



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 5, 2026 – 08:57 PM UTC

PDB ID : 5NDG / pdb_00005ndg
Title : Crystal structure of geneticin (G418) bound to the yeast 80S ribosome
Authors : Prokhorova, I.; Djumagulov, M.; Urzhumtsev, A.; Yusupov, M.; Yusupova, G.
Deposited on : 2017-03-08
Resolution : 3.70 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

MolProbity : 4-5-2 with Phenix2.0
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

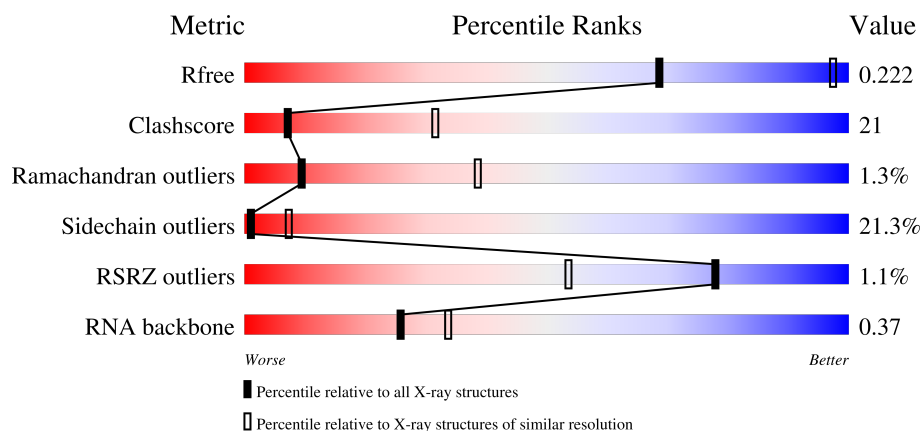
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.70 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	1131 (3.80-3.60)
Clashscore	190562	1171 (3.80-3.60)
Ramachandran outliers	187476	1129 (3.80-3.60)
Sidechain outliers	187428	1126 (3.80-3.60)
RSRZ outliers	180081	1130 (3.80-3.60)
RNA backbone	3983	1007 (4.30-3.08)

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 $\leq 5\%$. 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	2	1800	
1	6	1800	
2	S0	206	
2	s0	206	

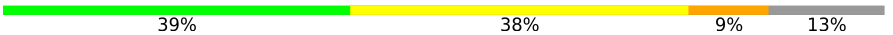
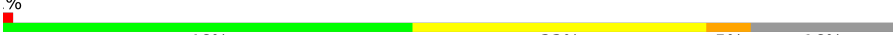
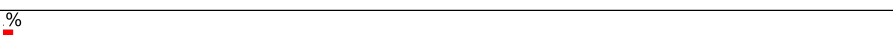
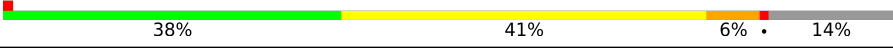
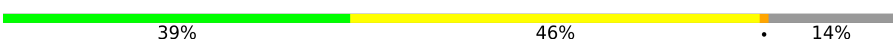
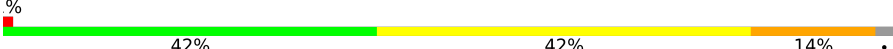
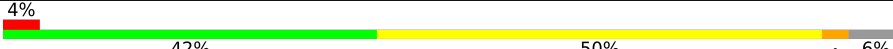
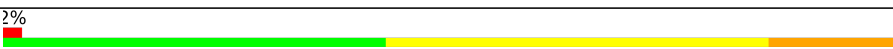
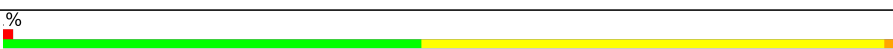
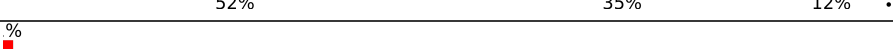
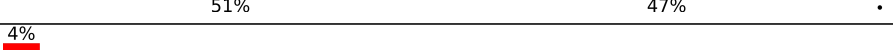
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Mol	Chain	Length	Quality of chain
3	S1	216	
3	s1	216	
4	S2	217	
4	s2	217	
5	S3	223	
5	s3	223	
6	S4	260	
6	s4	260	
7	S5	206	
7	s5	206	
8	S6	236	
8	s6	236	
9	S7	185	
9	s7	185	
10	S8	200	
10	s8	200	
11	S9	185	
11	s9	185	
12	C0	105	
12	c0	105	
13	C1	156	
13	c1	156	
14	C2	143	
14	c2	143	
15	C3	150	

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Mol	Chain	Length	Quality of chain
15	c3	150	
16	C4	128	
16	c4	128	
17	C5	141	
17	c5	141	
18	C6	141	
18	c6	141	
19	C7	136	
19	c7	136	
20	C8	145	
20	c8	145	
21	C9	143	
21	c9	143	
22	D0	107	
22	d0	107	
23	D1	87	
23	d1	87	
24	D2	129	
24	d2	129	
25	D3	144	
25	d3	144	
26	D4	134	
26	d4	134	
27	D5	70	
27	d5	70	

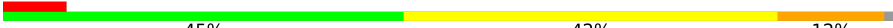
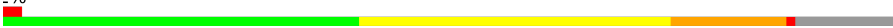
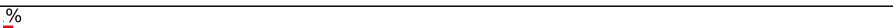
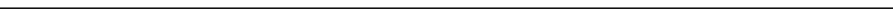
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Mol	Chain	Length	Quality of chain
28	D6	97	
28	d6	97	
29	D7	81	
29	d7	81	
30	D8	63	
30	d8	63	
31	D9	53	
31	d9	53	
32	E0	60	
32	e0	60	
33	E1	152	
33	e1	152	
34	SR	318	
34	sR	318	
35	SM	272	
35	sM	272	
36	1	3396	
36	5	3396	
37	3	121	
37	7	121	
38	4	158	
38	8	158	
39	L2	252	
39	l2	252	
40	L3	386	

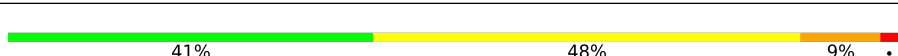
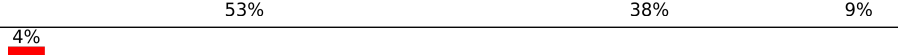
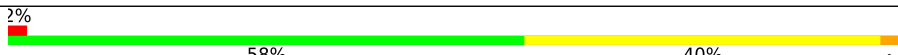
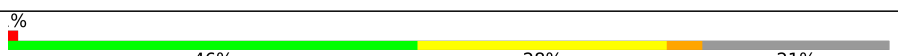
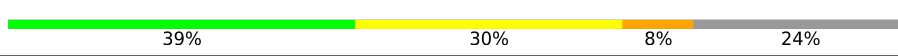
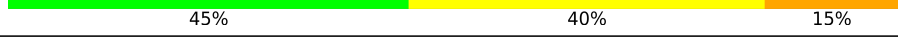
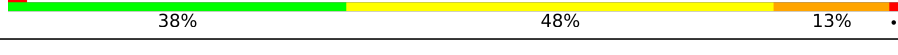
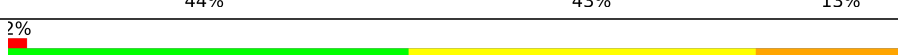
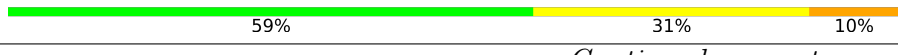
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Mol	Chain	Length	Quality of chain
40	l3	386	
41	L4	361	
41	l4	361	
42	L5	296	
42	l5	296	
43	L6	176	
43	l6	176	
44	L7	223	
44	l7	223	
45	L8	233	
45	l8	233	
46	L9	191	
46	l9	191	
47	M0	221	
47	m0	221	
48	M1	169	
48	m1	169	
49	M3	194	
49	m3	194	
50	M4	137	
50	m4	137	
51	M5	203	
51	m5	203	
52	M6	197	
52	m6	197	

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Mol	Chain	Length	Quality of chain
53	M7	184	
53	m7	184	
54	M8	185	
54	m8	185	
55	M9	188	
55	m9	188	
56	N0	172	
56	n0	172	
57	N1	159	
57	n1	159	
58	N2	98	
58	n2	98	
59	N3	135	
59	n3	135	
60	N4	155	
60	n4	155	
61	N5	121	
61	n5	121	
62	N6	126	
62	n6	126	
63	N7	135	
63	n7	135	
64	N8	148	
64	n8	148	
65	N9	58	

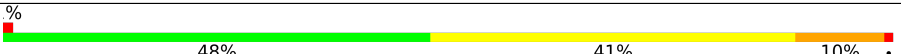
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Mol	Chain	Length	Quality of chain
65	n9	58	5% 47% 45% 9%
66	O0	100	39% 48% 10%
66	o0	100	50% 38% 12%
67	O1	109	% 50% 32% 17%
67	o1	109	% 45% 42% 13%
68	O2	127	2% 57% 35% 8%
68	o2	127	46% 46% 7%
69	O3	106	% 58% 33% 8%
69	o3	106	54% 34% 12%
70	O4	112	11% 36% 49% 15%
70	o4	112	6% 43% 49% 8%
71	O5	119	3% 41% 45% 13%
71	o5	119	2% 50% 39% 11%
72	O6	99	% 46% 40% 12%
72	o6	99	47% 38% 13%
73	O7	84	39% 50% 11%
73	o7	84	% 45% 42% 11%
74	O8	77	% 53% 35% 12%
74	o8	77	53% 38% 9%
75	O9	50	4% 34% 52% 12%
75	o9	50	4% 46% 42% 12%
76	Q0	52	2% 52% 35% 13%
76	q0	52	42% 46% 12%
77	Q1	25	48% 48%
77	q1	25	48% 32% 20%

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Mol	Chain	Length	Quality of chain
78	Q2	105	
78	q2	105	
79	Q3	91	
79	q3	91	
80	p0	312	

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
81	MG	1	3720	-	-	-	X
81	MG	1	3771	-	-	-	X
81	MG	2	1921	-	-	-	X
81	MG	2	1993	-	-	-	X
81	MG	2	2000	-	-	-	X
81	MG	5	3693	-	-	-	X
81	MG	s8	302	-	-	-	X

2 Entry composition

There are 84 unique types of molecules in this entry. The entry contains 397710 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 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	2	1688	Total	C	N	O	P	0	0	0
			35985	16089	6386	11822	1688			
1	6	1700	Total	C	N	O	P	0	0	0
			36234	16201	6426	11907	1700			

- Molecule 2 is a protein called 40S ribosomal protein S0-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	S0	206	Total	C	N	O	S	0	0	0
			1577	1014	278	283	2			
2	s0	206	Total	C	N	O	S	0	0	0
			1583	1017	281	283	2			

- Molecule 3 is a protein called 40S ribosomal protein S1-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	S1	214	Total	C	N	O	S	0	0	0
			1709	1084	310	311	4			
3	s1	216	Total	C	N	O	S	0	0	0
			1722	1091	312	315	4			

- Molecule 4 is a protein called 40S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	S2	217	Total	C	N	O	S	0	0	0
			1635	1047	289	297	2			
4	s2	217	Total	C	N	O	S	0	0	0
			1635	1047	289	297	2			

- Molecule 5 is a protein called 40S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	S3	223	Total	C	N	O	S	0	0	0
			1734	1101	313	314	6			
5	s3	223	Total	C	N	O	S	0	0	0
			1734	1101	313	314	6			

- Molecule 6 is a protein called 40S ribosomal protein S4-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	S4	260	Total	C	N	O	S	0	0	0
			2068	1316	389	360	3			
6	s4	260	Total	C	N	O	S	0	0	0
			2068	1316	389	360	3			

- Molecule 7 is a protein called 40S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	S5	206	Total	C	N	O	S	0	0	0
			1609	1007	300	299	3			
7	s5	206	Total	C	N	O	S	0	0	0
			1609	1007	300	299	3			

- Molecule 8 is a protein called 40S ribosomal protein S6-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	S6	226	Total	C	N	O	S	0	0	0
			1799	1129	346	321	3			
8	s6	218	Total	C	N	O	S	0	0	0
			1755	1102	337	313	3			

- Molecule 9 is a protein called 40S ribosomal protein S7-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	S7	184	Total	C	N	O	0	0	0
			1481	951	265	265			
9	s7	185	Total	C	N	O	0	0	0
			1486	954	266	266			

- Molecule 10 is a protein called 40S ribosomal protein S8-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	S8	188	Total	C	N	O	S	0	0	0
			1489	925	298	264	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	s8	188	Total	C	N	O	S	0	0	0
			1489	925	298	264	2			

- Molecule 11 is a protein called 40S ribosomal protein S9-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	S9	185	Total	C	N	O	S	0	0	0
			1494	943	289	261	1			
11	s9	185	Total	C	N	O	S	0	0	0
			1494	943	289	261	1			

- Molecule 12 is a protein called 40S ribosomal protein S10-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	C0	92	Total	C	N	O	S	0	0	0
			752	487	122	141	2			
12	c0	92	Total	C	N	O	S	0	0	0
			741	478	121	140	2			

- Molecule 13 is a protein called 40S ribosomal protein S11-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	C1	142	Total	C	N	O	S	0	0	0
			1146	735	217	191	3			
13	c1	146	Total	C	N	O	S	0	0	0
			1168	747	221	197	3			

- Molecule 14 is a protein called 40S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	C2	120	Total	C	N	O	S	0	0	0
			870	548	152	168	2			
14	c2	124	Total	C	N	O	S	0	0	0
			890	560	156	172	2			

- Molecule 15 is a protein called 40S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	C3	150	Total	C	N	O	S	0	0	0
			1192	759	224	207	2			
15	c3	150	Total	C	N	O	S	0	0	0
			1192	759	224	207	2			

- Molecule 16 is a protein called 40S ribosomal protein S14-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	C4	127	Total	C	N	O	S	0	0	0
			891	545	182	163	1			
16	c4	128	Total	C	N	O	S	0	0	0
			949	582	188	176	3			

- Molecule 17 is a protein called 40S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	C5	122	Total	C	N	O	S	0	0	0
			967	616	180	164	7			
17	c5	119	Total	C	N	O	S	0	0	0
			939	595	176	161	7			

- Molecule 18 is a protein called 40S ribosomal protein S16-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	C6	141	Total	C	N	O	0	0	0
			1105	708	203	194			
18	c6	141	Total	C	N	O	0	0	0
			1105	708	203	194			

- Molecule 19 is a protein called 40S ribosomal protein S17-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	C7	117	Total	C	N	O	S	0	0	0
			911	568	174	167	2			
19	c7	117	Total	C	N	O	S	0	0	0
			906	563	174	167	2			

- Molecule 20 is a protein called 40S ribosomal protein S18-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	C8	145	Total	C	N	O	S	0	0	0
			1192	743	237	210	2			
20	c8	145	Total	C	N	O	S	0	0	0
			1192	743	237	210	2			

- Molecule 21 is a protein called 40S ribosomal protein S19-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	C9	143	Total	C	N	O	S	0	0	0
			1112	694	208	208	2			
21	c9	143	Total	C	N	O	S	0	0	0
			1112	694	208	208	2			

- Molecule 22 is a protein called 40S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	D0	105	Total	C	N	O	S	0	0	0
			837	529	152	155	1			
22	d0	101	Total	C	N	O	S	0	0	0
			805	512	145	147	1			

- Molecule 23 is a protein called 40S ribosomal protein S21-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	D1	87	Total	C	N	O	S	0	0	0
			684	420	125	137	2			
23	d1	87	Total	C	N	O	S	0	0	0
			684	420	125	137	2			

- Molecule 24 is a protein called 40S ribosomal protein S22-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	D2	129	Total	C	N	O	S	0	0	0
			1021	650	188	180	3			
24	d2	129	Total	C	N	O	S	0	0	0
			1021	650	188	180	3			

- Molecule 25 is a protein called 40S ribosomal protein S23-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	D3	144	Total	C	N	O	S	0	0	0
			1121	708	220	191	2			
25	d3	144	Total	C	N	O	S	0	0	0
			1121	708	220	191	2			

- Molecule 26 is a protein called 40S ribosomal protein S24-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
26	D4	134	Total	C	N	O	0	0	0
			1073	676	208	189			

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
26	d4	134	Total	C	N	O	0	0	0
			1073	676	208	189			

- Molecule 27 is a protein called 40S ribosomal protein S25-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
27	D5	70	Total	C	N	O	0	0	0
			563	360	104	99			
27	d5	69	Total	C	N	O	0	0	0
			558	357	103	98			

- Molecule 28 is a protein called 40S ribosomal protein S26-B.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	D6	97	Total	C	N	O	S	0	0	0
			769	475	160	129	5			
28	d6	97	Total	C	N	O	S	0	0	0
			769	475	160	129	5			

- Molecule 29 is a protein called 40S ribosomal protein S27-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	D7	81	Total	C	N	O	S	0	0	0
			610	382	110	113	5			
29	d7	81	Total	C	N	O	S	0	0	0
			610	382	110	113	5			

- Molecule 30 is a protein called 40S ribosomal protein S28-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	D8	63	Total	C	N	O	S	0	0	0
			497	306	99	91	1			
30	d8	63	Total	C	N	O	S	0	0	0
			497	306	99	91	1			

- Molecule 31 is a protein called 40S ribosomal protein S29-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	D9	53	Total	C	N	O	S	0	0	0
			442	274	92	72	4			
31	d9	53	Total	C	N	O	S	0	0	0
			442	274	92	72	4			

- Molecule 32 is a protein called 40S ribosomal protein S30-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	E0	60	Total	C	N	O	S	0	0	0
			475	299	98	77	1			
32	e0	60	Total	C	N	O	S	0	0	0
			475	299	98	77	1			

- Molecule 33 is a protein called Ubiquitin-40S ribosomal protein S31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	E1	71	Total	C	N	O	S	0	0	0
			566	362	106	94	4			
33	e1	45	Total	C	N	O	S	0	0	0
			352	222	66	60	4			

- Molecule 34 is a protein called Guanine nucleotide-binding protein subunit beta-like protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	SR	318	Total	C	N	O	S	0	0	0
			2437	1541	418	470	8			
34	sR	313	Total	C	N	O	S	0	0	0
			2403	1521	411	463	8			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
SR	161	ALA	LYS	conflict	UNP P38011
sR	161	ALA	LYS	conflict	UNP P38011

- Molecule 35 is a protein called Suppressor protein STM1.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
35	SM	135	Total	C	N	O	0	0	0
			985	581	197	207			
35	sM	115	Total	C	N	O	0	0	0
			874	514	177	183			

- Molecule 36 is a RNA chain called 25S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	1	3078	Total	C	N	O	P	0	0	0
			65838	29408	11870	21482	3078			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	5	3127	Total	C	N	O	P	0	0	0
			66891	29878	12066	21820	3127			

- Molecule 37 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	3	121	Total	C	N	O	P	0	0	0
			2579	1152	461	845	121			
37	7	121	Total	C	N	O	P	0	0	0
			2579	1152	461	845	121			

- Molecule 38 is a RNA chain called 5.8S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	4	158	Total	C	N	O	P	0	0	0
			3353	1500	586	1109	158			
38	8	157	Total	C	N	O	P	0	0	0
			3333	1491	584	1101	157			

- Molecule 39 is a protein called 60S ribosomal protein L2-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	L2	252	Total	C	N	O	S	0	0	0
			1914	1191	388	334	1			
39	l2	252	Total	C	N	O	S	0	0	0
			1912	1190	388	333	1			

- Molecule 40 is a protein called 60S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	L3	386	Total	C	N	O	S	0	0	0
			3075	1950	584	533	8			
40	l3	386	Total	C	N	O	S	0	0	0
			3075	1950	584	533	8			

- Molecule 41 is a protein called 60S ribosomal protein L4-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	L4	361	Total	C	N	O	S	0	0	0
			2748	1729	522	494	3			
41	l4	361	Total	C	N	O	S	0	0	0
			2748	1729	522	494	3			

- Molecule 42 is a protein called 60S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	L5	294	Total	C	N	O	S	0	0	0
			2357	1491	410	454	2			
42	15	294	Total	C	N	O	S	0	0	0
			2359	1489	412	456	2			

- Molecule 43 is a protein called 60S ribosomal protein L6-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	L6	156	Total	C	N	O	S	0	0	0
			1239	800	222	216	1			
43	16	157	Total	C	N	O	S	0	0	0
			1248	806	224	217	1			

- Molecule 44 is a protein called 60S ribosomal protein L7-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	L7	222	Total	C	N	O	S	0	0	0
			1784	1151	324	308	1			
44	17	223	Total	C	N	O	S	0	0	0
			1791	1155	325	310	1			

- Molecule 45 is a protein called 60S ribosomal protein L8-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	L8	233	Total	C	N	O	S	0	0	0
			1804	1151	323	327	3			
45	18	231	Total	C	N	O	S	0	0	0
			1763	1130	316	314	3			

- Molecule 46 is a protein called 60S ribosomal protein L9-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	L9	191	Total	C	N	O	S	0	0	0
			1518	963	274	277	4			
46	19	190	Total	C	N	O	S	0	0	0
			1510	957	273	276	4			

- Molecule 47 is a protein called 60S ribosomal protein L10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	M0	208	Total	C	N	O	S	0	0	0
			1690	1074	319	291	6			
47	m0	209	Total	C	N	O	S	0	0	0
			1696	1077	321	293	5			

- Molecule 48 is a protein called 60S ribosomal protein L11-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	M1	169	Total	C	N	O	S	0	0	0
			1353	847	253	249	4			
48	m1	169	Total	C	N	O	S	0	0	0
			1353	847	253	249	4			

- Molecule 49 is a protein called 60S ribosomal protein L13-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	M3	193	Total	C	N	O		0	0	0
			1543	962	315	266				
49	m3	194	Total	C	N	O		0	0	0
			1548	965	316	267				

- Molecule 50 is a protein called 60S ribosomal protein L14-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	M4	136	Total	C	N	O	S	0	0	0
			1053	675	199	177	2			
50	m4	137	Total	C	N	O	S	0	0	0
			1059	678	200	179	2			

- Molecule 51 is a protein called 60S ribosomal protein L15-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	M5	203	Total	C	N	O	S	0	0	0
			1720	1077	361	281	1			
51	m5	203	Total	C	N	O	S	0	0	0
			1720	1077	361	281	1			

- Molecule 52 is a protein called 60S ribosomal protein L16-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	M6	197	Total	C	N	O	S	0	0	0
			1555	1003	289	262	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	m6	197	Total	C	N	O	S	0	0	0
			1555	1003	289	262	1			

- Molecule 53 is a protein called 60S ribosomal protein L17-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	M7	183	Total	C	N	O	S	0	0	0
			1420	882	281	257				
53	m7	175	Total	C	N	O	S	0	0	0
			1378	856	273	249				

- Molecule 54 is a protein called 60S ribosomal protein L18-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	M8	185	Total	C	N	O	S	0	0	0
			1441	908	290	241	2			
54	m8	185	Total	C	N	O	S	0	0	0
			1441	908	290	241	2			

- Molecule 55 is a protein called 60S ribosomal protein L19-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	M9	188	Total	C	N	O	S	0	0	0
			1521	935	326	260				
55	m9	183	Total	C	N	O	S	0	0	0
			1482	911	320	251				

- Molecule 56 is a protein called 60S ribosomal protein L20-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	N0	170	Total	C	N	O	S	0	0	0
			1432	922	265	242	3			
56	n0	172	Total	C	N	O	S	0	0	0
			1445	930	267	244	4			

- Molecule 57 is a protein called 60S ribosomal protein L21-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
57	N1	159	Total	C	N	O	S	0	0	0
			1276	805	246	221	4			
57	n1	159	Total	C	N	O	S	0	0	0
			1276	805	246	221	4			

- Molecule 58 is a protein called 60S ribosomal protein L22-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
58	N2	98	Total	C	N	O	0	0	0
			778	505	127	146			
58	n2	98	Total	C	N	O	0	0	0
			778	505	127	146			

- Molecule 59 is a protein called 60S ribosomal protein L23-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
59	N3	135	Total	C	N	O	S	0	0	0
			997	625	188	177	7			
59	n3	134	Total	C	N	O	S	0	0	0
			993	623	187	176	7			

- Molecule 60 is a protein called 60S ribosomal protein L24-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
60	N4	122	Total	C	N	O	S	0	0	0
			925	582	184	158	1			
60	n4	118	Total	C	N	O	S	0	0	0
			946	597	188	160	1			

- Molecule 61 is a protein called 60S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
61	N5	121	Total	C	N	O	S	0	0	0
			964	620	169	173	2			
61	n5	120	Total	C	N	O	S	0	0	0
			959	617	168	172	2			

- Molecule 62 is a protein called 60S ribosomal protein L26-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
62	N6	126	Total	C	N	O	0	0	0
			993	625	192	176			
62	n6	124	Total	C	N	O	0	0	0
			976	614	190	172			

- Molecule 63 is a protein called 60S ribosomal protein L27-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
63	N7	135	Total	C	N	O	0	0	0
			1092	710	202	180			
63	n7	135	Total	C	N	O	0	0	0
			1092	710	202	180			

- Molecule 64 is a protein called 60S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
64	N8	148	Total	C	N	O	S	0	0	0
			1173	749	231	190	3			
64	n8	148	Total	C	N	O	S	0	0	0
			1173	749	231	190	3			

- Molecule 65 is a protein called 60S ribosomal protein L29.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
65	N9	58	Total	C	N	O	0	0	0
			462	289	100	73			
65	n9	58	Total	C	N	O	0	0	0
			462	289	100	73			

- Molecule 66 is a protein called 60S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
66	O0	97	Total	C	N	O	S	0	0	0
			743	479	124	139	1			
66	o0	100	Total	C	N	O	S	0	0	0
			767	492	128	146	1			

- Molecule 67 is a protein called 60S ribosomal protein L31-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
67	O1	109	Total	C	N	O	S	0	0	0
			876	556	167	152	1			
67	o1	109	Total	C	N	O	S	0	0	0
			883	559	167	156	1			

- Molecule 68 is a protein called 60S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
68	O2	127	Total	C	N	O	S	0	0	0
			1020	647	205	167	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
68	o2	127	Total	C	N	O	S	0	0	0
			1020	647	205	167	1			

- Molecule 69 is a protein called 60S ribosomal protein L33-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
69	O3	106	Total	C	N	O	S	0	0	0
			850	540	165	144	1			
69	o3	106	Total	C	N	O	S	0	0	0
			850	540	165	144	1			

- Molecule 70 is a protein called 60S ribosomal protein L34-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
70	O4	112	Total	C	N	O	S	0	0	0
			880	545	179	152	4			
70	o4	112	Total	C	N	O	S	0	0	0
			880	545	179	152	4			

- Molecule 71 is a protein called 60S ribosomal protein L35-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
71	O5	119	Total	C	N	O	S	0	0	0
			969	615	186	167	1			
71	o5	119	Total	C	N	O	S	0	0	0
			965	612	185	167	1			

- Molecule 72 is a protein called 60S ribosomal protein L36-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
72	O6	99	Total	C	N	O	S	0	0	0
			771	481	156	132	2			
72	o6	99	Total	C	N	O	S	0	0	0
			770	481	156	131	2			

- Molecule 73 is a protein called 60S ribosomal protein L37-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
73	O7	84	Total	C	N	O	S	0	0	0
			665	405	145	110	5			
73	o7	82	Total	C	N	O	S	0	0	0
			650	396	142	107	5			

- Molecule 74 is a protein called 60S ribosomal protein L38.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
74	O8	77	Total	C	N	O	0	0	0
			612	391	115	106			
74	o8	77	Total	C	N	O	0	0	0
			608	388	114	106			

- Molecule 75 is a protein called 60S ribosomal protein L39.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
75	O9	49	Total	C	N	O	S	0	0	0
			431	269	96	64	2			
75	o9	50	Total	C	N	O	S	0	0	0
			436	272	97	65	2			

- Molecule 76 is a protein called Ubiquitin-60S ribosomal protein L40.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
76	Q0	52	Total	C	N	O	S	0	0	0
			417	259	86	67	5			
76	q0	52	Total	C	N	O	S	0	0	0
			417	259	86	67	5			

- Molecule 77 is a protein called 60S ribosomal protein L41-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
77	Q1	25	Total	C	N	O	S	0	0	0
			233	142	63	27	1			
77	q1	25	Total	C	N	O	S	0	0	0
			233	142	63	27	1			

- Molecule 78 is a protein called 60S ribosomal protein L42-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
78	Q2	105	Total	C	N	O	S	0	0	0
			847	534	170	138	5			
78	q2	105	Total	C	N	O	S	0	0	0
			847	534	170	138	5			

- Molecule 79 is a protein called 60S ribosomal protein L43-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
79	Q3	91	Total	C	N	O	S	0	0	0
			694	429	138	121	6			
79	q3	91	Total	C	N	O	S	0	0	0
			694	429	138	121	6			

- Molecule 80 is a protein called 60S acidic ribosomal protein P0.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
80	p0	138	Total	C	N	O	S	0	0	0
			1052	672	187	190	3			

- Molecule 81 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
81	2	111	Total	Mg	0	0
			111	111		
81	S1	1	Total	Mg	0	0
			1	1		
81	S8	1	Total	Mg	0	0
			1	1		
81	C0	1	Total	Mg	0	0
			1	1		
81	C4	2	Total	Mg	0	0
			2	2		
81	C8	1	Total	Mg	0	0
			1	1		
81	D2	2	Total	Mg	0	0
			2	2		
81	D9	1	Total	Mg	0	0
			1	1		
81	SM	1	Total	Mg	0	0
			1	1		
81	1	407	Total	Mg	0	0
			407	407		
81	3	9	Total	Mg	0	0
			9	9		
81	4	25	Total	Mg	1	0
			25	25		
81	L2	3	Total	Mg	0	0
			3	3		
81	L3	2	Total	Mg	0	0
			2	2		
81	L5	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
81	L6	1	Total 1	Mg 1	0	0
81	L8	1	Total 1	Mg 1	0	0
81	M0	2	Total 2	Mg 2	0	0
81	M4	1	Total 1	Mg 1	0	0
81	M5	1	Total 1	Mg 1	0	0
81	M6	1	Total 1	Mg 1	0	0
81	M7	6	Total 6	Mg 6	0	0
81	N2	1	Total 1	Mg 1	0	0
81	N7	1	Total 1	Mg 1	0	0
81	N8	2	Total 2	Mg 2	0	0
81	O2	3	Total 3	Mg 3	0	0
81	O3	2	Total 2	Mg 2	0	0
81	O5	1	Total 1	Mg 1	0	0
81	O6	2	Total 2	Mg 2	0	0
81	O7	1	Total 1	Mg 1	0	0
81	O8	1	Total 1	Mg 1	0	0
81	O9	1	Total 1	Mg 1	0	0
81	Q2	1	Total 1	Mg 1	0	0
81	6	112	Total 112	Mg 112	0	0
81	s8	2	Total 2	Mg 2	0	0
81	c3	1	Total 1	Mg 1	0	0

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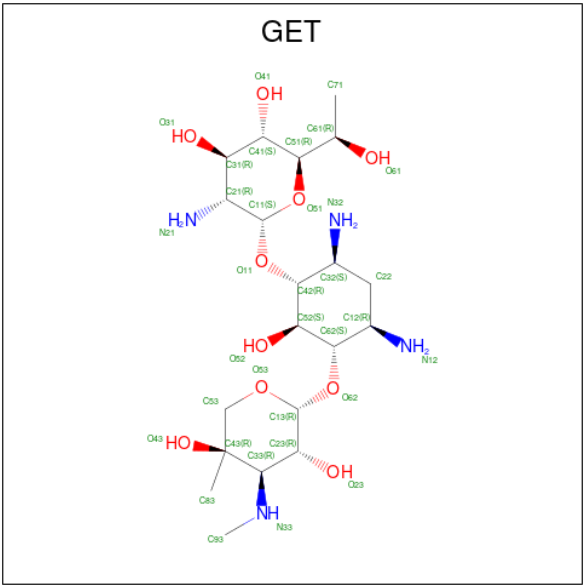
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
81	d3	2	Total 2	Mg 2	0	0
81	sM	1	Total 1	Mg 1	0	0
81	5	443	Total 443	Mg 443	1	0
81	7	8	Total 8	Mg 8	0	0
81	8	14	Total 14	Mg 14	0	0
81	l2	4	Total 4	Mg 4	0	0
81	l3	4	Total 4	Mg 4	0	0
81	l4	1	Total 1	Mg 1	0	0
81	l7	2	Total 2	Mg 2	0	0
81	l9	1	Total 1	Mg 1	0	0
81	m0	1	Total 1	Mg 1	0	0
81	m6	1	Total 1	Mg 1	0	0
81	m7	5	Total 5	Mg 5	0	0
81	n0	2	Total 2	Mg 2	0	0
81	n3	2	Total 2	Mg 2	0	0
81	n4	1	Total 1	Mg 1	0	0
81	n5	1	Total 1	Mg 1	0	0
81	n7	1	Total 1	Mg 1	0	0
81	o2	2	Total 2	Mg 2	0	0
81	o3	3	Total 3	Mg 3	0	0
81	o5	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
81	o7	5	Total	Mg	0	0
			5	5		
81	q2	4	Total	Mg	0	0
			4	4		

- Molecule 82 is GENETICIN (CCD ID: GET) (formula: C₂₀H₄₀N₄O₁₀).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
82	2	1	Total	C	N	O	0	0
			34	20	4	10		
82	2	1	Total	C	N	O	0	0
			34	20	4	10		
82	2	1	Total	C	N	O	0	0
			34	20	4	10		
82	1	1	Total	C	N	O	0	0
			34	20	4	10		
82	1	1	Total	C	N	O	0	0
			34	20	4	10		
82	1	1	Total	C	N	O	0	0
			34	20	4	10		
82	1	1	Total	C	N	O	0	0
			34	20	4	10		
82	1	1	Total	C	N	O	0	0
			34	20	4	10		
82	1	1	Total	C	N	O	0	0
			34	20	4	10		

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
82	6	1	Total	C	N	O	0	0
			34	20	4	10		
82	6	1	Total	C	N	O	0	0
			34	20	4	10		
82	6	1	Total	C	N	O	0	0
			34	20	4	10		
82	5	1	Total	C	N	O	0	0
			34	20	4	10		
82	5	1	Total	C	N	O	0	0
			34	20	4	10		
82	5	1	Total	C	N	O	0	0
			34	20	4	10		
82	5	1	Total	C	N	O	0	0
			34	20	4	10		
82	5	1	Total	C	N	O	0	0
			34	20	4	10		
82	5	1	Total	C	N	O	0	0
			34	20	4	10		
82	5	1	Total	C	N	O	0	0
			34	20	4	10		
82	n6	1	Total	C	N	O	0	0
			34	20	4	10		

- Molecule 83 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
83	D6	1	Total	Zn	0	0
			1	1		
83	D7	1	Total	Zn	0	0
			1	1		
83	D9	1	Total	Zn	0	0
			1	1		
83	E1	1	Total	Zn	0	0
			1	1		
83	O4	1	Total	Zn	0	0
			1	1		
83	O7	1	Total	Zn	0	0
			1	1		
83	Q0	1	Total	Zn	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
83	Q2	1	Total 1	Zn 1	0	0
83	Q3	1	Total 1	Zn 1	0	0
83	d6	1	Total 1	Zn 1	0	0
83	d7	1	Total 1	Zn 1	0	0
83	d9	1	Total 1	Zn 1	0	0
83	e1	1	Total 1	Zn 1	0	0
83	o4	1	Total 1	Zn 1	0	0
83	o7	1	Total 1	Zn 1	0	0
83	q0	1	Total 1	Zn 1	0	0
83	q2	1	Total 1	Zn 1	0	0
83	q3	1	Total 1	Zn 1	0	0

- Molecule 84 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
84	2	99	Total 99	O 99	0	0
84	S4	1	Total 1	O 1	0	0
84	C1	1	Total 1	O 1	0	0
84	C3	1	Total 1	O 1	0	0
84	C6	1	Total 1	O 1	0	0
84	C9	2	Total 2	O 2	0	0
84	D3	1	Total 1	O 1	0	0
84	D9	1	Total 1	O 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
84	SM	1	Total O 1 1	0	0
84	1	367	Total O 367 367	2	0
84	3	18	Total O 18 18	0	0
84	4	7	Total O 7 7	0	0
84	L2	1	Total O 1 1	0	0
84	L3	1	Total O 1 1	0	0
84	L4	1	Total O 1 1	0	0
84	M0	2	Total O 2 2	0	0
84	M5	1	Total O 1 1	0	0
84	M6	2	Total O 2 2	0	0
84	M7	4	Total O 4 4	0	0
84	N1	3	Total O 3 3	0	0
84	N3	3	Total O 3 3	0	0
84	N5	1	Total O 1 1	0	0
84	N8	1	Total O 1 1	0	0
84	O1	2	Total O 2 2	0	0
84	O2	2	Total O 2 2	0	0
84	6	111	Total O 111 111	0	0
84	c3	1	Total O 1 1	0	0
84	c8	1	Total O 1 1	0	0
84	c9	2	Total O 2 2	0	0

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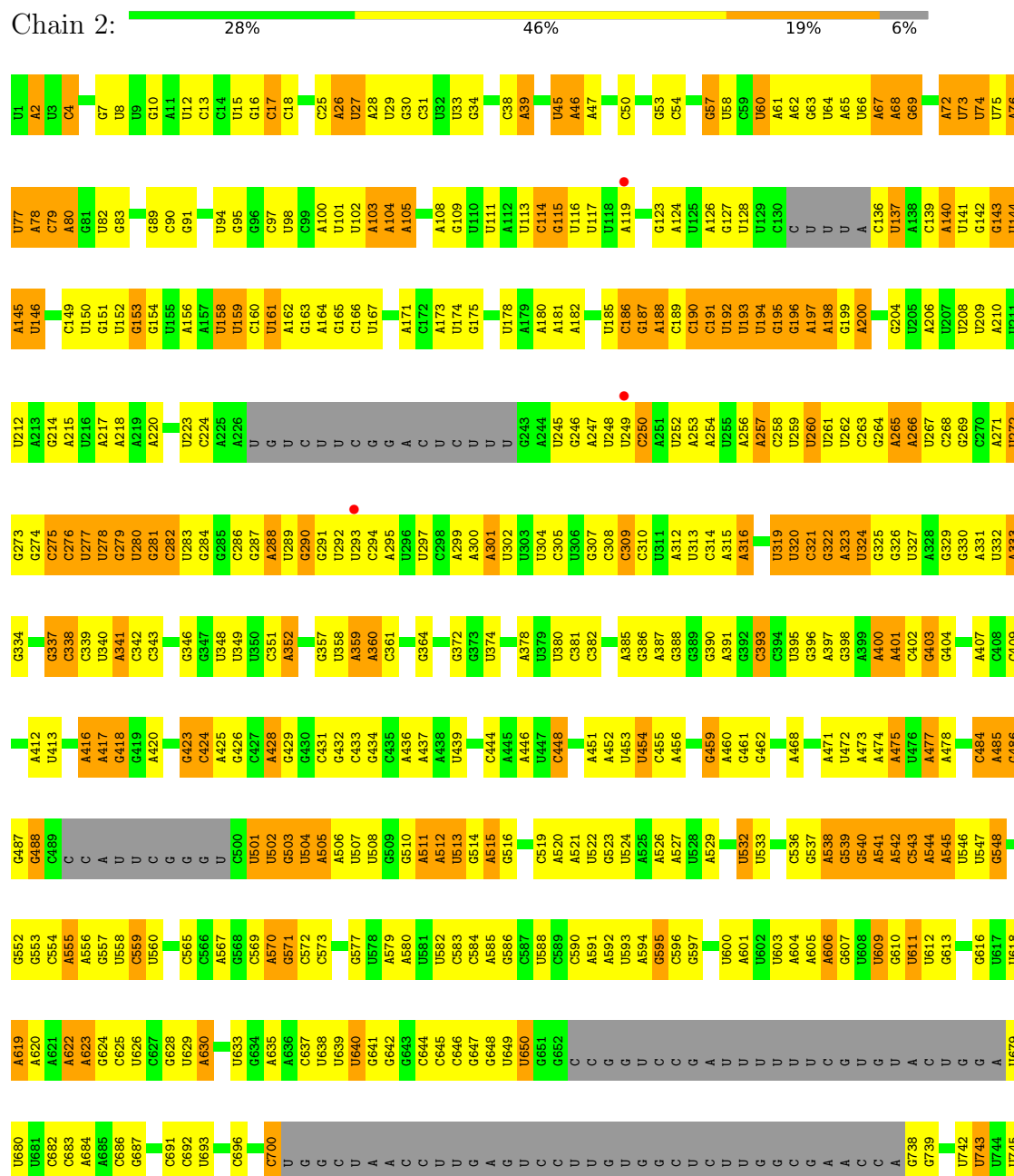
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
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84	5	365	Total 365	O 365	1	0
84	7	11	Total 11	O 11	0	0
84	8	7	Total 7	O 7	0	0
84	l2	1	Total 1	O 1	0	0
84	l3	4	Total 4	O 4	0	0
84	l4	2	Total 2	O 2	0	0
84	l9	1	Total 1	O 1	0	0
84	m0	1	Total 1	O 1	0	0
84	m5	3	Total 3	O 3	0	0
84	m6	1	Total 1	O 1	0	0
84	m7	2	Total 2	O 2	0	0
84	m9	2	Total 2	O 2	0	0
84	n1	3	Total 3	O 3	0	0
84	n3	3	Total 3	O 3	0	0
84	o2	3	Total 3	O 3	0	0
84	o4	2	Total 2	O 2	0	0
84	o7	1	Total 1	O 1	0	0
84	q2	1	Total 1	O 1	0	0

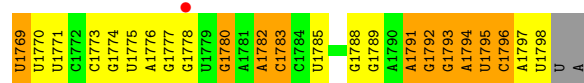
3 Residue-property plots

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: 18S ribosomal RNA

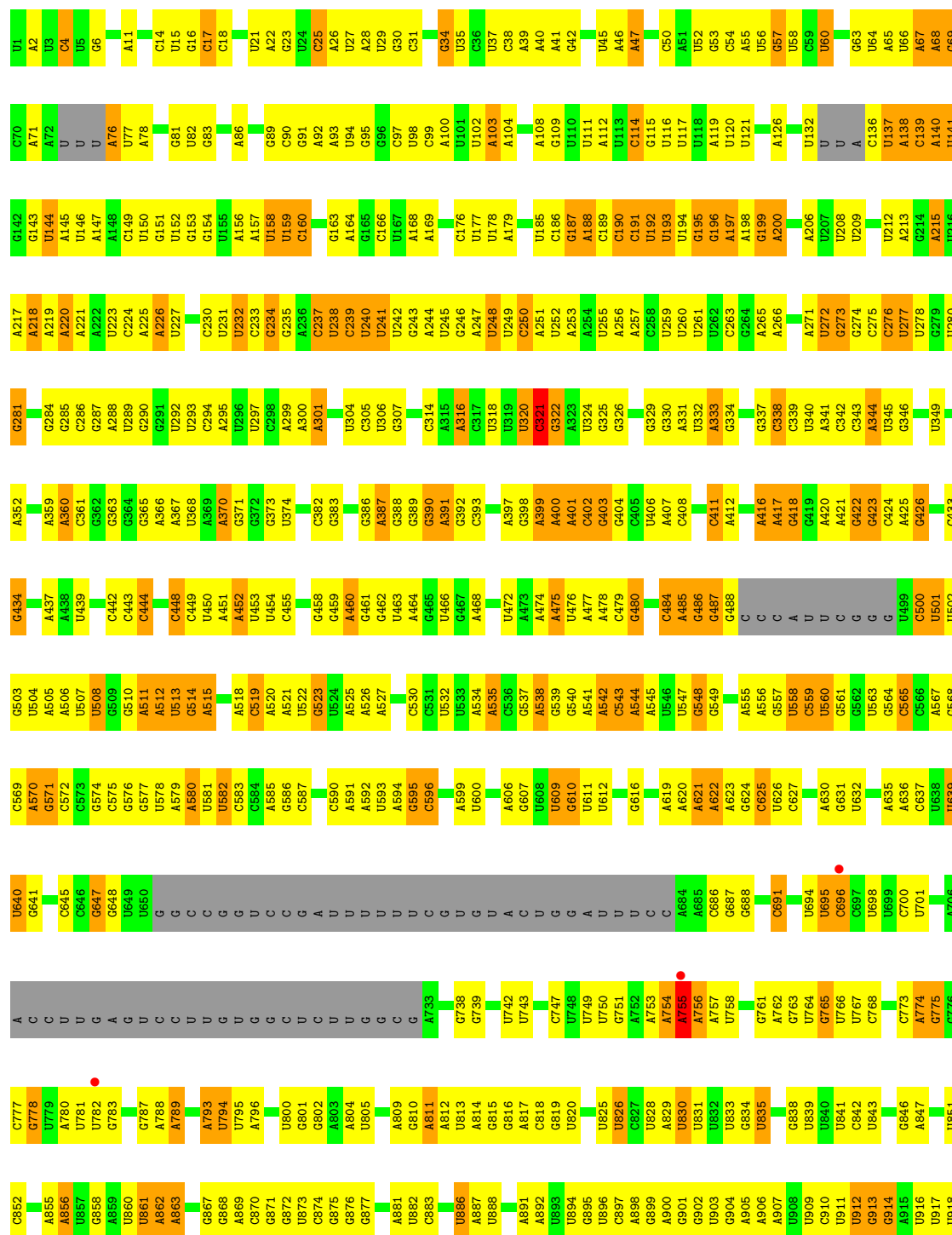


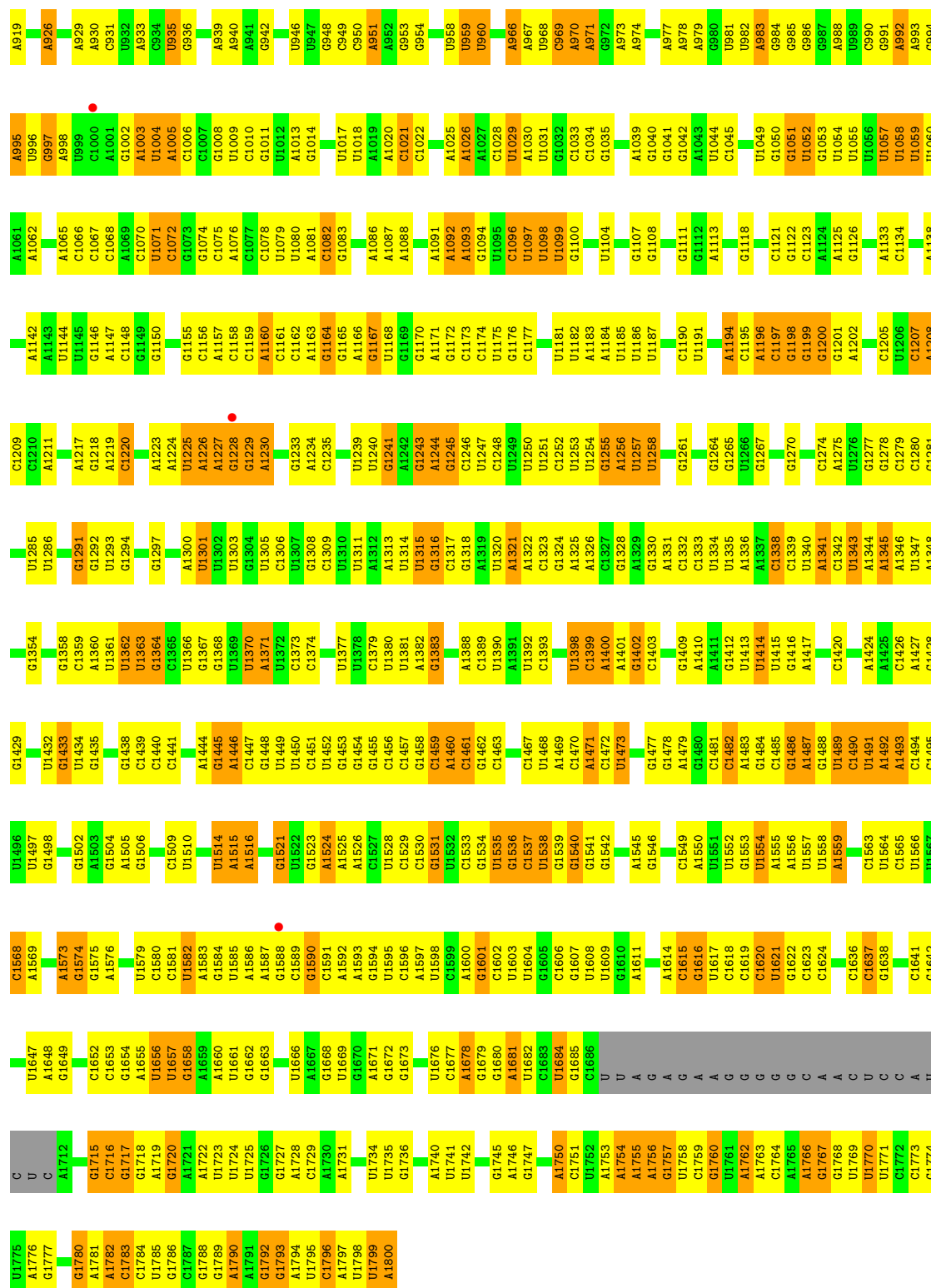
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A	U1626	C1565	C1501	U1432	C1365	U1293		G1150	A1086	C1022	A952	A887	U813	C747
C	U1627	U1566	G1502	G1433	C1366	G1294	A1217	A1151	A1087	U1023	G953	U888	A814	U748
U	U1628	C1567	G1503	U1434	G1367		G1218	A1152	A1088	U1024	G954	U889	G815	U749
C	C1629	C1568	G1504	G1435	G1368	U1297	A1219	G1154		U1025	G955	G890	G816	
C	U1630	A1569	A1505	A1436	U1369	U1298	C1220	G1155	A1091	A1026	G956	A891	A817	A753
A	A1631	A1570	G1506	U1437	U1370	G1299	A1221	G1156	A1092	A1027	G957	A892	G818	A754
U		C1571	U1508	U1438	U1372	A1300	C1222	A1157	A1093	C1028	U958		G819	A755
C	C1634	G1572	U1509	C1439	U1373	U1301	A1223	C1159	A1094	U1029	U959		U820	A756
	A1635	G1573	U1510		C1375		A1224	C1158	G1095	U1030	U960		U821	A757
	C1636	A1574	U1511	U1442	U1376	U1305	U1225	C1159	C1096	U1031			C897	U758
	C1637	G1575	U1512	U1443	A1375	C1306	A1226	A1160	U1097	G1032	U964		U759	A760
		A1576	G1513	A1444	U1378		A1227	C1161	U1098	C1033	U965		A760	
	C1640		G1514	G1445	U1379	A1312	G1228	C1162	U1099	C1034	A866		G761	
	C1641	U1579	U1515	A1446	C1379	A1313	G1229	A1163	G1100	G1035			C827	
	C1642	C1580	A1515	C1447	U1380	A1314	A1230	G1164	G1101		C969		U828	
	U1643	C1581	A1516	G1448	U1381	U1313	A1231	G1165	G1102	A1039	A970	U903	U831	U766
	G1644	U1582	U1517	U1449	G1383	G1316	U1232	A1166	U1103	G1040	A971	U904	U832	U767
	G1645	A1583	C1518	U1450	G1384	C1317	G1233	G1167	U1104	G1041	G972	A905	U833	C768
	C1646	U1584		C1451	G1385	A1318	A1234	U1168	C1105	G1042	A973		G834	A769
				U1452	G1386			G1169	U1106	A1043	A974	U908	U835	A770
		U1585	G1521		G1387	A1321	C1235	G1170	G1107	U1044	C975	U909	U836	A771
	G1649	A1586	U1522	G1453	A1388	A1322	A1236	A1171	G1108	U1045		C910	U837	G772
	U1650	G1587	G1523	G1454	C1389	G1323	G1237	G1172	G1109	G1046	A978	U911	U838	C773
	A1651	G1588	A1524	G1455	U1390	C1324		C1173	G1110	G1047	A979	U912		A774
		C1589	A1525	C1456	U1391	A1325	G1241	C1174	G1111	G1048	C980		G846	C775
	G1654	U1590	A1526	C1457	A1391			U1175		U1049				
	A1655	C1591	C1527	G1458	U1392	A1326	A1244	U1176			A983		C849	C776
	U1731	A1592	U1528	C1459	C1393	G1327	G1245	U1115	A915	U1050	A984	U916	C849	G777
	C1732	U1656	C1530	A1460	G1394	A1328		A1116	G984	U1051	G985	U917	U850	G778
	U1733	U1657	C1529	A1461	G1395	A1329	U1249	U1117	G985	U1052	G986	U918	U851	U779
	G1658	G1594	C1530	G1462	U1396	G1330	U1250	G1118	G986	G1053	C987	U919	C852	A780
	U1735	U1595	G1531		U1397		U1251	U1181	C987	U1054	A988	U920	C853	U781
	G1736	C1596	U1532		U1398	U1335	G1252	U1182	A988	U1055	A989	U921	U854	U782
			C1533	A1469	U1399	A1336	U1253	A1183	U989	U1056	C990		A855	G783
		U1597	G1534	A1470	C1399	A1337	U1254	A1184	C991	U1057	A992		A856	C784
	C1739	U1598	U1535	C1471	A1400	A1338	G1255	U1185		U1058	A993			U785
	A1740	C1662	G1536	C1472	A1401	G1339	U1256	U1186		U1059	A994			C786
	U1741	C1664	C1537	U1473	G1402	U1340	U1257	G1188		U1060	A995			G787
			U1538	G1474	C1403	U1341	U1258			U1061	A996		U860	A788
			G1539	A1475	C1404	C1342	U1259	U1191	C1128	A1062	A997	U928		A789
	G1745	U1603	G1540	G1478	U1407	C1343	U1260	C1192	U1129	U1063	A998	A929	A863	U790
	A1746	G1605	G1541	A1479	G1408	A1344	G1261	A1193	G1130	G1064	G997	A930	U864	A791
	G1747	C1675	G1542	G1480	G1409	A1345	U1262	A1194	A1131	A1065	A998	C931	U865	U792
	A1750	G1607	U1543	A1410	A1411	A1346		C1195	A1132	C1066	U999	U932	G866	A793
	C1751	U1608	A1544	C1481	A1412	U1347	G1268	A1196	A1133	C1067	C1000	U933	G867	U794
	U1752	U1609	U1544	C1482	A1417			C1197	C1134	C1068	A1001	U934	G868	A795
			C1549	G1486	G1412	A1348	C1274	G1198	U1135	C1069	G1002	U935	A869	A796
	A1753	A1611	A1550	A1487	U1413	G1349	A1275	G1199	U1136	C1070	A1003	C936	C870	
	A1754	U1612	U1551	G1488	U1414	U1350	G1275	G1200	U1137	U1071	U1004		G871	U800
	A1755	U1613	U1552	G1489	G1416	G1352	G1278	G1201	A1138		A1005	A940	G872	G801
	C1683	G1553	U1554	U1489	A1417	U1353	C1279	A1202	A1139	G1074	C1006	A941	U873	G802
	U1684	C1615	U1555	U1491		G1354	C1280	A1203	G1141	C1077	A995	A942	C874	A803
	G1685	G1616	A1556	C1490	C1420		G1281	A1204	G1142	C1078	A996	A943	U875	A804
			A1492	U1493	A1424	A1357	U1286	C1205	A1143	U1079	A997	A944	G876	U805
	A1693	C1618	U1557	C1494	A1425	G1358	U1287	U1206	A1144	U1080	U998	U945	G877	A806
A	G	C1619	U1558	C1495	A1426	G1359	G1288	A1208	U1145	A1081	U1015	U946		A807
C	G	C1620	A1559	U1496	C1427	A1360	G1289	A1209	G1146	C1082		U947	U882	U808
G	G	U1621	U1560	U1497	A1428	A1361	U1290	A1211	A1147	A1084	A1019	G948	C883	A809
G	G	G1622	U1561	U1498	G1429	U1362	G1291					G949	A884	G810
G	C	C1623	C1562	G1499		U1363						C950	G885	A811



Molecule 1: 18S ribosomal RNA

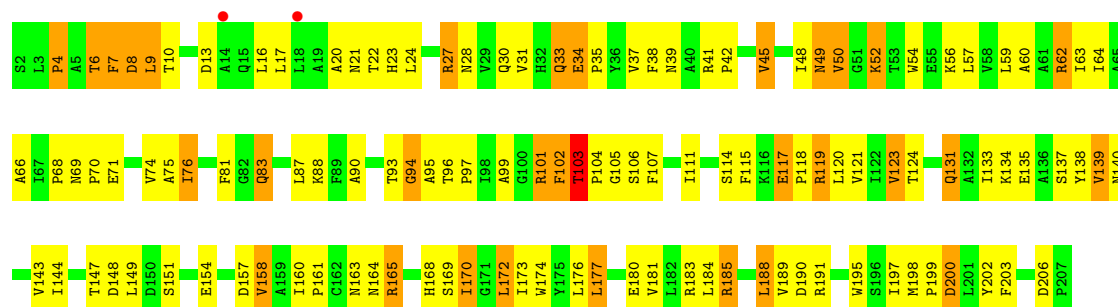
Chain 6: 32% 46% 16% 6%





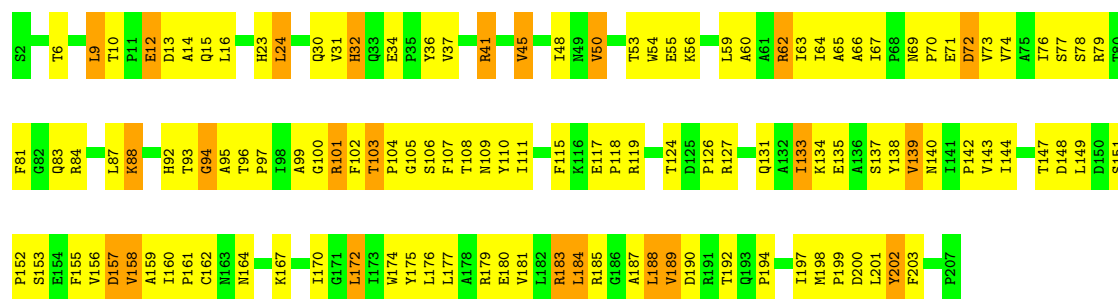
• Molecule 2: 40S ribosomal protein S0-A





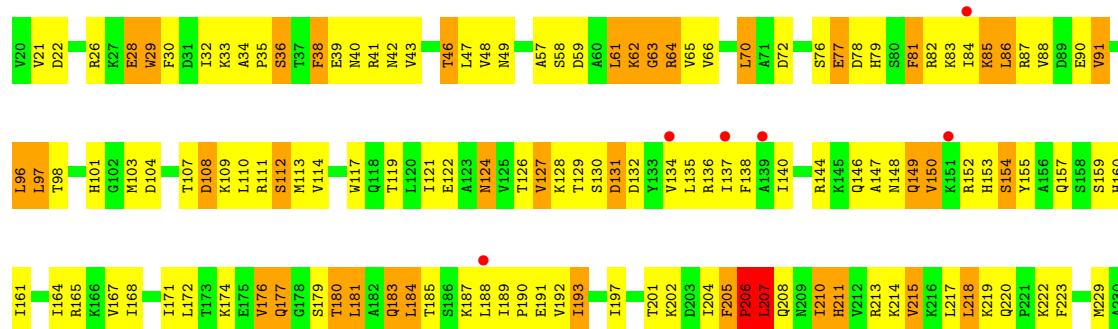
• Molecule 2: 40S ribosomal protein S0-A

Chain s0: 39% 50% 11%



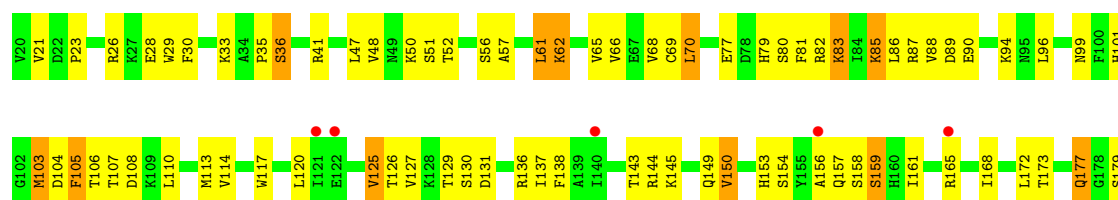
• Molecule 3: 40S ribosomal protein S1-A

Chain S1: 3% 36% 45% 17% ..



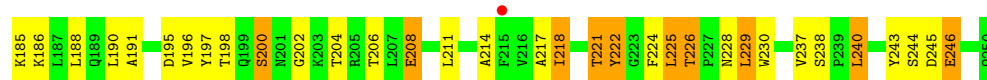
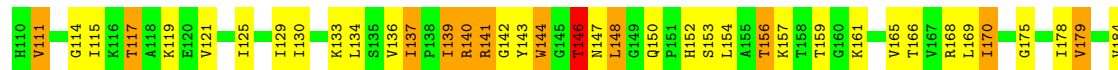
• Molecule 3: 40S ribosomal protein S1-A

Chain s1: 2% 51% 40% 8%

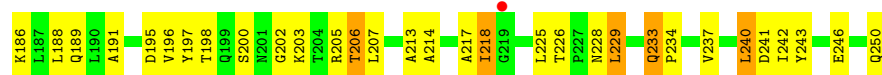
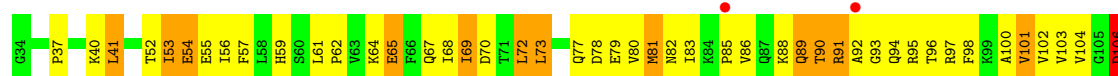




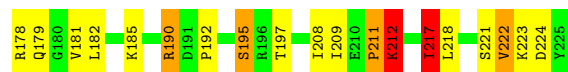
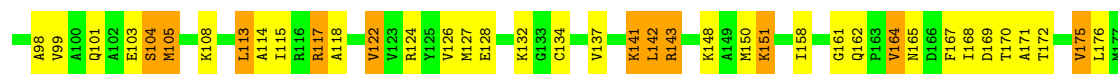
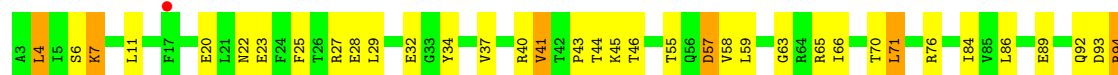
• Molecule 4: 40S ribosomal protein S2



• Molecule 4: 40S ribosomal protein S2

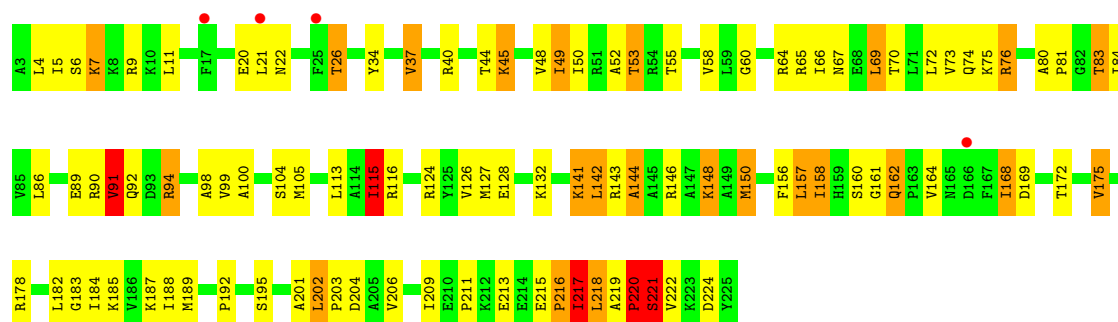


• Molecule 5: 40S ribosomal protein S3

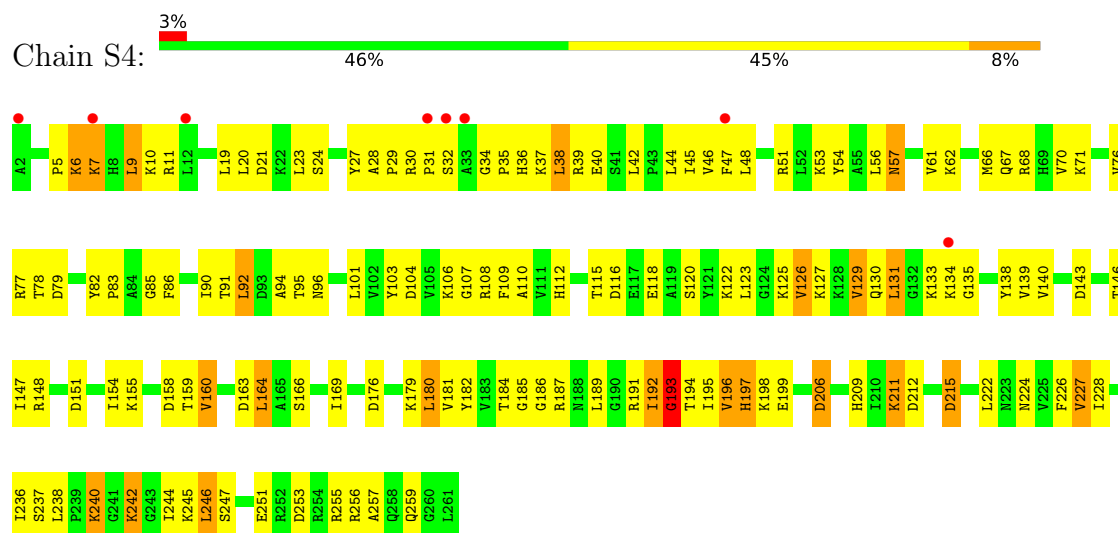


• Molecule 5: 40S ribosomal protein S3

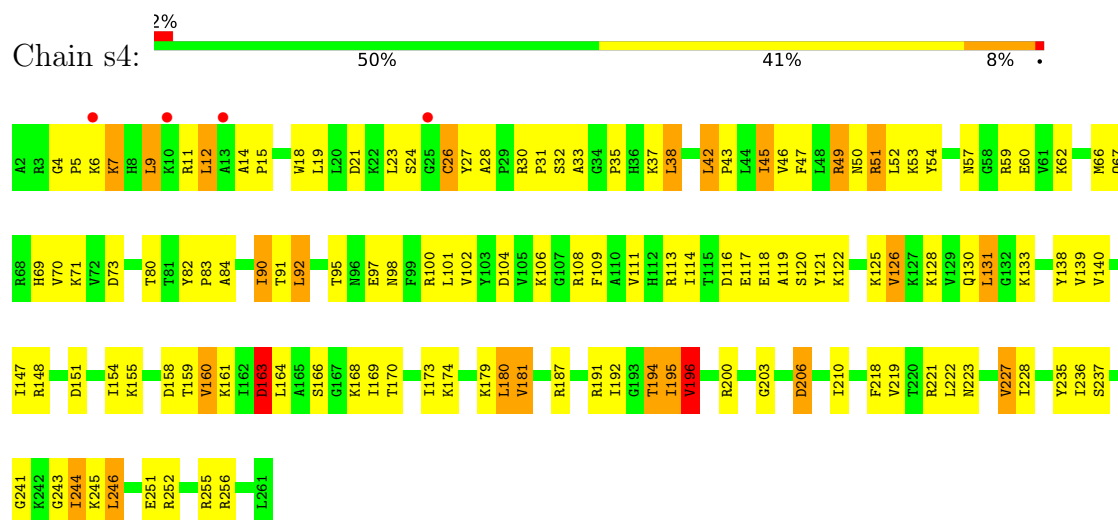




• Molecule 6: 40S ribosomal protein S4-A

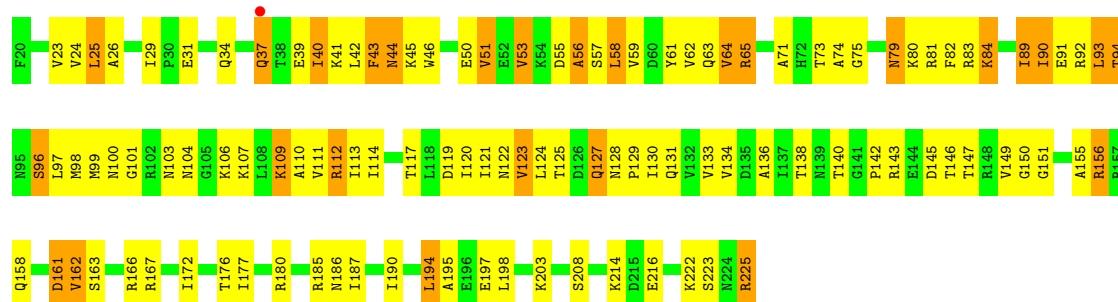


• Molecule 6: 40S ribosomal protein S4-A

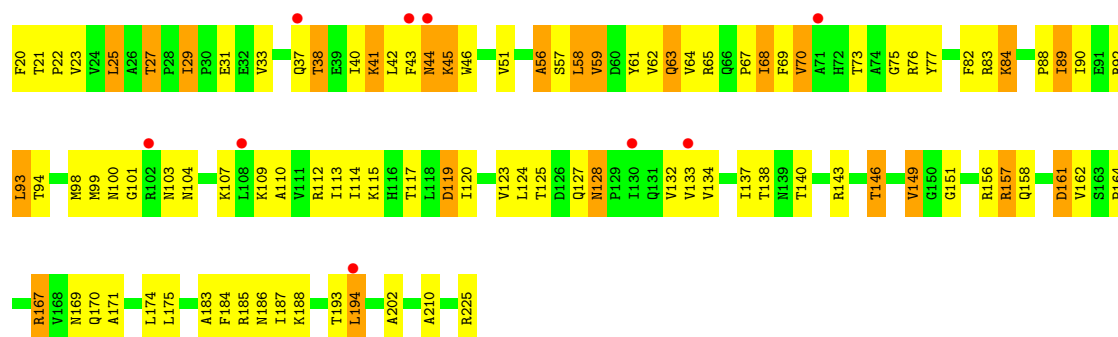


• Molecule 7: 40S ribosomal protein S5

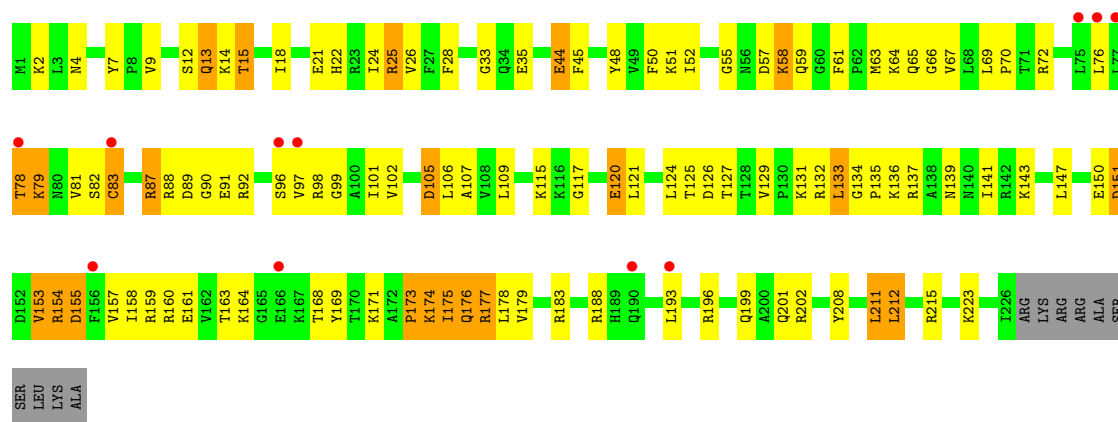




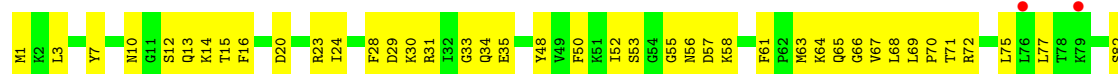
• Molecule 7: 40S ribosomal protein S5

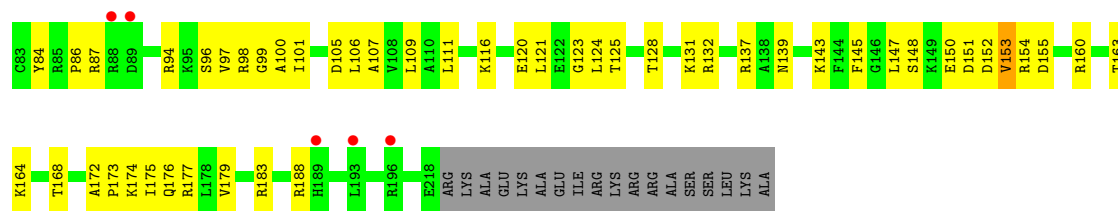


• Molecule 8: 40S ribosomal protein S6-A

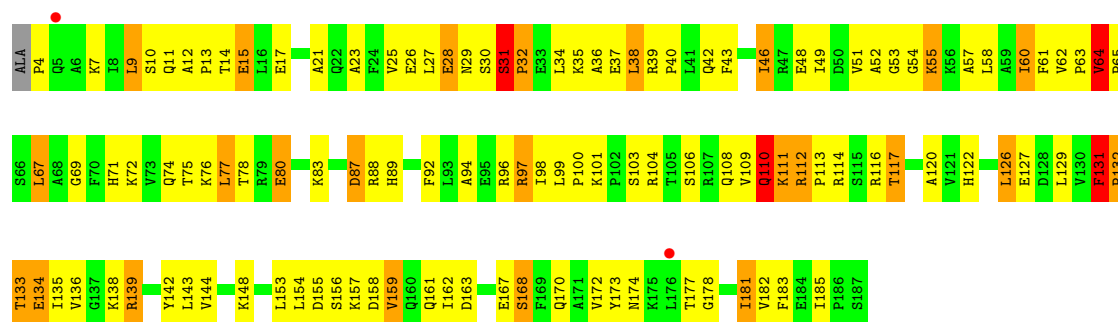


• Molecule 8: 40S ribosomal protein S6-A

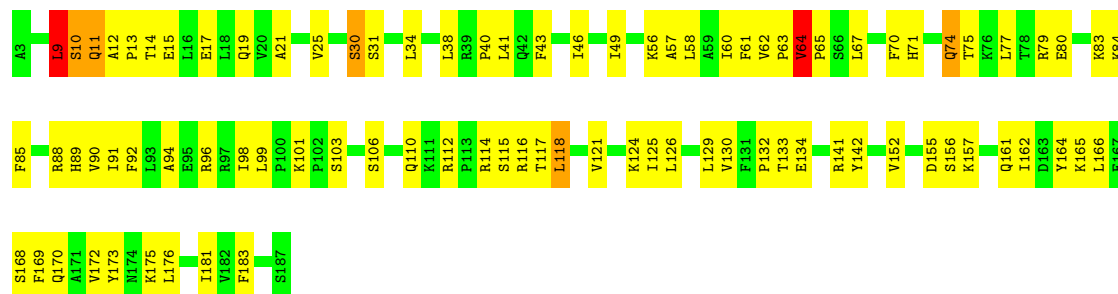




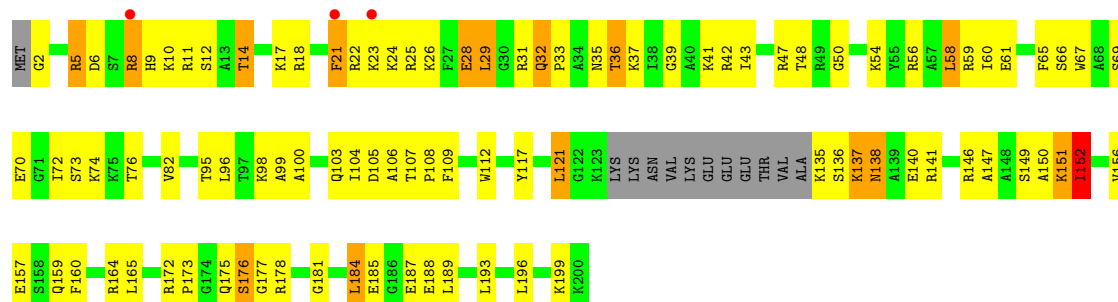
• Molecule 9: 40S ribosomal protein S7-A



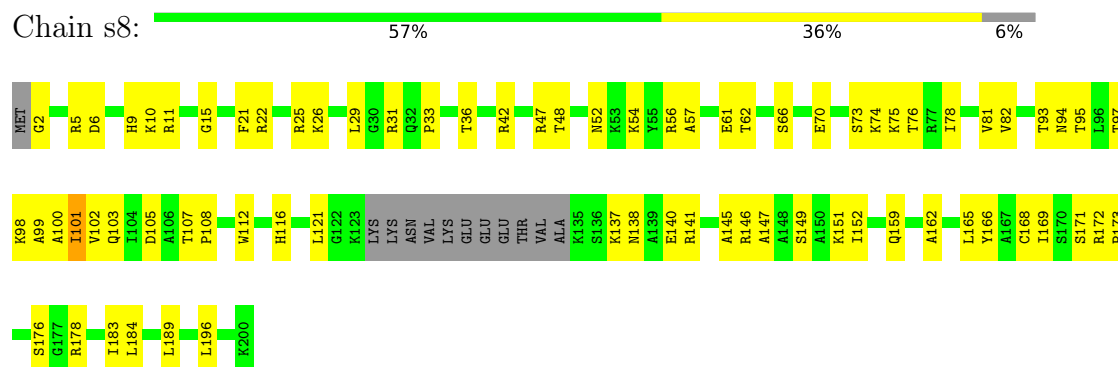
• Molecule 9: 40S ribosomal protein S7-A



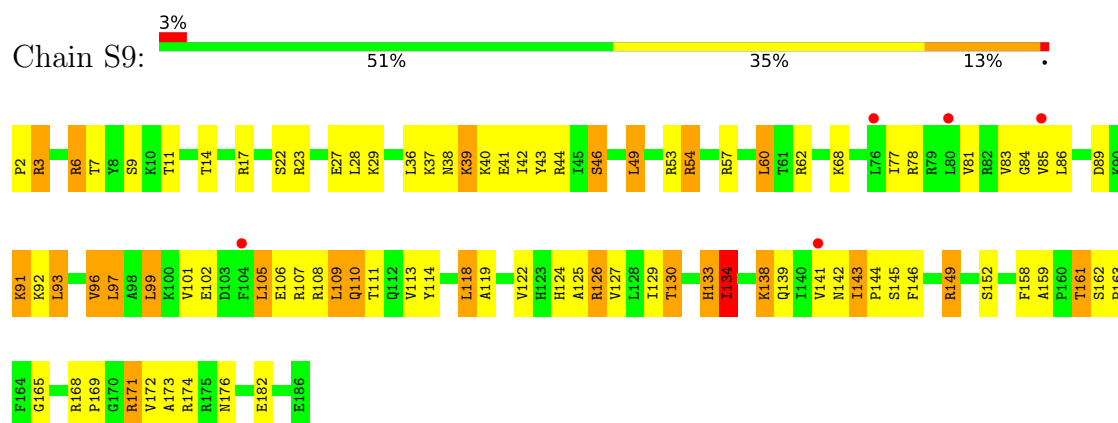
• Molecule 10: 40S ribosomal protein S8-A



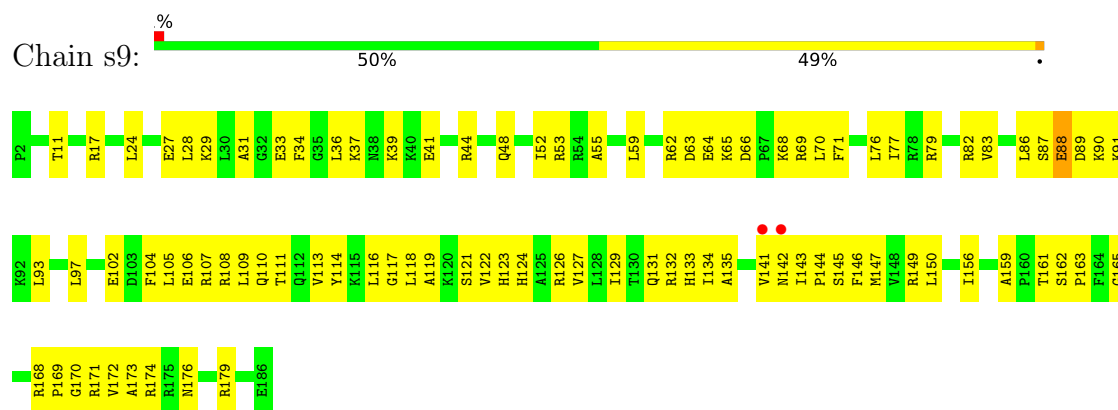
• Molecule 10: 40S ribosomal protein S8-A



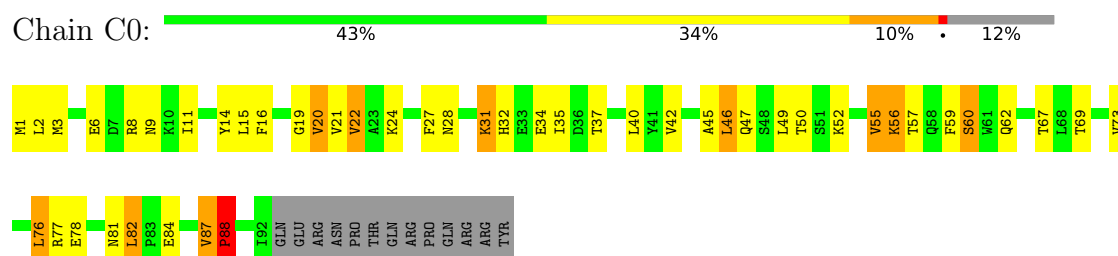
• Molecule 11: 40S ribosomal protein S9-A



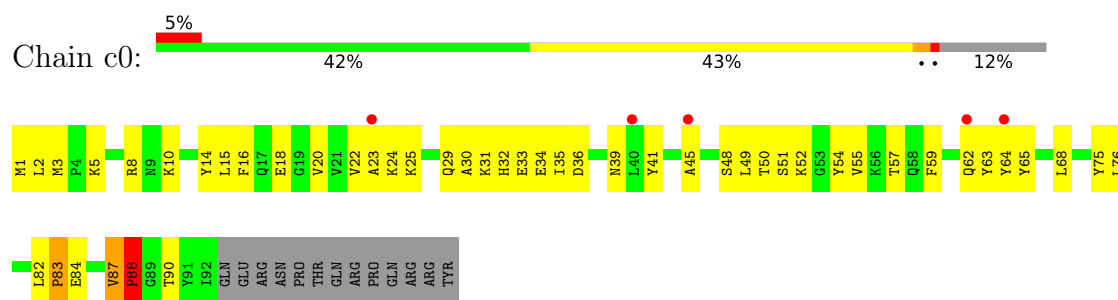
• Molecule 11: 40S ribosomal protein S9-A



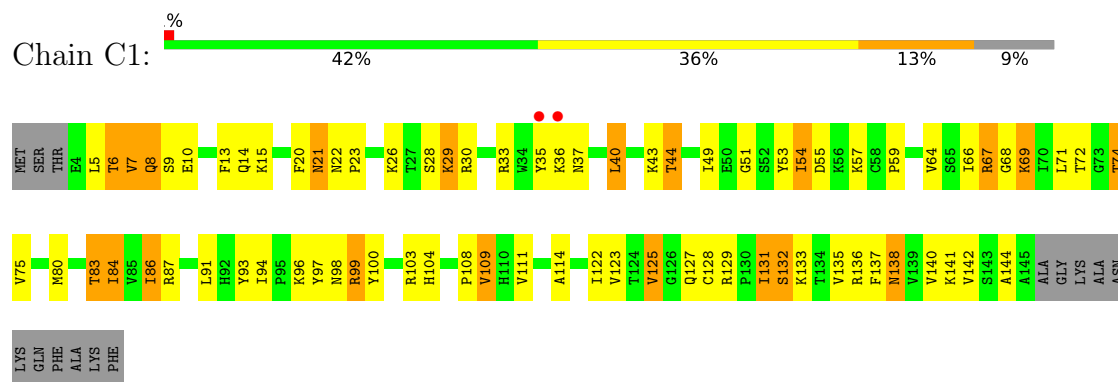
• Molecule 12: 40S ribosomal protein S10-A



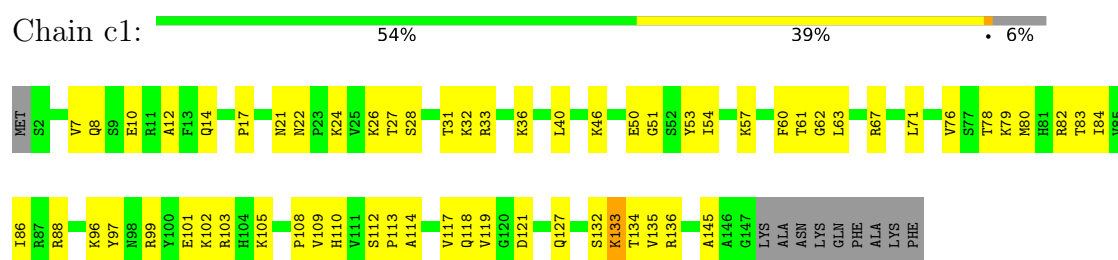
• Molecule 12: 40S ribosomal protein S10-A



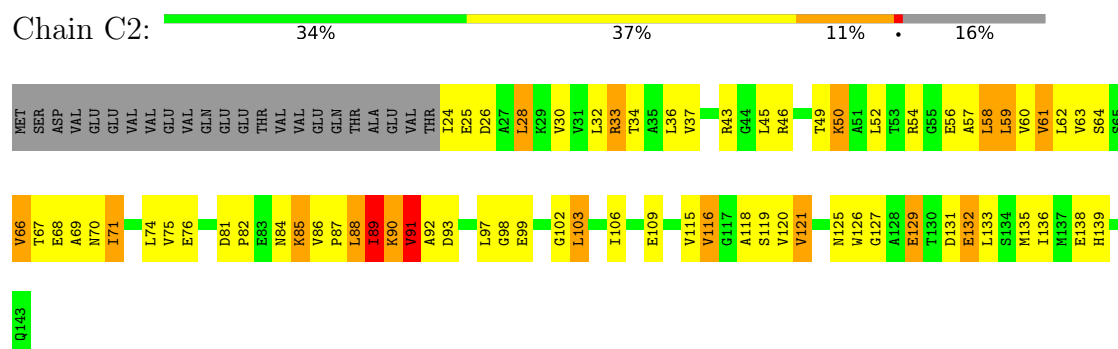
- Molecule 13: 40S ribosomal protein S11-A



- Molecule 13: 40S ribosomal protein S11-A

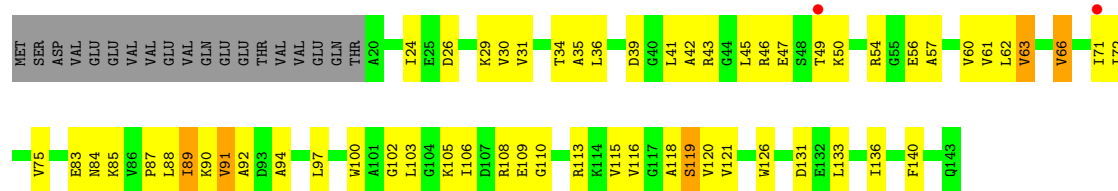


- Molecule 14: 40S ribosomal protein S12



- Molecule 14: 40S ribosomal protein S12

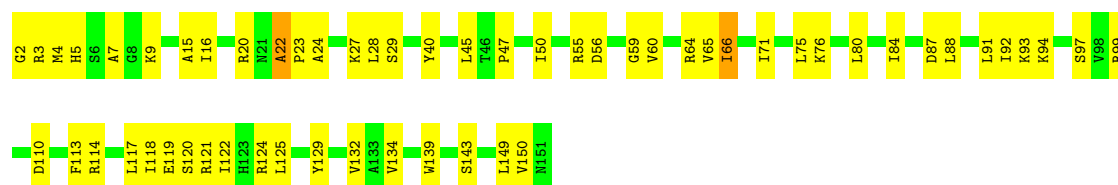




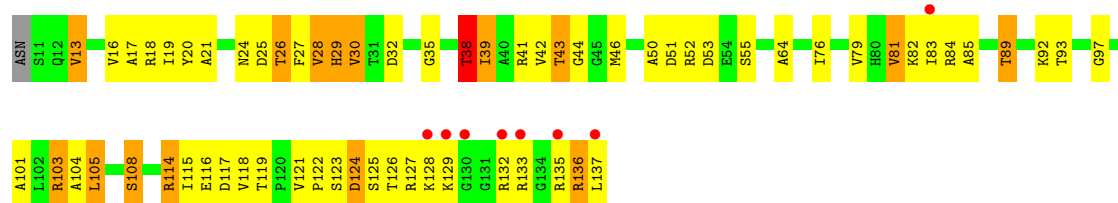
• Molecule 15: 40S ribosomal protein S13



• Molecule 15: 40S ribosomal protein S13



• Molecule 16: 40S ribosomal protein S14-A

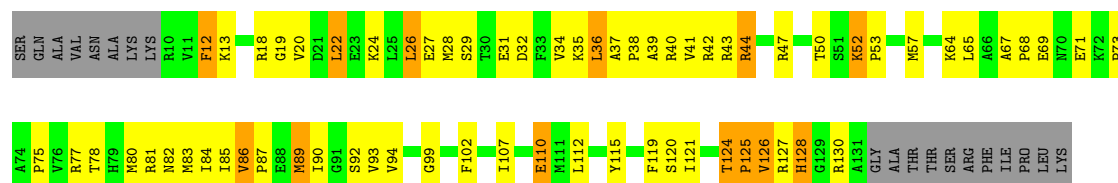


• Molecule 16: 40S ribosomal protein S14-A

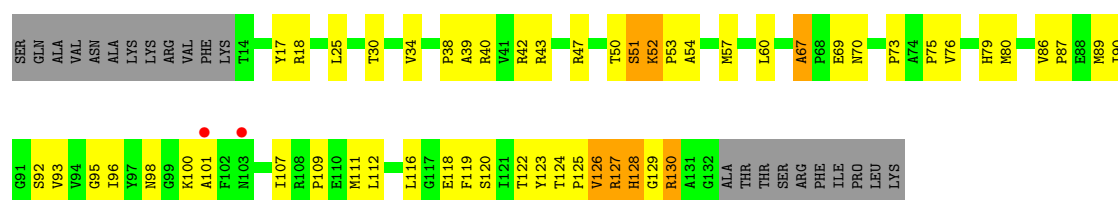




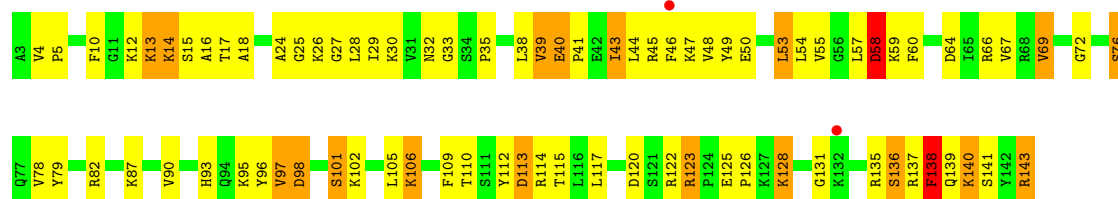
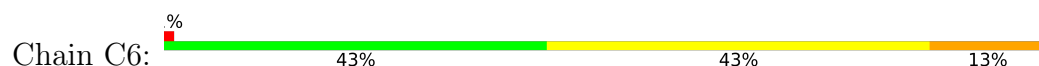
- Molecule 17: 40S ribosomal protein S15



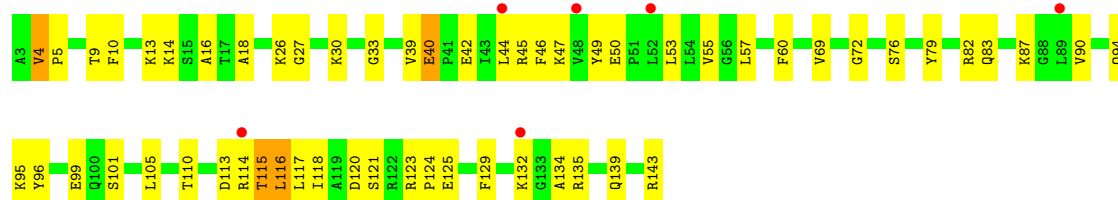
- Molecule 17: 40S ribosomal protein S15



- Molecule 18: 40S ribosomal protein S16-A

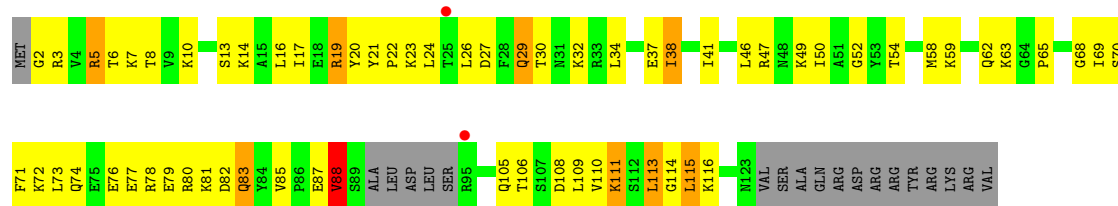


- Molecule 18: 40S ribosomal protein S16-A



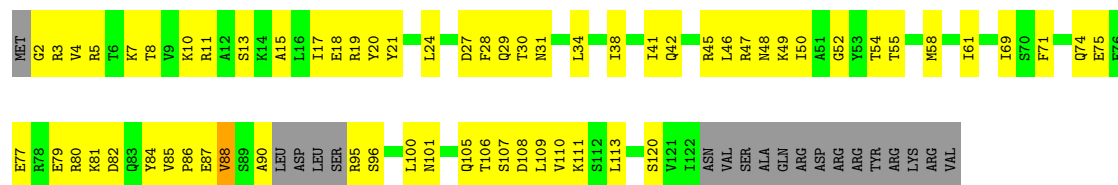
- Molecule 19: 40S ribosomal protein S17-A





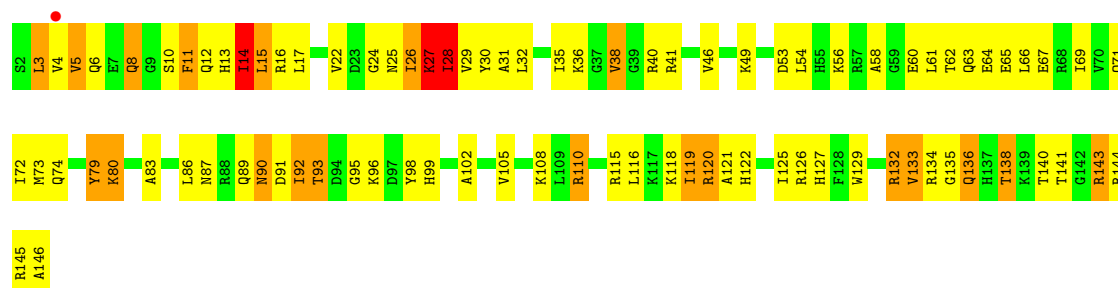
• Molecule 19: 40S ribosomal protein S17-A

Chain c7: 39% 46% 14%



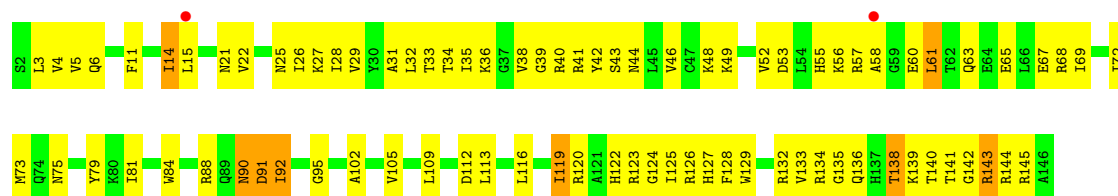
• Molecule 20: 40S ribosomal protein S18-A

Chain C8: 39% 45% 14%



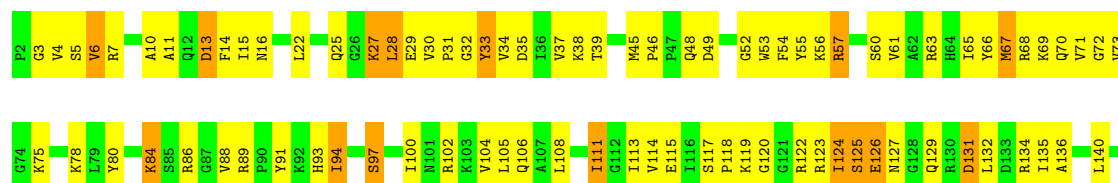
• Molecule 20: 40S ribosomal protein S18-A

Chain c8: 43% 52% 6%



• Molecule 21: 40S ribosomal protein S19-A

Chain C9: 40% 50% 10%



E144

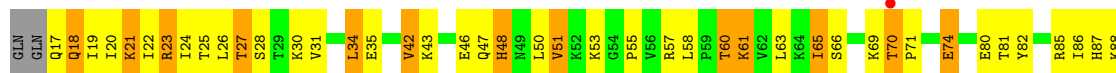
- Molecule 21: 40S ribosomal protein S19-A

Chain c9:  3% 48% 50% .



- Molecule 22: 40S ribosomal protein S20

Chain D0:  % 42% 42% 14% .



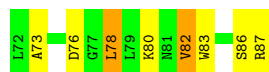
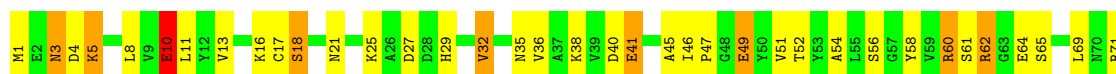
- Molecule 22: 40S ribosomal protein S20

Chain d0:  4% 42% 50% 6% .



- Molecule 23: 40S ribosomal protein S21-A

Chain D1:  48% 39% 11% .

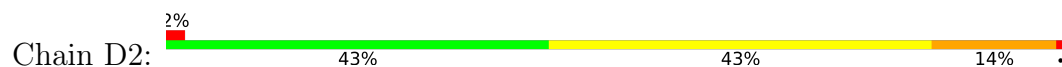


- Molecule 23: 40S ribosomal protein S21-A

Chain d1:  62% 38%



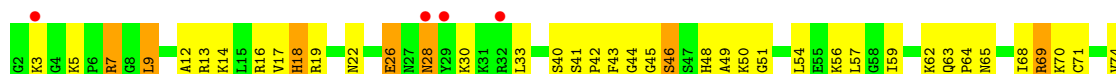
- Molecule 24: 40S ribosomal protein S22-A



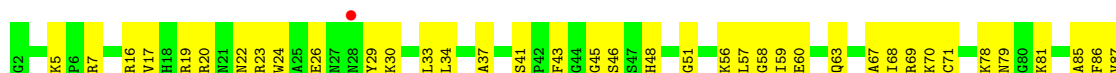
- Molecule 24: 40S ribosomal protein S22-A



- Molecule 25: 40S ribosomal protein S23-A

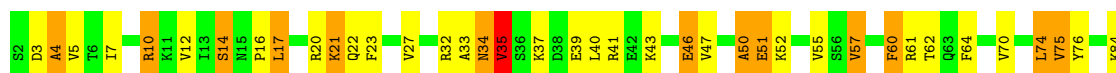


- Molecule 25: 40S ribosomal protein S23-A

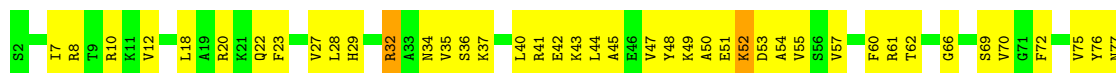


- Molecule 26: 40S ribosomal protein S24-A





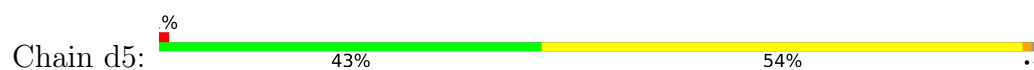
• Molecule 26: 40S ribosomal protein S24-A



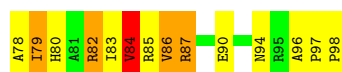
• Molecule 27: 40S ribosomal protein S25-A



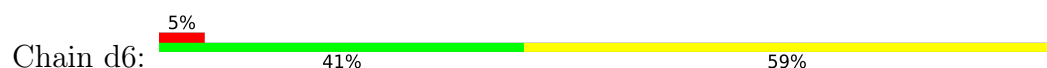
• Molecule 27: 40S ribosomal protein S25-A

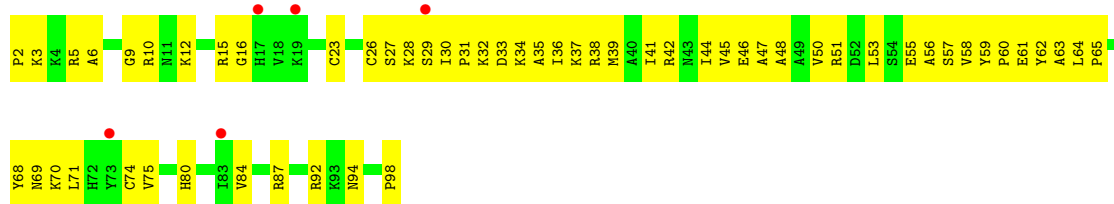


• Molecule 28: 40S ribosomal protein S26-B



• Molecule 28: 40S ribosomal protein S26-B





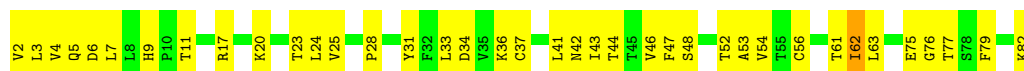
- Molecule 29: 40S ribosomal protein S27-A

Chain D7: 60% 31% 9%



- Molecule 29: 40S ribosomal protein S27-A

Chain d7: 53% 46% .



- Molecule 30: 40S ribosomal protein S28-A

Chain D8: 38% 46% 14% .



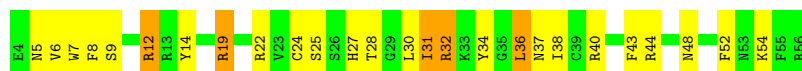
- Molecule 30: 40S ribosomal protein S28-A

Chain d8: 63% 37%



- Molecule 31: 40S ribosomal protein S29-A

Chain D9: 51% 40% 9%

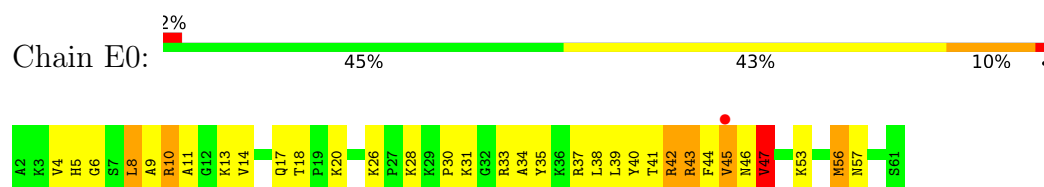


- Molecule 31: 40S ribosomal protein S29-A

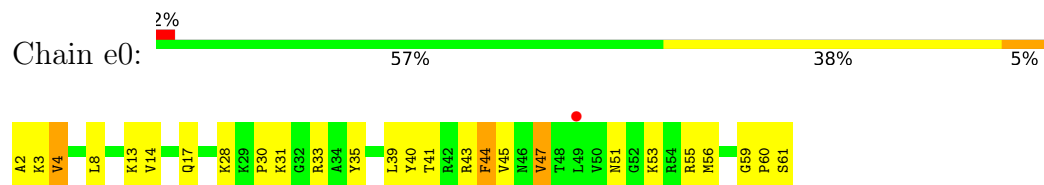
Chain d9: 68% 30% .



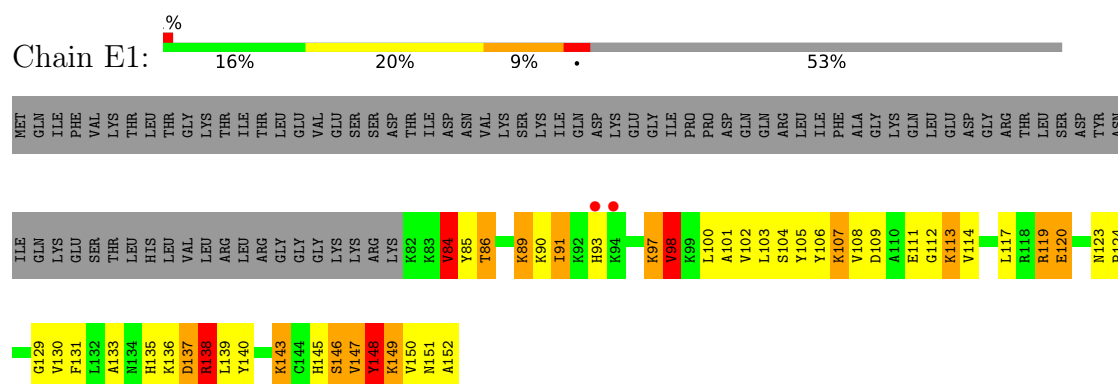
- Molecule 32: 40S ribosomal protein S30-A



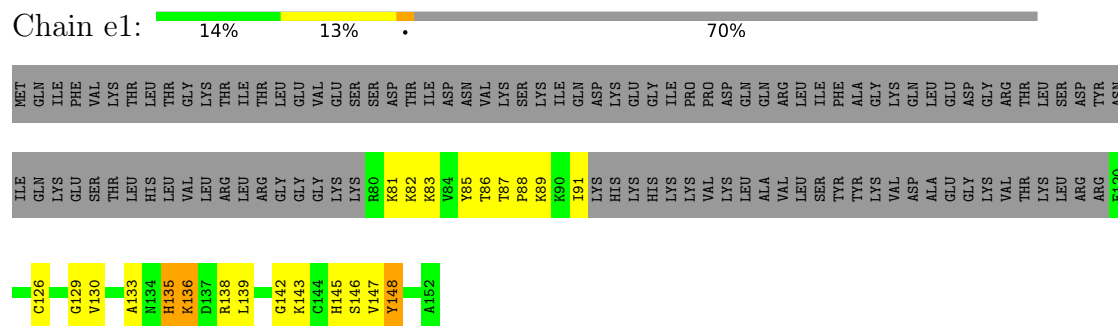
- Molecule 32: 40S ribosomal protein S30-A



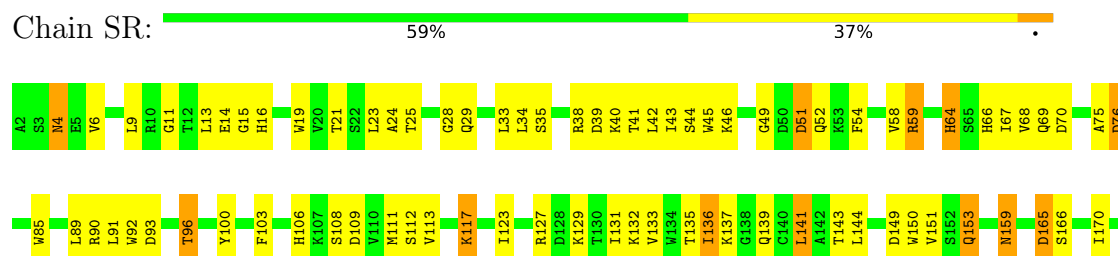
- Molecule 33: Ubiquitin-40S ribosomal protein S31

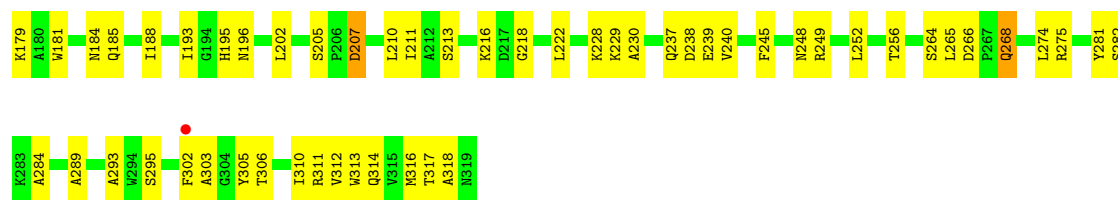


- Molecule 33: Ubiquitin-40S ribosomal protein S31



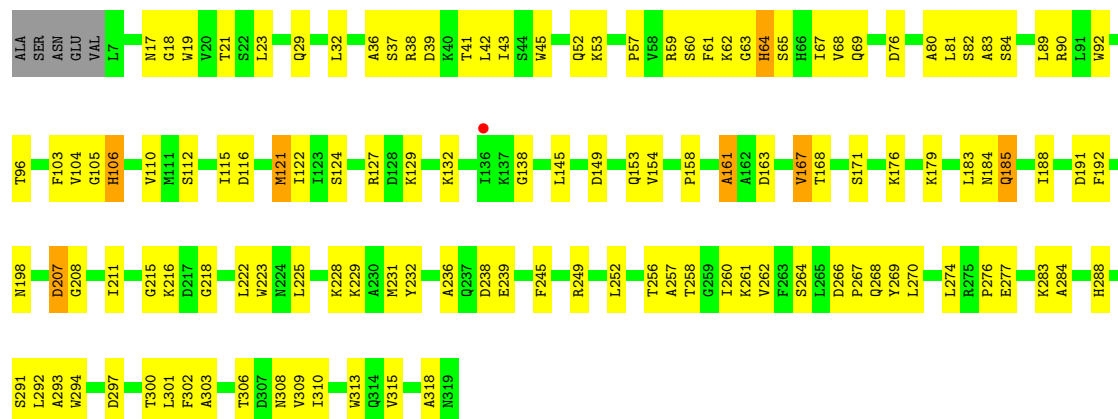
- Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein





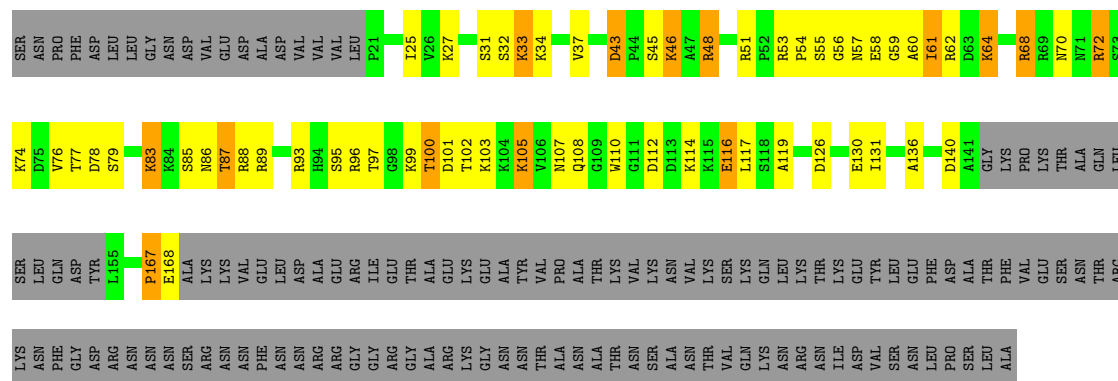
• Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein

Chain sR: 59% 37%



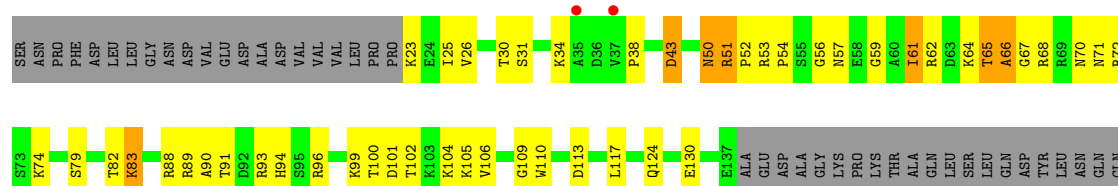
• Molecule 35: Suppressor protein STM1

Chain SM: 27% 18% 5% 50%



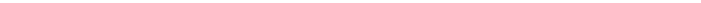
• Molecule 35: Suppressor protein STM1

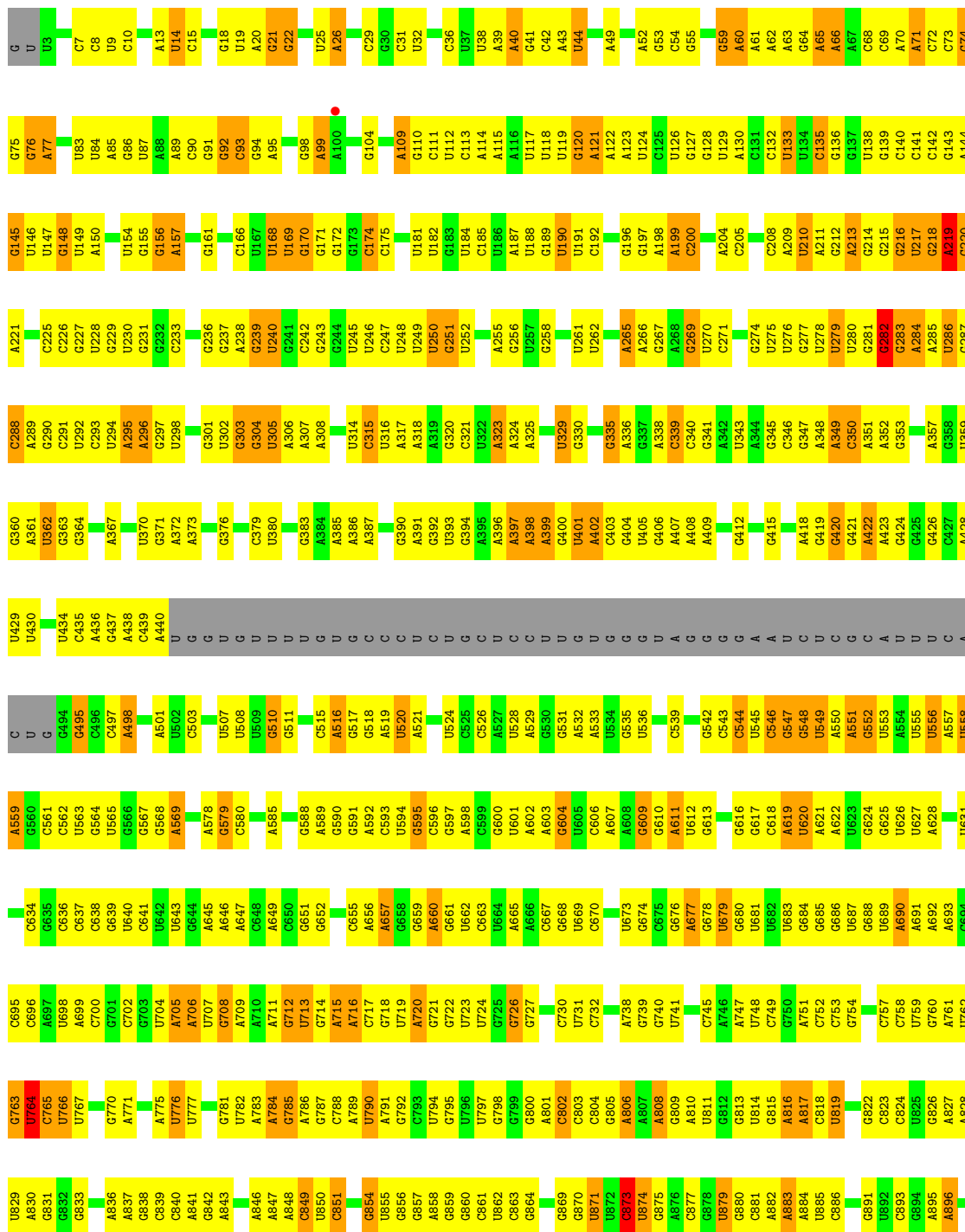
Chain sM: 24% 16% 58%



[illegible]

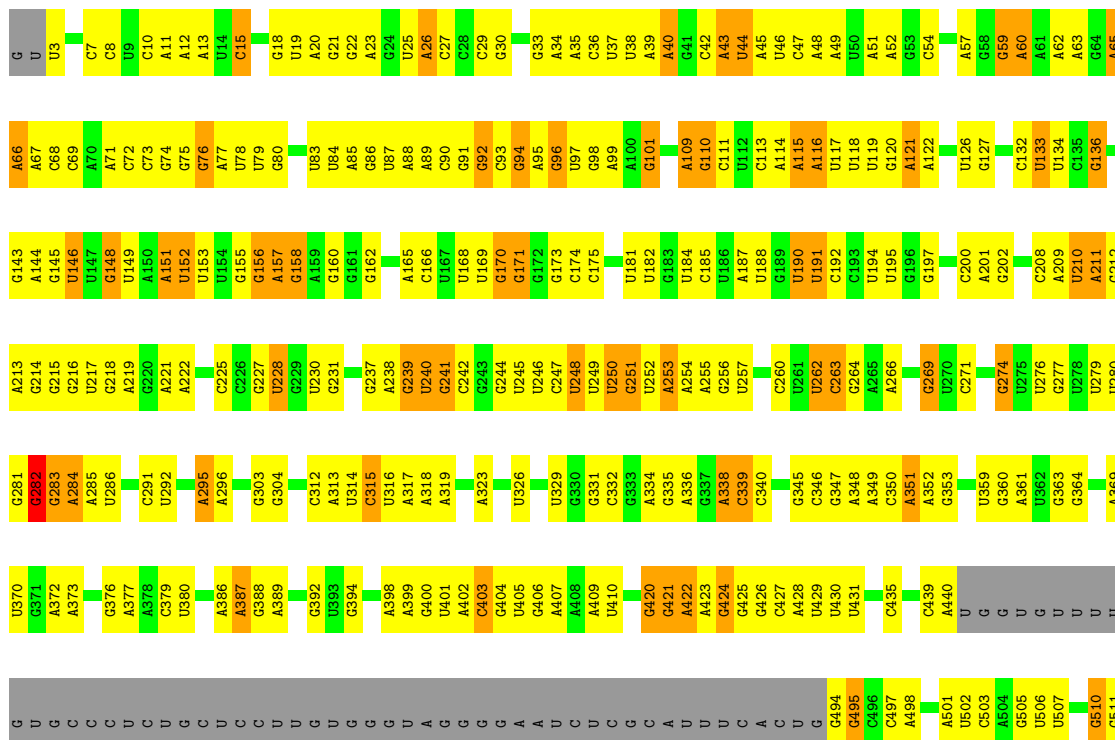
- Molecule 36: 25S ribosomal RNA

Chain 1:  28% 46% 15% 9%



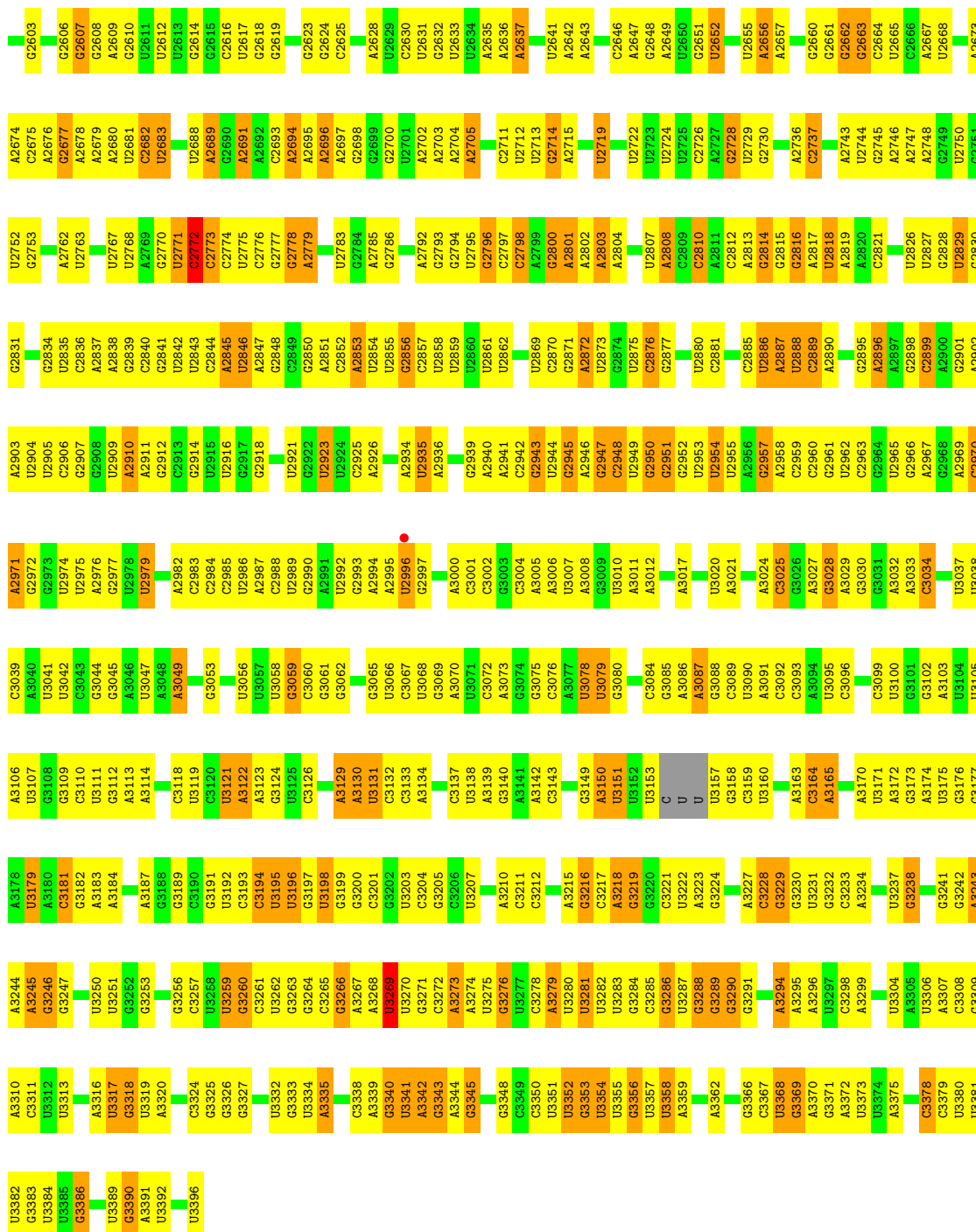
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G1875	A1806	C1662	A1535	A1468	C1396	U1326	U	C1187	U1110	G1043	G971	G901
U1876	G1807	G1663	G1536	U1471	U1397	A1325	C	U1188	G1112	A1047	A973	U905
G1877	G1808	G1664	A1537	U1472	U1398	U1326	G	C1189	G1113	A1048	G974	A906
A1878	A1809	G1665	G1538	U1473	A1399	C1327	C	A1190	U1114	A1049	C975	G907
A1879	A1810	G1666	A1539	U1477	G1400	U1328	U	U1191	G1115	U1050	C977	G908
U1880	A1811	A1667	U1540	A1477	A1401	U1329	A	C1192	G1116	U1051	G978	G909
A1886	A1812	G1668	G1541	A1478	C1402	A1330	A	G1193	G1117	U1052	G979	G910
A1887	U1814	C1669	G1542	U1479	C1403	A1334	G	G1194	C1118	A1053	A980	C911
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U1890	U1817	G1609	C1548	A1482	G1408	U1337	G	U1199	U1124	U1056	A992	A914
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G1892	U1819	G1678	C1550	U1484	C1411	G1339	G	C1201	G1126	U1058	G994	G916
U1820	U1820	A1679	U1553	U1485	G1412	G1340	G	A1202	G1127	G1059	G995	A917
A1893	U1821	A1612	U1554	G1486	G1413	U1341	U	A1203	U1128	U1060	U996	
U1894	A1750	A1613	U1555	G1487		C1342	A	A1204	U1129	A1061	A997	
A1895	G1751	C1615	U1556	G1488	C1416	A1343	A	A1205	A1130	A1062		A920
		U1616	C1556	U1489	G1417	G1344	A	G1206	A1131	G1063	C1000	A921
A1901		G1617	A1557	A1490	A1418	G1345	C	G1207	G1131	A1064	U922	U922
C1904		A1619	A1558	A1491	A1419	G1346	A	U1208	G1134	A1065	G923	C923
G1905		U1620	A1559		C1420	U1347	A	G1209		G1066	A924	A924
G1906		A1621	G1560	U1495	G1421	U1348	U	U1210	U1138		A925	A925
C1907		U1622	G1561	C1496	G1422	G	C		U1139		A926	A926
A1908		A1625	C1562	C1497	U1427	A	C	G1213	G1140	U1070	C927	C927
A1909		U1629	C1563	A1498	A1428	U	C	C1219	U1143	U1071	G928	C928
G1910			U1564	A1499	G1429	U1353		A1220	U1144	G1072	A929	A929
G1913			G1565	U1501	U1430	C1354		A1221	G1145	U1073	U930	U930
U1914			U1566	C1502	G1431	U1355		G1222	G1146	U1078	C931	C931
G1914			U1567	A1503	C1432	U1356		A1223	U1147	A1079	U932	U932
A1915			U1568	A1504	G1433	G1357			G1148	A1080	A933	A933
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U1920			U1570	A1506	U1435	U1361			U1014	A936	U935	U935
			U1571	A1507	U1436	U1362			C1016	G1083	A936	A936
U1925			G1572	C1508	U1437	G1363			G1017	A1084	G937	G937
C1926			G1573	A1509	U1438	C1364			C1018	A1085	U943	U943
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G1928			G1575	U1511	G1440	A1366			G1020	U1087	C945	C945
G1929			U1512	U1512	G1441	G1367			G1021	G1090	U946	U946
A1930			C1578	G1513	U1442	U1368			C1022	A1091	G947	G947
U1931			G1579	G1514	G1443	A1369			G1023	C1092	G950	G950
A1932			A1580	G1515	G1444				G1024	A1093	A951	A951
			C1581	A1515	U1445	A1373			A1025	U1094	A952	A952
U1937			C1582	C1516	U1446	G1374			A1026	U1095	G953	G953
U1938			A1583	U1517	A1447	G1375			A1027	U1096		
G1939			U1584	U1518	U1448	C1376			U1028	G1097	U956	U956
G1940			C1585	G1519	U1449				G1029	A1098	C957	C957
C1941			G1586	G1520	G1450	G1380			A1030	A1099	C958	C958
			U1587	U1521	U1451	A1381			G1033	U1100	U960	U960
U1944			A1588	U1522	U1452				U1034	G1101		
A1945			U1589	U1523	U1455	A1386			G1035	G1102		
A1946			G1590	A1524	A1456	G1387			A1036	A1103	G963	G963
G1947			G1591	G1525		U1388			C1037	G1104		
G1948			G1592	U1526	A1460	G1389			U1038	A1105	U966	U966
C1949			G1593	U1527	A1461	A1390			C1039	A1106	A967	A967
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C1951												



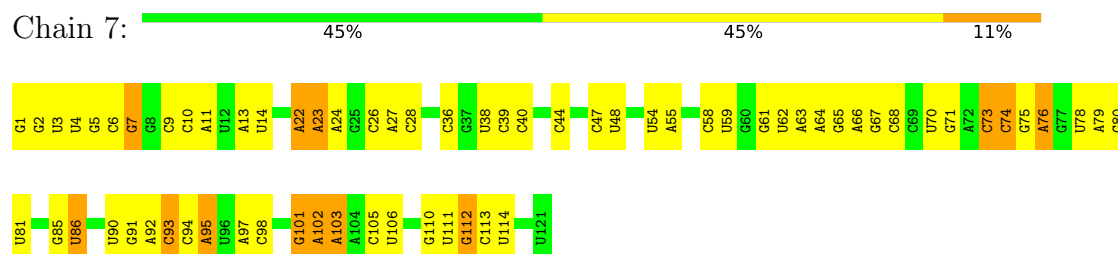


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U1512	U1438	C1361	A1287	G1209	A1143	A1003	U930	A866	G800	U731	G661	C596	C515
A1515	U1439	C1363	C1297	U1210	G1145	A1006	C931	C867	A801	C732	U662	G597	A516
C1516	U1442	C1364	U1298	A1212	C1146	U1007	U932	C868	C802	A735	C663	A598	G517
G1517	G1443	G1367	G1300	G1213	G1147	A1008	A933	C869	C803	A736	U664	C599	G518
G1520	U1445	U1368	A1301	U1214	U1148	A1009	A936	C873	C804	A737	A665	G600	A519
G1521	A1446	A1369	A1302	U1215	U1151	U1010	G937	U874	A806	A738	U673	U601	U520
U1522	G1447	C1378	U1305	C1219	U1152	G1012	C941	A876	A807	G740	G674	G604	U528
U1523	U1450	G1379	G1306	U1220	A1153	G1013	U942	C877	G812	G742	A677	G609	A529
A1524	C1451	G1380	C1307	A1221	A1154	U1014	U943	C878	G813	G743	G678	G610	A532
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C1527	C1459	C1385	U1308	A1224	G1157	A1091	U955	C881	G815	C745	G680	U612	U534
G1528	A1460	A1386	C1312	G1229	A1158	C1018	U946	A882	A816	U748	U681	G613	G535
A1529	A1461	G1387	G1313	G1230	U1159	G1019	C947	A883	A817	U749	U682	C614	U540
C1530	A1462	U1388	C1314	A1231	C1160	G1020	A952	A884	C818	C750	U683	U615	U541
A1534	A1468	G1390	U1315	U1235	G1161	G1021	U953	U885	U819	G750	U684	G616	G542
A1535	C1469	C1391	A1317	G1236	A1165	G1024	U954	C886	G820	A751	G685	G617	C543
G1536	U1470	G1392	C1316	C1237	U1166	A1025	U956	C887	U821	C752	G686	C618	U544
A1537	U1471	G1393	G1319	U1241	U1167	A1026	C957	U888	G822	C753	U687	A619	U545
U1538	U1472	A1394	C1320	G1242	U1168	A1027	C958	C890	C824	C758	U688	U620	C546
A1539	G1473	C1397	U1321	U1243	U1169	U1028	U959	C891	U825	G759	U689	A621	G547
U1540	A1474	U1398	G1322	A1244	A1170	G1029	C958	U892	G826	A761	A690	A622	G548
A1541	C1475	A1399	U1323	A1245	C1175	U1030	U960	C893	U827	U762	A691	G625	U549
G1542	U1476	G1400	G1324	U1246	G1177	A1031	C961	C894	A828	G763	A692	U626	A550
A1543	A1477	A1401	C1325	G1247	U1178	C1032	A962	A895	U829	U764	C694	U627	G552
G1544	G1480	A1402	C1326	A1248	C1179	U1033	C963	A896	A830	G765	C695	A628	U553
U1545	A1481	C1403	U1327	A1249	U1180	G1034	U966	U897	G831	U766	C696	U629	A554
C1551	C1482	C1404	A1330	U1250	A1181	A1035	U967	U898	U834	C768	A693	A630	U555
G1552	U1483	U1405	A1332	G1251	U1182	C1036	U968	G900	C835	C702	U556	U631	U556
U1553	A1484	A1406	C1333	C1252	A1183	C1037	C969	G901	A836	G770	U557	G632	A557
U1554	G1485	G1408	U1334	A1253	C1184	U1038	A973	G902	A837	A771	U704	C634	A558
U1555	A1488	C1409	C1335	U1254	A1185	A1040	G974	A906	C838	U776	A705	G635	G560
C1556	A1489	G1412	A1337	U1255	C1186	C1043	C975	G907	C840	U777	U707	C636	C561
A1557	A1490	G1417	C1340	U1258	C1189	U1044	G978	G908	A841	U778	G708	C637	C562
A1558	G1491	A1418	U1341	A1259	A1190	A1045	U979	G909	C842	G779	A711	G639	G566
G1560	C1492	A1419	C1342	A1260	A1191	A1046	A980	C911	A843	A780	G712	U640	G567
G1561	U1494	C1420	A1343	G1261	C1192	A1047	U986	G912	G844	G781	G713	C641	C576
C1562	U1495	G1421	G1344	G1262	C1193	A1048	U987	A913	G845	U782	U714	U642	C577
C1563	C1496	G1422	G1345	A1263	A1193	C1049	U988	A914	A846	A783	G715	U643	C578
U1564	G1497	C1423	G1346	G1264	G1194	U1050	U989	A915	A847	A784	A716	G644	A578
A1565	A1498	C1424	U1347	U1265	A1195	A1054	A990	G916	A786	G785	C717	A645	G579
G1566	C1499	U1425	U1348	U1266	C1196	A1055	U990	A917	G851	A787	G718	C580	C580
A1567	U1500	C1426	G	A1270	A1197	A1062	G991	C918	U852	C788	G719	C648	U551
A1568	U1501	U1427	A	A1271	C1198	A1063	A992	U919	U853	A789	U719	A649	G582
G1569	C1502	A1428	U	U	C1199	G1063	G993	U920	C854	G721	A720	C650	C586
U1570	A1503	G1429	A1352	U1276	A1200	A1064	G994	A921	U855	U790	G722	G651	G587
C1571	U1504	C1277	U1353	C1277	C1201	A1065	U995	U922	C856	A791	G723	G652	U587
A1572	C1505	G1431	G1354	A1202	A1202	G1066	A996	C923	G857	G793	U724	C654	G588
U1573	U1506	C1432	A1355	G1281	A1203	U1070	A997	G924	A858	G794	U725	C655	A589
C1574	G1507	A1433	U1356	G1282	A1204	U1071	A998	A925	G859	U795	G726	G656	G590
A1575	A1508	C1283	G1357	C1283	A1205	G1139	G999	A926	C860	U796	G727	A657	A592

