.22	0.54
24:DA:1773:A:C2'	24:DA:1774:C:H5'	2.37	0.54
24:DA:2325:G:H8	24:DA:2325:G:O5'	1.90	0.54
24:DA:2393:U:O3'	35:DL:62:PRO:HA	2.07	0.54
25:DB:75:G:H1'	45:DV:29:ILE:HG12	1.89	0.54
26:DC:263:ASP:O	26:DC:266:ILE:HG13	2.07	0.54
27:DD:17:GLU:C	27:DD:19:GLY:H	2.15	0.54
29:DF:11:VAL:HG12	29:DF:15:LEU:HD11	1.89	0.54
31:DH:108:VAL:HG22	31:DH:110:VAL:HG13	1.89	0.54
38:DO:111:ARG:NH2	38:DO:117:PHE:O	2.40	0.54
41:DR:77:PHE:HZ	41:DR:79:ARG:NE	2.06	0.54
42:DS:45:VAL:O	42:DS:48:LYS:N	2.40	0.54
51:D1:50:GLU:OE2	51:D1:52:LYS:HG3	2.07	0.54
1:AA:154:U:O2	1:AA:168:G:C2	2.60	0.54
1:AA:376:G:H5"	16:AP:5:ARG:HE	1.69	0.54
1:AA:499:A:H4'	1:AA:500:G:OP1	2.07	0.54
1:AA:572:A:C5'	1:AA:573:A:OP2	2.56	0.54
1:AA:600:A:H2'	1:AA:601:G:C8	2.42	0.54
1:AA:869:G:O6	59:AA:1816:HOH:O	2.18	0.54
1:AA:944:G:C5'	1:AA:945:G:OP2	2.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1090:U:O2	1:AA:1091:U:C6	2.59	0.54
1:AA:1361:G:C2	1:AA:1362:A:N7	2.75	0.54
3:AC:9:GLY:O	3:AC:12:LEU:HG	2.07	0.54
5:AE:81:LEU:HD21	5:AE:147:MET:HG2	1.88	0.54
5:AE:114:VAL:HG23	5:AE:115:LEU:HD13	1.88	0.54
6:AF:80:PHE:CE1	6:AF:81:ASN:HB2	2.42	0.54
9:AI:47:VAL:C	9:AI:80:ARG:NH2	2.65	0.54
12:AL:87:VAL:HG12	12:AL:93:VAL:O	2.07	0.54
20:AT:28:MET:CE	20:AT:61:GLN:HG2	2.38	0.54
21:AU:17:ARG:HA	21:AU:17:ARG:NE	2.22	0.54
21:AU:17:ARG:HA	21:AU:17:ARG:NH1	2.21	0.54
24:BA:110:G:N2	24:BA:111:A:H1'	2.22	0.54
24:BA:197:A:H2'	24:BA:198:C:H5'	1.90	0.54
24:BA:509:C:O2'	24:BA:510:C:OP1	2.24	0.54
24:BA:670:A:H3'	35:BL:43:GLY:CA	2.37	0.54
24:BA:784:G:C6	26:BC:227:VAL:HG21	2.41	0.54
24:BA:811:U:C2	24:BA:1251:C:C5	2.95	0.54
24:BA:1090:A:H2'	24:BA:1090:A:N3	2.22	0.54
24:BA:1674:G:N2	24:BA:1677:A:N1	2.55	0.54
24:BA:1708:C:HO2'	24:BA:2860:A:HO2'	1.53	0.54
24:BA:2303:G:N2	24:BA:2304:G:N3	2.55	0.54
24:BA:2617:U:H2'	24:BA:2618:G:H5'	1.89	0.54
24:BA:2815:C:O2'	50:B0:40:HIS:CD2	2.60	0.54
25:BB:45:A:C8	29:BF:91:ARG:NE	2.75	0.54
27:BD:125:TRP:CE3	27:BD:160:LYS:HB2	2.42	0.54
31:BH:110:VAL:HG12	31:BH:111:ALA:N	2.22	0.54
36:BM:2:LEU:O	36:BM:3:GLN:HB2	2.06	0.54
36:BM:54:THR:O	36:BM:56:ALA:N	2.41	0.54
42:BS:88:ARG:NH2	42:BS:88:ARG:HG2	2.21	0.54
47:BX:8:GLY:O	47:BX:9:LYS:O	2.26	0.54
49:BZ:50:VAL:HG23	49:BZ:53:MET:CG	2.37	0.54
52:B2:16:HIS:HB2	52:B2:21:ARG:NH1	2.22	0.54
1:CA:208:U:C2	1:CA:212:G:N2	2.75	0.54
1:CA:242:G:C2	1:CA:245:U:C5	2.96	0.54
1:CA:391:G:C6	1:CA:392:C:C5	2.96	0.54
1:CA:770:C:O2'	1:CA:771:G:H5'	2.08	0.54
1:CA:878:A:P	8:CH:80:ARG:HH22	2.26	0.54
1:CA:953:G:O6	1:CA:1228:C:N4	2.41	0.54
1:CA:1309:G:C6	1:CA:1329:A:N7	2.76	0.54
5:CE:106:ILE:HG13	5:CE:124:LEU:HB3	1.88	0.54
11:CK:101:ASN:OD1	11:CK:102:ALA:N	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CR:20:GLU:N	18:CR:22:ASP:O	2.40	0.54
20:CT:53:GLU:HG2	20:CT:54:MET:N	2.23	0.54
24:DA:137:U:O2	43:DT:1:MET:HE2	2.07	0.54
24:DA:139:U:C2	43:DT:1:MET:HE1	2.42	0.54
24:DA:260:G:C2	24:DA:261:G:C8	2.95	0.54
24:DA:945:A:C5	24:DA:2448:A:C2	2.96	0.54
24:DA:1536:C:H4'	24:DA:1537:G:N3	2.23	0.54
24:DA:2202:U:H5"	24:DA:2203:U:OP1	2.06	0.54
24:DA:2204:G:N2	24:DA:2205:A:H1'	2.22	0.54
24:DA:2216:G:H2'	24:DA:2217:G:C8	2.42	0.54
24:DA:2321:U:C5'	24:DA:2322:A:OP2	2.55	0.54
24:DA:2757:A:H2'	59:DA:3822:HOH:O	2.06	0.54
26:DC:50:THR:HG22	26:DC:53:ILE:HD12	1.89	0.54
26:DC:70:LYS:HD2	26:DC:95:TYR:CG	2.43	0.54
27:DD:12:THR:HG22	27:DD:13:ARG:H	1.72	0.54
30:DG:105:SER:HA	30:DG:108:PHE:HE2	1.69	0.54
33:DJ:103:ILE:HD12	33:DJ:103:ILE:O	2.07	0.54
33:DJ:119:PHE:CD1	33:DJ:119:PHE:C	2.85	0.54
38:DO:51:ALA:CB	38:DO:78:VAL:HG22	2.37	0.54
47:DX:18:SER:C	47:DX:20:ALA:N	2.64	0.54
52:D2:2:LYS:HE3	52:D2:6:GLN:CD	2.33	0.54
1:AA:257:G:C2	1:AA:270:A:C2	2.96	0.54
1:AA:409:U:O5'	4:AD:25:VAL:HG12	2.07	0.54
1:AA:474:G:C6	1:AA:475:C:C4	2.95	0.54
1:AA:596:A:N6	1:AA:645:G:C5	2.76	0.54
1:AA:889:A:C5'	1:AA:891:U:C1'	2.85	0.54
1:AA:939:G:N1	1:AA:940:C:N4	2.56	0.54
1:AA:1004:A:N1	1:AA:1005:A:C2	2.76	0.54
1:AA:1038:C:H2'	1:AA:1039:G:C8	2.43	0.54
1:AA:1077:G:N2	1:AA:1081:A:N3	2.56	0.54
1:AA:1216:A:H2'	1:AA:1217:C:C6	2.43	0.54
1:AA:1221:G:H5'	19:AS:36:ARG:HE	1.72	0.54
1:AA:1432:G:OP1	39:BP:105:LYS:HG2	2.08	0.54
2:AB:187:VAL:HG23	2:AB:191:SER:HB2	1.89	0.54
2:AB:225:ARG:O	2:AB:226:SER:CB	2.56	0.54
4:AD:187:GLU:O	4:AD:188:ARG:C	2.50	0.54
10:AJ:14:ASP:HB3	10:AJ:17:LEU:HB3	1.90	0.54
16:AP:19:VAL:HG22	16:AP:37:GLY:O	2.06	0.54
20:AT:67:ILE:CD1	20:AT:71:LYS:CE	2.84	0.54
24:BA:45:G:O3'	24:BA:46:G:O4'	2.26	0.54
24:BA:123:G:H4'	24:BA:1376:C:O5'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:327:G:H2'	24:BA:328:U:O4'	2.06	0.54
24:BA:528:A:C2	24:BA:2043:C:C4'	2.86	0.54
24:BA:590:A:H2'	24:BA:591:U:H6	1.72	0.54
24:BA:599:A:C2'	24:BA:600:G:H5'	2.38	0.54
24:BA:637:A:OP2	35:BL:128:THR:HG21	2.07	0.54
24:BA:657:U:C2	24:BA:658:U:C5	2.95	0.54
24:BA:751:A:N7	24:BA:789:A:N1	2.55	0.54
24:BA:811:U:OP1	35:BL:29:LYS:CG	2.54	0.54
24:BA:1368:G:OP1	52:B2:25:LYS:HD2	2.08	0.54
24:BA:1419:A:C5	24:BA:1579:A:C2	2.95	0.54
24:BA:1474:U:O4	24:BA:1475:G:N1	2.40	0.54
24:BA:1959:G:H2'	24:BA:1960:A:H5'	1.87	0.54
24:BA:2122:U:H2'	24:BA:2123:G:C8	2.42	0.54
24:BA:2473:U:O2	24:BA:2473:U:H2'	2.08	0.54
24:BA:2804:U:N3	24:BA:2805:C:C5	2.75	0.54
25:BB:26:C:C5	25:BB:27:C:C5	2.96	0.54
25:BB:49:C:O2	25:BB:50:A:C8	2.60	0.54
26:BC:90:ILE:O	26:BC:90:ILE:HD12	2.08	0.54
30:BG:117:PRO:HD2	30:BG:120:ILE:HG21	1.90	0.54
37:BN:97:ILE:CD1	37:BN:111:ALA:HB1	2.38	0.54
38:BO:28:VAL:O	38:BO:95:SER:OG	2.21	0.54
41:BR:49:ILE:HG13	41:BR:53:PHE:N	2.23	0.54
42:BS:68:ASP:OD1	42:BS:68:ASP:N	2.40	0.54
1:CA:188:C:H2'	1:CA:188:C:O2	2.07	0.54
1:CA:223:A:C6	1:CA:224:U:C4	2.95	0.54
1:CA:386:C:C2'	1:CA:387:U:C5'	2.84	0.54
1:CA:692:U:O2	1:CA:694:A:C8	2.60	0.54
1:CA:726:C:O2'	1:CA:727:G:H5'	2.08	0.54
1:CA:1015:G:C6	1:CA:1016:A:C6	2.95	0.54
1:CA:1062:U:C2'	1:CA:1063:C:C6	2.89	0.54
1:CA:1124:G:OP1	10:CJ:37:ARG:HA	2.07	0.54
4:CD:98:LEU:O	4:CD:99:ASP:C	2.50	0.54
4:CD:99:ASP:HA	4:CD:114:ALA:HB1	1.89	0.54
5:CE:36:LEU:HD21	5:CE:137:VAL:HG11	1.88	0.54
7:CG:116:MET:HE1	7:CG:119:ARG:NH1	2.22	0.54
12:CL:80:ILE:HD12	12:CL:97:THR:HG23	1.89	0.54
12:CL:110:ARG:NH1	12:CL:112:GLN:O	2.40	0.54
15:CO:56:LEU:HA	15:CO:59:MET:HG2	1.89	0.54
16:CP:43:ALA:HB1	16:CP:49:GLY:HA2	1.90	0.54
24:DA:322:A:OP1	28:DE:162:ARG:CG	2.56	0.54
24:DA:700:G:O2'	24:DA:1632:A:H1'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:742:A:H2'	24:DA:743:A:H8	1.70	0.54
24:DA:811:U:C4	35:DL:21:ARG:NH2	2.76	0.54
24:DA:994:C:O2	41:DR:10:LYS:HE2	2.07	0.54
24:DA:1187:G:H5"	41:DR:83:TYR:CE1	2.42	0.54
24:DA:1652:A:C2	24:DA:2006:C:N3	2.75	0.54
24:DA:1913:A:C2	24:DA:1914:C:H5"	2.43	0.54
24:DA:2314:A:C6	24:DA:2315:G:C6	2.96	0.54
24:DA:2721:A:C2	24:DA:2873:A:C5	2.95	0.54
31:DH:2:GLN:O	31:DH:3:VAL:O	2.26	0.54
31:DH:51:ARG:HG2	31:DH:52:ALA:N	2.22	0.54
40:DQ:40:LYS:CG	40:DQ:41:ALA:N	2.71	0.54
41:DR:56:GLY:O	41:DR:57:GLY:O	2.26	0.54
46:DW:30:SER:O	46:DW:31:VAL:HB	2.06	0.54
1:AA:374:A:C5	1:AA:375:U:C5	2.95	0.54
1:AA:755:G:H2'	1:AA:755:G:N3	2.21	0.54
1:AA:1084:G:OP2	1:AA:1085:U:O2'	2.21	0.54
1:AA:1142:G:C4	1:AA:1143:G:H1'	2.43	0.54
1:AA:1216:A:C2	1:AA:1217:C:C4	2.95	0.54
1:AA:1222:G:OP1	1:AA:1321:U:O2'	2.25	0.54
2:AB:54:LEU:HA	2:AB:57:LEU:HG	1.89	0.54
2:AB:115:LYS:CE	1:CA:841:C:O2'	2.56	0.54
3:AC:140:ASN:O	3:AC:141:ALA:CB	2.56	0.54
12:AL:35:THR:HG22	12:AL:36:ARG:N	2.23	0.54
12:AL:76:GLU:HG3	12:AL:77:HIS:N	2.22	0.54
15:AO:9:ALA:O	15:AO:12:VAL:HG12	2.08	0.54
18:AR:40:VAL:CG2	18:AR:41:PRO:HD2	2.37	0.54
19:AS:76:PRO:O	19:AS:78:ARG:N	2.41	0.54
24:BA:272:A:H2'	24:BA:273:G:C8	2.42	0.54
24:BA:276:U:C2	24:BA:277:G:C8	2.95	0.54
24:BA:309:A:H4'	44:BU:15:GLY:HA2	1.90	0.54
24:BA:910:A:C4	36:BM:13:HIS:CE1	2.96	0.54
24:BA:1218:G:C2	24:BA:1232:G:C5	2.96	0.54
24:BA:1342:A:C3'	24:BA:1343:G:H5"	2.37	0.54
24:BA:1445:G:H2'	24:BA:1446:C:O4'	2.07	0.54
24:BA:1716:U:C5	24:BA:1743:G:C2	2.96	0.54
24:BA:1854:A:C2'	24:BA:1855:U:H5'	2.37	0.54
24:BA:2519:U:C6	24:BA:2542:A:N6	2.75	0.54
24:BA:2753:A:C4	24:BA:2754:U:C5	2.96	0.54
26:BC:245:THR:HB	26:BC:246:PRO:HD2	1.89	0.54
27:BD:62:LYS:N	27:BD:63:PRO:HD2	2.22	0.54
37:BN:38:LEU:HB3	37:BN:39:PRO:CD	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BN:103:ARG:HD3	37:BN:110:MET:HE3	1.90	0.54
38:BO:62:LEU:CD2	38:BO:65:THR:HA	2.38	0.54
39:BP:92:ARG:O	39:BP:93:LYS:HB2	2.07	0.54
48:BY:2:LYS:C	48:BY:4:LYS:N	2.65	0.54
1:CA:393:A:C2	1:CA:394:G:C8	2.96	0.54
1:CA:552:U:C4	1:CA:553:A:N7	2.76	0.54
1:CA:570:G:H1'	1:CA:820:U:C4	2.43	0.54
1:CA:665:A:C2	1:CA:732:C:C5	2.95	0.54
1:CA:740:U:O2'	1:CA:741:G:H5'	2.08	0.54
1:CA:937:A:C5	1:CA:938:A:C8	2.96	0.54
1:CA:1211:U:H1'	1:CA:1212:U:OP2	2.07	0.54
2:CB:151:ILE:HD12	2:CB:154:MET:HG2	1.90	0.54
4:CD:3:ARG:NH1	4:CD:3:ARG:HB2	2.22	0.54
4:CD:55:LEU:HA	4:CD:58:LYS:HG2	1.89	0.54
7:CG:26:PHE:O	7:CG:27:VAL:C	2.48	0.54
11:CK:36:ASP:O	11:CK:39:GLY:N	2.40	0.54
11:CK:51:GLY:C	11:CK:52:PHE:CD1	2.86	0.54
13:CM:16:VAL:HG22	13:CM:34:LEU:HD21	1.89	0.54
14:CN:88:ALA:HA	14:CN:93:ILE:HB	1.89	0.54
15:CO:4:SER:O	15:CO:7:ALA:N	2.41	0.54
18:CR:25:ASP:O	18:CR:26:ILE:C	2.51	0.54
20:CT:28:MET:O	20:CT:32:ILE:HD12	2.07	0.54
22:CV:4:C:HO2'	22:CV:5:G:H8	1.53	0.54
22:CV:19:G:O2'	22:CV:20:U:P	2.64	0.54
55:CY:111:LYS:O	55:CY:112:ASP:C	2.51	0.54
24:DA:61:C:C2	24:DA:94:A:C2	2.95	0.54
24:DA:321:U:H4'	28:DE:162:ARG:HD2	1.89	0.54
24:DA:378:C:C2'	24:DA:379:G:H5'	2.38	0.54
24:DA:475:C:C4	24:DA:481:G:C6	2.96	0.54
24:DA:721:A:N6	24:DA:722:A:N6	2.56	0.54
24:DA:1068:G:O2'	24:DA:1069:A:H5'	2.08	0.54
24:DA:1587:G:C5	24:DA:1588:G:N7	2.76	0.54
24:DA:1629:U:O2	24:DA:2698:U:H5"	2.08	0.54
24:DA:1724:G:C6	24:DA:1725:U:C4	2.95	0.54
24:DA:2162:G:OP2	24:DA:2164:C:N4	2.36	0.54
24:DA:2282:G:H4'	24:DA:2389:G:O2'	2.08	0.54
25:DB:73:A:C4	25:DB:104:A:C2	2.95	0.54
26:DC:51:ARG:O	26:DC:52:HIS:C	2.51	0.54
26:DC:80:LEU:HD23	26:DC:91:ALA:HB2	1.90	0.54
26:DC:175:LEU:O	26:DC:178:GLY:N	2.41	0.54
27:DD:142:VAL:HB	27:DD:143:PRO:HD2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DH:77:THR:O	31:DH:78:VAL:HG23	2.08	0.54
32:DI:56:VAL:HG11	32:DI:70:THR:HA	1.88	0.54
35:DL:77:ILE:HG22	35:DL:110:VAL:CB	2.36	0.54
36:DM:74:THR:O	36:DM:74:THR:HG23	2.07	0.54
37:DN:70:THR:CG2	37:DN:71:ARG:N	2.71	0.54
38:DO:40:ILE:HD12	38:DO:41:ALA:O	2.07	0.54
39:DP:28:LYS:HA	39:DP:41:ALA:HA	1.89	0.54
47:DX:65:THR:O	47:DX:68:ALA:N	2.39	0.54
1:AA:3:A:OP1	4:AD:83:LYS:NZ	2.41	0.54
1:AA:370:C:C4	1:AA:371:A:N7	2.76	0.54
1:AA:406:G:C5	1:AA:407:U:C5	2.96	0.54
1:AA:451:A:C8	1:AA:452:A:C6	2.95	0.54
1:AA:467:U:OP1	1:AA:467:U:O4'	2.25	0.54
1:AA:501:C:H1'	1:AA:549:C:H1'	1.88	0.54
1:AA:833:G:C5	1:AA:834:U:C5	2.96	0.54
1:AA:860:A:H2'	1:AA:861:G:O4'	2.08	0.54
1:AA:976:G:N2	1:AA:1363:A:C4	2.76	0.54
1:AA:1078:U:HO2'	1:AA:1079:G:P	2.30	0.54
1:AA:1480:A:H2'	1:AA:1481:U:O4'	2.08	0.54
4:AD:73:ARG:O	4:AD:76:TYR:N	2.41	0.54
5:AE:83:HIS:CG	8:AH:96:MET:SD	3.00	0.54
6:AF:88:MET:HE1	6:AF:90:MET:HE3	1.90	0.54
24:BA:109:C:C2	24:BA:110:G:C8	2.95	0.54
24:BA:279:A:C5	24:BA:280:U:C5	2.95	0.54
24:BA:442:G:O4'	28:BE:41:GLN:NE2	2.40	0.54
24:BA:507:A:H1'	24:BA:509:C:N3	2.23	0.54
24:BA:508:A:H3'	24:BA:509:C:C5'	2.38	0.54
24:BA:932:U:H4'	24:BA:933:A:O5'	2.08	0.54
24:BA:991:C:N4	57:BA:3162:NMY:C14	2.70	0.54
24:BA:1601:G:C5	24:BA:1602:U:C4	2.96	0.54
24:BA:2185:U:C2'	24:BA:2186:G:H5'	2.38	0.54
24:BA:2488:G:C5	24:BA:2489:U:C5	2.96	0.54
24:BA:2680:U:O2'	24:BA:2681:C:P	2.65	0.54
24:BA:2815:C:HO2'	50:B0:40:HIS:CD2	2.25	0.54
29:BF:5:ASP:O	29:BF:6:TYR:C	2.51	0.54
32:BI:35:MET:O	32:BI:37:PHE:N	2.40	0.54
33:BJ:114:LEU:O	33:BJ:117:ALA:HB3	2.08	0.54
40:BQ:37:ALA:CA	40:BQ:40:LYS:HE3	2.38	0.54
50:B0:48:TYR:CE2	50:B0:49:ARG:HD2	2.42	0.54
1:CA:350:G:O2'	1:CA:351:G:H5'	2.08	0.54
1:CA:354:G:N1	1:CA:355:C:C4	2.75	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:459:A:N1	1:CA:473:U:O2	2.41	0.54
1:CA:620:C:H2'	1:CA:621:A:O4'	2.08	0.54
1:CA:673:A:H2'	1:CA:674:G:C8	2.43	0.54
1:CA:722:G:C5	1:CA:724:G:H1'	2.42	0.54
1:CA:774:G:C5	1:CA:775:G:C8	2.96	0.54
1:CA:796:C:O3'	11:CK:127:ARG:NH1	2.40	0.54
1:CA:853:C:C2	1:CA:854:U:C6	2.96	0.54
1:CA:995:C:H5'	14:CN:7:ALA:HB1	1.89	0.54
1:CA:1077:G:N1	1:CA:1081:A:C6	2.76	0.54
1:CA:1290:G:C5'	7:CG:35:LYS:HE3	2.37	0.54
1:CA:1299:A:HO2'	1:CA:1300:G:P	2.29	0.54
5:CE:74:VAL:CG2	5:CE:76:LEU:HD12	2.38	0.54
11:CK:61:PHE:O	11:CK:64:GLN:N	2.40	0.54
12:CL:65:SER:OG	12:CL:66:TYR:N	2.35	0.54
14:CN:41:ARG:HG2	14:CN:42:TRP:N	2.23	0.54
24:DA:621:A:H2'	24:DA:622:G:H5'	1.90	0.54
24:DA:792:A:C3'	24:DA:793:A:H5'	2.38	0.54
24:DA:969:G:H2'	24:DA:970:U:C6	2.42	0.54
24:DA:979:A:N6	59:DA:3590:HOH:O	2.41	0.54
24:DA:1262:A:N3	50:D0:6:LYS:NZ	2.55	0.54
24:DA:1545:A:H2'	24:DA:1546:G:O4'	2.08	0.54
24:DA:1913:A:H3'	24:DA:1913:A:N3	2.23	0.54
24:DA:2231:U:C2	24:DA:2232:C:C6	2.96	0.54
24:DA:2315:G:C1'	29:DF:124:ARG:NH2	2.70	0.54
26:DC:28:PRO:O	26:DC:33:LEU:HD21	2.08	0.54
26:DC:81:GLU:OE1	26:DC:102:TYR:CE2	2.61	0.54
31:DH:108:VAL:CG2	31:DH:110:VAL:HG13	2.38	0.54
35:DL:127:VAL:CG1	35:DL:131:ALA:HB3	2.38	0.54
37:DN:52:ILE:O	37:DN:55:ALA:HB3	2.06	0.54
44:DU:42:LYS:O	44:DU:42:LYS:HG2	2.07	0.54
45:DV:20:LEU:O	45:DV:23:ALA:O	2.26	0.54
48:DY:37:LEU:C	48:DY:37:LEU:HD12	2.33	0.54
1:AA:152:A:N6	1:AA:170:U:N3	2.56	0.54
1:AA:528:C:H5'	1:AA:529:G:OP2	2.08	0.54
1:AA:538:G:OP2	12:AL:110:ARG:NH1	2.41	0.54
1:AA:767:A:H2'	1:AA:768:A:O4'	2.08	0.54
1:AA:836:G:H2'	1:AA:837:U:O4'	2.07	0.54
1:AA:993:G:C6	1:AA:1046:A:C2	2.96	0.54
1:AA:1079:G:N2	1:AA:1080:A:C2	2.76	0.54
1:AA:1085:U:O4'	1:AA:1094:G:C6	2.61	0.54
1:AA:1149:C:H2'	1:AA:1150:A:O4'	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1187:G:H2'	1:AA:1188:A:O4'	2.07	0.54
1:AA:1233:G:OP1	9:AI:125:PRO:HB3	2.07	0.54
1:AA:1417:G:O2'	1:AA:1483:A:N6	2.40	0.54
2:AB:30:PHE:N	2:AB:30:PHE:CD1	2.75	0.54
2:AB:170:HIS:CD2	2:AB:171:ILE:N	2.75	0.54
2:AB:217:VAL:O	2:AB:221:VAL:HG12	2.07	0.54
6:AF:37:HIS:CG	6:AF:38:ARG:N	2.75	0.54
8:AH:87:LYS:O	8:AH:88:ARG:HB2	2.07	0.54
9:AI:5:GLN:O	9:AI:6:TYR:CD1	2.61	0.54
13:AM:2:ALA:N	13:AM:9:ILE:CD1	2.70	0.54
15:AO:57:LEU:C	15:AO:57:LEU:HD12	2.32	0.54
24:BA:361:G:HO2'	24:BA:362:A:C5'	2.13	0.54
24:BA:387:U:O2	24:BA:388:G:N7	2.40	0.54
24:BA:623:C:N3	24:BA:624:C:C5	2.75	0.54
24:BA:659:G:O2'	28:BE:95:LYS:CD	2.56	0.54
24:BA:810:U:OP1	35:BL:29:LYS:NZ	2.39	0.54
24:BA:1180:U:O4	24:BA:1181:U:N3	2.40	0.54
24:BA:1383:A:C2	24:BA:1384:A:N3	2.76	0.54
24:BA:1707:G:C5	24:BA:1756:G:C6	2.96	0.54
24:BA:1794:A:H2'	24:BA:1795:C:C6	2.43	0.54
24:BA:2119:A:N6	24:BA:2169:A:C5	2.76	0.54
24:BA:2302:U:C3'	24:BA:2303:G:C5'	2.86	0.54
24:BA:2482:A:H2'	24:BA:2483:C:O4'	2.08	0.54
24:BA:2529:G:H5"	24:BA:2530:A:O5'	2.06	0.54
24:BA:2654:A:C8	24:BA:2656:U:C6	2.95	0.54
24:BA:2749:A:C8	24:BA:2750:A:C8	2.96	0.54
25:BB:104:A:H2'	25:BB:105:G:O4'	2.08	0.54
27:BD:34:VAL:HG23	27:BD:48:ILE:HG12	1.90	0.54
28:BE:101:TYR:O	28:BE:105:LEU:HD12	2.07	0.54
29:BF:100:GLU:CG	29:BF:101:ARG:N	2.71	0.54
30:BG:80:GLU:OE2	30:BG:82:PHE:N	2.41	0.54
30:BG:91:VAL:O	30:BG:93:TYR:N	2.41	0.54
31:BH:114:GLU:O	31:BH:115:VAL:C	2.51	0.54
37:BN:32:GLU:HA	37:BN:115:LEU:CD1	2.37	0.54
42:BS:70:LYS:O	42:BS:107:VAL:HG23	2.07	0.54
42:BS:82:MET:HB2	42:BS:98:LYS:HB2	1.89	0.54
1:CA:20:U:C2'	1:CA:21:G:H5'	2.38	0.54
1:CA:672:U:H2'	1:CA:673:A:O5'	2.08	0.54
1:CA:673:A:O4'	18:CR:64:TYR:HE1	1.90	0.54
1:CA:782:A:N1	1:CA:801:U:N1	2.56	0.54
1:CA:927:G:OP2	1:CA:927:G:H4'	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:990:C:N3	1:CA:991:U:C4	2.76	0.54
1:CA:1012:A:C6	1:CA:1018:G:C6	2.95	0.54
1:CA:1249:C:O2'	9:CI:70:GLY:O	2.16	0.54
1:CA:1310:G:OP1	13:CM:79:ARG:NE	2.40	0.54
1:CA:1406:U:C5	1:CA:1407:C:C5	2.96	0.54
7:CG:149:LYS:HG3	11:CK:61:PHE:CE1	2.43	0.54
11:CK:24:HIS:HB3	11:CK:87:LYS:CG	2.38	0.54
18:CR:36:SER:HA	21:CU:4:ILE:HD13	1.90	0.54
19:CS:16:LEU:O	19:CS:17:LYS:C	2.51	0.54
20:CT:57:ILE:O	20:CT:58:VAL:C	2.49	0.54
24:DA:674:G:OP1	28:DE:71:GLY:HA3	2.08	0.54
24:DA:911:A:C5	36:DM:9:PHE:CE2	2.96	0.54
24:DA:1415:U:O2	24:DA:1415:U:C2'	2.55	0.54
24:DA:2607:G:H2'	24:DA:2608:G:O4'	2.08	0.54
24:DA:2824:C:N4	24:DA:2825:G:N7	2.56	0.54
26:DC:195:GLY:O	26:DC:196:ASN:C	2.51	0.54
27:DD:184:ARG:NH2	39:DP:6:GLN:OE1	2.40	0.54
41:DR:39:LEU:N	41:DR:39:LEU:HD12	2.22	0.54
43:DT:6:ARG:C	43:DT:6:ARG:HD2	2.32	0.54
44:DU:5:ARG:NH2	44:DU:6:ARG:HB2	2.23	0.54
44:DU:76:THR:OG1	44:DU:77:GLY:N	2.41	0.54
1:AA:82:G:OP2	1:AA:83:C:C5	2.61	0.54
1:AA:110:C:H2'	1:AA:111:G:O4'	2.08	0.54
1:AA:186:C:N3	1:AA:187:G:C5	2.76	0.54
1:AA:412:A:O2'	1:AA:414:A:H5'	2.08	0.54
1:AA:451:A:O4'	1:AA:452:A:C8	2.60	0.54
1:AA:623:C:C2	1:AA:624:C:C6	2.96	0.54
1:AA:877:G:O2'	8:AH:4:GLN:NE2	2.40	0.54
1:AA:889:A:C5'	1:AA:891:U:H1'	2.36	0.54
1:AA:922:G:H2'	1:AA:923:A:C8	2.43	0.54
1:AA:1005:A:C2'	1:AA:1006:G:OP1	2.55	0.54
1:AA:1108:G:H2'	1:AA:1109:C:O5'	2.08	0.54
2:AB:23:TRP:CE3	2:AB:25:PRO:HA	2.42	0.54
5:AE:81:LEU:HG	5:AE:147:MET:HG2	1.89	0.54
5:AE:147:MET:O	5:AE:148:ASN:C	2.50	0.54
8:AH:12:THR:C	8:AH:14:ILE:N	2.64	0.54
8:AH:37:ALA:C	8:AH:39:VAL:N	2.63	0.54
12:AL:43:LYS:HG2	12:AL:44:LYS:HD3	1.90	0.54
16:AP:54:LEU:O	16:AP:55:ASP:C	2.51	0.54
17:AQ:68:SER:C	17:AQ:70:THR:H	2.16	0.54
22:AV:57:G:C2'	22:AV:58:A:H5'	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:24:G:O2'	42:BS:78:GLU:O	2.25	0.54
24:BA:349:U:H2'	24:BA:350:G:C8	2.43	0.54
24:BA:515:A:C2'	24:BA:516:C:H5'	2.37	0.54
24:BA:570:G:OP1	59:BA:3776:HOH:O	2.19	0.54
24:BA:615:U:H3'	24:BA:616:A:H5'	1.89	0.54
24:BA:740:C:H5"	24:BA:1784:A:OP1	2.08	0.54
24:BA:1171:G:C6	24:BA:1172:C:C4	2.96	0.54
24:BA:1266:G:O6	42:BS:13:SER:CB	2.55	0.54
24:BA:1422:G:C2	24:BA:1423:G:C4	2.95	0.54
24:BA:1676:A:N6	24:BA:1677:A:C6	2.76	0.54
24:BA:1809:A:H2'	24:BA:1810:A:C8	2.43	0.54
24:BA:2704:C:N3	24:BA:2705:A:C2	2.75	0.54
24:BA:2804:U:C4	24:BA:2805:C:C5	2.95	0.54
25:BB:95:U:H2'	25:BB:96:G:C8	2.43	0.54
30:BG:71:LEU:O	30:BG:72:ASN:C	2.51	0.54
30:BG:108:PHE:O	30:BG:109:SER:C	2.50	0.54
31:BH:83:LYS:O	31:BH:83:LYS:CE	2.56	0.54
34:BK:113:MET:HA	34:BK:116:ILE:CD1	2.38	0.54
38:BO:33:ARG:O	38:BO:34:HIS:CB	2.55	0.54
41:BR:49:ILE:HG13	41:BR:52:PRO:CA	2.37	0.54
44:BU:35:VAL:HG13	44:BU:38:ILE:HG21	1.89	0.54
1:CA:214:C:O2'	1:CA:215:C:H5'	2.07	0.54
1:CA:451:A:H61	1:CA:481:G:H5'	1.73	0.54
1:CA:750:C:H1'	15:CO:23:GLY:H	1.73	0.54
1:CA:858:G:C5	1:CA:869:G:N7	2.76	0.54
1:CA:1118:U:O2	1:CA:1179:A:C2	2.61	0.54
1:CA:1357:A:N7	1:CA:1358:U:C4	2.76	0.54
1:CA:1476:A:H2'	1:CA:1477:U:O4'	2.08	0.54
1:CA:1521:C:C2	1:CA:1522:U:C6	2.96	0.54
3:CC:15:VAL:O	3:CC:16:LYS:HB2	2.08	0.54
3:CC:157:LEU:O	3:CC:158:GLY:C	2.50	0.54
4:CD:12:SER:OG	4:CD:18:ASP:CA	2.55	0.54
8:CH:10:MET:HA	8:CH:27:MET:HE1	1.88	0.54
12:CL:42:PRO:HD3	12:CL:48:ALA:O	2.08	0.54
13:CM:50:GLU:O	13:CM:51:GLY:C	2.50	0.54
13:CM:95:LEU:C	13:CM:109:ARG:NH2	2.65	0.54
15:CO:54:ARG:C	15:CO:56:LEU:N	2.66	0.54
20:CT:34:LYS:CG	20:CT:35:VAL:N	2.71	0.54
24:DA:445:C:C6	24:DA:445:C:H3'	2.43	0.54
24:DA:569:U:C2'	24:DA:570:G:O5'	2.56	0.54
24:DA:690:G:C4'	26:DC:216:ARG:NH2	2.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:797:G:OP1	28:DE:57:LYS:HD2	2.08	0.54
24:DA:1483:G:N7	24:DA:1484:U:C5	2.75	0.54
26:DC:42:ARG:HA	26:DC:47:ARG:O	2.07	0.54
29:DF:67:THR:N	29:DF:85:GLY:O	2.41	0.54
31:DH:122:LEU:HD23	31:DH:122:LEU:N	2.23	0.54
36:DM:36:VAL:HG22	45:DV:82:TYR:HD2	1.73	0.54
42:DS:17:VAL:CG1	42:DS:76:VAL:HG11	2.38	0.54
47:DX:35:HIS:O	47:DX:47:THR:HA	2.08	0.54
49:DZ:50:VAL:O	49:DZ:51:SER:C	2.51	0.54
1:AA:1033:G:H2'	1:AA:1033:G:N3	2.22	0.54
1:AA:1286:U:O2	1:AA:1286:U:C2'	2.55	0.54
1:AA:1454:G:N2	1:AA:1455:G:H1'	2.23	0.54
3:AC:182:ILE:CD1	3:AC:203:PHE:HB2	2.38	0.54
4:AD:200:ILE:O	4:AD:201:VAL:C	2.50	0.54
4:AD:203:LEU:CD1	4:AD:204:TYR:CE1	2.91	0.54
8:AH:30:SER:OG	8:AH:33:LYS:HB2	2.08	0.54
12:AL:40:THR:CG2	12:AL:41:THR:N	2.71	0.54
13:AM:114:LYS:CG	13:AM:115:PRO:HD3	2.38	0.54
14:AN:79:LEU:N	14:AN:79:LEU:HD23	2.23	0.54
16:AP:13:LYS:O	16:AP:15:PRO:HD3	2.08	0.54
17:AQ:12:VAL:C	17:AQ:13:VAL:HG23	2.33	0.54
18:AR:60:LYS:HD3	18:AR:63:ARG:HH11	1.73	0.54
24:BA:69:C:O2'	24:BA:70:G:H5'	2.07	0.54
24:BA:483:A:C2	24:BA:484:C:N1	2.76	0.54
24:BA:691:C:O4'	26:BC:42:ARG:NH2	2.41	0.54
24:BA:797:G:H2'	24:BA:798:G:O4'	2.08	0.54
24:BA:1040:A:H2'	24:BA:1041:G:O4'	2.08	0.54
24:BA:1181:U:H2'	24:BA:1182:G:C8	2.42	0.54
24:BA:1205:A:C6	28:BE:165:HIS:CD2	2.96	0.54
24:BA:2278:A:OP1	36:BM:10:ARG:CD	2.56	0.54
24:BA:2345:G:C5	24:BA:2381:A:C2	2.96	0.54
24:BA:2599:G:N7	26:BC:235:GLU:CG	2.71	0.54
24:BA:2643:G:N2	24:BA:2772:C:C2	2.76	0.54
24:BA:2654:A:O4'	24:BA:2656:U:C6	2.61	0.54
25:BB:33:G:N3	25:BB:50:A:C2	2.76	0.54
25:BB:85:G:C2	25:BB:92:C:C2	2.96	0.54
26:BC:16:VAL:O	26:BC:202:ARG:HA	2.08	0.54
28:BE:128:ALA:O	28:BE:130:LYS:N	2.40	0.54
29:BF:3:LEU:HA	29:BF:6:TYR:HB2	1.90	0.54
32:BI:42:ASN:HA	32:BI:45:THR:HB	1.90	0.54
33:BJ:100:VAL:CG1	33:BJ:101:ILE:N	2.70	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BL:93:ASN:HB2	35:BL:96:LYS:HB2	1.90	0.54
41:BR:48:LYS:HG2	41:BR:49:ILE:N	2.22	0.54
47:BX:46:VAL:HG23	47:BX:47:THR:N	2.23	0.54
49:BZ:26:LEU:HB2	49:BZ:28:LEU:HD13	1.90	0.54
1:CA:519:C:O3'	55:CY:80:LYS:NZ	2.41	0.54
1:CA:633:G:H2'	1:CA:634:C:H6	1.72	0.54
1:CA:676:A:C6	1:CA:677:U:O4	2.61	0.54
1:CA:760:G:C8	1:CA:761:G:C8	2.96	0.54
1:CA:771:G:N3	1:CA:809:G:C2	2.76	0.54
1:CA:987:G:N2	1:CA:1219:A:C2	2.76	0.54
1:CA:1111:A:N1	3:CC:177:THR:HB	2.23	0.54
1:CA:1215:G:H2'	1:CA:1216:A:H5'	1.90	0.54
1:CA:1223:C:O5'	1:CA:1224:U:H5"	2.08	0.54
1:CA:1446:A:H2'	1:CA:1447:A:H5'	1.90	0.54
2:CB:21:ARG:NH2	2:CB:37:LYS:O	2.41	0.54
4:CD:78:GLU:O	4:CD:81:ARG:HB3	2.08	0.54
5:CE:111:MET:SD	5:CE:140:THR:HG21	2.47	0.54
13:CM:75:MET:SD	29:DF:111:ARG:NE	2.80	0.54
18:CR:42:SER:HA	18:CR:45:THR:CG2	2.38	0.54
20:CT:57:ILE:C	20:CT:59:ASP:N	2.64	0.54
55:CY:27:ILE:C	55:CY:27:ILE:HD12	2.33	0.54
24:DA:382:A:C2	24:DA:383:C:H1'	2.43	0.54
24:DA:445:C:O2'	24:DA:446:G:P	2.67	0.54
24:DA:660:C:C2'	24:DA:661:A:H5'	2.38	0.54
24:DA:665:U:H2'	24:DA:666:A:H5'	1.90	0.54
24:DA:1569:A:O2'	24:DA:1570:A:H5'	2.08	0.54
24:DA:1686:C:C2'	24:DA:1687:G:H5'	2.38	0.54
24:DA:1715:G:O2'	24:DA:1716:U:OP2	2.25	0.54
24:DA:2107:G:O2'	24:DA:2108:A:O5'	2.26	0.54
24:DA:2753:A:H2'	24:DA:2754:U:O5'	2.08	0.54
27:DD:104:VAL:O	27:DD:105:LYS:CB	2.56	0.54
28:DE:129:PRO:HB3	28:DE:159:LEU:CD1	2.38	0.54
31:DH:100:ALA:O	31:DH:104:THR:HG23	2.07	0.54
36:DM:69:PRO:O	36:DM:70:ASP:OD1	2.26	0.54
40:DQ:57:ARG:HA	40:DQ:60:TRP:CE3	2.43	0.54
42:DS:6:LYS:HD3	42:DS:104:THR:HG23	1.90	0.54
42:DS:84:ARG:CB	42:DS:96:ILE:HG22	2.35	0.54
43:DT:73:ARG:NH2	43:DT:73:ARG:HB2	2.23	0.54
1:AA:131:A:C2	1:AA:132:C:C4	2.95	0.53
1:AA:293:G:C4	1:AA:294:U:C6	2.96	0.53
1:AA:392:C:N3	1:AA:393:A:C8	2.77	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:457:G:N2	1:AA:476:U:N3	2.55	0.53
1:AA:496:A:H2'	1:AA:497:G:N7	2.23	0.53
1:AA:560:A:H5"	1:AA:566:G:N2	2.21	0.53
1:AA:938:A:C6	1:AA:939:G:C5	2.96	0.53
1:AA:943:U:C2'	1:AA:944:G:H5'	2.38	0.53
1:AA:1426:G:N1	1:AA:1427:C:O2	2.41	0.53
2:AB:23:TRP:CZ3	2:AB:25:PRO:HB3	2.43	0.53
8:AH:64:LYS:HE3	8:AH:66:PHE:CZ	2.43	0.53
8:AH:95:VAL:O	8:AH:96:MET:HB2	2.08	0.53
9:AI:52:LEU:HD11	9:AI:57:MET:SD	2.48	0.53
9:AI:78:ALA:O	9:AI:79:ILE:C	2.51	0.53
9:AI:130:ARG:HH21	22:AV:35:A:P	2.31	0.53
11:AK:125:LYS:O	21:AU:34:ARG:NH2	2.40	0.53
14:AN:88:ALA:N	14:AN:93:ILE:CD1	2.71	0.53
21:AU:26:ALA:O	21:AU:27:GLY:C	2.51	0.53
22:AV:40:C:C2	22:AV:41:C:C5	2.96	0.53
24:BA:364:C:C4	24:BA:365:U:C4	2.96	0.53
24:BA:368:A:H2'	24:BA:369:U:H5'	1.90	0.53
24:BA:391:A:C2	24:BA:392:U:C1'	2.92	0.53
24:BA:533:G:H4'	40:BQ:40:LYS:NZ	2.23	0.53
24:BA:565:C:C2'	24:BA:566:U:H5'	2.39	0.53
24:BA:726:G:HO2'	24:BA:727:A:P	2.29	0.53
24:BA:768:G:C5	24:BA:769:U:C5	2.96	0.53
24:BA:1387:A:O4'	24:BA:1469:A:H1'	2.08	0.53
24:BA:1454:C:O2	37:BN:64:ARG:NH2	2.41	0.53
24:BA:1562:U:N3	24:BA:1563:U:C6	2.77	0.53
24:BA:2671:G:C6	24:BA:2672:U:C4	2.96	0.53
25:BB:15:A:C5	25:BB:109:A:N1	2.76	0.53
25:BB:66:A:C6	25:BB:108:A:C5	2.95	0.53
26:BC:13:ARG:HD3	26:BC:14:HIS:CE1	2.43	0.53
27:BD:25:THR:CG2	27:BD:189:VAL:HG23	2.38	0.53
27:BD:125:TRP:CE3	27:BD:160:LYS:CB	2.92	0.53
29:BF:93:GLU:C	29:BF:95:MET:H	2.14	0.53
34:BK:61:VAL:HG11	34:BK:112:PHE:CE1	2.43	0.53
35:BL:23:ILE:O	35:BL:26:GLY:N	2.41	0.53
36:BM:41:LEU:HD21	36:BM:125:PRO:HD2	1.90	0.53
39:BP:83:ILE:O	39:BP:84:SER:CB	2.56	0.53
41:BR:80:ARG:O	41:BR:80:ARG:CG	2.55	0.53
43:BT:34:VAL:HG22	43:BT:81:LYS:HB3	1.90	0.53
43:BT:35:ALA:O	43:BT:38:ALA:N	2.41	0.53
48:BY:46:VAL:O	48:BY:49:ASP:N	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:63:C:C2'	1:CA:64:G:C5'	2.86	0.53
1:CA:94:G:N1	1:CA:98:A:C2	2.75	0.53
1:CA:245:U:H2'	1:CA:246:A:H5'	1.91	0.53
1:CA:295:C:C4	1:CA:296:U:C4	2.96	0.53
1:CA:429:U:H5	1:CA:431:A:N7	2.06	0.53
1:CA:559:A:H4'	1:CA:560:A:H3'	1.89	0.53
1:CA:730:G:C5	1:CA:731:G:H1'	2.43	0.53
1:CA:761:G:C5	1:CA:762:U:C5	2.96	0.53
1:CA:787:A:C4	1:CA:788:U:C6	2.97	0.53
1:CA:979:C:OP2	1:CA:980:C:C5	2.60	0.53
1:CA:1125:U:C4	10:CJ:40:ILE:CD1	2.91	0.53
1:CA:1190:G:OP1	3:CC:5:VAL:HG12	2.07	0.53
1:CA:1216:A:C2	1:CA:1217:C:C4	2.95	0.53
3:CC:39:VAL:O	3:CC:40:ARG:C	2.51	0.53
3:CC:140:ASN:O	3:CC:141:ALA:CB	2.56	0.53
4:CD:170:TRP:O	4:CD:182:PHE:HA	2.08	0.53
5:CE:25:VAL:O	5:CE:26:LYS:C	2.51	0.53
12:CL:57:LEU:CD1	12:CL:59:ASN:OD1	2.56	0.53
12:CL:90:LEU:O	12:CL:90:LEU:HD22	2.08	0.53
13:CM:75:MET:SD	29:DF:111:ARG:CB	2.96	0.53
19:CS:42:PRO:O	19:CS:43:ASN:OD1	2.24	0.53
21:CU:6:VAL:HG21	21:CU:17:ARG:HD3	1.89	0.53
22:CV:5:G:C2	22:CV:69:G:C6	2.96	0.53
24:DA:1026:G:OP1	59:DA:3710:HOH:O	2.18	0.53
24:DA:1553:A:N1	24:DA:1555:G:H1'	2.23	0.53
24:DA:2001:C:O4'	24:DA:2689:U:C5	2.61	0.53
24:DA:2531:A:C2	24:DA:2532:G:H1'	2.43	0.53
27:DD:133:THR:HG23	27:DD:134:HIS:N	2.23	0.53
29:DF:73:VAL:O	29:DF:73:VAL:HG23	2.07	0.53
34:DK:70:ARG:HD2	34:DK:76:VAL:HG23	1.90	0.53
48:DY:1:MET:O	48:DY:2:LYS:C	2.51	0.53
1:AA:403:C:H2'	1:AA:404:G:C5'	2.38	0.53
1:AA:660:C:H2'	1:AA:661:G:O4'	2.08	0.53
1:AA:780:A:H5"	11:AK:125:LYS:HG2	1.90	0.53
1:AA:872:A:C4	1:AA:874:G:C8	2.97	0.53
1:AA:1015:G:C6	1:AA:1016:A:C6	2.96	0.53
1:AA:1057:G:H2'	1:AA:1058:G:O4'	2.07	0.53
1:AA:1092:A:H2'	1:AA:1093:A:C8	2.43	0.53
1:AA:1097:C:C2	1:AA:1098:C:C6	2.95	0.53
1:AA:1160:G:OP1	2:AB:132:LYS:CE	2.57	0.53
1:AA:1307:U:C2'	1:AA:1308:U:O5'	2.56	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1439:G:H2'	1:AA:1440:U:C6	2.43	0.53
2:AB:67:ILE:O	2:AB:161:LEU:HA	2.08	0.53
4:AD:25:VAL:HG23	4:AD:26:ARG:N	2.22	0.53
9:AI:84:THR:O	9:AI:87:LEU:CD2	2.55	0.53
11:AK:128:ARG:C	11:AK:129:VAL:CG2	2.81	0.53
24:BA:231:A:H2'	24:BA:232:G:C8	2.43	0.53
24:BA:378:C:C2'	24:BA:379:G:H5"	2.37	0.53
24:BA:404:A:C2	24:BA:406:G:C6	2.95	0.53
24:BA:627:A:C6	24:BA:637:A:C8	2.96	0.53
24:BA:668:A:C6	24:BA:670:A:C4	2.96	0.53
24:BA:1041:G:C2	24:BA:1115:G:N1	2.77	0.53
24:BA:1139:G:OP1	33:BJ:103:ILE:HD11	2.07	0.53
24:BA:1432:G:N2	24:BA:1433:A:N3	2.56	0.53
24:BA:1587:G:C5	24:BA:1588:G:C5	2.96	0.53
24:BA:1789:A:OP1	26:BC:220:ARG:HG2	2.08	0.53
24:BA:2141:G:N2	24:BA:2150:C:N3	2.52	0.53
24:BA:2307:G:N2	24:BA:2311:A:C8	2.76	0.53
24:BA:2418:A:H2'	24:BA:2419:U:O4'	2.07	0.53
24:BA:2657:A:H2'	24:BA:2658:C:H5'	1.89	0.53
24:BA:2666:C:C5	24:BA:2667:C:C5	2.96	0.53
24:BA:2746:U:C4'	30:BG:138:GLN:HA	2.38	0.53
28:BE:63:LYS:HB2	28:BE:63:LYS:NZ	2.23	0.53
28:BE:82:GLY:C	28:BE:84:THR:N	2.66	0.53
30:BG:147:LEU:HD12	30:BG:148:ARG:N	2.22	0.53
34:BK:111:LYS:HG3	34:BK:112:PHE:CE2	2.43	0.53
39:BP:96:LEU:C	39:BP:98:TYR:N	2.65	0.53
42:BS:53:SER:O	42:BS:57:ASN:N	2.41	0.53
46:BW:17:GLU:O	46:BW:19:LYS:NZ	2.41	0.53
47:BX:20:ALA:O	47:BX:21:LEU:HB2	2.08	0.53
53:B3:30:HIS:HA	53:B3:32:LEU:HD13	1.89	0.53
1:CA:68:G:C6	1:CA:69:G:H1'	2.43	0.53
1:CA:79:G:H2'	1:CA:80:A:C8	2.44	0.53
1:CA:284:C:H2'	1:CA:285:C:C6	2.43	0.53
1:CA:328:C:C2'	1:CA:328:C:O2	2.57	0.53
1:CA:419:C:C4	1:CA:420:U:C5	2.96	0.53
1:CA:444:G:N2	1:CA:445:G:C4	2.76	0.53
1:CA:455:G:N2	1:CA:478:A:C6	2.76	0.53
1:CA:700:G:O4'	1:CA:704:A:H1'	2.08	0.53
1:CA:711:G:O2'	1:CA:712:A:P	2.63	0.53
1:CA:929:G:C2	1:CA:1389:C:C2	2.95	0.53
1:CA:1099:G:N1	1:CA:1100:C:O2	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1332:A:H2'	1:CA:1333:A:C5'	2.38	0.53
2:CB:72:THR:O	2:CB:73:LYS:HB3	2.08	0.53
2:CB:104:TRP:O	2:CB:108:ARG:HB2	2.08	0.53
4:CD:56:ARG:HA	4:CD:60:LYS:HG2	1.90	0.53
4:CD:91:LEU:HA	4:CD:94:LEU:CD1	2.39	0.53
4:CD:143:VAL:HG22	4:CD:144:SER:N	2.23	0.53
5:CE:133:PRO:C	5:CE:135:ASN:H	2.17	0.53
12:CL:32:GLY:HA3	12:CL:57:LEU:HB3	1.90	0.53
13:CM:41:GLU:HG3	13:CM:42:ASP:N	2.22	0.53
14:CN:20:PHE:O	14:CN:21:ALA:CB	2.56	0.53
14:CN:35:ALA:HB2	14:CN:41:ARG:HB3	1.90	0.53
15:CO:10:LYS:O	15:CO:11:ILE:C	2.51	0.53
20:CT:31:PHE:O	20:CT:32:ILE:C	2.51	0.53
24:DA:84:A:N3	24:DA:85:G:H1'	2.23	0.53
24:DA:145:C:H2'	24:DA:146:A:C8	2.43	0.53
24:DA:397:U:OP2	47:DX:9:LYS:HE2	2.08	0.53
24:DA:416:U:C5	24:DA:417:C:C5	2.97	0.53
24:DA:1076:C:H2'	24:DA:1077:A:C1'	2.39	0.53
24:DA:1177:G:H2'	24:DA:1178:C:O4'	2.07	0.53
24:DA:1239:G:N7	57:DA:3190:NMY:H61	2.23	0.53
24:DA:2204:G:H21	24:DA:2205:A:C1'	2.21	0.53
24:DA:2241:A:N6	59:DA:3500:HOH:O	2.40	0.53
24:DA:2314:A:C5	24:DA:2315:G:N7	2.76	0.53
24:DA:2403:C:H2'	24:DA:2403:C:O2	2.06	0.53
24:DA:2419:U:H2'	24:DA:2420:C:C6	2.43	0.53
26:DC:86:ARG:HH11	26:DC:86:ARG:CG	2.21	0.53
26:DC:256:THR:O	26:DC:256:THR:OG1	2.24	0.53
27:DD:38:LYS:CE	27:DD:45:TYR:OH	2.56	0.53
29:DF:136:ILE:N	29:DF:136:ILE:CD1	2.71	0.53
31:DH:134:VAL:HG13	31:DH:135:HIS:N	2.22	0.53
33:DJ:119:PHE:CD1	33:DJ:119:PHE:O	2.61	0.53
34:DK:111:LYS:C	34:DK:114:LYS:NZ	2.66	0.53
35:DL:78:ARG:HB3	35:DL:113:ALA:HB3	1.90	0.53
37:DN:13:ASN:C	37:DN:15:SER:N	2.65	0.53
40:DQ:34:ALA:O	40:DQ:37:ALA:O	2.25	0.53
40:DQ:65:ASN:OD1	40:DQ:69:ARG:NE	2.38	0.53
40:DQ:87:VAL:HG23	41:DR:49:ILE:CG2	2.36	0.53
40:DQ:91:ARG:C	40:DQ:93:ILE:N	2.62	0.53
44:DU:17:ASP:O	44:DU:18:LYS:C	2.51	0.53
44:DU:32:LYS:NZ	44:DU:64:ILE:C	2.58	0.53
1:AA:37:U:OP1	12:AL:121:ARG:N	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:114:U:H2'	1:AA:115:G:O5'	2.06	0.53
1:AA:198:G:C4	1:AA:199:A:C8	2.96	0.53
1:AA:342:C:C4	1:AA:343:U:C5	2.96	0.53
1:AA:575:G:O2'	1:AA:821:G:OP2	2.26	0.53
1:AA:610:U:O4	1:AA:611:C:N4	2.41	0.53
1:AA:958:A:N1	1:AA:959:A:C2	2.76	0.53
1:AA:1002:G:C2	1:AA:1039:G:C6	2.97	0.53
1:AA:1185:G:C6	1:AA:1186:G:C5	2.96	0.53
1:AA:1224:U:N3	1:AA:1322:C:O2	2.41	0.53
1:AA:1361:G:C6	1:AA:1362:A:C8	2.96	0.53
1:AA:1494:G:C8	24:BA:1913:A:C5	2.97	0.53
4:AD:11:LEU:HG	4:AD:63:ARG:HD2	1.91	0.53
4:AD:32:CYS:O	4:AD:33:LYS:HB3	2.08	0.53
5:AE:80:THR:HG22	5:AE:122:ASN:OD1	2.07	0.53
5:AE:94:VAL:HG12	5:AE:95:PHE:N	2.22	0.53
7:AG:122:ASN:O	7:AG:124:LEU:N	2.41	0.53
12:AL:119:VAL:HG12	12:AL:120:LYS:O	2.09	0.53
14:AN:48:LEU:HD12	14:AN:49:GLN:OE1	2.09	0.53
14:AN:48:LEU:CD1	14:AN:49:GLN:OE1	2.55	0.53
15:AO:64:ARG:HD3	15:AO:67:LEU:HD22	1.90	0.53
20:AT:3:ASN:CG	20:AT:4:ILE:N	2.66	0.53
20:AT:28:MET:HE2	20:AT:61:GLN:CB	2.39	0.53
20:AT:35:VAL:HG12	20:AT:36:TYR:N	2.23	0.53
22:AV:6:G:C6	22:AV:7:A:C6	2.96	0.53
23:AX:8:U:H3'	23:AX:9:A:H5"	1.90	0.53
24:BA:620:G:H4'	24:BA:621:A:O5'	2.09	0.53
24:BA:663:G:OP1	35:BL:17:LYS:CB	2.56	0.53
24:BA:710:U:H2'	24:BA:711:G:C8	2.43	0.53
24:BA:1045:C:O2	24:BA:1047:G:N1	2.40	0.53
24:BA:1693:U:H4'	24:BA:1694:C:OP2	2.09	0.53
24:BA:1863:G:C2	24:BA:1880:U:O2	2.61	0.53
24:BA:1916:A:H2'	24:BA:1917:U:O4'	2.08	0.53
24:BA:2117:A:C2	24:BA:2171:A:N1	2.77	0.53
24:BA:2119:A:C6	24:BA:2169:A:C5	2.97	0.53
24:BA:2133:G:C6	24:BA:2157:G:N7	2.77	0.53
24:BA:2246:G:H1'	24:BA:2426:A:C2	2.43	0.53
24:BA:2771:C:H2'	24:BA:2772:C:C6	2.44	0.53
27:BD:104:VAL:O	27:BD:105:LYS:CB	2.56	0.53
28:BE:146:VAL:CG2	28:BE:147:LEU:N	2.71	0.53
35:BL:42:SER:O	35:BL:43:GLY:C	2.51	0.53
41:BR:45:GLU:O	41:BR:46:GLU:HG3	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BS:4:ILE:HD12	42:BS:5:ALA:N	2.24	0.53
43:BT:30:ILE:C	43:BT:31:VAL:HG22	2.33	0.53
1:CA:64:G:C8	1:CA:99:C:N4	2.77	0.53
1:CA:346:G:N7	39:DP:36:LYS:NZ	2.51	0.53
1:CA:374:A:O4'	1:CA:481:G:N2	2.42	0.53
1:CA:760:G:N7	1:CA:761:G:C8	2.76	0.53
1:CA:814:A:C8	1:CA:816:A:C8	2.96	0.53
1:CA:1321:U:O2	19:CS:36:ARG:CZ	2.56	0.53
1:CA:1332:A:N6	1:CA:1333:A:N1	2.55	0.53
1:CA:1332:A:N3	1:CA:1332:A:H5'	2.23	0.53
1:CA:1408:A:C2	1:CA:1494:G:C6	2.96	0.53
1:CA:1416:G:C2'	1:CA:1417:G:H5'	2.38	0.53
2:CB:102:THR:HG22	2:CB:103:ASN:N	2.24	0.53
3:CC:37:PHE:CE2	3:CC:41:GLN:NE2	2.76	0.53
7:CG:127:ALA:O	7:CG:129:GLU:N	2.41	0.53
9:CI:30:ILE:O	9:CI:32:GLN:N	2.41	0.53
9:CI:79:ILE:O	9:CI:81:HIS:N	2.41	0.53
11:CK:47:ALA:C	11:CK:57:LYS:HE2	2.32	0.53
13:CM:87:ARG:CZ	13:CM:97:VAL:HG21	2.38	0.53
15:CO:36:ILE:CG2	15:CO:37:ASN:N	2.70	0.53
15:CO:53:ARG:O	15:CO:56:LEU:HB3	2.09	0.53
16:CP:61:VAL:O	16:CP:63:GLN:N	2.42	0.53
21:CU:37:PHE:CG	21:CU:38:TYR:N	2.76	0.53
55:CY:153:ASP:O	55:CY:155:ARG:N	2.42	0.53
24:DA:320:A:H4'	24:DA:322:A:C8	2.44	0.53
24:DA:819:A:C4	24:DA:820:A:C8	2.97	0.53
24:DA:960:A:H5"	24:DA:961:C:OP1	2.08	0.53
24:DA:1163:G:N7	57:DA:3188:NMY:H232	2.24	0.53
24:DA:1959:G:H2'	24:DA:1960:A:O4'	2.08	0.53
24:DA:2683:C:H4'	27:DD:13:ARG:NH1	2.23	0.53
29:DF:73:VAL:CG2	29:DF:78:ILE:HD11	2.39	0.53
37:DN:108:ALA:HB3	37:DN:110:MET:CE	2.38	0.53
39:DP:1:SER:O	39:DP:5:LYS:HG2	2.07	0.53
39:DP:25:VAL:O	39:DP:43:GLU:HA	2.08	0.53
48:DY:6:LEU:CD1	48:DY:56:LEU:HD22	2.38	0.53
1:AA:59:A:N1	1:AA:331:G:N3	2.56	0.53
1:AA:68:G:C6	1:AA:69:G:H1'	2.42	0.53
1:AA:367:U:O2	1:AA:394:G:C2	2.61	0.53
1:AA:367:U:O2	1:AA:367:U:O4'	2.21	0.53
1:AA:414:A:C5	1:AA:431:A:C2	2.95	0.53
1:AA:719:C:H3'	1:AA:720:C:C6	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:881:G:C5	1:AA:882:C:C5	2.97	0.53
1:AA:1304:G:C5	1:AA:1305:G:C2	2.97	0.53
1:AA:1333:A:C8	1:AA:1334:G:C8	2.96	0.53
2:AB:111:ILE:O	2:AB:112:LYS:C	2.52	0.53
2:AB:163:VAL:HG11	2:AB:185:ALA:HB1	1.90	0.53
4:AD:57:GLU:O	4:AD:61:VAL:HG13	2.09	0.53
5:AE:81:LEU:CG	5:AE:147:MET:HG2	2.38	0.53
7:AG:63:GLU:O	7:AG:63:GLU:CD	2.51	0.53
7:AG:115:SER:O	7:AG:117:ALA:N	2.41	0.53
9:AI:54:LEU:O	9:AI:55:VAL:CB	2.56	0.53
11:AK:35:THR:HB	11:AK:39:GLY:O	2.08	0.53
13:AM:84:GLY:O	13:AM:85:CYS:SG	2.67	0.53
16:AP:42:ILE:O	16:AP:43:ALA:C	2.50	0.53
20:AT:59:ASP:O	20:AT:62:ALA:HB3	2.08	0.53
24:BA:126:A:C6	24:BA:127:A:C2	2.96	0.53
24:BA:407:G:N2	24:BA:421:C:C2	2.76	0.53
24:BA:654:A:P	24:BA:654:A:O4'	2.67	0.53
24:BA:848:C:N4	24:BA:849:A:N6	2.55	0.53
24:BA:1021:A:H2'	24:BA:1021:A:N3	2.23	0.53
24:BA:1346:G:O2'	24:BA:1347:A:O5'	2.27	0.53
24:BA:1464:G:H2'	24:BA:1465:G:C8	2.44	0.53
24:BA:1509:A:O2'	24:BA:1510:G:P	2.67	0.53
24:BA:1786:A:C6	24:BA:1938:A:C2	2.97	0.53
24:BA:1841:U:C2	24:BA:1842:G:C8	2.96	0.53
24:BA:1943:U:H4'	24:BA:1944:U:OP1	2.08	0.53
24:BA:2015:A:C2	50:B0:2:VAL:HG23	2.42	0.53
24:BA:2190:G:H2'	24:BA:2190:G:N3	2.22	0.53
24:BA:2413:G:H2'	24:BA:2414:G:H5'	1.89	0.53
24:BA:2547:A:H2'	24:BA:2548:U:C6	2.43	0.53
24:BA:2725:A:C4	24:BA:2727:A:C8	2.97	0.53
25:BB:78:A:N6	25:BB:98:G:O2'	2.41	0.53
28:BE:8:ALA:O	28:BE:9:GLN:C	2.50	0.53
28:BE:30:GLN:OE1	28:BE:95:LYS:CE	2.57	0.53
29:BF:27:VAL:HG23	29:BF:28:PRO:HD2	1.89	0.53
39:BP:58:PHE:N	39:BP:58:PHE:HD1	2.06	0.53
43:BT:17:SER:O	43:BT:18:GLU:C	2.50	0.53
43:BT:63:VAL:HG21	43:BT:80:TRP:CE2	2.44	0.53
45:BV:63:ILE:O	45:BV:69:GLU:HA	2.07	0.53
45:BV:65:VAL:O	45:BV:65:VAL:HG23	2.07	0.53
1:CA:254:G:OP1	17:CQ:70:THR:CG2	2.56	0.53
1:CA:448:A:C5	1:CA:487:A:C2	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:545:C:C2'	1:CA:546:A:H5'	2.38	0.53
1:CA:613:C:P	4:CD:81:ARG:CZ	2.96	0.53
1:CA:680:C:C2	1:CA:711:G:N1	2.76	0.53
1:CA:793:U:O2	1:CA:1516:G:H4'	2.08	0.53
1:CA:829:G:H2'	1:CA:830:G:H5'	1.88	0.53
1:CA:966:G:H2'	9:CI:129:LYS:CE	2.38	0.53
1:CA:1309:G:C1'	1:CA:1329:A:C2	2.91	0.53
2:CB:15:HIS:C	2:CB:16:PHE:CG	2.86	0.53
2:CB:43:LEU:HD13	2:CB:46:THR:HG21	1.91	0.53
2:CB:90:PHE:N	2:CB:90:PHE:HD1	2.06	0.53
3:CC:42:TYR:HA	3:CC:45:LYS:HD3	1.91	0.53
4:CD:118:VAL:O	4:CD:131:ASN:HA	2.07	0.53
6:CF:5:GLU:O	6:CF:6:ILE:HG13	2.08	0.53
9:CI:124:ARG:HB3	9:CI:124:ARG:CZ	2.37	0.53
14:CN:81:ARG:O	14:CN:82:ILE:C	2.51	0.53
15:CO:61:SER:O	15:CO:65:LYS:CB	2.57	0.53
16:CP:48:GLU:HG3	16:CP:49:GLY:N	2.24	0.53
55:CY:116:ILE:N	55:CY:116:ILE:HD13	2.22	0.53
24:DA:80:G:C2	24:DA:81:G:C8	2.96	0.53
24:DA:280:U:O4	24:DA:281:C:N4	2.42	0.53
24:DA:683:U:C2	24:DA:684:G:C8	2.97	0.53
24:DA:788:A:H5"	59:DA:3761:HOH:O	2.08	0.53
24:DA:825:A:H2'	24:DA:826:U:C6	2.44	0.53
24:DA:940:G:H3'	24:DA:941:A:H5"	1.90	0.53
24:DA:1066:U:C4	24:DA:1069:A:OP2	2.62	0.53
24:DA:1322:A:O3'	42:DS:84:ARG:NH2	2.41	0.53
24:DA:1639:C:O2'	24:DA:2699:C:H4'	2.08	0.53
24:DA:1906:G:H2'	24:DA:1907:G:O5'	2.09	0.53
24:DA:2204:G:N2	24:DA:2205:A:N9	2.56	0.53
24:DA:2230:G:H2'	24:DA:2231:U:H6	1.73	0.53
27:DD:24:VAL:HA	27:DD:189:VAL:O	2.09	0.53
28:DE:74:LYS:O	28:DE:75:SER:C	2.50	0.53
31:DH:120:GLY:C	31:DH:122:LEU:N	2.57	0.53
35:DL:79:LEU:CD1	35:DL:111:ILE:O	2.55	0.53
36:DM:73:ILE:N	36:DM:73:ILE:HD12	2.24	0.53
39:DP:114:ASN:ND2	39:DP:114:ASN:O	2.41	0.53
40:DQ:71:ASN:OD1	40:DQ:106:THR:HG23	2.09	0.53
43:DT:44:LYS:HG3	43:DT:55:VAL:CG2	2.38	0.53
43:DT:59:ASN:N	43:DT:59:ASN:OD1	2.40	0.53
54:D4:25:VAL:CG1	54:D4:33:HIS:O	2.57	0.53
1:AA:43:C:C2	1:AA:44:A:C8	2.97	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:44:A:H2'	1:AA:45:G:H5'	1.91	0.53
1:AA:834:U:H2'	1:AA:835:U:C6	2.43	0.53
1:AA:1130:A:C2	1:AA:1146:A:N7	2.77	0.53
1:AA:1315:U:C5	1:AA:1316:G:C6	2.96	0.53
1:AA:1438:G:H2'	1:AA:1439:G:O5'	2.08	0.53
2:AB:119:THR:O	2:AB:120:GLN:HB3	2.09	0.53
5:AE:84:PRO:O	5:AE:86:LYS:NZ	2.42	0.53
5:AE:103:THR:OG1	5:AE:104:GLY:N	2.40	0.53
5:AE:111:MET:HE2	5:AE:125:ALA:CB	2.39	0.53
8:AH:89:LYS:HA	8:AH:92:LEU:HD13	1.89	0.53
9:AI:87:LEU:HD12	9:AI:88:MET:N	2.22	0.53
11:AK:25:ALA:HA	11:AK:30:THR:HG22	1.91	0.53
13:AM:86:TYR:N	19:AS:73:GLU:HB2	2.23	0.53
19:AS:80:TYR:CD1	19:AS:81:ARG:N	2.76	0.53
21:AU:15:ALA:O	21:AU:16:LEU:HD12	2.08	0.53
24:BA:85:G:OP1	44:BU:5:ARG:HG2	2.08	0.53
24:BA:532:A:H1'	24:BA:2021:C:H5	1.73	0.53
24:BA:572:A:O3'	24:BA:573:U:C4'	2.57	0.53
24:BA:608:A:C6	24:BA:609:A:N6	2.77	0.53
24:BA:1001:A:H2'	24:BA:1002:G:O4'	2.08	0.53
24:BA:1589:U:C5	24:BA:1590:A:N7	2.77	0.53
24:BA:1603:A:C3'	24:BA:1604:C:H5'	2.38	0.53
24:BA:1944:U:C5	24:BA:1955:U:C2	2.97	0.53
24:BA:2667:C:C2	24:BA:2668:G:C8	2.97	0.53
24:BA:2773:C:O2'	24:BA:2774:C:H5'	2.09	0.53
27:BD:141:ARG:O	27:BD:142:VAL:O	2.27	0.53
28:BE:136:GLN:O	28:BE:137:LYS:C	2.51	0.53
28:BE:149:ILE:HD11	28:BE:188:MET:CA	2.38	0.53
29:BF:138:PRO:O	29:BF:139:GLU:C	2.50	0.53
34:BK:62:VAL:HG11	34:BK:65:THR:CG2	2.39	0.53
40:BQ:35:PHE:O	40:BQ:39:ILE:HG22	2.08	0.53
42:BS:8:ARG:HG3	42:BS:102:HIS:CG	2.44	0.53
45:BV:80:HIS:CG	45:BV:83:LYS:O	2.61	0.53
48:BY:9:LYS:O	48:BY:12:GLU:HG2	2.09	0.53
49:BZ:9:THR:HG23	49:BZ:53:MET:HA	1.90	0.53
51:B1:4:ILE:O	51:B1:5:ARG:C	2.52	0.53
52:B2:34:ARG:NH1	52:B2:42:LEU:O	2.42	0.53
1:CA:410:G:H1'	1:CA:432:A:H61	1.71	0.53
1:CA:447:G:N2	1:CA:486:U:C5	2.76	0.53
1:CA:581:G:C5	1:CA:758:C:C5	2.96	0.53
1:CA:642:A:C5	1:CA:643:C:C4	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:719:C:OP2	1:CA:720:C:N4	2.38	0.53
1:CA:736:C:H2'	1:CA:737:C:C5	2.44	0.53
1:CA:834:U:H2'	1:CA:835:U:C6	2.44	0.53
1:CA:926:G:H5'	1:CA:927:G:O5'	2.08	0.53
1:CA:1012:A:C5	1:CA:1018:G:N1	2.77	0.53
1:CA:1219:A:C4	1:CA:1220:G:C8	2.96	0.53
4:CD:185:LYS:O	4:CD:186:PRO:C	2.52	0.53
10:CJ:18:ILE:HD11	10:CJ:72:ARG:NH1	2.23	0.53
11:CK:94:GLU:O	11:CK:95:SER:C	2.52	0.53
15:CO:62:GLN:O	15:CO:63:ARG:C	2.50	0.53
55:CY:65:LEU:CD2	55:CY:67:ILE:HG13	2.38	0.53
24:DA:29:U:O2	24:DA:1215:G:O2'	2.26	0.53
24:DA:136:G:C4	24:DA:144:A:C2	2.96	0.53
24:DA:459:U:OP1	52:D2:40:ALA:N	2.42	0.53
24:DA:536:G:P	57:DA:3186:NMY:H81	2.48	0.53
24:DA:871:U:H2'	24:DA:872:U:C6	2.44	0.53
24:DA:1076:C:H2'	24:DA:1077:A:C8	2.43	0.53
24:DA:1324:G:C2	24:DA:1328:A:C6	2.95	0.53
24:DA:1394:U:H4'	24:DA:1603:A:H4'	1.90	0.53
24:DA:1500:G:C2'	24:DA:1501:G:H5'	2.39	0.53
24:DA:1734:G:C2	24:DA:1735:A:H1'	2.43	0.53
24:DA:2727:A:C6	24:DA:2728:U:O4	2.61	0.53
24:DA:2824:C:C4	24:DA:2825:G:C5	2.97	0.53
36:DM:13:HIS:O	36:DM:14:LYS:C	2.51	0.53
36:DM:26:VAL:HG11	36:DM:133:LYS:HA	1.88	0.53
36:DM:73:ILE:HG21	36:DM:91:TYR:OH	2.08	0.53
41:DR:77:PHE:CE1	41:DR:79:ARG:CD	2.91	0.53
45:DV:72:VAL:HG12	45:DV:93:ARG:HA	1.90	0.53
47:DX:32:LEU:HD13	47:DX:49:ARG:NE	2.24	0.53
48:DY:50:VAL:HA	48:DY:53:VAL:HG13	1.89	0.53
1:AA:55:A:C6	31:DH:91:PHE:HA	2.44	0.53
1:AA:88:U:C4	1:AA:89:U:C4	2.97	0.53
1:AA:159:G:N2	1:AA:161:A:P	2.82	0.53
1:AA:309:A:C2	1:AA:310:G:C5	2.96	0.53
1:AA:515:G:C2	1:AA:537:G:N2	2.76	0.53
1:AA:708:C:N3	1:AA:709:U:C5	2.76	0.53
1:AA:708:C:N3	1:AA:709:U:C4	2.77	0.53
1:AA:709:U:O2'	1:AA:710:G:C5'	2.57	0.53
1:AA:712:A:N1	1:AA:713:G:C2	2.76	0.53
1:AA:908:A:C2	1:AA:909:A:C5	2.97	0.53
1:AA:1014:A:C2	19:AS:34:TRP:CZ2	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1073:U:H3'	1:AA:1074:G:H8	1.74	0.53
1:AA:1152:A:C4	1:AA:1153:G:C8	2.96	0.53
1:AA:1320:C:N4	1:AA:1321:U:C4	2.76	0.53
1:AA:1405:G:P	57:AA:1655:NMY:H191	2.23	0.53
1:AA:1491:G:H3'	12:AL:44:LYS:NZ	2.24	0.53
5:AE:126:LYS:O	5:AE:127:ALA:HB2	2.08	0.53
5:AE:144:LEU:HD23	5:AE:144:LEU:N	2.23	0.53
6:AF:92:THR:O	6:AF:93:LYS:C	2.51	0.53
8:AH:92:LEU:HD23	8:AH:117:ARG:NE	2.24	0.53
8:AH:94:LYS:HD2	8:AH:98:GLY:HA2	1.90	0.53
9:AI:54:LEU:O	9:AI:55:VAL:HB	2.09	0.53
13:AM:85:CYS:CB	19:AS:73:GLU:HG3	2.38	0.53
17:AQ:67:LEU:HD23	17:AQ:68:SER:N	2.24	0.53
20:AT:71:LYS:HD3	20:AT:75:HIS:CE1	2.44	0.53
24:BA:55:G:N3	24:BA:56:A:C8	2.76	0.53
24:BA:246:C:H2'	24:BA:247:G:H5'	1.91	0.53
24:BA:354:A:C2'	24:BA:355:U:O5'	2.57	0.53
24:BA:571:U:C4	24:BA:2030:A:N1	2.76	0.53
24:BA:856:G:C2	24:BA:922:C:C2	2.96	0.53
24:BA:1033:U:C4	24:BA:2750:A:C2	2.96	0.53
24:BA:1608:A:C8	24:BA:1611:C:N4	2.76	0.53
24:BA:1677:A:N6	59:BA:3770:HOH:O	2.40	0.53
24:BA:2027:G:C2	24:BA:2028:U:C2	2.96	0.53
24:BA:2052:A:H4'	27:BD:148:GLN:O	2.08	0.53
24:BA:2231:U:H2'	24:BA:2232:C:O4'	2.09	0.53
24:BA:2496:C:C2'	24:BA:2497:A:H5'	2.38	0.53
26:BC:65:ASP:OD2	26:BC:101:ARG:NH1	2.41	0.53
29:BF:82:TYR:CD2	29:BF:83:PRO:O	2.62	0.53
30:BG:79:THR:O	30:BG:79:THR:HG22	2.07	0.53
31:BH:32:PRO:HA	47:BX:38:TRP:HB3	1.90	0.53
35:BL:111:ILE:HG22	35:BL:112:LEU:N	2.23	0.53
40:BQ:95:ALA:O	40:BQ:99:VAL:HG12	2.08	0.53
41:BR:8:GLY:HA3	41:BR:23:GLU:HB2	1.91	0.53
41:BR:49:ILE:HG23	41:BR:49:ILE:O	2.08	0.53
49:BZ:9:THR:HG22	49:BZ:54:VAL:CA	2.39	0.53
53:B3:6:VAL:O	53:B3:6:VAL:HG12	2.08	0.53
1:CA:270:A:C6	1:CA:271:C:N3	2.77	0.53
1:CA:409:U:C2'	1:CA:410:G:O5'	2.56	0.53
1:CA:493:A:H2'	1:CA:494:G:N3	2.23	0.53
1:CA:557:G:C6	1:CA:558:G:C6	2.96	0.53
1:CA:1439:G:C6	1:CA:1440:U:N3	2.77	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:72:ARG:C	3:CC:74:GLY:H	2.16	0.53
3:CC:165:THR:HG22	3:CC:166:GLU:N	2.24	0.53
4:CD:19:LEU:HD23	4:CD:19:LEU:C	2.33	0.53
4:CD:50:ASP:O	4:CD:54:GLN:HG3	2.09	0.53
4:CD:79:ALA:CB	4:CD:90:LEU:HB3	2.39	0.53
4:CD:148:LYS:O	4:CD:149:ALA:HB2	2.09	0.53
4:CD:165:ARG:O	4:CD:167:LYS:N	2.40	0.53
4:CD:200:ILE:O	4:CD:201:VAL:C	2.52	0.53
8:CH:65:TYR:CD1	8:CH:70:ALA:HA	2.43	0.53
13:CM:3:ARG:O	13:CM:4:ILE:CG1	2.57	0.53
14:CN:42:TRP:CE2	14:CN:44:ALA:HB3	2.42	0.53
15:CO:56:LEU:HD23	15:CO:57:LEU:N	2.22	0.53
21:CU:6:VAL:HG12	21:CU:6:VAL:O	2.06	0.53
21:CU:10:GLU:HB2	21:CU:11:PRO:HD3	1.91	0.53
24:DA:58:G:N2	24:DA:70:G:C4	2.77	0.53
24:DA:134:G:N2	24:DA:146:A:C4	2.77	0.53
24:DA:825:A:H2'	24:DA:826:U:H6	1.73	0.53
24:DA:827:U:OP2	59:DA:3701:HOH:O	2.19	0.53
24:DA:1006:C:OP2	59:DA:3783:HOH:O	2.18	0.53
24:DA:1022:G:N2	24:DA:1142:A:C2	2.76	0.53
24:DA:1131:G:C4	33:DJ:77:HIS:ND1	2.77	0.53
24:DA:1310:G:N2	24:DA:1313:U:C4	2.76	0.53
24:DA:1656:C:H2'	24:DA:1657:U:H6	1.71	0.53
24:DA:1733:G:N1	24:DA:1734:G:C4	2.77	0.53
24:DA:1833:C:C2	24:DA:1834:U:C6	2.96	0.53
24:DA:2259:U:C6	24:DA:2427:C:C4	2.96	0.53
24:DA:2293:G:H2'	24:DA:2294:G:O4'	2.09	0.53
24:DA:2305:U:N3	29:DF:150:GLY:HA3	2.24	0.53
24:DA:2623:G:OP1	24:DA:2826:A:H1'	2.09	0.53
57:DA:3190:NMY:N2	57:DA:3190:NMY:C16	2.71	0.53
25:DB:61:G:C6	25:DB:62:C:N4	2.77	0.53
28:DE:18:THR:HG22	28:DE:19:PHE:CD2	2.44	0.53
31:DH:87:GLU:CD	31:DH:88:GLY:H	2.17	0.53
43:DT:6:ARG:C	43:DT:6:ARG:HD3	2.33	0.53
43:DT:12:ARG:O	43:DT:13:ALA:HB2	2.09	0.53
44:DU:73:ASN:ND2	44:DU:76:THR:HG21	2.23	0.53
1:AA:100:G:H2'	1:AA:101:A:O4'	2.07	0.53
1:AA:310:G:C6	1:AA:311:C:C4	2.97	0.53
1:AA:391:G:N2	1:AA:392:C:H1'	2.24	0.53
1:AA:725:G:N3	1:AA:726:C:C6	2.77	0.53
1:AA:906:A:O2'	1:AA:907:A:O5'	2.26	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1061:G:OP2	3:AC:3:GLN:CD	2.52	0.53
1:AA:1237:C:C4'	1:AA:1334:G:N2	2.72	0.53
1:AA:1332:A:N6	1:AA:1333:A:C6	2.77	0.53
2:AB:175:GLU:O	2:AB:179:LEU:CD2	2.57	0.53
4:AD:21:LEU:O	4:AD:22:LYS:HB3	2.08	0.53
4:AD:145:ILE:HG23	4:AD:150:LYS:HE2	1.91	0.53
6:AF:9:MET:HE3	18:AR:65:LEU:CD2	2.39	0.53
11:AK:26:SER:OG	11:AK:29:ASN:O	2.21	0.53
20:AT:75:HIS:O	20:AT:76:LYS:C	2.52	0.53
24:BA:21:A:C2	24:BA:520:G:C4	2.96	0.53
24:BA:98:G:H1'	24:BA:103:A:H1'	1.89	0.53
24:BA:145:C:C2	24:BA:146:A:N7	2.76	0.53
24:BA:807:U:H1'	24:BA:2445:G:OP1	2.08	0.53
24:BA:1104:C:C2'	24:BA:1105:U:H5'	2.38	0.53
24:BA:1190:G:OP1	35:BL:32:GLY:HA2	2.08	0.53
24:BA:1977:A:N6	24:BA:1978:A:C2	2.77	0.53
24:BA:2120:G:N2	24:BA:2179:C:C2	2.75	0.53
24:BA:2133:G:C5	24:BA:2157:G:C6	2.96	0.53
24:BA:2352:A:C4	24:BA:2366:A:C2	2.96	0.53
27:BD:61:THR:N	27:BD:64:GLU:OE2	2.41	0.53
27:BD:125:TRP:CD2	27:BD:160:LYS:CG	2.91	0.53
30:BG:3:VAL:CG1	30:BG:68:ARG:HG2	2.38	0.53
31:BH:118:PRO:HD2	31:BH:119:ASN:H	1.72	0.53
35:BL:105:ILE:CG2	35:BL:106:GLU:N	2.71	0.53
37:BN:73:ASN:C	37:BN:76:VAL:HG22	2.34	0.53
37:BN:79:LEU:C	37:BN:81:ASN:H	2.17	0.53
39:BP:63:ILE:HA	39:BP:68:GLY:HA2	1.91	0.53
43:BT:17:SER:N	43:BT:20:ALA:HB3	2.24	0.53
50:B0:1:ALA:O	50:B0:2:VAL:HG23	2.09	0.53
1:CA:757:U:OP1	1:CA:822:U:O2'	2.24	0.53
1:CA:761:G:C6	1:CA:762:U:C5	2.97	0.53
1:CA:922:G:N3	1:CA:1398:A:H2	2.07	0.53
1:CA:1038:C:H2'	1:CA:1039:G:C8	2.44	0.53
1:CA:1322:C:O2	1:CA:1322:C:O4'	2.27	0.53
1:CA:1492:A:C6	1:CA:1493:A:C2	2.96	0.53
2:CB:114:LEU:O	2:CB:116:ASP:N	2.42	0.53
6:CF:81:ASN:O	6:CF:82:ASP:C	2.51	0.53
9:CI:38:TYR:OH	9:CI:75:GLN:OE1	2.09	0.53
12:CL:44:LYS:HB2	12:CL:45:PRO:HD3	1.91	0.53
14:CN:44:ALA:HB1	14:CN:47:LYS:HD3	1.91	0.53
15:CO:8:THR:O	15:CO:11:ILE:CG1	2.56	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:61:SER:O	15:CO:65:LYS:HB2	2.08	0.53
17:CQ:68:SER:O	17:CQ:69:LYS:O	2.26	0.53
24:DA:120:U:H4'	24:DA:121:G:H5"	1.91	0.53
24:DA:167:A:N7	24:DA:168:G:C8	2.77	0.53
24:DA:210:C:H5"	52:D2:25:LYS:HE3	1.91	0.53
24:DA:408:G:N1	24:DA:420:C:C2	2.77	0.53
24:DA:501:A:N6	24:DA:502:A:N1	2.56	0.53
24:DA:629:G:C2'	24:DA:630:G:H5'	2.38	0.53
24:DA:675:A:N3	24:DA:2443:C:O2'	2.36	0.53
24:DA:980:A:C6	24:DA:981:A:N1	2.76	0.53
24:DA:1847:A:N3	24:DA:1848:A:N7	2.56	0.53
24:DA:1912:A:N1	24:DA:1919:A:N7	2.57	0.53
24:DA:1925:C:H2'	24:DA:1926:U:O4'	2.09	0.53
24:DA:2306:C:N4	24:DA:2307:G:C6	2.77	0.53
24:DA:2317:A:C2'	24:DA:2318:G:H5'	2.39	0.53
24:DA:2348:U:C2'	24:DA:2349:G:H5'	2.38	0.53
24:DA:2843:G:N2	24:DA:2844:G:H1'	2.24	0.53
26:DC:30:ALA:HB3	26:DC:31:PRO:HD3	1.91	0.53
27:DD:101:PHE:C	27:DD:104:VAL:HG22	2.33	0.53
29:DF:51:ASN:OD1	29:DF:51:ASN:N	2.41	0.53
36:DM:73:ILE:HG22	36:DM:74:THR:N	2.24	0.53
39:DP:20:ARG:HH21	39:DP:20:ARG:HG2	1.73	0.53
41:DR:14:VAL:HG22	41:DR:20:VAL:HG21	1.90	0.53
44:DU:30:SER:OG	44:DU:32:LYS:CG	2.57	0.53
44:DU:38:ILE:HD12	44:DU:39:ASN:N	2.23	0.53
1:AA:184:G:O2'	1:AA:224:U:H5"	2.08	0.53
1:AA:260:G:H2'	1:AA:261:U:C6	2.44	0.53
1:AA:261:U:P	20:AT:71:LYS:NZ	2.82	0.53
1:AA:380:G:N2	1:AA:384:G:C5	2.77	0.53
1:AA:599:C:P	8:AH:86:TYR:CD2	3.01	0.53
1:AA:891:U:H2'	1:AA:892:A:C5'	2.39	0.53
1:AA:907:A:C2	1:AA:908:A:C8	2.97	0.53
1:AA:1039:G:C5	1:AA:1040:U:C5	2.96	0.53
1:AA:1363:A:C5	1:AA:1365:G:C6	2.97	0.53
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.44	0.53
1:AA:1494:G:O6	57:AA:1655:NMY:H10	2.09	0.53
1:AA:1531:A:C6	1:AA:1532:U:C4	2.97	0.53
6:AF:90:MET:HE1	18:AR:61:ARG:CD	2.39	0.53
7:AG:58:GLU:CA	7:AG:61:ALA:HB3	2.38	0.53
16:AP:4:ILE:CG2	16:AP:5:ARG:N	2.71	0.53
21:AU:24:GLU:CG	21:AU:25:LYS:H	2.21	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:46:G:C2	24:BA:47:C:C5	2.96	0.53
24:BA:246:C:C2'	24:BA:247:G:H5'	2.39	0.53
24:BA:295:G:N2	24:BA:296:U:C2	2.76	0.53
24:BA:480:A:C2'	24:BA:481:G:OP1	2.57	0.53
24:BA:723:C:H2'	24:BA:724:U:O4'	2.09	0.53
24:BA:751:A:OP1	59:BA:3312:HOH:O	2.18	0.53
24:BA:784:G:O2'	24:BA:785:G:P	2.67	0.53
24:BA:878:A:H2'	24:BA:879:G:O4'	2.09	0.53
24:BA:1205:A:H4'	24:BA:1206:G:OP2	2.09	0.53
24:BA:1366:A:C2	24:BA:1367:A:C1'	2.92	0.53
24:BA:1414:C:C2	24:BA:1588:G:N2	2.77	0.53
24:BA:1565:C:H5"	26:BC:17:LYS:CE	2.39	0.53
24:BA:1876:A:C6	24:BA:1877:A:C6	2.97	0.53
24:BA:2345:G:C8	24:BA:2347:C:C5	2.97	0.53
27:BD:45:TYR:OH	27:BD:81:GLU:OE1	2.27	0.53
28:BE:83:VAL:O	28:BE:83:VAL:HG22	2.09	0.53
44:BU:43:LYS:CE	44:BU:43:LYS:HA	2.38	0.53
46:BW:75:LYS:O	46:BW:76:ASN:C	2.50	0.53
48:BY:17:GLU:OE2	48:BY:18:LEU:N	2.42	0.53
51:B1:18:HIS:CE1	51:B1:40:PRO:CG	2.91	0.53
52:B2:44:VAL:O	52:B2:45:SER:CB	2.57	0.53
1:CA:62:U:OP1	1:CA:385:C:O2'	2.27	0.53
1:CA:63:C:C2'	1:CA:64:G:O5'	2.56	0.53
1:CA:135:C:H2'	1:CA:136:C:H5'	1.91	0.53
1:CA:161:A:C6	1:CA:162:A:C6	2.97	0.53
1:CA:328:C:O2	1:CA:328:C:H2'	2.07	0.53
1:CA:420:U:O2'	1:CA:423:G:O6	2.17	0.53
1:CA:438:U:C4	1:CA:494:G:N7	2.77	0.53
1:CA:1111:A:N1	3:CC:177:THR:CG2	2.71	0.53
1:CA:1114:C:O2	1:CA:1114:C:C2'	2.53	0.53
1:CA:1142:G:H5'	1:CA:1143:G:OP2	2.08	0.53
1:CA:1371:G:C6	1:CA:1372:U:C4	2.97	0.53
5:CE:13:GLU:CB	5:CE:39:VAL:HG12	2.38	0.53
6:CF:49:TYR:N	6:CF:49:TYR:CD1	2.77	0.53
17:CQ:20:SER:HA	17:CQ:47:HIS:HA	1.89	0.53
18:CR:23:TYR:CE2	18:CR:24:LYS:HG2	2.44	0.53
18:CR:48:ARG:HG3	18:CR:51:TYR:HD2	1.73	0.53
20:CT:67:ILE:CG1	20:CT:71:LYS:HG2	2.38	0.53
55:CY:65:LEU:HD22	55:CY:100:VAL:HG22	1.89	0.53
24:DA:7:G:C6	24:DA:8:C:C4	2.96	0.53
24:DA:246:C:C2'	24:DA:247:G:H5'	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:444:C:H4'	28:DE:44:ARG:HD2	1.91	0.53
24:DA:590:A:O2'	24:DA:591:U:H5'	2.09	0.53
24:DA:646:U:H3'	24:DA:647:G:H5"	1.90	0.53
24:DA:919:U:H2'	24:DA:920:A:H5'	1.90	0.53
24:DA:1101:U:C2'	24:DA:1102:C:H5'	2.38	0.53
24:DA:1209:U:O2	24:DA:1238:G:C6	2.62	0.53
24:DA:1392:A:C6	24:DA:1393:A:N1	2.77	0.53
24:DA:1467:U:C4	24:DA:1546:G:C2	2.97	0.53
24:DA:1858:A:OP2	57:DA:3187:NMY:N7	2.37	0.53
24:DA:1866:A:C2	24:DA:1876:A:C5	2.97	0.53
24:DA:2315:G:H4'	29:DF:124:ARG:NH1	2.24	0.53
25:DB:77:U:P	45:DV:14:LYS:HZ3	2.31	0.53
26:DC:194:VAL:O	26:DC:195:GLY:O	2.26	0.53
30:DG:93:TYR:CE1	30:DG:106:LEU:HA	2.44	0.53
31:DH:122:LEU:HD23	31:DH:122:LEU:H	1.73	0.53
37:DN:1:MET:O	37:DN:2:ARG:HB3	2.09	0.53
37:DN:67:PHE:HA	37:DN:70:THR:CG2	2.39	0.53
42:DS:19:LEU:HB3	50:D0:21:LEU:HD12	1.90	0.53
42:DS:63:GLY:O	42:DS:64:ALA:HB3	2.09	0.53
44:DU:28:LEU:O	44:DU:30:SER:N	2.42	0.53
1:AA:405:U:O4	4:AD:2:ALA:N	2.41	0.53
1:AA:666:G:H5'	1:AA:726:C:H1'	1.90	0.53
1:AA:888:G:H1'	1:AA:909:A:H61	1.74	0.53
1:AA:1245:C:H2'	1:AA:1246:A:O4'	2.08	0.53
1:AA:1323:G:O6	19:AS:4:SER:OG	2.17	0.53
2:AB:23:TRP:CZ3	2:AB:25:PRO:HA	2.43	0.53
4:AD:7:PRO:HB3	4:AD:9:LEU:HD21	1.89	0.53
8:AH:31:LYS:O	8:AH:32:LEU:C	2.52	0.53
9:AI:130:ARG:NH2	22:AV:35:A:OP2	2.40	0.53
14:AN:64:CYS:HG	14:AN:67:THR:HG1	1.57	0.53
15:AO:62:GLN:O	15:AO:65:LYS:N	2.42	0.53
15:AO:87:LEU:C	15:AO:89:ARG:N	2.67	0.53
21:AU:34:ARG:O	21:AU:35:ARG:O	2.27	0.53
22:AV:35:A:C2'	22:AV:36:A:H5"	2.38	0.53
24:BA:49:A:C8	24:BA:51:G:N2	2.77	0.53
24:BA:64:A:H2'	24:BA:65:U:C6	2.44	0.53
24:BA:845:A:N1	24:BA:847:U:C5	2.77	0.53
24:BA:987:C:O2'	24:BA:1000:A:N3	2.34	0.53
24:BA:1566:A:OP1	26:BC:17:LYS:NZ	2.25	0.53
24:BA:1668:A:C2	24:BA:1670:C:N3	2.77	0.53
24:BA:1876:A:N7	24:BA:1877:A:N7	2.57	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1995:U:OP1	27:BD:128:ARG:CZ	2.57	0.53
24:BA:2025:C:H5'	27:BD:154:LYS:HZ1	1.74	0.53
24:BA:2095:A:C2	24:BA:2096:C:C5	2.97	0.53
24:BA:2114:A:C2	24:BA:2115:G:H1'	2.44	0.53
24:BA:2302:U:H2'	24:BA:2303:G:H5'	1.91	0.53
24:BA:2743:U:H2'	24:BA:2744:G:O4'	2.09	0.53
26:BC:166:ARG:O	26:BC:166:ARG:HG3	2.08	0.53
31:BH:37:VAL:CG2	31:BH:38:PRO:HD2	2.39	0.53
33:BJ:29:ALA:CB	33:BJ:108:MET:HE3	2.39	0.53
37:BN:52:ILE:CG2	37:BN:94:TYR:CE2	2.92	0.53
42:BS:70:LYS:O	42:BS:72:THR:N	2.42	0.53
1:CA:289:G:C2'	1:CA:290:C:O5'	2.56	0.53
1:CA:493:A:C4	1:CA:494:G:C6	2.97	0.53
1:CA:543:U:C2	1:CA:544:G:C8	2.97	0.53
1:CA:673:A:C2	1:CA:674:G:C5	2.97	0.53
1:CA:1242:G:C6	1:CA:1243:C:C5	2.97	0.53
2:CB:101:LEU:CD1	2:CB:175:GLU:HB3	2.38	0.53
4:CD:73:ARG:O	4:CD:76:TYR:CG	2.62	0.53
4:CD:167:LYS:HD2	4:CD:168:PRO:HD2	1.89	0.53
7:CG:81:GLY:O	7:CG:83:SER:N	2.42	0.53
10:CJ:55:PRO:O	14:CN:69:ARG:NH2	2.42	0.53
11:CK:127:ARG:CB	21:CU:35:ARG:NH2	2.72	0.53
13:CM:14:HIS:CB	13:CM:17:ILE:CD1	2.86	0.53
13:CM:39:ILE:O	13:CM:41:GLU:N	2.41	0.53
14:CN:32:ASP:O	14:CN:33:VAL:C	2.52	0.53
55:CY:48:PRO:O	55:CY:49:THR:CB	2.57	0.53
55:CY:65:LEU:HD23	55:CY:66:LYS:C	2.34	0.53
24:DA:76:C:O2'	48:DY:52:ARG:HA	2.08	0.53
24:DA:78:U:OP1	24:DA:102:U:O4	2.27	0.53
24:DA:103:A:C2'	24:DA:104:A:O5'	2.57	0.53
24:DA:166:U:O2'	24:DA:167:A:H5'	2.09	0.53
24:DA:480:A:H2'	24:DA:481:G:OP1	2.08	0.53
24:DA:863:A:O2'	24:DA:864:G:H5'	2.09	0.53
24:DA:866:A:C2	24:DA:914:G:H5'	2.44	0.53
24:DA:1285:A:C6	24:DA:1329:U:C5	2.97	0.53
24:DA:1319:C:O2'	24:DA:1320:C:H5'	2.09	0.53
24:DA:1324:G:H1'	24:DA:1616:A:N6	2.24	0.53
24:DA:1670:C:OP1	59:DA:3435:HOH:O	2.19	0.53
24:DA:1701:A:C8	24:DA:1702:G:C8	2.97	0.53
24:DA:1794:A:H1'	24:DA:1900:A:N3	2.24	0.53
24:DA:2259:U:C5	24:DA:2427:C:N4	2.77	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2311:A:N7	29:DF:76:PHE:CD1	2.77	0.53
24:DA:2538:C:O2'	24:DA:2539:C:H5'	2.09	0.53
29:DF:45:ASP:OD1	29:DF:46:LYS:N	2.41	0.53
30:DG:30:GLY:O	30:DG:78:VAL:HG22	2.09	0.53
31:DH:11:ASN:O	31:DH:12:LEU:HD22	2.09	0.53
31:DH:66:ASN:HA	31:DH:69:ALA:HB3	1.90	0.53
39:DP:104:GLY:O	39:DP:107:ALA:N	2.41	0.53
40:DQ:75:TYR:C	40:DQ:75:TYR:CD1	2.87	0.53
40:DQ:87:VAL:HA	41:DR:49:ILE:CG2	2.39	0.53
45:DV:14:LYS:O	45:DV:15:GLY:C	2.52	0.53
48:DY:18:LEU:O	48:DY:22:LEU:HB3	2.09	0.53
1:AA:37:U:OP1	12:AL:120:LYS:HG3	2.09	0.53
1:AA:39:G:O2'	1:AA:40:C:H5'	2.08	0.53
1:AA:263:A:P	20:AT:74:ARG:NH1	2.82	0.53
1:AA:437:U:O2	4:AD:120:HIS:CE1	2.62	0.53
1:AA:452:A:N6	1:AA:480:U:C2	2.77	0.53
1:AA:618:C:H3'	1:AA:619:U:H5"	1.91	0.53
1:AA:1158:C:O2'	2:AB:132:LYS:NZ	2.36	0.53
1:AA:1355:G:N1	1:AA:1368:A:C2	2.77	0.53
2:AB:17:GLY:HA2	2:AB:203:ASN:N	2.24	0.53
4:AD:9:LEU:CD1	4:AD:10:LYS:HG2	2.39	0.53
4:AD:62:ARG:CD	4:AD:72:PHE:CE1	2.92	0.53
5:AE:84:PRO:HD3	5:AE:98:PRO:HD3	1.90	0.53
6:AF:62:MET:O	6:AF:63:ASN:C	2.52	0.53
8:AH:106:THR:OG1	8:AH:121:LEU:CB	2.57	0.53
12:AL:83:ARG:HG3	12:AL:84:GLY:N	2.22	0.53
20:AT:67:ILE:HD11	20:AT:71:LYS:CB	2.39	0.53
20:AT:75:HIS:C	20:AT:79:LEU:HD11	2.33	0.53
21:AU:24:GLU:OE2	21:AU:25:LYS:CA	2.57	0.53
21:AU:26:ALA:HB1	23:AX:5:A:OP1	2.09	0.53
24:BA:24:G:H2'	24:BA:25:U:O4'	2.08	0.53
24:BA:118:A:N3	24:BA:178:G:H1'	2.24	0.53
24:BA:265:A:H4'	24:BA:266:G:OP1	2.09	0.53
24:BA:481:G:P	44:BU:43:LYS:HG3	2.49	0.53
24:BA:860:U:O2'	24:BA:2267:A:C5'	2.58	0.53
24:BA:1296:G:OP1	24:BA:2709:G:O2'	2.20	0.53
24:BA:1327:A:H2'	24:BA:1328:A:O4'	2.09	0.53
24:BA:1883:U:C5	24:BA:1884:G:C5	2.96	0.53
24:BA:2333:A:N7	24:BA:2335:A:C2	2.77	0.53
24:BA:2568:U:H5"	24:BA:2569:G:OP2	2.09	0.53
24:BA:2732:G:H4'	24:BA:2733:A:OP2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BC:234:GLY:O	26:BC:235:GLU:HB3	2.09	0.53
29:BF:145:VAL:C	29:BF:146:ASP:CG	2.77	0.53
30:BG:91:VAL:O	30:BG:92:GLY:C	2.52	0.53
32:BI:127:SER:C	32:BI:128:ILE:HG13	2.34	0.53
33:BJ:18:VAL:CG1	33:BJ:55:ILE:O	2.57	0.53
39:BP:17:PRO:HD2	39:BP:83:ILE:CG1	2.39	0.53
44:BU:72:PHE:CZ	44:BU:77:GLY:HA2	2.44	0.53
1:CA:19:A:C2	1:CA:20:U:C2	2.97	0.53
1:CA:374:A:C2	1:CA:375:U:C2	2.97	0.53
1:CA:430:A:OP2	4:CD:8:LYS:CG	2.55	0.53
1:CA:706:A:C4	11:CK:44:TRP:HH2	2.27	0.53
1:CA:847:G:C2'	1:CA:848:C:H5'	2.38	0.53
1:CA:967:C:O4'	9:CI:129:LYS:HG3	2.09	0.53
1:CA:1261:A:C5	1:CA:1275:A:C4	2.97	0.53
1:CA:1309:G:P	13:CM:87:ARG:NH1	2.82	0.53
2:CB:107:VAL:O	2:CB:110:SER:N	2.42	0.53
4:CD:58:LYS:HB2	4:CD:200:ILE:HG12	1.90	0.53
8:CH:111:MET:HE2	8:CH:115:ALA:HB1	1.91	0.53
9:CI:15:SER:OG	9:CI:75:GLN:N	2.42	0.53
11:CK:125:LYS:CG	11:CK:126:LYS:H	2.21	0.53
15:CO:89:ARG:CZ	24:DA:714:U:C4	2.91	0.53
18:CR:64:TYR:HB3	18:CR:65:LEU:HD23	1.90	0.53
19:CS:26:GLY:O	19:CS:27:ASP:C	2.52	0.53
24:DA:191:A:H2'	24:DA:192:C:C6	2.44	0.53
24:DA:242:G:O5'	53:D3:2:LYS:HD2	2.09	0.53
24:DA:528:A:OP2	33:DJ:116:ARG:NH2	2.42	0.53
24:DA:784:G:H5'	24:DA:785:G:OP1	2.08	0.53
24:DA:947:A:O2'	24:DA:984:A:C2	2.57	0.53
24:DA:1014:A:C2	24:DA:1149:G:C2	2.98	0.53
24:DA:1567:G:C8	26:DC:82:TYR:CE2	2.97	0.53
24:DA:1568:G:H4'	26:DC:58:LYS:NZ	2.24	0.53
24:DA:1635:A:C2	24:DA:1636:U:C1'	2.92	0.53
24:DA:1858:A:C5	24:DA:1859:U:C5	2.97	0.53
24:DA:1996:C:H4'	24:DA:1997:C:OP1	2.08	0.53
25:DB:1:U:O4'	25:DB:1:U:P	2.66	0.53
25:DB:110:C:C4	25:DB:111:U:C5	2.96	0.53
30:DG:67:ALA:O	30:DG:68:ARG:C	2.52	0.53
31:DH:33:GLN:HG2	31:DH:33:GLN:O	2.09	0.53
31:DH:81:ALA:CB	31:DH:149:GLU:OE1	2.55	0.53
32:DI:51:GLY:C	32:DI:52:LEU:HD12	2.33	0.53
40:DQ:37:ALA:HA	40:DQ:40:LYS:CE	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DS:59:GLU:O	42:DS:64:ALA:HB2	2.09	0.53
1:AA:149:A:C2	1:AA:150:U:N1	2.77	0.52
1:AA:167:A:C6	1:AA:168:G:C5	2.96	0.52
1:AA:186:C:N4	1:AA:187:G:O6	2.42	0.52
1:AA:442:G:C6	1:AA:443:C:N3	2.77	0.52
1:AA:1489:G:C4	1:AA:1490:U:C6	2.96	0.52
57:AA:1655:NMY:H13	57:AA:1655:NMY:O12	2.09	0.52
2:AB:170:HIS:CD2	2:AB:171:ILE:HG13	2.44	0.52
6:AF:98:GLU:O	6:AF:99:ALA:O	2.27	0.52
12:AL:55:VAL:N	12:AL:63:VAL:O	2.42	0.52
16:AP:19:VAL:HG22	16:AP:37:GLY:C	2.33	0.52
17:AQ:79:VAL:O	17:AQ:80:GLU:HB2	2.09	0.52
21:AU:21:ARG:NE	23:AX:4:G:H1'	2.24	0.52
24:BA:77:G:H5"	48:BY:2:LYS:HD2	1.91	0.52
24:BA:659:G:O3'	28:BE:95:LYS:HB3	2.09	0.52
24:BA:817:C:H2'	24:BA:818:G:O4'	2.09	0.52
24:BA:827:U:O2'	24:BA:2068:U:C2	2.47	0.52
24:BA:1261:C:H2'	24:BA:1262:A:O5'	2.10	0.52
24:BA:1356:G:C6	24:BA:1357:C:N3	2.78	0.52
24:BA:1545:A:C8	24:BA:1546:G:C8	2.97	0.52
24:BA:1638:C:H5"	24:BA:2710:C:O2	2.10	0.52
24:BA:1826:G:C5	24:BA:1827:U:C5	2.97	0.52
24:BA:2297:A:H2'	24:BA:2297:A:N3	2.22	0.52
24:BA:2419:U:P	53:B3:40:LYS:NZ	2.82	0.52
24:BA:2799:A:C5	24:BA:2801:G:C5	2.97	0.52
25:BB:24:G:O2'	25:BB:56:G:N7	2.38	0.52
25:BB:45:A:N7	29:BF:91:ARG:NH1	2.57	0.52
27:BD:47:ALA:CA	27:BD:84:LEU:HD22	2.39	0.52
28:BE:41:GLN:HG2	28:BE:43:THR:HG23	1.91	0.52
30:BG:24:THR:HA	30:BG:33:THR:HG22	1.89	0.52
32:BI:20:SER:HB2	32:BI:21:PRO:CD	2.39	0.52
34:BK:42:THR:HA	34:BK:56:ASP:O	2.09	0.52
38:BO:116:GLN:O	38:BO:117:PHE:HB3	2.08	0.52
1:CA:65:A:N7	1:CA:381:C:N4	2.56	0.52
1:CA:208:U:OP2	1:CA:208:U:C6	2.63	0.52
1:CA:668:G:H2'	1:CA:669:G:O4'	2.09	0.52
1:CA:737:C:H2'	1:CA:738:C:C6	2.43	0.52
1:CA:738:C:O2'	1:CA:739:C:P	2.67	0.52
1:CA:759:A:H2'	1:CA:760:G:O5'	2.09	0.52
1:CA:942:G:N1	1:CA:943:U:C4	2.77	0.52
1:CA:956:U:C2	1:CA:1225:A:C2	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1033:G:H2'	1:CA:1034:G:C5'	2.39	0.52
1:CA:1126:U:O2	1:CA:1280:A:H5'	2.09	0.52
1:CA:1266:G:C2	1:CA:1270:G:C6	2.96	0.52
2:CB:166:ALA:HB3	2:CB:191:SER:HB3	1.90	0.52
3:CC:12:LEU:HD21	14:CN:91:GLY:HA2	1.89	0.52
3:CC:40:ARG:O	3:CC:44:THR:N	2.41	0.52
4:CD:139:PRO:O	4:CD:140:ASN:C	2.53	0.52
4:CD:149:ALA:HA	4:CD:152:GLN:CD	2.34	0.52
7:CG:103:TRP:CZ3	7:CG:104:ILE:HD13	2.44	0.52
10:CJ:12:ALA:HB3	10:CJ:18:ILE:CG2	2.39	0.52
10:CJ:32:THR:OG1	10:CJ:33:GLY:N	2.38	0.52
13:CM:72:GLU:HA	13:CM:75:MET:SD	2.49	0.52
13:CM:80:LEU:HD11	13:CM:85:CYS:HB3	1.91	0.52
17:CQ:48:ASP:O	17:CQ:49:GLU:C	2.52	0.52
19:CS:18:LYS:CD	19:CS:31:LEU:CD1	2.86	0.52
19:CS:44:MET:O	19:CS:45:ILE:HB	2.09	0.52
24:DA:359:G:C2'	24:DA:360:U:H5'	2.39	0.52
24:DA:614:A:O2'	24:DA:615:U:P	2.67	0.52
24:DA:1681:G:N3	24:DA:1762:A:H2'	2.24	0.52
24:DA:1700:A:C3'	24:DA:1701:A:H5'	2.39	0.52
24:DA:2024:G:O3'	27:DD:154:LYS:HE2	2.07	0.52
24:DA:2298:A:C5	24:DA:2321:U:C5	2.97	0.52
24:DA:2498:C:O2'	24:DA:2499:C:H5'	2.08	0.52
24:DA:2757:A:C6	30:DG:66:THR:HG21	2.44	0.52
25:DB:43:C:H4'	29:DF:94:ARG:NH1	2.24	0.52
25:DB:77:U:OP2	45:DV:14:LYS:CD	2.57	0.52
26:DC:159:THR:H	26:DC:194:VAL:HG12	1.73	0.52
29:DF:48:LEU:HD12	29:DF:49:LEU:H	1.74	0.52
29:DF:121:PHE:CE2	29:DF:127:TYR:CE1	2.97	0.52
40:DQ:72:GLY:O	40:DQ:73:ILE:HB	2.09	0.52
44:DU:10:VAL:HG12	44:DU:71:ILE:HA	1.91	0.52
1:AA:37:U:OP1	12:AL:120:LYS:CG	2.57	0.52
1:AA:58:C:O2'	1:AA:59:A:H5'	2.09	0.52
1:AA:80:A:H2'	1:AA:81:A:O4'	2.09	0.52
2:AB:21:ARG:HA	2:AB:21:ARG:NE	2.23	0.52
4:AD:64:ILE:HG22	4:AD:111:ARG:NH1	2.24	0.52
8:AH:103:VAL:O	8:AH:103:VAL:HG12	2.08	0.52
9:AI:50:GLN:O	9:AI:51:PRO:C	2.50	0.52
11:AK:71:ALA:O	11:AK:74:VAL:HG23	2.09	0.52
11:AK:72:ASP:C	11:AK:74:VAL:H	2.17	0.52
13:AM:106:ALA:O	13:AM:107:ARG:C	2.52	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:74:PHE:O	19:AS:76:PRO:HD3	2.09	0.52
24:BA:367:G:O6	24:BA:368:A:C2	2.63	0.52
24:BA:568:U:O2'	24:BA:570:G:N7	2.42	0.52
24:BA:666:A:C5	24:BA:667:U:C5	2.97	0.52
24:BA:973:A:O4'	24:BA:1188:U:C6	2.61	0.52
24:BA:1145:C:C2'	24:BA:1146:C:O5'	2.57	0.52
24:BA:1346:G:C2'	24:BA:1347:A:O5'	2.58	0.52
24:BA:1416:G:N7	24:BA:1417:C:C4	2.77	0.52
24:BA:1423:G:H2'	24:BA:1423:G:N3	2.24	0.52
24:BA:1600:C:OP2	59:BA:3716:HOH:O	2.19	0.52
24:BA:1794:A:O4'	24:BA:1900:A:C2	2.62	0.52
24:BA:1802:A:O2'	24:BA:1803:A:OP1	2.26	0.52
24:BA:2089:C:N3	24:BA:2090:A:N7	2.55	0.52
24:BA:2323:G:H2'	24:BA:2324:U:H5'	1.91	0.52
24:BA:2525:G:C2	24:BA:2526:G:N7	2.77	0.52
24:BA:2597:G:H5'	26:BC:240:GLY:HA3	1.92	0.52
24:BA:2779:U:H4'	24:BA:2781:A:C8	2.43	0.52
57:BA:3167:NMY:O17	57:BA:3167:NMY:N2	2.42	0.52
25:BB:114:C:O2	25:BB:114:C:H2'	2.09	0.52
39:BP:83:ILE:CD1	39:BP:83:ILE:C	2.82	0.52
42:BS:62:ASP:O	42:BS:63:GLY:C	2.52	0.52
43:BT:72:GLN:O	43:BT:74:ILE:HG23	2.09	0.52
44:BU:66:VAL:C	44:BU:68:ASN:N	2.67	0.52
47:BX:11:PRO:HA	47:BX:29:LEU:HD23	1.91	0.52
53:B3:28:LEU:HD11	53:B3:40:LYS:HE3	1.91	0.52
1:CA:184:G:C5	1:CA:185:U:C5	2.96	0.52
1:CA:293:G:N3	1:CA:293:G:H2'	2.24	0.52
1:CA:327:A:C2	1:CA:329:A:C4	2.97	0.52
1:CA:484:G:H4'	1:CA:485:U:OP1	2.07	0.52
1:CA:587:G:C2	1:CA:755:G:C6	2.98	0.52
1:CA:596:A:H2'	1:CA:596:A:N3	2.24	0.52
1:CA:640:A:C6	1:CA:641:U:C4	2.98	0.52
1:CA:894:G:C2'	1:CA:895:G:H5'	2.39	0.52
1:CA:919:A:C2'	1:CA:920:U:O5'	2.57	0.52
1:CA:972:C:P	10:CJ:59:LYS:CD	2.97	0.52
1:CA:975:A:N1	1:CA:1366:C:O2'	2.41	0.52
1:CA:1167:A:N7	1:CA:1169:A:N1	2.57	0.52
1:CA:1350:A:N1	1:CA:1351:U:O2	2.42	0.52
1:CA:1480:A:C5	1:CA:1481:U:C5	2.98	0.52
1:CA:1513:A:H2'	1:CA:1514:G:C8	2.44	0.52
4:CD:77:LYS:O	4:CD:78:GLU:C	2.52	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:105:MET:HE3	4:CD:180:GLY:HA3	1.91	0.52
6:CF:32:ALA:O	6:CF:33:GLU:C	2.51	0.52
8:CH:63:LEU:C	8:CH:63:LEU:HD12	2.33	0.52
10:CJ:81:GLU:O	10:CJ:85:ASP:CG	2.52	0.52
11:CK:32:VAL:HG12	11:CK:46:THR:OG1	2.08	0.52
13:CM:22:ILE:HD11	13:CM:25:VAL:HG13	1.90	0.52
17:CQ:16:LYS:O	17:CQ:17:MET:CB	2.57	0.52
20:CT:3:ASN:O	20:CT:4:ILE:O	2.28	0.52
22:CV:24:G:N7	22:CV:25:C:C5	2.77	0.52
24:DA:1:G:N2	24:DA:2903:U:O2	2.42	0.52
24:DA:38:A:N3	24:DA:442:G:C2	2.77	0.52
24:DA:559:G:C5	24:DA:560:C:C5	2.98	0.52
24:DA:647:G:H2'	24:DA:648:G:O5'	2.09	0.52
24:DA:674:G:H5"	28:DE:71:GLY:CA	2.39	0.52
24:DA:1045:C:H4'	24:DA:1046:A:H5'	1.91	0.52
24:DA:1471:G:C2'	24:DA:1472:C:H5'	2.40	0.52
24:DA:1840:G:C5	24:DA:1841:U:C5	2.97	0.52
24:DA:2052:A:N7	27:DD:146:ILE:HD11	2.24	0.52
24:DA:2194:U:O2'	24:DA:2195:U:H5'	2.09	0.52
24:DA:2862:G:C6	24:DA:2863:C:C4	2.98	0.52
26:DC:70:LYS:HD2	26:DC:95:TYR:CE1	2.45	0.52
27:DD:132:ALA:HA	27:DD:140:HIS:CD2	2.45	0.52
31:DH:76:GLU:C	31:DH:142:VAL:HG12	2.33	0.52
35:DL:26:GLY:C	35:DL:27:LEU:HG	2.33	0.52
35:DL:116:VAL:HG13	35:DL:138:ALA:CB	2.39	0.52
36:DM:136:MET:HE3	45:DV:57:TYR:CD1	2.43	0.52
38:DO:53:THR:HG21	38:DO:65:THR:CG2	2.38	0.52
42:DS:14:ALA:O	42:DS:18:ARG:HG3	2.09	0.52
42:DS:83:LYS:HD3	42:DS:95:ARG:NH2	2.23	0.52
44:DU:38:ILE:HD12	44:DU:39:ASN:H	1.74	0.52
46:DW:45:PHE:CD1	46:DW:78:LYS:HB3	2.45	0.52
1:AA:212:G:C2	1:AA:213:G:C4	2.97	0.52
1:AA:572:A:OP1	1:AA:917:G:C5'	2.58	0.52
1:AA:744:C:H4'	1:AA:852:G:O2'	2.08	0.52
1:AA:758:C:H4'	1:AA:880:C:O2'	2.09	0.52
1:AA:862:C:H1'	1:AA:874:G:H5"	1.90	0.52
1:AA:1060:U:O4	3:AC:2:GLY:HA3	2.10	0.52
1:AA:1102:A:C2'	1:AA:1103:C:H5'	2.40	0.52
1:AA:1225:A:H2'	1:AA:1226:C:C5	2.45	0.52
1:AA:1426:G:N2	1:AA:1475:G:H1'	2.24	0.52
1:AA:1491:G:H3'	12:AL:44:LYS:HZ2	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1505:G:H2'	23:AX:12:A:OP2	2.08	0.52
9:AI:63:LEU:CD2	9:AI:63:LEU:N	2.72	0.52
15:AO:85:LEU:HD12	15:AO:86:GLY:N	2.23	0.52
18:AR:72:ASP:O	21:AU:5:LYS:CE	2.57	0.52
24:BA:294:A:C5	24:BA:345:A:C2	2.98	0.52
24:BA:418:C:C4	24:BA:419:U:C4	2.97	0.52
24:BA:503:A:C6	24:BA:505:A:C6	2.96	0.52
24:BA:805:G:C4	24:BA:2068:U:OP1	2.62	0.52
24:BA:846:U:O2'	24:BA:847:U:H5"	2.09	0.52
24:BA:954:G:N3	24:BA:2274:A:C2	2.77	0.52
24:BA:1353:A:C8	24:BA:1378:A:N6	2.77	0.52
24:BA:1791:A:C8	24:BA:1792:G:C8	2.97	0.52
24:BA:1792:G:OP1	26:BC:204:LEU:HD12	2.10	0.52
24:BA:1847:A:O2'	24:BA:1848:A:H8	1.93	0.52
24:BA:2016:U:H2'	24:BA:2017:U:C6	2.44	0.52
24:BA:2666:C:C6	24:BA:2667:C:C5	2.98	0.52
25:BB:45:A:H2'	25:BB:45:A:N3	2.24	0.52
26:BC:212:TRP:C	26:BC:212:TRP:HD1	2.18	0.52
33:BJ:16:TYR:HA	33:BJ:138:GLN:O	2.09	0.52
37:BN:48:VAL:O	37:BN:51:LEU:N	2.42	0.52
44:BU:25:LYS:O	44:BU:26:ASN:HB3	2.09	0.52
1:CA:259:G:OP2	20:CT:78:ASN:ND2	2.42	0.52
1:CA:563:A:C5'	1:CA:566:G:N2	2.73	0.52
1:CA:887:G:N2	1:CA:911:U:C2	2.77	0.52
1:CA:988:G:N2	1:CA:1218:C:N3	2.58	0.52
1:CA:1092:A:H1'	1:CA:1183:U:O4	2.10	0.52
1:CA:1329:A:C5	1:CA:1330:U:N1	2.78	0.52
1:CA:1372:U:C4	1:CA:1373:G:C5	2.97	0.52
2:CB:99:GLY:N	2:CB:175:GLU:OE2	2.41	0.52
2:CB:186:ILE:HD11	2:CB:203:ASN:O	2.09	0.52
3:CC:12:LEU:HD21	14:CN:91:GLY:CA	2.38	0.52
7:CG:26:PHE:HA	7:CG:29:ILE:CG2	2.39	0.52
7:CG:70:ARG:NE	7:CG:96:ARG:CD	2.73	0.52
8:CH:58:GLU:O	8:CH:59:LEU:C	2.51	0.52
10:CJ:100:ILE:CD1	10:CJ:101:SER:N	2.72	0.52
12:CL:90:LEU:HD13	12:CL:90:LEU:O	2.09	0.52
17:CQ:45:HIS:HB3	17:CQ:71:LYS:HB3	1.91	0.52
21:CU:17:ARG:HG2	21:CU:20:LYS:CE	2.39	0.52
24:DA:245:G:O2'	24:DA:384:A:N1	2.35	0.52
24:DA:328:U:C2'	24:DA:329:G:OP1	2.56	0.52
24:DA:500:G:N2	24:DA:502:A:H3'	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:661:A:H3'	24:DA:661:A:C8	2.44	0.52
24:DA:927:A:H2'	24:DA:928:A:C8	2.44	0.52
24:DA:1093:G:H5"	24:DA:1094:U:P	2.50	0.52
24:DA:1881:C:H2'	24:DA:1882:U:O4'	2.10	0.52
24:DA:1994:C:P	27:DD:132:ALA:HB3	2.50	0.52
24:DA:2249:U:O2'	24:DA:2252:G:OP2	2.25	0.52
24:DA:2325:G:O5'	24:DA:2325:G:C8	2.63	0.52
24:DA:2794:C:C2	24:DA:2802:G:N2	2.77	0.52
25:DB:1:U:H2'	25:DB:1:U:O2	2.08	0.52
26:DC:90:ILE:HD12	26:DC:102:TYR:CD2	2.44	0.52
26:DC:106:PRO:O	26:DC:107:LYS:C	2.52	0.52
29:DF:9:ASP:OD1	29:DF:10:GLU:N	2.41	0.52
29:DF:40:GLY:O	29:DF:42:ALA:N	2.42	0.52
29:DF:76:PHE:HB2	29:DF:78:ILE:CG1	2.40	0.52
29:DF:129:MET:N	29:DF:153:ILE:HD11	2.24	0.52
31:DH:80:ILE:CG1	31:DH:145:ASN:O	2.57	0.52
34:DK:94:PRO:HG3	34:DK:114:LYS:HD3	1.92	0.52
36:DM:136:MET:O	45:DV:79:ARG:NH2	2.42	0.52
41:DR:1:MET:HG3	41:DR:42:ALA:O	2.10	0.52
41:DR:41:ILE:CD1	41:DR:54:VAL:HG11	2.39	0.52
50:D0:10:SER:O	50:D0:13:GLY:N	2.43	0.52
1:AA:35:G:C4	1:AA:36:C:C5	2.98	0.52
1:AA:382:A:C4	1:AA:383:A:C8	2.98	0.52
1:AA:463:U:C4	1:AA:464:U:N3	2.77	0.52
1:AA:628:G:H2'	1:AA:629:A:C8	2.45	0.52
1:AA:862:C:C4	1:AA:863:U:H5	2.27	0.52
1:AA:939:G:C6	1:AA:940:C:N4	2.77	0.52
1:AA:949:A:C2'	1:AA:950:U:H5'	2.39	0.52
1:AA:1012:A:C2	1:AA:1018:G:C2	2.97	0.52
1:AA:1078:U:C2'	1:AA:1079:G:O5'	2.57	0.52
1:AA:1159:U:O4'	1:AA:1182:G:N2	2.43	0.52
1:AA:1229:A:O2'	22:AV:30:G:OP1	2.27	0.52
3:AC:57:ILE:CD1	3:AC:59:ARG:HE	2.22	0.52
3:AC:78:GLY:CA	21:CU:18:ARG:NE	2.72	0.52
4:AD:78:GLU:O	4:AD:81:ARG:HB3	2.09	0.52
5:AE:90:THR:O	5:AE:93:ARG:NH2	2.43	0.52
6:AF:14:GLN:OE1	6:AF:17:GLN:HG3	2.08	0.52
11:AK:82:LEU:HD21	11:AK:105:PHE:CD2	2.44	0.52
13:AM:22:ILE:HD13	13:AM:66:GLU:HG2	1.91	0.52
17:AQ:21:ILE:HG21	17:AQ:48:ASP:HB2	1.90	0.52
19:AS:18:LYS:C	19:AS:19:VAL:HG23	2.34	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:481:G:C4	24:BA:507:A:C2	2.97	0.52
24:BA:810:U:H3'	35:BL:29:LYS:HA	1.90	0.52
24:BA:853:C:O2	24:BA:925:A:C2	2.62	0.52
24:BA:1074:G:H2'	24:BA:1075:C:H5"	1.90	0.52
24:BA:1494:A:N1	24:BA:1495:A:C4	2.78	0.52
24:BA:1553:A:C5	24:BA:1555:G:C4	2.98	0.52
24:BA:1576:U:N3	24:BA:1577:C:C5	2.78	0.52
24:BA:1623:G:C6	24:BA:1624:U:C4	2.97	0.52
24:BA:1710:G:C2	24:BA:1749:A:C2	2.98	0.52
24:BA:2258:C:H4'	24:BA:2259:U:OP2	2.10	0.52
24:BA:2376:A:C5	38:BO:99:TYR:CD2	2.98	0.52
24:BA:2400:G:C5	24:BA:2401:U:C5	2.97	0.52
24:BA:2847:U:OP1	39:BP:95:LYS:HE2	2.09	0.52
26:BC:43:ASN:O	26:BC:44:ASN:C	2.53	0.52
29:BF:3:LEU:HD12	29:BF:3:LEU:C	2.34	0.52
29:BF:43:ILE:HG22	29:BF:44:ALA:N	2.25	0.52
30:BG:37:ASN:O	30:BG:38:ASP:C	2.52	0.52
30:BG:138:GLN:O	30:BG:139:VAL:C	2.52	0.52
35:BL:93:ASN:CB	35:BL:96:LYS:HD3	2.39	0.52
35:BL:114:GLY:O	35:BL:115:GLU:HB3	2.10	0.52
40:BQ:38:VAL:O	40:BQ:38:VAL:HG13	2.07	0.52
42:BS:6:LYS:HD3	42:BS:104:THR:HB	1.92	0.52
45:BV:11:GLU:O	45:BV:12:GLN:HB3	2.09	0.52
53:B3:21:PHE:O	53:B3:48:MET:HA	2.10	0.52
1:CA:104:G:O2'	1:CA:105:G:H5'	2.10	0.52
1:CA:147:G:H2'	1:CA:148:G:C8	2.43	0.52
1:CA:413:G:H3'	1:CA:414:A:H5'	1.92	0.52
1:CA:605:U:H2'	1:CA:606:G:O5'	2.10	0.52
1:CA:620:C:H1'	4:CD:132:ILE:CD1	2.39	0.52
1:CA:673:A:C2	1:CA:674:G:C4	2.98	0.52
1:CA:688:G:N2	1:CA:700:G:C8	2.78	0.52
1:CA:705:G:C5	11:CK:44:TRP:CZ3	2.97	0.52
1:CA:1082:A:P	5:CE:23:LYS:HZ1	2.32	0.52
2:CB:54:LEU:HA	2:CB:57:LEU:HG	1.91	0.52
7:CG:150:ALA:HA	11:CK:61:PHE:CG	2.44	0.52
8:CH:99:LEU:HD23	8:CH:99:LEU:N	2.24	0.52
12:CL:98:VAL:CG2	12:CL:98:VAL:O	2.57	0.52
15:CO:22:THR:O	15:CO:27:VAL:HG21	2.10	0.52
16:CP:75:ILE:HG13	16:CP:76:LYS:N	2.24	0.52
19:CS:71:LEU:O	19:CS:71:LEU:HG	2.10	0.52
21:CU:37:PHE:CD1	21:CU:37:PHE:C	2.88	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CX:10:A:C4	23:CX:11:A:C8	2.97	0.52
24:DA:78:U:P	48:DY:2:LYS:HD3	2.50	0.52
24:DA:271:G:C4	24:DA:367:G:N2	2.78	0.52
24:DA:277:G:N3	24:DA:277:G:H3'	2.24	0.52
24:DA:898:C:N4	24:DA:899:A:C4	2.77	0.52
24:DA:971:G:C2'	24:DA:972:A:O5'	2.57	0.52
24:DA:1087:G:C6	24:DA:1089:A:C2	2.97	0.52
24:DA:1239:G:H2'	24:DA:1240:U:O4'	2.09	0.52
24:DA:1731:G:C6	24:DA:1733:G:C4	2.97	0.52
24:DA:1736:U:O4	24:DA:1737:G:C2	2.62	0.52
24:DA:1737:G:C2'	24:DA:1738:G:N3	2.72	0.52
24:DA:1910:G:N3	24:DA:1921:G:C2	2.78	0.52
24:DA:1993:U:H2'	24:DA:1994:C:H5'	1.92	0.52
24:DA:2200:C:C2'	24:DA:2201:G:H5'	2.40	0.52
24:DA:2306:C:OP2	24:DA:2307:G:O2'	2.15	0.52
24:DA:2845:U:H5"	39:DP:51:ASN:O	2.08	0.52
57:DA:3184:NMY:N2	57:DA:3184:NMY:C17	2.73	0.52
25:DB:78:A:N6	25:DB:98:G:O2'	2.39	0.52
26:DC:176:ARG:NH1	26:DC:177:SER:HB3	2.25	0.52
26:DC:244:VAL:CG2	26:DC:248:GLY:C	2.83	0.52
27:DD:101:PHE:CD1	27:DD:104:VAL:HG11	2.41	0.52
29:DF:153:ILE:O	29:DF:154:THR:CB	2.58	0.52
31:DH:71:LYS:C	31:DH:72:ILE:HG13	2.34	0.52
32:DI:110:GLN:HG3	32:DI:111:THR:N	2.25	0.52
34:DK:91:SER:O	34:DK:93:GLN:N	2.42	0.52
39:DP:30:TRP:CZ3	39:DP:81:ASP:CG	2.87	0.52
1:AA:106:C:C2'	1:AA:107:G:C5'	2.87	0.52
1:AA:158:G:C6	1:AA:159:G:N7	2.77	0.52
1:AA:292:G:N7	1:AA:293:G:H1'	2.24	0.52
1:AA:504:C:O4'	1:AA:510:A:N1	2.42	0.52
1:AA:694:A:C2	1:AA:695:A:H1'	2.43	0.52
1:AA:858:G:C8	1:AA:869:G:C6	2.98	0.52
1:AA:935:A:N1	7:AG:3:ARG:NH2	2.58	0.52
1:AA:1239:A:H2'	1:AA:1298:U:O4	2.09	0.52
2:AB:188:ASP:HB2	2:AB:204:ASP:HB3	1.91	0.52
2:AB:219:ALA:O	2:AB:220:THR:HG23	2.10	0.52
6:AF:17:GLN:O	6:AF:21:MET:HG3	2.09	0.52
7:AG:133:THR:O	7:AG:136:LYS:NZ	2.43	0.52
9:AI:16:ALA:O	9:AI:67:VAL:HG23	2.09	0.52
20:AT:35:VAL:O	20:AT:36:TYR:C	2.52	0.52
24:BA:589:U:H2'	24:BA:590:A:H8	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:792:A:C8	24:BA:2440:C:C2	2.97	0.52
24:BA:1064:C:C5	24:BA:1066:U:O2	2.62	0.52
24:BA:1069:A:C6	24:BA:1073:A:C6	2.97	0.52
24:BA:1097:U:C2	32:BI:7:TYR:O	2.63	0.52
24:BA:1288:G:O2'	24:BA:1327:A:N1	2.42	0.52
24:BA:1365:A:C6	24:BA:1366:A:C6	2.98	0.52
24:BA:1370:C:H2'	24:BA:1371:G:C8	2.45	0.52
24:BA:1478:G:C2	24:BA:1479:G:C8	2.97	0.52
24:BA:1789:A:OP2	26:BC:220:ARG:CZ	2.58	0.52
24:BA:1794:A:H2'	24:BA:1795:C:H6	1.74	0.52
24:BA:2235:G:H2'	24:BA:2236:U:O4'	2.10	0.52
24:BA:2304:G:P	29:BF:120:SER:OG	2.67	0.52
24:BA:2703:C:C2	24:BA:2704:C:C5	2.96	0.52
24:BA:2849:U:O2'	24:BA:2866:U:O2	2.25	0.52
29:BF:7:TYR:HA	29:BF:11:VAL:CG2	2.40	0.52
29:BF:91:ARG:CG	29:BF:92:GLY:N	2.71	0.52
34:BK:39:ILE:HG22	34:BK:41:ILE:HG23	1.90	0.52
36:BM:49:ALA:HB2	36:BM:123:LYS:HB3	1.91	0.52
38:BO:5:SER:OG	38:BO:6:ALA:N	2.41	0.52
41:BR:49:ILE:CG1	41:BR:52:PRO:C	2.77	0.52
42:BS:37:THR:HG22	42:BS:38:TYR:N	2.24	0.52
42:BS:42:LYS:O	42:BS:46:LEU:HD12	2.10	0.52
50:B0:24:VAL:O	50:B0:26:SER:N	2.43	0.52
51:B1:5:ARG:HA	51:B1:24:LYS:O	2.09	0.52
1:CA:68:G:H5'	1:CA:171:A:O2'	2.09	0.52
1:CA:136:C:H1'	16:CP:1:MET:CE	2.37	0.52
1:CA:220:G:H2'	1:CA:221:C:H5'	1.90	0.52
1:CA:613:C:H2'	1:CA:614:C:C6	2.44	0.52
1:CA:909:A:H2'	1:CA:910:C:H5'	1.90	0.52
1:CA:937:A:C5	1:CA:938:A:N7	2.77	0.52
1:CA:1051:C:N3	1:CA:1052:U:C5	2.78	0.52
1:CA:1085:U:H5'	1:CA:1094:G:C2	2.45	0.52
1:CA:1167:A:C5	1:CA:1169:A:N1	2.77	0.52
1:CA:1399:C:H4'	1:CA:1400:C:H5'	1.92	0.52
1:CA:1447:A:HO2'	1:CA:1448:C:C5'	2.22	0.52
2:CB:114:LEU:C	2:CB:114:LEU:HD12	2.34	0.52
3:CC:157:LEU:HD13	3:CC:164:ARG:HG2	1.90	0.52
4:CD:103:TYR:CD1	4:CD:104:ARG:N	2.77	0.52
8:CH:64:LYS:O	8:CH:65:TYR:CD1	2.63	0.52
9:CI:51:PRO:HB3	9:CI:103:PHE:CZ	2.45	0.52
9:CI:99:ARG:O	9:CI:102:GLY:N	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:67:ALA:HA	11:CK:70:CYS:HB3	1.91	0.52
14:CN:93:ILE:HG21	14:CN:96:LEU:HD23	1.89	0.52
18:CR:47:THR:OG1	18:CR:52:GLN:HB2	2.10	0.52
19:CS:48:THR:C	19:CS:49:ILE:HG13	2.35	0.52
55:CY:6:ARG:O	55:CY:7:LYS:C	2.53	0.52
24:DA:171:U:O2'	24:DA:172:A:H5'	2.10	0.52
24:DA:222:A:C2	24:DA:233:A:H4'	2.44	0.52
24:DA:528:A:H5"	33:DJ:113:PRO:HG3	1.92	0.52
24:DA:1010:A:N3	24:DA:1153:C:H1'	2.25	0.52
24:DA:1081:U:C4	24:DA:1082:U:O2	2.63	0.52
24:DA:1098:A:O3'	24:DA:1099:G:C8	2.63	0.52
24:DA:1216:G:H5"	40:DQ:10:ARG:NH1	2.25	0.52
24:DA:1239:G:N7	24:DA:1240:U:C5	2.77	0.52
24:DA:1494:A:H2'	24:DA:1495:A:C8	2.44	0.52
24:DA:1590:A:C2	24:DA:1591:A:C4	2.98	0.52
24:DA:1735:A:C2	24:DA:1736:U:H1'	2.45	0.52
24:DA:2303:G:C4	24:DA:2304:G:C8	2.97	0.52
24:DA:2531:A:N1	24:DA:2532:G:C4	2.78	0.52
24:DA:2722:G:H2'	24:DA:2723:C:H6	1.74	0.52
26:DC:197:ALA:O	26:DC:200:MET:HE1	2.10	0.52
27:DD:30:GLU:O	27:DD:31:ALA:C	2.52	0.52
29:DF:97:GLU:O	29:DF:98:PHE:C	2.51	0.52
31:DH:117:LEU:CD2	31:DH:119:ASN:N	2.73	0.52
32:DI:23:VAL:HG22	32:DI:24:GLY:N	2.25	0.52
32:DI:125:THR:C	32:DI:127:SER:H	2.17	0.52
33:DJ:133:ALA:O	33:DJ:134:ALA:C	2.52	0.52
36:DM:114:ARG:HH21	36:DM:114:ARG:HG3	1.72	0.52
42:DS:22:ASP:HA	42:DS:25:ARG:HG3	1.90	0.52
42:DS:51:LEU:O	42:DS:54:ALA:N	2.42	0.52
1:AA:82:G:C2	1:AA:88:U:O2	2.63	0.52
1:AA:181:A:C2	1:AA:195:A:C5	2.98	0.52
1:AA:202:G:C2	1:AA:216:U:O2	2.63	0.52
1:AA:261:U:OP1	20:AT:71:LYS:NZ	2.40	0.52
1:AA:449:G:H2'	1:AA:450:G:C8	2.45	0.52
1:AA:528:C:C5'	1:AA:529:G:OP2	2.58	0.52
1:AA:1275:A:C5	1:AA:1276:G:C8	2.97	0.52
1:AA:1537:U:H2'	1:AA:1537:U:O2	2.10	0.52
4:AD:86:THR:HA	4:AD:89:ASN:HB2	1.92	0.52
5:AE:84:PRO:HA	5:AE:96:MET:O	2.10	0.52
10:AJ:27:GLU:O	10:AJ:31:ARG:HG2	2.10	0.52
11:AK:84:VAL:CG2	11:AK:85:MET:N	2.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:46:LEU:C	14:AN:48:LEU:N	2.67	0.52
14:AN:63:ARG:O	14:AN:64:CYS:C	2.51	0.52
17:AQ:29:VAL:HG12	17:AQ:30:LYS:O	2.09	0.52
20:AT:5:LYS:O	20:AT:5:LYS:HG2	2.09	0.52
23:AX:11:A:N6	23:AX:12:A:C2	2.78	0.52
24:BA:6:A:N3	33:BJ:135:GLN:NE2	2.57	0.52
24:BA:96:C:H4'	48:BY:41:HIS:NE2	2.25	0.52
24:BA:126:A:N6	24:BA:127:A:N1	2.57	0.52
24:BA:164:C:H2'	24:BA:165:A:O4'	2.10	0.52
24:BA:483:A:C2	24:BA:484:C:C2	2.97	0.52
24:BA:629:G:N3	24:BA:639:U:O2'	2.41	0.52
24:BA:1050:A:C2	24:BA:2751:G:C6	2.98	0.52
24:BA:1080:A:C2	24:BA:1081:U:C2	2.98	0.52
24:BA:1111:A:H4'	24:BA:1112:G:OP1	2.10	0.52
24:BA:1177:G:C6	24:BA:1178:C:C2	2.97	0.52
24:BA:1202:G:C6	24:BA:1203:U:N3	2.78	0.52
24:BA:1368:G:H5'	52:B2:25:LYS:CD	2.39	0.52
24:BA:1569:A:C6	24:BA:1570:A:C5	2.98	0.52
24:BA:1876:A:N6	24:BA:1877:A:N6	2.57	0.52
24:BA:2157:G:HO2'	24:BA:2158:A:P	2.33	0.52
24:BA:2262:U:OP1	46:BW:41:ARG:NH1	2.42	0.52
24:BA:2546:U:H5"	24:BA:2547:A:OP1	2.09	0.52
24:BA:2682:A:C2	27:BD:23:PRO:HB3	2.44	0.52
24:BA:2876:G:H2'	24:BA:2877:G:O4'	2.10	0.52
25:BB:14:U:O2	25:BB:14:U:H2'	2.10	0.52
26:BC:90:ILE:HD13	26:BC:102:TYR:CE1	2.44	0.52
29:BF:111:ARG:C	29:BF:112:ASP:OD1	2.52	0.52
30:BG:22:VAL:HG12	30:BG:35:THR:OG1	2.10	0.52
37:BN:29:VAL:HG13	37:BN:83:LEU:HD11	1.92	0.52
42:BS:17:VAL:HG21	42:BS:76:VAL:HG11	1.90	0.52
42:BS:63:GLY:O	42:BS:64:ALA:CB	2.58	0.52
43:BT:29:THR:HG23	43:BT:85:VAL:O	2.10	0.52
45:BV:77:VAL:CG2	45:BV:89:ILE:HG12	2.38	0.52
45:BV:87:GLN:O	45:BV:88:HIS:HB2	2.09	0.52
52:B2:3:ARG:CZ	52:B2:3:ARG:CB	2.87	0.52
53:B3:31:ILE:HG22	53:B3:31:ILE:O	2.09	0.52
1:CA:71:A:N1	1:CA:99:C:O2'	2.36	0.52
1:CA:243:A:C2	1:CA:246:A:C8	2.98	0.52
1:CA:289:G:H2'	1:CA:290:C:O5'	2.09	0.52
1:CA:353:A:C2'	1:CA:354:G:OP2	2.57	0.52
1:CA:414:A:N6	1:CA:431:A:N3	2.57	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:430:A:OP1	4:CD:9:LEU:CG	2.57	0.52
1:CA:702:A:O2'	1:CA:703:G:P	2.67	0.52
1:CA:1354:U:HO2'	1:CA:1355:G:P	2.31	0.52
4:CD:144:SER:O	4:CD:145:ILE:C	2.53	0.52
6:CF:25:TYR:O	6:CF:28:ALA:N	2.42	0.52
6:CF:69:GLU:O	6:CF:71:ILE:CG1	2.58	0.52
7:CG:148:ASN:O	7:CG:150:ALA:N	2.43	0.52
13:CM:66:GLU:HG2	13:CM:70:ARG:NH1	2.25	0.52
17:CQ:48:ASP:HA	17:CQ:75:LEU:HG	1.91	0.52
17:CQ:70:THR:CG2	17:CQ:71:LYS:N	2.71	0.52
18:CR:36:SER:HA	21:CU:4:ILE:CD1	2.40	0.52
18:CR:48:ARG:HG3	18:CR:51:TYR:CB	2.40	0.52
20:CT:73:ALA:O	20:CT:74:ARG:C	2.53	0.52
24:DA:188:G:H1'	24:DA:1365:A:N1	2.25	0.52
24:DA:360:U:O4	24:DA:361:G:C6	2.63	0.52
24:DA:457:A:H5'	24:DA:459:U:C1'	2.40	0.52
24:DA:1059:G:H5'	24:DA:1060:U:H2'	1.90	0.52
24:DA:1640:A:H2'	24:DA:1641:A:O4'	2.09	0.52
24:DA:1922:G:C5	24:DA:1923:U:C5	2.98	0.52
24:DA:2078:C:C2	24:DA:2079:U:C6	2.97	0.52
24:DA:2121:G:N7	24:DA:2122:U:C4	2.78	0.52
24:DA:2307:G:O6	29:DF:40:GLY:HA3	2.10	0.52
24:DA:2390:U:O5'	53:D3:34:LYS:HE2	2.10	0.52
24:DA:2852:G:C2	24:DA:2853:C:C2	2.98	0.52
28:DE:149:ILE:HD12	28:DE:192:ALA:CB	2.40	0.52
38:DO:54:VAL:O	38:DO:55:GLU:C	2.51	0.52
43:DT:32:LEU:N	43:DT:32:LEU:HD22	2.24	0.52
1:AA:47:C:C6	1:AA:365:U:H2'	2.45	0.52
1:AA:86:G:C2	1:AA:87:C:C2	2.98	0.52
1:AA:144:G:C4	1:AA:179:A:C2	2.97	0.52
1:AA:684:U:H1'	11:AK:40:ASN:HA	1.92	0.52
1:AA:882:C:C2'	1:AA:883:C:H5'	2.39	0.52
1:AA:917:G:C2	1:AA:918:A:C4	2.98	0.52
1:AA:990:C:C2	1:AA:991:U:C5	2.98	0.52
1:AA:1057:G:O3'	3:AC:197:GLY:HA3	2.09	0.52
1:AA:1061:G:N7	1:AA:1062:U:C5	2.77	0.52
1:AA:1441:A:H3'	1:AA:1442:G:C8	2.45	0.52
5:AE:149:SER:HB3	5:AE:152:MET:HB3	1.91	0.52
8:AH:96:MET:C	8:AH:98:GLY:N	2.68	0.52
8:AH:129:VAL:O	8:AH:130:ALA:HB2	2.10	0.52
9:AI:7:TYR:CD2	9:AI:19:VAL:O	2.63	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:34:ALA:O	10:AJ:35:GLN:CB	2.58	0.52
10:AJ:36:VAL:HG23	10:AJ:37:ARG:N	2.23	0.52
17:AQ:19:LYS:HG3	17:AQ:48:ASP:HB3	1.91	0.52
22:AV:66:U:H2'	22:AV:67:C:C6	2.45	0.52
23:AX:10:A:O2'	23:AX:11:A:P	2.65	0.52
24:BA:305:C:H1'	24:BA:313:G:N2	2.23	0.52
24:BA:329:G:H4'	24:BA:330:A:OP2	2.08	0.52
24:BA:373:U:C2	24:BA:374:A:C8	2.98	0.52
24:BA:507:A:C1'	24:BA:509:C:N3	2.72	0.52
24:BA:1131:G:O2'	24:BA:2026:U:H5'	2.10	0.52
24:BA:1144:A:C4	24:BA:1145:C:C5	2.98	0.52
24:BA:1187:G:H5"	41:BR:83:TYR:CE2	2.45	0.52
24:BA:1206:G:C6	24:BA:1207:C:C4	2.98	0.52
24:BA:1286:A:N6	24:BA:1329:U:O2	2.43	0.52
24:BA:1353:A:O2'	24:BA:1354:A:H5'	2.09	0.52
24:BA:1906:G:C6	24:BA:1929:G:N2	2.78	0.52
25:BB:33:G:O6	25:BB:34:A:N6	2.42	0.52
25:BB:57:A:C8	29:BF:26:GLN:NE2	2.77	0.52
27:BD:27:ILE:HG12	27:BD:187:LEU:O	2.10	0.52
33:BJ:125:TYR:CD2	33:BJ:130:HIS:HA	2.44	0.52
38:BO:11:ALA:O	38:BO:12:THR:C	2.52	0.52
41:BR:24:LYS:HG2	41:BR:92:TRP:HB3	1.91	0.52
44:BU:57:ILE:N	44:BU:57:ILE:CD1	2.72	0.52
47:BX:45:PHE:C	47:BX:46:VAL:HG13	2.34	0.52
50:B0:39:ARG:HB3	50:B0:40:HIS:CD2	2.45	0.52
1:CA:71:A:OP2	1:CA:72:A:OP2	2.28	0.52
1:CA:429:U:O5'	4:CD:9:LEU:HD22	2.10	0.52
1:CA:654:G:C8	1:CA:753:A:C6	2.97	0.52
1:CA:694:A:H5"	11:CK:55:SER:HB3	1.90	0.52
1:CA:714:G:N3	1:CA:777:A:H1'	2.24	0.52
1:CA:750:C:C5	1:CA:751:U:C5	2.98	0.52
1:CA:919:A:H2'	1:CA:920:U:O5'	2.10	0.52
1:CA:1132:C:H2'	1:CA:1133:G:C8	2.44	0.52
4:CD:104:ARG:NE	4:CD:170:TRP:CH2	2.78	0.52
4:CD:104:ARG:CD	4:CD:170:TRP:CZ2	2.92	0.52
4:CD:162:ALA:O	4:CD:163:GLU:C	2.53	0.52
5:CE:44:GLY:O	5:CE:45:ARG:HB2	2.09	0.52
11:CK:81:ASN:O	11:CK:82:LEU:CB	2.58	0.52
12:CL:57:LEU:O	12:CL:57:LEU:HD12	2.10	0.52
21:CU:33:ARG:O	21:CU:34:ARG:C	2.52	0.52
24:DA:285:G:C2	24:DA:356:G:C4	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1059:G:C2	24:DA:1080:A:C4	2.96	0.52
24:DA:1060:U:C1'	24:DA:1062:G:OP2	2.58	0.52
24:DA:1321:A:C6	24:DA:1322:A:C5	2.98	0.52
24:DA:1562:U:H2'	24:DA:1563:U:C6	2.44	0.52
24:DA:1653:G:P	37:DN:2:ARG:NH2	2.83	0.52
24:DA:2204:G:N2	24:DA:2205:A:C1'	2.73	0.52
24:DA:2532:G:O2'	24:DA:2657:A:N6	2.41	0.52
24:DA:2689:U:OP2	24:DA:2719:G:N2	2.31	0.52
26:DC:158:GLY:N	26:DC:194:VAL:CG1	2.73	0.52
28:DE:78:TRP:O	28:DE:81:GLY:N	2.40	0.52
32:DI:24:GLY:O	32:DI:27:LEU:HD23	2.10	0.52
40:DQ:91:ARG:O	40:DQ:92:LYS:C	2.53	0.52
43:DT:43:ILE:O	43:DT:44:LYS:C	2.51	0.52
47:DX:52:ALA:O	47:DX:54:GLY:N	2.42	0.52
1:AA:123:U:H1'	1:AA:290:C:O2'	2.10	0.52
1:AA:201:G:H2'	1:AA:202:G:C8	2.45	0.52
1:AA:487:A:C5	1:AA:488:C:C2	2.98	0.52
1:AA:705:G:N7	1:AA:706:A:N7	2.58	0.52
1:AA:939:G:N2	1:AA:1344:C:O2	2.43	0.52
1:AA:1035:A:H2'	1:AA:1036:A:O4'	2.09	0.52
1:AA:1084:G:C5	1:AA:1085:U:C4	2.98	0.52
1:AA:1095:U:C4	1:AA:1096:C:C4	2.98	0.52
1:AA:1206:G:H4'	3:AC:192:THR:O	2.10	0.52
1:AA:1234:C:H1'	1:AA:1364:U:C6	2.45	0.52
1:AA:1324:A:C5	1:AA:1325:C:C6	2.97	0.52
1:AA:1352:C:C2	1:AA:1371:G:C2	2.98	0.52
2:AB:91:PHE:C	2:AB:91:PHE:CD1	2.85	0.52
2:AB:104:TRP:CD2	2:AB:108:ARG:HB3	2.45	0.52
3:AC:35:SER:HA	3:AC:38:LYS:HB3	1.91	0.52
4:AD:98:LEU:HD22	4:AD:118:VAL:CG1	2.40	0.52
4:AD:203:LEU:HD11	4:AD:204:TYR:CE1	2.45	0.52
10:AJ:96:VAL:O	10:AJ:96:VAL:HG23	2.09	0.52
11:AK:13:ARG:NH2	11:AK:77:TYR:CE2	2.78	0.52
11:AK:35:THR:OG1	11:AK:36:ASP:O	2.27	0.52
12:AL:32:GLY:CA	12:AL:56:ARG:O	2.58	0.52
21:AU:12:PHE:O	21:AU:13:ASP:HB2	2.10	0.52
24:BA:77:G:N2	24:BA:110:G:C4	2.78	0.52
24:BA:108:G:N1	24:BA:109:C:O2	2.43	0.52
24:BA:563:A:N6	59:BA:3271:HOH:O	2.43	0.52
24:BA:572:A:C2	24:BA:573:U:O2	2.63	0.52
24:BA:850:U:O2'	24:BA:851:C:H5'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1078:U:O2'	24:BA:1088:A:OP1	2.28	0.52
24:BA:1275:A:C2	24:BA:1295:C:O2'	2.55	0.52
24:BA:1805:A:N3	26:BC:49:THR:HG22	2.24	0.52
24:BA:2311:A:O2'	24:BA:2312:U:OP1	2.28	0.52
24:BA:2326:C:H1'	24:BA:2327:A:OP1	2.10	0.52
24:BA:2335:A:C6	24:BA:2337:G:H1'	2.45	0.52
25:BB:29:A:C2	25:BB:30:C:C2	2.98	0.52
26:BC:24:HIS:HB2	26:BC:81:GLU:HG3	1.92	0.52
26:BC:62:ARG:HH21	26:BC:62:ARG:CG	2.23	0.52
26:BC:184:GLU:C	26:BC:186:ASP:N	2.65	0.52
28:BE:145:ASP:HB3	28:BE:184:ASP:OD1	2.10	0.52
30:BG:41:GLU:CB	30:BG:54:ARG:CZ	2.88	0.52
34:BK:121:GLU:CG	34:BK:122:VAL:H	2.22	0.52
35:BL:91:ASP:OD1	35:BL:94:THR:N	2.40	0.52
38:BO:48:LEU:HD23	38:BO:48:LEU:N	2.24	0.52
39:BP:103:THR:O	39:BP:105:LYS:N	2.43	0.52
53:B3:6:VAL:O	53:B3:6:VAL:CG1	2.57	0.52
53:B3:39:ARG:O	53:B3:43:LEU:CD1	2.58	0.52
1:CA:262:A:H3'	1:CA:263:A:H8	1.75	0.52
1:CA:739:C:N4	1:CA:740:U:O4	2.43	0.52
1:CA:759:A:C2'	1:CA:760:G:O5'	2.58	0.52
1:CA:949:A:H2'	1:CA:950:U:O4'	2.10	0.52
1:CA:958:A:C4	19:CS:55:ARG:NH2	2.78	0.52
1:CA:1081:A:O3'	5:CE:23:LYS:NZ	2.42	0.52
1:CA:1151:A:O4'	10:CJ:41:PRO:HB3	2.10	0.52
1:CA:1317:C:H1'	14:CN:49:GLN:CD	2.33	0.52
1:CA:1439:G:OP2	20:CT:33:LYS:NZ	2.34	0.52
4:CD:182:PHE:O	4:CD:183:LYS:CB	2.58	0.52
6:CF:59:TYR:O	6:CF:60:VAL:CG1	2.50	0.52
8:CH:29:SER:HB3	8:CH:57:PRO:CB	2.40	0.52
8:CH:29:SER:CB	8:CH:57:PRO:HB2	2.40	0.52
12:CL:33:VAL:O	12:CL:55:VAL:HG23	2.10	0.52
13:CM:14:HIS:C	13:CM:17:ILE:CD1	2.83	0.52
16:CP:39:PHE:CD1	16:CP:39:PHE:C	2.86	0.52
16:CP:68:SER:O	16:CP:70:ARG:N	2.42	0.52
21:CU:14:VAL:HG13	21:CU:16:LEU:HB3	1.91	0.52
22:CV:64:A:C4	22:CV:65:G:C8	2.97	0.52
55:CY:15:LYS:O	55:CY:15:LYS:HG3	2.09	0.52
24:DA:63:A:C2'	24:DA:64:A:H5'	2.40	0.52
24:DA:85:G:OP1	44:DU:5:ARG:CD	2.56	0.52
24:DA:275:C:N3	24:DA:276:U:H1'	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:304:U:O2'	24:DA:305:C:H5'	2.09	0.52
24:DA:693:A:H1'	24:DA:1354:A:H1'	1.92	0.52
24:DA:977:G:C2	24:DA:978:G:C8	2.98	0.52
24:DA:1242:U:H2'	24:DA:1243:C:C6	2.45	0.52
24:DA:2377:A:O2'	24:DA:2378:A:H5'	2.10	0.52
24:DA:2489:U:O2	24:DA:2491:U:C4	2.63	0.52
24:DA:2500:U:O2	24:DA:2504:U:C4	2.62	0.52
24:DA:2520:C:C6	24:DA:2567:G:H1'	2.45	0.52
24:DA:2529:G:OP1	30:DG:171:LYS:NZ	2.43	0.52
57:DA:3186:NMY:O4	57:DA:3186:NMY:N6	2.43	0.52
25:DB:98:G:H22	45:DV:14:LYS:CE	2.23	0.52
26:DC:176:ARG:HH11	26:DC:177:SER:HB3	1.75	0.52
28:DE:168:ASP:OD1	28:DE:169:VAL:N	2.43	0.52
31:DH:115:VAL:O	31:DH:116:ARG:HG3	2.10	0.52
38:DO:50:ALA:O	38:DO:51:ALA:CB	2.57	0.52
48:DY:12:GLU:O	48:DY:15:ASN:HB3	2.10	0.52
48:DY:18:LEU:O	48:DY:18:LEU:HD13	2.10	0.52
51:D1:31:GLU:O	51:D1:32:LYS:C	2.53	0.52
1:AA:400:C:C4	1:AA:401:C:H5	2.28	0.52
1:AA:406:G:C4	1:AA:407:U:C5	2.98	0.52
1:AA:463:U:C5	1:AA:464:U:C4	2.98	0.52
1:AA:528:C:N4	1:AA:529:G:O6	2.43	0.52
1:AA:649:A:C6	1:AA:650:G:C8	2.98	0.52
1:AA:673:A:H5"	6:AF:86:ARG:NH1	2.24	0.52
1:AA:780:A:P	11:AK:125:LYS:HG2	2.50	0.52
1:AA:942:G:N2	1:AA:943:U:C2	2.78	0.52
1:AA:1003:G:C2	1:AA:1038:C:N3	2.78	0.52
1:AA:1014:A:C2	19:AS:34:TRP:CE2	2.98	0.52
1:AA:1133:G:H5'	1:AA:1134:G:P	2.50	0.52
1:AA:1138:G:O2'	1:AA:1140:C:O5'	2.28	0.52
1:AA:1277:C:O2'	1:AA:1279:G:H1'	2.10	0.52
1:AA:1385:G:N1	1:AA:1386:G:C5	2.78	0.52
3:AC:128:VAL:O	3:AC:129:MET:C	2.53	0.52
4:AD:197:GLU:O	4:AD:201:VAL:CG1	2.58	0.52
5:AE:125:ALA:O	5:AE:126:LYS:CB	2.57	0.52
8:AH:29:SER:O	8:AH:30:SER:HB3	2.09	0.52
9:AI:19:VAL:HA	9:AI:65:ILE:HG22	1.92	0.52
10:AJ:36:VAL:HA	10:AJ:76:ILE:HG22	1.92	0.52
21:AU:21:ARG:O	21:AU:21:ARG:HG3	2.10	0.52
22:AV:70:G:C2	22:AV:71:G:C4	2.98	0.52
24:BA:58:G:OP1	43:BT:78:SER:CB	2.57	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:206:U:H2'	24:BA:206:U:O2	2.10	0.52
24:BA:320:A:P	28:BE:130:LYS:CE	2.98	0.52
24:BA:362:A:C3'	24:BA:363:G:C5'	2.88	0.52
24:BA:482:A:N6	24:BA:506:G:H1'	2.24	0.52
24:BA:545:U:C2'	24:BA:547:A:H5'	2.35	0.52
24:BA:602:A:N3	24:BA:655:A:C2	2.78	0.52
24:BA:616:A:H2'	24:BA:617:G:C5'	2.40	0.52
24:BA:661:A:H2'	24:BA:662:G:O4'	2.10	0.52
24:BA:855:G:N2	24:BA:923:G:C4	2.78	0.52
24:BA:1241:A:C2	24:BA:1242:U:H1'	2.45	0.52
24:BA:1483:G:N2	24:BA:1484:U:C2	2.78	0.52
24:BA:1657:U:OP1	27:BD:141:ARG:N	2.43	0.52
24:BA:1666:G:OP1	34:BK:66:LYS:HE3	2.10	0.52
24:BA:1854:A:H2'	24:BA:1855:U:H5'	1.92	0.52
24:BA:2345:G:C8	24:BA:2347:C:C6	2.98	0.52
24:BA:2545:G:O2'	24:BA:2565:A:N1	2.41	0.52
24:BA:2603:G:C5	24:BA:2604:U:C5	2.98	0.52
24:BA:2714:G:O2'	24:BA:2715:C:H5'	2.10	0.52
24:BA:2748:A:HO2'	24:BA:2749:A:P	2.33	0.52
57:BA:3161:NMY:N2	57:BA:3161:NMY:C17	2.73	0.52
30:BG:144:ALA:HA	30:BG:147:LEU:HD21	1.90	0.52
31:BH:64:ALA:O	31:BH:68:ARG:NH2	2.43	0.52
31:BH:67:ALA:O	31:BH:71:LYS:N	2.39	0.52
32:BI:121:ILE:O	32:BI:124:MET:N	2.42	0.52
33:BJ:64:VAL:HG11	33:BJ:89:PHE:CZ	2.44	0.52
33:BJ:139:VAL:HG22	33:BJ:140:LEU:N	2.25	0.52
42:BS:23:LEU:HD22	42:BS:35:ILE:HG21	1.92	0.52
42:BS:25:ARG:HG2	42:BS:74:ILE:HG23	1.92	0.52
42:BS:46:LEU:O	42:BS:47:VAL:CB	2.56	0.52
42:BS:75:PHE:CZ	42:BS:104:THR:HG21	2.45	0.52
45:BV:29:ILE:CG2	45:BV:30:ILE:N	2.71	0.52
45:BV:48:MET:O	45:BV:51:GLN:HB3	2.10	0.52
1:CA:64:G:N7	1:CA:99:C:C4	2.78	0.52
1:CA:201:G:C6	1:CA:217:C:O2	2.62	0.52
1:CA:869:G:H5"	1:CA:872:A:O4'	2.10	0.52
1:CA:1014:A:C5'	19:CS:14:HIS:CE1	2.93	0.52
1:CA:1213:A:C8	1:CA:1215:G:C5	2.98	0.52
1:CA:1352:C:H2'	1:CA:1353:G:C1'	2.40	0.52
1:CA:1496:C:H5"	1:CA:1497:G:OP2	2.10	0.52
4:CD:117:LEU:C	4:CD:117:LEU:HD12	2.35	0.52
4:CD:167:LYS:CD	4:CD:168:PRO:HD2	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:31:ILE:CG2	11:CK:46:THR:HG21	2.40	0.52
13:CM:89:LEU:O	13:CM:90:ARG:C	2.53	0.52
18:CR:73:ARG:O	18:CR:74:HIS:CG	2.63	0.52
22:CV:63:G:OP1	51:D1:27:ARG:NH2	2.42	0.52
24:DA:322:A:C5	24:DA:340:A:C2	2.97	0.52
24:DA:483:A:C8	24:DA:484:C:C5	2.98	0.52
24:DA:910:A:N1	24:DA:2277:G:H1'	2.25	0.52
24:DA:1509:A:N3	24:DA:1510:G:C8	2.78	0.52
24:DA:1831:G:C2'	24:DA:1832:C:O5'	2.58	0.52
24:DA:2224:G:H4'	24:DA:2226:C:C2	2.45	0.52
24:DA:2313:C:C1'	29:DF:36:ASN:ND2	2.72	0.52
24:DA:2522:U:O2'	24:DA:2647:U:OP1	2.15	0.52
24:DA:2784:U:C2	24:DA:2785:C:C5	2.98	0.52
27:DD:14:ILE:HB	27:DD:22:ILE:CG2	2.40	0.52
30:DG:148:ARG:HA	30:DG:161:VAL:HG22	1.92	0.52
31:DH:77:THR:O	31:DH:78:VAL:CB	2.58	0.52
35:DL:4:ASN:OD1	35:DL:5:THR:HG22	2.08	0.52
40:DQ:41:ALA:O	40:DQ:42:GLY:C	2.52	0.52
40:DQ:60:TRP:CE2	40:DQ:92:LYS:HA	2.45	0.52
41:DR:25:LEU:CD1	41:DR:94:THR:OG1	2.58	0.52
43:DT:68:LYS:HE3	43:DT:69:ARG:N	2.24	0.52
1:AA:17:U:H4'	1:AA:1080:A:O4'	2.10	0.52
1:AA:175:C:O2'	1:AA:1447:A:N1	2.41	0.52
1:AA:182:A:N7	1:AA:184:G:C4	2.77	0.52
1:AA:275:G:C2	1:AA:276:G:C8	2.98	0.52
1:AA:294:U:C5'	1:AA:295:C:OP2	2.58	0.52
1:AA:392:C:HO2'	1:AA:482:A:H2	1.56	0.52
1:AA:614:C:H3'	1:AA:615:G:H5"	1.91	0.52
1:AA:664:G:P	18:AR:53:ARG:HH22	2.29	0.52
1:AA:790:A:C5	1:AA:791:G:C6	2.97	0.52
1:AA:939:G:O2'	1:AA:1375:A:N3	2.43	0.52
1:AA:960:U:H2'	1:AA:1225:A:H62	1.74	0.52
1:AA:1240:U:OP2	7:AG:116:MET:N	2.43	0.52
2:AB:73:LYS:O	2:AB:75:ALA:N	2.40	0.52
3:AC:53:SER:O	3:AC:54:ARG:HB3	2.10	0.52
4:AD:11:LEU:HD21	4:AD:63:ARG:HG2	1.92	0.52
5:AE:83:HIS:CG	5:AE:84:PRO:N	2.78	0.52
8:AH:22:LYS:O	8:AH:65:TYR:OH	2.24	0.52
8:AH:102:ALA:O	8:AH:103:VAL:CB	2.57	0.52
8:AH:113:ASP:O	8:AH:117:ARG:HG2	2.09	0.52
12:AL:6:GLN:O	12:AL:9:ARG:N	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:118:GLY:O	12:AL:119:VAL:CB	2.57	0.52
15:AO:33:THR:O	15:AO:34:ALA:C	2.53	0.52
17:AQ:61:ILE:C	17:AQ:61:ILE:HD12	2.35	0.52
19:AS:36:ARG:HB2	19:AS:72:GLY:CA	2.40	0.52
24:BA:137:U:OP2	24:BA:140:C:C4	2.63	0.52
24:BA:391:A:C6	24:BA:392:U:C6	2.97	0.52
24:BA:608:A:C2	24:BA:621:A:C2	2.98	0.52
24:BA:659:G:C2	24:BA:660:C:C2	2.97	0.52
24:BA:663:G:OP1	35:BL:17:LYS:N	2.43	0.52
24:BA:1385:A:C2	24:BA:1386:C:N3	2.78	0.52
24:BA:1681:G:N3	24:BA:1762:A:H2'	2.24	0.52
24:BA:1866:A:N3	24:BA:1876:A:C2	2.78	0.52
24:BA:2131:U:H5'	24:BA:2132:U:H5"	1.91	0.52
24:BA:2691:C:O2'	24:BA:2692:G:H5'	2.09	0.52
26:BC:24:HIS:CB	26:BC:81:GLU:HG3	2.40	0.52
28:BE:28:VAL:O	28:BE:29:HIS:C	2.53	0.52
29:BF:29:ARG:O	29:BF:30:VAL:C	2.53	0.52
34:BK:7:MET:C	34:BK:8:LEU:HD12	2.35	0.52
34:BK:92:GLU:O	34:BK:93:GLN:O	2.28	0.52
34:BK:121:GLU:HG3	34:BK:122:VAL:N	2.24	0.52
36:BM:18:ARG:HA	36:BM:18:ARG:HE	1.74	0.52
36:BM:105:MET:CE	36:BM:113:ALA:HA	2.40	0.52
38:BO:28:VAL:C	38:BO:29:HIS:CG	2.88	0.52
45:BV:89:ILE:HG22	45:BV:90:ASP:N	2.25	0.52
1:CA:4:U:H5"	1:CA:5:U:OP1	2.10	0.52
1:CA:212:G:N2	1:CA:213:G:C5	2.78	0.52
1:CA:220:G:C2'	1:CA:221:C:H5'	2.39	0.52
1:CA:406:G:C6	1:CA:495:A:C8	2.98	0.52
1:CA:663:A:N1	1:CA:743:A:C2	2.77	0.52
1:CA:665:A:OP2	18:CR:57:ARG:NH2	2.43	0.52
1:CA:706:A:N3	11:CK:44:TRP:HZ2	2.04	0.52
1:CA:763:G:C5	1:CA:764:C:C4	2.98	0.52
1:CA:974:A:P	14:CN:81:ARG:NH2	2.83	0.52
1:CA:1084:G:C6	1:CA:1085:U:C4	2.98	0.52
1:CA:1264:U:H2'	1:CA:1265:C:H5'	1.92	0.52
1:CA:1307:U:H3'	13:CM:98:ARG:NH2	2.25	0.52
1:CA:1329:A:C8	1:CA:1330:U:C6	2.98	0.52
1:CA:1400:C:H3'	1:CA:1401:G:H5'	1.92	0.52
1:CA:1506:U:C4'	11:CK:128:ARG:HD3	2.39	0.52
2:CB:50:PHE:HB3	2:CB:54:LEU:HB2	1.92	0.52
2:CB:184:PHE:CE2	2:CB:198:PHE:CD2	2.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:22:LYS:NZ	4:CD:25:VAL:O	2.38	0.52
4:CD:91:LEU:C	4:CD:93:LEU:H	2.18	0.52
6:CF:21:MET:O	6:CF:23:GLU:CG	2.58	0.52
7:CG:54:SER:OG	7:CG:55:GLY:N	2.43	0.52
8:CH:34:VAL:HG23	8:CH:35:ALA:N	2.25	0.52
9:CI:30:ILE:HG13	9:CI:31:ASN:N	2.25	0.52
9:CI:40:GLY:O	9:CI:41:ARG:CB	2.57	0.52
9:CI:82:GLY:HA2	9:CI:85:ARG:NH1	2.25	0.52
11:CK:94:GLU:O	11:CK:97:ILE:N	2.42	0.52
13:CM:72:GLU:HA	13:CM:75:MET:HE3	1.92	0.52
24:DA:192:C:H2'	24:DA:193:U:H5'	1.91	0.52
24:DA:407:G:C2	24:DA:421:C:C2	2.98	0.52
24:DA:1041:G:C2	24:DA:1042:G:C8	2.98	0.52
24:DA:1188:U:H4'	41:DR:81:LYS:O	2.10	0.52
24:DA:1603:A:OP1	59:DA:3410:HOH:O	2.18	0.52
24:DA:1733:G:N1	24:DA:1734:G:C5	2.78	0.52
24:DA:2336:A:N3	24:DA:2385:C:H1'	2.25	0.52
24:DA:2754:U:O2'	24:DA:2756:U:OP1	2.23	0.52
57:DA:3190:NMY:N19	57:DA:3190:NMY:N23	2.57	0.52
25:DB:15:A:O2'	25:DB:16:G:C5'	2.58	0.52
25:DB:54:G:H21	29:DF:25:MET:HE3	1.74	0.52
27:DD:108:ASP:OD2	27:DD:207:VAL:HG12	2.08	0.52
28:DE:137:LYS:HG3	28:DE:141:MET:HE3	1.92	0.52
32:DI:116:MET:HG3	32:DI:124:MET:HE3	1.92	0.52
32:DI:125:THR:C	32:DI:127:SER:N	2.67	0.52
33:DJ:47:HIS:C	33:DJ:114:LEU:HD11	2.35	0.52
34:DK:4:GLU:O	34:DK:5:GLN:HG2	2.10	0.52
35:DL:98:ALA:O	35:DL:100:ILE:N	2.43	0.52
38:DO:87:ILE:O	38:DO:88:LYS:CG	2.58	0.52
41:DR:1:MET:HG2	41:DR:2:TYR:N	2.25	0.52
42:DS:32:ALA:HA	42:DS:35:ILE:HD12	1.92	0.52
45:DV:65:VAL:O	45:DV:66:ASP:C	2.53	0.52
46:DW:28:GLY:CA	46:DW:66:LYS:HG2	2.39	0.52
1:AA:46:G:C6	1:AA:366:A:C2	2.97	0.51
1:AA:112:G:H2'	1:AA:113:G:H5'	1.93	0.51
1:AA:664:G:C5'	18:AR:53:ARG:HH21	2.23	0.51
1:AA:696:A:C5	1:AA:697:U:C5	2.99	0.51
1:AA:827:U:O2'	8:AH:20:ALA:HB2	2.10	0.51
1:AA:838:G:N3	1:AA:849:G:N2	2.57	0.51
1:AA:1311:A:C2	1:AA:1327:C:N3	2.78	0.51
3:AC:6:HIS:CE1	14:AN:89:MET:HB3	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:69:GLU:CA	4:AD:72:PHE:CE1	2.93	0.51
4:AD:192:SER:HB2	6:CF:16:GLU:CD	2.35	0.51
9:AI:87:LEU:HD12	9:AI:87:LEU:C	2.34	0.51
14:AN:78:GLY:C	14:AN:79:LEU:HD23	2.35	0.51
16:AP:19:VAL:CG2	16:AP:37:GLY:N	2.71	0.51
24:BA:59:U:H4'	24:BA:73:A:C5	2.46	0.51
24:BA:199:A:C8	24:BA:2433:A:C6	2.97	0.51
24:BA:250:G:H2'	24:BA:251:A:C8	2.45	0.51
24:BA:348:A:C8	24:BA:349:U:C5	2.98	0.51
24:BA:374:A:N3	24:BA:374:A:H2'	2.26	0.51
24:BA:398:C:OP2	47:BX:52:ALA:HB1	2.10	0.51
24:BA:416:U:C4	24:BA:417:C:C5	2.98	0.51
24:BA:481:G:OP2	44:BU:43:LYS:HG3	2.10	0.51
24:BA:1038:G:N2	24:BA:1118:C:C2	2.79	0.51
24:BA:1270:C:H5"	24:BA:1271:G:H5'	1.92	0.51
24:BA:1532:A:C2	24:BA:1533:C:N4	2.78	0.51
24:BA:1542:U:H2'	24:BA:1543:G:O4'	2.09	0.51
24:BA:1589:U:H2'	24:BA:1590:A:C8	2.45	0.51
24:BA:1929:G:H2'	24:BA:1929:G:N3	2.25	0.51
24:BA:1937:A:H2'	24:BA:1939:U:OP2	2.10	0.51
24:BA:2185:U:C5	24:BA:2186:G:N7	2.78	0.51
24:BA:2260:C:H2'	24:BA:2261:C:H6	1.75	0.51
24:BA:2454:G:C4	24:BA:2455:G:C8	2.98	0.51
24:BA:2603:G:H2'	24:BA:2604:U:O5'	2.10	0.51
24:BA:2627:G:O2'	24:BA:2781:A:N1	2.18	0.51
24:BA:2798:U:H4'	24:BA:2799:A:C5'	2.40	0.51
27:BD:125:TRP:CG	27:BD:160:LYS:HE2	2.45	0.51
28:BE:109:LEU:HD11	28:BE:180:LEU:CD1	2.40	0.51
29:BF:3:LEU:O	29:BF:4:HIS:C	2.53	0.51
29:BF:151:LEU:C	29:BF:151:LEU:HD12	2.35	0.51
30:BG:51:PHE:CE2	30:BG:68:ARG:CB	2.92	0.51
31:BH:113:SER:O	31:BH:114:GLU:C	2.53	0.51
33:BJ:16:TYR:N	33:BJ:16:TYR:CD1	2.76	0.51
1:CA:27:G:C6	1:CA:557:G:C2	2.98	0.51
1:CA:425:G:C6	1:CA:426:U:C4	2.98	0.51
1:CA:657:U:H5'	15:CO:28:GLN:OE1	2.10	0.51
1:CA:1000:A:C6	1:CA:1001:C:C4	2.98	0.51
1:CA:1153:G:C5	1:CA:1154:G:C8	2.98	0.51
1:CA:1298:U:O4'	1:CA:1299:A:C6	2.63	0.51
2:CB:159:ASP:O	2:CB:160:ALA:HB3	2.10	0.51
3:CC:7:PRO:O	3:CC:11:ARG:CD	2.58	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:40:ARG:NH1	3:CC:55:ILE:O	2.43	0.51
3:CC:120:ILE:HG21	3:CC:198:VAL:HG21	1.92	0.51
6:CF:24:ARG:O	6:CF:27:ALA:N	2.44	0.51
7:CG:7:ILE:HG22	7:CG:8:GLY:N	2.25	0.51
11:CK:65:VAL:O	11:CK:65:VAL:HG23	2.10	0.51
12:CL:64:THR:HG23	12:CL:64:THR:O	2.09	0.51
13:CM:41:GLU:HA	13:CM:41:GLU:OE1	2.10	0.51
17:CQ:64:CYS:N	17:CQ:72:SER:O	2.43	0.51
19:CS:45:ILE:HA	19:CS:62:VAL:HG23	1.92	0.51
24:DA:417:C:H2'	24:DA:418:C:H6	1.75	0.51
24:DA:957:C:N4	24:DA:2459:A:C8	2.78	0.51
24:DA:1074:G:C6	24:DA:1075:C:C4	2.99	0.51
24:DA:1306:C:O2'	24:DA:1307:A:H5'	2.11	0.51
24:DA:1450:G:N2	24:DA:1462:C:C2	2.77	0.51
24:DA:2052:A:N6	24:DA:2618:G:C2	2.78	0.51
24:DA:2108:A:H2'	24:DA:2109:U:O5'	2.10	0.51
24:DA:2128:G:H2'	24:DA:2129:C:O5'	2.09	0.51
24:DA:2339:C:H2'	24:DA:2340:A:H8	1.75	0.51
24:DA:2422:C:O2'	24:DA:2423:U:P	2.68	0.51
24:DA:2819:G:OP1	59:DA:3811:HOH:O	2.19	0.51
29:DF:124:ARG:HH22	29:DF:126:ASN:ND2	2.08	0.51
30:DG:19:ASN:O	30:DG:22:VAL:CG2	2.57	0.51
33:DJ:32:LEU:O	33:DJ:33:ALA:C	2.53	0.51
34:DK:4:GLU:OE2	34:DK:23:LYS:NZ	2.36	0.51
34:DK:86:LEU:N	34:DK:86:LEU:HD23	2.24	0.51
40:DQ:2:ARG:O	40:DQ:2:ARG:HD2	2.10	0.51
41:DR:15:SER:C	41:DR:98:ILE:HD11	2.36	0.51
41:DR:79:ARG:HD2	41:DR:80:ARG:H	1.75	0.51
46:DW:10:THR:C	46:DW:11:ARG:HG3	2.35	0.51
52:D2:2:LYS:CE	52:D2:6:GLN:CD	2.84	0.51
1:AA:604:G:C2	1:AA:635:A:C2	2.98	0.51
1:AA:621:A:H2'	1:AA:622:A:O4'	2.09	0.51
1:AA:624:C:N3	1:AA:625:U:C4	2.79	0.51
1:AA:844:G:O2'	1:AA:845:A:N7	2.43	0.51
1:AA:891:U:C2'	1:AA:892:A:H5'	2.40	0.51
1:AA:992:U:O2	1:AA:993:G:C2	2.63	0.51
1:AA:1256:A:H2'	1:AA:1278:G:N7	2.25	0.51
1:AA:1304:G:C6	1:AA:1305:G:N2	2.79	0.51
1:AA:1305:G:C2	1:AA:1331:G:O2'	2.63	0.51
1:AA:1540:U:N3	23:AX:3:G:N2	2.57	0.51
3:AC:65:ARG:O	3:AC:66:VAL:HB	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:101:ILE:HD12	3:AC:102:ASN:N	2.26	0.51
4:AD:9:LEU:HG	4:AD:10:LYS:N	2.25	0.51
4:AD:135:TYR:CD1	4:AD:135:TYR:C	2.87	0.51
6:AF:10:VAL:CG2	6:AF:21:MET:CE	2.88	0.51
9:AI:79:ILE:O	9:AI:80:ARG:C	2.52	0.51
14:AN:45:VAL:HG22	14:AN:46:LEU:N	2.26	0.51
22:AV:72:C:O2'	22:AV:73:A:C5'	2.58	0.51
24:BA:262:A:C2	24:BA:430:A:N3	2.78	0.51
24:BA:861:A:N3	25:BB:79:G:O2'	2.43	0.51
24:BA:950:G:C6	24:BA:951:C:C4	2.99	0.51
24:BA:1148:U:H2'	24:BA:1149:G:O4'	2.10	0.51
24:BA:1202:G:C2	24:BA:1244:A:C2	2.98	0.51
24:BA:1205:A:C2	28:BE:165:HIS:CE1	2.98	0.51
24:BA:1684:G:C2	24:BA:1705:A:C2	2.99	0.51
24:BA:1869:G:N2	24:BA:1871:A:O2'	2.42	0.51
24:BA:1987:A:H2'	24:BA:1987:A:N3	2.25	0.51
24:BA:2011:U:O2	24:BA:2011:U:O4'	2.28	0.51
24:BA:2414:G:C2	24:BA:2415:G:C8	2.98	0.51
24:BA:2419:U:H2'	24:BA:2420:C:C6	2.44	0.51
24:BA:2636:C:H2'	24:BA:2637:U:C6	2.45	0.51
24:BA:2640:G:P	33:BJ:96:ARG:NH1	2.84	0.51
25:BB:15:A:C5	25:BB:109:A:C2	2.99	0.51
27:BD:202:ILE:CG1	27:BD:202:ILE:O	2.59	0.51
29:BF:7:TYR:CD1	29:BF:7:TYR:C	2.88	0.51
29:BF:12:VAL:HG23	29:BF:13:LYS:H	1.75	0.51
30:BG:163:TYR:CB	30:BG:166:GLU:HB2	2.40	0.51
32:BI:116:MET:HB3	32:BI:124:MET:SD	2.50	0.51
33:BJ:86:GLN:HG2	33:BJ:87:ALA:N	2.26	0.51
35:BL:114:GLY:O	35:BL:115:GLU:CB	2.59	0.51
37:BN:87:PHE:O	37:BN:88:ALA:C	2.53	0.51
38:BO:21:LEU:HD12	38:BO:21:LEU:N	2.26	0.51
40:BQ:71:ASN:HB3	40:BQ:109:VAL:HG11	1.92	0.51
41:BR:78:ARG:O	41:BR:79:ARG:C	2.52	0.51
42:BS:29:VAL:O	42:BS:30:SER:C	2.53	0.51
44:BU:12:VAL:HA	44:BU:69:VAL:HA	1.92	0.51
44:BU:73:ASN:O	44:BU:74:ALA:HB3	2.10	0.51
54:B4:9:LYS:O	54:B4:10:LEU:C	2.53	0.51
1:CA:188:C:O2	1:CA:189:A:C4	2.64	0.51
1:CA:380:G:C2	1:CA:384:G:N1	2.78	0.51
1:CA:499:A:C6	1:CA:547:A:C8	2.98	0.51
1:CA:688:G:C2	1:CA:700:G:N7	2.78	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:869:G:H4'	1:CA:872:A:C8	2.45	0.51
1:CA:942:G:C6	1:CA:943:U:C4	2.98	0.51
1:CA:951:G:H1'	1:CA:1231:G:N2	2.24	0.51
1:CA:1202:U:C6	14:CN:69:ARG:NH1	2.78	0.51
1:CA:1264:U:C2'	1:CA:1265:C:H5'	2.40	0.51
2:CB:114:LEU:HG	2:CB:115:LYS:N	2.25	0.51
3:CC:60:PRO:O	3:CC:61:ALA:C	2.54	0.51
9:CI:54:LEU:C	9:CI:56:ASP:N	2.67	0.51
12:CL:56:ARG:O	12:CL:57:LEU:HG	2.09	0.51
13:CM:68:ASP:O	13:CM:71:ARG:N	2.44	0.51
17:CQ:23:VAL:HG12	17:CQ:24:ALA:O	2.11	0.51
19:CS:15:LEU:C	19:CS:15:LEU:HD12	2.36	0.51
19:CS:60:VAL:CG1	19:CS:62:VAL:HG13	2.39	0.51
21:CU:20:LYS:HB2	21:CU:20:LYS:NZ	2.25	0.51
55:CY:13:MET:HA	55:CY:16:CYS:HB2	1.93	0.51
24:DA:160:A:H2'	24:DA:161:A:C8	2.45	0.51
24:DA:328:U:H2'	24:DA:329:G:OP1	2.10	0.51
24:DA:629:G:N3	24:DA:639:U:O2'	2.38	0.51
24:DA:1064:C:N3	24:DA:1066:U:N3	2.58	0.51
24:DA:1410:G:O6	24:DA:1591:A:N6	2.43	0.51
24:DA:1801:A:C8	24:DA:2203:U:C5	2.98	0.51
24:DA:2553:G:H2'	24:DA:2554:U:O4'	2.10	0.51
27:DD:38:LYS:HE2	27:DD:45:TYR:OH	2.10	0.51
30:DG:75:VAL:CG2	30:DG:76:ILE:N	2.73	0.51
33:DJ:68:LYS:O	33:DJ:70:THR:N	2.43	0.51
34:DK:11:ALA:HB2	34:DK:83:ALA:HB1	1.91	0.51
35:DL:23:ILE:O	35:DL:26:GLY:N	2.37	0.51
35:DL:127:VAL:HG12	35:DL:131:ALA:HB3	1.91	0.51
44:DU:11:ILE:HG22	44:DU:21:ARG:HG2	1.93	0.51
45:DV:26:PHE:C	45:DV:26:PHE:CD1	2.88	0.51
1:AA:149:A:H2'	1:AA:149:A:N3	2.25	0.51
1:AA:158:G:C4	1:AA:159:G:C8	2.98	0.51
1:AA:546:A:OP1	4:AD:70:ARG:N	2.32	0.51
1:AA:865:A:H5'	1:AA:1078:U:O4	2.10	0.51
1:AA:929:G:C4'	1:AA:1535:C:H5"	2.40	0.51
1:AA:978:A:N7	1:AA:1318:A:N6	2.59	0.51
1:AA:1520:C:H2'	1:AA:1521:C:H6	1.74	0.51
4:AD:65:TYR:HB2	4:AD:67:VAL:HG23	1.90	0.51
4:AD:148:LYS:O	4:AD:149:ALA:HB3	2.10	0.51
6:AF:92:THR:HG22	6:AF:93:LYS:N	2.25	0.51
8:AH:106:THR:OG1	8:AH:121:LEU:HB3	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:67:VAL:HG22	9:AI:68:LYS:N	2.25	0.51
13:AM:21:SER:C	13:AM:22:ILE:HG22	2.35	0.51
16:AP:60:TRP:HA	16:AP:60:TRP:CE3	2.46	0.51
24:BA:182:A:C6	24:BA:183:C:C4	2.98	0.51
24:BA:386:G:H4'	24:BA:387:U:OP2	2.10	0.51
24:BA:667:U:H2'	24:BA:667:U:O2	2.10	0.51
24:BA:862:G:O2'	25:BB:78:A:N3	2.38	0.51
24:BA:1059:G:N2	24:BA:1080:A:H1'	2.26	0.51
24:BA:1338:G:O2'	43:BT:19:LYS:NZ	2.26	0.51
24:BA:1356:G:N1	24:BA:1357:C:O2	2.43	0.51
24:BA:1441:G:C2	24:BA:1551:A:N3	2.79	0.51
24:BA:1562:U:C4	24:BA:1563:U:C5	2.98	0.51
24:BA:1864:U:C2'	24:BA:1865:U:H5'	2.40	0.51
24:BA:2414:G:H21	24:BA:2415:G:H1'	1.74	0.51
24:BA:2415:G:N3	24:BA:2416:C:C6	2.78	0.51
24:BA:2455:G:H2'	24:BA:2456:C:C6	2.45	0.51
24:BA:2753:A:C4	24:BA:2754:U:C6	2.98	0.51
26:BC:261:ARG:NE	26:BC:262:THR:HG23	2.25	0.51
27:BD:205:PRO:O	27:BD:206:ALA:C	2.52	0.51
28:BE:109:LEU:O	28:BE:112:LEU:N	2.44	0.51
28:BE:119:ILE:O	28:BE:187:VAL:HA	2.10	0.51
32:BI:108:ILE:O	32:BI:109:ALA:HB3	2.09	0.51
33:BJ:75:TYR:HA	33:BJ:86:GLN:HB2	1.91	0.51
41:BR:12:HIS:ND1	41:BR:12:HIS:N	2.58	0.51
46:BW:31:VAL:CG2	46:BW:32:LEU:N	2.73	0.51
47:BX:31:ASN:O	47:BX:32:LEU:O	2.28	0.51
1:CA:2:A:C6	1:CA:3:A:N1	2.78	0.51
1:CA:363:A:N6	1:CA:364:A:C6	2.78	0.51
1:CA:437:U:C4	1:CA:438:U:C5	2.97	0.51
1:CA:502:A:OP1	12:CL:115:SER:HB3	2.10	0.51
1:CA:722:G:OP2	21:CU:45:ARG:NH1	2.43	0.51
1:CA:1074:G:O3'	2:CB:102:THR:CG2	2.58	0.51
4:CD:51:TYR:CA	4:CD:54:GLN:HB2	2.38	0.51
5:CE:82:GLN:NE2	5:CE:150:PRO:HD3	2.25	0.51
6:CF:3:HIS:C	6:CF:4:TYR:CD1	2.89	0.51
11:CK:59:THR:HB	11:CK:60:PRO:HD2	1.92	0.51
17:CQ:72:SER:C	17:CQ:73:TRP:CD1	2.89	0.51
18:CR:24:LYS:O	18:CR:26:ILE:HG22	2.11	0.51
19:CS:16:LEU:HD12	19:CS:19:VAL:CG1	2.39	0.51
22:CV:30:G:N2	22:CV:41:C:C2	2.78	0.51
55:CY:114:THR:CG2	55:CY:115:LYS:N	2.72	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:507:A:N6	57:DA:3189:NMY:HN32	2.09	0.51
24:DA:584:C:OP1	40:DQ:5:ARG:HG3	2.09	0.51
24:DA:1375:U:C5	24:DA:1376:C:C5	2.98	0.51
24:DA:1414:C:C5	24:DA:1415:U:C4	2.98	0.51
24:DA:1759:A:H4'	24:DA:2715:C:O4'	2.10	0.51
24:DA:1789:A:OP1	26:DC:220:ARG:HD3	2.09	0.51
24:DA:1993:U:C2'	24:DA:1994:C:H5'	2.40	0.51
24:DA:2167:U:N3	24:DA:2170:A:OP2	2.43	0.51
24:DA:2471:A:N6	24:DA:2472:G:C2	2.78	0.51
24:DA:2483:C:H1'	36:DM:51:ARG:NH2	2.26	0.51
24:DA:2761:A:O2'	30:DG:142:GLN:NE2	2.43	0.51
24:DA:2846:G:OP1	39:DP:52:ARG:NH1	2.43	0.51
26:DC:216:ARG:HD3	26:DC:217:PRO:HD2	1.92	0.51
28:DE:97:ASN:ND2	28:DE:100:MET:HE3	2.26	0.51
29:DF:95:MET:O	29:DF:99:PHE:CD1	2.64	0.51
31:DH:71:LYS:HE3	31:DH:108:VAL:HB	1.91	0.51
31:DH:82:SER:HB3	31:DH:146:VAL:HG23	1.91	0.51
32:DI:23:VAL:HG13	32:DI:24:GLY:H	1.75	0.51
37:DN:38:LEU:HB3	37:DN:39:PRO:HD3	1.92	0.51
38:DO:11:ALA:O	38:DO:13:ARG:N	2.44	0.51
40:DQ:67:ALA:O	40:DQ:68:ALA:C	2.53	0.51
43:DT:34:VAL:O	43:DT:35:ALA:C	2.53	0.51
44:DU:73:ASN:O	44:DU:74:ALA:C	2.52	0.51
53:D3:26:ALA:O	53:D3:27:ASN:CB	2.57	0.51
1:AA:213:G:N7	1:AA:214:C:C5	2.79	0.51
1:AA:298:A:H3'	1:AA:299:G:C8	2.44	0.51
1:AA:503:C:O2'	1:AA:510:A:N1	2.36	0.51
1:AA:572:A:H1'	1:AA:917:G:O4'	2.10	0.51
1:AA:984:C:O2	1:AA:1222:G:N2	2.43	0.51
1:AA:1074:G:C6	1:AA:1075:U:C4	2.98	0.51
1:AA:1091:U:C2	1:AA:1093:A:OP2	2.63	0.51
7:AG:132:GLY:O	7:AG:135:VAL:HG22	2.11	0.51
9:AI:38:TYR:CE2	9:AI:39:PHE:CE1	2.98	0.51
9:AI:129:LYS:O	9:AI:130:ARG:HG2	2.10	0.51
11:AK:125:LYS:HA	21:AU:35:ARG:CB	2.41	0.51
14:AN:25:GLU:OE1	14:AN:26:LEU:N	2.43	0.51
15:AO:88:ARG:O	15:AO:89:ARG:C	2.53	0.51
16:AP:19:VAL:HG21	16:AP:36:VAL:HG23	1.93	0.51
18:AR:53:ARG:C	18:AR:57:ARG:NH1	2.68	0.51
20:AT:67:ILE:HD11	20:AT:71:LYS:HE2	1.92	0.51
22:AV:33:U:O2	22:AV:35:A:C8	2.63	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:613:A:H3'	24:BA:614:A:H5'	1.93	0.51
24:BA:621:A:H2'	24:BA:622:G:C5'	2.40	0.51
24:BA:682:G:C2	24:BA:683:U:C6	2.98	0.51
24:BA:910:A:N1	24:BA:2277:G:H1'	2.26	0.51
24:BA:1071:G:C1'	24:BA:1089:A:C8	2.94	0.51
24:BA:1199:U:H2'	24:BA:1200:C:C6	2.46	0.51
24:BA:1368:G:H5'	52:B2:25:LYS:HD2	1.92	0.51
24:BA:1448:G:C5	24:BA:1449:G:C5	2.99	0.51
24:BA:1553:A:C8	24:BA:1555:G:C6	2.98	0.51
24:BA:1843:C:H4'	26:BC:250:GLN:NE2	2.25	0.51
24:BA:1853:A:N1	24:BA:2087:G:H1'	2.26	0.51
24:BA:2179:C:H2'	24:BA:2180:U:C6	2.46	0.51
24:BA:2204:G:N3	24:BA:2205:A:C8	2.79	0.51
57:BA:3161:NMY:H19	57:BA:3161:NMY:H14	1.88	0.51
25:BB:8:C:O3'	38:BO:25:ARG:NH1	2.44	0.51
26:BC:74:PRO:HA	26:BC:116:GLN:OE1	2.11	0.51
26:BC:175:LEU:HD12	26:BC:179:GLU:O	2.11	0.51
29:BF:172:PHE:O	29:BF:173:ASP:C	2.53	0.51
30:BG:139:VAL:HG12	30:BG:143:VAL:HG23	1.93	0.51
31:BH:71:LYS:CD	31:BH:71:LYS:C	2.83	0.51
34:BK:7:MET:HG2	34:BK:20:MET:CA	2.40	0.51
36:BM:89:VAL:CG1	36:BM:90:GLU:N	2.73	0.51
1:CA:126:G:H2'	1:CA:127:G:O4'	2.08	0.51
1:CA:489:C:H2'	1:CA:490:C:C6	2.44	0.51
1:CA:693:G:C2	23:CX:10:A:N6	2.78	0.51
1:CA:713:G:H21	1:CA:777:A:H4'	1.75	0.51
1:CA:1204:A:H2'	1:CA:1205:U:O4'	2.10	0.51
1:CA:1242:G:C6	1:CA:1243:C:H5	2.27	0.51
1:CA:1268:G:C6	1:CA:1269:A:C6	2.99	0.51
1:CA:1309:G:C2	1:CA:1329:A:C4	2.98	0.51
8:CH:56:LYS:O	8:CH:57:PRO:O	2.29	0.51
12:CL:44:LYS:HB3	12:CL:45:PRO:HD3	1.93	0.51
12:CL:83:ARG:NH2	12:CL:96:HIS:CG	2.78	0.51
15:CO:25:THR:OG1	15:CO:26:GLU:N	2.42	0.51
18:CR:39:ILE:HD11	18:CR:59:ILE:HD12	1.91	0.51
18:CR:48:ARG:HG3	18:CR:51:TYR:CD2	2.46	0.51
20:CT:3:ASN:O	20:CT:4:ILE:HG13	2.10	0.51
22:CV:9:A:C5	22:CV:46:G:N2	2.79	0.51
24:DA:140:C:O4'	24:DA:140:C:O2	2.28	0.51
24:DA:242:G:H5"	53:D3:63:TYR:CE2	2.46	0.51
24:DA:528:A:C2	24:DA:2042:A:H2'	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:528:A:H2	24:DA:2043:C:H5'	1.76	0.51
24:DA:753:A:H2'	24:DA:754:U:C6	2.46	0.51
24:DA:863:A:H2'	24:DA:864:G:C8	2.44	0.51
24:DA:866:A:C8	24:DA:914:G:N1	2.78	0.51
24:DA:971:G:H2'	24:DA:972:A:O4'	2.10	0.51
24:DA:1059:G:C4	24:DA:1060:U:C4	2.98	0.51
24:DA:1091:G:C6	24:DA:1101:U:N3	2.78	0.51
24:DA:1439:A:N7	24:DA:1440:U:C2	2.78	0.51
24:DA:1483:G:C5	24:DA:1484:U:C6	2.98	0.51
24:DA:2447:G:O2'	24:DA:2500:U:OP2	2.17	0.51
24:DA:2553:G:O4'	24:DA:2582:G:O2'	2.25	0.51
26:DC:39:SER:C	26:DC:41:GLY:H	2.19	0.51
26:DC:64:VAL:HG21	26:DC:66:PHE:CD2	2.46	0.51
26:DC:158:GLY:CA	26:DC:194:VAL:HG12	2.41	0.51
27:DD:107:VAL:HB	27:DD:204:LYS:O	2.10	0.51
28:DE:122:GLU:N	28:DE:122:GLU:OE1	2.41	0.51
30:DG:36:LEU:O	30:DG:37:ASN:C	2.53	0.51
32:DI:21:PRO:HB2	32:DI:22:PRO:HD3	1.93	0.51
34:DK:77:ILE:CG1	39:DP:71:ARG:HG2	2.40	0.51
34:DK:105:ARG:HG2	34:DK:122:VAL:HG12	1.90	0.51
41:DR:21:ARG:NH2	41:DR:93:PHE:CE2	2.78	0.51
43:DT:73:ARG:HH21	43:DT:73:ARG:CG	2.23	0.51
48:DY:32:ALA:HA	48:DY:37:LEU:HB3	1.92	0.51
1:AA:100:G:C8	1:AA:101:A:N7	2.78	0.51
1:AA:173:U:C6	1:AA:197:A:C2	2.99	0.51
1:AA:223:A:H2'	1:AA:224:U:C6	2.46	0.51
1:AA:332:G:P	20:AT:5:LYS:HD2	2.50	0.51
1:AA:419:C:C4	1:AA:420:U:C4	2.99	0.51
1:AA:512:U:C2	1:AA:513:C:C6	2.99	0.51
1:AA:594:U:O2	1:AA:646:G:C6	2.64	0.51
1:AA:697:U:O2	1:AA:798:U:H1'	2.10	0.51
1:AA:734:G:C2	1:AA:735:C:C2	2.99	0.51
1:AA:1092:A:N6	1:AA:1093:A:N6	2.59	0.51
1:AA:1159:U:C4	1:AA:1182:G:C5	2.98	0.51
1:AA:1171:A:C2	1:AA:1172:C:C2	2.98	0.51
1:AA:1350:A:C2	1:AA:1351:U:N3	2.79	0.51
1:AA:1421:G:C6	1:AA:1480:A:N1	2.78	0.51
2:AB:14:VAL:O	2:AB:15:HIS:ND1	2.42	0.51
2:AB:73:LYS:CD	2:AB:75:ALA:HB3	2.40	0.51
2:AB:170:HIS:C	2:AB:172:ALA:N	2.68	0.51
4:AD:59:GLN:HG3	4:AD:63:ARG:NH1	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:65:TYR:CD2	4:AD:94:LEU:HD22	2.46	0.51
5:AE:141:ILE:C	5:AE:143:GLY:H	2.18	0.51
6:AF:39:LEU:HD22	6:AF:62:MET:HE3	1.91	0.51
7:AG:131:LYS:N	7:AG:135:VAL:HG21	2.26	0.51
11:AK:46:THR:HG23	11:AK:49:GLY:CA	2.39	0.51
11:AK:46:THR:C	11:AK:48:GLY:N	2.66	0.51
14:AN:61:ARG:O	14:AN:62:ASN:CB	2.58	0.51
14:AN:88:ALA:HA	14:AN:93:ILE:HD12	1.92	0.51
15:AO:2:SER:O	15:AO:3:LEU:HD13	2.10	0.51
22:AV:65:G:C6	22:AV:66:U:O4	2.64	0.51
24:BA:379:G:H2'	24:BA:380:G:O5'	2.10	0.51
24:BA:494:G:O2'	24:BA:495:G:H5'	2.11	0.51
24:BA:627:A:O3'	24:BA:628:G:H8	1.94	0.51
24:BA:863:A:O2'	24:BA:864:G:H5'	2.11	0.51
24:BA:1141:U:OP2	33:BJ:65:THR:CG2	2.59	0.51
24:BA:1183:U:H2'	24:BA:1184:U:H6	1.76	0.51
24:BA:1346:G:N3	24:BA:1347:A:C8	2.78	0.51
24:BA:1429:G:O4'	24:BA:1568:G:C2'	2.58	0.51
24:BA:1856:U:O4	24:BA:1857:G:C6	2.64	0.51
24:BA:2138:G:C6	24:BA:2154:A:N1	2.79	0.51
24:BA:2323:G:C6	24:BA:2324:U:C4	2.97	0.51
24:BA:2428:G:H5"	24:BA:2429:G:P	2.51	0.51
24:BA:2565:A:H62	34:BK:28:SER:CB	2.23	0.51
26:BC:17:LYS:O	26:BC:18:VAL:HG23	2.10	0.51
26:BC:44:ASN:C	26:BC:46:GLY:H	2.18	0.51
29:BF:93:GLU:O	29:BF:94:ARG:C	2.50	0.51
31:BH:118:PRO:CD	31:BH:119:ASN:H	2.24	0.51
33:BJ:43:GLU:O	33:BJ:44:TYR:C	2.54	0.51
47:BX:6:VAL:HG12	47:BX:7:THR:N	2.24	0.51
47:BX:19:HIS:C	47:BX:21:LEU:N	2.65	0.51
1:CA:174:A:C2	1:CA:175:C:C1'	2.94	0.51
1:CA:194:C:C5'	20:CT:60:ARG:NH1	2.73	0.51
1:CA:291:U:O2'	1:CA:292:G:H5'	2.09	0.51
1:CA:329:A:C2	1:CA:332:G:C4	2.99	0.51
1:CA:518:C:H2'	1:CA:530:G:C8	2.46	0.51
1:CA:840:C:C2'	1:CA:841:C:OP1	2.57	0.51
1:CA:1239:A:C2'	1:CA:1298:U:O4	2.58	0.51
1:CA:1493:A:H3'	1:CA:1493:A:C8	2.46	0.51
2:CB:152:LYS:HG3	2:CB:153:ASP:N	2.25	0.51
4:CD:87:GLY:O	4:CD:91:LEU:HD12	2.11	0.51
4:CD:104:ARG:NH1	4:CD:171:LEU:HD23	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:113:ASP:C	8:CH:115:ALA:H	2.18	0.51
11:CK:65:VAL:O	11:CK:65:VAL:HG22	2.11	0.51
12:CL:65:SER:HA	12:CL:95:TYR:CB	2.40	0.51
21:CU:12:PHE:CD2	21:CU:14:VAL:HG12	2.46	0.51
21:CU:18:ARG:O	21:CU:18:ARG:CG	2.58	0.51
55:CY:33:SER:C	55:CY:35:SER:H	2.18	0.51
24:DA:38:A:C2	24:DA:442:G:C2	2.98	0.51
24:DA:604:G:H8	24:DA:604:G:H5"	1.76	0.51
24:DA:1068:G:H4'	32:DI:10:LEU:HD11	1.91	0.51
24:DA:1205:A:H4'	24:DA:1206:G:OP2	2.10	0.51
24:DA:1205:A:O4'	57:DA:3190:NMY:H15	2.10	0.51
24:DA:1265:A:O4'	24:DA:1267:U:C6	2.63	0.51
24:DA:1459:G:H2'	24:DA:1460:U:H5"	1.93	0.51
24:DA:2531:A:O4'	30:DG:173:ALA:CB	2.59	0.51
24:DA:2602:A:H4'	24:DA:2603:G:OP2	2.11	0.51
24:DA:2784:U:H2'	24:DA:2785:C:C6	2.46	0.51
24:DA:2848:G:O3'	39:DP:92:ARG:NH1	2.43	0.51
25:DB:95:U:H2'	25:DB:96:G:C8	2.45	0.51
27:DD:22:ILE:HD11	27:DD:190:LYS:HB2	1.93	0.51
29:DF:34:THR:HB	29:DF:89:THR:HA	1.92	0.51
29:DF:62:GLN:OE1	29:DF:90:LEU:HB3	2.11	0.51
40:DQ:82:LEU:HG	40:DQ:87:VAL:CG1	2.39	0.51
45:DV:48:MET:CA	45:DV:51:GLN:OE1	2.57	0.51
50:D0:24:VAL:HG13	50:D0:25:THR:N	2.24	0.51
1:AA:337:G:O2'	1:AA:338:A:O5'	2.28	0.51
1:AA:368:U:N3	31:DH:91:PHE:HB3	2.26	0.51
1:AA:460:A:C2	1:AA:461:A:C5	2.99	0.51
1:AA:571:U:H3'	1:AA:572:A:H5"	1.93	0.51
1:AA:769:G:C6	1:AA:770:C:C5	2.98	0.51
1:AA:908:A:C4	1:AA:909:A:C8	2.98	0.51
1:AA:1193:G:H2'	1:AA:1193:G:N3	2.26	0.51
1:AA:1347:G:N2	1:AA:1373:G:C4	2.79	0.51
1:AA:1533:C:O4'	1:AA:1533:C:O2	2.26	0.51
2:AB:17:GLY:HA3	2:AB:202:GLY:HA2	1.93	0.51
5:AE:83:HIS:CG	5:AE:84:PRO:HD2	2.45	0.51
5:AE:156:LYS:HG2	8:AH:64:LYS:NZ	2.26	0.51
6:AF:96:VAL:CG2	6:AF:97:THR:N	2.73	0.51
10:AJ:5:ARG:CZ	10:AJ:79:PRO:HG3	2.40	0.51
11:AK:28:ASN:O	11:AK:57:LYS:HE3	2.11	0.51
11:AK:56:ARG:C	11:AK:58:SER:N	2.66	0.51
11:AK:122:ARG:HG2	11:AK:123:PRO:O	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:101:TRP:CD1	14:AN:101:TRP:N	2.77	0.51
20:AT:5:LYS:O	20:AT:6:SER:C	2.54	0.51
24:BA:98:G:H2'	24:BA:98:G:N3	2.26	0.51
24:BA:691:C:P	26:BC:216:ARG:NH2	2.83	0.51
24:BA:1069:A:C6	24:BA:1074:G:N3	2.79	0.51
24:BA:1192:G:H2'	24:BA:1193:G:H5'	1.92	0.51
24:BA:1287:A:C5'	37:BN:103:ARG:HD2	2.41	0.51
24:BA:1448:G:C6	24:BA:1464:G:N1	2.78	0.51
24:BA:1847:A:O2'	24:BA:1848:A:P	2.68	0.51
24:BA:2331:G:O3'	46:BW:43:THR:HG22	2.11	0.51
24:BA:2491:U:C5'	24:BA:2570:G:H5"	2.40	0.51
24:BA:2581:G:C4	24:BA:2610:C:C5	2.98	0.51
24:BA:2726:A:O2'	24:BA:2727:A:C5'	2.58	0.51
25:BB:49:C:H4'	38:BO:68:LYS:HE2	1.92	0.51
25:BB:61:G:C6	25:BB:62:C:C4	2.98	0.51
25:BB:75:G:C4'	45:BV:29:ILE:CD1	2.89	0.51
27:BD:34:VAL:CB	27:BD:48:ILE:HD11	2.40	0.51
29:BF:110:ILE:O	29:BF:110:ILE:HG13	2.10	0.51
36:BM:11:LYS:HE3	36:BM:88:ASN:HA	1.91	0.51
42:BS:33:LEU:HB3	42:BS:51:LEU:CD2	2.41	0.51
47:BX:31:ASN:CG	47:BX:52:ALA:HB2	2.35	0.51
1:CA:64:G:H4'	1:CA:65:A:H3'	1.92	0.51
1:CA:193:C:H2'	1:CA:194:C:C6	2.46	0.51
1:CA:214:C:H2'	1:CA:215:C:O5'	2.11	0.51
1:CA:668:G:C2	1:CA:669:G:C4	2.98	0.51
1:CA:769:G:H4'	1:CA:1513:A:H4'	1.93	0.51
1:CA:1122:U:H2'	1:CA:1123:U:O4'	2.11	0.51
1:CA:1134:G:C2	1:CA:1135:U:C2	2.98	0.51
1:CA:1309:G:C4	1:CA:1329:A:C6	2.99	0.51
1:CA:1536:C:C4	1:CA:1537:U:C4	2.99	0.51
2:CB:101:LEU:CD2	2:CB:175:GLU:CD	2.83	0.51
2:CB:171:ILE:HG22	2:CB:175:GLU:CD	2.34	0.51
4:CD:100:ASN:OD1	4:CD:111:ARG:NH2	2.44	0.51
5:CE:106:ILE:CG1	5:CE:124:LEU:HB3	2.41	0.51
6:CF:40:GLU:O	6:CF:42:TRP:CD1	2.63	0.51
9:CI:81:HIS:O	9:CI:83:ILE:N	2.43	0.51
11:CK:13:ARG:O	11:CK:14:LYS:HB2	2.10	0.51
11:CK:52:PHE:CD1	11:CK:57:LYS:CE	2.94	0.51
12:CL:21:VAL:O	12:CL:21:VAL:CG2	2.58	0.51
13:CM:109:ARG:CZ	13:CM:109:ARG:HB2	2.39	0.51
55:CY:7:LYS:O	55:CY:11:VAL:HG12	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CY:48:PRO:O	55:CY:49:THR:HB	2.11	0.51
24:DA:136:G:N3	24:DA:144:A:C2	2.79	0.51
24:DA:538:A:OP2	57:DA:3186:NMY:C16	2.54	0.51
24:DA:575:A:H2'	24:DA:576:U:H5'	1.93	0.51
24:DA:1141:U:OP2	33:DJ:65:THR:HG21	2.11	0.51
24:DA:1265:A:OP2	59:DA:3754:HOH:O	2.19	0.51
24:DA:1335:C:OP1	43:DT:68:LYS:HE2	2.10	0.51
24:DA:1424:G:C2	24:DA:1425:G:H1'	2.46	0.51
24:DA:1558:C:N3	24:DA:1560:G:C2	2.79	0.51
24:DA:2656:U:OP2	24:DA:2664:G:N1	2.33	0.51
25:DB:10:G:H5'	25:DB:11:C:OP2	2.11	0.51
25:DB:91:C:H2'	25:DB:92:C:C6	2.45	0.51
30:DG:93:TYR:HA	30:DG:105:SER:O	2.10	0.51
30:DG:104:LEU:CD2	30:DG:106:LEU:HD21	2.40	0.51
31:DH:137:GLU:C	31:DH:138:VAL:HG23	2.36	0.51
37:DN:33:ILE:C	37:DN:33:ILE:HD12	2.36	0.51
44:DU:10:VAL:O	44:DU:21:ARG:HA	2.10	0.51
45:DV:90:ASP:N	45:DV:90:ASP:OD1	2.43	0.51
46:DW:51:VAL:O	46:DW:52:GLY:O	2.29	0.51
1:AA:96:U:O2'	1:AA:97:G:OP1	2.27	0.51
1:AA:411:A:C5	1:AA:429:U:C5	2.99	0.51
1:AA:503:C:O2	1:AA:510:A:H2	1.94	0.51
1:AA:541:G:C6	1:AA:542:G:C5	2.98	0.51
1:AA:775:G:O2'	1:AA:776:G:O5'	2.13	0.51
1:AA:978:A:C2	1:AA:1319:A:N3	2.79	0.51
1:AA:1047:G:O2'	1:AA:1215:G:O2'	2.17	0.51
1:AA:1285:A:H5"	1:AA:1286:U:N3	2.25	0.51
1:AA:1315:U:HO2'	1:AA:1360:A:HO2'	1.58	0.51
1:AA:1405:G:O2'	1:AA:1406:U:H5'	2.10	0.51
1:AA:1489:G:C5	1:AA:1490:U:C5	2.98	0.51
2:AB:131:LYS:HA	2:AB:134:ALA:HB3	1.91	0.51
3:AC:98:PRO:O	3:AC:99:ALA:HB3	2.10	0.51
3:AC:106:VAL:C	3:AC:108:LYS:N	2.67	0.51
4:AD:86:THR:O	4:AD:90:LEU:HD23	2.10	0.51
4:AD:170:TRP:CD1	4:AD:186:PRO:HD3	2.45	0.51
5:AE:60:ILE:HD12	5:AE:61:GLN:N	2.26	0.51
8:AH:48:ASP:OD1	8:AH:49:PHE:N	2.41	0.51
9:AI:100:LYS:O	9:AI:102:GLY:N	2.43	0.51
24:BA:309:A:H1'	24:BA:329:G:N3	2.26	0.51
24:BA:573:U:O4	24:BA:2030:A:H3'	2.11	0.51
24:BA:605:G:H2'	24:BA:606:U:C6	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:699:A:C8	24:BA:734:A:C2	2.98	0.51
24:BA:1239:G:C5	24:BA:1240:U:C5	2.98	0.51
24:BA:1268:A:C6	24:BA:2013:A:C8	2.98	0.51
24:BA:1277:G:H2'	24:BA:1278:C:O4'	2.11	0.51
24:BA:1350:C:C6	24:BA:1382:G:N2	2.78	0.51
24:BA:2048:G:N7	59:BA:3678:HOH:O	2.35	0.51
24:BA:2092:U:OP2	31:BH:27:ARG:NH2	2.44	0.51
24:BA:2330:G:C5	24:BA:2331:G:C8	2.99	0.51
24:BA:2447:G:C8	24:BA:2501:C:C6	2.99	0.51
24:BA:2539:C:H5'	54:B4:3:VAL:HG21	1.93	0.51
24:BA:2562:U:H2'	24:BA:2563:U:H5'	1.92	0.51
24:BA:2782:G:C2	24:BA:2783:U:C6	2.99	0.51
26:BC:199:HIS:C	26:BC:201:LEU:H	2.19	0.51
29:BF:4:HIS:CG	29:BF:96:TRP:CD1	2.83	0.51
33:BJ:32:LEU:O	33:BJ:33:ALA:C	2.53	0.51
36:BM:41:LEU:HD21	36:BM:125:PRO:CD	2.41	0.51
36:BM:108:VAL:CG1	36:BM:112:LEU:HB3	2.41	0.51
39:BP:58:PHE:N	39:BP:58:PHE:CD1	2.77	0.51
40:BQ:59:LEU:C	40:BQ:59:LEU:HD12	2.34	0.51
43:BT:17:SER:HB2	43:BT:19:LYS:HE3	1.93	0.51
44:BU:72:PHE:O	44:BU:73:ASN:C	2.54	0.51
54:B4:30:GLU:HB2	54:B4:33:HIS:ND1	2.24	0.51
1:CA:81:A:H2'	1:CA:82:G:H5'	1.92	0.51
1:CA:138:G:C6	1:CA:139:A:C6	2.99	0.51
1:CA:795:C:O2	11:CK:128:ARG:CZ	2.58	0.51
1:CA:805:C:H2'	1:CA:806:C:H6	1.76	0.51
1:CA:832:G:H2'	1:CA:833:G:H5'	1.91	0.51
1:CA:931:C:O2	1:CA:932:C:C6	2.64	0.51
1:CA:1067:A:O2'	1:CA:1093:A:O2'	1.95	0.51
1:CA:1151:A:O2'	1:CA:1152:A:H5"	2.11	0.51
1:CA:1225:A:H2'	1:CA:1226:C:C6	2.46	0.51
1:CA:1312:G:N7	19:CS:3:ARG:HA	2.25	0.51
2:CB:144:LEU:HB2	2:CB:148:LEU:HD11	1.91	0.51
2:CB:164:ILE:HG23	2:CB:165:ASP:N	2.26	0.51
3:CC:61:ALA:O	3:CC:62:LYS:HB3	2.10	0.51
4:CD:65:TYR:O	4:CD:66:GLY:C	2.52	0.51
11:CK:51:GLY:O	11:CK:52:PHE:CD1	2.64	0.51
11:CK:76:GLU:N	24:DA:2141:G:OP1	2.43	0.51
13:CM:68:ASP:HB3	13:CM:71:ARG:CD	2.41	0.51
13:CM:80:LEU:HA	13:CM:83:LEU:HD21	1.92	0.51
14:CN:54:ASP:HA	14:CN:59:ARG:HG2	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:25:THR:O	15:CO:26:GLU:C	2.53	0.51
16:CP:52:LEU:HD23	16:CP:57:ILE:HD11	1.92	0.51
22:CV:27:G:C6	22:CV:43:C:N4	2.66	0.51
55:CY:13:MET:C	55:CY:15:LYS:N	2.68	0.51
24:DA:34:U:O2'	24:DA:35:G:OP1	2.26	0.51
24:DA:133:U:H2'	24:DA:134:G:O4'	2.10	0.51
24:DA:223:A:N7	24:DA:422:A:H1'	2.26	0.51
24:DA:538:A:H8	57:DA:3186:NMY:H192	1.59	0.51
24:DA:605:G:C5	24:DA:606:U:C5	2.98	0.51
24:DA:933:A:H5'	24:DA:934:U:OP2	2.11	0.51
24:DA:1414:C:C4	24:DA:1415:U:C5	2.99	0.51
24:DA:1494:A:C5	24:DA:1495:A:C5	2.99	0.51
24:DA:2061:G:N3	24:DA:2063:C:C4	2.79	0.51
24:DA:2483:C:C1'	36:DM:51:ARG:HH21	2.22	0.51
24:DA:2517:C:C5	24:DA:2542:A:C5	2.99	0.51
24:DA:2572:A:N7	27:DD:150:GLN:HB2	2.26	0.51
24:DA:2711:A:OP2	59:DA:3546:HOH:O	2.20	0.51
24:DA:2870:C:C4	24:DA:2871:U:C5	2.98	0.51
57:DA:3184:NMY:N2	57:DA:3184:NMY:C16	2.73	0.51
26:DC:221:GLY:HA2	26:DC:224:MET:HE3	1.92	0.51
27:DD:125:TRP:CD2	27:DD:160:LYS:CG	2.94	0.51
29:DF:91:ARG:O	29:DF:92:GLY:O	2.29	0.51
29:DF:153:ILE:O	29:DF:154:THR:HB	2.09	0.51
30:DG:75:VAL:O	30:DG:79:THR:N	2.38	0.51
30:DG:108:PHE:C	30:DG:108:PHE:CD1	2.88	0.51
30:DG:115:GLN:HG2	30:DG:115:GLN:O	2.10	0.51
30:DG:116:LEU:HD23	30:DG:117:PRO:HD3	1.92	0.51
32:DI:116:MET:HE1	32:DI:127:SER:OG	2.11	0.51
35:DL:28:GLY:O	35:DL:29:LYS:HB3	2.10	0.51
39:DP:28:LYS:HE3	39:DP:82:SER:HB2	1.92	0.51
40:DQ:81:GLY:CA	40:DQ:116:LEU:HD23	2.41	0.51
44:DU:28:LEU:C	44:DU:30:SER:N	2.68	0.51
50:D0:54:ILE:O	50:D0:55:ALA:CB	2.58	0.51
1:AA:15:G:C6	1:AA:16:A:C5	2.99	0.51
1:AA:56:U:C6	31:DH:91:PHE:CE2	2.99	0.51
1:AA:109:A:H3'	1:AA:110:C:H5'	1.93	0.51
1:AA:307:C:C5	1:AA:308:C:C5	2.99	0.51
1:AA:391:G:C5	1:AA:392:C:C6	2.99	0.51
1:AA:428:G:C5'	4:AD:9:LEU:HD11	2.39	0.51
1:AA:465:A:C2	1:AA:466:A:C4	2.99	0.51
1:AA:580:C:H4'	15:AO:57:LEU:CD1	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:718:A:C8	1:AA:719:C:C5	2.99	0.51
1:AA:723:U:H2'	1:AA:855:U:H4'	1.92	0.51
1:AA:866:C:O2	1:AA:866:C:H2'	2.10	0.51
1:AA:1298:U:H4'	1:AA:1299:A:C4	2.46	0.51
1:AA:1329:A:C5'	13:AM:29:ARG:HD2	2.41	0.51
1:AA:1438:G:C4	1:AA:1439:G:C8	2.98	0.51
3:AC:133:ALA:O	3:AC:137:ALA:HB3	2.09	0.51
4:AD:62:ARG:HD2	4:AD:72:PHE:CZ	2.46	0.51
4:AD:123:ILE:CG1	4:AD:124:MET:H	2.23	0.51
12:AL:57:LEU:CD2	12:AL:59:ASN:OD1	2.59	0.51
13:AM:85:CYS:CB	19:AS:73:GLU:CG	2.89	0.51
16:AP:49:GLY:O	16:AP:50:THR:OG1	2.27	0.51
16:AP:67:ILE:CG2	16:AP:71:VAL:HG21	2.40	0.51
18:AR:49:ALA:O	18:AR:52:GLN:HB3	2.11	0.51
21:AU:26:ALA:CB	23:AX:5:A:C5'	2.88	0.51
22:AV:21:A:C8	22:AV:21:A:OP2	2.64	0.51
24:BA:194:G:OP2	59:BA:3761:HOH:O	2.18	0.51
24:BA:571:U:N3	24:BA:2030:A:C2	2.78	0.51
24:BA:729:G:P	26:BC:12:ARG:CZ	2.99	0.51
24:BA:1011:G:OP1	40:BQ:76:SER:OG	2.26	0.51
24:BA:1206:G:C5	24:BA:1207:C:C5	2.99	0.51
24:BA:1225:G:OP1	41:BR:71:LYS:NZ	2.42	0.51
24:BA:1270:C:H5"	24:BA:1271:G:O5'	2.11	0.51
24:BA:1281:G:C2'	24:BA:1282:U:O5'	2.59	0.51
24:BA:1322:A:C5	24:BA:1323:C:C5	2.99	0.51
24:BA:1442:U:C4	24:BA:1443:U:C5	2.98	0.51
24:BA:1489:C:N3	24:BA:1501:G:C2	2.78	0.51
24:BA:1500:G:C5	24:BA:1501:G:N7	2.78	0.51
24:BA:1654:A:H2	27:BD:118:PHE:CD2	2.29	0.51
24:BA:1771:C:H2'	24:BA:1772:A:C8	2.46	0.51
24:BA:1856:U:O4	24:BA:1857:G:N1	2.44	0.51
24:BA:1921:G:O6	57:BA:3161:NMY:N7	2.37	0.51
24:BA:2091:C:C4'	47:BX:55:MET:HE1	2.41	0.51
24:BA:2107:G:N2	24:BA:2108:A:N3	2.58	0.51
24:BA:2216:G:H2'	24:BA:2217:G:C8	2.45	0.51
24:BA:2295:C:C2	24:BA:2296:U:C5	2.99	0.51
24:BA:2737:G:C6	24:BA:2738:A:C6	2.99	0.51
25:BB:33:G:C6	25:BB:34:A:C6	2.99	0.51
26:BC:128:THR:C	26:BC:129:LEU:HD23	2.35	0.51
26:BC:197:ALA:O	26:BC:199:HIS:N	2.44	0.51
33:BJ:42:ALA:O	40:BQ:63:ARG:HD2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BQ:75:TYR:C	40:BQ:75:TYR:CD1	2.89	0.51
42:BS:24:ILE:HA	42:BS:27:LYS:HG3	1.93	0.51
42:BS:74:ILE:CD1	42:BS:104:THR:O	2.59	0.51
43:BT:16:VAL:CG2	43:BT:17:SER:N	2.72	0.51
43:BT:39:THR:HG22	43:BT:42:GLU:CD	2.36	0.51
44:BU:4:ILE:O	44:BU:5:ARG:HG3	2.11	0.51
1:CA:37:U:OP1	12:CL:120:LYS:HD2	2.11	0.51
1:CA:68:G:C4'	1:CA:171:A:H1'	2.41	0.51
1:CA:112:G:N1	1:CA:330:C:C5	2.79	0.51
1:CA:136:C:H1'	16:CP:1:MET:SD	2.50	0.51
1:CA:760:G:N7	1:CA:761:G:N7	2.59	0.51
1:CA:894:G:O2'	1:CA:895:G:H5'	2.10	0.51
1:CA:980:C:H4'	14:CN:59:ARG:NH1	2.26	0.51
1:CA:1048:G:H5'	14:CN:2:LYS:CE	2.41	0.51
1:CA:1057:G:N2	1:CA:1204:A:H1'	2.26	0.51
1:CA:1072:G:C5	1:CA:1073:U:C5	2.99	0.51
1:CA:1256:A:N6	1:CA:1277:C:C4	2.79	0.51
1:CA:1270:G:O4'	1:CA:1270:G:OP2	2.29	0.51
2:CB:90:PHE:HB2	2:CB:150:GLY:HA2	1.93	0.51
2:CB:188:ASP:CG	2:CB:204:ASP:HB3	2.36	0.51
3:CC:8:ASN:O	3:CC:9:GLY:C	2.53	0.51
5:CE:74:VAL:HG21	5:CE:76:LEU:HD11	1.92	0.51
7:CG:27:VAL:HG21	7:CG:40:GLU:OE1	2.10	0.51
8:CH:93:PRO:HG3	8:CH:125:ILE:CD1	2.41	0.51
9:CI:82:GLY:O	9:CI:86:ALA:N	2.43	0.51
10:CJ:65:TYR:OH	14:CN:85:ARG:HB2	2.10	0.51
14:CN:43:ASN:C	14:CN:45:VAL:N	2.69	0.51
14:CN:66:GLN:HB2	14:CN:83:LYS:HZ3	1.76	0.51
16:CP:1:MET:HG2	16:CP:2:VAL:N	2.25	0.51
19:CS:45:ILE:HD12	19:CS:63:THR:C	2.36	0.51
20:CT:35:VAL:HG22	20:CT:50:ALA:HB1	1.92	0.51
55:CY:80:LYS:HA	55:CY:83:MET:CG	2.41	0.51
24:DA:155:A:H2'	24:DA:156:A:C8	2.45	0.51
24:DA:447:A:C5	24:DA:473:G:C5	2.98	0.51
24:DA:565:C:OP1	41:DR:79:ARG:CZ	2.59	0.51
24:DA:944:C:OP1	59:DA:3261:HOH:O	2.19	0.51
24:DA:1062:G:N7	24:DA:1070:A:C5'	2.74	0.51
24:DA:1269:A:H2'	24:DA:1270:C:C6	2.45	0.51
24:DA:1369:G:C4	24:DA:1370:C:C6	2.99	0.51
24:DA:1415:U:O2	24:DA:1415:U:H2'	2.10	0.51
24:DA:1760:C:C2'	24:DA:1761:C:H5'	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2200:C:H2'	24:DA:2201:G:H5'	1.93	0.51
24:DA:2303:G:C5	24:DA:2304:G:C8	2.98	0.51
24:DA:2704:C:H2'	24:DA:2705:A:O4'	2.11	0.51
26:DC:159:THR:N	26:DC:194:VAL:HG12	2.26	0.51
28:DE:119:ILE:HB	28:DE:187:VAL:HG22	1.92	0.51
31:DH:5:LEU:O	31:DH:6:LEU:HD12	2.08	0.51
31:DH:50:ARG:HA	31:DH:50:ARG:NE	2.25	0.51
34:DK:98:ARG:HA	34:DK:118:LEU:HD22	1.93	0.51
35:DL:41:ARG:N	35:DL:41:ARG:HD2	2.26	0.51
38:DO:111:ARG:C	38:DO:113:ALA:N	2.67	0.51
44:DU:73:ASN:CG	44:DU:76:THR:CG2	2.84	0.51
51:D1:50:GLU:CG	51:D1:51:ALA:N	2.74	0.51
53:D3:31:ILE:HD13	53:D3:34:LYS:HB3	1.91	0.51
1:AA:35:G:C5	1:AA:36:C:C5	2.98	0.51
1:AA:109:A:N7	1:AA:326:G:H2'	2.26	0.51
1:AA:164:G:C5	1:AA:165:G:C8	2.99	0.51
1:AA:565:U:H3'	1:AA:566:G:H2'	1.93	0.51
1:AA:981:U:P	14:AN:8:ARG:NH1	2.84	0.51
1:AA:1192:C:C5	1:AA:1193:G:C8	2.99	0.51
1:AA:1438:G:C2'	1:AA:1439:G:O5'	2.58	0.51
3:AC:18:TRP:C	3:AC:20:SER:H	2.18	0.51
3:AC:76:VAL:O	3:AC:84:VAL:HG13	2.10	0.51
3:AC:76:VAL:HG13	3:AC:83:ASP:OD2	2.11	0.51
4:AD:61:VAL:CG2	4:AD:62:ARG:N	2.74	0.51
21:AU:26:ALA:HB2	23:AX:5:A:H5"	1.92	0.51
24:BA:57:C:H2'	24:BA:58:G:O4'	2.11	0.51
24:BA:948:C:N3	24:BA:949:G:N7	2.59	0.51
24:BA:1085:A:N1	24:BA:1086:A:N6	2.59	0.51
24:BA:1326:U:C2'	24:BA:1327:A:H5'	2.41	0.51
24:BA:1347:A:OP1	59:BA:3756:HOH:O	2.18	0.51
24:BA:1587:G:C6	24:BA:1588:G:C5	2.99	0.51
24:BA:1602:U:H3'	24:BA:1603:A:C5'	2.40	0.51
24:BA:1965:C:H5"	24:BA:1966:A:H2'	1.93	0.51
24:BA:2286:G:P	51:B1:24:LYS:HZ1	2.30	0.51
24:BA:2744:G:N3	24:BA:2744:G:H2'	2.26	0.51
24:BA:2822:G:H2'	24:BA:2823:A:H5"	1.92	0.51
26:BC:128:THR:HG23	26:BC:189:ALA:C	2.36	0.51
26:BC:220:ARG:O	26:BC:222:THR:N	2.44	0.51
36:BM:80:VAL:O	36:BM:81:ARG:C	2.54	0.51
37:BN:28:LEU:O	37:BN:32:GLU:N	2.44	0.51
42:BS:28:LYS:O	42:BS:32:ALA:N	2.39	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BU:69:VAL:O	44:BU:70:ALA:HB2	2.10	0.51
45:BV:80:HIS:ND1	45:BV:85:LYS:O	2.43	0.51
48:BY:60:LYS:O	48:BY:60:LYS:HG3	2.10	0.51
49:BZ:46:MET:O	49:BZ:50:VAL:HG12	2.11	0.51
1:CA:66:A:O4'	1:CA:173:U:N3	2.44	0.51
1:CA:79:G:N2	1:CA:90:C:N3	2.58	0.51
1:CA:101:A:C5	1:CA:102:G:C8	2.99	0.51
1:CA:256:U:H2'	1:CA:257:G:O4'	2.11	0.51
1:CA:476:U:H2'	1:CA:477:C:C6	2.45	0.51
1:CA:545:C:H2'	1:CA:546:A:H5'	1.93	0.51
1:CA:620:C:C1'	4:CD:132:ILE:HD11	2.40	0.51
1:CA:1080:A:P	5:CE:52:LYS:NZ	2.84	0.51
1:CA:1296:C:P	13:CM:14:HIS:CE1	3.04	0.51
2:CB:132:LYS:O	2:CB:133:GLU:C	2.54	0.51
2:CB:134:ALA:O	2:CB:137:ARG:HG2	2.10	0.51
3:CC:9:GLY:HA2	3:CC:12:LEU:HD13	1.93	0.51
3:CC:117:ALA:HB2	3:CC:200:VAL:CG2	2.40	0.51
4:CD:27:ALA:O	4:CD:28:ILE:HB	2.11	0.51
7:CG:140:ASP:OD1	7:CG:140:ASP:N	2.43	0.51
11:CK:57:LYS:O	11:CK:58:SER:CB	2.59	0.51
12:CL:24:LEU:C	12:CL:26:ALA:N	2.63	0.51
14:CN:2:LYS:HZ2	14:CN:4:SER:HB3	1.76	0.51
14:CN:3:GLN:OE1	14:CN:6:LYS:NZ	2.36	0.51
15:CO:11:ILE:HD13	15:CO:31:LEU:HD11	1.92	0.51
15:CO:43:PHE:O	15:CO:47:LYS:HB3	2.11	0.51
24:DA:84:A:N6	24:DA:99:U:H5'	2.26	0.51
24:DA:161:A:C6	24:DA:162:U:C4	2.99	0.51
24:DA:372:G:OP2	47:DX:60:LYS:HD3	2.10	0.51
24:DA:445:C:C6	24:DA:445:C:C3'	2.94	0.51
24:DA:527:C:O2	24:DA:528:A:N6	2.44	0.51
24:DA:995:C:H5'	24:DA:995:C:C6	2.45	0.51
24:DA:1068:G:N1	24:DA:1069:A:C6	2.79	0.51
24:DA:1081:U:H5'	32:DI:126:ARG:NH1	2.26	0.51
24:DA:1157:G:H2'	24:DA:1157:G:N3	2.25	0.51
24:DA:1407:G:O6	24:DA:1595:C:N3	2.44	0.51
24:DA:1415:U:C6	24:DA:1588:G:C2	2.99	0.51
24:DA:1434:A:N3	24:DA:1435:G:N7	2.59	0.51
24:DA:1984:G:C2'	24:DA:1985:C:H5'	2.41	0.51
24:DA:2586:U:C2'	24:DA:2587:A:O5'	2.58	0.51
29:DF:116:LEU:HD23	29:DF:117:SER:N	2.25	0.51
29:DF:134:GLN:CG	29:DF:135:ILE:N	2.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DF:153:ILE:CD1	29:DF:154:THR:N	2.74	0.51
32:DI:41:PHE:C	32:DI:41:PHE:CD1	2.88	0.51
32:DI:96:LYS:O	32:DI:97:VAL:HB	2.11	0.51
38:DO:54:VAL:O	38:DO:56:LYS:N	2.44	0.51
38:DO:55:GLU:O	38:DO:56:LYS:C	2.54	0.51
38:DO:98:GLN:O	38:DO:100:HIS:N	2.43	0.51
43:DT:64:LYS:O	43:DT:64:LYS:HG2	2.10	0.51
45:DV:80:HIS:ND1	45:DV:83:LYS:HB2	2.26	0.51
45:DV:82:TYR:N	45:DV:82:TYR:CD1	2.79	0.51
52:D2:30:VAL:O	52:D2:33:ARG:HB2	2.11	0.51
53:D3:29:ARG:O	53:D3:30:HIS:HB3	2.10	0.51
1:AA:192:A:C6	1:AA:193:C:C4	2.99	0.51
1:AA:257:G:N2	1:AA:258:G:C5	2.79	0.51
1:AA:508:U:H4'	4:AD:51:TYR:CE1	2.45	0.51
1:AA:515:G:N1	1:AA:537:G:C2	2.79	0.51
1:AA:599:C:H2'	1:AA:600:A:C8	2.46	0.51
1:AA:792:A:H4'	1:AA:793:U:O5'	2.10	0.51
2:AB:22:TYR:C	2:AB:23:TRP:CD1	2.89	0.51
2:AB:80:VAL:O	2:AB:80:VAL:HG12	2.09	0.51
3:AC:12:LEU:O	3:AC:14:ILE:N	2.44	0.51
5:AE:64:MET:O	5:AE:65:GLU:C	2.54	0.51
5:AE:115:LEU:HB3	5:AE:120:VAL:HG23	1.93	0.51
9:AI:50:GLN:NE2	9:AI:103:PHE:CE1	2.79	0.51
14:AN:33:VAL:O	14:AN:34:ASN:CG	2.54	0.51
16:AP:57:ILE:O	16:AP:59:HIS:N	2.44	0.51
20:AT:70:ASN:O	20:AT:71:LYS:C	2.54	0.51
24:BA:391:A:C2	24:BA:411:G:N7	2.79	0.51
24:BA:668:A:C5	24:BA:670:A:C8	2.99	0.51
24:BA:729:G:OP2	26:BC:206:LYS:CE	2.58	0.51
24:BA:867:C:C2'	24:BA:868:U:H5'	2.41	0.51
24:BA:969:G:H2'	24:BA:970:U:H6	1.74	0.51
24:BA:1223:G:OP2	41:BR:68:ARG:NH1	2.44	0.51
24:BA:1270:C:C5'	24:BA:1271:G:O5'	2.59	0.51
24:BA:1392:A:C6	24:BA:1393:A:C6	2.99	0.51
24:BA:1586:A:C6	24:BA:1587:G:C4	2.99	0.51
24:BA:2259:U:H1'	24:BA:2427:C:C2	2.46	0.51
24:BA:2562:U:C2'	24:BA:2563:U:H5'	2.40	0.51
24:BA:2681:C:C5	24:BA:2724:U:C5	2.98	0.51
24:BA:2791:G:C2	24:BA:2806:C:O2	2.64	0.51
25:BB:85:G:C2	25:BB:86:G:C8	2.99	0.51
26:BC:72:GLY:O	26:BC:73:ILE:C	2.54	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BF:37:MET:HG2	29:BF:151:LEU:HB2	1.93	0.51
30:BG:41:GLU:HB3	30:BG:54:ARG:CZ	2.40	0.51
34:BK:2:ILE:HG22	34:BK:33:ALA:O	2.11	0.51
36:BM:65:ILE:C	36:BM:65:ILE:HD12	2.36	0.51
37:BN:57:THR:O	37:BN:58:ASP:C	2.54	0.51
37:BN:90:ARG:HG2	37:BN:94:TYR:CE1	2.46	0.51
38:BO:62:LEU:HD23	38:BO:65:THR:HA	1.92	0.51
41:BR:49:ILE:CG1	41:BR:53:PHE:N	2.74	0.51
42:BS:25:ARG:HA	42:BS:74:ILE:HG22	1.93	0.51
1:CA:155:A:C2	1:CA:167:A:C2	2.99	0.51
1:CA:262:A:H3'	1:CA:263:A:C8	2.46	0.51
1:CA:701:U:O2	1:CA:703:G:C6	2.64	0.51
1:CA:831:A:H5"	1:CA:832:G:OP2	2.11	0.51
1:CA:1494:G:H2'	1:CA:1495:U:H5'	1.92	0.51
1:CA:1499:A:OP2	59:CA:1881:HOH:O	2.20	0.51
2:CB:186:ILE:HD12	2:CB:201:PRO:O	2.11	0.51
3:CC:27:LYS:HD2	3:CC:27:LYS:N	2.25	0.51
6:CF:70:VAL:O	6:CF:71:ILE:C	2.53	0.51
7:CG:76:LYS:O	7:CG:77:SER:HB2	2.11	0.51
12:CL:82:ILE:O	12:CL:82:ILE:CG2	2.58	0.51
13:CM:36:ALA:O	13:CM:37:ALA:HB2	2.11	0.51
22:CV:73:A:O2'	22:CV:74:C:OP2	2.23	0.51
24:DA:172:A:H2'	24:DA:173:A:C8	2.45	0.51
24:DA:222:A:C5	24:DA:224:U:C2	2.99	0.51
24:DA:563:A:C4	24:DA:2018:G:C2	2.99	0.51
24:DA:819:A:C6	24:DA:820:A:C5	2.99	0.51
24:DA:1364:G:C5	47:DX:1:SER:OG	2.62	0.51
24:DA:1724:G:O6	24:DA:1736:U:C2	2.64	0.51
24:DA:2297:A:N3	24:DA:2297:A:H2'	2.26	0.51
24:DA:2352:A:H5"	24:DA:2353:G:OP2	2.11	0.51
25:DB:53:A:O2'	25:DB:54:G:H5'	2.10	0.51
28:DE:131:THR:O	28:DE:132:LYS:C	2.54	0.51
28:DE:149:ILE:HD12	28:DE:192:ALA:HB1	1.93	0.51
29:DF:93:GLU:C	29:DF:95:MET:N	2.68	0.51
29:DF:123:GLY:C	29:DF:124:ARG:CG	2.84	0.51
31:DH:64:ALA:O	31:DH:67:ALA:HB3	2.11	0.51
37:DN:2:ARG:HA	37:DN:5:LYS:HB2	1.93	0.51
40:DQ:20:ALA:HA	40:DQ:23:TYR:CE2	2.46	0.51
41:DR:14:VAL:HG13	41:DR:98:ILE:HG12	1.93	0.51
42:DS:17:VAL:HG11	42:DS:76:VAL:HG11	1.93	0.51
42:DS:36:LEU:HD13	42:DS:48:LYS:HA	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DT:61:LEU:C	43:DT:61:LEU:HD12	2.35	0.51
47:DX:32:LEU:CD1	47:DX:49:ARG:NE	2.74	0.51
47:DX:60:LYS:O	47:DX:62:GLY:N	2.44	0.51
1:AA:131:A:N1	1:AA:132:C:C4	2.78	0.50
1:AA:246:A:C4	1:AA:279:A:N1	2.79	0.50
1:AA:303:A:C5	1:AA:304:U:C5	2.99	0.50
1:AA:408:A:OP1	4:AD:110:THR:HG21	2.11	0.50
1:AA:425:G:C2'	1:AA:426:U:H5'	2.41	0.50
1:AA:572:A:OP1	1:AA:572:A:C4'	2.59	0.50
1:AA:706:A:C6	1:AA:707:U:C4	2.99	0.50
1:AA:734:G:C6	1:AA:735:C:C4	2.99	0.50
1:AA:1090:U:C2	1:AA:1091:U:C6	2.99	0.50
1:AA:1100:C:C2	1:AA:1102:A:H5'	2.46	0.50
1:AA:1152:A:C6	1:AA:1153:G:N7	2.79	0.50
1:AA:1306:A:C5	1:AA:1307:U:C5	3.00	0.50
1:AA:1386:G:O2'	1:AA:1387:G:H5'	2.11	0.50
3:AC:130:PHE:CZ	3:AC:131:ARG:HD3	2.46	0.50
4:AD:65:TYR:CE2	4:AD:94:LEU:HB3	2.45	0.50
4:AD:138:SER:CB	4:AD:139:PRO:HD2	2.41	0.50
4:AD:145:ILE:O	4:AD:146:ARG:NH1	2.44	0.50
4:AD:195:ILE:HG23	4:AD:196:ASN:N	2.24	0.50
16:AP:41:PRO:O	16:AP:42:ILE:HG12	2.11	0.50
16:AP:52:LEU:O	16:AP:53:ASP:HB2	2.11	0.50
17:AQ:41:THR:HG22	17:AQ:42:THR:N	2.25	0.50
21:AU:26:ALA:HB3	23:AX:5:A:H5"	1.92	0.50
24:BA:147:C:N4	24:BA:148:U:O4	2.44	0.50
24:BA:197:A:N6	24:BA:2430:A:H2'	2.26	0.50
24:BA:481:G:H1'	24:BA:507:A:N1	2.25	0.50
24:BA:483:A:C6	24:BA:484:C:C2	2.99	0.50
24:BA:522:A:H2'	24:BA:523:C:O4'	2.10	0.50
24:BA:568:U:H2'	24:BA:570:G:OP2	2.11	0.50
24:BA:636:G:O5'	35:BL:128:THR:OG1	2.28	0.50
24:BA:666:A:H2'	24:BA:667:U:H6	1.74	0.50
24:BA:811:U:P	35:BL:29:LYS:HG3	2.51	0.50
24:BA:915:C:C5	24:BA:916:G:C5	2.99	0.50
24:BA:1144:A:C6	24:BA:1145:C:N4	2.79	0.50
24:BA:1186:G:C6	24:BA:1187:G:C4	2.99	0.50
24:BA:1270:C:C5'	24:BA:1271:G:H5'	2.40	0.50
24:BA:1288:G:C4	24:BA:1327:A:N1	2.79	0.50
24:BA:1735:A:H2'	24:BA:1736:U:O4'	2.11	0.50
24:BA:1799:G:C2	24:BA:1819:A:OP2	2.64	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2015:A:C2'	24:BA:2016:U:H5'	2.41	0.50
24:BA:2107:G:N2	24:BA:2183:A:C2	2.78	0.50
24:BA:2345:G:C5	24:BA:2347:C:C5	2.99	0.50
24:BA:2525:G:C2	24:BA:2526:G:C5	2.99	0.50
24:BA:2721:A:C4	24:BA:2873:A:C8	2.99	0.50
26:BC:221:GLY:O	26:BC:224:MET:HG3	2.10	0.50
27:BD:125:TRP:CD1	27:BD:160:LYS:HD3	2.47	0.50
29:BF:70:ARG:O	29:BF:72:SER:N	2.44	0.50
31:BH:24:GLY:O	31:BH:28:ASN:HB2	2.10	0.50
35:BL:128:THR:HG22	35:BL:131:ALA:CB	2.41	0.50
43:BT:2:ILE:HG23	43:BT:4:GLU:N	2.26	0.50
43:BT:29:THR:OG1	43:BT:86:THR:HA	2.10	0.50
45:BV:26:PHE:C	45:BV:26:PHE:CD1	2.89	0.50
47:BX:55:MET:HA	47:BX:58:ILE:HG22	1.94	0.50
49:BZ:22:THR:O	49:BZ:23:LEU:C	2.54	0.50
1:CA:59:A:C8	1:CA:354:G:C2	2.98	0.50
1:CA:120:A:H4'	1:CA:121:U:OP1	2.11	0.50
1:CA:188:C:O2	1:CA:188:C:C2'	2.60	0.50
1:CA:429:U:C5	1:CA:431:A:N7	2.79	0.50
1:CA:669:G:C5	1:CA:670:G:N7	2.79	0.50
1:CA:828:U:H2'	2:CB:25:PRO:HB3	1.93	0.50
1:CA:1060:U:O2	1:CA:1061:G:C8	2.63	0.50
1:CA:1064:G:O3'	1:CA:1065:U:H4'	2.11	0.50
1:CA:1244:G:N7	1:CA:1245:C:C5	2.78	0.50
1:CA:1512:U:H2'	1:CA:1513:A:C8	2.46	0.50
3:CC:123:GLN:O	3:CC:124:LEU:C	2.54	0.50
3:CC:186:THR:OG1	3:CC:198:VAL:O	2.22	0.50
4:CD:58:LYS:HA	4:CD:200:ILE:HG12	1.92	0.50
7:CG:58:GLU:HA	7:CG:61:ALA:HB2	1.91	0.50
7:CG:99:LEU:HG	7:CG:100:ALA:N	2.25	0.50
9:CI:30:ILE:CG1	9:CI:31:ASN:N	2.74	0.50
9:CI:90:TYR:O	9:CI:91:ASP:O	2.28	0.50
13:CM:48:LEU:O	13:CM:49:SER:C	2.53	0.50
16:CP:41:PRO:O	16:CP:42:ILE:HB	2.10	0.50
20:CT:48:GLN:OE1	20:CT:48:GLN:N	2.44	0.50
55:CY:15:LYS:O	55:CY:15:LYS:CG	2.58	0.50
55:CY:182:LEU:HG	55:CY:183:MET:H	1.76	0.50
24:DA:598:U:H2'	24:DA:599:A:C8	2.47	0.50
24:DA:831:G:C2'	24:DA:832:U:O5'	2.59	0.50
24:DA:956:G:OP1	36:DM:86:LYS:HD2	2.11	0.50
24:DA:1021:A:O2'	24:DA:1123:C:OP1	2.24	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1086:A:H5"	24:DA:1087:G:OP1	2.11	0.50
24:DA:1283:G:N2	24:DA:1285:A:H3'	2.25	0.50
24:DA:2229:U:H2'	24:DA:2230:G:H8	1.76	0.50
24:DA:2680:U:C2'	24:DA:2681:C:O5'	2.59	0.50
24:DA:2787:C:H2'	24:DA:2788:C:H6	1.76	0.50
25:DB:53:A:N3	25:DB:54:G:C8	2.79	0.50
26:DC:140:VAL:HG21	26:DC:189:ALA:CB	2.41	0.50
30:DG:71:LEU:O	30:DG:72:ASN:C	2.54	0.50
33:DJ:29:ALA:HB3	33:DJ:108:MET:CE	2.41	0.50
37:DN:2:ARG:O	37:DN:4:ARG:N	2.43	0.50
43:DT:73:ARG:HH21	43:DT:73:ARG:HG3	1.76	0.50
48:DY:2:LYS:CG	48:DY:3:ALA:N	2.72	0.50
1:AA:199:A:C2	1:AA:200:G:C5	2.98	0.50
1:AA:599:C:H4'	8:AH:88:ARG:CZ	2.41	0.50
1:AA:709:U:HO2'	1:AA:710:G:P	2.33	0.50
1:AA:982:U:H4'	1:AA:983:A:H5'	1.93	0.50
1:AA:1043:G:N1	1:AA:1044:A:C6	2.79	0.50
1:AA:1197:A:O2'	1:AA:1198:G:H5'	2.11	0.50
1:AA:1418:A:N1	24:BA:1948:G:O2'	2.38	0.50
2:AB:96:TRP:CE2	2:AB:172:ALA:HB2	2.46	0.50
2:AB:130:THR:OG1	2:AB:132:LYS:N	2.44	0.50
3:AC:36:ASP:OD2	3:AC:59:ARG:NH2	2.44	0.50
3:AC:42:TYR:OH	3:AC:46:GLU:OE1	2.24	0.50
3:AC:179:ARG:CG	3:AC:180:ALA:N	2.74	0.50
6:AF:10:VAL:CG1	6:AF:11:HIS:N	2.74	0.50
7:AG:97:ASN:O	7:AG:100:ALA:N	2.44	0.50
8:AH:39:VAL:O	8:AH:40:LEU:C	2.48	0.50
13:AM:3:ARG:NH1	29:BF:142:TYR:HB3	2.27	0.50
14:AN:80:SER:O	14:AN:81:ARG:C	2.53	0.50
21:AU:26:ALA:CB	23:AX:5:A:O5'	2.59	0.50
21:AU:30:ALA:CB	21:AU:33:ARG:NH1	2.73	0.50
22:AV:75:C:OP2	22:AV:76:A:O3'	2.28	0.50
24:BA:581:C:H2'	24:BA:582:A:C8	2.47	0.50
24:BA:818:G:O6	24:BA:1187:G:C8	2.64	0.50
24:BA:1218:G:N2	24:BA:1232:G:N9	2.60	0.50
24:BA:1335:C:OP1	43:BT:68:LYS:CE	2.58	0.50
24:BA:1451:C:H1'	24:BA:1452:G:N7	2.27	0.50
24:BA:1816:C:C5	26:BC:61:TYR:CE2	2.99	0.50
24:BA:1934:C:C2'	24:BA:1935:G:O5'	2.58	0.50
24:BA:2098:U:C5	24:BA:2099:U:C6	3.00	0.50
24:BA:2484:G:H1'	36:BM:123:LYS:CE	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BB:61:G:C2	25:BB:62:C:C2	3.00	0.50
27:BD:14:ILE:HG22	27:BD:22:ILE:HD12	1.94	0.50
31:BH:147:VAL:CG2	31:BH:148:ALA:N	2.73	0.50
33:BJ:130:HIS:O	33:BJ:132:HIS:N	2.36	0.50
39:BP:54:LEU:O	39:BP:54:LEU:HD12	2.11	0.50
42:BS:16:LYS:HA	42:BS:19:LEU:HD13	1.91	0.50
52:B2:18:PHE:O	52:B2:21:ARG:N	2.44	0.50
1:CA:62:U:C2'	1:CA:63:C:H5'	2.41	0.50
1:CA:354:G:C6	1:CA:355:C:N4	2.80	0.50
1:CA:584:G:H2'	1:CA:585:G:H8	1.76	0.50
1:CA:620:C:N4	1:CA:621:A:C6	2.79	0.50
1:CA:665:A:H2	1:CA:732:C:C5	2.30	0.50
1:CA:722:G:C2	1:CA:724:G:C8	2.98	0.50
1:CA:789:U:N3	1:CA:792:A:OP2	2.43	0.50
1:CA:1077:G:N3	1:CA:1081:A:C2	2.79	0.50
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.46	0.50
1:CA:1496:C:C5'	1:CA:1497:G:OP2	2.60	0.50
1:CA:1536:C:H2'	1:CA:1537:U:O4'	2.10	0.50
2:CB:169:GLU:O	2:CB:171:ILE:N	2.44	0.50
3:CC:190:HIS:CD2	3:CC:195:VAL:HG22	2.46	0.50
4:CD:62:ARG:CD	4:CD:72:PHE:CE2	2.93	0.50
7:CG:100:ALA:O	7:CG:104:ILE:HD11	2.11	0.50
8:CH:111:MET:HE1	8:CH:119:ALA:CB	2.42	0.50
11:CK:128:ARG:C	11:CK:128:ARG:CD	2.83	0.50
12:CL:14:ARG:NH2	59:CL:201:HOH:O	2.44	0.50
55:CY:83:MET:HE3	55:CY:91:PRO:HD2	1.94	0.50
24:DA:195:A:H2'	24:DA:198:C:N4	2.25	0.50
24:DA:857:G:H5'	46:DW:69:PHE:CD2	2.46	0.50
24:DA:943:A:OP2	35:DL:39:LYS:HE2	2.10	0.50
24:DA:998:C:OP2	40:DQ:57:ARG:NH2	2.41	0.50
24:DA:1152:C:O2'	24:DA:1153:C:H5'	2.11	0.50
24:DA:1517:G:C5	24:DA:1518:C:C5	2.99	0.50
24:DA:2039:U:O2'	24:DA:2040:G:H5'	2.12	0.50
24:DA:2211:A:H1'	24:DA:2212:A:OP1	2.12	0.50
24:DA:2746:U:O4	24:DA:2755:C:H4'	2.11	0.50
26:DC:158:GLY:HA3	26:DC:197:ALA:HB2	1.92	0.50
27:DD:100:LEU:HD13	27:DD:100:LEU:O	2.11	0.50
28:DE:29:HIS:CE1	35:DL:8:PRO:HB3	2.46	0.50
28:DE:124:PHE:C	28:DE:124:PHE:CD1	2.89	0.50
29:DF:98:PHE:CD1	29:DF:99:PHE:N	2.80	0.50
31:DH:53:GLU:HG2	31:DH:54:LEU:N	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DM:45:GLN:O	36:DM:48:ALA:HB3	2.11	0.50
39:DP:50:ARG:HD3	39:DP:57:ALA:HB3	1.93	0.50
40:DQ:82:LEU:CD1	40:DQ:82:LEU:N	2.74	0.50
1:AA:373:A:O2'	1:AA:374:A:H5'	2.11	0.50
1:AA:387:U:H6	1:AA:387:U:H3'	1.75	0.50
1:AA:780:A:H1'	1:AA:803:G:N2	2.25	0.50
1:AA:782:A:N1	1:AA:801:U:N1	2.58	0.50
1:AA:899:C:C5	1:AA:900:A:C5	2.99	0.50
1:AA:928:G:C2	1:AA:929:G:C4	3.00	0.50
1:AA:1097:C:H1'	1:AA:1170:A:H1'	1.93	0.50
1:AA:1273:C:N4	1:AA:1274:A:N7	2.59	0.50
3:AC:12:LEU:C	3:AC:14:ILE:N	2.68	0.50
5:AE:34:THR:O	5:AE:34:THR:OG1	2.29	0.50
6:AF:26:THR:O	6:AF:29:ILE:N	2.44	0.50
8:AH:87:LYS:HG3	8:AH:88:ARG:N	2.26	0.50
8:AH:111:MET:HE1	8:AH:116:ALA:CA	2.40	0.50
16:AP:7:ALA:HB1	16:AP:28:ARG:O	2.11	0.50
17:AQ:8:LEU:O	17:AQ:60:GLU:HA	2.11	0.50
17:AQ:19:LYS:CE	17:AQ:48:ASP:O	2.60	0.50
24:BA:273:G:C6	24:BA:274:C:N3	2.80	0.50
24:BA:586:A:C2	24:BA:1254:A:C2	3.00	0.50
24:BA:1347:A:C2'	24:BA:1348:C:O5'	2.59	0.50
24:BA:1351:C:O2'	24:BA:1571:A:H1'	2.11	0.50
24:BA:1356:G:C2	24:BA:1357:C:O2	2.65	0.50
24:BA:1448:G:H2'	24:BA:1449:G:C8	2.45	0.50
24:BA:1532:A:C2	24:BA:1533:C:C4	3.00	0.50
24:BA:1565:C:H5"	26:BC:17:LYS:HE3	1.93	0.50
24:BA:2053:G:N2	24:BA:2054:A:H1'	2.26	0.50
24:BA:2280:G:O2'	24:BA:2388:A:N1	2.37	0.50
57:BA:3165:NMY:N6	57:BA:3165:NMY:C1	2.73	0.50
29:BF:71:LYS:O	29:BF:72:SER:C	2.54	0.50
29:BF:116:LEU:O	29:BF:117:SER:C	2.55	0.50
38:BO:22:GLY:HA2	38:BO:42:PRO:HB3	1.94	0.50
38:BO:28:VAL:HG13	38:BO:36:TYR:O	2.12	0.50
42:BS:47:VAL:O	42:BS:48:LYS:C	2.55	0.50
48:BY:5:GLU:O	48:BY:7:ARG:N	2.40	0.50
50:B0:25:THR:O	50:B0:27:LEU:N	2.45	0.50
1:CA:298:A:C2	1:CA:299:G:H1'	2.46	0.50
1:CA:444:G:C4	1:CA:491:G:C2	2.98	0.50
1:CA:477:C:H2'	1:CA:478:A:C8	2.46	0.50
1:CA:612:C:N4	1:CA:613:C:N4	2.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:628:G:C2	1:CA:629:A:C4	2.99	0.50
1:CA:679:C:H2'	1:CA:680:C:H5'	1.93	0.50
57:CA:1672:NMY:N2	57:CA:1672:NMY:O17	2.44	0.50
2:CB:71:GLY:HA2	2:CB:164:ILE:HG22	1.92	0.50
3:CC:22:TRP:HD1	3:CC:23:PHE:N	2.09	0.50
4:CD:77:LYS:C	4:CD:79:ALA:H	2.20	0.50
4:CD:97:ARG:O	4:CD:100:ASN:HB3	2.11	0.50
4:CD:115:ARG:C	4:CD:117:LEU:N	2.69	0.50
4:CD:171:LEU:C	4:CD:171:LEU:CD1	2.84	0.50
9:CI:51:PRO:O	9:CI:52:LEU:HD23	2.11	0.50
14:CN:15:LEU:HD23	14:CN:54:ASP:HB2	1.93	0.50
14:CN:57:PRO:O	14:CN:58:SER:C	2.55	0.50
16:CP:32:PHE:C	16:CP:32:PHE:CD1	2.90	0.50
17:CQ:10:GLY:CA	17:CQ:25:ILE:HD13	2.40	0.50
17:CQ:10:GLY:HA3	17:CQ:25:ILE:HD13	1.94	0.50
19:CS:40:ILE:HG13	19:CS:67:VAL:HA	1.92	0.50
19:CS:44:MET:CE	19:CS:45:ILE:HG12	2.42	0.50
55:CY:55:ALA:HB2	55:CY:69:VAL:HG13	1.92	0.50
24:DA:250:G:C6	24:DA:251:A:C6	2.99	0.50
24:DA:654:A:H5'	24:DA:655:A:OP2	2.11	0.50
24:DA:709:U:O2'	24:DA:710:U:O5'	2.27	0.50
24:DA:1515:A:H1'	24:DA:1557:C:H1'	1.94	0.50
24:DA:1586:A:H8	24:DA:1586:A:O5'	1.94	0.50
24:DA:1794:A:O2'	24:DA:1795:C:H5'	2.11	0.50
24:DA:2129:C:H2'	24:DA:2130:U:C5'	2.41	0.50
24:DA:2171:A:O2'	24:DA:2172:U:H5'	2.11	0.50
24:DA:2257:U:P	46:DW:11:ARG:NH2	2.84	0.50
25:DB:35:C:H5'	25:DB:36:C:OP2	2.11	0.50
26:DC:51:ARG:C	26:DC:53:ILE:N	2.69	0.50
26:DC:183:VAL:O	26:DC:184:GLU:C	2.52	0.50
27:DD:91:THR:O	27:DD:92:VAL:C	2.54	0.50
29:DF:56:LEU:HA	29:DF:59:ILE:HD12	1.93	0.50
29:DF:174:PHE:O	29:DF:176:PHE:HB2	2.11	0.50
34:DK:25:LEU:HD11	34:DK:38:ILE:CG2	2.41	0.50
36:DM:73:ILE:CG2	36:DM:74:THR:N	2.73	0.50
38:DO:26:LEU:C	38:DO:27:VAL:HG13	2.36	0.50
39:DP:30:TRP:CH2	39:DP:81:ASP:CG	2.89	0.50
41:DR:41:ILE:O	41:DR:46:GLU:HG2	2.10	0.50
46:DW:60:PHE:N	46:DW:60:PHE:CD1	2.79	0.50
47:DX:1:SER:O	47:DX:3:VAL:HG12	2.12	0.50
1:AA:258:G:N1	1:AA:269:C:C2	2.80	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:279:A:H5"	1:AA:281:G:H5'	1.92	0.50
1:AA:684:U:O2'	1:AA:685:G:P	2.69	0.50
1:AA:872:A:H2'	1:AA:872:A:N3	2.25	0.50
1:AA:1106:G:H2'	1:AA:1107:C:H6	1.77	0.50
1:AA:1207:G:H2'	1:AA:1208:C:C6	2.47	0.50
1:AA:1435:G:C5	1:AA:1436:U:C5	2.98	0.50
2:AB:189:THR:CG2	2:AB:190:ASN:ND2	2.75	0.50
4:AD:10:LYS:C	4:AD:12:SER:H	2.19	0.50
4:AD:79:ALA:C	4:AD:81:ARG:N	2.69	0.50
5:AE:33:PHE:N	5:AE:33:PHE:CD1	2.79	0.50
6:AF:23:GLU:O	6:AF:27:ALA:HB3	2.11	0.50
12:AL:57:LEU:CD2	12:AL:59:ASN:CG	2.85	0.50
12:AL:58:THR:O	12:AL:58:THR:HG23	2.11	0.50
24:BA:8:C:C2	24:BA:9:G:C8	2.99	0.50
24:BA:10:A:H2'	24:BA:10:A:N3	2.26	0.50
24:BA:322:A:H3'	28:BE:163:ASN:OD1	2.10	0.50
24:BA:451:U:H2'	24:BA:453:A:OP2	2.11	0.50
24:BA:1168:G:C2'	24:BA:1169:A:O5'	2.60	0.50
24:BA:1358:G:N7	24:BA:1371:G:O6	2.44	0.50
24:BA:1413:A:C6	24:BA:1414:C:C4	3.00	0.50
24:BA:1413:A:C6	24:BA:1414:C:N3	2.79	0.50
24:BA:1562:U:C2	24:BA:1563:U:C6	3.00	0.50
24:BA:1663:G:C6	24:BA:1992:G:N7	2.80	0.50
24:BA:1935:G:H1'	24:BA:1964:G:N2	2.27	0.50
24:BA:2313:C:H5"	29:BF:87:LYS:HG3	1.92	0.50
24:BA:2639:A:O3'	33:BJ:96:ARG:NH1	2.45	0.50
24:BA:2830:C:O5'	27:BD:59:ARG:NH1	2.44	0.50
26:BC:210:ALA:O	26:BC:212:TRP:N	2.44	0.50
28:BE:95:LYS:HD2	28:BE:96:VAL:C	2.36	0.50
28:BE:111:GLU:HG2	28:BE:114:ARG:HE	1.77	0.50
29:BF:3:LEU:C	29:BF:5:ASP:N	2.66	0.50
30:BG:72:ASN:HA	30:BG:75:VAL:CG1	2.42	0.50
35:BL:132:ARG:O	35:BL:136:GLU:HG2	2.12	0.50
36:BM:58:LYS:C	36:BM:60:GLN:N	2.69	0.50
40:BQ:111:LYS:HD3	41:BR:48:LYS:HG3	1.93	0.50
44:BU:101:THR:CG2	44:BU:102:ILE:N	2.75	0.50
48:BY:49:ASP:O	48:BY:52:ARG:N	2.45	0.50
51:B1:11:VAL:O	51:B1:48:TYR:HA	2.11	0.50
53:B3:6:VAL:HG12	53:B3:9:ALA:HB3	1.92	0.50
53:B3:26:ALA:O	53:B3:27:ASN:CB	2.60	0.50
1:CA:16:A:H2'	1:CA:17:U:H5'	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:232:G:C5	1:CA:233:C:C5	2.98	0.50
1:CA:437:U:O2'	1:CA:438:U:H5'	2.11	0.50
1:CA:624:C:O2'	1:CA:625:U:H5'	2.11	0.50
1:CA:768:A:OP1	1:CA:804:U:H4'	2.11	0.50
1:CA:790:A:C8	1:CA:791:G:C5	3.00	0.50
1:CA:1002:G:C2	1:CA:1039:G:C2	2.99	0.50
1:CA:1483:A:H2	24:DA:1959:G:N3	2.09	0.50
2:CB:132:LYS:O	2:CB:134:ALA:N	2.44	0.50
2:CB:205:ASP:O	2:CB:206:ALA:HB2	2.12	0.50
5:CE:41:ASP:OD1	5:CE:41:ASP:C	2.53	0.50
6:CF:16:GLU:O	6:CF:18:VAL:N	2.44	0.50
6:CF:18:VAL:HB	6:CF:19:PRO:CD	2.42	0.50
7:CG:99:LEU:HD12	7:CG:137:LYS:NZ	2.27	0.50
11:CK:127:ARG:HB2	21:CU:35:ARG:NH2	2.27	0.50
12:CL:24:LEU:HG	12:CL:25:GLU:N	2.26	0.50
16:CP:51:ARG:O	16:CP:52:LEU:HD12	2.11	0.50
18:CR:26:ILE:O	18:CR:27:ALA:C	2.54	0.50
22:CV:58:A:H1'	22:CV:60:U:OP2	2.11	0.50
55:CY:5:ILE:HG23	55:CY:5:ILE:O	2.10	0.50
24:DA:102:U:O2	24:DA:102:U:O2'	2.27	0.50
24:DA:359:G:C5	24:DA:360:U:C5	2.99	0.50
24:DA:541:A:H2'	24:DA:542:C:O4'	2.11	0.50
24:DA:604:G:N2	24:DA:657:U:H4'	2.26	0.50
24:DA:1059:G:C6	24:DA:1060:U:O4	2.64	0.50
24:DA:1306:C:H41	24:DA:1606:C:H2'	1.75	0.50
24:DA:1638:C:H4'	24:DA:2710:C:O2	2.12	0.50
24:DA:1656:C:H2'	24:DA:1657:U:C6	2.46	0.50
24:DA:1855:U:C5	24:DA:1856:U:C5	2.99	0.50
24:DA:2406:A:H2'	24:DA:2406:A:OP2	2.11	0.50
24:DA:2846:G:H2'	24:DA:2847:U:O4'	2.11	0.50
26:DC:11:GLY:O	26:DC:12:ARG:CB	2.60	0.50
26:DC:244:VAL:HG23	26:DC:249:VAL:C	2.36	0.50
28:DE:29:HIS:O	28:DE:30:GLN:C	2.55	0.50
29:DF:116:LEU:HD13	29:DF:129:MET:SD	2.52	0.50
29:DF:116:LEU:HD22	29:DF:129:MET:HE2	1.93	0.50
30:DG:148:ARG:HA	30:DG:161:VAL:HG21	1.92	0.50
34:DK:88:ASN:N	34:DK:93:GLN:O	2.42	0.50
35:DL:90:VAL:HB	35:DL:122:VAL:HA	1.93	0.50
36:DM:33:LEU:HD11	36:DM:128:THR:OG1	2.12	0.50
36:DM:76:LYS:C	36:DM:77:PRO:O	2.54	0.50
38:DO:27:VAL:O	38:DO:27:VAL:CG2	2.60	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DR:49:ILE:HG12	41:DR:52:PRO:HA	1.94	0.50
42:DS:87:PRO:O	42:DS:88:ARG:C	2.55	0.50
45:DV:8:VAL:HA	45:DV:40:ILE:CG2	2.41	0.50
49:DZ:23:LEU:HD11	49:DZ:50:VAL:HG11	1.93	0.50
50:D0:39:ARG:O	50:D0:40:HIS:HB2	2.11	0.50
1:AA:159:G:C6	1:AA:163:C:N4	2.80	0.50
1:AA:265:G:H4'	17:AQ:67:LEU:O	2.11	0.50
1:AA:320:A:H2'	1:AA:321:A:C8	2.47	0.50
1:AA:383:A:N3	1:AA:383:A:H2'	2.26	0.50
1:AA:430:A:O5'	4:AD:9:LEU:HD23	2.11	0.50
1:AA:501:C:O3'	12:AL:115:SER:HB2	2.12	0.50
1:AA:619:U:H3	4:AD:131:ASN:HB3	1.76	0.50
1:AA:1431:A:N6	1:AA:1432:G:H1	2.09	0.50
2:AB:86:SER:O	2:AB:87:CYS:C	2.55	0.50
2:AB:169:GLU:C	2:AB:171:ILE:N	2.66	0.50
2:AB:184:PHE:CE2	2:AB:198:PHE:CD2	2.99	0.50
3:AC:57:ILE:HD12	3:AC:59:ARG:HE	1.76	0.50
4:AD:33:LYS:O	4:AD:34:ILE:O	2.29	0.50
8:AH:32:LEU:O	8:AH:33:LYS:C	2.53	0.50
8:AH:73:GLU:N	8:AH:130:ALA:O	2.44	0.50
22:AV:40:C:O2	22:AV:41:C:C6	2.65	0.50
24:BA:31:C:O3'	24:BA:1238:G:H5'	2.10	0.50
24:BA:378:C:C2'	24:BA:379:G:C5'	2.89	0.50
24:BA:404:A:C2	24:BA:406:G:C2	2.99	0.50
24:BA:416:U:C2	24:BA:417:C:C6	2.99	0.50
24:BA:571:U:C4	24:BA:575:A:C5	3.00	0.50
24:BA:586:A:H2	24:BA:809:G:N3	2.09	0.50
24:BA:586:A:H1'	24:BA:672:C:H1'	1.93	0.50
24:BA:981:A:N1	24:BA:2027:G:O2'	2.34	0.50
24:BA:1037:G:C2	24:BA:1119:U:O2	2.65	0.50
24:BA:1316:U:H2'	24:BA:1317:G:C8	2.47	0.50
24:BA:1341:G:H4'	43:BT:60:THR:O	2.11	0.50
24:BA:1737:G:C4	24:BA:1738:G:N2	2.79	0.50
24:BA:2267:A:H5"	24:BA:2268:A:C5'	2.41	0.50
24:BA:2553:G:N1	24:BA:2554:U:O2	2.43	0.50
24:BA:2767:C:H2'	24:BA:2768:U:H5'	1.93	0.50
25:BB:11:C:H2'	25:BB:12:C:O4'	2.12	0.50
26:BC:83:ASP:OD1	26:BC:83:ASP:C	2.55	0.50
26:BC:246:PRO:HB2	26:BC:247:TRP:CE3	2.47	0.50
30:BG:108:PHE:O	30:BG:110:HIS:N	2.45	0.50
31:BH:62:LEU:HD13	31:BH:62:LEU:C	2.36	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:85:GLY:N	31:BH:89:LYS:O	2.44	0.50
34:BK:9:ASN:OD1	34:BK:18:ARG:NH1	2.42	0.50
38:BO:35:ILE:HD11	38:BO:106:LEU:HD11	1.92	0.50
42:BS:74:ILE:HD12	42:BS:75:PHE:H	1.76	0.50
44:BU:52:ASN:CG	44:BU:54:PRO:HD2	2.36	0.50
51:B1:27:ARG:C	51:B1:28:THR:HG23	2.37	0.50
52:B2:38:GLY:O	52:B2:39:ARG:C	2.55	0.50
1:CA:39:G:C5	1:CA:40:C:C5	3.00	0.50
1:CA:49:U:C5	1:CA:364:A:C6	3.00	0.50
1:CA:356:A:H2'	1:CA:357:G:H5'	1.94	0.50
1:CA:375:U:H3'	1:CA:376:G:H5"	1.93	0.50
1:CA:453:G:C6	1:CA:454:G:C5	3.00	0.50
1:CA:620:C:H1'	4:CD:132:ILE:HD11	1.92	0.50
1:CA:678:U:H2'	1:CA:679:C:O4'	2.12	0.50
1:CA:899:C:H2'	1:CA:900:A:O4'	2.11	0.50
1:CA:1082:A:OP1	5:CE:23:LYS:CE	2.59	0.50
1:CA:1293:C:C2'	1:CA:1294:G:H5'	2.38	0.50
1:CA:1329:A:P	13:CM:28:THR:OG1	2.69	0.50
1:CA:1353:G:C6	1:CA:1370:G:C2	3.00	0.50
1:CA:1492:A:C2	1:CA:1493:A:C2	2.99	0.50
2:CB:43:LEU:O	2:CB:46:THR:N	2.45	0.50
3:CC:66:VAL:O	3:CC:67:THR:CB	2.59	0.50
4:CD:58:LYS:CA	4:CD:200:ILE:HG12	2.41	0.50
10:CJ:75:ASP:OD1	10:CJ:75:ASP:C	2.54	0.50
12:CL:104:CYS:O	12:CL:105:SER:HB3	2.10	0.50
13:CM:16:VAL:C	13:CM:17:ILE:HG13	2.37	0.50
13:CM:45:ILE:HA	13:CM:48:LEU:HG	1.93	0.50
20:CT:69:LYS:HG3	20:CT:70:ASN:N	2.27	0.50
22:CV:73:A:P	22:CV:73:A:O4'	2.69	0.50
24:DA:221:A:C8	24:DA:266:G:C6	3.00	0.50
24:DA:477:A:O2'	24:DA:478:A:P	2.69	0.50
24:DA:1239:G:C5	24:DA:1240:U:C5	3.00	0.50
24:DA:1814:G:H5"	26:DC:53:ILE:HD11	1.92	0.50
24:DA:2331:G:C6	24:DA:2332:C:N3	2.80	0.50
24:DA:2632:A:C2	24:DA:2787:C:C2	2.99	0.50
26:DC:72:GLY:O	26:DC:73:ILE:O	2.30	0.50
28:DE:115:GLN:OE1	28:DE:117:ARG:HD3	2.12	0.50
31:DH:7:ASP:C	31:DH:15:LEU:HD22	2.37	0.50
31:DH:121:VAL:C	31:DH:123:ARG:N	2.64	0.50
33:DJ:42:ALA:O	40:DQ:63:ARG:HD3	2.12	0.50
33:DJ:77:HIS:C	33:DJ:79:GLY:H	2.19	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DR:38:VAL:CG1	41:DR:57:GLY:O	2.60	0.50
44:DU:73:ASN:HB2	44:DU:78:LYS:O	2.11	0.50
46:DW:56:ASP:O	46:DW:57:HIS:CD2	2.65	0.50
47:DX:44:ARG:HG2	47:DX:45:PHE:N	2.25	0.50
49:DZ:15:ARG:O	49:DZ:20:LYS:HE3	2.10	0.50
52:D2:25:LYS:HA	52:D2:28:ARG:NH2	2.26	0.50
1:AA:73:C:O2'	1:AA:74:A:C8	2.64	0.50
1:AA:238:A:OP1	17:AQ:40:ARG:CZ	2.59	0.50
1:AA:275:G:N3	1:AA:275:G:H2'	2.26	0.50
1:AA:279:A:OP1	1:AA:280:C:O2'	2.30	0.50
1:AA:282:A:H2'	1:AA:283:U:H5'	1.93	0.50
1:AA:457:G:N2	1:AA:476:U:C2	2.79	0.50
1:AA:627:G:OP2	16:AP:35:ARG:NH1	2.44	0.50
1:AA:1030:U:H4'	1:AA:1030:U:OP1	2.11	0.50
1:AA:1321:U:C4	1:AA:1322:C:C5	3.00	0.50
1:AA:1465:A:C8	1:AA:1466:C:C5	3.00	0.50
1:AA:1506:U:OP2	23:AX:11:A:H5"	2.12	0.50
1:AA:1538:C:H2'	1:AA:1539:C:O4'	2.12	0.50
2:AB:14:VAL:HG22	2:AB:208:ARG:NH1	2.27	0.50
2:AB:151:ILE:O	2:AB:152:LYS:C	2.54	0.50
3:AC:64:ILE:O	3:AC:99:ALA:HA	2.12	0.50
5:AE:122:ASN:O	5:AE:123:VAL:O	2.28	0.50
8:AH:40:LEU:CB	8:AH:46:ILE:CG2	2.90	0.50
10:AJ:6:ILE:O	10:AJ:75:ASP:OD2	2.30	0.50
11:AK:35:THR:HA	11:AK:42:LEU:HD13	1.92	0.50
11:AK:101:ASN:OD1	11:AK:102:ALA:N	2.44	0.50
17:AQ:15:ASP:CG	17:AQ:16:LYS:N	2.66	0.50
17:AQ:21:ILE:CG2	17:AQ:48:ASP:HB2	2.42	0.50
21:AU:40:LYS:N	21:AU:41:PRO:HD2	2.26	0.50
22:AV:39:U:C2	22:AV:40:C:C5	2.99	0.50
24:BA:319:G:C2'	24:BA:320:A:H5'	2.42	0.50
24:BA:324:A:C5	24:BA:325:G:C8	3.00	0.50
24:BA:372:G:C6	47:BX:56:ARG:NH2	2.79	0.50
24:BA:391:A:C2	24:BA:392:U:H1'	2.47	0.50
24:BA:615:U:H3'	24:BA:616:A:C5'	2.39	0.50
24:BA:617:G:H2'	24:BA:618:G:O5'	2.12	0.50
24:BA:809:G:C2'	24:BA:810:U:H5'	2.41	0.50
24:BA:964:C:O2'	24:BA:2273:A:N3	2.35	0.50
24:BA:1050:A:C2	24:BA:2751:G:C5	3.00	0.50
24:BA:1223:G:C6	24:BA:1227:G:C6	2.99	0.50
24:BA:1394:U:OP1	59:BA:3415:HOH:O	2.20	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1422:G:N2	24:BA:1423:G:C4	2.80	0.50
24:BA:1601:G:C6	24:BA:1602:U:C4	2.99	0.50
24:BA:1716:U:C5	24:BA:1743:G:N2	2.79	0.50
24:BA:1773:A:H2'	24:BA:1774:C:H5'	1.94	0.50
24:BA:1805:A:N3	26:BC:49:THR:HG21	2.25	0.50
24:BA:1883:U:O4	24:BA:1884:G:C6	2.64	0.50
24:BA:2259:U:C4	24:BA:2427:C:N4	2.80	0.50
24:BA:2261:C:C2	24:BA:2280:G:N2	2.79	0.50
24:BA:2655:G:N3	24:BA:2664:G:C6	2.80	0.50
24:BA:2714:G:H2'	24:BA:2715:C:C5'	2.42	0.50
24:BA:2748:A:H1'	30:BG:66:THR:HG22	1.94	0.50
24:BA:2759:G:C5	24:BA:2760:C:C5	2.99	0.50
24:BA:2822:G:OP1	27:BD:115:GLY:CA	2.60	0.50
28:BE:149:ILE:CG1	28:BE:188:MET:HG2	2.42	0.50
30:BG:78:VAL:O	30:BG:78:VAL:HG13	2.12	0.50
31:BH:61:VAL:O	31:BH:61:VAL:HG12	2.12	0.50
32:BI:115:ASP:O	32:BI:116:MET:HB2	2.12	0.50
33:BJ:15:TRP:C	33:BJ:16:TYR:CD1	2.90	0.50
33:BJ:38:GLY:O	33:BJ:44:TYR:HB2	2.12	0.50
33:BJ:88:THR:HG23	33:BJ:91:GLU:HB2	1.94	0.50
40:BQ:59:LEU:O	40:BQ:62:ALA:N	2.45	0.50
44:BU:35:VAL:HG22	44:BU:38:ILE:CG2	2.42	0.50
54:B4:25:VAL:HG12	54:B4:35:GLN:HB2	1.93	0.50
1:CA:182:A:N7	1:CA:184:G:C5	2.80	0.50
1:CA:402:G:C6	1:CA:403:C:C4	2.99	0.50
1:CA:516:U:C4	1:CA:517:G:C6	2.99	0.50
1:CA:579:A:C4	1:CA:763:G:N2	2.79	0.50
1:CA:673:A:H2'	1:CA:674:G:H8	1.77	0.50
1:CA:770:C:C2'	1:CA:771:G:H5'	2.42	0.50
1:CA:908:A:H2'	1:CA:909:A:C8	2.47	0.50
1:CA:921:U:H4'	5:CE:23:LYS:NZ	2.27	0.50
1:CA:967:C:H2'	1:CA:968:A:C8	2.47	0.50
1:CA:1309:G:C4	1:CA:1329:A:C4	2.98	0.50
2:CB:68:LEU:C	2:CB:68:LEU:HD12	2.36	0.50
4:CD:168:PRO:CG	4:CD:171:LEU:CD1	2.90	0.50
5:CE:141:ILE:C	5:CE:143:GLY:H	2.20	0.50
6:CF:47:LEU:HD13	6:CF:56:LYS:N	2.26	0.50
7:CG:32:VAL:HG13	7:CG:33:ASP:CG	2.37	0.50
8:CH:117:ARG:O	8:CH:119:ALA:N	2.45	0.50
11:CK:80:LYS:O	11:CK:80:LYS:HG3	2.10	0.50
13:CM:22:ILE:C	13:CM:22:ILE:HD12	2.36	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:31:HIS:CE1	17:CQ:34:TYR:CD2	2.99	0.50
24:DA:690:G:C4'	26:DC:216:ARG:HH21	2.24	0.50
24:DA:709:U:C2'	24:DA:710:U:O5'	2.59	0.50
24:DA:898:C:C5	24:DA:899:A:C8	3.00	0.50
24:DA:1005:C:O2'	33:DJ:30:THR:HG21	2.12	0.50
24:DA:1868:C:C2	24:DA:1869:G:H1'	2.46	0.50
24:DA:1927:A:N6	24:DA:1928:A:N6	2.60	0.50
24:DA:2730:C:H5	57:DA:3185:NMY:H22	1.72	0.50
26:DC:135:PRO:O	26:DC:136:VAL:C	2.55	0.50
28:DE:75:SER:HB3	28:DE:77:ILE:CD1	2.41	0.50
29:DF:39:VAL:HG13	29:DF:40:GLY:N	2.25	0.50
31:DH:72:ILE:HG21	31:DH:132:PHE:CD2	2.46	0.50
31:DH:77:THR:O	31:DH:78:VAL:HB	2.11	0.50
35:DL:78:ARG:HA	35:DL:113:ALA:HB3	1.93	0.50
38:DO:58:ILE:O	38:DO:62:LEU:CD1	2.60	0.50
42:DS:25:ARG:HG2	42:DS:74:ILE:HG23	1.92	0.50
45:DV:43:ASP:O	45:DV:47:VAL:HG12	2.11	0.50
45:DV:45:ASP:O	45:DV:48:MET:HB3	2.11	0.50
52:D2:2:LYS:HE3	52:D2:6:GLN:OE1	2.12	0.50
1:AA:293:G:C4	1:AA:294:U:C5	3.00	0.50
1:AA:390:U:O2	1:AA:391:G:C8	2.65	0.50
1:AA:919:A:C4	1:AA:920:U:C5	3.00	0.50
1:AA:1122:U:C2'	1:AA:1123:U:C5'	2.89	0.50
1:AA:1361:G:C6	1:AA:1362:A:N7	2.80	0.50
1:AA:1376:U:C2	1:AA:1377:A:N7	2.80	0.50
2:AB:43:LEU:O	2:AB:44:GLU:C	2.54	0.50
3:AC:101:ILE:HD12	3:AC:102:ASN:CA	2.41	0.50
6:AF:10:VAL:HG22	6:AF:21:MET:HE1	1.93	0.50
7:AG:101:MET:O	7:AG:105:VAL:HG22	2.12	0.50
11:AK:45:ALA:HB1	11:AK:69:ARG:CG	2.41	0.50
11:AK:70:CYS:O	11:AK:74:VAL:CG2	2.59	0.50
11:AK:105:PHE:O	11:AK:107:ILE:HB	2.11	0.50
16:AP:57:ILE:HG22	16:AP:58:ALA:N	2.27	0.50
18:AR:68:LEU:HD12	18:AR:68:LEU:N	2.27	0.50
20:AT:79:LEU:O	20:AT:83:ILE:N	2.43	0.50
24:BA:76:C:O2'	48:BY:55:THR:HG21	2.12	0.50
24:BA:86:G:C2	24:BA:97:C:C2	2.99	0.50
24:BA:295:G:C4	24:BA:344:A:C2	3.00	0.50
24:BA:434:U:H4'	24:BA:435:C:OP1	2.12	0.50
24:BA:616:A:H2'	24:BA:617:G:H5'	1.92	0.50
24:BA:1305:C:O2	24:BA:1305:C:H2'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1505:A:N1	24:BA:1506:U:C2	2.80	0.50
24:BA:1537:G:C2	24:BA:1538:G:H1'	2.46	0.50
24:BA:2271:G:O6	59:BA:3515:HOH:O	2.20	0.50
25:BB:113:C:H2'	25:BB:114:C:H6	1.77	0.50
26:BC:16:VAL:CB	26:BC:203:VAL:HG22	2.42	0.50
26:BC:140:VAL:HG23	26:BC:190:THR:O	2.12	0.50
26:BC:143:VAL:HG21	26:BC:161:VAL:HG21	1.94	0.50
27:BD:20:VAL:HG12	27:BD:21:SER:N	2.27	0.50
31:BH:37:VAL:HG23	31:BH:38:PRO:HD2	1.94	0.50
31:BH:84:ALA:HA	31:BH:90:LEU:HA	1.93	0.50
33:BJ:69:ARG:HA	33:BJ:89:PHE:CD2	2.47	0.50
33:BJ:75:TYR:HB3	33:BJ:84:ILE:HD11	1.93	0.50
33:BJ:125:TYR:CE2	33:BJ:130:HIS:HB2	2.47	0.50
34:BK:71:ARG:HG3	34:BK:72:PRO:HD2	1.93	0.50
37:BN:16:HIS:O	37:BN:17:ARG:C	2.55	0.50
42:BS:13:SER:O	42:BS:14:ALA:C	2.55	0.50
42:BS:71:VAL:O	42:BS:71:VAL:HG12	2.12	0.50
47:BX:39:VAL:CG2	47:BX:44:ARG:O	2.59	0.50
48:BY:9:LYS:CB	48:BY:12:GLU:HG2	2.42	0.50
52:B2:21:ARG:HG3	52:B2:27:GLY:O	2.11	0.50
53:B3:44:ARG:HB3	53:B3:45:PRO:HD3	1.94	0.50
1:CA:376:G:C4'	16:CP:5:ARG:HD2	2.41	0.50
1:CA:391:G:C5	1:CA:392:C:C6	2.99	0.50
1:CA:786:G:H5"	1:CA:787:A:OP2	2.11	0.50
1:CA:1014:A:OP2	19:CS:14:HIS:HB2	2.12	0.50
1:CA:1038:C:N4	1:CA:1039:G:O6	2.45	0.50
1:CA:1050:G:C2'	1:CA:1051:C:H5'	2.42	0.50
1:CA:1112:C:O2'	3:CC:179:ARG:HD3	2.12	0.50
1:CA:1153:G:C6	1:CA:1154:G:N7	2.80	0.50
1:CA:1239:A:N3	1:CA:1241:G:N1	2.60	0.50
1:CA:1366:C:C2	1:CA:1367:C:C5	3.00	0.50
1:CA:1397:C:O2'	1:CA:1398:A:P	2.69	0.50
1:CA:1524:C:H2'	1:CA:1525:G:O4'	2.12	0.50
2:CB:104:TRP:O	2:CB:106:THR:O	2.30	0.50
2:CB:171:ILE:HG22	2:CB:175:GLU:OE1	2.12	0.50
3:CC:83:ASP:O	3:CC:84:VAL:C	2.54	0.50
3:CC:130:PHE:CD2	3:CC:157:LEU:HD23	2.45	0.50
4:CD:4:TYR:CE1	4:CD:68:LEU:HD22	2.47	0.50
4:CD:153:SER:OG	4:CD:154:ARG:N	2.45	0.50
4:CD:154:ARG:O	4:CD:156:LYS:N	2.44	0.50
8:CH:59:LEU:HD12	8:CH:59:LEU:O	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:92:GLU:CA	9:CI:92:GLU:OE2	2.59	0.50
10:CJ:42:LEU:HD22	10:CJ:71:LEU:HD13	1.94	0.50
14:CN:44:ALA:O	14:CN:47:LYS:HG2	2.12	0.50
16:CP:20:VAL:HG11	16:CP:32:PHE:CD2	2.46	0.50
18:CR:39:ILE:CG2	18:CR:40:VAL:N	2.74	0.50
19:CS:4:SER:O	19:CS:5:LEU:HB3	2.11	0.50
19:CS:42:PRO:O	19:CS:43:ASN:CG	2.54	0.50
19:CS:69:HIS:O	19:CS:70:LYS:O	2.29	0.50
22:CV:9:A:O2'	22:CV:10:G:N7	2.43	0.50
55:CY:7:LYS:HA	55:CY:10:GLU:HB3	1.93	0.50
24:DA:192:C:O2'	24:DA:802:A:N3	2.44	0.50
24:DA:197:A:OP1	59:DA:3764:HOH:O	2.19	0.50
24:DA:591:U:C2'	24:DA:592:A:O5'	2.60	0.50
24:DA:778:G:C6	24:DA:779:U:C4	3.00	0.50
24:DA:1203:U:H1'	35:DL:4:ASN:HB3	1.93	0.50
24:DA:1918:A:HO2'	24:DA:1920:C:N4	2.09	0.50
24:DA:2055:C:N4	59:DA:3532:HOH:O	2.44	0.50
24:DA:2498:C:H2'	24:DA:2499:C:H5'	1.93	0.50
24:DA:2792:A:N3	24:DA:2792:A:H2'	2.26	0.50
57:DA:3185:NMY:H16	57:DA:3185:NMY:N19	2.26	0.50
57:DA:3190:NMY:H1	57:DA:3190:NMY:O11	2.11	0.50
28:DE:108:ILE:C	28:DE:108:ILE:HD12	2.36	0.50
29:DF:95:MET:SD	29:DF:99:PHE:CE1	3.05	0.50
29:DF:131:VAL:HG21	29:DF:151:LEU:HD23	1.94	0.50
29:DF:153:ILE:HD12	29:DF:154:THR:N	2.27	0.50
33:DJ:55:ILE:HA	33:DJ:123:LYS:O	2.12	0.50
33:DJ:68:LYS:O	33:DJ:69:ARG:C	2.55	0.50
36:DM:115:GLU:OE1	36:DM:119:LEU:HD11	2.11	0.50
38:DO:54:VAL:HG23	38:DO:55:GLU:H	1.77	0.50
38:DO:108:ASP:O	38:DO:109:ALA:C	2.55	0.50
44:DU:73:ASN:CB	44:DU:78:LYS:O	2.60	0.50
50:D0:27:LEU:HD23	50:D0:37:HIS:O	2.12	0.50
53:D3:31:ILE:HD11	53:D3:35:LYS:HE2	1.94	0.50
1:AA:40:C:H2'	1:AA:41:G:C8	2.47	0.50
1:AA:246:A:C4	1:AA:279:A:C2	3.00	0.50
1:AA:412:A:C4'	11:CK:14:LYS:HE3	2.42	0.50
1:AA:441:A:C2	1:AA:497:G:C6	3.00	0.50
1:AA:597:G:C5	1:AA:598:U:C6	3.00	0.50
1:AA:741:G:OP1	15:AO:35:GLN:NE2	2.45	0.50
1:AA:853:C:C2'	1:AA:854:U:O5'	2.60	0.50
1:AA:1152:A:C2	1:AA:1153:G:N9	2.80	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1237:C:H4'	1:AA:1334:G:N2	2.26	0.50
1:AA:1257:A:H2'	1:AA:1257:A:N3	2.27	0.50
1:AA:1387:G:C6	1:AA:1388:C:N4	2.80	0.50
2:AB:21:ARG:HA	2:AB:21:ARG:HE	1.77	0.50
2:AB:60:ILE:O	2:AB:61:ALA:HB2	2.11	0.50
2:AB:181:ILE:HG13	2:AB:182:PRO:O	2.12	0.50
4:AD:95:GLU:HA	4:AD:104:ARG:HH11	1.77	0.50
4:AD:95:GLU:HG2	4:AD:96:GLY:N	2.25	0.50
4:AD:103:TYR:HE1	4:AD:114:ALA:CB	2.25	0.50
5:AE:133:PRO:O	5:AE:136:VAL:HG12	2.11	0.50
6:AF:51:ILE:O	6:AF:51:ILE:HG12	2.12	0.50
7:AG:90:GLU:N	7:AG:90:GLU:OE1	2.45	0.50
7:AG:113:ASP:HB2	7:AG:119:ARG:HG2	1.94	0.50
8:AH:76:GLN:N	8:AH:76:GLN:OE1	2.45	0.50
9:AI:57:MET:SD	9:AI:57:MET:C	2.95	0.50
10:AJ:42:LEU:HD23	10:AJ:71:LEU:CD2	2.42	0.50
19:AS:51:VAL:N	19:AS:58:VAL:O	2.43	0.50
21:AU:26:ALA:O	21:AU:28:VAL:N	2.45	0.50
21:AU:30:ALA:O	21:AU:31:GLU:C	2.55	0.50
22:AV:18:G:C5	22:AV:58:A:C6	3.00	0.50
24:BA:193:U:O2	24:BA:193:U:H2'	2.11	0.50
24:BA:592:A:C5	24:BA:593:U:C5	2.99	0.50
24:BA:599:A:N1	24:BA:659:G:C6	2.79	0.50
24:BA:802:A:N3	24:BA:802:A:H2'	2.26	0.50
24:BA:1232:G:C6	24:BA:1233:C:C4	3.00	0.50
24:BA:1273:U:H4'	24:BA:1275:A:OP2	2.10	0.50
24:BA:1332:G:O6	24:BA:1609:A:C8	2.65	0.50
24:BA:1423:G:C4	24:BA:1424:G:C8	3.00	0.50
24:BA:1571:A:C2	24:BA:1572:A:C4	2.99	0.50
24:BA:1808:A:H5'	24:BA:1809:A:C8	2.47	0.50
25:BB:45:A:N1	25:BB:46:A:C4	2.80	0.50
26:BC:11:GLY:O	26:BC:12:ARG:HB3	2.11	0.50
26:BC:132:ARG:CZ	26:BC:132:ARG:HB3	2.41	0.50
26:BC:254:LYS:CE	26:BC:254:LYS:HA	2.40	0.50
28:BE:136:GLN:C	28:BE:138:LEU:N	2.70	0.50
30:BG:148:ARG:O	30:BG:150:TYR:N	2.45	0.50
35:BL:93:ASN:OD1	35:BL:93:ASN:O	2.30	0.50
39:BP:54:LEU:HD12	39:BP:76:HIS:HB2	1.94	0.50
39:BP:91:VAL:HG22	39:BP:92:ARG:N	2.26	0.50
40:BQ:95:ALA:O	40:BQ:99:VAL:CG1	2.60	0.50
51:B1:38:PHE:HB2	51:B1:45:HIS:CE1	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:42:G:H2'	1:CA:43:C:C6	2.46	0.50
1:CA:185:U:H4'	20:CT:69:LYS:HE2	1.92	0.50
1:CA:258:G:C6	1:CA:259:G:C5	2.99	0.50
1:CA:416:G:C2'	1:CA:417:G:H5'	2.42	0.50
1:CA:544:G:C6	1:CA:545:C:C4	3.00	0.50
1:CA:957:U:C2	1:CA:959:A:OP2	2.65	0.50
1:CA:1166:G:N2	1:CA:1171:A:N6	2.59	0.50
1:CA:1516:G:C2	1:CA:1518:A:OP2	2.65	0.50
1:CA:1539:C:O2'	23:CX:4:G:N2	2.44	0.50
2:CB:47:VAL:CG2	2:CB:48:PRO:HD3	2.41	0.50
4:CD:110:THR:OG1	4:CD:111:ARG:N	2.40	0.50
5:CE:102:GLY:O	5:CE:103:THR:HB	2.12	0.50
5:CE:126:LYS:HG3	5:CE:127:ALA:O	2.11	0.50
11:CK:31:ILE:HA	11:CK:46:THR:HG21	1.94	0.50
11:CK:127:ARG:CB	21:CU:35:ARG:HH22	2.25	0.50
12:CL:67:ILE:CD1	12:CL:72:HIS:CD2	2.95	0.50
14:CN:96:LEU:HD12	14:CN:96:LEU:O	2.12	0.50
15:CO:66:LEU:O	15:CO:67:LEU:C	2.54	0.50
16:CP:52:LEU:HD23	16:CP:57:ILE:CD1	2.42	0.50
24:DA:220:G:C6	24:DA:427:U:C5	3.00	0.50
24:DA:321:U:P	28:DE:130:LYS:HD2	2.51	0.50
24:DA:910:A:N3	24:DA:2264:C:O2'	2.40	0.50
24:DA:973:A:O4'	24:DA:1188:U:C6	2.65	0.50
24:DA:995:C:H5'	24:DA:995:C:H6	1.77	0.50
24:DA:1313:U:H2'	24:DA:1610:A:C2	2.46	0.50
24:DA:1701:A:N7	24:DA:1702:G:C8	2.80	0.50
24:DA:2061:G:C2	24:DA:2063:C:C4	3.00	0.50
24:DA:2128:G:C5	24:DA:2129:C:N3	2.79	0.50
24:DA:2258:C:O2'	24:DA:2426:A:H4'	2.11	0.50
24:DA:2592:G:C5	24:DA:2593:U:C5	3.00	0.50
24:DA:2722:G:H4'	37:DN:4:ARG:HB2	1.93	0.50
26:DC:71:ASP:OD1	26:DC:188:ARG:NH1	2.44	0.50
26:DC:163:ILE:HG22	26:DC:171:VAL:HG22	1.92	0.50
27:DD:8:LYS:HE3	27:DD:193:VAL:HG22	1.93	0.50
31:DH:71:LYS:O	31:DH:73:ASN:N	2.38	0.50
32:DI:121:ILE:HG22	32:DI:121:ILE:O	2.11	0.50
34:DK:121:GLU:O	34:DK:122:VAL:C	2.54	0.50
36:DM:54:THR:HG22	36:DM:55:ARG:N	2.25	0.50
47:DX:44:ARG:CG	47:DX:45:PHE:N	2.75	0.50
1:AA:55:A:C5	31:DH:91:PHE:CE2	3.00	0.50
1:AA:418:C:H1'	1:AA:540:G:O2'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:638:U:C4	1:AA:639:G:N7	2.80	0.50
1:AA:709:U:O2'	1:AA:710:G:P	2.70	0.50
1:AA:779:C:O2'	1:AA:780:A:H5'	2.12	0.50
1:AA:1014:A:H2'	1:AA:1015:G:O4'	2.12	0.50
1:AA:1086:U:H2'	1:AA:1087:G:O5'	2.12	0.50
1:AA:1096:C:H2'	1:AA:1097:C:H6	1.77	0.50
1:AA:1227:A:C2	1:AA:1228:C:C2	3.00	0.50
3:AC:30:ALA:C	3:AC:32:ASN:N	2.69	0.50
4:AD:25:VAL:HG22	4:AD:26:ARG:HG2	1.94	0.50
5:AE:141:ILE:C	5:AE:143:GLY:N	2.70	0.50
5:AE:157:ARG:CG	5:AE:158:GLY:N	2.68	0.50
6:AF:42:TRP:N	6:AF:42:TRP:CD1	2.79	0.50
6:AF:49:TYR:CE2	18:AR:66:SER:HA	2.47	0.50
6:AF:51:ILE:O	6:AF:54:LEU:HD21	2.12	0.50
9:AI:129:LYS:O	9:AI:129:LYS:HD2	2.12	0.50
17:AQ:35:GLY:O	17:AQ:36:LYS:C	2.52	0.50
19:AS:44:MET:O	19:AS:62:VAL:HG21	2.12	0.50
24:BA:137:U:O2'	24:BA:138:U:OP1	2.26	0.50
24:BA:228:C:C5'	24:BA:229:C:C6	2.95	0.50
24:BA:310:A:N3	24:BA:312:G:C8	2.79	0.50
24:BA:335:C:C4	24:BA:336:C:C5	3.00	0.50
24:BA:500:G:N2	24:BA:502:A:H3'	2.27	0.50
24:BA:579:G:N3	24:BA:1262:A:C2	2.79	0.50
24:BA:608:A:H3'	24:BA:609:A:H8	1.77	0.50
24:BA:809:G:H2'	24:BA:810:U:H5'	1.94	0.50
24:BA:1071:G:N2	24:BA:1091:G:N7	2.59	0.50
24:BA:1361:G:C6	24:BA:1371:G:N2	2.80	0.50
24:BA:1583:A:H4'	24:BA:1585:C:C4	2.47	0.50
24:BA:1605:C:H1'	24:BA:1610:A:C6	2.46	0.50
24:BA:1648:U:OP1	59:BA:3390:HOH:O	2.20	0.50
24:BA:1847:A:C2'	24:BA:1848:A:OP2	2.60	0.50
24:BA:2095:A:C2	24:BA:2096:C:C6	3.00	0.50
24:BA:2198:A:O2'	24:BA:2199:A:OP2	2.23	0.50
24:BA:2406:A:N7	35:BL:69:ARG:NH2	2.60	0.50
24:BA:2704:C:N4	24:BA:2705:A:C2	2.79	0.50
24:BA:2734:A:N7	24:BA:2735:G:N7	2.59	0.50
24:BA:2761:A:C2	24:BA:2762:C:C6	3.00	0.50
24:BA:2766:A:O5'	24:BA:2766:A:C8	2.65	0.50
24:BA:2820:A:C6	27:BD:197:THR:HG23	2.46	0.50
57:BA:3165:NMY:H1	57:BA:3165:NMY:HN61	1.74	0.50
25:BB:79:G:H2'	25:BB:80:U:O4'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:80:ILE:HG23	31:BH:146:VAL:CG2	2.42	0.50
34:BK:118:LEU:O	34:BK:119:ALA:HB2	2.12	0.50
37:BN:43:GLU:O	37:BN:46:ARG:N	2.44	0.50
45:BV:72:VAL:CG2	45:BV:91:PHE:HB3	2.42	0.50
48:BY:52:ARG:HB3	48:BY:52:ARG:HH21	1.76	0.50
1:CA:202:G:N3	1:CA:203:G:H1'	2.26	0.50
1:CA:205:A:H4'	1:CA:205:A:OP1	2.11	0.50
1:CA:316:C:C2	1:CA:317:U:C5	2.99	0.50
1:CA:356:A:C2'	1:CA:357:G:H5'	2.42	0.50
1:CA:519:C:H2'	1:CA:520:A:O4'	2.11	0.50
1:CA:673:A:H4'	6:CF:86:ARG:CZ	2.42	0.50
1:CA:1012:A:N6	1:CA:1013:G:N1	2.59	0.50
1:CA:1133:G:C5	1:CA:1134:G:C8	3.00	0.50
1:CA:1190:G:O2'	3:CC:3:GLN:CG	2.60	0.50
1:CA:1404:C:O4'	1:CA:1499:A:C2	2.65	0.50
2:CB:123:ASP:OD1	2:CB:123:ASP:N	2.45	0.50
3:CC:9:GLY:CA	3:CC:12:LEU:HD13	2.41	0.50
4:CD:19:LEU:CD1	4:CD:64:ILE:O	2.60	0.50
4:CD:113:GLU:OE1	4:CD:113:GLU:CA	2.60	0.50
12:CL:114:ARG:HG3	12:CL:119:VAL:HB	1.94	0.50
19:CS:40:ILE:HD11	19:CS:44:MET:HE2	1.93	0.50
24:DA:778:G:C5	24:DA:779:U:C4	3.00	0.50
24:DA:1000:A:H62	24:DA:1154:G:H2'	1.76	0.50
24:DA:1069:A:C5	24:DA:1074:G:C6	3.00	0.50
24:DA:1141:U:OP2	33:DJ:65:THR:CG2	2.60	0.50
24:DA:1353:A:C8	24:DA:1378:A:N6	2.80	0.50
24:DA:1369:G:C6	24:DA:1370:C:C4	3.00	0.50
24:DA:1620:G:O2'	24:DA:1621:U:H5'	2.12	0.50
24:DA:1926:U:H5'	24:DA:1927:A:OP2	2.12	0.50
24:DA:2063:C:C5	24:DA:2064:C:C5	3.00	0.50
24:DA:2076:U:O2	24:DA:2076:U:O5'	2.30	0.50
24:DA:2250:G:H8	24:DA:2250:G:O5'	1.95	0.50
24:DA:2298:A:OP1	29:DF:70:ARG:NH2	2.44	0.50
24:DA:2407:A:H2'	24:DA:2408:U:C6	2.46	0.50
24:DA:2615:U:C2	50:D0:3:GLN:HA	2.47	0.50
24:DA:2671:G:C6	24:DA:2672:U:N3	2.80	0.50
26:DC:40:GLY:C	26:DC:53:ILE:HG22	2.37	0.50
26:DC:80:LEU:HD21	26:DC:105:ALA:HB2	1.93	0.50
26:DC:154:ALA:HB1	26:DC:159:THR:HG23	1.92	0.50
26:DC:230:PRO:CD	26:DC:246:PRO:O	2.59	0.50
27:DD:5:VAL:HG21	27:DD:80:TRP:CD2	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:145:ASP:OD2	28:DE:166:LYS:NZ	2.44	0.50
29:DF:7:TYR:C	29:DF:8:LYS:O	2.55	0.50
29:DF:59:ILE:HG23	29:DF:137:PHE:CE2	2.47	0.50
29:DF:98:PHE:HD1	29:DF:99:PHE:N	2.10	0.50
30:DG:36:LEU:C	30:DG:38:ASP:N	2.69	0.50
31:DH:76:GLU:O	31:DH:143:ILE:HG12	2.12	0.50
32:DI:33:ASN:OD1	32:DI:64:ARG:NH2	2.45	0.50
32:DI:89:SER:O	32:DI:91:LYS:N	2.44	0.50
36:DM:71:LYS:HD3	36:DM:95:LEU:HD13	1.93	0.50
40:DQ:25:GLY:O	40:DQ:27:ARG:N	2.44	0.50
40:DQ:80:ASN:O	40:DQ:81:GLY:C	2.55	0.50
44:DU:85:ARG:HD3	44:DU:94:PHE:CE2	2.46	0.50
45:DV:65:VAL:O	45:DV:67:GLY:N	2.44	0.50
1:AA:52:C:H2'	1:AA:53:A:C8	2.47	0.49
1:AA:72:A:H2'	1:AA:73:C:C6	2.47	0.49
1:AA:184:G:O2'	1:AA:224:U:C5'	2.60	0.49
1:AA:436:C:N3	1:AA:437:U:C5	2.80	0.49
1:AA:455:G:C2	1:AA:478:A:N1	2.80	0.49
1:AA:577:G:H4'	1:AA:817:C:OP1	2.12	0.49
1:AA:832:G:N2	1:AA:855:U:C2	2.80	0.49
1:AA:834:U:H2'	1:AA:835:U:H6	1.77	0.49
1:AA:885:G:N3	1:AA:914:A:C2	2.79	0.49
1:AA:1449:C:C2	1:AA:1455:G:N2	2.79	0.49
1:AA:1516:G:N3	1:AA:1516:G:C2'	2.74	0.49
3:AC:15:VAL:HG23	3:AC:15:VAL:O	2.12	0.49
7:AG:27:VAL:CG1	7:AG:28:ASN:N	2.75	0.49
8:AH:84:ARG:O	8:AH:85:ILE:CG1	2.60	0.49
8:AH:102:ALA:O	8:AH:127:CYS:O	2.30	0.49
9:AI:81:HIS:O	9:AI:84:THR:OG1	2.24	0.49
12:AL:8:VAL:HG12	12:AL:9:ARG:N	2.25	0.49
12:AL:43:LYS:C	12:AL:44:LYS:HG2	2.37	0.49
12:AL:63:VAL:CG1	12:AL:64:THR:N	2.75	0.49
12:AL:107:VAL:N	12:AL:117:TYR:O	2.45	0.49
12:AL:116:LYS:O	12:AL:117:TYR:HB2	2.11	0.49
15:AO:25:THR:O	15:AO:26:GLU:C	2.55	0.49
24:BA:110:G:N2	24:BA:111:A:C1'	2.75	0.49
24:BA:136:G:C5	24:BA:137:U:O4	2.65	0.49
24:BA:180:G:OP1	52:B2:35:ARG:NH2	2.44	0.49
24:BA:422:A:N1	24:BA:423:A:C2	2.80	0.49
24:BA:507:A:O4'	24:BA:509:C:N3	2.45	0.49
24:BA:601:C:C4	24:BA:602:A:N7	2.80	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1028:A:N6	24:BA:1125:G:H2'	2.27	0.49
24:BA:1062:G:H2'	24:BA:1063:G:C8	2.46	0.49
24:BA:1248:G:N9	40:BQ:2:ARG:HB2	2.27	0.49
24:BA:1261:C:C2'	24:BA:1262:A:O5'	2.60	0.49
24:BA:1335:C:P	43:BT:68:LYS:CE	2.99	0.49
24:BA:1385:A:N6	24:BA:1403:A:C5	2.80	0.49
24:BA:1945:G:C5	24:BA:1946:U:C5	3.00	0.49
24:BA:2472:G:H3'	24:BA:2473:U:C5'	2.36	0.49
24:BA:2692:G:N3	24:BA:2847:U:O2'	2.44	0.49
24:BA:2746:U:H4'	30:BG:138:GLN:HA	1.94	0.49
25:BB:6:G:C4	25:BB:115:A:C2	2.99	0.49
26:BC:160:TYR:CD2	26:BC:176:ARG:NH1	2.79	0.49
27:BD:35:THR:O	27:BD:36:GLN:HB3	2.12	0.49
27:BD:89:GLU:HG2	27:BD:90:PHE:H	1.77	0.49
30:BG:68:ARG:CG	30:BG:69:ALA:N	2.75	0.49
33:BJ:23:LYS:O	33:BJ:25:LEU:N	2.45	0.49
36:BM:69:PRO:HA	36:BM:94:ALA:HA	1.93	0.49
39:BP:8:GLU:C	39:BP:10:GLU:N	2.67	0.49
43:BT:2:ILE:HA	43:BT:3:ARG:C	2.37	0.49
47:BX:1:SER:O	47:BX:3:VAL:N	2.43	0.49
47:BX:4:CYS:SG	47:BX:7:THR:HG22	2.51	0.49
48:BY:51:ALA:O	48:BY:55:THR:HB	2.11	0.49
49:BZ:23:LEU:O	49:BZ:27:GLY:N	2.41	0.49
50:B0:30:ASP:HB3	50:B0:33:SER:OG	2.12	0.49
54:B4:20:ASP:C	54:B4:22:VAL:H	2.20	0.49
1:CA:5:U:C4'	1:CA:6:G:O5'	2.60	0.49
1:CA:57:G:H2'	1:CA:58:C:O4'	2.12	0.49
1:CA:406:G:C5	1:CA:495:A:C5	3.00	0.49
1:CA:725:G:C2	1:CA:726:C:C2	3.00	0.49
1:CA:726:C:C2'	1:CA:727:G:H5'	2.42	0.49
1:CA:794:A:C6	1:CA:795:C:N4	2.80	0.49
1:CA:872:A:C5	1:CA:874:G:C8	3.00	0.49
1:CA:966:G:H2'	9:CI:129:LYS:HD3	1.93	0.49
1:CA:980:C:H3'	1:CA:981:U:C6	2.47	0.49
1:CA:1308:U:H5"	13:CM:97:VAL:HG11	1.94	0.49
2:CB:15:HIS:C	2:CB:16:PHE:CD1	2.89	0.49
3:CC:72:ARG:N	3:CC:73:PRO:CD	2.75	0.49
4:CD:104:ARG:O	4:CD:165:ARG:NH2	2.44	0.49
5:CE:153:VAL:HG13	5:CE:154:ALA:N	2.26	0.49
7:CG:103:TRP:HZ3	7:CG:104:ILE:HD13	1.76	0.49
9:CI:50:GLN:N	9:CI:51:PRO:HD2	2.26	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:57:LEU:HD12	12:CL:59:ASN:OD1	2.11	0.49
12:CL:87:VAL:H	12:CL:93:VAL:HG11	1.77	0.49
16:CP:8:ARG:HG2	16:CP:8:ARG:O	2.11	0.49
19:CS:42:PRO:HD3	19:CS:67:VAL:HG21	1.94	0.49
22:CV:24:G:C4	22:CV:25:C:C6	2.99	0.49
24:DA:192:C:C2'	24:DA:193:U:H5'	2.42	0.49
24:DA:211:C:C2'	24:DA:212:G:H5'	2.43	0.49
24:DA:222:A:C2	24:DA:233:A:C5'	2.95	0.49
24:DA:332:A:C2	24:DA:335:C:C5	3.00	0.49
24:DA:1059:G:C4	24:DA:1080:A:C2	2.99	0.49
24:DA:1139:G:O3'	33:DJ:26:GLY:CA	2.59	0.49
24:DA:1276:A:O2'	37:DN:20:MET:HE3	2.12	0.49
24:DA:1614:A:OP1	59:DA:3306:HOH:O	2.20	0.49
24:DA:1913:A:C2	24:DA:1914:C:H5'	2.47	0.49
24:DA:2040:G:H2'	24:DA:2041:U:O4'	2.12	0.49
24:DA:2286:G:P	51:D1:29:LYS:HE3	2.52	0.49
24:DA:2658:C:P	30:DG:159:LYS:HZ1	2.34	0.49
26:DC:137:GLY:N	26:DC:163:ILE:O	2.41	0.49
27:DD:123:LYS:O	27:DD:124:ARG:HB3	2.12	0.49
27:DD:196:ALA:O	27:DD:197:THR:C	2.55	0.49
28:DE:137:LYS:HG3	28:DE:141:MET:CE	2.41	0.49
28:DE:148:ILE:HD12	28:DE:187:VAL:CG1	2.42	0.49
29:DF:127:TYR:N	29:DF:155:ILE:HD11	2.27	0.49
32:DI:16:MET:SD	32:DI:19:PRO:HB3	2.52	0.49
36:DM:115:GLU:O	36:DM:119:LEU:HD12	2.12	0.49
43:DT:68:LYS:HZ2	43:DT:69:ARG:NE	2.10	0.49
54:D4:29:ALA:C	54:D4:30:GLU:CD	2.80	0.49
1:AA:109:A:H3'	1:AA:110:C:C5'	2.42	0.49
1:AA:406:G:C2	1:AA:407:U:C6	3.00	0.49
1:AA:430:A:H2'	1:AA:431:A:H5'	1.94	0.49
1:AA:510:A:H1'	1:AA:543:U:O4'	2.12	0.49
1:AA:580:C:N4	1:AA:581:G:C6	2.80	0.49
1:AA:585:G:N3	1:AA:879:C:H4'	2.27	0.49
1:AA:869:G:C5'	1:AA:872:A:O4'	2.60	0.49
1:AA:965:U:O2	1:AA:969:A:C2	2.65	0.49
1:AA:1014:A:H5"	19:AS:14:HIS:CB	2.42	0.49
4:AD:142:VAL:HG13	4:AD:143:VAL:N	2.26	0.49
8:AH:13:ARG:NH2	8:AH:27:MET:HB2	2.27	0.49
8:AH:64:LYS:HE3	8:AH:66:PHE:CE1	2.47	0.49
9:AI:11:ARG:HB2	9:AI:16:ALA:HB2	1.94	0.49
12:AL:14:ARG:N	12:AL:14:ARG:HD2	2.26	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:75:ILE:HA	16:AP:78:VAL:HG22	1.94	0.49
20:AT:67:ILE:HD13	20:AT:71:LYS:CE	2.42	0.49
24:BA:182:A:C5	24:BA:183:C:C5	3.00	0.49
24:BA:479:A:C2	24:BA:481:G:H5"	2.47	0.49
24:BA:536:G:C6	24:BA:537:G:C4	3.00	0.49
24:BA:547:A:H2'	24:BA:548:G:H5'	1.94	0.49
24:BA:604:G:O6	24:BA:625:G:C6	2.66	0.49
24:BA:993:G:O2'	24:BA:994:C:H5'	2.12	0.49
24:BA:1349:C:C2'	24:BA:1350:C:H5'	2.42	0.49
24:BA:1453:A:C3'	37:BN:63:ARG:HH22	2.25	0.49
24:BA:1641:A:H2'	24:BA:1642:G:O4'	2.12	0.49
24:BA:1856:U:C4	24:BA:1857:G:C6	3.00	0.49
24:BA:1933:G:C6	24:BA:1934:C:C4	3.00	0.49
24:BA:2014:A:H2'	24:BA:2015:A:C8	2.47	0.49
24:BA:2304:G:O2'	29:BF:130:GLY:N	2.45	0.49
24:BA:2459:A:C6	24:BA:2460:U:C2	3.00	0.49
24:BA:2480:C:O2'	24:BA:2481:G:H5'	2.11	0.49
24:BA:2527:C:H2'	24:BA:2528:U:O4'	2.11	0.49
24:BA:2543:G:O4'	24:BA:2766:A:H5'	2.12	0.49
24:BA:2768:U:N3	24:BA:2769:U:C6	2.80	0.49
24:BA:2799:A:N6	24:BA:2801:G:C6	2.80	0.49
25:BB:71:C:H2'	25:BB:72:G:C5'	2.41	0.49
26:BC:118:GLY:O	26:BC:129:LEU:HB3	2.13	0.49
26:BC:245:THR:CB	26:BC:246:PRO:CD	2.90	0.49
26:BC:259:ASN:O	26:BC:261:ARG:HG3	2.12	0.49
27:BD:125:TRP:CG	27:BD:160:LYS:CD	2.96	0.49
28:BE:149:ILE:HG12	28:BE:188:MET:CG	2.42	0.49
33:BJ:103:ILE:HD12	33:BJ:103:ILE:C	2.36	0.49
34:BK:43:ILE:HG13	34:BK:56:ASP:HB2	1.93	0.49
35:BL:54:GLN:O	35:BL:55:MET:C	2.55	0.49
35:BL:81:ASP:CG	35:BL:81:ASP:O	2.53	0.49
38:BO:30:ARG:HD3	38:BO:31:THR:N	2.27	0.49
38:BO:61:GLN:O	38:BO:62:LEU:HB2	2.11	0.49
53:B3:26:ALA:O	53:B3:27:ASN:HB2	2.12	0.49
1:CA:32:A:C2	1:CA:33:A:C4	3.00	0.49
1:CA:96:U:O2'	1:CA:97:G:O5'	2.29	0.49
1:CA:230:G:H4'	16:CP:25:ARG:NH2	2.27	0.49
1:CA:339:C:H2'	1:CA:340:U:C6	2.47	0.49
1:CA:692:U:C2'	1:CA:694:A:N7	2.75	0.49
1:CA:727:G:N1	1:CA:731:G:C6	2.81	0.49
1:CA:869:G:C5'	1:CA:872:A:O4'	2.59	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:878:A:H5”	8:CH:81:PRO:HG2	1.94	0.49
1:CA:972:C:C2’	1:CA:973:G:H5’	2.42	0.49
1:CA:1304:G:C6	1:CA:1305:G:N2	2.80	0.49
1:CA:1317:C:C5’	14:CN:56:SER:HG	2.16	0.49
2:CB:183:VAL:HG11	2:CB:197:ASP:N	2.27	0.49
4:CD:132:ILE:O	4:CD:132:ILE:HG13	2.12	0.49
4:CD:168:PRO:HB3	4:CD:171:LEU:HG	1.93	0.49
10:CJ:87:LEU:O	10:CJ:89:ARG:N	2.45	0.49
12:CL:72:HIS:CE1	12:CL:74:LEU:HD12	2.48	0.49
14:CN:2:LYS:HE3	14:CN:4:SER:OG	2.12	0.49
15:CO:8:THR:O	15:CO:11:ILE:HD11	2.12	0.49
16:CP:32:PHE:C	16:CP:32:PHE:HD1	2.20	0.49
22:CV:67:C:N3	22:CV:68:C:C5	2.80	0.49
24:DA:412:A:C6	24:DA:2412:A:H1’	2.47	0.49
24:DA:1165:A:C2	24:DA:1185:G:C2	2.99	0.49
24:DA:1358:G:N2	24:DA:1372:U:OP2	2.36	0.49
24:DA:1487:U:C2	24:DA:1503:A:C2	3.00	0.49
24:DA:1843:C:H5’	26:DC:250:GLN:OE1	2.12	0.49
24:DA:2092:U:OP1	24:DA:2199:A:O2’	2.29	0.49
24:DA:2547:A:H2’	24:DA:2548:U:C6	2.47	0.49
24:DA:2720:U:OP1	39:DP:52:ARG:NH2	2.43	0.49
57:DA:3187:NMY:H14	57:DA:3187:NMY:N2	2.27	0.49
25:DB:44:G:P	29:DF:94:ARG:NH2	2.85	0.49
25:DB:74:U:H2’	25:DB:75:G:H5’	1.94	0.49
26:DC:32:LEU:O	26:DC:63:ILE:HG13	2.12	0.49
28:DE:43:THR:O	28:DE:44:ARG:HB3	2.12	0.49
28:DE:101:TYR:O	28:DE:104:ALA:HB3	2.13	0.49
29:DF:174:PHE:O	29:DF:175:PRO:C	2.54	0.49
30:DG:104:LEU:HD21	30:DG:106:LEU:HD21	1.94	0.49
31:DH:71:LYS:HE3	31:DH:108:VAL:HG23	1.94	0.49
35:DL:78:ARG:CA	35:DL:113:ALA:HB3	2.42	0.49
36:DM:74:THR:CG2	36:DM:86:LYS:HE2	2.41	0.49
38:DO:41:ALA:O	38:DO:43:ASN:N	2.45	0.49
38:DO:47:VAL:O	38:DO:48:LEU:HD12	2.12	0.49
38:DO:58:ILE:O	38:DO:62:LEU:HD11	2.11	0.49
39:DP:21:PRO:HA	39:DP:46:VAL:CG2	2.41	0.49
40:DQ:78:PHE:O	40:DQ:82:LEU:HD13	2.12	0.49
42:DS:47:VAL:O	42:DS:48:LYS:C	2.54	0.49
43:DT:6:ARG:O	43:DT:9:LYS:N	2.43	0.49
46:DW:30:SER:O	46:DW:31:VAL:CB	2.60	0.49
1:AA:56:U:H4’	31:DH:83:LYS:HE2	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:96:U:O2'	1:AA:97:G:P	2.70	0.49
1:AA:109:A:C6	1:AA:326:G:C5	3.01	0.49
1:AA:284:C:N3	1:AA:285:C:C5	2.81	0.49
1:AA:316:C:C2	1:AA:317:U:C5	3.01	0.49
1:AA:389:A:C6	1:AA:390:U:H1'	2.48	0.49
1:AA:394:G:N2	1:AA:395:C:C1'	2.75	0.49
1:AA:511:C:O2	1:AA:512:U:C6	2.66	0.49
1:AA:572:A:H5'	1:AA:573:A:OP2	2.12	0.49
1:AA:965:U:O2	1:AA:969:A:C4	2.65	0.49
1:AA:1276:G:N3	1:AA:1282:C:O2'	2.40	0.49
1:AA:1299:A:H2'	1:AA:1301:U:C6	2.47	0.49
1:AA:1371:G:C6	1:AA:1372:U:C4	3.00	0.49
1:AA:1379:G:C4	1:AA:1380:U:C5	3.01	0.49
1:AA:1422:G:H2'	1:AA:1423:G:H5'	1.95	0.49
1:AA:1432:G:OP2	39:BP:105:LYS:HE3	2.13	0.49
1:AA:1437:A:C2	1:AA:1438:G:N7	2.81	0.49
2:AB:99:GLY:HA2	2:AB:175:GLU:CD	2.37	0.49
2:AB:104:TRP:HA	2:AB:107:VAL:HB	1.93	0.49
3:AC:3:GLN:C	3:AC:4:LYS:HG2	2.36	0.49
3:AC:76:VAL:O	3:AC:84:VAL:CG1	2.60	0.49
4:AD:87:GLY:HA3	4:AD:197:GLU:HB3	1.94	0.49
4:AD:137:VAL:CG1	4:AD:182:PHE:CE2	2.95	0.49
4:AD:145:ILE:CD1	4:AD:150:LYS:HZ1	2.24	0.49
4:AD:146:ARG:HB3	4:AD:148:LYS:HG2	1.94	0.49
9:AI:130:ARG:NH2	22:AV:33:U:C4	2.80	0.49
10:AJ:81:GLU:C	10:AJ:83:THR:N	2.67	0.49
11:AK:82:LEU:HD22	11:AK:105:PHE:CG	2.48	0.49
11:AK:98:ARG:O	11:AK:102:ALA:CB	2.60	0.49
13:AM:7:ILE:O	13:AM:8:ASN:C	2.55	0.49
13:AM:65:VAL:O	13:AM:69:LEU:HB2	2.11	0.49
14:AN:62:ASN:C	14:AN:63:ARG:HG3	2.38	0.49
20:AT:46:ALA:O	20:AT:47:ALA:C	2.55	0.49
24:BA:160:A:C2	24:BA:161:A:C4	3.00	0.49
24:BA:160:A:C8	24:BA:167:A:C2	2.99	0.49
24:BA:169:G:C2	24:BA:170:U:C5	3.00	0.49
24:BA:359:G:O2'	24:BA:360:U:H5'	2.11	0.49
24:BA:482:A:C2	57:BA:3164:NMY:H62	2.47	0.49
24:BA:529:A:C4	24:BA:2023:C:C5	3.00	0.49
24:BA:537:G:N2	24:BA:557:C:N4	2.60	0.49
24:BA:666:A:C4	24:BA:667:U:C5	3.00	0.49
24:BA:792:A:C8	24:BA:2440:C:O2	2.66	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:823:C:H2'	24:BA:824:U:O5'	2.12	0.49
24:BA:1129:A:C2	24:BA:2569:G:N3	2.79	0.49
24:BA:1188:U:H4'	41:BR:81:LYS:O	2.13	0.49
24:BA:1392:A:C6	24:BA:1393:A:N6	2.80	0.49
24:BA:1463:C:H2'	24:BA:1464:G:C8	2.46	0.49
24:BA:1858:A:C2	24:BA:1859:U:H1'	2.47	0.49
24:BA:1906:G:C5	24:BA:1929:G:C2	3.00	0.49
24:BA:2119:A:C6	24:BA:2170:A:C5	2.99	0.49
24:BA:2129:C:H2'	24:BA:2130:U:O4'	2.12	0.49
24:BA:2327:A:H3'	24:BA:2328:A:C8	2.47	0.49
24:BA:2704:C:N4	24:BA:2705:A:N1	2.61	0.49
24:BA:2840:C:H2'	24:BA:2841:C:C6	2.47	0.49
30:BG:138:GLN:OE1	30:BG:139:VAL:CA	2.60	0.49
31:BH:27:ARG:CG	31:BH:28:ASN:N	2.75	0.49
38:BO:17:LYS:C	38:BO:21:LEU:HD13	2.37	0.49
39:BP:64:SER:O	39:BP:65:ASN:C	2.55	0.49
43:BT:20:ALA:HB1	43:BT:31:VAL:HG21	1.93	0.49
53:B3:36:ALA:O	53:B3:40:LYS:HB2	2.12	0.49
1:CA:112:G:C2	1:CA:113:G:C8	2.99	0.49
1:CA:263:A:P	20:CT:74:ARG:HH22	2.34	0.49
1:CA:376:G:OP1	16:CP:6:LEU:HG	2.12	0.49
1:CA:487:A:C6	1:CA:488:C:O2	2.65	0.49
1:CA:514:C:H2'	1:CA:515:G:O4'	2.11	0.49
1:CA:764:C:H2'	1:CA:765:G:O4'	2.11	0.49
1:CA:930:C:C4	1:CA:931:C:C5	3.00	0.49
1:CA:1016:A:N7	1:CA:1017:U:H1'	2.26	0.49
1:CA:1501:C:C4	1:CA:1504:G:C4	3.00	0.49
2:CB:32:PHE:O	2:CB:32:PHE:CG	2.65	0.49
3:CC:152:GLU:O	3:CC:152:GLU:HG3	2.12	0.49
4:CD:78:GLU:C	4:CD:81:ARG:HB3	2.37	0.49
4:CD:97:ARG:NH1	4:CD:99:ASP:CG	2.69	0.49
4:CD:104:ARG:CZ	4:CD:170:TRP:CD2	2.96	0.49
9:CI:26:GLY:HA2	9:CI:57:MET:HE1	1.94	0.49
12:CL:61:PHE:N	12:CL:61:PHE:CD1	2.79	0.49
14:CN:96:LEU:C	14:CN:96:LEU:CD1	2.84	0.49
15:CO:57:LEU:O	15:CO:61:SER:N	2.44	0.49
17:CQ:14:SER:HB2	17:CQ:22:VAL:HB	1.93	0.49
17:CQ:17:MET:HB3	17:CQ:20:SER:OG	2.13	0.49
18:CR:28:THR:HG23	18:CR:29:LEU:N	2.27	0.49
20:CT:5:LYS:O	20:CT:6:SER:C	2.53	0.49
20:CT:20:HIS:O	20:CT:23:SER:N	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:CU:14:VAL:HG22	21:CU:16:LEU:N	2.27	0.49
22:CV:5:G:N1	22:CV:69:G:C6	2.80	0.49
24:DA:674:G:O2'	28:DE:69:ARG:HD3	2.12	0.49
24:DA:1062:G:O6	24:DA:1075:C:N4	2.45	0.49
24:DA:1209:U:O2'	24:DA:1237:A:N1	2.42	0.49
24:DA:1387:A:H2'	24:DA:1388:G:O4'	2.13	0.49
24:DA:1848:A:H2'	24:DA:1849:G:O4'	2.12	0.49
24:DA:2101:A:C2	24:DA:2189:U:C2	3.00	0.49
24:DA:2221:G:C4	24:DA:2222:C:C5	3.00	0.49
24:DA:2331:G:P	46:DW:44:LYS:NZ	2.85	0.49
24:DA:2813:A:C2	24:DA:2814:A:C4	3.00	0.49
25:DB:20:G:C2'	25:DB:21:G:H5'	2.42	0.49
28:DE:15:SER:O	28:DE:16:GLU:C	2.55	0.49
28:DE:18:THR:CG2	28:DE:19:PHE:CE2	2.94	0.49
29:DF:15:LEU:HA	29:DF:18:GLU:HB3	1.94	0.49
29:DF:53:ALA:O	29:DF:57:ALA:N	2.41	0.49
29:DF:137:PHE:HB3	29:DF:138:PRO:HD2	1.93	0.49
34:DK:2:ILE:C	34:DK:2:ILE:HD12	2.36	0.49
34:DK:91:SER:O	34:DK:92:GLU:C	2.54	0.49
39:DP:51:ASN:O	39:DP:52:ARG:HD3	2.13	0.49
40:DQ:82:LEU:HA	40:DQ:85:ALA:HB3	1.94	0.49
1:AA:32:A:N3	1:AA:32:A:C2'	2.75	0.49
1:AA:55:A:H61	31:DH:91:PHE:HA	1.76	0.49
1:AA:112:G:C2'	1:AA:113:G:H5'	2.42	0.49
1:AA:318:G:C2	1:AA:319:G:C8	3.01	0.49
1:AA:354:G:C2	1:AA:355:C:C5	3.00	0.49
1:AA:435:A:H2'	1:AA:436:C:O4'	2.13	0.49
1:AA:529:G:H5'	1:AA:530:G:OP2	2.13	0.49
1:AA:572:A:OP1	1:AA:917:G:H5"	2.12	0.49
1:AA:728:A:C6	1:AA:729:A:N6	2.79	0.49
1:AA:983:A:C8	1:AA:1201:A:N1	2.80	0.49
1:AA:1034:G:O2'	1:AA:1035:A:O5'	2.30	0.49
1:AA:1232:U:N3	1:AA:1233:G:N7	2.60	0.49
57:AA:1655:NMY:H91	24:BA:1913:A:H62	1.60	0.49
3:AC:162:ILE:O	3:AC:162:ILE:HD12	2.13	0.49
6:AF:80:PHE:CD1	6:AF:81:ASN:N	2.80	0.49
11:AK:81:ASN:HB3	11:AK:106:ARG:HB3	1.93	0.49
11:AK:82:LEU:O	11:AK:107:ILE:HA	2.13	0.49
12:AL:16:VAL:O	12:AL:17:ALA:C	2.54	0.49
12:AL:94:ARG:O	12:AL:95:TYR:CG	2.66	0.49
12:AL:105:SER:C	12:AL:106:GLY:O	2.53	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:46:LEU:O	14:AN:47:LYS:C	2.55	0.49
15:AO:19:ALA:O	15:AO:21:ASP:N	2.45	0.49
19:AS:36:ARG:HD3	19:AS:72:GLY:HA2	1.95	0.49
19:AS:44:MET:HA	19:AS:47:LEU:HD22	1.94	0.49
20:AT:76:LYS:HA	20:AT:79:LEU:CD1	2.42	0.49
20:AT:78:ASN:O	20:AT:81:ALA:N	2.46	0.49
21:AU:24:GLU:HG2	21:AU:25:LYS:H	1.77	0.49
24:BA:393:C:C2	24:BA:394:C:C5	3.00	0.49
24:BA:424:G:H2'	24:BA:425:G:O4'	2.13	0.49
24:BA:442:G:C4	24:BA:444:C:C5	3.00	0.49
24:BA:455:C:N3	24:BA:472:A:H2'	2.27	0.49
24:BA:666:A:H4'	35:BL:48:ARG:HD2	1.95	0.49
24:BA:811:U:OP1	35:BL:29:LYS:CA	2.59	0.49
24:BA:1359:A:H2'	24:BA:1360:G:H5'	1.94	0.49
24:BA:1404:C:N3	24:BA:1405:U:C5	2.81	0.49
24:BA:1529:G:H2'	24:BA:1530:G:O4'	2.12	0.49
24:BA:2027:G:C6	24:BA:2028:U:C4	3.00	0.49
24:BA:2095:A:C4	24:BA:2096:C:C5	3.01	0.49
24:BA:2243:U:H2'	24:BA:2244:U:C6	2.47	0.49
24:BA:2261:C:C2'	24:BA:2262:U:H5'	2.42	0.49
24:BA:2281:A:C2	24:BA:2282:G:C4	3.00	0.49
24:BA:2417:C:H2'	24:BA:2418:A:H8	1.76	0.49
24:BA:2444:G:OP2	28:BE:63:LYS:CE	2.60	0.49
24:BA:2776:A:C8	24:BA:2782:G:C6	3.01	0.49
24:BA:2804:U:C2	24:BA:2805:C:C6	3.00	0.49
24:BA:2811:G:H5'	27:BD:63:PRO:HG2	1.94	0.49
24:BA:2887:A:H5"	24:BA:2888:C:OP2	2.12	0.49
25:BB:8:C:P	38:BO:29:HIS:NE2	2.84	0.49
25:BB:57:A:OP2	25:BB:58:A:OP2	2.30	0.49
25:BB:89:U:OP2	25:BB:89:U:H4'	2.13	0.49
26:BC:62:ARG:HH11	26:BC:83:ASP:CG	2.21	0.49
27:BD:34:VAL:HG12	27:BD:94:GLN:O	2.13	0.49
27:BD:98:VAL:C	27:BD:100:LEU:H	2.19	0.49
28:BE:105:LEU:O	28:BE:106:LYS:C	2.53	0.49
29:BF:36:ASN:HA	29:BF:87:LYS:CD	2.42	0.49
29:BF:100:GLU:HG2	29:BF:101:ARG:N	2.27	0.49
30:BG:154:GLU:OE2	30:BG:156:TYR:N	2.40	0.49
31:BH:103:VAL:O	31:BH:103:VAL:CG1	2.60	0.49
31:BH:138:VAL:O	31:BH:138:VAL:HG13	2.12	0.49
36:BM:77:PRO:O	36:BM:80:VAL:CG2	2.61	0.49
41:BR:24:LYS:C	41:BR:25:LEU:HG	2.37	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BT:19:LYS:HA	43:BT:22:THR:CG2	2.35	0.49
43:BT:64:LYS:O	43:BT:65:GLY:C	2.55	0.49
44:BU:43:LYS:HD3	44:BU:44:HIS:N	2.26	0.49
46:BW:54:GLY:O	46:BW:56:ASP:N	2.45	0.49
1:CA:16:A:N1	1:CA:920:U:C2	2.81	0.49
1:CA:45:G:H2'	1:CA:46:G:O4'	2.12	0.49
1:CA:53:A:C2	1:CA:359:G:C2	3.00	0.49
1:CA:345:C:O2'	34:DK:108:ARG:NH2	2.44	0.49
1:CA:408:A:N1	1:CA:435:A:C6	2.80	0.49
1:CA:1014:A:N7	1:CA:1015:G:C6	2.80	0.49
1:CA:1106:G:C2'	3:CC:169:ARG:NH1	2.76	0.49
1:CA:1239:A:O2'	1:CA:1298:U:O4	2.26	0.49
1:CA:1272:G:C5	1:CA:1273:C:C4	3.01	0.49
1:CA:1311:A:C2	1:CA:1327:C:O2	2.65	0.49
1:CA:1401:G:C2	1:CA:1402:C:H1'	2.47	0.49
1:CA:1404:C:O2	1:CA:1519:A:O2'	2.27	0.49
1:CA:1539:C:O2	23:CX:4:G:C6	2.66	0.49
2:CB:22:TYR:O	2:CB:23:TRP:CG	2.65	0.49
3:CC:138:VAL:O	3:CC:139:GLN:C	2.55	0.49
3:CC:142:MET:HG3	3:CC:170:GLU:HG2	1.93	0.49
3:CC:160:ALA:HB1	3:CC:162:ILE:HG22	1.94	0.49
3:CC:165:THR:HG22	3:CC:166:GLU:H	1.76	0.49
5:CE:53:ALA:CB	5:CE:59:ALA:HA	2.43	0.49
7:CG:103:TRP:CZ2	7:CG:134:ALA:N	2.80	0.49
7:CG:104:ILE:O	7:CG:108:ALA:N	2.43	0.49
12:CL:65:SER:HA	12:CL:95:TYR:HB3	1.95	0.49
14:CN:85:ARG:HG3	14:CN:86:GLU:N	2.27	0.49
14:CN:93:ILE:HG21	14:CN:96:LEU:CG	2.43	0.49
17:CQ:46:VAL:HG23	17:CQ:73:TRP:C	2.36	0.49
24:DA:287:G:C2	24:DA:354:A:C2	3.00	0.49
24:DA:374:A:H61	24:DA:400:G:C2'	2.26	0.49
24:DA:418:C:C2	24:DA:419:U:C6	3.01	0.49
24:DA:1062:G:C4	24:DA:1063:G:N7	2.80	0.49
24:DA:1090:A:N3	24:DA:1090:A:H2'	2.27	0.49
24:DA:1480:C:H2'	24:DA:1481:U:O4'	2.13	0.49
24:DA:1922:G:H2'	24:DA:1923:U:O4'	2.12	0.49
24:DA:2060:A:O2'	24:DA:2061:G:OP2	2.29	0.49
24:DA:2104:C:C5	24:DA:2184:A:N6	2.80	0.49
24:DA:2793:C:H2'	24:DA:2793:C:O2	2.12	0.49
24:DA:2897:U:H2'	24:DA:2898:U:C6	2.47	0.49
26:DC:160:TYR:CD2	26:DC:193:GLU:OE2	2.65	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:27:LEU:O	28:DE:28:VAL:C	2.55	0.49
28:DE:128:ALA:HB1	28:DE:129:PRO:CD	2.42	0.49
30:DG:108:PHE:CD1	30:DG:110:HIS:C	2.90	0.49
31:DH:44:ILE:HG22	31:DH:45:GLU:N	2.27	0.49
31:DH:68:ARG:NH2	31:DH:134:VAL:HG23	2.28	0.49
32:DI:120:ASP:CG	32:DI:121:ILE:N	2.71	0.49
35:DL:75:ALA:HB2	35:DL:105:ILE:HD12	1.94	0.49
38:DO:53:THR:O	38:DO:55:GLU:CB	2.60	0.49
40:DQ:73:ILE:O	40:DQ:73:ILE:CG2	2.59	0.49
41:DR:42:ALA:HA	41:DR:46:GLU:CB	2.38	0.49
45:DV:80:HIS:CE1	45:DV:83:LYS:HB2	2.47	0.49
48:DY:22:LEU:CD2	48:DY:23:ARG:N	2.74	0.49
48:DY:42:LEU:O	48:DY:46:VAL:HG23	2.11	0.49
53:D3:39:ARG:O	53:D3:43:LEU:HD22	2.11	0.49
54:D4:30:GLU:HG2	54:D4:30:GLU:O	2.12	0.49
1:AA:15:G:O2'	5:AE:29:ARG:NH1	2.46	0.49
1:AA:599:C:H4'	8:AH:88:ARG:NH2	2.28	0.49
1:AA:684:U:O2'	1:AA:685:G:O5'	2.30	0.49
1:AA:728:A:H2'	1:AA:729:A:C8	2.47	0.49
1:AA:757:U:O2'	1:AA:879:C:H1'	2.12	0.49
1:AA:780:A:C5'	11:AK:125:LYS:HG2	2.42	0.49
1:AA:782:A:N7	1:AA:783:C:C2	2.81	0.49
1:AA:782:A:C8	1:AA:783:C:C6	3.00	0.49
1:AA:919:A:C2	1:AA:920:U:C5	3.00	0.49
1:AA:1257:A:N3	1:AA:1257:A:C2'	2.75	0.49
1:AA:1378:C:N3	1:AA:1379:G:H1'	2.28	0.49
2:AB:68:LEU:CD2	2:AB:158:PRO:HB3	2.42	0.49
2:AB:96:TRP:HH2	2:AB:175:GLU:CD	2.21	0.49
3:AC:130:PHE:C	3:AC:130:PHE:CD1	2.90	0.49
4:AD:49:SER:HB2	4:AD:51:TYR:CD2	2.47	0.49
12:AL:33:VAL:HG13	12:AL:56:ARG:HE	1.77	0.49
14:AN:35:ALA:O	14:AN:41:ARG:HB3	2.12	0.49
14:AN:41:ARG:O	14:AN:42:TRP:CE3	2.65	0.49
19:AS:12:ASP:OD1	19:AS:13:LEU:N	2.42	0.49
24:BA:242:G:H5'	53:B3:63:TYR:CG	2.47	0.49
24:BA:277:G:O2'	24:BA:278:A:C2	2.65	0.49
24:BA:503:A:H5'	24:BA:505:A:OP1	2.12	0.49
24:BA:548:G:O5'	24:BA:549:G:OP1	2.30	0.49
24:BA:607:U:HO2'	24:BA:608:A:P	2.35	0.49
24:BA:613:A:H2'	24:BA:614:A:H5"	1.94	0.49
24:BA:655:A:H4'	24:BA:656:G:OP1	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:729:G:OP1	26:BC:12:ARG:CZ	2.61	0.49
24:BA:1310:G:C2'	24:BA:1311:G:H5'	2.43	0.49
24:BA:1317:G:C2	24:BA:1336:A:C2	3.01	0.49
24:BA:1387:A:C4'	24:BA:1469:A:H1'	2.43	0.49
24:BA:1833:C:C4	24:BA:1834:U:C5	3.01	0.49
24:BA:2636:C:H2'	24:BA:2637:U:H6	1.78	0.49
24:BA:2680:U:O4'	27:BD:192:ALA:HB1	2.12	0.49
24:BA:2680:U:C2	24:BA:2681:C:C5	3.01	0.49
24:BA:2749:A:O3'	30:BG:61:TRP:CZ3	2.65	0.49
24:BA:2867:G:O2'	24:BA:2868:A:OP2	2.27	0.49
27:BD:119:ALA:HB3	27:BD:165:MET:HE3	1.95	0.49
27:BD:133:THR:HG23	27:BD:134:HIS:H	1.77	0.49
27:BD:173:GLN:CD	27:BD:208:LYS:HE2	2.37	0.49
34:BK:37:ASP:N	34:BK:37:ASP:OD1	2.46	0.49
34:BK:64:ARG:HD2	34:BK:79:PHE:HD2	1.76	0.49
34:BK:76:VAL:HG12	39:BP:72:VAL:HG21	1.93	0.49
35:BL:66:PHE:N	35:BL:66:PHE:CD1	2.81	0.49
36:BM:17:ASN:O	36:BM:38:ARG:NH1	2.45	0.49
37:BN:70:THR:O	37:BN:71:ARG:HB2	2.11	0.49
42:BS:18:ARG:O	42:BS:19:LEU:C	2.55	0.49
44:BU:4:ILE:HG22	44:BU:5:ARG:N	2.27	0.49
44:BU:11:ILE:HD11	44:BU:79:ALA:HB2	1.95	0.49
44:BU:71:ILE:CD1	44:BU:80:ASP:O	2.60	0.49
51:B1:27:ARG:O	51:B1:28:THR:CG2	2.60	0.49
1:CA:59:A:C8	1:CA:354:G:N1	2.80	0.49
1:CA:214:C:C2'	1:CA:215:C:O5'	2.60	0.49
1:CA:355:C:C2	1:CA:356:A:C8	3.00	0.49
1:CA:451:A:C8	1:CA:452:A:C2	3.01	0.49
1:CA:515:G:C6	1:CA:516:U:N3	2.80	0.49
1:CA:560:A:C4	5:CE:128:TYR:CE2	3.00	0.49
1:CA:597:G:OP1	17:CQ:27:ARG:NH1	2.46	0.49
1:CA:661:G:C2	1:CA:745:G:N1	2.81	0.49
1:CA:790:A:N7	1:CA:791:G:O6	2.46	0.49
1:CA:1175:G:C2	1:CA:1176:A:N7	2.80	0.49
1:CA:1216:A:OP1	14:CN:2:LYS:CE	2.60	0.49
1:CA:1310:G:P	13:CM:79:ARG:HH21	2.35	0.49
1:CA:1329:A:C5	1:CA:1330:U:C2	3.01	0.49
3:CC:107:ARG:CD	3:CC:107:ARG:N	2.75	0.49
4:CD:27:ALA:C	4:CD:28:ILE:HG13	2.37	0.49
4:CD:117:LEU:HD12	4:CD:118:VAL:N	2.27	0.49
8:CH:92:LEU:CD2	8:CH:116:ALA:HB1	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:87:LYS:HB3	11:CK:113:VAL:O	2.13	0.49
13:CM:92:ARG:O	13:CM:92:ARG:HG3	2.12	0.49
17:CQ:25:ILE:CG2	17:CQ:26:GLU:N	2.76	0.49
55:CY:2:ILE:O	55:CY:3:SER:C	2.56	0.49
55:CY:78:VAL:O	55:CY:79:GLU:C	2.56	0.49
24:DA:45:G:H5'	24:DA:46:G:OP1	2.11	0.49
24:DA:280:U:C4	24:DA:281:C:C4	3.01	0.49
24:DA:538:A:OP2	57:DA:3186:NMY:C17	2.60	0.49
24:DA:1491:G:C6	24:DA:1500:G:C2	3.01	0.49
24:DA:1581:G:C5	24:DA:1582:C:C5	3.01	0.49
24:DA:1627:G:C4	24:DA:1640:A:C2	3.01	0.49
24:DA:1632:A:H2'	24:DA:1633:G:C8	2.48	0.49
24:DA:1735:A:N1	24:DA:1736:U:H1'	2.27	0.49
24:DA:2315:G:O4'	29:DF:124:ARG:NH2	2.45	0.49
24:DA:2348:U:O2'	24:DA:2349:G:H5'	2.13	0.49
25:DB:42:C:C6	29:DF:65:LEU:HD22	2.47	0.49
25:DB:50:A:OP1	38:DO:68:LYS:HG3	2.12	0.49
26:DC:33:LEU:HD12	26:DC:33:LEU:O	2.12	0.49
30:DG:75:VAL:HG23	30:DG:76:ILE:N	2.26	0.49
32:DI:28:GLY:CA	32:DI:32:VAL:HB	2.41	0.49
34:DK:105:ARG:NH1	34:DK:122:VAL:HG13	2.27	0.49
35:DL:26:GLY:O	35:DL:27:LEU:HG	2.12	0.49
36:DM:57:VAL:C	36:DM:58:LYS:O	2.53	0.49
40:DQ:84:LYS:C	40:DQ:86:SER:N	2.67	0.49
40:DQ:104:ALA:O	40:DQ:107:ALA:HB3	2.12	0.49
41:DR:68:ARG:HG2	41:DR:92:TRP:CD2	2.47	0.49
44:DU:5:ARG:NH2	44:DU:6:ARG:HB3	2.27	0.49
48:DY:5:GLU:HG2	48:DY:5:GLU:O	2.10	0.49
54:D4:24:ARG:NH2	54:D4:36:ARG:HD2	2.27	0.49
1:AA:59:A:H2'	1:AA:59:A:N3	2.27	0.49
1:AA:487:A:H2'	1:AA:488:C:O4'	2.12	0.49
1:AA:542:G:H2'	1:AA:543:U:H5'	1.95	0.49
1:AA:730:G:H3'	1:AA:731:G:O4'	2.11	0.49
1:AA:749:A:C5	1:AA:750:C:C5	3.00	0.49
1:AA:1429:A:C2	1:AA:1430:A:C4	3.00	0.49
2:AB:33:GLY:N	2:AB:40:ILE:HG23	2.28	0.49
2:AB:113:ARG:O	2:AB:114:LEU:C	2.56	0.49
2:AB:164:ILE:HG23	2:AB:165:ASP:H	1.77	0.49
3:AC:125:GLU:OE2	3:AC:125:GLU:N	2.46	0.49
6:AF:10:VAL:HG12	6:AF:11:HIS:N	2.28	0.49
7:AG:42:ILE:C	7:AG:42:ILE:HD12	2.37	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:87:LYS:HD2	8:AH:93:PRO:HD3	1.94	0.49
8:AH:88:ARG:HE	8:AH:122:GLY:N	2.10	0.49
8:AH:92:LEU:CD2	8:AH:117:ARG:HG2	2.43	0.49
9:AI:30:ILE:O	9:AI:31:ASN:C	2.56	0.49
12:AL:25:GLU:O	12:AL:26:ALA:C	2.55	0.49
13:AM:22:ILE:HG23	13:AM:25:VAL:HG13	1.95	0.49
13:AM:31:LYS:O	13:AM:32:ALA:C	2.55	0.49
13:AM:71:ARG:O	13:AM:75:MET:HG2	2.12	0.49
14:AN:51:LEU:O	14:AN:52:PRO:C	2.56	0.49
16:AP:17:TYR:N	16:AP:17:TYR:CD1	2.79	0.49
16:AP:26:ASN:O	16:AP:27:ALA:O	2.30	0.49
20:AT:55:GLN:HB3	20:AT:56:PRO:HD3	1.93	0.49
21:AU:43:THR:O	21:AU:44:GLU:C	2.55	0.49
24:BA:368:A:C2'	24:BA:369:U:H5'	2.42	0.49
24:BA:378:C:H2'	24:BA:379:G:H5"	1.94	0.49
24:BA:623:C:C2	24:BA:624:C:C6	3.00	0.49
24:BA:927:A:H2'	24:BA:928:A:O4'	2.11	0.49
24:BA:1283:G:N2	24:BA:1286:A:OP2	2.45	0.49
24:BA:1468:U:O2	24:BA:1525:A:C2	2.66	0.49
24:BA:1847:A:O2'	24:BA:1848:A:C8	2.65	0.49
24:BA:2221:G:C5	24:BA:2222:C:C5	3.01	0.49
24:BA:2409:G:H3'	24:BA:2410:G:H5"	1.94	0.49
24:BA:2519:U:C5	24:BA:2542:A:N7	2.81	0.49
24:BA:2657:A:C2'	24:BA:2658:C:H5'	2.43	0.49
24:BA:2687:U:C4	24:BA:2688:G:C6	3.00	0.49
24:BA:2697:G:H2'	24:BA:2698:U:O4'	2.13	0.49
24:BA:2744:G:C6	24:BA:2761:A:C6	3.01	0.49
24:BA:2884:U:O4	50:B0:39:ARG:HD3	2.13	0.49
26:BC:4:LYS:O	26:BC:5:CYS:C	2.55	0.49
27:BD:8:LYS:HD2	27:BD:195:GLY:O	2.13	0.49
30:BG:18:ILE:O	30:BG:18:ILE:HG12	2.12	0.49
30:BG:38:ASP:O	30:BG:40:VAL:N	2.46	0.49
31:BH:27:ARG:HG2	31:BH:28:ASN:N	2.28	0.49
34:BK:31:ARG:C	34:BK:32:TYR:CD1	2.90	0.49
34:BK:88:ASN:OD1	34:BK:91:SER:N	2.46	0.49
38:BO:18:LEU:HD13	38:BO:25:ARG:HD2	1.95	0.49
42:BS:21:ALA:C	42:BS:23:LEU:H	2.20	0.49
47:BX:7:THR:O	47:BX:7:THR:OG1	2.30	0.49
48:BY:56:LEU:O	48:BY:57:LEU:HB3	2.13	0.49
49:BZ:35:VAL:HG21	49:BZ:37:ARG:NH2	2.27	0.49
1:CA:408:A:N3	1:CA:435:A:C2	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:704:A:N6	1:CA:705:G:N1	2.60	0.49
1:CA:728:A:N6	1:CA:729:A:N6	2.61	0.49
1:CA:1034:G:H2'	1:CA:1035:A:C8	2.48	0.49
1:CA:1125:U:C5	1:CA:1127:G:C5	3.00	0.49
1:CA:1216:A:C2	1:CA:1217:C:N3	2.81	0.49
1:CA:1226:C:H2'	13:CM:102:THR:HG23	1.93	0.49
1:CA:1365:G:C2'	1:CA:1366:C:H5'	2.42	0.49
7:CG:69:VAL:HG23	7:CG:138:ARG:NH2	2.27	0.49
8:CH:106:THR:O	8:CH:107:SER:C	2.54	0.49
8:CH:110:VAL:HG12	8:CH:111:MET:H	1.77	0.49
10:CJ:100:ILE:HD13	10:CJ:101:SER:N	2.28	0.49
13:CM:65:VAL:O	13:CM:66:GLU:C	2.55	0.49
14:CN:41:ARG:O	14:CN:42:TRP:C	2.56	0.49
15:CO:2:SER:O	15:CO:3:LEU:O	2.29	0.49
16:CP:37:GLY:HA3	16:CP:52:LEU:HA	1.95	0.49
21:CU:37:PHE:CE1	21:CU:41:PRO:HB3	2.47	0.49
21:CU:41:PRO:C	21:CU:43:THR:N	2.71	0.49
22:CV:34:G:OP1	22:CV:34:G:H8	1.95	0.49
55:CY:145:ASP:O	55:CY:147:GLU:N	2.46	0.49
24:DA:1022:G:C5	24:DA:1140:C:C4	3.00	0.49
24:DA:1140:C:H5'	33:DJ:26:GLY:HA3	1.93	0.49
24:DA:1220:G:H2'	24:DA:1221:C:O4'	2.12	0.49
24:DA:1379:U:OP1	24:DA:1379:U:C5	2.66	0.49
24:DA:1434:A:C2	24:DA:1435:G:C5	3.00	0.49
24:DA:1834:U:O2	24:DA:1834:U:H2'	2.11	0.49
24:DA:2091:C:H4'	47:DX:55:MET:HE3	1.93	0.49
24:DA:2231:U:C4	24:DA:2232:C:C5	3.01	0.49
24:DA:2331:G:N2	24:DA:2385:C:C2	2.80	0.49
57:DA:3190:NMY:C1	57:DA:3190:NMY:O17	2.60	0.49
26:DC:203:VAL:O	26:DC:203:VAL:HG13	2.12	0.49
27:DD:129:THR:O	27:DD:129:THR:HG23	2.11	0.49
29:DF:126:ASN:HB3	29:DF:155:ILE:HD11	1.93	0.49
30:DG:165:ASP:OD1	30:DG:165:ASP:N	2.45	0.49
35:DL:39:LYS:NZ	59:DL:306:HOH:O	2.41	0.49
36:DM:72:PRO:HB2	36:DM:89:VAL:CG1	2.42	0.49
36:DM:72:PRO:HB3	36:DM:92:TRP:CZ3	2.47	0.49
39:DP:28:LYS:HZ2	39:DP:82:SER:N	2.10	0.49
40:DQ:65:ASN:HA	40:DQ:75:TYR:HB2	1.93	0.49
42:DS:15:GLN:O	42:DS:16:LYS:C	2.55	0.49
50:D0:52:LYS:HE2	50:D0:55:ALA:N	2.27	0.49
53:D3:23:HIS:ND1	53:D3:24:LYS:O	2.44	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:14:U:H2'	1:AA:16:A:N7	2.28	0.49
1:AA:323:U:P	20:AT:25:ARG:HH22	2.34	0.49
1:AA:376:G:H5'	16:AP:5:ARG:NE	2.27	0.49
1:AA:393:A:C6	1:AA:394:G:C8	3.01	0.49
1:AA:412:A:H4'	11:CK:14:LYS:HE3	1.94	0.49
1:AA:414:A:H2'	1:AA:415:A:C8	2.48	0.49
1:AA:414:A:C6	1:AA:431:A:C2	3.00	0.49
1:AA:609:A:H2'	1:AA:609:A:N3	2.27	0.49
1:AA:681:A:N1	1:AA:710:G:C6	2.80	0.49
1:AA:780:A:OP1	11:AK:125:LYS:HG3	2.12	0.49
1:AA:905:U:H5	1:AA:906:A:C4	2.31	0.49
1:AA:965:U:O2	1:AA:969:A:N3	2.45	0.49
1:AA:1097:C:C2	1:AA:1098:C:C5	3.00	0.49
1:AA:1297:G:O2'	7:AG:114:LYS:NZ	2.45	0.49
1:AA:1405:G:C5'	57:AA:1655:NMY:H192	2.25	0.49
1:AA:1421:G:C4	1:AA:1480:A:C2	3.00	0.49
2:AB:188:ASP:HB2	2:AB:204:ASP:CB	2.43	0.49
5:AE:47:GLY:HA3	5:AE:70:ASN:O	2.12	0.49
6:AF:25:TYR:O	6:AF:27:ALA:N	2.45	0.49
6:AF:38:ARG:CD	6:AF:96:VAL:O	2.61	0.49
7:AG:93:PRO:HA	7:AG:96:ARG:HB2	1.94	0.49
8:AH:7:ILE:HD12	8:AH:7:ILE:O	2.12	0.49
20:AT:45:ALA:O	20:AT:47:ALA:N	2.46	0.49
24:BA:92:U:C5	24:BA:93:G:N7	2.80	0.49
24:BA:126:A:N7	24:BA:127:A:C6	2.81	0.49
24:BA:359:G:C6	24:BA:360:U:N3	2.81	0.49
24:BA:483:A:H2'	24:BA:484:C:O5'	2.13	0.49
24:BA:511:U:O4	24:BA:512:G:N1	2.45	0.49
24:BA:525:U:OP1	24:BA:556:A:H4'	2.13	0.49
24:BA:563:A:C2	24:BA:564:C:C2	3.01	0.49
24:BA:613:A:H2'	24:BA:614:A:C5'	2.43	0.49
24:BA:622:G:H2'	24:BA:623:C:H6	1.78	0.49
24:BA:749:A:C5	24:BA:750:A:N7	2.81	0.49
24:BA:1125:G:C6	24:BA:1126:A:N6	2.80	0.49
24:BA:1408:G:C2	24:BA:1409:U:C2	3.01	0.49
24:BA:1419:A:C6	24:BA:1579:A:C2	3.01	0.49
24:BA:1946:U:H2'	24:BA:1947:C:C6	2.47	0.49
24:BA:2304:G:C4'	29:BF:129:MET:HA	2.42	0.49
24:BA:2758:A:C2	24:BA:2759:G:C1'	2.93	0.49
25:BB:66:A:N1	25:BB:108:A:C4	2.81	0.49
27:BD:16:THR:HG22	27:BD:20:VAL:HB	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:34:VAL:HB	27:BD:48:ILE:CD1	2.42	0.49
27:BD:120:GLY:C	27:BD:121:THR:HG22	2.38	0.49
29:BF:92:GLY:O	29:BF:93:GLU:HG2	2.12	0.49
31:BH:115:VAL:HG22	31:BH:115:VAL:O	2.12	0.49
33:BJ:72:LYS:HB3	33:BJ:89:PHE:HB2	1.94	0.49
34:BK:11:ALA:O	34:BK:12:ASP:HB3	2.13	0.49
34:BK:118:LEU:N	34:BK:118:LEU:HD23	2.27	0.49
35:BL:77:ILE:HD11	35:BL:110:VAL:HG22	1.93	0.49
36:BM:25:ASP:OD1	36:BM:26:VAL:N	2.42	0.49
39:BP:88:ARG:NH1	39:BP:114:ASN:O	2.45	0.49
41:BR:51:VAL:HG12	41:BR:52:PRO:HD3	1.94	0.49
51:B1:39:ASP:CG	51:B1:42:VAL:HG12	2.37	0.49
1:CA:9:G:H5'	5:CE:108:GLY:HA3	1.93	0.49
1:CA:37:U:O2'	1:CA:500:G:H4'	2.12	0.49
1:CA:270:A:C2	1:CA:271:C:C2	3.01	0.49
1:CA:761:G:N3	1:CA:762:U:C6	2.81	0.49
1:CA:958:A:C5	19:CS:55:ARG:NH2	2.81	0.49
1:CA:1108:G:O6	59:CA:1858:HOH:O	2.20	0.49
1:CA:1306:A:C2	1:CA:1332:A:N3	2.81	0.49
1:CA:1309:G:N2	1:CA:1329:A:C1'	2.76	0.49
2:CB:142:GLU:O	2:CB:144:LEU:N	2.45	0.49
5:CE:23:LYS:HB3	5:CE:30:ILE:HG13	1.95	0.49
5:CE:74:VAL:CG2	5:CE:76:LEU:HD11	2.42	0.49
9:CI:99:ARG:CZ	9:CI:104:VAL:HG11	2.42	0.49
10:CJ:87:LEU:HD12	10:CJ:88:MET:N	2.27	0.49
13:CM:87:ARG:C	13:CM:89:LEU:N	2.68	0.49
22:CV:24:G:C5	22:CV:25:C:C6	3.00	0.49
22:CV:63:G:C6	22:CV:64:A:C6	3.01	0.49
55:CY:11:VAL:O	55:CY:12:ARG:C	2.56	0.49
55:CY:156:SER:C	55:CY:158:ASP:O	2.56	0.49
24:DA:6:A:O2'	24:DA:7:G:H5'	2.12	0.49
24:DA:68:G:N2	24:DA:74:A:C4	2.81	0.49
24:DA:205:G:O2'	24:DA:206:U:P	2.70	0.49
24:DA:627:A:O4'	24:DA:637:A:N6	2.46	0.49
24:DA:1274:A:N3	24:DA:1297:C:H1'	2.27	0.49
24:DA:1404:C:H2'	24:DA:1405:U:H6	1.77	0.49
24:DA:1907:G:C6	24:DA:1908:C:C4	3.00	0.49
24:DA:2095:A:N1	24:DA:2194:U:C4	2.80	0.49
24:DA:2318:G:C6	24:DA:2319:G:C2	3.01	0.49
24:DA:2495:G:O2'	36:DM:82:MET:HE3	2.13	0.49
28:DE:85:PHE:O	28:DE:86:ALA:C	2.56	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:189:THR:O	28:DE:192:ALA:HB3	2.13	0.49
29:DF:32:LYS:O	29:DF:33:ILE:HG13	2.12	0.49
29:DF:129:MET:O	29:DF:153:ILE:HD11	2.13	0.49
30:DG:11:PRO:O	30:DG:14:VAL:HG13	2.12	0.49
35:DL:29:LYS:HG2	35:DL:30:THR:HG23	1.94	0.49
40:DQ:5:ARG:O	40:DQ:6:GLY:C	2.56	0.49
43:DT:36:LYS:O	43:DT:81:LYS:HD3	2.12	0.49
48:DY:37:LEU:C	48:DY:37:LEU:CD1	2.85	0.49
1:AA:161:A:H2'	1:AA:162:A:C8	2.48	0.49
1:AA:174:A:C6	1:AA:175:C:C4	3.01	0.49
1:AA:529:G:C5'	1:AA:530:G:OP2	2.61	0.49
1:AA:620:C:C2	4:AD:132:ILE:HG12	2.48	0.49
1:AA:858:G:O6	1:AA:869:G:H3'	2.13	0.49
1:AA:1006:G:H2'	1:AA:1007:U:C6	2.46	0.49
1:AA:1118:U:H1'	1:AA:1179:A:C5	2.48	0.49
1:AA:1144:G:C6	1:AA:1145:A:N1	2.80	0.49
1:AA:1152:A:N3	1:AA:1153:G:C8	2.81	0.49
1:AA:1385:G:C2	1:AA:1386:G:C4	3.00	0.49
1:AA:1408:A:C2	1:AA:1494:G:C5	3.00	0.49
2:AB:91:PHE:CE1	2:AB:150:GLY:HA2	2.48	0.49
2:AB:210:VAL:HG23	2:AB:211:THR:H	1.76	0.49
2:AB:222:ARG:HG2	2:AB:223:GLU:N	2.28	0.49
3:AC:23:PHE:CD2	10:AJ:13:PHE:CZ	3.01	0.49
4:AD:79:ALA:O	4:AD:80:ALA:C	2.56	0.49
4:AD:102:VAL:C	4:AD:103:TYR:CD1	2.91	0.49
4:AD:132:ILE:O	4:AD:132:ILE:HG13	2.13	0.49
5:AE:96:MET:CE	5:AE:125:ALA:HB2	2.43	0.49
7:AG:131:LYS:H	7:AG:135:VAL:HG21	1.77	0.49
10:AJ:26:VAL:HG12	10:AJ:27:GLU:N	2.26	0.49
12:AL:24:LEU:O	12:AL:25:GLU:C	2.54	0.49
16:AP:32:PHE:HD1	16:AP:32:PHE:O	1.95	0.49
24:BA:58:G:N3	24:BA:70:G:C2	2.80	0.49
24:BA:114:U:N3	24:BA:115:C:C5	2.80	0.49
24:BA:528:A:C2	24:BA:2042:A:H2'	2.48	0.49
24:BA:572:A:C5'	24:BA:573:U:OP2	2.61	0.49
24:BA:624:C:C2	24:BA:625:G:C8	3.01	0.49
24:BA:656:G:N7	24:BA:657:U:C5	2.81	0.49
24:BA:706:A:OP1	26:BC:6:LYS:NZ	2.32	0.49
24:BA:716:A:H3'	24:BA:717:C:H5"	1.94	0.49
24:BA:749:A:H5"	24:BA:750:A:OP2	2.12	0.49
24:BA:992:C:C2'	24:BA:993:G:H5'	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1076:C:C4	24:BA:1077:A:N7	2.81	0.49
24:BA:1131:G:C4	33:BJ:77:HIS:CD2	3.01	0.49
24:BA:1317:G:H5"	24:BA:1318:U:OP2	2.12	0.49
24:BA:1363:C:O2'	24:BA:1364:G:H5'	2.12	0.49
24:BA:1422:G:C2	24:BA:1423:G:C5	3.01	0.49
24:BA:1453:A:O3'	37:BN:63:ARG:NH2	2.43	0.49
24:BA:1494:A:C6	24:BA:1495:A:C4	3.01	0.49
24:BA:2118:U:OP1	24:BA:2147:A:O2'	2.17	0.49
24:BA:2376:A:C5	38:BO:99:TYR:CE2	3.01	0.49
24:BA:2668:G:C2	24:BA:2669:G:C8	3.00	0.49
25:BB:91:C:P	36:BM:18:ARG:NE	2.86	0.49
26:BC:260:LYS:HA	26:BC:263:ASP:OD2	2.12	0.49
27:BD:178:VAL:CG2	27:BD:179:ARG:N	2.75	0.49
28:BE:164:LEU:HD11	28:BE:167:VAL:CB	2.41	0.49
29:BF:65:LEU:HG	29:BF:66:ILE:N	2.27	0.49
29:BF:74:ALA:C	29:BF:76:PHE:N	2.69	0.49
29:BF:103:ILE:CG2	29:BF:174:PHE:CE1	2.95	0.49
31:BH:110:VAL:CG1	31:BH:111:ALA:N	2.76	0.49
33:BJ:13:ARG:HD3	33:BJ:51:GLY:O	2.13	0.49
34:BK:108:ARG:NH2	39:BP:33:GLU:CG	2.75	0.49
37:BN:43:GLU:O	37:BN:44:LEU:C	2.55	0.49
37:BN:61:ALA:O	37:BN:65:LEU:HD13	2.13	0.49
39:BP:51:ASN:O	39:BP:52:ARG:CD	2.61	0.49
40:BQ:87:VAL:CG1	40:BQ:89:ILE:HG23	2.38	0.49
43:BT:61:LEU:CD1	43:BT:82:LYS:CB	2.90	0.49
49:BZ:56:VAL:O	49:BZ:56:VAL:HG13	2.13	0.49
53:B3:20:GLY:O	53:B3:21:PHE:CD1	2.66	0.49
1:CA:35:G:C2	1:CA:550:G:C2	3.01	0.49
1:CA:541:G:C4	1:CA:542:G:C8	3.01	0.49
1:CA:577:G:N9	1:CA:816:A:C2	2.81	0.49
1:CA:853:C:N3	1:CA:854:U:C5	2.80	0.49
1:CA:976:G:OP1	14:CN:71:HIS:HB3	2.12	0.49
1:CA:1012:A:N1	1:CA:1013:G:C2	2.81	0.49
1:CA:1089:G:N2	1:CA:1090:U:H1'	2.28	0.49
1:CA:1216:A:C2	1:CA:1217:C:C2	3.01	0.49
1:CA:1266:G:C5	1:CA:1268:G:OP2	2.66	0.49
2:CB:49:MET:HE2	2:CB:199:VAL:HG13	1.94	0.49
5:CE:84:PRO:HB3	5:CE:97:GLN:HG2	1.95	0.49
5:CE:94:VAL:HG23	5:CE:111:MET:HE1	1.94	0.49
10:CJ:29:ALA:N	10:CJ:32:THR:HG22	2.27	0.49
17:CQ:50:ASN:O	17:CQ:50:ASN:CG	2.56	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:63:GLU:HB2	17:CQ:73:TRP:CZ2	2.47	0.49
55:CY:100:VAL:HG23	55:CY:100:VAL:O	2.10	0.49
55:CY:155:ARG:C	55:CY:157:GLN:N	2.65	0.49
24:DA:95:A:H4'	48:DY:38:GLN:O	2.13	0.49
24:DA:222:A:C6	24:DA:224:U:O2	2.65	0.49
24:DA:322:A:C6	24:DA:340:A:C2	3.00	0.49
24:DA:578:G:O2'	24:DA:580:U:OP2	2.19	0.49
24:DA:1166:G:C6	24:DA:1167:C:N4	2.81	0.49
24:DA:1208:C:C2	24:DA:1239:G:N2	2.80	0.49
24:DA:1246:A:C2'	24:DA:1247:A:O5'	2.61	0.49
24:DA:1688:U:H1'	24:DA:1701:A:C6	2.48	0.49
24:DA:1885:A:H2'	24:DA:1886:U:O4'	2.13	0.49
24:DA:1912:A:C2	24:DA:1919:A:C6	3.01	0.49
24:DA:2209:G:C6	24:DA:2210:U:C4	3.01	0.49
24:DA:2298:A:C2	24:DA:2321:U:C5	3.00	0.49
24:DA:2317:A:H2'	24:DA:2318:G:H5'	1.93	0.49
24:DA:2344:U:O2'	51:D1:35:LEU:HD22	2.13	0.49
24:DA:2387:U:H5"	24:DA:2388:A:OP2	2.12	0.49
24:DA:2484:G:O2'	36:DM:123:LYS:O	2.27	0.49
57:DA:3186:NMY:H14	33:DJ:2:LYS:NZ	2.28	0.49
25:DB:80:U:H2'	25:DB:81:G:C8	2.48	0.49
26:DC:64:VAL:CG2	26:DC:66:PHE:HD2	2.25	0.49
27:DD:114:LYS:O	27:DD:167:ASN:N	2.44	0.49
29:DF:135:ILE:HG12	29:DF:142:TYR:CZ	2.48	0.49
31:DH:143:ILE:CG1	31:DH:144:VAL:N	2.75	0.49
37:DN:53:THR:HG22	37:DN:94:TYR:OH	2.13	0.49
38:DO:112:GLU:OE2	38:DO:113:ALA:N	2.46	0.49
40:DQ:8:ILE:O	40:DQ:8:ILE:HG13	2.13	0.49
42:DS:37:THR:HG22	42:DS:38:TYR:CE2	2.48	0.49
48:DY:19:LEU:O	48:DY:19:LEU:CD2	2.61	0.49
48:DY:50:VAL:HA	48:DY:53:VAL:CG1	2.43	0.49
48:DY:60:LYS:O	48:DY:61:ALA:HB3	2.12	0.49
1:AA:44:A:C2	1:AA:399:G:C2	3.01	0.49
1:AA:257:G:N2	1:AA:270:A:C2	2.81	0.49
1:AA:542:G:N1	1:AA:543:U:C5	2.80	0.49
1:AA:633:G:H2'	1:AA:634:C:H6	1.77	0.49
1:AA:786:G:C4	1:AA:787:A:C8	3.01	0.49
1:AA:881:G:C4	1:AA:882:C:C6	3.01	0.49
1:AA:976:G:C2	1:AA:1363:A:N3	2.80	0.49
1:AA:1160:G:OP1	2:AB:132:LYS:HE2	2.13	0.49
1:AA:1185:G:C5	1:AA:1186:G:N7	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1192:C:H5”	1:AA:1193:G:OP2	2.12	0.49
1:AA:1361:G:N1	1:AA:1362:A:N7	2.60	0.49
1:AA:1520:C:H2’	1:AA:1521:C:C6	2.48	0.49
2:AB:111:ILE:HA	2:AB:114:LEU:HD21	1.94	0.49
2:AB:114:LEU:O	2:AB:118:GLU:N	2.46	0.49
3:AC:87:LEU:O	3:AC:90:VAL:HG12	2.13	0.49
3:AC:155:GLY:HA2	3:AC:163:ALA:CB	2.43	0.49
4:AD:9:LEU:CG	4:AD:10:LYS:N	2.75	0.49
8:AH:96:MET:O	8:AH:97:ALA:C	2.56	0.49
13:AM:68:ASP:O	13:AM:69:LEU:C	2.52	0.49
16:AP:21:VAL:HG21	16:AP:60:TRP:CD1	2.47	0.49
16:AP:71:VAL:HG23	16:AP:72:ALA:N	2.28	0.49
17:AQ:49:GLU:O	17:AQ:50:ASN:C	2.55	0.49
20:AT:63:ALA:O	20:AT:65:GLY:N	2.46	0.49
24:BA:228:C:H5”	24:BA:229:C:C6	2.48	0.49
24:BA:449:A:C2’	24:BA:450:G:O5’	2.61	0.49
24:BA:812:C:OP1	40:BQ:12:ARG:NH1	2.46	0.49
24:BA:945:A:C5	24:BA:2448:A:C2	3.00	0.49
24:BA:1651:G:O6	24:BA:2006:C:N3	2.46	0.49
24:BA:2230:G:H1’	47:BX:31:ASN:CA	2.43	0.49
24:BA:2287:A:N3	24:BA:2287:A:H2’	2.28	0.49
24:BA:2326:C:O4’	24:BA:2327:A:OP1	2.31	0.49
24:BA:2578:G:OP2	24:BA:2578:G:H4’	2.13	0.49
24:BA:2685:G:C2	24:BA:2725:A:C2	3.01	0.49
24:BA:2787:C:H2’	24:BA:2788:C:C6	2.48	0.49
25:BB:8:C:P	38:BO:29:HIS:CE1	3.06	0.49
25:BB:116:G:C5	25:BB:117:G:N7	2.79	0.49
27:BD:104:VAL:O	27:BD:105:LYS:CG	2.61	0.49
28:BE:72:SER:C	28:BE:74:LYS:N	2.71	0.49
28:BE:149:ILE:CD1	28:BE:188:MET:HG2	2.43	0.49
28:BE:170:ARG:NH1	28:BE:179:SER:HG	2.08	0.49
29:BF:121:PHE:O	29:BF:122:ASP:C	2.55	0.49
30:BG:148:ARG:C	30:BG:150:TYR:H	2.20	0.49
34:BK:102:PRO:HA	34:BK:121:GLU:HB3	1.95	0.49
34:BK:111:LYS:HG3	34:BK:112:PHE:CD2	2.47	0.49
37:BN:69:ARG:O	37:BN:70:THR:HG23	2.12	0.49
38:BO:34:HIS:CE1	38:BO:65:THR:HB	2.48	0.49
41:BR:49:ILE:HG13	41:BR:51:VAL:O	2.12	0.49
41:BR:79:ARG:HA	41:BR:79:ARG:CZ	2.43	0.49
48:BY:17:GLU:HA	48:BY:20:ASN:CB	2.41	0.49
53:B3:57:VAL:C	53:B3:59:ALA:N	2.68	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:373:A:H1'	1:CA:481:G:N3	2.27	0.49
1:CA:451:A:O4'	1:CA:452:A:C2	2.66	0.49
1:CA:665:A:C2	1:CA:732:C:C4	3.01	0.49
1:CA:809:G:C2'	1:CA:810:C:O5'	2.60	0.49
1:CA:1135:U:C2	1:CA:1137:C:O2	2.66	0.49
1:CA:1320:C:H5'	19:CS:70:LYS:HB3	1.94	0.49
1:CA:1491:G:OP1	12:CL:43:LYS:HE2	2.12	0.49
2:CB:135:LEU:O	2:CB:138:THR:N	2.46	0.49
3:CC:84:VAL:HG12	3:CC:101:ILE:HD11	1.94	0.49
13:CM:87:ARG:O	13:CM:89:LEU:N	2.45	0.49
13:CM:109:ARG:NH1	13:CM:109:ARG:HB2	2.28	0.49
19:CS:5:LEU:O	19:CS:6:LYS:CG	2.60	0.49
55:CY:33:SER:N	55:CY:34:PRO:HD3	2.27	0.49
24:DA:520:G:C6	24:DA:521:U:C4	3.00	0.49
24:DA:559:G:O2'	24:DA:560:C:H5'	2.13	0.49
24:DA:622:G:O2'	24:DA:623:C:H5'	2.13	0.49
24:DA:778:G:H5'	26:DC:47:ARG:NH1	2.27	0.49
24:DA:947:A:H2'	24:DA:948:C:C6	2.48	0.49
24:DA:1069:A:C6	24:DA:1074:G:C5	3.00	0.49
24:DA:1076:C:H2'	24:DA:1077:A:N9	2.27	0.49
24:DA:1181:U:H2'	24:DA:1182:G:H8	1.74	0.49
24:DA:1288:G:C4	24:DA:1327:A:C2	3.01	0.49
24:DA:1338:G:H2'	24:DA:1339:G:O5'	2.12	0.49
24:DA:1355:G:N2	24:DA:1377:G:H1'	2.28	0.49
24:DA:1601:G:OP1	43:DT:62:VAL:CG2	2.61	0.49
24:DA:1721:G:N1	24:DA:1738:G:C2	2.81	0.49
24:DA:1792:G:C2'	24:DA:1793:C:H5'	2.42	0.49
24:DA:2352:A:N1	46:DW:34:GLY:HA3	2.28	0.49
24:DA:2429:G:H5"	24:DA:2430:A:OP2	2.13	0.49
24:DA:2518:A:H2'	24:DA:2518:A:N3	2.28	0.49
24:DA:2737:G:H2'	24:DA:2738:A:C8	2.48	0.49
25:DB:27:C:OP2	38:DO:33:ARG:NH2	2.46	0.49
26:DC:257:ARG:CG	26:DC:258:SER:N	2.74	0.49
28:DE:31:VAL:O	28:DE:34:ALA:HB3	2.13	0.49
33:DJ:6:ALA:HB2	33:DJ:45:THR:CG2	2.43	0.49
33:DJ:105:VAL:O	33:DJ:106:LYS:C	2.56	0.49
35:DL:13:LYS:HD2	35:DL:14:LYS:N	2.27	0.49
36:DM:70:ASP:OD1	36:DM:70:ASP:C	2.54	0.49
38:DO:8:ILE:HD12	38:DO:12:THR:CG2	2.43	0.49
39:DP:112:ARG:O	39:DP:113:LEU:HB3	2.12	0.49
40:DQ:59:LEU:CD2	40:DQ:59:LEU:C	2.85	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DW:51:VAL:HG11	46:DW:81:SER:C	2.37	0.49
1:AA:76:G:H2'	1:AA:77:A:O4'	2.13	0.49
1:AA:292:G:C5	1:AA:293:G:H1'	2.48	0.49
1:AA:425:G:C5	1:AA:426:U:C5	3.01	0.49
1:AA:441:A:N1	1:AA:497:G:C6	2.81	0.49
1:AA:445:G:N1	1:AA:446:G:C4	2.81	0.49
1:AA:602:A:C2	1:AA:637:C:O2	2.66	0.49
1:AA:650:G:H2'	1:AA:651:C:O4'	2.13	0.49
1:AA:664:G:H5"	18:AR:53:ARG:HH21	1.77	0.49
1:AA:1003:G:N2	1:AA:1037:C:O2	2.45	0.49
1:AA:1088:G:C4	1:AA:1089:G:C8	3.01	0.49
1:AA:1337:G:H5"	1:AA:1338:G:OP1	2.13	0.49
1:AA:1394:A:O5'	1:AA:1394:A:C8	2.66	0.49
57:AA:1656:NMY:N19	57:AA:1656:NMY:C16	2.75	0.49
2:AB:17:GLY:HA3	2:AB:41:ILE:HD13	1.95	0.49
2:AB:93:ASN:O	2:AB:93:ASN:CG	2.55	0.49
2:AB:99:GLY:O	2:AB:103:ASN:CB	2.61	0.49
2:AB:144:LEU:C	2:AB:146:ASN:N	2.70	0.49
4:AD:9:LEU:HD12	4:AD:10:LYS:H	1.76	0.49
4:AD:44:ARG:O	4:AD:46:PRO:N	2.45	0.49
4:AD:99:ASP:HB2	4:AD:115:ARG:NE	2.27	0.49
4:AD:188:ARG:HH22	4:AD:192:SER:CB	2.25	0.49
5:AE:114:VAL:O	5:AE:118:ALA:CB	2.61	0.49
9:AI:84:THR:OG1	9:AI:103:PHE:O	2.31	0.49
11:AK:41:ALA:C	11:AK:42:LEU:HD12	2.38	0.49
15:AO:53:ARG:O	15:AO:56:LEU:N	2.46	0.49
19:AS:50:ALA:HA	19:AS:59:PRO:HA	1.93	0.49
22:AV:19:G:O2'	22:AV:20:U:OP1	2.27	0.49
24:BA:59:U:O2'	24:BA:74:A:OP2	2.25	0.49
24:BA:218:A:C6	24:BA:219:A:C5	3.00	0.49
24:BA:226:A:N6	24:BA:227:A:N6	2.61	0.49
24:BA:545:U:O4	24:BA:547:A:O2'	2.30	0.49
24:BA:607:U:C6	24:BA:607:U:C3'	2.96	0.49
24:BA:1060:U:H4'	24:BA:1061:U:H5'	1.94	0.49
24:BA:1071:G:H2'	24:BA:1072:C:H5'	1.95	0.49
24:BA:1419:A:C5	24:BA:1579:A:N1	2.81	0.49
24:BA:1448:G:C6	24:BA:1464:G:C2	3.01	0.49
24:BA:1740:G:H2'	24:BA:1741:C:O4'	2.12	0.49
24:BA:1906:G:H2'	24:BA:1907:G:C5'	2.41	0.49
24:BA:2284:A:C3'	51:B1:5:ARG:HH12	2.25	0.49
24:BA:2418:A:O2'	24:BA:2419:U:P	2.68	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2483:C:O2	36:BM:123:LYS:CE	2.61	0.49
24:BA:2496:C:H2'	24:BA:2497:A:H5'	1.95	0.49
24:BA:2684:U:O4'	34:BK:70:ARG:NH1	2.45	0.49
24:BA:2706:A:C6	24:BA:2707:U:C2	3.01	0.49
24:BA:2747:G:H2'	24:BA:2748:A:C8	2.48	0.49
26:BC:29:PHE:CD2	26:BC:81:GLU:OE2	2.66	0.49
26:BC:90:ILE:HD13	26:BC:102:TYR:HE1	1.78	0.49
26:BC:136:VAL:CG1	26:BC:165:ALA:HA	2.43	0.49
30:BG:121:THR:CG2	30:BG:122:ALA:N	2.76	0.49
31:BH:41:LYS:C	31:BH:44:ILE:HG22	2.38	0.49
34:BK:76:VAL:HG12	39:BP:72:VAL:HG23	1.94	0.49
38:BO:30:ARG:HA	38:BO:35:ILE:HA	1.95	0.49
40:BQ:105:PHE:HA	40:BQ:108:LEU:HD12	1.95	0.49
42:BS:36:LEU:O	42:BS:38:TYR:N	2.45	0.49
44:BU:41:VAL:HG21	44:BU:62:ALA:HB2	1.94	0.49
47:BX:66:VAL:O	47:BX:67:LEU:C	2.56	0.49
1:CA:565:U:OP2	1:CA:566:G:O2'	2.29	0.49
1:CA:606:G:C4	1:CA:633:G:O6	2.66	0.49
1:CA:679:C:O2	1:CA:712:A:C2	2.66	0.49
1:CA:738:C:OP2	6:CF:2:ARG:NH2	2.42	0.49
1:CA:858:G:C8	1:CA:869:G:O6	2.66	0.49
1:CA:892:A:O2'	1:CA:1415:G:H4'	2.13	0.49
1:CA:949:A:C2	1:CA:1233:G:C4	3.00	0.49
1:CA:986:U:H2'	1:CA:987:G:O4'	2.13	0.49
1:CA:1202:U:O4'	14:CN:69:ARG:HD2	2.13	0.49
1:CA:1216:A:OP1	14:CN:2:LYS:HE2	2.13	0.49
1:CA:1286:U:O2	1:CA:1286:U:C2'	2.60	0.49
1:CA:1329:A:C6	1:CA:1330:U:H1'	2.47	0.49
2:CB:218:ALA:O	2:CB:221:VAL:HG13	2.13	0.49
4:CD:124:MET:SD	4:CD:146:ARG:HA	2.53	0.49
8:CH:115:ALA:O	8:CH:116:ALA:C	2.56	0.49
12:CL:25:GLU:C	12:CL:27:CYS:N	2.70	0.49
13:CM:95:LEU:C	13:CM:109:ARG:CZ	2.86	0.49
14:CN:43:ASN:C	14:CN:45:VAL:H	2.20	0.49
20:CT:71:LYS:HD2	20:CT:74:ARG:HD2	1.95	0.49
22:CV:1:G:H4'	24:DA:2423:U:C2	2.47	0.49
22:CV:64:A:H2'	22:CV:65:G:C5'	2.42	0.49
24:DA:90:U:C4	24:DA:91:A:C5	3.01	0.49
24:DA:1219:U:H2'	24:DA:1220:G:C8	2.47	0.49
24:DA:1309:G:H4'	52:D2:7:PRO:HG2	1.95	0.49
24:DA:1321:A:N6	24:DA:1322:A:C6	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1433:A:C2'	24:DA:1434:A:O5'	2.61	0.49
24:DA:1750:G:H2'	24:DA:2860:A:C2	2.48	0.49
24:DA:1858:A:N6	24:DA:1884:G:H1'	2.28	0.49
24:DA:2003:A:H2'	24:DA:2004:G:O5'	2.13	0.49
24:DA:2314:A:N6	24:DA:2315:G:C6	2.80	0.49
24:DA:2446:G:C3'	24:DA:2447:G:H5"	2.42	0.49
24:DA:2531:A:C2	24:DA:2532:G:C1'	2.96	0.49
24:DA:2790:U:H5'	24:DA:2893:A:N7	2.28	0.49
25:DB:98:G:N1	45:DV:14:LYS:HG2	2.28	0.49
26:DC:113:ASP:OD1	26:DC:113:ASP:N	2.46	0.49
26:DC:230:PRO:HD2	26:DC:246:PRO:HA	1.95	0.49
29:DF:147:ARG:CG	29:DF:148:VAL:H	2.26	0.49
31:DH:66:ASN:O	31:DH:69:ALA:HB3	2.13	0.49
34:DK:14:SER:HA	34:DK:51:LYS:HZ2	1.76	0.49
38:DO:51:ALA:HB1	38:DO:78:VAL:HG22	1.95	0.49
39:DP:20:ARG:HH21	39:DP:20:ARG:CG	2.26	0.49
40:DQ:39:ILE:HG21	41:DR:77:PHE:CE2	2.47	0.49
40:DQ:82:LEU:O	40:DQ:83:LYS:C	2.56	0.49
44:DU:5:ARG:HG3	44:DU:6:ARG:O	2.12	0.49
49:DZ:41:PRO:O	49:DZ:42:ALA:C	2.56	0.49
49:DZ:41:PRO:O	49:DZ:45:GLY:N	2.31	0.49
1:AA:207:C:O2	1:AA:207:C:C2'	2.59	0.48
1:AA:266:G:H1'	1:AA:268:U:OP2	2.13	0.48
1:AA:295:C:N3	1:AA:303:A:C2	2.81	0.48
1:AA:400:C:C2'	1:AA:401:C:H5'	2.43	0.48
1:AA:543:U:H5"	4:AD:14:ARG:NH1	2.28	0.48
1:AA:558:G:OP1	59:AA:1729:HOH:O	2.20	0.48
1:AA:597:G:C2	1:AA:598:U:H1'	2.49	0.48
1:AA:797:C:O2'	1:AA:798:U:H5'	2.13	0.48
1:AA:872:A:C5	1:AA:874:G:C8	3.01	0.48
1:AA:874:G:C6	1:AA:875:U:C5	3.01	0.48
1:AA:908:A:C2	1:AA:909:A:C4	3.00	0.48
1:AA:1010:U:C4	1:AA:1020:G:N2	2.81	0.48
1:AA:1088:G:C5	1:AA:1089:G:N7	2.81	0.48
1:AA:1343:G:H2'	1:AA:1344:C:C6	2.48	0.48
1:AA:1471:U:O2'	1:AA:1472:U:H5'	2.13	0.48
2:AB:111:ILE:HA	2:AB:114:LEU:HD23	1.95	0.48
2:AB:111:ILE:O	2:AB:114:LEU:HD23	2.13	0.48
4:AD:124:MET:SD	4:AD:127:GLY:CA	3.01	0.48
4:AD:140:ASN:O	4:AD:141:ASP:HB3	2.12	0.48
4:AD:146:ARG:O	4:AD:148:LYS:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:171:LEU:HD12	4:AD:172:GLU:N	2.27	0.48
12:AL:34:CYS:CA	12:AL:55:VAL:HG23	2.43	0.48
12:AL:57:LEU:HD23	12:AL:59:ASN:N	2.28	0.48
14:AN:3:GLN:OE1	14:AN:3:GLN:CA	2.60	0.48
24:BA:63:A:C2	24:BA:64:A:C5	3.01	0.48
24:BA:144:A:C6	24:BA:145:C:C4	3.00	0.48
24:BA:347:A:C2	24:BA:348:A:C5	3.01	0.48
24:BA:447:A:N3	24:BA:473:G:C8	2.81	0.48
24:BA:748:G:O2'	24:BA:749:A:H5"	2.13	0.48
24:BA:751:A:N6	24:BA:789:A:C6	2.81	0.48
24:BA:877:A:O2'	24:BA:900:A:N6	2.46	0.48
24:BA:933:A:H5'	24:BA:934:U:OP2	2.12	0.48
24:BA:1205:A:N1	28:BE:165:HIS:CE1	2.81	0.48
24:BA:1300:G:C5	24:BA:1634:A:O4'	2.66	0.48
24:BA:1672:A:N6	24:BA:1673:G:C6	2.81	0.48
24:BA:1794:A:H1'	24:BA:1900:A:C2	2.48	0.48
24:BA:1874:C:C4	24:BA:1875:G:C6	3.01	0.48
24:BA:1953:A:C2	24:BA:2549:G:N3	2.78	0.48
24:BA:1989:G:H2'	24:BA:1990:C:O4'	2.12	0.48
24:BA:2117:A:N1	24:BA:2171:A:N1	2.61	0.48
24:BA:2119:A:N7	24:BA:2170:A:C6	2.81	0.48
24:BA:2598:A:C8	24:BA:2599:G:H1'	2.48	0.48
24:BA:2776:A:O4'	24:BA:2778:A:C8	2.66	0.48
24:BA:2811:G:H5'	27:BD:63:PRO:CG	2.43	0.48
25:BB:2:G:H2'	25:BB:2:G:N3	2.27	0.48
25:BB:66:A:C4	25:BB:108:A:C6	3.01	0.48
28:BE:138:LEU:O	28:BE:141:MET:N	2.46	0.48
28:BE:153:LEU:O	28:BE:155:GLU:N	2.46	0.48
31:BH:88:GLY:HA2	31:BH:125:THR:CG2	2.43	0.48
33:BJ:121:LYS:O	33:BJ:122:LEU:C	2.56	0.48
36:BM:54:THR:C	36:BM:56:ALA:N	2.71	0.48
38:BO:7:ARG:CD	38:BO:97:PHE:CZ	2.96	0.48
51:B1:11:VAL:C	51:B1:48:TYR:CD2	2.91	0.48
53:B3:57:VAL:O	53:B3:58:ILE:C	2.56	0.48
1:CA:6:G:H4'	1:CA:298:A:H4'	1.94	0.48
1:CA:292:G:N7	1:CA:293:G:H1'	2.28	0.48
1:CA:632:U:OP1	1:CA:633:G:N7	2.46	0.48
1:CA:667:G:H2'	15:CO:49:ASP:OD2	2.12	0.48
1:CA:920:U:O4'	1:CA:1080:A:C2	2.66	0.48
1:CA:1320:C:H5	1:CA:1321:U:N3	2.11	0.48
1:CA:1452:C:O4'	1:CA:1453:G:C2	2.66	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1460:C:H2'	1:CA:1461:G:O4'	2.12	0.48
2:CB:106:THR:C	2:CB:108:ARG:N	2.71	0.48
3:CC:63:SER:HB2	3:CC:98:PRO:O	2.12	0.48
4:CD:9:LEU:CD1	4:CD:10:LYS:H	2.25	0.48
5:CE:69:ARG:O	5:CE:71:MET:N	2.46	0.48
5:CE:106:ILE:HG13	5:CE:124:LEU:CB	2.43	0.48
9:CI:81:HIS:HB3	9:CI:85:ARG:CZ	2.43	0.48
12:CL:23:ALA:O	12:CL:24:LEU:C	2.56	0.48
55:CY:159:ASP:O	55:CY:162:LYS:HB2	2.13	0.48
24:DA:734:A:H2'	24:DA:735:A:C5'	2.40	0.48
24:DA:910:A:C6	24:DA:911:A:N6	2.81	0.48
24:DA:997:G:OP1	40:DQ:91:ARG:CG	2.60	0.48
24:DA:1027:A:C6	24:DA:1126:A:N3	2.81	0.48
24:DA:1866:A:C2	24:DA:1876:A:C8	3.01	0.48
24:DA:1979:U:C2'	24:DA:1980:G:H5'	2.43	0.48
24:DA:2201:G:C2'	24:DA:2202:U:O5'	2.61	0.48
24:DA:2276:G:OP2	36:DM:83:GLY:O	2.30	0.48
24:DA:2604:U:C4	24:DA:2605:U:C5	3.00	0.48
57:DA:3188:NMY:HN61	57:DA:3188:NMY:H4	1.49	0.48
26:DC:104:LEU:N	26:DC:104:LEU:HD13	2.25	0.48
26:DC:114:GLN:O	26:DC:124:LYS:HE3	2.13	0.48
27:DD:98:VAL:C	27:DD:100:LEU:N	2.69	0.48
28:DE:149:ILE:CD1	28:DE:188:MET:HE2	2.43	0.48
30:DG:15:ASP:HB3	30:DG:26:LYS:HB3	1.95	0.48
31:DH:4:ILE:HG22	31:DH:18:GLN:CB	2.43	0.48
31:DH:5:LEU:HD11	31:DH:15:LEU:N	2.28	0.48
31:DH:10:ALA:O	31:DH:11:ASN:C	2.55	0.48
31:DH:31:VAL:HG12	31:DH:32:PRO:HD3	1.95	0.48
31:DH:90:LEU:CB	31:DH:92:GLY:O	2.61	0.48
32:DI:94:LYS:HG3	32:DI:95:ASP:N	2.28	0.48
48:DY:40:SER:O	48:DY:42:LEU:N	2.45	0.48
1:AA:6:G:O6	5:AE:99:ALA:HB1	2.13	0.48
1:AA:131:A:H2'	1:AA:131:A:N3	2.28	0.48
1:AA:293:G:C6	1:AA:294:U:C5	3.01	0.48
1:AA:356:A:H2	1:AA:368:U:O2	1.96	0.48
1:AA:392:C:H2'	1:AA:392:C:O2	2.13	0.48
1:AA:564:C:H5'	17:AQ:34:TYR:HE1	1.78	0.48
1:AA:664:G:P	18:AR:53:ARG:HH21	2.30	0.48
1:AA:686:U:H1'	1:AA:687:A:C8	2.49	0.48
1:AA:946:A:C6	1:AA:947:G:C6	3.01	0.48
1:AA:1004:A:C6	1:AA:1005:A:C6	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1192:C:C5'	1:AA:1193:G:OP2	2.61	0.48
1:AA:1411:C:H2'	1:AA:1412:C:O5'	2.13	0.48
1:AA:1489:G:O2'	1:AA:1490:U:H5'	2.12	0.48
2:AB:80:VAL:O	2:AB:80:VAL:HG13	2.12	0.48
3:AC:113:ALA:CB	3:AC:183:ASP:HB3	2.43	0.48
4:AD:26:ARG:HH22	4:AD:29:ASP:C	2.21	0.48
4:AD:161:LEU:O	4:AD:161:LEU:HD23	2.13	0.48
6:AF:38:ARG:HB2	6:AF:63:ASN:CG	2.38	0.48
9:AI:63:LEU:HD23	9:AI:63:LEU:C	2.38	0.48
9:AI:89:GLU:O	9:AI:94:LEU:CD1	2.61	0.48
10:AJ:23:ALA:O	10:AJ:24:GLU:C	2.56	0.48
13:AM:96:PRO:CG	13:AM:102:THR:HG22	2.42	0.48
14:AN:72:GLY:O	14:AN:80:SER:HA	2.13	0.48
16:AP:3:THR:HG22	16:AP:4:ILE:O	2.13	0.48
22:AV:21:A:OP2	22:AV:21:A:H8	1.97	0.48
24:BA:221:A:C4	24:BA:266:G:N7	2.81	0.48
24:BA:518:G:H4'	42:BS:18:ARG:CZ	2.43	0.48
24:BA:573:U:O2'	24:BA:574:A:H3'	2.13	0.48
24:BA:1061:U:H1'	24:BA:1070:A:OP1	2.13	0.48
24:BA:1153:C:N4	24:BA:1154:G:C6	2.81	0.48
24:BA:1192:G:C2'	24:BA:1193:G:H5'	2.43	0.48
24:BA:1419:A:C3'	24:BA:1420:A:H5"	2.43	0.48
24:BA:1710:G:N2	24:BA:1749:A:N3	2.62	0.48
24:BA:2061:G:H5'	24:BA:2503:A:C2	2.48	0.48
24:BA:2157:G:O2'	24:BA:2158:A:O5'	2.29	0.48
24:BA:2280:G:C6	24:BA:2281:A:N7	2.81	0.48
24:BA:2302:U:C2'	24:BA:2303:G:H5"	2.42	0.48
24:BA:2428:G:H4'	24:BA:2429:G:O5'	2.13	0.48
57:BA:3165:NMY:N19	57:BA:3165:NMY:N23	2.60	0.48
25:BB:45:A:H2	25:BB:46:A:H1'	1.78	0.48
26:BC:166:ARG:O	26:BC:166:ARG:CG	2.61	0.48
26:BC:186:ASP:N	26:BC:186:ASP:OD1	2.46	0.48
28:BE:101:TYR:O	28:BE:104:ALA:HB3	2.13	0.48
28:BE:177:PRO:O	28:BE:181:ILE:HD12	2.13	0.48
33:BJ:18:VAL:HG13	33:BJ:56:VAL:HG12	1.95	0.48
34:BK:68:GLY:HA3	34:BK:77:ILE:O	2.13	0.48
35:BL:38:GLN:O	35:BL:41:ARG:HG3	2.12	0.48
40:BQ:108:LEU:O	40:BQ:111:LYS:N	2.46	0.48
45:BV:77:VAL:CG1	45:BV:77:VAL:O	2.62	0.48
50:B0:40:HIS:HA	50:B0:48:TYR:HE1	1.77	0.48
53:B3:28:LEU:CD1	53:B3:40:LYS:HG2	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:149:A:H1'	1:CA:1446:A:C2	2.49	0.48
1:CA:844:G:N3	1:CA:845:A:C8	2.81	0.48
1:CA:1002:G:N2	1:CA:1039:G:C2	2.82	0.48
1:CA:1086:U:OP1	1:CA:1086:U:H4'	2.13	0.48
1:CA:1306:A:N7	1:CA:1307:U:C4	2.81	0.48
3:CC:88:ARG:HG3	3:CC:101:ILE:HG23	1.96	0.48
3:CC:174:PRO:HG2	3:CC:203:PHE:CZ	2.48	0.48
4:CD:123:ILE:HG22	4:CD:124:MET:N	2.27	0.48
4:CD:169:THR:HG22	4:CD:169:THR:O	2.12	0.48
7:CG:121:ALA:O	7:CG:122:ASN:C	2.56	0.48
11:CK:35:THR:HG23	11:CK:36:ASP:H	1.76	0.48
11:CK:44:TRP:N	11:CK:44:TRP:CD1	2.80	0.48
18:CR:48:ARG:CG	18:CR:51:TYR:HB2	2.41	0.48
55:CY:7:LYS:O	55:CY:10:GLU:N	2.45	0.48
55:CY:20:PHE:HA	55:CY:23:GLN:HG2	1.95	0.48
55:CY:38:ASP:CG	55:CY:52:ARG:HG2	2.38	0.48
55:CY:61:ASP:OD1	55:CY:64:THR:HG22	2.14	0.48
55:CY:78:VAL:HA	55:CY:81:ALA:HB3	1.95	0.48
55:CY:109:ARG:O	55:CY:110:ARG:C	2.56	0.48
55:CY:153:ASP:O	55:CY:154:ARG:C	2.56	0.48
24:DA:118:A:N3	24:DA:178:G:H1'	2.29	0.48
24:DA:239:C:H1'	24:DA:259:G:N2	2.28	0.48
24:DA:415:A:N1	24:DA:2409:G:C6	2.81	0.48
24:DA:834:G:O2'	24:DA:2358:A:O2'	2.04	0.48
24:DA:945:A:C8	24:DA:2448:A:C2	3.01	0.48
24:DA:1022:G:O6	33:DJ:68:LYS:HE3	2.13	0.48
24:DA:1362:C:H3'	24:DA:1362:C:C6	2.49	0.48
24:DA:1494:A:C8	24:DA:1495:A:N7	2.81	0.48
24:DA:1500:G:H2'	24:DA:1501:G:H5'	1.94	0.48
24:DA:1838:C:H4'	24:DA:1839:G:C8	2.48	0.48
24:DA:2122:U:O2'	24:DA:2123:G:O5'	2.31	0.48
24:DA:2531:A:O4'	30:DG:173:ALA:HB2	2.13	0.48
25:DB:7:G:H5"	38:DO:29:HIS:CD2	2.48	0.48
26:DC:22:GLU:HG2	26:DC:22:GLU:O	2.13	0.48
26:DC:51:ARG:H	26:DC:51:ARG:HD2	1.78	0.48
26:DC:259:ASN:CG	26:DC:260:LYS:N	2.70	0.48
27:DD:13:ARG:HD2	27:DD:15:PHE:CZ	2.49	0.48
27:DD:38:LYS:O	27:DD:46:ARG:HA	2.13	0.48
53:D3:30:HIS:O	53:D3:31:ILE:HG13	2.13	0.48
1:AA:32:A:C2'	1:AA:33:A:O5'	2.60	0.48
1:AA:88:U:C4	1:AA:89:U:O4	2.66	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:186:C:H4'	20:AT:76:LYS:HG3	1.96	0.48
1:AA:211:G:O2'	1:AA:212:G:OP1	2.28	0.48
1:AA:217:C:O2'	1:AA:470:C:H1'	2.13	0.48
1:AA:380:G:C2	1:AA:384:G:C6	3.01	0.48
1:AA:495:A:C2	1:AA:496:A:C6	3.01	0.48
1:AA:502:A:OP1	12:AL:115:SER:N	2.46	0.48
1:AA:541:G:H2'	1:AA:542:G:O4'	2.14	0.48
1:AA:622:A:N7	1:AA:623:C:C6	2.81	0.48
1:AA:648:A:N6	1:AA:649:A:C6	2.81	0.48
1:AA:840:C:H3'	1:AA:841:C:C5'	2.43	0.48
1:AA:1048:G:O3'	14:AN:2:LYS:NZ	2.47	0.48
1:AA:1090:U:O2	1:AA:1090:U:H2'	2.14	0.48
1:AA:1304:G:N2	1:AA:1334:G:O6	2.45	0.48
1:AA:1314:C:OP2	19:AS:6:LYS:CD	2.60	0.48
1:AA:1434:A:H2'	1:AA:1435:G:O4'	2.14	0.48
1:AA:1446:A:N1	1:AA:1447:A:C5	2.82	0.48
3:AC:145:GLY:O	3:AC:146:ALA:O	2.30	0.48
4:AD:62:ARG:HG3	4:AD:72:PHE:CE1	2.48	0.48
4:AD:144:SER:C	4:AD:145:ILE:HG22	2.38	0.48
4:AD:158:ALA:HA	4:AD:161:LEU:CD2	2.43	0.48
5:AE:102:GLY:O	5:AE:103:THR:C	2.57	0.48
6:AF:8:PHE:CZ	6:AF:60:VAL:HG21	2.49	0.48
6:AF:37:HIS:CE1	6:AF:96:VAL:O	2.66	0.48
6:AF:51:ILE:O	6:AF:52:ASN:HB2	2.12	0.48
7:AG:113:ASP:OD2	7:AG:122:ASN:ND2	2.46	0.48
12:AL:121:ARG:O	12:AL:122:PRO:O	2.32	0.48
13:AM:34:LEU:HD22	13:AM:39:ILE:HG12	1.94	0.48
14:AN:3:GLN:O	14:AN:6:LYS:HG2	2.12	0.48
22:AV:36:A:C2	23:AX:14:U:O2	2.67	0.48
24:BA:45:G:H5"	24:BA:46:G:H5'	1.94	0.48
24:BA:240:C:H1'	24:BA:258:G:N2	2.28	0.48
24:BA:414:C:H2'	24:BA:415:A:C8	2.48	0.48
24:BA:528:A:H2	24:BA:2043:C:C4'	2.26	0.48
24:BA:611:C:O2'	24:BA:612:G:H5'	2.13	0.48
24:BA:849:A:H2'	24:BA:850:U:C6	2.48	0.48
24:BA:993:G:H2'	24:BA:994:C:O5'	2.14	0.48
24:BA:1171:G:C6	24:BA:1172:C:N4	2.82	0.48
24:BA:2101:A:C2	24:BA:2102:G:N7	2.81	0.48
24:BA:2325:G:N1	24:BA:2326:C:N4	2.62	0.48
24:BA:2363:G:C2	24:BA:2364:C:C5	3.01	0.48
24:BA:2473:U:H5'	24:BA:2475:C:N4	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2668:G:C2	24:BA:2669:G:N9	2.81	0.48
24:BA:2798:U:H4'	24:BA:2799:A:H5'	1.96	0.48
25:BB:43:C:H4'	29:BF:62:GLN:CD	2.38	0.48
26:BC:24:HIS:HB3	26:BC:81:GLU:HG2	1.95	0.48
26:BC:225:ASN:O	26:BC:226:PRO:C	2.56	0.48
27:BD:29:VAL:N	27:BD:185:ASN:O	2.46	0.48
27:BD:33:ARG:O	27:BD:33:ARG:CG	2.61	0.48
27:BD:180:VAL:O	27:BD:180:VAL:CG2	2.61	0.48
30:BG:122:ALA:CB	30:BG:132:LEU:HB3	2.43	0.48
30:BG:122:ALA:HB2	30:BG:132:LEU:HB3	1.94	0.48
31:BH:7:ASP:O	31:BH:13:GLY:O	2.31	0.48
31:BH:114:GLU:OE1	31:BH:133:GLN:C	2.56	0.48
39:BP:112:ARG:O	39:BP:113:LEU:HD23	2.13	0.48
40:BQ:39:ILE:O	40:BQ:43:GLN:HG3	2.14	0.48
41:BR:68:ARG:HG2	41:BR:92:TRP:CE3	2.48	0.48
47:BX:31:ASN:O	47:BX:33:HIS:NE2	2.45	0.48
48:BY:46:VAL:O	48:BY:47:ARG:C	2.56	0.48
53:B3:34:LYS:CE	53:B3:34:LYS:O	2.61	0.48
54:B4:25:VAL:HG11	54:B4:35:GLN:OE1	2.13	0.48
1:CA:109:A:H3'	1:CA:110:C:H5'	1.94	0.48
1:CA:429:U:C4'	4:CD:9:LEU:HD23	2.31	0.48
1:CA:490:C:C2	1:CA:491:G:C8	3.01	0.48
1:CA:613:C:O2'	1:CA:614:C:H5'	2.14	0.48
1:CA:688:G:C2	1:CA:700:G:C8	3.01	0.48
1:CA:762:U:O2	1:CA:762:U:H2'	2.14	0.48
1:CA:932:C:H2'	1:CA:932:C:O2	2.12	0.48
1:CA:1040:U:H2'	1:CA:1041:G:C8	2.48	0.48
1:CA:1225:A:H3'	13:CM:102:THR:HG21	1.95	0.48
1:CA:1320:C:C4	19:CS:36:ARG:NE	2.81	0.48
1:CA:1449:C:C4	1:CA:1450:U:C5	3.01	0.48
2:CB:107:VAL:C	2:CB:109:GLN:N	2.70	0.48
7:CG:17:LYS:N	7:CG:44:TYR:OH	2.45	0.48
8:CH:29:SER:OG	8:CH:57:PRO:CB	2.61	0.48
8:CH:29:SER:CB	8:CH:57:PRO:CB	2.91	0.48
8:CH:113:ASP:CG	8:CH:114:ARG:N	2.71	0.48
9:CI:19:VAL:HG22	9:CI:65:ILE:HG12	1.96	0.48
10:CJ:6:ILE:O	10:CJ:76:ILE:CG2	2.61	0.48
10:CJ:96:VAL:O	10:CJ:96:VAL:HG13	2.13	0.48
11:CK:17:SER:HA	11:CK:79:ILE:HA	1.94	0.48
11:CK:81:ASN:HB3	11:CK:106:ARG:CZ	2.43	0.48
16:CP:40:ASN:O	16:CP:43:ALA:N	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:16:LEU:HD12	19:CS:19:VAL:HG12	1.95	0.48
24:DA:120:U:H4'	24:DA:121:G:C5'	2.43	0.48
24:DA:190:A:H3'	24:DA:204:A:N6	2.28	0.48
24:DA:597:G:C2	24:DA:661:A:C2	3.01	0.48
24:DA:754:U:C2	24:DA:755:U:C5	3.02	0.48
24:DA:910:A:N6	24:DA:911:A:N6	2.61	0.48
24:DA:1191:G:C2'	24:DA:1192:G:H5'	2.43	0.48
24:DA:1666:G:C3'	34:DK:6:THR:HG22	2.43	0.48
24:DA:1794:A:H2'	24:DA:1795:C:C6	2.49	0.48
24:DA:2228:G:OP1	26:DC:260:LYS:CE	2.61	0.48
28:DE:150:THR:C	28:DE:192:ALA:HB2	2.38	0.48
29:DF:44:ALA:C	29:DF:48:LEU:HD21	2.38	0.48
30:DG:23:ILE:C	30:DG:23:ILE:HD12	2.39	0.48
35:DL:38:GLN:C	35:DL:40:SER:H	2.22	0.48
35:DL:89:VAL:O	35:DL:89:VAL:HG13	2.13	0.48
37:DN:65:LEU:O	37:DN:66:ALA:C	2.56	0.48
38:DO:7:ARG:HA	38:DO:10:ARG:CZ	2.43	0.48
38:DO:111:ARG:O	38:DO:112:GLU:C	2.56	0.48
41:DR:16:GLU:HG2	41:DR:101:ILE:HG23	1.95	0.48
44:DU:84:PHE:CG	44:DU:85:ARG:N	2.74	0.48
45:DV:43:ASP:O	45:DV:44:HIS:C	2.56	0.48
45:DV:83:LYS:O	45:DV:85:LYS:N	2.46	0.48
46:DW:50:ASN:C	46:DW:51:VAL:HG12	2.39	0.48
50:D0:5:ASN:O	50:D0:7:PRO:HD3	2.12	0.48
1:AA:125:U:C2	1:AA:126:G:C8	3.01	0.48
1:AA:282:A:N7	1:AA:283:U:C5	2.81	0.48
1:AA:675:A:C4	1:AA:676:A:C8	3.01	0.48
1:AA:946:A:C4	1:AA:1236:A:C2	3.01	0.48
1:AA:986:U:O2	1:AA:1220:G:N2	2.47	0.48
1:AA:1012:A:N6	1:AA:1013:G:C6	2.82	0.48
1:AA:1041:G:C6	1:AA:1042:A:N7	2.81	0.48
1:AA:1074:G:O3'	2:AB:102:THR:CG2	2.61	0.48
1:AA:1275:A:N6	1:AA:1276:G:C6	2.80	0.48
3:AC:152:GLU:O	3:AC:198:VAL:HA	2.13	0.48
4:AD:68:LEU:O	4:AD:71:GLN:HB2	2.13	0.48
10:AJ:84:VAL:HG23	10:AJ:85:ASP:N	2.27	0.48
11:AK:125:LYS:O	21:AU:34:ARG:CZ	2.60	0.48
14:AN:41:ARG:O	14:AN:42:TRP:O	2.31	0.48
15:AO:56:LEU:O	15:AO:60:VAL:HG23	2.13	0.48
17:AQ:14:SER:HB3	17:AQ:22:VAL:HG12	1.95	0.48
17:AQ:63:GLU:O	17:AQ:64:CYS:HB3	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:18:LYS:C	19:AS:19:VAL:CG2	2.87	0.48
24:BA:84:A:C2	24:BA:103:A:C5	3.01	0.48
24:BA:278:A:C6	24:BA:362:A:C8	3.01	0.48
24:BA:292:U:H2'	24:BA:293:U:C6	2.49	0.48
24:BA:459:U:P	52:B2:39:ARG:CZ	3.01	0.48
24:BA:623:C:C2	24:BA:624:C:C5	3.01	0.48
24:BA:675:A:OP1	28:BE:58:LYS:NZ	2.42	0.48
24:BA:692:C:HO2'	24:BA:1354:A:HO2'	1.59	0.48
24:BA:714:U:H2'	24:BA:716:A:N7	2.28	0.48
24:BA:812:C:H4'	40:BQ:12:ARG:NH1	2.24	0.48
24:BA:1163:G:N1	24:BA:1164:C:C5	2.81	0.48
24:BA:1205:A:C5	28:BE:165:HIS:CE1	3.02	0.48
24:BA:1278:C:O3'	37:BN:34:ILE:HD12	2.13	0.48
24:BA:1342:A:C6	24:BA:1345:C:C2	3.01	0.48
24:BA:1717:A:N6	24:BA:1743:G:O2'	2.46	0.48
24:BA:2063:C:O2	24:BA:2450:A:N1	2.46	0.48
24:BA:2134:A:N1	24:BA:2135:A:C4	2.81	0.48
24:BA:2231:U:C2	24:BA:2232:C:C6	3.01	0.48
24:BA:2357:G:C2	24:BA:2361:G:C6	3.01	0.48
24:BA:2424:C:C6	24:BA:2424:C:C3'	2.96	0.48
24:BA:2519:U:C6	24:BA:2542:A:C6	3.02	0.48
24:BA:2531:A:C4	24:BA:2532:G:C8	3.01	0.48
24:BA:2756:U:O4'	24:BA:2757:A:H5"	2.14	0.48
24:BA:2820:A:O2'	24:BA:2821:A:OP2	2.30	0.48
26:BC:166:ARG:O	26:BC:167:ASP:C	2.54	0.48
27:BD:55:LYS:HB2	27:BD:76:GLY:O	2.12	0.48
29:BF:12:VAL:HG23	29:BF:13:LYS:N	2.28	0.48
29:BF:96:TRP:CH2	29:BF:99:PHE:CZ	3.01	0.48
35:BL:73:ILE:C	35:BL:74:THR:HG22	2.38	0.48
37:BN:32:GLU:HA	37:BN:115:LEU:HD13	1.95	0.48
37:BN:37:THR:HG22	37:BN:39:PRO:N	2.28	0.48
39:BP:32:VAL:O	39:BP:33:GLU:C	2.55	0.48
39:BP:57:ALA:HB2	39:BP:74:GLN:OE1	2.14	0.48
44:BU:21:ARG:NH1	44:BU:72:PHE:CD2	2.82	0.48
48:BY:37:LEU:HD11	48:BY:39:GLN:HB2	1.95	0.48
1:CA:27:G:C5	1:CA:557:G:N2	2.81	0.48
1:CA:66:A:C6	1:CA:67:C:C5	3.01	0.48
1:CA:261:U:OP2	20:CT:71:LYS:CE	2.61	0.48
1:CA:349:A:O2'	1:CA:350:G:H5'	2.13	0.48
1:CA:451:A:C2	1:CA:480:U:C5	3.01	0.48
1:CA:543:U:O2'	1:CA:544:G:H5'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:607:A:C2	1:CA:608:A:N9	2.81	0.48
1:CA:767:A:H2'	1:CA:768:A:O4'	2.12	0.48
1:CA:1105:A:C2	1:CA:1106:G:C5	3.02	0.48
1:CA:1192:C:H2'	1:CA:1193:G:O5'	2.13	0.48
1:CA:1302:C:C5	13:CM:17:ILE:HG21	2.48	0.48
1:CA:1533:C:C5'	1:CA:1534:A:OP1	2.61	0.48
2:CB:82:ASP:O	2:CB:83:ALA:C	2.55	0.48
4:CD:56:ARG:CZ	4:CD:60:LYS:CE	2.91	0.48
7:CG:146:GLU:HA	7:CG:149:LYS:HB3	1.95	0.48
8:CH:63:LEU:HD13	8:CH:65:TYR:CD2	2.49	0.48
9:CI:39:PHE:CE1	9:CI:44:ALA:O	2.66	0.48
11:CK:52:PHE:HA	11:CK:56:ARG:CZ	2.44	0.48
15:CO:28:GLN:O	15:CO:29:VAL:C	2.57	0.48
16:CP:21:VAL:O	16:CP:33:ILE:CD1	2.62	0.48
16:CP:67:ILE:HG22	16:CP:71:VAL:HG21	1.94	0.48
17:CQ:58:VAL:CG1	17:CQ:80:GLU:HG3	2.43	0.48
19:CS:55:ARG:HD3	19:CS:55:ARG:N	2.29	0.48
20:CT:55:GLN:O	20:CT:56:PRO:C	2.52	0.48
21:CU:11:PRO:O	21:CU:12:PHE:HB3	2.12	0.48
55:CY:58:THR:OG1	55:CY:59:VAL:N	2.46	0.48
55:CY:119:GLY:O	55:CY:120:GLU:C	2.55	0.48
24:DA:463:G:N1	24:DA:467:G:C6	2.81	0.48
24:DA:729:G:H4'	24:DA:763:G:C5'	2.44	0.48
24:DA:761:A:OP1	59:DA:3695:HOH:O	2.20	0.48
24:DA:945:A:C4	24:DA:2448:A:N3	2.81	0.48
24:DA:1048:A:C6	24:DA:1049:C:C4	3.01	0.48
24:DA:1087:G:N2	24:DA:1103:A:C4	2.82	0.48
24:DA:1252:G:C2	24:DA:1253:A:C2	3.01	0.48
24:DA:1535:A:H4'	24:DA:1536:C:OP2	2.14	0.48
24:DA:1986:C:H2'	24:DA:1987:A:O5'	2.13	0.48
24:DA:2080:A:OP1	47:DX:19:HIS:CD2	2.66	0.48
24:DA:2286:G:P	51:D1:29:LYS:CE	3.01	0.48
24:DA:2330:G:C3'	46:DW:44:LYS:HZ2	2.27	0.48
26:DC:20:ASN:CB	26:DC:23:LEU:HD11	2.44	0.48
26:DC:122:ALA:HB3	26:DC:127:ASN:OD1	2.13	0.48
26:DC:243:PRO:C	26:DC:244:VAL:HG12	2.36	0.48
30:DG:124:CYS:O	30:DG:125:PRO:C	2.55	0.48
31:DH:98:ASP:C	31:DH:100:ALA:N	2.71	0.48
34:DK:7:MET:SD	34:DK:20:MET:HB2	2.54	0.48
38:DO:8:ILE:CD1	38:DO:12:THR:CG2	2.91	0.48
38:DO:93:ASP:O	38:DO:95:SER:N	2.45	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DS:25:ARG:NH1	42:DS:74:ILE:HG23	2.28	0.48
49:DZ:2:LYS:O	49:DZ:3:THR:C	2.56	0.48
49:DZ:36:GLU:C	49:DZ:37:ARG:HG2	2.38	0.48
50:D0:12:ARG:O	50:D0:16:ARG:HD2	2.13	0.48
1:AA:19:A:C2	1:AA:20:U:C2	3.02	0.48
1:AA:81:A:H2'	1:AA:82:G:H8	1.78	0.48
1:AA:167:A:N1	1:AA:168:G:C5	2.81	0.48
1:AA:188:C:H2'	1:AA:189:A:O4'	2.12	0.48
1:AA:226:G:N3	1:AA:227:G:C8	2.81	0.48
1:AA:247:G:OP1	1:AA:247:G:H4'	2.12	0.48
1:AA:607:A:H2'	1:AA:608:A:C8	2.49	0.48
1:AA:659:U:H2'	1:AA:660:C:C6	2.48	0.48
1:AA:872:A:C4	1:AA:874:G:N7	2.82	0.48
1:AA:882:C:H2'	1:AA:883:C:H5'	1.95	0.48
1:AA:927:G:N2	1:AA:1391:U:H1'	2.27	0.48
1:AA:950:U:P	13:AM:101:ARG:HH21	2.37	0.48
1:AA:1314:C:OP2	19:AS:6:LYS:HG3	2.13	0.48
1:AA:1376:U:H2'	1:AA:1376:U:O2	2.12	0.48
1:AA:1402:C:H2'	1:AA:1403:C:O4'	2.14	0.48
1:AA:1422:G:C2'	1:AA:1423:G:H5'	2.43	0.48
2:AB:123:ASP:O	2:AB:124:GLY:C	2.55	0.48
3:AC:79:LYS:C	3:AC:81:GLY:N	2.70	0.48
4:AD:118:VAL:O	4:AD:131:ASN:HA	2.13	0.48
6:AF:18:VAL:HG22	6:AF:19:PRO:HD3	1.95	0.48
10:AJ:67:ILE:O	10:AJ:67:ILE:HG22	2.13	0.48
10:AJ:74:VAL:HG12	10:AJ:75:ASP:N	2.28	0.48
11:AK:35:THR:CB	11:AK:39:GLY:O	2.61	0.48
12:AL:42:PRO:HD3	12:AL:48:ALA:O	2.13	0.48
12:AL:57:LEU:O	12:AL:59:ASN:N	2.46	0.48
12:AL:86:ARG:HA	12:AL:94:ARG:HA	1.94	0.48
18:AR:48:ARG:O	18:AR:50:LYS:N	2.47	0.48
20:AT:27:MET:SD	20:AT:31:PHE:CZ	3.07	0.48
20:AT:80:THR:HA	20:AT:83:ILE:HG23	1.95	0.48
24:BA:398:C:P	47:BX:31:ASN:HD21	2.36	0.48
24:BA:404:A:H2'	24:BA:404:A:OP2	2.13	0.48
24:BA:499:U:O3'	44:BU:42:LYS:HE2	2.13	0.48
24:BA:545:U:C5	24:BA:547:A:O3'	2.66	0.48
24:BA:547:A:O5'	24:BA:548:G:C6	2.66	0.48
24:BA:584:C:H2'	24:BA:585:G:O5'	2.13	0.48
24:BA:591:U:H2'	24:BA:592:A:C8	2.49	0.48
24:BA:845:A:N1	24:BA:847:U:C6	2.82	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:970:U:C2	24:BA:971:G:C8	3.02	0.48
24:BA:1071:G:O4'	24:BA:1089:A:C8	2.67	0.48
24:BA:1223:G:P	41:BR:68:ARG:HH12	2.36	0.48
24:BA:1295:C:C2	24:BA:1296:G:C8	3.01	0.48
24:BA:1395:A:O2'	24:BA:1397:U:C6	2.65	0.48
24:BA:1422:G:C4	24:BA:1423:G:C8	3.01	0.48
24:BA:1490:A:H2'	24:BA:1490:A:N3	2.29	0.48
24:BA:2021:C:OP1	50:B0:8:THR:HG21	2.14	0.48
24:BA:2328:A:C2	24:BA:2329:U:C2	3.01	0.48
24:BA:2392:A:H5"	53:B3:27:ASN:OD1	2.13	0.48
24:BA:2550:G:N2	24:BA:2559:C:H1'	2.29	0.48
25:BB:28:C:OP1	38:BO:34:HIS:HB2	2.13	0.48
25:BB:57:A:C1'	29:BF:26:GLN:CD	2.86	0.48
26:BC:161:VAL:HG12	26:BC:175:LEU:HA	1.95	0.48
27:BD:92:VAL:HG12	27:BD:93:GLY:N	2.28	0.48
28:BE:45:ALA:HB2	28:BE:89:PRO:HD3	1.96	0.48
29:BF:56:LEU:O	29:BF:60:SER:OG	2.26	0.48
30:BG:102:ILE:CD1	30:BG:116:LEU:HD11	2.44	0.48
33:BJ:24:THR:O	33:BJ:25:LEU:C	2.57	0.48
33:BJ:65:THR:HG22	33:BJ:68:LYS:NZ	2.29	0.48
37:BN:47:VAL:C	37:BN:50:PRO:HD2	2.39	0.48
37:BN:82:GLU:O	37:BN:86:ARG:CB	2.61	0.48
41:BR:52:PRO:HG2	41:BR:53:PHE:CE2	2.48	0.48
42:BS:41:LYS:O	42:BS:44:ALA:CB	2.61	0.48
45:BV:61:LEU:HB2	45:BV:72:VAL:CG1	2.43	0.48
45:BV:93:ARG:O	45:BV:93:ARG:HG3	2.12	0.48
46:BW:56:ASP:O	46:BW:57:HIS:HB2	2.14	0.48
1:CA:138:G:O6	1:CA:139:A:N6	2.47	0.48
1:CA:212:G:N3	1:CA:212:G:H2'	2.28	0.48
1:CA:626:G:H2'	1:CA:627:G:H8	1.79	0.48
1:CA:650:G:C6	1:CA:651:C:C4	3.01	0.48
1:CA:690:G:C2'	1:CA:691:G:O4'	2.49	0.48
1:CA:720:C:N4	1:CA:721:G:C2	2.81	0.48
1:CA:778:G:C2	1:CA:779:C:O2	2.67	0.48
1:CA:1014:A:H5'	19:CS:14:HIS:CE1	2.48	0.48
1:CA:1041:G:O6	1:CA:1042:A:C6	2.66	0.48
1:CA:1049:U:O2'	1:CA:1050:G:P	2.72	0.48
1:CA:1073:U:H2'	1:CA:1074:G:O4'	2.13	0.48
1:CA:1124:G:H4'	10:CJ:37:ARG:O	2.13	0.48
1:CA:1154:G:N1	1:CA:1155:A:C5	2.81	0.48
1:CA:1353:G:C6	1:CA:1370:G:N2	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1526:G:OP2	21:CU:39:GLU:HB2	2.12	0.48
2:CB:88:ASP:N	2:CB:88:ASP:OD1	2.45	0.48
3:CC:120:ILE:O	3:CC:123:GLN:N	2.47	0.48
4:CD:150:LYS:NZ	4:CD:177:LYS:O	2.47	0.48
9:CI:44:ALA:HA	9:CI:47:VAL:CG2	2.44	0.48
16:CP:1:MET:CG	16:CP:2:VAL:N	2.77	0.48
16:CP:66:THR:C	16:CP:67:ILE:CG1	2.86	0.48
18:CR:47:THR:O	18:CR:48:ARG:C	2.56	0.48
19:CS:50:ALA:HB1	19:CS:57:HIS:CD2	2.49	0.48
20:CT:32:ILE:O	20:CT:34:LYS:N	2.43	0.48
21:CU:18:ARG:O	21:CU:18:ARG:HG3	2.12	0.48
55:CY:126:VAL:CG1	24:DA:1963:U:O2	2.62	0.48
55:CY:129:ARG:HH11	55:CY:129:ARG:CG	2.27	0.48
24:DA:137:U:O2'	24:DA:138:U:OP1	2.24	0.48
24:DA:142:A:O2'	24:DA:143:C:P	2.72	0.48
24:DA:534:U:O2'	40:DQ:48:ASP:OD2	2.27	0.48
24:DA:732:C:H3'	24:DA:733:G:C8	2.48	0.48
24:DA:778:G:C5	24:DA:779:U:C5	3.01	0.48
24:DA:783:A:O2'	24:DA:785:G:OP1	2.24	0.48
24:DA:942:G:H2'	24:DA:943:A:O4'	2.13	0.48
24:DA:983:A:C6	24:DA:984:A:N1	2.81	0.48
24:DA:1015:U:O2'	24:DA:1016:G:H5'	2.12	0.48
24:DA:1288:G:O2'	24:DA:1327:A:N1	2.38	0.48
24:DA:1418:G:N1	24:DA:1579:A:OP2	2.40	0.48
24:DA:1486:U:H2'	24:DA:1487:U:O4'	2.13	0.48
24:DA:2228:G:P	26:DC:260:LYS:HD2	2.54	0.48
24:DA:2870:C:C5	24:DA:2871:U:C5	3.01	0.48
25:DB:62:C:C2'	25:DB:63:C:O5'	2.61	0.48
26:DC:48:ILE:C	26:DC:48:ILE:HD12	2.38	0.48
31:DH:38:PRO:HB2	31:DH:40:THR:HG23	1.95	0.48
32:DI:109:ALA:O	32:DI:110:GLN:C	2.56	0.48
32:DI:124:MET:O	32:DI:127:SER:N	2.37	0.48
33:DJ:136:GLN:N	33:DJ:137:PRO:HD3	2.27	0.48
37:DN:48:VAL:O	37:DN:51:LEU:HB2	2.13	0.48
42:DS:27:LYS:HE2	42:DS:27:LYS:N	2.28	0.48
43:DT:27:SER:O	43:DT:28:ASN:C	2.55	0.48
44:DU:98:ASN:OD1	44:DU:98:ASN:O	2.30	0.48
48:DY:2:LYS:HG2	48:DY:3:ALA:N	2.29	0.48
48:DY:56:LEU:O	48:DY:56:LEU:HD12	2.14	0.48
50:D0:53:VAL:O	50:D0:54:ILE:HG13	2.13	0.48
1:AA:163:C:O2	1:AA:163:C:C2'	2.59	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:212:G:N1	1:AA:213:G:C5	2.82	0.48
1:AA:258:G:H2'	1:AA:259:G:O4'	2.13	0.48
1:AA:275:G:O2'	17:AQ:17:MET:HE1	2.14	0.48
1:AA:394:G:N1	1:AA:395:C:C2	2.82	0.48
1:AA:509:A:O5'	4:AD:51:TYR:OH	2.32	0.48
1:AA:893:C:C2	1:AA:894:G:C8	3.01	0.48
1:AA:921:U:H2'	1:AA:922:G:O4'	2.13	0.48
1:AA:1090:U:C2	1:AA:1091:U:C5	3.01	0.48
1:AA:1102:A:O2'	2:AB:97:LEU:O	2.28	0.48
1:AA:1304:G:C6	1:AA:1305:G:N1	2.81	0.48
2:AB:57:LEU:CD1	2:AB:58:ASN:N	2.77	0.48
3:AC:34:ASP:O	3:AC:38:LYS:N	2.47	0.48
3:AC:153:VAL:O	3:AC:165:THR:O	2.31	0.48
5:AE:21:VAL:O	5:AE:31:PHE:CB	2.62	0.48
5:AE:37:THR:HG22	5:AE:63:ALA:HB1	1.94	0.48
7:AG:142:HIS:C	7:AG:142:HIS:ND1	2.71	0.48
8:AH:63:LEU:HD23	8:AH:63:LEU:N	2.28	0.48
11:AK:25:ALA:HB3	11:AK:93:ARG:NH2	2.29	0.48
13:AM:23:TYR:CD1	13:AM:69:LEU:CD2	2.96	0.48
14:AN:32:ASP:O	14:AN:33:VAL:C	2.56	0.48
15:AO:78:TYR:O	15:AO:81:LEU:N	2.46	0.48
17:AQ:49:GLU:HG2	17:AQ:50:ASN:OD1	2.13	0.48
24:BA:340:A:C8	24:BA:341:C:C5	3.01	0.48
24:BA:363:G:C6	24:BA:364:C:C4	3.01	0.48
24:BA:414:C:H1'	24:BA:1864:U:O2'	2.13	0.48
24:BA:414:C:C2	24:BA:2410:G:N2	2.82	0.48
24:BA:511:U:C5	24:BA:512:G:C5	3.02	0.48
24:BA:529:A:H4'	24:BA:530:G:OP1	2.11	0.48
24:BA:669:G:C6	24:BA:801:G:O6	2.67	0.48
24:BA:790:U:OP2	59:BA:3759:HOH:O	2.20	0.48
24:BA:937:C:C2	24:BA:938:G:C8	3.02	0.48
24:BA:969:G:H2'	24:BA:970:U:C6	2.48	0.48
24:BA:1144:A:C6	24:BA:1145:C:C4	3.01	0.48
24:BA:1169:A:O5'	24:BA:1169:A:H8	1.96	0.48
24:BA:1216:G:C6	24:BA:1217:U:C4	3.02	0.48
24:BA:1553:A:N7	24:BA:1555:G:C6	2.81	0.48
24:BA:1563:U:H2'	24:BA:1563:U:O2	2.12	0.48
24:BA:1628:G:C5	24:BA:1629:U:C5	3.02	0.48
24:BA:1661:G:C5	24:BA:1662:U:C5	3.02	0.48
24:BA:1775:U:H2'	24:BA:1776:G:C5'	2.43	0.48
24:BA:1799:G:N7	26:BC:177:SER:HB3	2.27	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1863:G:C6	24:BA:1864:U:N3	2.82	0.48
24:BA:1870:C:H5"	24:BA:1871:A:C8	2.49	0.48
24:BA:2416:C:OP1	35:BL:64:PHE:HB2	2.13	0.48
24:BA:2524:G:H2'	24:BA:2741:A:H2	1.78	0.48
24:BA:2569:G:C2	24:BA:2570:G:C8	3.02	0.48
24:BA:2788:C:H1'	24:BA:2810:A:H1'	1.94	0.48
25:BB:78:A:OP2	45:BV:18:ARG:NH2	2.47	0.48
26:BC:62:ARG:NH1	26:BC:83:ASP:CG	2.72	0.48
26:BC:146:LYS:O	26:BC:149:LYS:HB3	2.14	0.48
27:BD:136:ASN:HD22	27:BD:140:HIS:CD2	2.32	0.48
28:BE:149:ILE:O	28:BE:149:ILE:CD1	2.61	0.48
30:BG:145:ALA:O	30:BG:146:ASP:C	2.57	0.48
35:BL:57:LEU:HG	35:BL:61:LEU:HD11	1.94	0.48
37:BN:115:LEU:HD12	37:BN:115:LEU:N	2.28	0.48
39:BP:16:VAL:O	39:BP:16:VAL:HG12	2.13	0.48
39:BP:39:LEU:HD23	39:BP:39:LEU:C	2.39	0.48
44:BU:72:PHE:CE2	44:BU:74:ALA:HA	2.49	0.48
50:B0:39:ARG:O	50:B0:40:HIS:C	2.57	0.48
51:B1:50:GLU:HG3	51:B1:51:ALA:N	2.28	0.48
1:CA:113:G:C6	1:CA:315:A:N6	2.80	0.48
1:CA:174:A:C2'	1:CA:175:C:H5'	2.44	0.48
1:CA:221:C:N3	1:CA:222:C:C5	2.81	0.48
1:CA:542:G:C2	1:CA:543:U:C6	3.01	0.48
1:CA:665:A:N7	1:CA:733:G:C2	2.82	0.48
1:CA:669:G:C6	1:CA:670:G:C5	3.01	0.48
1:CA:988:G:C2	1:CA:989:U:C2	3.01	0.48
1:CA:995:C:C5'	14:CN:7:ALA:HB1	2.43	0.48
3:CC:152:GLU:HB3	3:CC:167:TRP:HB2	1.96	0.48
3:CC:193:TYR:C	3:CC:193:TYR:CD1	2.91	0.48
4:CD:4:TYR:O	4:CD:5:LEU:CB	2.60	0.48
4:CD:62:ARG:HD3	4:CD:72:PHE:CD2	2.49	0.48
4:CD:71:GLN:HA	4:CD:71:GLN:OE1	2.12	0.48
4:CD:78:GLU:OE2	4:CD:79:ALA:N	2.44	0.48
4:CD:81:ARG:CG	4:CD:82:LEU:N	2.74	0.48
4:CD:139:PRO:HA	4:CD:182:PHE:CE1	2.48	0.48
5:CE:34:THR:HB	5:CE:50:TYR:CE1	2.48	0.48
6:CF:87:SER:O	6:CF:88:MET:HB2	2.13	0.48
7:CG:133:THR:O	7:CG:133:THR:OG1	2.27	0.48
8:CH:115:ALA:HA	8:CH:118:GLN:HB2	1.95	0.48
12:CL:93:VAL:O	12:CL:94:ARG:HG3	2.14	0.48
13:CM:104:THR:OG1	13:CM:105:ASN:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:82:ILE:C	15:CO:84:ARG:N	2.70	0.48
19:CS:41:PHE:N	19:CS:41:PHE:CD1	2.81	0.48
24:DA:123:G:N2	24:DA:129:C:C2	2.81	0.48
24:DA:170:U:C2	24:DA:171:U:C6	3.01	0.48
24:DA:600:G:H5"	28:DE:27:LEU:HD11	1.95	0.48
24:DA:1060:U:N1	24:DA:1062:G:H5'	2.29	0.48
24:DA:1068:G:C6	24:DA:1069:A:C5	3.02	0.48
24:DA:1185:G:H5"	24:DA:1186:G:OP1	2.13	0.48
24:DA:1676:A:H2'	24:DA:1677:A:O4'	2.14	0.48
24:DA:2204:G:C2'	24:DA:2205:A:O5'	2.61	0.48
24:DA:2425:A:C4'	24:DA:2427:C:C6	2.97	0.48
57:DA:3185:NMY:O21	57:DA:3185:NMY:N23	2.47	0.48
26:DC:157:ALA:O	26:DC:158:GLY:C	2.56	0.48
27:DD:5:VAL:HG21	27:DD:80:TRP:CG	2.49	0.48
29:DF:8:LYS:O	29:DF:9:ASP:C	2.55	0.48
29:DF:62:GLN:CG	29:DF:94:ARG:HD2	2.43	0.48
29:DF:91:ARG:CG	29:DF:92:GLY:N	2.76	0.48
31:DH:33:GLN:O	31:DH:34:GLY:C	2.56	0.48
31:DH:98:ASP:C	31:DH:100:ALA:H	2.21	0.48
41:DR:3:ALA:HA	41:DR:40:MET:O	2.13	0.48
42:DS:29:VAL:O	42:DS:30:SER:C	2.56	0.48
45:DV:65:VAL:C	45:DV:67:GLY:N	2.70	0.48
48:DY:52:ARG:O	48:DY:55:THR:HB	2.14	0.48
1:AA:47:C:O4'	1:AA:365:U:C2	2.67	0.48
1:AA:256:U:H2'	1:AA:257:G:O4'	2.14	0.48
1:AA:489:C:O2	1:AA:490:C:C5	2.67	0.48
1:AA:511:C:N3	1:AA:512:U:C5	2.82	0.48
1:AA:599:C:H4'	8:AH:88:ARG:HH12	1.79	0.48
1:AA:927:G:H4'	1:AA:1503:A:N7	2.27	0.48
1:AA:959:A:C4'	1:AA:985:C:H5'	2.44	0.48
1:AA:1021:A:H2'	1:AA:1022:A:O4'	2.13	0.48
1:AA:1079:G:C2	1:AA:1080:A:N1	2.82	0.48
1:AA:1458:G:N2	1:AA:1459:G:C4	2.81	0.48
2:AB:98:GLY:C	2:AB:100:MET:N	2.70	0.48
4:AD:95:GLU:HA	4:AD:104:ARG:NH1	2.28	0.48
4:AD:133:ALA:O	4:AD:134:SER:HB3	2.14	0.48
5:AE:156:LYS:HE2	8:AH:64:LYS:HZ2	1.79	0.48
6:AF:15:SER:O	6:AF:18:VAL:HG12	2.12	0.48
8:AH:36:ILE:C	8:AH:38:ASN:N	2.69	0.48
9:AI:50:GLN:NE2	9:AI:80:ARG:CZ	2.77	0.48
11:AK:82:LEU:CD2	11:AK:105:PHE:CD2	2.97	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:125:LYS:HE3	11:AK:126:LYS:HG3	1.94	0.48
16:AP:2:VAL:HG12	16:AP:22:ALA:O	2.14	0.48
24:BA:77:G:C2	24:BA:110:G:C4	3.02	0.48
24:BA:432:A:H2'	24:BA:433:C:O4'	2.14	0.48
24:BA:450:G:H2'	24:BA:451:U:H5"	1.96	0.48
24:BA:748:G:H2'	24:BA:750:A:OP2	2.13	0.48
24:BA:767:U:O2'	24:BA:768:G:C5'	2.62	0.48
24:BA:795:C:N4	24:BA:796:C:N4	2.62	0.48
24:BA:989:G:C5	49:BZ:13:ILE:HD12	2.49	0.48
24:BA:1168:G:H2'	24:BA:1169:A:O5'	2.14	0.48
24:BA:1216:G:C2'	24:BA:1217:U:H5'	2.44	0.48
24:BA:1265:A:OP2	59:BA:3752:HOH:O	2.20	0.48
24:BA:1270:C:H2'	24:BA:1270:C:O2	2.12	0.48
24:BA:1401:G:C6	24:BA:1402:U:C4	3.01	0.48
24:BA:1454:C:P	37:BN:63:ARG:HH22	2.36	0.48
24:BA:1710:G:N2	24:BA:1749:A:C4	2.82	0.48
24:BA:1859:U:OP2	24:BA:1859:U:C6	2.67	0.48
24:BA:2119:A:N6	24:BA:2169:A:N7	2.62	0.48
24:BA:2599:G:N7	26:BC:235:GLU:HG2	2.29	0.48
24:BA:2899:A:H2'	24:BA:2900:A:C8	2.48	0.48
25:BB:53:A:C4	25:BB:54:G:C8	3.01	0.48
26:BC:39:SER:C	26:BC:41:GLY:H	2.22	0.48
27:BD:48:ILE:N	27:BD:84:LEU:HD22	2.29	0.48
28:BE:97:ASN:CG	28:BE:100:MET:HE3	2.39	0.48
29:BF:19:PHE:O	29:BF:20:ASN:HB2	2.13	0.48
29:BF:130:GLY:CA	29:BF:152:ASP:HA	2.44	0.48
30:BG:68:ARG:O	30:BG:72:ASN:N	2.47	0.48
31:BH:101:ASP:HA	31:BH:104:THR:HB	1.94	0.48
31:BH:130:VAL:CG2	31:BH:132:PHE:CE1	2.96	0.48
34:BK:7:MET:CA	34:BK:8:LEU:HD12	2.43	0.48
35:BL:20:GLY:O	35:BL:21:ARG:NE	2.47	0.48
35:BL:111:ILE:HA	35:BL:128:THR:CG2	2.42	0.48
36:BM:2:LEU:HD23	36:BM:68:PHE:CD2	2.49	0.48
36:BM:36:VAL:HG13	45:BV:82:TYR:CE2	2.49	0.48
37:BN:13:ASN:O	37:BN:14:SER:C	2.57	0.48
37:BN:79:LEU:O	37:BN:80:PHE:HB2	2.14	0.48
39:BP:74:GLN:O	39:BP:75:THR:C	2.56	0.48
39:BP:97:TYR:HD1	39:BP:100:ARG:NH1	2.12	0.48
40:BQ:65:ASN:OD1	40:BQ:75:TYR:HB2	2.14	0.48
40:BQ:71:ASN:CG	40:BQ:109:VAL:HG21	2.39	0.48
45:BV:31:TYR:OH	45:BV:90:ASP:OD2	2.23	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BY:57:LEU:HA	48:BY:60:LYS:HG2	1.95	0.48
1:CA:134:G:H2'	1:CA:135:C:O4'	2.14	0.48
1:CA:230:G:C2	1:CA:231:U:C2	3.02	0.48
1:CA:298:A:H2'	1:CA:299:G:C8	2.49	0.48
1:CA:391:G:C6	1:CA:392:C:C4	3.01	0.48
1:CA:651:C:C4	1:CA:652:U:O4	2.67	0.48
1:CA:706:A:N3	11:CK:44:TRP:CH2	2.81	0.48
1:CA:832:G:H2'	1:CA:832:G:N3	2.28	0.48
1:CA:1157:A:N7	1:CA:1180:A:N6	2.62	0.48
2:CB:9:MET:SD	2:CB:9:MET:N	2.86	0.48
2:CB:47:VAL:CG2	2:CB:48:PRO:CD	2.92	0.48
2:CB:107:VAL:O	2:CB:108:ARG:C	2.56	0.48
4:CD:58:LYS:HZ3	4:CD:203:LEU:CD1	2.26	0.48
4:CD:102:VAL:O	4:CD:106:GLY:N	2.46	0.48
4:CD:116:GLN:OE1	4:CD:117:LEU:N	2.46	0.48
6:CF:88:MET:HE3	6:CF:90:MET:SD	2.53	0.48
9:CI:79:ILE:C	9:CI:81:HIS:N	2.69	0.48
10:CJ:80:THR:O	10:CJ:83:THR:HG22	2.14	0.48
11:CK:126:LYS:O	21:CU:35:ARG:NH2	2.47	0.48
12:CL:122:PRO:O	12:CL:123:LYS:HD2	2.14	0.48
19:CS:48:THR:HG1	19:CS:49:ILE:N	2.08	0.48
20:CT:46:ALA:O	20:CT:50:ALA:N	2.46	0.48
20:CT:61:GLN:HG3	20:CT:66:LEU:HD11	1.95	0.48
22:CV:2:C:N3	22:CV:3:C:N4	2.61	0.48
22:CV:26:A:C5	22:CV:27:G:N7	2.82	0.48
55:CY:2:ILE:HD12	55:CY:2:ILE:C	2.38	0.48
55:CY:100:VAL:O	55:CY:100:VAL:CG2	2.61	0.48
55:CY:153:ASP:OD1	55:CY:154:ARG:N	2.46	0.48
55:CY:159:ASP:HA	55:CY:162:LYS:HB2	1.95	0.48
24:DA:70:G:H5"	24:DA:112:U:O2	2.13	0.48
24:DA:196:A:H2'	24:DA:196:A:N3	2.29	0.48
24:DA:210:C:OP1	52:D2:25:LYS:HE3	2.14	0.48
24:DA:560:C:OP2	59:DA:3249:HOH:O	2.20	0.48
24:DA:615:U:C4	28:DE:35:TYR:CE1	3.01	0.48
24:DA:697:G:C6	24:DA:698:C:N4	2.82	0.48
24:DA:1417:C:N4	24:DA:1418:G:C6	2.81	0.48
24:DA:1433:A:C6	24:DA:1434:A:N6	2.82	0.48
24:DA:1686:C:H2'	24:DA:1687:G:H5'	1.94	0.48
24:DA:2015:A:C2	50:D0:2:VAL:HB	2.48	0.48
24:DA:2267:A:H5"	24:DA:2268:A:C5'	2.43	0.48
24:DA:2310:C:C4	29:DF:76:PHE:CZ	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2371:G:C2'	24:DA:2372:U:O5'	2.62	0.48