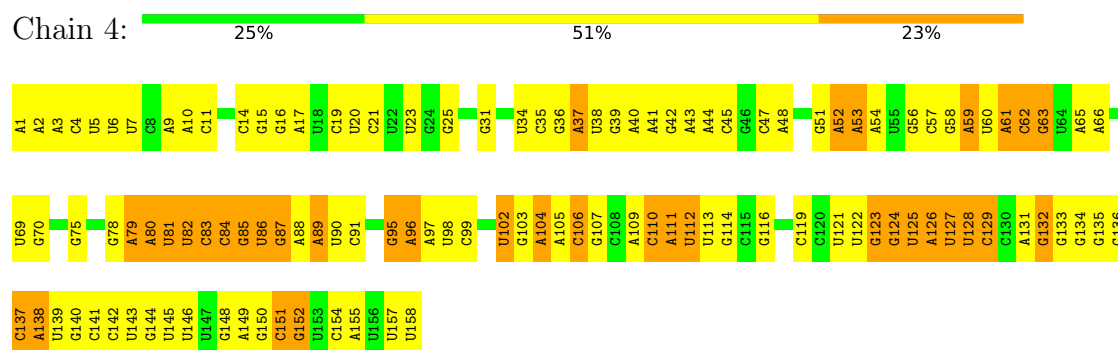




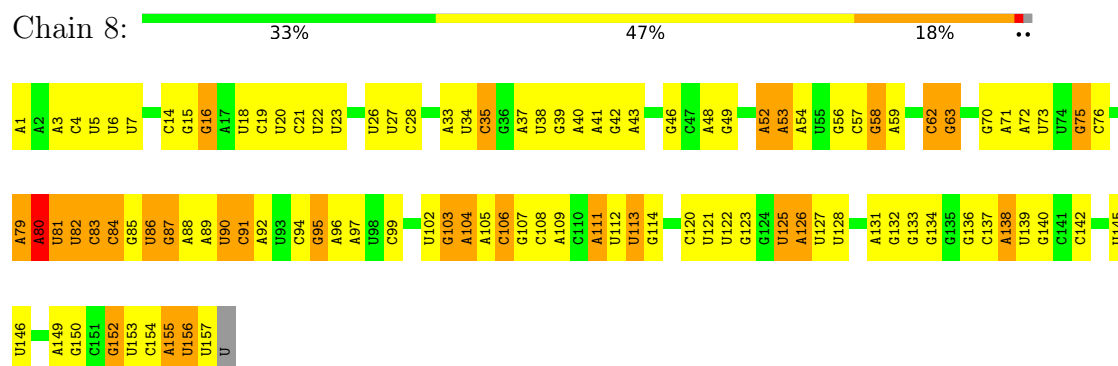
- Molecule 37: 5S ribosomal RNA



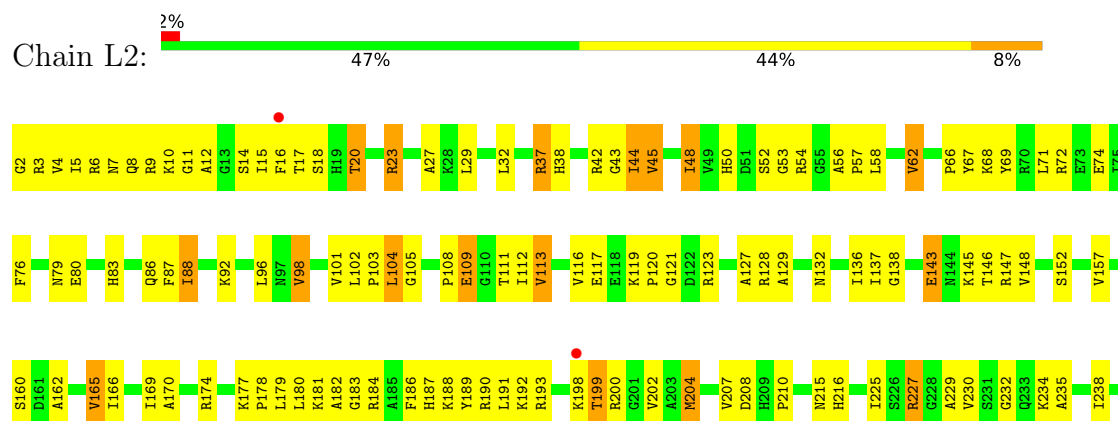
- Molecule 38: 5.8S ribosomal RNA

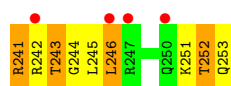


- Molecule 38: 5.8S ribosomal RNA

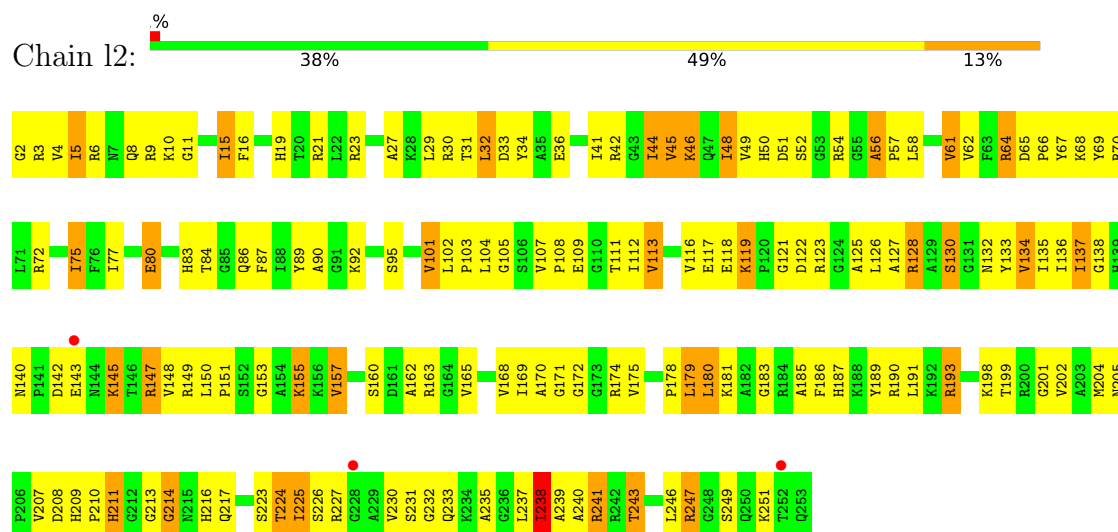


- Molecule 39: 60S ribosomal protein L2-A

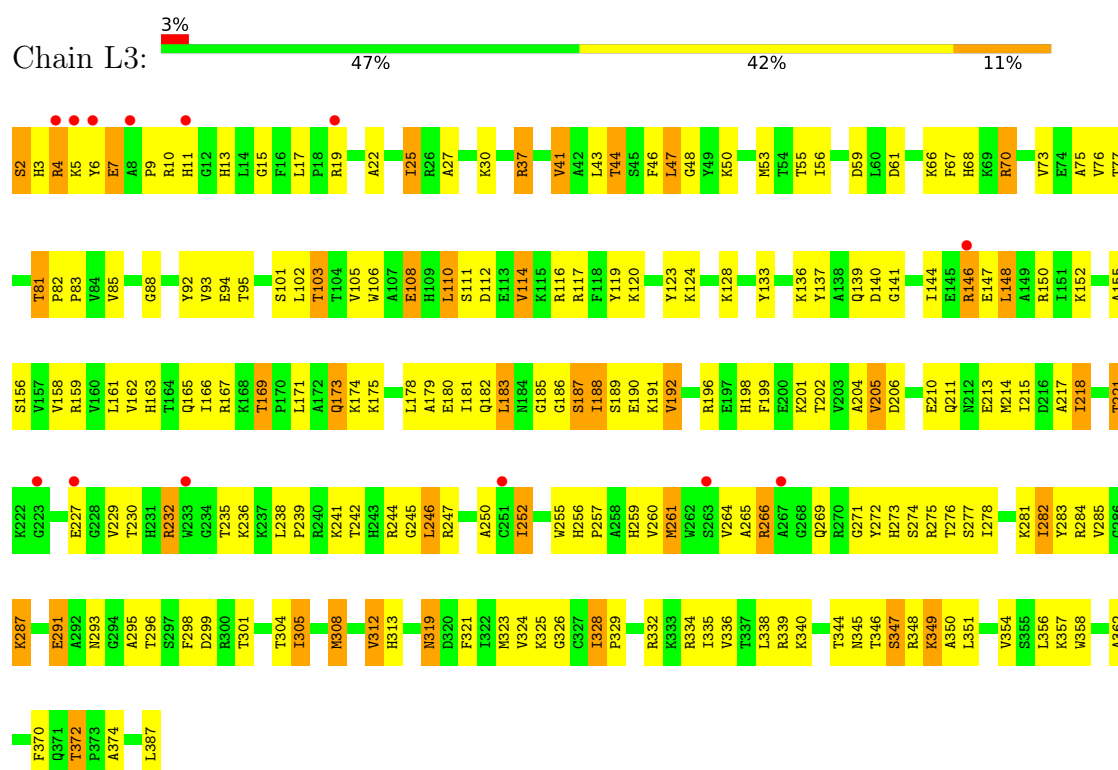




• Molecule 39: 60S ribosomal protein L2-A

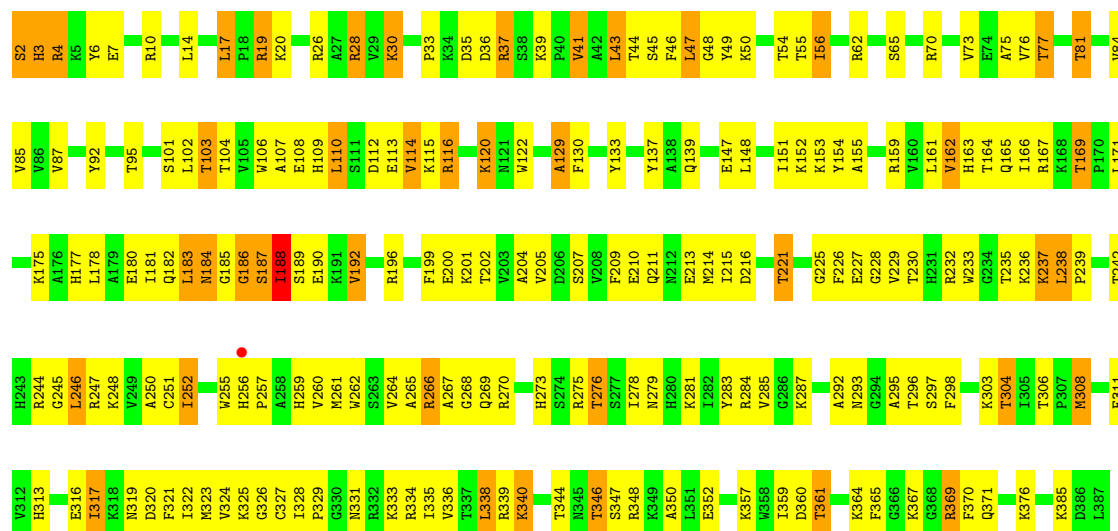


• Molecule 40: 60S ribosomal protein L3

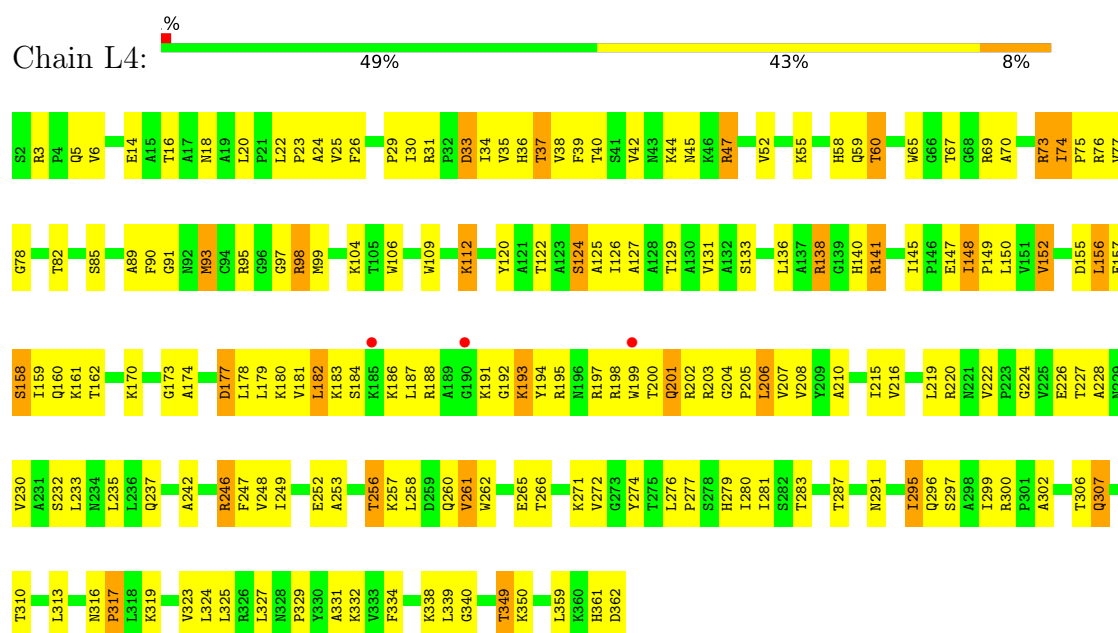


• Molecule 40: 60S ribosomal protein L3

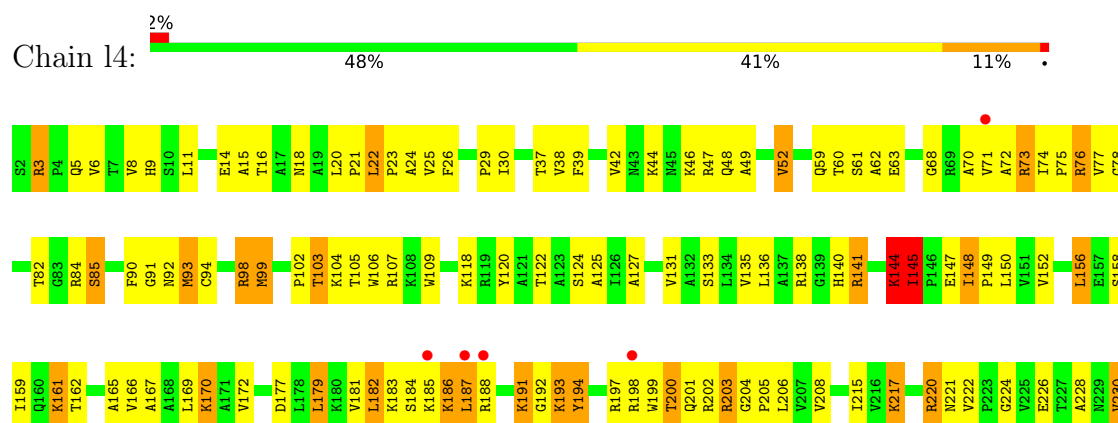


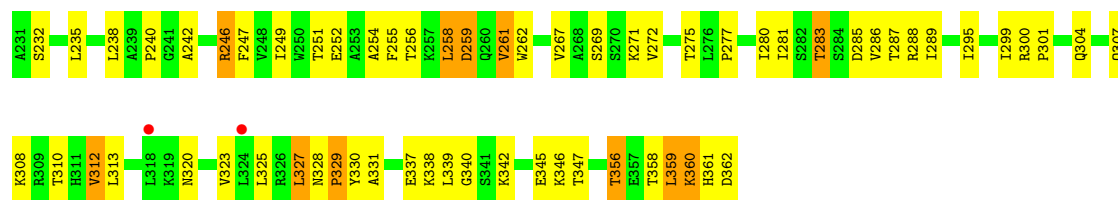


• Molecule 41: 60S ribosomal protein L4-A

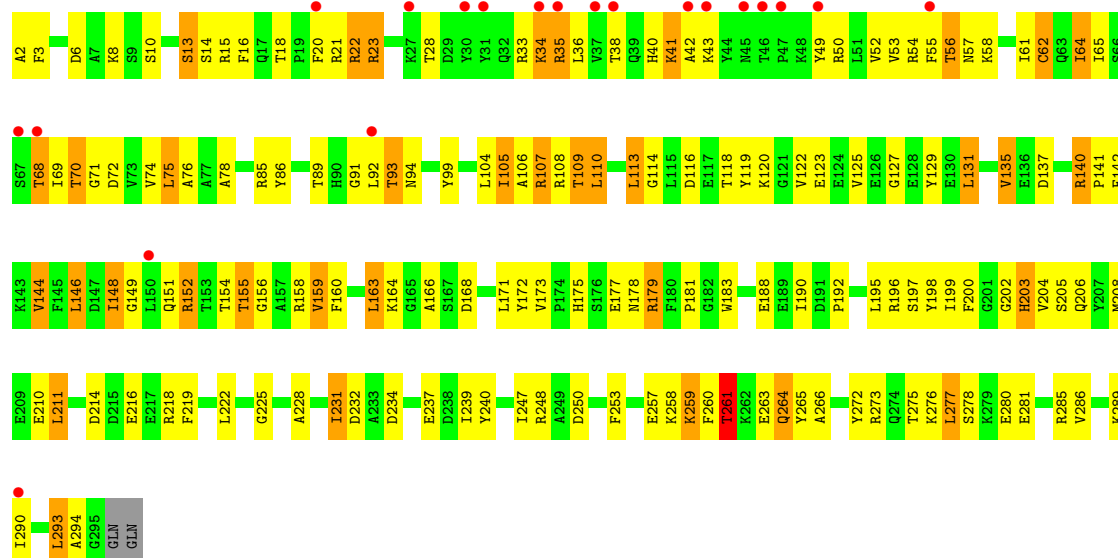


• Molecule 41: 60S ribosomal protein L4-A

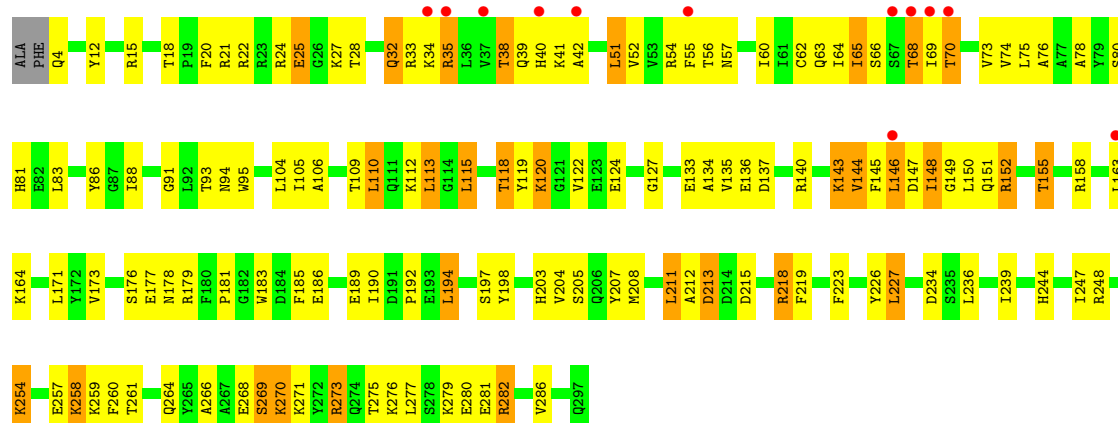




• Molecule 42: 60S ribosomal protein L5

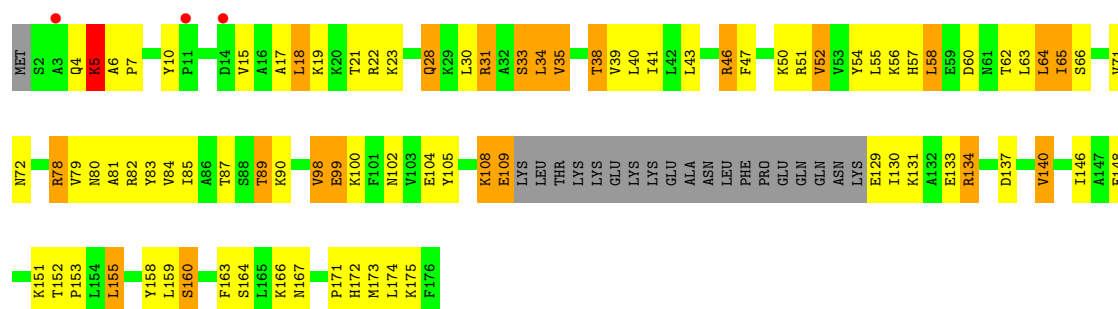


• Molecule 42: 60S ribosomal protein L5

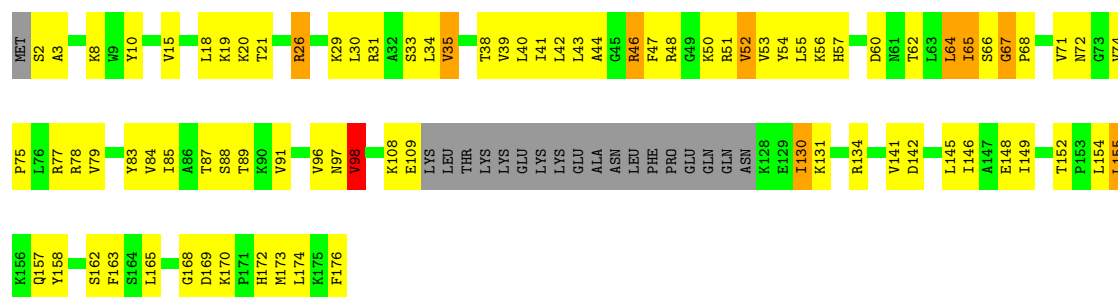


• Molecule 43: 60S ribosomal protein L6-A

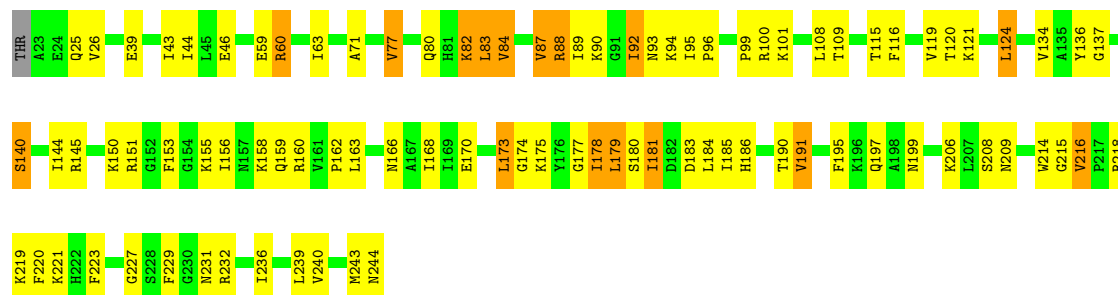




• Molecule 43: 60S ribosomal protein L6-A



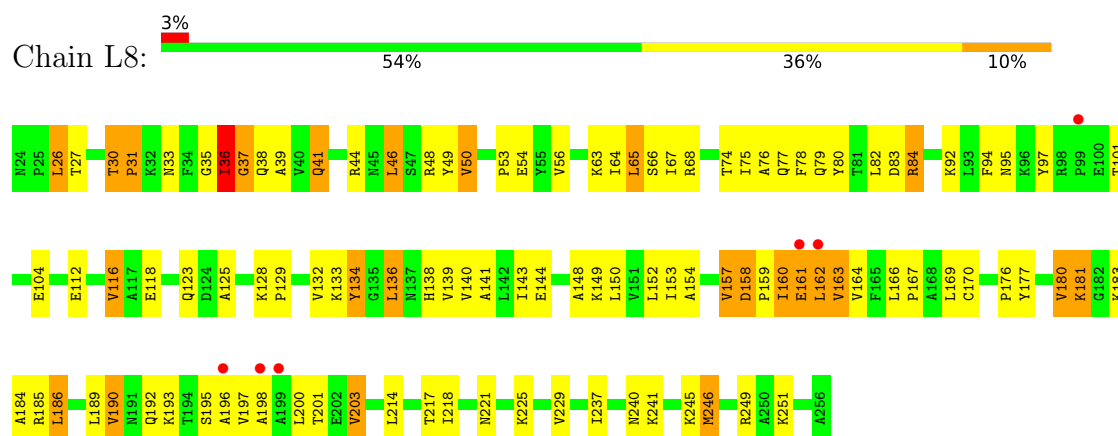
• Molecule 44: 60S ribosomal protein L7-A



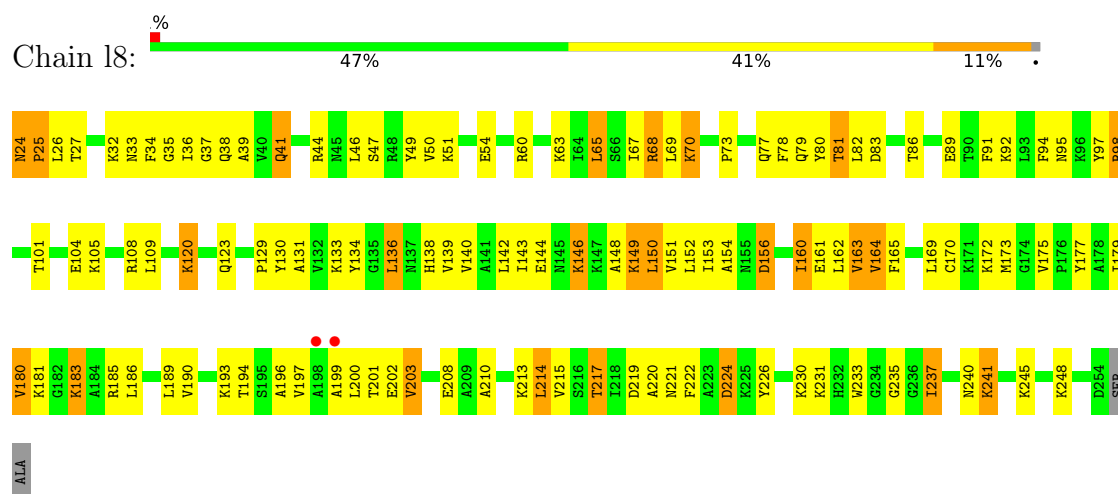
• Molecule 44: 60S ribosomal protein L7-A



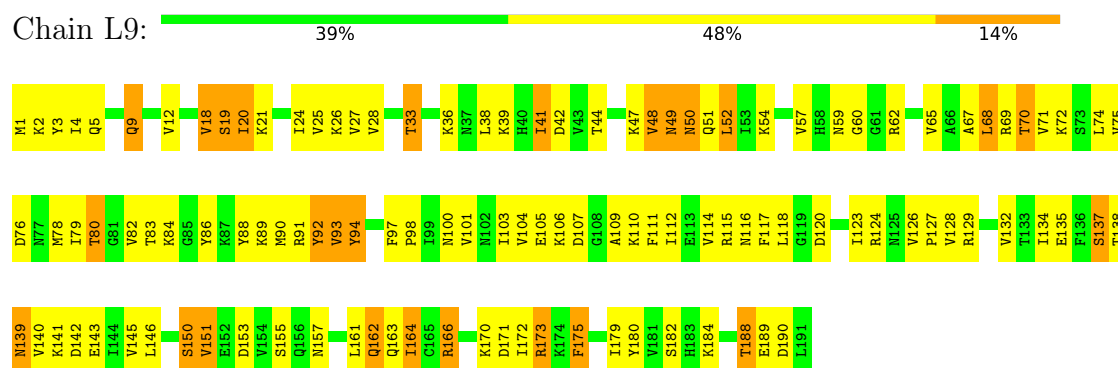
- Molecule 45: 60S ribosomal protein L8-A



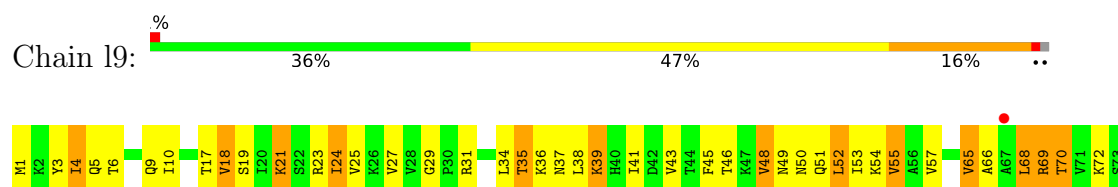
- Molecule 45: 60S ribosomal protein L8-A

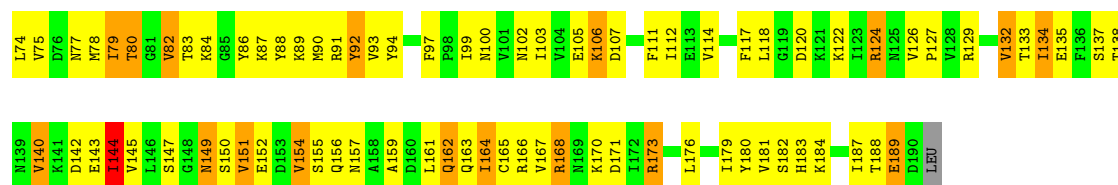


- Molecule 46: 60S ribosomal protein L9-A



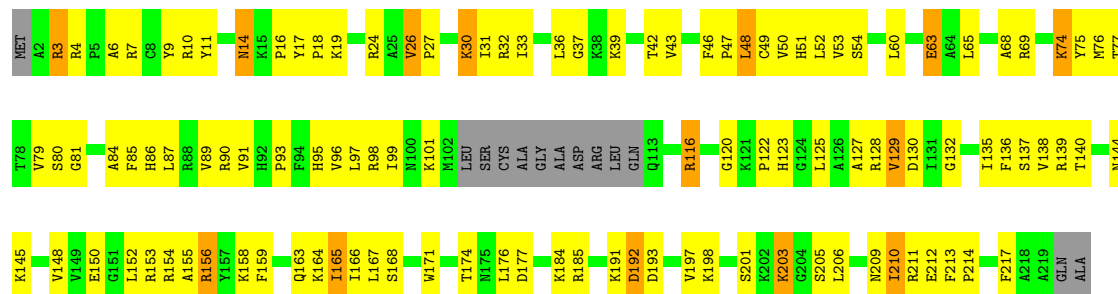
- Molecule 46: 60S ribosomal protein L9-A





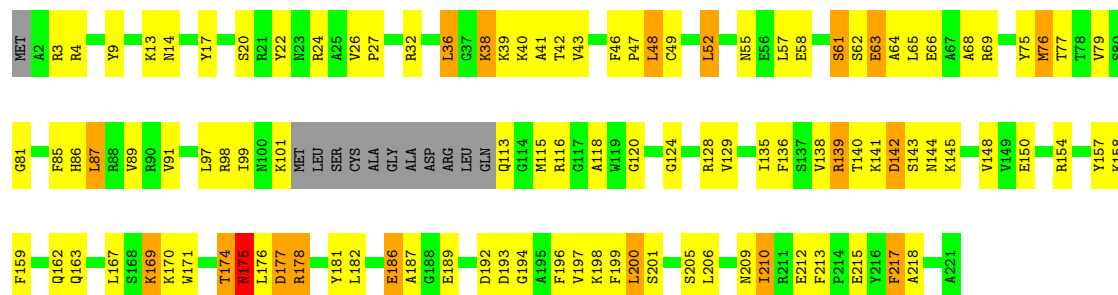
• Molecule 47: 60S ribosomal protein L10

Chain M0: 43% 45% 6% 6%



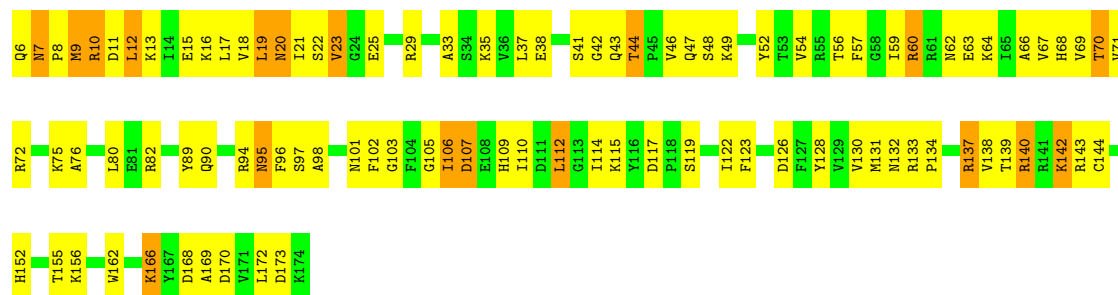
• Molecule 47: 60S ribosomal protein L10

Chain m0: 46% 40% 8% 5%



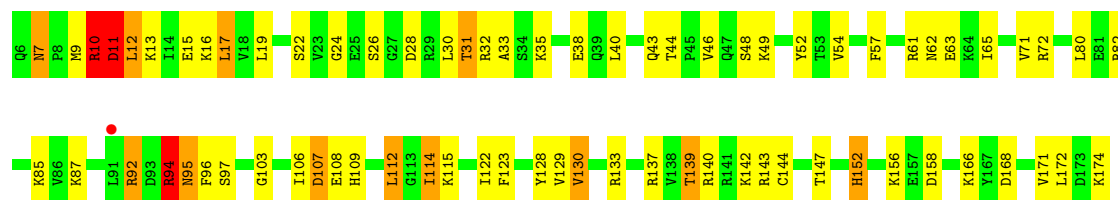
• Molecule 48: 60S ribosomal protein L11-A

Chain M1: 43% 47% 11%

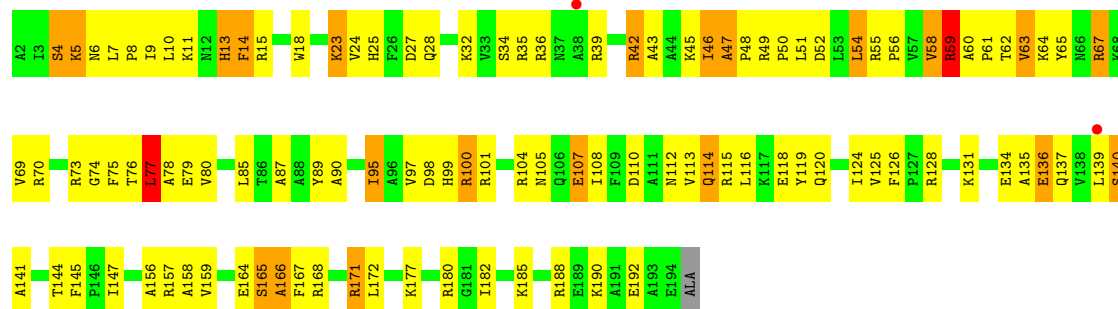
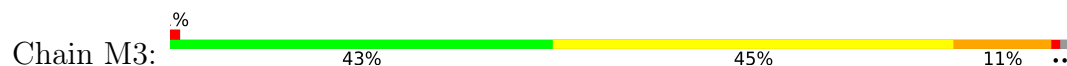


• Molecule 48: 60S ribosomal protein L11-A

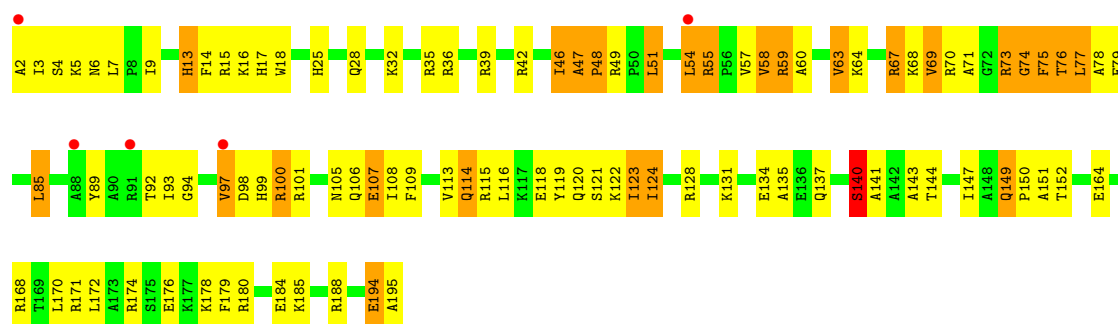
Chain m1: 57% 34% 7%



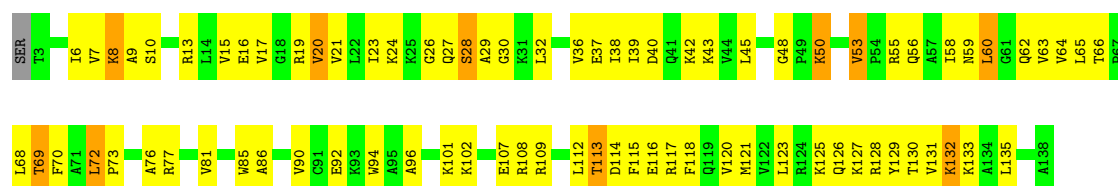
• Molecule 49: 60S ribosomal protein L13-A



• Molecule 49: 60S ribosomal protein L13-A

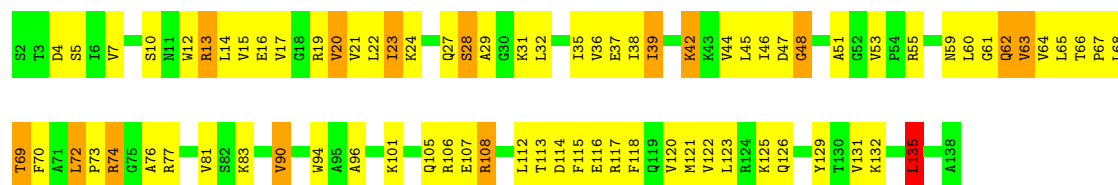


• Molecule 50: 60S ribosomal protein L14-A

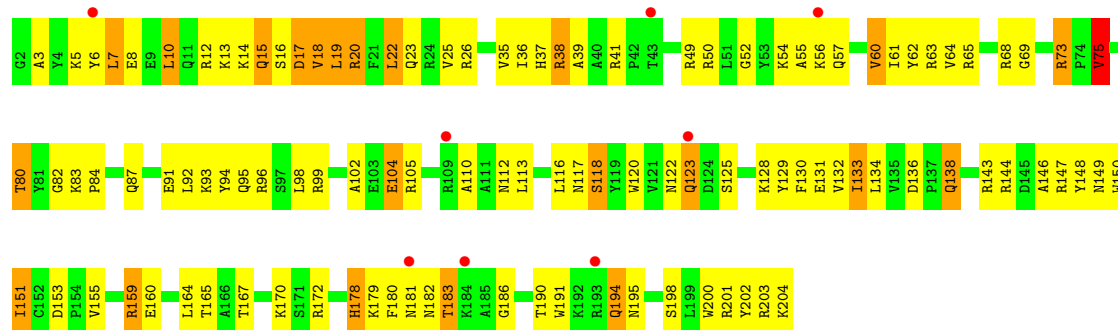


• Molecule 50: 60S ribosomal protein L14-A

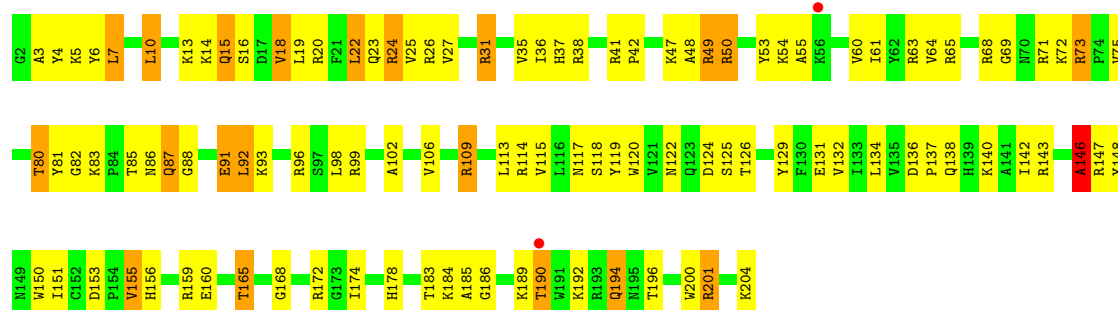




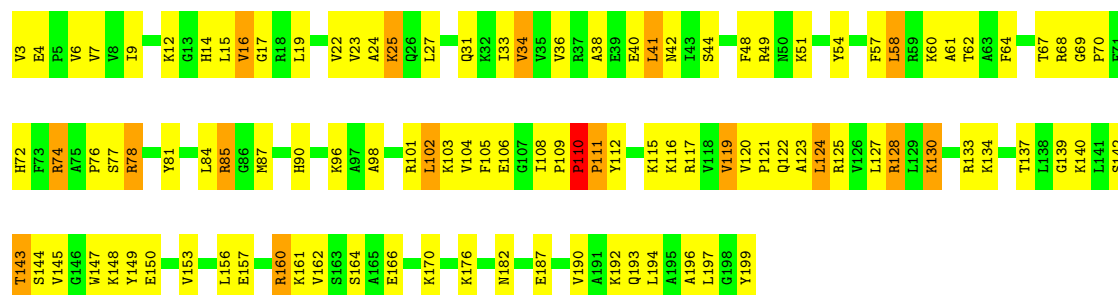
• Molecule 51: 60S ribosomal protein L15-A



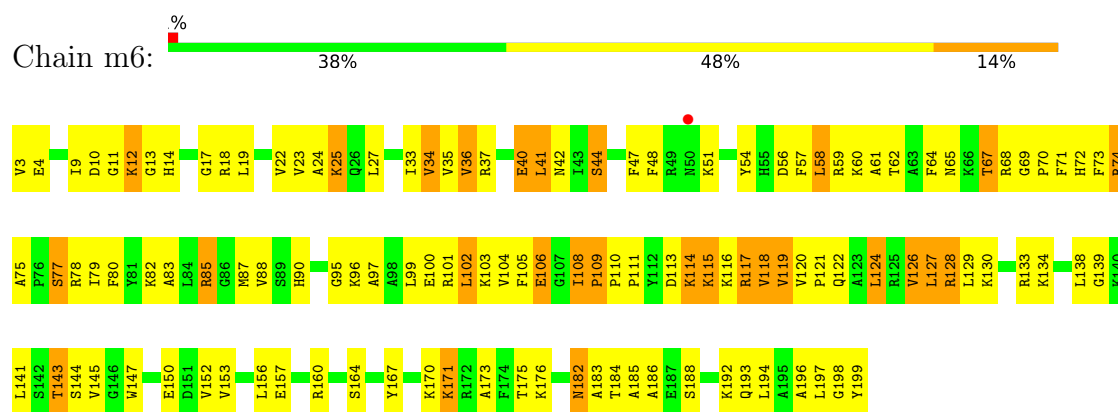
• Molecule 51: 60S ribosomal protein L15-A



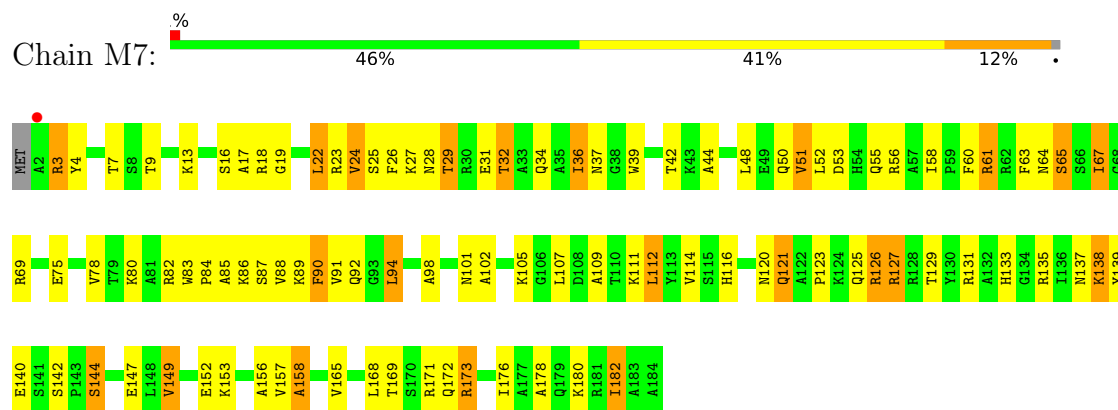
• Molecule 52: 60S ribosomal protein L16-A



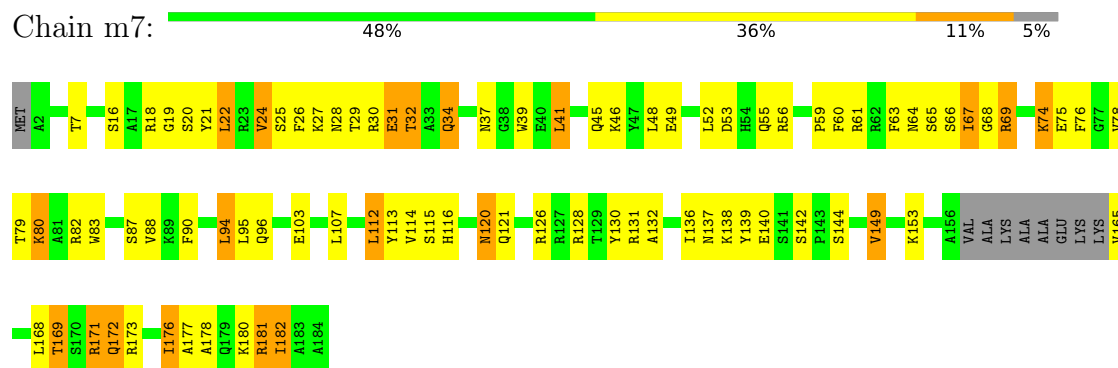
• Molecule 52: 60S ribosomal protein L16-A



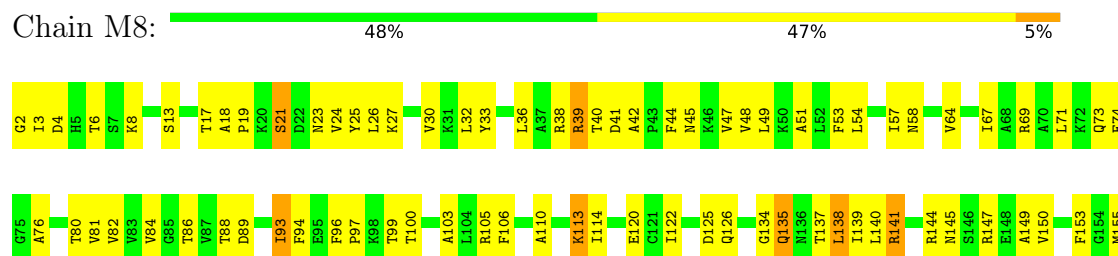
• Molecule 53: 60S ribosomal protein L17-A



• Molecule 53: 60S ribosomal protein L17-A

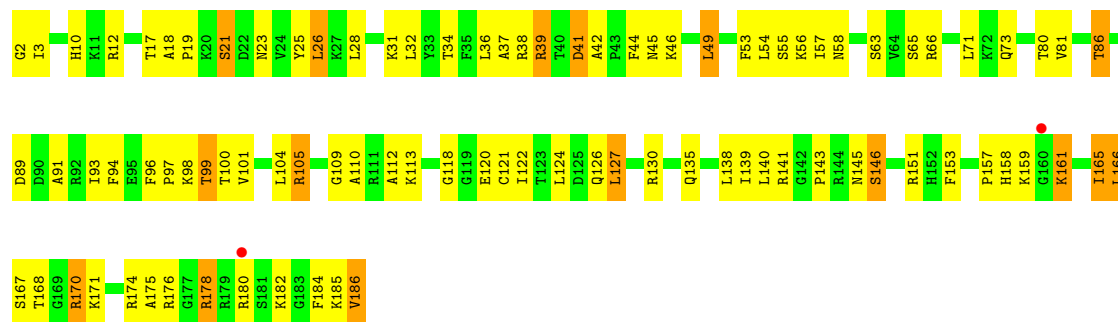


• Molecule 54: 60S ribosomal protein L18-A

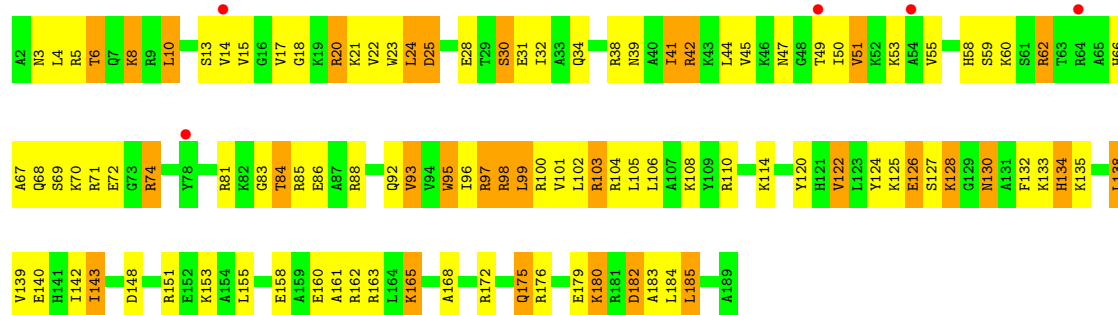




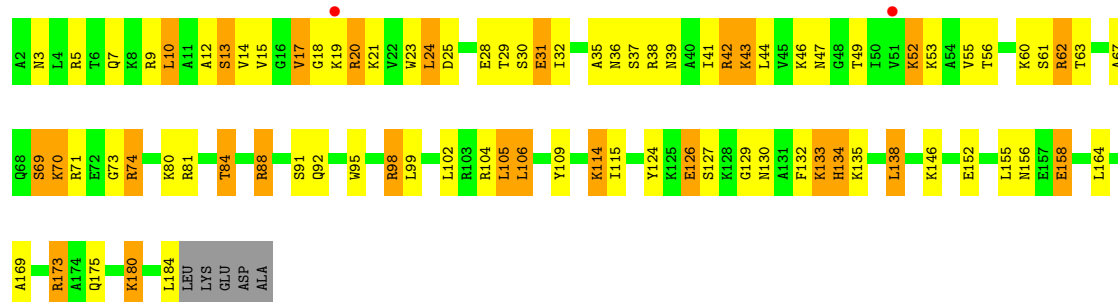
• Molecule 54: 60S ribosomal protein L18-A



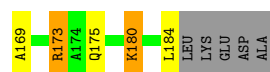
• Molecule 55: 60S ribosomal protein L19-A

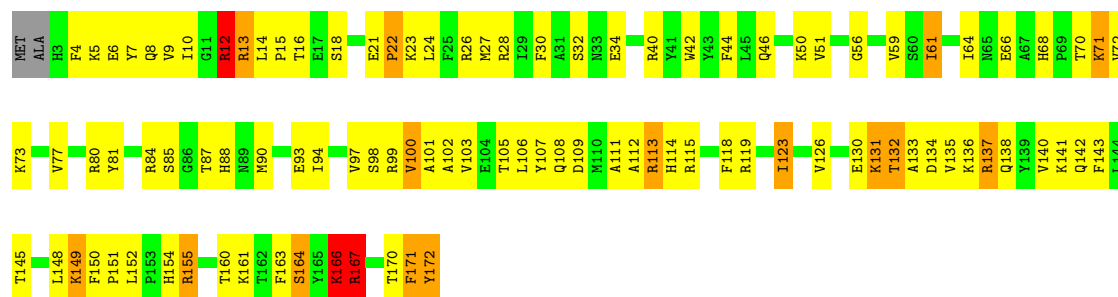


• Molecule 55: 60S ribosomal protein L19-A

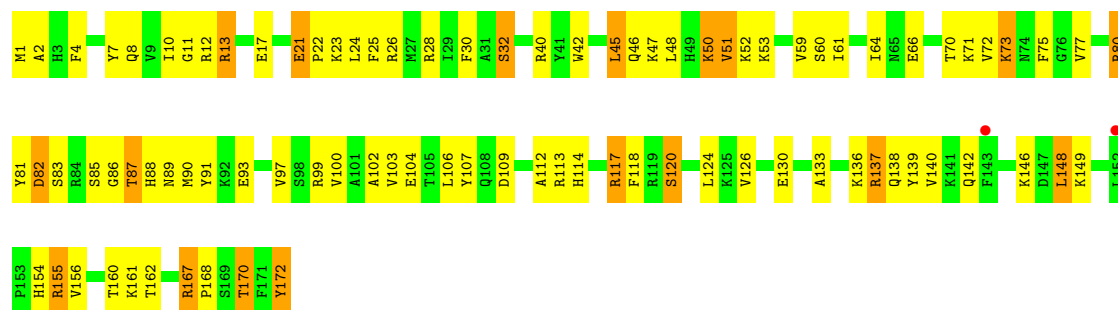


• Molecule 56: 60S ribosomal protein L20-A

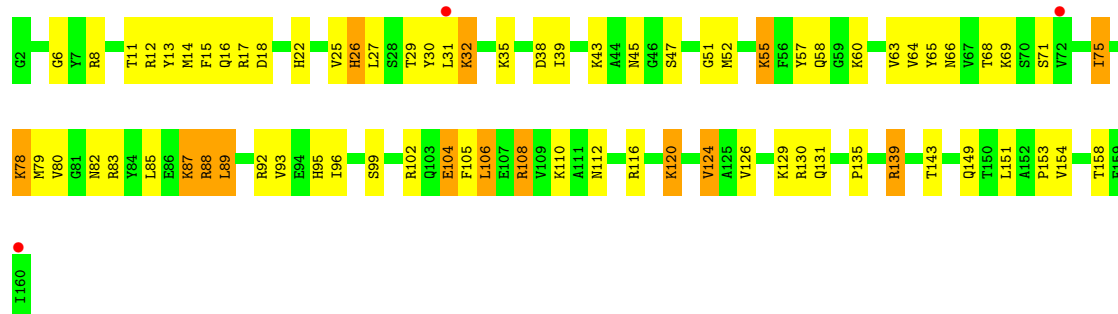




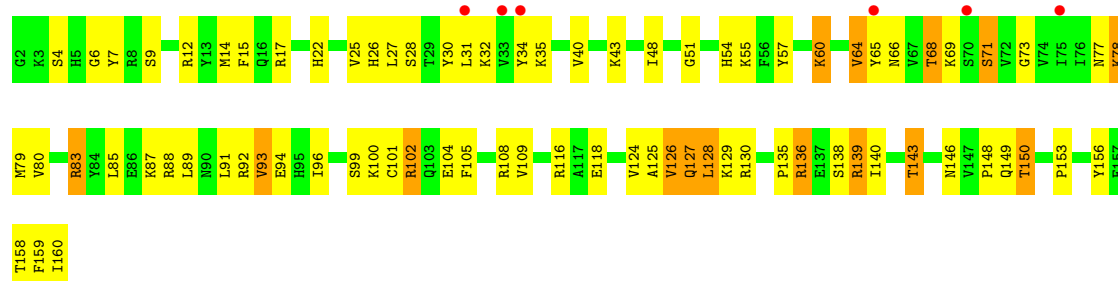
- Molecule 56: 60S ribosomal protein L20-A



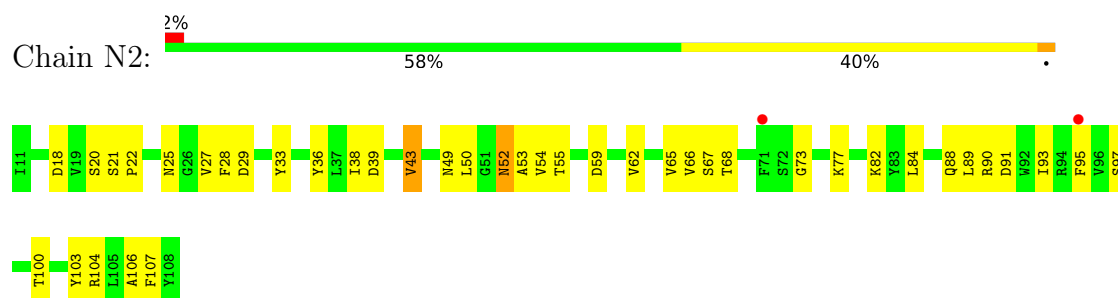
- Molecule 57: 60S ribosomal protein L21-A



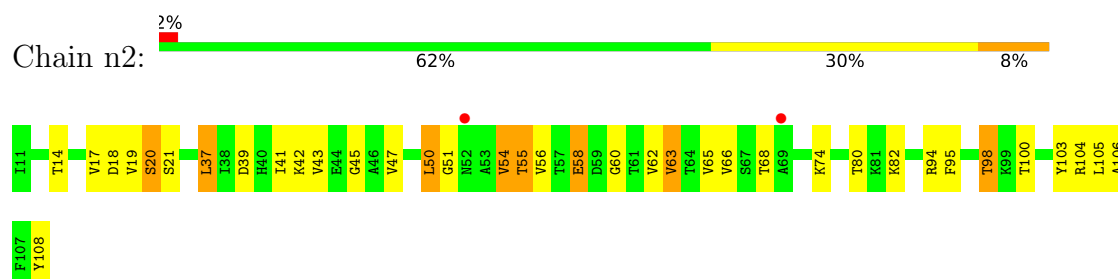
- Molecule 57: 60S ribosomal protein L21-A



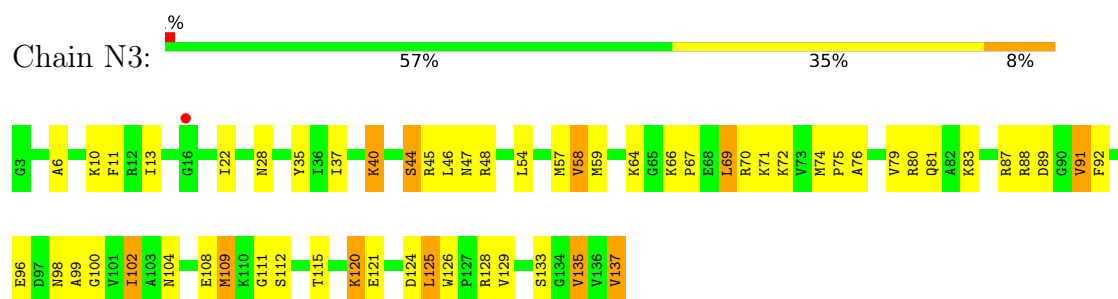
- Molecule 58: 60S ribosomal protein L22-A



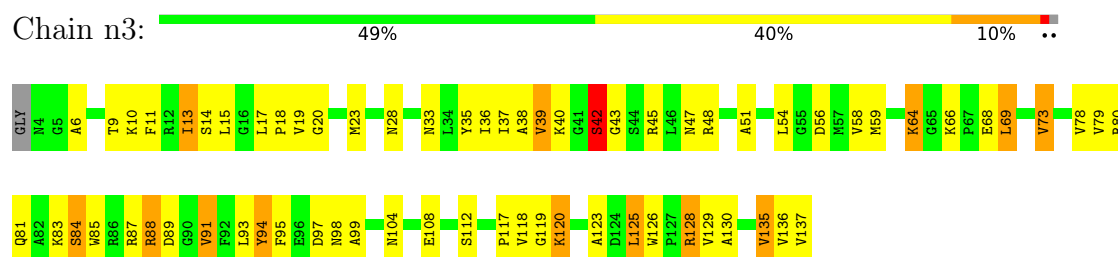
- Molecule 58: 60S ribosomal protein L22-A



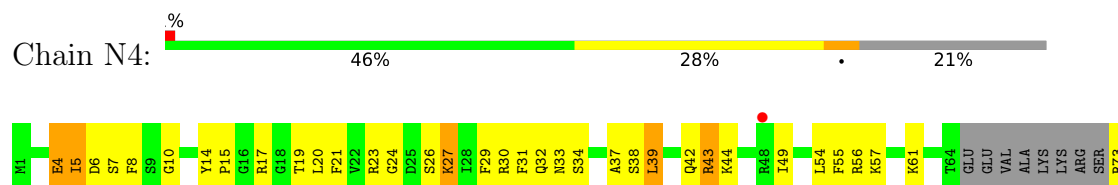
- Molecule 59: 60S ribosomal protein L23-A



- Molecule 59: 60S ribosomal protein L23-A

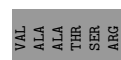
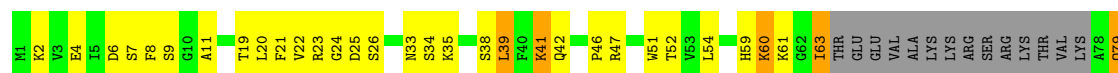


- Molecule 60: 60S ribosomal protein L24-A

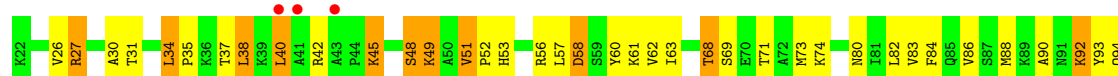




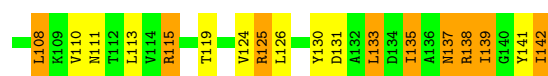
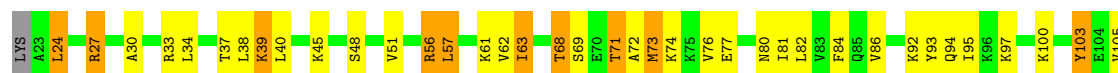
- Molecule 60: 60S ribosomal protein L24-A



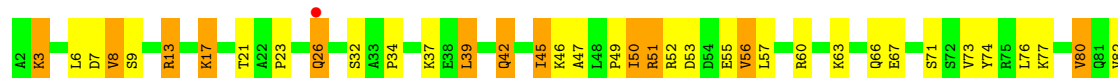
- Molecule 61: 60S ribosomal protein L25



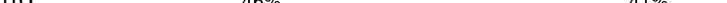
- Molecule 61: 60S ribosomal protein L25

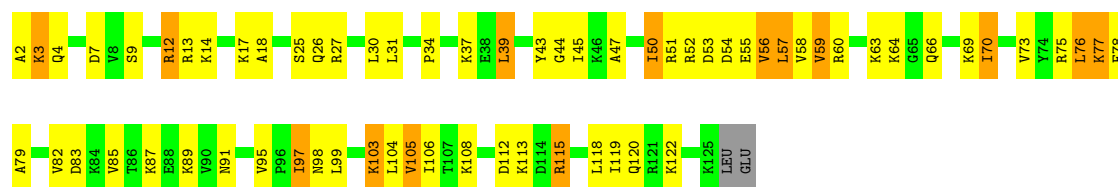


- Molecule 62: 60S ribosomal protein L26-A

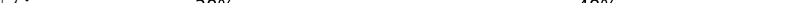


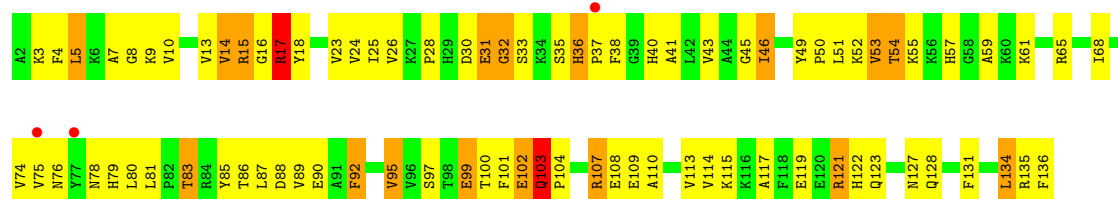
- Molecule 62: 60S ribosomal protein L26-A

Chain n6:  46% 41% 11%



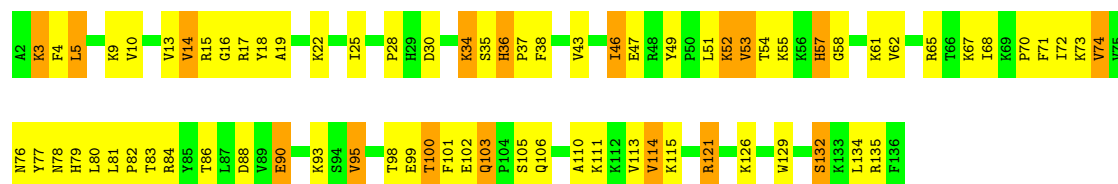
- Molecule 63: 60S ribosomal protein L27-A

Chain N7: 

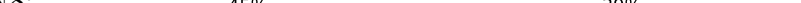


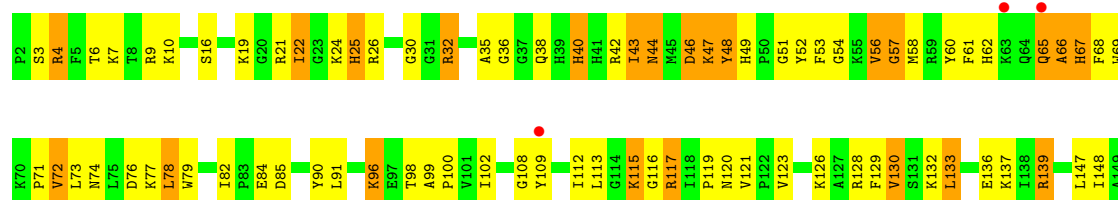
- Molecule 63: 60S ribosomal protein L27-A

Chain n7: 44% 43% 13%

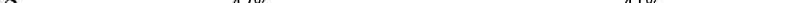


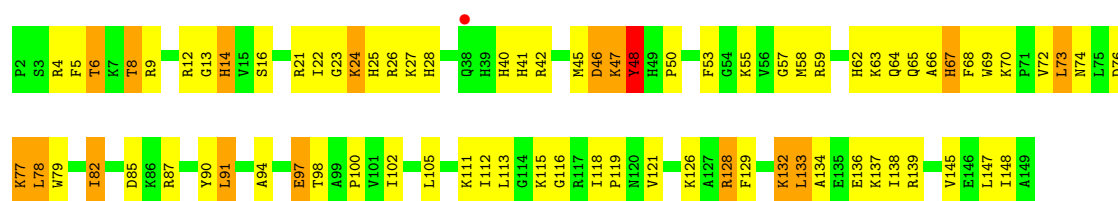
- Molecule 64: 60S ribosomal protein L28

Chain N8: 



- Molecule 64: 60S ribosomal protein L28

Chain n8: 



- Molecule 65: 60S ribosomal protein L29

Chain N9:  59% 31% 10%

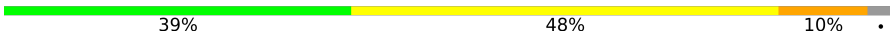


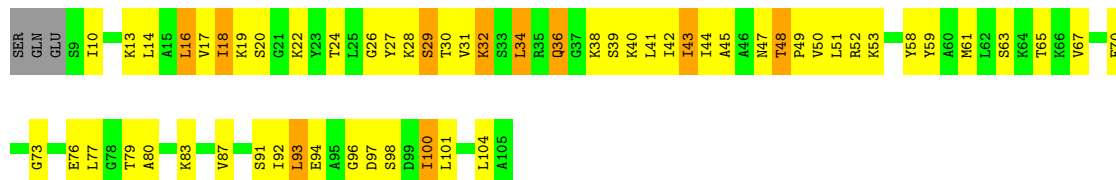
- Molecule 65: 60S ribosomal protein L29

Chain n9:  5% 47% 45% 9%



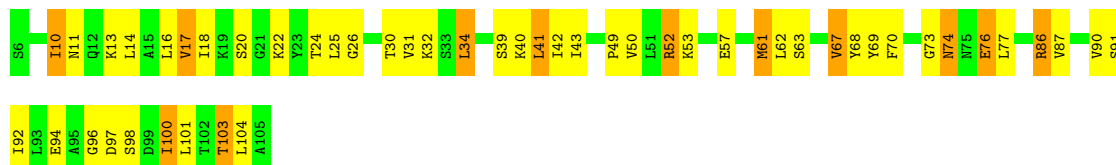
- Molecule 66: 60S ribosomal protein L30

Chain O0:  39% 48% 10%



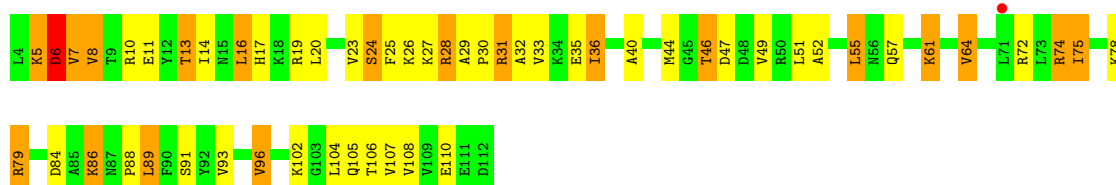
- Molecule 66: 60S ribosomal protein L30

Chain o0:  50% 38% 12%

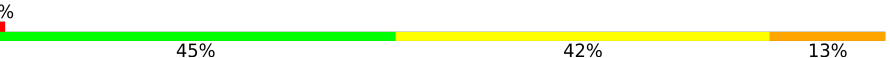


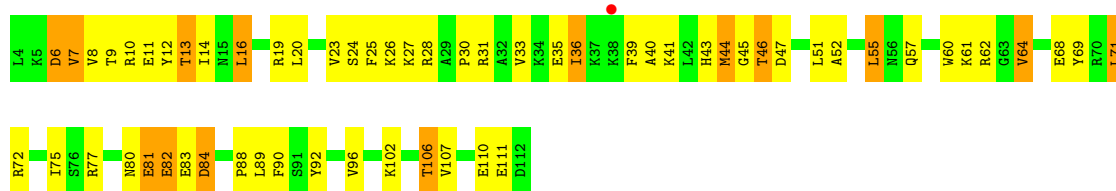
- Molecule 67: 60S ribosomal protein L31-A

Chain O1:  50% 32% 17%

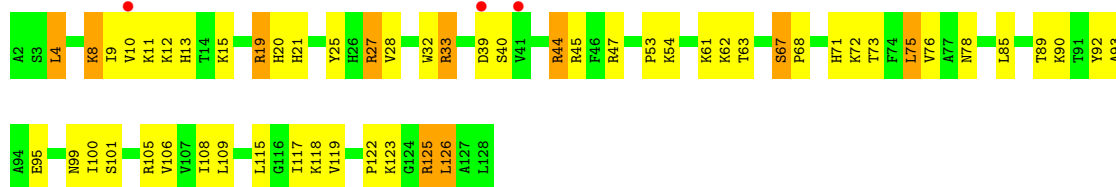


- Molecule 67: 60S ribosomal protein L31-A

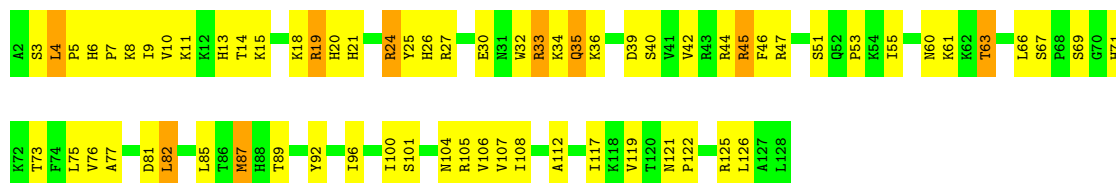
Chain o1:  45% 42% 13%



- Molecule 68: 60S ribosomal protein L32



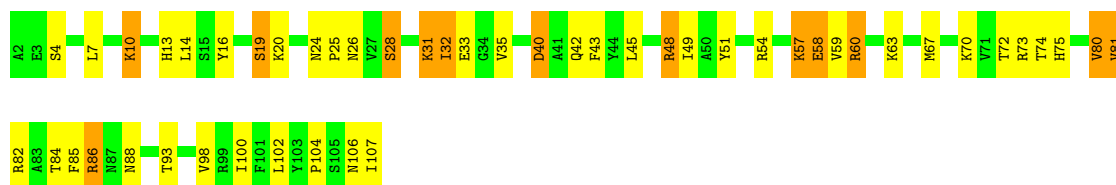
- Molecule 68: 60S ribosomal protein L32



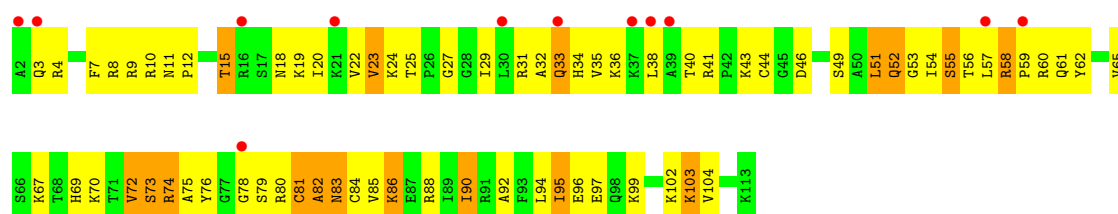
- Molecule 69: 60S ribosomal protein L33-A



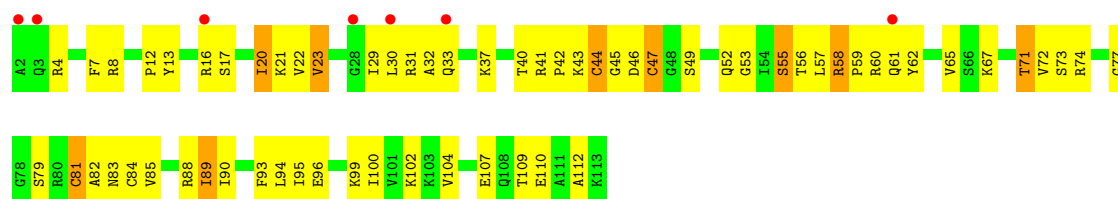
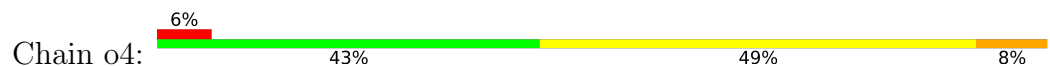
- Molecule 69: 60S ribosomal protein L33-A



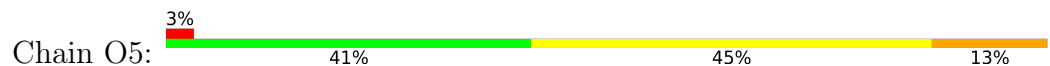
- Molecule 70: 60S ribosomal protein L34-A



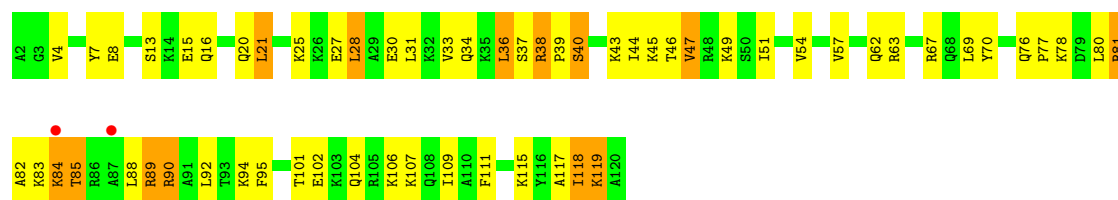
- Molecule 70: 60S ribosomal protein L34-A



- Molecule 71: 60S ribosomal protein L35-A



- Molecule 71: 60S ribosomal protein L35-A



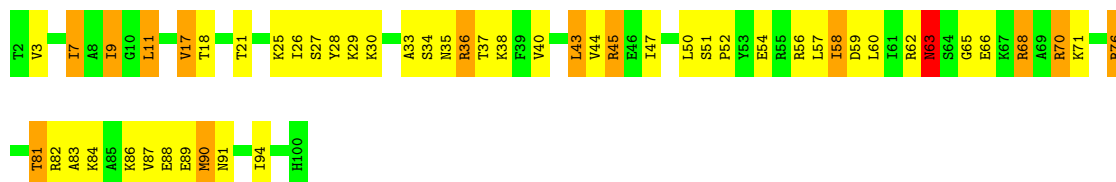
- Molecule 72: 60S ribosomal protein L36-A





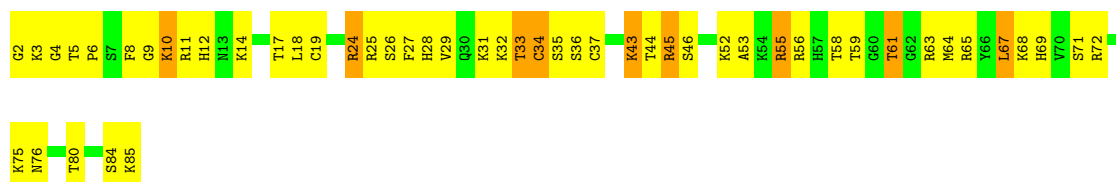
- Molecule 72: 60S ribosomal protein L36-A

Chain o6: 47% 38% 13% .



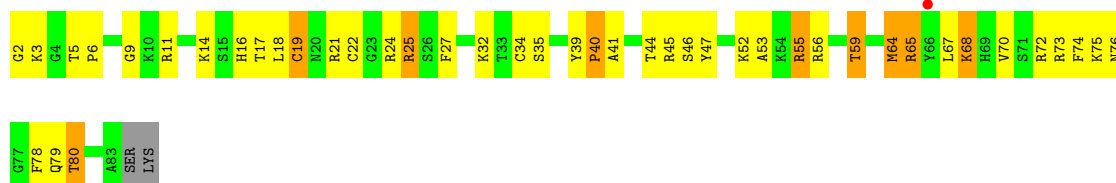
- Molecule 73: 60S ribosomal protein L37-A

Chain O7: 39% 50% 11%



- Molecule 73: 60S ribosomal protein L37-A

Chain o7: 45% 42% 11% .



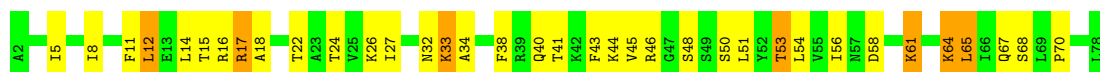
- Molecule 74: 60S ribosomal protein L38

Chain O8: 53% 35% 12%

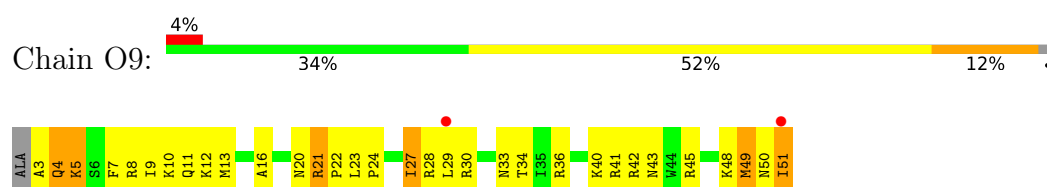


- Molecule 74: 60S ribosomal protein L38

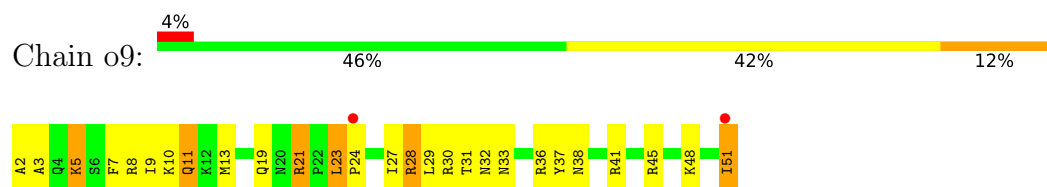
Chain o8: 53% 38% 9%



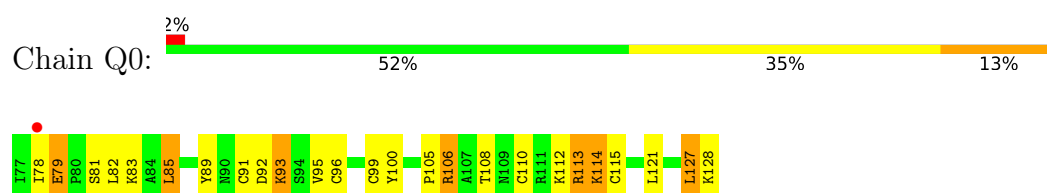
- Molecule 75: 60S ribosomal protein L39



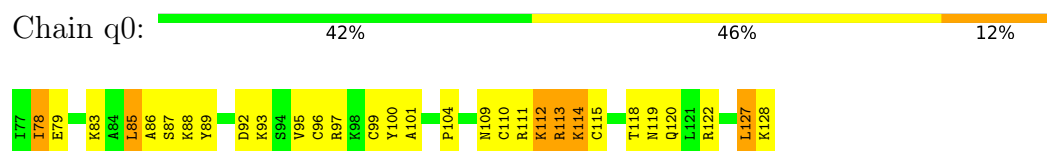
- Molecule 75: 60S ribosomal protein L39



- Molecule 76: Ubiquitin-60S ribosomal protein L40



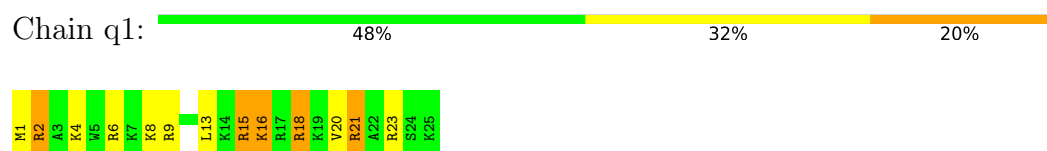
- Molecule 76: Ubiquitin-60S ribosomal protein L40



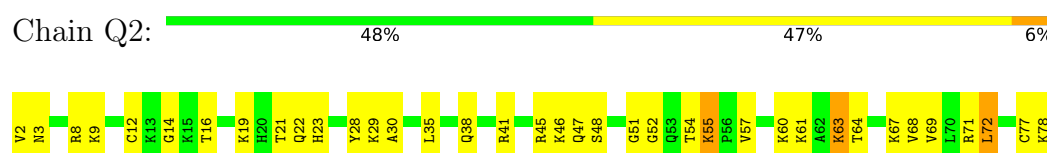
- Molecule 77: 60S ribosomal protein L41-A



- Molecule 77: 60S ribosomal protein L41-A



- Molecule 78: 60S ribosomal protein L42-A



[illegible]

4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α , β , γ	443.59Å 297.32Å 300.15Å 90.00° 99.28° 90.00°	Depositor
Resolution (Å)	91.75 – 3.70 91.75 – 3.70	Depositor EDS
% Data completeness (in resolution range)	99.9 (91.75-3.70) 89.5 (91.75-3.70)	Depositor EDS
R_{merge}	0.16	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	0.77 (at 3.67Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.210 , 0.253 (Not available) , 0.222	Depositor DCC
R_{free} test set	16296 reflections (2.00%)	wwPDB-VP
Wilson B-factor (Å ²)	120.7	Xtriage
Anisotropy	0.428	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.31 , 118.6	EDS
L-test for twinning ²	$\langle L \rangle = 0.47$, $\langle L^2 \rangle = 0.30$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.94	EDS
Total number of atoms	397710	wwPDB-VP
Average B, all atoms (Å ²)	159.0	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.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z > 5$	RMSZ	# $ Z > 5$
1	2	0.34	0/40250	0.61	1/62707 (0.0%)
1	6	0.34	0/40528	0.59	5/63141 (0.0%)
2	S0	0.30	0/1617	0.69	4/2215 (0.2%)
2	s0	0.31	0/1623	0.66	0/2222
3	S1	0.31	0/1735	0.72	0/2335
3	s1	0.28	0/1748	0.61	0/2352
4	S2	0.31	0/1665	0.68	1/2263 (0.0%)
4	s2	0.36	0/1665	0.65	0/2263
5	S3	0.36	0/1759	0.62	0/2368
5	s3	0.30	0/1759	0.67	2/2368 (0.1%)
6	S4	0.30	0/2109	0.65	1/2839 (0.0%)
6	s4	0.36	1/2109 (0.0%)	0.67	0/2839
7	S5	0.30	0/1629	0.63	0/2202
7	s5	0.28	0/1629	0.63	0/2202
8	S6	0.27	0/1823	0.57	0/2439
8	s6	0.34	0/1779	0.61	0/2379
9	S7	0.35	0/1506	0.78	4/2028 (0.2%)
9	s7	0.41	1/1511 (0.1%)	0.77	3/2036 (0.1%)
10	S8	0.34	0/1514	0.69	0/2021
10	s8	0.41	0/1514	0.68	1/2021 (0.0%)
11	S9	0.31	0/1519	0.64	0/2035
11	s9	0.32	0/1519	0.63	0/2035
12	C0	0.32	0/769	0.89	3/1039 (0.3%)
12	c0	0.34	0/757	0.84	1/1022 (0.1%)
13	C1	0.35	0/1172	0.74	1/1580 (0.1%)
13	c1	0.41	0/1194	0.71	0/1610
14	C2	0.32	0/878	0.75	0/1192
14	c2	0.30	0/898	0.78	2/1220 (0.2%)
15	C3	0.35	0/1215	0.70	2/1638 (0.1%)
15	c3	0.36	0/1215	0.72	2/1638 (0.1%)
16	C4	0.34	0/901	0.71	0/1217
16	c4	0.29	0/960	0.71	2/1290 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	C5	0.43	1/988 (0.1%)	0.77	0/1327
17	c5	0.38	0/959	0.79	2/1288 (0.2%)
18	C6	0.37	0/1125	0.81	3/1510 (0.2%)
18	c6	0.60	2/1125 (0.2%)	0.66	2/1510 (0.1%)
19	C7	0.30	0/920	0.68	0/1233
19	c7	0.33	0/915	0.70	0/1227
20	C8	0.33	0/1211	0.77	4/1628 (0.2%)
20	c8	0.30	0/1211	0.68	0/1628
21	C9	0.38	0/1130	0.70	0/1517
21	c9	0.31	0/1130	0.67	0/1517
22	D0	0.33	0/847	0.66	0/1145
22	d0	0.35	0/815	0.62	0/1102
23	D1	0.33	0/693	0.61	0/935
23	d1	0.29	0/693	0.62	0/935
24	D2	0.34	0/1038	0.78	4/1395 (0.3%)
24	d2	0.37	0/1038	0.65	0/1395
25	D3	0.40	0/1139	0.81	0/1518
25	d3	0.42	0/1139	0.72	0/1518
26	D4	0.26	0/1087	0.69	3/1449 (0.2%)
26	d4	0.34	0/1087	0.71	0/1449
27	D5	0.37	0/571	0.82	0/768
27	d5	0.31	0/566	0.59	0/761
28	D6	0.61	1/782 (0.1%)	0.81	2/1047 (0.2%)
28	d6	0.33	0/782	0.67	0/1047
29	D7	0.30	0/620	0.66	0/838
29	d7	0.32	0/620	0.75	0/838
30	D8	0.97	1/499 (0.2%)	0.61	0/670
30	d8	0.69	1/499 (0.2%)	0.63	0/670
31	D9	0.41	0/452	0.85	2/600 (0.3%)
31	d9	0.36	0/452	0.68	0/600
32	E0	0.39	0/483	0.70	0/643
32	e0	0.42	0/483	0.80	0/643
33	E1	0.44	0/577	1.13	5/770 (0.6%)
33	e1	0.41	0/358	0.83	0/477
34	SR	0.24	0/2490	0.53	1/3389 (0.0%)
34	sR	0.25	0/2456	0.53	0/3343
35	SM	0.37	0/994	0.80	1/1335 (0.1%)
35	sM	0.41	0/882	0.78	0/1180
36	1	0.43	0/73692	0.70	18/114882 (0.0%)
36	5	0.45	0/74873	0.70	13/116727 (0.0%)
37	3	0.37	0/2883	0.59	0/4491
37	7	0.34	0/2883	0.53	0/4491
38	4	0.43	0/3746	0.71	0/5832

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	8	0.47	0/3724	0.75	1/5798 (0.0%)
39	L2	0.41	0/1948	0.79	0/2617
39	l2	0.47	0/1946	0.84	3/2614 (0.1%)
40	L3	0.44	0/3146	0.73	0/4228
40	l3	0.49	0/3146	0.79	1/4228 (0.0%)
41	L4	0.41	0/2800	0.79	1/3790 (0.0%)
41	l4	0.46	0/2800	0.80	3/3790 (0.1%)
42	L5	0.35	0/2407	0.66	0/3247
42	l5	0.31	0/2408	0.58	0/3248
43	L6	0.45	0/1260	0.76	0/1694
43	l6	0.49	0/1269	0.80	0/1705
44	L7	0.43	0/1821	0.69	0/2451
44	l7	0.46	0/1828	0.70	0/2461
45	L8	0.37	1/1836 (0.1%)	0.66	3/2481 (0.1%)
45	l8	0.39	0/1795	0.70	0/2429
46	L9	0.41	0/1539	0.72	0/2073
46	l9	0.43	0/1531	0.77	0/2062
47	M0	0.46	0/1726	0.73	0/2314
47	m0	0.41	0/1732	0.79	3/2323 (0.1%)
48	M1	0.37	0/1374	0.73	0/1842
48	m1	0.31	0/1374	0.67	2/1842 (0.1%)
49	M3	0.44	2/1568 (0.1%)	0.80	0/2106
49	m3	0.42	0/1573	0.80	2/2113 (0.1%)
50	M4	0.42	0/1068	0.74	0/1438
50	m4	0.49	0/1074	0.76	1/1446 (0.1%)
51	M5	0.41	0/1757	0.74	0/2354
51	m5	0.46	0/1757	0.84	2/2354 (0.1%)
52	M6	0.54	0/1585	0.78	0/2128
52	m6	0.54	0/1585	0.80	0/2128
53	M7	0.47	0/1443	0.79	0/1944
53	m7	0.50	0/1400	0.82	0/1882
54	M8	0.35	0/1465	0.68	0/1965
54	m8	0.39	0/1465	0.70	0/1965
55	M9	0.35	0/1538	0.62	0/2050
55	m9	0.38	0/1499	0.64	0/1998
56	N0	0.43	0/1468	0.72	1/1973 (0.1%)
56	n0	0.51	1/1481 (0.1%)	0.75	0/1990
57	N1	0.42	0/1300	0.72	0/1743
57	n1	0.36	0/1300	0.65	1/1743 (0.1%)
58	N2	0.30	0/794	0.61	0/1076
58	n2	0.30	0/794	0.58	0/1076
59	N3	0.44	0/1012	0.74	0/1361
59	n3	0.52	0/1008	0.82	0/1356

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
60	N4	0.38	0/937	0.62	0/1243
60	n4	0.38	0/959	0.67	0/1267
61	N5	0.41	0/979	0.75	0/1321
61	n5	0.48	0/974	0.81	1/1314 (0.1%)
62	N6	0.40	0/1004	0.81	0/1341
62	n6	0.43	0/987	0.85	0/1318
63	N7	0.39	0/1118	0.69	2/1497 (0.1%)
63	n7	0.41	0/1118	0.67	0/1497
64	N8	0.40	0/1204	0.85	2/1612 (0.1%)
64	n8	0.40	0/1204	0.77	3/1612 (0.2%)
65	N9	0.39	0/473	0.69	0/629
65	n9	0.43	0/473	0.89	2/629 (0.3%)
66	O0	0.32	0/751	0.61	0/1008
66	o0	0.38	0/775	0.63	0/1040
67	O1	0.42	0/890	0.77	0/1196
67	o1	0.45	0/897	0.84	2/1205 (0.2%)
68	O2	0.45	0/1041	0.77	0/1394
68	o2	0.50	0/1041	0.78	0/1394
69	O3	0.49	0/868	0.79	0/1168
69	o3	0.56	0/868	0.84	0/1168
70	O4	0.39	0/890	0.75	0/1189
70	o4	0.43	0/890	0.77	0/1189
71	O5	0.39	0/978	0.75	2/1301 (0.2%)
71	o5	0.42	0/974	0.75	0/1297
72	O6	0.40	1/778 (0.1%)	0.68	0/1034
72	o6	0.37	0/777	0.79	3/1033 (0.3%)
73	O7	0.49	0/680	0.88	0/901
73	o7	0.54	0/665	0.89	0/882
74	O8	0.34	0/618	0.67	0/826
74	o8	0.37	0/614	0.68	0/822
75	O9	0.42	0/438	0.78	0/581
75	o9	0.51	0/443	0.74	0/588
76	Q0	0.49	0/423	0.89	0/562
76	q0	0.60	0/423	0.92	0/562
77	Q1	0.37	0/234	0.71	0/300
77	q1	0.45	0/234	0.70	0/300
78	Q2	0.40	0/860	0.70	0/1136
78	q2	0.39	0/860	0.72	0/1136
79	Q3	0.38	0/701	0.68	0/934
79	q3	0.37	0/701	0.72	0/934
80	p0	0.26	0/1067	0.58	0/1439
All	All	0.40	13/423555 (0.0%)	0.69	136/621249 (0.0%)

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	S0	0	1
2	s0	0	1
3	S1	0	4
4	S2	0	1
4	s2	0	2
5	s3	0	1
6	S4	0	1
7	S5	0	3
7	s5	0	4
8	s6	0	1
9	S7	0	4
9	s7	0	6
11	s9	0	2
12	c0	0	1
13	C1	0	1
14	C2	0	3
14	c2	0	1
15	c3	0	1
16	C4	0	1
17	C5	0	2
17	c5	0	4
18	C6	0	3
18	c6	0	1
19	C7	0	1
20	C8	0	3
20	c8	0	1
22	d0	0	2
24	D2	0	1
25	D3	0	1
26	D4	0	2
27	D5	0	2
27	d5	0	2
28	D6	0	2
29	D7	0	1
32	e0	0	2
33	E1	0	5
33	e1	0	3
34	SR	0	1
34	sR	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
35	sM	0	1
39	l2	0	2
40	L3	0	2
40	l3	0	1
41	l4	0	1
42	L5	0	3
42	l5	0	2
43	L6	0	2
43	l6	0	1
44	l7	0	2
45	L8	0	2
45	l8	0	3
46	L9	0	1
48	m1	0	1
49	m3	0	2
50	m4	0	1
51	M5	0	1
51	m5	0	2
52	M6	0	1
52	m6	0	1
53	M7	0	2
56	N0	0	4
56	n0	0	2
58	n2	0	1
60	N4	0	2
62	N6	0	1
63	n7	0	2
64	N8	0	2
65	N9	0	1
65	n9	0	1
67	O1	0	1
67	o1	0	2
69	O3	0	1
70	o4	0	1
71	O5	0	1
71	o5	0	1
72	O6	0	1
72	o6	0	1
79	q3	0	2
80	p0	0	1
All	All	0	141

All (13) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
30	D8	5	THR	C-N	20.70	1.82	1.33
18	c6	4	VAL	C-N	15.22	1.69	1.33
30	d8	5	THR	C-N	14.20	1.67	1.33
28	D6	59	TYR	C-N	13.44	1.65	1.33
17	C5	67	ALA	C-N	8.15	1.52	1.33
18	c6	124	PRO	C-N	8.11	1.50	1.33
45	L8	158	ASP	C-N	7.45	1.51	1.33
56	n0	21	GLU	C-O	7.27	1.27	1.23
6	s4	237	SER	C-N	-6.17	1.20	1.33
49	M3	125	VAL	C-N	-5.91	1.21	1.33
72	O6	50	LEU	C-N	5.90	1.45	1.33
49	M3	59	ARG	C-N	5.56	1.45	1.33
9	s7	9	LEU	CA-C	5.16	1.55	1.52

All (136) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	C6	40	GLU	CA-C-N	-10.78	106.36	119.84
18	C6	40	GLU	C-N-CA	-10.78	106.36	119.84
12	C0	87	VAL	CA-C-N	10.74	133.26	119.84
12	C0	87	VAL	C-N-CA	10.74	133.26	119.84
41	L4	340	GLY	N-CA-C	-8.63	101.73	112.77
35	SM	167	PRO	N-CA-CB	7.72	111.36	103.25
9	S7	31	SER	CA-C-N	7.69	128.09	119.32
9	S7	31	SER	C-N-CA	7.69	128.09	119.32
67	o1	81	GLU	CA-C-N	7.30	135.48	121.54
67	o1	81	GLU	C-N-CA	7.30	135.48	121.54
36	5	1607	U	P-O3'-C3'	7.15	130.92	120.20
36	5	1152	G	C4-N9-C1'	-7.09	105.24	126.50
39	l2	214	GLY	N-CA-C	7.06	121.59	112.13
12	c0	88	PRO	N-CA-CB	6.97	110.57	103.25
64	N8	54	GLY	N-CA-C	6.94	122.75	110.95
36	5	1607	U	C4'-C3'-O3'	6.89	119.73	109.40
36	5	1152	G	C8-N9-C1'	6.86	147.59	127.00
36	1	1307	G	C2'-C3'-O3'	6.80	119.70	109.50
51	m5	185	ALA	CA-C-N	6.78	134.70	121.41
51	m5	185	ALA	C-N-CA	6.78	134.70	121.41
65	n9	20	GLY	CA-C-N	6.77	134.15	121.97
65	n9	20	GLY	C-N-CA	6.77	134.15	121.97
57	n1	127	GLN	N-CA-C	6.68	118.72	110.91
26	D4	50	ALA	CA-C-N	6.65	134.24	121.54
26	D4	50	ALA	C-N-CA	6.65	134.24	121.54
15	c3	28	LEU	CA-C-N	6.64	134.23	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	c3	28	LEU	C-N-CA	6.64	134.23	121.54
64	N8	66	ALA	N-CA-C	-6.54	96.87	110.80
36	1	282	G	C2'-C3'-O3'	6.43	123.35	113.70
36	1	1607	U	C2'-C3'-O3'	6.32	118.98	109.50
36	5	1307	G	C2'-C3'-O3'	6.31	118.97	109.50
6	S4	193	GLY	N-CA-C	6.29	128.08	113.18
36	1	1329	U	C4'-C3'-O3'	6.24	118.75	109.40
36	1	1607	U	P-O3'-C3'	6.24	129.55	120.20
2	S0	206	ASP	N-CA-C	6.21	115.46	108.25
18	c6	115	THR	CA-C-N	6.20	133.37	121.54
18	c6	115	THR	C-N-CA	6.20	133.37	121.54
33	E1	84	VAL	CA-C-N	6.19	133.36	121.54
33	E1	84	VAL	C-N-CA	6.19	133.36	121.54
36	5	282	G	C2'-C3'-O3'	6.18	122.96	113.70
39	l2	238	ILE	CA-C-N	-6.16	111.97	122.56
39	l2	238	ILE	C-N-CA	-6.16	111.97	122.56
36	1	1556	C	P-O3'-C3'	6.14	129.42	120.20
28	D6	63	ALA	CA-C-N	6.10	136.69	121.80
28	D6	63	ALA	C-N-CA	6.10	136.69	121.80
13	C1	29	LYS	N-CA-C	-5.99	98.04	110.80
40	l3	186	GLY	N-CA-C	5.96	118.88	112.33
36	1	1329	U	P-O3'-C3'	5.95	129.12	120.20
10	s8	52	ASN	CB-CA-C	-5.93	108.73	115.79
36	1	873	C	P-O3'-C3'	5.92	129.09	120.20
17	c5	128	HIS	CB-CA-C	-5.86	109.26	117.23
56	N0	12	ARG	N-CA-C	5.84	118.17	108.13
18	C6	40	GLU	N-CA-C	5.83	122.70	109.81
47	m0	218	ALA	N-CA-C	-5.76	98.52	110.80
36	1	219	A	C4'-C3'-O3'	5.72	117.98	109.40
33	E1	138	ARG	N-CA-C	5.71	118.76	110.42
72	o6	63	ASN	N-CA-C	-5.70	98.65	110.80
9	s7	64	VAL	N-CA-C	5.70	121.19	108.88
72	o6	62	ARG	CA-C-N	5.68	132.40	121.54
72	o6	62	ARG	C-N-CA	5.68	132.40	121.54
5	s3	220	PRO	CA-C-N	5.66	132.35	121.54
5	s3	220	PRO	C-N-CA	5.66	132.35	121.54
64	n8	48	TYR	CA-CB-CG	5.65	124.07	113.90
1	6	103	A	C4'-C3'-O3'	5.62	117.84	109.40
20	C8	79	TYR	CA-C-N	5.60	132.24	121.54
20	C8	79	TYR	C-N-CA	5.60	132.24	121.54
14	c2	89	ILE	CA-C-N	5.59	132.21	121.54
14	c2	89	ILE	C-N-CA	5.59	132.21	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	873	C	C4'-C3'-O3'	5.57	121.35	113.00
50	m4	135	LEU	CA-CB-CG	5.56	135.77	116.30
26	D4	60	PHE	N-CA-C	5.56	117.41	110.91
4	S2	146	THR	N-CA-C	-5.55	98.99	110.80
45	L8	30	THR	N-CA-C	5.54	122.05	109.81
47	m0	186	GLU	CA-C-N	5.47	131.98	121.54
47	m0	186	GLU	C-N-CA	5.47	131.98	121.54
24	D2	30	SER	CB-CA-C	-5.45	108.69	115.89
36	5	3269	U	P-O3'-C3'	5.43	128.34	120.20
33	E1	105	TYR	CA-C-N	5.42	132.03	121.63
33	E1	105	TYR	C-N-CA	5.42	132.03	121.63
36	5	1716	U	C2'-C3'-O3'	5.39	117.58	109.50
31	D9	9	SER	CA-C-N	5.38	133.36	122.45
31	D9	9	SER	C-N-CA	5.38	133.36	122.45
61	n5	103	TYR	CA-CB-CG	-5.35	104.27	113.90
9	S7	32	PRO	N-CA-C	5.33	121.69	113.75
1	6	1568	C	C4'-C3'-O3'	5.31	117.36	109.40
12	C0	88	PRO	N-CA-CB	5.29	108.80	103.25
24	D2	28	ARG	CA-C-N	5.28	139.68	127.00
24	D2	28	ARG	C-N-CA	5.28	139.68	127.00
36	5	1329	U	P-O3'-C3'	5.27	128.11	120.20
64	n8	47	LYS	CA-C-N	5.27	131.61	121.54
64	n8	47	LYS	C-N-CA	5.27	131.61	121.54
36	1	3218	A	C4'-C3'-O3'	5.27	117.30	109.40
36	1	1820	U	P-O3'-C3'	5.26	128.10	120.20
9	s7	9	LEU	CA-CB-CG	5.25	134.68	116.30
20	C8	27	LYS	CA-C-N	5.24	131.39	121.97
20	C8	27	LYS	C-N-CA	5.24	131.39	121.97
41	l4	144	LYS	CA-C-N	5.23	131.80	122.13
41	l4	144	LYS	C-N-CA	5.23	131.80	122.13
17	c5	128	HIS	N-CA-C	5.22	117.38	108.67
36	5	2772	C	P-O3'-C3'	5.21	128.02	120.20
41	l4	192	GLY	N-CA-C	-5.21	108.62	114.40
63	N7	32	GLY	CA-C-N	5.17	131.41	121.54
63	N7	32	GLY	C-N-CA	5.17	131.41	121.54
24	D2	28	ARG	C-N-CD	-5.16	109.24	120.60
36	5	1081	U	P-O3'-C3'	5.14	127.91	120.20
36	5	1063	G	C4-N9-C1'	5.12	141.85	126.50
36	1	219	A	P-O3'-C3'	5.11	127.87	120.20
34	SR	51	ASP	CB-CA-C	-5.11	110.28	117.23
1	6	321	C	P-O3'-C3'	5.11	127.86	120.20
15	C3	22	ALA	CA-C-N	5.09	139.22	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	C3	22	ALA	C-N-CA	5.09	139.22	127.00
36	1	764	U	C2'-C3'-O3'	5.08	117.13	109.50
36	1	1307	G	P-O3'-C3'	5.08	127.83	120.20
2	S0	66	ALA	N-CA-C	-5.08	99.98	110.80
49	m3	140	SER	CA-C-N	5.07	131.23	121.54
49	m3	140	SER	C-N-CA	5.07	131.23	121.54
45	L8	181	LYS	CA-C-N	5.07	131.35	121.41
45	L8	181	LYS	C-N-CA	5.07	131.35	121.41
36	1	1103	A	P-O3'-C3'	5.05	127.77	120.20
2	S0	102	PHE	CA-C-N	5.04	134.11	121.80
2	S0	102	PHE	C-N-CA	5.04	134.11	121.80
9	S7	54	GLY	N-CA-C	-5.04	109.02	115.42
36	1	3269	U	C4'-C3'-O3'	5.04	116.96	109.40
1	2	1204	A	C2'-C3'-O3'	5.04	121.26	113.70
1	6	103	A	P-O3'-C3'	5.04	127.76	120.20
38	8	80	A	C2'-C3'-O3'	5.04	121.25	113.70
16	c4	50	ALA	CA-C-N	5.03	131.16	121.54
16	c4	50	ALA	C-N-CA	5.03	131.16	121.54
36	1	3340	G	OP1-P-O3'	-5.03	92.91	108.00
48	m1	9	MET	CA-C-N	5.02	131.13	121.54
48	m1	9	MET	C-N-CA	5.02	131.13	121.54
9	s7	118	LEU	CA-CB-CG	5.02	133.87	116.30
1	6	755	A	N9-C1'-C2'	-5.02	106.47	114.00
36	5	3218	A	C4'-C3'-O3'	5.01	116.91	109.40
71	O5	40	SER	CA-C-N	-5.01	117.34	122.85
71	O5	40	SER	C-N-CA	-5.01	117.34	122.85

There are no chirality outliers.

All (141) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
13	C1	28	SER	Peptide
14	C2	102	GLY	Peptide
14	C2	88	LEU	Peptide
14	C2	91	VAL	Peptide
16	C4	38	THR	Peptide
17	C5	12	PHE	Peptide
17	C5	124	THR	Peptide
18	C6	113	ASP	Peptide
18	C6	40	GLU	Peptide
18	C6	58	ASP	Peptide
19	C7	22	PRO	Peptide

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Mol	Chain	Res	Type	Group
20	C8	27	LYS	Peptide
20	C8	83	ALA	Peptide
20	C8	90	ASN	Peptide
24	D2	83	ILE	Peptide
25	D3	44	GLY	Peptide
26	D4	46	GLU	Peptide
26	D4	50	ALA	Peptide
27	D5	54	VAL	Peptide
27	D5	94	LYS	Peptide
28	D6	10	ARG	Peptide
28	D6	11	ASN	Peptide
29	D7	50	ALA	Peptide
33	E1	101	ALA	Peptide
33	E1	138	ARG	Peptide
33	E1	143	LYS	Peptide
33	E1	146	SER	Peptide
33	E1	147	VAL	Peptide
40	L3	2	SER	Peptide
40	L3	349	LYS	Peptide
42	L5	257	GLU	Peptide
42	L5	258	LYS	Peptide
42	L5	275	THR	Peptide
43	L6	129	GLU	Peptide
43	L6	173	MET	Peptide
45	L8	30	THR	Peptide
45	L8	77	GLN	Peptide
46	L9	49	ASN	Peptide
51	M5	73	ARG	Peptide
52	M6	110	PRO	Peptide
53	M7	157	VAL	Peptide
53	M7	158	ALA	Peptide
56	N0	12	ARG	Peptide
56	N0	133	ALA	Peptide
56	N0	166	LYS	Peptide
56	N0	22	PRO	Peptide
60	N4	80	ARG	Peptide
60	N4	81	PRO	Peptide
62	N6	83	ASP	Peptide
64	N8	30	GLY	Peptide
64	N8	46	ASP	Peptide
65	N9	19	ASN	Peptide
67	O1	6	ASP	Peptide

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Mol	Chain	Res	Type	Group
69	O3	91	ALA	Peptide
71	O5	90	ARG	Peptide
72	O6	26	ILE	Peptide
2	S0	94	GLY	Peptide
3	S1	131	ASP	Peptide
3	S1	205	PHE	Peptide
3	S1	206	PRO	Peptide
3	S1	36	SER	Peptide
4	S2	144	TRP	Peptide
6	S4	193	GLY	Peptide
7	S5	44	ASN	Peptide
7	S5	56	ALA	Peptide
7	S5	65	ARG	Peptide
9	S7	110	GLN	Peptide
9	S7	131	PHE	Peptide
9	S7	31	SER	Peptide
9	S7	64	VAL	Peptide
34	SR	96	THR	Peptide
12	c0	83	PRO	Peptide
14	c2	102	GLY	Peptide
15	c3	29	SER	Peptide
17	c5	129	GLY	Peptide
17	c5	50	THR	Peptide
17	c5	52	LYS	Peptide
17	c5	67	ALA	Peptide
18	c6	40	GLU	Peptide
20	c8	90	ASN	Peptide
22	d0	51	VAL	Peptide
22	d0	70	THR	Peptide
27	d5	85	LYS	Peptide
27	d5	87	GLY	Peptide
32	e0	44	PHE	Peptide
32	e0	51	ASN	Peptide
33	e1	135	HIS	Peptide
33	e1	147	VAL	Peptide
33	e1	83	LYS	Peptide
39	l2	211	HIS	Peptide
39	l2	48	ILE	Peptide
40	l3	346	THR	Peptide
41	l4	300	ARG	Peptide
42	l5	269	SER	Peptide
42	l5	270	LYS	Peptide

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Mol	Chain	Res	Type	Group
43	l6	67	GLY	Peptide
44	l7	226	GLY	Peptide
44	l7	228	SER	Peptide
45	l8	120	LYS	Peptide
45	l8	24	ASN	Peptide
45	l8	25	PRO	Peptide
48	m1	94	ARG	Peptide
49	m3	150	PRO	Peptide
49	m3	74	GLY	Peptide
50	m4	48	GLY	Peptide
51	m5	146	ALA	Peptide
51	m5	69	GLY	Peptide
52	m6	109	PRO	Peptide
56	n0	133	ALA	Peptide
56	n0	170	THR	Peptide
58	n2	51	GLY	Peptide
63	n7	101	PHE	Peptide
63	n7	5	LEU	Peptide
65	n9	19	ASN	Peptide
67	o1	6	ASP	Peptide
67	o1	82	GLU	Peptide
70	o4	81	CYS	Peptide
71	o5	118	ILE	Peptide
72	o6	63	ASN	Peptide
80	p0	92	PRO	Peptide
79	q3	49	ARG	Peptide
79	q3	51	ALA	Peptide
2	s0	94	GLY	Peptide
4	s2	106	ASP	Peptide
4	s2	144	TRP	Peptide
5	s3	221	SER	Peptide
7	s5	100	ASN	Peptide
7	s5	27	THR	Peptide
7	s5	44	ASN	Peptide
7	s5	56	ALA	Peptide
8	s6	164	LYS	Peptide
9	s7	115	SER	Peptide
9	s7	130	VAL	Peptide
9	s7	30	SER	Peptide
9	s7	31	SER	Peptide
9	s7	64	VAL	Peptide
9	s7	9	LEU	Peptide

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Mol	Chain	Res	Type	Group
11	s9	88	GLU	Peptide
11	s9	89	ASP	Peptide
35	sM	51	ARG	Peptide
34	sR	161	ALA	Peptide

5.2 Too-close contacts

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	2	35985	0	18101	1210	0
1	6	36234	0	18227	1059	0
2	S0	1577	0	1567	98	0
2	s0	1583	0	1578	98	0
3	S1	1709	0	1784	124	0
3	s1	1722	0	1793	75	0
4	S2	1635	0	1723	89	0
4	s2	1635	0	1723	85	0
5	S3	1734	0	1817	68	0
5	s3	1734	0	1817	81	0
6	S4	2068	0	2154	96	0
6	s4	2068	0	2154	95	0
7	S5	1609	0	1675	107	0
7	s5	1609	0	1675	76	0
8	S6	1799	0	1879	92	0
8	s6	1755	0	1846	80	0
9	S7	1481	0	1572	90	0
9	s7	1486	0	1576	72	0
10	S8	1489	0	1525	87	0
10	s8	1489	0	1525	67	0
11	S9	1494	0	1572	77	0
11	s9	1494	0	1573	100	0
12	C0	752	0	719	33	0
12	c0	741	0	691	46	0
13	C1	1146	0	1213	73	0
13	c1	1168	0	1233	54	0
14	C2	870	0	876	54	0
14	c2	890	0	887	47	0
15	C3	1192	0	1255	69	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
15	c3	1192	0	1255	49	0
16	C4	891	0	883	74	0
16	c4	949	0	985	59	0
17	C5	967	0	998	47	0
17	c5	939	0	968	60	0
18	C6	1105	0	1166	64	0
18	c6	1105	0	1166	60	0
19	C7	911	0	921	52	0
19	c7	906	0	910	63	0
20	C8	1192	0	1222	86	0
20	c8	1192	0	1222	92	0
21	C9	1112	0	1124	75	0
21	c9	1112	0	1124	69	0
22	D0	837	0	901	49	0
22	d0	805	0	874	48	0
23	D1	684	0	672	40	0
23	d1	684	0	672	45	0
24	D2	1021	0	1060	72	0
24	d2	1021	0	1060	57	0
25	D3	1121	0	1196	59	0
25	d3	1121	0	1196	59	0
26	D4	1073	0	1132	40	0
26	d4	1073	0	1132	65	0
27	D5	563	0	603	60	0
27	d5	558	0	598	34	0
28	D6	769	0	814	59	0
28	d6	769	0	815	62	0
29	D7	610	0	633	25	0
29	d7	610	0	633	42	0
30	D8	497	0	535	32	0
30	d8	497	0	535	19	0
31	D9	442	0	428	20	0
31	d9	442	0	428	14	0
32	E0	475	0	525	30	0
32	e0	475	0	525	39	0
33	E1	566	0	603	32	0
33	e1	352	0	364	23	0
34	SR	2437	0	2389	75	0
34	sR	2403	0	2353	80	0
35	SM	985	0	939	55	0
35	sM	874	0	875	66	0
36	1	65838	0	33085	2147	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
36	5	66891	0	33617	2006	0
37	3	2579	0	1303	94	0
37	7	2579	0	1304	71	0
38	4	3353	0	1695	161	0
38	8	3333	0	1684	121	0
39	L2	1914	0	1981	119	0
39	l2	1912	0	1976	144	0
40	L3	3075	0	3142	171	0
40	l3	3075	0	3142	156	0
41	L4	2748	0	2859	153	0
41	l4	2748	0	2859	150	0
42	L5	2357	0	2309	134	0
42	l5	2359	0	2311	116	0
43	L6	1239	0	1326	64	0
43	l6	1248	0	1339	71	0
44	L7	1784	0	1862	68	0
44	l7	1791	0	1869	91	0
45	L8	1804	0	1877	89	0
45	l8	1763	0	1819	98	0
46	L9	1518	0	1587	96	0
46	l9	1510	0	1576	100	0
47	M0	1690	0	1727	83	0
47	m0	1696	0	1731	86	0
48	M1	1353	0	1383	72	0
48	m1	1353	0	1383	52	0
49	M3	1543	0	1608	92	0
49	m3	1548	0	1613	98	0
50	M4	1053	0	1149	69	0
50	m4	1059	0	1154	72	0
51	M5	1720	0	1779	109	0
51	m5	1720	0	1779	100	0
52	M6	1555	0	1659	85	0
52	m6	1555	0	1659	121	0
53	M7	1420	0	1437	76	0
53	m7	1378	0	1404	69	0
54	M8	1441	0	1543	63	0
54	m8	1441	0	1543	68	0
55	M9	1521	0	1617	99	0
55	m9	1482	0	1578	69	0
56	N0	1432	0	1470	77	0
56	n0	1445	0	1487	79	0
57	N1	1276	0	1323	58	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	n1	1276	0	1323	76	0
58	N2	778	0	791	29	0
58	n2	778	0	791	21	0
59	N3	997	0	1043	54	0
59	n3	993	0	1040	61	0
60	N4	925	0	933	35	0
60	n4	946	0	1019	49	0
61	N5	964	0	1025	63	0
61	n5	959	0	1023	53	0
62	N6	993	0	1081	40	0
62	n6	976	0	1064	52	0
63	N7	1092	0	1155	73	0
63	n7	1092	0	1155	57	0
64	N8	1173	0	1215	87	0
64	n8	1173	0	1215	71	0
65	N9	462	0	491	20	0
65	n9	462	0	491	24	0
66	O0	743	0	797	43	0
66	o0	767	0	816	41	0
67	O1	876	0	912	54	0
67	o1	883	0	918	39	0
68	O2	1020	0	1090	36	0
68	o2	1020	0	1090	48	0
69	O3	850	0	880	34	0
69	o3	850	0	880	42	0
70	O4	880	0	944	82	0
70	o4	880	0	943	61	0
71	O5	969	0	1078	66	0
71	o5	965	0	1067	53	0
72	O6	771	0	849	39	0
72	o6	770	0	846	36	0
73	O7	665	0	669	46	0
73	o7	650	0	650	42	0
74	O8	612	0	682	26	0
74	o8	608	0	671	28	0
75	O9	431	0	470	25	0
75	o9	436	0	475	28	0
76	Q0	417	0	455	23	0
76	q0	417	0	455	23	0
77	Q1	233	0	284	14	0
77	q1	233	0	284	11	0
78	Q2	847	0	916	33	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
78	q2	847	0	915	26	0
79	Q3	694	0	736	47	0
79	q3	694	0	736	49	0
80	p0	1052	0	1028	35	0
81	1	407	0	0	0	0
81	2	111	0	0	0	0
81	3	9	0	0	0	0
81	4	25	0	0	0	0
81	5	443	0	0	0	0
81	6	112	0	0	0	0
81	7	8	0	0	0	0
81	8	14	0	0	0	0
81	C0	1	0	0	0	0
81	C4	2	0	0	0	0
81	C8	1	0	0	0	0
81	D2	2	0	0	0	0
81	D9	1	0	0	0	0
81	L2	3	0	0	0	0
81	L3	2	0	0	0	0
81	L5	1	0	0	0	0
81	L6	1	0	0	0	0
81	L8	1	0	0	0	0
81	M0	2	0	0	0	0
81	M4	1	0	0	0	0
81	M5	1	0	0	0	0
81	M6	1	0	0	0	0
81	M7	6	0	0	0	0
81	N2	1	0	0	0	0
81	N7	1	0	0	0	0
81	N8	2	0	0	0	0
81	O2	3	0	0	0	0
81	O3	2	0	0	0	0
81	O5	1	0	0	0	0
81	O6	2	0	0	0	0
81	O7	1	0	0	0	0
81	O8	1	0	0	0	0
81	O9	1	0	0	0	0
81	Q2	1	0	0	0	0
81	S1	1	0	0	0	0
81	S8	1	0	0	0	0
81	SM	1	0	0	0	0
81	c3	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
81	d3	2	0	0	0	0
81	l2	4	0	0	0	0
81	l3	4	0	0	0	0
81	l4	1	0	0	0	0
81	l7	2	0	0	0	0
81	l9	1	0	0	0	0
81	m0	1	0	0	0	0
81	m6	1	0	0	0	0
81	m7	5	0	0	0	0
81	n0	2	0	0	0	0
81	n3	2	0	0	0	0
81	n4	1	0	0	0	0
81	n5	1	0	0	0	0
81	n7	1	0	0	0	0
81	o2	2	0	0	0	0
81	o3	3	0	0	0	0
81	o5	1	0	0	0	0
81	o7	5	0	0	0	0
81	q2	4	0	0	0	0
81	s8	2	0	0	0	0
81	sM	1	0	0	0	0
82	1	204	0	240	38	0
82	2	102	0	120	20	0
82	5	272	0	320	37	0
82	6	102	0	120	15	0
82	n6	34	0	40	3	0
83	D6	1	0	0	0	0
83	D7	1	0	0	0	0
83	D9	1	0	0	0	0
83	E1	1	0	0	0	0
83	O4	1	0	0	0	0
83	O7	1	0	0	0	0
83	Q0	1	0	0	0	0
83	Q2	1	0	0	0	0
83	Q3	1	0	0	0	0
83	d6	1	0	0	0	0
83	d7	1	0	0	0	0
83	d9	1	0	0	0	0
83	e1	1	0	0	0	0
83	o4	1	0	0	0	0
83	o7	1	0	0	0	0
83	q0	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
83	q2	1	0	0	0	0
83	q3	1	0	0	0	0
84	1	367	0	0	47	0
84	2	99	0	0	18	0
84	3	18	0	0	0	0
84	4	7	0	0	0	0
84	5	365	0	0	41	0
84	6	111	0	0	11	0
84	7	11	0	0	1	0
84	8	7	0	0	0	0
84	C1	1	0	0	0	0
84	C3	1	0	0	1	0
84	C6	1	0	0	0	0
84	C9	2	0	0	0	0
84	D3	1	0	0	0	0
84	D9	1	0	0	0	0
84	L2	1	0	0	1	0
84	L3	1	0	0	0	0
84	L4	1	0	0	1	0
84	M0	2	0	0	0	0
84	M5	1	0	0	0	0
84	M6	2	0	0	0	0
84	M7	4	0	0	0	0
84	N1	3	0	0	0	0
84	N3	3	0	0	1	0
84	N5	1	0	0	1	0
84	N8	1	0	0	0	0
84	O1	2	0	0	0	0
84	O2	2	0	0	1	0
84	S4	1	0	0	0	0
84	SM	1	0	0	0	0
84	c3	1	0	0	0	0
84	c8	1	0	0	1	0
84	c9	2	0	0	0	0
84	d3	2	0	0	0	0
84	l2	1	0	0	0	0
84	l3	4	0	0	1	0
84	l4	2	0	0	0	0
84	l9	1	0	0	0	0
84	m0	1	0	0	0	0
84	m5	3	0	0	0	0
84	m6	1	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
84	m7	2	0	0	1	0
84	m9	2	0	0	1	0
84	n1	3	0	0	0	0
84	n3	3	0	0	1	0
84	o2	3	0	0	1	0
84	o4	2	0	0	1	0
84	o7	1	0	0	0	0
84	q2	1	0	0	0	0
All	All	397710	0	294943	14049	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 21.

All (14049) 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)
18:c6:4:VAL:C	18:c6:5:PRO:N	1.69	1.45
30:D8:5:THR:C	30:D8:6:PRO:N	1.82	1.36
1:2:1761:U:H3'	82:2:2013:GET:H611	1.34	1.10
40:l3:41:VAL:HA	40:l3:185:GLY:HA3	1.30	1.08
40:l3:296:THR:HG22	40:l3:298:PHE:H	1.13	1.07
36:1:1179:A:OP2	84:1:3967:HOH:O	1.73	1.06
82:1:3808:GET:H211	82:1:3808:GET:H521	1.21	1.04
36:1:1541:G:H22	36:1:1556:C:H5'	1.21	1.03
1:2:1429:G:H1'	22:D0:74:GLU:HG2	1.40	1.02
36:1:1434:G:N7	84:1:3970:HOH:O	1.91	1.01
2:S0:200:ASP:HB2	19:C7:85:VAL:HG21	1.43	1.01
41:L4:122:THR:HG22	41:L4:235:LEU:HB2	1.41	1.00
36:5:640:U:OP1	64:n8:21:ARG:NH2	1.95	0.99
1:6:1521:G:O6	21:c9:68:ARG:NH1	1.95	0.99
67:O1:72:ARG:NH1	67:O1:105:GLN:O	1.96	0.99
36:5:3068:U:OP2	55:m9:62:ARG:NH2	1.96	0.98
50:m4:13:ARG:NH1	50:m4:65:LEU:O	1.96	0.98
71:o5:85:THR:HG23	71:o5:88:LEU:H	1.26	0.97
62:N6:71:SER:HB3	62:N6:83:ASP:HB2	1.46	0.97
1:2:782:U:H4'	1:2:783:G:H5''	1.43	0.97
1:2:1015:U:OP1	84:2:2120:HOH:O	1.80	0.97
36:1:2140:U:OP2	82:1:3808:GET:H411	1.63	0.96
36:5:2952:G:OP2	84:5:3975:HOH:O	1.82	0.96
59:N3:47:ASN:OD1	84:N3:201:HOH:O	1.81	0.96
69:o3:72:THR:HG21	69:o3:84:THR:HG23	1.44	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1429:G:H1'	22:d0:74:GLU:HG2	1.44	0.96
36:5:1581:C:H1'	36:5:1582:C:H5'	1.45	0.95
36:1:1481:A:O2'	36:1:1858:A:N3	2.00	0.95
36:1:2157:G:N2	36:1:2177:G:O2'	1.99	0.95
1:6:1756:A:H2'	36:5:2256:A:N6	1.81	0.94
36:5:1369:A:OP1	64:n8:21:ARG:NH1	2.00	0.94
36:1:2712:U:HO2'	36:1:2743:A:HO2'	1.13	0.94
36:1:640:U:OP1	64:N8:21:ARG:NH2	2.00	0.94
36:1:2367:A:OP2	84:1:3969:HOH:O	1.85	0.94
25:d3:56:LYS:NZ	25:d3:96:VAL:O	2.00	0.94
36:1:828:A:OP1	84:1:3968:HOH:O	1.84	0.94
59:n3:87:ARG:HH22	59:n3:137:VAL:HG22	1.33	0.94
1:6:1370:U:H4'	1:6:1371:A:H4'	1.50	0.93
36:5:2140:U:OP2	82:5:3844:GET:H411	1.68	0.93
1:2:1675:C:H1'	10:S8:32:GLN:HE22	1.32	0.93
16:C4:85:ALA:H	16:C4:119:THR:HG22	1.33	0.93
67:O1:13:THR:HG22	67:O1:72:ARG:HH11	1.34	0.93
1:2:1555:A:H5''	17:C5:44:ARG:HD3	1.51	0.93
5:S3:222:VAL:HG11	34:SR:229:LYS:HA	1.51	0.93
36:1:155:G:H5''	36:1:156:G:C8	2.04	0.93
36:5:1605:A:O2'	36:5:1607:U:OP2	1.87	0.93
1:2:514:G:H1	1:2:543:C:H5	1.17	0.93
11:s9:109:LEU:HB2	11:s9:146:PHE:HB3	1.48	0.93
41:l4:361:HIS:O	56:n0:28:ARG:NH2	2.02	0.92
1:6:868:G:H1	1:6:960:U:H3	1.17	0.92
39:L2:5:ILE:HD11	39:L2:232:GLY:HA2	1.51	0.92
47:M0:76:MET:HE1	47:M0:138:VAL:HG11	1.50	0.92
36:1:1554:U:H1'	36:1:1555:U:H5'	1.52	0.92
7:s5:94:THR:HG22	7:s5:114:ILE:HG13	1.51	0.92
70:o4:41:ARG:HG2	70:o4:56:THR:HG21	1.52	0.92
50:M4:113:THR:HG22	50:M4:116:GLU:H	1.35	0.91
1:6:1482:C:OP2	1:6:1521:G:N1	2.03	0.91
1:2:1621:U:H2'	1:2:1622:G:C8	2.06	0.91
54:m8:178:ARG:HD3	64:n8:50:PRO:HB2	1.53	0.91
1:2:895:G:H1	1:2:917:U:H3	1.15	0.91
36:5:149:U:OP2	51:m5:49:ARG:NH1	2.03	0.91
41:L4:300:ARG:O	54:M8:39:ARG:NH1	2.04	0.91
1:2:322:G:O2'	10:S8:10:LYS:NZ	2.03	0.91
9:S7:30:SER:HB2	9:S7:34:LEU:HB2	1.49	0.91
36:1:2818:U:H5'	36:1:2818:U:H6	1.33	0.91
1:6:1029:U:OP2	28:d6:12:LYS:NZ	2.03	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1908:A:OP2	84:5:3976:HOH:O	1.87	0.91
36:5:1231:A:H5''	36:5:1232:C:H5'	1.53	0.91
53:m7:130:TYR:O	84:m7:301:HOH:O	1.89	0.91
4:s2:56:ILE:HG23	4:s2:61:LEU:HB2	1.53	0.91
1:2:1034:C:HO2'	24:D2:2:THR:N	1.69	0.90
14:c2:103:LEU:HG	14:c2:116:VAL:HG13	1.52	0.90
36:1:655:C:H2'	36:1:656:A:H8	1.36	0.90
60:n4:120:LYS:HA	60:n4:123:ARG:HD2	1.53	0.90
70:o4:71:THR:O	84:o4:601:HOH:O	1.89	0.90
25:D3:79:ASN:HB3	25:D3:81:LYS:H	1.37	0.90
36:1:2140:U:OP2	82:1:3808:GET:C41	2.19	0.90
36:5:1223:A:OP2	36:5:1285:G:N2	2.03	0.90
51:M5:118:SER:HB3	51:M5:132:VAL:HA	1.52	0.90
48:m1:94:ARG:O	48:m1:96:PHE:N	2.04	0.89
3:s1:77:GLU:OE1	16:c4:114:ARG:NH2	2.03	0.89
38:4:53:A:H2'	38:4:54:A:H8	1.36	0.89
44:L7:92:ILE:HD11	54:M8:4:ASP:HB2	1.52	0.89
1:6:833:U:H5'	1:6:834:G:H5''	1.54	0.89
56:N0:155:ARG:NH2	56:N0:171:PHE:O	2.06	0.89
13:C1:80:MET:HB3	13:C1:83:THR:HG23	1.54	0.89
36:1:2442:G:H22	36:1:2505:U:H3	1.20	0.89
40:L3:41:VAL:HA	40:L3:185:GLY:HA3	1.54	0.89
1:6:1559:A:H5''	20:c8:135:GLY:HA3	1.55	0.89
36:1:911:C:H42	39:L2:3:ARG:HD3	1.36	0.89
47:M0:174:THR:HG23	47:M0:176:LEU:H	1.37	0.89
36:5:1639:C:OP2	70:o4:74:ARG:NH2	2.05	0.89
3:S1:207:LEU:HB3	3:S1:210:ILE:HD11	1.53	0.89
24:D2:30:SER:HA	24:D2:34:ILE:HD12	1.53	0.89
1:6:1460:A:OP2	20:c8:145:ARG:NH2	2.05	0.88
36:1:1555:U:O2'	36:1:2169:G:N2	2.07	0.88
54:M8:177:GLY:O	54:M8:186:VAL:N	2.06	0.88
1:2:1297:G:N2	1:2:1300:A:OP2	2.06	0.88
19:c7:27:ASP:O	19:c7:31:ASN:ND2	2.05	0.88
10:S8:76:THR:HB	10:S8:105:ASP:HB2	1.56	0.88
36:5:1315:U:OP2	52:m6:44:SER:OG	1.92	0.88
36:1:1541:G:N2	36:1:1556:C:H5'	1.88	0.87
49:M3:159:VAL:HB	64:N8:96:LYS:HB3	1.56	0.87
23:d1:73:ALA:HB1	23:d1:78:LEU:HB2	1.56	0.87
36:5:1315:U:OP1	52:m6:18:ARG:NH1	2.07	0.87
1:6:1220:C:H5'	12:c0:52:LYS:HE2	1.56	0.87
36:5:1367:G:O6	84:5:3908:HOH:O	1.89	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:m4:17:VAL:HG21	50:m4:74:ARG:HB2	1.57	0.87
22:d0:35:GLU:OE1	22:d0:89:ARG:NH1	2.07	0.87
36:1:55:G:OP1	73:O7:43:LYS:NZ	2.07	0.87
36:1:1381:A:OP1	41:L4:197:ARG:NH1	2.07	0.87
1:2:1585:U:H3	1:2:1611:A:H2	1.19	0.87
46:L9:49:ASN:O	46:L9:51:GLN:N	2.05	0.87
64:N8:112:ILE:HB	64:N8:130:VAL:HG12	1.55	0.87
11:s9:119:ALA:O	11:s9:124:HIS:ND1	2.08	0.87
36:5:3278:C:H3'	36:5:3279:A:H5''	1.57	0.87
47:m0:86:HIS:HB3	47:m0:139:ARG:HG2	1.56	0.87
59:n3:80:ARG:HB2	59:n3:99:ALA:HB3	1.56	0.87
53:M7:131:ARG:NH1	53:M7:137:ASN:OD1	2.08	0.87
2:s0:126:PRO:HB2	2:s0:152:PRO:HG2	1.56	0.87
53:M7:23:ARG:NE	53:M7:125:GLN:OE1	2.08	0.87
36:5:1239:C:H42	36:5:1249:G:H1	1.20	0.87
36:1:2854:U:OP2	47:M0:3:ARG:NH2	2.08	0.86
63:N7:76:ASN:HD21	63:N7:78:ASN:HD22	1.22	0.86
30:d8:42:ARG:NH2	30:d8:58:GLU:O	2.08	0.86
38:4:53:A:H2'	38:4:54:A:C8	2.10	0.86
42:L5:107:ARG:HH22	42:L5:120:LYS:HA	1.40	0.86
36:5:3194:C:O2	36:5:3197:G:N2	2.07	0.86
71:O5:34:GLN:HB3	71:O5:38:ARG:HH12	1.40	0.86
57:n1:51:GLY:HA3	57:n1:92:ARG:HG3	1.56	0.86
80:p0:105:VAL:HG22	80:p0:184:GLY:HA2	1.56	0.86
36:5:2848:G:OP1	76:q0:100:TYR:OH	1.94	0.86
36:1:1116:G:OP2	84:1:3971:HOH:O	1.93	0.86
36:5:635:G:OP2	84:5:3959:HOH:O	1.94	0.86
36:1:66:A:OP2	49:M3:100:ARG:NE	2.07	0.86
36:1:685:G:OP2	49:M3:35:ARG:NH1	2.08	0.86
36:1:2916:U:H1'	59:N3:44:SER:HB3	1.57	0.86
11:s9:83:VAL:HG12	11:s9:149:ARG:HG2	1.57	0.86
1:2:320:U:H2'	1:2:321:C:H2'	1.55	0.86
7:S5:51:VAL:HG21	7:S5:130:ILE:HG12	1.58	0.86
41:L4:20:LEU:HD11	41:L4:252:GLU:HG3	1.57	0.86
2:s0:119:ARG:HE	4:s2:240:LEU:HD23	1.39	0.86
1:2:777:C:H3'	1:2:778:G:H21	1.39	0.86
36:1:1639:C:OP2	70:O4:74:ARG:NH2	2.09	0.85
36:1:2571:U:H1'	36:1:2572:C:H5'	1.56	0.85
36:5:1477:A:H62	82:5:3845:GET:H212	1.24	0.85
1:2:778:G:H3'	1:2:780:A:H2	1.41	0.85
1:2:888:U:H1'	16:C4:126:THR:HG21	1.58	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1067:C:H5''	3:S1:150:VAL:HG13	1.56	0.85
15:C3:4:MET:SD	15:C3:124:ARG:NH1	2.49	0.85
10:S8:39:GLY:HA2	10:S8:61:GLU:HB3	1.59	0.85
36:1:126:U:OP1	51:M5:144:ARG:NH1	2.09	0.85
59:n3:39:VAL:O	59:n3:42:SER:OG	1.93	0.85
51:M5:116:LEU:HD23	51:M5:133:ILE:HD11	1.57	0.85
39:l2:112:ILE:HG22	39:l2:135:ILE:HG12	1.57	0.85
36:5:1025:A:H3'	36:5:1026:A:H4'	1.58	0.85
38:4:95:G:OP1	73:O7:76:ASN:ND2	2.10	0.85
63:N7:52:LYS:O	63:N7:65:ARG:NH1	2.10	0.85
13:c1:132:SER:O	13:c1:134:THR:N	2.10	0.85
36:5:2662:G:H2'	36:5:2663:G:C8	2.12	0.85
16:C4:29:HIS:HB3	16:C4:41:ARG:HG3	1.58	0.84
36:1:1223:A:OP2	36:1:1285:G:N2	2.09	0.84
45:L8:217:THR:O	45:L8:221:ASN:ND2	2.09	0.84
46:L9:9:GLN:O	46:L9:72:LYS:NZ	2.10	0.84
46:L9:93:VAL:HG12	76:Q0:82:LEU:HD22	1.56	0.84
1:6:1330:G:H21	19:c7:8:THR:HG21	1.41	0.84
47:m0:177:ASP:OD2	47:m0:177:ASP:N	2.10	0.84
63:N7:25:ILE:HA	63:N7:43:VAL:HG12	1.58	0.84
13:c1:12:ALA:O	13:c1:14:GLN:NE2	2.09	0.84
73:o7:25:ARG:HE	75:o9:51:ILE:HG13	1.42	0.84
1:2:1621:U:H2'	1:2:1622:G:H8	1.40	0.84
36:1:269:G:N2	36:1:295:A:OP2	2.08	0.84
1:6:1756:A:H2'	36:5:2256:A:H62	1.38	0.84
1:2:196:G:N7	10:S8:141:ARG:NH2	2.25	0.84
36:1:1126:G:OP2	47:M0:14:ASN:ND2	2.10	0.84
82:5:3844:GET:H521	82:5:3844:GET:H211	1.42	0.84
56:n0:24:LEU:H	57:n1:146:ASN:HD21	1.24	0.84
63:n7:77:TYR:HA	63:n7:80:LEU:HD12	1.57	0.84
1:2:1274:C:OP1	84:2:2121:HOH:O	1.94	0.84
1:2:1459:C:OP2	20:C8:138:THR:OG1	1.96	0.84
41:l4:122:THR:HG22	41:l4:235:LEU:HB2	1.60	0.84
36:5:883:A:OP1	84:5:3977:HOH:O	1.93	0.84
36:5:2967:A:H5''	39:l2:213:GLY:HA3	1.58	0.84
36:1:912:G:OP2	39:L2:9:ARG:NH1	2.09	0.84
53:M7:109:ALA:HA	53:M7:112:LEU:HD22	1.60	0.84
36:5:361:A:OP1	73:o7:24:ARG:NH1	2.11	0.84
36:1:1369:A:OP1	64:N8:21:ARG:NH1	2.10	0.84
36:1:1658:G:N2	36:1:1791:C:O2	2.11	0.84
21:c9:86:ARG:NH1	21:c9:90:PRO:O	2.11	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:l2:111:THR:HB	39:l2:136:ILE:HD13	1.59	0.84
4:S2:56:ILE:HG23	4:S2:61:LEU:HB2	1.60	0.83
1:6:99:C:H3'	84:6:2126:HOH:O	1.76	0.83
2:s0:199:PRO:HG2	19:c7:88:VAL:HG11	1.58	0.83
5:s3:142:LEU:HB2	35:sM:110:TRP:HE1	1.42	0.83
36:5:1727:G:OP1	79:q3:44:LYS:NZ	2.12	0.83
1:2:1166:A:H5''	7:S5:101:GLY:H	1.42	0.83
1:2:1588:G:H1	1:2:1608:U:H3	1.25	0.83
36:1:147:U:O4	45:L8:183:LYS:NZ	2.11	0.83
37:3:77:G:N2	37:3:102:A:OP2	2.08	0.83
1:2:1625:C:OP1	4:S2:91:ARG:NH2	2.11	0.83
36:1:1759:C:OP1	36:1:1759:C:H4'	1.77	0.83
52:m6:25:LYS:NZ	84:m6:301:HOH:O	2.10	0.83
5:S3:164:VAL:HG13	5:S3:168:ILE:HD11	1.58	0.83
36:1:829:U:H3	36:1:895:A:N6	1.74	0.83
1:6:1636:C:H4'	1:6:1637:C:H5''	1.61	0.83
43:L6:175:LYS:O	50:M4:117:ARG:NH2	2.11	0.83
49:M3:48:PRO:HB2	71:O5:117:ALA:HB2	1.58	0.83
50:M4:55:ARG:NH2	50:M4:76:ALA:O	2.12	0.83
47:m0:76:MET:HE1	47:m0:148:VAL:HA	1.60	0.83
36:1:304:G:C6	51:M5:178:HIS:HD2	1.97	0.83
41:L4:152:VAL:HG11	41:L4:156:LEU:HD12	1.58	0.83
59:n3:120:LYS:H	59:n3:137:VAL:HG23	1.42	0.83
36:1:969:C:OP1	65:N9:19:ASN:ND2	2.12	0.83
36:1:2780:A:OP1	49:M3:177:LYS:NZ	2.12	0.83
40:l3:347:SER:HB3	40:l3:350:ALA:H	1.43	0.83
36:1:1759:C:N4	36:1:1766:G:O6	2.10	0.83
36:5:1011:A:H5'	47:m0:40:LYS:HZ3	1.42	0.83
36:5:2636:A:H5''	36:5:2637:A:H5'	1.59	0.83
41:l4:204:GLY:O	41:l4:246:ARG:NH1	2.11	0.83
36:5:1657:C:O2'	36:5:1797:A:OP2	1.95	0.83
11:s9:163:PRO:HB3	11:s9:169:PRO:HA	1.60	0.82
67:o1:23:VAL:O	67:o1:28:ARG:NH1	2.12	0.82
1:2:95:G:HO2'	1:2:460:A:HO2'	1.18	0.82
36:1:1586:G:OP2	84:1:3972:HOH:O	1.96	0.82
36:1:1712:G:O6	66:O0:28:LYS:NZ	2.12	0.82
10:S8:138:ASN:OD1	10:S8:138:ASN:N	2.12	0.82
43:L6:40:LEU:HB2	43:L6:52:VAL:HG12	1.59	0.82
8:s6:98:ARG:NH2	8:s6:101:ILE:O	2.10	0.82
8:s6:150:GLU:O	60:n4:105:ARG:NH1	2.13	0.82
20:c8:88:ARG:NH1	20:c8:112:ASP:OD2	2.11	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:930:A:OP1	28:D6:32:LYS:NZ	2.12	0.82
3:S1:201:THR:HG21	3:S1:207:LEU:HD22	1.60	0.82
59:n3:10:LYS:NZ	59:n3:56:ASP:OD1	2.11	0.82
1:2:1552:U:OP2	17:C5:43:ARG:NH2	2.11	0.82
14:C2:97:LEU:HD11	14:C2:121:VAL:HG22	1.62	0.82
36:1:2433:U:H1'	51:M5:125:SER:HB3	1.62	0.82
40:L3:105:VAL:HG21	40:L3:148:LEU:HD13	1.62	0.82
1:6:895:G:H21	16:c4:38:THR:HG21	1.44	0.82
36:5:1166:G:O6	36:5:1333:C:N4	2.12	0.82
37:7:1:G:N2	42:l5:269:SER:OG	2.13	0.82
59:n3:104:ASN:HD21	59:n3:108:GLU:HB2	1.44	0.82
26:D4:14:SER:HA	26:D4:21:LYS:HG3	1.62	0.82
36:1:2514:U:OP2	45:L8:68:ARG:NH1	2.13	0.82
23:D1:1:MET:HE3	23:D1:13:VAL:HG22	1.62	0.81
40:l3:221:THR:HG22	40:l3:273:HIS:H	1.43	0.81
66:o0:22:LYS:HD3	66:o0:94:GLU:HG3	1.62	0.81
71:o5:21:LEU:HD21	71:o5:51:ILE:HG23	1.61	0.81
1:2:145:A:N6	1:2:171:A:N1	2.28	0.81
1:2:1429:G:OP2	84:2:2121:HOH:O	1.97	0.81
34:SR:89:LEU:HB2	34:SR:103:PHE:HB2	1.61	0.81
36:1:1856:C:H2'	36:1:1857:C:H6	1.43	0.81
36:5:1049:C:H2'	36:5:1050:U:C6	2.15	0.81
18:c6:113:ASP:HA	18:c6:116:LEU:HD12	1.62	0.81
1:6:1305:U:OP2	1:6:1306:C:N4	2.13	0.81
16:c4:20:TYR:HB3	16:c4:27:PHE:HB2	1.62	0.81
1:2:1046:G:OP1	3:S1:157:GLN:NE2	2.13	0.81
1:2:1535:U:H5''	7:S5:187:ILE:HD11	1.60	0.81
46:L9:89:LYS:HG2	46:L9:145:VAL:HG22	1.63	0.81
9:s7:64:VAL:HG22	9:s7:94:ALA:HB1	1.62	0.81
41:l4:299:ILE:HG23	54:m8:39:ARG:HB3	1.61	0.81
55:M9:23:TRP:CH2	55:M9:25:ASP:HB3	2.15	0.81
1:6:1243:G:H21	17:c5:52:LYS:HE3	1.43	0.81
2:s0:83:GLN:HG2	2:s0:99:ALA:HB1	1.63	0.81
36:5:1447:G:N7	53:m7:25:SER:OG	2.14	0.81
45:l8:41:GLN:HG3	45:l8:44:ARG:HH12	1.44	0.81
40:L3:221:THR:HG22	40:L3:272:TYR:H	1.44	0.81
37:7:85:G:O3'	44:l7:218:ARG:NH2	2.12	0.81
44:l7:228:SER:HA	44:l7:232:ARG:NH2	1.95	0.81
36:1:156:G:OP2	72:O6:25:LYS:HB3	1.81	0.80
36:1:1508:C:OP1	53:M7:127:ARG:NH2	2.14	0.80
36:1:3227:A:C4	36:1:3228:C:H5	1.98	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:36:ILE:HG12	51:M5:64:VAL:HG23	1.63	0.80
36:5:3182:G:OP1	52:m6:160:ARG:NH2	2.13	0.80
47:m0:99:ILE:HD13	47:m0:101:LYS:HB2	1.63	0.80
1:2:868:G:H1	1:2:960:U:H3	1.30	0.80
1:2:1498:G:H5''	21:C9:72:GLY:HA3	1.63	0.80
3:S1:179:SER:HB3	3:S1:183:GLN:HB2	1.63	0.80
36:1:1599:G:O6	36:1:1608:C:N4	2.12	0.80
36:1:2940:A:N7	40:L3:2:SER:N	2.30	0.80
62:N6:23:PRO:HD2	62:N6:26:GLN:HB2	1.61	0.80
1:6:1459:C:OP2	20:c8:138:THR:OG1	1.99	0.80
36:5:353:G:O6	73:o7:55:ARG:NH1	2.13	0.80
67:o1:13:THR:HG22	67:o1:72:ARG:HH21	1.46	0.80
1:2:1766:A:N1	28:D6:80:HIS:ND1	2.27	0.80
36:1:655:C:H2'	36:1:656:A:C8	2.15	0.80
49:m3:54:LEU:HD12	49:m3:75:PHE:HE2	1.45	0.80
25:D3:68:ILE:O	25:D3:70:LYS:NZ	2.14	0.80
36:1:269:G:H5''	51:M5:14:LYS:HE2	1.63	0.80
54:M8:100:THR:HG23	54:M8:120:GLU:HB3	1.62	0.80
1:2:1482:C:OP2	1:2:1521:G:N2	2.15	0.80
36:1:667:C:O2	36:1:795:G:N2	2.13	0.80
59:N3:129:VAL:O	59:N3:133:SER:OG	2.00	0.80
36:5:837:A:OP2	79:q3:4:ARG:NH1	2.15	0.80
48:M1:90:GLN:HG2	48:M1:170:ASP:HB2	1.63	0.80
63:N7:36:HIS:CD2	63:N7:74:VAL:HG11	2.17	0.80
9:s7:80:GLU:OE2	9:s7:83:LYS:NZ	2.15	0.80
44:l7:136:TYR:CZ	44:l7:231:ASN:HB2	2.17	0.80
36:1:896:A:N6	36:1:2133:U:O4	2.14	0.80
36:1:2723:U:OP1	57:N1:87:LYS:NZ	2.15	0.80
36:5:685:G:N2	36:5:695:C:O2	2.13	0.80
1:2:151:G:O6	26:D4:124:ARG:NH2	2.15	0.80
1:2:386:G:H2'	1:2:387:A:C8	2.17	0.80
8:S6:57:ASP:HA	8:S6:106:LEU:HA	1.63	0.80
9:S7:11:GLN:HG3	9:S7:13:PRO:HD2	1.64	0.80
43:L6:89:THR:HG21	50:M4:115:PHE:HB2	1.62	0.80
13:c1:17:PRO:HG3	13:c1:63:LEU:HD11	1.64	0.80
18:c6:39:VAL:O	18:c6:45:ARG:NE	2.14	0.80
63:n7:88:ASP:O	63:n7:121:ARG:NH2	2.14	0.80
72:o6:45:ARG:NH1	72:o6:89:GLU:OE1	2.15	0.80
18:C6:18:ALA:HB2	18:C6:69:VAL:HG13	1.62	0.79
36:1:3272:C:OP2	43:L6:78:ARG:NH1	2.15	0.79
1:6:1326:A:OP2	19:c7:7:LYS:NZ	2.15	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:s6:64:LYS:NZ	8:s6:82:SER:OG	2.15	0.79
36:5:2641:U:O4	84:5:3978:HOH:O	2.00	0.79
36:1:1620:U:H3	36:1:1825:G:H1	1.28	0.79
37:3:7:G:OP1	42:L5:33:ARG:NH1	2.15	0.79
36:5:912:G:OP2	39:l2:9:ARG:NH1	2.15	0.79
36:1:1651:U:H2'	36:1:1652:G:C8	2.18	0.79
1:6:1325:A:P	19:c7:11:ARG:HH12	2.06	0.79
36:5:2344:U:H2'	36:5:2345:A:H8	1.46	0.79
36:5:2677:G:O6	36:5:2680:A:N6	2.15	0.79
17:C5:18:ARG:NH1	20:C8:90:ASN:O	2.15	0.79
36:1:1600:U:O2	36:1:1605:A:N6	2.15	0.79
41:L4:126:ILE:HD11	41:L4:233:LEU:HD13	1.64	0.79
1:6:1230:A:H2	1:6:1255:G:H21	1.27	0.79
1:2:62:A:OP1	84:2:2123:HOH:O	2.00	0.79
16:C4:29:HIS:HB3	16:C4:41:ARG:HA	1.64	0.79
1:6:1462:G:N7	20:c8:143:ARG:NH2	2.31	0.79
36:5:1063:G:H8	36:5:1066:G:H1'	1.48	0.79
1:2:555:A:OP2	84:2:2122:HOH:O	2.00	0.79
6:S4:5:PRO:HB2	6:S4:7:LYS:HE3	1.65	0.79
19:C7:71:PHE:HE1	19:C7:73:LEU:HD22	1.47	0.79
36:1:2138:A:OP2	82:1:3808:GET:H712	1.82	0.79
50:M4:72:LEU:HD11	50:M4:81:VAL:HG22	1.65	0.79
78:Q2:45:ARG:O	78:Q2:48:SER:OG	2.01	0.79
21:c9:64:HIS:HA	21:c9:67:MET:HE2	1.63	0.79
1:2:992:A:O2'	1:2:1785:U:O2	2.00	0.79
53:M7:78:VAL:HG22	53:M7:80:LYS:H	1.47	0.79
36:5:973:A:OP2	54:m8:12:ARG:NH1	2.15	0.79
1:2:1160:A:H2'	1:2:1161:C:H6	1.48	0.79
1:2:1761:U:H5'	82:2:2013:GET:O41	1.81	0.79
15:C3:9:LYS:O	84:C3:201:HOH:O	2.00	0.79
18:C6:50:GLU:OE1	18:C6:112:TYR:OH	2.00	0.79
36:5:1949:G:OP2	55:m9:135:LYS:NZ	2.16	0.79
47:m0:4:ARG:HH21	47:m0:99:ILE:HG22	1.45	0.79
1:2:958:U:O2'	15:C3:55:ARG:NH2	2.16	0.79
12:C0:11:ILE:HD13	12:C0:35:ILE:HG21	1.65	0.79
38:4:150:G:OP1	61:N5:27:ARG:NH2	2.16	0.79
39:L2:10:LYS:HA	39:L2:16:PHE:CD2	2.18	0.79
44:l7:168:ILE:O	44:l7:172:ASN:ND2	2.16	0.79
46:l9:137:SER:HB3	46:l9:140:VAL:HG13	1.64	0.79
58:n2:37:LEU:HD12	58:n2:41:ILE:HD11	1.65	0.79
36:1:1620:U:O2	36:1:1825:G:N2	2.15	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1016:C:H4'	36:5:1017:C:H5'	1.64	0.79
47:m0:68:ALA:HB2	47:m0:158:LYS:HB2	1.63	0.79
1:2:276:C:H2'	1:2:278:U:H3	1.48	0.78
1:2:1754:A:H8	1:2:1754:A:H5''	1.45	0.78
27:D5:59:TYR:HE2	27:D5:61:SER:HB3	1.48	0.78
36:1:901:G:H2'	36:1:902:G:H8	1.48	0.78
21:C9:105:LEU:HD13	21:C9:122:ARG:HD3	1.66	0.78
36:1:900:G:H1'	36:1:1589:A:H61	1.48	0.78
36:1:2842:U:OP1	36:1:2844:C:N4	2.14	0.78
36:1:3174:A:OP1	69:O3:97:SER:OG	2.00	0.78
45:l8:148:ALA:HA	45:l8:201:THR:HG22	1.65	0.78
1:2:1316:G:O2'	1:2:1401:A:O2'	2.00	0.78
17:C5:110:GLU:HB2	20:C8:119:ILE:HD11	1.65	0.78
36:1:3049:A:H8	36:1:3049:A:H5'	1.48	0.78
45:L8:157:VAL:HG11	45:L8:163:VAL:HB	1.65	0.78
1:6:1034:C:HO2'	24:d2:2:THR:N	1.81	0.78
36:5:3285:C:H2'	36:5:3286:G:H5''	1.64	0.78
38:8:82:U:H4'	38:8:83:C:H5'	1.63	0.78
36:1:86:G:O2'	36:1:98:G:O6	2.00	0.78
36:1:1498:A:OP1	55:M9:6:THR:OG1	2.02	0.78
1:2:912:U:N3	1:2:914:G:O6	2.16	0.78
11:S9:105:LEU:HD12	11:S9:108:ARG:HD2	1.65	0.78
36:1:3164:C:HO2'	36:1:3165:A:H8	1.31	0.78
36:5:217:U:O2	62:n6:103:LYS:NZ	2.16	0.78
56:n0:45:LEU:HD12	56:n0:51:VAL:HG21	1.64	0.78
9:S7:25:VAL:HA	9:S7:28:GLU:HB2	1.64	0.78
18:C6:5:PRO:HG2	18:C6:24:ALA:HB2	1.65	0.78
33:e1:86:THR:HB	33:e1:88:PRO:HD2	1.64	0.78
36:5:63:A:OP1	51:m5:172:ARG:NH2	2.17	0.78
36:5:1334:U:O2'	44:l7:151:ARG:NH2	2.16	0.78
38:8:103:G:OP2	38:8:105:A:O2'	2.01	0.78
1:2:1160:A:H2'	1:2:1161:C:C6	2.19	0.78
36:1:345:G:OP2	84:1:3973:HOH:O	2.02	0.78
42:L5:68:THR:HG22	42:L5:71:GLY:H	1.49	0.78
53:M7:129:THR:HG23	53:M7:139:TYR:HB2	1.65	0.78
37:3:11:A:N6	42:L5:13:SER:O	2.16	0.78
38:4:135:G:OP2	61:N5:56:ARG:NH2	2.17	0.78
34:sR:167:VAL:HG23	34:sR:183:LEU:HB2	1.65	0.78
13:C1:36:LYS:NZ	13:C1:59:PRO:O	2.14	0.78
36:1:1825:G:H5''	74:O8:48:SER:HB2	1.66	0.78
64:N8:47:LYS:O	64:N8:49:HIS:N	2.16	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:345:G:OP2	84:5:3979:HOH:O	2.01	0.78
36:5:1348:U:H5'	36:5:1355:A:H61	1.49	0.78
43:16:31:ARG:NH1	69:o3:107:ILE:H	1.82	0.78
1:2:1563:C:OP1	21:C9:84:LYS:NZ	2.12	0.78
14:C2:103:LEU:HG	14:C2:116:VAL:HG22	1.64	0.78
27:D5:41:ILE:HG13	27:D5:42:LEU:HG	1.64	0.78
36:1:3164:C:N4	36:1:3286:G:O6	2.16	0.78
1:6:67:A:O2'	1:6:69:G:OP1	2.01	0.78
1:6:591:A:H2'	1:6:592:A:C8	2.19	0.78
9:s7:112:ARG:NH2	9:s7:117:THR:OG1	2.17	0.78
36:5:1049:C:H2'	36:5:1050:U:H6	1.48	0.78
38:8:80:A:H2	38:8:83:C:H41	1.31	0.78
47:m0:169:LYS:HE2	47:m0:169:LYS:H	1.49	0.78
1:2:397:A:OP2	10:S8:47:ARG:NH1	2.17	0.77
24:D2:26:LEU:HD21	24:D2:60:LYS:HD3	1.66	0.77
36:1:1659:U:H2'	36:1:1660:C:C6	2.19	0.77
82:1:3808:GET:O23	82:1:3808:GET:H621	1.84	0.77
1:6:1533:C:H4'	1:6:1539:G:N1	1.99	0.77
1:2:927:C:H1'	16:C4:125:SER:HB2	1.66	0.77
37:3:44:C:OP2	48:M1:137:ARG:NH2	2.17	0.77
1:6:475:A:OP2	11:s9:126:ARG:NH1	2.17	0.77
1:6:793:A:H3'	1:6:794:U:H5'	1.66	0.77
36:5:424:G:P	82:5:3850:GET:O23	2.42	0.77
22:D0:48:HIS:ND1	22:D0:48:HIS:O	2.17	0.77
36:1:9:U:OP1	51:M5:41:ARG:NH1	2.17	0.77
28:d6:87:ARG:NH2	28:d6:94:ASN:O	2.18	0.77
36:5:1307:G:H5''	52:m6:60:LYS:HE2	1.64	0.77
37:7:76:A:O2'	56:n0:50:LYS:NZ	2.18	0.77
6:S4:32:SER:HB2	6:S4:83:PRO:HD3	1.67	0.77
47:M0:54:SER:HB2	47:M0:135:ILE:HD11	1.66	0.77
1:6:1227:A:H4'	1:6:1228:G:H5'	1.66	0.77
36:5:2140:U:OP2	82:5:3844:GET:C41	2.33	0.77
36:1:1563:C:N4	36:1:1576:G:O6	2.16	0.77
36:5:1055:A:N3	37:7:81:U:O2'	2.17	0.77
49:M3:48:PRO:HA	49:M3:137:GLN:HB3	1.65	0.77
36:5:2840:C:N4	36:5:2845:A:O2'	2.18	0.77
16:C4:81:VAL:H	16:C4:115:ILE:HG22	1.46	0.77
36:1:838:G:O6	79:Q3:4:ARG:NH2	2.18	0.77
36:1:1108:U:H2'	36:1:1109:U:H6	1.50	0.77
82:1:3808:GET:H521	82:1:3808:GET:N21	1.99	0.77
1:6:485:A:N6	1:6:502:U:O4	2.17	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:s2:139:ILE:HD12	4:s2:191:ALA:HB1	1.67	0.77
34:sR:38:ARG:HA	34:sR:67:ILE:HG23	1.66	0.77
7:S5:94:THR:HB	7:S5:114:ILE:HG13	1.65	0.77
36:1:406:G:N7	84:1:3994:HOH:O	2.18	0.77
52:M6:85:ARG:HD3	52:M6:90:HIS:CG	2.20	0.77
1:6:57:G:OP1	26:d4:112:LYS:NZ	2.18	0.77
1:6:1316:G:OP1	19:c7:7:LYS:N	2.18	0.77
46:l9:9:GLN:HB3	46:l9:52:LEU:HD21	1.65	0.77
1:2:1236:A:O4'	33:E1:138:ARG:NH2	2.18	0.77
36:1:1717:U:H2'	36:1:1718:G:C8	2.20	0.77
71:O5:78:LYS:HA	71:O5:81:ARG:HD3	1.65	0.77
36:5:1063:G:C8	36:5:1066:G:H1'	2.19	0.77
36:5:1593:A:H2'	36:5:1594:A:C8	2.20	0.77
40:l3:227:GLU:OE1	40:l3:228:GLY:N	2.17	0.77
1:2:1370:U:O2'	1:2:1371:A:OP2	2.02	0.77
42:L5:58:LYS:HD2	42:L5:93:THR:HG21	1.67	0.77
59:N3:81:GLN:O	59:N3:98:ASN:ND2	2.17	0.77
36:5:1129:A:OP1	47:m0:13:LYS:NZ	2.15	0.77
40:l3:76:VAL:HG11	40:l3:323:MET:HE3	1.67	0.77
51:m5:15:GLN:HB3	72:o6:52:PRO:HD2	1.65	0.77
1:2:401:A:OP2	84:2:2124:HOH:O	2.03	0.76
13:c1:99:ARG:NH1	25:d3:7:ARG:O	2.18	0.76
23:d1:5:LYS:HD2	23:d1:5:LYS:H	1.48	0.76
36:5:1659:U:H2'	36:5:1660:C:C6	2.20	0.76
80:p0:9:ALA:HA	80:p0:12:PHE:HB2	1.65	0.76
7:S5:73:THR:HG22	7:S5:75:GLY:H	1.51	0.76
36:1:787:G:H2'	36:1:788:C:C6	2.20	0.76
36:1:829:U:H3	36:1:895:A:H62	1.28	0.76
1:6:813:U:OP2	15:c3:76:LYS:NZ	2.19	0.76
36:5:618:C:OP1	53:m7:173:ARG:NH2	2.19	0.76
36:5:3298:C:OP1	53:m7:74:LYS:NZ	2.19	0.76
45:l8:65:LEU:HD12	51:m5:25:VAL:HG13	1.67	0.76
1:2:523:G:OP2	26:D4:37:LYS:NZ	2.18	0.76
1:2:1533:C:H4'	1:2:1539:G:N1	2.01	0.76
36:1:1794:G:H4'	39:L2:191:LEU:HD13	1.67	0.76
36:1:1856:C:H2'	36:1:1857:C:C6	2.20	0.76
36:1:2696:A:H2'	36:1:2697:A:C8	2.19	0.76
36:1:2836:C:H5	36:1:2852:C:H42	1.27	0.76
1:6:1537:C:O2'	1:6:1540:G:O6	2.03	0.76
4:s2:170:ILE:HB	4:s2:197:TYR:HB2	1.65	0.76
4:S2:143:TYR:O	24:D2:98:GLN:NE2	2.17	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2768:U:H2'	36:1:2769:A:H8	1.50	0.76
36:1:3194:C:O2'	36:1:3195:U:O2	2.04	0.76
53:M7:26:PHE:HE1	53:M7:120:ASN:HA	1.50	0.76
36:5:2836:C:H5	36:5:2852:C:H42	1.33	0.76
1:2:850:A:H5'	55:M9:165:LYS:HD3	1.67	0.76
1:2:1274:C:H5	35:SM:96:ARG:H	1.32	0.76
36:5:1451:C:O2	36:5:2353:G:N2	2.15	0.76
36:5:2948:C:OP1	84:5:3980:HOH:O	2.01	0.76
41:l4:140:HIS:HE2	41:l4:246:ARG:HG2	1.50	0.76
68:o2:82:LEU:HD11	68:o2:112:ALA:HB2	1.65	0.76
34:SR:4:ASN:O	34:SR:318:ALA:N	2.19	0.76
35:SM:31:SER:OG	36:1:2667:A:OP1	2.02	0.76
67:O1:79:ARG:H	67:O1:79:ARG:HE	1.32	0.76
16:c4:85:ALA:H	16:c4:119:THR:HB	1.50	0.76
41:l4:59:GLN:O	73:o7:52:LYS:NZ	2.15	0.76
64:n8:91:LEU:HD12	64:n8:121:VAL:HG21	1.67	0.76
9:S7:69:GLY:HA2	9:S7:72:LYS:HD2	1.68	0.76
14:C2:67:THR:HG22	14:C2:68:GLU:HG3	1.68	0.76
36:1:2666:C:OP2	36:1:2687:G:N1	2.18	0.76
6:s4:163:ASP:CG	6:s4:164:LEU:H	1.94	0.76
43:l6:89:THR:HG21	50:m4:115:PHE:HB2	1.67	0.76
36:1:839:C:O2	36:1:854:G:N2	2.13	0.76
36:1:1603:A:H61	61:N5:71:THR:HG21	1.51	0.76
36:1:1696:A:H2'	36:1:1697:A:C8	2.21	0.76
36:5:185:C:H5''	62:n6:122:LYS:HA	1.68	0.76
46:l9:120:ASP:OD1	46:l9:124:ARG:NH2	2.19	0.76
53:m7:25:SER:HB3	53:m7:28:ASN:HB2	1.68	0.76
1:2:789:A:O2'	6:S4:106:LYS:NZ	2.19	0.76
73:O7:5:THR:HA	73:O7:8:PHE:HD2	1.50	0.76
1:6:149:C:O2'	8:s6:132:ARG:NH1	2.18	0.76
36:5:110:G:OP2	49:m3:73:ARG:NH1	2.19	0.76
39:l2:10:LYS:HA	39:l2:16:PHE:CD2	2.21	0.76
51:m5:73:ARG:NH1	51:m5:88:GLY:O	2.18	0.76
53:m7:116:HIS:HB3	53:m7:149:VAL:HG13	1.65	0.76
1:2:877:G:OP2	1:2:936:G:N2	2.14	0.76
15:C3:72:MET:HE1	15:C3:82:PRO:HD2	1.66	0.76
51:M5:38:ARG:HH21	51:M5:60:VAL:HB	1.48	0.76
1:6:1471:A:OP1	7:s5:185:ARG:NH1	2.19	0.76
1:6:1588:G:H1	1:6:1608:U:H3	1.32	0.76
1:6:1799:U:H4'	1:6:1800:A:H2'	1.67	0.76
36:5:336:A:OP2	62:n6:9:SER:OG	2.04	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2367:A:H2'	36:5:2368:A:C8	2.21	0.76
46:L9:28:VAL:HG13	46:L9:33:THR:HB	1.67	0.75
53:M7:105:LYS:HB3	53:M7:107:LEU:HD13	1.67	0.75
10:s8:184:LEU:HB3	10:s8:189:LEU:HD13	1.68	0.75
36:5:1135:A:OP2	65:n9:5:LYS:NZ	2.18	0.75
53:m7:48:LEU:HD22	53:m7:88:VAL:HG13	1.67	0.75
55:m9:114:LYS:O	55:m9:146:LYS:NZ	2.19	0.75
1:2:16:G:H2'	1:2:17:C:C6	2.21	0.75
36:1:929:A:H2'	36:1:930:U:C6	2.21	0.75
36:1:2359:C:H2'	36:1:2360:C:C6	2.21	0.75
39:L2:210:PRO:HA	84:L2:401:HOH:O	1.85	0.75
1:6:1479:A:OP1	21:c9:57:ARG:NH1	2.19	0.75
8:s6:7:TYR:HB3	8:s6:12:SER:HB2	1.68	0.75
32:e0:59:GLY:O	32:e0:61:SER:N	2.19	0.75
36:5:18:G:OP1	71:o5:81:ARG:NH2	2.18	0.75
36:5:1073:U:H1'	65:n9:50:THR:HG22	1.66	0.75
56:n0:66:GLU:OE1	56:n0:99:ARG:N	2.18	0.75
57:n1:14:MET:HE1	57:n1:55:LYS:HB2	1.66	0.75
1:2:743:U:OP1	9:S7:108:GLN:N	2.14	0.75
9:S7:129:LEU:HD21	9:S7:172:VAL:HG11	1.68	0.75
36:1:1468:A:N6	36:1:1508:C:O2	2.18	0.75
36:1:2395:G:N7	84:1:3996:HOH:O	2.19	0.75
56:n0:90:MET:HE1	56:n0:114:HIS:CD2	2.21	0.75
8:s6:163:THR:HG22	8:s6:168:THR:HG22	1.68	0.75
36:5:1178:G:H8	36:5:1178:G:H5'	1.52	0.75
36:5:2132:C:OP1	84:5:3981:HOH:O	2.02	0.75
4:S2:67:GLN:HA	4:S2:70:ASP:HB2	1.68	0.75
6:S4:129:VAL:HB	6:S4:139:VAL:HG23	1.69	0.75
36:1:2768:U:H2'	36:1:2769:A:C8	2.20	0.75
48:M1:47:GLN:HG2	48:M1:67:VAL:HG12	1.67	0.75
1:6:886:U:OP1	3:s1:214:LYS:NZ	2.18	0.75
36:5:185:C:H5''	62:n6:122:LYS:HG2	1.66	0.75
36:5:1493:G:O6	75:o9:2:ALA:N	2.20	0.75
47:m0:36:LEU:HD21	47:m0:69:ARG:HD3	1.69	0.75
27:D5:93:SER:HB3	27:D5:100:ILE:HB	1.68	0.75
28:D6:18:VAL:HG23	28:D6:19:LYS:H	1.51	0.75
36:1:1722:U:H5''	55:M9:99:LEU:HD12	1.68	0.75
36:1:2360:C:OP1	84:1:3974:HOH:O	2.05	0.75
37:3:5:G:OP1	48:M1:143:ARG:NH2	2.20	0.75
1:6:21:U:H2'	1:6:22:A:H8	1.52	0.75
1:6:1227:A:O2'	1:6:1228:G:OP2	2.05	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1328:G:OP2	84:2:2126:HOH:O	2.04	0.75
14:C2:61:VAL:HG13	14:C2:121:VAL:HG23	1.67	0.75
17:C5:41:VAL:HG22	17:C5:84:ILE:HD12	1.69	0.75
61:N5:92:LYS:HD2	61:N5:112:THR:HG23	1.67	0.75
76:Q0:99:CYS:HB2	76:Q0:114:LYS:HD3	1.67	0.75
36:5:423:A:H4'	82:5:3850:GET:H932	1.66	0.75
36:1:914:A:H5'	36:1:915:A:N7	2.01	0.75
36:5:439:C:O2'	36:5:494:G:N2	2.20	0.75
45:l8:70:LYS:HA	45:l8:235:GLY:HA3	1.69	0.75
47:m0:174:THR:OG1	47:m0:175:ASN:N	2.19	0.75
1:2:475:A:OP2	11:S9:126:ARG:NH1	2.20	0.75
9:S7:170:GLN:HG2	9:S7:181:ILE:HG22	1.66	0.75
1:2:783:G:HO2'	1:2:784:C:H6	1.34	0.74
1:2:1488:G:H3'	1:2:1515:A:H61	1.50	0.74
1:2:1675:C:H1'	10:S8:32:GLN:NE2	2.01	0.74
2:S0:24:LEU:O	2:S0:163:ASN:ND2	2.19	0.74
6:S4:53:LYS:O	26:D4:22:GLN:NE2	2.19	0.74
32:E0:8:LEU:HD23	32:E0:8:LEU:H	1.51	0.74
36:5:1307:G:OP2	52:m6:59:ARG:NH1	2.20	0.74
46:l9:34:LEU:HD21	46:l9:149:ASN:HB2	1.68	0.74
1:2:1473:U:O2'	7:S5:103:ASN:OD1	2.04	0.74
36:1:1564:U:H3	36:1:1575:A:H61	1.34	0.74
36:1:2341:A:OP2	40:L3:247:ARG:NH2	2.20	0.74
2:s0:13:ASP:OD1	2:s0:179:ARG:NH2	2.19	0.74
17:c5:87:PRO:HA	17:c5:90:ILE:HG13	1.69	0.74
29:d7:41:LEU:H	29:d7:41:LEU:HD23	1.52	0.74
36:5:992:A:H5''	57:n1:43:LYS:HD2	1.69	0.74
36:1:689:U:H3	41:L4:227:THR:HG1	1.31	0.74
40:L3:169:THR:HG23	40:L3:171:LEU:H	1.51	0.74
40:l3:232:ARG:NH1	40:l3:269:GLN:O	2.20	0.74
1:2:324:U:OP1	13:C1:133:LYS:NZ	2.20	0.74
1:2:738:G:H2'	1:2:739:G:H8	1.51	0.74
1:2:1587:A:H1'	7:S5:104:ASN:HD22	1.52	0.74
3:S1:48:VAL:HG13	3:S1:61:LEU:HD21	1.67	0.74
36:1:2687:G:OP1	42:L5:8:LYS:NZ	2.18	0.74
38:4:99:C:OP1	61:N5:53:HIS:NE2	2.20	0.74
45:L8:152:LEU:HB3	45:L8:180:VAL:HG21	1.69	0.74
46:L9:101:VAL:HG22	46:L9:114:VAL:HG22	1.67	0.74
48:M1:6:GLN:HG3	48:M1:8:PRO:HD3	1.70	0.74
1:6:1121:C:O2	1:6:1126:G:N2	2.18	0.74
1:2:1541:G:OP2	84:2:2125:HOH:O	2.04	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:32:GLY:H	21:C9:34:VAL:HG12	1.53	0.74
65:N9:23:LYS:HD2	65:N9:24:PRO:HD3	1.68	0.74
36:5:1095:U:C6	57:n1:127:GLN:HA	2.23	0.74
73:o7:21:ARG:NH2	73:o7:41:ALA:O	2.20	0.74
36:1:2339:C:P	59:N3:48:ARG:HG3	2.28	0.74
46:L9:49:ASN:O	46:L9:49:ASN:ND2	2.21	0.74
51:M5:15:GLN:HB3	72:O6:52:PRO:HD2	1.69	0.74
36:5:190:U:H2'	62:n6:60:ARG:NH2	2.01	0.74
41:l4:181:VAL:HG11	41:l4:224:GLY:HA3	1.69	0.74
47:m0:192:ASP:HA	47:m0:197:VAL:HG12	1.70	0.74
59:n3:47:ASN:OD1	84:n3:301:HOH:O	2.04	0.74
1:2:512:A:OP2	11:S9:172:VAL:HB	1.87	0.74
8:S6:153:VAL:O	8:S6:155:ASP:N	2.19	0.74
43:L6:58:LEU:HD21	43:L6:64:LEU:HB2	1.70	0.74
71:O5:21:LEU:HD22	71:O5:25:LYS:HE3	1.69	0.74
9:s7:67:LEU:HG	9:s7:94:ALA:HB2	1.69	0.74
36:5:725:G:H3'	36:5:726:G:H5''	1.70	0.74
1:2:38:C:H2'	1:2:39:A:H5'	1.70	0.74
1:2:142:G:O6	8:S6:177:ARG:NH2	2.20	0.74
1:2:1542:G:N2	1:2:1569:A:OP2	2.21	0.74
38:4:38:U:C4	71:O5:89:ARG:HD2	2.23	0.74
59:N3:120:LYS:H	59:N3:137:VAL:HG23	1.51	0.74
74:O8:44:LYS:HG2	74:O8:53:THR:HB	1.67	0.74
1:6:1601:G:OP1	21:c9:86:ARG:NH2	2.21	0.74
6:S4:112:HIS:NE2	6:S4:237:SER:O	2.20	0.74
36:1:652:G:OP2	84:1:3975:HOH:O	2.05	0.74
36:1:1913:A:N3	36:1:2120:A:H2'	2.02	0.74
36:1:2525:G:OP2	39:L2:37:ARG:NH1	2.21	0.74
20:C8:115:ARG:HG2	20:C8:119:ILE:HD13	1.69	0.73
36:1:1926:C:H3'	79:Q3:7:LYS:HG3	1.69	0.73
25:d3:109:ARG:O	25:d3:112:LYS:NZ	2.20	0.73
36:5:963:G:OP1	84:5:3982:HOH:O	2.05	0.73
41:l4:283:THR:HG21	41:l4:288:ARG:HH22	1.53	0.73
47:M0:76:MET:HE3	47:M0:148:VAL:HA	1.69	0.73
59:N3:57:MET:HE3	59:N3:75:PRO:HB3	1.70	0.73
1:6:212:U:H2'	1:6:213:A:H8	1.53	0.73
5:s3:22:ASN:O	5:s3:26:THR:OG1	2.06	0.73
10:s8:81:VAL:HG22	10:s8:102:VAL:HG12	1.70	0.73
51:m5:64:VAL:HG11	51:m5:102:ALA:HB1	1.69	0.73
78:q2:28:TYR:HB3	78:q2:69:VAL:HB	1.69	0.73
1:2:1228:G:H22	14:C2:67:THR:HB	1.52	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:s1:36:SER:HA	3:s1:41:ARG:HE	1.53	0.73
21:c9:33:TYR:HD1	21:c9:34:VAL:H	1.36	0.73
36:5:1717:U:H2'	36:5:1718:G:C8	2.23	0.73
56:n0:2:ALA:HB3	56:n0:32:SER:HB3	1.71	0.73
36:1:1159:A:OP1	54:M8:2:GLY:N	2.22	0.73
36:1:1400:G:N2	36:1:1411:C:O2	2.16	0.73
44:L7:145:ARG:HA	44:L7:185:ILE:HD13	1.70	0.73
1:6:452:A:H3'	1:6:453:U:C5	2.22	0.73
1:6:1339:C:O2'	1:6:1341:A:N7	2.20	0.73
36:5:304:G:OP1	84:5:3985:HOH:O	2.06	0.73
13:C1:33:ARG:NH2	13:C1:51:GLY:O	2.21	0.73
36:1:2177:G:OP2	39:L2:54:ARG:NH1	2.22	0.73
1:6:263:C:H4'	1:6:292:U:H5'	1.71	0.73
10:s8:101:ILE:HD13	10:s8:168:CYS:HB2	1.68	0.73
20:c8:14:ILE:HD11	20:c8:21:ASN:HB3	1.68	0.73
11:S9:38:ASN:HB2	11:S9:41:GLU:HG3	1.69	0.73
36:1:993:G:OP1	57:N1:58:GLN:NE2	2.22	0.73
59:N3:22:ILE:HG12	59:N3:35:TYR:HD1	1.54	0.73
45:l8:47:SER:HB3	61:n5:27:ARG:HG2	1.70	0.73
1:2:246:G:H1'	13:C1:40:LEU:HD13	1.70	0.73
1:2:1482:C:O2'	18:C6:72:GLY:O	2.06	0.73
2:S0:119:ARG:HH11	2:S0:119:ARG:HB3	1.54	0.73
17:C5:57:MET:HE1	17:C5:89:MET:HE3	1.69	0.73
36:1:3118:C:H4'	76:Q0:106:ARG:NH2	2.02	0.73
40:L3:83:PRO:HG3	40:L3:204:ALA:HB2	1.71	0.73
42:L5:196:ARG:HA	42:L5:199:ILE:HD12	1.71	0.73
3:s1:144:ARG:HB3	3:s1:208:GLN:HB3	1.71	0.73
36:5:1896:A:OP2	84:5:3983:HOH:O	2.06	0.73
1:2:1550:A:P	17:C5:42:ARG:HH22	2.10	0.73
28:D6:94:ASN:HD21	28:D6:96:ALA:HB3	1.54	0.73
36:1:911:C:N4	39:L2:3:ARG:HD3	2.03	0.73
41:L4:82:THR:HG23	41:L4:85:SER:H	1.54	0.73
36:5:1329:U:O2'	36:5:1330:A:H5''	1.89	0.73
36:5:1821:U:O2	70:o4:67:LYS:HB2	1.89	0.73
36:5:2375:G:O2'	36:5:2377:G:OP2	2.06	0.73
72:o6:58:ILE:HG22	72:o6:90:MET:HG3	1.71	0.73
4:S2:38:VAL:HG13	4:S2:39:THR:HG23	1.70	0.73
20:C8:91:ASP:H	20:C8:95:GLY:HA2	1.52	0.73
41:l4:144:LYS:HG2	41:l4:145:ILE:H	1.53	0.73
69:o3:58:GLU:HG3	69:o3:63:LYS:HG3	1.71	0.73
26:d4:57:VAL:HB	26:d4:60:PHE:HE2	1.54	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:576:C:H2'	36:5:577:C:H6	1.53	0.73
36:5:1014:U:H5'	36:5:1015:U:H5''	1.70	0.73
39:12:113:VAL:HG12	39:12:134:VAL:HG13	1.68	0.73
27:D5:71:ILE:HG22	27:D5:75:LEU:HD12	1.69	0.72
31:D9:19:ARG:HD2	31:D9:32:ARG:HD2	1.68	0.72
36:1:72:C:H5'	49:M3:63:VAL:HG22	1.70	0.72
48:M1:38:GLU:O	48:M1:42:GLY:N	2.22	0.72
52:M6:119:VAL:HG13	52:M6:124:LEU:HD21	1.71	0.72
1:2:778:G:H3'	1:2:780:A:C2	2.24	0.72
8:S6:163:THR:HG22	8:S6:168:THR:HG22	1.71	0.72
36:1:399:A:OP2	84:1:3976:HOH:O	2.06	0.72
36:1:1447:G:OP2	53:M7:27:LYS:NZ	2.20	0.72
36:1:1575:A:H3'	36:1:1576:G:H5''	1.71	0.72
38:4:37:A:H5''	38:4:39:G:O4'	1.89	0.72
36:5:2517:U:H2'	36:5:2518:C:H6	1.53	0.72
36:5:3341:U:H4'	36:5:3342:A:OP1	1.89	0.72
36:1:848:A:H2'	36:1:849:C:O4'	1.90	0.72
36:1:1118:C:O2	36:1:1140:G:N2	2.17	0.72
38:4:36:G:N2	38:4:37:A:N1	2.36	0.72
46:L9:41:ILE:HD11	46:L9:67:ALA:HB1	1.70	0.72
1:6:1759:C:H2'	1:6:1760:G:C8	2.24	0.72
56:n0:24:LEU:N	57:n1:146:ASN:HD21	1.85	0.72
1:2:329:G:H2'	1:2:330:G:H8	1.54	0.72
1:2:700:C:H42	1:2:738:G:H1	1.36	0.72
1:2:1606:C:H2'	1:2:1607:G:C8	2.25	0.72
54:M8:71:LEU:HD22	54:M8:99:THR:HG21	1.72	0.72
20:c8:139:LYS:NZ	84:c8:201:HOH:O	2.06	0.72
36:5:209:A:OP1	41:l4:161:LYS:NZ	2.21	0.72
36:5:2367:A:H2'	36:5:2368:A:H8	1.55	0.72
36:5:3245:A:H2	36:5:3246:G:C2	2.06	0.72
55:m9:39:ASN:HA	55:m9:42:ARG:HD2	1.72	0.72
69:o3:32:ILE:HG23	69:o3:100:ILE:HD13	1.72	0.72
36:1:670:C:OP1	54:M8:147:ARG:NH2	2.22	0.72
36:1:1210:U:OP1	46:L9:62:ARG:NH1	2.22	0.72
1:6:1566:U:OP2	20:c8:41:ARG:NH1	2.21	0.72
1:6:1727:G:H2'	1:6:1728:A:C8	2.23	0.72
5:s3:80:ALA:O	5:s3:83:THR:OG1	2.06	0.72
46:l9:50:ASN:HD21	50:m4:4:ASP:HA	1.54	0.72
1:2:149:C:O2'	8:S6:132:ARG:NH1	2.23	0.72
1:2:1087:A:H2'	1:2:1088:A:C8	2.24	0.72
38:4:124:G:H3'	38:4:125:U:C5'	2.20	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:23:ARG:NH1	39:L2:52:SER:O	2.23	0.72
1:6:159:U:O4	26:d4:116:LYS:NZ	2.23	0.72
53:m7:67:ILE:HB	53:m7:80:LYS:HG2	1.72	0.72
1:2:484:C:H42	1:2:503:G:H22	1.37	0.72
36:1:220:G:H5'	84:1:4005:HOH:O	1.88	0.72
36:1:692:A:OP1	51:M5:201:ARG:NH2	2.22	0.72
36:1:2572:C:O2'	36:1:2573:G:O4'	2.07	0.72
38:8:111:A:OP1	73:o7:32:LYS:HE3	1.89	0.72
49:m3:3:ILE:HG21	64:n8:45:MET:HE3	1.72	0.72
1:2:1142:A:H5''	28:D6:2:PRO:HG3	1.71	0.72
10:S8:106:ALA:HB2	10:S8:165:LEU:HG	1.72	0.72
25:D3:62:LYS:HD2	25:D3:118:PRO:HB3	1.71	0.72
36:1:1192:C:C6	36:1:1192:C:H5''	2.24	0.72
2:s0:70:PRO:O	2:s0:95:ALA:N	2.16	0.72
8:s6:14:LYS:HD2	8:s6:123:GLY:HA3	1.71	0.72
10:s8:176:SER:HB2	10:s8:178:ARG:H	1.53	0.72
1:2:973:A:H2'	1:2:974:A:H8	1.55	0.72
36:1:975:C:H2'	36:1:976:U:H6	1.54	0.72
36:1:1651:U:H2'	36:1:1652:G:H8	1.54	0.72
41:L4:226:GLU:OE2	41:L4:246:ARG:NH2	2.22	0.72
45:L8:162:LEU:HA	51:M5:7:LEU:HD11	1.72	0.72
19:c7:77:GLU:HG2	19:c7:80:ARG:HH21	1.54	0.72
37:7:110:G:OP2	42:l5:279:LYS:NZ	2.18	0.72
51:m5:68:ARG:HA	51:m5:98:LEU:HD21	1.71	0.72
1:2:1600:A:O2'	1:2:1602:C:N4	2.23	0.72
1:2:1642:G:N7	82:2:2012:GET:N33	2.38	0.72
2:S0:31:VAL:HG12	2:S0:33:GLN:H	1.52	0.72
36:1:980:A:H2'	36:1:981:U:C2	2.24	0.72
42:L5:107:ARG:HH12	42:L5:120:LYS:C	1.98	0.72
61:N5:115:ARG:NH1	61:N5:119:THR:OG1	2.22	0.72
10:s8:36:THR:HG21	10:s8:173:PRO:HB2	1.70	0.72
36:5:1328:C:OP2	84:5:3984:HOH:O	2.06	0.72
36:5:2140:U:O2	36:5:2977:G:O2'	2.08	0.72
73:o7:14:LYS:HD2	75:o9:51:ILE:HD11	1.72	0.72
1:2:66:U:H1'	8:S6:160:ARG:HH21	1.55	0.71
1:2:515:A:N6	1:2:537:G:O2'	2.21	0.71
1:2:1615:C:H4'	1:2:1616:G:O5'	1.90	0.71
36:1:423:A:OP1	82:1:3810:GET:H611	1.89	0.71
36:1:2175:U:O2	39:L2:23:ARG:HB3	1.90	0.71
1:6:1274:C:H5	35:sM:96:ARG:H	1.37	0.71
15:c3:99:ARG:NH2	15:c3:119:GLU:OE2	2.23	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:692:A:H2'	36:5:693:A:H8	1.53	0.71
1:2:159:U:O2'	8:S6:87:ARG:NH1	2.23	0.71
9:S7:78:THR:HG22	9:S7:92:PHE:HE1	1.54	0.71
21:C9:5:SER:HG	21:C9:66:TYR:HH	1.36	0.71
36:1:956:U:H2'	36:1:957:C:C6	2.26	0.71
1:6:1684:U:H1'	1:6:1718:G:N2	2.05	0.71
17:c5:98:ASN:HD21	17:c5:101:ALA:HB3	1.55	0.71
36:5:75:G:H5''	49:m3:58:VAL:HG13	1.72	0.71
1:2:1793:G:N2	28:D6:76:SER:OG	2.20	0.71
36:1:2355:G:H4'	53:M7:139:TYR:CE2	2.25	0.71
36:1:2954:U:H4'	36:1:2955:U:H5'	1.72	0.71
36:1:2971:A:H4'	36:1:2972:G:C5'	2.20	0.71
41:L4:261:VAL:HG23	41:L4:271:LYS:HE2	1.71	0.71
46:L9:20:ILE:HG13	50:M4:7:VAL:HG22	1.73	0.71
52:M6:3:VAL:HG13	52:M6:4:GLU:HG3	1.72	0.71
61:N5:105:VAL:HG13	61:N5:130:TYR:CD2	2.24	0.71
36:5:1186:G:O2'	56:n0:113:ARG:NH1	2.23	0.71
36:5:2854:U:OP1	47:m0:61:SER:OG	2.05	0.71
49:m3:76:THR:O	49:m3:76:THR:OG1	2.08	0.71
64:n8:59:ARG:NH2	78:q2:38:GLN:OE1	2.23	0.71
36:1:1192:C:H5''	36:1:1192:C:H6	1.53	0.71
36:1:1294:A:O2'	36:1:1295:G:H5''	1.89	0.71
36:1:2532:U:H3	36:1:2547:A:H61	1.38	0.71
37:3:9:C:H5''	57:N1:26:HIS:CD2	2.25	0.71
49:M3:47:ALA:HB1	49:M3:48:PRO:HD2	1.70	0.71
59:N3:58:VAL:HG22	59:N3:76:ALA:HB3	1.73	0.71
1:6:1070:C:H4'	29:d7:17:ARG:HD3	1.72	0.71
36:5:938:C:HO2'	36:5:2814:G:HO2'	1.37	0.71
37:7:13:A:O2'	42:l5:24:ARG:NH1	2.23	0.71
58:n2:14:THR:HG23	58:n2:66:VAL:HG22	1.72	0.71
1:2:1641:C:C5	82:2:2012:GET:H931	2.26	0.71
36:1:239:G:O2'	36:1:240:U:OP1	2.08	0.71
36:1:837:A:OP2	79:Q3:4:ARG:NH1	2.23	0.71
37:3:26:C:H5'	42:L5:56:THR:HB	1.71	0.71
48:M1:109:HIS:HE1	48:M1:122:ILE:HA	1.56	0.71
1:6:152:U:OP2	26:d4:127:LYS:NZ	2.17	0.71
1:6:1771:U:OP1	84:6:2121:HOH:O	2.07	0.71
11:s9:27:GLU:OE1	11:s9:39:LYS:NZ	2.21	0.71
41:l4:205:PRO:HB3	41:l4:247:PHE:CD2	2.26	0.71
46:l9:83:THR:OG1	46:l9:84:LYS:N	2.19	0.71
49:m3:63:VAL:HG12	64:n8:128:ARG:HH12	1.55	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:m7:61:ARG:O	53:m7:64:ASN:ND2	2.22	0.71
68:o2:39:ASP:OD2	84:o2:301:HOH:O	2.07	0.71
1:2:1572:G:H1'	7:S5:185:ARG:HH22	1.55	0.71
20:C8:26:ILE:HD11	20:C8:31:ALA:N	2.06	0.71
36:1:267:G:N2	51:M5:50:ARG:O	2.23	0.71
38:4:59:A:OP1	38:4:98:U:O2'	2.07	0.71
1:6:1589:C:H2'	1:6:1590:G:C8	2.26	0.71
34:sR:179:LYS:NZ	34:sR:191:ASP:OD1	2.18	0.71
59:n3:20:GLY:HA2	59:n3:35:TYR:HE1	1.55	0.71
36:1:900:G:OP1	84:1:3977:HOH:O	2.07	0.71
36:1:2228:A:H2'	36:1:2229:A:C8	2.26	0.71
51:M5:84:PRO:HB2	78:Q2:51:GLY:HA2	1.73	0.71
1:6:393:C:OP2	10:s8:2:GLY:N	2.23	0.71
1:6:1147:A:O2'	1:6:1636:C:OP2	2.08	0.71
24:d2:53:ILE:HD13	29:d7:24:LEU:HD11	1.71	0.71
37:7:66:A:OP2	84:7:304:HOH:O	2.08	0.71
38:8:82:U:C4'	38:8:83:C:H5'	2.19	0.71
42:l5:148:ILE:HG23	42:l5:151:GLN:HB3	1.72	0.71
6:S4:191:ARG:HH11	6:S4:245:LYS:HB3	1.56	0.71
36:1:2173:U:H5''	39:L2:18:SER:HB2	1.72	0.71
36:1:3174:A:H2'	36:1:3175:U:H5'	1.73	0.71
38:4:131:A:H2'	38:4:132:G:H8	1.55	0.71
82:5:3851:GET:H322	82:5:3851:GET:H511	1.56	0.71
48:m1:82:ARG:HD2	48:m1:112:LEU:HB2	1.73	0.71
59:n3:28:ASN:HD21	59:n3:112:SER:H	1.38	0.71
68:o2:21:HIS:O	68:o2:24:ARG:N	2.21	0.71
36:1:956:U:H2'	36:1:957:C:H6	1.56	0.71
49:M3:76:THR:HG22	49:M3:101:ARG:HB3	1.73	0.71
4:s2:102:VAL:HG11	4:s2:129:ILE:HG12	1.73	0.71
20:c8:46:VAL:HG11	20:c8:73:MET:HE3	1.71	0.71
24:d2:8:ALA:HB2	24:d2:74:VAL:HG11	1.73	0.71
36:5:2643:A:H5'	65:n9:6:ASN:ND2	2.06	0.71
82:5:3851:GET:H511	82:5:3851:GET:N32	2.06	0.71
58:n2:18:ASP:OD2	58:n2:20:SER:OG	2.07	0.71
1:2:268:C:OP1	8:S6:176:GLN:NE2	2.24	0.71
1:2:400:A:H5''	10:S8:25:ARG:HA	1.71	0.71
8:S6:98:ARG:NH2	8:S6:101:ILE:O	2.21	0.71
15:C3:34:ILE:HG13	15:C3:67:THR:HG21	1.73	0.71
28:D6:79:ILE:HG12	28:D6:84:VAL:HG11	1.72	0.71
36:1:977:C:H2'	36:1:978:G:H8	1.53	0.71
82:1:3811:GET:N21	84:1:3999:HOH:O	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:691:A:H5''	36:5:692:A:H8	1.56	0.71
36:5:1024:G:N2	36:5:1026:A:OP2	2.24	0.71
1:2:591:A:H2'	1:2:592:A:C8	2.25	0.70
1:2:1516:A:H5''	22:D0:58:LEU:HD22	1.72	0.70
23:D1:1:MET:SD	23:D1:10:GLU:HB3	2.31	0.70
29:D7:50:ALA:HB2	29:D7:71:ALA:HB2	1.72	0.70
36:1:3339:A:C2'	36:1:3340:G:H5'	2.21	0.70
56:N0:77:VAL:HG11	56:N0:106:LEU:HD12	1.71	0.70
59:N3:87:ARG:HH22	59:N3:137:VAL:HG22	1.56	0.70
2:s0:66:ALA:HB2	23:d1:37:ALA:HB2	1.71	0.70
15:c3:110:ASP:OD1	15:c3:114:ARG:NH1	2.24	0.70
36:5:2569:A:H4'	36:5:2570:U:H5'	1.72	0.70
46:l9:75:VAL:HA	46:l9:78:MET:HE3	1.72	0.70
20:C8:27:LYS:O	20:C8:29:VAL:N	2.24	0.70
36:1:1108:U:H2'	36:1:1109:U:C6	2.25	0.70
40:L3:53:MET:HG2	40:L3:77:THR:HG22	1.73	0.70
40:L3:232:ARG:NH1	40:L3:269:GLN:O	2.25	0.70
61:N5:68:THR:HG21	71:O5:36:LEU:HD13	1.72	0.70
63:N7:4:PHE:HB2	63:N7:9:LYS:HE3	1.73	0.70
70:O4:82:ALA:O	70:O4:85:VAL:N	2.23	0.70
36:5:1601:U:OP2	55:m9:42:ARG:NH2	2.22	0.70
41:l4:261:VAL:HG23	41:l4:271:LYS:HE2	1.72	0.70
36:1:620:U:H5'	84:1:4063:HOH:O	1.90	0.70
36:1:2384:A:N1	52:M6:96:LYS:HE2	2.06	0.70
36:1:2557:A:H5'	63:N7:135:ARG:HH11	1.56	0.70
36:1:3305:A:H2'	36:1:3306:U:H6	1.56	0.70
60:N4:43:ARG:HH11	60:N4:43:ARG:HB3	1.57	0.70
63:N7:9:LYS:HB3	63:N7:25:ILE:HD12	1.73	0.70
1:6:1552:U:OP2	17:c5:43:ARG:NH2	2.23	0.70
16:c4:29:HIS:CD2	16:c4:41:ARG:HB2	2.27	0.70
26:d4:44:LEU:HA	26:d4:47:VAL:HG13	1.73	0.70
36:5:2636:A:OP2	84:5:3986:HOH:O	2.08	0.70
1:2:934:C:N3	1:2:1077:C:H4'	2.06	0.70
11:S9:108:ARG:HB2	11:S9:111:THR:HG23	1.73	0.70
20:C8:63:GLN:HA	20:C8:66:LEU:HD12	1.72	0.70
36:1:255:A:H2'	36:1:256:G:H8	1.57	0.70
36:1:314:U:H2'	36:1:315:C:C6	2.27	0.70
37:3:97:A:OP1	56:N0:40:ARG:NH1	2.24	0.70
40:L3:70:ARG:HH22	59:N3:120:LYS:HE3	1.55	0.70
41:L4:55:LYS:HE3	41:L4:59:GLN:HE22	1.54	0.70
47:M0:53:VAL:HG21	47:M0:166:ILE:HD12	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:15:GLU:HG2	48:M1:16:LYS:HG2	1.73	0.70
36:5:1281:G:OP1	80:p0:55:LYS:NZ	2.25	0.70
36:5:2338:C:OP1	40:l3:236:LYS:NZ	2.20	0.70
71:o5:78:LYS:HA	71:o5:81:ARG:HD3	1.73	0.70
80:p0:94:THR:HA	80:p0:97:LYS:HB3	1.74	0.70
1:2:1754:A:N7	82:2:2012:GET:H21	2.07	0.70
13:C1:133:LYS:O	13:C1:136:ARG:NH1	2.23	0.70
36:1:2921:U:H2'	36:1:2923:U:OP2	1.91	0.70
48:M1:37:LEU:HD13	48:M1:69:VAL:HG12	1.72	0.70
49:M3:157:ARG:HG2	49:M3:158:ALA:H	1.55	0.70
55:M9:93:VAL:HG13	55:M9:97:ARG:HD3	1.72	0.70
4:s2:95:ARG:HD3	4:s2:97:ARG:HD2	1.73	0.70
26:d4:57:VAL:HB	26:d4:60:PHE:CE2	2.27	0.70
36:5:2777:G:H5'	36:5:2778:G:OP1	1.91	0.70
38:8:107:G:H4'	38:8:138:A:H5'	1.74	0.70
6:S4:251:GLU:OE1	6:S4:255:ARG:NH2	2.24	0.70
36:1:1517:G:P	75:O9:41:ARG:HH22	2.14	0.70
4:s2:225:LEU:HD13	24:d2:68:ARG:HA	1.73	0.70
22:d0:97:VAL:HG13	22:d0:98:GLN:H	1.56	0.70
18:C6:58:ASP:O	18:C6:60:PHE:N	2.18	0.70
36:1:712:G:H2'	36:1:713:U:C6	2.27	0.70
36:1:1793:C:O2	39:L2:174:ARG:NH1	2.25	0.70
18:c6:129:PHE:HB2	22:d0:79:TRP:HD1	1.56	0.70
36:5:1308:A:N1	36:5:2381:G:O2'	2.24	0.70
36:5:3197:G:H2'	36:5:3198:U:H5''	1.72	0.70
36:5:3356:G:H8	36:5:3356:G:H5'	1.56	0.70
38:8:41:A:O2'	73:o7:59:THR:HB	1.92	0.70
7:S5:73:THR:HG23	18:C6:114:ARG:HD3	1.74	0.70
36:1:189:G:OP2	62:N6:46:LYS:NZ	2.25	0.70
36:1:1618:G:H4'	38:4:129:C:H1'	1.72	0.70
40:L3:137:TYR:CE1	40:L3:144:ILE:HG13	2.26	0.70
46:L9:9:GLN:HG3	46:L9:54:LYS:HG2	1.72	0.70
1:6:189:C:H2'	1:6:190:C:H5'	1.72	0.70
1:6:1579:U:H2'	1:6:1580:C:H6	1.57	0.70
27:d5:58:ARG:HB3	27:d5:103:ARG:HH11	1.56	0.70
36:5:1480:G:N7	84:5:3903:HOH:O	2.25	0.70
36:5:3272:C:OP2	43:l6:78:ARG:NH1	2.24	0.70
1:2:115:G:OP1	13:C1:67:ARG:NH1	2.24	0.70
1:2:391:A:OP2	10:S8:23:LYS:NZ	2.22	0.70
1:2:901:G:OP2	1:2:901:G:N2	2.22	0.70
4:S2:81:MET:HB2	4:S2:101:VAL:HG12	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:142:GLY:N	4:S2:153:SER:O	2.24	0.70
19:C7:82:ASP:O	19:C7:83:GLN:NE2	2.24	0.70
27:D5:38:HIS:CE1	27:D5:39:ALA:HB2	2.27	0.70
36:1:118:U:O2	36:1:121:A:H5'	1.92	0.70
36:1:321:C:OP1	51:M5:159:ARG:NH2	2.24	0.70
36:1:992:A:H5''	57:N1:43:LYS:HD2	1.74	0.70
51:M5:99:ARG:HD3	51:M5:167:THR:HB	1.74	0.70
57:N1:51:GLY:HA3	57:N1:92:ARG:HG3	1.74	0.70
1:6:1469:A:H2'	1:6:1470:C:C6	2.27	0.70
1:6:1642:G:N7	82:6:2013:GET:N33	2.39	0.70
7:s5:76:ARG:NH2	18:c6:120:ASP:OD1	2.23	0.70
1:2:58:U:O2'	1:2:451:A:N3	2.25	0.70
1:2:1535:U:O2'	1:2:1536:G:N3	2.24	0.70
13:C1:6:THR:HB	13:C1:9:SER:HB3	1.73	0.70
36:1:2638:C:OP1	84:1:3978:HOH:O	2.08	0.70
51:M5:186:GLY:O	51:M5:190:THR:HG23	1.91	0.70
1:6:151:G:O6	26:d4:124:ARG:NH2	2.25	0.70
1:6:1575:G:H2'	1:6:1576:A:C8	2.26	0.70
36:5:1094:U:H3'	36:5:1096:U:OP1	1.91	0.70
36:5:2662:G:H2'	36:5:2663:G:H8	1.55	0.70
59:n3:125:LEU:HB3	59:n3:126:TRP:CD1	2.27	0.70
3:S1:129:THR:HB	3:S1:180:THR:HA	1.74	0.69
19:C7:26:LEU:HD22	19:C7:59:LYS:HA	1.73	0.69
38:4:4:C:H2'	38:4:5:U:H6	1.55	0.69
1:6:1316:G:O2'	1:6:1401:A:O2'	2.09	0.69
36:5:2940:A:N7	40:l3:2:SER:HA	2.07	0.69
40:l3:296:THR:HG22	40:l3:298:PHE:N	1.99	0.69
62:n6:55:GLU:HB2	62:n6:108:LYS:HB2	1.74	0.69
1:2:393:C:OP2	10:S8:2:GLY:N	2.25	0.69
50:M4:48:GLY:HA3	50:M4:53:VAL:HG13	1.74	0.69
4:s2:106:ASP:OD1	4:s2:108:ASN:N	2.25	0.69
33:e1:126:CYS:HB3	33:e1:130:VAL:HG21	1.74	0.69
36:5:1655:G:H5'	36:5:1655:G:H8	1.57	0.69
36:5:1841:A:N3	75:o9:45:ARG:NH2	2.40	0.69
45:l8:46:LEU:O	45:l8:49:TYR:N	2.22	0.69
47:m0:89:VAL:HG13	47:m0:136:PHE:HE1	1.56	0.69
54:m8:86:THR:HG23	54:m8:105:ARG:HB3	1.74	0.69
61:n5:115:ARG:NH1	61:n5:119:THR:OG1	2.25	0.69
36:1:20:A:OP2	71:O5:86:ARG:NH2	2.25	0.69
38:4:58:G:O6	73:O7:63:ARG:NH2	2.26	0.69
40:L3:41:VAL:CA	40:L3:185:GLY:HA3	2.21	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:416:A:H5'	1:6:417:A:N7	2.08	0.69
5:s3:34:TYR:HE2	5:s3:37:VAL:HG13	1.56	0.69
36:5:2608:G:O2'	36:5:2609:A:H5'	1.92	0.69
47:m0:61:SER:HB2	47:m0:63:GLU:HG2	1.74	0.69
50:m4:55:ARG:NH2	50:m4:76:ALA:O	2.26	0.69
52:m6:113:ASP:OD2	52:m6:114:LYS:N	2.25	0.69
1:2:514:G:N1	1:2:543:C:H5	1.91	0.69
6:S4:21:ASP:OD1	6:S4:24:SER:OG	2.08	0.69
19:C7:71:PHE:CD1	19:C7:73:LEU:HB3	2.27	0.69
25:D3:130:VAL:HG23	25:D3:131:SER:H	1.57	0.69
28:D6:75:VAL:O	28:D6:78:ALA:N	2.24	0.69
28:D6:79:ILE:HA	28:D6:84:VAL:HG21	1.74	0.69
36:1:1601:U:OP1	55:M9:42:ARG:NH2	2.24	0.69
42:L5:211:LEU:HB3	42:L5:219:PHE:HD2	1.57	0.69
79:Q3:55:TRP:CD1	79:Q3:66:GLY:HA3	2.27	0.69
21:c9:57:ARG:HG3	21:c9:57:ARG:HH11	1.57	0.69
22:d0:95:ALA:HB1	22:d0:99:ILE:HG13	1.74	0.69
36:5:1039:U:H2'	36:5:1040:A:C8	2.27	0.69
36:5:1580:A:H5''	36:5:2522:G:N2	2.07	0.69
51:m5:42:PRO:HG3	51:m5:61:ILE:HG13	1.75	0.69
1:2:418:G:O2'	8:S6:59:GLN:NE2	2.26	0.69
1:2:1474:G:H2'	1:2:1475:A:C8	2.28	0.69
36:1:132:C:H2'	36:1:133:U:H5''	1.72	0.69
36:1:591:G:N2	43:L6:19:LYS:O	2.25	0.69
36:1:2359:C:H2'	36:1:2360:C:H6	1.55	0.69
36:1:3165:A:H61	36:1:3285:C:H42	1.38	0.69
51:M5:96:ARG:NH2	51:M5:104:GLU:OE1	2.24	0.69
1:6:209:U:H5'	10:s8:171:SER:HB3	1.74	0.69
1:6:1097:U:H4'	1:6:1098:U:H5'	1.73	0.69
1:6:1330:G:N2	5:s3:204:ASP:OD1	2.24	0.69
1:6:1777:G:N7	77:q1:8:LYS:NZ	2.41	0.69
7:s5:25:LEU:HD21	7:s5:29:ILE:HD12	1.74	0.69
7:s5:73:THR:HG22	7:s5:75:GLY:H	1.56	0.69
7:s5:164:PRO:HA	7:s5:167:ARG:HG3	1.75	0.69
9:s7:103:SER:N	9:s7:106:SER:O	2.25	0.69
26:d4:29:HIS:HB2	26:d4:32:ARG:HB2	1.74	0.69
37:7:9:C:OP1	57:n1:28:SER:OG	2.10	0.69
1:2:257:A:H1'	10:S8:73:SER:HB2	1.73	0.69
2:S0:49:ASN:HB3	2:S0:52:LYS:HG3	1.73	0.69
36:1:1314:C:H5'	52:M6:17:GLY:HA3	1.74	0.69
1:6:1717:G:N2	1:6:1718:G:H1'	2.08	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2960:C:H2'	36:5:2961:G:C8	2.28	0.69
57:n1:78:LYS:HE3	57:n1:87:LYS:HE2	1.74	0.69
1:2:1773:C:OP2	77:Q1:2:ARG:NH1	2.25	0.69
11:S9:53:ARG:NH2	11:S9:97:LEU:O	2.25	0.69
19:C7:71:PHE:HD1	19:C7:73:LEU:HB3	1.57	0.69
23:D1:18:SER:OG	23:D1:54:ALA:O	2.11	0.69
26:D4:33:ALA:O	26:D4:34:ASN:ND2	2.25	0.69
1:6:68:A:H5'	8:s6:160:ARG:HH12	1.57	0.69
1:6:1118:G:OP2	77:q1:21:ARG:NH2	2.26	0.69
3:s1:33:LYS:HE2	3:s1:41:ARG:HH12	1.58	0.69
6:s4:104:ASP:HB2	6:s4:108:ARG:H	1.56	0.69
7:s5:37:GLN:HB3	18:c6:53:LEU:HB3	1.75	0.69
20:c8:120:ARG:HE	35:sM:61:ILE:HG21	1.58	0.69
36:5:804:C:OP2	84:5:3989:HOH:O	2.11	0.69
1:2:749:U:H3	1:2:800:U:H3	1.39	0.69
10:S8:48:THR:HG21	10:S8:54:LYS:HE3	1.72	0.69
36:1:802:C:H2'	36:1:803:C:H6	1.57	0.69
36:1:847:A:H2'	36:1:848:A:C8	2.27	0.69
36:1:1875:G:OP2	55:M9:20:ARG:HG2	1.93	0.69
36:1:2400:G:N7	84:1:4000:HOH:O	2.25	0.69
36:1:2679:A:O2'	48:M1:52:TYR:OH	2.10	0.69
38:4:110:C:O2'	38:4:112:U:OP2	2.08	0.69
55:M9:21:LYS:HE3	55:M9:55:VAL:HG22	1.75	0.69
1:6:239:C:H3'	1:6:240:U:H4'	1.75	0.69
1:6:512:A:OP2	11:s9:172:VAL:HB	1.92	0.69
1:6:1579:U:H2'	1:6:1580:C:C6	2.28	0.69
2:s0:41:ARG:HH11	2:s0:45:VAL:HG21	1.56	0.69
22:d0:104:THR:HG22	22:d0:116:VAL:HG21	1.74	0.69
24:d2:25:VAL:HG12	24:d2:65:LEU:HD21	1.74	0.69
36:5:562:C:OP2	50:m4:77:ARG:NH1	2.25	0.69
36:5:683:U:H2'	36:5:684:G:O4'	1.93	0.69
36:5:1912:U:N3	36:5:2122:G:OP2	2.24	0.69
37:7:73:C:O2	56:n0:13:ARG:NH1	2.19	0.69
38:8:63:G:O2'	71:o5:49:LYS:NZ	2.19	0.69
41:l4:93:MET:H	41:l4:93:MET:HE2	1.57	0.69
53:m7:64:ASN:HB2	53:m7:80:LYS:HE3	1.75	0.69
5:S3:217:ILE:HG22	5:S3:218:LEU:H	1.58	0.69
45:L8:41:GLN:HG3	45:L8:44:ARG:HH12	1.56	0.69
50:M4:70:PHE:HE2	50:M4:72:LEU:HG	1.58	0.69
52:M6:61:ALA:HA	52:M6:70:PRO:HD2	1.75	0.69
36:5:1942:U:OP2	55:m9:74:ARG:NH1	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2514:U:H6	36:5:2514:U:OP1	1.76	0.69
42:15:150:LEU:HD12	48:m1:143:ARG:HG3	1.74	0.69
44:l7:178:ILE:HA	44:l7:183:ASP:HB3	1.73	0.69
55:m9:91:SER:OG	84:m9:201:HOH:O	2.11	0.69
72:o6:70:ARG:HD3	72:o6:84:LYS:HG2	1.75	0.69
1:2:192:U:O2'	1:2:193:U:O4'	2.09	0.69
3:S1:128:LYS:HE3	3:S1:132:ASP:HB3	1.75	0.69
1:6:754:A:N6	1:6:793:A:N7	2.37	0.69
1:6:1301:U:H5'	4:s2:88:LYS:HG3	1.75	0.69
36:5:1795:U:C5	79:q3:51:ALA:HA	2.29	0.69
40:l3:204:ALA:O	40:l3:207:SER:OG	2.11	0.69
40:l3:364:LYS:O	84:l3:501:HOH:O	2.10	0.69
63:n7:52:LYS:O	63:n7:65:ARG:NH1	2.26	0.69
4:S2:69:ILE:HD11	4:S2:133:LYS:HB3	1.75	0.68
15:C3:110:ASP:OD1	15:C3:114:ARG:NH1	2.26	0.68
26:D4:104:SER:HB3	26:D4:107:GLN:HB2	1.76	0.68
35:SM:68:ARG:NH1	35:SM:72:ARG:HD3	2.08	0.68
36:1:2206:G:H5'	36:1:2207:A:H8	1.58	0.68
36:1:2988:C:OP1	52:M6:68:ARG:NH1	2.26	0.68
41:L4:20:LEU:HD13	41:L4:256:THR:HG23	1.74	0.68
41:L4:158:SER:O	41:L4:160:GLN:NE2	2.26	0.68
45:L8:152:LEU:HB2	45:L8:198:ALA:HB3	1.74	0.68
59:N3:81:GLN:HE21	59:N3:83:LYS:HB3	1.57	0.68
1:6:631:G:H2'	1:6:632:U:C6	2.28	0.68
1:6:1590:G:OP1	21:c9:91:TYR:HB2	1.94	0.68
36:5:1482:A:N7	36:5:1866:C:O2'	2.26	0.68
36:5:2974:U:H2'	36:5:2975:U:C6	2.27	0.68
36:5:3001:C:OP1	40:l3:120:LYS:NZ	2.25	0.68
67:o1:41:LYS:O	67:o1:45:GLY:HA2	1.93	0.68
41:L4:16:THR:HG22	41:L4:18:ASN:H	1.57	0.68
57:N1:14:MET:HE1	57:N1:55:LYS:HB2	1.75	0.68
75:O9:10:LYS:HA	75:O9:13:MET:HE3	1.75	0.68
2:s0:9:LEU:HD11	2:s0:14:ALA:HB2	1.75	0.68
36:5:66:A:OP2	49:m3:100:ARG:NH2	2.25	0.68
36:5:314:U:H2'	36:5:315:C:C6	2.28	0.68
36:5:1098:A:OP2	57:n1:130:ARG:HD3	1.94	0.68
36:5:1682:U:O2	58:n2:82:LYS:NZ	2.26	0.68
36:5:1949:G:OP1	55:m9:104:ARG:NH1	2.27	0.68
53:m7:41:LEU:HD12	53:m7:112:LEU:HD23	1.74	0.68
1:2:1095:U:H5'	1:2:1096:C:H5''	1.75	0.68
9:S7:39:ARG:NH2	55:M9:185:LEU:O	2.27	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:53:G:OP2	84:1:3980:HOH:O	2.11	0.68
36:1:840:C:H2'	36:1:841:A:C8	2.28	0.68
36:1:1615:C:H2'	36:1:1616:U:C6	2.28	0.68
36:1:3005:A:O2'	36:1:3140:G:N2	2.26	0.68
58:N2:27:VAL:HG21	58:N2:107:PHE:CE1	2.28	0.68
1:6:1292:G:OP1	4:s2:116:LYS:NZ	2.23	0.68
1:6:1490:C:O2'	1:6:1491:U:O2	2.10	0.68
36:5:2958:A:OP1	84:5:3904:HOH:O	2.11	0.68
43:l6:39:VAL:O	43:l6:87:THR:OG1	2.10	0.68
47:m0:4:ARG:NH2	47:m0:99:ILE:HG22	2.09	0.68
68:o2:85:LEU:HB2	68:o2:117:ILE:HD13	1.75	0.68
73:o7:65:ARG:HG3	73:o7:65:ARG:HH11	1.58	0.68
1:2:1360:A:O2'	21:C9:3:GLY:N	2.27	0.68
1:2:1681:A:H1'	8:S6:66:GLY:HA2	1.74	0.68
4:S2:179:VAL:O	4:S2:198:THR:OG1	2.08	0.68
36:1:3194:C:H2'	36:1:3195:U:H2'	1.74	0.68
42:L5:78:ALA:HB3	42:L5:105:ILE:HG12	1.76	0.68
1:6:208:U:H4'	10:s8:176:SER:HB3	1.76	0.68
1:6:1473:U:O2'	7:s5:103:ASN:OD1	2.11	0.68
4:s2:81:MET:HB2	4:s2:101:VAL:HG12	1.76	0.68
9:s7:12:ALA:HB3	9:s7:13:PRO:HD3	1.75	0.68
21:c9:52:GLY:O	21:c9:56:LYS:HG2	1.94	0.68
36:5:1394:A:OP2	84:5:3990:HOH:O	2.11	0.68
38:8:37:A:H5''	38:8:39:G:O4'	1.93	0.68
40:l3:169:THR:HG23	40:l3:171:LEU:H	1.59	0.68
1:2:1391:A:H2'	1:2:1392:U:C6	2.29	0.68
22:D0:22:ILE:HD12	22:D0:118:VAL:HA	1.74	0.68
36:1:428:A:H2'	36:1:429:U:C6	2.28	0.68
36:1:627:U:H2'	36:1:628:A:C8	2.28	0.68
36:1:2179:C:O3'	39:L2:174:ARG:NH2	2.27	0.68
49:M3:32:LYS:HG3	49:M3:35:ARG:HH12	1.58	0.68
61:N5:82:LEU:HD13	61:N5:84:PHE:HZ	1.59	0.68
14:c2:61:VAL:HG13	14:c2:121:VAL:HG23	1.76	0.68
19:c7:28:PHE:HA	19:c7:55:THR:HG21	1.74	0.68
42:l5:208:MET:O	42:l5:212:ALA:N	2.22	0.68
53:m7:78:VAL:HG22	53:m7:80:LYS:H	1.56	0.68
63:n7:9:LYS:HB3	63:n7:25:ILE:HD12	1.75	0.68
75:o9:5:LYS:HD3	75:o9:13:MET:HE1	1.75	0.68
1:2:1553:G:O2'	31:D9:14:TYR:OH	2.11	0.68
75:O9:24:PRO:HB2	75:O9:27:ILE:HD12	1.74	0.68
21:c9:105:LEU:HD13	21:c9:122:ARG:HD3	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:155:G:H5''	36:5:156:G:C8	2.27	0.68
40:l3:211:GLN:NE2	40:l3:284:ARG:HA	2.09	0.68
1:2:642:G:H1	1:2:692:C:H42	1.39	0.68
14:C2:62:LEU:HB3	14:C2:75:VAL:HG11	1.75	0.68
16:C4:122:PRO:HB2	16:C4:124:ASP:H	1.59	0.68
3:s1:213:ARG:HH21	3:s1:213:ARG:HB2	1.59	0.68
36:5:1348:U:OP2	54:m8:38:ARG:NH2	2.27	0.68
64:n8:64:GLN:O	64:n8:67:HIS:HB2	1.94	0.68
1:2:374:U:OP1	13:C1:96:LYS:NZ	2.27	0.68
1:2:1761:U:C3'	82:2:2013:GET:H611	2.19	0.68
3:S1:33:LYS:HB3	3:S1:97:LEU:HD22	1.76	0.68
3:S1:130:SER:OG	3:S1:180:THR:N	2.26	0.68
36:1:740:G:H2'	36:1:741:U:H6	1.59	0.68
36:1:1193:A:OP2	52:M6:49:ARG:NH1	2.26	0.68
36:1:2117:A:N7	36:1:3064:U:O2'	2.20	0.68
42:L5:41:LYS:NZ	57:N1:32:LYS:O	2.18	0.68
50:M4:23:ILE:O	50:M4:30:GLY:N	2.27	0.68
2:s0:66:ALA:HB1	23:d1:50:TYR:CE1	2.29	0.68
6:s4:92:LEU:HB2	6:s4:95:THR:HG22	1.75	0.68
8:s6:3:LEU:HD22	8:s6:111:LEU:HD11	1.76	0.68
36:5:1321:G:N2	56:n0:112:ALA:HB2	2.09	0.68
36:5:2661:G:H2'	36:5:2662:G:C8	2.29	0.68
51:m5:36:ILE:HG12	51:m5:64:VAL:HG23	1.75	0.68
52:m6:61:ALA:HA	52:m6:70:PRO:HD2	1.76	0.68
1:2:1066:C:H4'	3:S1:149:GLN:NE2	2.09	0.68
5:S3:175:VAL:HG13	5:S3:182:LEU:HB2	1.75	0.68
54:M8:18:ALA:HB1	54:M8:19:PRO:HD2	1.76	0.68
63:N7:46:ILE:HD11	63:N7:49:TYR:HA	1.74	0.68
1:6:1364:G:O2'	18:c6:26:LYS:NZ	2.25	0.68
36:5:2762:A:H62	36:5:2794:G:H22	1.41	0.68
71:o5:34:GLN:HB3	71:o5:38:ARG:NH2	2.08	0.68
1:2:144:U:O4	8:S6:137:ARG:NH1	2.27	0.68
36:1:419:G:H1'	82:1:3810:GET:H532	1.75	0.68
76:Q0:79:GLU:OE1	76:Q0:81:SER:N	2.19	0.68
79:Q3:33:GLN:HG3	79:Q3:34:HIS:CD2	2.29	0.68
1:6:484:C:H42	1:6:503:G:H1	1.42	0.68
36:5:114:A:OP1	51:m5:54:LYS:NZ	2.25	0.68
36:5:1709:C:OP1	70:o4:83:ASN:ND2	2.20	0.68
36:5:2688:U:OP1	42:l5:12:TYR:OH	2.12	0.68
52:m6:121:PRO:HD2	56:n0:162:THR:O	1.93	0.68
64:n8:73:LEU:HB3	64:n8:112:ILE:HD13	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:267:U:OP1	8:S6:183:ARG:NE	2.27	0.67
9:S7:64:VAL:HG22	9:S7:94:ALA:HB1	1.75	0.67
33:E1:119:ARG:HH11	33:E1:152:ALA:HB3	1.59	0.67
36:1:2352:A:H2'	36:1:2353:G:H8	1.57	0.67
36:1:2988:C:H2'	36:1:2989:U:H6	1.57	0.67
37:3:62:U:O3'	42:L5:285:ARG:NH1	2.27	0.67
38:4:41:A:H5'	73:O7:67:LEU:HD12	1.76	0.67
42:L5:40:HIS:HB3	42:L5:43:LYS:HE2	1.75	0.67
1:6:1763:A:OP1	84:6:2115:HOH:O	2.12	0.67
20:c8:4:VAL:HG21	27:d5:82:HIS:CG	2.30	0.67
36:5:3317:U:H4'	36:5:3318:G:O5'	1.94	0.67
52:m6:97:ALA:O	52:m6:100:GLU:HG2	1.94	0.67
68:o2:100:ILE:O	68:o2:105:ARG:NH1	2.27	0.67
1:2:1102:G:OP1	24:D2:76:SER:OG	2.13	0.67
18:C6:13:LYS:NZ	18:C6:120:ASP:OD2	2.28	0.67
36:1:42:C:OP1	84:1:3982:HOH:O	2.12	0.67
40:L3:284:ARG:NH2	40:L3:295:ALA:O	2.26	0.67
44:L7:170:GLU:HG3	44:L7:179:LEU:HB3	1.75	0.67
1:6:206:A:OP1	6:s4:133:LYS:NZ	2.24	0.67
23:d1:9:VAL:HG22	23:d1:10:GLU:H	1.58	0.67
35:sM:88:ARG:HG3	35:sM:96:ARG:HH11	1.60	0.67
36:5:120:G:N2	45:l8:123:GLN:O	2.26	0.67
36:5:945:C:H2'	36:5:946:U:C6	2.29	0.67
36:5:1062:A:H5''	36:5:1063:G:H5'	1.75	0.67
38:8:82:U:H1'	38:8:83:C:H2'	1.76	0.67
1:2:959:U:H5'	15:C3:15:ALA:O	1.94	0.67
3:S1:229:MET:HA	3:S1:232:HIS:CE1	2.29	0.67
34:SR:132:LYS:NZ	34:SR:143:THR:OG1	2.27	0.67
36:1:963:G:OP1	84:1:3979:HOH:O	2.10	0.67
36:1:2664:C:OP2	48:M1:142:LYS:NZ	2.21	0.67
36:1:2956:A:OP2	84:1:3981:HOH:O	2.11	0.67
39:L2:3:ARG:HG2	39:L2:4:VAL:H	1.59	0.67
46:L9:111:PHE:HD1	46:L9:127:PRO:HA	1.60	0.67
52:M6:121:PRO:HA	52:M6:124:LEU:HD23	1.76	0.67
53:M7:98:ALA:HA	53:M7:101:ASN:HB2	1.75	0.67
12:c0:50:THR:HG21	12:c0:57:THR:OG1	1.95	0.67
13:c1:86:ILE:HD12	13:c1:109:VAL:HG11	1.77	0.67
34:sR:260:ILE:HB	34:sR:274:LEU:HD12	1.75	0.67
50:m4:108:ARG:HH21	52:m6:197:LEU:HA	1.59	0.67
54:m8:165:ILE:HD12	54:m8:166:LEU:H	1.59	0.67
57:n1:101:CYS:SG	57:n1:102:ARG:N	2.67	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:n3:20:GLY:HA2	59:n3:35:TYR:CE1	2.29	0.67
71:o5:34:GLN:HB3	71:o5:38:ARG:HH22	1.59	0.67
36:1:873:C:H5''	36:1:874:U:H4'	1.77	0.67
36:1:2636:A:H5''	36:1:2637:A:H5'	1.76	0.67
78:Q2:72:LEU:HD11	78:Q2:83:LEU:HB2	1.77	0.67
1:6:366:A:OP1	1:6:758:U:O2'	2.12	0.67
1:6:901:G:N2	16:c4:54:GLU:OE1	2.28	0.67
36:5:1014:U:H5'	36:5:1015:U:C5'	2.25	0.67
36:5:2422:C:O2	36:5:2608:G:N2	2.16	0.67
39:l2:29:LEU:HB2	39:l2:123:ARG:HA	1.75	0.67
68:o2:9:ILE:HA	68:o2:63:THR:HG21	1.76	0.67
27:D5:60:VAL:HG22	27:D5:101:TYR:HB2	1.76	0.67
30:D8:10:ALA:HA	30:D8:32:PHE:HA	1.74	0.67
36:1:677:A:H4'	36:1:678:G:O5'	1.94	0.67
36:1:2349:U:OP1	84:1:3984:HOH:O	2.13	0.67
36:1:3051:U:H1'	59:N3:92:PHE:CE1	2.30	0.67
43:L6:51:ARG:NH1	50:M4:114:ASP:OD2	2.28	0.67
55:M9:25:ASP:OD2	55:M9:28:GLU:HB2	1.94	0.67
1:6:304:U:H2'	1:6:305:C:C6	2.29	0.67
31:d9:40:ARG:HA	31:d9:43:PHE:HB3	1.76	0.67
58:n2:55:THR:O	58:n2:65:VAL:HA	1.95	0.67
1:2:78:A:H2	8:S6:174:LYS:HD2	1.59	0.67
1:2:738:G:H2'	1:2:739:G:C8	2.29	0.67
1:2:1280:C:H2'	1:2:1281:G:H8	1.59	0.67
36:1:7:C:H5''	45:L8:193:LYS:HB3	1.75	0.67
36:1:38:U:H4'	64:N8:32:ARG:HD2	1.76	0.67
36:1:2331:C:H2'	36:1:2332:A:H8	1.59	0.67
46:L9:20:ILE:HD13	46:L9:25:VAL:HG22	1.74	0.67
47:M0:68:ALA:HB1	47:M0:155:ALA:HB1	1.76	0.67
70:O4:23:VAL:HG21	70:O4:33:GLN:OE1	1.95	0.67
1:6:1549:C:OP1	17:c5:42:ARG:NH1	2.28	0.67
2:s0:31:VAL:HA	2:s0:34:GLU:HG3	1.76	0.67
36:5:914:A:H5'	36:5:915:A:N7	2.10	0.67
36:5:2345:A:H2'	36:5:2346:C:C6	2.30	0.67
36:5:3228:C:H4'	36:5:3229:G:O5'	1.93	0.67
36:5:3353:G:H4'	36:5:3354:U:O5'	1.95	0.67
37:7:36:C:H4'	42:l5:155:THR:HG23	1.77	0.67
56:n0:26:ARG:HH11	57:n1:150:THR:HG21	1.58	0.67
62:n6:7:ASP:HB3	82:n6:201:GET:H32	1.77	0.67
71:o5:13:SER:OG	71:o5:16:GLN:N	2.23	0.67
1:2:584:C:H1'	32:E0:18:THR:HG21	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:105:ASP:OD1	10:S8:107:THR:OG1	2.10	0.67
16:C4:25:ASP:OD1	16:C4:26:THR:N	2.25	0.67
34:SR:166:SER:HA	34:SR:184:ASN:HD21	1.60	0.67
36:1:879:U:O2'	53:M7:135:ARG:NH2	2.27	0.67
36:1:1581:C:O2	36:1:1582:C:H5''	1.95	0.67
54:M8:96:PHE:CD2	54:M8:97:PRO:HD2	2.29	0.67
1:6:239:C:H3'	1:6:240:U:C4'	2.25	0.67
36:5:1107:C:OP1	65:n9:25:LYS:HE2	1.95	0.67
38:8:79:A:H3'	38:8:80:A:H5''	1.77	0.67
41:l4:23:PRO:HD2	41:l4:26:PHE:HD2	1.58	0.67
54:m8:34:THR:HA	54:m8:49:LEU:HD11	1.77	0.67
60:n4:97:LYS:HE2	60:n4:98:PRO:HD3	1.77	0.67
3:S1:183:GLN:HG2	3:S1:187:LYS:HE3	1.75	0.67
9:S7:170:GLN:HE21	9:S7:182:VAL:HA	1.58	0.67
36:1:325:A:P	84:1:3983:HOH:O	2.53	0.67
6:s4:57:ASN:HB3	6:s4:59:ARG:H	1.60	0.67
36:5:691:A:H5''	36:5:692:A:C8	2.30	0.67
41:l4:144:LYS:CG	41:l4:145:ILE:H	2.07	0.67
49:m3:2:ALA:HB1	64:n8:41:HIS:CE1	2.29	0.67
52:m6:77:SER:HB2	52:m6:104:VAL:HG12	1.76	0.67
27:D5:97:LYS:HG3	27:D5:98:GLN:H	1.60	0.67
36:1:282:G:N2	36:1:304:G:H22	1.92	0.67
36:1:1647:A:H62	36:1:1808:G:H21	1.43	0.67
55:M9:68:GLN:OE1	55:M9:71:ARG:HD2	1.95	0.67
1:6:324:U:OP1	13:c1:133:LYS:NZ	2.27	0.67
7:s5:57:SER:O	7:s5:59:VAL:N	2.27	0.67
17:c5:130:ARG:HH22	35:sM:70:ASN:HB3	1.60	0.67
49:m3:47:ALA:HB1	49:m3:48:PRO:HD2	1.77	0.67
74:o8:46:ARG:HH21	74:o8:51:LEU:HB2	1.59	0.67
1:2:780:A:C8	26:D4:10:ARG:HG2	2.30	0.67
1:2:1474:G:OP2	7:S5:109:LYS:NZ	2.26	0.67
1:2:1572:G:H8	7:S5:185:ARG:HH12	1.43	0.67
22:D0:21:LYS:HA	22:D0:94:GLU:HG2	1.76	0.67
36:1:314:U:H2'	36:1:315:C:H6	1.58	0.67
36:1:679:U:H2'	36:1:680:G:H8	1.60	0.67
36:1:1491:A:OP1	73:O7:14:LYS:NZ	2.27	0.67
44:L7:108:LEU:HD21	44:L7:115:THR:HG23	1.77	0.67
51:M5:52:GLY:O	51:M5:148:TYR:OH	2.04	0.67
19:c7:110:VAL:HA	19:c7:113:LEU:HD12	1.77	0.67
36:5:1307:G:C2	36:5:1308:A:C2	2.83	0.67
38:8:102:U:H2'	38:8:103:G:C8	2.30	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:m6:124:LEU:O	52:m6:128:ARG:HB2	1.95	0.67
1:2:478:A:OP1	32:E0:37:ARG:NH1	2.24	0.66
6:S4:104:ASP:HB3	6:S4:106:LYS:H	1.60	0.66
36:1:804:C:O2'	41:L4:74:ILE:HG23	1.95	0.66
36:1:1554:U:H1'	36:1:1555:U:C5'	2.25	0.66
75:O9:27:ILE:HA	75:O9:30:ARG:HD3	1.77	0.66
1:6:320:U:OP2	1:6:321:C:H3'	1.95	0.66
1:6:382:C:H2'	1:6:383:G:H8	1.57	0.66
25:d3:69:ARG:NH1	25:d3:116:ASP:OD1	2.28	0.66
36:5:2151:C:N4	84:5:3909:HOH:O	2.28	0.66
2:S0:41:ARG:HE	2:S0:45:VAL:HB	1.60	0.66
4:S2:144:TRP:CE2	24:D2:97:ARG:HD2	2.30	0.66
11:S9:57:ARG:HG3	11:S9:97:LEU:HD21	1.76	0.66
36:1:1523:U:OP2	36:1:1604:G:O2'	2.12	0.66
36:1:1604:G:OP1	84:1:3986:HOH:O	2.14	0.66
38:4:41:A:O2'	73:O7:59:THR:HG22	1.94	0.66
38:4:81:U:HO2'	71:O5:2:ALA:N	1.92	0.66
38:4:122:U:H2'	38:4:123:G:H8	1.59	0.66
38:4:139:U:H2'	38:4:140:G:H8	1.60	0.66
65:N9:28:LYS:HD3	65:N9:29:TYR:H	1.58	0.66
1:6:322:G:O2'	10:s8:10:LYS:NZ	2.23	0.66
21:c9:50:ALA:HA	21:c9:53:TRP:HD1	1.59	0.66
24:d2:42:GLN:O	24:d2:45:GLY:N	2.27	0.66
37:7:7:G:OP1	42:l5:33:ARG:NH1	2.27	0.66
40:l3:113:GLU:OE2	40:l3:166:ILE:N	2.28	0.66
49:m3:93:ILE:HG22	49:m3:94:GLY:H	1.61	0.66
49:m3:105:ASN:HD21	72:o6:17:VAL:HG21	1.58	0.66
2:S0:83:GLN:HG2	2:S0:99:ALA:HB1	1.77	0.66
11:S9:91:LYS:O	11:S9:91:LYS:HG2	1.94	0.66
14:C2:60:VAL:HG23	14:C2:87:PRO:HG2	1.77	0.66
36:1:2180:G:P	39:L2:174:ARG:HH22	2.18	0.66
40:L3:43:LEU:HG	40:L3:181:ILE:HG21	1.77	0.66
52:M6:58:LEU:HA	52:M6:72:HIS:CD2	2.29	0.66
56:N0:5:LYS:HB2	56:N0:7:TYR:CE2	2.31	0.66
1:6:1796:C:OP2	28:d6:5:ARG:NH1	2.28	0.66
5:s3:22:ASN:OD1	5:s3:34:TYR:OH	2.12	0.66
12:c0:1:MET:HE3	12:c0:2:LEU:H	1.60	0.66
41:l4:59:GLN:OE1	73:o7:55:ARG:NH2	2.29	0.66
43:l6:31:ARG:HH11	69:o3:107:ILE:H	1.41	0.66
3:S1:154:SER:OG	3:S1:154:SER:O	2.09	0.66
36:1:265:A:H5'	72:O6:34:SER:HB2	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1655:G:H8	36:1:1655:G:H5'	1.61	0.66
36:1:2655:U:H2'	78:Q2:3:ASN:O	1.95	0.66
56:N0:8:GLN:HB2	56:N0:64:ILE:HD11	1.76	0.66
74:O8:14:LEU:O	74:O8:17:ARG:N	2.26	0.66
1:6:563:U:H4'	32:e0:17:GLN:NE2	2.11	0.66
13:c1:21:ASN:HD22	13:c1:32:LYS:H	1.42	0.66
13:c1:71:LEU:HB3	13:c1:88:ARG:HH11	1.61	0.66
13:c1:78:THR:HG21	13:c1:118:GLN:HA	1.76	0.66
18:c6:129:PHE:HB2	22:d0:79:TRP:CD1	2.30	0.66
44:l7:142:SER:O	44:l7:146:GLN:HG3	1.95	0.66
50:m4:113:THR:HG22	50:m4:115:PHE:H	1.60	0.66
53:m7:22:LEU:HB3	53:m7:90:PHE:CE2	2.31	0.66
36:1:325:A:OP1	84:1:3983:HOH:O	2.12	0.66
55:M9:105:LEU:HD12	55:M9:135:LYS:HG3	1.77	0.66
67:O1:23:VAL:O	67:O1:28:ARG:NH1	2.28	0.66
67:O1:79:ARG:H	67:O1:79:ARG:NE	1.94	0.66
1:6:472:U:H5''	11:s9:11:THR:HG23	1.76	0.66
36:5:424:G:P	82:5:3850:GET:H23	2.16	0.66
36:5:968:G:H2'	36:5:969:C:C6	2.30	0.66
36:5:1573:G:C6	36:5:1574:C:H1'	2.30	0.66
36:5:2885:C:N4	36:5:2886:U:O4	2.28	0.66
36:5:3289:G:O2'	36:5:3290:G:OP1	2.13	0.66
39:l2:201:GLY:HA2	39:l2:204:MET:SD	2.35	0.66
7:S5:122:ASN:HB2	7:S5:129:PRO:HD3	1.77	0.66
29:D7:36:LYS:HG2	29:D7:43:ILE:HG22	1.78	0.66
30:D8:27:GLN:NE2	30:D8:64:ARG:O	2.28	0.66
36:1:1889:G:O5'	40:L3:245:GLY:HA2	1.94	0.66
36:1:2534:G:N2	36:1:2546:C:N3	2.44	0.66
36:1:2948:C:O2'	40:L3:242:THR:HG22	1.96	0.66
42:L5:64:ILE:HG13	42:L5:144:VAL:HG21	1.77	0.66
1:6:768:C:C2	11:s9:143:ILE:HG12	2.30	0.66
1:6:1471:A:C2	1:6:1540:G:H4'	2.29	0.66
5:s3:143:ARG:HB2	35:sM:109:GLY:HA3	1.77	0.66
6:s4:57:ASN:HB2	6:s4:60:GLU:H	1.60	0.66
25:d3:24:TRP:HZ3	25:d3:34:LEU:HD21	1.61	0.66
36:5:3353:G:O2'	36:5:3356:G:H5''	1.96	0.66
40:l3:256:HIS:HA	40:l3:257:PRO:C	2.19	0.66
61:n5:103:TYR:O	61:n5:138:ARG:NH1	2.28	0.66
38:4:111:A:OP1	73:O7:32:LYS:HE3	1.96	0.66
1:6:332:U:O2'	10:s8:5:ARG:NH1	2.29	0.66
1:6:912:U:H4'	1:6:913:G:O5'	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1142:A:H5''	28:d6:2:PRO:HB3	1.76	0.66
5:s3:20:GLU:OE2	5:s3:76:ARG:NH2	2.20	0.66
27:d5:85:LYS:HG3	27:d5:86:GLU:H	1.61	0.66
36:5:1909:A:H2'	36:5:1910:A:C8	2.31	0.66
37:7:5:G:OP1	48:m1:143:ARG:NH2	2.28	0.66
42:l5:205:SER:HB3	42:l5:236:LEU:HD22	1.76	0.66
21:C9:111:ILE:HG23	21:C9:113:ILE:HG13	1.78	0.66
25:D3:69:ARG:NH1	25:D3:116:ASP:OD1	2.29	0.66
36:1:1485:G:N2	70:O4:4:ARG:HD2	2.11	0.66
36:1:2106:A:H2'	36:1:2107:A:H8	1.59	0.66
1:6:538:A:H8	1:6:543:C:N4	1.94	0.66
6:s4:118:GLU:HA	6:s4:121:TYR:CE1	2.31	0.66
7:s5:161:ASP:OD2	30:d8:42:ARG:NH1	2.29	0.66
21:c9:9:VAL:HG22	21:c9:140:LEU:HD22	1.78	0.66
26:d4:60:PHE:HA	26:d4:70:VAL:O	1.96	0.66
36:5:561:C:OP1	50:m4:77:ARG:HG3	1.96	0.66
37:7:14:U:H5'	42:l5:24:ARG:HH11	1.60	0.66
66:o0:31:VAL:HA	66:o0:34:LEU:HB2	1.78	0.66
1:2:1201:G:N2	1:2:1600:A:H5'	2.11	0.66
1:2:1630:U:OP1	84:2:2127:HOH:O	2.12	0.66
1:2:1759:C:H5''	1:2:1760:G:OP2	1.96	0.66
7:S5:62:VAL:HG13	7:S5:89:ILE:HG21	1.77	0.66
12:C0:14:TYR:OH	12:C0:34:GLU:OE1	2.10	0.66
36:1:132:C:O2'	36:1:133:U:H6	1.79	0.66
36:1:1367:G:OP2	84:1:3985:HOH:O	2.13	0.66
36:1:1498:A:H2'	36:1:1499:C:C6	2.30	0.66
36:1:3344:A:H2	36:1:3361:G:H21	1.44	0.66
42:L5:105:ILE:O	42:L5:109:THR:HG23	1.95	0.66
53:M7:25:SER:HB3	53:M7:28:ASN:HB2	1.77	0.66
1:6:911:U:H5'	1:6:912:U:OP1	1.96	0.66
1:6:913:G:O2'	1:6:914:G:H5'	1.95	0.66
1:6:1280:C:H2'	1:6:1281:G:H8	1.61	0.66
2:s0:155:PHE:O	23:d1:60:ARG:NH2	2.28	0.66
36:5:1528:G:H2'	36:5:1529:A:C8	2.31	0.66
41:l4:20:LEU:HD11	41:l4:252:GLU:HG3	1.77	0.66
46:l9:137:SER:HB2	46:l9:143:GLU:HB3	1.78	0.66
58:n2:17:VAL:HB	58:n2:63:VAL:HG23	1.77	0.66
68:o2:63:THR:HA	68:o2:66:LEU:HD12	1.77	0.66
9:S7:52:ALA:HB2	9:S7:167:GLU:HB3	1.78	0.66
36:1:798:G:O2'	49:M3:14:PHE:O	2.14	0.66
36:1:1541:G:H22	36:1:1556:C:C5'	2.05	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:3:6:C:OP1	42:L5:54:ARG:NE	2.22	0.66
44:L7:87:VAL:HG21	44:L7:243:MET:HE1	1.78	0.66
45:L8:159:PRO:HB2	45:L8:162:LEU:HD12	1.77	0.66
1:6:930:A:OP1	28:d6:32:LYS:NZ	2.29	0.66
1:6:1078:C:H2'	1:6:1079:U:H6	1.61	0.66
1:6:1566:U:H5''	20:c8:39:GLY:H	1.60	0.66
5:s3:75:LYS:HB3	12:c0:22:VAL:HG22	1.78	0.66
12:c0:32:HIS:HD2	12:c0:34:GLU:H	1.42	0.66
13:c1:82:ARG:O	13:c1:110:HIS:ND1	2.25	0.66
28:d6:46:GLU:HG3	28:d6:47:ALA:H	1.60	0.66
1:2:1796:C:OP2	28:D6:5:ARG:NH1	2.29	0.65
2:S0:124:THR:HG22	2:S0:174:TRP:HE1	1.62	0.65
10:S8:36:THR:HG21	10:S8:173:PRO:HB2	1.77	0.65
10:S8:117:TYR:CD1	10:S8:150:ALA:HB2	2.31	0.65
16:C4:29:HIS:CB	16:C4:41:ARG:HA	2.25	0.65
46:L9:86:TYR:CE2	46:L9:151:VAL:HG22	2.31	0.65
67:O1:44:MET:HB2	67:O1:46:THR:HG22	1.78	0.65
75:o9:27:ILE:HG23	75:o9:30:ARG:CZ	2.26	0.65
28:D6:62:TYR:HE2	28:D6:65:PRO:HD3	1.61	0.65
36:1:1525:G:H2'	36:1:1594:A:C2	2.32	0.65
36:1:2593:A:H4'	36:1:2594:C:O5'	1.95	0.65
36:1:2855:U:OP2	47:M0:6:ALA:HB3	1.96	0.65
36:1:3242:G:H5'	36:1:3245:A:N3	2.11	0.65
20:c8:145:ARG:HG3	35:sM:68:ARG:HH22	1.61	0.65
24:d2:7:LEU:HD13	24:d2:74:VAL:HG23	1.77	0.65
34:sR:216:LYS:HA	34:sR:239:GLU:HG3	1.76	0.65
36:5:15:C:OP1	84:5:3991:HOH:O	2.13	0.65
36:5:361:A:O3'	73:o7:45:ARG:NH2	2.29	0.65
36:5:1095:U:H6	57:n1:127:GLN:HA	1.60	0.65
36:5:3306:U:OP1	40:l3:225:GLY:N	2.29	0.65
1:2:1371:A:OP1	1:2:1371:A:H3'	1.96	0.65
36:1:398:A:H5''	53:M7:3:ARG:HD2	1.77	0.65
46:L9:18:VAL:HB	46:L9:27:VAL:HG22	1.78	0.65
1:6:403:G:O4'	84:6:2123:HOH:O	2.13	0.65
1:6:804:A:C8	24:d2:107:SER:HA	2.30	0.65
1:6:1754:A:C5	82:6:2013:GET:H21	2.30	0.65
8:s6:57:ASP:HA	8:s6:106:LEU:HA	1.78	0.65
20:c8:84:TRP:CZ2	21:c9:36:ILE:HD13	2.31	0.65
36:5:1079:A:OP2	42:l5:143:LYS:NZ	2.28	0.65
36:5:1807:G:H5''	63:n7:135:ARG:HE	1.61	0.65
66:o0:24:THR:HG22	66:o0:91:SER:HB3	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:166:C:H4'	8:S6:131:LYS:HG2	1.78	0.65
3:S1:147:ALA:O	3:S1:148:ASN:ND2	2.28	0.65
36:1:885:U:H2'	36:1:886:C:H6	1.60	0.65
36:1:1615:C:H2'	36:1:1616:U:H6	1.60	0.65
36:1:2107:A:H2	36:1:3344:A:H8	1.44	0.65
47:M0:77:THR:O	47:M0:81:GLY:N	2.26	0.65
66:O0:24:THR:HG23	66:O0:30:THR:HG22	1.79	0.65
1:6:1494:C:H2'	1:6:1495:C:C6	2.31	0.65
26:d4:106:GLN:O	26:d4:110:GLN:HG3	1.96	0.65
36:5:620:U:H5'	84:5:4104:HOH:O	1.94	0.65
36:5:1864:A:H5'	55:m9:88:ARG:HD2	1.79	0.65
36:5:2244:A:H5''	39:l2:243:THR:OG1	1.97	0.65
36:5:2988:C:OP1	52:m6:68:ARG:NH1	2.29	0.65
43:l6:43:LEU:HD11	43:l6:85:ILE:HG13	1.79	0.65
45:l8:95:ASN:OD1	45:l8:98:ARG:NH1	2.27	0.65
49:m3:46:ILE:HG23	49:m3:49:ARG:HB2	1.78	0.65
57:n1:14:MET:HE3	57:n1:15:PHE:CE2	2.32	0.65
36:1:542:G:H1	36:1:549:U:H3	1.42	0.65
36:1:900:G:H1'	36:1:1589:A:N6	2.12	0.65
36:1:1767:C:H2'	36:1:1768:U:C6	2.31	0.65
43:L6:56:LYS:NZ	43:L6:99:GLU:HA	2.11	0.65
1:6:1755:A:H5'	25:d3:63:GLN:HG3	1.77	0.65
36:5:2524:A:O2'	36:5:2525:G:OP2	2.14	0.65
36:5:2996:U:OP1	36:5:2996:U:H4'	1.96	0.65
37:7:112:G:H2'	37:7:113:C:C6	2.31	0.65
45:l8:24:ASN:O	45:l8:26:LEU:N	2.28	0.65
1:2:541:A:H1'	1:2:542:A:OP1	1.96	0.65
1:2:812:A:OP1	1:2:858:G:N2	2.29	0.65
36:1:406:G:H1'	38:4:16:G:N2	2.11	0.65
36:1:1512:U:O3'	55:M9:5:ARG:NH2	2.29	0.65
63:N7:104:PRO:HA	63:N7:107:ARG:HD3	1.78	0.65
64:N8:126:LYS:HB3	64:N8:148:ILE:HD13	1.79	0.65
1:6:1083:G:HO2'	1:6:1094:G:HO2'	1.45	0.65
6:s4:104:ASP:HB3	6:s4:106:LYS:H	1.60	0.65
34:sR:89:LEU:HB2	34:sR:103:PHE:HB2	1.79	0.65
36:5:269:G:H5'	51:m5:120:TRP:CE3	2.30	0.65
36:5:304:G:OP2	84:5:3902:HOH:O	2.13	0.65
84:5:3924:HOH:O	40:l3:364:LYS:O	2.15	0.65
23:D1:36:VAL:HG11	23:D1:78:LEU:HD13	1.77	0.65
36:1:720:A:C2	36:1:784:A:H5'	2.31	0.65
36:1:1472:U:H5'	55:M9:4:LEU:HB2	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1824:U:OP1	74:O8:3:ARG:NH1	2.28	0.65
36:1:3304:U:O3'	40:L3:334:ARG:NH2	2.29	0.65
39:L2:45:VAL:HG13	39:L2:86:GLN:H	1.61	0.65
46:L9:47:LYS:HB2	50:M4:7:VAL:HB	1.77	0.65
51:M5:116:LEU:HB3	51:M5:133:ILE:HG13	1.78	0.65
66:O0:22:LYS:HB2	66:O0:94:GLU:HB2	1.78	0.65
1:6:1333:C:H4'	5:s3:162:GLN:HG3	1.79	0.65
14:c2:42:ALA:HB1	14:c2:47:GLU:HB3	1.78	0.65
21:c9:28:LEU:HD23	21:c9:111:ILE:HD11	1.79	0.65
36:5:1064:A:H61	36:5:1093:A:H5''	1.61	0.65
36:5:2265:C:H2'	36:5:2266:U:O4'	1.97	0.65
36:5:2344:U:H2'	36:5:2345:A:C8	2.32	0.65
36:5:3242:G:H5''	36:5:3245:A:H8	1.61	0.65
20:C8:36:LYS:HB3	20:C8:105:VAL:HG11	1.79	0.65
36:1:975:C:H2'	36:1:976:U:C6	2.32	0.65
36:1:1033:U:H2'	36:1:1034:U:C6	2.31	0.65
36:1:1064:A:H4'	36:1:1065:A:O5'	1.94	0.65
55:M9:148:ASP:OD2	55:M9:151:ARG:NH2	2.30	0.65
62:N6:56:VAL:HG11	62:N6:104:LEU:HD13	1.78	0.65
3:s1:35:PRO:HB3	3:s1:231:LEU:HD21	1.78	0.65
9:s7:70:PHE:O	9:s7:74:GLN:NE2	2.29	0.65
35:sM:56:GLY:O	35:sM:59:GLY:N	2.30	0.65
36:5:2103:U:H2'	36:5:2104:A:C8	2.31	0.65
36:5:2384:A:N1	52:m6:96:LYS:HE2	2.12	0.65
40:l3:4:ARG:HG3	40:l3:4:ARG:HH11	1.60	0.65
46:l9:126:VAL:HG21	46:l9:161:LEU:HA	1.78	0.65
56:n0:24:LEU:H	57:n1:146:ASN:ND2	1.94	0.65
14:C2:76:GLU:OE2	14:C2:90:LYS:NZ	2.29	0.65
20:C8:91:ASP:HB3	20:C8:95:GLY:H	1.62	0.65
35:SM:97:THR:HG22	35:SM:99:LYS:HG3	1.78	0.65
36:1:1946:A:H2'	36:1:1947:G:C8	2.32	0.65
36:1:3122:A:N1	46:L9:70:THR:HG21	2.11	0.65
40:L3:185:GLY:O	40:L3:191:LYS:NZ	2.24	0.65
41:L4:206:LEU:HB2	41:L4:246:ARG:HD2	1.78	0.65
41:L4:206:LEU:HB3	41:L4:248:VAL:HG22	1.79	0.65
1:6:66:U:C5	8:s6:173:PRO:HG3	2.32	0.65
1:6:1498:G:H5''	21:c9:72:GLY:HA3	1.78	0.65
36:5:3:U:H3	38:8:156:U:H3	1.44	0.65
36:5:900:G:H1'	36:5:1589:A:N6	2.12	0.65
72:o6:43:LEU:HD13	72:o6:47:ILE:HD11	1.78	0.65
1:2:17:C:H4'	1:2:1109:G:C8	2.32	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:570:A:H5''	1:2:571:G:OP2	1.97	0.65
1:2:1600:A:N6	84:2:2132:HOH:O	2.29	0.65
4:S2:101:VAL:HG22	4:S2:115:ILE:HG12	1.78	0.65
9:S7:55:LYS:HE3	9:S7:87:ASP:HA	1.78	0.65
17:C5:87:PRO:HA	17:C5:90:ILE:HG13	1.78	0.65
28:D6:10:ARG:HB2	28:D6:34:LYS:HA	1.76	0.65
36:1:1010:G:N2	47:M0:193:ASP:OD2	2.30	0.65
36:1:3199:G:OP2	46:L9:21:LYS:NZ	2.29	0.65
39:L2:137:ILE:HD11	39:L2:147:ARG:HG2	1.79	0.65
43:L6:155:LEU:HD23	50:M4:115:PHE:CE1	2.32	0.65
46:L9:163:GLN:O	46:L9:166:ARG:HD3	1.97	0.65
1:6:523:G:H5'	26:d4:60:PHE:O	1.97	0.65
1:6:1657:U:O2	36:5:2125:A:H4'	1.97	0.65
6:s4:241:GLY:O	6:s4:244:ILE:HB	1.97	0.65
14:c2:57:ALA:O	14:c2:85:LYS:NZ	2.22	0.65
22:d0:62:VAL:HG22	22:d0:85:ARG:HG2	1.78	0.65
36:5:13:A:H4'	61:n5:39:LYS:HG3	1.78	0.65
36:5:194:U:H2'	36:5:195:U:H6	1.61	0.65
36:5:560:G:OP1	50:m4:83:LYS:NZ	2.22	0.65
36:5:1063:G:H2'	36:5:1097:G:N2	2.12	0.65
41:l4:259:ASP:OD1	41:l4:259:ASP:N	2.29	0.65
46:l9:4:ILE:HD11	56:n0:148:LEU:HD21	1.77	0.65
49:m3:70:ARG:HD2	49:m3:71:ALA:O	1.97	0.65
66:o0:16:LEU:O	66:o0:20:SER:OG	2.15	0.65
69:o3:35:VAL:HG13	69:o3:40:ASP:HB3	1.78	0.65
1:2:1338:C:H1'	1:2:1410:A:C4	2.32	0.64
14:C2:28:LEU:HD13	14:C2:32:LEU:HD11	1.78	0.64
16:C4:81:VAL:HG22	16:C4:115:ILE:HB	1.79	0.64
36:1:980:A:H2'	36:1:981:U:N1	2.12	0.64