24:DA:2840:C:C5'	37:DN:53:THR:HG21	2.35	0.48
25:DB:75:G:H1'	45:DV:29:ILE:CG1	2.44	0.48
26:DC:140:VAL:HG23	26:DC:191:LEU:HA	1.96	0.48
27:DD:93:GLY:C	27:DD:94:GLN:O	2.56	0.48
27:DD:180:VAL:O	27:DD:180:VAL:HG12	2.13	0.48
29:DF:73:VAL:HG22	29:DF:78:ILE:HD12	1.95	0.48
29:DF:90:LEU:C	29:DF:90:LEU:HD12	2.39	0.48
29:DF:103:ILE:HD12	29:DF:103:ILE:N	2.29	0.48
30:DG:12:ALA:O	30:DG:13:GLY:C	2.56	0.48
34:DK:35:VAL:HA	34:DK:62:VAL:HG23	1.94	0.48
38:DO:51:ALA:HB3	38:DO:78:VAL:HG13	1.95	0.48
40:DQ:15:LYS:O	40:DQ:19:GLN:HG3	2.13	0.48
1:AA:19:A:H5"	5:AE:91:GLY:CA	2.44	0.48
1:AA:68:G:O4'	1:AA:171:A:H1'	2.14	0.48
1:AA:71:A:C2	1:AA:72:A:C4	3.02	0.48
1:AA:374:A:N3	1:AA:375:U:C6	2.81	0.48
1:AA:502:A:H5"	12:AL:115:SER:HB3	1.95	0.48
1:AA:565:U:OP2	1:AA:566:G:O2'	2.32	0.48
1:AA:652:U:HO2'	1:AA:653:U:P	2.30	0.48
1:AA:671:G:O3'	6:AF:79:ARG:NH2	2.46	0.48
1:AA:765:G:C5'	1:AA:766:A:OP1	2.62	0.48
1:AA:838:G:C2	1:AA:849:G:N3	2.82	0.48
1:AA:1072:G:N2	1:AA:1104:G:H1'	2.29	0.48
1:AA:1256:A:O4'	1:AA:1258:G:C8	2.67	0.48
1:AA:1313:U:P	19:AS:6:LYS:HD2	2.54	0.48
1:AA:1405:G:OP2	57:AA:1655:NMY:N19	2.44	0.48
1:AA:1430:A:C2	1:AA:1471:U:C2	3.02	0.48
2:AB:23:TRP:O	2:AB:23:TRP:CD2	2.67	0.48
2:AB:33:GLY:O	2:AB:34:ALA:HB3	2.14	0.48
2:AB:90:PHE:CG	2:AB:154:MET:CE	2.97	0.48
3:AC:14:ILE:C	3:AC:15:VAL:HG13	2.38	0.48
7:AG:97:ASN:O	7:AG:98:ALA:C	2.57	0.48
9:AI:87:LEU:HD22	9:AI:95:ARG:HB3	1.96	0.48
9:AI:117:GLY:C	9:AI:118:LEU:HD12	2.39	0.48
10:AJ:29:ALA:HB1	10:AJ:36:VAL:CG1	2.44	0.48
20:AT:67:ILE:HD11	20:AT:71:LYS:CE	2.43	0.48
24:BA:300:A:H1'	24:BA:319:G:O4'	2.13	0.48
24:BA:545:U:C5	24:BA:548:G:P	3.06	0.48
24:BA:993:G:C2'	24:BA:994:C:O5'	2.61	0.48
24:BA:1171:G:N2	24:BA:1179:G:N3	2.62	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1205:A:O4'	57:BA:3163:NMY:H18	2.14	0.48
24:BA:1256:G:C5	24:BA:1257:C:C5	3.02	0.48
24:BA:1260:A:O2'	24:BA:1261:C:H5'	2.13	0.48
24:BA:1347:A:O2'	24:BA:1348:C:P	2.71	0.48
24:BA:1357:C:H3'	24:BA:1358:G:C8	2.49	0.48
24:BA:1628:G:C6	24:BA:1629:U:C5	3.01	0.48
24:BA:1658:C:H5'	27:BD:138:LEU:CD2	2.44	0.48
24:BA:1799:G:N2	24:BA:1818:U:O2'	2.47	0.48
24:BA:1833:C:H2'	24:BA:1834:U:H6	1.78	0.48
24:BA:2283:C:H2'	24:BA:2284:A:H5'	1.96	0.48
24:BA:2352:A:C5	24:BA:2366:A:C2	3.01	0.48
24:BA:2407:A:N3	24:BA:2408:U:C6	2.82	0.48
24:BA:2420:C:OP1	53:B3:33:THR:N	2.44	0.48
24:BA:2424:C:C6	24:BA:2424:C:H3'	2.49	0.48
24:BA:2671:G:C2	24:BA:2672:U:C2	3.02	0.48
24:BA:2699:C:H2'	24:BA:2700:A:C8	2.49	0.48
24:BA:2748:A:C6	24:BA:2757:A:N7	2.82	0.48
24:BA:2753:A:C2'	24:BA:2754:U:H5'	2.44	0.48
25:BB:45:A:N1	25:BB:46:A:N3	2.61	0.48
26:BC:245:THR:C	26:BC:247:TRP:H	2.21	0.48
28:BE:149:ILE:CD1	28:BE:188:MET:HA	2.43	0.48
29:BF:74:ALA:C	29:BF:76:PHE:H	2.20	0.48
30:BG:24:THR:O	30:BG:25:ILE:CG1	2.62	0.48
30:BG:112:VAL:HG23	30:BG:113:ASP:N	2.27	0.48
34:BK:64:ARG:HB2	34:BK:83:ALA:HB3	1.95	0.48
35:BL:63:LYS:O	35:BL:64:PHE:HB3	2.13	0.48
38:BO:56:LYS:O	38:BO:57:ALA:C	2.56	0.48
38:BO:80:GLU:C	38:BO:80:GLU:OE1	2.56	0.48
39:BP:112:ARG:O	39:BP:113:LEU:CD2	2.61	0.48
42:BS:21:ALA:O	42:BS:23:LEU:N	2.46	0.48
44:BU:44:HIS:HB3	44:BU:57:ILE:HA	1.96	0.48
45:BV:77:VAL:O	45:BV:77:VAL:HG13	2.13	0.48
48:BY:9:LYS:O	48:BY:10:SER:C	2.56	0.48
48:BY:49:ASP:C	48:BY:51:ALA:N	2.72	0.48
1:CA:78:A:C6	1:CA:79:G:H1'	2.49	0.48
1:CA:198:G:C6	1:CA:220:G:N1	2.82	0.48
1:CA:577:G:H1'	1:CA:816:A:N3	2.29	0.48
1:CA:636:U:H5'	17:CQ:6:ARG:NE	2.28	0.48
1:CA:651:C:N3	1:CA:652:U:C4	2.81	0.48
1:CA:706:A:C2	11:CK:44:TRP:HZ2	2.32	0.48
1:CA:830:G:H5"	2:CB:23:TRP:HE1	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1082:A:C2	1:CA:1083:U:O2	2.66	0.48
1:CA:1125:U:C4	10:CJ:40:ILE:HD11	2.49	0.48
1:CA:1142:G:H3'	1:CA:1143:G:O4'	2.13	0.48
1:CA:1261:A:N1	1:CA:1275:A:H1'	2.29	0.48
1:CA:1321:U:C5	1:CA:1322:C:C6	3.02	0.48
2:CB:103:ASN:O	2:CB:107:VAL:HG13	2.14	0.48
4:CD:170:TRP:O	4:CD:170:TRP:CD1	2.67	0.48
5:CE:15:LEU:HD22	5:CE:15:LEU:C	2.39	0.48
7:CG:70:ARG:HD3	7:CG:96:ARG:CD	2.43	0.48
9:CI:9:THR:C	9:CI:85:ARG:NH1	2.71	0.48
9:CI:42:GLU:O	9:CI:44:ALA:N	2.44	0.48
10:CJ:9:ARG:C	10:CJ:10:LEU:HD12	2.38	0.48
12:CL:117:TYR:CD1	12:CL:117:TYR:N	2.82	0.48
14:CN:15:LEU:HD23	14:CN:54:ASP:CB	2.44	0.48
17:CQ:30:LYS:HG2	17:CQ:37:PHE:CE1	2.49	0.48
17:CQ:70:THR:HG23	17:CQ:71:LYS:N	2.28	0.48
21:CU:11:PRO:O	21:CU:12:PHE:CB	2.61	0.48
55:CY:114:THR:HA	55:CY:117:VAL:HG22	1.96	0.48
24:DA:137:U:H2'	24:DA:140:C:O2	2.13	0.48
24:DA:214:G:O2'	24:DA:217:A:H5'	2.14	0.48
24:DA:342:A:H2'	24:DA:343:C:O4'	2.14	0.48
24:DA:451:U:C5	24:DA:453:A:C8	3.02	0.48
24:DA:591:U:H1'	53:D3:1:PRO:H2	1.78	0.48
24:DA:621:A:OP2	35:DL:99:ASN:ND2	2.47	0.48
24:DA:625:G:H2'	24:DA:626:A:C8	2.49	0.48
24:DA:661:A:H2'	24:DA:662:G:O4'	2.14	0.48
24:DA:834:G:C2	24:DA:835:C:C2	3.01	0.48
24:DA:984:A:C5'	24:DA:985:C:OP2	2.62	0.48
24:DA:1023:U:OP2	59:DA:3711:HOH:O	2.20	0.48
24:DA:1033:U:OP2	24:DA:1033:U:H4'	2.13	0.48
24:DA:1225:G:C2	24:DA:1226:A:C2	3.02	0.48
24:DA:1292:G:H2'	24:DA:1293:C:C6	2.49	0.48
24:DA:1470:A:C8	24:DA:1471:G:C8	3.01	0.48
24:DA:1498:C:C5	24:DA:1499:C:C5	3.02	0.48
24:DA:1643:G:C2	24:DA:1644:C:H1'	2.49	0.48
24:DA:2020:A:H5'	50:D0:8:THR:HG22	1.95	0.48
24:DA:2107:G:O2'	24:DA:2108:A:O4'	2.27	0.48
24:DA:2323:G:H2'	24:DA:2324:U:C5'	2.44	0.48
24:DA:2402:U:HO2'	24:DA:2403:C:P	2.35	0.48
24:DA:2531:A:C2	24:DA:2532:G:C4	3.02	0.48
57:DA:3188:NMY:H172	57:DA:3188:NMY:C1	2.36	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DB:83:G:C2'	25:DB:84:G:C5'	2.91	0.48
26:DC:114:GLN:O	26:DC:115:ILE:CG2	2.61	0.48
28:DE:108:ILE:HD13	28:DE:181:ILE:HG23	1.96	0.48
28:DE:125:SER:OG	28:DE:126:VAL:N	2.46	0.48
30:DG:38:ASP:OD1	30:DG:38:ASP:C	2.56	0.48
30:DG:68:ARG:C	30:DG:68:ARG:HD2	2.38	0.48
32:DI:87:SER:O	32:DI:88:GLY:C	2.56	0.48
33:DJ:88:THR:O	33:DJ:89:PHE:C	2.57	0.48
33:DJ:99:ARG:O	33:DJ:100:VAL:C	2.57	0.48
34:DK:77:ILE:HG12	39:DP:71:ARG:HG2	1.95	0.48
34:DK:93:GLN:HG3	34:DK:94:PRO:HD2	1.96	0.48
36:DM:2:LEU:O	36:DM:3:GLN:HB3	2.13	0.48
41:DR:21:ARG:NH2	41:DR:93:PHE:CE1	2.82	0.48
42:DS:29:VAL:HG23	42:DS:69:LEU:O	2.13	0.48
44:DU:48:VAL:O	44:DU:53:GLN:HA	2.13	0.48
44:DU:73:ASN:HA	44:DU:95:PHE:CE1	2.49	0.48
46:DW:41:ARG:HA	46:DW:41:ARG:HE	1.78	0.48
47:DX:32:LEU:C	47:DX:32:LEU:HD12	2.38	0.48
47:DX:60:LYS:HG2	47:DX:61:LYS:N	2.29	0.48
54:D4:24:ARG:NH2	54:D4:36:ARG:CD	2.77	0.48
1:AA:72:A:C6	1:AA:73:C:N4	2.82	0.48
1:AA:126:G:OP1	1:AA:605:U:O2'	2.31	0.48
1:AA:327:A:C2	1:AA:329:A:C4	3.02	0.48
1:AA:330:C:H2'	1:AA:331:G:H5'	1.95	0.48
1:AA:361:G:H2'	1:AA:362:G:H5'	1.96	0.48
1:AA:496:A:N3	1:AA:497:G:N7	2.61	0.48
1:AA:632:U:O2	1:AA:632:U:C2'	2.62	0.48
1:AA:683:G:O2'	1:AA:684:U:C5'	2.62	0.48
1:AA:958:A:N1	19:AS:54:GLY:HA2	2.28	0.48
1:AA:979:C:C4	1:AA:980:C:N3	2.82	0.48
1:AA:1008:U:C2	1:AA:1022:A:C2	3.02	0.48
1:AA:1047:G:H5"	14:AN:3:GLN:HG2	1.94	0.48
1:AA:1221:G:H5'	19:AS:36:ARG:HH21	1.79	0.48
1:AA:1324:A:N7	1:AA:1325:C:C5	2.82	0.48
1:AA:1478:U:H2'	1:AA:1479:C:C6	2.49	0.48
1:AA:1492:A:H2'	1:AA:1493:A:O5'	2.11	0.48
2:AB:69:PHE:CD1	2:AB:90:PHE:O	2.67	0.48
2:AB:91:PHE:CE1	2:AB:150:GLY:CA	2.97	0.48
3:AC:7:PRO:O	3:AC:8:ASN:C	2.55	0.48
4:AD:166:GLU:O	4:AD:167:LYS:C	2.57	0.48
7:AG:68:ASN:OD1	7:AG:128:ALA:HA	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:92:ARG:CB	7:AG:93:PRO:HD2	2.44	0.48
8:AH:40:LEU:C	8:AH:46:ILE:HG23	2.39	0.48
9:AI:123:ARG:NH1	9:AI:123:ARG:HB2	2.28	0.48
11:AK:40:ASN:O	11:AK:41:ALA:C	2.56	0.48
20:AT:43:ASP:O	20:AT:44:LYS:C	2.57	0.48
24:BA:27:G:O2'	24:BA:28:A:P	2.70	0.48
24:BA:187:G:C2	24:BA:210:C:C2	3.02	0.48
24:BA:608:A:H3'	24:BA:609:A:C8	2.48	0.48
24:BA:755:U:H2'	24:BA:756:A:C8	2.49	0.48
24:BA:947:A:HO2'	24:BA:984:A:H2	1.62	0.48
24:BA:962:G:H21	24:BA:2250:G:H1	1.61	0.48
24:BA:1068:G:N3	24:BA:1068:G:C2'	2.76	0.48
24:BA:1358:G:N2	24:BA:1372:U:OP2	2.31	0.48
24:BA:1422:G:C6	24:BA:1423:G:N7	2.82	0.48
24:BA:1517:G:C6	24:BA:1518:C:N3	2.82	0.48
24:BA:1712:U:C4	24:BA:1713:A:C6	3.02	0.48
24:BA:1819:A:H5'	26:BC:156:SER:OG	2.14	0.48
24:BA:1998:A:O3'	24:BA:2724:U:H4'	2.13	0.48
24:BA:2166:U:C3'	24:BA:2167:U:H5'	2.44	0.48
24:BA:2197:U:HO2'	24:BA:2198:A:P	2.33	0.48
24:BA:2221:G:O2'	24:BA:2222:C:H5'	2.13	0.48
24:BA:2348:U:OP2	53:B3:37:THR:HG21	2.13	0.48
24:BA:2387:U:H1'	46:BW:41:ARG:CD	2.43	0.48
24:BA:2668:G:C2	24:BA:2669:G:C4	3.01	0.48
57:BA:3163:NMY:H2	57:BA:3163:NMY:C17	2.43	0.48
25:BB:91:C:H2'	25:BB:92:C:C6	2.49	0.48
26:BC:188:ARG:O	26:BC:189:ALA:CB	2.61	0.48
27:BD:61:THR:OG1	27:BD:64:GLU:OE2	2.26	0.48
29:BF:103:ILE:HG21	29:BF:174:PHE:CZ	2.48	0.48
29:BF:107:VAL:HG12	29:BF:108:PRO:HD3	1.96	0.48
30:BG:120:ILE:CD1	30:BG:134:GLY:HA3	2.43	0.48
37:BN:44:LEU:HA	37:BN:47:VAL:CG1	2.43	0.48
38:BO:94:ARG:O	38:BO:97:PHE:N	2.43	0.48
40:BQ:109:VAL:O	40:BQ:113:LYS:HB2	2.14	0.48
43:BT:61:LEU:CD1	43:BT:82:LYS:HB2	2.44	0.48
44:BU:4:ILE:O	44:BU:5:ARG:CG	2.62	0.48
45:BV:42:LEU:N	45:BV:42:LEU:HD23	2.28	0.48
47:BX:57:VAL:HG13	47:BX:58:ILE:N	2.29	0.48
48:BY:24:GLU:O	48:BY:26:PHE:N	2.47	0.48
1:CA:12:U:H4'	1:CA:526:C:H4'	1.96	0.48
1:CA:89:U:O2'	1:CA:90:C:H5'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:345:C:HO2'	34:DK:108:ARG:HH22	1.61	0.48
1:CA:542:G:H5'	4:CD:39:GLY:HA3	1.96	0.48
1:CA:601:G:C6	1:CA:602:A:C6	3.02	0.48
1:CA:620:C:C2	4:CD:132:ILE:CD1	2.97	0.48
1:CA:914:A:C6	1:CA:915:A:C5	3.01	0.48
1:CA:1309:G:H2'	1:CA:1310:G:C8	2.48	0.48
1:CA:1349:A:H5"	9:CI:123:ARG:HB2	1.96	0.48
2:CB:118:GLU:HA	2:CB:141:LEU:HD11	1.96	0.48
2:CB:166:ALA:HB2	2:CB:187:VAL:HA	1.96	0.48
3:CC:152:GLU:HB3	3:CC:167:TRP:CB	2.44	0.48
3:CC:160:ALA:C	3:CC:162:ILE:N	2.71	0.48
4:CD:143:VAL:O	4:CD:144:SER:HB2	2.14	0.48
8:CH:7:ILE:HD12	8:CH:7:ILE:N	2.29	0.48
9:CI:12:ARG:O	9:CI:13:LYS:CB	2.61	0.48
11:CK:76:GLU:C	11:CK:78:GLY:H	2.22	0.48
11:CK:81:ASN:HB3	11:CK:106:ARG:NE	2.28	0.48
13:CM:54:ASP:O	13:CM:56:LEU:N	2.47	0.48
15:CO:6:GLU:OE1	15:CO:7:ALA:CA	2.62	0.48
15:CO:31:LEU:CD1	15:CO:31:LEU:N	2.77	0.48
16:CP:4:ILE:HD13	16:CP:21:VAL:HG12	1.96	0.48
16:CP:20:VAL:HG13	16:CP:34:GLU:O	2.14	0.48
19:CS:40:ILE:CD1	19:CS:44:MET:HE2	2.44	0.48
55:CY:20:PHE:HB2	55:CY:124:ALA:HB1	1.95	0.48
55:CY:87:LEU:CB	55:CY:89:LEU:HG	2.44	0.48
24:DA:1:G:H2'	24:DA:2:G:H8	1.78	0.48
24:DA:63:A:C2	24:DA:64:A:C8	3.01	0.48
24:DA:181:A:N3	24:DA:181:A:H2'	2.29	0.48
24:DA:246:C:H2'	24:DA:247:G:H5'	1.95	0.48
24:DA:450:G:N1	24:DA:454:A:OP2	2.40	0.48
24:DA:477:A:C2'	24:DA:478:A:O5'	2.61	0.48
24:DA:526:A:N1	24:DA:2625:G:O2'	2.44	0.48
24:DA:729:G:C6	26:DC:206:LYS:HB2	2.48	0.48
24:DA:782:A:C2	26:DC:224:MET:SD	3.07	0.48
24:DA:971:G:H2'	24:DA:972:A:O5'	2.14	0.48
24:DA:996:A:C2	24:DA:997:G:C8	3.01	0.48
24:DA:1015:U:C2'	24:DA:1016:G:H5'	2.44	0.48
24:DA:1188:U:O2'	24:DA:1189:A:H5'	2.13	0.48
24:DA:1301:A:C2	24:DA:1303:G:C6	3.01	0.48
24:DA:1434:A:H1'	24:DA:1435:G:C8	2.48	0.48
24:DA:1695:G:N7	26:DC:13:ARG:NH2	2.61	0.48
24:DA:1832:C:H2'	24:DA:1833:C:O4'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2064:C:H2'	24:DA:2065:C:C6	2.49	0.48
24:DA:2146:C:C6	24:DA:2146:C:OP1	2.67	0.48
24:DA:2496:C:P	36:DM:81:ARG:NH2	2.83	0.48
24:DA:2780:G:OP2	33:DJ:120:ARG:NH2	2.47	0.48
27:DD:22:ILE:HD12	27:DD:23:PRO:N	2.29	0.48
27:DD:68:PHE:CD1	27:DD:75:ALA:HA	2.48	0.48
28:DE:23:PHE:CE1	35:DL:2:ARG:NH2	2.82	0.48
28:DE:79:ARG:O	28:DE:80:SER:HB2	2.14	0.48
28:DE:154:ASP:OD1	28:DE:155:GLU:N	2.47	0.48
29:DF:95:MET:SD	29:DF:99:PHE:HE1	2.37	0.48
29:DF:121:PHE:CG	29:DF:127:TYR:CZ	3.01	0.48
29:DF:137:PHE:N	29:DF:137:PHE:CD1	2.81	0.48
32:DI:124:MET:O	32:DI:125:THR:C	2.56	0.48
34:DK:8:LEU:CD1	34:DK:19:VAL:HG12	2.43	0.48
34:DK:70:ARG:HD2	34:DK:76:VAL:CG2	2.44	0.48
36:DM:36:VAL:HG22	45:DV:82:TYR:CD2	2.48	0.48
37:DN:71:ARG:CG	37:DN:71:ARG:HH21	2.27	0.48
38:DO:34:HIS:NE2	38:DO:54:VAL:CG1	2.76	0.48
40:DQ:87:VAL:HB	41:DR:49:ILE:HG22	1.96	0.48
40:DQ:90:ASP:OD2	41:DR:11:GLN:HB2	2.13	0.48
41:DR:7:SER:O	41:DR:9:GLY:N	2.40	0.48
43:DT:82:LYS:HD3	43:DT:84:TYR:CE1	2.49	0.48
47:DX:15:ASN:ND2	47:DX:23:ALA:HB1	2.29	0.48
49:DZ:24:LEU:O	49:DZ:25:GLY:C	2.56	0.48
51:D1:50:GLU:HG2	51:D1:51:ALA:N	2.29	0.48
54:D4:3:VAL:O	54:D4:3:VAL:CG2	2.62	0.48
1:AA:71:A:C2	1:AA:72:A:C5	3.01	0.48
1:AA:265:G:C2'	17:AQ:67:LEU:O	2.61	0.48
1:AA:551:U:C4	1:AA:552:U:C5	3.01	0.48
1:AA:1152:A:C6	1:AA:1153:G:C5	3.02	0.48
1:AA:1298:U:O4'	1:AA:1299:A:C2	2.67	0.48
2:AB:53:ALA:HB3	2:AB:54:LEU:HD12	1.95	0.48
2:AB:96:TRP:CH2	2:AB:175:GLU:OE2	2.67	0.48
3:AC:102:ASN:OD1	3:AC:102:ASN:C	2.57	0.48
5:AE:83:HIS:CG	5:AE:84:PRO:CD	2.96	0.48
5:AE:136:VAL:O	5:AE:138:ARG:N	2.43	0.48
6:AF:9:MET:HB2	6:AF:85:ILE:HG12	1.96	0.48
6:AF:39:LEU:CD1	6:AF:39:LEU:C	2.87	0.48
8:AH:10:MET:C	8:AH:12:THR:N	2.71	0.48
9:AI:30:ILE:HG13	9:AI:65:ILE:HD12	1.95	0.48
10:AJ:61:ALA:C	10:AJ:62:ARG:HG2	2.38	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:94:GLU:O	11:AK:96:THR:N	2.47	0.48
12:AL:4:VAL:HG22	12:AL:5:ASN:N	2.27	0.48
16:AP:4:ILE:HG22	16:AP:5:ARG:N	2.29	0.48
16:AP:67:ILE:HD12	16:AP:67:ILE:N	2.29	0.48
18:AR:20:GLU:O	18:AR:21:ILE:C	2.57	0.48
19:AS:36:ARG:HD3	19:AS:75:ALA:HB3	1.95	0.48
24:BA:416:U:C4	24:BA:417:C:C4	3.02	0.48
24:BA:422:A:C6	24:BA:423:A:C6	3.01	0.48
24:BA:769:U:C2	24:BA:770:G:C8	3.02	0.48
24:BA:1144:A:H2'	24:BA:1145:C:O5'	2.14	0.48
24:BA:1205:A:C5	28:BE:165:HIS:CG	3.02	0.48
24:BA:1297:C:O2'	24:BA:1302:A:N1	2.46	0.48
24:BA:1462:C:C4'	24:BA:2702:G:H21	2.27	0.48
24:BA:1782:U:H1'	24:BA:2609:U:H5'	1.96	0.48
24:BA:1865:U:C5	24:BA:1875:G:C2	3.02	0.48
24:BA:2425:A:H5"	24:BA:2427:C:O4'	2.14	0.48
24:BA:2464:G:H2'	24:BA:2465:C:O4'	2.14	0.48
24:BA:2816:G:C5	24:BA:2817:U:C5	3.02	0.48
24:BA:2840:C:H2'	24:BA:2841:C:H6	1.79	0.48
25:BB:2:G:N2	25:BB:3:C:C2	2.82	0.48
26:BC:196:ASN:O	26:BC:197:ALA:C	2.56	0.48
29:BF:121:PHE:C	29:BF:123:GLY:N	2.72	0.48
31:BH:65:ALA:O	31:BH:66:ASN:C	2.56	0.48
37:BN:44:LEU:O	37:BN:48:VAL:HG23	2.13	0.48
40:BQ:78:PHE:CD1	40:BQ:78:PHE:O	2.67	0.48
44:BU:3:LYS:O	44:BU:82:VAL:HG21	2.14	0.48
44:BU:7:ASP:N	44:BU:24:VAL:HG23	2.28	0.48
45:BV:17:SER:HA	45:BV:20:LEU:HD13	1.96	0.48
48:BY:17:GLU:HA	48:BY:20:ASN:HB2	1.95	0.48
1:CA:20:U:O4	1:CA:21:G:C6	2.67	0.48
1:CA:193:C:H2'	1:CA:194:C:H6	1.79	0.48
1:CA:343:U:O3'	1:CA:344:A:H2'	2.13	0.48
1:CA:459:A:N1	1:CA:460:A:C6	2.82	0.48
1:CA:607:A:C4	1:CA:608:A:C8	3.02	0.48
1:CA:692:U:H2'	1:CA:694:A:C8	2.49	0.48
1:CA:847:G:H2'	1:CA:848:C:H5'	1.96	0.48
1:CA:940:C:N3	1:CA:941:G:C5	2.81	0.48
1:CA:980:C:O2'	14:CN:12:ARG:NH2	2.47	0.48
1:CA:983:A:N3	1:CA:983:A:H2'	2.29	0.48
1:CA:992:U:C2	1:CA:1043:G:N7	2.82	0.48
1:CA:1074:G:C5	1:CA:1075:U:C5	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1102:A:C2	1:CA:1103:C:C2	3.02	0.48
1:CA:1371:G:C5	1:CA:1372:U:C5	3.02	0.48
2:CB:144:LEU:HB2	2:CB:148:LEU:HD21	1.96	0.48
3:CC:128:VAL:O	3:CC:129:MET:CB	2.62	0.48
7:CG:88:PRO:HD2	7:CG:151:PHE:CD1	2.49	0.48
7:CG:123:GLU:HA	7:CG:126:ASP:OD2	2.14	0.48
7:CG:126:ASP:OD1	7:CG:126:ASP:C	2.57	0.48
11:CK:57:LYS:O	11:CK:58:SER:HB2	2.14	0.48
12:CL:39:THR:OG1	55:CY:83:MET:O	2.21	0.48
12:CL:49:LEU:N	12:CL:49:LEU:HD12	2.29	0.48
13:CM:48:LEU:O	13:CM:48:LEU:HD13	2.14	0.48
14:CN:27:LYS:HA	14:CN:30:ILE:HG22	1.95	0.48
15:CO:89:ARG:NH1	24:DA:714:U:C5	2.81	0.48
16:CP:61:VAL:O	16:CP:62:GLY:C	2.55	0.48
17:CQ:80:GLU:C	17:CQ:81:LYS:HG3	2.39	0.48
18:CR:28:THR:HG23	18:CR:29:LEU:HD12	1.96	0.48
22:CV:21:A:C4	22:CV:48:C:N3	2.82	0.48
55:CY:2:ILE:O	55:CY:5:ILE:N	2.47	0.48
24:DA:204:A:H4'	24:DA:205:G:OP1	2.14	0.48
24:DA:328:U:H4'	44:DU:65:GLN:CD	2.39	0.48
24:DA:1338:G:C2'	24:DA:1339:G:O5'	2.62	0.48
24:DA:1341:G:C2	43:DT:84:TYR:CD2	3.01	0.48
24:DA:1458:U:O2	24:DA:1459:G:O6	2.31	0.48
24:DA:1816:C:H3'	26:DC:61:TYR:CE1	2.49	0.48
24:DA:1821:A:H8	24:DA:1821:A:O5'	1.97	0.48
24:DA:2060:A:O2'	24:DA:2061:G:P	2.72	0.48
24:DA:2455:G:H2'	24:DA:2456:C:C6	2.49	0.48
24:DA:2519:U:C4	24:DA:2542:A:C5	3.01	0.48
24:DA:2743:U:H2'	24:DA:2744:G:O4'	2.13	0.48
26:DC:156:SER:O	26:DC:159:THR:CG2	2.62	0.48
29:DF:33:ILE:HA	29:DF:155:ILE:HA	1.95	0.48
29:DF:109:ARG:CZ	29:DF:136:ILE:O	2.61	0.48
37:DN:10:LEU:O	37:DN:12:ARG:HG3	2.14	0.48
38:DO:43:ASN:OD1	38:DO:43:ASN:C	2.57	0.48
40:DQ:37:ALA:CB	40:DQ:40:LYS:HE2	2.43	0.48
42:DS:26:GLY:C	42:DS:27:LYS:HE2	2.39	0.48
45:DV:80:HIS:CD2	45:DV:81:PRO:HD2	2.49	0.48
45:DV:87:GLN:HA	45:DV:87:GLN:OE1	2.14	0.48
49:DZ:13:ILE:HG22	49:DZ:14:GLY:N	2.29	0.48
1:AA:81:A:H2'	1:AA:82:G:C8	2.49	0.47
1:AA:176:C:O2	1:AA:176:C:H2'	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:337:G:C6	1:AA:338:A:C6	3.01	0.47
1:AA:341:C:C2	1:AA:349:A:C2	3.02	0.47
1:AA:371:A:H5"	1:AA:372:C:OP2	2.12	0.47
1:AA:392:C:C2	1:AA:393:A:C8	3.02	0.47
1:AA:395:C:C4	1:AA:396:C:N4	2.82	0.47
1:AA:428:G:H5'	4:AD:9:LEU:CD1	2.41	0.47
1:AA:511:C:O2'	1:AA:512:U:P	2.72	0.47
1:AA:529:G:H4'	1:AA:530:G:OP2	2.14	0.47
1:AA:577:G:N9	1:AA:816:A:C2	2.82	0.47
1:AA:665:A:C2	1:AA:732:C:C5	3.01	0.47
1:AA:678:U:C2	1:AA:713:G:N2	2.81	0.47
1:AA:684:U:H1'	11:AK:40:ASN:CA	2.43	0.47
1:AA:893:C:H2'	1:AA:894:G:H5'	1.94	0.47
1:AA:1086:U:O2'	1:AA:1087:G:H5'	2.13	0.47
1:AA:1220:G:H4'	19:AS:34:TRP:HB3	1.94	0.47
1:AA:1273:C:C4	1:AA:1274:A:N7	2.81	0.47
1:AA:1366:C:H2'	1:AA:1367:C:H6	1.79	0.47
1:AA:1411:C:C2'	1:AA:1412:C:O5'	2.62	0.47
3:AC:2:GLY:C	3:AC:3:GLN:HG3	2.39	0.47
5:AE:82:GLN:CD	5:AE:150:PRO:HB3	2.39	0.47
5:AE:83:HIS:CE1	5:AE:84:PRO:O	2.66	0.47
9:AI:50:GLN:CG	9:AI:51:PRO:CD	2.92	0.47
11:AK:52:PHE:CZ	11:AK:62:ALA:HA	2.49	0.47
11:AK:109:ASN:ND2	21:AU:6:VAL:O	2.47	0.47
12:AL:19:SER:C	12:AL:21:VAL:N	2.72	0.47
12:AL:75:GLN:HG2	12:AL:76:GLU:CB	2.44	0.47
13:AM:16:VAL:HG12	13:AM:34:LEU:HD12	1.96	0.47
13:AM:31:LYS:HG3	13:AM:32:ALA:N	2.29	0.47
14:AN:7:ALA:O	14:AN:8:ARG:C	2.57	0.47
14:AN:48:LEU:O	14:AN:49:GLN:HB2	2.13	0.47
20:AT:27:MET:O	20:AT:27:MET:HG3	2.14	0.47
20:AT:79:LEU:HD12	20:AT:80:THR:H	1.79	0.47
21:AU:21:ARG:CZ	23:AX:4:G:H1'	2.43	0.47
24:BA:712:G:C2'	24:BA:713:G:H5'	2.44	0.47
24:BA:955:U:OP1	36:BM:86:LYS:HE2	2.14	0.47
24:BA:1107:G:H2'	24:BA:1108:U:O4'	2.14	0.47
24:BA:1288:G:N3	24:BA:1327:A:C2	2.82	0.47
24:BA:1343:G:C5	24:BA:1344:U:O4	2.67	0.47
24:BA:1493:C:C3'	24:BA:1494:A:H5'	2.44	0.47
24:BA:1559:U:H4'	24:BA:1560:G:OP2	2.13	0.47
24:BA:1719:G:C6	24:BA:1720:U:C4	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2033:A:N6	24:BA:2036:C:C2	2.82	0.47
24:BA:2419:U:H5"	51:B1:21:THR:HG21	1.96	0.47
24:BA:2644:G:C8	24:BA:2645:G:C2	3.02	0.47
24:BA:2721:A:H1'	24:BA:2873:A:O2'	2.14	0.47
24:BA:2745:C:H2'	24:BA:2746:U:O4'	2.13	0.47
24:BA:2803:G:H2'	24:BA:2804:U:H6	1.77	0.47
25:BB:24:G:N2	25:BB:28:C:C2	2.81	0.47
25:BB:49:C:OP1	38:BO:102:ARG:HD3	2.13	0.47
26:BC:90:ILE:HD12	26:BC:90:ILE:C	2.38	0.47
26:BC:122:ALA:HB3	26:BC:127:ASN:ND2	2.29	0.47
26:BC:141:HIS:CB	26:BC:194:VAL:HG12	2.44	0.47
27:BD:34:VAL:CG2	27:BD:48:ILE:HG12	2.44	0.47
28:BE:85:PHE:O	28:BE:86:ALA:C	2.56	0.47
30:BG:89:VAL:HG23	30:BG:160:GLY:N	2.30	0.47
30:BG:100:ASN:C	30:BG:116:LEU:HD13	2.39	0.47
34:BK:23:LYS:HA	34:BK:23:LYS:HE3	1.96	0.47
34:BK:62:VAL:HG11	34:BK:65:THR:HG22	1.96	0.47
36:BM:73:ILE:HG22	36:BM:74:THR:N	2.29	0.47
39:BP:47:ILE:HA	39:BP:96:LEU:HD12	1.96	0.47
39:BP:113:LEU:O	39:BP:113:LEU:HG	2.13	0.47
40:BQ:51:GLN:O	40:BQ:54:ARG:CG	2.62	0.47
40:BQ:104:ALA:O	40:BQ:107:ALA:HB3	2.14	0.47
44:BU:12:VAL:HG11	44:BU:38:ILE:CD1	2.44	0.47
51:B1:32:LYS:HD3	51:B1:50:GLU:HA	1.96	0.47
1:CA:149:A:C2	1:CA:150:U:N1	2.82	0.47
1:CA:261:U:OP2	20:CT:71:LYS:HE2	2.14	0.47
1:CA:390:U:C2	1:CA:391:G:C8	3.02	0.47
1:CA:588:G:N2	1:CA:589:U:H1'	2.29	0.47
1:CA:606:G:H2'	1:CA:607:A:OP1	2.14	0.47
1:CA:716:A:C2'	1:CA:717:U:O5'	2.62	0.47
1:CA:831:A:C5'	1:CA:832:G:OP2	2.62	0.47
1:CA:1125:U:C5	10:CJ:40:ILE:CD1	2.97	0.47
1:CA:1286:U:O2	1:CA:1286:U:H2'	2.14	0.47
1:CA:1304:G:C6	1:CA:1305:G:C2	3.02	0.47
1:CA:1503:A:C8	1:CA:1531:A:N3	2.81	0.47
3:CC:165:THR:CG2	3:CC:166:GLU:N	2.76	0.47
3:CC:169:ARG:HG3	3:CC:170:GLU:N	2.29	0.47
4:CD:52:GLY:O	4:CD:55:LEU:HD12	2.13	0.47
4:CD:138:SER:OG	4:CD:139:PRO:CD	2.62	0.47
5:CE:96:MET:HB3	5:CE:125:ALA:CB	2.44	0.47
6:CF:43:GLY:CA	6:CF:58:HIS:CD2	2.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:32:VAL:O	7:CG:33:ASP:C	2.57	0.47
7:CG:134:ALA:O	7:CG:135:VAL:C	2.57	0.47
9:CI:39:PHE:C	9:CI:39:PHE:CD1	2.91	0.47
13:CM:40:ALA:O	13:CM:41:GLU:C	2.56	0.47
15:CO:54:ARG:O	15:CO:55:GLY:C	2.57	0.47
17:CQ:12:VAL:O	17:CQ:13:VAL:CB	2.62	0.47
19:CS:18:LYS:HD3	19:CS:31:LEU:CD1	2.44	0.47
20:CT:70:ASN:N	20:CT:70:ASN:OD1	2.39	0.47
20:CT:73:ALA:O	20:CT:77:ALA:N	2.46	0.47
55:CY:2:ILE:HD12	55:CY:3:SER:N	2.29	0.47
55:CY:126:VAL:O	55:CY:127:ALA:C	2.57	0.47
24:DA:297:G:O3'	44:DU:84:PHE:CB	2.61	0.47
24:DA:416:U:H2'	24:DA:417:C:H6	1.79	0.47
24:DA:439:A:C6	24:DA:440:C:C4	3.02	0.47
24:DA:514:A:H1'	24:DA:581:C:O2'	2.14	0.47
24:DA:819:A:C4	24:DA:1189:A:C2	3.02	0.47
24:DA:1244:A:OP1	35:DL:7:SER:CB	2.62	0.47
24:DA:1441:G:H2'	24:DA:1442:U:C6	2.48	0.47
24:DA:1666:G:O2'	34:DK:6:THR:CG2	2.62	0.47
24:DA:1873:G:C4	24:DA:1874:C:C6	3.02	0.47
24:DA:2152:G:N7	24:DA:2153:C:C4	2.82	0.47
24:DA:2209:G:C6	24:DA:2210:U:O4	2.67	0.47
24:DA:2315:G:O2'	29:DF:124:ARG:NE	2.46	0.47
25:DB:30:C:OP1	38:DO:3:LYS:CE	2.62	0.47
28:DE:137:LYS:CD	28:DE:141:MET:HE1	2.44	0.47
31:DH:70:GLU:O	31:DH:71:LYS:O	2.32	0.47
33:DJ:5:THR:HB	33:DJ:7:LYS:CE	2.44	0.47
37:DN:15:SER:HA	37:DN:18:GLN:HB3	1.96	0.47
40:DQ:51:GLN:O	40:DQ:54:ARG:N	2.45	0.47
41:DR:4:VAL:HA	41:DR:12:HIS:O	2.14	0.47
41:DR:51:VAL:HG23	41:DR:52:PRO:N	2.29	0.47
42:DS:23:LEU:CD1	42:DS:39:THR:HG21	2.44	0.47
50:D0:48:TYR:O	50:D0:49:ARG:C	2.57	0.47
51:D1:12:SER:OG	51:D1:18:HIS:O	2.21	0.47
51:D1:49:LYS:O	51:D1:50:GLU:O	2.32	0.47
1:AA:37:U:P	12:AL:120:LYS:HA	2.54	0.47
1:AA:465:A:C6	1:AA:466:A:C6	3.02	0.47
1:AA:489:C:O2	1:AA:489:C:H2'	2.14	0.47
1:AA:625:U:H2'	1:AA:626:G:H8	1.79	0.47
1:AA:656:G:O2'	15:AO:28:GLN:NE2	2.46	0.47
1:AA:782:A:N7	1:AA:783:C:C4	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:907:A:C2	1:AA:908:A:N9	2.82	0.47
1:AA:1224:U:C4	1:AA:1322:C:O2	2.67	0.47
1:AA:1264:U:C2	1:AA:1272:G:N2	2.80	0.47
1:AA:1295:U:H2'	1:AA:1296:C:C6	2.49	0.47
2:AB:24:ASN:O	2:AB:26:LYS:N	2.47	0.47
3:AC:54:ARG:O	3:AC:54:ARG:HG3	2.14	0.47
4:AD:88:GLU:O	4:AD:92:ALA:N	2.47	0.47
5:AE:111:MET:CE	5:AE:125:ALA:HB1	2.44	0.47
8:AH:43:GLU:CG	8:AH:44:GLY:H	2.27	0.47
8:AH:78:VAL:HG12	8:AH:85:ILE:HD12	1.95	0.47
9:AI:51:PRO:O	9:AI:53:GLU:N	2.46	0.47
11:AK:93:ARG:NE	11:AK:93:ARG:CA	2.77	0.47
12:AL:31:ARG:O	12:AL:58:THR:HB	2.13	0.47
12:AL:86:ARG:HB2	12:AL:86:ARG:CZ	2.43	0.47
13:AM:114:LYS:CB	13:AM:115:PRO:HD3	2.44	0.47
18:AR:56:ALA:CA	18:AR:59:ILE:CG2	2.91	0.47
18:AR:60:LYS:HD3	18:AR:63:ARG:NH1	2.29	0.47
19:AS:76:PRO:C	19:AS:77:THR:OG1	2.56	0.47
21:AU:26:ALA:HB2	23:AX:5:A:C5'	2.43	0.47
24:BA:142:A:C2'	24:BA:143:C:O5'	2.62	0.47
24:BA:347:A:N1	24:BA:348:A:C6	2.82	0.47
24:BA:475:C:O4'	24:BA:509:C:C6	2.67	0.47
24:BA:615:U:H5"	24:BA:616:A:C8	2.49	0.47
24:BA:637:A:C6	24:BA:652:U:H4'	2.49	0.47
24:BA:871:U:H2'	24:BA:872:U:C6	2.49	0.47
24:BA:1021:A:N3	24:BA:1021:A:C2'	2.77	0.47
24:BA:1053:C:C2	24:BA:1107:G:N2	2.83	0.47
24:BA:1172:C:N4	24:BA:1173:U:C2	2.82	0.47
24:BA:1190:G:P	35:BL:32:GLY:HA2	2.54	0.47
24:BA:2165:C:O2	24:BA:2165:C:C2'	2.61	0.47
24:BA:2204:G:O6	24:BA:2221:G:C5	2.67	0.47
24:BA:2211:A:H1'	24:BA:2212:A:OP1	2.13	0.47
24:BA:2211:A:C1'	24:BA:2212:A:OP1	2.62	0.47
24:BA:2294:G:C3'	38:BO:10:ARG:HH12	2.27	0.47
24:BA:2295:C:P	38:BO:10:ARG:HH12	2.37	0.47
24:BA:2435:A:C6	24:BA:2436:G:N7	2.82	0.47
24:BA:2447:G:C4	24:BA:2501:C:C5	3.01	0.47
24:BA:2725:A:C5	24:BA:2727:A:C4	3.02	0.47
24:BA:2773:C:OP1	27:BD:169:ARG:NH2	2.47	0.47
24:BA:2776:A:C2	24:BA:2778:A:C4	3.02	0.47
24:BA:2795:C:H2'	24:BA:2796:U:C6	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BB:29:A:P	38:BO:32:PRO:HD2	2.54	0.47
26:BC:16:VAL:N	26:BC:203:VAL:HG22	2.29	0.47
26:BC:245:THR:CB	26:BC:246:PRO:HD2	2.44	0.47
27:BD:124:ARG:CD	27:BD:160:LYS:HZ1	2.28	0.47
27:BD:125:TRP:CD2	27:BD:160:LYS:HB2	2.50	0.47
29:BF:135:ILE:C	29:BF:137:PHE:N	2.71	0.47
34:BK:108:ARG:NH2	39:BP:33:GLU:HG2	2.29	0.47
36:BM:41:LEU:HG	36:BM:96:ILE:HD11	1.96	0.47
38:BO:80:GLU:O	38:BO:81:ARG:C	2.57	0.47
41:BR:63:VAL:HG13	41:BR:94:THR:CG2	2.45	0.47
42:BS:89:ALA:O	42:BS:90:LYS:HB2	2.14	0.47
44:BU:71:ILE:CD1	44:BU:80:ASP:C	2.87	0.47
49:BZ:36:GLU:O	49:BZ:37:ARG:NH1	2.47	0.47
51:B1:28:THR:O	51:B1:29:LYS:CB	2.62	0.47
52:B2:35:ARG:O	52:B2:37:LYS:N	2.47	0.47
1:CA:95:C:C2	1:CA:96:U:C5	3.02	0.47
1:CA:175:C:H2'	1:CA:176:C:C6	2.49	0.47
1:CA:499:A:N3	1:CA:500:G:H1'	2.29	0.47
1:CA:511:C:H5'	4:CD:44:ARG:NH1	2.30	0.47
1:CA:654:G:C4	1:CA:655:A:C8	3.02	0.47
1:CA:702:A:H5"	1:CA:703:G:N7	2.29	0.47
1:CA:774:G:C6	1:CA:775:G:C5	3.02	0.47
1:CA:782:A:C6	1:CA:801:U:C6	3.02	0.47
1:CA:908:A:C2	1:CA:909:A:C5	3.02	0.47
1:CA:940:C:O2	1:CA:941:G:N9	2.47	0.47
1:CA:1025:U:H4'	1:CA:1026:G:C8	2.49	0.47
1:CA:1087:G:N2	1:CA:1099:G:H1'	2.29	0.47
1:CA:1345:U:C2	1:CA:1377:A:N1	2.82	0.47
1:CA:1501:C:C6	1:CA:1504:G:C8	3.02	0.47
1:CA:1507:A:H8	1:CA:1507:A:H5"	1.79	0.47
1:CA:1508:A:C6	1:CA:1509:C:C4	3.03	0.47
3:CC:73:PRO:O	3:CC:77:ILE:CG1	2.62	0.47
6:CF:9:MET:HG3	6:CF:85:ILE:CG2	2.44	0.47
7:CG:116:MET:O	7:CG:117:ALA:C	2.57	0.47
9:CI:25:ASN:OD1	9:CI:25:ASN:N	2.46	0.47
11:CK:127:ARG:HB2	21:CU:35:ARG:HH22	1.79	0.47
13:CM:14:HIS:CE1	13:CM:42:ASP:HB3	2.49	0.47
13:CM:68:ASP:HA	13:CM:71:ARG:NE	2.29	0.47
15:CO:24:SER:O	15:CO:27:VAL:CG2	2.62	0.47
19:CS:71:LEU:O	19:CS:71:LEU:CG	2.62	0.47
24:DA:167:A:C5	24:DA:168:G:C8	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:179:C:H2'	24:DA:180:G:O4'	2.14	0.47
24:DA:773:U:H5'	26:DC:46:GLY:HA3	1.96	0.47
24:DA:839:U:C2	24:DA:940:G:C2	3.02	0.47
24:DA:1361:G:C5	24:DA:1362:C:N4	2.81	0.47
24:DA:1539:U:H2'	24:DA:1540:G:C8	2.49	0.47
24:DA:1551:A:N6	59:DA:3633:HOH:O	2.47	0.47
24:DA:1773:A:H2'	24:DA:1774:C:C5'	2.43	0.47
24:DA:1885:A:C2	24:DA:1886:U:H1'	2.49	0.47
24:DA:2013:A:C2'	24:DA:2014:A:C5'	2.92	0.47
24:DA:2339:C:C2'	24:DA:2340:A:O5'	2.62	0.47
24:DA:2392:A:O2'	35:DL:60:ARG:O	2.27	0.47
24:DA:2466:C:H5"	54:D4:5:ALA:HB3	1.96	0.47
24:DA:2484:G:OP1	36:DM:44:ARG:NE	2.46	0.47
24:DA:2531:A:H5'	30:DG:156:TYR:CZ	2.50	0.47
27:DD:103:ASP:C	27:DD:104:VAL:CG2	2.87	0.47
28:DE:131:THR:CG2	28:DE:162:ARG:NH1	2.77	0.47
39:DP:90:ALA:HB2	39:DP:112:ARG:HA	1.96	0.47
47:DX:38:TRP:NE1	47:DX:40:GLU:HG2	2.29	0.47
50:D0:25:THR:HG23	50:D0:26:SER:N	2.30	0.47
52:D2:34:ARG:NH1	52:D2:39:ARG:CD	2.76	0.47
52:D2:43:THR:O	52:D2:44:VAL:HG12	2.14	0.47
53:D3:25:HIS:CB	53:D3:43:LEU:HB3	2.43	0.47
1:AA:85:U:C2	1:AA:86:G:C6	3.03	0.47
1:AA:227:G:H3'	1:AA:228:A:H8	1.78	0.47
1:AA:400:C:C4	1:AA:401:C:C5	3.02	0.47
1:AA:522:C:O2'	59:AA:1768:HOH:O	2.20	0.47
1:AA:586:C:H5"	8:AH:82:GLY:HA2	1.96	0.47
1:AA:858:G:N7	1:AA:869:G:C6	2.83	0.47
1:AA:888:G:H1'	1:AA:909:A:N6	2.30	0.47
1:AA:1054:C:H5'	1:AA:1196:A:C2	2.49	0.47
1:AA:1117:A:O3'	9:AI:106:ARG:HD2	2.14	0.47
1:AA:1182:G:C5'	1:AA:1183:U:H5'	2.44	0.47
1:AA:1349:A:C4	1:AA:1350:A:C8	3.01	0.47
1:AA:1439:G:C2	1:AA:1440:U:C4	3.02	0.47
2:AB:29:PRO:HG2	2:AB:30:PHE:CD1	2.49	0.47
2:AB:91:PHE:HE1	2:AB:150:GLY:HA2	1.79	0.47
6:AF:18:VAL:HG13	6:AF:19:PRO:HD2	1.96	0.47
7:AG:22:LEU:O	7:AG:23:LEU:C	2.57	0.47
8:AH:27:MET:CB	8:AH:28:PRO:HD2	2.44	0.47
8:AH:126:ILE:HG22	8:AH:127:CYS:HB3	1.95	0.47
9:AI:78:ALA:O	9:AI:82:GLY:N	2.40	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:130:ARG:HD2	22:AV:33:U:OP2	2.14	0.47
10:AJ:23:ALA:O	10:AJ:26:VAL:N	2.47	0.47
10:AJ:34:ALA:O	10:AJ:35:GLN:HB3	2.15	0.47
10:AJ:52:LEU:HB2	14:AN:81:ARG:HD2	1.95	0.47
11:AK:42:LEU:HD12	11:AK:42:LEU:N	2.29	0.47
12:AL:43:LYS:O	12:AL:45:PRO:HD3	2.14	0.47
12:AL:118:GLY:C	12:AL:119:VAL:HG23	2.39	0.47
13:AM:38:GLY:C	13:AM:39:ILE:HG23	2.39	0.47
13:AM:51:GLY:O	13:AM:54:ASP:N	2.48	0.47
13:AM:66:GLU:OE1	13:AM:67:GLY:N	2.41	0.47
17:AQ:63:GLU:O	17:AQ:64:CYS:CB	2.61	0.47
21:AU:26:ALA:CB	23:AX:5:A:P	3.02	0.47
22:AV:50:U:H2'	22:AV:51:U:C5'	2.44	0.47
22:AV:63:G:H2'	22:AV:64:A:O4'	2.15	0.47
24:BA:84:A:N6	24:BA:99:U:C5'	2.77	0.47
24:BA:89:A:N3	24:BA:90:U:C6	2.82	0.47
24:BA:90:U:C2	24:BA:91:A:N7	2.83	0.47
24:BA:116:C:O2	24:BA:116:C:H2'	2.15	0.47
24:BA:228:C:H4'	24:BA:229:C:H5"	1.96	0.47
24:BA:360:U:C4	24:BA:361:G:N2	2.83	0.47
24:BA:367:G:C6	24:BA:368:A:N3	2.82	0.47
24:BA:370:G:C6	24:BA:424:G:C8	3.03	0.47
24:BA:608:A:N6	24:BA:609:A:N6	2.63	0.47
24:BA:682:G:C4	24:BA:683:U:C5	3.02	0.47
24:BA:733:G:O6	24:BA:761:A:C8	2.68	0.47
24:BA:969:G:C4	24:BA:970:U:C5	3.02	0.47
24:BA:969:G:N2	24:BA:985:C:OP1	2.47	0.47
24:BA:1024:G:C6	24:BA:1025:G:C6	3.02	0.47
24:BA:1139:G:N2	24:BA:1140:C:C2	2.82	0.47
24:BA:1285:A:N6	24:BA:1329:U:C6	2.82	0.47
24:BA:1360:G:O6	24:BA:1372:U:C6	2.67	0.47
24:BA:1759:A:C8	24:BA:2696:U:O2	2.66	0.47
24:BA:1877:A:C6	24:BA:1878:G:C4	3.03	0.47
24:BA:2019:A:H2'	24:BA:2020:A:O5'	2.14	0.47
24:BA:2145:C:H5"	24:BA:2146:C:P	2.54	0.47
24:BA:2221:G:H2'	24:BA:2222:C:H5'	1.94	0.47
24:BA:2563:U:O2	24:BA:2565:A:H8	1.96	0.47
25:BB:57:A:O4'	29:BF:26:GLN:HG3	2.14	0.47
26:BC:12:ARG:HA	26:BC:15:VAL:HG21	1.95	0.47
26:BC:43:ASN:C	26:BC:45:ASN:N	2.70	0.47
26:BC:154:ALA:C	26:BC:156:SER:H	2.22	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:16:THR:CG2	27:BD:20:VAL:HB	2.45	0.47
30:BG:3:VAL:O	30:BG:68:ARG:CD	2.61	0.47
31:BH:29:PHE:CD2	31:BH:30:LEU:N	2.82	0.47
32:BI:108:ILE:HG22	32:BI:109:ALA:H	1.80	0.47
36:BM:132:THR:HG22	36:BM:133:LYS:O	2.13	0.47
37:BN:106:ASP:OD1	37:BN:108:ALA:N	2.47	0.47
38:BO:99:TYR:O	38:BO:100:HIS:HB3	2.13	0.47
39:BP:113:LEU:O	39:BP:113:LEU:CG	2.63	0.47
40:BQ:77:LYS:O	40:BQ:78:PHE:C	2.57	0.47
42:BS:3:THR:HB	42:BS:58:ALA:HB1	1.89	0.47
45:BV:41:GLU:C	45:BV:42:LEU:HD23	2.39	0.47
1:CA:91:U:C5	1:CA:92:U:C2	3.02	0.47
1:CA:188:C:C2	1:CA:189:A:C4	3.01	0.47
1:CA:401:C:OP2	4:CD:70:ARG:CD	2.62	0.47
1:CA:509:A:C6	1:CA:510:A:N1	2.82	0.47
1:CA:739:C:C4	1:CA:740:U:C4	3.01	0.47
1:CA:895:G:H2'	1:CA:896:C:H6	1.79	0.47
1:CA:967:C:C4'	9:CI:129:LYS:HG3	2.44	0.47
1:CA:981:U:C4	1:CA:982:U:N3	2.82	0.47
1:CA:1148:U:C5'	9:CI:9:THR:HG21	2.43	0.47
1:CA:1150:A:O3'	10:CJ:43:PRO:HA	2.14	0.47
1:CA:1170:A:C8	1:CA:1171:A:C8	3.02	0.47
1:CA:1530:G:O2'	1:CA:1531:A:P	2.70	0.47
2:CB:38:VAL:O	2:CB:39:HIS:C	2.57	0.47
2:CB:57:LEU:C	2:CB:57:LEU:HD12	2.39	0.47
2:CB:68:LEU:HA	2:CB:90:PHE:O	2.14	0.47
2:CB:208:ARG:O	2:CB:212:LEU:CD1	2.63	0.47
3:CC:152:GLU:HB2	3:CC:167:TRP:HB3	1.96	0.47
4:CD:82:LEU:HD11	4:CD:89:ASN:ND2	2.29	0.47
4:CD:153:SER:O	4:CD:155:VAL:N	2.47	0.47
4:CD:155:VAL:O	4:CD:156:LYS:C	2.57	0.47
7:CG:120:LEU:O	7:CG:122:ASN:CG	2.58	0.47
7:CG:146:GLU:O	7:CG:149:LYS:HB3	2.14	0.47
8:CH:10:MET:SD	8:CH:36:ILE:HD11	2.53	0.47
8:CH:95:VAL:CG2	8:CH:128:TYR:CD2	2.96	0.47
8:CH:111:MET:CG	8:CH:112:THR:H	2.27	0.47
9:CI:21:ILE:HG23	9:CI:21:ILE:O	2.15	0.47
11:CK:63:ALA:HB2	11:CK:92:GLY:HA3	1.96	0.47
12:CL:44:LYS:O	12:CL:45:PRO:C	2.55	0.47
12:CL:104:CYS:O	12:CL:105:SER:OG	2.30	0.47
13:CM:69:LEU:O	13:CM:70:ARG:HG3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CN:77:PHE:N	14:CN:77:PHE:CD1	2.82	0.47
14:CN:77:PHE:N	14:CN:77:PHE:HD1	2.12	0.47
15:CO:13:SER:O	15:CO:14:GLU:HB3	2.13	0.47
19:CS:36:ARG:O	19:CS:38:SER:N	2.45	0.47
55:CY:18:GLU:O	55:CY:22:THR:OG1	2.27	0.47
55:CY:132:ARG:O	55:CY:133:ARG:C	2.57	0.47
55:CY:152:ASP:O	55:CY:155:ARG:HG3	2.14	0.47
24:DA:169:G:C2	24:DA:170:U:C5	3.02	0.47
24:DA:340:A:H2'	24:DA:341:C:H5'	1.96	0.47
24:DA:661:A:C8	24:DA:661:A:C3'	2.97	0.47
24:DA:1058:U:O2	24:DA:1081:U:N3	2.46	0.47
24:DA:1411:U:C4	24:DA:1412:U:C4	3.02	0.47
24:DA:1414:C:C2	24:DA:1415:U:H5	2.33	0.47
24:DA:1494:A:H2'	24:DA:1495:A:O4'	2.14	0.47
24:DA:1921:G:O6	57:DA:3184:NMY:C8	2.61	0.47
24:DA:2206:C:H2'	24:DA:2207:C:O5'	2.14	0.47
24:DA:2290:G:H2'	24:DA:2291:U:C6	2.49	0.47
24:DA:2756:U:C1'	24:DA:2757:A:H5"	2.43	0.47
24:DA:2799:A:O2'	24:DA:2800:A:H5"	2.14	0.47
25:DB:24:G:C6	25:DB:56:G:C2	3.01	0.47
31:DH:26:ALA:O	31:DH:32:PRO:HD3	2.14	0.47
31:DH:71:LYS:HE3	31:DH:108:VAL:CG2	2.43	0.47
31:DH:116:ARG:O	31:DH:117:LEU:C	2.58	0.47
40:DQ:39:ILE:HG22	40:DQ:43:GLN:HE21	1.79	0.47
41:DR:23:GLU:O	41:DR:24:LYS:C	2.58	0.47
45:DV:48:MET:O	45:DV:51:GLN:HG2	2.14	0.47
1:AA:74:A:C2	1:AA:97:G:C6	3.02	0.47
1:AA:180:U:O4	1:AA:195:A:OP2	2.32	0.47
1:AA:394:G:C2	1:AA:395:C:N1	2.83	0.47
1:AA:878:A:C5'	8:AH:81:PRO:HG2	2.44	0.47
1:AA:925:G:H5"	1:AA:926:G:OP1	2.14	0.47
1:AA:1061:G:C6	1:AA:1062:U:C2	3.02	0.47
1:AA:1096:C:H2'	1:AA:1097:C:C6	2.50	0.47
1:AA:1304:G:N2	1:AA:1334:G:C6	2.82	0.47
1:AA:1499:A:H2'	1:AA:1500:A:H8	1.80	0.47
2:AB:17:GLY:HA3	2:AB:41:ILE:CD1	2.45	0.47
2:AB:63:ARG:O	2:AB:64:LYS:C	2.57	0.47
3:AC:97:VAL:O	3:AC:98:PRO:O	2.32	0.47
3:AC:125:GLU:C	3:AC:127:ARG:N	2.70	0.47
4:AD:13:ARG:CZ	4:AD:13:ARG:HB3	2.43	0.47
4:AD:65:TYR:N	4:AD:65:TYR:CD1	2.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:67:VAL:HG12	4:AD:68:LEU:N	2.28	0.47
4:AD:69:GLU:O	4:AD:73:ARG:HB2	2.13	0.47
5:AE:64:MET:O	5:AE:67:ALA:CB	2.63	0.47
8:AH:113:ASP:C	8:AH:115:ALA:N	2.72	0.47
11:AK:125:LYS:HA	21:AU:35:ARG:HA	1.97	0.47
12:AL:2:ALA:O	12:AL:3:THR:C	2.58	0.47
12:AL:34:CYS:HA	12:AL:55:VAL:HA	1.96	0.47
15:AO:19:ALA:C	15:AO:21:ASP:N	2.72	0.47
16:AP:73:ALA:C	16:AP:74:LEU:HD23	2.40	0.47
17:AQ:27:ARG:NH2	17:AQ:40:ARG:NH1	2.62	0.47
20:AT:28:MET:CE	20:AT:61:GLN:CG	2.93	0.47
24:BA:140:C:O2	24:BA:140:C:O4'	2.31	0.47
24:BA:476:G:O4'	24:BA:505:A:C2	2.67	0.47
24:BA:543:G:C6	24:BA:544:C:C4	3.03	0.47
24:BA:655:A:H4'	24:BA:656:G:H5'	1.95	0.47
24:BA:860:U:H5"	24:BA:861:A:OP2	2.13	0.47
24:BA:958:U:H2'	25:BB:89:U:C2	2.49	0.47
24:BA:970:U:H2'	24:BA:971:G:H8	1.78	0.47
24:BA:1064:C:O2	24:BA:1075:C:C2	2.67	0.47
24:BA:1518:C:H2'	24:BA:1519:G:C8	2.49	0.47
24:BA:1553:A:N7	24:BA:1555:G:C5	2.83	0.47
24:BA:1661:G:C6	24:BA:1662:U:C5	3.02	0.47
24:BA:1675:C:C4	24:BA:1676:A:C5	3.02	0.47
24:BA:1789:A:H5'	26:BC:219:VAL:HG22	1.96	0.47
24:BA:2021:C:P	50:B0:8:THR:HG21	2.54	0.47
24:BA:2128:G:O6	24:BA:2160:C:N4	2.47	0.47
24:BA:2236:U:H2'	24:BA:2237:G:O4'	2.14	0.47
24:BA:2298:A:C6	24:BA:2299:U:O2	2.67	0.47
24:BA:2404:U:O4	24:BA:2405:G:C6	2.67	0.47
24:BA:2661:G:C6	24:BA:2662:A:C2	3.02	0.47
24:BA:2709:G:C6	24:BA:2710:C:C4	3.02	0.47
24:BA:2714:G:C2'	24:BA:2715:C:H5'	2.44	0.47
24:BA:2740:A:C5	24:BA:2764:A:N7	2.83	0.47
24:BA:2832:U:O4	24:BA:2883:A:H5"	2.15	0.47
26:BC:259:ASN:C	26:BC:261:ARG:N	2.72	0.47
29:BF:57:ALA:HB2	29:BF:64:PRO:HD3	1.95	0.47
29:BF:111:ARG:C	29:BF:112:ASP:CG	2.82	0.47
29:BF:142:TYR:CD1	29:BF:142:TYR:O	2.68	0.47
31:BH:146:VAL:HG12	31:BH:146:VAL:O	2.14	0.47
37:BN:31:HIS:C	37:BN:33:ILE:H	2.21	0.47
37:BN:69:ARG:O	37:BN:71:ARG:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BN:96:ARG:O	37:BN:113:ILE:HD13	2.14	0.47
41:BR:74:ILE:O	41:BR:86:GLN:HA	2.14	0.47
41:BR:83:TYR:CD1	41:BR:83:TYR:C	2.91	0.47
43:BT:39:THR:CG2	43:BT:42:GLU:CG	2.92	0.47
44:BU:11:ILE:HA	44:BU:21:ARG:HA	1.96	0.47
47:BX:7:THR:O	47:BX:8:GLY:C	2.58	0.47
50:B0:43:THR:O	50:B0:44:ALA:C	2.56	0.47
53:B3:55:GLY:O	53:B3:59:ALA:HB2	2.13	0.47
1:CA:142:G:N2	1:CA:143:A:H1'	2.29	0.47
1:CA:373:A:N3	1:CA:374:A:C8	2.82	0.47
1:CA:685:G:C6	1:CA:686:U:O4	2.67	0.47
1:CA:706:A:O2'	11:CK:33:THR:OG1	2.32	0.47
1:CA:833:G:O2'	1:CA:834:U:O5'	2.32	0.47
1:CA:972:C:H4'	10:CJ:59:LYS:HB2	1.95	0.47
1:CA:1133:G:N2	1:CA:1142:G:C2	2.82	0.47
1:CA:1219:A:H2'	1:CA:1220:G:O4'	2.13	0.47
1:CA:1387:G:C5	1:CA:1388:C:C5	3.02	0.47
2:CB:114:LEU:CD2	2:CB:144:LEU:HD13	2.44	0.47
2:CB:117:LEU:HA	2:CB:120:GLN:HG2	1.97	0.47
2:CB:186:ILE:CD1	2:CB:201:PRO:O	2.63	0.47
4:CD:19:LEU:HD12	4:CD:64:ILE:O	2.15	0.47
4:CD:123:ILE:CG2	4:CD:124:MET:N	2.77	0.47
4:CD:170:TRP:O	4:CD:182:PHE:CA	2.62	0.47
6:CF:3:HIS:HA	6:CF:64:VAL:O	2.14	0.47
6:CF:98:GLU:O	6:CF:99:ALA:C	2.57	0.47
7:CG:102:ARG:O	7:CG:103:TRP:C	2.58	0.47
11:CK:25:ALA:O	11:CK:26:SER:C	2.57	0.47
12:CL:24:LEU:HB2	12:CL:59:ASN:ND2	2.30	0.47
12:CL:44:LYS:CB	12:CL:45:PRO:CD	2.89	0.47
12:CL:94:ARG:NH1	12:CL:95:TYR:CD2	2.82	0.47
12:CL:98:VAL:HG22	12:CL:98:VAL:O	2.14	0.47
13:CM:11:ASP:O	13:CM:13:LYS:N	2.46	0.47
13:CM:73:ILE:HA	13:CM:76:SER:OG	2.15	0.47
21:CU:12:PHE:N	21:CU:12:PHE:CD1	2.81	0.47
21:CU:15:ALA:O	21:CU:16:LEU:HG	2.13	0.47
22:CV:2:C:O2'	22:CV:3:C:C6	2.59	0.47
55:CY:55:ALA:CB	55:CY:69:VAL:HG13	2.43	0.47
24:DA:64:A:OP1	43:DT:77:ARG:HD2	2.14	0.47
24:DA:159:G:N2	24:DA:166:U:C4	2.82	0.47
24:DA:273:G:N2	24:DA:365:U:O2	2.47	0.47
24:DA:422:A:N1	24:DA:423:A:C2	2.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:642:U:O2	24:DA:644:A:C8	2.68	0.47
24:DA:983:A:N7	24:DA:984:A:C6	2.82	0.47
24:DA:1219:U:H2'	24:DA:1220:G:H8	1.79	0.47
24:DA:1224:U:H4'	41:DR:88:GLY:O	2.14	0.47
24:DA:1286:A:C6	24:DA:1329:U:C2	3.03	0.47
24:DA:1342:A:C2	24:DA:1345:C:C6	3.02	0.47
24:DA:1360:G:C6	24:DA:1361:G:H1'	2.49	0.47
24:DA:1638:C:H1'	24:DA:2698:U:O2'	2.14	0.47
24:DA:1737:G:C2	24:DA:1738:G:N2	2.82	0.47
24:DA:1799:G:O2'	26:DC:179:GLU:OE2	2.13	0.47
24:DA:2056:G:N3	24:DA:2056:G:H2'	2.29	0.47
24:DA:2315:G:H1'	29:DF:124:ARG:NH2	2.28	0.47
28:DE:1:MET:HG3	28:DE:14:VAL:HG23	1.96	0.47
33:DJ:120:ARG:O	33:DJ:123:LYS:HE3	2.15	0.47
38:DO:5:SER:O	38:DO:6:ALA:C	2.55	0.47
38:DO:35:ILE:O	38:DO:53:THR:HG23	2.13	0.47
39:DP:96:LEU:HB2	39:DP:98:TYR:CE1	2.49	0.47
40:DQ:39:ILE:HG21	41:DR:77:PHE:CD2	2.49	0.47
41:DR:101:ILE:O	41:DR:101:ILE:CG1	2.61	0.47
43:DT:92:ASN:OD1	43:DT:92:ASN:C	2.57	0.47
46:DW:41:ARG:HA	46:DW:41:ARG:NE	2.29	0.47
47:DX:30:PRO:C	47:DX:32:LEU:H	2.22	0.47
48:DY:18:LEU:O	48:DY:22:LEU:HB2	2.15	0.47
50:D0:24:VAL:CG1	50:D0:25:THR:N	2.77	0.47
1:AA:36:C:H5"	12:AL:119:VAL:C	2.39	0.47
1:AA:69:G:H2'	1:AA:70:U:C5	2.49	0.47
1:AA:148:G:O2'	1:AA:1446:A:H2'	2.13	0.47
1:AA:337:G:H2'	1:AA:338:A:O5'	2.15	0.47
1:AA:409:U:O5'	4:AD:25:VAL:CG1	2.63	0.47
1:AA:869:G:H5"	1:AA:872:A:O4'	2.14	0.47
1:AA:994:A:C2	14:AN:4:SER:HB2	2.49	0.47
1:AA:1381:U:H1'	7:AG:78:ARG:CZ	2.45	0.47
1:AA:1385:G:C4	1:AA:1386:G:C8	3.03	0.47
57:AA:1655:NMY:N9	24:BA:1913:A:N6	2.62	0.47
2:AB:179:LEU:HD22	2:AB:179:LEU:N	2.29	0.47
2:AB:206:ALA:HB3	2:AB:209:ALA:HB3	1.97	0.47
2:AB:219:ALA:O	2:AB:220:THR:OG1	2.29	0.47
3:AC:77:ILE:HG21	3:AC:103:ILE:HD13	1.95	0.47
3:AC:100:GLN:HG2	3:AC:101:ILE:O	2.13	0.47
4:AD:80:ALA:HA	4:AD:86:THR:OG1	2.14	0.47
4:AD:109:ALA:HB2	4:AD:158:ALA:CB	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:26:PHE:O	7:AG:29:ILE:N	2.41	0.47
8:AH:113:ASP:OD1	8:AH:113:ASP:N	2.45	0.47
10:AJ:19:ASP:HA	10:AJ:22:THR:CG2	2.44	0.47
11:AK:109:ASN:CG	11:AK:110:ILE:N	2.72	0.47
14:AN:87:ALA:O	14:AN:88:ALA:C	2.58	0.47
16:AP:6:LEU:CD1	16:AP:71:VAL:HG12	2.45	0.47
18:AR:72:ASP:N	18:AR:72:ASP:OD1	2.46	0.47
24:BA:199:A:C6	24:BA:2434:A:C6	3.03	0.47
24:BA:340:A:C8	24:BA:341:C:C6	3.02	0.47
24:BA:700:G:OP1	24:BA:1554:U:C5	2.67	0.47
24:BA:969:G:C6	24:BA:970:U:C4	3.02	0.47
24:BA:1204:A:C2	24:BA:1240:U:N3	2.79	0.47
24:BA:1368:G:P	52:B2:25:LYS:HD2	2.54	0.47
24:BA:1567:G:C8	26:BC:82:TYR:CE1	3.03	0.47
24:BA:1569:A:C6	24:BA:1570:A:C6	3.03	0.47
24:BA:1676:A:C6	24:BA:1677:A:C5	3.03	0.47
24:BA:2031:A:C6	24:BA:2498:C:H1'	2.50	0.47
24:BA:2110:G:C6	24:BA:2120:G:H1'	2.50	0.47
24:BA:2133:G:N7	24:BA:2157:G:O6	2.48	0.47
24:BA:2171:A:H3'	24:BA:2173:A:N7	2.29	0.47
24:BA:2424:C:H5'	24:BA:2424:C:H6	1.80	0.47
24:BA:2446:G:O3'	24:BA:2447:G:H4'	2.15	0.47
24:BA:2485:G:C2'	24:BA:2486:C:H5'	2.43	0.47
24:BA:2617:U:O2'	24:BA:2618:G:H5'	2.14	0.47
24:BA:2727:A:C5	24:BA:2728:U:C4	3.02	0.47
24:BA:2821:A:O5'	27:BD:115:GLY:HA3	2.14	0.47
57:BA:3166:NMY:H14	33:BJ:2:LYS:HZ2	1.78	0.47
27:BD:47:ALA:HB1	27:BD:82:PHE:O	2.13	0.47
28:BE:5:LEU:O	28:BE:7:ASP:N	2.47	0.47
28:BE:58:LYS:HG3	28:BE:71:GLY:CA	2.44	0.47
28:BE:63:LYS:HB2	28:BE:63:LYS:HZ3	1.78	0.47
29:BF:23:SER:HB3	29:BF:26:GLN:CD	2.39	0.47
33:BJ:84:ILE:O	33:BJ:84:ILE:CG2	2.63	0.47
33:BJ:115:GLY:HA2	33:BJ:118:MET:HG2	1.94	0.47
33:BJ:140:LEU:HD12	33:BJ:142:ILE:N	2.28	0.47
35:BL:29:LYS:O	35:BL:30:THR:HB	2.13	0.47
37:BN:28:LEU:O	37:BN:32:GLU:HA	2.14	0.47
37:BN:79:LEU:O	37:BN:81:ASN:N	2.45	0.47
44:BU:43:LYS:HE2	44:BU:44:HIS:CE1	2.50	0.47
44:BU:69:VAL:HG23	44:BU:70:ALA:N	2.29	0.47
47:BX:4:CYS:SG	47:BX:7:THR:CG2	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BY:52:ARG:NH2	48:BY:52:ARG:HB3	2.29	0.47
53:B3:54:LEU:O	53:B3:58:ILE:CD1	2.62	0.47
1:CA:17:U:N3	1:CA:18:C:C4	2.83	0.47
1:CA:400:C:H2'	1:CA:401:C:C5'	2.44	0.47
1:CA:408:A:O4'	4:CD:154:ARG:NH2	2.45	0.47
1:CA:439:U:C5	1:CA:440:C:C4	3.01	0.47
1:CA:597:G:O4'	17:CQ:28:PHE:CE1	2.67	0.47
1:CA:624:C:N3	1:CA:625:U:C2	2.83	0.47
1:CA:728:A:C2	1:CA:729:A:C4	3.03	0.47
1:CA:865:A:C6	1:CA:866:C:C4	3.03	0.47
1:CA:945:G:H2'	1:CA:945:G:N3	2.30	0.47
1:CA:1081:A:H2'	1:CA:1082:A:O4'	2.15	0.47
1:CA:1133:G:N1	1:CA:1142:G:C6	2.83	0.47
1:CA:1160:G:C5	1:CA:1181:G:O6	2.67	0.47
1:CA:1236:A:O2'	1:CA:1334:G:N2	2.47	0.47
1:CA:1239:A:C2	1:CA:1241:G:N1	2.82	0.47
1:CA:1293:C:H2'	1:CA:1294:G:C5'	2.44	0.47
1:CA:1456:A:H2'	1:CA:1457:G:O4'	2.15	0.47
2:CB:16:PHE:CE2	2:CB:18:HIS:NE2	2.83	0.47
3:CC:157:LEU:HD12	3:CC:157:LEU:N	2.29	0.47
3:CC:187:SER:O	3:CC:198:VAL:HG12	2.15	0.47
4:CD:30:THR:C	4:CD:31:LYS:HE2	2.39	0.47
4:CD:74:ASN:O	4:CD:78:GLU:OE1	2.31	0.47
7:CG:28:ASN:O	7:CG:31:MET:N	2.43	0.47
7:CG:66:LEU:HD12	7:CG:67:GLU:N	2.30	0.47
14:CN:42:TRP:CZ2	14:CN:44:ALA:HB3	2.49	0.47
16:CP:20:VAL:HG11	16:CP:32:PHE:CG	2.49	0.47
19:CS:12:ASP:OD1	19:CS:14:HIS:CG	2.67	0.47
19:CS:30:PRO:HA	19:CS:48:THR:OG1	2.14	0.47
19:CS:74:PHE:O	19:CS:75:ALA:HB2	2.14	0.47
20:CT:51:PHE:C	20:CT:53:GLU:N	2.70	0.47
20:CT:69:LYS:O	20:CT:70:ASN:C	2.57	0.47
55:CY:5:ILE:HG12	55:CY:138:LYS:HD3	1.97	0.47
55:CY:27:ILE:HD12	55:CY:27:ILE:O	2.15	0.47
24:DA:80:G:N2	24:DA:81:G:C4	2.83	0.47
24:DA:251:A:C5	24:DA:252:G:H1'	2.50	0.47
24:DA:257:C:C2'	24:DA:258:G:H5'	2.44	0.47
24:DA:354:A:C6	24:DA:355:U:C4	3.02	0.47
24:DA:445:C:H2'	24:DA:446:G:O5'	2.14	0.47
24:DA:623:C:H2'	24:DA:624:C:C6	2.45	0.47
24:DA:1048:A:C5	24:DA:1049:C:C5	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1087:G:C2	24:DA:1103:A:C2	3.02	0.47
24:DA:1138:G:O2'	33:DJ:107:GLY:HA3	2.14	0.47
24:DA:1533:C:N4	24:DA:1534:U:C4	2.82	0.47
24:DA:1589:U:H2'	24:DA:1590:A:C8	2.49	0.47
24:DA:1838:C:C5	24:DA:1899:A:C6	3.02	0.47
24:DA:1863:G:C2	24:DA:1880:U:O2	2.68	0.47
26:DC:72:GLY:C	26:DC:73:ILE:HD12	2.39	0.47
27:DD:12:THR:HG23	39:DP:8:GLU:OE2	2.14	0.47
27:DD:73:VAL:HG23	27:DD:74:GLU:N	2.29	0.47
27:DD:129:THR:O	27:DD:129:THR:CG2	2.62	0.47
31:DH:117:LEU:CD2	31:DH:117:LEU:C	2.86	0.47
36:DM:26:VAL:O	36:DM:26:VAL:HG13	2.13	0.47
44:DU:24:VAL:HG13	44:DU:33:VAL:CG2	2.44	0.47
53:D3:34:LYS:O	53:D3:34:LYS:HG3	2.13	0.47
54:D4:27:CYS:HB3	54:D4:30:GLU:OE1	2.14	0.47
1:AA:194:C:O2'	1:AA:195:A:H5'	2.15	0.47
1:AA:438:U:H5'	4:AD:120:HIS:HB3	1.96	0.47
1:AA:444:G:C5	1:AA:445:G:C8	3.03	0.47
1:AA:598:U:O2	1:AA:598:U:H2'	2.13	0.47
1:AA:751:U:C5	1:AA:752:G:C6	3.03	0.47
1:AA:905:U:H2'	1:AA:906:A:H5'	1.96	0.47
1:AA:950:U:C6	13:AM:101:ARG:CZ	2.98	0.47
1:AA:1037:C:H2'	1:AA:1038:C:O4'	2.15	0.47
1:AA:1089:G:C4	1:AA:1090:U:C6	3.02	0.47
1:AA:1118:U:O2	1:AA:1179:A:C6	2.67	0.47
1:AA:1199:U:H5'	10:AJ:56:HIS:CE1	2.49	0.47
1:AA:1256:A:H5'	1:AA:1258:G:H1'	1.97	0.47
1:AA:1346:A:N1	1:AA:1374:A:H5"	2.30	0.47
1:AA:1385:G:O2'	1:AA:1386:G:H5'	2.13	0.47
2:AB:10:LEU:O	2:AB:11:LYS:C	2.57	0.47
4:AD:26:ARG:NH2	4:AD:29:ASP:C	2.73	0.47
4:AD:171:LEU:HD13	4:AD:173:VAL:HG23	1.92	0.47
4:AD:198:HIS:CE1	5:AE:104:GLY:O	2.68	0.47
6:AF:38:ARG:HG3	6:AF:96:VAL:O	2.14	0.47
7:AG:110:LYS:O	7:AG:112:GLY:N	2.47	0.47
7:AG:126:ASP:C	7:AG:129:GLU:OE1	2.58	0.47
7:AG:138:ARG:HG2	7:AG:139:GLU:H	1.79	0.47
9:AI:129:LYS:C	9:AI:130:ARG:HG2	2.39	0.47
12:AL:101:ALA:O	12:AL:102:LEU:HG	2.14	0.47
13:AM:78:LYS:O	13:AM:79:ARG:C	2.56	0.47
19:AS:17:LYS:HG3	19:AS:18:LYS:H	1.76	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:24:ARG:HA	20:AT:27:MET:HG3	1.95	0.47
20:AT:67:ILE:HD11	20:AT:71:LYS:HB3	1.97	0.47
22:AV:72:C:C2'	22:AV:73:A:C5'	2.92	0.47
24:BA:9:G:C5	24:BA:2629:U:C5	3.02	0.47
24:BA:84:A:N6	24:BA:99:U:H5'	2.29	0.47
24:BA:252:G:O2'	24:BA:253:C:H5'	2.15	0.47
24:BA:277:G:H3'	24:BA:277:G:N3	2.29	0.47
24:BA:636:G:C6	35:BL:111:ILE:HD11	2.50	0.47
24:BA:659:G:O3'	28:BE:95:LYS:CG	2.61	0.47
24:BA:745:G:H2'	24:BA:746:U:H5'	1.96	0.47
24:BA:992:C:O3'	41:BR:74:ILE:HD13	2.15	0.47
24:BA:1347:A:HO2'	24:BA:1348:C:P	2.38	0.47
24:BA:1651:G:C2	24:BA:2007:U:C2	3.02	0.47
24:BA:1655:A:C2	24:BA:1656:C:H1'	2.49	0.47
24:BA:2078:C:C4	24:BA:2079:U:C5	3.03	0.47
24:BA:2285:C:H3'	51:B1:24:LYS:HZ3	1.79	0.47
24:BA:2297:A:N1	24:BA:2298:A:C8	2.83	0.47
24:BA:2683:C:O2'	24:BA:2684:U:H5'	2.15	0.47
24:BA:2703:C:N3	24:BA:2704:C:N4	2.62	0.47
24:BA:2731:G:C6	24:BA:2732:G:C6	3.02	0.47
25:BB:76:G:C2'	45:BV:78:GLN:OE1	2.62	0.47
26:BC:115:ILE:C	26:BC:116:GLN:CD	2.83	0.47
29:BF:3:LEU:HG	29:BF:99:PHE:CE1	2.49	0.47
30:BG:115:GLN:CD	30:BG:115:GLN:N	2.72	0.47
31:BH:29:PHE:CD1	31:BH:29:PHE:C	2.92	0.47
31:BH:42:LYS:NZ	31:BH:43:ASN:OD1	2.46	0.47
39:BP:2:ASN:O	39:BP:3:ILE:C	2.57	0.47
43:BT:19:LYS:O	43:BT:23:ALA:N	2.48	0.47
45:BV:54:ALA:C	45:BV:56:PHE:N	2.72	0.47
46:BW:31:VAL:HG22	46:BW:32:LEU:N	2.28	0.47
53:B3:3:ILE:CG2	53:B3:62:PRO:HG3	2.45	0.47
1:CA:67:C:H2'	1:CA:68:G:C8	2.50	0.47
1:CA:109:A:H2'	1:CA:326:G:N2	2.30	0.47
1:CA:174:A:C2	1:CA:175:C:H1'	2.50	0.47
1:CA:354:G:C4	1:CA:355:C:C5	3.03	0.47
1:CA:493:A:C8	1:CA:493:A:OP2	2.67	0.47
1:CA:575:G:C4'	1:CA:576:C:H5"	2.44	0.47
1:CA:1256:A:O4'	1:CA:1258:G:C4	2.68	0.47
1:CA:1288:A:H2'	1:CA:1289:A:O4'	2.13	0.47
1:CA:1320:C:C2	19:CS:36:ARG:HD2	2.49	0.47
1:CA:1324:A:C2	1:CA:1325:C:C1'	2.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1355:G:C5	1:CA:1368:A:C2	3.02	0.47
1:CA:1517:G:C6	1:CA:1518:A:C6	3.03	0.47
2:CB:186:ILE:CD1	2:CB:203:ASN:O	2.63	0.47
3:CC:141:ALA:O	3:CC:146:ALA:CB	2.62	0.47
6:CF:25:TYR:O	6:CF:26:THR:C	2.58	0.47
6:CF:46:GLN:HG3	6:CF:47:LEU:N	2.29	0.47
7:CG:122:ASN:OD1	7:CG:123:GLU:N	2.47	0.47
9:CI:96:SER:O	9:CI:99:ARG:HB3	2.14	0.47
11:CK:27:PHE:CG	11:CK:28:ASN:N	2.81	0.47
11:CK:80:LYS:O	11:CK:81:ASN:HB3	2.14	0.47
13:CM:16:VAL:HG12	13:CM:27:LYS:HD2	1.95	0.47
15:CO:54:ARG:O	15:CO:57:LEU:CD1	2.62	0.47
55:CY:155:ARG:O	55:CY:158:ASP:N	2.48	0.47
24:DA:117:G:C6	24:DA:119:A:N6	2.82	0.47
24:DA:224:U:C4	24:DA:225:C:C5	3.03	0.47
24:DA:230:G:H2'	24:DA:231:A:O5'	2.14	0.47
24:DA:453:A:OP1	59:DA:3243:HOH:O	2.21	0.47
24:DA:686:U:O4	52:D2:12:ARG:HB2	2.15	0.47
24:DA:821:A:H5"	24:DA:822:G:O5'	2.15	0.47
24:DA:1297:C:OP1	24:DA:2710:C:H4'	2.15	0.47
24:DA:1614:A:N6	42:DS:87:PRO:O	2.47	0.47
24:DA:1973:G:O2'	24:DA:1974:C:H5'	2.14	0.47
24:DA:2201:G:H2'	24:DA:2202:U:H6	1.80	0.47
24:DA:2204:G:C6	24:DA:2221:G:C4	3.03	0.47
24:DA:2352:A:N3	24:DA:2366:A:C2	2.83	0.47
24:DA:2531:A:O5'	30:DG:173:ALA:HB1	2.15	0.47
24:DA:2579:C:OP1	59:DA:3540:HOH:O	2.20	0.47
25:DB:83:G:H2'	25:DB:84:G:H5'	1.96	0.47
26:DC:6:LYS:HB2	26:DC:7:PRO:CD	2.44	0.47
26:DC:183:VAL:C	26:DC:184:GLU:O	2.56	0.47
27:DD:139:SER:HB3	27:DD:142:VAL:HG21	1.97	0.47
29:DF:161:SER:HB2	29:DF:164:GLU:HG3	1.95	0.47
30:DG:51:PHE:CD1	30:DG:68:ARG:HA	2.49	0.47
31:DH:59:ALA:O	31:DH:63:ALA:HB3	2.14	0.47
32:DI:123:ALA:CB	32:DI:126:ARG:NH2	2.77	0.47
34:DK:9:ASN:O	34:DK:83:ALA:HA	2.14	0.47
35:DL:4:ASN:OD1	35:DL:5:THR:CG2	2.62	0.47
37:DN:28:LEU:O	37:DN:32:GLU:N	2.46	0.47
41:DR:14:VAL:CG2	41:DR:20:VAL:HG21	2.44	0.47
41:DR:51:VAL:CB	41:DR:52:PRO:CD	2.93	0.47
42:DS:51:LEU:C	42:DS:53:SER:N	2.73	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DT:41:ALA:C	43:DT:43:ILE:H	2.23	0.47
46:DW:28:GLY:N	46:DW:67:VAL:O	2.44	0.47
47:DX:39:VAL:O	47:DX:43:LYS:N	2.48	0.47
49:DZ:7:THR:O	49:DZ:54:VAL:HA	2.15	0.47
1:AA:27:G:O2'	1:AA:28:A:H5'	2.14	0.47
1:AA:33:A:C2'	1:AA:34:C:O5'	2.63	0.47
1:AA:101:A:C6	1:AA:102:G:C5	3.03	0.47
1:AA:323:U:H5"	20:AT:21:ASN:OD1	2.13	0.47
1:AA:344:A:H4'	1:AA:345:C:OP2	2.15	0.47
1:AA:355:C:H2'	1:AA:356:A:C8	2.50	0.47
1:AA:375:U:C3'	16:AP:5:ARG:NH2	2.77	0.47
1:AA:401:C:O2'	1:AA:621:A:H1'	2.14	0.47
1:AA:564:C:C5	1:AA:565:U:C4	3.03	0.47
1:AA:664:G:N2	1:AA:742:G:C2	2.83	0.47
1:AA:676:A:C2	1:AA:677:U:C4	3.03	0.47
1:AA:685:G:C2	1:AA:686:U:O4	2.67	0.47
1:AA:853:C:H2'	1:AA:854:U:H6	1.79	0.47
1:AA:855:U:C2'	1:AA:856:C:H6	2.19	0.47
1:AA:973:G:H1'	10:AJ:56:HIS:CD2	2.50	0.47
1:AA:985:C:C2	1:AA:1221:G:N2	2.83	0.47
1:AA:1010:U:O4	1:AA:1011:C:N4	2.47	0.47
1:AA:1089:G:C5	1:AA:1090:U:C6	3.03	0.47
1:AA:1098:C:H2'	1:AA:1099:G:O4'	2.15	0.47
1:AA:1253:G:N2	1:AA:1254:A:C4	2.83	0.47
1:AA:1345:U:H4'	1:AA:1346:A:O5'	2.13	0.47
1:AA:1506:U:H2'	59:AA:1880:HOH:O	2.14	0.47
1:AA:1530:G:HO2'	1:AA:1531:A:P	2.35	0.47
2:AB:73:LYS:CE	2:AB:75:ALA:HB3	2.45	0.47
2:AB:104:TRP:O	2:AB:105:LYS:C	2.57	0.47
2:AB:135:LEU:C	2:AB:138:THR:HG1	2.16	0.47
2:AB:164:ILE:HG12	2:AB:165:ASP:N	2.28	0.47
3:AC:14:ILE:N	3:AC:14:ILE:CD1	2.78	0.47
4:AD:53:VAL:C	4:AD:55:LEU:H	2.22	0.47
4:AD:102:VAL:O	4:AD:102:VAL:CG1	2.63	0.47
4:AD:103:TYR:CE1	4:AD:114:ALA:HB3	2.49	0.47
4:AD:105:MET:HG3	4:AD:171:LEU:HD22	1.97	0.47
4:AD:170:TRP:CD1	4:AD:184:ARG:O	2.68	0.47
5:AE:48:PHE:CD1	5:AE:141:ILE:CD1	2.98	0.47
5:AE:140:THR:HG23	5:AE:141:ILE:N	2.29	0.47
6:AF:4:TYR:O	6:AF:63:ASN:HA	2.15	0.47
7:AG:24:ALA:O	7:AG:28:ASN:CG	2.58	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:40:LEU:HB3	8:AH:46:ILE:CG2	2.43	0.47
8:AH:56:LYS:O	8:AH:57:PRO:C	2.58	0.47
9:AI:28:ILE:HG21	9:AI:35:LEU:HB2	1.97	0.47
9:AI:83:ILE:O	9:AI:86:ALA:HB3	2.14	0.47
12:AL:90:LEU:HB2	12:AL:93:VAL:HG11	1.95	0.47
15:AO:49:ASP:OD2	15:AO:52:SER:HB2	2.14	0.47
16:AP:19:VAL:C	16:AP:20:VAL:HG23	2.40	0.47
17:AQ:31:HIS:O	17:AQ:33:ILE:N	2.47	0.47
17:AQ:52:GLU:OE2	17:AQ:53:CYS:N	2.44	0.47
19:AS:44:MET:O	19:AS:47:LEU:HB2	2.15	0.47
24:BA:52:A:C2	24:BA:178:G:N3	2.82	0.47
24:BA:360:U:N3	24:BA:361:G:N2	2.63	0.47
24:BA:361:G:HO2'	24:BA:362:A:P	2.26	0.47
24:BA:414:C:H1'	24:BA:1864:U:H1'	1.97	0.47
24:BA:442:G:C4	24:BA:444:C:H5	2.33	0.47
24:BA:495:G:H4'	42:BS:4:ILE:O	2.13	0.47
24:BA:749:A:C2	24:BA:753:A:O2'	2.65	0.47
24:BA:809:G:O4'	24:BA:1254:A:H1'	2.14	0.47
24:BA:998:C:P	40:BQ:91:ARG:NH2	2.87	0.47
24:BA:1162:G:C6	24:BA:1163:G:N7	2.83	0.47
24:BA:1183:U:C2'	24:BA:1184:U:O5'	2.62	0.47
24:BA:1214:A:O2'	59:BA:3704:HOH:O	2.20	0.47
24:BA:1347:A:H2'	24:BA:1348:C:C6	2.48	0.47
24:BA:1358:G:O6	24:BA:1371:G:N7	2.48	0.47
24:BA:1362:C:C4	24:BA:1363:C:C5	3.02	0.47
24:BA:1365:A:C5	24:BA:1366:A:N7	2.83	0.47
24:BA:1419:A:HO2'	24:BA:1421:G:H8	1.60	0.47
24:BA:1667:G:N3	24:BA:1991:U:C5	2.83	0.47
24:BA:1864:U:H2'	24:BA:1865:U:H5'	1.95	0.47
24:BA:2010:G:H2'	24:BA:2011:U:O2	2.15	0.47
24:BA:2051:A:C2	24:BA:2614:A:C2	3.02	0.47
24:BA:2059:A:H4'	28:BE:64:GLY:O	2.15	0.47
24:BA:2091:C:C5'	47:BX:55:MET:HE1	2.45	0.47
24:BA:2302:U:C2'	24:BA:2303:G:C5'	2.92	0.47
24:BA:2413:G:C4	24:BA:2414:G:C8	3.03	0.47
24:BA:2524:G:C2	24:BA:2525:G:H1'	2.50	0.47
24:BA:2531:A:C2	24:BA:2532:G:H1'	2.49	0.47
24:BA:2563:U:O2'	34:BK:28:SER:OG	2.23	0.47
24:BA:2723:C:N4	24:BA:2724:U:C4	2.82	0.47
24:BA:2740:A:N6	24:BA:2741:A:C6	2.83	0.47
24:BA:2748:A:O2'	24:BA:2749:A:P	2.72	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2838:G:H2'	24:BA:2839:G:O4'	2.14	0.47
25:BB:113:C:H1'	38:BO:46:GLU:HA	1.97	0.47
26:BC:153:LEU:N	26:BC:153:LEU:HD23	2.30	0.47
27:BD:33:ARG:CG	27:BD:51:THR:HG22	2.45	0.47
27:BD:53:GLY:O	27:BD:76:GLY:HA2	2.15	0.47
27:BD:56:LYS:O	27:BD:57:ALA:C	2.57	0.47
28:BE:84:THR:HG22	28:BE:85:PHE:N	2.29	0.47
28:BE:176:ASP:OD1	28:BE:179:SER:N	2.45	0.47
28:BE:178:VAL:O	28:BE:179:SER:C	2.58	0.47
29:BF:127:TYR:C	29:BF:155:ILE:HG22	2.39	0.47
29:BF:154:THR:CG2	29:BF:155:ILE:N	2.75	0.47
30:BG:10:VAL:HG23	30:BG:14:VAL:HB	1.96	0.47
30:BG:19:ASN:HB3	30:BG:22:VAL:HG23	1.95	0.47
31:BH:32:PRO:HA	47:BX:38:TRP:CB	2.45	0.47
33:BJ:130:HIS:O	33:BJ:130:HIS:CG	2.67	0.47
34:BK:64:ARG:HB3	34:BK:79:PHE:CD2	2.48	0.47
35:BL:80:SER:OG	35:BL:81:ASP:N	2.47	0.47
35:BL:111:ILE:CG2	35:BL:112:LEU:H	2.27	0.47
37:BN:82:GLU:O	37:BN:86:ARG:HB2	2.14	0.47
37:BN:106:ASP:OD1	37:BN:106:ASP:C	2.56	0.47
38:BO:34:HIS:ND1	38:BO:53:THR:HG23	2.30	0.47
38:BO:62:LEU:HD21	38:BO:70:ALA:HB2	1.95	0.47
39:BP:83:ILE:CD1	39:BP:84:SER:N	2.77	0.47
40:BQ:7:VAL:C	40:BQ:9:ALA:N	2.71	0.47
42:BS:3:THR:CB	42:BS:58:ALA:CB	2.90	0.47
42:BS:20:VAL:HG11	42:BS:43:ALA:CB	2.44	0.47
43:BT:61:LEU:HD11	43:BT:82:LYS:HB3	1.96	0.47
43:BT:80:TRP:N	43:BT:80:TRP:CD1	2.82	0.47
44:BU:66:VAL:C	44:BU:68:ASN:H	2.22	0.47
45:BV:52:ALA:O	45:BV:53:LYS:HB3	2.14	0.47
47:BX:42:GLU:O	47:BX:43:LYS:CG	2.62	0.47
47:BX:45:PHE:N	47:BX:45:PHE:CD1	2.82	0.47
48:BY:9:LYS:HB3	48:BY:12:GLU:HG2	1.97	0.47
1:CA:66:A:O4'	1:CA:173:U:C4	2.68	0.47
1:CA:142:G:C5	1:CA:143:A:N7	2.83	0.47
1:CA:191:G:C6	1:CA:192:A:C5	3.02	0.47
1:CA:207:C:O2	1:CA:213:G:N2	2.48	0.47
1:CA:246:A:C2	1:CA:282:A:C6	3.03	0.47
1:CA:260:G:C2	1:CA:261:U:C4	3.02	0.47
1:CA:391:G:O6	1:CA:392:C:C4	2.68	0.47
1:CA:502:A:H2'	1:CA:503:C:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:596:A:N6	1:CA:645:G:C6	2.83	0.47
1:CA:665:A:C8	1:CA:733:G:N3	2.82	0.47
1:CA:689:C:OP1	11:CK:48:GLY:HA3	2.15	0.47
1:CA:722:G:H3'	21:CU:45:ARG:CZ	2.43	0.47
1:CA:771:G:C2'	1:CA:772:U:H5'	2.44	0.47
1:CA:773:G:N2	1:CA:774:G:H1'	2.30	0.47
1:CA:936:C:H2'	1:CA:937:A:O4'	2.14	0.47
1:CA:979:C:H2'	1:CA:980:C:H5'	1.97	0.47
1:CA:1004:A:C2	1:CA:1026:G:C2	3.03	0.47
1:CA:1124:G:H5'	10:CJ:37:ARG:HB3	1.96	0.47
1:CA:1246:A:H2'	1:CA:1247:U:O4'	2.15	0.47
1:CA:1279:G:H5"	10:CJ:9:ARG:NH2	2.29	0.47
1:CA:1288:A:N1	1:CA:1371:G:H1'	2.30	0.47
1:CA:1309:G:C2	1:CA:1328:C:C2	3.03	0.47
1:CA:1346:A:C8	1:CA:1348:U:O2	2.67	0.47
1:CA:1400:C:H3'	1:CA:1401:G:C5'	2.45	0.47
2:CB:114:LEU:O	2:CB:115:LYS:C	2.58	0.47
3:CC:39:VAL:HG23	3:CC:40:ARG:N	2.29	0.47
3:CC:112:ASP:OD1	3:CC:112:ASP:C	2.57	0.47
4:CD:138:SER:CB	4:CD:139:PRO:CD	2.92	0.47
5:CE:118:ALA:O	5:CE:120:VAL:CG2	2.62	0.47
6:CF:74:LEU:O	6:CF:75:GLU:C	2.57	0.47
8:CH:110:VAL:O	8:CH:111:MET:HB2	2.13	0.47
9:CI:52:LEU:HD13	9:CI:57:MET:HG2	1.97	0.47
10:CJ:18:ILE:HD11	10:CJ:72:ARG:CZ	2.45	0.47
10:CJ:53:ILE:HG12	10:CJ:61:ALA:HB1	1.96	0.47
12:CL:33:VAL:HG22	12:CL:79:VAL:HG13	1.96	0.47
14:CN:17:ASP:OD1	14:CN:18:LYS:N	2.48	0.47
14:CN:90:ARG:HD2	14:CN:92:GLU:CD	2.40	0.47
19:CS:44:MET:O	19:CS:45:ILE:CB	2.62	0.47
19:CS:60:VAL:HG12	19:CS:62:VAL:CG1	2.45	0.47
20:CT:35:VAL:HG12	20:CT:79:LEU:CD2	2.45	0.47
21:CU:17:ARG:HG2	21:CU:20:LYS:HE3	1.97	0.47
22:CV:53:G:N2	22:CV:61:C:N3	2.62	0.47
22:CV:64:A:C4	22:CV:65:G:H8	2.32	0.47
22:CV:68:C:O2'	22:CV:69:G:H5'	2.15	0.47
55:CY:150:GLU:HB2	24:DA:2254:C:H1'	1.97	0.47
24:DA:182:A:O2'	24:DA:433:C:O2'	1.94	0.47
24:DA:223:A:C8	24:DA:422:A:C1'	2.98	0.47
24:DA:391:A:H1'	24:DA:411:G:O4'	2.14	0.47
24:DA:447:A:N7	24:DA:473:G:C6	2.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:568:U:C2	24:DA:570:G:OP2	2.68	0.47
24:DA:577:G:O2'	24:DA:1254:A:OP1	2.31	0.47
24:DA:607:U:H2'	24:DA:608:A:H5'	1.97	0.47
24:DA:621:A:OP2	24:DA:622:G:OP2	2.32	0.47
24:DA:651:G:H4'	53:D3:17:GLY:HA3	1.97	0.47
24:DA:866:A:N7	24:DA:914:G:N1	2.62	0.47
24:DA:919:U:C2'	24:DA:920:A:H5'	2.44	0.47
24:DA:1139:G:C2	24:DA:1140:C:C6	3.03	0.47
24:DA:1196:C:H2'	24:DA:1197:G:C8	2.49	0.47
24:DA:1220:G:O2'	24:DA:1221:C:H5'	2.14	0.47
24:DA:1331:G:O2'	24:DA:1332:G:H5'	2.15	0.47
24:DA:1356:G:C2	24:DA:1357:C:O2	2.67	0.47
24:DA:1414:C:C4	24:DA:1415:U:H5	2.33	0.47
24:DA:1452:G:H2'	24:DA:1457:U:O4	2.14	0.47
24:DA:1622:G:C2	24:DA:1623:G:C8	3.03	0.47
24:DA:1760:C:H2'	24:DA:1761:C:H5'	1.96	0.47
24:DA:1806:C:C2'	24:DA:1807:G:O5'	2.62	0.47
24:DA:1944:U:C2	24:DA:1955:U:O4'	2.68	0.47
24:DA:2097:A:C2	24:DA:2098:U:C2	3.02	0.47
24:DA:2287:A:C4	24:DA:2289:G:N7	2.82	0.47
24:DA:2360:G:OP1	53:D3:50:SER:OG	2.33	0.47
24:DA:2523:G:H2'	24:DA:2524:G:H5'	1.97	0.47
24:DA:2593:U:C2	24:DA:2594:C:C5	3.02	0.47
24:DA:2691:C:O3'	24:DA:2871:U:H4'	2.15	0.47
24:DA:2710:C:P	59:DA:3549:HOH:O	2.71	0.47
24:DA:2714:G:C2'	24:DA:2715:C:H5'	2.44	0.47
24:DA:2742:G:OP1	54:D4:36:ARG:HD3	2.15	0.47
57:DA:3189:NMY:N19	57:DA:3189:NMY:O21	2.47	0.47
57:DA:3190:NMY:H231	57:DA:3190:NMY:H13	1.97	0.47
25:DB:11:C:C5	25:DB:12:C:C4	3.03	0.47
25:DB:49:C:O2'	25:DB:50:A:H5'	2.15	0.47
27:DD:68:PHE:CD2	27:DD:75:ALA:HB2	2.50	0.47
29:DF:98:PHE:HA	29:DF:101:ARG:NH2	2.29	0.47
29:DF:126:ASN:CA	29:DF:155:ILE:HD11	2.45	0.47
31:DH:77:THR:HG22	31:DH:78:VAL:H	1.78	0.47
31:DH:108:VAL:O	31:DH:108:VAL:CG2	2.62	0.47
32:DI:27:LEU:HG	32:DI:28:GLY:N	2.30	0.47
32:DI:56:VAL:O	32:DI:57:VAL:O	2.33	0.47
32:DI:96:LYS:O	32:DI:97:VAL:CB	2.62	0.47
33:DJ:6:ALA:CB	33:DJ:45:THR:CG2	2.93	0.47
36:DM:108:VAL:HG12	36:DM:109:PRO:CD	2.42	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DN:72:ASP:HB3	37:DN:75:ILE:CG2	2.44	0.47
38:DO:100:HIS:O	38:DO:104:GLN:HB2	2.15	0.47
40:DQ:109:VAL:HG12	40:DQ:113:LYS:CE	2.45	0.47
42:DS:18:ARG:HG2	42:DS:76:VAL:HG23	1.97	0.47
43:DT:22:THR:O	43:DT:25:GLU:HB2	2.13	0.47
44:DU:37:GLY:HA2	44:DU:61:GLU:OE1	2.14	0.47
46:DW:49:ALA:HB3	46:DW:81:SER:OG	2.14	0.47
47:DX:7:THR:HG21	47:DX:9:LYS:HD3	1.96	0.47
47:DX:32:LEU:HD12	47:DX:32:LEU:O	2.14	0.47
47:DX:60:LYS:O	47:DX:61:LYS:C	2.58	0.47
48:DY:19:LEU:O	48:DY:19:LEU:HD23	2.15	0.47
48:DY:43:LEU:O	48:DY:47:ARG:HG3	2.14	0.47
54:D4:31:PRO:C	54:D4:33:HIS:N	2.71	0.47
1:AA:6:G:O6	5:AE:99:ALA:CB	2.63	0.47
1:AA:155:A:C2	1:AA:167:A:C4	3.02	0.47
1:AA:186:C:C2	1:AA:191:G:O6	2.68	0.47
1:AA:210:C:H4'	1:AA:211:G:H5"	1.96	0.47
1:AA:240:G:OP1	1:AA:240:G:C4'	2.62	0.47
1:AA:551:U:H2'	1:AA:552:U:C6	2.49	0.47
1:AA:587:G:O2'	1:AA:588:G:H5'	2.15	0.47
1:AA:777:A:H2'	1:AA:778:G:H8	1.80	0.47
1:AA:944:G:O5'	1:AA:945:G:OP2	2.32	0.47
1:AA:1027:C:O2	1:AA:1035:A:N1	2.48	0.47
1:AA:1103:C:C2	1:AA:1104:G:C8	3.03	0.47
1:AA:1509:C:O2	1:AA:1509:C:H2'	2.13	0.47
1:AA:1517:G:H1'	24:BA:1919:A:O3'	2.14	0.47
2:AB:85:LEU:O	2:AB:86:SER:HB3	2.15	0.47
3:AC:6:HIS:HD1	14:AN:89:MET:HB3	1.80	0.47
3:AC:35:SER:O	3:AC:38:LYS:N	2.48	0.47
5:AE:136:VAL:HG13	5:AE:137:VAL:N	2.29	0.47
8:AH:26:THR:O	8:AH:27:MET:HG2	2.14	0.47
8:AH:111:MET:CE	8:AH:116:ALA:CA	2.93	0.47
9:AI:20:PHE:CD1	9:AI:64:TYR:O	2.68	0.47
9:AI:99:ARG:O	9:AI:100:LYS:C	2.57	0.47
12:AL:90:LEU:HB2	12:AL:93:VAL:CG1	2.44	0.47
13:AM:78:LYS:O	13:AM:81:MET:N	2.48	0.47
16:AP:19:VAL:O	16:AP:20:VAL:HG22	2.15	0.47
19:AS:31:LEU:O	19:AS:32:ARG:HB3	2.13	0.47
24:BA:181:A:H2'	24:BA:182:A:C8	2.50	0.47
24:BA:237:C:O2'	24:BA:238:C:H5'	2.15	0.47
24:BA:279:A:N6	24:BA:361:G:H1'	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:356:G:C6	24:BA:357:C:C4	3.03	0.47
24:BA:479:A:H4'	24:BA:480:A:OP1	2.15	0.47
24:BA:483:A:N1	24:BA:484:C:O2	2.47	0.47
24:BA:563:A:C6	24:BA:2018:G:C4	3.02	0.47
24:BA:572:A:C3'	24:BA:573:U:O4'	2.60	0.47
24:BA:666:A:H2'	24:BA:667:U:C6	2.49	0.47
24:BA:666:A:H4'	35:BL:48:ARG:CD	2.45	0.47
24:BA:760:G:C2	24:BA:761:A:H1'	2.50	0.47
24:BA:829:A:N7	24:BA:2248:C:H5'	2.29	0.47
24:BA:1142:A:H4'	33:BJ:27:ARG:HH22	1.79	0.47
24:BA:1321:A:C5	24:BA:1322:A:C5	3.03	0.47
24:BA:1381:G:N2	24:BA:1382:G:C1'	2.77	0.47
24:BA:1396:U:O4'	24:BA:1396:U:O2	2.33	0.47
24:BA:1672:A:C6	24:BA:1673:G:C5	3.03	0.47
24:BA:1794:A:C1'	24:BA:1900:A:C2	2.97	0.47
24:BA:2377:A:C1'	38:BO:92:PHE:HZ	2.28	0.47
24:BA:2714:G:H2'	24:BA:2715:C:O5'	2.15	0.47
24:BA:2846:G:P	39:BP:51:ASN:HB2	2.55	0.47
25:BB:89:U:H3'	25:BB:90:C:O4'	2.15	0.47
26:BC:106:PRO:HD2	26:BC:109:LEU:CD2	2.44	0.47
29:BF:93:GLU:O	29:BF:95:MET:CA	2.60	0.47
34:BK:7:MET:HG2	34:BK:19:VAL:O	2.15	0.47
35:BL:119:PRO:HG3	35:BL:138:ALA:O	2.14	0.47
35:BL:132:ARG:HG2	35:BL:142:ILE:HD13	1.97	0.47
40:BQ:86:SER:CB	41:BR:51:VAL:HA	2.45	0.47
50:B0:40:HIS:CD2	50:B0:40:HIS:N	2.81	0.47
52:B2:3:ARG:NH2	52:B2:3:ARG:HB2	2.30	0.47
1:CA:101:A:C2'	1:CA:102:G:H5'	2.44	0.47
1:CA:109:A:C6	1:CA:327:A:C6	3.03	0.47
1:CA:136:C:H1'	16:CP:1:MET:HE2	1.97	0.47
1:CA:375:U:O3'	16:CP:6:LEU:HD12	2.14	0.47
1:CA:380:G:C2	1:CA:384:G:C6	3.03	0.47
1:CA:408:A:C6	1:CA:435:A:C6	3.03	0.47
1:CA:446:G:C6	1:CA:447:G:C4	3.03	0.47
1:CA:656:G:C4	1:CA:657:U:C5	3.02	0.47
1:CA:750:C:O2'	15:CO:21:ASP:OD1	2.29	0.47
1:CA:793:U:C3'	1:CA:794:A:H5"	2.44	0.47
1:CA:958:A:N9	19:CS:55:ARG:NH2	2.63	0.47
1:CA:1055:A:C6	1:CA:1206:G:C6	3.03	0.47
1:CA:1077:G:N2	1:CA:1080:A:OP2	2.44	0.47
1:CA:1290:G:H5'	7:CG:35:LYS:HE3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1306:A:C8	1:CA:1307:U:C5	3.02	0.47
1:CA:1404:C:O4'	1:CA:1499:A:N1	2.48	0.47
1:CA:1513:A:C6	1:CA:1523:G:O6	2.68	0.47
2:CB:15:HIS:C	2:CB:15:HIS:CD2	2.93	0.47
4:CD:9:LEU:CD1	4:CD:10:LYS:HB3	2.44	0.47
5:CE:121:HIS:CD2	5:CE:121:HIS:N	2.82	0.47
9:CI:92:GLU:OE2	9:CI:92:GLU:N	2.48	0.47
13:CM:56:LEU:HD12	13:CM:57:ARG:N	2.29	0.47
13:CM:71:ARG:NH2	29:DF:109:ARG:NH1	2.62	0.47
14:CN:53:ARG:O	14:CN:55:SER:N	2.48	0.47
14:CN:64:CYS:SG	14:CN:83:LYS:CE	3.03	0.47
15:CO:82:ILE:HD13	15:CO:87:LEU:O	2.14	0.47
17:CQ:12:VAL:O	17:CQ:13:VAL:HB	2.13	0.47
18:CR:33:ILE:HG23	18:CR:33:ILE:O	2.14	0.47
55:CY:2:ILE:HG13	55:CY:3:SER:N	2.29	0.47
24:DA:61:C:C5'	48:DY:43:LEU:HD11	2.45	0.47
24:DA:189:G:C2'	24:DA:190:A:O5'	2.62	0.47
24:DA:204:A:H5'	24:DA:206:U:O4'	2.14	0.47
24:DA:360:U:O4	24:DA:361:G:N1	2.48	0.47
24:DA:417:C:C2	24:DA:418:C:C6	3.03	0.47
24:DA:1000:A:C6	24:DA:1001:A:C6	3.03	0.47
24:DA:1198:U:H2'	24:DA:1199:U:C6	2.49	0.47
24:DA:1277:G:H2'	24:DA:1278:C:C6	2.50	0.47
24:DA:1691:C:H2'	24:DA:1692:U:H5'	1.97	0.47
24:DA:1953:A:H2	24:DA:2549:G:N3	2.13	0.47
24:DA:2249:U:N3	24:DA:2253:G:OP2	2.48	0.47
24:DA:2303:G:O2'	24:DA:2304:G:H5'	2.14	0.47
24:DA:2407:A:H2'	24:DA:2408:U:H6	1.80	0.47
25:DB:53:A:C2	25:DB:54:G:N9	2.82	0.47
26:DC:64:VAL:HG23	26:DC:66:PHE:CD2	2.50	0.47
26:DC:64:VAL:HA	26:DC:102:TYR:CB	2.45	0.47
26:DC:128:THR:HA	26:DC:189:ALA:O	2.14	0.47
29:DF:92:GLY:N	29:DF:95:MET:HG2	2.30	0.47
29:DF:163:GLU:O	29:DF:166:ARG:N	2.47	0.47
31:DH:82:SER:HB2	31:DH:146:VAL:HG23	1.95	0.47
33:DJ:120:ARG:O	33:DJ:123:LYS:CE	2.62	0.47
34:DK:113:MET:SD	34:DK:116:ILE:CD1	3.01	0.47
34:DK:113:MET:O	34:DK:114:LYS:C	2.58	0.47
36:DM:35:ALA:HB2	36:DM:102:LEU:HD21	1.96	0.47
41:DR:82:HIS:O	41:DR:82:HIS:CG	2.66	0.47
42:DS:85:ILE:N	42:DS:85:ILE:CD1	2.76	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DW:44:LYS:HE2	46:DW:44:LYS:H	1.77	0.47
47:DX:10:ARG:HG3	47:DX:11:PRO:HD2	1.97	0.47
47:DX:62:GLY:O	47:DX:64:ASP:N	2.48	0.47
51:D1:39:ASP:CG	51:D1:42:VAL:HG22	2.40	0.47
1:AA:55:A:N9	31:DH:91:PHE:CE2	2.83	0.47
1:AA:109:A:H5'	1:AA:110:C:C5	2.50	0.47
1:AA:400:C:H2'	1:AA:401:C:H5'	1.97	0.47
1:AA:435:A:C2	1:AA:436:C:N1	2.83	0.47
1:AA:651:C:C4	1:AA:652:U:O4	2.68	0.47
1:AA:1005:A:H3'	1:AA:1006:G:C8	2.50	0.47
1:AA:1124:G:O2'	1:AA:1125:U:OP2	2.30	0.47
1:AA:1189:U:OP1	14:AN:98:LYS:HE2	2.14	0.47
1:AA:1351:U:O2'	1:AA:1352:C:H5'	2.14	0.47
1:AA:1430:A:N6	1:AA:1431:A:N1	2.62	0.47
1:AA:1540:U:C2	23:AX:3:G:N2	2.83	0.47
2:AB:144:LEU:O	2:AB:146:ASN:N	2.48	0.47
6:AF:88:MET:CE	6:AF:90:MET:HG2	2.45	0.47
7:AG:92:ARG:HB3	7:AG:93:PRO:HD2	1.96	0.47
8:AH:11:LEU:HD13	8:AH:15:ARG:HH21	1.80	0.47
9:AI:67:VAL:HG21	9:AI:75:GLN:CG	2.44	0.47
13:AM:20:THR:CG2	13:AM:21:SER:N	2.78	0.47
14:AN:33:VAL:O	14:AN:34:ASN:CB	2.63	0.47
18:AR:53:ARG:CZ	18:AR:53:ARG:HB2	2.43	0.47
24:BA:147:C:N3	24:BA:148:U:C5	2.83	0.47
24:BA:210:C:C2'	24:BA:211:C:O5'	2.63	0.47
24:BA:315:G:H2'	24:BA:316:C:O4'	2.15	0.47
24:BA:321:U:OP2	28:BE:130:LYS:NZ	2.47	0.47
24:BA:328:U:H4'	44:BU:65:GLN:OE1	2.15	0.47
24:BA:523:C:O2'	24:BA:524:G:H5'	2.15	0.47
24:BA:531:C:H5"	24:BA:532:A:C5	2.50	0.47
24:BA:784:G:C2'	24:BA:785:G:OP2	2.63	0.47
24:BA:870:U:C4	24:BA:871:U:C5	3.03	0.47
24:BA:941:A:C2	24:BA:942:G:C4	3.03	0.47
24:BA:1241:A:H2'	24:BA:1241:A:N3	2.28	0.47
24:BA:1297:C:H2'	24:BA:1298:C:C6	2.50	0.47
24:BA:1340:U:H3'	43:BT:61:LEU:HD23	1.96	0.47
24:BA:1364:G:H1'	24:BA:1368:G:N2	2.30	0.47
24:BA:1417:C:H2'	24:BA:1418:G:C1'	2.45	0.47
24:BA:1783:A:OP1	24:BA:1784:A:OP2	2.33	0.47
24:BA:1826:G:C6	24:BA:1827:U:C4	3.03	0.47
24:BA:1946:U:H2'	24:BA:1947:C:H6	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2005:A:O2'	24:BA:2049:G:OP1	2.27	0.47
24:BA:2285:C:P	51:B1:5:ARG:NH1	2.88	0.47
24:BA:2522:U:H2'	24:BA:2523:G:H5'	1.96	0.47
24:BA:2761:A:H2'	24:BA:2762:C:H5"	1.96	0.47
24:BA:2800:A:H3'	24:BA:2801:G:H5'	1.95	0.47
25:BB:66:A:C2	25:BB:108:A:N1	2.83	0.47
26:BC:15:VAL:HG22	26:BC:205:GLY:HA3	1.96	0.47
26:BC:148:GLY:O	26:BC:149:LYS:C	2.58	0.47
28:BE:109:LEU:HA	28:BE:112:LEU:HD12	1.96	0.47
29:BF:91:ARG:HG3	29:BF:92:GLY:N	2.30	0.47
31:BH:49:ALA:O	31:BH:53:GLU:HB3	2.14	0.47
32:BI:3:LYS:O	32:BI:7:TYR:CD2	2.68	0.47
32:BI:64:ARG:HG3	32:BI:65:SER:N	2.29	0.47
34:BK:69:VAL:CG1	34:BK:77:ILE:HB	2.45	0.47
34:BK:99:ILE:CG2	34:BK:100:PHE:N	2.78	0.47
34:BK:99:ILE:HD13	34:BK:115:ILE:HD12	1.96	0.47
35:BL:122:VAL:CG1	35:BL:142:ILE:HG22	2.45	0.47
35:BL:132:ARG:NH1	35:BL:136:GLU:OE1	2.46	0.47
36:BM:121:ALA:C	36:BM:123:LYS:H	2.23	0.47
37:BN:98:LEU:O	37:BN:112:TYR:N	2.47	0.47
40:BQ:97:ILE:HG13	40:BQ:98:ALA:N	2.29	0.47
43:BT:64:LYS:C	43:BT:64:LYS:HD2	2.40	0.47
44:BU:11:ILE:HA	44:BU:20:LYS:O	2.15	0.47
1:CA:144:G:N2	1:CA:145:G:H1'	2.30	0.47
1:CA:408:A:C2	1:CA:435:A:C2	3.03	0.47
1:CA:499:A:C5	1:CA:547:A:N7	2.83	0.47
1:CA:600:A:H2'	1:CA:601:G:H8	1.80	0.47
1:CA:658:C:O4'	15:CO:22:THR:HG21	2.14	0.47
1:CA:661:G:N2	1:CA:662:U:C2	2.83	0.47
1:CA:983:A:N3	1:CA:983:A:C2'	2.78	0.47
1:CA:1076:U:N3	1:CA:1082:A:C2	2.83	0.47
1:CA:1296:C:OP1	13:CM:14:HIS:CE1	2.68	0.47
1:CA:1311:A:N7	19:CS:3:ARG:NH2	2.63	0.47
1:CA:1320:C:H5	1:CA:1321:U:C4	2.33	0.47
1:CA:1321:U:O4	1:CA:1322:C:C5	2.68	0.47
1:CA:1501:C:N4	1:CA:1504:G:C2	2.83	0.47
4:CD:168:PRO:HG3	4:CD:171:LEU:HD11	1.96	0.47
6:CF:24:ARG:O	6:CF:25:TYR:C	2.57	0.47
9:CI:61:LEU:C	9:CI:61:LEU:HD12	2.40	0.47
10:CJ:84:VAL:O	10:CJ:88:MET:HE3	2.15	0.47
13:CM:48:LEU:HD13	13:CM:53:ILE:HD11	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:69:LYS:HE3	20:CT:70:ASN:HA	1.96	0.47
24:DA:27:G:N2	24:DA:512:G:H1'	2.29	0.47
24:DA:77:G:O3'	48:DY:2:LYS:CE	2.63	0.47
24:DA:151:C:H5'	24:DA:1360:G:OP1	2.15	0.47
24:DA:280:U:C4	24:DA:281:C:N4	2.83	0.47
24:DA:283:G:C6	24:DA:284:U:C4	3.03	0.47
24:DA:415:A:C2	24:DA:2409:G:C2	3.03	0.47
24:DA:637:A:H4'	24:DA:638:G:O5'	2.15	0.47
24:DA:809:G:C5	24:DA:810:U:C5	3.02	0.47
24:DA:814:C:H2'	24:DA:815:C:O5'	2.15	0.47
24:DA:852:U:C2	24:DA:926:G:N2	2.83	0.47
24:DA:1080:A:N1	24:DA:1081:U:C5	2.83	0.47
24:DA:1097:U:O2'	32:DI:7:TYR:O	2.32	0.47
24:DA:1266:G:H5"	42:DS:15:GLN:HE22	1.80	0.47
24:DA:1420:A:H1'	24:DA:1421:G:OP1	2.15	0.47
24:DA:1847:A:H2'	24:DA:1848:A:H8	1.80	0.47
24:DA:2101:A:C2	24:DA:2102:G:C6	3.03	0.47
24:DA:2303:G:C2'	24:DA:2304:G:H5'	2.44	0.47
24:DA:2666:C:C5	24:DA:2667:C:C5	3.03	0.47
24:DA:2749:A:H5"	30:DG:1:SER:HB3	1.95	0.47
25:DB:78:A:C2	25:DB:99:A:C4	3.03	0.47
28:DE:149:ILE:HD12	28:DE:149:ILE:C	2.40	0.47
29:DF:12:VAL:HA	29:DF:15:LEU:CD1	2.45	0.47
29:DF:123:GLY:O	29:DF:124:ARG:HG2	2.15	0.47
29:DF:155:ILE:HD13	29:DF:156:THR:N	2.30	0.47
30:DG:136:ASP:O	30:DG:140:ILE:HG22	2.15	0.47
30:DG:136:ASP:CG	30:DG:139:VAL:HG23	2.39	0.47
32:DI:21:PRO:CB	32:DI:22:PRO:HD3	2.45	0.47
32:DI:41:PHE:C	32:DI:41:PHE:HD1	2.23	0.47
32:DI:111:THR:O	32:DI:113:ALA:N	2.48	0.47
33:DJ:36:LEU:O	33:DJ:121:LYS:NZ	2.45	0.47
37:DN:32:GLU:O	37:DN:114:GLU:HA	2.13	0.47
39:DP:25:VAL:HG23	39:DP:85:VAL:HA	1.96	0.47
40:DQ:87:VAL:CG2	41:DR:49:ILE:HG21	2.45	0.47
40:DQ:98:ALA:HB2	40:DQ:105:PHE:CD1	2.50	0.47
41:DR:49:ILE:HG12	41:DR:52:PRO:C	2.40	0.47
41:DR:67:GLY:HA3	41:DR:93:PHE:CZ	2.50	0.47
42:DS:37:THR:HG22	42:DS:38:TYR:CD2	2.50	0.47
42:DS:39:THR:O	42:DS:44:ALA:HB2	2.14	0.47
1:AA:71:A:N1	1:AA:72:A:C5	2.82	0.47
1:AA:206:C:H2'	1:AA:207:C:O4'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:632:U:O2	1:AA:632:U:H2'	2.15	0.47
1:AA:660:C:H2'	1:AA:661:G:C8	2.50	0.47
1:AA:705:G:C8	1:AA:706:A:C8	3.03	0.47
1:AA:715:A:H2'	1:AA:716:A:O4'	2.15	0.47
1:AA:826:C:H5'	8:AH:27:MET:HE1	1.96	0.47
1:AA:854:U:C2'	1:AA:855:U:O5'	2.62	0.47
1:AA:866:C:N3	1:AA:867:G:H1'	2.30	0.47
1:AA:1142:G:C5	1:AA:1143:G:H1'	2.50	0.47
1:AA:1233:G:H2'	1:AA:1234:C:C6	2.50	0.47
1:AA:1303:C:OP1	1:AA:1304:G:OP2	2.33	0.47
1:AA:1418:A:N6	1:AA:1482:G:O2'	2.46	0.47
2:AB:26:LYS:HE2	2:AB:193:PRO:HD2	1.97	0.47
2:AB:163:VAL:HG13	2:AB:164:ILE:O	2.14	0.47
2:AB:164:ILE:HG23	2:AB:165:ASP:N	2.29	0.47
3:AC:72:ARG:HG3	3:AC:75:ILE:HB	1.97	0.47
4:AD:71:GLN:O	4:AD:74:ASN:CG	2.58	0.47
4:AD:94:LEU:O	4:AD:97:ARG:HB2	2.15	0.47
4:AD:145:ILE:O	4:AD:146:ARG:CB	2.62	0.47
5:AE:90:THR:OG1	5:AE:91:GLY:N	2.30	0.47
6:AF:37:HIS:O	6:AF:38:ARG:O	2.33	0.47
7:AG:43:VAL:HG12	7:AG:44:TYR:N	2.29	0.47
7:AG:118:LEU:HA	7:AG:121:ALA:HB3	1.95	0.47
7:AG:148:ASN:C	7:AG:150:ALA:N	2.72	0.47
10:AJ:92:LEU:O	10:AJ:94:ALA:N	2.48	0.47
11:AK:29:ASN:OD1	11:AK:47:ALA:HB3	2.15	0.47
14:AN:45:VAL:HG13	14:AN:46:LEU:H	1.79	0.47
14:AN:63:ARG:HD3	14:AN:68:GLY:O	2.14	0.47
15:AO:11:ILE:CD1	15:AO:31:LEU:HB3	2.43	0.47
22:AV:51:U:H2'	22:AV:52:G:O4'	2.15	0.47
24:BA:21:A:H2'	24:BA:22:C:O4'	2.14	0.47
24:BA:84:A:O2'	24:BA:85:G:OP2	2.31	0.47
24:BA:858:G:OP1	46:BW:78:LYS:NZ	2.43	0.47
24:BA:978:G:C2	24:BA:986:C:C2	3.02	0.47
24:BA:1416:G:O2'	24:BA:1417:C:OP2	2.26	0.47
24:BA:1422:G:N3	24:BA:1423:G:C8	2.82	0.47
24:BA:1544:A:C6	24:BA:1545:A:C6	3.02	0.47
24:BA:1561:C:H2'	24:BA:1562:U:H6	1.80	0.47
24:BA:1584:U:H3'	24:BA:1584:U:O2	2.15	0.47
24:BA:1665:A:H5"	34:BK:66:LYS:HG2	1.96	0.47
24:BA:1708:C:O2'	24:BA:2860:A:O2'	2.25	0.47
24:BA:1801:A:H5'	24:BA:2203:U:O2'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2097:A:C2	24:BA:2193:G:C2	3.02	0.47
24:BA:2204:G:C6	24:BA:2205:A:N7	2.83	0.47
24:BA:2209:G:C6	24:BA:2210:U:O4	2.68	0.47
24:BA:2343:U:H2'	24:BA:2344:U:C6	2.50	0.47
24:BA:2352:A:C2	46:BW:33:ALA:HB1	2.50	0.47
24:BA:2377:A:H1'	38:BO:92:PHE:CZ	2.50	0.47
24:BA:2414:G:N3	24:BA:2415:G:C8	2.83	0.47
24:BA:2553:G:C6	24:BA:2554:U:O2	2.68	0.47
24:BA:2599:G:C8	26:BC:235:GLU:CB	2.98	0.47
24:BA:2719:G:P	39:BP:95:LYS:NZ	2.88	0.47
24:BA:2759:G:H21	30:BG:138:GLN:HG3	1.79	0.47
24:BA:2790:U:C4'	24:BA:2791:G:OP1	2.63	0.47
26:BC:221:GLY:O	26:BC:224:MET:N	2.48	0.47
27:BD:113:SER:HB3	27:BD:166:GLY:CA	2.45	0.47
28:BE:123:LYS:HG2	28:BE:124:PHE:H	1.80	0.47
30:BG:120:ILE:HD12	30:BG:133:LYS:O	2.15	0.47
31:BH:103:VAL:O	31:BH:103:VAL:HG13	2.14	0.47
33:BJ:25:LEU:O	33:BJ:28:LEU:HB3	2.15	0.47
35:BL:22:GLY:C	35:BL:23:ILE:HG22	2.40	0.47
39:BP:92:ARG:O	39:BP:93:LYS:HB3	2.15	0.47
45:BV:88:HIS:C	45:BV:89:ILE:HG13	2.40	0.47
1:CA:173:U:H5'	1:CA:197:A:O4'	2.15	0.47
1:CA:230:G:N1	1:CA:231:U:C2	2.83	0.47
1:CA:445:G:O6	1:CA:489:C:N3	2.48	0.47
1:CA:459:A:C2	1:CA:460:A:C4	3.03	0.47
1:CA:716:A:H2'	1:CA:717:U:O5'	2.15	0.47
1:CA:720:C:H5'	18:CR:41:PRO:HA	1.97	0.47
1:CA:842:U:N3	1:CA:844:G:OP1	2.48	0.47
1:CA:859:G:H2'	1:CA:860:A:O4'	2.15	0.47
1:CA:948:C:H2'	1:CA:949:A:H5'	1.97	0.47
1:CA:1014:A:C8	1:CA:1015:G:C4	3.03	0.47
1:CA:1034:G:C6	1:CA:1035:A:C6	3.03	0.47
1:CA:1045:C:H2'	1:CA:1046:A:H5'	1.97	0.47
1:CA:1092:A:C4	1:CA:1183:U:O4	2.68	0.47
1:CA:1452:C:C4'	1:CA:1453:G:C4	2.98	0.47
2:CB:22:TYR:HB3	2:CB:190:ASN:CB	2.42	0.47
2:CB:101:LEU:HG	2:CB:102:THR:CB	2.44	0.47
4:CD:29:ASP:O	4:CD:31:LYS:NZ	2.47	0.47
5:CE:13:GLU:CB	5:CE:39:VAL:CG1	2.92	0.47
5:CE:56:VAL:N	5:CE:57:PRO:HD2	2.29	0.47
6:CF:69:GLU:O	6:CF:71:ILE:HG13	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:74:LEU:C	6:CF:76:THR:N	2.73	0.47
11:CK:80:LYS:O	11:CK:106:ARG:HG2	2.15	0.47
13:CM:22:ILE:HD12	13:CM:22:ILE:O	2.15	0.47
15:CO:25:THR:O	15:CO:27:VAL:N	2.48	0.47
16:CP:22:ALA:HA	16:CP:33:ILE:CD1	2.45	0.47
17:CQ:12:VAL:CG1	17:CQ:13:VAL:N	2.74	0.47
20:CT:78:ASN:O	20:CT:82:GLN:HG2	2.15	0.47
24:DA:145:C:H2'	24:DA:146:A:H8	1.79	0.47
24:DA:187:G:C6	24:DA:188:G:C5	3.03	0.47
24:DA:187:G:C6	24:DA:188:G:N7	2.83	0.47
24:DA:310:A:O2'	24:DA:311:A:OP2	2.30	0.47
24:DA:559:G:H2'	24:DA:560:C:H5'	1.97	0.47
24:DA:599:A:H4'	28:DE:26:ALA:HB1	1.97	0.47
24:DA:827:U:O2'	24:DA:2068:U:C2	2.68	0.47
24:DA:970:U:H1'	24:DA:985:C:OP1	2.15	0.47
24:DA:1103:A:C8	24:DA:1104:C:C5	3.03	0.47
24:DA:1249:U:H4'	40:DQ:3:VAL:CG2	2.44	0.47
24:DA:1364:G:H1'	24:DA:1368:G:N2	2.30	0.47
24:DA:1850:G:C6	24:DA:1851:U:C4	3.02	0.47
24:DA:1865:U:C5	24:DA:1875:G:N1	2.83	0.47
24:DA:2193:G:C2	24:DA:2194:U:C5	3.03	0.47
24:DA:2373:G:C6	24:DA:2374:C:C4	3.02	0.47
24:DA:2418:A:OP1	53:D3:44:ARG:NH1	2.47	0.47
24:DA:2848:G:C4'	24:DA:2849:U:OP1	2.60	0.47
24:DA:2897:U:H2'	24:DA:2898:U:H6	1.80	0.47
57:DA:3190:NMY:N19	57:DA:3190:NMY:O14	2.48	0.47
26:DC:20:ASN:HB2	26:DC:23:LEU:CD1	2.42	0.47
26:DC:23:LEU:HD21	26:DC:89:ASN:ND2	2.29	0.47
27:DD:8:LYS:HB2	27:DD:201:LEU:HD11	1.97	0.47
28:DE:157:LEU:O	28:DE:158:PHE:C	2.59	0.47
30:DG:27:GLY:HA3	30:DG:78:VAL:HG13	1.96	0.47
31:DH:4:ILE:HG22	31:DH:18:GLN:HB3	1.97	0.47
33:DJ:24:THR:O	33:DJ:25:LEU:C	2.58	0.47
37:DN:106:ASP:O	37:DN:107:ASN:CB	2.63	0.47
41:DR:72:VAL:O	41:DR:74:ILE:HD12	2.14	0.47
42:DS:20:VAL:HG21	42:DS:43:ALA:HB3	1.97	0.47
47:DX:35:HIS:N	47:DX:48:LEU:O	2.47	0.47
48:DY:18:LEU:O	48:DY:18:LEU:CD1	2.63	0.47
48:DY:23:ARG:CZ	48:DY:23:ARG:HA	2.45	0.47
53:D3:44:ARG:N	53:D3:45:PRO:CD	2.78	0.47
1:AA:7:A:C8	1:AA:298:A:H1'	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:9:G:OP2	5:AE:126:LYS:HG3	2.15	0.46
1:AA:50:A:N3	1:AA:52:C:C2	2.83	0.46
1:AA:508:U:C3'	4:AD:51:TYR:OH	2.63	0.46
1:AA:515:G:N7	1:AA:516:U:C4	2.82	0.46
1:AA:597:G:N3	1:AA:598:U:H1'	2.29	0.46
1:AA:706:A:C4	1:AA:707:U:C5	3.03	0.46
1:AA:794:A:C2	1:AA:795:C:C2	3.02	0.46
1:AA:1043:G:O6	1:AA:1044:A:N6	2.48	0.46
1:AA:1179:A:H4'	9:AI:105:THR:HA	1.96	0.46
1:AA:1246:A:H1'	1:AA:1292:G:N2	2.31	0.46
1:AA:1338:G:H2'	1:AA:1339:A:C8	2.50	0.46
4:AD:10:LYS:N	4:AD:13:ARG:NH1	2.63	0.46
4:AD:137:VAL:HG12	4:AD:182:PHE:HZ	1.77	0.46
4:AD:170:TRP:O	4:AD:170:TRP:CG	2.68	0.46
6:AF:32:ALA:O	6:AF:33:GLU:C	2.58	0.46
6:AF:32:ALA:O	6:AF:34:GLY:N	2.48	0.46
6:AF:90:MET:HE1	18:AR:61:ARG:HD3	1.97	0.46
8:AH:111:MET:CE	8:AH:116:ALA:N	2.78	0.46
10:AJ:23:ALA:C	10:AJ:25:ILE:N	2.73	0.46
16:AP:5:ARG:NH1	16:AP:6:LEU:HD13	2.30	0.46
17:AQ:28:PHE:O	17:AQ:29:VAL:HG23	2.15	0.46
19:AS:41:PHE:O	19:AS:44:MET:CG	2.63	0.46
20:AT:10:ARG:O	20:AT:11:ALA:C	2.58	0.46
20:AT:66:LEU:C	20:AT:66:LEU:HD12	2.40	0.46
21:AU:43:THR:O	21:AU:46:LYS:N	2.48	0.46
22:AV:65:G:C5	22:AV:66:U:C4	3.03	0.46
24:BA:10:A:C6	24:BA:11:C:C4	3.02	0.46
24:BA:71:A:C2	24:BA:73:A:C2	3.02	0.46
24:BA:468:G:O3'	28:BE:55:SER:HB2	2.15	0.46
24:BA:679:C:C2'	24:BA:680:C:H5'	2.44	0.46
24:BA:729:G:C5	26:BC:206:LYS:HB3	2.50	0.46
24:BA:784:G:H5"	26:BC:225:ASN:OD1	2.15	0.46
24:BA:1032:A:H1'	54:B4:23:ILE:HD11	1.96	0.46
24:BA:1058:U:C2	24:BA:1059:G:C8	3.03	0.46
24:BA:1210:G:C3'	24:BA:1211:C:H5'	2.44	0.46
24:BA:1408:G:C6	24:BA:1409:U:N3	2.83	0.46
24:BA:1784:A:N6	59:BA:3694:HOH:O	2.47	0.46
24:BA:1936:A:N6	24:BA:1963:U:C4	2.83	0.46
24:BA:2026:U:C2	24:BA:2027:G:C8	3.03	0.46
24:BA:2333:A:N7	24:BA:2335:A:C4	2.82	0.46
24:BA:2366:A:H2'	24:BA:2367:G:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2413:G:C6	24:BA:2414:G:N7	2.83	0.46
25:BB:44:G:H4'	29:BF:91:ARG:NH1	2.29	0.46
26:BC:85:ASN:HD22	26:BC:85:ASN:N	2.13	0.46
27:BD:20:VAL:CG1	27:BD:21:SER:N	2.78	0.46
27:BD:115:GLY:HA2	27:BD:167:ASN:HB2	1.95	0.46
30:BG:68:ARG:O	30:BG:69:ALA:C	2.56	0.46
34:BK:35:VAL:HG23	34:BK:36:GLY:N	2.30	0.46
36:BM:65:ILE:HG13	36:BM:65:ILE:O	2.14	0.46
39:BP:87:ARG:NH1	39:BP:109:ILE:HD13	2.29	0.46
48:BY:41:HIS:CE1	48:BY:42:LEU:HD12	2.50	0.46
49:BZ:4:ILE:HG22	49:BZ:57:GLU:O	2.15	0.46
52:B2:13:ASN:O	52:B2:17:GLY:N	2.48	0.46
53:B3:38:LYS:CG	53:B3:39:ARG:N	2.78	0.46
1:CA:109:A:C3'	1:CA:110:C:H5'	2.46	0.46
1:CA:139:A:H2'	1:CA:140:U:C6	2.50	0.46
1:CA:142:G:H2'	1:CA:142:G:N3	2.30	0.46
1:CA:194:C:O3'	20:CT:60:ARG:NH1	2.45	0.46
1:CA:198:G:C6	1:CA:220:G:C2	3.02	0.46
1:CA:293:G:C4	1:CA:305:G:N2	2.83	0.46
1:CA:430:A:H4'	4:CD:7:PRO:HB3	1.96	0.46
1:CA:511:C:O2	1:CA:512:U:C2	2.68	0.46
1:CA:588:G:C4	1:CA:589:U:C6	3.03	0.46
1:CA:594:U:O2	1:CA:645:G:O6	2.33	0.46
1:CA:1018:G:N7	1:CA:1019:A:N6	2.62	0.46
1:CA:1103:C:C4	1:CA:1104:G:N7	2.84	0.46
1:CA:1302:C:C6	13:CM:17:ILE:HG21	2.49	0.46
1:CA:1436:U:H2'	1:CA:1437:A:C8	2.50	0.46
3:CC:110:GLU:N	3:CC:110:GLU:OE1	2.48	0.46
4:CD:3:ARG:O	4:CD:4:TYR:C	2.57	0.46
7:CG:138:ARG:O	7:CG:142:HIS:CB	2.63	0.46
8:CH:111:MET:CG	8:CH:112:THR:N	2.78	0.46
13:CM:84:GLY:C	19:CS:74:PHE:CZ	2.93	0.46
16:CP:21:VAL:HG11	16:CP:60:TRP:CD1	2.50	0.46
16:CP:49:GLY:O	16:CP:50:THR:HG22	2.16	0.46
18:CR:31:ASN:O	18:CR:32:TYR:HB2	2.15	0.46
55:CY:1:MET:O	55:CY:4:ASP:HB2	2.15	0.46
24:DA:35:G:H22	24:DA:450:G:H1'	1.79	0.46
24:DA:37:C:H2'	24:DA:37:C:O2	2.14	0.46
24:DA:71:A:OP1	24:DA:72:U:C2'	2.62	0.46
24:DA:189:G:H1	24:DA:205:G:HO2'	1.63	0.46
24:DA:557:C:O2'	33:DJ:114:LEU:HD12	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:574:A:H4'	24:DA:575:A:C5'	2.45	0.46
24:DA:994:C:O2'	24:DA:996:A:OP1	2.27	0.46
24:DA:1031:G:N2	24:DA:1124:G:C4	2.83	0.46
24:DA:2013:A:C2'	24:DA:2014:A:H5'	2.42	0.46
24:DA:2092:U:H4'	24:DA:2093:G:O5'	2.16	0.46
24:DA:2344:U:O2'	51:D1:35:LEU:CD2	2.63	0.46
24:DA:2409:G:C6	24:DA:2410:G:C5	3.02	0.46
24:DA:2459:A:C2	24:DA:2460:U:H1'	2.50	0.46
24:DA:2461:A:H2'	24:DA:2462:C:C6	2.50	0.46
24:DA:2802:G:H8	24:DA:2802:G:O5'	1.98	0.46
24:DA:2824:C:N4	24:DA:2825:G:C5	2.84	0.46
24:DA:2840:C:OP1	37:DN:53:THR:HG21	2.15	0.46
26:DC:267:VAL:CG2	26:DC:268:ARG:N	2.77	0.46
27:DD:6:GLY:O	27:DD:7:LYS:HB2	2.15	0.46
27:DD:49:GLN:HA	27:DD:80:TRP:O	2.16	0.46
27:DD:109:VAL:HG22	27:DD:203:VAL:HG13	1.96	0.46
28:DE:149:ILE:HD11	28:DE:188:MET:CG	2.44	0.46
28:DE:171:ASP:C	28:DE:173:THR:N	2.72	0.46
29:DF:35:LEU:HD12	29:DF:153:ILE:HG22	1.97	0.46
31:DH:52:ALA:O	31:DH:55:GLU:HB3	2.15	0.46
32:DI:5:GLN:CD	32:DI:60:VAL:O	2.58	0.46
33:DJ:93:ILE:HG22	33:DJ:97:PRO:HB3	1.97	0.46
34:DK:34:GLY:O	34:DK:62:VAL:HG22	2.15	0.46
41:DR:52:PRO:C	41:DR:53:PHE:CD1	2.94	0.46
47:DX:62:GLY:O	47:DX:63:ILE:C	2.58	0.46
48:DY:51:ALA:O	48:DY:52:ARG:C	2.58	0.46
54:D4:28:SER:OG	54:D4:29:ALA:N	2.47	0.46
1:AA:74:A:N3	1:AA:97:G:N2	2.63	0.46
1:AA:74:A:C2'	1:AA:75:G:O4'	2.63	0.46
1:AA:261:U:C5	20:AT:74:ARG:CZ	2.98	0.46
1:AA:391:G:C6	1:AA:392:C:C6	3.03	0.46
1:AA:403:C:C2'	1:AA:404:G:C5'	2.90	0.46
1:AA:408:A:OP1	4:AD:112:ALA:HB3	2.15	0.46
1:AA:444:G:C4	1:AA:445:G:C8	3.03	0.46
1:AA:515:G:N2	1:AA:537:G:H1'	2.31	0.46
1:AA:551:U:C2	1:AA:552:U:C5	3.04	0.46
1:AA:688:G:O5'	11:AK:49:GLY:HA3	2.16	0.46
1:AA:784:A:H4'	24:BA:1837:C:OP1	2.15	0.46
1:AA:843:U:P	1:AA:846:G:N2	2.89	0.46
1:AA:1102:A:O4'	1:AA:1102:A:OP2	2.33	0.46
1:AA:1104:G:C2	1:AA:1105:A:C8	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1130:A:C2	1:AA:1146:A:C8	3.03	0.46
1:AA:1152:A:C2	1:AA:1153:G:C4	3.04	0.46
1:AA:1266:G:C4	1:AA:1268:G:OP2	2.68	0.46
2:AB:22:TYR:O	2:AB:23:TRP:C	2.57	0.46
2:AB:84:ALA:CA	2:AB:218:ALA:CB	2.91	0.46
3:AC:161:GLU:O	3:AC:161:GLU:CG	2.63	0.46
4:AD:58:LYS:HA	4:AD:200:ILE:CD1	2.45	0.46
4:AD:200:ILE:C	4:AD:202:GLU:H	2.22	0.46
5:AE:116:GLU:CG	5:AE:117:VAL:HG23	2.45	0.46
7:AG:10:ARG:HG3	7:AG:11:LYS:N	2.30	0.46
7:AG:28:ASN:HA	7:AG:31:MET:HB2	1.95	0.46
10:AJ:19:ASP:HA	10:AJ:22:THR:HG22	1.96	0.46
10:AJ:63:ASP:HB3	10:AJ:65:TYR:CZ	2.50	0.46
11:AK:126:LYS:O	11:AK:127:ARG:CB	2.63	0.46
13:AM:22:ILE:C	13:AM:22:ILE:CD1	2.86	0.46
13:AM:56:LEU:O	13:AM:59:GLU:N	2.48	0.46
14:AN:12:ARG:HG2	14:AN:54:ASP:HB3	1.97	0.46
14:AN:88:ALA:HA	14:AN:93:ILE:CD1	2.45	0.46
14:AN:90:ARG:CZ	14:AN:90:ARG:HB2	2.45	0.46
17:AQ:55:ILE:HG13	17:AQ:56:GLY:N	2.29	0.46
19:AS:20:GLU:N	19:AS:20:GLU:OE1	2.48	0.46
19:AS:75:ALA:O	19:AS:77:THR:HG23	2.16	0.46
24:BA:18:U:H5"	40:BQ:23:TYR:O	2.15	0.46
24:BA:63:A:C4'	43:BT:77:ARG:HD3	2.32	0.46
24:BA:123:G:C5	59:BA:3222:HOH:O	2.67	0.46
24:BA:160:A:C8	24:BA:167:A:N1	2.83	0.46
24:BA:226:A:N6	24:BA:227:A:C6	2.83	0.46
24:BA:333:G:H5"	24:BA:334:C:OP2	2.15	0.46
24:BA:408:G:C5	24:BA:409:G:N7	2.83	0.46
24:BA:443:A:H3'	28:BE:40:ARG:NH1	2.30	0.46
24:BA:499:U:H4'	44:BU:42:LYS:HD2	1.96	0.46
24:BA:533:G:H5'	40:BQ:23:TYR:CD1	2.50	0.46
24:BA:584:C:OP1	40:BQ:5:ARG:HD3	2.14	0.46
24:BA:597:G:C6	24:BA:598:U:N3	2.83	0.46
24:BA:691:C:C2'	24:BA:692:C:H5'	2.46	0.46
24:BA:993:G:H1'	41:BR:91:GLN:CG	2.45	0.46
24:BA:1256:G:C4	24:BA:1257:C:C5	3.03	0.46
24:BA:1285:A:C5	24:BA:1329:U:C5	3.04	0.46
24:BA:1500:G:O2'	26:BC:98:GLY:CA	2.63	0.46
24:BA:1531:C:H2'	24:BA:1532:A:H1'	1.97	0.46
24:BA:1829:A:H2'	24:BA:1830:C:H5'	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1844:C:H2'	24:BA:1845:G:O4'	2.14	0.46
24:BA:2180:U:C5	24:BA:2181:U:C4	3.03	0.46
24:BA:2183:A:C6	24:BA:2184:A:N1	2.84	0.46
24:BA:2230:G:H1'	47:BX:31:ASN:HA	1.96	0.46
24:BA:2308:G:O6	24:BA:2311:A:C5	2.69	0.46
24:BA:2333:A:N7	24:BA:2335:A:N3	2.62	0.46
24:BA:2736:A:C5	24:BA:2737:G:N7	2.83	0.46
25:BB:54:G:O2'	25:BB:55:U:H5'	2.16	0.46
25:BB:54:G:C2	29:BF:25:MET:SD	3.08	0.46
26:BC:234:GLY:O	26:BC:235:GLU:CB	2.63	0.46
29:BF:135:ILE:C	29:BF:135:ILE:HD12	2.41	0.46
30:BG:72:ASN:O	30:BG:75:VAL:HG13	2.16	0.46
31:BH:57:LYS:O	31:BH:61:VAL:HG23	2.15	0.46
33:BJ:88:THR:HG22	33:BJ:91:GLU:CD	2.39	0.46
36:BM:47:GLU:OE1	36:BM:50:ARG:HD3	2.15	0.46
36:BM:65:ILE:O	36:BM:65:ILE:CG1	2.63	0.46
38:BO:8:ILE:O	38:BO:11:ALA:N	2.48	0.46
38:BO:107:ALA:O	38:BO:110:ALA:HB3	2.15	0.46
38:BO:112:GLU:O	38:BO:113:ALA:HB2	2.15	0.46
39:BP:52:ARG:O	39:BP:53:GLY:C	2.58	0.46
39:BP:90:ALA:HB2	39:BP:112:ARG:N	2.29	0.46
42:BS:7:HIS:CD2	42:BS:7:HIS:C	2.93	0.46
43:BT:16:VAL:HG23	43:BT:17:SER:N	2.30	0.46
47:BX:36:ARG:HG2	47:BX:47:THR:HB	1.98	0.46
49:BZ:40:THR:HB	49:BZ:42:ALA:N	2.31	0.46
52:B2:16:HIS:CD2	52:B2:16:HIS:N	2.83	0.46
1:CA:126:G:C2	1:CA:127:G:C4	3.04	0.46
1:CA:175:C:C2	1:CA:176:C:C5	3.03	0.46
1:CA:246:A:N3	1:CA:247:G:H1'	2.30	0.46
1:CA:246:A:O3'	1:CA:247:G:H4'	2.15	0.46
1:CA:361:G:C2'	1:CA:362:G:H5'	2.45	0.46
1:CA:373:A:H2'	1:CA:481:G:H21	1.80	0.46
1:CA:392:C:N3	1:CA:393:A:N7	2.63	0.46
1:CA:406:G:N3	1:CA:406:G:H2'	2.29	0.46
1:CA:560:A:C5	5:CE:128:TYR:HE2	2.33	0.46
1:CA:641:U:H4'	8:CH:107:SER:O	2.15	0.46
1:CA:681:A:N1	1:CA:710:G:C6	2.84	0.46
1:CA:706:A:O3'	11:CK:24:HIS:CD2	2.69	0.46
1:CA:923:A:C2	1:CA:1395:C:N3	2.83	0.46
1:CA:1064:G:O6	1:CA:1193:G:C2	2.68	0.46
1:CA:1152:A:H2'	1:CA:1153:G:O4'	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1478:U:H2'	1:CA:1479:C:H6	1.81	0.46
2:CB:114:LEU:HD22	2:CB:144:LEU:HD13	1.97	0.46
2:CB:170:HIS:O	2:CB:173:ILE:HG13	2.15	0.46
4:CD:54:GLN:C	4:CD:58:LYS:NZ	2.73	0.46
4:CD:58:LYS:HE2	4:CD:203:LEU:HD22	1.97	0.46
7:CG:111:ARG:NH1	7:CG:122:ASN:OD1	2.48	0.46
13:CM:3:ARG:CZ	13:CM:7:ILE:HA	2.46	0.46
15:CO:75:VAL:O	15:CO:76:ALA:HB3	2.14	0.46
15:CO:89:ARG:NE	24:DA:714:U:C5	2.83	0.46
16:CP:21:VAL:HG23	16:CP:33:ILE:HD13	1.96	0.46
19:CS:18:LYS:HD2	19:CS:31:LEU:HD13	1.96	0.46
19:CS:35:SER:O	19:CS:38:SER:OG	2.21	0.46
22:CV:23:A:C6	22:CV:24:G:C6	3.03	0.46
22:CV:74:C:O2	22:CV:74:C:C2'	2.63	0.46
24:DA:183:C:O2	24:DA:432:A:H2	1.97	0.46
24:DA:211:C:H2'	24:DA:212:G:O4'	2.14	0.46
24:DA:214:G:H2'	24:DA:216:A:O2'	2.15	0.46
24:DA:391:A:H2'	24:DA:392:U:H5'	1.97	0.46
24:DA:646:U:H3'	24:DA:647:G:C5'	2.44	0.46
24:DA:654:A:H3'	24:DA:654:A:N3	2.30	0.46
24:DA:673:C:H4'	28:DE:77:ILE:CD1	2.45	0.46
24:DA:748:G:O6	24:DA:751:A:H5'	2.15	0.46
24:DA:954:G:OP1	36:DM:15:GLY:N	2.42	0.46
24:DA:959:A:N6	36:DM:82:MET:HE1	2.29	0.46
24:DA:961:C:C6	24:DA:2031:A:C6	3.03	0.46
24:DA:975:A:H2'	24:DA:976:G:O5'	2.16	0.46
24:DA:1072:C:O2'	24:DA:1094:U:O4	2.31	0.46
24:DA:1327:A:N6	24:DA:1328:A:C2	2.83	0.46
24:DA:1358:G:H2'	24:DA:1359:A:OP2	2.15	0.46
24:DA:1442:U:H2'	24:DA:1443:U:H6	1.80	0.46
24:DA:1654:A:H2	27:DD:118:PHE:CD2	2.32	0.46
24:DA:1772:A:H2'	24:DA:1773:A:O3'	2.15	0.46
24:DA:2469:A:H4'	36:DM:55:ARG:HD2	1.97	0.46
24:DA:2476:A:C2	24:DA:2477:U:C2	3.04	0.46
24:DA:2502:G:C5'	24:DA:2503:A:H5"	2.45	0.46
24:DA:2753:A:C2'	24:DA:2754:U:O5'	2.62	0.46
25:DB:3:C:C5	25:DB:4:C:C5	3.03	0.46
27:DD:163:GLY:O	27:DD:164:GLN:C	2.58	0.46
29:DF:135:ILE:HA	29:DF:140:ILE:HD12	1.97	0.46
31:DH:45:GLU:C	31:DH:47:PHE:H	2.22	0.46
33:DJ:36:LEU:HD11	33:DJ:122:LEU:HD13	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DM:26:VAL:CG1	36:DM:133:LYS:HA	2.45	0.46
36:DM:47:GLU:O	36:DM:48:ALA:C	2.57	0.46
54:D4:16:ILE:HG22	54:D4:25:VAL:HG23	1.97	0.46
1:AA:41:G:C2'	1:AA:42:G:H5'	2.44	0.46
1:AA:243:A:N1	1:AA:246:A:C8	2.83	0.46
1:AA:317:U:N3	1:AA:318:G:N7	2.63	0.46
1:AA:377:G:N2	1:AA:387:U:C2	2.83	0.46
1:AA:393:A:C4	1:AA:394:G:C8	3.03	0.46
1:AA:401:C:C2	1:AA:402:G:C8	3.03	0.46
1:AA:407:U:C2	1:AA:435:A:N1	2.84	0.46
1:AA:454:G:C2'	1:AA:455:G:H5'	2.46	0.46
1:AA:577:G:C1'	1:AA:816:A:H2'	2.46	0.46
1:AA:599:C:O5'	8:AH:86:TYR:CD2	2.68	0.46
1:AA:748:G:N1	1:AA:749:A:C5	2.82	0.46
1:AA:764:C:H2'	1:AA:765:G:O4'	2.15	0.46
1:AA:1219:A:H2'	1:AA:1220:G:O4'	2.15	0.46
1:AA:1431:A:C6	1:AA:1432:G:N1	2.82	0.46
2:AB:79:ALA:O	2:AB:214:LEU:HD11	2.15	0.46
4:AD:103:TYR:C	4:AD:105:MET:H	2.23	0.46
5:AE:154:ALA:O	5:AE:156:LYS:N	2.48	0.46
6:AF:4:TYR:HE2	6:AF:6:ILE:CD1	2.28	0.46
9:AI:130:ARG:CZ	22:AV:33:U:C5	2.98	0.46
13:AM:69:LEU:C	13:AM:69:LEU:HD23	2.41	0.46
13:AM:92:ARG:NH1	24:BA:885:C:O3'	2.49	0.46
15:AO:24:SER:O	15:AO:25:THR:C	2.58	0.46
20:AT:55:GLN:HB3	20:AT:56:PRO:CD	2.45	0.46
24:BA:189:G:O2'	24:BA:207:A:N6	2.48	0.46
24:BA:271:G:C2	24:BA:367:G:C2	3.04	0.46
24:BA:282:A:C6	24:BA:359:G:N1	2.83	0.46
24:BA:308:G:N2	24:BA:477:A:N7	2.63	0.46
24:BA:319:G:O2'	24:BA:320:A:H5'	2.15	0.46
24:BA:483:A:C2	24:BA:484:C:H1'	2.50	0.46
24:BA:569:U:H1'	24:BA:947:A:O4'	2.16	0.46
24:BA:610:C:O2'	24:BA:611:C:H5'	2.14	0.46
24:BA:696:G:H2'	24:BA:696:G:N3	2.30	0.46
24:BA:770:G:C6	24:BA:771:G:C5	3.03	0.46
24:BA:811:U:OP2	35:BL:20:GLY:O	2.33	0.46
24:BA:1171:G:N2	24:BA:1179:G:C4	2.83	0.46
24:BA:1172:C:N4	24:BA:1173:U:O2	2.49	0.46
24:BA:1197:G:H2'	24:BA:1198:U:H6	1.80	0.46
24:BA:1531:C:H3'	24:BA:1532:A:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1866:A:C2	24:BA:1876:A:N3	2.84	0.46
24:BA:2024:G:H2'	24:BA:2025:C:O4'	2.15	0.46
24:BA:2294:G:H2'	24:BA:2295:C:O4'	2.16	0.46
24:BA:2331:G:C5	24:BA:2332:C:C5	3.03	0.46
24:BA:2397:G:N2	24:BA:2420:C:H1'	2.30	0.46
24:BA:2663:G:C5	24:BA:2664:G:C5	3.02	0.46
25:BB:85:G:N2	25:BB:92:C:O2	2.48	0.46
29:BF:39:VAL:O	29:BF:39:VAL:HG23	2.15	0.46
30:BG:163:TYR:N	30:BG:166:GLU:OE1	2.48	0.46
31:BH:48:GLU:OE1	31:BH:51:ARG:CZ	2.63	0.46
35:BL:62:PRO:O	53:B3:12:ARG:HG3	2.14	0.46
37:BN:3:HIS:O	37:BN:4:ARG:HB2	2.15	0.46
37:BN:52:ILE:CG2	37:BN:94:TYR:CD2	2.98	0.46
40:BQ:60:TRP:HB3	40:BQ:95:ALA:HB2	1.95	0.46
44:BU:38:ILE:HG23	44:BU:39:ASN:N	2.30	0.46
46:BW:47:ALA:HA	46:BW:51:VAL:HG12	1.97	0.46
47:BX:58:ILE:HG13	47:BX:63:ILE:HA	1.96	0.46
49:BZ:25:GLY:HA3	49:BZ:46:MET:HE3	1.98	0.46
49:BZ:50:VAL:HG23	49:BZ:53:MET:HG3	1.98	0.46
51:B1:12:SER:HA	51:B1:48:TYR:CD2	2.49	0.46
1:CA:108:G:N3	1:CA:108:G:H5'	2.30	0.46
1:CA:179:A:N7	59:CA:1716:HOH:O	2.48	0.46
1:CA:204:G:C3'	1:CA:205:A:H5"	2.43	0.46
1:CA:258:G:H2'	1:CA:259:G:O5'	2.15	0.46
1:CA:370:C:H2'	1:CA:371:A:O4'	2.14	0.46
1:CA:438:U:N3	1:CA:494:G:N7	2.64	0.46
1:CA:945:G:O6	1:CA:1236:A:N1	2.48	0.46
1:CA:1055:A:C1'	3:CC:193:TYR:OH	2.64	0.46
1:CA:1095:U:C4	1:CA:1096:C:N4	2.83	0.46
1:CA:1100:C:O5'	2:CB:95:ARG:NH1	2.41	0.46
1:CA:1160:G:O6	1:CA:1181:G:O6	2.33	0.46
1:CA:1239:A:C8	1:CA:1298:U:C4	3.03	0.46
1:CA:1316:G:C2'	1:CA:1317:C:H5'	2.45	0.46
1:CA:1317:C:H2'	19:CS:10:PHE:CZ	2.50	0.46
1:CA:1446:A:C2'	1:CA:1447:A:H5'	2.44	0.46
4:CD:3:ARG:CZ	4:CD:3:ARG:HB3	2.44	0.46
4:CD:144:SER:O	4:CD:145:ILE:O	2.33	0.46
5:CE:89:HIS:ND1	5:CE:90:THR:HG23	2.30	0.46
5:CE:96:MET:HB3	5:CE:125:ALA:HB2	1.96	0.46
7:CG:116:MET:O	7:CG:118:LEU:N	2.48	0.46
9:CI:26:GLY:N	9:CI:59:GLU:OE1	2.47	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:83:ILE:O	9:CI:87:LEU:HD13	2.15	0.46
11:CK:43:GLY:C	11:CK:44:TRP:HD1	2.23	0.46
12:CL:24:LEU:HB2	12:CL:59:ASN:HD22	1.80	0.46
15:CO:8:THR:O	15:CO:11:ILE:HG13	2.16	0.46
15:CO:71:LYS:HA	15:CO:78:TYR:CE2	2.50	0.46
17:CQ:58:VAL:HG12	17:CQ:80:GLU:HG3	1.96	0.46
21:CU:14:VAL:HG22	21:CU:16:LEU:H	1.80	0.46
22:CV:5:G:C2	22:CV:6:G:C5	3.03	0.46
22:CV:75:C:H4'	22:CV:76:A:OP1	2.15	0.46
55:CY:80:LYS:HA	55:CY:83:MET:HG3	1.97	0.46
24:DA:74:A:N3	24:DA:74:A:C5'	2.78	0.46
24:DA:141:G:OP2	24:DA:142:A:N6	2.47	0.46
24:DA:185:G:H2'	24:DA:186:G:O4'	2.16	0.46
24:DA:249:C:H4'	24:DA:250:G:H5"	1.97	0.46
24:DA:407:G:C2	24:DA:421:C:N3	2.83	0.46
24:DA:475:C:C5	24:DA:481:G:O6	2.69	0.46
24:DA:528:A:H3'	24:DA:528:A:C8	2.50	0.46
24:DA:647:G:C2'	24:DA:648:G:O5'	2.64	0.46
24:DA:965:C:C4'	24:DA:2273:A:H1'	2.45	0.46
24:DA:1067:A:H2'	24:DA:1067:A:N3	2.30	0.46
24:DA:1092:C:H2'	24:DA:1093:G:C4'	2.45	0.46
24:DA:1114:C:O2'	24:DA:1115:G:H5'	2.15	0.46
24:DA:1309:G:H2'	24:DA:1310:G:O4'	2.16	0.46
24:DA:1623:G:N2	24:DA:1624:U:C2	2.83	0.46
24:DA:1629:U:O2	24:DA:2698:U:C5'	2.63	0.46
24:DA:1760:C:H2'	24:DA:1761:C:O4'	2.15	0.46
24:DA:1839:G:C8	24:DA:1927:A:C1'	2.99	0.46
24:DA:1853:A:C6	24:DA:1889:A:C5	3.02	0.46
24:DA:1853:A:C5	24:DA:1889:A:C6	3.02	0.46
24:DA:1872:A:C8	24:DA:1873:G:C1'	2.98	0.46
24:DA:2330:G:O2'	46:DW:44:LYS:HE3	2.16	0.46
24:DA:2722:G:H2'	24:DA:2723:C:C6	2.51	0.46
24:DA:2772:C:C2'	24:DA:2773:C:O5'	2.64	0.46
24:DA:2839:G:N2	24:DA:2880:C:N3	2.64	0.46
26:DC:55:GLY:O	26:DC:214:GLY:HA2	2.16	0.46
26:DC:78:GLU:OE1	26:DC:100:ARG:NH1	2.49	0.46
28:DE:97:ASN:HB2	28:DE:100:MET:HE3	1.96	0.46
29:DF:78:ILE:HD12	29:DF:78:ILE:O	2.15	0.46
29:DF:92:GLY:O	29:DF:93:GLU:C	2.58	0.46
36:DM:34:LYS:HB3	36:DM:129:THR:HG23	1.97	0.46
37:DN:67:PHE:O	37:DN:69:ARG:O	2.33	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DQ:13:HIS:CD2	40:DQ:31:TYR:CD1	3.03	0.46
40:DQ:87:VAL:CB	41:DR:49:ILE:CG2	2.93	0.46
44:DU:3:LYS:O	44:DU:4:ILE:HB	2.15	0.46
47:DX:40:GLU:HA	47:DX:43:LYS:HD3	1.98	0.46
48:DY:37:LEU:HD11	48:DY:39:GLN:O	2.15	0.46
1:AA:39:G:C5	1:AA:404:G:C2	3.03	0.46
1:AA:47:C:O4'	1:AA:365:U:N3	2.48	0.46
1:AA:64:G:C2	1:AA:67:C:C4	3.03	0.46
1:AA:236:A:H5"	17:AQ:44:LEU:CD2	2.45	0.46
1:AA:253:A:C2'	1:AA:254:G:O5'	2.64	0.46
1:AA:263:A:P	20:AT:74:ARG:HH11	2.38	0.46
1:AA:375:U:OP1	16:AP:70:ARG:NH1	2.48	0.46
1:AA:505:G:H2'	1:AA:506:G:H8	1.81	0.46
1:AA:562:U:H1'	12:AL:12:ARG:HD2	1.97	0.46
1:AA:570:G:O4'	1:AA:820:U:C2	2.69	0.46
1:AA:721:G:C6	1:AA:733:G:C2	3.04	0.46
1:AA:790:A:C6	1:AA:791:G:C6	3.03	0.46
1:AA:1072:G:C6	1:AA:1073:U:C4	3.03	0.46
1:AA:1074:G:O3'	2:AB:102:THR:HG23	2.14	0.46
1:AA:1083:U:H5	1:AA:1084:G:C6	2.33	0.46
1:AA:1126:U:O4'	1:AA:1281:C:H1'	2.15	0.46
1:AA:1133:G:H3'	1:AA:1134:G:H8	1.78	0.46
1:AA:1170:A:N6	1:AA:1171:A:C2	2.83	0.46
1:AA:1245:C:C2	1:AA:1246:A:C8	3.03	0.46
1:AA:1409:C:C6	1:AA:1409:C:H3'	2.50	0.46
1:AA:1446:A:C2	1:AA:1447:A:C4	3.03	0.46
1:AA:1534:A:H4'	1:AA:1535:C:OP1	2.14	0.46
2:AB:72:THR:HG21	2:AB:169:GLU:OE2	2.16	0.46
2:AB:219:ALA:O	2:AB:220:THR:CB	2.63	0.46
3:AC:102:ASN:CG	3:AC:103:ILE:N	2.72	0.46
3:AC:140:ASN:OD1	3:AC:140:ASN:C	2.59	0.46
4:AD:9:LEU:HD12	4:AD:10:LYS:HG2	1.98	0.46
4:AD:46:PRO:O	4:AD:47:ARG:C	2.58	0.46
4:AD:65:TYR:CE2	4:AD:94:LEU:HD22	2.51	0.46
4:AD:173:VAL:C	4:AD:174:ASP:CG	2.84	0.46
5:AE:74:VAL:HG23	5:AE:75:ALA:N	2.29	0.46
5:AE:144:LEU:O	5:AE:147:MET:N	2.49	0.46
7:AG:88:PRO:HG3	7:AG:149:LYS:HA	1.98	0.46
13:AM:68:ASP:C	13:AM:72:GLU:OE1	2.58	0.46
18:AR:32:TYR:O	18:AR:40:VAL:HG12	2.15	0.46
22:AV:12:U:H4'	24:BA:1908:C:O2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:224:U:H2'	24:BA:225:C:O5'	2.15	0.46
24:BA:442:G:N3	24:BA:444:C:C5	2.84	0.46
24:BA:569:U:O4	24:BA:570:G:N1	2.48	0.46
24:BA:856:G:O2'	24:BA:857:G:H5'	2.15	0.46
24:BA:876:C:H2'	24:BA:877:A:O4'	2.15	0.46
24:BA:992:C:O3'	41:BR:74:ILE:HD11	2.16	0.46
24:BA:1058:U:C2	24:BA:1059:G:N7	2.83	0.46
24:BA:1172:C:C5	24:BA:1173:U:C2	3.04	0.46
24:BA:1359:A:C2	24:BA:1360:G:H1'	2.50	0.46
24:BA:1413:A:C2	24:BA:1414:C:C2	3.03	0.46
24:BA:1426:G:O2'	24:BA:1572:A:N6	2.44	0.46
24:BA:1719:G:H2'	24:BA:1720:U:O4'	2.16	0.46
24:BA:2115:G:H5"	24:BA:2116:G:OP2	2.15	0.46
24:BA:2118:U:P	24:BA:2147:A:HO2'	2.35	0.46
24:BA:2321:U:C2'	24:BA:2322:A:OP1	2.64	0.46
24:BA:2403:C:C2	24:BA:2404:U:C6	3.03	0.46
24:BA:2511:U:O4	24:BA:2575:C:N3	2.48	0.46
24:BA:2592:G:H2'	24:BA:2593:U:O4'	2.15	0.46
27:BD:101:PHE:O	27:BD:180:VAL:HG23	2.15	0.46
28:BE:149:ILE:HD11	28:BE:188:MET:CB	2.46	0.46
28:BE:149:ILE:HD11	28:BE:188:MET:HG2	1.98	0.46
29:BF:103:ILE:HB	29:BF:174:PHE:CD1	2.49	0.46
31:BH:121:VAL:CG2	31:BH:122:LEU:HG	2.45	0.46
34:BK:79:PHE:CD1	39:BP:69:VAL:HG22	2.51	0.46
35:BL:115:GLU:O	35:BL:116:VAL:HB	2.15	0.46
38:BO:5:SER:O	38:BO:7:ARG:N	2.48	0.46
49:BZ:12:ALA:O	49:BZ:13:ILE:C	2.58	0.46
1:CA:205:A:H2'	1:CA:206:C:H5'	1.97	0.46
1:CA:626:G:H2'	1:CA:627:G:C8	2.49	0.46
1:CA:787:A:C4	1:CA:788:U:H6	2.33	0.46
1:CA:872:A:C4	1:CA:874:G:N7	2.83	0.46
1:CA:895:G:H2'	1:CA:896:C:C6	2.50	0.46
1:CA:966:G:C4	22:CV:34:G:H4'	2.49	0.46
1:CA:979:C:C5	1:CA:1318:A:N1	2.84	0.46
1:CA:1124:G:P	10:CJ:37:ARG:O	2.73	0.46
1:CA:1224:U:C4	1:CA:1322:C:C2	3.04	0.46
1:CA:1317:C:C5	1:CA:1318:A:C4	3.03	0.46
1:CA:1372:U:OP1	9:CI:72:ILE:O	2.34	0.46
2:CB:15:HIS:O	2:CB:16:PHE:CG	2.68	0.46
2:CB:221:VAL:O	2:CB:222:ARG:C	2.59	0.46
3:CC:73:PRO:HG3	3:CC:105:GLU:HG3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:4:TYR:O	4:CD:5:LEU:HB3	2.16	0.46
4:CD:20:PHE:N	4:CD:20:PHE:CD1	2.80	0.46
5:CE:68:ARG:CG	5:CE:69:ARG:N	2.78	0.46
7:CG:47:LEU:O	7:CG:48:GLU:C	2.58	0.46
7:CG:103:TRP:CD1	7:CG:137:LYS:HD3	2.50	0.46
10:CJ:8:ILE:HD12	10:CJ:100:ILE:HG22	1.96	0.46
10:CJ:15:HIS:CG	10:CJ:16:ARG:N	2.81	0.46
11:CK:128:ARG:HD2	11:CK:129:VAL:N	2.30	0.46
12:CL:43:LYS:HG3	12:CL:44:LYS:N	2.30	0.46
12:CL:54:ARG:HA	12:CL:64:THR:HA	1.98	0.46
14:CN:18:LYS:HE3	14:CN:18:LYS:O	2.15	0.46
16:CP:21:VAL:O	16:CP:33:ILE:HD12	2.16	0.46
55:CY:2:ILE:CG1	55:CY:3:SER:N	2.78	0.46
24:DA:30:G:H2'	24:DA:31:C:C6	2.50	0.46
24:DA:83:A:C2	24:DA:101:A:C2	3.04	0.46
24:DA:134:G:N2	24:DA:146:A:C2	2.83	0.46
24:DA:370:G:C6	24:DA:424:G:C8	3.04	0.46
24:DA:547:A:N7	24:DA:548:G:C4	2.83	0.46
24:DA:1006:C:C2	24:DA:1138:G:N2	2.84	0.46
24:DA:1011:G:OP1	24:DA:1011:G:H4'	2.16	0.46
24:DA:1071:G:H4'	24:DA:1089:A:OP2	2.16	0.46
24:DA:1074:G:H2'	24:DA:1075:C:C5'	2.46	0.46
24:DA:1081:U:C5'	32:DI:126:ARG:NH1	2.78	0.46
24:DA:1142:A:C4	24:DA:1144:A:C8	3.03	0.46
24:DA:1340:U:C6	24:DA:1603:A:O4'	2.68	0.46
24:DA:1365:A:HO2'	47:DX:10:ARG:HE	1.60	0.46
24:DA:1460:U:O2'	24:DA:1461:C:H5'	2.14	0.46
24:DA:1725:U:H2'	24:DA:1726:C:O4'	2.15	0.46
24:DA:1763:G:H2'	24:DA:1764:C:H5'	1.96	0.46
24:DA:1783:A:C2	24:DA:2587:A:C4	3.04	0.46
24:DA:2294:G:C5	24:DA:2295:C:C5	3.03	0.46
24:DA:2306:C:C4	24:DA:2307:G:C5	3.04	0.46
24:DA:2617:U:H2'	24:DA:2618:G:O4'	2.15	0.46
24:DA:2640:G:OP1	33:DJ:95:ARG:NH1	2.49	0.46
24:DA:2817:U:OP1	37:DN:42:LYS:NZ	2.47	0.46
24:DA:2821:A:OP2	24:DA:2821:A:H3'	2.16	0.46
57:DA:3187:NMY:H13	57:DA:3187:NMY:H12	1.40	0.46
25:DB:30:C:OP1	38:DO:3:LYS:HE3	2.15	0.46
26:DC:251:THR:HG22	26:DC:252:LYS:N	2.31	0.46
27:DD:32:ASN:HB3	27:DD:50:VAL:HG21	1.96	0.46
27:DD:68:PHE:CE1	27:DD:75:ALA:HA	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DF:39:VAL:CG1	29:DF:40:GLY:N	2.77	0.46
29:DF:144:LYS:O	29:DF:146:ASP:N	2.48	0.46
32:DI:28:GLY:HA3	32:DI:32:VAL:CG1	2.45	0.46
36:DM:50:ARG:O	36:DM:53:MET:HG2	2.15	0.46
36:DM:73:ILE:CG2	36:DM:74:THR:H	2.29	0.46
41:DR:15:SER:O	41:DR:16:GLU:C	2.57	0.46
43:DT:67:VAL:HG23	43:DT:68:LYS:N	2.31	0.46
45:DV:28:ALA:HB3	45:DV:40:ILE:CD1	2.46	0.46
47:DX:53:LYS:HB2	47:DX:53:LYS:NZ	2.30	0.46
54:D4:36:ARG:O	54:D4:37:GLN:C	2.59	0.46
1:AA:86:G:O2'	1:AA:87:C:OP2	2.32	0.46
1:AA:141:G:N3	1:AA:223:A:C2	2.83	0.46
1:AA:224:U:C2'	1:AA:225:C:H5'	2.46	0.46
1:AA:412:A:O2'	1:AA:414:A:C5'	2.64	0.46
1:AA:511:C:H1'	4:AD:41:HIS:CD2	2.50	0.46
1:AA:520:A:N1	1:AA:536:C:H1'	2.31	0.46
1:AA:778:G:C4	1:AA:779:C:C6	3.03	0.46
1:AA:806:C:H2'	1:AA:807:A:C8	2.51	0.46
1:AA:994:A:C2'	1:AA:995:C:H5'	2.45	0.46
1:AA:1004:A:H2'	1:AA:1005:A:O4'	2.16	0.46
1:AA:1055:A:N6	1:AA:1206:G:C5	2.84	0.46
1:AA:1365:G:N2	1:AA:1366:C:H1'	2.30	0.46
1:AA:1374:A:C4	1:AA:1375:A:C8	3.04	0.46
1:AA:1422:G:C2	1:AA:1423:G:C8	3.03	0.46
1:AA:1432:G:P	39:BP:105:LYS:HG2	2.56	0.46
2:AB:122:GLN:C	2:AB:123:ASP:CG	2.83	0.46
3:AC:107:ARG:O	3:AC:108:LYS:HB3	2.15	0.46
4:AD:64:ILE:CG2	4:AD:111:ARG:NH1	2.78	0.46
7:AG:136:LYS:O	7:AG:139:GLU:N	2.49	0.46
8:AH:87:LYS:HE2	8:AH:93:PRO:CD	2.45	0.46
15:AO:11:ILE:O	15:AO:12:VAL:C	2.58	0.46
17:AQ:78:VAL:O	17:AQ:79:VAL:CG2	2.63	0.46
24:BA:142:A:N7	24:BA:143:C:C5	2.84	0.46
24:BA:180:G:H2'	24:BA:180:G:N3	2.30	0.46
24:BA:449:A:H2'	24:BA:450:G:C5'	2.45	0.46
24:BA:483:A:O3'	44:BU:47:PRO:HD3	2.16	0.46
24:BA:484:C:C2'	24:BA:485:C:O5'	2.63	0.46
24:BA:549:G:OP2	24:BA:550:C:OP1	2.33	0.46
24:BA:669:G:C5	24:BA:801:G:C6	3.04	0.46
24:BA:963:U:H2'	24:BA:964:C:C6	2.50	0.46
24:BA:1069:A:N1	24:BA:1073:A:C6	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1850:G:C5	24:BA:1851:U:C5	3.03	0.46
24:BA:1920:C:O5'	24:BA:1920:C:H6	1.99	0.46
24:BA:2415:G:C5	24:BA:2416:C:C4	3.04	0.46
24:BA:2639:A:C3'	33:BJ:96:ARG:HH22	2.28	0.46
24:BA:2674:G:OP2	57:BA:3165:NMY:C12	2.63	0.46
24:BA:2771:C:H2'	24:BA:2771:C:O2	2.16	0.46
57:BA:3165:NMY:C1	57:BA:3165:NMY:H17	2.28	0.46
57:BA:3166:NMY:H15	33:BJ:2:LYS:NZ	2.30	0.46
26:BC:160:TYR:CG	26:BC:176:ARG:NH1	2.84	0.46
27:BD:51:THR:OG1	27:BD:76:GLY:HA3	2.15	0.46
28:BE:103:GLY:HA2	28:BE:106:LYS:CE	2.46	0.46
34:BK:104:THR:HB	34:BK:106:GLU:OE1	2.16	0.46
35:BL:4:ASN:C	35:BL:6:LEU:H	2.23	0.46
35:BL:115:GLU:O	35:BL:116:VAL:CB	2.63	0.46
38:BO:28:VAL:O	38:BO:29:HIS:CG	2.68	0.46
43:BT:7:LEU:HD23	43:BT:7:LEU:C	2.41	0.46
1:CA:311:C:H2'	1:CA:312:C:O4'	2.16	0.46
1:CA:361:G:H2'	1:CA:362:G:H5'	1.98	0.46
1:CA:444:G:N3	1:CA:491:G:C2	2.84	0.46
1:CA:474:G:C5	1:CA:475:C:C5	3.03	0.46
1:CA:538:G:H5"	12:CL:111:LYS:CG	2.45	0.46
1:CA:713:G:N2	1:CA:777:A:H4'	2.31	0.46
1:CA:1013:G:H2'	1:CA:1015:G:OP2	2.15	0.46
1:CA:1018:G:H2'	1:CA:1019:A:C8	2.50	0.46
1:CA:1194:U:C5	1:CA:1195:C:C4	3.03	0.46
1:CA:1272:G:N7	1:CA:1273:C:C4	2.83	0.46
1:CA:1279:G:OP2	10:CJ:11:LYS:NZ	2.42	0.46
1:CA:1369:C:H2'	1:CA:1370:G:C1'	2.46	0.46
2:CB:142:GLU:O	2:CB:143:LYS:C	2.58	0.46
3:CC:33:LEU:HA	3:CC:36:ASP:HB2	1.97	0.46
4:CD:99:ASP:O	4:CD:114:ALA:CB	2.63	0.46
4:CD:112:ALA:C	4:CD:113:GLU:OE1	2.58	0.46
7:CG:31:MET:HG3	7:CG:32:VAL:N	2.31	0.46
7:CG:32:VAL:O	7:CG:35:LYS:HB2	2.15	0.46
15:CO:11:ILE:CD1	15:CO:12:VAL:N	2.77	0.46
15:CO:40:GLN:OE1	15:CO:41:GLY:N	2.48	0.46
20:CT:72:ALA:O	20:CT:76:LYS:N	2.45	0.46
22:CV:67:C:N3	22:CV:68:C:C4	2.83	0.46
24:DA:139:U:O2	24:DA:141:G:N1	2.49	0.46
24:DA:556:A:H2'	24:DA:557:C:O4'	2.14	0.46
24:DA:563:A:C2	24:DA:564:C:C2	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:670:A:H4'	24:DA:671:C:O5'	2.14	0.46
24:DA:882:G:N1	24:DA:883:G:C5	2.83	0.46
24:DA:965:C:H4'	24:DA:2273:A:H1'	1.98	0.46
24:DA:995:C:OP2	40:DQ:53:LYS:HE3	2.15	0.46
24:DA:1061:U:O2'	24:DA:1062:G:O5'	2.33	0.46
24:DA:1736:U:O4	24:DA:1737:G:N2	2.49	0.46
24:DA:1906:G:C2'	24:DA:1907:G:O5'	2.64	0.46
24:DA:1944:U:O2	24:DA:1955:U:H5"	2.15	0.46
24:DA:2080:A:OP1	47:DX:19:HIS:CG	2.69	0.46
24:DA:2531:A:C6	24:DA:2532:G:C5	3.04	0.46
24:DA:2756:U:O4'	24:DA:2757:A:H5"	2.16	0.46
24:DA:2847:U:H3'	39:DP:94:ALA:HB2	1.97	0.46
57:DA:3186:NMY:H14	33:DJ:2:LYS:HZ1	1.81	0.46
57:DA:3190:NMY:N6	57:DA:3190:NMY:O3	2.43	0.46
25:DB:77:U:C6	45:DV:14:LYS:NZ	2.84	0.46
26:DC:36:ASN:HB3	26:DC:59:GLN:O	2.16	0.46
26:DC:164:VAL:HG22	26:DC:164:VAL:O	2.15	0.46
29:DF:105:ILE:O	29:DF:108:PRO:CD	2.63	0.46
29:DF:135:ILE:HG12	29:DF:142:TYR:CE2	2.50	0.46
29:DF:163:GLU:C	29:DF:163:GLU:OE1	2.57	0.46
30:DG:93:TYR:CD1	30:DG:106:LEU:HA	2.50	0.46
31:DH:53:GLU:C	31:DH:55:GLU:H	2.22	0.46
36:DM:7:THR:O	36:DM:8:LYS:C	2.59	0.46
36:DM:78:LEU:O	36:DM:79:ALA:HB3	2.16	0.46
36:DM:81:ARG:HH22	36:DM:82:MET:CB	2.29	0.46
45:DV:9:ARG:HG3	45:DV:40:ILE:CA	2.46	0.46
48:DY:5:GLU:C	48:DY:7:ARG:N	2.71	0.46
1:AA:56:U:C5	31:DH:91:PHE:CZ	3.04	0.46
1:AA:174:A:C2	1:AA:175:C:C1'	2.99	0.46
1:AA:213:G:C5	1:AA:214:C:C5	3.04	0.46
1:AA:512:U:H2'	1:AA:513:C:C6	2.51	0.46
1:AA:577:G:O2'	1:AA:578:C:H5'	2.15	0.46
1:AA:616:G:C2	1:AA:625:U:O2	2.68	0.46
1:AA:780:A:C5'	11:AK:125:LYS:HE2	2.45	0.46
1:AA:809:G:C2'	1:AA:810:C:H5'	2.45	0.46
1:AA:1010:U:C4	1:AA:1011:C:N4	2.84	0.46
1:AA:1035:A:N7	1:AA:1036:A:C8	2.83	0.46
1:AA:1237:C:C6	1:AA:1336:C:N4	2.84	0.46
1:AA:1320:C:OP1	19:AS:70:LYS:HE2	2.16	0.46
3:AC:22:TRP:CD1	3:AC:59:ARG:HB2	2.50	0.46
4:AD:20:PHE:C	4:AD:20:PHE:CD1	2.94	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:61:VAL:HG22	4:AD:62:ARG:N	2.31	0.46
4:AD:98:LEU:CD1	4:AD:130:VAL:HG11	2.46	0.46
6:AF:22:ILE:C	6:AF:22:ILE:HD12	2.40	0.46
8:AH:64:LYS:O	8:AH:65:TYR:CD1	2.69	0.46
9:AI:49:ARG:C	9:AI:51:PRO:HD2	2.41	0.46
11:AK:15:GLN:O	11:AK:15:GLN:HG3	2.14	0.46
11:AK:84:VAL:HG22	11:AK:85:MET:N	2.29	0.46
11:AK:128:ARG:O	11:AK:129:VAL:HG22	2.15	0.46
13:AM:98:ARG:HD3	13:AM:100:GLN:HB2	1.98	0.46
14:AN:20:PHE:HA	14:AN:24:ALA:HB2	1.96	0.46
16:AP:19:VAL:HG21	16:AP:37:GLY:CA	2.46	0.46
22:AV:70:G:C2	22:AV:71:G:C5	3.03	0.46
24:BA:65:U:C2	24:BA:66:C:C5	3.03	0.46
24:BA:227:A:N3	24:BA:2407:A:H1'	2.30	0.46
24:BA:545:U:C6	24:BA:547:A:O3'	2.69	0.46
24:BA:564:C:OP2	41:BR:79:ARG:CZ	2.64	0.46
24:BA:659:G:C4'	28:BE:95:LYS:HD3	2.46	0.46
24:BA:675:A:C6	24:BA:676:A:C6	3.04	0.46
24:BA:929:U:O2'	24:BA:930:G:H5'	2.16	0.46
24:BA:1059:G:H1'	32:BI:116:MET:HE1	1.97	0.46
24:BA:1193:G:O2'	24:BA:1194:A:H5'	2.15	0.46
24:BA:1288:G:C2'	24:BA:1327:A:N1	2.79	0.46
24:BA:1333:G:C2	24:BA:1334:G:C8	3.03	0.46
24:BA:1444:G:C4	24:BA:1445:G:C8	3.04	0.46
24:BA:1760:C:C6	24:BA:1761:C:C6	3.03	0.46
24:BA:2019:A:C2	24:BA:2020:A:C4	3.03	0.46
24:BA:2020:A:C2	24:BA:2035:G:C6	3.03	0.46
24:BA:2025:C:C2	24:BA:2026:U:C5	3.03	0.46
24:BA:2379:G:C6	24:BA:2380:C:N4	2.84	0.46
24:BA:2429:G:N7	35:BL:55:MET:HG2	2.31	0.46
24:BA:2705:A:N7	24:BA:2706:A:C8	2.84	0.46
24:BA:2724:U:OP1	27:BD:116:LYS:HE2	2.16	0.46
25:BB:97:C:C5	25:BB:98:G:C8	3.04	0.46
27:BD:194:PRO:O	27:BD:195:GLY:C	2.58	0.46
28:BE:21:ARG:O	28:BE:22:ASP:C	2.59	0.46
29:BF:7:TYR:HA	29:BF:11:VAL:HG23	1.96	0.46
29:BF:12:VAL:HG23	29:BF:13:LYS:HG3	1.98	0.46
29:BF:48:LEU:O	29:BF:49:LEU:C	2.59	0.46
32:BI:72:THR:HB	32:BI:73:PRO:HD2	1.97	0.46
34:BK:45:GLU:HG2	34:BK:46:ALA:N	2.31	0.46
34:BK:77:ILE:CG2	34:BK:79:PHE:HE1	2.29	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BS:17:VAL:O	42:BS:20:VAL:CG1	2.64	0.46
43:BT:67:VAL:HG22	43:BT:76:ARG:CB	2.44	0.46
1:CA:150:U:H2'	1:CA:151:A:H8	1.80	0.46
1:CA:194:C:H5"	20:CT:60:ARG:CZ	2.45	0.46
1:CA:194:C:H4'	20:CT:60:ARG:HG2	1.97	0.46
1:CA:197:A:H4'	1:CA:198:G:O5'	2.16	0.46
1:CA:261:U:P	20:CT:71:LYS:NZ	2.88	0.46
1:CA:590:U:OP1	8:CH:30:SER:C	2.59	0.46
1:CA:626:G:C2	1:CA:627:G:C4	3.03	0.46
1:CA:675:A:O2'	11:CK:116:ILE:CD1	2.63	0.46
1:CA:858:G:O6	1:CA:869:G:C8	2.68	0.46
1:CA:874:G:C6	1:CA:875:U:C4	3.04	0.46
1:CA:881:G:C6	1:CA:882:C:C5	3.04	0.46
1:CA:888:G:H4'	1:CA:1488:G:O2'	2.16	0.46
1:CA:954:G:C4	1:CA:955:U:C5	3.03	0.46
1:CA:1053:G:HO2'	1:CA:1199:U:H5	1.63	0.46
1:CA:1074:G:C6	1:CA:1075:U:C4	3.04	0.46
1:CA:1075:U:C2'	1:CA:1076:U:H5'	2.45	0.46
1:CA:1276:G:N3	1:CA:1282:C:H1'	2.31	0.46
4:CD:147:GLU:O	4:CD:148:LYS:C	2.57	0.46
4:CD:176:GLY:C	4:CD:178:MET:H	2.24	0.46
4:CD:203:LEU:CD2	4:CD:204:TYR:CD2	2.96	0.46
7:CG:39:ALA:O	7:CG:40:GLU:CG	2.64	0.46
9:CI:80:ARG:NE	9:CI:103:PHE:CZ	2.83	0.46
10:CJ:73:LEU:O	10:CJ:74:VAL:CB	2.64	0.46
11:CK:81:ASN:HA	11:CK:106:ARG:HG2	1.98	0.46
12:CL:35:THR:HG22	12:CL:36:ARG:N	2.31	0.46
12:CL:61:PHE:N	12:CL:61:PHE:HD1	2.14	0.46
12:CL:94:ARG:NH1	12:CL:95:TYR:CE2	2.84	0.46
13:CM:48:LEU:HB2	13:CM:52:GLN:CG	2.45	0.46
13:CM:68:ASP:HB3	13:CM:71:ARG:HD2	1.96	0.46
14:CN:67:THR:OG1	14:CN:68:GLY:N	2.46	0.46
15:CO:25:THR:C	15:CO:27:VAL:N	2.74	0.46
22:CV:38:A:H2'	22:CV:38:A:N3	2.31	0.46
24:DA:26:G:C6	24:DA:27:G:N1	2.84	0.46
24:DA:63:A:C2	24:DA:64:A:C4	3.03	0.46
24:DA:223:A:C8	24:DA:422:A:H1'	2.51	0.46
24:DA:475:C:H4'	24:DA:510:C:H5'	1.98	0.46
24:DA:477:A:O2'	24:DA:478:A:O5'	2.33	0.46
24:DA:479:A:C2	24:DA:480:A:C5	3.04	0.46
24:DA:536:G:H2'	24:DA:537:G:H5'	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:545:U:H3'	24:DA:545:U:O2	2.16	0.46
24:DA:994:C:H1'	41:DR:10:LYS:HE2	1.98	0.46
24:DA:1182:G:H2'	24:DA:1183:U:H5'	1.98	0.46
24:DA:1234:U:C2'	24:DA:1235:G:H5'	2.45	0.46
24:DA:1301:A:C4	24:DA:1303:G:C8	3.04	0.46
24:DA:1359:A:C8	24:DA:1360:G:C8	3.04	0.46
24:DA:1505:A:C2	24:DA:1506:U:O2	2.69	0.46
24:DA:1588:G:C2	24:DA:1589:U:C6	3.04	0.46
24:DA:1654:A:H1'	24:DA:2823:A:H5'	1.98	0.46
24:DA:1809:A:N6	24:DA:1810:A:C6	2.84	0.46
24:DA:1857:G:H22	24:DA:1884:G:C2'	2.28	0.46
24:DA:1997:C:O2'	24:DA:1998:A:H5'	2.15	0.46
24:DA:2318:G:C5	24:DA:2319:G:C6	3.04	0.46
24:DA:2344:U:O5'	51:D1:36:LYS:HD3	2.16	0.46
25:DB:57:A:C5	29:DF:25:MET:HG3	2.51	0.46
28:DE:179:SER:O	28:DE:183:PHE:HD1	1.97	0.46
29:DF:33:ILE:CD1	29:DF:99:PHE:CE1	2.98	0.46
30:DG:53:PRO:HG3	30:DG:61:TRP:CD2	2.51	0.46
31:DH:123:ARG:CG	31:DH:124:THR:N	2.71	0.46
33:DJ:64:VAL:HG22	33:DJ:68:LYS:HZ2	1.80	0.46
34:DK:13:ASN:ND2	34:DK:97:THR:O	2.48	0.46
34:DK:76:VAL:HB	39:DP:72:VAL:HG21	1.97	0.46
36:DM:44:ARG:HH21	36:DM:44:ARG:CG	2.25	0.46
37:DN:87:PHE:O	37:DN:88:ALA:C	2.56	0.46
37:DN:94:TYR:O	37:DN:116:VAL:HG22	2.16	0.46
39:DP:96:LEU:O	39:DP:96:LEU:HD12	2.15	0.46
42:DS:13:SER:O	42:DS:14:ALA:C	2.59	0.46
1:AA:4:U:C5'	1:AA:5:U:O4	2.63	0.46
1:AA:625:U:H2'	1:AA:626:G:C8	2.50	0.46
1:AA:712:A:H2'	1:AA:713:G:O4'	2.16	0.46
1:AA:768:A:H5'	1:AA:1524:C:H1'	1.98	0.46
1:AA:1108:G:C2'	1:AA:1109:C:O5'	2.63	0.46
1:AA:1170:A:N6	1:AA:1171:A:N3	2.64	0.46
1:AA:1330:U:C4	1:AA:1331:G:O6	2.69	0.46
1:AA:1505:G:C3'	23:AX:12:A:OP2	2.64	0.46
2:AB:120:GLN:HA	2:AB:123:ASP:HB2	1.97	0.46
4:AD:124:MET:SD	4:AD:128:ARG:N	2.89	0.46
5:AE:95:PHE:O	5:AE:125:ALA:HB1	2.16	0.46
5:AE:116:GLU:HG3	5:AE:117:VAL:HG23	1.98	0.46
6:AF:10:VAL:CG1	6:AF:11:HIS:H	2.28	0.46
7:AG:46:ALA:CB	7:AG:117:ALA:O	2.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:30:ILE:HG21	9:AI:38:TYR:CD2	2.50	0.46
9:AI:113:ARG:C	9:AI:114:LYS:O	2.55	0.46
12:AL:103:ASP:O	12:AL:104:CYS:O	2.34	0.46
18:AR:28:THR:HB	18:AR:29:LEU:HD12	1.97	0.46
18:AR:51:TYR:O	18:AR:55:LEU:HD23	2.16	0.46
18:AR:52:GLN:C	18:AR:54:GLN:N	2.72	0.46
20:AT:28:MET:O	20:AT:32:ILE:HG13	2.16	0.46
24:BA:513:A:H1'	40:BQ:10:ARG:HH12	1.80	0.46
24:BA:547:A:C8	24:BA:548:G:C2	3.04	0.46
24:BA:600:G:H4'	28:BE:27:LEU:CD1	2.45	0.46
24:BA:831:G:O2'	35:BL:38:GLN:HG3	2.16	0.46
24:BA:1186:G:C2'	24:BA:1187:G:H5'	2.44	0.46
24:BA:1269:A:C6	24:BA:1270:C:N4	2.83	0.46
24:BA:1307:A:C6	24:BA:1622:G:C6	3.04	0.46
24:BA:1342:A:C8	24:BA:1397:U:C2	3.03	0.46
24:BA:1358:G:C5	24:BA:1371:G:C6	3.04	0.46
24:BA:1453:A:N3	37:BN:77:ALA:CB	2.79	0.46
24:BA:1734:G:H2'	24:BA:1735:A:O4'	2.16	0.46
24:BA:1993:U:H4'	27:BD:133:THR:HG21	1.98	0.46
24:BA:2342:C:O2'	24:BA:2374:C:H5"	2.15	0.46
24:BA:2657:A:H4'	30:BG:91:VAL:HG21	1.97	0.46
24:BA:2888:C:O2	24:BA:2888:C:H2'	2.15	0.46
57:BA:3161:NMY:H1	57:BA:3161:NMY:O11	2.16	0.46
57:BA:3165:NMY:H2	57:BA:3165:NMY:C17	2.44	0.46
25:BB:26:C:C5	25:BB:27:C:C4	3.04	0.46
26:BC:136:VAL:HG11	26:BC:165:ALA:HA	1.98	0.46
27:BD:125:TRP:CD1	27:BD:160:LYS:CD	2.99	0.46
28:BE:102:ARG:O	28:BE:106:LYS:HB3	2.15	0.46
28:BE:108:ILE:HG13	28:BE:109:LEU:N	2.31	0.46
30:BG:102:ILE:HD11	30:BG:116:LEU:HD11	1.96	0.46
36:BM:34:LYS:HB3	36:BM:129:THR:CG2	2.45	0.46
36:BM:65:ILE:O	36:BM:65:ILE:HD12	2.16	0.46
43:BT:74:ILE:C	43:BT:74:ILE:HD12	2.41	0.46
44:BU:39:ASN:HB3	44:BU:62:ALA:O	2.16	0.46
45:BV:65:VAL:O	45:BV:65:VAL:CG2	2.63	0.46
52:B2:8:SER:OG	52:B2:11:LYS:HB2	2.15	0.46
1:CA:167:A:H2'	1:CA:168:G:O4'	2.15	0.46
1:CA:406:G:C4	1:CA:495:A:C5	3.03	0.46
1:CA:408:A:C6	1:CA:409:U:C4	3.03	0.46
1:CA:409:U:OP1	4:CD:22:LYS:HG3	2.15	0.46
1:CA:625:U:H2'	1:CA:626:G:C8	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:642:A:N7	8:CH:107:SER:HA	2.30	0.46
1:CA:673:A:C5'	6:CF:86:ARG:NH1	2.78	0.46
1:CA:727:G:C2	1:CA:731:G:C6	3.04	0.46
1:CA:782:A:C5	1:CA:783:C:C2	3.03	0.46
1:CA:796:C:O2'	1:CA:797:C:H5'	2.15	0.46
1:CA:1001:C:H2'	1:CA:1002:G:O4'	2.14	0.46
1:CA:1203:C:H2'	1:CA:1204:A:H5'	1.97	0.46
1:CA:1254:A:N3	1:CA:1255:G:C8	2.84	0.46
1:CA:1306:A:H2'	1:CA:1307:U:H5'	1.98	0.46
1:CA:1321:U:C6	1:CA:1322:C:H2'	2.51	0.46
2:CB:144:LEU:O	2:CB:145:GLU:C	2.58	0.46
3:CC:19:ASN:O	3:CC:20:SER:HB3	2.16	0.46
5:CE:153:VAL:HG13	5:CE:154:ALA:H	1.81	0.46
6:CF:66:ALA:HB1	6:CF:67:PRO:HD2	1.98	0.46
11:CK:51:GLY:C	11:CK:52:PHE:CG	2.94	0.46
11:CK:86:VAL:N	11:CK:113:VAL:HG22	2.31	0.46
13:CM:87:ARG:O	13:CM:88:GLY:C	2.57	0.46
13:CM:98:ARG:HD2	13:CM:100:GLN:OE1	2.16	0.46
15:CO:4:SER:O	15:CO:5:THR:C	2.59	0.46
18:CR:60:LYS:HA	18:CR:63:ARG:HG3	1.97	0.46
22:CV:61:C:N4	22:CV:62:C:N4	2.63	0.46
55:CY:142:LEU:O	55:CY:142:LEU:CG	2.62	0.46
55:CY:142:LEU:HD21	55:CY:148:ILE:CD1	2.46	0.46
24:DA:81:G:H2'	24:DA:82:U:O4'	2.16	0.46
24:DA:530:G:N2	24:DA:2023:C:C5	2.84	0.46
24:DA:770:G:P	52:D2:11:LYS:HD2	2.56	0.46
24:DA:1218:G:C2	24:DA:1232:G:C5	3.04	0.46
24:DA:1337:G:O2'	24:DA:1338:G:H5'	2.15	0.46
24:DA:1369:G:C4	24:DA:1370:C:C5	3.04	0.46
24:DA:1483:G:C8	24:DA:1484:U:C5	3.03	0.46
24:DA:1518:C:O2'	24:DA:1519:G:H5'	2.16	0.46
24:DA:1678:A:C2	24:DA:1989:G:N2	2.83	0.46
24:DA:1719:G:N2	24:DA:1742:U:H1'	2.31	0.46
24:DA:1764:C:O2'	24:DA:1765:U:H5'	2.15	0.46
24:DA:1996:C:H4'	27:DD:128:ARG:HE	1.81	0.46
24:DA:2155:U:C5	24:DA:2156:G:C4	3.04	0.46
24:DA:2209:G:C2	24:DA:2216:G:C2	3.04	0.46
24:DA:2248:C:H2'	24:DA:2249:U:H5'	1.97	0.46
24:DA:2466:C:OP1	54:D4:4:ARG:CD	2.64	0.46
24:DA:2786:U:O2'	27:DD:66:GLY:HA3	2.16	0.46
24:DA:2817:U:H2'	24:DA:2818:U:O5'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2836:U:H2'	24:DA:2837:A:C8	2.51	0.46
26:DC:61:TYR:CD2	26:DC:62:ARG:O	2.69	0.46
26:DC:104:LEU:O	26:DC:106:PRO:HD3	2.16	0.46
26:DC:151:GLY:O	26:DC:152:GLN:HG3	2.14	0.46
27:DD:47:ALA:HA	27:DD:84:LEU:HG	1.97	0.46
28:DE:1:MET:HE3	28:DE:19:PHE:HB2	1.95	0.46
28:DE:138:LEU:O	28:DE:139:LYS:C	2.58	0.46
29:DF:95:MET:C	29:DF:99:PHE:CE1	2.93	0.46
30:DG:77:GLY:O	30:DG:78:VAL:HG23	2.15	0.46
31:DH:134:VAL:HG11	31:DH:138:VAL:HG21	1.98	0.46
34:DK:19:VAL:CG2	34:DK:41:ILE:HD12	2.45	0.46
36:DM:68:PHE:O	36:DM:69:PRO:O	2.34	0.46
37:DN:48:VAL:HG12	37:DN:52:ILE:HD13	1.97	0.46
38:DO:44:GLY:C	38:DO:46:GLU:H	2.22	0.46
41:DR:66:HIS:CD2	41:DR:94:THR:HB	2.51	0.46
42:DS:32:ALA:O	42:DS:36:LEU:HG	2.16	0.46
47:DX:55:MET:O	47:DX:56:ARG:C	2.59	0.46
49:DZ:50:VAL:O	49:DZ:50:VAL:HG12	2.15	0.46
52:D2:34:ARG:HH11	52:D2:42:LEU:HA	1.80	0.46
1:AA:100:G:C2'	1:AA:101:A:H5'	2.46	0.46
1:AA:200:G:C2	1:AA:201:G:C8	3.04	0.46
1:AA:258:G:C2'	1:AA:259:G:O5'	2.63	0.46
1:AA:393:A:C5	1:AA:394:G:C8	3.04	0.46
1:AA:436:C:N3	1:AA:437:U:C4	2.84	0.46
1:AA:607:A:H2'	1:AA:608:A:O4'	2.16	0.46
1:AA:826:C:C2	1:AA:827:U:C5	3.03	0.46
1:AA:982:U:O2	1:AA:1222:G:O6	2.34	0.46
1:AA:993:G:N2	1:AA:995:C:N4	2.63	0.46
1:AA:1085:U:C6	1:AA:1094:G:N1	2.83	0.46
1:AA:1315:U:O4	1:AA:1316:G:N1	2.49	0.46
57:AA:1657:NMY:N23	57:AA:1657:NMY:C15	2.79	0.46
2:AB:15:HIS:CE1	2:AB:208:ARG:HB3	2.51	0.46
2:AB:21:ARG:C	2:AB:22:TYR:CG	2.94	0.46
2:AB:24:ASN:ND2	2:AB:26:LYS:HE3	2.31	0.46
2:AB:184:PHE:CD1	2:AB:184:PHE:N	2.84	0.46
3:AC:40:ARG:NH2	3:AC:57:ILE:HG12	2.31	0.46
4:AD:19:LEU:HB3	4:AD:64:ILE:HG12	1.96	0.46
4:AD:99:ASP:O	4:AD:102:VAL:N	2.47	0.46
5:AE:110:ALA:O	5:AE:111:MET:HB2	2.15	0.46
8:AH:10:MET:O	8:AH:13:ARG:HG2	2.16	0.46
8:AH:12:THR:O	8:AH:16:ASN:OD1	2.34	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:106:THR:HG1	8:AH:121:LEU:HB3	1.80	0.46
9:AI:7:TYR:CD1	9:AI:8:GLY:N	2.84	0.46
9:AI:128:SER:O	9:AI:129:LYS:C	2.59	0.46
10:AJ:6:ILE:N	10:AJ:6:ILE:HD12	2.31	0.46
11:AK:35:THR:CA	11:AK:42:LEU:HD13	2.46	0.46
12:AL:25:GLU:O	12:AL:27:CYS:HB2	2.16	0.46
13:AM:19:LEU:O	13:AM:22:ILE:CG2	2.64	0.46
15:AO:29:VAL:CG2	15:AO:66:LEU:HD22	2.46	0.46
20:AT:75:HIS:C	20:AT:77:ALA:N	2.73	0.46
21:AU:25:LYS:HZ1	23:AX:5:A:H4'	1.81	0.46
24:BA:278:A:C5	24:BA:362:A:C4	3.04	0.46
24:BA:387:U:H4'	24:BA:388:G:OP1	2.14	0.46
24:BA:508:A:C3'	24:BA:509:C:H5'	2.45	0.46
24:BA:751:A:C5	24:BA:789:A:N1	2.84	0.46
24:BA:801:G:H3'	24:BA:802:A:H5'	1.98	0.46
24:BA:932:U:O2	24:BA:933:A:C5	2.69	0.46
24:BA:1089:A:O2'	24:BA:1090:A:N7	2.45	0.46
24:BA:1197:G:H2'	24:BA:1198:U:C6	2.51	0.46
24:BA:1368:G:OP1	52:B2:25:LYS:CD	2.64	0.46
24:BA:1450:G:C6	24:BA:1451:C:N4	2.84	0.46
24:BA:1548:A:H2'	24:BA:1549:A:C8	2.50	0.46
24:BA:1977:A:N6	24:BA:1978:A:N1	2.63	0.46
24:BA:2416:C:O2	24:BA:2416:C:H2'	2.15	0.46
24:BA:2636:C:H4'	27:BD:81:GLU:CD	2.40	0.46
24:BA:2678:C:C2	24:BA:2679:A:C8	3.04	0.46
25:BB:30:C:OP1	38:BO:3:LYS:HE3	2.16	0.46
27:BD:194:PRO:O	27:BD:195:GLY:O	2.33	0.46
29:BF:175:PRO:O	29:BF:176:PHE:CD2	2.69	0.46
31:BH:48:GLU:OE1	31:BH:51:ARG:NH1	2.48	0.46
36:BM:109:PRO:C	36:BM:111:GLU:N	2.71	0.46
37:BN:24:MET:HG2	37:BN:44:LEU:HD13	1.98	0.46
40:BQ:19:GLN:HB2	40:BQ:38:VAL:HG21	1.97	0.46
44:BU:3:LYS:HE3	44:BU:82:VAL:O	2.16	0.46
44:BU:35:VAL:HG22	44:BU:38:ILE:HG21	1.97	0.46
45:BV:44:HIS:O	45:BV:47:VAL:N	2.47	0.46
1:CA:428:G:C6	1:CA:430:A:N6	2.84	0.46
1:CA:464:U:H2'	1:CA:466:A:OP2	2.16	0.46
1:CA:504:C:H1'	1:CA:510:A:C4	2.51	0.46
1:CA:712:A:N6	1:CA:713:G:C6	2.84	0.46
1:CA:714:G:N2	1:CA:777:A:H1'	2.30	0.46
1:CA:948:C:C2'	1:CA:949:A:H5'	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1014:A:N3	1:CA:1219:A:H1'	2.31	0.46
1:CA:1055:A:C2'	3:CC:193:TYR:OH	2.64	0.46
1:CA:1146:A:C2	1:CA:1147:C:C2	3.04	0.46
1:CA:1157:A:C5	1:CA:1180:A:C6	3.04	0.46
1:CA:1253:G:C2	1:CA:1254:A:C8	3.03	0.46
1:CA:1266:G:N2	1:CA:1270:G:C5	2.84	0.46
1:CA:1325:C:H2'	1:CA:1326:U:C6	2.51	0.46
1:CA:1494:G:N7	57:CA:1672:NMY:N9	2.63	0.46
1:CA:1512:U:H2'	1:CA:1513:A:H8	1.78	0.46
2:CB:200:ILE:O	2:CB:201:PRO:O	2.34	0.46
4:CD:58:LYS:HZ3	4:CD:203:LEU:HD13	1.79	0.46
4:CD:165:ARG:CZ	4:CD:167:LYS:C	2.88	0.46
5:CE:136:VAL:O	5:CE:139:ALA:HB3	2.16	0.46
6:CF:47:LEU:HD13	6:CF:56:LYS:CA	2.45	0.46
7:CG:69:VAL:O	7:CG:70:ARG:C	2.58	0.46
10:CJ:8:ILE:HG22	10:CJ:9:ARG:N	2.31	0.46
10:CJ:67:ILE:HD13	14:CN:96:LEU:HB2	1.98	0.46
12:CL:37:VAL:HA	12:CL:53:CYS:HA	1.97	0.46
13:CM:96:PRO:HA	13:CM:109:ARG:CZ	2.46	0.46
14:CN:45:VAL:C	14:CN:47:LYS:N	2.71	0.46
21:CU:25:LYS:O	21:CU:26:ALA:C	2.59	0.46
55:CY:121:ALA:CB	55:CY:175:LEU:CD1	2.93	0.46
24:DA:46:G:C2	24:DA:47:C:C4	3.03	0.46
24:DA:361:G:O2'	24:DA:362:A:C8	2.69	0.46
24:DA:693:A:C5	24:DA:694:U:C4	3.04	0.46
24:DA:997:G:O2'	24:DA:998:C:H5'	2.16	0.46
24:DA:999:U:O2	24:DA:1157:G:C2	2.69	0.46
24:DA:1177:G:C2	24:DA:1178:C:H1'	2.50	0.46
24:DA:1199:U:H2'	24:DA:1200:C:C6	2.51	0.46
24:DA:1243:C:C4	24:DA:1244:A:N7	2.84	0.46
24:DA:1691:C:C2'	24:DA:1692:U:H5'	2.45	0.46
24:DA:1848:A:H2'	24:DA:1849:G:C1'	2.46	0.46
24:DA:2089:C:C4	24:DA:2090:A:N7	2.84	0.46
24:DA:2306:C:N4	29:DF:38:GLY:O	2.48	0.46
24:DA:2307:G:C6	29:DF:40:GLY:HA3	2.51	0.46
24:DA:2335:A:C6	24:DA:2337:G:H1'	2.51	0.46
24:DA:2744:G:C2'	24:DA:2745:C:H5'	2.46	0.46
25:DB:51:G:O2'	25:DB:52:A:H5'	2.16	0.46
26:DC:149:LYS:HZ1	26:DC:152:GLN:CD	2.24	0.46
27:DD:90:PHE:HA	27:DD:94:GLN:OE1	2.15	0.46
31:DH:81:ALA:O	31:DH:149:GLU:OE1	2.33	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DI:99:LYS:HD2	32:DI:138:VAL:HB	1.97	0.46
36:DM:108:VAL:CG1	36:DM:112:LEU:HD22	2.46	0.46
38:DO:90:VAL:O	38:DO:117:PHE:CB	2.63	0.46
40:DQ:51:GLN:O	40:DQ:52:ARG:C	2.59	0.46
44:DU:82:VAL:HG12	44:DU:83:GLY:N	2.30	0.46
49:DZ:23:LEU:HD21	49:DZ:53:MET:HE2	1.98	0.46
51:D1:28:THR:O	51:D1:29:LYS:HB3	2.16	0.46
1:AA:9:G:C2	1:AA:10:A:C4	3.03	0.46
1:AA:135:C:O2	16:AP:1:MET:HB3	2.16	0.46
1:AA:204:G:C5	1:AA:205:A:C5	3.04	0.46
1:AA:404:G:H2'	1:AA:405:U:H6	1.77	0.46
1:AA:707:U:H4'	11:AK:22:HIS:ND1	2.31	0.46
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.51	0.46
1:AA:1297:G:H4'	1:AA:1298:U:H5'	1.97	0.46
1:AA:1342:C:H1'	9:AI:126:GLN:HG3	1.98	0.46
2:AB:70:VAL:HG23	2:AB:92:VAL:O	2.15	0.46
4:AD:79:ALA:HB2	4:AD:90:LEU:CA	2.45	0.46
4:AD:166:GLU:O	4:AD:167:LYS:O	2.33	0.46
7:AG:107:ALA:O	7:AG:110:LYS:N	2.48	0.46
8:AH:88:ARG:HG2	8:AH:89:LYS:H	1.80	0.46
10:AJ:66:GLU:HG2	14:AN:99:ALA:HB3	1.98	0.46
12:AL:40:THR:HG22	12:AL:41:THR:O	2.15	0.46
14:AN:9:GLU:CD	14:AN:10:VAL:N	2.74	0.46
19:AS:15:LEU:HD22	19:AS:35:SER:HB2	1.97	0.46
22:AV:49:C:H2'	22:AV:50:U:H6	1.81	0.46
24:BA:94:A:H3'	24:BA:95:A:C8	2.51	0.46
24:BA:147:C:C4	24:BA:148:U:C4	3.03	0.46
24:BA:312:G:H2'	24:BA:312:G:N3	2.31	0.46
24:BA:361:G:C2'	24:BA:362:A:O5'	2.63	0.46
24:BA:562:U:H1'	24:BA:2035:G:O2'	2.16	0.46
24:BA:565:C:H5'	24:BA:1253:A:N6	2.31	0.46
24:BA:568:U:C5	59:BA:3779:HOH:O	2.68	0.46
24:BA:831:G:H2'	24:BA:832:U:O5'	2.16	0.46
24:BA:1259:G:H2'	24:BA:1260:A:C8	2.51	0.46
24:BA:1358:G:C6	24:BA:1371:G:C5	3.04	0.46
24:BA:1429:G:C8	24:BA:1568:G:C5	3.03	0.46
24:BA:1465:G:C6	24:BA:1466:U:C4	3.04	0.46
24:BA:1532:A:H2'	24:BA:1533:C:C6	2.51	0.46
24:BA:1858:A:H2'	24:BA:1859:U:C6	2.51	0.46
24:BA:2101:A:C2	24:BA:2102:G:C8	3.04	0.46
24:BA:2116:G:H5"	24:BA:2117:A:P	2.56	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2221:G:C6	24:BA:2222:C:C5	3.04	0.46
24:BA:2379:G:H4'	38:BO:21:LEU:HD21	1.98	0.46
24:BA:2872:A:C2'	24:BA:2873:A:C5'	2.90	0.46
26:BC:71:ASP:O	26:BC:73:ILE:HD12	2.15	0.46
26:BC:231:HIS:O	26:BC:233:GLY:N	2.49	0.46
29:BF:37:MET:HG2	29:BF:151:LEU:CB	2.46	0.46
29:BF:68:LYS:CE	29:BF:81:GLY:C	2.89	0.46
29:BF:127:TYR:O	29:BF:155:ILE:CG2	2.64	0.46
29:BF:139:GLU:N	29:BF:139:GLU:OE1	2.49	0.46
31:BH:1:MET:HE3	47:BX:59:ASP:HB3	1.98	0.46
31:BH:1:MET:O	31:BH:19:VAL:HG23	2.16	0.46
32:BI:100:ILE:HG22	32:BI:101:SER:N	2.31	0.46
34:BK:91:SER:O	34:BK:92:GLU:C	2.57	0.46
34:BK:121:GLU:CG	34:BK:122:VAL:N	2.78	0.46
35:BL:82:LEU:HD12	35:BL:116:VAL:HG21	1.97	0.46
35:BL:94:THR:HG23	35:BL:95:LEU:N	2.31	0.46
37:BN:38:LEU:O	37:BN:39:PRO:C	2.59	0.46
38:BO:18:LEU:C	38:BO:18:LEU:HD12	2.41	0.46
42:BS:4:ILE:HD12	42:BS:105:VAL:O	2.16	0.46
42:BS:20:VAL:HG11	42:BS:43:ALA:HB1	1.98	0.46
43:BT:39:THR:O	43:BT:43:ILE:N	2.47	0.46
45:BV:88:HIS:CG	45:BV:89:ILE:N	2.84	0.46
1:CA:55:A:C4	1:CA:56:U:C6	3.04	0.46
1:CA:101:A:C6	1:CA:102:G:N7	2.84	0.46
1:CA:175:C:H2'	1:CA:176:C:H6	1.81	0.46
1:CA:212:G:N2	1:CA:213:G:C4	2.84	0.46
1:CA:214:C:O2'	1:CA:215:C:P	2.72	0.46
1:CA:300:A:H2'	1:CA:301:G:O4'	2.15	0.46
1:CA:391:G:C5	1:CA:392:C:C5	3.04	0.46
1:CA:429:U:OP1	4:CD:13:ARG:NH1	2.49	0.46
1:CA:624:C:H2'	1:CA:625:U:C5'	2.46	0.46
1:CA:659:U:C2	1:CA:660:C:C5	3.04	0.46
1:CA:781:A:C3'	1:CA:782:A:H5'	2.46	0.46
1:CA:1124:G:O2'	1:CA:1127:G:O6	2.33	0.46
1:CA:1143:G:H2'	1:CA:1144:G:O4'	2.15	0.46
1:CA:1306:A:C2'	1:CA:1307:U:H5'	2.46	0.46
1:CA:1347:G:O2'	1:CA:1348:U:P	2.73	0.46
4:CD:8:LYS:O	4:CD:9:LEU:O	2.34	0.46
4:CD:22:LYS:O	4:CD:22:LYS:CG	2.64	0.46
4:CD:55:LEU:HB2	4:CD:58:LYS:HD2	1.97	0.46
5:CE:136:VAL:CG2	5:CE:137:VAL:N	2.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:157:ARG:O	5:CE:158:GLY:C	2.59	0.46
7:CG:40:GLU:HA	7:CG:43:VAL:HB	1.96	0.46
10:CJ:73:LEU:HD22	10:CJ:73:LEU:C	2.40	0.46
14:CN:66:GLN:NE2	14:CN:79:LEU:HD21	2.31	0.46
22:CV:36:A:C6	22:CV:37:A:C8	3.03	0.46
55:CY:143:LEU:CD2	55:CY:153:ASP:HB2	2.46	0.46
55:CY:180:ALA:C	55:CY:182:LEU:H	2.23	0.46
24:DA:297:G:O3'	44:DU:84:PHE:HB3	2.16	0.46
24:DA:715:A:C6	24:DA:716:A:C6	3.03	0.46
24:DA:782:A:H4'	24:DA:783:A:O5'	2.15	0.46
24:DA:909:A:H2'	24:DA:912:C:C5	2.51	0.46
24:DA:918:A:H5"	25:DB:97:C:O2'	2.16	0.46
24:DA:1064:C:O2	24:DA:1064:C:C2'	2.64	0.46
24:DA:1191:G:O2'	24:DA:1192:G:H5'	2.16	0.46
24:DA:1296:G:N2	24:DA:1645:G:C4	2.84	0.46
24:DA:1351:C:O2'	24:DA:1571:A:C2'	2.63	0.46
24:DA:1517:G:C4	24:DA:1518:C:C5	3.04	0.46
24:DA:1690:A:C8	24:DA:1691:C:C5	3.04	0.46
24:DA:1805:A:H5"	26:DC:247:TRP:CD2	2.51	0.46
24:DA:1858:A:C5	24:DA:1859:U:C6	3.04	0.46
24:DA:1920:C:O2'	24:DA:1921:G:H5'	2.15	0.46
24:DA:2154:A:C6	24:DA:2155:U:C4	3.04	0.46
24:DA:2201:G:H2'	24:DA:2202:U:O5'	2.15	0.46
24:DA:2287:A:H2'	24:DA:2287:A:N3	2.31	0.46
24:DA:2289:G:C2	24:DA:2290:G:C8	3.04	0.46
24:DA:2466:C:C5'	54:D4:5:ALA:HB3	2.46	0.46
24:DA:2622:U:O2'	24:DA:2825:G:N7	2.48	0.46
24:DA:2799:A:C6	24:DA:2801:G:C4	3.04	0.46
24:DA:2852:G:O2'	24:DA:2853:C:H5'	2.16	0.46
26:DC:64:VAL:HG23	26:DC:66:PHE:HD2	1.80	0.46
29:DF:7:TYR:HA	29:DF:11:VAL:CG2	2.46	0.46
30:DG:155:PRO:O	30:DG:170:THR:HA	2.16	0.46
32:DI:28:GLY:HA2	32:DI:32:VAL:HB	1.97	0.46
33:DJ:33:ALA:O	33:DJ:34:ARG:C	2.58	0.46
33:DJ:51:GLY:C	33:DJ:121:LYS:HE3	2.41	0.46
34:DK:19:VAL:HG21	34:DK:41:ILE:CD1	2.46	0.46
38:DO:90:VAL:O	38:DO:117:PHE:HB3	2.15	0.46
41:DR:14:VAL:CG1	41:DR:98:ILE:HD13	2.46	0.46
42:DS:14:ALA:HB1	42:DS:18:ARG:CZ	2.46	0.46
44:DU:6:ARG:HG2	44:DU:7:ASP:OD1	2.15	0.46
46:DW:10:THR:C	46:DW:11:ARG:CG	2.88	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DY:56:LEU:HA	48:DY:59:GLU:HB3	1.96	0.46
1:AA:236:A:H2'	1:AA:237:G:C8	2.51	0.46
1:AA:243:A:N1	1:AA:246:A:N7	2.64	0.46
1:AA:276:G:C2'	1:AA:277:C:H5'	2.46	0.46
1:AA:310:G:C5	1:AA:311:C:C5	3.03	0.46
1:AA:676:A:H4'	11:AK:115:PRO:HB2	1.98	0.46
1:AA:706:A:C4	1:AA:707:U:C6	3.04	0.46
1:AA:786:G:C6	1:AA:787:A:C8	3.03	0.46
1:AA:856:C:H2'	1:AA:857:C:H5'	1.97	0.46
1:AA:874:G:C4	1:AA:875:U:C5	3.04	0.46
1:AA:909:A:OP1	12:AL:18:LYS:HD2	2.16	0.46
1:AA:990:C:N4	1:AA:991:U:O4	2.49	0.46
1:AA:1084:G:C5	1:AA:1085:U:N3	2.84	0.46
1:AA:1088:G:C2	1:AA:1089:G:C4	3.04	0.46
1:AA:1101:A:H1'	1:AA:1102:A:OP2	2.16	0.46
1:AA:1163:A:C2	1:AA:1174:G:C2	3.04	0.46
1:AA:1317:C:N3	19:AS:37:ARG:NH2	2.63	0.46
1:AA:1350:A:P	9:AI:123:ARG:HH12	2.39	0.46
1:AA:1358:U:OP1	14:AN:75:ARG:N	2.49	0.46
3:AC:78:GLY:CA	21:CU:18:ARG:HE	2.29	0.46
4:AD:7:PRO:CB	4:AD:9:LEU:HD21	2.47	0.46
4:AD:142:VAL:CG1	4:AD:143:VAL:N	2.79	0.46
5:AE:83:HIS:CD2	5:AE:84:PRO:CD	2.98	0.46
6:AF:5:GLU:HA	6:AF:63:ASN:HA	1.98	0.46
6:AF:9:MET:HE3	18:AR:65:LEU:HD23	1.96	0.46
7:AG:38:THR:O	7:AG:42:ILE:HG23	2.15	0.46
8:AH:86:TYR:CD2	8:AH:123:GLY:HA2	2.51	0.46
9:AI:78:ALA:O	9:AI:81:HIS:N	2.49	0.46
13:AM:60:VAL:C	13:AM:62:LYS:N	2.72	0.46
13:AM:96:PRO:HG2	13:AM:102:THR:HG22	1.98	0.46
14:AN:41:ARG:C	14:AN:42:TRP:CG	2.94	0.46
14:AN:73:PHE:HA	14:AN:80:SER:HA	1.96	0.46
24:BA:237:C:C2'	24:BA:238:C:H5'	2.46	0.46
24:BA:409:G:C2	24:BA:410:G:C4	3.04	0.46
24:BA:850:U:H2'	24:BA:851:C:H6	1.80	0.46
24:BA:910:A:C4	36:BM:13:HIS:ND1	2.84	0.46
24:BA:936:A:H2'	24:BA:937:C:C6	2.51	0.46
24:BA:1770:G:C2'	24:BA:1771:C:H5'	2.46	0.46
24:BA:1904:G:O2'	24:BA:1905:C:H5'	2.16	0.46
24:BA:1910:G:C2	24:BA:1921:G:C4	3.04	0.46
24:BA:2074:U:H1'	24:BA:2598:A:N3	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2091:C:H5"	47:BX:55:MET:HE1	1.97	0.46
24:BA:2436:G:O2'	24:BA:2598:A:N1	2.40	0.46
57:BA:3166:NMY:O16	57:BA:3166:NMY:H1	2.16	0.46
26:BC:128:THR:HA	26:BC:190:THR:HA	1.97	0.46
31:BH:29:PHE:O	31:BH:30:LEU:C	2.59	0.46
31:BH:55:GLU:O	31:BH:57:LYS:N	2.48	0.46
33:BJ:102:GLU:O	33:BJ:103:ILE:C	2.57	0.46
38:BO:34:HIS:ND1	38:BO:65:THR:HB	2.31	0.46
38:BO:101:GLY:C	38:BO:103:VAL:N	2.73	0.46
40:BQ:52:ARG:HA	40:BQ:55:GLN:HB2	1.97	0.46
40:BQ:77:LYS:O	40:BQ:79:ILE:N	2.48	0.46
44:BU:94:PHE:HB2	44:BU:100:GLU:O	2.16	0.46
48:BY:48:ARG:O	48:BY:51:ALA:HB3	2.16	0.46
1:CA:29:U:C2'	1:CA:30:U:H5'	2.46	0.46
1:CA:329:A:C2	1:CA:332:G:N9	2.84	0.46
1:CA:404:G:C5	1:CA:405:U:C5	3.04	0.46
1:CA:425:G:C6	1:CA:426:U:C5	3.04	0.46
1:CA:492:C:C4	1:CA:493:A:C2	3.04	0.46
1:CA:493:A:C5	1:CA:494:G:C6	3.04	0.46
1:CA:501:C:OP2	12:CL:121:ARG:NH1	2.49	0.46
1:CA:642:A:C4	8:CH:106:THR:O	2.69	0.46
1:CA:693:G:C6	1:CA:694:A:C6	3.04	0.46
1:CA:761:G:C4	1:CA:762:U:C6	3.03	0.46
1:CA:857:C:C5	1:CA:858:G:C5	3.03	0.46
1:CA:1048:G:H2'	1:CA:1050:G:C8	2.51	0.46
1:CA:1089:G:O2'	1:CA:1090:U:P	2.74	0.46
1:CA:1118:U:P	9:CI:106:ARG:HH12	2.38	0.46
1:CA:1217:C:OP1	14:CN:8:ARG:HD3	2.16	0.46
1:CA:1370:G:O5'	9:CI:111:VAL:HG13	2.16	0.46
1:CA:1408:A:H61	57:CA:1672:NMY:H1	1.81	0.46
2:CB:14:VAL:O	2:CB:14:VAL:HG23	2.16	0.46
3:CC:16:LYS:NZ	3:CC:182:ILE:O	2.44	0.46
4:CD:167:LYS:HD3	4:CD:168:PRO:HD3	1.97	0.46
4:CD:188:ARG:HG3	4:CD:189:SER:N	2.31	0.46
10:CJ:57:VAL:HG12	10:CJ:58:ASN:H	1.81	0.46
11:CK:76:GLU:C	11:CK:78:GLY:N	2.74	0.46
13:CM:11:ASP:OD1	13:CM:11:ASP:N	2.48	0.46
13:CM:66:GLU:CG	13:CM:70:ARG:NH1	2.78	0.46
14:CN:18:LYS:HA	14:CN:22:LYS:HE3	1.97	0.46
14:CN:19:TYR:CD1	14:CN:55:SER:HB3	2.51	0.46
14:CN:26:LEU:O	14:CN:27:LYS:HG2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:11:ILE:O	15:CO:12:VAL:C	2.57	0.46
20:CT:3:ASN:HA	20:CT:8:LYS:HE3	1.97	0.46
55:CY:43:GLU:C	55:CY:44:TYR:HD1	2.24	0.46
24:DA:61:C:H5'	48:DY:43:LEU:HD21	1.98	0.46
24:DA:96:C:H4'	48:DY:41:HIS:NE2	2.30	0.46
24:DA:100:U:C2	24:DA:101:A:N6	2.84	0.46
24:DA:159:G:N2	24:DA:166:U:C5	2.84	0.46
24:DA:249:C:C5'	24:DA:2394:C:O2'	2.64	0.46
24:DA:273:G:C6	24:DA:274:C:N4	2.84	0.46
24:DA:342:A:O2'	24:DA:343:C:OP1	2.21	0.46
24:DA:616:A:H2'	24:DA:617:G:H5'	1.98	0.46
24:DA:729:G:C5	26:DC:206:LYS:HB2	2.51	0.46
24:DA:761:A:OP1	59:DA:3694:HOH:O	2.20	0.46
24:DA:1069:A:C8	24:DA:1074:G:C6	3.04	0.46
24:DA:1101:U:H2'	24:DA:1102:C:H5'	1.98	0.46
24:DA:1239:G:C5	57:DA:3190:NMY:C6	2.90	0.46
24:DA:1373:A:H2'	24:DA:1374:G:O4'	2.16	0.46
24:DA:1501:G:O2'	24:DA:1502:A:C5'	2.63	0.46
24:DA:1505:A:C2	24:DA:1506:U:N3	2.84	0.46
24:DA:1736:U:C3'	24:DA:1737:G:H5'	2.46	0.46
24:DA:1796:U:O2'	24:DA:1797:G:H5'	2.16	0.46
24:DA:1799:G:OP1	26:DC:257:ARG:CD	2.64	0.46
24:DA:1841:U:C4	24:DA:1842:G:N7	2.84	0.46
24:DA:1889:A:H1'	24:DA:2086:U:O2'	2.15	0.46
24:DA:1936:A:H2	24:DA:1943:U:O4	1.98	0.46
24:DA:2228:G:OP1	26:DC:260:LYS:HE2	2.16	0.46
24:DA:2360:G:P	53:D3:50:SER:OG	2.74	0.46
24:DA:2829:A:C5	24:DA:2830:C:C5	3.04	0.46
28:DE:149:ILE:HG12	28:DE:188:MET:HG2	1.97	0.46
30:DG:79:THR:HG22	30:DG:80:GLU:N	2.30	0.46
31:DH:53:GLU:O	31:DH:57:LYS:HB3	2.17	0.46
43:DT:68:LYS:HE3	43:DT:68:LYS:C	2.41	0.46
49:DZ:16:LEU:O	49:DZ:19:HIS:HB2	2.15	0.46
1:AA:74:A:H2'	1:AA:75:G:O4'	2.16	0.45
1:AA:106:C:O2	1:AA:379:C:H4'	2.15	0.45
1:AA:141:G:H2'	1:AA:142:G:O4'	2.16	0.45
1:AA:430:A:H4'	4:AD:7:PRO:HB3	1.98	0.45
1:AA:438:U:C4	1:AA:494:G:C5	3.04	0.45
1:AA:805:C:N3	1:AA:806:C:C5	2.84	0.45
1:AA:809:G:H2'	1:AA:810:C:H5'	1.97	0.45
1:AA:931:C:C2	1:AA:932:C:C6	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:938:A:C4	1:AA:939:G:C8	3.04	0.45
1:AA:1036:A:H5'	1:AA:1037:C:OP2	2.16	0.45
1:AA:1124:G:C2	1:AA:1127:G:C2	3.03	0.45
1:AA:1288:A:N1	1:AA:1371:G:H1'	2.31	0.45
1:AA:1320:C:O2	19:AS:72:GLY:HA3	2.16	0.45
57:AA:1657:NMY:HN32	57:AA:1657:NMY:C15	2.28	0.45
2:AB:9:MET:HG2	2:AB:47:VAL:HG21	1.98	0.45
2:AB:23:TRP:HA	2:AB:189:THR:O	2.16	0.45
3:AC:57:ILE:C	3:AC:58:GLU:HG3	2.40	0.45
4:AD:193:ALA:HB1	6:CF:12:PRO:O	2.16	0.45
5:AE:48:PHE:CD1	5:AE:141:ILE:HD11	2.51	0.45
5:AE:72:ILE:HG22	5:AE:73:ASN:N	2.30	0.45
7:AG:39:ALA:O	7:AG:42:ILE:HG13	2.15	0.45
7:AG:62:PHE:CD1	7:AG:62:PHE:C	2.93	0.45
9:AI:72:ILE:HD12	9:AI:72:ILE:N	2.31	0.45
10:AJ:6:ILE:CG2	10:AJ:7:ARG:N	2.79	0.45
11:AK:36:ASP:OD1	11:AK:39:GLY:C	2.60	0.45
12:AL:3:THR:N	12:AL:6:GLN:OE1	2.49	0.45
13:AM:56:LEU:C	13:AM:58:ASP:N	2.72	0.45
18:AR:55:LEU:HD12	18:AR:55:LEU:O	2.16	0.45
24:BA:63:A:C4'	43:BT:77:ARG:NH1	2.76	0.45
24:BA:79:C:O2'	24:BA:346:A:N3	2.38	0.45
24:BA:89:A:N1	24:BA:90:U:C5	2.84	0.45
24:BA:579:G:C4	24:BA:1262:A:N1	2.84	0.45
24:BA:612:G:O2'	24:BA:613:A:C8	2.69	0.45
24:BA:807:U:O2'	24:BA:2060:A:N1	2.49	0.45
24:BA:841:G:H2'	24:BA:842:U:C6	2.51	0.45
24:BA:896:A:H3'	24:BA:897:C:H5'	1.99	0.45
24:BA:927:A:H2'	24:BA:928:A:C8	2.51	0.45
24:BA:974:G:C2	24:BA:1186:G:N1	2.84	0.45
24:BA:1098:A:O3'	32:BI:4:VAL:HG11	2.16	0.45
24:BA:1144:A:C5	24:BA:1145:C:C5	3.04	0.45
24:BA:1268:A:H3'	24:BA:1269:A:H8	1.80	0.45
24:BA:1270:C:C5'	24:BA:1271:G:C5'	2.95	0.45
24:BA:1334:G:C6	24:BA:1335:C:C4	3.04	0.45
24:BA:1754:A:H4'	39:BP:98:TYR:CE2	2.52	0.45
24:BA:1798:U:O2'	24:BA:1802:A:N3	2.29	0.45
24:BA:2123:G:N2	24:BA:2176:A:C4	2.84	0.45
24:BA:2129:C:C5	24:BA:2130:U:C5	3.04	0.45
24:BA:2142:A:N3	24:BA:2150:C:C2	2.83	0.45
24:BA:2478:A:H2'	24:BA:2479:U:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2753:A:H2'	24:BA:2754:U:H5'	1.98	0.45
57:BA:3167:NMY:C13	57:BA:3167:NMY:H17	2.29	0.45
27:BD:85:ALA:HB3	27:BD:88:GLU:OE1	2.16	0.45
33:BJ:88:THR:CG2	33:BJ:91:GLU:HB2	2.45	0.45
34:BK:64:ARG:HG2	34:BK:79:PHE:HE2	1.81	0.45
36:BM:10:ARG:HG3	36:BM:11:LYS:N	2.31	0.45
37:BN:24:MET:CE	37:BN:44:LEU:HD13	2.44	0.45
38:BO:6:ALA:C	38:BO:8:ILE:N	2.74	0.45
39:BP:96:LEU:C	39:BP:98:TYR:H	2.23	0.45
46:BW:67:VAL:HG12	46:BW:68:LYS:N	2.30	0.45
49:BZ:47:ILE:O	49:BZ:51:SER:N	2.49	0.45
1:CA:111:G:O2'	1:CA:389:A:H1'	2.16	0.45
1:CA:293:G:N2	1:CA:294:U:C1'	2.79	0.45
1:CA:573:A:C2	1:CA:574:A:C2	3.04	0.45
1:CA:580:C:N3	1:CA:581:G:C4	2.84	0.45
1:CA:661:G:N3	1:CA:745:G:N2	2.64	0.45
1:CA:737:C:O2'	1:CA:738:C:O5'	2.33	0.45
1:CA:771:G:N2	1:CA:809:G:C4	2.84	0.45
1:CA:829:G:O2'	1:CA:830:G:H5'	2.16	0.45
1:CA:859:G:C2'	1:CA:860:A:O5'	2.64	0.45
1:CA:976:G:N7	1:CA:1362:A:N6	2.65	0.45
1:CA:1134:G:N2	1:CA:1135:U:O2	2.49	0.45
1:CA:1221:G:H5"	19:CS:36:ARG:CZ	2.45	0.45
2:CB:45:LYS:C	2:CB:48:PRO:HD2	2.40	0.45
2:CB:101:LEU:HD11	2:CB:175:GLU:HB3	1.98	0.45
4:CD:162:ALA:C	4:CD:164:GLN:N	2.73	0.45
5:CE:87:GLY:O	5:CE:94:VAL:HG12	2.16	0.45
7:CG:123:GLU:O	7:CG:126:ASP:OD1	2.34	0.45
11:CK:15:GLN:C	11:CK:16:VAL:HG22	2.40	0.45
11:CK:44:TRP:O	11:CK:45:ALA:O	2.34	0.45
11:CK:110:ILE:C	11:CK:110:ILE:HD12	2.41	0.45
12:CL:67:ILE:HD12	12:CL:72:HIS:CD2	2.51	0.45
14:CN:23:ARG:O	14:CN:26:LEU:O	2.34	0.45
15:CO:36:ILE:O	15:CO:39:LEU:HB3	2.16	0.45
16:CP:32:PHE:CD1	16:CP:33:ILE:N	2.84	0.45
17:CQ:4:LYS:HD2	17:CQ:5:ILE:N	2.30	0.45
17:CQ:65:ARG:O	17:CQ:66:PRO:C	2.58	0.45
19:CS:80:TYR:CG	19:CS:81:ARG:N	2.84	0.45
21:CU:6:VAL:O	21:CU:6:VAL:CG1	2.65	0.45
22:CV:24:G:C8	22:CV:25:C:C5	3.03	0.45
55:CY:128:VAL:C	55:CY:130:ASN:N	2.73	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CY:157:GLN:C	55:CY:158:ASP:O	2.55	0.45
24:DA:190:A:H3'	24:DA:204:A:H61	1.81	0.45
24:DA:271:G:C4	24:DA:367:G:C2	3.04	0.45
24:DA:288:U:C4	24:DA:289:G:N7	2.84	0.45
24:DA:549:G:H3'	24:DA:549:G:P	2.56	0.45
24:DA:595:C:O2	24:DA:663:G:C2	2.69	0.45
24:DA:671:C:H5'	24:DA:671:C:C6	2.50	0.45
24:DA:814:C:C2'	24:DA:815:C:O5'	2.65	0.45
24:DA:1491:G:C5	24:DA:1500:G:N2	2.84	0.45
24:DA:1549:A:C5	24:DA:1550:C:C5	3.04	0.45
24:DA:1753:G:N2	24:DA:1756:G:OP2	2.49	0.45
24:DA:1984:G:H2'	24:DA:1985:C:H5'	1.97	0.45
24:DA:2012:G:OP1	42:DS:98:LYS:HD2	2.16	0.45
24:DA:2048:G:C5	24:DA:2049:G:C8	3.03	0.45
24:DA:2337:G:C6	24:DA:2338:C:C4	3.04	0.45
24:DA:2474:U:H3'	24:DA:2475:C:C6	2.51	0.45
24:DA:2537:U:H2'	24:DA:2538:C:C6	2.51	0.45
24:DA:2539:C:C4	24:DA:2540:C:C5	3.04	0.45
24:DA:2819:G:C6	24:DA:2821:A:C2	3.04	0.45
29:DF:36:ASN:O	29:DF:151:LEU:HD12	2.16	0.45
29:DF:90:LEU:HD13	29:DF:95:MET:CB	2.45	0.45
29:DF:163:GLU:O	29:DF:166:ARG:HB3	2.15	0.45
30:DG:27:GLY:HA3	30:DG:78:VAL:CG1	2.45	0.45
38:DO:51:ALA:CB	38:DO:78:VAL:HG13	2.46	0.45
38:DO:55:GLU:O	38:DO:58:ILE:HG22	2.16	0.45
39:DP:110:LYS:HE3	39:DP:110:LYS:N	2.31	0.45
42:DS:88:ARG:O	42:DS:89:ALA:O	2.34	0.45
1:AA:292:G:N2	1:AA:309:A:C5	2.84	0.45
1:AA:373:A:C2	1:AA:374:A:C8	3.04	0.45
1:AA:709:U:C2'	1:AA:710:G:O5'	2.64	0.45
1:AA:1031:C:H4'	1:AA:1032:G:C2	2.51	0.45
1:AA:1122:U:C4	1:AA:1123:U:C6	3.04	0.45
1:AA:1286:U:HO2'	1:AA:1287:A:P	2.36	0.45
1:AA:1292:G:H2'	1:AA:1293:C:O4'	2.17	0.45
1:AA:1383:C:C2'	1:AA:1384:C:H5'	2.47	0.45
2:AB:99:GLY:O	2:AB:103:ASN:HB3	2.15	0.45
5:AE:83:HIS:CE1	5:AE:84:PRO:HB2	2.51	0.45
6:AF:23:GLU:O	6:AF:27:ALA:CB	2.65	0.45
8:AH:88:ARG:NE	8:AH:122:GLY:N	2.63	0.45
8:AH:101:ILE:CG2	8:AH:103:VAL:HG23	2.47	0.45
9:AI:13:LYS:O	9:AI:15:SER:N	2.48	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:20:PHE:O	9:AI:64:TYR:O	2.33	0.45
11:AK:62:ALA:C	11:AK:65:VAL:HG12	2.40	0.45
12:AL:112:GLN:O	12:AL:113:ALA:CB	2.64	0.45
17:AQ:6:ARG:NE	17:AQ:6:ARG:HA	2.32	0.45
21:AU:9:ASN:C	21:AU:12:PHE:CE1	2.95	0.45
21:AU:39:GLU:O	21:AU:40:LYS:CB	2.63	0.45
24:BA:197:A:C2'	24:BA:198:C:H5'	2.46	0.45
24:BA:250:G:OP2	53:B3:12:ARG:NH1	2.49	0.45
24:BA:261:G:C2	24:BA:262:A:C8	3.04	0.45
24:BA:634:C:H2'	24:BA:635:C:C6	2.51	0.45
24:BA:729:G:OP2	26:BC:206:LYS:NZ	2.47	0.45
24:BA:735:A:C8	24:BA:736:C:C5	3.05	0.45
24:BA:869:G:O2'	36:BM:8:LYS:HD3	2.16	0.45
24:BA:1085:A:C6	24:BA:1086:A:N6	2.84	0.45
24:BA:1091:G:O2'	24:BA:1092:C:OP2	2.25	0.45
24:BA:1164:C:H2'	24:BA:1165:A:C8	2.52	0.45
24:BA:1494:A:C4	24:BA:1495:A:C8	3.04	0.45
24:BA:1608:A:C4	24:BA:1611:C:C5	3.04	0.45
24:BA:1759:A:H4'	24:BA:2715:C:O4'	2.16	0.45
24:BA:1803:A:H4'	26:BC:256:THR:OG1	2.16	0.45
24:BA:1819:A:C5'	26:BC:156:SER:OG	2.65	0.45
24:BA:1954:G:O2'	24:BA:1956:U:O4	2.27	0.45
24:BA:1992:G:N2	24:BA:1996:C:O2'	2.50	0.45
24:BA:2024:G:C4	24:BA:2040:G:N2	2.85	0.45
24:BA:2078:C:C2	24:BA:2079:U:C6	3.04	0.45
24:BA:2104:C:O2	24:BA:2186:G:N2	2.49	0.45
24:BA:2219:U:C4	24:BA:2220:U:C4	3.05	0.45
24:BA:2325:G:C6	24:BA:2326:C:N4	2.84	0.45
24:BA:2458:G:O2'	24:BA:2460:U:O4	2.23	0.45
24:BA:2514:U:H2'	24:BA:2515:C:H6	1.79	0.45
24:BA:2799:A:C5	24:BA:2801:G:C8	3.03	0.45
25:BB:49:C:OP1	38:BO:101:GLY:HA3	2.15	0.45
26:BC:221:GLY:C	26:BC:223:ALA:N	2.73	0.45
29:BF:86:CYS:O	29:BF:87:LYS:HD3	2.16	0.45
31:BH:57:LYS:C	31:BH:57:LYS:CD	2.87	0.45
34:BK:24:VAL:CG1	34:BK:33:ALA:N	2.79	0.45
35:BL:119:PRO:HB3	35:BL:139:GLY:C	2.40	0.45
40:BQ:74:SER:O	40:BQ:75:TYR:C	2.57	0.45
41:BR:4:VAL:HG23	41:BR:13:ARG:CA	2.46	0.45
52:B2:18:PHE:CD1	52:B2:18:PHE:C	2.94	0.45
53:B3:54:LEU:O	53:B3:55:GLY:C	2.59	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:25:C:C4	1:CA:558:G:N2	2.84	0.45
1:CA:64:G:C5	1:CA:99:C:C4	3.04	0.45
1:CA:69:G:H2'	1:CA:70:U:C6	2.51	0.45
1:CA:160:A:H2'	1:CA:161:A:O4'	2.16	0.45
1:CA:300:A:H1'	1:CA:565:U:O2	2.16	0.45
1:CA:330:C:H2'	1:CA:331:G:H5'	1.98	0.45
1:CA:640:A:C5	1:CA:641:U:C5	3.04	0.45
1:CA:778:G:H2'	1:CA:779:C:O4'	2.15	0.45
1:CA:892:A:C6	1:CA:893:C:C4	3.04	0.45
1:CA:930:C:N3	1:CA:931:C:C5	2.84	0.45
1:CA:1439:G:C6	1:CA:1440:U:C2	3.04	0.45
1:CA:1464:U:O2'	1:CA:1465:A:H5'	2.16	0.45
2:CB:32:PHE:CD1	2:CB:32:PHE:C	2.94	0.45
3:CC:59:ARG:HG2	3:CC:64:ILE:CG2	2.46	0.45
5:CE:81:LEU:HD13	5:CE:123:VAL:HG11	1.99	0.45
6:CF:24:ARG:HB2	6:CF:25:TYR:CD2	2.52	0.45
9:CI:124:ARG:CB	9:CI:125:PRO:HD2	2.46	0.45
14:CN:26:LEU:O	14:CN:27:LYS:CB	2.65	0.45
14:CN:63:ARG:CZ	14:CN:70:PRO:HG3	2.45	0.45
16:CP:10:GLY:HA3	16:CP:15:PRO:HA	1.97	0.45
18:CR:60:LYS:O	18:CR:63:ARG:HG3	2.17	0.45
55:CY:129:ARG:O	55:CY:132:ARG:HB3	2.16	0.45
24:DA:85:G:OP1	44:DU:5:ARG:HA	2.16	0.45
24:DA:1061:U:O2	24:DA:1061:U:O4'	2.34	0.45
24:DA:1344:U:H4'	24:DA:1384:A:C6	2.51	0.45
24:DA:1422:G:C4	24:DA:1423:G:C8	3.04	0.45
24:DA:1439:A:H2	24:DA:1553:A:C4	2.32	0.45
24:DA:1485:U:H2'	24:DA:1486:U:C6	2.51	0.45
24:DA:1538:G:H8	24:DA:1538:G:OP2	1.99	0.45
24:DA:1806:C:N4	24:DA:1807:G:C5	2.84	0.45
24:DA:1955:U:O2'	24:DA:2552:U:H4'	2.16	0.45
24:DA:2257:U:H5'	46:DW:11:ARG:NH2	2.30	0.45
24:DA:2849:U:O4	39:DP:20:ARG:NH1	2.49	0.45
26:DC:80:LEU:HD21	26:DC:105:ALA:CB	2.47	0.45
30:DG:142:GLN:O	30:DG:143:VAL:C	2.59	0.45
31:DH:111:ALA:O	31:DH:112:LYS:C	2.57	0.45
34:DK:61:VAL:CG1	34:DK:87:LEU:HD21	2.46	0.45
35:DL:4:ASN:OD1	35:DL:4:ASN:C	2.58	0.45
35:DL:78:ARG:CB	35:DL:113:ALA:HB3	2.46	0.45
46:DW:19:LYS:O	46:DW:20:ARG:C	2.60	0.45
1:AA:101:A:N1	1:AA:102:G:C5	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:247:G:C6	1:AA:248:C:C5	3.03	0.45
1:AA:370:C:N3	1:AA:371:A:N7	2.65	0.45
1:AA:375:U:O2	1:AA:375:U:H2'	2.15	0.45
1:AA:537:G:P	12:AL:110:ARG:NH2	2.89	0.45
1:AA:620:C:C1'	4:AD:132:ILE:HG12	2.41	0.45
1:AA:738:C:H5"	6:AF:68:GLN:NE2	2.31	0.45
1:AA:795:C:H4'	11:AK:128:ARG:NH1	2.31	0.45
1:AA:1031:C:C5'	1:AA:1032:G:OP1	2.64	0.45
1:AA:1134:G:C6	1:AA:1135:U:H6	2.34	0.45
1:AA:1212:U:H4'	1:AA:1213:A:C8	2.51	0.45
1:AA:1369:C:H2'	1:AA:1370:G:C1'	2.46	0.45
2:AB:111:ILE:C	2:AB:113:ARG:N	2.74	0.45
3:AC:78:GLY:HA2	21:CU:18:ARG:NE	2.31	0.45
4:AD:48:LEU:HD22	4:AD:52:GLY:C	2.40	0.45
4:AD:79:ALA:CB	4:AD:86:THR:HG23	2.45	0.45
4:AD:94:LEU:O	4:AD:100:ASN:HB2	2.17	0.45
4:AD:184:ARG:O	4:AD:185:LYS:C	2.58	0.45
4:AD:200:ILE:O	4:AD:203:LEU:N	2.50	0.45
7:AG:22:LEU:HA	7:AG:25:LYS:CE	2.47	0.45
7:AG:62:PHE:C	7:AG:64:VAL:H	2.25	0.45
8:AH:126:ILE:HG22	8:AH:127:CYS:N	2.31	0.45
20:AT:3:ASN:O	20:AT:4:ILE:C	2.58	0.45
24:BA:54:G:N1	24:BA:55:G:C5	2.85	0.45
24:BA:111:A:C2	24:BA:112:U:C2	3.05	0.45
24:BA:114:U:C2	24:BA:115:C:C5	3.04	0.45
24:BA:528:A:N1	24:BA:2042:A:H2'	2.31	0.45
24:BA:611:C:C2'	24:BA:612:G:H5'	2.46	0.45
24:BA:616:A:C2'	24:BA:617:G:H5'	2.47	0.45
24:BA:687:C:H2'	24:BA:688:U:O4'	2.16	0.45
24:BA:831:G:C5	24:BA:832:U:C6	3.05	0.45
24:BA:872:U:H2'	24:BA:873:C:C6	2.51	0.45
24:BA:973:A:OP2	41:BR:81:LYS:HD2	2.17	0.45
24:BA:1087:G:C5	24:BA:1089:A:H1'	2.50	0.45
24:BA:1099:G:C6	24:BA:1100:C:C4	3.04	0.45
24:BA:1170:C:H2'	24:BA:1171:G:C8	2.51	0.45
24:BA:1180:U:C4	24:BA:1181:U:C2	3.04	0.45
24:BA:1210:G:C3'	24:BA:1211:C:C5'	2.94	0.45
24:BA:1267:U:C2'	24:BA:1268:A:H5"	2.42	0.45
24:BA:1408:G:N1	24:BA:1595:C:O2	2.50	0.45
24:BA:1443:U:C2	24:BA:1444:G:C8	3.04	0.45
24:BA:1491:G:C6	24:BA:1500:G:C2	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1725:U:H2'	24:BA:1726:C:O4'	2.16	0.45
24:BA:1913:A:HO2'	24:BA:1914:C:P	2.36	0.45
24:BA:2286:G:N7	51:B1:24:LYS:HD3	2.31	0.45
24:BA:2412:A:H2'	24:BA:2413:G:O4'	2.17	0.45
24:BA:2659:G:N2	24:BA:2663:G:C6	2.84	0.45
24:BA:2714:G:H2'	24:BA:2715:C:H5'	1.98	0.45
24:BA:2729:G:C5	24:BA:2730:C:C4	3.05	0.45
24:BA:2832:U:C2	24:BA:2834:G:C2	3.03	0.45
25:BB:42:C:O2'	29:BF:62:GLN:HB3	2.16	0.45
28:BE:58:LYS:CG	28:BE:71:GLY:HA2	2.46	0.45
28:BE:181:ILE:HG22	35:BL:3:LEU:HA	1.97	0.45
29:BF:3:LEU:CD2	29:BF:99:PHE:CE1	2.99	0.45
29:BF:96:TRP:HA	29:BF:99:PHE:CD1	2.51	0.45
31:BH:55:GLU:O	31:BH:56:ALA:C	2.59	0.45
31:BH:137:GLU:O	31:BH:139:PHE:N	2.49	0.45
32:BI:56:VAL:HG22	32:BI:57:VAL:N	2.32	0.45
33:BJ:74:TYR:HB2	33:BJ:92:MET:HE2	1.97	0.45
33:BJ:125:TYR:CE2	33:BJ:130:HIS:CA	2.99	0.45
36:BM:69:PRO:HA	36:BM:94:ALA:CA	2.46	0.45
37:BN:56:LYS:C	37:BN:57:THR:OG1	2.58	0.45
39:BP:20:ARG:HB3	39:BP:21:PRO:HD3	1.96	0.45
39:BP:38:ARG:NH2	39:BP:38:ARG:HB3	2.32	0.45
42:BS:49:LYS:O	42:BS:49:LYS:HD2	2.16	0.45
45:BV:77:VAL:HG23	45:BV:89:ILE:HG12	1.98	0.45
46:BW:51:VAL:HA	46:BW:60:PHE:O	2.15	0.45
47:BX:15:ASN:HA	47:BX:24:THR:O	2.16	0.45
51:B1:28:THR:O	51:B1:29:LYS:HD2	2.16	0.45
1:CA:63:C:O2'	1:CA:64:G:C5'	2.64	0.45
1:CA:243:A:C5	1:CA:245:U:C4	3.04	0.45
1:CA:338:A:C6	1:CA:339:C:C4	3.04	0.45
1:CA:406:G:C4	1:CA:495:A:C6	3.04	0.45
1:CA:600:A:P	8:CH:88:ARG:HG3	2.56	0.45
1:CA:1055:A:N6	1:CA:1206:G:C6	2.85	0.45
1:CA:1095:U:H2'	1:CA:1096:C:C6	2.51	0.45
1:CA:1230:C:H5'	22:CV:30:G:H4'	1.98	0.45
1:CA:1256:A:OP1	3:CC:27:LYS:NZ	2.49	0.45
1:CA:1280:A:O2'	1:CA:1281:C:C5'	2.64	0.45
1:CA:1310:G:C5'	13:CM:79:ARG:CZ	2.93	0.45
1:CA:1356:G:N2	1:CA:1367:C:C2	2.84	0.45
1:CA:1484:C:H2'	1:CA:1485:U:O4'	2.15	0.45
1:CA:1523:G:OP1	11:CK:126:LYS:CD	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:69:PHE:CD1	2:CB:84:ALA:HB1	2.51	0.45
3:CC:97:VAL:HG13	3:CC:98:PRO:N	2.30	0.45
4:CD:32:CYS:HG	4:CD:33:LYS:H	1.59	0.45
5:CE:101:GLU:HA	5:CE:101:GLU:OE2	2.16	0.45
6:CF:69:GLU:O	6:CF:70:VAL:CG2	2.64	0.45
7:CG:134:ALA:C	7:CG:136:LYS:N	2.74	0.45
8:CH:78:VAL:HG12	8:CH:127:CYS:CA	2.44	0.45
11:CK:63:ALA:O	11:CK:66:ALA:CB	2.65	0.45
12:CL:82:ILE:HG12	12:CL:95:TYR:CD2	2.51	0.45
15:CO:56:LEU:O	15:CO:59:MET:HG2	2.17	0.45
15:CO:82:ILE:CD1	15:CO:87:LEU:N	2.79	0.45
17:CQ:79:VAL:O	17:CQ:80:GLU:HB2	2.17	0.45
55:CY:50:PRO:O	55:CY:51:LEU:C	2.58	0.45
24:DA:1:G:H2'	24:DA:2:G:C8	2.50	0.45
24:DA:104:A:C6	24:DA:105:C:C4	3.05	0.45
24:DA:312:G:H5'	24:DA:331:C:O2'	2.17	0.45
24:DA:729:G:H4'	24:DA:763:G:H5'	1.97	0.45
24:DA:773:U:C5'	26:DC:46:GLY:HA3	2.46	0.45
24:DA:800:A:H4'	24:DA:801:G:O5'	2.16	0.45
24:DA:980:A:C6	24:DA:981:A:C6	3.04	0.45
24:DA:1078:U:H5"	24:DA:1079:C:O4'	2.16	0.45
24:DA:1095:A:C5	24:DA:1096:A:N6	2.85	0.45
24:DA:1277:G:H5"	37:DN:20:MET:HE2	1.96	0.45
24:DA:1378:A:N9	24:DA:1380:G:N7	2.63	0.45
24:DA:1619:G:C2'	24:DA:1620:G:H5'	2.47	0.45
24:DA:1659:G:C6	24:DA:1660:G:C5	3.04	0.45
24:DA:1866:A:C6	24:DA:1876:A:N7	2.84	0.45
24:DA:2037:A:C6	24:DA:2038:G:C6	3.04	0.45
24:DA:2143:C:N4	24:DA:2148:G:O6	2.50	0.45
24:DA:2390:U:OP2	53:D3:34:LYS:HE3	2.15	0.45
24:DA:2408:U:C2'	24:DA:2409:G:H5'	2.47	0.45
24:DA:2424:C:O2	24:DA:2429:G:O2'	2.27	0.45
24:DA:2532:G:O2'	24:DA:2657:A:C6	2.68	0.45
24:DA:2569:G:C2	24:DA:2570:G:C8	3.04	0.45
24:DA:2661:G:C6	24:DA:2662:A:N1	2.84	0.45
24:DA:2715:C:O5'	24:DA:2715:C:H6	1.99	0.45
24:DA:2720:U:C4	24:DA:2872:A:C2	3.04	0.45
24:DA:2783:U:H2'	24:DA:2784:U:C6	2.51	0.45
24:DA:2816:G:H2'	24:DA:2817:U:H5'	1.97	0.45
25:DB:5:U:OP1	25:DB:61:G:O2'	2.33	0.45
29:DF:9:ASP:C	29:DF:13:LYS:HE2	2.41	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DF:174:PHE:HD2	29:DF:176:PHE:CE1	2.35	0.45
31:DH:5:LEU:HD11	31:DH:14:SER:C	2.41	0.45
31:DH:103:VAL:HG12	31:DH:108:VAL:HG22	1.97	0.45
34:DK:58:LEU:HD23	34:DK:58:LEU:N	2.31	0.45
37:DN:72:ASP:O	37:DN:75:ILE:HG23	2.16	0.45
38:DO:75:GLY:O	38:DO:110:ALA:HA	2.15	0.45
40:DQ:85:ALA:O	40:DQ:86:SER:HB2	2.15	0.45
44:DU:35:VAL:O	44:DU:36:GLU:C	2.59	0.45
44:DU:39:ASN:HB3	44:DU:62:ALA:HB3	1.98	0.45
47:DX:31:ASN:HB2	47:DX:33:HIS:CE1	2.52	0.45
54:D4:7:VAL:HG11	54:D4:36:ARG:O	2.16	0.45
54:D4:23:ILE:HD13	54:D4:23:ILE:N	2.31	0.45
54:D4:29:ALA:O	54:D4:30:GLU:HB3	2.16	0.45
1:AA:143:A:N3	1:AA:143:A:H2'	2.31	0.45
1:AA:204:G:H3'	1:AA:205:A:C8	2.52	0.45
1:AA:349:A:H2'	1:AA:350:G:O4'	2.17	0.45
1:AA:363:A:H4'	12:AL:81:LEU:CD1	2.46	0.45
1:AA:505:G:N7	1:AA:535:A:C4	2.84	0.45
1:AA:696:A:H1'	1:AA:786:G:O2'	2.17	0.45
1:AA:736:C:H4'	6:AF:88:MET:HE3	1.98	0.45
1:AA:945:G:H2'	1:AA:945:G:N3	2.30	0.45
1:AA:1014:A:C2'	1:AA:1015:G:O4'	2.65	0.45
1:AA:1083:U:C5	1:AA:1084:G:C5	3.03	0.45
1:AA:1102:A:C6	1:AA:1103:C:C5	3.05	0.45
1:AA:1104:G:N1	1:AA:1105:A:C5	2.83	0.45
1:AA:1182:G:H5"	1:AA:1183:U:H5'	1.98	0.45
1:AA:1197:A:C2'	1:AA:1198:G:H5'	2.47	0.45
1:AA:1408:A:C2	1:AA:1494:G:C6	3.03	0.45
2:AB:221:VAL:O	2:AB:222:ARG:C	2.60	0.45
3:AC:5:VAL:CG1	3:AC:6:HIS:N	2.80	0.45
3:AC:83:ASP:O	3:AC:85:GLU:N	2.49	0.45
3:AC:87:LEU:HD12	3:AC:87:LEU:N	2.31	0.45
5:AE:48:PHE:CE1	5:AE:141:ILE:HD11	2.52	0.45
5:AE:76:LEU:HD23	5:AE:76:LEU:C	2.41	0.45
8:AH:11:LEU:HD21	8:AH:77:ARG:HG2	1.98	0.45
10:AJ:6:ILE:HD13	10:AJ:76:ILE:HG13	1.99	0.45
11:AK:51:GLY:O	11:AK:52:PHE:O	2.35	0.45
13:AM:15:ALA:O	13:AM:18:ALA:N	2.50	0.45
15:AO:6:GLU:CD	15:AO:7:ALA:N	2.75	0.45
18:AR:26:ILE:N	18:AR:29:LEU:CD1	2.80	0.45
18:AR:34:THR:HG22	18:AR:38:LYS:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:13:LEU:HG	19:AS:14:HIS:ND1	2.31	0.45
20:AT:86:LEU:O	20:AT:87:ALA:C	2.59	0.45
22:AV:17:C:H3'	22:AV:18:G:C5'	2.46	0.45
24:BA:84:A:N6	24:BA:101:A:C2	2.84	0.45
24:BA:116:C:N4	24:BA:117:G:C6	2.84	0.45
24:BA:158:U:H2'	24:BA:159:G:H5'	1.98	0.45
24:BA:410:G:C2	24:BA:2407:A:C5	3.05	0.45
24:BA:517:C:P	50:B0:9:ARG:NH2	2.88	0.45
24:BA:547:A:N7	24:BA:548:G:C2	2.85	0.45
24:BA:571:U:O2'	24:BA:573:U:O5'	2.35	0.45
24:BA:593:U:H2'	24:BA:594:U:C6	2.50	0.45
24:BA:614:A:O2'	24:BA:615:U:P	2.75	0.45
24:BA:644:A:H2'	24:BA:645:C:O4'	2.17	0.45
24:BA:712:G:N2	24:BA:720:U:H1'	2.32	0.45
24:BA:756:A:H2'	24:BA:757:G:O4'	2.16	0.45
24:BA:797:G:C4	24:BA:798:G:C8	3.05	0.45
24:BA:930:G:C2	24:BA:933:A:N7	2.84	0.45
24:BA:1011:G:C4	24:BA:1151:A:C2	3.04	0.45
24:BA:1034:G:C4	24:BA:1122:G:C2	3.05	0.45
24:BA:1281:G:HO2'	24:BA:1282:U:P	2.39	0.45
24:BA:1409:U:C4	24:BA:1593:A:N1	2.85	0.45
24:BA:1588:G:H2'	24:BA:1589:U:C6	2.51	0.45
24:BA:1707:G:C6	24:BA:1708:C:C4	3.04	0.45
24:BA:1775:U:H2'	24:BA:1776:G:O5'	2.16	0.45
24:BA:2093:G:N2	24:BA:2197:U:C2	2.84	0.45
24:BA:2120:G:C2	24:BA:2121:G:C4	3.04	0.45
24:BA:2346:A:H3'	24:BA:2347:C:C5'	2.44	0.45
24:BA:2377:A:C2'	24:BA:2378:A:H5'	2.46	0.45
24:BA:2659:G:OP1	30:BG:157:LYS:HD3	2.17	0.45
24:BA:2681:C:C4	24:BA:2724:U:C4	3.04	0.45
24:BA:2768:U:C4	24:BA:2769:U:C5	3.04	0.45
24:BA:2848:G:OP2	39:BP:94:ALA:N	2.35	0.45
25:BB:45:A:C2	25:BB:46:A:N3	2.85	0.45
25:BB:96:G:O2'	25:BB:97:C:H5'	2.16	0.45
26:BC:210:ALA:C	26:BC:212:TRP:H	2.24	0.45
27:BD:125:TRP:CD1	27:BD:160:LYS:HZ3	2.34	0.45
29:BF:37:MET:SD	29:BF:56:LEU:HD23	2.56	0.45
31:BH:121:VAL:HB	31:BH:122:LEU:HG	1.93	0.45
33:BJ:15:TRP:CH2	33:BJ:53:TYR:HD2	2.34	0.45
33:BJ:114:LEU:O	33:BJ:115:GLY:C	2.59	0.45
34:BK:13:ASN:O	34:BK:14:SER:C	2.60	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BL:28:GLY:O	35:BL:29:LYS:C	2.58	0.45
35:BL:92:LEU:HD12	35:BL:93:ASN:N	2.31	0.45
40:BQ:46:TYR:C	40:BQ:46:TYR:HD1	2.23	0.45
42:BS:88:ARG:HH21	42:BS:88:ARG:CG	2.29	0.45
44:BU:94:PHE:HB2	44:BU:101:THR:HA	1.98	0.45
44:BU:101:THR:HG22	44:BU:102:ILE:N	2.31	0.45
1:CA:69:G:H2'	1:CA:69:G:N3	2.31	0.45
1:CA:70:U:O2	1:CA:70:U:O2'	2.34	0.45
1:CA:192:A:C6	1:CA:193:C:C4	3.04	0.45
1:CA:310:G:C6	1:CA:311:C:C4	3.04	0.45
1:CA:444:G:C4	1:CA:491:G:N2	2.84	0.45
1:CA:453:G:C2'	1:CA:454:G:O5'	2.65	0.45
1:CA:709:U:C2	1:CA:710:G:C8	3.05	0.45
1:CA:1036:A:N7	1:CA:1037:C:C4	2.84	0.45
1:CA:1054:C:OP1	59:CA:1839:HOH:O	2.20	0.45
1:CA:1371:G:C6	1:CA:1372:U:O4	2.69	0.45
1:CA:1421:G:HO2'	1:CA:1422:G:P	2.40	0.45
2:CB:91:PHE:O	2:CB:150:GLY:CA	2.65	0.45
2:CB:180:GLY:O	2:CB:181:ILE:C	2.60	0.45
3:CC:22:TRP:CH2	3:CC:36:ASP:CG	2.94	0.45
3:CC:120:ILE:O	3:CC:122:SER:N	2.50	0.45
3:CC:189:ALA:O	3:CC:190:HIS:CG	2.69	0.45
7:CG:51:ALA:HB2	7:CG:58:GLU:OE2	2.17	0.45
8:CH:117:ARG:C	8:CH:119:ALA:N	2.74	0.45
9:CI:51:PRO:HB3	9:CI:103:PHE:CE2	2.51	0.45
13:CM:96:PRO:HA	13:CM:109:ARG:NH2	2.31	0.45
14:CN:66:GLN:N	14:CN:83:LYS:HZ3	2.14	0.45
15:CO:42:HIS:O	15:CO:45:GLU:O	2.34	0.45
15:CO:46:HIS:O	15:CO:47:LYS:HG3	2.16	0.45
18:CR:25:ASP:CG	18:CR:28:THR:HG22	2.42	0.45
21:CU:10:GLU:N	21:CU:10:GLU:OE1	2.50	0.45
22:CV:53:G:H1	22:CV:58:A:H2'	1.80	0.45
24:DA:142:A:C2	24:DA:143:C:O2	2.70	0.45
24:DA:292:U:H2'	24:DA:293:U:H5'	1.96	0.45
24:DA:389:G:H2'	24:DA:390:U:H5'	1.99	0.45
24:DA:776:G:H4'	24:DA:777:G:O5'	2.16	0.45
24:DA:1026:G:H2'	24:DA:1027:A:C8	2.51	0.45
24:DA:1238:G:H21	24:DA:1239:G:H1'	1.80	0.45
24:DA:1276:A:O2'	37:DN:16:HIS:NE2	2.49	0.45
24:DA:1415:U:C6	24:DA:1588:G:N1	2.84	0.45
24:DA:1609:A:C2	24:DA:1616:A:C8	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1672:A:N6	24:DA:1673:G:C6	2.84	0.45
24:DA:1733:G:C2	24:DA:1734:G:C4	3.04	0.45
24:DA:1787:A:O5'	24:DA:1787:A:C8	2.70	0.45
24:DA:1913:A:N3	24:DA:1914:C:C5'	2.79	0.45
24:DA:1967:C:H2'	24:DA:1968:G:H5'	1.97	0.45
24:DA:2072:C:H6	24:DA:2072:C:H5"	1.82	0.45
24:DA:2162:G:H4'	24:DA:2171:A:C8	2.51	0.45
24:DA:2308:G:C5	29:DF:76:PHE:CE1	3.04	0.45
24:DA:2345:G:N3	24:DA:2381:A:H2'	2.30	0.45
24:DA:2371:G:H2'	24:DA:2372:U:O5'	2.15	0.45
24:DA:2590:A:H2'	24:DA:2591:C:C6	2.52	0.45
24:DA:2627:G:C6	24:DA:2628:C:N3	2.84	0.45
24:DA:2648:G:N2	24:DA:2673:G:H1'	2.32	0.45
24:DA:2888:C:H2'	24:DA:2889:C:C6	2.51	0.45
25:DB:42:C:N3	29:DF:89:THR:OG1	2.48	0.45
25:DB:110:C:H2'	25:DB:111:U:O4'	2.17	0.45
26:DC:30:ALA:C	26:DC:32:LEU:H	2.25	0.45
26:DC:173:LEU:H	26:DC:173:LEU:HD22	1.82	0.45
26:DC:226:PRO:CA	26:DC:232:GLY:HA2	2.47	0.45
32:DI:6:ALA:O	32:DI:58:ILE:CG2	2.64	0.45
32:DI:53:PRO:O	32:DI:54:ILE:HG23	2.16	0.45
32:DI:110:GLN:O	32:DI:111:THR:C	2.59	0.45
33:DJ:110:PRO:CD	33:DJ:118:MET:HE1	2.46	0.45
34:DK:24:VAL:O	34:DK:24:VAL:HG13	2.16	0.45
34:DK:103:VAL:CG1	34:DK:107:LEU:HD13	2.46	0.45
35:DL:23:ILE:O	35:DL:24:GLY:C	2.59	0.45
39:DP:42:PHE:CD2	39:DP:71:ARG:HD3	2.52	0.45
43:DT:41:ALA:C	43:DT:43:ILE:N	2.74	0.45
44:DU:35:VAL:O	44:DU:37:GLY:N	2.50	0.45
47:DX:73:ARG:O	47:DX:75:GLU:N	2.47	0.45
1:AA:109:A:N6	1:AA:326:G:C5	2.84	0.45
1:AA:508:U:C5'	4:AD:51:TYR:CE2	2.98	0.45
1:AA:941:G:C6	1:AA:1343:G:N1	2.85	0.45
1:AA:1009:U:H1'	1:AA:1021:A:N1	2.31	0.45
1:AA:1321:U:H5"	1:AA:1322:C:OP2	2.16	0.45
1:AA:1423:G:H2'	1:AA:1424:U:O4'	2.17	0.45
1:AA:1490:U:O2'	1:AA:1491:G:H5'	2.17	0.45
2:AB:17:GLY:C	2:AB:18:HIS:CG	2.95	0.45
2:AB:161:LEU:HB3	2:AB:183:VAL:HG22	1.97	0.45
3:AC:2:GLY:C	3:AC:3:GLN:CG	2.90	0.45
4:AD:22:LYS:NZ	4:AD:25:VAL:HG13	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:101:GLU:O	5:AE:101:GLU:OE1	2.35	0.45
7:AG:73:VAL:HA	7:AG:89:VAL:O	2.17	0.45
8:AH:9:ASP:OD1	8:AH:10:MET:N	2.50	0.45
8:AH:127:CYS:O	8:AH:128:TYR:HD1	1.99	0.45
12:AL:75:GLN:C	12:AL:76:GLU:HG2	2.41	0.45
13:AM:54:ASP:OD1	13:AM:54:ASP:C	2.60	0.45
22:AV:60:U:H5"	22:AV:61:C:H5	1.81	0.45
24:BA:15:G:C6	24:BA:16:C:C4	3.05	0.45
24:BA:30:G:C6	24:BA:511:U:O2	2.70	0.45
24:BA:63:A:H4'	43:BT:77:ARG:HH11	1.80	0.45
24:BA:82:U:H2'	24:BA:83:A:C8	2.51	0.45
24:BA:277:G:N3	24:BA:277:G:C2'	2.79	0.45
24:BA:320:A:OP1	28:BE:130:LYS:HE3	2.17	0.45
24:BA:520:G:H2'	24:BA:521:U:C6	2.52	0.45
24:BA:569:U:O4	24:BA:570:G:C6	2.69	0.45
24:BA:657:U:H2'	24:BA:658:U:C5	2.52	0.45
24:BA:669:G:C5	24:BA:801:G:O6	2.70	0.45
24:BA:733:G:N1	24:BA:761:A:C8	2.85	0.45
24:BA:742:A:C2	24:BA:756:A:C2	3.04	0.45
24:BA:975:A:C2	24:BA:990:A:C8	3.05	0.45
24:BA:1241:A:C2	24:BA:1242:U:C1'	3.00	0.45
24:BA:1416:G:C8	24:BA:1417:C:C4	3.04	0.45
24:BA:1531:C:C5	24:BA:1532:A:C4	3.04	0.45
24:BA:1754:A:N1	24:BA:1755:A:C2	2.84	0.45
24:BA:1910:G:C6	24:BA:1921:G:C6	3.05	0.45
24:BA:1926:U:H1'	24:BA:1929:G:O6	2.17	0.45
24:BA:2088:A:H2'	24:BA:2089:C:H6	1.82	0.45
24:BA:2400:G:C6	24:BA:2401:U:C4	3.04	0.45
24:BA:2484:G:H2'	24:BA:2485:G:O5'	2.17	0.45
24:BA:2642:G:OP1	33:BJ:78:THR:HG21	2.17	0.45
24:BA:2667:C:O2	24:BA:2667:C:H2'	2.15	0.45
24:BA:2692:G:H1'	24:BA:2847:U:H1'	1.99	0.45
24:BA:2714:G:C6	24:BA:2715:C:C4	3.05	0.45
24:BA:2748:A:H4'	30:BG:3:VAL:HG21	1.98	0.45
25:BB:63:C:H2'	25:BB:64:G:O4'	2.17	0.45
26:BC:109:LEU:HD12	26:BC:110:LYS:N	2.31	0.45
26:BC:251:THR:CG2	26:BC:252:LYS:N	2.79	0.45
28:BE:83:VAL:O	28:BE:84:THR:C	2.59	0.45
29:BF:3:LEU:HD21	29:BF:99:PHE:CE1	2.52	0.45
29:BF:172:PHE:CB	29:BF:174:PHE:CZ	3.00	0.45
36:BM:42:THR:HG23	36:BM:45:GLN:OE1	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BM:54:THR:O	36:BM:55:ARG:C	2.59	0.45
36:BM:108:VAL:HG11	36:BM:112:LEU:HD23	1.98	0.45
45:BV:87:GLN:O	45:BV:88:HIS:CB	2.64	0.45
48:BY:49:ASP:O	48:BY:50:VAL:C	2.59	0.45
50:B0:32:THR:OG1	50:B0:50:GLY:HA2	2.16	0.45
52:B2:10:LEU:O	52:B2:14:ARG:HB2	2.17	0.45
1:CA:104:G:N2	1:CA:105:G:C4	2.84	0.45
1:CA:173:U:C5'	1:CA:197:A:O4'	2.64	0.45
1:CA:214:C:H2'	1:CA:215:C:C5'	2.47	0.45
1:CA:371:A:H1'	1:CA:482:A:H1'	1.97	0.45
1:CA:403:C:H2'	1:CA:404:G:O4'	2.17	0.45
1:CA:417:G:C6	1:CA:418:C:C4	3.05	0.45
1:CA:462:G:H3'	1:CA:463:U:C6	2.51	0.45
1:CA:483:C:H3'	1:CA:484:G:H8	1.81	0.45
1:CA:604:G:C2	1:CA:635:A:C2	3.04	0.45
1:CA:615:G:C6	1:CA:626:G:O6	2.69	0.45
1:CA:617:G:H4'	16:CP:46:LYS:CD	2.47	0.45
1:CA:660:C:H2'	1:CA:661:G:C8	2.52	0.45
1:CA:679:C:C2	1:CA:712:A:N1	2.85	0.45
1:CA:818:G:O2'	1:CA:819:A:H5'	2.16	0.45
1:CA:1080:A:P	5:CE:52:LYS:HZ1	2.40	0.45
1:CA:1106:G:H2'	3:CC:169:ARG:NH1	2.32	0.45
1:CA:1121:U:H2'	1:CA:1122:U:H5'	1.99	0.45
1:CA:1369:C:OP2	9:CI:114:LYS:HB3	2.17	0.45
1:CA:1526:G:P	21:CU:39:GLU:HB2	2.56	0.45
2:CB:161:LEU:O	2:CB:183:VAL:O	2.34	0.45
4:CD:78:GLU:N	4:CD:78:GLU:CD	2.75	0.45
5:CE:77:ASN:O	5:CE:80:THR:N	2.50	0.45
6:CF:99:ALA:O	6:CF:100:SER:HB3	2.17	0.45
8:CH:63:LEU:HD22	8:CH:65:TYR:CE2	2.52	0.45
9:CI:30:ILE:HG12	9:CI:33:ARG:HG2	1.98	0.45
11:CK:84:VAL:O	11:CK:85:MET:C	2.60	0.45
13:CM:16:VAL:CG2	13:CM:41:GLU:OE1	2.65	0.45
14:CN:35:ALA:HA	14:CN:41:ARG:HB2	1.99	0.45
14:CN:64:CYS:C	14:CN:83:LYS:NZ	2.74	0.45
15:CO:20:ASN:O	15:CO:22:THR:N	2.50	0.45
22:CV:1:G:H5'	24:DA:2423:U:N3	2.31	0.45
24:DA:140:C:O2'	24:DA:141:G:P	2.74	0.45
24:DA:370:G:C6	24:DA:424:G:C5	3.04	0.45
24:DA:377:G:C6	24:DA:378:C:C4	3.05	0.45
24:DA:480:A:C2'	24:DA:481:G:OP1	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:621:A:H2'	24:DA:622:G:C5'	2.46	0.45
24:DA:715:A:H2'	24:DA:716:A:C8	2.51	0.45
24:DA:797:G:OP1	28:DE:57:LYS:CD	2.64	0.45
24:DA:875:G:H2'	24:DA:876:C:O4'	2.17	0.45
24:DA:1081:U:H5'	32:DI:126:ARG:HH12	1.81	0.45
24:DA:1081:U:O2'	32:DI:127:SER:HB3	2.17	0.45
24:DA:1340:U:O2	24:DA:1340:U:H2'	2.15	0.45
24:DA:1489:C:H6	24:DA:1489:C:H3'	1.82	0.45
24:DA:1495:A:O2'	24:DA:1579:A:H5'	2.17	0.45
24:DA:1538:G:N2	24:DA:1539:U:C2	2.85	0.45
24:DA:2192:U:O2'	24:DA:2193:G:H5'	2.17	0.45
24:DA:2415:G:H2'	24:DA:2416:C:C6	2.51	0.45
24:DA:2461:A:H1'	24:DA:2492:U:C2	2.51	0.45
24:DA:2544:G:H2'	24:DA:2545:G:O4'	2.16	0.45
24:DA:2754:U:H2'	24:DA:2756:U:OP1	2.17	0.45
25:DB:50:A:C6	25:DB:51:G:C5	3.05	0.45
28:DE:129:PRO:CB	28:DE:159:LEU:HD11	2.47	0.45
29:DF:36:ASN:CG	29:DF:37:MET:N	2.75	0.45
29:DF:162:ASP:O	29:DF:163:GLU:C	2.59	0.45
31:DH:29:PHE:C	31:DH:32:PRO:HD2	2.41	0.45
31:DH:31:VAL:HG13	31:DH:32:PRO:HD3	1.98	0.45
31:DH:93:SER:HG	31:DH:122:LEU:CG	2.30	0.45
33:DJ:142:ILE:OXT	33:DJ:142:ILE:HG23	2.15	0.45
44:DU:28:LEU:C	44:DU:30:SER:H	2.24	0.45
48:DY:53:VAL:HG22	48:DY:54:LYS:N	2.30	0.45
51:D1:24:LYS:HE3	51:D1:51:ALA:CB	2.47	0.45
1:AA:212:G:N2	1:AA:213:G:C4	2.84	0.45
1:AA:226:G:C4	1:AA:227:G:C8	3.05	0.45
1:AA:401:C:H1'	1:AA:622:A:H1'	1.97	0.45
1:AA:406:G:C8	1:AA:495:A:C2	3.04	0.45
1:AA:525:C:OP1	12:AL:86:ARG:CZ	2.64	0.45
1:AA:532:A:N1	1:AA:1207:G:H5'	2.32	0.45
1:AA:643:C:H5"	8:AH:32:LEU:HD21	1.99	0.45
1:AA:678:U:H1'	1:AA:777:A:O2'	2.17	0.45
1:AA:694:A:H2'	1:AA:695:A:O5'	2.17	0.45
1:AA:720:C:H1'	18:AR:39:ILE:CD1	2.46	0.45
1:AA:781:A:C4	1:AA:802:A:H2	2.32	0.45
1:AA:922:G:C6	1:AA:923:A:C6	3.05	0.45
1:AA:931:C:O2	1:AA:932:C:C6	2.70	0.45
1:AA:945:G:C2	1:AA:1337:G:C2	3.05	0.45
1:AA:1061:G:OP2	3:AC:3:GLN:HG2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1320:C:C4	1:AA:1321:U:C4	3.04	0.45
1:AA:1330:U:C4	1:AA:1331:G:C6	3.05	0.45
1:AA:1346:A:N3	1:AA:1348:U:C4	2.84	0.45
57:AA:1655:NMY:HN61	24:BA:1913:A:N6	2.13	0.45
2:AB:10:LEU:HG	2:AB:13:GLY:HA2	1.99	0.45
2:AB:41:ILE:O	2:AB:41:ILE:HG22	2.16	0.45
2:AB:96:TRP:CZ3	2:AB:171:ILE:O	2.70	0.45
3:AC:22:TRP:CE3	10:AJ:95:GLY:HA2	2.52	0.45
5:AE:116:GLU:CG	5:AE:117:VAL:N	2.80	0.45
6:AF:25:TYR:O	6:AF:28:ALA:N	2.42	0.45
6:AF:37:HIS:CG	6:AF:38:ARG:H	2.34	0.45
6:AF:38:ARG:HB2	6:AF:63:ASN:ND2	2.32	0.45
12:AL:30:LYS:O	12:AL:82:ILE:N	2.49	0.45
13:AM:2:ALA:CB	13:AM:9:ILE:HD12	2.42	0.45
16:AP:4:ILE:O	16:AP:5:ARG:HB2	2.17	0.45
20:AT:24:ARG:HA	20:AT:27:MET:CB	2.47	0.45
24:BA:126:A:C5	24:BA:127:A:N1	2.84	0.45
24:BA:146:A:C2	24:BA:147:C:C6	3.05	0.45
24:BA:184:C:O2	24:BA:213:A:C2	2.70	0.45
24:BA:319:G:C6	24:BA:320:A:C5	3.04	0.45
24:BA:348:A:C5	24:BA:349:U:C5	3.04	0.45
24:BA:488:G:C2	24:BA:493:G:O6	2.70	0.45
24:BA:564:C:P	41:BR:79:ARG:CZ	3.04	0.45
24:BA:677:A:O2'	24:BA:2070:A:O3'	2.34	0.45
24:BA:1063:G:O6	24:BA:1075:C:N3	2.49	0.45
24:BA:1203:U:O4	24:BA:1204:A:N1	2.50	0.45
24:BA:1339:G:O5'	43:BT:19:LYS:HD2	2.17	0.45
24:BA:1429:G:N9	24:BA:1568:G:C4	2.85	0.45
24:BA:1541:C:C4	24:BA:1542:U:C2	3.05	0.45
24:BA:1551:A:N6	24:BA:1552:A:C6	2.85	0.45
24:BA:1586:A:N6	24:BA:1587:G:C6	2.85	0.45
24:BA:1839:G:C8	24:BA:1927:A:C1'	2.99	0.45
24:BA:1876:A:C8	24:BA:1877:A:C8	3.05	0.45
24:BA:1954:G:O2'	24:BA:1955:U:OP2	2.34	0.45
24:BA:2018:G:C2'	24:BA:2019:A:H5'	2.46	0.45
24:BA:2034:U:H2'	24:BA:2034:U:O2	2.17	0.45
24:BA:2142:A:N1	24:BA:2149:U:O4	2.50	0.45
24:BA:2335:A:OP1	38:BO:13:ARG:HD2	2.16	0.45
24:BA:2355:G:O4'	46:BW:36:ILE:HD11	2.16	0.45
24:BA:2391:G:N2	24:BA:2429:G:O4'	2.49	0.45
24:BA:2598:A:OP1	26:BC:233:GLY:O	2.34	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2790:U:H4'	24:BA:2791:G:OP1	2.14	0.45
26:BC:39:SER:C	26:BC:41:GLY:N	2.74	0.45
30:BG:154:GLU:HG2	30:BG:155:PRO:CD	2.46	0.45
33:BJ:1:MET:O	33:BJ:2:LYS:C	2.59	0.45
34:BK:63:VAL:HG12	34:BK:64:ARG:HG3	1.97	0.45
36:BM:132:THR:HG22	36:BM:133:LYS:N	2.32	0.45
39:BP:12:MET:HB2	39:BP:76:HIS:CD2	2.52	0.45
41:BR:71:LYS:HE2	41:BR:88:GLY:HA3	1.99	0.45
42:BS:79:GLY:HA2	42:BS:102:HIS:CE1	2.52	0.45
43:BT:7:LEU:HG	43:BT:46:ALA:HB2	1.97	0.45
47:BX:19:HIS:O	47:BX:21:LEU:N	2.49	0.45
1:CA:299:G:H2'	1:CA:300:A:C8	2.51	0.45
1:CA:555:U:H2'	1:CA:556:C:C6	2.52	0.45
1:CA:649:A:H2'	1:CA:650:G:H5"	1.98	0.45
1:CA:722:G:C6	1:CA:724:G:C4	3.05	0.45
1:CA:750:C:O2'	1:CA:751:U:H5'	2.17	0.45
1:CA:751:U:C4	1:CA:752:G:N1	2.84	0.45
1:CA:988:G:N2	1:CA:989:U:O2	2.50	0.45
1:CA:1018:G:H3'	1:CA:1019:A:C8	2.51	0.45
1:CA:1077:G:C6	1:CA:1081:A:C6	3.04	0.45
1:CA:1082:A:P	5:CE:23:LYS:HZ3	2.39	0.45
1:CA:1300:G:C6	1:CA:1334:G:N7	2.84	0.45
1:CA:1318:A:H5'	1:CA:1319:A:OP2	2.16	0.45
1:CA:1378:C:C6	1:CA:1378:C:OP1	2.70	0.45
2:CB:33:GLY:O	2:CB:34:ALA:HB2	2.15	0.45
2:CB:157:LEU:O	2:CB:158:PRO:C	2.59	0.45
3:CC:101:ILE:HD12	3:CC:101:ILE:C	2.42	0.45
3:CC:155:GLY:HA2	3:CC:163:ALA:HB1	1.99	0.45
4:CD:59:GLN:HA	4:CD:62:ARG:CG	2.46	0.45
4:CD:125:VAL:O	4:CD:127:GLY:N	2.46	0.45
5:CE:53:ALA:HB2	5:CE:59:ALA:HA	1.98	0.45
7:CG:70:ARG:NE	7:CG:96:ARG:HD2	2.31	0.45
8:CH:124:GLU:O	8:CH:126:ILE:HG13	2.15	0.45
9:CI:57:MET:O	9:CI:58:VAL:C	2.59	0.45
12:CL:2:ALA:O	12:CL:3:THR:C	2.59	0.45
17:CQ:21:ILE:CD1	17:CQ:46:VAL:CG1	2.93	0.45
19:CS:16:LEU:O	19:CS:19:VAL:N	2.50	0.45
19:CS:42:PRO:O	19:CS:43:ASN:CB	2.65	0.45
55:CY:177:ASP:OD1	55:CY:178:LYS:N	2.50	0.45
24:DA:167:A:C8	24:DA:168:G:C8	3.05	0.45
24:DA:200:U:C5	24:DA:201:C:C5	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:221:A:C4	24:DA:266:G:N7	2.84	0.45
24:DA:475:C:N3	24:DA:481:G:C6	2.85	0.45
24:DA:480:A:N3	24:DA:499:U:O2'	2.44	0.45
24:DA:563:A:N3	40:DQ:36:GLN:NE2	2.63	0.45
24:DA:605:G:C8	24:DA:606:U:C5	3.03	0.45
24:DA:629:G:H2'	24:DA:630:G:H5'	1.97	0.45
24:DA:651:G:OP1	53:D3:16:THR:HG21	2.16	0.45
24:DA:692:C:C2'	24:DA:693:A:O5'	2.65	0.45
24:DA:1064:C:N3	24:DA:1066:U:C2	2.85	0.45
24:DA:1254:A:H5"	24:DA:1255:U:C5'	2.47	0.45
24:DA:1301:A:C4	24:DA:1303:G:N7	2.85	0.45
24:DA:1737:G:O2'	24:DA:1738:G:C1'	2.64	0.45
24:DA:1797:G:C6	24:DA:1798:U:C4	3.05	0.45
24:DA:1839:G:C8	24:DA:1927:A:H1'	2.52	0.45
24:DA:1967:C:C2'	24:DA:1968:G:H5'	2.47	0.45
24:DA:1986:C:C2'	24:DA:1987:A:O5'	2.65	0.45
24:DA:2111:U:OP1	24:DA:2118:U:O2'	2.32	0.45
24:DA:2221:G:C2	24:DA:2222:C:C6	3.05	0.45
24:DA:2663:G:C4	24:DA:2664:G:C8	3.04	0.45
26:DC:53:ILE:CG2	26:DC:54:GLY:N	2.78	0.45
26:DC:142:ASN:ND2	26:DC:151:GLY:HA3	2.32	0.45
27:DD:125:TRP:O	27:DD:126:ASN:HB2	2.15	0.45
28:DE:16:GLU:O	28:DE:20:GLY:N	2.50	0.45
29:DF:67:THR:OG1	29:DF:85:GLY:C	2.58	0.45
29:DF:135:ILE:HG23	29:DF:135:ILE:O	2.17	0.45
31:DH:10:ALA:O	31:DH:12:LEU:HD22	2.16	0.45
32:DI:20:SER:O	32:DI:23:VAL:N	2.50	0.45
35:DL:79:LEU:HD13	35:DL:111:ILE:O	2.16	0.45
37:DN:108:ALA:HB3	37:DN:110:MET:HE2	1.99	0.45
40:DQ:40:LYS:CG	40:DQ:41:ALA:H	2.30	0.45
44:DU:32:LYS:HE2	44:DU:65:GLN:HA	1.98	0.45
52:D2:32:ALA:O	52:D2:36:ALA:CB	2.65	0.45
53:D3:3:ILE:HG21	53:D3:62:PRO:HG2	1.99	0.45
1:AA:49:U:C4	1:AA:364:A:C5	3.04	0.45
1:AA:247:G:C2	1:AA:248:C:C6	3.05	0.45
1:AA:323:U:H5'	20:AT:18:ARG:HA	1.98	0.45
1:AA:461:A:C5	1:AA:462:G:C8	3.05	0.45
1:AA:551:U:N3	1:AA:552:U:C5	2.84	0.45
1:AA:597:G:H5'	1:AA:598:U:OP2	2.16	0.45
1:AA:929:G:O3'	1:AA:1535:C:H5"	2.16	0.45
1:AA:1157:A:N1	1:AA:1181:G:C8	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1173:U:H2'	1:AA:1174:G:O4'	2.17	0.45
1:AA:1273:C:N3	1:AA:1274:A:C8	2.85	0.45
1:AA:1358:U:C6	1:AA:1359:C:C6	3.04	0.45
57:AA:1656:NMY:H14	57:AA:1656:NMY:HN21	1.82	0.45
2:AB:60:ILE:O	2:AB:60:ILE:CG2	2.64	0.45
3:AC:67:THR:C	3:AC:68:ILE:HG22	2.41	0.45
3:AC:138:VAL:HG22	3:AC:149:ILE:HD13	1.99	0.45
4:AD:14:ARG:CG	4:AD:38:PRO:CB	2.94	0.45
4:AD:172:GLU:C	4:AD:173:VAL:HG23	2.42	0.45
9:AI:6:TYR:HB3	9:AI:89:GLU:CD	2.42	0.45
9:AI:14:SER:O	9:AI:14:SER:OG	2.29	0.45
9:AI:33:ARG:NH2	9:AI:37:GLN:OE1	2.49	0.45
12:AL:110:ARG:NH1	12:AL:113:ALA:HB3	2.32	0.45
13:AM:38:GLY:O	13:AM:39:ILE:HG23	2.16	0.45
13:AM:60:VAL:C	13:AM:62:LYS:H	2.25	0.45
14:AN:49:GLN:OE1	14:AN:49:GLN:HA	2.16	0.45
14:AN:80:SER:O	14:AN:83:LYS:N	2.48	0.45
16:AP:36:VAL:O	16:AP:37:GLY:O	2.34	0.45
17:AQ:66:PRO:O	17:AQ:68:SER:N	2.49	0.45
22:AV:21:A:N1	22:AV:46:G:C2	2.85	0.45
24:BA:92:U:C4	24:BA:93:G:C5	3.04	0.45
24:BA:122:G:O6	24:BA:129:C:C4	2.70	0.45
24:BA:410:G:N2	24:BA:2407:A:C5	2.85	0.45
24:BA:491:G:C2	24:BA:492:A:H1'	2.51	0.45
24:BA:783:A:C8	24:BA:784:G:H4'	2.51	0.45
24:BA:797:G:C2	24:BA:798:G:C4	3.04	0.45
24:BA:947:A:O2'	24:BA:984:A:H2	2.00	0.45
24:BA:955:U:OP1	36:BM:86:LYS:CE	2.64	0.45
24:BA:1142:A:H4'	33:BJ:27:ARG:NH2	2.31	0.45
24:BA:1429:G:C8	24:BA:1568:G:C8	3.05	0.45
24:BA:1439:A:C2	24:BA:1553:A:C4	3.04	0.45
24:BA:1501:G:C2	24:BA:1502:A:C5	3.04	0.45
24:BA:1506:U:C4	24:BA:1507:C:N4	2.85	0.45
24:BA:1579:A:C2	24:BA:1580:A:N3	2.85	0.45
24:BA:1722:A:N6	24:BA:1737:G:O2'	2.50	0.45
24:BA:1738:G:C1'	24:BA:1739:A:OP2	2.64	0.45
24:BA:1808:A:H3'	24:BA:1809:A:H8	1.80	0.45
24:BA:1822:C:N4	59:BA:3659:HOH:O	2.48	0.45
24:BA:1833:C:C2	24:BA:1834:U:C5	3.05	0.45
24:BA:2248:C:H2'	24:BA:2249:U:H5'	1.99	0.45
24:BA:2307:G:H4'	24:BA:2308:G:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2572:A:O2'	24:BA:2575:C:OP1	2.29	0.45
24:BA:2639:A:O3'	33:BJ:96:ARG:CZ	2.65	0.45
24:BA:2668:G:H2'	24:BA:2669:G:O4'	2.16	0.45
24:BA:2675:A:H5'	34:BK:30:ARG:HA	1.99	0.45
24:BA:2714:G:C4	24:BA:2715:C:C6	3.04	0.45
24:BA:2799:A:C5	24:BA:2801:G:N7	2.84	0.45
24:BA:2884:U:O2	24:BA:2884:U:H2'	2.17	0.45
26:BC:34:GLU:O	26:BC:61:TYR:HB3	2.16	0.45
26:BC:39:SER:O	26:BC:41:GLY:N	2.50	0.45
26:BC:145:MET:HB2	26:BC:152:GLN:OE1	2.16	0.45
27:BD:55:LYS:O	27:BD:57:ALA:N	2.49	0.45
27:BD:112:THR:O	27:BD:113:SER:C	2.59	0.45
29:BF:33:ILE:HG22	29:BF:95:MET:HE3	1.99	0.45
29:BF:84:ILE:HD12	29:BF:84:ILE:O	2.17	0.45
29:BF:107:VAL:N	29:BF:108:PRO:HD2	2.31	0.45
31:BH:82:SER:C	31:BH:83:LYS:HE2	2.41	0.45
32:BI:48:ILE:HD12	32:BI:49:GLU:N	2.32	0.45
34:BK:109:SER:O	34:BK:110:GLU:C	2.60	0.45
35:BL:94:THR:CG2	35:BL:95:LEU:N	2.78	0.45
36:BM:21:ALA:HB1	36:BM:100:LYS:CG	2.47	0.45
37:BN:29:VAL:HG11	37:BN:79:LEU:HD13	1.98	0.45
37:BN:108:ALA:O	37:BN:110:MET:HG2	2.17	0.45
41:BR:51:VAL:CB	41:BR:52:PRO:CD	2.95	0.45
41:BR:84:ARG:HG2	41:BR:84:ARG:O	2.16	0.45
42:BS:3:THR:HB	42:BS:58:ALA:HB2	1.99	0.45
42:BS:80:PRO:HD2	42:BS:100:THR:OG1	2.17	0.45
52:B2:3:ARG:CB	52:B2:3:ARG:NH2	2.80	0.45
53:B3:60:CYS:O	53:B3:61:LEU:HD23	2.17	0.45
1:CA:276:G:OP1	17:CQ:14:SER:OG	2.27	0.45
1:CA:384:G:C6	1:CA:385:C:N4	2.85	0.45
1:CA:599:C:H2'	1:CA:600:A:H8	1.81	0.45
1:CA:628:G:H2'	1:CA:629:A:H8	1.79	0.45
1:CA:680:C:O2	1:CA:711:G:N1	2.49	0.45
1:CA:1154:G:C2	1:CA:1155:A:C8	3.05	0.45
1:CA:1252:A:C2	1:CA:1253:G:C4	3.05	0.45
1:CA:1523:G:H5"	11:CK:125:LYS:NZ	2.32	0.45
2:CB:90:PHE:CE2	2:CB:154:MET:HB3	2.52	0.45
3:CC:42:TYR:HA	3:CC:45:LYS:HG2	1.98	0.45
4:CD:96:GLY:O	4:CD:97:ARG:C	2.59	0.45
5:CE:44:GLY:HA2	5:CE:76:LEU:HD11	1.98	0.45
6:CF:9:MET:HE2	6:CF:59:TYR:CD2	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:26:PHE:C	7:CG:28:ASN:N	2.75	0.45
9:CI:12:ARG:O	9:CI:13:LYS:HB3	2.17	0.45
11:CK:63:ALA:O	11:CK:66:ALA:HB2	2.17	0.45
13:CM:17:ILE:HA	13:CM:20:THR:OG1	2.17	0.45
13:CM:57:ARG:HA	13:CM:60:VAL:HG12	1.99	0.45
14:CN:22:LYS:HE2	14:CN:23:ARG:HG2	1.99	0.45
20:CT:9:LYS:HA	20:CT:12:ILE:CD1	2.47	0.45
20:CT:35:VAL:HG11	20:CT:79:LEU:HD22	1.98	0.45
20:CT:69:LYS:O	20:CT:71:LYS:N	2.49	0.45
55:CY:14:ASP:O	55:CY:18:GLU:OE1	2.35	0.45
55:CY:133:ARG:NH2	24:DA:1941:C:N3	2.65	0.45
55:CY:159:ASP:O	55:CY:163:LEU:N	2.48	0.45
24:DA:55:G:O2'	24:DA:127:A:N1	2.40	0.45
24:DA:279:A:C2'	24:DA:280:U:H5'	2.46	0.45
24:DA:611:C:C2'	24:DA:612:G:H5'	2.46	0.45
24:DA:801:G:C8	28:DE:50:ALA:HB2	2.52	0.45
24:DA:1062:G:N7	24:DA:1070:A:H5'	2.31	0.45
24:DA:1132:U:H5'	33:DJ:84:ILE:HD13	1.98	0.45
24:DA:1239:G:O6	57:DA:3190:NMY:H62	2.16	0.45
24:DA:1532:A:H2'	24:DA:1533:C:O4'	2.17	0.45
24:DA:1588:G:C6	24:DA:1589:U:C4	3.04	0.45
24:DA:1821:A:H2'	24:DA:1822:C:C6	2.52	0.45
24:DA:1866:A:C2	24:DA:1876:A:N7	2.85	0.45
24:DA:1969:A:H1'	24:DA:1973:G:O4'	2.17	0.45
24:DA:2052:A:C2	24:DA:2053:G:C8	3.04	0.45
24:DA:2171:A:HO2'	24:DA:2172:U:H5'	1.81	0.45
24:DA:2204:G:N7	24:DA:2221:G:C2	2.85	0.45
24:DA:2298:A:C6	24:DA:2321:U:C4	3.05	0.45
24:DA:2444:G:OP2	28:DE:63:LYS:CE	2.64	0.45
24:DA:2801:G:C2	24:DA:2802:G:C4	3.05	0.45
25:DB:62:C:H2'	25:DB:63:C:O5'	2.17	0.45
25:DB:111:U:H2'	25:DB:112:G:H8	1.81	0.45
26:DC:23:LEU:HD21	26:DC:89:ASN:HD21	1.81	0.45
27:DD:186:LEU:O	27:DD:187:LEU:HB2	2.17	0.45
27:DD:205:PRO:O	27:DD:206:ALA:C	2.60	0.45
28:DE:3:LEU:HD22	28:DE:14:VAL:HG11	1.99	0.45
28:DE:52:VAL:O	28:DE:54:GLY:N	2.49	0.45
36:DM:6:ARG:O	36:DM:7:THR:HG23	2.16	0.45
38:DO:31:THR:HG23	38:DO:32:PRO:CD	2.46	0.45
1:AA:27:G:C2'	1:AA:28:A:H5'	2.47	0.45
1:AA:64:G:N7	1:AA:99:C:N4	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:155:A:N1	1:AA:167:A:C6	2.85	0.45
1:AA:186:C:C5'	20:AT:76:LYS:HD2	2.46	0.45
1:AA:189:A:C5	1:AA:190:A:C6	3.05	0.45
1:AA:210:C:O2	1:AA:210:C:H3'	2.16	0.45
1:AA:304:U:O2	1:AA:304:U:H2'	2.16	0.45
1:AA:309:A:H2'	1:AA:310:G:H8	1.81	0.45
1:AA:376:G:H5"	16:AP:5:ARG:HD3	1.96	0.45
1:AA:391:G:C6	1:AA:392:C:C5	3.05	0.45
1:AA:449:G:C6	1:AA:450:G:C6	3.05	0.45
1:AA:598:U:O3'	8:AH:86:TYR:CD2	2.70	0.45
1:AA:803:G:O2'	1:AA:804:U:H5'	2.17	0.45
1:AA:863:U:O2	1:AA:863:U:C2'	2.64	0.45
1:AA:927:G:C4'	1:AA:1503:A:N7	2.80	0.45
1:AA:1014:A:N3	19:AS:34:TRP:CZ2	2.85	0.45
1:AA:1369:C:OP1	14:AN:101:TRP:CH2	2.70	0.45
1:AA:1373:G:O4'	7:AG:34:GLY:O	2.35	0.45
1:AA:1423:G:C4	1:AA:1424:U:C5	3.04	0.45
2:AB:14:VAL:CG2	2:AB:208:ARG:NH1	2.79	0.45
2:AB:67:ILE:O	2:AB:160:ALA:O	2.35	0.45
2:AB:82:ASP:CG	2:AB:84:ALA:HB3	2.41	0.45
3:AC:155:GLY:C	3:AC:157:LEU:N	2.74	0.45
4:AD:35:GLU:O	4:AD:36:GLN:C	2.59	0.45
4:AD:198:HIS:CE1	5:AE:105:ILE:HB	2.52	0.45
5:AE:136:VAL:C	5:AE:138:ARG:N	2.74	0.45
6:AF:26:THR:O	6:AF:27:ALA:C	2.57	0.45
9:AI:89:GLU:O	9:AI:94:LEU:HD11	2.17	0.45
10:AJ:17:LEU:HD21	10:AJ:96:VAL:HG13	1.99	0.45
10:AJ:28:THR:OG1	10:AJ:87:LEU:HB3	2.17	0.45
10:AJ:53:ILE:HG22	10:AJ:61:ALA:C	2.42	0.45
11:AK:72:ASP:C	11:AK:74:VAL:N	2.73	0.45
11:AK:125:LYS:HB2	21:AU:35:ARG:HE	1.80	0.45
15:AO:24:SER:O	15:AO:27:VAL:N	2.48	0.45
15:AO:82:ILE:HG13	15:AO:83:GLU:N	2.32	0.45
19:AS:5:LEU:HD23	19:AS:6:LYS:N	2.32	0.45
24:BA:321:U:OP2	28:BE:130:LYS:HD2	2.16	0.45
24:BA:338:G:N2	24:BA:339:U:H1'	2.31	0.45
24:BA:354:A:H2'	24:BA:355:U:O5'	2.17	0.45
24:BA:407:G:C2	24:BA:421:C:C2	3.04	0.45
24:BA:442:G:C2	24:BA:444:C:C5	3.04	0.45
24:BA:449:A:C4	24:BA:450:G:C8	3.05	0.45
24:BA:592:A:C4	24:BA:593:U:C5	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:932:U:O2	24:BA:932:U:O4'	2.32	0.45
24:BA:954:G:OP2	36:BM:16:ARG:NH2	2.50	0.45
24:BA:980:A:C6	24:BA:981:A:N1	2.85	0.45
24:BA:1071:G:H2'	24:BA:1072:C:C5'	2.47	0.45
24:BA:1172:C:C5	24:BA:1173:U:N3	2.85	0.45
24:BA:1300:G:C4	24:BA:1626:A:C2	3.05	0.45
24:BA:1580:A:N7	24:BA:1581:G:H1'	2.32	0.45
24:BA:1710:G:N2	24:BA:1749:A:H1'	2.32	0.45
24:BA:1876:A:C8	24:BA:1877:A:N7	2.85	0.45
24:BA:2134:A:C6	24:BA:2135:A:C5	3.05	0.45
24:BA:2144:G:C2	24:BA:2146:C:O2	2.69	0.45
24:BA:2165:C:O2	24:BA:2165:C:H2'	2.16	0.45
24:BA:2204:G:C5	24:BA:2205:A:N7	2.84	0.45
24:BA:2254:C:H2'	24:BA:2255:G:C8	2.51	0.45
24:BA:2347:C:OP1	24:BA:2347:C:H4'	2.17	0.45
24:BA:2455:G:C6	24:BA:2456:C:N4	2.85	0.45
24:BA:2531:A:H4'	30:BG:156:TYR:CE2	2.52	0.45
24:BA:2597:G:C5'	26:BC:240:GLY:HA3	2.46	0.45
24:BA:2776:A:C5	24:BA:2782:G:C4	3.05	0.45
24:BA:2816:G:C6	24:BA:2817:U:C4	3.05	0.45
25:BB:66:A:C6	25:BB:108:A:C4	3.05	0.45
26:BC:30:ALA:O	26:BC:33:LEU:N	2.49	0.45
26:BC:245:THR:HB	26:BC:246:PRO:CD	2.46	0.45
27:BD:33:ARG:HG2	27:BD:51:THR:CG2	2.46	0.45
28:BE:75:SER:O	28:BE:77:ILE:N	2.50	0.45
28:BE:109:LEU:HD12	28:BE:112:LEU:HD12	1.99	0.45
30:BG:122:ALA:HB2	30:BG:132:LEU:CB	2.47	0.45
31:BH:31:VAL:C	31:BH:33:GLN:H	2.24	0.45
31:BH:109:GLU:O	31:BH:110:VAL:HG23	2.17	0.45
31:BH:122:LEU:C	31:BH:123:ARG:HG2	2.42	0.45
33:BJ:60:ASP:OD1	33:BJ:61:LYS:HD3	2.16	0.45
33:BJ:73:VAL:CG1	33:BJ:86:GLN:HG3	2.45	0.45
33:BJ:109:LEU:HD13	33:BJ:119:PHE:HB2	1.99	0.45
37:BN:38:LEU:HD23	37:BN:42:LYS:HD2	1.99	0.45
37:BN:73:ASN:HA	37:BN:76:VAL:HG13	1.98	0.45
37:BN:86:ARG:O	37:BN:86:ARG:HG2	2.17	0.45
38:BO:18:LEU:HD11	38:BO:25:ARG:HD2	1.99	0.45
38:BO:27:VAL:HG12	38:BO:28:VAL:H	1.81	0.45
40:BQ:59:LEU:O	40:BQ:60:TRP:C	2.58	0.45
44:BU:50:ALA:O	44:BU:52:ASN:N	2.50	0.45
46:BW:81:SER:O	46:BW:82:ILE:CG1	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:B1:9:LYS:CE	51:B1:52:LYS:HD2	2.46	0.45
1:CA:213:G:C4	1:CA:214:C:C5	3.05	0.45
1:CA:283:U:C5	1:CA:284:C:C4	3.05	0.45
1:CA:354:G:C5	1:CA:355:C:C5	3.05	0.45
1:CA:485:U:H4'	1:CA:486:U:OP2	2.17	0.45
1:CA:499:A:H4'	1:CA:500:G:OP1	2.17	0.45
1:CA:528:C:H2'	1:CA:529:G:H5'	1.99	0.45
1:CA:588:G:N9	1:CA:753:A:C2	2.84	0.45
1:CA:649:A:C3'	1:CA:650:G:H5"	2.47	0.45
1:CA:668:G:N2	1:CA:669:G:C4	2.85	0.45
1:CA:737:C:C2'	1:CA:738:C:O5'	2.63	0.45
1:CA:768:A:N3	1:CA:1512:U:O2'	2.47	0.45
1:CA:815:A:N3	1:CA:1527:U:O2'	2.43	0.45
1:CA:859:G:O2'	1:CA:860:A:P	2.73	0.45
1:CA:1045:C:C2'	1:CA:1046:A:H5'	2.47	0.45
1:CA:1111:A:N1	3:CC:177:THR:CB	2.79	0.45
1:CA:1190:G:O2'	3:CC:3:GLN:HG2	2.17	0.45
1:CA:1211:U:C1'	1:CA:1212:U:OP2	2.64	0.45
1:CA:1503:A:OP1	1:CA:1531:A:H4'	2.15	0.45
2:CB:72:THR:HG1	2:CB:73:LYS:H	1.63	0.45
2:CB:209:ALA:O	2:CB:212:LEU:HB2	2.16	0.45
3:CC:124:LEU:O	3:CC:127:ARG:N	2.50	0.45
3:CC:144:LEU:O	3:CC:145:GLY:C	2.59	0.45
4:CD:76:TYR:C	4:CD:76:TYR:HD1	2.23	0.45
6:CF:39:LEU:HD13	6:CF:40:GLU:H	1.77	0.45
7:CG:14:PRO:O	7:CG:15:ASP:O	2.35	0.45
7:CG:95:ARG:O	7:CG:99:LEU:HD23	2.17	0.45
10:CJ:64:GLN:O	14:CN:99:ALA:N	2.49	0.45
10:CJ:80:THR:O	10:CJ:84:VAL:HG13	2.17	0.45
11:CK:17:SER:O	11:CK:81:ASN:OD1	2.34	0.45
11:CK:36:ASP:OD1	11:CK:39:GLY:C	2.60	0.45
14:CN:1:ALA:HB2	14:CN:68:GLY:HA3	1.98	0.45
15:CO:51:HIS:O	15:CO:54:ARG:N	2.50	0.45
15:CO:78:TYR:HA	15:CO:81:LEU:HG	1.99	0.45
19:CS:63:THR:O	19:CS:66:MET:HG2	2.16	0.45
21:CU:5:LYS:O	21:CU:5:LYS:HD2	2.17	0.45
22:CV:14:A:H2'	22:CV:15:G:C4'	2.46	0.45
24:DA:55:G:N3	24:DA:127:A:H2	2.15	0.45
24:DA:320:A:P	28:DE:130:LYS:HZ1	2.40	0.45
24:DA:354:A:C5	24:DA:355:U:C4	3.05	0.45
24:DA:464:U:C2	24:DA:788:A:C6	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:494:G:H4'	42:DS:6:LYS:HB2	1.98	0.45
24:DA:544:C:H3'	24:DA:545:U:C5	2.52	0.45
24:DA:580:U:O3'	40:DQ:30:VAL:HG13	2.17	0.45
24:DA:675:A:OP1	28:DE:58:LYS:HD2	2.16	0.45
24:DA:1077:A:C6	24:DA:1078:U:C2	3.04	0.45
24:DA:1265:A:C1'	24:DA:1267:U:C6	2.99	0.45
24:DA:1357:C:H2'	24:DA:1358:G:O4'	2.17	0.45
24:DA:1561:C:C2	24:DA:1562:U:C5	3.05	0.45
24:DA:1588:G:C2	24:DA:1589:U:C5	3.05	0.45
24:DA:1799:G:O6	26:DC:176:ARG:NH1	2.49	0.45
24:DA:2113:U:C2	24:DA:2114:A:N7	2.84	0.45
24:DA:2193:G:C2	24:DA:2194:U:C6	3.04	0.45
24:DA:2285:C:OP2	51:D1:5:ARG:HD2	2.17	0.45
26:DC:104:LEU:N	26:DC:104:LEU:HD12	2.31	0.45
27:DD:186:LEU:HD21	39:DP:3:ILE:CG2	2.46	0.45
28:DE:58:LYS:HG2	28:DE:60:TRP:O	2.16	0.45
29:DF:121:PHE:CD1	29:DF:162:ASP:OD1	2.70	0.45
31:DH:116:ARG:O	31:DH:118:PRO:N	2.50	0.45
31:DH:122:LEU:CD2	31:DH:122:LEU:H	2.29	0.45
33:DJ:64:VAL:HG22	33:DJ:68:LYS:NZ	2.32	0.45
36:DM:49:ALA:HB3	36:DM:124:LEU:HD21	1.97	0.45
36:DM:81:ARG:NH2	36:DM:82:MET:CB	2.79	0.45
40:DQ:87:VAL:HB	41:DR:49:ILE:CG2	2.47	0.45
44:DU:84:PHE:CD2	44:DU:85:ARG:N	2.84	0.45
44:DU:95:PHE:CE2	44:DU:102:ILE:CG1	3.00	0.45
51:D1:16:THR:HG21	51:D1:39:ASP:OD2	2.16	0.45
52:D2:32:ALA:O	52:D2:36:ALA:HB3	2.17	0.45
54:D4:19:ARG:C	54:D4:21:GLY:H	2.25	0.45
1:AA:32:A:C2	1:AA:33:A:C8	3.05	0.45
1:AA:34:C:N3	1:AA:35:G:N7	2.64	0.45
1:AA:53:A:H2'	1:AA:54:C:O5'	2.17	0.45
1:AA:59:A:C5	1:AA:354:G:C5	3.04	0.45
1:AA:123:U:C2'	1:AA:124:C:O5'	2.65	0.45
1:AA:451:A:N1	1:AA:480:U:C5	2.84	0.45
1:AA:723:U:H4'	1:AA:724:G:O5'	2.16	0.45
1:AA:854:U:C2	1:AA:871:U:O4	2.69	0.45
1:AA:1037:C:H2'	1:AA:1038:C:C6	2.52	0.45
1:AA:1174:G:C2'	1:AA:1175:G:H5'	2.47	0.45
1:AA:1354:U:H2'	1:AA:1355:G:O4'	2.17	0.45
2:AB:189:THR:HG23	2:AB:190:ASN:HD22	1.82	0.45
2:AB:192:ASP:HA	2:AB:193:PRO:HD2	1.71	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:151:VAL:HG12	3:AC:200:VAL:HA	1.99	0.45
4:AD:117:LEU:O	4:AD:118:VAL:CB	2.65	0.45
6:AF:54:LEU:O	6:AF:55:HIS:CG	2.70	0.45
7:AG:149:LYS:C	7:AG:151:PHE:H	2.25	0.45
9:AI:22:LYS:O	9:AI:62:ASP:N	2.48	0.45
15:AO:17:ARG:O	15:AO:18:ASP:CG	2.60	0.45
15:AO:87:LEU:HG	15:AO:88:ARG:H	1.82	0.45
21:AU:8:GLU:HB2	21:AU:12:PHE:CZ	2.52	0.45
22:AV:9:A:C2	22:AV:44:G:C8	3.05	0.45
24:BA:83:A:O3'	24:BA:84:A:O4'	2.34	0.45
24:BA:121:G:H5"	24:BA:149:A:C5'	2.47	0.45
24:BA:279:A:C4	24:BA:280:U:C6	3.05	0.45
24:BA:327:G:O2'	24:BA:328:U:H5'	2.17	0.45
24:BA:362:A:H2'	24:BA:363:G:C5'	2.47	0.45
24:BA:493:G:O2'	24:BA:494:G:H5'	2.16	0.45
24:BA:509:C:HO2'	24:BA:510:C:P	2.39	0.45
24:BA:686:U:OP2	59:BA:3719:HOH:O	2.21	0.45
24:BA:851:C:O4'	49:BZ:46:MET:HG3	2.17	0.45
24:BA:934:U:H2'	24:BA:935:C:H6	1.81	0.45
24:BA:990:A:C5'	57:BA:3162:NMY:H82	2.47	0.45
24:BA:1029:A:N6	24:BA:1125:G:O2'	2.49	0.45
24:BA:1061:U:C6	24:BA:1070:A:C4	3.04	0.45
24:BA:1132:U:H5'	33:BJ:84:ILE:CD1	2.47	0.45
24:BA:1207:C:C2	24:BA:1208:C:C5	3.05	0.45
24:BA:1216:G:C5	24:BA:1217:U:C5	3.04	0.45
24:BA:1419:A:C4	24:BA:1579:A:C2	3.05	0.45
24:BA:1545:A:N7	24:BA:1546:G:C8	2.85	0.45
24:BA:2011:U:H5	24:BA:2012:G:C4	2.34	0.45
24:BA:2012:G:OP1	42:BS:98:LYS:HD2	2.17	0.45
24:BA:2333:A:C8	24:BA:2335:A:N3	2.85	0.45
24:BA:2377:A:C2'	38:BO:92:PHE:HZ	2.30	0.45
24:BA:2414:G:C2	24:BA:2415:G:C4	3.05	0.45
24:BA:2544:G:O2'	24:BA:2545:G:H5'	2.17	0.45
24:BA:2824:C:N4	24:BA:2825:G:C5	2.84	0.45
24:BA:2886:A:C5	50:B0:39:ARG:NH2	2.84	0.45
59:BA:3241:HOH:O	28:BE:81:GLY:HA2	2.16	0.45
25:BB:43:C:C5	25:BB:45:A:N6	2.85	0.45
26:BC:68:ARG:NH2	26:BC:117:SER:HB3	2.32	0.45
26:BC:210:ALA:C	26:BC:215:VAL:HG13	2.42	0.45
27:BD:62:LYS:N	27:BD:63:PRO:CD	2.80	0.45
28:BE:47:LYS:HB3	28:BE:51:GLU:CB	2.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:72:SER:C	28:BE:74:LYS:H	2.23	0.45
29:BF:100:GLU:OE1	29:BF:101:ARG:N	2.50	0.45
29:BF:142:TYR:CD1	29:BF:142:TYR:C	2.95	0.45
31:BH:57:LYS:CG	31:BH:58:LEU:N	2.77	0.45
31:BH:130:VAL:N	31:BH:142:VAL:O	2.50	0.45
34:BK:113:MET:O	34:BK:117:SER:HB2	2.17	0.45
34:BK:114:LYS:O	34:BK:117:SER:CB	2.65	0.45
36:BM:133:LYS:HG2	36:BM:134:THR:N	2.31	0.45
37:BN:28:LEU:HD13	37:BN:29:VAL:N	2.31	0.45
37:BN:28:LEU:HA	37:BN:34:ILE:HG12	1.98	0.45
38:BO:31:THR:O	38:BO:32:PRO:C	2.60	0.45
38:BO:36:TYR:CD1	38:BO:36:TYR:N	2.83	0.45
39:BP:31:VAL:HG11	39:BP:33:GLU:OE2	2.17	0.45
42:BS:51:LEU:O	42:BS:55:ILE:HG23	2.16	0.45
42:BS:88:ARG:HG2	42:BS:88:ARG:HH21	1.82	0.45
42:BS:95:ARG:O	42:BS:95:ARG:HG3	2.16	0.45
45:BV:13:GLY:O	45:BV:14:LYS:C	2.60	0.45
49:BZ:9:THR:HG22	49:BZ:53:MET:C	2.42	0.45
49:BZ:25:GLY:C	49:BZ:46:MET:CE	2.90	0.45
53:B3:56:LEU:O	53:B3:57:VAL:CB	2.63	0.45
54:B4:10:LEU:HD12	54:B4:10:LEU:N	2.32	0.45
1:CA:215:C:C4	1:CA:216:U:C4	3.05	0.45
1:CA:329:A:C2	1:CA:332:G:C8	3.05	0.45
1:CA:390:U:O2'	1:CA:391:G:H5'	2.17	0.45
1:CA:631:C:OP1	1:CA:632:U:H5'	2.17	0.45
1:CA:656:G:N2	1:CA:751:U:C2	2.85	0.45
1:CA:858:G:C5	1:CA:869:G:C5	3.05	0.45
1:CA:922:G:C6	1:CA:923:A:C6	3.04	0.45
1:CA:1036:A:C5	1:CA:1037:C:C2	3.04	0.45
1:CA:1083:U:C5	1:CA:1084:G:C6	3.05	0.45
1:CA:1096:C:C2'	1:CA:1170:A:O2'	2.65	0.45
1:CA:1124:G:C5'	10:CJ:37:ARG:O	2.65	0.45
1:CA:1164:G:N3	1:CA:1164:G:H2'	2.32	0.45
1:CA:1326:U:H2'	1:CA:1327:C:O4'	2.16	0.45
1:CA:1376:U:H2'	1:CA:1377:A:C8	2.51	0.45
5:CE:133:PRO:C	5:CE:135:ASN:N	2.70	0.45
6:CF:11:HIS:HB2	6:CF:12:PRO:HD2	1.98	0.45
8:CH:95:VAL:O	8:CH:96:MET:C	2.60	0.45
9:CI:52:LEU:HD22	9:CI:57:MET:HG2	1.99	0.45
9:CI:130:ARG:CZ	22:CV:33:U:H5	2.30	0.45
10:CJ:15:HIS:O	10:CJ:17:LEU:N	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:81:ASN:O	11:CK:82:LEU:HB3	2.16	0.45
17:CQ:59:VAL:HG22	17:CQ:78:VAL:HA	1.98	0.45
18:CR:26:ILE:C	18:CR:28:THR:N	2.75	0.45
24:DA:14:A:C6	24:DA:526:A:C2	3.04	0.45
24:DA:219:A:N6	59:DA:3224:HOH:O	2.48	0.45
24:DA:408:G:C6	24:DA:420:C:N3	2.84	0.45
24:DA:547:A:N7	24:DA:548:G:N3	2.65	0.45
24:DA:848:C:H2'	24:DA:849:A:C8	2.52	0.45
24:DA:849:A:C6	24:DA:930:G:C6	3.05	0.45
24:DA:1072:C:O2	24:DA:1093:G:C6	2.70	0.45
24:DA:1080:A:O2'	32:DI:126:ARG:O	2.30	0.45
24:DA:1212:G:N2	24:DA:1236:G:O2'	2.50	0.45
24:DA:1669:A:H2'	24:DA:1670:C:H5'	1.99	0.45
24:DA:2202:U:C5'	24:DA:2203:U:OP1	2.64	0.45
24:DA:2221:G:N3	24:DA:2222:C:C6	2.85	0.45
24:DA:2281:A:N1	24:DA:2282:G:C5	2.85	0.45
26:DC:80:LEU:CD2	26:DC:105:ALA:HB2	2.47	0.45
26:DC:159:THR:HG22	26:DC:194:VAL:HG11	1.98	0.45
27:DD:93:GLY:O	27:DD:94:GLN:O	2.35	0.45
29:DF:90:LEU:HD13	29:DF:95:MET:HB3	1.99	0.45
30:DG:59:ASP:O	30:DG:60:GLY:C	2.60	0.45
33:DJ:40:HIS:CE1	33:DJ:41:LYS:HG3	2.52	0.45
34:DK:33:ALA:CB	34:DK:39:ILE:HG22	2.47	0.45
42:DS:29:VAL:HG21	42:DS:69:LEU:HB3	1.99	0.45
43:DT:41:ALA:O	43:DT:43:ILE:N	2.50	0.45
43:DT:61:LEU:HD12	43:DT:82:LYS:HB3	1.98	0.45
44:DU:75:ALA:O	44:DU:76:THR:C	2.59	0.45
50:D0:53:VAL:O	50:D0:54:ILE:CG1	2.65	0.45
1:AA:184:G:C1'	1:AA:224:U:H4'	2.47	0.45
1:AA:487:A:C6	1:AA:488:C:O2	2.70	0.45
1:AA:640:A:O2'	8:AH:108:LYS:HD3	2.17	0.45
1:AA:895:G:C4	1:AA:896:C:C5	3.05	0.45
1:AA:918:A:C6	1:AA:919:A:C6	3.05	0.45
1:AA:958:A:N6	1:AA:959:A:C6	2.85	0.45
1:AA:961:U:OP2	1:AA:1223:C:H1'	2.17	0.45
1:AA:1001:C:H2'	1:AA:1002:G:C1'	2.47	0.45
1:AA:1005:A:H2'	1:AA:1006:G:OP1	2.17	0.45
1:AA:1086:U:C2'	1:AA:1087:G:O5'	2.65	0.45
1:AA:1125:U:H2'	1:AA:1127:G:N7	2.32	0.45
1:AA:1152:A:O2'	1:AA:1153:G:H5'	2.16	0.45
1:AA:1261:A:C5	1:AA:1262:C:C6	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1332:A:N6	1:AA:1333:A:N1	2.65	0.45
1:AA:1395:C:H5"	1:AA:1402:C:H4'	1.99	0.45
2:AB:114:LEU:HG	2:AB:115:LYS:N	2.31	0.45
2:AB:184:PHE:CD2	2:AB:198:PHE:HB2	2.51	0.45
2:AB:204:ASP:OD1	2:AB:204:ASP:N	2.46	0.45
4:AD:116:GLN:NE2	4:AD:120:HIS:CE1	2.85	0.45
4:AD:137:VAL:CG1	4:AD:182:PHE:HE2	2.29	0.45
5:AE:147:MET:SD	8:AH:96:MET:CE	3.05	0.45
7:AG:121:ALA:O	7:AG:124:LEU:HB2	2.16	0.45
8:AH:88:ARG:O	8:AH:91:GLU:N	2.50	0.45
9:AI:97:GLU:HA	9:AI:100:LYS:CE	2.47	0.45
9:AI:115:LYS:O	9:AI:116:VAL:HG12	2.16	0.45
10:AJ:35:GLN:O	10:AJ:36:VAL:HG22	2.17	0.45
10:AJ:44:THR:O	10:AJ:45:ARG:C	2.60	0.45
11:AK:17:SER:O	11:AK:79:ILE:HA	2.17	0.45
11:AK:31:ILE:CG2	11:AK:46:THR:HA	2.46	0.45
11:AK:94:GLU:HG3	11:AK:95:SER:N	2.31	0.45
13:AM:3:ARG:C	13:AM:4:ILE:HG12	2.42	0.45
19:AS:73:GLU:OE2	19:AS:74:PHE:CG	2.70	0.45
21:AU:15:ALA:O	21:AU:16:LEU:C	2.59	0.45
24:BA:114:U:C4	24:BA:115:C:C5	3.05	0.45
24:BA:324:A:C2	24:BA:325:G:H1'	2.51	0.45
24:BA:374:A:N6	24:BA:400:G:O2'	2.50	0.45
24:BA:578:G:C6	24:BA:2018:G:O4'	2.70	0.45
24:BA:710:U:O2	24:BA:722:A:C2	2.70	0.45
24:BA:767:U:C2'	24:BA:768:G:O5'	2.65	0.45
24:BA:1156:A:P	40:BQ:54:ARG:NH2	2.83	0.45
24:BA:1205:A:N3	57:BA:3163:NMY:H19	2.32	0.45
24:BA:1408:G:N1	24:BA:1409:U:C2	2.84	0.45
24:BA:1497:U:HO2'	24:BA:1498:C:P	2.39	0.45
24:BA:1521:G:C6	24:BA:1522:A:C6	3.05	0.45
24:BA:1819:A:H1'	24:BA:1821:A:C6	2.51	0.45
24:BA:1842:G:H1'	26:BC:242:HIS:CD2	2.52	0.45
24:BA:1994:C:P	27:BD:132:ALA:HB3	2.57	0.45
24:BA:2014:A:C2	24:BA:2015:A:C2	3.05	0.45
24:BA:2450:A:C2	24:BA:2451:A:C4	3.04	0.45
24:BA:2543:G:H5'	24:BA:2766:A:H4'	1.97	0.45
24:BA:2803:G:H2'	24:BA:2804:U:C6	2.52	0.45
24:BA:2821:A:O2'	24:BA:2826:A:N1	2.36	0.45
25:BB:38:C:C4	25:BB:39:A:N7	2.85	0.45
25:BB:79:G:N7	45:BV:14:LYS:NZ	2.61	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BB:100:G:H2'	25:BB:101:A:O4'	2.17	0.45
27:BD:46:ARG:O	27:BD:47:ALA:HB2	2.16	0.45
27:BD:178:VAL:HG23	27:BD:179:ARG:N	2.31	0.45
28:BE:92:HIS:O	28:BE:93:SER:C	2.59	0.45
28:BE:164:LEU:HD11	28:BE:167:VAL:HG12	1.99	0.45
29:BF:36:ASN:HA	29:BF:87:LYS:CE	2.47	0.45
29:BF:70:ARG:O	29:BF:71:LYS:C	2.60	0.45
30:BG:15:ASP:O	30:BG:16:VAL:HG13	2.17	0.45
31:BH:49:ALA:O	31:BH:53:GLU:CB	2.65	0.45
31:BH:95:GLY:C	31:BH:97:ARG:N	2.74	0.45
37:BN:43:GLU:O	37:BN:45:ARG:N	2.50	0.45
38:BO:17:LYS:CG	38:BO:21:LEU:HD11	2.45	0.45
40:BQ:20:ALA:HA	40:BQ:23:TYR:CE2	2.52	0.45
49:BZ:9:THR:HG23	49:BZ:53:MET:CA	2.47	0.45
1:CA:157:U:O2	1:CA:165:G:C6	2.70	0.45
1:CA:345:C:H5"	39:DP:33:GLU:O	2.17	0.45
1:CA:394:G:C5	1:CA:395:C:C5	3.05	0.45
1:CA:403:C:OP1	4:CD:134:SER:HB3	2.17	0.45
1:CA:409:U:H2'	1:CA:410:G:O5'	2.16	0.45
1:CA:493:A:H1'	1:CA:494:G:C2	2.51	0.45
1:CA:501:C:H1'	1:CA:549:C:H1'	1.99	0.45
1:CA:509:A:C5	1:CA:510:A:C6	3.05	0.45
1:CA:576:C:N4	1:CA:759:A:OP1	2.46	0.45
1:CA:671:G:C4'	6:CF:79:ARG:NH2	2.79	0.45
1:CA:1034:G:C2'	1:CA:1035:A:O4'	2.65	0.45
1:CA:1164:G:N1	1:CA:1165:U:C2	2.85	0.45
1:CA:1164:G:O6	1:CA:1172:C:N3	2.50	0.45
1:CA:1177:G:H2'	1:CA:1178:G:O5'	2.17	0.45
1:CA:1203:C:C2'	1:CA:1204:A:H5'	2.47	0.45
1:CA:1329:A:N7	1:CA:1330:U:C6	2.85	0.45
1:CA:1407:C:C2'	1:CA:1408:A:H5'	2.47	0.45
1:CA:1411:C:N3	1:CA:1412:C:C5	2.85	0.45
1:CA:1414:U:H2'	1:CA:1415:G:C8	2.51	0.45
1:CA:1506:U:O4'	11:CK:128:ARG:HG2	2.17	0.45
1:CA:1519:A:C8	1:CA:1520:C:H1'	2.52	0.45
2:CB:13:GLY:O	2:CB:15:HIS:N	2.50	0.45
3:CC:5:VAL:O	3:CC:7:PRO:HD3	2.17	0.45
3:CC:14:ILE:HG23	3:CC:15:VAL:HG23	1.99	0.45
4:CD:170:TRP:O	4:CD:182:PHE:C	2.60	0.45
5:CE:144:LEU:HD12	5:CE:144:LEU:N	2.32	0.45
6:CF:88:MET:SD	18:CR:61:ARG:HG3	2.57	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:19:LEU:O	13:CM:22:ILE:HG13	2.17	0.45
13:CM:84:GLY:C	19:CS:74:PHE:CE1	2.95	0.45
17:CQ:8:LEU:HB2	17:CQ:61:ILE:HG23	1.99	0.45
17:CQ:39:LYS:O	17:CQ:39:LYS:HG3	2.17	0.45
17:CQ:45:HIS:HB2	17:CQ:71:LYS:HB3	1.98	0.45
18:CR:50:LYS:HG2	18:CR:50:LYS:O	2.17	0.45
22:CV:5:G:N1	22:CV:69:G:O6	2.50	0.45
24:DA:28:A:OP2	59:DA:3209:HOH:O	2.21	0.45
24:DA:200:U:C5	24:DA:201:C:C4	3.04	0.45
24:DA:242:G:O2'	24:DA:254:G:O6	2.19	0.45
24:DA:542:C:H2'	24:DA:543:G:C8	2.52	0.45
24:DA:674:G:N2	24:DA:2444:G:O3'	2.49	0.45
24:DA:813:U:H2'	24:DA:814:C:H6	1.82	0.45
24:DA:918:A:H4'	25:DB:97:C:O2	2.17	0.45
24:DA:1056:G:C2	24:DA:1102:C:C5	3.05	0.45
24:DA:1197:G:H2'	24:DA:1198:U:C6	2.52	0.45
24:DA:1501:G:H2'	24:DA:1502:A:H8	1.81	0.45
24:DA:1533:C:H5'	24:DA:1534:U:OP2	2.17	0.45
24:DA:1714:U:C6	24:DA:1714:U:P	3.11	0.45
24:DA:1809:A:N1	24:DA:1810:A:C2	2.85	0.45
24:DA:1936:A:H2	24:DA:1943:U:H3	1.65	0.45
24:DA:1957:C:H5'	24:DA:1984:G:O2'	2.16	0.45
24:DA:2061:G:H5'	24:DA:2503:A:C2	2.52	0.45
24:DA:2070:A:H2'	24:DA:2071:A:O4'	2.17	0.45
24:DA:2130:U:C5	24:DA:2131:U:C4	3.04	0.45
24:DA:2258:C:H4'	24:DA:2259:U:OP2	2.16	0.45
24:DA:2323:G:C2'	24:DA:2324:U:H5'	2.47	0.45
24:DA:2338:C:O2'	24:DA:2339:C:H5'	2.17	0.45
24:DA:2353:G:H4'	46:DW:32:LEU:HD12	1.99	0.45
24:DA:2550:G:C6	24:DA:2551:C:C4	3.05	0.45
24:DA:2887:A:H2'	24:DA:2887:A:N3	2.31	0.45
57:DA:3188:NMY:C17	57:DA:3188:NMY:C1	2.91	0.45
25:DB:42:C:O2'	29:DF:62:GLN:HB3	2.17	0.45
26:DC:86:ARG:HH11	26:DC:86:ARG:HG3	1.81	0.45
26:DC:141:HIS:O	26:DC:142:ASN:C	2.59	0.45
26:DC:259:ASN:ND2	26:DC:259:ASN:C	2.75	0.45
28:DE:115:GLN:OE1	28:DE:117:ARG:CD	2.65	0.45
28:DE:118:LEU:HD11	28:DE:188:MET:HG3	1.99	0.45
31:DH:18:GLN:O	31:DH:19:VAL:HG13	2.17	0.45
32:DI:16:MET:O	32:DI:18:ASN:N	2.50	0.45
32:DI:20:SER:O	32:DI:21:PRO:C	2.59	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DR:52:PRO:O	41:DR:52:PRO:HG2	2.16	0.45
42:DS:75:PHE:CD1	42:DS:104:THR:HB	2.51	0.45
45:DV:65:VAL:O	45:DV:68:LYS:N	2.50	0.45
54:D4:31:PRO:C	54:D4:33:HIS:H	2.23	0.45
1:AA:3:A:H1'	1:AA:613:C:O4'	2.16	0.44
1:AA:64:G:C2	1:AA:67:C:N4	2.85	0.44
1:AA:159:G:N2	1:AA:161:A:O5'	2.50	0.44
1:AA:214:C:C4	1:AA:215:C:N4	2.84	0.44
1:AA:338:A:O5'	1:AA:338:A:H8	1.99	0.44
1:AA:682:G:O2'	1:AA:683:G:H5'	2.17	0.44
1:AA:705:G:N7	1:AA:706:A:C8	2.85	0.44
1:AA:980:C:OP2	59:AA:1860:HOH:O	2.21	0.44
1:AA:983:A:O2'	1:AA:984:C:O5'	2.33	0.44
1:AA:990:C:C4	1:AA:991:U:O4	2.70	0.44
1:AA:1190:G:H5'	3:AC:176:HIS:NE2	2.32	0.44
1:AA:1191:A:H3'	1:AA:1191:A:P	2.57	0.44
1:AA:1221:G:H5'	19:AS:36:ARG:NE	2.32	0.44
1:AA:1237:C:C5	1:AA:1336:C:C4	3.05	0.44
1:AA:1387:G:C2'	1:AA:1388:C:O5'	2.65	0.44
1:AA:1523:G:OP1	11:AK:128:ARG:NH2	2.49	0.44
3:AC:14:ILE:CG2	3:AC:15:VAL:HG13	2.46	0.44
4:AD:10:LYS:O	4:AD:13:ARG:HG2	2.16	0.44
4:AD:86:THR:O	4:AD:90:LEU:CG	2.65	0.44
4:AD:174:ASP:OD1	4:AD:174:ASP:N	2.50	0.44
6:AF:15:SER:C	6:AF:17:GLN:N	2.75	0.44
7:AG:118:LEU:O	7:AG:121:ALA:HB3	2.17	0.44
8:AH:56:LYS:O	8:AH:58:GLU:N	2.51	0.44
8:AH:64:LYS:O	8:AH:71:VAL:HG12	2.17	0.44
8:AH:71:VAL:HG13	8:AH:72:VAL:N	2.32	0.44
15:AO:23:GLY:O	15:AO:24:SER:C	2.59	0.44
18:AR:23:TYR:HB2	18:AR:62:ALA:HB2	1.98	0.44
18:AR:48:ARG:O	18:AR:49:ALA:C	2.60	0.44
21:AU:53:VAL:HG23	21:AU:54:LYS:H	1.82	0.44
22:AV:70:G:N1	22:AV:71:G:C6	2.85	0.44
24:BA:86:G:C2'	24:BA:87:U:O5'	2.65	0.44
24:BA:137:U:O2'	24:BA:139:U:H2'	2.16	0.44
24:BA:332:A:C6	24:BA:335:C:C2	3.05	0.44
24:BA:398:C:OP2	47:BX:52:ALA:CB	2.65	0.44
24:BA:448:U:O2	24:BA:448:U:O2'	2.24	0.44
24:BA:477:A:N6	24:BA:478:A:C6	2.85	0.44
24:BA:479:A:C2	24:BA:481:G:C5'	3.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:564:C:OP1	41:BR:79:ARG:NH1	2.51	0.44
24:BA:694:U:OP1	24:BA:1569:A:H1'	2.17	0.44
24:BA:1177:G:O2'	24:BA:1178:C:H5'	2.16	0.44
24:BA:1357:C:C5	24:BA:1358:G:C6	3.05	0.44
24:BA:1442:U:N3	24:BA:1443:U:C5	2.84	0.44
24:BA:1747:U:H2'	24:BA:1748:C:C6	2.52	0.44
24:BA:1974:C:C4	24:BA:1975:G:C8	3.05	0.44
24:BA:2015:A:C4	50:B0:2:VAL:HG21	2.52	0.44
24:BA:2112:G:C6	24:BA:2113:U:C2	3.05	0.44
24:BA:2201:G:C5	24:BA:2202:U:C5	3.05	0.44
24:BA:2402:U:O2	24:BA:2404:U:OP2	2.36	0.44
24:BA:2403:C:N3	24:BA:2404:U:C5	2.85	0.44
24:BA:2614:A:O4'	50:B0:1:ALA:HB1	2.17	0.44
24:BA:2734:A:C2'	24:BA:2735:G:C5'	2.94	0.44
24:BA:2810:A:H5"	27:BD:62:LYS:HD2	2.00	0.44
25:BB:114:C:C4'	38:BO:47:VAL:HG12	2.46	0.44
26:BC:59:GLN:HG2	26:BC:84:PRO:HB2	1.99	0.44
28:BE:149:ILE:HD12	28:BE:149:ILE:C	2.42	0.44
31:BH:25:TYR:N	31:BH:25:TYR:HD1	2.15	0.44
31:BH:71:LYS:C	31:BH:71:LYS:HD2	2.42	0.44
34:BK:86:LEU:CD2	34:BK:86:LEU:N	2.80	0.44
35:BL:93:ASN:OD1	35:BL:93:ASN:C	2.60	0.44
35:BL:102:GLY:O	35:BL:103:ILE:C	2.60	0.44
37:BN:8:ARG:NE	37:BN:43:GLU:OE1	2.50	0.44
40:BQ:73:ILE:CG2	40:BQ:78:PHE:HB2	2.47	0.44
42:BS:17:VAL:CG2	42:BS:18:ARG:N	2.80	0.44
43:BT:47:VAL:HG12	43:BT:55:VAL:HG11	1.98	0.44
44:BU:95:PHE:CZ	44:BU:102:ILE:HD13	2.51	0.44
45:BV:8:VAL:O	45:BV:9:ARG:C	2.61	0.44
45:BV:75:GLN:HA	45:BV:75:GLN:OE1	2.16	0.44
53:B3:44:ARG:N	53:B3:45:PRO:CD	2.80	0.44
1:CA:19:A:H5'	5:CE:91:GLY:HA3	1.98	0.44
1:CA:101:A:H2'	1:CA:102:G:H5'	2.00	0.44
1:CA:113:G:O4'	1:CA:354:G:H4'	2.17	0.44
1:CA:223:A:C4	1:CA:224:U:C5	3.05	0.44
1:CA:293:G:N2	1:CA:294:U:H1'	2.32	0.44
1:CA:373:A:N3	1:CA:481:G:N2	2.62	0.44
1:CA:446:G:N3	1:CA:446:G:H2'	2.31	0.44
1:CA:621:A:H2'	1:CA:622:A:O4'	2.17	0.44
1:CA:771:G:O2'	1:CA:772:U:H5'	2.17	0.44
1:CA:860:A:H3'	1:CA:861:G:C8	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1169:A:N7	1:CA:1170:A:N1	2.65	0.44
1:CA:1219:A:C6	1:CA:1220:G:C5	3.05	0.44
1:CA:1507:A:C2	1:CA:1508:A:C4	3.05	0.44
2:CB:150:GLY:O	2:CB:152:LYS:HG2	2.16	0.44
6:CF:84:VAL:HG22	6:CF:85:ILE:N	2.33	0.44
7:CG:42:ILE:CG1	7:CG:43:VAL:N	2.80	0.44
7:CG:74:GLU:O	7:CG:88:PRO:HA	2.16	0.44
16:CP:39:PHE:CD1	16:CP:40:ASN:N	2.84	0.44
17:CQ:11:ARG:HH11	17:CQ:56:GLY:C	2.24	0.44
19:CS:34:TRP:C	19:CS:36:ARG:N	2.72	0.44
22:CV:14:A:H2'	22:CV:15:G:C5'	2.47	0.44
24:DA:252:G:O6	53:D3:7:ARG:HG3	2.18	0.44
24:DA:269:C:C2	24:DA:424:G:C2	3.05	0.44
24:DA:272:A:H2'	24:DA:273:G:C8	2.52	0.44
24:DA:585:G:O2'	28:DE:77:ILE:HG22	2.17	0.44
24:DA:655:A:N3	24:DA:656:G:H1'	2.31	0.44
24:DA:729:G:C4	24:DA:1775:U:O2	2.70	0.44
24:DA:975:A:C2	24:DA:990:A:C8	3.05	0.44
24:DA:1059:G:N7	24:DA:1060:U:N3	2.65	0.44
24:DA:1087:G:C5	24:DA:1089:A:C2	3.04	0.44
24:DA:1299:G:N2	24:DA:1642:G:C6	2.85	0.44
24:DA:1341:G:C6	43:DT:84:TYR:CE2	3.05	0.44
24:DA:1519:G:C5	24:DA:1520:U:C5	3.05	0.44
24:DA:1786:A:H1'	24:DA:1938:A:N6	2.32	0.44
24:DA:1928:A:H2'	24:DA:1929:G:O4'	2.17	0.44
24:DA:2088:A:N6	24:DA:2089:C:N4	2.65	0.44
24:DA:2199:A:N6	24:DA:2224:G:H1'	2.31	0.44
24:DA:2334:U:OP2	38:DO:9:ARG:NE	2.50	0.44
25:DB:43:C:O2'	29:DF:90:LEU:HA	2.16	0.44
28:DE:24:ASN:OD1	28:DE:27:LEU:HD12	2.18	0.44
28:DE:142:ALA:O	28:DE:143:LEU:HD23	2.17	0.44
29:DF:127:TYR:H	29:DF:155:ILE:HD11	1.82	0.44
29:DF:174:PHE:HD2	29:DF:176:PHE:CD1	2.35	0.44
30:DG:140:ILE:HG23	30:DG:141:GLY:N	2.31	0.44
31:DH:130:VAL:HG23	31:DH:131:SER:N	2.31	0.44
36:DM:60:GLN:HG2	36:DM:61:GLY:N	2.31	0.44
37:DN:33:ILE:O	37:DN:34:ILE:CG1	2.65	0.44
38:DO:51:ALA:O	38:DO:74:VAL:HG11	2.17	0.44
43:DT:13:ALA:C	43:DT:14:PRO:O	2.60	0.44
43:DT:82:LYS:CD	43:DT:84:TYR:HE1	2.29	0.44
1:AA:66:A:O4'	1:AA:173:U:C4	2.70	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:116:A:N1	1:AA:313:A:O2'	2.47	0.44
1:AA:258:G:N1	1:AA:269:C:O2	2.50	0.44
1:AA:298:A:H3'	1:AA:299:G:H8	1.80	0.44
1:AA:624:C:N3	1:AA:625:U:N3	2.64	0.44
1:AA:790:A:C2	1:AA:1497:G:H5"	2.53	0.44
1:AA:794:A:C6	1:AA:795:C:N4	2.85	0.44
1:AA:888:G:C4	1:AA:889:A:N7	2.85	0.44
1:AA:928:G:N1	1:AA:929:G:C5	2.85	0.44
1:AA:997:U:H2'	1:AA:998:C:O4'	2.17	0.44
1:AA:1095:U:N3	1:AA:1096:C:C4	2.86	0.44
1:AA:1329:A:OP1	13:AM:29:ARG:HD2	2.18	0.44
1:AA:1381:U:C2'	1:AA:1382:C:O5'	2.65	0.44
1:AA:1438:G:HO2'	1:AA:1439:G:P	2.40	0.44
1:AA:1459:G:H2'	1:AA:1460:C:H5'	1.99	0.44
1:AA:1465:A:N7	1:AA:1466:C:C5	2.85	0.44
1:AA:1535:C:O2	1:AA:1536:C:C5	2.70	0.44
1:AA:1539:C:C2	23:AX:4:G:N2	2.85	0.44
2:AB:166:ALA:C	2:AB:168:HIS:H	2.25	0.44
3:AC:33:LEU:HD12	3:AC:36:ASP:HB2	1.99	0.44
4:AD:146:ARG:O	4:AD:147:GLU:C	2.60	0.44
4:AD:150:LYS:C	4:AD:152:GLN:OE1	2.61	0.44
5:AE:154:ALA:C	5:AE:156:LYS:H	2.25	0.44
6:AF:1:MET:HG3	6:AF:66:ALA:C	2.42	0.44
6:AF:55:HIS:ND1	6:AF:55:HIS:N	2.64	0.44
8:AH:59:LEU:HD23	8:AH:59:LEU:C	2.41	0.44
9:AI:43:THR:C	9:AI:45:ARG:N	2.75	0.44
9:AI:50:GLN:HG2	9:AI:51:PRO:CD	2.47	0.44
10:AJ:78:GLU:HB2	10:AJ:80:THR:HG23	1.99	0.44
16:AP:51:ARG:HG2	16:AP:52:LEU:N	2.30	0.44
24:BA:127:A:OP2	52:B2:46:LYS:CE	2.65	0.44
24:BA:189:G:H2'	24:BA:205:G:N2	2.32	0.44
24:BA:371:A:N6	24:BA:402:A:OP2	2.47	0.44
24:BA:392:U:N3	24:BA:393:C:C5	2.85	0.44
24:BA:532:A:N3	24:BA:532:A:C2'	2.78	0.44
24:BA:584:C:H2'	24:BA:585:G:H8	1.81	0.44
24:BA:659:G:O2'	28:BE:95:LYS:HD3	2.17	0.44
24:BA:852:U:C4	24:BA:853:C:C4	3.05	0.44
24:BA:1069:A:N1	24:BA:1073:A:C5	2.85	0.44
24:BA:1108:U:C5	24:BA:1109:C:C5	3.05	0.44
24:BA:1171:G:H2'	24:BA:1172:C:O4'	2.18	0.44
24:BA:1195:G:O2'	24:BA:1196:C:H5'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1203:U:C5	24:BA:1204:A:C4	3.05	0.44
24:BA:1216:G:H2'	24:BA:1217:U:H5'	2.00	0.44
24:BA:1238:G:O2'	24:BA:1239:G:H5'	2.16	0.44
24:BA:1823:G:N7	59:BA:3661:HOH:O	2.35	0.44
24:BA:1987:A:C2	24:BA:1988:G:C5	3.05	0.44
24:BA:2352:A:H2'	24:BA:2353:G:C5'	2.45	0.44
24:BA:2369:A:N6	24:BA:2382:G:O6	2.50	0.44
24:BA:2525:G:N2	24:BA:2526:G:C5	2.85	0.44
24:BA:2591:C:H2'	24:BA:2592:G:H8	1.82	0.44
24:BA:2628:C:O4'	24:BA:2781:A:C2	2.70	0.44
24:BA:2668:G:C4	24:BA:2669:G:C8	3.05	0.44
24:BA:2671:G:H2'	24:BA:2671:G:N3	2.32	0.44
24:BA:2720:U:C6	24:BA:2872:A:N6	2.84	0.44
24:BA:2796:U:C4	24:BA:2798:U:C2	3.05	0.44
25:BB:116:G:OP1	38:BO:55:GLU:HG3	2.17	0.44
26:BC:42:ARG:HH12	26:BC:48:ILE:HD11	1.82	0.44
26:BC:44:ASN:C	26:BC:46:GLY:N	2.75	0.44
27:BD:103:ASP:O	27:BD:104:VAL:C	2.60	0.44
28:BE:2:GLU:HG2	28:BE:13:THR:HG22	1.98	0.44
35:BL:37:GLY:O	35:BL:40:SER:OG	2.35	0.44
36:BM:112:LEU:O	36:BM:113:ALA:C	2.60	0.44
37:BN:97:ILE:C	37:BN:97:ILE:HD12	2.43	0.44
40:BQ:64:ILE:HG12	40:BQ:94:LEU:HB3	1.99	0.44
40:BQ:70:GLN:OE1	40:BQ:70:GLN:HA	2.17	0.44
41:BR:55:ASP:O	41:BR:56:GLY:O	2.35	0.44
45:BV:26:PHE:CD1	45:BV:27:PRO:O	2.70	0.44
52:B2:35:ARG:C	52:B2:37:LYS:N	2.75	0.44
1:CA:62:U:O2'	1:CA:63:C:H5'	2.17	0.44
1:CA:121:U:OP2	1:CA:121:U:C4'	2.65	0.44
1:CA:174:A:C6	1:CA:175:C:C6	3.05	0.44
1:CA:246:A:C6	1:CA:279:A:C8	3.05	0.44
1:CA:247:G:C6	1:CA:248:C:C5	3.05	0.44
1:CA:329:A:N1	1:CA:332:G:C4	2.85	0.44
1:CA:374:A:H5"	1:CA:452:A:C2	2.52	0.44
1:CA:401:C:H2'	1:CA:402:G:C8	2.52	0.44
1:CA:444:G:C2'	1:CA:445:G:O5'	2.65	0.44
1:CA:452:A:H8	1:CA:453:G:C8	2.35	0.44
1:CA:605:U:C2'	1:CA:606:G:O5'	2.65	0.44
1:CA:612:C:O2	1:CA:629:A:C2	2.71	0.44
1:CA:738:C:O2'	1:CA:739:C:H5'	2.13	0.44
1:CA:830:G:H5"	2:CB:23:TRP:NE1	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:954:G:C2	1:CA:955:U:C2	3.06	0.44
1:CA:966:G:N3	9:CI:129:LYS:NZ	2.65	0.44
1:CA:987:G:C2	1:CA:1219:A:N1	2.85	0.44
1:CA:1012:A:N1	1:CA:1013:G:N3	2.65	0.44
1:CA:1114:C:N3	1:CA:1115:U:C4	2.85	0.44
1:CA:1142:G:N7	1:CA:1143:G:C4	2.85	0.44
1:CA:1204:A:C2	1:CA:1205:U:H1'	2.52	0.44
1:CA:1329:A:C2	1:CA:1330:U:H1'	2.52	0.44
1:CA:1330:U:C5	1:CA:1331:G:C6	3.04	0.44
1:CA:1435:G:C6	1:CA:1436:U:C4	3.05	0.44
1:CA:1449:C:N3	1:CA:1454:G:O6	2.51	0.44
2:CB:28:LYS:HB2	2:CB:29:PRO:HD3	1.99	0.44
2:CB:33:GLY:HA2	2:CB:40:ILE:HG23	1.98	0.44
2:CB:90:PHE:CE2	2:CB:154:MET:CB	3.01	0.44
4:CD:27:ALA:O	4:CD:28:ILE:CB	2.64	0.44
5:CE:115:LEU:HD22	5:CE:120:VAL:HG21	1.98	0.44
6:CF:43:GLY:HA2	6:CF:58:HIS:CD2	2.52	0.44
7:CG:136:LYS:HE2	7:CG:137:LYS:N	2.32	0.44
8:CH:32:LEU:C	8:CH:34:VAL:N	2.72	0.44
8:CH:117:ARG:O	8:CH:118:GLN:C	2.60	0.44
13:CM:108:THR:CG2	13:CM:109:ARG:HG3	2.47	0.44
13:CM:108:THR:HG22	13:CM:109:ARG:HG3	2.00	0.44
14:CN:93:ILE:HG21	14:CN:96:LEU:CD2	2.46	0.44
15:CO:10:LYS:HG2	15:CO:11:ILE:H	1.82	0.44
15:CO:60:VAL:O	15:CO:61:SER:C	2.60	0.44
17:CQ:69:LYS:O	17:CQ:70:THR:CB	2.65	0.44
19:CS:13:LEU:O	19:CS:16:LEU:HB3	2.17	0.44
19:CS:31:LEU:O	19:CS:50:ALA:HB3	2.18	0.44
21:CU:29:LEU:HD23	21:CU:30:ALA:N	2.33	0.44
22:CV:14:A:C2'	22:CV:15:G:H5'	2.47	0.44
55:CY:114:THR:HG22	55:CY:115:LYS:N	2.31	0.44
55:CY:126:VAL:HG11	24:DA:1963:U:O2	2.17	0.44
24:DA:134:G:C2	24:DA:146:A:C2	3.04	0.44
24:DA:152:A:C2	24:DA:175:G:C2	3.04	0.44
24:DA:368:A:C2'	24:DA:369:U:H5'	2.47	0.44
24:DA:718:A:H5"	24:DA:719:C:OP2	2.17	0.44
24:DA:749:A:N3	24:DA:1618:A:H2'	2.32	0.44
24:DA:856:G:O4'	46:DW:27:GLY:HA3	2.17	0.44
24:DA:1039:A:H2'	24:DA:1040:A:H5"	2.00	0.44
24:DA:1205:A:N1	28:DE:165:HIS:HB2	2.31	0.44
24:DA:1384:A:H1'	24:DA:1405:U:H1'	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1678:A:H2'	24:DA:1679:A:O4'	2.17	0.44
24:DA:1913:A:N3	24:DA:1914:C:H5"	2.31	0.44
24:DA:2179:C:C5	24:DA:2180:U:C5	3.05	0.44
24:DA:2194:U:N3	24:DA:2195:U:C5	2.85	0.44
24:DA:2270:A:H2'	24:DA:2271:G:C8	2.52	0.44
24:DA:2360:G:H1'	35:DL:60:ARG:HD3	1.99	0.44
24:DA:2404:U:O4	24:DA:2405:G:C6	2.70	0.44
24:DA:2444:G:OP2	28:DE:63:LYS:HE3	2.18	0.44
24:DA:2522:U:H2'	24:DA:2523:G:H5'	1.98	0.44
26:DC:259:ASN:OD1	26:DC:262:THR:C	2.61	0.44
27:DD:48:ILE:O	27:DD:81:GLU:HA	2.17	0.44
27:DD:50:VAL:HG23	27:DD:51:THR:N	2.32	0.44
29:DF:121:PHE:CD1	29:DF:127:TYR:CD1	3.05	0.44
31:DH:116:ARG:HH12	31:DH:133:GLN:HA	1.83	0.44
37:DN:117:ASP:OD1	37:DN:118:ARG:N	2.50	0.44
39:DP:30:TRP:CE2	39:DP:39:LEU:CD1	3.01	0.44
41:DR:39:LEU:HA	41:DR:49:ILE:HG13	1.99	0.44
44:DU:70:ALA:O	44:DU:71:ILE:C	2.58	0.44
1:AA:104:G:C2'	1:AA:105:G:H5'	2.47	0.44
1:AA:212:G:C2	1:AA:213:G:C8	3.05	0.44
1:AA:529:G:C4'	1:AA:530:G:OP2	2.65	0.44
1:AA:564:C:H5'	17:AQ:34:TYR:CE1	2.52	0.44
1:AA:826:C:N3	1:AA:827:U:C5	2.85	0.44
1:AA:859:G:H2'	1:AA:860:A:O4'	2.18	0.44
1:AA:931:C:N3	1:AA:932:C:C5	2.86	0.44
1:AA:943:U:H2'	1:AA:944:G:H5'	2.00	0.44
1:AA:1109:C:H2'	1:AA:1110:A:O4'	2.17	0.44
1:AA:1423:G:N2	1:AA:1478:U:H1'	2.32	0.44
1:AA:1486:G:H2'	1:AA:1487:G:C1'	2.47	0.44
2:AB:21:ARG:HD3	2:AB:23:TRP:CD1	2.52	0.44
2:AB:76:ALA:CB	2:AB:210:VAL:HG11	2.46	0.44
2:AB:133:GLU:CD	2:AB:134:ALA:N	2.76	0.44
2:AB:148:LEU:C	2:AB:150:GLY:N	2.72	0.44
4:AD:68:LEU:C	4:AD:72:PHE:CE1	2.96	0.44
4:AD:78:GLU:O	4:AD:81:ARG:CB	2.66	0.44
4:AD:202:GLU:CD	4:AD:202:GLU:C	2.85	0.44
6:AF:77:THR:HB	6:AF:80:PHE:CD1	2.52	0.44
8:AH:84:ARG:O	8:AH:85:ILE:HG13	2.17	0.44
10:AJ:42:LEU:HD23	10:AJ:71:LEU:HG	1.98	0.44
13:AM:80:LEU:HD11	13:AM:88:GLY:HA2	1.99	0.44
17:AQ:31:HIS:HA	17:AQ:32:PRO:HD2	1.72	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:58:VAL:O	17:AQ:59:VAL:HG13	2.16	0.44
18:AR:50:LYS:C	18:AR:52:GLN:N	2.74	0.44
23:AX:10:A:C4	23:AX:11:A:N7	2.84	0.44
24:BA:85:G:OP1	44:BU:5:ARG:CB	2.65	0.44
24:BA:743:A:OP1	27:BD:135:GLY:HA2	2.18	0.44
24:BA:969:G:C5	24:BA:970:U:C5	3.06	0.44
24:BA:1129:A:H1'	24:BA:2516:A:H1'	1.99	0.44
24:BA:1763:G:H2'	24:BA:1764:C:H5'	1.99	0.44
24:BA:2048:G:H4'	24:BA:2823:A:C2	2.51	0.44
24:BA:2094:A:C5'	31:BH:25:TYR:CD2	3.01	0.44
24:BA:2107:G:C2	24:BA:2108:A:N3	2.85	0.44
24:BA:2293:G:C5'	38:BO:94:ARG:NH2	2.81	0.44
24:BA:2311:A:C2	29:BF:76:PHE:CB	2.99	0.44
24:BA:2330:G:H21	46:BW:42:GLY:HA2	1.81	0.44
24:BA:2408:U:N3	24:BA:2409:G:C5	2.85	0.44
24:BA:2419:U:OP2	53:B3:32:LEU:HB3	2.18	0.44
24:BA:2477:U:H4'	24:BA:2479:U:O4	2.18	0.44
24:BA:2538:C:O2'	54:B4:3:VAL:CG2	2.65	0.44
24:BA:2564:A:C2	24:BA:2647:U:H4'	2.53	0.44
24:BA:2703:C:O2'	24:BA:2704:C:P	2.76	0.44
24:BA:2824:C:C4	24:BA:2825:G:N7	2.85	0.44
25:BB:7:G:O3'	38:BO:29:HIS:CG	2.69	0.44
26:BC:75:ALA:N	26:BC:116:GLN:OE1	2.50	0.44
26:BC:160:TYR:CD1	26:BC:160:TYR:O	2.71	0.44
26:BC:175:LEU:CD1	26:BC:179:GLU:O	2.64	0.44
26:BC:183:VAL:HG12	26:BC:187:CYS:SG	2.57	0.44
31:BH:125:THR:OG1	31:BH:126:GLY:N	2.50	0.44
35:BL:2:ARG:HA	35:BL:5:THR:HG22	1.99	0.44
35:BL:73:ILE:HG23	35:BL:104:GLN:O	2.17	0.44
36:BM:78:LEU:HD23	36:BM:78:LEU:C	2.42	0.44
48:BY:41:HIS:CE1	48:BY:42:LEU:CD1	3.00	0.44
51:B1:12:SER:N	51:B1:48:TYR:CD2	2.85	0.44
1:CA:105:G:C5	1:CA:106:C:C4	3.05	0.44
1:CA:141:G:H8	1:CA:141:G:O5'	2.00	0.44
1:CA:230:G:H2'	1:CA:231:U:O4'	2.17	0.44
1:CA:255:G:H2'	1:CA:256:U:C6	2.52	0.44
1:CA:490:C:H2'	1:CA:491:G:C8	2.52	0.44
1:CA:552:U:C2'	1:CA:553:A:H5'	2.48	0.44
1:CA:555:U:C4	1:CA:556:C:N4	2.85	0.44
1:CA:628:G:N2	1:CA:629:A:N3	2.66	0.44
1:CA:633:G:O2'	1:CA:634:C:O5'	2.29	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:751:U:C5	1:CA:752:G:O6	2.71	0.44
1:CA:809:G:H2'	1:CA:810:C:O4'	2.18	0.44
1:CA:947:G:O3'	13:CM:108:THR:HB	2.18	0.44
1:CA:1000:A:N3	1:CA:1041:G:N2	2.65	0.44
1:CA:1289:A:H5'	1:CA:1290:G:OP2	2.17	0.44
1:CA:1344:C:OP1	9:CI:124:ARG:CZ	2.66	0.44
1:CA:1355:G:O6	1:CA:1367:C:N3	2.51	0.44
1:CA:1377:A:O2'	1:CA:1378:C:OP1	2.31	0.44
1:CA:1377:A:H4'	1:CA:1378:C:OP2	2.18	0.44
1:CA:1521:C:N3	1:CA:1522:U:C4	2.85	0.44
2:CB:71:GLY:CA	2:CB:164:ILE:HG22	2.47	0.44
2:CB:104:TRP:C	2:CB:106:THR:N	2.75	0.44
2:CB:220:THR:HG22	2:CB:221:VAL:N	2.32	0.44
4:CD:154:ARG:O	4:CD:155:VAL:C	2.60	0.44
6:CF:69:GLU:CD	6:CF:70:VAL:H	2.25	0.44
7:CG:42:ILE:HG13	7:CG:43:VAL:HG23	1.99	0.44
7:CG:116:MET:CE	7:CG:119:ARG:NH1	2.81	0.44
12:CL:112:GLN:O	12:CL:113:ALA:HB3	2.17	0.44
13:CM:24:GLY:CA	13:CM:69:LEU:CD2	2.94	0.44
13:CM:67:GLY:O	13:CM:71:ARG:NH2	2.50	0.44
14:CN:31:SER:O	14:CN:32:ASP:HB2	2.17	0.44
22:CV:52:G:C6	22:CV:53:G:C5	3.06	0.44
22:CV:52:G:C6	22:CV:53:G:C6	3.05	0.44
22:CV:62:C:O2'	51:D1:27:ARG:NH1	2.51	0.44
55:CY:11:VAL:C	55:CY:13:MET:N	2.73	0.44
55:CY:14:ASP:OD1	55:CY:14:ASP:C	2.59	0.44
24:DA:163:C:H2'	24:DA:164:C:C6	2.53	0.44
24:DA:461:C:C2'	24:DA:462:C:H5'	2.47	0.44
24:DA:651:G:OP1	53:D3:18:LYS:HG2	2.17	0.44
24:DA:849:A:H2'	24:DA:850:U:C6	2.52	0.44
24:DA:1112:G:C5	24:DA:1113:U:C5	3.06	0.44
24:DA:1266:G:O2'	24:DA:1267:U:OP2	2.36	0.44
24:DA:1312:U:C6	43:DT:64:LYS:HE3	2.52	0.44
24:DA:1547:C:H2'	24:DA:1548:A:O4'	2.17	0.44
24:DA:1650:A:H2'	24:DA:1651:G:H5"	1.99	0.44
24:DA:1819:A:H4'	24:DA:1820:U:H5"	1.98	0.44
24:DA:1845:G:N3	24:DA:1896:G:C2	2.85	0.44
24:DA:1847:A:C2'	24:DA:1848:A:C8	3.01	0.44
24:DA:1979:U:O2'	24:DA:1980:G:H5'	2.17	0.44
24:DA:2092:U:OP2	31:DH:27:ARG:NE	2.51	0.44
24:DA:2315:G:C4'	29:DF:124:ARG:HH22	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2378:A:N3	38:DO:18:LEU:HD11	2.31	0.44
24:DA:2888:C:H2'	24:DA:2889:C:H6	1.82	0.44
28:DE:129:PRO:HB3	28:DE:159:LEU:HD11	1.97	0.44
31:DH:94:ILE:H	31:DH:122:LEU:HB2	1.76	0.44
33:DJ:65:THR:HG22	33:DJ:68:LYS:NZ	2.32	0.44
41:DR:52:PRO:O	41:DR:53:PHE:CB	2.65	0.44
49:DZ:50:VAL:C	49:DZ:52:PHE:N	2.74	0.44
50:D0:27:LEU:O	50:D0:28:SER:O	2.36	0.44
1:AA:38:G:N1	1:AA:397:A:OP1	2.50	0.44
1:AA:131:A:C2	1:AA:132:C:C2	3.06	0.44
1:AA:253:A:N6	1:AA:274:A:N6	2.66	0.44
1:AA:411:A:N7	1:AA:429:U:C5	2.85	0.44
1:AA:505:G:N7	1:AA:535:A:N3	2.66	0.44
1:AA:587:G:OP1	8:AH:84:ARG:NH2	2.50	0.44
1:AA:1004:A:H5'	1:AA:1024:G:N2	2.31	0.44
1:AA:1015:G:C5	1:AA:1016:A:C5	3.05	0.44
1:AA:1122:U:C4	1:AA:1123:U:C5	3.05	0.44
1:AA:1189:U:H5'	3:AC:5:VAL:HG21	1.98	0.44
1:AA:1299:A:C5	1:AA:1301:U:O2	2.71	0.44
1:AA:1318:A:H4'	19:AS:10:PHE:CE2	2.52	0.44
1:AA:1319:A:OP1	19:AS:5:LEU:HD12	2.17	0.44
1:AA:1324:A:C6	1:AA:1325:C:C2	3.06	0.44
1:AA:1446:A:H2	1:AA:1447:A:C4	2.35	0.44
57:AA:1655:NMY:H19	57:AA:1655:NMY:H172	1.99	0.44
2:AB:23:TRP:CZ3	2:AB:25:PRO:CB	3.01	0.44
2:AB:210:VAL:O	2:AB:211:THR:C	2.60	0.44
3:AC:18:TRP:CD1	14:AN:93:ILE:O	2.71	0.44
6:AF:47:LEU:HD21	6:AF:57:ALA:HB3	1.98	0.44
7:AG:127:ALA:CA	7:AG:135:VAL:HG11	2.37	0.44
9:AI:25:ASN:HA	9:AI:59:GLU:O	2.17	0.44
11:AK:40:ASN:O	11:AK:41:ALA:O	2.35	0.44
13:AM:16:VAL:HG13	13:AM:41:GLU:HA	1.97	0.44
13:AM:22:ILE:O	13:AM:22:ILE:HG13	2.17	0.44
13:AM:47:GLU:O	13:AM:47:GLU:CG	2.65	0.44
13:AM:65:VAL:O	13:AM:69:LEU:CB	2.65	0.44
13:AM:96:PRO:CA	13:AM:109:ARG:HG3	2.47	0.44
16:AP:46:LYS:C	16:AP:47:GLU:CD	2.85	0.44
17:AQ:59:VAL:HB	17:AQ:60:GLU:H	1.68	0.44
18:AR:50:LYS:O	18:AR:53:ARG:N	2.51	0.44
20:AT:71:LYS:HD3	20:AT:75:HIS:HE1	1.81	0.44
24:BA:28:A:C2'	24:BA:29:U:H5'	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:31:C:O3'	24:BA:1238:G:C5'	2.65	0.44
24:BA:243:U:C2'	24:BA:244:A:H5"	2.48	0.44
24:BA:270:A:C2	24:BA:369:U:H4'	2.52	0.44
24:BA:391:A:N7	24:BA:392:U:C5	2.85	0.44
24:BA:480:A:O3'	44:BU:43:LYS:HG3	2.17	0.44
24:BA:532:A:H4'	24:BA:533:G:O4'	2.17	0.44
24:BA:681:G:H2'	24:BA:682:G:O4'	2.17	0.44
24:BA:784:G:N1	26:BC:227:VAL:HG21	2.33	0.44
24:BA:881:G:N2	24:BA:882:G:C6	2.83	0.44
24:BA:1070:A:C8	24:BA:1096:A:O3'	2.71	0.44
24:BA:1322:A:N7	24:BA:1323:C:C5	2.85	0.44
24:BA:1478:G:N1	24:BA:1479:G:N7	2.64	0.44
24:BA:2057:G:OP2	59:BA:3490:HOH:O	2.21	0.44
24:BA:2262:U:OP1	46:BW:19:LYS:HG3	2.17	0.44
24:BA:2295:C:N4	24:BA:2296:U:O4	2.49	0.44
24:BA:2303:G:N2	24:BA:2304:G:C4	2.85	0.44
24:BA:2593:U:H2'	24:BA:2594:C:H6	1.83	0.44
24:BA:2617:U:H2'	24:BA:2618:G:C5'	2.48	0.44
24:BA:2640:G:OP2	33:BJ:96:ARG:NH1	2.50	0.44
25:BB:15:A:C4	25:BB:109:A:C2	3.06	0.44
25:BB:45:A:C2	25:BB:46:A:N9	2.85	0.44
26:BC:134:ILE:HA	26:BC:135:PRO:HD3	1.82	0.44
27:BD:125:TRP:CB	27:BD:160:LYS:HE2	2.47	0.44
31:BH:130:VAL:HG21	31:BH:132:PHE:CE1	2.53	0.44
32:BI:7:TYR:O	32:BI:8:VAL:HG13	2.17	0.44
32:BI:128:ILE:HG22	32:BI:128:ILE:O	2.17	0.44
34:BK:88:ASN:HB3	34:BK:92:GLU:O	2.17	0.44
35:BL:64:PHE:N	35:BL:64:PHE:CD1	2.85	0.44
36:BM:78:LEU:HD23	36:BM:79:ALA:N	2.32	0.44
42:BS:3:THR:OG1	42:BS:58:ALA:HB1	2.18	0.44
47:BX:39:VAL:C	47:BX:41:SER:N	2.74	0.44
52:B2:43:THR:C	52:B2:44:VAL:HG12	2.42	0.44
1:CA:146:G:N2	1:CA:177:G:C8	2.85	0.44
1:CA:191:G:C4	1:CA:192:A:C8	3.05	0.44
1:CA:581:G:C6	1:CA:758:C:C6	3.05	0.44
1:CA:625:U:H2'	1:CA:626:G:H8	1.82	0.44
1:CA:705:G:N1	11:CK:44:TRP:CZ3	2.85	0.44
1:CA:789:U:C6	1:CA:791:G:OP2	2.69	0.44
1:CA:852:G:H2'	1:CA:853:C:O4'	2.18	0.44
1:CA:862:C:C5	1:CA:863:U:C5	3.05	0.44
1:CA:934:C:OP2	7:CG:3:ARG:NH2	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:954:G:C5	1:CA:955:U:C4	3.05	0.44
1:CA:1053:G:O2'	1:CA:1199:U:H5	2.00	0.44
1:CA:1057:G:H2'	1:CA:1058:G:O5'	2.17	0.44
1:CA:1258:G:H2'	1:CA:1259:C:H6	1.82	0.44
1:CA:1287:A:N6	1:CA:1288:A:C6	2.85	0.44
1:CA:1316:G:C4	1:CA:1318:A:OP2	2.70	0.44
1:CA:1371:G:C4	1:CA:1372:U:C5	3.05	0.44
1:CA:1435:G:C5	1:CA:1436:U:C4	3.05	0.44
1:CA:1514:G:C2	1:CA:1515:G:C4	3.06	0.44
3:CC:36:ASP:O	3:CC:39:VAL:HG22	2.17	0.44
4:CD:81:ARG:O	4:CD:82:LEU:HG	2.16	0.44
7:CG:7:ILE:CG2	7:CG:8:GLY:N	2.80	0.44
7:CG:43:VAL:O	7:CG:46:ALA:HB3	2.18	0.44
11:CK:20:VAL:HG22	11:CK:21:ALA:N	2.33	0.44
11:CK:86:VAL:C	11:CK:113:VAL:HG23	2.42	0.44
12:CL:52:VAL:HG23	12:CL:53:CYS:N	2.31	0.44
13:CM:25:VAL:HG23	13:CM:25:VAL:O	2.17	0.44
17:CQ:29:VAL:O	17:CQ:37:PHE:HA	2.17	0.44
19:CS:8:GLY:O	19:CS:9:PRO:O	2.36	0.44
22:CV:61:C:C4	22:CV:62:C:C5	3.05	0.44
22:CV:70:G:C2	22:CV:71:G:H1'	2.52	0.44
24:DA:49:A:C5'	24:DA:51:G:O4'	2.66	0.44
24:DA:106:C:O2'	24:DA:294:A:O2'	2.31	0.44
24:DA:124:G:C6	52:D2:19:ARG:NH1	2.85	0.44
24:DA:197:A:O4'	24:DA:2068:U:C2	2.71	0.44
24:DA:370:G:O6	24:DA:424:G:C5	2.71	0.44
24:DA:481:G:H1'	24:DA:507:A:N1	2.32	0.44
24:DA:499:U:H4'	44:DU:42:LYS:HE3	2.00	0.44
24:DA:646:U:C3'	24:DA:647:G:H5"	2.48	0.44
24:DA:649:G:H2'	24:DA:650:C:C6	2.52	0.44
24:DA:735:A:H2'	24:DA:736:C:O5'	2.17	0.44
24:DA:1190:G:OP1	35:DL:32:GLY:CA	2.65	0.44
24:DA:1335:C:P	43:DT:68:LYS:HZ3	2.39	0.44
24:DA:1394:U:C4	24:DA:1395:A:C6	3.05	0.44
24:DA:1478:G:N3	24:DA:1478:G:C2'	2.80	0.44
24:DA:1533:C:C2	24:DA:1534:U:H1'	2.52	0.44
24:DA:1558:C:C2	24:DA:1560:G:C4	3.05	0.44
24:DA:1561:C:N3	24:DA:1562:U:C5	2.85	0.44
24:DA:1619:G:C2'	24:DA:1620:G:C5'	2.94	0.44
24:DA:1627:G:C2	24:DA:1628:G:C8	3.05	0.44
24:DA:1838:C:C5	24:DA:1899:A:C5	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1936:A:C2	24:DA:1943:U:O4	2.70	0.44
24:DA:2213:U:H4'	24:DA:2214:C:OP2	2.17	0.44
24:DA:2552:U:C2	24:DA:2554:U:H5"	2.53	0.44
28:DE:1:MET:HE1	28:DE:19:PHE:O	2.17	0.44
34:DK:33:ALA:HB2	34:DK:39:ILE:HG22	1.99	0.44
35:DL:93:ASN:C	35:DL:95:LEU:H	2.25	0.44
36:DM:96:ILE:HG21	36:DM:126:ILE:CD1	2.47	0.44
41:DR:51:VAL:HB	41:DR:52:PRO:HD3	2.00	0.44
43:DT:35:ALA:O	43:DT:38:ALA:HB3	2.18	0.44
44:DU:11:ILE:HD11	44:DU:79:ALA:CB	2.48	0.44
1:AA:35:G:N1	1:AA:36:C:C4	2.85	0.44
1:AA:64:G:N1	1:AA:67:C:N4	2.65	0.44
1:AA:204:G:C6	1:AA:205:A:C6	3.06	0.44
1:AA:235:C:H4'	17:AQ:73:TRP:CH2	2.52	0.44
1:AA:242:G:C2	1:AA:245:U:C4	3.05	0.44
1:AA:439:U:C4	1:AA:440:C:C5	3.06	0.44
1:AA:563:A:N1	1:AA:567:G:C2	2.86	0.44
1:AA:590:U:OP1	8:AH:31:LYS:N	2.50	0.44
1:AA:664:G:H5'	18:AR:53:ARG:NH2	2.33	0.44
1:AA:671:G:C6	1:AA:672:U:O2	2.71	0.44
1:AA:757:U:H2'	1:AA:758:C:O4'	2.17	0.44
1:AA:1095:U:N3	1:AA:1096:C:N3	2.65	0.44
1:AA:1129:C:C2	1:AA:1144:G:N2	2.85	0.44
1:AA:1166:G:N2	1:AA:1171:A:N6	2.65	0.44
1:AA:1224:U:O2'	1:AA:1322:C:OP1	2.34	0.44
2:AB:48:PRO:C	2:AB:50:PHE:H	2.26	0.44
2:AB:96:TRP:CH2	2:AB:175:GLU:CD	2.96	0.44
3:AC:22:TRP:CE3	10:AJ:95:GLY:N	2.86	0.44
4:AD:16:GLY:HA2	4:AD:35:GLU:HB2	2.00	0.44
4:AD:124:MET:SD	4:AD:146:ARG:CZ	3.04	0.44
6:AF:8:PHE:CE1	6:AF:60:VAL:HG21	2.52	0.44
6:AF:29:ILE:N	6:AF:29:ILE:HD12	2.33	0.44
7:AG:22:LEU:HA	7:AG:25:LYS:HE3	2.00	0.44
7:AG:99:LEU:O	7:AG:100:ALA:C	2.60	0.44
7:AG:138:ARG:HG3	7:AG:139:GLU:N	2.33	0.44
8:AH:78:VAL:CG2	8:AH:125:ILE:O	2.65	0.44
8:AH:101:ILE:CG2	8:AH:103:VAL:CG2	2.95	0.44
8:AH:111:MET:HE3	8:AH:116:ALA:N	2.32	0.44
9:AI:43:THR:C	9:AI:45:ARG:H	2.24	0.44
9:AI:67:VAL:HG11	9:AI:75:GLN:HG2	1.99	0.44
16:AP:20:VAL:HG11	16:AP:32:PHE:CD2	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:5:ILE:O	17:AQ:5:ILE:CG2	2.65	0.44
17:AQ:12:VAL:O	17:AQ:13:VAL:HG23	2.18	0.44
22:AV:59:U:C4	22:AV:60:U:C4	3.06	0.44
24:BA:83:A:C2	24:BA:104:A:N6	2.86	0.44
24:BA:271:G:C2	24:BA:367:G:N3	2.86	0.44
24:BA:320:A:OP1	28:BE:130:LYS:CE	2.65	0.44
24:BA:415:A:O2'	24:BA:1866:A:OP1	2.36	0.44
24:BA:583:G:C6	24:BA:584:C:N4	2.86	0.44
24:BA:781:A:C8	26:BC:217:PRO:HG2	2.53	0.44
24:BA:1021:A:O2'	24:BA:1022:G:OP1	2.35	0.44
24:BA:1086:A:H5'	24:BA:1087:G:OP1	2.18	0.44
24:BA:1185:G:H5"	59:BA:3581:HOH:O	2.17	0.44
24:BA:1283:G:N1	24:BA:1286:A:OP2	2.51	0.44
24:BA:1356:G:C6	24:BA:1357:C:C2	3.06	0.44
24:BA:1833:C:N3	24:BA:1834:U:C5	2.86	0.44
24:BA:1906:G:O2'	24:BA:1907:G:H5'	2.17	0.44
24:BA:2111:U:O2	24:BA:2111:U:O4'	2.35	0.44
24:BA:2123:G:C2	24:BA:2176:A:C4	3.06	0.44
24:BA:2131:U:H1'	24:BA:2133:G:H1'	2.00	0.44
24:BA:2284:A:C3'	51:B1:5:ARG:NH1	2.81	0.44
24:BA:2379:G:O6	24:BA:2380:C:N4	2.50	0.44
24:BA:2382:G:H3'	24:BA:2383:G:H5'	1.99	0.44
24:BA:2467:C:H2'	24:BA:2468:A:H5'	2.00	0.44
24:BA:2683:C:C6	24:BA:2684:U:C5	3.06	0.44
24:BA:2839:G:H4'	37:BN:49:GLU:OE1	2.17	0.44
25:BB:20:G:H2'	25:BB:21:G:C8	2.52	0.44
29:BF:127:TYR:O	29:BF:155:ILE:HG22	2.17	0.44
29:BF:135:ILE:C	29:BF:137:PHE:H	2.26	0.44
31:BH:11:ASN:HB3	31:BH:12:LEU:HD23	1.99	0.44
31:BH:119:ASN:C	31:BH:121:VAL:N	2.73	0.44
32:BI:124:MET:O	32:BI:127:SER:O	2.36	0.44
33:BJ:122:LEU:HG	33:BJ:124:VAL:CG2	2.48	0.44
34:BK:61:VAL:O	34:BK:62:VAL:C	2.57	0.44
37:BN:115:LEU:HD12	37:BN:115:LEU:H	1.82	0.44
38:BO:10:ARG:HG2	38:BO:96:GLY:HA2	1.98	0.44
38:BO:17:LYS:O	38:BO:19:GLN:N	2.50	0.44
40:BQ:44:TYR:O	40:BQ:45:ALA:C	2.61	0.44
41:BR:49:ILE:HG23	41:BR:51:VAL:O	2.18	0.44
50:B0:2:VAL:HG13	50:B0:3:GLN:CB	2.48	0.44
52:B2:24:THR:C	52:B2:26:ASN:N	2.76	0.44
54:B4:3:VAL:HG11	54:B4:36:ARG:NH2	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:198:G:C5	1:CA:220:G:N2	2.85	0.44
1:CA:257:G:O2'	1:CA:258:G:H5'	2.16	0.44
1:CA:299:G:C6	1:CA:300:A:C6	3.05	0.44
1:CA:327:A:O2'	1:CA:328:C:O4'	2.33	0.44
1:CA:393:A:OP2	16:CP:12:LYS:HE3	2.17	0.44
1:CA:546:A:P	4:CD:69:GLU:HB3	2.57	0.44
1:CA:653:U:H5'	8:CH:56:LYS:NZ	2.33	0.44
1:CA:666:G:N2	1:CA:741:G:C1'	2.81	0.44
1:CA:666:G:N1	1:CA:741:G:C5	2.86	0.44
1:CA:937:A:H1'	1:CA:1379:G:N2	2.31	0.44
1:CA:976:G:H5"	1:CA:1358:U:O2'	2.17	0.44
1:CA:1116:U:C2	1:CA:1185:G:N1	2.86	0.44
1:CA:1239:A:N3	1:CA:1241:G:C2	2.86	0.44
2:CB:51:ASN:O	2:CB:52:GLU:HB2	2.17	0.44
2:CB:135:LEU:HA	2:CB:138:THR:OG1	2.17	0.44
2:CB:212:LEU:O	2:CB:213:TYR:C	2.60	0.44
6:CF:9:MET:CE	6:CF:59:TYR:CE2	3.01	0.44
6:CF:38:ARG:NH1	6:CF:98:GLU:C	2.76	0.44
6:CF:63:ASN:HB2	6:CF:96:VAL:HG23	1.99	0.44
8:CH:103:VAL:HG23	8:CH:126:ILE:HB	1.98	0.44
10:CJ:41:PRO:O	10:CJ:42:LEU:HB3	2.18	0.44
11:CK:36:ASP:OD1	11:CK:39:GLY:N	2.47	0.44
13:CM:91:HIS:O	13:CM:92:ARG:HB3	2.17	0.44
14:CN:13:VAL:O	14:CN:16:ALA:HB3	2.18	0.44
17:CQ:21:ILE:HD11	17:CQ:46:VAL:HG11	1.98	0.44
19:CS:30:PRO:O	19:CS:49:ILE:HA	2.17	0.44
20:CT:3:ASN:C	20:CT:4:ILE:O	2.60	0.44
22:CV:43:C:O2	22:CV:43:C:C2'	2.65	0.44
24:DA:379:G:H2'	24:DA:380:G:O4'	2.18	0.44
24:DA:381:G:H2'	24:DA:382:A:H5'	2.00	0.44
24:DA:404:A:C8	24:DA:406:G:C5	3.06	0.44
24:DA:404:A:O4'	24:DA:406:G:N9	2.50	0.44
24:DA:1073:A:O2'	24:DA:1074:G:OP1	2.30	0.44
24:DA:1360:G:N7	24:DA:1371:G:N2	2.65	0.44
24:DA:1385:A:C2	24:DA:1386:C:C2	3.05	0.44
24:DA:1471:G:C4	24:DA:1472:C:C5	3.05	0.44
24:DA:1759:A:C8	24:DA:2696:U:O2	2.71	0.44
24:DA:1944:U:O2	24:DA:1955:U:O4'	2.36	0.44
24:DA:2107:G:HO2'	24:DA:2108:A:C5'	2.31	0.44
24:DA:2205:A:C5	24:DA:2206:C:C5	3.06	0.44
24:DA:2571:U:O2'	27:DD:151:THR:HG22	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2636:C:C2'	24:DA:2637:U:O5'	2.65	0.44
24:DA:2727:A:C2'	24:DA:2728:U:H5'	2.48	0.44
24:DA:2779:U:OP1	24:DA:2780:G:H2'	2.18	0.44
24:DA:2848:G:OP2	39:DP:94:ALA:HB3	2.18	0.44
26:DC:20:ASN:HB3	26:DC:22:GLU:OE1	2.17	0.44
26:DC:28:PRO:O	26:DC:29:PHE:C	2.60	0.44
29:DF:121:PHE:CG	29:DF:162:ASP:OD1	2.70	0.44
29:DF:155:ILE:HD13	29:DF:156:THR:CA	2.47	0.44
33:DJ:6:ALA:CB	33:DJ:45:THR:HG21	2.47	0.44
35:DL:80:SER:C	35:DL:81:ASP:O	2.61	0.44
38:DO:8:ILE:O	38:DO:9:ARG:C	2.60	0.44
39:DP:20:ARG:HG2	39:DP:20:ARG:NH2	2.33	0.44
40:DQ:87:VAL:CA	41:DR:49:ILE:HG21	2.48	0.44
45:DV:71:LYS:NZ	45:DV:94:ALA:O	2.31	0.44
46:DW:41:ARG:O	46:DW:57:HIS:CD2	2.71	0.44
51:D1:10:LEU:HD21	51:D1:33:LEU:CD2	2.47	0.44
1:AA:20:U:C2'	1:AA:21:G:H5'	2.48	0.44
1:AA:20:U:C5	1:AA:21:G:N7	2.86	0.44
1:AA:36:C:O2'	1:AA:501:C:H5"	2.18	0.44
1:AA:56:U:C2	31:DH:91:PHE:CE2	3.05	0.44
1:AA:128:G:C2	1:AA:234:C:C2	3.06	0.44
1:AA:446:G:C6	1:AA:447:G:C4	3.06	0.44
1:AA:597:G:N7	1:AA:598:U:C5	2.86	0.44
1:AA:686:U:O2	1:AA:687:A:C8	2.71	0.44
1:AA:944:G:H5"	1:AA:945:G:OP2	2.18	0.44
1:AA:1054:C:P	59:AA:1846:HOH:O	2.76	0.44
1:AA:1095:U:O4	1:AA:1096:C:N4	2.51	0.44
1:AA:1159:U:C2	1:AA:1182:G:C2	3.06	0.44
1:AA:1242:G:H2'	1:AA:1243:C:O4'	2.16	0.44
2:AB:22:TYR:O	2:AB:23:TRP:O	2.35	0.44
4:AD:192:SER:OG	6:CF:16:GLU:HG2	2.18	0.44
5:AE:125:ALA:O	5:AE:126:LYS:HB3	2.16	0.44
6:AF:10:VAL:HG21	6:AF:21:MET:HE2	1.99	0.44
6:AF:51:ILE:O	6:AF:52:ASN:CB	2.66	0.44
12:AL:29:GLN:CB	12:AL:82:ILE:O	2.66	0.44
12:AL:73:ASN:ND2	12:AL:74:LEU:N	2.66	0.44
13:AM:48:LEU:HD13	13:AM:53:ILE:HG12	2.00	0.44
15:AO:60:VAL:O	15:AO:61:SER:C	2.59	0.44
16:AP:21:VAL:HG11	16:AP:60:TRP:CD1	2.52	0.44
17:AQ:57:ASP:O	17:AQ:59:VAL:HG22	2.17	0.44
20:AT:6:SER:O	20:AT:7:ALA:C	2.59	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:44:LYS:CD	20:AT:87:ALA:HA	2.47	0.44
24:BA:30:G:H2'	24:BA:31:C:O4'	2.18	0.44
24:BA:250:G:C5	24:BA:251:A:C5	3.05	0.44
24:BA:279:A:N7	24:BA:280:U:C5	2.85	0.44
24:BA:378:C:C3'	24:BA:379:G:C5'	2.95	0.44
24:BA:426:C:C4	24:BA:427:U:C5	3.05	0.44
24:BA:445:C:N4	24:BA:446:G:O6	2.50	0.44
24:BA:447:A:N1	24:BA:454:A:O2'	2.43	0.44
24:BA:463:G:N1	24:BA:467:G:C6	2.86	0.44
24:BA:629:G:H5"	24:BA:650:C:O2'	2.16	0.44
24:BA:678:C:OP1	24:BA:2072:C:OP1	2.35	0.44
24:BA:823:C:C2'	24:BA:824:U:O5'	2.66	0.44
24:BA:1031:G:O6	24:BA:1032:A:C6	2.71	0.44
24:BA:1062:G:C6	24:BA:1063:G:O6	2.70	0.44
24:BA:1353:A:C4	24:BA:1378:A:N6	2.86	0.44
24:BA:1385:A:C6	24:BA:1403:A:C5	3.06	0.44
24:BA:1719:G:C4	24:BA:1720:U:C6	3.06	0.44
24:BA:1770:G:H2'	24:BA:1771:C:H5'	1.99	0.44
24:BA:1858:A:C6	24:BA:1859:U:C2	3.05	0.44
24:BA:1914:C:H2'	24:BA:1915:U:O4'	2.18	0.44
24:BA:1979:U:H2'	24:BA:1980:G:H5'	2.00	0.44
24:BA:2010:G:N3	24:BA:2011:U:O2	2.50	0.44
24:BA:2134:A:C2	24:BA:2135:A:C4	3.06	0.44
24:BA:2199:A:O4'	31:BH:28:ASN:OD1	2.36	0.44
24:BA:2200:C:O5'	24:BA:2200:C:H6	2.00	0.44
24:BA:2280:G:N1	24:BA:2281:A:N7	2.66	0.44
24:BA:2590:A:C2	24:BA:2605:U:C2	3.05	0.44
24:BA:2603:G:H2'	24:BA:2604:U:C5'	2.48	0.44
24:BA:2619:C:OP1	27:BD:157:LYS:HE3	2.18	0.44
24:BA:2691:C:C2'	24:BA:2692:G:H5'	2.48	0.44
24:BA:2727:A:C5	24:BA:2728:U:O4	2.70	0.44
24:BA:2740:A:N1	24:BA:2764:A:C8	2.86	0.44
25:BB:20:G:C6	25:BB:21:G:C6	3.06	0.44
26:BC:159:THR:O	26:BC:194:VAL:HG13	2.18	0.44
27:BD:5:VAL:HG11	27:BD:80:TRP:CZ3	2.52	0.44
27:BD:89:GLU:O	27:BD:90:PHE:HB2	2.16	0.44
27:BD:98:VAL:O	27:BD:99:GLU:C	2.58	0.44
30:BG:88:LEU:O	30:BG:89:VAL:HG13	2.18	0.44
31:BH:63:ALA:C	31:BH:65:ALA:H	2.25	0.44
34:BK:88:ASN:OD1	34:BK:93:GLN:OE1	2.35	0.44
36:BM:115:GLU:N	36:BM:115:GLU:OE1	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BR:67:GLY:C	41:BR:93:PHE:CE1	2.95	0.44
45:BV:9:ARG:HB3	45:BV:41:GLU:HG2	1.99	0.44
49:BZ:37:ARG:O	49:BZ:38:GLU:O	2.35	0.44
1:CA:370:C:H2'	1:CA:371:A:H8	1.83	0.44
1:CA:390:U:O2	1:CA:391:G:C8	2.71	0.44
1:CA:686:U:O2	1:CA:687:A:C5	2.71	0.44
1:CA:745:G:H1'	1:CA:836:G:O2'	2.17	0.44
1:CA:782:A:C2	1:CA:801:U:H1'	2.52	0.44
1:CA:909:A:H2'	1:CA:910:C:C5'	2.47	0.44
1:CA:972:C:H2'	1:CA:973:G:H5'	2.00	0.44
1:CA:983:A:C8	1:CA:1201:A:N1	2.86	0.44
1:CA:1126:U:O2	1:CA:1280:A:H2'	2.17	0.44
1:CA:1367:C:P	9:CI:116:VAL:HG22	2.57	0.44
2:CB:181:ILE:O	2:CB:182:PRO:O	2.35	0.44
3:CC:38:LYS:NZ	3:CC:94:ILE:O	2.31	0.44
3:CC:126:ARG:O	3:CC:127:ARG:HB3	2.18	0.44
3:CC:128:VAL:O	3:CC:129:MET:HG2	2.18	0.44
4:CD:64:ILE:CG2	4:CD:65:TYR:CE2	3.00	0.44
7:CG:41:SER:O	7:CG:42:ILE:HG23	2.18	0.44
7:CG:118:LEU:N	7:CG:118:LEU:CD1	2.81	0.44
12:CL:55:VAL:C	12:CL:56:ARG:O	2.60	0.44
13:CM:14:HIS:ND1	13:CM:42:ASP:CG	2.76	0.44
20:CT:61:GLN:CG	20:CT:66:LEU:HD11	2.48	0.44
22:CV:26:A:C6	22:CV:27:G:C5	3.06	0.44
55:CY:68:ASN:C	55:CY:69:VAL:CG2	2.90	0.44
24:DA:85:G:P	44:DU:5:ARG:HH21	2.40	0.44
24:DA:250:G:P	53:D3:12:ARG:HH12	2.40	0.44
24:DA:394:C:C4	24:DA:395:U:C4	3.06	0.44
24:DA:416:U:C4	24:DA:417:C:C4	3.06	0.44
24:DA:439:A:H2'	24:DA:440:C:O4'	2.18	0.44
24:DA:503:A:C6	24:DA:506:G:C6	3.05	0.44
24:DA:601:C:O2'	24:DA:605:G:OP1	2.33	0.44
24:DA:721:A:C6	24:DA:722:A:C6	3.05	0.44
24:DA:789:A:N1	59:DA:3306:HOH:O	2.36	0.44
24:DA:1095:A:C8	24:DA:1096:A:N7	2.86	0.44
24:DA:1132:U:H5'	33:DJ:84:ILE:CD1	2.47	0.44
24:DA:1588:G:C4	24:DA:1589:U:C5	3.06	0.44
24:DA:1605:C:C3'	24:DA:1606:C:H5'	2.48	0.44
24:DA:1726:C:N3	24:DA:1735:A:N1	2.65	0.44
24:DA:1797:G:C4	24:DA:1798:U:C6	3.06	0.44
24:DA:1856:U:H2'	24:DA:1857:G:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2052:A:H4'	27:DD:148:GLN:O	2.18	0.44
24:DA:2261:C:H3'	46:DW:16:SER:HB2	1.99	0.44
24:DA:2292:U:H2'	24:DA:2293:G:H8	1.77	0.44
24:DA:2393:U:H5"	35:DL:62:PRO:HB3	2.00	0.44
24:DA:2415:G:C2'	24:DA:2416:C:H5'	2.47	0.44
24:DA:2716:C:H2'	24:DA:2717:C:H5'	1.99	0.44
24:DA:2768:U:C4	24:DA:2769:U:C5	3.06	0.44
24:DA:2849:U:H5"	39:DP:92:ARG:NH2	2.33	0.44
25:DB:7:G:H5"	38:DO:29:HIS:NE2	2.31	0.44
26:DC:161:VAL:HG13	26:DC:174:ARG:O	2.18	0.44
27:DD:26:VAL:O	27:DD:26:VAL:HG22	2.18	0.44
27:DD:170:VAL:HG12	27:DD:171:THR:O	2.18	0.44
29:DF:34:THR:HB	29:DF:89:THR:HG23	1.98	0.44
31:DH:44:ILE:CG2	31:DH:45:GLU:N	2.80	0.44
33:DJ:60:ASP:OD1	33:DJ:126:ALA:O	2.36	0.44
34:DK:38:ILE:CD1	34:DK:92:GLU:OE2	2.66	0.44
35:DL:29:LYS:C	35:DL:30:THR:HG23	2.42	0.44
38:DO:83:LEU:HD12	38:DO:83:LEU:C	2.42	0.44
42:DS:65:ASP:C	42:DS:67:ASP:H	2.25	0.44
44:DU:71:ILE:HD13	44:DU:82:VAL:CG2	2.47	0.44
45:DV:76:ASP:O	45:DV:89:ILE:CG2	2.65	0.44
48:DY:13:GLU:C	48:DY:15:ASN:N	2.66	0.44
49:DZ:24:LEU:O	49:DZ:27:GLY:N	2.49	0.44
49:DZ:31:ILE:O	49:DZ:31:ILE:CG1	2.66	0.44
53:D3:24:LYS:HG3	53:D3:25:HIS:O	2.18	0.44
53:D3:56:LEU:N	53:D3:56:LEU:CD2	2.70	0.44
54:D4:31:PRO:O	54:D4:33:HIS:N	2.51	0.44
1:AA:31:G:N2	1:AA:47:C:H4'	2.33	0.44
1:AA:43:C:H3'	16:AP:12:LYS:NZ	2.32	0.44
1:AA:44:A:OP1	16:AP:12:LYS:HB3	2.18	0.44
1:AA:66:A:C4'	1:AA:173:U:C5	3.00	0.44
1:AA:276:G:C5	1:AA:277:C:C5	3.05	0.44
1:AA:479:U:H2'	1:AA:480:U:C5'	2.45	0.44
1:AA:563:A:H5"	1:AA:565:U:O4	2.18	0.44
1:AA:730:G:C5'	1:AA:731:G:OP2	2.66	0.44
1:AA:854:U:H2'	1:AA:855:U:O5'	2.17	0.44
1:AA:895:G:C5	1:AA:896:C:C5	3.05	0.44
1:AA:899:C:C5	1:AA:900:A:N7	2.85	0.44
1:AA:929:G:C2'	1:AA:930:C:H5'	2.48	0.44
1:AA:966:G:C4	22:AV:34:G:H4'	2.52	0.44
1:AA:1017:U:OP2	1:AA:1017:U:C6	2.71	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1055:A:C6	1:AA:1206:G:C5	3.06	0.44
1:AA:1105:A:N1	1:AA:1106:G:C5	2.85	0.44
1:AA:1130:A:C2	1:AA:1146:A:C5	3.06	0.44
1:AA:1151:A:H5"	10:AJ:44:THR:HG23	2.00	0.44
1:AA:1232:U:H5"	9:AI:127:PHE:HA	1.99	0.44
1:AA:1347:G:N7	9:AI:109:ARG:CZ	2.80	0.44
1:AA:1422:G:N1	1:AA:1423:G:C5	2.86	0.44
2:AB:17:GLY:HA2	2:AB:203:ASN:H	1.83	0.44
2:AB:42:ASN:OD1	2:AB:44:GLU:O	2.35	0.44
4:AD:10:LYS:HA	4:AD:13:ARG:HD2	2.00	0.44
4:AD:193:ALA:C	4:AD:194:ASP:OD1	2.61	0.44
5:AE:41:ASP:OD1	5:AE:42:GLY:N	2.50	0.44
5:AE:112:ARG:HD2	5:AE:113:ALA:N	2.32	0.44
5:AE:126:LYS:HD2	5:AE:128:TYR:CE1	2.53	0.44
12:AL:80:ILE:HD12	12:AL:81:LEU:H	1.82	0.44
13:AM:29:ARG:C	13:AM:31:LYS:N	2.74	0.44
15:AO:25:THR:HA	15:AO:28:GLN:HB2	2.00	0.44
16:AP:16:PHE:CD1	16:AP:16:PHE:C	2.95	0.44
20:AT:35:VAL:O	20:AT:38:ALA:N	2.50	0.44
21:AU:15:ALA:C	21:AU:16:LEU:HD12	2.43	0.44
21:AU:22:SER:O	21:AU:23:CYS:SG	2.76	0.44
24:BA:178:G:C2'	24:BA:179:C:H5'	2.48	0.44
24:BA:391:A:H4'	24:BA:412:A:O3'	2.18	0.44
24:BA:391:A:H5'	24:BA:412:A:H4'	1.99	0.44
24:BA:579:G:C2	24:BA:1262:A:C4	3.06	0.44
24:BA:880:G:C5	24:BA:881:G:C8	3.05	0.44
24:BA:995:C:H41	57:BA:3166:NMY:HN61	1.63	0.44
24:BA:1131:G:H4'	24:BA:1132:U:OP1	2.18	0.44
24:BA:1188:U:H2'	24:BA:1189:A:O5'	2.17	0.44
24:BA:1193:G:C2	24:BA:1194:A:C4	3.06	0.44
24:BA:1500:G:C6	24:BA:1501:G:C5	3.05	0.44
24:BA:1521:G:C6	24:BA:1522:A:N6	2.86	0.44
24:BA:1740:G:C5	24:BA:1741:C:C4	3.06	0.44
24:BA:1946:U:O2'	24:BA:1947:C:C5'	2.64	0.44
24:BA:2102:G:C6	24:BA:2188:U:N3	2.86	0.44
24:BA:2138:G:C2	24:BA:2139:U:O2	2.71	0.44
24:BA:2428:G:O2'	35:BL:54:GLN:HA	2.17	0.44
24:BA:2526:G:H1'	54:B4:1:MET:H3	1.83	0.44
24:BA:2731:G:C8	57:BA:3165:NMY:H21	2.49	0.44
24:BA:2812:G:H2'	24:BA:2813:A:O4'	2.17	0.44
24:BA:2852:G:H2'	24:BA:2853:C:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BB:73:A:N7	25:BB:104:A:C5	2.86	0.44
25:BB:79:G:C6	25:BB:80:U:C2	3.06	0.44
28:BE:109:LEU:C	28:BE:111:GLU:H	2.25	0.44
29:BF:98:PHE:C	29:BF:98:PHE:CD1	2.89	0.44
30:BG:88:LEU:N	30:BG:88:LEU:CD1	2.80	0.44
30:BG:148:ARG:C	30:BG:150:TYR:N	2.75	0.44
35:BL:23:ILE:O	35:BL:23:ILE:HD12	2.17	0.44
36:BM:11:LYS:HD3	36:BM:86:LYS:HD3	1.99	0.44
39:BP:57:ALA:HB1	39:BP:73:PHE:O	2.16	0.44
41:BR:11:GLN:C	41:BR:12:HIS:CG	2.96	0.44
41:BR:14:VAL:HG21	41:BR:98:ILE:CD1	2.48	0.44
42:BS:17:VAL:HG23	42:BS:76:VAL:HG21	1.99	0.44
45:BV:65:VAL:C	45:BV:66:ASP:CG	2.86	0.44
47:BX:31:ASN:OD1	47:BX:52:ALA:CB	2.59	0.44
48:BY:22:LEU:C	48:BY:22:LEU:HD12	2.43	0.44
52:B2:43:THR:OG1	52:B2:44:VAL:N	2.51	0.44
53:B3:6:VAL:HB	53:B3:60:CYS:HB3	2.00	0.44
54:B4:10:LEU:HD11	54:B4:35:GLN:OE1	2.18	0.44
1:CA:17:U:H4'	1:CA:1080:A:O4'	2.18	0.44
1:CA:43:C:OP1	16:CP:12:LYS:HG2	2.17	0.44
1:CA:195:A:P	20:CT:60:ARG:NH1	2.91	0.44
1:CA:386:C:H2'	1:CA:387:U:H5"	1.98	0.44
1:CA:671:G:N2	1:CA:736:C:C2	2.85	0.44
1:CA:672:U:C2'	1:CA:673:A:O5'	2.65	0.44
1:CA:734:G:H2'	1:CA:735:C:C6	2.53	0.44
1:CA:826:C:H4'	8:CH:13:ARG:HD3	2.00	0.44
1:CA:949:A:C2	1:CA:1233:G:N3	2.86	0.44
1:CA:1110:A:C6	1:CA:1111:A:C6	3.05	0.44
1:CA:1133:G:C2'	1:CA:1134:G:H5'	2.48	0.44
1:CA:1318:A:C5'	1:CA:1319:A:OP2	2.65	0.44
1:CA:1492:A:O2'	1:CA:1493:A:P	2.75	0.44
1:CA:1500:A:H5"	1:CA:1508:A:H5"	2.00	0.44
1:CA:1523:G:OP1	11:CK:126:LYS:NZ	2.37	0.44
3:CC:24:ALA:HB1	3:CC:28:GLU:HB2	2.00	0.44
3:CC:65:ARG:C	3:CC:66:VAL:HG12	2.43	0.44
4:CD:22:LYS:HG2	4:CD:22:LYS:O	2.17	0.44
4:CD:64:ILE:HG23	4:CD:65:TYR:CD2	2.52	0.44
5:CE:48:PHE:CD1	5:CE:48:PHE:C	2.94	0.44
7:CG:14:PRO:O	7:CG:15:ASP:CG	2.60	0.44
9:CI:9:THR:HG22	9:CI:10:GLY:N	2.31	0.44
9:CI:67:VAL:HG21	9:CI:79:ILE:CD1	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:37:ARG:HG3	11:CK:38:GLN:N	2.32	0.44
13:CM:65:VAL:C	13:CM:69:LEU:HB2	2.43	0.44
15:CO:64:ARG:HD2	15:CO:64:ARG:HA	1.70	0.44
16:CP:68:SER:O	16:CP:69:ASP:C	2.60	0.44
17:CQ:21:ILE:HG13	17:CQ:46:VAL:CG1	2.47	0.44
20:CT:15:GLU:O	20:CT:16:LYS:C	2.59	0.44
22:CV:14:A:C5	22:CV:22:G:C2	3.06	0.44
55:CY:159:ASP:HA	55:CY:162:LYS:HG3	1.99	0.44
24:DA:457:A:O4'	24:DA:459:U:C6	2.71	0.44
24:DA:550:C:OP2	33:DJ:2:LYS:NZ	2.49	0.44
24:DA:648:G:O2'	24:DA:2351:G:OP1	2.23	0.44
24:DA:792:A:C4'	24:DA:793:A:H5'	2.48	0.44
24:DA:875:G:C2'	24:DA:876:C:H5'	2.47	0.44
24:DA:961:C:C4	24:DA:2031:A:C5	3.05	0.44
24:DA:973:A:H5'	24:DA:1188:U:H1'	2.00	0.44
24:DA:1094:U:H1'	24:DA:1098:A:C2	2.52	0.44
24:DA:1228:G:C6	24:DA:1229:C:C4	3.05	0.44
24:DA:1301:A:C2	24:DA:1303:G:C5	3.05	0.44
24:DA:1359:A:OP2	24:DA:1371:G:N1	2.46	0.44
24:DA:1593:A:H2'	24:DA:1594:U:O4'	2.17	0.44
24:DA:1651:G:C2	24:DA:2007:U:N3	2.86	0.44
24:DA:1741:C:C2	24:DA:1742:U:C6	3.06	0.44
24:DA:1823:G:C6	24:DA:1824:G:C5	3.06	0.44
24:DA:1925:C:H5"	24:DA:1926:U:OP2	2.18	0.44
24:DA:1953:A:C2	24:DA:2549:G:N3	2.86	0.44
24:DA:2344:U:H2'	51:D1:35:LEU:CD2	2.47	0.44
24:DA:2816:G:C2'	24:DA:2817:U:H5'	2.48	0.44
24:DA:2849:U:P	39:DP:92:ARG:NH1	2.90	0.44
26:DC:164:VAL:CG1	26:DC:172:THR:O	2.66	0.44
27:DD:38:LYS:HE3	27:DD:45:TYR:OH	2.17	0.44
27:DD:45:TYR:OH	27:DD:81:GLU:OE2	2.35	0.44
29:DF:46:LYS:HG2	29:DF:47:LYS:N	2.32	0.44
29:DF:112:ASP:O	29:DF:112:ASP:CG	2.60	0.44
31:DH:10:ALA:O	31:DH:12:LEU:CD2	2.66	0.44
31:DH:116:ARG:NH1	31:DH:133:GLN:HG3	2.32	0.44
32:DI:34:ILE:O	32:DI:34:ILE:HG13	2.17	0.44
32:DI:82:ALA:HB1	32:DI:108:ILE:HG12	2.00	0.44
33:DJ:110:PRO:HD2	33:DJ:118:MET:CE	2.48	0.44
33:DJ:117:ALA:HA	33:DJ:120:ARG:HE	1.82	0.44
34:DK:22:ILE:O	34:DK:22:ILE:HG12	2.17	0.44
35:DL:78:ARG:CZ	35:DL:113:ALA:HB1	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DL:93:ASN:O	35:DL:94:THR:HG22	2.17	0.44
36:DM:121:ALA:O	36:DM:123:LYS:N	2.51	0.44
37:DN:103:ARG:NH2	37:DN:106:ASP:OD2	2.45	0.44
42:DS:7:HIS:HB2	42:DS:50:VAL:HG22	1.99	0.44
43:DT:74:ILE:HG13	43:DT:75:GLY:N	2.32	0.44
1:AA:202:G:H2'	1:AA:203:G:O4'	2.18	0.44
1:AA:293:G:N3	1:AA:293:G:H2'	2.33	0.44
1:AA:391:G:H3'	1:AA:392:C:H5"	1.99	0.44
1:AA:427:U:C4	1:AA:428:G:C6	3.06	0.44
1:AA:623:C:N3	1:AA:624:C:C6	2.86	0.44
1:AA:637:C:OP1	17:AQ:6:ARG:NH2	2.51	0.44
1:AA:648:A:N1	1:AA:649:A:N3	2.66	0.44
1:AA:692:U:C2	1:AA:694:A:OP2	2.71	0.44
1:AA:1008:U:N3	1:AA:1021:A:N6	2.66	0.44
1:AA:1159:U:C4	1:AA:1182:G:C4	3.05	0.44
1:AA:1329:A:P	13:AM:29:ARG:HD2	2.58	0.44
1:AA:1407:C:C2'	1:AA:1408:A:H5'	2.48	0.44
1:AA:1434:A:N6	1:AA:1435:G:C6	2.85	0.44
1:AA:1491:G:C3'	12:AL:44:LYS:HZ2	2.31	0.44
1:AA:1531:A:N6	1:AA:1532:U:C4	2.86	0.44
2:AB:17:GLY:N	2:AB:41:ILE:HD13	2.33	0.44
2:AB:21:ARG:HG3	2:AB:22:TYR:H	1.81	0.44
2:AB:207:ILE:N	2:AB:207:ILE:HD13	2.33	0.44
3:AC:67:THR:C	3:AC:68:ILE:CG2	2.91	0.44
3:AC:154:SER:HA	3:AC:165:THR:HA	2.00	0.44
4:AD:103:TYR:HE1	4:AD:114:ALA:HB3	1.82	0.44
4:AD:107:PHE:CD1	4:AD:155:VAL:HG11	2.52	0.44
7:AG:92:ARG:O	7:AG:93:PRO:O	2.36	0.44
7:AG:93:PRO:C	7:AG:94:VAL:CG2	2.91	0.44
7:AG:146:GLU:HG2	7:AG:149:LYS:HE3	2.00	0.44
9:AI:47:VAL:O	9:AI:80:ARG:CZ	2.66	0.44
9:AI:80:ARG:HD2	9:AI:103:PHE:CG	2.52	0.44
10:AJ:5:ARG:NH1	10:AJ:79:PRO:HG3	2.33	0.44
11:AK:105:PHE:O	11:AK:106:ARG:C	2.59	0.44
15:AO:27:VAL:CG1	15:AO:28:GLN:N	2.81	0.44
17:AQ:19:LYS:NZ	17:AQ:48:ASP:O	2.51	0.44
17:AQ:55:ILE:O	17:AQ:56:GLY:C	2.61	0.44
17:AQ:68:SER:C	17:AQ:70:THR:N	2.75	0.44
19:AS:6:LYS:C	19:AS:7:LYS:HG3	2.43	0.44
20:AT:39:ILE:O	20:AT:40:GLU:C	2.60	0.44
20:AT:43:ASP:O	20:AT:47:ALA:HB2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:58:G:N2	24:BA:70:G:C2	2.85	0.44
24:BA:121:G:H4'	24:BA:148:U:H2'	2.00	0.44
24:BA:161:A:P	24:BA:162:U:H3'	2.58	0.44
24:BA:167:A:C8	24:BA:168:G:C8	3.05	0.44
24:BA:360:U:C4	24:BA:361:G:C2	3.05	0.44
24:BA:360:U:C5	24:BA:361:G:N1	2.86	0.44
24:BA:550:C:O2	24:BA:550:C:H2'	2.16	0.44
24:BA:745:G:C2'	24:BA:746:U:H5'	2.47	0.44
24:BA:831:G:C2'	24:BA:832:U:O5'	2.65	0.44
24:BA:910:A:H2'	24:BA:911:A:C8	2.53	0.44
24:BA:918:A:O2'	25:BB:80:U:O2'	2.11	0.44
24:BA:1084:A:C8	24:BA:1085:A:N7	2.85	0.44
24:BA:1153:C:C4	24:BA:1154:G:C5	3.06	0.44
24:BA:1435:G:C6	24:BA:1436:G:C5	3.06	0.44
24:BA:1602:U:C3'	24:BA:1603:A:C5'	2.96	0.44
24:BA:1753:G:H2'	24:BA:1755:A:OP2	2.17	0.44
24:BA:1902:C:C5	24:BA:1903:G:C8	3.06	0.44
24:BA:1975:G:C2	24:BA:1976:U:C2	3.06	0.44
24:BA:2140:G:N2	24:BA:2152:G:C4	2.86	0.44
24:BA:2259:U:C2	24:BA:2260:C:C6	3.06	0.44
24:BA:2291:U:OP1	24:BA:2380:C:O2'	2.29	0.44
24:BA:2292:U:H2'	24:BA:2293:G:O4'	2.18	0.44
24:BA:2304:G:H4'	29:BF:129:MET:HA	1.98	0.44
24:BA:2335:A:N6	24:BA:2337:G:N3	2.66	0.44
24:BA:2415:G:H3'	24:BA:2416:C:H6	1.83	0.44
24:BA:2581:G:C8	24:BA:2610:C:N4	2.85	0.44
25:BB:15:A:C8	25:BB:109:A:N6	2.86	0.44
25:BB:81:G:O6	25:BB:96:G:C6	2.71	0.44
25:BB:97:C:H2'	25:BB:98:G:H5'	1.98	0.44
26:BC:55:GLY:HA3	26:BC:211:ARG:CZ	2.48	0.44
26:BC:103:ILE:HD12	26:BC:103:ILE:N	2.33	0.44
26:BC:225:ASN:ND2	59:BC:402:HOH:O	2.50	0.44
29:BF:36:ASN:HA	29:BF:87:LYS:HE3	1.99	0.44
29:BF:37:MET:SD	29:BF:56:LEU:HD22	2.57	0.44
29:BF:110:ILE:O	29:BF:111:ARG:C	2.60	0.44
33:BJ:42:ALA:O	40:BQ:63:ARG:CD	2.66	0.44
33:BJ:80:HIS:O	33:BJ:81:ILE:C	2.61	0.44
35:BL:58:TYR:HA	53:B3:12:ARG:HD2	1.99	0.44
41:BR:49:ILE:CG1	41:BR:51:VAL:O	2.66	0.44
49:BZ:44:ARG:O	49:BZ:45:GLY:C	2.60	0.44
1:CA:184:G:C6	1:CA:185:U:C5	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:275:G:P	17:CQ:16:LYS:HE3	2.57	0.44
1:CA:397:A:O2'	1:CA:399:G:OP2	2.34	0.44
1:CA:444:G:C6	1:CA:491:G:C6	3.05	0.44
1:CA:445:G:C6	1:CA:446:G:C4	3.06	0.44
1:CA:446:G:C6	1:CA:447:G:C5	3.06	0.44
1:CA:545:C:O2'	1:CA:549:C:H5"	2.17	0.44
1:CA:594:U:C2	1:CA:595:A:C2	3.06	0.44
1:CA:604:G:H2'	1:CA:605:U:O4'	2.17	0.44
1:CA:953:G:N3	1:CA:1229:A:C2	2.86	0.44
1:CA:1041:G:C6	1:CA:1042:A:C6	3.06	0.44
1:CA:1088:G:C2'	1:CA:1089:G:O5'	2.65	0.44
1:CA:1268:G:O6	1:CA:1269:A:N6	2.51	0.44
1:CA:1387:G:C4	1:CA:1388:C:C5	3.06	0.44
1:CA:1464:U:C2	1:CA:1465:A:C8	3.06	0.44
2:CB:75:ALA:O	2:CB:76:ALA:HB3	2.18	0.44
2:CB:120:GLN:HA	2:CB:123:ASP:O	2.17	0.44
3:CC:150:LYS:HB3	3:CC:201:TRP:HB2	1.99	0.44
4:CD:97:ARG:HG3	4:CD:99:ASP:OD1	2.18	0.44
5:CE:151:GLU:CG	5:CE:152:MET:N	2.80	0.44
7:CG:18:PHE:CD2	7:CG:19:GLY:N	2.86	0.44
7:CG:110:LYS:CE	7:CG:133:THR:HG21	2.47	0.44
9:CI:101:ALA:O	9:CI:102:GLY:C	2.60	0.44
11:CK:116:ILE:HD12	11:CK:116:ILE:C	2.43	0.44
12:CL:44:LYS:HB3	12:CL:45:PRO:CD	2.48	0.44
12:CL:44:LYS:C	12:CL:46:ASN:N	2.74	0.44
13:CM:50:GLU:HA	13:CM:53:ILE:HD12	2.00	0.44
13:CM:85:CYS:SG	13:CM:87:ARG:N	2.91	0.44
14:CN:16:ALA:CA	14:CN:20:PHE:CE2	2.98	0.44
15:CO:9:ALA:O	15:CO:11:ILE:HG13	2.18	0.44
19:CS:48:THR:HG1	19:CS:49:ILE:H	1.66	0.44
20:CT:3:ASN:C	20:CT:4:ILE:CG1	2.91	0.44
21:CU:5:LYS:O	21:CU:5:LYS:HD3	2.17	0.44
21:CU:6:VAL:HG13	21:CU:8:GLU:HG2	2.00	0.44
24:DA:27:G:C2	24:DA:512:G:N3	2.86	0.44
24:DA:298:G:OP1	44:DU:84:PHE:HD1	1.99	0.44
24:DA:388:G:N7	24:DA:390:U:H2'	2.32	0.44
24:DA:467:G:OP1	52:D2:33:ARG:HD2	2.18	0.44
24:DA:584:C:P	40:DQ:5:ARG:HG3	2.58	0.44
24:DA:672:C:C5	35:DL:42:SER:HB3	2.53	0.44
24:DA:711:G:H2'	24:DA:712:G:O5'	2.17	0.44
24:DA:735:A:N7	24:DA:736:C:C4	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:843:G:H2'	24:DA:844:A:C8	2.53	0.44
24:DA:929:U:C4	24:DA:930:G:N7	2.86	0.44
24:DA:1008:A:N6	24:DA:1136:G:C6	2.86	0.44
24:DA:1048:A:C4	24:DA:1111:A:C2	3.05	0.44
24:DA:1360:G:N7	24:DA:1361:G:C8	2.85	0.44
24:DA:1633:G:C6	24:DA:1635:A:C5	3.06	0.44
24:DA:1841:U:N3	24:DA:1842:G:N7	2.66	0.44
24:DA:1865:U:C5	24:DA:1875:G:C2	3.06	0.44
24:DA:1869:G:N2	24:DA:1873:G:C5	2.86	0.44
24:DA:2282:G:C5	24:DA:2425:A:C6	3.06	0.44
24:DA:2655:G:HO2'	24:DA:2656:U:P	2.26	0.44
25:DB:47:C:C4	25:DB:48:U:C5	3.06	0.44
26:DC:57:HIS:HD2	26:DC:58:LYS:O	2.01	0.44
26:DC:74:PRO:HB2	26:DC:96:LYS:CE	2.47	0.44
26:DC:157:ALA:HB1	26:DC:196:ASN:O	2.18	0.44
27:DD:8:LYS:HE3	27:DD:193:VAL:CG2	2.48	0.44
29:DF:134:GLN:NE2	29:DF:149:ARG:HG3	2.32	0.44
31:DH:31:VAL:N	31:DH:32:PRO:CD	2.81	0.44
33:DJ:93:ILE:HG22	33:DJ:97:PRO:HG3	2.00	0.44
36:DM:72:PRO:HB2	36:DM:89:VAL:HG11	2.00	0.44
38:DO:17:LYS:HE2	38:DO:20:GLU:OE2	2.17	0.44
38:DO:108:ASP:HA	38:DO:111:ARG:CB	2.48	0.44
40:DQ:5:ARG:O	40:DQ:7:VAL:N	2.50	0.44
40:DQ:89:ILE:HG23	40:DQ:93:ILE:HG21	2.00	0.44
40:DQ:101:ASP:OD1	40:DQ:101:ASP:C	2.61	0.44
40:DQ:109:VAL:O	40:DQ:112:ALA:HB3	2.17	0.44
42:DS:62:ASP:O	42:DS:63:GLY:C	2.58	0.44
47:DX:7:THR:HG21	47:DX:9:LYS:CD	2.46	0.44
47:DX:33:HIS:O	47:DX:49:ARG:HA	2.17	0.44
48:DY:10:SER:O	48:DY:11:VAL:C	2.60	0.44
48:DY:30:MET:CG	48:DY:31:GLN:N	2.81	0.44
1:AA:144:G:C2	1:AA:179:A:C2	3.06	0.44
1:AA:196:A:H5"	1:AA:197:A:OP1	2.17	0.44
1:AA:218:U:C4	1:AA:219:U:C4	3.06	0.44
1:AA:237:G:C6	1:AA:238:A:C5	3.06	0.44
1:AA:706:A:C6	1:AA:707:U:C5	3.05	0.44
1:AA:731:G:O2'	1:AA:732:C:H5'	2.18	0.44
1:AA:845:A:N3	1:AA:845:A:H2'	2.33	0.44
1:AA:862:C:H1'	1:AA:874:G:C5'	2.48	0.44
1:AA:941:G:C6	1:AA:1343:G:C6	3.06	0.44
1:AA:1011:C:H2'	1:AA:1012:A:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1078:U:O2'	1:AA:1079:G:H5'	2.18	0.44
1:AA:1226:C:N4	13:AM:103:LYS:HD2	2.32	0.44
1:AA:1342:C:O2'	1:AA:1343:G:H5'	2.18	0.44
1:AA:1371:G:C5	1:AA:1372:U:C4	3.06	0.44
1:AA:1392:G:H2'	1:AA:1393:U:O4'	2.18	0.44
1:AA:1428:A:N1	1:AA:1473:G:C6	2.86	0.44
1:AA:1465:A:N7	1:AA:1466:C:C4	2.86	0.44
1:AA:1505:G:H4'	1:AA:1506:U:C5'	2.46	0.44
2:AB:10:LEU:HG	2:AB:13:GLY:CA	2.48	0.44
2:AB:166:ALA:O	2:AB:168:HIS:N	2.51	0.44
4:AD:13:ARG:HB2	4:AD:33:LYS:HD3	2.00	0.44
4:AD:35:GLU:HG3	4:AD:36:GLN:N	2.33	0.44
4:AD:92:ALA:O	4:AD:93:LEU:HG	2.17	0.44
4:AD:94:LEU:O	4:AD:100:ASN:CB	2.65	0.44
7:AG:30:LEU:O	7:AG:30:LEU:HD23	2.18	0.44
7:AG:122:ASN:C	7:AG:124:LEU:N	2.75	0.44
9:AI:46:MET:HE2	9:AI:48:VAL:CG2	2.48	0.44
14:AN:3:GLN:HA	14:AN:6:LYS:HE2	1.99	0.44
20:AT:71:LYS:O	20:AT:75:HIS:N	2.47	0.44
21:AU:24:GLU:O	21:AU:25:LYS:CB	2.64	0.44
24:BA:91:A:C4'	24:BA:92:U:O5'	2.62	0.44
24:BA:108:G:N1	24:BA:109:C:C2	2.86	0.44
24:BA:118:A:H8	24:BA:119:A:C8	2.35	0.44
24:BA:209:C:C2'	24:BA:210:C:H5'	2.48	0.44
24:BA:301:G:H5'	24:BA:334:C:O2'	2.17	0.44
24:BA:459:U:OP1	52:B2:39:ARG:HA	2.18	0.44
24:BA:611:C:C6	24:BA:612:G:N7	2.86	0.44
24:BA:685:A:OP1	52:B2:15:SER:OG	2.25	0.44
24:BA:823:C:O2'	24:BA:824:U:H5'	2.17	0.44
24:BA:908:C:H1'	36:BM:70:ASP:OD2	2.17	0.44
24:BA:1157:G:OP1	57:BA:3162:NMY:N9	2.51	0.44
24:BA:1205:A:H3'	24:BA:1206:G:H5'	2.00	0.44
24:BA:1372:U:H2'	24:BA:1372:U:O2	2.18	0.44
24:BA:1392:A:C5	24:BA:1393:A:N6	2.86	0.44
24:BA:1531:C:C3'	24:BA:1532:A:O4'	2.65	0.44
24:BA:1734:G:C2	24:BA:1735:A:C4	3.05	0.44
24:BA:1839:G:H2'	24:BA:1839:G:N3	2.32	0.44
24:BA:1926:U:H2'	24:BA:1928:A:N7	2.33	0.44
24:BA:1945:G:C4	24:BA:1946:U:C5	3.06	0.44
24:BA:2032:G:H1'	27:BD:150:GLN:OE1	2.17	0.44
24:BA:2232:C:C4	24:BA:2233:U:C4	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2259:U:C5	24:BA:2427:C:C4	3.05	0.44
24:BA:2284:A:O3'	51:B1:5:ARG:NH1	2.51	0.44
24:BA:2522:U:O2'	24:BA:2647:U:OP1	2.22	0.44
24:BA:2668:G:N3	24:BA:2669:G:C8	2.86	0.44
24:BA:2670:A:C2	24:BA:2671:G:C8	3.05	0.44
25:BB:76:G:HO2'	45:BV:78:GLN:CD	2.13	0.44
26:BC:30:ALA:N	26:BC:31:PRO:HD2	2.33	0.44
26:BC:90:ILE:CD1	26:BC:90:ILE:C	2.91	0.44
26:BC:211:ARG:O	26:BC:211:ARG:HD2	2.17	0.44
29:BF:129:MET:HE2	29:BF:129:MET:N	2.33	0.44
30:BG:144:ALA:O	30:BG:147:LEU:HD11	2.17	0.44
33:BJ:37:ARG:O	33:BJ:50:THR:HG23	2.18	0.44
33:BJ:74:TYR:N	33:BJ:74:TYR:CD1	2.85	0.44
34:BK:113:MET:HA	34:BK:116:ILE:HD12	1.98	0.44
35:BL:62:PRO:HD3	53:B3:26:ALA:CB	2.48	0.44
36:BM:33:LEU:HD21	36:BM:128:THR:HB	2.00	0.44
40:BQ:42:GLY:HA3	41:BR:75:VAL:HG11	2.00	0.44
42:BS:21:ALA:C	42:BS:23:LEU:N	2.74	0.44
43:BT:2:ILE:HA	43:BT:3:ARG:HB2	1.99	0.44
1:CA:324:G:N2	1:CA:326:G:H3'	2.33	0.44
1:CA:394:G:N3	1:CA:394:G:H2'	2.33	0.44
1:CA:429:U:O5'	4:CD:9:LEU:CD2	2.65	0.44
1:CA:470:C:N3	1:CA:471:U:C4	2.85	0.44
1:CA:582:C:H2'	1:CA:582:C:O2	2.17	0.44
1:CA:631:C:H5"	1:CA:632:U:H5'	1.99	0.44
1:CA:730:G:O2'	1:CA:766:A:H5'	2.18	0.44
1:CA:958:A:C6	19:CS:55:ARG:NH1	2.86	0.44
1:CA:981:U:OP1	14:CN:8:ARG:NH2	2.47	0.44
1:CA:1277:C:H2'	1:CA:1279:G:C8	2.53	0.44
1:CA:1299:A:H3'	1:CA:1299:A:OP2	2.17	0.44
1:CA:1309:G:P	13:CM:87:ARG:CZ	3.06	0.44
1:CA:1394:A:C5	1:CA:1501:C:H4'	2.52	0.44
1:CA:1506:U:O4'	11:CK:128:ARG:CD	2.66	0.44
2:CB:36:ASN:O	2:CB:37:LYS:HB3	2.17	0.44
4:CD:100:ASN:O	4:CD:102:VAL:N	2.50	0.44
4:CD:190:ASP:O	4:CD:191:LEU:O	2.36	0.44
7:CG:96:ARG:HA	7:CG:99:LEU:HD23	1.99	0.44
8:CH:115:ALA:HA	8:CH:118:GLN:CB	2.48	0.44
10:CJ:93:ALA:HB1	10:CJ:96:VAL:HG11	1.99	0.44
15:CO:12:VAL:HG23	15:CO:13:SER:N	2.33	0.44
15:CO:64:ARG:NH1	15:CO:64:ARG:HG3	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:62:ARG:C	17:CQ:73:TRP:CE3	2.95	0.44
18:CR:41:PRO:HB3	18:CR:43:ARG:CZ	2.47	0.44
18:CR:60:LYS:HA	18:CR:63:ARG:HD2	1.99	0.44
22:CV:2:C:OP2	22:CV:2:C:H2'	2.17	0.44
22:CV:10:G:OP1	22:CV:10:G:H8	2.00	0.44
55:CY:11:VAL:HG22	55:CY:12:ARG:N	2.32	0.44
55:CY:27:ILE:HD11	55:CY:178:LYS:NZ	2.33	0.44
24:DA:111:A:C2	24:DA:112:U:C2	3.06	0.44
24:DA:426:C:H2'	24:DA:427:U:O4'	2.18	0.44
24:DA:630:G:N2	24:DA:634:C:C4	2.85	0.44
24:DA:773:U:C4'	26:DC:46:GLY:HA3	2.48	0.44
24:DA:1594:U:H2'	24:DA:1595:C:C6	2.53	0.44
24:DA:1651:G:N2	24:DA:2007:U:C2	2.86	0.44
24:DA:1652:A:C2	24:DA:2006:C:C2	3.06	0.44
24:DA:1680:U:C4	24:DA:1681:G:C6	3.06	0.44
24:DA:1801:A:N7	24:DA:2203:U:C5	2.86	0.44
24:DA:2089:C:C2	24:DA:2090:A:C8	3.06	0.44
24:DA:2280:G:O2'	24:DA:2281:A:H5'	2.18	0.44
24:DA:2427:C:H5"	24:DA:2428:G:OP1	2.17	0.44
24:DA:2816:G:H4'	37:DN:99:LYS:HE3	1.98	0.44
26:DC:173:LEU:HD22	26:DC:181:ARG:O	2.17	0.44
28:DE:98:LYS:NZ	59:DE:404:HOH:O	2.40	0.44
29:DF:30:VAL:O	29:DF:30:VAL:HG13	2.18	0.44
31:DH:60:GLU:O	31:DH:64:ALA:CB	2.65	0.44
31:DH:88:GLY:CA	31:DH:125:THR:OG1	2.65	0.44
31:DH:143:ILE:HG13	31:DH:144:VAL:N	2.32	0.44
34:DK:34:GLY:O	34:DK:62:VAL:CG2	2.66	0.44
34:DK:57:VAL:C	34:DK:58:LEU:CD2	2.91	0.44
38:DO:68:LYS:O	38:DO:71:ALA:HB3	2.18	0.44
39:DP:45:VAL:O	39:DP:47:ILE:HG23	2.18	0.44
42:DS:54:ALA:HB2	42:DS:105:VAL:CG1	2.47	0.44
46:DW:80:ILE:HG22	46:DW:81:SER:N	2.32	0.44
50:D0:25:THR:HG23	50:D0:26:SER:H	1.83	0.44
51:D1:48:TYR:C	51:D1:49:LYS:HG2	2.43	0.44
52:D2:18:PHE:O	52:D2:19:ARG:C	2.59	0.44
1:AA:147:G:N2	1:AA:176:C:C6	2.86	0.43
1:AA:153:C:C4	1:AA:168:G:O6	2.65	0.43
1:AA:176:C:O2	1:AA:177:G:C4	2.71	0.43
1:AA:374:A:O4'	1:AA:481:G:N2	2.51	0.43
1:AA:484:G:H4'	1:AA:485:U:C5'	2.48	0.43
1:AA:540:G:C5	1:AA:541:G:N7	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:619:U:O2	4:AD:130:VAL:HG22	2.17	0.43
1:AA:708:C:O2	1:AA:709:U:C6	2.70	0.43
1:AA:799:G:O2'	1:AA:800:G:H5'	2.18	0.43
1:AA:807:A:C5	1:AA:808:C:C5	3.07	0.43
1:AA:824:G:O4'	8:AH:2:SER:N	2.51	0.43
1:AA:888:G:H4'	1:AA:1488:G:O2'	2.18	0.43
1:AA:1114:C:O2	1:AA:1186:G:N2	2.46	0.43
1:AA:1229:A:C2	1:AA:1230:C:N3	2.86	0.43
1:AA:1349:A:H2'	1:AA:1349:A:N3	2.33	0.43
2:AB:78:GLU:C	2:AB:80:VAL:N	2.74	0.43
2:AB:144:LEU:C	2:AB:146:ASN:H	2.26	0.43
4:AD:146:ARG:C	4:AD:148:LYS:N	2.76	0.43
4:AD:152:GLN:O	4:AD:153:SER:C	2.61	0.43
5:AE:21:VAL:O	5:AE:31:PHE:HB3	2.18	0.43
5:AE:84:PRO:HD3	5:AE:98:PRO:CD	2.48	0.43
8:AH:16:ASN:HA	8:AH:19:ALA:HB3	2.00	0.43
8:AH:125:ILE:O	8:AH:125:ILE:CG1	2.62	0.43
11:AK:104:GLY:O	11:AK:105:PHE:CG	2.71	0.43
13:AM:6:GLY:O	13:AM:8:ASN:N	2.51	0.43
14:AN:2:LYS:HB3	14:AN:5:MET:HB2	2.00	0.43
18:AR:34:THR:CG2	18:AR:38:LYS:HB3	2.48	0.43
20:AT:69:LYS:HD3	20:AT:70:ASN:CG	2.43	0.43
22:AV:49:C:H2'	22:AV:50:U:C6	2.53	0.43
24:BA:29:U:H2'	24:BA:30:G:C8	2.53	0.43
24:BA:108:G:N2	24:BA:109:C:H1'	2.33	0.43
24:BA:364:C:N3	24:BA:365:U:C4	2.85	0.43
24:BA:418:C:H2'	24:BA:419:U:H6	1.83	0.43
24:BA:675:A:C8	24:BA:804:A:C6	3.05	0.43
24:BA:718:A:H5"	24:BA:719:C:OP2	2.18	0.43
24:BA:852:U:H2'	24:BA:853:C:O4'	2.18	0.43
24:BA:1144:A:C2'	24:BA:1145:C:O5'	2.66	0.43
24:BA:1203:U:C5	24:BA:1204:A:C5	3.06	0.43
24:BA:1218:G:N1	24:BA:1232:G:C5	2.85	0.43
24:BA:1287:A:C5	24:BA:1288:G:C6	3.06	0.43
24:BA:1361:G:C6	24:BA:1362:C:N4	2.86	0.43
24:BA:1469:A:C2	24:BA:1470:A:C5	3.06	0.43
24:BA:1515:A:H3'	24:BA:1516:G:H8	1.83	0.43
24:BA:1528:A:N6	24:BA:1543:G:O2'	2.51	0.43
24:BA:1904:G:H1'	24:BA:1927:A:N1	2.33	0.43
24:BA:2185:U:H2'	24:BA:2186:G:H5'	2.01	0.43
24:BA:2350:C:H2'	24:BA:2351:G:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2405:G:OP1	35:BL:70:LYS:CE	2.66	0.43
24:BA:2416:C:C4	24:BA:2417:C:N4	2.85	0.43
24:BA:2668:G:N2	24:BA:2669:G:C4	2.86	0.43
25:BB:22:U:H2'	25:BB:23:G:C8	2.53	0.43
26:BC:43:ASN:O	26:BC:46:GLY:N	2.50	0.43
26:BC:55:GLY:HA3	26:BC:211:ARG:NH2	2.33	0.43
26:BC:68:ARG:NH1	26:BC:128:THR:HG1	2.16	0.43
27:BD:178:VAL:HG22	27:BD:188:LEU:HB2	1.99	0.43
28:BE:75:SER:O	28:BE:76:PRO:C	2.60	0.43
29:BF:68:LYS:NZ	29:BF:82:TYR:O	2.51	0.43
29:BF:96:TRP:CZ2	29:BF:99:PHE:CZ	2.95	0.43
30:BG:138:GLN:OE1	30:BG:139:VAL:HA	2.18	0.43
32:BI:60:VAL:HB	32:BI:66:PHE:CE2	2.53	0.43
32:BI:129:GLU:O	32:BI:133:ARG:N	2.50	0.43
33:BJ:17:VAL:CG2	33:BJ:57:LEU:HD11	2.48	0.43
34:BK:34:GLY:O	34:BK:35:VAL:C	2.61	0.43
35:BL:59:ARG:C	35:BL:61:LEU:H	2.26	0.43
37:BN:81:ASN:O	37:BN:85:PRO:HD2	2.18	0.43
40:BQ:80:ASN:O	40:BQ:84:LYS:HB2	2.17	0.43
42:BS:17:VAL:HG22	42:BS:76:VAL:HG11	1.98	0.43
49:BZ:22:THR:HG21	49:BZ:50:VAL:CG1	2.48	0.43
1:CA:51:A:O2'	1:CA:116:A:H4'	2.18	0.43
1:CA:136:C:C1'	16:CP:1:MET:HE2	2.48	0.43
1:CA:346:G:OP1	34:DK:108:ARG:NH2	2.51	0.43
1:CA:468:A:C2	1:CA:469:C:N3	2.86	0.43
1:CA:604:G:C2	1:CA:635:A:N3	2.86	0.43
1:CA:613:C:OP1	4:CD:81:ARG:CZ	2.65	0.43
1:CA:716:A:C6	1:CA:717:U:N3	2.86	0.43
1:CA:738:C:H2'	1:CA:739:C:C6	2.53	0.43
1:CA:1114:C:O2	1:CA:1115:U:N1	2.50	0.43
1:CA:1119:C:O2	1:CA:1155:A:C2	2.71	0.43
1:CA:1194:U:C5	1:CA:1195:C:N4	2.86	0.43
1:CA:1237:C:H2'	1:CA:1238:A:OP1	2.18	0.43
1:CA:1514:G:C2'	1:CA:1515:G:O5'	2.66	0.43
2:CB:135:LEU:O	2:CB:135:LEU:HD12	2.17	0.43
3:CC:72:ARG:C	3:CC:74:GLY:N	2.75	0.43
3:CC:152:GLU:CB	3:CC:167:TRP:CB	2.96	0.43
4:CD:163:GLU:HA	4:CD:167:LYS:HE2	1.99	0.43
5:CE:107:ALA:HB3	5:CE:112:ARG:HA	2.00	0.43
6:CF:21:MET:O	6:CF:23:GLU:HG3	2.17	0.43
6:CF:37:HIS:O	6:CF:96:VAL:O	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:37:HIS:O	6:CF:63:ASN:CG	2.61	0.43
7:CG:102:ARG:C	7:CG:104:ILE:H	2.25	0.43
7:CG:103:TRP:CZ2	7:CG:133:THR:HG23	2.53	0.43
8:CH:89:LYS:HD3	8:CH:90:ASP:CA	2.48	0.43
16:CP:14:ARG:N	16:CP:15:PRO:HD3	2.33	0.43
19:CS:12:ASP:OD1	19:CS:14:HIS:CD2	2.71	0.43
20:CT:86:LEU:O	20:CT:87:ALA:C	2.61	0.43
55:CY:56:SER:O	55:CY:58:THR:HG23	2.17	0.43
55:CY:107:GLU:C	55:CY:109:ARG:H	2.26	0.43
24:DA:18:U:OP1	40:DQ:29:ARG:NH2	2.51	0.43
24:DA:29:U:C2'	24:DA:30:G:H5'	2.48	0.43
24:DA:58:G:OP1	43:DT:78:SER:CB	2.66	0.43
24:DA:139:U:O4	43:DT:2:ILE:HG13	2.16	0.43
24:DA:381:G:OP1	47:DX:17:ARG:NH2	2.49	0.43
24:DA:507:A:H4'	24:DA:509:C:C6	2.53	0.43
24:DA:646:U:H5'	24:DA:647:G:H5"	2.00	0.43
24:DA:875:G:O2'	24:DA:876:C:H5'	2.18	0.43
24:DA:1218:G:C6	24:DA:1219:U:C4	3.06	0.43
24:DA:1225:G:N1	24:DA:1226:A:N1	2.66	0.43
24:DA:1298:C:C2	24:DA:1643:G:N2	2.86	0.43
24:DA:1533:C:N3	24:DA:1538:G:N2	2.62	0.43
24:DA:1606:C:O4'	24:DA:1608:A:C2	2.71	0.43
24:DA:1995:U:H5"	24:DA:1996:C:H2'	1.99	0.43
24:DA:2103:C:O2'	24:DA:2104:C:O4'	2.15	0.43
24:DA:2259:U:H1'	24:DA:2427:C:C2	2.52	0.43
24:DA:2303:G:C6	24:DA:2304:G:C8	3.06	0.43
24:DA:2790:U:C4'	24:DA:2791:G:OP1	2.66	0.43
27:DD:11:MET:HE3	27:DD:11:MET:HB2	1.91	0.43
29:DF:76:PHE:HB2	29:DF:78:ILE:HD11	1.99	0.43
29:DF:105:ILE:O	29:DF:108:PRO:HD2	2.17	0.43
31:DH:93:SER:CB	31:DH:122:LEU:HB2	2.45	0.43
34:DK:70:ARG:CD	34:DK:76:VAL:CG2	2.95	0.43
35:DL:111:ILE:N	35:DL:111:ILE:CD1	2.81	0.43
38:DO:78:VAL:O	38:DO:82:ALA:CB	2.65	0.43
40:DQ:65:ASN:CG	40:DQ:75:TYR:HB2	2.43	0.43
40:DQ:90:ASP:OD1	40:DQ:90:ASP:C	2.61	0.43
41:DR:77:PHE:CE1	41:DR:79:ARG:CG	3.01	0.43
43:DT:87:LEU:O	43:DT:88:LYS:C	2.61	0.43
46:DW:11:ARG:CZ	46:DW:11:ARG:HB3	2.48	0.43
51:D1:21:THR:OG1	53:D3:33:THR:HG22	2.17	0.43
1:AA:258:G:C6	1:AA:269:C:C2	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:378:G:N1	1:AA:386:C:C2	2.85	0.43
1:AA:392:C:O2'	1:AA:482:A:H2	2.01	0.43
1:AA:530:G:OP1	1:AA:531:U:H5'	2.17	0.43
1:AA:568:G:C2'	1:AA:569:C:H5'	2.48	0.43
1:AA:927:G:C6	1:AA:928:G:N7	2.86	0.43
1:AA:953:G:C6	1:AA:954:G:C4	3.05	0.43
1:AA:996:A:C2	1:AA:1046:A:H5'	2.52	0.43
1:AA:1033:G:H2'	1:AA:1034:G:H5'	2.00	0.43
1:AA:1048:G:C2	1:AA:1050:G:C5	3.06	0.43
1:AA:1270:G:H4'	1:AA:1314:C:H5'	2.00	0.43
1:AA:1355:G:N3	1:AA:1355:G:H2'	2.32	0.43
1:AA:1399:C:C2	1:AA:1401:G:C5	3.06	0.43
1:AA:1499:A:O2'	1:AA:1500:A:H5'	2.18	0.43
1:AA:1515:G:C4	1:AA:1516:G:C8	3.06	0.43
2:AB:70:VAL:HA	2:AB:92:VAL:O	2.18	0.43
2:AB:90:PHE:CG	2:AB:154:MET:HE2	2.54	0.43
2:AB:104:TRP:O	2:AB:107:VAL:N	2.51	0.43
3:AC:172:ARG:O	3:AC:203:PHE:CD2	2.71	0.43
4:AD:125:VAL:HG22	4:AD:126:ASN:N	2.32	0.43
6:AF:84:VAL:C	6:AF:85:ILE:O	2.61	0.43
10:AJ:29:ALA:O	10:AJ:33:GLY:C	2.61	0.43
10:AJ:50:THR:HG22	10:AJ:64:GLN:OE1	2.18	0.43
11:AK:60:PRO:HB2	11:AK:95:SER:CB	2.48	0.43
11:AK:98:ARG:O	11:AK:102:ALA:HB2	2.18	0.43
13:AM:2:ALA:CA	13:AM:9:ILE:HD12	2.48	0.43
13:AM:42:ASP:OD1	13:AM:42:ASP:C	2.60	0.43
16:AP:60:TRP:O	16:AP:63:GLN:N	2.50	0.43
18:AR:28:THR:O	18:AR:29:LEU:C	2.61	0.43
24:BA:127:A:OP2	52:B2:46:LYS:HE3	2.18	0.43
24:BA:248:G:N3	24:BA:2431:U:H4'	2.32	0.43
24:BA:777:G:H2'	24:BA:778:G:O4'	2.18	0.43
24:BA:830:G:H4'	24:BA:831:G:OP2	2.17	0.43
24:BA:1069:A:C6	24:BA:1073:A:N6	2.86	0.43
24:BA:1115:G:HO2'	24:BA:1116:G:P	2.31	0.43
24:BA:1168:G:H2'	24:BA:1169:A:C8	2.53	0.43
24:BA:1248:G:C8	40:BQ:2:ARG:HB2	2.54	0.43
24:BA:1413:A:N1	24:BA:1590:A:C2	2.86	0.43
24:BA:1622:G:C2	24:BA:1623:G:C8	3.05	0.43
24:BA:1675:C:H2'	24:BA:1676:A:O4'	2.18	0.43
24:BA:1931:U:O4	24:BA:1969:A:C8	2.70	0.43
24:BA:2104:C:C5	24:BA:2105:U:C4	3.05	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2306:C:O2	29:BF:149:ARG:NH1	2.50	0.43
24:BA:2413:G:C2	24:BA:2414:G:C8	3.06	0.43
24:BA:2417:C:O2'	24:BA:2418:A:H5'	2.18	0.43
24:BA:2644:G:N7	24:BA:2645:G:N1	2.67	0.43
24:BA:2807:U:O2	24:BA:2892:G:C2	2.71	0.43
25:BB:14:U:O4'	25:BB:106:G:N2	2.52	0.43
25:BB:31:C:O2'	29:BF:25:MET:HE1	2.17	0.43
25:BB:45:A:N1	25:BB:46:A:C2	2.86	0.43
25:BB:73:A:H3'	25:BB:74:U:C6	2.53	0.43
25:BB:75:G:O4'	45:BV:29:ILE:HD12	2.18	0.43
26:BC:52:HIS:HB3	26:BC:218:THR:HG23	2.00	0.43
26:BC:66:PHE:CD2	26:BC:155:ARG:NH2	2.86	0.43
26:BC:141:HIS:HB3	26:BC:194:VAL:CG1	2.45	0.43
27:BD:170:VAL:HG13	27:BD:194:PRO:HB3	2.00	0.43
28:BE:82:GLY:O	28:BE:84:THR:CA	2.65	0.43
28:BE:194:LYS:HD2	28:BE:194:LYS:HA	1.87	0.43
29:BF:27:VAL:O	29:BF:29:ARG:N	2.50	0.43
29:BF:129:MET:N	29:BF:129:MET:CE	2.82	0.43
30:BG:82:PHE:O	30:BG:133:LYS:HA	2.18	0.43
34:BK:34:GLY:O	34:BK:37:ASP:OD1	2.36	0.43
35:BL:78:ARG:HG3	35:BL:80:SER:OG	2.18	0.43
35:BL:132:ARG:CG	35:BL:142:ILE:HD13	2.48	0.43
37:BN:75:ILE:O	37:BN:79:LEU:HD13	2.18	0.43
39:BP:83:ILE:HD12	39:BP:83:ILE:N	2.33	0.43
43:BT:39:THR:CG2	43:BT:42:GLU:HB3	2.48	0.43
44:BU:66:VAL:O	44:BU:67:SER:C	2.61	0.43
45:BV:17:SER:C	45:BV:19:ARG:N	2.76	0.43
45:BV:47:VAL:O	45:BV:48:MET:C	2.60	0.43
46:BW:55:ARG:O	46:BW:55:ARG:HG3	2.17	0.43
48:BY:49:ASP:HA	48:BY:52:ARG:CG	2.48	0.43
51:B1:12:SER:CA	51:B1:48:TYR:CE2	3.01	0.43
1:CA:55:A:C5	1:CA:56:U:C5	3.07	0.43
1:CA:354:G:C2	1:CA:355:C:C6	3.07	0.43
1:CA:369:G:C2	1:CA:393:A:C4	3.06	0.43
1:CA:406:G:C2	1:CA:407:U:C5	3.07	0.43
1:CA:412:A:H4'	1:CA:413:G:C5'	2.48	0.43
1:CA:520:A:N1	1:CA:536:C:H1'	2.33	0.43
1:CA:585:G:C2	1:CA:757:U:O2	2.71	0.43
1:CA:604:G:C6	1:CA:605:U:C4	3.07	0.43
1:CA:706:A:C6	1:CA:707:U:C4	3.06	0.43
1:CA:749:A:C2	1:CA:750:C:C2	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:773:G:C2	1:CA:774:G:H1'	2.54	0.43
1:CA:1006:G:H2'	1:CA:1007:U:C6	2.53	0.43
1:CA:1035:A:N6	1:CA:1036:A:N6	2.66	0.43
1:CA:1072:G:C5	1:CA:1073:U:C4	3.06	0.43
1:CA:1192:C:C2'	1:CA:1193:G:O5'	2.67	0.43
1:CA:1412:C:H2'	1:CA:1413:A:H8	1.81	0.43
3:CC:97:VAL:HG22	3:CC:98:PRO:HD2	2.00	0.43
4:CD:17:THR:O	4:CD:18:ASP:HB3	2.18	0.43
4:CD:58:LYS:HD3	4:CD:203:LEU:HD13	1.96	0.43
4:CD:59:GLN:HA	4:CD:62:ARG:HG2	2.00	0.43
5:CE:122:ASN:O	5:CE:122:ASN:CG	2.62	0.43
7:CG:69:VAL:HG22	7:CG:70:ARG:N	2.33	0.43
11:CK:36:ASP:O	11:CK:37:ARG:C	2.60	0.43
11:CK:47:ALA:C	11:CK:57:LYS:HD3	2.42	0.43
14:CN:93:ILE:CG2	14:CN:96:LEU:HG	2.48	0.43
15:CO:11:ILE:HD12	15:CO:12:VAL:CA	2.47	0.43
16:CP:32:PHE:HD1	16:CP:33:ILE:N	2.16	0.43
55:CY:149:SER:O	55:CY:152:ASP:N	2.51	0.43
24:DA:80:G:C2	24:DA:81:G:N9	2.86	0.43
24:DA:125:A:C6	52:D2:10:LEU:HD13	2.53	0.43
24:DA:597:G:C5	24:DA:598:U:C5	3.06	0.43
24:DA:830:G:C4	24:DA:2448:A:C5	3.06	0.43
24:DA:1024:G:O6	24:DA:1025:G:N1	2.51	0.43
24:DA:1378:A:C8	24:DA:1380:G:C5	3.05	0.43
24:DA:1489:C:H3'	24:DA:1489:C:C6	2.53	0.43
24:DA:1532:A:C2	24:DA:1533:C:N1	2.85	0.43
24:DA:1566:A:O2'	24:DA:1567:G:H5'	2.18	0.43
24:DA:1794:A:C1'	24:DA:1900:A:C2	3.00	0.43
24:DA:1870:C:H5"	24:DA:1871:A:C5	2.53	0.43
24:DA:1999:C:H5"	24:DA:2723:C:O2'	2.17	0.43
24:DA:2262:U:H2'	24:DA:2263:C:C6	2.53	0.43
24:DA:2428:G:H5"	24:DA:2429:G:O5'	2.18	0.43
25:DB:46:A:C6	25:DB:47:C:N3	2.86	0.43
28:DE:109:LEU:O	28:DE:110:SER:C	2.62	0.43
29:DF:111:ARG:C	29:DF:113:PHE:H	2.26	0.43
31:DH:96:THR:C	31:DH:98:ASP:N	2.75	0.43
31:DH:146:VAL:HG22	31:DH:147:VAL:H	1.84	0.43
32:DI:56:VAL:HG13	32:DI:57:VAL:N	2.32	0.43
33:DJ:109:LEU:HD22	33:DJ:118:MET:HE3	1.99	0.43
33:DJ:110:PRO:CD	33:DJ:118:MET:CE	2.95	0.43
34:DK:57:VAL:O	34:DK:58:LEU:HB3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DO:63:LYS:N	38:DO:63:LYS:CD	2.81	0.43
39:DP:52:ARG:O	39:DP:53:GLY:C	2.60	0.43
39:DP:85:VAL:O	39:DP:85:VAL:HG22	2.18	0.43
40:DQ:45:ALA:O	40:DQ:49:ARG:HG3	2.18	0.43
41:DR:95:ASP:C	41:DR:96:VAL:HG13	2.43	0.43
49:DZ:6:ILE:CG2	49:DZ:54:VAL:HG21	2.48	0.43
1:AA:15:G:H5'	1:AA:1396:A:O2'	2.18	0.43
1:AA:255:G:H2'	1:AA:256:U:C6	2.54	0.43
1:AA:293:G:C6	1:AA:294:U:C4	3.06	0.43
1:AA:419:C:C4	1:AA:420:U:C5	3.07	0.43
1:AA:491:G:N3	1:AA:491:G:H2'	2.32	0.43
1:AA:527:G:C6	1:AA:528:C:C5	3.06	0.43
1:AA:532:A:C2	1:AA:1207:G:C4'	2.99	0.43
1:AA:779:C:C2'	1:AA:780:A:H5'	2.48	0.43
1:AA:794:A:C6	1:AA:795:C:C4	3.06	0.43
1:AA:1153:G:C2'	1:AA:1154:G:O5'	2.65	0.43
1:AA:1261:A:C5	1:AA:1275:A:C2	3.07	0.43
1:AA:1363:A:C5	1:AA:1365:G:C5	3.07	0.43
1:AA:1446:A:N3	1:AA:1446:A:C2'	2.79	0.43
3:AC:35:SER:O	3:AC:36:ASP:C	2.62	0.43
3:AC:59:ARG:HA	3:AC:64:ILE:HG22	2.00	0.43
3:AC:124:LEU:C	3:AC:127:ARG:H	2.27	0.43
3:AC:186:THR:HG22	3:AC:187:SER:N	2.33	0.43
4:AD:168:PRO:C	4:AD:170:TRP:H	2.26	0.43
4:AD:192:SER:OG	6:CF:16:GLU:CB	2.67	0.43
8:AH:39:VAL:HG12	8:AH:40:LEU:H	1.83	0.43
9:AI:28:ILE:HG12	9:AI:35:LEU:HD22	2.00	0.43
9:AI:107:ASP:OD2	9:AI:109:ARG:HB2	2.19	0.43
12:AL:47:SER:O	12:AL:48:ALA:HB2	2.19	0.43
13:AM:34:LEU:CD2	13:AM:39:ILE:HG21	2.49	0.43
13:AM:60:VAL:O	13:AM:62:LYS:N	2.51	0.43
14:AN:27:LYS:CA	14:AN:30:ILE:HB	2.48	0.43
14:AN:96:LEU:C	14:AN:96:LEU:HD12	2.43	0.43
17:AQ:7:THR:C	17:AQ:8:LEU:HD12	2.44	0.43
19:AS:16:LEU:HD12	19:AS:17:LYS:N	2.33	0.43
20:AT:63:ALA:C	20:AT:65:GLY:N	2.76	0.43
21:AU:40:LYS:N	21:AU:41:PRO:CD	2.81	0.43
24:BA:77:G:OP1	48:BY:52:ARG:NH1	2.50	0.43
24:BA:262:A:N3	24:BA:430:A:O2'	2.45	0.43
24:BA:460:A:OP2	52:B2:41:ARG:NH1	2.50	0.43
24:BA:511:U:H2'	24:BA:512:G:H5'	1.98	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:515:A:H2'	24:BA:516:C:H5'	2.00	0.43
24:BA:569:U:O2	24:BA:947:A:H4'	2.19	0.43
24:BA:681:G:C4	24:BA:682:G:C8	3.05	0.43
24:BA:840:C:O2'	24:BA:841:G:H5'	2.18	0.43
24:BA:1100:C:H2'	24:BA:1101:U:O4'	2.18	0.43
24:BA:1176:U:C2	24:BA:1177:G:C6	3.07	0.43
24:BA:1266:G:N7	42:BS:16:LYS:HE2	2.33	0.43
24:BA:1293:C:C4	24:BA:1294:U:C5	3.05	0.43
24:BA:1453:A:N3	37:BN:77:ALA:HB2	2.33	0.43
24:BA:1722:A:H2'	24:BA:1723:G:C8	2.53	0.43
24:BA:1733:G:C6	24:BA:1734:G:C5	3.06	0.43
24:BA:1802:A:HO2'	24:BA:1803:A:P	2.40	0.43
24:BA:2027:G:C4	24:BA:2028:U:C5	3.06	0.43
24:BA:2094:A:C2	24:BA:2196:C:H1'	2.54	0.43
24:BA:2114:A:N6	24:BA:2115:G:N3	2.66	0.43
24:BA:2199:A:H2'	24:BA:2200:C:O5'	2.18	0.43
24:BA:2295:C:OP2	38:BO:10:ARG:NH1	2.51	0.43
24:BA:2529:G:O4'	30:BG:174:LYS:NZ	2.43	0.43
24:BA:2681:C:OP2	27:BD:114:LYS:NZ	2.45	0.43
24:BA:2757:A:C2	24:BA:2758:A:N7	2.86	0.43
24:BA:2861:U:C2	24:BA:2862:G:N7	2.87	0.43
57:BA:3162:NMY:N19	57:BA:3162:NMY:O21	2.52	0.43
57:BA:3163:NMY:H2	57:BA:3163:NMY:H172	1.99	0.43
25:BB:43:C:H2'	29:BF:91:ARG:HE	1.82	0.43
25:BB:98:G:O6	45:BV:14:LYS:N	2.52	0.43
26:BC:184:GLU:O	26:BC:187:CYS:SG	2.74	0.43
26:BC:224:MET:O	26:BC:232:GLY:CA	2.65	0.43
30:BG:10:VAL:HG23	30:BG:14:VAL:CG1	2.48	0.43
31:BH:48:GLU:O	31:BH:51:ARG:HG2	2.18	0.43
34:BK:103:VAL:HG22	34:BK:104:THR:N	2.34	0.43
35:BL:23:ILE:O	35:BL:24:GLY:C	2.61	0.43
36:BM:10:ARG:CZ	36:BM:11:LYS:NZ	2.81	0.43
37:BN:12:ARG:HD3	37:BN:16:HIS:CD2	2.53	0.43
42:BS:45:VAL:O	42:BS:46:LEU:C	2.58	0.43
42:BS:55:ILE:C	42:BS:55:ILE:HD12	2.44	0.43
44:BU:38:ILE:HG23	44:BU:39:ASN:H	1.83	0.43
45:BV:69:GLU:CD	45:BV:69:GLU:N	2.74	0.43
45:BV:77:VAL:HG23	45:BV:89:ILE:HG23	1.99	0.43
46:BW:24:LYS:CE	46:BW:36:ILE:O	2.66	0.43
46:BW:24:LYS:HZ1	46:BW:35:SER:HB3	1.80	0.43
49:BZ:11:SER:O	49:BZ:53:MET:HE3	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BZ:22:THR:O	49:BZ:25:GLY:N	2.50	0.43
51:B1:27:ARG:C	51:B1:28:THR:CG2	2.91	0.43
52:B2:9:VAL:O	52:B2:13:ASN:OD1	2.36	0.43
53:B3:30:HIS:CA	53:B3:32:LEU:HD13	2.48	0.43
54:B4:2:LYS:O	54:B4:35:GLN:HA	2.18	0.43
1:CA:16:A:H2'	1:CA:17:U:C5'	2.48	0.43
1:CA:17:U:O2	1:CA:18:C:C2	2.72	0.43
1:CA:109:A:C8	1:CA:326:G:H2'	2.53	0.43
1:CA:340:U:O2'	1:CA:341:C:H5'	2.18	0.43
1:CA:520:A:N7	1:CA:521:G:C8	2.86	0.43
1:CA:608:A:C6	1:CA:609:A:C5	3.06	0.43
1:CA:843:U:OP1	1:CA:846:G:N1	2.50	0.43
1:CA:1005:A:N6	1:CA:1024:G:O2'	2.51	0.43
1:CA:1048:G:P	14:CN:3:GLN:HG2	2.59	0.43
1:CA:1110:A:H2'	1:CA:1111:A:C8	2.54	0.43
1:CA:1228:C:OP1	13:CM:115:PRO:HG2	2.18	0.43
1:CA:1261:A:N6	1:CA:1275:A:C8	2.86	0.43
1:CA:1310:G:N2	1:CA:1328:C:C2	2.86	0.43
1:CA:1345:U:C4	1:CA:1377:A:C2	3.06	0.43
5:CE:108:GLY:O	5:CE:109:GLY:C	2.61	0.43
6:CF:36:ILE:HD12	6:CF:62:MET:HE3	2.00	0.43
6:CF:88:MET:HE3	6:CF:90:MET:CE	2.47	0.43
7:CG:13:LEU:HD12	7:CG:15:ASP:N	2.33	0.43
7:CG:92:ARG:O	7:CG:96:ARG:HB2	2.17	0.43
7:CG:141:VAL:O	7:CG:145:ALA:N	2.51	0.43
10:CJ:7:ARG:C	10:CJ:8:ILE:HG12	2.42	0.43
11:CK:86:VAL:O	11:CK:113:VAL:N	2.44	0.43
12:CL:63:VAL:CG1	12:CL:64:THR:N	2.76	0.43
12:CL:82:ILE:CG2	12:CL:95:TYR:CE1	2.99	0.43
15:CO:9:ALA:HB3	15:CO:10:LYS:HD3	2.00	0.43
15:CO:80:GLN:C	15:CO:83:GLU:OE2	2.62	0.43
16:CP:54:LEU:C	16:CP:56:ARG:N	2.75	0.43
17:CQ:59:VAL:HG12	17:CQ:60:GLU:O	2.18	0.43
20:CT:73:ALA:C	20:CT:75:HIS:N	2.76	0.43
22:CV:24:G:C5	22:CV:25:C:C5	3.07	0.43
55:CY:20:PHE:CD1	55:CY:21:LYS:N	2.87	0.43
55:CY:114:THR:O	55:CY:115:LYS:C	2.61	0.43
55:CY:165:ASP:O	55:CY:168:ILE:N	2.51	0.43
24:DA:68:G:H2'	24:DA:69:C:O4'	2.18	0.43
24:DA:135:U:O2'	24:DA:136:G:H5'	2.18	0.43
24:DA:260:G:C6	24:DA:261:G:C8	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:275:C:O2	24:DA:276:U:O2'	2.19	0.43
24:DA:310:A:O2'	24:DA:311:A:P	2.76	0.43
24:DA:354:A:C6	24:DA:355:U:N3	2.87	0.43
24:DA:497:A:H2'	24:DA:498:G:O4'	2.18	0.43
24:DA:579:G:H4'	24:DA:2017:U:H2'	1.98	0.43
24:DA:581:C:H2'	24:DA:582:A:H8	1.83	0.43
24:DA:638:G:H2'	24:DA:639:U:O4'	2.18	0.43
24:DA:673:C:H4'	28:DE:77:ILE:HD13	2.00	0.43
24:DA:1038:G:H2'	24:DA:1039:A:C8	2.53	0.43
24:DA:1337:G:C2'	24:DA:1338:G:H5'	2.49	0.43
24:DA:1442:U:H2'	24:DA:1443:U:C6	2.53	0.43
24:DA:1568:G:O3'	26:DC:58:LYS:NZ	2.46	0.43
24:DA:1838:C:H4'	24:DA:1839:G:N7	2.33	0.43
24:DA:2104:C:H5"	24:DA:2105:U:P	2.58	0.43
24:DA:2195:U:C4	24:DA:2196:C:C5	3.06	0.43
24:DA:2248:C:C2'	24:DA:2249:U:H5'	2.47	0.43
24:DA:2249:U:H4'	24:DA:2275:C:C5	2.54	0.43
24:DA:2359:C:O2'	53:D3:53:ASP:CG	2.59	0.43
24:DA:2482:A:N3	36:DM:51:ARG:NH2	2.66	0.43
24:DA:2483:C:O3'	36:DM:44:ARG:CZ	2.66	0.43
24:DA:2732:G:OP1	27:DD:208:LYS:HE2	2.18	0.43
24:DA:2744:G:H2'	24:DA:2745:C:H5'	1.98	0.43
24:DA:2903:U:O2	24:DA:2903:U:O4'	2.35	0.43
26:DC:164:VAL:HG12	26:DC:172:THR:O	2.19	0.43
26:DC:226:PRO:C	26:DC:228:ASP:H	2.26	0.43
30:DG:11:PRO:O	30:DG:12:ALA:C	2.60	0.43
30:DG:165:ASP:O	30:DG:166:GLU:C	2.61	0.43
31:DH:29:PHE:O	31:DH:33:GLN:NE2	2.52	0.43
31:DH:134:VAL:CG1	31:DH:135:HIS:N	2.82	0.43
32:DI:129:GLU:HG3	32:DI:130:GLY:N	2.33	0.43
35:DL:118:THR:O	35:DL:120:VAL:HG12	2.18	0.43
37:DN:115:LEU:O	37:DN:116:VAL:C	2.61	0.43
37:DN:119:SER:O	37:DN:120:GLU:CD	2.61	0.43
38:DO:76:LYS:O	38:DO:79:ALA:N	2.42	0.43
41:DR:72:VAL:O	41:DR:72:VAL:CG2	2.67	0.43
42:DS:29:VAL:C	42:DS:31:GLN:N	2.76	0.43
45:DV:77:VAL:CG2	45:DV:78:GLN:N	2.81	0.43
46:DW:50:ASN:O	46:DW:50:ASN:OD1	2.36	0.43
48:DY:18:LEU:CD1	48:DY:22:LEU:HD12	2.47	0.43
50:D0:45:ASP:OD1	50:D0:45:ASP:N	2.51	0.43
51:D1:10:LEU:HD21	51:D1:33:LEU:HD21	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:D3:6:VAL:O	53:D3:7:ARG:C	2.61	0.43
1:AA:8:A:C4'	5:AE:107:ALA:HA	2.48	0.43
1:AA:55:A:C2'	1:AA:56:U:H5'	2.48	0.43
1:AA:56:U:N1	31:DH:91:PHE:CE2	2.87	0.43
1:AA:77:A:H2'	1:AA:78:A:C8	2.54	0.43
1:AA:94:G:O4'	1:AA:95:C:C5	2.71	0.43
1:AA:146:G:C2'	1:AA:147:G:H5'	2.48	0.43
1:AA:185:U:O2	1:AA:185:U:H2'	2.17	0.43
1:AA:412:A:O5'	11:CK:16:VAL:CG1	2.67	0.43
1:AA:448:A:C8	1:AA:487:A:N1	2.86	0.43
1:AA:599:C:P	8:AH:86:TYR:HD2	2.40	0.43
1:AA:600:A:O5'	8:AH:88:ARG:HD2	2.19	0.43
1:AA:600:A:C2	1:AA:601:G:C4	3.05	0.43
1:AA:660:C:C2'	1:AA:661:G:O4'	2.67	0.43
1:AA:786:G:C6	1:AA:787:A:N7	2.86	0.43
1:AA:790:A:C8	1:AA:791:G:N7	2.86	0.43
1:AA:1138:G:O2'	1:AA:1140:C:OP1	2.36	0.43
1:AA:1215:G:C2	1:AA:1216:A:C8	3.06	0.43
1:AA:1350:A:N7	9:AI:120:LYS:NZ	2.66	0.43
2:AB:20:THR:HG23	2:AB:21:ARG:N	2.33	0.43
2:AB:47:VAL:C	2:AB:49:MET:N	2.76	0.43
2:AB:91:PHE:HE1	2:AB:150:GLY:CA	2.31	0.43
2:AB:120:GLN:O	2:AB:121:SER:C	2.60	0.43
2:AB:175:GLU:O	2:AB:179:LEU:HD23	2.17	0.43
3:AC:2:GLY:O	3:AC:3:GLN:CG	2.67	0.43
3:AC:12:LEU:C	3:AC:14:ILE:H	2.26	0.43
3:AC:43:LEU:O	3:AC:45:LYS:N	2.51	0.43
3:AC:57:ILE:O	3:AC:58:GLU:CG	2.67	0.43
4:AD:125:VAL:HG22	4:AD:126:ASN:H	1.83	0.43
4:AD:132:ILE:O	4:AD:132:ILE:HG23	2.18	0.43
4:AD:165:ARG:O	4:AD:166:GLU:C	2.60	0.43
6:AF:53:LYS:O	6:AF:54:LEU:HB3	2.19	0.43
9:AI:54:LEU:O	9:AI:55:VAL:CG1	2.65	0.43
9:AI:87:LEU:C	9:AI:87:LEU:CD1	2.92	0.43
9:AI:105:THR:HG23	9:AI:106:ARG:N	2.34	0.43
10:AJ:44:THR:HG22	10:AJ:70:HIS:HA	2.01	0.43
11:AK:94:GLU:C	11:AK:96:THR:H	2.26	0.43
12:AL:34:CYS:HA	12:AL:55:VAL:HG23	2.01	0.43
15:AO:11:ILE:C	15:AO:13:SER:N	2.72	0.43
15:AO:57:LEU:HD12	15:AO:58:ARG:N	2.32	0.43
16:AP:7:ALA:CB	16:AP:28:ARG:O	2.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:72:SER:HB2	17:AQ:73:TRP:CZ3	2.52	0.43
19:AS:42:PRO:C	19:AS:44:MET:H	2.27	0.43
20:AT:12:ILE:O	20:AT:13:GLN:C	2.59	0.43
22:AV:18:G:C6	22:AV:58:A:C6	3.07	0.43
24:BA:121:G:H5"	24:BA:149:A:H5'	2.00	0.43
24:BA:273:G:C6	24:BA:274:C:C4	3.06	0.43
24:BA:685:A:H4'	24:BA:686:U:O5'	2.17	0.43
24:BA:729:G:OP2	26:BC:206:LYS:HE3	2.19	0.43
24:BA:749:A:C5	24:BA:750:A:C8	3.06	0.43
24:BA:841:G:H2'	24:BA:842:U:H6	1.82	0.43
24:BA:945:A:C4	24:BA:2448:A:C2	3.07	0.43
24:BA:956:G:N7	36:BM:14:LYS:HE3	2.33	0.43
24:BA:1070:A:N7	24:BA:1096:A:O3'	2.51	0.43
24:BA:1668:A:O2'	24:BA:1674:G:C8	2.67	0.43
24:BA:1744:A:C2	24:BA:1745:A:H1'	2.54	0.43
24:BA:2307:G:N2	24:BA:2311:A:N7	2.67	0.43
24:BA:2337:G:C6	24:BA:2338:C:C4	3.06	0.43
24:BA:2488:G:C4	24:BA:2489:U:C5	3.06	0.43
24:BA:2603:G:C4	24:BA:2604:U:C6	3.07	0.43
24:BA:2684:U:OP2	39:BP:50:ARG:NH1	2.51	0.43
24:BA:2834:G:C2'	24:BA:2835:A:H5"	2.49	0.43
25:BB:6:G:C6	25:BB:7:G:C6	3.06	0.43
25:BB:75:G:H4'	45:BV:29:ILE:CD1	2.49	0.43
26:BC:50:THR:OG1	26:BC:53:ILE:CD1	2.66	0.43
26:BC:112:GLY:O	26:BC:113:ASP:C	2.61	0.43
26:BC:254:LYS:HE3	26:BC:255:LYS:N	2.33	0.43
28:BE:8:ALA:O	28:BE:10:SER:CB	2.66	0.43
28:BE:44:ARG:O	28:BE:45:ALA:CB	2.65	0.43
30:BG:155:PRO:O	30:BG:170:THR:HG22	2.19	0.43
32:BI:30:GLN:OE1	32:BI:30:GLN:N	2.47	0.43
35:BL:122:VAL:HB	35:BL:142:ILE:HG23	1.99	0.43
36:BM:97:GLN:N	36:BM:97:GLN:OE1	2.50	0.43
38:BO:48:LEU:N	38:BO:48:LEU:CD2	2.82	0.43
41:BR:16:GLU:HA	41:BR:98:ILE:CG2	2.48	0.43
43:BT:44:LYS:HA	43:BT:47:VAL:HB	2.00	0.43
46:BW:19:LYS:HG3	46:BW:41:ARG:HH12	1.82	0.43
1:CA:158:G:C5	1:CA:159:G:N7	2.86	0.43
1:CA:227:G:H2'	1:CA:228:A:O4'	2.19	0.43
1:CA:257:G:N7	59:CA:1721:HOH:O	2.37	0.43
1:CA:322:C:H4'	20:CT:18:ARG:HG3	2.00	0.43
1:CA:552:U:C2	1:CA:553:A:C8	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:571:U:O2	1:CA:918:A:H5'	2.19	0.43
1:CA:625:U:H6	1:CA:625:U:H3'	1.84	0.43
1:CA:978:A:H4'	1:CA:1322:C:C5	2.54	0.43
1:CA:1074:G:H4'	2:CB:102:THR:HG22	1.99	0.43
1:CA:1087:G:H2'	1:CA:1088:G:H5'	2.00	0.43
1:CA:1137:C:O4'	1:CA:1138:G:N2	2.52	0.43
1:CA:1256:A:C6	1:CA:1277:C:C4	3.06	0.43
2:CB:96:TRP:NE1	2:CB:172:ALA:HB2	2.34	0.43
2:CB:133:GLU:O	2:CB:137:ARG:HB3	2.18	0.43
2:CB:147:SER:O	2:CB:148:LEU:CB	2.66	0.43
3:CC:22:TRP:CD1	3:CC:22:TRP:C	2.95	0.43
3:CC:116:VAL:CG1	3:CC:117:ALA:N	2.82	0.43
4:CD:109:ALA:O	4:CD:110:THR:C	2.61	0.43
4:CD:162:ALA:O	4:CD:165:ARG:HG3	2.18	0.43
4:CD:194:ASP:OD1	4:CD:194:ASP:N	2.49	0.43
5:CE:155:ALA:C	5:CE:157:ARG:N	2.74	0.43
6:CF:63:ASN:CB	6:CF:96:VAL:HG23	2.48	0.43
9:CI:53:GLU:O	9:CI:54:LEU:C	2.61	0.43
10:CJ:87:LEU:HD12	10:CJ:87:LEU:C	2.43	0.43
10:CJ:87:LEU:C	10:CJ:89:ARG:N	2.76	0.43
13:CM:9:ILE:HG22	13:CM:9:ILE:O	2.17	0.43
13:CM:80:LEU:CA	13:CM:83:LEU:HD21	2.48	0.43
13:CM:96:PRO:N	13:CM:109:ARG:CZ	2.82	0.43
14:CN:18:LYS:O	14:CN:22:LYS:CE	2.67	0.43
14:CN:20:PHE:CD1	14:CN:21:ALA:N	2.87	0.43
15:CO:89:ARG:HD3	24:DA:714:U:C5	2.53	0.43
19:CS:30:PRO:O	19:CS:49:ILE:CA	2.67	0.43
55:CY:152:ASP:O	55:CY:155:ARG:CG	2.66	0.43
24:DA:137:U:C4	24:DA:140:C:H1'	2.52	0.43
24:DA:831:G:C5	24:DA:832:U:C5	3.07	0.43
24:DA:846:U:O2'	24:DA:847:U:C6	2.71	0.43
24:DA:857:G:H2'	24:DA:858:G:O4'	2.18	0.43
24:DA:929:U:N3	24:DA:930:G:N7	2.66	0.43
24:DA:1362:C:C6	24:DA:1362:C:C3'	3.01	0.43
24:DA:1419:A:OP1	24:DA:1419:A:C4'	2.62	0.43
24:DA:1600:C:O2'	24:DA:1601:G:H5'	2.18	0.43
24:DA:1809:A:C6	24:DA:1810:A:N1	2.87	0.43
24:DA:1815:A:C8	24:DA:1817:G:C4	3.06	0.43
24:DA:1824:G:N3	26:DC:251:THR:HG21	2.33	0.43
24:DA:1926:U:O2	24:DA:1928:A:H3'	2.18	0.43
24:DA:2028:U:C4	24:DA:2029:G:C6	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2098:U:H2'	24:DA:2099:U:O4'	2.19	0.43
24:DA:2138:G:H2'	24:DA:2139:U:O4'	2.19	0.43
24:DA:2190:G:C2	24:DA:2191:A:C5	3.06	0.43
24:DA:2228:G:OP1	26:DC:260:LYS:HD2	2.18	0.43
24:DA:2262:U:OP2	46:DW:16:SER:OG	2.32	0.43
24:DA:2415:G:H2'	24:DA:2416:C:H6	1.84	0.43
24:DA:2531:A:OP1	30:DG:174:LYS:CE	2.67	0.43
24:DA:2549:G:N2	24:DA:2550:G:C4	2.86	0.43
24:DA:2635:A:C6	24:DA:2636:C:C4	3.06	0.43
24:DA:2780:G:N1	33:DJ:102:GLU:OE2	2.51	0.43
24:DA:2802:G:H2'	24:DA:2803:G:O4'	2.18	0.43
57:DA:3188:NMY:C17	57:DA:3188:NMY:H2	2.47	0.43
26:DC:128:THR:CG2	26:DC:190:THR:OG1	2.66	0.43
29:DF:40:GLY:CA	29:DF:84:ILE:HD11	2.46	0.43
29:DF:59:ILE:HG12	29:DF:137:PHE:CD2	2.52	0.43
33:DJ:29:ALA:CB	33:DJ:108:MET:HE3	2.48	0.43
34:DK:24:VAL:HG21	34:DK:32:TYR:C	2.43	0.43
38:DO:108:ASP:C	38:DO:111:ARG:H	2.24	0.43
40:DQ:80:ASN:HA	40:DQ:83:LYS:CG	2.48	0.43
44:DU:28:LEU:O	44:DU:29:SER:C	2.61	0.43
44:DU:32:LYS:CE	44:DU:65:GLN:HA	2.48	0.43
48:DY:3:ALA:C	48:DY:5:GLU:H	2.27	0.43
48:DY:28:LEU:O	48:DY:29:ARG:C	2.62	0.43
50:D0:29:VAL:HA	50:D0:36:LYS:HA	1.99	0.43
1:AA:34:C:C2	1:AA:35:G:C8	3.07	0.43
1:AA:164:G:C6	1:AA:165:G:C5	3.06	0.43
1:AA:364:A:C2	1:AA:365:U:C5	3.06	0.43
1:AA:396:C:C3'	1:AA:397:A:H5"	2.48	0.43
1:AA:504:C:C1'	1:AA:510:A:C2	3.01	0.43
1:AA:541:G:O2'	4:AD:40:GLN:HB3	2.18	0.43
1:AA:763:G:O2'	1:AA:764:C:H5'	2.18	0.43
1:AA:805:C:C2	1:AA:806:C:H5	2.35	0.43
1:AA:898:G:C2	1:AA:902:G:C6	3.06	0.43
1:AA:978:A:N7	1:AA:1318:A:C6	2.86	0.43
1:AA:1055:A:H2'	3:AC:156:ARG:HD3	2.00	0.43
1:AA:1058:G:H2'	1:AA:1059:C:O4'	2.19	0.43
1:AA:1102:A:C6	1:AA:1103:C:C4	3.07	0.43
1:AA:1155:A:H2'	1:AA:1156:G:C1'	2.49	0.43
1:AA:1220:G:H4'	19:AS:34:TRP:O	2.19	0.43
1:AA:1268:G:O2'	1:AA:1269:A:O4'	2.33	0.43
1:AA:1494:G:H8	24:BA:1913:A:C5	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:1655:NMY:O21	57:AA:1655:NMY:N23	2.52	0.43
3:AC:30:ALA:O	3:AC:32:ASN:N	2.51	0.43
3:AC:34:ASP:O	3:AC:38:LYS:CB	2.67	0.43
3:AC:38:LYS:HG2	3:AC:38:LYS:O	2.19	0.43
4:AD:70:ARG:O	4:AD:74:ASN:OD1	2.37	0.43
4:AD:89:ASN:C	4:AD:91:LEU:N	2.76	0.43
4:AD:182:PHE:N	4:AD:182:PHE:HD1	2.14	0.43
4:AD:188:ARG:O	4:AD:189:SER:C	2.61	0.43
8:AH:10:MET:O	8:AH:12:THR:N	2.52	0.43
12:AL:56:ARG:O	12:AL:56:ARG:CG	2.65	0.43
12:AL:57:LEU:CB	12:AL:61:PHE:HB2	2.49	0.43
13:AM:12:HIS:O	13:AM:13:LYS:HB2	2.18	0.43
13:AM:30:SER:O	13:AM:34:LEU:HD12	2.18	0.43
13:AM:56:LEU:O	13:AM:57:ARG:C	2.61	0.43
19:AS:41:PHE:O	19:AS:44:MET:HG3	2.18	0.43
24:BA:464:U:H2'	24:BA:465:G:O4'	2.19	0.43
24:BA:783:A:C2'	24:BA:784:G:O5'	2.66	0.43
24:BA:974:G:C6	24:BA:1186:G:C6	3.07	0.43
24:BA:977:G:C2	24:BA:987:C:C2	3.05	0.43
24:BA:1232:G:C5	24:BA:1233:C:C5	3.06	0.43
24:BA:1398:C:OP1	43:BT:59:ASN:ND2	2.50	0.43
24:BA:1419:A:H2'	24:BA:1421:G:N7	2.33	0.43
24:BA:1423:G:C6	24:BA:1424:G:C5	3.06	0.43
24:BA:1444:G:C5	24:BA:1445:G:N7	2.86	0.43
24:BA:1495:A:N1	24:BA:1496:A:C6	2.86	0.43
24:BA:1512:C:H2'	24:BA:1513:U:C5'	2.47	0.43
24:BA:1782:U:H2'	24:BA:1783:A:H5'	1.99	0.43
24:BA:1885:A:N1	24:BA:1886:U:C2	2.86	0.43
24:BA:1917:U:H2'	24:BA:1918:A:H5'	2.00	0.43
24:BA:1956:U:H1'	24:BA:2552:U:OP1	2.18	0.43
24:BA:2109:U:OP1	24:BA:2150:C:H5'	2.18	0.43
24:BA:2206:C:O2'	24:BA:2207:C:H5'	2.18	0.43
24:BA:2334:U:H5'	38:BO:12:THR:HG21	2.01	0.43
24:BA:2360:G:N2	24:BA:2428:G:C6	2.87	0.43
24:BA:2662:A:C5	24:BA:2663:G:H1'	2.54	0.43
24:BA:2834:G:H2'	24:BA:2835:A:H5"	2.00	0.43
25:BB:42:C:C5	29:BF:65:LEU:HD22	2.54	0.43
27:BD:37:VAL:HG12	27:BD:38:LYS:N	2.33	0.43
28:BE:119:ILE:HG22	28:BE:187:VAL:HG23	2.01	0.43
30:BG:87:GLN:C	30:BG:88:LEU:HD12	2.44	0.43
31:BH:27:ARG:CZ	47:BX:55:MET:HE3	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:29:PHE:C	31:BH:32:PRO:HD2	2.44	0.43
31:BH:113:SER:O	31:BH:114:GLU:O	2.37	0.43
33:BJ:29:ALA:HB1	33:BJ:108:MET:HE3	1.99	0.43
34:BK:2:ILE:HG13	34:BK:6:THR:HB	2.01	0.43
35:BL:56:PRO:HD2	35:BL:59:ARG:HD3	2.00	0.43
35:BL:77:ILE:O	35:BL:110:VAL:O	2.37	0.43
35:BL:91:ASP:OD1	35:BL:91:ASP:C	2.61	0.43
37:BN:9:GLN:O	37:BN:10:LEU:HB2	2.18	0.43
38:BO:94:ARG:O	38:BO:95:SER:C	2.61	0.43
38:BO:99:TYR:O	38:BO:100:HIS:CB	2.66	0.43
42:BS:56:ALA:O	42:BS:58:ALA:N	2.52	0.43
42:BS:80:PRO:O	42:BS:100:THR:OG1	2.27	0.43
42:BS:84:ARG:HB2	42:BS:96:ILE:CG2	2.49	0.43
45:BV:44:HIS:NE2	45:BV:85:LYS:HG3	2.33	0.43
46:BW:13:GLY:C	46:BW:14:ARG:HG3	2.44	0.43
1:CA:44:A:C2	1:CA:45:G:C4	3.07	0.43
1:CA:158:G:C4	1:CA:159:G:C8	3.05	0.43
1:CA:297:G:C4	1:CA:299:G:OP2	2.72	0.43
1:CA:413:G:O6	4:CD:32:CYS:HA	2.18	0.43
1:CA:490:C:H2'	1:CA:491:G:O4'	2.19	0.43
1:CA:530:G:N3	1:CA:530:G:C2'	2.81	0.43
1:CA:585:G:C6	1:CA:586:C:C4	3.06	0.43
1:CA:619:U:C2	4:CD:131:ASN:ND2	2.87	0.43
1:CA:706:A:HO2'	11:CK:33:THR:HG1	1.66	0.43
1:CA:792:A:N3	1:CA:794:A:C5	2.86	0.43
1:CA:933:G:OP2	7:CG:3:ARG:CD	2.66	0.43
1:CA:1049:U:H4'	1:CA:1050:G:H5"	1.99	0.43
1:CA:1158:C:C4	1:CA:1160:G:C8	3.06	0.43
1:CA:1242:G:N1	1:CA:1243:C:H5	2.16	0.43
1:CA:1280:A:O2'	1:CA:1281:C:H5'	2.19	0.43
1:CA:1432:G:P	39:DP:105:LYS:HD3	2.57	0.43
1:CA:1447:A:O2'	1:CA:1448:C:O5'	2.26	0.43
2:CB:142:GLU:C	2:CB:144:LEU:N	2.77	0.43
4:CD:165:ARG:C	4:CD:167:LYS:H	2.26	0.43
5:CE:102:GLY:O	5:CE:103:THR:CB	2.66	0.43
5:CE:110:ALA:O	5:CE:113:ALA:HB3	2.19	0.43
9:CI:43:THR:HG23	9:CI:43:THR:O	2.18	0.43
9:CI:105:THR:HG22	9:CI:106:ARG:N	2.33	0.43
11:CK:72:ASP:O	11:CK:72:ASP:CG	2.61	0.43
11:CK:94:GLU:O	11:CK:96:THR:N	2.52	0.43
13:CM:16:VAL:C	13:CM:17:ILE:CG1	2.91	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:11:ILE:CD1	15:CO:31:LEU:HD11	2.49	0.43
15:CO:56:LEU:C	15:CO:59:MET:HG2	2.43	0.43
16:CP:6:LEU:CD1	16:CP:17:TYR:CD2	2.95	0.43
22:CV:28:G:C6	22:CV:29:G:C6	3.06	0.43
22:CV:64:A:C5	22:CV:65:G:C8	3.06	0.43
55:CY:52:ARG:O	55:CY:54:LEU:N	2.51	0.43
24:DA:3:U:O5'	24:DA:3:U:H6	2.01	0.43
24:DA:103:A:H2'	24:DA:104:A:O4'	2.18	0.43
24:DA:322:A:H5'	24:DA:340:A:C1'	2.48	0.43
24:DA:389:G:C8	24:DA:2413:G:H4'	2.53	0.43
24:DA:446:G:OP2	40:DQ:2:ARG:CZ	2.66	0.43
24:DA:452:G:C2'	24:DA:453:A:O5'	2.66	0.43
24:DA:452:G:C2	24:DA:453:A:C2	3.07	0.43
24:DA:592:A:C5	24:DA:593:U:C5	3.06	0.43
24:DA:747:U:C4	24:DA:2613:U:C4	3.06	0.43
24:DA:855:G:C5	24:DA:923:G:C2	3.06	0.43
24:DA:997:G:C2'	24:DA:998:C:H5'	2.48	0.43
24:DA:1078:U:H4'	24:DA:1079:C:C1'	2.48	0.43
24:DA:1154:G:H5"	24:DA:1155:A:OP2	2.18	0.43
24:DA:1196:C:H1'	24:DA:1226:A:C4	2.53	0.43
24:DA:1356:G:C2	24:DA:1376:C:O2	2.71	0.43
24:DA:1413:A:C2	24:DA:1414:C:O2	2.72	0.43
24:DA:1459:G:C5	24:DA:1461:C:C4	3.06	0.43
24:DA:1795:C:C4	24:DA:1796:U:C4	3.06	0.43
24:DA:2101:A:N3	24:DA:2189:U:C2	2.86	0.43
24:DA:2194:U:H2'	24:DA:2195:U:O4'	2.19	0.43
24:DA:2315:G:HO2'	29:DF:124:ARG:NH1	2.15	0.43
24:DA:2433:A:H5"	24:DA:2434:A:P	2.58	0.43
24:DA:2534:A:H2'	24:DA:2535:G:O5'	2.18	0.43
24:DA:2599:G:O2'	24:DA:2600:A:H5'	2.18	0.43
24:DA:2690:U:O2'	24:DA:2872:A:H1'	2.19	0.43
24:DA:2776:A:H4'	24:DA:2777:G:H5"	2.00	0.43
24:DA:2822:G:O2'	24:DA:2824:C:OP2	2.31	0.43
24:DA:2825:G:C3'	24:DA:2826:A:C5'	2.91	0.43
24:DA:2850:A:N7	24:DA:2868:A:O2'	2.46	0.43
26:DC:22:GLU:OE1	26:DC:22:GLU:N	2.43	0.43
26:DC:261:ARG:HB3	26:DC:261:ARG:NH1	2.33	0.43
28:DE:105:LEU:O	28:DE:106:LYS:C	2.60	0.43
30:DG:102:ILE:HD12	30:DG:103:ASN:N	2.33	0.43
31:DH:119:ASN:C	31:DH:121:VAL:N	2.76	0.43
32:DI:125:THR:O	32:DI:127:SER:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DJ:57:LEU:O	33:DJ:58:ASN:HB2	2.18	0.43
33:DJ:76:HIS:HE1	33:DJ:85:LYS:HB2	1.82	0.43
38:DO:108:ASP:HA	38:DO:111:ARG:CG	2.49	0.43
40:DQ:30:VAL:O	40:DQ:31:TYR:C	2.61	0.43
42:DS:18:ARG:HA	42:DS:76:VAL:HG21	1.99	0.43
45:DV:13:GLY:O	45:DV:14:LYS:O	2.36	0.43
50:D0:54:ILE:CG2	50:D0:55:ALA:N	2.80	0.43
1:AA:145:G:N2	1:AA:178:C:N3	2.66	0.43
1:AA:273:U:O4	1:AA:274:A:N6	2.51	0.43
1:AA:503:C:O2	1:AA:510:A:C2	2.72	0.43
1:AA:649:A:H3'	1:AA:650:G:H5"	1.99	0.43
1:AA:712:A:C2	1:AA:713:G:N3	2.86	0.43
1:AA:772:U:C2'	1:AA:773:G:H5'	2.49	0.43
1:AA:927:G:C2	1:AA:1391:U:O2	2.71	0.43
1:AA:954:G:C5	1:AA:955:U:C5	3.06	0.43
1:AA:978:A:C5	1:AA:1318:A:C6	3.07	0.43
1:AA:1122:U:C2'	1:AA:1123:U:H5'	2.49	0.43
1:AA:1157:A:C4'	1:AA:1158:C:C2	3.02	0.43
1:AA:1159:U:H4'	1:AA:1160:G:H5'	2.00	0.43
1:AA:1220:G:C4'	19:AS:34:TRP:HB3	2.48	0.43
1:AA:1379:G:C6	1:AA:1380:U:C4	3.06	0.43
1:AA:1409:C:C6	1:AA:1409:C:C3'	3.02	0.43
1:AA:1438:G:C2	1:AA:1439:G:C8	3.07	0.43
2:AB:23:TRP:CH2	2:AB:25:PRO:HB3	2.54	0.43
2:AB:121:SER:O	2:AB:126:PHE:HB3	2.19	0.43
2:AB:188:ASP:O	2:AB:189:THR:C	2.62	0.43
3:AC:12:LEU:N	3:AC:12:LEU:HD23	2.33	0.43
3:AC:173:VAL:HG13	3:AC:182:ILE:HD11	2.00	0.43
4:AD:54:GLN:O	4:AD:203:LEU:HD23	2.19	0.43
4:AD:98:LEU:HD13	4:AD:130:VAL:CG1	2.49	0.43
4:AD:181:THR:O	4:AD:182:PHE:CB	2.66	0.43
5:AE:149:SER:CB	5:AE:152:MET:HB3	2.48	0.43
9:AI:49:ARG:O	9:AI:50:GLN:C	2.61	0.43
10:AJ:15:HIS:CG	10:AJ:16:ARG:N	2.87	0.43
11:AK:46:THR:C	11:AK:48:GLY:H	2.26	0.43
11:AK:128:ARG:C	11:AK:129:VAL:HG22	2.44	0.43
13:AM:9:ILE:HG21	29:BF:142:TYR:CE1	2.54	0.43
13:AM:39:ILE:C	13:AM:39:ILE:HD12	2.44	0.43
13:AM:88:GLY:C	13:AM:90:ARG:N	2.76	0.43
17:AQ:19:LYS:HE3	17:AQ:47:HIS:NE2	2.33	0.43
18:AR:56:ALA:N	18:AR:59:ILE:HG22	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:90:U:N3	24:BA:91:A:C5	2.86	0.43
24:BA:191:A:H2'	24:BA:192:C:O4'	2.19	0.43
24:BA:201:C:C5	24:BA:202:U:C5	3.06	0.43
24:BA:218:A:C5	24:BA:219:A:C5	3.06	0.43
24:BA:463:G:N2	24:BA:466:A:C8	2.87	0.43
24:BA:499:U:O3'	44:BU:42:LYS:CD	2.66	0.43
24:BA:998:C:H2'	24:BA:999:U:O5'	2.18	0.43
24:BA:1139:G:O3'	33:BJ:26:GLY:HA3	2.18	0.43
24:BA:1186:G:O6	24:BA:1187:G:C2	2.72	0.43
24:BA:1517:G:C2	24:BA:1518:C:C2	3.06	0.43
24:BA:1553:A:C6	24:BA:1555:G:C4	3.07	0.43
24:BA:1670:C:H2'	24:BA:1671:U:O4'	2.18	0.43
24:BA:2024:G:O3'	27:BD:154:LYS:NZ	2.51	0.43
24:BA:2037:A:H2'	24:BA:2038:G:C8	2.53	0.43
24:BA:2038:G:C6	24:BA:2039:U:C4	3.06	0.43
24:BA:2326:C:C4'	24:BA:2327:A:OP1	2.66	0.43
24:BA:2428:G:C5'	24:BA:2429:G:O5'	2.66	0.43
24:BA:2560:A:C2'	24:BA:2561:U:H5'	2.48	0.43
24:BA:2649:C:C2'	24:BA:2650:U:H5'	2.49	0.43
24:BA:2666:C:C6	24:BA:2667:C:C6	3.07	0.43
24:BA:2892:G:H5"	24:BA:2894:G:N2	2.33	0.43
26:BC:58:LYS:HG3	26:BC:59:GLN:H	1.83	0.43
32:BI:53:PRO:C	32:BI:54:ILE:CG1	2.92	0.43
34:BK:71:ARG:NH1	34:BK:106:GLU:OE2	2.51	0.43
36:BM:38:ARG:CZ	36:BM:38:ARG:CB	2.97	0.43
37:BN:40:LYS:O	37:BN:41:ALA:C	2.61	0.43
40:BQ:101:ASP:OD1	40:BQ:101:ASP:C	2.61	0.43
44:BU:46:LYS:HB3	44:BU:47:PRO:HD2	2.00	0.43
1:CA:323:U:H2'	1:CA:324:G:O4'	2.18	0.43
1:CA:376:G:O3'	16:CP:5:ARG:CD	2.65	0.43
1:CA:456:A:C8	1:CA:457:G:N7	2.87	0.43
1:CA:510:A:N3	1:CA:543:U:H1'	2.33	0.43
1:CA:540:G:H2'	1:CA:541:G:O4'	2.18	0.43
1:CA:700:G:O2'	1:CA:701:U:H5"	2.18	0.43
1:CA:728:A:H2'	1:CA:729:A:C8	2.54	0.43
1:CA:977:A:H1'	1:CA:982:U:O4	2.18	0.43
1:CA:1088:G:HO2'	1:CA:1089:G:P	2.41	0.43
1:CA:1216:A:C6	1:CA:1217:C:C4	3.07	0.43
1:CA:1260:G:H4'	1:CA:1283:U:O2'	2.19	0.43
1:CA:1270:G:OP2	1:CA:1270:G:H8	2.02	0.43
1:CA:1280:A:H5"	10:CJ:42:LEU:HD21	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1483:A:C2	24:DA:1959:G:N3	2.86	0.43
2:CB:95:ARG:HD3	2:CB:95:ARG:C	2.43	0.43
3:CC:112:ASP:OD1	3:CC:114:LYS:CG	2.65	0.43
3:CC:128:VAL:HG23	3:CC:129:MET:N	2.33	0.43
3:CC:181:ASP:OD1	3:CC:181:ASP:C	2.61	0.43
4:CD:11:LEU:HD11	4:CD:63:ARG:HD3	1.99	0.43
4:CD:19:LEU:O	4:CD:21:LEU:HG	2.19	0.43
4:CD:89:ASN:C	4:CD:91:LEU:H	2.27	0.43
4:CD:138:SER:OG	4:CD:139:PRO:HD3	2.19	0.43
5:CE:94:VAL:HG22	5:CE:95:PHE:N	2.33	0.43
5:CE:118:ALA:O	5:CE:119:GLY:C	2.60	0.43
12:CL:90:LEU:HD11	12:CL:93:VAL:HB	2.00	0.43
13:CM:19:LEU:HD12	13:CM:19:LEU:C	2.44	0.43
13:CM:48:LEU:HB2	13:CM:52:GLN:CD	2.44	0.43
14:CN:85:ARG:CG	14:CN:86:GLU:N	2.81	0.43
17:CQ:4:LYS:NZ	17:CQ:6:ARG:O	2.51	0.43
19:CS:45:ILE:CA	19:CS:62:VAL:HG23	2.48	0.43
20:CT:54:MET:HA	20:CT:57:ILE:HD11	1.99	0.43
21:CU:14:VAL:O	21:CU:14:VAL:HG13	2.18	0.43
55:CY:26:LYS:HD2	55:CY:26:LYS:N	2.34	0.43
55:CY:44:TYR:OH	55:CY:49:THR:HB	2.18	0.43
24:DA:2:G:H2'	24:DA:3:U:C6	2.54	0.43
24:DA:245:G:N7	53:D3:7:ARG:NH1	2.66	0.43
24:DA:343:C:OP1	24:DA:343:C:H4'	2.18	0.43
24:DA:528:A:C8	24:DA:528:A:C3'	3.02	0.43
24:DA:1069:A:N6	24:DA:1074:G:C4	2.87	0.43
24:DA:1444:G:C2	24:DA:1445:G:C4	3.06	0.43
24:DA:1575:C:H2'	24:DA:1576:U:O4'	2.19	0.43
24:DA:1576:U:O2'	24:DA:1577:C:H5'	2.18	0.43
24:DA:1858:A:C8	24:DA:1859:U:C5	3.07	0.43
24:DA:2061:G:C8	24:DA:2501:C:H4'	2.53	0.43
24:DA:2205:A:C6	24:DA:2206:C:C4	3.07	0.43
24:DA:2315:G:C4'	29:DF:124:ARG:NH2	2.82	0.43
24:DA:2342:C:H2'	24:DA:2343:U:O4'	2.18	0.43
24:DA:2364:C:OP1	46:DW:55:ARG:NH1	2.49	0.43
24:DA:2590:A:O2'	24:DA:2591:C:H5'	2.17	0.43
24:DA:2692:G:C6	24:DA:2718:G:N1	2.86	0.43
24:DA:2777:G:H5"	24:DA:2778:A:OP1	2.18	0.43
25:DB:84:G:H2'	25:DB:85:G:O5'	2.18	0.43
25:DB:91:C:H2'	25:DB:92:C:H6	1.81	0.43
25:DB:98:G:H22	45:DV:14:LYS:HE3	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DC:78:GLU:O	26:DC:79:ARG:HB3	2.19	0.43
27:DD:16:THR:OG1	27:DD:18:ASP:OD1	2.34	0.43
27:DD:33:ARG:NH2	27:DD:74:GLU:O	2.51	0.43
27:DD:160:LYS:HB2	27:DD:160:LYS:NZ	2.34	0.43
28:DE:5:LEU:O	28:DE:6:LYS:HB3	2.18	0.43
29:DF:7:TYR:C	29:DF:7:TYR:CD1	2.95	0.43
29:DF:12:VAL:HA	29:DF:15:LEU:HD12	2.00	0.43
29:DF:87:LYS:CG	29:DF:88:VAL:N	2.80	0.43
32:DI:61:TYR:CD1	32:DI:61:TYR:N	2.87	0.43
33:DJ:37:ARG:HG3	33:DJ:118:MET:CE	2.48	0.43
33:DJ:101:ILE:O	33:DJ:104:ALA:N	2.52	0.43
35:DL:117:THR:C	35:DL:118:THR:CG2	2.91	0.43
36:DM:127:LYS:CE	36:DM:127:LYS:HA	2.48	0.43
39:DP:28:LYS:CE	39:DP:82:SER:HB2	2.47	0.43
40:DQ:37:ALA:O	40:DQ:38:VAL:CB	2.61	0.43
40:DQ:85:ALA:HB3	40:DQ:87:VAL:HG12	2.00	0.43
42:DS:3:THR:C	42:DS:4:ILE:HG22	2.44	0.43
44:DU:65:GLN:O	44:DU:68:ASN:HB2	2.18	0.43
48:DY:13:GLU:HG2	48:DY:57:LEU:HD23	2.01	0.43
52:D2:42:LEU:C	52:D2:43:THR:HG22	2.44	0.43
1:AA:120:A:O3'	1:AA:121:U:H4'	2.18	0.43
1:AA:208:U:C2	1:AA:210:C:H1'	2.53	0.43
1:AA:428:G:C5'	4:AD:9:LEU:CD1	2.96	0.43
1:AA:442:G:C6	1:AA:493:A:C2	3.06	0.43
1:AA:496:A:C2	1:AA:497:G:C5	3.06	0.43
1:AA:542:G:N3	1:AA:543:U:C6	2.86	0.43
1:AA:552:U:H2'	1:AA:553:A:H8	1.79	0.43
1:AA:615:G:O6	1:AA:625:U:C2	2.72	0.43
1:AA:665:A:N1	1:AA:732:C:C4	2.87	0.43
1:AA:780:A:H5"	11:AK:125:LYS:CE	2.49	0.43
1:AA:910:C:H2'	1:AA:910:C:O2	2.19	0.43
1:AA:929:G:O2'	1:AA:930:C:H5'	2.19	0.43
1:AA:939:G:N1	1:AA:940:C:C4	2.87	0.43
1:AA:987:G:C2	1:AA:988:G:C4	3.07	0.43
1:AA:1032:G:N2	1:AA:1033:G:C1'	2.81	0.43
1:AA:1226:C:H2'	13:AM:102:THR:O	2.18	0.43
1:AA:1371:G:C5	1:AA:1372:U:C5	3.07	0.43
1:AA:1387:G:H2'	1:AA:1388:C:C6	2.54	0.43
2:AB:150:GLY:O	2:AB:151:ILE:HG23	2.18	0.43
2:AB:173:ILE:CD1	2:AB:195:GLY:O	2.67	0.43
6:AF:89:VAL:C	6:AF:90:MET:HG2	2.43	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:38:TYR:CE2	9:AI:39:PHE:CZ	3.07	0.43
13:AM:27:LYS:O	13:AM:30:SER:HB2	2.19	0.43
13:AM:80:LEU:C	13:AM:80:LEU:HD22	2.44	0.43
14:AN:8:ARG:HH12	14:AN:12:ARG:NH2	2.17	0.43
14:AN:12:ARG:NH1	14:AN:59:ARG:NH1	2.67	0.43
14:AN:69:ARG:HB3	14:AN:80:SER:OG	2.18	0.43
14:AN:74:LEU:O	14:AN:76:LYS:N	2.52	0.43
14:AN:82:ILE:O	14:AN:85:ARG:HB3	2.19	0.43
17:AQ:58:VAL:C	17:AQ:59:VAL:HG22	2.43	0.43
19:AS:32:ARG:HD2	19:AS:57:HIS:CE1	2.54	0.43
21:AU:26:ALA:HB1	21:AU:30:ALA:HB3	2.00	0.43
22:AV:72:C:C2'	22:AV:73:A:H5'	2.48	0.43
24:BA:135:U:C2	24:BA:136:G:C8	3.07	0.43
24:BA:149:A:C5	24:BA:150:U:C5	3.06	0.43
24:BA:275:C:C5	24:BA:276:U:O4'	2.72	0.43
24:BA:309:A:H5'	44:BU:16:LYS:CE	2.49	0.43
24:BA:362:A:C2'	24:BA:363:G:H5'	2.49	0.43
24:BA:413:C:N3	24:BA:2411:A:C2	2.87	0.43
24:BA:675:A:N6	24:BA:676:A:N6	2.66	0.43
24:BA:932:U:C4'	24:BA:933:A:O5'	2.67	0.43
24:BA:1132:U:H5'	33:BJ:84:ILE:HD12	2.00	0.43
24:BA:1235:G:C6	24:BA:1236:G:N1	2.87	0.43
24:BA:1478:G:C6	24:BA:1514:G:N2	2.86	0.43
24:BA:1837:C:H2'	24:BA:1838:C:H5'	2.01	0.43
24:BA:1910:G:C2	24:BA:1921:G:N3	2.87	0.43
24:BA:1934:C:H2'	24:BA:1935:G:O5'	2.19	0.43
24:BA:2314:A:C5	24:BA:2315:G:N7	2.87	0.43
24:BA:2472:G:C2'	24:BA:2473:U:OP1	2.67	0.43
24:BA:2503:A:H4'	24:BA:2504:U:OP1	2.18	0.43
24:BA:2679:A:H2'	24:BA:2680:U:H5'	2.00	0.43
24:BA:2706:A:H2'	24:BA:2707:U:O4'	2.18	0.43
24:BA:2736:A:C5	24:BA:2737:G:C8	3.07	0.43
24:BA:2791:G:N2	24:BA:2806:C:H1'	2.33	0.43
57:BA:3166:NMY:H171	57:BA:3166:NMY:H18	2.01	0.43
25:BB:30:C:H2'	25:BB:31:C:H5'	2.00	0.43
26:BC:62:ARG:NH1	26:BC:85:ASN:HB2	2.34	0.43
26:BC:123:ILE:O	26:BC:123:ILE:CG2	2.63	0.43
29:BF:92:GLY:O	29:BF:93:GLU:CG	2.66	0.43
30:BG:24:THR:O	30:BG:25:ILE:HG12	2.19	0.43
30:BG:88:LEU:HD22	30:BG:93:TYR:O	2.19	0.43
30:BG:120:ILE:HD12	30:BG:133:LYS:C	2.44	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:121:VAL:CG2	31:BH:122:LEU:CD2	2.92	0.43
35:BL:105:ILE:HG22	35:BL:106:GLU:N	2.32	0.43
36:BM:18:ARG:NE	36:BM:18:ARG:CA	2.82	0.43
36:BM:51:ARG:O	36:BM:55:ARG:HB3	2.18	0.43
37:BN:55:ALA:HA	37:BN:80:PHE:CE1	2.54	0.43
41:BR:49:ILE:HG13	41:BR:52:PRO:HA	2.00	0.43
44:BU:12:VAL:HG22	44:BU:17:ASP:O	2.19	0.43
54:B4:19:ARG:O	54:B4:20:ASP:HB2	2.17	0.43
1:CA:195:A:C6	1:CA:196:A:N1	2.87	0.43
1:CA:213:G:C5	1:CA:214:C:C5	3.07	0.43
1:CA:279:A:H5"	1:CA:281:G:O4'	2.19	0.43
1:CA:292:G:C2	1:CA:309:A:C2	3.06	0.43
1:CA:386:C:C2'	1:CA:387:U:H5"	2.48	0.43
1:CA:433:G:C6	1:CA:434:U:N3	2.87	0.43
1:CA:452:A:C1'	16:CP:70:ARG:NH1	2.81	0.43
1:CA:592:G:C6	1:CA:648:A:C6	3.06	0.43
1:CA:614:C:O2'	1:CA:615:G:OP1	2.33	0.43
1:CA:659:U:N3	1:CA:660:C:C5	2.87	0.43
1:CA:664:G:N2	1:CA:742:G:N2	2.66	0.43
1:CA:776:G:C2'	1:CA:777:A:OP2	2.66	0.43
1:CA:955:U:O4'	1:CA:1227:A:N6	2.51	0.43
1:CA:1004:A:C6	1:CA:1005:A:C4	3.07	0.43
1:CA:1160:G:OP2	2:CB:132:LYS:NZ	2.36	0.43
2:CB:47:VAL:HG22	2:CB:48:PRO:HD3	2.01	0.43
3:CC:23:PHE:CD1	3:CC:24:ALA:N	2.87	0.43
3:CC:71:ALA:HB2	3:CC:106:VAL:HB	2.01	0.43
4:CD:24:GLY:O	4:CD:25:VAL:C	2.60	0.43
4:CD:203:LEU:HD23	4:CD:204:TYR:CG	2.53	0.43
5:CE:23:LYS:HB3	5:CE:30:ILE:CG1	2.49	0.43
5:CE:60:ILE:O	5:CE:61:GLN:C	2.62	0.43
5:CE:68:ARG:HG2	5:CE:69:ARG:N	2.34	0.43
6:CF:51:ILE:C	6:CF:53:LYS:H	2.26	0.43
6:CF:77:THR:HB	6:CF:80:PHE:CE1	2.53	0.43
6:CF:80:PHE:O	6:CF:82:ASP:N	2.52	0.43
8:CH:34:VAL:HG12	8:CH:59:LEU:HD23	2.01	0.43
9:CI:103:PHE:O	9:CI:104:VAL:C	2.61	0.43
11:CK:129:VAL:HG12	23:CX:10:A:C5'	2.48	0.43
13:CM:22:ILE:O	13:CM:23:TYR:CB	2.65	0.43
15:CO:64:ARG:C	15:CO:66:LEU:N	2.77	0.43
17:CQ:64:CYS:HB2	17:CQ:73:TRP:HA	2.01	0.43
18:CR:63:ARG:HB2	18:CR:70:TYR:CE1	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CV:23:A:N6	22:CV:24:G:O6	2.51	0.43
24:DA:189:G:H2'	24:DA:205:G:H22	1.83	0.43
24:DA:245:G:O6	53:D3:7:ARG:HD3	2.19	0.43
24:DA:273:G:N1	24:DA:274:C:C4	2.86	0.43
24:DA:422:A:C2	24:DA:423:A:C2	3.07	0.43
24:DA:809:G:O2'	24:DA:810:U:H5'	2.17	0.43
24:DA:910:A:C5	36:DM:13:HIS:NE2	2.87	0.43
24:DA:1071:G:N1	24:DA:1091:G:N7	2.67	0.43
24:DA:1082:U:O4'	32:DI:117:THR:CG2	2.66	0.43
24:DA:1140:C:OP2	33:DJ:68:LYS:NZ	2.52	0.43
24:DA:1351:C:H2'	24:DA:1352:U:C1'	2.48	0.43
24:DA:1857:G:C2	24:DA:1884:G:C4	3.06	0.43
24:DA:2756:U:H4'	24:DA:2757:A:O5'	2.18	0.43
27:DD:22:ILE:HA	27:DD:23:PRO:HD2	1.63	0.43
28:DE:149:ILE:CG1	28:DE:188:MET:HE2	2.48	0.43
29:DF:140:ILE:O	29:DF:141:ASP:C	2.59	0.43
30:DG:54:ARG:O	30:DG:57:TYR:HB2	2.18	0.43
31:DH:117:LEU:HD21	31:DH:119:ASN:C	2.44	0.43
33:DJ:19:ASP:OD1	33:DJ:21:THR:HB	2.17	0.43
34:DK:14:SER:HA	34:DK:51:LYS:HZ1	1.84	0.43
35:DL:87:GLY:O	35:DL:88:GLY:C	2.61	0.43
36:DM:57:VAL:O	36:DM:58:LYS:C	2.60	0.43
40:DQ:37:ALA:HA	40:DQ:40:LYS:HE2	2.01	0.43
43:DT:61:LEU:HD12	43:DT:61:LEU:O	2.19	0.43
46:DW:62:LYS:O	46:DW:63:ALA:HB2	2.18	0.43
47:DX:63:ILE:HD12	47:DX:63:ILE:O	2.18	0.43
47:DX:74:GLY:O	47:DX:75:GLU:C	2.62	0.43
48:DY:24:GLU:O	48:DY:27:ASN:N	2.52	0.43
1:AA:8:A:H5"	5:AE:126:LYS:HB2	2.00	0.43
1:AA:67:C:O2'	1:AA:68:G:O5'	2.32	0.43
1:AA:142:G:C5	1:AA:143:A:C8	3.07	0.43
1:AA:179:A:C6	1:AA:180:U:C2	3.07	0.43
1:AA:188:C:C2'	1:AA:189:A:O4'	2.66	0.43
1:AA:342:C:N4	1:AA:343:U:C4	2.87	0.43
1:AA:460:A:N3	1:AA:461:A:C8	2.87	0.43
1:AA:708:C:O2	1:AA:709:U:C5	2.72	0.43
1:AA:959:A:C2	1:AA:1222:G:O4'	2.71	0.43
1:AA:1104:G:C2	1:AA:1105:A:C5	3.07	0.43
1:AA:1287:A:N6	1:AA:1288:A:N6	2.67	0.43
1:AA:1364:U:O2	1:AA:1364:U:H2'	2.18	0.43
1:AA:1431:A:N6	1:AA:1432:G:N1	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1439:G:OP1	20:AT:33:LYS:NZ	2.46	0.43
2:AB:104:TRP:CE2	2:AB:108:ARG:HB3	2.53	0.43
2:AB:186:ILE:CD1	2:AB:213:TYR:CE2	3.01	0.43
3:AC:20:SER:OG	3:AC:40:ARG:NH2	2.52	0.43
4:AD:142:VAL:O	4:AD:143:VAL:O	2.37	0.43
4:AD:142:VAL:O	4:AD:143:VAL:HG22	2.18	0.43
4:AD:158:ALA:HA	4:AD:161:LEU:HD21	2.00	0.43
6:AF:17:GLN:O	6:AF:18:VAL:C	2.62	0.43
8:AH:20:ALA:O	8:AH:21:ASN:CB	2.66	0.43
8:AH:101:ILE:HG23	8:AH:103:VAL:HG23	2.01	0.43
10:AJ:49:PHE:O	10:AJ:65:TYR:N	2.49	0.43
11:AK:46:THR:O	11:AK:48:GLY:N	2.51	0.43
11:AK:112:ASP:HB2	21:AU:20:LYS:CD	2.48	0.43
17:AQ:20:SER:O	17:AQ:21:ILE:O	2.36	0.43
18:AR:53:ARG:CZ	18:AR:53:ARG:CB	2.93	0.43
20:AT:67:ILE:HG23	20:AT:67:ILE:O	2.19	0.43
24:BA:86:G:H2'	24:BA:87:U:O5'	2.19	0.43
24:BA:146:A:C2	24:BA:147:C:C4	3.07	0.43
24:BA:214:G:O2'	24:BA:217:A:H5'	2.18	0.43
24:BA:447:A:C2	24:BA:473:G:C8	3.06	0.43
24:BA:447:A:OP1	40:BQ:4:LYS:NZ	2.51	0.43
24:BA:599:A:C2	24:BA:659:G:C5	3.07	0.43
24:BA:608:A:N3	24:BA:621:A:C2	2.87	0.43
24:BA:858:G:C5	24:BA:2268:A:C2	3.07	0.43
24:BA:1017:G:C6	24:BA:1018:U:C4	3.06	0.43
24:BA:1166:G:O2'	24:BA:1167:C:H5'	2.17	0.43
24:BA:1350:C:C4	24:BA:1382:G:N1	2.87	0.43
24:BA:1433:A:H5"	24:BA:1434:A:OP2	2.19	0.43
24:BA:1586:A:C5	24:BA:1587:G:C5	3.07	0.43
24:BA:1663:G:O6	24:BA:1992:G:C8	2.72	0.43
24:BA:1802:A:O2'	24:BA:1803:A:P	2.76	0.43
24:BA:1817:G:C2'	24:BA:1818:U:H5'	2.48	0.43
24:BA:2094:A:H2'	24:BA:2095:A:C8	2.53	0.43
24:BA:2164:C:P	24:BA:2170:A:HO2'	2.42	0.43
24:BA:2408:U:C2	24:BA:2409:G:C8	3.06	0.43
24:BA:2522:U:C2'	24:BA:2523:G:H5'	2.48	0.43
24:BA:2547:A:N7	24:BA:2566:A:C8	2.87	0.43
24:BA:2575:C:H5"	24:BA:2576:G:OP2	2.19	0.43
24:BA:2675:A:C2'	24:BA:2676:C:H5'	2.49	0.43
24:BA:2858:C:H2'	24:BA:2859:G:O4'	2.19	0.43
25:BB:24:G:C8	25:BB:56:G:C8	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BB:61:G:N1	25:BB:62:C:C2	2.87	0.43
25:BB:114:C:O4'	38:BO:47:VAL:CG1	2.66	0.43
25:BB:117:G:N2	25:BB:118:C:H1'	2.34	0.43
26:BC:184:GLU:C	26:BC:186:ASP:H	2.25	0.43
27:BD:11:MET:HG3	27:BD:25:THR:HA	1.99	0.43
27:BD:104:VAL:O	27:BD:105:LYS:HG3	2.19	0.43
27:BD:173:GLN:OE1	27:BD:208:LYS:HE2	2.19	0.43
30:BG:97:VAL:CG2	30:BG:124:CYS:SG	3.04	0.43
31:BH:8:LYS:O	31:BH:13:GLY:CA	2.67	0.43
33:BJ:5:THR:O	33:BJ:5:THR:HG22	2.19	0.43
33:BJ:136:GLN:N	33:BJ:137:PRO:CD	2.81	0.43
35:BL:73:ILE:HG22	35:BL:73:ILE:O	2.19	0.43
38:BO:80:GLU:C	38:BO:82:ALA:N	2.76	0.43
39:BP:27:VAL:O	39:BP:42:PHE:N	2.52	0.43
42:BS:19:LEU:HB3	50:B0:21:LEU:CD1	2.48	0.43
43:BT:13:ALA:O	43:BT:32:LEU:HB2	2.19	0.43
43:BT:68:LYS:HD2	43:BT:68:LYS:HA	1.71	0.43
44:BU:23:LYS:O	44:BU:24:VAL:C	2.61	0.43
45:BV:31:TYR:HB3	45:BV:37:PRO:HB3	2.00	0.43
48:BY:21:LEU:C	48:BY:23:ARG:N	2.75	0.43
48:BY:42:LEU:O	48:BY:43:LEU:C	2.61	0.43
51:B1:9:LYS:O	51:B1:50:GLU:CG	2.67	0.43
54:B4:33:HIS:O	54:B4:35:GLN:HG3	2.18	0.43
1:CA:113:G:C2	1:CA:315:A:N1	2.87	0.43
1:CA:202:G:N2	1:CA:216:U:C2	2.87	0.43
1:CA:270:A:N1	1:CA:271:C:C2	2.86	0.43
1:CA:357:G:N1	1:CA:358:U:C4	2.87	0.43
1:CA:389:A:C6	1:CA:390:U:H1'	2.54	0.43
1:CA:406:G:N2	1:CA:437:U:O2	2.52	0.43
1:CA:426:U:C2	1:CA:427:U:C5	3.07	0.43
1:CA:568:G:H2'	1:CA:568:G:N3	2.33	0.43
1:CA:626:G:N2	1:CA:627:G:C4	2.87	0.43
1:CA:635:A:O3'	17:CQ:6:ARG:NH2	2.52	0.43
1:CA:778:G:N2	1:CA:779:C:H1'	2.33	0.43
1:CA:778:G:N2	1:CA:779:C:O2	2.51	0.43
1:CA:836:G:C5	1:CA:851:G:C6	3.07	0.43
1:CA:954:G:C4	1:CA:955:U:C6	3.07	0.43
1:CA:954:G:N2	1:CA:1228:C:C5	2.87	0.43
1:CA:966:G:H2'	9:CI:129:LYS:CG	2.48	0.43
1:CA:968:A:H4'	1:CA:969:A:OP2	2.17	0.43
1:CA:1093:A:C5	1:CA:1095:U:O4'	2.72	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1132:C:N3	1:CA:1142:G:O6	2.51	0.43
1:CA:1502:A:C8	1:CA:1505:G:N2	2.87	0.43
1:CA:1506:U:O4'	11:CK:128:ARG:NE	2.51	0.43
3:CC:14:ILE:HG13	3:CC:15:VAL:HG23	2.01	0.43
3:CC:160:ALA:O	3:CC:162:ILE:N	2.52	0.43
4:CD:104:ARG:CZ	4:CD:170:TRP:CZ2	3.01	0.43
6:CF:15:SER:C	6:CF:17:GLN:N	2.73	0.43
8:CH:27:MET:HG2	8:CH:28:PRO:HD2	2.01	0.43
8:CH:55:THR:C	8:CH:57:PRO:HD3	2.44	0.43
10:CJ:18:ILE:HD12	10:CJ:19:ASP:N	2.34	0.43
14:CN:5:MET:O	14:CN:5:MET:CG	2.67	0.43
20:CT:10:ARG:HD3	20:CT:10:ARG:HA	1.82	0.43
20:CT:35:VAL:CG1	20:CT:79:LEU:HD22	2.49	0.43
55:CY:5:ILE:HA	55:CY:8:ASP:HB2	2.01	0.43
24:DA:160:A:C4	24:DA:167:A:C2	3.07	0.43
24:DA:235:U:O2	24:DA:430:A:C2	2.71	0.43
24:DA:261:G:C2	24:DA:262:A:C8	3.06	0.43
24:DA:271:G:C2	24:DA:367:G:N3	2.87	0.43
24:DA:321:U:C4'	28:DE:162:ARG:NH2	2.81	0.43
24:DA:418:C:N3	24:DA:419:U:C5	2.87	0.43
24:DA:531:C:O2'	24:DA:563:A:H5"	2.19	0.43
24:DA:538:A:OP1	57:DA:3186:NMY:O17	2.37	0.43
24:DA:595:C:H2'	24:DA:596:U:H6	1.84	0.43
24:DA:674:G:H1'	28:DE:69:ARG:HD2	1.99	0.43
24:DA:695:G:C2	24:DA:696:G:C8	3.07	0.43
24:DA:1098:A:H2'	24:DA:1099:G:C4	2.54	0.43
24:DA:1284:A:C2	24:DA:1285:A:C2	3.06	0.43
24:DA:1501:G:H2'	24:DA:1502:A:C5'	2.49	0.43
24:DA:1661:G:C5	24:DA:1662:U:C5	3.07	0.43
24:DA:1675:C:O2	24:DA:1675:C:H2'	2.19	0.43
24:DA:1680:U:H2'	24:DA:1681:G:O4'	2.19	0.43
24:DA:1992:G:H4'	24:DA:1993:U:OP1	2.19	0.43
24:DA:2001:C:H4'	24:DA:2689:U:H2'	2.00	0.43
24:DA:2084:C:C4	24:DA:2085:U:C4	3.07	0.43
24:DA:2088:A:C6	24:DA:2089:C:C4	3.06	0.43
24:DA:2470:G:O2'	24:DA:2471:A:H5'	2.18	0.43
24:DA:2531:A:H5'	30:DG:156:TYR:CE1	2.54	0.43
24:DA:2533:U:H2'	24:DA:2534:A:O4'	2.19	0.43
24:DA:2571:U:O2'	27:DD:151:THR:HG23	2.16	0.43
24:DA:2754:U:C2'	24:DA:2756:U:OP1	2.66	0.43
24:DA:2786:U:H2'	24:DA:2787:C:H6	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DB:50:A:H2'	25:DB:51:G:O5'	2.19	0.43
26:DC:16:VAL:N	26:DC:203:VAL:HG12	2.34	0.43
26:DC:132:ARG:O	26:DC:133:ASN:HB2	2.18	0.43
28:DE:1:MET:HE2	28:DE:19:PHE:HB2	1.99	0.43
29:DF:7:TYR:HA	29:DF:11:VAL:HB	2.01	0.43
29:DF:11:VAL:O	29:DF:15:LEU:HD12	2.18	0.43
29:DF:28:PRO:HG3	29:DF:159:ALA:HA	2.01	0.43
30:DG:89:VAL:O	30:DG:159:LYS:HA	2.19	0.43
31:DH:27:ARG:CG	31:DH:28:ASN:N	2.82	0.43
38:DO:94:ARG:O	38:DO:95:SER:C	2.61	0.43
40:DQ:44:TYR:O	40:DQ:45:ALA:C	2.62	0.43
40:DQ:101:ASP:OD2	41:DR:2:TYR:OH	2.28	0.43
46:DW:27:GLY:O	46:DW:28:GLY:C	2.62	0.43
1:AA:50:A:N3	1:AA:52:C:O2	2.51	0.43
1:AA:143:A:H5'	1:AA:144:G:O5'	2.19	0.43
1:AA:186:C:N3	1:AA:187:G:C6	2.87	0.43
1:AA:269:C:N4	1:AA:270:A:N6	2.67	0.43
1:AA:325:A:C6	1:AA:326:G:C2	3.06	0.43
1:AA:363:A:H2'	1:AA:364:A:O5'	2.19	0.43
1:AA:412:A:O5'	11:CK:16:VAL:HG11	2.18	0.43
1:AA:433:G:C6	1:AA:434:U:H1'	2.53	0.43
1:AA:467:U:H3'	1:AA:468:A:C5'	2.48	0.43
1:AA:581:G:N2	1:AA:759:A:OP2	2.46	0.43
1:AA:734:G:N2	1:AA:735:C:C2	2.87	0.43
1:AA:750:C:O2'	15:AO:23:GLY:N	2.43	0.43
1:AA:778:G:C5	1:AA:779:C:C5	3.07	0.43
1:AA:782:A:N1	1:AA:801:U:C2	2.87	0.43
1:AA:821:G:H2'	1:AA:821:G:N3	2.33	0.43
1:AA:926:G:H2'	1:AA:1505:G:N3	2.34	0.43
1:AA:966:G:O2'	9:AI:130:ARG:OXT	2.31	0.43
1:AA:1068:G:C6	1:AA:1069:C:N4	2.87	0.43
1:AA:1342:C:H2'	1:AA:1343:G:C8	2.54	0.43
1:AA:1360:A:H2'	1:AA:1361:G:C5'	2.49	0.43
1:AA:1480:A:C6	1:AA:1481:U:N3	2.87	0.43
2:AB:20:THR:HG23	2:AB:21:ARG:H	1.83	0.43
2:AB:54:LEU:O	2:AB:57:LEU:CD1	2.67	0.43
2:AB:57:LEU:O	2:AB:58:ASN:C	2.60	0.43
4:AD:11:LEU:HD11	4:AD:63:ARG:HD2	2.00	0.43
4:AD:197:GLU:O	4:AD:201:VAL:HG11	2.18	0.43
6:AF:4:TYR:HE2	6:AF:6:ILE:CG1	2.32	0.43
6:AF:70:VAL:O	6:AF:74:LEU:N	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:27:MET:CB	8:AH:28:PRO:CD	2.97	0.43
8:AH:27:MET:HB3	8:AH:28:PRO:HD2	2.00	0.43
8:AH:65:TYR:CD2	8:AH:70:ALA:HA	2.54	0.43
9:AI:52:LEU:HD21	9:AI:57:MET:SD	2.58	0.43
11:AK:25:ALA:O	11:AK:93:ARG:NH2	2.52	0.43
11:AK:97:ILE:HG13	11:AK:98:ARG:N	2.34	0.43
12:AL:59:ASN:OD1	12:AL:59:ASN:O	2.37	0.43
13:AM:46:SER:O	13:AM:47:GLU:HB3	2.18	0.43
18:AR:40:VAL:HG21	18:AR:44:ILE:HG21	2.01	0.43
20:AT:55:GLN:N	20:AT:56:PRO:HD2	2.33	0.43
24:BA:220:G:O2'	24:BA:233:A:O2'	2.31	0.43
24:BA:242:G:O2'	24:BA:243:U:OP2	2.37	0.43
24:BA:452:G:N2	24:BA:458:G:C4	2.87	0.43
24:BA:459:U:OP1	52:B2:39:ARG:CZ	2.67	0.43
24:BA:857:G:H2'	24:BA:858:G:O4'	2.18	0.43
24:BA:981:A:H4'	24:BA:2037:A:H5'	2.01	0.43
24:BA:1070:A:H2'	24:BA:1097:U:O5'	2.19	0.43
24:BA:1136:G:C2	24:BA:1137:G:C8	3.07	0.43
24:BA:1257:C:H5"	28:BE:78:TRP:CH2	2.54	0.43
24:BA:1309:G:OP1	52:B2:9:VAL:CG2	2.66	0.43
24:BA:1377:G:H5"	24:BA:1378:A:OP2	2.19	0.43
24:BA:1429:G:C1'	24:BA:1568:G:H1'	2.49	0.43
24:BA:1462:C:H2'	24:BA:1463:C:C6	2.54	0.43
24:BA:1570:A:N6	24:BA:1571:A:N6	2.67	0.43
24:BA:1575:C:H2'	24:BA:1576:U:O4'	2.19	0.43
24:BA:1609:A:N1	24:BA:1616:A:C5	2.87	0.43
24:BA:2024:G:OP2	24:BA:2034:U:H4'	2.18	0.43
24:BA:2100:G:C6	24:BA:2101:A:C6	3.07	0.43
24:BA:2428:G:C4'	24:BA:2429:G:O5'	2.67	0.43
24:BA:2491:U:H5'	24:BA:2570:G:H5"	2.00	0.43
24:BA:2565:A:N6	34:BK:28:SER:HB3	2.33	0.43
24:BA:2723:C:N4	24:BA:2724:U:N3	2.66	0.43
59:BA:3748:HOH:O	26:BC:220:ARG:CZ	2.66	0.43
27:BD:3:GLY:O	27:BD:4:LEU:HD12	2.19	0.43
27:BD:47:ALA:HA	27:BD:84:LEU:HD22	2.01	0.43
28:BE:138:LEU:O	28:BE:140:ASP:N	2.52	0.43
29:BF:3:LEU:HD11	29:BF:99:PHE:CZ	2.54	0.43
29:BF:48:LEU:C	29:BF:50:ASP:N	2.76	0.43
29:BF:82:TYR:CE2	29:BF:83:PRO:O	2.72	0.43
30:BG:66:THR:O	30:BG:70:LEU:HB2	2.19	0.43
31:BH:80:ILE:HG23	31:BH:146:VAL:HG23	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BI:129:GLU:OE2	32:BI:129:GLU:N	2.50	0.43
35:BL:78:ARG:HG3	35:BL:113:ALA:CB	2.49	0.43
35:BL:78:ARG:CG	35:BL:113:ALA:HB2	2.48	0.43
36:BM:42:THR:HG23	36:BM:45:GLN:CD	2.43	0.43
37:BN:85:PRO:C	37:BN:87:PHE:H	2.26	0.43
38:BO:7:ARG:HD3	38:BO:97:PHE:CZ	2.53	0.43
39:BP:42:PHE:CE1	39:BP:60:VAL:CG2	3.02	0.43
40:BQ:24:TYR:CD1	40:BQ:24:TYR:C	2.91	0.43
40:BQ:98:ALA:HB2	40:BQ:105:PHE:CD1	2.53	0.43
48:BY:60:LYS:O	48:BY:61:ALA:HB2	2.18	0.43
52:B2:12:ARG:NH2	52:B2:44:VAL:CG2	2.81	0.43
52:B2:16:HIS:HB3	52:B2:21:ARG:NH1	2.34	0.43
1:CA:142:G:C2	1:CA:143:A:H1'	2.53	0.43
1:CA:620:C:C4	1:CA:621:A:C5	3.07	0.43
1:CA:710:G:O2'	1:CA:711:G:H5'	2.19	0.43
1:CA:719:C:H4'	18:CR:38:LYS:HD3	2.00	0.43
1:CA:737:C:H2'	1:CA:738:C:H6	1.81	0.43
1:CA:856:C:H2'	1:CA:856:C:O2	2.18	0.43
1:CA:932:C:H5'	7:CG:4:ARG:HB2	2.01	0.43
1:CA:1057:G:H5"	3:CC:155:GLY:HA3	2.01	0.43
1:CA:1290:G:C2'	1:CA:1291:U:H5'	2.45	0.43
1:CA:1293:C:C3'	1:CA:1294:G:C5'	2.97	0.43
1:CA:1298:U:O4'	1:CA:1299:A:C5	2.71	0.43
1:CA:1309:G:C8	1:CA:1329:A:C6	3.06	0.43
1:CA:1523:G:OP1	11:CK:126:LYS:CG	2.63	0.43
2:CB:70:VAL:O	2:CB:163:VAL:HA	2.19	0.43
3:CC:138:VAL:HG23	3:CC:139:GLN:H	1.83	0.43
4:CD:3:ARG:N	4:CD:68:LEU:HD21	2.33	0.43
4:CD:100:ASN:O	4:CD:101:VAL:C	2.61	0.43
4:CD:103:TYR:CE1	4:CD:104:ARG:HB2	2.54	0.43
4:CD:167:LYS:HD3	4:CD:168:PRO:CD	2.49	0.43
6:CF:24:ARG:O	6:CF:27:ALA:HB3	2.19	0.43
6:CF:80:PHE:C	6:CF:82:ASP:N	2.74	0.43
6:CF:88:MET:O	6:CF:90:MET:HE1	2.19	0.43
7:CG:64:VAL:HG12	7:CG:64:VAL:O	2.18	0.43
9:CI:7:TYR:CD2	9:CI:8:GLY:O	2.72	0.43
9:CI:80:ARG:NE	9:CI:103:PHE:CE1	2.87	0.43
9:CI:117:GLY:O	9:CI:118:LEU:HD12	2.18	0.43
10:CJ:19:ASP:HA	10:CJ:22:THR:HB	2.01	0.43
11:CK:31:ILE:HG22	11:CK:46:THR:HG21	2.01	0.43
12:CL:5:ASN:C	12:CL:8:VAL:HG12	2.43	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CN:79:LEU:HD23	14:CN:83:LYS:HD3	2.00	0.43
19:CS:30:PRO:O	19:CS:31:LEU:HB3	2.18	0.43
20:CT:29:ARG:O	20:CT:33:LYS:CB	2.67	0.43
20:CT:31:PHE:O	20:CT:34:LYS:HG2	2.19	0.43
55:CY:44:TYR:HH	55:CY:49:THR:C	2.13	0.43
55:CY:85:SER:O	55:CY:86:ASP:C	2.62	0.43
24:DA:112:U:C6	24:DA:113:U:C6	3.07	0.43
24:DA:216:A:C4	24:DA:432:A:C2	3.06	0.43
24:DA:467:G:OP1	52:D2:33:ARG:HB3	2.19	0.43
24:DA:747:U:C4	24:DA:2613:U:C5	3.07	0.43
24:DA:817:C:O2'	24:DA:839:U:H5'	2.18	0.43
24:DA:1030:C:O2'	24:DA:1031:G:H5'	2.19	0.43
24:DA:1168:G:H2'	24:DA:1169:A:H8	1.84	0.43
24:DA:1211:C:H4'	24:DA:1212:G:OP2	2.19	0.43
24:DA:1300:G:C4	24:DA:1626:A:C2	3.07	0.43
24:DA:1477:A:N6	24:DA:1514:G:O2'	2.52	0.43
24:DA:1504:A:N3	24:DA:1504:A:H2'	2.33	0.43
24:DA:1550:C:O2	24:DA:1551:A:C8	2.71	0.43
24:DA:1567:G:C2'	26:DC:84:PRO:HG3	2.46	0.43
24:DA:1737:G:O2'	24:DA:1738:G:H1'	2.19	0.43
24:DA:1772:A:N1	24:DA:1980:G:C6	2.87	0.43
24:DA:2326:C:H1'	24:DA:2327:A:OP1	2.19	0.43
24:DA:2496:C:OP1	36:DM:81:ARG:CZ	2.59	0.43
24:DA:2549:G:O2'	24:DA:2550:G:C5'	2.65	0.43
24:DA:2571:U:O2'	27:DD:151:THR:HG21	2.14	0.43
24:DA:2574:G:O2'	27:DD:148:GLN:HB3	2.18	0.43
24:DA:2822:G:OP2	27:DD:115:GLY:O	2.36	0.43
26:DC:182:LYS:N	26:DC:265:PHE:O	2.50	0.43
33:DJ:78:THR:OG1	33:DJ:80:HIS:HB2	2.19	0.43
33:DJ:101:ILE:O	33:DJ:102:GLU:C	2.62	0.43
37:DN:73:ASN:C	37:DN:75:ILE:H	2.26	0.43
39:DP:47:ILE:HA	39:DP:96:LEU:HD11	2.01	0.43
39:DP:89:GLY:O	39:DP:112:ARG:NH1	2.52	0.43
40:DQ:59:LEU:C	40:DQ:59:LEU:HD23	2.44	0.43
41:DR:45:GLU:CD	41:DR:45:GLU:C	2.86	0.43
41:DR:52:PRO:O	41:DR:52:PRO:CG	2.65	0.43
45:DV:45:ASP:HA	45:DV:48:MET:HB3	1.99	0.43
1:AA:144:G:C2	1:AA:179:A:N3	2.87	0.43
1:AA:174:A:C6	1:AA:175:C:C5	3.06	0.43
1:AA:265:G:H21	17:AQ:69:LYS:HE3	1.83	0.43
1:AA:314:C:O2'	1:AA:315:A:H5'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:320:A:C2	1:AA:334:C:N3	2.87	0.43
1:AA:361:G:C2'	1:AA:362:G:H5'	2.49	0.43
1:AA:542:G:O2'	1:AA:543:U:H5'	2.19	0.43
1:AA:591:U:P	8:AH:31:LYS:HZ1	2.42	0.43
1:AA:675:A:O2'	11:AK:116:ILE:O	2.29	0.43
1:AA:680:C:O2'	1:AA:681:A:H5'	2.19	0.43
1:AA:731:G:C2'	1:AA:732:C:H5'	2.49	0.43
1:AA:781:A:C5	1:AA:802:A:C2	3.07	0.43
1:AA:969:A:H2'	1:AA:970:C:O4'	2.19	0.43
1:AA:1002:G:C4	1:AA:1003:G:C8	3.06	0.43
1:AA:1107:C:OP1	3:AC:172:ARG:HG2	2.19	0.43
1:AA:1242:G:C2	1:AA:1243:C:C2	3.07	0.43
1:AA:1438:G:H5"	20:AT:29:ARG:NH1	2.33	0.43
1:AA:1531:A:C2'	1:AA:1532:U:H5'	2.48	0.43
2:AB:57:LEU:CD1	2:AB:58:ASN:H	2.32	0.43
3:AC:60:PRO:O	3:AC:63:SER:OG	2.36	0.43
4:AD:51:TYR:HA	4:AD:54:GLN:HG2	2.01	0.43
4:AD:93:LEU:N	4:AD:95:GLU:OE2	2.52	0.43
4:AD:98:LEU:HD22	4:AD:118:VAL:HG11	1.98	0.43
4:AD:192:SER:O	4:AD:193:ALA:CB	2.67	0.43
5:AE:116:GLU:HG3	5:AE:117:VAL:N	2.34	0.43
8:AH:82:GLY:O	8:AH:83:LEU:HB2	2.19	0.43
11:AK:105:PHE:C	11:AK:107:ILE:N	2.74	0.43
11:AK:125:LYS:HA	21:AU:35:ARG:CG	2.49	0.43
12:AL:52:VAL:HG23	12:AL:53:CYS:N	2.33	0.43
14:AN:1:ALA:O	14:AN:2:LYS:C	2.62	0.43
16:AP:12:LYS:O	16:AP:13:LYS:CB	2.67	0.43
20:AT:75:HIS:O	20:AT:79:LEU:CD1	2.66	0.43
21:AU:29:LEU:HD23	21:AU:30:ALA:N	2.34	0.43
22:AV:21:A:C6	22:AV:46:G:C5	3.06	0.43
24:BA:89:A:C6	24:BA:90:U:C4	3.07	0.43
24:BA:126:A:C4	52:B2:18:PHE:CE2	3.06	0.43
24:BA:222:A:N6	24:BA:231:A:C2	2.87	0.43
24:BA:398:C:P	47:BX:52:ALA:HB1	2.59	0.43
24:BA:496:G:C6	24:BA:497:A:C5	3.06	0.43
24:BA:584:C:C2'	24:BA:585:G:O5'	2.66	0.43
24:BA:1223:G:N1	24:BA:1227:G:C5	2.87	0.43
24:BA:1357:C:C5	24:BA:1358:G:C5	3.07	0.43
24:BA:1372:U:O2	24:BA:1373:A:C8	2.72	0.43
24:BA:1376:C:H2'	24:BA:1377:G:O4'	2.19	0.43
24:BA:1420:A:C2	24:BA:2211:A:C4	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1455:G:C2	24:BA:1456:G:C8	3.07	0.43
24:BA:1688:U:O2	24:BA:1700:A:H5"	2.19	0.43
24:BA:1724:G:C2'	24:BA:1725:U:O5'	2.66	0.43
24:BA:1869:G:N2	24:BA:1873:G:C6	2.87	0.43
24:BA:2020:A:N1	24:BA:2035:G:C6	2.87	0.43
24:BA:2094:A:H5'	31:BH:25:TYR:CD2	2.54	0.43
24:BA:2103:C:H2'	24:BA:2104:C:C5	2.54	0.43
24:BA:2284:A:C2'	24:BA:2285:C:O5'	2.67	0.43
24:BA:2377:A:C2'	38:BO:92:PHE:CZ	3.02	0.43
24:BA:2694:G:C6	24:BA:2695:U:C4	3.07	0.43
24:BA:2898:U:H2'	24:BA:2899:A:H8	1.83	0.43
26:BC:71:ASP:OD1	26:BC:118:GLY:HA2	2.18	0.43
26:BC:210:ALA:C	26:BC:212:TRP:N	2.76	0.43
27:BD:34:VAL:CG2	27:BD:48:ILE:HD11	2.49	0.43
28:BE:109:LEU:O	28:BE:111:GLU:N	2.52	0.43
28:BE:109:LEU:C	28:BE:111:GLU:N	2.74	0.43
32:BI:105:LEU:O	32:BI:108:ILE:O	2.37	0.43
34:BK:62:VAL:CG1	34:BK:65:THR:HG22	2.49	0.43
37:BN:94:TYR:C	37:BN:116:VAL:HG13	2.44	0.43
39:BP:17:PRO:HG2	39:BP:83:ILE:HD11	2.01	0.43
41:BR:4:VAL:CG1	41:BR:40:MET:HB3	2.49	0.43
41:BR:41:ILE:CG1	41:BR:47:VAL:HG12	2.49	0.43
42:BS:43:ALA:O	42:BS:46:LEU:O	2.37	0.43
43:BT:61:LEU:CD1	43:BT:82:LYS:HB3	2.49	0.43
44:BU:7:ASP:O	44:BU:8:ASP:CB	2.67	0.43
46:BW:80:ILE:HD12	46:BW:80:ILE:N	2.33	0.43
47:BX:10:ARG:CB	47:BX:11:PRO:HD2	2.48	0.43
47:BX:68:ALA:O	47:BX:69:GLU:C	2.61	0.43
50:B0:2:VAL:HG13	50:B0:3:GLN:HB2	2.01	0.43
1:CA:198:G:N2	1:CA:199:A:C4	2.87	0.43
1:CA:212:G:H2'	1:CA:213:G:C8	2.54	0.43
1:CA:292:G:N2	1:CA:309:A:C4	2.87	0.43
1:CA:412:A:C8	1:CA:413:G:C8	3.07	0.43
1:CA:429:U:O2	1:CA:429:U:H2'	2.19	0.43
1:CA:444:G:N1	1:CA:445:G:C5	2.87	0.43
1:CA:639:G:C6	1:CA:640:A:N7	2.87	0.43
1:CA:702:A:HO2'	1:CA:703:G:P	2.27	0.43
1:CA:704:A:C6	1:CA:705:G:C4	3.06	0.43
1:CA:706:A:H1'	11:CK:44:TRP:CH2	2.53	0.43
1:CA:1007:U:O4	1:CA:1022:A:N1	2.52	0.43
1:CA:1049:U:HO2'	1:CA:1050:G:P	2.42	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1150:A:H2'	10:CJ:41:PRO:HB2	2.01	0.43
1:CA:1243:C:O2	1:CA:1243:C:C2'	2.66	0.43
1:CA:1272:G:C8	1:CA:1273:C:C5	3.07	0.43
1:CA:1279:G:H4'	1:CA:1280:A:OP1	2.17	0.43
1:CA:1298:U:C4'	1:CA:1299:A:C5	3.02	0.43
1:CA:1330:U:H5"	13:CM:23:TYR:CE1	2.54	0.43
1:CA:1349:A:P	9:CI:120:LYS:HE3	2.58	0.43
2:CB:43:LEU:HA	2:CB:46:THR:HG23	2.00	0.43
2:CB:81:LYS:HE2	2:CB:91:PHE:CZ	2.54	0.43
2:CB:147:SER:O	2:CB:148:LEU:HB3	2.19	0.43
4:CD:13:ARG:HH21	4:CD:37:ALA:HB1	1.83	0.43
4:CD:56:ARG:CZ	4:CD:60:LYS:HE2	2.49	0.43
4:CD:56:ARG:NE	4:CD:60:LYS:HE2	2.34	0.43
4:CD:101:VAL:O	4:CD:102:VAL:HG23	2.19	0.43
4:CD:141:ASP:OD1	4:CD:141:ASP:C	2.61	0.43
8:CH:93:PRO:HG3	8:CH:125:ILE:HD12	2.00	0.43
9:CI:67:VAL:HG21	9:CI:79:ILE:HD11	2.00	0.43
11:CK:109:ASN:HB2	21:CU:7:ARG:HD3	2.00	0.43
12:CL:3:THR:HB	12:CL:6:GLN:HB2	2.01	0.43
12:CL:29:GLN:CB	12:CL:82:ILE:O	2.67	0.43
12:CL:86:ARG:HG2	12:CL:87:VAL:N	2.34	0.43
13:CM:14:HIS:CB	13:CM:17:ILE:HD13	2.48	0.43
15:CO:11:ILE:HD13	15:CO:31:LEU:CD1	2.48	0.43
15:CO:56:LEU:CD2	15:CO:57:LEU:N	2.82	0.43
19:CS:38:SER:C	19:CS:70:LYS:HD2	2.44	0.43
20:CT:67:ILE:HG13	20:CT:71:LYS:CG	2.49	0.43
22:CV:15:G:C4	22:CV:16:U:O4	2.72	0.43
22:CV:39:U:OP2	22:CV:39:U:C6	2.72	0.43
55:CY:17:VAL:C	55:CY:19:ALA:N	2.76	0.43
24:DA:102:U:O2	24:DA:102:U:C2'	2.66	0.43
24:DA:168:G:H2'	24:DA:168:G:N3	2.33	0.43
24:DA:223:A:H2	24:DA:407:G:N3	2.16	0.43
24:DA:297:G:H2'	24:DA:298:G:O4'	2.19	0.43
24:DA:538:A:O2'	33:DJ:8:PRO:HD2	2.19	0.43
24:DA:730:A:OP2	24:DA:731:C:OP2	2.37	0.43
24:DA:797:G:OP1	28:DE:57:LYS:CE	2.67	0.43
24:DA:813:U:H2'	24:DA:814:C:C6	2.54	0.43
24:DA:954:G:N3	24:DA:2274:A:C2	2.87	0.43
24:DA:970:U:O2'	24:DA:971:G:H5'	2.19	0.43
24:DA:1243:C:N3	24:DA:1244:A:C8	2.87	0.43
24:DA:1494:A:N6	24:DA:1495:A:C6	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1622:G:N3	24:DA:1623:G:C8	2.87	0.43
24:DA:1651:G:C2	24:DA:2007:U:C2	3.07	0.43
24:DA:1665:A:H2'	24:DA:1666:G:O4'	2.19	0.43
24:DA:1782:U:C4	24:DA:2587:A:C2	3.06	0.43
24:DA:1876:A:C2	24:DA:1877:A:C4	3.07	0.43
24:DA:2002:G:OP1	37:DN:13:ASN:HA	2.19	0.43
24:DA:2061:G:N3	24:DA:2063:C:C5	2.86	0.43
24:DA:2223:G:H4'	26:DC:264:LYS:NZ	2.34	0.43
24:DA:2331:G:P	46:DW:44:LYS:HZ1	2.41	0.43
25:DB:23:G:C2	25:DB:61:G:C2	3.07	0.43
28:DE:35:TYR:O	28:DE:36:ALA:C	2.62	0.43
28:DE:101:TYR:CD1	28:DE:101:TYR:C	2.97	0.43
28:DE:192:ALA:O	28:DE:193:VAL:C	2.62	0.43
29:DF:134:GLN:C	29:DF:136:ILE:HD13	2.44	0.43
30:DG:71:LEU:HA	30:DG:74:MET:HE3	2.01	0.43
33:DJ:102:GLU:CG	33:DJ:124:VAL:HG11	2.49	0.43
33:DJ:114:LEU:O	33:DJ:118:MET:N	2.51	0.43
37:DN:49:GLU:HB2	37:DN:50:PRO:HD3	2.01	0.43
38:DO:28:VAL:CG2	38:DO:29:HIS:N	2.78	0.43
39:DP:72:VAL:O	39:DP:72:VAL:HG23	2.18	0.43
40:DQ:69:ARG:O	40:DQ:72:GLY:N	2.43	0.43
45:DV:7:GLU:C	45:DV:40:ILE:HG22	2.44	0.43
48:DY:26:PHE:C	48:DY:28:LEU:N	2.76	0.43
1:AA:59:A:C5	1:AA:331:G:N2	2.87	0.42
1:AA:141:G:C2	1:AA:223:A:C2	3.06	0.42
1:AA:177:G:OP1	20:AT:60:ARG:HD3	2.19	0.42
1:AA:201:G:O2'	1:AA:469:C:O2'	2.28	0.42
1:AA:205:A:C5	1:AA:206:C:N4	2.87	0.42
1:AA:227:G:H2'	1:AA:228:A:C8	2.53	0.42
1:AA:257:G:C2	1:AA:270:A:N1	2.86	0.42
1:AA:341:C:O2	1:AA:349:A:C2	2.72	0.42
1:AA:490:C:C4	1:AA:491:G:N7	2.87	0.42
1:AA:490:C:H2'	1:AA:491:G:O4'	2.19	0.42
1:AA:506:G:C5	1:AA:507:C:C4	3.07	0.42
1:AA:522:C:H2'	1:AA:523:A:C8	2.54	0.42
1:AA:540:G:O6	1:AA:541:G:C6	2.72	0.42
1:AA:550:G:C5	1:AA:551:U:C5	3.06	0.42
1:AA:575:G:H4'	1:AA:576:C:OP1	2.18	0.42
1:AA:681:A:N1	1:AA:710:G:C5	2.86	0.42
1:AA:828:U:O2'	2:AB:25:PRO:HB2	2.19	0.42
1:AA:830:G:O2'	1:AA:831:A:H5'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:935:A:C2	7:AG:3:ARG:NH2	2.87	0.42
1:AA:978:A:N6	1:AA:1318:A:C5	2.87	0.42
1:AA:1003:G:N1	1:AA:1036:A:N6	2.67	0.42
1:AA:1069:C:O4'	1:AA:1191:A:C2	2.72	0.42
1:AA:1078:U:H2'	1:AA:1079:G:C8	2.54	0.42
1:AA:1108:G:H2'	1:AA:1109:C:C5'	2.48	0.42
1:AA:1124:G:O2'	1:AA:1125:U:P	2.76	0.42
1:AA:1329:A:C5	1:AA:1330:U:C5	3.07	0.42
1:AA:1332:A:C6	1:AA:1333:A:C6	3.07	0.42
1:AA:1375:A:C2	1:AA:1376:U:H1'	2.54	0.42
1:AA:1505:G:C2'	23:AX:12:A:OP2	2.66	0.42
57:AA:1657:NMY:H172	57:AA:1657:NMY:HN21	1.83	0.42
2:AB:104:TRP:CZ2	2:AB:155:GLY:HA2	2.54	0.42
2:AB:135:LEU:O	2:AB:138:THR:N	2.51	0.42
2:AB:146:ASN:O	2:AB:146:ASN:CG	2.62	0.42
2:AB:170:HIS:O	2:AB:172:ALA:N	2.52	0.42
3:AC:43:LEU:O	3:AC:44:THR:C	2.62	0.42
3:AC:79:LYS:CE	1:CA:1539:C:OP2	2.66	0.42
3:AC:112:ASP:OD2	3:AC:115:LEU:HB2	2.18	0.42
3:AC:150:LYS:HA	3:AC:168:TYR:O	2.19	0.42
4:AD:103:TYR:CE1	4:AD:114:ALA:CB	3.02	0.42
4:AD:136:GLN:O	4:AD:136:GLN:HG3	2.19	0.42
5:AE:107:ALA:HB1	5:AE:125:ALA:HB3	2.01	0.42
7:AG:125:SER:O	7:AG:127:ALA:N	2.51	0.42
8:AH:15:ARG:NH1	8:AH:15:ARG:HG2	2.33	0.42
12:AL:44:LYS:N	12:AL:44:LYS:HD2	2.34	0.42
14:AN:19:TYR:O	14:AN:22:LYS:HB3	2.18	0.42
15:AO:25:THR:OG1	15:AO:26:GLU:N	2.52	0.42
16:AP:53:ASP:O	16:AP:54:LEU:C	2.62	0.42
17:AQ:12:VAL:O	17:AQ:22:VAL:O	2.37	0.42
17:AQ:20:SER:O	17:AQ:21:ILE:C	2.62	0.42
18:AR:55:LEU:O	18:AR:55:LEU:CG	2.66	0.42
19:AS:44:MET:O	19:AS:62:VAL:CG2	2.67	0.42
21:AU:14:VAL:O	21:AU:16:LEU:CD1	2.67	0.42
21:AU:24:GLU:CD	21:AU:25:LYS:H	2.26	0.42
24:BA:21:A:C2	24:BA:520:G:N3	2.87	0.42
24:BA:72:U:P	43:BT:6:ARG:HH22	2.42	0.42
24:BA:105:C:H2'	24:BA:106:C:C6	2.54	0.42
24:BA:110:G:H2'	24:BA:111:A:H5'	2.01	0.42
24:BA:158:U:H2'	24:BA:159:G:C5'	2.49	0.42
24:BA:458:G:H22	24:BA:469:G:H2'	1.82	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:483:A:C2	24:BA:484:C:O4'	2.72	0.42
24:BA:564:C:H1'	40:BQ:36:GLN:OE1	2.19	0.42
24:BA:693:A:C5	24:BA:694:U:C5	3.07	0.42
24:BA:1019:U:OP1	24:BA:1035:U:O2'	2.27	0.42
24:BA:1195:G:C2'	24:BA:1196:C:H5'	2.49	0.42
24:BA:1223:G:C2	24:BA:1227:G:C4	3.07	0.42
24:BA:1300:G:C2	24:BA:1626:A:C6	3.07	0.42
24:BA:1531:C:C4	24:BA:1532:A:C2	3.07	0.42
24:BA:1592:C:H2'	24:BA:1593:A:C8	2.54	0.42
24:BA:1996:C:OP1	34:BK:31:ARG:CZ	2.67	0.42
24:BA:2041:U:C5	24:BA:2042:A:N7	2.87	0.42
24:BA:2119:A:N6	24:BA:2170:A:N7	2.67	0.42
24:BA:2285:C:H3'	51:B1:24:LYS:NZ	2.34	0.42
24:BA:2302:U:N3	24:BA:2303:G:C8	2.87	0.42
24:BA:2367:G:C6	24:BA:2368:C:N4	2.86	0.42
24:BA:2524:G:O2'	24:BA:2740:A:N6	2.51	0.42
24:BA:2588:G:OP1	59:BA:3319:HOH:O	2.22	0.42
24:BA:2685:G:OP1	34:BK:78:ARG:NH2	2.52	0.42
24:BA:2813:A:H2'	24:BA:2814:A:O4'	2.19	0.42
24:BA:2814:A:C2'	24:BA:2815:C:H5'	2.49	0.42
24:BA:2886:A:C5	24:BA:2887:A:C8	3.07	0.42
24:BA:2886:A:C6	24:BA:2887:A:C5	3.07	0.42
25:BB:29:A:H2'	25:BB:30:C:O4'	2.19	0.42
25:BB:91:C:P	36:BM:18:ARG:NH1	2.89	0.42
26:BC:235:GLU:CG	26:BC:235:GLU:O	2.67	0.42
27:BD:39:ASP:OD1	27:BD:40:LEU:N	2.52	0.42
28:BE:176:ASP:OD1	28:BE:178:VAL:N	2.52	0.42
31:BH:27:ARG:O	31:BH:32:PRO:HG3	2.16	0.42
34:BK:27:GLY:HA3	34:BK:30:ARG:HB3	2.01	0.42
36:BM:34:LYS:HD3	36:BM:99:GLY:HA2	2.01	0.42
36:BM:108:VAL:HG13	36:BM:109:PRO:HD2	2.01	0.42
37:BN:83:LEU:HD23	37:BN:83:LEU:N	2.33	0.42
39:BP:62:LYS:HG2	39:BP:63:ILE:N	2.34	0.42
41:BR:26:ASP:O	41:BR:27:ILE:HD13	2.19	0.42
43:BT:29:THR:OG1	43:BT:86:THR:HG22	2.19	0.42
49:BZ:24:LEU:HD22	49:BZ:24:LEU:HA	1.87	0.42
53:B3:28:LEU:HD12	53:B3:40:LYS:HG2	2.01	0.42
1:CA:156:C:N4	1:CA:157:U:O2	2.52	0.42
1:CA:554:A:H5'	12:CL:26:ALA:HB1	2.01	0.42
1:CA:608:A:C4	1:CA:609:A:C8	3.07	0.42
1:CA:787:A:C2	1:CA:788:U:H1'	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:957:U:O2	1:CA:959:A:OP2	2.37	0.42
1:CA:1017:U:H2'	1:CA:1018:G:H5"	2.01	0.42
1:CA:1128:C:H4'	1:CA:1148:U:O2	2.19	0.42
1:CA:1158:C:N4	1:CA:1160:G:C5	2.87	0.42
1:CA:1316:G:N2	1:CA:1318:A:H3'	2.34	0.42
1:CA:1393:U:O2	1:CA:1393:U:H2'	2.18	0.42
1:CA:1503:A:H5'	1:CA:1531:A:H1'	2.01	0.42
4:CD:4:TYR:CE1	4:CD:63:ARG:NH2	2.87	0.42
4:CD:22:LYS:CG	4:CD:25:VAL:HG13	2.46	0.42
4:CD:54:GLN:NE2	4:CD:202:GLU:CD	2.77	0.42
4:CD:95:GLU:OE2	4:CD:100:ASN:ND2	2.52	0.42
7:CG:23:LEU:O	7:CG:24:ALA:C	2.62	0.42
7:CG:126:ASP:OD1	7:CG:132:GLY:HA3	2.19	0.42
10:CJ:36:VAL:HA	10:CJ:75:ASP:OD1	2.18	0.42
13:CM:75:MET:HA	13:CM:78:LYS:HB2	2.01	0.42
13:CM:114:LYS:N	13:CM:115:PRO:HD2	2.34	0.42
13:CM:114:LYS:N	13:CM:115:PRO:CD	2.82	0.42
17:CQ:63:GLU:HA	17:CQ:73:TRP:CE3	2.54	0.42
18:CR:48:ARG:CG	18:CR:51:TYR:HD2	2.31	0.42
22:CV:15:G:C2'	22:CV:16:U:C6	3.02	0.42
55:CY:159:ASP:HA	55:CY:162:LYS:CB	2.49	0.42
55:CY:159:ASP:OD1	55:CY:159:ASP:C	2.62	0.42
24:DA:137:U:O2'	24:DA:139:U:H2'	2.19	0.42
24:DA:189:G:OP1	47:DX:25:LYS:HD3	2.19	0.42
24:DA:227:A:C5	24:DA:2407:A:H1'	2.54	0.42
24:DA:498:G:C6	24:DA:499:U:C4	3.07	0.42
24:DA:678:C:H2'	24:DA:679:C:C6	2.54	0.42
24:DA:735:A:N7	24:DA:736:C:C5	2.86	0.42
24:DA:910:A:H2'	24:DA:911:A:C8	2.54	0.42
24:DA:1073:A:H3'	24:DA:1074:G:H5"	2.00	0.42
24:DA:1243:C:C2	24:DA:1244:A:C8	3.07	0.42
24:DA:1910:G:C6	24:DA:1921:G:C6	3.07	0.42
24:DA:1964:G:H3'	24:DA:1965:C:H5'	2.01	0.42
24:DA:1999:C:H5"	24:DA:2723:C:HO2'	1.83	0.42
24:DA:2024:G:O3'	27:DD:154:LYS:CE	2.67	0.42
24:DA:2128:G:C5	24:DA:2129:C:C4	3.06	0.42
24:DA:2314:A:H5"	29:DF:34:THR:HG21	2.00	0.42
24:DA:2318:G:N7	24:DA:2319:G:C6	2.87	0.42
24:DA:2557:G:H2'	24:DA:2558:C:C6	2.54	0.42
24:DA:2597:G:C5'	26:DC:239:PHE:O	2.61	0.42
24:DA:2614:A:H2'	24:DA:2614:A:O5'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DA:3186:NMY:N2	57:DA:3186:NMY:C14	2.82	0.42
25:DB:98:G:H22	45:DV:14:LYS:HE2	1.84	0.42
26:DC:144:GLU:OE1	26:DC:147:PRO:HA	2.19	0.42
26:DC:203:VAL:O	26:DC:204:LEU:HB2	2.19	0.42
29:DF:4:HIS:HB2	29:DF:96:TRP:CD2	2.54	0.42
30:DG:54:ARG:CD	30:DG:57:TYR:CE2	3.00	0.42
32:DI:17:ALA:O	32:DI:18:ASN:HB3	2.18	0.42
33:DJ:136:GLN:O	33:DJ:137:PRO:C	2.60	0.42
34:DK:61:VAL:HG12	34:DK:87:LEU:HD21	1.99	0.42
34:DK:104:THR:C	34:DK:106:GLU:H	2.27	0.42
34:DK:111:LYS:HD2	34:DK:112:PHE:CE1	2.54	0.42
35:DL:12:SER:O	35:DL:13:LYS:C	2.60	0.42
36:DM:57:VAL:C	36:DM:58:LYS:HG2	2.44	0.42
38:DO:56:LYS:O	38:DO:57:ALA:C	2.62	0.42
40:DQ:25:GLY:C	40:DQ:27:ARG:N	2.77	0.42
40:DQ:109:VAL:CG1	40:DQ:113:LYS:HE2	2.49	0.42
44:DU:16:LYS:C	44:DU:16:LYS:HD2	2.44	0.42
1:AA:10:A:P	5:AE:131:THR:HG21	2.58	0.42
1:AA:328:C:H4'	1:AA:329:A:C5'	2.46	0.42
1:AA:646:G:C2'	1:AA:647:C:H5'	2.49	0.42
1:AA:791:G:C5	1:AA:792:A:N7	2.87	0.42
1:AA:995:C:N3	1:AA:1046:A:O2'	2.45	0.42
1:AA:1020:G:N2	1:AA:1021:A:C6	2.87	0.42
1:AA:1048:G:H2'	1:AA:1050:G:C8	2.54	0.42
1:AA:1220:G:C2'	19:AS:36:ARG:HH21	2.28	0.42
1:AA:1237:C:C6	1:AA:1336:C:C4	3.06	0.42
1:AA:1269:A:C2	1:AA:1313:U:C1'	3.01	0.42
1:AA:1302:C:OP1	13:AM:13:LYS:CE	2.67	0.42
1:AA:1465:A:H2'	1:AA:1466:C:O4'	2.19	0.42
2:AB:39:HIS:HB2	2:AB:189:THR:HG21	2.01	0.42
2:AB:186:ILE:HA	2:AB:200:ILE:HB	2.01	0.42
3:AC:29:PHE:O	3:AC:33:LEU:N	2.49	0.42
4:AD:115:ARG:O	4:AD:117:LEU:O	2.36	0.42
4:AD:199:LEU:HD23	4:AD:199:LEU:HA	1.85	0.42
5:AE:151:GLU:O	5:AE:155:ALA:N	2.52	0.42
11:AK:89:PRO:HG3	21:AU:29:LEU:HD21	2.02	0.42
14:AN:2:LYS:HB3	14:AN:5:MET:CG	2.49	0.42
17:AQ:29:VAL:HG13	17:AQ:30:LYS:N	2.34	0.42
18:AR:51:TYR:CD1	18:AR:51:TYR:C	2.97	0.42
19:AS:47:LEU:O	19:AS:62:VAL:HG22	2.19	0.42
19:AS:71:LEU:O	19:AS:74:PHE:N	2.47	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:214:G:H1'	24:BA:217:A:H5'	2.01	0.42
24:BA:250:G:C5	24:BA:251:A:C6	3.06	0.42
24:BA:375:G:N2	24:BA:376:G:H1'	2.34	0.42
24:BA:408:G:C6	24:BA:409:G:C5	3.07	0.42
24:BA:577:G:O2'	24:BA:578:G:H5'	2.18	0.42
24:BA:591:U:N3	24:BA:592:A:N7	2.67	0.42
24:BA:608:A:C3'	24:BA:609:A:H8	2.31	0.42
24:BA:876:C:C4	24:BA:877:A:C4	3.08	0.42
24:BA:1075:C:C4	24:BA:1076:C:N4	2.87	0.42
24:BA:1172:C:C5	24:BA:1173:U:C4	3.07	0.42
24:BA:1322:A:O3'	42:BS:84:ARG:NH1	2.45	0.42
24:BA:1425:G:H2'	24:BA:1426:G:C8	2.54	0.42
24:BA:1606:C:C2'	24:BA:1607:C:OP2	2.66	0.42
24:BA:1832:C:N4	24:BA:1833:C:C4	2.86	0.42
24:BA:2142:A:N1	24:BA:2149:U:C4	2.87	0.42
24:BA:2204:G:C6	24:BA:2221:G:C4	3.08	0.42
24:BA:2377:A:N3	38:BO:92:PHE:HZ	2.14	0.42
24:BA:2496:C:P	36:BM:81:ARG:O	2.77	0.42
24:BA:2513:A:C6	24:BA:2574:G:C5	3.07	0.42
24:BA:2655:G:C2	24:BA:2664:G:C5	3.07	0.42
24:BA:2689:U:H4'	24:BA:2690:U:OP2	2.18	0.42
24:BA:2703:C:O2'	24:BA:2704:C:C5'	2.67	0.42
24:BA:2709:G:C6	24:BA:2710:C:N4	2.87	0.42
24:BA:2806:C:H2'	24:BA:2807:U:O4'	2.20	0.42
25:BB:21:G:H2'	25:BB:22:U:O4'	2.19	0.42
25:BB:114:C:C4'	38:BO:47:VAL:CG1	2.97	0.42
25:BB:114:C:H4'	38:BO:47:VAL:CG1	2.49	0.42
26:BC:58:LYS:O	26:BC:59:GLN:HG3	2.19	0.42
29:BF:125:GLY:O	29:BF:126:ASN:CG	2.61	0.42
30:BG:139:VAL:HG12	30:BG:143:VAL:CG2	2.49	0.42
32:BI:100:ILE:CG2	32:BI:105:LEU:HG	2.50	0.42
35:BL:91:ASP:H	35:BL:94:THR:HG22	1.83	0.42
35:BL:93:ASN:HB2	35:BL:96:LYS:HD3	2.01	0.42
39:BP:97:TYR:CD1	39:BP:100:ARG:NH1	2.88	0.42
41:BR:41:ILE:HD11	41:BR:47:VAL:HG12	2.02	0.42
43:BT:63:VAL:CG2	43:BT:80:TRP:CE2	3.02	0.42
44:BU:10:VAL:O	44:BU:21:ARG:HG2	2.19	0.42
44:BU:42:LYS:N	44:BU:59:GLU:OE1	2.51	0.42
45:BV:80:HIS:HB2	45:BV:83:LYS:NZ	2.34	0.42
48:BY:33:ALA:C	48:BY:35:GLY:N	2.77	0.42
49:BZ:50:VAL:CG2	49:BZ:53:MET:HG3	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B3:6:VAL:CG1	53:B3:60:CYS:CB	2.97	0.42
1:CA:31:G:O4'	1:CA:306:A:C2	2.72	0.42
1:CA:105:G:H2'	1:CA:106:C:C6	2.53	0.42
1:CA:320:A:O2'	1:CA:1435:G:H1'	2.19	0.42
1:CA:363:A:OP1	12:CL:30:LYS:HE3	2.19	0.42
1:CA:476:U:H2'	1:CA:477:C:H6	1.84	0.42
1:CA:723:U:OP1	21:CU:49:LYS:HG3	2.19	0.42
1:CA:760:G:H5'	1:CA:761:G:OP2	2.19	0.42
1:CA:794:A:O2'	1:CA:795:C:H5'	2.18	0.42
1:CA:807:A:C5	1:CA:808:C:N3	2.86	0.42
1:CA:972:C:O2'	10:CJ:57:VAL:HA	2.19	0.42
1:CA:1014:A:C2	19:CS:34:TRP:CZ2	3.06	0.42
1:CA:1175:G:C2	1:CA:1176:A:C8	3.07	0.42
1:CA:1192:C:H2'	1:CA:1193:G:O4'	2.19	0.42
1:CA:1245:C:H2'	1:CA:1246:A:C8	2.55	0.42
1:CA:1310:G:H5"	13:CM:79:ARG:CZ	2.49	0.42
3:CC:73:PRO:HG3	3:CC:105:GLU:CG	2.49	0.42
3:CC:111:LEU:HD21	3:CC:144:LEU:HB2	2.01	0.42
3:CC:116:VAL:HA	3:CC:119:SER:HB3	2.01	0.42
3:CC:156:ARG:CZ	3:CC:193:TYR:CZ	3.02	0.42
3:CC:175:LEU:HD11	3:CC:201:TRP:CD1	2.54	0.42
4:CD:9:LEU:C	4:CD:11:LEU:N	2.77	0.42
4:CD:168:PRO:O	4:CD:169:THR:HB	2.18	0.42
6:CF:96:VAL:O	6:CF:97:THR:HG23	2.19	0.42
8:CH:11:LEU:HD13	8:CH:11:LEU:HA	1.88	0.42
9:CI:130:ARG:CZ	22:CV:33:U:C6	3.02	0.42
11:CK:14:LYS:O	11:CK:15:GLN:CB	2.67	0.42
12:CL:44:LYS:HD2	12:CL:44:LYS:HA	1.89	0.42
14:CN:19:TYR:CE2	14:CN:51:LEU:HB3	2.54	0.42
21:CU:10:GLU:CB	21:CU:11:PRO:CD	2.96	0.42
21:CU:39:GLU:C	21:CU:41:PRO:HD2	2.45	0.42
22:CV:76:A:C2	24:DA:2421:G:C6	3.06	0.42
55:CY:158:ASP:O	55:CY:160:VAL:N	2.45	0.42
24:DA:283:G:H2'	24:DA:284:U:O4'	2.19	0.42
24:DA:330:A:H4'	24:DA:331:C:OP2	2.18	0.42
24:DA:806:C:OP2	35:DL:37:GLY:CA	2.67	0.42
24:DA:1002:G:C6	24:DA:1154:G:N2	2.87	0.42
24:DA:1014:A:C2	24:DA:1149:G:N3	2.86	0.42
24:DA:1060:U:H4'	24:DA:1061:U:C5'	2.47	0.42
24:DA:1417:C:C4	24:DA:1418:G:C6	3.07	0.42
24:DA:1429:G:N3	24:DA:1568:G:C2	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1628:G:O2'	24:DA:1629:U:H5'	2.19	0.42
24:DA:1661:G:C4	24:DA:1662:U:C5	3.07	0.42
24:DA:1666:G:H4'	34:DK:6:THR:CG2	2.49	0.42
24:DA:1789:A:H5"	26:DC:218:THR:O	2.19	0.42
24:DA:1985:C:C2'	24:DA:1986:C:H5'	2.49	0.42
24:DA:2075:U:C4	24:DA:2238:G:C6	3.08	0.42
24:DA:2117:A:N3	24:DA:2117:A:H2'	2.33	0.42
24:DA:2128:G:C6	24:DA:2129:C:N3	2.87	0.42
24:DA:2219:U:H2'	24:DA:2220:U:O4'	2.18	0.42
24:DA:2221:G:C6	24:DA:2222:C:C5	3.07	0.42
24:DA:2326:C:C1'	24:DA:2327:A:OP1	2.66	0.42
24:DA:2347:C:O2	51:D1:38:PHE:CD2	2.72	0.42
24:DA:2428:G:H5"	24:DA:2429:G:P	2.59	0.42
24:DA:2540:C:C2	24:DA:2541:A:C8	3.07	0.42
24:DA:2599:G:C2'	24:DA:2600:A:H5'	2.49	0.42
24:DA:2884:U:H5	50:D0:39:ARG:HG3	1.84	0.42
57:DA:3190:NMY:O17	57:DA:3190:NMY:H2	2.18	0.42
26:DC:138:SER:HB3	26:DC:163:ILE:HD11	2.00	0.42
26:DC:216:ARG:NH1	26:DC:216:ARG:HG3	2.34	0.42
28:DE:25:GLU:O	28:DE:26:ALA:C	2.62	0.42
29:DF:106:ALA:HA	29:DF:136:ILE:HG22	2.00	0.42
29:DF:127:TYR:CD1	29:DF:169:LEU:HD11	2.54	0.42
29:DF:135:ILE:C	29:DF:136:ILE:HD12	2.44	0.42
30:DG:25:ILE:HG21	30:DG:75:VAL:HA	2.01	0.42
31:DH:137:GLU:C	31:DH:138:VAL:CG2	2.92	0.42
32:DI:24:GLY:C	32:DI:26:ALA:N	2.76	0.42
32:DI:122:GLU:C	32:DI:124:MET:N	2.76	0.42
33:DJ:117:ALA:HA	33:DJ:120:ARG:NE	2.35	0.42
35:DL:38:GLN:C	35:DL:40:SER:N	2.77	0.42
44:DU:35:VAL:HB	44:DU:38:ILE:HG13	2.01	0.42
46:DW:58:THR:C	46:DW:59:LEU:HD23	2.44	0.42
50:D0:52:LYS:HE2	50:D0:55:ALA:CA	2.49	0.42
54:D4:29:ALA:C	54:D4:30:GLU:OE1	2.62	0.42
54:D4:30:GLU:N	54:D4:30:GLU:CD	2.77	0.42
1:AA:55:A:N1	31:DH:91:PHE:CA	2.82	0.42
1:AA:57:G:C5	1:AA:58:C:C4	3.07	0.42
1:AA:184:G:C5	1:AA:185:U:C5	3.06	0.42
1:AA:308:C:C2	1:AA:309:A:C8	3.08	0.42
1:AA:512:U:C2	1:AA:513:C:C5	3.07	0.42
1:AA:671:G:C3'	6:AF:79:ARG:HH22	2.32	0.42
1:AA:676:A:H5"	11:AK:115:PRO:CB	2.47	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:676:A:C2	1:AA:677:U:N3	2.87	0.42
1:AA:707:U:C2	1:AA:708:C:C5	3.08	0.42
1:AA:923:A:O4'	1:AA:1398:A:C2	2.72	0.42
1:AA:1130:A:O2'	9:AI:5:GLN:NE2	2.52	0.42
1:AA:1192:C:H3'	1:AA:1193:G:O4'	2.20	0.42
1:AA:1234:C:C1'	1:AA:1364:U:H6	2.31	0.42
1:AA:1355:G:C2	1:AA:1368:A:C2	3.07	0.42
1:AA:1457:G:C4	1:AA:1458:G:C8	3.07	0.42
2:AB:166:ALA:C	2:AB:168:HIS:N	2.77	0.42
3:AC:2:GLY:O	3:AC:3:GLN:HG2	2.19	0.42
3:AC:79:LYS:O	3:AC:80:LYS:C	2.63	0.42
4:AD:104:ARG:O	4:AD:171:LEU:HD21	2.19	0.42
5:AE:34:THR:HB	5:AE:52:LYS:HB3	2.01	0.42
5:AE:44:GLY:O	5:AE:45:ARG:O	2.37	0.42
5:AE:80:THR:HG22	5:AE:122:ASN:CG	2.44	0.42
5:AE:141:ILE:O	5:AE:144:LEU:N	2.40	0.42
8:AH:104:VAL:HG11	8:AH:116:ALA:HB2	2.01	0.42
11:AK:125:LYS:O	21:AU:35:ARG:HB2	2.20	0.42
14:AN:25:GLU:C	14:AN:27:LYS:N	2.75	0.42
16:AP:56:ARG:HD3	16:AP:56:ARG:HA	1.79	0.42
19:AS:36:ARG:CD	19:AS:72:GLY:HA2	2.49	0.42
21:AU:26:ALA:C	21:AU:28:VAL:N	2.77	0.42
23:AX:16:U:P	23:AX:16:U:H3'	2.58	0.42
24:BA:182:A:C8	24:BA:183:C:C5	3.08	0.42
24:BA:668:A:C2	24:BA:670:A:C6	3.06	0.42
24:BA:716:A:C3'	24:BA:717:C:H5"	2.49	0.42
24:BA:836:G:C5	24:BA:837:C:C4	3.08	0.42
24:BA:954:G:O3'	36:BM:13:HIS:CD2	2.72	0.42
24:BA:1076:C:H2'	24:BA:1077:A:O4'	2.19	0.42
24:BA:1124:G:H2'	24:BA:1125:G:O4'	2.18	0.42
24:BA:1141:U:OP2	33:BJ:65:THR:HG21	2.19	0.42
24:BA:1163:G:C5	24:BA:1164:C:C5	3.08	0.42
24:BA:1266:G:N2	24:BA:2012:G:H2'	2.34	0.42
24:BA:1429:G:C2	24:BA:1430:G:C4	3.07	0.42
24:BA:1835:G:H5'	24:BA:1835:G:H8	1.81	0.42
24:BA:2001:C:H1'	24:BA:2689:U:C4	2.55	0.42
24:BA:2058:A:N6	59:BA:3489:HOH:O	2.51	0.42
24:BA:2521:C:O2'	24:BA:2522:U:O5'	2.34	0.42
24:BA:2748:A:N1	24:BA:2749:A:C4	2.87	0.42
24:BA:2779:U:O4'	24:BA:2781:A:C5	2.72	0.42
25:BB:53:A:C4	25:BB:54:G:N7	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:200:ASP:OD1	27:BD:200:ASP:N	2.52	0.42
28:BE:60:TRP:O	28:BE:61:ARG:O	2.37	0.42
28:BE:130:LYS:O	28:BE:131:THR:C	2.62	0.42
28:BE:164:LEU:HD11	28:BE:167:VAL:CG1	2.48	0.42
29:BF:102:LEU:C	29:BF:102:LEU:HD12	2.44	0.42
30:BG:85:LYS:HG3	30:BG:164:ALA:HB3	2.01	0.42
31:BH:55:GLU:O	31:BH:59:ALA:HB3	2.20	0.42
34:BK:39:ILE:HG23	34:BK:40:LYS:N	2.33	0.42
38:BO:16:ARG:HD2	38:BO:19:GLN:OE1	2.20	0.42
38:BO:62:LEU:HD21	38:BO:70:ALA:CB	2.49	0.42
39:BP:58:PHE:HE1	39:BP:73:PHE:HB2	1.83	0.42
39:BP:59:THR:OG1	39:BP:72:VAL:HG12	2.19	0.42
44:BU:11:ILE:HG23	44:BU:21:ARG:HG3	2.00	0.42
48:BY:42:LEU:CD1	48:BY:42:LEU:N	2.82	0.42
54:B4:14:CYS:SG	54:B4:33:HIS:ND1	2.92	0.42
1:CA:47:C:O2	1:CA:49:U:C5	2.73	0.42
1:CA:110:C:N4	1:CA:111:G:C6	2.87	0.42
1:CA:363:A:P	12:CL:30:LYS:HZ1	2.41	0.42
1:CA:392:C:OP1	16:CP:8:ARG:NH2	2.46	0.42
1:CA:649:A:H3'	1:CA:650:G:H5"	2.00	0.42
1:CA:725:G:C2	1:CA:726:C:N1	2.87	0.42
1:CA:854:U:C2	1:CA:855:U:C5	3.08	0.42
1:CA:952:U:O4	13:CM:103:LYS:HE3	2.19	0.42
1:CA:1092:A:C6	1:CA:1093:A:C6	3.08	0.42
1:CA:1211:U:O4'	1:CA:1213:A:N3	2.53	0.42
2:CB:47:VAL:N	2:CB:48:PRO:HD2	2.35	0.42
3:CC:36:ASP:O	3:CC:39:VAL:CG2	2.67	0.42
3:CC:133:ALA:O	3:CC:137:ALA:HB2	2.18	0.42
4:CD:62:ARG:NH1	4:CD:69:GLU:N	2.66	0.42
4:CD:117:LEU:C	4:CD:117:LEU:CD1	2.91	0.42
6:CF:81:ASN:C	6:CF:83:ALA:N	2.74	0.42
7:CG:99:LEU:CD1	7:CG:137:LYS:NZ	2.81	0.42
8:CH:6:PRO:O	8:CH:10:MET:N	2.53	0.42
8:CH:12:THR:HA	8:CH:15:ARG:NH2	2.35	0.42
8:CH:29:SER:HB3	8:CH:57:PRO:HB2	2.00	0.42
10:CJ:40:ILE:HG12	10:CJ:73:LEU:HD12	2.01	0.42
10:CJ:89:ARG:O	10:CJ:90:LEU:C	2.62	0.42
11:CK:20:VAL:CG2	11:CK:21:ALA:N	2.82	0.42
12:CL:20:ASN:C	12:CL:21:VAL:HG13	2.44	0.42
13:CM:84:GLY:N	19:CS:74:PHE:CZ	2.87	0.42
15:CO:27:VAL:HG23	15:CO:28:GLN:N	2.28	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CR:44:ILE:O	18:CR:46:GLY:N	2.52	0.42
19:CS:12:ASP:OD2	19:CS:37:ARG:NH2	2.52	0.42
19:CS:31:LEU:O	19:CS:50:ALA:CB	2.67	0.42
55:CY:59:VAL:HG12	55:CY:60:GLU:N	2.35	0.42
55:CY:133:ARG:NH2	24:DA:1941:C:O2	2.52	0.42
55:CY:144:LYS:C	55:CY:146:LYS:N	2.77	0.42
24:DA:26:G:C6	24:DA:27:G:C6	3.07	0.42
24:DA:137:U:O2	43:DT:1:MET:CE	2.66	0.42
24:DA:208:C:C2'	24:DA:209:C:O5'	2.67	0.42
24:DA:223:A:C5	24:DA:422:A:C8	3.07	0.42
24:DA:646:U:C5'	24:DA:647:G:H5"	2.49	0.42
24:DA:778:G:C4	24:DA:779:U:C6	3.07	0.42
24:DA:900:A:C4	24:DA:901:C:C5	3.08	0.42
24:DA:1042:G:H2'	24:DA:1043:C:O4'	2.19	0.42
24:DA:1060:U:O4'	24:DA:1061:U:H3'	2.19	0.42
24:DA:1153:C:N4	24:DA:1154:G:C6	2.88	0.42
24:DA:1413:A:N1	24:DA:1414:C:O2	2.52	0.42
24:DA:1651:G:C6	24:DA:1652:A:C5	3.07	0.42
24:DA:2128:G:H2'	24:DA:2129:C:O4'	2.20	0.42
24:DA:2129:C:H3'	24:DA:2130:U:H5'	2.00	0.42
24:DA:2164:C:O2	24:DA:2164:C:O2'	2.23	0.42
24:DA:2166:U:O4	24:DA:2170:A:C6	2.70	0.42
24:DA:2221:G:H2'	24:DA:2222:C:H6	1.84	0.42
24:DA:2697:G:H2'	24:DA:2698:U:O4'	2.19	0.42
24:DA:2820:A:N1	37:DN:4:ARG:NH2	2.63	0.42
24:DA:2820:A:O2'	24:DA:2821:A:OP1	2.36	0.42
26:DC:86:ARG:CG	26:DC:86:ARG:NH1	2.77	0.42
26:DC:87:SER:HB2	26:DC:157:ALA:H	1.84	0.42
26:DC:128:THR:C	26:DC:129:LEU:HG	2.43	0.42
27:DD:124:ARG:HG2	27:DD:125:TRP:N	2.34	0.42
28:DE:193:VAL:O	28:DE:194:LYS:C	2.61	0.42
31:DH:29:PHE:O	31:DH:30:LEU:O	2.36	0.42
31:DH:145:ASN:CG	31:DH:146:VAL:H	2.27	0.42
31:DH:148:ALA:O	31:DH:149:GLU:CB	2.66	0.42
34:DK:14:SER:HB2	34:DK:95:ILE:CG2	2.49	0.42
36:DM:17:ASN:O	36:DM:38:ARG:NH1	2.52	0.42
37:DN:67:PHE:CD1	37:DN:67:PHE:C	2.97	0.42
40:DQ:101:ASP:OD1	40:DQ:103:VAL:HG23	2.20	0.42
41:DR:16:GLU:N	41:DR:98:ILE:HD11	2.34	0.42
41:DR:59:ILE:HA	41:DR:101:ILE:HA	2.01	0.42
42:DS:33:LEU:HD12	42:DS:33:LEU:HA	1.90	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:D3:25:HIS:HB2	53:D3:43:LEU:HB3	2.00	0.42
54:D4:25:VAL:HG11	54:D4:33:HIS:O	2.18	0.42
1:AA:67:C:C2'	1:AA:68:G:O5'	2.66	0.42
1:AA:235:C:O3'	17:AQ:73:TRP:HH2	2.02	0.42
1:AA:236:A:H5"	17:AQ:44:LEU:HD23	2.01	0.42
1:AA:261:U:P	20:AT:71:LYS:HZ3	2.41	0.42
1:AA:518:C:H6	1:AA:530:G:H1'	1.84	0.42
1:AA:577:G:H1'	1:AA:816:A:H2'	2.01	0.42
1:AA:607:A:H2'	1:AA:608:A:H8	1.83	0.42
1:AA:667:G:OP1	1:AA:732:C:O2'	2.35	0.42
1:AA:696:A:O2'	1:AA:697:U:H5'	2.20	0.42
1:AA:768:A:N3	1:AA:1512:U:O2'	2.51	0.42
1:AA:892:A:C6	1:AA:893:C:C4	3.08	0.42
1:AA:958:A:N6	1:AA:959:A:N6	2.67	0.42
1:AA:1057:G:H5"	3:AC:154:SER:O	2.18	0.42
1:AA:1061:G:N7	1:AA:1062:U:C4	2.88	0.42
1:AA:1187:G:C6	1:AA:1188:A:C5	3.08	0.42
1:AA:1239:A:H4'	1:AA:1240:U:OP1	2.19	0.42
1:AA:1285:A:H5"	1:AA:1286:U:C4	2.54	0.42
1:AA:1385:G:C6	1:AA:1386:G:C5	3.07	0.42
2:AB:16:PHE:CD2	2:AB:40:ILE:HD11	2.55	0.42
2:AB:118:GLU:C	2:AB:120:GLN:OE1	2.61	0.42
4:AD:9:LEU:CD1	4:AD:10:LYS:H	2.32	0.42
4:AD:14:ARG:HG3	4:AD:14:ARG:HH11	1.84	0.42
5:AE:10:GLU:O	5:AE:41:ASP:HA	2.20	0.42
6:AF:77:THR:HA	6:AF:80:PHE:CG	2.54	0.42
10:AJ:10:LEU:HD12	10:AJ:10:LEU:N	2.34	0.42
10:AJ:92:LEU:O	10:AJ:93:ALA:C	2.62	0.42
12:AL:52:VAL:HG23	12:AL:53:CYS:H	1.84	0.42
13:AM:2:ALA:C	13:AM:9:ILE:HD12	2.44	0.42
19:AS:33:THR:O	19:AS:57:HIS:NE2	2.49	0.42
19:AS:52:HIS:ND1	19:AS:53:ASN:N	2.67	0.42
20:AT:29:ARG:O	20:AT:30:THR:C	2.61	0.42
20:AT:69:LYS:HD3	20:AT:70:ASN:OD1	2.19	0.42
22:AV:18:G:C4	22:AV:58:A:C2	3.08	0.42
24:BA:18:U:OP1	40:BQ:25:GLY:N	2.49	0.42
24:BA:31:C:N4	59:BA:3212:HOH:O	2.52	0.42
24:BA:136:G:H2'	24:BA:137:U:C6	2.55	0.42
24:BA:153:U:H2'	24:BA:154:U:C6	2.54	0.42
24:BA:170:U:H2'	24:BA:171:U:O5'	2.19	0.42
24:BA:642:U:O2	24:BA:644:A:C8	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:769:U:N3	24:BA:770:G:C8	2.87	0.42
24:BA:770:G:C2	24:BA:771:G:N9	2.88	0.42
24:BA:818:G:H5'	24:BA:839:U:OP1	2.20	0.42
24:BA:900:A:N7	24:BA:901:C:C4	2.88	0.42
24:BA:1097:U:C5	24:BA:1098:A:N3	2.88	0.42
24:BA:1361:G:C4	24:BA:1362:C:C5	3.07	0.42
24:BA:1466:U:O4'	24:BA:1545:A:C2	2.72	0.42
24:BA:1722:A:H2'	24:BA:1723:G:O4'	2.19	0.42
24:BA:1830:C:H2'	24:BA:1831:G:O5'	2.18	0.42
24:BA:2018:G:O2'	24:BA:2019:A:H5'	2.20	0.42
24:BA:2097:A:N1	24:BA:2193:G:C2	2.87	0.42
24:BA:2316:G:C4'	29:BF:124:ARG:HD3	2.49	0.42
24:BA:2375:G:C5	24:BA:2377:A:OP2	2.73	0.42
24:BA:2375:G:N3	24:BA:2377:A:C8	2.87	0.42
24:BA:2690:U:C4	24:BA:2873:A:N1	2.87	0.42
24:BA:2729:G:C6	24:BA:2730:C:C4	3.08	0.42
24:BA:2776:A:N7	24:BA:2782:G:C4	2.87	0.42
24:BA:2810:A:O3'	27:BD:63:PRO:HD3	2.19	0.42
24:BA:2861:U:H2'	24:BA:2862:G:O5'	2.19	0.42
25:BB:50:A:C6	25:BB:51:G:C5	3.07	0.42
26:BC:130:PRO:HB2	26:BC:133:ASN:HB2	2.01	0.42
26:BC:245:THR:OG1	26:BC:249:VAL:HG23	2.19	0.42
27:BD:11:MET:O	27:BD:12:THR:HG23	2.19	0.42
27:BD:35:THR:HG22	27:BD:71:ALA:HB1	2.02	0.42
27:BD:45:TYR:HH	27:BD:81:GLU:CD	2.27	0.42
28:BE:27:LEU:O	28:BE:31:VAL:HG23	2.20	0.42
29:BF:2:LYS:HE2	29:BF:100:GLU:HG3	2.02	0.42
29:BF:9:ASP:CG	29:BF:10:GLU:HG3	2.44	0.42
31:BH:13:GLY:O	31:BH:15:LEU:N	2.52	0.42
31:BH:14:SER:OG	31:BH:17:ASP:CG	2.62	0.42
32:BI:85:ILE:HG22	32:BI:86:LYS:N	2.34	0.42
34:BK:17:ARG:HG2	34:BK:45:GLU:OE2	2.19	0.42
34:BK:64:ARG:HG2	34:BK:79:PHE:CE2	2.55	0.42
35:BL:16:GLY:O	35:BL:17:LYS:C	2.62	0.42
35:BL:89:VAL:O	35:BL:94:THR:HG21	2.19	0.42
36:BM:44:ARG:O	36:BM:48:ALA:HB2	2.19	0.42
37:BN:16:HIS:CD2	37:BN:16:HIS:C	2.97	0.42
38:BO:28:VAL:HG12	38:BO:36:TYR:O	2.19	0.42
42:BS:96:ILE:O	42:BS:97:LEU:HD13	2.19	0.42
43:BT:69:ARG:HA	43:BT:74:ILE:HG21	2.01	0.42
45:BV:15:GLY:O	45:BV:16:ALA:C	2.62	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BW:24:LYS:HE3	46:BW:36:ILE:HG12	2.00	0.42
46:BW:82:ILE:O	46:BW:82:ILE:CG2	2.68	0.42
49:BZ:26:LEU:CD2	49:BZ:46:MET:HE2	2.48	0.42
52:B2:3:ARG:O	52:B2:4:THR:C	2.62	0.42
1:CA:27:G:H2'	1:CA:28:A:O4'	2.19	0.42
1:CA:90:C:C2	1:CA:91:U:C5	3.07	0.42
1:CA:94:G:C6	1:CA:98:A:C2	3.08	0.42
1:CA:371:A:C2	1:CA:372:C:C6	3.06	0.42
1:CA:375:U:C4	1:CA:376:G:N7	2.87	0.42
1:CA:430:A:OP1	4:CD:9:LEU:HD23	2.19	0.42
1:CA:541:G:H2'	1:CA:542:G:O4'	2.18	0.42
1:CA:543:U:N3	1:CA:544:G:C8	2.88	0.42
1:CA:588:G:C5	1:CA:589:U:C5	3.08	0.42
1:CA:705:G:C5	11:CK:44:TRP:HZ3	2.37	0.42
1:CA:782:A:N6	1:CA:801:U:C6	2.87	0.42
1:CA:1103:C:C4	1:CA:1104:G:C5	3.07	0.42
1:CA:1488:G:C2	1:CA:1489:G:C4	3.07	0.42
2:CB:58:ASN:HA	2:CB:61:ALA:HB3	2.02	0.42
2:CB:101:LEU:HD11	2:CB:175:GLU:O	2.20	0.42
4:CD:2:ALA:C	4:CD:68:LEU:HD21	2.44	0.42
4:CD:111:ARG:C	4:CD:113:GLU:N	2.76	0.42
5:CE:151:GLU:C	5:CE:153:VAL:N	2.78	0.42
7:CG:33:ASP:O	7:CG:34:GLY:C	2.61	0.42
10:CJ:8:ILE:CB	10:CJ:74:VAL:HG11	2.47	0.42
10:CJ:40:ILE:HB	10:CJ:41:PRO:HD2	2.01	0.42
10:CJ:88:MET:O	10:CJ:88:MET:HG3	2.19	0.42
12:CL:121:ARG:HB3	12:CL:124:ALA:HB2	2.02	0.42
13:CM:16:VAL:O	13:CM:27:LYS:NZ	2.51	0.42
13:CM:16:VAL:HA	13:CM:19:LEU:HD21	2.01	0.42
13:CM:24:GLY:O	13:CM:29:ARG:NH1	2.52	0.42
17:CQ:18:GLU:O	17:CQ:19:LYS:HG2	2.19	0.42
17:CQ:29:VAL:CG2	17:CQ:30:LYS:O	2.66	0.42
20:CT:54:MET:CA	20:CT:57:ILE:HD11	2.50	0.42
55:CY:101:PRO:C	55:CY:102:LEU:HD23	2.44	0.42
24:DA:63:A:N1	24:DA:64:A:C5	2.88	0.42
24:DA:231:A:N6	24:DA:232:G:C2	2.87	0.42
24:DA:252:G:N3	24:DA:252:G:H2'	2.35	0.42
24:DA:324:A:N6	24:DA:338:G:O2'	2.49	0.42
24:DA:431:U:C3'	24:DA:432:A:C5'	2.98	0.42
24:DA:467:G:O2'	24:DA:468:G:H5'	2.19	0.42
24:DA:483:A:H3'	24:DA:484:C:H6	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:819:A:C5	24:DA:820:A:N7	2.87	0.42
24:DA:825:A:O2'	24:DA:826:U:H5'	2.20	0.42
24:DA:834:G:H8	24:DA:834:G:O5'	2.02	0.42
24:DA:842:U:C2'	24:DA:843:G:H5'	2.48	0.42
24:DA:1194:A:C2'	24:DA:1195:G:O5'	2.68	0.42
24:DA:1312:U:N1	43:DT:64:LYS:HE3	2.34	0.42
24:DA:1415:U:O2	24:DA:1415:U:H3'	2.19	0.42
24:DA:1599:U:C4	24:DA:1600:C:N4	2.87	0.42
24:DA:1662:U:O2	24:DA:2687:U:H5"	2.20	0.42
24:DA:1718:G:C6	24:DA:1719:G:C5	3.06	0.42
24:DA:1816:C:H5"	26:DC:61:TYR:CE1	2.53	0.42
24:DA:1893:C:C5	24:DA:1894:C:C5	3.07	0.42
24:DA:2109:U:H5"	24:DA:2110:G:P	2.59	0.42
24:DA:2140:G:N3	24:DA:2140:G:H2'	2.34	0.42
24:DA:2221:G:C6	24:DA:2222:C:C4	3.07	0.42
24:DA:2230:G:C4	24:DA:2231:U:C5	3.08	0.42
24:DA:2335:A:N6	24:DA:2337:G:N3	2.68	0.42
24:DA:2360:G:O3'	35:DL:61:LEU:HD21	2.18	0.42
24:DA:2380:C:OP1	38:DO:17:LYS:NZ	2.52	0.42
24:DA:2407:A:N3	24:DA:2408:U:C5	2.87	0.42
24:DA:2625:G:H2'	24:DA:2626:C:O4'	2.18	0.42
24:DA:2820:A:H2'	24:DA:2821:A:OP1	2.19	0.42
24:DA:2881:U:O2'	24:DA:2882:A:C5'	2.68	0.42
25:DB:5:U:H2'	25:DB:6:G:C8	2.54	0.42
26:DC:128:THR:CG2	26:DC:190:THR:HA	2.49	0.42
26:DC:174:ARG:HB2	26:DC:180:MET:HG3	2.00	0.42
26:DC:266:ILE:HD12	26:DC:266:ILE:C	2.44	0.42
29:DF:6:TYR:O	29:DF:11:VAL:HG23	2.19	0.42
29:DF:137:PHE:N	29:DF:140:ILE:HD11	2.34	0.42
30:DG:114:HIS:ND1	30:DG:147:LEU:HD21	2.33	0.42
36:DM:81:ARG:O	36:DM:82:MET:C	2.62	0.42
36:DM:114:ARG:HH21	36:DM:114:ARG:CG	2.31	0.42
37:DN:2:ARG:HA	37:DN:5:LYS:HD2	1.97	0.42
37:DN:53:THR:OG1	37:DN:54:LEU:N	2.52	0.42
39:DP:3:ILE:N	39:DP:3:ILE:HD13	2.33	0.42
39:DP:15:ASP:O	39:DP:16:VAL:O	2.36	0.42
39:DP:91:VAL:HG21	39:DP:109:ILE:HD12	2.01	0.42
40:DQ:64:ILE:HG22	40:DQ:75:TYR:HD2	1.84	0.42
42:DS:69:LEU:HD23	42:DS:109:ASP:N	2.33	0.42
46:DW:10:THR:O	46:DW:11:ARG:CB	2.67	0.42
47:DX:38:TRP:HE1	47:DX:40:GLU:HG2	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DZ:6:ILE:CG2	49:DZ:54:VAL:CG2	2.96	0.42
52:D2:26:ASN:O	52:D2:30:VAL:N	2.50	0.42
1:AA:172:A:C5	1:AA:174:A:N7	2.87	0.42
1:AA:236:A:H2'	1:AA:237:G:O4'	2.19	0.42
1:AA:316:C:N3	1:AA:317:U:C5	2.87	0.42
1:AA:412:A:H4'	11:CK:16:VAL:CG1	2.47	0.42
1:AA:482:A:H2'	1:AA:483:C:C5'	2.48	0.42
1:AA:570:G:C4	1:AA:571:U:C5	3.07	0.42
1:AA:725:G:C2	1:AA:726:C:C5	3.07	0.42
1:AA:886:G:N2	1:AA:912:C:C2	2.88	0.42
1:AA:925:G:C1'	1:AA:1502:A:C4	3.02	0.42
1:AA:927:G:H4'	1:AA:927:G:OP2	2.19	0.42
1:AA:947:G:OP2	13:AM:107:ARG:CZ	2.68	0.42
1:AA:978:A:N6	1:AA:1318:A:N7	2.68	0.42
1:AA:981:U:OP1	14:AN:12:ARG:NH2	2.53	0.42
1:AA:1061:G:C4	1:AA:1197:A:C2	3.07	0.42
1:AA:1077:G:H5'	1:AA:1078:U:OP2	2.20	0.42
1:AA:1124:G:HO2'	1:AA:1125:U:P	2.42	0.42
1:AA:1160:G:P	2:AB:132:LYS:HE2	2.60	0.42
1:AA:1216:A:OP1	14:AN:4:SER:HB3	2.20	0.42
1:AA:1275:A:C5	1:AA:1276:G:C5	3.08	0.42
1:AA:1290:G:H2'	1:AA:1291:U:O4'	2.19	0.42
1:AA:1292:G:H2'	1:AA:1293:C:C6	2.54	0.42
1:AA:1363:A:C6	1:AA:1365:G:C6	3.07	0.42
1:AA:1423:G:H2'	1:AA:1424:U:H6	1.84	0.42
2:AB:134:ALA:O	2:AB:138:THR:N	2.45	0.42
2:AB:161:LEU:HB3	2:AB:183:VAL:CG2	2.49	0.42
4:AD:145:ILE:C	4:AD:146:ARG:HH11	2.27	0.42
5:AE:15:LEU:HD12	5:AE:15:LEU:O	2.19	0.42
7:AG:28:ASN:HA	7:AG:31:MET:CB	2.48	0.42
7:AG:137:LYS:CA	7:AG:140:ASP:HB2	2.49	0.42
9:AI:100:LYS:C	9:AI:102:GLY:N	2.78	0.42
15:AO:11:ILE:CG1	15:AO:12:VAL:N	2.80	0.42
16:AP:21:VAL:HG21	16:AP:60:TRP:NE1	2.34	0.42
18:AR:52:GLN:HA	18:AR:55:LEU:HG	2.01	0.42
24:BA:26:G:OP1	42:BS:80:PRO:HB3	2.19	0.42
24:BA:144:A:C5	24:BA:145:C:C5	3.06	0.42
24:BA:165:A:O2'	47:BX:43:LYS:NZ	2.52	0.42
24:BA:224:U:OP2	24:BA:408:G:N2	2.49	0.42
24:BA:359:G:C2	24:BA:360:U:O2	2.72	0.42
24:BA:494:G:N7	57:BA:3164:NMY:N9	2.63	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:568:U:O4	41:BR:81:LYS:NZ	2.46	0.42
24:BA:587:C:C2	35:BL:33:ARG:NH2	2.87	0.42
24:BA:1281:G:H2'	24:BA:1282:U:O5'	2.20	0.42
24:BA:1388:G:O2'	24:BA:1389:G:H5'	2.20	0.42
24:BA:1652:A:OP1	37:BN:8:ARG:HD3	2.18	0.42
24:BA:1735:A:C2	24:BA:1736:U:H1'	2.54	0.42
24:BA:2119:A:C2	24:BA:2170:A:O4'	2.72	0.42
24:BA:2261:C:C2	24:BA:2262:U:C5	3.08	0.42
24:BA:2413:G:O2'	24:BA:2414:G:H5'	2.19	0.42
24:BA:2420:C:H5"	51:B1:7:LYS:CE	2.49	0.42
24:BA:2454:G:C5	24:BA:2455:G:C8	3.08	0.42
24:BA:2527:C:O2'	24:BA:2528:U:H5'	2.19	0.42
24:BA:2532:G:H3'	24:BA:2533:U:H6	1.84	0.42
24:BA:2706:A:N1	24:BA:2707:U:C2	2.88	0.42
24:BA:2748:A:O2'	24:BA:2749:A:C5'	2.67	0.42
24:BA:2750:A:OP2	30:BG:61:TRP:HZ3	2.02	0.42
24:BA:2834:G:O3'	27:BD:56:LYS:NZ	2.52	0.42
25:BB:35:C:H2'	25:BB:36:C:H5'	2.01	0.42
25:BB:45:A:C2	25:BB:46:A:H1'	2.54	0.42
25:BB:73:A:H3'	25:BB:74:U:H6	1.85	0.42
26:BC:259:ASN:O	26:BC:260:LYS:C	2.63	0.42
27:BD:34:VAL:HG21	27:BD:48:ILE:HD11	2.01	0.42
27:BD:85:ALA:N	27:BD:88:GLU:OE1	2.47	0.42
29:BF:127:TYR:N	29:BF:155:ILE:CG2	2.83	0.42
29:BF:127:TYR:N	29:BF:155:ILE:HG21	2.34	0.42
42:BS:2:GLU:HA	42:BS:108:SER:HB3	2.00	0.42
43:BT:74:ILE:HD12	43:BT:75:GLY:N	2.34	0.42
49:BZ:19:HIS:O	49:BZ:22:THR:N	2.43	0.42
51:B1:12:SER:HA	51:B1:48:TYR:CE2	2.54	0.42
1:CA:8:A:N6	4:CD:202:GLU:C	2.74	0.42
1:CA:114:U:C2'	1:CA:115:G:H5'	2.49	0.42
1:CA:154:U:O2	1:CA:168:G:C2	2.72	0.42
1:CA:181:A:N1	1:CA:195:A:C4	2.88	0.42
1:CA:195:A:N7	1:CA:196:A:N1	2.65	0.42
1:CA:232:G:C5	1:CA:233:C:C6	3.07	0.42
1:CA:246:A:O2'	1:CA:247:G:OP2	2.30	0.42
1:CA:635:A:C2	1:CA:636:U:C2	3.08	0.42
1:CA:773:G:C2	1:CA:774:G:N9	2.88	0.42
1:CA:787:A:C2'	1:CA:788:U:C5'	2.94	0.42
1:CA:994:A:N3	1:CA:994:A:H2'	2.35	0.42
1:CA:1305:G:O2'	1:CA:1306:A:C5'	2.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:101:LEU:HD21	2:CB:175:GLU:CG	2.50	0.42
3:CC:37:PHE:O	3:CC:37:PHE:CD2	2.72	0.42
3:CC:128:VAL:O	3:CC:129:MET:HB2	2.18	0.42
4:CD:99:ASP:CA	4:CD:114:ALA:HB1	2.49	0.42
4:CD:171:LEU:HB3	4:CD:182:PHE:HA	2.01	0.42
4:CD:201:VAL:HG23	4:CD:202:GLU:N	2.34	0.42
5:CE:130:SER:OG	5:CE:132:ASN:HB3	2.19	0.42
7:CG:39:ALA:O	7:CG:40:GLU:HG2	2.19	0.42
7:CG:135:VAL:O	7:CG:138:ARG:HB2	2.18	0.42
8:CH:75:ILE:HD13	8:CH:129:VAL:HG22	2.01	0.42
11:CK:57:LYS:CG	11:CK:58:SER:N	2.82	0.42
12:CL:29:GLN:HG3	12:CL:81:LEU:HD21	2.02	0.42
12:CL:37:VAL:HG12	12:CL:53:CYS:HB2	2.02	0.42
13:CM:87:ARG:O	13:CM:91:HIS:N	2.41	0.42
16:CP:18:GLN:O	16:CP:20:VAL:HG23	2.20	0.42
16:CP:22:ALA:O	16:CP:23:ASP:HB2	2.19	0.42
17:CQ:25:ILE:O	17:CQ:26:GLU:CG	2.68	0.42
20:CT:51:PHE:O	20:CT:52:ASN:C	2.62	0.42
20:CT:78:ASN:O	20:CT:81:ALA:HB3	2.19	0.42
24:DA:6:A:C2'	33:DJ:135:GLN:OE1	2.67	0.42
24:DA:109:C:H2'	24:DA:110:G:O4'	2.20	0.42
24:DA:223:A:C6	24:DA:408:G:O4'	2.73	0.42
24:DA:226:A:N6	24:DA:227:A:N6	2.67	0.42
24:DA:307:G:N2	24:DA:310:A:C8	2.88	0.42
24:DA:523:C:H4'	24:DA:540:C:O2	2.18	0.42
24:DA:690:G:O2'	24:DA:691:C:H5'	2.18	0.42
24:DA:855:G:C4	24:DA:923:G:C2	3.07	0.42
24:DA:900:A:C2	24:DA:901:C:H1'	2.54	0.42
24:DA:1048:A:C5	24:DA:1111:A:C2	3.07	0.42
24:DA:1067:A:C2	24:DA:1068:G:C8	3.07	0.42
24:DA:1074:G:H2'	24:DA:1075:C:H5'	2.02	0.42
24:DA:1104:C:N3	24:DA:1105:U:C5	2.88	0.42
24:DA:1277:G:C5'	37:DN:20:MET:CE	2.90	0.42
24:DA:1385:A:OP1	24:DA:1385:A:H4'	2.20	0.42
24:DA:1794:A:H2'	24:DA:1795:C:H6	1.84	0.42
24:DA:1868:C:N3	24:DA:1873:G:O6	2.52	0.42
24:DA:1959:G:C2	24:DA:1960:A:C4	3.07	0.42
24:DA:2243:U:H2'	24:DA:2244:U:H6	1.80	0.42
24:DA:2280:G:N3	24:DA:2281:A:C8	2.88	0.42
24:DA:2316:G:C6	24:DA:2317:A:C5	3.07	0.42
24:DA:2582:G:H2'	24:DA:2582:G:N3	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2798:U:H4'	24:DA:2799:A:C4	2.54	0.42
24:DA:2829:A:C6	24:DA:2830:C:C5	3.07	0.42
24:DA:2868:A:C2	24:DA:2869:G:N9	2.88	0.42
25:DB:17:C:O2	25:DB:17:C:H2'	2.19	0.42
26:DC:257:ARG:NH1	26:DC:259:ASN:HD21	2.18	0.42
27:DD:133:THR:HG22	27:DD:134:HIS:N	2.33	0.42
28:DE:111:GLU:O	28:DE:112:LEU:C	2.63	0.42
29:DF:98:PHE:O	29:DF:101:ARG:HG3	2.19	0.42
29:DF:137:PHE:N	29:DF:137:PHE:HD1	2.18	0.42
31:DH:68:ARG:HH21	31:DH:134:VAL:HG23	1.85	0.42
31:DH:137:GLU:CD	31:DH:138:VAL:HG22	2.43	0.42
33:DJ:6:ALA:HB2	33:DJ:45:THR:HG23	2.01	0.42
34:DK:77:ILE:HG13	39:DP:71:ARG:HG2	2.02	0.42
36:DM:121:ALA:C	36:DM:123:LYS:H	2.28	0.42
39:DP:90:ALA:C	39:DP:91:VAL:HG23	2.44	0.42
40:DQ:109:VAL:HG12	40:DQ:113:LYS:HE3	2.00	0.42
42:DS:18:ARG:NH2	42:DS:76:VAL:O	2.52	0.42
42:DS:45:VAL:HG12	42:DS:46:LEU:N	2.33	0.42
43:DT:44:LYS:HG3	43:DT:55:VAL:HG21	2.01	0.42
44:DU:73:ASN:O	44:DU:75:ALA:O	2.36	0.42
46:DW:61:ALA:HB1	46:DW:82:ILE:HD12	2.01	0.42
48:DY:17:GLU:C	48:DY:19:LEU:N	2.76	0.42
1:AA:3:A:O3'	1:AA:5:U:O4	2.38	0.42
1:AA:4:U:O2	1:AA:4:U:O4'	2.37	0.42
1:AA:34:C:N4	1:AA:35:G:O6	2.53	0.42
1:AA:167:A:H3'	1:AA:168:G:H5"	2.00	0.42
1:AA:186:C:H5'	20:AT:76:LYS:HD2	2.01	0.42
1:AA:299:G:H2'	1:AA:300:A:H8	1.80	0.42
1:AA:384:G:C2	1:AA:385:C:C2	3.07	0.42
1:AA:525:C:N4	1:AA:526:C:N4	2.68	0.42
1:AA:560:A:H5'	1:AA:566:G:C2	2.55	0.42
1:AA:596:A:C2	1:AA:597:G:C8	3.07	0.42
1:AA:893:C:C4	1:AA:894:G:N7	2.87	0.42
1:AA:1028:C:H2'	1:AA:1029:U:O4'	2.19	0.42
1:AA:1140:C:O2'	1:AA:1141:C:OP2	2.38	0.42
1:AA:1252:A:C6	1:AA:1253:G:C8	3.07	0.42
1:AA:1360:A:H2'	1:AA:1361:G:C4'	2.50	0.42
1:AA:1410:A:C2	1:AA:1411:C:C4	3.07	0.42
2:AB:99:GLY:HA2	2:AB:175:GLU:OE2	2.19	0.42
3:AC:12:LEU:HB3	3:AC:18:TRP:CH2	2.55	0.42
3:AC:85:GLU:O	3:AC:86:LYS:C	2.62	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:145:ILE:HD13	4:AD:150:LYS:HE3	2.01	0.42
5:AE:16:ILE:HD13	5:AE:113:ALA:HB3	2.00	0.42
5:AE:39:VAL:O	5:AE:46:VAL:HG23	2.20	0.42
5:AE:89:HIS:CD2	5:AE:90:THR:HG23	2.55	0.42
5:AE:135:ASN:O	5:AE:139:ALA:HB2	2.18	0.42
8:AH:11:LEU:CD1	8:AH:15:ARG:NH2	2.81	0.42
9:AI:33:ARG:O	9:AI:34:SER:O	2.37	0.42
11:AK:83:GLU:HG2	11:AK:84:VAL:N	2.34	0.42
12:AL:35:THR:HB	12:AL:54:ARG:HB3	2.02	0.42
12:AL:57:LEU:C	12:AL:59:ASN:N	2.77	0.42
13:AM:16:VAL:HG23	13:AM:17:ILE:N	2.35	0.42
13:AM:86:TYR:C	13:AM:88:GLY:N	2.75	0.42
15:AO:4:SER:O	15:AO:5:THR:C	2.62	0.42
16:AP:15:PRO:HB2	16:AP:41:PRO:HG3	2.01	0.42
19:AS:32:ARG:CZ	19:AS:57:HIS:CD2	3.02	0.42
19:AS:51:VAL:N	19:AS:57:HIS:CE1	2.87	0.42
20:AT:72:ALA:O	20:AT:76:LYS:HG2	2.19	0.42
21:AU:53:VAL:HG23	21:AU:54:LYS:N	2.34	0.42
24:BA:38:A:C2	24:BA:39:G:C4	3.07	0.42
24:BA:160:A:C6	24:BA:161:A:C6	3.07	0.42
24:BA:260:G:C6	24:BA:261:G:N7	2.87	0.42
24:BA:391:A:C4	24:BA:392:U:H6	2.35	0.42
24:BA:464:U:H2'	24:BA:465:G:C8	2.55	0.42
24:BA:682:G:N3	24:BA:683:U:C6	2.87	0.42
24:BA:691:C:OP1	26:BC:216:ARG:NH2	2.44	0.42
24:BA:715:A:OP1	24:BA:715:A:H8	2.02	0.42
24:BA:798:G:OP2	28:BE:56:GLY:HA3	2.18	0.42
24:BA:991:C:N4	57:BA:3162:NMY:O14	2.53	0.42
24:BA:995:C:N4	57:BA:3166:NMY:HN62	2.16	0.42
24:BA:1022:G:C4	24:BA:1140:C:N4	2.88	0.42
24:BA:1084:A:N7	24:BA:1085:A:C5	2.87	0.42
24:BA:1219:U:O2'	24:BA:1220:G:H5'	2.19	0.42
24:BA:1242:U:N3	24:BA:1243:C:C4	2.87	0.42
24:BA:1295:C:C4	24:BA:1296:G:N7	2.88	0.42
24:BA:1307:A:C5	24:BA:1308:A:N7	2.88	0.42
24:BA:1385:A:C6	24:BA:1403:A:C4	3.08	0.42
24:BA:1392:A:H2'	24:BA:1393:A:C8	2.55	0.42
24:BA:1429:G:H1'	24:BA:1568:G:H1'	2.00	0.42
24:BA:1435:G:C2'	24:BA:1436:G:H5'	2.49	0.42
24:BA:1458:U:H4'	24:BA:1459:G:O5'	2.19	0.42
24:BA:1491:G:C4	26:BC:97:ASP:O	2.73	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1670:C:C5	24:BA:1671:U:N3	2.87	0.42
24:BA:2094:A:H2	24:BA:2196:C:H1'	1.84	0.42
24:BA:2138:G:C2	24:BA:2154:A:N1	2.88	0.42
24:BA:2138:G:N3	24:BA:2154:A:C2	2.87	0.42
24:BA:2138:G:N1	24:BA:2154:A:C6	2.87	0.42
24:BA:2164:C:O2'	24:BA:2165:C:H5'	2.19	0.42
24:BA:2294:G:C5'	38:BO:10:ARG:NH1	2.82	0.42
24:BA:2304:G:C1'	29:BF:129:MET:HA	2.50	0.42
24:BA:2357:G:C2	24:BA:2361:G:C5	3.08	0.42
24:BA:2417:C:C2	24:BA:2418:A:N7	2.87	0.42
24:BA:2572:A:N7	27:BD:150:GLN:HB2	2.35	0.42
24:BA:2796:U:C2	24:BA:2799:A:N1	2.87	0.42
24:BA:2880:C:N3	24:BA:2881:U:C5	2.88	0.42
25:BB:10:G:N7	25:BB:11:C:C5	2.86	0.42
26:BC:24:HIS:HB3	26:BC:81:GLU:CG	2.50	0.42
27:BD:202:ILE:O	27:BD:202:ILE:HG12	2.20	0.42
28:BE:103:GLY:O	28:BE:106:LYS:HG2	2.19	0.42
28:BE:134:LEU:C	28:BE:136:GLN:N	2.76	0.42
29:BF:96:TRP:HA	29:BF:99:PHE:CE1	2.54	0.42
30:BG:32:LEU:CD1	30:BG:74:MET:HG2	2.49	0.42
33:BJ:31:GLU:O	33:BJ:34:ARG:HB3	2.20	0.42
33:BJ:74:TYR:CB	33:BJ:92:MET:CE	2.97	0.42
33:BJ:74:TYR:CD2	33:BJ:92:MET:HE3	2.54	0.42
33:BJ:112:GLY:O	33:BJ:113:PRO:C	2.63	0.42
34:BK:48:PRO:HB2	34:BK:49:ARG:CZ	2.50	0.42
34:BK:99:ILE:HD13	34:BK:115:ILE:CD1	2.50	0.42
34:BK:107:LEU:O	34:BK:112:PHE:HB2	2.20	0.42
38:BO:67:ASN:CG	38:BO:69:ASP:OD1	2.61	0.42
38:BO:113:ALA:O	38:BO:114:GLY:C	2.63	0.42
39:BP:31:VAL:HG12	39:BP:32:VAL:N	2.34	0.42
39:BP:64:SER:C	39:BP:66:GLY:N	2.77	0.42
39:BP:69:VAL:HG13	39:BP:70:GLU:N	2.34	0.42
42:BS:88:ARG:NH2	42:BS:88:ARG:CG	2.83	0.42
1:CA:16:A:C3'	1:CA:17:U:H5'	2.50	0.42
1:CA:255:G:H4'	17:CQ:19:LYS:CG	2.48	0.42
1:CA:430:A:OP1	4:CD:9:LEU:HG	2.19	0.42
1:CA:518:C:C5	1:CA:530:G:C5	3.07	0.42
1:CA:719:C:C5	1:CA:720:C:C4	3.07	0.42
1:CA:727:G:N3	1:CA:731:G:C2	2.87	0.42
1:CA:786:G:N3	1:CA:797:C:O2	2.52	0.42
1:CA:815:A:C2	1:CA:1529:G:N3	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1065:U:O2'	1:CA:1066:C:P	2.77	0.42
1:CA:1167:A:N7	1:CA:1169:A:C6	2.86	0.42
1:CA:1207:G:C6	1:CA:1208:C:C2	3.07	0.42
1:CA:1222:G:C2	1:CA:1223:C:C2	3.08	0.42
1:CA:1317:C:H1'	14:CN:49:GLN:NE2	2.34	0.42
1:CA:1356:G:C2	1:CA:1367:C:O2	2.72	0.42
1:CA:1411:C:H2'	1:CA:1411:C:O2	2.18	0.42
3:CC:53:SER:CB	3:CC:115:LEU:HD21	2.49	0.42
4:CD:13:ARG:NE	4:CD:37:ALA:O	2.40	0.42
4:CD:19:LEU:O	4:CD:20:PHE:C	2.62	0.42
4:CD:52:GLY:O	4:CD:55:LEU:CD1	2.68	0.42
4:CD:188:ARG:CG	4:CD:189:SER:N	2.82	0.42
5:CE:140:THR:O	5:CE:144:LEU:HD12	2.19	0.42
6:CF:21:MET:HA	6:CF:24:ARG:HD2	2.01	0.42
6:CF:88:MET:CE	6:CF:90:MET:HE1	2.47	0.42
7:CG:58:GLU:O	7:CG:59:LEU:C	2.63	0.42
8:CH:12:THR:O	8:CH:13:ARG:C	2.60	0.42
8:CH:17:GLY:HA2	8:CH:22:LYS:CE	2.49	0.42
11:CK:24:HIS:ND1	11:CK:31:ILE:O	2.52	0.42
13:CM:96:PRO:HG3	13:CM:109:ARG:CD	2.49	0.42
14:CN:19:TYR:CD1	14:CN:20:PHE:N	2.87	0.42
21:CU:32:VAL:O	21:CU:32:VAL:CG1	2.66	0.42
21:CU:36:GLU:O	21:CU:37:PHE:CB	2.68	0.42
21:CU:41:PRO:O	21:CU:43:THR:C	2.61	0.42
22:CV:28:G:C6	22:CV:29:G:C5	3.08	0.42
22:CV:37:A:H5'	22:CV:38:A:OP2	2.20	0.42
55:CY:43:GLU:C	55:CY:44:TYR:CD1	2.97	0.42
55:CY:117:VAL:HG23	55:CY:118:ARG:N	2.35	0.42
55:CY:123:GLN:C	55:CY:125:ARG:H	2.26	0.42
24:DA:18:U:H2'	24:DA:19:A:C8	2.55	0.42
24:DA:79:C:C4	24:DA:80:G:N7	2.87	0.42
24:DA:85:G:N3	24:DA:103:A:C2	2.88	0.42
24:DA:324:A:C8	24:DA:325:G:C8	3.07	0.42
24:DA:507:A:O4'	24:DA:509:C:C2	2.73	0.42
24:DA:611:C:H2'	24:DA:612:G:H5'	2.02	0.42
24:DA:782:A:C2	26:DC:224:MET:CG	3.01	0.42
24:DA:809:G:O4'	24:DA:1254:A:H1'	2.19	0.42
24:DA:823:C:C2'	24:DA:824:U:H5'	2.50	0.42
24:DA:877:A:N6	24:DA:899:A:N6	2.68	0.42
24:DA:956:G:P	36:DM:86:LYS:HD2	2.59	0.42
24:DA:1042:G:C6	24:DA:1043:C:C4	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1059:G:C2	24:DA:1080:A:C5	3.07	0.42
24:DA:1078:U:H4'	24:DA:1079:C:O4'	2.20	0.42
24:DA:1103:A:H2'	24:DA:1104:C:H5'	2.01	0.42
24:DA:1263:U:O2'	50:D0:3:GLN:NE2	2.51	0.42
24:DA:1362:C:O2'	24:DA:1363:C:C5'	2.67	0.42
24:DA:1537:G:N2	24:DA:1538:G:C5	2.87	0.42
24:DA:1722:A:H2'	24:DA:1723:G:O4'	2.19	0.42
24:DA:1766:G:C6	24:DA:1987:A:C6	3.07	0.42
24:DA:2036:C:O2'	24:DA:2037:A:H5'	2.19	0.42
24:DA:2253:G:C6	24:DA:2254:C:C4	3.08	0.42
24:DA:2281:A:N1	24:DA:2282:G:C6	2.88	0.42
24:DA:2335:A:N7	24:DA:2337:G:C6	2.88	0.42
24:DA:2425:A:O4'	24:DA:2427:C:C5	2.71	0.42
24:DA:2607:G:C6	24:DA:2608:G:C6	3.08	0.42
24:DA:2685:G:H2'	24:DA:2686:G:H8	1.84	0.42
24:DA:2786:U:C2'	24:DA:2787:C:O5'	2.68	0.42
25:DB:115:A:C2	25:DB:116:G:C5	3.07	0.42
27:DD:133:THR:HG22	27:DD:134:HIS:H	1.85	0.42
28:DE:21:ARG:N	28:DE:110:SER:OG	2.52	0.42
28:DE:137:LYS:HE3	28:DE:141:MET:HE1	2.00	0.42
29:DF:38:GLY:O	29:DF:39:VAL:C	2.62	0.42
29:DF:103:ILE:HD12	29:DF:103:ILE:H	1.85	0.42
29:DF:123:GLY:O	29:DF:124:ARG:CB	2.67	0.42
31:DH:77:THR:O	31:DH:78:VAL:CG2	2.67	0.42
37:DN:72:ASP:HB3	37:DN:75:ILE:HG21	2.01	0.42
38:DO:87:ILE:O	38:DO:88:LYS:HG3	2.19	0.42
38:DO:94:ARG:O	38:DO:94:ARG:HG3	2.18	0.42
38:DO:109:ALA:O	38:DO:113:ALA:HB3	2.19	0.42
45:DV:44:HIS:O	45:DV:47:VAL:HG13	2.20	0.42
47:DX:4:CYS:HG	47:DX:7:THR:HG22	1.85	0.42
49:DZ:9:THR:O	49:DZ:31:ILE:HB	2.20	0.42
49:DZ:54:VAL:O	49:DZ:54:VAL:HG13	2.19	0.42
51:D1:4:ILE:HG21	51:D1:25:ASN:ND2	2.34	0.42
52:D2:43:THR:O	52:D2:44:VAL:CG1	2.68	0.42
53:D3:6:VAL:O	53:D3:9:ALA:N	2.53	0.42
53:D3:31:ILE:HG13	53:D3:35:LYS:CE	2.49	0.42
1:AA:44:A:N3	1:AA:399:G:C2	2.88	0.42
1:AA:66:A:O2'	1:AA:173:U:H2'	2.20	0.42
1:AA:232:G:H2'	1:AA:233:C:O4'	2.20	0.42
1:AA:293:G:C5	1:AA:305:G:N2	2.88	0.42
1:AA:391:G:C2	1:AA:392:C:C1'	3.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:391:G:N3	1:AA:391:G:H2'	2.35	0.42
1:AA:515:G:N2	1:AA:537:G:C4	2.86	0.42
1:AA:763:G:C2'	1:AA:764:C:H5'	2.50	0.42
1:AA:780:A:H5"	11:AK:125:LYS:CD	2.49	0.42
1:AA:844:G:O2'	1:AA:845:A:C8	2.73	0.42
1:AA:846:G:N3	1:AA:847:G:C8	2.87	0.42
1:AA:856:C:C2'	1:AA:857:C:H5'	2.50	0.42
1:AA:882:C:N4	12:AL:2:ALA:HB2	2.35	0.42
1:AA:949:A:C5	1:AA:950:U:C5	3.07	0.42
1:AA:977:A:C2	1:AA:1224:U:C4	3.08	0.42
1:AA:1101:A:N1	2:AB:99:GLY:CA	2.82	0.42
1:AA:1117:A:O3'	9:AI:106:ARG:CD	2.68	0.42
1:AA:1146:A:C2	1:AA:1147:C:C2	3.08	0.42
1:AA:1287:A:N6	1:AA:1288:A:C6	2.88	0.42
1:AA:1410:A:C2	1:AA:1411:C:C2	3.08	0.42
1:AA:1428:A:N1	1:AA:1473:G:N1	2.68	0.42
2:AB:38:VAL:HG12	2:AB:39:HIS:N	2.34	0.42
2:AB:104:TRP:O	2:AB:108:ARG:N	2.40	0.42
2:AB:200:ILE:HD12	2:AB:200:ILE:N	2.34	0.42
4:AD:143:VAL:O	4:AD:179:GLU:HB2	2.19	0.42
5:AE:43:ASN:O	5:AE:44:GLY:O	2.38	0.42
11:AK:17:SER:O	11:AK:79:ILE:O	2.38	0.42
11:AK:96:THR:HG22	11:AK:97:ILE:N	2.34	0.42
11:AK:98:ARG:O	11:AK:102:ALA:HB3	2.20	0.42
11:AK:127:ARG:N	21:AU:34:ARG:NH2	2.68	0.42
13:AM:50:GLU:O	13:AM:53:ILE:HB	2.19	0.42
13:AM:85:CYS:O	13:AM:88:GLY:CA	2.67	0.42
13:AM:101:ARG:O	13:AM:101:ARG:CG	2.68	0.42
14:AN:83:LYS:C	14:AN:85:ARG:N	2.76	0.42
15:AO:4:SER:OG	15:AO:7:ALA:HB2	2.20	0.42
15:AO:19:ALA:O	15:AO:20:ASN:C	2.62	0.42
17:AQ:68:SER:O	17:AQ:68:SER:OG	2.32	0.42
19:AS:52:HIS:CE1	19:AS:53:ASN:O	2.72	0.42
20:AT:24:ARG:HA	20:AT:27:MET:CG	2.50	0.42
20:AT:68:HIS:O	20:AT:69:LYS:C	2.62	0.42
22:AV:21:A:C6	22:AV:46:G:C4	3.08	0.42
22:AV:36:A:C5'	22:AV:36:A:H8	2.33	0.42
24:BA:7:G:H4'	33:BJ:15:TRP:CH2	2.55	0.42
24:BA:103:A:C4	24:BA:104:A:C8	3.07	0.42
24:BA:230:G:C2	24:BA:231:A:N9	2.88	0.42
24:BA:301:G:C2	24:BA:317:G:C4	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:347:A:N1	24:BA:348:A:C5	2.88	0.42
24:BA:404:A:H1'	24:BA:405:U:OP2	2.19	0.42
24:BA:414:C:OP1	24:BA:1879:C:O2'	2.33	0.42
24:BA:507:A:O4'	24:BA:509:C:C2	2.72	0.42
24:BA:570:G:N3	24:BA:2030:A:C8	2.88	0.42
24:BA:659:G:H4'	28:BE:95:LYS:CB	2.50	0.42
24:BA:915:C:C5	24:BA:916:G:N7	2.88	0.42
24:BA:1200:C:C2	24:BA:1246:A:C2	3.08	0.42
24:BA:1220:G:C5	24:BA:1230:A:C2	3.07	0.42
24:BA:1541:C:N3	24:BA:1542:U:C2	2.88	0.42
24:BA:1738:G:O4'	24:BA:1739:A:OP2	2.38	0.42
24:BA:2114:A:C6	24:BA:2115:G:N3	2.87	0.42
24:BA:2377:A:H2'	24:BA:2378:A:H5'	2.00	0.42
24:BA:2525:G:N3	24:BA:2525:G:H2'	2.34	0.42
24:BA:2534:A:H3'	24:BA:2535:G:H5"	2.02	0.42
24:BA:2648:G:C4	24:BA:2673:G:C2	3.08	0.42
24:BA:2683:C:N4	24:BA:2727:A:N3	2.68	0.42
57:BA:3165:NMY:N6	57:BA:3165:NMY:C3	2.73	0.42
25:BB:91:C:OP2	36:BM:18:ARG:HD2	2.19	0.42
27:BD:49:GLN:CD	27:BD:79:LEU:HD13	2.45	0.42
27:BD:105:LYS:O	27:BD:177:VAL:HG12	2.19	0.42
28:BE:146:VAL:HG13	28:BE:167:VAL:CG2	2.50	0.42
29:BF:93:GLU:HA	29:BF:93:GLU:OE1	2.19	0.42
30:BG:41:GLU:OE1	30:BG:54:ARG:CA	2.67	0.42
30:BG:75:VAL:HG13	30:BG:76:ILE:H	1.85	0.42
31:BH:31:VAL:O	31:BH:33:GLN:N	2.52	0.42
34:BK:92:GLU:O	34:BK:93:GLN:HG2	2.19	0.42
37:BN:48:VAL:O	37:BN:49:GLU:C	2.62	0.42
37:BN:58:ASP:HA	37:BN:80:PHE:CD1	2.55	0.42
42:BS:48:LYS:O	42:BS:52:GLU:HG2	2.19	0.42
45:BV:61:LEU:HB2	45:BV:72:VAL:HG12	2.02	0.42
49:BZ:7:THR:N	49:BZ:55:LYS:O	2.51	0.42
1:CA:17:U:C4'	1:CA:1080:A:O4'	2.68	0.42
1:CA:107:G:H3'	1:CA:108:G:H5"	2.02	0.42
1:CA:215:C:N4	1:CA:216:U:O4	2.52	0.42
1:CA:236:A:C4	1:CA:237:G:C8	3.08	0.42
1:CA:503:C:O2	1:CA:510:A:H2	2.02	0.42
1:CA:528:C:C2'	1:CA:529:G:H5'	2.50	0.42
1:CA:592:G:N1	1:CA:648:A:C4	2.88	0.42
1:CA:594:U:O2	1:CA:595:A:C2	2.72	0.42
1:CA:615:G:C4	1:CA:616:G:C8	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:886:G:C6	1:CA:887:G:C4	3.07	0.42
1:CA:956:U:C2	1:CA:957:U:C6	3.07	0.42
1:CA:1014:A:C8	1:CA:1015:G:C5	3.08	0.42
1:CA:1031:C:H4'	1:CA:1032:G:OP2	2.20	0.42
1:CA:1082:A:OP1	5:CE:23:LYS:HE2	2.19	0.42
1:CA:1116:U:O2	1:CA:1185:G:C2	2.73	0.42
1:CA:1169:A:N7	1:CA:1170:A:C2	2.88	0.42
1:CA:1242:G:N1	1:CA:1243:C:C5	2.87	0.42
1:CA:1287:A:H2	1:CA:1353:G:N3	2.18	0.42
1:CA:1316:G:H2'	1:CA:1317:C:H5'	2.01	0.42
2:CB:151:ILE:HG13	2:CB:152:LYS:N	2.34	0.42
2:CB:153:ASP:N	2:CB:153:ASP:OD1	2.52	0.42
3:CC:35:SER:O	3:CC:36:ASP:C	2.61	0.42
4:CD:58:LYS:HE2	4:CD:203:LEU:HB3	2.00	0.42
4:CD:188:ARG:CG	4:CD:189:SER:H	2.32	0.42
6:CF:49:TYR:CE1	18:CR:66:SER:HA	2.54	0.42
6:CF:65:GLU:O	6:CF:65:GLU:CG	2.67	0.42
7:CG:39:ALA:O	7:CG:40:GLU:CB	2.67	0.42
7:CG:103:TRP:HE3	7:CG:104:ILE:HG12	1.84	0.42
7:CG:107:ALA:O	7:CG:111:ARG:NH2	2.53	0.42
10:CJ:35:GLN:OE1	10:CJ:80:THR:CG2	2.68	0.42
11:CK:129:VAL:HG12	23:CX:10:A:H5"	2.01	0.42
12:CL:63:VAL:O	12:CL:64:THR:CB	2.66	0.42
13:CM:19:LEU:O	13:CM:25:VAL:HG21	2.19	0.42
13:CM:75:MET:SD	29:DF:111:ARG:CD	3.08	0.42
13:CM:96:PRO:HA	13:CM:109:ARG:NE	2.35	0.42
15:CO:31:LEU:N	15:CO:31:LEU:HD12	2.35	0.42
17:CQ:54:GLY:O	17:CQ:55:ILE:C	2.62	0.42
19:CS:55:ARG:N	19:CS:55:ARG:CD	2.83	0.42
21:CU:28:VAL:HG13	21:CU:31:GLU:OE1	2.19	0.42
22:CV:14:A:C8	22:CV:22:G:N2	2.87	0.42
22:CV:61:C:N3	22:CV:62:C:C5	2.88	0.42
55:CY:41:VAL:HG22	55:CY:42:VAL:N	2.34	0.42
24:DA:61:C:H5'	48:DY:43:LEU:HD11	2.02	0.42
24:DA:96:C:H4'	48:DY:41:HIS:CE1	2.55	0.42
24:DA:169:G:C2	24:DA:170:U:C6	3.08	0.42
24:DA:221:A:C8	24:DA:266:G:C5	3.07	0.42
24:DA:393:C:C2	24:DA:394:C:C5	3.08	0.42
24:DA:630:G:C4'	24:DA:640:C:H4'	2.47	0.42
24:DA:727:A:N6	24:DA:728:G:O6	2.52	0.42
24:DA:992:C:C4	24:DA:1163:G:N1	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1141:U:H4'	24:DA:1142:A:O4'	2.20	0.42
24:DA:1243:C:H2'	24:DA:1244:A:O4'	2.19	0.42
24:DA:1249:U:H5'	40:DQ:3:VAL:HG13	2.02	0.42
24:DA:1289:C:O2'	24:DA:1330:C:H4'	2.19	0.42
24:DA:1503:A:H2'	24:DA:1504:A:C1'	2.50	0.42
24:DA:1599:U:OP1	43:DT:40:LYS:HG3	2.20	0.42
24:DA:1799:G:OP1	26:DC:257:ARG:NE	2.52	0.42
24:DA:1825:U:H2'	24:DA:1826:G:O4'	2.18	0.42
24:DA:1844:C:H2'	24:DA:1845:G:O4'	2.19	0.42
24:DA:1869:G:N3	24:DA:1869:G:H2'	2.35	0.42
24:DA:1869:G:H3'	24:DA:1870:C:H5'	2.00	0.42
24:DA:1947:C:N3	24:DA:1960:A:C2	2.88	0.42
24:DA:2146:C:H5"	24:DA:2147:A:O5'	2.20	0.42
24:DA:2286:G:OP2	51:D1:29:LYS:CE	2.68	0.42
24:DA:2310:C:N3	29:DF:76:PHE:CE2	2.87	0.42
24:DA:2312:U:OP1	29:DF:70:ARG:HB2	2.19	0.42
24:DA:2563:U:H1'	24:DA:2566:A:N6	2.34	0.42
24:DA:2794:C:C2	24:DA:2803:G:C2	3.07	0.42
24:DA:2796:U:C5	24:DA:2798:U:O4	2.72	0.42
24:DA:2869:G:C6	24:DA:2870:C:C4	3.08	0.42
26:DC:66:PHE:CZ	26:DC:155:ARG:NE	2.87	0.42
26:DC:120:ASP:O	26:DC:121:ALA:C	2.63	0.42
26:DC:251:THR:O	26:DC:252:LYS:HB2	2.19	0.42
27:DD:148:GLN:CD	27:DD:148:GLN:N	2.78	0.42
31:DH:116:ARG:NH1	31:DH:133:GLN:HA	2.34	0.42
34:DK:25:LEU:C	34:DK:25:LEU:HD12	2.44	0.42
34:DK:67:LYS:HD2	34:DK:67:LYS:HA	1.80	0.42
35:DL:35:HIS:O	35:DL:36:LYS:C	2.62	0.42
37:DN:12:ARG:HD3	37:DN:16:HIS:CD2	2.54	0.42
37:DN:28:LEU:HD23	37:DN:28:LEU:HA	1.87	0.42
38:DO:87:ILE:C	38:DO:88:LYS:O	2.63	0.42
40:DQ:91:ARG:HA	40:DQ:94:LEU:HB2	2.02	0.42
42:DS:57:ASN:O	42:DS:61:ASN:HB2	2.19	0.42
44:DU:73:ASN:C	44:DU:75:ALA:N	2.77	0.42
52:D2:1:MET:H3	52:D2:1:MET:CE	2.32	0.42
53:D3:15:LYS:O	53:D3:16:THR:CB	2.68	0.42
1:AA:8:A:C6	4:AD:206:LYS:HG2	2.55	0.42
1:AA:55:A:C6	31:DH:91:PHE:CA	3.03	0.42
1:AA:129:A:H1'	1:AA:130:A:C8	2.55	0.42
1:AA:254:G:C2'	1:AA:255:G:H5'	2.50	0.42
1:AA:577:G:C8	1:AA:816:A:N1	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:577:G:C8	1:AA:816:A:C6	3.07	0.42
1:AA:824:G:H1'	8:AH:2:SER:N	2.34	0.42
1:AA:840:C:C3'	1:AA:841:C:C5'	2.97	0.42
1:AA:865:A:N7	1:AA:866:C:C5	2.88	0.42
1:AA:1029:U:O2	1:AA:1029:U:C2'	2.68	0.42
1:AA:1321:U:C4	1:AA:1322:C:C6	3.08	0.42
1:AA:1374:A:C2'	1:AA:1375:A:H5'	2.50	0.42
1:AA:1422:G:C6	1:AA:1423:G:N7	2.88	0.42
1:AA:1437:A:C2	1:AA:1465:A:C2	3.08	0.42
1:AA:1453:G:C2	1:AA:1454:G:H1'	2.55	0.42
1:AA:1480:A:C5	1:AA:1481:U:C4	3.08	0.42
2:AB:90:PHE:CG	2:AB:154:MET:HE3	2.54	0.42
2:AB:183:VAL:CG1	2:AB:196:VAL:HG23	2.50	0.42
3:AC:37:PHE:CE2	14:AN:66:GLN:CD	2.98	0.42
3:AC:87:LEU:H	3:AC:87:LEU:CD1	2.33	0.42
3:AC:142:MET:HE3	3:AC:142:MET:HB3	1.94	0.42
4:AD:171:LEU:C	4:AD:171:LEU:CD1	2.90	0.42
5:AE:97:GLN:O	5:AE:123:VAL:HA	2.20	0.42
8:AH:29:SER:O	8:AH:30:SER:CB	2.66	0.42
8:AH:94:LYS:HG2	8:AH:117:ARG:NH2	2.34	0.42
9:AI:75:GLN:O	9:AI:78:ALA:HB3	2.20	0.42
13:AM:3:ARG:C	13:AM:4:ILE:CG1	2.92	0.42
14:AN:88:ALA:CA	14:AN:93:ILE:CD1	2.97	0.42
19:AS:15:LEU:HD21	19:AS:35:SER:HB2	2.02	0.42
19:AS:64:ASP:OD1	19:AS:64:ASP:N	2.51	0.42
21:AU:26:ALA:HB1	21:AU:30:ALA:CB	2.50	0.42
21:AU:37:PHE:O	21:AU:38:TYR:CD2	2.72	0.42
22:AV:40:C:O2	22:AV:40:C:H2'	2.19	0.42
24:BA:77:G:P	48:BY:52:ARG:NH2	2.93	0.42
24:BA:90:U:H2'	24:BA:91:A:C8	2.55	0.42
24:BA:185:G:C4	24:BA:186:G:C8	3.08	0.42
24:BA:367:G:C6	24:BA:368:A:C2	3.07	0.42
24:BA:466:A:N1	24:BA:796:C:O4'	2.53	0.42
24:BA:592:A:C6	24:BA:593:U:C4	3.08	0.42
24:BA:646:U:O4	24:BA:2368:C:H1'	2.19	0.42
24:BA:674:G:H4'	28:BE:70:SER:O	2.19	0.42
24:BA:895:U:C4	24:BA:897:C:N4	2.88	0.42
24:BA:920:A:C2	24:BA:921:C:C2	3.08	0.42
24:BA:933:A:C5'	24:BA:934:U:OP2	2.67	0.42
24:BA:1103:A:N7	24:BA:1104:C:C4	2.88	0.42
24:BA:1352:U:O2'	24:BA:1353:A:C5'	2.63	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1359:A:C2'	24:BA:1360:G:H5'	2.50	0.42
24:BA:1419:A:N7	24:BA:1579:A:C6	2.87	0.42
24:BA:1475:G:O2'	24:BA:1514:G:O6	2.34	0.42
24:BA:1494:A:H2'	24:BA:1494:A:N3	2.35	0.42
24:BA:1509:A:O2'	24:BA:1510:G:OP2	2.28	0.42
24:BA:1633:G:C6	24:BA:1635:A:C4	3.08	0.42
24:BA:1722:A:C6	24:BA:1723:G:C6	3.07	0.42
24:BA:1838:C:C2	24:BA:1898:U:C4	3.08	0.42
24:BA:2028:U:H2'	24:BA:2029:G:O4'	2.19	0.42
24:BA:2107:G:C2'	24:BA:2108:A:O4'	2.68	0.42
24:BA:2250:G:H8	24:BA:2250:G:O5'	2.01	0.42
24:BA:2282:G:C5	24:BA:2425:A:N1	2.88	0.42
24:BA:2294:G:P	38:BO:94:ARG:HH22	2.43	0.42
24:BA:2303:G:O2'	29:BF:120:SER:O	2.37	0.42
24:BA:2336:A:H61	46:BW:43:THR:HG21	1.85	0.42
24:BA:2379:G:O3'	38:BO:17:LYS:NZ	2.53	0.42
24:BA:2691:C:C4	24:BA:2719:G:N2	2.87	0.42
24:BA:2714:G:N3	24:BA:2715:C:C6	2.88	0.42
24:BA:2803:G:N2	24:BA:2804:U:C2	2.87	0.42
25:BB:20:G:H2'	25:BB:21:G:O4'	2.20	0.42
27:BD:2:ILE:H	27:BD:2:ILE:HD13	1.85	0.42
28:BE:41:GLN:CG	28:BE:43:THR:HG23	2.50	0.42
29:BF:152:ASP:OD1	29:BF:152:ASP:N	2.52	0.42
31:BH:61:VAL:HG13	31:BH:64:ALA:HB3	2.01	0.42
33:BJ:17:VAL:CG2	33:BJ:57:LEU:CD1	2.98	0.42
34:BK:102:PRO:O	34:BK:103:VAL:HB	2.19	0.42
35:BL:57:LEU:HD22	53:B3:53:ASP:CB	2.50	0.42
36:BM:119:LEU:O	36:BM:120:ALA:C	2.63	0.42
37:BN:32:GLU:CA	37:BN:115:LEU:HD13	2.49	0.42
37:BN:49:GLU:N	37:BN:50:PRO:CD	2.82	0.42
1:CA:3:A:H4'	1:CA:613:C:H5'	2.02	0.42
1:CA:14:U:O2	1:CA:16:A:OP2	2.38	0.42
1:CA:145:G:C2	1:CA:146:G:C5	3.08	0.42
1:CA:392:C:O2'	1:CA:483:C:H1'	2.19	0.42
1:CA:393:A:OP2	16:CP:12:LYS:CE	2.68	0.42
1:CA:487:A:N7	1:CA:488:C:C2	2.88	0.42
1:CA:579:A:C5	1:CA:580:C:C5	3.07	0.42
1:CA:584:G:C6	1:CA:585:G:C6	3.08	0.42
1:CA:679:C:C2'	1:CA:680:C:H5'	2.49	0.42
1:CA:819:A:H4'	1:CA:820:U:OP2	2.20	0.42
1:CA:1083:U:H5	1:CA:1084:G:C2	2.38	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1177:G:N7	1:CA:1178:G:C5	2.88	0.42
1:CA:1237:C:C4'	1:CA:1334:G:N2	2.83	0.42
1:CA:1269:A:C2	1:CA:1326:U:O2	2.73	0.42
1:CA:1386:G:C2	1:CA:1387:G:C5	3.07	0.42
1:CA:1439:G:N1	1:CA:1440:U:C2	2.88	0.42
2:CB:101:LEU:HD12	2:CB:179:LEU:CD1	2.50	0.42
3:CC:10:ILE:HG23	3:CC:11:ARG:HD2	2.02	0.42
4:CD:166:GLU:O	4:CD:167:LYS:O	2.38	0.42
6:CF:21:MET:O	6:CF:23:GLU:HG2	2.19	0.42
7:CG:70:ARG:HE	7:CG:96:ARG:HG2	1.84	0.42
8:CH:50:LYS:O	8:CH:59:LEU:HA	2.20	0.42
9:CI:81:HIS:O	9:CI:82:GLY:C	2.62	0.42
9:CI:123:ARG:NH1	9:CI:124:ARG:O	2.48	0.42
9:CI:130:ARG:NH1	22:CV:33:U:C6	2.87	0.42
13:CM:8:ASN:ND2	13:CM:66:GLU:CD	2.78	0.42
13:CM:31:LYS:O	13:CM:31:LYS:HD2	2.19	0.42
14:CN:64:CYS:SG	14:CN:68:GLY:O	2.58	0.42
18:CR:55:LEU:O	18:CR:58:ALA:HB3	2.20	0.42
20:CT:59:ASP:C	20:CT:61:GLN:N	2.74	0.42
20:CT:66:LEU:O	20:CT:67:ILE:CB	2.66	0.42
20:CT:73:ALA:O	20:CT:75:HIS:N	2.53	0.42
24:DA:13:A:N3	24:DA:15:G:C6	2.88	0.42
24:DA:34:U:OP1	24:DA:34:U:O4'	2.37	0.42
24:DA:294:A:H2'	24:DA:295:G:C5'	2.50	0.42
24:DA:329:G:O6	44:DU:16:LYS:CB	2.66	0.42
24:DA:408:G:O2'	24:DA:409:G:H5'	2.19	0.42
24:DA:466:A:P	52:D2:34:ARG:HH21	2.42	0.42
24:DA:729:G:C4	24:DA:1775:U:C2	3.08	0.42
24:DA:778:G:C4	24:DA:779:U:C5	3.07	0.42
24:DA:784:G:H4'	24:DA:785:G:O5'	2.19	0.42
24:DA:1090:A:N1	24:DA:1091:G:C5	2.88	0.42
24:DA:1289:C:H2'	24:DA:1290:C:H6	1.84	0.42
24:DA:1310:G:N2	24:DA:1313:U:C5	2.88	0.42
24:DA:1430:G:H2'	24:DA:1431:A:O4'	2.18	0.42
24:DA:1474:U:H2'	24:DA:1475:G:H5'	2.01	0.42
24:DA:1478:G:C6	24:DA:1514:G:C2	3.07	0.42
24:DA:1866:A:N1	24:DA:1876:A:N7	2.68	0.42
24:DA:2024:G:H2'	24:DA:2025:C:O4'	2.19	0.42
24:DA:2277:G:H2'	24:DA:2278:A:O5'	2.20	0.42
24:DA:2329:U:H2'	24:DA:2330:G:O4'	2.20	0.42
24:DA:2414:G:O2'	24:DA:2415:G:H5'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2605:U:H2'	24:DA:2606:C:C6	2.55	0.42
24:DA:2666:C:N4	30:DG:107:GLY:O	2.51	0.42
24:DA:2680:U:O2'	24:DA:2681:C:O5'	2.38	0.42
24:DA:2808:G:C2	24:DA:2891:U:C6	3.08	0.42
24:DA:2823:A:C5	24:DA:2824:C:C5	3.08	0.42
25:DB:101:A:H2'	25:DB:102:G:O4'	2.20	0.42
26:DC:68:ARG:HG3	26:DC:128:THR:CG2	2.44	0.42
26:DC:78:GLU:CD	26:DC:100:ARG:HH12	2.28	0.42
27:DD:39:ASP:OD1	27:DD:41:ALA:HB3	2.19	0.42
27:DD:40:LEU:O	27:DD:41:ALA:C	2.62	0.42
29:DF:172:PHE:O	29:DF:173:ASP:HB2	2.19	0.42
31:DH:121:VAL:O	31:DH:123:ARG:HG2	2.20	0.42
31:DH:147:VAL:O	31:DH:148:ALA:HB3	2.20	0.42
32:DI:41:PHE:CD1	32:DI:42:ASN:OD1	2.72	0.42
32:DI:94:LYS:C	32:DI:94:LYS:HD2	2.45	0.42
35:DL:25:SER:C	35:DL:26:GLY:O	2.62	0.42
35:DL:90:VAL:O	35:DL:123:ARG:N	2.51	0.42
51:D1:28:THR:O	51:D1:29:LYS:CB	2.68	0.42
53:D3:5:THR:HG22	53:D3:61:LEU:HA	2.02	0.42
1:AA:86:G:H1'	1:AA:87:C:O4'	2.20	0.42
1:AA:161:A:H2'	1:AA:162:A:O4'	2.19	0.42
1:AA:373:A:H2'	1:AA:374:A:O5'	2.19	0.42
1:AA:374:A:H2'	1:AA:375:U:H6	1.84	0.42
1:AA:425:G:C4	1:AA:426:U:C6	3.08	0.42
1:AA:509:A:C2'	1:AA:510:A:C8	3.00	0.42
1:AA:580:C:C4	1:AA:581:G:C5	3.08	0.42
1:AA:645:G:C4	1:AA:646:G:C8	3.08	0.42
1:AA:658:C:H2'	1:AA:659:U:H5'	2.00	0.42
1:AA:777:A:C4	1:AA:778:G:C8	3.08	0.42
1:AA:824:G:C1'	8:AH:2:SER:N	2.83	0.42
1:AA:1074:G:H2'	1:AA:1074:G:N3	2.35	0.42
1:AA:1168:U:H5"	1:AA:1169:A:OP2	2.19	0.42
1:AA:1304:G:H2'	1:AA:1305:G:H1'	2.01	0.42
1:AA:1381:U:H1'	7:AG:78:ARG:NH2	2.35	0.42
2:AB:48:PRO:C	2:AB:50:PHE:N	2.78	0.42
2:AB:57:LEU:HD13	2:AB:58:ASN:H	1.84	0.42
2:AB:206:ALA:C	2:AB:207:ILE:O	2.61	0.42
3:AC:18:TRP:C	3:AC:20:SER:N	2.77	0.42
3:AC:40:ARG:HG2	3:AC:55:ILE:HD11	2.02	0.42
3:AC:79:LYS:HB3	3:AC:82:GLU:HG2	2.02	0.42
4:AD:55:LEU:HD22	4:AD:56:ARG:HD2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:135:TYR:CD1	4:AD:136:GLN:N	2.88	0.42
6:AF:42:TRP:O	6:AF:43:GLY:O	2.37	0.42
8:AH:15:ARG:HG3	8:AH:16:ASN:N	2.34	0.42
9:AI:7:TYR:CD1	9:AI:7:TYR:C	2.98	0.42
10:AJ:42:LEU:HB3	10:AJ:71:LEU:HD23	2.01	0.42
11:AK:16:VAL:CG1	11:AK:17:SER:N	2.83	0.42
12:AL:79:VAL:O	12:AL:103:ASP:HB2	2.20	0.42
12:AL:94:ARG:C	12:AL:95:TYR:CG	2.98	0.42
14:AN:77:PHE:N	14:AN:77:PHE:CD1	2.87	0.42
16:AP:5:ARG:HG3	16:AP:6:LEU:O	2.20	0.42
19:AS:15:LEU:HD21	19:AS:33:THR:OG1	2.19	0.42
21:AU:4:ILE:C	21:AU:5:LYS:HD2	2.44	0.42
24:BA:50:U:O2	24:BA:50:U:O2'	2.27	0.42
24:BA:65:U:N3	24:BA:66:C:C5	2.88	0.42
24:BA:98:G:O2'	24:BA:103:A:C8	2.73	0.42
24:BA:278:A:N6	24:BA:362:A:C8	2.88	0.42
24:BA:396:G:C6	24:BA:397:U:C4	3.08	0.42
24:BA:416:U:N3	24:BA:417:C:C5	2.88	0.42
24:BA:481:G:OP2	44:BU:43:LYS:HD2	2.19	0.42
24:BA:572:A:C2	24:BA:573:U:C2	3.07	0.42
24:BA:630:G:N2	24:BA:634:C:C4	2.88	0.42
24:BA:658:U:C2	24:BA:659:G:C8	3.07	0.42
24:BA:675:A:N3	24:BA:2443:C:O2'	2.43	0.42
24:BA:850:U:H2'	24:BA:851:C:C6	2.55	0.42
24:BA:1252:G:H2'	59:BA:3338:HOH:O	2.19	0.42
24:BA:1283:G:N2	24:BA:1286:A:H5'	2.35	0.42
24:BA:1319:C:O2	24:BA:1319:C:H2'	2.19	0.42
24:BA:1515:A:H5'	24:BA:1516:G:OP2	2.20	0.42
24:BA:1677:A:N1	24:BA:1678:A:C2	2.87	0.42
24:BA:2233:U:H2'	24:BA:2234:G:C8	2.54	0.42
24:BA:2331:G:C4	24:BA:2332:C:C6	3.07	0.42
24:BA:2657:A:H2'	24:BA:2658:C:C5'	2.50	0.42
59:BA:3748:HOH:O	26:BC:220:ARG:NH1	2.52	0.42
26:BC:115:ILE:C	26:BC:116:GLN:NE2	2.78	0.42
28:BE:21:ARG:O	28:BE:110:SER:OG	2.35	0.42
28:BE:60:TRP:CZ2	28:BE:70:SER:HB2	2.54	0.42
29:BF:147:ARG:HD2	29:BF:149:ARG:HG2	2.01	0.42
30:BG:41:GLU:HB2	30:BG:54:ARG:CZ	2.50	0.42
31:BH:31:VAL:HB	31:BH:32:PRO:CD	2.49	0.42
35:BL:110:VAL:O	35:BL:111:ILE:HB	2.20	0.42
36:BM:71:LYS:HD2	36:BM:95:LEU:HD22	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BO:79:ALA:HB2	38:BO:110:ALA:HA	2.01	0.42
40:BQ:77:LYS:O	40:BQ:80:ASN:N	2.53	0.42
42:BS:24:ILE:HA	42:BS:27:LYS:CG	2.49	0.42
48:BY:49:ASP:HA	48:BY:52:ARG:CD	2.49	0.42
51:B1:5:ARG:HH21	51:B1:25:ASN:CG	2.27	0.42
1:CA:135:C:C2	16:CP:1:MET:HB2	2.54	0.42
1:CA:307:C:H5"	1:CA:308:C:OP2	2.20	0.42
1:CA:316:C:N3	1:CA:317:U:C5	2.88	0.42
1:CA:667:G:N2	1:CA:740:U:O2	2.53	0.42
1:CA:673:A:N1	1:CA:674:G:C6	2.88	0.42
1:CA:689:C:N3	1:CA:690:G:C5	2.88	0.42
1:CA:702:A:C5'	1:CA:703:G:N7	2.83	0.42
1:CA:824:G:H1'	8:CH:2:SER:CB	2.50	0.42
1:CA:942:G:C2	1:CA:1342:C:O2	2.73	0.42
1:CA:1084:G:N1	1:CA:1085:U:O4	2.53	0.42
1:CA:1266:G:C4	1:CA:1268:G:OP2	2.73	0.42
1:CA:1491:G:H5"	12:CL:43:LYS:CD	2.50	0.42
1:CA:1516:G:N3	1:CA:1518:A:OP2	2.52	0.42
2:CB:169:GLU:O	2:CB:170:HIS:C	2.62	0.42
2:CB:200:ILE:N	2:CB:200:ILE:HD12	2.35	0.42
2:CB:203:ASN:OD1	2:CB:205:ASP:N	2.53	0.42
3:CC:183:ASP:HB2	3:CC:204:LYS:HE3	2.02	0.42
5:CE:85:VAL:HG12	5:CE:96:MET:HG3	2.02	0.42
7:CG:124:LEU:O	7:CG:127:ALA:HB3	2.19	0.42
8:CH:7:ILE:N	8:CH:7:ILE:CD1	2.83	0.42
8:CH:49:PHE:C	8:CH:50:LYS:HD2	2.45	0.42
9:CI:6:TYR:CD1	9:CI:6:TYR:C	2.98	0.42
9:CI:57:MET:HB3	9:CI:60:LYS:NZ	2.35	0.42
10:CJ:5:ARG:O	10:CJ:76:ILE:HG23	2.20	0.42
10:CJ:51:VAL:O	10:CJ:62:ARG:HA	2.19	0.42
14:CN:93:ILE:HG21	14:CN:96:LEU:HG	2.01	0.42
20:CT:80:THR:O	20:CT:81:ALA:C	2.63	0.42
22:CV:51:U:O2	22:CV:51:U:H2'	2.20	0.42
24:DA:137:U:C5	24:DA:140:C:C6	3.08	0.42
24:DA:244:A:C2	24:DA:255:A:N3	2.87	0.42
24:DA:322:A:OP1	28:DE:162:ARG:HG2	2.19	0.42
24:DA:467:G:C2'	24:DA:468:G:H5'	2.49	0.42
24:DA:597:G:C6	24:DA:598:U:N3	2.87	0.42
24:DA:675:A:OP1	28:DE:58:LYS:CD	2.68	0.42
24:DA:723:C:H2'	24:DA:724:U:O4'	2.20	0.42
24:DA:724:U:H2'	24:DA:725:G:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:778:G:C5'	26:DC:47:ARG:NH1	2.83	0.42
24:DA:962:G:H2'	24:DA:963:U:O4'	2.20	0.42
24:DA:1030:C:C4	24:DA:1125:G:N2	2.88	0.42
24:DA:1087:G:C6	24:DA:1089:A:H2	2.37	0.42
24:DA:1205:A:N1	28:DE:165:HIS:CB	2.83	0.42
24:DA:1275:A:N3	24:DA:1276:A:H1'	2.35	0.42
24:DA:1292:G:H2'	24:DA:1293:C:H6	1.85	0.42
24:DA:1330:C:C2'	24:DA:1331:G:H5'	2.49	0.42
24:DA:1372:U:H2'	24:DA:1373:A:C5'	2.50	0.42
24:DA:1425:G:C6	24:DA:1426:G:N1	2.88	0.42
24:DA:1509:A:C4	24:DA:1510:G:C8	3.08	0.42
24:DA:1532:A:N1	24:DA:1533:C:C2	2.87	0.42
24:DA:1562:U:H2'	24:DA:1563:U:H6	1.84	0.42
24:DA:1661:G:C6	24:DA:1662:U:C4	3.08	0.42
24:DA:1935:G:C6	24:DA:1962:C:C5	3.08	0.42
24:DA:1979:U:H2'	24:DA:1980:G:H5'	2.01	0.42
24:DA:1989:G:H2'	24:DA:1990:C:O4'	2.19	0.42
24:DA:2194:U:C2	24:DA:2195:U:C6	3.07	0.42
24:DA:2222:C:N3	24:DA:2223:G:C8	2.87	0.42
24:DA:2318:G:H2'	24:DA:2319:G:O4'	2.19	0.42
24:DA:2371:G:C2	24:DA:2372:U:C6	3.08	0.42
24:DA:2676:C:C2'	24:DA:2677:G:H5'	2.49	0.42
26:DC:64:VAL:HA	26:DC:102:TYR:HB2	2.02	0.42
26:DC:244:VAL:HG23	26:DC:248:GLY:C	2.45	0.42
28:DE:21:ARG:HG2	28:DE:22:ASP:O	2.20	0.42
28:DE:58:LYS:O	28:DE:59:PRO:C	2.62	0.42
29:DF:95:MET:O	29:DF:99:PHE:CE1	2.73	0.42
31:DH:86:ASP:O	31:DH:87:GLU:HB3	2.19	0.42
32:DI:97:VAL:CG1	32:DI:98:GLY:N	2.83	0.42
34:DK:60:ALA:HA	34:DK:87:LEU:HG	2.01	0.42
35:DL:50:PHE:CE1	35:DL:52:GLY:N	2.88	0.42
36:DM:21:ALA:CB	36:DM:98:PRO:O	2.68	0.42
41:DR:68:ARG:HG2	41:DR:92:TRP:CE3	2.54	0.42
43:DT:18:GLU:O	43:DT:19:LYS:C	2.62	0.42
43:DT:61:LEU:HD11	43:DT:82:LYS:CB	2.50	0.42
44:DU:64:ILE:HG13	44:DU:65:GLN:N	2.35	0.42
45:DV:80:HIS:CD2	45:DV:81:PRO:CD	3.03	0.42
46:DW:32:LEU:HB3	46:DW:64:ASP:OD1	2.20	0.42
46:DW:46:HIS:O	46:DW:47:ALA:C	2.62	0.42
47:DX:1:SER:O	47:DX:2:ARG:C	2.61	0.42
47:DX:55:MET:O	47:DX:58:ILE:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:186:C:N4	1:AA:187:G:C6	2.87	0.42
1:AA:418:C:N3	1:AA:419:C:C5	2.87	0.42
1:AA:441:A:N3	1:AA:497:G:C2	2.88	0.42
1:AA:687:A:C6	1:AA:704:A:N7	2.88	0.42
1:AA:764:C:C4	1:AA:765:G:C5	3.08	0.42
1:AA:809:G:C6	1:AA:810:C:C5	3.08	0.42
1:AA:810:C:H2'	1:AA:811:C:C6	2.54	0.42
1:AA:872:A:C8	1:AA:874:G:C8	3.08	0.42
1:AA:1012:A:N3	1:AA:1018:G:C2	2.88	0.42
1:AA:1112:C:H1'	3:AC:179:ARG:NH2	2.35	0.42
1:AA:1265:C:C4	1:AA:1266:G:C6	3.08	0.42
3:AC:132:ARG:C	3:AC:134:MET:N	2.77	0.42
3:AC:206:GLU:O	3:AC:207:ILE:C	2.63	0.42
4:AD:62:ARG:CG	4:AD:72:PHE:CE1	3.03	0.42
4:AD:102:VAL:C	4:AD:103:TYR:HD1	2.28	0.42
4:AD:178:MET:HE2	4:AD:179:GLU:N	2.35	0.42
6:AF:91:ARG:O	6:AF:92:THR:CB	2.68	0.42
7:AG:93:PRO:HA	7:AG:96:ARG:CB	2.50	0.42
8:AH:83:LEU:CD1	8:AH:83:LEU:O	2.68	0.42
11:AK:107:ILE:O	11:AK:107:ILE:CG2	2.67	0.42
13:AM:31:LYS:HD2	13:AM:35:ALA:CB	2.50	0.42
13:AM:85:CYS:HB3	19:AS:74:PHE:CE1	2.54	0.42
14:AN:29:ILE:HA	14:AN:32:ASP:HB3	2.02	0.42
16:AP:52:LEU:C	16:AP:52:LEU:HD12	2.45	0.42
20:AT:80:THR:O	20:AT:81:ALA:C	2.62	0.42
21:AU:30:ALA:CA	21:AU:33:ARG:CZ	2.94	0.42
24:BA:181:A:C2	24:BA:182:A:N3	2.88	0.42
24:BA:201:C:C2'	24:BA:202:U:H5'	2.50	0.42
24:BA:242:G:H5"	53:B3:63:TYR:CE1	2.55	0.42
24:BA:342:A:H2'	24:BA:343:C:O5'	2.20	0.42
24:BA:364:C:N3	24:BA:365:U:N3	2.68	0.42
24:BA:392:U:C2	24:BA:393:C:C6	3.08	0.42
24:BA:499:U:O3'	44:BU:42:LYS:CE	2.68	0.42
24:BA:548:G:H3'	24:BA:548:G:C8	2.55	0.42
24:BA:637:A:N6	24:BA:652:U:H4'	2.35	0.42
24:BA:971:G:C2'	24:BA:972:A:H5'	2.49	0.42
24:BA:1099:G:C5	24:BA:1100:C:C5	3.08	0.42
24:BA:1230:A:C6	24:BA:1231:U:C4	3.07	0.42
24:BA:1872:A:N7	24:BA:1873:G:C1'	2.83	0.42
24:BA:2020:A:C6	24:BA:2022:U:C2	3.08	0.42
24:BA:2134:A:N1	24:BA:2135:A:C5	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2343:U:H2'	24:BA:2344:U:C5	2.54	0.42
24:BA:2345:G:N3	24:BA:2381:A:H2'	2.34	0.42
24:BA:2443:C:H5'	28:BE:63:LYS:NZ	2.35	0.42
24:BA:2747:G:C6	24:BA:2754:U:C2	3.08	0.42
25:BB:48:U:H2'	25:BB:49:C:H6	1.84	0.42
26:BC:139:THR:C	26:BC:140:VAL:HG12	2.45	0.42
29:BF:37:MET:HE3	29:BF:150:GLY:O	2.19	0.42
29:BF:105:ILE:CG2	29:BF:138:PRO:HG2	2.50	0.42
29:BF:154:THR:HG23	29:BF:155:ILE:N	2.35	0.42
31:BH:88:GLY:O	31:BH:89:LYS:C	2.63	0.42
33:BJ:31:GLU:HG3	33:BJ:142:ILE:CD1	2.50	0.42
35:BL:10:GLU:C	35:BL:12:SER:H	2.28	0.42
35:BL:125:LEU:N	35:BL:125:LEU:HD13	2.34	0.42
36:BM:103:TYR:N	36:BM:103:TYR:CD1	2.87	0.42
37:BN:116:VAL:HG23	37:BN:117:ASP:N	2.35	0.42
39:BP:50:ARG:CZ	39:BP:52:ARG:HG3	2.50	0.42
45:BV:50:MET:O	45:BV:53:LYS:HG2	2.20	0.42
48:BY:17:GLU:O	48:BY:21:LEU:CD1	2.68	0.42
50:B0:48:TYR:O	50:B0:49:ARG:HB2	2.19	0.42
1:CA:6:G:H3'	1:CA:6:G:N3	2.35	0.42
1:CA:267:C:H2'	1:CA:268:U:C6	2.55	0.42
1:CA:291:U:O2	1:CA:310:G:C2	2.73	0.42
1:CA:408:A:N3	1:CA:408:A:H2'	2.35	0.42
1:CA:424:G:C2	1:CA:425:G:C8	3.08	0.42
1:CA:532:A:C3'	1:CA:533:A:C5'	2.96	0.42
1:CA:585:G:OP1	17:CQ:39:LYS:NZ	2.52	0.42
1:CA:616:G:O2'	16:CP:47:GLU:CD	2.63	0.42
1:CA:801:U:H2'	1:CA:802:A:O5'	2.20	0.42
1:CA:830:G:C6	1:CA:857:C:N3	2.88	0.42
1:CA:967:C:N1	9:CI:129:LYS:HE2	2.35	0.42
1:CA:981:U:C5	1:CA:982:U:C2	3.08	0.42
1:CA:1053:G:C4	1:CA:1199:U:C4	3.08	0.42
1:CA:1210:C:O4'	1:CA:1214:C:C4	2.73	0.42
3:CC:65:ARG:HD3	3:CC:65:ARG:HA	1.88	0.42
3:CC:130:PHE:CE2	3:CC:157:LEU:HD23	2.55	0.42
3:CC:184:TYR:CD1	3:CC:184:TYR:C	2.97	0.42
4:CD:9:LEU:HD11	4:CD:10:LYS:HE3	2.01	0.42
4:CD:137:VAL:HG12	4:CD:138:SER:N	2.35	0.42
4:CD:143:VAL:O	4:CD:144:SER:CB	2.68	0.42
5:CE:38:VAL:HG21	5:CE:114:VAL:HG12	2.02	0.42
5:CE:44:GLY:O	5:CE:45:ARG:CG	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:77:ASN:C	5:CE:79:GLY:N	2.76	0.42
5:CE:82:GLN:H	5:CE:147:MET:CE	2.33	0.42
5:CE:146:ASN:OD1	5:CE:146:ASN:C	2.63	0.42
7:CG:66:LEU:HD12	7:CG:67:GLU:HB2	2.02	0.42
7:CG:123:GLU:O	7:CG:127:ALA:N	2.52	0.42
8:CH:77:ARG:NH1	8:CH:126:ILE:HG23	2.35	0.42
8:CH:113:ASP:O	8:CH:115:ALA:N	2.53	0.42
9:CI:39:PHE:HB2	9:CI:44:ALA:HB3	2.00	0.42
9:CI:82:GLY:HA3	9:CI:85:ARG:NH1	2.35	0.42
12:CL:18:LYS:O	12:CL:19:SER:C	2.62	0.42
12:CL:56:ARG:O	12:CL:57:LEU:CG	2.67	0.42
12:CL:101:ALA:O	12:CL:103:ASP:N	2.49	0.42
13:CM:48:LEU:O	13:CM:48:LEU:CD1	2.68	0.42
14:CN:31:SER:O	14:CN:32:ASP:CB	2.67	0.42
14:CN:80:SER:O	14:CN:81:ARG:C	2.63	0.42
15:CO:9:ALA:C	15:CO:10:LYS:HD3	2.44	0.42
17:CQ:4:LYS:HZ2	17:CQ:6:ARG:C	2.28	0.42
17:CQ:4:LYS:CE	17:CQ:5:ILE:O	2.68	0.42
17:CQ:28:PHE:C	17:CQ:29:VAL:HG12	2.44	0.42
18:CR:63:ARG:HA	18:CR:68:LEU:HG	2.02	0.42
19:CS:45:ILE:C	19:CS:47:LEU:H	2.28	0.42
20:CT:67:ILE:HG23	20:CT:71:LYS:CB	2.49	0.42
55:CY:78:VAL:O	55:CY:81:ALA:HB3	2.19	0.42
55:CY:143:LEU:O	55:CY:146:LYS:N	2.53	0.42
55:CY:163:LEU:C	55:CY:164:THR:O	2.62	0.42
24:DA:416:U:C6	24:DA:417:C:C5	3.07	0.42
24:DA:538:A:C8	57:DA:3186:NMY:N19	2.87	0.42
24:DA:587:C:C4’	24:DA:588:U:H5’	2.48	0.42
24:DA:764:A:C5	26:DC:207:ALA:CB	3.03	0.42
24:DA:1062:G:H2’	24:DA:1063:G:H5”	2.02	0.42
24:DA:1561:C:C4	24:DA:1562:U:C5	3.08	0.42
24:DA:1568:G:OP1	26:DC:84:PRO:HG2	2.20	0.42
24:DA:2002:G:H2’	24:DA:2003:A:H5’	2.01	0.42
24:DA:2032:G:O2’	27:DD:150:GLN:NE2	2.52	0.42
24:DA:2038:G:H2’	24:DA:2039:U:O4’	2.20	0.42
24:DA:2231:U:H2’	24:DA:2232:C:H6	1.84	0.42
24:DA:2298:A:C4	24:DA:2321:U:H5	2.33	0.42
24:DA:2412:A:H3’	24:DA:2413:G:C8	2.55	0.42
24:DA:2496:C:P	36:DM:81:ARG:HH22	2.42	0.42
24:DA:2633:G:H3’	24:DA:2634:A:H5”	2.02	0.42
25:DB:14:U:O2	25:DB:107:G:H4’	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DC:154:ALA:CB	26:DC:159:THR:HG23	2.49	0.42
26:DC:211:ARG:HA	26:DC:211:ARG:HD2	1.77	0.42
27:DD:169:ARG:O	27:DD:169:ARG:HG3	2.20	0.42
28:DE:178:VAL:O	28:DE:179:SER:C	2.62	0.42
30:DG:7:PRO:HB3	30:DG:50:THR:HG22	2.02	0.42
34:DK:2:ILE:HD11	34:DK:39:ILE:HG21	2.01	0.42
36:DM:3:GLN:HB2	36:DM:4:PRO:CD	2.50	0.42
38:DO:16:ARG:C	38:DO:18:LEU:N	2.77	0.42
40:DQ:31:TYR:C	40:DQ:31:TYR:CD2	2.97	0.42
41:DR:24:LYS:CG	41:DR:25:LEU:N	2.83	0.42
41:DR:55:ASP:O	41:DR:56:GLY:C	2.63	0.42
44:DU:84:PHE:O	44:DU:94:PHE:CD2	2.72	0.42
46:DW:50:ASN:C	46:DW:51:VAL:CG1	2.93	0.42
47:DX:18:SER:O	47:DX:20:ALA:N	2.52	0.42
1:AA:16:A:C5	1:AA:17:U:H5	2.36	0.41
1:AA:132:C:OP1	20:AT:69:LYS:HE3	2.18	0.41
1:AA:155:A:C6	1:AA:167:A:C6	3.08	0.41
1:AA:454:G:O2'	1:AA:455:G:H5'	2.20	0.41
1:AA:586:C:H5"	8:AH:82:GLY:CA	2.49	0.41
1:AA:708:C:C2'	1:AA:709:U:O5'	2.68	0.41
1:AA:917:G:C6	1:AA:918:A:C6	3.08	0.41
1:AA:951:G:O6	1:AA:1230:C:N4	2.53	0.41
1:AA:1167:A:C8	1:AA:1169:A:C8	3.08	0.41
2:AB:205:ASP:O	2:AB:206:ALA:HB2	2.20	0.41
4:AD:119:SER:HA	4:AD:131:ASN:OD1	2.20	0.41
11:AK:30:THR:HG21	11:AK:92:GLY:HA3	2.02	0.41
13:AM:109:ARG:NE	13:AM:109:ARG:HA	2.35	0.41
17:AQ:78:VAL:C	17:AQ:79:VAL:CG2	2.93	0.41
18:AR:50:LYS:C	18:AR:52:GLN:H	2.28	0.41
18:AR:52:GLN:O	18:AR:54:GLN:N	2.46	0.41
20:AT:19:LYS:HA	20:AT:19:LYS:HD2	1.87	0.41
21:AU:12:PHE:CD1	21:AU:12:PHE:N	2.86	0.41
21:AU:24:GLU:CG	21:AU:25:LYS:N	2.83	0.41
24:BA:100:U:H1'	24:BA:101:A:C8	2.55	0.41
24:BA:111:A:N1	24:BA:112:U:C2	2.88	0.41
24:BA:132:G:H2'	24:BA:133:U:C6	2.55	0.41
24:BA:379:G:C2'	24:BA:380:G:O5'	2.68	0.41
24:BA:467:G:H2'	24:BA:468:G:O4'	2.19	0.41
24:BA:625:G:N1	24:BA:626:A:C5	2.88	0.41
24:BA:636:G:C5	35:BL:111:ILE:HD11	2.55	0.41
24:BA:809:G:H4'	24:BA:1254:A:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:851:C:H4'	49:BZ:46:MET:HA	2.02	0.41
24:BA:863:A:C2'	24:BA:864:G:O5'	2.67	0.41
24:BA:993:G:N2	41:BR:23:GLU:OE1	2.43	0.41
24:BA:1059:G:C6	24:BA:1080:A:C2	3.08	0.41
24:BA:1072:C:C2	24:BA:1093:G:O6	2.73	0.41
24:BA:1266:G:OP1	50:B0:15:ARG:CD	2.68	0.41
24:BA:1429:G:O6	24:BA:1564:C:N4	2.52	0.41
24:BA:1448:G:C2	24:BA:1464:G:N3	2.88	0.41
24:BA:1532:A:C6	24:BA:1533:C:N4	2.88	0.41
24:BA:1532:A:N1	24:BA:1533:C:N4	2.68	0.41
24:BA:1555:G:H2'	24:BA:1555:G:N3	2.34	0.41
24:BA:1711:A:H2	24:BA:1748:C:C2	2.36	0.41
24:BA:1841:U:C2'	24:BA:1842:G:O5'	2.68	0.41
24:BA:2078:C:O2'	24:BA:2079:U:H5'	2.20	0.41
24:BA:2102:G:C6	24:BA:2188:U:C2	3.07	0.41
24:BA:2104:C:C4	24:BA:2105:U:C4	3.08	0.41
24:BA:2330:G:N2	46:BW:42:GLY:HA2	2.35	0.41
24:BA:2657:A:C4'	30:BG:91:VAL:HG21	2.49	0.41
24:BA:2667:C:N3	24:BA:2668:G:N7	2.67	0.41
24:BA:2731:G:O3'	27:BD:208:LYS:HE3	2.20	0.41
24:BA:2744:G:C6	24:BA:2761:A:N6	2.87	0.41
24:BA:2751:G:C6	30:BG:2:ARG:NH2	2.88	0.41
24:BA:2884:U:C4'	50:B0:49:ARG:NH2	2.83	0.41
57:BA:3162:NMY:H172	57:BA:3162:NMY:C2	2.48	0.41
25:BB:109:A:C5	25:BB:110:C:C5	3.08	0.41
26:BC:184:GLU:O	26:BC:187:CYS:N	2.48	0.41
33:BJ:49:ASP:CG	33:BJ:121:LYS:NZ	2.77	0.41
35:BL:98:ALA:O	35:BL:99:ASN:C	2.63	0.41
35:BL:115:GLU:O	35:BL:116:VAL:HG12	2.19	0.41
39:BP:7:LEU:HD12	39:BP:7:LEU:O	2.20	0.41
40:BQ:91:ARG:O	40:BQ:92:LYS:C	2.63	0.41
41:BR:1:MET:HG2	41:BR:43:ASN:CB	2.50	0.41
44:BU:71:ILE:HD11	44:BU:80:ASP:C	2.44	0.41
47:BX:31:ASN:O	47:BX:33:HIS:CD2	2.73	0.41
47:BX:72:ALA:C	47:BX:74:GLY:N	2.78	0.41
48:BY:2:LYS:HE3	48:BY:2:LYS:HB3	1.89	0.41
49:BZ:44:ARG:HA	49:BZ:47:ILE:CG1	2.48	0.41
51:B1:6:GLU:O	51:B1:23:THR:HA	2.19	0.41
51:B1:12:SER:HA	51:B1:48:TYR:CG	2.55	0.41
51:B1:39:ASP:OD1	51:B1:39:ASP:C	2.63	0.41
53:B3:38:LYS:HG2	53:B3:39:ARG:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:246:A:C5	1:CA:279:A:C5	3.08	0.41
1:CA:263:A:OP1	20:CT:70:ASN:HB2	2.20	0.41
1:CA:425:G:C4	1:CA:426:U:C6	3.08	0.41
1:CA:607:A:N3	1:CA:608:A:C8	2.88	0.41
1:CA:859:G:H2'	1:CA:860:A:H8	1.83	0.41
1:CA:966:G:H2'	9:CI:129:LYS:HG2	2.00	0.41
1:CA:1129:C:H4'	1:CA:1130:A:OP1	2.20	0.41
1:CA:1153:G:C4	1:CA:1154:G:C8	3.07	0.41
1:CA:1176:A:C2	1:CA:1177:G:C2	3.08	0.41
1:CA:1243:C:H2'	1:CA:1244:G:O4'	2.19	0.41
1:CA:1253:G:N3	1:CA:1254:A:C8	2.88	0.41
1:CA:1277:C:C2'	1:CA:1279:G:H8	2.33	0.41
1:CA:1317:C:H1'	14:CN:49:GLN:CG	2.50	0.41
1:CA:1347:G:O2'	1:CA:1348:U:OP2	2.32	0.41
1:CA:1358:U:OP2	14:CN:75:ARG:NE	2.53	0.41
1:CA:1363:A:C8	1:CA:1365:G:O6	2.73	0.41
1:CA:1372:U:OP2	9:CI:13:LYS:NZ	2.50	0.41
1:CA:1491:G:C8	57:CA:1672:NMY:O3	2.71	0.41
1:CA:1517:G:H5'	1:CA:1518:A:OP2	2.20	0.41
2:CB:148:LEU:C	2:CB:148:LEU:HD12	2.45	0.41
2:CB:183:VAL:CG2	2:CB:196:VAL:HG23	2.50	0.41
3:CC:9:GLY:HA2	14:CN:89:MET:O	2.20	0.41
3:CC:91:VAL:O	3:CC:92:ALA:C	2.62	0.41
3:CC:142:MET:HE2	3:CC:170:GLU:HB3	2.02	0.41
4:CD:14:ARG:NH1	4:CD:38:PRO:HB3	2.35	0.41
4:CD:97:ARG:CG	4:CD:99:ASP:OD1	2.68	0.41
4:CD:107:PHE:O	4:CD:155:VAL:HG23	2.20	0.41
8:CH:10:MET:HG2	8:CH:27:MET:SD	2.60	0.41
9:CI:7:TYR:CD2	9:CI:19:VAL:O	2.73	0.41
10:CJ:36:VAL:O	10:CJ:36:VAL:HG12	2.19	0.41
11:CK:126:LYS:C	21:CU:35:ARG:CZ	2.93	0.41
14:CN:32:ASP:CG	14:CN:33:VAL:H	2.27	0.41
19:CS:33:THR:OG1	19:CS:34:TRP:N	2.53	0.41
19:CS:43:ASN:ND2	19:CS:43:ASN:C	2.77	0.41
20:CT:31:PHE:CB	20:CT:54:MET:HG3	2.47	0.41
55:CY:6:ARG:O	55:CY:9:ALA:N	2.45	0.41
55:CY:17:VAL:O	55:CY:20:PHE:N	2.50	0.41
55:CY:123:GLN:C	55:CY:125:ARG:N	2.78	0.41
55:CY:143:LEU:C	55:CY:143:LEU:HD12	2.45	0.41
24:DA:195:A:H4'	24:DA:251:A:O2'	2.20	0.41
24:DA:451:U:C6	24:DA:453:A:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:590:A:C2'	24:DA:591:U:H5'	2.50	0.41
24:DA:592:A:C4	24:DA:593:U:C5	3.07	0.41
24:DA:725:G:C6	24:DA:726:G:C6	3.08	0.41
24:DA:937:C:H2'	24:DA:938:G:O4'	2.20	0.41
24:DA:961:C:C5	24:DA:2031:A:C6	3.08	0.41
24:DA:1028:A:N3	24:DA:2486:C:O2'	2.42	0.41
24:DA:1041:G:N3	24:DA:1041:G:H2'	2.33	0.41
24:DA:1166:G:H2'	24:DA:1167:C:C6	2.54	0.41
24:DA:1190:G:C5'	35:DL:32:GLY:HA2	2.50	0.41
24:DA:1212:G:H1'	24:DA:1236:G:N2	2.35	0.41
24:DA:1312:U:C4	43:DT:64:LYS:CD	3.01	0.41
24:DA:1335:C:OP1	43:DT:68:LYS:CE	2.68	0.41
24:DA:1350:C:C2	24:DA:1382:G:C2	3.08	0.41
24:DA:1358:G:O6	24:DA:1371:G:C8	2.71	0.41
24:DA:1559:U:H3'	24:DA:1560:G:C5'	2.48	0.41
24:DA:1670:C:C4	24:DA:1671:U:C2	3.08	0.41
24:DA:1688:U:O2	24:DA:1700:A:H8	2.03	0.41
24:DA:1806:C:C5	24:DA:1807:G:N7	2.88	0.41
24:DA:1824:G:OP2	26:DC:52:HIS:CD2	2.73	0.41
24:DA:1990:C:H2'	24:DA:1991:U:C1'	2.49	0.41
24:DA:2086:U:H2'	24:DA:2087:G:O4'	2.20	0.41
24:DA:2183:A:H2'	24:DA:2184:A:C8	2.55	0.41
24:DA:2231:U:N3	24:DA:2232:C:C5	2.89	0.41
24:DA:2276:G:C2'	24:DA:2277:G:H5'	2.50	0.41
24:DA:2303:G:C2	24:DA:2304:G:C8	3.08	0.41
24:DA:2515:C:O2'	24:DA:2516:A:H5'	2.20	0.41
24:DA:2524:G:N2	24:DA:2525:G:H1'	2.34	0.41
24:DA:2578:G:P	59:DA:3484:HOH:O	2.77	0.41
24:DA:2714:G:H2'	24:DA:2715:C:C5'	2.50	0.41
24:DA:2816:G:C6	24:DA:2817:U:C4	3.09	0.41
24:DA:2817:U:C2'	24:DA:2818:U:O5'	2.68	0.41
25:DB:95:U:H2'	25:DB:96:G:H8	1.85	0.41
26:DC:48:ILE:HD12	26:DC:48:ILE:O	2.20	0.41
26:DC:257:ARG:CZ	26:DC:259:ASN:ND2	2.83	0.41
28:DE:44:ARG:O	28:DE:45:ALA:CB	2.67	0.41
29:DF:80:GLN:CG	29:DF:81:GLY:N	2.83	0.41
35:DL:85:VAL:HG22	35:DL:94:THR:HG23	2.01	0.41
37:DN:12:ARG:HD3	37:DN:16:HIS:CE1	2.54	0.41
37:DN:31:HIS:O	37:DN:32:GLU:HB2	2.20	0.41
37:DN:41:ALA:O	37:DN:42:LYS:C	2.63	0.41
39:DP:27:VAL:HG11	39:DP:73:PHE:CE1	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DQ:38:VAL:HG12	40:DQ:39:ILE:N	2.34	0.41
40:DQ:93:ILE:C	40:DQ:95:ALA:N	2.78	0.41
44:DU:32:LYS:NZ	44:DU:32:LYS:CA	2.82	0.41
49:DZ:47:ILE:C	49:DZ:49:ALA:H	2.27	0.41
51:D1:17:GLY:O	51:D1:18:HIS:C	2.63	0.41
1:AA:179:A:C6	1:AA:180:U:O2	2.73	0.41
1:AA:294:U:N3	1:AA:295:C:C4	2.88	0.41
1:AA:411:A:C5	1:AA:429:U:C4	3.08	0.41
1:AA:593:U:H2'	1:AA:594:U:O4'	2.19	0.41
1:AA:950:U:C5	13:AM:101:ARG:CZ	3.03	0.41
1:AA:993:G:N3	1:AA:993:G:C2'	2.83	0.41
1:AA:1135:U:H2'	1:AA:1137:C:O2	2.19	0.41
1:AA:1215:G:N3	1:AA:1216:A:C8	2.88	0.41
3:AC:155:GLY:HA2	3:AC:163:ALA:HB1	2.00	0.41
3:AC:157:LEU:C	3:AC:157:LEU:HD12	2.45	0.41
4:AD:123:ILE:CD1	4:AD:144:SER:O	2.68	0.41
4:AD:202:GLU:CD	4:AD:203:LEU:N	2.77	0.41
5:AE:12:GLN:CG	5:AE:117:VAL:HG13	2.51	0.41
6:AF:9:MET:HE2	6:AF:59:TYR:CE2	2.55	0.41
9:AI:129:LYS:CG	22:AV:32:U:OP1	2.68	0.41
11:AK:14:LYS:O	11:AK:15:GLN:C	2.63	0.41
12:AL:55:VAL:HG12	12:AL:63:VAL:O	2.20	0.41
13:AM:68:ASP:HB2	13:AM:71:ARG:CZ	2.50	0.41
14:AN:101:TRP:N	14:AN:101:TRP:HD1	2.18	0.41
15:AO:46:HIS:C	15:AO:48:LYS:N	2.75	0.41
19:AS:40:ILE:HD13	19:AS:69:HIS:O	2.20	0.41
20:AT:15:GLU:OE1	20:AT:19:LYS:HD3	2.20	0.41
24:BA:103:A:C5	24:BA:104:A:C8	3.07	0.41
24:BA:144:A:C5	24:BA:145:C:C4	3.08	0.41
24:BA:247:G:C2	24:BA:252:G:C6	3.08	0.41
24:BA:309:A:H5'	44:BU:16:LYS:CD	2.49	0.41
24:BA:311:A:C2	24:BA:328:U:O4	2.73	0.41
24:BA:335:C:H5'	44:BU:81:ARG:HD3	2.02	0.41
24:BA:353:C:C2'	24:BA:354:A:H5'	2.50	0.41
24:BA:362:A:H2'	24:BA:363:G:H5'	2.01	0.41
24:BA:499:U:C4	24:BA:500:G:C5	3.08	0.41
24:BA:608:A:C3'	24:BA:609:A:C8	3.03	0.41
24:BA:625:G:N2	24:BA:626:A:C4	2.88	0.41
24:BA:860:U:C6	24:BA:2268:A:O4'	2.73	0.41
24:BA:996:A:O3'	40:BQ:90:ASP:HB2	2.20	0.41
24:BA:1053:C:O2	24:BA:1107:G:C2	2.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1163:G:C2	24:BA:1164:C:C5	3.08	0.41
24:BA:1169:A:H2'	24:BA:1170:C:O4'	2.20	0.41
24:BA:1182:G:C6	24:BA:1183:U:C4	3.08	0.41
24:BA:1189:A:H2'	24:BA:1190:G:O5'	2.19	0.41
24:BA:1309:G:H2'	24:BA:1310:G:O4'	2.19	0.41
24:BA:1361:G:C6	24:BA:1362:C:C4	3.08	0.41
24:BA:1413:A:N1	24:BA:1414:C:C2	2.88	0.41
24:BA:1483:G:C6	24:BA:1484:U:C4	3.08	0.41
24:BA:1799:G:O5'	24:BA:1819:A:N6	2.53	0.41
24:BA:1897:G:N3	24:BA:1897:G:H2'	2.35	0.41
24:BA:1987:A:C2	24:BA:1988:G:C8	3.08	0.41
24:BA:2119:A:C5	24:BA:2170:A:C5	3.08	0.41
24:BA:2330:G:N3	46:BW:42:GLY:CA	2.83	0.41
24:BA:2347:C:C2	24:BA:2348:U:C5	3.09	0.41
24:BA:2682:A:H2	27:BD:23:PRO:HB3	1.85	0.41
24:BA:2705:A:N7	24:BA:2706:A:C4	2.88	0.41
26:BC:42:ARG:NH1	26:BC:48:ILE:HD11	2.34	0.41
26:BC:74:PRO:HA	26:BC:116:GLN:CD	2.45	0.41
26:BC:87:SER:C	26:BC:157:ALA:HB2	2.44	0.41
27:BD:47:ALA:C	27:BD:84:LEU:CD2	2.91	0.41
29:BF:68:LYS:HZ1	29:BF:82:TYR:C	2.28	0.41
30:BG:86:LEU:HD22	30:BG:147:LEU:HD11	2.01	0.41
31:BH:83:LYS:HE3	31:BH:83:LYS:C	2.45	0.41
33:BJ:15:TRP:CH2	33:BJ:53:TYR:CD2	3.08	0.41
34:BK:7:MET:HG3	34:BK:20:MET:HB2	2.03	0.41
35:BL:57:LEU:CD1	35:BL:61:LEU:HD11	2.51	0.41
35:BL:109:LYS:HE2	35:BL:109:LYS:HB3	1.84	0.41
36:BM:53:MET:CB	36:BM:120:ALA:HB2	2.51	0.41
36:BM:108:VAL:HG11	36:BM:112:LEU:HB3	2.02	0.41
37:BN:9:GLN:O	37:BN:17:ARG:NH2	2.52	0.41
37:BN:85:PRO:C	37:BN:87:PHE:N	2.78	0.41
38:BO:18:LEU:HD12	38:BO:19:GLN:N	2.35	0.41
42:BS:20:VAL:CG1	42:BS:43:ALA:HB1	2.50	0.41
43:BT:19:LYS:HG2	43:BT:20:ALA:H	1.85	0.41
43:BT:37:ASP:C	43:BT:38:ALA:O	2.64	0.41
44:BU:71:ILE:HD11	44:BU:80:ASP:O	2.19	0.41
45:BV:12:GLN:CD	45:BV:12:GLN:C	2.87	0.41
47:BX:58:ILE:O	47:BX:58:ILE:CG1	2.68	0.41
47:BX:64:ASP:O	47:BX:67:LEU:HG	2.20	0.41
1:CA:48:C:C6	1:CA:364:A:H2	2.38	0.41
1:CA:261:U:N3	20:CT:74:ARG:NH2	2.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:542:G:N2	1:CA:543:U:C2	2.88	0.41
1:CA:595:A:HO2'	1:CA:596:A:P	2.43	0.41
1:CA:605:U:O2'	1:CA:606:G:H5'	2.20	0.41
1:CA:653:U:O2'	1:CA:654:G:H8	2.02	0.41
1:CA:794:A:C6	1:CA:795:C:C4	3.07	0.41
1:CA:1035:A:H2'	1:CA:1036:A:C1'	2.50	0.41
1:CA:1046:A:H2'	1:CA:1047:G:H5'	2.01	0.41
1:CA:1089:G:C2	1:CA:1090:U:C2	3.08	0.41
1:CA:1242:G:C6	1:CA:1296:C:O2	2.72	0.41
2:CB:114:LEU:C	2:CB:116:ASP:N	2.77	0.41
4:CD:19:LEU:HD22	4:CD:21:LEU:CD2	2.50	0.41
4:CD:19:LEU:HD22	4:CD:21:LEU:CG	2.47	0.41
4:CD:156:LYS:C	4:CD:158:ALA:H	2.28	0.41
5:CE:45:ARG:CD	5:CE:73:ASN:HA	2.50	0.41
6:CF:39:LEU:HD23	6:CF:62:MET:HE1	2.01	0.41
8:CH:29:SER:OG	8:CH:57:PRO:HB3	2.20	0.41
8:CH:39:VAL:HG11	8:CH:112:THR:CG2	2.49	0.41
8:CH:86:TYR:C	8:CH:87:LYS:HD2	2.44	0.41
9:CI:10:GLY:O	9:CI:11:ARG:HB3	2.20	0.41
11:CK:27:PHE:C	11:CK:29:ASN:N	2.73	0.41
11:CK:126:LYS:C	21:CU:35:ARG:NH2	2.79	0.41
14:CN:35:ALA:CB	14:CN:41:ARG:CB	2.98	0.41
14:CN:45:VAL:HG23	14:CN:46:LEU:CD2	2.50	0.41
15:CO:4:SER:C	15:CO:6:GLU:N	2.75	0.41
16:CP:17:TYR:CD1	16:CP:41:PRO:HG3	2.55	0.41
55:CY:20:PHE:O	55:CY:21:LYS:C	2.62	0.41
55:CY:87:LEU:O	55:CY:89:LEU:HG	2.20	0.41
24:DA:311:A:C6	24:DA:328:U:C4	3.08	0.41
24:DA:479:A:N3	24:DA:481:G:H5"	2.34	0.41
24:DA:572:A:H3'	24:DA:573:U:O4'	2.19	0.41
24:DA:587:C:C3'	24:DA:588:U:C5'	2.91	0.41
24:DA:601:C:H2'	24:DA:602:A:O5'	2.21	0.41
24:DA:911:A:C8	36:DM:9:PHE:HE2	2.38	0.41
24:DA:951:C:C2'	24:DA:952:G:H5'	2.45	0.41
24:DA:1060:U:H1'	24:DA:1062:G:OP2	2.20	0.41
24:DA:1131:G:C5	33:DJ:77:HIS:ND1	2.88	0.41
24:DA:1162:G:N7	57:DA:3188:NMY:N19	2.44	0.41
24:DA:1168:G:H2'	24:DA:1169:A:C8	2.54	0.41
24:DA:1419:A:H3'	24:DA:1420:A:H5"	2.02	0.41
24:DA:1460:U:O2'	24:DA:1461:C:C5'	2.67	0.41
24:DA:1536:C:H4'	24:DA:1537:G:C2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1569:A:C2'	24:DA:1570:A:H5'	2.49	0.41
24:DA:1606:C:H2'	24:DA:1607:C:OP2	2.19	0.41
24:DA:1639:C:C2'	24:DA:1640:A:H5'	2.50	0.41
24:DA:1670:C:C5	24:DA:1671:U:C4	3.08	0.41
24:DA:1730:C:H2'	24:DA:1731:G:OP2	2.20	0.41
24:DA:1789:A:P	26:DC:220:ARG:HE	2.43	0.41
24:DA:1866:A:N7	24:DA:1867:G:C8	2.88	0.41
24:DA:2061:G:C4	24:DA:2063:C:N4	2.88	0.41
24:DA:2186:G:H2'	24:DA:2187:U:O4'	2.21	0.41
24:DA:2206:C:C2'	24:DA:2207:C:O5'	2.68	0.41
24:DA:2467:C:O2	36:DM:123:LYS:NZ	2.41	0.41
24:DA:2526:G:H2'	24:DA:2527:C:C6	2.55	0.41
24:DA:2531:A:C5'	30:DG:156:TYR:CZ	3.03	0.41
24:DA:2794:C:H2'	24:DA:2795:C:H6	1.86	0.41
24:DA:2794:C:H2'	24:DA:2795:C:C6	2.54	0.41
24:DA:2798:U:C3'	24:DA:2799:A:H5'	2.50	0.41
28:DE:5:LEU:O	28:DE:6:LYS:CB	2.68	0.41
29:DF:92:GLY:O	29:DF:94:ARG:N	2.53	0.41
30:DG:8:VAL:CG1	30:DG:49:LEU:HB2	2.50	0.41
30:DG:77:GLY:O	30:DG:135:ALA:HB1	2.20	0.41
30:DG:87:GLN:NE2	30:DG:129:GLU:OE1	2.51	0.41
31:DH:71:LYS:HE3	31:DH:108:VAL:CB	2.50	0.41
32:DI:124:MET:O	32:DI:126:ARG:N	2.53	0.41
33:DJ:36:LEU:HD21	33:DJ:122:LEU:HB2	2.01	0.41
33:DJ:42:ALA:O	40:DQ:63:ARG:CD	2.68	0.41
34:DK:1:MET:HE2	34:DK:67:LYS:HG2	2.01	0.41
35:DL:61:LEU:HB3	35:DL:62:PRO:HD2	2.03	0.41
38:DO:26:LEU:O	38:DO:27:VAL:O	2.38	0.41
38:DO:36:TYR:N	38:DO:36:TYR:CD1	2.88	0.41
38:DO:74:VAL:HG12	38:DO:78:VAL:HG22	2.01	0.41
38:DO:82:ALA:HB1	38:DO:87:ILE:HG12	2.02	0.41
38:DO:87:ILE:HD12	38:DO:88:LYS:CA	2.49	0.41
40:DQ:80:ASN:HA	40:DQ:83:LYS:HG2	2.02	0.41
41:DR:77:PHE:CD1	41:DR:77:PHE:C	2.98	0.41
42:DS:55:ILE:C	42:DS:55:ILE:CD1	2.91	0.41
46:DW:66:LYS:HB3	46:DW:83:GLU:HB2	2.02	0.41
47:DX:63:ILE:HD11	47:DX:67:LEU:HD11	2.01	0.41
47:DX:65:THR:CG2	47:DX:66:VAL:N	2.83	0.41
1:AA:138:G:C6	1:AA:226:G:N1	2.89	0.41
1:AA:342:C:C2'	1:AA:343:U:H5'	2.48	0.41
1:AA:354:G:C6	1:AA:355:C:C5	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:369:G:N2	1:AA:393:A:H1'	2.35	0.41
1:AA:428:G:H4'	4:AD:9:LEU:HD13	2.02	0.41
1:AA:908:A:N1	1:AA:909:A:C5	2.88	0.41
1:AA:928:G:H5'	1:AA:1503:A:H62	1.85	0.41
1:AA:982:U:H4'	1:AA:983:A:C5'	2.49	0.41
1:AA:1320:C:N3	1:AA:1321:U:C2	2.88	0.41
1:AA:1355:G:N1	1:AA:1368:A:N3	2.69	0.41
1:AA:1358:U:C6	1:AA:1359:C:C5	3.08	0.41
3:AC:125:GLU:C	3:AC:127:ARG:H	2.27	0.41
4:AD:13:ARG:NE	4:AD:33:LYS:HD2	2.35	0.41
4:AD:69:GLU:N	4:AD:72:PHE:CE1	2.88	0.41
4:AD:70:ARG:NH1	59:AD:402:HOH:O	2.53	0.41
4:AD:149:ALA:C	4:AD:152:GLN:OE1	2.63	0.41
5:AE:16:ILE:CD1	5:AE:113:ALA:HB3	2.50	0.41
6:AF:36:ILE:HB	6:AF:64:VAL:HG22	2.01	0.41
7:AG:23:LEU:O	7:AG:26:PHE:HB3	2.20	0.41
7:AG:137:LYS:HA	7:AG:140:ASP:CB	2.50	0.41
8:AH:87:LYS:HG3	8:AH:88:ARG:HA	2.02	0.41
8:AH:88:ARG:HH11	8:AH:88:ARG:CB	2.23	0.41
11:AK:94:GLU:C	11:AK:96:THR:N	2.78	0.41
12:AL:87:VAL:CG1	12:AL:93:VAL:O	2.68	0.41
12:AL:87:VAL:CG2	12:AL:90:LEU:HD13	2.50	0.41
15:AO:37:ASN:O	15:AO:38:HIS:C	2.63	0.41
15:AO:87:LEU:CG	15:AO:88:ARG:N	2.83	0.41
17:AQ:12:VAL:O	17:AQ:13:VAL:CB	2.67	0.41
17:AQ:28:PHE:O	17:AQ:29:VAL:CG2	2.68	0.41
19:AS:40:ILE:HD12	19:AS:66:MET:O	2.21	0.41
20:AT:24:ARG:HA	20:AT:27:MET:HB3	2.02	0.41
24:BA:278:A:C8	24:BA:362:A:C2	3.08	0.41
24:BA:282:A:C5	24:BA:283:G:N7	2.89	0.41
24:BA:402:A:C2'	24:BA:403:U:H5'	2.48	0.41
24:BA:624:C:N3	24:BA:625:G:N7	2.69	0.41
24:BA:1011:G:C4	24:BA:1013:C:C6	3.08	0.41
24:BA:1021:A:O2'	24:BA:1022:G:P	2.78	0.41
24:BA:1268:A:H3'	24:BA:1269:A:C8	2.54	0.41
24:BA:1326:U:H2'	24:BA:1327:A:H5'	2.02	0.41
24:BA:1429:G:C5	24:BA:1568:G:C5	3.08	0.41
24:BA:1760:C:C2'	24:BA:1761:C:H5'	2.51	0.41
24:BA:1872:A:N7	24:BA:1873:G:H1'	2.35	0.41
24:BA:2057:G:N7	59:BA:3489:HOH:O	2.37	0.41
24:BA:2235:G:C2	24:BA:2236:U:C2	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2281:A:C2	24:BA:2282:G:C5	3.08	0.41
24:BA:2454:G:C6	24:BA:2499:C:N4	2.88	0.41
24:BA:2589:A:O2'	24:BA:2590:A:H5'	2.21	0.41
24:BA:2711:A:N7	24:BA:2714:G:C8	2.88	0.41
27:BD:125:TRP:HB2	27:BD:160:LYS:HE2	2.03	0.41
28:BE:71:GLY:O	28:BE:72:SER:HB2	2.20	0.41
28:BE:113:VAL:C	28:BE:115:GLN:N	2.76	0.41
29:BF:126:ASN:CG	29:BF:157:THR:HG22	2.45	0.41
31:BH:10:ALA:O	31:BH:11:ASN:HB2	2.20	0.41
31:BH:49:ALA:O	31:BH:53:GLU:N	2.54	0.41
32:BI:3:LYS:O	32:BI:7:TYR:CE2	2.73	0.41
32:BI:17:ALA:O	32:BI:18:ASN:HB3	2.21	0.41
32:BI:79:LEU:C	32:BI:83:ALA:HB3	2.45	0.41
34:BK:27:GLY:O	34:BK:28:SER:C	2.63	0.41
37:BN:44:LEU:O	37:BN:45:ARG:C	2.63	0.41
37:BN:46:ARG:O	37:BN:50:PRO:HG2	2.21	0.41
38:BO:27:VAL:C	38:BO:28:VAL:CG2	2.92	0.41
38:BO:77:ALA:O	38:BO:81:ARG:N	2.48	0.41
45:BV:61:LEU:N	45:BV:72:VAL:O	2.49	0.41
50:B0:9:ARG:O	50:B0:12:ARG:HB3	2.19	0.41
53:B3:30:HIS:ND1	53:B3:31:ILE:HG13	2.34	0.41
53:B3:54:LEU:C	53:B3:56:LEU:N	2.77	0.41
1:CA:16:A:C5	1:CA:17:U:C5	3.08	0.41
1:CA:44:A:H1'	1:CA:399:G:H22	1.84	0.41
1:CA:57:G:C6	1:CA:58:C:C4	3.08	0.41
1:CA:113:G:N2	1:CA:114:U:C2	2.89	0.41
1:CA:145:G:C2	1:CA:146:G:N7	2.89	0.41
1:CA:148:G:O2'	1:CA:1446:A:N3	2.44	0.41
1:CA:232:G:H1'	1:CA:262:A:N1	2.35	0.41
1:CA:386:C:C3'	1:CA:387:U:H5'	2.51	0.41
1:CA:656:G:C5	1:CA:657:U:C5	3.08	0.41
1:CA:768:A:OP1	1:CA:804:U:C5'	2.68	0.41
1:CA:791:G:C4	1:CA:792:A:N7	2.89	0.41
1:CA:939:G:N3	1:CA:940:C:C6	2.89	0.41
1:CA:957:U:O2	1:CA:957:U:C2'	2.68	0.41
1:CA:1088:G:H2'	1:CA:1089:G:O5'	2.20	0.41
1:CA:1130:A:C2	1:CA:1146:A:C6	3.09	0.41
1:CA:1211:U:O4'	1:CA:1213:A:C2	2.73	0.41
1:CA:1238:A:C5'	1:CA:1336:C:N4	2.80	0.41
1:CA:1282:C:O2	1:CA:1283:U:N1	2.53	0.41
1:CA:1282:C:H2'	1:CA:1283:U:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1293:C:C3'	1:CA:1294:G:H5'	2.50	0.41
1:CA:1416:G:H2'	1:CA:1417:G:H5'	2.02	0.41
2:CB:52:GLU:O	2:CB:56:GLU:HB3	2.20	0.41
2:CB:82:ASP:OD2	2:CB:214:LEU:HD21	2.20	0.41
2:CB:204:ASP:CG	2:CB:205:ASP:N	2.76	0.41
2:CB:220:THR:CG2	2:CB:221:VAL:N	2.84	0.41
2:CB:225:ARG:O	2:CB:225:ARG:CG	2.67	0.41
3:CC:167:TRP:O	3:CC:167:TRP:CG	2.72	0.41
4:CD:151:LYS:CE	4:CD:175:ALA:O	2.68	0.41
5:CE:46:VAL:CG1	5:CE:118:ALA:CB	2.98	0.41
6:CF:43:GLY:O	6:CF:58:HIS:HA	2.20	0.41
7:CG:99:LEU:HD12	7:CG:99:LEU:C	2.45	0.41
8:CH:32:LEU:C	8:CH:34:VAL:H	2.29	0.41
8:CH:80:ARG:CZ	8:CH:81:PRO:HD2	2.50	0.41
8:CH:95:VAL:HG13	8:CH:128:TYR:CE2	2.55	0.41
9:CI:29:VAL:C	9:CI:30:ILE:HG22	2.45	0.41
9:CI:115:LYS:O	9:CI:116:VAL:HG23	2.20	0.41
11:CK:24:HIS:HB3	11:CK:87:LYS:HG3	2.02	0.41
12:CL:63:VAL:HG11	12:CL:95:TYR:CD2	2.56	0.41
12:CL:85:GLY:O	12:CL:95:TYR:N	2.53	0.41
14:CN:61:ARG:O	14:CN:62:ASN:HB2	2.20	0.41
17:CQ:4:LYS:HE3	17:CQ:7:THR:N	2.35	0.41
19:CS:19:VAL:CG2	19:CS:43:ASN:ND2	2.83	0.41
55:CY:145:ASP:O	55:CY:146:LYS:C	2.63	0.41
24:DA:21:A:H2'	24:DA:22:C:H5'	2.02	0.41
24:DA:81:G:C6	24:DA:82:U:C2	3.07	0.41
24:DA:156:A:H2'	24:DA:157:C:O4'	2.20	0.41
24:DA:179:C:O2'	24:DA:180:G:H5'	2.20	0.41
24:DA:368:A:O2'	24:DA:369:U:H5'	2.20	0.41
24:DA:391:A:C4	24:DA:392:U:C6	3.07	0.41
24:DA:609:A:H2'	24:DA:610:C:O4'	2.21	0.41
24:DA:633:A:OP1	35:DL:71:ALA:HB2	2.21	0.41
24:DA:849:A:N6	24:DA:930:G:O6	2.53	0.41
24:DA:879:G:C6	24:DA:880:G:C5	3.08	0.41
24:DA:1353:A:C6	24:DA:1354:A:C6	3.08	0.41
24:DA:1402:U:H5'	24:DA:1522:A:OP2	2.20	0.41
24:DA:1409:U:H2'	24:DA:1410:G:O4'	2.20	0.41
24:DA:1833:C:H2'	24:DA:1834:U:H6	1.85	0.41
24:DA:2163:A:H5"	24:DA:2170:A:H2'	2.02	0.41
24:DA:2308:G:C6	29:DF:76:PHE:CE1	3.08	0.41
24:DA:2339:C:H2'	24:DA:2340:A:O5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2441:U:C2'	24:DA:2442:C:H5'	2.51	0.41
25:DB:14:U:OP2	25:DB:70:C:O2'	2.27	0.41
26:DC:144:GLU:OE1	26:DC:149:LYS:N	2.53	0.41
26:DC:245:THR:O	26:DC:246:PRO:C	2.62	0.41
26:DC:257:ARG:HG3	26:DC:258:SER:N	2.35	0.41
27:DD:26:VAL:HB	27:DD:188:LEU:HD22	2.01	0.41
27:DD:62:LYS:N	27:DD:63:PRO:CD	2.83	0.41
29:DF:111:ARG:O	29:DF:113:PHE:N	2.53	0.41
30:DG:93:TYR:CE1	30:DG:106:LEU:CA	3.03	0.41
30:DG:117:PRO:O	30:DG:118:ALA:C	2.63	0.41
32:DI:2:LYS:NZ	32:DI:61:TYR:CE2	2.88	0.41
32:DI:69:VAL:HG12	32:DI:71:LYS:NZ	2.35	0.41
34:DK:4:GLU:O	34:DK:5:GLN:CG	2.68	0.41
35:DL:57:LEU:HD22	53:D3:53:ASP:HB3	2.02	0.41
43:DT:1:MET:O	43:DT:3:ARG:HB2	2.20	0.41
44:DU:24:VAL:HG22	44:DU:33:VAL:HG21	2.02	0.41
1:AA:160:A:H4'	1:AA:344:A:C2	2.56	0.41
1:AA:285:C:C4	1:AA:286:C:C5	3.08	0.41
1:AA:342:C:N4	1:AA:343:U:C5	2.89	0.41
1:AA:360:G:C6	1:AA:361:G:C6	3.09	0.41
1:AA:460:A:C2	1:AA:461:A:C8	3.08	0.41
1:AA:600:A:H2'	1:AA:601:G:H8	1.84	0.41
1:AA:614:C:C3'	1:AA:615:G:H5"	2.50	0.41
1:AA:621:A:N6	1:AA:622:A:N1	2.69	0.41
1:AA:630:A:C4	1:AA:631:C:C6	3.08	0.41
1:AA:695:A:N1	1:AA:696:A:C2	2.89	0.41
1:AA:865:A:H2'	1:AA:866:C:O4'	2.19	0.41
1:AA:907:A:C4	1:AA:908:A:C8	3.08	0.41
1:AA:930:C:N3	1:AA:931:C:C5	2.88	0.41
1:AA:979:C:H5"	1:AA:980:C:O5'	2.21	0.41
1:AA:1055:A:O2'	3:AC:161:GLU:HA	2.20	0.41
1:AA:1078:U:H2'	1:AA:1079:G:O5'	2.19	0.41
1:AA:1089:G:N7	1:AA:1090:U:C5	2.89	0.41
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.20	0.41
1:AA:1422:G:O2'	34:BK:49:ARG:NH2	2.52	0.41
2:AB:53:ALA:CB	2:AB:54:LEU:HD12	2.50	0.41
2:AB:170:HIS:CD2	2:AB:171:ILE:H	2.38	0.41
3:AC:16:LYS:CG	3:AC:17:PRO:HD2	2.50	0.41
3:AC:78:GLY:HA3	21:CU:18:ARG:NE	2.34	0.41
4:AD:117:LEU:O	4:AD:118:VAL:HB	2.20	0.41
6:AF:42:TRP:O	6:AF:43:GLY:C	2.63	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:66:LEU:HD23	7:AG:70:ARG:HD2	2.03	0.41
7:AG:129:GLU:O	7:AG:130:ASN:C	2.64	0.41
8:AH:30:SER:O	8:AH:34:VAL:HG23	2.20	0.41
8:AH:87:LYS:CG	8:AH:88:ARG:N	2.80	0.41
10:AJ:17:LEU:CD2	10:AJ:96:VAL:HG13	2.51	0.41
10:AJ:52:LEU:HA	10:AJ:62:ARG:HD2	2.02	0.41
13:AM:56:LEU:O	13:AM:58:ASP:N	2.53	0.41
16:AP:72:ALA:HA	16:AP:75:ILE:HG23	2.01	0.41
17:AQ:19:LYS:HG2	17:AQ:19:LYS:O	2.20	0.41
17:AQ:49:GLU:CG	17:AQ:50:ASN:OD1	2.69	0.41
18:AR:70:TYR:C	18:AR:71:THR:HG22	2.45	0.41
24:BA:10:A:C5	24:BA:11:C:C5	3.09	0.41
24:BA:55:G:C4	24:BA:56:A:C8	3.08	0.41
24:BA:191:A:H2'	24:BA:192:C:C6	2.55	0.41
24:BA:244:A:H8	24:BA:244:A:H5'	1.84	0.41
24:BA:445:C:N4	24:BA:446:G:C6	2.88	0.41
24:BA:449:A:C6	24:BA:450:G:C5	3.09	0.41
24:BA:470:A:N1	24:BA:471:A:C2	2.89	0.41
24:BA:1033:U:C5	24:BA:2750:A:C2	3.08	0.41
24:BA:1057:A:H2'	24:BA:1057:A:N3	2.35	0.41
24:BA:1159:U:H2'	24:BA:1160:G:C8	2.56	0.41
24:BA:1219:U:H2'	24:BA:1220:G:H8	1.85	0.41
24:BA:1230:A:C6	24:BA:1231:U:N3	2.88	0.41
24:BA:1277:G:C5'	37:BN:20:MET:CE	2.97	0.41
24:BA:1288:G:C8	24:BA:1327:A:C6	3.08	0.41
24:BA:1347:A:C2	24:BA:1348:C:N1	2.88	0.41
24:BA:1351:C:O2'	24:BA:1571:A:N3	2.45	0.41
24:BA:1428:C:C6	24:BA:1569:A:H5"	2.55	0.41
24:BA:1473:G:C2	24:BA:1519:G:C2	3.08	0.41
24:BA:1494:A:C5	24:BA:1495:A:C5	3.08	0.41
24:BA:1498:C:C2'	24:BA:1499:C:O5'	2.68	0.41
24:BA:1610:A:H4'	24:BA:1611:C:OP2	2.20	0.41
24:BA:1684:G:C5	24:BA:1685:C:C5	3.09	0.41
24:BA:1965:C:OP1	24:BA:1966:A:C2'	2.68	0.41
24:BA:2192:U:H2'	24:BA:2193:G:C8	2.55	0.41
24:BA:2204:G:O2'	26:BC:149:LYS:N	2.54	0.41
24:BA:2206:C:H2'	24:BA:2207:C:H5'	2.02	0.41
24:BA:2223:G:C6	24:BA:2224:G:C4	3.07	0.41
24:BA:2302:U:O2'	29:BF:122:ASP:O	2.20	0.41
24:BA:2397:G:H2'	24:BA:2398:U:C6	2.56	0.41
24:BA:2417:C:C2'	24:BA:2418:A:H5'	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2479:U:H5”	24:BA:2537:U:O4’	2.21	0.41
24:BA:2488:G:C4	24:BA:2489:U:C6	3.09	0.41
24:BA:2526:G:C2’	24:BA:2527:C:H5’	2.51	0.41
24:BA:2528:U:O2	24:BA:2536:G:C2	2.74	0.41
24:BA:2562:U:C4	24:BA:2563:U:H5	2.36	0.41
24:BA:2576:G:H3’	24:BA:2576:G:N3	2.34	0.41
24:BA:2634:A:C2	24:BA:2635:A:C4	3.08	0.41
24:BA:2692:G:C6	24:BA:2718:G:N1	2.89	0.41
24:BA:2719:G:C5’	39:BP:95:LYS:NZ	2.83	0.41
24:BA:2744:G:H2’	24:BA:2745:C:H5’	2.02	0.41
24:BA:2746:U:H2’	24:BA:2747:G:H5’	2.02	0.41
25:BB:35:C:C2’	25:BB:36:C:H5’	2.50	0.41
26:BC:220:ARG:NH2	59:BC:407:HOH:O	2.53	0.41
27:BD:28:GLU:C	27:BD:29:VAL:HG23	2.45	0.41
28:BE:109:LEU:CD1	28:BE:180:LEU:CD1	2.98	0.41
29:BF:36:ASN:CA	29:BF:87:LYS:HE3	2.50	0.41
31:BH:86:ASP:O	31:BH:87:GLU:CB	2.68	0.41
35:BL:125:LEU:HD22	35:BL:125:LEU:H	1.85	0.41
40:BQ:108:LEU:O	40:BQ:109:VAL:C	2.63	0.41
41:BR:101:ILE:O	41:BR:101:ILE:HG13	2.20	0.41
42:BS:66:ILE:O	42:BS:69:LEU:HB2	2.19	0.41
42:BS:70:LYS:O	42:BS:107:VAL:CG2	2.69	0.41
43:BT:30:ILE:CG1	43:BT:31:VAL:H	2.33	0.41
43:BT:31:VAL:O	43:BT:32:LEU:HB3	2.20	0.41
49:BZ:19:HIS:O	49:BZ:20:LYS:C	2.64	0.41
53:B3:6:VAL:HG11	53:B3:60:CYS:CB	2.50	0.41
1:CA:189:A:N6	1:CA:190:A:C2	2.87	0.41
1:CA:346:G:P	34:DK:108:ARG:HH21	2.38	0.41
1:CA:362:G:H5”	12:CL:58:THR:HG23	2.02	0.41
1:CA:500:G:C6	1:CA:501:C:C4	3.09	0.41
1:CA:515:G:C5	1:CA:516:U:C4	3.08	0.41
1:CA:547:A:H4’	1:CA:548:G:O5’	2.21	0.41
1:CA:681:A:C2	1:CA:710:G:C6	3.08	0.41
1:CA:771:G:N3	1:CA:809:G:N2	2.68	0.41
1:CA:901:A:C5	1:CA:902:G:H1’	2.55	0.41
1:CA:1034:G:N1	1:CA:1035:A:C2	2.89	0.41
1:CA:1107:C:H2’	1:CA:1108:G:H5”	2.02	0.41
1:CA:1158:C:C6	1:CA:1160:G:H5’	2.54	0.41
1:CA:1219:A:O2’	1:CA:1220:G:H5’	2.19	0.41
1:CA:1305:G:N2	1:CA:1331:G:H1’	2.36	0.41
1:CA:1358:U:C5	1:CA:1359:C:C6	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1493:A:H3'	1:CA:1493:A:H8	1.84	0.41
1:CA:1494:G:OP2	57:CA:1672:NMY:N9	2.46	0.41
2:CB:123:ASP:O	2:CB:124:GLY:C	2.62	0.41
3:CC:35:SER:O	3:CC:38:LYS:HE2	2.21	0.41
3:CC:132:ARG:HD2	3:CC:135:LYS:HE3	2.03	0.41
4:CD:35:GLU:C	4:CD:35:GLU:CD	2.85	0.41
6:CF:15:SER:O	6:CF:16:GLU:C	2.54	0.41
6:CF:46:GLN:HA	6:CF:56:LYS:HG2	2.02	0.41
8:CH:78:VAL:CG1	8:CH:127:CYS:HA	2.46	0.41
10:CJ:59:LYS:O	10:CJ:59:LYS:HG2	2.19	0.41
10:CJ:91:ASP:OD1	10:CJ:92:LEU:N	2.53	0.41
12:CL:29:GLN:HB2	12:CL:82:ILE:O	2.20	0.41
13:CM:54:ASP:C	13:CM:57:ARG:NH1	2.78	0.41
14:CN:101:TRP:CD1	14:CN:101:TRP:N	2.87	0.41
18:CR:29:LEU:C	18:CR:31:ASN:N	2.76	0.41
22:CV:65:G:N3	22:CV:65:G:H2'	2.34	0.41
55:CY:20:PHE:C	55:CY:22:THR:N	2.74	0.41
24:DA:26:G:H1'	24:DA:514:A:N6	2.35	0.41
24:DA:60:G:O2'	24:DA:61:C:P	2.78	0.41
24:DA:261:G:H2'	24:DA:261:G:N3	2.34	0.41
24:DA:459:U:H5"	52:D2:40:ALA:HB2	2.02	0.41
24:DA:479:A:H4'	24:DA:480:A:C5'	2.50	0.41
24:DA:829:A:N7	24:DA:2248:C:H5'	2.36	0.41
24:DA:927:A:C2	49:DZ:42:ALA:HB1	2.55	0.41
24:DA:1062:G:C2'	24:DA:1063:G:O5'	2.68	0.41
24:DA:1093:G:H4'	24:DA:1094:U:OP1	2.20	0.41
24:DA:1120:G:C6	24:DA:1121:C:C4	3.08	0.41
24:DA:1285:A:C5	24:DA:1329:U:C4	3.09	0.41
24:DA:1361:G:C5	24:DA:1362:C:C4	3.09	0.41
24:DA:1730:C:O2'	24:DA:1731:G:C8	2.73	0.41
24:DA:1792:G:OP1	26:DC:204:LEU:HD23	2.20	0.41
24:DA:1917:U:H2'	24:DA:1918:A:H5'	2.02	0.41
24:DA:2080:A:C5'	47:DX:18:SER:HB2	2.48	0.41
24:DA:2335:A:N6	24:DA:2337:G:H1'	2.35	0.41
24:DA:2646:C:H2'	24:DA:2647:U:O4'	2.21	0.41
24:DA:2663:G:C5	24:DA:2664:G:C5	3.08	0.41
24:DA:2679:A:O2'	24:DA:2680:U:H5'	2.20	0.41
25:DB:48:U:OP1	38:DO:30:ARG:NH2	2.53	0.41
26:DC:100:ARG:O	26:DC:101:ARG:HG2	2.20	0.41
28:DE:31:VAL:HG21	28:DE:104:ALA:HB2	2.01	0.41
29:DF:53:ALA:C	29:DF:55:ASP:N	2.77	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DF:73:VAL:CG2	29:DF:78:ILE:HD12	2.50	0.41
29:DF:97:GLU:O	29:DF:100:GLU:HG2	2.19	0.41
29:DF:123:GLY:O	29:DF:124:ARG:CG	2.68	0.41
29:DF:153:ILE:C	29:DF:153:ILE:CD1	2.94	0.41
31:DH:29:PHE:O	31:DH:33:GLN:CD	2.64	0.41
31:DH:127:GLU:HG2	31:DH:143:ILE:HD12	2.03	0.41
32:DI:64:ARG:NE	32:DI:64:ARG:HA	2.36	0.41
33:DJ:58:ASN:N	33:DJ:127:GLY:O	2.53	0.41
33:DJ:65:THR:HG22	33:DJ:68:LYS:HZ1	1.85	0.41
34:DK:1:MET:HE3	34:DK:1:MET:HB2	1.84	0.41
38:DO:8:ILE:O	38:DO:11:ALA:N	2.54	0.41
38:DO:102:ARG:O	38:DO:105:ALA:HB3	2.20	0.41
39:DP:8:GLU:O	39:DP:12:MET:HG3	2.21	0.41
42:DS:55:ILE:O	42:DS:56:ALA:C	2.63	0.41
43:DT:37:ASP:CG	43:DT:38:ALA:H	2.27	0.41
44:DU:28:LEU:HD13	44:DU:28:LEU:HA	1.89	0.41
47:DX:76:LYS:NZ	47:DX:77:TYR:OXT	2.46	0.41
48:DY:18:LEU:CD1	48:DY:22:LEU:CD1	2.98	0.41
51:D1:19:PHE:CD1	51:D1:19:PHE:C	2.98	0.41
53:D3:9:ALA:CB	53:D3:61:LEU:HD21	2.50	0.41
1:AA:9:G:O6	1:AA:558:G:H2'	2.21	0.41
1:AA:38:G:C2	1:AA:397:A:C4	3.09	0.41
1:AA:54:C:O2	1:AA:358:U:O2	2.38	0.41
1:AA:94:G:N1	1:AA:98:A:C2	2.88	0.41
1:AA:148:G:C4	1:AA:149:A:C8	3.09	0.41
1:AA:382:A:C8	1:AA:383:A:N7	2.88	0.41
1:AA:408:A:N1	1:AA:434:U:O2	2.53	0.41
1:AA:442:G:N1	1:AA:443:C:N3	2.68	0.41
1:AA:598:U:O4	1:AA:599:C:C2	2.74	0.41
1:AA:621:A:C5	1:AA:622:A:C5	3.08	0.41
1:AA:664:G:H5"	18:AR:53:ARG:NH2	2.35	0.41
1:AA:764:C:C5	1:AA:765:G:N7	2.88	0.41
1:AA:978:A:C2	1:AA:1319:A:C4	3.09	0.41
1:AA:986:U:H2'	1:AA:987:G:O4'	2.21	0.41
1:AA:1001:C:N3	1:AA:1039:G:O6	2.52	0.41
1:AA:1082:A:O2'	1:AA:1083:U:H5'	2.21	0.41
1:AA:1110:A:N6	1:AA:1111:A:N1	2.67	0.41
1:AA:1198:G:H2'	1:AA:1199:U:C6	2.55	0.41
1:AA:1283:U:H2'	1:AA:1284:C:C6	2.55	0.41
1:AA:1296:C:OP1	13:AM:14:HIS:CE1	2.73	0.41
2:AB:72:THR:O	2:AB:73:LYS:HB3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:30:ALA:O	3:AC:34:ASP:N	2.53	0.41
3:AC:78:GLY:HA3	21:CU:18:ARG:HE	1.85	0.41
3:AC:108:LYS:O	3:AC:108:LYS:HG3	2.19	0.41
4:AD:55:LEU:CD2	4:AD:56:ARG:HD2	2.51	0.41
4:AD:157:ALA:O	4:AD:160:GLU:HB3	2.20	0.41
4:AD:164:GLN:CD	4:AD:164:GLN:H	2.28	0.41
8:AH:68:GLY:O	8:AH:69:LYS:C	2.63	0.41
9:AI:23:PRO:C	9:AI:61:LEU:HA	2.46	0.41
9:AI:38:TYR:CD2	9:AI:39:PHE:CD1	3.08	0.41
9:AI:92:GLU:C	9:AI:94:LEU:H	2.27	0.41
11:AK:125:LYS:HA	21:AU:35:ARG:CA	2.50	0.41
12:AL:43:LYS:HG2	12:AL:44:LYS:HG2	2.01	0.41
12:AL:91:PRO:O	12:AL:92:GLY:C	2.63	0.41
14:AN:30:ILE:HG22	14:AN:31:SER:N	2.35	0.41
15:AO:60:VAL:C	15:AO:62:GLN:N	2.74	0.41
18:AR:28:THR:HB	18:AR:29:LEU:H	1.64	0.41
19:AS:43:ASN:C	19:AS:44:MET:HG2	2.45	0.41
21:AU:14:VAL:CG2	21:AU:16:LEU:HD23	2.48	0.41
21:AU:26:ALA:HB3	23:AX:5:A:C5'	2.49	0.41
24:BA:449:A:C5	24:BA:450:G:C8	3.09	0.41
24:BA:492:A:N1	42:BS:49:LYS:NZ	2.68	0.41
24:BA:507:A:O4'	24:BA:509:C:O2	2.38	0.41
24:BA:580:U:O3'	40:BQ:30:VAL:HG13	2.21	0.41
24:BA:751:A:C6	24:BA:789:A:C6	3.08	0.41
24:BA:852:U:C6	24:BA:853:C:C5	3.08	0.41
24:BA:1040:A:OP1	45:BV:46:LYS:HE3	2.21	0.41
24:BA:1098:A:C5'	32:BI:7:TYR:OH	2.68	0.41
24:BA:1180:U:C5	24:BA:1181:U:C5	3.08	0.41
24:BA:1206:G:C6	24:BA:1207:C:N3	2.89	0.41
24:BA:1225:G:OP1	41:BR:71:LYS:HE2	2.21	0.41
24:BA:1268:A:C4	24:BA:2013:A:C5	3.09	0.41
24:BA:1372:U:C2	24:BA:1373:A:C8	3.08	0.41
24:BA:1460:U:O2	24:BA:1460:U:O2'	2.23	0.41
24:BA:1498:C:O4'	24:BA:1577:C:C4'	2.69	0.41
24:BA:1702:G:H2'	24:BA:1703:G:O4'	2.20	0.41
24:BA:1866:A:N3	24:BA:1876:A:N3	2.68	0.41
24:BA:2055:C:H5'	24:BA:2056:G:O5'	2.20	0.41
24:BA:2502:G:C5'	24:BA:2503:A:C5'	2.97	0.41
24:BA:2526:G:O3'	54:B4:34:LYS:NZ	2.52	0.41
24:BA:2593:U:C2	24:BA:2594:C:C5	3.09	0.41
24:BA:2670:A:C2	24:BA:2671:G:C4	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BB:64:G:C6	25:BB:65:U:N3	2.89	0.41
26:BC:65:ASP:OD2	26:BC:68:ARG:HA	2.20	0.41
26:BC:93:VAL:HG11	26:BC:103:ILE:CD1	2.51	0.41
26:BC:105:ALA:HA	26:BC:106:PRO:HD3	1.92	0.41
27:BD:104:VAL:O	27:BD:105:LYS:HB2	2.21	0.41
32:BI:10:LEU:HD11	32:BI:23:VAL:HG11	2.02	0.41
35:BL:101:ILE:O	35:BL:105:ILE:HD13	2.21	0.41
37:BN:22:ARG:O	37:BN:23:ASN:C	2.63	0.41
37:BN:95:THR:N	37:BN:116:VAL:HG13	2.35	0.41
38:BO:17:LYS:C	38:BO:19:GLN:N	2.78	0.41
38:BO:79:ALA:HB1	38:BO:113:ALA:HB3	2.02	0.41
42:BS:47:VAL:O	42:BS:50:VAL:CA	2.68	0.41
43:BT:19:LYS:HG2	43:BT:20:ALA:N	2.36	0.41
45:BV:15:GLY:HA2	45:BV:18:ARG:HB3	2.02	0.41
45:BV:40:ILE:HG22	45:BV:41:GLU:N	2.36	0.41
45:BV:61:LEU:O	45:BV:72:VAL:HG12	2.20	0.41
46:BW:32:LEU:HB2	46:BW:64:ASP:OD1	2.20	0.41
53:B3:56:LEU:O	53:B3:57:VAL:HB	2.20	0.41
1:CA:11:G:C5	1:CA:12:U:C5	3.08	0.41
1:CA:64:G:C8	1:CA:99:C:C4	3.08	0.41
1:CA:95:C:H2'	1:CA:96:U:C5	2.55	0.41
1:CA:220:G:C2	1:CA:221:C:C6	3.09	0.41
1:CA:240:G:C2	1:CA:287:U:O2	2.74	0.41
1:CA:242:G:N2	1:CA:245:U:C6	2.88	0.41
1:CA:261:U:H5"	1:CA:262:A:OP2	2.21	0.41
1:CA:292:G:C5	1:CA:293:G:H1'	2.56	0.41
1:CA:370:C:C5	1:CA:371:A:N7	2.88	0.41
1:CA:393:A:N3	1:CA:394:G:C8	2.88	0.41
1:CA:406:G:N1	1:CA:407:U:C5	2.89	0.41
1:CA:428:G:C1'	1:CA:430:A:N7	2.83	0.41
1:CA:438:U:H4'	4:CD:120:HIS:CD2	2.56	0.41
1:CA:474:G:C6	1:CA:475:C:C4	3.09	0.41
1:CA:587:G:N2	1:CA:755:G:C5	2.88	0.41
1:CA:597:G:O2'	17:CQ:28:PHE:HE1	2.03	0.41
1:CA:615:G:N3	1:CA:616:G:C8	2.88	0.41
1:CA:665:A:N7	1:CA:733:G:C4	2.88	0.41
1:CA:754:C:O2	1:CA:754:C:O4'	2.37	0.41
1:CA:1016:A:C8	1:CA:1017:U:H1'	2.55	0.41
1:CA:1050:G:H2'	1:CA:1051:C:H5'	2.02	0.41
1:CA:1074:G:H2'	1:CA:1075:U:C6	2.55	0.41
1:CA:1237:C:H3'	1:CA:1238:A:H5'	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1256:A:N1	1:CA:1277:C:N4	2.67	0.41
1:CA:1312:G:N2	1:CA:1313:U:C2	2.88	0.41
1:CA:1458:G:OP1	20:CT:30:THR:OG1	2.33	0.41
2:CB:47:VAL:HG23	2:CB:48:PRO:HD3	2.03	0.41
3:CC:33:LEU:HD11	14:CN:77:PHE:O	2.20	0.41
4:CD:5:LEU:O	4:CD:6:GLY:O	2.39	0.41
4:CD:37:ALA:HA	4:CD:42:GLY:O	2.21	0.41
4:CD:158:ALA:O	4:CD:161:LEU:HD22	2.20	0.41
6:CF:91:ARG:O	6:CF:92:THR:CB	2.68	0.41
7:CG:107:ALA:HA	7:CG:110:LYS:HG2	2.03	0.41
11:CK:125:LYS:HG2	11:CK:126:LYS:H	1.84	0.41
13:CM:24:GLY:N	13:CM:69:LEU:HD23	2.36	0.41
14:CN:2:LYS:HE3	14:CN:4:SER:CB	2.51	0.41
14:CN:44:ALA:C	14:CN:45:VAL:O	2.63	0.41
19:CS:15:LEU:HD12	19:CS:16:LEU:N	2.35	0.41
19:CS:45:ILE:HG13	19:CS:64:ASP:OD1	2.21	0.41
21:CU:37:PHE:HB2	21:CU:40:LYS:HG2	2.03	0.41
22:CV:57:G:H2'	22:CV:58:A:C5'	2.46	0.41
55:CY:56:SER:N	55:CY:68:ASN:O	2.54	0.41
55:CY:179:GLU:O	55:CY:182:LEU:HG	2.20	0.41
24:DA:223:A:N1	24:DA:408:G:O4'	2.54	0.41
24:DA:283:G:C6	24:DA:284:U:N3	2.89	0.41
24:DA:387:U:C6	24:DA:388:G:C5	3.08	0.41
24:DA:532:A:H4'	24:DA:533:G:C8	2.55	0.41
24:DA:536:G:H2'	24:DA:537:G:C5'	2.51	0.41
24:DA:554:U:O4	24:DA:555:G:C6	2.73	0.41
24:DA:851:C:O2'	49:DZ:42:ALA:O	2.33	0.41
24:DA:893:C:H2'	24:DA:894:U:O4'	2.20	0.41
24:DA:1121:C:H2'	24:DA:1122:G:O4'	2.20	0.41
24:DA:1122:G:N3	24:DA:1122:G:H2'	2.36	0.41
24:DA:1136:G:N2	24:DA:1137:G:C4	2.89	0.41
24:DA:1289:C:C2	24:DA:1290:C:C5	3.08	0.41
24:DA:1378:A:C4'	24:DA:1379:U:OP1	2.69	0.41
24:DA:1425:G:N2	24:DA:1573:G:N7	2.68	0.41
24:DA:1663:G:H2'	24:DA:1664:A:OP2	2.20	0.41
24:DA:1717:A:N6	24:DA:1743:G:H1'	2.35	0.41
24:DA:1752:C:O2'	24:DA:1753:G:H5'	2.20	0.41
24:DA:1797:G:C6	24:DA:1798:U:C5	3.08	0.41
24:DA:1853:A:C2'	24:DA:2233:U:HO2'	2.34	0.41
24:DA:1911:U:O2	24:DA:1920:C:O2	2.38	0.41
24:DA:1984:G:C6	24:DA:1985:C:C5	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2544:G:C2'	24:DA:2545:G:H5'	2.50	0.41
24:DA:2700:A:C2	24:DA:2708:G:C2	3.08	0.41
24:DA:2814:A:C6	24:DA:2815:C:C4	3.09	0.41
57:DA:3185:NMY:H16	57:DA:3185:NMY:O22	2.21	0.41
26:DC:115:ILE:HB	26:DC:127:ASN:ND2	2.36	0.41
28:DE:75:SER:O	28:DE:76:PRO:C	2.61	0.41
30:DG:59:ASP:O	30:DG:62:ALA:N	2.54	0.41
31:DH:71:LYS:C	31:DH:73:ASN:H	2.26	0.41
35:DL:100:ILE:HG23	35:DL:101:ILE:HG23	2.01	0.41
36:DM:121:ALA:C	36:DM:123:LYS:N	2.77	0.41
37:DN:2:ARG:HB3	37:DN:2:ARG:HH11	1.84	0.41
38:DO:62:LEU:CD2	38:DO:70:ALA:HA	2.50	0.41
40:DQ:82:LEU:HB3	40:DQ:87:VAL:HG13	2.01	0.41
44:DU:42:LYS:HE2	44:DU:42:LYS:H	1.85	0.41
45:DV:48:MET:O	45:DV:51:GLN:CG	2.69	0.41
52:D2:31:LEU:O	52:D2:35:ARG:N	2.48	0.41
1:AA:76:G:C2	1:AA:95:C:C2	3.08	0.41
1:AA:243:A:C6	1:AA:246:A:N7	2.88	0.41
1:AA:294:U:N3	1:AA:295:C:C5	2.88	0.41
1:AA:317:U:C2	1:AA:318:G:N7	2.89	0.41
1:AA:354:G:C4	1:AA:355:C:C5	3.09	0.41
1:AA:543:U:C5'	4:AD:14:ARG:HH22	2.33	0.41
1:AA:677:U:C5	1:AA:678:U:C5	3.08	0.41
1:AA:827:U:O2'	8:AH:20:ALA:CB	2.69	0.41
1:AA:830:G:C2	1:AA:857:C:C2	3.08	0.41
1:AA:885:G:C2	1:AA:913:A:N1	2.89	0.41
1:AA:909:A:H2'	1:AA:910:C:H6	1.86	0.41
1:AA:929:G:H2'	1:AA:930:C:C5'	2.50	0.41
1:AA:1015:G:O6	1:AA:1016:A:C6	2.74	0.41
1:AA:1069:C:O4'	1:AA:1191:A:H2	2.04	0.41
1:AA:1256:A:H2'	3:AC:27:LYS:HE2	2.01	0.41
1:AA:1352:C:H1'	1:AA:1371:G:N2	2.36	0.41
1:AA:1462:C:H2'	1:AA:1463:U:O4'	2.20	0.41
1:AA:1510:C:C2	1:AA:1526:G:N2	2.89	0.41
2:AB:24:ASN:HB3	2:AB:26:LYS:NZ	2.35	0.41
3:AC:55:ILE:HD12	3:AC:55:ILE:C	2.46	0.41
4:AD:99:ASP:C	4:AD:101:VAL:N	2.78	0.41
5:AE:41:ASP:OD1	5:AE:43:ASN:N	2.47	0.41
6:AF:15:SER:O	6:AF:17:GLN:N	2.54	0.41
6:AF:41:ASP:OD1	6:AF:41:ASP:C	2.61	0.41
8:AH:78:VAL:N	8:AH:126:ILE:O	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:94:LYS:HB3	8:AH:98:GLY:HA2	2.03	0.41
12:AL:44:LYS:HB2	12:AL:45:PRO:CD	2.48	0.41
12:AL:75:GLN:HG2	12:AL:76:GLU:HG2	2.01	0.41
14:AN:15:LEU:HD11	14:AN:52:PRO:HB3	2.03	0.41
14:AN:34:ASN:O	14:AN:35:ALA:C	2.64	0.41
20:AT:38:ALA:HB1	20:AT:47:ALA:HA	2.01	0.41
22:AV:55:U:C2'	22:AV:57:G:N7	2.83	0.41
24:BA:137:U:H2'	24:BA:140:C:O2	2.20	0.41
24:BA:359:G:N1	24:BA:360:U:O2	2.54	0.41
24:BA:538:A:H4'	33:BJ:7:LYS:HG2	2.02	0.41
24:BA:599:A:H2'	24:BA:600:G:H5'	2.02	0.41
24:BA:615:U:C3'	24:BA:616:A:H5'	2.49	0.41
24:BA:686:U:H2'	24:BA:788:A:N1	2.35	0.41
24:BA:699:A:N7	24:BA:734:A:C5	2.88	0.41
24:BA:729:G:OP1	26:BC:12:ARG:NH2	2.53	0.41
24:BA:747:U:C5	24:BA:2613:U:C5	3.08	0.41
24:BA:825:A:C6	24:BA:833:A:N1	2.89	0.41
24:BA:855:G:C2	24:BA:923:G:C4	3.08	0.41
24:BA:1061:U:C5	24:BA:1070:A:C5	3.09	0.41
24:BA:1078:U:H5"	24:BA:1079:C:P	2.61	0.41
24:BA:1307:A:C5	24:BA:1308:A:C8	3.08	0.41
24:BA:1383:A:C2	24:BA:1384:A:C2	3.09	0.41
24:BA:1494:A:C6	24:BA:1495:A:C6	3.08	0.41
24:BA:1567:G:N7	26:BC:82:TYR:CE1	2.89	0.41
24:BA:1844:C:OP1	26:BC:254:LYS:CD	2.69	0.41
24:BA:2110:G:C5	24:BA:2120:G:O4'	2.73	0.41
24:BA:2258:C:O2'	24:BA:2427:C:OP2	2.24	0.41
24:BA:2364:C:OP1	46:BW:55:ARG:NH1	2.53	0.41
24:BA:2529:G:O4'	30:BG:174:LYS:CD	2.65	0.41
24:BA:2676:C:O2	24:BA:2732:G:N2	2.51	0.41
24:BA:2731:G:N7	57:BA:3165:NMY:O20	2.53	0.41
24:BA:2803:G:O2'	24:BA:2804:U:H5'	2.20	0.41
24:BA:2805:C:H2'	24:BA:2806:C:C6	2.55	0.41
24:BA:2880:C:O4'	37:BN:91:ALA:HB3	2.21	0.41
57:BA:3165:NMY:H191	57:BA:3165:NMY:HN31	1.64	0.41
25:BB:75:G:HO2'	45:BV:88:HIS:CD2	2.24	0.41
26:BC:29:PHE:CD2	26:BC:92:LEU:HD22	2.55	0.41
26:BC:128:THR:OG1	26:BC:190:THR:HB	2.20	0.41
26:BC:225:ASN:O	26:BC:228:ASP:N	2.52	0.41
27:BD:2:ILE:CG1	27:BD:3:GLY:N	2.84	0.41
28:BE:150:THR:CG2	28:BE:153:LEU:HA	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:194:LYS:O	28:BE:196:VAL:N	2.54	0.41
30:BG:38:ASP:O	30:BG:39:ALA:C	2.63	0.41
31:BH:30:LEU:O	31:BH:31:VAL:C	2.63	0.41
33:BJ:140:LEU:HD12	33:BJ:141:ASP:N	2.35	0.41
34:BK:103:VAL:CG2	34:BK:107:LEU:HD13	2.50	0.41
35:BL:71:ALA:HA	35:BL:74:THR:CG2	2.51	0.41
36:BM:26:VAL:CG1	36:BM:132:THR:C	2.94	0.41
38:BO:7:ARG:HD2	38:BO:97:PHE:CZ	2.56	0.41
38:BO:41:ALA:O	38:BO:42:PRO:C	2.63	0.41
41:BR:61:ALA:HB2	41:BR:98:ILE:HA	2.01	0.41
42:BS:13:SER:HB2	42:BS:16:LYS:HE3	2.02	0.41
43:BT:2:ILE:HA	43:BT:3:ARG:O	2.20	0.41
45:BV:10:LYS:O	45:BV:11:GLU:HG2	2.20	0.41
45:BV:88:HIS:C	45:BV:89:ILE:CG1	2.93	0.41
47:BX:18:SER:O	47:BX:21:LEU:HA	2.21	0.41
47:BX:42:GLU:C	47:BX:43:LYS:CG	2.93	0.41
50:B0:2:VAL:O	50:B0:3:GLN:O	2.39	0.41
51:B1:50:GLU:CG	51:B1:51:ALA:N	2.83	0.41
1:CA:131:A:C2	1:CA:132:C:N3	2.88	0.41
1:CA:188:C:N3	1:CA:189:A:C4	2.89	0.41
1:CA:283:U:C4	1:CA:284:C:C4	3.09	0.41
1:CA:462:G:H2'	1:CA:462:G:N3	2.36	0.41
1:CA:466:A:H2'	1:CA:467:U:H5	1.83	0.41
1:CA:562:U:C4	1:CA:884:U:C6	3.09	0.41
1:CA:693:G:H2'	1:CA:694:A:O4'	2.21	0.41
1:CA:701:U:O2	1:CA:703:G:C2	2.74	0.41
1:CA:753:A:H5"	1:CA:754:C:O2	2.20	0.41
1:CA:775:G:N1	1:CA:776:G:C5	2.89	0.41
1:CA:854:U:H2'	1:CA:855:U:C6	2.56	0.41
1:CA:1100:C:H2'	1:CA:1102:A:OP1	2.20	0.41
1:CA:1114:C:C6	1:CA:1187:G:N2	2.88	0.41
1:CA:1127:G:N3	1:CA:1127:G:C2'	2.78	0.41
1:CA:1431:A:N6	1:CA:1432:G:C6	2.86	0.41
1:CA:1507:A:H2'	1:CA:1508:A:O4'	2.20	0.41
2:CB:134:ALA:O	2:CB:135:LEU:C	2.64	0.41
4:CD:46:PRO:O	4:CD:48:LEU:HD23	2.21	0.41
5:CE:10:GLU:O	5:CE:11:LEU:C	2.64	0.41
6:CF:21:MET:C	6:CF:22:ILE:CG2	2.94	0.41
7:CG:64:VAL:O	7:CG:128:ALA:HB2	2.20	0.41
8:CH:89:LYS:CD	8:CH:89:LYS:C	2.93	0.41
9:CI:92:GLU:OE2	9:CI:92:GLU:HA	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:113:ARG:NH1	9:CI:114:LYS:O	2.54	0.41
9:CI:130:ARG:NE	22:CV:33:U:H5	2.17	0.41
11:CK:63:ALA:CB	11:CK:92:GLY:CA	2.98	0.41
12:CL:16:VAL:CG1	12:CL:17:ALA:N	2.84	0.41
12:CL:67:ILE:HD12	12:CL:72:HIS:ND1	2.35	0.41
12:CL:87:VAL:N	12:CL:93:VAL:HG21	2.36	0.41
13:CM:68:ASP:OD2	13:CM:71:ARG:NH1	2.54	0.41
14:CN:56:SER:O	14:CN:57:PRO:O	2.39	0.41
14:CN:93:ILE:CG2	14:CN:96:LEU:HB3	2.51	0.41
15:CO:58:ARG:O	15:CO:62:GLN:CB	2.68	0.41
16:CP:2:VAL:O	16:CP:2:VAL:HG23	2.20	0.41
16:CP:56:ARG:HD2	16:CP:56:ARG:HA	1.67	0.41
17:CQ:19:LYS:O	17:CQ:19:LYS:HG3	2.21	0.41
20:CT:70:ASN:O	20:CT:73:ALA:HB3	2.21	0.41
22:CV:2:C:C2	22:CV:3:C:C4	3.09	0.41
22:CV:5:G:C4	22:CV:6:G:N7	2.89	0.41
55:CY:87:LEU:O	55:CY:88:GLY:C	2.62	0.41
24:DA:7:G:H5'	33:DJ:132:HIS:CD2	2.56	0.41
24:DA:132:G:H8	24:DA:132:G:O5'	2.02	0.41
24:DA:259:G:O2'	24:DA:260:G:H5'	2.20	0.41
24:DA:261:G:N2	24:DA:262:A:C4	2.88	0.41
24:DA:285:G:N1	24:DA:356:G:C5	2.88	0.41
24:DA:370:G:C6	24:DA:424:G:N7	2.89	0.41
24:DA:447:A:C4	24:DA:473:G:N7	2.88	0.41
24:DA:482:A:O5'	44:DU:46:LYS:NZ	2.53	0.41
24:DA:565:C:H5'	24:DA:1253:A:N6	2.35	0.41
24:DA:582:A:OP1	40:DQ:13:HIS:ND1	2.54	0.41
24:DA:585:G:H8	24:DA:585:G:O5'	2.04	0.41
24:DA:761:A:H5"	24:DA:762:U:OP1	2.21	0.41
24:DA:770:G:OP1	52:D2:11:LYS:HD2	2.20	0.41
24:DA:831:G:C6	24:DA:832:U:C4	3.09	0.41
24:DA:868:U:C4	24:DA:869:G:N7	2.88	0.41
24:DA:937:C:C2	24:DA:938:G:C8	3.08	0.41
24:DA:988:A:P	49:DZ:11:SER:HB3	2.60	0.41
24:DA:1234:U:H2'	24:DA:1235:G:O4'	2.20	0.41
24:DA:1411:U:N3	24:DA:1412:U:C4	2.88	0.41
24:DA:1560:G:C5	24:DA:1561:C:C5	3.08	0.41
24:DA:1566:A:C6	26:DC:212:TRP:CE3	3.09	0.41
24:DA:1775:U:H2'	24:DA:1776:G:H5'	2.02	0.41
24:DA:1859:U:H2'	24:DA:1860:G:O4'	2.21	0.41
24:DA:1952:A:O4'	34:DK:42:THR:HG23	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1964:G:H4'	24:DA:1965:C:OP2	2.21	0.41
24:DA:2076:U:O2	24:DA:2076:U:O4'	2.39	0.41
24:DA:2134:A:N7	24:DA:2156:G:C2	2.88	0.41
24:DA:2187:U:H2'	24:DA:2188:U:O4'	2.20	0.41
24:DA:2210:U:O3'	24:DA:2211:A:H4'	2.20	0.41
24:DA:2353:G:O2'	46:DW:33:ALA:O	2.27	0.41
24:DA:2469:A:C2	24:DA:2482:A:H1'	2.56	0.41
24:DA:2637:U:O4	24:DA:2638:G:C6	2.74	0.41
24:DA:2747:G:O6	24:DA:2755:C:H5"	2.21	0.41
24:DA:2756:U:H1'	24:DA:2757:A:H5"	2.02	0.41
24:DA:2812:G:H2'	24:DA:2813:A:O4'	2.21	0.41
57:DA:3190:NMY:C2	57:DA:3190:NMY:C16	2.97	0.41
26:DC:16:VAL:HB	26:DC:203:VAL:HB	2.03	0.41
26:DC:28:PRO:O	26:DC:33:LEU:CD2	2.69	0.41
26:DC:267:VAL:HG22	26:DC:268:ARG:N	2.35	0.41
28:DE:1:MET:HE1	28:DE:19:PHE:C	2.46	0.41
28:DE:117:ARG:NH1	35:DL:2:ARG:HD2	2.35	0.41
32:DI:20:SER:CB	32:DI:21:PRO:CD	2.98	0.41
40:DQ:41:ALA:O	40:DQ:43:GLN:N	2.53	0.41
40:DQ:93:ILE:O	40:DQ:96:ASP:N	2.54	0.41
41:DR:7:SER:C	41:DR:9:GLY:H	2.28	0.41
42:DS:98:LYS:NZ	42:DS:98:LYS:CB	2.84	0.41
54:D4:30:GLU:HG2	54:D4:33:HIS:CG	2.56	0.41
1:AA:5:U:H5"	1:AA:6:G:O4'	2.21	0.41
1:AA:10:A:H2'	1:AA:11:G:H8	1.84	0.41
1:AA:32:A:H2'	1:AA:33:A:O5'	2.21	0.41
1:AA:139:A:H2'	1:AA:140:U:C6	2.54	0.41
1:AA:400:C:O5'	1:AA:400:C:H6	2.04	0.41
1:AA:575:G:C8	1:AA:881:G:N2	2.89	0.41
1:AA:701:U:O5'	1:AA:703:G:H5'	2.21	0.41
1:AA:803:G:C5	1:AA:804:U:C4	3.09	0.41
1:AA:950:U:P	13:AM:101:ARG:NH2	2.94	0.41
1:AA:961:U:O2'	1:AA:962:C:H5'	2.20	0.41
1:AA:979:C:OP2	1:AA:981:U:C4	2.73	0.41
1:AA:994:A:H2'	1:AA:995:C:H5'	2.01	0.41
1:AA:1053:G:C2	1:AA:1056:U:C5	3.08	0.41
1:AA:1061:G:C2	1:AA:1197:A:N3	2.88	0.41
1:AA:1062:U:C3'	1:AA:1063:C:C6	3.04	0.41
1:AA:1092:A:C1'	1:AA:1183:U:O4	2.68	0.41
1:AA:1155:A:H5"	1:AA:1156:G:OP2	2.20	0.41
1:AA:1158:C:C5	1:AA:1160:G:C1'	3.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1221:G:H5'	19:AS:36:ARG:NH2	2.35	0.41
1:AA:1256:A:N6	1:AA:1277:C:N3	2.68	0.41
1:AA:1508:A:H2'	1:AA:1509:C:O4'	2.21	0.41
2:AB:27:MET:O	2:AB:28:LYS:C	2.64	0.41
2:AB:52:GLU:O	2:AB:53:ALA:C	2.62	0.41
2:AB:70:VAL:HG12	2:AB:163:VAL:CG2	2.50	0.41
2:AB:186:ILE:HD11	2:AB:203:ASN:O	2.21	0.41
4:AD:53:VAL:C	4:AD:55:LEU:N	2.78	0.41
4:AD:55:LEU:O	4:AD:56:ARG:C	2.63	0.41
4:AD:98:LEU:HD11	4:AD:123:ILE:HG22	2.02	0.41
6:AF:12:PRO:O	6:AF:15:SER:HB2	2.21	0.41
6:AF:43:GLY:HA2	6:AF:58:HIS:CG	2.56	0.41
8:AH:37:ALA:O	8:AH:39:VAL:N	2.54	0.41
8:AH:68:GLY:O	8:AH:69:LYS:O	2.38	0.41
9:AI:87:LEU:HD22	9:AI:95:ARG:CB	2.51	0.41
9:AI:114:LYS:O	9:AI:115:LYS:CG	2.69	0.41
14:AN:20:PHE:O	14:AN:22:LYS:N	2.53	0.41
14:AN:47:LYS:O	14:AN:48:LEU:O	2.39	0.41
14:AN:62:ASN:C	14:AN:62:ASN:OD1	2.64	0.41
20:AT:10:ARG:O	20:AT:13:GLN:HB3	2.20	0.41
20:AT:48:GLN:C	20:AT:50:ALA:N	2.73	0.41
20:AT:51:PHE:CD1	20:AT:52:ASN:N	2.89	0.41
24:BA:26:G:C6	24:BA:27:G:N1	2.88	0.41
24:BA:59:U:H5'	24:BA:73:A:C6	2.56	0.41
24:BA:186:G:H2'	24:BA:186:G:N3	2.36	0.41
24:BA:187:G:C2	24:BA:210:C:O2	2.74	0.41
24:BA:230:G:C2	24:BA:231:A:C4	3.09	0.41
24:BA:259:G:C5	24:BA:260:G:N7	2.88	0.41
24:BA:277:G:N3	24:BA:277:G:H2'	2.34	0.41
24:BA:297:G:OP1	44:BU:91:LYS:HD3	2.20	0.41
24:BA:396:G:O2'	47:BX:29:LEU:O	2.38	0.41
24:BA:483:A:H5"	44:BU:46:LYS:HG2	2.02	0.41
24:BA:640:C:O2	24:BA:649:G:C2	2.74	0.41
24:BA:909:A:C6	24:BA:912:C:O2	2.74	0.41
24:BA:1017:G:N2	24:BA:1146:C:C2	2.89	0.41
24:BA:1026:G:H2'	24:BA:1027:A:H8	1.86	0.41
24:BA:1196:C:O4'	24:BA:1226:A:C2	2.74	0.41
24:BA:1441:G:H2'	24:BA:1442:U:C6	2.55	0.41
24:BA:1478:G:N2	24:BA:1513:U:O2	2.42	0.41
24:BA:1500:G:C4	24:BA:1501:G:C8	3.08	0.41
24:BA:1661:G:C5	24:BA:1662:U:H5	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1705:A:H2'	24:BA:1706:C:H5'	2.02	0.41
24:BA:1797:G:C6	24:BA:1798:U:C4	3.08	0.41
24:BA:1876:A:H62	24:BA:1877:A:N6	2.18	0.41
24:BA:2114:A:N1	24:BA:2115:G:H1'	2.36	0.41
24:BA:2123:G:C4	24:BA:2124:G:C8	3.08	0.41
24:BA:2248:C:P	59:BA:3510:HOH:O	2.79	0.41
24:BA:2331:G:O2'	46:BW:43:THR:N	2.53	0.41
24:BA:2349:G:C5	24:BA:2350:C:C6	3.08	0.41
24:BA:2461:A:H1'	24:BA:2492:U:C2	2.55	0.41
24:BA:2485:G:P	36:BM:45:GLN:NE2	2.93	0.41
24:BA:2554:U:H2'	24:BA:2555:U:C6	2.56	0.41
24:BA:2756:U:H4'	24:BA:2757:A:O5'	2.20	0.41
24:BA:2845:U:H5"	39:BP:51:ASN:O	2.21	0.41
24:BA:2858:C:N4	24:BA:2859:G:C2	2.89	0.41
25:BB:34:A:C6	25:BB:44:G:C8	3.09	0.41
28:BE:24:ASN:O	28:BE:25:GLU:C	2.63	0.41
28:BE:138:LEU:C	28:BE:140:ASP:N	2.78	0.41
34:BK:73:ASP:O	39:BP:74:GLN:HG3	2.21	0.41
35:BL:55:MET:HB3	35:BL:60:ARG:HG3	2.02	0.41
36:BM:26:VAL:HG13	36:BM:133:LYS:HA	2.02	0.41
38:BO:28:VAL:O	38:BO:29:HIS:CD2	2.74	0.41
38:BO:66:GLY:C	38:BO:67:ASN:OD1	2.63	0.41
43:BT:68:LYS:HG3	43:BT:69:ARG:H	1.86	0.41
45:BV:29:ILE:HG13	45:BV:39:ALA:HA	2.02	0.41
47:BX:38:TRP:CE3	47:BX:44:ARG:O	2.74	0.41
49:BZ:22:THR:HG21	49:BZ:50:VAL:HG11	2.02	0.41
49:BZ:53:MET:C	49:BZ:54:VAL:HG13	2.45	0.41
1:CA:204:G:O6	1:CA:206:C:N4	2.53	0.41
1:CA:212:G:C2	1:CA:213:G:C5	3.09	0.41
1:CA:232:G:H2'	1:CA:233:C:O4'	2.20	0.41
1:CA:409:U:H2'	1:CA:410:G:C8	2.56	0.41
1:CA:590:U:N3	1:CA:650:G:N3	2.68	0.41
1:CA:624:C:C2'	1:CA:625:U:H5'	2.51	0.41
1:CA:660:C:O2	1:CA:661:G:C8	2.73	0.41
1:CA:676:A:H5"	11:CK:115:PRO:HB3	2.03	0.41
1:CA:693:G:C5	1:CA:694:A:C5	3.08	0.41
1:CA:826:C:H5'	8:CH:13:ARG:CZ	2.50	0.41
1:CA:919:A:O2'	1:CA:920:U:C5'	2.65	0.41
1:CA:946:A:H2'	1:CA:947:G:H8	1.85	0.41
1:CA:1012:A:N6	1:CA:1018:G:C6	2.88	0.41
1:CA:1049:U:O4	14:CN:1:ALA:HB1	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1074:G:O3'	2:CB:102:THR:HG23	2.20	0.41
1:CA:1306:A:C6	1:CA:1332:A:C2	3.08	0.41
1:CA:1320:C:H1'	19:CS:72:GLY:HA3	2.02	0.41
2:CB:67:ILE:HG22	2:CB:68:LEU:N	2.36	0.41
2:CB:114:LEU:CD1	2:CB:144:LEU:HD13	2.50	0.41
3:CC:174:PRO:HD3	3:CC:203:PHE:CD2	2.56	0.41
5:CE:56:VAL:HB	5:CE:57:PRO:CD	2.50	0.41
6:CF:56:LYS:O	6:CF:57:ALA:CB	2.68	0.41
7:CG:25:LYS:O	7:CG:29:ILE:HG22	2.21	0.41
9:CI:25:ASN:OD1	9:CI:27:LYS:HE2	2.20	0.41
9:CI:45:ARG:HG3	9:CI:46:MET:SD	2.60	0.41
11:CK:34:ILE:HG22	11:CK:35:THR:H	1.84	0.41
11:CK:35:THR:CG2	11:CK:36:ASP:N	2.78	0.41
12:CL:52:VAL:HG22	12:CL:53:CYS:N	2.34	0.41
13:CM:78:LYS:C	13:CM:80:LEU:N	2.78	0.41
13:CM:83:LEU:HD23	13:CM:84:GLY:N	2.35	0.41
13:CM:97:VAL:O	13:CM:98:ARG:C	2.63	0.41
15:CO:82:ILE:HG13	15:CO:83:GLU:N	2.35	0.41
16:CP:60:TRP:O	16:CP:63:GLN:C	2.64	0.41
18:CR:20:GLU:C	18:CR:22:ASP:N	2.75	0.41
18:CR:24:LYS:C	18:CR:26:ILE:H	2.28	0.41
18:CR:65:LEU:HD23	18:CR:65:LEU:N	2.36	0.41
19:CS:18:LYS:O	19:CS:20:GLU:N	2.54	0.41
19:CS:41:PHE:O	19:CS:44:MET:HB3	2.21	0.41
22:CV:37:A:C2'	22:CV:38:A:H8	2.34	0.41
55:CY:114:THR:OG1	55:CY:182:LEU:CD2	2.69	0.41
24:DA:160:A:C5	24:DA:167:A:N3	2.88	0.41
24:DA:197:A:N6	24:DA:2430:A:H2'	2.35	0.41
24:DA:247:G:H4'	24:DA:386:G:C5	2.56	0.41
24:DA:280:U:N3	24:DA:281:C:C4	2.89	0.41
24:DA:294:A:H2'	24:DA:295:G:H5'	2.03	0.41
24:DA:310:A:OP1	44:DU:15:GLY:N	2.47	0.41
24:DA:625:G:C6	24:DA:626:A:N6	2.88	0.41
24:DA:693:A:H2'	24:DA:694:U:O4'	2.20	0.41
24:DA:1057:A:N1	24:DA:1087:G:OP2	2.53	0.41
24:DA:1243:C:H1'	35:DL:4:ASN:O	2.21	0.41
24:DA:1323:C:OP1	42:DS:84:ARG:NH2	2.45	0.41
24:DA:1420:A:O2'	24:DA:1421:G:H5'	2.17	0.41
24:DA:1487:U:O2	24:DA:1503:A:C2	2.74	0.41
24:DA:1664:A:N6	24:DA:1665:A:N6	2.69	0.41
24:DA:1815:A:O4'	24:DA:1817:G:H1'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2056:G:P	59:DA:3487:HOH:O	2.78	0.41
24:DA:2257:U:P	46:DW:11:ARG:HH21	2.44	0.41
24:DA:2406:A:OP1	59:DA:3562:HOH:O	2.22	0.41
24:DA:2534:A:C2'	24:DA:2535:G:O5'	2.68	0.41
24:DA:2589:A:P	59:DA:3311:HOH:O	2.77	0.41
24:DA:2592:G:C5	24:DA:2593:U:C6	3.09	0.41
26:DC:157:ALA:CB	26:DC:199:HIS:HB3	2.50	0.41
27:DD:62:LYS:HB2	27:DD:63:PRO:HD3	2.03	0.41
27:DD:121:THR:HB	27:DD:127:PHE:CD2	2.56	0.41
28:DE:47:LYS:HB2	28:DE:52:VAL:HG22	2.03	0.41
29:DF:35:LEU:HB2	29:DF:88:VAL:CG1	2.50	0.41
29:DF:92:GLY:C	29:DF:93:GLU:OE1	2.64	0.41
32:DI:37:PHE:O	32:DI:41:PHE:CG	2.74	0.41
33:DJ:97:PRO:O	33:DJ:98:GLU:C	2.63	0.41
35:DL:68:SER:O	35:DL:69:ARG:HB3	2.18	0.41
35:DL:94:THR:HG22	35:DL:95:LEU:N	2.35	0.41
36:DM:25:ASP:O	36:DM:27:SER:N	2.51	0.41
36:DM:108:VAL:HG12	36:DM:112:LEU:HB2	2.02	0.41
38:DO:7:ARG:HA	38:DO:10:ARG:NH1	2.35	0.41
38:DO:47:VAL:HG13	38:DO:48:LEU:H	1.81	0.41
41:DR:34:GLU:HB3	41:DR:60:LYS:CG	2.50	0.41
41:DR:39:LEU:N	41:DR:39:LEU:CD1	2.84	0.41
41:DR:77:PHE:CE1	41:DR:79:ARG:HG2	2.55	0.41
45:DV:34:LYS:HG3	45:DV:35:GLU:N	2.36	0.41
47:DX:32:LEU:HD13	47:DX:49:ARG:HE	1.81	0.41
48:DY:22:LEU:O	48:DY:23:ARG:C	2.64	0.41
49:DZ:12:ALA:HA	49:DZ:53:MET:HE1	2.02	0.41
54:D4:25:VAL:HG11	54:D4:35:GLN:OE1	2.21	0.41
1:AA:34:C:C4	1:AA:35:G:N7	2.89	0.41
1:AA:58:C:O2'	1:AA:388:G:N7	2.43	0.41
1:AA:154:U:O2	1:AA:154:U:H2'	2.21	0.41
1:AA:257:G:C2	1:AA:258:G:C5	3.08	0.41
1:AA:364:A:C2	1:AA:365:U:C4	3.09	0.41
1:AA:438:U:N3	1:AA:494:G:C6	2.89	0.41
1:AA:598:U:O3'	8:AH:86:TYR:CG	2.74	0.41
1:AA:604:G:C2	1:AA:635:A:N3	2.89	0.41
1:AA:637:C:N4	1:AA:638:U:O4	2.53	0.41
1:AA:728:A:N6	1:AA:729:A:N6	2.68	0.41
1:AA:859:G:H2'	1:AA:860:A:C8	2.56	0.41
1:AA:1080:A:C2'	1:AA:1081:A:O5'	2.69	0.41
1:AA:1104:G:C2	1:AA:1105:A:N9	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1203:C:H4'	14:AN:67:THR:HG22	2.02	0.41
1:AA:1249:C:H1'	9:AI:71:GLY:O	2.21	0.41
1:AA:1440:U:H2'	1:AA:1441:A:H5"	2.02	0.41
2:AB:96:TRP:CZ3	2:AB:175:GLU:OE2	2.74	0.41
3:AC:187:SER:HB3	3:AC:198:VAL:HG23	2.02	0.41
4:AD:98:LEU:O	4:AD:102:VAL:HG23	2.21	0.41
5:AE:38:VAL:CG2	5:AE:47:GLY:O	2.69	0.41
5:AE:42:GLY:O	5:AE:119:GLY:HA2	2.20	0.41
7:AG:6:VAL:O	7:AG:6:VAL:HG13	2.21	0.41
8:AH:18:GLN:NE2	8:AH:70:ALA:O	2.54	0.41
10:AJ:53:ILE:HD11	14:AN:85:ARG:NH2	2.36	0.41
12:AL:67:ILE:HG13	12:AL:67:ILE:O	2.21	0.41
13:AM:9:ILE:CG2	29:BF:142:TYR:CE1	3.04	0.41
13:AM:56:LEU:HA	13:AM:59:GLU:HB3	2.02	0.41
13:AM:75:MET:HE2	13:AM:75:MET:HB3	1.98	0.41
15:AO:87:LEU:HD12	15:AO:88:ARG:N	2.36	0.41
17:AQ:12:VAL:HG21	17:AQ:54:GLY:O	2.20	0.41
17:AQ:72:SER:HB2	17:AQ:73:TRP:CE3	2.56	0.41
20:AT:23:SER:O	20:AT:27:MET:HB3	2.21	0.41
20:AT:35:VAL:HG21	20:AT:54:MET:SD	2.61	0.41
24:BA:7:G:C6	24:BA:8:C:C4	3.08	0.41
24:BA:230:G:C4	24:BA:231:A:C8	3.08	0.41
24:BA:558:U:OP2	33:BJ:113:PRO:HG2	2.21	0.41
24:BA:560:C:H2'	24:BA:561:G:O4'	2.21	0.41
24:BA:681:G:H2'	24:BA:682:G:O5'	2.20	0.41
24:BA:1021:A:HO2'	24:BA:1022:G:P	2.43	0.41
24:BA:1053:C:C4	24:BA:1054:A:N7	2.89	0.41
24:BA:1192:G:H2'	24:BA:1193:G:C5'	2.50	0.41
24:BA:1341:G:C2	43:BT:84:TYR:HB3	2.55	0.41
24:BA:1358:G:N7	24:BA:1371:G:C6	2.89	0.41
24:BA:1439:A:OP2	59:BA:3632:HOH:O	2.22	0.41
24:BA:1450:G:N1	24:BA:1451:C:N4	2.68	0.41
24:BA:1487:U:H2'	24:BA:1488:C:O4'	2.21	0.41
24:BA:1623:G:O2'	24:BA:1624:U:H5'	2.21	0.41
24:BA:1726:C:H2'	24:BA:1727:C:C6	2.55	0.41
24:BA:1733:G:C8	24:BA:1734:G:N7	2.89	0.41
24:BA:1838:C:N4	24:BA:1898:U:H2'	2.35	0.41
24:BA:1880:U:H5"	24:BA:1880:U:H6	1.85	0.41
24:BA:1901:A:OP2	26:BC:252:LYS:NZ	2.48	0.41
24:BA:2134:A:C2	24:BA:2135:A:N9	2.89	0.41
24:BA:2183:A:C5	24:BA:2184:A:C6	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2209:G:C5	24:BA:2210:U:C5	3.08	0.41
24:BA:2268:A:OP1	59:BA:3513:HOH:O	2.22	0.41
24:BA:2444:G:P	28:BE:63:LYS:HZ1	2.43	0.41
24:BA:2498:C:OP2	59:BA:3686:HOH:O	2.22	0.41
24:BA:2671:G:C4	24:BA:2672:U:C5	3.08	0.41
24:BA:2679:A:C2'	24:BA:2680:U:H5'	2.50	0.41
24:BA:2737:G:C2	24:BA:2738:A:C4	3.08	0.41
24:BA:2795:C:O2	24:BA:2802:G:C2	2.73	0.41
57:BA:3167:NMY:H12	57:BA:3167:NMY:H13	1.97	0.41
25:BB:56:G:N2	25:BB:59:A:C2	2.88	0.41
26:BC:176:ARG:CZ	26:BC:176:ARG:HB2	2.50	0.41
29:BF:3:LEU:HG	29:BF:99:PHE:CZ	2.56	0.41
29:BF:63:LYS:O	29:BF:63:LYS:HG2	2.21	0.41
30:BG:60:GLY:O	30:BG:61:TRP:C	2.63	0.41
31:BH:24:GLY:O	31:BH:28:ASN:CB	2.68	0.41
32:BI:36:GLU:HG2	32:BI:65:SER:CB	2.51	0.41
33:BJ:13:ARG:HB3	33:BJ:51:GLY:O	2.21	0.41
33:BJ:105:VAL:O	33:BJ:108:MET:N	2.53	0.41
35:BL:80:SER:C	35:BL:82:LEU:N	2.78	0.41
35:BL:86:GLU:CD	35:BL:86:GLU:C	2.88	0.41
36:BM:63:ILE:CG1	36:BM:64:TRP:N	2.81	0.41
37:BN:51:LEU:N	37:BN:51:LEU:HD23	2.36	0.41
39:BP:51:ASN:O	39:BP:52:ARG:CG	2.69	0.41
42:BS:55:ILE:HG13	42:BS:56:ALA:N	2.36	0.41
47:BX:58:ILE:O	47:BX:58:ILE:HG12	2.21	0.41
1:CA:81:A:H2'	1:CA:82:G:C5'	2.51	0.41
1:CA:101:A:C4	1:CA:102:G:C8	3.09	0.41
1:CA:258:G:C2'	1:CA:259:G:O5'	2.68	0.41
1:CA:590:U:OP1	8:CH:31:LYS:N	2.54	0.41
1:CA:714:G:C2	1:CA:777:A:H1'	2.56	0.41
1:CA:881:G:C6	1:CA:882:C:C4	3.08	0.41
1:CA:961:U:O2	1:CA:983:A:C5	2.73	0.41
1:CA:1080:A:OP1	5:CE:52:LYS:HE2	2.20	0.41
1:CA:1086:U:O2'	1:CA:1087:G:C5'	2.68	0.41
1:CA:1132:C:H3'	1:CA:1133:G:C8	2.55	0.41
1:CA:1134:G:N3	1:CA:1135:U:H1'	2.36	0.41
1:CA:1145:A:C2'	1:CA:1146:A:OP2	2.69	0.41
1:CA:1158:C:N4	1:CA:1160:G:C8	2.88	0.41
1:CA:1239:A:C8	1:CA:1298:U:N3	2.88	0.41
1:CA:1371:G:H5"	9:CI:70:GLY:HA2	2.03	0.41
57:CA:1672:NMY:H1	57:CA:1672:NMY:O11	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:69:PHE:CG	2:CB:84:ALA:HB1	2.55	0.41
2:CB:135:LEU:O	2:CB:136:MET:C	2.62	0.41
2:CB:164:ILE:HG23	2:CB:165:ASP:H	1.85	0.41
3:CC:68:ILE:HG12	3:CC:68:ILE:O	2.21	0.41
3:CC:141:ALA:O	3:CC:146:ALA:HB2	2.20	0.41
3:CC:162:ILE:C	3:CC:162:ILE:HD13	2.46	0.41
4:CD:188:ARG:HG3	4:CD:189:SER:H	1.86	0.41
5:CE:45:ARG:CZ	5:CE:73:ASN:OD1	2.69	0.41
8:CH:32:LEU:C	8:CH:32:LEU:CD2	2.94	0.41
9:CI:25:ASN:C	9:CI:60:LYS:N	2.77	0.41
9:CI:83:ILE:HG22	9:CI:87:LEU:HD22	2.03	0.41
10:CJ:9:ARG:C	10:CJ:10:LEU:CD1	2.94	0.41
11:CK:112:ASP:O	11:CK:113:VAL:HG13	2.20	0.41
13:CM:3:ARG:HA	13:CM:8:ASN:O	2.20	0.41
13:CM:89:LEU:O	13:CM:91:HIS:N	2.54	0.41
13:CM:90:ARG:HG2	13:CM:96:PRO:O	2.21	0.41
14:CN:18:LYS:HE2	14:CN:18:LYS:C	2.46	0.41
22:CV:27:G:O2'	22:CV:28:G:H5'	2.21	0.41
22:CV:52:G:H2'	22:CV:53:G:O4'	2.21	0.41
55:CY:13:MET:O	55:CY:15:LYS:N	2.53	0.41
55:CY:51:LEU:O	55:CY:52:ARG:C	2.63	0.41
55:CY:142:LEU:O	55:CY:148:ILE:HG12	2.21	0.41
55:CY:160:VAL:HG12	55:CY:161:GLN:N	2.35	0.41
24:DA:137:U:O2'	24:DA:138:U:P	2.79	0.41
24:DA:260:G:C4	24:DA:261:G:C8	3.09	0.41
24:DA:322:A:H5'	24:DA:340:A:H1'	2.02	0.41
24:DA:503:A:H4'	24:DA:504:A:H3'	2.01	0.41
24:DA:511:U:O3'	24:DA:1215:G:N2	2.54	0.41
24:DA:587:C:C4	24:DA:671:C:C6	3.09	0.41
24:DA:721:A:C6	24:DA:722:A:C5	3.08	0.41
24:DA:740:C:H5'	24:DA:1784:A:H3'	2.03	0.41
24:DA:1453:A:N1	37:DN:74:GLU:HA	2.36	0.41
24:DA:1471:G:C6	24:DA:1472:C:N4	2.89	0.41
24:DA:1690:A:H3'	24:DA:1691:C:H6	1.86	0.41
24:DA:1836:C:C4	24:DA:1837:C:C5	3.09	0.41
24:DA:2080:A:OP1	47:DX:19:HIS:NE2	2.53	0.41
24:DA:2114:A:H3'	24:DA:2114:A:N3	2.36	0.41
24:DA:2163:A:OP1	24:DA:2171:A:C8	2.73	0.41
24:DA:2204:G:C2	24:DA:2205:A:N9	2.89	0.41
24:DA:2333:A:O3'	38:DO:9:ARG:CZ	2.66	0.41
24:DA:2335:A:C5	24:DA:2337:G:C4	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2373:G:C6	24:DA:2374:C:N4	2.89	0.41
24:DA:2393:U:H2'	24:DA:2394:C:C6	2.55	0.41
24:DA:2636:C:H4'	27:DD:81:GLU:CD	2.45	0.41
24:DA:2654:A:N1	24:DA:2665:A:H5"	2.36	0.41
26:DC:44:ASN:OD1	26:DC:44:ASN:N	2.53	0.41
26:DC:176:ARG:NE	26:DC:176:ARG:C	2.79	0.41
26:DC:224:MET:O	26:DC:232:GLY:O	2.39	0.41
27:DD:130:GLN:O	27:DD:131:ASP:C	2.63	0.41
28:DE:129:PRO:CB	28:DE:159:LEU:CD1	2.99	0.41
28:DE:176:ASP:OD1	28:DE:176:ASP:C	2.63	0.41
29:DF:111:ARG:O	29:DF:112:ASP:OD1	2.38	0.41
30:DG:96:ALA:O	30:DG:102:ILE:HD12	2.21	0.41
31:DH:8:LYS:O	31:DH:9:VAL:O	2.39	0.41
31:DH:51:ARG:O	31:DH:54:LEU:N	2.54	0.41
33:DJ:19:ASP:OD1	33:DJ:21:THR:CB	2.69	0.41
36:DM:21:ALA:HB1	36:DM:100:LYS:CA	2.50	0.41
37:DN:31:HIS:O	37:DN:32:GLU:CB	2.69	0.41
39:DP:29:VAL:O	39:DP:31:VAL:CG1	2.69	0.41
44:DU:83:GLY:O	44:DU:84:PHE:O	2.37	0.41
45:DV:50:MET:C	45:DV:52:ALA:N	2.78	0.41
50:D0:43:THR:OG1	50:D0:47:TYR:HB2	2.20	0.41
54:D4:23:ILE:HD13	54:D4:23:ILE:H	1.86	0.41
1:AA:8:A:C6	4:AD:206:LYS:CG	3.03	0.41
1:AA:101:A:N6	1:AA:102:G:O6	2.54	0.41
1:AA:124:C:N4	1:AA:125:U:O4	2.54	0.41
1:AA:185:U:C4	1:AA:186:C:C5	3.09	0.41
1:AA:238:A:P	17:AQ:40:ARG:HH22	2.44	0.41
1:AA:254:G:H1'	17:AQ:17:MET:HE2	2.02	0.41
1:AA:325:A:N6	1:AA:326:G:C6	2.89	0.41
1:AA:397:A:O3'	1:AA:398:U:C5	2.74	0.41
1:AA:408:A:H2'	1:AA:409:U:O4'	2.21	0.41
1:AA:413:G:OP2	11:CK:16:VAL:HA	2.21	0.41
1:AA:451:A:C1'	1:AA:452:A:C8	3.04	0.41
1:AA:504:C:H1'	1:AA:510:A:C4	2.56	0.41
1:AA:646:G:C5	1:AA:647:C:C5	3.08	0.41
1:AA:683:G:O2'	1:AA:684:U:O5'	2.39	0.41
1:AA:710:G:O2'	1:AA:711:G:H5'	2.21	0.41
1:AA:711:G:H2'	1:AA:712:A:H5'	1.99	0.41
1:AA:728:A:N1	1:AA:729:A:N1	2.69	0.41
1:AA:777:A:C2	1:AA:778:G:H1'	2.56	0.41
1:AA:780:A:C2	1:AA:803:G:N1	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:891:U:C4	1:AA:906:A:C2	3.09	0.41
1:AA:917:G:N1	1:AA:918:A:C6	2.88	0.41
1:AA:945:G:C6	1:AA:1337:G:C5	3.09	0.41
1:AA:959:A:H5"	1:AA:960:U:OP2	2.21	0.41
1:AA:1014:A:N3	19:AS:34:TRP:CE2	2.88	0.41
1:AA:1018:G:C5	1:AA:1019:A:C6	3.08	0.41
1:AA:1025:U:C5'	1:AA:1026:G:O5'	2.68	0.41
1:AA:1031:C:H5"	1:AA:1032:G:OP1	2.21	0.41
1:AA:1069:C:H6	1:AA:1069:C:H3'	1.85	0.41
1:AA:1081:A:H2'	1:AA:1082:A:O4'	2.21	0.41
1:AA:1117:A:O3'	9:AI:106:ARG:NE	2.53	0.41
1:AA:1135:U:O2	1:AA:1135:U:C2'	2.69	0.41
1:AA:1208:C:C4	1:AA:1209:C:C4	3.09	0.41
1:AA:1224:U:O2'	19:AS:78:ARG:NH2	2.52	0.41
1:AA:1224:U:C2	1:AA:1322:C:O2	2.74	0.41
1:AA:1238:A:C6	1:AA:1303:C:O4'	2.74	0.41
1:AA:1342:C:H4'	9:AI:127:PHE:CE1	2.56	0.41
1:AA:1389:C:H2'	1:AA:1390:U:O4'	2.21	0.41
1:AA:1493:A:H5"	24:BA:1913:A:N6	2.31	0.41
57:AA:1657:NMY:HN32	57:AA:1657:NMY:C14	2.31	0.41
2:AB:17:GLY:C	2:AB:18:HIS:CD2	2.99	0.41
3:AC:132:ARG:O	3:AC:134:MET:N	2.54	0.41
4:AD:11:LEU:CG	4:AD:63:ARG:HD2	2.50	0.41
4:AD:13:ARG:HG2	4:AD:13:ARG:HH11	1.86	0.41
4:AD:157:ALA:O	4:AD:160:GLU:N	2.53	0.41
5:AE:50:TYR:C	5:AE:50:TYR:CD1	2.98	0.41
5:AE:82:GLN:NE2	5:AE:150:PRO:HG3	2.35	0.41
5:AE:132:ASN:O	5:AE:133:PRO:C	2.63	0.41
5:AE:144:LEU:O	5:AE:145:GLU:C	2.64	0.41
5:AE:154:ALA:O	5:AE:156:LYS:C	2.63	0.41
5:AE:156:LYS:HD2	5:AE:156:LYS:O	2.21	0.41
6:AF:61:LEU:C	6:AF:62:MET:HG2	2.46	0.41
7:AG:13:LEU:N	7:AG:13:LEU:CD2	2.84	0.41
8:AH:32:LEU:C	8:AH:34:VAL:N	2.79	0.41
8:AH:43:GLU:CG	8:AH:44:GLY:N	2.84	0.41
9:AI:20:PHE:HD1	9:AI:64:TYR:HB3	1.85	0.41
9:AI:107:ASP:CG	9:AI:109:ARG:HB2	2.46	0.41
12:AL:8:VAL:CG1	12:AL:9:ARG:N	2.84	0.41
12:AL:28:PRO:HB2	12:AL:29:GLN:CD	2.46	0.41
13:AM:3:ARG:O	13:AM:4:ILE:HG13	2.20	0.41
13:AM:9:ILE:O	13:AM:9:ILE:HG13	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:64:CYS:HB2	14:AN:80:SER:CB	2.51	0.41
16:AP:12:LYS:O	16:AP:13:LYS:HB3	2.21	0.41
16:AP:34:GLU:OE1	16:AP:36:VAL:CG1	2.69	0.41
16:AP:39:PHE:HD1	16:AP:40:ASN:N	2.19	0.41
17:AQ:61:ILE:C	17:AQ:61:ILE:CD1	2.94	0.41
18:AR:56:ALA:HA	18:AR:59:ILE:HG23	2.03	0.41
19:AS:68:GLY:O	19:AS:69:HIS:HB2	2.21	0.41
21:AU:21:ARG:NH2	23:AX:4:G:C1'	2.84	0.41
21:AU:34:ARG:HD3	21:AU:34:ARG:C	2.46	0.41
24:BA:18:U:O3'	40:BQ:22:GLY:HA2	2.20	0.41
24:BA:157:C:C2	24:BA:158:U:C6	3.09	0.41
24:BA:310:A:C2	24:BA:312:G:H1'	2.55	0.41
24:BA:320:A:H4'	24:BA:322:A:C8	2.56	0.41
24:BA:323:C:C4	24:BA:333:G:C8	3.09	0.41
24:BA:394:C:H2'	24:BA:395:U:O4'	2.20	0.41
24:BA:450:G:N2	24:BA:454:A:OP2	2.53	0.41
24:BA:466:A:C2	24:BA:796:C:O4'	2.73	0.41
24:BA:468:G:H2'	24:BA:469:G:H5'	2.02	0.41
24:BA:577:G:C6	24:BA:578:G:C6	3.09	0.41
24:BA:687:C:O4'	52:B2:4:THR:HA	2.21	0.41
24:BA:745:G:C3'	24:BA:746:U:H5'	2.50	0.41
24:BA:851:C:O2	24:BA:852:U:C6	2.73	0.41
24:BA:855:G:N3	24:BA:923:G:C2	2.89	0.41
24:BA:936:A:C5	24:BA:937:C:C5	3.09	0.41
24:BA:1006:C:N3	24:BA:1007:C:C5	2.89	0.41
24:BA:1047:G:N2	24:BA:1110:G:N9	2.69	0.41
24:BA:1124:G:H1'	54:B4:38:GLY:OXT	2.21	0.41
24:BA:1224:U:C5	24:BA:1225:G:C6	3.09	0.41
24:BA:1281:G:H2'	24:BA:1282:U:O4'	2.20	0.41
24:BA:1281:G:O2'	24:BA:1282:U:P	2.79	0.41
24:BA:1283:G:N2	24:BA:1285:A:H3'	2.36	0.41
24:BA:1342:A:N6	24:BA:1345:C:C2	2.89	0.41
24:BA:1357:C:C4	24:BA:1358:G:C6	3.09	0.41
24:BA:1378:A:N3	24:BA:1380:G:N7	2.69	0.41
24:BA:1384:A:O2'	24:BA:1404:C:O2	2.38	0.41
24:BA:1450:G:C2	24:BA:1462:C:N3	2.89	0.41
24:BA:1489:C:O2	24:BA:1501:G:N3	2.54	0.41
24:BA:1531:C:N4	24:BA:1532:A:N1	2.68	0.41
24:BA:1587:G:C4	24:BA:1588:G:C8	3.08	0.41
24:BA:1593:A:H2'	24:BA:1594:U:N1	2.35	0.41
24:BA:1609:A:N3	24:BA:1616:A:O4'	2.52	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1613:G:H4'	52:B2:3:ARG:NH2	2.36	0.41
24:BA:1725:U:H2'	24:BA:1726:C:N1	2.36	0.41
24:BA:1799:G:C4'	24:BA:1800:C:H6	2.34	0.41
24:BA:1820:U:C2	26:BC:200:MET:HB3	2.56	0.41
24:BA:1868:C:H2'	24:BA:1869:G:C1'	2.51	0.41
24:BA:2073:C:O2'	26:BC:226:PRO:CB	2.66	0.41
24:BA:2102:G:N1	24:BA:2188:U:C2	2.89	0.41
24:BA:2112:G:H2'	24:BA:2112:G:N3	2.36	0.41
24:BA:2261:C:C2	24:BA:2280:G:C2	3.09	0.41
24:BA:2263:C:O2'	24:BA:2264:C:H5'	2.20	0.41
24:BA:2305:U:C4	24:BA:2306:C:C4	3.09	0.41
24:BA:2412:A:C2'	24:BA:2413:G:H5'	2.51	0.41
24:BA:2554:U:C6	24:BA:2555:U:C5	3.08	0.41
24:BA:2618:G:C5	24:BA:2619:C:C5	3.08	0.41
24:BA:2751:G:N2	24:BA:2751:G:OP1	2.54	0.41
24:BA:2821:A:H2'	24:BA:2822:G:O4'	2.19	0.41
24:BA:2822:G:P	27:BD:115:GLY:HA3	2.61	0.41
24:BA:2822:G:O6	37:BN:2:ARG:HD2	2.21	0.41
24:BA:2831:G:O4'	24:BA:2883:A:C2	2.73	0.41
24:BA:2854:G:C2	24:BA:2864:G:C2	3.09	0.41
24:BA:2864:G:C5	24:BA:2865:U:C4	3.09	0.41
24:BA:2880:C:O2'	37:BN:92:GLY:O	2.26	0.41
57:BA:3166:NMY:C14	33:BJ:2:LYS:NZ	2.83	0.41
57:BA:3167:NMY:N2	57:BA:3167:NMY:O11	2.42	0.41
25:BB:9:G:OP2	38:BO:15:ARG:NH2	2.53	0.41
25:BB:25:U:C2'	25:BB:26:C:H5'	2.51	0.41
25:BB:30:C:C2'	25:BB:31:C:H5'	2.51	0.41
25:BB:58:A:H2'	25:BB:59:A:H5'	2.03	0.41
25:BB:77:U:O2	25:BB:77:U:H2'	2.20	0.41
25:BB:90:C:H5'	36:BM:18:ARG:HA	2.03	0.41
26:BC:85:ASN:N	26:BC:85:ASN:ND2	2.69	0.41
26:BC:135:PRO:O	26:BC:137:GLY:N	2.53	0.41
26:BC:245:THR:C	26:BC:247:TRP:N	2.79	0.41
26:BC:259:ASN:C	26:BC:259:ASN:OD1	2.64	0.41
27:BD:16:THR:O	27:BD:17:GLU:C	2.63	0.41
27:BD:25:THR:HG23	27:BD:189:VAL:CG2	2.51	0.41
28:BE:179:SER:O	28:BE:180:LEU:C	2.64	0.41
29:BF:28:PRO:HA	29:BF:158:THR:CB	2.45	0.41
29:BF:103:ILE:HD12	29:BF:103:ILE:C	2.45	0.41
30:BG:83:THR:HA	30:BG:132:LEU:O	2.21	0.41
31:BH:63:ALA:C	31:BH:65:ALA:N	2.79	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BK:121:GLU:HG3	34:BK:122:VAL:H	1.85	0.41
36:BM:47:GLU:O	36:BM:48:ALA:C	2.62	0.41
37:BN:29:VAL:HG11	37:BN:75:ILE:HG23	2.03	0.41
38:BO:34:HIS:C	38:BO:35:ILE:HG22	2.46	0.41
40:BQ:63:ARG:C	40:BQ:65:ASN:N	2.77	0.41
40:BQ:78:PHE:CD1	40:BQ:78:PHE:C	2.96	0.41
40:BQ:89:ILE:HD12	40:BQ:90:ASP:N	2.35	0.41
41:BR:21:ARG:NH2	41:BR:93:PHE:CZ	2.89	0.41
42:BS:50:VAL:HG21	42:BS:103:ILE:HD11	2.01	0.41
43:BT:1:MET:O	43:BT:2:ILE:CG1	2.69	0.41
44:BU:17:ASP:O	44:BU:19:GLY:N	2.53	0.41
44:BU:27:VAL:HB	44:BU:33:VAL:HG12	2.02	0.41
48:BY:20:ASN:C	48:BY:21:LEU:HD12	2.46	0.41
49:BZ:34:THR:HG22	49:BZ:35:VAL:N	2.34	0.41
51:B1:24:LYS:HD2	51:B1:24:LYS:HA	1.83	0.41
53:B3:23:HIS:CD2	53:B3:23:HIS:C	2.99	0.41
54:B4:6:SER:C	54:B4:7:VAL:HG13	2.46	0.41
1:CA:64:G:N9	1:CA:99:C:N4	2.68	0.41
1:CA:82:G:O6	1:CA:88:U:N3	2.53	0.41
1:CA:90:C:O2'	1:CA:91:U:H5"	2.20	0.41
1:CA:131:A:O2'	1:CA:262:A:H2'	2.20	0.41
1:CA:236:A:H2'	1:CA:237:G:H8	1.86	0.41
1:CA:406:G:C6	1:CA:407:U:C5	3.08	0.41
1:CA:406:G:C6	1:CA:495:A:N7	2.89	0.41
1:CA:433:G:C2'	1:CA:434:U:H5'	2.51	0.41
1:CA:445:G:C2	1:CA:446:G:H1'	2.56	0.41
1:CA:449:G:O5'	1:CA:449:G:H8	2.04	0.41
1:CA:451:A:H4'	1:CA:452:A:O5'	2.20	0.41
1:CA:453:G:C4	1:CA:454:G:C8	3.08	0.41
1:CA:563:A:H5"	1:CA:566:G:N2	2.36	0.41
1:CA:595:A:O2'	1:CA:596:A:P	2.78	0.41
1:CA:620:C:C1'	4:CD:132:ILE:CD1	2.99	0.41
1:CA:656:G:C6	1:CA:657:U:C4	3.08	0.41
1:CA:711:G:C2'	1:CA:712:A:O5'	2.69	0.41
1:CA:722:G:C2	21:CU:45:ARG:NH2	2.88	0.41
1:CA:736:C:C2'	1:CA:737:C:C6	2.98	0.41
1:CA:787:A:C5	1:CA:788:U:C5	3.09	0.41
1:CA:939:G:O2'	1:CA:940:C:C5'	2.69	0.41
1:CA:1014:A:H5"	19:CS:14:HIS:CE1	2.55	0.41
1:CA:1033:G:C6	1:CA:1034:G:N7	2.89	0.41
1:CA:1088:G:O2'	1:CA:1089:G:P	2.79	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1133:G:N2	1:CA:1142:G:N3	2.68	0.41
1:CA:1133:G:H2'	1:CA:1134:G:H5'	2.02	0.41
1:CA:1197:A:P	1:CA:1197:A:H3'	2.61	0.41
1:CA:1370:G:O5'	9:CI:111:VAL:CG1	2.69	0.41
1:CA:1420:U:H4'	24:DA:1950:G:OP1	2.20	0.41
1:CA:1494:G:H2'	1:CA:1495:U:C5'	2.51	0.41
2:CB:23:TRP:HA	2:CB:190:ASN:CA	2.48	0.41
2:CB:104:TRP:CD1	2:CB:108:ARG:HB2	2.56	0.41
2:CB:133:GLU:OE1	2:CB:136:MET:SD	2.79	0.41
3:CC:156:ARG:NH2	3:CC:193:TYR:CZ	2.89	0.41
4:CD:2:ALA:O	4:CD:3:ARG:C	2.64	0.41
4:CD:5:LEU:HD12	4:CD:5:LEU:C	2.46	0.41
4:CD:7:PRO:O	4:CD:9:LEU:CD1	2.68	0.41
4:CD:22:LYS:NZ	4:CD:25:VAL:HG22	2.35	0.41
4:CD:64:ILE:HG22	4:CD:65:TYR:CD2	2.54	0.41
4:CD:108:GLY:O	4:CD:109:ALA:O	2.38	0.41
4:CD:126:ASN:C	4:CD:128:ARG:H	2.29	0.41
4:CD:147:GLU:C	4:CD:149:ALA:N	2.75	0.41
5:CE:25:VAL:CG2	5:CE:26:LYS:N	2.83	0.41
6:CF:12:PRO:C	6:CF:14:GLN:H	2.29	0.41
6:CF:80:PHE:C	6:CF:82:ASP:H	2.29	0.41
8:CH:65:TYR:HD1	8:CH:70:ALA:HA	1.86	0.41
8:CH:81:PRO:O	8:CH:83:LEU:N	2.49	0.41
9:CI:5:GLN:O	9:CI:6:TYR:HB3	2.21	0.41
9:CI:13:LYS:O	9:CI:14:SER:HB2	2.20	0.41
10:CJ:48:ARG:CZ	14:CN:101:TRP:CH2	3.03	0.41
10:CJ:56:HIS:C	10:CJ:57:VAL:HG23	2.45	0.41
11:CK:81:ASN:C	11:CK:82:LEU:HG	2.45	0.41
12:CL:20:ASN:C	12:CL:21:VAL:CG1	2.94	0.41
12:CL:37:VAL:HG12	12:CL:53:CYS:CB	2.51	0.41
13:CM:4:ILE:O	13:CM:5:ALA:C	2.64	0.41
13:CM:80:LEU:HD12	13:CM:83:LEU:HD11	2.01	0.41
14:CN:18:LYS:C	14:CN:18:LYS:CE	2.93	0.41
14:CN:20:PHE:CE2	14:CN:55:SER:C	2.99	0.41
15:CO:31:LEU:O	15:CO:35:GLN:HB2	2.21	0.41
15:CO:62:GLN:O	15:CO:66:LEU:N	2.53	0.41
16:CP:49:GLY:C	16:CP:50:THR:HG23	2.44	0.41
17:CQ:21:ILE:HD11	17:CQ:46:VAL:CG1	2.51	0.41
17:CQ:23:VAL:CG1	17:CQ:24:ALA:N	2.84	0.41
18:CR:56:ALA:O	18:CR:58:ALA:N	2.49	0.41
18:CR:63:ARG:O	18:CR:64:TYR:C	2.63	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:34:TRP:CD1	19:CS:35:SER:H	2.39	0.41
21:CU:47:ARG:CG	21:CU:48:ALA:N	2.83	0.41
22:CV:14:A:O2'	22:CV:15:G:H5'	2.21	0.41
55:CY:2:ILE:HG13	55:CY:3:SER:H	1.86	0.41
55:CY:121:ALA:HB2	55:CY:175:LEU:HD12	2.02	0.41
24:DA:178:G:C6	24:DA:179:C:C4	3.09	0.41
24:DA:197:A:H62	24:DA:2430:A:H2'	1.86	0.41
24:DA:199:A:N6	24:DA:2434:A:C5	2.89	0.41
24:DA:222:A:N7	24:DA:224:U:C2	2.89	0.41
24:DA:230:G:C2'	24:DA:231:A:O5'	2.68	0.41
24:DA:592:A:C6	24:DA:593:U:C4	3.09	0.41
24:DA:633:A:H5"	24:DA:634:C:OP2	2.21	0.41
24:DA:687:C:N4	24:DA:688:U:N3	2.69	0.41
24:DA:692:C:C6	24:DA:692:C:H3'	2.56	0.41
24:DA:693:A:C6	24:DA:694:U:C4	3.09	0.41
24:DA:733:G:H8	24:DA:733:G:O5'	2.03	0.41
24:DA:783:A:H2'	24:DA:784:G:C4'	2.50	0.41
24:DA:833:A:O4'	35:DL:51:GLU:HA	2.21	0.41
24:DA:851:C:H2'	24:DA:852:U:C6	2.56	0.41
24:DA:940:G:H5"	24:DA:941:A:OP2	2.21	0.41
24:DA:1131:G:H4'	24:DA:1132:U:OP1	2.20	0.41
24:DA:1190:G:H5"	35:DL:32:GLY:CA	2.51	0.41
24:DA:1381:G:C2'	24:DA:1382:G:H5'	2.50	0.41
24:DA:1418:G:H5'	24:DA:1419:A:OP2	2.21	0.41
24:DA:1454:C:H3'	24:DA:1454:C:OP2	2.21	0.41
24:DA:1465:G:O2'	24:DA:1545:A:N1	2.41	0.41
24:DA:1482:G:C2	24:DA:1483:G:C8	3.09	0.41
24:DA:1542:U:H2'	24:DA:1543:G:C8	2.56	0.41
24:DA:1562:U:C2'	24:DA:1563:U:O5'	2.69	0.41
24:DA:1582:C:H2'	24:DA:1583:A:O4'	2.20	0.41
24:DA:1596:A:H2'	24:DA:1597:A:H5'	2.02	0.41
24:DA:1619:G:H2'	24:DA:1620:G:H5'	2.01	0.41
24:DA:1619:G:O5'	24:DA:1619:G:C8	2.74	0.41
24:DA:1668:A:O2'	24:DA:1674:G:N7	2.48	0.41
24:DA:1669:A:OP2	24:DA:1671:U:O4	2.39	0.41
24:DA:1757:A:H3'	24:DA:1758:U:H5"	2.02	0.41
24:DA:1842:G:C6	24:DA:1843:C:N3	2.89	0.41
24:DA:1869:G:N3	24:DA:1873:G:O6	2.54	0.41
24:DA:1871:A:C8	24:DA:1872:A:C5	3.08	0.41
24:DA:1917:U:C2'	24:DA:1918:A:H5'	2.51	0.41
24:DA:1995:U:H5'	24:DA:1996:C:O5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2021:C:P	50:D0:8:THR:HG21	2.61	0.41
24:DA:2026:U:C2	24:DA:2027:G:C8	3.09	0.41
24:DA:2037:A:H2'	24:DA:2038:G:O5'	2.21	0.41
24:DA:2095:A:C2	24:DA:2194:U:N3	2.89	0.41
24:DA:2108:A:C2'	24:DA:2109:U:O5'	2.68	0.41
24:DA:2110:G:N2	24:DA:2180:U:C2	2.89	0.41
24:DA:2117:A:N3	24:DA:2117:A:C2'	2.83	0.41
24:DA:2128:G:C8	24:DA:2129:C:C5	3.09	0.41
24:DA:2131:U:H5"	24:DA:2132:U:H5'	2.02	0.41
24:DA:2324:U:HO2'	24:DA:2325:G:P	2.43	0.41
24:DA:2417:C:C2	24:DA:2418:A:C8	3.08	0.41
24:DA:2474:U:H5"	24:DA:2475:C:OP2	2.20	0.41
24:DA:2503:A:OP2	24:DA:2503:A:H3'	2.21	0.41
24:DA:2712:C:H2'	24:DA:2714:G:O3'	2.21	0.41
24:DA:2731:G:C6	24:DA:2732:G:C6	3.09	0.41
24:DA:2731:G:N7	57:DA:3185:NMY:H21	2.36	0.41
57:DA:3188:NMY:H2	57:DA:3188:NMY:H171	2.03	0.41
25:DB:53:A:C2'	25:DB:54:G:H5'	2.51	0.41
25:DB:54:G:O2'	25:DB:55:U:H5'	2.21	0.41
26:DC:70:LYS:HD2	26:DC:95:TYR:CD2	2.55	0.41
26:DC:100:ARG:O	26:DC:101:ARG:CG	2.69	0.41
27:DD:90:PHE:CE2	27:DD:96:ILE:CD1	3.04	0.41
28:DE:35:TYR:C	28:DE:37:ALA:N	2.79	0.41
29:DF:35:LEU:HD13	29:DF:35:LEU:N	2.36	0.41
29:DF:56:LEU:O	29:DF:57:ALA:C	2.64	0.41
29:DF:62:GLN:HG2	29:DF:94:ARG:HD2	2.02	0.41
30:DG:56:GLY:O	30:DG:57:TYR:C	2.63	0.41
31:DH:50:ARG:HG3	31:DH:54:LEU:CD2	2.51	0.41
31:DH:132:PHE:CE2	31:DH:142:VAL:CG2	3.04	0.41
32:DI:115:ASP:O	32:DI:116:MET:CB	2.69	0.41
33:DJ:9:GLU:O	33:DJ:10:THR:CG2	2.69	0.41
33:DJ:44:TYR:O	40:DQ:63:ARG:NE	2.47	0.41
33:DJ:77:HIS:HD2	33:DJ:79:GLY:N	2.18	0.41
34:DK:10:VAL:HG21	34:DK:16:ALA:C	2.45	0.41
34:DK:22:ILE:HG23	34:DK:41:ILE:HA	2.03	0.41
35:DL:128:THR:C	35:DL:130:GLY:N	2.79	0.41
37:DN:12:ARG:CD	37:DN:16:HIS:CD2	3.04	0.41
37:DN:16:HIS:C	37:DN:16:HIS:HD2	2.25	0.41
37:DN:65:LEU:C	37:DN:67:PHE:N	2.79	0.41
37:DN:106:ASP:O	37:DN:107:ASN:HB3	2.21	0.41
38:DO:53:THR:HG21	38:DO:65:THR:HG22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DO:79:ALA:HA	38:DO:115:LEU:HD12	2.03	0.41
38:DO:108:ASP:O	38:DO:111:ARG:HB2	2.21	0.41
42:DS:31:GLN:O	42:DS:35:ILE:HD12	2.20	0.41
42:DS:60:HIS:ND1	42:DS:60:HIS:C	2.78	0.41
42:DS:98:LYS:NZ	42:DS:98:LYS:HB2	2.35	0.41
43:DT:68:LYS:C	43:DT:74:ILE:HD12	2.46	0.41
44:DU:5:ARG:O	44:DU:6:ARG:C	2.64	0.41
44:DU:16:LYS:C	44:DU:16:LYS:HD3	2.45	0.41
44:DU:84:PHE:CD2	44:DU:85:ARG:HA	2.56	0.41
49:DZ:13:ILE:C	49:DZ:15:ARG:N	2.78	0.41
51:D1:35:LEU:O	51:D1:48:TYR:HB2	2.21	0.41
52:D2:30:VAL:HG23	52:D2:33:ARG:HH11	1.86	0.41
54:D4:25:VAL:O	54:D4:25:VAL:HG12	2.21	0.41
1:AA:41:G:C2	1:AA:42:G:C5	3.10	0.41
1:AA:164:G:C4	1:AA:165:G:C8	3.09	0.41
1:AA:173:U:C5	1:AA:197:A:C2	3.09	0.41
1:AA:219:U:H2'	1:AA:220:G:O4'	2.21	0.41
1:AA:247:G:N3	1:AA:282:A:C2	2.89	0.41
1:AA:254:G:N2	1:AA:255:G:H1'	2.35	0.41
1:AA:267:C:H2'	1:AA:268:U:H6	1.85	0.41
1:AA:396:C:H3'	1:AA:397:A:H5"	2.03	0.41
1:AA:414:A:H2'	1:AA:415:A:O4'	2.20	0.41
1:AA:429:U:H4'	1:AA:430:A:O5'	2.21	0.41
1:AA:476:U:H2'	1:AA:477:C:H6	1.86	0.41
1:AA:488:C:H2'	1:AA:489:C:H6	1.86	0.41
1:AA:543:U:C2'	1:AA:544:G:O5'	2.69	0.41
1:AA:551:U:O4'	12:AL:116:LYS:HD3	2.21	0.41
1:AA:692:U:H1'	1:AA:695:A:N7	2.36	0.41
1:AA:773:G:C6	1:AA:807:A:N1	2.89	0.41
1:AA:778:G:C2	1:AA:779:C:C2	3.09	0.41
1:AA:833:G:N2	1:AA:854:U:H1'	2.35	0.41
1:AA:976:G:C8	1:AA:1358:U:C2	3.09	0.41
1:AA:1009:U:C2	1:AA:1021:A:N1	2.89	0.41
1:AA:1060:U:H5'	10:AJ:53:ILE:HG12	2.02	0.41
1:AA:1072:G:C5	1:AA:1073:U:C4	3.08	0.41
1:AA:1144:G:N1	1:AA:1145:A:C2	2.89	0.41
1:AA:1216:A:C2	1:AA:1217:C:C5	3.09	0.41
1:AA:1309:G:O6	1:AA:1329:A:C6	2.74	0.41
2:AB:54:LEU:N	2:AB:54:LEU:CD1	2.83	0.41
3:AC:53:SER:HA	3:AC:115:LEU:CD1	2.51	0.41
3:AC:72:ARG:O	3:AC:75:ILE:HG22	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:113:ALA:HB3	3:AC:183:ASP:HB3	2.03	0.41
3:AC:154:SER:HB3	3:AC:165:THR:HA	2.03	0.41
4:AD:20:PHE:CE2	4:AD:103:TYR:CD2	3.08	0.41
4:AD:98:LEU:HD13	4:AD:130:VAL:HG11	2.03	0.41
5:AE:31:PHE:CD1	5:AE:31:PHE:N	2.88	0.41
5:AE:83:HIS:ND1	5:AE:84:PRO:O	2.54	0.41
5:AE:95:PHE:CZ	5:AE:97:GLN:HG2	2.55	0.41
6:AF:4:TYR:CD2	6:AF:5:GLU:C	2.99	0.41
8:AH:13:ARG:CZ	8:AH:27:MET:HB2	2.51	0.41
8:AH:40:LEU:O	8:AH:44:GLY:CA	2.69	0.41
8:AH:48:ASP:CG	8:AH:49:PHE:N	2.79	0.41
9:AI:49:ARG:O	9:AI:51:PRO:N	2.53	0.41
10:AJ:10:LEU:O	10:AJ:11:LYS:CB	2.69	0.41
10:AJ:64:GLN:O	14:AN:98:LYS:HA	2.21	0.41
11:AK:28:ASN:O	11:AK:57:LYS:CE	2.68	0.41
12:AL:51:LYS:HE3	12:AL:51:LYS:HB2	1.89	0.41
13:AM:31:LYS:HD2	13:AM:35:ALA:HB2	2.03	0.41
14:AN:12:ARG:CZ	14:AN:59:ARG:NH1	2.84	0.41
14:AN:25:GLU:CD	14:AN:26:LEU:N	2.79	0.41
15:AO:89:ARG:NH1	24:BA:716:A:OP2	2.53	0.41
21:AU:26:ALA:HB3	23:AX:5:A:P	2.61	0.41
22:AV:8:U:H1'	22:AV:48:C:O2	2.21	0.41
24:BA:217:A:H2'	24:BA:218:A:O4'	2.21	0.41
24:BA:227:A:H4'	24:BA:228:C:OP1	2.20	0.41
24:BA:232:G:H4'	24:BA:233:A:OP1	2.20	0.41
24:BA:392:U:C2	24:BA:393:C:C5	3.09	0.41
24:BA:448:U:O2	24:BA:448:U:C2'	2.69	0.41
24:BA:483:A:C2'	24:BA:484:C:O5'	2.67	0.41
24:BA:657:U:H2'	24:BA:658:U:H6	1.79	0.41
24:BA:671:C:C2	24:BA:672:C:C5	3.09	0.41
24:BA:729:G:P	26:BC:206:LYS:HE3	2.61	0.41
24:BA:734:A:C5	24:BA:735:A:C8	3.09	0.41
24:BA:827:U:OP1	24:BA:2429:G:OP2	2.39	0.41
24:BA:840:C:H4'	24:BA:1192:G:O2'	2.21	0.41
24:BA:882:G:O6	24:BA:894:U:O2	2.39	0.41
24:BA:1069:A:N6	24:BA:1074:G:N3	2.68	0.41
24:BA:1091:G:C2	24:BA:1092:C:N4	2.90	0.41
24:BA:1361:G:H2'	24:BA:1362:C:C6	2.56	0.41
24:BA:1408:G:C2	24:BA:1595:C:O2	2.74	0.41
24:BA:1434:A:OP1	24:BA:1434:A:H4'	2.20	0.41
24:BA:1449:G:N2	24:BA:1463:C:O2	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1865:U:C5	24:BA:1875:G:N1	2.88	0.41
24:BA:1914:C:O2	24:BA:1914:C:O4'	2.38	0.41
24:BA:1973:G:H2'	24:BA:1974:C:O4'	2.21	0.41
24:BA:1979:U:C2'	24:BA:1980:G:H5'	2.51	0.41
24:BA:2344:U:C2	51:B1:35:LEU:HD22	2.56	0.41
24:BA:2553:G:H2'	24:BA:2554:U:O4'	2.21	0.41
24:BA:2581:G:C5	24:BA:2610:C:C4	3.09	0.41
24:BA:2583:G:H2'	24:BA:2584:U:O4'	2.20	0.41
24:BA:2627:G:H2'	24:BA:2781:A:C2	2.56	0.41
24:BA:2628:C:H1'	24:BA:2781:A:N3	2.36	0.41
24:BA:2816:G:C4	24:BA:2831:G:N2	2.89	0.41
25:BB:73:A:C4	25:BB:74:U:C6	3.09	0.41
26:BC:141:HIS:CE1	26:BC:190:THR:HG23	2.56	0.41
26:BC:152:GLN:C	26:BC:153:LEU:HD23	2.46	0.41
28:BE:156:ASN:O	28:BE:157:LEU:C	2.63	0.41
30:BG:120:ILE:HD13	30:BG:134:GLY:HA3	2.02	0.41
31:BH:129:GLU:C	31:BH:130:VAL:HG12	2.46	0.41
31:BH:129:GLU:HG2	31:BH:130:VAL:N	2.36	0.41
33:BJ:65:THR:HG22	33:BJ:68:LYS:HZ2	1.83	0.41
34:BK:103:VAL:HG22	34:BK:107:LEU:CD1	2.51	0.41
37:BN:29:VAL:CG1	37:BN:75:ILE:HG23	2.51	0.41
40:BQ:7:VAL:O	40:BQ:8:ILE:C	2.64	0.41
45:BV:30:ILE:HB	45:BV:38:LEU:HD12	2.03	0.41
45:BV:52:ALA:O	45:BV:53:LYS:CB	2.68	0.41
47:BX:4:CYS:O	47:BX:6:VAL:N	2.54	0.41
48:BY:5:GLU:C	48:BY:7:ARG:N	2.79	0.41
48:BY:9:LYS:O	48:BY:12:GLU:HB2	2.20	0.41
49:BZ:8:GLN:CD	49:BZ:30:ARG:O	2.64	0.41
49:BZ:19:HIS:O	49:BZ:22:THR:HB	2.20	0.41
49:BZ:25:GLY:C	49:BZ:46:MET:HE1	2.46	0.41
52:B2:10:LEU:HD21	52:B2:14:ARG:CZ	2.50	0.41
53:B3:7:ARG:O	53:B3:10:ALA:HB3	2.21	0.41
1:CA:261:U:C5	20:CT:74:ARG:CZ	3.03	0.41
1:CA:295:C:H2'	1:CA:296:U:O4'	2.21	0.41
1:CA:383:A:H5"	1:CA:384:G:OP2	2.20	0.41
1:CA:419:C:C2	1:CA:420:U:C6	3.08	0.41
1:CA:428:G:C1'	1:CA:430:A:C8	3.03	0.41
1:CA:577:G:C8	1:CA:816:A:N1	2.89	0.41
1:CA:597:G:H1'	17:CQ:28:PHE:CZ	2.55	0.41
1:CA:702:A:H3'	1:CA:703:G:H8	1.85	0.41
1:CA:702:A:O5'	1:CA:703:G:N7	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:803:G:OP1	59:CA:1801:HOH:O	2.21	0.41
1:CA:926:G:C6	1:CA:1505:G:C5	3.08	0.41
1:CA:1067:A:H4'	1:CA:1068:G:O5'	2.19	0.41
1:CA:1243:C:O2	1:CA:1243:C:C3'	2.68	0.41
1:CA:1261:A:C6	1:CA:1275:A:N9	2.89	0.41
1:CA:1281:C:HO2'	1:CA:1282:C:H6	1.59	0.41
1:CA:1494:G:C2'	1:CA:1495:U:H5'	2.51	0.41
2:CB:47:VAL:HG22	2:CB:48:PRO:CD	2.51	0.41
2:CB:90:PHE:CD2	2:CB:150:GLY:C	2.99	0.41
2:CB:114:LEU:CD1	2:CB:144:LEU:CD1	2.99	0.41
2:CB:133:GLU:O	2:CB:134:ALA:O	2.39	0.41
2:CB:152:LYS:CG	2:CB:153:ASP:N	2.80	0.41
4:CD:15:GLU:CD	4:CD:15:GLU:N	2.79	0.41
4:CD:29:ASP:O	4:CD:31:LYS:CE	2.69	0.41
6:CF:32:ALA:O	6:CF:34:GLY:N	2.54	0.41
10:CJ:81:GLU:OE1	10:CJ:84:VAL:HG21	2.21	0.41
11:CK:87:LYS:HE2	11:CK:113:VAL:HB	2.03	0.41
12:CL:56:ARG:CG	12:CL:57:LEU:N	2.83	0.41
12:CL:86:ARG:CG	12:CL:87:VAL:N	2.84	0.41
12:CL:104:CYS:SG	12:CL:105:SER:N	2.94	0.41
14:CN:35:ALA:CB	14:CN:41:ARG:HB3	2.50	0.41
14:CN:48:LEU:O	14:CN:49:GLN:CB	2.68	0.41
18:CR:45:THR:HG23	18:CR:46:GLY:N	2.36	0.41
22:CV:30:G:O5'	22:CV:30:G:H8	2.04	0.41
55:CY:85:SER:O	55:CY:87:LEU:HG	2.20	0.41
55:CY:109:ARG:O	55:CY:113:LEU:HB3	2.21	0.41
55:CY:128:VAL:C	55:CY:130:ASN:H	2.29	0.41
24:DA:38:A:O2'	28:DE:44:ARG:N	2.54	0.41
24:DA:64:A:OP1	43:DT:77:ARG:CD	2.69	0.41
24:DA:217:A:N6	24:DA:218:A:C6	2.89	0.41
24:DA:335:C:N3	24:DA:336:C:C5	2.89	0.41
24:DA:570:G:H2'	24:DA:2030:A:C8	2.55	0.41
24:DA:607:U:C2'	24:DA:608:A:H5'	2.51	0.41
24:DA:751:A:C6	24:DA:789:A:C5	3.08	0.41
24:DA:752:A:H62	24:DA:2609:U:H3	1.68	0.41
24:DA:805:G:OP2	35:DL:41:ARG:CG	2.68	0.41
24:DA:856:G:N2	24:DA:922:C:C2	2.89	0.41
24:DA:1249:U:H4'	40:DQ:3:VAL:HG22	2.03	0.41
24:DA:1250:G:H5"	40:DQ:5:ARG:HD3	2.02	0.41
24:DA:1315:C:C2	24:DA:1338:G:C2	3.08	0.41
24:DA:1561:C:C2'	24:DA:1562:U:H5'	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1659:G:C4	24:DA:2002:G:C2	3.09	0.41
24:DA:1705:A:N6	24:DA:1706:C:N4	2.69	0.41
24:DA:1842:G:C2	24:DA:1843:C:C2	3.08	0.41
24:DA:2014:A:H2'	24:DA:2015:A:N7	2.35	0.41
24:DA:2543:G:H2'	24:DA:2544:G:C8	2.55	0.41
25:DB:53:A:C2	25:DB:54:G:C4	3.10	0.41
26:DC:12:ARG:O	26:DC:12:ARG:HD3	2.21	0.41
26:DC:129:LEU:HB2	26:DC:134:ILE:CD1	2.51	0.41
26:DC:134:ILE:HA	26:DC:135:PRO:HD3	1.86	0.41
28:DE:138:LEU:HD23	28:DE:143:LEU:HD12	2.02	0.41
28:DE:162:ARG:HE	28:DE:162:ARG:N	2.19	0.41
29:DF:45:ASP:N	29:DF:48:LEU:HD21	2.36	0.41
29:DF:131:VAL:C	29:DF:133:GLU:H	2.29	0.41
30:DG:35:THR:HG22	30:DG:36:LEU:N	2.36	0.41
31:DH:41:LYS:O	31:DH:42:LYS:C	2.64	0.41
31:DH:88:GLY:HA3	31:DH:125:THR:OG1	2.21	0.41
33:DJ:4:PHE:CE2	33:DJ:6:ALA:HB2	2.56	0.41
33:DJ:93:ILE:CG2	33:DJ:97:PRO:HB3	2.51	0.41
33:DJ:130:HIS:CD2	33:DJ:130:HIS:C	2.99	0.41
35:DL:132:ARG:O	35:DL:133:ALA:C	2.64	0.41
37:DN:117:ASP:CG	37:DN:118:ARG:N	2.79	0.41
39:DP:112:ARG:O	39:DP:113:LEU:CG	2.69	0.41
41:DR:38:VAL:HG11	41:DR:57:GLY:O	2.21	0.41
42:DS:3:THR:C	42:DS:4:ILE:CG2	2.94	0.41
42:DS:24:ILE:O	42:DS:26:GLY:N	2.53	0.41
42:DS:51:LEU:C	42:DS:53:SER:H	2.28	0.41
42:DS:105:VAL:O	42:DS:105:VAL:HG13	2.19	0.41
45:DV:31:TYR:HB3	45:DV:37:PRO:HB3	2.03	0.41
48:DY:23:ARG:HA	48:DY:23:ARG:NE	2.37	0.41
53:D3:7:ARG:HE	53:D3:7:ARG:HA	1.86	0.41
1:AA:127:G:C6	1:AA:128:G:C5	3.09	0.40
1:AA:361:G:H3'	1:AA:361:G:C8	2.56	0.40
1:AA:364:A:C2	1:AA:365:U:O4	2.74	0.40
1:AA:412:A:H3'	1:AA:413:G:C5'	2.52	0.40
1:AA:501:C:C6	1:AA:501:C:H3'	2.56	0.40
1:AA:600:A:C6	1:AA:639:G:C6	3.09	0.40
1:AA:626:G:H2'	1:AA:627:G:C8	2.56	0.40
1:AA:633:G:H2'	1:AA:634:C:C6	2.54	0.40
1:AA:689:C:OP1	11:AK:48:GLY:HA3	2.21	0.40
1:AA:772:U:O2'	1:AA:773:G:H5'	2.21	0.40
1:AA:949:A:C4	1:AA:950:U:C6	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1057:G:C5'	3:AC:154:SER:O	2.69	0.40
1:AA:1160:G:N7	1:AA:1161:C:C4	2.89	0.40
1:AA:1346:A:O4'	1:AA:1348:U:N1	2.54	0.40
1:AA:1409:C:C4	1:AA:1410:A:N7	2.89	0.40
1:AA:1436:U:H2'	1:AA:1437:A:H8	1.83	0.40
1:AA:1473:G:O2'	1:AA:1474:U:H5'	2.22	0.40
2:AB:47:VAL:O	2:AB:48:PRO:C	2.64	0.40
2:AB:101:LEU:C	2:AB:103:ASN:N	2.78	0.40
2:AB:177:ASN:N	2:AB:177:ASN:OD1	2.54	0.40
3:AC:106:VAL:O	3:AC:106:VAL:HG22	2.21	0.40
3:AC:139:GLN:HG3	3:AC:143:ARG:HG3	2.02	0.40
3:AC:206:GLU:N	3:AC:206:GLU:OE1	2.54	0.40
4:AD:62:ARG:HG3	4:AD:72:PHE:CD1	2.56	0.40
4:AD:135:TYR:CE1	4:AD:136:GLN:O	2.74	0.40
5:AE:107:ALA:CB	5:AE:125:ALA:HB3	2.51	0.40
8:AH:83:LEU:HD13	8:AH:84:ARG:O	2.21	0.40
10:AJ:15:HIS:ND1	10:AJ:16:ARG:N	2.69	0.40
12:AL:43:LYS:C	12:AL:44:LYS:CG	2.94	0.40
14:AN:7:ALA:O	14:AN:11:LYS:HG2	2.22	0.40
17:AQ:53:CYS:SG	17:AQ:54:GLY:N	2.94	0.40
20:AT:73:ALA:O	20:AT:77:ALA:HB2	2.21	0.40
20:AT:80:THR:O	20:AT:83:ILE:N	2.54	0.40
20:AT:80:THR:CA	20:AT:83:ILE:HG23	2.50	0.40
21:AU:14:VAL:O	21:AU:16:LEU:HD11	2.22	0.40
22:AV:38:A:N7	22:AV:39:U:C5	2.89	0.40
22:AV:74:C:N3	24:BA:2253:G:C2	2.89	0.40
24:BA:68:G:H2'	24:BA:69:C:O4'	2.21	0.40
24:BA:109:C:H2'	24:BA:110:G:O4'	2.21	0.40
24:BA:142:A:H2'	24:BA:143:C:O5'	2.20	0.40
24:BA:228:C:O2	24:BA:418:C:H4'	2.21	0.40
24:BA:433:C:C2	24:BA:434:U:C5	3.09	0.40
24:BA:509:C:O2'	24:BA:510:C:P	2.79	0.40
24:BA:616:A:H2'	24:BA:617:G:O5'	2.21	0.40
24:BA:667:U:O2	24:BA:667:U:C2'	2.68	0.40
24:BA:838:C:H2'	24:BA:839:U:O4'	2.22	0.40
24:BA:881:G:N2	24:BA:895:U:H1'	2.37	0.40
24:BA:942:G:O2'	24:BA:1189:A:H1'	2.20	0.40
24:BA:947:A:H2'	24:BA:948:C:C6	2.57	0.40
24:BA:1090:A:N6	24:BA:1102:C:C2	2.89	0.40
24:BA:1176:U:N3	24:BA:1177:G:C6	2.89	0.40
24:BA:1221:C:C4	24:BA:1222:U:C4	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1309:G:H4'	52:B2:7:PRO:HB2	2.03	0.40
24:BA:1362:C:H2'	24:BA:1363:C:H6	1.86	0.40
24:BA:1421:G:C2	24:BA:1422:G:C5	3.08	0.40
24:BA:1474:U:C4	24:BA:1475:G:N2	2.90	0.40
24:BA:1534:U:O2'	24:BA:1537:G:O6	2.39	0.40
24:BA:1564:C:C2	24:BA:1565:C:C5	3.09	0.40
24:BA:1744:A:C2	24:BA:1745:A:N9	2.89	0.40
24:BA:1773:A:C2'	24:BA:1774:C:H5'	2.51	0.40
24:BA:2019:A:C2'	24:BA:2020:A:O5'	2.70	0.40
24:BA:2146:C:H4'	24:BA:2147:A:C8	2.56	0.40
24:BA:2295:C:N3	24:BA:2296:U:C5	2.89	0.40
24:BA:2298:A:O3'	29:BF:71:LYS:HE3	2.22	0.40
24:BA:2412:A:H2'	24:BA:2413:G:H5'	2.02	0.40
24:BA:2420:C:OP1	53:B3:33:THR:HB	2.21	0.40
24:BA:2681:C:C4	24:BA:2724:U:C5	3.08	0.40
24:BA:2843:G:H2'	24:BA:2844:G:O4'	2.21	0.40
25:BB:7:G:O3'	38:BO:29:HIS:CE1	2.74	0.40
25:BB:114:C:H4'	38:BO:47:VAL:HG12	2.03	0.40
26:BC:14:HIS:O	26:BC:203:VAL:HG23	2.21	0.40
26:BC:24:HIS:CB	26:BC:81:GLU:CG	2.99	0.40
26:BC:71:ASP:HA	26:BC:117:SER:O	2.20	0.40
26:BC:124:LYS:O	26:BC:125:PRO:C	2.64	0.40
26:BC:124:LYS:HG2	26:BC:127:ASN:ND2	2.36	0.40
27:BD:159:LYS:HD2	27:BD:160:LYS:H	1.86	0.40
28:BE:72:SER:O	28:BE:74:LYS:N	2.54	0.40
29:BF:1:ALA:HB1	29:BF:4:HIS:CB	2.51	0.40
29:BF:3:LEU:HA	29:BF:6:TYR:CB	2.50	0.40
29:BF:68:LYS:HE2	29:BF:81:GLY:C	2.46	0.40
29:BF:121:PHE:CE2	29:BF:127:TYR:HB2	2.56	0.40
29:BF:141:ASP:O	29:BF:143:ASP:N	2.54	0.40
31:BH:117:LEU:HD13	31:BH:121:VAL:HG22	2.04	0.40
33:BJ:29:ALA:HB3	33:BJ:108:MET:CE	2.51	0.40
34:BK:79:PHE:CD1	34:BK:79:PHE:N	2.88	0.40
35:BL:123:ARG:O	35:BL:124:GLY:C	2.63	0.40
36:BM:18:ARG:HE	36:BM:18:ARG:CA	2.34	0.40
36:BM:49:ALA:CB	36:BM:124:LEU:HD21	2.51	0.40
36:BM:53:MET:HG3	36:BM:120:ALA:HB2	2.03	0.40
37:BN:28:LEU:O	37:BN:32:GLU:CA	2.69	0.40
37:BN:33:ILE:CD1	37:BN:114:GLU:HB3	2.50	0.40
37:BN:33:ILE:HG13	37:BN:118:ARG:NE	2.36	0.40
37:BN:75:ILE:O	37:BN:79:LEU:HB2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BN:90:ARG:HG2	37:BN:94:TYR:CD1	2.56	0.40
39:BP:38:ARG:CB	39:BP:38:ARG:HH21	2.34	0.40
40:BQ:9:ALA:O	40:BQ:10:ARG:C	2.65	0.40
40:BQ:42:GLY:O	40:BQ:45:ALA:HB3	2.20	0.40
43:BT:8:LEU:HD22	48:BY:21:LEU:CD2	2.51	0.40
44:BU:70:ALA:O	44:BU:71:ILE:C	2.64	0.40
44:BU:95:PHE:CZ	44:BU:102:ILE:CD1	3.04	0.40
45:BV:89:ILE:CG2	45:BV:90:ASP:N	2.84	0.40
47:BX:31:ASN:O	47:BX:32:LEU:C	2.64	0.40
49:BZ:28:LEU:HD12	49:BZ:28:LEU:N	2.36	0.40
49:BZ:44:ARG:O	49:BZ:47:ILE:HG13	2.21	0.40
1:CA:58:C:C2'	1:CA:388:G:N7	2.84	0.40
1:CA:288:A:H2'	1:CA:289:G:H4'	2.03	0.40
1:CA:404:G:C4	1:CA:405:U:C5	3.09	0.40
1:CA:444:G:C5	1:CA:491:G:N1	2.88	0.40
1:CA:453:G:C5	1:CA:454:G:N7	2.89	0.40
1:CA:532:A:H4'	1:CA:533:A:OP2	2.21	0.40
1:CA:560:A:H5'	1:CA:566:G:N2	2.36	0.40
1:CA:626:G:N1	1:CA:627:G:C6	2.89	0.40
1:CA:1099:G:C6	1:CA:1100:C:O2	2.74	0.40
1:CA:1145:A:C1'	1:CA:1146:A:OP2	2.69	0.40
1:CA:1246:A:C2	1:CA:1292:G:N1	2.90	0.40
1:CA:1257:A:H4'	1:CA:1258:G:OP2	2.21	0.40
1:CA:1334:G:H3'	1:CA:1335:U:H5'	2.03	0.40
2:CB:47:VAL:C	2:CB:49:MET:N	2.78	0.40
2:CB:131:LYS:HE3	2:CB:131:LYS:HA	2.01	0.40
4:CD:78:GLU:HA	4:CD:81:ARG:CB	2.51	0.40
4:CD:87:GLY:O	4:CD:90:LEU:CD1	2.68	0.40
4:CD:168:PRO:HG2	4:CD:171:LEU:HD12	2.03	0.40
5:CE:152:MET:O	5:CE:156:LYS:HB3	2.21	0.40
6:CF:22:ILE:O	6:CF:23:GLU:C	2.62	0.40
6:CF:27:ALA:O	6:CF:30:THR:HG22	2.21	0.40
7:CG:16:PRO:HD2	7:CG:44:TYR:OH	2.21	0.40
8:CH:36:ILE:HG13	8:CH:37:ALA:N	2.36	0.40
10:CJ:6:ILE:O	10:CJ:76:ILE:HG23	2.20	0.40
10:CJ:6:ILE:HD13	10:CJ:6:ILE:HA	1.95	0.40
10:CJ:22:THR:C	10:CJ:24:GLU:N	2.78	0.40
11:CK:24:HIS:C	11:CK:26:SER:N	2.79	0.40
11:CK:51:GLY:O	11:CK:52:PHE:O	2.38	0.40
11:CK:61:PHE:O	11:CK:62:ALA:C	2.64	0.40
11:CK:84:VAL:HG12	11:CK:110:ILE:HG22	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:96:THR:OG1	11:CK:97:ILE:N	2.54	0.40
12:CL:51:LYS:N	12:CL:51:LYS:CD	2.80	0.40
15:CO:36:ILE:HD11	15:CO:60:VAL:HG22	2.02	0.40
16:CP:44:SER:C	16:CP:46:LYS:H	2.29	0.40
17:CQ:31:HIS:N	17:CQ:36:LYS:O	2.54	0.40
18:CR:60:LYS:HA	18:CR:63:ARG:CD	2.51	0.40
19:CS:20:GLU:HA	19:CS:23:VAL:HG22	2.04	0.40
20:CT:81:ALA:O	20:CT:85:LYS:HG3	2.21	0.40
21:CU:8:GLU:HG3	21:CU:16:LEU:CD1	2.48	0.40
22:CV:6:G:N2	22:CV:68:C:C2	2.89	0.40
22:CV:13:C:H2'	22:CV:14:A:H5'	2.01	0.40
22:CV:67:C:N4	22:CV:68:C:N4	2.68	0.40
55:CY:20:PHE:HB2	55:CY:124:ALA:CB	2.50	0.40
24:DA:49:A:H5"	24:DA:51:G:O4'	2.21	0.40
24:DA:275:C:H2'	24:DA:276:U:H4'	2.03	0.40
24:DA:283:G:C2'	24:DA:284:U:H5'	2.51	0.40
24:DA:416:U:H2'	24:DA:417:C:C6	2.57	0.40
24:DA:447:A:OP2	59:DA:3210:HOH:O	2.21	0.40
24:DA:675:A:H4'	28:DE:62:GLN:OE1	2.21	0.40
24:DA:708:G:N2	24:DA:724:U:H1'	2.37	0.40
24:DA:785:G:C6	24:DA:786:C:C4	3.09	0.40
24:DA:1082:U:OP1	32:DI:123:ALA:HB3	2.21	0.40
24:DA:1428:C:C5	24:DA:1569:A:H5'	2.57	0.40
24:DA:1459:G:C6	24:DA:1461:C:C4	3.09	0.40
24:DA:1486:U:H2'	24:DA:1487:U:C6	2.56	0.40
24:DA:1878:G:C5	24:DA:1879:C:C4	3.09	0.40
24:DA:1878:G:C2	24:DA:1879:C:C2	3.09	0.40
24:DA:1918:A:O2'	24:DA:1920:C:C4	2.74	0.40
24:DA:2112:G:H2'	24:DA:2112:G:N3	2.36	0.40
24:DA:2129:C:H3'	24:DA:2130:U:C5'	2.51	0.40
24:DA:2330:G:C2'	46:DW:44:LYS:NZ	2.78	0.40
24:DA:2522:U:C2'	24:DA:2523:G:H5'	2.51	0.40
24:DA:2531:A:OP1	30:DG:174:LYS:HE2	2.21	0.40
24:DA:2572:A:C8	27:DD:149:ASN:CG	2.99	0.40
24:DA:2689:U:C2	24:DA:2713:U:C6	3.09	0.40
24:DA:2749:A:N6	24:DA:2750:A:C6	2.89	0.40
24:DA:2829:A:C6	24:DA:2830:C:C4	3.09	0.40
26:DC:152:GLN:C	26:DC:153:LEU:HD12	2.46	0.40
26:DC:244:VAL:HA	26:DC:251:THR:H	1.86	0.40
26:DC:259:ASN:CG	26:DC:262:THR:OG1	2.57	0.40
28:DE:48:THR:HG22	28:DE:51:GLU:HG2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:137:LYS:HD2	28:DE:141:MET:HE1	2.02	0.40
29:DF:73:VAL:C	29:DF:75:GLY:N	2.80	0.40
31:DH:29:PHE:CD2	31:DH:30:LEU:HD12	2.56	0.40
33:DJ:48:VAL:CG1	33:DJ:50:THR:HG23	2.50	0.40
34:DK:97:THR:O	34:DK:97:THR:HG23	2.21	0.40
34:DK:114:LYS:N	34:DK:114:LYS:HD2	2.36	0.40
36:DM:73:ILE:HG21	36:DM:91:TYR:CZ	2.56	0.40
37:DN:26:GLY:CA	37:DN:75:ILE:HD11	2.47	0.40
37:DN:48:VAL:HG12	37:DN:52:ILE:CD1	2.51	0.40
37:DN:53:THR:HA	37:DN:56:LYS:HD2	2.03	0.40
38:DO:41:ALA:C	38:DO:43:ASN:H	2.28	0.40
41:DR:96:VAL:O	41:DR:96:VAL:HG23	2.21	0.40
43:DT:37:ASP:CG	43:DT:38:ALA:N	2.79	0.40
46:DW:51:VAL:O	46:DW:51:VAL:HG22	2.19	0.40
51:D1:24:LYS:HD2	51:D1:51:ALA:HB1	2.02	0.40
52:D2:3:ARG:NH1	52:D2:4:THR:HG22	2.37	0.40
53:D3:16:THR:HG22	53:D3:19:GLY:H	1.84	0.40
54:D4:10:LEU:CD1	54:D4:33:HIS:CE1	3.03	0.40
1:AA:49:U:C5	1:AA:364:A:C6	3.09	0.40
1:AA:87:C:H2'	1:AA:88:U:C6	2.56	0.40
1:AA:226:G:O2'	1:AA:227:G:H5'	2.21	0.40
1:AA:276:G:C6	1:AA:277:C:C5	3.09	0.40
1:AA:448:A:N7	1:AA:486:U:N3	2.69	0.40
1:AA:778:G:C6	1:AA:779:C:C4	3.10	0.40
1:AA:810:C:O2	1:AA:899:C:N4	2.54	0.40
1:AA:890:G:O2'	1:AA:906:A:N6	2.54	0.40
1:AA:976:G:H5'	1:AA:977:A:OP1	2.21	0.40
1:AA:1007:U:OP1	14:AN:18:LYS:CE	2.69	0.40
1:AA:1072:G:H22	1:AA:1104:G:H1'	1.87	0.40
1:AA:1103:C:H5"	2:AB:97:LEU:HD23	2.03	0.40
1:AA:1113:C:O2	1:AA:1113:C:H2'	2.20	0.40
1:AA:1195:C:C2	1:AA:1197:A:C8	3.09	0.40
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.56	0.40
1:AA:1494:G:OP2	24:BA:1913:A:N6	2.54	0.40
2:AB:28:LYS:N	2:AB:29:PRO:CD	2.83	0.40
3:AC:42:TYR:CZ	3:AC:46:GLU:OE1	2.74	0.40
4:AD:51:TYR:O	4:AD:54:GLN:HG2	2.20	0.40
4:AD:91:LEU:HD23	4:AD:94:LEU:HD12	2.03	0.40
4:AD:142:VAL:O	4:AD:180:GLY:O	2.38	0.40
5:AE:111:MET:HE1	5:AE:125:ALA:HB1	2.03	0.40
6:AF:4:TYR:CE2	6:AF:6:ILE:HG12	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:65:ALA:HB1	7:AG:127:ALA:HB3	2.02	0.40
12:AL:85:GLY:C	12:AL:86:ARG:O	2.65	0.40
13:AM:71:ARG:O	13:AM:72:GLU:C	2.64	0.40
15:AO:31:LEU:HD12	15:AO:31:LEU:C	2.46	0.40
17:AQ:50:ASN:O	17:AQ:50:ASN:CG	2.62	0.40
19:AS:13:LEU:HA	19:AS:16:LEU:HD23	2.02	0.40
19:AS:20:GLU:HA	19:AS:23:VAL:CG1	2.51	0.40
19:AS:22:ALA:HB1	19:AS:27:ASP:HA	2.01	0.40
20:AT:37:ALA:O	20:AT:40:GLU:N	2.54	0.40
21:AU:25:LYS:O	21:AU:26:ALA:C	2.65	0.40
21:AU:29:LEU:O	21:AU:30:ALA:C	2.65	0.40
22:AV:39:U:H2'	22:AV:40:C:H6	1.86	0.40
24:BA:121:G:C4'	24:BA:149:A:H5'	2.46	0.40
24:BA:230:G:O2'	24:BA:231:A:H5'	2.21	0.40
24:BA:301:G:H4'	24:BA:301:G:OP1	2.20	0.40
24:BA:301:G:C4	24:BA:302:C:C5	3.09	0.40
24:BA:493:G:H2'	24:BA:494:G:O4'	2.21	0.40
24:BA:538:A:OP2	57:BA:3166:NMY:H171	2.21	0.40
24:BA:753:A:H2'	24:BA:754:U:H6	1.85	0.40
24:BA:848:C:O2	24:BA:933:A:C2	2.74	0.40
24:BA:974:G:C4	24:BA:1186:G:C2	3.09	0.40
24:BA:982:C:H5"	24:BA:983:A:P	2.61	0.40
24:BA:1055:G:O6	24:BA:1056:G:C6	2.74	0.40
24:BA:1062:G:C2	24:BA:1063:G:N1	2.89	0.40
24:BA:1145:C:H2'	24:BA:1146:C:O5'	2.21	0.40
24:BA:1324:G:C2	24:BA:1328:A:N6	2.89	0.40
24:BA:1346:G:C6	24:BA:1601:G:C6	3.10	0.40
24:BA:1422:G:C2	24:BA:1423:G:N9	2.89	0.40
24:BA:1456:G:C5	24:BA:1457:U:C5	3.09	0.40
24:BA:1474:U:C4	24:BA:1475:G:N1	2.88	0.40
24:BA:1747:U:H2'	24:BA:1748:C:H6	1.85	0.40
24:BA:1950:G:N7	24:BA:1951:U:C5	2.89	0.40
24:BA:2127:G:O3'	24:BA:2128:G:O4'	2.39	0.40
24:BA:2284:A:H2'	24:BA:2285:C:O5'	2.20	0.40
24:BA:2328:A:H61	24:BA:2386:A:N6	2.19	0.40
24:BA:2415:G:N3	24:BA:2415:G:H2'	2.36	0.40
24:BA:2466:C:H5"	54:B4:6:SER:HB3	2.02	0.40
24:BA:2511:U:C5	24:BA:2512:C:C5	3.09	0.40
24:BA:2783:U:C2	24:BA:2784:U:C5	3.09	0.40
24:BA:2799:A:C6	24:BA:2801:G:C6	3.09	0.40
29:BF:3:LEU:HD13	29:BF:172:PHE:CE2	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BF:100:GLU:O	29:BF:103:ILE:HG23	2.21	0.40
33:BJ:59:ALA:O	33:BJ:62:VAL:HG13	2.21	0.40
34:BK:1:MET:HE3	34:BK:32:TYR:CE2	2.55	0.40
34:BK:25:LEU:HD12	34:BK:39:ILE:C	2.46	0.40
34:BK:102:PRO:HB3	34:BK:121:GLU:HB3	2.03	0.40
35:BL:91:ASP:OD1	35:BL:94:THR:HB	2.21	0.40
36:BM:69:PRO:HB3	36:BM:94:ALA:N	2.36	0.40
36:BM:121:ALA:HB1	36:BM:128:THR:HG21	2.03	0.40
37:BN:8:ARG:HB2	37:BN:43:GLU:CD	2.46	0.40
37:BN:98:LEU:O	37:BN:112:TYR:HB2	2.22	0.40
40:BQ:77:LYS:C	40:BQ:79:ILE:N	2.78	0.40
40:BQ:78:PHE:CE1	40:BQ:82:LEU:HD11	2.57	0.40
42:BS:42:LYS:C	42:BS:44:ALA:N	2.79	0.40
45:BV:44:HIS:CE1	45:BV:85:LYS:HG3	2.56	0.40
47:BX:62:GLY:C	47:BX:64:ASP:N	2.78	0.40
49:BZ:22:THR:HG23	49:BZ:46:MET:HG2	2.03	0.40
52:B2:16:HIS:HB2	52:B2:21:ARG:HH12	1.86	0.40
1:CA:65:A:C5	1:CA:381:C:C5	3.09	0.40
1:CA:100:G:H2'	1:CA:101:A:O5'	2.21	0.40
1:CA:146:G:C2	1:CA:177:G:C8	3.09	0.40
1:CA:198:G:C2	1:CA:199:A:C8	3.09	0.40
1:CA:255:G:O2'	1:CA:256:U:H5'	2.21	0.40
1:CA:342:C:C2	1:CA:348:G:N2	2.89	0.40
1:CA:539:A:N6	1:CA:540:G:O6	2.54	0.40
1:CA:560:A:N7	1:CA:566:G:C4	2.89	0.40
1:CA:631:C:C5'	1:CA:632:U:H5'	2.50	0.40
1:CA:704:A:N6	1:CA:705:G:C6	2.88	0.40
1:CA:760:G:C8	1:CA:761:G:N7	2.89	0.40
1:CA:1053:G:H4'	1:CA:1055:A:OP1	2.20	0.40
1:CA:1154:G:H2'	1:CA:1154:G:N3	2.35	0.40
1:CA:1262:C:C4	1:CA:1263:C:N4	2.90	0.40
1:CA:1317:C:OP1	14:CN:57:PRO:HD2	2.22	0.40
1:CA:1343:G:H4'	9:CI:124:ARG:HG2	2.03	0.40
2:CB:107:VAL:O	2:CB:109:GLN:N	2.54	0.40
4:CD:55:LEU:HD13	4:CD:55:LEU:C	2.46	0.40
6:CF:57:ALA:O	6:CF:58:HIS:O	2.39	0.40
6:CF:61:LEU:HG	6:CF:62:MET:H	1.86	0.40
7:CG:114:LYS:HG3	7:CG:118:LEU:HD23	2.04	0.40
9:CI:76:ALA:C	9:CI:78:ALA:N	2.76	0.40
11:CK:32:VAL:O	11:CK:33:THR:HG23	2.21	0.40
12:CL:44:LYS:C	12:CL:46:ASN:H	2.29	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:19:LEU:HD12	13:CM:20:THR:N	2.36	0.40
15:CO:46:HIS:O	15:CO:48:LYS:N	2.48	0.40
16:CP:28:ARG:NH2	16:CP:29:ASN:OD1	2.54	0.40
18:CR:39:ILE:HG22	18:CR:40:VAL:N	2.35	0.40
18:CR:52:GLN:OE1	18:CR:52:GLN:HA	2.21	0.40
55:CY:28:ARG:NH2	55:CY:102:LEU:C	2.79	0.40
24:DA:452:G:N1	24:DA:453:A:C2	2.89	0.40
24:DA:460:A:C2	24:DA:470:A:C4	3.09	0.40
24:DA:666:A:H2'	24:DA:667:U:H6	1.86	0.40
24:DA:704:G:N2	24:DA:726:G:N3	2.69	0.40
24:DA:885:C:O2	24:DA:885:C:O4'	2.37	0.40
24:DA:1022:G:C5	24:DA:1140:C:N4	2.89	0.40
24:DA:1022:G:C6	24:DA:1141:U:C5	3.09	0.40
24:DA:1082:U:P	32:DI:123:ALA:HB1	2.61	0.40
24:DA:1094:U:C2	24:DA:1096:A:OP2	2.73	0.40
24:DA:1131:G:C8	33:DJ:77:HIS:CE1	3.09	0.40
24:DA:1356:G:C6	24:DA:1357:C:N3	2.89	0.40
24:DA:1922:G:O6	24:DA:1923:U:C4	2.75	0.40
24:DA:1933:G:O2'	24:DA:1974:C:H4'	2.21	0.40
24:DA:1936:A:H2	24:DA:1943:U:C4	2.38	0.40
24:DA:2063:C:C4	24:DA:2064:C:C5	3.09	0.40
24:DA:2298:A:N3	24:DA:2321:U:C5	2.89	0.40
24:DA:2519:U:N3	24:DA:2541:A:C2	2.89	0.40
25:DB:93:C:H2'	25:DB:94:A:C8	2.56	0.40
26:DC:125:PRO:HA	26:DC:191:LEU:O	2.20	0.40
26:DC:154:ALA:HA	26:DC:159:THR:HG23	2.02	0.40
28:DE:161:ALA:N	28:DE:162:ARG:NE	2.67	0.40
30:DG:140:ILE:HG23	30:DG:141:GLY:H	1.86	0.40
31:DH:25:TYR:CD1	31:DH:30:LEU:HD13	2.57	0.40
39:DP:12:MET:O	39:DP:13:LYS:C	2.64	0.40
41:DR:14:VAL:HA	41:DR:18:GLN:OE1	2.20	0.40
45:DV:81:PRO:C	45:DV:82:TYR:HD1	2.29	0.40
47:DX:53:LYS:O	47:DX:54:GLY:C	2.65	0.40
52:D2:1:MET:H3	52:D2:1:MET:HE3	1.87	0.40
1:AA:20:U:H2'	1:AA:21:G:H5'	2.02	0.40
1:AA:37:U:O2'	1:AA:547:A:N1	2.40	0.40
1:AA:97:G:C5	1:AA:98:A:H1'	2.56	0.40
1:AA:100:G:N7	1:AA:101:A:C5	2.89	0.40
1:AA:142:G:C2	1:AA:143:A:H1'	2.57	0.40
1:AA:154:U:C2	1:AA:168:G:N2	2.89	0.40
1:AA:401:C:O2	1:AA:402:G:C8	2.74	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:407:U:OP1	4:AD:3:ARG:NH2	2.54	0.40
1:AA:425:G:H2'	1:AA:426:U:C5'	2.51	0.40
1:AA:778:G:C4	1:AA:779:C:C5	3.09	0.40
1:AA:906:A:O2'	1:AA:907:A:O4'	2.37	0.40
1:AA:909:A:HO2'	1:AA:1413:A:HO2'	1.56	0.40
1:AA:919:A:C2'	1:AA:920:U:O5'	2.69	0.40
1:AA:958:A:N1	1:AA:959:A:N1	2.70	0.40
1:AA:977:A:N6	1:AA:1224:U:O5'	2.55	0.40
1:AA:1153:G:H2'	1:AA:1154:G:O5'	2.20	0.40
1:AA:1202:U:H2'	1:AA:1203:C:H5'	2.02	0.40
1:AA:1241:G:C2	1:AA:1242:G:N7	2.89	0.40
1:AA:1415:G:C4	1:AA:1416:G:C8	3.10	0.40
1:AA:1424:U:C2	1:AA:1425:U:C6	3.10	0.40
1:AA:1425:U:C2'	1:AA:1426:G:H5'	2.52	0.40
2:AB:41:ILE:O	2:AB:42:ASN:O	2.39	0.40
3:AC:35:SER:C	3:AC:38:LYS:H	2.30	0.40
3:AC:67:THR:OG1	3:AC:102:ASN:CG	2.65	0.40
3:AC:77:ILE:HD12	3:AC:78:GLY:N	2.36	0.40
3:AC:116:VAL:HG12	3:AC:200:VAL:HG21	2.02	0.40
3:AC:132:ARG:C	3:AC:134:MET:H	2.29	0.40
4:AD:34:ILE:O	4:AD:35:GLU:C	2.64	0.40
4:AD:58:LYS:HA	4:AD:200:ILE:HD11	2.03	0.40
9:AI:11:ARG:HB3	9:AI:16:ALA:CB	2.52	0.40
9:AI:57:MET:SD	9:AI:58:VAL:CA	3.09	0.40
12:AL:4:VAL:O	12:AL:5:ASN:C	2.64	0.40
15:AO:70:LEU:CB	15:AO:78:TYR:HE1	2.33	0.40
20:AT:78:ASN:O	20:AT:80:THR:N	2.54	0.40
24:BA:116:C:C4	24:BA:117:G:C5	3.08	0.40
24:BA:170:U:C2'	24:BA:171:U:O5'	2.69	0.40
24:BA:262:A:H2	24:BA:430:A:N3	2.18	0.40
24:BA:340:A:N7	24:BA:341:C:C6	2.89	0.40
24:BA:417:C:O2'	24:BA:418:C:H5'	2.21	0.40
24:BA:483:A:H8	44:BU:44:HIS:CD2	2.39	0.40
24:BA:592:A:C5	24:BA:593:U:C4	3.09	0.40
24:BA:635:C:O2	24:BA:639:U:C5'	2.69	0.40
24:BA:741:U:C2	24:BA:757:G:N2	2.90	0.40
24:BA:877:A:C6	24:BA:899:A:C6	3.10	0.40
24:BA:932:U:O2	24:BA:933:A:C6	2.74	0.40
24:BA:1007:C:H4'	33:BJ:109:LEU:O	2.21	0.40
24:BA:1073:A:H2'	24:BA:1074:G:H5'	2.04	0.40
24:BA:1189:A:C2'	24:BA:1190:G:O5'	2.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1324:G:C4	24:BA:1328:A:N6	2.89	0.40
24:BA:1398:C:N4	24:BA:1399:C:N4	2.69	0.40
24:BA:1485:U:H2'	24:BA:1486:U:O4'	2.21	0.40
24:BA:1613:G:N2	59:BA:3313:HOH:O	2.53	0.40
24:BA:1804:C:H6	24:BA:1804:C:O5'	2.04	0.40
24:BA:1838:C:H4'	24:BA:1839:G:H8	1.85	0.40
24:BA:1875:G:O2'	24:BA:1876:A:H5'	2.22	0.40
24:BA:1963:U:H3'	24:BA:1963:U:H6	1.87	0.40
24:BA:2043:C:H2'	24:BA:2044:C:H6	1.86	0.40
24:BA:2091:C:H1'	47:BX:33:HIS:CD2	2.57	0.40
24:BA:2156:G:C6	24:BA:2157:G:N2	2.89	0.40
24:BA:2358:A:C2	24:BA:2359:C:H1'	2.55	0.40
24:BA:2392:A:OP2	53:B3:30:HIS:NE2	2.53	0.40
24:BA:2412:A:C5	24:BA:2413:G:C8	3.09	0.40
24:BA:2419:U:C6	53:B3:32:LEU:CD2	3.04	0.40
24:BA:2438:U:O3'	24:BA:2439:A:H3'	2.21	0.40
24:BA:2513:A:C5	24:BA:2514:U:C4	3.09	0.40
24:BA:2703:C:N3	24:BA:2704:C:C4	2.90	0.40
24:BA:2712:C:H2'	24:BA:2714:G:O3'	2.21	0.40
24:BA:2729:G:C5	24:BA:2730:C:C5	3.09	0.40
24:BA:2761:A:C5	24:BA:2762:C:C5	3.10	0.40
24:BA:2886:A:C5	24:BA:2887:A:N7	2.90	0.40
25:BB:6:G:N1	25:BB:7:G:C6	2.90	0.40
25:BB:96:G:C2'	25:BB:97:C:H5'	2.51	0.40
26:BC:66:PHE:O	26:BC:151:GLY:N	2.50	0.40
27:BD:124:ARG:HB3	27:BD:160:LYS:CE	2.52	0.40
29:BF:99:PHE:CD1	29:BF:99:PHE:C	2.95	0.40
29:BF:120:SER:CB	29:BF:127:TYR:CE1	3.02	0.40
30:BG:141:GLY:O	30:BG:145:ALA:CB	2.69	0.40
33:BJ:31:GLU:O	33:BJ:32:LEU:C	2.64	0.40
33:BJ:64:VAL:CG1	33:BJ:89:PHE:CZ	3.05	0.40
33:BJ:89:PHE:O	33:BJ:92:MET:HB2	2.22	0.40
34:BK:48:PRO:HB2	34:BK:49:ARG:NH1	2.36	0.40
36:BM:70:ASP:OD1	36:BM:70:ASP:N	2.45	0.40
37:BN:33:ILE:HD13	37:BN:114:GLU:HB3	2.04	0.40
37:BN:60:VAL:CG1	37:BN:61:ALA:N	2.82	0.40
37:BN:97:ILE:HD12	37:BN:98:LEU:N	2.36	0.40
37:BN:102:PHE:O	37:BN:102:PHE:CG	2.74	0.40
42:BS:17:VAL:CG2	42:BS:76:VAL:HG21	2.52	0.40
45:BV:11:GLU:O	45:BV:12:GLN:CB	2.68	0.40
45:BV:24:ASN:O	45:BV:44:HIS:HB3	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BV:32:GLY:HA3	45:BV:93:ARG:HG2	2.03	0.40
47:BX:29:LEU:HD23	47:BX:29:LEU:HA	1.82	0.40
49:BZ:9:THR:HG22	49:BZ:54:VAL:HA	2.03	0.40
49:BZ:26:LEU:CB	49:BZ:28:LEU:CD1	2.99	0.40
1:CA:198:G:C5	1:CA:220:G:C2	3.09	0.40
1:CA:310:G:OP1	16:CP:31:ARG:N	2.49	0.40
1:CA:466:A:C2'	1:CA:467:U:C5	3.03	0.40
1:CA:493:A:N3	1:CA:494:G:N1	2.69	0.40
1:CA:503:C:H6	1:CA:503:C:O5'	2.03	0.40
1:CA:636:U:H5"	17:CQ:6:ARG:CG	2.52	0.40
1:CA:673:A:N1	1:CA:674:G:C5	2.90	0.40
1:CA:788:U:O2	1:CA:788:U:H2'	2.20	0.40
1:CA:862:C:C5	1:CA:863:U:H5	2.38	0.40
1:CA:951:G:C4	1:CA:1231:G:C2	3.10	0.40
1:CA:1195:C:H5"	1:CA:1196:A:OP2	2.21	0.40
1:CA:1445:U:O2	1:CA:1458:G:C6	2.74	0.40
1:CA:1454:G:C2'	1:CA:1455:G:O5'	2.70	0.40
1:CA:1514:G:H2'	1:CA:1515:G:O5'	2.21	0.40
3:CC:73:PRO:HG3	3:CC:105:GLU:HB2	2.03	0.40
4:CD:125:VAL:HG23	4:CD:126:ASN:N	2.36	0.40
6:CF:46:GLN:CG	6:CF:47:LEU:N	2.85	0.40
7:CG:16:PRO:HG2	7:CG:44:TYR:CE2	2.56	0.40
7:CG:80:VAL:O	7:CG:81:GLY:C	2.63	0.40
8:CH:15:ARG:C	8:CH:17:GLY:N	2.79	0.40
8:CH:24:ALA:C	8:CH:25:VAL:HG22	2.46	0.40
8:CH:29:SER:HB3	8:CH:57:PRO:HB3	2.03	0.40
11:CK:111:THR:HA	21:CU:4:ILE:O	2.22	0.40
15:CO:21:ASP:O	15:CO:27:VAL:HG11	2.20	0.40
15:CO:64:ARG:O	15:CO:65:LYS:C	2.64	0.40
16:CP:47:GLU:OE1	16:CP:47:GLU:N	2.53	0.40
17:CQ:63:GLU:N	17:CQ:73:TRP:CE3	2.90	0.40
20:CT:6:SER:OG	20:CT:7:ALA:N	2.54	0.40
21:CU:28:VAL:O	21:CU:28:VAL:HG12	2.20	0.40
55:CY:175:LEU:HD23	55:CY:175:LEU:C	2.46	0.40
24:DA:79:C:C2	24:DA:80:G:C8	3.10	0.40
24:DA:310:A:P	44:DU:15:GLY:HA2	2.61	0.40
24:DA:324:A:H2'	24:DA:325:G:O4'	2.21	0.40
24:DA:381:G:C2'	24:DA:382:A:H5'	2.52	0.40
24:DA:394:C:N4	24:DA:395:U:O4	2.54	0.40
24:DA:528:A:H3'	24:DA:528:A:H8	1.86	0.40
24:DA:533:G:O5'	40:DQ:23:TYR:CD1	2.73	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:536:G:C2'	24:DA:537:G:H5'	2.51	0.40
24:DA:662:G:O3'	35:DL:16:GLY:HA2	2.22	0.40
24:DA:674:G:H5"	28:DE:71:GLY:HA3	2.02	0.40
24:DA:811:U:H2'	35:DL:21:ARG:HA	2.03	0.40
24:DA:817:C:H2'	24:DA:818:G:O4'	2.21	0.40
24:DA:852:U:C4	24:DA:853:C:N4	2.90	0.40
24:DA:956:G:N2	24:DA:960:A:OP2	2.52	0.40
24:DA:1079:C:N4	24:DA:1088:A:P	2.94	0.40
24:DA:1092:C:H2'	24:DA:1093:G:O4'	2.21	0.40
24:DA:1146:C:H2'	24:DA:1147:A:O4'	2.22	0.40
24:DA:1484:U:O2	24:DA:1484:U:C2'	2.69	0.40
24:DA:1494:A:N7	24:DA:1495:A:N7	2.68	0.40
24:DA:1534:U:H3'	24:DA:1536:C:H5	1.87	0.40
24:DA:1657:U:OP1	27:DD:141:ARG:N	2.46	0.40
24:DA:1863:G:N1	24:DA:1880:U:O2	2.53	0.40
24:DA:1917:U:C4	24:DA:1918:A:N7	2.89	0.40
24:DA:2000:C:C2'	24:DA:2001:C:H5'	2.52	0.40
24:DA:2069:G:C2	24:DA:2070:A:C8	3.10	0.40
24:DA:2253:G:C5	24:DA:2254:C:C5	3.09	0.40
24:DA:2305:U:H2'	24:DA:2306:C:C6	2.56	0.40
24:DA:2315:G:H4'	29:DF:124:ARG:HH22	1.86	0.40
24:DA:2480:C:N4	24:DA:2481:G:C6	2.90	0.40
24:DA:2575:C:O2'	24:DA:2578:G:N7	2.46	0.40
24:DA:2642:G:H2'	24:DA:2643:G:H8	1.85	0.40
24:DA:2678:C:H2'	24:DA:2679:A:C8	2.57	0.40
25:DB:78:A:H2'	25:DB:79:G:O4'	2.21	0.40
27:DD:22:ILE:CD1	27:DD:190:LYS:HG3	2.51	0.40
27:DD:122:VAL:HG23	27:DD:123:LYS:N	2.36	0.40
28:DE:97:ASN:HB2	28:DE:100:MET:HG2	2.02	0.40
28:DE:129:PRO:HA	28:DE:160:ALA:HB2	2.03	0.40
28:DE:131:THR:CG2	28:DE:162:ARG:HH12	2.34	0.40
29:DF:19:PHE:C	29:DF:21:TYR:N	2.79	0.40
29:DF:98:PHE:HA	29:DF:101:ARG:CZ	2.51	0.40
30:DG:16:VAL:HG13	30:DG:25:ILE:CD1	2.52	0.40
30:DG:32:LEU:HD12	30:DG:32:LEU:C	2.47	0.40
30:DG:108:PHE:CE2	30:DG:111:PRO:HA	2.54	0.40
30:DG:137:LYS:O	30:DG:140:ILE:HG22	2.21	0.40
30:DG:154:GLU:HG3	30:DG:155:PRO:HD2	2.04	0.40
31:DH:25:TYR:CE1	31:DH:30:LEU:HD11	2.56	0.40
31:DH:117:LEU:HD23	31:DH:117:LEU:O	2.20	0.40
31:DH:132:PHE:HE2	31:DH:142:VAL:CG2	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DK:38:ILE:HD13	34:DK:92:GLU:OE2	2.21	0.40
34:DK:90:ASN:O	34:DK:91:SER:CB	2.67	0.40
34:DK:119:ALA:HA	34:DK:120:PRO:HD3	1.80	0.40
35:DL:134:ALA:O	35:DL:137:ALA:HB3	2.22	0.40
36:DM:29:GLY:HA3	36:DM:106:ASP:HB2	2.02	0.40
39:DP:4:ILE:O	39:DP:5:LYS:C	2.63	0.40
40:DQ:49:ARG:NH2	41:DR:74:ILE:HG13	2.36	0.40
40:DQ:90:ASP:OD1	40:DQ:91:ARG:N	2.55	0.40
40:DQ:90:ASP:N	41:DR:11:GLN:OE1	2.47	0.40
41:DR:23:GLU:O	41:DR:24:LYS:O	2.38	0.40
41:DR:62:GLU:O	41:DR:64:VAL:HG23	2.20	0.40
42:DS:13:SER:C	42:DS:15:GLN:N	2.79	0.40
46:DW:35:SER:O	46:DW:36:ILE:C	2.63	0.40
48:DY:13:GLU:HG2	48:DY:57:LEU:CD2	2.51	0.40
48:DY:30:MET:HG3	48:DY:31:GLN:N	2.37	0.40
53:D3:28:LEU:HD12	53:D3:32:LEU:HD22	2.04	0.40
1:AA:9:G:C2	1:AA:10:A:C5	3.08	0.40
1:AA:45:G:H2'	1:AA:46:G:O5'	2.22	0.40
1:AA:71:A:N1	1:AA:72:A:C6	2.90	0.40
1:AA:100:G:C5	1:AA:101:A:C5	3.09	0.40
1:AA:134:G:H2'	1:AA:135:C:C6	2.57	0.40
1:AA:145:G:C6	1:AA:146:G:N7	2.89	0.40
1:AA:184:G:N2	1:AA:194:C:N3	2.69	0.40
1:AA:218:U:H2'	1:AA:219:U:C6	2.56	0.40
1:AA:355:C:C2	1:AA:356:A:C8	3.09	0.40
1:AA:376:G:OP1	16:AP:5:ARG:HD3	2.22	0.40
1:AA:736:C:H2'	1:AA:737:C:C6	2.56	0.40
1:AA:778:G:C5	1:AA:779:C:C4	3.09	0.40
1:AA:815:A:C2	1:AA:1529:G:C4	3.09	0.40
1:AA:837:U:H2'	1:AA:838:G:C8	2.57	0.40
1:AA:904:U:H2'	1:AA:905:U:O2	2.21	0.40
1:AA:1190:G:OP2	3:AC:5:VAL:HG23	2.21	0.40
1:AA:1357:A:H5"	1:AA:1358:U:OP2	2.22	0.40
1:AA:1361:G:C2'	1:AA:1362:A:H5'	2.50	0.40
1:AA:1404:C:H1'	1:AA:1499:A:C2	2.56	0.40
2:AB:47:VAL:O	2:AB:50:PHE:N	2.52	0.40
2:AB:163:VAL:HG11	2:AB:185:ALA:HA	2.01	0.40
3:AC:42:TYR:CE1	3:AC:46:GLU:CG	3.04	0.40
4:AD:47:ARG:HG2	4:AD:47:ARG:O	2.22	0.40
5:AE:147:MET:HE1	8:AH:96:MET:CE	2.51	0.40
7:AG:111:ARG:HD3	7:AG:123:GLU:OE1	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:88:MET:O	10:AJ:89:ARG:HB2	2.22	0.40
11:AK:65:VAL:HA	11:AK:68:GLU:HB2	2.02	0.40
12:AL:42:PRO:HB2	12:AL:43:LYS:H	1.76	0.40
12:AL:75:GLN:HG2	12:AL:76:GLU:HB3	2.02	0.40
13:AM:15:ALA:O	13:AM:16:VAL:C	2.64	0.40
14:AN:88:ALA:N	14:AN:93:ILE:HD12	2.36	0.40
15:AO:25:THR:O	15:AO:28:GLN:HB2	2.22	0.40
15:AO:70:LEU:HB3	15:AO:78:TYR:CZ	2.57	0.40
15:AO:80:GLN:HA	15:AO:84:ARG:NH1	2.36	0.40
18:AR:57:ARG:HG3	18:AR:61:ARG:NH1	2.37	0.40
19:AS:71:LEU:HD22	19:AS:71:LEU:N	2.35	0.40
24:BA:195:A:H2'	24:BA:198:C:N4	2.36	0.40
24:BA:420:C:C2'	24:BA:421:C:O5'	2.69	0.40
24:BA:534:U:OP1	40:BQ:23:TYR:OH	2.35	0.40
24:BA:572:A:H5"	24:BA:573:U:OP2	2.21	0.40
24:BA:611:C:C6	24:BA:612:G:C8	3.09	0.40
24:BA:616:A:O2'	24:BA:617:G:H5'	2.22	0.40
24:BA:635:C:O2	24:BA:639:U:H5"	2.21	0.40
24:BA:729:G:P	26:BC:12:ARG:NH2	2.95	0.40
24:BA:811:U:C2	24:BA:1251:C:C6	3.09	0.40
24:BA:831:G:C5	24:BA:832:U:C5	3.10	0.40
24:BA:1016:G:N2	24:BA:1146:C:O2	2.54	0.40
24:BA:1032:A:O3'	54:B4:16:ILE:CD1	2.69	0.40
24:BA:1074:G:C2'	24:BA:1075:C:H5"	2.50	0.40
24:BA:1302:A:H5'	24:BA:1608:A:OP1	2.22	0.40
24:BA:1309:G:H1	24:BA:1605:C:H42	1.69	0.40
24:BA:1381:G:C2	24:BA:1382:G:N9	2.89	0.40
24:BA:1670:C:H5	24:BA:1671:U:C4	2.36	0.40
24:BA:1715:G:O2'	24:BA:1743:G:O6	2.28	0.40
24:BA:1917:U:C2'	24:BA:1918:A:H5'	2.52	0.40
24:BA:2024:G:C5	24:BA:2040:G:C2	3.09	0.40
24:BA:2059:A:N6	24:BA:2503:A:H2'	2.37	0.40
24:BA:2092:U:OP2	47:BX:35:HIS:NE2	2.54	0.40
24:BA:2226:C:O2	24:BA:2226:C:C2'	2.67	0.40
24:BA:2305:U:C2	29:BF:150:GLY:C	2.99	0.40
24:BA:2374:C:N4	24:BA:2375:G:O6	2.54	0.40
24:BA:2469:A:H4'	36:BM:55:ARG:HE	1.86	0.40
24:BA:2636:C:H4'	27:BD:81:GLU:OE1	2.21	0.40
24:BA:2856:A:C6	24:BA:2857:G:C5	3.10	0.40
24:BA:2869:G:C5	24:BA:2870:C:C5	3.10	0.40
24:BA:2900:A:C6	24:BA:2901:C:C4	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BB:54:G:H1'	29:BF:25:MET:HE3	2.03	0.40
25:BB:75:G:H4'	45:BV:29:ILE:HD11	2.02	0.40
26:BC:9:SER:OG	26:BC:10:PRO:CD	2.69	0.40
26:BC:57:HIS:ND1	26:BC:58:LYS:N	2.69	0.40
26:BC:57:HIS:C	26:BC:58:LYS:O	2.62	0.40
26:BC:92:LEU:HG	26:BC:93:VAL:N	2.36	0.40
26:BC:154:ALA:C	26:BC:156:SER:N	2.79	0.40
26:BC:259:ASN:HA	26:BC:261:ARG:NH1	2.37	0.40
27:BD:120:GLY:C	27:BD:121:THR:CG2	2.93	0.40
27:BD:151:THR:HG22	27:BD:152:PRO:CD	2.51	0.40
29:BF:68:LYS:HE2	29:BF:81:GLY:O	2.21	0.40
29:BF:121:PHE:C	29:BF:123:GLY:H	2.29	0.40
32:BI:23:VAL:CG1	32:BI:27:LEU:HG	2.52	0.40
32:BI:100:ILE:CD1	32:BI:137:LEU:HD22	2.51	0.40
33:BJ:99:ARG:HG3	33:BJ:102:GLU:OE1	2.22	0.40
33:BJ:122:LEU:HG	33:BJ:124:VAL:HG23	2.03	0.40
35:BL:57:LEU:C	35:BL:59:ARG:N	2.80	0.40
39:BP:98:TYR:CZ	39:BP:99:LEU:HD21	2.56	0.40
44:BU:43:LYS:CE	44:BU:44:HIS:CE1	3.04	0.40
45:BV:65:VAL:O	45:BV:66:ASP:C	2.65	0.40
52:B2:35:ARG:O	52:B2:36:ALA:C	2.64	0.40
1:CA:49:U:O4	1:CA:365:U:H5	2.04	0.40
1:CA:444:G:C2	1:CA:445:G:N9	2.89	0.40
1:CA:540:G:C4	1:CA:541:G:C8	3.09	0.40
1:CA:560:A:N7	1:CA:566:G:C5	2.89	0.40
1:CA:666:G:N1	1:CA:741:G:C8	2.90	0.40
1:CA:695:A:C6	1:CA:696:A:C6	3.10	0.40
1:CA:1072:G:C6	1:CA:1073:U:C4	3.09	0.40
1:CA:1100:C:C2'	1:CA:1102:A:OP1	2.69	0.40
1:CA:1124:G:H2'	1:CA:1145:A:N6	2.37	0.40
1:CA:1333:A:C8	1:CA:1334:G:C8	3.09	0.40
1:CA:1349:A:OP1	9:CI:123:ARG:N	2.53	0.40
1:CA:1439:G:C6	1:CA:1440:U:C4	3.09	0.40
2:CB:96:TRP:CE3	2:CB:100:MET:HE3	2.55	0.40
2:CB:146:ASN:O	2:CB:146:ASN:OD1	2.40	0.40
4:CD:56:ARG:O	4:CD:60:LYS:HG3	2.21	0.40
4:CD:99:ASP:O	4:CD:114:ALA:HB1	2.21	0.40
6:CF:67:PRO:C	6:CF:69:GLU:H	2.29	0.40
7:CG:2:PRO:C	7:CG:4:ARG:H	2.29	0.40
7:CG:16:PRO:O	7:CG:17:LYS:HG3	2.22	0.40
8:CH:11:LEU:CD1	8:CH:75:ILE:HD11	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:78:ALA:O	9:CI:81:HIS:CB	2.69	0.40
12:CL:33:VAL:CG1	12:CL:34:CYS:N	2.84	0.40
12:CL:81:LEU:O	12:CL:98:VAL:HG13	2.21	0.40
12:CL:89:ASP:C	12:CL:90:LEU:HD12	2.45	0.40
13:CM:13:LYS:O	13:CM:17:ILE:HD13	2.21	0.40
13:CM:80:LEU:HD21	13:CM:85:CYS:SG	2.62	0.40
14:CN:19:TYR:O	14:CN:23:ARG:HB2	2.21	0.40
15:CO:66:LEU:O	15:CO:69:TYR:CB	2.68	0.40
19:CS:12:ASP:OD1	19:CS:14:HIS:N	2.55	0.40
19:CS:13:LEU:HG	19:CS:14:HIS:N	2.36	0.40
20:CT:27:MET:HG3	20:CT:28:MET:N	2.36	0.40
20:CT:31:PHE:HB3	20:CT:54:MET:CG	2.50	0.40
20:CT:73:ALA:O	20:CT:77:ALA:HB3	2.22	0.40
23:CX:7:G:C6	23:CX:8:U:C5	3.09	0.40
23:CX:10:A:N3	23:CX:11:A:C8	2.89	0.40
55:CY:20:PHE:CD1	55:CY:20:PHE:C	2.99	0.40
24:DA:28:A:C5	24:DA:29:U:C5	3.09	0.40
24:DA:39:G:H2'	24:DA:40:U:C6	2.56	0.40
24:DA:142:A:C2	24:DA:143:C:C2	3.09	0.40
24:DA:298:G:H1'	24:DA:340:A:H61	1.86	0.40
24:DA:391:A:H2'	24:DA:392:U:C5'	2.51	0.40
24:DA:412:A:C5	24:DA:2412:A:H1'	2.57	0.40
24:DA:477:A:H8	24:DA:477:A:O5'	2.03	0.40
24:DA:570:G:C2'	24:DA:571:U:H5'	2.52	0.40
24:DA:785:G:C5	24:DA:786:C:C4	3.09	0.40
24:DA:1091:G:O2'	24:DA:1092:C:H5'	2.22	0.40
24:DA:1097:U:O2'	24:DA:1098:A:OP1	2.36	0.40
24:DA:1223:G:C2	24:DA:1227:G:C5	3.09	0.40
24:DA:1478:G:C5	24:DA:1514:G:N2	2.90	0.40
24:DA:1489:C:C6	24:DA:1489:C:C3'	3.03	0.40
24:DA:1516:G:C2'	24:DA:1517:G:H5'	2.52	0.40
24:DA:1700:A:H5'	24:DA:1701:A:OP2	2.21	0.40
24:DA:1742:U:C4	24:DA:1743:G:C6	3.10	0.40
24:DA:1775:U:P	59:DA:3446:HOH:O	2.80	0.40
24:DA:1966:A:C2	24:DA:2592:G:H2'	2.56	0.40
24:DA:2272:U:H5"	24:DA:2273:A:OP1	2.21	0.40
24:DA:2274:A:O2'	24:DA:2276:G:OP1	2.34	0.40
24:DA:2335:A:N7	24:DA:2337:G:C4	2.90	0.40
24:DA:2335:A:P	38:DO:13:ARG:HG3	2.61	0.40
24:DA:2564:A:C2	24:DA:2647:U:H4'	2.56	0.40
24:DA:2701:U:H3'	24:DA:2702:G:H5"	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2839:G:N2	24:DA:2880:C:C4	2.90	0.40
25:DB:51:G:N1	25:DB:52:A:C6	2.88	0.40
25:DB:74:U:O4	25:DB:102:G:N2	2.39	0.40
25:DB:114:C:H2'	25:DB:115:A:O4'	2.21	0.40
26:DC:50:THR:CG2	26:DC:53:ILE:HD12	2.52	0.40
26:DC:80:LEU:O	26:DC:81:GLU:C	2.65	0.40
27:DD:103:ASP:O	27:DD:105:LYS:N	2.54	0.40
27:DD:113:SER:HB2	27:DD:167:ASN:N	2.36	0.40
27:DD:175:LEU:N	27:DD:175:LEU:HD23	2.37	0.40
28:DE:104:ALA:O	28:DE:108:ILE:HG23	2.21	0.40
29:DF:58:ALA:O	29:DF:139:GLU:CD	2.64	0.40
29:DF:109:ARG:HD3	29:DF:136:ILE:O	2.22	0.40
30:DG:137:LYS:O	30:DG:140:ILE:CG2	2.70	0.40
32:DI:14:ALA:O	32:DI:15:GLY:C	2.65	0.40
32:DI:58:ILE:HG23	32:DI:59:THR:H	1.87	0.40
34:DK:25:LEU:C	34:DK:25:LEU:CD1	2.94	0.40
34:DK:33:ALA:CB	34:DK:39:ILE:CG2	3.00	0.40
34:DK:71:ARG:HB3	34:DK:72:PRO:HD2	2.03	0.40
35:DL:23:ILE:HD12	41:DR:84:ARG:HG2	2.04	0.40
35:DL:61:LEU:HB3	35:DL:62:PRO:CD	2.52	0.40
35:DL:130:GLY:HA2	35:DL:133:ALA:HB3	2.03	0.40
36:DM:20:LEU:HD23	36:DM:98:PRO:HG2	2.03	0.40
36:DM:50:ARG:O	36:DM:51:ARG:C	2.65	0.40
36:DM:63:ILE:HG22	36:DM:64:TRP:N	2.36	0.40
37:DN:44:LEU:HD23	37:DN:113:ILE:HD13	2.03	0.40
39:DP:15:ASP:O	39:DP:16:VAL:HG23	2.20	0.40
39:DP:37:LYS:HG2	39:DP:37:LYS:O	2.22	0.40
40:DQ:10:ARG:O	40:DQ:11:ALA:C	2.64	0.40
40:DQ:93:ILE:HG22	40:DQ:94:LEU:N	2.37	0.40
43:DT:77:ARG:HG3	43:DT:78:SER:N	2.36	0.40
44:DU:24:VAL:CG2	44:DU:33:VAL:HG21	2.51	0.40
44:DU:84:PHE:CD2	44:DU:85:ARG:CA	3.04	0.40
45:DV:43:ASP:OD2	45:DV:46:LYS:HG2	2.21	0.40
47:DX:29:LEU:CB	47:DX:30:PRO:CD	3.00	0.40
48:DY:39:GLN:CB	48:DY:42:LEU:HD13	2.52	0.40
53:D3:54:LEU:O	53:D3:58:ILE:HD13	2.21	0.40
1:AA:9:G:OP1	5:AE:126:LYS:C	2.64	0.40
1:AA:10:A:H2'	1:AA:11:G:C8	2.56	0.40
1:AA:78:A:C2	1:AA:92:U:O2	2.75	0.40
1:AA:114:U:O2'	1:AA:115:G:O5'	2.39	0.40
1:AA:125:U:N3	1:AA:126:G:N7	2.70	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:157:U:O2	1:AA:164:G:O6	2.40	0.40
1:AA:244:U:C5	1:AA:894:G:C2	3.09	0.40
1:AA:406:G:N3	1:AA:407:U:C6	2.89	0.40
1:AA:435:A:N1	1:AA:436:C:N3	2.69	0.40
1:AA:460:A:N1	1:AA:461:A:C5	2.90	0.40
1:AA:693:G:OP1	11:AK:127:ARG:NH2	2.53	0.40
1:AA:702:A:H3'	1:AA:703:G:C5'	2.51	0.40
1:AA:1061:G:O5'	3:AC:3:GLN:NE2	2.55	0.40
1:AA:1076:U:C2	1:AA:1082:A:C2	3.09	0.40
1:AA:1114:C:N3	1:AA:1115:U:C4	2.90	0.40
1:AA:1237:C:H2'	1:AA:1336:C:C5	2.56	0.40
1:AA:1245:C:N3	1:AA:1246:A:C8	2.89	0.40
1:AA:1345:U:C5	1:AA:1377:A:C2	3.10	0.40
1:AA:1358:U:H6	1:AA:1359:C:C5	2.39	0.40
1:AA:1509:C:O2	1:AA:1509:C:C2'	2.69	0.40
2:AB:70:VAL:CG1	2:AB:163:VAL:CG2	2.99	0.40
2:AB:90:PHE:CZ	2:AB:154:MET:HB2	2.56	0.40
2:AB:163:VAL:HG11	2:AB:185:ALA:CA	2.51	0.40
2:AB:218:ALA:CA	2:AB:221:VAL:HG12	2.51	0.40
3:AC:73:PRO:HB2	3:AC:77:ILE:HG12	2.03	0.40
4:AD:18:ASP:C	4:AD:19:LEU:CG	2.95	0.40
4:AD:145:ILE:C	4:AD:146:ARG:NH1	2.80	0.40
4:AD:146:ARG:HD3	4:AD:146:ARG:HA	1.69	0.40
6:AF:90:MET:HE1	18:AR:61:ARG:NE	2.36	0.40
6:AF:98:GLU:N	6:AF:98:GLU:CD	2.79	0.40
7:AG:46:ALA:HB2	7:AG:117:ALA:O	2.21	0.40
8:AH:29:SER:OG	8:AH:30:SER:N	2.53	0.40
8:AH:40:LEU:C	8:AH:46:ILE:CG2	2.95	0.40
11:AK:34:ILE:C	11:AK:35:THR:HG22	2.46	0.40
11:AK:45:ALA:HB2	11:AK:69:ARG:HG3	2.04	0.40
14:AN:22:LYS:HG3	14:AN:23:ARG:N	2.35	0.40
14:AN:27:LYS:O	14:AN:28:ALA:C	2.65	0.40
16:AP:59:HIS:O	16:AP:62:GLY:N	2.55	0.40
17:AQ:78:VAL:HG12	17:AQ:79:VAL:N	2.37	0.40
18:AR:55:LEU:O	18:AR:55:LEU:HG	2.21	0.40
20:AT:5:LYS:O	20:AT:7:ALA:N	2.54	0.40
20:AT:54:MET:C	20:AT:56:PRO:HD2	2.46	0.40
24:BA:137:U:O2'	24:BA:139:U:C2'	2.69	0.40
24:BA:300:A:H1'	24:BA:319:G:C1'	2.52	0.40
24:BA:404:A:H5'	24:BA:406:G:O4'	2.22	0.40
24:BA:500:G:N1	24:BA:503:A:OP2	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:734:A:C4	24:BA:735:A:C8	3.09	0.40
24:BA:853:C:C4	24:BA:854:C:C5	3.09	0.40
24:BA:1078:U:H5"	24:BA:1079:C:O5'	2.22	0.40
24:BA:1234:U:H2'	24:BA:1235:G:O4'	2.22	0.40
24:BA:1493:C:H3'	24:BA:1494:A:H5'	2.03	0.40
24:BA:1494:A:C2	24:BA:1495:A:N9	2.90	0.40
24:BA:1570:A:C6	24:BA:1571:A:C6	3.10	0.40
24:BA:1570:A:H2'	24:BA:1571:A:C8	2.57	0.40
24:BA:1627:G:N1	24:BA:1628:G:C5	2.90	0.40
24:BA:1636:U:O2'	24:BA:1760:C:O2'	2.30	0.40
24:BA:1665:A:O2'	34:BK:1:MET:O	2.37	0.40
24:BA:1668:A:H2	24:BA:1670:C:N3	2.18	0.40
24:BA:1829:A:C8	24:BA:1830:C:C5	3.10	0.40
24:BA:1963:U:H3'	24:BA:1963:U:C6	2.57	0.40
24:BA:2224:G:H4'	24:BA:2226:C:C2	2.56	0.40
24:BA:2226:C:O2	24:BA:2226:C:H2'	2.21	0.40
24:BA:2230:G:C1'	47:BX:31:ASN:HB3	2.42	0.40
24:BA:2285:C:H5"	24:BA:2286:G:OP2	2.21	0.40
24:BA:2298:A:C6	24:BA:2299:U:C2	3.09	0.40
24:BA:2355:G:C5'	46:BW:24:LYS:HE2	2.47	0.40
24:BA:2603:G:C2'	24:BA:2604:U:O5'	2.69	0.40
24:BA:2624:G:C2'	24:BA:2625:G:H5'	2.52	0.40
24:BA:2842:G:C2	24:BA:2876:G:C2	3.09	0.40
24:BA:2872:A:O2'	24:BA:2873:A:C5'	2.69	0.40
24:BA:2898:U:H2'	24:BA:2899:A:C8	2.56	0.40
25:BB:85:G:C2	25:BB:92:C:O2	2.74	0.40
26:BC:245:THR:HG22	26:BC:246:PRO:CD	2.52	0.40
27:BD:8:LYS:CB	27:BD:201:LEU:HD11	2.52	0.40
27:BD:125:TRP:CE2	27:BD:160:LYS:HD3	2.57	0.40
28:BE:149:ILE:CG1	28:BE:188:MET:CG	3.00	0.40
31:BH:118:PRO:CD	31:BH:119:ASN:N	2.84	0.40
31:BH:121:VAL:CB	31:BH:122:LEU:CG	2.83	0.40
34:BK:12:ASP:OD1	34:BK:12:ASP:C	2.65	0.40
35:BL:77:ILE:O	35:BL:77:ILE:CG1	2.70	0.40
37:BN:97:ILE:C	37:BN:98:LEU:HD23	2.45	0.40
38:BO:33:ARG:O	38:BO:34:HIS:HB2	2.20	0.40
40:BQ:16:ILE:HG23	40:BQ:38:VAL:HG11	2.03	0.40
40:BQ:51:GLN:HA	40:BQ:54:ARG:HG2	2.04	0.40
44:BU:41:VAL:O	44:BU:42:LYS:C	2.65	0.40
44:BU:57:ILE:O	44:BU:57:ILE:HG22	2.21	0.40
44:BU:88:ASP:CG	44:BU:89:GLY:N	2.80	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:B1:18:HIS:CG	51:B1:40:PRO:HG2	2.57	0.40
53:B3:6:VAL:HG11	53:B3:60:CYS:HB3	2.04	0.40
1:CA:16:A:O2'	5:CE:21:VAL:HB	2.21	0.40
1:CA:201:G:H2'	1:CA:202:G:O4'	2.21	0.40
1:CA:272:C:C2'	1:CA:273:U:H5'	2.52	0.40
1:CA:346:G:H1'	39:DP:33:GLU:OE2	2.21	0.40
1:CA:592:G:C2	1:CA:593:U:H1'	2.57	0.40
1:CA:668:G:O4'	15:CO:49:ASP:HB2	2.22	0.40
1:CA:689:C:O2	1:CA:689:C:H2'	2.21	0.40
1:CA:787:A:O2'	1:CA:788:U:H5'	2.22	0.40
1:CA:861:G:C6	1:CA:862:C:C4	3.09	0.40
1:CA:881:G:C5	1:CA:882:C:C5	3.10	0.40
1:CA:979:C:C2'	1:CA:980:C:H5'	2.52	0.40
1:CA:1026:G:O6	1:CA:1035:A:N1	2.55	0.40
1:CA:1077:G:C4	1:CA:1081:A:C2	3.09	0.40
1:CA:1187:G:H2'	1:CA:1188:A:O4'	2.22	0.40
1:CA:1261:A:C5	1:CA:1275:A:C5	3.10	0.40
1:CA:1282:C:O2	1:CA:1282:C:H2'	2.21	0.40
1:CA:1480:A:C6	1:CA:1481:U:C4	3.09	0.40
1:CA:1494:G:N2	1:CA:1495:U:N1	2.70	0.40
2:CB:21:ARG:NE	2:CB:21:ARG:HA	2.35	0.40
2:CB:91:PHE:N	2:CB:150:GLY:HA2	2.36	0.40
3:CC:126:ARG:O	3:CC:127:ARG:CB	2.69	0.40
4:CD:69:GLU:O	4:CD:70:ARG:C	2.64	0.40
5:CE:89:HIS:CE1	5:CE:138:ARG:HD3	2.57	0.40
8:CH:103:VAL:HG23	8:CH:104:VAL:N	2.37	0.40
8:CH:112:THR:O	8:CH:116:ALA:HB2	2.22	0.40
9:CI:105:THR:CG2	9:CI:106:ARG:N	2.83	0.40
11:CK:17:SER:HB3	11:CK:79:ILE:H	1.85	0.40
11:CK:52:PHE:HB2	11:CK:57:LYS:HB2	2.03	0.40
12:CL:36:ARG:HH12	12:CL:76:GLU:HB2	1.85	0.40
12:CL:56:ARG:O	12:CL:57:LEU:HB3	2.21	0.40
12:CL:65:SER:CA	12:CL:95:TYR:HB3	2.52	0.40
13:CM:15:ALA:N	13:CM:17:ILE:CD1	2.84	0.40
17:CQ:46:VAL:CG2	17:CQ:74:THR:HA	2.48	0.40
20:CT:61:GLN:HG3	20:CT:66:LEU:CD1	2.52	0.40
22:CV:5:G:N1	22:CV:6:G:C6	2.90	0.40
55:CY:42:VAL:HG13	55:CY:43:GLU:N	2.36	0.40
24:DA:167:A:H2'	24:DA:168:G:O4'	2.21	0.40
24:DA:473:G:H2'	24:DA:473:G:N3	2.35	0.40
24:DA:639:U:H2'	24:DA:640:C:C6	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:861:A:C2	24:DA:917:A:C4	3.10	0.40
24:DA:1207:C:O5'	24:DA:1207:C:H6	2.05	0.40
24:DA:1278:C:H2'	24:DA:1279:G:C8	2.57	0.40
24:DA:1339:G:N2	24:DA:1603:A:H1'	2.37	0.40
24:DA:1372:U:H2'	24:DA:1373:A:H5'	2.04	0.40
24:DA:1418:G:H5"	24:DA:1419:A:OP2	2.21	0.40
24:DA:1429:G:O2'	24:DA:1430:G:H5'	2.22	0.40
24:DA:1435:G:C4	24:DA:1436:G:C8	3.10	0.40
24:DA:1553:A:C6	24:DA:1555:G:H1'	2.56	0.40
24:DA:1737:G:C2'	24:DA:1738:G:C4	2.94	0.40
24:DA:1934:C:H4'	24:DA:1974:C:O3'	2.21	0.40
24:DA:2039:U:O2'	24:DA:2040:G:C5'	2.70	0.40
24:DA:2096:C:H2'	24:DA:2097:A:O4'	2.22	0.40
24:DA:2327:A:H2'	24:DA:2328:A:C8	2.57	0.40
24:DA:2619:C:OP1	27:DD:157:LYS:HE3	2.21	0.40
24:DA:2653:U:H5"	24:DA:2654:A:P	2.61	0.40
24:DA:2660:A:H2'	24:DA:2661:G:C8	2.57	0.40
24:DA:2830:C:H5"	27:DD:56:LYS:HD2	2.02	0.40
57:DA:3185:NMY:H232	57:DA:3185:NMY:C15	2.51	0.40
25:DB:117:G:C6	25:DB:118:C:C4	3.10	0.40
26:DC:42:ARG:CA	26:DC:47:ARG:O	2.69	0.40
26:DC:67:LYS:O	26:DC:68:ARG:HB2	2.20	0.40
27:DD:85:ALA:O	27:DD:86:GLU:HB3	2.18	0.40
28:DE:193:VAL:O	28:DE:197:GLU:OE1	2.40	0.40
33:DJ:72:LYS:HD3	33:DJ:74:TYR:CE1	2.56	0.40
35:DL:11:GLY:O	35:DL:12:SER:O	2.39	0.40
36:DM:51:ARG:O	36:DM:52:ALA:C	2.65	0.40
36:DM:53:MET:HG3	36:DM:54:THR:N	2.36	0.40
37:DN:44:LEU:O	37:DN:45:ARG:C	2.65	0.40
38:DO:22:GLY:O	38:DO:42:PRO:HB3	2.21	0.40
40:DQ:27:ARG:HH22	40:DQ:40:LYS:HE2	1.86	0.40
40:DQ:80:ASN:ND2	40:DQ:83:LYS:HE2	2.36	0.40
41:DR:28:ALA:C	41:DR:30:GLY:H	2.28	0.40
41:DR:39:LEU:O	41:DR:40:MET:CB	2.67	0.40
42:DS:55:ILE:CG1	42:DS:56:ALA:N	2.84	0.40
42:DS:66:ILE:O	42:DS:66:ILE:HG13	2.21	0.40
42:DS:73:LYS:CB	42:DS:106:VAL:HG13	2.48	0.40
45:DV:15:GLY:O	45:DV:16:ALA:C	2.64	0.40
45:DV:20:LEU:HD11	45:DV:41:GLU:HB2	2.03	0.40
45:DV:26:PHE:CD2	45:DV:44:HIS:HA	2.57	0.40
46:DW:69:PHE:CD2	46:DW:80:ILE:CD1	3.05	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DX:65:THR:HG23	47:DX:66:VAL:N	2.37	0.40
52:D2:45:SER:O	52:D2:46:LYS:OXT	2.39	0.40