41:L4:36:HIS:CE1	41:L4:40:THR:HG21	2.33	0.64
64:N8:74:ASN:OD1	64:N8:115:LYS:N	2.31	0.64
1:6:100:A:O5'	1:6:100:A:H8	1.80	0.64
36:5:1511:U:H5''	36:5:1512:U:H5	1.62	0.64
37:7:2:G:H4'	42:l5:270:LYS:HD3	1.78	0.64
41:l4:358:THR:HG21	57:n1:148:PRO:HD2	1.78	0.64
44:l7:132:PRO:HA	44:l7:229:PHE:CE1	2.32	0.64
50:m4:37:GLU:HB3	56:n0:72:VAL:HG21	1.78	0.64
62:n6:57:LEU:HB3	62:n6:105:VAL:HG12	1.78	0.64
16:C4:103:ARG:NH2	28:D6:52:ASP:OD1	2.29	0.64
36:1:1578:C:O2'	36:1:1649:U:OP1	2.14	0.64
36:1:1605:A:OP2	84:1:3986:HOH:O	2.14	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2115:G:H22	36:1:2120:A:H1'	1.61	0.64
36:1:2927:C:H2'	36:1:2928:C:C6	2.32	0.64
46:L9:112:ILE:HD13	46:L9:161:LEU:HD12	1.78	0.64
51:M5:38:ARG:NH2	51:M5:60:VAL:HB	2.12	0.64
1:6:1754:A:C6	82:6:2013:GET:H21	2.33	0.64
9:s7:155:ASP:OD2	9:s7:156:SER:N	2.29	0.64
11:s9:64:GLU:HA	11:s9:69:ARG:HD3	1.78	0.64
19:c7:106:THR:HA	19:c7:109:LEU:HD23	1.77	0.64
43:l6:169:ASP:HB3	43:l6:174:LEU:HD11	1.79	0.64
51:m5:37:HIS:NE2	51:m5:63:ARG:HB3	2.13	0.64
54:m8:37:ALA:O	54:m8:46:LYS:NZ	2.28	0.64
69:o3:106:ASN:O	69:o3:107:ILE:HG13	1.96	0.64
1:2:513:U:OP1	11:S9:133:HIS:NE2	2.30	0.64
1:2:885:G:H21	16:C4:123:SER:HB2	1.62	0.64
4:S2:230:TRP:NE1	24:D2:68:ARG:HB3	2.12	0.64
82:1:3812:GET:N32	82:1:3812:GET:H511	2.12	0.64
38:4:63:G:O2'	71:O5:49:LYS:HE2	1.98	0.64
52:M6:57:PHE:CE2	52:M6:72:HIS:HA	2.32	0.64
2:s0:200:ASP:HB2	19:c7:88:VAL:HG22	1.77	0.64
15:c3:93:LYS:HG3	15:c3:150:VAL:HG21	1.80	0.64
16:c4:115:ILE:HG21	28:d6:44:ILE:HG21	1.79	0.64
36:5:132:C:H2'	36:5:133:U:H5''	1.78	0.64
36:5:1145:G:OP1	68:o2:44:ARG:NH1	2.31	0.64
38:8:26:U:H2'	38:8:27:U:C6	2.32	0.64
43:l6:53:VAL:H	43:l6:67:GLY:HA2	1.63	0.64
63:n7:102:GLU:CD	63:n7:103:GLN:H	2.05	0.64
1:2:401:A:H5''	84:2:2110:HOH:O	1.93	0.64
3:S1:180:THR:HG22	3:S1:181:LEU:HD13	1.78	0.64
9:S7:4:PRO:HA	9:S7:7:LYS:HD2	1.79	0.64
21:C9:117:SER:OG	21:C9:118:PRO:O	2.11	0.64
25:D3:46:SER:OG	25:D3:78:LYS:NZ	2.29	0.64
36:1:1334:U:H5''	44:L7:206:LYS:HB3	1.79	0.64
36:1:1477:A:OP1	36:1:3075:G:O2'	2.13	0.64
36:1:2535:A:H61	36:1:2544:U:H3	1.46	0.64
36:1:3145:C:H2'	36:1:3146:G:H8	1.61	0.64
38:4:83:C:H42	62:N6:52:ARG:HH22	1.45	0.64
40:L3:261:MET:HE2	52:M6:64:PHE:HB3	1.79	0.64
56:N0:5:LYS:HB2	56:N0:7:TYR:HE2	1.62	0.64
1:6:800:U:H2'	1:6:801:G:C8	2.31	0.64
25:d3:130:VAL:HG23	25:d3:131:SER:H	1.62	0.64
32:e0:53:LYS:HD3	32:e0:55:ARG:HD3	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:126:U:H2'	36:5:127:G:O4'	1.97	0.64
36:5:2201:G:H21	39:12:224:THR:HG21	1.62	0.64
41:14:169:LEU:HD22	41:14:249:ILE:HD12	1.79	0.64
52:m6:62:THR:H	52:m6:69:GLY:HA3	1.62	0.64
36:1:419:G:H4'	82:1:3810:GET:O52	1.96	0.64
36:1:656:A:H2'	36:1:657:A:C8	2.33	0.64
36:1:1940:G:N2	36:1:2109:U:O2	2.31	0.64
36:1:3325:G:H5'	67:O1:104:LEU:O	1.97	0.64
67:O1:5:LYS:O	67:O1:6:ASP:HB2	1.97	0.64
1:6:639:U:H5''	9:s7:101:LYS:HB2	1.80	0.64
1:6:1458:G:OP1	20:c8:138:THR:N	2.31	0.64
1:6:1727:G:H2'	1:6:1728:A:H8	1.60	0.64
15:c3:87:ASP:HB3	15:c3:125:LEU:HD11	1.79	0.64
36:5:62:A:OP2	84:5:3992:HOH:O	2.15	0.64
36:5:3276:G:O6	53:m7:171:ARG:NH1	2.31	0.64
37:7:112:G:O6	42:l5:21:ARG:NE	2.15	0.64
41:14:301:PRO:O	54:m8:39:ARG:NH1	2.30	0.64
47:m0:171:TRP:O	47:m0:174:THR:HG23	1.98	0.64
75:o9:9:ILE:HG22	75:o9:13:MET:HE2	1.80	0.64
2:S0:172:LEU:O	2:S0:176:LEU:HG	1.97	0.64
34:SR:131:ILE:HB	34:SR:144:LEU:HB2	1.79	0.64
36:1:20:A:H2'	36:1:21:G:C8	2.32	0.64
36:1:1449:A:OP2	84:1:3987:HOH:O	2.14	0.64
36:1:1791:C:H2'	36:1:1792:C:C6	2.32	0.64
37:3:112:G:O6	42:L5:21:ARG:NE	2.21	0.64
49:M3:165:SER:O	49:M3:167:PHE:N	2.29	0.64
1:6:1553:G:H2'	1:6:1555:A:OP2	1.98	0.64
31:d9:22:ARG:HH21	31:d9:37:ASN:HB2	1.62	0.64
36:5:1554:U:O3'	36:5:1581:C:H5	1.80	0.64
47:m0:46:PHE:CD1	47:m0:140:THR:HA	2.32	0.64
53:m7:59:PRO:HG3	53:m7:76:PHE:CG	2.31	0.64
69:o3:10:LYS:HB2	69:o3:33:GLU:HG3	1.78	0.64
1:2:1533:C:H4'	1:2:1539:G:C2	2.32	0.64
5:S3:70:THR:HG22	5:S3:86:LEU:HD13	1.80	0.64
8:S6:59:GLN:HE21	8:S6:72:ARG:HH22	1.46	0.64
18:C6:125:GLU:HG2	18:C6:126:PRO:HD2	1.80	0.64
36:1:595:G:H2'	36:1:596:C:H6	1.62	0.64
36:1:2818:U:H5'	36:1:2818:U:C6	2.25	0.64
36:1:3063:C:H2'	36:1:3064:U:H6	1.62	0.64
41:L4:106:TRP:O	51:M5:203:ARG:NH2	2.26	0.64
1:6:1002:G:N2	1:6:1760:G:O3'	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1291:G:OP2	1:6:1291:G:N2	2.29	0.64
1:6:1621:U:H2'	1:6:1622:G:H8	1.61	0.64
12:c0:24:LYS:HB2	12:c0:63:TYR:CE1	2.32	0.64
36:5:1470:U:O3'	55:m9:5:ARG:NH2	2.28	0.64
46:l9:50:ASN:ND2	50:m4:4:ASP:HA	2.13	0.64
76:q0:127:LEU:HD22	76:q0:128:LYS:HG3	1.80	0.64
2:S0:59:LEU:HD21	23:D1:78:LEU:HD12	1.79	0.64
4:S2:175:GLY:HA3	11:S9:53:ARG:HH22	1.63	0.64
8:S6:135:PRO:HB2	8:S6:141:ILE:HG12	1.80	0.64
24:D2:73:GLY:HA3	24:D2:128:PHE:CE1	2.32	0.64
36:1:976:U:H5'	54:M8:144:ARG:HH12	1.63	0.64
41:L4:74:ILE:HG21	41:L4:93:MET:CE	2.27	0.64
43:L6:131:LYS:HG2	43:L6:133:GLU:H	1.62	0.64
47:M0:19:LYS:HD2	47:M0:26:VAL:HG22	1.78	0.64
56:N0:12:ARG:HG2	56:N0:24:LEU:HD23	1.79	0.64
63:N7:100:THR:O	63:N7:107:ARG:HG3	1.98	0.64
1:6:114:C:H5'	1:6:114:C:H6	1.63	0.64
1:6:294:C:H2'	1:6:295:A:H8	1.62	0.64
1:6:474:A:OP1	11:s9:145:SER:HB2	1.97	0.64
3:s1:207:LEU:HB3	3:s1:210:ILE:HD11	1.80	0.64
5:s3:142:LEU:HB2	35:sM:110:TRP:NE1	2.10	0.64
5:s3:150:MET:HE2	35:sM:110:TRP:HB3	1.80	0.64
36:5:3195:U:O2'	36:5:3196:U:H5'	1.98	0.64
47:m0:171:TRP:HE3	47:m0:178:ARG:HB3	1.62	0.64
1:2:103:A:OP2	1:2:360:A:N6	2.30	0.64
1:2:471:A:O2'	11:S9:9:SER:O	2.11	0.64
1:2:1253:U:H4'	33:E1:143:LYS:N	2.13	0.64
1:2:1360:A:H1'	21:C9:3:GLY:HA2	1.80	0.64
36:1:126:U:H2'	36:1:127:G:O4'	1.98	0.64
36:1:287:G:H5'	51:M5:179:LYS:O	1.98	0.64
36:1:1734:G:H2'	36:1:1735:G:O4'	1.98	0.64
36:1:3145:C:H2'	36:1:3146:G:C8	2.32	0.64
36:1:3216:G:H5''	36:1:3219:G:C2	2.33	0.64
75:O9:9:ILE:HG22	75:O9:13:MET:HE2	1.79	0.64
36:5:1097:G:H4'	57:n1:129:LYS:HB3	1.80	0.64
41:l4:330:TYR:CZ	44:l7:49:ALA:HA	2.32	0.64
43:l6:40:LEU:HD12	43:l6:65:ILE:HD11	1.80	0.64
61:n5:68:THR:HG21	71:o5:36:LEU:HD13	1.78	0.64
1:2:1294:G:O2'	1:2:1321:A:N1	2.25	0.64
2:S0:27:ARG:HG2	2:S0:28:ASN:H	1.63	0.64
3:S1:39:GLU:HG3	3:S1:40:ASN:H	1.63	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:946:U:H2'	36:1:947:G:H8	1.63	0.64
36:1:997:A:OP2	84:1:3988:HOH:O	2.15	0.64
36:1:2254:U:H2'	36:1:2261:G:N2	2.13	0.64
37:3:58:C:H2'	37:3:59:U:H6	1.63	0.64
45:L8:133:LYS:HB3	45:L8:138:HIS:CE1	2.33	0.64
47:M0:49:CYS:HB3	47:M0:168:SER:HB3	1.80	0.64
63:N7:97:SER:HB2	63:N7:99:GLU:HG3	1.80	0.64
67:O1:88:PRO:HG2	67:O1:89:LEU:HD13	1.80	0.64
1:6:140:A:N6	1:6:281:G:OP1	2.31	0.64
1:6:691:C:OP1	1:6:696:C:N4	2.31	0.64
2:s0:56:LYS:HZ2	2:s0:158:VAL:HA	1.62	0.64
8:s6:176:GLN:HE21	8:s6:177:ARG:H	1.44	0.64
11:s9:108:ARG:HB2	11:s9:111:THR:HG23	1.79	0.64
30:d8:13:ILE:HB	30:d8:29:ARG:HG2	1.78	0.64
36:5:2697:A:H2'	36:5:2698:G:C8	2.32	0.64
52:m6:127:LEU:HD21	56:n0:168:PRO:HG2	1.80	0.64
1:2:364:G:O2'	1:2:756:A:N6	2.31	0.63
8:S6:150:GLU:O	60:N4:105:ARG:NH2	2.31	0.63
36:1:840:C:H2'	36:1:841:A:H8	1.62	0.63
36:1:2403:G:H5'	36:1:2872:A:C2	2.33	0.63
82:1:3813:GET:H621	82:1:3813:GET:H532	1.79	0.63
51:M5:15:GLN:HA	51:M5:20:ARG:HD2	1.80	0.63
57:N1:83:ARG:HD2	57:N1:85:LEU:HD21	1.78	0.63
1:6:753:A:H62	6:s4:187:ARG:HH22	1.44	0.63
1:6:1227:A:H8	14:c2:116:VAL:HG21	1.62	0.63
14:c2:36:LEU:HG	14:c2:41:LEU:HD12	1.79	0.63
25:d3:107:PHE:CD2	25:d3:114:LYS:HB3	2.34	0.63
34:sR:29:GLN:HG3	34:sR:32:LEU:HB3	1.79	0.63
36:5:1508:C:OP2	84:5:3993:HOH:O	2.15	0.63
36:5:2399:A:N7	84:5:4012:HOH:O	2.30	0.63
39:l2:127:ALA:O	39:l2:169:ILE:HD11	1.98	0.63
50:m4:14:LEU:HD12	56:n0:149:LYS:HE3	1.79	0.63
58:n2:58:GLU:HG2	58:n2:60:GLY:H	1.62	0.63
1:2:10:G:O6	1:2:1144:U:N3	2.19	0.63
11:S9:96:VAL:HA	11:S9:99:LEU:HD22	1.80	0.63
39:L2:80:GLU:HA	39:L2:170:ALA:HB2	1.79	0.63
47:M0:46:PHE:CD1	47:M0:140:THR:HA	2.33	0.63
50:M4:32:LEU:HD11	50:M4:94:TRP:CG	2.33	0.63
55:M9:102:LEU:HD22	55:M9:138:LEU:HD12	1.80	0.63
57:N1:45:ASN:OD1	57:N1:47:SER:OG	2.15	0.63
1:6:576:G:OP2	35:sM:102:THR:HG21	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1219:A:O2'	12:c0:48:SER:HA	1.98	0.63
1:6:1671:A:H2'	1:6:1672:G:O4'	1.98	0.63
15:c3:40:TYR:HB3	15:c3:45:LEU:HD12	1.80	0.63
36:5:109:A:H4'	36:5:110:G:OP1	1.95	0.63
36:5:627:U:H2'	36:5:628:A:C8	2.33	0.63
36:5:2352:A:H5''	53:m7:83:TRP:O	1.99	0.63
37:7:101:G:OP2	56:n0:52:LYS:NZ	2.29	0.63
39:l2:117:GLU:OE1	39:l2:163:ARG:NH2	2.31	0.63
45:l8:134:TYR:CD1	45:l8:190:VAL:HG11	2.34	0.63
51:m5:146:ALA:O	51:m5:148:TYR:N	2.31	0.63
53:m7:59:PRO:HG3	53:m7:76:PHE:CD1	2.33	0.63
61:n5:110:VAL:HG22	61:n5:124:VAL:HG22	1.80	0.63
1:2:777:C:H3'	1:2:778:G:N2	2.13	0.63
2:S0:21:ASN:HA	2:S0:23:HIS:CE1	2.32	0.63
10:S8:187:GLU:OE2	13:C1:30:ARG:NH1	2.31	0.63
31:D9:31:ILE:HB	31:D9:38:ILE:O	1.98	0.63
36:1:99:A:OP1	51:M5:194:GLN:NE2	2.31	0.63
36:1:2412:G:OP1	84:1:3982:HOH:O	2.15	0.63
36:1:2673:A:H5'	48:M1:95:ASN:HA	1.80	0.63
36:1:3324:C:OP1	67:O1:19:ARG:NH1	2.30	0.63
38:4:143:U:H5''	51:M5:57:GLN:O	1.99	0.63
54:M8:54:LEU:HB3	54:M8:58:ASN:HB2	1.78	0.63
55:M9:24:LEU:HB3	55:M9:32:ILE:HD13	1.80	0.63
64:N8:77:LYS:O	64:N8:79:TRP:N	2.27	0.63
1:6:231:U:H2'	1:6:232:U:H2'	1.81	0.63
1:6:591:A:H5''	11:s9:24:LEU:HD13	1.80	0.63
5:s3:192:PRO:HB2	5:s3:201:ALA:HA	1.80	0.63
17:c5:96:ILE:HB	17:c5:120:SER:HB2	1.80	0.63
36:5:115:A:O2'	51:m5:5:LYS:NZ	2.30	0.63
36:5:1138:U:H2'	36:5:1139:G:C8	2.33	0.63
36:5:2895:G:O2'	76:q0:100:TYR:O	2.12	0.63
43:l6:170:LYS:O	43:l6:173:MET:N	2.27	0.63
1:2:67:A:C2	1:2:69:G:H1'	2.34	0.63
1:2:522:U:O2'	26:D4:60:PHE:O	2.10	0.63
1:2:1442:U:H2'	1:2:1443:U:C6	2.33	0.63
1:2:1523:G:N7	21:C9:68:ARG:NH1	2.47	0.63
36:1:1427:U:OP2	64:N8:4:ARG:NH2	2.32	0.63
36:1:2356:A:H5'	53:M7:138:LYS:HE3	1.79	0.63
42:L5:107:ARG:NH1	42:L5:120:LYS:O	2.26	0.63
1:6:500:C:O2'	1:6:501:U:O4'	2.15	0.63
1:6:1331:A:N6	5:s3:160:SER:OG	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:s2:59:HIS:HA	23:d1:15:ARG:HE	1.62	0.63
10:s8:138:ASN:HA	10:s8:141:ARG:HD3	1.79	0.63
12:c0:10:LYS:NZ	12:c0:36:ASP:HB3	2.13	0.63
36:5:1601:U:P	55:m9:42:ARG:HH22	2.22	0.63
38:8:82:U:P	38:8:82:U:H3'	2.37	0.63
1:2:1058:U:O4	1:2:1061:A:N6	2.32	0.63
3:S1:61:LEU:HD22	3:S1:61:LEU:H	1.62	0.63
36:1:303:G:H5'	36:1:304:G:C5'	2.28	0.63
36:1:423:A:OP1	82:1:3810:GET:C61	2.46	0.63
36:1:716:A:C6	64:N8:117:ARG:HG3	2.34	0.63
36:1:2103:U:H2'	36:1:2104:A:H8	1.64	0.63
52:M6:57:PHE:HE2	52:M6:72:HIS:HA	1.64	0.63
52:M6:124:LEU:O	52:M6:128:ARG:HB2	1.98	0.63
55:M9:17:VAL:HG12	55:M9:18:GLY:H	1.61	0.63
70:O4:74:ARG:HG2	70:O4:75:ALA:O	1.99	0.63
77:Q1:13:LEU:HD11	77:Q1:17:ARG:NH2	2.13	0.63
1:6:330:G:OP2	10:s8:172:ARG:NH1	2.32	0.63
9:s7:43:PHE:HB2	9:s7:61:PHE:O	1.98	0.63
34:sR:52:GLN:HG2	34:sR:53:LYS:H	1.64	0.63
36:5:726:G:H8	36:5:726:G:C5'	2.11	0.63
36:5:2642:A:O2'	65:n9:6:ASN:ND2	2.25	0.63
47:m0:36:LEU:HD12	47:m0:87:LEU:HB3	1.80	0.63
49:m3:69:VAL:N	49:m3:149:GLN:OE1	2.18	0.63
51:m5:190:THR:O	51:m5:194:GLN:HG2	1.99	0.63
52:m6:85:ARG:HD3	52:m6:90:HIS:CE1	2.33	0.63
1:2:325:G:OP1	13:C1:132:SER:OG	2.16	0.63
19:C7:24:LEU:HB3	19:C7:58:MET:HE3	1.80	0.63
36:1:1105:A:H2'	36:1:1106:G:C8	2.34	0.63
36:1:1781:C:H2'	36:1:1782:U:H6	1.62	0.63
36:1:1785:U:OP1	70:O4:19:LYS:NZ	2.32	0.63
66:O0:58:TYR:OH	70:O4:97:GLU:OE2	2.15	0.63
67:O1:11:GLU:OE2	67:O1:74:ARG:NH2	2.27	0.63
78:Q2:2:VAL:N	78:Q2:90:HIS:O	2.32	0.63
1:6:868:G:OP1	15:c3:121:ARG:NH1	2.28	0.63
1:6:1773:C:OP2	77:q1:2:ARG:NH1	2.29	0.63
36:5:3369:G:OP2	60:n4:61:LYS:NZ	2.18	0.63
54:m8:157:PRO:HA	54:m8:186:VAL:HG12	1.80	0.63
64:n8:94:ALA:HA	64:n8:121:VAL:HG13	1.81	0.63
69:o3:73:ARG:HG3	69:o3:82:ARG:HD2	1.80	0.63
1:2:523:G:O2'	1:2:529:A:N6	2.31	0.63
5:S3:208:ILE:HD12	19:C7:16:LEU:HD21	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C0:27:PHE:HB3	12:C0:40:LEU:HD23	1.80	0.63
18:C6:113:ASP:CG	18:C6:115:THR:H	2.06	0.63
36:1:674:G:P	54:M8:105:ARG:HH12	2.22	0.63
36:1:860:G:OP1	79:Q3:17:ARG:NH1	2.32	0.63
36:1:2437:G:N2	36:1:2511:A:H1'	2.14	0.63
36:1:3057:U:H5'	36:1:3086:A:H61	1.64	0.63
36:1:3094:A:H2'	36:1:3095:U:H6	1.63	0.63
37:3:19:C:H2'	37:3:20:A:H8	1.64	0.63
39:L2:112:ILE:HD13	79:Q3:79:VAL:HG22	1.81	0.63
1:6:58:U:O2'	1:6:451:A:N3	2.32	0.63
1:6:1280:C:O2'	22:d0:70:THR:HG23	1.97	0.63
1:6:1565:C:O5'	20:c8:41:ARG:NH1	2.32	0.63
11:s9:110:GLN:OE1	11:s9:126:ARG:HG2	1.98	0.63
36:5:174:C:H2'	36:5:175:C:C6	2.33	0.63
36:5:1386:A:N7	41:l4:183:LYS:HE3	2.13	0.63
36:5:1498:A:H2'	36:5:1499:C:C6	2.34	0.63
36:5:1580:A:H8	36:5:1580:A:O5'	1.81	0.63
39:l2:137:ILE:HG13	39:l2:138:GLY:N	2.13	0.63
40:l3:114:VAL:HG22	40:l3:163:HIS:CE1	2.34	0.63
47:m0:38:LYS:HG2	47:m0:41:ALA:HB2	1.80	0.63
72:o6:43:LEU:O	72:o6:47:ILE:HG13	1.99	0.63
80:p0:26:PHE:HB2	80:p0:87:VAL:HB	1.81	0.63
5:S3:34:TYR:HE2	5:S3:37:VAL:HG13	1.63	0.63
36:1:1528:G:OP1	70:O4:9:ARG:NH1	2.32	0.63
38:4:37:A:H2'	38:4:37:A:N3	2.12	0.63
42:L5:155:THR:N	42:L5:179:ARG:HH11	1.96	0.63
1:6:1257:U:H4'	12:c0:8:ARG:NH1	2.14	0.63
3:s1:82:ARG:NH1	3:s1:191:GLU:OE2	2.32	0.63
4:s2:164:SER:O	4:s2:202:GLY:HA3	1.98	0.63
17:c5:127:ARG:HA	35:sM:71:ASN:OD1	1.97	0.63
36:5:761:A:C2	36:5:771:A:H1'	2.34	0.63
36:5:817:A:H2'	36:5:920:A:C2	2.34	0.63
36:5:2340:U:OP2	40:l3:237:LYS:HB2	1.98	0.63
71:o5:13:SER:N	71:o5:16:GLN:OE1	2.30	0.63
1:2:585:A:H2'	1:2:586:G:H8	1.64	0.63
2:S0:105:GLY:N	2:S0:135:GLU:OE2	2.32	0.63
36:1:548:G:H2'	36:1:549:U:O4'	1.98	0.63
41:L4:182:LEU:H	41:L4:201:GLN:HE22	1.46	0.63
50:M4:128:ARG:HG2	50:M4:132:LYS:HG3	1.79	0.63
1:6:1621:U:H2'	1:6:1622:G:C8	2.34	0.63
25:d3:103:LEU:HD12	25:d3:126:LYS:HD3	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:96:G:OP1	49:m3:15:ARG:NH2	2.30	0.63
36:5:230:U:H2'	36:5:231:G:O4'	1.99	0.63
36:5:2957:G:H8	36:5:2957:G:H5'	1.63	0.63
40:13:211:GLN:HE21	40:13:284:ARG:HA	1.63	0.63
1:2:17:C:H2'	1:2:18:C:C6	2.33	0.62
2:S0:134:LYS:O	2:S0:137:SER:OG	2.13	0.62
4:S2:229:LEU:O	23:D1:16:LYS:NZ	2.32	0.62
7:S5:133:VAL:HG22	7:S5:198:LEU:HD13	1.80	0.62
13:C1:93:TYR:OH	13:C1:98:ASN:OD1	2.13	0.62
23:D1:71:ARG:HG3	23:D1:83:TRP:CZ2	2.34	0.62
36:1:883:A:H5'	53:M7:133:HIS:HA	1.80	0.62
36:1:1767:C:H2'	36:1:1768:U:H6	1.64	0.62
36:1:2582:C:H2'	36:1:2583:C:C6	2.33	0.62
44:L7:89:ILE:HG22	44:L7:219:LYS:HE3	1.81	0.62
50:M4:50:LYS:HE3	50:M4:86:ALA:HB2	1.80	0.62
1:6:1042:G:H22	1:6:1076:A:H2	1.47	0.62
1:6:1051:G:O2'	1:6:1052:U:OP1	2.15	0.62
2:s0:84:ARG:HB3	2:s0:203:PHE:O	1.99	0.62
3:s1:87:ARG:NH2	3:s1:89:ASP:OD1	2.31	0.62
12:c0:14:TYR:OH	12:c0:34:GLU:OE1	2.11	0.62
29:d7:23:THR:OG1	29:d7:25:VAL:O	2.17	0.62
36:5:406:G:H1'	38:8:16:G:H22	1.64	0.62
36:5:1127:G:OP2	47:m0:98:ARG:NH2	2.30	0.62
39:l2:65:ASP:HB3	39:l2:68:LYS:O	1.99	0.62
70:o4:7:PHE:HD1	70:o4:20:ILE:HD12	1.63	0.62
1:2:260:U:H5	10:S8:43:ILE:HB	1.63	0.62
1:2:1107:G:H3'	1:2:1108:G:H21	1.64	0.62
7:S5:56:ALA:O	7:S5:57:SER:OG	2.17	0.62
13:C1:132:SER:OG	13:C1:133:LYS:N	2.32	0.62
36:1:875:G:OP2	84:1:3990:HOH:O	2.16	0.62
36:1:1094:U:OP1	36:1:1094:U:H4'	1.99	0.62
39:L2:29:LEU:HA	39:L2:76:PHE:CE1	2.34	0.62
55:M9:99:LEU:HD11	55:M9:103:ARG:CZ	2.29	0.62
1:6:1389:C:O2'	19:c7:52:GLY:HA3	1.98	0.62
18:c6:13:LYS:HG3	18:c6:14:LYS:HG3	1.80	0.62
36:5:838:G:O6	79:q3:4:ARG:NH2	2.32	0.62
36:5:2552:C:H2'	66:o0:50:VAL:HG11	1.81	0.62
46:l9:29:GLY:HA3	46:l9:82:VAL:HG13	1.81	0.62
1:2:397:A:O3'	10:S8:50:GLY:HA2	1.99	0.62
36:1:1550:C:H1'	36:1:2166:A:H61	1.65	0.62
39:L2:143:GLU:O	39:L2:145:LYS:HG2	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:926:A:H1'	1:6:988:A:C2	2.34	0.62
1:6:1494:C:H2'	1:6:1495:C:H6	1.63	0.62
7:s5:156:ARG:HH12	7:s5:158:GLN:NE2	1.97	0.62
9:s7:125:ILE:HD13	9:s7:176:LEU:HD13	1.82	0.62
11:s9:114:TYR:HA	11:s9:119:ALA:HB3	1.81	0.62
21:c9:115:GLU:OE1	21:c9:123:ARG:NH1	2.31	0.62
36:5:2898:G:H5''	36:5:2899:C:H5'	1.81	0.62
1:2:407:A:O2'	1:2:1671:A:N3	2.33	0.62
1:2:1559:A:H5''	20:C8:135:GLY:HA3	1.80	0.62
3:S1:127:VAL:HG11	3:S1:176:VAL:HG21	1.81	0.62
7:S5:73:THR:HG22	7:S5:75:GLY:N	2.14	0.62
8:S6:199:GLN:HG2	8:S6:202:ARG:HH12	1.65	0.62
11:S9:49:LEU:HD22	11:S9:53:ARG:HG3	1.80	0.62
25:D3:28:ASN:OD1	25:D3:28:ASN:N	2.31	0.62
36:1:3169:U:O2'	36:1:3170:A:OP1	2.17	0.62
41:L4:140:HIS:NE2	41:L4:246:ARG:HG2	2.14	0.62
54:M8:18:ALA:HA	54:M8:53:PHE:CE1	2.34	0.62
72:O6:9:ILE:O	72:O6:13:LYS:HB2	2.00	0.62
36:5:1750:A:H4'	36:5:1751:G:H5'	1.80	0.62
36:5:2424:A:N1	39:l2:230:VAL:HG21	2.14	0.62
41:l4:328:ASN:OD1	44:l7:48:ASN:ND2	2.25	0.62
41:l4:338:LYS:C	41:l4:340:GLY:H	2.08	0.62
43:l6:3:ALA:HB2	68:o2:77:ALA:HB2	1.81	0.62
1:2:488:G:OP1	1:2:488:G:H4'	1.98	0.62
1:2:1133:A:H2'	1:2:1134:C:O4'	2.00	0.62
1:2:1258:U:H4'	12:C0:2:LEU:HD13	1.81	0.62
14:C2:58:LEU:HB2	14:C2:126:TRP:CZ3	2.35	0.62
22:D0:82:TYR:HB3	31:D9:52:PHE:HB3	1.81	0.62
29:D7:61:THR:HG23	29:D7:62:ILE:H	1.65	0.62
35:SM:102:THR:HG23	35:SM:105:LYS:HB2	1.81	0.62
36:1:2727:A:C2	64:N8:43:ILE:HG23	2.35	0.62
41:L4:31:ARG:NH2	41:L4:33:ASP:OD2	2.30	0.62
42:L5:58:LYS:HA	42:L5:93:THR:HB	1.80	0.62
45:L8:67:ILE:HG22	45:L8:237:ILE:HB	1.82	0.62
52:M6:22:VAL:HG21	52:M6:120:VAL:HG11	1.81	0.62
66:O0:16:LEU:HD11	66:O0:97:ASP:HB3	1.82	0.62
1:6:1559:A:C6	20:c8:134:ARG:HD3	2.35	0.62
8:s6:131:LYS:HB2	60:n4:82:ILE:HG12	1.82	0.62
26:d4:45:ALA:HA	26:d4:50:ALA:HB3	1.81	0.62
36:5:1637:A:H5''	63:n7:16:GLY:HA3	1.82	0.62
36:5:2818:U:H5'	36:5:2818:U:H6	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:m3:73:ARG:HG2	49:m3:98:ASP:HB2	1.81	0.62
1:2:4:C:O2'	11:S9:17:ARG:NH1	2.30	0.62
1:2:45:U:O2'	1:2:46:A:H2'	1.99	0.62
1:2:279:G:C2	1:2:281:G:H1'	2.35	0.62
9:S7:51:VAL:HB	9:S7:55:LYS:O	1.99	0.62
27:D5:56:THR:HA	27:D5:103:ARG:NH1	2.14	0.62
36:1:418:A:N3	82:1:3810:GET:H531	2.15	0.62
36:1:528:U:H2'	36:1:529:A:C8	2.35	0.62
36:1:1621:A:H2'	36:1:1622:U:C6	2.35	0.62
36:1:2897:A:H2'	36:1:2899:C:H5''	1.79	0.62
39:L2:229:ALA:HB3	39:L2:234:LYS:HG2	1.80	0.62
41:L4:198:ARG:HD3	41:L4:199:TRP:NE1	2.15	0.62
49:M3:64:LYS:O	49:M3:67:ARG:HD2	2.00	0.62
71:O5:67:ARG:HG3	71:O5:80:LEU:HD22	1.82	0.62
73:O7:8:PHE:O	73:O7:11:ARG:HG3	2.00	0.62
1:6:1487:A:OP1	31:d9:34:TYR:OH	2.13	0.62
1:6:1758:U:O4	82:6:2013:GET:N12	2.32	0.62
10:s8:62:THR:HA	10:s8:76:THR:O	1.99	0.62
26:d4:51:GLU:O	26:d4:53:ASP:N	2.33	0.62
36:5:1661:G:H2'	36:5:1662:G:C8	2.34	0.62
36:5:2154:U:H4'	39:l2:240:ALA:HB2	1.80	0.62
48:m1:7:ASN:OD1	48:m1:7:ASN:N	2.32	0.62
63:n7:46:ILE:HG12	63:n7:49:TYR:CE1	2.34	0.62
1:2:783:G:O2'	1:2:784:C:H6	1.82	0.62
39:L2:204:MET:HB2	39:L2:208:ASP:HB2	1.82	0.62
51:M5:37:HIS:NE2	51:M5:63:ARG:HD2	2.15	0.62
1:6:1685:G:H1	1:6:1716:C:H42	1.48	0.62
6:s4:73:ASP:OD2	6:s4:122:LYS:NZ	2.31	0.62
6:s4:151:ASP:HB3	6:s4:154:ILE:HG13	1.82	0.62
20:c8:26:ILE:HD11	20:c8:31:ALA:HA	1.82	0.62
34:sR:121:MET:HE1	34:sR:167:VAL:HG21	1.82	0.62
36:5:1461:A:H2'	36:5:1462:A:H8	1.64	0.62
36:5:2155:G:H4'	39:l2:239:ALA:HB3	1.80	0.62
80:p0:190:VAL:HB	80:p0:197:PHE:HB2	1.81	0.62
1:2:1347:U:O2	1:2:1516:A:H5'	2.00	0.62
1:2:1531:G:N2	21:C9:48:GLN:OE1	2.30	0.62
5:S3:211:PRO:HG3	19:C7:20:TYR:CE1	2.34	0.62
36:1:210:U:C2	36:1:230:U:H4'	2.35	0.62
36:1:282:G:H21	36:1:304:G:H22	1.44	0.62
36:1:283:G:OP2	36:1:285:A:H4'	2.00	0.62
36:1:846:A:H2'	36:1:847:A:C8	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:873:C:H5''	36:1:874:U:O5'	2.00	0.62
36:1:977:C:H2'	36:1:978:G:C8	2.33	0.62
36:1:1018:G:N2	36:1:1035:G:H1'	2.14	0.62
36:1:1110:U:H2'	36:1:1111:U:C6	2.35	0.62
36:1:1641:U:O2'	36:1:1643:A:OP2	2.14	0.62
36:1:1728:G:OP1	36:1:1729:A:O2'	2.13	0.62
36:1:3226:A:H5'	36:1:3227:A:OP2	2.00	0.62
40:L3:239:PRO:HD2	40:L3:242:THR:HG21	1.82	0.62
45:L8:26:LEU:HD21	63:N7:123:GLN:HA	1.81	0.62
45:L8:116:VAL:HG23	45:L8:125:ALA:HB3	1.81	0.62
47:M0:47:PRO:HB3	47:M0:171:TRP:CZ2	2.34	0.62
53:M7:31:GLU:OE2	53:M7:61:ARG:N	2.31	0.62
1:6:610:G:OP2	13:c1:96:LYS:NZ	2.30	0.62
1:6:1340:U:O4	18:c6:9:THR:HA	1.99	0.62
15:c3:7:ALA:O	15:c3:9:LYS:NZ	2.33	0.62
28:d6:32:LYS:O	28:d6:37:LYS:NZ	2.31	0.62
36:5:818:C:N3	36:5:920:A:H5'	2.15	0.62
36:5:1554:U:H4'	36:5:1581:C:C6	2.35	0.62
36:5:2166:A:O3'	51:m5:72:LYS:NZ	2.30	0.62
36:5:2521:U:H5'	39:l2:31:THR:HG21	1.80	0.62
48:m1:166:LYS:C	48:m1:168:ASP:H	2.07	0.62
63:n7:25:ILE:HA	63:n7:43:VAL:HG12	1.81	0.62
1:2:385:A:H5''	10:S8:22:ARG:HB3	1.82	0.62
1:2:1473:U:H5''	7:S5:190:ILE:HG13	1.81	0.62
4:S2:80:VAL:HA	4:S2:102:VAL:HG22	1.82	0.62
32:E0:38:LEU:O	32:E0:42:ARG:HB2	2.00	0.62
36:1:2898:G:H5''	36:1:2899:C:H5'	1.81	0.62
70:O4:67:LYS:HA	70:O4:70:LYS:HE2	1.82	0.62
1:6:1553:G:N1	1:6:1556:A:OP2	2.33	0.62
11:s9:62:ARG:CZ	11:s9:68:LYS:HD3	2.29	0.62
36:5:211:A:OP1	41:l4:220:ARG:NH1	2.31	0.62
36:5:528:U:H2'	36:5:529:A:C8	2.35	0.62
36:5:2722:U:H4'	57:n1:88:ARG:HB2	1.80	0.62
36:5:2814:G:OP1	41:l4:73:ARG:NH2	2.33	0.62
44:l7:221:LYS:O	44:l7:229:PHE:HB3	2.00	0.62
52:m6:22:VAL:HG21	52:m6:120:VAL:HG11	1.80	0.62
53:m7:69:ARG:HG2	53:m7:79:THR:OG1	2.00	0.62
36:1:3198:U:H4'	46:L9:21:LYS:NZ	2.14	0.62
38:4:145:U:H2'	38:4:146:U:C6	2.35	0.62
44:L7:191:VAL:HA	44:L7:195:PHE:CD2	2.35	0.62
57:N1:39:ILE:HG22	57:N1:99:SER:HB3	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:104:ASN:OD1	59:N3:108:GLU:N	2.29	0.62
1:6:21:U:H2'	1:6:22:A:C8	2.35	0.62
1:6:420:A:OP1	8:s6:96:SER:OG	2.18	0.62
1:6:895:G:O2'	16:c4:37:GLU:HA	2.00	0.62
5:s3:60:GLY:HA3	5:s3:65:ARG:HB3	1.82	0.62
35:sM:31:SER:OG	36:5:2667:A:OP1	2.16	0.62
36:5:33:G:H1'	36:5:52:A:N6	2.15	0.62
36:5:1621:A:H2'	36:5:1622:U:C6	2.35	0.62
40:l3:227:GLU:HG3	40:l3:270:ARG:HE	1.63	0.62
41:l4:206:LEU:HD23	41:l4:226:GLU:HG3	1.82	0.62
49:m3:16:LYS:O	49:m3:17:HIS:HB2	1.99	0.62
62:n6:27:ARG:NH1	62:n6:76:LEU:HA	2.14	0.62
66:o0:13:LYS:HB3	66:o0:100:ILE:HG23	1.82	0.62
1:2:1007:C:H5''	16:C4:135:ARG:HG3	1.82	0.61
18:C6:30:LYS:HG2	18:C6:35:PRO:HA	1.80	0.61
36:1:149:U:H5'	51:M5:55:ALA:HB3	1.82	0.61
36:1:341:G:N7	41:L4:195:ARG:NH2	2.47	0.61
36:1:398:A:O2'	36:1:1416:C:OP1	2.14	0.61
36:1:3072:C:H2'	36:1:3073:A:O4'	2.00	0.61
38:4:69:U:H2'	38:4:70:G:O4'	2.00	0.61
66:O0:24:THR:OG1	66:O0:29:SER:OG	2.11	0.61
73:O7:5:THR:HA	73:O7:8:PHE:CD2	2.34	0.61
1:6:116:U:H2'	1:6:117:U:C6	2.35	0.61
18:c6:42:GLU:O	18:c6:45:ARG:N	2.31	0.61
19:c7:17:ILE:HG23	19:c7:58:MET:HE2	1.81	0.61
36:5:1281:G:H5''	80:p0:55:LYS:HG3	1.82	0.61
36:5:2101:C:H2'	36:5:2102:U:H6	1.65	0.61
36:5:2214:A:N1	36:5:2429:G:O2'	2.29	0.61
52:m6:14:HIS:CE1	52:m6:119:VAL:HG22	2.35	0.61
55:m9:98:ARG:HD3	55:m9:133:LYS:O	2.00	0.61
63:n7:17:ARG:O	63:n7:19:ALA:N	2.33	0.61
65:n9:23:LYS:HB3	65:n9:24:PRO:CD	2.30	0.61
69:o3:19:SER:OG	69:o3:20:LYS:N	2.33	0.61
71:o5:21:LEU:HD22	71:o5:25:LYS:HE3	1.81	0.61
72:o6:25:LYS:HB2	72:o6:28:TYR:HD2	1.65	0.61
3:S1:58:SER:O	3:S1:62:LYS:HG3	2.00	0.61
6:S4:68:ARG:HH11	6:S4:76:VAL:HG21	1.63	0.61
7:S5:162:VAL:HG22	7:S5:167:ARG:HG3	1.82	0.61
8:S6:48:TYR:CZ	8:S6:121:LEU:HG	2.35	0.61
34:SR:93:ASP:HB2	34:SR:100:TYR:CE1	2.35	0.61
36:1:910:G:H2'	36:1:911:C:C6	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2218:G:H2'	36:1:2219:A:H8	1.64	0.61
36:1:2294:U:OP2	59:N3:71:LYS:HE2	2.00	0.61
36:1:3339:A:H2'	36:1:3340:G:H5'	1.81	0.61
39:L2:6:ARG:HH12	39:L2:199:THR:H	1.47	0.61
72:O6:58:ILE:HG12	72:O6:59:ASP:N	2.16	0.61
1:6:276:C:H1'	1:6:277:U:C5	2.35	0.61
1:6:1241:G:H1'	17:c5:79:HIS:HB2	1.80	0.61
22:d0:68:ARG:NH2	22:d0:70:THR:OG1	2.32	0.61
36:5:516:A:O3'	44:l7:60:ARG:NH2	2.33	0.61
1:2:145:A:H2	1:2:146:U:C2	2.17	0.61
1:2:1771:U:OP1	84:2:2128:HOH:O	2.15	0.61
1:2:1795:U:OP2	28:D6:5:ARG:NH2	2.33	0.61
11:S9:60:LEU:HD21	11:S9:93:LEU:HD21	1.83	0.61
14:C2:28:LEU:HD22	14:C2:32:LEU:HG	1.82	0.61
36:1:612:U:H2'	36:1:613:G:H8	1.64	0.61
36:1:677:A:OP1	54:M8:89:ASP:HB3	2.00	0.61
36:1:1556:C:H5''	36:1:2169:G:H1	1.64	0.61
36:1:2152:A:H2'	36:1:2153:U:H6	1.64	0.61
36:1:2514:U:H6	36:1:2514:U:OP1	1.82	0.61
40:L3:221:THR:HG22	40:L3:272:TYR:N	2.14	0.61
41:L4:291:ASN:O	41:L4:296:GLN:HG2	1.99	0.61
44:L7:77:VAL:HG22	57:N1:139:ARG:HG2	1.82	0.61
73:O7:37:CYS:HB2	73:O7:44:THR:HG23	1.81	0.61
77:Q1:9:ARG:HH11	77:Q1:9:ARG:HG3	1.65	0.61
1:6:306:U:P	13:c1:105:LYS:HD2	2.39	0.61
1:6:753:A:N7	6:s4:187:ARG:NH1	2.39	0.61
32:e0:35:TYR:CE1	32:e0:39:LEU:HD21	2.35	0.61
36:5:48:A:H8	36:5:48:A:OP1	1.82	0.61
36:5:1063:G:N2	36:5:1097:G:O2'	2.33	0.61
36:5:2898:G:OP2	46:l9:173:ARG:NH2	2.32	0.61
1:2:300:A:H2'	1:2:301:A:C8	2.36	0.61
2:S0:189:VAL:HG22	2:S0:190:ASP:H	1.66	0.61
23:D1:58:TYR:O	23:D1:61:SER:OG	2.17	0.61
36:1:198:A:H1'	36:1:218:G:C4	2.35	0.61
36:1:230:U:H2'	36:1:231:G:O4'	2.00	0.61
36:1:3259:U:H5'	36:1:3259:U:H6	1.64	0.61
37:3:36:C:O2	37:3:45:A:H1'	2.00	0.61
42:L5:211:LEU:HB3	42:L5:219:PHE:CD2	2.35	0.61
44:L7:208:SER:OG	44:L7:209:ASN:N	2.33	0.61
48:M1:109:HIS:CE1	48:M1:122:ILE:HA	2.35	0.61
54:M8:158:HIS:H	54:M8:186:VAL:HG12	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:647:G:N2	1:6:687:G:H22	1.98	0.61
34:sR:293:ALA:HB3	34:sR:302:PHE:HB2	1.80	0.61
36:5:101:G:N2	36:5:101:G:OP2	2.30	0.61
36:5:346:C:P	41:l4:52:VAL:HG22	2.40	0.61
38:8:131:A:H5''	61:n5:93:TYR:CE2	2.36	0.61
42:l5:76:ALA:HB3	42:l5:109:THR:HG22	1.81	0.61
52:m6:27:LEU:HD22	52:m6:101:ARG:HB2	1.82	0.61
52:m6:41:LEU:HB2	52:m6:138:LEU:HD22	1.82	0.61
72:o6:40:VAL:O	72:o6:44:VAL:HG23	2.00	0.61
1:2:898:A:N3	1:2:899:G:H1'	2.16	0.61
1:2:1048:G:N2	1:2:1071:U:C2	2.69	0.61
1:2:1533:C:OP2	27:D5:77:ARG:NH2	2.33	0.61
1:2:1579:U:H2'	1:2:1580:C:H6	1.66	0.61
10:S8:26:LYS:O	10:S8:29:LEU:HB3	2.01	0.61
15:C3:27:LYS:HE2	15:C3:27:LYS:H	1.64	0.61
25:D3:50:LYS:HD2	25:D3:77:ILE:HD12	1.82	0.61
36:1:255:A:H2'	36:1:256:G:C8	2.35	0.61
36:1:585:A:H4'	69:O3:72:THR:HG22	1.81	0.61
36:1:911:C:H5''	39:L2:15:ILE:HD11	1.82	0.61
39:L2:66:PRO:HB2	39:L2:67:TYR:CE2	2.36	0.61
47:M0:14:ASN:O	47:M0:128:ARG:NH2	2.33	0.61
2:s0:183:ARG:HD2	2:s0:188:LEU:HD12	1.81	0.61
36:5:990:U:H4'	57:n1:100:LYS:HB3	1.81	0.61
36:5:3268:A:H1'	43:l6:75:PRO:HG3	1.82	0.61
38:8:79:A:H5''	38:8:79:A:H8	1.64	0.61
43:l6:52:VAL:HA	43:l6:67:GLY:HA2	1.83	0.61
45:l8:94:PHE:CZ	45:l8:200:LEU:HG	2.35	0.61
52:m6:34:VAL:HB	52:m6:103:LYS:HB2	1.83	0.61
57:n1:40:VAL:HB	57:n1:96:ILE:HG23	1.82	0.61
57:n1:99:SER:OG	57:n1:101:CYS:SG	2.53	0.61
75:o9:23:LEU:HD22	75:o9:24:PRO:HD2	1.82	0.61
76:q0:104:PRO:HD3	76:q0:111:ARG:HH22	1.65	0.61
6:S4:42:LEU:HD22	6:S4:47:PHE:HB2	1.82	0.61
6:S4:42:LEU:HD23	6:S4:46:VAL:HB	1.83	0.61
10:S8:66:SER:HA	10:S8:73:SER:HA	1.82	0.61
11:S9:37:LYS:HB3	32:E0:33:ARG:HB2	1.80	0.61
36:1:343:U:O2	36:1:1439:U:H1'	2.01	0.61
36:1:400:G:H4'	36:1:401:U:H5''	1.81	0.61
36:1:828:A:H2'	36:1:829:U:C6	2.35	0.61
36:1:831:G:H8	36:1:831:G:O5'	1.83	0.61
36:1:945:C:H2'	36:1:946:U:C6	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:946:U:H2'	36:1:947:G:C8	2.35	0.61
36:1:2960:C:H2'	36:1:2961:G:C8	2.35	0.61
38:4:122:U:H2'	38:4:123:G:C8	2.35	0.61
43:L6:148:GLU:HA	43:L6:151:LYS:HG3	1.83	0.61
55:M9:8:LYS:HD2	55:M9:22:VAL:HG23	1.82	0.61
67:O1:29:ALA:O	67:O1:32:ALA:N	2.34	0.61
1:6:749:U:H5''	24:d2:83:ILE:HB	1.83	0.61
5:s3:175:VAL:HG13	5:s3:182:LEU:HB2	1.81	0.61
7:s5:127:GLN:HG2	7:s5:128:ASN:H	1.65	0.61
14:c2:94:ALA:O	14:c2:118:ALA:HB3	2.01	0.61
35:sM:26:VAL:HG11	48:m1:49:LYS:HE3	1.83	0.61
38:8:106:C:H5''	38:8:108:C:OP2	2.01	0.61
1:2:187:G:H1'	1:2:199:G:H22	1.65	0.61
1:2:1449:U:H2'	1:2:1450:U:C6	2.35	0.61
7:S5:136:ALA:O	7:S5:140:THR:OG1	2.14	0.61
36:1:94:G:H2'	36:1:95:A:C8	2.36	0.61
36:1:2331:C:H2'	36:1:2332:A:C8	2.36	0.61
36:1:3309:G:O4'	53:M7:69:ARG:HB3	2.01	0.61
37:3:35:C:H2'	37:3:36:C:O4'	2.01	0.61
40:L3:47:LEU:HD21	40:L3:179:ALA:HB3	1.82	0.61
41:L4:295:ILE:O	41:L4:299:ILE:HG12	2.01	0.61
42:L5:160:PHE:CD2	42:L5:179:ARG:HB3	2.36	0.61
43:L6:7:PRO:HG2	43:L6:10:TYR:CE1	2.35	0.61
49:M3:8:PRO:HD3	54:M8:164:ARG:HB3	1.83	0.61
50:M4:121:MET:HE2	50:M4:125:LYS:HZ2	1.65	0.61
1:6:1258:U:H4'	12:c0:2:LEU:HD22	1.83	0.61
2:s0:88:LYS:O	2:s0:92:HIS:ND1	2.34	0.61
11:s9:29:LYS:O	11:s9:33:GLU:HG2	2.00	0.61
34:sR:267:PRO:HD2	34:sR:269:TYR:HE1	1.66	0.61
36:5:26:A:H2'	36:5:27:C:C6	2.35	0.61
36:5:1581:C:C1'	36:5:1582:C:H5'	2.27	0.61
36:5:2539:C:H4'	36:5:2540:A:OP2	2.00	0.61
36:5:2851:A:H2'	36:5:2852:C:H6	1.66	0.61
39:l2:27:ALA:HA	39:l2:75:ILE:HG22	1.82	0.61
43:l6:51:ARG:NH1	50:m4:114:ASP:OD2	2.32	0.61
44:l7:44:ILE:HG12	44:l7:180:SER:HB3	1.83	0.61
49:m3:140:SER:OG	49:m3:143:ALA:N	2.34	0.61
54:m8:100:THR:HG22	54:m8:120:GLU:HB3	1.83	0.61
54:m8:122:ILE:HG23	54:m8:126:GLN:HB2	1.82	0.61
72:o6:54:GLU:HG2	72:o6:90:MET:HE1	1.83	0.61
1:2:815:G:C2	55:M9:162:ARG:HG3	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C0:56:LYS:HG3	12:C0:67:THR:HB	1.83	0.61
21:C9:16:ASN:OD1	21:C9:56:LYS:NZ	2.34	0.61
34:SR:40:LYS:HA	34:SR:68:VAL:HG23	1.82	0.61
36:1:1593:A:OP1	70:O4:60:ARG:NH1	2.34	0.61
36:1:2667:A:O2'	36:1:2691:A:OP1	2.16	0.61
36:1:2969:A:N7	39:L2:215:ASN:ND2	2.48	0.61
36:1:3063:C:H2'	36:1:3064:U:C6	2.36	0.61
38:4:133:G:H2'	38:4:134:G:H8	1.64	0.61
74:O8:8:ILE:HD12	74:O8:8:ILE:H	1.66	0.61
78:Q2:93:LEU:HD23	78:Q2:93:LEU:H	1.66	0.61
1:6:1270:G:N2	1:6:1441:C:H1'	2.15	0.61
20:c8:84:TRP:HZ2	21:c9:36:ILE:HD13	1.64	0.61
36:5:1048:A:H2'	47:m0:22:TYR:CZ	2.36	0.61
36:5:2191:U:H2'	36:5:2192:C:C6	2.36	0.61
39:l2:133:TYR:HB3	39:l2:168:VAL:HG12	1.83	0.61
47:m0:3:ARG:CZ	47:m0:63:GLU:HG3	2.30	0.61
47:m0:162:GLN:HE22	56:n0:85:SER:HB2	1.65	0.61
56:n0:42:TRP:O	56:n0:46:GLN:HG3	2.01	0.61
70:o4:82:ALA:O	70:o4:85:VAL:HG22	2.01	0.61
1:2:308:C:OP2	13:C1:103:ARG:NH1	2.30	0.61
1:2:970:A:H5'	1:2:971:A:OP2	1.99	0.61
2:S0:107:PHE:HB3	2:S0:139:VAL:HG21	1.83	0.61
8:S6:115:LYS:NZ	60:N4:73:ARG:O	2.33	0.61
18:C6:25:GLY:HA3	18:C6:64:ASP:CG	2.26	0.61
36:1:284:A:H4'	36:1:285:A:C2	2.36	0.61
36:1:2197:C:N4	36:1:2241:U:H2'	2.16	0.61
36:1:2551:U:H4'	36:1:2552:C:OP1	1.99	0.61
36:1:2553:U:O4'	66:O0:50:VAL:HB	2.01	0.61
42:L5:131:LEU:HD22	42:L5:131:LEU:H	1.65	0.61
49:M3:36:ARG:HG2	49:M3:39:ARG:NH2	2.16	0.61
61:N5:132:ALA:HA	61:N5:135:ILE:HG22	1.81	0.61
71:O5:35:LYS:HB2	71:O5:41:LEU:HD23	1.83	0.61
1:6:1191:U:H5'	18:c6:143:ARG:NH1	2.16	0.61
23:d1:3:ASN:HD21	23:d1:7:GLN:HB3	1.66	0.61
36:5:625:G:H2'	36:5:626:U:H6	1.65	0.61
36:5:973:A:H2'	36:5:974:G:O4'	2.01	0.61
36:5:3049:A:H8	36:5:3049:A:H5'	1.65	0.61
37:7:39:C:H4'	48:m1:44:THR:HG23	1.82	0.61
41:l4:44:LYS:HB3	41:l4:47:ARG:NH1	2.15	0.61
68:o2:3:SER:OG	68:o2:4:LEU:O	2.18	0.61
1:2:1402:G:H2'	1:2:1403:C:C6	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:81:MET:N	4:S2:101:VAL:O	2.30	0.61
9:S7:9:LEU:HD21	9:S7:17:GLU:HB3	1.82	0.61
36:1:1306:G:C6	52:M6:62:THR:HA	2.36	0.61
55:M9:15:VAL:HG12	55:M9:17:VAL:HG23	1.81	0.61
56:N0:101:ALA:O	56:N0:105:THR:HG23	2.01	0.61
59:N3:87:ARG:HH22	59:N3:137:VAL:CG2	2.13	0.61
62:N6:73:VAL:HG13	62:N6:80:VAL:HG23	1.83	0.61
75:O9:30:ARG:NH2	75:O9:33:ASN:OD1	2.34	0.61
1:6:1187:U:O4	84:6:2124:HOH:O	2.15	0.61
1:6:1229:G:N2	1:6:1255:G:H2'	2.16	0.61
1:6:1789:G:OP2	16:c4:132:ARG:NH2	2.30	0.61
6:s4:192:ILE:HG13	6:s4:243:GLY:HA3	1.83	0.61
21:c9:14:PHE:HZ	21:c9:132:LEU:HD13	1.65	0.61
36:5:1740:U:OP1	70:o4:55:SER:OG	2.14	0.61
36:5:2312:A:OP1	36:5:2314:U:H5	1.84	0.61
42:l5:258:LYS:HG2	42:l5:258:LYS:O	2.01	0.61
44:l7:186:HIS:O	44:l7:190:THR:HG23	2.01	0.61
49:m3:59:ARG:HE	49:m3:69:VAL:HG23	1.66	0.61
7:S5:84:LYS:HG2	7:S5:92:ARG:HH12	1.65	0.60
16:C4:136:ARG:N	16:C4:136:ARG:HD2	2.16	0.60
18:C6:55:VAL:HG21	18:C6:105:LEU:HG	1.81	0.60
36:1:269:G:H5'	51:M5:120:TRP:CE3	2.35	0.60
36:1:435:C:H2'	36:1:436:A:C8	2.36	0.60
36:1:546:C:H5'	36:1:547:G:O4'	2.01	0.60
36:1:2352:A:H2'	36:1:2353:G:C8	2.35	0.60
42:L5:86:TYR:OH	42:L5:250:ASP:O	2.12	0.60
50:M4:96:ALA:HA	50:M4:101:LYS:HE3	1.83	0.60
52:M6:85:ARG:HD3	52:M6:90:HIS:CD2	2.36	0.60
1:6:895:G:H22	1:6:917:U:H3	1.47	0.60
1:6:1445:G:C8	33:e1:91:ILE:HD12	2.36	0.60
7:s5:117:THR:HG21	7:s5:194:LEU:HD13	1.82	0.60
26:d4:52:LYS:HA	26:d4:55:VAL:HG22	1.83	0.60
36:5:2394:G:H5'	40:l3:252:ILE:HG22	1.83	0.60
43:l6:165:LEU:HD11	69:o3:102:LEU:HD11	1.81	0.60
46:l9:9:GLN:HG2	46:l9:54:LYS:HG2	1.83	0.60
52:m6:35:VAL:HG21	52:m6:80:PHE:HE2	1.65	0.60
63:n7:36:HIS:CD2	63:n7:74:VAL:HG11	2.36	0.60
72:o6:33:ALA:O	72:o6:37:THR:OG1	2.11	0.60
1:2:542:A:OP1	1:2:542:A:H4'	2.01	0.60
1:2:1595:U:H5'	1:2:1596:C:OP2	2.00	0.60
1:2:1678:A:OP1	10:S8:59:ARG:NH1	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:206:PRO:O	3:S1:207:LEU:HB2	2.00	0.60
9:S7:131:PHE:O	9:S7:133:THR:N	2.34	0.60
24:D2:16:ASN:O	24:D2:20:THR:OG1	2.19	0.60
34:SR:38:ARG:HG2	34:SR:67:ILE:HG23	1.83	0.60
36:1:688:G:H8	36:1:688:G:O5'	1.83	0.60
36:1:1038:C:H2'	36:1:1039:U:H6	1.67	0.60
36:1:1768:U:H2'	36:1:1769:G:O4'	2.00	0.60
67:O1:7:VAL:HG13	67:O1:78:LYS:HA	1.83	0.60
71:O5:16:GLN:OE1	62:n6:44:GLY:HA3	2.01	0.60
71:O5:77:PRO:HD2	71:O5:80:LEU:HD12	1.82	0.60
26:d4:84:LYS:HB3	26:d4:85:PHE:CD2	2.36	0.60
36:5:2697:A:H2'	36:5:2698:G:H8	1.65	0.60
82:5:3848:GET:O52	82:5:3848:GET:H111	2.00	0.60
38:8:104:A:C8	38:8:105:A:C8	2.89	0.60
40:l3:81:THR:HG21	40:l3:322:ILE:HD13	1.82	0.60
52:m6:58:LEU:HD21	52:m6:74:ARG:HH21	1.66	0.60
56:n0:99:ARG:O	56:n0:103:VAL:HG23	2.01	0.60
1:2:136:C:H4'	1:2:137:U:OP1	2.01	0.60
1:2:520:A:H2'	1:2:521:A:C8	2.35	0.60
1:2:1261:G:H2'	1:2:1262:U:C6	2.36	0.60
10:S8:8:ARG:HH21	10:S8:21:PHE:H	1.50	0.60
18:C6:114:ARG:O	18:C6:115:THR:OG1	2.18	0.60
36:1:726:G:H5''	36:1:726:G:H8	1.65	0.60
36:1:2570:U:H4'	36:1:2571:U:OP2	2.01	0.60
40:L3:37:ARG:HG2	40:L3:187:SER:H	1.66	0.60
59:N3:54:LEU:HD23	59:N3:121:GLU:HB2	1.84	0.60
1:6:1182:U:H2'	1:6:1184:A:OP2	2.00	0.60
1:6:1565:C:H5''	20:c8:41:ARG:HH22	1.65	0.60
4:s2:56:ILE:HA	4:s2:61:LEU:HD12	1.82	0.60
16:c4:103:ARG:HH12	28:d6:48:ALA:HB3	1.66	0.60
23:d1:32:VAL:HB	23:d1:60:ARG:HD2	1.84	0.60
36:5:266:A:C6	72:o6:30:LYS:HA	2.37	0.60
36:5:914:A:H5'	36:5:915:A:C8	2.36	0.60
36:5:3099:C:O2'	36:5:3100:U:H5'	2.01	0.60
41:l4:38:VAL:O	41:l4:42:VAL:HG23	2.01	0.60
61:n5:69:SER:O	61:n5:72:ALA:N	2.32	0.60
1:2:66:U:H5'	8:S6:173:PRO:HA	1.82	0.60
1:2:1034:C:OP1	15:C3:9:LYS:NZ	2.33	0.60
1:2:1120:U:H2'	1:2:1121:C:C6	2.36	0.60
11:S9:42:ILE:O	11:S9:46:SER:OG	2.17	0.60
22:D0:71:PRO:O	31:D9:40:ARG:NH2	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:76:G:OP1	49:M3:70:ARG:NH1	2.34	0.60
36:1:317:A:H2'	36:1:318:A:C8	2.36	0.60
36:1:1564:U:H3	36:1:1575:A:N6	1.99	0.60
36:1:2315:G:C2	36:1:2316:G:N7	2.70	0.60
36:1:3042:U:H5''	59:N3:48:ARG:HH21	1.66	0.60
39:L2:204:MET:HE3	39:L2:208:ASP:HB3	1.83	0.60
40:L3:166:ILE:O	40:L3:169:THR:HG22	2.01	0.60
46:L9:94:TYR:CD2	46:L9:98:PRO:HA	2.36	0.60
47:M0:201:SER:OG	47:M0:203:LYS:HD2	2.02	0.60
72:O6:70:ARG:HH11	72:O6:84:LYS:HG2	1.65	0.60
36:5:73:C:N3	49:m3:59:ARG:NH1	2.48	0.60
36:5:1810:A:H2'	36:5:1811:G:C8	2.36	0.60
36:5:3000:A:H2'	36:5:3001:C:H6	1.66	0.60
36:5:3044:G:H2'	36:5:3045:G:H8	1.65	0.60
38:8:80:A:H2'	38:8:82:U:H3	1.66	0.60
46:l9:112:ILE:HD13	46:l9:161:LEU:HG	1.83	0.60
49:m3:57:VAL:HG22	49:m3:147:ILE:HG23	1.84	0.60
61:n5:57:LEU:H	61:n5:61:LYS:HD2	1.66	0.60
1:2:1171:A:H2'	1:2:1172:G:C8	2.35	0.60
3:S1:110:LEU:H	3:S1:110:LEU:HD12	1.66	0.60
9:S7:78:THR:HG22	9:S7:92:PHE:CE1	2.35	0.60
16:C4:101:ALA:O	16:C4:105:LEU:HG	2.02	0.60
36:1:1071:U:O2'	36:1:1072:G:OP2	2.19	0.60
36:1:1678:G:OP2	58:N2:77:LYS:NZ	2.33	0.60
36:1:3006:A:OP2	52:M6:148:LYS:NZ	2.31	0.60
43:L6:108:LYS:C	43:L6:109:GLU:HG2	2.27	0.60
48:M1:49:LYS:HB3	48:M1:62:ASN:HA	1.82	0.60
53:M7:178:ALA:O	53:M7:182:ILE:HG13	2.02	0.60
54:M8:158:HIS:H	54:M8:186:VAL:CG1	2.14	0.60
1:6:1402:G:H2'	1:6:1403:C:C6	2.37	0.60
4:s2:125:ILE:O	4:s2:129:ILE:HG13	2.01	0.60
36:5:51:A:H2'	36:5:52:A:H8	1.66	0.60
36:5:379:C:H2'	36:5:380:U:H6	1.66	0.60
36:5:528:U:H2'	36:5:529:A:H8	1.66	0.60
36:5:1202:A:C2	36:5:2857:C:H5'	2.36	0.60
36:5:2355:G:N7	84:5:4015:HOH:O	2.31	0.60
36:5:2960:C:H2'	36:5:2961:G:H8	1.67	0.60
37:7:55:A:N3	48:m1:152:HIS:HE1	1.99	0.60
47:m0:86:HIS:HB3	47:m0:139:ARG:CG	2.31	0.60
51:m5:47:LYS:HD2	51:m5:50:ARG:HE	1.66	0.60
60:n4:82:ILE:H	60:n4:85:ALA:HB3	1.64	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:n7:100:THR:HG22	63:n7:106:GLN:HB3	1.83	0.60
67:o1:9:THR:N	67:o1:111:GLU:OE1	2.35	0.60
71:o5:67:ARG:HG3	71:o5:80:LEU:HD22	1.82	0.60
3:S1:82:ARG:HH12	3:S1:191:GLU:CD	2.10	0.60
3:S1:168:ILE:O	3:S1:172:LEU:HG	2.02	0.60
22:D0:27:THR:HB	22:D0:88:LYS:HG3	1.83	0.60
36:1:847:A:H2'	36:1:848:A:H8	1.63	0.60
36:1:1187:C:OP1	56:N0:113:ARG:NH2	2.35	0.60
36:1:2155:G:O2'	39:L2:227:ARG:NH2	2.35	0.60
36:1:2164:A:O2'	39:L2:12:ALA:HB2	2.01	0.60
41:L4:33:ASP:O	41:L4:37:THR:HG23	2.01	0.60
53:M7:17:ALA:HB2	53:M7:98:ALA:HB2	1.82	0.60
54:M8:134:GLY:O	54:M8:137:THR:OG1	2.14	0.60
56:N0:107:TYR:CE1	56:N0:118:PHE:HD1	2.20	0.60
57:N1:14:MET:HE3	57:N1:15:PHE:CE2	2.37	0.60
60:N4:56:ARG:HB3	60:N4:61:LYS:HB2	1.84	0.60
1:6:1227:A:C8	14:c2:116:VAL:HG21	2.36	0.60
1:6:1609:U:OP2	18:c6:14:LYS:NZ	2.29	0.60
7:s5:65:ARG:HE	7:s5:65:ARG:HA	1.67	0.60
21:c9:37:VAL:HG12	21:c9:39:THR:H	1.66	0.60
36:5:744:A:OP1	54:m8:66:ARG:NH2	2.35	0.60
36:5:3024:A:H4'	46:l9:97:PHE:HE2	1.66	0.60
53:m7:24:VAL:HB	53:m7:29:THR:HG21	1.84	0.60
56:n0:155:ARG:HH22	56:n0:172:TYR:H	1.49	0.60
63:n7:53:VAL:HA	63:n7:57:HIS:HD2	1.65	0.60
74:o8:16:ARG:O	74:o8:18:ALA:N	2.31	0.60
2:S0:57:LEU:HD11	2:S0:173:ILE:HG23	1.82	0.60
16:C4:16:VAL:HG22	16:C4:18:ARG:HG3	1.84	0.60
17:C5:86:VAL:O	17:C5:89:MET:HG2	2.02	0.60
18:C6:93:HIS:HA	18:C6:97:VAL:HG13	1.84	0.60
21:C9:45:MET:HE3	21:C9:46:PRO:HD2	1.82	0.60
33:E1:103:LEU:O	33:E1:103:LEU:HG	2.01	0.60
36:1:1145:G:OP1	68:O2:44:ARG:NH1	2.34	0.60
36:1:1367:G:OP1	68:O2:45:ARG:NH2	2.35	0.60
36:1:1738:C:O2'	70:O4:53:GLY:N	2.31	0.60
36:1:2113:A:N7	36:1:2114:C:C4	2.70	0.60
36:1:2379:U:H2'	36:1:2380:U:C6	2.37	0.60
36:1:2554:A:O2'	36:1:2555:G:H5'	2.02	0.60
49:M3:165:SER:HA	64:N8:139:ARG:HH21	1.64	0.60
71:O5:85:THR:HG23	71:O5:87:ALA:H	1.65	0.60
1:6:144:U:H5	8:s6:137:ARG:NH1	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:s1:62:LYS:O	3:s1:88:VAL:HB	2.02	0.60
19:c7:47:ARG:NH1	19:c7:48:ASN:OD1	2.35	0.60
36:5:317:A:H2'	36:5:318:A:C8	2.37	0.60
36:5:1229:G:H2'	36:5:1230:G:C8	2.36	0.60
36:5:1778:G:O2'	36:5:1780:G:OP2	2.18	0.60
36:5:1952:G:H1	36:5:2094:C:H42	1.50	0.60
36:5:2379:U:H2'	36:5:2380:U:H6	1.67	0.60
36:5:3085:G:OP1	60:n4:34:SER:OG	2.19	0.60
39:l2:117:GLU:OE2	39:l2:121:GLY:N	2.35	0.60
41:l4:230:VAL:HG21	41:l4:254:ALA:HA	1.83	0.60
48:m1:94:ARG:C	48:m1:96:PHE:H	2.07	0.60
59:n3:117:PRO:HB3	59:n3:135:VAL:HG22	1.82	0.60
68:o2:32:TRP:CZ2	68:o2:53:PRO:HD2	2.36	0.60
74:o8:8:ILE:H	74:o8:8:ILE:HD12	1.67	0.60
1:2:77:U:H4'	1:2:78:A:O5'	2.00	0.60
1:2:1597:A:C8	31:D9:14:TYR:HD2	2.20	0.60
4:S2:139:ILE:HG22	4:S2:141:ARG:HD2	1.82	0.60
11:S9:109:LEU:CB	11:S9:146:PHE:HB3	2.31	0.60
25:D3:63:GLN:HA	25:D3:65:ASN:H	1.66	0.60
27:D5:54:VAL:HG13	27:D5:57:TYR:CD1	2.36	0.60
34:SR:170:ILE:HG21	34:SR:211:ILE:HD11	1.83	0.60
36:1:293:C:O2'	72:O6:76:ARG:O	2.17	0.60
36:1:969:C:H5''	65:N9:19:ASN:HD21	1.67	0.60
36:1:1659:U:H2'	36:1:1660:C:H6	1.65	0.60
38:4:86:U:O2	73:O7:85:LYS:NZ	2.28	0.60
44:L7:82:LYS:HA	44:L7:119:VAL:HB	1.82	0.60
51:M5:172:ARG:O	51:M5:183:THR:OG1	2.16	0.60
52:M6:33:ILE:O	52:M6:102:LEU:HA	2.02	0.60
25:d3:59:ILE:HG12	32:e0:4:VAL:HG12	1.83	0.60
36:5:692:A:H2'	36:5:693:A:C8	2.36	0.60
36:5:887:G:H2'	36:5:888:A:C8	2.36	0.60
36:5:2273:G:O2'	36:5:2311:G:O6	2.13	0.60
82:5:3844:GET:H521	82:5:3844:GET:N21	2.15	0.60
38:8:91:C:O2'	62:n6:25:SER:HB3	2.02	0.60
42:l5:22:ARG:HA	42:l5:25:GLU:HG3	1.83	0.60
1:2:755:A:O2'	1:2:756:A:OP1	2.19	0.60
1:2:1151:A:H2'	1:2:1152:A:C8	2.37	0.60
1:2:1575:G:H2'	1:2:1576:A:C8	2.37	0.60
6:S4:104:ASP:OD1	6:S4:110:ALA:HB2	2.01	0.60
12:C0:77:ARG:HD3	12:C0:84:GLU:HA	1.83	0.60
35:SM:100:THR:HG23	35:SM:101:ASP:H	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:75:G:H5''	49:M3:58:VAL:HG13	1.83	0.60
36:1:524:U:OP1	50:M4:77:ARG:NH2	2.34	0.60
36:1:597:G:H2'	36:1:598:A:H8	1.65	0.60
36:1:687:U:OP2	49:M3:36:ARG:NH2	2.34	0.60
36:1:802:C:H2'	36:1:803:C:C6	2.37	0.60
36:1:1083:G:H2'	36:1:1084:A:C8	2.35	0.60
36:1:1804:A:H5'	70:O4:70:LYS:HD2	1.84	0.60
43:L6:47:PHE:O	43:L6:50:LYS:HB2	2.02	0.60
44:L7:136:TYR:CZ	44:L7:231:ASN:HB2	2.36	0.60
1:6:422:G:O2'	1:6:423:G:O5'	2.10	0.60
1:6:542:A:O2'	1:6:543:C:H3'	2.02	0.60
22:d0:28:SER:OG	22:d0:111:GLY:O	2.14	0.60
36:5:2101:C:H2'	36:5:2102:U:C6	2.36	0.60
36:5:2191:U:H2'	36:5:2192:C:H6	1.65	0.60
36:5:2557:A:H2	45:l8:38:GLN:HA	1.66	0.60
36:5:2778:G:C2'	36:5:2779:A:H5'	2.31	0.60
44:l7:208:SER:OG	44:l7:209:ASN:N	2.32	0.60
64:n8:23:GLY:C	64:n8:24:LYS:HG2	2.27	0.60
67:o1:51:LEU:HD22	67:o1:55:LEU:HD12	1.84	0.60
1:2:1671:A:C4	1:2:1731:A:C2	2.90	0.60
24:D2:15:ASN:HD21	24:D2:71:LYS:HA	1.67	0.60
34:SR:76:ASP:OD1	34:SR:76:ASP:N	2.24	0.60
36:1:910:G:H2'	36:1:911:C:H6	1.66	0.60
36:1:2521:U:O2'	36:1:2522:G:H5'	2.02	0.60
36:1:2534:G:H2'	36:1:2535:A:H8	1.67	0.60
46:L9:9:GLN:HG2	46:L9:52:LEU:HD21	1.83	0.60
63:N7:83:THR:HG23	63:N7:85:TYR:H	1.66	0.60
66:O0:17:VAL:HG11	66:O0:92:ILE:HD12	1.84	0.60
67:O1:46:THR:HG21	67:O1:91:SER:OG	2.02	0.60
71:O5:16:GLN:O	71:O5:20:GLN:N	2.31	0.60
1:6:1409:G:N1	1:6:1412:G:OP2	2.34	0.60
3:s1:66:VAL:O	3:s1:86:LEU:N	2.28	0.60
52:m6:12:LYS:HG2	52:m6:40:GLU:HG2	1.84	0.60
67:o1:81:GLU:O	67:o1:82:GLU:HG2	2.02	0.60
1:2:590:C:H5''	32:E0:43:ARG:HH12	1.65	0.59
11:S9:109:LEU:HD13	11:S9:129:ILE:HD13	1.83	0.59
22:D0:26:LEU:HB3	22:D0:34:LEU:HD21	1.83	0.59
22:D0:27:THR:HG23	22:D0:113:ASP:HB3	1.84	0.59
36:1:422:A:C2	36:1:2363:A:H4'	2.36	0.59
36:1:435:C:H2'	36:1:436:A:H8	1.65	0.59
36:1:718:G:C2	36:1:721:G:H1'	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1566:A:H61	36:1:1572:U:H3	1.48	0.59
36:1:2222:A:H2'	36:1:2223:A:C8	2.37	0.59
37:3:9:C:H5''	57:N1:26:HIS:HD2	1.66	0.59
41:L4:38:VAL:O	41:L4:42:VAL:HG23	2.01	0.59
42:L5:85:ARG:NH1	42:L5:86:TYR:OH	2.34	0.59
47:M0:36:LEU:HD11	47:M0:69:ARG:HD3	1.84	0.59
55:M9:175:GLN:O	55:M9:179:GLU:N	2.34	0.59
1:6:486:G:H22	1:6:501:U:H3	1.50	0.59
1:6:811:A:N6	9:s7:110:GLN:O	2.34	0.59
24:d2:50:PHE:HB3	24:d2:63:VAL:HG13	1.84	0.59
28:d6:10:ARG:NH1	28:d6:36:ILE:HG13	2.17	0.59
36:5:641:C:H42	36:5:645:A:H8	1.49	0.59
36:5:1235:U:H4'	36:5:1236:G:H5'	1.83	0.59
36:5:1807:G:H5'	63:n7:135:ARG:HH11	1.67	0.59
36:5:2969:A:C2'	36:5:2970:C:H5'	2.32	0.59
46:l9:188:THR:O	46:l9:189:GLU:HB2	2.01	0.59
63:n7:110:ALA:O	63:n7:114:VAL:HG23	2.02	0.59
1:2:1472:C:H41	1:2:1536:G:H1	1.50	0.59
2:S0:52:LYS:HB3	23:D1:82:VAL:HG22	1.83	0.59
9:S7:38:LEU:HD21	9:S7:77:LEU:HD11	1.83	0.59
11:S9:125:ALA:O	11:S9:129:ILE:HG13	2.01	0.59
15:C3:87:ASP:OD2	15:C3:88:LEU:N	2.33	0.59
36:1:212:G:OP1	36:1:227:G:N2	2.36	0.59
43:L6:31:ARG:NH1	69:O3:107:ILE:O	2.35	0.59
57:N1:17:ARG:HG3	57:N1:22:HIS:HA	1.83	0.59
1:6:68:A:N7	60:n4:83:THR:HG21	2.17	0.59
1:6:223:U:H3	1:6:838:G:H1	1.49	0.59
1:6:1087:A:H2'	1:6:1088:A:C8	2.37	0.59
1:6:1133:A:H2'	1:6:1134:C:O4'	2.01	0.59
1:6:1382:A:H5''	22:d0:60:THR:HG22	1.84	0.59
1:6:1546:G:OP1	20:c8:123:ARG:NH1	2.34	0.59
1:6:1564:U:H2'	1:6:1565:C:C6	2.38	0.59
3:s1:190:PRO:HG2	3:s1:192:VAL:HG23	1.82	0.59
5:s3:64:ARG:HG2	5:s3:65:ARG:H	1.66	0.59
6:s4:121:TYR:HA	6:s4:163:ASP:O	2.02	0.59
7:s5:90:ILE:O	7:s5:94:THR:HG23	2.02	0.59
7:s5:92:ARG:NH2	7:s5:169:ASN:OD1	2.35	0.59
36:5:22:G:H8	36:5:22:G:O5'	1.85	0.59
36:5:238:A:H2'	36:5:239:G:C8	2.37	0.59
36:5:422:A:C2	36:5:423:A:C4	2.89	0.59
36:5:1412:G:OP1	68:o2:105:ARG:NH2	2.34	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:l4:156:LEU:HD12	41:l4:251:THR:HG22	1.83	0.59
60:n4:98:PRO:HA	60:n4:101:ARG:HD2	1.83	0.59
63:n7:3:LYS:HD3	63:n7:5:LEU:HG	1.85	0.59
1:2:768:C:H1'	11:S9:143:ILE:HG21	1.82	0.59
1:2:1042:G:N2	1:2:1077:C:O2	2.36	0.59
1:2:1592:A:H2'	1:2:1593:A:C8	2.37	0.59
1:2:1673:G:N2	1:2:1729:C:O2	2.35	0.59
14:C2:57:ALA:HB3	14:C2:85:LYS:HZ1	1.66	0.59
21:C9:15:ILE:HD13	21:C9:60:SER:HA	1.84	0.59
39:L2:136:ILE:HA	39:L2:148:VAL:HG12	1.83	0.59
42:L5:210:GLU:O	42:L5:214:ASP:HB2	2.02	0.59
45:L8:140:VAL:HG21	51:M5:3:ALA:HB2	1.83	0.59
48:M1:9:MET:O	48:M1:9:MET:HG3	2.02	0.59
48:M1:106:ILE:HG12	48:M1:107:ASP:O	2.02	0.59
58:N2:50:LEU:HB3	58:N2:54:VAL:HG23	1.84	0.59
62:N6:82:VAL:HG12	62:N6:84:LYS:H	1.67	0.59
74:O8:61:LYS:O	74:O8:65:LEU:HB2	2.02	0.59
1:6:902:G:N1	16:c4:51:ASP:OD1	2.21	0.59
1:6:1071:U:H2'	1:6:1072:C:C6	2.38	0.59
7:s5:119:ASP:O	7:s5:123:VAL:HG23	2.03	0.59
12:c0:25:LYS:HB2	12:c0:64:TYR:CE2	2.37	0.59
26:d4:126:ALA:HA	26:d4:129:VAL:HG12	1.84	0.59
36:5:979:U:H1'	36:5:980:A:C8	2.37	0.59
36:5:1212:A:H5'	56:n0:113:ARG:HE	1.66	0.59
36:5:1238:C:O2'	36:5:1239:C:OP1	2.17	0.59
36:5:2881:C:H42	36:5:2943:G:H1	1.50	0.59
36:5:3060:C:O2	36:5:3332:U:O2'	2.15	0.59
37:7:70:U:H2'	37:7:71:G:H8	1.67	0.59
39:l2:137:ILE:HD11	39:l2:147:ARG:HD3	1.85	0.59
41:l4:26:PHE:HA	41:l4:127:ALA:HA	1.83	0.59
41:l4:44:LYS:HB3	41:l4:47:ARG:HH11	1.67	0.59
45:l8:134:TYR:CG	45:l8:190:VAL:HG11	2.37	0.59
55:m9:69:SER:O	55:m9:74:ARG:HB2	2.02	0.59
59:n3:33:ASN:HB2	59:n3:64:LYS:H	1.67	0.59
62:n6:26:GLN:O	62:n6:30:LEU:HG	2.02	0.59
68:o2:11:LYS:O	68:o2:13:HIS:N	2.32	0.59
1:2:781:U:H4'	1:2:782:U:H5	1.67	0.59
36:1:209:A:H4'	36:1:211:A:C8	2.37	0.59
36:1:304:G:C6	51:M5:178:HIS:CD2	2.86	0.59
36:1:547:G:H4'	36:1:548:G:OP1	2.01	0.59
36:1:1472:U:C2	36:1:1473:G:C8	2.90	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2144:A:OP2	36:1:2145:A:N6	2.33	0.59
36:1:2244:A:H5''	39:L2:243:THR:OG1	2.02	0.59
36:1:2618:G:H5'	47:M0:116:ARG:HH21	1.67	0.59
39:L2:111:THR:HB	39:L2:136:ILE:HD13	1.83	0.59
43:L6:105:TYR:OH	43:L6:134:ARG:HG3	2.03	0.59
51:M5:84:PRO:HA	51:M5:87:GLN:HG3	1.84	0.59
59:N3:96:GLU:OE1	60:N4:24:GLY:N	2.35	0.59
71:O5:101:THR:HG22	71:O5:104:GLN:H	1.68	0.59
1:6:1449:U:H2'	1:6:1450:U:C6	2.38	0.59
5:s3:168:ILE:HD13	5:s3:187:LYS:HG3	1.84	0.59
6:s4:54:TYR:OH	6:s4:97:GLU:OE2	2.13	0.59
13:c1:33:ARG:NH2	13:c1:51:GLY:O	2.35	0.59
17:c5:130:ARG:NH2	35:sM:70:ASN:HB3	2.17	0.59
26:d4:113:ASN:HA	26:d4:116:LYS:HD3	1.84	0.59
36:5:503:C:OP1	43:l6:26:ARG:NH1	2.35	0.59
36:5:1929:G:OP2	36:5:1930:A:O2'	2.17	0.59
36:5:2155:G:O2'	39:l2:227:ARG:NH2	2.34	0.59
36:5:2517:U:H2'	36:5:2518:C:C6	2.36	0.59
36:5:2777:G:H5''	84:5:4136:HOH:O	2.02	0.59
36:5:3049:A:H4'	40:l3:364:LYS:HG2	1.83	0.59
40:l3:87:VAL:HB	40:l3:110:LEU:HD11	1.84	0.59
55:m9:81:ARG:HD3	55:m9:88:ARG:HH12	1.66	0.59
1:2:975:C:H5''	15:C3:109:LYS:HE2	1.84	0.59
5:S3:164:VAL:O	5:S3:168:ILE:HG13	2.02	0.59
12:C0:50:THR:HG22	12:C0:55:VAL:HG22	1.83	0.59
13:C1:99:ARG:NH1	25:D3:7:ARG:O	2.35	0.59
28:D6:37:LYS:O	28:D6:38:ARG:NH1	2.33	0.59
28:D6:79:ILE:HA	28:D6:84:VAL:HG11	1.84	0.59
36:1:1758:G:H2'	36:1:1759:C:O4'	2.02	0.59
36:1:2107:A:C2	36:1:3344:A:H8	2.20	0.59
36:1:2805:G:O2'	36:1:2967:A:N1	2.32	0.59
37:3:3:U:H2'	37:3:4:U:H6	1.67	0.59
40:L3:155:ALA:O	40:L3:188:ILE:HG21	2.02	0.59
50:M4:36:VAL:HG11	50:M4:55:ARG:NH2	2.17	0.59
68:O2:4:LEU:HD13	68:O2:90:LYS:HB3	1.84	0.59
74:O8:9:LYS:NZ	74:O8:13:GLU:OE2	2.29	0.59
1:6:1783:C:OP2	77:q1:1:MET:HB2	2.01	0.59
3:s1:30:PHE:CD1	3:s1:94:LYS:HA	2.37	0.59
6:s4:252:ARG:O	6:s4:256:ARG:HG2	2.02	0.59
11:s9:59:LEU:HD12	11:s9:93:LEU:HD21	1.84	0.59
20:c8:25:ASN:O	27:d5:40:VAL:HG21	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:sR:18:GLY:H	34:sR:39:ASP:HB3	1.68	0.59
79:q3:49:ARG:HB2	79:q3:55:TRP:CZ3	2.37	0.59
1:2:142:G:P	8:S6:139:ASN:HD21	2.26	0.59
1:2:359:A:H3'	1:2:359:A:C8	2.38	0.59
1:2:1305:U:OP2	1:2:1306:C:N4	2.32	0.59
13:C1:57:LYS:HD3	13:C1:131:ILE:HG23	1.84	0.59
18:C6:47:LYS:NZ	18:C6:114:ARG:HG2	2.17	0.59
18:C6:131:GLY:HA2	18:C6:138:PHE:CD1	2.38	0.59
21:C9:108:LEU:HA	21:C9:111:ILE:HG22	1.84	0.59
36:1:1460:A:H5'	67:O1:51:LEU:O	2.03	0.59
36:1:3276:G:O6	53:M7:171:ARG:NH1	2.35	0.59
38:4:104:A:C8	38:4:105:A:C8	2.89	0.59
47:M0:43:VAL:HG21	47:M0:197:VAL:HG13	1.83	0.59
50:M4:21:VAL:HG22	50:M4:63:VAL:HG22	1.84	0.59
61:N5:38:LEU:HD11	61:N5:40:LEU:HD13	1.84	0.59
69:O3:32:ILE:HG23	69:O3:100:ILE:HD13	1.85	0.59
74:O8:20:VAL:HG11	74:O8:45:VAL:HG12	1.84	0.59
1:6:407:A:H2'	1:6:408:C:C6	2.37	0.59
7:s5:146:THR:HG23	7:s5:157:ARG:HB3	1.85	0.59
12:c0:10:LYS:HZ1	12:c0:36:ASP:HB3	1.68	0.59
36:5:92:G:OP2	36:5:93:C:H5''	2.03	0.59
36:5:1385:C:HO2'	43:l6:2:SER:N	2.00	0.59
44:l7:219:LYS:O	44:l7:228:SER:HB2	2.03	0.59
45:l8:190:VAL:O	45:l8:190:VAL:HG12	2.02	0.59
52:m6:12:LYS:HA	52:m6:40:GLU:HB3	1.83	0.59
59:n3:120:LYS:H	59:n3:137:VAL:CG2	2.15	0.59
72:o6:63:ASN:O	72:o6:65:GLY:N	2.36	0.59
78:q2:93:LEU:H	78:q2:93:LEU:HD12	1.66	0.59
80:p0:33:VAL:HG12	80:p0:34:SER:H	1.67	0.59
1:2:209:U:H2'	1:2:210:A:C8	2.38	0.59
1:2:1104:U:OP1	25:D3:14:LYS:NZ	2.32	0.59
1:2:1570:A:H4'	20:C8:144:ARG:NH1	2.18	0.59
1:2:1761:U:O2'	1:2:1762:A:OP2	2.18	0.59
6:S4:240:LYS:HE2	6:S4:240:LYS:H	1.66	0.59
59:N3:125:LEU:HB3	59:N3:126:TRP:CD1	2.37	0.59
67:O1:14:ILE:HD13	67:O1:36:ILE:HG13	1.84	0.59
1:6:78:A:H1'	8:s6:175:ILE:HG12	1.83	0.59
4:s2:90:THR:HG23	4:s2:93:GLY:C	2.28	0.59
19:c7:81:LYS:HD2	19:c7:84:TYR:CE2	2.38	0.59
36:5:1875:G:OP1	55:m9:19:LYS:HG3	2.03	0.59
36:5:2944:U:H1'	40:l3:251:CYS:SG	2.42	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:m4:72:LEU:HD23	50:m4:73:PRO:HD2	1.84	0.59
51:m5:88:GLY:HA3	78:q2:50:PHE:CE2	2.37	0.59
62:n6:39:LEU:HD13	62:n6:43:TYR:HE2	1.66	0.59
1:2:1261:G:H2'	1:2:1262:U:H6	1.68	0.59
1:2:1359:C:H3'	1:2:1360:A:C8	2.38	0.59
2:S0:4:PRO:HG2	2:S0:7:PHE:HD1	1.67	0.59
3:S1:172:LEU:O	3:S1:176:VAL:HG23	2.03	0.59
8:S6:58:LYS:HE3	8:S6:105:ASP:HA	1.84	0.59
36:1:3067:C:OP2	55:M9:62:ARG:NH1	2.34	0.59
40:L3:41:VAL:HA	40:L3:185:GLY:CA	2.29	0.59
41:L4:206:LEU:HB2	41:L4:246:ARG:CD	2.33	0.59
48:M1:18:VAL:HG22	48:M1:70:THR:HB	1.85	0.59
64:N8:3:SER:O	64:N8:6:THR:HG22	2.02	0.59
67:O1:52:ALA:O	67:O1:55:LEU:N	2.36	0.59
3:s1:205:PHE:CG	3:s1:206:PRO:HD2	2.38	0.59
35:sM:102:THR:HG23	35:sM:105:LYS:HB2	1.85	0.59
36:5:156:G:OP2	72:o6:25:LYS:HB3	2.02	0.59
36:5:654:C:OP1	68:o2:27:ARG:NH2	2.35	0.59
36:5:860:G:OP1	79:q3:18:TYR:OH	2.16	0.59
46:l9:46:THR:O	46:l9:53:ILE:HG23	2.03	0.59
48:m1:96:PHE:HB2	48:m1:156:LYS:HE3	1.84	0.59
52:m6:35:VAL:HG21	52:m6:80:PHE:CE2	2.37	0.59
60:n4:35:LYS:HD3	60:n4:51:TRP:CZ2	2.36	0.59
61:n5:63:ILE:HD11	61:n5:84:PHE:CD1	2.37	0.59
1:2:76:A:H2'	1:2:80:A:H62	1.68	0.59
1:2:142:G:H2'	1:2:143:G:H5''	1.84	0.59
1:2:145:A:N6	1:2:171:A:C6	2.71	0.59
1:2:795:U:H5	1:2:796:A:C5	2.21	0.59
1:2:964:U:H5''	15:C3:128:TYR:CE1	2.38	0.59
1:2:1254:U:OP2	14:C2:46:ARG:NH1	2.36	0.59
1:2:1522:U:OP1	84:2:2129:HOH:O	2.16	0.59
1:2:1752:U:H6	1:2:1752:U:H5''	1.68	0.59
25:D3:59:ILE:HG13	25:D3:71:CYS:SG	2.43	0.59
34:SR:218:GLY:HA3	34:SR:237:GLN:O	2.03	0.59
36:1:360:G:H2'	36:1:361:A:C8	2.38	0.59
36:1:829:U:N3	36:1:895:A:N6	2.49	0.59
36:1:3305:A:H2'	36:1:3306:U:C6	2.36	0.59
38:4:126:A:H2	38:4:129:C:C4	2.21	0.59
40:L3:146:ARG:HA	40:L3:146:ARG:NE	2.18	0.59
66:O0:43:ILE:HG22	66:O0:70:PHE:HB2	1.85	0.59
1:6:762:A:OP1	11:s9:79:ARG:NH1	2.34	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1591:C:H2'	1:6:1592:A:C8	2.38	0.59
6:s4:11:ARG:O	6:s4:12:LEU:HB2	2.02	0.59
8:s6:31:ARG:N	8:s6:34:GLN:OE1	2.23	0.59
11:s9:83:VAL:O	11:s9:107:ARG:NE	2.35	0.59
23:d1:73:ALA:O	23:d1:77:GLY:N	2.35	0.59
36:5:900:G:H1'	36:5:1589:A:H62	1.67	0.59
36:5:1178:G:H5'	36:5:1178:G:C8	2.36	0.59
36:5:1592:G:OP1	70:o4:58:ARG:NH1	2.36	0.59
36:5:1665:C:H2'	36:5:1666:G:H8	1.68	0.59
36:5:3137:C:H5''	40:l3:276:THR:HG21	1.84	0.59
46:l9:1:MET:HE1	56:n0:138:GLN:HG2	1.85	0.59
51:m5:47:LYS:O	51:m5:50:ARG:N	2.36	0.59
1:2:1050:G:H2'	1:2:1051:G:H5'	1.84	0.59
1:2:1629:G:H2'	1:2:1630:U:C6	2.37	0.59
1:2:1654:G:H2'	1:2:1745:G:N2	2.18	0.59
10:S8:172:ARG:O	10:S8:176:SER:OG	2.21	0.59
23:D1:62:ARG:HH22	24:D2:20:THR:HG22	1.68	0.59
82:1:3808:GET:O52	82:1:3808:GET:H111	2.03	0.59
75:O9:27:ILE:HG23	75:O9:30:ARG:CZ	2.33	0.59
1:6:1552:U:O4	17:c5:40:ARG:NH2	2.36	0.59
2:s0:117:GLU:CD	4:s2:40:LYS:H	2.11	0.59
13:c1:71:LEU:HB3	13:c1:88:ARG:NH1	2.17	0.59
23:d1:86:SER:OG	29:d7:9:HIS:O	2.17	0.59
24:d2:24:GLN:HE22	29:d7:4:VAL:HA	1.67	0.59
28:d6:10:ARG:HD3	28:d6:34:LYS:HA	1.84	0.59
28:d6:39:MET:HE2	28:d6:70:LYS:HD2	1.85	0.59
36:5:33:G:H1'	36:5:52:A:H61	1.68	0.59
36:5:501:A:H2'	36:5:502:U:C6	2.38	0.59
36:5:2202:C:O2'	39:l2:240:ALA:O	2.18	0.59
36:5:2369:G:H2'	36:5:2370:G:C8	2.38	0.59
36:5:2555:G:O2'	70:o4:88:ARG:HG3	2.03	0.59
39:l2:57:PRO:HB3	79:q3:54:ILE:HG22	1.85	0.59
45:l8:220:ALA:HA	45:l8:224:ASP:OD2	2.03	0.59
46:l9:48:VAL:HG11	46:l9:52:LEU:HD13	1.84	0.59
49:m3:42:ARG:HH21	49:m3:51:LEU:HD22	1.66	0.59
56:n0:155:ARG:NH2	56:n0:172:TYR:H	1.99	0.59
74:o8:16:ARG:C	74:o8:18:ALA:H	2.08	0.59
4:S2:170:ILE:HB	4:S2:197:TYR:HB2	1.84	0.58
36:1:1640:G:OP2	70:O4:72:VAL:HG13	2.03	0.58
36:1:1814:A:H4'	36:1:1815:U:H5'	1.85	0.58
36:1:2294:U:C2	36:1:2297:U:C5	2.91	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:41:A:HO2'	73:O7:59:THR:HG22	1.65	0.58
52:M6:42:ASN:OD1	52:M6:125:ARG:NH1	2.36	0.58
66:O0:73:GLY:H	66:O0:76:GLU:CD	2.11	0.58
71:O5:13:SER:OG	71:O5:14:LYS:N	2.35	0.58
72:O6:43:LEU:O	72:O6:47:ILE:HG13	2.03	0.58
1:6:767:U:C6	11:s9:141:VAL:HA	2.38	0.58
1:6:1792:G:H5''	28:d6:3:LYS:HA	1.84	0.58
16:c4:71:CYS:O	16:c4:76:ILE:N	2.34	0.58
36:5:348:A:H5''	84:5:4167:HOH:O	2.02	0.58
36:5:1072:G:H2'	36:5:1073:U:C6	2.38	0.58
41:l4:329:PRO:C	41:l4:331:ALA:H	2.11	0.58
52:m6:126:VAL:HG22	52:m6:127:LEU:HD23	1.83	0.58
63:n7:36:HIS:HA	63:n7:38:PHE:CE1	2.37	0.58
64:n8:126:LYS:HB3	64:n8:148:ILE:HD13	1.84	0.58
2:S0:13:ASP:HA	2:S0:16:LEU:HD12	1.85	0.58
7:S5:40:ILE:HG12	7:S5:42:LEU:HB3	1.85	0.58
17:C5:19:GLY:N	20:C8:93:THR:O	2.36	0.58
36:1:679:U:H2'	36:1:680:G:C8	2.38	0.58
36:1:1430:U:OP1	84:1:3991:HOH:O	2.16	0.58
41:L4:261:VAL:HG22	41:L4:262:TRP:CD1	2.38	0.58
41:L4:334:PHE:CD1	41:L4:339:LEU:HD12	2.37	0.58
48:M1:107:ASP:OD1	48:M1:107:ASP:N	2.35	0.58
49:M3:23:LYS:HG2	49:M3:25:HIS:CE1	2.38	0.58
63:N7:83:THR:HG23	63:N7:85:TYR:N	2.18	0.58
67:O1:107:VAL:HG12	67:O1:108:VAL:H	1.68	0.58
1:6:17:C:H2'	1:6:18:C:C6	2.38	0.58
1:6:448:C:OP2	6:s4:49:ARG:NH1	2.24	0.58
1:6:1460:A:O3'	35:sM:72:ARG:NH1	2.36	0.58
11:s9:28:LEU:HD12	32:e0:43:ARG:HE	1.68	0.58
26:d4:49:LYS:HD3	26:d4:49:LYS:N	2.17	0.58
29:d7:42:ASN:OD1	29:d7:42:ASN:N	2.36	0.58
34:sR:238:ASP:HB2	34:sR:256:THR:HB	1.85	0.58
36:5:842:G:H1	36:5:851:C:H42	1.49	0.58
36:5:1316:C:OP1	52:m6:129:LEU:HD12	2.02	0.58
36:5:1390:A:H5'	36:5:1390:A:N3	2.18	0.58
36:5:1436:U:H5''	36:5:1437:C:H5''	1.85	0.58
36:5:2152:A:H2'	36:5:2153:U:H6	1.68	0.58
36:5:2557:A:OP1	39:l2:69:TYR:OH	2.21	0.58
36:5:2597:U:H2'	36:5:2598:G:H8	1.67	0.58
38:8:91:C:H2'	38:8:92:A:C8	2.37	0.58
53:m7:29:THR:HG22	53:m7:87:SER:CB	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:386:G:C6	1:2:387:A:N6	2.72	0.58
1:2:814:A:O2'	1:2:815:G:O3'	2.21	0.58
1:2:1796:C:OP1	28:D6:87:ARG:NH1	2.26	0.58
36:1:966:U:H2'	36:1:967:A:C8	2.38	0.58
36:1:2107:A:H2	36:1:3344:A:C8	2.21	0.58
36:1:3058:U:OP1	67:O1:28:ARG:NH2	2.35	0.58
42:L5:277:LEU:HD12	42:L5:278:SER:H	1.68	0.58
48:M1:12:LEU:HD12	48:M1:131:MET:HE3	1.86	0.58
52:M6:9:ILE:HD11	56:N0:163:PHE:HE1	1.67	0.58
54:M8:122:ILE:HG23	54:M8:126:GLN:HB2	1.86	0.58
2:s0:88:LYS:NZ	19:c7:82:ASP:OD1	2.35	0.58
20:c8:128:PHE:CD2	35:sM:61:ILE:HG12	2.38	0.58
32:e0:3:LYS:O	32:e0:4:VAL:HG22	2.01	0.58
36:5:1011:A:H5'	47:m0:40:LYS:NZ	2.18	0.58
36:5:1580:A:H61	61:n5:33:ARG:NH1	2.01	0.58
36:5:1591:G:OP1	70:o4:37:LYS:NZ	2.36	0.58
36:5:2366:C:H2'	36:5:2367:A:C8	2.38	0.58
36:5:2736:A:OP1	57:n1:92:ARG:NH1	2.36	0.58
36:5:3002:C:OP1	40:l3:26:ARG:NH2	2.36	0.58
36:5:3024:A:H3'	36:5:3025:C:H6	1.67	0.58
38:8:97:A:OP1	71:o5:63:ARG:NH2	2.31	0.58
39:l2:136:ILE:HA	39:l2:148:VAL:HG12	1.85	0.58
40:l3:44:THR:O	40:l3:340:LYS:HG2	2.03	0.58
49:m3:48:PRO:HB2	71:o5:117:ALA:HB2	1.83	0.58
53:m7:131:ARG:HH11	53:m7:131:ARG:HG3	1.66	0.58
74:o8:32:ASN:HD21	74:o8:34:ALA:HB3	1.68	0.58
1:2:359:A:H3'	1:2:359:A:H8	1.67	0.58
1:2:501:U:HO2'	1:2:502:U:H6	1.46	0.58
1:2:577:G:H3'	1:2:577:G:H8	1.68	0.58
1:2:585:A:H2'	1:2:586:G:C8	2.38	0.58
1:2:1208:A:N1	1:2:1455:G:N2	2.51	0.58
1:2:1382:A:H5''	22:D0:60:THR:HG22	1.84	0.58
1:2:1504:G:H2'	1:2:1505:A:C8	2.38	0.58
12:C0:59:PHE:CZ	12:C0:62:GLN:HA	2.38	0.58
17:C5:92:SER:O	17:C5:107:ILE:HG12	2.03	0.58
19:C7:17:ILE:HG12	19:C7:58:MET:HE2	1.85	0.58
36:1:1806:A:H4'	70:O4:76:TYR:CZ	2.38	0.58
36:1:2644:C:O2	47:M0:116:ARG:HD3	2.04	0.58
36:1:3216:G:H5''	36:1:3219:G:N3	2.18	0.58
40:L3:137:TYR:HE1	40:L3:144:ILE:HG13	1.68	0.58
45:L8:101:THR:HG23	45:L8:104:GLU:H	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:154:ALA:HB2	45:L8:196:ALA:HA	1.84	0.58
1:6:1041:G:H2'	1:6:1042:G:C8	2.38	0.58
5:s3:70:THR:HG22	5:s3:86:LEU:HD13	1.85	0.58
9:s7:63:PRO:HB2	9:s7:65:PRO:HD2	1.84	0.58
32:e0:14:VAL:HA	32:e0:17:GLN:HG2	1.86	0.58
36:5:1239:C:N4	36:5:1249:G:H1	1.97	0.58
36:5:1438:U:H2'	36:5:1439:U:C6	2.38	0.58
36:5:1654:A:H2'	36:5:1655:G:H5''	1.86	0.58
36:5:2174:G:H4'	36:5:2175:U:H5''	1.84	0.58
36:5:2357:A:H2'	36:5:2358:A:H8	1.66	0.58
40:l3:41:VAL:CA	40:l3:185:GLY:HA3	2.20	0.58
40:l3:346:THR:O	40:l3:348:ARG:N	2.36	0.58
41:l4:338:LYS:O	41:l4:339:LEU:HG	2.03	0.58
43:l6:62:THR:OG1	43:l6:78:ARG:HD3	2.03	0.58
47:m0:171:TRP:CE3	47:m0:178:ARG:HB3	2.37	0.58
56:n0:81:TYR:CE1	56:n0:88:HIS:HB2	2.39	0.58
1:2:1287:A:N1	1:2:1328:G:O2'	2.32	0.58
16:C4:20:TYR:HA	16:C4:84:ARG:HB3	1.85	0.58
25:D3:96:VAL:HG12	25:D3:127:VAL:HG11	1.84	0.58
36:1:673:U:OP1	54:M8:21:SER:OG	2.22	0.58
36:1:2807:U:O2'	36:1:2809:C:OP1	2.21	0.58
36:1:2895:G:O2'	76:Q0:100:TYR:O	2.21	0.58
40:L3:187:SER:HB3	40:L3:190:GLU:OE1	2.03	0.58
46:L9:94:TYR:OH	46:L9:142:ASP:OD1	2.10	0.58
78:Q2:14:GLY:C	78:Q2:16:THR:H	2.11	0.58
1:6:433:C:H5''	1:6:434:G:OP2	2.03	0.58
1:6:1003:A:H4'	1:6:1004:U:O5'	2.04	0.58
1:6:1648:A:H2'	1:6:1649:G:C8	2.38	0.58
36:5:908:G:C6	36:5:925:A:C8	2.92	0.58
36:5:2940:A:OP2	40:l3:2:SER:HB3	2.02	0.58
36:5:3287:U:H2'	36:5:3288:G:H5'	1.84	0.58
48:m1:82:ARG:C	48:m1:112:LEU:HD12	2.29	0.58
49:m3:92:THR:HG21	71:o5:111:PHE:HB3	1.85	0.58
53:m7:64:ASN:O	53:m7:67:ILE:HG12	2.03	0.58
79:q3:59:CYS:SG	79:q3:60:CYS:N	2.76	0.58
1:2:452:A:H3'	1:2:453:U:C5	2.39	0.58
1:2:932:U:OP2	3:S1:155:TYR:OH	2.21	0.58
1:2:1312:A:OP1	19:C7:2:GLY:N	2.37	0.58
1:2:1796:C:C2	28:D6:5:ARG:HG2	2.38	0.58
8:S6:33:GLY:N	8:S6:52:ILE:O	2.32	0.58
9:S7:12:ALA:HB3	9:S7:13:PRO:HD3	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C1:94:ILE:HG12	25:D3:16:ARG:HD2	1.86	0.58
25:D3:48:HIS:CD2	25:D3:105:ALA:HB2	2.38	0.58
36:1:544:C:H1'	36:1:548:G:H1	1.69	0.58
36:1:791:A:H2'	36:1:792:G:C8	2.38	0.58
36:1:1307:G:O2'	36:1:1308:A:OP2	2.18	0.58
36:1:1818:U:H3'	36:1:1819:U:H5''	1.85	0.58
53:M7:24:VAL:O	53:M7:144:SER:OG	2.22	0.58
61:N5:111:ASN:N	61:N5:111:ASN:OD1	2.36	0.58
64:N8:77:LYS:C	64:N8:79:TRP:H	2.09	0.58
70:O4:41:ARG:HG2	70:O4:56:THR:HG21	1.85	0.58
1:6:442:C:P	26:d4:106:GLN:HE21	2.26	0.58
1:6:960:U:O4'	15:c3:55:ARG:NH2	2.37	0.58
1:6:1383:G:OP1	22:d0:87:HIS:ND1	2.25	0.58
5:s3:150:MET:CE	35:sM:110:TRP:HB3	2.33	0.58
18:c6:42:GLU:O	18:c6:44:LEU:N	2.36	0.58
36:5:45:A:P	51:m5:85:THR:HG21	2.43	0.58
36:5:929:A:H2'	36:5:930:U:H6	1.68	0.58
36:5:1306:G:C6	52:m6:62:THR:HA	2.38	0.58
36:5:2898:G:H5''	36:5:2899:C:C5'	2.34	0.58
36:5:3200:G:H2'	36:5:3201:C:C6	2.38	0.58
39:l2:112:ILE:HG12	79:q3:79:VAL:HG22	1.84	0.58
46:l9:89:LYS:HG2	46:l9:145:VAL:HG22	1.85	0.58
50:m4:15:VAL:HG12	50:m4:38:ILE:HD11	1.83	0.58
53:m7:34:GLN:OE1	53:m7:34:GLN:HA	2.03	0.58
61:n5:105:VAL:HG13	61:n5:130:TYR:CD2	2.38	0.58
66:o0:26:GLY:O	66:o0:30:THR:HG23	2.04	0.58
66:o0:30:THR:O	66:o0:34:LEU:N	2.37	0.58
74:o8:26:LYS:NZ	74:o8:27:ILE:O	2.35	0.58
1:2:930:A:H2'	3:S1:114:VAL:HG11	1.84	0.58
1:2:942:G:H2'	1:2:943:C:H6	1.68	0.58
1:2:1370:U:C4'	1:2:1371:A:H5''	2.33	0.58
1:2:1795:U:H3'	28:D6:5:ARG:HH12	1.68	0.58
14:C2:63:VAL:HG23	14:C2:92:ALA:O	2.04	0.58
21:C9:25:GLN:NE2	21:C9:27:LYS:HD3	2.18	0.58
36:1:495:G:N2	36:1:619:A:H1'	2.18	0.58
36:1:2663:G:H5'	42:L5:152:ARG:HD3	1.85	0.58
38:4:36:G:OP2	71:O5:85:THR:OG1	2.22	0.58
45:L8:112:GLU:O	45:L8:116:VAL:HB	2.04	0.58
50:M4:116:GLU:O	50:M4:120:VAL:HG23	2.03	0.58
62:N6:89:LYS:HB2	62:N6:91:ASN:OD1	2.02	0.58
63:N7:75:VAL:HB	63:N7:80:LEU:HD11	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:72:ARG:O	67:O1:96:VAL:HG13	2.04	0.58
1:6:390:G:H2'	1:6:391:A:O4'	2.02	0.58
1:6:538:A:H8	1:6:543:C:H41	1.50	0.58
1:6:804:A:N3	24:d2:105:THR:HG22	2.18	0.58
6:s4:57:ASN:HB2	6:s4:60:GLU:HG3	1.86	0.58
6:s4:195:ILE:O	6:s4:196:VAL:HB	2.02	0.58
12:c0:16:PHE:CE2	12:c0:87:VAL:HA	2.38	0.58
27:d5:66:VAL:HA	27:d5:71:ILE:HG22	1.85	0.58
28:d6:36:ILE:HD12	28:d6:36:ILE:H	1.67	0.58
36:5:1214:U:H2'	36:5:1215:U:C6	2.39	0.58
36:5:1400:G:C2	36:5:1401:A:C8	2.92	0.58
36:5:2762:A:H62	36:5:2794:G:N2	2.01	0.58
39:l2:149:ARG:HH22	39:l2:155:LYS:HE3	1.69	0.58
44:l7:22:THR:HA	44:l7:25:GLN:HG2	1.85	0.58
45:l8:78:PHE:C	45:l8:80:TYR:H	2.11	0.58
46:l9:176:LEU:O	46:l9:180:TYR:OH	2.16	0.58
1:2:1683:C:O2'	1:2:1684:U:O5'	2.20	0.58
8:S6:147:LEU:HB3	8:S6:151:ASP:HB2	1.86	0.58
9:S7:14:THR:HG23	9:S7:15:GLU:H	1.68	0.58
9:S7:62:VAL:HG11	9:S7:67:LEU:HD23	1.84	0.58
34:SR:165:ASP:O	34:SR:184:ASN:ND2	2.37	0.58
34:SR:216:LYS:HA	34:SR:239:GLU:HG3	1.86	0.58
36:1:641:C:H42	36:1:645:A:H8	1.50	0.58
36:1:1895:A:O2'	36:1:3053:G:H4'	2.04	0.58
40:L3:108:GLU:HB2	40:L3:137:TYR:CD2	2.39	0.58
41:L4:74:ILE:HG21	41:L4:93:MET:HE1	1.86	0.58
50:M4:21:VAL:HG23	50:M4:65:LEU:HA	1.86	0.58
68:O2:100:ILE:O	68:O2:105:ARG:NH1	2.37	0.58
1:6:794:U:H4'	1:6:795:U:OP2	2.02	0.58
1:6:1468:U:H4'	21:c9:87:GLY:O	2.04	0.58
11:s9:31:ALA:HA	11:s9:36:LEU:HD12	1.85	0.58
17:c5:126:VAL:HG13	17:c5:127:ARG:N	2.18	0.58
25:d3:71:CYS:HA	25:d3:87:VAL:HG23	1.86	0.58
35:sM:102:THR:O	35:sM:106:VAL:HG23	2.04	0.58
36:5:250:U:H3'	36:5:251:G:H5'	1.86	0.58
36:5:1824:U:H4'	74:o8:17:ARG:NH1	2.19	0.58
36:5:2552:C:H5	66:o0:53:LYS:NZ	2.01	0.58
36:5:2661:G:H2'	36:5:2662:G:H8	1.67	0.58
50:m4:23:ILE:HG22	50:m4:29:ALA:HA	1.86	0.58
51:m5:63:ARG:NH2	51:m5:131:GLU:OE2	2.36	0.58
55:m9:102:LEU:HD13	55:m9:127:SER:HB2	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:n4:47:ARG:HG2	60:n4:54:LEU:HG	1.84	0.58
79:q3:73:THR:HB	79:q3:76:ALA:CB	2.33	0.58
1:2:629:U:C2	1:2:630:A:C8	2.92	0.58
1:2:1344:A:O2'	1:2:1345:A:OP1	2.19	0.58
1:2:1559:A:C6	20:C8:134:ARG:HD2	2.39	0.58
1:2:1777:G:O6	77:Q1:8:LYS:NZ	2.29	0.58
2:S0:131:GLN:HE22	2:S0:134:LYS:HE3	1.69	0.58
7:S5:80:LYS:HD2	7:S5:83:ARG:HH12	1.69	0.58
24:D2:66:ASN:ND2	24:D2:68:ARG:HE	2.02	0.58
26:D4:23:PHE:HE2	26:D4:75:VAL:HG12	1.69	0.58
34:SR:21:THR:OG1	34:SR:68:VAL:O	2.22	0.58
34:SR:28:GLY:N	34:SR:75:ALA:O	2.33	0.58
36:1:211:A:O4'	36:1:229:G:H1'	2.04	0.58
36:1:385:A:H2'	36:1:386:A:C8	2.39	0.58
36:1:665:A:H1'	49:M3:14:PHE:CZ	2.38	0.58
36:1:1639:C:H41	70:O4:73:SER:HB2	1.68	0.58
36:1:1781:C:H2'	36:1:1782:U:C6	2.38	0.58
36:1:3137:C:OP2	40:L3:30:LYS:HB3	2.04	0.58
38:4:102:U:O4	73:O7:65:ARG:NH2	2.35	0.58
40:L3:10:ARG:NH1	40:L3:11:HIS:O	2.37	0.58
41:L4:55:LYS:HE3	41:L4:59:GLN:NE2	2.18	0.58
41:L4:145:ILE:HG22	41:L4:173:GLY:HA3	1.85	0.58
43:L6:22:ARG:O	43:L6:23:LYS:HE3	2.04	0.58
46:L9:2:LYS:HA	46:L9:60:GLY:O	2.03	0.58
46:L9:106:LYS:O	46:L9:109:ALA:HB2	2.03	0.58
49:M3:87:ALA:O	49:M3:90:ALA:N	2.37	0.58
54:M8:33:TYR:CE1	54:M8:36:LEU:HD12	2.39	0.58
5:s3:20:GLU:CD	5:s3:76:ARG:HH21	2.10	0.58
15:c3:120:SER:O	15:c3:124:ARG:HG3	2.03	0.58
36:5:947:G:H5''	68:o2:55:ILE:HB	1.85	0.58
36:5:988:U:H2'	36:5:989:A:H8	1.69	0.58
36:5:1322:U:P	56:n0:117:ARG:HH21	2.26	0.58
36:5:3171:U:O4	69:o3:54:ARG:HD3	2.04	0.58
37:7:10:C:OP2	57:n1:26:HIS:ND1	2.37	0.58
41:l4:3:ARG:HD3	41:l4:21:PRO:HB2	1.85	0.58
41:l4:191:LYS:HG3	41:l4:194:TYR:CZ	2.39	0.58
43:l6:170:LYS:HB2	43:l6:173:MET:HB2	1.84	0.58
49:m3:54:LEU:HD12	49:m3:75:PHE:CE2	2.34	0.58
56:n0:137:ARG:HG2	56:n0:139:TYR:CE1	2.38	0.58
64:n8:82:ILE:HD11	64:n8:102:ILE:HG12	1.86	0.58
64:n8:133:LEU:HD22	64:n8:137:LYS:HG3	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:357:G:H2'	1:2:358:U:H6	1.69	0.58
1:2:973:A:H2'	1:2:974:A:C8	2.39	0.58
1:2:1132:A:OP1	25:D3:30:LYS:HE2	2.04	0.58
1:2:1460:A:H5'	1:2:1461:C:OP2	2.04	0.58
1:2:1517:U:OP2	1:2:1518:C:N4	2.34	0.58
6:S4:107:GLY:HA2	6:S4:189:LEU:HG	1.85	0.58
33:E1:102:VAL:C	33:E1:104:SER:H	2.10	0.58
36:1:197:G:N2	36:1:372:A:C8	2.72	0.58
36:1:551:A:O2'	36:1:552:G:O5'	2.21	0.58
36:1:1103:A:P	36:1:1103:A:H8	2.27	0.58
36:1:1213:G:O2'	56:N0:90:MET:HG3	2.03	0.58
36:1:2694:A:N6	36:1:2695:A:N1	2.52	0.58
36:1:2947:G:C2	40:L3:250:ALA:HB1	2.39	0.58
36:1:3227:A:C5	36:1:3228:C:H5	2.22	0.58
47:M0:171:TRP:O	47:M0:174:THR:HG22	2.04	0.58
48:M1:9:MET:O	48:M1:134:PRO:HG2	2.04	0.58
1:6:397:A:H2'	1:6:398:G:C8	2.39	0.58
1:6:637:C:O2	9:s7:114:ARG:NH2	2.27	0.58
1:6:767:U:H6	11:s9:141:VAL:HA	1.69	0.58
1:6:998:A:N1	1:6:1006:C:N4	2.50	0.58
1:6:1240:U:H5'	1:6:1241:G:OP2	2.04	0.58
21:c9:50:ALA:HA	21:c9:53:TRP:CD1	2.38	0.58
25:d3:57:LEU:HB3	32:e0:4:VAL:HB	1.85	0.58
36:5:118:U:O4	36:5:148:G:N2	2.36	0.58
36:5:956:U:H2'	36:5:957:C:C6	2.39	0.58
36:5:2946:A:H5''	36:5:2947:G:H5'	1.85	0.58
37:7:14:U:H5'	42:l5:24:ARG:NH1	2.19	0.58
38:8:37:A:H2'	38:8:37:A:N3	2.19	0.58
44:l7:173:LEU:HD23	44:l7:178:ILE:HG21	1.86	0.58
53:m7:116:HIS:HB3	53:m7:149:VAL:CG1	2.34	0.58
80:p0:25:LEU:HD21	80:p0:76:LEU:HD11	1.85	0.58
1:2:1107:G:O2'	1:2:1108:G:H5'	2.04	0.57
1:2:1280:C:O2'	22:D0:70:THR:HB	2.04	0.57
1:2:1500:C:H5''	21:C9:106:GLN:NE2	2.18	0.57
1:2:1555:A:OP2	17:C5:47:ARG:NH2	2.37	0.57
17:C5:64:LYS:NZ	17:C5:90:ILE:O	2.37	0.57
23:D1:40:ASP:HB3	23:D1:46:ILE:HD11	1.84	0.57
36:1:296:A:H8	36:1:296:A:O5'	1.87	0.57
36:1:709:A:N3	36:1:2787:G:O2'	2.35	0.57
42:L5:104:LEU:HD11	42:L5:108:ARG:HH21	1.69	0.57
46:L9:120:ASP:OD1	46:L9:124:ARG:NH2	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:M4:23:ILE:HG21	50:M4:28:SER:HB2	1.85	0.57
52:M6:23:VAL:HG12	52:M6:27:LEU:HD11	1.86	0.57
55:M9:13:SER:OG	55:M9:38:ARG:NH2	2.37	0.57
1:6:874:C:OP1	3:s1:159:SER:OG	2.13	0.57
1:6:1498:G:OP1	21:c9:75:LYS:HD2	2.03	0.57
19:c7:30:THR:HG22	34:sR:127:ARG:NH2	2.19	0.57
36:5:857:G:N7	84:5:4019:HOH:O	2.32	0.57
36:5:1824:U:N3	36:5:1825:G:N7	2.51	0.57
36:5:1841:A:H5'	36:5:1849:C:OP1	2.05	0.57
36:5:2416:U:H2'	36:5:2417:U:C6	2.39	0.57
37:7:44:C:H4'	42:l5:152:ARG:HG3	1.86	0.57
39:l2:193:ARG:HH11	39:l2:193:ARG:HB3	1.69	0.57
40:l3:311:PHE:CE2	40:l3:317:ILE:HD11	2.39	0.57
41:l4:359:LEU:HD23	56:n0:8:GLN:NE2	2.19	0.57
47:m0:47:PRO:HD2	47:m0:141:LYS:HA	1.85	0.57
55:m9:38:ARG:O	55:m9:42:ARG:HG3	2.04	0.57
76:q0:78:ILE:HG12	76:q0:83:LYS:HB2	1.84	0.57
1:2:329:G:H2'	1:2:330:G:C8	2.37	0.57
1:2:1291:G:H8	1:2:1291:G:O5'	1.87	0.57
1:2:1654:G:C6	1:2:1745:G:C6	2.92	0.57
9:S7:55:LYS:HB3	9:S7:87:ASP:C	2.28	0.57
14:C2:57:ALA:HB3	14:C2:85:LYS:NZ	2.19	0.57
36:1:761:A:C2	36:1:771:A:H1'	2.39	0.57
36:1:2344:U:H2'	36:1:2345:A:C8	2.39	0.57
36:1:2423:U:H2'	36:1:2424:A:C8	2.39	0.57
36:1:2510:U:O2'	36:1:2511:A:H5''	2.04	0.57
36:1:3164:C:O2'	36:1:3165:A:H8	1.86	0.57
38:4:121:U:H2'	38:4:122:U:H6	1.69	0.57
53:M7:13:LYS:HB3	53:M7:152:GLU:HB2	1.85	0.57
64:N8:147:LEU:HB2	72:O6:7:ILE:HG22	1.87	0.57
72:O6:36:ARG:O	72:O6:40:VAL:HG23	2.02	0.57
1:6:882:U:H2'	1:6:883:C:C6	2.39	0.57
18:c6:110:THR:HA	18:c6:113:ASP:HB3	1.86	0.57
25:d3:109:ARG:HB3	25:d3:112:LYS:HB2	1.86	0.57
36:5:284:A:OP2	78:q2:41:ARG:NH1	2.36	0.57
36:5:429:U:O2'	36:5:430:U:H5'	2.04	0.57
36:5:852:U:C5	79:q3:2:ALA:HB3	2.40	0.57
36:5:1063:G:C5	36:5:1097:G:C6	2.91	0.57
36:5:1095:U:O5'	36:5:1096:U:H5'	2.04	0.57
36:5:1097:G:H2'	36:5:1097:G:N3	2.19	0.57
36:5:2103:U:H2'	36:5:2104:A:H8	1.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:l2:149:ARG:HB2	39:l2:149:ARG:NH1	2.19	0.57
47:m0:14:ASN:O	47:m0:128:ARG:NH2	2.37	0.57
62:n6:77:LYS:HB3	62:n6:79:ALA:HB3	1.87	0.57
1:2:338:C:H1'	10:S8:5:ARG:HB3	1.86	0.57
1:2:811:A:C2	1:2:858:G:H1'	2.38	0.57
1:2:1502:G:O6	21:C9:102:ARG:NH2	2.36	0.57
1:2:1641:C:O2	1:2:1782:A:O2'	2.12	0.57
1:2:1756:A:H2'	36:1:2256:A:N6	2.18	0.57
36:1:1369:A:H5''	64:N8:21:ARG:HD2	1.86	0.57
36:1:1682:U:O4	58:N2:90:ARG:NH1	2.37	0.57
36:1:2344:U:H2'	36:1:2345:A:H8	1.69	0.57
36:1:2941:A:OP1	40:L3:255:TRP:HB3	2.04	0.57
36:1:3094:A:H2'	36:1:3095:U:C6	2.38	0.57
36:1:3118:C:H4'	76:Q0:106:ARG:HH21	1.69	0.57
37:3:31:U:H2'	37:3:32:U:H6	1.70	0.57
38:4:148:G:H2'	38:4:149:A:H8	1.69	0.57
41:L4:182:LEU:H	41:L4:201:GLN:NE2	2.03	0.57
52:M6:38:ALA:HA	52:M6:41:LEU:HD13	1.86	0.57
57:N1:104:GLU:HG3	57:N1:105:PHE:N	2.19	0.57
60:N4:27:LYS:HB3	60:N4:29:PHE:CE1	2.39	0.57
63:N7:88:ASP:HB3	63:N7:121:ARG:HH22	1.69	0.57
1:6:294:C:H2'	1:6:295:A:C8	2.39	0.57
1:6:581:U:OP1	35:sM:104:LYS:HE2	2.05	0.57
1:6:1533:C:H4'	1:6:1539:G:C2	2.38	0.57
2:s0:140:ASN:OD1	4:s2:62:PRO:HD3	2.04	0.57
7:s5:112:ARG:HH21	7:s5:115:LYS:NZ	2.02	0.57
10:s8:138:ASN:N	10:s8:138:ASN:OD1	2.36	0.57
13:c1:26:LYS:NZ	13:c1:27:THR:O	2.27	0.57
13:c1:60:PHE:O	13:c1:62:GLY:N	2.37	0.57
17:c5:92:SER:HB2	17:c5:107:ILE:HD11	1.84	0.57
20:c8:48:LYS:NZ	21:c9:35:ASP:O	2.37	0.57
24:d2:26:LEU:HD12	24:d2:61:ILE:O	2.04	0.57
32:e0:43:ARG:NH1	32:e0:56:MET:SD	2.77	0.57
34:sR:89:LEU:HD11	34:sR:124:SER:HB3	1.86	0.57
36:5:2379:U:H2'	36:5:2380:U:C6	2.38	0.57
36:5:2704:A:OP2	84:5:3972:HOH:O	2.17	0.57
36:5:2831:G:O6	84:5:3994:HOH:O	2.17	0.57
36:5:2851:A:H2'	36:5:2852:C:C6	2.39	0.57
82:5:3849:GET:H713	82:5:3849:GET:N32	2.19	0.57
42:l5:95:TRP:CH2	42:l5:181:PRO:HD3	2.38	0.57
44:l7:216:VAL:HG11	44:l7:227:GLY:HA3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:l9:48:VAL:HG13	46:l9:52:LEU:HB3	1.85	0.57
60:n4:23:ARG:NH2	60:n4:25:ASP:OD1	2.37	0.57
62:n6:58:VAL:HG12	62:n6:64:LYS:HA	1.87	0.57
1:2:836:U:H2'	1:2:837:G:C8	2.39	0.57
1:2:986:G:O5'	39:L2:251:LYS:NZ	2.38	0.57
1:2:1170:G:C6	1:2:1574:G:C5	2.93	0.57
1:2:1207:C:H42	1:2:1456:C:H5	1.52	0.57
1:2:1565:C:OP1	20:C8:41:ARG:HG3	2.03	0.57
1:2:1573:A:H4'	1:2:1574:G:H5'	1.87	0.57
2:S0:81:PHE:HB3	2:S0:170:ILE:HD13	1.85	0.57
36:1:132:C:HO2'	36:1:133:U:H6	1.50	0.57
36:1:763:G:O2'	36:1:764:U:OP1	2.22	0.57
36:1:1874:A:H5''	55:M9:18:GLY:HA3	1.86	0.57
36:1:2867:C:H5'	36:1:2867:C:H6	1.70	0.57
36:1:3259:U:H5'	36:1:3259:U:C6	2.38	0.57
37:3:39:C:N3	48:M1:70:THR:HG23	2.20	0.57
39:L2:187:HIS:HA	39:L2:190:ARG:HB3	1.85	0.57
41:L4:300:ARG:NE	54:M8:39:ARG:HA	2.20	0.57
52:M6:139:GLY:HA2	52:M6:142:SER:HB2	1.86	0.57
61:N5:51:VAL:HG23	61:N5:52:PRO:O	2.04	0.57
1:6:1652:C:H2'	1:6:1653:C:H6	1.67	0.57
5:s3:11:LEU:HD13	22:d0:29:THR:HG23	1.86	0.57
7:s5:113:ILE:O	7:s5:117:THR:OG1	2.15	0.57
7:s5:186:ASN:OD1	7:s5:188:LYS:HB2	2.04	0.57
12:c0:29:GLN:HB3	12:c0:39:ASN:HB3	1.85	0.57
14:c2:46:ARG:HG3	14:c2:50:LYS:HD3	1.86	0.57
19:c7:71:PHE:HB2	19:c7:74:GLN:HB3	1.86	0.57
36:5:813:G:N3	36:5:813:G:H2'	2.18	0.57
36:5:1874:A:H5''	55:m9:18:GLY:HA3	1.86	0.57
36:5:2673:A:H5''	48:m1:95:ASN:ND2	2.20	0.57
36:5:2943:G:C8	40:l3:2:SER:N	2.71	0.57
37:7:40:C:O2	48:m1:72:ARG:NH2	2.35	0.57
53:m7:67:ILE:HD12	53:m7:82:ARG:NH1	2.19	0.57
54:m8:44:PHE:CD1	54:m8:139:ILE:HD11	2.40	0.57
1:2:1065:A:H4'	3:S1:205:PHE:CD2	2.39	0.57
2:S0:41:ARG:HD2	2:S0:42:PRO:O	2.04	0.57
2:S0:102:PHE:CZ	2:S0:106:SER:HB2	2.39	0.57
3:S1:62:LYS:O	3:S1:64:ARG:N	2.37	0.57
8:S6:78:THR:HG22	8:S6:79:LYS:H	1.70	0.57
8:S6:208:TYR:CE1	8:S6:212:LEU:HD12	2.39	0.57
12:C0:50:THR:HA	12:C0:55:VAL:HG13	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C2:103:LEU:HD23	14:C2:115:VAL:HA	1.86	0.57
22:D0:53:LYS:HB2	22:D0:92:ASP:HB2	1.86	0.57
34:SR:123:ILE:HG22	34:SR:133:VAL:HG22	1.85	0.57
36:1:68:C:OP2	36:1:315:C:O2'	2.20	0.57
36:1:303:G:H5''	36:1:304:G:H5''	1.85	0.57
36:1:1594:A:O2'	36:1:1595:U:OP1	2.23	0.57
36:1:2126:A:H2'	36:1:2127:U:H6	1.69	0.57
36:1:3183:A:H2'	36:1:3184:A:H8	1.69	0.57