All (3) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:123:ARG:NH2	1:CA:358:U:OP1[4_555]	2.07	0.13
24:BA:2152:G:N2	1:CA:416:G:OP1[4_555]	2.15	0.05
24:DA:544:C:OP2	45:DV:34:LYS:NZ[4_545]	2.16	0.04

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	AB	216/241 (90%)	106 (49%)	51 (24%)	59 (27%)	0	0
2	CB	216/241 (90%)	110 (51%)	51 (24%)	55 (26%)	0	0
3	AC	204/233 (88%)	124 (61%)	46 (22%)	34 (17%)	0	1
3	CC	204/233 (88%)	122 (60%)	48 (24%)	34 (17%)	0	1
4	AD	203/206 (98%)	100 (49%)	48 (24%)	55 (27%)	0	0
4	CD	203/206 (98%)	92 (45%)	49 (24%)	62 (30%)	0	0
5	AE	148/167 (89%)	86 (58%)	30 (20%)	32 (22%)	0	0
5	CE	148/167 (89%)	106 (72%)	22 (15%)	20 (14%)	0	1
6	AF	98/135 (73%)	53 (54%)	27 (28%)	18 (18%)	0	0
6	CF	98/135 (73%)	47 (48%)	22 (22%)	29 (30%)	0	0
7	AG	149/179 (83%)	92 (62%)	33 (22%)	24 (16%)	0	1
7	CG	149/179 (83%)	65 (44%)	46 (31%)	38 (26%)	0	0
8	AH	127/130 (98%)	62 (49%)	37 (29%)	28 (22%)	0	0

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
8	CH	127/130 (98%)	80 (63%)	28 (22%)	19 (15%)	0	1
9	AI	125/130 (96%)	60 (48%)	36 (29%)	29 (23%)	0	0
9	CI	125/130 (96%)	61 (49%)	36 (29%)	28 (22%)	0	0
10	AJ	96/103 (93%)	62 (65%)	22 (23%)	12 (12%)	0	1
10	CJ	96/103 (93%)	55 (57%)	21 (22%)	20 (21%)	0	0
11	AK	115/129 (89%)	76 (66%)	19 (16%)	20 (17%)	0	0
11	CK	115/129 (89%)	52 (45%)	40 (35%)	23 (20%)	0	0
12	AL	121/124 (98%)	58 (48%)	28 (23%)	35 (29%)	0	0
12	CL	121/124 (98%)	72 (60%)	26 (22%)	23 (19%)	0	0
13	AM	112/118 (95%)	65 (58%)	19 (17%)	28 (25%)	0	0
13	CM	112/118 (95%)	55 (49%)	22 (20%)	35 (31%)	0	0
14	AN	92/101 (91%)	50 (54%)	21 (23%)	21 (23%)	0	0
14	CN	92/101 (91%)	64 (70%)	11 (12%)	17 (18%)	0	0
15	AO	86/89 (97%)	52 (60%)	20 (23%)	14 (16%)	0	1
15	CO	86/89 (97%)	42 (49%)	23 (27%)	21 (24%)	0	0
16	AP	80/82 (98%)	35 (44%)	27 (34%)	18 (22%)	0	0
16	CP	80/82 (98%)	39 (49%)	23 (29%)	18 (22%)	0	0
17	AQ	78/84 (93%)	40 (51%)	20 (26%)	18 (23%)	0	0
17	CQ	78/84 (93%)	51 (65%)	12 (15%)	15 (19%)	0	0
18	AR	53/75 (71%)	31 (58%)	8 (15%)	14 (26%)	0	0
18	CR	53/75 (71%)	28 (53%)	12 (23%)	13 (24%)	0	0
19	AS	77/92 (84%)	43 (56%)	23 (30%)	11 (14%)	0	1
19	CS	77/92 (84%)	35 (46%)	23 (30%)	19 (25%)	0	0
20	AT	83/87 (95%)	45 (54%)	23 (28%)	15 (18%)	0	0
20	CT	83/87 (95%)	42 (51%)	22 (26%)	19 (23%)	0	0
21	AU	49/71 (69%)	18 (37%)	16 (33%)	15 (31%)	0	0
21	CU	49/71 (69%)	23 (47%)	14 (29%)	12 (24%)	0	0
26	BC	269/273 (98%)	171 (64%)	48 (18%)	50 (19%)	0	0
26	DC	269/273 (98%)	187 (70%)	51 (19%)	31 (12%)	0	2
27	BD	207/209 (99%)	159 (77%)	29 (14%)	19 (9%)	0	3
27	DD	207/209 (99%)	159 (77%)	33 (16%)	15 (7%)	1	6