40:L3:37:ARG:CG	40:L3:186:GLY:HA2	2.34	0.57
46:L9:12:VAL:HB	46:L9:51:GLN:HA	1.86	0.57
52:M6:147:TRP:CH2	52:M6:150:GLU:HA	2.39	0.57
53:M7:36:ILE:HD11	53:M7:44:ALA:HB1	1.85	0.57
56:N0:7:TYR:HE1	56:N0:34:GLU:HG2	1.69	0.57
57:N1:39:ILE:HD12	57:N1:102:ARG:HD3	1.87	0.57
73:O7:14:LYS:HE2	75:O9:51:ILE:HG13	1.87	0.57
1:6:169:A:OP2	8:s6:137:ARG:NH2	2.38	0.57
1:6:1078:C:H2'	1:6:1079:U:C6	2.38	0.57
8:s6:20:ASP:HB3	8:s6:23:ARG:HG3	1.86	0.57
9:s7:91:ILE:HD12	9:s7:92:PHE:H	1.70	0.57
15:c3:114:ARG:HD2	15:c3:117:LEU:HD12	1.86	0.57
19:c7:90:ALA:N	19:c7:95:ARG:HA	2.19	0.57
23:d1:3:ASN:ND2	23:d1:7:GLN:HB3	2.20	0.57
24:d2:94:LEU:HD11	24:d2:102:VAL:HG23	1.85	0.57
27:d5:57:TYR:CE2	27:d5:68:ARG:HD2	2.39	0.57
36:5:645:A:N6	36:5:2869:U:OP1	2.35	0.57
36:5:731:U:H2'	36:5:732:C:C6	2.40	0.57
36:5:776:U:H5	36:5:2719:U:O2	1.87	0.57
36:5:2552:C:H5	66:o0:53:LYS:HZ1	1.50	0.57
36:5:2899:C:C5	46:l9:171:ASP:HA	2.39	0.57
38:8:70:G:N2	38:8:87:G:O2'	2.37	0.57
40:l3:56:ILE:HG12	40:l3:323:MET:HE1	1.85	0.57
47:m0:175:ASN:HB3	47:m0:176:LEU:HG	1.86	0.57
52:m6:75:ALA:O	52:m6:79:ILE:HG13	2.03	0.57
56:n0:82:ASP:HA	56:n0:87:THR:HA	1.87	0.57
1:2:45:U:HO2'	1:2:46:A:H2'	1.69	0.57
1:2:538:A:H8	1:2:543:C:N4	2.03	0.57
1:2:626:U:HO2'	15:C3:113:PHE:HZ	1.52	0.57
1:2:1255:G:O6	14:C2:46:ARG:HD2	2.05	0.57
18:C6:38:LEU:O	18:C6:45:ARG:NE	2.37	0.57
23:D1:73:ALA:HB1	23:D1:78:LEU:HG	1.87	0.57
25:D3:102:VAL:HG12	25:D3:127:VAL:HG12	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:879:U:H1'	53:M7:135:ARG:HH22	1.68	0.57
36:1:1700:G:H2'	36:1:1701:C:C6	2.40	0.57
36:1:2093:A:H4'	55:M9:143:ILE:HD11	1.86	0.57
36:1:2526:C:O2'	45:L8:241:LYS:NZ	2.37	0.57
36:1:2771:U:H2'	36:1:2772:C:O2	2.05	0.57
38:4:62:C:H4'	38:4:63:G:O5'	2.04	0.57
43:L6:50:LYS:HE3	43:L6:72:ASN:HB2	1.86	0.57
55:M9:68:GLN:HA	55:M9:71:ARG:HG3	1.85	0.57
1:6:119:A:H2'	1:6:120:U:O4'	2.04	0.57
1:6:217:A:H8	1:6:217:A:OP1	1.87	0.57
1:6:346:G:H5'	13:c1:79:LYS:HB3	1.86	0.57
1:6:828:U:O4	1:6:829:A:N6	2.37	0.57
1:6:895:G:H2'	1:6:896:U:C6	2.40	0.57
7:s5:101:GLY:HA2	7:s5:104:ASN:CG	2.30	0.57
25:d3:79:ASN:HB2	25:d3:81:LYS:H	1.68	0.57
35:sM:88:ARG:HA	35:sM:91:THR:HG23	1.86	0.57
36:5:277:G:H1'	51:m5:93:LYS:HE2	1.87	0.57
36:5:942:U:N3	64:n8:16:SER:HA	2.20	0.57
36:5:1321:G:O3'	56:n0:117:ARG:NH2	2.37	0.57
36:5:2840:C:N4	36:5:2845:A:HO2'	2.02	0.57
44:l7:229:PHE:C	44:l7:229:PHE:CD1	2.78	0.57
49:m3:76:THR:O	49:m3:79:GLU:N	2.36	0.57
59:n3:123:ALA:HB1	59:n3:130:ALA:HB2	1.85	0.57
72:o6:51:SER:OG	72:o6:54:GLU:OE1	2.20	0.57
2:S0:59:LEU:HA	2:S0:62:ARG:HB2	1.85	0.57
12:C0:46:LEU:O	12:C0:50:THR:HG23	2.04	0.57
20:C8:122:HIS:HA	20:C8:125:ILE:HD12	1.86	0.57
36:1:114:A:OP1	51:M5:54:LYS:NZ	2.23	0.57
36:1:1003:A:H1'	42:L5:15:ARG:CZ	2.35	0.57
36:1:1055:A:N3	37:3:81:U:O2'	2.36	0.57
36:1:2295:A:N3	59:N3:37:ILE:HD12	2.19	0.57
36:1:2836:C:C2'	36:1:2837:A:H5'	2.35	0.57
39:L2:2:GLY:HA2	39:L2:207:VAL:HG23	1.86	0.57
39:L2:42:ARG:HD2	39:L2:87:PHE:HB3	1.84	0.57
39:L2:108:PRO:HG2	79:Q3:86:LEU:HD13	1.86	0.57
63:N7:104:PRO:O	63:N7:108:GLU:HG3	2.04	0.57
1:6:138:A:H5''	1:6:138:A:N3	2.19	0.57
1:6:1163:A:H2'	1:6:1164:G:O4'	2.03	0.57
1:6:1177:C:H42	1:6:1463:C:H42	1.52	0.57
3:s1:33:LYS:HE2	3:s1:41:ARG:NH1	2.18	0.57
4:s2:116:LYS:HG2	4:s2:127:ALA:HB3	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:s2:179:VAL:O	4:s2:198:THR:OG1	2.17	0.57
14:c2:83:GLU:O	14:c2:85:LYS:N	2.37	0.57
15:c3:88:LEU:HD22	15:c3:92:ILE:HD11	1.86	0.57
20:c8:28:ILE:O	20:c8:32:LEU:HG	2.04	0.57
36:5:44:U:H5''	51:m5:85:THR:HG23	1.86	0.57
36:5:1615:C:H2'	36:5:1616:U:H6	1.70	0.57
36:5:2813:A:H2'	36:5:2814:G:O4'	2.04	0.57
40:l3:4:ARG:NH1	40:l3:6:TYR:O	2.38	0.57
51:m5:172:ARG:HB3	51:m5:174:ILE:CD1	2.35	0.57
54:m8:98:LYS:HG3	54:m8:118:GLY:C	2.29	0.57
66:o0:68:TYR:HD2	66:o0:69:TYR:N	2.02	0.57
1:2:2:A:H8	1:2:2:A:OP2	1.88	0.57
1:2:60:U:O4'	1:2:453:U:H5''	2.04	0.57
1:2:1201:G:N2	1:2:1599:C:H2'	2.19	0.57
5:S3:22:ASN:OD1	5:S3:34:TYR:OH	2.22	0.57
19:C7:17:ILE:HG23	19:C7:58:MET:HE2	1.86	0.57
36:1:1367:G:O6	84:1:3992:HOH:O	2.18	0.57
36:1:2356:A:OP1	53:M7:138:LYS:NZ	2.27	0.57
36:1:2756:C:OP1	84:1:3993:HOH:O	2.18	0.57
39:L2:54:ARG:HG2	39:L2:56:ALA:H	1.70	0.57
45:L8:161:GLU:OE2	51:M5:26:ARG:NH1	2.37	0.57
46:L9:76:ASP:O	46:L9:80:THR:HG23	2.05	0.57
48:M1:94:ARG:C	48:M1:96:PHE:H	2.13	0.57
56:N0:7:TYR:CE1	56:N0:34:GLU:HG2	2.40	0.57
1:6:542:A:N1	32:e0:28:LYS:HD2	2.19	0.57
1:6:1559:A:H5''	20:c8:135:GLY:CA	2.30	0.57
1:6:1597:A:H2'	1:6:1598:U:C6	2.39	0.57
13:c1:132:SER:O	13:c1:132:SER:OG	2.22	0.57
36:5:29:C:O3'	51:m5:172:ARG:NH1	2.37	0.57
36:5:364:G:OP1	41:l4:60:THR:HG23	2.05	0.57
36:5:956:U:H2'	36:5:957:C:H6	1.68	0.57
36:5:2911:A:H4'	36:5:2912:G:C8	2.39	0.57
36:5:3164:C:H42	36:5:3286:G:H1	1.50	0.57
37:7:44:C:OP2	48:m1:137:ARG:NH2	2.37	0.57
47:m0:17:TYR:CE1	47:m0:98:ARG:HD3	2.40	0.57
47:m0:170:LYS:HE3	47:m0:175:ASN:HA	1.87	0.57
55:m9:15:VAL:HG11	55:m9:52:LYS:HB2	1.87	0.57
64:n8:147:LEU:HD13	72:o6:7:ILE:HD11	1.86	0.57
71:o5:76:GLN:O	71:o5:81:ARG:NH1	2.38	0.57
1:2:113:U:H4'	1:2:115:G:OP1	2.05	0.57
1:2:887:A:H2'	1:2:888:U:H6	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1172:G:OP1	20:C8:144:ARG:HD3	2.05	0.57
1:2:1398:U:H3'	1:2:1399:C:O4'	2.05	0.57
5:S3:27:ARG:HD2	12:C0:60:SER:HB2	1.87	0.57
6:S4:184:THR:HA	6:S4:189:LEU:HD13	1.86	0.57
7:S5:40:ILE:HG23	7:S5:42:LEU:HD22	1.86	0.57
11:S9:23:ARG:NH1	11:S9:27:GLU:OE2	2.35	0.57
27:D5:83:LEU:HD22	27:D5:88:ILE:HD12	1.86	0.57
33:E1:108:VAL:HG22	33:E1:114:VAL:HG22	1.85	0.57
36:1:290:G:H4'	51:M5:69:GLY:O	2.05	0.57
36:1:291:C:OP1	51:M5:68:ARG:NH1	2.38	0.57
36:1:828:A:H2'	36:1:829:U:H6	1.70	0.57
36:1:1560:G:H2'	36:1:1561:G:O4'	2.05	0.57
36:1:1913:A:C2	36:1:2120:A:H2'	2.39	0.57
36:1:2103:U:H2'	36:1:2104:A:C8	2.40	0.57
36:1:2111:G:C8	60:N4:49:ILE:HD13	2.40	0.57
36:1:2585:G:H1'	45:L8:48:ARG:HG3	1.87	0.57
37:3:11:A:N1	37:3:67:G:O2'	2.30	0.57
42:L5:280:GLU:CD	42:L5:280:GLU:H	2.13	0.57
55:M9:106:LEU:HB3	55:M9:120:TYR:CD1	2.39	0.57
56:N0:77:VAL:HG22	56:N0:126:VAL:HG22	1.85	0.57
61:N5:34:LEU:HD22	61:N5:35:PRO:HD2	1.85	0.57
72:O6:34:SER:O	72:O6:37:THR:OG1	2.20	0.57
73:O7:24:ARG:HH11	73:O7:24:ARG:HB3	1.68	0.57
75:O9:21:ARG:HD3	75:O9:22:PRO:O	2.05	0.57
1:6:54:C:O2'	1:6:459:G:N7	2.31	0.57
1:6:512:A:OP2	11:s9:173:ALA:N	2.38	0.57
1:6:973:A:H2'	1:6:974:A:H8	1.69	0.57
1:6:1715:G:H5'	1:6:1716:C:OP2	2.05	0.57
2:s0:142:PRO:HG3	23:d1:32:VAL:HG13	1.87	0.57
7:s5:99:MET:O	7:s5:103:ASN:HB2	2.04	0.57
11:s9:134:ILE:HD13	11:s9:141:VAL:O	2.05	0.57
21:c9:135:ILE:O	21:c9:139:THR:OG1	2.22	0.57
27:d5:82:HIS:O	27:d5:85:LYS:HB2	2.04	0.57
36:5:616:G:H2'	36:5:617:G:H8	1.67	0.57
36:5:1765:U:H2'	36:5:1766:G:O4'	2.04	0.57
52:m6:57:PHE:O	52:m6:72:HIS:NE2	2.38	0.57
64:n8:70:LYS:HD3	64:n8:111:LYS:HB2	1.86	0.57
1:2:1629:G:H2'	1:2:1630:U:H6	1.69	0.57
7:S5:63:GLN:HB3	7:S5:89:ILE:HG13	1.87	0.57
9:S7:23:ALA:O	9:S7:27:LEU:HG	2.05	0.57
21:C9:61:VAL:O	21:C9:65:ILE:HG13	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D5:56:THR:HA	27:D5:103:ARG:HH11	1.69	0.57
36:1:250:U:H5''	36:1:251:G:H5''	1.87	0.57
36:1:1348:U:H4'	36:1:1348:U:OP1	2.04	0.57
36:1:3163:A:H2'	36:1:3164:C:H5'	1.86	0.57
39:L2:79:ASN:ND2	39:L2:165:VAL:HG22	2.20	0.57
40:L3:296:THR:HG22	40:L3:298:PHE:H	1.69	0.57
41:L4:29:PRO:O	41:L4:124:SER:OG	2.21	0.57
49:M3:157:ARG:HG2	49:M3:158:ALA:N	2.20	0.57
55:M9:180:LYS:HA	55:M9:183:ALA:HB3	1.85	0.57
62:N6:39:LEU:HA	62:N6:42:GLN:HB2	1.87	0.57
63:N7:88:ASP:O	63:N7:121:ARG:NH2	2.38	0.57
1:6:247:A:O2'	1:6:248:U:H5'	2.05	0.57
1:6:513:U:H2'	1:6:514:G:C8	2.40	0.57
1:6:686:C:H2'	1:6:687:G:C8	2.40	0.57
1:6:1230:A:H2'	1:6:1258:U:C5	2.40	0.57
2:s0:66:ALA:HB1	23:d1:50:TYR:HE1	1.69	0.57
2:s0:102:PHE:CZ	2:s0:106:SER:HB2	2.40	0.57
7:s5:161:ASP:O	30:d8:44:VAL:HA	2.05	0.57
14:c2:63:VAL:HB	14:c2:119:SER:HA	1.86	0.57
26:d4:20:ARG:HE	26:d4:22:GLN:HE21	1.52	0.57
35:sM:64:LYS:O	35:sM:65:THR:OG1	2.18	0.57
36:5:158:G:N2	36:5:264:G:H1'	2.20	0.57
36:5:266:A:N6	72:o6:30:LYS:HA	2.19	0.57
36:5:387:A:H5''	36:5:387:A:H8	1.68	0.57
36:5:1017:C:N4	36:5:1030:A:OP2	2.33	0.57
36:5:1249:G:H2'	36:5:1250:G:C8	2.39	0.57
36:5:1715:A:H4'	36:5:1716:U:OP1	2.05	0.57
36:5:1794:G:H4'	39:l2:191:LEU:HG	1.86	0.57
36:5:2389:C:H1'	53:m7:69:ARG:CZ	2.35	0.57
49:m3:170:LEU:HD21	64:n8:147:LEU:HD22	1.87	0.57
52:m6:64:PHE:CE1	52:m6:68:ARG:HD3	2.40	0.57
1:2:781:U:H4'	1:2:782:U:C5	2.39	0.56
1:2:896:U:H1'	16:C4:38:THR:HG21	1.87	0.56
1:2:1291:G:N2	1:2:1324:G:H22	2.03	0.56
15:C3:16:ILE:HG22	24:D2:57:ARG:NH2	2.20	0.56
20:C8:91:ASP:N	20:C8:95:GLY:HA2	2.19	0.56
36:1:71:A:N6	36:1:303:G:O2'	2.38	0.56
36:1:717:C:H3'	36:1:718:G:C8	2.40	0.56
36:1:1915:A:H4'	55:M9:83:GLY:O	2.04	0.56
36:1:2943:G:P	40:L3:2:SER:HB2	2.45	0.56
36:1:3214:U:H6	43:L6:166:LYS:HZ2	1.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:162:VAL:O	40:L3:178:LEU:HD12	2.04	0.56
47:M0:206:LEU:O	47:M0:210:ILE:HG13	2.04	0.56
48:M1:47:GLN:HA	48:M1:67:VAL:HA	1.86	0.56
49:M3:64:LYS:HG3	64:N8:69:TRP:CG	2.39	0.56
54:M8:103:ALA:HB3	54:M8:106:PHE:CE2	2.40	0.56
63:N7:23:VAL:HB	63:N7:43:VAL:HB	1.87	0.56
79:Q3:50:GLY:N	79:Q3:54:ILE:O	2.34	0.56
1:6:332:U:P	10:s8:56:ARG:HH22	2.27	0.56
1:6:1685:G:C4	1:6:1717:G:N2	2.74	0.56
16:c4:107:ARG:HH21	16:c4:107:ARG:HB2	1.70	0.56
36:5:702:C:C4	36:5:703:G:N7	2.73	0.56
36:5:829:U:H5''	36:5:830:A:OP1	2.05	0.56
36:5:2970:C:O2'	36:5:2971:A:OP2	2.21	0.56
36:5:3366:G:H2'	36:5:3367:C:C6	2.40	0.56
38:8:145:U:H2'	38:8:146:U:O4'	2.04	0.56
51:m5:168:GLY:O	51:m5:172:ARG:HB2	2.05	0.56
54:m8:94:PHE:CE2	64:n8:119:PRO:HD3	2.40	0.56
59:n3:104:ASN:ND2	59:n3:108:GLU:HB2	2.17	0.56
1:2:286:C:H2'	1:2:287:G:H5'	1.87	0.56
1:2:333:A:P	10:S8:48:THR:HB	2.45	0.56
1:2:577:G:H3'	1:2:577:G:C8	2.40	0.56
82:2:2014:GET:H131	82:2:2014:GET:H122	1.70	0.56
7:S5:143:ARG:HD3	30:D8:55:VAL:HG11	1.88	0.56
36:1:705:A:N1	36:1:714:G:O2'	2.29	0.56
36:1:2152:A:O2'	36:1:2243:A:O2'	2.15	0.56
53:M7:26:PHE:CZ	53:M7:121:GLN:HG2	2.41	0.56
56:N0:107:TYR:CZ	56:N0:123:ILE:HD11	2.40	0.56
63:N7:115:LYS:NZ	63:N7:119:GLU:OE2	2.27	0.56
68:O2:85:LEU:HB2	68:O2:117:ILE:HD13	1.87	0.56
73:O7:28:HIS:CD2	73:O7:31:LYS:HE2	2.40	0.56
1:6:138:A:N6	1:6:266:A:H61	2.02	0.56
17:c5:123:TYR:OH	20:c8:126:ARG:NH1	2.37	0.56
36:5:1638:A:N1	36:5:1736:G:O2'	2.28	0.56
36:5:2518:C:OP2	82:5:3846:GET:N12	2.38	0.56
36:5:2544:U:H3'	36:5:2545:C:H5''	1.85	0.56
36:5:2554:A:N1	39:l2:84:THR:HB	2.20	0.56
36:5:3091:A:N3	36:5:3093:C:O2'	2.38	0.56
40:l3:283:TYR:CE1	40:l3:325:LYS:HB2	2.40	0.56
42:l5:277:LEU:HD22	42:l5:281:GLU:OE2	2.05	0.56
49:m3:89:TYR:CE1	49:m3:93:ILE:HD11	2.40	0.56
61:n5:105:VAL:HG13	61:n5:130:TYR:CG	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:104:A:H4'	1:2:105:A:O5'	2.06	0.56
1:2:281:G:N2	1:2:282:C:N3	2.53	0.56
1:2:304:U:H2'	1:2:305:C:C6	2.39	0.56
1:2:321:C:H1'	1:2:322:G:OP1	2.05	0.56
1:2:454:U:H5'	6:S4:66:MET:HE3	1.87	0.56
1:2:459:G:OP1	26:D4:109:LYS:NZ	2.37	0.56
1:2:1280:C:H2'	1:2:1281:G:C8	2.39	0.56
1:2:1564:U:H2'	1:2:1565:C:C6	2.40	0.56
1:2:1572:G:H8	7:S5:185:ARG:NH1	2.02	0.56
1:2:1622:G:H2'	1:2:1623:C:C6	2.41	0.56
3:S1:90:GLU:HG2	3:S1:223:PHE:HZ	1.69	0.56
4:S2:140:ARG:HB2	4:S2:222:TYR:CZ	2.40	0.56
14:C2:30:VAL:HB	14:C2:132:GLU:HG3	1.88	0.56
19:C7:76:GLU:HA	19:C7:79:GLU:HB2	1.85	0.56
20:C8:30:TYR:HE2	20:C8:40:ARG:HH11	1.52	0.56
24:D2:37:PHE:CE2	24:D2:103:ILE:HD12	2.41	0.56
24:D2:47:ILE:HG22	24:D2:65:LEU:HB3	1.86	0.56
28:D6:12:LYS:HB3	28:D6:33:ASP:OD2	2.05	0.56
30:D8:36:THR:OG1	30:D8:37:SER:N	2.37	0.56
33:E1:109:ASP:HB2	33:E1:113:LYS:HG2	1.87	0.56
36:1:20:A:N6	36:1:21:G:O6	2.38	0.56
36:1:764:U:O2'	36:1:765:C:H3'	2.05	0.56
36:1:1029:G:H2'	36:1:1030:A:C8	2.40	0.56
36:1:1556:C:H5''	36:1:2169:G:N1	2.19	0.56
36:1:2916:U:H5	36:1:2935:U:HO2'	1.52	0.56
40:L3:152:LYS:HD3	40:L3:189:SER:HA	1.87	0.56
41:L4:120:TYR:O	41:L4:120:TYR:HD1	1.88	0.56
46:L9:83:THR:OG1	46:L9:84:LYS:N	2.38	0.56
49:M3:135:ALA:O	49:M3:136:GLU:HG3	2.06	0.56
51:M5:91:GLU:O	51:M5:93:LYS:HE3	2.05	0.56
52:M6:14:HIS:HD2	52:M6:123:ALA:HB3	1.70	0.56
53:M7:126:ARG:HA	53:M7:140:GLU:HG2	1.87	0.56
55:M9:126:GLU:HB3	55:M9:132:PHE:HE2	1.70	0.56
56:N0:66:GLU:OE1	56:N0:99:ARG:HG3	2.04	0.56
67:O1:75:ILE:HG23	67:O1:93:VAL:HG22	1.86	0.56
72:O6:34:SER:O	72:O6:34:SER:OG	2.19	0.56
1:6:93:A:O2'	6:s4:4:GLY:HA3	2.06	0.56
1:6:513:U:OP1	11:s9:133:HIS:NE2	2.38	0.56
1:6:545:A:N1	1:6:593:U:O2'	2.29	0.56
1:6:913:G:H5'	1:6:913:G:N3	2.20	0.56
1:6:1224:A:H2'	1:6:1225:U:C6	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:s0:175:TYR:HE1	2:s0:197:ILE:HG22	1.70	0.56
2:s0:179:ARG:HD3	2:s0:183:ARG:CZ	2.34	0.56
5:s3:202:LEU:C	5:s3:204:ASP:H	2.14	0.56
6:s4:15:PRO:HD2	6:s4:18:TRP:CZ3	2.41	0.56
6:s4:46:VAL:O	6:s4:50:ASN:HB2	2.05	0.56
6:s4:52:LEU:HB3	6:s4:54:TYR:CD2	2.40	0.56
11:s9:31:ALA:HA	11:s9:36:LEU:HB2	1.87	0.56
17:c5:18:ARG:HD3	20:c8:90:ASN:OD1	2.05	0.56
22:d0:43:LYS:O	22:d0:47:GLN:N	2.37	0.56
25:d3:43:PHE:C	25:d3:45:GLY:H	2.12	0.56
29:d7:2:VAL:O	29:d7:3:LEU:HB2	2.06	0.56
36:5:26:A:H2'	36:5:27:C:H6	1.69	0.56
36:5:155:G:H5''	36:5:156:G:N7	2.21	0.56
36:5:943:U:H3'	64:n8:13:GLY:HA2	1.87	0.56
36:5:945:C:H2'	36:5:946:U:H6	1.70	0.56
36:5:1632:A:H2'	36:5:1633:C:C6	2.41	0.56
36:5:2573:G:H2'	36:5:2574:G:O4'	2.05	0.56
36:5:2662:G:OP1	42:l5:32:GLN:NE2	2.36	0.56
36:5:2745:G:N2	36:5:2748:A:OP2	2.37	0.56
36:5:2853:A:O3'	47:m0:64:ALA:HB2	2.05	0.56
36:5:3149:G:O2'	40:l3:129:ALA:O	2.21	0.56
39:l2:3:ARG:HG2	39:l2:4:VAL:H	1.70	0.56
42:l5:280:GLU:CD	42:l5:280:GLU:H	2.11	0.56
74:o8:58:ASP:HB3	74:o8:61:LYS:HG3	1.86	0.56
79:q3:38:ASP:HA	79:q3:45:LYS:HA	1.86	0.56
80:p0:91:GLU:HG2	80:p0:92:PRO:HD2	1.86	0.56
1:2:1058:U:O2'	1:2:1059:U:H2'	2.04	0.56
1:2:1235:C:H2'	33:E1:138:ARG:NH2	2.20	0.56
3:S1:124:ASN:HB3	3:S1:138:PHE:CD1	2.40	0.56
22:D0:57:ARG:HG2	22:D0:89:ARG:CZ	2.35	0.56
24:D2:8:ALA:HB2	24:D2:74:VAL:HG11	1.87	0.56
24:D2:31:SER:O	24:D2:35:ILE:HG12	2.06	0.56
27:D5:43:ASP:O	27:D5:46:LYS:N	2.30	0.56
36:1:74:G:H5''	49:M3:104:ARG:HE	1.69	0.56
36:1:1220:U:O2	36:1:1222:G:N1	2.39	0.56
36:1:1464:G:O6	84:1:3989:HOH:O	2.16	0.56
36:1:1483:G:O6	70:O4:4:ARG:NH2	2.25	0.56
36:1:2876:C:H2'	36:1:2877:G:H8	1.70	0.56
41:L4:361:HIS:CD2	41:L4:362:ASP:H	2.22	0.56
42:L5:160:PHE:CE2	42:L5:179:ARG:HB3	2.41	0.56
52:M6:139:GLY:O	52:M6:143:THR:HB	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:N2:54:VAL:HG12	58:N2:67:SER:HB2	1.87	0.56
59:N3:6:ALA:HB2	59:N3:126:TRP:CH2	2.40	0.56
59:N3:74:MET:HE3	59:N3:102:ILE:HD13	1.88	0.56
61:N5:107:VAL:HG13	61:N5:124:VAL:HG13	1.88	0.56
79:Q3:28:LYS:HG2	79:Q3:29:LEU:HD23	1.87	0.56
1:6:1338:C:H1'	1:6:1410:A:C4	2.41	0.56
2:s0:55:GLU:OE2	23:d1:80:LYS:N	2.37	0.56
2:s0:184:LEU:HD12	23:d1:45:ALA:HB2	1.88	0.56
5:s3:40:ARG:HG3	22:d0:110:PRO:HB3	1.86	0.56
15:c3:132:VAL:HG23	15:c3:134:VAL:HG13	1.86	0.56
25:d3:59:ILE:HG22	25:d3:60:GLU:O	2.05	0.56
28:d6:28:LYS:HG2	28:d6:29:SER:H	1.70	0.56
36:5:1315:U:O2'	52:m6:133:ARG:HD2	2.06	0.56
44:l7:181:ILE:O	44:l7:185:ILE:HG13	2.05	0.56
49:m3:75:PHE:H	49:m3:97:VAL:HA	1.69	0.56
50:m4:72:LEU:HD11	50:m4:81:VAL:HG22	1.88	0.56
64:n8:4:ARG:HG3	64:n8:5:PHE:CD1	2.40	0.56
68:o2:60:ASN:OD1	68:o2:61:LYS:N	2.38	0.56
80:p0:87:VAL:HG11	80:p0:100:ILE:HD11	1.88	0.56
1:2:899:G:H4'	16:C4:46:MET:HG2	1.87	0.56
1:2:1086:A:H3'	1:2:1087:A:C8	2.41	0.56
1:2:1290:U:H2'	1:2:1291:G:C8	2.41	0.56
3:S1:34:ALA:HB3	3:S1:41:ARG:HA	1.88	0.56
3:S1:48:VAL:CG1	3:S1:61:LEU:HD21	2.35	0.56
4:S2:81:MET:HE1	4:S2:186:LYS:HB3	1.86	0.56
4:S2:139:ILE:HD11	4:S2:191:ALA:HB1	1.86	0.56
34:SR:69:GLN:HG2	34:SR:111:MET:HE3	1.88	0.56
35:SM:25:ILE:HG21	37:3:39:C:H5'	1.85	0.56
36:1:819:U:OP1	73:O7:10:LYS:NZ	2.37	0.56
36:1:1639:C:N4	70:O4:73:SER:HB2	2.21	0.56
36:1:1648:A:O2'	36:1:1649:U:OP1	2.24	0.56
36:1:1654:A:C2	70:O4:59:PRO:HB3	2.41	0.56
36:1:2512:C:N4	36:1:2513:U:O4	2.38	0.56
36:1:2683:U:H2'	36:1:2684:C:C6	2.40	0.56
36:1:3214:U:H6	43:L6:166:LYS:NZ	2.04	0.56
42:L5:54:ARG:HB2	42:L5:61:ILE:HB	1.87	0.56
55:M9:160:GLU:HA	55:M9:163:ARG:HD3	1.88	0.56
58:N2:59:ASP:N	58:N2:62:VAL:O	2.36	0.56
1:6:151:G:N2	8:s6:13:GLN:OE1	2.38	0.56
7:s5:73:THR:HG23	18:c6:114:ARG:HE	1.68	0.56
15:c3:22:ALA:HB1	15:c3:23:PRO:HA	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:c9:53:TRP:HH2	21:c9:100:ILE:HD12	1.71	0.56
36:5:632:G:H2'	36:5:633:C:C6	2.41	0.56
36:5:2110:G:O2'	36:5:2111:G:H5''	2.04	0.56
36:5:2522:G:H1	39:l2:70:ARG:HH22	1.52	0.56
36:5:3283:U:H2'	36:5:3284:G:C8	2.40	0.56
38:8:154:C:H5''	45:l8:181:LYS:HG2	1.87	0.56
48:m1:26:SER:OG	48:m1:63:GLU:OE2	2.19	0.56
49:m3:119:TYR:O	49:m3:123:ILE:HG23	2.06	0.56
52:m6:58:LEU:HA	52:m6:72:HIS:CD2	2.40	0.56
60:n4:79:GLN:HA	60:n4:79:GLN:HE21	1.70	0.56
64:n8:24:LYS:HE2	64:n8:26:ARG:NH2	2.20	0.56
4:S2:153:SER:OG	4:S2:154:LEU:N	2.24	0.56
6:S4:44:LEU:HG	6:S4:82:TYR:HB3	1.87	0.56
6:S4:45:ILE:HG13	6:S4:61:VAL:HG21	1.87	0.56
9:S7:63:PRO:HB2	9:S7:65:PRO:HD2	1.86	0.56
14:C2:66:VAL:HG11	14:C2:71:ILE:HG21	1.87	0.56
17:C5:85:ILE:HA	17:C5:89:MET:SD	2.45	0.56
21:C9:34:VAL:HG23	21:C9:53:TRP:CZ2	2.41	0.56
36:1:123:A:H5'	36:1:124:U:OP2	2.06	0.56
36:1:544:C:H2'	36:1:547:G:N2	2.21	0.56
36:1:738:A:H2'	36:1:739:G:H8	1.71	0.56
36:1:1194:G:H2'	36:1:1195:A:C8	2.41	0.56
36:1:1825:G:OP2	74:O8:49:SER:OG	2.23	0.56
40:L3:347:SER:O	40:L3:349:LYS:N	2.33	0.56
44:L7:77:VAL:CG2	57:N1:139:ARG:HG2	2.35	0.56
48:M1:15:GLU:HB2	48:M1:132:ASN:CG	2.30	0.56
48:M1:49:LYS:HD3	48:M1:62:ASN:HB3	1.88	0.56
49:M3:32:LYS:HA	49:M3:35:ARG:NH1	2.20	0.56
56:N0:135:VAL:O	56:N0:141:LYS:HE3	2.05	0.56
63:N7:50:PRO:HD3	63:N7:68:ILE:HG12	1.88	0.56
67:O1:19:ARG:HB3	67:O1:35:GLU:HG2	1.88	0.56
1:6:244:A:OP1	6:s4:155:LYS:NZ	2.37	0.56
3:s1:83:LYS:HE3	3:s1:106:THR:HG22	1.87	0.56
20:c8:41:ARG:CZ	20:c8:41:ARG:HB2	2.35	0.56
25:d3:23:ARG:HD2	25:d3:26:GLU:OE1	2.05	0.56
36:5:209:A:H4'	36:5:211:A:C8	2.40	0.56
36:5:406:G:H1'	38:8:16:G:N2	2.21	0.56
36:5:873:C:H5''	36:5:874:U:O5'	2.06	0.56
36:5:1238:C:H2'	36:5:1239:C:O4'	2.05	0.56
36:5:1799:A:H8	36:5:1799:A:O5'	1.89	0.56
36:5:2179:C:O3'	39:l2:174:ARG:NH2	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:l3:155:ALA:O	40:l3:188:ILE:HG21	2.05	0.56
42:l5:203:HIS:CE1	42:l5:204:VAL:HG23	2.41	0.56
1:2:153:G:OP1	8:S6:15:THR:OG1	2.21	0.56
1:2:1420:C:OP1	31:D9:54:LYS:NZ	2.26	0.56
1:2:1788:G:P	16:C4:127:ARG:HH12	2.28	0.56
2:S0:200:ASP:OD1	2:S0:200:ASP:N	2.37	0.56
18:C6:95:LYS:O	34:SR:59:ARG:NH2	2.38	0.56
32:E0:30:PRO:O	32:E0:35:TYR:HB2	2.06	0.56
33:E1:136:LYS:O	33:E1:138:ARG:N	2.39	0.56
36:1:2841:G:H2'	36:1:2844:C:H42	1.71	0.56
42:L5:55:PHE:CZ	42:L5:158:ARG:HG3	2.41	0.56
42:L5:289:LYS:HG2	42:L5:293:LEU:HD12	1.87	0.56
46:L9:75:VAL:HA	46:L9:78:MET:HE2	1.87	0.56
49:M3:52:ASP:OD2	49:M3:141:ALA:HB3	2.05	0.56
54:M8:153:PHE:O	54:M8:161:LYS:HD2	2.05	0.56
59:N3:81:GLN:HG3	59:N3:83:LYS:H	1.70	0.56
62:N6:55:GLU:HB2	62:N6:108:LYS:HB2	1.87	0.56
63:N7:33:SER:HB3	63:N7:35:SER:O	2.06	0.56
69:O3:8:TYR:CE2	69:O3:99:ARG:HG2	2.41	0.56
1:6:150:U:H2'	1:6:151:G:O4'	2.06	0.56
1:6:887:A:H2'	1:6:888:U:H6	1.71	0.56
1:6:936:G:N7	28:d6:15:ARG:NH1	2.54	0.56
6:s4:31:PRO:HD2	6:s4:38:LEU:HD13	1.87	0.56
11:s9:83:VAL:HA	11:s9:149:ARG:HA	1.86	0.56
11:s9:159:ALA:O	11:s9:165:GLY:HA3	2.05	0.56
22:d0:33:GLN:N	22:d0:33:GLN:OE1	2.39	0.56
29:d7:34:ASP:O	29:d7:79:PHE:HA	2.06	0.56
36:5:1354:G:C6	36:5:1358:C:H5'	2.41	0.56
36:5:1838:G:H5'	36:5:1839:A:OP1	2.06	0.56
38:8:6:U:H2'	38:8:7:U:C6	2.39	0.56
38:8:88:A:O2'	38:8:89:A:H5'	2.06	0.56
39:l2:205:ASN:O	39:l2:208:ASP:N	2.31	0.56
40:l3:292:ALA:HB1	40:l3:295:ALA:HB3	1.88	0.56
42:l5:211:LEU:HD13	42:l5:219:PHE:HA	1.87	0.56
54:m8:63:SER:OG	54:m8:65:SER:OG	2.24	0.56
57:n1:138:SER:C	57:n1:139:ARG:HG3	2.31	0.56
71:o5:101:THR:HG23	71:o5:104:GLN:H	1.70	0.56
72:o6:81:THR:HA	72:o6:84:LYS:NZ	2.21	0.56
3:S1:124:ASN:N	3:S1:124:ASN:OD1	2.35	0.56
4:S2:42:GLY:HA3	4:S2:65:GLU:OE2	2.05	0.56
11:S9:171:ARG:HA	11:S9:174:ARG:HB2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:12:VAL:HG13	26:D4:23:PHE:HB3	1.87	0.56
27:D5:93:SER:OG	27:D5:94:LYS:N	2.38	0.56
34:SR:49:GLY:HA2	34:SR:54:PHE:CD1	2.40	0.56
36:1:2976:A:H2'	36:1:2977:G:O4'	2.06	0.56
46:L9:180:TYR:HB2	76:Q0:85:LEU:HD13	1.86	0.56
60:N4:111:ALA:O	60:N4:115:LYS:NZ	2.25	0.56
10:s8:172:ARG:HH11	10:s8:172:ARG:HG2	1.71	0.56
19:c7:75:GLU:O	19:c7:79:GLU:HG3	2.06	0.56
36:5:1813:A:OP1	36:5:1817:G:H4'	2.06	0.56
36:5:2278:C:C2	36:5:2307:G:N2	2.74	0.56
82:5:3850:GET:H933	82:5:3850:GET:H832	1.87	0.56
63:n7:10:VAL:O	63:n7:83:THR:HG22	2.05	0.56
63:n7:102:GLU:OE1	63:n7:103:GLN:N	2.24	0.56
2:S0:119:ARG:HE	4:S2:240:LEU:HB3	1.71	0.56
7:S5:113:ILE:HD13	7:S5:190:ILE:HG21	1.88	0.56
22:D0:24:ILE:HG12	22:D0:116:VAL:HG22	1.87	0.56
36:1:590:G:C2	36:1:610:G:H2'	2.41	0.56
36:1:718:G:H8	36:1:718:G:P	2.29	0.56
36:1:2401:A:H5''	41:L4:70:ALA:HB2	1.88	0.56
37:3:92:A:C5	37:3:93:C:H1'	2.41	0.56
45:L8:116:VAL:HG21	45:L8:123:GLN:HA	1.87	0.56
47:M0:86:HIS:HB3	47:M0:139:ARG:CG	2.36	0.56
49:M3:51:LEU:HD12	49:M3:139:LEU:HD22	1.87	0.56
50:M4:70:PHE:CE2	50:M4:72:LEU:HG	2.41	0.56
1:6:100:A:P	84:6:2125:HOH:O	2.64	0.56
1:6:406:U:H2'	1:6:407:A:H8	1.70	0.56
6:s4:163:ASP:O	6:s4:164:LEU:HG	2.06	0.56
13:c1:76:VAL:HA	13:c1:119:VAL:HG13	1.86	0.56
17:c5:52:LYS:HA	17:c5:54:ALA:H	1.70	0.56
29:d7:53:ALA:HB1	29:d7:62:ILE:HD11	1.88	0.56
36:5:2256:A:O2'	36:5:2257:C:OP1	2.22	0.56
38:8:83:C:H3'	38:8:83:C:OP2	2.06	0.56
40:l3:159:ARG:HG2	40:l3:182:GLN:HA	1.88	0.56
40:l3:233:TRP:CG	40:l3:265:ALA:HB1	2.41	0.56
44:l7:228:SER:HA	44:l7:232:ARG:HH21	1.71	0.56
47:m0:201:SER:O	47:m0:209:ASN:ND2	2.38	0.56
60:n4:90:ILE:O	60:n4:94:ARG:HB2	2.05	0.56
69:o3:14:LEU:HD11	69:o3:31:LYS:HB2	1.87	0.56
1:2:79:C:OP1	8:S6:159:ARG:NH2	2.38	0.56
18:C6:38:LEU:HD22	21:C9:10:ALA:HB2	1.86	0.56
36:1:266:A:OP1	51:M5:5:LYS:NZ	2.34	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:279:U:O2'	36:1:280:U:H5'	2.06	0.56
36:1:439:C:H2'	36:1:440:A:O4'	2.06	0.56
36:1:1604:G:H21	36:1:1605:A:H5''	1.70	0.56
36:1:1748:G:H3'	36:1:1749:A:H2'	1.87	0.56
36:1:2794:G:O2'	36:1:2795:U:OP2	2.22	0.56
40:L3:347:SER:C	40:L3:349:LYS:H	2.14	0.56
42:L5:107:ARG:NH2	42:L5:120:LYS:HA	2.14	0.56
43:L6:39:VAL:HG23	43:L6:89:THR:O	2.05	0.56
46:L9:38:LEU:HD13	46:L9:71:VAL:HG13	1.88	0.56
48:M1:71:VAL:HG12	48:M1:76:ALA:HB2	1.88	0.56
50:M4:37:GLU:HB3	56:N0:72:VAL:HG21	1.88	0.56
51:M5:62:TYR:O	51:M5:131:GLU:HA	2.06	0.56
55:M9:180:LYS:HD3	55:M9:184:LEU:HD12	1.88	0.56
71:O5:102:GLU:OE1	71:O5:106:LYS:HE3	2.06	0.56
1:6:226:A:H5''	10:s8:145:ALA:O	2.06	0.56
4:s2:106:ASP:CG	4:s2:108:ASN:H	2.13	0.56
11:s9:77:ILE:HG21	11:s9:91:LYS:HB3	1.88	0.56
21:c9:92:LYS:HE3	21:c9:94:ILE:HD11	1.88	0.56
27:d5:43:ASP:HB2	27:d5:46:LYS:HB2	1.88	0.56
28:d6:60:PRO:O	28:d6:62:TYR:N	2.36	0.56
36:5:644:G:H2'	36:5:2372:A:N7	2.21	0.56
36:5:1138:U:H2'	36:5:1139:G:H8	1.70	0.56
36:5:2553:U:O4'	66:o0:50:VAL:HB	2.06	0.56
36:5:3242:G:N2	36:5:3245:A:H5''	2.21	0.56
50:m4:108:ARG:NH2	52:m6:197:LEU:HA	2.20	0.56
57:n1:54:HIS:CE1	57:n1:55:LYS:HG2	2.40	0.56
80:p0:37:GLN:HG3	80:p0:104:ARG:HD2	1.86	0.56
1:2:1105:C:H2'	1:2:1106:U:H6	1.70	0.55
7:S5:64:VAL:HG23	7:S5:89:ILE:HG12	1.86	0.55
8:S6:44:GLU:CD	8:S6:44:GLU:H	2.13	0.55
8:S6:102:VAL:HG13	8:S6:106:LEU:HD12	1.88	0.55
13:C1:36:LYS:O	13:C1:44:THR:HG21	2.06	0.55
16:C4:85:ALA:N	16:C4:119:THR:HG22	2.12	0.55
20:C8:49:LYS:NZ	20:C8:80:LYS:O	2.36	0.55
36:1:1164:G:H2'	36:1:1165:A:H8	1.71	0.55
36:1:1632:A:H2'	36:1:1633:C:C6	2.41	0.55
36:1:1641:U:O2'	36:1:1642:A:H3'	2.06	0.55
36:1:1647:A:H62	36:1:1808:G:N2	2.03	0.55
36:1:2525:G:O2'	36:1:2526:C:OP2	2.18	0.55
36:1:2926:A:C2'	36:1:2927:C:H5'	2.36	0.55
36:1:3214:U:OP2	50:M4:128:ARG:NH2	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3227:A:C4	36:1:3228:C:C5	2.89	0.55
37:3:19:C:H2'	37:3:20:A:C8	2.41	0.55
37:3:115:G:H2'	37:3:116:C:C6	2.41	0.55
38:4:15:G:C6	38:4:16:G:N1	2.74	0.55
38:4:131:A:H2'	38:4:132:G:C8	2.36	0.55
46:L9:162:GLN:HB2	46:L9:179:ILE:O	2.05	0.55
50:M4:21:VAL:HA	50:M4:66:THR:HG23	1.88	0.55
56:N0:81:TYR:CE1	56:N0:90:MET:HE3	2.41	0.55
63:N7:5:LEU:HD22	63:N7:5:LEU:O	2.06	0.55
63:N7:101:PHE:HA	63:N7:107:ARG:HE	1.71	0.55
63:N7:122:HIS:HB2	63:N7:131:PHE:CE2	2.41	0.55
74:O8:31:LEU:HA	74:O8:37:PRO:HA	1.88	0.55
1:6:325:G:H4'	13:c1:83:THR:HG21	1.87	0.55
1:6:1558:U:H3	17:c5:122:THR:HG22	1.71	0.55
2:s0:50:VAL:HA	2:s0:53:THR:HB	1.88	0.55
26:d4:129:VAL:O	26:d4:133:ASN:HB2	2.07	0.55
28:d6:60:PRO:C	28:d6:62:TYR:H	2.14	0.55
29:d7:37:CYS:HA	29:d7:77:THR:HG22	1.88	0.55
36:5:520:U:O2	41:l4:346:LYS:NZ	2.39	0.55
36:5:942:U:C4	64:n8:16:SER:HA	2.41	0.55
36:5:1525:G:N3	36:5:1594:A:H2	2.04	0.55
36:5:1554:U:H4'	36:5:1581:C:C5	2.41	0.55
36:5:2762:A:N6	36:5:2794:G:H22	2.04	0.55
36:5:2775:U:H2'	36:5:2776:C:C6	2.41	0.55
38:8:40:A:N7	38:8:103:G:N2	2.54	0.55
50:m4:31:LYS:HB3	50:m4:51:ALA:HB1	1.88	0.55
52:m6:72:HIS:O	52:m6:74:ARG:HD3	2.05	0.55
61:n5:131:ASP:O	61:n5:135:ILE:HG22	2.05	0.55
62:n6:52:ARG:HA	62:n6:70:ILE:HG22	1.88	0.55
1:2:915:A:OP2	1:2:916:U:H5	1.89	0.55
3:S1:41:ARG:HH22	3:S1:97:LEU:HD21	1.69	0.55
3:S1:109:LYS:HE3	3:S1:113:MET:HE3	1.88	0.55
10:S8:41:LYS:HA	10:S8:59:ARG:O	2.07	0.55
17:C5:29:SER:OG	17:C5:32:ASP:OD2	2.23	0.55
25:D3:107:PHE:CD2	25:D3:114:LYS:HB2	2.41	0.55
31:D9:5:ASN:OD1	31:D9:7:TRP:NE1	2.33	0.55
36:1:765:C:H1'	36:1:766:U:H5'	1.88	0.55
37:3:47:C:H4'	42:L5:204:VAL:HG22	1.89	0.55
42:L5:34:LYS:HZ1	57:N1:25:VAL:HG22	1.71	0.55
42:L5:216:GLU:HA	42:L5:219:PHE:HB3	1.87	0.55
43:L6:41:ILE:HG21	43:L6:163:PHE:CD1	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:186:HIS:CE1	44:L7:190:THR:HG21	2.41	0.55
51:M5:160:GLU:HA	51:M5:165:THR:HG23	1.87	0.55
53:M7:4:TYR:HB3	53:M7:147:GLU:OE2	2.06	0.55
66:O0:40:LYS:HD3	66:O0:93:LEU:O	2.05	0.55
70:O4:31:ARG:HG3	70:O4:32:ALA:N	2.21	0.55
1:6:151:G:H1	1:6:163:G:H22	1.54	0.55
2:s0:110:TYR:CD2	4:s2:64:LYS:HB3	2.41	0.55
3:s1:57:ALA:O	3:s1:61:LEU:HB2	2.06	0.55
4:s2:162:CYS:H	4:s2:213:ALA:HB2	1.70	0.55
6:s4:92:LEU:HB2	6:s4:95:THR:CG2	2.36	0.55
6:s4:181:VAL:HG11	6:s4:210:ILE:HD12	1.88	0.55
20:c8:145:ARG:HG3	35:sM:68:ARG:NH2	2.20	0.55
36:5:79:U:O5'	36:5:79:U:H6	1.89	0.55
36:5:794:U:H2'	36:5:795:G:C8	2.41	0.55
36:5:1524:A:H2	36:5:1606:U:HO2'	1.53	0.55
36:5:1614:C:H2'	36:5:1615:C:H6	1.71	0.55
36:5:2203:U:O2'	39:l2:241:ARG:HB3	2.05	0.55
36:5:2345:A:H2'	36:5:2346:C:H6	1.69	0.55
36:5:2408:U:O2	36:5:2814:G:N2	2.38	0.55
36:5:3163:A:O2'	36:5:3164:C:H5'	2.06	0.55
39:l2:80:GLU:HB2	39:l2:170:ALA:HA	1.89	0.55
42:l5:110:LEU:O	42:l5:115:LEU:N	2.36	0.55
52:m6:188:SER:O	52:m6:192:LYS:HG2	2.05	0.55
58:n2:80:THR:HG21	58:n2:95:PHE:HD2	1.70	0.55
59:n3:54:LEU:HA	59:n3:78:VAL:HG12	1.88	0.55
1:2:1182:U:O2	1:2:1184:A:H8	1.90	0.55
1:2:1682:U:O4	1:2:1720:G:N2	2.40	0.55
4:S2:35:TRP:HB3	4:S2:46:LYS:HE2	1.88	0.55
11:S9:129:ILE:HG12	11:S9:134:ILE:HD12	1.88	0.55
36:1:350:C:N3	36:1:367:A:H2'	2.22	0.55
36:1:419:G:O2'	82:1:3810:GET:H713	2.06	0.55
36:1:503:C:O2'	43:L6:23:LYS:HE2	2.05	0.55
36:1:531:G:H2'	36:1:532:A:C8	2.41	0.55
36:1:1019:G:H22	36:1:1034:U:H1'	1.71	0.55
36:1:1433:A:N3	68:O2:27:ARG:NH1	2.54	0.55
36:1:2655:U:H4'	36:1:2656:A:O4'	2.06	0.55
46:L9:105:GLU:HA	46:L9:109:ALA:HB3	1.88	0.55
63:N7:51:LEU:HB2	63:N7:65:ARG:HD2	1.88	0.55
71:O5:12:LYS:NZ	62:n6:120:GLN:HA	2.21	0.55
1:6:241:U:O2'	1:6:242:U:O4'	2.18	0.55
1:6:700:C:H2'	1:6:701:U:C6	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1237:G:H22	36:5:1251:A:H2	1.53	0.55
36:5:1474:A:O2'	67:o1:57:GLN:OE1	2.20	0.55
36:5:1741:A:H2'	36:5:1742:U:O4'	2.07	0.55
36:5:2427:U:H2'	36:5:2428:U:C6	2.41	0.55
36:5:3343:G:H21	36:5:3362:A:H2	1.54	0.55
52:m6:118:VAL:HG23	52:m6:119:VAL:N	2.20	0.55
1:2:339:C:OP1	10:S8:10:LYS:NZ	2.40	0.55
1:2:1253:U:OP2	14:C2:46:ARG:NH2	2.40	0.55
1:2:1585:U:N3	1:2:1611:A:H2	1.95	0.55
1:2:1590:G:OP1	21:C9:91:TYR:HB2	2.07	0.55
2:S0:115:PHE:CZ	4:S2:39:THR:HG22	2.41	0.55
3:S1:61:LEU:HD23	3:S1:62:LYS:H	1.72	0.55
3:S1:207:LEU:HD23	3:S1:210:ILE:HG12	1.88	0.55
9:S7:173:TYR:CZ	9:S7:177:THR:HG21	2.42	0.55
30:D8:65:ARG:HH21	30:D8:67:ARG:NH1	2.04	0.55
36:1:209:A:H4'	36:1:211:A:N7	2.21	0.55
36:1:846:A:H2'	36:1:847:A:H8	1.72	0.55
36:1:936:A:OP1	64:N8:32:ARG:NH2	2.35	0.55
36:1:1585:C:C2	36:1:1586:G:C8	2.95	0.55
36:1:3366:G:N7	82:1:3811:GET:O31	2.38	0.55
38:4:124:G:H3'	38:4:125:U:H5''	1.87	0.55
48:M1:82:ARG:HG3	48:M1:112:LEU:HB2	1.88	0.55
52:M6:62:THR:H	52:M6:69:GLY:HA3	1.69	0.55
64:N8:73:LEU:HD13	64:N8:109:TYR:CZ	2.42	0.55
64:N8:74:ASN:HB3	64:N8:115:LYS:HB2	1.87	0.55
64:N8:90:TYR:HB3	64:N8:100:PRO:HG3	1.87	0.55
1:6:163:G:H4'	8:s6:53:SER:HB2	1.87	0.55
1:6:196:G:O2'	1:6:197:A:OP2	2.20	0.55
1:6:558:U:OP2	32:e0:55:ARG:NH2	2.39	0.55
10:s8:166:TYR:O	10:s8:183:ILE:HD12	2.07	0.55
17:c5:18:ARG:NH2	17:c5:38:PRO:HG3	2.22	0.55
28:d6:12:LYS:HE3	28:d6:16:GLY:HA2	1.88	0.55
36:5:2519:A:OP2	82:5:3846:GET:H221	2.07	0.55
36:5:2947:G:N3	40:l3:250:ALA:HB1	2.21	0.55
36:5:3341:U:H1'	36:5:3342:A:C5'	2.36	0.55
38:8:6:U:H2'	38:8:7:U:H6	1.71	0.55
47:m0:210:ILE:HD13	47:m0:217:PHE:CD2	2.41	0.55
56:n0:12:ARG:HD2	56:n0:22:PRO:HG2	1.89	0.55
59:n3:85:TRP:CZ2	59:n3:93:LEU:HD11	2.42	0.55
63:n7:53:VAL:HA	63:n7:57:HIS:CD2	2.42	0.55
70:o4:74:ARG:HD2	70:o4:85:VAL:HG21	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:153:G:OP2	26:D4:131:ARG:NH1	2.39	0.55
1:2:916:U:H3	16:C4:41:ARG:NH2	2.04	0.55
1:2:960:U:H1'	15:C3:52:VAL:HG23	1.88	0.55
1:2:1478:G:OP1	21:C9:39:THR:OG1	2.24	0.55
7:S5:57:SER:O	7:S5:59:VAL:N	2.36	0.55
15:C3:113:PHE:HA	15:C3:116:ILE:HD12	1.88	0.55
16:C4:20:TYR:HB3	16:C4:27:PHE:HB2	1.86	0.55
19:C7:20:TYR:CE2	19:C7:38:ILE:HG13	2.41	0.55
35:SM:100:THR:HG23	35:SM:101:ASP:N	2.21	0.55
36:1:91:G:OP2	36:1:93:C:N4	2.22	0.55
36:1:156:G:O2'	36:1:157:A:H4'	2.07	0.55
36:1:1654:A:H3'	36:1:1655:G:C5'	2.37	0.55
36:1:1762:C:H2'	36:1:1763:U:H4'	1.88	0.55
36:1:2551:U:H3'	36:1:2551:U:OP1	2.07	0.55
36:1:3203:U:H2'	36:1:3204:C:C6	2.41	0.55
39:L2:27:ALA:O	39:L2:128:ARG:NH2	2.38	0.55
40:L3:256:HIS:HA	40:L3:257:PRO:C	2.31	0.55
42:L5:49:TYR:HB3	42:L5:144:VAL:HG23	1.87	0.55
43:L6:172:HIS:HA	69:O3:43:PHE:CD1	2.41	0.55
49:M3:165:SER:C	49:M3:167:PHE:H	2.12	0.55
51:M5:14:LYS:HA	51:M5:19:LEU:HD22	1.89	0.55
51:M5:38:ARG:HG2	51:M5:62:TYR:CE2	2.41	0.55
71:O5:31:LEU:HD13	71:O5:47:VAL:HG11	1.87	0.55
1:6:755:A:O2'	1:6:756:A:O4'	2.24	0.55
1:6:765:G:N7	11:s9:82:ARG:NH1	2.54	0.55
1:6:1247:U:H2'	1:6:1248:C:H6	1.72	0.55
4:s2:65:GLU:HB2	4:s2:68:ILE:HG13	1.88	0.55
4:s2:143:TYR:CD2	4:s2:147:ASN:HA	2.40	0.55
6:s4:52:LEU:HB3	6:s4:54:TYR:HD2	1.72	0.55
10:s8:165:LEU:HB3	10:s8:183:ILE:HD13	1.87	0.55
20:c8:123:ARG:HG3	20:c8:133:VAL:HG13	1.89	0.55
21:c9:138:GLN:O	21:c9:141:GLU:HG3	2.06	0.55
36:5:788:C:H2'	36:5:789:A:H8	1.71	0.55
36:5:909:G:H2'	36:5:910:G:O4'	2.07	0.55
36:5:1211:U:H2'	36:5:1212:A:C8	2.42	0.55
36:5:1308:A:OP2	36:5:1308:A:C8	2.59	0.55
36:5:2722:U:O2'	57:n1:88:ARG:O	2.18	0.55
45:l8:170:CYS:HB3	45:l8:175:VAL:O	2.07	0.55
59:n3:6:ALA:HB2	59:n3:126:TRP:CZ2	2.40	0.55
62:n6:115:ARG:O	62:n6:118:LEU:HB3	2.06	0.55
76:q0:110:CYS:SG	76:q0:112:LYS:HB2	2.47	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1095:U:H5'	1:2:1096:C:C5'	2.37	0.55
1:2:1469:A:H4'	1:2:1541:G:H4'	1.88	0.55
1:2:1504:G:H22	1:2:1549:C:H1'	1.72	0.55
1:2:1516:A:H8	22:D0:58:LEU:HD23	1.71	0.55
1:2:1591:C:H2'	1:2:1592:A:C8	2.42	0.55
3:S1:36:SER:H	3:S1:231:LEU:HD13	1.72	0.55
6:S4:54:TYR:CG	26:D4:17:LEU:HD11	2.41	0.55
6:S4:130:GLN:HB2	6:S4:138:TYR:CE2	2.41	0.55
18:C6:12:LYS:HD2	18:C6:17:THR:HG22	1.87	0.55
20:C8:3:LEU:HD23	20:C8:5:VAL:HG13	1.89	0.55
23:D1:60:ARG:HA	23:D1:65:SER:HB2	1.89	0.55
36:1:873:C:C5'	36:1:874:U:H4'	2.37	0.55
36:1:2402:A:H2'	41:L4:67:THR:OG1	2.07	0.55
36:1:2416:U:H2'	36:1:2417:U:C6	2.42	0.55
36:1:2954:U:H4'	36:1:2955:U:C5'	2.34	0.55
36:1:2988:C:O2	40:L3:266:ARG:NH1	2.40	0.55
36:1:3049:A:H2'	36:1:3050:U:H5'	1.88	0.55
37:3:22:A:H2'	37:3:23:A:C8	2.42	0.55
44:L7:116:PHE:HB2	44:L7:199:ASN:OD1	2.07	0.55
45:L8:36:ILE:O	45:L8:38:GLN:N	2.40	0.55
53:M7:25:SER:O	53:M7:29:THR:OG1	2.21	0.55
56:N0:99:ARG:O	56:N0:103:VAL:HG23	2.07	0.55
1:6:109:G:O2'	1:6:796:A:N1	2.32	0.55
1:6:163:G:H8	1:6:163:G:O5'	1.88	0.55
1:6:1483:A:H4'	18:c6:72:GLY:N	2.21	0.55
2:s0:148:ASP:OD1	2:s0:149:LEU:N	2.33	0.55
3:s1:103:MET:HG2	3:s1:104:ASP:N	2.22	0.55
4:s2:121:VAL:O	4:s2:125:ILE:HG13	2.07	0.55
12:c0:15:LEU:HD11	12:c0:68:LEU:HD13	1.88	0.55
15:c3:65:VAL:O	15:c3:66:ILE:HG12	2.07	0.55
23:d1:64:GLU:HG3	29:d7:3:LEU:HG	1.89	0.55
36:5:256:G:H2'	36:5:257:U:C6	2.41	0.55
36:5:276:U:O2'	51:m5:91:GLU:HG2	2.06	0.55
36:5:1745:C:H2'	36:5:1746:U:C6	2.41	0.55
36:5:2663:G:H5'	42:l5:152:ARG:HD3	1.89	0.55
36:5:2778:G:C2	36:5:2779:A:C8	2.94	0.55
36:5:3326:G:H2'	36:5:3327:G:H8	1.71	0.55
37:7:11:A:H4'	37:7:13:A:C8	2.41	0.55
40:l3:116:ARG:HG2	40:l3:175:LYS:HA	1.88	0.55
43:l6:54:TYR:HA	43:l6:65:ILE:HD13	1.89	0.55
45:l8:105:LYS:HG3	45:l8:108:ARG:NH2	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:m8:182:LYS:NZ	64:n8:55:LYS:O	2.40	0.55
58:n2:58:GLU:HG2	58:n2:60:GLY:N	2.22	0.55
1:2:1217:A:H8	1:2:1217:A:H5'	1.70	0.55
1:2:1417:A:O3'	18:C6:128:LYS:HE2	2.07	0.55
1:2:1601:G:OP1	21:C9:86:ARG:NH2	2.39	0.55
4:S2:225:LEU:HD13	24:D2:68:ARG:HA	1.88	0.55
15:C3:47:PRO:HG2	15:C3:72:MET:SD	2.46	0.55
15:C3:85:PRO:HG2	15:C3:129:TYR:CE2	2.42	0.55
21:C9:28:LEU:HD23	21:C9:55:TYR:OH	2.06	0.55
36:1:1362:G:H2'	36:1:1363:A:C8	2.41	0.55
36:1:2557:A:OP1	39:L2:69:TYR:OH	2.19	0.55
36:1:2656:A:C4	36:1:2658:G:N7	2.75	0.55
36:1:2767:U:H2'	36:1:2768:U:C6	2.41	0.55
38:4:4:C:H2'	38:4:5:U:C6	2.41	0.55
40:L3:108:GLU:HB2	40:L3:137:TYR:CE2	2.42	0.55
59:N3:81:GLN:HG2	59:N3:83:LYS:O	2.07	0.55
63:N7:115:LYS:O	63:N7:119:GLU:HG3	2.07	0.55
1:6:461:G:H2'	1:6:462:G:C8	2.42	0.55
1:6:1229:G:O2'	1:6:1255:G:N2	2.28	0.55
4:s2:69:ILE:HG12	4:s2:133:LYS:HB3	1.88	0.55
8:s6:14:LYS:HD3	8:s6:16:PHE:CE2	2.42	0.55
20:c8:41:ARG:HB2	20:c8:41:ARG:NH2	2.21	0.55
36:5:602:A:H2'	36:5:603:A:C8	2.42	0.55
36:5:1313:G:OP2	52:m6:82:LYS:NZ	2.40	0.55
39:l2:143:GLU:O	39:l2:145:LYS:HD2	2.07	0.55
51:m5:115:VAL:HG22	51:m5:134:LEU:HG	1.88	0.55
55:m9:17:VAL:HG13	55:m9:21:LYS:HB2	1.89	0.55
68:o2:96:ILE:HB	68:o2:121:ASN:HD21	1.70	0.55
70:o4:20:ILE:HD11	70:o4:32:ALA:HB1	1.89	0.55
1:2:478:A:O2'	11:S9:124:HIS:ND1	2.32	0.55
1:2:1329:A:N6	84:2:2138:HOH:O	2.40	0.55
2:S0:120:LEU:HD12	2:S0:121:VAL:H	1.71	0.55
2:S0:169:SER:O	2:S0:173:ILE:HG12	2.07	0.55
6:S4:240:LYS:HE2	6:S4:240:LYS:N	2.22	0.55
9:S7:51:VAL:HG22	9:S7:168:SER:HB3	1.88	0.55
36:1:2094:C:H2'	36:1:2095:G:C8	2.42	0.55
36:1:2204:C:H2'	36:1:2205:U:H5'	1.88	0.55
41:L4:140:HIS:HA	41:L4:177:ASP:OD1	2.07	0.55
42:L5:200:PHE:O	42:L5:240:TYR:HD2	1.90	0.55
51:M5:150:TRP:CZ3	51:M5:151:ILE:HG12	2.42	0.55
51:M5:164:LEU:HD23	51:M5:172:ARG:HH12	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:26:PHE:CE1	53:M7:120:ASN:HA	2.38	0.55
68:O2:39:ASP:HB2	84:O2:301:HOH:O	2.07	0.55
1:6:218:A:H2'	1:6:219:A:H5'	1.88	0.55
1:6:276:C:H1'	1:6:277:U:H5	1.72	0.55
2:s0:147:THR:O	2:s0:161:PRO:HA	2.07	0.55
3:s1:30:PHE:HB3	3:s1:96:LEU:HD22	1.88	0.55
22:d0:48:HIS:ND1	22:d0:48:HIS:O	2.40	0.55
36:5:1203:A:N3	36:5:2855:U:O2'	2.30	0.55
36:5:1677:G:OP2	58:n2:103:TYR:OH	2.11	0.55
36:5:1781:C:H2'	36:5:1782:U:C6	2.42	0.55
36:5:2376:G:O2'	36:5:2377:G:H5'	2.07	0.55
40:l3:56:ILE:HD12	40:l3:359:ILE:HA	1.88	0.55
61:n5:105:VAL:HG11	61:n5:126:LEU:HD13	1.89	0.55
75:o9:24:PRO:HB2	75:o9:27:ILE:HD12	1.89	0.55
1:2:372:G:HO2'	1:2:611:U:H3	1.55	0.55
1:2:1371:A:H3'	1:2:1371:A:P	2.47	0.55
1:2:1516:A:C8	22:D0:58:LEU:HD23	2.42	0.55
1:2:1657:U:O2	36:1:2125:A:H4'	2.07	0.55
21:C9:25:GLN:HE21	21:C9:27:LYS:HD3	1.72	0.55
34:SR:39:ASP:OD1	34:SR:41:THR:OG1	2.15	0.55
36:1:147:U:O2	45:L8:162:LEU:HD13	2.07	0.55
36:1:1317:A:O2'	36:1:1318:A:H3'	2.06	0.55
36:1:2680:A:C2	48:M1:57:PHE:HB3	2.42	0.55
36:1:3108:G:H21	46:L9:163:GLN:HE22	1.55	0.55
36:1:3129:A:H2'	36:1:3130:A:H5''	1.89	0.55
36:1:3199:G:P	46:L9:21:LYS:HZ3	2.29	0.55
36:1:3366:G:H2'	36:1:3367:C:C6	2.42	0.55
39:L2:113:VAL:HG23	39:L2:166:ILE:HD13	1.89	0.55
43:L6:7:PRO:HG2	43:L6:10:TYR:CZ	2.42	0.55
45:L8:33:ASN:O	45:L8:39:ALA:HB3	2.06	0.55
1:6:67:A:N6	1:6:83:G:O2'	2.40	0.55
1:6:802:G:N3	24:d2:107:SER:OG	2.27	0.55
1:6:1514:U:H5''	1:6:1515:A:N3	2.21	0.55
5:s3:222:VAL:HG11	34:sR:229:LYS:HA	1.89	0.55
6:s4:173:ILE:HD11	6:s4:235:TYR:CE1	2.42	0.55
9:s7:129:LEU:HD22	9:s7:169:PHE:CD1	2.41	0.55
17:c5:90:ILE:HD11	17:c5:112:LEU:HD21	1.89	0.55
20:c8:52:VAL:HG13	20:c8:61:LEU:HD21	1.89	0.55
21:c9:57:ARG:HH11	21:c9:57:ARG:CG	2.20	0.55
36:5:409:A:H3'	36:5:410:U:C6	2.41	0.55
36:5:787:G:H2'	36:5:788:C:C6	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:794:U:H2'	36:5:795:G:H8	1.72	0.55
36:5:1017:C:H3'	36:5:1017:C:P	2.47	0.55
36:5:1480:G:O2'	36:5:1871:U:O4	2.22	0.55
36:5:1615:C:H2'	36:5:1616:U:C6	2.41	0.55
36:5:2556:C:OP1	70:o4:88:ARG:NH1	2.40	0.55
37:7:113:C:H2'	37:7:114:U:O4'	2.06	0.55
38:8:91:C:H2'	38:8:92:A:H8	1.72	0.55
38:8:95:G:OP2	73:o7:72:ARG:NH1	2.40	0.55
45:l8:144:GLU:O	45:l8:173:MET:HE3	2.07	0.55
51:m5:186:GLY:O	51:m5:190:THR:HG22	2.06	0.55
53:m7:26:PHE:HE1	53:m7:120:ASN:HA	1.71	0.55
1:2:327:U:O2'	13:C1:10:GLU:HG2	2.07	0.55
1:2:1031:U:H4'	1:2:1032:G:OP2	2.06	0.55
1:2:1358:G:H2'	1:2:1359:C:C6	2.41	0.55
10:S8:5:ARG:HG3	10:S8:28:GLU:O	2.06	0.55
10:S8:8:ARG:NH2	10:S8:21:PHE:HB3	2.22	0.55
15:C3:136:PRO:HG2	15:C3:139:TRP:HB2	1.89	0.55
23:D1:32:VAL:HB	23:D1:60:ARG:HD3	1.89	0.55
34:SR:15:GLY:N	34:SR:45:TRP:HH2	2.04	0.55
36:1:2139:A:O2'	73:O7:3:LYS:NZ	2.40	0.55
40:L3:123:TYR:CE2	40:L3:124:LYS:HG3	2.42	0.55
43:L6:158:TYR:HB2	50:M4:118:PHE:CD1	2.41	0.55
48:M1:33:ALA:HB2	48:M1:123:PHE:CE1	2.42	0.55
64:N8:19:LYS:HD2	64:N8:25:HIS:HD2	1.71	0.55
70:O4:99:LYS:HG2	70:O4:103:LYS:NZ	2.22	0.55
72:O6:27:SER:O	72:O6:28:TYR:HB2	2.06	0.55
1:6:639:U:OP1	9:s7:118:LEU:N	2.40	0.55
2:s0:63:ILE:HG12	23:d1:36:VAL:HG22	1.88	0.55
2:s0:200:ASP:HB3	19:c7:85:VAL:HG13	1.89	0.55
3:s1:70:LEU:HB3	3:s1:79:HIS:HB3	1.87	0.55
9:s7:99:LEU:HG	9:s7:116:ARG:HG3	1.89	0.55
12:c0:1:MET:HE2	12:c0:41:TYR:HE1	1.72	0.55
12:c0:23:ALA:O	12:c0:24:LYS:HB3	2.07	0.55
16:c4:63:ALA:O	16:c4:67:VAL:HG23	2.07	0.55
36:5:913:A:N1	36:5:2134:G:O2'	2.39	0.55
36:5:937:G:C6	36:5:2410:U:H5''	2.42	0.55
36:5:1073:U:H2'	36:5:1074:U:C6	2.41	0.55
36:5:1098:A:OP1	57:n1:130:ARG:NH1	2.40	0.55
36:5:2359:C:H2'	36:5:2360:C:C6	2.43	0.55
36:5:3243:A:C8	52:m6:156:LEU:HD13	2.42	0.55
36:5:3279:A:N7	69:o3:54:ARG:NH2	2.54	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:8:82:U:C1'	38:8:83:C:H2'	2.36	0.55
41:14:82:THR:O	41:14:85:SER:OG	2.25	0.55
43:16:42:LEU:HD23	43:16:84:VAL:HG22	1.89	0.55
44:17:83:LEU:HD22	44:17:84:VAL:N	2.21	0.55
60:n4:126:GLU:HG3	60:n4:129:LYS:NZ	2.22	0.55
1:2:964:U:OP1	15:C3:128:TYR:OH	2.24	0.54
11:S9:77:ILE:HD11	11:S9:93:LEU:HB3	1.88	0.54
13:C1:97:TYR:O	13:C1:99:ARG:HG2	2.07	0.54
14:C2:54:ARG:HD2	14:C2:56:GLU:CD	2.32	0.54
16:C4:85:ALA:H	16:C4:119:THR:CG2	2.15	0.54
27:D5:75:LEU:HA	27:D5:78:ILE:HB	1.89	0.54
33:E1:133:ALA:O	33:E1:139:LEU:HA	2.07	0.54
36:1:61:A:H2'	36:1:62:A:O4'	2.07	0.54
36:1:1399:A:N1	38:4:7:U:O2'	2.40	0.54
36:1:1473:G:OP2	55:M9:8:LYS:NZ	2.40	0.54
36:1:1522:U:H5'	36:1:1604:G:O4'	2.07	0.54
36:1:1536:G:C4	36:1:1537:A:C8	2.96	0.54
36:1:1656:A:N6	36:1:1799:A:OP2	2.26	0.54
36:1:2519:A:OP2	82:1:3812:GET:H221	2.07	0.54
38:4:39:G:H1'	38:4:105:A:N1	2.21	0.54
50:M4:39:ILE:HD12	50:M4:43:LYS:HB3	1.87	0.54
56:N0:66:GLU:OE2	56:N0:73:LYS:HE3	2.07	0.54
56:N0:77:VAL:HG11	56:N0:106:LEU:CD1	2.37	0.54
1:6:330:G:O2'	10:s8:33:PRO:HB3	2.06	0.54
21:c9:14:PHE:CD2	21:c9:63:ARG:HD2	2.42	0.54
34:sR:154:VAL:HG12	34:sR:171:SER:HB3	1.89	0.54
34:sR:249:ARG:NH2	34:sR:315:VAL:HG11	2.21	0.54
36:5:90:C:H2'	36:5:91:G:H5'	1.87	0.54
36:5:386:A:C5	36:5:387:A:H1'	2.42	0.54
36:5:1175:C:H5''	52:m6:25:LYS:HG3	1.90	0.54
36:5:3033:A:H2'	36:5:3034:C:H6	1.72	0.54
36:5:3165:A:H61	36:5:3285:C:H42	1.55	0.54
41:14:77:VAL:HG21	41:14:84:ARG:HG3	1.89	0.54
44:17:186:HIS:CE1	44:17:190:THR:HG21	2.42	0.54
46:19:143:GLU:HG2	46:19:145:VAL:HG23	1.89	0.54
49:m3:63:VAL:HG12	64:n8:128:ARG:NH1	2.22	0.54
51:m5:68:ARG:HG2	51:m5:125:SER:O	2.06	0.54
61:n5:82:LEU:HD11	61:n5:135:ILE:HD12	1.89	0.54
68:o2:6:HIS:ND1	68:o2:7:PRO:O	2.30	0.54
1:2:12:U:H2'	1:2:13:C:C6	2.43	0.54
1:2:198:A:H2'	1:2:199:G:H5'	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:283:U:H5''	8:S6:188:ARG:HD3	1.89	0.54
1:2:1111:G:N7	84:2:2102:HOH:O	2.38	0.54
1:2:1173:C:OP1	20:C8:132:ARG:NH1	2.39	0.54
7:S5:84:LYS:HG2	7:S5:92:ARG:NH1	2.22	0.54
13:C1:20:PHE:CZ	13:C1:22:ASN:HA	2.42	0.54
36:1:542:G:H2'	36:1:543:C:C6	2.42	0.54
36:1:696:C:OP1	41:L4:272:VAL:HG23	2.08	0.54
36:1:977:C:OP1	54:M8:141:ARG:NH2	2.23	0.54
36:1:993:G:N3	36:1:2637:A:H2'	2.23	0.54
36:1:1715:A:N3	36:1:1715:A:H2'	2.21	0.54
36:1:1792:C:H5''	36:1:1793:C:OP1	2.07	0.54
36:1:2748:A:H1'	42:L5:36:LEU:HD23	1.89	0.54
36:1:2826:U:OP2	82:1:3809:GET:N21	2.40	0.54
37:3:76:A:O2'	56:N0:50:LYS:HE3	2.06	0.54
38:4:126:A:H2	38:4:129:C:N3	2.05	0.54
40:L3:114:VAL:HG22	40:L3:163:HIS:CE1	2.42	0.54
45:L8:75:ILE:HG22	45:L8:76:ALA:H	1.72	0.54
45:L8:148:ALA:HA	45:L8:201:THR:HG22	1.88	0.54
47:M0:84:ALA:O	47:M0:140:THR:HG22	2.06	0.54
55:M9:127:SER:HA	55:M9:132:PHE:HD2	1.71	0.54
57:N1:25:VAL:HG23	57:N1:30:TYR:HE2	1.72	0.54
64:N8:71:PRO:HB2	64:N8:109:TYR:HA	1.90	0.54
71:O5:14:LYS:HG2	71:O5:61:GLN:OE1	2.06	0.54
76:Q0:114:LYS:HG2	76:Q0:115:CYS:N	2.21	0.54
6:s4:125:LYS:HA	6:s4:159:THR:HA	1.89	0.54
36:5:1229:G:H2'	36:5:1230:G:H8	1.69	0.54
36:5:1438:U:H2'	36:5:1439:U:H6	1.71	0.54
36:5:2341:A:OP2	40:l3:247:ARG:NH2	2.39	0.54
36:5:2413:A:H8	36:5:2413:A:O5'	1.90	0.54
36:5:3341:U:H1'	36:5:3342:A:H5''	1.90	0.54
39:l2:19:HIS:CD2	39:l2:193:ARG:HA	2.42	0.54
40:l3:293:ASN:HB2	40:l3:304:THR:HA	1.89	0.54
46:l9:117:PHE:CE2	46:l9:118:LEU:HD12	2.42	0.54
50:m4:105:GLN:NE2	52:m6:198:GLY:O	2.39	0.54
53:m7:27:LYS:HD3	53:m7:63:PHE:HB3	1.88	0.54
53:m7:178:ALA:HA	53:m7:181:ARG:HD2	1.88	0.54
54:m8:91:ALA:HB3	64:n8:77:LYS:HE2	1.88	0.54
54:m8:96:PHE:CD2	54:m8:97:PRO:HD2	2.42	0.54
55:m9:106:LEU:HD13	55:m9:138:LEU:HD11	1.89	0.54
1:2:351:C:H3'	1:2:352:A:H5'	1.89	0.54
1:2:1553:G:N2	1:2:1555:A:H3'	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:178:ILE:HB	4:S2:185:LYS:HG3	1.90	0.54
7:S5:73:THR:HG23	18:C6:114:ARG:CD	2.37	0.54
7:S5:151:GLY:HA3	7:S5:156:ARG:HG3	1.88	0.54
8:S6:137:ARG:HD3	8:S6:177:ARG:HD3	1.89	0.54
9:S7:67:LEU:HD13	9:S7:71:HIS:CE1	2.43	0.54
13:C1:122:ILE:H	13:C1:144:ALA:HB3	1.72	0.54
15:C3:26:PHE:CE1	15:C3:28:LEU:HD12	2.42	0.54
27:D5:40:VAL:O	27:D5:75:LEU:HD11	2.07	0.54
28:D6:84:VAL:HG23	28:D6:85:ARG:H	1.73	0.54
33:E1:98:VAL:HB	33:E1:100:LEU:HD13	1.90	0.54
36:1:2376:G:C6	36:1:2377:G:C6	2.95	0.54
37:3:48:U:N3	37:3:49:G:N7	2.56	0.54
42:L5:78:ALA:CB	42:L5:105:ILE:HG12	2.37	0.54
43:L6:35:VAL:O	43:L6:38:THR:OG1	2.16	0.54
1:6:1003:A:H1'	1:6:1005:A:N7	2.23	0.54
1:6:1058:U:H4'	1:6:1059:U:OP1	2.08	0.54
1:6:1773:C:H2'	1:6:1774:G:C8	2.42	0.54
36:5:561:C:H2'	36:5:562:C:H6	1.72	0.54
36:5:1427:U:OP2	64:n8:4:ARG:NH2	2.40	0.54
36:5:1435:A:N7	36:5:1437:C:C2	2.74	0.54
36:5:1485:G:N2	70:o4:4:ARG:HD2	2.21	0.54
36:5:1715:A:C8	36:5:1717:U:H5''	2.42	0.54
36:5:2158:A:O2'	39:l2:118:GLU:OE1	2.21	0.54
36:5:2550:U:C6	45:l8:37:GLY:HA3	2.43	0.54
36:5:2652:U:O3'	78:q2:89:LYS:HD2	2.07	0.54
36:5:2655:U:H4'	36:5:2656:A:O4'	2.06	0.54
36:5:3088:G:H2'	36:5:3089:C:C6	2.41	0.54
36:5:3269:U:H5'	36:5:3269:U:H6	1.71	0.54
38:8:4:C:H2'	38:8:5:U:H6	1.73	0.54
38:8:52:A:O4'	75:o9:21:ARG:HD2	2.07	0.54
39:l2:117:GLU:HB2	39:l2:162:ALA:HB1	1.89	0.54
41:l4:98:ARG:HG2	41:l4:99:MET:N	2.21	0.54
68:o2:85:LEU:HD22	68:o2:92:TYR:HB2	1.88	0.54
75:o9:7:PHE:O	75:o9:10:LYS:N	2.40	0.54
1:2:190:C:N4	1:2:196:G:O6	2.40	0.54
1:2:952:A:O2'	15:C3:114:ARG:HG3	2.07	0.54
1:2:1056:U:H1'	1:2:1064:G:H22	1.71	0.54
1:2:1602:C:H2'	1:2:1603:U:C6	2.43	0.54
2:S0:140:ASN:OD1	4:S2:62:PRO:HD3	2.07	0.54
3:S1:176:VAL:HG12	3:S1:177:GLN:H	1.72	0.54
5:S3:223:LYS:HD3	34:SR:193:ILE:HD12	1.87	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C1:35:TYR:CE2	13:C1:49:ILE:HG23	2.42	0.54
14:C2:129:GLU:HA	14:C2:133:LEU:HD22	1.90	0.54
36:1:1388:U:H2'	36:1:1389:G:H8	1.72	0.54
36:1:2094:C:H2'	36:1:2095:G:H8	1.71	0.54
36:1:2947:G:N3	40:L3:250:ALA:HB1	2.23	0.54
36:1:3258:U:O2'	36:1:3260:G:OP1	2.15	0.54
36:1:3276:G:OP1	36:1:3276:G:H4'	2.07	0.54
41:L4:359:LEU:HA	56:N0:8:GLN:OE1	2.06	0.54
46:L9:129:ARG:N	46:L9:157:ASN:OD1	2.32	0.54
54:M8:138:LEU:HD13	54:M8:140:LEU:HD21	1.87	0.54
58:N2:27:VAL:HG21	58:N2:107:PHE:HE1	1.70	0.54
64:N8:72:VAL:HG13	64:N8:113:LEU:HG	1.89	0.54
1:6:47:A:N1	1:6:386:G:H1'	2.23	0.54
1:6:93:A:H3'	1:6:94:U:H5'	1.89	0.54
1:6:612:U:OP2	25:d3:5:LYS:NZ	2.34	0.54
1:6:895:G:H1	1:6:917:U:H3	1.54	0.54
19:c7:7:LYS:NZ	19:c7:11:ARG:HH21	2.06	0.54
19:c7:41:ILE:HD13	19:c7:50:ILE:HD12	1.90	0.54
22:d0:71:PRO:O	22:d0:72:ASN:ND2	2.40	0.54
36:5:212:G:H2'	41:l4:221:ASN:ND2	2.22	0.54
36:5:996:A:C2	36:5:1054:A:C4	2.96	0.54
36:5:1129:A:N3	36:5:2826:U:O2'	2.38	0.54
36:5:1386:A:O4'	41:l4:141:ARG:NH2	2.41	0.54
36:5:1445:U:H5''	36:5:1446:A:OP2	2.07	0.54
36:5:1895:A:O2'	36:5:3053:G:H4'	2.07	0.54
36:5:2748:A:C2	42:l5:35:ARG:HB2	2.43	0.54
36:5:2880:U:O2	40:l3:250:ALA:HB3	2.08	0.54
36:5:3107:U:OP1	76:q0:114:LYS:NZ	2.38	0.54
43:l6:46:ARG:HG3	43:l6:46:ARG:HH11	1.71	0.54
44:l7:96:PRO:HB2	44:l7:99:PRO:HD2	1.90	0.54
52:m6:88:VAL:HG21	52:m6:99:LEU:HD21	1.89	0.54
55:m9:71:ARG:C	55:m9:73:GLY:H	2.13	0.54
57:n1:124:VAL:HG12	57:n1:125:ALA:H	1.72	0.54
67:o1:19:ARG:HD3	67:o1:35:GLU:CG	2.38	0.54
1:2:396:G:N2	1:2:398:G:H3'	2.23	0.54
1:2:791:A:H2'	1:2:792:U:C6	2.43	0.54
1:2:820:U:H2'	1:2:821:U:H4'	1.89	0.54
1:2:1442:U:H2'	1:2:1443:U:H6	1.73	0.54
11:S9:38:ASN:HB3	11:S9:40:LYS:HB3	1.88	0.54
33:E1:139:LEU:HB2	33:E1:150:VAL:O	2.07	0.54
36:1:685:G:OP1	49:M3:35:ARG:HD2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1709:C:H5''	63:N7:15:ARG:NH2	2.22	0.54
36:1:2836:C:H6	47:M0:158:LYS:HZ3	1.54	0.54
48:M1:143:ARG:HG2	48:M1:144:CYS:SG	2.47	0.54
59:N3:120:LYS:N	59:N3:137:VAL:HG23	2.22	0.54
64:N8:129:PHE:HE1	72:O6:9:ILE:HG23	1.72	0.54
78:Q2:77:CYS:SG	78:Q2:79:THR:OG1	2.58	0.54
1:6:1146:G:C6	1:6:1147:A:C6	2.96	0.54
1:6:1362:U:H1'	1:6:1363:U:C4	2.43	0.54
1:6:1757:G:N7	82:6:2013:GET:H222	2.23	0.54
1:6:1783:C:H2'	1:6:1784:C:H6	1.73	0.54
36:5:634:C:O3'	68:o2:47:ARG:NH1	2.41	0.54
36:5:651:G:C6	36:5:652:G:C6	2.95	0.54
36:5:968:G:H2'	36:5:969:C:H6	1.70	0.54
36:5:1346:G:H5''	36:5:1346:G:H8	1.72	0.54
36:5:1613:A:H2'	36:5:1614:C:C6	2.42	0.54
36:5:2095:G:H2'	36:5:2096:A:C8	2.41	0.54
36:5:2196:C:H2'	36:5:2242:A:H61	1.73	0.54
36:5:2737:C:H4'	57:n1:68:THR:OG1	2.08	0.54
36:5:3273:A:P	43:l6:77:ARG:HH12	2.29	0.54
42:l5:60:ILE:HB	42:l5:80:SER:HB3	1.88	0.54
46:l9:103:ILE:HD11	46:l9:134:ILE:CG2	2.36	0.54
49:m3:74:GLY:O	49:m3:101:ARG:NH1	2.40	0.54
1:2:142:G:H22	1:2:173:A:H2	1.56	0.54
1:2:386:G:H2'	1:2:387:A:H8	1.72	0.54
1:2:512:A:OP2	11:S9:173:ALA:N	2.40	0.54
1:2:1595:U:H5''	1:2:1596:C:H5	1.73	0.54
4:S2:226:THR:OG1	4:S2:228:ASN:OD1	2.26	0.54
21:C9:37:VAL:HG22	21:C9:38:LYS:H	1.71	0.54
35:SM:136:ALA:O	35:SM:140:ASP:N	2.41	0.54
36:1:659:G:H2'	36:1:660:A:N7	2.23	0.54
36:1:1096:U:H4'	36:1:1097:G:OP1	2.06	0.54
36:1:1100:U:H2'	36:1:1101:G:C8	2.43	0.54
36:1:1482:A:H4'	36:1:1483:G:OP2	2.07	0.54
37:3:67:G:H2'	37:3:68:C:H6	1.73	0.54
38:4:133:G:H2'	38:4:134:G:C8	2.42	0.54
49:M3:167:PHE:CE1	64:N8:132:LYS:HB2	2.42	0.54
69:O3:3:GLU:O	69:O3:5:HIS:ND1	2.41	0.54
1:6:191:C:H42	10:s8:137:LYS:HD2	1.73	0.54
1:6:839:U:OP1	13:c1:28:SER:OG	2.26	0.54
1:6:1183:A:C6	1:6:1184:A:N1	2.75	0.54
24:d2:7:LEU:HD21	24:d2:37:PHE:CD2	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:sM:38:PRO:HB3	48:m1:52:TYR:CE2	2.42	0.54
36:5:1587:A:O2'	36:5:1590:G:O6	2.18	0.54
36:5:1602:A:H2'	36:5:1603:A:C8	2.43	0.54
36:5:1765:U:H5'	55:m9:43:LYS:HE2	1.90	0.54
36:5:2131:A:H61	79:q3:18:TYR:H	1.55	0.54
36:5:2131:A:N6	79:q3:18:TYR:HA	2.21	0.54
36:5:2661:G:O2'	36:5:2662:G:H5'	2.07	0.54
41:l4:60:THR:HG22	41:l4:62:ALA:H	1.72	0.54
44:l7:229:PHE:C	44:l7:229:PHE:HD1	2.15	0.54
51:m5:13:LYS:O	51:m5:19:LEU:HD22	2.08	0.54
56:n0:137:ARG:HG2	56:n0:139:TYR:CZ	2.43	0.54
57:n1:68:THR:HG23	57:n1:69:LYS:N	2.22	0.54
59:n3:13:ILE:CD1	59:n3:54:LEU:HB3	2.38	0.54
1:2:29:U:H2'	1:2:30:G:H8	1.71	0.54
1:2:126:A:H62	1:2:291:G:H21	1.55	0.54
17:C5:126:VAL:HG13	17:C5:127:ARG:H	1.73	0.54
36:1:18:G:OP1	71:O5:81:ARG:NH2	2.37	0.54
36:1:104:G:O2'	36:1:698:U:O2	2.24	0.54
36:1:1307:G:C2	36:1:1308:A:C2	2.96	0.54
36:1:1461:A:H2'	36:1:1462:A:H8	1.72	0.54
36:1:1488:G:H5''	36:1:1838:G:O6	2.07	0.54
36:1:1653:G:H4'	70:O4:43:LYS:O	2.08	0.54
36:1:1676:A:P	58:N2:73:GLY:H	2.31	0.54
38:4:137:C:H5''	38:4:138:A:OP2	2.06	0.54
42:L5:156:GLY:HA2	42:L5:181:PRO:HD3	1.89	0.54
49:M3:180:ARG:HD3	72:O6:11:LEU:HD21	1.89	0.54
54:M8:82:VAL:N	54:M8:138:LEU:O	2.37	0.54
58:N2:53:ALA:HA	58:N2:68:THR:HG22	1.90	0.54
63:N7:46:ILE:HD11	63:N7:49:TYR:CA	2.38	0.54
66:O0:45:ALA:HB3	66:O0:48:THR:HG22	1.90	0.54
1:6:452:A:H3'	1:6:453:U:H5	1.69	0.54
2:s0:77:SER:HB2	2:s0:124:THR:HG21	1.90	0.54
3:s1:83:LYS:HD2	3:s1:104:ASP:HB3	1.90	0.54
7:s5:68:ILE:HD13	7:s5:69:PHE:H	1.72	0.54
9:s7:49:ILE:HG13	9:s7:57:ALA:HB3	1.90	0.54
36:5:13:A:H4'	61:n5:39:LYS:CG	2.38	0.54
36:5:791:A:H2'	36:5:792:G:C8	2.43	0.54
36:5:1579:C:OP2	36:5:1579:C:H6	1.91	0.54
36:5:2925:C:H2'	36:5:2926:A:H5'	1.89	0.54
36:5:3044:G:H2'	36:5:3045:G:C8	2.43	0.54
41:l4:198:ARG:HG2	41:l4:198:ARG:O	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:l6:170:LYS:O	43:l6:172:HIS:N	2.41	0.54
46:l9:166:ARG:NH2	46:l9:168:ARG:HH22	2.05	0.54
55:m9:81:ARG:HD3	55:m9:88:ARG:NH1	2.23	0.54
60:n4:123:ARG:O	60:n4:127:LYS:HB2	2.08	0.54
61:n5:57:LEU:HD23	61:n5:61:LYS:HG2	1.89	0.54
1:2:1164:G:O2'	1:2:1612:U:O2	2.26	0.54
1:2:1383:G:OP1	22:D0:87:HIS:ND1	2.41	0.54
9:S7:71:HIS:CG	9:S7:131:PHE:HZ	2.25	0.54
19:C7:21:TYR:HA	19:C7:58:MET:HE1	1.88	0.54
25:D3:43:PHE:C	25:D3:45:GLY:H	2.15	0.54
35:SM:86:ASN:O	35:SM:87:THR:OG1	2.22	0.54
36:1:855:U:H2'	36:1:856:G:C8	2.43	0.54
36:1:1346:G:H1'	41:L4:307:GLN:HE22	1.72	0.54
36:1:1596:C:H2'	36:1:1597:C:C6	2.43	0.54
36:1:1637:A:O2'	36:1:1638:A:H5'	2.08	0.54
36:1:2152:A:H2'	36:1:2153:U:C6	2.42	0.54
36:1:2294:U:O2	36:1:2296:A:H8	1.91	0.54
36:1:2709:C:O2'	36:1:2710:C:H5'	2.08	0.54
41:L4:31:ARG:HB3	41:L4:34:ILE:HG13	1.89	0.54
41:L4:181:VAL:HG21	41:L4:224:GLY:HA3	1.90	0.54
1:6:691:C:P	1:6:696:C:H41	2.30	0.54
1:6:1600:A:H4'	1:6:1601:G:OP1	2.07	0.54
1:6:1724:U:H2'	1:6:1725:U:C6	2.42	0.54
19:c7:24:LEU:HD13	19:c7:58:MET:HE3	1.89	0.54
24:d2:45:GLY:O	24:d2:68:ARG:HD2	2.08	0.54
36:5:94:G:H2'	36:5:95:A:C8	2.43	0.54
36:5:1063:G:C6	57:n1:109:VAL:HG13	2.42	0.54
36:5:1621:A:H2'	36:5:1622:U:H6	1.73	0.54
36:5:1824:U:C2	36:5:1825:G:C8	2.95	0.54
36:5:2947:G:OP2	36:5:2947:G:H4'	2.06	0.54
37:7:6:C:OP1	42:l5:54:ARG:NE	2.28	0.54
40:l3:162:VAL:O	40:l3:178:LEU:HD12	2.08	0.54
41:l4:140:HIS:NE2	41:l4:246:ARG:HG2	2.21	0.54
41:l4:187:LEU:HD23	41:l4:198:ARG:O	2.08	0.54
42:l5:78:ALA:HB3	42:l5:105:ILE:HB	1.89	0.54
60:n4:9:SER:HA	60:n4:52:THR:HB	1.89	0.54
80:p0:42:ARG:HB3	80:p0:46:ARG:HH21	1.72	0.54
1:2:158:U:O2'	1:2:159:U:H3'	2.08	0.54
1:2:1062:A:H2'	1:2:1063:U:O4'	2.07	0.54
1:2:1363:U:H3'	1:2:1364:G:H8	1.72	0.54
1:2:1394:G:OP1	34:SR:282:SER:OG	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1462:G:N7	20:C8:143:ARG:NH2	2.56	0.54
1:2:1504:G:C6	1:2:1505:A:C6	2.95	0.54
6:S4:253:ASP:O	6:S4:257:ALA:N	2.34	0.54
7:S5:161:ASP:HB2	30:D8:54:LEU:HD21	1.88	0.54
8:S6:161:GLU:HA	8:S6:169:TYR:O	2.07	0.54
13:C1:87:ARG:HH21	13:C1:104:HIS:CD2	2.26	0.54
22:D0:61:LYS:HG3	22:D0:86:ILE:HB	1.90	0.54
36:1:978:G:N2	36:1:1103:A:H2	2.06	0.54
36:1:1523:U:H4'	61:N5:113:LEU:HB3	1.90	0.54
36:1:1839:A:C5	36:1:1843:C:C4	2.96	0.54
36:1:2112:U:O2	36:1:2113:A:N6	2.41	0.54
36:1:2712:U:O2'	36:1:2743:A:O2'	2.01	0.54
40:L3:188:ILE:O	40:L3:192:VAL:HG12	2.08	0.54
41:L4:361:HIS:CG	41:L4:362:ASP:N	2.75	0.54
62:N6:112:ASP:O	62:N6:116:LYS:HG3	2.07	0.54
66:O0:20:SER:OG	66:O0:96:GLY:HA3	2.08	0.54
68:O2:67:SER:OG	68:O2:71:HIS:O	2.26	0.54
70:O4:44:CYS:N	70:O4:49:SER:O	2.38	0.54
72:O6:53:TYR:HB2	72:O6:76:ARG:HD2	1.89	0.54
1:6:869:A:H2'	1:6:870:C:O4'	2.08	0.54
1:6:985:G:H2'	1:6:986:G:O4'	2.08	0.54
2:s0:106:SER:O	2:s0:115:PHE:HA	2.08	0.54
5:s3:90:ARG:HD3	5:s3:91:VAL:HG22	1.89	0.54
6:s4:5:PRO:HB2	6:s4:7:LYS:HE3	1.90	0.54
13:c1:33:ARG:NH1	13:c1:53:TYR:O	2.37	0.54
14:c2:105:LYS:H	14:c2:113:ARG:CB	2.20	0.54
35:sM:102:THR:CG2	35:sM:105:LYS:HD3	2.37	0.54
36:5:201:A:H2'	36:5:202:G:H8	1.73	0.54
36:5:428:A:H2'	36:5:429:U:C6	2.42	0.54
36:5:550:A:H2'	36:5:551:A:C8	2.43	0.54
36:5:1184:A:H2'	36:5:1185:C:C6	2.43	0.54
36:5:1369:A:H5''	64:n8:21:ARG:HD2	1.90	0.54
36:5:2262:A:H2'	36:5:2263:C:H5'	1.90	0.54
36:5:2986:U:H2'	36:5:2987:A:C8	2.43	0.54
36:5:3204:C:O2'	36:5:3205:G:H5'	2.07	0.54
45:l8:65:LEU:O	45:l8:69:LEU:HD13	2.08	0.54
46:l9:124:ARG:HB3	46:l9:164:ILE:HG12	1.90	0.54
51:m5:119:TYR:OH	51:m5:131:GLU:OE1	2.21	0.54
54:m8:36:LEU:HB3	54:m8:45:ASN:ND2	2.23	0.54
56:n0:30:PHE:CZ	56:n0:103:VAL:HG21	2.42	0.54
59:n3:66:LYS:HB3	59:n3:68:GLU:OE1	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:67:A:N6	1:2:83:G:O2'	2.41	0.54
1:2:997:G:H2'	1:2:998:A:O4'	2.08	0.54
1:2:1157:A:H3'	1:2:1157:A:C8	2.43	0.54
1:2:1211:A:H1'	17:C5:99:GLY:O	2.08	0.54
1:2:1217:A:H5'	1:2:1217:A:C8	2.43	0.54
2:S0:8:ASP:OD1	2:S0:8:ASP:N	2.41	0.54
5:S3:141:LYS:HD2	5:S3:179:GLN:HG3	1.90	0.54
6:S4:11:ARG:NH1	6:S4:20:LEU:HD22	2.23	0.54
8:S6:137:ARG:HH21	8:S6:177:ARG:HD2	1.73	0.54
36:1:558:U:H4'	36:1:559:A:OP2	2.07	0.54
36:1:911:C:H5''	39:L2:15:ILE:CD1	2.37	0.54
36:1:1390:A:H5''	36:1:1392:G:O4'	2.08	0.54
36:1:1815:U:O2'	36:1:1816:A:OP2	2.23	0.54
36:1:1856:C:H1'	70:O4:7:PHE:HE2	1.73	0.54
36:1:2163:C:O2'	39:L2:11:GLY:HA3	2.08	0.54
36:1:3049:A:H5'	36:1:3049:A:C8	2.37	0.54
40:L3:77:THR:HG23	40:L3:326:GLY:O	2.08	0.54
40:L3:139:GLN:CD	40:L3:139:GLN:H	2.15	0.54
41:L4:77:VAL:HG12	41:L4:78:GLY:O	2.08	0.54
48:M1:82:ARG:CG	48:M1:112:LEU:HB2	2.38	0.54
49:M3:168:ARG:NH1	49:M3:172:LEU:HD11	2.22	0.54
1:6:198:A:C2'	1:6:199:G:H5'	2.38	0.54
1:6:1234:A:H4'	33:e1:146:SER:HB3	1.90	0.54
1:6:1358:G:H2'	1:6:1359:C:C6	2.42	0.54
1:6:1662:G:O6	82:6:2014:GET:N21	2.41	0.54
2:s0:63:ILE:HG23	23:d1:35:ASN:O	2.08	0.54
2:s0:138:TYR:O	23:d1:29:HIS:HB3	2.08	0.54
13:c1:101:GLU:OE1	13:c1:103:ARG:NE	2.41	0.54
21:c9:6:VAL:HG13	21:c9:66:TYR:CZ	2.43	0.54
36:5:1148:G:C2	36:5:1156:C:C2	2.95	0.54
36:5:1488:G:C2	36:5:1489:A:C8	2.95	0.54
36:5:1852:G:O2'	73:o7:6:PRO:O	2.19	0.54
36:5:2261:G:O2'	36:5:2263:C:N4	2.41	0.54
41:l4:203:ARG:NH2	41:l4:240:PRO:HB3	2.23	0.54
45:l8:34:PHE:H	45:l8:39:ALA:CB	2.21	0.54
48:m1:54:VAL:HG23	48:m1:57:PHE:HB2	1.90	0.54
61:n5:73:MET:HE1	61:n5:141:TYR:CD1	2.43	0.54
79:q3:73:THR:HB	79:q3:76:ALA:HB2	1.89	0.54
1:2:2:A:C2	4:S2:170:ILE:HD12	2.43	0.53
1:2:816:G:H2'	1:2:817:A:H8	1.73	0.53
1:2:1316:G:OP1	19:C7:7:LYS:NZ	2.25	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:108:ASP:OD1	3:S1:108:ASP:N	2.38	0.53
32:E0:33:ARG:HB3	32:E0:33:ARG:NH1	2.23	0.53
36:1:7:C:H4'	45:L8:193:LYS:O	2.08	0.53
36:1:1447:G:OP1	53:M7:65:SER:OG	2.25	0.53
36:1:1527:C:O3'	70:O4:9:ARG:HD3	2.07	0.53
36:1:2295:A:C2	59:N3:37:ILE:HB	2.44	0.53
36:1:2402:A:H5''	41:L4:67:THR:OG1	2.09	0.53
36:1:2775:U:H2'	36:1:2776:C:H6	1.73	0.53
40:L3:230:THR:HG23	40:L3:235:THR:O	2.08	0.53
59:N3:79:VAL:HG22	59:N3:100:GLY:HA2	1.91	0.53
69:O3:9:VAL:HG21	69:O3:44:TYR:HE1	1.73	0.53
71:O5:86:ARG:O	71:O5:90:ARG:HG2	2.08	0.53
1:6:861:U:O2'	24:d2:56:HIS:O	2.20	0.53
1:6:958:U:OP2	29:d7:20:LYS:NZ	2.36	0.53
1:6:1347:U:O2	1:6:1516:A:H5'	2.07	0.53
7:s5:43:PHE:HB3	7:s5:46:TRP:HB2	1.90	0.53
7:s5:112:ARG:HH21	7:s5:115:LYS:HZ2	1.55	0.53
36:5:149:U:P	51:m5:49:ARG:HH11	2.31	0.53
36:5:497:C:H2'	36:5:498:A:O4'	2.08	0.53
36:5:726:G:H8	36:5:726:G:H5'	1.73	0.53
36:5:824:C:H5''	39:l2:21:ARG:HD3	1.90	0.53
36:5:2138:A:HO2'	73:o7:2:GLY:N	2.06	0.53
36:5:2163:C:H5''	39:l2:231:SER:HB2	1.89	0.53
36:5:2418:G:H4'	36:5:2419:A:OP2	2.06	0.53
36:5:2771:U:OP2	36:5:2772:C:N4	2.35	0.53
36:5:3281:U:H2'	36:5:3282:U:C6	2.43	0.53
36:5:3353:G:C3'	36:5:3354:U:H4'	2.37	0.53
37:7:91:G:H2'	37:7:92:A:C8	2.43	0.53
37:7:93:C:OP1	47:m0:57:LEU:HD12	2.08	0.53
41:l4:320:ASN:OD1	41:l4:323:VAL:HG23	2.07	0.53
44:l7:88:ARG:HD2	44:l7:90:LYS:O	2.07	0.53
80:p0:44:GLU:OE1	80:p0:99:VAL:HG13	2.08	0.53
1:2:824:G:H22	1:2:849:C:H1'	1.74	0.53
1:2:852:C:H5''	55:M9:176:ARG:HH12	1.72	0.53
1:2:901:G:C6	1:2:902:G:C6	2.96	0.53
1:2:1492:A:H1'	1:2:1493:A:H5'	1.91	0.53
4:S2:137:ILE:HD11	23:D1:27:ASP:HB3	1.90	0.53
7:S5:121:ILE:HB	7:S5:129:PRO:HB3	1.90	0.53
7:S5:127:GLN:O	7:S5:128:ASN:C	2.50	0.53
21:C9:57:ARG:HH21	21:C9:80:TYR:HB3	1.71	0.53
24:D2:89:TRP:O	24:D2:93:LEU:HD22	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:9:GLY:O	28:D6:10:ARG:HG3	2.07	0.53
36:1:21:G:C8	38:4:37:A:N6	2.76	0.53
36:1:297:G:N2	36:1:297:G:OP2	2.42	0.53
36:1:1009:A:H2'	36:1:1010:G:O4'	2.08	0.53
36:1:2748:A:C2	42:L5:35:ARG:HB3	2.42	0.53
36:1:2833:A:C4	36:1:2856:G:N2	2.76	0.53
36:1:3043:C:OP1	59:N3:45:ARG:NE	2.41	0.53
36:1:3047:U:O2'	40:L3:53:MET:HE1	2.08	0.53
37:3:90:U:H2'	37:3:91:G:O4'	2.08	0.53
39:L2:183:GLY:O	39:L2:186:PHE:N	2.41	0.53
55:M9:66:HIS:O	55:M9:69:SER:N	2.41	0.53
58:N2:20:SER:OG	58:N2:21:SER:N	2.41	0.53
62:N6:45:ILE:HD11	62:N6:122:LYS:HB2	1.90	0.53
1:6:156:A:H1'	1:6:416:A:N7	2.24	0.53
1:6:246:G:H1'	13:c1:40:LEU:HD13	1.90	0.53
1:6:284:G:N7	8:s6:188:ARG:HD2	2.23	0.53
1:6:1566:U:H5''	20:c8:39:GLY:N	2.23	0.53
11:s9:102:GLU:HA	11:s9:105:LEU:HB2	1.90	0.53
14:c2:46:ARG:HA	14:c2:49:THR:OG1	2.07	0.53
18:c6:99:GLU:HG2	34:sR:57:PRO:HB2	1.91	0.53
20:c8:4:VAL:HG21	27:d5:82:HIS:ND1	2.24	0.53
22:d0:37:VAL:HG13	22:d0:107:THR:HG22	1.89	0.53
23:d1:41:GLU:CD	23:d1:41:GLU:H	2.14	0.53
36:5:887:G:H2'	36:5:888:A:H8	1.71	0.53
36:5:1512:U:O3'	55:m9:5:ARG:NH1	2.41	0.53
38:8:94:C:H5''	73:o7:76:ASN:ND2	2.23	0.53
39:l2:225:ILE:O	39:l2:238:ILE:O	2.27	0.53
41:l4:120:TYR:CE2	41:l4:277:PRO:HB3	2.44	0.53
56:n0:80:ARG:HB2	56:n0:124:LEU:HD11	1.90	0.53
60:n4:106:GLU:HA	60:n4:109:LEU:HB2	1.91	0.53
61:n5:92:LYS:HG2	61:n5:110:VAL:HG12	1.90	0.53
66:o0:13:LYS:O	66:o0:17:VAL:HG23	2.08	0.53
70:o4:71:THR:HG22	70:o4:77:GLY:HA3	1.90	0.53
1:2:57:G:OP1	26:D4:112:LYS:NZ	2.36	0.53
1:2:766:U:H5'	1:2:767:U:H5''	1.89	0.53
1:2:1064:G:O2'	3:S1:204:ILE:O	2.26	0.53
1:2:1490:C:H4'	1:2:1491:U:OP1	2.09	0.53
1:2:1727:G:H2'	1:2:1728:A:C8	2.42	0.53
1:2:1783:C:OP2	77:Q1:1:MET:HB2	2.09	0.53
3:S1:181:LEU:O	3:S1:185:THR:N	2.26	0.53
7:S5:79:ASN:HB2	7:S5:83:ARG:NH2	2.22	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:137:ARG:NH2	8:S6:177:ARG:HH11	2.06	0.53
22:D0:28:SER:HB2	22:D0:112:VAL:HA	1.89	0.53
27:D5:40:VAL:C	27:D5:75:LEU:HD11	2.33	0.53
30:D8:32:PHE:CE2	30:D8:38:ARG:HB3	2.43	0.53
36:1:155:G:H5''	36:1:156:G:N7	2.22	0.53
36:1:685:G:N2	36:1:696:C:C2	2.76	0.53
36:1:690:A:H4'	36:1:692:A:N7	2.23	0.53
36:1:901:G:H2'	36:1:902:G:C8	2.37	0.53
36:1:1127:G:N2	36:1:1129:A:H3'	2.23	0.53
36:1:1481:A:H2'	36:1:1481:A:N3	2.21	0.53
36:1:1610:G:P	61:N5:125:ARG:HH12	2.32	0.53
36:1:1722:U:OP1	55:M9:100:ARG:HD3	2.07	0.53
36:1:1760:A:C6	36:1:1761:C:N4	2.77	0.53
36:1:2352:A:H5''	53:M7:83:TRP:O	2.09	0.53
42:L5:155:THR:H	42:L5:179:ARG:HH11	1.54	0.53
52:M6:72:HIS:O	52:M6:74:ARG:HD3	2.08	0.53
57:N1:8:ARG:O	57:N1:11:THR:OG1	2.14	0.53
58:N2:104:ARG:CZ	58:N2:106:ALA:HB2	2.39	0.53
60:N4:42:GLN:HB2	60:N4:44:LYS:HG2	1.89	0.53
62:N6:17:LYS:O	62:N6:21:THR:OG1	2.19	0.53
1:6:872:G:H2'	1:6:873:U:O4'	2.09	0.53
1:6:1392:U:H2'	1:6:1393:C:C6	2.44	0.53
1:6:1642:G:OP2	82:6:2013:GET:H832	2.09	0.53
7:s5:41:LYS:NZ	7:s5:67:PRO:O	2.42	0.53
8:s6:75:LEU:O	8:s6:94:ARG:HA	2.09	0.53
9:s7:75:THR:HG23	9:s7:161:GLN:OE1	2.08	0.53
19:c7:21:TYR:HA	19:c7:58:MET:HE1	1.91	0.53
35:sM:52:PRO:C	35:sM:54:PRO:HD3	2.33	0.53
38:8:72:A:H4'	62:n6:75:ARG:NH1	2.24	0.53
38:8:86:U:H2'	71:o5:7:TYR:CE2	2.44	0.53
52:m6:36:VAL:HG23	52:m6:37:ARG:HG3	1.90	0.53
72:o6:66:GLU:OE2	72:o6:91:ASN:ND2	2.38	0.53
1:2:1099:U:OP1	24:D2:71:LYS:NZ	2.34	0.53
1:2:1611:A:OP1	7:S5:107:LYS:NZ	2.37	0.53
19:C7:14:LYS:NZ	19:C7:68:GLY:O	2.35	0.53
22:D0:22:ILE:HG22	22:D0:93:LEU:HB2	1.90	0.53
26:D4:57:VAL:HG22	26:D4:60:PHE:HE2	1.73	0.53
36:1:1027:A:N6	36:1:1029:G:N3	2.57	0.53
36:1:1824:U:C4	36:1:1825:G:N7	2.76	0.53
36:1:2442:G:N2	36:1:2505:U:H3	1.97	0.53
36:1:2591:A:O2'	36:1:2592:G:H5'	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3227:A:C5	36:1:3228:C:C5	2.97	0.53
38:4:139:U:H2'	38:4:140:G:C8	2.42	0.53
41:L4:42:VAL:HA	41:L4:45:ASN:ND2	2.24	0.53
49:M3:75:PHE:O	49:M3:79:GLU:HB2	2.07	0.53
53:M7:91:VAL:O	53:M7:94:LEU:N	2.41	0.53
58:N2:49:ASN:O	58:N2:49:ASN:ND2	2.41	0.53
58:N2:55:THR:O	58:N2:65:VAL:HA	2.07	0.53
68:O2:13:HIS:CE1	68:O2:15:LYS:HB3	2.44	0.53
1:6:192:U:H1'	1:6:193:U:C4	2.43	0.53
1:6:340:U:H2'	1:6:341:A:C8	2.43	0.53
1:6:1595:U:H3	1:6:1600:A:H2	1.56	0.53
3:s1:125:VAL:HG11	3:s1:173:THR:HG23	1.89	0.53
6:s4:26:CYS:HB3	6:s4:27:TYR:CE1	2.42	0.53
11:s9:129:ILE:HA	11:s9:134:ILE:CG1	2.39	0.53
21:c9:73:VAL:HG23	21:c9:105:LEU:HD12	1.89	0.53
21:c9:115:GLU:HG3	21:c9:123:ARG:HD3	1.91	0.53
23:d1:17:CYS:HB2	23:d1:56:SER:HB3	1.90	0.53
26:d4:8:ARG:CZ	26:d4:28:LEU:HD11	2.38	0.53
36:5:610:G:C8	41:l4:312:VAL:HG21	2.43	0.53
36:5:655:C:H2'	36:5:656:A:H8	1.73	0.53
36:5:708:G:N2	36:5:711:A:OP2	2.40	0.53
36:5:1096:U:C2	36:5:1097:G:C6	2.97	0.53
36:5:2269:U:C5'	36:5:2269:U:H6	2.20	0.53
71:o5:15:GLU:N	71:o5:15:GLU:OE1	2.41	0.53
71:o5:78:LYS:HA	71:o5:81:ARG:HB2	1.90	0.53
1:2:1557:U:H5'	17:C5:115:TYR:CE2	2.42	0.53
1:2:1579:U:H2'	1:2:1580:C:C6	2.43	0.53
3:S1:26:ARG:HD2	3:S1:49:ASN:OD1	2.09	0.53
3:S1:181:LEU:HA	3:S1:184:LEU:HB3	1.91	0.53
8:S6:57:ASP:HA	8:S6:107:ALA:H	1.73	0.53
20:C8:146:ALA:H	35:SM:68:ARG:NH2	2.05	0.53
34:SR:93:ASP:HB3	34:SR:96:THR:HB	1.91	0.53
34:SR:240:VAL:HG22	34:SR:256:THR:HG22	1.91	0.53
36:1:90:C:H4'	36:1:282:G:H5''	1.91	0.53
36:1:92:G:OP2	36:1:93:C:H5''	2.09	0.53
36:1:1039:U:H2'	36:1:1040:A:C8	2.44	0.53
36:1:1657:C:C5	36:1:1797:A:H5''	2.43	0.53
36:1:2554:A:H5''	39:L2:87:PHE:CZ	2.43	0.53
37:3:63:A:OP1	42:L5:285:ARG:HD3	2.09	0.53
38:4:41:A:N7	38:4:42:G:C8	2.76	0.53
41:L4:317:PRO:C	41:L4:319:LYS:H	2.16	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:17:ASP:OD1	72:O6:55:ARG:NH2	2.41	0.53
51:M5:110:ALA:HB1	51:M5:113:LEU:HD23	1.90	0.53
52:M6:34:VAL:HB	52:M6:103:LYS:HB2	1.91	0.53
52:M6:51:LYS:O	52:M6:54:TYR:N	2.42	0.53
61:N5:137:ASN:HB3	61:N5:142:ILE:HG12	1.91	0.53
1:6:463:U:H2'	1:6:464:A:C8	2.43	0.53
7:s5:156:ARG:HH12	7:s5:158:GLN:HE22	1.55	0.53
30:d8:13:ILE:HG13	30:d8:31:GLU:N	2.23	0.53
36:5:73:C:O2'	49:m3:59:ARG:HG2	2.09	0.53
36:5:1653:G:H4'	70:o4:43:LYS:O	2.09	0.53
36:5:1659:U:H2'	36:5:1660:C:H6	1.69	0.53
36:5:1738:C:O2'	70:o4:53:GLY:N	2.40	0.53
37:7:70:U:H2'	37:7:71:G:C8	2.43	0.53
50:m4:32:LEU:HD11	50:m4:94:TRP:CG	2.43	0.53
51:m5:68:ARG:NE	51:m5:124:ASP:O	2.41	0.53
1:2:175:G:H1'	1:2:266:A:N6	2.22	0.53
1:2:214:G:N2	1:2:252:U:O4	2.41	0.53
1:2:428:A:H3'	1:2:429:G:H8	1.74	0.53
1:2:1057:U:O3'	1:2:1058:U:H2'	2.09	0.53
1:2:1640:C:O2'	1:2:1641:C:H5'	2.08	0.53
1:2:1753:A:H5'	1:2:1754:A:OP2	2.08	0.53
2:S0:121:VAL:HB	2:S0:143:VAL:HG22	1.91	0.53
6:S4:199:GLU:HG3	6:S4:209:HIS:HE2	1.73	0.53
7:S5:57:SER:HB3	30:D8:53:ILE:HB	1.90	0.53
7:S5:123:VAL:HG21	27:D5:100:ILE:HD12	1.90	0.53
11:S9:161:THR:O	11:S9:162:SER:OG	2.23	0.53
16:C4:84:ARG:HA	16:C4:119:THR:HG22	1.91	0.53
36:1:287:G:H2'	36:1:288:C:C6	2.42	0.53
36:1:816:A:C5	36:1:906:A:C2	2.97	0.53
36:1:953:G:H2'	36:1:1117:G:H5''	1.91	0.53
36:1:978:G:O2'	36:1:979:U:N3	2.41	0.53
36:1:1435:A:N7	36:1:1437:C:C2	2.77	0.53
36:1:1525:G:O4'	36:1:1829:G:H2'	2.09	0.53
36:1:1593:A:C8	70:O4:60:ARG:NH1	2.77	0.53
37:3:4:U:H2'	37:3:5:G:C8	2.43	0.53
37:3:72:A:O2'	37:3:74:C:OP1	2.14	0.53
42:L5:261:THR:N	42:L5:264:GLN:HG3	2.24	0.53
47:M0:86:HIS:HB3	47:M0:139:ARG:HG2	1.90	0.53
54:M8:51:ALA:HA	54:M8:54:LEU:HG	1.89	0.53
71:O5:85:THR:CG2	71:O5:88:LEU:H	2.21	0.53
1:6:530:C:O2	26:d4:61:ARG:NH2	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1587:A:OP1	18:c6:132:LYS:NZ	2.38	0.53
1:6:1676:U:O2'	1:6:1677:C:H5'	2.09	0.53
8:s6:137:ARG:HG2	8:s6:177:ARG:HB2	1.91	0.53
11:s9:142:ASN:O	11:s9:144:PRO:HD3	2.08	0.53
12:c0:32:HIS:CD2	12:c0:33:GLU:HG2	2.43	0.53
12:c0:49:LEU:HB3	12:c0:55:VAL:HG11	1.90	0.53
15:c3:94:LYS:O	15:c3:97:SER:HB3	2.08	0.53
36:5:1576:G:H5'	36:5:1577:G:OP2	2.08	0.53
36:5:2196:C:H2'	36:5:2242:A:N6	2.24	0.53
36:5:2419:A:H1'	36:5:2804:A:O4'	2.07	0.53
38:8:80:A:H4'	38:8:81:U:H5'	1.91	0.53
42:l5:211:LEU:C	42:l5:213:ASP:H	2.16	0.53
45:l8:153:ILE:HG23	45:l8:163:VAL:HG22	1.91	0.53
45:l8:215:VAL:O	45:l8:219:ASP:HB2	2.09	0.53
46:l9:106:LYS:HG3	46:l9:107:ASP:OD2	2.08	0.53
51:m5:42:PRO:HG2	51:m5:53:TYR:CE2	2.44	0.53
1:2:167:U:H1'	8:S6:133:LEU:HD23	1.89	0.53
1:2:854:U:O4	1:2:855:A:N6	2.41	0.53
3:S1:126:THR:HG22	3:S1:136:ARG:HG3	1.90	0.53
6:S4:147:ILE:HG21	6:S4:169:ILE:HG13	1.91	0.53
7:S5:99:MET:O	7:S5:103:ASN:HB2	2.09	0.53
7:S5:161:ASP:O	30:D8:44:VAL:HA	2.07	0.53
13:C1:108:PRO:HB2	13:C1:135:VAL:HG22	1.90	0.53
21:C9:33:TYR:C	21:C9:33:TYR:CD1	2.87	0.53
25:D3:76:LEU:HB2	25:D3:79:ASN:HB2	1.91	0.53
36:1:44:U:OP1	51:M5:84:PRO:HG2	2.09	0.53
36:1:339:C:OP1	41:L4:195:ARG:NH1	2.42	0.53
36:1:420:G:H3'	82:1:3810:GET:O41	2.08	0.53
36:1:1447:G:N7	53:M7:25:SER:OG	2.40	0.53
36:1:1724:U:H1'	36:1:1725:C:C6	2.43	0.53
36:1:1836:C:OP1	84:1:3986:HOH:O	2.19	0.53
38:4:80:A:OP2	38:4:81:U:H5''	2.08	0.53
40:L3:114:VAL:HG13	40:L3:163:HIS:CG	2.43	0.53
51:M5:8:GLU:O	51:M5:12:ARG:HG3	2.07	0.53
57:N1:35:LYS:N	57:N1:38:ASP:OD2	2.41	0.53
59:N3:80:ARG:HB2	59:N3:99:ALA:HB3	1.90	0.53
1:6:610:G:H21	25:d3:19:ARG:NH1	2.05	0.53
1:6:863:A:O5'	24:d2:57:ARG:HG2	2.08	0.53
1:6:894:U:H2'	1:6:895:G:C8	2.43	0.53
1:6:1017:U:H2'	1:6:1018:U:C6	2.43	0.53
82:6:2013:GET:H322	82:6:2013:GET:H511	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:s1:66:VAL:HG13	16:c4:33:LEU:HB3	1.90	0.53
14:c2:97:LEU:HD11	14:c2:121:VAL:HG22	1.90	0.53
36:5:255:A:H2'	36:5:256:G:H8	1.74	0.53
36:5:843:A:H2'	36:5:844:G:H8	1.74	0.53
36:5:1761:C:H4'	36:5:1762:C:OP1	2.07	0.53
36:5:2696:A:H2'	36:5:2697:A:C8	2.43	0.53
64:n8:62:HIS:CG	64:n8:62:HIS:O	2.62	0.53
1:2:108:A:C2	1:2:307:G:C2	2.97	0.53
1:2:978:A:H2'	1:2:979:A:O4'	2.09	0.53
1:2:1086:A:H3'	1:2:1087:A:H8	1.74	0.53
1:2:1344:A:H8	1:2:1344:A:H5''	1.73	0.53
4:S2:140:ARG:HB2	4:S2:222:TYR:CE1	2.44	0.53
7:S5:25:LEU:HB2	18:C6:27:GLY:HA3	1.89	0.53
7:S5:55:ASP:HB3	7:S5:58:LEU:HD12	1.91	0.53
9:S7:173:TYR:CE2	9:S7:177:THR:HG21	2.44	0.53
18:C6:41:PRO:HG2	18:C6:78:VAL:HG21	1.90	0.53
29:D7:30:SER:HB3	29:D7:49:HIS:CD2	2.44	0.53
34:SR:305:TYR:CE2	34:SR:311:ARG:HD2	2.44	0.53
36:1:601:U:H2'	36:1:602:A:O4'	2.09	0.53
36:1:731:U:H2'	36:1:732:C:C6	2.44	0.53
36:1:2581:U:H2'	36:1:2582:C:H6	1.73	0.53
38:4:81:U:C4	38:4:82:U:N3	2.72	0.53
40:L3:50:LYS:O	40:L3:332:ARG:HA	2.09	0.53
40:L3:362:ALA:HA	40:L3:370:PHE:O	2.09	0.53
44:L7:89:ILE:HD12	44:L7:214:TRP:CZ3	2.43	0.53
54:M8:176:ARG:NH1	64:N8:46:ASP:OD2	2.42	0.53
61:N5:136:ALA:O	61:N5:139:ILE:HG23	2.08	0.53
68:O2:25:TYR:HB2	68:O2:28:VAL:HG23	1.91	0.53
79:Q3:75:ALA:O	79:Q3:79:VAL:HG23	2.09	0.53
1:6:1379:C:H5'	18:c6:10:PHE:CE2	2.43	0.53
1:6:1595:U:N3	1:6:1600:A:H2	2.07	0.53
1:6:1652:C:H2'	1:6:1653:C:C6	2.43	0.53
1:6:1755:A:H5'	25:d3:63:GLN:CG	2.38	0.53
16:c4:58:TYR:CE1	16:c4:62:LEU:HD22	2.44	0.53
17:c5:51:SER:C	17:c5:53:PRO:HD2	2.34	0.53
35:sM:54:PRO:HB2	35:sM:59:GLY:HA2	1.91	0.53
35:sM:82:THR:O	35:sM:83:LYS:HB2	2.09	0.53
36:5:209:A:H4'	36:5:211:A:N7	2.23	0.53
36:5:373:A:N1	36:5:394:G:H4'	2.24	0.53
36:5:616:G:H2'	36:5:617:G:C8	2.44	0.53
36:5:911:C:N4	39:l2:3:ARG:HD3	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:966:U:C2	36:5:967:A:N7	2.77	0.53
36:5:996:A:H2'	36:5:997:A:O4'	2.09	0.53
36:5:1127:G:P	47:m0:98:ARG:HH21	2.31	0.53
36:5:1253:U:O2	36:5:1263:A:H5'	2.09	0.53
36:5:1589:A:C4	70:o4:13:TYR:CD2	2.96	0.53
36:5:3058:U:C2	67:o1:25:PHE:CZ	2.97	0.53
36:5:3295:A:H2'	36:5:3296:A:C8	2.43	0.53
37:7:74:C:H1'	37:7:106:U:O2	2.09	0.53
39:l2:116:VAL:CG1	39:l2:126:LEU:HB2	2.39	0.53
42:l5:41:LYS:NZ	57:n1:32:LYS:O	2.36	0.53
43:l6:60:ASP:OD1	43:l6:62:THR:HG23	2.09	0.53
46:l9:87:LYS:HE3	46:l9:187:ILE:HA	1.91	0.53
49:m3:168:ARG:NH1	49:m3:172:LEU:HD11	2.24	0.53
50:m4:28:SER:HB3	50:m4:53:VAL:HG13	1.91	0.53
56:n0:167:ARG:HD2	56:n0:167:ARG:H	1.73	0.53
59:n3:45:ARG:HG2	59:n3:48:ARG:NH2	2.24	0.53
1:2:62:A:N1	1:2:288:A:H5'	2.23	0.53
1:2:174:U:H2'	1:2:175:G:O4'	2.09	0.53
1:2:911:U:O2'	1:2:915:A:H1'	2.08	0.53
1:2:1201:G:H22	1:2:1600:A:H5'	1.74	0.53
2:S0:180:GLU:CD	2:S0:183:ARG:HD3	2.34	0.53
5:S3:137:VAL:HG22	5:S3:151:LYS:HG2	1.91	0.53
9:S7:10:SER:HB2	9:S7:42:GLN:CD	2.34	0.53
9:S7:49:ILE:O	9:S7:57:ALA:N	2.24	0.53
20:C8:145:ARG:HB3	35:SM:68:ARG:CZ	2.39	0.53
32:E0:40:TYR:CD2	32:E0:44:PHE:HD2	2.27	0.53
34:SR:13:LEU:HB2	34:SR:310:ILE:HB	1.91	0.53
36:1:434:U:H2'	36:1:435:C:C6	2.44	0.53
36:1:809:G:O2'	84:1:3995:HOH:O	2.18	0.53
36:1:1941:C:OP2	55:M9:74:ARG:HG2	2.09	0.53
36:1:2181:C:OP1	39:L2:192:LYS:NZ	2.41	0.53
36:1:2355:G:H4'	53:M7:139:TYR:CD2	2.44	0.53
36:1:2896:A:H4'	76:Q0:95:VAL:HG11	1.90	0.53
48:M1:20:ASN:HB3	48:M1:126:ASP:HB2	1.91	0.53
53:M7:51:VAL:HG21	53:M7:58:ILE:HG12	1.91	0.53
66:O0:76:GLU:OE1	66:O0:76:GLU:N	2.39	0.53
73:O7:27:PHE:HA	73:O7:34:CYS:HB2	1.90	0.53
1:6:338:C:P	13:c1:133:LYS:HG3	2.49	0.53
1:6:576:G:H4'	1:6:580:A:C4	2.44	0.53
1:6:767:U:H5	11:s9:142:ASN:H	1.56	0.53
1:6:968:U:H5''	1:6:1033:C:O2'	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1402:G:OP2	19:c7:5:ARG:NH1	2.41	0.53
1:6:1491:U:H4'	1:6:1492:A:H4'	1.90	0.53
1:6:1524:A:C6	1:6:1525:A:C6	2.97	0.53
2:s0:48:ILE:HD13	2:s0:161:PRO:HB2	1.91	0.53
7:s5:140:THR:HG21	7:s5:175:LEU:HD21	1.90	0.53
9:s7:21:ALA:O	9:s7:25:VAL:HG23	2.09	0.53
17:c5:98:ASN:ND2	17:c5:101:ALA:HB3	2.23	0.53
22:d0:50:LEU:HD22	22:d0:95:ALA:HB2	1.91	0.53
36:5:1461:A:H2'	36:5:1462:A:C8	2.44	0.53
36:5:1481:A:C6	36:5:1859:A:C8	2.96	0.53
36:5:1522:U:H4'	36:5:1604:G:O2'	2.09	0.53
36:5:2140:U:H5	82:5:3844:GET:H212	1.55	0.53
36:5:3045:G:O3'	40:l3:275:ARG:NH1	2.42	0.53
40:l3:54:THR:OG1	40:l3:360:ASP:O	2.24	0.53
40:l3:313:HIS:O	40:l3:333:LYS:HE3	2.09	0.53
51:m5:6:TYR:CD2	72:o6:40:VAL:HG13	2.43	0.53
52:m6:194:LEU:HB3	52:m6:199:TYR:C	2.34	0.53
62:n6:79:ALA:HB1	62:n6:98:ASN:HB3	1.90	0.53
67:o1:77:ARG:HD2	67:o1:89:LEU:HD23	1.91	0.53
68:o2:21:HIS:CE1	68:o2:24:ARG:HD2	2.43	0.53
70:o4:7:PHE:CD1	70:o4:20:ILE:HD12	2.43	0.53
1:2:167:U:H5'	8:S6:133:LEU:O	2.08	0.53
1:2:284:G:N7	8:S6:188:ARG:NH1	2.57	0.53
1:2:309:C:H2'	1:2:310:C:C6	2.44	0.53
1:2:896:U:C1'	16:C4:38:THR:HG21	2.39	0.53
3:S1:190:PRO:HG2	3:S1:192:VAL:HG23	1.91	0.53
6:S4:90:ILE:HD11	6:S4:101:LEU:HD11	1.90	0.53
6:S4:94:ALA:C	6:S4:96:ASN:H	2.17	0.53
11:S9:29:LYS:HG3	32:E0:44:PHE:CE2	2.43	0.53
18:C6:32:ASN:OD1	18:C6:69:VAL:HG23	2.09	0.53
22:D0:23:ARG:HD3	22:D0:92:ASP:OD1	2.08	0.53
36:1:383:G:N2	36:1:385:A:H3'	2.24	0.53
36:1:510:G:N2	36:1:511:G:H1'	2.23	0.53
36:1:738:A:H2'	36:1:739:G:C8	2.43	0.53