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
28	BE	199/201 (99%)	126 (63%)	49 (25%)	24 (12%)	0 1
28	DE	199/201 (99%)	131 (66%)	53 (27%)	15 (8%)	1 6
29	BF	175/179 (98%)	104 (59%)	44 (25%)	27 (15%)	0 1
29	DF	175/179 (98%)	96 (55%)	39 (22%)	40 (23%)	0 0
30	BG	174/177 (98%)	107 (62%)	43 (25%)	24 (14%)	0 1
30	DG	174/177 (98%)	127 (73%)	27 (16%)	20 (12%)	0 2
31	BH	147/149 (99%)	82 (56%)	39 (26%)	26 (18%)	0 0
31	DH	147/149 (99%)	67 (46%)	37 (25%)	43 (29%)	0 0
32	BI	139/142 (98%)	77 (55%)	45 (32%)	17 (12%)	0 1
32	DI	139/142 (98%)	65 (47%)	39 (28%)	35 (25%)	0 0
33	BJ	140/142 (99%)	108 (77%)	19 (14%)	13 (9%)	0 3
33	DJ	140/142 (99%)	110 (79%)	25 (18%)	5 (4%)	2 17
34	BK	120/123 (98%)	77 (64%)	29 (24%)	14 (12%)	0 1
34	DK	120/123 (98%)	95 (79%)	18 (15%)	7 (6%)	1 9
35	BL	141/144 (98%)	84 (60%)	35 (25%)	22 (16%)	0 1
35	DL	141/144 (98%)	98 (70%)	29 (21%)	14 (10%)	0 3
36	BM	134/136 (98%)	94 (70%)	27 (20%)	13 (10%)	0 3
36	DM	134/136 (98%)	94 (70%)	28 (21%)	12 (9%)	0 4
37	BN	118/127 (93%)	72 (61%)	30 (25%)	16 (14%)	0 1
37	DN	118/127 (93%)	84 (71%)	22 (19%)	12 (10%)	0 2
38	BO	114/117 (97%)	65 (57%)	30 (26%)	19 (17%)	0 1
38	DO	114/117 (97%)	64 (56%)	25 (22%)	25 (22%)	0 0
39	BP	112/115 (97%)	80 (71%)	18 (16%)	14 (12%)	0 1
39	DP	112/115 (97%)	92 (82%)	12 (11%)	8 (7%)	1 6
40	BQ	115/118 (98%)	98 (85%)	13 (11%)	4 (4%)	3 18
40	DQ	115/118 (98%)	89 (77%)	16 (14%)	10 (9%)	0 4
41	BR	101/103 (98%)	76 (75%)	18 (18%)	7 (7%)	1 7
41	DR	101/103 (98%)	67 (66%)	23 (23%)	11 (11%)	0 2
42	BS	108/110 (98%)	68 (63%)	22 (20%)	18 (17%)	0 1
42	DS	108/110 (98%)	77 (71%)	21 (19%)	10 (9%)	0 3
43	BT	91/100 (91%)	54 (59%)	26 (29%)	11 (12%)	0 1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
43	DT	91/100 (91%)	60 (66%)	18 (20%)	13 (14%)	0 1
44	BU	100/104 (96%)	55 (55%)	21 (21%)	24 (24%)	0 0
44	DU	100/104 (96%)	73 (73%)	12 (12%)	15 (15%)	0 1
45	BV	92/94 (98%)	50 (54%)	26 (28%)	16 (17%)	0 0
45	DV	92/94 (98%)	79 (86%)	4 (4%)	9 (10%)	0 3
46	BW	73/85 (86%)	56 (77%)	9 (12%)	8 (11%)	0 2
46	DW	74/85 (87%)	51 (69%)	14 (19%)	9 (12%)	0 1
47	BX	75/78 (96%)	55 (73%)	10 (13%)	10 (13%)	0 1
47	DX	75/78 (96%)	51 (68%)	14 (19%)	10 (13%)	0 1
48	BY	61/63 (97%)	38 (62%)	17 (28%)	6 (10%)	0 3
48	DY	61/63 (97%)	31 (51%)	19 (31%)	11 (18%)	0 0
49	BZ	56/59 (95%)	42 (75%)	12 (21%)	2 (4%)	2 17
49	DZ	56/59 (95%)	37 (66%)	16 (29%)	3 (5%)	1 10
50	B0	54/57 (95%)	34 (63%)	9 (17%)	11 (20%)	0 0
50	D0	54/57 (95%)	36 (67%)	10 (18%)	8 (15%)	0 1
51	B1	48/55 (87%)	29 (60%)	15 (31%)	4 (8%)	0 5
51	D1	48/55 (87%)	28 (58%)	10 (21%)	10 (21%)	0 0
52	B2	44/46 (96%)	29 (66%)	8 (18%)	7 (16%)	0 1
52	D2	44/46 (96%)	31 (70%)	10 (23%)	3 (7%)	1 7
53	B3	62/65 (95%)	47 (76%)	9 (14%)	6 (10%)	0 3
53	D3	62/65 (95%)	47 (76%)	7 (11%)	8 (13%)	0 1
54	B4	36/38 (95%)	27 (75%)	7 (19%)	2 (6%)	1 9
54	D4	36/38 (95%)	26 (72%)	7 (19%)	3 (8%)	0 5
55	CY	181/185 (98%)	99 (55%)	52 (29%)	30 (17%)	0 1
All	All	11416/12155 (94%)	7014 (61%)	2503 (22%)	1899 (17%)	0 1

All (1899) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	11	LYS
2	AB	16	PHE
2	AB	23	TRP
2	AB	58	ASN
2	AB	64	LYS

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Mol	Chain	Res	Type
2	AB	67	ILE
2	AB	73	LYS
2	AB	86	SER
2	AB	87	CYS
2	AB	120	GLN
2	AB	121	SER
2	AB	144	LEU
2	AB	148	LEU
2	AB	149	GLY
2	AB	152	LYS
2	AB	158	PRO
2	AB	159	ASP
2	AB	166	ALA
2	AB	170	HIS
2	AB	193	PRO
2	AB	201	PRO
2	AB	208	ARG
2	AB	222	ARG
3	AC	8	ASN
3	AC	54	ARG
3	AC	60	PRO
3	AC	74	GLY
3	AC	75	ILE
3	AC	98	PRO
3	AC	99	ALA
3	AC	107	ARG
3	AC	108	LYS
3	AC	146	ALA
3	AC	156	ARG
4	AD	7	PRO
4	AD	9	LEU
4	AD	10	LYS
4	AD	15	GLU
4	AD	22	LYS
4	AD	23	SER
4	AD	24	GLY
4	AD	26	ARG
4	AD	30	THR
4	AD	33	LYS
4	AD	34	ILE
4	AD	36	GLN
4	AD	37	ALA

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Mol	Chain	Res	Type
4	AD	92	ALA
4	AD	110	THR
4	AD	121	LYS
4	AD	132	ILE
4	AD	133	ALA
4	AD	134	SER
4	AD	139	PRO
4	AD	141	ASP
4	AD	143	VAL
4	AD	145	ILE
4	AD	146	ARG
4	AD	166	GLU
4	AD	167	LYS
4	AD	178	MET
4	AD	179	GLU
4	AD	189	SER
5	AE	26	LYS
5	AE	41	ASP
5	AE	45	ARG
5	AE	50	TYR
5	AE	69	ARG
5	AE	70	ASN
5	AE	100	SER
5	AE	102	GLY
5	AE	108	GLY
5	AE	110	ALA
5	AE	123	VAL
5	AE	126	LYS
5	AE	127	ALA
5	AE	132	ASN
5	AE	134	ILE
5	AE	142	ASP
5	AE	157	ARG
5	AE	158	GLY
6	AF	12	PRO
6	AF	26	THR
6	AF	71	ILE
6	AF	77	THR
6	AF	78	PHE
6	AF	85	ILE
6	AF	91	ARG
6	AF	92	THR

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Mol	Chain	Res	Type
6	AF	93	LYS
6	AF	99	ALA
7	AG	6	VAL
7	AG	22	LEU
7	AG	23	LEU
7	AG	27	VAL
7	AG	57	SER
7	AG	143	ARG
8	AH	21	ASN
8	AH	30	SER
8	AH	32	LEU
8	AH	36	ILE
8	AH	37	ALA
8	AH	40	LEU
8	AH	69	LYS
8	AH	75	ILE
8	AH	83	LEU
8	AH	87	LYS
8	AH	97	ALA
8	AH	103	VAL
8	AH	126	ILE
9	AI	34	SER
9	AI	36	GLU
9	AI	38	TYR
9	AI	43	THR
9	AI	46	MET
9	AI	52	LEU
9	AI	55	VAL
9	AI	57	MET
9	AI	86	ALA
9	AI	87	LEU
9	AI	119	ARG
10	AJ	24	GLU
10	AJ	35	GLN
10	AJ	36	VAL
10	AJ	57	VAL
11	AK	14	LYS
11	AK	17	SER
11	AK	40	ASN
11	AK	41	ALA
11	AK	49	GLY
11	AK	52	PHE

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Mol	Chain	Res	Type
11	AK	57	LYS
11	AK	65	VAL
11	AK	106	ARG
11	AK	125	LYS
11	AK	127	ARG
12	AL	4	VAL
12	AL	10	LYS
12	AL	24	LEU
12	AL	26	ALA
12	AL	35	THR
12	AL	39	THR
12	AL	42	PRO
12	AL	44	LYS
12	AL	58	THR
12	AL	86	ARG
12	AL	107	VAL
12	AL	115	SER
12	AL	117	TYR
12	AL	119	VAL
12	AL	122	PRO
13	AM	13	LYS
13	AM	14	HIS
13	AM	21	SER
13	AM	32	ALA
13	AM	67	GLY
13	AM	77	ILE
13	AM	78	LYS
13	AM	85	CYS
13	AM	107	ARG
13	AM	114	LYS
14	AN	25	GLU
14	AN	26	LEU
14	AN	28	ALA
14	AN	33	VAL
14	AN	34	ASN
14	AN	42	TRP
14	AN	48	LEU
14	AN	58	SER
14	AN	81	ARG
15	AO	19	ALA
15	AO	34	ALA
15	AO	47	LYS

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Mol	Chain	Res	Type
15	AO	79	THR
15	AO	85	LEU
15	AO	88	ARG
16	AP	2	VAL
16	AP	27	ALA
16	AP	32	PHE
16	AP	37	GLY
16	AP	43	ALA
16	AP	44	SER
17	AQ	17	MET
17	AQ	19	LYS
17	AQ	21	ILE
17	AQ	29	VAL
17	AQ	50	ASN
17	AQ	59	VAL
18	AR	21	ILE
18	AR	26	ILE
18	AR	28	THR
18	AR	29	LEU
18	AR	47	THR
18	AR	48	ARG
18	AR	49	ALA
18	AR	71	THR
19	AS	18	LYS
19	AS	30	PRO
19	AS	42	PRO
20	AT	4	ILE
20	AT	6	SER
20	AT	8	LYS
20	AT	48	GLN
20	AT	49	LYS
20	AT	71	LYS
20	AT	78	ASN
20	AT	79	LEU
21	AU	11	PRO
21	AU	35	ARG
21	AU	40	LYS
26	BC	12	ARG
26	BC	18	VAL
26	BC	44	ASN
26	BC	52	HIS
26	BC	58	LYS

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Mol	Chain	Res	Type
26	BC	59	GLN
26	BC	107	LYS
26	BC	108	GLY
26	BC	125	PRO
26	BC	130	PRO
26	BC	133	ASN
26	BC	136	VAL
26	BC	156	SER
26	BC	185	ALA
26	BC	188	ARG
26	BC	189	ALA
26	BC	195	GLY
26	BC	198	GLU
26	BC	215	VAL
26	BC	260	LYS
27	BD	57	ALA
27	BD	99	GLU
27	BD	102	ALA
27	BD	105	LYS
27	BD	138	LEU
27	BD	142	VAL
27	BD	152	PRO
27	BD	194	PRO
27	BD	206	ALA
28	BE	8	ALA
28	BE	9	GLN
28	BE	61	ARG
28	BE	83	VAL
28	BE	84	THR
28	BE	95	LYS
28	BE	104	ALA
28	BE	131	THR
28	BE	137	LYS
28	BE	153	LEU
29	BF	71	LYS
29	BF	93	GLU
29	BF	94	ARG
29	BF	101	ARG
29	BF	117	SER
29	BF	122	ASP
29	BF	139	GLU
29	BF	146	ASP

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Mol	Chain	Res	Type
29	BF	159	ALA
29	BF	173	ASP
29	BF	175	PRO
30	BG	19	ASN
30	BG	80	GLU
30	BG	91	VAL
30	BG	92	GLY
30	BG	117	PRO
30	BG	119	GLY
30	BG	125	PRO
31	BH	3	VAL
31	BH	15	LEU
31	BH	27	ARG
31	BH	35	LYS
31	BH	55	GLU
31	BH	57	LYS
31	BH	83	LYS
31	BH	108	VAL
31	BH	113	SER
31	BH	114	GLU
31	BH	115	VAL
31	BH	120	GLY
31	BH	139	PHE
31	BH	141	LYS
32	BI	128	ILE
33	BJ	24	THR
33	BJ	25	LEU
33	BJ	81	ILE
33	BJ	109	LEU
33	BJ	110	PRO
33	BJ	131	ASN
34	BK	35	VAL
34	BK	93	GLN
34	BK	108	ARG
34	BK	119	ALA
35	BL	17	LYS
35	BL	30	THR
35	BL	36	LYS
35	BL	54	GLN
35	BL	62	PRO
35	BL	81	ASP
35	BL	103	ILE

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Mol	Chain	Res	Type
35	BL	111	ILE
35	BL	115	GLU
35	BL	116	VAL
35	BL	124	GLY
36	BM	57	VAL
36	BM	59	ARG
36	BM	81	ARG
36	BM	82	MET
37	BN	22	ARG
37	BN	23	ASN
37	BN	57	THR
37	BN	90	ARG
37	BN	119	SER
38	BO	5	SER
38	BO	7	ARG
38	BO	12	THR
38	BO	34	HIS
38	BO	35	ILE
38	BO	68	LYS
38	BO	95	SER
38	BO	100	HIS
38	BO	104	GLN
38	BO	113	ALA
39	BP	9	GLN
39	BP	65	ASN
39	BP	83	ILE
39	BP	84	SER
39	BP	93	LYS
39	BP	97	TYR
39	BP	110	LYS
40	BQ	85	ALA
40	BQ	86	SER
41	BR	79	ARG
42	BS	14	ALA
42	BS	36	LEU
42	BS	37	THR
42	BS	57	ASN
42	BS	59	GLU
42	BS	62	ASP
42	BS	64	ALA
42	BS	71	VAL
43	BT	2	ILE

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Mol	Chain	Res	Type
43	BT	30	ILE
43	BT	31	VAL
43	BT	36	LYS
43	BT	38	ALA
44	BU	7	ASP
44	BU	18	LYS
44	BU	24	VAL
44	BU	36	GLU
44	BU	38	ILE
44	BU	42	LYS
44	BU	67	SER
44	BU	70	ALA
44	BU	74	ALA
44	BU	86	PHE
44	BU	96	LYS
44	BU	99	SER
45	BV	14	LYS
45	BV	15	GLY
45	BV	44	HIS
45	BV	55	GLU
45	BV	84	PRO
46	BW	56	ASP
46	BW	76	ASN
46	BW	82	ILE
47	BX	9	LYS
47	BX	32	LEU
47	BX	46	VAL
48	BY	7	ARG
48	BY	25	GLN
49	BZ	38	GLU
50	B0	3	GLN
50	B0	25	THR
50	B0	26	SER
50	B0	40	HIS
50	B0	54	ILE
51	B1	12	SER
51	B1	29	LYS
52	B2	45	SER
53	B3	27	ASN
53	B3	57	VAL
54	B4	10	LEU
2	CB	11	LYS

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Mol	Chain	Res	Type
2	CB	23	TRP
2	CB	31	ILE
2	CB	34	ALA
2	CB	39	HIS
2	CB	51	ASN
2	CB	52	GLU
2	CB	67	ILE
2	CB	68	LEU
2	CB	101	LEU
2	CB	102	THR
2	CB	112	LYS
2	CB	120	GLN
2	CB	127	ASP
2	CB	134	ALA
2	CB	147	SER
2	CB	148	LEU
2	CB	151	ILE
2	CB	158	PRO
2	CB	160	ALA
2	CB	170	HIS
2	CB	182	PRO
2	CB	183	VAL
2	CB	194	ASP
2	CB	201	PRO
2	CB	206	ALA
2	CB	207	ILE
3	CC	9	GLY
3	CC	39	VAL
3	CC	40	ARG
3	CC	45	LYS
3	CC	46	GLU
3	CC	54	ARG
3	CC	61	ALA
3	CC	62	LYS
3	CC	66	VAL
3	CC	121	THR
3	CC	127	ARG
3	CC	129	MET
3	CC	160	ALA
3	CC	190	HIS
4	CD	4	TYR
4	CD	7	PRO

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Mol	Chain	Res	Type
4	CD	9	LEU
4	CD	10	LYS
4	CD	18	ASP
4	CD	20	PHE
4	CD	28	ILE
4	CD	44	ARG
4	CD	58	LYS
4	CD	78	GLU
4	CD	81	ARG
4	CD	102	VAL
4	CD	107	PHE
4	CD	109	ALA
4	CD	110	THR
4	CD	111	ARG
4	CD	116	GLN
4	CD	117	LEU
4	CD	118	VAL
4	CD	125	VAL
4	CD	144	SER
4	CD	145	ILE
4	CD	148	LYS
4	CD	149	ALA
4	CD	154	ARG
4	CD	163	GLU
4	CD	166	GLU
4	CD	168	PRO
4	CD	169	THR
4	CD	183	LYS
4	CD	186	PRO
4	CD	187	GLU
4	CD	188	ARG
4	CD	191	LEU
4	CD	192	SER
5	CE	12	GLN
5	CE	26	LYS
5	CE	45	ARG
5	CE	78	ASN
5	CE	101	GLU
5	CE	109	GLY
5	CE	120	VAL
5	CE	134	ILE
6	CF	16	GLU

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Mol	Chain	Res	Type
6	CF	17	GLN
6	CF	21	MET
6	CF	22	ILE
6	CF	24	ARG
6	CF	25	TYR
6	CF	33	GLU
6	CF	57	ALA
6	CF	58	HIS
6	CF	63	ASN
6	CF	75	GLU
6	CF	82	ASP
6	CF	88	MET
6	CF	92	THR
6	CF	94	HIS
6	CF	99	ALA
7	CG	3	ARG
7	CG	22	LEU
7	CG	36	LYS
7	CG	37	SER
7	CG	42	ILE
7	CG	50	LEU
7	CG	70	ARG
7	CG	77	SER
7	CG	78	ARG
7	CG	82	GLY
7	CG	121	ALA
7	CG	146	GLU
7	CG	151	PHE
8	CH	23	ALA
8	CH	52	GLU
8	CH	54	ASP
8	CH	57	PRO
8	CH	59	LEU
8	CH	67	GLN
8	CH	74	SER
8	CH	83	LEU
8	CH	111	MET
8	CH	116	ALA
9	CI	14	SER
9	CI	31	ASN
9	CI	40	GLY
9	CI	53	GLU

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Mol	Chain	Res	Type
9	CI	54	LEU
9	CI	55	VAL
9	CI	58	VAL
9	CI	73	SER
9	CI	91	ASP
9	CI	113	ARG
9	CI	115	LYS
10	CJ	36	VAL
10	CJ	57	VAL
10	CJ	61	ALA
10	CJ	74	VAL
10	CJ	89	ARG
10	CJ	96	VAL
11	CK	14	LYS
11	CK	16	VAL
11	CK	25	ALA
11	CK	27	PHE
11	CK	28	ASN
11	CK	41	ALA
11	CK	45	ALA
11	CK	79	ILE
11	CK	91	PRO
11	CK	119	ASN
11	CK	125	LYS
11	CK	126	LYS
12	CL	19	SER
12	CL	24	LEU
12	CL	25	GLU
12	CL	26	ALA
12	CL	43	LYS
12	CL	44	LYS
12	CL	56	ARG
12	CL	57	LEU
12	CL	58	THR
12	CL	64	THR
12	CL	94	ARG
12	CL	105	SER
13	CM	4	ILE
13	CM	5	ALA
13	CM	7	ILE
13	CM	25	VAL
13	CM	32	ALA

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Mol	Chain	Res	Type
13	CM	33	ILE
13	CM	34	LEU
13	CM	37	ALA
13	CM	50	GLU
13	CM	66	GLU
13	CM	69	LEU
13	CM	70	ARG
13	CM	74	SER
13	CM	83	LEU
13	CM	96	PRO
13	CM	97	VAL
13	CM	105	ASN
13	CM	112	PRO
13	CM	113	ARG
14	CN	33	VAL
14	CN	42	TRP
14	CN	45	VAL
14	CN	46	LEU
14	CN	48	LEU
14	CN	57	PRO
14	CN	58	SER
14	CN	82	ILE
15	CO	3	LEU
15	CO	9	ALA
15	CO	10	LYS
15	CO	11	ILE
15	CO	27	VAL
15	CO	56	LEU
15	CO	57	LEU
16	CP	42	ILE
16	CP	53	ASP
17	CQ	13	VAL
17	CQ	17	MET
17	CQ	55	ILE
17	CQ	69	LYS
17	CQ	75	LEU
17	CQ	82	ALA
18	CR	26	ILE
19	CS	4	SER
19	CS	5	LEU
19	CS	9	PRO
19	CS	28	LYS

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Mol	Chain	Res	Type
19	CS	35	SER
19	CS	49	ILE
19	CS	67	VAL
19	CS	70	LYS
19	CS	75	ALA
20	CT	4	ILE
20	CT	6	SER
20	CT	20	HIS
20	CT	21	ASN
20	CT	45	ALA
20	CT	57	ILE
20	CT	58	VAL
21	CU	21	ARG
21	CU	25	LYS
21	CU	26	ALA
21	CU	34	ARG
21	CU	37	PHE
21	CU	38	TYR
21	CU	41	PRO
21	CU	42	THR
55	CY	49	THR
55	CY	51	LEU
55	CY	52	ARG
55	CY	112	ASP
55	CY	120	GLU
55	CY	146	LYS
55	CY	150	GLU
55	CY	155	ARG
55	CY	156	SER
26	DC	5	CYS
26	DC	8	THR
26	DC	29	PHE
26	DC	52	HIS
26	DC	81	GLU
26	DC	119	VAL
26	DC	121	ALA
26	DC	122	ALA
26	DC	133	ASN
26	DC	172	THR
26	DC	176	ARG
26	DC	195	GLY
27	DD	7	LYS

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Mol	Chain	Res	Type
27	DD	92	VAL
27	DD	94	GLN
27	DD	105	LYS
27	DD	134	HIS
27	DD	152	PRO
27	DD	197	THR
28	DE	4	VAL
28	DE	16	GLU
28	DE	49	ARG
28	DE	53	THR
28	DE	126	VAL
29	DF	8	LYS
29	DF	9	ASP
29	DF	33	ILE
29	DF	41	GLU
29	DF	46	LYS
29	DF	80	GLN
29	DF	88	VAL
29	DF	93	GLU
29	DF	120	SER
29	DF	124	ARG
29	DF	145	VAL
29	DF	153	ILE
29	DF	154	THR
29	DF	155	ILE
29	DF	175	PRO
30	DG	37	ASN
30	DG	60	GLY
30	DG	94	ARG
31	DH	3	VAL
31	DH	9	VAL
31	DH	10	ALA
31	DH	12	LEU
31	DH	14	SER
31	DH	15	LEU
31	DH	28	ASN
31	DH	30	LEU
31	DH	41	LYS
31	DH	49	ALA
31	DH	50	ARG
31	DH	51	ARG
31	DH	71	LYS

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Mol	Chain	Res	Type
31	DH	78	VAL
31	DH	84	ALA
31	DH	116	ARG
31	DH	121	VAL
31	DH	129	GLU
31	DH	134	VAL
31	DH	136	SER
31	DH	137	GLU
32	DI	9	LYS
32	DI	19	PRO
32	DI	20	SER
32	DI	23	VAL
32	DI	57	VAL
32	DI	62	ALA
32	DI	88	GLY
32	DI	89	SER
32	DI	97	VAL
32	DI	110	GLN
32	DI	112	LYS
32	DI	124	MET
32	DI	125	THR
33	DJ	6	ALA
34	DK	29	HIS
34	DK	92	GLU
34	DK	108	ARG
35	DL	12	SER
35	DL	36	LYS
35	DL	42	SER
35	DL	81	ASP
35	DL	88	GLY
35	DL	99	ASN
36	DM	26	VAL
36	DM	29	GLY
36	DM	69	PRO
36	DM	82	MET
36	DM	84	LYS
37	DN	14	SER
37	DN	116	VAL
38	DO	13	ARG
38	DO	51	ALA
38	DO	76	LYS
38	DO	77	ALA

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Mol	Chain	Res	Type
38	DO	88	LYS
38	DO	95	SER
38	DO	108	ASP
38	DO	111	ARG
39	DP	16	VAL
39	DP	93	LYS
39	DP	112	ARG
39	DP	113	LEU
40	DQ	38	VAL
40	DQ	73	ILE
41	DR	51	VAL
41	DR	52	PRO
41	DR	53	PHE
41	DR	57	GLY
42	DS	40	ASN
42	DS	46	LEU
42	DS	89	ALA
43	DT	5	GLU
43	DT	28	ASN
43	DT	36	LYS
43	DT	37	ASP
43	DT	52	GLU
43	DT	88	LYS
43	DT	92	ASN
44	DU	29	SER
44	DU	76	THR
44	DU	84	PHE
44	DU	85	ARG
45	DV	14	LYS
45	DV	24	ASN
46	DW	30	SER
46	DW	49	ALA
46	DW	52	GLY
47	DX	2	ARG
47	DX	42	GLU
47	DX	52	ALA
47	DX	53	LYS
47	DX	60	LYS
47	DX	63	ILE
48	DY	22	LEU
48	DY	25	GLN
48	DY	37	LEU

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Mol	Chain	Res	Type
48	DY	57	LEU
49	DZ	3	THR
50	D0	3	GLN
50	D0	23	ALA
50	D0	24	VAL
50	D0	25	THR
50	D0	26	SER
50	D0	28	SER
50	D0	54	ILE
51	D1	4	ILE
51	D1	31	GLU
51	D1	45	HIS
51	D1	50	GLU
52	D2	44	VAL
53	D3	15	LYS
53	D3	32	LEU
54	D4	30	GLU
2	AB	15	HIS
2	AB	19	GLN
2	AB	34	ALA
2	AB	42	ASN
2	AB	57	LEU
2	AB	61	ALA
2	AB	75	ALA
2	AB	98	GLY
2	AB	112	LYS
2	AB	126	PHE
2	AB	145	GLU
2	AB	151	ILE
2	AB	155	GLY
2	AB	207	ILE
2	AB	210	VAL
3	AC	15	VAL
3	AC	28	GLU
3	AC	66	VAL
3	AC	78	GLY
3	AC	80	LYS
3	AC	141	ALA
4	AD	11	LEU
4	AD	41	HIS
4	AD	79	ALA
4	AD	80	ALA

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Mol	Chain	Res	Type
4	AD	123	ILE
4	AD	128	ARG
4	AD	173	VAL
4	AD	182	PHE
4	AD	186	PRO
4	AD	188	ARG
4	AD	192	SER
4	AD	201	VAL
5	AE	12	GLN
5	AE	44	GLY
5	AE	83	HIS
5	AE	111	MET
5	AE	137	VAL
5	AE	138	ARG
6	AF	4	TYR
6	AF	33	GLU
6	AF	38	ARG
6	AF	43	GLY
6	AF	54	LEU
6	AF	56	LYS
7	AG	16	PRO
7	AG	26	PHE
7	AG	54	SER
7	AG	93	PRO
7	AG	111	ARG
7	AG	116	MET
7	AG	123	GLU
7	AG	126	ASP
7	AG	140	ASP
8	AH	14	ILE
8	AH	28	PRO
8	AH	38	ASN
8	AH	71	VAL
8	AH	88	ARG
8	AH	104	VAL
9	AI	9	THR
9	AI	24	GLY
9	AI	53	GLU
9	AI	79	ILE
9	AI	101	ALA
9	AI	111	VAL
9	AI	116	VAL

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Mol	Chain	Res	Type
9	AI	121	ALA
9	AI	125	PRO
10	AJ	11	LYS
10	AJ	70	HIS
10	AJ	93	ALA
11	AK	50	SER
11	AK	105	PHE
11	AK	114	THR
12	AL	5	ASN
12	AL	25	GLU
12	AL	51	LYS
12	AL	87	VAL
12	AL	92	GLY
12	AL	104	CYS
12	AL	110	ARG
12	AL	113	ALA
13	AM	4	ILE
13	AM	5	ALA
13	AM	11	ASP
13	AM	23	TYR
13	AM	38	GLY
13	AM	39	ILE
13	AM	66	GLU
13	AM	89	LEU
13	AM	98	ARG
13	AM	111	GLY
14	AN	27	LYS
14	AN	45	VAL
14	AN	46	LEU
14	AN	47	LYS
14	AN	57	PRO
14	AN	62	ASN
15	AO	3	LEU
15	AO	20	ASN
15	AO	24	SER
15	AO	33	THR
15	AO	74	ASP
16	AP	22	ALA
16	AP	25	ARG
16	AP	53	ASP
16	AP	58	ALA
17	AQ	10	GLY

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Mol	Chain	Res	Type
17	AQ	32	PRO
17	AQ	56	GLY
17	AQ	64	CYS
17	AQ	67	LEU
17	AQ	80	GLU
18	AR	54	GLN
18	AR	56	ALA
18	AR	72	ASP
19	AS	19	VAL
19	AS	77	THR
20	AT	35	VAL
20	AT	86	LEU
21	AU	12	PHE
21	AU	13	ASP
21	AU	23	CYS
21	AU	25	LYS
21	AU	27	GLY
21	AU	53	VAL
26	BC	40	GLY
26	BC	57	HIS
26	BC	121	ALA
26	BC	122	ALA
26	BC	123	ILE
26	BC	204	LEU
26	BC	221	GLY
26	BC	232	GLY
26	BC	233	GLY
26	BC	235	GLU
27	BD	98	VAL
27	BD	113	SER
27	BD	195	GLY
28	BE	72	SER
28	BE	96	VAL
28	BE	116	ASP
28	BE	154	ASP
28	BE	155	GLU
29	BF	30	VAL
29	BF	43	ILE
29	BF	49	LEU
29	BF	72	SER
29	BF	99	PHE
29	BF	142	TYR

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Mol	Chain	Res	Type
29	BF	144	LYS
29	BF	176	PHE
30	BG	39	ALA
30	BG	60	GLY
30	BG	149	ALA
30	BG	158	GLY
30	BG	174	LYS
31	BH	9	VAL
31	BH	14	SER
31	BH	30	LEU
31	BH	34	GLY
31	BH	89	LYS
31	BH	92	GLY
31	BH	118	PRO
31	BH	135	HIS
31	BH	138	VAL
32	BI	8	VAL
32	BI	36	GLU
32	BI	65	SER
32	BI	90	GLY
32	BI	92	PRO
33	BJ	78	THR
33	BJ	122	LEU
34	BK	48	PRO
34	BK	73	ASP
34	BK	101	GLY
34	BK	103	VAL
35	BL	43	GLY
35	BL	74	THR
35	BL	86	GLU
35	BL	114	GLY
35	BL	138	ALA
36	BM	3	GLN
36	BM	55	ARG
36	BM	65	ILE
37	BN	3	HIS
37	BN	7	GLY
37	BN	70	THR
37	BN	71	ARG
37	BN	104	ALA
37	BN	118	ARG
38	BO	6	ALA

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Mol	Chain	Res	Type
38	BO	69	ASP
38	BO	74	VAL
38	BO	81	ARG
39	BP	3	ILE
39	BP	10	GLU
39	BP	52	ARG
39	BP	104	GLY
40	BQ	6	GLY
40	BQ	78	PHE
41	BR	48	LYS
41	BR	53	PHE
41	BR	56	GLY
41	BR	57	GLY
42	BS	47	VAL
42	BS	63	GLY
43	BT	9	LYS
44	BU	8	ASP
44	BU	16	LYS
44	BU	37	GLY
44	BU	40	LEU
44	BU	50	ALA
44	BU	51	LEU
44	BU	69	VAL
45	BV	9	ARG
45	BV	12	GLN
45	BV	24	ASN
45	BV	53	LYS
45	BV	74	ALA
45	BV	75	GLN
45	BV	88	HIS
46	BW	12	ASN
46	BW	33	ALA
47	BX	8	GLY
47	BX	21	LEU
48	BY	61	ALA
48	BY	62	GLY
50	B0	23	ALA
50	B0	32	THR
51	B1	13	SER
52	B2	36	ALA
2	CB	16	PHE
2	CB	35	ARG

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Mol	Chain	Res	Type
2	CB	44	GLU
2	CB	45	LYS
2	CB	82	ASP
2	CB	87	CYS
2	CB	89	GLN
2	CB	108	ARG
2	CB	133	GLU
2	CB	143	LYS
2	CB	149	GLY
2	CB	152	LYS
2	CB	155	GLY
2	CB	193	PRO
2	CB	224	GLY
3	CC	20	SER
3	CC	36	ASP
3	CC	53	SER
3	CC	120	ILE
3	CC	141	ALA
3	CC	145	GLY
3	CC	166	GLU
3	CC	167	TRP
4	CD	5	LEU
4	CD	6	GLY
4	CD	8	LYS
4	CD	69	GLU
4	CD	97	ARG
4	CD	99	ASP
4	CD	100	ASN
4	CD	101	VAL
4	CD	126	ASN
4	CD	140	ASN
4	CD	147	GLU
4	CD	153	SER
4	CD	182	PHE
4	CD	195	ILE
4	CD	201	VAL
5	CE	24	THR
5	CE	110	ALA
5	CE	135	ASN
5	CE	158	GLY
6	CF	2	ARG
6	CF	15	SER

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Mol	Chain	Res	Type
6	CF	23	GLU
6	CF	43	GLY
6	CF	70	VAL
6	CF	71	ILE
6	CF	98	GLU
7	CG	18	PHE
7	CG	27	VAL
7	CG	34	GLY
7	CG	54	SER
7	CG	98	ALA
7	CG	99	LEU
7	CG	114	LYS
7	CG	120	LEU
7	CG	135	VAL
7	CG	149	LYS
8	CH	30	SER
8	CH	81	PRO
8	CH	82	GLY
8	CH	104	VAL
8	CH	110	VAL
8	CH	118	GLN
9	CI	10	GLY
9	CI	13	LYS
9	CI	38	TYR
9	CI	41	ARG
9	CI	43	THR
9	CI	44	ALA
9	CI	78	ALA
9	CI	80	ARG
9	CI	96	SER
9	CI	109	ARG
10	CJ	6	ILE
10	CJ	17	LEU
10	CJ	23	ALA
10	CJ	76	ILE
10	CJ	79	PRO
10	CJ	86	ALA
11	CK	52	PHE
11	CK	82	LEU
11	CK	90	GLY
12	CL	63	VAL
12	CL	76	GLU

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Mol	Chain	Res	Type
12	CL	118	GLY
13	CM	17	ILE
13	CM	27	LYS
13	CM	28	THR
13	CM	35	ALA
13	CM	40	ALA
13	CM	41	GLU
13	CM	44	LYS
13	CM	51	GLY
13	CM	55	THR
13	CM	56	LEU
13	CM	67	GLY
13	CM	88	GLY
14	CN	25	GLU
14	CN	32	ASP
14	CN	54	ASP
15	CO	24	SER
15	CO	55	GLY
15	CO	74	ASP
16	CP	23	ASP
16	CP	44	SER
16	CP	52	LEU
16	CP	62	GLY
16	CP	67	ILE
16	CP	69	ASP
17	CQ	6	ARG
17	CQ	50	ASN
17	CQ	70	THR
18	CR	28	THR
18	CR	30	LYS
18	CR	32	TYR
18	CR	46	GLY
18	CR	58	ALA
19	CS	17	LYS
19	CS	37	ARG
19	CS	43	ASN
19	CS	45	ILE
20	CT	34	LYS
21	CU	9	ASN
21	CU	12	PHE
55	CY	31	ARG
55	CY	53	GLN

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Mol	Chain	Res	Type
55	CY	86	ASP
55	CY	96	SER
55	CY	99	ARG
55	CY	107	GLU
55	CY	111	LYS
55	CY	133	ARG
55	CY	165	ASP
26	DC	12	ARG
26	DC	73	ILE
26	DC	150	GLY
26	DC	158	GLY
26	DC	259	ASN
26	DC	260	LYS
27	DD	31	ALA
27	DD	104	VAL
27	DD	113	SER
27	DD	187	LEU
28	DE	61	ARG
28	DE	86	ALA
28	DE	133	LEU
28	DE	155	GLU
29	DF	13	LYS
29	DF	38	GLY
29	DF	40	GLY
29	DF	48	LEU
29	DF	59	ILE
29	DF	92	GLY
29	DF	106	ALA
29	DF	114	ARG
29	DF	135	ILE
30	DG	57	TYR
30	DG	58	ALA
30	DG	78	VAL
30	DG	79	THR
30	DG	81	GLY
30	DG	99	GLY
30	DG	108	PHE
30	DG	174	LYS
31	DH	34	GLY
31	DH	35	LYS
31	DH	72	ILE
31	DH	88	GLY

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Mol	Chain	Res	Type
31	DH	115	VAL
31	DH	120	GLY
31	DH	122	LEU
31	DH	142	VAL
31	DH	143	ILE
31	DH	148	ALA
32	DI	11	GLN
32	DI	28	GLY
32	DI	48	ILE
32	DI	90	GLY
32	DI	116	MET
33	DJ	33	ALA
34	DK	5	GLN
34	DK	28	SER
34	DK	98	ARG
35	DL	17	LYS
35	DL	18	ARG
36	DM	56	ALA
37	DN	2	ARG
37	DN	3	HIS
37	DN	15	SER
37	DN	34	ILE
37	DN	70	THR
38	DO	4	LYS
38	DO	27	VAL
38	DO	55	GLU
38	DO	89	ASP
38	DO	99	TYR
39	DP	52	ARG
39	DP	110	LYS
40	DQ	23	TYR
40	DQ	26	ALA
40	DQ	42	GLY
40	DQ	59	LEU
40	DQ	72	GLY
40	DQ	94	LEU
40	DQ	103	VAL
41	DR	24	LYS
41	DR	29	THR
41	DR	56	GLY
42	DS	25	ARG
42	DS	45	VAL

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Mol	Chain	Res	Type
42	DS	88	ARG
43	DT	38	ALA
43	DT	42	GLU
43	DT	89	GLU
44	DU	4	ILE
44	DU	6	ARG
44	DU	7	ASP
44	DU	8	ASP
44	DU	16	LYS
44	DU	36	GLU
44	DU	55	GLY
44	DU	74	ALA
45	DV	15	GLY
45	DV	33	GLY
46	DW	11	ARG
46	DW	31	VAL
48	DY	14	LEU
48	DY	17	GLU
48	DY	41	HIS
49	DZ	14	GLY
49	DZ	51	SER
50	D0	55	ALA
51	D1	29	LYS
51	D1	39	ASP
51	D1	46	VAL
53	D3	27	ASN
2	AB	48	PRO
2	AB	59	LYS
2	AB	76	ALA
2	AB	119	THR
2	AB	143	LYS
2	AB	164	ILE
2	AB	167	ASP
2	AB	194	ASP
2	AB	220	THR
3	AC	31	ASP
3	AC	63	SER
3	AC	129	MET
4	AD	111	ARG
4	AD	149	ALA
4	AD	169	THR
4	AD	174	ASP

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Mol	Chain	Res	Type
5	AE	98	PRO
5	AE	103	THR
6	AF	53	LYS
7	AG	41	SER
7	AG	94	VAL
7	AG	96	ARG
7	AG	130	ASN
7	AG	149	LYS
8	AH	13	ARG
8	AH	46	ILE
8	AH	57	PRO
9	AI	45	ARG
9	AI	78	ALA
9	AI	114	LYS
10	AJ	88	MET
11	AK	15	GLN
11	AK	47	ALA
11	AK	93	ARG
12	AL	17	ALA
12	AL	20	ASN
12	AL	59	ASN
12	AL	105	SER
12	AL	108	LYS
13	AM	22	ILE
13	AM	43	VAL
13	AM	62	LYS
13	AM	65	VAL
14	AN	20	PHE
14	AN	21	ALA
15	AO	78	TYR
16	AP	13	LYS
16	AP	16	PHE
16	AP	23	ASP
16	AP	36	VAL
16	AP	45	GLU
17	AQ	30	LYS
18	AR	46	GLY
20	AT	45	ALA
20	AT	69	LYS
20	AT	70	ASN
21	AU	24	GLU
26	BC	51	ARG

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Mol	Chain	Res	Type
26	BC	113	ASP
26	BC	183	VAL
26	BC	197	ALA
26	BC	200	MET
26	BC	211	ARG
26	BC	247	TRP
27	BD	121	THR
27	BD	183	GLU
28	BE	18	THR
28	BE	129	PRO
29	BF	28	PRO
29	BF	136	ILE
29	BF	138	PRO
30	BG	38	ASP
31	BH	137	GLU
32	BI	20	SER
32	BI	83	ALA
32	BI	87	SER
32	BI	101	SER
34	BK	89	ASN
34	BK	91	SER
35	BL	80	SER
35	BL	104	GLN
35	BL	142	ILE
36	BM	5	LYS
37	BN	44	LEU
38	BO	103	VAL
41	BR	7	SER
41	BR	51	VAL
42	BS	22	ASP
42	BS	40	ASN
42	BS	43	ALA
43	BT	56	GLU
44	BU	55	GLY
44	BU	88	ASP
44	BU	98	ASN
46	BW	37	ILE
47	BX	2	ARG
47	BX	20	ALA
47	BX	39	VAL
47	BX	73	ARG
48	BY	53	VAL

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Mol	Chain	Res	Type
50	B0	55	ALA
52	B2	4	THR
52	B2	25	LYS
53	B3	20	GLY
53	B3	58	ILE
54	B4	37	GLN
2	CB	74	ARG
2	CB	105	LYS
2	CB	107	VAL
2	CB	115	LYS
2	CB	150	GLY
2	CB	208	ARG
3	CC	18	TRP
3	CC	25	ASN
3	CC	67	THR
3	CC	146	ALA
3	CC	161	GLU
4	CD	3	ARG
4	CD	32	CYS
4	CD	38	PRO
4	CD	93	LEU
4	CD	167	LYS
5	CE	69	ARG
5	CE	70	ASN
5	CE	90	THR
5	CE	99	ALA
6	CF	13	ASP
6	CF	18	VAL
6	CF	81	ASN
6	CF	97	THR
7	CG	81	GLY
7	CG	122	ASN
7	CG	150	ALA
8	CH	29	SER
8	CH	124	GLU
9	CI	32	GLN
9	CI	107	ASP
10	CJ	16	ARG
10	CJ	32	THR
10	CJ	91	ASP
10	CJ	100	ILE
12	CL	90	LEU

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Mol	Chain	Res	Type
12	CL	91	PRO
12	CL	111	LYS
13	CM	3	ARG
13	CM	84	GLY
14	CN	2	LYS
14	CN	21	ALA
14	CN	62	ASN
14	CN	81	ARG
15	CO	17	ARG
15	CO	19	ALA
15	CO	47	LYS
15	CO	59	MET
16	CP	28	ARG
16	CP	55	ASP
17	CQ	18	GLU
17	CQ	51	ASN
17	CQ	52	GLU
17	CQ	81	LYS
18	CR	29	LEU
18	CR	45	THR
18	CR	48	ARG
19	CS	27	ASP
19	CS	59	PRO
20	CT	5	LYS
20	CT	47	ALA
20	CT	67	ILE
20	CT	73	ALA
21	CU	10	GLU
55	CY	103	PRO
55	CY	154	ARG
55	CY	164	THR
26	DC	79	ARG
26	DC	107	LYS
26	DC	123	ILE
26	DC	152	GLN
28	DE	57	LYS
28	DE	152	GLU
28	DE	172	ALA
28	DE	173	THR
29	DF	20	ASN
29	DF	104	THR
29	DF	111	ARG

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Mol	Chain	Res	Type
29	DF	146	ASP
30	DG	67	ALA
30	DG	117	PRO
30	DG	118	ALA
30	DG	125	PRO
31	DH	81	ALA
31	DH	97	ARG
31	DH	138	VAL
31	DH	146	VAL
32	DI	7	TYR
32	DI	27	LEU
32	DI	59	THR
32	DI	115	ASP
35	DL	29	LYS
35	DL	69	ARG
36	DM	14	LYS
36	DM	58	LYS
38	DO	12	THR
38	DO	54	VAL
38	DO	112	GLU
40	DQ	6	GLY
42	DS	15	GLN
44	DU	18	LYS
44	DU	75	ALA
45	DV	44	HIS
45	DV	46	LYS
45	DV	75	GLN
47	DX	19	HIS
47	DX	61	LYS
47	DX	74	GLY
48	DY	2	LYS
48	DY	51	ALA
51	D1	43	ARG
54	D4	32	LYS
54	D4	37	GLN
2	AB	95	ARG
2	AB	113	ARG
2	AB	124	GLY
2	AB	132	LYS
3	AC	13	GLY
3	AC	43	LEU
3	AC	44	THR

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Mol	Chain	Res	Type
3	AC	83	ASP
3	AC	117	ALA
3	AC	163	ALA
4	AD	5	LEU
4	AD	35	GLU
4	AD	94	LEU
4	AD	125	VAL
4	AD	144	SER
5	AE	122	ASN
5	AE	148	ASN
6	AF	63	ASN
7	AG	3	ARG
8	AH	33	LYS
8	AH	39	VAL
8	AH	68	GLY
8	AH	70	ALA
8	AH	96	MET
9	AI	58	VAL
9	AI	91	ASP
11	AK	89	PRO
12	AL	83	ARG
12	AL	103	ASP
12	AL	112	GLN
13	AM	24	GLY
13	AM	61	ALA
14	AN	75	ARG
15	AO	18	ASP
19	AS	43	ASN
20	AT	46	ALA
20	AT	63	ALA
21	AU	52	ALA
26	BC	5	CYS
26	BC	9	SER
26	BC	11	GLY
26	BC	269	ARG
27	BD	29	VAL
27	BD	104	VAL
28	BE	97	ASN
28	BE	110	SER
29	BF	174	PHE
30	BG	54	ARG
30	BG	129	GLU

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Mol	Chain	Res	Type
30	BG	139	VAL
30	BG	161	VAL
30	BG	175	LYS
31	BH	91	PHE
32	BI	3	LYS
32	BI	100	ILE
33	BJ	2	LYS
33	BJ	97	PRO
34	BK	5	GLN
36	BM	43	ALA
36	BM	102	LEU
37	BN	45	ARG
37	BN	117	ASP
38	BO	13	ARG
38	BO	62	LEU
39	BP	33	GLU
39	BP	53	GLY
39	BP	87	ARG
42	BS	56	ALA
43	BT	41	ALA
43	BT	65	GLY
45	BV	54	ALA
45	BV	80	HIS
46	BW	81	SER
48	BY	6	LEU
50	B0	49	ARG
50	B0	50	GLY
52	B2	5	PHE
3	CC	8	ASN
3	CC	16	LYS
4	CD	46	PRO
4	CD	90	LEU
4	CD	157	ALA
4	CD	193	ALA
6	CF	38	ARG
7	CG	11	LYS
7	CG	19	GLY
7	CG	26	PHE
7	CG	67	GLU
7	CG	117	ALA
7	CG	136	LYS
9	CI	6	TYR

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Mol	Chain	Res	Type
9	CI	11	ARG
10	CJ	42	LEU
10	CJ	93	ALA
11	CK	30	THR
11	CK	61	PHE
11	CK	81	ASN
11	CK	84	VAL
13	CM	63	PHE
14	CN	51	LEU
14	CN	55	SER
15	CO	58	ARG
15	CO	69	TYR
15	CO	83	GLU
16	CP	31	ARG
16	CP	41	PRO
16	CP	46	LYS
16	CP	54	LEU
18	CR	33	ILE
19	CS	47	LEU
20	CT	32	ILE
20	CT	66	LEU
20	CT	69	LYS
20	CT	70	ASN
55	CY	45	TYR
55	CY	106	THR
55	CY	134	ASP
55	CY	182	LEU
27	DD	41	ALA
28	DE	129	PRO
29	DF	162	ASP
30	DG	12	ALA
30	DG	106	LEU
30	DG	111	PRO
31	DH	106	ALA
32	DI	17	ALA
32	DI	22	PRO
32	DI	126	ARG
33	DJ	34	ARG
35	DL	3	LEU
35	DL	15	ALA
35	DL	130	GLY
36	DM	8	LYS

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Mol	Chain	Res	Type
36	DM	87	GLY
36	DM	122	ALA
37	DN	69	ARG
37	DN	104	ALA
38	DO	47	VAL
38	DO	48	LEU
38	DO	56	LYS
38	DO	80	GLU
38	DO	94	ARG
38	DO	100	HIS
39	DP	105	LYS
41	DR	40	MET
41	DR	49	ILE
42	DS	84	ARG
43	DT	7	LEU
46	DW	63	ALA
48	DY	4	LYS
48	DY	18	LEU
51	D1	22	THR
51	D1	51	ALA
52	D2	33	ARG
53	D3	7	ARG
53	D3	16	THR
2	AB	22	TYR
2	AB	25	PRO
2	AB	68	LEU
2	AB	74	ARG
2	AB	123	ASP
3	AC	162	ILE
3	AC	166	GLU
4	AD	138	SER
5	AE	84	PRO
5	AE	125	ALA
5	AE	155	ALA
7	AG	49	THR
7	AG	131	LYS
9	AI	35	LEU
10	AJ	75	ASP
10	AJ	80	THR
11	AK	78	GLY
13	AM	57	ARG
14	AN	64	CYS

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Mol	Chain	Res	Type
15	AO	87	LEU
16	AP	42	ILE
16	AP	57	ILE
19	AS	53	ASN
21	AU	20	LYS
21	AU	21	ARG
21	AU	44	GLU
26	BC	73	ILE
27	BD	36	GLN
27	BD	90	PHE
28	BE	6	LYS
28	BE	80	SER
28	BE	136	GLN
29	BF	18	GLU
29	BF	27	VAL
29	BF	112	ASP
30	BG	11	PRO
30	BG	45	ALA
30	BG	109	SER
31	BH	32	PRO
32	BI	31	GLY
32	BI	96	LYS
33	BJ	82	GLY
34	BK	72	PRO
34	BK	88	ASN
35	BL	58	TYR
36	BM	80	VAL
37	BN	15	SER
37	BN	100	CYS
38	BO	46	GLU
38	BO	83	LEU
42	BS	15	GLN
42	BS	65	ASP
43	BT	17	SER
43	BT	45	ALA
44	BU	56	GLY
45	BV	87	GLN
49	BZ	19	HIS
52	B2	8	SER
53	B3	62	PRO
2	CB	13	GLY
2	CB	14	VAL

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Mol	Chain	Res	Type
2	CB	22	TYR
2	CB	28	LYS
2	CB	95	ARG
2	CB	130	THR
3	CC	38	LYS
4	CD	92	ALA
5	CE	32	SER
7	CG	15	ASP
7	CG	20	SER
7	CG	63	GLU
7	CG	103	TRP
7	CG	113	ASP
8	CH	15	ARG
9	CI	82	GLY
9	CI	99	ARG
10	CJ	15	HIS
11	CK	47	ALA
11	CK	117	PRO
12	CL	70	GLU
15	CO	8	THR
15	CO	26	GLU
15	CO	54	ARG
16	CP	33	ILE
18	CR	57	ARG
18	CR	73	ARG
19	CS	26	GLY
19	CS	72	GLY
20	CT	33	LYS
20	CT	55	GLN
55	CY	71	ASP
26	DC	11	GLY
26	DC	18	VAL
26	DC	31	PRO
26	DC	111	ALA
26	DC	204	LEU
26	DC	239	PHE
26	DC	270	ARG
27	DD	23	PRO
27	DD	86	GLU
27	DD	206	ALA
29	DF	60	SER
29	DF	78	ILE

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Mol	Chain	Res	Type
29	DF	90	LEU
29	DF	94	ARG
29	DF	98	PHE
29	DF	173	ASP
30	DG	68	ARG
30	DG	126	THR
31	DH	16	GLY
31	DH	99	ILE
31	DH	147	VAL
32	DI	34	ILE
32	DI	36	GLU
32	DI	39	LYS
32	DI	74	PRO
32	DI	92	PRO
33	DJ	25	LEU
33	DJ	69	ARG
34	DK	119	ALA
37	DN	42	LYS
37	DN	118	ARG
39	DP	87	ARG
42	DS	30	SER
43	DT	69	ARG
44	DU	98	ASN
45	DV	84	PRO
47	DX	56	ARG
53	D3	50	SER
3	AC	73	PRO
3	AC	195	VAL
4	AD	122	ALA
4	AD	194	ASP
9	AI	47	VAL
10	AJ	44	THR
10	AJ	95	GLY
14	AN	52	PRO
16	AP	48	GLU
17	AQ	60	GLU
19	AS	70	LYS
21	AU	22	SER
26	BC	78	GLU
26	BC	106	PRO
26	BC	143	VAL
27	BD	56	LYS

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Mol	Chain	Res	Type
28	BE	195	GLN
30	BG	6	ALA
32	BI	30	GLN
32	BI	84	GLY
36	BM	18	ARG
42	BS	35	ILE
45	BV	32	GLY
2	CB	73	LYS
3	CC	109	PRO
4	CD	82	LEU
4	CD	155	VAL
6	CF	7	VAL
7	CG	128	ALA
9	CI	127	PHE
11	CK	54	GLY
12	CL	3	THR
12	CL	38	TYR
12	CL	122	PRO
13	CM	23	TYR
15	CO	85	LEU
16	CP	18	GLN
16	CP	24	SER
18	CR	62	ALA
20	CT	65	GLY
26	DC	136	VAL
28	DE	200	LEU
29	DF	44	ALA
29	DF	97	GLU
31	DH	95	GLY
32	DI	18	ASN
32	DI	21	PRO
32	DI	80	LYS
35	DL	27	LEU
37	DN	10	LEU
38	DO	3	LYS
42	DS	66	ILE
45	DV	66	ASP
52	D2	5	PHE
3	AC	52	VAL
4	AD	28	ILE
4	AD	45	LYS
11	AK	107	ILE

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Mol	Chain	Res	Type
17	AQ	12	VAL
17	AQ	61	ILE
18	AR	41	PRO
19	AS	9	PRO
30	BG	25	ILE
30	BG	112	VAL
35	BL	23	ILE
11	CK	48	GLY
38	DO	42	PRO
46	DW	27	GLY
46	DW	51	VAL
2	AB	47	VAL
3	AC	7	PRO
3	AC	97	VAL
5	AE	133	PRO
8	AH	44	GLY
9	AI	71	GLY
12	AL	85	GLY
14	AN	72	GLY
19	AS	59	PRO
26	BC	246	PRO
28	BE	71	GLY
29	BF	148	VAL
32	BI	19	PRO
33	BJ	115	GLY
33	BJ	137	PRO
42	BS	80	PRO
44	BU	53	GLN
53	B3	31	ILE
5	CE	74	VAL
5	CE	119	GLY
10	CJ	41	PRO
17	CQ	12	VAL
17	CQ	76	VAL
55	CY	34	PRO
26	DC	244	VAL
29	DF	75	GLY
29	DF	140	ILE
31	DH	144	VAL
38	DO	101	GLY
41	DR	88	GLY
43	DT	57	VAL

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Mol	Chain	Res	Type
53	D3	20	GLY
2	AB	171	ILE
3	AC	72	ARG
13	AM	7	ILE
17	AQ	35	GLY
18	AR	69	PRO
19	AS	8	GLY
26	BC	243	PRO
35	BL	8	PRO
36	BM	36	VAL
46	BW	74	PRO
47	BX	63	ILE
52	B2	44	VAL
3	CC	52	VAL
5	CE	105	ILE
12	CL	93	VAL
55	CY	42	VAL
29	DF	43	ILE
31	DH	130	VAL
2	AB	163	VAL
7	AG	81	GLY
9	AI	50	GLN
12	AL	16	VAL
17	AQ	13	VAL
26	BC	226	PRO
50	B0	53	VAL
19	CS	29	LYS
21	CU	28	VAL
55	CY	5	ILE
55	CY	48	PRO
32	DI	72	THR
46	DW	71	VAL
53	D3	17	GLY
12	AL	11	PRO
12	AL	37	VAL
26	BC	31	PRO
26	BC	244	VAL
34	BK	102	PRO
51	B1	30	PRO
3	CC	15	VAL
3	CC	159	GLY
16	CP	14	ARG

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Mol	Chain	Res	Type
31	DH	118	PRO
32	DI	56	VAL
36	DM	77	PRO
41	DR	44	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	
2	AB	180/199 (90%)	125 (69%)	55 (31%)	0	1
2	CB	180/199 (90%)	135 (75%)	45 (25%)	0	3
3	AC	170/190 (90%)	134 (79%)	36 (21%)	1	5
3	CC	170/190 (90%)	130 (76%)	40 (24%)	1	4
4	AD	172/173 (99%)	114 (66%)	58 (34%)	0	1
4	CD	172/173 (99%)	122 (71%)	50 (29%)	0	2
5	AE	113/126 (90%)	91 (80%)	22 (20%)	1	6
5	CE	113/126 (90%)	86 (76%)	27 (24%)	1	4
6	AF	87/116 (75%)	66 (76%)	21 (24%)	1	3
6	CF	87/116 (75%)	65 (75%)	22 (25%)	0	3
7	AG	124/147 (84%)	92 (74%)	32 (26%)	0	2
7	CG	124/147 (84%)	96 (77%)	28 (23%)	1	5
8	AH	104/105 (99%)	73 (70%)	31 (30%)	0	1
8	CH	104/105 (99%)	82 (79%)	22 (21%)	1	5
9	AI	105/107 (98%)	81 (77%)	24 (23%)	1	4
9	CI	105/107 (98%)	83 (79%)	22 (21%)	1	5
10	AJ	86/90 (96%)	71 (83%)	15 (17%)	2	9
10	CJ	86/90 (96%)	67 (78%)	19 (22%)	1	5
11	AK	90/99 (91%)	73 (81%)	17 (19%)	1	7
11	CK	90/99 (91%)	65 (72%)	25 (28%)	0	2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
12	AL	103/104 (99%)	68 (66%)	35 (34%)	0 1
12	CL	103/104 (99%)	73 (71%)	30 (29%)	0 2
13	AM	92/96 (96%)	77 (84%)	15 (16%)	2 11
13	CM	92/96 (96%)	66 (72%)	26 (28%)	0 2
14	AN	79/84 (94%)	62 (78%)	17 (22%)	1 5
14	CN	79/84 (94%)	59 (75%)	20 (25%)	0 3
15	AO	76/77 (99%)	56 (74%)	20 (26%)	0 2
15	CO	76/77 (99%)	57 (75%)	19 (25%)	0 3
16	AP	65/65 (100%)	50 (77%)	15 (23%)	1 4
16	CP	65/65 (100%)	43 (66%)	22 (34%)	0 1
17	AQ	74/78 (95%)	63 (85%)	11 (15%)	3 13
17	CQ	74/78 (95%)	52 (70%)	22 (30%)	0 1
18	AR	48/65 (74%)	35 (73%)	13 (27%)	0 2
18	CR	48/65 (74%)	35 (73%)	13 (27%)	0 2
19	AS	70/79 (89%)	51 (73%)	19 (27%)	0 2
19	CS	70/79 (89%)	54 (77%)	16 (23%)	1 4
20	AT	65/66 (98%)	49 (75%)	16 (25%)	1 3
20	CT	65/66 (98%)	48 (74%)	17 (26%)	0 2
21	AU	44/61 (72%)	31 (70%)	13 (30%)	0 2
21	CU	44/61 (72%)	30 (68%)	14 (32%)	0 1
26	BC	216/218 (99%)	154 (71%)	62 (29%)	0 2
26	DC	216/218 (99%)	144 (67%)	72 (33%)	0 1
27	BD	164/164 (100%)	124 (76%)	40 (24%)	1 3
27	DD	164/164 (100%)	120 (73%)	44 (27%)	0 2
28	BE	165/165 (100%)	130 (79%)	35 (21%)	1 5
28	DE	165/165 (100%)	124 (75%)	41 (25%)	1 3
29	BF	148/150 (99%)	114 (77%)	34 (23%)	1 4
29	DF	148/150 (99%)	108 (73%)	40 (27%)	0 2
30	BG	137/138 (99%)	109 (80%)	28 (20%)	1 6
30	DG	137/138 (99%)	111 (81%)	26 (19%)	1 7
31	BH	114/114 (100%)	80 (70%)	34 (30%)	0 1

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
31	DH	114/114 (100%)	89 (78%)	25 (22%)	1 5
32	BI	109/110 (99%)	101 (93%)	8 (7%)	13 39
32	DI	109/110 (99%)	89 (82%)	20 (18%)	2 7
33	BJ	116/116 (100%)	87 (75%)	29 (25%)	0 3
33	DJ	116/116 (100%)	89 (77%)	27 (23%)	1 4
34	BK	103/104 (99%)	81 (79%)	22 (21%)	1 5
34	DK	103/104 (99%)	72 (70%)	31 (30%)	0 1
35	BL	102/103 (99%)	76 (74%)	26 (26%)	0 3
35	DL	102/103 (99%)	75 (74%)	27 (26%)	0 2
36	BM	109/109 (100%)	80 (73%)	29 (27%)	0 2
36	DM	109/109 (100%)	87 (80%)	22 (20%)	1 6
37	BN	100/103 (97%)	79 (79%)	21 (21%)	1 5
37	DN	100/103 (97%)	82 (82%)	18 (18%)	2 8
38	BO	86/87 (99%)	66 (77%)	20 (23%)	1 4
38	DO	86/87 (99%)	57 (66%)	29 (34%)	0 1
39	BP	99/100 (99%)	80 (81%)	19 (19%)	1 7
39	DP	99/100 (99%)	79 (80%)	20 (20%)	1 6
40	BQ	89/90 (99%)	64 (72%)	25 (28%)	0 2
40	DQ	89/90 (99%)	67 (75%)	22 (25%)	1 3
41	BR	84/84 (100%)	63 (75%)	21 (25%)	0 3
41	DR	84/84 (100%)	64 (76%)	20 (24%)	1 4
42	BS	93/93 (100%)	64 (69%)	29 (31%)	0 1
42	DS	93/93 (100%)	69 (74%)	24 (26%)	0 2
43	BT	80/84 (95%)	55 (69%)	25 (31%)	0 1
43	DT	80/84 (95%)	60 (75%)	20 (25%)	0 3
44	BU	83/85 (98%)	61 (74%)	22 (26%)	0 2
44	DU	83/85 (98%)	60 (72%)	23 (28%)	0 2
45	BV	78/78 (100%)	61 (78%)	17 (22%)	1 5
45	DV	78/78 (100%)	61 (78%)	17 (22%)	1 5
46	BW	56/63 (89%)	45 (80%)	11 (20%)	1 6
46	DW	57/63 (90%)	45 (79%)	12 (21%)	1 5

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
47	BX	67/68 (98%)	48 (72%)	19 (28%)	0 2
47	DX	67/68 (98%)	54 (81%)	13 (19%)	1 6
48	BY	55/55 (100%)	47 (86%)	8 (14%)	3 14
48	DY	55/55 (100%)	40 (73%)	15 (27%)	0 2
49	BZ	48/49 (98%)	38 (79%)	10 (21%)	1 6
49	DZ	48/49 (98%)	40 (83%)	8 (17%)	2 11
50	B0	47/48 (98%)	37 (79%)	10 (21%)	1 5
50	D0	47/48 (98%)	37 (79%)	10 (21%)	1 5
51	B1	45/49 (92%)	37 (82%)	8 (18%)	2 8
51	D1	45/49 (92%)	37 (82%)	8 (18%)	2 8
52	B2	38/38 (100%)	26 (68%)	12 (32%)	0 1
52	D2	38/38 (100%)	31 (82%)	7 (18%)	1 7
53	B3	51/52 (98%)	38 (74%)	13 (26%)	0 3
53	D3	51/52 (98%)	32 (63%)	19 (37%)	0 0
54	B4	34/34 (100%)	26 (76%)	8 (24%)	1 4
54	D4	34/34 (100%)	22 (65%)	12 (35%)	0 1
55	CY	158/160 (99%)	116 (73%)	42 (27%)	0 2
All	All	9485/9916 (96%)	7142 (75%)	2343 (25%)	1 3

All (2343) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	15	HIS
2	AB	16	PHE
2	AB	18	HIS
2	AB	19	GLN
2	AB	22	TYR
2	AB	26	LYS
2	AB	27	MET
2	AB	28	LYS
2	AB	45	LYS
2	AB	49	MET
2	AB	57	LEU
2	AB	67	ILE
2	AB	68	LEU
2	AB	72	THR

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Mol	Chain	Res	Type
2	AB	73	LYS
2	AB	77	SER
2	AB	80	VAL
2	AB	81	LYS
2	AB	91	PHE
2	AB	93	ASN
2	AB	100	MET
2	AB	101	LEU
2	AB	102	THR
2	AB	106	THR
2	AB	108	ARG
2	AB	110	SER
2	AB	123	ASP
2	AB	133	GLU
2	AB	141	LEU
2	AB	142	GLU
2	AB	144	LEU
2	AB	146	ASN
2	AB	148	LEU
2	AB	151	ILE
2	AB	157	LEU
2	AB	161	LEU
2	AB	163	VAL
2	AB	164	ILE
2	AB	173	ILE
2	AB	174	LYS
2	AB	175	GLU
2	AB	179	LEU
2	AB	181	ILE
2	AB	183	VAL
2	AB	189	THR
2	AB	191	SER
2	AB	194	ASP
2	AB	197	ASP
2	AB	199	VAL
2	AB	205	ASP
2	AB	207	ILE
2	AB	208	ARG
2	AB	214	LEU
2	AB	217	VAL
2	AB	222	ARG
3	AC	4	LYS

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Mol	Chain	Res	Type
3	AC	14	ILE
3	AC	16	LYS
3	AC	25	ASN
3	AC	27	LYS
3	AC	43	LEU
3	AC	44	THR
3	AC	51	SER
3	AC	55	ILE
3	AC	67	THR
3	AC	68	ILE
3	AC	70	THR
3	AC	76	VAL
3	AC	82	GLU
3	AC	84	VAL
3	AC	87	LEU
3	AC	94	ILE
3	AC	97	VAL
3	AC	103	ILE
3	AC	105	GLU
3	AC	121	THR
3	AC	125	GLU
3	AC	129	MET
3	AC	131	ARG
3	AC	134	MET
3	AC	138	VAL
3	AC	142	MET
3	AC	149	ILE
3	AC	151	VAL
3	AC	153	VAL
3	AC	167	TRP
3	AC	168	TYR
3	AC	176	HIS
3	AC	182	ILE
3	AC	183	ASP
3	AC	198	VAL
4	AD	5	LEU
4	AD	9	LEU
4	AD	13	ARG
4	AD	14	ARG
4	AD	15	GLU
4	AD	17	THR
4	AD	19	LEU

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Mol	Chain	Res	Type
4	AD	21	LEU
4	AD	22	LYS
4	AD	25	VAL
4	AD	32	CYS
4	AD	33	LYS
4	AD	44	ARG
4	AD	47	ARG
4	AD	48	LEU
4	AD	49	SER
4	AD	58	LYS
4	AD	60	LYS
4	AD	61	VAL
4	AD	73	ARG
4	AD	74	ASN
4	AD	77	LYS
4	AD	82	LEU
4	AD	91	LEU
4	AD	94	LEU
4	AD	95	GLU
4	AD	101	VAL
4	AD	105	MET
4	AD	110	THR
4	AD	111	ARG
4	AD	115	ARG
4	AD	116	GLN
4	AD	123	ILE
4	AD	129	VAL
4	AD	130	VAL
4	AD	137	VAL
4	AD	138	SER
4	AD	143	VAL
4	AD	145	ILE
4	AD	146	ARG
4	AD	147	GLU
4	AD	150	LYS
4	AD	155	VAL
4	AD	161	LEU
4	AD	163	GLU
4	AD	164	GLN
4	AD	173	VAL
4	AD	174	ASP
4	AD	178	MET

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Mol	Chain	Res	Type
4	AD	181	THR
4	AD	182	PHE
4	AD	189	SER
4	AD	191	LEU
4	AD	192	SER
4	AD	194	ASP
4	AD	195	ILE
4	AD	203	LEU
4	AD	205	SER
5	AE	24	THR
5	AE	31	PHE
5	AE	33	PHE
5	AE	34	THR
5	AE	36	LEU
5	AE	37	THR
5	AE	43	ASN
5	AE	56	VAL
5	AE	64	MET
5	AE	65	GLU
5	AE	76	LEU
5	AE	85	VAL
5	AE	86	LYS
5	AE	93	ARG
5	AE	96	MET
5	AE	105	ILE
5	AE	114	VAL
5	AE	115	LEU
5	AE	121	HIS
5	AE	124	LEU
5	AE	147	MET
5	AE	156	LYS
6	AF	1	MET
6	AF	2	ARG
6	AF	7	VAL
6	AF	18	VAL
6	AF	22	ILE
6	AF	39	LEU
6	AF	51	ILE
6	AF	54	LEU
6	AF	55	HIS
6	AF	60	VAL
6	AF	62	MET

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Mol	Chain	Res	Type
6	AF	70	VAL
6	AF	72	ASP
6	AF	80	PHE
6	AF	82	ASP
6	AF	85	ILE
6	AF	86	ARG
6	AF	88	MET
6	AF	91	ARG
6	AF	96	VAL
6	AF	97	THR
7	AG	3	ARG
7	AG	10	ARG
7	AG	11	LYS
7	AG	12	ILE
7	AG	21	GLU
7	AG	23	LEU
7	AG	29	ILE
7	AG	42	ILE
7	AG	43	VAL
7	AG	50	LEU
7	AG	59	LEU
7	AG	62	PHE
7	AG	66	LEU
7	AG	67	GLU
7	AG	69	VAL
7	AG	70	ARG
7	AG	83	SER
7	AG	87	VAL
7	AG	90	GLU
7	AG	91	VAL
7	AG	92	ARG
7	AG	94	VAL
7	AG	97	ASN
7	AG	106	GLU
7	AG	114	LYS
7	AG	116	MET
7	AG	120	LEU
7	AG	129	GLU
7	AG	136	LYS
7	AG	139	GLU
7	AG	140	ASP
7	AG	142	HIS

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Mol	Chain	Res	Type
8	AH	4	GLN
8	AH	5	ASP
8	AH	7	ILE
8	AH	9	ASP
8	AH	11	LEU
8	AH	15	ARG
8	AH	22	LYS
8	AH	25	VAL
8	AH	27	MET
8	AH	32	LEU
8	AH	40	LEU
8	AH	41	LYS
8	AH	46	ILE
8	AH	55	THR
8	AH	63	LEU
8	AH	64	LYS
8	AH	72	VAL
8	AH	75	ILE
8	AH	78	VAL
8	AH	83	LEU
8	AH	85	ILE
8	AH	86	TYR
8	AH	88	ARG
8	AH	92	LEU
8	AH	96	MET
8	AH	99	LEU
8	AH	101	ILE
8	AH	108	LYS
8	AH	117	ARG
8	AH	121	LEU
8	AH	125	ILE
9	AI	5	GLN
9	AI	15	SER
9	AI	18	ARG
9	AI	20	PHE
9	AI	31	ASN
9	AI	35	LEU
9	AI	39	PHE
9	AI	48	VAL
9	AI	63	LEU
9	AI	65	ILE
9	AI	66	THR

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Mol	Chain	Res	Type
9	AI	68	LYS
9	AI	75	GLN
9	AI	79	ILE
9	AI	87	LEU
9	AI	90	TYR
9	AI	95	ARG
9	AI	99	ARG
9	AI	104	VAL
9	AI	105	THR
9	AI	109	ARG
9	AI	111	VAL
9	AI	126	GLN
9	AI	129	LYS
10	AJ	8	ILE
10	AJ	19	ASP
10	AJ	25	ILE
10	AJ	26	VAL
10	AJ	28	THR
10	AJ	37	ARG
10	AJ	42	LEU
10	AJ	53	ILE
10	AJ	57	VAL
10	AJ	64	GLN
10	AJ	67	ILE
10	AJ	74	VAL
10	AJ	82	LYS
10	AJ	87	LEU
10	AJ	97	ASP
11	AK	23	ILE
11	AK	27	PHE
11	AK	31	ILE
11	AK	32	VAL
11	AK	35	THR
11	AK	59	THR
11	AK	74	VAL
11	AK	84	VAL
11	AK	93	ARG
11	AK	96	THR
11	AK	97	ILE
11	AK	107	ILE
11	AK	109	ASN
11	AK	113	VAL

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Mol	Chain	Res	Type
11	AK	116	ILE
11	AK	128	ARG
11	AK	129	VAL
12	AL	4	VAL
12	AL	8	VAL
12	AL	10	LYS
12	AL	21	VAL
12	AL	24	LEU
12	AL	27	CYS
12	AL	29	GLN
12	AL	34	CYS
12	AL	38	TYR
12	AL	43	LYS
12	AL	44	LYS
12	AL	47	SER
12	AL	49	LEU
12	AL	50	ARG
12	AL	52	VAL
12	AL	55	VAL
12	AL	58	THR
12	AL	62	GLU
12	AL	64	THR
12	AL	65	SER
12	AL	66	TYR
12	AL	74	LEU
12	AL	75	GLN
12	AL	79	VAL
12	AL	82	ILE
12	AL	86	ARG
12	AL	87	VAL
12	AL	93	VAL
12	AL	94	ARG
12	AL	98	VAL
12	AL	102	LEU
12	AL	104	CYS
12	AL	109	ASP
12	AL	112	GLN
12	AL	116	LYS
13	AM	14	HIS
13	AM	22	ILE
13	AM	25	VAL
13	AM	27	LYS

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Mol	Chain	Res	Type
13	AM	29	ARG
13	AM	31	LYS
13	AM	66	GLU
13	AM	71	ARG
13	AM	75	MET
13	AM	80	LEU
13	AM	91	HIS
13	AM	97	VAL
13	AM	104	THR
13	AM	113	ARG
13	AM	114	LYS
14	AN	3	GLN
14	AN	10	VAL
14	AN	15	LEU
14	AN	27	LYS
14	AN	29	ILE
14	AN	43	ASN
14	AN	45	VAL
14	AN	46	LEU
14	AN	48	LEU
14	AN	58	SER
14	AN	69	ARG
14	AN	71	HIS
14	AN	73	PHE
14	AN	74	LEU
14	AN	79	LEU
14	AN	90	ARG
14	AN	101	TRP
15	AO	3	LEU
15	AO	11	ILE
15	AO	14	GLU
15	AO	20	ASN
15	AO	21	ASP
15	AO	25	THR
15	AO	27	VAL
15	AO	28	GLN
15	AO	32	LEU
15	AO	33	THR
15	AO	39	LEU
15	AO	47	LYS
15	AO	57	LEU
15	AO	60	VAL

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Mol	Chain	Res	Type
15	AO	65	LYS
15	AO	66	LEU
15	AO	67	LEU
15	AO	70	LEU
15	AO	77	ARG
15	AO	87	LEU
16	AP	2	VAL
16	AP	4	ILE
16	AP	20	VAL
16	AP	25	ARG
16	AP	28	ARG
16	AP	32	PHE
16	AP	39	PHE
16	AP	42	ILE
16	AP	45	GLU
16	AP	46	LYS
16	AP	52	LEU
16	AP	56	ARG
16	AP	67	ILE
16	AP	75	ILE
16	AP	80	LYS
17	AQ	22	VAL
17	AQ	28	PHE
17	AQ	29	VAL
17	AQ	38	ILE
17	AQ	39	LYS
17	AQ	43	LYS
17	AQ	44	LEU
17	AQ	59	VAL
17	AQ	70	THR
17	AQ	76	VAL
17	AQ	79	VAL
18	AR	25	ASP
18	AR	26	ILE
18	AR	28	THR
18	AR	29	LEU
18	AR	36	SER
18	AR	39	ILE
18	AR	44	ILE
18	AR	51	TYR
18	AR	53	ARG
18	AR	55	LEU

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Mol	Chain	Res	Type
18	AR	59	ILE
18	AR	68	LEU
18	AR	71	THR
19	AS	4	SER
19	AS	7	LYS
19	AS	10	PHE
19	AS	13	LEU
19	AS	20	GLU
19	AS	21	LYS
19	AS	29	LYS
19	AS	36	ARG
19	AS	37	ARG
19	AS	39	THR
19	AS	44	MET
19	AS	48	THR
19	AS	55	ARG
19	AS	60	VAL
19	AS	62	VAL
19	AS	63	THR
19	AS	65	GLU
19	AS	69	HIS
19	AS	71	LEU
20	AT	3	ASN
20	AT	5	LYS
20	AT	10	ARG
20	AT	12	ILE
20	AT	15	GLU
20	AT	21	ASN
20	AT	24	ARG
20	AT	27	MET
20	AT	29	ARG
20	AT	30	THR
20	AT	51	PHE
20	AT	61	GLN
20	AT	67	ILE
20	AT	69	LYS
20	AT	79	LEU
20	AT	83	ILE
21	AU	4	ILE
21	AU	7	ARG
21	AU	16	LEU
21	AU	17	ARG

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Mol	Chain	Res	Type
21	AU	20	LYS
21	AU	24	GLU
21	AU	25	LYS
21	AU	28	VAL
21	AU	32	VAL
21	AU	39	GLU
21	AU	42	THR
21	AU	47	ARG
21	AU	51	SER
26	BC	9	SER
26	BC	13	ARG
26	BC	18	VAL
26	BC	19	VAL
26	BC	23	LEU
26	BC	27	LYS
26	BC	49	THR
26	BC	58	LYS
26	BC	62	ARG
26	BC	63	ILE
26	BC	71	ASP
26	BC	73	ILE
26	BC	77	VAL
26	BC	85	ASN
26	BC	87	SER
26	BC	89	ASN
26	BC	90	ILE
26	BC	97	ASP
26	BC	101	ARG
26	BC	109	LEU
26	BC	114	GLN
26	BC	115	ILE
26	BC	123	ILE
26	BC	128	THR
26	BC	129	LEU
26	BC	133	ASN
26	BC	134	ILE
26	BC	136	VAL
26	BC	138	SER
26	BC	140	VAL
26	BC	149	LYS
26	BC	153	LEU
26	BC	159	THR

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Mol	Chain	Res	Type
26	BC	161	VAL
26	BC	163	ILE
26	BC	171	VAL
26	BC	173	LEU
26	BC	175	LEU
26	BC	177	SER
26	BC	183	VAL
26	BC	186	ASP
26	BC	188	ARG
26	BC	190	THR
26	BC	191	LEU
26	BC	194	VAL
26	BC	198	GLU
26	BC	206	LYS
26	BC	212	TRP
26	BC	215	VAL
26	BC	216	ARG
26	BC	218	THR
26	BC	237	ARG
26	BC	245	THR
26	BC	249	VAL
26	BC	251	THR
26	BC	254	LYS
26	BC	255	LYS
26	BC	257	ARG
26	BC	261	ARG
26	BC	264	LYS
26	BC	265	PHE
26	BC	266	ILE
27	BD	2	ILE
27	BD	8	LYS
27	BD	9	VAL
27	BD	11	MET
27	BD	34	VAL
27	BD	38	LYS
27	BD	48	ILE
27	BD	52	THR
27	BD	59	ARG
27	BD	60	VAL
27	BD	79	LEU
27	BD	81	GLU
27	BD	83	ARG

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Mol	Chain	Res	Type
27	BD	84	LEU
27	BD	88	GLU
27	BD	89	GLU
27	BD	100	LEU
27	BD	107	VAL
27	BD	108	ASP
27	BD	110	THR
27	BD	113	SER
27	BD	116	LYS
27	BD	122	VAL
27	BD	123	LYS
27	BD	125	TRP
27	BD	129	THR
27	BD	152	PRO
27	BD	157	LYS
27	BD	161	MET
27	BD	170	VAL
27	BD	176	ASP
27	BD	177	VAL
27	BD	178	VAL
27	BD	180	VAL
27	BD	181	ASP
27	BD	183	GLU
27	BD	186	LEU
27	BD	197	THR
27	BD	200	ASP
27	BD	202	ILE
28	BE	7	ASP
28	BE	12	LEU
28	BE	23	PHE
28	BE	31	VAL
28	BE	40	ARG
28	BE	51	GLU
28	BE	53	THR
28	BE	63	LYS
28	BE	69	ARG
28	BE	70	SER
28	BE	73	ILE
28	BE	77	ILE
28	BE	79	ARG
28	BE	93	SER
28	BE	95	LYS

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Mol	Chain	Res	Type
28	BE	96	VAL
28	BE	99	LYS
28	BE	108	ILE
28	BE	109	LEU
28	BE	110	SER
28	BE	113	VAL
28	BE	116	ASP
28	BE	133	LEU
28	BE	143	LEU
28	BE	144	GLU
28	BE	148	ILE
28	BE	159	LEU
28	BE	165	HIS
28	BE	167	VAL
28	BE	170	ARG
28	BE	175	ILE
28	BE	178	VAL
28	BE	180	LEU
28	BE	195	GLN
28	BE	197	GLU
29	BF	17	THR
29	BF	24	VAL
29	BF	26	GLN
29	BF	27	VAL
29	BF	30	VAL
29	BF	31	GLU
29	BF	33	ILE
29	BF	47	LYS
29	BF	48	LEU
29	BF	56	LEU
29	BF	63	LYS
29	BF	84	ILE
29	BF	86	CYS
29	BF	91	ARG
29	BF	98	PHE
29	BF	99	PHE
29	BF	100	GLU
29	BF	103	ILE
29	BF	110	ILE
29	BF	112	ASP
29	BF	116	LEU
29	BF	129	MET

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Mol	Chain	Res	Type
29	BF	131	VAL
29	BF	134	GLN
29	BF	141	ASP
29	BF	144	LYS
29	BF	145	VAL
29	BF	146	ASP
29	BF	149	ARG
29	BF	151	LEU
29	BF	153	ILE
29	BF	154	THR
29	BF	163	GLU
29	BF	169	LEU
30	BG	10	VAL
30	BG	16	VAL
30	BG	24	THR
30	BG	25	ILE
30	BG	29	ASN
30	BG	32	LEU
30	BG	46	ASP
30	BG	49	LEU
30	BG	68	ARG
30	BG	70	LEU
30	BG	71	LEU
30	BG	75	VAL
30	BG	79	THR
30	BG	80	GLU
30	BG	84	LYS
30	BG	87	GLN
30	BG	88	LEU
30	BG	89	VAL
30	BG	91	VAL
30	BG	98	LYS
30	BG	100	ASN
30	BG	101	VAL
30	BG	110	HIS
30	BG	121	THR
30	BG	126	THR
30	BG	129	GLU
30	BG	132	LEU
30	BG	168	VAL
31	BH	9	VAL
31	BH	12	LEU

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Mol	Chain	Res	Type
31	BH	15	LEU
31	BH	25	TYR
31	BH	29	PHE
31	BH	30	LEU
31	BH	48	GLU
31	BH	50	ARG
31	BH	53	GLU
31	BH	54	LEU
31	BH	62	LEU
31	BH	71	LYS
31	BH	72	ILE
31	BH	73	ASN
31	BH	75	LEU
31	BH	78	VAL
31	BH	83	LYS
31	BH	89	LYS
31	BH	94	ILE
31	BH	96	THR
31	BH	97	ARG
31	BH	103	VAL
31	BH	104	THR
31	BH	114	GLU
31	BH	115	VAL
31	BH	117	LEU
31	BH	119	ASN
31	BH	125	THR
31	BH	127	GLU
31	BH	130	VAL
31	BH	135	HIS
31	BH	142	VAL
31	BH	143	ILE
31	BH	146	VAL
32	BI	2	LYS
32	BI	54	ILE
32	BI	57	VAL
32	BI	61	TYR
32	BI	78	LEU
32	BI	94	LYS
32	BI	104	GLN
32	BI	126	ARG
33	BJ	5	THR
33	BJ	11	VAL

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Mol	Chain	Res	Type
33	BJ	13	ARG
33	BJ	14	ASP
33	BJ	16	TYR
33	BJ	18	VAL
33	BJ	25	LEU
33	BJ	30	THR
33	BJ	32	LEU
33	BJ	40	HIS
33	BJ	48	VAL
33	BJ	50	THR
33	BJ	55	ILE
33	BJ	61	LYS
33	BJ	64	VAL
33	BJ	68	LYS
33	BJ	69	ARG
33	BJ	73	VAL
33	BJ	75	TYR
33	BJ	78	THR
33	BJ	81	ILE
33	BJ	84	ILE
33	BJ	86	GLN
33	BJ	99	ARG
33	BJ	103	ILE
33	BJ	108	MET
33	BJ	136	GLN
33	BJ	140	LEU
33	BJ	142	ILE
34	BK	2	ILE
34	BK	24	VAL
34	BK	25	LEU
34	BK	30	ARG
34	BK	31	ARG
34	BK	37	ASP
34	BK	38	ILE
34	BK	40	LYS
34	BK	49	ARG
34	BK	58	LEU
34	BK	63	VAL
34	BK	71	ARG
34	BK	80	ASP
34	BK	86	LEU
34	BK	88	ASN

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Mol	Chain	Res	Type
34	BK	92	GLU
34	BK	93	GLN
34	BK	95	ILE
34	BK	104	THR
34	BK	115	ILE
34	BK	116	ILE
34	BK	118	LEU
35	BL	2	ARG
35	BL	3	LEU
35	BL	6	LEU
35	BL	18	ARG
35	BL	19	LEU
35	BL	23	ILE
35	BL	35	HIS
35	BL	36	LYS
35	BL	46	VAL
35	BL	60	ARG
35	BL	64	PHE
35	BL	66	PHE
35	BL	74	THR
35	BL	91	ASP
35	BL	103	ILE
35	BL	104	GLN
35	BL	105	ILE
35	BL	115	GLU
35	BL	116	VAL
35	BL	120	VAL
35	BL	123	ARG
35	BL	125	LEU
35	BL	127	VAL
35	BL	128	THR
35	BL	142	ILE
35	BL	144	GLU
36	BM	8	LYS
36	BM	18	ARG
36	BM	20	LEU
36	BM	24	THR
36	BM	26	VAL
36	BM	33	LEU
36	BM	38	ARG
36	BM	42	THR
36	BM	45	GLN

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Mol	Chain	Res	Type
36	BM	50	ARG
36	BM	55	ARG
36	BM	57	VAL
36	BM	63	ILE
36	BM	65	ILE
36	BM	67	VAL
36	BM	74	THR
36	BM	76	LYS
36	BM	80	VAL
36	BM	88	ASN
36	BM	95	LEU
36	BM	96	ILE
36	BM	103	TYR
36	BM	111	GLU
36	BM	115	GLU
36	BM	119	LEU
36	BM	127	LYS
36	BM	131	VAL
36	BM	134	THR
36	BM	135	VAL
37	BN	9	GLN
37	BN	13	ASN
37	BN	20	MET
37	BN	27	SER
37	BN	28	LEU
37	BN	33	ILE
37	BN	38	LEU
37	BN	44	LEU
37	BN	46	ARG
37	BN	48	VAL
37	BN	51	LEU
37	BN	60	VAL
37	BN	70	THR
37	BN	71	ARG
37	BN	82	GLU
37	BN	83	LEU
37	BN	90	ARG
37	BN	97	ILE
37	BN	98	LEU
37	BN	113	ILE
37	BN	115	LEU
38	BO	2	ASP

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Mol	Chain	Res	Type
38	BO	16	ARG
38	BO	26	LEU
38	BO	27	VAL
38	BO	28	VAL
38	BO	30	ARG
38	BO	31	THR
38	BO	35	ILE
38	BO	40	ILE
38	BO	47	VAL
38	BO	48	LEU
38	BO	67	ASN
38	BO	68	LYS
38	BO	69	ASP
38	BO	83	LEU
38	BO	89	ASP
38	BO	90	VAL
38	BO	100	HIS
38	BO	102	ARG
38	BO	106	LEU
39	BP	3	ILE
39	BP	28	LYS
39	BP	29	VAL
39	BP	32	VAL
39	BP	33	GLU
39	BP	45	VAL
39	BP	49	ILE
39	BP	58	PHE
39	BP	65	ASN
39	BP	69	VAL
39	BP	72	VAL
39	BP	77	SER
39	BP	80	VAL
39	BP	83	ILE
39	BP	99	LEU
39	BP	101	GLU
39	BP	105	LYS
39	BP	109	ILE
39	BP	113	LEU
40	BQ	2	ARG
40	BQ	3	VAL
40	BQ	5	ARG
40	BQ	7	VAL

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Mol	Chain	Res	Type
40	BQ	14	LYS
40	BQ	17	LEU
40	BQ	29	ARG
40	BQ	33	VAL
40	BQ	38	VAL
40	BQ	39	ILE
40	BQ	40	LYS
40	BQ	46	TYR
40	BQ	50	ARG
40	BQ	57	ARG
40	BQ	59	LEU
40	BQ	73	ILE
40	BQ	77	LYS
40	BQ	79	ILE
40	BQ	89	ILE
40	BQ	91	ARG
40	BQ	93	ILE
40	BQ	94	LEU
40	BQ	97	ILE
40	BQ	99	VAL
40	BQ	106	THR
41	BR	12	HIS
41	BR	14	VAL
41	BR	19	THR
41	BR	20	VAL
41	BR	24	LYS
41	BR	32	THR
41	BR	34	GLU
41	BR	46	GLU
41	BR	48	LYS
41	BR	49	ILE
41	BR	51	VAL
41	BR	66	HIS
41	BR	70	GLU
41	BR	75	VAL
41	BR	79	ARG
41	BR	80	ARG
41	BR	83	TYR
41	BR	84	ARG
41	BR	90	ARG
41	BR	91	GLN
41	BR	98	ILE

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Mol	Chain	Res	Type
42	BS	2	GLU
42	BS	4	ILE
42	BS	6	LYS
42	BS	13	SER
42	BS	17	VAL
42	BS	20	VAL
42	BS	33	LEU
42	BS	40	ASN
42	BS	46	LEU
42	BS	49	LYS
42	BS	53	SER
42	BS	55	ILE
42	BS	59	GLU
42	BS	68	ASP
42	BS	69	LEU
42	BS	81	SER
42	BS	85	ILE
42	BS	86	MET
42	BS	88	ARG
42	BS	90	LYS
42	BS	92	ARG
42	BS	96	ILE
42	BS	97	LEU
42	BS	99	ARG
42	BS	100	THR
42	BS	102	HIS
42	BS	104	THR
42	BS	105	VAL
42	BS	107	VAL
43	BT	1	MET
43	BT	2	ILE
43	BT	3	ARG
43	BT	5	GLU
43	BT	16	VAL
43	BT	22	THR
43	BT	29	THR
43	BT	30	ILE
43	BT	31	VAL
43	BT	32	LEU
43	BT	34	VAL
43	BT	40	LYS
43	BT	42	GLU

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Mol	Chain	Res	Type
43	BT	43	ILE
43	BT	53	VAL
43	BT	55	VAL
43	BT	57	VAL
43	BT	60	THR
43	BT	61	LEU
43	BT	62	VAL
43	BT	63	VAL
43	BT	81	LYS
43	BT	82	LYS
43	BT	91	GLN
43	BT	93	LEU
44	BU	4	ILE
44	BU	6	ARG
44	BU	12	VAL
44	BU	13	LEU
44	BU	16	LYS
44	BU	25	LYS
44	BU	27	VAL
44	BU	28	LEU
44	BU	30	SER
44	BU	34	ILE
44	BU	35	VAL
44	BU	40	LEU
44	BU	41	VAL
44	BU	42	LYS
44	BU	43	LYS
44	BU	57	ILE
44	BU	58	VAL
44	BU	71	ILE
44	BU	73	ASN
44	BU	76	THR
44	BU	92	VAL
44	BU	93	ARG
45	BV	5	ASN
45	BV	12	GLN
45	BV	17	SER
45	BV	29	ILE
45	BV	31	TYR
45	BV	38	LEU
45	BV	41	GLU
45	BV	42	LEU

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Mol	Chain	Res	Type
45	BV	66	ASP
45	BV	69	GLU
45	BV	71	LYS
45	BV	72	VAL
45	BV	77	VAL
45	BV	78	GLN
45	BV	83	LYS
45	BV	86	LEU
45	BV	87	GLN
46	BW	12	ASN
46	BW	24	LYS
46	BW	31	VAL
46	BW	36	ILE
46	BW	37	ILE
46	BW	43	THR
46	BW	58	THR
46	BW	66	LYS
46	BW	70	GLU
46	BW	78	LYS
46	BW	82	ILE
47	BX	3	VAL
47	BX	6	VAL
47	BX	7	THR
47	BX	10	ARG
47	BX	21	LEU
47	BX	22	ASN
47	BX	24	THR
47	BX	27	ARG
47	BX	43	LYS
47	BX	45	PHE
47	BX	46	VAL
47	BX	49	ARG
47	BX	50	VAL
47	BX	56	ARG
47	BX	64	ASP
47	BX	65	THR
47	BX	67	LEU
47	BX	70	LEU
47	BX	75	GLU
48	BY	1	MET
48	BY	7	ARG
48	BY	17	GLU

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Mol	Chain	Res	Type
48	BY	40	SER
48	BY	52	ARG
48	BY	53	VAL
48	BY	55	THR
48	BY	57	LEU
49	BZ	4	ILE
49	BZ	9	THR
49	BZ	13	ILE
49	BZ	24	LEU
49	BZ	29	ARG
49	BZ	36	GLU
49	BZ	40	THR
49	BZ	43	ILE
49	BZ	46	MET
49	BZ	50	VAL
50	B0	2	VAL
50	B0	3	GLN
50	B0	5	ASN
50	B0	18	HIS
50	B0	22	THR
50	B0	32	THR
50	B0	40	HIS
50	B0	49	ARG
50	B0	53	VAL
50	B0	54	ILE
51	B1	9	LYS
51	B1	22	THR
51	B1	24	LYS
51	B1	27	ARG
51	B1	29	LYS
51	B1	43	ARG
51	B1	46	VAL
51	B1	49	LYS
52	B2	9	VAL
52	B2	10	LEU
52	B2	11	LYS
52	B2	13	ASN
52	B2	14	ARG
52	B2	16	HIS
52	B2	24	THR
52	B2	25	LYS
52	B2	34	ARG

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Mol	Chain	Res	Type
52	B2	39	ARG
52	B2	41	ARG
52	B2	44	VAL
53	B3	6	VAL
53	B3	11	LYS
53	B3	12	ARG
53	B3	13	PHE
53	B3	16	THR
53	B3	24	LYS
53	B3	28	LEU
53	B3	34	LYS
53	B3	35	LYS
53	B3	40	LYS
53	B3	46	LYS
53	B3	53	ASP
53	B3	60	CYS
54	B4	2	LYS
54	B4	3	VAL
54	B4	10	LEU
54	B4	16	ILE
54	B4	25	VAL
54	B4	26	ILE
54	B4	27	CYS
54	B4	36	ARG
2	CB	9	MET
2	CB	20	THR
2	CB	23	TRP
2	CB	26	LYS
2	CB	32	PHE
2	CB	36	ASN
2	CB	40	ILE
2	CB	52	GLU
2	CB	70	VAL
2	CB	81	LYS
2	CB	88	ASP
2	CB	89	GLN
2	CB	90	PHE
2	CB	92	VAL
2	CB	94	HIS
2	CB	107	VAL
2	CB	114	LEU
2	CB	115	LYS

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Mol	Chain	Res	Type
2	CB	117	LEU
2	CB	118	GLU
2	CB	122	GLN
2	CB	123	ASP
2	CB	127	ASP
2	CB	129	LEU
2	CB	130	THR
2	CB	131	LYS
2	CB	135	LEU
2	CB	140	GLU
2	CB	151	ILE
2	CB	153	ASP
2	CB	157	LEU
2	CB	163	VAL
2	CB	169	GLU
2	CB	170	HIS
2	CB	173	ILE
2	CB	174	LYS
2	CB	181	ILE
2	CB	183	VAL
2	CB	186	ILE
2	CB	188	ASP
2	CB	196	VAL
2	CB	199	VAL
2	CB	204	ASP
2	CB	220	THR
2	CB	221	VAL
3	CC	3	GLN
3	CC	11	ARG
3	CC	16	LYS
3	CC	27	LYS
3	CC	32	ASN
3	CC	33	LEU
3	CC	35	SER
3	CC	36	ASP
3	CC	44	THR
3	CC	45	LYS
3	CC	47	LEU
3	CC	51	SER
3	CC	52	VAL
3	CC	55	ILE
3	CC	66	VAL

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Mol	Chain	Res	Type
3	CC	68	ILE
3	CC	75	ILE
3	CC	80	LYS
3	CC	82	GLU
3	CC	83	ASP
3	CC	84	VAL
3	CC	89	LYS
3	CC	94	ILE
3	CC	97	VAL
3	CC	101	ILE
3	CC	103	ILE
3	CC	107	ARG
3	CC	108	LYS
3	CC	110	GLU
3	CC	112	ASP
3	CC	114	LYS
3	CC	115	LEU
3	CC	118	ASP
3	CC	162	ILE
3	CC	165	THR
3	CC	175	LEU
3	CC	177	THR
3	CC	178	LEU
3	CC	182	ILE
3	CC	200	VAL
4	CD	3	ARG
4	CD	11	LEU
4	CD	14	ARG
4	CD	29	ASP
4	CD	30	THR
4	CD	31	LYS
4	CD	34	ILE
4	CD	36	GLN
4	CD	49	SER
4	CD	50	ASP
4	CD	51	TYR
4	CD	54	GLN
4	CD	55	LEU
4	CD	58	LYS
4	CD	59	GLN
4	CD	61	VAL
4	CD	62	ARG

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Mol	Chain	Res	Type
4	CD	63	ARG
4	CD	67	VAL
4	CD	70	ARG
4	CD	76	TYR
4	CD	78	GLU
4	CD	90	LEU
4	CD	93	LEU
4	CD	94	LEU
4	CD	97	ARG
4	CD	102	VAL
4	CD	103	TYR
4	CD	107	PHE
4	CD	113	GLU
4	CD	116	GLN
4	CD	117	LEU
4	CD	130	VAL
4	CD	138	SER
4	CD	141	ASP
4	CD	142	VAL
4	CD	145	ILE
4	CD	152	GLN
4	CD	155	VAL
4	CD	160	GLU
4	CD	161	LEU
4	CD	163	GLU
4	CD	171	LEU
4	CD	173	VAL
4	CD	179	GLU
4	CD	190	ASP
4	CD	194	ASP
4	CD	199	LEU
4	CD	200	ILE
4	CD	203	LEU
5	CE	12	GLN
5	CE	14	LYS
5	CE	15	LEU
5	CE	18	VAL
5	CE	24	THR
5	CE	32	SER
5	CE	37	THR
5	CE	38	VAL
5	CE	39	VAL

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Mol	Chain	Res	Type
5	CE	54	ARG
5	CE	56	VAL
5	CE	60	ILE
5	CE	74	VAL
5	CE	78	ASN
5	CE	83	HIS
5	CE	88	VAL
5	CE	106	ILE
5	CE	114	VAL
5	CE	117	VAL
5	CE	120	VAL
5	CE	121	HIS
5	CE	124	LEU
5	CE	132	ASN
5	CE	137	VAL
5	CE	142	ASP
5	CE	148	ASN
5	CE	157	ARG
6	CF	3	HIS
6	CF	4	TYR
6	CF	6	ILE
6	CF	10	VAL
6	CF	18	VAL
6	CF	22	ILE
6	CF	33	GLU
6	CF	36	ILE
6	CF	39	LEU
6	CF	41	ASP
6	CF	42	TRP
6	CF	49	TYR
6	CF	51	ILE
6	CF	60	VAL
6	CF	64	VAL
6	CF	69	GLU
6	CF	70	VAL
6	CF	71	ILE
6	CF	80	PHE
6	CF	90	MET
6	CF	96	VAL
6	CF	97	THR
7	CG	3	ARG
7	CG	6	VAL

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Mol	Chain	Res	Type
7	CG	9	GLN
7	CG	12	ILE
7	CG	29	ILE
7	CG	32	VAL
7	CG	33	ASP
7	CG	35	LYS
7	CG	37	SER
7	CG	40	GLU
7	CG	48	GLU
7	CG	50	LEU
7	CG	52	GLN
7	CG	66	LEU
7	CG	69	VAL
7	CG	70	ARG
7	CG	84	THR
7	CG	91	VAL
7	CG	94	VAL
7	CG	99	LEU
7	CG	104	ILE
7	CG	109	ARG
7	CG	111	ARG
7	CG	118	LEU
7	CG	130	ASN
7	CG	133	THR
7	CG	135	VAL
7	CG	140	ASP
8	CH	10	MET
8	CH	11	LEU
8	CH	25	VAL
8	CH	27	MET
8	CH	29	SER
8	CH	32	LEU
8	CH	34	VAL
8	CH	39	VAL
8	CH	46	ILE
8	CH	59	LEU
8	CH	61	LEU
8	CH	78	VAL
8	CH	80	ARG
8	CH	89	LYS
8	CH	99	LEU
8	CH	103	VAL

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Mol	Chain	Res	Type
8	CH	106	THR
8	CH	113	ASP
8	CH	117	ARG
8	CH	121	LEU
8	CH	125	ILE
8	CH	129	VAL
9	CI	9	THR
9	CI	18	ARG
9	CI	20	PHE
9	CI	30	ILE
9	CI	32	GLN
9	CI	46	MET
9	CI	47	VAL
9	CI	49	ARG
9	CI	57	MET
9	CI	65	ILE
9	CI	67	VAL
9	CI	72	ILE
9	CI	80	ARG
9	CI	81	HIS
9	CI	87	LEU
9	CI	92	GLU
9	CI	98	LEU
9	CI	109	ARG
9	CI	115	LYS
9	CI	116	VAL
9	CI	120	LYS
9	CI	124	ARG
10	CJ	10	LEU
10	CJ	11	LYS
10	CJ	17	LEU
10	CJ	26	VAL
10	CJ	32	THR
10	CJ	35	GLN
10	CJ	50	THR
10	CJ	51	VAL
10	CJ	53	ILE
10	CJ	57	VAL
10	CJ	71	LEU
10	CJ	72	ARG
10	CJ	73	LEU
10	CJ	74	VAL

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Mol	Chain	Res	Type
10	CJ	76	ILE
10	CJ	80	THR
10	CJ	82	LYS
10	CJ	84	VAL
10	CJ	100	ILE
11	CK	13	ARG
11	CK	15	GLN
11	CK	16	VAL
11	CK	20	VAL
11	CK	23	ILE
11	CK	27	PHE
11	CK	28	ASN
11	CK	31	ILE
11	CK	35	THR
11	CK	42	LEU
11	CK	46	THR
11	CK	52	PHE
11	CK	57	LYS
11	CK	65	VAL
11	CK	77	TYR
11	CK	82	LEU
11	CK	87	LYS
11	CK	97	ILE
11	CK	100	LEU
11	CK	110	ILE
11	CK	111	THR
11	CK	119	ASN
11	CK	121	CYS
11	CK	125	LYS
11	CK	128	ARG
12	CL	3	THR
12	CL	6	GLN
12	CL	9	ARG
12	CL	15	LYS
12	CL	20	ASN
12	CL	25	GLU
12	CL	29	GLN
12	CL	35	THR
12	CL	47	SER
12	CL	52	VAL
12	CL	55	VAL
12	CL	61	PHE

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Mol	Chain	Res	Type
12	CL	65	SER
12	CL	66	TYR
12	CL	67	ILE
12	CL	74	LEU
12	CL	75	GLN
12	CL	78	SER
12	CL	79	VAL
12	CL	82	ILE
12	CL	83	ARG
12	CL	88	LYS
12	CL	90	LEU
12	CL	94	ARG
12	CL	95	TYR
12	CL	97	THR
12	CL	98	VAL
12	CL	117	TYR
12	CL	121	ARG
12	CL	123	LYS
13	CM	4	ILE
13	CM	12	HIS
13	CM	16	VAL
13	CM	17	ILE
13	CM	20	THR
13	CM	27	LYS
13	CM	28	THR
13	CM	29	ARG
13	CM	34	LEU
13	CM	43	VAL
13	CM	45	ILE
13	CM	48	LEU
13	CM	52	GLN
13	CM	54	ASP
13	CM	57	ARG
13	CM	58	ASP
13	CM	64	VAL
13	CM	68	ASP
13	CM	75	MET
13	CM	76	SER
13	CM	83	LEU
13	CM	85	CYS
13	CM	92	ARG
13	CM	97	VAL

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Mol	Chain	Res	Type
13	CM	109	ARG
13	CM	113	ARG
14	CN	3	GLN
14	CN	6	LYS
14	CN	10	VAL
14	CN	12	ARG
14	CN	13	VAL
14	CN	19	TYR
14	CN	22	LYS
14	CN	27	LYS
14	CN	30	ILE
14	CN	48	LEU
14	CN	50	THR
14	CN	51	LEU
14	CN	55	SER
14	CN	58	SER
14	CN	60	GLN
14	CN	65	ARG
14	CN	77	PHE
14	CN	79	LEU
14	CN	96	LEU
14	CN	101	TRP
15	CO	6	GLU
15	CO	10	LYS
15	CO	20	ASN
15	CO	29	VAL
15	CO	35	GLN
15	CO	36	ILE
15	CO	40	GLN
15	CO	48	LYS
15	CO	57	LEU
15	CO	64	ARG
15	CO	66	LEU
15	CO	67	LEU
15	CO	69	TYR
15	CO	70	LEU
15	CO	78	TYR
15	CO	82	ILE
15	CO	87	LEU
15	CO	88	ARG
15	CO	89	ARG
16	CP	1	MET

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Mol	Chain	Res	Type
16	CP	3	THR
16	CP	4	ILE
16	CP	6	LEU
16	CP	9	HIS
16	CP	12	LYS
16	CP	14	ARG
16	CP	19	VAL
16	CP	21	VAL
16	CP	31	ARG
16	CP	32	PHE
16	CP	33	ILE
16	CP	36	VAL
16	CP	50	THR
16	CP	52	LEU
16	CP	56	ARG
16	CP	66	THR
16	CP	67	ILE
16	CP	70	ARG
16	CP	74	LEU
16	CP	75	ILE
16	CP	77	GLU
17	CQ	13	VAL
17	CQ	14	SER
17	CQ	15	ASP
17	CQ	21	ILE
17	CQ	29	VAL
17	CQ	31	HIS
17	CQ	33	ILE
17	CQ	36	LYS
17	CQ	39	LYS
17	CQ	40	ARG
17	CQ	42	THR
17	CQ	47	HIS
17	CQ	48	ASP
17	CQ	52	GLU
17	CQ	55	ILE
17	CQ	61	ILE
17	CQ	63	GLU
17	CQ	67	LEU
17	CQ	69	LYS
17	CQ	75	LEU
17	CQ	76	VAL

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Mol	Chain	Res	Type
17	CQ	81	LYS
18	CR	20	GLU
18	CR	47	THR
18	CR	48	ARG
18	CR	50	LYS
18	CR	53	ARG
18	CR	59	ILE
18	CR	60	LYS
18	CR	61	ARG
18	CR	63	ARG
18	CR	65	LEU
18	CR	66	SER
18	CR	68	LEU
18	CR	73	ARG
19	CS	6	LYS
19	CS	24	GLU
19	CS	27	ASP
19	CS	32	ARG
19	CS	34	TRP
19	CS	40	ILE
19	CS	41	PHE
19	CS	43	ASN
19	CS	48	THR
19	CS	49	ILE
19	CS	56	GLN
19	CS	62	VAL
19	CS	67	VAL
19	CS	70	LYS
19	CS	71	LEU
19	CS	80	TYR
20	CT	3	ASN
20	CT	4	ILE
20	CT	10	ARG
20	CT	12	ILE
20	CT	13	GLN
20	CT	27	MET
20	CT	34	LYS
20	CT	55	GLN
20	CT	57	ILE
20	CT	58	VAL
20	CT	59	ASP
20	CT	66	LEU

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Mol	Chain	Res	Type
20	CT	67	ILE
20	CT	68	HIS
20	CT	69	LYS
20	CT	70	ASN
20	CT	80	THR
21	CU	6	VAL
21	CU	10	GLU
21	CU	12	PHE
21	CU	16	LEU
21	CU	18	ARG
21	CU	20	LYS
21	CU	21	ARG
21	CU	22	SER
21	CU	23	CYS
21	CU	29	LEU
21	CU	36	GLU
21	CU	37	PHE
21	CU	40	LYS
21	CU	43	THR
55	CY	2	ILE
55	CY	11	VAL
55	CY	15	LYS
55	CY	17	VAL
55	CY	24	ILE
55	CY	36	LEU
55	CY	37	LEU
55	CY	38	ASP
55	CY	42	VAL
55	CY	44	TYR
55	CY	54	LEU
55	CY	57	VAL
55	CY	59	VAL
55	CY	64	THR
55	CY	69	VAL
55	CY	79	GLU
55	CY	82	ILE
55	CY	86	ASP
55	CY	90	ASN
55	CY	98	ILE
55	CY	102	LEU
55	CY	105	LEU
55	CY	114	THR

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Mol	Chain	Res	Type
55	CY	129	ARG
55	CY	130	ASN
55	CY	134	ASP
55	CY	136	ASN
55	CY	140	LYS
55	CY	142	LEU
55	CY	143	LEU
55	CY	144	LYS
55	CY	147	GLU
55	CY	148	ILE
55	CY	153	ASP
55	CY	154	ARG
55	CY	158	ASP
55	CY	159	ASP
55	CY	160	VAL
55	CY	168	ILE
55	CY	172	GLU
55	CY	175	LEU
55	CY	178	LYS
26	DC	6	LYS
26	DC	8	THR
26	DC	9	SER
26	DC	12	ARG
26	DC	15	VAL
26	DC	18	VAL
26	DC	22	GLU
26	DC	32	LEU
26	DC	33	LEU
26	DC	35	LYS
26	DC	39	SER
26	DC	50	THR
26	DC	51	ARG
26	DC	58	LYS
26	DC	63	ILE
26	DC	66	PHE
26	DC	67	LYS
26	DC	70	LYS
26	DC	73	ILE
26	DC	76	VAL
26	DC	86	ARG
26	DC	87	SER
26	DC	90	ILE

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Mol	Chain	Res	Type
26	DC	92	LEU
26	DC	103	ILE
26	DC	104	LEU
26	DC	107	LYS
26	DC	109	LEU
26	DC	110	LYS
26	DC	113	ASP
26	DC	114	GLN
26	DC	119	VAL
26	DC	120	ASP
26	DC	123	ILE
26	DC	128	THR
26	DC	129	LEU
26	DC	133	ASN
26	DC	134	ILE
26	DC	136	VAL
26	DC	139	THR
26	DC	140	VAL
26	DC	142	ASN
26	DC	155	ARG
26	DC	159	THR
26	DC	163	ILE
26	DC	172	THR
26	DC	173	LEU
26	DC	174	ARG
26	DC	176	ARG
26	DC	180	MET
26	DC	187	CYS
26	DC	188	ARG
26	DC	191	LEU
26	DC	194	VAL
26	DC	196	ASN
26	DC	200	MET
26	DC	201	LEU
26	DC	203	VAL
26	DC	204	LEU
26	DC	206	LYS
26	DC	215	VAL
26	DC	216	ARG
26	DC	220	ARG
26	DC	237	ARG
26	DC	244	VAL

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Mol	Chain	Res	Type
26	DC	245	THR
26	DC	249	VAL
26	DC	256	THR
26	DC	258	SER
26	DC	259	ASN
26	DC	260	LYS
26	DC	267	VAL
27	DD	4	LEU
27	DD	9	VAL
27	DD	13	ARG
27	DD	20	VAL
27	DD	22	ILE
27	DD	24	VAL
27	DD	25	THR
27	DD	26	VAL
27	DD	27	ILE
27	DD	28	GLU
27	DD	30	GLU
27	DD	33	ARG
27	DD	46	ARG
27	DD	48	ILE
27	DD	50	VAL
27	DD	56	LYS
27	DD	61	THR
27	DD	64	GLU
27	DD	67	HIS
27	DD	73	VAL
27	DD	74	GLU
27	DD	88	GLU
27	DD	91	THR
27	DD	92	VAL
27	DD	96	ILE
27	DD	98	VAL
27	DD	103	ASP
27	DD	104	VAL
27	DD	128	ARG
27	DD	133	THR
27	DD	137	SER
27	DD	138	LEU
27	DD	151	THR
27	DD	159	LYS
27	DD	160	LYS

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Mol	Chain	Res	Type
27	DD	168	GLU
27	DD	169	ARG
27	DD	177	VAL
27	DD	183	GLU
27	DD	186	LEU
27	DD	189	VAL
27	DD	197	THR
27	DD	203	VAL
27	DD	207	VAL
28	DE	3	LEU
28	DE	5	LEU
28	DE	7	ASP
28	DE	9	GLN
28	DE	13	THR
28	DE	14	VAL
28	DE	18	THR
28	DE	32	VAL
28	DE	40	ARG
28	DE	41	GLN
28	DE	46	GLN
28	DE	47	LYS
28	DE	48	THR
28	DE	49	ARG
28	DE	51	GLU
28	DE	58	LYS
28	DE	65	THR
28	DE	72	SER
28	DE	73	ILE
28	DE	77	ILE
28	DE	108	ILE
28	DE	112	LEU
28	DE	113	VAL
28	DE	120	VAL
28	DE	127	GLU
28	DE	130	LYS
28	DE	137	LYS
28	DE	145	ASP
28	DE	152	GLU
28	DE	159	LEU
28	DE	162	ARG
28	DE	163	ASN
28	DE	164	LEU

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Mol	Chain	Res	Type
28	DE	169	VAL
28	DE	170	ARG
28	DE	171	ASP
28	DE	173	THR
28	DE	187	VAL
28	DE	193	VAL
28	DE	195	GLN
28	DE	200	LEU
29	DF	3	LEU
29	DF	13	LYS
29	DF	14	LYS
29	DF	15	LEU
29	DF	33	ILE
29	DF	34	THR
29	DF	35	LEU
29	DF	41	GLU
29	DF	48	LEU
29	DF	51	ASN
29	DF	56	LEU
29	DF	60	SER
29	DF	70	ARG
29	DF	78	ILE
29	DF	80	GLN
29	DF	84	ILE
29	DF	86	CYS
29	DF	89	THR
29	DF	93	GLU
29	DF	94	ARG
29	DF	95	MET
29	DF	101	ARG
29	DF	103	ILE
29	DF	104	THR
29	DF	105	ILE
29	DF	112	ASP
29	DF	124	ARG
29	DF	126	ASN
29	DF	132	ARG
29	DF	133	GLU
29	DF	134	GLN
29	DF	136	ILE
29	DF	140	ILE
29	DF	141	ASP

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Mol	Chain	Res	Type
29	DF	152	ASP
29	DF	156	THR
29	DF	157	THR
29	DF	161	SER
29	DF	169	LEU
29	DF	176	PHE
30	DG	2	ARG
30	DG	9	VAL
30	DG	14	VAL
30	DG	16	VAL
30	DG	21	GLN
30	DG	22	VAL
30	DG	33	THR
30	DG	34	ARG
30	DG	38	ASP
30	DG	42	VAL
30	DG	46	ASP
30	DG	71	LEU
30	DG	83	THR
30	DG	102	ILE
30	DG	103	ASN
30	DG	104	LEU
30	DG	106	LEU
30	DG	126	THR
30	DG	127	GLN
30	DG	130	ILE
30	DG	138	GLN
30	DG	151	ARG
30	DG	161	VAL
30	DG	167	VAL
30	DG	170	THR
30	DG	171	LYS
31	DH	4	ILE
31	DH	12	LEU
31	DH	19	VAL
31	DH	20	ASN
31	DH	21	VAL
31	DH	37	VAL
31	DH	44	ILE
31	DH	47	PHE
31	DH	50	ARG
31	DH	53	GLU

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Mol	Chain	Res	Type
31	DH	55	GLU
31	DH	70	GLU
31	DH	71	LYS
31	DH	80	ILE
31	DH	91	PHE
31	DH	94	ILE
31	DH	96	THR
31	DH	108	VAL
31	DH	116	ARG
31	DH	122	LEU
31	DH	128	HIS
31	DH	135	HIS
31	DH	138	VAL
31	DH	142	VAL
31	DH	143	ILE
32	DI	8	VAL
32	DI	27	LEU
32	DI	33	ASN
32	DI	35	MET
32	DI	37	PHE
32	DI	41	PHE
32	DI	48	ILE
32	DI	56	VAL
32	DI	59	THR
32	DI	61	TYR
32	DI	70	THR
32	DI	81	LYS
32	DI	85	ILE
32	DI	91	LYS
32	DI	94	LYS
32	DI	96	LYS
32	DI	97	VAL
32	DI	108	ILE
32	DI	116	MET
32	DI	120	ASP
33	DJ	3	THR
33	DJ	7	LYS
33	DJ	9	GLU
33	DJ	11	VAL
33	DJ	14	ASP
33	DJ	30	THR
33	DJ	34	ARG

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Mol	Chain	Res	Type
33	DJ	40	HIS
33	DJ	45	THR
33	DJ	48	VAL
33	DJ	55	ILE
33	DJ	60	ASP
33	DJ	64	VAL
33	DJ	67	ASN
33	DJ	68	LYS
33	DJ	70	THR
33	DJ	73	VAL
33	DJ	84	ILE
33	DJ	93	ILE
33	DJ	100	VAL
33	DJ	101	ILE
33	DJ	103	ILE
33	DJ	105	VAL
33	DJ	119	PHE
33	DJ	124	VAL
33	DJ	135	GLN
33	DJ	142	ILE
34	DK	2	ILE
34	DK	8	LEU
34	DK	10	VAL
34	DK	19	VAL
34	DK	22	ILE
34	DK	23	LYS
34	DK	24	VAL
34	DK	25	LEU
34	DK	32	TYR
34	DK	35	VAL
34	DK	42	THR
34	DK	47	ILE
34	DK	49	ARG
34	DK	58	LEU
34	DK	61	VAL
34	DK	62	VAL
34	DK	76	VAL
34	DK	82	ASN
34	DK	86	LEU
34	DK	93	GLN
34	DK	95	ILE
34	DK	97	THR

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Mol	Chain	Res	Type
34	DK	99	ILE
34	DK	104	THR
34	DK	105	ARG
34	DK	106	GLU
34	DK	107	LEU
34	DK	111	LYS
34	DK	114	LYS
34	DK	116	ILE
34	DK	118	LEU
35	DL	13	LYS
35	DL	14	LYS
35	DL	19	LEU
35	DL	23	ILE
35	DL	27	LEU
35	DL	30	THR
35	DL	36	LYS
35	DL	41	ARG
35	DL	51	GLU
35	DL	54	GLN
35	DL	59	ARG
35	DL	68	SER
35	DL	77	ILE
35	DL	82	LEU
35	DL	85	VAL
35	DL	86	GLU
35	DL	93	ASN
35	DL	94	THR
35	DL	100	ILE
35	DL	109	LYS
35	DL	110	VAL
35	DL	112	LEU
35	DL	117	THR
35	DL	120	VAL
35	DL	126	ARG
35	DL	132	ARG
35	DL	135	ILE
36	DM	2	LEU
36	DM	24	THR
36	DM	25	ASP
36	DM	36	VAL
36	DM	44	ARG
36	DM	45	GLN

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Mol	Chain	Res	Type
36	DM	47	GLU
36	DM	54	THR
36	DM	58	LYS
36	DM	60	GLN
36	DM	70	ASP
36	DM	78	LEU
36	DM	81	ARG
36	DM	86	LYS
36	DM	89	VAL
36	DM	95	LEU
36	DM	104	GLU
36	DM	114	ARG
36	DM	127	LYS
36	DM	128	THR
36	DM	131	VAL
36	DM	135	VAL
37	DN	1	MET
37	DN	2	ARG
37	DN	16	HIS
37	DN	20	MET
37	DN	22	ARG
37	DN	28	LEU
37	DN	34	ILE
37	DN	43	GLU
37	DN	51	LEU
37	DN	69	ARG
37	DN	70	THR
37	DN	71	ARG
37	DN	81	ASN
37	DN	82	GLU
37	DN	110	MET
37	DN	113	ILE
37	DN	116	VAL
37	DN	117	ASP
38	DO	3	LYS
38	DO	8	ILE
38	DO	15	ARG
38	DO	17	LYS
38	DO	20	GLU
38	DO	21	LEU
38	DO	26	LEU
38	DO	27	VAL

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Mol	Chain	Res	Type
38	DO	28	VAL
38	DO	31	THR
38	DO	35	ILE
38	DO	36	TYR
38	DO	40	ILE
38	DO	47	VAL
38	DO	48	LEU
38	DO	53	THR
38	DO	60	GLU
38	DO	62	LEU
38	DO	67	ASN
38	DO	74	VAL
38	DO	78	VAL
38	DO	80	GLU
38	DO	84	GLU
38	DO	90	VAL
38	DO	95	SER
38	DO	103	VAL
38	DO	108	ASP
38	DO	112	GLU
38	DO	115	LEU
39	DP	15	ASP
39	DP	16	VAL
39	DP	19	PHE
39	DP	20	ARG
39	DP	25	VAL
39	DP	28	LYS
39	DP	31	VAL
39	DP	32	VAL
39	DP	33	GLU
39	DP	39	LEU
39	DP	45	VAL
39	DP	50	ARG
39	DP	70	GLU
39	DP	85	VAL
39	DP	92	ARG
39	DP	96	LEU
39	DP	109	ILE
39	DP	110	LYS
39	DP	111	GLU
39	DP	113	LEU
40	DQ	2	ARG

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Mol	Chain	Res	Type
40	DQ	3	VAL
40	DQ	5	ARG
40	DQ	7	VAL
40	DQ	8	ILE
40	DQ	32	ARG
40	DQ	50	ARG
40	DQ	53	LYS
40	DQ	55	GLN
40	DQ	58	GLN
40	DQ	59	LEU
40	DQ	61	ILE
40	DQ	71	ASN
40	DQ	73	ILE
40	DQ	79	ILE
40	DQ	83	LYS
40	DQ	84	LYS
40	DQ	87	VAL
40	DQ	91	ARG
40	DQ	99	VAL
40	DQ	103	VAL
40	DQ	116	LEU
41	DR	20	VAL
41	DR	25	LEU
41	DR	26	ASP
41	DR	29	THR
41	DR	33	VAL
41	DR	38	VAL
41	DR	41	ILE
41	DR	45	GLU
41	DR	46	GLU
41	DR	54	VAL
41	DR	58	VAL
41	DR	59	ILE
41	DR	60	LYS
41	DR	71	LYS
41	DR	72	VAL
41	DR	79	ARG
41	DR	84	ARG
41	DR	85	LYS
41	DR	94	THR
41	DR	101	ILE
42	DS	3	THR

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Mol	Chain	Res	Type
42	DS	4	ILE
42	DS	11	ARG
42	DS	13	SER
42	DS	33	LEU
42	DS	37	THR
42	DS	39	THR
42	DS	46	LEU
42	DS	48	LYS
42	DS	55	ILE
42	DS	67	ASP
42	DS	68	ASP
42	DS	74	ILE
42	DS	76	VAL
42	DS	78	GLU
42	DS	81	SER
42	DS	84	ARG
42	DS	85	ILE
42	DS	97	LEU
42	DS	98	LYS
42	DS	99	ARG
42	DS	104	THR
42	DS	105	VAL
42	DS	106	VAL
43	DT	5	GLU
43	DT	6	ARG
43	DT	7	LEU
43	DT	10	VAL
43	DT	17	SER
43	DT	28	ASN
43	DT	32	LEU
43	DT	34	VAL
43	DT	54	GLU
43	DT	58	VAL
43	DT	59	ASN
43	DT	63	VAL
43	DT	64	LYS
43	DT	68	LYS
43	DT	69	ARG
43	DT	73	ARG
43	DT	79	ASP
43	DT	85	VAL
43	DT	89	GLU

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Mol	Chain	Res	Type
43	DT	93	LEU
44	DU	4	ILE
44	DU	8	ASP
44	DU	10	VAL
44	DU	13	LEU
44	DU	16	LYS
44	DU	20	LYS
44	DU	27	VAL
44	DU	32	LYS
44	DU	34	ILE
44	DU	36	GLU
44	DU	38	ILE
44	DU	41	VAL
44	DU	42	LYS
44	DU	43	LYS
44	DU	46	LYS
44	DU	48	VAL
44	DU	60	LYS
44	DU	64	ILE
44	DU	76	THR
44	DU	78	LYS
44	DU	81	ARG
44	DU	96	LYS
44	DU	98	ASN
45	DV	1	MET
45	DV	11	GLU
45	DV	21	ARG
45	DV	29	ILE
45	DV	30	ILE
45	DV	34	LYS
45	DV	35	GLU
45	DV	38	LEU
45	DV	40	ILE
45	DV	46	LYS
45	DV	51	GLN
45	DV	62	THR
45	DV	65	VAL
45	DV	72	VAL
45	DV	77	VAL
45	DV	82	TYR
45	DV	90	ASP
46	DW	19	LYS

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Mol	Chain	Res	Type
46	DW	20	ARG
46	DW	31	VAL
46	DW	32	LEU
46	DW	37	ILE
46	DW	44	LYS
46	DW	50	ASN
46	DW	51	VAL
46	DW	60	PHE
46	DW	72	LYS
46	DW	82	ILE
46	DW	85	GLU
47	DX	4	CYS
47	DX	10	ARG
47	DX	12	VAL
47	DX	21	LEU
47	DX	27	ARG
47	DX	29	LEU
47	DX	36	ARG
47	DX	39	VAL
47	DX	45	PHE
47	DX	51	SER
47	DX	53	LYS
47	DX	58	ILE
47	DX	63	ILE
48	DY	5	GLU
48	DY	8	GLU
48	DY	13	GLU
48	DY	17	GLU
48	DY	18	LEU
48	DY	23	ARG
48	DY	27	ASN
48	DY	31	GLN
48	DY	37	LEU
48	DY	43	LEU
48	DY	44	LYS
48	DY	49	ASP
48	DY	53	VAL
48	DY	56	LEU
48	DY	57	LEU
49	DZ	2	LYS
49	DZ	3	THR
49	DZ	4	ILE

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Mol	Chain	Res	Type
49	DZ	23	LEU
49	DZ	29	ARG
49	DZ	34	THR
49	DZ	56	VAL
49	DZ	57	GLU
50	D0	3	GLN
50	D0	14	MET
50	D0	16	ARG
50	D0	21	LEU
50	D0	22	THR
50	D0	27	LEU
50	D0	29	VAL
50	D0	33	SER
50	D0	35	GLU
50	D0	54	ILE
51	D1	10	LEU
51	D1	23	THR
51	D1	29	LYS
51	D1	31	GLU
51	D1	35	LEU
51	D1	36	LYS
51	D1	45	HIS
51	D1	47	ILE
52	D2	1	MET
52	D2	16	HIS
52	D2	30	VAL
52	D2	31	LEU
52	D2	41	ARG
52	D2	42	LEU
52	D2	43	THR
53	D3	5	THR
53	D3	6	VAL
53	D3	7	ARG
53	D3	12	ARG
53	D3	14	LYS
53	D3	16	THR
53	D3	22	LYS
53	D3	24	LYS
53	D3	28	LEU
53	D3	29	ARG
53	D3	30	HIS
53	D3	31	ILE

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Mol	Chain	Res	Type
53	D3	34	LYS
53	D3	39	ARG
53	D3	43	LEU
53	D3	46	LYS
53	D3	56	LEU
53	D3	58	ILE
53	D3	61	LEU
54	D4	4	ARG
54	D4	11	CYS
54	D4	13	ASN
54	D4	16	ILE
54	D4	17	VAL
54	D4	18	LYS
54	D4	23	ILE
54	D4	25	VAL
54	D4	26	ILE
54	D4	30	GLU
54	D4	32	LYS
54	D4	36	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (136) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	18	HIS
2	AB	36	ASN
2	AB	190	ASN
3	AC	3	GLN
3	AC	19	ASN
3	AC	25	ASN
3	AC	69	HIS
4	AD	36	GLN
4	AD	59	GLN
4	AD	120	HIS
4	AD	198	HIS
6	AF	11	HIS
10	AJ	58	ASN
11	AK	24	HIS
12	AL	5	ASN
12	AL	96	HIS
14	AN	49	GLN
15	AO	20	ASN
15	AO	28	GLN

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Mol	Chain	Res	Type
15	AO	38	HIS
15	AO	62	GLN
16	AP	26	ASN
16	AP	63	GLN
19	AS	14	HIS
20	AT	48	GLN
20	AT	61	GLN
20	AT	75	HIS
26	BC	52	HIS
26	BC	85	ASN
26	BC	242	HIS
27	BD	36	GLN
27	BD	49	GLN
27	BD	67	HIS
27	BD	140	HIS
28	BE	41	GLN
28	BE	92	HIS
28	BE	97	ASN
30	BG	44	HIS
31	BH	128	HIS
34	BK	3	GLN
35	BL	54	GLN
35	BL	93	ASN
35	BL	104	GLN
39	BP	65	ASN
39	BP	76	HIS
41	BR	66	HIS
41	BR	89	HIS
42	BS	40	ASN
42	BS	61	ASN
44	BU	44	HIS
44	BU	68	ASN
46	BW	12	ASN
46	BW	50	ASN
48	BY	20	ASN
49	BZ	8	GLN
50	B0	3	GLN
50	B0	37	HIS
50	B0	41	HIS
51	B1	25	ASN
2	CB	94	HIS
3	CC	6	HIS

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Mol	Chain	Res	Type
3	CC	176	HIS
3	CC	190	HIS
4	CD	41	HIS
4	CD	54	GLN
4	CD	85	ASN
4	CD	89	ASN
4	CD	131	ASN
5	CE	89	HIS
5	CE	121	HIS
6	CF	3	HIS
6	CF	58	HIS
7	CG	97	ASN
8	CH	76	GLN
9	CI	81	HIS
10	CJ	15	HIS
11	CK	22	HIS
11	CK	109	ASN
12	CL	6	GLN
13	CM	12	HIS
13	CM	91	HIS
14	CN	43	ASN
14	CN	62	ASN
15	CO	42	HIS
15	CO	46	HIS
15	CO	51	HIS
17	CQ	45	HIS
17	CQ	47	HIS
18	CR	74	HIS
19	CS	43	ASN
19	CS	52	HIS
19	CS	69	HIS
20	CT	20	HIS
20	CT	21	ASN
20	CT	78	ASN
55	CY	136	ASN
55	CY	161	GLN
26	DC	36	ASN
26	DC	57	HIS
26	DC	127	ASN
26	DC	231	HIS
26	DC	242	HIS
27	DD	49	GLN

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Mol	Chain	Res	Type
27	DD	67	HIS
27	DD	150	GLN
28	DE	29	HIS
28	DE	92	HIS
30	DG	142	GLN
31	DH	135	HIS
32	DI	110	GLN
33	DJ	40	HIS
33	DJ	130	HIS
33	DJ	132	HIS
34	DK	3	GLN
35	DL	38	GLN
35	DL	54	GLN
37	DN	3	HIS
39	DP	51	ASN
41	DR	87	GLN
41	DR	89	HIS
41	DR	91	GLN
42	DS	15	GLN
43	DT	28	ASN
44	DU	26	ASN
44	DU	52	ASN
44	DU	73	ASN
45	DV	44	HIS
45	DV	78	GLN
46	DW	57	HIS
48	DY	36	GLN
50	D0	37	HIS
51	D1	18	HIS
52	D2	26	ASN
53	D3	25	HIS
53	D3	42	HIS
54	D4	37	GLN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1538/1542 (99%)	503 (32%)	31 (2%)
1	CA	1537/1542 (99%)	498 (32%)	37 (2%)
22	AV	75/76 (98%)	19 (25%)	1 (1%)
22	CV	75/76 (98%)	27 (36%)	6 (8%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
23	AX	15/24 (62%)	7 (46%)	0
23	CX	14/24 (58%)	6 (42%)	1 (7%)
24	BA	2896/2904 (99%)	884 (30%)	70 (2%)
24	DA	2896/2904 (99%)	828 (28%)	71 (2%)
25	BB	117/120 (97%)	29 (24%)	1 (0%)
25	DB	118/120 (98%)	24 (20%)	0
All	All	9281/9332 (99%)	2825 (30%)	218 (2%)

All (2825) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	3	A
1	AA	4	U
1	AA	5	U
1	AA	8	A
1	AA	9	G
1	AA	13	U
1	AA	22	G
1	AA	29	U
1	AA	32	A
1	AA	33	A
1	AA	39	G
1	AA	42	G
1	AA	43	C
1	AA	45	G
1	AA	47	C
1	AA	48	C
1	AA	49	U
1	AA	50	A
1	AA	51	A
1	AA	62	U
1	AA	68	G
1	AA	70	U
1	AA	71	A
1	AA	73	C
1	AA	74	A
1	AA	75	G
1	AA	76	G
1	AA	83	C
1	AA	84	U
1	AA	85	U
1	AA	87	C

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Mol	Chain	Res	Type
1	AA	88	U
1	AA	95	C
1	AA	96	U
1	AA	97	G
1	AA	107	G
1	AA	110	C
1	AA	115	G
1	AA	116	A
1	AA	118	U
1	AA	120	A
1	AA	121	U
1	AA	122	G
1	AA	123	U
1	AA	124	C
1	AA	128	G
1	AA	130	A
1	AA	131	A
1	AA	132	C
1	AA	134	G
1	AA	135	C
1	AA	142	G
1	AA	144	G
1	AA	146	G
1	AA	151	A
1	AA	152	A
1	AA	154	U
1	AA	155	A
1	AA	156	C
1	AA	163	C
1	AA	167	A
1	AA	168	G
1	AA	177	G
1	AA	179	A
1	AA	183	C
1	AA	186	C
1	AA	191	G
1	AA	192	A
1	AA	196	A
1	AA	197	A
1	AA	199	A
1	AA	204	G
1	AA	205	A

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Mol	Chain	Res	Type
1	AA	206	C
1	AA	208	U
1	AA	209	U
1	AA	210	C
1	AA	211	G
1	AA	212	G
1	AA	214	C
1	AA	215	C
1	AA	226	G
1	AA	236	A
1	AA	238	A
1	AA	240	G
1	AA	245	U
1	AA	247	G
1	AA	250	A
1	AA	251	G
1	AA	253	A
1	AA	262	A
1	AA	265	G
1	AA	266	G
1	AA	267	C
1	AA	272	C
1	AA	275	G
1	AA	280	C
1	AA	284	C
1	AA	289	G
1	AA	293	G
1	AA	294	U
1	AA	298	A
1	AA	300	A
1	AA	302	G
1	AA	314	C
1	AA	321	A
1	AA	322	C
1	AA	328	C
1	AA	330	C
1	AA	331	G
1	AA	333	U
1	AA	334	C
1	AA	338	A
1	AA	346	G
1	AA	347	G

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Mol	Chain	Res	Type
1	AA	349	A
1	AA	350	G
1	AA	351	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	355	C
1	AA	356	A
1	AA	358	U
1	AA	367	U
1	AA	372	C
1	AA	373	A
1	AA	379	C
1	AA	381	C
1	AA	383	A
1	AA	391	G
1	AA	392	C
1	AA	393	A
1	AA	398	U
1	AA	403	C
1	AA	406	G
1	AA	409	U
1	AA	411	A
1	AA	412	A
1	AA	413	G
1	AA	421	U
1	AA	422	C
1	AA	423	G
1	AA	425	G
1	AA	428	G
1	AA	429	U
1	AA	430	A
1	AA	431	A
1	AA	432	A
1	AA	435	A
1	AA	436	C
1	AA	437	U
1	AA	439	U
1	AA	441	A
1	AA	442	G
1	AA	446	G
1	AA	447	G

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Mol	Chain	Res	Type
1	AA	448	A
1	AA	451	A
1	AA	452	A
1	AA	463	U
1	AA	466	A
1	AA	467	U
1	AA	468	A
1	AA	469	C
1	AA	474	G
1	AA	480	U
1	AA	481	G
1	AA	482	A
1	AA	483	C
1	AA	485	U
1	AA	486	U
1	AA	495	A
1	AA	500	G
1	AA	505	G
1	AA	508	U
1	AA	509	A
1	AA	511	C
1	AA	512	U
1	AA	518	C
1	AA	521	G
1	AA	523	A
1	AA	524	G
1	AA	529	G
1	AA	530	G
1	AA	532	A
1	AA	533	A
1	AA	544	G
1	AA	547	A
1	AA	551	U
1	AA	559	A
1	AA	560	A
1	AA	563	A
1	AA	564	C
1	AA	569	C
1	AA	571	U
1	AA	572	A
1	AA	573	A
1	AA	576	C

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Mol	Chain	Res	Type
1	AA	577	G
1	AA	579	A
1	AA	585	G
1	AA	588	G
1	AA	589	U
1	AA	596	A
1	AA	597	G
1	AA	598	U
1	AA	599	C
1	AA	600	A
1	AA	613	C
1	AA	615	G
1	AA	619	U
1	AA	627	G
1	AA	632	U
1	AA	640	A
1	AA	650	G
1	AA	653	U
1	AA	659	U
1	AA	661	G
1	AA	665	A
1	AA	667	G
1	AA	668	G
1	AA	670	G
1	AA	680	C
1	AA	683	G
1	AA	684	U
1	AA	685	G
1	AA	687	A
1	AA	692	U
1	AA	693	G
1	AA	695	A
1	AA	703	G
1	AA	709	U
1	AA	710	G
1	AA	721	G
1	AA	723	U
1	AA	724	G
1	AA	730	G
1	AA	731	G
1	AA	733	G
1	AA	745	G

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Mol	Chain	Res	Type
1	AA	747	A
1	AA	748	G
1	AA	755	G
1	AA	759	A
1	AA	766	A
1	AA	767	A
1	AA	774	G
1	AA	776	G
1	AA	778	G
1	AA	780	A
1	AA	784	A
1	AA	785	G
1	AA	787	A
1	AA	792	A
1	AA	793	U
1	AA	794	A
1	AA	802	A
1	AA	805	C
1	AA	808	C
1	AA	811	C
1	AA	813	U
1	AA	814	A
1	AA	815	A
1	AA	816	A
1	AA	817	C
1	AA	818	G
1	AA	819	A
1	AA	821	G
1	AA	822	U
1	AA	827	U
1	AA	828	U
1	AA	829	G
1	AA	830	G
1	AA	841	C
1	AA	842	U
1	AA	843	U
1	AA	844	G
1	AA	845	A
1	AA	846	G
1	AA	848	C
1	AA	849	G
1	AA	851	G

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Mol	Chain	Res	Type
1	AA	852	G
1	AA	854	U
1	AA	856	C
1	AA	859	G
1	AA	867	G
1	AA	868	C
1	AA	870	U
1	AA	872	A
1	AA	873	A
1	AA	880	C
1	AA	891	U
1	AA	893	C
1	AA	899	C
1	AA	900	A
1	AA	901	A
1	AA	902	G
1	AA	910	C
1	AA	911	U
1	AA	914	A
1	AA	919	A
1	AA	922	G
1	AA	925	G
1	AA	933	G
1	AA	934	C
1	AA	935	A
1	AA	942	G
1	AA	955	U
1	AA	960	U
1	AA	961	U
1	AA	966	G
1	AA	967	C
1	AA	968	A
1	AA	969	A
1	AA	971	G
1	AA	972	C
1	AA	974	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	980	C
1	AA	981	U
1	AA	983	A

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Mol	Chain	Res	Type
1	AA	984	C
1	AA	985	C
1	AA	993	G
1	AA	1004	A
1	AA	1006	G
1	AA	1008	U
1	AA	1009	U
1	AA	1015	G
1	AA	1018	G
1	AA	1019	A
1	AA	1020	G
1	AA	1021	A
1	AA	1025	U
1	AA	1026	G
1	AA	1028	C
1	AA	1030	U
1	AA	1032	G
1	AA	1033	G
1	AA	1034	G
1	AA	1035	A
1	AA	1036	A
1	AA	1037	C
1	AA	1043	G
1	AA	1044	A
1	AA	1049	U
1	AA	1050	G
1	AA	1065	U
1	AA	1066	C
1	AA	1069	C
1	AA	1070	U
1	AA	1078	U
1	AA	1079	G
1	AA	1080	A
1	AA	1084	G
1	AA	1086	U
1	AA	1087	G
1	AA	1092	A
1	AA	1093	A
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1102	A

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Mol	Chain	Res	Type
1	AA	1103	C
1	AA	1105	A
1	AA	1109	C
1	AA	1113	C
1	AA	1118	U
1	AA	1123	U
1	AA	1125	U
1	AA	1133	G
1	AA	1135	U
1	AA	1136	C
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1140	C
1	AA	1141	C
1	AA	1142	G
1	AA	1145	A
1	AA	1152	A
1	AA	1154	G
1	AA	1156	G
1	AA	1157	A
1	AA	1159	U
1	AA	1160	G
1	AA	1161	C
1	AA	1168	U
1	AA	1170	A
1	AA	1171	A
1	AA	1181	G
1	AA	1182	G
1	AA	1183	U
1	AA	1184	G
1	AA	1189	U
1	AA	1190	G
1	AA	1191	A
1	AA	1192	C
1	AA	1193	G
1	AA	1196	A
1	AA	1197	A
1	AA	1198	G
1	AA	1199	U
1	AA	1201	A
1	AA	1212	U

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Mol	Chain	Res	Type
1	AA	1213	A
1	AA	1227	A
1	AA	1228	C
1	AA	1229	A
1	AA	1238	A
1	AA	1239	A
1	AA	1240	U
1	AA	1241	G
1	AA	1250	A
1	AA	1253	G
1	AA	1256	A
1	AA	1264	U
1	AA	1267	C
1	AA	1275	A
1	AA	1277	C
1	AA	1278	G
1	AA	1280	A
1	AA	1281	C
1	AA	1282	C
1	AA	1286	U
1	AA	1287	A
1	AA	1292	G
1	AA	1298	U
1	AA	1299	A
1	AA	1301	U
1	AA	1302	C
1	AA	1305	G
1	AA	1308	U
1	AA	1317	C
1	AA	1318	A
1	AA	1320	C
1	AA	1322	C
1	AA	1326	U
1	AA	1327	C
1	AA	1328	C
1	AA	1332	A
1	AA	1335	U
1	AA	1336	C
1	AA	1338	G
1	AA	1346	A
1	AA	1350	A
1	AA	1353	G

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Mol	Chain	Res	Type
1	AA	1355	G
1	AA	1357	A
1	AA	1359	C
1	AA	1360	A
1	AA	1361	G
1	AA	1363	A
1	AA	1364	U
1	AA	1365	G
1	AA	1368	A
1	AA	1376	U
1	AA	1377	A
1	AA	1378	C
1	AA	1379	G
1	AA	1382	C
1	AA	1383	C
1	AA	1384	C
1	AA	1394	A
1	AA	1395	C
1	AA	1401	G
1	AA	1408	A
1	AA	1412	C
1	AA	1415	G
1	AA	1418	A
1	AA	1419	G
1	AA	1424	U
1	AA	1426	G
1	AA	1439	G
1	AA	1440	U
1	AA	1441	A
1	AA	1442	G
1	AA	1447	A
1	AA	1450	U
1	AA	1452	C
1	AA	1454	G
1	AA	1455	G
1	AA	1463	U
1	AA	1478	U
1	AA	1480	A
1	AA	1486	G
1	AA	1492	A
1	AA	1493	A
1	AA	1494	G

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Mol	Chain	Res	Type
1	AA	1506	U
1	AA	1509	C
1	AA	1517	G
1	AA	1519	A
1	AA	1529	G
1	AA	1530	G
1	AA	1534	A
1	AA	1535	C
1	AA	1536	C
1	AA	1539	C
22	AV	2	C
22	AV	17	C
22	AV	18	G
22	AV	19	G
22	AV	20	U
22	AV	21	A
22	AV	22	G
22	AV	33	U
22	AV	36	A
22	AV	45	U
22	AV	46	G
22	AV	52	G
22	AV	53	G
22	AV	58	A
22	AV	61	C
22	AV	69	G
22	AV	73	A
22	AV	75	C
22	AV	76	A
23	AX	3	G
23	AX	5	A
23	AX	9	A
23	AX	10	A
23	AX	11	A
23	AX	15	C
23	AX	16	U
24	BA	10	A
24	BA	12	U
24	BA	15	G
24	BA	23	G
24	BA	33	C
24	BA	34	U

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Mol	Chain	Res	Type
24	BA	35	G
24	BA	37	C
24	BA	46	G
24	BA	47	C
24	BA	51	G
24	BA	58	G
24	BA	62	U
24	BA	63	A
24	BA	70	G
24	BA	71	A
24	BA	74	A
24	BA	75	G
24	BA	78	U
24	BA	80	G
24	BA	84	A
24	BA	85	G
24	BA	87	U
24	BA	92	U
24	BA	94	A
24	BA	100	U
24	BA	101	A
24	BA	102	U
24	BA	110	G
24	BA	118	A
24	BA	119	A
24	BA	120	U
24	BA	126	A
24	BA	128	C
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	147	C
24	BA	150	U
24	BA	151	C
24	BA	162	U
24	BA	163	C
24	BA	170	U
24	BA	181	A
24	BA	187	G

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Mol	Chain	Res	Type
24	BA	196	A
24	BA	199	A
24	BA	204	A
24	BA	210	C
24	BA	211	C
24	BA	214	G
24	BA	215	G
24	BA	216	A
24	BA	218	A
24	BA	221	A
24	BA	222	A
24	BA	223	A
24	BA	224	U
24	BA	227	A
24	BA	228	C
24	BA	233	A
24	BA	239	C
24	BA	241	A
24	BA	244	A
24	BA	248	G
24	BA	249	C
24	BA	255	A
24	BA	266	G
24	BA	272	A
24	BA	273	G
24	BA	276	U
24	BA	278	A
24	BA	282	A
24	BA	283	G
24	BA	284	U
24	BA	285	G
24	BA	301	G
24	BA	311	A
24	BA	316	C
24	BA	329	G
24	BA	330	A
24	BA	331	C
24	BA	333	G
24	BA	334	C
24	BA	335	C
24	BA	338	G
24	BA	341	C

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Mol	Chain	Res	Type
24	BA	342	A
24	BA	346	A
24	BA	350	G
24	BA	353	C
24	BA	354	A
24	BA	355	U
24	BA	359	G
24	BA	361	G
24	BA	362	A
24	BA	363	G
24	BA	367	G
24	BA	371	A
24	BA	372	G
24	BA	373	U
24	BA	379	G
24	BA	380	G
24	BA	384	A
24	BA	386	G
24	BA	388	G
24	BA	389	G
24	BA	391	A
24	BA	396	G
24	BA	399	U
24	BA	404	A
24	BA	405	U
24	BA	406	G
24	BA	411	G
24	BA	412	A
24	BA	413	C
24	BA	419	U
24	BA	421	C
24	BA	424	G
24	BA	429	A
24	BA	435	C
24	BA	447	A
24	BA	450	G
24	BA	451	U
24	BA	452	G
24	BA	455	C
24	BA	458	G
24	BA	473	G
24	BA	474	G

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Mol	Chain	Res	Type
24	BA	479	A
24	BA	480	A
24	BA	481	G
24	BA	484	C
24	BA	490	C
24	BA	491	G
24	BA	504	A
24	BA	505	A
24	BA	507	A
24	BA	508	A
24	BA	509	C
24	BA	510	C
24	BA	516	C
24	BA	530	G
24	BA	531	C
24	BA	532	A
24	BA	533	G
24	BA	543	G
24	BA	544	C
24	BA	545	U
24	BA	546	U
24	BA	547	A
24	BA	548	G
24	BA	549	G
24	BA	550	C
24	BA	557	C
24	BA	563	A
24	BA	573	U
24	BA	574	A
24	BA	575	A
24	BA	577	G
24	BA	579	G
24	BA	584	C
24	BA	585	G
24	BA	586	A
24	BA	587	C
24	BA	588	U
24	BA	600	G
24	BA	601	C
24	BA	603	A
24	BA	605	G
24	BA	608	A

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Mol	Chain	Res	Type
24	BA	613	A
24	BA	614	A
24	BA	615	U
24	BA	616	A
24	BA	617	G
24	BA	619	G
24	BA	620	G
24	BA	627	A
24	BA	631	A
24	BA	637	A
24	BA	644	A
24	BA	645	C
24	BA	647	G
24	BA	651	G
24	BA	653	U
24	BA	654	A
24	BA	655	A
24	BA	659	G
24	BA	661	A
24	BA	663	G
24	BA	668	A
24	BA	682	G
24	BA	686	U
24	BA	695	G
24	BA	696	G
24	BA	714	U
24	BA	715	A
24	BA	717	C
24	BA	718	A
24	BA	730	A
24	BA	737	C
24	BA	743	A
24	BA	746	U
24	BA	747	U
24	BA	748	G
24	BA	749	A
24	BA	753	A
24	BA	754	U
24	BA	757	G
24	BA	762	U
24	BA	764	A
24	BA	765	C

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Mol	Chain	Res	Type
24	BA	771	G
24	BA	775	G
24	BA	776	G
24	BA	782	A
24	BA	784	G
24	BA	785	G
24	BA	787	C
24	BA	789	A
24	BA	792	A
24	BA	794	A
24	BA	795	C
24	BA	799	G
24	BA	800	A
24	BA	801	G
24	BA	805	G
24	BA	811	U
24	BA	812	C
24	BA	813	U
24	BA	815	C
24	BA	819	A
24	BA	820	A
24	BA	824	U
24	BA	826	U
24	BA	827	U
24	BA	828	U
24	BA	830	G
24	BA	832	U
24	BA	836	G
24	BA	837	C
24	BA	845	A
24	BA	846	U
24	BA	847	U
24	BA	852	U
24	BA	856	G
24	BA	857	G
24	BA	858	G
24	BA	859	G
24	BA	860	U
24	BA	868	U
24	BA	878	A
24	BA	879	G
24	BA	880	G

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Mol	Chain	Res	Type
24	BA	884	U
24	BA	893	C
24	BA	894	U
24	BA	896	A
24	BA	897	C
24	BA	910	A
24	BA	915	C
24	BA	923	G
24	BA	924	G
24	BA	927	A
24	BA	931	U
24	BA	932	U
24	BA	933	A
24	BA	941	A
24	BA	945	A
24	BA	946	C
24	BA	952	G
24	BA	953	G
24	BA	958	U
24	BA	961	C
24	BA	973	A
24	BA	974	G
24	BA	982	C
24	BA	983	A
24	BA	985	C
24	BA	990	A
24	BA	993	G
24	BA	994	C
24	BA	995	C
24	BA	996	A
24	BA	997	G
24	BA	1005	C
24	BA	1008	A
24	BA	1009	A
24	BA	1012	U
24	BA	1013	C
24	BA	1017	G
24	BA	1020	A
24	BA	1021	A
24	BA	1022	G
24	BA	1023	U
24	BA	1025	G

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Mol	Chain	Res	Type
24	BA	1026	G
24	BA	1027	A
24	BA	1033	U
24	BA	1046	A
24	BA	1056	G
24	BA	1057	A
24	BA	1060	U
24	BA	1061	U
24	BA	1062	G
24	BA	1065	U
24	BA	1066	U
24	BA	1067	A
24	BA	1068	G
24	BA	1070	A
24	BA	1071	G
24	BA	1072	C
24	BA	1073	A
24	BA	1074	G
24	BA	1075	C
24	BA	1079	C
24	BA	1083	U
24	BA	1088	A
24	BA	1089	A
24	BA	1090	A
24	BA	1091	G
24	BA	1092	C
24	BA	1094	U
24	BA	1096	A
24	BA	1097	U
24	BA	1098	A
24	BA	1101	U
24	BA	1104	C
24	BA	1105	U
24	BA	1106	G
24	BA	1110	G
24	BA	1111	A
24	BA	1112	G
24	BA	1115	G
24	BA	1132	U
24	BA	1133	A
24	BA	1134	A
24	BA	1135	C

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Mol	Chain	Res	Type
24	BA	1136	G
24	BA	1139	G
24	BA	1142	A
24	BA	1143	A
24	BA	1144	A
24	BA	1146	C
24	BA	1155	A
24	BA	1169	A
24	BA	1172	C
24	BA	1173	U
24	BA	1174	U
24	BA	1175	A
24	BA	1176	U
24	BA	1177	G
24	BA	1181	U
24	BA	1184	U
24	BA	1186	G
24	BA	1189	A
24	BA	1205	A
24	BA	1211	C
24	BA	1212	G
24	BA	1217	U
24	BA	1218	G
24	BA	1224	U
24	BA	1227	G
24	BA	1229	C
24	BA	1237	A
24	BA	1238	G
24	BA	1248	G
24	BA	1250	G
24	BA	1253	A
24	BA	1256	G
24	BA	1262	A
24	BA	1266	G
24	BA	1268	A
24	BA	1269	A
24	BA	1271	G
24	BA	1272	A
24	BA	1275	A
24	BA	1282	U
24	BA	1284	A
24	BA	1286	A

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Mol	Chain	Res	Type
24	BA	1288	G
24	BA	1292	G
24	BA	1300	G
24	BA	1301	A
24	BA	1306	C
24	BA	1317	G
24	BA	1318	U
24	BA	1319	C
24	BA	1329	U
24	BA	1334	G
24	BA	1340	U
24	BA	1344	U
24	BA	1345	C
24	BA	1346	G
24	BA	1347	A
24	BA	1348	C
24	BA	1350	C
24	BA	1352	U
24	BA	1353	A
24	BA	1355	G
24	BA	1357	C
24	BA	1358	G
24	BA	1365	A
24	BA	1368	G
24	BA	1373	A
24	BA	1374	G
24	BA	1376	C
24	BA	1377	G
24	BA	1378	A
24	BA	1379	U
24	BA	1383	A
24	BA	1384	A
24	BA	1385	A
24	BA	1395	A
24	BA	1398	C
24	BA	1400	U
24	BA	1403	A
24	BA	1405	U
24	BA	1406	U
24	BA	1410	G
24	BA	1413	A
24	BA	1416	G

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Mol	Chain	Res	Type
24	BA	1417	C
24	BA	1419	A
24	BA	1420	A
24	BA	1424	G
24	BA	1427	A
24	BA	1428	C
24	BA	1429	G
24	BA	1433	A
24	BA	1434	A
24	BA	1435	G
24	BA	1436	G
24	BA	1444	G
24	BA	1451	C
24	BA	1452	G
24	BA	1458	U
24	BA	1460	U
24	BA	1464	G
24	BA	1476	U
24	BA	1482	G
24	BA	1486	U
24	BA	1490	A
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	1503	A
24	BA	1504	A
24	BA	1510	G
24	BA	1511	G
24	BA	1515	A
24	BA	1517	G
24	BA	1519	G
24	BA	1522	A
24	BA	1524	G
24	BA	1532	A
24	BA	1533	C
24	BA	1534	U
24	BA	1535	A
24	BA	1536	C
24	BA	1537	G

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Mol	Chain	Res	Type
24	BA	1538	G
24	BA	1548	A
24	BA	1555	G
24	BA	1563	U
24	BA	1566	A
24	BA	1569	A
24	BA	1572	A
24	BA	1574	C
24	BA	1578	U
24	BA	1579	A
24	BA	1581	G
24	BA	1582	C
24	BA	1584	U
24	BA	1585	C
24	BA	1586	A
24	BA	1587	G
24	BA	1589	U
24	BA	1591	A
24	BA	1593	A
24	BA	1602	U
24	BA	1604	C
24	BA	1605	C
24	BA	1606	C
24	BA	1607	C
24	BA	1608	A
24	BA	1610	A
24	BA	1616	A
24	BA	1617	C
24	BA	1625	C
24	BA	1638	C
24	BA	1647	U
24	BA	1648	U
24	BA	1649	G
24	BA	1651	G
24	BA	1652	A
24	BA	1654	A
24	BA	1656	C
24	BA	1661	G
24	BA	1674	G
24	BA	1677	A
24	BA	1681	G
24	BA	1685	C

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Mol	Chain	Res	Type
24	BA	1694	C
24	BA	1697	G
24	BA	1703	G
24	BA	1704	C
24	BA	1714	U
24	BA	1715	G
24	BA	1716	U
24	BA	1725	U
24	BA	1729	U
24	BA	1730	C
24	BA	1731	G
24	BA	1733	G
24	BA	1735	A
24	BA	1739	A
24	BA	1743	G
24	BA	1750	G
24	BA	1752	C
24	BA	1757	A
24	BA	1762	A
24	BA	1764	C
24	BA	1765	U
24	BA	1773	A
24	BA	1775	U
24	BA	1776	G
24	BA	1781	U
24	BA	1785	A
24	BA	1791	A
24	BA	1800	C
24	BA	1801	A
24	BA	1803	A
24	BA	1808	A
24	BA	1809	A
24	BA	1811	G
24	BA	1812	U
24	BA	1816	C
24	BA	1818	U
24	BA	1819	A
24	BA	1821	A
24	BA	1828	G
24	BA	1829	A
24	BA	1835	G
24	BA	1841	U

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Mol	Chain	Res	Type
24	BA	1842	G
24	BA	1847	A
24	BA	1848	A
24	BA	1858	A
24	BA	1859	U
24	BA	1867	G
24	BA	1869	G
24	BA	1870	C
24	BA	1871	A
24	BA	1872	A
24	BA	1873	G
24	BA	1876	A
24	BA	1880	U
24	BA	1882	U
24	BA	1884	G
24	BA	1892	C
24	BA	1897	G
24	BA	1903	G
24	BA	1906	G
24	BA	1908	C
24	BA	1913	A
24	BA	1914	C
24	BA	1915	U
24	BA	1926	U
24	BA	1927	A
24	BA	1930	G
24	BA	1931	U
24	BA	1932	A
24	BA	1935	G
24	BA	1937	A
24	BA	1938	A
24	BA	1943	U
24	BA	1944	U
24	BA	1955	U
24	BA	1956	U
24	BA	1958	C
24	BA	1961	C
24	BA	1964	G
24	BA	1965	C
24	BA	1967	C
24	BA	1970	A
24	BA	1972	G

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Mol	Chain	Res	Type
24	BA	1980	G
24	BA	1991	U
24	BA	1993	U
24	BA	1995	U
24	BA	1996	C
24	BA	1997	C
24	BA	2001	C
24	BA	2002	G
24	BA	2004	G
24	BA	2006	C
24	BA	2007	U
24	BA	2008	C
24	BA	2017	U
24	BA	2018	G
24	BA	2020	A
24	BA	2023	C
24	BA	2025	C
24	BA	2027	G
24	BA	2030	A
24	BA	2031	A
24	BA	2033	A
24	BA	2034	U
24	BA	2035	G
24	BA	2036	C
24	BA	2043	C
24	BA	2044	C
24	BA	2049	G
24	BA	2051	A
24	BA	2055	C
24	BA	2056	G
24	BA	2060	A
24	BA	2061	G
24	BA	2062	A
24	BA	2063	C
24	BA	2068	U
24	BA	2069	G
24	BA	2070	A
24	BA	2072	C
24	BA	2076	U
24	BA	2080	A
24	BA	2081	U
24	BA	2092	U

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Mol	Chain	Res	Type
24	BA	2093	G
24	BA	2095	A
24	BA	2096	C
24	BA	2099	U
24	BA	2105	U
24	BA	2109	U
24	BA	2110	G
24	BA	2111	U
24	BA	2112	G
24	BA	2113	U
24	BA	2115	G
24	BA	2116	G
24	BA	2117	A
24	BA	2118	U
24	BA	2119	A
24	BA	2120	G
24	BA	2123	G
24	BA	2125	G
24	BA	2126	A
24	BA	2127	G
24	BA	2128	G
24	BA	2131	U
24	BA	2132	U
24	BA	2133	G
24	BA	2136	G
24	BA	2137	U
24	BA	2138	G
24	BA	2139	U
24	BA	2141	G
24	BA	2143	C
24	BA	2145	C
24	BA	2146	C
24	BA	2147	A
24	BA	2158	A
24	BA	2159	G
24	BA	2160	C
24	BA	2161	C
24	BA	2163	A
24	BA	2164	C
24	BA	2165	C
24	BA	2167	U
24	BA	2169	A

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Mol	Chain	Res	Type
24	BA	2171	A
24	BA	2172	U
24	BA	2173	A
24	BA	2184	A
24	BA	2185	U
24	BA	2186	G
24	BA	2189	U
24	BA	2190	G
24	BA	2198	A
24	BA	2199	A
24	BA	2200	C
24	BA	2203	U
24	BA	2204	G
24	BA	2207	C
24	BA	2211	A
24	BA	2212	A
24	BA	2213	U
24	BA	2215	C
24	BA	2218	G
24	BA	2225	A
24	BA	2226	C
24	BA	2230	G
24	BA	2238	G
24	BA	2239	G
24	BA	2250	G
24	BA	2252	G
24	BA	2262	U
24	BA	2264	C
24	BA	2265	U
24	BA	2268	A
24	BA	2278	A
24	BA	2283	C
24	BA	2285	C
24	BA	2286	G
24	BA	2287	A
24	BA	2289	G
24	BA	2295	C
24	BA	2299	U
24	BA	2303	G
24	BA	2304	G
24	BA	2305	U
24	BA	2307	G

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Mol	Chain	Res	Type
24	BA	2309	A
24	BA	2310	C
24	BA	2311	A
24	BA	2312	U
24	BA	2313	C
24	BA	2321	U
24	BA	2322	A
24	BA	2323	G
24	BA	2325	G
24	BA	2326	C
24	BA	2327	A
24	BA	2331	G
24	BA	2333	A
24	BA	2334	U
24	BA	2335	A
24	BA	2343	U
24	BA	2347	C
24	BA	2348	U
24	BA	2350	C
24	BA	2358	A
24	BA	2360	G
24	BA	2367	G
24	BA	2378	A
24	BA	2382	G
24	BA	2383	G
24	BA	2384	U
24	BA	2385	C
24	BA	2386	A
24	BA	2402	U
24	BA	2403	C
24	BA	2406	A
24	BA	2410	G
24	BA	2415	G
24	BA	2418	A
24	BA	2419	U
24	BA	2420	C
24	BA	2421	G
24	BA	2422	C
24	BA	2423	U
24	BA	2424	C
24	BA	2425	A
24	BA	2426	A

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Mol	Chain	Res	Type
24	BA	2428	G
24	BA	2429	G
24	BA	2430	A
24	BA	2433	A
24	BA	2434	A
24	BA	2435	A
24	BA	2441	U
24	BA	2444	G
24	BA	2447	G
24	BA	2448	A
24	BA	2470	G
24	BA	2473	U
24	BA	2474	U
24	BA	2476	A
24	BA	2480	C
24	BA	2482	A
24	BA	2484	G
24	BA	2488	G
24	BA	2491	U
24	BA	2493	U
24	BA	2501	C
24	BA	2502	G
24	BA	2505	G
24	BA	2513	A
24	BA	2514	U
24	BA	2518	A
24	BA	2521	C
24	BA	2522	U
24	BA	2523	G
24	BA	2524	G
24	BA	2525	G
24	BA	2529	G
24	BA	2534	A
24	BA	2535	G
24	BA	2536	G
24	BA	2547	A
24	BA	2554	U
24	BA	2563	U
24	BA	2566	A
24	BA	2567	G
24	BA	2568	U
24	BA	2569	G

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Mol	Chain	Res	Type
24	BA	2572	A
24	BA	2573	C
24	BA	2574	G
24	BA	2576	G
24	BA	2585	U
24	BA	2591	C
24	BA	2602	A
24	BA	2603	G
24	BA	2605	U
24	BA	2609	U
24	BA	2613	U
24	BA	2615	U
24	BA	2623	G
24	BA	2629	U
24	BA	2645	G
24	BA	2646	C
24	BA	2650	U
24	BA	2651	C
24	BA	2653	U
24	BA	2655	G
24	BA	2656	U
24	BA	2661	G
24	BA	2662	A
24	BA	2663	G
24	BA	2680	U
24	BA	2681	C
24	BA	2689	U
24	BA	2690	U
24	BA	2704	C
24	BA	2710	C
24	BA	2714	G
24	BA	2718	G
24	BA	2726	A
24	BA	2729	G
24	BA	2733	A
24	BA	2735	G
24	BA	2736	A
24	BA	2744	G
24	BA	2745	C
24	BA	2748	A
24	BA	2749	A
24	BA	2751	G

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Mol	Chain	Res	Type
24	BA	2755	C
24	BA	2757	A
24	BA	2758	A
24	BA	2762	C
24	BA	2765	A
24	BA	2767	C
24	BA	2768	U
24	BA	2778	A
24	BA	2781	A
24	BA	2791	G
24	BA	2792	A
24	BA	2793	C
24	BA	2794	C
24	BA	2797	U
24	BA	2798	U
24	BA	2799	A
24	BA	2808	G
24	BA	2820	A
24	BA	2821	A
24	BA	2833	U
24	BA	2834	G
24	BA	2837	A
24	BA	2848	G
24	BA	2852	G
24	BA	2861	U
24	BA	2863	C
24	BA	2866	U
24	BA	2867	G
24	BA	2873	A
24	BA	2879	A
24	BA	2880	C
24	BA	2883	A
24	BA	2884	U
24	BA	2886	A
24	BA	2887	A
24	BA	2893	A
24	BA	2895	G
24	BA	2903	U
25	BB	5	U
25	BB	8	C
25	BB	9	G
25	BB	11	C

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Mol	Chain	Res	Type
25	BB	13	G
25	BB	15	A
25	BB	16	G
25	BB	23	G
25	BB	24	G
25	BB	32	U
25	BB	35	C
25	BB	41	G
25	BB	44	G
25	BB	46	A
25	BB	49	C
25	BB	50	A
25	BB	51	G
25	BB	52	A
25	BB	53	A
25	BB	54	G
25	BB	56	G
25	BB	78	A
25	BB	88	C
25	BB	89	U
25	BB	90	C
25	BB	99	A
25	BB	109	A
25	BB	113	C
25	BB	116	G
1	CA	5	U
1	CA	6	G
1	CA	7	A
1	CA	9	G
1	CA	16	A
1	CA	17	U
1	CA	19	A
1	CA	21	G
1	CA	27	G
1	CA	31	G
1	CA	32	A
1	CA	33	A
1	CA	38	G
1	CA	39	G
1	CA	41	G
1	CA	47	C
1	CA	48	C

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Mol	Chain	Res	Type
1	CA	51	A
1	CA	58	C
1	CA	60	A
1	CA	63	C
1	CA	64	G
1	CA	65	A
1	CA	70	U
1	CA	71	A
1	CA	74	A
1	CA	75	G
1	CA	76	G
1	CA	78	A
1	CA	79	G
1	CA	80	A
1	CA	81	A
1	CA	82	G
1	CA	83	C
1	CA	85	U
1	CA	86	G
1	CA	87	C
1	CA	89	U
1	CA	90	C
1	CA	91	U
1	CA	92	U
1	CA	94	G
1	CA	95	C
1	CA	96	U
1	CA	97	G
1	CA	100	G
1	CA	101	A
1	CA	106	C
1	CA	108	G
1	CA	109	A
1	CA	110	C
1	CA	111	G
1	CA	115	G
1	CA	116	A
1	CA	118	U
1	CA	120	A
1	CA	121	U
1	CA	122	G
1	CA	123	U

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Mol	Chain	Res	Type
1	CA	127	G
1	CA	130	A
1	CA	131	A
1	CA	139	A
1	CA	140	U
1	CA	143	A
1	CA	144	G
1	CA	156	C
1	CA	163	C
1	CA	168	G
1	CA	173	U
1	CA	189	A
1	CA	195	A
1	CA	197	A
1	CA	199	A
1	CA	204	G
1	CA	205	A
1	CA	206	C
1	CA	208	U
1	CA	209	U
1	CA	210	C
1	CA	211	G
1	CA	214	C
1	CA	215	C
1	CA	220	G
1	CA	226	G
1	CA	240	G
1	CA	245	U
1	CA	247	G
1	CA	251	G
1	CA	252	U
1	CA	253	A
1	CA	259	G
1	CA	262	A
1	CA	266	G
1	CA	267	C
1	CA	273	U
1	CA	289	G
1	CA	290	C
1	CA	294	U
1	CA	299	G
1	CA	301	G

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Mol	Chain	Res	Type
1	CA	317	U
1	CA	321	A
1	CA	328	C
1	CA	329	A
1	CA	330	C
1	CA	331	G
1	CA	332	G
1	CA	343	U
1	CA	344	A
1	CA	346	G
1	CA	347	G
1	CA	348	G
1	CA	349	A
1	CA	352	C
1	CA	354	G
1	CA	355	C
1	CA	358	U
1	CA	367	U
1	CA	372	C
1	CA	376	G
1	CA	382	A
1	CA	384	G
1	CA	387	U
1	CA	388	G
1	CA	389	A
1	CA	390	U
1	CA	394	G
1	CA	400	C
1	CA	401	C
1	CA	406	G
1	CA	410	G
1	CA	411	A
1	CA	412	A
1	CA	413	G
1	CA	414	A
1	CA	421	U
1	CA	422	C
1	CA	423	G
1	CA	424	G
1	CA	427	U
1	CA	428	G
1	CA	429	U

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Mol	Chain	Res	Type
1	CA	444	G
1	CA	446	G
1	CA	448	A
1	CA	454	G
1	CA	456	A
1	CA	458	U
1	CA	462	G
1	CA	463	U
1	CA	465	A
1	CA	466	A
1	CA	467	U
1	CA	468	A
1	CA	474	G
1	CA	475	C
1	CA	481	G
1	CA	482	A
1	CA	483	C
1	CA	484	G
1	CA	485	U
1	CA	486	U
1	CA	492	C
1	CA	493	A
1	CA	496	A
1	CA	498	A
1	CA	505	G
1	CA	509	A
1	CA	511	C
1	CA	512	U
1	CA	513	C
1	CA	518	C
1	CA	527	G
1	CA	531	U
1	CA	532	A
1	CA	533	A
1	CA	536	C
1	CA	547	A
1	CA	549	C
1	CA	555	U
1	CA	559	A
1	CA	562	U
1	CA	563	A
1	CA	572	A

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Mol	Chain	Res	Type
1	CA	573	A
1	CA	575	G
1	CA	576	C
1	CA	577	G
1	CA	580	C
1	CA	591	U
1	CA	592	G
1	CA	595	A
1	CA	607	A
1	CA	610	U
1	CA	613	C
1	CA	614	C
1	CA	615	G
1	CA	619	U
1	CA	622	A
1	CA	632	U
1	CA	633	G
1	CA	634	C
1	CA	640	A
1	CA	650	G
1	CA	653	U
1	CA	658	C
1	CA	661	G
1	CA	665	A
1	CA	674	G
1	CA	679	C
1	CA	686	U
1	CA	692	U
1	CA	693	G
1	CA	694	A
1	CA	702	A
1	CA	703	G
1	CA	706	A
1	CA	712	A
1	CA	718	A
1	CA	719	C
1	CA	721	G
1	CA	722	G
1	CA	723	U
1	CA	724	G
1	CA	729	A
1	CA	731	G

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Mol	Chain	Res	Type
1	CA	733	G
1	CA	734	G
1	CA	738	C
1	CA	739	C
1	CA	740	U
1	CA	747	A
1	CA	753	A
1	CA	755	G
1	CA	756	C
1	CA	764	C
1	CA	766	A
1	CA	772	U
1	CA	774	G
1	CA	777	A
1	CA	778	G
1	CA	786	G
1	CA	787	A
1	CA	788	U
1	CA	789	U
1	CA	793	U
1	CA	794	A
1	CA	796	C
1	CA	810	C
1	CA	815	A
1	CA	817	C
1	CA	828	U
1	CA	829	G
1	CA	830	G
1	CA	831	A
1	CA	832	G
1	CA	833	G
1	CA	834	U
1	CA	838	G
1	CA	840	C
1	CA	841	C
1	CA	842	U
1	CA	843	U
1	CA	845	A
1	CA	846	G
1	CA	849	G
1	CA	850	U
1	CA	855	U

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Mol	Chain	Res	Type
1	CA	859	G
1	CA	860	A
1	CA	867	G
1	CA	868	C
1	CA	872	A
1	CA	873	A
1	CA	878	A
1	CA	880	C
1	CA	887	G
1	CA	890	G
1	CA	902	G
1	CA	906	A
1	CA	911	U
1	CA	914	A
1	CA	924	C
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	935	A
1	CA	938	A
1	CA	940	C
1	CA	942	G
1	CA	945	G
1	CA	948	C
1	CA	949	A
1	CA	960	U
1	CA	966	G
1	CA	967	C
1	CA	968	A
1	CA	969	A
1	CA	973	G
1	CA	975	A
1	CA	976	G
1	CA	977	A
1	CA	979	C
1	CA	983	A
1	CA	990	C
1	CA	991	U
1	CA	992	U
1	CA	993	G
1	CA	994	A
1	CA	996	A

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Mol	Chain	Res	Type
1	CA	1002	G
1	CA	1004	A
1	CA	1007	U
1	CA	1009	U
1	CA	1015	G
1	CA	1018	G
1	CA	1025	U
1	CA	1026	G
1	CA	1028	C
1	CA	1030	U
1	CA	1031	C
1	CA	1032	G
1	CA	1033	G
1	CA	1034	G
1	CA	1036	A
1	CA	1037	C
1	CA	1043	G
1	CA	1049	U
1	CA	1050	G
1	CA	1051	C
1	CA	1053	G
1	CA	1054	C
1	CA	1058	G
1	CA	1061	G
1	CA	1063	C
1	CA	1064	G
1	CA	1065	U
1	CA	1066	C
1	CA	1076	U
1	CA	1081	A
1	CA	1086	U
1	CA	1088	G
1	CA	1089	G
1	CA	1090	U
1	CA	1094	G
1	CA	1095	U
1	CA	1101	A
1	CA	1102	A
1	CA	1104	G
1	CA	1106	G
1	CA	1108	G
1	CA	1109	C

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Mol	Chain	Res	Type
1	CA	1112	C
1	CA	1114	C
1	CA	1118	U
1	CA	1122	U
1	CA	1123	U
1	CA	1124	G
1	CA	1125	U
1	CA	1127	G
1	CA	1128	C
1	CA	1133	G
1	CA	1135	U
1	CA	1136	C
1	CA	1137	C
1	CA	1139	G
1	CA	1140	C
1	CA	1141	C
1	CA	1142	G
1	CA	1143	G
1	CA	1145	A
1	CA	1146	A
1	CA	1151	A
1	CA	1152	A
1	CA	1153	G
1	CA	1155	A
1	CA	1157	A
1	CA	1158	C
1	CA	1159	U
1	CA	1160	G
1	CA	1161	C
1	CA	1167	A
1	CA	1168	U
1	CA	1169	A
1	CA	1175	G
1	CA	1178	G
1	CA	1182	G
1	CA	1183	U
1	CA	1184	G
1	CA	1186	G
1	CA	1193	G
1	CA	1196	A
1	CA	1197	A
1	CA	1199	U

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Mol	Chain	Res	Type
1	CA	1203	C
1	CA	1212	U
1	CA	1213	A
1	CA	1215	G
1	CA	1219	A
1	CA	1232	U
1	CA	1240	U
1	CA	1241	G
1	CA	1244	G
1	CA	1252	A
1	CA	1253	G
1	CA	1256	A
1	CA	1258	G
1	CA	1266	G
1	CA	1270	G
1	CA	1278	G
1	CA	1280	A
1	CA	1281	C
1	CA	1286	U
1	CA	1287	A
1	CA	1288	A
1	CA	1291	U
1	CA	1293	C
1	CA	1294	G
1	CA	1296	C
1	CA	1297	G
1	CA	1298	U
1	CA	1299	A
1	CA	1300	G
1	CA	1302	C
1	CA	1305	G
1	CA	1308	U
1	CA	1311	A
1	CA	1312	G
1	CA	1316	G
1	CA	1317	C
1	CA	1318	A
1	CA	1319	A
1	CA	1322	C
1	CA	1323	G
1	CA	1331	G
1	CA	1332	A

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Mol	Chain	Res	Type
1	CA	1335	U
1	CA	1336	C
1	CA	1343	G
1	CA	1344	C
1	CA	1353	G
1	CA	1355	G
1	CA	1358	U
1	CA	1360	A
1	CA	1361	G
1	CA	1363	A
1	CA	1366	C
1	CA	1367	C
1	CA	1368	A
1	CA	1378	C
1	CA	1379	G
1	CA	1389	C
1	CA	1392	G
1	CA	1393	U
1	CA	1394	A
1	CA	1397	C
1	CA	1398	A
1	CA	1400	C
1	CA	1401	G
1	CA	1402	C
1	CA	1411	C
1	CA	1412	C
1	CA	1413	A
1	CA	1415	G
1	CA	1416	G
1	CA	1419	G
1	CA	1422	G
1	CA	1428	A
1	CA	1441	A
1	CA	1446	A
1	CA	1448	C
1	CA	1452	C
1	CA	1453	G
1	CA	1454	G
1	CA	1455	G
1	CA	1462	C
1	CA	1479	C
1	CA	1482	G

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Mol	Chain	Res	Type
1	CA	1492	A
1	CA	1493	A
1	CA	1494	G
1	CA	1496	C
1	CA	1497	G
1	CA	1506	U
1	CA	1507	A
1	CA	1509	C
1	CA	1515	G
1	CA	1517	G
1	CA	1527	U
1	CA	1528	U
1	CA	1529	G
1	CA	1530	G
1	CA	1531	A
1	CA	1533	C
1	CA	1534	A
1	CA	1535	C
1	CA	1538	C
22	CV	2	C
22	CV	3	C
22	CV	5	G
22	CV	8	U
22	CV	9	A
22	CV	12	U
22	CV	17	C
22	CV	19	G
22	CV	20	U
22	CV	21	A
22	CV	22	G
22	CV	30	G
22	CV	34	G
22	CV	37	A
22	CV	39	U
22	CV	43	C
22	CV	45	U
22	CV	46	G
22	CV	48	C
22	CV	49	C
22	CV	61	C
22	CV	67	C
22	CV	72	C

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Mol	Chain	Res	Type
22	CV	73	A
22	CV	74	C
22	CV	75	C
22	CV	76	A
23	CX	3	G
23	CX	4	G
23	CX	9	A
23	CX	11	A
23	CX	14	U
23	CX	16	U
24	DA	2	G
24	DA	10	A
24	DA	12	U
24	DA	14	A
24	DA	15	G
24	DA	22	C
24	DA	23	G
24	DA	31	C
24	DA	33	C
24	DA	34	U
24	DA	35	G
24	DA	37	C
24	DA	39	G
24	DA	42	A
24	DA	45	G
24	DA	46	G
24	DA	49	A
24	DA	50	U
24	DA	51	G
24	DA	54	G
24	DA	55	G
24	DA	58	G
24	DA	61	C
24	DA	64	A
24	DA	71	A
24	DA	74	A
24	DA	75	G
24	DA	76	C
24	DA	77	G
24	DA	80	G
24	DA	84	A
24	DA	101	A

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Mol	Chain	Res	Type
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
24	DA	124	G
24	DA	127	A
24	DA	128	C
24	DA	132	G
24	DA	135	U
24	DA	137	U
24	DA	138	U
24	DA	139	U
24	DA	140	C
24	DA	141	G
24	DA	142	A
24	DA	143	C
24	DA	147	C
24	DA	150	U
24	DA	155	A
24	DA	157	C
24	DA	160	A
24	DA	162	U
24	DA	168	G
24	DA	181	A
24	DA	191	A
24	DA	196	A
24	DA	199	A
24	DA	209	C
24	DA	215	G
24	DA	216	A
24	DA	222	A
24	DA	230	G
24	DA	231	A
24	DA	233	A
24	DA	245	G
24	DA	248	G
24	DA	249	C
24	DA	250	G

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Mol	Chain	Res	Type
24	DA	251	A
24	DA	252	G
24	DA	255	A
24	DA	264	C
24	DA	265	A
24	DA	266	G
24	DA	276	U
24	DA	277	G
24	DA	288	U
24	DA	293	U
24	DA	294	A
24	DA	295	G
24	DA	302	C
24	DA	308	G
24	DA	309	A
24	DA	311	A
24	DA	323	C
24	DA	325	G
24	DA	329	G
24	DA	330	A
24	DA	331	C
24	DA	332	A
24	DA	343	C
24	DA	352	A
24	DA	362	A
24	DA	371	A
24	DA	372	G
24	DA	379	G
24	DA	380	G
24	DA	386	G
24	DA	389	G
24	DA	396	G
24	DA	405	U
24	DA	406	G
24	DA	408	G
24	DA	409	G
24	DA	411	G
24	DA	412	A
24	DA	420	C
24	DA	424	G
24	DA	432	A
24	DA	434	U

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Mol	Chain	Res	Type
24	DA	435	C
24	DA	437	U
24	DA	440	C
24	DA	443	A
24	DA	445	C
24	DA	446	G
24	DA	453	A
24	DA	454	A
24	DA	455	C
24	DA	459	U
24	DA	462	C
24	DA	477	A
24	DA	478	A
24	DA	479	A
24	DA	480	A
24	DA	481	G
24	DA	482	A
24	DA	483	A
24	DA	486	C
24	DA	487	C
24	DA	491	G
24	DA	505	A
24	DA	508	A
24	DA	528	A
24	DA	529	A
24	DA	532	A
24	DA	533	G
24	DA	538	A
24	DA	543	G
24	DA	544	C
24	DA	545	U
24	DA	546	U
24	DA	547	A
24	DA	548	G
24	DA	549	G
24	DA	550	C
24	DA	556	A
24	DA	557	C
24	DA	563	A
24	DA	569	U
24	DA	570	G
24	DA	573	U

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Mol	Chain	Res	Type
24	DA	575	A
24	DA	576	U
24	DA	578	G
24	DA	586	A
24	DA	588	U
24	DA	589	U
24	DA	602	A
24	DA	603	A
24	DA	604	G
24	DA	608	A
24	DA	609	A
24	DA	613	A
24	DA	614	A
24	DA	615	U
24	DA	618	G
24	DA	620	G
24	DA	621	A
24	DA	622	G
24	DA	630	G
24	DA	637	A
24	DA	645	C
24	DA	647	G
24	DA	648	G
24	DA	653	U
24	DA	654	A
24	DA	661	A
24	DA	662	G
24	DA	666	A
24	DA	667	U
24	DA	668	A
24	DA	671	C
24	DA	672	C
24	DA	676	A
24	DA	681	G
24	DA	686	U
24	DA	692	C
24	DA	693	A
24	DA	697	G
24	DA	710	U
24	DA	715	A
24	DA	716	A
24	DA	717	C

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Mol	Chain	Res	Type
24	DA	718	A
24	DA	722	A
24	DA	729	G
24	DA	730	A
24	DA	736	C
24	DA	737	C
24	DA	740	C
24	DA	746	U
24	DA	747	U
24	DA	757	G
24	DA	761	A
24	DA	764	A
24	DA	765	C
24	DA	775	G
24	DA	776	G
24	DA	782	A
24	DA	784	G
24	DA	785	G
24	DA	788	A
24	DA	789	A
24	DA	792	A
24	DA	794	A
24	DA	800	A
24	DA	805	G
24	DA	806	C
24	DA	811	U
24	DA	812	C
24	DA	815	C
24	DA	819	A
24	DA	824	U
24	DA	827	U
24	DA	828	U
24	DA	831	G
24	DA	832	U
24	DA	839	U
24	DA	844	A
24	DA	845	A
24	DA	846	U
24	DA	858	G
24	DA	859	G
24	DA	866	A
24	DA	867	C

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Mol	Chain	Res	Type
24	DA	869	G
24	DA	878	A
24	DA	883	G
24	DA	884	U
24	DA	885	C
24	DA	893	C
24	DA	894	U
24	DA	896	A
24	DA	899	A
24	DA	907	G
24	DA	910	A
24	DA	914	G
24	DA	915	C
24	DA	919	U
24	DA	927	A
24	DA	928	A
24	DA	932	U
24	DA	938	G
24	DA	941	A
24	DA	942	G
24	DA	943	A
24	DA	946	C
24	DA	947	A
24	DA	952	G
24	DA	953	G
24	DA	954	G
24	DA	955	U
24	DA	958	U
24	DA	959	A
24	DA	961	C
24	DA	972	A
24	DA	974	G
24	DA	976	G
24	DA	983	A
24	DA	984	A
24	DA	985	C
24	DA	990	A
24	DA	995	C
24	DA	996	A
24	DA	1012	U
24	DA	1013	C
24	DA	1016	G

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Mol	Chain	Res	Type
24	DA	1023	U
24	DA	1025	G
24	DA	1027	A
24	DA	1033	U
24	DA	1040	A
24	DA	1044	C
24	DA	1045	C
24	DA	1046	A
24	DA	1047	G
24	DA	1058	U
24	DA	1061	U
24	DA	1062	G
24	DA	1065	U
24	DA	1066	U
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	1080	A
24	DA	1082	U
24	DA	1083	U
24	DA	1087	G
24	DA	1088	A
24	DA	1092	C
24	DA	1094	U
24	DA	1095	A
24	DA	1097	U
24	DA	1098	A
24	DA	1099	G
24	DA	1101	U
24	DA	1102	C
24	DA	1105	U
24	DA	1112	G
24	DA	1115	G
24	DA	1116	G
24	DA	1117	C
24	DA	1118	C
24	DA	1122	G
24	DA	1130	U
24	DA	1132	U

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Mol	Chain	Res	Type
24	DA	1133	A
24	DA	1135	C
24	DA	1136	G
24	DA	1139	G
24	DA	1142	A
24	DA	1149	G
24	DA	1151	A
24	DA	1154	G
24	DA	1156	A
24	DA	1157	G
24	DA	1174	U
24	DA	1175	A
24	DA	1176	U
24	DA	1177	G
24	DA	1178	C
24	DA	1179	G
24	DA	1180	U
24	DA	1184	U
24	DA	1190	G
24	DA	1204	A
24	DA	1206	G
24	DA	1213	A
24	DA	1216	G
24	DA	1222	U
24	DA	1227	G
24	DA	1238	G
24	DA	1244	A
24	DA	1247	A
24	DA	1248	G
24	DA	1253	A
24	DA	1256	G
24	DA	1258	U
24	DA	1266	G
24	DA	1268	A
24	DA	1270	C
24	DA	1271	G
24	DA	1272	A
24	DA	1273	U
24	DA	1300	G
24	DA	1301	A
24	DA	1306	C
24	DA	1307	A

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Mol	Chain	Res	Type
24	DA	1308	A
24	DA	1313	U
24	DA	1318	U
24	DA	1321	A
24	DA	1339	G
24	DA	1341	G
24	DA	1350	C
24	DA	1351	C
24	DA	1352	U
24	DA	1353	A
24	DA	1360	G
24	DA	1362	C
24	DA	1363	C
24	DA	1365	A
24	DA	1368	G
24	DA	1372	U
24	DA	1374	G
24	DA	1376	C
24	DA	1377	G
24	DA	1378	A
24	DA	1379	U
24	DA	1380	G
24	DA	1383	A
24	DA	1394	U
24	DA	1398	C
24	DA	1399	C
24	DA	1407	G
24	DA	1416	G
24	DA	1417	C
24	DA	1418	G
24	DA	1419	A
24	DA	1420	A
24	DA	1421	G
24	DA	1429	G
24	DA	1434	A
24	DA	1435	G
24	DA	1437	C
24	DA	1444	G
24	DA	1449	G
24	DA	1450	G
24	DA	1452	G
24	DA	1454	C

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Mol	Chain	Res	Type
24	DA	1460	U
24	DA	1461	C
24	DA	1472	C
24	DA	1478	G
24	DA	1482	G
24	DA	1485	U
24	DA	1489	C
24	DA	1490	A
24	DA	1493	C
24	DA	1497	U
24	DA	1501	G
24	DA	1502	A
24	DA	1504	A
24	DA	1505	A
24	DA	1508	A
24	DA	1509	A
24	DA	1510	G
24	DA	1511	G
24	DA	1515	A
24	DA	1516	G
24	DA	1523	U
24	DA	1533	C
24	DA	1534	U
24	DA	1537	G
24	DA	1539	U
24	DA	1546	G
24	DA	1547	C
24	DA	1552	A
24	DA	1554	U
24	DA	1562	U
24	DA	1563	U
24	DA	1566	A
24	DA	1569	A
24	DA	1571	A
24	DA	1578	U
24	DA	1583	A
24	DA	1584	U
24	DA	1594	U
24	DA	1597	A
24	DA	1598	A
24	DA	1606	C
24	DA	1607	C

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Mol	Chain	Res	Type
24	DA	1608	A
24	DA	1609	A
24	DA	1620	G
24	DA	1628	G
24	DA	1630	A
24	DA	1634	A
24	DA	1637	A
24	DA	1644	C
24	DA	1645	G
24	DA	1647	U
24	DA	1648	U
24	DA	1649	G
24	DA	1650	A
24	DA	1651	G
24	DA	1652	A
24	DA	1664	A
24	DA	1669	A
24	DA	1674	G
24	DA	1686	C
24	DA	1687	G
24	DA	1688	U
24	DA	1693	U
24	DA	1695	G
24	DA	1702	G
24	DA	1714	U
24	DA	1715	G
24	DA	1729	U
24	DA	1730	C
24	DA	1732	C
24	DA	1736	U
24	DA	1737	G
24	DA	1738	G
24	DA	1739	A
24	DA	1753	G
24	DA	1754	A
24	DA	1755	A
24	DA	1757	A
24	DA	1764	C
24	DA	1765	U
24	DA	1771	C
24	DA	1773	A
24	DA	1776	G

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Mol	Chain	Res	Type
24	DA	1781	U
24	DA	1788	C
24	DA	1791	A
24	DA	1797	G
24	DA	1800	C
24	DA	1801	A
24	DA	1802	A
24	DA	1808	A
24	DA	1810	A
24	DA	1811	G
24	DA	1816	C
24	DA	1828	G
24	DA	1829	A
24	DA	1831	G
24	DA	1832	C
24	DA	1833	C
24	DA	1834	U
24	DA	1836	C
24	DA	1845	G
24	DA	1846	G
24	DA	1849	G
24	DA	1851	U
24	DA	1866	A
24	DA	1868	C
24	DA	1869	G
24	DA	1870	C
24	DA	1872	A
24	DA	1873	G
24	DA	1874	C
24	DA	1876	A
24	DA	1877	A
24	DA	1881	C
24	DA	1882	U
24	DA	1890	A
24	DA	1891	G
24	DA	1903	G
24	DA	1906	G
24	DA	1907	G
24	DA	1912	A
24	DA	1914	C
24	DA	1916	A
24	DA	1923	U

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Mol	Chain	Res	Type
24	DA	1924	C
24	DA	1925	C
24	DA	1926	U
24	DA	1927	A
24	DA	1929	G
24	DA	1930	G
24	DA	1931	U
24	DA	1932	A
24	DA	1935	G
24	DA	1936	A
24	DA	1937	A
24	DA	1938	A
24	DA	1944	U
24	DA	1945	G
24	DA	1946	U
24	DA	1955	U
24	DA	1960	A
24	DA	1964	G
24	DA	1965	C
24	DA	1967	C
24	DA	1970	A
24	DA	1971	U
24	DA	1972	G
24	DA	1987	A
24	DA	1991	U
24	DA	1992	G
24	DA	1993	U
24	DA	1997	C
24	DA	2000	C
24	DA	2001	C
24	DA	2003	A
24	DA	2004	G
24	DA	2011	U
24	DA	2012	G
24	DA	2014	A
24	DA	2015	A
24	DA	2019	A
24	DA	2020	A
24	DA	2022	U
24	DA	2023	C
24	DA	2031	A
24	DA	2033	A

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Mol	Chain	Res	Type
24	DA	2038	G
24	DA	2041	U
24	DA	2043	C
24	DA	2051	A
24	DA	2055	C
24	DA	2056	G
24	DA	2060	A
24	DA	2061	G
24	DA	2062	A
24	DA	2069	G
24	DA	2072	C
24	DA	2078	C
24	DA	2088	A
24	DA	2089	C
24	DA	2092	U
24	DA	2095	A
24	DA	2102	G
24	DA	2105	U
24	DA	2109	U
24	DA	2110	G
24	DA	2111	U
24	DA	2112	G
24	DA	2113	U
24	DA	2114	A
24	DA	2115	G
24	DA	2116	G
24	DA	2117	A
24	DA	2118	U
24	DA	2119	A
24	DA	2122	U
24	DA	2123	G
24	DA	2126	A
24	DA	2127	G
24	DA	2128	G
24	DA	2129	C
24	DA	2130	U
24	DA	2131	U
24	DA	2132	U
24	DA	2133	G
24	DA	2134	A
24	DA	2136	G
24	DA	2138	G

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Mol	Chain	Res	Type
24	DA	2141	G
24	DA	2142	A
24	DA	2145	C
24	DA	2146	C
24	DA	2147	A
24	DA	2154	A
24	DA	2159	G
24	DA	2161	C
24	DA	2163	A
24	DA	2164	C
24	DA	2166	U
24	DA	2167	U
24	DA	2169	A
24	DA	2170	A
24	DA	2171	A
24	DA	2172	U
24	DA	2173	A
24	DA	2177	C
24	DA	2178	C
24	DA	2185	U
24	DA	2190	G
24	DA	2196	C
24	DA	2198	A
24	DA	2201	G
24	DA	2202	U
24	DA	2203	U
24	DA	2204	G
24	DA	2205	A
24	DA	2210	U
24	DA	2211	A
24	DA	2212	A
24	DA	2214	C
24	DA	2225	A
24	DA	2238	G
24	DA	2239	G
24	DA	2246	G
24	DA	2250	G
24	DA	2254	C
24	DA	2255	G
24	DA	2260	C
24	DA	2266	A
24	DA	2268	A

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Mol	Chain	Res	Type
24	DA	2273	A
24	DA	2279	G
24	DA	2283	C
24	DA	2286	G
24	DA	2287	A
24	DA	2297	A
24	DA	2305	U
24	DA	2311	A
24	DA	2324	U
24	DA	2325	G
24	DA	2327	A
24	DA	2333	A
24	DA	2335	A
24	DA	2340	A
24	DA	2345	G
24	DA	2346	A
24	DA	2347	C
24	DA	2349	G
24	DA	2353	G
24	DA	2358	A
24	DA	2359	C
24	DA	2360	G
24	DA	2366	A
24	DA	2383	G
24	DA	2385	C
24	DA	2389	G
24	DA	2397	G
24	DA	2402	U
24	DA	2403	C
24	DA	2406	A
24	DA	2407	A
24	DA	2409	G
24	DA	2411	A
24	DA	2414	G
24	DA	2420	C
24	DA	2422	C
24	DA	2423	U
24	DA	2425	A
24	DA	2428	G
24	DA	2429	G
24	DA	2430	A
24	DA	2433	A

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Mol	Chain	Res	Type
24	DA	2434	A
24	DA	2435	A
24	DA	2440	C
24	DA	2441	U
24	DA	2447	G
24	DA	2448	A
24	DA	2453	A
24	DA	2459	A
24	DA	2460	U
24	DA	2468	A
24	DA	2470	G
24	DA	2474	U
24	DA	2476	A
24	DA	2491	U
24	DA	2494	G
24	DA	2497	A
24	DA	2498	C
24	DA	2499	C
24	DA	2500	U
24	DA	2502	G
24	DA	2503	A
24	DA	2505	G
24	DA	2507	C
24	DA	2514	U
24	DA	2515	C
24	DA	2518	A
24	DA	2523	G
24	DA	2529	G
24	DA	2547	A
24	DA	2549	G
24	DA	2550	G
24	DA	2554	U
24	DA	2566	A
24	DA	2567	G
24	DA	2572	A
24	DA	2573	C
24	DA	2576	G
24	DA	2583	G
24	DA	2585	U
24	DA	2586	U
24	DA	2587	A
24	DA	2592	G

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Mol	Chain	Res	Type
24	DA	2602	A
24	DA	2603	G
24	DA	2609	U
24	DA	2613	U
24	DA	2614	A
24	DA	2615	U
24	DA	2620	C
24	DA	2629	U
24	DA	2630	G
24	DA	2633	G
24	DA	2634	A
24	DA	2636	C
24	DA	2637	U
24	DA	2645	G
24	DA	2648	G
24	DA	2653	U
24	DA	2654	A
24	DA	2656	U
24	DA	2658	C
24	DA	2661	G
24	DA	2663	G
24	DA	2670	A
24	DA	2671	G
24	DA	2681	C
24	DA	2682	A
24	DA	2688	G
24	DA	2689	U
24	DA	2690	U
24	DA	2693	G
24	DA	2707	U
24	DA	2720	U
24	DA	2726	A
24	DA	2729	G
24	DA	2733	A
24	DA	2744	G
24	DA	2745	C
24	DA	2746	U
24	DA	2748	A
24	DA	2752	C
24	DA	2754	U
24	DA	2757	A
24	DA	2761	A

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Mol	Chain	Res	Type
24	DA	2762	C
24	DA	2765	A
24	DA	2769	U
24	DA	2773	C
24	DA	2777	G
24	DA	2778	A
24	DA	2779	U
24	DA	2791	G
24	DA	2792	A
24	DA	2793	C
24	DA	2798	U
24	DA	2799	A
24	DA	2800	A
24	DA	2801	G
24	DA	2803	G
24	DA	2805	C
24	DA	2811	G
24	DA	2817	U
24	DA	2818	U
24	DA	2819	G
24	DA	2820	A
24	DA	2821	A
24	DA	2826	A
24	DA	2827	C
24	DA	2832	U
24	DA	2833	U
24	DA	2849	U
24	DA	2861	U
24	DA	2867	G
24	DA	2870	C
24	DA	2873	A
24	DA	2874	C
24	DA	2879	A
24	DA	2883	A
24	DA	2884	U
24	DA	2885	G
24	DA	2886	A
24	DA	2887	A
24	DA	2897	U
24	DA	2898	U
25	DB	2	G
25	DB	7	G