36:1:1038:C:H2'	36:1:1039:U:C6	2.44	0.53
36:1:1478:C:O2'	36:1:1484:U:O4	2.26	0.53
36:1:1794:G:H4'	39:L2:191:LEU:CD1	2.38	0.53
36:1:2571:U:H4'	36:1:2572:C:OP1	2.08	0.53
36:1:2775:U:H2'	36:1:2776:C:C6	2.43	0.53
36:1:2882:U:H2'	36:1:2883:U:C6	2.44	0.53
39:L2:23:ARG:HH12	39:L2:53:GLY:HA3	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:179:LEU:HD22	44:L7:179:LEU:H	1.74	0.53
47:M0:17:TYR:H	47:M0:95:HIS:CE1	2.25	0.53
47:M0:50:VAL:HG22	47:M0:167:LEU:HD23	1.90	0.53
48:M1:19:LEU:O	48:M1:68:HIS:HB2	2.09	0.53
51:M5:112:ASN:ND2	51:M5:113:LEU:HD22	2.25	0.53
1:6:1026:A:N3	1:6:1790:A:O2'	2.38	0.53
1:6:1533:C:OP2	27:d5:77:ARG:NH2	2.41	0.53
9:s7:133:THR:O	9:s7:133:THR:OG1	2.26	0.53
11:s9:109:LEU:HD22	11:s9:113:VAL:HG23	1.91	0.53
19:c7:13:SER:HA	19:c7:54:THR:HG22	1.91	0.53
20:c8:33:THR:HA	20:c8:38:VAL:HG23	1.91	0.53
28:d6:45:VAL:O	28:d6:46:GLU:HG2	2.09	0.53
36:5:118:U:O2	36:5:121:A:H5'	2.09	0.53
36:5:682:U:H5''	36:5:683:U:OP1	2.09	0.53
36:5:1063:G:O6	57:n1:109:VAL:HG13	2.08	0.53
36:5:1556:C:H3'	36:5:1557:A:H5'	1.92	0.53
36:5:2217:U:H2'	36:5:2218:G:H8	1.74	0.53
36:5:2700:G:O2'	36:5:2705:A:N1	2.38	0.53
36:5:3378:C:H2'	36:5:3379:C:H6	1.73	0.53
41:l4:339:LEU:HA	41:l4:342:LYS:HB2	1.90	0.53
44:l7:80:GLN:HG3	57:n1:136:ARG:HB3	1.91	0.53
58:n2:98:THR:HG23	58:n2:104:ARG:HH21	1.74	0.53
59:n3:54:LEU:HD21	59:n3:119:GLY:HA3	1.91	0.53
1:2:38:C:C2'	1:2:39:A:H5'	2.38	0.52
1:2:143:G:H8	1:2:143:G:H5'	1.74	0.52
1:2:871:G:H2'	1:2:872:G:C8	2.44	0.52
1:2:959:U:OP2	15:C3:14:SER:HA	2.09	0.52
1:2:1434:U:H4'	31:D9:24:CYS:HB2	1.91	0.52
1:2:1530:C:P	27:D5:95:HIS:HB2	2.48	0.52
3:S1:70:LEU:HD21	3:S1:79:HIS:CG	2.43	0.52
6:S4:122:LYS:NZ	6:S4:143:ASP:OD1	2.40	0.52
6:S4:206:ASP:OD1	6:S4:206:ASP:N	2.41	0.52
9:S7:35:LYS:HG2	9:S7:36:ALA:H	1.73	0.52
13:C1:69:LYS:HB3	13:C1:71:LEU:HD21	1.90	0.52
19:C7:27:ASP:OD2	19:C7:30:THR:HG22	2.09	0.52
28:D6:87:ARG:NH2	28:D6:94:ASN:O	2.41	0.52
36:1:1295:G:O2'	56:N0:115:ARG:NH1	2.32	0.52
36:1:1362:G:H4'	44:L7:159:GLN:O	2.09	0.52
36:1:1445:U:H5''	36:1:1446:A:OP2	2.09	0.52
36:1:1820:U:OP2	36:1:1820:U:H4'	2.08	0.52
36:1:2102:U:H2'	36:1:2103:U:C6	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2697:A:H2'	36:1:2698:G:C8	2.44	0.52
36:1:2828:G:OP1	47:M0:7:ARG:NH1	2.41	0.52
49:M3:56:PRO:HG3	49:M3:74:GLY:O	2.08	0.52
63:N7:7:ALA:HB1	63:N7:89:VAL:HG11	1.91	0.52
68:O2:123:LYS:O	68:O2:126:LEU:HB2	2.09	0.52
1:6:240:U:H4'	1:6:240:U:OP1	2.08	0.52
1:6:538:A:C8	1:6:543:C:N4	2.76	0.52
1:6:542:A:C8	1:6:543:C:H2'	2.44	0.52
1:6:861:U:H5''	1:6:862:A:OP2	2.09	0.52
1:6:910:C:H2'	1:6:911:U:O4'	2.09	0.52
1:6:973:A:H5'	36:5:848:A:C2	2.45	0.52
1:6:1341:A:OP1	34:sR:63:GLY:HA2	2.09	0.52
1:6:1653:C:O3'	77:q1:21:ARG:HD2	2.08	0.52
5:s3:142:LEU:CB	35:sM:110:TRP:HE1	2.16	0.52
24:d2:38:LEU:HA	24:d2:41:MET:HE3	1.90	0.52
36:5:190:U:H2'	62:n6:60:ARG:HH22	1.72	0.52
36:5:1580:A:H5''	36:5:2522:G:H22	1.71	0.52
36:5:1639:C:O2'	36:5:1738:C:H5'	2.09	0.52
36:5:1896:A:C6	36:5:1897:G:C6	2.97	0.52
36:5:1914:G:C2	36:5:1915:A:H1'	2.44	0.52
36:5:2152:A:H2'	36:5:2153:U:C6	2.44	0.52
36:5:2155:G:C5'	39:l2:239:ALA:HB3	2.39	0.52
36:5:2269:U:H6	36:5:2269:U:H5'	1.72	0.52
36:5:2801:A:O2'	36:5:2802:A:H2'	2.09	0.52
36:5:3181:C:N4	36:5:3182:G:C6	2.77	0.52
36:5:3193:C:H2'	36:5:3194:C:O4'	2.09	0.52
37:7:10:C:C2	42:l5:20:PHE:HA	2.44	0.52
39:l2:56:ALA:HB2	39:l2:130:SER:HB2	1.92	0.52
54:m8:54:LEU:HD13	54:m8:58:ASN:HB3	1.91	0.52
66:o0:70:PHE:CD2	66:o0:77:LEU:HD13	2.44	0.52
76:q0:96:CYS:HB3	76:q0:101:ALA:H	1.74	0.52
1:2:514:G:O2'	1:2:515:A:H5'	2.09	0.52
1:2:1045:C:OP1	3:S1:153:HIS:CE1	2.61	0.52
1:2:1109:G:C2	1:2:1110:G:C8	2.97	0.52
1:2:1241:G:H5''	17:C5:77:ARG:HB2	1.90	0.52
1:2:1582:U:OP1	18:C6:135:ARG:NH1	2.42	0.52
7:S5:166:ARG:HB2	30:D8:46:GLY:HA3	1.90	0.52
8:S6:174:LYS:NZ	8:S6:175:ILE:O	2.36	0.52
14:C2:46:ARG:HA	33:E1:103:LEU:HD23	1.91	0.52
20:C8:25:ASN:O	27:D5:40:VAL:HG11	2.09	0.52
20:C8:35:ILE:HB	20:C8:38:VAL:CG2	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D5:92:ILE:HG12	27:D5:100:ILE:CG2	2.39	0.52
36:1:617:G:O2'	53:M7:171:ARG:NH2	2.41	0.52
36:1:1472:U:H4'	55:M9:4:LEU:HD12	1.90	0.52
36:1:1487:G:N2	70:O4:12:PRO:HB3	2.24	0.52
36:1:2557:A:H2	45:L8:38:GLN:HB2	1.75	0.52
36:1:2674:A:O4'	48:M1:105:GLY:HA3	2.09	0.52
36:1:2691:A:H2'	36:1:2692:A:C8	2.44	0.52
36:1:2703:A:H5''	36:1:2704:A:H5'	1.89	0.52
36:1:2796:G:H5''	36:1:2798:C:O4'	2.09	0.52
36:1:3182:G:H4'	52:M6:161:LYS:HD3	1.90	0.52
36:1:3326:G:H2'	36:1:3327:G:H8	1.74	0.52
37:3:46:A:P	42:L5:158:ARG:HH11	2.33	0.52
38:4:58:G:OP1	38:4:98:U:N3	2.37	0.52
52:M6:36:VAL:HG11	52:M6:108:ILE:HG23	1.91	0.52
56:N0:9:VAL:HG22	56:N0:61:ILE:HD12	1.90	0.52
63:N7:76:ASN:ND2	63:N7:78:ASN:HD22	1.99	0.52
72:O6:5:THR:HG23	72:O6:12:ASN:HB2	1.91	0.52
1:6:386:G:O2'	1:6:387:A:H5'	2.08	0.52
1:6:461:G:H2'	1:6:462:G:H8	1.73	0.52
1:6:918:U:H4'	16:c4:18:ARG:HE	1.73	0.52
1:6:1798:U:OP2	28:d6:38:ARG:NH2	2.41	0.52
4:s2:243:TYR:O	4:s2:246:GLU:N	2.43	0.52
7:s5:68:ILE:HD12	7:s5:70:VAL:O	2.10	0.52
8:s6:139:ASN:O	8:s6:143:LYS:HD2	2.09	0.52
8:s6:153:VAL:HG23	8:s6:154:ARG:H	1.72	0.52
20:c8:3:LEU:O	20:c8:5:VAL:HG23	2.08	0.52
36:5:372:A:H2'	36:5:373:A:C8	2.44	0.52
36:5:2970:C:HO2'	36:5:2971:A:P	2.32	0.52
38:8:73:U:O2'	38:8:90:U:OP1	2.23	0.52
40:l3:215:ILE:HD12	40:l3:338:LEU:HG	1.92	0.52
50:m4:16:GLU:OE1	50:m4:69:THR:HG21	2.07	0.52
59:n3:89:ASP:OD1	59:n3:91:VAL:HG12	2.09	0.52
62:n6:76:LEU:HD13	62:n6:76:LEU:O	2.09	0.52
62:n6:115:ARG:O	62:n6:119:ILE:HG13	2.09	0.52
73:o7:19:CYS:HA	73:o7:27:PHE:HB2	1.91	0.52
1:2:618:U:H5''	1:2:1030:A:C2	2.44	0.52
1:2:891:A:H2'	1:2:892:A:C8	2.44	0.52
1:2:1458:G:H5''	1:2:1459:C:OP2	2.09	0.52
3:S1:84:ILE:HG22	3:S1:86:LEU:HD22	1.91	0.52
9:S7:28:GLU:O	9:S7:35:LYS:HB2	2.08	0.52
21:C9:126:GLU:OE1	21:C9:127:ASN:N	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:11:LEU:HD12	24:D2:74:VAL:HB	1.90	0.52
36:1:129:U:H2'	36:1:130:A:C8	2.45	0.52
36:1:190:U:H2'	62:N6:60:ARG:NH2	2.24	0.52
36:1:2209:U:H2'	36:1:2209:U:OP2	2.10	0.52
36:1:2796:G:H4'	36:1:2798:C:C6	2.45	0.52
36:1:2867:C:O2'	36:1:2868:U:H5'	2.09	0.52
36:1:3243:A:C8	52:M6:156:LEU:HD13	2.45	0.52
36:1:3317:U:H5'	36:1:3317:U:C6	2.44	0.52
38:4:45:C:OP1	75:O9:12:LYS:NZ	2.42	0.52
49:M3:76:THR:O	49:M3:78:ALA:N	2.42	0.52
54:M8:80:THR:HG22	54:M8:100:THR:HB	1.90	0.52
1:6:333:A:OP1	10:s8:31:ARG:NH2	2.42	0.52
1:6:397:A:H5''	10:s8:47:ARG:NH1	2.24	0.52
1:6:590:C:H5''	32:e0:43:ARG:HH12	1.75	0.52
1:6:625:C:H2'	1:6:626:U:C6	2.45	0.52
1:6:1164:G:H2'	1:6:1165:G:C8	2.43	0.52
1:6:1660:A:H2'	1:6:1661:U:C6	2.44	0.52
6:s4:9:LEU:HD13	6:s4:28:ALA:HB3	1.91	0.52
10:s8:76:THR:HG22	10:s8:108:PRO:HG2	1.91	0.52
11:s9:121:SER:HB3	11:s9:124:HIS:HB2	1.91	0.52
18:c6:4:VAL:C	18:c6:5:PRO:CA	2.74	0.52
36:5:197:G:N2	36:5:372:A:C8	2.77	0.52
36:5:215:G:H2'	36:5:216:G:H8	1.75	0.52
36:5:660:A:H2	36:5:941:G:N3	2.07	0.52
36:5:1276:U:H2'	36:5:1277:C:C6	2.45	0.52
36:5:1475:A:H5''	82:5:3845:GET:H611	1.91	0.52
36:5:1821:U:N3	70:o4:67:LYS:HD2	2.24	0.52
36:5:3133:C:H2'	36:5:3134:A:O4'	2.08	0.52
41:l4:77:VAL:HG12	41:l4:78:GLY:O	2.09	0.52
44:l7:228:SER:HA	44:l7:232:ARG:HH22	1.71	0.52
49:m3:105:ASN:ND2	72:o6:17:VAL:HG21	2.23	0.52
52:m6:171:LYS:O	52:m6:175:THR:HG23	2.09	0.52
1:2:206:A:H1'	1:2:262:U:C2	2.44	0.52
1:2:942:G:O2'	1:2:943:C:H5'	2.09	0.52
1:2:1234:A:O2'	33:E1:146:SER:HB3	2.10	0.52
1:2:1472:C:N4	1:2:1536:G:H1	2.06	0.52
1:2:1522:U:H4'	1:2:1523:G:OP2	2.10	0.52
1:2:1602:C:H2'	1:2:1603:U:H6	1.75	0.52
6:S4:48:LEU:HD21	6:S4:70:VAL:HG21	1.91	0.52
6:S4:246:LEU:H	6:S4:246:LEU:HD12	1.74	0.52
15:C3:51:GLY:O	15:C3:55:ARG:HB3	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:87:ASN:OD1	20:C8:99:HIS:HA	2.10	0.52
36:1:25:U:H4'	36:1:26:A:N7	2.25	0.52
36:1:929:A:C2	36:1:930:U:C2	2.98	0.52
36:1:1538:G:H1	36:1:1553:U:H2'	1.75	0.52
36:1:2242:A:H5''	39:L2:244:GLY:HA3	1.92	0.52
36:1:3139:A:OP1	40:L3:274:SER:HB2	2.10	0.52
39:L2:4:VAL:HG12	39:L2:9:ARG:HG3	1.91	0.52
44:L7:220:PHE:O	44:L7:229:PHE:HE2	1.91	0.52
53:M7:131:ARG:HG3	53:M7:137:ASN:OD1	2.08	0.52
56:N0:71:LYS:O	56:N0:73:LYS:HG3	2.09	0.52
62:N6:34:PRO:HA	62:N6:47:ALA:HB2	1.92	0.52
2:s0:36:TYR:OH	2:s0:56:LYS:HE3	2.09	0.52
7:s5:38:THR:HG21	18:c6:57:LEU:HD11	1.90	0.52
25:d3:95:PHE:CE1	25:d3:135:LEU:HB3	2.44	0.52
36:5:406:G:N3	38:8:16:G:C2	2.78	0.52
36:5:630:A:H2'	36:5:631:U:C6	2.44	0.52
36:5:879:U:O2'	36:5:880:G:OP2	2.27	0.52
36:5:3112:G:O2'	46:l9:70:THR:HB	2.09	0.52
36:5:3308:C:O2	53:m7:69:ARG:HD3	2.10	0.52
43:l6:47:PHE:O	43:l6:50:LYS:HB2	2.09	0.52
44:l7:77:VAL:CG2	57:n1:139:ARG:HD3	2.40	0.52
46:l9:149:ASN:OD1	46:l9:149:ASN:N	2.43	0.52
55:m9:3:ASN:OD1	55:m9:5:ARG:HG3	2.09	0.52
63:n7:46:ILE:HD12	63:n7:47:GLU:C	2.34	0.52
1:2:309:C:H2'	1:2:310:C:H6	1.74	0.52
1:2:319:U:H1'	1:2:323:A:C4	2.44	0.52
1:2:372:G:H1'	1:2:612:U:O2	2.09	0.52
1:2:609:U:C5	25:D3:26:GLU:HG3	2.45	0.52
1:2:942:G:H2'	1:2:943:C:C6	2.44	0.52
1:2:1279:C:OP2	5:S3:185:LYS:NZ	2.36	0.52
2:S0:119:ARG:HB3	2:S0:119:ARG:NH1	2.24	0.52
7:S5:125:THR:O	7:S5:127:GLN:HB2	2.09	0.52
20:C8:64:GLU:HA	20:C8:67:GLU:OE1	2.10	0.52
20:C8:96:LYS:HB2	20:C8:98:TYR:CE2	2.45	0.52
24:D2:37:PHE:CD2	24:D2:103:ILE:HD12	2.45	0.52
36:1:39:A:H5''	64:N8:35:ALA:HB2	1.90	0.52
36:1:619:A:H5''	36:1:620:U:OP1	2.10	0.52
36:1:874:U:H5'	84:1:3918:HOH:O	2.10	0.52
36:1:1073:U:O2'	65:N9:49:GLY:HA3	2.10	0.52
36:1:1505:C:OP1	53:M7:127:ARG:HD2	2.10	0.52
36:1:1541:G:C6	36:1:1542:G:H1'	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1751:G:OP1	74:O8:26:LYS:NZ	2.37	0.52
36:1:1821:U:O2	70:O4:67:LYS:HB2	2.10	0.52
36:1:1928:G:O2'	79:Q3:16:VAL:HG21	2.09	0.52
36:1:1951:C:H42	36:1:2095:G:H1	1.56	0.52
36:1:2662:G:H2'	36:1:2663:G:C8	2.45	0.52
36:1:3000:A:H2'	36:1:3001:C:C6	2.44	0.52
36:1:3049:A:C2	40:L3:75:ALA:HB2	2.44	0.52
37:3:49:G:O6	42:L5:58:LYS:HE2	2.10	0.52
41:L4:174:ALA:O	41:L4:178:LEU:HD12	2.09	0.52
44:L7:83:LEU:HD22	44:L7:84:VAL:H	1.74	0.52
46:L9:4:ILE:HD11	56:N0:150:PHE:CD2	2.45	0.52
64:N8:47:LYS:C	64:N8:49:HIS:H	2.15	0.52
1:6:600:U:P	25:d3:108:GLY:HA2	2.49	0.52
1:6:1267:G:N2	1:6:1446:A:H2	2.08	0.52
1:6:1533:C:OP2	27:d5:77:ARG:NH1	2.41	0.52
13:c1:101:GLU:OE2	25:d3:16:ARG:NH2	2.42	0.52
24:d2:36:LYS:O	24:d2:40:VAL:HG23	2.09	0.52
34:sR:19:TRP:CD2	34:sR:306:THR:HG22	2.45	0.52
36:5:75:G:H5''	49:m3:58:VAL:CG1	2.37	0.52
36:5:3268:A:H3'	36:5:3269:U:H3'	1.91	0.52
37:7:86:U:H2'	44:l7:218:ARG:NH1	2.23	0.52
39:l2:225:ILE:HD13	39:l2:235:ALA:O	2.10	0.52
40:l3:103:THR:HG21	40:l3:147:GLU:OE2	2.10	0.52
45:l8:67:ILE:O	45:l8:235:GLY:HA2	2.09	0.52
50:m4:32:LEU:HD11	50:m4:94:TRP:CD1	2.44	0.52
52:m6:173:ALA:O	52:m6:176:LYS:HB3	2.09	0.52
64:n8:134:ALA:O	64:n8:138:ILE:HG13	2.10	0.52
1:2:342:C:H2'	1:2:343:C:H6	1.73	0.52
1:2:1572:G:H1'	7:S5:185:ARG:NH2	2.24	0.52
1:2:1595:U:H5''	1:2:1596:C:C5	2.44	0.52
2:S0:17:LEU:HD23	2:S0:172:LEU:HD13	1.91	0.52
4:S2:202:GLY:O	4:S2:204:THR:HG23	2.10	0.52
6:S4:192:ILE:HD12	6:S4:238:LEU:HD13	1.91	0.52
25:D3:91:GLY:C	25:D3:93:LEU:H	2.18	0.52
36:1:83:U:H2'	36:1:84:U:O4'	2.08	0.52
36:1:157:A:C8	72:O6:26:ILE:HG12	2.43	0.52
36:1:349:A:H2'	36:1:349:A:OP1	2.10	0.52
36:1:1014:U:H2'	36:1:1015:U:H5''	1.91	0.52
36:1:1634:G:OP1	63:N7:107:ARG:NH1	2.42	0.52
36:1:2095:G:H2'	36:1:2096:A:C8	2.44	0.52
36:1:2746:A:H2	42:L5:146:LEU:HB3	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3268:A:O2'	43:L6:130:ILE:HD11	2.10	0.52
37:3:25:G:C2	37:3:26:C:C2	2.98	0.52
37:3:86:U:H3'	44:L7:218:ARG:NH2	2.24	0.52
40:L3:165:GLN:OE1	40:L3:167:ARG:NH2	2.42	0.52
41:L4:148:ILE:HA	41:L4:149:PRO:C	2.33	0.52
41:L4:208:VAL:HA	41:L4:228:ALA:O	2.09	0.52
46:L9:67:ALA:O	46:L9:70:THR:HG23	2.10	0.52
70:O4:9:ARG:HE	70:O4:34:HIS:CD2	2.27	0.52
74:O8:9:LYS:O	74:O8:13:GLU:HG3	2.10	0.52
78:Q2:12:CYS:HB2	78:Q2:23:HIS:NE2	2.24	0.52
1:6:100:A:OP2	84:6:2125:HOH:O	2.19	0.52
1:6:442:C:OP2	26:d4:106:GLN:NE2	2.41	0.52
1:6:591:A:H2'	1:6:592:A:H8	1.68	0.52
1:6:804:A:N7	24:d2:107:SER:HA	2.25	0.52
1:6:816:G:N3	9:s7:110:GLN:NE2	2.44	0.52
5:s3:53:THR:HG22	5:s3:91:VAL:HG11	1.90	0.52
8:s6:152:ASP:OD1	8:s6:154:ARG:HG3	2.09	0.52
10:s8:100:ALA:HB3	10:s8:169:ILE:HG12	1.92	0.52
11:s9:34:PHE:CE1	11:s9:105:LEU:HB3	2.44	0.52
11:s9:55:ALA:O	11:s9:59:LEU:HG	2.10	0.52
14:c2:29:LYS:HE2	14:c2:100:TRP:HE1	1.75	0.52
18:c6:115:THR:O	18:c6:117:LEU:N	2.43	0.52
36:5:74:G:C2	36:5:75:G:C8	2.97	0.52
36:5:271:C:O2	72:o6:82:ARG:NH2	2.42	0.52
36:5:576:C:H2'	36:5:577:C:C6	2.40	0.52
36:5:655:C:OP1	68:o2:27:ARG:HB3	2.10	0.52
36:5:742:G:O6	82:5:3851:GET:N12	2.42	0.52
36:5:992:A:O2'	36:5:993:G:H5'	2.10	0.52
36:5:1016:C:C4'	36:5:1017:C:H5'	2.37	0.52
36:5:1517:G:OP1	75:o9:41:ARG:NH1	2.38	0.52
36:5:1745:C:H2'	36:5:1746:U:H6	1.75	0.52
82:5:3850:GET:H131	82:5:3850:GET:H122	1.73	0.52
39:l2:134:VAL:HG23	39:l2:148:VAL:HB	1.92	0.52
49:m3:174:ARG:HG3	72:o6:9:ILE:HD11	1.92	0.52
52:m6:182:ASN:O	52:m6:185:ALA:N	2.42	0.52
56:n0:71:LYS:O	56:n0:73:LYS:HG2	2.09	0.52
57:n1:105:PHE:O	57:n1:109:VAL:HG23	2.09	0.52
60:n4:109:LEU:O	60:n4:113:LYS:HB2	2.09	0.52
1:2:126:A:H62	1:2:291:G:N2	2.08	0.52
1:2:768:C:C2	11:S9:143:ILE:HG12	2.45	0.52
5:S3:209:ILE:HG22	19:C7:38:ILE:HG12	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:98:VAL:HG21	15:C3:118:ILE:HD13	1.92	0.52
34:SR:24:ALA:HB3	34:SR:34:LEU:HB3	1.92	0.52
36:1:364:G:OP1	41:L4:60:THR:HG23	2.09	0.52
36:1:712:G:H2'	36:1:713:U:H6	1.72	0.52
36:1:1192:C:H6	36:1:1192:C:C5'	2.21	0.52
36:1:1785:U:H2'	36:1:1786:G:C8	2.45	0.52
36:1:2518:C:OP2	82:1:3812:GET:N12	2.43	0.52
36:1:2573:G:OP1	63:N7:61:LYS:HG3	2.09	0.52
36:1:2997:G:H1	36:1:3151:U:H3	1.58	0.52
36:1:3086:A:H3'	36:1:3087:A:H8	1.75	0.52
36:1:3122:A:H2'	36:1:3123:A:H5'	1.92	0.52
40:L3:2:SER:O	40:L3:3:HIS:HB3	2.08	0.52
41:L4:65:TRP:CE2	41:L4:76:ARG:HD3	2.44	0.52
52:M6:157:GLU:OE2	52:M6:160:ARG:NH1	2.42	0.52
58:N2:59:ASP:HB3	58:N2:62:VAL:H	1.75	0.52
61:N5:82:LEU:HD13	61:N5:84:PHE:CZ	2.44	0.52
64:N8:102:ILE:HD12	64:N8:123:VAL:HG11	1.92	0.52
67:O1:29:ALA:HB3	67:O1:30:PRO:HD3	1.92	0.52
1:6:1277:G:H2'	1:6:1278:G:O4'	2.10	0.52
1:6:1434:U:H4'	31:d9:24:CYS:HB2	1.92	0.52
1:6:1553:G:N2	1:6:1555:A:H3'	2.24	0.52
2:s0:124:THR:HG22	2:s0:174:TRP:HE1	1.75	0.52
10:s8:73:SER:O	10:s8:74:LYS:HD2	2.10	0.52
10:s8:82:VAL:HG13	10:s8:196:LEU:HD21	1.92	0.52
28:d6:46:GLU:HG3	28:d6:47:ALA:N	2.25	0.52
36:5:284:A:N6	36:5:2785:A:O4'	2.42	0.52
36:5:420:G:H1'	36:5:2385:G:O4'	2.10	0.52
36:5:586:C:H2'	36:5:587:U:O4'	2.09	0.52
36:5:1639:C:H5''	70:o4:72:VAL:HG11	1.92	0.52
36:5:2673:A:H5''	48:m1:95:ASN:HD22	1.75	0.52
36:5:2810:C:OP1	82:5:3844:GET:H532	2.09	0.52
38:8:14:C:N4	38:8:15:G:C6	2.78	0.52
41:l4:329:PRO:O	41:l4:330:TYR:HB3	2.10	0.52
45:l8:156:ASP:OD2	45:l8:156:ASP:N	2.33	0.52
48:m1:40:LEU:HD13	48:m1:114:ILE:HD11	1.90	0.52
53:m7:67:ILE:HG22	53:m7:68:GLY:O	2.09	0.52
1:2:291:G:H2'	1:2:292:U:C6	2.45	0.52
1:2:753:A:OP1	6:S4:186:GLY:HA3	2.10	0.52
1:2:1542:G:N2	1:2:1568:C:H1'	2.25	0.52
1:2:1554:U:H2'	1:2:1555:A:O4'	2.09	0.52
1:2:1584:G:N2	1:2:1610:G:H2'	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1774:G:OP1	77:Q1:7:LYS:NZ	2.40	0.52
3:S1:188:LEU:O	3:S1:191:GLU:N	2.35	0.52
7:S5:222:LYS:HG3	7:S5:225:ARG:NH1	2.24	0.52
15:C3:52:VAL:HG22	15:C3:55:ARG:NH1	2.25	0.52
24:D2:93:LEU:HD21	24:D2:102:VAL:HG22	1.91	0.52
25:D3:56:LYS:NZ	25:D3:96:VAL:HG23	2.25	0.52
35:SM:99:LYS:O	35:SM:100:THR:HG22	2.10	0.52
36:1:20:A:C6	36:1:21:G:O6	2.63	0.52
36:1:281:G:C6	36:1:282:G:C6	2.98	0.52
36:1:1317:A:C4	36:1:1319:G:N7	2.77	0.52
36:1:1336:U:H2'	36:1:1337:A:H8	1.75	0.52
36:1:1472:U:H2'	36:1:1473:G:H8	1.75	0.52
36:1:1534:A:C8	36:1:1586:G:N2	2.78	0.52
36:1:1856:C:H1'	70:O4:7:PHE:CE2	2.45	0.52
36:1:2257:C:C2'	36:1:2258:U:H5'	2.39	0.52
36:1:2516:U:H2'	36:1:2517:U:H6	1.74	0.52
36:1:2712:U:H2'	36:1:2713:U:C6	2.45	0.52
47:M0:47:PRO:HB3	47:M0:171:TRP:CH2	2.45	0.52
60:N4:38:SER:O	60:N4:42:GLN:HG3	2.10	0.52
67:O1:86:LYS:HE2	67:O1:86:LYS:H	1.75	0.52
70:O4:44:CYS:SG	70:O4:46:ASP:HB2	2.50	0.52
71:O5:4:VAL:HG21	71:O5:50:SER:HB3	1.92	0.52
1:6:108:A:C2	1:6:307:G:C2	2.97	0.52
1:6:382:C:H2'	1:6:383:G:C8	2.41	0.52
1:6:416:A:H5'	1:6:417:A:C8	2.45	0.52
1:6:1091:A:H4'	1:6:1092:A:O4'	2.09	0.52
1:6:1170:G:C2	1:6:1171:A:C8	2.98	0.52
6:s4:251:GLU:O	6:s4:255:ARG:HG2	2.10	0.52
9:s7:58:LEU:O	9:s7:90:VAL:HA	2.10	0.52
11:s9:161:THR:O	11:s9:162:SER:OG	2.22	0.52
11:s9:170:GLY:O	11:s9:174:ARG:HG3	2.10	0.52
12:c0:30:ALA:O	12:c0:31:LYS:HB2	2.10	0.52
15:c3:129:TYR:HB3	15:c3:134:VAL:HG22	1.91	0.52
16:c4:18:ARG:N	16:c4:29:HIS:O	2.40	0.52
16:c4:31:THR:HB	16:c4:38:THR:HA	1.90	0.52
36:5:12:A:H1'	61:n5:37:THR:HG21	1.91	0.52
36:5:13:A:C4'	61:n5:39:LYS:HG3	2.39	0.52
36:5:359:U:H4'	36:5:817:A:H62	1.73	0.52
36:5:656:A:H2'	36:5:657:A:C8	2.44	0.52
36:5:923:C:H42	36:5:926:A:H1'	1.74	0.52
36:5:2254:U:H2'	36:5:2261:G:N2	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:7:61:G:H5''	42:l5:276:LYS:HB3	1.91	0.52
38:8:41:A:N7	38:8:42:G:C8	2.77	0.52
43:l6:35:VAL:O	43:l6:38:THR:OG1	2.26	0.52
43:l6:85:ILE:HG23	69:o3:107:ILE:HG22	1.92	0.52
44:l7:88:ARG:HH12	44:l7:92:ILE:HA	1.73	0.52
45:l8:136:LEU:HD22	51:m5:3:ALA:HB2	1.92	0.52
49:m3:28:GLN:OE1	51:m5:201:ARG:NH1	2.43	0.52
50:m4:23:ILE:HG21	50:m4:28:SER:HB2	1.91	0.52
50:m4:118:PHE:O	50:m4:122:VAL:HG23	2.09	0.52
53:m7:67:ILE:HD12	53:m7:82:ARG:CZ	2.39	0.52
68:o2:20:HIS:ND1	68:o2:42:VAL:HG21	2.25	0.52
80:p0:20:GLU:HG2	80:p0:70:LEU:HD21	1.91	0.52
1:2:1166:A:H5''	7:S5:101:GLY:N	2.19	0.52
1:2:1535:U:OP1	1:2:1535:U:H4'	2.10	0.52
1:2:1619:C:H1'	30:D8:22:ARG:HH21	1.75	0.52
7:S5:117:THR:HG21	7:S5:194:LEU:HD12	1.92	0.52
9:S7:133:THR:O	9:S7:134:GLU:HB2	2.10	0.52
15:C3:115:LEU:O	15:C3:119:GLU:HG3	2.10	0.52
18:C6:97:VAL:HG23	18:C6:98:ASP:N	2.25	0.52
18:C6:102:LYS:HE2	18:C6:106:LYS:HE3	1.91	0.52
36:1:353:G:O6	73:O7:55:ARG:NH1	2.42	0.52
36:1:905:U:O2'	36:1:910:G:H4'	2.10	0.52
36:1:914:A:C8	39:L2:199:THR:HG21	2.45	0.52
36:1:975:C:C2	36:1:976:U:C5	2.98	0.52
36:1:1665:C:H2'	36:1:1666:G:H8	1.75	0.52
42:L5:231:ILE:HG21	42:L5:239:ILE:HD11	1.91	0.52
47:M0:80:SER:O	47:M0:84:ALA:HB2	2.09	0.52
51:M5:191:TRP:CD1	51:M5:195:ASN:HD21	2.28	0.52
52:M6:78:ARG:O	52:M6:81:TYR:N	2.42	0.52
53:M7:27:LYS:HD3	53:M7:63:PHE:HB3	1.92	0.52
70:O4:51:LEU:HG	70:O4:54:ILE:HG13	1.91	0.52
1:6:750:U:OP1	24:d2:120:HIS:NE2	2.43	0.52
1:6:1184:A:O2'	1:6:1209:C:O2'	2.16	0.52
1:6:1321:A:OP2	2:s0:101:ARG:NH2	2.42	0.52
1:6:1534:G:O2'	27:d5:72:GLY:O	2.26	0.52
6:s4:179:LYS:O	6:s4:194:THR:HA	2.10	0.52
9:s7:162:ILE:HB	9:s7:169:PHE:HE2	1.74	0.52
14:c2:62:LEU:HD22	14:c2:75:VAL:HG11	1.91	0.52
14:c2:83:GLU:C	14:c2:85:LYS:H	2.18	0.52
18:c6:79:TYR:HA	18:c6:82:ARG:HG2	1.92	0.52
25:d3:95:PHE:CD1	25:d3:135:LEU:HD13	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:sR:80:ALA:HB3	34:sR:92:TRP:HB2	1.90	0.52
36:5:156:G:O2'	36:5:157:A:H4'	2.09	0.52
36:5:579:G:H2'	36:5:580:C:H6	1.75	0.52
36:5:642:U:OP1	64:n8:22:ILE:HG23	2.09	0.52
36:5:659:G:H2'	36:5:660:A:N7	2.25	0.52
36:5:962:A:O2'	36:5:963:G:H5'	2.09	0.52
36:5:1389:G:O6	41:l4:186:LYS:NZ	2.43	0.52
36:5:1582:C:O2'	36:5:1583:A:OP1	2.27	0.52
36:5:3041:U:H2'	36:5:3042:U:C6	2.45	0.52
36:5:3219:G:H1	43:l6:162:SER:HB2	1.75	0.52
39:l2:42:ARG:HD2	39:l2:87:PHE:CD1	2.45	0.52
41:l4:325:LEU:O	44:l7:41:ARG:NH2	2.43	0.52
52:m6:14:HIS:O	52:m6:41:LEU:HD12	2.10	0.52
56:n0:8:GLN:HG3	56:n0:26:ARG:HE	1.75	0.52
64:n8:82:ILE:HG22	64:n8:87:ARG:HG3	1.92	0.52
79:q3:73:THR:HG22	79:q3:75:ALA:H	1.74	0.52
1:2:420:A:OP1	8:S6:96:SER:OG	2.11	0.52
1:2:679:U:H2'	1:2:680:U:C6	2.45	0.52
1:2:1119:G:C5	1:2:1120:U:C5	2.98	0.52
1:2:1127:G:C5	1:2:1128:C:C5	2.98	0.52
2:S0:48:ILE:HG21	2:S0:161:PRO:HB2	1.92	0.52
9:S7:53:GLY:C	9:S7:55:LYS:H	2.18	0.52
21:C9:37:VAL:O	21:C9:46:PRO:HB3	2.10	0.52
22:D0:51:VAL:HG13	22:D0:94:GLU:HB2	1.90	0.52
25:D3:69:ARG:NH1	25:D3:116:ASP:CG	2.67	0.52
27:D5:59:TYR:HD2	27:D5:60:VAL:N	2.07	0.52
36:1:283:G:N2	36:1:285:A:H5''	2.25	0.52
36:1:423:A:P	82:1:3810:GET:O61	2.68	0.52
36:1:618:C:H5'	53:M7:169:THR:HG22	1.91	0.52
36:1:880:G:O6	36:1:883:A:H5''	2.10	0.52
36:1:1497:C:H2'	36:1:1498:A:H8	1.74	0.52
36:1:1951:C:N4	36:1:2095:G:H1	2.08	0.52
36:1:2207:A:HO2'	36:1:2208:A:H8	1.58	0.52
36:1:2581:U:H2'	36:1:2582:C:C6	2.45	0.52
36:1:3085:G:OP1	60:N4:34:SER:OG	2.22	0.52
37:3:97:A:H2'	37:3:98:C:C6	2.45	0.52
40:L3:67:PHE:CD2	59:N3:88:ARG:HD3	2.44	0.52
46:L9:92:TYR:N	46:L9:92:TYR:CD1	2.78	0.52
46:L9:103:ILE:HD11	46:L9:134:ILE:HG22	1.92	0.52
1:6:60:U:H5'	1:6:455:C:N4	2.25	0.52
1:6:292:U:H2'	1:6:293:U:C6	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:870:C:O2'	1:6:871:G:H5'	2.10	0.52
1:6:896:U:C4	1:6:897:C:N4	2.78	0.52
1:6:1092:A:C5	1:6:1094:G:C8	2.98	0.52
1:6:1335:U:H2'	1:6:1336:A:H8	1.75	0.52
1:6:1591:C:H2'	1:6:1592:A:H8	1.74	0.52
4:s2:59:HIS:C	23:d1:15:ARG:HH21	2.17	0.52
8:s6:71:THR:O	8:s6:99:GLY:N	2.42	0.52
15:c3:5:HIS:ND1	15:c3:117:LEU:HD22	2.25	0.52
15:c3:92:ILE:HD11	15:c3:139:TRP:HH2	1.75	0.52
21:c9:28:LEU:HD12	21:c9:55:TYR:CD1	2.45	0.52
36:5:677:A:H4'	36:5:678:G:O5'	2.10	0.52
36:5:1047:A:C2	36:5:1048:A:C4	2.98	0.52
36:5:1647:A:C2	36:5:1809:A:H1'	2.45	0.52
36:5:2655:U:H2'	78:q2:3:ASN:O	2.10	0.52
36:5:2945:G:O2'	84:5:3980:HOH:O	2.19	0.52
36:5:3138:U:H2'	36:5:3139:A:H8	1.74	0.52
36:5:3163:A:H2'	36:5:3164:C:C6	2.44	0.52
38:8:154:C:H5''	45:l8:181:LYS:CG	2.40	0.52
39:l2:5:ILE:HD13	39:l2:232:GLY:HA2	1.92	0.52
39:l2:30:ARG:NH2	39:l2:33:ASP:OD2	2.43	0.52
39:l2:51:ASP:HB3	39:l2:54:ARG:HB3	1.90	0.52
39:l2:183:GLY:O	39:l2:187:HIS:HD2	1.93	0.52
42:l5:146:LEU:HD12	42:l5:163:LEU:HD22	1.92	0.52
42:l5:178:ASN:HA	42:l5:183:TRP:CG	2.45	0.52
49:m3:140:SER:HG	49:m3:143:ALA:H	1.58	0.52
51:m5:37:HIS:NE2	51:m5:63:ARG:HD2	2.25	0.52
53:m7:28:ASN:O	53:m7:32:THR:HG22	2.09	0.52
1:2:163:G:OP2	1:2:163:G:N2	2.32	0.51
1:2:501:U:O2'	1:2:502:U:H6	1.93	0.51
1:2:836:U:H2'	1:2:837:G:H8	1.74	0.51
1:2:882:U:H2'	1:2:883:C:C6	2.45	0.51
1:2:1589:C:H2'	1:2:1590:G:C8	2.45	0.51
4:S2:69:ILE:HA	4:S2:72:LEU:HB2	1.92	0.51
13:C1:84:ILE:HG13	13:C1:109:VAL:HG13	1.92	0.51
14:C2:46:ARG:NE	33:E1:103:LEU:HD22	2.25	0.51
21:C9:63:ARG:HG3	21:C9:67:MET:HE1	1.91	0.51
23:D1:36:VAL:O	23:D1:51:VAL:N	2.33	0.51
26:D4:7:ILE:HD11	26:D4:43:LYS:HD2	1.92	0.51
34:SR:16:HIS:CE1	34:SR:43:ILE:HG12	2.45	0.51
34:SR:205:SER:HB3	34:SR:210:LEU:HB2	1.91	0.51
34:SR:248:ASN:OD1	34:SR:249:ARG:N	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:824:C:O4'	36:1:1535:A:H1'	2.08	0.51
36:1:1098:A:OP1	57:N1:130:ARG:NE	2.35	0.51
36:1:1306:G:C5	52:M6:62:THR:HA	2.45	0.51
36:1:1497:C:H2'	36:1:1498:A:C8	2.45	0.51
36:1:1576:G:OP1	36:1:1576:G:H4'	2.09	0.51
36:1:1602:A:H2'	36:1:1603:A:C8	2.45	0.51
36:1:1653:G:N2	36:1:1803:C:O2	2.43	0.51
36:1:3022:G:O2'	36:1:3023:U:OP2	2.25	0.51
36:1:3198:U:H4'	36:1:3199:G:OP2	2.08	0.51
36:1:3320:A:H5'	36:1:3321:C:OP2	2.11	0.51
36:1:3341:U:H4'	36:1:3342:A:C5'	2.40	0.51
40:L3:159:ARG:HG2	40:L3:182:GLN:HA	1.90	0.51
47:M0:80:SER:HB3	47:M0:144:ASN:HD21	1.73	0.51
56:N0:109:ASP:OD1	56:N0:113:ARG:HG3	2.10	0.51
60:N4:123:ARG:O	60:N4:123:ARG:NH1	2.42	0.51
62:N6:7:ASP:N	62:N6:7:ASP:OD2	2.43	0.51
66:O0:26:GLY:O	66:O0:30:THR:HG23	2.10	0.51
67:O1:51:LEU:HD22	67:O1:55:LEU:HD12	1.92	0.51
70:O4:79:SER:HB3	70:O4:80:ARG:HE	1.75	0.51
1:6:981:U:O2'	1:6:982:U:H5'	2.10	0.51
1:6:992:A:H4'	1:6:1786:G:O4'	2.11	0.51
1:6:1467:C:H5'	1:6:1602:C:OP1	2.11	0.51
1:6:1595:U:H6	1:6:1596:C:C2	2.28	0.51
12:c0:3:MET:HE3	12:c0:8:ARG:CZ	2.41	0.51
19:c7:30:THR:HG22	34:sR:127:ARG:HH22	1.74	0.51
24:d2:23:ARG:NH1	24:d2:66:ASN:HA	2.25	0.51
28:d6:10:ARG:HB3	28:d6:33:ASP:O	2.10	0.51
34:sR:103:PHE:CE1	34:sR:138:GLY:HA2	2.45	0.51
34:sR:257:ALA:O	34:sR:288:HIS:HB3	2.09	0.51
36:5:153:U:HO2'	36:5:158:G:HO2'	1.55	0.51
36:5:353:G:O6	73:o7:52:LYS:HE2	2.09	0.51
36:5:513:G:C5	36:5:579:G:C6	2.98	0.51
36:5:659:G:O6	36:5:1432:C:O2'	2.19	0.51
36:5:3006:A:H2'	36:5:3007:U:O4'	2.10	0.51
36:5:3032:A:C2	36:5:3033:A:C4	2.99	0.51
40:l3:37:ARG:HA	40:l3:186:GLY:HA2	1.92	0.51
41:l4:148:ILE:HA	41:l4:149:PRO:C	2.35	0.51
41:l4:167:ALA:HA	41:l4:170:LYS:HB2	1.92	0.51
44:l7:145:ARG:HA	44:l7:185:ILE:HD13	1.92	0.51
47:m0:86:HIS:ND1	47:m0:139:ARG:NH1	2.58	0.51
56:n0:10:ILE:O	56:n0:59:VAL:N	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:n0:24:LEU:HG	57:n1:146:ASN:ND2	2.25	0.51
59:n3:135:VAL:HG21	60:n4:26:SER:HB3	1.92	0.51
1:2:197:A:N1	10:S8:138:ASN:ND2	2.58	0.51
1:2:761:G:OP1	11:S9:54:ARG:NH1	2.43	0.51
1:2:947:U:H6	1:2:947:U:O5'	1.93	0.51
1:2:1369:U:OP2	21:C9:69:LYS:HE3	2.11	0.51
1:2:1539:G:C2	20:C8:30:TYR:CE1	2.98	0.51
1:2:1754:A:H5''	1:2:1754:A:C8	2.36	0.51
2:S0:41:ARG:HH11	2:S0:45:VAL:HG11	1.75	0.51
3:S1:59:ASP:HA	3:S1:62:LYS:NZ	2.25	0.51
5:S3:40:ARG:HG2	22:D0:110:PRO:HB3	1.92	0.51
10:S8:67:TRP:HZ2	10:S8:156:VAL:HG11	1.75	0.51
10:S8:69:SER:OG	10:S8:185:GLU:OE2	2.19	0.51
10:S8:104:ILE:HG12	10:S8:165:LEU:O	2.09	0.51
11:S9:109:LEU:HD11	11:S9:134:ILE:HD11	1.91	0.51
15:C3:91:LEU:HB3	15:C3:122:ILE:HG12	1.91	0.51
21:C9:53:TRP:HA	21:C9:56:LYS:HB2	1.91	0.51
34:SR:25:THR:HG21	34:SR:295:SER:HA	1.92	0.51
34:SR:289:ALA:HA	34:SR:305:TYR:HA	1.92	0.51
36:1:210:U:O2	36:1:230:U:H5''	2.10	0.51
36:1:304:G:N7	64:N8:62:HIS:CG	2.78	0.51
36:1:546:C:H4'	36:1:547:G:C8	2.46	0.51
36:1:869:G:H1'	36:1:891:G:N2	2.25	0.51
36:1:1100:U:H2'	36:1:1101:G:H8	1.76	0.51
36:1:2164:A:N6	36:1:2165:G:C6	2.79	0.51
36:1:2303:A:P	77:Q1:23:ARG:HH22	2.33	0.51
36:1:2347:U:H2'	36:1:2348:A:O4'	2.10	0.51
36:1:2549:G:N1	45:L8:33:ASN:HA	2.25	0.51
37:3:70:U:H2'	37:3:71:G:H8	1.76	0.51
38:4:6:U:H2'	38:4:7:U:C6	2.45	0.51
41:L4:58:HIS:HD1	41:L4:90:PHE:HD1	1.57	0.51
41:L4:300:ARG:HE	54:M8:39:ARG:HA	1.74	0.51
44:L7:166:ASN:OD1	44:L7:181:ILE:N	2.43	0.51
54:M8:40:THR:C	54:M8:42:ALA:H	2.17	0.51
61:N5:135:ILE:HD13	61:N5:135:ILE:O	2.10	0.51
66:O0:38:LYS:O	66:O0:93:LEU:HA	2.09	0.51
1:6:825:U:O2'	1:6:826:U:OP2	2.22	0.51
1:6:929:A:O4'	16:c4:124:ASP:HB2	2.10	0.51
3:s1:154:SER:O	3:s1:154:SER:OG	2.19	0.51
4:s2:82:ASN:O	4:s2:100:ALA:HA	2.11	0.51
4:s2:140:ARG:NH1	23:d1:1:MET:HE2	2.24	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:s3:90:ARG:O	5:s3:91:VAL:HG13	2.11	0.51
7:s5:149:VAL:HG23	7:s5:156:ARG:O	2.09	0.51
8:s6:55:GLY:HA3	8:s6:63:MET:HE3	1.93	0.51
9:s7:164:TYR:CE1	9:s7:165:LYS:HG3	2.45	0.51
12:c0:3:MET:HE1	12:c0:45:ALA:HB2	1.91	0.51
15:c3:50:ILE:HG22	15:c3:71:ILE:HD13	1.91	0.51
19:c7:18:GLU:HG3	19:c7:69:ILE:HB	1.92	0.51
22:d0:41:ILE:HG13	22:d0:107:THR:HG21	1.92	0.51
36:5:90:C:H4'	36:5:282:G:H5''	1.92	0.51
36:5:687:U:OP2	49:m3:36:ARG:NH2	2.34	0.51
36:5:745:C:OP1	54:m8:145:ASN:HB2	2.10	0.51
36:5:1368:U:O2'	36:5:1369:A:H5'	2.11	0.51
36:5:1614:C:H2'	36:5:1615:C:C6	2.46	0.51
36:5:2572:C:O2'	36:5:2573:G:OP2	2.25	0.51
36:5:2676:A:H4'	36:5:2677:G:O5'	2.10	0.51
36:5:2712:U:H2'	36:5:2713:U:C6	2.45	0.51
39:l2:57:PRO:HD3	79:q3:53:GLY:HA3	1.92	0.51
42:l5:52:VAL:HB	42:l5:63:GLN:HB2	1.92	0.51
45:l8:161:GLU:OE2	51:m5:26:ARG:NH1	2.43	0.51
47:m0:85:PHE:HA	47:m0:140:THR:HG22	1.92	0.51
49:m3:2:ALA:HB1	64:n8:41:HIS:HE1	1.71	0.51
49:m3:178:LYS:HD3	49:m3:179:PHE:CE2	2.46	0.51
60:n4:6:ASP:HB3	60:n4:11:ALA:H	1.75	0.51
62:n6:53:ASP:OD1	62:n6:69:LYS:HD3	2.10	0.51
71:o5:15:GLU:CD	71:o5:15:GLU:H	2.17	0.51
78:q2:2:VAL:N	78:q2:90:HIS:O	2.43	0.51
1:2:926:A:C2	16:C4:125:SER:HB3	2.45	0.51
1:2:1530:C:OP2	27:D5:95:HIS:HB2	2.09	0.51
2:S0:74:VAL:HG23	2:S0:118:PRO:HB3	1.93	0.51
23:D1:3:ASN:ND2	23:D1:4:ASP:H	2.07	0.51
36:1:1010:G:OP1	47:M0:39:LYS:NZ	2.43	0.51
36:1:1483:G:C8	36:1:1485:G:C8	2.98	0.51
36:1:1724:U:H4'	36:1:1725:C:OP1	2.11	0.51
36:1:1875:G:N7	55:M9:20:ARG:HD2	2.24	0.51
36:1:2223:A:H2'	36:1:2224:A:C8	2.45	0.51
39:L2:192:LYS:HG2	39:L2:193:ARG:HH12	1.75	0.51
40:L3:140:ASP:OD1	40:L3:140:ASP:N	2.43	0.51
41:L4:299:ILE:HG22	41:L4:300:ARG:O	2.10	0.51
46:L9:1:MET:HE2	46:L9:3:TYR:CD1	2.45	0.51
57:N1:57:TYR:CG	57:N1:89:LEU:HD21	2.45	0.51
70:O4:35:VAL:HG12	70:O4:36:LYS:O	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:6:G:OP2	4:s2:205:ARG:HD2	2.10	0.51
1:6:476:U:H2'	32:e0:31:LYS:HG3	1.93	0.51
1:6:570:A:H5''	1:6:571:G:OP2	2.11	0.51
1:6:1566:U:OP1	20:c8:42:TYR:HB2	2.10	0.51
10:s8:61:GLU:HG3	10:s8:62:THR:HG23	1.92	0.51
11:s9:109:LEU:CB	11:s9:146:PHE:HB3	2.31	0.51
30:d8:46:GLY:O	30:d8:48:VAL:HG23	2.10	0.51
36:5:312:C:H2'	36:5:313:A:H8	1.75	0.51
36:5:535:G:C2	36:5:555:U:C2	2.99	0.51
36:5:816:A:C5	36:5:906:A:C2	2.98	0.51
36:5:929:A:H2'	36:5:930:U:C6	2.46	0.51
36:5:1008:U:C2	36:5:1043:C:C2	2.99	0.51
36:5:1236:G:N2	36:5:1244:A:OP1	2.38	0.51
36:5:1506:A:H1'	36:5:1848:G:O6	2.10	0.51
36:5:1791:C:H2'	36:5:1792:C:C6	2.45	0.51
36:5:2642:A:C2	36:5:2643:A:C6	2.98	0.51
42:l5:51:LEU:N	42:l5:145:PHE:O	2.32	0.51
42:l5:257:GLU:CD	42:l5:257:GLU:H	2.18	0.51
47:m0:65:LEU:HD23	47:m0:159:PHE:CZ	2.44	0.51
48:m1:33:ALA:HB2	48:m1:123:PHE:CE1	2.46	0.51
49:m3:64:LYS:HE3	64:n8:69:TRP:CD1	2.45	0.51
52:m6:85:ARG:HD3	52:m6:90:HIS:ND1	2.25	0.51
68:o2:119:VAL:O	68:o2:122:PRO:HD3	2.09	0.51
75:o9:28:ARG:HA	75:o9:33:ASN:ND2	2.25	0.51
1:2:804:A:N7	24:D2:107:SER:HA	2.26	0.51
1:2:1144:U:H2'	1:2:1145:U:O4'	2.10	0.51
1:2:1220:C:H5''	12:C0:52:LYS:HD2	1.92	0.51
4:S2:156:THR:HG21	4:S2:224:PHE:CD1	2.46	0.51
7:S5:42:LEU:HB2	7:S5:46:TRP:O	2.09	0.51
9:S7:13:PRO:HB3	9:S7:14:THR:HB	1.91	0.51
12:C0:50:THR:HG21	12:C0:57:THR:OG1	2.10	0.51
13:C1:37:ASN:HA	13:C1:44:THR:CG2	2.41	0.51
27:D5:74:SER:O	27:D5:78:ILE:HD13	2.11	0.51
29:D7:37:CYS:O	29:D7:39:GLY:N	2.43	0.51
29:D7:50:ALA:HB2	29:D7:71:ALA:CB	2.39	0.51
35:SM:87:THR:O	35:SM:89:ARG:N	2.43	0.51
36:1:858:A:H2'	36:1:859:G:C8	2.46	0.51
36:1:2885:C:O2'	36:1:2886:U:H5'	2.11	0.51
36:1:3333:G:N2	36:1:3369:G:O2'	2.44	0.51
38:4:122:U:O2'	38:4:123:G:H5'	2.10	0.51
40:L3:339:ARG:HG2	40:L3:340:LYS:O	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:62:THR:OG1	43:L6:78:ARG:HD3	2.11	0.51
44:L7:108:LEU:CD2	44:L7:115:THR:HG23	2.40	0.51
44:L7:178:ILE:HA	44:L7:183:ASP:HB3	1.93	0.51
48:M1:15:GLU:OE1	48:M1:140:ARG:NH1	2.43	0.51
48:M1:90:GLN:HB3	48:M1:172:LEU:HD11	1.93	0.51
53:M7:48:LEU:HD12	53:M7:92:GLN:HB3	1.91	0.51
63:N7:8:GLY:O	63:N7:86:THR:OG1	2.23	0.51
72:O6:57:LEU:O	72:O6:61:ILE:HG13	2.10	0.51
73:O7:58:THR:O	73:O7:61:THR:HG23	2.10	0.51
1:6:406:U:H2'	1:6:407:A:C8	2.45	0.51
1:6:1333:C:C4'	5:s3:162:GLN:HG3	2.40	0.51
6:s4:161:LYS:HB3	6:s4:170:THR:O	2.11	0.51
6:s4:163:ASP:CG	6:s4:164:LEU:N	2.60	0.51
8:s6:3:LEU:HD23	8:s6:109:LEU:HB3	1.92	0.51
9:s7:64:VAL:CG2	9:s7:94:ALA:HB1	2.37	0.51
10:s8:36:THR:HB	10:s8:57:ALA:O	2.09	0.51
15:c3:4:MET:HG2	15:c3:5:HIS:CD2	2.46	0.51
21:c9:77:ASN:O	21:c9:81:GLY:N	2.40	0.51
23:d1:64:GLU:OE1	29:d7:2:VAL:HG13	2.11	0.51
36:5:601:U:H2'	36:5:602:A:O4'	2.11	0.51
36:5:856:G:C6	36:5:857:G:N1	2.78	0.51
36:5:1307:G:P	52:m6:59:ARG:HH11	2.33	0.51
36:5:2152:A:HO2'	36:5:2243:A:HO2'	1.55	0.51
36:5:2548:C:H2'	36:5:2548:C:O2	2.11	0.51
36:5:2556:C:O2'	63:n7:135:ARG:NH2	2.44	0.51
36:5:2925:C:C2'	36:5:2926:A:H5'	2.39	0.51
36:5:3279:A:C6	36:5:3280:U:C4	2.98	0.51
36:5:3353:G:O3'	36:5:3354:U:H4'	2.10	0.51
43:l6:85:ILE:HG23	69:o3:107:ILE:CG2	2.39	0.51
46:l9:86:TYR:CD1	46:l9:151:VAL:HG13	2.45	0.51
46:l9:103:ILE:HD11	46:l9:134:ILE:HG22	1.91	0.51
51:m5:143:ARG:NH2	71:o5:92:LEU:HD23	2.25	0.51
54:m8:18:ALA:HA	54:m8:53:PHE:CE1	2.45	0.51
63:n7:22:LYS:HE2	63:n7:129:TRP:CH2	2.45	0.51
71:o5:70:TYR:CD1	71:o5:76:GLN:HA	2.45	0.51
1:2:180:A:H2'	1:2:181:A:O4'	2.10	0.51
1:2:1327:C:C4	1:2:1328:G:N7	2.79	0.51
6:S4:9:LEU:O	6:S4:27:TYR:HB3	2.11	0.51
13:C1:5:LEU:O	13:C1:7:VAL:N	2.38	0.51
23:D1:41:GLU:CD	23:D1:41:GLU:H	2.17	0.51
24:D2:77:PRO:HG2	24:D2:79:PHE:CZ	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:32:U:H1'	36:1:53:G:N2	2.26	0.51
36:1:62:A:H2'	36:1:63:A:C8	2.45	0.51
36:1:549:U:H3'	36:1:550:A:H8	1.76	0.51
36:1:745:C:H5''	54:M8:145:ASN:OD1	2.11	0.51
36:1:1008:U:C2	36:1:1043:C:C2	2.98	0.51
36:1:1482:A:H2	36:1:1867:A:H5'	1.75	0.51
36:1:1581:C:OP1	36:1:2522:G:N2	2.44	0.51
36:1:1590:G:OP1	70:O4:15:THR:OG1	2.18	0.51
36:1:1719:G:N2	36:1:1726:C:C2	2.78	0.51
36:1:1852:G:H1'	73:O7:9:GLY:HA3	1.92	0.51
36:1:2992:U:OP1	36:1:3310:A:O2'	2.18	0.51
36:1:3045:G:H2'	36:1:3046:A:O4'	2.09	0.51
82:1:3811:GET:H832	82:1:3811:GET:H932	1.93	0.51
38:4:23:U:C5'	62:N6:13:ARG:HG2	2.40	0.51
47:M0:89:VAL:HG13	47:M0:136:PHE:HE1	1.74	0.51
65:N9:46:ALA:O	65:N9:50:THR:HG22	2.10	0.51
1:6:1182:U:O2	1:6:1184:A:H8	1.92	0.51
10:s8:48:THR:HG21	10:s8:54:LYS:HG3	1.92	0.51
11:s9:33:GLU:HB2	11:s9:34:PHE:CD2	2.45	0.51
15:c3:75:LEU:O	15:c3:80:LEU:N	2.39	0.51
16:c4:16:VAL:O	16:c4:30:VAL:HA	2.11	0.51
17:c5:119:PHE:HE1	20:c8:119:ILE:HG23	1.74	0.51
26:d4:86:GLU:OE1	26:d4:90:ARG:NH1	2.42	0.51
32:e0:3:LYS:HD2	32:e0:3:LYS:N	2.26	0.51
32:e0:30:PRO:O	32:e0:35:TYR:HB2	2.10	0.51
32:e0:33:ARG:NH1	32:e0:33:ARG:HB3	2.25	0.51
34:sR:68:VAL:HA	34:sR:84:SER:HA	1.93	0.51
36:5:29:C:OP1	51:m5:189:LYS:HB2	2.10	0.51
36:5:1437:C:H5'	36:5:1437:C:H6	1.75	0.51
36:5:2628:A:H1'	36:5:2798:C:C2	2.45	0.51
36:5:2941:A:OP1	36:5:2943:G:O2'	2.28	0.51
39:l2:204:MET:HB3	39:l2:208:ASP:HB2	1.92	0.51
43:l6:154:LEU:HA	43:l6:157:GLN:OE1	2.11	0.51
50:m4:39:ILE:HG13	50:m4:44:VAL:HA	1.92	0.51
51:m5:172:ARG:HB3	51:m5:174:ILE:HD13	1.92	0.51
57:n1:91:LEU:HD12	57:n1:96:ILE:HD11	1.92	0.51
59:n3:83:LYS:HD2	59:n3:84:SER:H	1.76	0.51
66:o0:13:LYS:HZ2	66:o0:103:THR:HG21	1.74	0.51
1:2:252:U:H5'	6:S4:131:LEU:O	2.10	0.51
1:2:279:G:C6	1:2:281:G:C4	2.98	0.51
1:2:827:C:H2'	1:2:828:U:C6	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1278:G:H2'	1:2:1279:C:O4'	2.11	0.51
1:2:1533:C:OP2	27:D5:77:ARG:NH1	2.43	0.51
1:2:1570:A:H4'	20:C8:144:ARG:HH12	1.76	0.51
5:S3:59:LEU:HD12	5:S3:63:GLY:HA2	1.92	0.51
16:C4:82:LYS:HD3	16:C4:118:VAL:HG11	1.92	0.51
22:D0:65:ILE:HD11	31:D9:36:LEU:HD21	1.92	0.51
36:1:36:C:O2'	36:1:808:A:N1	2.37	0.51
36:1:225:C:O2'	62:N6:32:SER:HB2	2.10	0.51
36:1:612:U:H2'	36:1:613:G:C8	2.44	0.51
36:1:1103:A:H1'	36:1:1104:G:O5'	2.10	0.51
36:1:1594:A:O2'	36:1:1595:U:H5''	2.11	0.51
36:1:1806:A:H2'	36:1:1807:G:O4'	2.10	0.51
36:1:2318:U:C4	36:1:2319:U:C4	2.98	0.51
36:1:2663:G:C5'	42:L5:152:ARG:HD3	2.39	0.51
36:1:3173:G:O6	69:O3:92:LYS:HG2	2.10	0.51
38:4:45:C:H4'	75:O9:11:GLN:CD	2.35	0.51
40:L3:25:ILE:H	40:L3:25:ILE:HD13	1.75	0.51
41:L4:191:LYS:HB3	41:L4:194:TYR:CE2	2.45	0.51
48:M1:137:ARG:HA	48:M1:140:ARG:HB2	1.93	0.51
49:M3:63:VAL:HG12	64:N8:128:ARG:NH1	2.26	0.51
49:M3:113:VAL:HA	49:M3:116:LEU:HB2	1.92	0.51
50:M4:20:VAL:HG13	50:M4:68:LEU:HB2	1.92	0.51
56:N0:6:GLU:CD	56:N0:99:ARG:HE	2.18	0.51
56:N0:9:VAL:O	56:N0:26:ARG:HA	2.11	0.51
69:O3:15:SER:HB3	69:O3:16:TYR:O	2.11	0.51
1:6:1549:C:OP2	17:c5:39:ALA:N	2.42	0.51
21:c9:117:SER:HB2	21:c9:123:ARG:HB3	1.92	0.51
25:d3:17:VAL:HG23	25:d3:20:ARG:NH2	2.24	0.51
36:5:238:A:H2'	36:5:239:G:H8	1.74	0.51
36:5:3274:A:N7	53:m7:171:ARG:NE	2.59	0.51
36:5:3356:G:H5'	36:5:3356:G:C8	2.42	0.51
42:l5:62:CYS:HB2	42:l5:78:ALA:O	2.11	0.51
44:l7:108:LEU:CD2	44:l7:114:GLY:HA2	2.41	0.51
1:2:154:G:OP1	8:S6:2:LYS:NZ	2.42	0.51
1:2:783:G:O2'	1:2:784:C:O5'	2.28	0.51
1:2:1635:A:O2'	1:2:1636:C:OP2	2.26	0.51
9:S7:43:PHE:HB2	9:S7:61:PHE:O	2.11	0.51
19:C7:34:LEU:O	19:C7:38:ILE:HG22	2.11	0.51
19:C7:76:GLU:O	19:C7:80:ARG:HG3	2.11	0.51
20:C8:61:LEU:HB3	20:C8:66:LEU:HD21	1.92	0.51
24:D2:31:SER:OG	24:D2:34:ILE:N	2.23	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:70:A:H2'	36:1:71:A:C8	2.46	0.51
36:1:261:U:H2'	36:1:262:U:C6	2.44	0.51
36:1:1603:A:H61	61:N5:71:THR:CG2	2.21	0.51
36:1:1803:C:H4'	70:O4:62:TYR:O	2.09	0.51
36:1:1949:G:OP2	55:M9:135:LYS:HE2	2.11	0.51
36:1:2737:C:OP1	57:N1:69:LYS:HB3	2.10	0.51
39:L2:104:LEU:N	39:L2:160:SER:O	2.43	0.51
63:N7:95:VAL:HG21	63:N7:113:VAL:HG11	1.93	0.51
70:O4:58:ARG:HG3	70:O4:59:PRO:HD2	1.91	0.51
1:6:197:A:H2'	1:6:198:A:H8	1.74	0.51
1:6:240:U:H2'	1:6:241:U:C5	2.46	0.51
2:s0:143:VAL:HG11	2:s0:156:VAL:HG12	1.91	0.51
3:s1:90:GLU:HG2	3:s1:223:PHE:HZ	1.75	0.51
6:s4:21:ASP:OD1	6:s4:24:SER:OG	2.23	0.51
7:s5:183:ALA:HB2	7:s5:193:THR:HG21	1.92	0.51
10:s8:137:LYS:O	10:s8:141:ARG:N	2.40	0.51
11:s9:63:ASP:O	11:s9:66:ASP:HB2	2.11	0.51
17:c5:73:PRO:HD2	17:c5:93:VAL:HG23	1.91	0.51
20:c8:27:LYS:O	20:c8:31:ALA:N	2.43	0.51
20:c8:65:GLU:HG2	20:c8:68:ARG:NH2	2.25	0.51
26:d4:90:ARG:O	26:d4:93:ARG:N	2.44	0.51
35:sM:57:ASN:O	35:sM:61:ILE:HG22	2.11	0.51
36:5:7:C:H5''	45:l8:193:LYS:HB3	1.92	0.51
36:5:1190:A:C5	36:5:1193:A:H1'	2.46	0.51
36:5:1197:A:N3	36:5:1197:A:H2'	2.24	0.51
36:5:1299:U:OP1	76:q0:113:ARG:NH1	2.44	0.51
36:5:1841:A:C5	36:5:1848:G:C2	2.99	0.51
36:5:2167:A:H8	36:5:2167:A:O5'	1.94	0.51
36:5:2197:C:H4'	36:5:2198:A:C8	2.45	0.51
36:5:2366:C:H2'	36:5:2367:A:H8	1.75	0.51
36:5:2905:U:H2'	36:5:2906:C:H6	1.74	0.51
36:5:3047:U:H5'	40:l3:329:PRO:HA	1.91	0.51
36:5:3062:G:OP1	82:5:3848:GET:N33	2.44	0.51
36:5:3109:G:OP1	76:q0:93:LYS:NZ	2.44	0.51
38:8:125:U:H3'	38:8:126:A:C8	2.46	0.51
45:l8:130:TYR:CE1	45:l8:202:GLU:HB3	2.45	0.51
46:l9:10:ILE:HD13	46:l9:75:VAL:HB	1.93	0.51
48:m1:109:HIS:HD2	48:m1:114:ILE:HG21	1.74	0.51
49:m3:122:LYS:HG3	71:o5:119:LYS:O	2.10	0.51
55:m9:169:ALA:O	55:m9:173:ARG:HB3	2.10	0.51
61:n5:137:ASN:HB3	61:n5:142:ILE:HG13	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:n7:13:VAL:O	63:n7:19:ALA:HA	2.11	0.51
63:n7:17:ARG:C	63:n7:19:ALA:H	2.17	0.51
69:o3:13:HIS:NE2	69:o3:28:SER:OG	2.44	0.51
71:o5:102:GLU:O	71:o5:106:LYS:HG3	2.11	0.51
1:2:26:A:C2	1:2:27:U:C4	2.99	0.51
1:2:629:U:OP1	15:C3:127:ARG:NH2	2.44	0.51
1:2:1041:G:N2	1:2:1042:G:C2	2.79	0.51
1:2:1138:A:H2'	1:2:1139:A:H8	1.76	0.51
4:S2:139:ILE:CD1	4:S2:191:ALA:HB1	2.40	0.51
8:S6:22:HIS:HA	8:S6:25:ARG:HH11	1.76	0.51
10:S8:185:GLU:HG2	13:C1:23:PRO:HG2	1.92	0.51
12:C0:3:MET:HE1	12:C0:45:ALA:HB2	1.91	0.51
13:C1:125:VAL:HG13	13:C1:137:PHE:HB3	1.92	0.51
14:C2:127:GLY:HA2	35:SM:168:GLU:HA	1.92	0.51
15:C3:20:ARG:O	15:C3:65:VAL:HG13	2.11	0.51
16:C4:125:SER:O	16:C4:126:THR:OG1	2.22	0.51
19:C7:113:LEU:HG	19:C7:114:GLY:N	2.26	0.51
36:1:120:G:O6	45:L8:128:LYS:HB2	2.11	0.51
36:1:874:U:H3	36:1:2978:U:H5''	1.76	0.51
36:1:924:G:N7	36:1:2809:C:H1'	2.25	0.51
36:1:1555:U:O2'	36:1:1556:C:OP1	2.27	0.51
36:1:1602:A:C6	36:1:1603:A:C6	2.99	0.51
36:1:2124:G:C2'	36:1:2125:A:H5'	2.41	0.51
36:1:2586:G:C8	45:L8:241:LYS:HD2	2.46	0.51
36:1:2819:A:C2	36:1:2820:A:C4	2.99	0.51
38:4:10:A:H2'	38:4:11:C:C6	2.46	0.51
38:4:83:C:H42	62:N6:52:ARG:NH2	2.08	0.51
40:L3:92:TYR:O	40:L3:155:ALA:HA	2.11	0.51
41:L4:98:ARG:HG2	41:L4:99:MET:N	2.25	0.51
49:M3:60:ALA:HB3	49:M3:65:TYR:O	2.11	0.51
49:M3:75:PHE:O	49:M3:76:THR:OG1	2.29	0.51
51:M5:6:TYR:HE2	72:O6:43:LEU:HD12	1.76	0.51
63:N7:25:ILE:HG22	63:N7:28:PRO:HD3	1.93	0.51
79:Q3:47:VAL:HA	79:Q3:56:THR:O	2.10	0.51
1:6:240:U:H3'	1:6:241:U:C6	2.45	0.51
1:6:867:G:N2	15:c3:87:ASP:OD1	2.35	0.51
1:6:1081:A:H1'	1:6:1082:C:H5	1.75	0.51
1:6:1230:A:H2'	1:6:1258:U:H5	1.74	0.51
1:6:1648:A:H2'	1:6:1649:G:H8	1.75	0.51
1:6:1755:A:O2'	1:6:1756:A:OP2	2.25	0.51
2:s0:71:GLU:O	2:s0:96:THR:HG22	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:s5:110:ALA:HA	7:s5:113:ILE:HD12	1.93	0.51
9:s7:166:LEU:O	9:s7:170:GLN:HG3	2.11	0.51
10:s8:11:ARG:HD3	10:s8:15:GLY:O	2.10	0.51
15:c3:24:ALA:O	15:c3:27:LYS:HE2	2.10	0.51
25:d3:51:GLY:O	25:d3:101:GLU:HA	2.11	0.51
25:d3:58:GLY:O	32:e0:4:VAL:HA	2.11	0.51
36:5:144:A:H2'	36:5:145:G:O4'	2.10	0.51
36:5:577:C:OP1	44:l7:142:SER:OG	2.24	0.51
36:5:736:A:H2'	36:5:737:G:O4'	2.11	0.51
36:5:1450:G:N7	84:5:4024:HOH:O	2.34	0.51
36:5:2162:U:H2'	36:5:2163:C:O4'	2.10	0.51
36:5:2269:U:C2	36:5:2272:G:C2	2.98	0.51
36:5:2283:G:N7	84:5:4022:HOH:O	2.34	0.51
36:5:2914:G:N3	36:5:2934:A:H2	2.08	0.51
84:5:4153:HOH:O	64:n8:24:LYS:HE3	2.11	0.51
39:l2:3:ARG:HH11	39:l2:3:ARG:HG3	1.76	0.51
40:l3:210:GLU:HG3	40:l3:213:GLU:HB2	1.92	0.51
41:l4:8:VAL:O	41:l4:16:THR:HG22	2.11	0.51
41:l4:269:SER:C	41:l4:271:LYS:H	2.19	0.51
47:m0:150:GLU:HG3	47:m0:154:ARG:HD2	1.93	0.51
52:m6:62:THR:OG1	52:m6:69:GLY:HA2	2.11	0.51
52:m6:62:THR:HG21	52:m6:68:ARG:HG3	1.92	0.51
65:n9:38:LYS:O	65:n9:39:PHE:HB3	2.11	0.51
76:q0:118:THR:OG1	76:q0:120:GLN:HG3	2.11	0.51
1:2:76:A:H5'	1:2:77:U:OP2	2.11	0.51
1:2:446:A:N6	1:2:461:G:H21	2.08	0.51
1:2:802:G:H2'	24:D2:107:SER:HB2	1.92	0.51
1:2:870:C:O2'	1:2:871:G:H5'	2.11	0.51
1:2:871:G:H21	29:D7:68:GLY:HA2	1.75	0.51
3:S1:160:HIS:O	3:S1:164:ILE:HG13	2.11	0.51
4:S2:40:LYS:HA	4:S2:43:ARG:NH1	2.26	0.51
4:S2:188:LEU:HD13	4:S2:196:VAL:HG11	1.92	0.51
7:S5:57:SER:C	7:S5:59:VAL:H	2.16	0.51
8:S6:33:GLY:O	8:S6:51:LYS:HG3	2.10	0.51
20:C8:46:VAL:HG22	20:C8:72:ILE:HG22	1.93	0.51
21:C9:108:LEU:C	21:C9:114:VAL:HG12	2.36	0.51
36:1:353:G:O6	73:O7:52:LYS:HE2	2.11	0.51
36:1:544:C:H1'	36:1:548:G:N1	2.26	0.51
36:1:770:G:OP1	49:M3:171:ARG:HD3	2.11	0.51
36:1:1495:U:H5	36:1:1835:A:N1	2.09	0.51
36:1:1506:A:H1'	36:1:1848:G:O6	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2399:A:H2'	36:1:2400:G:O4'	2.10	0.51
36:1:2516:U:OP2	82:1:3812:GET:H931	2.11	0.51
42:L5:21:ARG:HH11	42:L5:21:ARG:HG2	1.76	0.51
43:L6:31:ARG:HG3	43:L6:33:SER:OG	2.11	0.51
46:L9:162:GLN:NE2	76:Q0:89:TYR:CE1	2.79	0.51
49:M3:128:ARG:NH2	71:O5:109:ILE:O	2.44	0.51
55:M9:138:LEU:O	55:M9:142:ILE:HG13	2.11	0.51
1:6:886:U:O2'	16:c4:121:VAL:O	2.28	0.51
1:6:1198:G:H5''	1:6:1199:G:H4'	1.92	0.51
4:s2:108:ASN:O	4:s2:110:HIS:ND1	2.41	0.51
6:s4:173:ILE:HD11	6:s4:235:TYR:CD1	2.46	0.51
7:s5:37:GLN:OE1	18:c6:53:LEU:HD22	2.11	0.51
8:s6:35:GLU:HA	8:s6:50:PHE:O	2.11	0.51
9:s7:41:LEU:HB2	9:s7:70:PHE:CZ	2.46	0.51
26:d4:42:GLU:HG3	26:d4:52:LYS:HD2	1.93	0.51
36:5:136:G:H5'	71:o5:95:PHE:CD2	2.46	0.51
36:5:338:A:N3	36:5:1381:A:H1'	2.26	0.51
36:5:409:A:H3'	36:5:410:U:H6	1.74	0.51
36:5:914:A:N1	39:l2:204:MET:HE3	2.25	0.51
36:5:1063:G:H8	36:5:1066:G:C1'	2.18	0.51
36:5:1340:G:H2'	36:5:1341:U:H6	1.74	0.51
36:5:1504:A:C5	36:5:1505:C:C5	2.99	0.51
36:5:1770:G:H5'	36:5:1771:C:OP2	2.11	0.51
36:5:2146:C:OP1	39:l2:217:GLN:NE2	2.38	0.51
36:5:2208:A:H2'	36:5:2209:U:H5'	1.93	0.51
36:5:2398:A:C2'	36:5:2399:A:H5'	2.41	0.51
40:l3:43:LEU:HG	40:l3:181:ILE:HG21	1.93	0.51
44:l7:108:LEU:HD23	44:l7:114:GLY:HA2	1.93	0.51
44:l7:179:LEU:HD22	44:l7:183:ASP:OD2	2.11	0.51
50:m4:90:VAL:O	50:m4:94:TRP:N	2.37	0.51
52:m6:157:GLU:OE2	52:m6:160:ARG:NH1	2.39	0.51
60:n4:2:LYS:HD3	60:n4:4:GLU:OE1	2.10	0.51
66:o0:42:ILE:HG13	66:o0:67:VAL:HG13	1.92	0.51
79:q3:73:THR:HB	79:q3:76:ALA:H	1.74	0.51
1:2:97:C:H2'	1:2:98:U:H6	1.76	0.51
1:2:1407:U:H2'	1:2:1408:G:O4'	2.11	0.51
1:2:1498:G:OP1	21:C9:75:LYS:HD2	2.11	0.51
1:2:1514:U:H1'	5:S3:6:SER:HA	1.91	0.51
1:2:1780:G:H1'	36:1:2262:A:O3'	2.11	0.51
1:2:1785:U:OP2	16:C4:133:ARG:NH2	2.42	0.51
2:S0:148:ASP:HB2	2:S0:164:ASN:CG	2.36	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:229:MET:HA	3:S1:232:HIS:ND1	2.26	0.51
6:S4:19:LEU:HD11	6:S4:108:ARG:HD2	1.93	0.51
6:S4:106:LYS:HG3	6:S4:108:ARG:NH1	2.26	0.51
8:S6:55:GLY:O	8:S6:63:MET:HG3	2.11	0.51
16:C4:64:ALA:HB3	16:C4:104:ALA:HB3	1.92	0.51
24:D2:71:LYS:HB3	24:D2:130:TYR:CE2	2.46	0.51
25:D3:12:ALA:O	25:D3:16:ARG:HG3	2.11	0.51
25:D3:56:LYS:HZ2	25:D3:96:VAL:HG23	1.75	0.51
26:D4:60:PHE:HA	26:D4:70:VAL:O	2.11	0.51
32:E0:4:VAL:O	32:E0:6:GLY:N	2.44	0.51
34:SR:91:LEU:O	34:SR:100:TYR:N	2.37	0.51
36:1:1603:A:OP1	55:M9:38:ARG:NH1	2.44	0.51
36:1:1653:G:H2'	36:1:1654:A:H8	1.76	0.51
49:M3:67:ARG:NH2	64:N8:108:GLY:HA2	2.26	0.51
53:M7:64:ASN:O	53:M7:67:ILE:HB	2.11	0.51
1:6:373:G:H5'	13:c1:96:LYS:HG3	1.93	0.51
1:6:486:G:O2'	1:6:487:G:H5'	2.10	0.51
1:6:738:G:H2'	1:6:739:G:C8	2.46	0.51
1:6:1334:U:H4'	31:d9:55:PHE:HB3	1.93	0.51
1:6:1402:G:OP1	19:c7:4:VAL:HA	2.11	0.51
1:6:1460:A:N7	17:c5:128:HIS:HB3	2.26	0.51
1:6:1797:A:C6	28:d6:87:ARG:HD2	2.45	0.51
2:s0:187:ALA:O	2:s0:188:LEU:HD23	2.10	0.51
7:s5:132:VAL:HG13	7:s5:202:ALA:HB2	1.93	0.51
9:s7:62:VAL:HG11	9:s7:67:LEU:HD23	1.92	0.51
11:s9:168:ARG:HH21	11:s9:174:ARG:HH11	1.59	0.51
12:c0:59:PHE:CZ	12:c0:62:GLN:HA	2.46	0.51
21:c9:105:LEU:HD22	21:c9:122:ARG:HG2	1.93	0.51
22:d0:27:THR:HB	22:d0:88:LYS:HG2	1.92	0.51
30:d8:32:PHE:HB3	30:d8:35:ASP:O	2.11	0.51
36:5:1096:U:H1'	36:5:1097:G:C2	2.46	0.51
36:5:1472:U:H2'	36:5:1473:G:H8	1.76	0.51
36:5:1864:A:H2'	36:5:1865:A:O4'	2.11	0.51
36:5:2541:U:H1'	36:5:2542:U:H4'	1.93	0.51
36:5:2969:A:H2'	36:5:2970:C:H5'	1.92	0.51
36:5:3049:A:C2	40:l3:75:ALA:HB2	2.46	0.51
36:5:3378:C:C2	40:l3:365:PHE:CE2	2.98	0.51
39:l2:204:MET:HE2	39:l2:208:ASP:HB3	1.93	0.51
43:l6:40:LEU:HB2	43:l6:52:VAL:HG12	1.93	0.51
47:m0:194:GLY:C	47:m0:196:PHE:H	2.19	0.51
47:m0:210:ILE:HA	47:m0:217:PHE:CE2	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:m6:19:LEU:O	52:m6:23:VAL:HG23	2.11	0.51
1:2:503:G:O2'	1:2:504:U:OP1	2.26	0.50
1:2:805:U:H2'	1:2:806:A:H5'	1.93	0.50
1:2:1033:C:H2'	1:2:1034:C:C6	2.46	0.50
1:2:1092:A:O2'	1:2:1093:A:H5''	2.11	0.50
1:2:1572:G:H1'	7:S5:185:ARG:HH12	1.76	0.50
1:2:1617:U:O2	1:2:1619:C:N4	2.44	0.50
2:S0:30:GLN:NE2	2:S0:149:LEU:HD13	2.26	0.50
5:S3:76:ARG:HA	12:C0:22:VAL:HG11	1.92	0.50
7:S5:99:MET:HA	7:S5:104:ASN:OD1	2.11	0.50
7:S5:150:GLY:O	7:S5:155:ALA:HA	2.11	0.50
9:S7:64:VAL:CG2	9:S7:94:ALA:HB1	2.40	0.50
9:S7:110:GLN:HG3	9:S7:111:LYS:H	1.76	0.50
15:C3:47:PRO:HG3	15:C3:75:LEU:HD22	1.93	0.50
36:1:1449:A:C2	36:1:2356:A:C4	2.99	0.50
36:1:2956:A:H62	36:1:2977:G:H21	1.59	0.50
37:3:3:U:H2'	37:3:4:U:C6	2.44	0.50
41:L4:6:VAL:HG13	41:L4:147:GLU:OE1	2.11	0.50
44:L7:163:LEU:O	44:L7:168:ILE:HD12	2.11	0.50
49:M3:32:LYS:HA	49:M3:35:ARG:CZ	2.41	0.50
51:M5:68:ARG:HH21	51:M5:123:GLN:HG3	1.76	0.50
55:M9:41:ILE:O	55:M9:45:VAL:HG23	2.12	0.50
55:M9:133:LYS:HD3	55:M9:134:HIS:CD2	2.46	0.50
56:N0:30:PHE:CZ	56:N0:103:VAL:HG21	2.47	0.50
63:N7:15:ARG:HD2	63:N7:79:HIS:CD2	2.46	0.50
64:N8:56:VAL:HG13	64:N8:57:GLY:H	1.74	0.50
71:O5:85:THR:HG23	71:O5:87:ALA:N	2.26	0.50
1:6:476:U:H5''	1:6:477:A:O4'	2.11	0.50
1:6:887:A:H2'	1:6:888:U:C6	2.46	0.50
1:6:1383:G:H1'	22:d0:57:ARG:NH1	2.26	0.50
7:s5:77:TYR:HB3	7:s5:84:LYS:HA	1.92	0.50
8:s6:72:ARG:HA	8:s6:97:VAL:O	2.10	0.50
11:s9:149:ARG:HG3	11:s9:149:ARG:HH11	1.75	0.50
17:c5:67:ALA:HB2	17:c5:73:PRO:HA	1.92	0.50
17:c5:69:GLU:HG2	17:c5:70:ASN:H	1.76	0.50
28:d6:23:CYS:O	28:d6:27:SER:HA	2.12	0.50
29:d7:41:LEU:H	29:d7:41:LEU:CD2	2.24	0.50
36:5:86:G:O2'	36:5:98:G:O6	2.27	0.50
36:5:279:U:H2'	36:5:280:U:H6	1.76	0.50
36:5:928:C:H2'	36:5:929:A:H8	1.76	0.50
36:5:1249:G:H2'	36:5:1250:G:H8	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2909:U:HO2'	36:5:3105:U:HO2'	1.51	0.50
36:5:3067:C:OP2	55:m9:62:ARG:NH1	2.42	0.50
40:l3:152:LYS:HD3	40:l3:189:SER:HA	1.92	0.50
40:l3:283:TYR:HB3	40:l3:323:MET:HE2	1.92	0.50
46:l9:88:TYR:CE2	46:l9:184:LYS:HE2	2.47	0.50
48:m1:52:TYR:HA	48:m1:61:ARG:HB2	1.92	0.50
49:m3:128:ARG:NH1	71:o5:109:ILE:O	2.44	0.50
51:m5:31:ARG:HG3	51:m5:129:TYR:OH	2.11	0.50
67:o1:84:ASP:OD1	67:o1:84:ASP:N	2.41	0.50
1:2:152:U:O2'	8:S6:4:ASN:OD1	2.27	0.50
1:2:325:G:H4'	13:C1:83:THR:HG21	1.93	0.50
1:2:633:U:O2'	1:2:1102:G:H4'	2.12	0.50
1:2:1098:U:OP2	4:S2:168:ARG:NE	2.40	0.50
1:2:1540:G:C6	1:2:1541:G:C4	2.99	0.50
2:S0:168:HIS:HB3	2:S0:203:PHE:CZ	2.46	0.50
3:S1:97:LEU:HD13	3:S1:98:THR:H	1.76	0.50
5:S3:150:MET:CE	35:SM:110:TRP:HB3	2.41	0.50
8:S6:176:GLN:HE21	8:S6:176:GLN:HA	1.76	0.50
10:S8:54:LYS:HG2	10:S8:175:GLN:O	2.11	0.50
14:C2:58:LEU:HB2	14:C2:126:TRP:CH2	2.46	0.50
18:C6:33:GLY:HA3	21:C9:7:ARG:HD3	1.94	0.50
18:C6:35:PRO:HD2	21:C9:7:ARG:O	2.10	0.50
20:C8:41:ARG:NE	21:C9:46:PRO:HD3	2.25	0.50
22:D0:27:THR:HB	22:D0:88:LYS:CG	2.42	0.50
35:SM:61:ILE:HD12	35:SM:62:ARG:N	2.26	0.50
36:1:1340:G:H2'	36:1:1341:U:C6	2.46	0.50
36:1:1495:U:C5	36:1:1835:A:N1	2.80	0.50
36:1:2254:U:H2'	36:1:2261:G:H22	1.75	0.50
36:1:2278:C:C2'	36:1:2279:A:H5''	2.40	0.50
36:1:3387:U:H2'	36:1:3388:C:C6	2.46	0.50
39:L2:117:GLU:OE2	39:L2:121:GLY:N	2.34	0.50
40:L3:221:THR:HB	40:L3:273:HIS:H	1.75	0.50
42:L5:85:ARG:HD3	42:L5:86:TYR:CZ	2.45	0.50
50:M4:112:LEU:HD11	52:M6:197:LEU:O	2.11	0.50
56:N0:155:ARG:O	56:N0:170:THR:HA	2.11	0.50
64:N8:74:ASN:HB3	64:N8:76:ASP:H	1.75	0.50
1:6:1460:A:H1'	35:sM:71:ASN:O	2.11	0.50
14:c2:31:VAL:HG21	14:c2:136:ILE:HD12	1.94	0.50
22:d0:36:ASN:HA	22:d0:39:SER:HB3	1.93	0.50
25:d3:68:ILE:O	25:d3:70:LYS:NZ	2.43	0.50
36:5:276:U:O2	51:m5:93:LYS:HE3	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1306:G:C5	52:m6:62:THR:HA	2.46	0.50
36:5:2143:A:O2'	36:5:2144:A:H2'	2.12	0.50
36:5:2398:A:H2'	36:5:2399:A:H5'	1.92	0.50
36:5:2746:A:H2	42:l5:146:LEU:HB3	1.77	0.50
39:l2:214:GLY:C	39:l2:216:HIS:H	2.18	0.50
46:l9:48:VAL:CG1	46:l9:52:LEU:HB3	2.42	0.50
46:l9:171:ASP:OD1	46:l9:173:ARG:HD3	2.11	0.50
59:n3:87:ARG:NH2	59:n3:137:VAL:HG22	2.15	0.50
61:n5:133:LEU:HD22	61:n5:133:LEU:O	2.11	0.50
64:n8:14:HIS:ND1	64:n8:14:HIS:N	2.58	0.50
73:o7:22:CYS:SG	73:o7:24:ARG:HG3	2.51	0.50
1:2:142:G:C2'	1:2:143:G:H5''	2.42	0.50
1:2:417:A:H4'	1:2:418:G:O5'	2.12	0.50
1:2:595:G:H2'	1:2:596:C:C6	2.46	0.50
1:2:990:C:H2'	1:2:991:G:O4'	2.11	0.50
1:2:1000:C:C6	1:2:1003:A:H2'	2.46	0.50
1:2:1105:C:H2'	1:2:1106:U:C6	2.45	0.50
1:2:1565:C:O2	20:C8:87:ASN:HA	2.11	0.50
3:S1:48:VAL:HG11	3:S1:57:ALA:HB1	1.91	0.50
3:S1:205:PHE:CD1	3:S1:206:PRO:HD2	2.46	0.50
4:S2:38:VAL:HG22	4:S2:39:THR:H	1.77	0.50
4:S2:243:TYR:HB3	4:S2:246:GLU:HG3	1.92	0.50
6:S4:151:ASP:HB3	6:S4:154:ILE:HG13	1.93	0.50
9:S7:60:ILE:HD12	9:S7:92:PHE:CE2	2.46	0.50
12:C0:77:ARG:HA	12:C0:82:LEU:HD11	1.93	0.50
18:C6:47:LYS:HZ1	18:C6:114:ARG:HG2	1.74	0.50
28:D6:85:ARG:O	28:D6:86:VAL:HG12	2.11	0.50
36:1:21:G:H2'	38:4:37:A:H61	1.76	0.50
36:1:563:U:OP1	56:N0:68:HIS:ND1	2.44	0.50
36:1:740:G:H2'	36:1:741:U:C6	2.44	0.50
36:1:2667:A:H2'	36:1:2668:U:O4'	2.11	0.50
36:1:2737:C:H4'	57:N1:68:THR:OG1	2.11	0.50
40:L3:350:ALA:O	40:L3:351:LEU:HB2	2.12	0.50
42:L5:278:SER:OG	42:L5:281:GLU:HG3	2.11	0.50
52:M6:121:PRO:HG3	56:N0:164:SER:HB3	1.93	0.50
61:N5:115:ARG:HD3	61:N5:121:LYS:HE3	1.92	0.50
62:N6:112:ASP:H	62:N6:115:ARG:HB2	1.77	0.50
75:O9:3:ALA:O	75:O9:5:LYS:NZ	2.25	0.50
78:Q2:29:LYS:HG2	78:Q2:30:ALA:H	1.76	0.50
1:6:297:U:H5''	6:s4:37:LYS:HG2	1.93	0.50
1:6:1489:U:H2'	1:6:1490:C:C5	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:s6:151:ASP:OD2	60:n4:101:ARG:HD3	2.12	0.50
10:s8:152:ILE:H	10:s8:152:ILE:HD13	1.76	0.50
16:c4:22:SER:O	16:c4:95:GLY:HA3	2.11	0.50
26:d4:113:ASN:HA	26:d4:116:LYS:CD	2.41	0.50
34:sR:59:ARG:HB3	34:sR:61:PHE:CE2	2.47	0.50
36:5:1520:G:O2'	61:n5:71:THR:HG21	2.10	0.50
36:5:1595:U:OP1	36:5:1595:U:H4'	2.11	0.50
36:5:2315:G:C2	36:5:2316:G:N7	2.79	0.50
36:5:2389:C:H1'	53:m7:69:ARG:NH1	2.26	0.50
36:5:2736:A:O2'	57:n1:68:THR:HG21	2.12	0.50
38:8:108:C:H2'	38:8:109:A:O4'	2.12	0.50
44:l7:86:VAL:HG13	44:l7:136:TYR:HB3	1.94	0.50
52:m6:24:ALA:O	52:m6:27:LEU:N	2.44	0.50
53:m7:31:GLU:CG	53:m7:60:PHE:HA	2.41	0.50
54:m8:170:ARG:HA	54:m8:174:ARG:HD2	1.93	0.50
59:n3:87:ARG:HB2	59:n3:89:ASP:OD1	2.10	0.50
61:n5:80:ASN:ND2	61:n5:126:LEU:HB2	2.25	0.50
1:2:156:A:H1'	1:2:416:A:C5	2.47	0.50
1:2:194:U:O2'	1:2:195:G:O4'	2.29	0.50
1:2:313:U:O2	1:2:1118:G:H1'	2.12	0.50
1:2:622:A:H4'	1:2:623:A:OP1	2.11	0.50
1:2:853:G:OP1	55:M9:176:ARG:HG3	2.12	0.50
1:2:931:C:OP2	1:2:932:U:O2'	2.25	0.50
1:2:1152:A:O2'	1:2:1153:G:H5'	2.12	0.50
3:S1:180:THR:HG22	3:S1:181:LEU:H	1.76	0.50
4:S2:169:LEU:HD23	4:S2:198:THR:HG22	1.93	0.50
7:S5:51:VAL:HG23	7:S5:131:GLN:HA	1.93	0.50
7:S5:166:ARG:HD2	30:D8:46:GLY:CA	2.40	0.50
8:S6:57:ASP:HB3	8:S6:106:LEU:HD23	1.92	0.50
14:C2:58:LEU:HD12	14:C2:126:TRP:CE2	2.47	0.50
18:C6:95:LYS:HE2	18:C6:96:TYR:CZ	2.46	0.50
20:C8:24:GLY:HA2	20:C8:58:ALA:HB3	1.93	0.50
26:D4:88:THR:O	26:D4:92:VAL:HG23	2.11	0.50
36:1:371:G:H4'	36:1:396:A:N1	2.26	0.50
36:1:731:U:H2'	36:1:732:C:H6	1.76	0.50
36:1:1601:U:P	55:M9:42:ARG:HH22	2.34	0.50
36:1:1716:U:H1'	36:1:1717:U:OP1	2.11	0.50
36:1:2196:C:O2'	36:1:2270:A:N3	2.41	0.50
36:1:2580:A:H8	36:1:2580:A:OP1	1.95	0.50
36:1:2884:C:H2'	36:1:2885:C:H6	1.75	0.50
41:L4:52:VAL:HG21	41:L4:99:MET:HE3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:34:LYS:O	42:L5:38:THR:HG23	2.11	0.50
45:L8:134:TYR:CG	45:L8:190:VAL:HG21	2.46	0.50
46:L9:9:GLN:HG2	46:L9:52:LEU:HD11	1.93	0.50
57:N1:25:VAL:CG2	57:N1:30:TYR:HE2	2.24	0.50
60:N4:23:ARG:NH2	60:N4:27:LYS:HD3	2.27	0.50
71:O5:7:TYR:CE1	71:O5:8:GLU:HG3	2.46	0.50
1:6:100:A:OP1	84:6:2126:HOH:O	2.20	0.50
1:6:156:A:N6	1:6:157:A:C2	2.80	0.50
1:6:532:U:H4'	26:d4:66:GLY:HA2	1.94	0.50
1:6:1323:C:H2'	1:6:1324:G:O4'	2.11	0.50
5:s3:211:PRO:HG2	19:c7:19:ARG:HB2	1.93	0.50
7:s5:123:VAL:HG22	27:d5:92:ILE:HD11	1.92	0.50
12:c0:54:TYR:CE2	12:c0:75:TYR:HB2	2.46	0.50
24:d2:42:GLN:HE21	24:d2:49:GLU:HA	1.76	0.50
36:5:51:A:C4	36:5:52:A:C8	3.00	0.50
36:5:76:G:H3'	49:m3:73:ARG:HD2	1.93	0.50
36:5:626:U:H2'	36:5:627:U:O4'	2.11	0.50
36:5:1471:U:H2'	36:5:1472:U:C6	2.46	0.50
36:5:1500:G:N2	36:5:1517:G:C4	2.79	0.50
36:5:1631:C:H5''	36:5:1632:A:H5''	1.93	0.50
36:5:2612:U:H1'	36:5:2803:A:N3	2.26	0.50
36:5:2837:A:H2'	36:5:2845:A:C6	2.46	0.50
36:5:3088:G:H2'	36:5:3089:C:H6	1.76	0.50
39:l2:101:VAL:C	39:l2:102:LEU:HD12	2.37	0.50
40:l3:35:ASP:OD1	40:l3:36:ASP:N	2.44	0.50
40:l3:45:SER:OG	40:l3:181:ILE:HG12	2.11	0.50
45:l8:68:ARG:O	45:l8:69:LEU:HB2	2.11	0.50
49:m3:185:LYS:HG3	49:m3:188:ARG:NH1	2.27	0.50
51:m5:6:TYR:O	51:m5:10:LEU:HB2	2.11	0.50
52:m6:108:ILE:HD11	52:m6:113:ASP:HA	1.94	0.50
54:m8:153:PHE:O	54:m8:161:LYS:HG2	2.10	0.50
1:2:109:G:O2'	1:2:796:A:N1	2.33	0.50
1:2:341:A:C6	1:2:342:C:C4	2.99	0.50
1:2:1649:G:N2	1:2:1752:U:C2	2.80	0.50
2:S0:185:ARG:HG3	23:D1:47:PRO:HD3	1.93	0.50
3:S1:222:LYS:HD3	3:S1:223:PHE:H	1.76	0.50
6:S4:68:ARG:NH1	6:S4:76:VAL:HG21	2.26	0.50
9:S7:101:LYS:HA	9:S7:112:ARG:NH1	2.27	0.50
10:S8:76:THR:HB	10:S8:105:ASP:CB	2.34	0.50
14:C2:71:ILE:O	14:C2:75:VAL:HG23	2.11	0.50
16:C4:81:VAL:HG13	16:C4:115:ILE:HG21	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:24:LEU:HD13	19:C7:58:MET:HE3	1.92	0.50
19:C7:50:ILE:O	19:C7:54:THR:HG23	2.11	0.50
21:C9:57:ARG:NH2	21:C9:80:TYR:HB3	2.27	0.50
36:1:716:A:N6	64:N8:117:ARG:HG3	2.26	0.50
36:1:842:G:H2'	36:1:843:A:H8	1.76	0.50
36:1:1389:G:O2'	36:1:1418:A:N1	2.37	0.50
36:1:2167:A:C6	36:1:2168:A:C6	2.99	0.50
36:1:2604:U:H2'	36:1:2605:G:O4'	2.12	0.50
36:1:3121:U:H1'	36:1:3122:A:H5''	1.92	0.50
40:L3:257:PRO:HG2	40:L3:261:MET:HE1	1.93	0.50
42:L5:55:PHE:HE2	42:L5:159:VAL:HG23	1.76	0.50
45:L8:161:GLU:HG2	51:M5:10:LEU:HD12	1.92	0.50
47:M0:51:HIS:CE1	47:M0:137:SER:HG	2.30	0.50
49:M3:42:ARG:O	49:M3:46:ILE:HB	2.11	0.50
62:N6:82:VAL:HG12	62:N6:84:LYS:N	2.27	0.50
66:O0:32:LYS:O	66:O0:36:GLN:HB2	2.11	0.50
1:6:1125:A:O3'	77:q1:15:ARG:NH1	2.45	0.50
1:6:1581:C:H5'	18:c6:135:ARG:O	2.10	0.50
1:6:1722:A:H2'	1:6:1723:U:O4'	2.11	0.50
5:s3:64:ARG:HG2	5:s3:65:ARG:N	2.26	0.50
9:s7:30:SER:OG	9:s7:34:LEU:HD13	2.10	0.50
14:c2:91:VAL:HG22	14:c2:92:ALA:H	1.77	0.50
15:c3:71:ILE:O	15:c3:75:LEU:HD12	2.11	0.50
20:c8:91:ASP:OD1	20:c8:92:ILE:N	2.44	0.50
23:d1:70:ASN:OD1	23:d1:70:ASN:N	2.44	0.50
23:d1:85:TYR:CD1	29:d7:6:ASP:HB2	2.46	0.50
26:d4:53:ASP:OD1	26:d4:96:LEU:HD21	2.12	0.50
36:5:501:A:H2'	36:5:502:U:H6	1.75	0.50
36:5:779:G:OP1	54:m8:185:LYS:NZ	2.45	0.50
36:5:986:U:H2'	36:5:987:U:H6	1.75	0.50
36:5:2401:A:O3'	41:l4:68:GLY:HA2	2.11	0.50
36:5:2525:G:H4'	45:l8:49:TYR:OH	2.11	0.50
36:5:2854:U:OP2	47:m0:3:ARG:NH2	2.45	0.50
36:5:2914:G:O2'	36:5:2934:A:N1	2.40	0.50
36:5:3060:C:H4'	36:5:3372:A:N3	2.26	0.50
36:5:3157:U:H3'	36:5:3157:U:C6	2.47	0.50
36:5:3197:G:C2'	36:5:3198:U:H5''	2.40	0.50
39:l2:45:VAL:HG22	39:l2:84:THR:HA	1.94	0.50
40:l3:92:TYR:OH	40:l3:180:GLU:OE1	2.22	0.50
46:l9:126:VAL:HG12	46:l9:127:PRO:O	2.11	0.50
51:m5:16:SER:O	51:m5:20:ARG:HG2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:n8:47:LYS:HG2	64:n8:48:TYR:CD2	2.47	0.50
74:o8:43:PHE:CE2	74:o8:56:ILE:HD13	2.47	0.50
79:q3:49:ARG:HG2	79:q3:54:ILE:O	2.11	0.50
1:2:808:U:H2'	1:2:809:A:C8	2.46	0.50
1:2:912:U:H4'	1:2:913:G:H8	1.77	0.50
1:2:975:C:H5''	15:C3:109:LYS:CE	2.41	0.50
1:2:1193:A:OP1	1:2:1193:A:H8	1.94	0.50
1:2:1756:A:H8	1:2:1756:A:O5'	1.94	0.50
3:S1:137:ILE:HD11	3:S1:172:LEU:HB3	1.93	0.50
28:D6:35:ALA:HB3	28:D6:37:LYS:HE3	1.93	0.50
34:SR:109:ASP:HB2	34:SR:127:ARG:HD2	1.93	0.50
35:SM:107:ASN:CG	35:SM:112:ASP:HB3	2.37	0.50
36:1:317:A:H2'	36:1:318:A:H8	1.75	0.50
36:1:915:A:N3	36:1:915:A:H2'	2.27	0.50
36:1:995:U:C2	36:1:2637:A:C8	2.99	0.50
36:1:1018:G:H2'	36:1:1019:G:O4'	2.10	0.50
36:1:2177:G:O2'	36:1:2178:A:OP2	2.29	0.50
36:1:2635:A:H4'	36:1:2636:A:O5'	2.12	0.50
37:3:74:C:H1'	37:3:106:U:O2	2.10	0.50
40:L3:46:PHE:CE2	40:L3:81:THR:HG22	2.46	0.50
42:L5:104:LEU:HD11	42:L5:108:ARG:NH2	2.27	0.50
46:L9:162:GLN:HG3	46:L9:163:GLN:N	2.18	0.50
55:M9:182:ASP:OD1	55:M9:182:ASP:N	2.45	0.50
63:N7:5:LEU:HD13	63:N7:5:LEU:H	1.77	0.50
63:N7:92:PHE:HE1	63:N7:117:ALA:HB1	1.76	0.50
76:Q0:106:ARG:HB2	76:Q0:106:ARG:NH1	2.27	0.50
77:Q1:10:THR:HA	77:Q1:13:LEU:HB3	1.93	0.50
1:6:325:G:OP1	13:c1:132:SER:OG	2.29	0.50
1:6:966:A:H2'	1:6:967:A:H8	1.76	0.50
1:6:1250:U:O2	33:e1:135:HIS:ND1	2.44	0.50
1:6:1489:U:H5'	1:6:1489:U:H6	1.76	0.50
1:6:1529:C:H2'	1:6:1530:C:C6	2.47	0.50
1:6:1550:A:OP2	17:c5:42:ARG:NH2	2.44	0.50
1:6:1595:U:H5	1:6:1596:C:C5	2.30	0.50
3:s1:113:MET:HE3	3:s1:209:ASN:HD22	1.76	0.50
4:s2:90:THR:OG1	4:s2:91:ARG:N	2.45	0.50
9:s7:49:ILE:HG22	9:s7:175:LYS:HD2	1.93	0.50
11:s9:88:GLU:O	11:s9:91:LYS:HD2	2.11	0.50
13:c1:96:LYS:HD3	13:c1:97:TYR:CE2	2.47	0.50
36:5:351:A:N6	75:o9:37:TYR:O	2.40	0.50
36:5:1017:C:H3'	36:5:1017:C:OP2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1639:C:OP1	70:o4:52:GLN:HB3	2.12	0.50
36:5:1767:C:O2'	36:5:1768:U:H5'	2.12	0.50
36:5:1953:G:O6	36:5:2094:C:N4	2.45	0.50
36:5:2144:A:C4	36:5:2281:A:C6	3.00	0.50
36:5:2197:C:H4'	36:5:2198:A:H8	1.77	0.50
36:5:2244:A:OP1	39:l2:243:THR:OG1	2.27	0.50
36:5:2623:G:H2'	36:5:2624:G:H8	1.75	0.50
36:5:3105:U:H2'	36:5:3106:A:C8	2.46	0.50
37:7:97:A:H2'	37:7:98:C:H6	1.77	0.50
38:8:82:U:H4'	38:8:83:C:C5'	2.39	0.50
39:l2:178:PRO:HD2	79:q3:26:VAL:HG22	1.93	0.50
40:l3:112:ASP:HA	40:l3:115:LYS:HB2	1.94	0.50
40:l3:369:ARG:HH22	60:n4:33:ASN:ND2	2.10	0.50
41:l4:122:THR:HA	41:l4:235:LEU:HD13	1.93	0.50
41:l4:328:ASN:C	41:l4:329:PRO:O	2.51	0.50
43:l6:145:LEU:O	43:l6:148:GLU:N	2.45	0.50
51:m5:156:HIS:HB3	51:m5:159:ARG:HD2	1.94	0.50
63:n7:84:ARG:HD3	66:o0:61:MET:HE1	1.93	0.50
1:2:409:C:H5'	1:2:1732:A:O2'	2.10	0.50
1:2:748:U:OP1	24:D2:82:LYS:HE3	2.12	0.50
1:2:1183:A:C6	1:2:1184:A:N1	2.80	0.50
1:2:1392:U:H2'	1:2:1393:C:C6	2.46	0.50
1:2:1534:G:OP2	27:D5:74:SER:OG	2.30	0.50
1:2:1536:G:N1	1:2:1538:U:O2	2.44	0.50
1:2:1603:U:H2'	1:2:1604:U:C6	2.47	0.50
7:S5:123:VAL:HG11	27:D5:59:TYR:HB2	1.92	0.50
8:S6:199:GLN:HG2	8:S6:202:ARG:NH1	2.27	0.50
13:C1:99:ARG:HA	25:D3:9:LEU:HD22	1.94	0.50
18:C6:32:ASN:N	18:C6:67:VAL:O	2.34	0.50
35:SM:86:ASN:ND2	35:SM:89:ARG:HB2	2.27	0.50
36:1:156:G:C4	49:M3:99:HIS:CD2	3.00	0.50
36:1:209:A:C4	41:L4:162:THR:HG21	2.47	0.50
36:1:616:G:H2'	36:1:617:G:H8	1.77	0.50
36:1:1619:A:H5'	36:1:1620:U:OP2	2.11	0.50
36:1:3271:G:C4	43:L6:108:LYS:HE2	2.47	0.50
36:1:3309:G:H1'	53:M7:69:ARG:HG2	1.92	0.50
36:1:3375:A:H5''	36:1:3378:C:H5	1.75	0.50
40:L3:265:ALA:C	40:L3:266:ARG:HG2	2.36	0.50
64:N8:19:LYS:HD2	64:N8:25:HIS:CD2	2.46	0.50
68:O2:105:ARG:NH1	68:O2:125:ARG:HD3	2.26	0.50
1:6:1681:A:H2	1:6:1720:G:H21	1.58	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:s2:37:PRO:HA	4:s2:65:GLU:OE1	2.11	0.50
7:s5:65:ARG:HA	7:s5:65:ARG:NE	2.27	0.50
11:s9:135:ALA:O	11:s9:156:ILE:HA	2.12	0.50
14:c2:60:VAL:HG23	14:c2:87:PRO:HG2	1.92	0.50
16:c4:132:ARG:O	28:d6:28:LYS:HA	2.12	0.50
24:d2:102:VAL:H	24:d2:113:HIS:CE1	2.30	0.50
26:d4:20:ARG:HH11	26:d4:22:GLN:NE2	2.10	0.50
31:d9:22:ARG:HG2	31:d9:38:ILE:HD13	1.93	0.50
34:sR:245:PHE:CE1	34:sR:252:LEU:HD13	2.46	0.50
36:5:994:G:H5'	36:5:2637:A:O2'	2.12	0.50
36:5:1523:U:H5'	61:n5:113:LEU:HB3	1.93	0.50
36:5:1839:A:C5	36:5:1843:C:C4	2.99	0.50
36:5:1895:A:H3'	84:5:4064:HOH:O	2.12	0.50
36:5:2773:C:H2'	36:5:2774:C:H6	1.77	0.50
36:5:3261:C:O2'	36:5:3262:U:H5'	2.10	0.50
38:8:42:G:O2'	38:8:43:A:H5'	2.11	0.50
38:8:52:A:O3'	75:o9:19:GLN:HG2	2.12	0.50
40:l3:216:ASP:OD1	40:l3:278:ILE:HA	2.12	0.50
41:l4:99:MET:O	41:l4:102:PRO:HG3	2.12	0.50
41:l4:356:THR:HG22	41:l4:360:LYS:HD3	1.93	0.50
46:l9:162:GLN:O	46:l9:162:GLN:NE2	2.45	0.50
51:m5:23:GLN:HG2	51:m5:122:ASN:OD1	2.11	0.50
57:n1:6:GLY:H	57:n1:9:SER:HB2	1.76	0.50
57:n1:17:ARG:HE	57:n1:22:HIS:HA	1.76	0.50
1:2:187:G:H4'	1:2:188:A:OP1	2.11	0.50
1:2:873:U:O2'	1:2:1047:G:OP1	2.29	0.50
1:2:946:U:H5''	3:S1:165:ARG:CZ	2.41	0.50
1:2:1424:A:H1'	4:S2:92:ALA:HB1	1.94	0.50
4:S2:45:VAL:HG21	4:S2:68:ILE:HG23	1.93	0.50
5:S3:150:MET:HE3	35:SM:110:TRP:HB3	1.94	0.50
6:S4:79:ASP:HB3	6:S4:82:TYR:HB2	1.94	0.50
6:S4:159:THR:HB	6:S4:227:VAL:HG23	1.94	0.50
15:C3:5:HIS:CE1	15:C3:121:ARG:HG3	2.47	0.50
21:C9:33:TYR:C	21:C9:33:TYR:HD1	2.19	0.50
34:SR:19:TRP:HB2	34:SR:38:ARG:HD2	1.93	0.50
36:1:304:G:O2'	36:1:305:U:OP2	2.21	0.50
36:1:379:C:H2'	36:1:380:U:H6	1.76	0.50
36:1:651:G:C6	36:1:652:G:C6	2.98	0.50
36:1:956:U:C4	36:1:957:C:N4	2.80	0.50
36:1:1520:G:H2'	36:1:1521:G:O4'	2.12	0.50
36:1:1818:U:C3'	36:1:1819:U:H5''	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1853:U:H5''	73:O7:10:LYS:HD3	1.93	0.50
36:1:2634:U:H1'	36:1:2645:G:N2	2.27	0.50
36:1:2655:U:C2	36:1:2656:A:C6	3.00	0.50
36:1:2736:A:O2'	57:N1:68:THR:HG21	2.12	0.50
36:1:3098:G:H4'	40:L3:278:ILE:HD11	1.94	0.50
43:L6:56:LYS:HZ1	43:L6:99:GLU:HA	1.77	0.50
43:L6:72:ASN:HB3	43:L6:160:SER:HA	1.94	0.50
47:M0:89:VAL:HG22	47:M0:136:PHE:CE1	2.46	0.50
54:M8:139:ILE:O	54:M8:140:LEU:HD23	2.11	0.50
56:N0:166:LYS:HB3	56:N0:167:ARG:O	2.12	0.50
62:N6:63:LYS:O	62:N6:66:GLN:HG3	2.11	0.50
63:N7:16:GLY:C	63:N7:18:TYR:H	2.17	0.50
64:N8:65:GLN:HA	64:N8:68:PHE:HD2	1.77	0.50
75:O9:42:ARG:HG2	75:O9:43:ASN:N	2.26	0.50
1:6:212:U:H2'	1:6:213:A:C8	2.40	0.50
1:6:255:U:H2'	1:6:256:A:C8	2.47	0.50
1:6:851:U:H2'	1:6:852:C:C6	2.46	0.50
1:6:1235:C:H5'	33:e1:146:SER:HB2	1.94	0.50
1:6:1250:U:O2'	33:e1:135:HIS:HB3	2.12	0.50
1:6:1490:C:H4'	1:6:1491:U:OP1	2.11	0.50
1:6:1535:U:H1'	1:6:1536:G:N1	2.27	0.50
1:6:1540:G:H2'	1:6:1540:G:N3	2.27	0.50
1:6:1754:A:H3'	82:6:2013:GET:O31	2.12	0.50
1:6:1785:U:P	16:c4:133:ARG:HH22	2.35	0.50
3:s1:126:THR:CG2	3:s1:136:ARG:HE	2.25	0.50
5:s3:126:VAL:HG11	5:s3:188:ILE:HG12	1.93	0.50
5:s3:148:LYS:C	35:sM:110:TRP:HH2	2.20	0.50
5:s3:224:ASP:OD1	34:sR:228:LYS:HD2	2.12	0.50
9:s7:126:LEU:HD13	9:s7:173:TYR:CD2	2.47	0.50
10:s8:138:ASN:HA	10:s8:141:ARG:CD	2.41	0.50
11:s9:116:LEU:O	11:s9:118:LEU:HD12	2.11	0.50
31:d9:6:VAL:O	31:d9:7:TRP:CG	2.65	0.50
35:sM:34:LYS:HD3	48:m1:61:ARG:NH1	2.27	0.50
36:5:69:C:O2'	36:5:101:G:H4'	2.12	0.50
36:5:136:G:H5'	71:o5:95:PHE:CG	2.47	0.50
36:5:407:A:N7	38:8:15:G:N2	2.59	0.50
36:5:439:C:H2'	36:5:439:C:O2	2.12	0.50
36:5:586:C:H4'	36:5:1165:A:H5'	1.94	0.50
36:5:1094:U:H3'	36:5:1095:U:H3'	1.94	0.50
36:5:1389:G:H5''	68:o2:101:SER:HB3	1.93	0.50
36:5:1460:A:H5'	67:o1:51:LEU:O	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1947:G:H5'	55:m9:134:HIS:HD2	1.77	0.50
36:5:2139:A:N3	73:o7:3:LYS:NZ	2.59	0.50
36:5:2217:U:H2'	36:5:2218:G:C8	2.46	0.50
36:5:2523:A:O2'	36:5:2587:U:H1'	2.12	0.50
36:5:2642:A:C2	36:5:2643:A:C5	2.99	0.50
36:5:2771:U:O2'	36:5:2772:C:O4'	2.25	0.50
36:5:2794:G:C2	36:5:2795:U:C2	3.00	0.50
36:5:2939:G:OP2	40:l3:3:HIS:HB3	2.11	0.50
36:5:3242:G:C5'	36:5:3245:A:H8	2.25	0.50
36:5:3245:A:C2	36:5:3246:G:C2	2.94	0.50
36:5:3259:U:H5'	36:5:3259:U:H6	1.76	0.50
39:l2:5:ILE:CD1	39:l2:232:GLY:HA2	2.42	0.50
41:l4:104:LYS:HE3	41:l4:106:TRP:CZ2	2.47	0.50
49:m3:109:PHE:O	49:m3:113:VAL:HG23	2.12	0.50
54:m8:120:GLU:HG2	54:m8:121:CYS:N	2.26	0.50
56:n0:82:ASP:OD1	56:n0:87:THR:HB	2.11	0.50
69:o3:16:TYR:CD2	69:o3:25:PRO:HA	2.47	0.50
79:q3:60:CYS:SG	79:q3:62:LYS:HB2	2.52	0.50
1:2:333:A:H2'	1:2:334:G:C8	2.46	0.50
1:2:849:C:OP1	55:M9:162:ARG:NH1	2.26	0.50
1:2:1291:G:N2	1:2:1325:A:N3	2.60	0.50
1:2:1413:U:H4'	1:2:1414:U:OP2	2.10	0.50
4:S2:152:HIS:CD2	4:S2:152:HIS:H	2.29	0.50
6:S4:163:ASP:HB3	6:S4:166:SER:O	2.12	0.50
9:S7:138:LYS:O	9:S7:139:ARG:NE	2.44	0.50
11:S9:159:ALA:O	11:S9:165:GLY:HA3	2.12	0.50
13:C1:141:LYS:HG3	13:C1:142:VAL:N	2.26	0.50
36:1:1727:G:OP1	79:Q3:44:LYS:NZ	2.42	0.50
36:1:2171:G:C2	36:1:2172:A:N7	2.80	0.50
36:1:2987:A:H2'	36:1:2988:C:C6	2.47	0.50
36:1:3334:U:H4'	36:1:3335:A:H5'	1.93	0.50
84:1:4035:HOH:O	64:N8:22:ILE:HD11	2.11	0.50
37:3:57:G:C8	37:3:58:C:C5	2.99	0.50
39:L2:104:LEU:HG	39:L2:146:THR:HG21	1.94	0.50
40:L3:44:THR:OG1	40:L3:182:GLN:O	2.24	0.50
47:M0:48:LEU:HD22	47:M0:49:CYS:N	2.27	0.50
50:M4:15:VAL:HG21	50:M4:60:LEU:HD11	1.93	0.50
61:N5:96:LYS:HG3	61:N5:107:VAL:HB	1.93	0.50
64:N8:119:PRO:C	64:N8:121:VAL:H	2.20	0.50
73:O7:14:LYS:HD2	75:O9:51:ILE:HD12	1.94	0.50
1:6:340:U:H2'	1:6:341:A:H8	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:s4:35:PRO:HG2	6:s4:82:TYR:OH	2.12	0.50
10:s8:6:ASP:OD1	10:s8:9:HIS:N	2.41	0.50
10:s8:93:THR:OG1	10:s8:95:THR:OG1	1.99	0.50
11:s9:77:ILE:HD11	11:s9:93:LEU:HD13	1.94	0.50
20:c8:140:THR:HA	20:c8:143:ARG:NH1	2.27	0.50
26:d4:45:ALA:CA	26:d4:50:ALA:HB3	2.41	0.50
28:d6:74:CYS:SG	28:d6:75:VAL:N	2.84	0.50
36:5:495:G:N2	36:5:619:A:H1'	2.27	0.50
36:5:1711:C:OP1	63:n7:78:ASN:ND2	2.45	0.50
82:5:3844:GET:H211	82:5:3844:GET:C52	2.20	0.50
82:5:3847:GET:H531	82:5:3849:GET:O53	2.12	0.50
38:8:102:U:H2'	38:8:103:G:H8	1.75	0.50
41:l4:156:LEU:HD22	41:l4:215:ILE:HD13	1.94	0.50
42:l5:261:THR:H	42:l5:264:GLN:NE2	2.10	0.50
46:l9:18:VAL:HB	46:l9:27:VAL:HG22	1.94	0.50
46:l9:18:VAL:O	50:m4:5:SER:HB3	2.12	0.50
1:2:248:U:H4'	13:C1:36:LYS:HD3	1.94	0.49
1:2:320:U:C2'	1:2:321:C:H2'	2.35	0.49
1:2:503:G:H8	1:2:503:G:OP2	1.95	0.49
1:2:1544:U:H4'	20:C8:132:ARG:NH2	2.27	0.49
5:S3:99:VAL:HG22	5:S3:171:ALA:HB2	1.94	0.49
7:S5:172:ILE:O	7:S5:176:THR:HG23	2.11	0.49
8:S6:57:ASP:HB2	8:S6:105:ASP:O	2.11	0.49
15:C3:26:PHE:CZ	15:C3:28:LEU:HB2	2.47	0.49
15:C3:61:THR:OG1	15:C3:62:GLN:N	2.45	0.49
17:C5:125:PRO:HG3	20:C8:129:TRP:CH2	2.47	0.49
26:D4:92:VAL:HG11	26:D4:99:LYS:HG2	1.93	0.49
27:D5:39:ALA:HB1	27:D5:71:ILE:HA	1.93	0.49
29:D7:31:TYR:CD2	29:D7:48:SER:HB3	2.47	0.49
36:1:303:G:C2	36:1:2778:G:N7	2.80	0.49
36:1:338:A:OP1	41:L4:47:ARG:HA	2.13	0.49
36:1:517:G:P	44:L7:60:ARG:HH22	2.35	0.49
36:1:603:A:H2'	36:1:604:G:O4'	2.12	0.49
36:1:953:G:O2'	36:1:1116:G:H5'	2.11	0.49
36:1:977:C:C2	36:1:978:G:C8	3.00	0.49
36:1:1086:C:H2'	36:1:1087:G:O4'	2.12	0.49
36:1:1471:U:H4'	55:M9:3:ASN:OD1	2.12	0.49
36:1:2656:A:H4'	78:Q2:98:LYS:HD2	1.94	0.49
36:1:2987:A:O2'	40:L3:259:HIS:HB3	2.12	0.49
41:L4:58:HIS:ND1	41:L4:90:PHE:HD1	2.10	0.49
63:N7:5:LEU:HD21	63:N7:30:ASP:OD1	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:Q3:55:TRP:O	79:Q3:63:THR:HA	2.12	0.49
1:6:339:C:OP1	10:s8:10:LYS:NZ	2.43	0.49
1:6:585:A:H2'	1:6:586:G:C8	2.47	0.49
1:6:1049:U:H2'	1:6:1050:G:C8	2.47	0.49
1:6:1253:U:H4'	33:e1:143:LYS:N	2.27	0.49
1:6:1398:U:H3'	1:6:1399:C:H4'	1.94	0.49
2:s0:79:ARG:NH1	2:s0:164:ASN:O	2.43	0.49
15:c3:91:LEU:HD12	15:c3:125:LEU:HD12	1.94	0.49
36:5:994:G:OP1	57:n1:14:MET:HB2	2.12	0.49
36:5:1346:G:H5''	36:5:1346:G:C8	2.46	0.49
36:5:1802:C:H4'	70:o4:60:ARG:HG3	1.93	0.49
36:5:3391:A:H2'	36:5:3392:U:H6	1.77	0.49
37:7:4:U:H2'	37:7:5:G:C8	2.47	0.49
38:8:33:A:H4'	73:o7:74:PHE:CZ	2.47	0.49
39:l2:2:GLY:HA2	39:l2:207:VAL:HG23	1.93	0.49
42:l5:282:ARG:O	42:l5:286:VAL:HG23	2.12	0.49
43:l6:176:PHE:H	50:m4:117:ARG:HH22	1.59	0.49
45:l8:133:LYS:HB2	45:l8:199:ALA:O	2.12	0.49
48:m1:17:LEU:HD21	48:m1:19:LEU:HD21	1.94	0.49
53:m7:138:LYS:HD2	53:m7:140:GLU:CD	2.37	0.49
54:m8:139:ILE:O	54:m8:140:LEU:HD23	2.12	0.49
58:n2:104:ARG:NH1	58:n2:106:ALA:HB2	2.26	0.49
66:o0:96:GLY:C	66:o0:98:SER:H	2.20	0.49
70:o4:95:ILE:O	70:o4:99:LYS:N	2.45	0.49
78:q2:72:LEU:HD11	78:q2:83:LEU:HD12	1.93	0.49
1:2:82:U:H2'	1:2:83:G:O4'	2.13	0.49
1:2:208:U:H2'	1:2:209:U:C6	2.47	0.49
1:2:780:A:H62	26:D4:10:ARG:NH2	2.10	0.49
1:2:816:G:OP2	1:2:816:G:C8	2.66	0.49
1:2:1035:G:C2	1:2:1101:G:C6	3.01	0.49
1:2:1244:A:H3'	1:2:1244:A:N3	2.27	0.49
1:2:1360:A:C2	1:2:1361:U:C2	2.99	0.49
1:2:1494:C:H2'	1:2:1495:C:H6	1.77	0.49
3:S1:63:GLY:HA2	3:S1:88:VAL:HB	1.94	0.49
3:S1:121:ILE:HD13	3:S1:161:ILE:HG23	1.94	0.49
3:S1:190:PRO:O	3:S1:191:GLU:HG2	2.12	0.49
5:S3:117:ARG:NH1	35:SM:126:ASP:OD1	2.46	0.49
6:S4:120:SER:O	6:S4:164:LEU:HB2	2.12	0.49
6:S4:192:ILE:HG13	6:S4:242:LYS:O	2.13	0.49
7:S5:197:GLU:CD	7:S5:208:SER:HB2	2.37	0.49
16:C4:17:ALA:HB3	16:C4:81:VAL:HB	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:52:LYS:HB2	17:C5:53:PRO:HD3	1.94	0.49
19:C7:5:ARG:HB2	19:C7:10:LYS:NZ	2.27	0.49
22:D0:69:LYS:HG2	22:D0:80:GLU:HB2	1.94	0.49
23:D1:71:ARG:HG3	23:D1:83:TRP:CH2	2.47	0.49
24:D2:8:ALA:CB	24:D2:74:VAL:HG11	2.41	0.49
32:E0:8:LEU:H	32:E0:8:LEU:CD2	2.24	0.49
35:SM:33:LYS:NZ	36:1:2692:A:OP1	2.45	0.49
36:1:174:C:H2'	36:1:175:C:C6	2.48	0.49
36:1:274:G:H2'	36:1:275:U:O4'	2.11	0.49
36:1:325:A:OP2	84:1:3983:HOH:O	2.20	0.49
36:1:528:U:H2'	36:1:529:A:H8	1.76	0.49
36:1:1155:C:H1'	36:1:1198:C:O2	2.12	0.49
36:1:1487:G:H22	70:O4:12:PRO:HB3	1.77	0.49
36:1:2814:G:OP1	41:L4:73:ARG:NH2	2.45	0.49
36:1:2933:A:C2	36:1:3014:U:H4'	2.47	0.49
44:L7:221:LYS:HB2	44:L7:227:GLY:HA3	1.94	0.49
48:M1:60:ARG:HB2	48:M1:60:ARG:HH11	1.76	0.49
56:N0:143:PHE:HA	56:N0:148:LEU:HD22	1.95	0.49
1:6:959:U:OP1	29:d7:28:PRO:HB3	2.11	0.49
1:6:1051:G:HO2'	1:6:1052:U:P	2.33	0.49
3:s1:211:HIS:CD2	3:s1:211:HIS:N	2.80	0.49
16:c4:81:VAL:HG13	16:c4:115:ILE:HG23	1.94	0.49
18:c6:101:SER:O	18:c6:105:LEU:HD13	2.11	0.49
32:e0:39:LEU:O	32:e0:43:ARG:N	2.32	0.49
36:5:170:G:H1	36:5:248:U:H3	1.60	0.49
36:5:822:G:O4'	39:l2:15:ILE:HG13	2.13	0.49
36:5:880:G:N3	36:5:882:A:N6	2.60	0.49
36:5:901:G:H2'	36:5:902:G:H8	1.76	0.49
36:5:1543:G:OP1	51:m5:35:VAL:HG23	2.12	0.49
36:5:1914:G:N2	36:5:1915:A:H1'	2.28	0.49
36:5:2356:A:H4'	53:m7:138:LYS:O	2.13	0.49
36:5:2984:C:H2'	36:5:2985:C:C6	2.47	0.49
36:5:3177:G:C2	36:5:3179:U:C5	3.00	0.49
39:l2:133:TYR:CB	39:l2:168:VAL:HG12	2.41	0.49
40:l3:303:LYS:HD2	40:l3:361:THR:HG21	1.94	0.49
41:l4:327:LEU:HD22	41:l4:327:LEU:H	1.77	0.49
42:l5:78:ALA:HB1	42:l5:104:LEU:HD23	1.93	0.49
55:m9:71:ARG:C	55:m9:73:GLY:N	2.70	0.49
62:n6:82:VAL:HG12	62:n6:83:ASP:O	2.12	0.49
67:o1:39:PHE:CZ	67:o1:43:HIS:HE1	2.29	0.49
73:o7:16:HIS:O	73:o7:25:ARG:HD3	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:q2:15:LYS:HG3	78:q2:18:ARG:HH11	1.76	0.49
1:2:1181:U:H2'	1:2:1182:U:O4'	2.12	0.49
1:2:1642:G:H8	82:2:2012:GET:H43	1.60	0.49
7:S5:158:GLN:HG2	30:D8:66:LEU:HD11	1.93	0.49
11:S9:139:GLN:NE2	26:D4:64:PHE:O	2.34	0.49
14:C2:45:LEU:O	14:C2:49:THR:HG23	2.12	0.49
14:C2:50:LYS:NZ	33:E1:129:GLY:O	2.32	0.49
16:C4:136:ARG:HD2	16:C4:136:ARG:H	1.76	0.49
20:C8:62:THR:N	20:C8:65:GLU:OE1	2.45	0.49
22:D0:34:LEU:HD23	22:D0:112:VAL:HG13	1.94	0.49
25:D3:18:HIS:O	25:D3:22:ASN:ND2	2.30	0.49
36:1:198:A:H1'	36:1:218:G:N3	2.27	0.49
36:1:284:A:OP2	78:Q2:41:ARG:NH1	2.39	0.49
36:1:406:G:H1'	38:4:16:G:H22	1.76	0.49
36:1:2249:G:C8	36:1:2272:G:C4	2.99	0.49
36:1:2270:A:C6	36:1:2271:A:C6	3.00	0.49
36:1:2561:A:H2	45:L8:31:PRO:HA	1.76	0.49
36:1:2898:G:H5''	36:1:2899:C:C5'	2.40	0.49
36:1:3083:G:H2'	36:1:3084:C:H6	1.77	0.49
36:1:3099:C:O2'	36:1:3100:U:H5'	2.12	0.49