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Mol	Chain	Res	Type
25	DB	9	G
25	DB	15	A
25	DB	16	G
25	DB	24	G
25	DB	25	U
25	DB	27	C
25	DB	35	C
25	DB	45	A
25	DB	56	G
25	DB	62	C
25	DB	63	C
25	DB	66	A
25	DB	75	G
25	DB	76	G
25	DB	84	G
25	DB	85	G
25	DB	89	U
25	DB	90	C
25	DB	91	C
25	DB	99	A
25	DB	109	A
25	DB	119	A

All (218) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	32	A
1	AA	96	U
1	AA	114	U
1	AA	211	G
1	AA	243	A
1	AA	274	A
1	AA	380	G
1	AA	411	A
1	AA	429	U
1	AA	447	G
1	AA	529	G
1	AA	572	A
1	AA	652	U
1	AA	683	G
1	AA	684	U
1	AA	709	U

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Mol	Chain	Res	Type
1	AA	723	U
1	AA	733	G
1	AA	786	G
1	AA	890	G
1	AA	913	A
1	AA	979	C
1	AA	980	C
1	AA	1078	U
1	AA	1079	G
1	AA	1101	A
1	AA	1211	U
1	AA	1286	U
1	AA	1394	A
1	AA	1438	G
1	AA	1491	G
22	AV	72	C
24	BA	91	A
24	BA	162	U
24	BA	196	A
24	BA	199	A
24	BA	249	C
24	BA	271	G
24	BA	361	G
24	BA	387	U
24	BA	404	A
24	BA	451	U
24	BA	479	A
24	BA	503	A
24	BA	509	C
24	BA	529	A
24	BA	546	U
24	BA	584	C
24	BA	587	C
24	BA	607	U
24	BA	746	U
24	BA	748	G
24	BA	764	A
24	BA	784	G
24	BA	800	A
24	BA	810	U
24	BA	827	U
24	BA	846	U

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Mol	Chain	Res	Type
24	BA	892	A
24	BA	932	U
24	BA	984	A
24	BA	993	G
24	BA	1021	A
24	BA	1078	U
24	BA	1128	G
24	BA	1145	C
24	BA	1261	C
24	BA	1281	G
24	BA	1347	A
24	BA	1378	A
24	BA	1730	C
24	BA	1738	G
24	BA	1802	A
24	BA	1818	U
24	BA	1820	U
24	BA	1835	G
24	BA	1847	A
24	BA	1939	U
24	BA	2016	U
24	BA	2116	G
24	BA	2157	G
24	BA	2158	A
24	BA	2162	G
24	BA	2211	A
24	BA	2264	C
24	BA	2282	G
24	BA	2308	G
24	BA	2311	A
24	BA	2326	C
24	BA	2418	A
24	BA	2425	A
24	BA	2428	G
24	BA	2473	U
24	BA	2481	G
24	BA	2602	A
24	BA	2680	U
24	BA	2703	C
24	BA	2748	A
24	BA	2756	U
24	BA	2790	U

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Mol	Chain	Res	Type
24	BA	2820	A
24	BA	2849	U
25	BB	89	U
1	CA	5	U
1	CA	6	G
1	CA	63	C
1	CA	79	G
1	CA	115	G
1	CA	120	A
1	CA	214	C
1	CA	251	G
1	CA	400	C
1	CA	428	G
1	CA	462	G
1	CA	484	G
1	CA	575	G
1	CA	614	C
1	CA	711	G
1	CA	722	G
1	CA	737	C
1	CA	738	C
1	CA	754	C
1	CA	793	U
1	CA	795	C
1	CA	840	C
1	CA	859	G
1	CA	889	A
1	CA	1031	C
1	CA	1049	U
1	CA	1088	G
1	CA	1089	G
1	CA	1145	A
1	CA	1211	U
1	CA	1279	G
1	CA	1299	A
1	CA	1354	U
1	CA	1377	A
1	CA	1421	G
1	CA	1493	A
1	CA	1533	C
22	CV	2	C
22	CV	4	C

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Mol	Chain	Res	Type
22	CV	44	G
22	CV	47	U
22	CV	73	A
22	CV	74	C
23	CX	10	A
24	DA	142	A
24	DA	159	G
24	DA	190	A
24	DA	265	A
24	DA	329	G
24	DA	342	A
24	DA	371	A
24	DA	379	G
24	DA	408	G
24	DA	445	C
24	DA	477	A
24	DA	544	C
24	DA	608	A
24	DA	620	G
24	DA	692	C
24	DA	746	U
24	DA	764	A
24	DA	784	G
24	DA	827	U
24	DA	866	A
24	DA	892	A
24	DA	984	A
24	DA	995	C
24	DA	1073	A
24	DA	1093	G
24	DA	1247	A
24	DA	1362	C
24	DA	1378	A
24	DA	1379	U
24	DA	1420	A
24	DA	1497	U
24	DA	1501	G
24	DA	1509	A
24	DA	1597	A
24	DA	1606	C
24	DA	1617	C
24	DA	1619	G

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Mol	Chain	Res	Type
24	DA	1663	G
24	DA	1738	G
24	DA	1754	A
24	DA	1831	G
24	DA	1875	G
24	DA	1906	G
24	DA	1928	A
24	DA	1943	U
24	DA	1959	G
24	DA	2003	A
24	DA	2104	C
24	DA	2122	U
24	DA	2127	G
24	DA	2141	G
24	DA	2211	A
24	DA	2286	G
24	DA	2324	U
24	DA	2326	C
24	DA	2402	U
24	DA	2406	A
24	DA	2422	C
24	DA	2428	G
24	DA	2432	A
24	DA	2447	G
24	DA	2549	G
24	DA	2585	U
24	DA	2602	A
24	DA	2680	U
24	DA	2756	U
24	DA	2772	C
24	DA	2790	U
24	DA	2820	A
24	DA	2848	G
24	DA	2873	A

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 510 ligands modelled in this entry, 492 are monoatomic - leaving 18 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
57	NMY	AA	1656	-	43,45,45	2.31	12 (27%)	62,67,67	1.88	20 (32%)
57	NMY	BA	3161	-	43,45,45	0.49	0	62,67,67	1.03	4 (6%)
57	NMY	DA	3187	-	43,45,45	2.34	11 (25%)	62,67,67	1.51	13 (20%)
57	NMY	BA	3166	-	43,45,45	2.21	11 (25%)	62,67,67	2.22	16 (25%)
57	NMY	DA	3190	-	43,45,45	2.29	10 (23%)	62,67,67	2.56	25 (40%)
57	NMY	AA	1655	-	43,45,45	0.56	0	62,67,67	0.97	4 (6%)
57	NMY	BA	3165	-	43,45,45	0.50	0	62,67,67	1.12	5 (8%)
57	NMY	CA	1672	-	43,45,45	0.53	0	62,67,67	0.89	2 (3%)
57	NMY	DA	3189	-	43,45,45	2.24	11 (25%)	62,67,67	2.32	23 (37%)
57	NMY	DA	3186	-	43,45,45	2.40	12 (27%)	62,67,67	2.39	15 (24%)
57	NMY	BA	3163	-	43,45,45	2.34	10 (23%)	62,67,67	2.46	28 (45%)
57	NMY	DA	3188	-	43,45,45	2.24	13 (30%)	62,67,67	2.03	24 (38%)
57	NMY	BA	3167	-	43,45,45	2.32	11 (25%)	62,67,67	1.97	14 (22%)
57	NMY	AA	1657	-	43,45,45	2.35	12 (27%)	62,67,67	1.87	18 (29%)
57	NMY	BA	3162	-	43,45,45	0.49	0	62,67,67	1.05	5 (8%)
57	NMY	DA	3185	-	43,45,45	2.36	12 (27%)	62,67,67	1.72	14 (22%)
57	NMY	DA	3184	-	43,45,45	0.57	0	62,67,67	1.26	5 (8%)
57	NMY	BA	3164	-	43,45,45	2.29	11 (25%)	62,67,67	2.44	26 (41%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
57	NMY	AA	1656	-	-	6/18/94/94	0/4/4/4
57	NMY	BA	3161	-	-	4/18/94/94	0/4/4/4
57	NMY	DA	3187	-	-	8/18/94/94	0/4/4/4
57	NMY	BA	3166	-	-	6/18/94/94	0/4/4/4
57	NMY	DA	3190	-	-	10/18/94/94	0/4/4/4
57	NMY	AA	1655	-	-	12/18/94/94	0/4/4/4
57	NMY	BA	3165	-	-	5/18/94/94	0/4/4/4
57	NMY	CA	1672	-	-	3/18/94/94	0/4/4/4
57	NMY	DA	3189	-	-	5/18/94/94	0/4/4/4
57	NMY	DA	3186	-	-	10/18/94/94	0/4/4/4
57	NMY	BA	3163	-	-	5/18/94/94	0/4/4/4
57	NMY	DA	3188	-	-	8/18/94/94	0/4/4/4
57	NMY	BA	3167	-	-	5/18/94/94	0/4/4/4
57	NMY	AA	1657	-	-	9/18/94/94	0/4/4/4
57	NMY	BA	3162	-	-	1/18/94/94	0/4/4/4
57	NMY	DA	3185	-	-	5/18/94/94	0/4/4/4
57	NMY	DA	3184	-	-	3/18/94/94	0/4/4/4
57	NMY	BA	3164	-	-	6/18/94/94	0/4/4/4

All (136) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	DA	3187	NMY	C20-C19	-10.09	1.40	1.53
57	DA	3186	NMY	C20-C19	-9.91	1.41	1.53
57	AA	1657	NMY	C20-C19	-9.88	1.41	1.53
57	DA	3190	NMY	C20-C19	-9.82	1.41	1.53
57	DA	3185	NMY	C20-C19	-9.78	1.41	1.53
57	BA	3167	NMY	C20-C19	-9.74	1.41	1.53
57	AA	1656	NMY	C20-C19	-9.62	1.41	1.53
57	BA	3163	NMY	C20-C19	-9.30	1.41	1.53
57	BA	3164	NMY	C20-C19	-9.28	1.41	1.53
57	DA	3189	NMY	C20-C19	-9.16	1.42	1.53
57	BA	3166	NMY	C20-C19	-9.10	1.42	1.53
57	DA	3188	NMY	C20-C19	-8.72	1.42	1.53
57	BA	3166	NMY	C3-C2	-5.76	1.46	1.53
57	DA	3185	NMY	C3-C2	-5.68	1.46	1.53
57	DA	3186	NMY	C3-C2	-5.36	1.46	1.53
57	BA	3167	NMY	C3-C2	-5.34	1.46	1.53
57	BA	3164	NMY	C3-C2	-5.19	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	AA	1657	NMY	C3-C2	-5.12	1.47	1.53
57	DA	3186	NMY	C14-C15	-5.07	1.41	1.53
57	DA	3187	NMY	C3-C2	-5.05	1.47	1.53
57	AA	1656	NMY	C3-C2	-5.02	1.47	1.53
57	DA	3190	NMY	C3-C2	-4.98	1.47	1.53
57	BA	3163	NMY	C14-C15	-4.91	1.42	1.53
57	DA	3188	NMY	C3-C2	-4.85	1.47	1.53
57	DA	3189	NMY	C3-C2	-4.81	1.47	1.53
57	BA	3163	NMY	C3-C2	-4.77	1.47	1.53
57	AA	1656	NMY	C14-C15	-4.69	1.42	1.53
57	DA	3185	NMY	C14-C15	-4.49	1.43	1.53
57	BA	3164	NMY	C14-C15	-4.48	1.43	1.53
57	DA	3188	NMY	C14-C15	-4.46	1.43	1.53
57	DA	3187	NMY	C14-C15	-4.39	1.43	1.53
57	BA	3167	NMY	C14-C15	-4.35	1.43	1.53
57	AA	1657	NMY	C14-C15	-4.29	1.43	1.53
57	DA	3189	NMY	C14-C15	-3.90	1.44	1.53
57	DA	3186	NMY	C4-C3	-3.90	1.42	1.52
57	DA	3188	NMY	C13-C14	-3.89	1.48	1.52
57	DA	3190	NMY	C4-C3	-3.87	1.42	1.52
57	BA	3163	NMY	C4-C3	-3.79	1.42	1.52
57	DA	3185	NMY	C4-C3	-3.72	1.42	1.52
57	DA	3189	NMY	C4-C3	-3.69	1.42	1.52
57	BA	3167	NMY	C4-C3	-3.62	1.42	1.52
57	DA	3190	NMY	C14-C15	-3.58	1.45	1.53
57	BA	3163	NMY	C13-C14	-3.55	1.48	1.52
57	DA	3188	NMY	C4-C3	-3.50	1.43	1.52
57	DA	3187	NMY	C4-C3	-3.45	1.43	1.52
57	AA	1657	NMY	C13-C14	-3.44	1.48	1.52
57	BA	3166	NMY	C14-C15	-3.44	1.45	1.53
57	BA	3166	NMY	C4-C3	-3.44	1.43	1.52
57	AA	1657	NMY	C4-C3	-3.43	1.43	1.52
57	DA	3187	NMY	O22-C18	3.34	1.50	1.41
57	BA	3163	NMY	O22-C18	3.33	1.50	1.41
57	AA	1656	NMY	O22-C18	3.32	1.50	1.41
57	AA	1656	NMY	C4-C3	-3.28	1.43	1.52
57	BA	3164	NMY	O12-C12	-3.28	1.34	1.43
57	BA	3164	NMY	C13-C14	-3.27	1.48	1.52
57	DA	3189	NMY	O12-C12	-3.22	1.35	1.43
57	BA	3164	NMY	O22-C18	3.20	1.50	1.41
57	DA	3186	NMY	O22-C18	3.19	1.50	1.41
57	DA	3190	NMY	O12-C12	-3.17	1.35	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	BA	3164	NMY	C4-C3	-3.15	1.44	1.52
57	DA	3186	NMY	C13-C14	-3.15	1.48	1.52
57	BA	3166	NMY	O12-C12	-3.13	1.35	1.43
57	DA	3189	NMY	O22-C18	3.11	1.49	1.41
57	AA	1657	NMY	O22-C18	3.09	1.49	1.41
57	AA	1657	NMY	O12-C12	-3.07	1.35	1.43
57	AA	1656	NMY	C13-C14	-3.05	1.49	1.52
57	DA	3185	NMY	C13-C14	-3.03	1.49	1.52
57	BA	3167	NMY	O12-C12	-3.01	1.35	1.43
57	DA	3185	NMY	O22-C18	2.97	1.49	1.41
57	BA	3163	NMY	O12-C12	-2.96	1.35	1.43
57	DA	3188	NMY	O22-C18	2.94	1.49	1.41
57	BA	3164	NMY	O5-C5	2.91	1.51	1.44
57	DA	3188	NMY	O5-C5	2.90	1.51	1.44
57	DA	3189	NMY	O5-C5	2.89	1.51	1.44
57	DA	3190	NMY	O22-C18	2.89	1.49	1.41
57	AA	1656	NMY	O12-C12	-2.86	1.35	1.43
57	DA	3187	NMY	C13-C14	-2.85	1.49	1.52
57	DA	3186	NMY	O12-C12	-2.85	1.35	1.43
57	BA	3163	NMY	O16-C16	-2.82	1.38	1.45
57	DA	3185	NMY	O5-C5	2.79	1.51	1.44
57	DA	3189	NMY	C2-N2	-2.77	1.43	1.47
57	BA	3166	NMY	O22-C18	2.77	1.49	1.41
57	DA	3189	NMY	C13-C14	-2.76	1.49	1.52
57	BA	3167	NMY	O22-C18	2.76	1.48	1.41
57	DA	3185	NMY	O12-C12	-2.74	1.36	1.43
57	DA	3188	NMY	O12-C12	-2.73	1.36	1.43
57	DA	3187	NMY	O12-C12	-2.70	1.36	1.43
57	DA	3187	NMY	O16-C16	-2.69	1.39	1.45
57	BA	3167	NMY	C13-C14	-2.66	1.49	1.52
57	DA	3190	NMY	O16-C16	-2.65	1.39	1.45
57	BA	3167	NMY	O5-C5	2.62	1.50	1.44
57	AA	1656	NMY	O16-C16	-2.57	1.39	1.45
57	DA	3187	NMY	O5-C5	2.57	1.50	1.44
57	DA	3190	NMY	C13-C14	-2.55	1.49	1.52
57	BA	3166	NMY	O16-C16	-2.55	1.39	1.45
57	DA	3186	NMY	C2-N2	-2.51	1.43	1.47
57	DA	3188	NMY	O22-C22	-2.50	1.38	1.44
57	AA	1656	NMY	O5-C5	2.48	1.50	1.44
57	DA	3186	NMY	O5-C5	2.46	1.50	1.44
57	BA	3167	NMY	O14-C14	-2.37	1.37	1.43
57	AA	1657	NMY	O5-C5	2.36	1.50	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	BA	3167	NMY	C2-N2	-2.36	1.43	1.47
57	DA	3190	NMY	O5-C5	2.35	1.50	1.44
57	BA	3166	NMY	O22-C22	-2.33	1.38	1.44
57	BA	3163	NMY	O14-C14	-2.32	1.37	1.43
57	AA	1657	NMY	O16-C16	-2.32	1.39	1.45
57	BA	3167	NMY	O16-C16	-2.31	1.39	1.45
57	DA	3190	NMY	O14-C14	-2.28	1.37	1.43
57	DA	3185	NMY	O16-C16	-2.27	1.40	1.45
57	BA	3163	NMY	O5-C5	2.25	1.49	1.44
57	AA	1656	NMY	C2-N2	-2.24	1.43	1.47
57	AA	1657	NMY	O22-C22	-2.22	1.38	1.44
57	DA	3188	NMY	C2-N2	-2.21	1.43	1.47
57	DA	3185	NMY	O14-C14	-2.21	1.37	1.43
57	DA	3188	NMY	C20-C21	-2.21	1.46	1.52
57	BA	3164	NMY	O14-C14	-2.19	1.37	1.43
57	DA	3189	NMY	C10-C11	-2.19	1.47	1.52
57	DA	3187	NMY	C2-N2	-2.18	1.44	1.47
57	DA	3189	NMY	O16-C16	-2.18	1.40	1.45
57	DA	3185	NMY	C2-N2	-2.17	1.44	1.47
57	BA	3166	NMY	C2-N2	-2.16	1.44	1.47
57	DA	3185	NMY	O22-C22	-2.16	1.39	1.44
57	BA	3166	NMY	O14-C14	-2.16	1.37	1.43
57	DA	3186	NMY	O14-C14	-2.16	1.37	1.43
57	AA	1656	NMY	O14-C14	-2.15	1.37	1.43
57	BA	3164	NMY	O16-C13	2.13	1.45	1.41
57	AA	1657	NMY	C8-C7	-2.12	1.49	1.53
57	DA	3188	NMY	O16-C16	-2.11	1.40	1.45
57	DA	3187	NMY	O14-C14	-2.09	1.37	1.43
57	AA	1657	NMY	C2-N2	-2.08	1.44	1.47
57	DA	3186	NMY	C20-C21	-2.08	1.46	1.52
57	DA	3186	NMY	O22-C22	-2.03	1.39	1.44
57	BA	3166	NMY	C8-C7	-2.03	1.49	1.53
57	BA	3164	NMY	C2-N2	-2.03	1.44	1.47
57	AA	1656	NMY	C20-C21	-2.02	1.47	1.52
57	DA	3188	NMY	O14-C14	-2.01	1.38	1.43

All (261) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	DA	3186	NMY	O11-C13-O16	10.79	122.39	111.37
57	BA	3163	NMY	C1-O1-C10	-6.56	102.42	117.98
57	DA	3186	NMY	C8-C7-C12	6.53	119.85	110.08

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	DA	3190	NMY	C13-C14-C15	6.50	109.92	102.10
57	BA	3163	NMY	C8-C7-C12	6.31	119.52	110.08
57	BA	3166	NMY	C9-C8-C7	-5.97	100.79	111.02
57	DA	3190	NMY	C1-O1-C10	-5.90	104.00	117.98
57	DA	3189	NMY	O11-C13-O16	5.86	117.35	111.37
57	BA	3164	NMY	O11-C13-O16	5.85	117.34	111.37
57	BA	3166	NMY	C13-C14-C15	5.61	108.85	102.10
57	DA	3189	NMY	O5-C5-C6	5.49	116.62	106.07
57	DA	3189	NMY	C18-O18-C15	-5.42	105.14	117.98
57	BA	3167	NMY	O22-C22-C21	5.41	119.45	109.70
57	AA	1657	NMY	C18-O18-C15	-5.40	105.18	117.98
57	BA	3164	NMY	C13-C14-C15	5.36	108.55	102.10
57	BA	3166	NMY	C12-C7-N7	5.34	121.48	110.94
57	DA	3186	NMY	O16-C13-C14	-5.33	98.20	104.98
57	DA	3190	NMY	O11-C13-O16	5.31	116.79	111.37
57	BA	3163	NMY	C13-C14-C15	5.23	108.40	102.10
57	BA	3166	NMY	O18-C18-C19	5.17	116.54	108.08
57	DA	3188	NMY	C13-C14-C15	-5.06	96.01	102.10
57	BA	3167	NMY	O18-C18-C19	5.04	116.32	108.08
57	DA	3190	NMY	C18-O18-C15	4.94	129.69	117.98
57	BA	3163	NMY	C9-C8-C7	4.78	119.21	111.02
57	DA	3190	NMY	C1-O5-C5	-4.78	104.39	113.72
57	DA	3190	NMY	O22-C22-C21	4.74	118.24	109.70
57	DA	3189	NMY	C1-O1-C10	-4.73	106.76	117.98
57	BA	3166	NMY	O11-C11-C10	4.72	119.40	107.42
57	BA	3164	NMY	O22-C22-C21	4.69	118.15	109.70
57	DA	3184	NMY	C18-O18-C15	-4.67	106.91	117.98
57	BA	3164	NMY	O5-C5-C6	4.57	114.86	106.07
57	BA	3163	NMY	C1-O5-C5	-4.56	104.82	113.72
57	DA	3186	NMY	C9-C8-C7	4.56	118.83	111.02
57	BA	3164	NMY	C18-O18-C15	-4.49	107.33	117.98
57	BA	3167	NMY	C13-C14-C15	4.47	107.47	102.10
57	BA	3167	NMY	O11-C13-O16	4.46	115.92	111.37
57	BA	3164	NMY	C21-C20-C19	4.42	118.34	110.99
57	DA	3190	NMY	C20-C19-N23	-4.40	102.04	111.05
57	DA	3190	NMY	C12-C11-C10	-4.35	101.94	111.72
57	DA	3189	NMY	C13-O11-C11	-4.34	107.68	117.98
57	BA	3166	NMY	C20-C19-N23	-4.29	102.27	111.05
57	BA	3166	NMY	C1-O1-C10	-4.28	107.84	117.98
57	BA	3164	NMY	C3-C4-C5	4.25	117.95	110.23
57	DA	3189	NMY	C21-C20-C19	4.22	118.01	110.99
57	BA	3167	NMY	C20-C21-C22	4.13	117.73	110.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	DA	3188	NMY	C20-C19-N23	-4.12	102.61	111.05
57	DA	3189	NMY	C20-C21-C22	4.11	117.68	110.23
57	BA	3163	NMY	C8-C9-C10	4.10	119.55	109.50
57	BA	3167	NMY	O5-C5-C6	4.09	113.93	106.07
57	DA	3189	NMY	O20-C20-C19	-4.09	102.87	110.22
57	DA	3188	NMY	O5-C5-C4	4.04	116.97	109.70
57	DA	3189	NMY	C18-C19-C20	4.02	120.36	110.29
57	BA	3163	NMY	C11-C12-C7	4.02	119.63	109.93
57	BA	3164	NMY	C18-C19-C20	4.00	120.32	110.29
57	DA	3188	NMY	C4-C3-C2	3.96	117.57	110.99
57	AA	1656	NMY	O5-C5-C6	3.96	113.67	106.07
57	DA	3186	NMY	C13-C14-C15	-3.93	97.38	102.10
57	AA	1656	NMY	C13-C14-C15	3.91	106.80	102.10
57	BA	3163	NMY	C11-C10-C9	3.86	118.47	111.31
57	DA	3187	NMY	C18-O18-C15	-3.84	108.87	117.98
57	DA	3189	NMY	O22-C22-C21	3.84	116.62	109.70
57	BA	3164	NMY	O20-C20-C19	-3.84	103.32	110.22
57	BA	3167	NMY	O11-C11-C12	3.83	116.97	107.23
57	DA	3188	NMY	C18-C19-C20	3.82	119.85	110.29
57	DA	3187	NMY	O5-C5-C6	3.82	113.40	106.07
57	BA	3166	NMY	O1-C10-C9	-3.79	100.13	109.18
57	AA	1657	NMY	C20-C19-N23	-3.79	103.29	111.05
57	DA	3185	NMY	O3-C3-C2	-3.78	103.43	110.22
57	DA	3190	NMY	C8-C9-C10	3.76	118.73	109.50
57	BA	3166	NMY	O3-C3-C2	-3.76	103.46	110.22
57	AA	1656	NMY	C1-O5-C5	-3.74	106.41	113.72
57	DA	3190	NMY	C20-C21-C22	3.71	116.96	110.23
57	DA	3189	NMY	C20-C19-N23	-3.70	103.47	111.05
57	BA	3164	NMY	C20-C21-C22	3.65	116.85	110.23
57	BA	3164	NMY	C8-C9-C10	3.64	118.42	109.50
57	BA	3163	NMY	O5-C5-C6	3.64	113.06	106.07
57	DA	3185	NMY	O18-C18-C19	3.53	113.86	108.08
57	BA	3163	NMY	C12-C11-C10	3.52	119.63	111.72
57	DA	3185	NMY	O5-C5-C6	3.49	112.78	106.07
57	AA	1656	NMY	C1-O1-C10	-3.48	109.72	117.98
57	AA	1657	NMY	C20-C21-C22	3.47	116.52	110.23
57	DA	3186	NMY	O5-C5-C6	3.47	112.73	106.07
57	AA	1657	NMY	C3-C4-C5	3.46	116.51	110.23
57	DA	3185	NMY	C13-O11-C11	-3.44	109.82	117.98
57	BA	3166	NMY	O14-C14-C13	-3.42	102.19	111.82
57	DA	3190	NMY	O11-C11-C10	3.41	116.09	107.42
57	DA	3186	NMY	C1-O1-C10	-3.37	110.00	117.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	BA	3165	NMY	C13-C14-C15	3.36	106.14	102.10
57	DA	3190	NMY	O5-C5-C4	3.34	115.72	109.70
57	DA	3186	NMY	C11-C12-C7	3.34	117.98	109.93
57	DA	3187	NMY	C1-O1-C10	-3.33	110.09	117.98
57	DA	3190	NMY	O14-C14-C13	-3.33	102.44	111.82
57	DA	3190	NMY	C18-C19-C20	3.32	118.61	110.29
57	BA	3161	NMY	C18-O18-C15	-3.32	110.11	117.98
57	BA	3163	NMY	O12-C12-C7	-3.29	103.74	109.90
57	BA	3163	NMY	O3-C3-C2	-3.29	104.31	110.22
57	DA	3190	NMY	O17-C17-C16	3.28	122.52	111.33
57	BA	3163	NMY	C13-O11-C11	-3.25	110.27	117.98
57	CA	1672	NMY	C13-O11-C11	-3.24	110.30	117.98
57	BA	3164	NMY	O18-C18-C19	3.22	113.35	108.08
57	BA	3161	NMY	C13-C14-C15	3.17	105.92	102.10
57	BA	3164	NMY	O1-C10-C11	3.17	115.47	107.42
57	BA	3163	NMY	C1-C2-N2	3.15	115.89	110.20
57	DA	3188	NMY	O1-C1-C2	-3.15	102.92	108.08
57	DA	3187	NMY	C13-C14-C15	3.15	105.89	102.10
57	BA	3164	NMY	O3-C3-C2	-3.14	104.57	110.22
57	DA	3190	NMY	O1-C10-C11	3.14	115.38	107.42
57	DA	3185	NMY	C18-O18-C15	-3.13	110.55	117.98
57	AA	1656	NMY	C18-C19-N23	-3.13	104.56	110.20
57	AA	1656	NMY	C18-O18-C15	-3.12	110.59	117.98
57	DA	3186	NMY	C20-C19-N23	-3.12	104.67	111.05
57	DA	3188	NMY	O1-C10-C9	-3.08	101.83	109.18
57	BA	3162	NMY	C13-C14-C15	3.07	105.80	102.10
57	DA	3190	NMY	C9-C8-C7	3.07	116.28	111.02
57	DA	3188	NMY	O1-C10-C11	3.05	115.16	107.42
57	BA	3167	NMY	C20-C19-N23	-3.05	104.81	111.05
57	BA	3167	NMY	C1-O5-C5	-3.04	107.78	113.72
57	AA	1656	NMY	C20-C19-N23	-3.04	104.82	111.05
57	AA	1657	NMY	O3-C3-C2	-3.02	104.80	110.22
57	AA	1657	NMY	O5-C5-C4	3.01	115.13	109.70
57	AA	1657	NMY	O18-C18-C19	3.00	112.99	108.08
57	AA	1655	NMY	C13-O11-C11	-3.00	110.87	117.98
57	DA	3189	NMY	C8-C7-C12	2.99	114.56	110.08
57	DA	3190	NMY	O1-C1-C2	2.99	112.97	108.08
57	DA	3189	NMY	C6-C5-C4	-2.98	105.83	112.80
57	BA	3166	NMY	C3-C4-C5	2.96	115.61	110.23
57	BA	3166	NMY	O22-C22-C21	2.96	115.03	109.70
57	DA	3187	NMY	C8-C7-C12	2.95	114.50	110.08
57	AA	1657	NMY	C8-C7-C12	2.95	114.50	110.08

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	DA	3185	NMY	O1-C10-C9	-2.92	102.21	109.18
57	AA	1657	NMY	C18-C19-C20	2.89	117.53	110.29
57	BA	3164	NMY	O1-C1-C2	-2.87	103.37	108.08
57	AA	1656	NMY	O11-C11-C10	2.86	114.67	107.42
57	AA	1657	NMY	O22-C22-C21	2.85	114.84	109.70
57	DA	3185	NMY	C20-C19-N23	-2.85	105.21	111.05
57	DA	3188	NMY	O16-C13-C14	-2.84	101.37	104.98
57	DA	3188	NMY	O3-C3-C2	-2.83	105.13	110.22
57	BA	3161	NMY	C1-O1-C10	-2.83	111.27	117.98
57	DA	3184	NMY	C1-O1-C10	-2.83	111.28	117.98
57	BA	3163	NMY	O14-C14-C13	-2.82	103.86	111.82
57	DA	3188	NMY	C1-C2-C3	2.82	117.35	110.29
57	DA	3189	NMY	O18-C18-C19	2.82	112.68	108.08
57	AA	1656	NMY	O22-C22-C21	2.80	114.74	109.70
57	DA	3187	NMY	O18-C18-C19	2.80	112.65	108.08
57	BA	3167	NMY	C1-O1-C10	-2.79	111.37	117.98
57	BA	3164	NMY	C20-C19-N23	-2.79	105.34	111.05
57	DA	3185	NMY	O11-C13-O16	2.77	114.20	111.37
57	DA	3184	NMY	C13-C14-C15	2.77	105.43	102.10
57	DA	3185	NMY	O1-C1-C2	-2.76	103.56	108.08
57	BA	3164	NMY	O1-C10-C9	-2.75	102.63	109.18
57	BA	3164	NMY	O1-C1-O5	2.74	117.90	110.69
57	DA	3190	NMY	C12-C7-N7	2.74	116.34	110.94
57	AA	1656	NMY	O22-C18-C19	2.73	116.12	110.08
57	BA	3164	NMY	C12-C7-N7	2.73	116.33	110.94
57	DA	3188	NMY	O5-C5-C6	2.72	111.30	106.07
57	DA	3188	NMY	O22-C18-C19	2.72	116.09	110.08
57	DA	3190	NMY	C1-C2-N2	2.70	115.08	110.20
57	BA	3164	NMY	C18-O22-C22	2.65	118.90	113.72
57	DA	3188	NMY	O1-C1-O5	2.65	117.66	110.69
57	DA	3190	NMY	C13-O11-C11	-2.63	111.75	117.98
57	BA	3165	NMY	C1-O1-C10	-2.63	111.75	117.98
57	DA	3188	NMY	O14-C14-C13	-2.62	104.44	111.82
57	DA	3187	NMY	C13-O11-C11	-2.62	111.78	117.98
57	AA	1657	NMY	C1-O1-C10	-2.62	111.78	117.98
57	DA	3184	NMY	O5-C5-C6	2.61	111.09	106.07
57	BA	3162	NMY	C1-O1-C10	-2.60	111.81	117.98
57	BA	3165	NMY	C13-O11-C11	-2.60	111.81	117.98
57	BA	3162	NMY	C13-O11-C11	-2.60	111.81	117.98
57	BA	3164	NMY	O11-C11-C12	2.60	113.84	107.23
57	BA	3163	NMY	O18-C15-C14	-2.60	102.97	111.32
57	BA	3162	NMY	C18-O18-C15	-2.59	111.85	117.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	AA	1656	NMY	O3-C3-C2	-2.55	105.63	110.22
57	CA	1672	NMY	C1-O1-C10	-2.54	111.95	117.98
57	AA	1656	NMY	C4-C3-C2	2.53	115.19	110.99
57	DA	3185	NMY	O14-C14-C13	-2.52	104.72	111.82
57	DA	3187	NMY	O22-C22-C21	2.51	114.23	109.70
57	DA	3185	NMY	C3-C2-N2	-2.50	105.94	111.05
57	AA	1656	NMY	C3-C4-C5	2.49	114.75	110.23
57	AA	1656	NMY	C13-O11-C11	-2.49	112.08	117.98
57	BA	3167	NMY	O14-C14-C13	-2.48	104.83	111.82
57	AA	1656	NMY	O11-C11-C12	2.47	113.50	107.23
57	DA	3188	NMY	C3-C4-C5	2.46	114.69	110.23
57	BA	3163	NMY	O22-C22-C21	2.46	114.13	109.70
57	BA	3163	NMY	O16-C16-C15	2.43	110.04	104.92
57	BA	3163	NMY	O11-C13-O16	2.38	113.80	111.37
57	AA	1656	NMY	O14-C14-C13	-2.37	105.15	111.82
57	BA	3163	NMY	O1-C1-C2	2.36	111.94	108.08
57	DA	3185	NMY	O5-C5-C4	2.36	113.94	109.70
57	BA	3164	NMY	C11-C10-C9	2.35	115.67	111.31
57	BA	3167	NMY	C21-C20-C19	2.35	114.89	110.99
57	AA	1656	NMY	C18-O22-C22	2.35	118.30	113.72
57	DA	3188	NMY	O11-C13-O16	2.34	113.76	111.37
57	DA	3188	NMY	O18-C18-C19	2.34	111.91	108.08
57	DA	3189	NMY	O14-C14-C13	-2.34	105.23	111.82
57	DA	3190	NMY	O3-C3-C2	-2.34	106.02	110.22
57	DA	3190	NMY	O20-C20-C19	-2.33	106.03	110.22
57	BA	3166	NMY	C8-C7-C12	-2.33	106.60	110.08
57	DA	3186	NMY	C3-C2-N2	-2.32	106.29	111.05
57	DA	3186	NMY	C18-O18-C15	-2.31	112.50	117.98
57	DA	3189	NMY	O3-C3-C2	-2.31	106.07	110.22
57	BA	3164	NMY	O5-C5-C4	2.31	113.86	109.70
57	AA	1657	NMY	O1-C1-C2	-2.31	104.30	108.08
57	BA	3162	NMY	O5-C5-C4	2.30	113.84	109.70
57	BA	3165	NMY	O16-C13-C14	2.29	107.89	104.98
57	BA	3166	NMY	O18-C18-O22	-2.29	104.67	110.69
57	BA	3164	NMY	O14-C14-C13	-2.29	105.37	111.82
57	DA	3189	NMY	O11-C11-C10	2.28	113.20	107.42
57	DA	3188	NMY	C11-C12-C7	2.26	115.38	109.93
57	DA	3187	NMY	O22-C18-C19	2.24	115.04	110.08
57	DA	3187	NMY	C20-C19-N23	-2.24	106.46	111.05
57	AA	1655	NMY	C13-C14-C15	2.24	104.79	102.10
57	AA	1657	NMY	O14-C14-C13	-2.24	105.51	111.82
57	AA	1656	NMY	O22-C22-C23	2.24	110.37	106.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	AA	1657	NMY	C21-C20-C19	2.23	114.70	110.99
57	DA	3188	NMY	C20-C21-C22	-2.23	106.19	110.23
57	BA	3161	NMY	C13-O11-C11	-2.22	112.71	117.98
57	DA	3187	NMY	O14-C14-C13	-2.22	105.56	111.82
57	BA	3163	NMY	O17-C17-C16	2.22	118.88	111.33
57	BA	3163	NMY	C20-C19-N23	-2.21	106.52	111.05
57	DA	3184	NMY	C3-C2-N2	-2.21	106.52	111.05
57	AA	1657	NMY	C13-O11-C11	-2.21	112.74	117.98
57	DA	3186	NMY	O11-C11-C12	2.20	112.83	107.23
57	AA	1655	NMY	O22-C22-C23	2.19	110.28	106.07
57	BA	3163	NMY	C18-C19-C20	2.19	115.78	110.29
57	DA	3190	NMY	O11-C11-C12	2.18	112.78	107.23
57	BA	3163	NMY	O18-C18-C19	2.18	111.64	108.08
57	AA	1655	NMY	C1-O1-C10	-2.17	112.83	117.98
57	DA	3188	NMY	O17-C17-C16	2.17	118.73	111.33
57	BA	3164	NMY	C1-O1-C10	-2.17	112.83	117.98
57	BA	3163	NMY	C4-C3-C2	2.16	114.58	110.99
57	DA	3186	NMY	O12-C12-C7	-2.16	105.86	109.90
57	BA	3166	NMY	C11-C10-C9	2.16	115.30	111.31
57	AA	1657	NMY	O14-C14-C15	2.15	117.20	111.19
57	DA	3189	NMY	O22-C18-C19	2.15	114.83	110.08
57	AA	1657	NMY	O11-C11-C10	2.14	112.86	107.42
57	DA	3189	NMY	C1-C2-C3	2.14	115.65	110.29
57	DA	3188	NMY	C1-O5-C5	2.13	117.89	113.72
57	BA	3164	NMY	O4-C4-C5	-2.13	104.08	109.32
57	DA	3189	NMY	C8-C9-C10	2.12	114.71	109.50
57	BA	3166	NMY	C18-C19-C20	2.12	115.60	110.29
57	DA	3186	NMY	C11-C10-C9	2.12	115.23	111.31
57	DA	3186	NMY	O22-C18-C19	2.10	114.72	110.08
57	BA	3163	NMY	C18-O18-C15	-2.09	113.02	117.98
57	DA	3188	NMY	C9-C8-C7	-2.08	107.45	111.02
57	DA	3187	NMY	C1-O5-C5	-2.08	109.67	113.72
57	BA	3167	NMY	O17-C17-C16	2.07	118.40	111.33
57	BA	3165	NMY	O5-C5-C6	2.07	110.05	106.07
57	DA	3187	NMY	O1-C10-C11	2.07	112.68	107.42
57	AA	1656	NMY	C11-C12-C7	-2.06	104.95	109.93
57	DA	3185	NMY	O17-C17-C16	2.06	118.35	111.33
57	AA	1656	NMY	C14-C15-C16	2.06	106.84	103.24
57	BA	3163	NMY	C20-C21-C22	2.05	113.95	110.23
57	BA	3167	NMY	O3-C3-C2	-2.05	106.54	110.22
57	DA	3189	NMY	C18-O22-C22	2.04	117.70	113.72
57	DA	3190	NMY	O22-C18-C19	2.04	114.58	110.08

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	DA	3185	NMY	C11-C10-C9	2.03	115.08	111.31
57	DA	3189	NMY	C13-O16-C16	-2.03	98.02	105.76
57	DA	3188	NMY	O5-C1-C2	2.03	114.56	110.08
57	DA	3189	NMY	O17-C17-C16	2.02	118.20	111.33
57	AA	1657	NMY	C8-C9-C10	2.01	114.42	109.50
57	BA	3163	NMY	O20-C20-C19	-2.00	106.62	110.22

There are no chirality outliers.

All (111) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
57	AA	1655	NMY	C4-C5-C6-N6
57	AA	1655	NMY	O5-C5-C6-N6
57	AA	1655	NMY	C14-C13-O11-C11
57	AA	1655	NMY	C16-C15-O18-C18
57	AA	1655	NMY	C19-C18-O18-C15
57	AA	1657	NMY	O5-C5-C6-N6
57	AA	1657	NMY	C19-C18-O18-C15
57	BA	3161	NMY	C19-C18-O18-C15
57	BA	3163	NMY	C4-C5-C6-N6
57	BA	3163	NMY	C16-C15-O18-C18
57	BA	3163	NMY	C19-C18-O18-C15
57	BA	3165	NMY	C16-C15-O18-C18
57	BA	3165	NMY	C21-C22-C23-N19
57	BA	3166	NMY	O5-C5-C6-N6
57	BA	3166	NMY	C14-C13-O11-C11
57	BA	3166	NMY	C16-C15-O18-C18
57	DA	3184	NMY	C19-C18-O18-C15
57	DA	3185	NMY	C4-C5-C6-N6
57	DA	3185	NMY	O5-C5-C6-N6
57	DA	3186	NMY	C2-C1-O1-C10
57	DA	3186	NMY	O16-C13-O11-C11
57	DA	3187	NMY	C4-C5-C6-N6
57	DA	3187	NMY	C14-C13-O11-C11
57	DA	3188	NMY	C4-C5-C6-N6
57	DA	3188	NMY	O5-C5-C6-N6
57	DA	3188	NMY	C14-C15-O18-C18
57	DA	3189	NMY	C14-C13-O11-C11
57	DA	3189	NMY	C21-C22-C23-N19
57	DA	3190	NMY	C16-C15-O18-C18
57	DA	3190	NMY	C21-C22-C23-N19
57	DA	3187	NMY	C12-C11-O11-C13

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Mol	Chain	Res	Type	Atoms
57	BA	3167	NMY	C12-C11-O11-C13
57	AA	1657	NMY	O22-C18-O18-C15
57	BA	3161	NMY	O22-C18-O18-C15
57	BA	3166	NMY	O5-C1-O1-C10
57	DA	3190	NMY	O22-C18-O18-C15
57	DA	3188	NMY	O22-C18-O18-C15
57	DA	3188	NMY	O16-C16-C17-O17
57	DA	3190	NMY	O16-C16-C17-O17
57	AA	1655	NMY	C15-C16-C17-O17
57	DA	3188	NMY	C15-C16-C17-O17
57	DA	3190	NMY	C15-C16-C17-O17
57	AA	1656	NMY	C12-C11-O11-C13
57	DA	3186	NMY	C12-C11-O11-C13
57	BA	3167	NMY	C15-C16-C17-O17
57	AA	1656	NMY	O22-C18-O18-C15
57	AA	1655	NMY	O16-C16-C17-O17
57	BA	3165	NMY	O16-C16-C17-O17
57	BA	3167	NMY	O16-C16-C17-O17
57	BA	3165	NMY	C15-C16-C17-O17
57	DA	3187	NMY	C15-C16-C17-O17
57	BA	3164	NMY	C15-C16-C17-O17
57	AA	1656	NMY	C15-C16-C17-O17
57	DA	3186	NMY	C10-C11-O11-C13
57	DA	3185	NMY	C15-C16-C17-O17
57	BA	3164	NMY	O16-C16-C17-O17
57	DA	3188	NMY	O5-C1-O1-C10
57	DA	3187	NMY	O16-C16-C17-O17
57	BA	3163	NMY	O16-C16-C17-O17
57	AA	1655	NMY	O16-C13-O11-C11
57	BA	3166	NMY	O16-C13-O11-C11
57	DA	3189	NMY	O16-C13-O11-C11
57	BA	3162	NMY	C11-C10-O1-C1
57	AA	1655	NMY	C11-C10-O1-C1
57	DA	3185	NMY	O16-C16-C17-O17
57	BA	3166	NMY	C11-C10-O1-C1
57	AA	1657	NMY	C15-C16-C17-O17
57	DA	3185	NMY	O5-C1-O1-C10
57	AA	1656	NMY	O16-C16-C17-O17
57	DA	3184	NMY	O22-C18-O18-C15
57	BA	3167	NMY	C4-C5-C6-N6
57	AA	1655	NMY	O22-C18-O18-C15
57	AA	1657	NMY	O16-C16-C17-O17

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Mol	Chain	Res	Type	Atoms
57	AA	1655	NMY	C12-C11-O11-C13
57	BA	3165	NMY	O5-C1-O1-C10
57	DA	3187	NMY	O16-C13-O11-C11
57	BA	3164	NMY	C14-C13-O11-C11
57	DA	3189	NMY	O5-C1-O1-C10
57	AA	1655	NMY	C10-C11-O11-C13
57	DA	3190	NMY	C12-C11-O11-C13
57	BA	3163	NMY	C15-C16-C17-O17
57	AA	1656	NMY	C10-C11-O11-C13
57	BA	3161	NMY	O5-C5-C6-N6
57	BA	3164	NMY	O5-C5-C6-N6
57	DA	3186	NMY	O5-C5-C6-N6
57	DA	3186	NMY	O22-C22-C23-N19
57	DA	3187	NMY	O5-C5-C6-N6
57	DA	3190	NMY	O5-C1-O1-C10
57	DA	3188	NMY	C11-C10-O1-C1
57	BA	3164	NMY	O16-C13-O11-C11
57	DA	3184	NMY	O16-C13-O11-C11
57	DA	3186	NMY	C14-C15-O18-C18
57	DA	3189	NMY	C16-C15-O18-C18
57	DA	3190	NMY	C10-C11-O11-C13
57	AA	1657	NMY	O5-C1-O1-C10
57	DA	3190	NMY	C11-C10-O1-C1
57	AA	1656	NMY	C14-C13-O11-C11
57	AA	1657	NMY	C14-C13-O11-C11
57	DA	3190	NMY	C14-C13-O11-C11
57	DA	3186	NMY	C11-C10-O1-C1
57	BA	3161	NMY	C4-C5-C6-N6
57	BA	3167	NMY	C21-C22-C23-N19
57	DA	3186	NMY	C4-C5-C6-N6
57	DA	3187	NMY	C2-C1-O1-C10
57	CA	1672	NMY	C11-C10-O1-C1
57	AA	1657	NMY	C14-C15-O18-C18
57	CA	1672	NMY	C14-C15-O18-C18
57	CA	1672	NMY	C16-C15-O18-C18
57	DA	3186	NMY	C16-C15-O18-C18
57	AA	1657	NMY	O16-C13-O11-C11
57	BA	3164	NMY	C10-C11-O11-C13

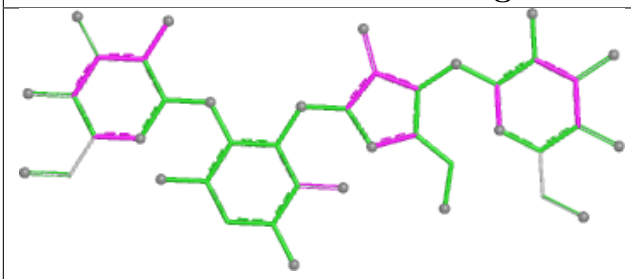
There are no ring outliers.

18 monomers are involved in 248 short contacts:

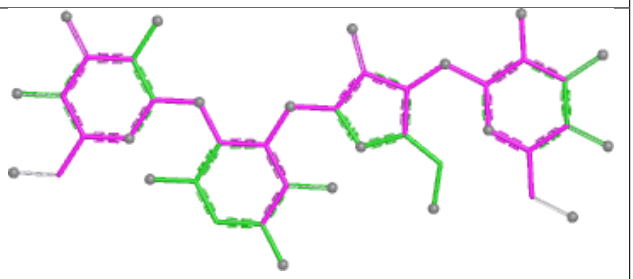
Mol	Chain	Res	Type	Clashes	Symm-Clashes
57	AA	1656	NMY	12	0
57	BA	3161	NMY	14	0
57	DA	3187	NMY	4	0
57	BA	3166	NMY	14	0
57	DA	3190	NMY	32	0
57	AA	1655	NMY	26	0
57	BA	3165	NMY	24	0
57	CA	1672	NMY	7	0
57	DA	3189	NMY	9	0
57	DA	3186	NMY	19	0
57	BA	3163	NMY	11	0
57	DA	3188	NMY	12	0
57	BA	3167	NMY	5	0
57	AA	1657	NMY	10	0
57	BA	3162	NMY	16	0
57	DA	3185	NMY	13	0
57	DA	3184	NMY	17	0
57	BA	3164	NMY	3	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

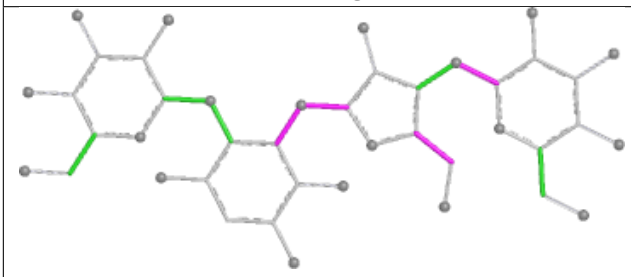
Ligand NMY AA 1656



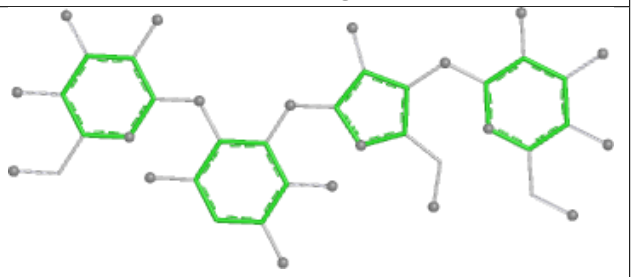
Bond lengths



Bond angles

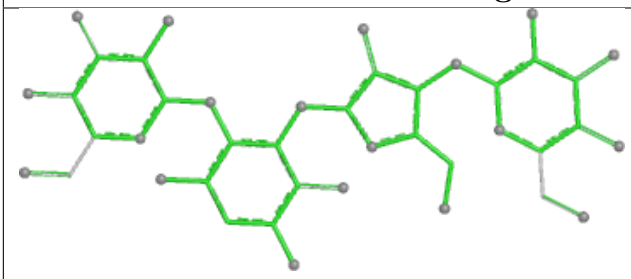


Torsions

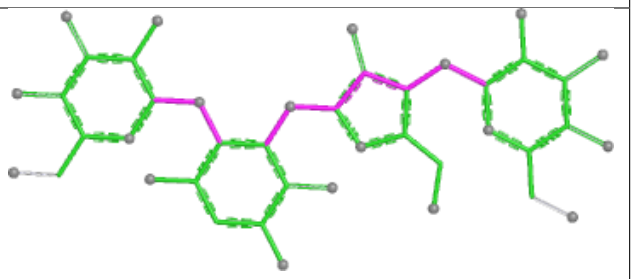


Rings

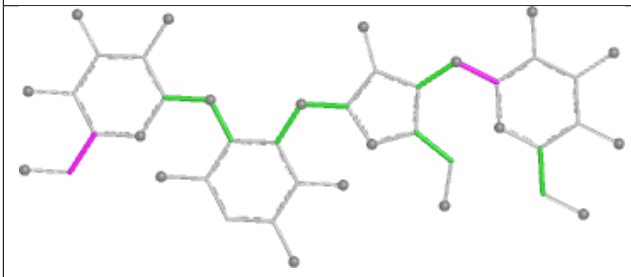
Ligand NMY BA 3161



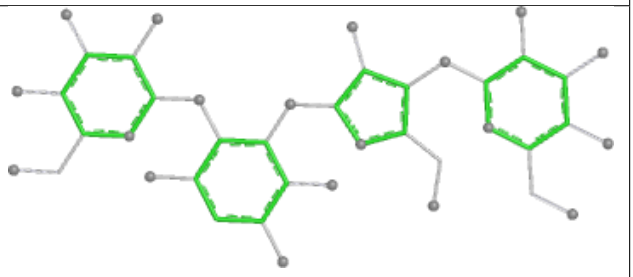
Bond lengths



Bond angles

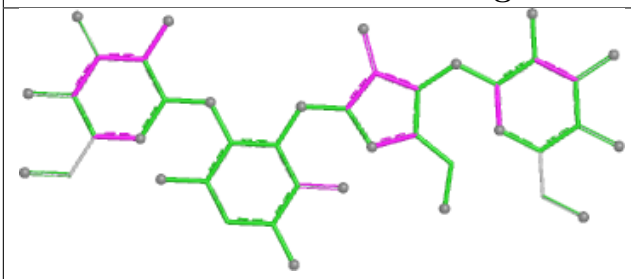


Torsions

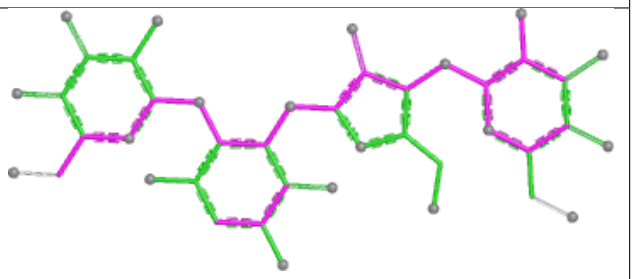


Rings

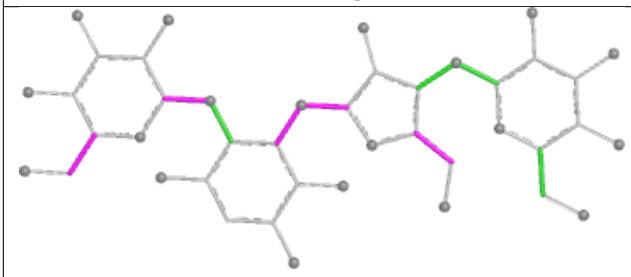
Ligand NMY DA 3187



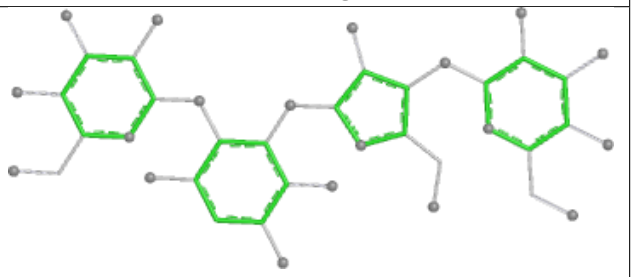
Bond lengths



Bond angles

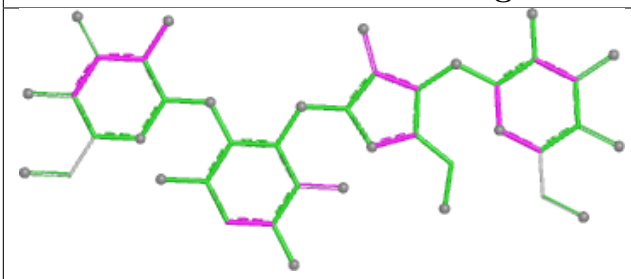


Torsions

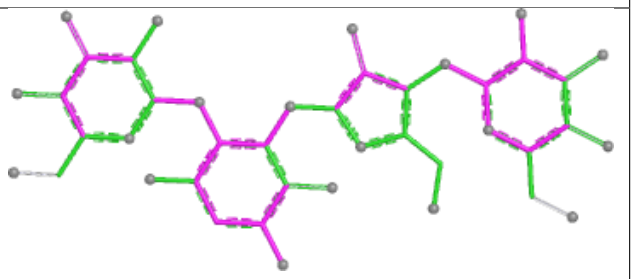


Rings

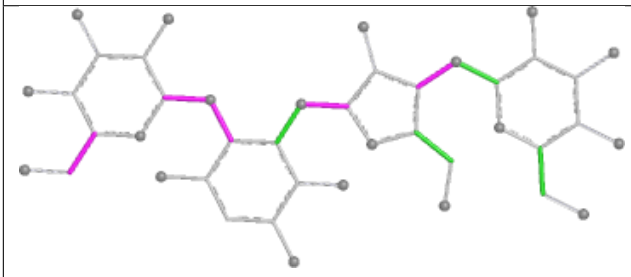
Ligand NMY BA 3166



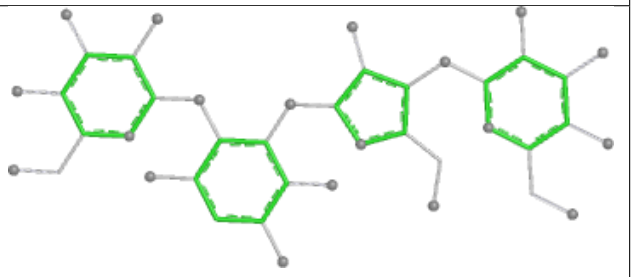
Bond lengths



Bond angles

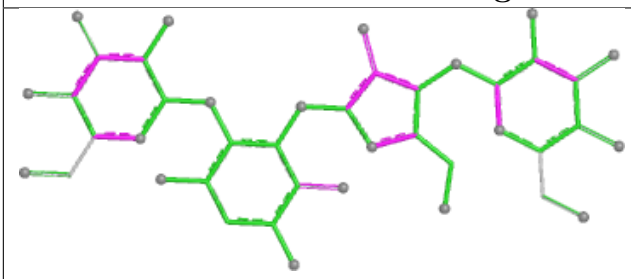


Torsions

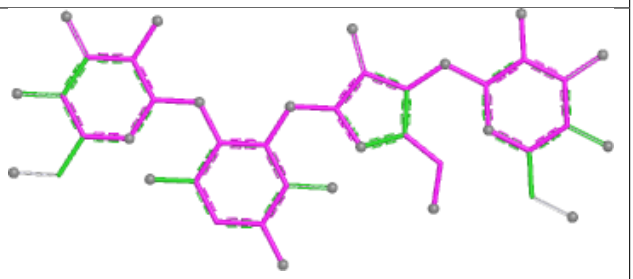


Rings

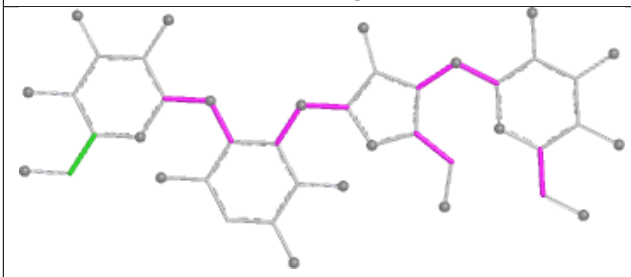
Ligand NMY DA 3190



Bond lengths



Bond angles



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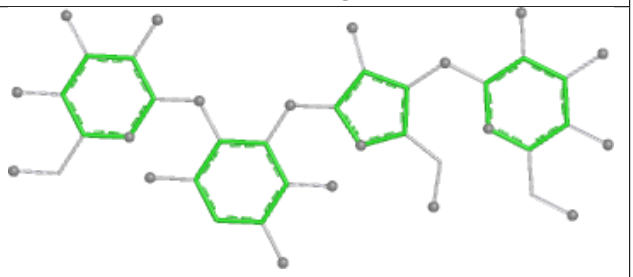
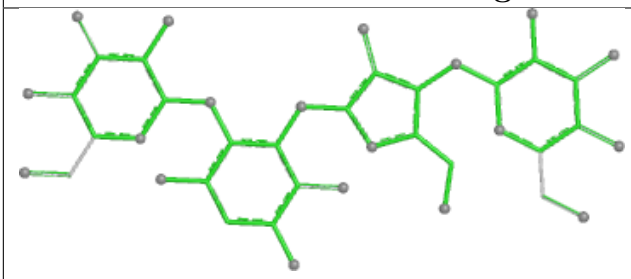


Rings

Ligand NMY AA 1655



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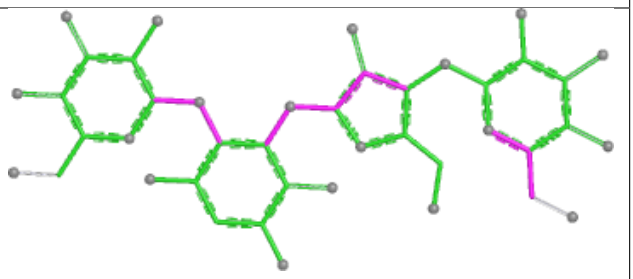
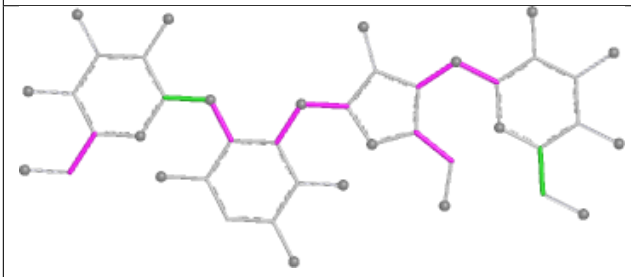


Bond angles



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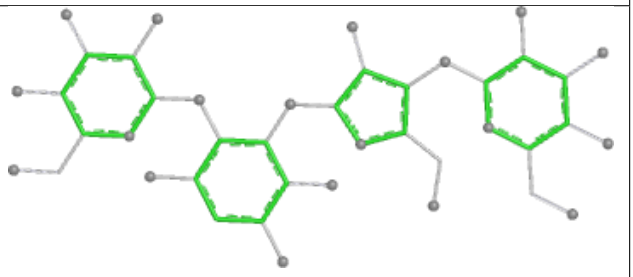
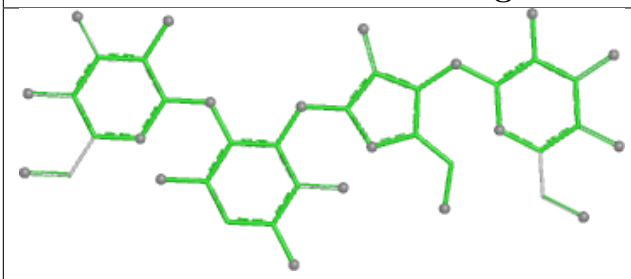


Rings

Ligand NMY BA 3165



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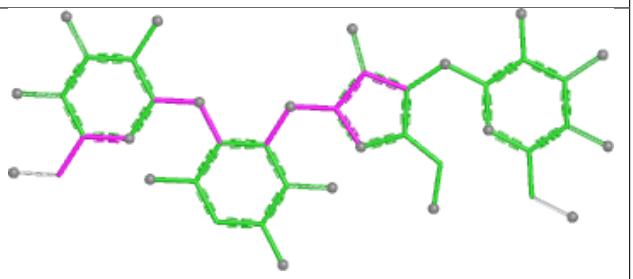

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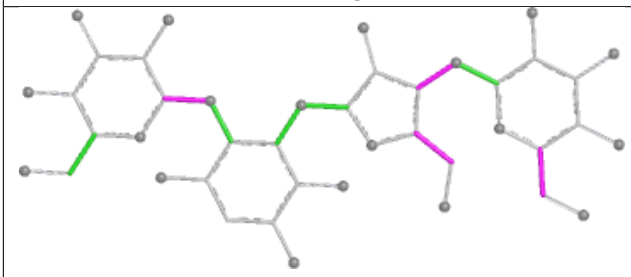

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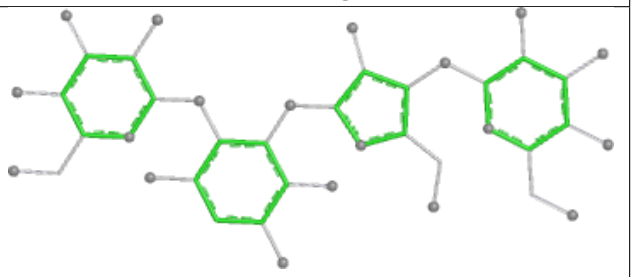
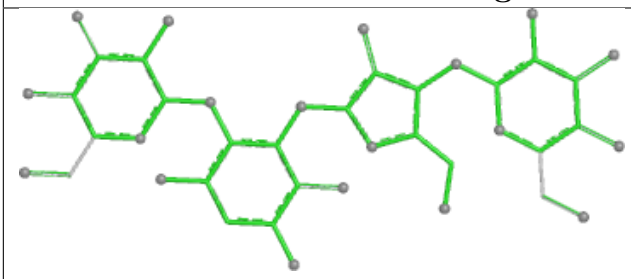


Rings

Ligand NMY CA 1672



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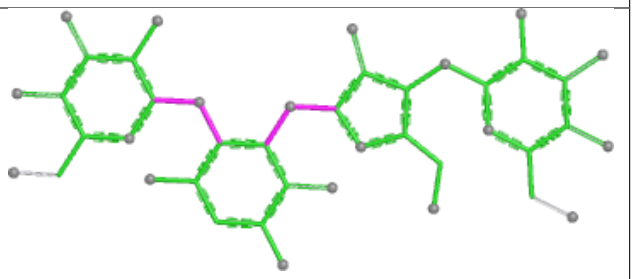
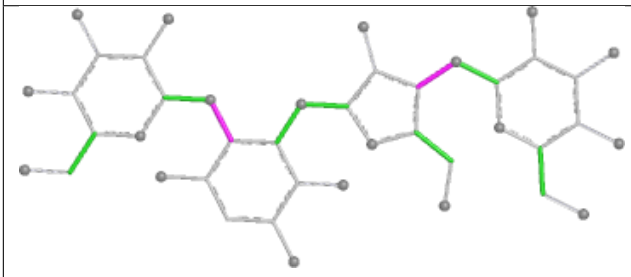


Bond angles



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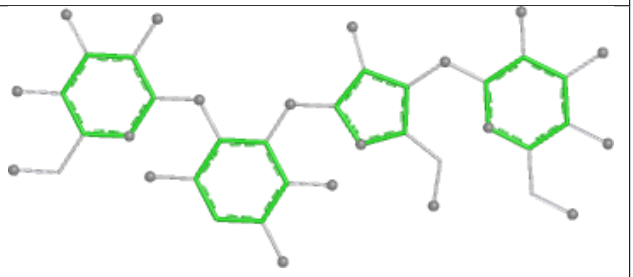
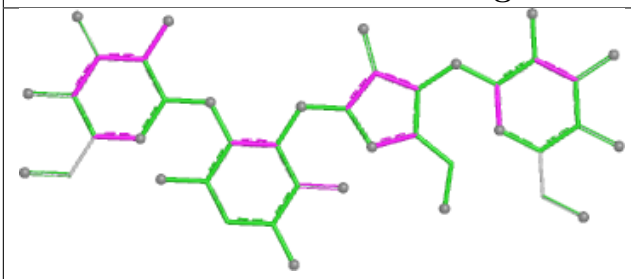


Rings

Ligand NMY DA 3189



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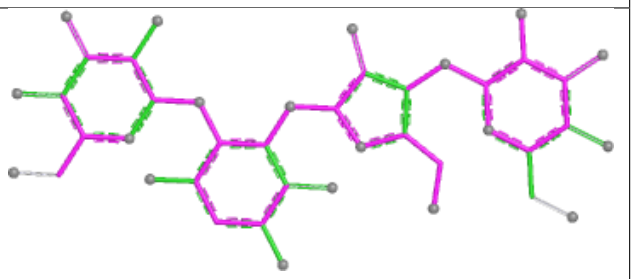
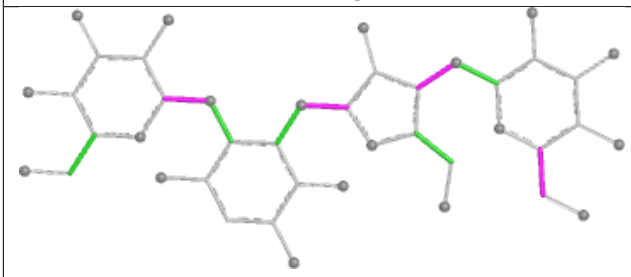


Bond angles



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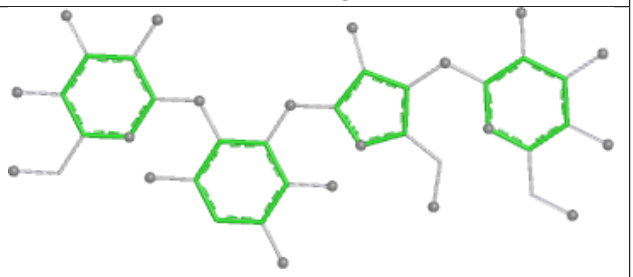

Rings

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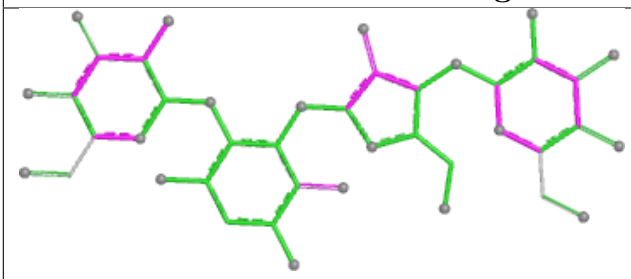

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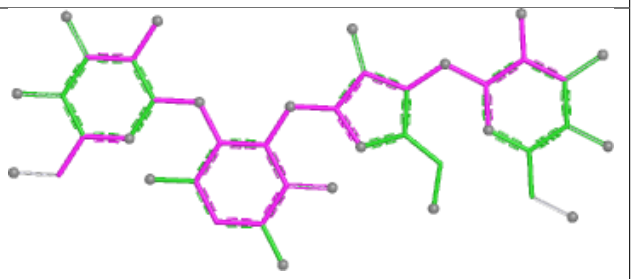

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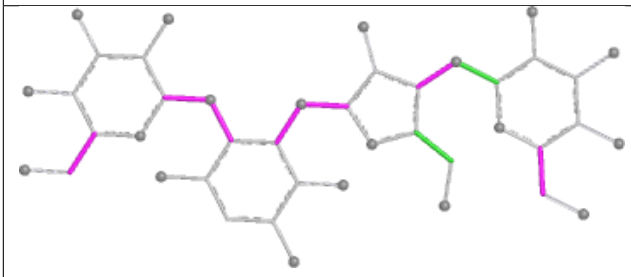
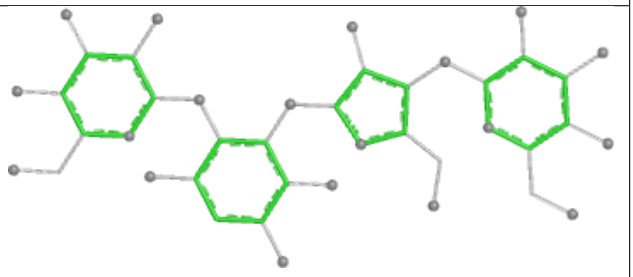
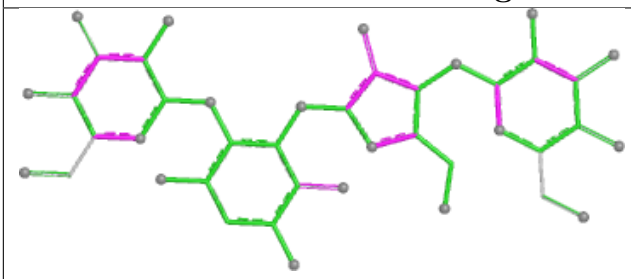


Torsions



Rings

Ligand NMY BA 3163



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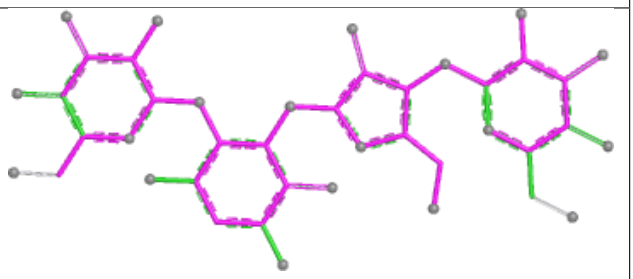
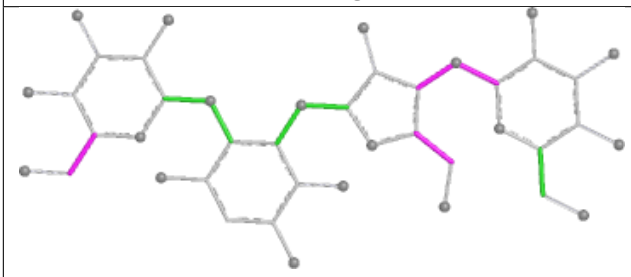
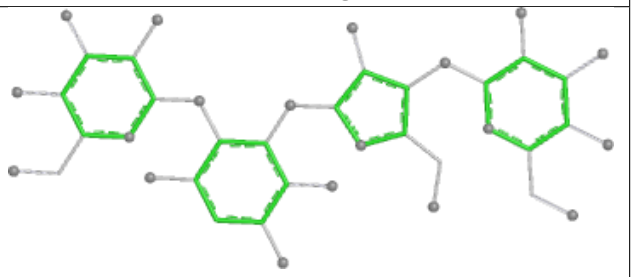


Bond angles

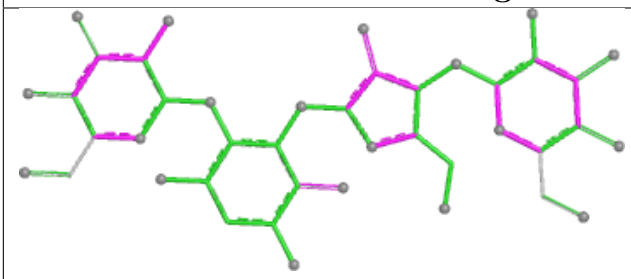


Torsions



Rings

Ligand NMY DA 3188



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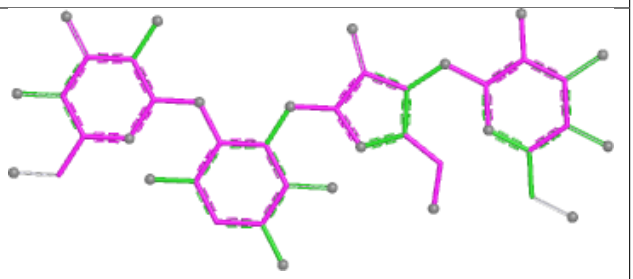
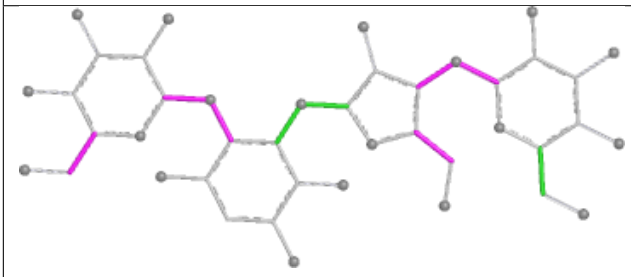


Bond angles



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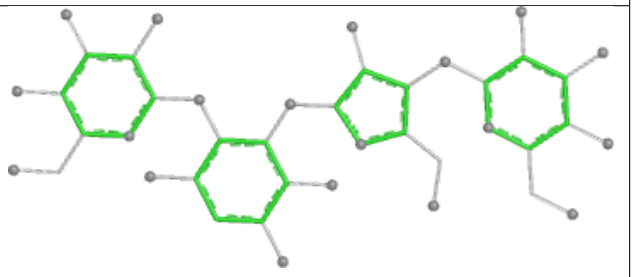
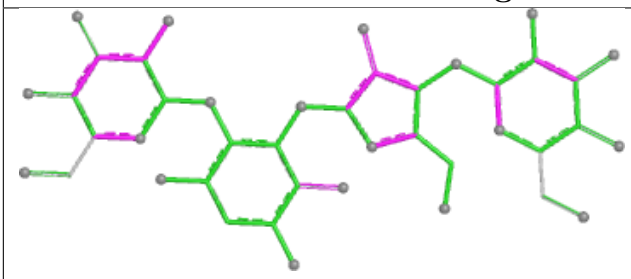


Rings

Ligand NMY BA 3167



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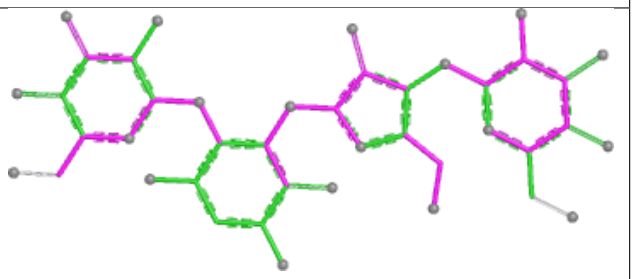
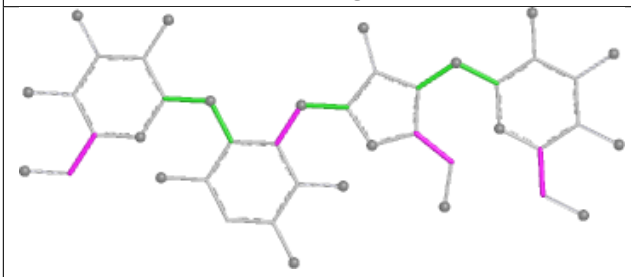


Bond angles



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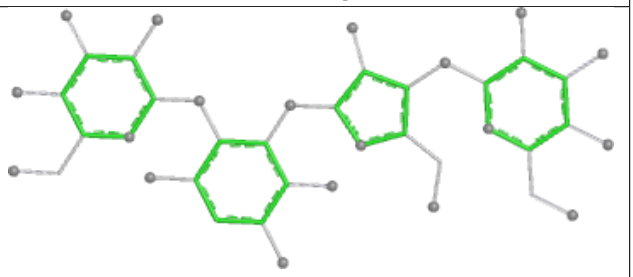
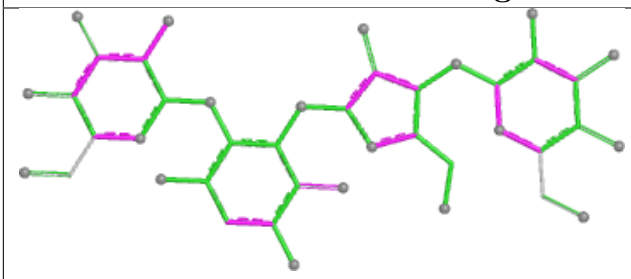


Rings

Ligand NMY AA 1657



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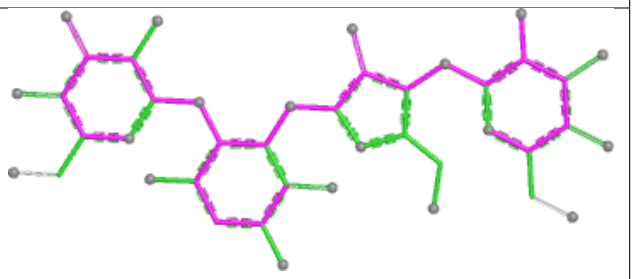
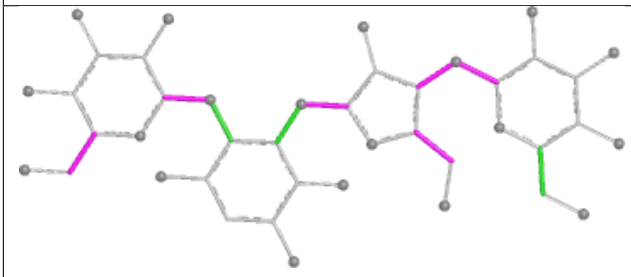
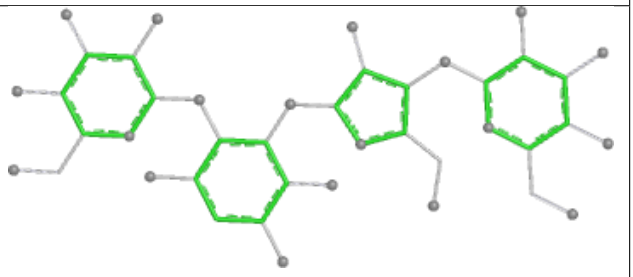


Bond angles

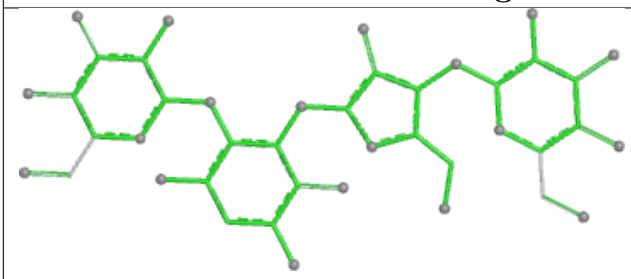


Torsions

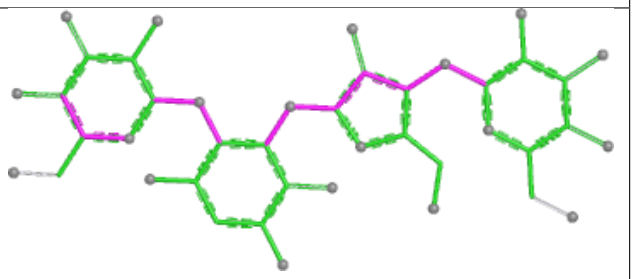


Rings

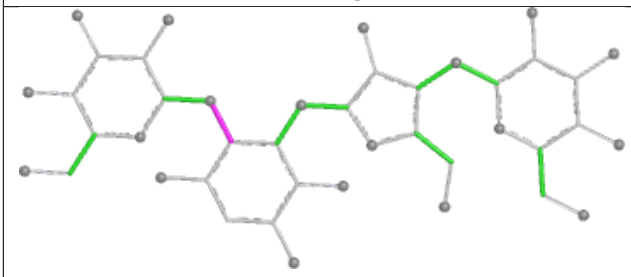
Ligand NMY BA 3162



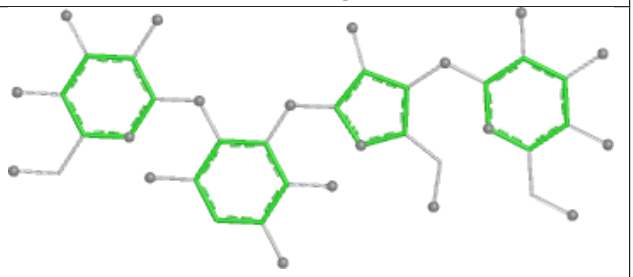
Bond lengths



Bond angles

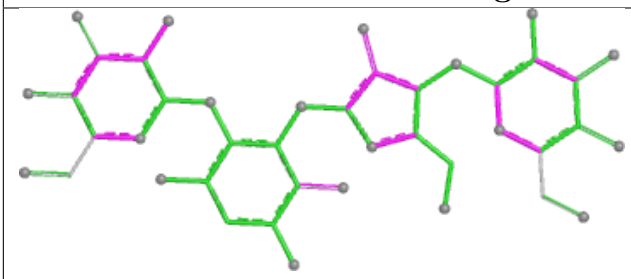


Torsions

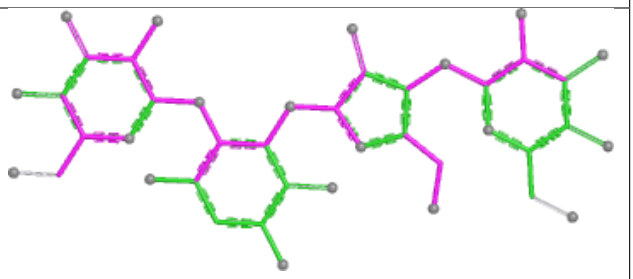


Rings

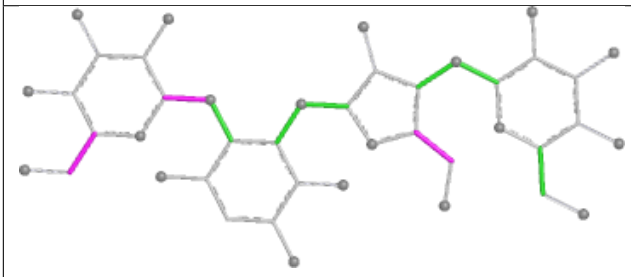
Ligand NMY DA 3185



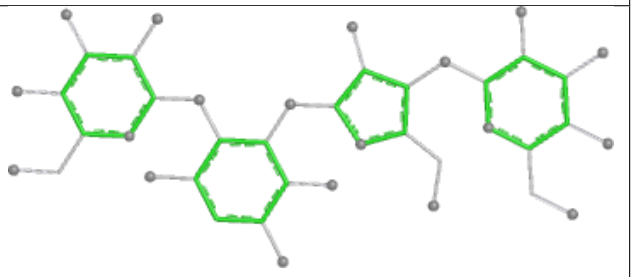
Bond lengths



Bond angles

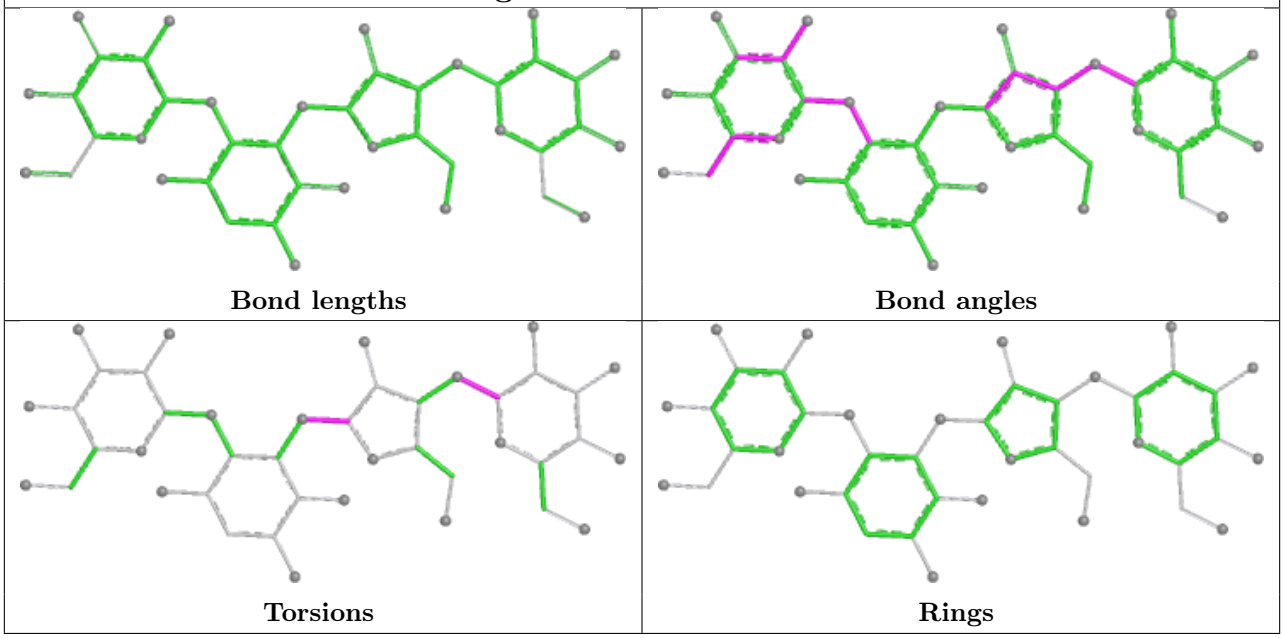


Torsions

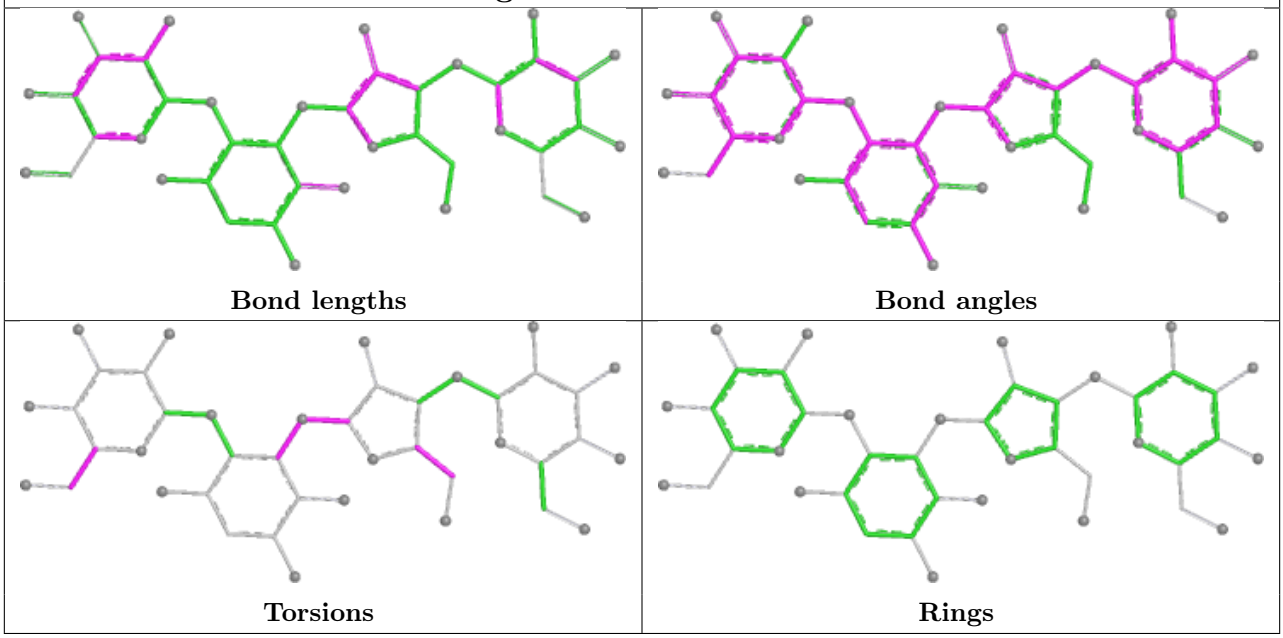


Rings

Ligand NMY DA 3184



Ligand NMY BA 3164



5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	AA	1539/1542 (99%)	-0.55	2 (0%) 92 90	67, 121, 207, 543	0
1	CA	1538/1542 (99%)	-0.57	10 (0%) 84 70	63, 120, 240, 527	0
2	AB	218/241 (90%)	0.36	13 (5%) 27 19	86, 172, 404, 542	0
2	CB	218/241 (90%)	0.26	10 (4%) 37 25	96, 215, 508, 545	0
3	AC	206/233 (88%)	0.38	16 (7%) 19 14	81, 139, 325, 514	0
3	CC	206/233 (88%)	-0.01	8 (3%) 43 29	80, 120, 286, 513	0
4	AD	205/206 (99%)	1.38	52 (25%) 1 1	83, 161, 372, 537	0
4	CD	205/206 (99%)	1.14	39 (19%) 3 3	81, 148, 442, 537	0
5	AE	150/167 (89%)	0.50	14 (9%) 14 11	79, 130, 272, 478	0
5	CE	150/167 (89%)	0.57	18 (12%) 9 7	68, 114, 292, 527	0
6	AF	100/135 (74%)	-0.04	3 (3%) 52 35	85, 142, 331, 528	0
6	CF	100/135 (74%)	0.52	8 (8%) 18 14	87, 178, 386, 531	0
7	AG	151/179 (84%)	0.44	15 (9%) 13 10	93, 161, 365, 539	0
7	CG	151/179 (84%)	0.99	29 (19%) 3 3	112, 234, 452, 540	0
8	AH	129/130 (99%)	0.45	13 (10%) 12 10	79, 145, 341, 424	0
8	CH	129/130 (99%)	0.50	7 (5%) 31 21	81, 121, 307, 437	0
9	AI	127/130 (97%)	1.01	22 (17%) 4 4	101, 180, 459, 535	0
9	CI	127/130 (97%)	1.09	30 (23%) 2 1	97, 216, 478, 540	0
10	AJ	98/103 (95%)	0.65	9 (9%) 14 11	95, 165, 363, 543	0
10	CJ	98/103 (95%)	1.38	27 (27%) 1 1	101, 202, 530, 543	0
11	AK	117/129 (90%)	0.27	7 (5%) 27 19	75, 112, 337, 492	0
11	CK	117/129 (90%)	0.73	13 (11%) 10 9	83, 243, 494, 531	0
12	AL	123/124 (99%)	0.41	11 (8%) 15 12	75, 109, 299, 403	0
12	CL	123/124 (99%)	0.58	18 (14%) 6 5	62, 93, 294, 386	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	AM	114/118 (96%)	0.87	17 (14%) 5 5	106, 239, 498, 530	0
13	CM	114/118 (96%)	1.13	24 (21%) 2 2	122, 312, 536, 547	0
14	AN	96/101 (95%)	1.39	20 (20%) 2 2	89, 175, 381, 527	0
14	CN	96/101 (95%)	1.47	28 (29%) 1 1	95, 183, 535, 545	0
15	AO	88/89 (98%)	0.54	9 (10%) 12 10	90, 136, 315, 374	0
15	CO	88/89 (98%)	0.91	13 (14%) 5 5	94, 176, 350, 510	0
16	AP	82/82 (100%)	1.19	21 (25%) 1 1	76, 125, 380, 528	0
16	CP	82/82 (100%)	0.92	12 (14%) 6 5	75, 115, 387, 524	0
17	AQ	80/84 (95%)	0.71	9 (11%) 10 8	88, 162, 370, 434	0
17	CQ	80/84 (95%)	0.44	11 (13%) 6 5	75, 141, 337, 496	0
18	AR	55/75 (73%)	0.23	3 (5%) 30 21	84, 115, 320, 391	0
18	CR	55/75 (73%)	0.40	4 (7%) 21 15	107, 159, 370, 440	0
19	AS	79/92 (85%)	0.81	13 (16%) 4 4	118, 215, 454, 530	0
19	CS	79/92 (85%)	1.02	15 (18%) 3 3	133, 302, 496, 542	0
20	AT	85/87 (97%)	1.22	22 (25%) 1 1	93, 158, 363, 497	0
20	CT	85/87 (97%)	0.90	11 (12%) 7 6	82, 128, 351, 491	0
21	AU	51/71 (71%)	1.25	12 (23%) 2 2	83, 133, 326, 395	0
21	CU	51/71 (71%)	1.42	13 (25%) 1 1	108, 193, 374, 512	0
22	AV	76/76 (100%)	-0.84	0 100 100	63, 117, 160, 255	0
22	CV	76/76 (100%)	0.14	8 (10%) 11 9	61, 257, 424, 542	0
23	AX	16/24 (66%)	0.39	1 (6%) 26 17	76, 139, 214, 261	0
23	CX	15/24 (62%)	0.63	2 (13%) 7 6	83, 191, 269, 339	0
24	BA	2897/2904 (99%)	-0.68	5 (0%) 91 86	54, 96, 294, 544	0
24	DA	2897/2904 (99%)	-0.72	44 (1%) 72 53	37, 67, 231, 547	0
25	BB	118/120 (98%)	-0.80	0 100 100	78, 151, 201, 231	0
25	DB	119/120 (99%)	-0.92	0 100 100	47, 88, 129, 188	0
26	BC	271/273 (99%)	0.56	33 (12%) 8 7	56, 106, 196, 362	0
26	DC	271/273 (99%)	0.33	23 (8%) 16 13	46, 81, 188, 348	0
27	BD	209/209 (100%)	0.10	7 (3%) 49 33	58, 88, 195, 401	0
27	DD	209/209 (100%)	-0.06	6 (2%) 53 35	38, 57, 129, 253	0
28	BE	201/201 (100%)	-0.04	3 (1%) 72 53	59, 105, 224, 424	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	DE	201/201 (100%)	-0.22	2 (0%) 79 63	40, 72, 155, 487	0
29	BF	177/179 (98%)	0.57	12 (6%) 23 16	125, 257, 446, 539	0
29	DF	177/179 (98%)	0.66	22 (12%) 8 6	76, 147, 367, 520	0
30	BG	176/177 (99%)	0.08	4 (2%) 61 42	93, 155, 360, 507	0
30	DG	176/177 (99%)	0.15	13 (7%) 20 15	54, 94, 190, 439	0
31	BH	149/149 (100%)	0.57	19 (12%) 7 6	15, 223, 436, 532	0
31	DH	149/149 (100%)	0.76	21 (14%) 6 5	25, 213, 475, 538	0
32	BI	141/142 (99%)	0.95	16 (11%) 10 8	126, 471, 546, 549	0
32	DI	141/142 (99%)	1.09	24 (17%) 4 4	123, 380, 542, 548	0
33	BJ	142/142 (100%)	0.08	6 (4%) 40 26	56, 83, 169, 348	0
33	DJ	142/142 (100%)	-0.06	7 (4%) 35 23	38, 60, 146, 265	0
34	BK	122/123 (99%)	-0.04	3 (2%) 58 39	65, 93, 197, 357	0
34	DK	122/123 (99%)	-0.23	0 100 100	43, 63, 112, 229	0
35	BL	143/144 (99%)	0.30	10 (6%) 22 15	55, 110, 265, 507	0
35	DL	143/144 (99%)	0.22	7 (4%) 35 23	41, 68, 170, 291	0
36	BM	136/136 (100%)	0.05	4 (2%) 53 35	65, 99, 208, 340	0
36	DM	136/136 (100%)	-0.02	5 (3%) 45 31	47, 67, 153, 262	0
37	BN	120/127 (94%)	0.05	5 (4%) 40 26	66, 107, 190, 466	0
37	DN	120/127 (94%)	0.07	4 (3%) 49 33	40, 61, 151, 420	0
38	BO	116/117 (99%)	0.56	13 (11%) 10 9	96, 193, 363, 537	0
38	DO	116/117 (99%)	-0.14	0 100 100	66, 94, 183, 322	0
39	BP	114/115 (99%)	0.23	7 (6%) 27 18	71, 109, 288, 356	0
39	DP	114/115 (99%)	0.01	5 (4%) 39 25	47, 69, 178, 330	0
40	BQ	117/118 (99%)	0.07	5 (4%) 40 25	55, 76, 170, 304	0
40	DQ	117/118 (99%)	-0.01	4 (3%) 48 32	38, 54, 156, 310	0
41	BR	103/103 (100%)	0.18	3 (2%) 53 35	57, 92, 180, 286	0
41	DR	103/103 (100%)	-0.06	4 (3%) 43 29	42, 68, 152, 458	0
42	BS	110/110 (100%)	0.07	6 (5%) 30 21	60, 92, 175, 299	0
42	DS	110/110 (100%)	-0.12	1 (0%) 81 65	38, 56, 115, 161	0
43	BT	93/100 (93%)	0.86	14 (15%) 5 5	93, 155, 337, 441	0
43	DT	93/100 (93%)	0.32	8 (8%) 16 12	56, 90, 192, 530	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	BU	102/104 (98%)	0.61	14 (13%) 6 5	78, 133, 337, 443	0
44	DU	102/104 (98%)	0.19	7 (6%) 23 16	52, 82, 226, 299	0
45	BV	94/94 (100%)	-0.02	4 (4%) 40 25	86, 144, 310, 421	0
45	DV	94/94 (100%)	0.11	3 (3%) 50 34	60, 94, 183, 336	0
46	BW	75/85 (88%)	0.64	5 (6%) 24 16	70, 113, 202, 321	0
46	DW	76/85 (89%)	0.46	8 (10%) 11 9	46, 70, 156, 244	0
47	BX	77/78 (98%)	0.69	12 (15%) 5 4	62, 110, 268, 318	0
47	DX	77/78 (98%)	-0.08	2 (2%) 57 38	48, 83, 165, 320	0
48	BY	63/63 (100%)	0.05	2 (3%) 50 34	95, 176, 353, 521	0
48	DY	63/63 (100%)	0.19	5 (7%) 18 14	58, 106, 283, 388	0
49	BZ	58/59 (98%)	-0.08	2 (3%) 48 32	67, 93, 170, 515	0
49	DZ	58/59 (98%)	0.14	1 (1%) 69 50	44, 59, 141, 198	0
50	B0	56/57 (98%)	0.11	4 (7%) 22 15	59, 98, 294, 405	0
50	D0	56/57 (98%)	0.43	4 (7%) 22 15	33, 64, 166, 282	0
51	B1	50/55 (90%)	0.49	6 (12%) 9 7	88, 147, 326, 377	0
51	D1	50/55 (90%)	0.38	6 (12%) 9 7	78, 120, 326, 532	0
52	B2	46/46 (100%)	0.59	5 (10%) 10 9	70, 95, 239, 293	0
52	D2	46/46 (100%)	0.71	6 (13%) 7 6	54, 67, 171, 292	0
53	B3	64/65 (98%)	0.60	8 (12%) 8 6	67, 91, 201, 286	0
53	D3	64/65 (98%)	0.59	8 (12%) 8 6	47, 61, 161, 254	0
54	B4	38/38 (100%)	0.68	4 (10%) 11 9	78, 108, 174, 322	0
54	D4	38/38 (100%)	-0.02	1 (2%) 57 38	53, 67, 150, 295	0
55	CY	183/185 (98%)	0.30	11 (6%) 27 19	53, 148, 442, 539	0
All	All	20909/21487 (97%)	-0.04	1165 (5%) 30 20	15, 110, 357, 549	0

All (1165) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
4	AD	24	GLY	14.3
4	CD	76	TYR	10.5
12	CL	15	LYS	10.4
9	CI	125	PRO	10.3
12	CL	25	GLU	9.8
21	AU	27	GLY	9.2

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Mol	Chain	Res	Type	RSRZ
8	CH	128	TYR	9.1
10	CJ	50	THR	9.1
24	DA	2140	G	8.4
9	AI	119	ARG	8.1
4	AD	28	ILE	8.0
41	BR	50	GLY	8.0
29	DF	129	MET	7.9
9	AI	129	LYS	7.7
4	CD	24	GLY	7.7
26	BC	271	SER	7.6
4	AD	92	ALA	7.6
24	DA	2174	C	7.5
10	CJ	49	PHE	7.5
12	CL	95	TYR	7.5
12	AL	15	LYS	7.4
32	DI	1	ALA	7.3
14	CN	75	ARG	7.3
4	CD	64	ILE	7.2
51	B1	17	GLY	7.1
43	BT	76	ARG	7.0
46	BW	11	ARG	6.9
24	DA	2177	C	6.9
9	CI	124	ARG	6.8
12	CL	124	ALA	6.8
24	DA	2176	A	6.8
9	CI	128	SER	6.7
9	CI	108	ALA	6.7
21	CU	38	TYR	6.7
17	AQ	32	PRO	6.6
53	B3	1	PRO	6.6
4	CD	29	ASP	6.6
11	CK	126	LYS	6.6
15	CO	55	GLY	6.6
4	CD	108	GLY	6.6
43	BT	68	LYS	6.6
15	CO	31	LEU	6.6
17	AQ	33	ILE	6.5
21	CU	42	THR	6.5
48	DY	62	GLY	6.5
14	AN	57	PRO	6.5
4	AD	90	LEU	6.5
32	BI	52	LEU	6.5

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Mol	Chain	Res	Type	RSRZ
14	CN	71	HIS	6.4
12	AL	20	ASN	6.4
24	DA	2157	G	6.3
29	DF	106	ALA	6.3
32	DI	13	ALA	6.3
4	AD	136	GLN	6.2
12	AL	14	ARG	6.2
12	CL	14	ARG	6.1
9	CI	117	GLY	6.1
14	AN	6	LYS	6.1
10	CJ	59	LYS	6.1
13	AM	111	GLY	6.1
20	AT	4	ILE	6.0
24	DA	2181	U	6.0
29	BF	116	LEU	6.0
42	BS	95	ARG	6.0
7	AG	20	SER	6.0
2	AB	163	VAL	6.0
3	AC	159	GLY	5.9
31	BH	120	GLY	5.9
18	AR	55	LEU	5.9
33	BJ	111	LYS	5.9
10	CJ	87	LEU	5.9
18	CR	67	LEU	5.9
4	CD	4	TYR	5.9
10	AJ	100	ILE	5.8
13	AM	67	GLY	5.8
52	D2	45	SER	5.8
32	DI	11	GLN	5.7
7	CG	81	GLY	5.7
19	CS	22	ALA	5.7
24	DA	2137	U	5.7
4	AD	104	ARG	5.7
8	AH	74	SER	5.6
8	CH	2	SER	5.6
31	BH	9	VAL	5.6
26	DC	1	ALA	5.6
31	BH	122	LEU	5.6
7	CG	7	ILE	5.6
14	AN	58	SER	5.6
33	DJ	81	ILE	5.5
11	AK	126	LYS	5.5

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Mol	Chain	Res	Type	RSRZ
32	BI	11	GLN	5.5
17	AQ	25	ILE	5.5
26	BC	270	ARG	5.5
29	DF	99	PHE	5.5
7	CG	99	LEU	5.5
4	AD	95	GLU	5.4
34	BK	35	VAL	5.4
9	CI	113	ARG	5.4
9	AI	108	ALA	5.4
4	AD	159	LEU	5.3
16	AP	74	LEU	5.3
4	AD	77	LYS	5.3
26	DC	28	PRO	5.2
26	DC	258	SER	5.2
50	B0	26	SER	5.2
19	AS	49	ILE	5.2
14	CN	98	LYS	5.2
21	AU	42	THR	5.2
5	CE	144	LEU	5.1
20	AT	68	HIS	5.1
10	AJ	98	VAL	5.1
4	CD	159	LEU	5.1
10	CJ	65	TYR	5.1
24	DA	2148	G	5.1
24	DA	2180	U	5.1
24	DA	2117	A	5.1
43	BT	69	ARG	5.1
39	BP	101	GLU	5.1
45	BV	81	PRO	5.1
4	AD	27	ALA	5.0
20	CT	67	ILE	5.0
7	CG	80	VAL	5.0
20	CT	3	ASN	5.0
24	DA	2142	A	5.0
26	DC	4	LYS	5.0
4	AD	21	LEU	5.0
20	CT	68	HIS	5.0
26	BC	211	ARG	5.0
52	D2	46	LYS	5.0
6	CF	7	VAL	5.0
46	DW	10	THR	4.9
20	AT	16	LYS	4.9

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Mol	Chain	Res	Type	RSRZ
26	BC	217	PRO	4.9
24	DA	2175	C	4.9
24	DA	2163	A	4.8
47	DX	10	ARG	4.8
4	AD	25	VAL	4.8
19	AS	3	ARG	4.8
11	CK	89	PRO	4.8
32	DI	2	LYS	4.8
16	CP	69	ASP	4.8
5	CE	93	ARG	4.8
47	BX	8	GLY	4.8
14	CN	72	GLY	4.7
7	CG	98	ALA	4.7
9	CI	16	ALA	4.7
12	CL	18	LYS	4.7
12	AL	86	ARG	4.7
14	CN	63	ARG	4.7
21	AU	38	TYR	4.7
29	DF	74	ALA	4.7
21	CU	34	ARG	4.7
21	CU	37	PHE	4.7
31	BH	121	VAL	4.7
14	AN	9	GLU	4.7
50	D0	26	SER	4.7
24	DA	2178	C	4.7
16	AP	1	MET	4.7
50	B0	6	LYS	4.6
8	AH	3	MET	4.6
4	AD	156	LYS	4.6
38	BO	9	ARG	4.6
4	CD	72	PHE	4.6
14	CN	69	ARG	4.6
24	DA	2139	U	4.6
31	BH	3	VAL	4.6
24	DA	2115	G	4.6
11	AK	129	VAL	4.6
19	AS	41	PHE	4.6
15	CO	65	LYS	4.5
27	BD	125	TRP	4.5
8	AH	104	VAL	4.5
16	AP	32	PHE	4.5
12	AL	18	LYS	4.5

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Mol	Chain	Res	Type	RSRZ
53	B3	64	ALA	4.5
16	AP	22	ALA	4.5
16	CP	22	ALA	4.5
29	DF	109	ARG	4.5
2	CB	25	PRO	4.5
47	BX	47	THR	4.5
7	AG	22	LEU	4.5
9	AI	43	THR	4.4
24	DA	2106	U	4.4
24	DA	2156	G	4.4
9	AI	120	LYS	4.4
12	AL	26	ALA	4.4
16	CP	27	ALA	4.4
9	CI	43	THR	4.4
11	AK	124	PRO	4.4
14	CN	81	ARG	4.4
26	BC	176	ARG	4.4
29	BF	71	LYS	4.4
44	DU	2	ALA	4.4
9	AI	50	GLN	4.4
46	DW	16	SER	4.4
8	CH	130	ALA	4.4
32	DI	53	PRO	4.4
24	DA	2136	G	4.3
4	CD	53	VAL	4.3
38	BO	2	ASP	4.3
53	D3	47	ALA	4.3
4	CD	28	ILE	4.3
44	BU	59	GLU	4.3
21	AU	35	ARG	4.3
9	CI	127	PHE	4.3
16	AP	72	ALA	4.3
35	BL	73	ILE	4.3
13	AM	100	GLN	4.3
29	BF	110	ILE	4.3
35	BL	22	GLY	4.3
14	CN	66	GLN	4.3
11	AK	125	LYS	4.3
54	D4	2	LYS	4.3
7	CG	86	GLN	4.3
10	CJ	98	VAL	4.3
24	DA	2118	U	4.2

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Mol	Chain	Res	Type	RSRZ
31	DH	149	GLU	4.2
5	CE	23	LYS	4.2
13	CM	56	LEU	4.2
7	CG	100	ALA	4.2
19	AS	13	LEU	4.2
4	AD	197	GLU	4.2
21	AU	36	GLU	4.2
4	AD	176	GLY	4.2
32	DI	138	VAL	4.2
26	BC	204	LEU	4.2
44	DU	74	ALA	4.2
4	CD	58	LYS	4.2
5	AE	23	LYS	4.2
4	CD	27	ALA	4.1
12	AL	2	ALA	4.1
24	DA	546	U	4.1
9	CI	10	GLY	4.1
26	BC	160	TYR	4.1
29	BF	82	TYR	4.1
48	DY	14	LEU	4.1
14	CN	92	GLU	4.1
4	AD	20	PHE	4.1
13	AM	112	PRO	4.1
7	AG	50	LEU	4.1
10	CJ	62	ARG	4.1
35	BL	42	SER	4.1
8	AH	129	VAL	4.1
10	CJ	83	THR	4.1
35	DL	39	LYS	4.1
4	CD	57	GLU	4.1
31	BH	94	ILE	4.1
37	BN	19	ALA	4.1
32	DI	52	LEU	4.0
7	CG	92	ARG	4.0
14	AN	70	PRO	4.0
53	D3	15	LYS	4.0
7	CG	85	TYR	4.0
31	DH	84	ALA	4.0
9	CI	126	GLN	4.0
15	CO	80	GLN	4.0
31	DH	122	LEU	4.0
13	CM	60	VAL	4.0

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Mol	Chain	Res	Type	RSRZ
24	DA	2155	U	4.0
48	DY	63	ALA	4.0
2	AB	148	LEU	4.0
4	CD	5	LEU	4.0
15	AO	75	VAL	4.0
35	DL	42	SER	4.0
44	DU	1	ALA	4.0
53	B3	36	ALA	4.0
12	CL	90	LEU	4.0
52	D2	2	LYS	4.0
55	CY	1	MET	4.0
35	BL	72	ALA	4.0
35	DL	70	LYS	4.0
14	AN	13	VAL	3.9
38	BO	28	VAL	3.9
43	BT	67	VAL	3.9
21	AU	45	ARG	3.9
14	AN	99	ALA	3.9
3	AC	161	GLU	3.9
16	AP	66	THR	3.9
43	BT	83	ALA	3.9
5	AE	29	ARG	3.9
10	CJ	63	ASP	3.9
19	AS	11	ILE	3.9
22	CV	71	G	3.9
29	DF	172	PHE	3.9
11	CK	125	LYS	3.9
6	CF	83	ALA	3.9
29	DF	70	ARG	3.9
9	CI	116	VAL	3.9
24	DA	2144	G	3.9
5	CE	131	THR	3.9
14	AN	52	PRO	3.9
8	AH	2	SER	3.9
19	AS	15	LEU	3.9
31	DH	117	LEU	3.9
37	BN	65	LEU	3.9
50	D0	23	ALA	3.8
51	B1	51	ALA	3.8
2	AB	217	VAL	3.8
7	AG	14	PRO	3.8
43	BT	41	ALA	3.8

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Mol	Chain	Res	Type	RSRZ
24	DA	2125	G	3.8
4	CD	199	LEU	3.8
8	AH	32	LEU	3.8
24	DA	545	U	3.8
24	DA	2111	U	3.8
31	DH	85	GLY	3.8
7	CG	124	LEU	3.8
38	BO	14	ALA	3.8
35	BL	70	LYS	3.8
4	CD	63	ARG	3.8
31	BH	38	PRO	3.8
24	DA	2147	A	3.8
5	CE	154	ALA	3.7
4	AD	58	LYS	3.7
11	CK	129	VAL	3.7
19	CS	23	VAL	3.7
52	B2	15	SER	3.7
5	AE	133	PRO	3.7
20	AT	64	LYS	3.7
32	DI	114	ALA	3.7
30	BG	167	VAL	3.7
13	AM	8	ASN	3.7
14	CN	65	ARG	3.7
20	AT	29	ARG	3.7
7	AG	23	LEU	3.7
38	BO	96	GLY	3.7
6	CF	8	PHE	3.7
33	DJ	8	PRO	3.7
12	AL	17	ALA	3.7
29	DF	1	ALA	3.7
43	DT	41	ALA	3.7
46	BW	71	VAL	3.7
9	AI	130	ARG	3.7
24	DA	2169	A	3.7
12	AL	91	PRO	3.7
20	AT	38	ALA	3.7
21	AU	53	VAL	3.7
14	AN	20	PHE	3.7
32	DI	20	SER	3.7
40	DQ	11	ALA	3.7
31	BH	37	VAL	3.7
26	BC	17	LYS	3.7

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Mol	Chain	Res	Type	RSRZ
54	B4	8	LYS	3.7
17	CQ	32	PRO	3.6
24	DA	2141	G	3.6
26	DC	197	ALA	3.6
26	BC	27	LYS	3.6
53	B3	14	LYS	3.6
9	AI	102	GLY	3.6
17	CQ	28	PHE	3.6
26	DC	21	PRO	3.6
26	BC	30	ALA	3.6
8	AH	11	LEU	3.6
7	CG	76	LYS	3.6
36	BM	8	LYS	3.6
23	AX	9	A	3.6
44	BU	52	ASN	3.6
27	BD	209	ALA	3.6
9	CI	105	THR	3.6
4	CD	154	ARG	3.6
10	CJ	48	ARG	3.6
5	AE	110	ALA	3.6
9	CI	104	VAL	3.6
7	CG	74	GLU	3.6
24	BA	613	A	3.6
50	D0	6	LYS	3.6
11	AK	26	SER	3.6
13	AM	33	ILE	3.6
26	DC	2	VAL	3.5
16	AP	13	LYS	3.5
35	DL	14	LYS	3.5
4	AD	123	ILE	3.5
2	AB	87	CYS	3.5
55	CY	8	ASP	3.5
32	BI	59	THR	3.5
33	DJ	5	THR	3.5
26	DC	38	LYS	3.5
16	AP	41	PRO	3.5
43	DT	2	ILE	3.5
52	B2	45	SER	3.5
10	AJ	87	LEU	3.5
4	AD	76	TYR	3.5
55	CY	141	ALA	3.5
13	CM	73	ILE	3.5

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Mol	Chain	Res	Type	RSRZ
7	AG	9	GLN	3.4
7	AG	13	LEU	3.4
38	BO	79	ALA	3.4
50	B0	23	ALA	3.4
6	AF	71	ILE	3.4
4	AD	147	GLU	3.4
24	DA	2153	C	3.4
7	AG	81	GLY	3.4
11	CK	79	ILE	3.4
16	AP	47	GLU	3.4
4	CD	201	VAL	3.4
32	DI	4	VAL	3.4
24	DA	2145	C	3.4
21	AU	54	LYS	3.4
14	CN	82	ILE	3.4
32	DI	54	ILE	3.4
4	AD	185	LYS	3.4
7	CG	110	LYS	3.4
40	BQ	40	LYS	3.4
2	AB	92	VAL	3.4
19	CS	68	GLY	3.4
20	AT	37	ALA	3.4
4	AD	10	LYS	3.4
16	AP	12	LYS	3.4
10	CJ	64	GLN	3.4
10	AJ	60	ASP	3.3
38	BO	93	ASP	3.3
21	CU	46	LYS	3.3
30	DG	174	LYS	3.3
10	CJ	22	THR	3.3
35	BL	5	THR	3.3
13	AM	98	ARG	3.3
4	CD	90	LEU	3.3
16	AP	60	TRP	3.3
21	AU	24	GLU	3.3
32	DI	3	LYS	3.3
47	BX	34	SER	3.3
10	CJ	33	GLY	3.3
26	BC	169	ALA	3.3
43	BT	74	ILE	3.3
55	CY	30	GLY	3.3
10	CJ	58	ASN	3.3

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Mol	Chain	Res	Type	RSRZ
26	BC	164	VAL	3.3
39	BP	62	LYS	3.3
55	CY	7	LYS	3.3
5	CE	51	GLY	3.3
30	DG	45	ALA	3.3
51	D1	4	ILE	3.3
31	BH	17	ASP	3.3
24	DA	2158	A	3.3
32	DI	12	VAL	3.3
19	CS	40	ILE	3.3
26	DC	165	ALA	3.3
29	DF	171	ALA	3.3
33	DJ	87	ALA	3.3
24	DA	2123	G	3.3
27	DD	157	LYS	3.3
35	DL	133	ALA	3.3
47	BX	72	ALA	3.3
9	CI	123	ARG	3.2
11	CK	74	VAL	3.2
2	AB	34	ALA	3.2
23	CX	16	U	3.2
18	CR	68	LEU	3.2
29	DF	35	LEU	3.2
44	BU	40	LEU	3.2
6	CF	18	VAL	3.2
32	BI	95	ASP	3.2
40	BQ	45	ALA	3.2
20	AT	65	GLY	3.2
36	BM	115	GLU	3.2
46	DW	44	LYS	3.2
13	CM	65	VAL	3.2
3	AC	26	THR	3.2
54	B4	21	GLY	3.2
20	CT	33	LYS	3.2
45	BV	82	TYR	3.2
4	AD	46	PRO	3.2
46	DW	45	PHE	3.2
14	AN	66	GLN	3.2
31	DH	40	THR	3.2
53	B3	44	ARG	3.2
4	AD	32	CYS	3.2
30	DG	173	ALA	3.2

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Mol	Chain	Res	Type	RSRZ
9	CI	77	GLY	3.2
44	BU	25	LYS	3.2
6	CF	61	LEU	3.2
4	AD	107	PHE	3.2
11	CK	77	TYR	3.2
43	BT	84	TYR	3.2
26	DC	52	HIS	3.2
16	CP	24	SER	3.2
19	CS	46	GLY	3.1
43	BT	50	LEU	3.1
13	CM	23	TYR	3.1
39	BP	49	ILE	3.1
7	CG	84	THR	3.1
10	CJ	61	ALA	3.1
31	DH	81	ALA	3.1
5	CE	109	GLY	3.1
31	BH	149	GLU	3.1
5	CE	56	VAL	3.1
4	AD	14	ARG	3.1
53	D3	64	ALA	3.1
13	AM	89	LEU	3.1
32	DI	65	SER	3.1
24	DA	2120	G	3.1
7	CG	46	ALA	3.1
36	DM	43	ALA	3.1
2	CB	97	LEU	3.1
32	BI	10	LEU	3.1
2	AB	88	ASP	3.1
9	CI	39	PHE	3.1
10	AJ	57	VAL	3.1
14	CN	86	GLU	3.1
32	DI	66	PHE	3.1
5	AE	125	ALA	3.1
52	D2	36	ALA	3.1
16	AP	52	LEU	3.1
10	CJ	74	VAL	3.1
20	CT	69	LYS	3.1
40	DQ	40	LYS	3.1
27	BD	57	ALA	3.0
4	CD	66	GLY	3.0
7	CG	5	ARG	3.0
12	CL	9	ARG	3.0

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Mol	Chain	Res	Type	RSRZ
17	CQ	27	ARG	3.0
32	DI	57	VAL	3.0
32	DI	58	ILE	3.0
39	BP	4	ILE	3.0
5	AE	142	ASP	3.0
55	CY	51	LEU	3.0
36	BM	10	ARG	3.0
32	DI	15	GLY	3.0
16	CP	3	THR	3.0
13	CM	77	ILE	3.0
29	BF	66	ILE	3.0
43	DT	27	SER	3.0
30	BG	53	PRO	3.0
24	DA	2168	G	3.0
7	CG	30	LEU	3.0
31	BH	15	LEU	3.0
26	BC	38	LYS	3.0
14	CN	13	VAL	3.0
17	CQ	59	VAL	3.0
32	BI	111	THR	3.0
42	BS	82	MET	3.0
43	DT	42	GLU	3.0
16	AP	15	PRO	3.0
26	DC	10	PRO	3.0
14	CN	15	LEU	3.0
26	DC	138	SER	3.0
27	BD	199	SER	3.0
21	CU	48	ALA	3.0
4	AD	174	ASP	3.0
4	AD	151	LYS	3.0
29	BF	81	GLY	3.0
19	CS	44	MET	3.0
5	AE	127	ALA	3.0
17	AQ	20	SER	3.0
26	BC	223	ALA	3.0
29	BF	73	VAL	3.0
10	AJ	50	THR	3.0
4	AD	19	LEU	2.9
7	CG	47	LEU	2.9
1	AA	530	G	2.9
9	AI	44	ALA	2.9
10	CJ	11	LYS	2.9

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Mol	Chain	Res	Type	RSRZ
20	AT	11	ALA	2.9
30	DG	1	SER	2.9
42	BS	81	SER	2.9
17	AQ	31	HIS	2.9
5	CE	20	ARG	2.9
52	B2	35	ARG	2.9
19	CS	30	PRO	2.9
7	AG	98	ALA	2.9
39	BP	106	ALA	2.9
16	CP	44	SER	2.9
43	BT	27	SER	2.9
15	CO	28	GLN	2.9
29	DF	173	ASP	2.9
15	CO	81	LEU	2.9
16	AP	6	LEU	2.9
26	DC	201	LEU	2.9
35	DL	121	THR	2.9
46	BW	24	LYS	2.9
27	BD	196	ALA	2.9
9	AI	29	VAL	2.9
27	DD	199	SER	2.9
47	BX	5	GLN	2.9
54	B4	10	LEU	2.9
3	AC	192	THR	2.9
13	CM	115	PRO	2.9
36	DM	56	ALA	2.9
12	CL	4	VAL	2.9
9	AI	39	PHE	2.9
22	CV	54	U	2.9
24	BA	2172	U	2.9
10	CJ	60	ASP	2.9
11	AK	123	PRO	2.9
13	CM	35	ALA	2.9
13	CM	104	THR	2.9
10	AJ	11	LYS	2.9
1	CA	1397	C	2.8
16	AP	43	ALA	2.8
20	CT	22	ALA	2.8
26	DC	31	PRO	2.8
27	DD	192	ALA	2.8
20	AT	10	ARG	2.8
12	CL	43	LYS	2.8

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Mol	Chain	Res	Type	RSRZ
35	BL	29	LYS	2.8
13	CM	4	ILE	2.8
9	AI	16	ALA	2.8
15	AO	76	ALA	2.8
46	DW	47	ALA	2.8
30	DG	155	PRO	2.8
2	CB	138	THR	2.8
30	DG	55	ASP	2.8
55	CY	145	ASP	2.8
10	CJ	84	VAL	2.8
16	AP	20	VAL	2.8
21	CU	45	ARG	2.8
28	BE	83	VAL	2.8
31	DH	5	LEU	2.8
9	AI	121	ALA	2.8
53	D3	36	ALA	2.8
29	DF	83	PRO	2.8
42	BS	92	ARG	2.8
20	AT	9	LYS	2.8
26	DC	210	ALA	2.8
4	CD	8	LYS	2.8
17	AQ	39	LYS	2.8
16	CP	1	MET	2.8
24	DA	142	A	2.8
20	CT	61	GLN	2.8
21	AU	30	ALA	2.8
24	DA	140	C	2.8
27	BD	157	LYS	2.8
40	BQ	83	LYS	2.8
4	CD	125	VAL	2.8
51	B1	40	PRO	2.8
42	BS	13	SER	2.8
4	AD	29	ASP	2.7
13	AM	84	GLY	2.7
26	BC	220	ARG	2.7
27	DD	140	HIS	2.7
52	D2	3	ARG	2.7
9	AI	68	LYS	2.7
9	CI	115	LYS	2.7
12	CL	13	ALA	2.7
24	DA	2167	U	2.7
14	CN	70	PRO	2.7

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Mol	Chain	Res	Type	RSRZ
26	BC	31	PRO	2.7
29	DF	72	SER	2.7
22	CV	19	G	2.7
41	DR	79	ARG	2.7
6	AF	4	TYR	2.7
14	AN	45	VAL	2.7
15	CO	40	GLN	2.7
29	BF	131	VAL	2.7
3	AC	17	PRO	2.7
32	DI	73	PRO	2.7
4	CD	107	PHE	2.7
9	AI	72	ILE	2.7
20	AT	57	ILE	2.7
31	DH	1	MET	2.7
53	D3	13	PHE	2.7
4	CD	42	GLY	2.7
39	DP	108	ARG	2.7
19	AS	64	ASP	2.7
26	DC	30	ALA	2.7
38	BO	29	HIS	2.7
4	CD	19	LEU	2.7
14	CN	79	LEU	2.7
14	CN	52	PRO	2.7
13	CM	67	GLY	2.7
44	BU	29	SER	2.7
24	BA	2585	U	2.7
39	DP	106	ALA	2.7
44	DU	63	ALA	2.7
17	AQ	23	VAL	2.7
8	AH	76	GLN	2.7
22	CV	74	C	2.7
33	BJ	113	PRO	2.7
4	CD	105	MET	2.7
41	BR	79	ARG	2.7
21	CU	25	LYS	2.7
46	BW	85	GLU	2.7
49	BZ	55	LYS	2.7
9	CI	66	THR	2.7
37	DN	14	SER	2.7
14	AN	21	ALA	2.7
20	AT	72	ALA	2.7
26	BC	1	ALA	2.7

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Mol	Chain	Res	Type	RSRZ
36	BM	122	ALA	2.7
48	DY	43	LEU	2.7
4	AD	152	GLN	2.6
4	CD	139	PRO	2.6
7	CG	12	ILE	2.6
14	AN	25	GLU	2.6
41	DR	50	GLY	2.6
44	BU	9	GLU	2.6
9	AI	73	SER	2.6
9	CI	121	ALA	2.6
12	CL	16	VAL	2.6
15	AO	24	SER	2.6
20	AT	63	ALA	2.6
26	DC	271	SER	2.6
45	DV	22	ALA	2.6
47	BX	46	VAL	2.6
55	CY	135	ALA	2.6
13	AM	4	ILE	2.6
20	CT	4	ILE	2.6
4	AD	168	PRO	2.6
9	AI	124	ARG	2.6
19	CS	66	MET	2.6
15	AO	80	GLN	2.6
16	AP	39	PHE	2.6
52	B2	25	LYS	2.6
23	CX	9	A	2.6
7	AG	80	VAL	2.6
16	CP	43	ALA	2.6
26	BC	219	VAL	2.6
31	DH	62	LEU	2.6
31	DH	102	ALA	2.6
26	BC	9	SER	2.6
14	CN	97	LYS	2.6
21	CU	40	LYS	2.6
41	DR	81	LYS	2.6
21	AU	37	PHE	2.6
31	DH	47	PHE	2.6
12	AL	25	GLU	2.6
3	AC	95	ALA	2.6
15	CO	44	ALA	2.6
50	B0	1	ALA	2.6
52	B2	40	ALA	2.6

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Mol	Chain	Res	Type	RSRZ
14	AN	75	ARG	2.6
20	AT	71	LYS	2.6
26	BC	53	ILE	2.6
9	AI	127	PHE	2.6
20	AT	54	MET	2.6
8	AH	123	GLY	2.6
26	BC	36	ASN	2.6
31	BH	20	ASN	2.6
7	AG	6	VAL	2.6
9	AI	9	THR	2.6
14	AN	24	ALA	2.6
32	DI	139	VAL	2.6
32	BI	67	THR	2.6
33	BJ	87	ALA	2.6
40	DQ	26	ALA	2.6
47	BX	57	VAL	2.6
26	BC	213	ARG	2.6
24	DA	2100	G	2.6
32	BI	66	PHE	2.6
1	CA	1383	C	2.6
9	CI	12	ARG	2.6
16	CP	72	ALA	2.6
3	AC	55	ILE	2.5
5	AE	16	ILE	2.5
3	AC	174	PRO	2.5
34	BK	48	PRO	2.5
4	AD	153	SER	2.5
9	AI	128	SER	2.5
13	CM	76	SER	2.5
13	AM	99	GLY	2.5
10	CJ	52	LEU	2.5
13	CM	95	LEU	2.5
1	CA	79	G	2.5
22	CV	57	G	2.5
28	DE	36	ALA	2.5
32	BI	48	ILE	2.5
45	BV	80	HIS	2.5
39	BP	66	GLY	2.5
54	B4	28	SER	2.5
20	AT	13	GLN	2.5
4	CD	3	ARG	2.5
9	CI	130	ARG	2.5

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Mol	Chain	Res	Type	RSRZ
41	BR	85	LYS	2.5
5	AE	25	VAL	2.5
30	DG	89	VAL	2.5
55	CY	42	VAL	2.5
4	AD	100	ASN	2.5
11	CK	45	ALA	2.5
32	BI	46	ASP	2.5
36	DM	79	ALA	2.5
13	AM	73	ILE	2.5
12	CL	122	PRO	2.5
44	BU	54	PRO	2.5
55	CY	44	TYR	2.5
13	CM	34	LEU	2.5
19	CS	3	ARG	2.5
13	AM	30	SER	2.5
4	AD	125	VAL	2.5
32	BI	60	VAL	2.5
6	CF	66	ALA	2.5
30	DG	58	ALA	2.5
45	BV	52	ALA	2.5
8	CH	26	THR	2.5
29	DF	98	PHE	2.5
19	AS	9	PRO	2.5
21	CU	11	PRO	2.5
5	CE	156	LYS	2.5
51	B1	15	GLY	2.5
4	AD	101	VAL	2.5
3	CC	133	ALA	2.5
19	CS	49	ILE	2.5
33	BJ	1	MET	2.5
2	CB	30	PHE	2.5
15	AO	18	ASP	2.5
31	DH	132	PHE	2.5
26	BC	4	LYS	2.5
7	AG	30	LEU	2.5
10	CJ	55	PRO	2.5
45	DV	82	TYR	2.5
47	DX	19	HIS	2.5
2	CB	163	VAL	2.5
3	AC	3	GLN	2.5
5	AE	58	ALA	2.4
15	AO	34	ALA	2.4

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Mol	Chain	Res	Type	RSRZ
51	D1	51	ALA	2.4
53	D3	59	ALA	2.4
31	DH	80	ILE	2.4
7	AG	74	GLU	2.4
17	CQ	37	PHE	2.4
31	BH	47	PHE	2.4
35	BL	107	PHE	2.4
43	DT	88	LYS	2.4
22	CV	72	C	2.4
4	CD	38	PRO	2.4
2	CB	22	TYR	2.4
14	CN	84	VAL	2.4
16	CP	62	GLY	2.4
21	CU	53	VAL	2.4
5	CE	58	ALA	2.4
32	BI	82	ALA	2.4
38	BO	82	ALA	2.4
40	BQ	26	ALA	2.4
46	DW	33	ALA	2.4
19	AS	10	PHE	2.4
29	DF	68	LYS	2.4
40	BQ	10	ARG	2.4
49	DZ	48	ASN	2.4
47	BX	64	ASP	2.4
13	CM	112	PRO	2.4
36	DM	94	ALA	2.4
3	AC	37	PHE	2.4
11	CK	69	ARG	2.4
16	AP	25	ARG	2.4
4	AD	144	SER	2.4
6	AF	100	SER	2.4
12	CL	104	CYS	2.4
10	CJ	44	THR	2.4
16	CP	60	TRP	2.4
45	DV	3	THR	2.4
4	CD	103	TYR	2.4
14	AN	14	ALA	2.4
17	CQ	9	GLN	2.4
43	DT	69	ARG	2.4
15	AO	15	PHE	2.4
44	BU	13	LEU	2.4
3	AC	165	THR	2.4

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Mol	Chain	Res	Type	RSRZ
3	CC	174	PRO	2.4
10	CJ	43	PRO	2.4
5	AE	51	GLY	2.4
3	AC	57	ILE	2.4
3	CC	42	TYR	2.4
3	CC	61	ALA	2.4
4	AD	175	ALA	2.4
5	CE	134	ILE	2.4
30	DG	118	ALA	2.4
31	BH	10	ALA	2.4
15	CO	59	MET	2.4
13	AM	63	PHE	2.4
20	AT	51	PHE	2.4
13	CM	89	LEU	2.4
4	CD	202	GLU	2.4
18	CR	20	GLU	2.4
15	CO	2	SER	2.4
32	BI	47	SER	2.4
19	CS	42	PRO	2.4
30	BG	112	VAL	2.4
8	AH	62	THR	2.3
3	AC	10	ILE	2.3
20	CT	75	HIS	2.3
26	BC	197	ALA	2.3
29	DF	110	ILE	2.3
32	DI	100	ILE	2.3
40	DQ	83	LYS	2.3
50	D0	11	LYS	2.3
4	CD	73	ARG	2.3
4	AD	72	PHE	2.3
10	CJ	102	LEU	2.3
21	CU	24	GLU	2.3
26	BC	198	GLU	2.3
11	AK	117	PRO	2.3
26	DC	125	PRO	2.3
20	AT	33	LYS	2.3
2	AB	67	ILE	2.3
14	AN	61	ARG	2.3
27	BD	10	GLY	2.3
16	AP	4	ILE	2.3
20	AT	7	ALA	2.3
20	AT	20	HIS	2.3

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Mol	Chain	Res	Type	RSRZ
30	DG	149	ALA	2.3
36	DM	113	ALA	2.3
44	DU	70	ALA	2.3
24	BA	1176	U	2.3
24	DA	138	U	2.3
9	CI	110	GLN	2.3
5	CE	116	GLU	2.3
1	CA	1190	G	2.3
21	CU	51	SER	2.3
42	DS	66	ILE	2.3
4	CD	162	ALA	2.3
10	CJ	29	ALA	2.3
37	BN	61	ALA	2.3
52	D2	15	SER	2.3
12	CL	77	HIS	2.3
4	CD	32	CYS	2.3
16	AP	17	TYR	2.3
13	AM	80	LEU	2.3
15	CO	32	LEU	2.3
4	AD	182	PHE	2.3
51	B1	19	PHE	2.3
2	AB	210	VAL	2.3
26	BC	206	LYS	2.3
8	AH	125	ILE	2.3
26	BC	28	PRO	2.3
12	CL	17	ALA	2.3
20	CT	45	ALA	2.3
37	DN	66	ALA	2.3
13	CM	63	PHE	2.3
14	AN	73	PHE	2.3
14	CN	73	PHE	2.3
24	BA	1068	G	2.3
6	CF	13	ASP	2.3
26	DC	25	LYS	2.3
32	DI	8	VAL	2.3
9	CI	28	ILE	2.3
2	CB	136	MET	2.3
8	CH	70	ALA	2.3
39	DP	107	ALA	2.3
7	CG	13	LEU	2.3
19	CS	39	THR	2.3
28	BE	147	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
5	CE	22	SER	2.3
44	DU	97	SER	2.3
4	AD	65	TYR	2.3
7	CG	9	GLN	2.3
44	DU	16	LYS	2.3
8	AH	13	ARG	2.3
15	AO	63	ARG	2.3
5	AE	137	VAL	2.3
31	DH	146	VAL	2.3
41	DR	37	GLU	2.2
22	CV	18	G	2.2
17	CQ	33	ILE	2.2
18	CR	21	ILE	2.2
32	DI	48	ILE	2.2
6	CF	12	PRO	2.2
31	DH	34	GLY	2.2
46	DW	49	ALA	2.2
2	AB	157	LEU	2.2
14	CN	46	LEU	2.2
24	DA	2423	U	2.2
29	DF	90	LEU	2.2
43	DT	93	LEU	2.2
2	AB	211	THR	2.2
47	BX	45	PHE	2.2
4	AD	12	SER	2.2
7	CG	83	SER	2.2
20	CT	16	LYS	2.2
7	AG	5	ARG	2.2
12	AL	9	ARG	2.2
33	DJ	96	ARG	2.2
4	AD	201	VAL	2.2
13	CM	105	ASN	2.2
31	BH	19	VAL	2.2
44	BU	8	ASP	2.2
29	DF	103	ILE	2.2
4	AD	93	LEU	2.2
5	CE	110	ALA	2.2
11	CK	19	GLY	2.2
13	CM	51	GLY	2.2
13	CM	99	GLY	2.2
26	BC	232	GLY	2.2
29	DF	167	ALA	2.2

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Mol	Chain	Res	Type	RSRZ
33	DJ	63	ALA	2.2
35	DL	57	LEU	2.2
47	BX	23	ALA	2.2
5	AE	95	PHE	2.2
44	BU	60	LYS	2.2
51	D1	38	PHE	2.2
24	DA	2138	G	2.2
3	CC	193	TYR	2.2
4	AD	75	TYR	2.2
24	DA	2402	U	2.2
38	BO	95	SER	2.2
53	B3	50	SER	2.2
4	AD	129	VAL	2.2
17	AQ	46	VAL	2.2
17	CQ	23	VAL	2.2
31	BH	2	GLN	2.2
9	CI	83	ILE	2.2
2	CB	165	ASP	2.2
9	CI	51	PRO	2.2
26	DC	169	ALA	2.2
33	BJ	63	ALA	2.2
44	BU	28	LEU	2.2
7	CG	131	LYS	2.2
12	CL	120	LYS	2.2
18	AR	24	LYS	2.2
53	D3	18	LYS	2.2
7	CG	62	PHE	2.2
9	CI	119	ARG	2.2
43	BT	60	THR	2.2
51	B1	16	THR	2.2
38	BO	36	TYR	2.2
4	AD	142	VAL	2.2
19	CS	25	SER	2.2
39	DP	82	SER	2.2
1	CA	1441	A	2.2
14	CN	74	LEU	2.2
31	DH	90	LEU	2.2
48	BY	17	GLU	2.2
14	AN	1	ALA	2.2
21	AU	41	PRO	2.2
29	BF	79	ARG	2.2
4	CD	25	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
35	BL	58	TYR	2.2
13	CM	39	ILE	2.2
30	DG	130	ILE	2.2
32	BI	30	GLN	2.2
9	CI	129	LYS	2.2
37	BN	68	ALA	2.2
1	CA	121	U	2.2
3	AC	2	GLY	2.2
32	DI	25	PRO	2.2
51	D1	15	GLY	2.2
26	BC	5	CYS	2.2
1	CA	966	G	2.2
27	DD	125	TRP	2.2
3	CC	153	VAL	2.1
4	CD	118	VAL	2.1
8	AH	34	VAL	2.1
43	BT	47	VAL	2.1
46	DW	80	ILE	2.1
2	CB	161	LEU	2.1
10	AJ	64	GLN	2.1
26	BC	201	LEU	2.1
5	CE	87	GLY	2.1
7	CG	3	ARG	2.1
3	CC	25	ASN	2.1
39	BP	17	PRO	2.1
1	AA	121	U	2.1
19	CS	64	ASP	2.1
7	CG	73	VAL	2.1
15	CO	12	VAL	2.1
31	BH	21	VAL	2.1
7	AG	84	THR	2.1
14	CN	67	THR	2.1
9	CI	79	ILE	2.1
12	CL	38	TYR	2.1
20	AT	5	LYS	2.1
31	BH	148	ALA	2.1
37	DN	91	ALA	2.1
11	CK	49	GLY	2.1
13	AM	74	SER	2.1
19	AS	76	PRO	2.1
26	BC	108	GLY	2.1
37	BN	39	PRO	2.1

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Mol	Chain	Res	Type	RSRZ
2	AB	162	PHE	2.1
32	BI	42	ASN	2.1
48	BY	20	ASN	2.1
4	AD	170	TRP	2.1
1	CA	1286	U	2.1
5	CE	11	LEU	2.1
29	BF	43	ILE	2.1
29	DF	78	ILE	2.1
38	BO	8	ILE	2.1
43	BT	64	LYS	2.1
17	CQ	11	ARG	2.1
26	DC	209	ALA	2.1
28	BE	201	ALA	2.1
38	BO	6	ALA	2.1
42	BS	44	ALA	2.1
44	BU	45	GLN	2.1
44	BU	74	ALA	2.1
49	BZ	1	ALA	2.1
4	AD	186	PRO	2.1
13	CM	96	PRO	2.1
31	DH	120	GLY	2.1
11	CK	26	SER	2.1
30	BG	51	PHE	2.1
10	AJ	74	VAL	2.1
17	CQ	83	VAL	2.1
19	AS	67	VAL	2.1
22	CV	1	G	2.1
9	AI	41	ARG	2.1
9	AI	84	THR	2.1
29	BF	17	THR	2.1
4	AD	178	MET	2.1
29	DF	69	ALA	2.1
30	DG	96	ALA	2.1
33	BJ	33	ALA	2.1
33	DJ	42	ALA	2.1
14	CN	68	GLY	2.1
31	DH	95	GLY	2.1
53	B3	55	GLY	2.1
26	BC	29	PHE	2.1
31	DH	118	PRO	2.1
14	CN	100	SER	2.1
7	CG	89	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
34	BK	122	VAL	2.1
14	CN	43	ASN	2.1
53	B3	22	LYS	2.1
8	CH	32	LEU	2.1
11	CK	34	ILE	2.1
13	AM	95	LEU	2.1
15	CO	66	LEU	2.1
19	CS	15	LEU	2.1
27	DD	128	ARG	2.1
29	BF	78	ILE	2.1
53	D3	3	ILE	2.1
55	CY	37	LEU	2.1
31	BH	124	THR	2.1
46	BW	53	CYS	2.1
16	AP	58	ALA	2.1
16	CP	73	ALA	2.1
29	DF	170	ALA	2.1
32	BI	6	ALA	2.1
3	AC	73	PRO	2.1
31	DH	32	PRO	2.1
48	DY	13	GLU	2.1
47	BX	6	VAL	2.0
2	CB	200	ILE	2.0
3	CC	207	ILE	2.0
13	CM	33	ILE	2.0
13	CM	90	ARG	2.0
19	AS	31	LEU	2.0
28	DE	88	ARG	2.0
39	DP	47	ILE	2.0
2	AB	218	ALA	2.0
4	CD	92	ALA	2.0
5	CE	59	ALA	2.0
15	AO	79	THR	2.0
24	DA	1847	A	2.0
26	BC	167	ASP	2.0
4	CD	69	GLU	2.0
10	CJ	47	GLU	2.0
14	CN	27	LYS	2.0
35	BL	17	LYS	2.0
37	DN	120	GLU	2.0
47	BX	3	VAL	2.0
43	DT	77	ARG	2.0

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Mol	Chain	Res	Type	RSRZ
7	CG	20	SER	2.0
18	AR	21	ILE	2.0
10	CJ	56	HIS	2.0
3	AC	163	ALA	2.0
8	CH	23	ALA	2.0
4	AD	51	TYR	2.0
9	CI	107	ASP	2.0
4	AD	84	GLY	2.0
4	CD	33	LYS	2.0
17	AQ	43	LYS	2.0
17	CQ	30	LYS	2.0
19	AS	42	PRO	2.0
51	D1	52	LYS	2.0
1	CA	968	A	2.0
1	CA	1188	A	2.0
14	CN	25	GLU	2.0
5	AE	20	ARG	2.0
7	CG	79	ARG	2.0
14	AN	8	ARG	2.0
26	DC	176	ARG	2.0
26	DC	227	VAL	2.0
30	DG	169	ARG	2.0
43	BT	73	ARG	2.0
51	D1	41	VAL	2.0
44	BU	11	ILE	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
56	MG	AA	1654	1/1	-0.26	0.23	110,110,110,110	0
56	MG	BA	3159	1/1	-0.19	0.36	109,109,109,109	0
56	MG	DB	204	1/1	-0.07	0.36	109,109,109,109	0
56	MG	CA	1636	1/1	-0.05	0.19	134,134,134,134	0
56	MG	CA	1657	1/1	0.01	0.22	119,119,119,119	0
56	MG	DA	3095	1/1	0.06	0.58	116,116,116,116	0
56	MG	BA	3054	1/1	0.15	0.39	119,119,119,119	0
56	MG	CA	1652	1/1	0.16	0.25	106,106,106,106	0
56	MG	DA	3018	1/1	0.18	0.39	102,102,102,102	0
56	MG	AA	1623	1/1	0.19	0.38	119,119,119,119	0
56	MG	DA	3151	1/1	0.25	0.31	101,101,101,101	0
56	MG	CA	1637	1/1	0.25	0.36	139,139,139,139	0
56	MG	BA	3012	1/1	0.26	0.37	118,118,118,118	0
56	MG	AA	1631	1/1	0.27	0.28	126,126,126,126	0
56	MG	BA	3096	1/1	0.28	0.30	118,118,118,118	0
56	MG	AA	1640	1/1	0.29	0.26	110,110,110,110	0
56	MG	DB	202	1/1	0.30	0.32	122,122,122,122	0
56	MG	BA	3059	1/1	0.31	0.60	122,122,122,122	0
56	MG	AA	1633	1/1	0.33	0.23	128,128,128,128	0
56	MG	DA	3076	1/1	0.33	0.18	100,100,100,100	0
56	MG	BA	3026	1/1	0.33	0.28	134,134,134,134	0
56	MG	CA	1660	1/1	0.35	0.18	104,104,104,104	0
56	MG	BA	3007	1/1	0.36	0.29	127,127,127,127	0
56	MG	AA	1648	1/1	0.36	0.15	116,116,116,116	0
56	MG	AA	1646	1/1	0.37	0.23	95,95,95,95	0
56	MG	DA	3081	1/1	0.37	0.40	110,110,110,110	0
56	MG	BA	3168	1/1	0.37	0.34	114,114,114,114	0
56	MG	BA	3027	1/1	0.38	0.44	108,108,108,108	0
56	MG	DA	3087	1/1	0.38	0.21	113,113,113,113	0
56	MG	BA	3142	1/1	0.40	0.25	103,103,103,103	0
56	MG	BA	3022	1/1	0.40	0.26	110,110,110,110	0
56	MG	CA	1601	1/1	0.41	0.17	140,140,140,140	0
56	MG	CA	1632	1/1	0.42	0.38	128,128,128,128	0
56	MG	DA	3134	1/1	0.44	0.25	77,77,77,77	0
56	MG	DA	3129	1/1	0.45	0.47	124,124,124,124	0
56	MG	CA	1656	1/1	0.45	0.25	106,106,106,106	0
56	MG	AN	201	1/1	0.45	0.27	133,133,133,133	0
56	MG	CA	1629	1/1	0.45	0.42	123,123,123,123	0
56	MG	AA	1639	1/1	0.45	0.40	113,113,113,113	0
56	MG	CA	1647	1/1	0.46	0.12	112,112,112,112	0
56	MG	AA	1653	1/1	0.46	0.17	106,106,106,106	0
56	MG	DA	3068	1/1	0.46	0.30	117,117,117,117	0
56	MG	BA	3066	1/1	0.47	0.21	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3161	1/1	0.47	0.18	103,103,103,103	0
56	MG	DO	201	1/1	0.47	0.39	109,109,109,109	0
56	MG	CX	101	1/1	0.48	0.14	112,112,112,112	0
56	MG	BA	3152	1/1	0.48	0.41	115,115,115,115	0
56	MG	AA	1625	1/1	0.49	0.29	117,117,117,117	0
56	MG	BA	3125	1/1	0.49	0.26	100,100,100,100	0
56	MG	DA	3179	1/1	0.50	0.26	113,113,113,113	0
56	MG	BB	202	1/1	0.51	0.33	123,123,123,123	0
56	MG	DA	3055	1/1	0.51	0.23	94,94,94,94	0
56	MG	CA	1653	1/1	0.51	0.14	99,99,99,99	0
56	MG	AA	1608	1/1	0.52	0.26	114,114,114,114	0
56	MG	BA	3018	1/1	0.52	0.32	118,118,118,118	0
56	MG	CA	1631	1/1	0.52	0.23	120,120,120,120	0
56	MG	AA	1617	1/1	0.52	0.19	112,112,112,112	0
56	MG	CA	1607	1/1	0.53	0.29	110,110,110,110	0
56	MG	AD	301	1/1	0.53	0.28	119,119,119,119	0
56	MG	DA	3174	1/1	0.54	0.18	105,105,105,105	0
56	MG	DA	3013	1/1	0.54	0.35	107,107,107,107	0
56	MG	DA	3192	1/1	0.54	0.26	95,95,95,95	0
56	MG	CA	1665	1/1	0.54	0.11	112,112,112,112	0
56	MG	BA	3110	1/1	0.54	0.23	110,110,110,110	0
56	MG	DA	3162	1/1	0.54	0.25	95,95,95,95	0
56	MG	AA	1641	1/1	0.55	0.21	105,105,105,105	0
56	MG	DA	3057	1/1	0.55	0.41	114,114,114,114	0
56	MG	AA	1650	1/1	0.55	0.19	118,118,118,118	0
56	MG	BA	3081	1/1	0.56	0.21	109,109,109,109	0
56	MG	DA	3079	1/1	0.56	0.30	99,99,99,99	0
56	MG	BA	3087	1/1	0.56	0.28	112,112,112,112	0
56	MG	BA	3030	1/1	0.56	0.20	94,94,94,94	0
56	MG	DA	3131	1/1	0.57	0.35	118,118,118,118	0
56	MG	BA	3090	1/1	0.57	0.34	130,130,130,130	0
56	MG	BC	301	1/1	0.57	0.32	122,122,122,122	0
56	MG	DA	3152	1/1	0.57	0.22	105,105,105,105	0
56	MG	BA	3160	1/1	0.58	0.23	102,102,102,102	0
56	MG	CA	1659	1/1	0.58	0.20	110,110,110,110	0
56	MG	BA	3157	1/1	0.58	0.44	97,97,97,97	0
56	MG	DA	3042	1/1	0.58	0.27	105,105,105,105	0
56	MG	BA	3141	1/1	0.58	0.13	114,114,114,114	0
56	MG	DA	3025	1/1	0.59	0.30	118,118,118,118	0
56	MG	AA	1627	1/1	0.59	0.25	121,121,121,121	0
56	MG	BA	3058	1/1	0.59	0.28	108,108,108,108	0
56	MG	BA	3107	1/1	0.59	0.21	106,106,106,106	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3065	1/1	0.59	0.19	81,81,81,81	0
56	MG	BA	3053	1/1	0.59	0.25	98,98,98,98	0
56	MG	CA	1638	1/1	0.60	0.31	113,113,113,113	0
56	MG	AA	1628	1/1	0.60	0.22	116,116,116,116	0
56	MG	BA	3148	1/1	0.60	0.23	101,101,101,101	0
56	MG	DA	3150	1/1	0.61	0.42	78,78,78,78	0
56	MG	BA	3019	1/1	0.61	0.18	101,101,101,101	0
56	MG	BA	3144	1/1	0.61	0.31	87,87,87,87	0
56	MG	DA	3194	1/1	0.61	0.29	90,90,90,90	0
56	MG	AA	1614	1/1	0.61	0.32	123,123,123,123	0
56	MG	CA	1633	1/1	0.61	0.34	116,116,116,116	0
56	MG	DA	3172	1/1	0.61	0.21	109,109,109,109	0
56	MG	DA	3100	1/1	0.62	0.20	96,96,96,96	0
56	MG	CA	1602	1/1	0.62	0.18	105,105,105,105	0
56	MG	DA	3083	1/1	0.62	0.21	82,82,82,82	0
56	MG	CA	1644	1/1	0.62	0.31	118,118,118,118	0
56	MG	DA	3146	1/1	0.62	0.29	76,76,76,76	0
56	MG	CA	1609	1/1	0.62	0.28	117,117,117,117	0
56	MG	AA	1626	1/1	0.63	0.22	111,111,111,111	0
56	MG	BA	3077	1/1	0.63	0.22	121,121,121,121	0
56	MG	BA	3014	1/1	0.63	0.31	106,106,106,106	0
56	MG	BA	3099	1/1	0.63	0.22	112,112,112,112	0
56	MG	BA	3102	1/1	0.63	0.22	119,119,119,119	0
56	MG	CA	1643	1/1	0.63	0.22	103,103,103,103	0
56	MG	BA	3013	1/1	0.64	0.26	114,114,114,114	0
56	MG	CA	1603	1/1	0.64	0.16	120,120,120,120	0
56	MG	BA	3032	1/1	0.64	0.32	110,110,110,110	0
56	MG	DA	3015	1/1	0.64	0.35	124,124,124,124	0
56	MG	BA	3044	1/1	0.64	0.28	114,114,114,114	0
56	MG	BA	3131	1/1	0.65	0.29	114,114,114,114	0
56	MG	CA	1649	1/1	0.65	0.11	107,107,107,107	0
56	MG	DA	3102	1/1	0.65	0.25	94,94,94,94	0
56	MG	AA	1629	1/1	0.65	0.27	118,118,118,118	0
56	MG	CA	1608	1/1	0.66	0.21	115,115,115,115	0
56	MG	DA	3077	1/1	0.66	0.22	98,98,98,98	0
56	MG	BA	3092	1/1	0.66	0.16	119,119,119,119	0
56	MG	DA	3176	1/1	0.66	0.36	78,78,78,78	0
56	MG	DA	3105	1/1	0.66	0.20	90,90,90,90	0
56	MG	DA	3052	1/1	0.67	0.25	95,95,95,95	0
56	MG	DA	3028	1/1	0.67	0.20	85,85,85,85	0
56	MG	DA	3023	1/1	0.67	0.26	120,120,120,120	0
56	MG	DA	3026	1/1	0.68	0.34	98,98,98,98	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	CA	1634	1/1	0.68	0.18	120,120,120,120	0
56	MG	CA	1617	1/1	0.68	0.20	115,115,115,115	0
56	MG	DA	3097	1/1	0.68	0.28	105,105,105,105	0
56	MG	CA	1628	1/1	0.68	0.18	116,116,116,116	0
56	MG	BA	3071	1/1	0.69	0.17	104,104,104,104	0
56	MG	DA	3011	1/1	0.69	0.23	103,103,103,103	0
56	MG	BA	3136	1/1	0.69	0.37	94,94,94,94	0
56	MG	BA	3123	1/1	0.69	0.20	88,88,88,88	0
56	MG	AA	1630	1/1	0.69	0.20	105,105,105,105	0
56	MG	DA	3137	1/1	0.69	0.27	93,93,93,93	0
56	MG	CA	1627	1/1	0.69	0.21	111,111,111,111	0
56	MG	CA	1670	1/1	0.70	0.35	102,102,102,102	0
56	MG	BA	3062	1/1	0.70	0.23	91,91,91,91	0
56	MG	CA	1651	1/1	0.70	0.28	103,103,103,103	0
56	MG	CA	1623	1/1	0.70	0.33	117,117,117,117	0
56	MG	CA	1624	1/1	0.70	0.15	106,106,106,106	0
56	MG	DA	3108	1/1	0.70	0.17	100,100,100,100	0
56	MG	BA	3009	1/1	0.70	0.15	95,95,95,95	0
56	MG	BA	3070	1/1	0.70	0.19	90,90,90,90	0
56	MG	AA	1610	1/1	0.70	0.19	120,120,120,120	0
56	MG	BA	3130	1/1	0.70	0.23	103,103,103,103	0
56	MG	DA	3142	1/1	0.70	0.20	86,86,86,86	0
56	MG	BA	3105	1/1	0.70	0.18	91,91,91,91	0
56	MG	CA	1667	1/1	0.70	0.21	111,111,111,111	0
56	MG	BA	3122	1/1	0.71	0.26	112,112,112,112	0
56	MG	BA	3075	1/1	0.71	0.18	104,104,104,104	0
56	MG	BA	3037	1/1	0.71	0.46	97,97,97,97	0
56	MG	DA	3183	1/1	0.71	0.26	87,87,87,87	0
56	MG	BA	3015	1/1	0.71	0.17	115,115,115,115	0
56	MG	AA	1634	1/1	0.71	0.28	120,120,120,120	0
56	MG	AA	1649	1/1	0.71	0.32	90,90,90,90	0
56	MG	AA	1636	1/1	0.71	0.16	103,103,103,103	0
56	MG	CA	1668	1/1	0.71	0.14	107,107,107,107	0
56	MG	DA	3111	1/1	0.72	0.14	102,102,102,102	0
56	MG	BA	3078	1/1	0.72	0.15	119,119,119,119	0
56	MG	DA	3169	1/1	0.72	0.22	94,94,94,94	0
56	MG	DA	3084	1/1	0.72	0.17	104,104,104,104	0
56	MG	DA	3061	1/1	0.72	0.35	106,106,106,106	0
56	MG	BA	3079	1/1	0.72	0.25	103,103,103,103	0
56	MG	BA	3023	1/1	0.72	0.22	108,108,108,108	0
56	MG	BA	3069	1/1	0.72	0.17	129,129,129,129	0
56	MG	DA	3149	1/1	0.72	0.25	107,107,107,107	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3044	1/1	0.72	0.24	105,105,105,105	0
56	MG	AA	1622	1/1	0.72	0.19	107,107,107,107	0
56	MG	BA	3126	1/1	0.72	0.15	110,110,110,110	0
56	MG	DA	3155	1/1	0.72	0.34	115,115,115,115	0
56	MG	CA	1645	1/1	0.73	0.23	96,96,96,96	0
56	MG	DA	3115	1/1	0.73	0.15	95,95,95,95	0
56	MG	AA	1602	1/1	0.73	0.16	106,106,106,106	0
56	MG	BA	3033	1/1	0.73	0.26	98,98,98,98	0
56	MG	AA	1616	1/1	0.73	0.26	113,113,113,113	0
56	MG	BA	3040	1/1	0.73	0.15	112,112,112,112	0
56	MG	BA	3025	1/1	0.73	0.24	103,103,103,103	0
56	MG	DA	3182	1/1	0.73	0.37	96,96,96,96	0
56	MG	CA	1655	1/1	0.73	0.20	117,117,117,117	0
56	MG	BA	3124	1/1	0.73	0.11	114,114,114,114	0
56	MG	BA	3065	1/1	0.73	0.19	101,101,101,101	0
56	MG	BA	3050	1/1	0.73	0.28	101,101,101,101	0
56	MG	DA	3072	1/1	0.73	0.23	93,93,93,93	0
56	MG	BA	3155	1/1	0.73	0.48	114,114,114,114	0
56	MG	DA	3113	1/1	0.74	0.18	106,106,106,106	0
56	MG	CA	1626	1/1	0.74	0.18	99,99,99,99	0
56	MG	AA	1638	1/1	0.74	0.28	104,104,104,104	0
56	MG	BA	3156	1/1	0.75	0.17	106,106,106,106	0
56	MG	BA	3083	1/1	0.75	0.17	110,110,110,110	0
56	MG	CA	1650	1/1	0.75	0.32	102,102,102,102	0
56	MG	BA	3021	1/1	0.75	0.12	108,108,108,108	0
56	MG	DA	3139	1/1	0.75	0.26	77,77,77,77	0
56	MG	DA	3039	1/1	0.75	0.17	117,117,117,117	0
56	MG	DA	3103	1/1	0.75	0.19	81,81,81,81	0
56	MG	DA	3004	1/1	0.75	0.16	99,99,99,99	0
56	MG	BA	3153	1/1	0.75	0.25	112,112,112,112	0
56	MG	DA	3109	1/1	0.75	0.16	102,102,102,102	0
56	MG	DB	201	1/1	0.75	0.13	113,113,113,113	0
56	MG	CA	1661	1/1	0.75	0.26	101,101,101,101	0
56	MG	CA	1664	1/1	0.75	0.14	112,112,112,112	0
56	MG	BA	3138	1/1	0.75	0.25	88,88,88,88	0
56	MG	DA	3092	1/1	0.76	0.16	95,95,95,95	0
56	MG	DA	3164	1/1	0.76	0.33	94,94,94,94	0
56	MG	AA	1652	1/1	0.76	0.21	101,101,101,101	0
56	MG	DA	3003	1/1	0.76	0.13	105,105,105,105	0
56	MG	DA	3098	1/1	0.76	0.14	99,99,99,99	0
56	MG	BA	3011	1/1	0.76	0.20	81,81,81,81	0
56	MG	DA	3177	1/1	0.76	0.40	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3118	1/1	0.76	0.23	109,109,109,109	0
56	MG	AA	1642	1/1	0.76	0.20	94,94,94,94	0
56	MG	CA	1654	1/1	0.76	0.17	116,116,116,116	0
56	MG	BA	3143	1/1	0.76	0.15	103,103,103,103	0
56	MG	BA	3082	1/1	0.76	0.25	126,126,126,126	0
56	MG	DA	3059	1/1	0.76	0.19	92,92,92,92	0
56	MG	BA	3135	1/1	0.76	0.44	74,74,74,74	0
56	MG	DA	3157	1/1	0.76	0.22	96,96,96,96	0
56	MG	DA	3090	1/1	0.76	0.19	107,107,107,107	0
56	MG	DA	3040	1/1	0.77	0.13	91,91,91,91	0
56	MG	DA	3156	1/1	0.77	0.32	101,101,101,101	0
56	MG	CA	1663	1/1	0.77	0.31	82,82,82,82	0
56	MG	DA	3022	1/1	0.77	0.19	81,81,81,81	0
56	MG	BA	3095	1/1	0.77	0.16	107,107,107,107	0
56	MG	BA	3145	1/1	0.77	0.22	99,99,99,99	0
56	MG	CA	1625	1/1	0.77	0.15	107,107,107,107	0
56	MG	BA	3047	1/1	0.77	0.17	103,103,103,103	0
56	MG	DA	3082	1/1	0.77	0.16	92,92,92,92	0
56	MG	AA	1645	1/1	0.77	0.12	93,93,93,93	0
57	NMY	BA	3164	42/42	0.77	0.15	90,100,104,105	42
56	MG	DA	3060	1/1	0.78	0.22	89,89,89,89	0
56	MG	DA	3123	1/1	0.78	0.13	102,102,102,102	0
56	MG	BA	3072	1/1	0.78	0.17	103,103,103,103	0
56	MG	DA	3180	1/1	0.78	0.19	93,93,93,93	0
56	MG	DA	3101	1/1	0.78	0.20	86,86,86,86	0
56	MG	DA	3064	1/1	0.78	0.17	95,95,95,95	0
56	MG	BA	3151	1/1	0.78	0.33	92,92,92,92	0
56	MG	CA	1646	1/1	0.78	0.32	95,95,95,95	0
56	MG	BA	3158	1/1	0.78	0.14	106,106,106,106	0
56	MG	BA	3097	1/1	0.78	0.39	111,111,111,111	0
56	MG	DA	3171	1/1	0.78	0.27	108,108,108,108	0
56	MG	DL	201	1/1	0.78	0.64	110,110,110,110	0
56	MG	AA	1621	1/1	0.78	0.19	116,116,116,116	0
56	MG	BA	3100	1/1	0.78	0.20	107,107,107,107	0
57	NMY	DA	3187	42/42	0.78	0.11	106,109,112,114	42
56	MG	BA	3149	1/1	0.79	0.31	85,85,85,85	0
56	MG	DA	3085	1/1	0.79	0.27	108,108,108,108	0
56	MG	BA	3061	1/1	0.79	0.14	85,85,85,85	0
56	MG	DA	3053	1/1	0.79	0.14	93,93,93,93	0
56	MG	DA	3075	1/1	0.79	0.18	106,106,106,106	0
56	MG	BA	3120	1/1	0.79	0.27	94,94,94,94	0
56	MG	AA	1601	1/1	0.79	0.20	132,132,132,132	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3060	1/1	0.79	0.21	106,106,106,106	0
56	MG	BA	3085	1/1	0.79	0.11	95,95,95,95	0
56	MG	BA	3147	1/1	0.79	0.36	95,95,95,95	0
57	NMY	BA	3167	42/42	0.79	0.15	117,120,124,125	42
56	MG	BA	3115	1/1	0.79	0.16	105,105,105,105	0
56	MG	BA	3108	1/1	0.80	0.14	99,99,99,99	0
56	MG	DA	3071	1/1	0.80	0.14	97,97,97,97	0
56	MG	DA	3145	1/1	0.80	0.31	91,91,91,91	0
56	MG	CA	1648	1/1	0.80	0.25	103,103,103,103	0
56	MG	DA	3170	1/1	0.80	0.21	94,94,94,94	0
56	MG	BA	3074	1/1	0.80	0.15	115,115,115,115	0
56	MG	DB	203	1/1	0.80	0.16	100,100,100,100	0
56	MG	BA	3088	1/1	0.80	0.15	101,101,101,101	0
56	MG	DA	3125	1/1	0.80	0.15	113,113,113,113	0
56	MG	AA	1651	1/1	0.80	0.06	119,119,119,119	0
56	MG	DA	3006	1/1	0.80	0.12	92,92,92,92	0
56	MG	DA	3107	1/1	0.80	0.25	98,98,98,98	0
56	MG	AA	1603	1/1	0.80	0.13	117,117,117,117	0
56	MG	DA	3094	1/1	0.81	0.17	87,87,87,87	0
56	MG	DA	3120	1/1	0.81	0.19	98,98,98,98	0
56	MG	BA	3104	1/1	0.81	0.31	106,106,106,106	0
56	MG	BA	3119	1/1	0.81	0.10	106,106,106,106	0
56	MG	DA	3021	1/1	0.81	0.24	108,108,108,108	0
56	MG	AA	1615	1/1	0.81	0.10	112,112,112,112	0
56	MG	BA	3051	1/1	0.81	0.14	106,106,106,106	0
56	MG	BA	3154	1/1	0.81	0.31	97,97,97,97	0
57	NMY	DA	3184	42/42	0.81	0.15	57,71,80,89	42
56	MG	DA	3138	1/1	0.81	0.37	81,81,81,81	0
58	ZN	D4	101	1/1	0.81	0.49	162,162,162,162	0
56	MG	BA	3003	1/1	0.82	0.14	115,115,115,115	0
56	MG	DA	3035	1/1	0.82	0.15	94,94,94,94	0
56	MG	BA	3098	1/1	0.82	0.17	100,100,100,100	0
56	MG	CA	1606	1/1	0.82	0.11	99,99,99,99	0
56	MG	DA	3009	1/1	0.82	0.21	102,102,102,102	0
56	MG	DA	3159	1/1	0.82	0.24	90,90,90,90	0
56	MG	AA	1647	1/1	0.82	0.16	109,109,109,109	0
56	MG	DA	3045	1/1	0.82	0.11	95,95,95,95	0
56	MG	BA	3127	1/1	0.82	0.18	95,95,95,95	0
56	MG	DA	3165	1/1	0.82	0.22	78,78,78,78	0
56	MG	BA	3129	1/1	0.82	0.28	107,107,107,107	0
56	MG	CA	1615	1/1	0.82	0.13	112,112,112,112	0
56	MG	BA	3170	1/1	0.82	0.49	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	NMY	BA	3165	42/42	0.82	0.18	79,84,87,90	42
56	MG	CA	1618	1/1	0.82	0.15	83,83,83,83	0
56	MG	BA	3063	1/1	0.82	0.20	106,106,106,106	0
56	MG	AA	1643	1/1	0.82	0.11	110,110,110,110	0
56	MG	BA	3114	1/1	0.82	0.18	120,120,120,120	0
56	MG	BA	3137	1/1	0.83	0.23	82,82,82,82	0
56	MG	DA	3147	1/1	0.83	0.42	107,107,107,107	0
56	MG	BA	3121	1/1	0.83	0.23	110,110,110,110	0
56	MG	BA	3056	1/1	0.83	0.12	99,99,99,99	0
56	MG	DA	3073	1/1	0.83	0.18	99,99,99,99	0
56	MG	DA	3181	1/1	0.83	0.44	77,77,77,77	0
56	MG	BA	3116	1/1	0.83	0.13	99,99,99,99	0
56	MG	CA	1666	1/1	0.83	0.18	112,112,112,112	0
56	MG	DA	3127	1/1	0.83	0.12	77,77,77,77	0
56	MG	DA	3193	1/1	0.83	0.33	95,95,95,95	0
56	MG	AA	1644	1/1	0.83	0.18	106,106,106,106	0
56	MG	BA	3133	1/1	0.83	0.15	106,106,106,106	0
56	MG	BB	201	1/1	0.83	0.11	137,137,137,137	0
56	MG	DA	3135	1/1	0.83	0.18	71,71,71,71	0
56	MG	DA	3136	1/1	0.83	0.28	74,74,74,74	0
56	MG	CA	1613	1/1	0.83	0.10	103,103,103,103	0
56	MG	DA	3167	1/1	0.83	0.22	84,84,84,84	0
57	NMY	AA	1656	42/42	0.83	0.16	94,99,103,104	42
57	NMY	BA	3162	42/42	0.83	0.15	65,79,86,93	42
56	MG	DA	3168	1/1	0.83	0.15	89,89,89,89	0
56	MG	CA	1630	1/1	0.83	0.11	118,118,118,118	0
56	MG	BA	3055	1/1	0.83	0.13	101,101,101,101	0
56	MG	BA	3076	1/1	0.83	0.17	120,120,120,120	0
56	MG	DA	3008	1/1	0.83	0.15	88,88,88,88	0
56	MG	DA	3173	1/1	0.83	0.17	90,90,90,90	0
56	MG	DA	3163	1/1	0.84	0.18	99,99,99,99	0
56	MG	DA	3048	1/1	0.84	0.14	96,96,96,96	0
56	MG	DA	3118	1/1	0.84	0.16	88,88,88,88	0
56	MG	DA	3119	1/1	0.84	0.14	82,82,82,82	0
56	MG	CA	1641	1/1	0.84	0.13	85,85,85,85	0
56	MG	DA	3121	1/1	0.84	0.18	86,86,86,86	0
56	MG	BA	3052	1/1	0.84	0.15	97,97,97,97	0
56	MG	DA	3020	1/1	0.84	0.16	93,93,93,93	0
56	MG	DA	3012	1/1	0.84	0.17	83,83,83,83	0
56	MG	DA	3069	1/1	0.84	0.16	81,81,81,81	0
56	MG	CA	1658	1/1	0.84	0.10	115,115,115,115	0
57	NMY	DA	3190	42/42	0.84	0.25	57,66,70,74	42

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3175	1/1	0.84	0.31	75,75,75,75	0
56	MG	DA	3031	1/1	0.85	0.13	108,108,108,108	0
56	MG	BA	3112	1/1	0.85	0.19	101,101,101,101	0
56	MG	DA	3122	1/1	0.85	0.12	97,97,97,97	0
56	MG	CA	1671	1/1	0.85	0.23	96,96,96,96	0
56	MG	BA	3005	1/1	0.85	0.14	106,106,106,106	0
56	MG	DA	3104	1/1	0.85	0.13	81,81,81,81	0
56	MG	BA	3057	1/1	0.85	0.12	98,98,98,98	0
56	MG	CA	1621	1/1	0.85	0.14	111,111,111,111	0
56	MG	BA	3045	1/1	0.85	0.15	118,118,118,118	0
57	NMY	BA	3161	42/42	0.85	0.17	61,70,77,82	42
56	MG	BA	3139	1/1	0.85	0.32	83,83,83,83	0
57	NMY	BA	3163	42/42	0.85	0.19	89,98,100,101	42
56	MG	DA	3051	1/1	0.85	0.16	86,86,86,86	0
56	MG	BA	3109	1/1	0.85	0.21	106,106,106,106	0
56	MG	BA	3043	1/1	0.85	0.10	108,108,108,108	0
56	MG	BQ	201	1/1	0.85	0.30	93,93,93,93	0
56	MG	DA	3141	1/1	0.85	0.45	73,73,73,73	0
56	MG	DA	3029	1/1	0.85	0.21	84,84,84,84	0
56	MG	DA	3166	1/1	0.85	0.34	87,87,87,87	0
56	MG	BA	3001	1/1	0.86	0.13	99,99,99,99	0
56	MG	DA	3016	1/1	0.86	0.13	103,103,103,103	0
56	MG	DA	3160	1/1	0.86	0.33	92,92,92,92	0
56	MG	CA	1635	1/1	0.86	0.13	113,113,113,113	0
57	NMY	BA	3166	42/42	0.86	0.16	68,77,83,90	42
56	MG	DA	3066	1/1	0.86	0.11	90,90,90,90	0
56	MG	CA	1612	1/1	0.86	0.19	116,116,116,116	0
56	MG	CA	1669	1/1	0.86	0.29	107,107,107,107	0
56	MG	BA	3086	1/1	0.86	0.08	109,109,109,109	0
58	ZN	B4	101	1/1	0.86	0.18	186,186,186,186	0
56	MG	DA	3034	1/1	0.86	0.13	84,84,84,84	0
56	MG	DA	3093	1/1	0.87	0.22	105,105,105,105	0
56	MG	BA	3101	1/1	0.87	0.24	102,102,102,102	0
56	MG	AA	1624	1/1	0.87	0.17	110,110,110,110	0
56	MG	DA	3014	1/1	0.87	0.14	90,90,90,90	0
56	MG	DA	3056	1/1	0.87	0.11	86,86,86,86	0
56	MG	BA	3103	1/1	0.87	0.43	105,105,105,105	0
57	NMY	AA	1655	42/42	0.87	0.10	61,73,90,121	0
56	MG	BA	3089	1/1	0.87	0.10	109,109,109,109	0
56	MG	DA	3153	1/1	0.87	0.12	95,95,95,95	0
56	MG	BA	3008	1/1	0.87	0.22	107,107,107,107	0
56	MG	BA	3106	1/1	0.87	0.17	100,100,100,100	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3062	1/1	0.87	0.13	76,76,76,76	0
56	MG	BA	3146	1/1	0.87	0.23	98,98,98,98	0
56	MG	DA	3106	1/1	0.87	0.19	100,100,100,100	0
56	MG	BA	3038	1/1	0.87	0.15	104,104,104,104	0
56	MG	CA	1614	1/1	0.87	0.10	120,120,120,120	0
56	MG	DA	3067	1/1	0.87	0.19	120,120,120,120	0
57	NMY	DA	3189	42/42	0.87	0.14	55,63,70,72	42
56	MG	DA	3088	1/1	0.87	0.11	115,115,115,115	0
56	MG	AA	1637	1/1	0.87	0.18	103,103,103,103	0
56	MG	CA	1616	1/1	0.87	0.10	98,98,98,98	0
56	MG	BA	3017	1/1	0.88	0.10	107,107,107,107	0
56	MG	CA	1620	1/1	0.88	0.17	118,118,118,118	0
56	MG	DA	3154	1/1	0.88	0.38	86,86,86,86	0
56	MG	DA	3024	1/1	0.88	0.13	73,73,73,73	0
56	MG	DA	3140	1/1	0.88	0.17	98,98,98,98	0
56	MG	AA	1632	1/1	0.88	0.15	114,114,114,114	0
56	MG	BA	3113	1/1	0.88	0.15	121,121,121,121	0
56	MG	BA	3031	1/1	0.88	0.11	87,87,87,87	0
56	MG	BA	3134	1/1	0.88	0.20	109,109,109,109	0
57	NMY	DA	3185	42/42	0.88	0.12	46,58,63,67	42
56	MG	DA	3116	1/1	0.88	0.13	107,107,107,107	0
56	MG	DA	3117	1/1	0.88	0.12	93,93,93,93	0
56	MG	BA	3169	1/1	0.88	0.13	101,101,101,101	0
56	MG	DA	3178	1/1	0.88	0.18	88,88,88,88	0
56	MG	DA	3070	1/1	0.88	0.11	56,56,56,56	0
56	MG	DA	3046	1/1	0.89	0.09	86,86,86,86	0
56	MG	BA	3029	1/1	0.89	0.10	99,99,99,99	0
56	MG	DA	3049	1/1	0.89	0.18	97,97,97,97	0
56	MG	CA	1622	1/1	0.89	0.18	108,108,108,108	0
56	MG	BA	3140	1/1	0.89	0.13	101,101,101,101	0
56	MG	DA	3017	1/1	0.89	0.12	76,76,76,76	0
56	MG	DA	3007	1/1	0.89	0.09	103,103,103,103	0
56	MG	BA	3006	1/1	0.89	0.09	101,101,101,101	0
56	MG	DA	3036	1/1	0.89	0.24	90,90,90,90	0
56	MG	BA	3041	1/1	0.89	0.12	96,96,96,96	0
56	MG	DA	3112	1/1	0.89	0.18	108,108,108,108	0
57	NMY	DA	3186	42/42	0.89	0.12	53,58,64,71	42
56	MG	DA	3010	1/1	0.89	0.18	106,106,106,106	0
56	MG	DA	3096	1/1	0.89	0.11	75,75,75,75	0
56	MG	BA	3049	1/1	0.89	0.14	88,88,88,88	0
56	MG	CA	1611	1/1	0.89	0.10	110,110,110,110	0
56	MG	BA	3020	1/1	0.89	0.15	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AA	1618	1/1	0.90	0.14	96,96,96,96	0
56	MG	BA	3132	1/1	0.90	0.10	96,96,96,96	0
56	MG	DA	3050	1/1	0.90	0.14	86,86,86,86	0
56	MG	AA	1619	1/1	0.90	0.10	95,95,95,95	0
56	MG	DA	3041	1/1	0.90	0.10	81,81,81,81	0
56	MG	AA	1604	1/1	0.90	0.07	102,102,102,102	0
56	MG	BB	203	1/1	0.90	0.07	107,107,107,107	0
56	MG	CA	1640	1/1	0.90	0.24	114,114,114,114	0
56	MG	DA	3158	1/1	0.90	0.22	91,91,91,91	0
56	MG	BA	3039	1/1	0.90	0.08	96,96,96,96	0
56	MG	DA	3043	1/1	0.91	0.09	90,90,90,90	0
56	MG	BA	3064	1/1	0.91	0.12	96,96,96,96	0
56	MG	BA	3004	1/1	0.91	0.13	120,120,120,120	0
56	MG	CA	1610	1/1	0.91	0.17	102,102,102,102	0
56	MG	AA	1606	1/1	0.91	0.19	111,111,111,111	0
56	MG	BA	3067	1/1	0.91	0.09	89,89,89,89	0
56	MG	DA	3032	1/1	0.91	0.23	97,97,97,97	0
56	MG	AA	1609	1/1	0.91	0.17	111,111,111,111	0
56	MG	DA	3143	1/1	0.91	0.59	79,79,79,79	0
56	MG	BA	3117	1/1	0.91	0.10	89,89,89,89	0
56	MG	BA	3091	1/1	0.91	0.19	115,115,115,115	0
57	NMY	CA	1672	42/42	0.91	0.15	54,65,74,77	42
56	MG	DA	3124	1/1	0.91	0.09	78,78,78,78	0
56	MG	CA	1639	1/1	0.91	0.10	94,94,94,94	0
56	MG	BA	3024	1/1	0.91	0.25	114,114,114,114	0
56	MG	BA	3093	1/1	0.91	0.26	109,109,109,109	0
57	NMY	DA	3188	42/42	0.91	0.11	45,60,66,70	42
56	MG	DA	3074	1/1	0.91	0.10	95,95,95,95	0
56	MG	DA	3132	1/1	0.91	0.10	96,96,96,96	0
56	MG	BA	3111	1/1	0.91	0.10	98,98,98,98	0
56	MG	DE	301	1/1	0.91	0.08	100,100,100,100	0
56	MG	BA	3034	1/1	0.92	0.09	88,88,88,88	0
56	MG	DA	3038	1/1	0.92	0.13	81,81,81,81	0
57	NMY	AA	1657	42/42	0.92	0.34	81,84,88,90	42
56	MG	DA	3078	1/1	0.92	0.09	84,84,84,84	0
56	MG	BA	3128	1/1	0.92	0.08	94,94,94,94	0
56	MG	BA	3073	1/1	0.92	0.10	101,101,101,101	0
56	MG	DA	3144	1/1	0.92	0.11	108,108,108,108	0
56	MG	DA	3110	1/1	0.92	0.15	93,93,93,93	0
56	MG	DA	3030	1/1	0.92	0.10	76,76,76,76	0
56	MG	DA	3128	1/1	0.92	0.15	92,92,92,92	0
56	MG	AA	1605	1/1	0.93	0.14	121,121,121,121	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3047	1/1	0.93	0.09	76,76,76,76	0
56	MG	AA	1612	1/1	0.93	0.10	107,107,107,107	0
56	MG	BA	3035	1/1	0.93	0.11	94,94,94,94	0
56	MG	DA	3130	1/1	0.93	0.15	96,96,96,96	0
56	MG	DA	3191	1/1	0.93	0.09	80,80,80,80	0
56	MG	DA	3037	1/1	0.93	0.10	72,72,72,72	0
56	MG	DA	3114	1/1	0.93	0.08	77,77,77,77	0
56	MG	DA	3099	1/1	0.93	0.08	90,90,90,90	0
56	MG	BA	3016	1/1	0.93	0.09	83,83,83,83	0
56	MG	DA	3005	1/1	0.93	0.07	88,88,88,88	0
56	MG	CA	1619	1/1	0.93	0.08	93,93,93,93	0
56	MG	DA	3054	1/1	0.93	0.14	93,93,93,93	0
56	MG	BA	3068	1/1	0.93	0.11	126,126,126,126	0
56	MG	BA	3150	1/1	0.93	0.22	95,95,95,95	0
56	MG	CA	1605	1/1	0.93	0.09	97,97,97,97	0
56	MG	BA	3048	1/1	0.93	0.06	93,93,93,93	0
56	MG	DA	3033	1/1	0.93	0.08	91,91,91,91	0
56	MG	BA	3010	1/1	0.94	0.08	85,85,85,85	0
56	MG	DA	3019	1/1	0.94	0.13	78,78,78,78	0
56	MG	BA	3036	1/1	0.94	0.07	95,95,95,95	0
56	MG	DA	3148	1/1	0.94	0.14	60,60,60,60	0
56	MG	CA	1662	1/1	0.94	0.11	114,114,114,114	0
56	MG	DA	3058	1/1	0.94	0.18	96,96,96,96	0
56	MG	AA	1635	1/1	0.94	0.17	105,105,105,105	0
56	MG	AA	1607	1/1	0.95	0.14	116,116,116,116	0
56	MG	CA	1642	1/1	0.95	0.16	106,106,106,106	0
56	MG	DA	3080	1/1	0.95	0.18	100,100,100,100	0
56	MG	DA	3133	1/1	0.95	0.13	100,100,100,100	0
56	MG	BA	3084	1/1	0.95	0.07	95,95,95,95	0
56	MG	BA	3002	1/1	0.96	0.07	89,89,89,89	0
56	MG	DA	3001	1/1	0.96	0.06	91,91,91,91	0
56	MG	DA	3126	1/1	0.96	0.07	60,60,60,60	0
56	MG	DA	3002	1/1	0.96	0.07	86,86,86,86	0
56	MG	DA	3091	1/1	0.96	0.10	104,104,104,104	0
56	MG	AA	1620	1/1	0.96	0.14	118,118,118,118	0
56	MG	DA	3086	1/1	0.96	0.06	97,97,97,97	0
56	MG	BA	3028	1/1	0.97	0.19	89,89,89,89	0
56	MG	BA	3094	1/1	0.97	0.13	92,92,92,92	0
56	MG	DA	3027	1/1	0.98	0.05	79,79,79,79	0
56	MG	DA	3063	1/1	0.98	0.05	69,69,69,69	0
56	MG	AA	1613	1/1	0.98	0.13	115,115,115,115	0
56	MG	CA	1604	1/1	0.98	0.05	86,86,86,86	0

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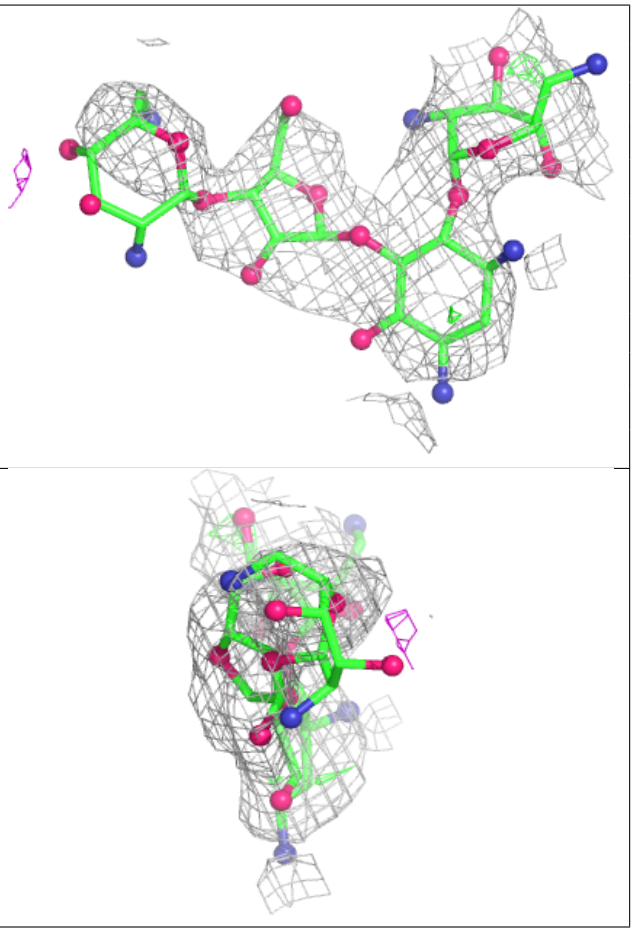
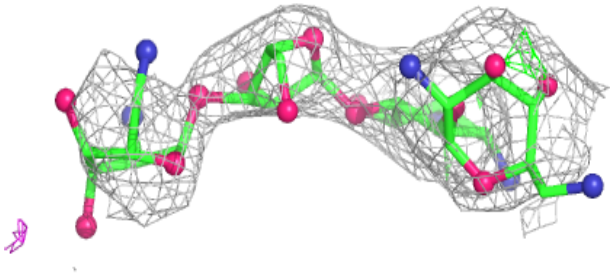
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3042	1/1	0.98	0.05	97,97,97,97	0
56	MG	BA	3046	1/1	0.98	0.07	109,109,109,109	0
56	MG	AA	1611	1/1	0.98	0.03	104,104,104,104	0
56	MG	BA	3080	1/1	0.98	0.05	73,73,73,73	0
56	MG	DA	3089	1/1	0.99	0.07	97,97,97,97	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

Electron density around NMY BA 3164:

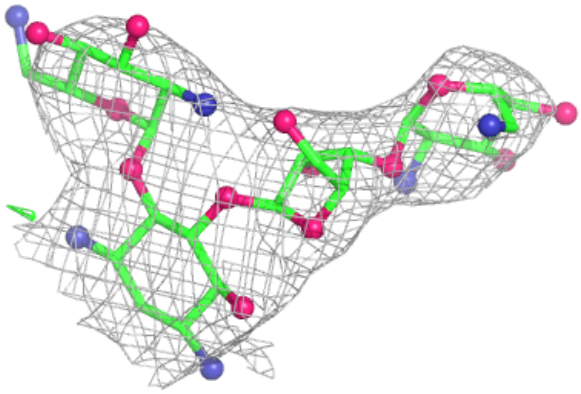
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

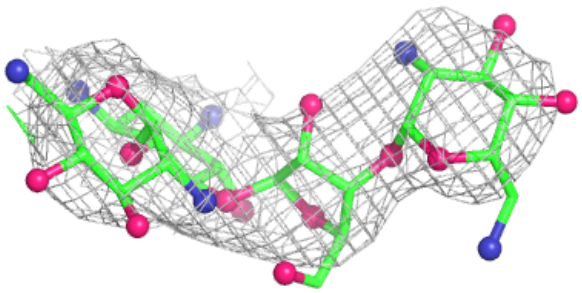


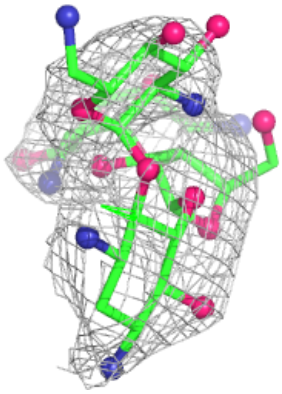


Electron density around NMY DA 3187:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

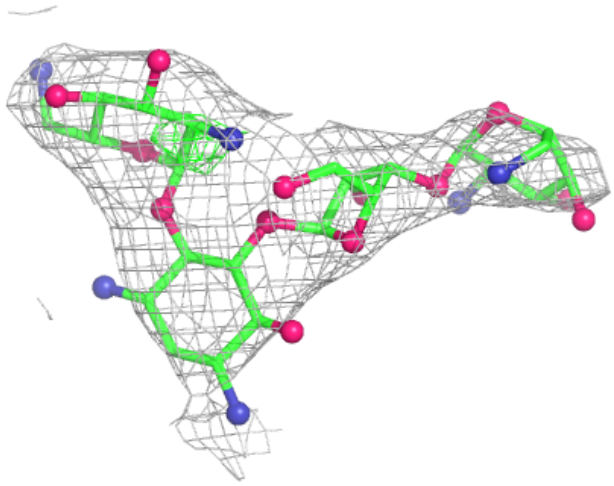


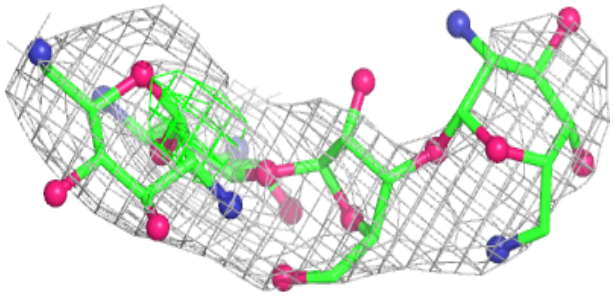


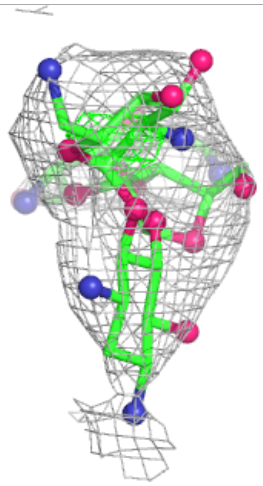


Electron density around NMY BA 3167:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

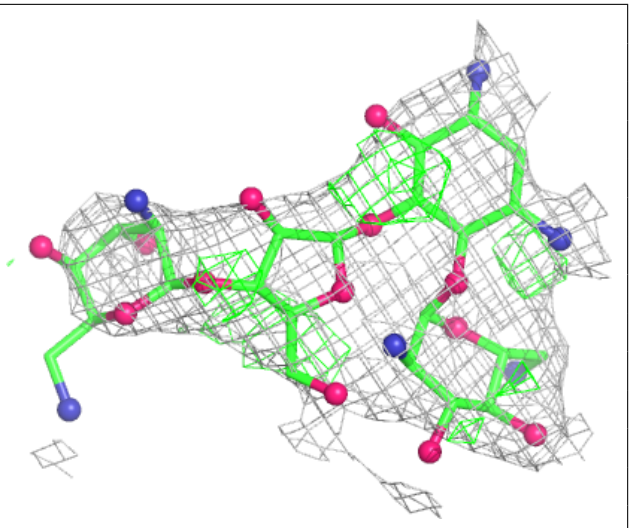


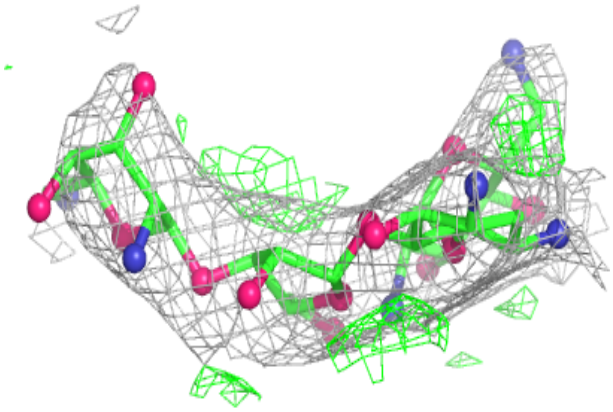


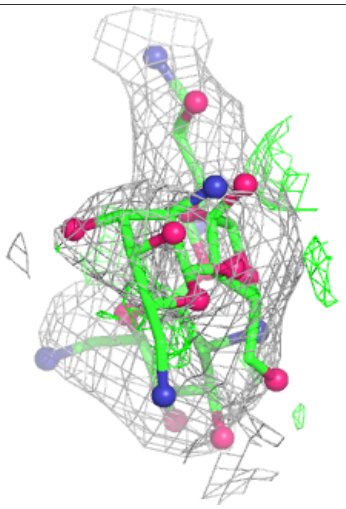


Electron density around NMY DA 3184:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

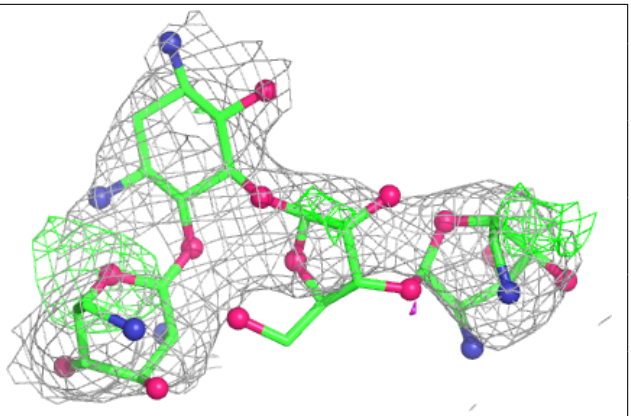


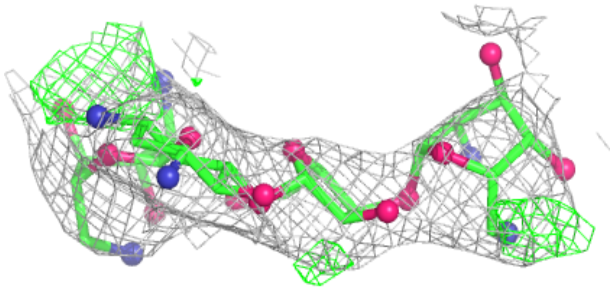


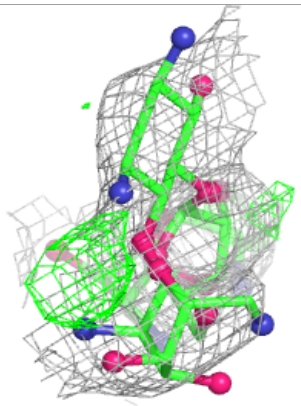


Electron density around NMY BA 3165:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

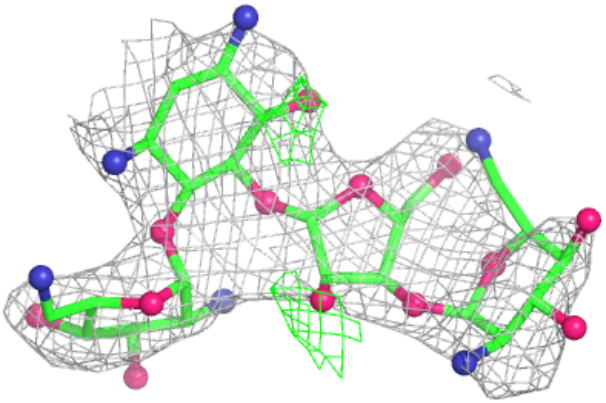


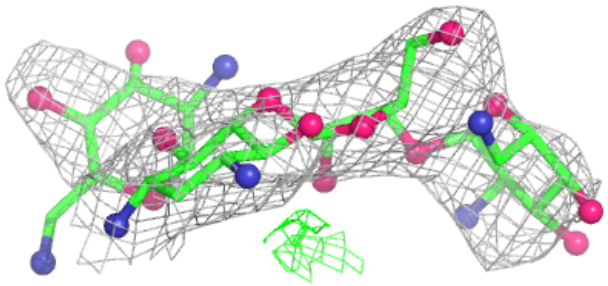


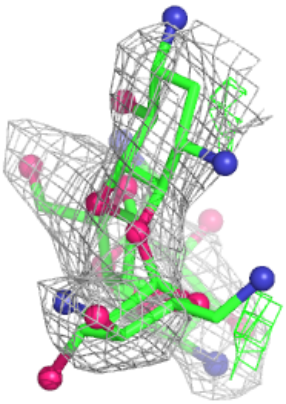


Electron density around NMY AA 1656:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

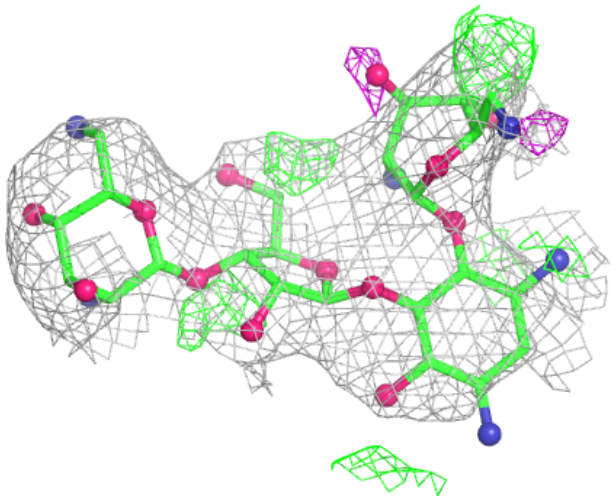


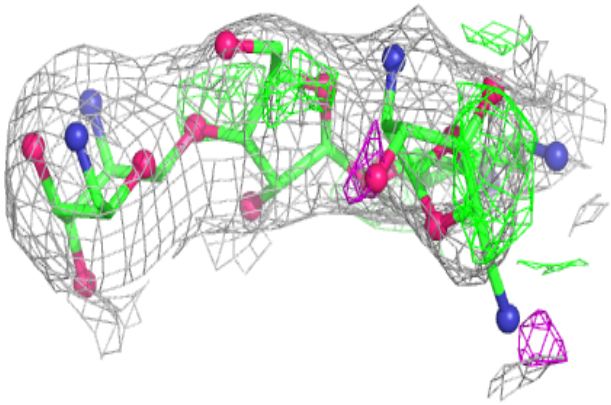


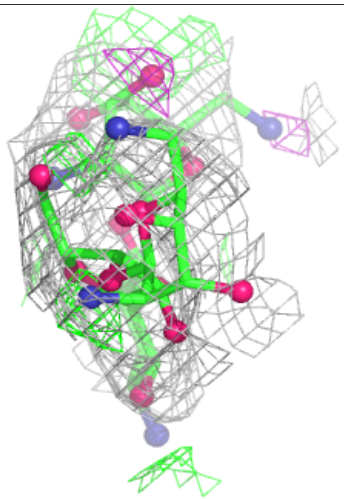


Electron density around NMY BA 3162:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

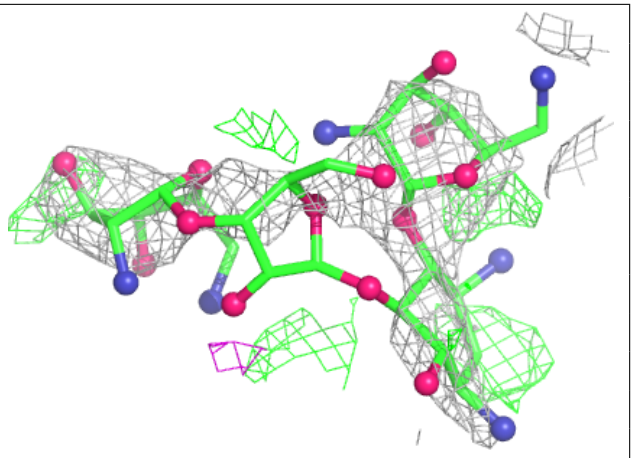


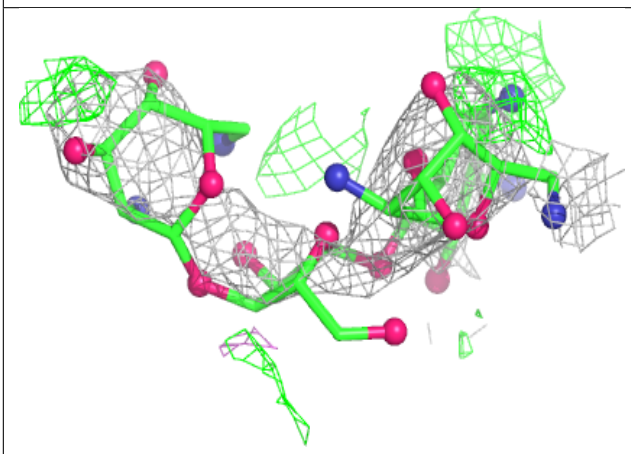


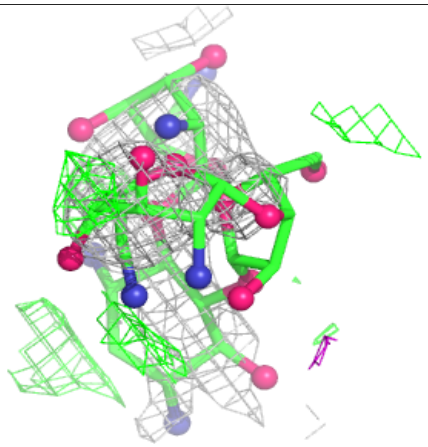


Electron density around NMY DA 3190:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

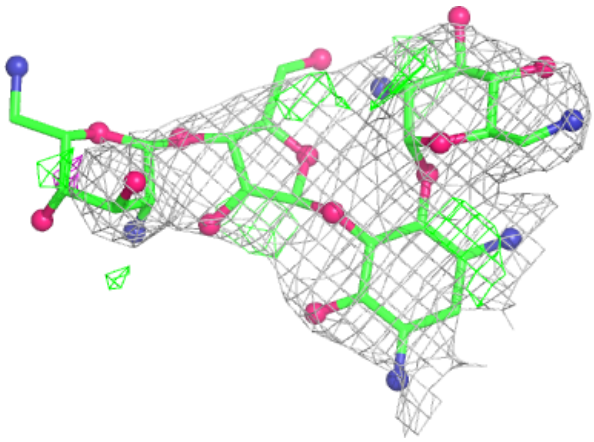


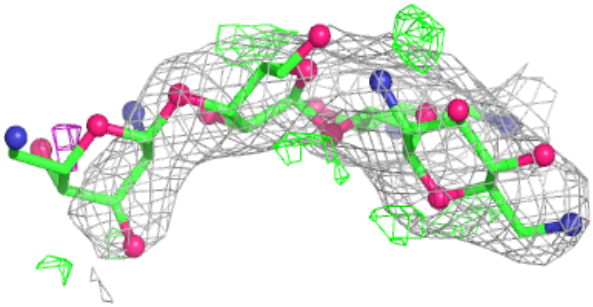


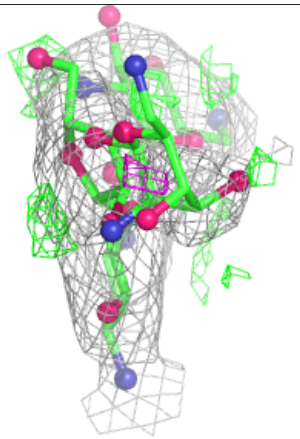


Electron density around NMY BA 3161:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

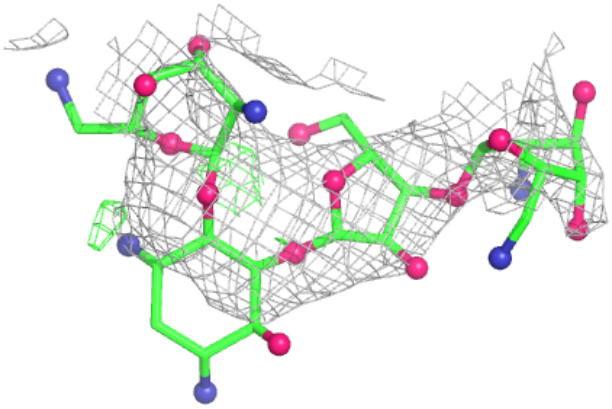


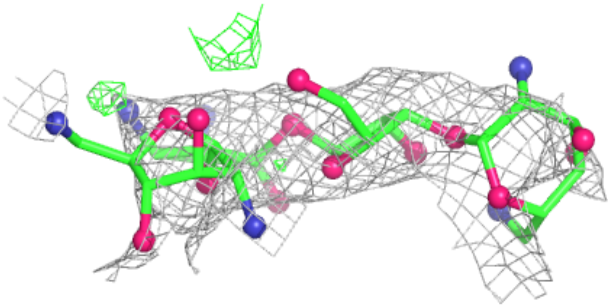


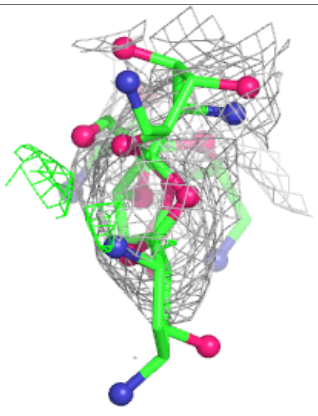


Electron density around NMY BA 3163:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

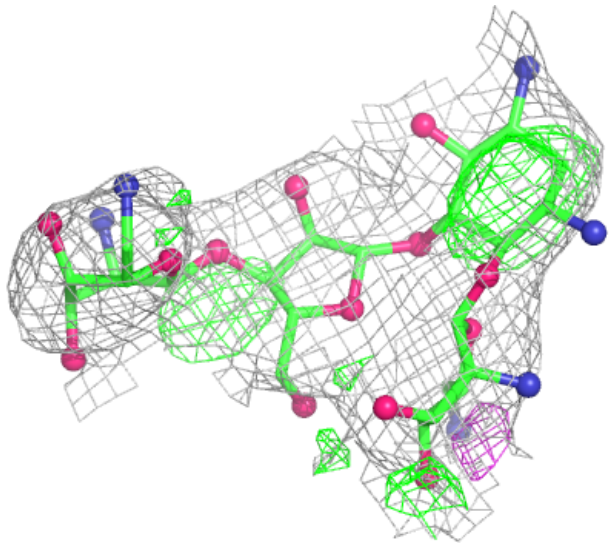


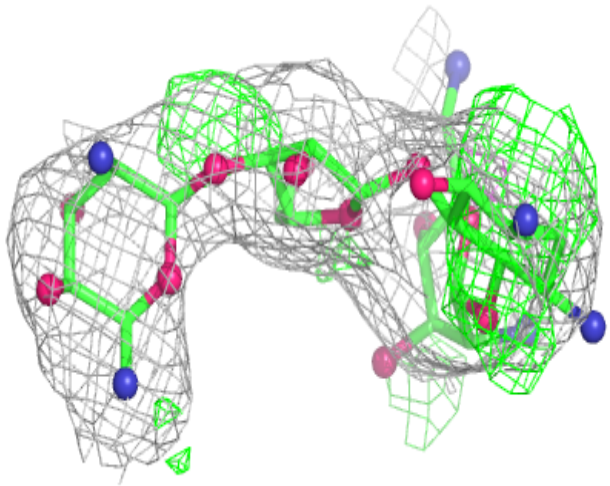


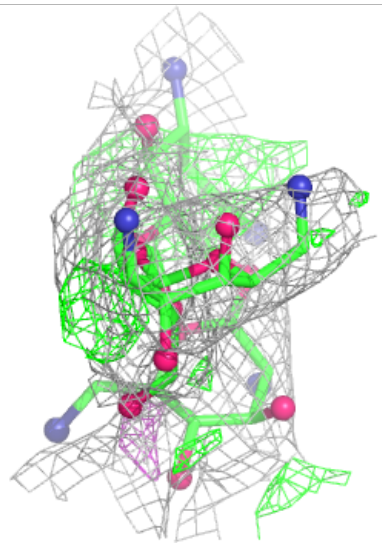


Electron density around NMY BA 3166:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

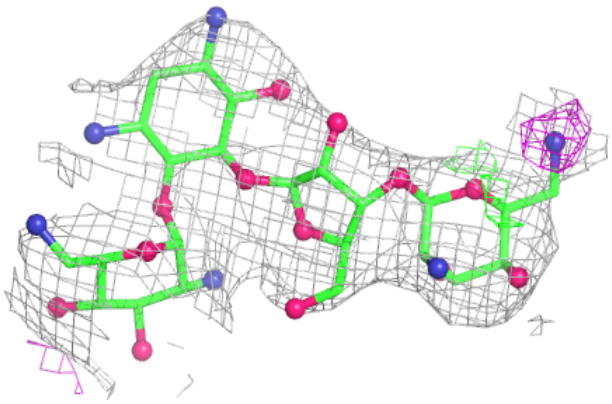


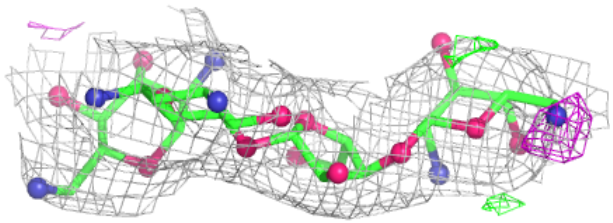


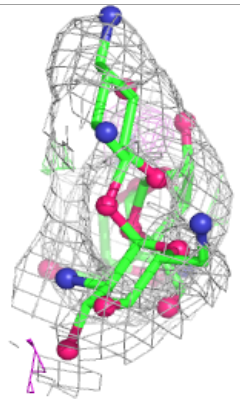


Electron density around NMY AA 1655:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

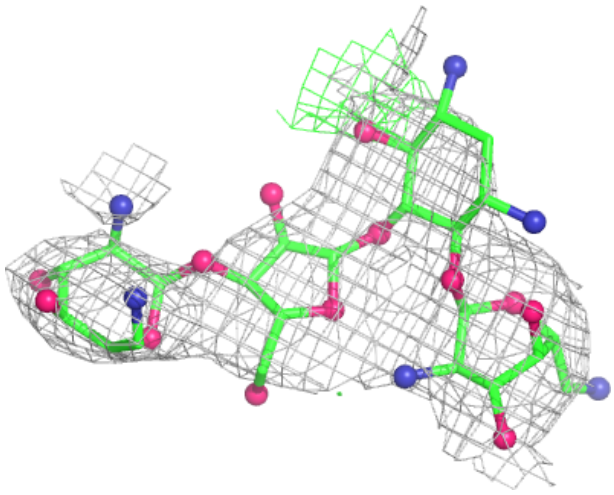


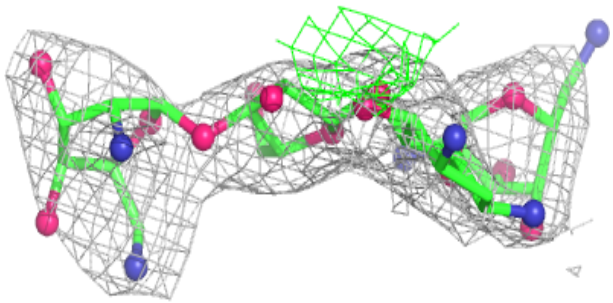


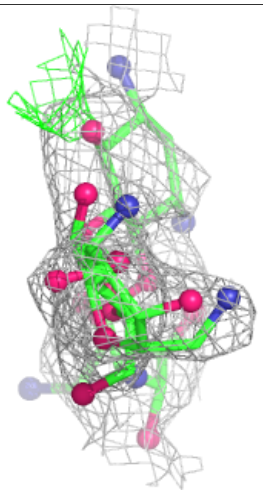


Electron density around NMY DA 3189:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

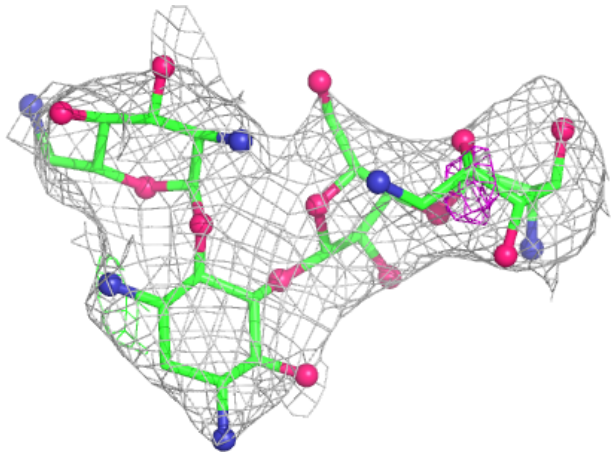


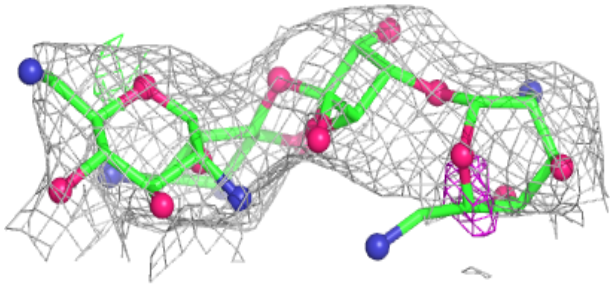


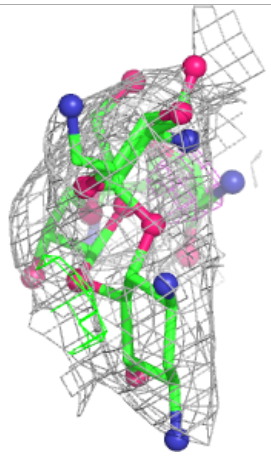


Electron density around NMY DA 3185:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

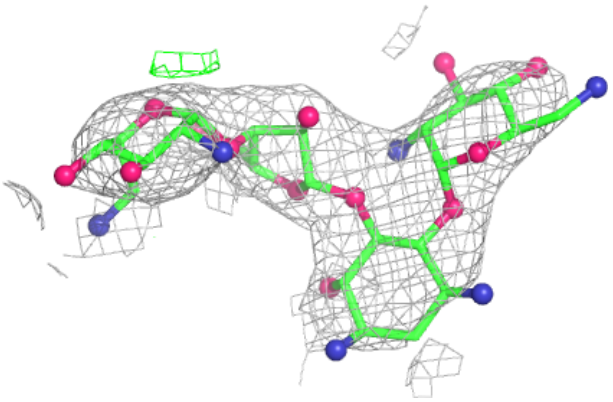


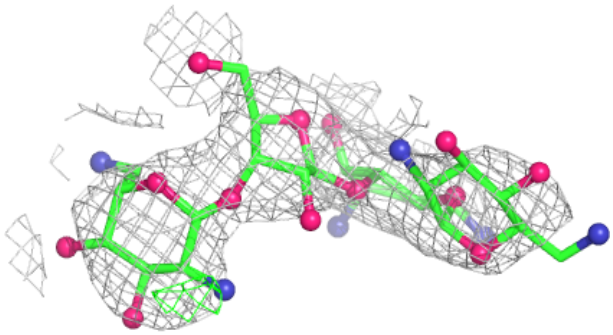


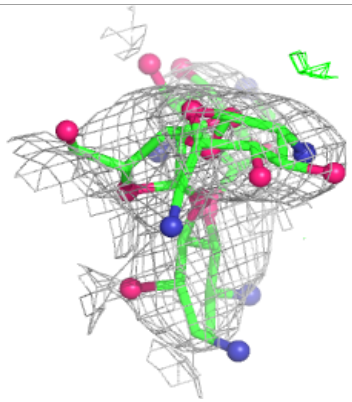


Electron density around NMY DA 3186:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

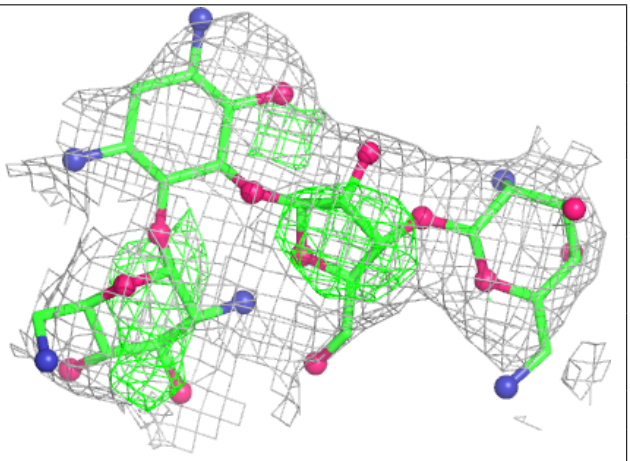


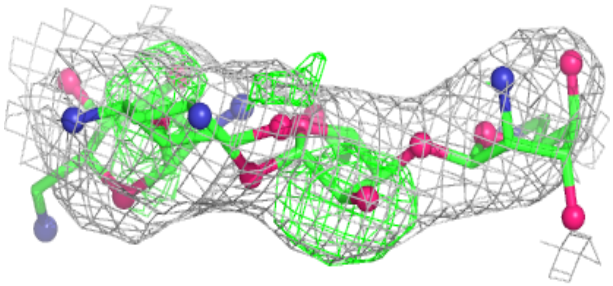


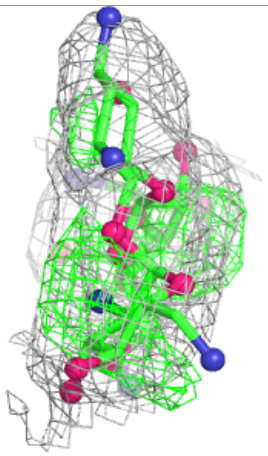


Electron density around NMY CA 1672:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

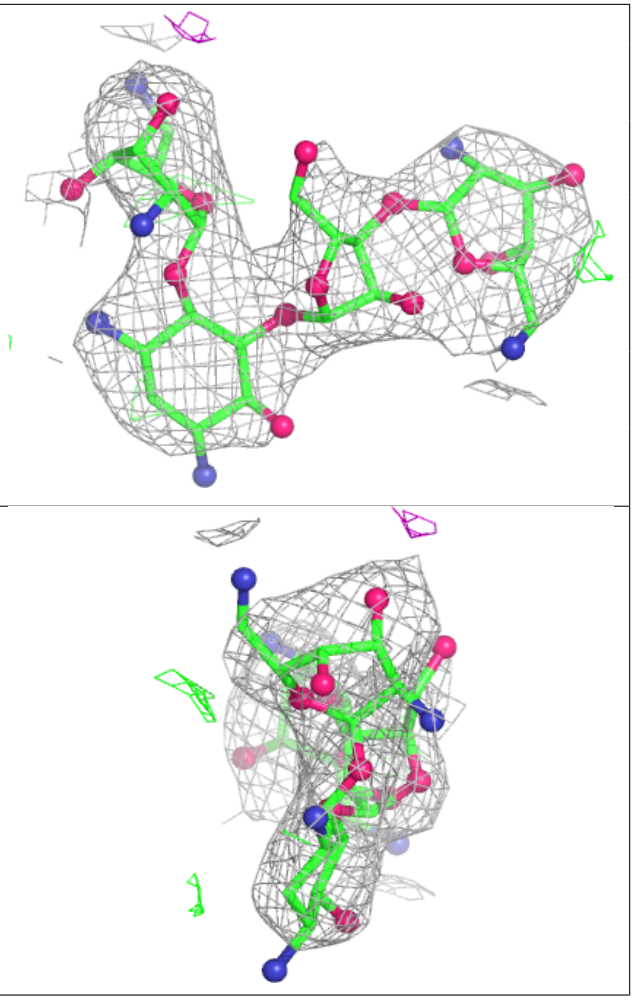






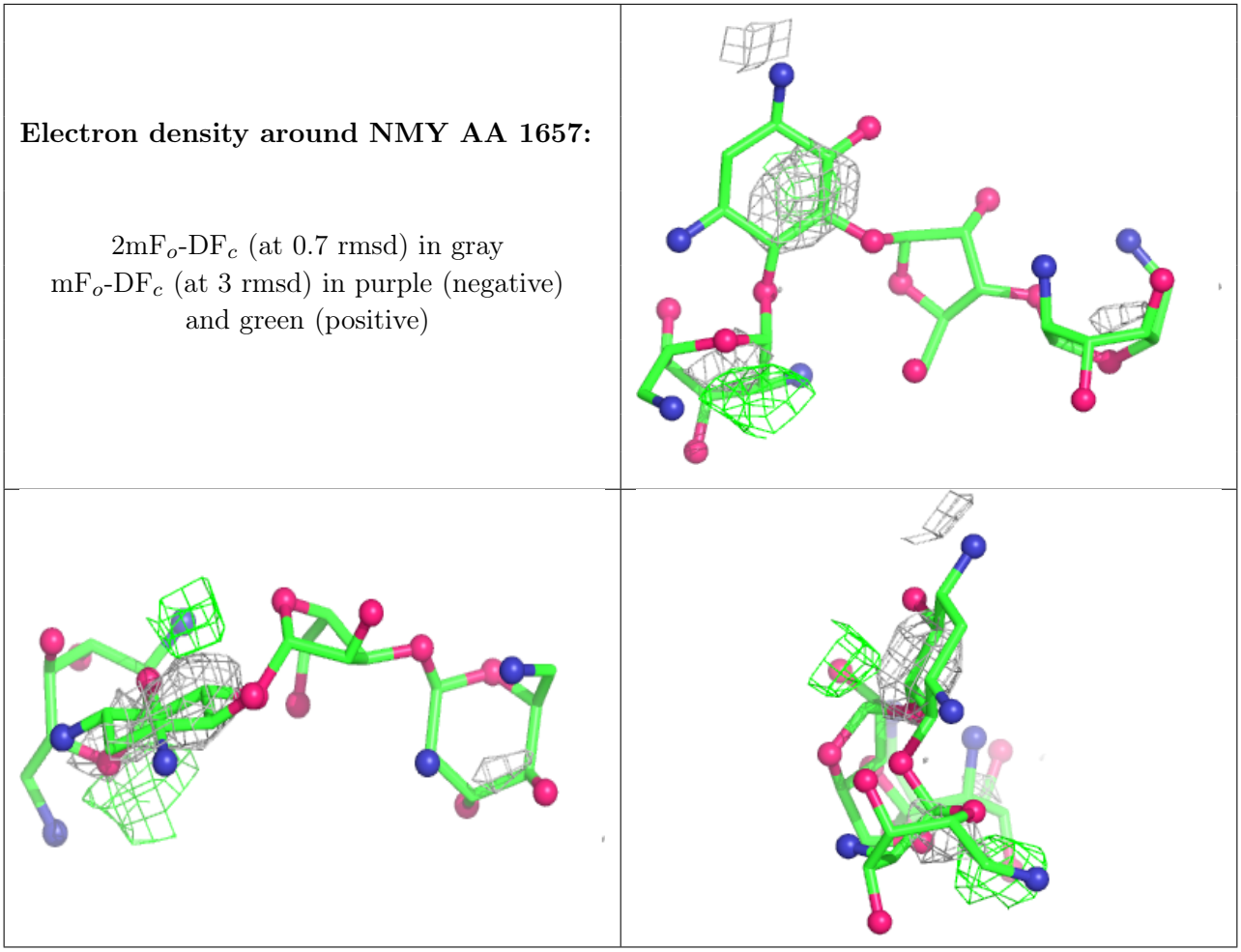
Electron density around NMY DA 3188:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around NMY AA 1657:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



6.5 Other polymers (i)

There are no such residues in this entry.