36:1:3121:U:H4'	36:1:3122:A:OP1	2.12	0.49
36:1:3228:C:H4'	36:1:3229:G:O5'	2.13	0.49
36:1:3339:A:O2'	36:1:3340:G:H5'	2.12	0.49
37:3:70:U:H2'	37:3:71:G:C8	2.48	0.49
41:L4:155:ASP:O	41:L4:158:SER:OG	2.22	0.49
42:L5:34:LYS:NZ	57:N1:25:VAL:HG22	2.27	0.49
44:L7:215:GLY:O	44:L7:216:VAL:HG22	2.13	0.49
45:L8:65:LEU:HD12	51:M5:25:VAL:HG13	1.94	0.49
48:M1:109:HIS:O	48:M1:112:LEU:HD23	2.12	0.49
50:M4:17:VAL:HG13	50:M4:36:VAL:O	2.12	0.49
53:M7:26:PHE:CE1	53:M7:121:GLN:HG2	2.48	0.49
57:N1:65:TYR:CD2	57:N1:75:ILE:HG22	2.47	0.49
61:N5:60:TYR:OH	71:O5:26:LYS:HG3	2.11	0.49
1:6:590:C:H5'	32:e0:56:MET:HG2	1.94	0.49
1:6:990:C:H2'	1:6:991:G:O4'	2.12	0.49
1:6:1534:G:OP2	20:c8:57:ARG:NH1	2.44	0.49
9:s7:14:THR:HG22	9:s7:17:GLU:CD	2.38	0.49
10:s8:26:LYS:O	10:s8:29:LEU:HD22	2.12	0.49
14:c2:54:ARG:HD3	14:c2:56:GLU:CD	2.37	0.49
14:c2:66:VAL:HG11	14:c2:71:ILE:HD12	1.93	0.49
28:d6:41:ILE:HD12	28:d6:68:TYR:CD1	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:sR:192:PHE:HB3	34:sR:223:TRP:CZ3	2.48	0.49
36:5:1109:U:H4'	54:m8:153:PHE:CZ	2.47	0.49
36:5:1364:C:O2	54:m8:10:HIS:NE2	2.40	0.49
36:5:2282:U:O2	36:5:2310:U:H4'	2.11	0.49
36:5:3075:G:H2'	36:5:3076:C:H6	1.77	0.49
36:5:3280:U:H1'	36:5:3281:U:H5'	1.94	0.49
36:5:3353:G:H3'	36:5:3354:U:H4'	1.93	0.49
38:8:103:G:H4'	73:o7:21:ARG:HG3	1.94	0.49
39:l2:171:GLY:O	79:q3:68:ALA:HB2	2.12	0.49
47:m0:98:ARG:HB3	47:m0:120:GLY:HA3	1.93	0.49
49:m3:140:SER:OG	49:m3:141:ALA:N	2.44	0.49
50:m4:48:GLY:HA3	50:m4:53:VAL:HB	1.93	0.49
52:m6:11:GLY:O	52:m6:14:HIS:HB2	2.11	0.49
63:n7:58:GLY:O	63:n7:62:VAL:HG23	2.12	0.49
64:n8:74:ASN:HB3	64:n8:76:ASP:CB	2.43	0.49
1:2:1299:G:H2'	1:2:1300:A:C8	2.47	0.49
7:S5:63:GLN:CB	7:S5:89:ILE:HG13	2.42	0.49
11:S9:86:LEU:HD23	11:S9:91:LYS:HB2	1.93	0.49
19:C7:5:ARG:HB2	19:C7:10:LYS:HZ2	1.77	0.49
21:C9:102:ARG:O	21:C9:105:LEU:N	2.45	0.49
28:D6:10:ARG:HD3	28:D6:34:LYS:HG2	1.93	0.49
36:1:7:C:H1'	45:L8:184:ALA:HB2	1.94	0.49
36:1:89:A:OP2	54:M8:171:LYS:HE2	2.12	0.49
36:1:196:G:C2	36:1:199:A:C8	3.01	0.49
36:1:276:U:O2	51:M5:93:LYS:NZ	2.34	0.49
36:1:595:G:H1	36:1:609:G:H5''	1.77	0.49
36:1:901:G:C4	36:1:902:G:C8	3.00	0.49
36:1:1431:G:N7	64:N8:9:ARG:NH2	2.59	0.49
36:1:1480:G:O4'	36:1:1483:G:N2	2.45	0.49
36:1:1653:G:N2	36:1:1803:C:C2	2.81	0.49
36:1:2175:U:O4	39:L2:20:THR:HG23	2.12	0.49
36:1:2632:G:H2'	36:1:2633:U:O4'	2.13	0.49
36:1:2688:U:H4'	36:1:2689:A:O4'	2.12	0.49
36:1:3163:A:C2'	36:1:3164:C:H5'	2.42	0.49
37:3:22:A:H1'	42:L5:272:TYR:CZ	2.47	0.49
37:3:89:G:N2	37:3:92:A:OP2	2.38	0.49
38:4:132:G:C6	38:4:133:G:N7	2.81	0.49
39:L2:117:GLU:OE2	39:L2:120:PRO:HA	2.13	0.49
43:L6:56:LYS:HZ2	43:L6:99:GLU:HA	1.76	0.49
46:L9:97:PHE:HB3	46:L9:116:ASN:ND2	2.28	0.49
48:M1:16:LYS:HB3	48:M1:72:ARG:HG2	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:147:ARG:HG2	54:M8:149:ALA:H	1.77	0.49
63:N7:10:VAL:HG23	63:N7:86:THR:HA	1.94	0.49
70:O4:11:ASN:HB3	70:O4:18:ASN:ND2	2.26	0.49
79:Q3:17:ARG:HB3	79:Q3:18:TYR:CD1	2.47	0.49
1:6:190:C:H1'	1:6:191:C:H5'	1.94	0.49
1:6:1255:G:O2'	1:6:1256:A:O5'	2.27	0.49
4:s2:86:VAL:N	4:s2:97:ARG:O	2.40	0.49
5:s3:192:PRO:O	5:s3:195:SER:OG	2.26	0.49
9:s7:129:LEU:HD21	9:s7:172:VAL:HG11	1.93	0.49
16:c4:19:ILE:HB	16:c4:83:ILE:HG13	1.94	0.49
20:c8:35:ILE:HB	20:c8:38:VAL:HG22	1.94	0.49
21:c9:67:MET:HE3	21:c9:68:ARG:HH21	1.77	0.49
30:d8:9:LEU:HD22	30:d8:53:ILE:HG21	1.94	0.49
34:sR:17:ASN:HB3	34:sR:39:ASP:HB3	1.94	0.49
34:sR:283:LYS:HG3	34:sR:284:ALA:N	2.27	0.49
35:sM:110:TRP:N	35:sM:110:TRP:CD1	2.79	0.49
36:5:194:U:H2'	36:5:195:U:C6	2.45	0.49
36:5:304:G:P	84:5:3902:HOH:O	2.69	0.49
36:5:689:U:O4	41:l4:228:ALA:HA	2.11	0.49
36:5:854:G:O2'	55:m9:130:ASN:HB2	2.12	0.49
36:5:895:A:O2'	36:5:896:A:H3'	2.12	0.49
36:5:1314:C:O3'	52:m6:18:ARG:NH1	2.45	0.49
36:5:1613:A:H2'	36:5:1614:C:H6	1.76	0.49
36:5:1654:A:H2'	70:o4:59:PRO:HG3	1.94	0.49
36:5:1689:U:H5''	55:m9:61:SER:HB3	1.93	0.49
36:5:2343:C:H2'	36:5:2344:U:C6	2.47	0.49
36:5:2689:A:C8	36:5:2702:A:N6	2.81	0.49
36:5:2703:A:N6	42:l5:28:THR:O	2.42	0.49
36:5:2763:U:H5'	54:m8:176:ARG:HG3	1.95	0.49
36:5:3034:C:O2'	46:l9:122:LYS:HD2	2.12	0.49
36:5:3157:U:H3'	36:5:3157:U:H6	1.78	0.49
37:7:14:U:C4	37:7:67:G:N2	2.80	0.49
40:l3:151:ILE:O	40:l3:155:ALA:HB3	2.12	0.49
42:l5:40:HIS:HD2	42:l5:42:ALA:H	1.61	0.49
45:l8:150:LEU:HD22	45:l8:151:VAL:H	1.76	0.49
50:m4:135:LEU:HD13	50:m4:135:LEU:O	2.12	0.49
63:n7:76:ASN:HB3	63:n7:79:HIS:CE1	2.47	0.49
74:o8:16:ARG:NH1	74:o8:70:PRO:HG3	2.27	0.49
80:p0:51:VAL:HG12	80:p0:87:VAL:HG13	1.93	0.49
1:2:897:C:O2'	1:2:914:G:N2	2.46	0.49
1:2:1313:A:O2'	1:2:1315:U:OP1	2.29	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:6:THR:C	2:S0:8:ASP:N	2.71	0.49
8:S6:174:LYS:HG3	8:S6:175:ILE:N	2.28	0.49
10:S8:36:THR:OG1	10:S8:96:LEU:HB2	2.11	0.49
16:C4:43:THR:HG23	16:C4:46:MET:SD	2.52	0.49
18:C6:101:SER:O	18:C6:105:LEU:HD13	2.13	0.49
24:D2:23:ARG:NH1	24:D2:66:ASN:HA	2.27	0.49
36:1:683:U:H2'	36:1:684:G:O4'	2.12	0.49
36:1:700:C:H6	36:1:700:C:O5'	1.96	0.49
36:1:723:U:H2'	36:1:724:U:H6	1.77	0.49
36:1:794:U:H2'	36:1:795:G:H8	1.77	0.49
36:1:824:C:H1'	36:1:1535:A:N3	2.28	0.49
36:1:837:A:OP1	79:Q3:5:THR:HG23	2.13	0.49
36:1:1097:G:H5'	57:N1:129:LYS:HE2	1.94	0.49
36:1:1191:U:C2	52:M6:48:PHE:CE1	3.00	0.49
36:1:1722:U:H5''	55:M9:99:LEU:CD1	2.40	0.49
36:1:1946:A:H2'	36:1:1947:G:H8	1.75	0.49
36:1:3341:U:H4'	36:1:3342:A:H5''	1.93	0.49
38:4:38:U:O4	71:O5:89:ARG:HD2	2.11	0.49
39:L2:83:HIS:CD2	39:L2:86:GLN:HB2	2.48	0.49
41:L4:104:LYS:HD2	41:L4:106:TRP:CZ2	2.48	0.49
42:L5:68:THR:HG23	42:L5:70:THR:H	1.78	0.49
43:L6:52:VAL:HG11	43:L6:65:ILE:HG13	1.95	0.49
45:L8:64:ILE:O	45:L8:68:ARG:HG2	2.11	0.49
55:M9:95:TRP:O	55:M9:98:ARG:N	2.45	0.49
55:M9:105:LEU:HD11	55:M9:139:VAL:HG23	1.94	0.49
64:N8:66:ALA:O	64:N8:69:TRP:N	2.29	0.49
66:O0:28:LYS:O	66:O0:32:LYS:HD3	2.12	0.49
70:O4:82:ALA:O	70:O4:84:CYS:N	2.46	0.49
1:6:1621:U:C2	1:6:1622:G:C8	3.01	0.49
1:6:1623:C:H2'	1:6:1624:C:C6	2.48	0.49
2:s0:157:ASP:OD2	23:d1:65:SER:OG	2.28	0.49
3:s1:77:GLU:O	3:s1:80:SER:OG	2.24	0.49
10:s8:159:GLN:O	10:s8:162:ALA:N	2.38	0.49
15:c3:56:ASP:OD2	29:d7:52:THR:OG1	2.30	0.49
15:c3:114:ARG:O	15:c3:117:LEU:HB2	2.11	0.49
18:c6:115:THR:HG23	18:c6:118:ILE:O	2.13	0.49
20:c8:41:ARG:HA	20:c8:44:ASN:HB3	1.93	0.49
26:d4:76:TYR:HB2	26:d4:82:ALA:HB2	1.94	0.49
28:d6:23:CYS:HB3	28:d6:28:LYS:H	1.77	0.49
36:5:978:G:H1'	36:5:1104:G:N2	2.27	0.49
36:5:1556:C:H4'	36:5:1557:A:OP2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2261:G:H21	36:5:2262:A:N6	2.11	0.49
36:5:2689:A:C8	36:5:2702:A:C6	3.00	0.49
36:5:3109:G:C2	36:5:3126:C:C2	3.01	0.49
36:5:3163:A:C6	36:5:3164:C:N4	2.80	0.49
39:l2:92:LYS:HA	39:l2:103:PRO:HD2	1.93	0.49
45:l8:179:ILE:HB	45:l8:222:PHE:CE1	2.48	0.49
47:m0:36:LEU:CD1	47:m0:87:LEU:HB3	2.42	0.49
51:m5:143:ARG:HH21	71:o5:92:LEU:HA	1.77	0.49
52:m6:119:VAL:HG13	52:m6:124:LEU:HD21	1.94	0.49
56:n0:124:LEU:HD23	57:n1:153:PRO:HB2	1.94	0.49
74:o8:11:PHE:CD1	74:o8:12:LEU:HD22	2.47	0.49
75:o9:28:ARG:NH1	75:o9:36:ARG:HH11	2.09	0.49
80:p0:198:PRO:C	80:p0:200:SER:H	2.21	0.49
1:2:102:U:O4	1:2:360:A:H2'	2.12	0.49
1:2:874:C:OP1	3:S1:159:SER:OG	2.22	0.49
1:2:905:A:H5''	16:C4:52:ARG:HD3	1.95	0.49
1:2:1474:G:H2'	1:2:1475:A:H8	1.73	0.49
1:2:1750:A:C2	1:2:1751:C:C2	3.01	0.49
2:S0:71:GLU:O	2:S0:96:THR:HG22	2.13	0.49
4:S2:139:ILE:CG2	4:S2:141:ARG:HD2	2.42	0.49
6:S4:70:VAL:HA	6:S4:92:LEU:HD12	1.95	0.49
22:D0:82:TYR:CD2	31:D9:43:PHE:HE1	2.31	0.49
28:D6:45:VAL:HG11	28:D6:53:LEU:HG	1.95	0.49
36:1:287:G:H2'	36:1:288:C:H6	1.76	0.49
36:1:406:G:N3	38:4:16:G:C2	2.81	0.49
36:1:717:C:H2'	36:1:718:G:O4'	2.12	0.49
36:1:1856:C:C1'	70:O4:7:PHE:HE2	2.25	0.49
36:1:2150:G:H4'	79:Q3:22:LEU:HD21	1.94	0.49
36:1:2171:G:H2'	36:1:2172:A:H8	1.78	0.49
36:1:2617:U:H2'	36:1:2617:U:O2	2.11	0.49
36:1:3357:U:H2'	36:1:3358:U:C6	2.48	0.49
37:3:11:A:C8	42:L5:18:THR:HG23	2.47	0.49
38:4:65:A:H2'	38:4:66:A:O4'	2.13	0.49
38:4:136:G:OP1	61:N5:48:SER:OG	2.27	0.49
40:L3:67:PHE:CZ	59:N3:88:ARG:HB2	2.47	0.49
40:L3:211:GLN:NE2	40:L3:284:ARG:HA	2.27	0.49
48:M1:48:SER:O	48:M1:64:LYS:HA	2.13	0.49
49:M3:110:ASP:O	49:M3:114:GLN:HB2	2.12	0.49
49:M3:140:SER:OG	49:M3:141:ALA:N	2.44	0.49
63:N7:36:HIS:HD2	63:N7:74:VAL:HG11	1.76	0.49
66:O0:42:ILE:HD11	66:O0:67:VAL:HG22	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:O5:70:TYR:O	71:O5:73:LYS:HG2	2.12	0.49
76:Q0:92:ASP:O	76:Q0:105:PRO:HG3	2.12	0.49
78:Q2:77:CYS:O	78:Q2:79:THR:HG23	2.13	0.49
79:Q3:59:CYS:O	79:Q3:60:CYS:HB3	2.12	0.49
1:6:64:U:O2'	1:6:168:A:N3	2.34	0.49
1:6:289:U:H2'	1:6:290:G:O4'	2.13	0.49
1:6:326:G:OP1	13:c1:57:LYS:NZ	2.36	0.49
1:6:762:A:H4'	11:s9:71:PHE:HE1	1.77	0.49
1:6:1121:C:H2'	1:6:1122:G:H8	1.77	0.49
1:6:1552:U:H2'	1:6:1553:G:O4'	2.13	0.49
1:6:1563:C:H2'	1:6:1564:U:C6	2.47	0.49
1:6:1565:C:H3'	20:c8:41:ARG:HH12	1.77	0.49
1:6:1754:A:H5'	1:6:1755:A:OP2	2.12	0.49
6:s4:91:THR:OG1	6:s4:98:ASN:OD1	2.23	0.49
11:s9:168:ARG:HH21	11:s9:174:ARG:NH1	2.10	0.49
12:c0:14:TYR:CZ	12:c0:18:GLU:HG3	2.47	0.49
16:c4:17:ALA:O	16:c4:81:VAL:HA	2.13	0.49
25:d3:30:LYS:O	25:d3:34:LEU:HG	2.12	0.49
26:d4:8:ARG:NH1	26:d4:28:LEU:HD11	2.28	0.49
36:5:517:G:P	44:l7:60:ARG:HH22	2.35	0.49
36:5:856:G:P	55:m9:92:GLN:HE21	2.32	0.49
36:5:879:U:HO2'	36:5:880:G:P	2.34	0.49
36:5:2257:C:H2'	36:5:2258:U:O4'	2.12	0.49
36:5:2600:C:OP1	51:m5:93:LYS:NZ	2.45	0.49
36:5:3138:U:H2'	36:5:3139:A:C8	2.47	0.49
38:8:56:G:H2'	38:8:57:C:C6	2.48	0.49
44:l7:103:LEU:HG	44:l7:130:ILE:HG13	1.95	0.49
46:l9:86:TYR:HD2	46:l9:149:ASN:O	1.96	0.49
49:m3:76:THR:OG1	49:m3:79:GLU:HG3	2.12	0.49
49:m3:180:ARG:HD2	72:o6:11:LEU:HD21	1.95	0.49
68:o2:40:SER:O	68:o2:44:ARG:HG3	2.12	0.49
71:o5:21:LEU:HD22	71:o5:25:LYS:HG3	1.94	0.49
72:o6:56:ARG:HH22	72:o6:76:ARG:NH1	2.10	0.49
1:2:46:A:N6	1:2:433:C:H4'	2.27	0.49
1:2:164:A:H1'	8:S6:13:GLN:OE1	2.12	0.49
1:2:301:A:H2'	1:2:302:U:C6	2.48	0.49
1:2:417:A:H5'	1:2:418:G:C4	2.48	0.49
1:2:970:A:N7	1:2:971:A:C8	2.81	0.49
1:2:1287:A:N6	1:2:1329:A:H5'	2.28	0.49
8:S6:14:LYS:HG2	8:S6:15:THR:N	2.27	0.49
13:C1:64:VAL:HG12	13:C1:129:ARG:HH12	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C2:68:GLU:C	14:C2:70:ASN:H	2.21	0.49
18:C6:39:VAL:HG21	18:C6:48:VAL:HG11	1.93	0.49
21:C9:6:VAL:HG13	21:C9:66:TYR:CZ	2.48	0.49
21:C9:28:LEU:HD22	21:C9:30:VAL:HG22	1.94	0.49
22:D0:42:VAL:HG21	22:D0:55:PRO:HD3	1.95	0.49
23:D1:1:MET:CE	23:D1:13:VAL:HG22	2.38	0.49
26:D4:89:TYR:O	26:D4:93:ARG:N	2.40	0.49
29:D7:34:ASP:HB3	29:D7:43:ILE:HD12	1.95	0.49
36:1:22:G:H8	36:1:22:G:O5'	1.96	0.49
36:1:282:G:H21	36:1:304:G:N2	2.10	0.49
36:1:497:C:H2'	36:1:498:A:O4'	2.13	0.49
36:1:1202:A:C2	36:1:2857:C:H5'	2.48	0.49
36:1:1543:G:OP1	51:M5:35:VAL:HG23	2.12	0.49
36:1:1740:U:H4'	36:1:1741:A:H5'	1.95	0.49
36:1:2950:G:C5	36:1:2979:U:C4	3.00	0.49
36:1:2988:C:H2'	36:1:2989:U:C6	2.44	0.49
36:1:3375:A:O2'	36:1:3378:C:H5'	2.12	0.49
44:L7:159:GLN:O	44:L7:160:ARG:C	2.56	0.49
50:M4:24:LYS:HG2	50:M4:62:GLN:O	2.12	0.49
52:M6:14:HIS:CE1	52:M6:119:VAL:HG22	2.47	0.49
58:N2:54:VAL:HG12	58:N2:67:SER:CB	2.42	0.49
1:6:234:G:H2'	1:6:235:G:O4'	2.12	0.49
1:6:514:G:O2'	1:6:515:A:H5''	2.13	0.49
1:6:575:C:O3'	35:sM:104:LYS:NZ	2.41	0.49
1:6:1011:G:O5'	1:6:1011:G:H8	1.95	0.49
1:6:1780:G:C4	36:5:2263:C:OP1	2.66	0.49
8:s6:64:LYS:O	8:s6:100:ALA:HB2	2.12	0.49
11:s9:41:GLU:OE2	11:s9:126:ARG:NH2	2.45	0.49
13:c1:121:ASP:OD1	13:c1:145:ALA:HB2	2.12	0.49
34:sR:276:PRO:HG3	34:sR:313:TRP:HZ2	1.78	0.49
36:5:664:U:H2'	36:5:665:A:C8	2.48	0.49
36:5:1080:A:OP2	42:l5:140:ARG:NH2	2.45	0.49
36:5:1124:U:H2'	36:5:1125:U:H6	1.78	0.49
36:5:1655:G:H5'	36:5:1655:G:C8	2.44	0.49
36:5:1795:U:OP1	39:l2:191:LEU:HD11	2.12	0.49
36:5:2222:A:H5''	36:5:2223:A:OP2	2.12	0.49
36:5:2256:A:OP2	36:5:2256:A:H3'	2.13	0.49
36:5:2278:C:H2'	36:5:2279:A:H5''	1.94	0.49
36:5:2948:C:H2'	36:5:2949:U:O4'	2.13	0.49
36:5:2953:U:H2'	36:5:2954:U:H2'	1.94	0.49
36:5:2966:G:H2'	36:5:2967:A:C8	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:8:95:G:H4'	73:o7:79:GLN:O	2.12	0.49
39:l2:145:LYS:HG2	39:l2:157:VAL:HG23	1.94	0.49
41:l4:72:ALA:O	41:l4:76:ARG:NH1	2.46	0.49
42:l5:25:GLU:O	48:m1:144:CYS:HA	2.13	0.49
43:l6:51:ARG:O	43:l6:72:ASN:ND2	2.45	0.49
46:l9:36:LYS:HD3	46:l9:74:LEU:HD23	1.94	0.49
51:m5:18:VAL:O	51:m5:22:LEU:HD22	2.12	0.49
52:m6:153:VAL:O	52:m6:157:GLU:N	2.45	0.49
54:m8:19:PRO:HD3	54:m8:53:PHE:CD1	2.47	0.49
54:m8:158:HIS:H	54:m8:186:VAL:HG12	1.77	0.49
55:m9:134:HIS:N	55:m9:134:HIS:ND1	2.61	0.49
57:n1:57:TYR:O	57:n1:60:LYS:HB2	2.13	0.49
79:q3:55:TRP:CE3	79:q3:71:VAL:HG22	2.48	0.49
1:2:604:A:H2'	1:2:605:A:O4'	2.13	0.49
1:2:616:G:C2	1:2:622:A:N7	2.81	0.49
1:2:926:A:H2	16:C4:125:SER:HB3	1.78	0.49
1:2:1612:U:H1'	7:S5:99:MET:HE1	1.95	0.49
2:S0:115:PHE:CE1	4:S2:39:THR:HG22	2.48	0.49
13:C1:98:ASN:HD22	24:D2:79:PHE:HD1	1.59	0.49
20:C8:145:ARG:HB3	35:SM:68:ARG:NH2	2.28	0.49
24:D2:104:LEU:HB3	24:D2:125:ILE:HA	1.95	0.49
28:D6:70:LYS:HD2	28:D6:72:HIS:NE2	2.28	0.49
34:SR:264:SER:O	34:SR:268:GLN:HA	2.13	0.49
36:1:908:G:C6	36:1:925:A:C8	3.00	0.49
36:1:1340:G:H2'	36:1:1341:U:H6	1.78	0.49
36:1:2175:U:C4	39:L2:20:THR:HG23	2.48	0.49
36:1:2209:U:O2'	36:1:2210:G:OP1	2.22	0.49
36:1:2747:A:H5'	42:L5:175:HIS:HA	1.94	0.49
36:1:2946:A:H5''	36:1:2947:G:H5'	1.95	0.49
37:3:96:U:H4'	56:N0:119:ARG:HB2	1.94	0.49
40:L3:187:SER:O	40:L3:190:GLU:N	2.45	0.49
42:L5:22:ARG:HH21	42:L5:22:ARG:HG2	1.77	0.49
42:L5:64:ILE:HG22	42:L5:75:LEU:HB3	1.93	0.49
44:L7:116:PHE:CZ	44:L7:144:ILE:HG23	2.47	0.49
47:M0:212:GLU:HA	47:M0:212:GLU:OE2	2.13	0.49
56:N0:131:LYS:O	56:N0:134:ASP:HB2	2.13	0.49
72:O6:26:ILE:H	72:O6:26:ILE:HD12	1.77	0.49
1:6:502:U:H3'	1:6:503:G:H8	1.78	0.49
7:s5:134:VAL:O	7:s5:138:THR:HG23	2.13	0.49
11:s9:34:PHE:HD1	11:s9:111:THR:HG21	1.76	0.49
14:c2:71:ILE:HD13	14:c2:72:ILE:HG13	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:c3:15:ALA:O	29:d7:28:PRO:HD3	2.12	0.49
19:c7:105:GLN:HA	19:c7:108:ASP:OD2	2.12	0.49
20:c8:75:ASN:O	20:c8:79:TYR:HD2	1.95	0.49
26:d4:90:ARG:HA	26:d4:93:ARG:HD2	1.94	0.49
36:5:118:U:C5	36:5:119:U:C4	3.00	0.49
36:5:600:G:H5'	36:5:601:U:OP2	2.11	0.49
36:5:1205:A:H4'	36:5:2835:U:O2'	2.13	0.49
36:5:2557:A:C2	45:l8:38:GLN:HA	2.47	0.49
36:5:2618:G:O5'	65:n9:3:LYS:HE3	2.13	0.49
36:5:3037:U:H5''	40:l3:348:ARG:CZ	2.42	0.49
36:5:3242:G:H2'	40:l3:154:TYR:CD1	2.47	0.49
36:5:3386:G:H5'	67:o1:10:ARG:NE	2.27	0.49
37:7:91:G:H2'	37:7:92:A:H8	1.77	0.49
40:l3:284:ARG:HB3	40:l3:323:MET:HB3	1.94	0.49
52:m6:58:LEU:HD11	52:m6:74:ARG:NH2	2.27	0.49
57:n1:68:THR:HG22	57:n1:71:SER:O	2.12	0.49
57:n1:78:LYS:HB3	57:n1:87:LYS:HG3	1.95	0.49
60:n4:104:ASN:OD1	60:n4:108:LYS:NZ	2.46	0.49
72:o6:50:LEU:HD22	72:o6:54:GLU:HB3	1.93	0.49
73:o7:19:CYS:CA	73:o7:27:PHE:HB2	2.43	0.49
1:2:72:A:OP1	1:2:72:A:H4'	2.12	0.49
1:2:190:C:O2'	1:2:191:C:H5'	2.13	0.49
1:2:253:A:OP1	6:S4:134:LYS:N	2.41	0.49
1:2:268:C:O2'	1:2:269:G:H5'	2.12	0.49
1:2:454:U:H3'	1:2:455:C:C6	2.47	0.49
1:2:542:A:H5''	1:2:544:A:O4'	2.13	0.49
1:2:1159:C:O2'	1:2:1580:C:OP1	2.29	0.49
4:S2:157:LYS:HG2	4:S2:170:ILE:HG23	1.93	0.49
5:S3:57:ASP:OD1	5:S3:57:ASP:N	2.43	0.49
6:S4:125:LYS:HA	6:S4:159:THR:HA	1.95	0.49
7:S5:163:SER:HB2	30:D8:48:VAL:HG22	1.94	0.49
10:S8:105:ASP:OD1	10:S8:108:PRO:HD3	2.12	0.49
11:S9:149:ARG:HG3	11:S9:152:SER:OG	2.12	0.49
20:C8:126:ARG:HB3	20:C8:133:VAL:HG13	1.94	0.49
36:1:532:A:C2	36:1:533:A:C5	3.01	0.49
36:1:698:U:H2'	36:1:699:A:O4'	2.13	0.49
36:1:1093:A:C2	36:1:1096:U:C4	3.01	0.49
36:1:1177:G:C5	69:O3:20:LYS:HD2	2.48	0.49
36:1:1575:A:H3'	36:1:1576:G:C5'	2.41	0.49
36:1:1635:G:O6	63:N7:17:ARG:HB2	2.13	0.49
36:1:2307:G:O2'	36:1:2310:U:OP2	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3137:C:H5''	40:L3:276:THR:HG21	1.94	0.49
38:4:126:A:C2	38:4:129:C:C4	3.00	0.49
39:L2:5:ILE:HG12	39:L2:8:GLN:OE1	2.13	0.49
39:L2:5:ILE:CD1	39:L2:232:GLY:HA2	2.34	0.49
40:L3:139:GLN:HG2	40:L3:141:GLY:H	1.77	0.49
45:L8:50:VAL:HG21	61:N5:27:ARG:HG3	1.94	0.49
45:L8:149:LYS:O	45:L8:176:PRO:HG2	2.13	0.49
1:6:143:G:OP2	8:s6:139:ASN:ND2	2.41	0.49
1:6:153:G:H2'	1:6:154:G:C8	2.47	0.49
1:6:480:G:H1	1:6:508:U:H3	1.61	0.49
1:6:1175:U:H2'	1:6:1176:G:C8	2.47	0.49
6:s4:101:LEU:HD22	6:s4:109:PHE:CD1	2.48	0.49
7:s5:140:THR:OG1	7:s5:171:ALA:HB1	2.13	0.49
7:s5:143:ARG:HD3	30:d8:55:VAL:HG11	1.94	0.49
16:c4:89:THR:O	16:c4:128:LYS:NZ	2.32	0.49
19:c7:7:LYS:O	19:c7:11:ARG:N	2.44	0.49
36:5:814:U:O2	36:5:815:G:C8	2.65	0.49
36:5:1070:U:C4	36:5:1071:U:C4	3.01	0.49
36:5:1145:G:H5'	68:o2:46:PHE:CE1	2.48	0.49
36:5:1765:U:OP1	36:5:1765:U:H4'	2.13	0.49
36:5:2826:U:OP2	82:5:3847:GET:N21	2.46	0.49
40:l3:153:LYS:HG2	40:l3:154:TYR:CE2	2.48	0.49
45:l8:68:ARG:NE	45:l8:237:ILE:O	2.46	0.49
45:l8:81:THR:HG23	45:l8:82:LEU:H	1.77	0.49
45:l8:213:LYS:O	45:l8:217:THR:HG22	2.12	0.49
48:m1:108:GLU:HA	48:m1:122:ILE:HG23	1.95	0.49
49:m3:122:LYS:HE2	71:o5:119:LYS:NZ	2.28	0.49
56:n0:7:TYR:CD1	56:n0:61:ILE:HD11	2.48	0.49
56:n0:47:LYS:O	56:n0:48:LEU:HD23	2.13	0.49
56:n0:81:TYR:HA	56:n0:120:SER:O	2.12	0.49
62:n6:27:ARG:CZ	62:n6:78:PHE:CE2	2.95	0.49
70:o4:56:THR:HA	70:o4:62:TYR:OH	2.13	0.49
1:2:765:G:N3	11:S9:149:ARG:NH1	2.60	0.49
1:2:1514:U:O2	1:2:1514:U:H5'	2.13	0.49
3:S1:129:THR:HA	3:S1:177:GLN:HA	1.93	0.49
4:S2:218:ILE:O	4:S2:221:THR:OG1	2.30	0.49
4:S2:238:SER:OG	4:S2:240:LEU:HB2	2.13	0.49
19:C7:37:GLU:HG3	34:SR:150:TRP:HE1	1.78	0.49
26:D4:112:LYS:O	26:D4:116:LYS:HG3	2.13	0.49
36:1:597:G:H2'	36:1:598:A:C8	2.46	0.49
36:1:836:A:H8	36:1:836:A:O5'	1.96	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1213:G:H4'	56:N0:90:MET:HG2	1.94	0.49
36:1:1479:U:H1'	36:1:1484:U:C2	2.48	0.49
36:1:1891:A:C6	36:1:1892:G:N7	2.81	0.49
36:1:2203:U:H2'	36:1:2204:C:H6	1.77	0.49
36:1:2294:U:C2	36:1:2297:U:H5	2.30	0.49
36:1:2316:G:C4	36:1:2317:A:C8	3.01	0.49
36:1:2390:A:C2	36:1:2990:G:C2	3.01	0.49
36:1:2586:G:O2'	45:L8:241:LYS:HE3	2.12	0.49
36:1:2592:G:H4'	36:1:2594:C:N3	2.28	0.49
40:L3:4:ARG:O	40:L3:5:LYS:HB3	2.12	0.49
41:L4:138:ARG:O	41:L4:138:ARG:NH1	2.45	0.49
41:L4:265:GLU:HG2	41:L4:266:THR:HG23	1.95	0.49
41:L4:325:LEU:HD23	41:L4:331:ALA:HB3	1.95	0.49
43:L6:30:LEU:HD13	43:L6:34:LEU:HD12	1.94	0.49
49:M3:50:PRO:HG3	71:O5:118:ILE:HD11	1.95	0.49
52:M6:7:VAL:HG23	52:M6:31:GLN:NE2	2.28	0.49
56:N0:44:PHE:CD1	57:N1:153:PRO:HB3	2.48	0.49
58:N2:18:ASP:H	58:N2:104:ARG:HA	1.78	0.49
59:N3:89:ASP:OD1	59:N3:91:VAL:HG13	2.13	0.49
67:O1:27:LYS:O	67:O1:31:ARG:HB2	2.13	0.49
73:O7:53:ALA:O	73:O7:56:ARG:HB2	2.13	0.49
1:6:1022:C:O2'	1:6:1125:A:N1	2.46	0.49
1:6:1458:G:OP2	20:c8:139:LYS:HB2	2.13	0.49
2:s0:88:LYS:HG3	2:s0:201:LEU:HG	1.94	0.49
6:s4:62:LYS:HD2	6:s4:66:MET:HE3	1.94	0.49
6:s4:126:VAL:HG13	6:s4:158:ASP:O	2.13	0.49
11:s9:117:GLY:O	11:s9:119:ALA:N	2.46	0.49
14:c2:71:ILE:O	14:c2:75:VAL:HG23	2.13	0.49
18:c6:46:PHE:HA	18:c6:49:TYR:HB2	1.95	0.49
20:c8:125:ILE:HD11	35:sM:57:ASN:HB3	1.95	0.49
24:d2:6:VAL:HG22	24:d2:29:PRO:HD2	1.93	0.49
26:d4:35:VAL:HB	26:d4:40:LEU:HD11	1.93	0.49
36:5:34:A:H5'	51:m5:86:ASN:OD1	2.12	0.49
36:5:561:C:H2'	36:5:562:C:C6	2.48	0.49
36:5:590:G:C2	36:5:610:G:H2'	2.48	0.49
36:5:1262:G:O6	36:5:1264:G:N2	2.46	0.49
36:5:1471:U:H2'	36:5:1472:U:H6	1.77	0.49
36:5:1759:C:C4	36:5:1760:A:C8	3.01	0.49
36:5:2423:U:H2'	36:5:2424:A:C8	2.48	0.49
36:5:2549:G:O2'	36:5:2550:U:O5'	2.27	0.49
37:7:94:C:H2'	37:7:95:A:C8	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:l4:131:VAL:O	41:l4:135:VAL:HG23	2.13	0.49
46:l9:57:VAL:HG23	46:l9:68:LEU:HG	1.95	0.49
47:m0:48:LEU:HD22	47:m0:49:CYS:H	1.78	0.49
47:m0:86:HIS:O	47:m0:138:VAL:HA	2.13	0.49
50:m4:19:ARG:HB3	50:m4:35:ILE:HD12	1.95	0.49
52:m6:54:TYR:CD2	52:m6:145:VAL:HG11	2.48	0.49
60:n4:87:LEU:O	60:n4:91:LYS:HG3	2.13	0.49
66:o0:61:MET:HG3	66:o0:62:LEU:N	2.27	0.49
71:o5:21:LEU:CD2	71:o5:25:LYS:HE3	2.43	0.49
1:2:964:U:O4'	1:2:965:U:C2	2.66	0.48
1:2:1119:G:C6	1:2:1120:U:C4	3.01	0.48
1:2:1317:C:H2'	1:2:1318:G:O4'	2.13	0.48
1:2:1540:G:C6	1:2:1541:G:C5	3.01	0.48
1:2:1586:A:OP1	18:C6:136:SER:N	2.45	0.48
4:S2:109:GLY:HA2	4:S2:139:ILE:HB	1.95	0.48
10:S8:188:GLU:HG2	13:C1:13:PHE:CE2	2.48	0.48
16:C4:50:ALA:HB3	16:C4:53:ASP:H	1.78	0.48
33:E1:97:LYS:HA	33:E1:97:LYS:HD2	1.70	0.48
36:1:438:A:OP1	68:O2:118:LYS:NZ	2.41	0.48
36:1:589:A:H1'	36:1:1337:A:H5''	1.94	0.48
36:1:685:G:N7	49:M3:32:LYS:NZ	2.49	0.48
36:1:921:A:N6	36:1:1846:C:OP2	2.45	0.48
36:1:1128:U:H5''	36:1:1129:A:OP2	2.13	0.48
36:1:1295:G:OP1	56:N0:84:ARG:HG3	2.12	0.48
36:1:1696:A:H2'	36:1:1697:A:H8	1.76	0.48
36:1:2102:U:H2'	36:1:2103:U:H6	1.77	0.48
36:1:2278:C:C2	36:1:2307:G:C2	3.01	0.48
36:1:2820:A:H5''	36:1:2821:C:OP2	2.12	0.48
36:1:3353:G:H1'	36:1:3356:G:H5'	1.93	0.48
45:L8:164:VAL:O	45:L8:167:PRO:HD2	2.13	0.48
47:M0:93:PRO:HA	47:M0:127:ALA:HB2	1.95	0.48
48:M1:117:ASP:OD2	48:M1:119:SER:OG	2.21	0.48
50:M4:13:ARG:HD2	50:M4:65:LEU:O	2.13	0.48
63:N7:23:VAL:HG12	63:N7:45:GLY:HA3	1.94	0.48
78:Q2:63:LYS:HD3	78:Q2:63:LYS:HA	1.49	0.48
1:6:246:G:N7	6:s4:203:GLY:HA2	2.28	0.48
1:6:948:G:C6	1:6:949:C:C4	3.00	0.48
1:6:1460:A:C4	17:c5:128:HIS:CD2	3.01	0.48
1:6:1615:C:H4'	1:6:1616:G:OP2	2.12	0.48
1:6:1776:A:H2'	1:6:1777:G:C8	2.48	0.48
1:6:1788:G:OP2	16:c4:132:ARG:NH1	2.45	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:c8:15:LEU:H	20:c8:15:LEU:HD13	1.78	0.48
36:5:284:A:H4'	36:5:285:A:C2	2.48	0.48
36:5:372:A:C6	36:5:373:A:C6	3.00	0.48
36:5:1316:C:OP2	52:m6:133:ARG:NE	2.39	0.48
36:5:1811:G:H2'	36:5:1812:G:O4'	2.13	0.48
36:5:2807:U:O3'	36:5:2808:A:H3'	2.13	0.48
36:5:2987:A:O2'	40:l3:259:HIS:HB3	2.13	0.48
36:5:3028:G:C6	36:5:3029:A:C2	3.00	0.48
36:5:3211:C:H2'	36:5:3212:C:C6	2.48	0.48
36:5:3344:A:H3'	36:5:3345:G:O4'	2.13	0.48
40:l3:239:PRO:O	40:l3:242:THR:HG23	2.13	0.48
41:l4:125:ALA:HB1	41:l4:238:LEU:HB3	1.95	0.48
48:m1:28:ASP:OD1	48:m1:32:ARG:HD3	2.13	0.48
53:m7:181:ARG:CB	53:m7:181:ARG:HH21	2.25	0.48
59:n3:39:VAL:HG21	59:n3:51:ALA:C	2.37	0.48
59:n3:94:TYR:CE2	60:n4:21:PHE:HB2	2.48	0.48
64:n8:138:ILE:HD12	64:n8:145:VAL:HG22	1.95	0.48
69:o3:16:TYR:CG	69:o3:25:PRO:HA	2.48	0.48
69:o3:42:GLN:HA	69:o3:45:LEU:HG	1.94	0.48
71:o5:21:LEU:HG	71:o5:54:VAL:HG11	1.95	0.48
1:2:281:G:H2'	1:2:282:C:C5	2.48	0.48
1:2:338:C:O2'	10:S8:5:ARG:HA	2.13	0.48
1:2:382:C:P	6:S4:10:LYS:HD2	2.54	0.48
1:2:1360:A:C2	1:2:1364:G:N1	2.81	0.48
1:2:1600:A:HO2'	1:2:1602:C:N4	2.11	0.48
1:2:1711:C:H2'	1:2:1712:A:H5''	1.94	0.48
3:S1:110:LEU:O	3:S1:114:VAL:HG23	2.13	0.48
4:S2:49:LYS:HD2	4:S2:243:TYR:CE1	2.48	0.48
12:C0:16:PHE:HD2	12:C0:76:LEU:HD23	1.77	0.48
12:C0:42:VAL:O	12:C0:46:LEU:HB2	2.13	0.48
13:C1:67:ARG:O	13:C1:127:GLN:HB3	2.12	0.48
25:D3:96:VAL:O	25:D3:142:LYS:NZ	2.37	0.48
36:1:789:A:H2'	36:1:790:U:C6	2.49	0.48
36:1:860:G:OP2	39:L2:181:LYS:NZ	2.36	0.48
36:1:930:U:H2'	36:1:931:C:H6	1.78	0.48
36:1:1793:C:OP1	39:L2:177:LYS:NZ	2.36	0.48
36:1:1944:U:C2	36:1:1945:A:C8	3.01	0.48
36:1:3141:A:H3'	36:1:3142:A:H4'	1.95	0.48
36:1:3218:A:HO2'	36:1:3278:C:H5	1.61	0.48
36:1:3374:U:OP1	67:O1:17:HIS:ND1	2.30	0.48
37:3:105:C:H6	37:3:105:C:O5'	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:56:G:H2'	38:4:57:C:C6	2.47	0.48
45:L8:159:PRO:HB2	45:L8:162:LEU:CD1	2.41	0.48
46:L9:109:ALA:HB1	46:L9:111:PHE:CE2	2.48	0.48
47:M0:99:ILE:HG22	47:M0:123:HIS:HB2	1.94	0.48
49:M3:77:LEU:HD21	49:M3:99:HIS:HB3	1.94	0.48
49:M3:98:ASP:OD2	49:M3:101:ARG:HB2	2.13	0.48
50:M4:123:LEU:HB2	52:M6:194:LEU:HD21	1.94	0.48
70:O4:23:VAL:HG11	70:O4:33:GLN:HE22	1.78	0.48
72:O6:21:THR:O	72:O6:21:THR:OG1	2.28	0.48
74:O8:62:ALA:O	74:O8:66:ILE:HG13	2.12	0.48
1:6:4:C:O2'	11:s9:17:ARG:NH1	2.39	0.48
1:6:259:U:OP1	10:s8:75:LYS:NZ	2.39	0.48
1:6:294:C:C2	1:6:295:A:C8	3.01	0.48
1:6:829:A:O2'	1:6:830:U:H5''	2.13	0.48
1:6:1388:A:H4'	1:6:1389:C:O5'	2.14	0.48
1:6:1797:A:C5	28:d6:87:ARG:NH1	2.81	0.48
3:s1:101:HIS:O	3:s1:217:LEU:HD13	2.12	0.48
3:s1:107:THR:HG21	16:c4:117:ASP:O	2.13	0.48
5:s3:37:VAL:HG12	5:s3:50:ILE:HA	1.96	0.48
19:c7:87:GLU:OE1	19:c7:87:GLU:N	2.40	0.48
21:c9:10:ALA:HB3	21:c9:13:ASP:OD2	2.13	0.48
21:c9:143:ASP:C	21:c9:144:GLU:HG2	2.38	0.48
31:d9:40:ARG:O	31:d9:44:ARG:HG3	2.13	0.48
33:e1:138:ARG:O	33:e1:139:LEU:HD12	2.13	0.48
34:sR:21:THR:O	34:sR:291:SER:HB3	2.13	0.48
36:5:314:U:H2'	36:5:315:C:H6	1.76	0.48
36:5:560:G:P	50:m4:83:LYS:HZ3	2.33	0.48
36:5:788:C:H2'	36:5:789:A:C8	2.47	0.48
36:5:1013:G:H2'	36:5:1014:U:O4'	2.13	0.48
36:5:1219:C:O2'	36:5:1286:A:N1	2.42	0.48
36:5:1844:C:O2	73:o7:9:GLY:HA2	2.14	0.48
36:5:1920:U:N3	36:5:1930:A:H2	2.11	0.48
36:5:2767:U:H2'	36:5:2768:U:H6	1.77	0.48
38:8:19:C:H2'	38:8:20:U:O4'	2.12	0.48
40:l3:106:TRP:CG	40:l3:130:PHE:HE1	2.31	0.48
42:l5:194:LEU:O	42:l5:197:SER:HB3	2.14	0.48
44:l7:88:ARG:NE	44:l7:103:LEU:HD22	2.28	0.48
44:l7:106:LEU:HD12	44:l7:130:ILE:HD12	1.95	0.48
46:l9:77:ASN:HA	46:l9:80:THR:HG23	1.94	0.48
49:m3:185:LYS:HG3	49:m3:188:ARG:HH11	1.79	0.48
67:o1:20:LEU:O	67:o1:23:VAL:HG23	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:538:A:H8	1:2:543:C:C4	2.30	0.48
82:2:2014:GET:H131	82:2:2014:GET:N12	2.27	0.48
2:S0:90:ALA:HA	2:S0:95:ALA:HB3	1.95	0.48
3:S1:72:ASP:OD2	28:D6:59:TYR:OH	2.28	0.48
5:S3:114:ALA:HB3	5:S3:117:ARG:HB2	1.94	0.48
5:S3:167:PHE:HA	5:S3:190:ARG:HD3	1.95	0.48
5:S3:192:PRO:O	5:S3:195:SER:HB2	2.13	0.48
6:S4:115:THR:HG1	6:S4:118:GLU:H	1.54	0.48
8:S6:98:ARG:HD3	8:S6:99:GLY:N	2.28	0.48
9:S7:31:SER:HB3	9:S7:32:PRO:HD3	1.95	0.48
10:S8:104:ILE:HG13	10:S8:105:ASP:H	1.76	0.48
11:S9:109:LEU:HB3	11:S9:146:PHE:HB3	1.93	0.48
19:C7:29:GLN:HG2	34:SR:67:ILE:HD11	1.95	0.48
23:D1:64:GLU:HG3	29:D7:3:LEU:HG	1.95	0.48
28:D6:62:TYR:CG	28:D6:63:ALA:N	2.81	0.48
36:1:549:U:H2'	36:1:550:A:C8	2.48	0.48
36:1:660:A:C2	36:1:1435:A:C2	3.01	0.48
36:1:1049:C:H2'	36:1:1050:U:C6	2.48	0.48
36:1:2138:A:OP2	82:1:3808:GET:C71	2.59	0.48
36:1:2845:A:C2'	36:1:2846:U:H5'	2.43	0.48
38:4:98:U:H2'	38:4:99:C:O4'	2.13	0.48
40:L3:83:PRO:HG3	40:L3:204:ALA:CB	2.42	0.48
41:L4:136:LEU:HD23	41:L4:136:LEU:HA	1.70	0.48
47:M0:16:PRO:O	47:M0:18:PRO:HD3	2.12	0.48
50:M4:72:LEU:HD22	50:M4:73:PRO:HD2	1.95	0.48
51:M5:16:SER:HB2	72:O6:48:ALA:HB1	1.95	0.48
56:N0:68:HIS:HB3	56:N0:71:LYS:HB2	1.95	0.48
64:N8:24:LYS:HD2	64:N8:26:ARG:NH2	2.29	0.48
65:N9:36:ASP:OD2	65:N9:39:PHE:N	2.46	0.48
77:Q1:9:ARG:HG3	77:Q1:9:ARG:NH1	2.28	0.48
79:Q3:56:THR:HG22	79:Q3:63:THR:OG1	2.14	0.48
1:6:81:G:H2'	1:6:82:U:O4'	2.13	0.48
1:6:144:U:H5	8:s6:137:ARG:HH12	1.61	0.48
1:6:300:A:O2'	1:6:301:A:H5'	2.14	0.48
1:6:1264:G:H2'	1:6:1265:G:O4'	2.12	0.48
1:6:1389:C:H4'	19:c7:49:LYS:HA	1.94	0.48
1:6:1435:G:N7	12:c0:25:LYS:NZ	2.50	0.48
2:s0:172:LEU:HD22	2:s0:176:LEU:HG	1.96	0.48
6:s4:31:PRO:HG3	6:s4:43:PRO:HG3	1.95	0.48
8:s6:10:ASN:HB3	8:s6:128:THR:HA	1.95	0.48
22:d0:53:LYS:CB	22:d0:92:ASP:HB2	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:d7:33:LEU:HD22	29:d7:79:PHE:HB2	1.95	0.48
34:sR:43:ILE:HD13	34:sR:60:SER:HA	1.96	0.48
36:5:632:G:H2'	36:5:633:C:H6	1.77	0.48
36:5:1523:U:OP2	36:5:1604:G:O2'	2.31	0.48
36:5:1784:G:H2'	36:5:1785:U:O4'	2.14	0.48
36:5:1895:A:C5	36:5:2335:G:N7	2.81	0.48
36:5:2946:A:C2	36:5:2982:A:C4	3.02	0.48
36:5:3181:C:C4	36:5:3182:G:C5	3.01	0.48
45:l8:162:LEU:O	45:l8:165:PHE:HE1	1.96	0.48
52:m6:65:ASN:HB3	52:m6:68:ARG:HD2	1.93	0.48
59:n3:36:ILE:HG12	59:n3:58:VAL:HG21	1.94	0.48
60:n4:102:LYS:O	60:n4:106:GLU:HG3	2.14	0.48
62:n6:3:LYS:O	62:n6:3:LYS:HG3	2.13	0.48
1:2:161:U:O3'	8:S6:83:CYS:HA	2.13	0.48
1:2:884:A:O2'	3:S1:124:ASN:ND2	2.46	0.48
1:2:1291:G:H2'	1:2:1292:G:H8	1.78	0.48
1:2:1437:U:O2'	5:S3:181:VAL:HG23	2.13	0.48
1:2:1460:A:C8	17:C5:128:HIS:HB3	2.49	0.48
1:2:1529:C:OP1	7:S5:112:ARG:HD2	2.14	0.48
1:2:1535:U:H5	7:S5:185:ARG:C	2.21	0.48
8:S6:35:GLU:HA	8:S6:50:PHE:O	2.12	0.48
10:S8:172:ARG:HE	10:S8:175:GLN:HG3	1.79	0.48
11:S9:84:GLY:O	11:S9:107:ARG:HD3	2.13	0.48
35:SM:43:ASP:CG	35:SM:45:SER:H	2.22	0.48
36:1:284:A:C2	36:1:306:A:H1'	2.48	0.48
36:1:1064:A:H5''	36:1:1066:G:O4'	2.14	0.48
36:1:1556:C:H5''	36:1:2169:G:H22	1.76	0.48
36:1:1658:G:C6	36:1:1659:U:C4	3.02	0.48
36:1:1668:G:O2'	70:O4:22:VAL:HG11	2.14	0.48
36:1:1904:C:C2	36:1:2951:G:H5'	2.49	0.48
36:1:2257:C:H2'	36:1:2258:U:O4'	2.13	0.48
36:1:2661:G:H2'	36:1:2662:G:C8	2.49	0.48
36:1:3198:U:H4'	46:L9:21:LYS:HZ3	1.78	0.48
36:1:3325:G:H2'	36:1:3326:G:H8	1.78	0.48
38:4:36:G:H2'	38:4:36:G:N3	2.27	0.48
38:4:106:C:H1'	38:4:138:A:C8	2.48	0.48
42:L5:86:TYR:CE1	42:L5:247:ILE:HA	2.48	0.48
46:L9:150:SER:HG	46:L9:153:ASP:H	1.53	0.48
54:M8:44:PHE:O	54:M8:48:VAL:HG23	2.12	0.48
60:N4:20:LEU:HD23	60:N4:21:PHE:N	2.28	0.48
70:O4:11:ASN:O	70:O4:18:ASN:ND2	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
76:Q0:96:CYS:HB3	76:Q0:100:TYR:N	2.28	0.48
79:Q3:46:THR:HB	79:Q3:58:SER:HB2	1.94	0.48
1:6:765:G:N2	11:s9:146:PHE:HZ	2.11	0.48
1:6:811:A:C2	1:6:858:G:H1'	2.48	0.48
1:6:813:U:O2	1:6:813:U:H2'	2.11	0.48
1:6:1241:G:H1'	17:c5:79:HIS:CB	2.43	0.48
1:6:1313:A:O2'	1:6:1315:U:OP1	2.31	0.48
5:s3:94:ARG:NH2	35:sM:130:GLU:OE2	2.44	0.48
15:c3:99:ARG:CZ	15:c3:143:SER:HB2	2.43	0.48
22:d0:109:GLU:HG3	22:d0:110:PRO:HD2	1.96	0.48
23:d1:86:SER:HB3	29:d7:11:THR:HG22	1.95	0.48
36:5:869:G:H1'	36:5:891:G:N2	2.28	0.48
36:5:888:A:H2'	36:5:889:U:C6	2.47	0.48
36:5:953:G:OP1	65:n9:15:LYS:NZ	2.38	0.48
36:5:1167:U:P	69:o3:73:ARG:HH12	2.37	0.48
36:5:1947:G:H5'	55:m9:134:HIS:CD2	2.48	0.48
36:5:2101:C:H2'	36:5:2102:U:O4'	2.14	0.48
36:5:2778:G:H2'	36:5:2779:A:H5'	1.95	0.48
36:5:3102:G:O2'	36:5:3103:A:H5'	2.13	0.48
43:l6:44:ALA:C	43:l6:48:ARG:HB3	2.37	0.48
49:m3:48:PRO:HA	49:m3:137:GLN:HB2	1.95	0.48
50:m4:113:THR:HG22	50:m4:115:PHE:N	2.27	0.48
60:n4:8:PHE:CD1	60:n4:46:PRO:HG3	2.47	0.48
61:n5:108:LEU:HD12	61:n5:125:ARG:HD2	1.95	0.48
68:o2:69:SER:OG	68:o2:71:HIS:HB2	2.13	0.48
1:2:263:C:H4'	1:2:292:U:H5'	1.94	0.48
1:2:629:U:N3	1:2:630:A:N7	2.62	0.48
1:2:1327:C:C2	1:2:1328:G:C8	3.00	0.48
1:2:1761:U:C5'	82:2:2013:GET:O41	2.58	0.48
4:S2:102:VAL:O	4:S2:114:GLY:N	2.32	0.48
6:S4:36:HIS:CG	6:S4:85:GLY:HA3	2.48	0.48
13:C1:64:VAL:HG12	13:C1:129:ARG:NH1	2.28	0.48
13:C1:75:VAL:HA	13:C1:86:ILE:HG22	1.95	0.48
36:1:98:G:O6	49:M3:11:LYS:NZ	2.43	0.48
36:1:592:A:H5'	43:L6:17:ALA:O	2.13	0.48
36:1:685:G:P	49:M3:35:ARG:NH1	2.86	0.48
36:1:969:C:H5''	65:N9:19:ASN:ND2	2.29	0.48
36:1:1017:C:O2'	36:1:1018:G:OP2	2.30	0.48
36:1:2597:U:H2'	36:1:2598:G:H8	1.79	0.48
36:1:2709:C:H2'	36:1:2710:C:C6	2.48	0.48
36:1:2955:U:C2	36:1:2956:A:C8	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:88:A:C2'	38:4:89:A:H5'	2.43	0.48
38:4:107:G:H8	38:4:107:G:O5'	1.96	0.48
41:L4:29:PRO:HA	41:L4:279:HIS:CE1	2.49	0.48
50:M4:37:GLU:CG	50:M4:38:ILE:H	2.27	0.48
51:M5:123:GLN:O	51:M5:123:GLN:HG2	2.12	0.48
51:M5:128:LYS:HB3	51:M5:130:PHE:HE2	1.77	0.48
69:O3:29:LEU:HD22	69:O3:75:HIS:CD2	2.49	0.48
70:O4:55:SER:O	70:O4:62:TYR:OH	2.22	0.48
71:O5:31:LEU:HD22	71:O5:44:ILE:HA	1.95	0.48
1:6:902:G:H2'	1:6:903:U:C6	2.48	0.48
1:6:978:A:H2'	1:6:979:A:O4'	2.14	0.48
1:6:1125:A:C5	1:6:1126:G:H1'	2.49	0.48
1:6:1426:C:H5''	35:sM:93:ARG:HH12	1.77	0.48
1:6:1654:G:C6	1:6:1745:G:C6	3.01	0.48
3:s1:143:THR:HB	3:s1:205:PHE:HE1	1.78	0.48
9:s7:46:ILE:HG12	9:s7:60:ILE:HG23	1.96	0.48
23:d1:4:ASP:OD1	23:d1:5:LYS:NZ	2.40	0.48
26:d4:12:VAL:HG22	26:d4:23:PHE:HB3	1.94	0.48
26:d4:35:VAL:O	26:d4:36:SER:HB3	2.13	0.48
36:5:68:C:H42	36:5:75:G:H1	1.62	0.48
36:5:505:G:H2'	36:5:506:U:O4'	2.14	0.48
36:5:816:A:H1'	36:5:819:U:O4	2.13	0.48
36:5:960:U:H4'	36:5:963:G:N1	2.29	0.48
36:5:1258:U:OP1	80:p0:46:ARG:NH2	2.45	0.48
36:5:1528:G:O2'	36:5:1588:A:N3	2.45	0.48
36:5:2694:A:H8	36:5:2694:A:OP2	1.97	0.48
36:5:3072:C:H2'	36:5:3073:A:O4'	2.14	0.48
36:5:3183:A:O2'	36:5:3184:A:H5'	2.14	0.48
40:l3:41:VAL:HA	40:l3:185:GLY:CA	2.22	0.48
43:l6:56:LYS:HB3	43:l6:64:LEU:HB2	1.95	0.48
44:l7:127:LEU:HA	44:l7:130:ILE:HG22	1.95	0.48
48:m1:140:ARG:N	48:m1:140:ARG:HD2	2.27	0.48
52:m6:23:VAL:HG13	52:m6:33:ILE:HG21	1.96	0.48
55:m9:23:TRP:CH2	55:m9:25:ASP:HA	2.49	0.48
64:n8:132:LYS:HD3	64:n8:136:GLU:CD	2.38	0.48
69:o3:67:MET:HE1	69:o3:88:ASN:O	2.14	0.48
1:2:103:A:H4'	1:2:104:A:O5'	2.14	0.48
1:2:189:C:H2'	1:2:190:C:H5'	1.95	0.48
1:2:924:A:H2'	1:2:925:G:C8	2.48	0.48
4:S2:97:ARG:H	4:S2:97:ARG:HG2	1.43	0.48
4:S2:121:VAL:HG11	35:SM:117:LEU:HB2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:31:SER:HB3	9:S7:32:PRO:CD	2.44	0.48
10:S8:37:LYS:H	10:S8:59:ARG:H	1.62	0.48
10:S8:177:GLY:O	10:S8:178:ARG:HD3	2.12	0.48
21:C9:32:GLY:N	21:C9:34:VAL:HG12	2.23	0.48
36:1:595:G:C8	36:1:609:G:C6	3.02	0.48
36:1:600:G:H5'	36:1:601:U:OP2	2.13	0.48
36:1:689:U:N3	41:L4:227:THR:OG1	2.31	0.48
36:1:805:G:H1'	41:L4:73:ARG:NH1	2.29	0.48
36:1:836:A:O5'	36:1:836:A:C8	2.67	0.48
36:1:945:C:OP1	68:O2:33:ARG:HG3	2.14	0.48
36:1:1316:C:OP2	52:M6:133:ARG:NE	2.42	0.48
36:1:1412:G:H2'	36:1:1413:G:H8	1.78	0.48
36:1:1523:U:H5'	61:N5:113:LEU:HD22	1.95	0.48
36:1:2185:G:C6	36:1:2186:U:C4	3.01	0.48
36:1:2196:C:H2'	36:1:2242:A:N6	2.27	0.48
36:1:2303:A:P	77:Q1:23:ARG:NH2	2.87	0.48
36:1:2770:G:N2	36:1:2789:U:C2	2.82	0.48
36:1:2966:G:H2'	36:1:2967:A:C8	2.49	0.48
36:1:2970:C:H5''	36:1:2971:A:OP2	2.13	0.48
36:1:2989:U:O2'	40:L3:232:ARG:NH2	2.46	0.48
36:1:3013:U:H2'	36:1:3014:U:C6	2.48	0.48
36:1:3077:A:N6	36:1:3080:G:C5	2.82	0.48
41:L4:182:LEU:N	41:L4:201:GLN:HE22	2.12	0.48
41:L4:184:SER:OG	41:L4:201:GLN:NE2	2.45	0.48
49:M3:46:ILE:HG23	49:M3:49:ARG:HB2	1.94	0.48
60:N4:31:PHE:CE1	60:N4:37:ALA:HA	2.48	0.48
67:O1:16:LEU:HD21	67:O1:32:ALA:HB1	1.96	0.48
1:6:274:G:H2'	1:6:275:C:H6	1.78	0.48
1:6:346:G:H5'	13:c1:79:LYS:CB	2.44	0.48
1:6:1254:U:OP1	33:e1:143:LYS:HD3	2.13	0.48
1:6:1381:U:H1'	1:6:1516:A:N6	2.28	0.48
6:s4:200:ARG:HA	6:s4:206:ASP:HB3	1.93	0.48
7:s5:146:THR:CG2	7:s5:157:ARG:HB3	2.43	0.48
8:s6:10:ASN:ND2	8:s6:125:THR:O	2.45	0.48
15:c3:4:MET:HG2	15:c3:5:HIS:HD2	1.77	0.48
19:c7:46:LEU:O	19:c7:50:ILE:HG13	2.14	0.48
21:c9:77:ASN:HB3	21:c9:95:ASP:HB3	1.96	0.48
34:sR:19:TRP:CD2	34:sR:38:ARG:HD2	2.47	0.48
36:5:543:C:H6	36:5:543:C:O5'	1.96	0.48
36:5:692:A:C4	36:5:693:A:C8	3.02	0.48
36:5:1094:U:C3'	36:5:1095:U:H3'	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1176:C:H2'	36:5:1177:G:N2	2.28	0.48
36:5:1315:U:P	52:m6:18:ARG:NH1	2.86	0.48
36:5:3066:U:H2'	36:5:3067:C:H6	1.78	0.48
39:l2:36:GLU:HG2	39:l2:90:ALA:O	2.14	0.48
40:l3:227:GLU:O	40:l3:267:ALA:HB1	2.13	0.48
48:m1:92:ARG:O	48:m1:95:ASN:HB2	2.13	0.48
51:m5:138:GLN:O	51:m5:143:ARG:HD2	2.14	0.48
52:m6:51:LYS:HD2	52:m6:144:SER:OG	2.13	0.48
60:n4:35:LYS:HD3	60:n4:51:TRP:CH2	2.48	0.48
61:n5:100:LYS:HG2	61:n5:105:VAL:O	2.12	0.48
64:n8:77:LYS:HA	64:n8:77:LYS:HD2	1.58	0.48
1:2:472:U:H5''	11:S9:11:THR:HG23	1.94	0.48
1:2:624:G:H2'	1:2:625:C:O4'	2.13	0.48
1:2:626:U:O5'	1:2:626:U:H6	1.97	0.48
1:2:891:A:H2'	1:2:892:A:H8	1.75	0.48
1:2:1473:U:HO2'	7:S5:103:ASN:CG	2.18	0.48
1:2:1488:G:H5'	1:2:1489:U:OP1	2.13	0.48
1:2:1754:A:OP1	1:2:1754:A:H4'	2.13	0.48
2:S0:38:PHE:CD1	2:S0:39:ASN:HB2	2.49	0.48
3:S1:28:GLU:HG3	3:S1:29:TRP:N	2.28	0.48
7:S5:124:LEU:O	7:S5:125:THR:OG1	2.26	0.48
8:S6:137:ARG:O	8:S6:141:ILE:HG13	2.14	0.48
9:S7:110:GLN:HG3	9:S7:111:LYS:N	2.29	0.48
11:S9:126:ARG:HD2	32:E0:33:ARG:HD3	1.96	0.48
14:C2:33:ARG:O	14:C2:37:VAL:HG23	2.13	0.48
23:D1:21:ASN:OD1	24:D2:23:ARG:NH2	2.47	0.48
24:D2:27:ILE:HD11	24:D2:61:ILE:HD12	1.96	0.48
36:1:412:G:H1'	53:M7:120:ASN:HB3	1.96	0.48
36:1:869:G:H2'	36:1:870:G:O4'	2.13	0.48
36:1:1019:G:N2	36:1:1034:U:H1'	2.28	0.48
36:1:1439:U:C2	36:1:1440:G:C8	3.02	0.48
36:1:1579:C:H2'	36:1:1580:A:O4'	2.12	0.48
36:1:2732:G:H4'	36:1:2760:C:H4'	1.95	0.48
36:1:2960:C:H2'	36:1:2961:G:H8	1.79	0.48
38:4:3:A:H2'	38:4:4:C:O4'	2.14	0.48
46:L9:19:SER:C	46:L9:20:ILE:HG12	2.39	0.48
46:L9:126:VAL:HG21	46:L9:161:LEU:HA	1.95	0.48
50:M4:8:LYS:HB3	50:M4:9:ALA:H	1.42	0.48
52:M6:108:ILE:HD12	52:M6:160:ARG:NH2	2.28	0.48
56:N0:151:PRO:O	56:N0:152:LEU:HD23	2.14	0.48
58:N2:50:LEU:HD22	58:N2:54:VAL:HG21	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:80:VAL:HB	62:N6:101:PRO:HD3	1.96	0.48
67:O1:13:THR:HG22	67:O1:72:ARG:NH1	2.15	0.48
71:O5:60:GLU:O	71:O5:64:GLU:HG2	2.14	0.48
1:6:861:U:OP1	15:c3:64:ARG:NH1	2.46	0.48
1:6:862:A:H4'	1:6:863:A:O5'	2.13	0.48
1:6:1057:U:O2'	1:6:1059:U:OP1	2.32	0.48
2:s0:117:GLU:HB2	4:s2:40:LYS:HE3	1.96	0.48
4:s2:78:ASP:HB3	4:s2:104:VAL:HG12	1.96	0.48
4:s2:203:LYS:O	4:s2:206:THR:HG23	2.14	0.48
19:c7:34:LEU:HD22	19:c7:38:ILE:HD13	1.95	0.48
32:e0:13:LYS:HE3	32:e0:17:GLN:NE2	2.29	0.48
36:5:665:A:H1'	49:m3:14:PHE:CZ	2.48	0.48
36:5:916:G:H5'	36:5:917:A:OP1	2.14	0.48
36:5:1490:A:C2	36:5:1491:A:H1'	2.49	0.48
36:5:1657:C:N4	36:5:1798:A:OP2	2.41	0.48
36:5:1824:U:H4'	74:o8:17:ARG:HH12	1.77	0.48
36:5:1895:A:N1	36:5:2341:A:C6	2.81	0.48
36:5:3223:A:C6	36:5:3263:G:C6	3.02	0.48
36:5:3309:G:N3	36:5:3309:G:H5''	2.28	0.48
37:7:61:G:C2	37:7:62:U:C2	3.02	0.48
39:12:116:VAL:HG22	39:12:117:GLU:O	2.14	0.48
40:l3:226:PHE:CE1	40:l3:268:GLY:HA2	2.48	0.48
44:l7:220:PHE:C	44:l7:229:PHE:HD2	2.21	0.48
55:m9:24:LEU:HD23	55:m9:24:LEU:N	2.29	0.48
68:o2:9:ILE:HG23	68:o2:63:THR:HB	1.96	0.48
68:o2:82:LEU:HD12	68:o2:108:ILE:HG23	1.95	0.48
72:o6:34:SER:OG	72:o6:35:ASN:N	2.43	0.48
76:q0:95:VAL:HG12	76:q0:96:CYS:O	2.14	0.48
76:q0:99:CYS:HB3	76:q0:114:LYS:HD3	1.95	0.48
1:2:978:A:N6	1:2:1024:U:C2	2.81	0.48
1:2:1102:G:P	24:D2:76:SER:OG	2.71	0.48
1:2:1360:A:H2'	1:2:1361:U:C1'	2.44	0.48
1:2:1460:A:H3'	1:2:1460:A:N3	2.29	0.48
2:S0:35:PRO:HG3	23:D1:87:ARG:HH21	1.77	0.48
3:S1:62:LYS:HD3	3:S1:91:VAL:HB	1.96	0.48
3:S1:103:MET:HB3	3:S1:215:VAL:CG1	2.44	0.48
6:S4:95:THR:HG22	26:D4:16:PRO:HB2	1.96	0.48
16:C4:21:ALA:HA	16:C4:26:THR:HG22	1.95	0.48
19:C7:63:LYS:HE2	34:SR:284:ALA:HB2	1.96	0.48
20:C8:6:GLN:O	27:D5:42:LEU:HD13	2.14	0.48
20:C8:110:ARG:HH11	20:C8:110:ARG:HB3	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:28:LEU:HD13	21:C9:29:GLU:H	1.79	0.48
21:C9:34:VAL:HG23	21:C9:53:TRP:CE2	2.49	0.48
27:D5:42:LEU:HD12	27:D5:43:ASP:H	1.79	0.48
36:1:544:C:H2'	36:1:547:G:H21	1.78	0.48
36:1:895:A:N3	36:1:895:A:H2'	2.29	0.48
36:1:1369:A:C5'	64:N8:21:ARG:HD2	2.43	0.48
36:1:1438:U:H5''	41:L4:74:ILE:HD11	1.94	0.48
36:1:2269:U:H2'	36:1:2271:A:OP2	2.14	0.48
36:1:2884:C:O2'	36:1:2885:C:H5'	2.13	0.48
36:1:3329:U:H5''	40:L3:308:MET:HE3	1.96	0.48
36:1:3341:U:H1'	36:1:3342:A:OP2	2.14	0.48
82:1:3810:GET:N32	82:1:3810:GET:H111	2.27	0.48
40:L3:296:THR:HG21	40:L3:356:LEU:O	2.14	0.48
40:L3:358:TRP:CZ3	60:N4:15:PRO:HD2	2.48	0.48
41:L4:26:PHE:HA	41:L4:127:ALA:HA	1.95	0.48
41:L4:205:PRO:HB3	41:L4:247:PHE:CD2	2.48	0.48
52:M6:51:LYS:HE2	52:M6:144:SER:OG	2.14	0.48
1:6:544:A:H5''	1:6:545:A:OP2	2.13	0.48
1:6:828:U:H3'	1:6:829:A:H5''	1.95	0.48
1:6:1389:C:OP2	19:c7:45:ARG:HG3	2.14	0.48
1:6:1453:G:C4	1:6:1454:G:C8	3.02	0.48
1:6:1681:A:H1'	8:s6:66:GLY:HA3	1.96	0.48
3:s1:145:LYS:HG2	3:s1:149:GLN:CD	2.38	0.48
11:s9:102:GLU:O	11:s9:106:GLU:N	2.43	0.48
12:c0:49:LEU:HB3	12:c0:55:VAL:CG1	2.44	0.48
14:c2:108:ARG:O	14:c2:110:GLY:N	2.47	0.48
20:c8:60:GLU:O	20:c8:61:LEU:HB2	2.14	0.48
20:c8:120:ARG:NE	35:sM:61:ILE:HG21	2.27	0.48
26:d4:121:THR:HG22	26:d4:123:LYS:H	1.78	0.48
30:d8:32:PHE:HB2	30:d8:38:ARG:O	2.13	0.48
36:5:888:A:H2'	36:5:889:U:H6	1.79	0.48
36:5:1595:U:C2	36:5:1596:C:C5	3.02	0.48
36:5:2663:G:H2'	36:5:2664:C:O4'	2.13	0.48
36:5:2711:C:O2	36:5:2744:U:H5''	2.13	0.48
36:5:2861:U:H2'	36:5:2862:U:O4'	2.13	0.48
36:5:3111:U:H5'	46:l9:155:SER:OG	2.13	0.48
36:5:3286:G:H2'	36:5:3287:U:O4'	2.13	0.48
39:l2:150:LEU:O	39:l2:153:GLY:N	2.43	0.48
47:m0:75:TYR:CZ	47:m0:79:VAL:HG21	2.49	0.48
56:n0:89:ASN:HD21	57:n1:156:TYR:N	2.12	0.48
64:n8:111:LYS:HD2	64:n8:129:PHE:HB3	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:o0:101:LEU:H	66:o0:101:LEU:HD22	1.77	0.48
75:o9:5:LYS:HB3	75:o9:5:LYS:HE3	1.63	0.48
1:2:248:U:N3	1:2:250:C:O4'	2.46	0.48
1:2:849:C:H5''	55:M9:162:ARG:NH1	2.28	0.48
1:2:1619:C:O4'	30:D8:21:SER:HB2	2.13	0.48
1:2:1757:G:C2	1:2:1758:U:C6	3.02	0.48
5:S3:142:LEU:HB2	35:SM:110:TRP:CE2	2.48	0.48
6:S4:35:PRO:HB2	6:S4:36:HIS:CD2	2.48	0.48
11:S9:106:GLU:O	11:S9:111:THR:OG1	2.31	0.48
13:C1:54:ILE:HG22	13:C1:55:ASP:N	2.28	0.48
18:C6:87:LYS:O	18:C6:90:VAL:HG22	2.14	0.48
21:C9:11:ALA:O	21:C9:15:ILE:HG13	2.14	0.48
36:1:143:G:H4'	38:4:145:U:OP1	2.13	0.48
36:1:1334:U:OP1	44:L7:206:LYS:HE3	2.13	0.48
36:1:1581:C:H3'	36:1:1582:C:C5'	2.43	0.48
36:1:1940:G:C2	36:1:2109:U:O2	2.66	0.48
36:1:2401:A:C2	36:1:2872:A:C6	3.02	0.48
36:1:2931:C:H2'	36:1:2932:U:O4'	2.13	0.48
36:1:2945:G:O2'	36:1:2948:C:OP2	2.26	0.48
36:1:3112:G:O6	36:1:3120:C:H5''	2.14	0.48
36:1:3363:U:H2'	36:1:3364:C:H6	1.79	0.48
36:1:3375:A:C4	36:1:3376:A:N7	2.82	0.48
38:4:41:A:C8	38:4:42:G:C8	3.01	0.48
38:4:121:U:H2'	38:4:122:U:C6	2.47	0.48
42:L5:197:SER:OG	42:L5:202:GLY:HA3	2.13	0.48
45:L8:162:LEU:HG	51:M5:7:LEU:HD21	1.94	0.48
46:L9:67:ALA:O	46:L9:71:VAL:HG23	2.14	0.48
47:M0:10:ARG:HG2	47:M0:11:TYR:CD1	2.49	0.48
49:M3:126:PHE:HZ	49:M3:135:ALA:HB2	1.79	0.48
53:M7:28:ASN:O	53:M7:32:THR:HG23	2.14	0.48
54:M8:93:ILE:HD12	54:M8:113:LYS:HE2	1.96	0.48
59:N3:135:VAL:HG21	60:N4:26:SER:HB3	1.94	0.48
69:O3:43:PHE:C	69:O3:43:PHE:CD2	2.92	0.48
69:O3:48:ARG:HG3	69:O3:104:PRO:HD3	1.94	0.48
74:O8:24:THR:HG23	74:O8:44:LYS:HB2	1.95	0.48
76:Q0:110:CYS:SG	76:Q0:112:LYS:HB2	2.53	0.48
1:6:240:U:H3'	1:6:241:U:H6	1.77	0.48
1:6:1255:G:H4'	1:6:1256:A:OP1	2.13	0.48
3:s1:36:SER:H	3:s1:231:LEU:HD22	1.78	0.48
5:s3:5:ILE:HG23	5:s3:9:ARG:NH1	2.28	0.48
6:s4:42:LEU:N	6:s4:84:ALA:O	2.41	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:s6:56:ASN:HA	8:s6:61:PHE:O	2.14	0.48
10:s8:81:VAL:HB	10:s8:94:ASN:HA	1.95	0.48
19:c7:81:LYS:HD2	19:c7:84:TYR:HE2	1.78	0.48
20:c8:28:ILE:HA	20:c8:58:ALA:HB2	1.95	0.48
21:c9:86:ARG:HB2	21:c9:89:ARG:HB2	1.96	0.48
24:d2:38:LEU:O	24:d2:47:ILE:HD11	2.13	0.48
36:5:63:A:H8	36:5:63:A:O5'	1.97	0.48
36:5:71:A:C2	36:5:2778:G:H1'	2.49	0.48
36:5:201:A:H2'	36:5:202:G:C8	2.49	0.48
36:5:339:C:O2'	36:5:340:C:H5'	2.14	0.48
36:5:595:G:N1	36:5:609:G:H5''	2.29	0.48
36:5:600:G:H1'	36:5:604:G:H22	1.79	0.48
36:5:620:U:C2	36:5:622:A:C4	3.02	0.48
36:5:752:C:H2'	36:5:753:C:C6	2.49	0.48
36:5:1334:U:H5''	44:l7:206:LYS:HB3	1.94	0.48
36:5:1596:C:H2'	36:5:1597:C:C6	2.49	0.48
36:5:2403:G:C2	36:5:2405:C:C4	3.02	0.48
36:5:3182:G:H2'	36:5:3183:A:H8	1.79	0.48
39:l2:224:THR:HA	39:l2:237:LEU:O	2.14	0.48
40:l3:113:GLU:OE1	40:l3:165:GLN:HA	2.13	0.48
41:l4:338:LYS:C	41:l4:340:GLY:N	2.72	0.48
46:l9:9:GLN:CB	46:l9:52:LEU:HD21	2.42	0.48
46:l9:90:MET:HE2	46:l9:179:ILE:HG22	1.95	0.48
47:m0:170:LYS:HA	47:m0:177:ASP:HA	1.96	0.48
55:m9:21:LYS:HD2	55:m9:53:LYS:HB2	1.96	0.48
59:n3:39:VAL:HG22	59:n3:58:VAL:HG12	1.94	0.48
1:2:320:U:OP2	1:2:321:C:H3'	2.14	0.48
1:2:959:U:H5''	15:C3:14:SER:HB3	1.95	0.48
1:2:1194:A:H2'	1:2:1195:C:H5'	1.95	0.48
1:2:1205:C:H5''	1:2:1206:U:OP2	2.13	0.48
1:2:1221:A:H2'	1:2:1222:C:C6	2.49	0.48
2:S0:20:ALA:HB3	2:S0:22:THR:HG23	1.95	0.48
2:S0:185:ARG:HB2	23:D1:45:ALA:HB3	1.96	0.48
13:C1:74:THR:HB	13:C1:122:ILE:HG13	1.95	0.48
21:C9:61:VAL:HG21	21:C9:104:VAL:HG11	1.95	0.48
25:D3:117:ILE:HG22	25:D3:120:VAL:HG21	1.95	0.48
36:1:279:U:H2'	36:1:280:U:H6	1.79	0.48
36:1:708:G:H5'	36:1:709:A:OP2	2.13	0.48
36:1:1054:A:H5''	36:1:2637:A:N6	2.28	0.48
36:1:1158:A:C6	44:L7:93:ASN:ND2	2.82	0.48
36:1:1525:G:H2'	36:1:1594:A:H2	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2190:U:C4	36:1:2191:U:C4	3.02	0.48
36:1:2589:G:H5''	36:1:2589:G:H8	1.79	0.48
36:1:3133:C:H2'	36:1:3134:A:O4'	2.13	0.48
37:3:10:C:OP2	57:N1:26:HIS:CD2	2.67	0.48
38:4:122:U:C2	38:4:123:G:C8	3.01	0.48
41:L4:3:ARG:NE	41:L4:22:LEU:O	2.44	0.48
46:L9:175:PHE:N	46:L9:175:PHE:CD2	2.81	0.48
49:M3:14:PHE:HD2	49:M3:18:TRP:CD2	2.31	0.48
49:M3:76:THR:O	49:M3:79:GLU:N	2.33	0.48
50:M4:23:ILE:HA	50:M4:63:VAL:HG23	1.96	0.48
51:M5:143:ARG:HH21	71:O5:92:LEU:HA	1.78	0.48
53:M7:50:GLN:OE1	53:M7:56:ARG:HD3	2.14	0.48
55:M9:172:ARG:O	55:M9:176:ARG:HG2	2.14	0.48
65:N9:17:HIS:HA	65:N9:20:GLY:HA2	1.96	0.48
78:Q2:68:VAL:O	78:Q2:85:LEU:HD22	2.13	0.48
79:Q3:14:TYR:HA	79:Q3:17:ARG:HH12	1.79	0.48
79:Q3:84:ARG:O	79:Q3:88:GLU:HG2	2.14	0.48
1:6:151:G:N2	1:6:164:A:C4	2.82	0.48
1:6:969:C:H4'	1:6:1104:U:H4'	1.96	0.48
4:s2:103:VAL:HG22	4:s2:113:LEU:HD23	1.96	0.48
13:c1:67:ARG:O	13:c1:127:GLN:HB3	2.14	0.48
17:c5:80:MET:O	17:c5:116:LEU:HD12	2.13	0.48
22:d0:57:ARG:HD2	22:d0:89:ARG:CZ	2.43	0.48
25:d3:89:ASN:HB3	25:d3:136:TRP:CH2	2.49	0.48
29:d7:61:THR:HG23	29:d7:62:ILE:H	1.79	0.48
34:sR:103:PHE:CD1	34:sR:138:GLY:HA2	2.49	0.48
36:5:126:U:H2'	36:5:127:G:H8	1.79	0.48
36:5:173:G:C6	36:5:174:C:C4	3.02	0.48
36:5:1019:G:H22	36:5:1033:U:H3	1.61	0.48
36:5:1095:U:C5	57:n1:127:GLN:HA	2.49	0.48
36:5:1096:U:O4	57:n1:116:ARG:NH2	2.47	0.48
36:5:1340:G:H2'	36:5:1341:U:C6	2.49	0.48
36:5:2131:A:H2'	36:5:2132:C:O4'	2.14	0.48
36:5:2171:G:N2	39:l2:11:GLY:O	2.41	0.48
36:5:2911:A:H4'	36:5:2912:G:H8	1.78	0.48
36:5:3283:U:H2'	36:5:3284:G:H8	1.79	0.48
37:7:62:U:O4	37:7:63:A:N6	2.46	0.48
44:l7:89:ILE:CD1	44:l7:229:PHE:H	2.27	0.48
46:l9:137:SER:CB	46:l9:143:GLU:HB3	2.42	0.48
47:m0:193:ASP:OD2	47:m0:198:LYS:NZ	2.33	0.48
47:m0:200:LEU:HA	47:m0:213:PHE:CE1	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:m3:64:LYS:HG3	64:n8:69:TRP:CD1	2.49	0.48
54:m8:170:ARG:HD3	64:n8:57:GLY:HA3	1.96	0.48
63:n7:17:ARG:C	63:n7:19:ALA:N	2.72	0.48
67:o1:52:ALA:HB2	67:o1:92:TYR:CE2	2.49	0.48
69:o3:48:ARG:H	69:o3:48:ARG:HG2	1.49	0.48
73:o7:72:ARG:O	73:o7:75:LYS:HB3	2.14	0.48
78:q2:3:ASN:HA	78:q2:92:GLU:O	2.14	0.48
1:2:385:A:H8	1:2:385:A:O5'	1.97	0.47
1:2:1081:A:O2'	1:2:1083:G:N7	2.40	0.47
1:2:1115:U:H5''	77:Q1:14:LYS:HD3	1.95	0.47
1:2:1323:C:H2'	1:2:1324:G:O4'	2.13	0.47
1:2:1558:U:OP2	1:2:1559:A:H1'	2.14	0.47
1:2:1796:C:H4'	1:2:1797:A:OP2	2.14	0.47
2:S0:101:ARG:NH1	2:S0:103:THR:OG1	2.47	0.47
3:S1:39:GLU:CG	3:S1:40:ASN:H	2.26	0.47
4:S2:111:VAL:O	4:S2:136:VAL:HA	2.14	0.47
7:S5:26:ALA:HB3	18:C6:28:LEU:HB3	1.96	0.47
9:S7:155:ASP:CG	9:S7:156:SER:N	2.70	0.47
13:C1:53:TYR:OH	13:C1:114:ALA:HB2	2.15	0.47
17:C5:18:ARG:NH1	20:C8:90:ASN:HB3	2.28	0.47
21:C9:123:ARG:HG2	21:C9:124:ILE:N	2.28	0.47
24:D2:104:LEU:CB	24:D2:125:ILE:HA	2.44	0.47
35:SM:83:LYS:HD3	35:SM:85:SER:HB3	1.95	0.47
36:1:782:U:H2'	36:1:783:A:C8	2.49	0.47
36:1:1103:A:O2'	36:1:1104:G:OP2	2.29	0.47
36:1:1844:C:O2	73:O7:9:GLY:HA2	2.14	0.47
39:L2:252:THR:OG1	39:L2:253:GLN:N	2.43	0.47
40:L3:345:ASN:OD1	40:L3:347:SER:HB3	2.14	0.47
41:L4:3:ARG:HH11	41:L4:22:LEU:HB3	1.79	0.47
41:L4:112:LYS:HG3	51:M5:202:TYR:HB3	1.96	0.47
42:L5:259:LYS:O	42:L5:260:PHE:HB2	2.13	0.47
44:L7:136:TYR:OH	44:L7:231:ASN:HB2	2.14	0.47
46:L9:100:ASN:HB3	46:L9:115:ARG:HB2	1.96	0.47
47:M0:4:ARG:HD2	47:M0:99:ILE:HD12	1.96	0.47
48:M1:90:GLN:HA	48:M1:170:ASP:O	2.14	0.47
49:M3:13:HIS:N	49:M3:13:HIS:ND1	2.61	0.47
51:M5:146:ALA:HA	51:M5:149:ASN:ND2	2.29	0.47
53:M7:37:ASN:O	53:M7:39:TRP:HD1	1.97	0.47
70:O4:99:LYS:HG2	70:O4:103:LYS:HZ2	1.79	0.47
1:6:114:C:H5'	1:6:114:C:C6	2.45	0.47
1:6:1398:U:H4'	1:6:1399:C:OP2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1487:A:O2'	1:6:1488:G:H5'	2.13	0.47
1:6:1565:C:C3'	20:c8:41:ARG:HH12	2.27	0.47
1:6:1597:A:C8	31:d9:14:TYR:CD2	3.02	0.47
1:6:1796:C:H5	28:d6:6:ALA:H	1.60	0.47
14:c2:90:LYS:O	14:c2:91:VAL:HB	2.14	0.47
16:c4:30:VAL:O	16:c4:39:ILE:N	2.46	0.47
22:d0:69:LYS:HE2	22:d0:80:GLU:HG3	1.95	0.47
33:e1:148:TYR:HD1	33:e1:148:TYR:HA	1.61	0.47
36:5:170:G:H2'	36:5:171:G:H8	1.79	0.47
36:5:1194:G:H2'	36:5:1195:A:C8	2.48	0.47
36:5:1307:G:H1'	36:5:1308:A:C8	2.49	0.47
36:5:2693:C:H5''	36:5:2694:A:C5'	2.44	0.47
36:5:2855:U:H2'	36:5:2856:G:O4'	2.14	0.47
36:5:2945:G:H5''	36:5:2947:G:N7	2.29	0.47
36:5:3290:G:C4	36:5:3291:G:C8	3.02	0.47
82:5:3844:GET:H111	82:5:3844:GET:O52	2.14	0.47
38:8:41:A:C8	38:8:42:G:C8	3.01	0.47
38:8:149:A:H2'	38:8:150:G:C8	2.49	0.47
42:15:64:ILE:HG13	42:15:109:THR:HG21	1.96	0.47
50:m4:55:ARG:HD3	56:n0:70:THR:CB	2.44	0.47
59:n3:120:LYS:N	59:n3:137:VAL:HG23	2.20	0.47
65:n9:14:ARG:HH22	65:n9:18:ARG:HH11	1.61	0.47
68:o2:76:VAL:HG13	68:o2:81:ASP:HB2	1.95	0.47
1:2:403:G:H8	1:2:403:G:P	2.36	0.47
1:2:955:A:H5''	15:C3:10:GLY:HA3	1.96	0.47
1:2:1674:C:OP1	8:S6:92:ARG:NH2	2.41	0.47
2:S0:70:PRO:O	2:S0:95:ALA:N	2.40	0.47
9:S7:58:LEU:HG	9:S7:88:ARG:HD2	1.95	0.47
15:C3:88:LEU:HG	15:C3:125:LEU:HD13	1.96	0.47
16:C4:84:ARG:HG2	16:C4:85:ALA:O	2.14	0.47
17:C5:20:VAL:HG13	17:C5:24:LYS:HD2	1.96	0.47
22:D0:101:LYS:HB2	22:D0:101:LYS:HE3	1.63	0.47
27:D5:46:LYS:HA	27:D5:49:ARG:HB2	1.96	0.47
27:D5:46:LYS:HD3	27:D5:70:LYS:HD2	1.95	0.47
27:D5:62:VAL:O	27:D5:66:VAL:HG23	2.14	0.47
27:D5:85:LYS:HG3	27:D5:86:GLU:N	2.29	0.47
28:D6:97:PRO:N	28:D6:98:PRO:HD2	2.30	0.47
36:1:181:U:O3'	73:O7:75:LYS:HD3	2.13	0.47
36:1:320:G:O2'	36:1:321:C:H5'	2.13	0.47
36:1:1611:G:H2'	36:1:1612:A:O4'	2.14	0.47
36:1:1618:G:H4'	38:4:129:C:C1'	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1831:U:OP1	61:N5:92:LYS:HD3	2.14	0.47
36:1:2104:A:C4	36:1:2105:G:C8	3.02	0.47
36:1:2592:G:H4'	36:1:2594:C:C2	2.50	0.47
36:1:2729:U:H2'	36:1:2730:G:O4'	2.14	0.47
36:1:2878:G:H2'	36:1:2879:C:C6	2.49	0.47
82:1:3813:GET:H322	82:1:3813:GET:H712	1.78	0.47
37:3:31:U:H2'	37:3:32:U:C6	2.49	0.47
42:L5:76:ALA:HB3	42:L5:109:THR:HG22	1.96	0.47
46:L9:180:TYR:HB2	76:Q0:85:LEU:CD1	2.44	0.47
49:M3:4:SER:HB2	49:M3:5:LYS:HG2	1.96	0.47
50:M4:26:GLY:O	50:M4:29:ALA:HB2	2.13	0.47
51:M5:117:ASN:O	51:M5:133:ILE:HG23	2.14	0.47
53:M7:32:THR:HA	53:M7:58:ILE:HD12	1.97	0.47
59:N3:66:LYS:HB2	59:N3:69:LEU:HD22	1.95	0.47
66:O0:98:SER:OG	66:O0:100:ILE:HG12	2.14	0.47
69:O3:72:THR:N	69:O3:82:ARG:O	2.39	0.47
74:O8:14:LEU:O	74:O8:17:ARG:HB2	2.13	0.47
1:6:15:U:H2'	1:6:16:G:O4'	2.14	0.47
1:6:176:C:H2'	1:6:177:U:O4'	2.13	0.47
1:6:252:U:C2	1:6:253:A:C8	3.03	0.47
1:6:1563:C:H2'	1:6:1564:U:H6	1.80	0.47
1:6:1764:C:C4	1:6:1767:G:C5	3.02	0.47
9:s7:30:SER:HB2	9:s7:34:LEU:HD22	1.96	0.47
11:s9:129:ILE:HA	11:s9:134:ILE:HG12	1.95	0.47
12:c0:24:LYS:HD3	12:c0:63:TYR:CZ	2.50	0.47
16:c4:88:GLY:O	16:c4:92:LYS:NZ	2.47	0.47
18:c6:18:ALA:HB2	18:c6:69:VAL:HG13	1.96	0.47
18:c6:90:VAL:O	18:c6:94:GLN:N	2.47	0.47
29:d7:76:GLY:O	29:d7:77:THR:HG23	2.14	0.47
35:sM:102:THR:HG21	35:sM:105:LYS:HD3	1.96	0.47
36:5:828:A:H2'	36:5:829:U:C6	2.49	0.47
36:5:1554:U:O2'	36:5:1555:U:OP1	2.22	0.47
36:5:1556:C:H3'	36:5:1557:A:C5'	2.43	0.47
36:5:1733:G:H2'	36:5:1734:G:C8	2.49	0.47
36:5:2343:C:H2'	36:5:2344:U:H6	1.79	0.47
36:5:2581:U:H2'	36:5:2582:C:C6	2.49	0.47
36:5:2976:A:H2'	36:5:2977:G:O4'	2.14	0.47
40:l3:35:ASP:HA	40:l3:184:ASN:ND2	2.29	0.47
40:l3:177:HIS:CD2	40:l3:335:ILE:HG12	2.49	0.47
42:l5:57:ASN:O	42:l5:93:THR:HG21	2.13	0.47
45:l8:33:ASN:HD22	45:l8:35:GLY:H	1.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:l8:97:TYR:O	45:l8:131:ALA:HA	2.14	0.47
50:m4:42:LYS:O	50:m4:60:LEU:HB2	2.15	0.47
50:m4:116:GLU:O	50:m4:120:VAL:HG23	2.13	0.47
54:m8:184:PHE:CD1	54:m8:184:PHE:N	2.81	0.47
57:n1:135:PRO:O	57:n1:136:ARG:HB2	2.14	0.47
61:n5:57:LEU:HD22	61:n5:62:VAL:HG23	1.96	0.47
61:n5:141:TYR:HD2	71:o5:33:VAL:CG1	2.26	0.47
63:n7:129:TRP:O	63:n7:132:SER:OG	2.31	0.47
69:o3:67:MET:HE2	69:o3:67:MET:HB3	1.58	0.47
74:o8:14:LEU:HD12	74:o8:17:ARG:HD3	1.96	0.47
78:q2:38:GLN:HE21	78:q2:38:GLN:HA	1.78	0.47
1:2:611:U:H2'	1:2:612:U:O4'	2.15	0.47
1:2:747:C:C4	1:2:748:U:C4	3.02	0.47
1:2:747:C:H42	1:2:802:G:H1	1.61	0.47
1:2:1202:A:H2'	1:2:1203:A:H5''	1.96	0.47
2:S0:177:LEU:HD23	2:S0:177:LEU:HA	1.72	0.47
19:C7:77:GLU:O	19:C7:81:LYS:HB2	2.14	0.47
24:D2:33:VAL:HG13	24:D2:110:ILE:HD11	1.97	0.47
36:1:270:U:H2'	36:1:271:C:H6	1.79	0.47
36:1:359:U:H2'	36:1:360:G:O4'	2.13	0.47
36:1:839:C:H4'	36:1:1724:U:H2'	1.96	0.47
36:1:1222:G:H1'	36:1:1285:G:N2	2.28	0.47
36:1:1303:A:O4'	36:1:2885:C:O2'	2.31	0.47
36:1:1304:A:HO2'	36:1:2884:C:HO2'	1.60	0.47
36:1:1562:C:O2'	36:1:1563:C:OP1	2.24	0.47
36:1:1722:U:C4	36:1:1723:A:N7	2.83	0.47
36:1:2113:A:C8	36:1:2114:C:C4	3.03	0.47
36:1:2128:C:H2'	36:1:2129:U:O4'	2.14	0.47
36:1:2302:G:C6	36:1:2303:A:C5	3.03	0.47
36:1:2524:A:C2	45:L8:46:LEU:HG	2.50	0.47
36:1:3256:G:C6	36:1:3257:C:C4	3.03	0.47
37:3:39:C:O2'	48:M1:44:THR:O	2.14	0.47
37:3:60:G:H2'	37:3:61:G:C8	2.49	0.47
38:4:128:U:H3'	38:4:129:C:C5	2.50	0.47
39:L2:66:PRO:HB2	39:L2:67:TYR:CD2	2.49	0.47
39:L2:188:LYS:O	39:L2:192:LYS:HD2	2.15	0.47
47:M0:65:LEU:HD23	47:M0:159:PHE:CZ	2.49	0.47
47:M0:96:VAL:HG11	47:M0:122:PRO:HB3	1.95	0.47
61:N5:57:LEU:HD12	61:N5:61:LYS:HB3	1.96	0.47
72:O6:74:LYS:HD2	72:O6:80:PHE:HD2	1.78	0.47
77:Q1:13:LEU:C	77:Q1:13:LEU:HD13	2.40	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:139:C:H4'	1:6:140:A:O5'	2.14	0.47
1:6:237:C:H4'	1:6:238:U:N3	2.30	0.47
1:6:1360:A:H4'	21:c9:3:GLY:N	2.29	0.47
1:6:1478:G:H2'	1:6:1479:A:O4'	2.14	0.47
1:6:1797:A:C6	28:d6:84:VAL:HG22	2.50	0.47
2:s0:77:SER:O	2:s0:100:GLY:N	2.46	0.47
6:s4:71:LYS:O	6:s4:90:ILE:HA	2.14	0.47
8:s6:87:ARG:HD3	8:s6:87:ARG:HA	1.54	0.47
24:d2:18:GLU:HG3	24:d2:69:LEU:HD23	1.96	0.47
28:d6:53:LEU:O	28:d6:57:SER:HB3	2.14	0.47
36:5:22:G:N3	38:8:40:A:C2	2.81	0.47
36:5:89:A:N6	36:5:98:G:C2	2.82	0.47
36:5:113:C:C2	36:5:319:A:C2	3.03	0.47
36:5:532:A:H2'	36:5:533:A:C8	2.50	0.47
36:5:641:C:H2'	36:5:642:U:O4'	2.14	0.47
36:5:781:G:OP1	54:m8:151:ARG:HD2	2.14	0.47
36:5:960:U:O2'	36:5:961:C:H5'	2.13	0.47
36:5:1099:A:H2'	36:5:1100:U:C6	2.49	0.47
36:5:1155:C:H1'	36:5:1198:C:O2	2.14	0.47
36:5:1436:U:C5'	36:5:1437:C:H5''	2.43	0.47
36:5:1723:A:N1	36:5:1788:C:O2'	2.37	0.47
36:5:2618:G:H5''	47:m0:116:ARG:HB2	1.95	0.47
36:5:2902:A:OP1	46:l9:170:LYS:HE3	2.14	0.47
40:l3:183:LEU:HD12	40:l3:183:LEU:HA	1.61	0.47
40:l3:369:ARG:HH22	60:n4:33:ASN:HD21	1.62	0.47
40:l3:370:PHE:CD2	40:l3:376:LYS:HG3	2.48	0.47
41:l4:23:PRO:HD2	41:l4:26:PHE:CD2	2.45	0.47
45:l8:101:THR:OG1	45:l8:104:GLU:HG3	2.14	0.47
55:m9:105:LEU:HD22	55:m9:105:LEU:HA	1.73	0.47
62:n6:99:LEU:HD23	62:n6:99:LEU:HA	1.65	0.47
64:n8:90:TYR:CE1	64:n8:100:PRO:HB3	2.50	0.47
68:o2:26:HIS:C	68:o2:26:HIS:HD1	2.22	0.47
69:o3:13:HIS:CD2	69:o3:28:SER:HG	2.32	0.47
70:o4:23:VAL:HG21	70:o4:33:GLN:OE1	2.14	0.47
74:o8:14:LEU:HG	74:o8:45:VAL:HG11	1.95	0.47
1:2:29:U:H2'	1:2:30:G:C8	2.48	0.47
1:2:150:U:H2'	1:2:151:G:O4'	2.15	0.47
1:2:395:U:O2'	8:S6:89:ASP:HB3	2.15	0.47
1:2:591:A:H2'	1:2:592:A:H8	1.79	0.47
1:2:1199:G:H1	31:D9:31:ILE:HD11	1.77	0.47
1:2:1717:G:C2	1:2:1718:G:C8	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:2:2012:GET:O23	82:2:2012:GET:N12	2.40	0.47
5:S3:25:PHE:CD2	5:S3:37:VAL:HG11	2.49	0.47
7:S5:123:VAL:O	27:D5:58:ARG:HD2	2.14	0.47
8:S6:137:ARG:HD3	8:S6:177:ARG:CD	2.44	0.47
8:S6:208:TYR:HE1	8:S6:212:LEU:HD12	1.80	0.47
12:C0:77:ARG:HA	12:C0:82:LEU:CD1	2.44	0.47
13:C1:100:TYR:HD2	25:D3:9:LEU:HD13	1.78	0.47
16:C4:30:VAL:O	16:C4:39:ILE:HG12	2.14	0.47
16:C4:32:ASP:O	16:C4:35:GLY:N	2.47	0.47
18:C6:45:ARG:O	18:C6:48:VAL:HG12	2.15	0.47
21:C9:28:LEU:CD1	21:C9:29:GLU:H	2.28	0.47
24:D2:3:ARG:HD2	24:D2:6:VAL:HG22	1.96	0.47
36:1:115:A:OP1	51:M5:49:ARG:NE	2.47	0.47
36:1:879:U:O2	36:1:2357:A:O2'	2.16	0.47
36:1:945:C:H2'	36:1:946:U:H6	1.77	0.47
36:1:1467:A:H4'	36:1:1468:A:OP1	2.13	0.47
36:1:1487:G:H22	70:O4:12:PRO:CB	2.27	0.47
36:1:2328:U:H2'	36:1:2329:C:H6	1.78	0.47
36:1:2542:U:N3	36:1:2543:U:O4	2.47	0.47
36:1:2669:G:N2	36:1:2686:A:C4	2.83	0.47
36:1:2707:C:H2'	36:1:2708:C:C6	2.50	0.47
38:4:128:U:H3'	38:4:129:C:H5	1.80	0.47
40:L3:117:ARG:CZ	40:L3:175:LYS:HD3	2.44	0.47
40:L3:199:PHE:C	40:L3:201:LYS:H	2.21	0.47
40:L3:293:ASN:HB2	40:L3:304:THR:HA	1.97	0.47
41:L4:44:LYS:O	41:L4:47:ARG:HD3	2.14	0.47
42:L5:144:VAL:HG12	42:L5:173:VAL:HG22	1.96	0.47
42:L5:178:ASN:HB2	42:L5:183:TRP:CE2	2.49	0.47
47:M0:19:LYS:HD2	47:M0:26:VAL:CG2	2.43	0.47
51:M5:18:VAL:O	51:M5:22:LEU:HD22	2.14	0.47
52:M6:24:ALA:O	52:M6:27:LEU:N	2.47	0.47
1:6:1637:C:H1'	35:sM:90:ALA:O	2.15	0.47
2:s0:60:ALA:O	2:s0:64:ILE:HG13	2.14	0.47
2:s0:74:VAL:HG23	2:s0:118:PRO:HB3	1.96	0.47
3:s1:129:THR:OG1	3:s1:131:ASP:O	2.30	0.47
6:s4:92:LEU:HD12	6:s4:95:THR:HG21	1.96	0.47
6:s4:246:LEU:H	6:s4:246:LEU:HD12	1.78	0.47
12:c0:88:PRO:C	12:c0:90:THR:N	2.72	0.47
20:c8:41:ARG:HG2	21:c9:46:PRO:HD3	1.96	0.47
26:d4:34:ASN:OD1	26:d4:62:THR:HG21	2.14	0.47
28:d6:47:ALA:O	28:d6:50:VAL:HG12	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:132:C:C2'	36:5:133:U:H5''	2.45	0.47
36:5:312:C:H2'	36:5:313:A:C8	2.50	0.47
36:5:335:G:OP1	82:n6:201:GET:N21	2.47	0.47
36:5:686:G:OP2	49:m3:36:ARG:NH1	2.47	0.47
36:5:953:G:O2'	36:5:1116:G:H5'	2.15	0.47
36:5:987:U:C2	36:5:1098:A:C2	3.02	0.47
36:5:1573:G:C5	36:5:1574:C:H1'	2.49	0.47
36:5:2368:A:H2'	36:5:2369:G:C8	2.50	0.47
36:5:2647:A:C5	36:5:2648:G:C8	3.02	0.47
36:5:2905:U:H2'	36:5:2906:C:C6	2.48	0.47
36:5:2989:U:O2'	40:l3:232:ARG:NH2	2.47	0.47
36:5:3310:A:H2'	36:5:3311:C:H5'	1.96	0.47
38:8:140:G:O3'	51:m5:109:ARG:NH1	2.46	0.47
42:l5:148:ILE:HD12	42:l5:148:ILE:HA	1.69	0.47
45:l8:146:LYS:O	45:l8:146:LYS:HD2	2.15	0.47
45:l8:161:GLU:CD	51:m5:26:ARG:HH12	2.22	0.47
45:l8:179:ILE:HD12	45:l8:222:PHE:CE1	2.48	0.47
48:m1:28:ASP:OD2	48:m1:32:ARG:NH2	2.40	0.47
55:m9:109:TYR:HB3	55:m9:115:ILE:HG12	1.96	0.47
59:n3:11:PHE:CE1	59:n3:88:ARG:HD2	2.49	0.47
79:q3:10:ILE:HG23	79:q3:11:THR:HG23	1.97	0.47
1:2:1312:A:C6	1:2:1313:A:C6	3.02	0.47
1:2:1610:G:O3'	7:S5:98:MET:HE1	2.14	0.47
1:2:1622:G:C6	1:2:1623:C:N4	2.83	0.47
2:S0:90:ALA:HB2	2:S0:97:PRO:HB3	1.97	0.47
15:C3:138:ASN:OD1	15:C3:138:ASN:C	2.57	0.47
18:C6:46:PHE:O	18:C6:50:GLU:HG3	2.14	0.47
24:D2:69:LEU:HD11	24:D2:129:VAL:HG23	1.95	0.47
25:D3:135:LEU:HD21	25:D3:142:LYS:N	2.30	0.47
35:SM:56:GLY:O	35:SM:60:ALA:N	2.48	0.47
36:1:345:G:OP1	36:1:1429:G:N1	2.44	0.47
36:1:409:A:H61	38:4:15:G:H1'	1.79	0.47
36:1:440:A:H8	36:1:440:A:OP2	1.97	0.47
36:1:979:U:O4	36:1:1103:A:N1	2.47	0.47
36:1:1556:C:H5''	36:1:2169:G:N2	2.28	0.47
36:1:1727:G:P	79:Q3:44:LYS:HZ3	2.36	0.47
36:1:2213:A:N1	36:1:2429:G:H1'	2.29	0.47
36:1:2340:U:H5''	36:1:2340:U:H6	1.80	0.47
40:L3:106:TRP:HB2	40:L3:133:TYR:CE2	2.49	0.47
42:L5:129:TYR:HE1	42:L5:175:HIS:CE1	2.32	0.47
44:L7:90:LYS:HB2	44:L7:220:PHE:HE1	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:149:ASN:HB2	71:O5:92:LEU:HD11	1.96	0.47
52:M6:74:ARG:HB3	52:M6:145:VAL:HG23	1.97	0.47
66:O0:22:LYS:NZ	66:O0:94:GLU:HG3	2.29	0.47
1:6:121:U:O2'	6:s4:33:ALA:O	2.20	0.47
1:6:245:U:H2'	1:6:247:A:OP2	2.14	0.47
1:6:1008:G:N2	1:6:1009:U:C2	2.83	0.47
1:6:1054:U:H2'	1:6:1055:U:H6	1.78	0.47
1:6:1186:U:OP2	1:6:1456:C:H1'	2.14	0.47
1:6:1205:C:H5''	84:6:2188:HOH:O	2.15	0.47
1:6:1444:A:C8	1:6:1446:A:N7	2.83	0.47
1:6:1456:C:OP1	1:6:1457:C:O2'	2.25	0.47
1:6:1458:G:H5''	1:6:1459:C:OP2	2.14	0.47
1:6:1677:C:H2'	1:6:1678:A:O4'	2.15	0.47
6:s4:159:THR:CG2	6:s4:173:ILE:HB	2.45	0.47
26:d4:44:LEU:HD23	26:d4:48:TYR:HE2	1.79	0.47
36:5:225:C:H5'	62:n6:34:PRO:HD3	1.96	0.47
36:5:281:G:C6	36:5:282:G:C6	3.03	0.47
36:5:921:A:OP1	36:5:921:A:H3'	2.15	0.47
36:5:1281:G:C5'	80:p0:55:LYS:HG3	2.45	0.47
36:5:1686:U:O4	58:n2:82:LYS:NZ	2.41	0.47
36:5:1733:G:H2'	36:5:1734:G:H8	1.78	0.47
36:5:2941:A:N7	40:l3:255:TRP:CZ2	2.81	0.47
36:5:3113:A:O2'	46:l9:69:ARG:HB3	2.14	0.47
36:5:3256:G:H2'	36:5:3257:C:O4'	2.13	0.47
45:l8:51:LYS:N	61:n5:30:ALA:O	2.34	0.47
49:m3:13:HIS:ND1	49:m3:13:HIS:N	2.62	0.47
52:m6:12:LYS:HG3	52:m6:37:ARG:NH2	2.30	0.47
58:n2:18:ASP:CG	58:n2:20:SER:HG	2.16	0.47
79:q3:11:THR:HG21	79:q3:27:LYS:HB2	1.96	0.47
80:p0:34:SER:HG	80:p0:37:GLN:H	1.59	0.47
1:2:127:G:N7	8:S6:202:ARG:NH2	2.62	0.47
1:2:337:G:H3'	13:C1:133:LYS:HB2	1.96	0.47
1:2:395:U:O4'	8:S6:90:GLY:HA3	2.15	0.47
1:2:511:A:OP2	11:S9:176:ASN:ND2	2.42	0.47
1:2:1102:G:P	24:D2:76:SER:HG	2.38	0.47
1:2:1136:U:O4	25:D3:112:LYS:HD2	2.15	0.47
1:2:1253:U:O2'	33:E1:143:LYS:HA	2.14	0.47
82:2:2013:GET:H832	82:2:2013:GET:H932	1.95	0.47
2:S0:199:PRO:HG2	2:S0:200:ASP:OD1	2.14	0.47
6:S4:148:ARG:NH1	8:S6:201:GLN:OE1	2.41	0.47
7:S5:117:THR:HG23	7:S5:195:ALA:HB2	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:136:LYS:O	8:S6:175:ILE:HG23	2.14	0.47
10:S8:26:LYS:HD2	10:S8:29:LEU:HD13	1.97	0.47
12:C0:15:LEU:O	12:C0:19:GLY:N	2.35	0.47
14:C2:125:ASN:O	14:C2:126:TRP:CG	2.67	0.47
15:C3:128:TYR:O	15:C3:131:THR:N	2.42	0.47
17:C5:18:ARG:O	20:C8:95:GLY:HA3	2.14	0.47
18:C6:47:LYS:HZ2	18:C6:82:ARG:CZ	2.27	0.47
22:D0:51:VAL:CG1	22:D0:94:GLU:HB2	2.44	0.47
28:D6:79:ILE:HA	28:D6:84:VAL:CG2	2.43	0.47
36:1:1065:A:C4	65:N9:28:LYS:HG2	2.50	0.47
36:1:1202:A:N6	36:1:1301:A:C4	2.82	0.47
36:1:1373:A:OP2	64:N8:7:LYS:NZ	2.32	0.47
36:1:1421:G:C2	36:1:1422:G:N7	2.82	0.47
36:1:1472:U:C4'	55:M9:4:LEU:HD12	2.44	0.47
36:1:1686:U:O2	36:1:1688:U:H1'	2.14	0.47
36:1:1844:C:H2'	36:1:1845:G:H5''	1.97	0.47
36:1:1868:G:C6	36:1:1869:C:C4	3.03	0.47
36:1:2284:C:H2'	36:1:2285:C:O4'	2.15	0.47
36:1:2304:C:C5	36:1:2305:G:C6	3.03	0.47
36:1:2595:A:H5''	36:1:2595:A:N3	2.30	0.47
37:3:64:A:N7	47:M0:209:ASN:ND2	2.62	0.47
37:3:75:G:H1'	37:3:104:A:H61	1.79	0.47
38:4:132:G:H5''	61:N5:94:GLN:HG3	1.97	0.47
50:M4:19:ARG:HD3	50:M4:69:THR:HG23	1.97	0.47
50:M4:109:ARG:HD3	52:M6:199:TYR:CZ	2.49	0.47
52:M6:108:ILE:HD12	52:M6:160:ARG:CZ	2.44	0.47
53:M7:22:LEU:HB3	53:M7:90:PHE:CE2	2.49	0.47
57:N1:31:LEU:HD23	57:N1:31:LEU:HA	1.72	0.47
62:N6:53:ASP:HB2	62:N6:110:HIS:CD2	2.49	0.47
64:N8:74:ASN:CG	64:N8:115:LYS:HB2	2.39	0.47
78:Q2:46:LYS:HG2	78:Q2:54:THR:HB	1.96	0.47
1:6:66:U:H5'	8:s6:172:ALA:O	2.14	0.47
1:6:1107:G:H3'	1:6:1108:G:H21	1.79	0.47
1:6:1118:G:P	77:q1:21:ARG:HH22	2.37	0.47
1:6:1330:G:N2	19:c7:8:THR:HG21	2.19	0.47
1:6:1724:U:H2'	1:6:1725:U:C5	2.49	0.47
2:s0:30:GLN:HB3	2:s0:149:LEU:O	2.14	0.47
3:s1:69:CYS:CB	16:c4:114:ARG:HD3	2.44	0.47
4:s2:41:LEU:HD12	4:s2:68:ILE:HD13	1.97	0.47
5:s3:7:LYS:HE3	22:d0:27:THR:HG21	1.95	0.47
6:s4:130:GLN:HB3	6:s4:138:TYR:CZ	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:c6:27:GLY:HA2	18:c6:60:PHE:O	2.14	0.47
20:c8:132:ARG:HA	20:c8:132:ARG:HD3	1.56	0.47
21:c9:105:LEU:HB3	21:c9:122:ARG:NE	2.29	0.47
27:d5:59:TYR:OH	27:d5:98:GLN:NE2	2.48	0.47
35:sM:88:ARG:C	35:sM:88:ARG:HD2	2.39	0.47
36:5:881:C:H2'	36:5:882:A:H8	1.79	0.47
36:5:1700:G:H2'	36:5:1701:C:C6	2.50	0.47
36:5:2222:A:N3	36:5:2222:A:H2'	2.30	0.47
36:5:2581:U:H2'	36:5:2582:C:H6	1.79	0.47
38:8:14:C:H5'	53:m7:121:GLN:O	2.15	0.47
38:8:52:A:C6	38:8:53:A:N7	2.82	0.47
38:8:84:C:O2	62:n6:113:LYS:N	2.47	0.47
40:l3:4:ARG:HG3	40:l3:4:ARG:NH1	2.28	0.47
40:l3:214:MET:HE3	40:l3:279:ASN:HA	1.97	0.47
40:l3:262:TRP:HD1	52:m6:64:PHE:O	1.95	0.47
41:l4:329:PRO:C	41:l4:331:ALA:N	2.73	0.47
41:l4:346:LYS:HA	41:l4:346:LYS:HD2	1.59	0.47
43:l6:43:LEU:HD21	43:l6:85:ILE:HG13	1.97	0.47
44:l7:188:ILE:HG23	44:l7:195:PHE:HE2	1.79	0.47
45:l8:149:LYS:HD3	45:l8:201:THR:O	2.14	0.47
45:l8:152:LEU:HB3	45:l8:180:VAL:HG21	1.96	0.47
46:l9:94:TYR:CD1	46:l9:99:ILE:HG13	2.50	0.47
47:m0:115:MET:O	47:m0:118:ALA:HB2	2.13	0.47
56:n0:4:PHE:CZ	56:n0:107:TYR:CD2	3.03	0.47
58:n2:39:ASP:O	58:n2:47:VAL:HB	2.15	0.47
63:n7:36:HIS:ND1	63:n7:36:HIS:N	2.63	0.47
1:2:140:A:O4'	8:S6:179:VAL:HG21	2.15	0.47
1:2:474:A:OP2	11:S9:44:ARG:NH1	2.45	0.47
1:2:858:G:O3'	9:S7:113:PRO:HB3	2.15	0.47
1:2:1470:C:H5''	1:2:1471:A:O4'	2.14	0.47
1:2:1533:C:H5	27:D5:77:ARG:HH21	1.60	0.47
1:2:1672:G:H1	1:2:1729:C:H42	1.62	0.47
2:S0:103:THR:HA	2:S0:104:PRO:HD3	1.72	0.47
5:S3:101:GLN:HA	5:S3:104:SER:HB3	1.96	0.47
6:S4:9:LEU:HD12	6:S4:30:ARG:HA	1.96	0.47
9:S7:51:VAL:CG2	9:S7:57:ALA:HB2	2.44	0.47
11:S9:81:VAL:HG21	11:S9:91:LYS:HE2	1.97	0.47
11:S9:110:GLN:HA	11:S9:129:ILE:HD11	1.97	0.47
20:C8:4:VAL:HG22	27:D5:82:HIS:CD2	2.50	0.47
22:D0:106:ILE:HG13	22:D0:107:THR:H	1.78	0.47
27:D5:41:ILE:HG23	27:D5:42:LEU:H	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D5:50:ILE:O	27:D5:54:VAL:HG23	2.15	0.47
33:E1:108:VAL:HG12	33:E1:109:ASP:O	2.15	0.47
36:1:138:U:H2'	36:1:139:G:C8	2.50	0.47
36:1:270:U:H2'	36:1:271:C:C6	2.49	0.47
36:1:359:U:H4'	36:1:817:A:H62	1.80	0.47
36:1:390:G:C5	36:1:391:A:C8	3.03	0.47
36:1:397:A:C2	36:1:399:A:C4	3.03	0.47
36:1:624:G:H2'	36:1:625:G:H8	1.78	0.47
36:1:826:G:C4	36:1:827:A:C8	3.03	0.47
36:1:944:C:H4'	68:O2:33:ARG:NH1	2.29	0.47
36:1:1222:G:H1'	36:1:1285:G:C2	2.49	0.47
36:1:1327:C:O2'	36:1:1328:C:H5'	2.13	0.47
36:1:1760:A:H8	36:1:1760:A:OP2	1.98	0.47
36:1:1824:U:C2	36:1:1825:G:C8	3.03	0.47
36:1:1870:C:H4'	36:1:3076:C:O2	2.15	0.47
36:1:2117:A:H3'	36:1:2118:C:C6	2.49	0.47
36:1:2400:G:H5''	36:1:2401:A:OP2	2.15	0.47
36:1:2771:U:O2'	36:1:2772:C:O4'	2.19	0.47
36:1:2837:A:H2	36:1:2851:A:N7	2.13	0.47
36:1:2966:G:C6	36:1:2967:A:N6	2.83	0.47
36:1:2981:U:O2'	36:1:2982:A:H5'	2.14	0.47
36:1:3266:G:C6	36:1:3267:A:C6	3.03	0.47
37:3:30:G:H5'	37:3:51:A:C2	2.50	0.47
37:3:60:G:H2'	37:3:61:G:H8	1.80	0.47
37:3:70:U:C2	37:3:71:G:C8	3.02	0.47
37:3:89:G:N2	37:3:91:G:H3'	2.30	0.47
38:4:87:G:OP2	71:O5:7:TYR:OH	2.31	0.47
40:L3:37:ARG:O	40:L3:186:GLY:HA3	2.14	0.47
40:L3:261:MET:HB2	40:L3:264:VAL:HG23	1.96	0.47
41:L4:3:ARG:O	41:L4:5:GLN:HG2	2.15	0.47
45:L8:186:LEU:HD23	45:L8:186:LEU:HA	1.65	0.47
48:M1:23:VAL:HG21	48:M1:29:ARG:HG2	1.97	0.47
48:M1:35:LYS:HE3	48:M1:35:LYS:HB2	1.66	0.47
49:M3:14:PHE:N	49:M3:14:PHE:CD1	2.82	0.47
49:M3:28:GLN:HB3	51:M5:201:ARG:HD3	1.97	0.47
51:M5:38:ARG:HH21	51:M5:60:VAL:CB	2.24	0.47
52:M6:3:VAL:HG13	52:M6:4:GLU:N	2.30	0.47
61:N5:73:MET:HE1	61:N5:141:TYR:HE1	1.79	0.47
61:N5:105:VAL:HG11	61:N5:126:LEU:HD13	1.96	0.47
62:N6:60:ARG:HA	62:N6:60:ARG:HD3	1.66	0.47
63:N7:13:VAL:HA	63:N7:80:LEU:HD23	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:62:HIS:O	64:N8:62:HIS:CD2	2.68	0.47
64:N8:74:ASN:CB	64:N8:115:LYS:HB2	2.44	0.47
1:6:198:A:H2'	1:6:199:G:H5'	1.96	0.47
1:6:345:U:H1'	1:6:346:G:C8	2.49	0.47
1:6:514:G:C8	1:6:537:G:N2	2.83	0.47
1:6:542:A:H2'	1:6:542:A:OP2	2.15	0.47
1:6:632:U:P	13:c1:102:LYS:HE2	2.55	0.47
1:6:1308:G:C6	1:6:1309:C:C4	3.03	0.47
1:6:1321:A:H4'	1:6:1322:A:O5'	2.15	0.47
1:6:1414:U:H5''	19:c7:3:ARG:HD3	1.96	0.47
1:6:1493:A:O2'	1:6:1494:C:OP2	2.31	0.47
1:6:1502:G:O6	21:c9:102:ARG:NH2	2.48	0.47
1:6:1685:G:C4	1:6:1717:G:C2	3.02	0.47
4:s2:186:LYS:HD2	4:s2:189:GLN:OE1	2.15	0.47
6:s4:57:ASN:HB3	6:s4:59:ARG:N	2.29	0.47
7:s5:156:ARG:HG3	7:s5:157:ARG:N	2.30	0.47
8:s6:1:MET:HB2	8:s6:107:ALA:O	2.14	0.47
10:s8:26:LYS:O	10:s8:26:LYS:HG2	2.14	0.47
12:c0:76:LEU:C	12:c0:76:LEU:HD13	2.39	0.47
13:c1:112:SER:C	13:c1:114:ALA:H	2.21	0.47
14:c2:45:LEU:HB3	14:c2:46:ARG:H	1.55	0.47
17:c5:90:ILE:HG21	17:c5:109:PRO:HG3	1.97	0.47
23:d1:30:ALA:O	23:d1:60:ARG:HD3	2.15	0.47
25:d3:57:LEU:HD22	32:e0:4:VAL:HG23	1.96	0.47
29:d7:31:TYR:CE2	29:d7:48:SER:HB3	2.49	0.47
29:d7:31:TYR:CD2	29:d7:48:SER:HB3	2.50	0.47
33:e1:136:LYS:HD3	33:e1:136:LYS:HA	1.49	0.47
36:5:148:G:OP2	51:m5:4:TYR:OH	2.26	0.47
36:5:168:U:C2	36:5:169:U:C5	3.03	0.47
36:5:239:G:H2'	36:5:240:U:C6	2.50	0.47
36:5:283:G:O2'	64:n8:59:ARG:NH1	2.47	0.47
36:5:353:G:O2'	36:5:364:G:O6	2.28	0.47
36:5:550:A:H2'	36:5:551:A:H8	1.78	0.47
36:5:928:C:H2'	36:5:929:A:C8	2.49	0.47
36:5:988:U:H2'	36:5:989:A:C8	2.49	0.47
36:5:1357:G:C6	36:5:1358:C:C4	3.03	0.47
36:5:1604:G:H3'	36:5:1604:G:N3	2.30	0.47
36:5:2403:G:N7	36:5:2870:C:H4'	2.30	0.47
36:5:2531:C:H2'	36:5:2532:U:O4'	2.15	0.47
36:5:2795:U:OP2	78:q2:63:LYS:HD3	2.14	0.47
36:5:2903:A:H8	36:5:2903:A:O5'	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2906:C:C2	36:5:2907:G:C8	3.03	0.47
36:5:2988:C:O2'	40:13:266:ARG:HD2	2.15	0.47
36:5:3024:A:H4'	46:19:97:PHE:CE2	2.48	0.47
36:5:3039:C:H1'	59:n3:9:THR:HG21	1.96	0.47
36:5:3160:U:O2	36:5:3291:G:C2	2.68	0.47
37:7:1:G:C2	37:7:2:G:C8	3.02	0.47
37:7:22:A:N1	42:15:269:SER:O	2.48	0.47
38:8:35:C:H5'	73:o7:70:VAL:HG11	1.94	0.47
39:12:247:ARG:N	39:12:247:ARG:HD2	2.29	0.47
42:15:22:ARG:NH2	42:15:27:LYS:HD3	2.30	0.47
42:15:144:VAL:HG12	42:15:173:VAL:HG22	1.97	0.47
44:17:232:ARG:O	44:17:235:PHE:HB2	2.14	0.47
45:18:140:VAL:O	45:18:144:GLU:HG3	2.14	0.47
47:m0:66:GLU:OE1	47:m0:69:ARG:NH2	2.47	0.47
47:m0:171:TRP:CD2	47:m0:181:TYR:CD2	3.03	0.47
52:m6:57:PHE:CD2	52:m6:72:HIS:HD2	2.32	0.47
56:n0:8:GLN:HB2	56:n0:64:ILE:HD11	1.96	0.47
56:n0:154:HIS:HA	56:n0:170:THR:HB	1.96	0.47
68:o2:87:MET:HA	68:o2:87:MET:HE3	1.96	0.47
70:o4:47:CYS:HB3	70:o4:84:CYS:SG	2.55	0.47
70:o4:57:LEU:HB3	70:o4:61:GLN:HB2	1.97	0.47
1:2:73:U:H4'	1:2:74:U:OP1	2.13	0.47
1:2:448:C:O3'	6:S4:29:PRO:HA	2.15	0.47
1:2:1092:A:O2'	1:2:1093:A:H3'	2.15	0.47
1:2:1499:G:OP1	21:C9:73:VAL:HG23	2.15	0.47
1:2:1592:A:H2'	1:2:1593:A:H8	1.78	0.47
2:S0:69:ASN:OD1	4:S2:244:SER:OG	2.32	0.47
3:S1:36:SER:O	3:S1:38:PHE:N	2.48	0.47
4:S2:230:TRP:CD2	24:D2:68:ARG:HD3	2.50	0.47
7:S5:81:ARG:HH21	30:D8:47:PRO:HB3	1.79	0.47
8:S6:151:ASP:HA	60:N4:105:ARG:HH22	1.80	0.47
18:C6:13:LYS:HG3	18:C6:79:TYR:HB3	1.96	0.47
23:D1:17:CYS:HB2	23:D1:56:SER:HB3	1.97	0.47
36:1:90:C:H2'	36:1:91:G:H5'	1.96	0.47
36:1:91:G:C8	36:1:93:C:C6	3.03	0.47
36:1:121:A:C6	45:L8:129:PRO:HG3	2.50	0.47
36:1:662:U:H2'	36:1:663:C:C6	2.50	0.47
36:1:696:C:OP1	41:L4:271:LYS:HA	2.15	0.47
36:1:1093:A:O2'	36:1:1094:U:O4'	2.15	0.47
36:1:1481:A:O2'	36:1:1858:A:C2	2.61	0.47
36:1:1507:G:C8	53:M7:129:THR:HG22	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1680:G:H2'	36:1:1681:U:H6	1.80	0.47
36:1:1771:C:C4	36:1:1772:U:C5	3.03	0.47
36:1:1874:A:OP2	55:M9:20:ARG:NH1	2.48	0.47
36:1:2700:G:N2	36:1:2755:C:N3	2.62	0.47
38:4:83:C:H1'	38:4:85:G:H21	1.78	0.47
39:L2:57:PRO:HG3	79:Q3:53:GLY:O	2.13	0.47
39:L2:96:LEU:CD2	79:Q3:83:ILE:HG23	2.45	0.47
40:L3:4:ARG:HD3	40:L3:7:GLU:HG3	1.97	0.47
42:L5:50:ARG:NH1	42:L5:72:ASP:OD2	2.48	0.47
44:L7:140:SER:O	44:L7:144:ILE:HG13	2.14	0.47
46:L9:76:ASP:HA	46:L9:79:ILE:HD12	1.97	0.47
55:M9:21:LYS:O	55:M9:53:LYS:HB2	2.15	0.47
56:N0:81:TYR:CE1	56:N0:88:HIS:HB2	2.50	0.47
62:N6:34:PRO:HA	62:N6:47:ALA:CB	2.45	0.47
71:O5:4:VAL:HG13	71:O5:9:LEU:HD11	1.96	0.47
72:O6:38:LYS:O	72:O6:42:SER:HB2	2.14	0.47
1:6:841:U:H2'	1:6:842:C:C6	2.48	0.47
1:6:1767:G:OP1	1:6:1770:U:H4'	2.15	0.47
82:6:2015:GET:H933	82:6:2015:GET:H832	1.96	0.47
2:s0:69:ASN:HB3	2:s0:71:GLU:OE2	2.14	0.47
2:s0:101:ARG:NH2	2:s0:104:PRO:HD3	2.30	0.47
8:s6:58:LYS:HZ1	8:s6:105:ASP:HA	1.80	0.47
11:s9:131:GLN:C	11:s9:132:ARG:HG2	2.40	0.47
12:c0:1:MET:HE2	12:c0:41:TYR:CE1	2.49	0.47
12:c0:16:PHE:CD2	12:c0:76:LEU:HD11	2.50	0.47
20:c8:145:ARG:HB3	35:sM:68:ARG:HH12	1.80	0.47
22:d0:20:ILE:HD12	22:d0:100:VAL:HG21	1.96	0.47
24:d2:95:PRO:HD3	24:d2:130:TYR:CD1	2.49	0.47
25:d3:71:CYS:HB3	25:d3:85:ALA:O	2.15	0.47
27:d5:54:VAL:HG11	27:d5:83:LEU:HD13	1.96	0.47
34:sR:21:THR:HG23	34:sR:37:SER:HA	1.97	0.47
34:sR:161:ALA:C	34:sR:163:ASP:N	2.70	0.47
36:5:212:G:C6	36:5:222:A:C5	3.03	0.47
36:5:804:C:C5'	41:l4:93:MET:HE1	2.45	0.47
36:5:1096:U:H4'	36:5:1097:G:OP1	2.14	0.47
36:5:1422:G:C6	36:5:1423:C:C4	3.03	0.47
36:5:1790:G:H2'	36:5:1791:C:H6	1.79	0.47
36:5:1794:G:C2	39:l2:187:HIS:CE1	3.03	0.47
36:5:2203:U:O2'	36:5:2204:C:H5'	2.15	0.47
36:5:2845:A:C2'	36:5:2846:U:H5'	2.45	0.47
36:5:3216:G:OP1	43:l6:162:SER:N	2.38	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:l2:170:ALA:HB2	79:q3:65:ALA:HB1	1.96	0.47
40:l3:14:LEU:O	40:l3:17:LEU:HD22	2.15	0.47
41:l4:44:LYS:O	41:l4:47:ARG:HD3	2.15	0.47
45:l8:78:PHE:N	45:l8:78:PHE:CD1	2.82	0.47
46:l9:91:ARG:NE	46:l9:142:ASP:O	2.42	0.47
52:m6:33:ILE:O	52:m6:102:LEU:HA	2.15	0.47
52:m6:105:PHE:CD1	52:m6:109:PRO:HG3	2.50	0.47
54:m8:127:LEU:HD22	54:m8:127:LEU:O	2.14	0.47
69:o3:48:ARG:HG2	69:o3:104:PRO:HD3	1.96	0.47
1:2:4:C:OP2	4:S2:200:SER:OG	2.33	0.47
1:2:472:U:H2'	1:2:473:A:C8	2.49	0.47
1:2:1153:G:N2	1:2:1626:U:C2	2.83	0.47
1:2:1196:A:H4'	1:2:1197:C:O5'	2.14	0.47
5:S3:162:GLN:O	5:S3:165:ASN:N	2.47	0.47
7:S5:29:ILE:HG22	7:S5:34:GLN:HG3	1.97	0.47
11:S9:118:LEU:HG	11:S9:158:PHE:CE1	2.49	0.47
13:C1:87:ARG:HE	13:C1:104:HIS:CG	2.33	0.47
14:C2:84:ASN:O	14:C2:86:VAL:HG23	2.15	0.47
14:C2:132:GLU:HA	14:C2:135:MET:HB2	1.96	0.47
16:C4:13:VAL:HG22	16:C4:76:ILE:HA	1.97	0.47
20:C8:69:ILE:HG22	20:C8:73:MET:HE2	1.96	0.47
22:D0:21:LYS:HG3	22:D0:94:GLU:HG2	1.97	0.47
36:1:8:C:H2'	36:1:9:U:C6	2.50	0.47
36:1:282:G:C2	36:1:286:U:H4'	2.49	0.47
36:1:568:G:H2'	36:1:569:A:O4'	2.14	0.47
36:1:641:C:N4	36:1:645:A:H8	2.13	0.47
36:1:686:G:C2	36:1:695:C:C2	3.02	0.47
36:1:730:C:H2'	36:1:731:U:C6	2.50	0.47
36:1:879:U:H1'	53:M7:135:ARG:NH2	2.30	0.47
36:1:1495:U:H5''	36:1:1496:C:OP2	2.15	0.47
36:1:1802:C:O5'	36:1:1802:C:H6	1.98	0.47
36:1:2258:U:H2'	36:1:2259:A:C8	2.50	0.47
36:1:2294:U:OP1	59:N3:70:ARG:NH2	2.48	0.47
36:1:3036:G:O2'	36:1:3037:U:H5'	2.15	0.47
38:4:44:A:C6	38:4:45:C:C4	3.02	0.47
47:M0:68:ALA:HB2	47:M0:158:LYS:HB2	1.97	0.47
48:M1:95:ASN:O	48:M1:102:PHE:HA	2.15	0.47
52:M6:12:LYS:HG3	52:M6:40:GLU:HB3	1.96	0.47
53:M7:138:LYS:HD2	53:M7:140:GLU:CD	2.40	0.47
54:M8:64:VAL:HG13	54:M8:93:ILE:HD11	1.96	0.47
59:N3:45:ARG:HD2	59:N3:46:LEU:H	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:14:VAL:HG22	70:O4:86:LYS:HG2	1.96	0.47
66:O0:24:THR:CG2	66:O0:91:SER:HB3	2.45	0.47
79:Q3:60:CYS:SG	79:Q3:62:LYS:HB2	2.55	0.47
1:6:197:A:H2'	1:6:198:A:C8	2.50	0.47
1:6:400:A:H5''	10:s8:25:ARG:HA	1.97	0.47
1:6:458:G:OP1	26:d4:109:LYS:HE2	2.14	0.47
1:6:936:G:OP2	1:6:1075:C:H1'	2.14	0.47
1:6:959:U:H5''	15:c3:15:ALA:O	2.15	0.47
1:6:983:A:C6	1:6:984:G:N7	2.82	0.47
1:6:1160:A:H2'	1:6:1161:C:C6	2.50	0.47
4:s2:228:ASN:HB2	4:s2:229:LEU:HD13	1.97	0.47
6:s4:119:ALA:O	6:s4:164:LEU:HD12	2.14	0.47
14:c2:45:LEU:O	14:c2:49:THR:HG23	2.14	0.47
16:c4:62:LEU:HD12	16:c4:62:LEU:HA	1.77	0.47
17:c5:111:MET:HG2	20:c8:119:ILE:HG13	1.96	0.47
21:c9:86:ARG:HG3	21:c9:90:PRO:O	2.14	0.47
22:d0:24:ILE:HG12	22:d0:116:VAL:HG22	1.96	0.47
26:d4:22:GLN:HB3	26:d4:72:PHE:HE1	1.79	0.47
26:d4:84:LYS:HB3	26:d4:85:PHE:HD2	1.79	0.47
28:d6:41:ILE:O	28:d6:42:ARG:HG3	2.15	0.47
36:5:764:U:H2'	36:5:765:C:H2'	1.97	0.47
36:5:879:U:H2'	53:m7:131:ARG:NH2	2.30	0.47
36:5:1397:C:C2'	36:5:1398:U:H5'	2.45	0.47
36:5:1556:C:N3	82:5:3846:GET:H131	2.30	0.47
36:5:1680:G:C6	36:5:1681:U:C4	3.03	0.47
36:5:2178:A:H4'	36:5:2179:C:H5''	1.96	0.47
36:5:2427:U:H1'	36:5:2603:G:N2	2.30	0.47
36:5:2592:G:H4'	36:5:2594:C:C2	2.50	0.47
36:5:2767:U:O3'	78:q2:31:GLY:HA3	2.15	0.47
36:5:2794:G:O2'	36:5:2795:U:OP2	2.31	0.47
37:7:11:A:H8	42:l5:18:THR:HG1	1.62	0.47
40:l3:81:THR:CG2	40:l3:321:PHE:HA	2.44	0.47
40:l3:107:ALA:HA	40:l3:199:PHE:CD2	2.50	0.47
40:l3:187:SER:O	40:l3:190:GLU:N	2.48	0.47
44:l7:112:ASN:HB3	44:l7:207:LEU:O	2.14	0.47
45:l8:143:ILE:O	45:l8:173:MET:HG3	2.15	0.47
49:m3:67:ARG:HG2	64:n8:105:LEU:HG	1.97	0.47
49:m3:178:LYS:HD3	49:m3:179:PHE:CZ	2.50	0.47
50:m4:112:LEU:HA	50:m4:116:GLU:OE1	2.15	0.47
1:2:331:A:H2'	1:2:332:U:C6	2.50	0.47
1:2:431:C:H2'	1:2:432:G:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:514:G:N3	1:2:515:A:C8	2.83	0.47
1:2:600:U:OP2	25:D3:108:GLY:HA2	2.15	0.47
1:2:912:U:N3	1:2:914:G:C6	2.83	0.47
1:2:1522:U:O3'	21:C9:78:LYS:NZ	2.46	0.47
1:2:1796:C:OP1	28:D6:87:ARG:HD3	2.14	0.47
2:S0:68:PRO:HB2	4:S2:244:SER:OG	2.14	0.47
8:S6:61:PHE:CE1	8:S6:96:SER:HB2	2.50	0.47
10:S8:184:LEU:HB3	10:S8:189:LEU:HB2	1.97	0.47
11:S9:39:LYS:HB3	11:S9:43:TYR:CZ	2.49	0.47
15:C3:49:GLN:HA	15:C3:52:VAL:HB	1.97	0.47
21:C9:70:GLN:HG3	21:C9:120:GLY:O	2.15	0.47
24:D2:86:ILE:HD12	24:D2:87:GLU:N	2.30	0.47
26:D4:41:ARG:NE	26:D4:55:VAL:O	2.44	0.47
36:1:40:A:OP2	64:N8:36:GLY:N	2.47	0.47
36:1:87:U:C5	36:1:98:G:C2	3.03	0.47
36:1:135:C:N3	71:O5:94:LYS:HD2	2.30	0.47
36:1:233:C:O5'	36:1:233:C:H6	1.98	0.47
36:1:751:A:C4	36:1:752:C:C5	3.03	0.47
36:1:1169:A:C6	36:1:1170:A:C6	3.03	0.47
36:1:1598:G:OP1	70:O4:27:GLY:HA3	2.15	0.47
36:1:1718:G:C2	36:1:1727:G:C2	3.03	0.47
36:1:1761:C:H1'	36:1:1762:C:O5'	2.15	0.47
36:1:2136:C:C5	36:1:2142:A:C5	3.03	0.47
36:1:2936:A:H2'	36:1:2937:G:C8	2.50	0.47
37:3:61:G:H2'	37:3:62:U:C6	2.49	0.47
39:L2:136:ILE:HG23	39:L2:146:THR:HG23	1.96	0.47
40:L3:173:GLN:O	40:L3:173:GLN:HG3	2.15	0.47
44:L7:197:GLN:CD	44:L7:197:GLN:H	2.23	0.47
45:L8:36:ILE:C	45:L8:38:GLN:H	2.23	0.47
51:M5:191:TRP:CD1	51:M5:195:ASN:ND2	2.84	0.47
57:N1:151:LEU:HD23	57:N1:151:LEU:HA	1.55	0.47
63:N7:87:LEU:HB2	63:N7:127:ASN:ND2	2.29	0.47
64:N8:56:VAL:HG13	64:N8:57:GLY:N	2.30	0.47
1:6:219:A:O2'	1:6:220:A:P	2.73	0.47
1:6:580:A:O2'	1:6:582:U:OP1	2.32	0.47
1:6:1424:A:O2'	4:s2:93:GLY:N	2.48	0.47
1:6:1757:G:C2	1:6:1758:U:C6	3.03	0.47
5:s3:40:ARG:HD3	5:s3:49:ILE:HD11	1.97	0.47
6:s4:47:PHE:CE2	6:s4:90:ILE:HG21	2.49	0.47
6:s4:114:ILE:HB	6:s4:118:GLU:OE2	2.15	0.47
8:s6:67:VAL:CG2	8:s6:99:GLY:HA2	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:s6:84:TYR:CE1	8:s6:86:PRO:HG3	2.50	0.47
11:s9:87:SER:OG	11:s9:90:LYS:HB2	2.14	0.47
15:c3:16:ILE:HD12	15:c3:16:ILE:HA	1.68	0.47
20:c8:63:GLN:O	20:c8:67:GLU:HG3	2.15	0.47
24:d2:89:TRP:O	24:d2:93:LEU:HD23	2.15	0.47
34:sR:198:ASN:O	34:sR:215:GLY:HA3	2.15	0.47
36:5:88:A:OP2	54:m8:171:LYS:HE2	2.15	0.47
36:5:121:A:C2	45:l8:129:PRO:HB3	2.50	0.47
36:5:143:G:C2	36:5:144:A:C8	3.03	0.47
36:5:188:U:H1'	36:5:208:C:H1'	1.96	0.47
36:5:345:G:OP1	36:5:1429:G:N2	2.45	0.47
36:5:679:U:H2'	36:5:680:G:C8	2.49	0.47
36:5:802:C:H2'	36:5:803:C:H6	1.80	0.47
36:5:1016:C:H4'	36:5:1017:C:C5'	2.40	0.47
36:5:1345:G:C2	36:5:1360:C:C2	3.02	0.47
36:5:2208:A:C3'	36:5:2209:U:H5'	2.45	0.47
36:5:3183:A:C2	36:5:3184:A:C8	3.03	0.47
36:5:3278:C:C3'	36:5:3279:A:H5''	2.38	0.47
36:5:3370:A:C6	36:5:3371:G:C6	3.03	0.47
36:5:3380:U:O2'	36:5:3381:U:H5'	2.15	0.47
39:l2:119:LYS:N	39:l2:122:ASP:OD1	2.26	0.47
39:l2:178:PRO:HG2	79:q3:26:VAL:HG23	1.97	0.47
44:l7:180:SER:H	44:l7:183:ASP:HB2	1.80	0.47
51:m5:192:LYS:O	51:m5:196:THR:OG1	2.32	0.47
52:m6:119:VAL:HG13	52:m6:124:LEU:CD2	2.45	0.47
58:n2:50:LEU:HB3	58:n2:54:VAL:HG23	1.97	0.47
79:q3:17:ARG:C	79:q3:19:GLY:H	2.23	0.47
1:2:452:A:H3'	1:2:453:U:C6	2.50	0.46
1:2:644:C:H2'	1:2:645:C:C6	2.50	0.46
1:2:1403:C:H2'	1:2:1404:C:C6	2.50	0.46
1:2:1497:U:C2	1:2:1498:G:C8	3.03	0.46
1:2:1614:A:H5'	1:2:1615:C:OP2	2.16	0.46
1:2:1655:A:N1	36:1:2291:A:O2'	2.48	0.46
3:S1:77:GLU:OE1	16:C4:114:ARG:NH1	2.48	0.46
6:S4:11:ARG:H	6:S4:27:TYR:HA	1.80	0.46
18:C6:10:PHE:HA	18:C6:18:ALA:O	2.14	0.46
18:C6:58:ASP:C	18:C6:60:PHE:H	2.17	0.46
19:C7:87:GLU:C	19:C7:88:VAL:HG23	2.40	0.46
25:D3:13:ARG:HA	25:D3:16:ARG:HD3	1.95	0.46
31:D9:31:ILE:HD13	31:D9:31:ILE:HA	1.75	0.46
35:SM:72:ARG:HD2	35:SM:72:ARG:HA	1.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:75:G:H5'	49:M3:59:ARG:O	2.16	0.46
36:1:139:G:H2'	36:1:140:C:C6	2.50	0.46
36:1:155:G:O2'	72:O6:27:SER:HB3	2.15	0.46
36:1:204:A:H2'	36:1:205:C:C6	2.51	0.46
36:1:564:G:H2'	36:1:565:U:H6	1.80	0.46
36:1:661:G:C6	36:1:802:C:C2	3.02	0.46
36:1:730:C:H2'	36:1:731:U:H6	1.80	0.46
36:1:910:G:H2'	36:1:911:C:O4'	2.15	0.46
36:1:1163:A:C6	36:1:1337:A:C6	3.03	0.46
36:1:1164:G:H2'	36:1:1165:A:C8	2.49	0.46
36:1:1501:U:O2'	36:1:1502:C:H5'	2.14	0.46
36:1:2148:U:O2'	39:L2:182:ALA:HB2	2.14	0.46
36:1:2183:A:C6	36:1:2184:U:C5	3.03	0.46
36:1:2419:A:H2'	36:1:2420:C:C6	2.49	0.46
36:1:2713:U:H3'	78:Q2:9:LYS:O	2.15	0.46
36:1:3018:C:C4	36:1:3019:U:C4	3.03	0.46
36:1:3083:G:H2'	36:1:3084:C:C6	2.50	0.46
37:3:28:C:H1'	37:3:55:A:H61	1.80	0.46
40:L3:283:TYR:CD1	40:L3:354:VAL:HG21	2.49	0.46
42:L5:123:GLU:HA	42:L5:248:ARG:NH1	2.31	0.46
44:L7:120:THR:O	44:L7:124:LEU:HB2	2.16	0.46
49:M3:60:ALA:HA	49:M3:61:PRO:HD3	1.80	0.46
49:M3:166:ALA:HB1	64:N8:147:LEU:HD21	1.97	0.46
52:M6:157:GLU:O	52:M6:161:LYS:HG3	2.14	0.46
53:M7:112:LEU:HD12	53:M7:112:LEU:HA	1.79	0.46
54:M8:173:GLU:HA	64:N8:51:GLY:C	2.41	0.46
60:N4:123:ARG:NH1	60:N4:127:LYS:HB2	2.30	0.46
70:O4:23:VAL:O	70:O4:31:ARG:N	2.49	0.46
1:6:525:A:C6	1:6:526:A:C6	3.04	0.46
1:6:609:U:H5	25:d3:22:ASN:HB3	1.80	0.46
1:6:1611:A:OP1	7:s5:107:LYS:NZ	2.44	0.46
1:6:1684:U:H1'	1:6:1718:G:C2	2.49	0.46
5:s3:172:THR:HG22	5:s3:185:LYS:HG2	1.97	0.46
9:s7:164:TYR:CZ	9:s7:165:LYS:HE2	2.50	0.46
10:s8:116:HIS:NE2	10:s8:146:ARG:HD3	2.29	0.46
11:s9:129:ILE:O	11:s9:134:ILE:HD11	2.14	0.46
19:c7:58:MET:HA	19:c7:61:ILE:HD12	1.97	0.46
20:c8:5:VAL:O	27:d5:42:LEU:HB2	2.15	0.46
23:d1:5:LYS:O	23:d1:7:GLN:N	2.49	0.46
24:d2:11:LEU:HD11	24:d2:37:PHE:CE2	2.49	0.46
32:e0:35:TYR:CZ	32:e0:39:LEU:HD21	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:sM:89:ARG:HD2	35:sM:89:ARG:HA	1.65	0.46
36:5:40:A:C2	64:n8:40:HIS:CE1	3.03	0.46
36:5:978:G:O2'	36:5:979:U:O2	2.33	0.46
36:5:1177:G:N7	69:o3:20:LYS:HE2	2.31	0.46
36:5:1495:U:O2	36:5:1495:U:H2'	2.14	0.46
36:5:1525:G:N2	36:5:1615:C:C2	2.83	0.46
36:5:2547:A:C6	36:5:2548:C:C5	3.04	0.46
36:5:2596:U:C4	36:5:2597:U:C4	3.04	0.46
36:5:2724:U:H4'	57:n1:54:HIS:CD2	2.49	0.46
36:5:2885:C:C4	36:5:2886:U:C4	3.03	0.46
36:5:3241:G:H2'	36:5:3245:A:C8	2.50	0.46
36:5:3263:G:H2'	36:5:3264:G:H8	1.80	0.46
43:l6:46:ARG:HG3	43:l6:46:ARG:NH1	2.30	0.46
44:l7:222:HIS:ND1	44:l7:223:PHE:N	2.63	0.46
47:m0:76:MET:HB3	47:m0:85:PHE:CE2	2.50	0.46
50:m4:121:MET:HE2	50:m4:125:LYS:HD3	1.97	0.46
51:m5:48:ALA:O	51:m5:53:TYR:HB3	2.15	0.46
52:m6:193:GLN:O	52:m6:196:ALA:HB3	2.15	0.46
58:n2:94:ARG:HD3	58:n2:108:TYR:HE1	1.81	0.46
63:n7:54:THR:H	63:n7:57:HIS:CD2	2.33	0.46
74:o8:12:LEU:HD12	74:o8:16:ARG:NH2	2.30	0.46
80:p0:19:LEU:HB3	80:p0:73:PHE:CE2	2.49	0.46
1:2:199:G:HO2'	1:2:200:A:H8	1.63	0.46
1:2:332:U:O4	10:S8:172:ARG:NH2	2.48	0.46
1:2:637:C:OP1	24:D2:32:LYS:HG3	2.15	0.46
2:S0:49:ASN:HB3	2:S0:52:LYS:CG	2.43	0.46
4:S2:41:LEU:HD23	4:S2:41:LEU:HA	1.76	0.46
25:D3:69:ARG:NH1	25:D3:116:ASP:OD2	2.47	0.46
26:D4:86:GLU:OE1	26:D4:90:ARG:HD2	2.16	0.46
36:1:283:G:C8	64:N8:61:PHE:CE1	3.04	0.46
36:1:372:A:C6	36:1:373:A:C6	3.03	0.46
36:1:806:A:C5	36:1:936:A:C2	3.04	0.46
36:1:1597:C:H5''	70:O4:25:THR:HG21	1.97	0.46
36:1:1680:G:H2'	36:1:1681:U:C6	2.50	0.46
36:1:2770:G:O2'	36:1:2771:U:H5'	2.14	0.46
36:1:3096:C:H2'	36:1:3097:C:C6	2.51	0.46
36:1:3184:A:H4'	46:L9:39:LYS:HZ3	1.79	0.46
36:1:3187:A:H5''	50:M4:8:LYS:HE2	1.96	0.46
38:4:36:G:H3'	71:O5:86:ARG:HD2	1.96	0.46
46:L9:4:ILE:HD12	56:N0:143:PHE:CE1	2.50	0.46
46:L9:137:SER:HB2	46:L9:143:GLU:HB3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:205:SER:O	47:M0:209:ASN:HB2	2.14	0.46
52:M6:3:VAL:HG13	52:M6:4:GLU:H	1.80	0.46
55:M9:106:LEU:HB3	55:M9:120:TYR:CE1	2.50	0.46
58:N2:22:PRO:HB2	58:N2:28:PHE:HB2	1.97	0.46
68:O2:4:LEU:HA	68:O2:4:LEU:HD12	1.61	0.46
1:6:240:U:O4	1:6:835:U:H5'	2.16	0.46
1:6:411:C:H2'	1:6:412:A:O4'	2.15	0.46
1:6:811:A:N3	1:6:858:G:H1'	2.30	0.46
1:6:1017:U:O2'	1:6:1018:U:H5'	2.16	0.46
1:6:1660:A:OP2	82:6:2014:GET:H711	2.15	0.46
3:s1:210:ILE:HG22	3:s1:210:ILE:O	2.16	0.46
9:s7:75:THR:O	9:s7:79:ARG:HB2	2.15	0.46
11:s9:141:VAL:HG21	11:s9:146:PHE:CD2	2.50	0.46
18:c6:40:GLU:HA	18:c6:42:GLU:H	1.80	0.46
28:d6:64:LEU:HD23	28:d6:64:LEU:HA	1.79	0.46
36:5:46:U:H2'	36:5:47:C:C6	2.49	0.46
36:5:678:G:C6	36:5:679:U:C4	3.03	0.46
36:5:1839:A:N6	36:5:1843:C:C2	2.83	0.46
36:5:2549:G:N2	45:l8:33:ASN:CG	2.73	0.46
36:5:2683:U:O2	36:5:2683:U:H2'	2.15	0.46
36:5:3242:G:C5'	36:5:3245:A:C8	2.98	0.46
36:5:3338:C:O2'	36:5:3339:A:H5'	2.14	0.46
36:5:3344:A:H5''	36:5:3345:G:OP2	2.15	0.46
36:5:3352:U:H2'	36:5:3352:U:OP2	2.14	0.46
41:l4:29:PRO:O	41:l4:124:SER:OG	2.34	0.46
41:l4:152:VAL:O	41:l4:252:GLU:N	2.45	0.46
53:m7:30:ARG:NH1	53:m7:31:GLU:OE2	2.47	0.46
62:n6:50:ILE:HG23	62:n6:73:VAL:HG21	1.97	0.46
62:n6:85:VAL:HG12	62:n6:97:ILE:HB	1.96	0.46
66:o0:30:THR:HG22	66:o0:91:SER:HB2	1.96	0.46
67:o1:11:GLU:O	67:o1:106:THR:HA	2.15	0.46
1:2:398:G:OP1	10:S8:50:GLY:N	2.23	0.46
1:2:765:G:C2	11:S9:149:ARG:HD2	2.51	0.46
1:2:1301:U:OP1	4:S2:88:LYS:HB2	2.15	0.46
1:2:1388:A:C6	1:2:1411:A:C6	3.03	0.46
1:2:1451:C:O2'	1:2:1452:U:H5'	2.14	0.46
1:2:1535:U:H1'	1:2:1536:G:C2	2.50	0.46
1:2:1672:G:H2'	1:2:1673:G:C8	2.50	0.46
2:S0:56:LYS:NZ	2:S0:158:VAL:HG23	2.29	0.46
3:S1:65:VAL:HG22	3:S1:87:ARG:HA	1.98	0.46
3:S1:208:GLN:O	3:S1:210:ILE:HG13	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:17:LEU:HD21	20:C8:22:VAL:HG21	1.97	0.46
23:D1:64:GLU:OE1	29:D7:2:VAL:HG22	2.15	0.46
27:D5:39:ALA:O	27:D5:71:ILE:HA	2.15	0.46
27:D5:59:TYR:CE2	27:D5:61:SER:HB3	2.37	0.46
34:SR:89:LEU:O	34:SR:103:PHE:HD2	1.98	0.46
35:SM:46:LYS:HA	35:SM:46:LYS:NZ	2.30	0.46
36:1:397:A:H4'	36:1:398:A:O5'	2.15	0.46
36:1:423:A:H2'	36:1:424:G:O4'	2.15	0.46
36:1:547:G:O2'	36:1:548:G:C8	2.68	0.46
36:1:870:G:O2'	36:1:871:U:OP2	2.31	0.46
36:1:956:U:H6	36:1:956:U:O5'	1.99	0.46
36:1:1602:A:H4'	55:M9:10:LEU:HD21	1.97	0.46
36:1:1632:A:H2'	36:1:1633:C:H6	1.79	0.46
36:1:2203:U:H4'	39:L2:241:ARG:HA	1.97	0.46
36:1:2295:A:C6	36:1:2296:A:N1	2.83	0.46
36:1:2553:U:C6	70:O4:95:ILE:HD11	2.49	0.46
36:1:3049:A:C6	36:1:3050:U:C2	3.03	0.46
36:1:3317:U:H5'	36:1:3317:U:H6	1.80	0.46
41:L4:65:TRP:NE1	41:L4:76:ARG:HB2	2.31	0.46
41:L4:204:GLY:O	41:L4:246:ARG:NH1	2.46	0.46
42:L5:55:PHE:CE1	42:L5:158:ARG:HG3	2.50	0.46
45:L8:183:LYS:HA	45:L8:186:LEU:HB2	1.96	0.46
46:L9:74:LEU:O	46:L9:78:MET:HG3	2.16	0.46
55:M9:23:TRP:O	55:M9:50:ILE:HA	2.14	0.46
63:N7:5:LEU:H	63:N7:5:LEU:CD1	2.27	0.46
1:6:14:C:OP2	4:s2:206:THR:HG21	2.16	0.46
1:6:22:A:C2	1:6:23:G:C5	3.03	0.46
1:6:38:C:O2'	1:6:39:A:H5'	2.15	0.46
1:6:56:U:H4'	1:6:57:G:H5'	1.97	0.46
1:6:897:C:O2'	1:6:898:A:H8	1.98	0.46
1:6:1558:U:C5	20:c8:122:HIS:CD2	3.03	0.46
2:s0:70:PRO:HB2	2:s0:94:GLY:HA3	1.98	0.46
5:s3:124:ARG:NH2	35:sM:124:GLN:HB2	2.30	0.46
6:s4:95:THR:HG23	6:s4:97:GLU:H	1.80	0.46
10:s8:172:ARG:NH1	10:s8:172:ARG:HG2	2.29	0.46
16:c4:71:CYS:O	16:c4:75:GLY:N	2.48	0.46
20:c8:127:HIS:CE1	20:c8:133:VAL:HG21	2.49	0.46
22:d0:53:LYS:HB3	22:d0:92:ASP:HB2	1.96	0.46
25:d3:67:ALA:O	25:d3:68:ILE:HD13	2.16	0.46
36:5:77:A:H2'	36:5:78:U:O4'	2.16	0.46
36:5:210:U:O2	41:l4:217:LYS:HG2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:738:A:H2'	36:5:739:G:O4'	2.16	0.46
36:5:782:U:H2'	36:5:783:A:O4'	2.16	0.46
36:5:1037:C:H2'	36:5:1038:C:H6	1.81	0.46
36:5:1636:U:H4'	63:n7:74:VAL:O	2.15	0.46
36:5:1640:G:OP2	70:o4:72:VAL:HG12	2.14	0.46
36:5:1647:A:H8	36:5:1647:A:O5'	1.99	0.46
36:5:1744:G:C6	36:5:1745:C:N4	2.83	0.46
36:5:1783:U:H2'	36:5:1784:G:C8	2.50	0.46
36:5:1879:A:H2'	36:5:1879:A:N3	2.30	0.46
36:5:2359:C:H2'	36:5:2360:C:H6	1.77	0.46
36:5:2607:G:H5'	39:l2:232:GLY:O	2.15	0.46
36:5:2680:A:C2	48:m1:57:PHE:HB3	2.50	0.46
36:5:3198:U:H4'	36:5:3199:G:OP2	2.15	0.46
36:5:3260:G:O4'	50:m4:129:TYR:CD1	2.68	0.46
37:7:67:G:H2'	37:7:68:C:O4'	2.15	0.46
37:7:86:U:H2'	44:l7:218:ARG:CZ	2.45	0.46
40:l3:163:HIS:HA	40:l3:177:HIS:O	2.15	0.46
42:l5:271:LYS:HD3	42:l5:271:LYS:HA	1.55	0.46
44:l7:147:LEU:HA	44:l7:147:LEU:HD23	1.69	0.46
46:l9:111:PHE:CD1	46:l9:127:PRO:HA	2.50	0.46
49:m3:25:HIS:CD2	51:m5:200:TRP:CD2	3.02	0.46
59:n3:28:ASN:ND2	59:n3:112:SER:H	2.10	0.46
61:n5:110:VAL:HG22	61:n5:124:VAL:HA	1.97	0.46
65:n9:7:HIS:CG	65:n9:8:THR:N	2.82	0.46
66:o0:52:ARG:O	66:o0:52:ARG:HG3	2.14	0.46
67:o1:44:MET:HE3	67:o1:44:MET:HB2	1.64	0.46
1:2:692:C:H2'	1:2:693:U:C6	2.51	0.46
1:2:927:C:H2'	1:2:928:U:C6	2.50	0.46
1:2:948:G:H2'	1:2:949:C:C6	2.50	0.46
1:2:1480:G:H3'	1:2:1481:C:C6	2.50	0.46
1:2:1594:G:C6	1:2:1595:U:N3	2.83	0.46
5:S3:41:VAL:HA	5:S3:46:THR:HG23	1.98	0.46
10:S8:74:LYS:HB2	10:S8:109:PHE:CE2	2.50	0.46
11:S9:6:ARG:HB2	11:S9:6:ARG:HH11	1.81	0.46
11:S9:113:VAL:HG13	11:S9:118:LEU:HD22	1.97	0.46
14:C2:97:LEU:CD1	14:C2:118:ALA:HB1	2.45	0.46
16:C4:17:ALA:HB3	16:C4:81:VAL:HA	1.97	0.46
20:C8:5:VAL:HG23	27:D5:42:LEU:HD23	1.97	0.46
20:C8:91:ASP:HB3	20:C8:95:GLY:N	2.29	0.46
20:C8:118:LYS:HB2	20:C8:118:LYS:HE3	1.64	0.46
36:1:213:A:H2'	36:1:214:G:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:372:A:H2'	36:1:373:A:C8	2.50	0.46
36:1:776:U:C5	36:1:2719:U:O2	2.69	0.46
36:1:899:U:O2'	36:1:900:G:H5'	2.15	0.46
36:1:1222:G:OP2	36:1:1222:G:H8	1.98	0.46
36:1:1322:U:O2	56:N0:108:GLN:NE2	2.47	0.46
36:1:1595:U:C2	36:1:1596:C:C5	3.03	0.46
36:1:1674:G:H2'	36:1:1675:G:O4'	2.14	0.46
36:1:1826:C:OP1	74:O8:48:SER:OG	2.34	0.46
36:1:2854:U:P	47:M0:3:ARG:HH22	2.38	0.46
36:1:3039:C:C2	36:1:3040:A:C8	3.03	0.46
36:1:3043:C:C5'	40:L3:9:PRO:HG2	2.45	0.46
37:3:37:G:H1'	37:3:44:C:O2	2.15	0.46
38:4:88:A:O2'	38:4:89:A:H5'	2.16	0.46
41:L4:192:GLY:HA2	41:L4:195:ARG:HB2	1.97	0.46
41:L4:317:PRO:O	41:L4:319:LYS:N	2.40	0.46
46:L9:124:ARG:HB3	46:L9:164:ILE:HD12	1.98	0.46
49:M3:6:ASN:O	49:M3:7:LEU:HD23	2.15	0.46
50:M4:45:LEU:HD12	50:M4:56:GLN:O	2.16	0.46
56:N0:93:GLU:HB3	56:N0:140:VAL:HG21	1.97	0.46
58:N2:97:SER:HB2	58:N2:103:TYR:CE1	2.50	0.46
71:O5:47:VAL:O	71:O5:50:SER:HB2	2.16	0.46
1:6:950:C:H2'	1:6:951:A:C8	2.51	0.46
1:6:1174:C:C4	1:6:1175:U:C4	3.03	0.46
1:6:1243:G:OP2	1:6:1243:G:H4'	2.15	0.46
1:6:1535:U:H1'	1:6:1536:G:C6	2.50	0.46
1:6:1538:U:O2'	1:6:1539:G:H8	1.98	0.46
10:s8:76:THR:CG2	10:s8:108:PRO:HG2	2.45	0.46
10:s8:159:GLN:OE1	10:s8:166:TYR:N	2.47	0.46
11:s9:28:LEU:HB3	32:e0:44:PHE:HZ	1.80	0.46
20:c8:35:ILE:HB	20:c8:38:VAL:CG2	2.45	0.46
25:d3:57:LEU:HD22	32:e0:4:VAL:CG2	2.44	0.46
36:5:1212:A:H1'	56:n0:114:HIS:CE1	2.51	0.46
36:5:1664:G:H2'	36:5:1665:C:C6	2.49	0.46
36:5:1722:U:C2	36:5:1723:A:C8	3.04	0.46
36:5:2383:C:H2'	36:5:2384:A:H5'	1.95	0.46
36:5:2904:U:H2'	36:5:2905:U:C6	2.50	0.46
38:8:53:A:H2'	38:8:54:A:H8	1.81	0.46
41:l4:188:ARG:HE	41:l4:197:ARG:HB3	1.80	0.46
45:l8:91:PHE:CZ	45:l8:185:ARG:HB3	2.51	0.46
48:m1:139:THR:C	48:m1:140:ARG:HD2	2.40	0.46
59:n3:80:ARG:HG2	59:n3:95:PHE:CE2	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:n6:59:VAL:HG23	62:n6:60:ARG:HG2	1.96	0.46
66:o0:16:LEU:HB2	66:o0:98:SER:HB2	1.97	0.46
69:o3:51:TYR:CZ	69:o3:93:THR:HG21	2.50	0.46
78:q2:25:VAL:HG22	78:q2:72:LEU:HD22	1.98	0.46
1:2:272:U:OP1	60:N4:123:ARG:NH2	2.46	0.46
1:2:277:U:HO2'	1:2:278:U:P	2.38	0.46
1:2:403:G:H8	1:2:403:G:OP1	1.98	0.46
1:2:577:G:C8	1:2:577:G:C3'	2.98	0.46
1:2:888:U:C4	1:2:889:U:C4	3.04	0.46
1:2:1241:G:H5''	17:C5:77:ARG:CB	2.45	0.46
1:2:1258:U:C5	1:2:1259:U:C2	3.03	0.46
1:2:1459:C:OP2	1:2:1459:C:H6	1.99	0.46
1:2:1498:G:C2'	1:2:1499:G:H5'	2.45	0.46
1:2:1570:A:O2'	20:C8:144:ARG:NH2	2.48	0.46
3:S1:61:LEU:CD2	3:S1:62:LYS:H	2.29	0.46
4:S2:230:TRP:CE2	24:D2:68:ARG:HB3	2.50	0.46
5:S3:11:LEU:HD23	5:S3:11:LEU:HA	1.56	0.46
36:1:18:G:N2	38:4:142:C:C2	2.84	0.46
36:1:361:A:H5''	36:1:362:U:OP2	2.16	0.46
36:1:705:A:H4'	36:1:706:A:OP1	2.15	0.46
36:1:927:C:H2'	36:1:928:C:H6	1.81	0.46
36:1:1169:A:C5	36:1:1170:A:C6	3.03	0.46
36:1:1523:U:O2'	36:1:1608:C:OP1	2.33	0.46
36:1:2186:U:OP2	39:L2:200:ARG:HD2	2.16	0.46
36:1:2534:G:N2	36:1:2546:C:C2	2.84	0.46
36:1:2876:C:H2'	36:1:2877:G:C8	2.50	0.46
36:1:2961:G:C6	36:1:2962:U:C4	3.04	0.46
46:L9:94:TYR:CE2	46:L9:98:PRO:HA	2.51	0.46
49:M3:167:PHE:CD1	64:N8:132:LYS:HB2	2.50	0.46
54:M8:42:ALA:HB3	54:M8:45:ASN:HD22	1.81	0.46
55:M9:158:GLU:O	55:M9:162:ARG:HG2	2.15	0.46
61:N5:139:ILE:O	61:N5:139:ILE:HG13	2.16	0.46
65:N9:28:LYS:HD3	65:N9:29:TYR:N	2.29	0.46
70:O4:41:ARG:NH2	70:O4:52:GLN:HA	2.31	0.46
71:O5:16:GLN:HE21	71:O5:16:GLN:HB2	1.59	0.46
71:O5:51:ILE:O	71:O5:55:LEU:HD12	2.15	0.46
1:6:609:U:C5	25:d3:22:ASN:HB3	2.51	0.46
1:6:875:G:H2'	1:6:877:G:OP1	2.15	0.46
1:6:1083:G:O2'	1:6:1094:G:O2'	2.21	0.46
1:6:1317:C:O2	1:6:1400:A:H2	1.98	0.46
8:s6:155:ASP:OD2	8:s6:155:ASP:N	2.32	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:s7:15:GLU:O	9:s7:19:GLN:HG3	2.16	0.46
9:s7:38:LEU:HD21	9:s7:77:LEU:HD11	1.97	0.46
13:c1:127:GLN:HA	13:c1:136:ARG:O	2.15	0.46
14:c2:131:ASP:OD1	14:c2:133:LEU:HD12	2.15	0.46
15:c3:113:PHE:HD1	15:c3:114:ARG:HD3	1.81	0.46
16:c4:42:VAL:HG23	16:c4:46:MET:SD	2.56	0.46
18:c6:26:LYS:HB2	18:c6:26:LYS:HE3	1.67	0.46
18:c6:114:ARG:O	18:c6:116:LEU:N	2.46	0.46
24:d2:81:VAL:HG21	24:d2:125:ILE:HB	1.97	0.46
36:5:11:A:H2'	36:5:12:A:H8	1.79	0.46
36:5:90:C:C2'	36:5:91:G:H5'	2.46	0.46
36:5:955:U:C4	36:5:956:U:C4	3.04	0.46
36:5:1355:A:H5'	36:5:1357:G:H1'	1.98	0.46
36:5:1605:A:H4'	36:5:1607:U:C5	2.50	0.46
36:5:2194:G:H2'	36:5:2195:C:C6	2.51	0.46
36:5:2396:G:OP1	36:5:2397:A:H4'	2.15	0.46
36:5:3066:U:H2'	36:5:3067:C:C6	2.50	0.46
36:5:3095:U:H2'	36:5:3096:C:H6	1.80	0.46
36:5:3223:A:C5	36:5:3263:G:C6	3.03	0.46
37:7:23:A:H2'	37:7:24:A:C8	2.51	0.46
38:8:52:A:C5	38:8:53:A:C8	3.04	0.46
38:8:80:A:H2'	38:8:82:U:N3	2.31	0.46
39:l2:83:HIS:NE2	39:l2:86:GLN:HB2	2.30	0.46
40:l3:296:THR:HG22	40:l3:297:SER:N	2.29	0.46
41:l4:361:HIS:CG	41:l4:362:ASP:H	2.33	0.46
47:m0:55:ASN:ND2	47:m0:162:GLN:OE1	2.41	0.46
48:m1:92:ARG:HA	48:m1:172:LEU:HB2	1.98	0.46
50:m4:13:ARG:H	50:m4:13:ARG:HG2	1.49	0.46
50:m4:28:SER:HA	50:m4:31:LYS:HE3	1.97	0.46
66:o0:57:GLU:OE1	66:o0:69:TYR:OH	2.31	0.46
66:o0:74:ASN:OD1	66:o0:74:ASN:N	2.48	0.46
79:q3:27:LYS:O	79:q3:31:ILE:HG13	2.15	0.46
80:p0:15:LEU:HD11	80:p0:59:VAL:HG22	1.97	0.46
1:2:1025:A:H2'	1:2:1027:A:O5'	2.16	0.46
1:2:1067:C:H2'	1:2:1068:C:H6	1.81	0.46
1:2:1445:G:H5'	33:E1:91:ILE:HD11	1.98	0.46
1:2:1597:A:C8	31:D9:14:TYR:CD2	3.02	0.46
3:S1:77:GLU:OE1	16:C4:114:ARG:NH2	2.49	0.46
7:S5:82:PHE:CZ	30:D8:49:ARG:HD2	2.51	0.46
16:C4:105:LEU:HA	16:C4:108:SER:HB3	1.97	0.46
18:C6:139:GLN:HG3	18:C6:140:LYS:N	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:36:LYS:HB2	20:C8:102:ALA:HA	1.98	0.46
25:D3:68:ILE:HD12	32:E0:10:ARG:HH21	1.81	0.46
27:D5:46:LYS:O	27:D5:50:ILE:HG13	2.16	0.46
27:D5:96:SER:O	27:D5:97:LYS:HG2	2.16	0.46
36:1:117:U:OP1	45:L8:141:ALA:HB2	2.16	0.46
36:1:1162:U:OP1	68:O2:54:LYS:NZ	2.45	0.46
36:1:1327:C:H4'	69:O3:77:ASN:OD1	2.15	0.46
36:1:1593:A:C2	36:1:1594:A:C5	3.04	0.46
36:1:1668:G:C5	36:1:1669:C:C5	3.03	0.46
36:1:2712:U:O3'	36:1:2743:A:H4'	2.16	0.46
36:1:3041:U:H2'	36:1:3042:U:C6	2.50	0.46
36:1:3178:A:C2	52:M6:115:LYS:HG2	2.51	0.46
36:1:3181:C:HO2'	52:M6:164:SER:HG	1.59	0.46
37:3:30:G:H5'	37:3:51:A:H2	1.80	0.46
38:4:121:U:C2	38:4:122:U:C5	3.04	0.46
38:4:126:A:C2	38:4:129:C:N3	2.83	0.46
38:4:150:G:C2	38:4:152:G:N7	2.84	0.46
39:L2:79:ASN:HA	39:L2:169:ILE:HA	1.97	0.46
39:L2:189:TYR:HA	39:L2:192:LYS:HB2	1.96	0.46
41:L4:74:ILE:HG22	41:L4:75:PRO:HD2	1.97	0.46
42:L5:2:ALA:C	42:L5:3:PHE:HD2	2.24	0.46
43:L6:58:LEU:CD2	43:L6:64:LEU:HB2	2.44	0.46
44:L7:214:TRP:CE2	44:L7:219:LYS:HD2	2.51	0.46
45:L8:75:ILE:HG22	45:L8:76:ALA:N	2.31	0.46
46:L9:86:TYR:CD2	46:L9:151:VAL:HG22	2.51	0.46
47:M0:210:ILE:HA	47:M0:217:PHE:CE2	2.51	0.46
49:M3:119:TYR:HD1	49:M3:145:PHE:CE2	2.34	0.46
52:M6:119:VAL:CG1	52:M6:124:LEU:HD21	2.43	0.46
60:N4:4:GLU:HG2	60:N4:30:ARG:CD	2.46	0.46
64:N8:66:ALA:O	64:N8:68:PHE:N	2.48	0.46
68:O2:19:ARG:HG2	68:O2:20:HIS:N	2.31	0.46
1:6:11:A:OP2	82:6:2015:GET:H711	2.16	0.46
1:6:93:A:C6	1:6:398:G:C6	3.03	0.46
1:6:886:U:H2'	1:6:887:A:C8	2.50	0.46
17:c5:18:ARG:HB3	20:c8:95:GLY:HA2	1.96	0.46
27:d5:81:ARG:HB2	27:d5:81:ARG:HH11	1.81	0.46
34:sR:106:HIS:CE1	34:sR:132:LYS:HD2	2.51	0.46
36:5:295:A:H61	36:5:317:A:H61	1.62	0.46
36:5:331:G:H2'	36:5:332:C:C6	2.50	0.46
36:5:361:A:N3	36:5:814:U:H1'	2.31	0.46
36:5:379:C:H2'	36:5:380:U:C6	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:613:G:C6	36:5:614:C:N4	2.84	0.46
36:5:619:A:H5''	36:5:620:U:OP1	2.16	0.46
36:5:1127:G:N2	36:5:1130:A:OP2	2.46	0.46
36:5:1561:G:H1	36:5:1578:C:N4	2.14	0.46
36:5:1940:G:N2	36:5:3362:A:H8	2.13	0.46
36:5:2192:C:O2'	36:5:2312:A:N1	2.42	0.46
36:5:2555:G:HO2'	70:o4:88:ARG:HG3	1.81	0.46
36:5:2590:A:H2'	36:5:2591:A:H8	1.81	0.46
36:5:2651:G:C4	36:5:2796:G:C2	3.04	0.46
41:l4:16:THR:HG23	41:l4:18:ASN:N	2.30	0.46
43:l6:53:VAL:N	43:l6:67:GLY:HA2	2.31	0.46
43:l6:155:LEU:HD23	50:m4:115:PHE:CZ	2.51	0.46
46:l9:53:ILE:HD13	50:m4:7:VAL:HG21	1.98	0.46
46:l9:106:LYS:HE2	46:l9:107:ASP:CG	2.41	0.46
46:l9:163:GLN:O	46:l9:166:ARG:HG3	2.15	0.46
50:m4:37:GLU:HG3	50:m4:74:ARG:HG3	1.97	0.46
50:m4:122:VAL:HG12	50:m4:126:GLN:NE2	2.30	0.46
52:m6:57:PHE:O	52:m6:72:HIS:CD2	2.68	0.46
52:m6:193:GLN:O	52:m6:197:LEU:HD12	2.14	0.46
59:n3:80:ARG:HA	59:n3:95:PHE:CD2	2.50	0.46
59:n3:87:ARG:HH22	59:n3:137:VAL:CG2	2.18	0.46
60:n4:107:GLU:O	60:n4:111:ALA:N	2.48	0.46
70:o4:90:ILE:O	70:o4:94:LEU:HG	2.15	0.46
1:2:30:G:C6	1:2:597:G:C6	3.03	0.46
1:2:68:A:OP1	8:S6:160:ARG:NH1	2.46	0.46
1:2:264:G:H5''	1:2:265:A:H5'	1.97	0.46
1:2:327:U:H4'	13:C1:14:GLN:NE2	2.31	0.46
1:2:346:G:H2'	1:2:346:G:N3	2.31	0.46
1:2:647:G:N2	1:2:687:G:H22	2.14	0.46
1:2:866:G:C2	1:2:867:G:C8	3.04	0.46
1:2:927:C:H1'	16:C4:125:SER:CB	2.42	0.46
1:2:1229:G:O2'	1:2:1255:G:N2	2.44	0.46
1:2:1357:A:C6	1:2:1358:G:C6	3.04	0.46
1:2:1530:C:O5'	1:2:1530:C:H6	1.98	0.46
1:2:1637:C:O2	35:SM:93:ARG:N	2.34	0.46
1:2:1733:C:C2	1:2:1734:U:C5	3.04	0.46
1:2:1756:A:H2'	36:1:2256:A:H62	1.80	0.46
3:S1:101:HIS:O	3:S1:217:LEU:HD13	2.16	0.46
3:S1:167:VAL:O	3:S1:171:ILE:HG13	2.16	0.46
4:S2:146:THR:HG23	4:S2:148:LEU:HB2	1.98	0.46
5:S3:211:PRO:O	5:S3:212:LYS:HB2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:115:THR:OG1	6:S4:118:GLU:N	2.36	0.46
10:S8:67:TRP:CZ2	10:S8:156:VAL:HG11	2.51	0.46
10:S8:157:GLU:O	10:S8:160:PHE:N	2.47	0.46
11:S9:133:HIS:CD2	11:S9:133:HIS:N	2.84	0.46
22:D0:46:GLU:HA	22:D0:46:GLU:OE1	2.15	0.46
27:D5:92:ILE:HG12	27:D5:100:ILE:HG21	1.97	0.46
30:D8:18:ARG:HA	30:D8:25:VAL:O	2.16	0.46
32:E0:46:ASN:O	32:E0:47:VAL:HG12	2.16	0.46
36:1:113:C:OP1	51:M5:147:ARG:NH2	2.47	0.46
36:1:343:U:O2	41:L4:95:ARG:HD2	2.15	0.46
36:1:394:G:N1	36:1:397:A:OP2	2.49	0.46
36:1:561:C:H2'	36:1:562:C:C6	2.51	0.46
36:1:802:C:O2'	36:1:803:C:H5'	2.16	0.46
36:1:900:G:C6	36:1:901:G:C5	3.04	0.46
36:1:1327:C:H2'	36:1:1328:C:H6	1.80	0.46
36:1:1342:C:H2'	36:1:1343:A:O4'	2.16	0.46
36:1:1421:G:C2	36:1:1422:G:C8	3.04	0.46
36:1:1913:A:C5	36:1:2120:A:C2	3.03	0.46
36:1:2252:A:H5''	36:1:2252:A:C8	2.50	0.46
36:1:2562:A:N1	45:L8:31:PRO:HB3	2.31	0.46
36:1:3028:G:H2'	36:1:3029:A:C8	2.51	0.46
36:1:3112:G:O2'	46:L9:70:THR:HB	2.16	0.46
38:4:41:A:H61	38:4:103:G:C2'	2.28	0.46
40:L3:152:LYS:HG2	40:L3:192:VAL:HG11	1.96	0.46
41:L4:44:LYS:HB3	41:L4:47:ARG:NH1	2.31	0.46
41:L4:156:LEU:HD23	41:L4:159:ILE:HD12	1.97	0.46
41:L4:198:ARG:HD3	41:L4:199:TRP:HE1	1.80	0.46
42:L5:106:ALA:HB2	42:L5:166:ALA:HA	1.96	0.46
42:L5:198:TYR:CE1	42:L5:203:HIS:CD2	3.04	0.46
43:L6:80:ASN:OD1	43:L6:81:ALA:N	2.48	0.46
48:M1:166:LYS:C	48:M1:168:ASP:H	2.24	0.46
53:M7:116:HIS:HB3	53:M7:149:VAL:HG13	1.98	0.46
54:M8:42:ALA:HB3	54:M8:45:ASN:ND2	2.30	0.46
57:N1:52:MET:HG3	57:N1:95:HIS:CE1	2.51	0.46
57:N1:57:TYR:O	57:N1:60:LYS:HB2	2.16	0.46
62:N6:32:SER:HA	62:N6:49:PRO:HA	1.97	0.46
63:N7:104:PRO:HA	63:N7:107:ARG:CD	2.46	0.46
73:O7:31:LYS:O	73:O7:33:THR:HG22	2.16	0.46
1:6:904:G:C4	1:6:905:A:C8	3.03	0.46
1:6:996:U:H5''	1:6:996:U:H6	1.80	0.46
1:6:1173:C:O2'	1:6:1174:C:H5'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1198:G:H5''	1:6:1199:G:C4'	2.45	0.46
1:6:1540:G:C6	1:6:1541:G:C5	3.04	0.46
1:6:1655:A:C2	1:6:1746:A:C2	3.04	0.46
4:s2:188:LEU:HD13	4:s2:196:VAL:HG11	1.97	0.46
5:s3:69:LEU:HB3	5:s3:86:LEU:CD2	2.46	0.46
7:s5:41:LYS:HG2	7:s5:69:PHE:CZ	2.51	0.46
8:s6:124:LEU:HA	8:s6:124:LEU:HD12	1.63	0.46
9:s7:168:SER:O	9:s7:172:VAL:HG23	2.15	0.46
11:s9:122:VAL:HG23	11:s9:123:HIS:CE1	2.50	0.46
17:c5:87:PRO:HA	17:c5:90:ILE:CG1	2.43	0.46
17:c5:126:VAL:HG22	17:c5:127:ARG:H	1.80	0.46
18:c6:33:GLY:O	21:c9:7:ARG:HD3	2.16	0.46
20:c8:116:LEU:HA	20:c8:119:ILE:HG22	1.98	0.46
24:d2:80:ASN:OD1	24:d2:124:LYS:HE2	2.15	0.46
26:d4:54:ALA:HB1	26:d4:76:TYR:O	2.16	0.46
28:d6:9:GLY:HA3	28:d6:34:LYS:HE3	1.97	0.46
36:5:664:U:H5'	41:l4:107:ARG:HA	1.97	0.46
36:5:873:C:O3'	36:5:875:G:H5'	2.15	0.46
36:5:1025:A:H3'	36:5:1026:A:C4'	2.39	0.46
36:5:1515:A:C2	36:5:1516:C:C2	3.04	0.46
36:5:1673:G:C5	36:5:1775:G:C2	3.04	0.46
36:5:2320:A:N6	36:5:2321:A:C6	2.84	0.46
36:5:2403:G:C8	36:5:2870:C:H4'	2.51	0.46
36:5:2586:G:O2'	45:l8:241:LYS:HE2	2.16	0.46
36:5:2988:C:H2'	36:5:2989:U:H6	1.80	0.46
36:5:3075:G:H2'	36:5:3076:C:C6	2.51	0.46
36:5:3122:A:N1	46:l9:70:THR:HG21	2.31	0.46
37:7:86:U:P	44:l7:218:ARG:HH22	2.37	0.46
41:l4:255:PHE:O	41:l4:258:LEU:HB2	2.15	0.46
45:l8:161:GLU:C	51:m5:7:LEU:HD11	2.41	0.46
48:m1:16:LYS:HB3	48:m1:72:ARG:HG2	1.97	0.46
51:m5:118:SER:HB3	51:m5:132:VAL:HA	1.98	0.46
52:m6:47:PHE:CD1	52:m6:47:PHE:C	2.93	0.46
52:m6:77:SER:HB3	52:m6:106:GLU:OE2	2.16	0.46
1:2:188:A:C2	1:2:189:C:H1'	2.50	0.46
1:2:340:U:H2'	1:2:341:A:H8	1.81	0.46
1:2:540:G:N2	1:2:542:A:C2	2.84	0.46
1:2:851:U:H5''	55:M9:172:ARG:HH12	1.81	0.46
1:2:1101:G:H5''	24:D2:76:SER:HB2	1.97	0.46
1:2:1199:G:H1	31:D9:31:ILE:CD1	2.28	0.46
1:2:1339:C:H2'	1:2:1341:A:H62	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1428:G:H5'	1:2:1428:G:H8	1.81	0.46
1:2:1776:A:H2'	1:2:1777:G:C8	2.50	0.46
2:S0:31:VAL:HG12	2:S0:33:GLN:N	2.27	0.46
4:S2:140:ARG:HH21	4:S2:229:LEU:HD22	1.81	0.46
4:S2:161:LYS:HA	4:S2:165:VAL:O	2.16	0.46
7:S5:128:ASN:O	7:S5:131:GLN:N	2.49	0.46
10:S8:37:LYS:HE2	10:S8:95:THR:OG1	2.16	0.46
20:C8:14:ILE:HA	20:C8:22:VAL:O	2.15	0.46
20:C8:79:TYR:N	20:C8:79:TYR:CD2	2.84	0.46
28:D6:45:VAL:O	28:D6:46:GLU:HB3	2.16	0.46
32:E0:41:THR:HA	32:E0:45:VAL:CG1	2.46	0.46
36:1:40:A:C6	36:1:937:G:C2	3.04	0.46
36:1:346:C:C2	38:4:25:G:H4'	2.50	0.46
36:1:407:A:C2	38:4:17:A:H1'	2.51	0.46
36:1:631:U:H4'	36:1:3172:A:N6	2.31	0.46
36:1:806:A:C4	36:1:936:A:C2	3.04	0.46
36:1:864:G:C6	36:1:893:C:C5	3.04	0.46
36:1:951:A:H5''	36:1:1143:A:N1	2.31	0.46
36:1:1307:G:H5''	52:M6:60:LYS:HE3	1.98	0.46
36:1:1440:G:C4	36:1:1441:G:C8	3.03	0.46
36:1:1948:G:O2'	36:1:1949:G:H5'	2.16	0.46
36:1:2112:U:H4'	36:1:2113:A:H5'	1.98	0.46
36:1:2117:A:C2	36:1:2118:C:H1'	2.50	0.46
36:1:2125:A:C6	36:1:2126:A:C5	3.04	0.46
36:1:2567:C:H2'	36:1:2568:C:O4'	2.16	0.46
39:L2:48:ILE:HA	39:L2:58:LEU:O	2.16	0.46
41:L4:89:ALA:O	41:L4:91:GLY:N	2.48	0.46
41:L4:125:ALA:O	41:L4:129:THR:HG23	2.15	0.46
42:L5:40:HIS:CD2	42:L5:42:ALA:H	2.33	0.46
44:L7:151:ARG:NH1	44:L7:244:ASN:HA	2.30	0.46
51:M5:65:ARG:HG3	51:M5:129:TYR:CE1	2.51	0.46
55:M9:21:LYS:HE3	55:M9:55:VAL:HA	1.98	0.46
55:M9:133:LYS:HD3	55:M9:134:HIS:NE2	2.30	0.46
56:N0:81:TYR:HE1	56:N0:90:MET:HE3	1.79	0.46
68:O2:109:LEU:HD23	68:O2:109:LEU:HA	1.67	0.46
70:O4:10:ARG:HG3	75:O9:4:GLN:OE1	2.16	0.46
1:6:250:C:H2'	1:6:251:A:H8	1.81	0.46
1:6:765:G:N2	11:s9:146:PHE:CZ	2.84	0.46
1:6:918:U:H2'	1:6:919:A:H8	1.81	0.46
1:6:973:A:H5'	36:5:848:A:H2	1.80	0.46
1:6:1445:G:H5''	33:e1:91:ILE:HG13	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1798:U:C5	28:d6:98:PRO:HD2	2.51	0.46
2:s0:69:ASN:HB3	2:s0:71:GLU:CD	2.40	0.46
2:s0:93:THR:HG21	2:s0:181:VAL:HG21	1.97	0.46
9:s7:142:TYR:O	24:d2:49:GLU:HB2	2.16	0.46
10:s8:121:LEU:HD13	10:s8:121:LEU:HA	1.62	0.46
19:c7:7:LYS:HG3	19:c7:8:THR:N	2.31	0.46
20:c8:4:VAL:HG13	27:d5:78:ILE:HG22	1.97	0.46
25:d3:23:ARG:HD2	25:d3:26:GLU:CD	2.41	0.46
25:d3:59:ILE:HA	32:e0:4:VAL:HA	1.98	0.46
26:d4:41:ARG:O	26:d4:45:ALA:HB2	2.15	0.46
36:5:30:G:P	51:m5:172:ARG:HH11	2.39	0.46
36:5:43:A:N6	36:5:2802:A:C4	2.84	0.46
36:5:638:C:C2	36:5:639:G:C8	3.04	0.46
36:5:911:C:H42	39:l2:3:ARG:HD3	1.80	0.46
36:5:914:A:O2'	36:5:2146:C:H4'	2.16	0.46
36:5:1016:C:H4'	36:5:1017:C:OP2	2.15	0.46
36:5:1238:C:HO2'	36:5:1239:C:P	2.36	0.46
36:5:1312:C:O2	52:m6:87:MET:HE2	2.15	0.46
36:5:1424:C:C4	36:5:1425:U:C5	3.03	0.46
36:5:2505:U:H2'	36:5:2506:U:C6	2.51	0.46
36:5:2551:U:H3	39:l2:95:SER:HG	1.64	0.46
36:5:2966:G:C6	36:5:2967:A:N6	2.84	0.46
39:l2:66:PRO:HB2	39:l2:67:TYR:CE2	2.51	0.46
43:l6:149:ILE:HG23	43:l6:155:LEU:HD12	1.98	0.46
57:n1:136:ARG:HD3	57:n1:139:ARG:CZ	2.46	0.46
63:n7:71:PHE:HA	63:n7:111:LYS:HE3	1.96	0.46
71:o5:39:PRO:O	71:o5:40:SER:HB2	2.15	0.46
1:2:111:U:C2	1:2:304:U:C4	3.04	0.46
1:2:123:G:H2'	1:2:124:A:O4'	2.16	0.46
1:2:358:U:H2'	1:2:360:A:H5'	1.97	0.46
1:2:1768:G:OP2	82:2:2013:GET:H711	2.16	0.46
4:S2:56:ILE:HA	4:S2:61:LEU:HD12	1.98	0.46
9:S7:48:GLU:OE2	9:S7:88:ARG:NH2	2.49	0.46
10:S8:136:SER:OG	10:S8:137:LYS:N	2.48	0.46
20:C8:41:ARG:NH1	21:C9:38:LYS:HE2	2.31	0.46
23:D1:86:SER:OG	29:D7:9:HIS:O	2.27	0.46
25:D3:68:ILE:HD12	32:E0:10:ARG:NH2	2.30	0.46
25:D3:132:LEU:HD13	25:D3:132:LEU:HA	1.71	0.46
30:D8:58:GLU:OE2	30:D8:61:ARG:HB3	2.16	0.46
35:SM:32:SER:OG	36:1:2666:C:O2'	2.32	0.46
36:1:1175:C:O2	52:M6:87:MET:HG2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1522:U:H4'	36:1:1604:G:O2'	2.15	0.46
36:1:1844:C:C2	36:1:1852:G:N2	2.84	0.46
36:1:2556:C:H5'	63:N7:136:PHE:C	2.41	0.46
36:1:2761:G:C4	36:1:2795:U:C5	3.04	0.46
36:1:2882:U:O4	40:L3:4:ARG:HG3	2.16	0.46
36:1:2931:C:OP1	59:N3:59:MET:HE3	2.16	0.46
82:1:3808:GET:O23	82:1:3808:GET:C62	2.61	0.46
42:L5:119:TYR:OH	42:L5:135:VAL:N	2.36	0.46
45:L8:186:LEU:HB3	45:L8:195:SER:HB3	1.98	0.46
46:L9:110:LYS:O	46:L9:128:VAL:HB	2.16	0.46
46:L9:139:ASN:ND2	46:L9:139:ASN:O	2.49	0.46
52:M6:27:LEU:H	52:M6:27:LEU:HG	1.62	0.46
55:M9:126:GLU:HB3	55:M9:132:PHE:CE2	2.50	0.46
57:N1:120:LYS:HE3	57:N1:120:LYS:HB2	1.77	0.46
61:N5:115:ARG:HH11	61:N5:119:THR:HG1	1.63	0.46
62:N6:56:VAL:HG23	62:N6:106:ILE:HA	1.98	0.46
66:O0:40:LYS:HB3	66:O0:101:LEU:HD11	1.98	0.46
74:O8:24:THR:OG1	74:O8:25:VAL:N	2.47	0.46
1:6:89:G:C6	1:6:90:C:C4	3.04	0.46
1:6:287:G:N2	1:6:288:A:H1'	2.31	0.46
1:6:567:A:N1	1:6:583:C:H1'	2.31	0.46
1:6:575:C:H5''	35:sM:104:LYS:HB3	1.97	0.46
1:6:966:A:H2'	1:6:967:A:C8	2.51	0.46
1:6:1054:U:H2'	1:6:1055:U:O4'	2.16	0.46
1:6:1363:U:H3'	1:6:1364:G:H8	1.81	0.46
2:s0:134:LYS:O	2:s0:137:SER:OG	2.30	0.46
3:s1:117:TRP:HB3	3:s1:153:HIS:HA	1.97	0.46
5:s3:48:VAL:HB	5:s3:86:LEU:HD12	1.98	0.46
6:s4:117:GLU:C	6:s4:119:ALA:H	2.24	0.46
7:s5:44:ASN:O	7:s5:45:LYS:HE3	2.16	0.46
7:s5:68:ILE:HD13	7:s5:69:PHE:N	2.30	0.46
11:s9:104:PHE:O	11:s9:147:MET:HE1	2.16	0.46
13:c1:108:PRO:HB2	13:c1:135:VAL:HG22	1.98	0.46
14:c2:29:LYS:HE2	14:c2:100:TRP:NE1	2.30	0.46
14:c2:61:VAL:HB	14:c2:89:ILE:CG2	2.45	0.46
16:c4:92:LYS:HB3	28:d6:69:ASN:HD21	1.80	0.46
18:c6:49:TYR:HB3	18:c6:53:LEU:HD11	1.98	0.46
21:c9:70:GLN:HG3	21:c9:120:GLY:O	2.15	0.46
29:d7:62:ILE:HD12	29:d7:62:ILE:HA	1.82	0.46
30:d8:13:ILE:HG13	30:d8:31:GLU:H	1.80	0.46
33:e1:130:VAL:HG13	33:e1:143:LYS:HB3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:sR:158:PRO:O	34:sR:208:GLY:HA3	2.16	0.46
36:5:83:U:H2'	36:5:84:U:O4'	2.16	0.46
36:5:540:U:O5'	36:5:540:U:H6	1.99	0.46
36:5:752:C:H2'	36:5:753:C:H6	1.80	0.46
36:5:1141:C:H2'	36:5:1142:G:O4'	2.16	0.46
36:5:1302:A:N7	36:5:2857:C:O2'	2.46	0.46
36:5:1321:G:H21	56:n0:112:ALA:HB2	1.79	0.46
36:5:2295:A:C5	36:5:2296:A:C6	3.04	0.46
36:5:2557:A:C2	39:l2:64:ARG:CZ	2.99	0.46
36:5:2886:U:C6	36:5:2911:A:N7	2.84	0.46
36:5:3004:C:O2'	36:5:3005:A:H5'	2.15	0.46
36:5:3285:C:C2'	36:5:3286:G:H5''	2.41	0.46
36:5:3340:G:H3'	36:5:3341:U:O2	2.16	0.46
37:7:64:A:C8	47:m0:206:LEU:HD13	2.51	0.46
38:8:120:C:H2'	38:8:121:U:O4'	2.16	0.46
40:l3:77:THR:HG22	40:l3:326:GLY:O	2.16	0.46
51:m5:136:ASP:OD2	51:m5:138:GLN:HG2	2.14	0.46
51:m5:153:ASP:OD2	51:m5:155:VAL:HG22	2.16	0.46
53:m7:31:GLU:HG3	53:m7:60:PHE:HA	1.98	0.46
70:o4:96:GLU:O	70:o4:100:ILE:HG13	2.16	0.46
1:2:618:U:H5''	1:2:1030:A:C4	2.51	0.46
1:2:640:U:H2'	1:2:641:G:O4'	2.15	0.46
1:2:856:A:N6	9:S7:96:ARG:HB3	2.31	0.46
1:2:885:G:N2	16:C4:123:SER:HB2	2.31	0.46
1:2:984:G:H2'	1:2:985:G:O4'	2.16	0.46
1:2:1335:U:H5'	22:D0:85:ARG:HH22	1.81	0.46
1:2:1567:U:C5	1:2:1568:C:C4	3.04	0.46
1:2:1583:A:N1	1:2:1611:A:H5''	2.30	0.46
1:2:1795:U:O2	28:D6:10:ARG:HD2	2.15	0.46
2:S0:33:GLN:NE2	23:D1:64:GLU:OE2	2.43	0.46
6:S4:36:HIS:CD2	6:S4:85:GLY:HA3	2.51	0.46
9:S7:36:ALA:HA	9:S7:39:ARG:HD2	1.98	0.46
9:S7:71:HIS:CG	9:S7:131:PHE:CZ	3.04	0.46
9:S7:170:GLN:NE2	9:S7:182:VAL:HA	2.28	0.46
11:S9:29:LYS:HE3	32:E0:44:PHE:CE1	2.51	0.46
12:C0:82:LEU:H	12:C0:82:LEU:HG	1.41	0.46
14:C2:99:GLU:HB2	14:C2:115:VAL:HG13	1.98	0.46
15:C3:27:LYS:H	15:C3:27:LYS:CE	2.28	0.46
16:C4:26:THR:HG21	16:C4:97:GLY:HA3	1.98	0.46
20:C8:25:ASN:HB2	27:D5:40:VAL:HG21	1.98	0.46
20:C8:35:ILE:HB	20:C8:38:VAL:HG21	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:39:GLU:OE1	26:D4:43:LYS:HE2	2.15	0.46
27:D5:43:ASP:O	27:D5:45:GLU:N	2.49	0.46
34:SR:274:LEU:HD13	34:SR:313:TRP:CD2	2.50	0.46
36:1:29:C:H42	36:1:55:G:H1	1.64	0.46
36:1:119:U:C2	45:L8:138:HIS:CE1	3.04	0.46
36:1:713:U:O2	36:1:754:G:H4'	2.16	0.46
36:1:788:C:H2'	36:1:789:A:H8	1.81	0.46
36:1:1169:A:N6	36:1:1170:A:N1	2.63	0.46
36:1:1341:U:H2'	36:1:1342:C:C6	2.51	0.46
36:1:1525:G:H2'	36:1:1594:A:N1	2.31	0.46
36:1:1637:A:H4'	63:N7:15:ARG:HD3	1.98	0.46
36:1:1919:G:C6	36:1:1920:U:C5	3.03	0.46
36:1:1925:U:O2	79:Q3:19:GLY:HA2	2.16	0.46
36:1:1929:G:H4'	36:1:2321:A:H5''	1.96	0.46
36:1:2167:A:H2'	36:1:2168:A:C8	2.51	0.46
36:1:2252:A:H5''	36:1:2252:A:H8	1.80	0.46
36:1:2585:G:C2	38:4:151:C:H5	2.34	0.46
36:1:2617:U:O2'	47:M0:116:ARG:NH2	2.49	0.46
36:1:2759:U:H5''	36:1:2760:C:H5'	1.98	0.46
36:1:2841:G:H2'	36:1:2898:G:N2	2.30	0.46
36:1:3047:U:H5'	40:L3:329:PRO:HA	1.97	0.46
36:1:3111:U:H5'	46:L9:155:SER:OG	2.16	0.46
36:1:3237:U:H2'	36:1:3238:G:O4'	2.16	0.46
36:1:3278:C:O2	36:1:3278:C:H2'	2.15	0.46
84:1:4025:HOH:O	47:M0:14:ASN:ND2	2.44	0.46
37:3:10:C:OP2	57:N1:26:HIS:HD2	1.99	0.46
48:M1:94:ARG:HD3	48:M1:94:ARG:H	1.81	0.46
50:M4:42:LYS:O	50:M4:60:LEU:HB2	2.15	0.46
55:M9:168:ALA:C	55:M9:172:ARG:HD2	2.40	0.46
61:N5:114:VAL:HG13	61:N5:119:THR:O	2.16	0.46
65:N9:16:ALA:HB1	65:N9:21:ILE:HD11	1.98	0.46
71:O5:24:LEU:HB3	71:O5:51:ILE:HG12	1.98	0.46
1:6:809:A:N6	1:6:810:G:O6	2.48	0.46
1:6:1162:C:H4'	30:d8:22:ARG:HG2	1.98	0.46
1:6:1373:C:H2'	1:6:1374:C:C6	2.51	0.46
1:6:1489:U:HO2'	1:6:1490:C:P	2.39	0.46
1:6:1746:A:H3'	1:6:1747:G:C8	2.50	0.46
3:s1:209:ASN:O	3:s1:210:ILE:HB	2.15	0.46
4:s2:106:ASP:OD1	4:s2:106:ASP:N	2.48	0.46
5:s3:211:PRO:HG3	19:c7:20:TYR:CZ	2.51	0.46
8:s6:120:GLU:HG3	8:s6:125:THR:HB	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:c7:13:SER:O	19:c7:17:ILE:HG13	2.16	0.46
20:c8:72:ILE:HG12	20:c8:79:TYR:CD1	2.51	0.46
33:e1:87:THR:N	33:e1:88:PRO:HD2	2.30	0.46
34:sR:32:LEU:HA	34:sR:45:TRP:O	2.16	0.46
34:sR:41:THR:HG22	34:sR:62:LYS:HG2	1.97	0.46
34:sR:218:GLY:HA2	34:sR:238:ASP:O	2.16	0.46
34:sR:225:LEU:O	34:sR:228:LYS:HG3	2.16	0.46
36:5:256:G:H2'	36:5:257:U:H6	1.81	0.46
36:5:331:G:C2	38:8:33:A:C2	3.04	0.46
36:5:814:U:C2	36:5:815:G:C8	3.04	0.46
36:5:1048:A:H2'	47:m0:22:TYR:CE1	2.51	0.46
36:5:1176:C:OP2	36:5:1177:G:O2'	2.32	0.46
36:5:1317:A:C8	36:5:1319:G:C8	3.03	0.46
36:5:1489:A:C2	36:5:1490:A:C8	3.04	0.46
36:5:1709:C:H2'	36:5:1710:C:C6	2.51	0.46
36:5:1821:U:H3	70:o4:67:LYS:HD2	1.79	0.46
36:5:1857:C:H2'	70:o4:4:ARG:HG2	1.97	0.46
36:5:2352:A:P	53:m7:82:ARG:HG2	2.56	0.46
38:8:109:A:C2	38:8:114:G:C6	3.04	0.46
38:8:146:U:O2'	61:n5:40:LEU:HD21	2.16	0.46
39:l2:108:PRO:CG	79:q3:86:LEU:HD22	2.46	0.46
39:l2:185:ALA:O	39:l2:189:TYR:HD2	1.99	0.46
41:l4:62:ALA:HB1	41:l4:76:ARG:C	2.41	0.46
41:l4:156:LEU:O	41:l4:159:ILE:HG13	2.16	0.46
48:m1:107:ASP:C	48:m1:108:GLU:HG2	2.41	0.46
63:n7:95:VAL:HG21	63:n7:113:VAL:HG11	1.97	0.46
67:o1:10:ARG:HH12	67:o1:44:MET:HG2	1.80	0.46
71:o5:31:LEU:HD21	71:o5:43:LYS:HG3	1.97	0.46
71:o5:44:ILE:O	71:o5:44:ILE:HG12	2.16	0.46
1:2:53:G:H2'	1:2:54:C:C6	2.51	0.45
1:2:119:A:H1'	1:2:397:A:C4	2.52	0.45
1:2:190:C:C4	1:2:196:G:O6	2.69	0.45
1:2:193:U:O2'	1:2:194:U:C2	2.67	0.45
1:2:330:G:C4	1:2:331:A:C8	3.05	0.45
1:2:505:A:H2'	1:2:505:A:N3	2.30	0.45
1:2:539:G:H1'	1:2:540:G:N2	2.31	0.45
1:2:803:A:N3	9:S7:104:ARG:NE	2.56	0.45
1:2:816:G:H2'	1:2:817:A:C8	2.50	0.45
1:2:952:A:H5''	15:C3:94:LYS:NZ	2.31	0.45
1:2:954:G:H2'	1:2:955:A:C8	2.50	0.45
1:2:1620:C:C4	1:2:1621:U:C4	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C1:122:ILE:N	13:C1:144:ALA:HB3	2.30	0.45
14:C2:59:LEU:HA	14:C2:87:PRO:HB2	1.99	0.45
15:C3:18:TYR:CZ	24:D2:56:HIS:CE1	3.04	0.45
18:C6:125:GLU:HG2	18:C6:126:PRO:CD	2.44	0.45
19:C7:20:TYR:CE1	19:C7:38:ILE:HD11	2.50	0.45
19:C7:63:LYS:HD3	19:C7:63:LYS:HA	1.79	0.45
20:C8:14:ILE:O	20:C8:14:ILE:HG13	2.16	0.45
21:C9:49:ASP:HB3	21:C9:53:TRP:HB3	1.97	0.45
25:D3:51:GLY:HA3	25:D3:74:VAL:HG12	1.97	0.45
27:D5:55:PRO:C	27:D5:57:TYR:H	2.23	0.45
36:1:20:A:C6	36:1:21:G:C6	3.03	0.45
36:1:302:U:H2'	36:1:303:G:H8	1.81	0.45
36:1:495:G:H22	36:1:619:A:H1'	1.82	0.45
36:1:708:G:N2	36:1:711:A:OP2	2.44	0.45
36:1:721:G:C2	36:1:722:G:C8	3.04	0.45
36:1:2117:A:H3'	36:1:2118:C:H6	1.80	0.45
36:1:2184:U:H2'	36:1:2185:G:O4'	2.16	0.45
36:1:2362:C:H2'	36:1:2363:A:O4'	2.15	0.45
36:1:3003:G:H1'	36:1:3146:G:N2	2.30	0.45
36:1:3340:G:C6	36:1:3342:A:N7	2.84	0.45
37:3:9:C:H2'	37:3:10:C:H5'	1.97	0.45
37:3:79:A:C2	37:3:102:A:C4	3.04	0.45
38:4:97:A:C6	38:4:98:U:C4	3.04	0.45
40:L3:47:LEU:HD12	40:L3:47:LEU:HA	1.74	0.45
41:L4:276:LEU:HD23	41:L4:276:LEU:HA	1.80	0.45
47:M0:192:ASP:HA	47:M0:197:VAL:HG12	1.98	0.45
75:O9:13:MET:O	75:O9:16:ALA:HB3	2.16	0.45
76:Q0:106:ARG:HB2	76:Q0:106:ARG:CZ	2.47	0.45
1:6:4:C:OP2	4:s2:200:SER:OG	2.34	0.45
1:6:773:C:OP1	6:s4:21:ASP:HB2	2.16	0.45
1:6:1009:U:H6	1:6:1009:U:O5'	1.99	0.45
1:6:1455:G:OP1	17:c5:122:THR:HG21	2.15	0.45
1:6:1460:A:C5	17:c5:128:HIS:CG	3.04	0.45
6:s4:117:GLU:HG2	6:s4:118:GLU:H	1.80	0.45
8:s6:63:MET:HE2	8:s6:106:LEU:HD22	1.98	0.45
11:s9:77:ILE:HG23	11:s9:86:LEU:CD2	2.46	0.45
11:s9:126:ARG:O	11:s9:129:ILE:N	2.48	0.45
25:d3:33:LEU:HA	25:d3:33:LEU:HD23	1.49	0.45
28:d6:30:ILE:CG1	28:d6:34:LYS:HB3	2.46	0.45
36:5:250:U:C4	36:5:251:G:C6	3.04	0.45
36:5:673:U:O4	54:m8:56:LYS:NZ	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:829:U:H3	36:5:895:A:H61	1.64	0.45
36:5:1099:A:C6	36:5:1100:U:C4	3.04	0.45
36:5:2168:A:H5''	36:5:2169:G:OP1	2.16	0.45
36:5:2951:G:N3	36:5:2951:G:H2'	2.30	0.45
36:5:2967:A:C5'	39:12:213:GLY:HA3	2.38	0.45
36:5:3010:U:O2'	36:5:3011:A:H2'	2.15	0.45
37:7:76:A:C8	37:7:78:U:C2	3.05	0.45
37:7:79:A:C2	37:7:102:A:C4	3.04	0.45
40:13:49:TYR:CE1	40:13:335:ILE:HD13	2.51	0.45
41:14:3:ARG:O	41:14:5:GLN:HG2	2.16	0.45
41:14:74:ILE:HG12	41:14:94:CYS:SG	2.56	0.45
44:17:148:VAL:HG12	44:17:181:ILE:HD11	1.97	0.45
44:17:166:ASN:OD1	44:17:181:ILE:N	2.48	0.45
44:17:214:TRP:CD2	44:17:219:LYS:HD2	2.50	0.45
46:19:3:TYR:HA	56:n0:142:GLN:OE1	2.16	0.45
46:19:10:ILE:HD11	46:19:72:LYS:HA	1.98	0.45
46:19:114:VAL:HB	46:19:124:ARG:HB2	1.97	0.45
55:m9:38:ARG:O	55:m9:41:ILE:HB	2.16	0.45
57:n1:34:TYR:CE2	57:n1:93:VAL:HG12	2.51	0.45
63:n7:10:VAL:HG23	63:n7:86:THR:HA	1.98	0.45
73:o7:64:MET:O	73:o7:68:LYS:HB3	2.16	0.45
80:p0:104:ARG:HA	80:p0:104:ARG:HD3	1.67	0.45
1:2:7:G:O2'	1:2:573:C:H4'	2.16	0.45
1:2:17:C:O2'	1:2:1137:A:N1	2.40	0.45
1:2:30:G:C2	1:2:31:C:C2	3.04	0.45
1:2:484:C:O2'	1:2:485:A:OP1	2.29	0.45
1:2:618:U:OP1	1:2:1030:A:O2'	2.34	0.45
1:2:917:U:H2'	1:2:918:U:H5'	1.98	0.45
1:2:1558:U:H3'	1:2:1559:A:H4'	1.98	0.45
1:2:1778:G:H1	1:2:1783:C:H42	1.64	0.45
5:S3:113:LEU:HA	5:S3:113:LEU:HD23	1.59	0.45
7:S5:187:ILE:HD12	7:S5:187:ILE:H	1.80	0.45
15:C3:3:ARG:HB2	15:C3:8:GLY:O	2.16	0.45
18:C6:12:LYS:HA	18:C6:16:ALA:O	2.16	0.45
22:D0:82:TYR:OH	31:D9:44:ARG:HG2	2.15	0.45
28:D6:66:LYS:HE2	28:D6:66:LYS:HB2	1.72	0.45
32:E0:9:ALA:C	32:E0:11:ALA:H	2.24	0.45
33:E1:113:LYS:HE3	33:E1:113:LYS:HB3	1.69	0.45
36:1:196:G:N1	36:1:199:A:OP2	2.49	0.45
36:1:227:G:N2	36:1:228:U:H1'	2.31	0.45
36:1:391:A:C4	36:1:392:G:C8	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:407:A:C4	38:4:17:A:HI'	2.51	0.45
36:1:606:C:O2'	36:1:607:A:N3	2.47	0.45
36:1:786:A:H4'	36:1:787:G:H5'	1.97	0.45
36:1:788:C:H2'	36:1:789:A:C8	2.51	0.45
36:1:1418:A:H4'	36:1:1419:A:OP1	2.16	0.45
36:1:2265:C:H2'	36:1:2266:U:C6	2.52	0.45
36:1:2660:G:OP1	36:1:2750:U:O2'	2.30	0.45
36:1:3268:A:OP1	43:L6:46:ARG:NH2	2.50	0.45
36:1:3386:G:H5'	67:O1:10:ARG:NE	2.31	0.45
38:4:41:A:C5'	73:O7:67:LEU:HD12	2.43	0.45
41:L4:122:THR:HA	41:L4:235:LEU:HD13	1.98	0.45
42:L5:52:VAL:O	42:L5:62:CYS:HA	2.16	0.45
42:L5:160:PHE:O	42:L5:163:LEU:HB3	2.16	0.45
45:L8:225:LYS:O	45:L8:229:VAL:HG23	2.17	0.45
46:L9:74:LEU:HD23	46:L9:74:LEU:HA	1.81	0.45
46:L9:94:TYR:CD1	46:L9:94:TYR:N	2.85	0.45
47:M0:60:LEU:CD1	47:M0:129:VAL:HG21	2.46	0.45
47:M0:211:ARG:O	47:M0:214:PRO:HG3	2.16	0.45
48:M1:89:TYR:O	48:M1:169:ALA:HB1	2.15	0.45
51:M5:180:PHE:O	51:M5:181:ASN:C	2.58	0.45
60:N4:55:PHE:CD1	60:N4:55:PHE:C	2.95	0.45
63:N7:26:VAL:HG22	63:N7:89:VAL:CG2	2.47	0.45
63:N7:36:HIS:N	63:N7:37:PRO:HD3	2.31	0.45
65:N9:10:HIS:C	65:N9:12:GLN:H	2.24	0.45
66:O0:30:THR:HB	66:O0:91:SER:HB2	1.99	0.45
68:O2:67:SER:HB2	68:O2:68:PRO:CD	2.46	0.45
74:O8:26:LYS:HA	74:O8:26:LYS:HD2	1.84	0.45
78:Q2:99:GLN:OE1	78:Q2:102:GLN:HG3	2.17	0.45
1:6:1451:C:H2'	1:6:1452:U:C6	2.51	0.45
2:s0:9:LEU:HA	2:s0:54:TRP:NE1	2.31	0.45
3:s1:48:VAL:HG21	3:s1:61:LEU:HD13	1.98	0.45
6:s4:160:VAL:HG13	6:s4:169:ILE:HG23	1.99	0.45
15:c3:99:ARG:NH2	15:c3:143:SER:HB2	2.31	0.45
21:c9:141:GLU:C	21:c9:143:ASP:H	2.24	0.45
28:d6:10:ARG:HH12	28:d6:36:ILE:HG13	1.81	0.45
29:d7:44:THR:HG1	29:d7:56:CYS:HG	1.64	0.45
36:5:282:G:H3'	36:5:282:G:C8	2.51	0.45
36:5:659:G:C6	36:5:1432:C:C2	3.05	0.45
36:5:1006:A:C2	36:5:1045:C:C2	3.04	0.45
36:5:2147:A:H5''	39:12:198:LYS:O	2.16	0.45
36:5:2204:C:H4'	36:5:2205:U:OP1	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2549:G:H8	36:5:2549:G:O5'	1.99	0.45
36:5:2584:G:H5'	36:5:2585:G:OP2	2.17	0.45
36:5:2623:G:H2'	36:5:2624:G:C8	2.51	0.45
42:15:39:GLN:HG3	42:15:40:HIS:O	2.16	0.45
42:15:40:HIS:CD2	42:15:42:ALA:HB3	2.51	0.45
45:18:160:ILE:HD13	45:18:160:ILE:HA	1.77	0.45
46:19:31:ARG:NE	46:19:187:ILE:HD12	2.31	0.45
51:m5:184:LYS:C	51:m5:186:GLY:H	2.25	0.45
78:q2:4:VAL:O	78:q2:94:GLY:N	2.43	0.45
1:2:1357:A:H61	1:2:1366:U:H3	1.65	0.45
1:2:1584:G:H5''	18:C6:122:ARG:HG2	1.98	0.45
1:2:1607:G:N2	1:2:1608:U:C2	2.85	0.45
4:S2:179:VAL:HG23	4:S2:196:VAL:O	2.16	0.45
8:S6:174:LYS:O	8:S6:175:ILE:HD13	2.16	0.45
13:C1:59:PRO:HD3	13:C1:138:ASN:OD1	2.16	0.45
14:C2:98:GLY:N	14:C2:118:ALA:HB2	2.31	0.45
26:D4:84:LYS:HG3	26:D4:85:PHE:N	2.30	0.45
33:E1:106:TYR:HE2	33:E1:131:PHE:CZ	2.35	0.45
36:1:128:G:N2	36:1:141:C:O2	2.49	0.45
36:1:827:A:C2	36:1:828:A:C8	3.03	0.45
36:1:1404:G:C6	36:1:1408:G:C6	3.04	0.45
36:1:1709:C:H2'	36:1:1710:C:H6	1.81	0.45
36:1:1764:U:H2'	36:1:1765:U:H1'	1.98	0.45
36:1:2166:A:H5'	51:M5:75:VAL:O	2.16	0.45
36:1:2184:U:C2	36:1:2185:G:C8	3.05	0.45
36:1:2234:G:H2'	36:1:2235:C:O4'	2.17	0.45
36:1:2661:G:H2'	36:1:2662:G:H8	1.82	0.45
36:1:2795:U:OP2	78:Q2:63:LYS:NZ	2.50	0.45
36:1:3152:U:C5	36:1:3395:G:C6	3.04	0.45
36:1:3218:A:C5	69:O3:5:HIS:CD2	3.04	0.45
38:4:132:G:C2	38:4:133:G:C8	3.05	0.45
39:L2:20:THR:HA	39:L2:23:ARG:HD3	1.99	0.45
39:L2:129:ALA:HB3	39:L2:132:ASN:OD1	2.16	0.45
40:L3:22:ALA:HB2	40:L3:273:HIS:HA	1.98	0.45
40:L3:66:LYS:NZ	59:N3:124:ASP:OD2	2.48	0.45
40:L3:67:PHE:CE2	59:N3:88:ARG:HD3	2.51	0.45
41:L4:44:LYS:HD3	41:L4:47:ARG:HH12	1.81	0.45
43:L6:64:LEU:HD22	43:L6:65:ILE:N	2.31	0.45
45:L8:161:GLU:OE2	51:M5:26:ARG:NH2	2.45	0.45
50:M4:32:LEU:HD11	50:M4:94:TRP:CD1	2.51	0.45
53:M7:31:GLU:HG3	53:M7:60:PHE:CD1	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:28:ASN:HD21	59:N3:112:SER:H	1.64	0.45
64:N8:73:LEU:HB2	64:N8:109:TYR:CD2	2.52	0.45
71:O5:78:LYS:HG3	71:O5:81:ARG:NH1	2.32	0.45
73:O7:28:HIS:CG	73:O7:31:LYS:HB2	2.51	0.45
1:6:90:C:H2'	1:6:91:G:H8	1.79	0.45
1:6:870:C:C2'	1:6:871:G:H5'	2.46	0.45
1:6:997:G:H2'	1:6:998:A:O4'	2.16	0.45
1:6:1250:U:H2'	1:6:1251:U:H5'	1.98	0.45
1:6:1292:G:C5	1:6:1293:U:C4	3.04	0.45
1:6:1647:U:N3	1:6:1648:A:N7	2.64	0.45
1:6:1773:C:OP2	77:q1:4:LYS:HB2	2.16	0.45
5:s3:72:LEU:HG	12:c0:20:VAL:HG21	1.99	0.45
9:s7:126:LEU:HD11	9:s7:181:ILE:HD12	1.98	0.45
9:s7:164:TYR:CD1	9:s7:165:LYS:HG3	2.52	0.45
11:s9:65:LYS:HA	11:s9:70:LEU:HD11	1.98	0.45
14:c2:97:LEU:HD12	14:c2:119:SER:H	1.80	0.45
19:c7:29:GLN:HG2	34:sR:67:ILE:HD11	1.98	0.45
20:c8:109:LEU:O	20:c8:113:LEU:HG	2.16	0.45
22:d0:25:THR:HB	22:d0:115:GLU:HG2	1.98	0.45
36:5:126:U:H2'	36:5:127:G:C8	2.52	0.45
36:5:274:G:H1	36:5:291:C:H42	1.63	0.45
36:5:912:G:H1'	36:5:917:A:C2	2.51	0.45
36:5:991:G:H2'	36:5:992:A:C8	2.52	0.45
36:5:1096:U:N3	36:5:1097:G:C6	2.83	0.45
36:5:1121:U:H2'	36:5:1122:U:C6	2.52	0.45
36:5:1157:G:C2	36:5:1158:A:H1'	2.51	0.45
36:5:1318:A:OP1	52:m6:18:ARG:NH2	2.49	0.45
36:5:1493:G:H1'	36:5:1494:U:H5	1.82	0.45
36:5:1920:U:C2	36:5:1930:A:C2	3.04	0.45
36:5:2812:C:O2'	36:5:2813:A:H5'	2.16	0.45
38:8:4:C:H2'	38:8:5:U:C6	2.50	0.45
41:l4:39:PHE:CG	41:l4:242:ALA:HB2	2.51	0.45
41:l4:206:LEU:HB2	41:l4:246:ARG:NE	2.30	0.45
44:l7:80:GLN:HG3	57:n1:136:ARG:CB	2.46	0.45
53:m7:46:LYS:HB2	53:m7:46:LYS:HE3	1.65	0.45
57:n1:64:VAL:HA	57:n1:73:GLY:O	2.16	0.45
62:n6:57:LEU:HB3	62:n6:105:VAL:CG1	2.45	0.45
74:o8:32:ASN:ND2	74:o8:34:ALA:H	2.14	0.45
74:o8:38:PHE:HE1	74:o8:40:GLN:HB2	1.80	0.45
1:2:115:G:N2	1:2:334:G:N2	2.64	0.45
1:2:196:G:O2'	1:2:197:A:OP2	2.35	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:966:A:H5''	15:C3:4:MET:CE	2.47	0.45
1:2:1096:C:O2'	1:2:1097:U:OP2	2.33	0.45
1:2:1142:A:OP1	28:D6:2:PRO:HB3	2.16	0.45
1:2:1156:C:C2'	1:2:1157:A:H5'	2.46	0.45
5:S3:217:ILE:HG23	34:SR:196:ASN:HD21	1.81	0.45
7:S5:64:VAL:O	7:S5:65:ARG:HB2	2.17	0.45
7:S5:163:SER:HB2	30:D8:48:VAL:CG2	2.46	0.45
9:S7:30:SER:HB3	9:S7:34:LEU:HD12	1.97	0.45
11:S9:163:PRO:C	11:S9:165:GLY:H	2.25	0.45
18:C6:49:TYR:HB3	18:C6:53:LEU:HD11	1.97	0.45
20:C8:28:ILE:HD13	20:C8:28:ILE:O	2.17	0.45
25:D3:41:SER:HA	25:D3:42:PRO:HD3	1.83	0.45
27:D5:41:ILE:CG1	27:D5:42:LEU:HG	2.42	0.45
36:1:285:A:O2'	78:Q2:45:ARG:NH2	2.50	0.45
36:1:400:G:H4'	36:1:401:U:C5'	2.47	0.45
36:1:552:G:C2	36:1:553:U:C2	3.04	0.45
36:1:791:A:H2'	36:1:792:G:H8	1.81	0.45
36:1:1015:U:O2	36:1:1017:C:H6	2.00	0.45
36:1:1176:C:OP1	52:M6:25:LYS:HE3	2.17	0.45
36:1:1300:G:H8	36:1:1300:G:O5'	2.00	0.45
36:1:1388:U:H2'	36:1:1389:G:C8	2.51	0.45
36:1:1716:U:O2'	36:1:1717:U:O5'	2.33	0.45
36:1:2207:A:H2'	36:1:2208:A:H2'	1.98	0.45
36:1:2726:C:O2'	36:1:2727:A:H2'	2.16	0.45
36:1:2911:A:H4'	36:1:2912:G:C8	2.51	0.45
36:1:2971:A:H4'	36:1:2972:G:O5'	2.16	0.45
36:1:3186:A:O2'	46:L9:42:ASP:HA	2.16	0.45
36:1:3280:U:H1'	36:1:3281:U:H5'	1.99	0.45
38:4:125:U:O2'	38:4:126:A:OP1	2.32	0.45
40:L3:346:THR:O	40:L3:348:ARG:N	2.48	0.45
44:L7:96:PRO:O	44:L7:100:ARG:HB2	2.16	0.45
44:L7:153:PHE:CE1	44:L7:162:PRO:HB3	2.51	0.45
45:L8:246:MET:HA	45:L8:249:ARG:HB3	1.98	0.45
50:M4:113:THR:HG22	50:M4:116:GLU:N	2.18	0.45
52:M6:149:TYR:O	52:M6:153:VAL:HG23	2.16	0.45
53:M7:89:LYS:HA	53:M7:92:GLN:HG2	1.98	0.45
61:N5:80:ASN:ND2	61:N5:126:LEU:O	2.49	0.45
63:N7:46:ILE:CD1	63:N7:49:TYR:HA	2.44	0.45
72:O6:87:VAL:O	72:O6:90:MET:N	2.49	0.45
75:O9:30:ARG:HE	75:O9:30:ARG:HB2	1.52	0.45
1:6:55:A:C2	1:6:426:G:C5	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:195:G:H2'	1:6:196:G:C5'	2.46	0.45
1:6:1044:U:H2'	1:6:1045:C:C6	2.52	0.45
1:6:1067:C:H2'	1:6:1068:C:C6	2.51	0.45
1:6:1125:A:P	77:q1:18:ARG:HH12	2.39	0.45
1:6:1297:G:N2	1:6:1300:A:OP2	2.45	0.45
1:6:1489:U:O4'	1:6:1494:C:C2	2.69	0.45
1:6:1606:C:H2'	1:6:1607:G:C8	2.51	0.45
1:6:1773:C:C2	1:6:1789:G:C2	3.04	0.45
2:s0:30:GLN:NE2	2:s0:32:HIS:HB2	2.32	0.45
2:s0:41:ARG:N	2:s0:45:VAL:O	2.50	0.45
4:s2:88:LYS:HG2	4:s2:89:GLN:H	1.81	0.45
4:s2:151:PRO:CD	23:d1:9:VAL:HG21	2.47	0.45
11:s9:149:ARG:HG3	11:s9:149:ARG:NH1	2.31	0.45
14:c2:62:LEU:HA	14:c2:120:VAL:HA	1.99	0.45
24:d2:27:ILE:HG22	24:d2:28:ARG:N	2.31	0.45
24:d2:90:THR:O	24:d2:94:LEU:HB2	2.16	0.45
28:d6:12:LYS:HE3	28:d6:16:GLY:CA	2.47	0.45
36:5:725:G:H5'	36:5:726:G:OP2	2.16	0.45
36:5:1008:U:C4	36:5:1043:C:C4	3.04	0.45
36:5:1013:G:N2	36:5:1038:C:C2	2.84	0.45
36:5:1167:U:OP2	69:o3:73:ARG:NH1	2.39	0.45
36:5:1703:U:N3	36:5:1740:U:O2	2.50	0.45
36:5:1872:C:H2'	36:5:1873:U:C6	2.51	0.45
36:5:1920:U:N3	36:5:1930:A:C2	2.84	0.45
36:5:1925:U:O2	79:q3:19:GLY:HA2	2.16	0.45
36:5:2279:A:H2'	36:5:2288:G:O6	2.16	0.45
36:5:2632:G:C6	36:5:2633:U:C4	3.04	0.45
36:5:2744:U:N3	36:5:2745:G:C5	2.85	0.45
36:5:2767:U:H5''	78:q2:33:ALA:H	1.82	0.45
36:5:3195:U:H1'	36:5:3196:U:OP1	2.17	0.45
36:5:3216:G:H5''	36:5:3219:G:C2	2.51	0.45
36:5:3294:A:H2'	36:5:3295:A:O4'	2.16	0.45
38:8:37:A:C8	38:8:39:G:C2	3.05	0.45
38:8:154:C:O2'	45:l8:185:ARG:HG3	2.16	0.45
40:l3:236:LYS:HA	40:l3:236:LYS:HD3	1.70	0.45
41:l4:3:ARG:HB3	41:l4:22:LEU:H	1.82	0.45
42:l5:270:LYS:HG3	42:l5:273:ARG:N	2.31	0.45
43:l6:168:GLY:O	43:l6:170:LYS:HG3	2.16	0.45
44:l7:158:LYS:HD2	44:l7:159:GLN:HA	1.98	0.45
46:l9:37:ASN:OD1	46:l9:39:LYS:HB2	2.17	0.45
47:m0:48:LEU:HB2	47:m0:142:ASP:OD1	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:m4:70:PHE:CZ	50:m4:72:LEU:HD12	2.52	0.45
52:m6:83:ALA:O	52:m6:87:MET:HG3	2.17	0.45
52:m6:95:GLY:O	52:m6:99:LEU:HG	2.16	0.45
54:m8:170:ARG:O	54:m8:171:LYS:HB2	2.16	0.45
56:n0:26:ARG:HH11	57:n1:150:THR:CG2	2.29	0.45
56:n0:154:HIS:CE1	56:n0:170:THR:HG21	2.52	0.45
60:n4:82:ILE:N	60:n4:85:ALA:HB3	2.30	0.45
61:n5:38:LEU:O	61:n5:39:LYS:HB2	2.16	0.45
66:o0:14:LEU:O	66:o0:18:ILE:HD13	2.16	0.45
69:o3:72:THR:CG2	69:o3:84:THR:HG23	2.32	0.45
74:o8:54:LEU:HG	74:o8:56:ILE:HD11	1.99	0.45
79:q3:14:TYR:HB3	79:q3:18:TYR:CE1	2.52	0.45
3:S1:61:LEU:O	3:S1:63:GLY:N	2.49	0.45
6:S4:130:GLN:HB2	6:S4:138:TYR:CZ	2.52	0.45
6:S4:182:TYR:HB2	6:S4:228:ILE:HD13	1.98	0.45
8:S6:72:ARG:HG2	8:S6:98:ARG:HA	1.98	0.45
18:C6:47:LYS:HE2	18:C6:114:ARG:HH21	1.81	0.45
19:C7:13:SER:CB	19:C7:54:THR:HG22	2.47	0.45
22:D0:19:ILE:HA	22:D0:95:ALA:O	2.16	0.45
24:D2:36:LYS:O	24:D2:40:VAL:HG23	2.16	0.45
25:D3:43:PHE:C	25:D3:45:GLY:N	2.75	0.45
28:D6:15:ARG:HD2	28:D6:18:VAL:HG12	1.99	0.45
34:SR:66:HIS:HB3	34:SR:85:TRP:HB2	1.97	0.45
34:SR:135:THR:HG23	34:SR:139:GLN:O	2.17	0.45
36:1:22:G:N3	38:4:40:A:C2	2.84	0.45
36:1:215:G:H2'	36:1:216:G:H8	1.82	0.45
36:1:304:G:H5'	36:1:304:G:C8	2.52	0.45
36:1:839:C:H2'	36:1:840:C:H6	1.82	0.45
36:1:841:A:C6	36:1:842:G:N7	2.84	0.45
36:1:1144:U:O4	36:1:1366:A:C2	2.69	0.45
36:1:1353:U:H4'	36:1:1354:G:OP1	2.16	0.45
36:1:1556:C:OP1	36:1:2169:G:N2	2.49	0.45
36:1:2213:A:C6	36:1:2214:A:C6	3.05	0.45
36:1:2534:G:H1	36:1:2545:C:H42	1.65	0.45
36:1:2886:U:C2	36:1:2911:A:N6	2.84	0.45
36:1:3206:C:O2	56:N0:155:ARG:NH1	2.50	0.45
36:1:3281:U:H2'	36:1:3282:U:C6	2.51	0.45
40:L3:120:LYS:HD3	40:L3:120:LYS:HA	1.68	0.45
40:L3:252:ILE:HA	40:L3:252:ILE:HD12	1.67	0.45
42:L5:155:THR:HA	42:L5:179:ARG:HA	1.97	0.45
45:L8:46:LEU:O	45:L8:48:ARG:N	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:71:VAL:O	46:L9:75:VAL:HG23	2.16	0.45
46:L9:171:ASP:OD1	46:L9:173:ARG:HD3	2.17	0.45
50:M4:20:VAL:CG1	50:M4:68:LEU:HB2	2.46	0.45
57:N1:108:ARG:O	57:N1:112:ASN:N	2.46	0.45
60:N4:6:ASP:OD2	60:N4:8:PHE:N	2.44	0.45
60:N4:115:LYS:H	60:N4:115:LYS:HG2	1.55	0.45
63:N7:31:GLU:HG3	63:N7:32:GLY:N	2.31	0.45
63:N7:54:THR:OG1	63:N7:55:LYS:N	2.49	0.45
66:O0:44:ILE:HG22	66:O0:45:ALA:O	2.17	0.45
1:6:41:A:H61	1:6:466:U:H3	1.64	0.45
1:6:329:G:N2	1:6:340:U:C2	2.84	0.45
1:6:463:U:H2'	1:6:464:A:O4'	2.17	0.45
1:6:595:G:H2'	1:6:596:C:C6	2.51	0.45
1:6:1280:C:H2'	1:6:1281:G:C8	2.47	0.45
1:6:1740:A:H2'	1:6:1741:U:C6	2.51	0.45
3:s1:65:VAL:O	16:c4:34:SER:OG	2.32	0.45
5:s3:100:ALA:O	5:s3:104:SER:N	2.49	0.45
12:c0:5:LYS:HE3	14:c2:39:ASP:OD2	2.17	0.45
21:c9:118:PRO:O	21:c9:119:LYS:HB2	2.17	0.45
22:d0:57:ARG:HD2	22:d0:89:ARG:NH1	2.32	0.45
24:d2:86:ILE:HD11	24:d2:122:SER:OG	2.17	0.45
25:d3:37:ALA:HA	25:d3:41:SER:HB3	1.98	0.45
28:d6:41:ILE:HD12	28:d6:68:TYR:HD1	1.81	0.45
29:d7:75:GLU:HB3	29:d7:76:GLY:H	1.55	0.45
34:sR:211:ILE:HD11	34:sR:225:LEU:HD13	1.97	0.45
36:5:160:G:N2	36:5:262:U:O2	2.50	0.45
36:5:274:G:N2	36:5:292:U:C2	2.85	0.45
36:5:705:A:O2'	36:5:714:G:N2	2.48	0.45
36:5:1073:U:O2'	65:n9:49:GLY:HA3	2.17	0.45
36:5:1079:A:OP2	42:l5:140:ARG:NH1	2.49	0.45
36:5:1402:C:O2'	36:5:1403:C:H5'	2.17	0.45
36:5:1802:C:C4'	70:o4:60:ARG:HG3	2.47	0.45
36:5:1907:C:C5	36:5:1908:A:C5	3.04	0.45
36:5:2383:C:C2'	36:5:2384:A:H5'	2.46	0.45
36:5:2921:U:H2'	36:5:2923:U:H5''	1.98	0.45
36:5:3075:G:H5''	67:o1:62:ARG:O	2.16	0.45
36:5:3121:U:H4'	36:5:3122:A:OP1	2.15	0.45
39:l2:66:PRO:HB2	39:l2:67:TYR:CD2	2.52	0.45
39:l2:105:GLY:HA3	39:l2:160:SER:HB3	1.98	0.45
42:l5:106:ALA:HA	42:l5:171:LEU:HD11	1.99	0.45
42:l5:122:VAL:HG12	42:l5:124:GLU:H	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:l5:211:LEU:HD22	42:l5:219:PHE:HB2	1.98	0.45
44:l7:22:THR:HA	44:l7:25:GLN:OE1	2.16	0.45
47:m0:65:LEU:HD23	47:m0:159:PHE:HZ	1.82	0.45
47:m0:77:THR:O	47:m0:81:GLY:N	2.45	0.45
51:m5:65:ARG:HG3	51:m5:129:TYR:CD1	2.52	0.45
51:m5:99:ARG:O	51:m5:102:ALA:HB3	2.17	0.45
52:m6:110:PRO:O	52:m6:111:PRO:C	2.57	0.45
53:m7:169:THR:OG1	53:m7:172:GLN:NE2	2.48	0.45
54:m8:44:PHE:CE1	54:m8:139:ILE:HD11	2.51	0.45
63:n7:36:HIS:N	63:n7:37:PRO:HD3	2.32	0.45
70:o4:7:PHE:HE2	70:o4:12:PRO:O	1.99	0.45
70:o4:74:ARG:CD	70:o4:85:VAL:HG21	2.46	0.45
1:2:95:G:OP1	6:S4:6:LYS:HE2	2.16	0.45
1:2:273:G:H1	1:2:283:U:H3	1.64	0.45
1:2:388:G:OP1	1:2:423:G:O2'	2.35	0.45
1:2:1274:C:C5	35:SM:96:ARG:HG2	2.52	0.45
1:2:1389:C:O2	1:2:1390:U:H4'	2.16	0.45
1:2:1524:A:H2'	1:2:1525:A:C8	2.52	0.45
2:S0:90:ALA:HA	2:S0:95:ALA:CB	2.47	0.45
2:S0:120:LEU:HD11	2:S0:144:ILE:HG13	1.99	0.45
2:S0:148:ASP:OD1	2:S0:149:LEU:N	2.42	0.45
3:S1:207:LEU:HD12	3:S1:207:LEU:HA	1.71	0.45
9:S7:182:VAL:HG12	9:S7:183:PHE:N	2.31	0.45
10:S8:11:ARG:NH1	10:S8:17:LYS:HB2	2.32	0.45
21:C9:72:GLY:H	21:C9:75:LYS:HD3	1.82	0.45
25:D3:57:LEU:HD13	32:E0:4:VAL:HG11	1.99	0.45
26:D4:51:GLU:OE2	26:D4:52:LYS:N	2.47	0.45
34:SR:239:GLU:O	34:SR:256:THR:HA	2.17	0.45
36:1:950:G:N1	36:1:1367:G:H2'	2.31	0.45
36:1:1014:U:C2'	36:1:1015:U:H5''	2.46	0.45
36:1:1056:U:O5'	36:1:1056:U:H6	2.00	0.45
36:1:1488:G:H2'	36:1:1489:A:H8	1.82	0.45
36:1:2403:G:C5'	36:1:2872:A:C2	2.99	0.45
36:1:2571:U:C1'	36:1:2572:C:H5'	2.39	0.45
40:L3:53:MET:HE2	40:L3:77:THR:CG2	2.47	0.45
40:L3:66:LYS:HZ3	59:N3:120:LYS:HE2	1.82	0.45
44:L7:44:ILE:HG12	44:L7:180:SER:HB3	1.99	0.45
45:L8:246:MET:HE3	45:L8:246:MET:HB2	1.67	0.45
48:M1:75:LYS:HG2	48:M1:75:LYS:O	2.17	0.45
56:N0:42:TRP:O	56:N0:46:GLN:HG3	2.16	0.45
57:N1:14:MET:HE2	57:N1:14:MET:HB3	1.72	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:74:LYS:HG2	61:N5:74:LYS:O	2.17	0.45
73:O7:2:GLY:C	73:O7:4:GLY:H	2.24	0.45
1:6:186:C:C2	1:6:200:A:C2	3.04	0.45
1:6:226:A:H2'	1:6:227:U:H6	1.82	0.45
1:6:1166:A:H2'	1:6:1167:G:O4'	2.17	0.45
1:6:1292:G:H2'	1:6:1293:U:C6	2.51	0.45
1:6:1315:U:OP1	1:6:1328:G:N2	2.46	0.45
1:6:1424:A:O2'	4:s2:92:ALA:HB3	2.17	0.45
1:6:1485:C:C2	1:6:1486:G:H1'	2.51	0.45
5:s3:161:GLY:O	5:s3:164:VAL:HG12	2.17	0.45
8:s6:160:ARG:HD3	60:n4:83:THR:HB	1.98	0.45
16:c4:61:MET:O	16:c4:65:GLN:HG2	2.16	0.45
29:d7:54:VAL:O	29:d7:63:LEU:N	2.49	0.45
31:d9:21:CYS:HA	31:d9:30:LEU:HD21	1.98	0.45
32:e0:13:LYS:HB3	32:e0:13:LYS:HE2	1.43	0.45
36:5:823:C:O5'	36:5:823:C:H6	2.00	0.45
36:5:851:C:OP1	79:q3:3:LYS:HE2	2.16	0.45
36:5:891:G:C6	36:5:892:U:N3	2.85	0.45
36:5:936:A:OP1	64:n8:28:HIS:ND1	2.49	0.45
36:5:1016:C:C5'	36:5:1017:C:H5'	2.47	0.45
36:5:3041:U:O2'	59:n3:43:GLY:HA3	2.17	0.45
36:5:3269:U:C5	43:l6:130:ILE:HD13	2.52	0.45
36:5:3278:C:H2'	36:5:3278:C:O2	2.17	0.45
36:5:3383:G:H2'	36:5:3384:U:C6	2.52	0.45
38:8:62:C:H4'	38:8:63:G:O5'	2.17	0.45
39:l2:118:GLU:HB2	39:l2:125:ALA:CB	2.47	0.45
39:l2:179:LEU:HA	39:l2:179:LEU:HD13	1.72	0.45
40:l3:28:ARG:HH21	40:l3:30:LYS:HE3	1.82	0.45
40:l3:48:GLY:O	40:l3:335:ILE:HD12	2.17	0.45
44:l7:85:PHE:HB2	44:l7:139:PRO:HG3	1.98	0.45
45:l8:91:PHE:CE2	45:l8:185:ARG:HB3	2.52	0.45
52:m6:80:PHE:CD1	52:m6:80:PHE:C	2.93	0.45
55:m9:28:GLU:O	55:m9:32:ILE:HG13	2.17	0.45
57:n1:14:MET:HE3	57:n1:15:PHE:CD2	2.52	0.45
68:o2:18:LYS:HD3	68:o2:30:GLU:CD	2.42	0.45
70:o4:109:THR:HA	70:o4:112:ALA:HB3	1.98	0.45
73:o7:45:ARG:NH1	73:o7:47:TYR:HE2	2.14	0.45
1:2:76:A:H2'	1:2:80:A:N6	2.32	0.45
1:2:329:G:C4	1:2:330:G:C8	3.05	0.45
1:2:1643:U:H5''	1:2:1644:C:OP2	2.17	0.45
4:S2:147:ASN:HB3	23:D1:4:ASP:HA	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:9:HIS:ND1	10:S8:10:LYS:HB2	2.31	0.45
15:C3:27:LYS:HD2	15:C3:28:LEU:HG	1.97	0.45
16:C4:50:ALA:HB3	16:C4:53:ASP:HB2	1.99	0.45
18:C6:109:PHE:HD2	18:C6:117:LEU:HD21	1.81	0.45
29:D7:34:ASP:N	29:D7:34:ASP:OD1	2.50	0.45
36:1:347:G:C2	36:1:353:G:C5	3.04	0.45
36:1:626:U:H2'	36:1:627:U:O4'	2.17	0.45
36:1:885:U:H2'	36:1:886:C:C6	2.47	0.45
36:1:901:G:N3	36:1:902:G:C8	2.84	0.45
36:1:930:U:H2'	36:1:931:C:C6	2.52	0.45
36:1:1047:A:P	84:1:4001:HOH:O	2.75	0.45
36:1:2151:C:O2'	36:1:2243:A:N1	2.43	0.45
36:1:2407:C:H1'	36:1:2818:U:C2	2.52	0.45
36:1:2535:A:N6	36:1:2544:U:H3	2.13	0.45
37:3:35:C:N4	37:3:46:A:H1'	2.32	0.45
39:L2:92:LYS:HA	39:L2:103:PRO:HD2	1.97	0.45
46:L9:90:MET:HE2	46:L9:90:MET:HB3	1.70	0.45
64:N8:67:HIS:ND1	64:N8:67:HIS:N	2.64	0.45
67:O1:23:VAL:HG12	67:O1:24:SER:O	2.17	0.45
70:O4:95:ILE:O	70:O4:99:LYS:HB2	2.17	0.45
72:O6:37:THR:O	72:O6:40:VAL:N	2.49	0.45
79:Q3:59:CYS:C	79:Q3:61:LYS:H	2.25	0.45
1:6:141:U:C2	8:s6:183:ARG:NH2	2.85	0.45
1:6:373:G:O3'	13:c1:96:LYS:HE3	2.16	0.45
1:6:626:U:H2'	1:6:627:C:H6	1.81	0.45
1:6:789:A:H4'	6:s4:106:LYS:HE2	1.99	0.45
1:6:1230:A:C8	1:6:1258:U:C5	3.03	0.45
2:s0:190:ASP:C	2:s0:192:THR:H	2.24	0.45
3:s1:138:PHE:CD2	3:s1:214:LYS:HB3	2.52	0.45
4:s2:52:THR:OG1	4:s2:54:GLU:HG2	2.16	0.45
6:s4:118:GLU:HA	6:s4:121:TYR:CD1	2.51	0.45
8:s6:31:ARG:CZ	8:s6:31:ARG:HB3	2.46	0.45
10:s8:184:LEU:O	10:s8:189:LEU:HD22	2.16	0.45
18:c6:99:GLU:OE2	34:sR:60:SER:HB2	2.16	0.45
33:e1:85:TYR:O	33:e1:86:THR:HG23	2.16	0.45
34:sR:52:GLN:HG2	34:sR:53:LYS:N	2.32	0.45
34:sR:294:TRP:CD2	34:sR:301:LEU:HD13	2.52	0.45
36:5:1085:A:O2'	65:n9:39:PHE:HZ	2.00	0.45
36:5:1207:G:OP1	76:q0:119:ASN:ND2	2.48	0.45
36:5:1556:C:C4	82:5:3846:GET:H621	2.52	0.45
36:5:2207:A:O3'	36:5:2208:A:H4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2213:A:C6	36:5:2214:A:C6	3.05	0.45
36:5:2245:C:C5	36:5:2246:G:C8	3.05	0.45
36:5:3203:U:H2'	36:5:3204:C:H6	1.82	0.45
36:5:3308:C:N3	53:m7:69:ARG:NH1	2.65	0.45
40:l3:281:LYS:NZ	40:l3:352:GLU:O	2.45	0.45
41:l4:198:ARG:HG3	41:l4:198:ARG:HH11	1.82	0.45
41:l4:285:ASP:O	41:l4:289:ILE:HG13	2.17	0.45
44:l7:77:VAL:HG22	57:n1:139:ARG:HD3	1.99	0.45
46:l9:156:GLN:O	46:l9:159:ALA:N	2.49	0.45
47:m0:169:LYS:O	47:m0:170:LYS:HD3	2.17	0.45
48:m1:103:GLY:HA3	48:m1:128:TYR:CD2	2.51	0.45
49:m3:99:HIS:CD2	49:m3:99:HIS:H	2.33	0.45
66:o0:96:GLY:C	66:o0:98:SER:N	2.74	0.45
70:o4:81:CYS:O	70:o4:82:ALA:C	2.59	0.45
71:o5:28:LEU:HB2	71:o5:47:VAL:CG2	2.47	0.45
1:2:79:C:H3'	1:2:80:A:C8	2.51	0.45
1:2:167:U:O4'	8:S6:133:LEU:HB3	2.17	0.45
1:2:545:A:N1	1:2:593:U:O2'	2.41	0.45
1:2:927:C:O2'	16:C4:124:ASP:O	2.34	0.45
1:2:1138:A:H2'	1:2:1139:A:C8	2.52	0.45
1:2:1504:G:C5'	21:C9:97:SER:HB2	2.46	0.45
1:2:1556:A:C5	1:2:1560:U:C2	3.05	0.45
2:S0:24:LEU:HD11	2:S0:41:ARG:HH12	1.82	0.45
2:S0:131:GLN:NE2	2:S0:134:LYS:HE3	2.31	0.45
3:S1:30:PHE:CD1	3:S1:96:LEU:HD22	2.52	0.45
3:S1:63:GLY:HA2	3:S1:88:VAL:O	2.17	0.45
7:S5:53:VAL:HG21	7:S5:59:VAL:HG22	1.98	0.45
19:C7:20:TYR:O	19:C7:24:LEU:HD12	2.17	0.45
24:D2:28:ARG:HG3	24:D2:29:PRO:HA	1.99	0.45
26:D4:20:ARG:HB3	26:D4:76:TYR:CD2	2.51	0.45
28:D6:10:ARG:NH2	28:D6:36:ILE:HG12	2.31	0.45
36:1:168:U:C2	36:1:169:U:C5	3.05	0.45
36:1:216:G:N2	36:1:217:U:H1'	2.32	0.45
36:1:353:G:N7	73:O7:55:ARG:HD3	2.32	0.45
36:1:552:G:C6	36:1:553:U:C4	3.05	0.45
36:1:1404:G:N1	36:1:1408:G:C6	2.85	0.45
36:1:1412:G:H2'	36:1:1413:G:C8	2.52	0.45
36:1:2126:A:N1	36:1:2328:U:C4	2.85	0.45
36:1:2680:A:C4	48:M1:57:PHE:CD2	3.05	0.45
36:1:2749:G:H2'	36:1:2750:U:C6	2.52	0.45
40:L3:105:VAL:HG21	40:L3:148:LEU:CD1	2.41	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:78:PHE:C	45:L8:80:TYR:H	2.25	0.45
50:M4:36:VAL:HG11	50:M4:55:ARG:HH22	1.80	0.45
64:N8:44:ASN:O	64:N8:48:TYR:HB2	2.16	0.45
65:N9:23:LYS:HD2	65:N9:23:LYS:HA	1.82	0.45
65:N9:58:LYS:HA	65:N9:58:LYS:HD2	1.40	0.45
1:6:1067:C:H5''	3:s1:150:VAL:HG13	1.98	0.45
1:6:1199:G:C6	31:d9:40:ARG:HG2	2.52	0.45
1:6:1469:A:H4'	1:6:1541:G:H4'	1.99	0.45
2:s0:127:ARG:HH21	2:s0:151:SER:HA	1.82	0.45
4:s2:151:PRO:HD2	23:d1:9:VAL:HG21	1.99	0.45
9:s7:9:LEU:HB2	9:s7:10:SER:H	1.53	0.45
9:s7:173:TYR:CE1	9:s7:181:ILE:HD11	2.52	0.45
10:s8:162:ALA:HA	36:5:3353:G:O5'	2.16	0.45
15:c3:47:PRO:HG3	15:c3:75:LEU:HD13	1.99	0.45
23:d1:69:LEU:HD23	23:d1:69:LEU:HA	1.83	0.45
34:sR:19:TRP:HB2	34:sR:38:ARG:HG3	1.97	0.45
36:5:661:G:C5	36:5:802:C:C6	3.05	0.45
36:5:677:A:H2'	36:5:785:G:C6	2.51	0.45
36:5:1169:A:N6	36:5:1170:A:N1	2.65	0.45
36:5:1379:G:C5	36:5:1380:G:N7	2.85	0.45
36:5:1481:A:H2'	36:5:1858:A:N3	2.32	0.45
36:5:1821:U:H4'	36:5:1822:C:OP2	2.16	0.45
36:5:1904:C:N3	36:5:2951:G:H5'	2.32	0.45
36:5:2202:C:H5''	39:l2:226:SER:N	2.32	0.45
38:8:155:A:H4'	45:l8:185:ARG:HD2	1.99	0.45
39:l2:4:VAL:HG13	39:l2:8:GLN:HB2	1.99	0.45
48:m1:166:LYS:O	48:m1:168:ASP:N	2.50	0.45
49:m3:77:LEU:H	49:m3:77:LEU:HG	1.54	0.45
49:m3:122:LYS:HE2	71:o5:119:LYS:HZ2	1.81	0.45
56:n0:91:TYR:OH	56:n0:93:GLU:OE2	2.24	0.45
59:n3:45:ARG:HB3	59:n3:48:ARG:HB2	1.99	0.45
62:n6:31:LEU:HA	62:n6:31:LEU:HD23	1.70	0.45
64:n8:74:ASN:HB3	64:n8:76:ASP:HB3	1.99	0.45
64:n8:116:GLY:O	64:n8:137:LYS:NZ	2.49	0.45
68:o2:21:HIS:ND1	68:o2:24:ARG:HD2	2.32	0.45
76:q0:95:VAL:HB	76:q0:122:ARG:HG3	1.98	0.45
80:p0:29:GLY:O	80:p0:185:LEU:HB2	2.16	0.45
1:2:330:G:C6	1:2:331:A:C5	3.05	0.45
1:2:359:A:C8	1:2:359:A:C3'	2.99	0.45
1:2:386:G:OP2	10:S8:25:ARG:NH2	2.50	0.45
1:2:859:A:C5	15:C3:73:ARG:NE	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:971:A:P	84:2:2141:HOH:O	2.74	0.45
1:2:1085:G:H2'	1:2:1087:A:OP2	2.17	0.45
1:2:1685:G:C2	1:2:1717:G:C2	3.04	0.45
2:S0:41:ARG:HE	2:S0:45:VAL:CB	2.29	0.45
4:S2:147:ASN:ND2	23:D1:3:ASN:O	2.49	0.45
9:S7:133:THR:OG1	9:S7:134:GLU:N	2.48	0.45
12:C0:15:LEU:HD13	12:C0:21:VAL:HG23	1.99	0.45
19:C7:65:PRO:HB3	19:C7:74:GLN:OE1	2.16	0.45
32:E0:56:MET:HE3	32:E0:56:MET:HB2	1.90	0.45
36:1:52:A:N3	36:1:811:U:O2'	2.50	0.45
36:1:150:A:OP1	51:M5:56:LYS:NZ	2.42	0.45
36:1:813:G:C2	36:1:814:U:C6	3.05	0.45
36:1:1658:G:O2'	36:1:1659:U:H5'	2.16	0.45
36:1:1804:A:OP1	70:O4:70:LYS:HE3	2.17	0.45
37:3:27:A:OP2	42:L5:57:ASN:HB2	2.17	0.45
41:L4:246:ARG:HG2	41:L4:247:PHE:H	1.82	0.45
42:L5:76:ALA:CB	42:L5:109:THR:HG22	2.45	0.45
42:L5:93:THR:O	42:L5:93:THR:OG1	2.33	0.45
43:L6:30:LEU:HD11	43:L6:57:HIS:CD2	2.52	0.45
45:L8:84:ARG:NE	45:L8:84:ARG:H	2.15	0.45
47:M0:54:SER:O	47:M0:132:GLY:N	2.50	0.45
47:M0:77:THR:HG23	47:M0:85:PHE:HZ	1.81	0.45
50:M4:37:GLU:HG3	50:M4:38:ILE:H	1.82	0.45
51:M5:35:VAL:HG12	51:M5:36:ILE:HG13	1.99	0.45
54:M8:178:ARG:HD3	54:M8:178:ARG:HA	1.73	0.45
56:N0:12:ARG:HB3	56:N0:24:LEU:H	1.82	0.45
78:Q2:83:LEU:HD23	78:Q2:83:LEU:HA	1.54	0.45
1:6:225:A:H2'	1:6:226:A:C8	2.52	0.45
1:6:244:A:P	6:s4:155:LYS:HZ1	2.40	0.45
1:6:755:A:C2	1:6:756:A:C4	3.05	0.45
1:6:1054:U:H2'	1:6:1055:U:C6	2.52	0.45
1:6:1471:A:P	7:s5:185:ARG:HH11	2.40	0.45
1:6:1795:U:O2	28:d6:10:ARG:NE	2.50	0.45
2:s0:67:ILE:HG21	2:s0:73:VAL:HG23	1.98	0.45
6:s4:70:VAL:HG22	6:s4:92:LEU:HD22	1.99	0.45
7:s5:20:PHE:CE2	7:s5:22:PRO:HG3	2.52	0.45
7:s5:133:VAL:O	7:s5:137:ILE:HG13	2.17	0.45
8:s6:137:ARG:HD3	8:s6:177:ARG:NE	2.32	0.45
24:d2:106:THR:O	24:d2:109:GLY:N	2.38	0.45
27:d5:49:ARG:O	27:d5:53:GLU:HB2	2.17	0.45
36:5:170:G:HO2'	36:5:171:G:P	2.40	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:190:U:H2'	62:n6:60:ARG:HH21	1.79	0.45
36:5:420:G:H1'	36:5:2385:G:C5'	2.47	0.45
36:5:559:A:N6	36:5:560:G:N3	2.65	0.45
36:5:819:U:HO2'	36:5:918:C:HO2'	1.63	0.45
36:5:860:G:OP1	79:q3:17:ARG:NH1	2.50	0.45
36:5:1048:A:H5''	36:5:1049:C:H5'	1.99	0.45
36:5:1323:G:O3'	56:n0:2:ALA:HA	2.17	0.45
36:5:1459:C:O3'	67:o1:51:LEU:HB2	2.17	0.45
36:5:2179:C:N3	39:12:172:GLY:O	2.49	0.45
36:5:2281:A:C6	36:5:2959:C:H1'	2.52	0.45
36:5:2407:C:H1'	36:5:2818:U:O2	2.17	0.45
36:5:2511:A:H5'	36:5:2511:A:H8	1.82	0.45
36:5:2667:A:H2'	36:5:2668:U:O4'	2.17	0.45
36:5:3024:A:C4'	46:l9:97:PHE:HE2	2.30	0.45
41:l4:25:VAL:HG21	41:l4:262:TRP:HB2	1.99	0.45
42:l5:88:ILE:HD13	42:l5:239:ILE:HG22	1.99	0.45
44:l7:132:PRO:HA	44:l7:229:PHE:CD1	2.51	0.45
46:l9:180:TYR:HB2	76:q0:85:LEU:HD13	1.97	0.45
50:m4:61:GLY:C	50:m4:63:VAL:H	2.25	0.45
55:m9:28:GLU:O	55:m9:31:GLU:HB2	2.17	0.45
59:n3:15:LEU:HD23	59:n3:15:LEU:HA	1.62	0.45
59:n3:94:TYR:OH	60:n4:41:LYS:HE2	2.17	0.45
61:n5:94:GLN:HA	61:n5:97:LYS:HB3	1.98	0.45
73:o7:73:ARG:HH11	73:o7:78:PHE:HD1	1.65	0.45
80:p0:19:LEU:HD22	80:p0:73:PHE:CZ	2.52	0.45
1:2:116:U:C2	1:2:117:U:C5	3.05	0.45
1:2:149:C:H2'	1:2:150:U:C6	2.51	0.45
1:2:536:C:OP2	11:S9:171:ARG:HD3	2.17	0.45
1:2:544:A:H5'	1:2:545:A:OP2	2.17	0.45
1:2:1094:G:N2	1:2:1095:U:C2	2.85	0.45
1:2:1173:C:H3'	20:C8:141:THR:HG21	1.99	0.45
1:2:1192:C:C4	1:2:1193:A:C5	3.05	0.45
1:2:1651:A:C2	1:2:1750:A:C2	3.05	0.45
3:S1:103:MET:HG2	3:S1:104:ASP:N	2.30	0.45
7:S5:74:ALA:HB2	18:C6:79:TYR:CE1	2.52	0.45
7:S5:94:THR:CB	7:S5:114:ILE:HG13	2.41	0.45
15:C3:89:TYR:CE1	15:C3:93:LYS:HD3	2.52	0.45
21:C9:28:LEU:HD22	21:C9:30:VAL:HG13	1.98	0.45
36:1:357:A:C2	36:1:363:G:N3	2.84	0.45
36:1:593:C:OP2	43:L6:19:LYS:HG2	2.15	0.45
36:1:765:C:H4'	36:1:766:U:OP1	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1063:G:N3	36:1:1066:G:O2'	2.35	0.45
36:1:1105:A:C2	36:1:1106:G:C4	3.05	0.45
36:1:1317:A:C8	36:1:1319:G:C8	3.05	0.45
36:1:1536:G:H2'	36:1:1537:A:H8	1.82	0.45
36:1:2183:A:OP1	39:L2:10:LYS:HD2	2.17	0.45
36:1:2340:U:OP1	40:L3:236:LYS:HE3	2.17	0.45
36:1:2361:A:N6	36:1:2376:G:O6	2.50	0.45
36:1:2925:C:C5	36:1:2926:A:N7	2.85	0.45
37:3:22:A:H2'	37:3:23:A:H8	1.82	0.45
38:4:96:A:OP1	73:O7:80:THR:HA	2.17	0.45
39:L2:181:LYS:HD3	79:Q3:18:TYR:OH	2.17	0.45
40:L3:147:GLU:O	40:L3:150:ARG:HB3	2.17	0.45
40:L3:211:GLN:HG2	40:L3:285:VAL:HG23	1.99	0.45
41:L4:177:ASP:O	41:L4:180:LYS:HB3	2.16	0.45
41:L4:207:VAL:HG22	41:L4:249:ILE:HB	1.99	0.45
42:L5:289:LYS:O	42:L5:293:LEU:HB2	2.17	0.45
42:L5:290:ILE:HG23	47:M0:206:LEU:HD21	1.99	0.45
42:L5:290:ILE:O	42:L5:294:ALA:HB2	2.17	0.45
45:L8:193:LYS:HE3	45:L8:193:LYS:HB2	1.78	0.45
49:M3:55:ARG:HG3	49:M3:73:ARG:O	2.17	0.45
50:M4:85:TRP:NE1	50:M4:90:VAL:HB	2.32	0.45
53:M7:24:VAL:HG13	53:M7:86:LYS:HG2	1.99	0.45
54:M8:110:ALA:O	54:M8:114:ILE:HG13	2.17	0.45
55:M9:92:GLN:O	55:M9:96:ILE:HG13	2.16	0.45
57:N1:78:LYS:HB3	57:N1:87:LYS:HG3	1.97	0.45
63:N7:36:HIS:HA	63:N7:38:PHE:CE1	2.52	0.45
67:O1:26:LYS:HA	67:O1:26:LYS:HD2	1.59	0.45
69:O3:39:GLN:CD	69:O3:39:GLN:H	2.25	0.45
73:O7:28:HIS:HD2	73:O7:31:LYS:HE2	1.81	0.45
74:O8:69:LEU:HD13	74:O8:69:LEU:HA	1.65	0.45
76:Q0:96:CYS:HB3	76:Q0:100:TYR:H	1.82	0.45
1:6:391:A:C4	1:6:392:G:C8	3.05	0.45
1:6:778:G:O6	26:d4:10:ARG:HB3	2.17	0.45
1:6:1144:U:O2'	1:6:1301:U:O2'	2.33	0.45
1:6:1174:C:H2'	1:6:1175:U:O4'	2.16	0.45
1:6:1565:C:H5''	20:c8:41:ARG:NH2	2.31	0.45
1:6:1746:A:H3'	1:6:1747:G:H8	1.81	0.45
1:6:1796:C:OP1	28:d6:87:ARG:NH1	2.50	0.45
2:s0:62:ARG:HD3	23:d1:37:ALA:O	2.17	0.45
3:s1:105:PHE:CD2	3:s1:213:ARG:HA	2.52	0.45
7:s5:57:SER:OG	7:s5:58:LEU:N	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:s8:147:ALA:C	10:s8:149:SER:H	2.24	0.45
30:d8:10:ALA:HB1	30:d8:30:VAL:HB	1.99	0.45
33:e1:81:LYS:HB3	33:e1:82:LYS:H	1.68	0.45
36:5:255:A:H2'	36:5:256:G:C8	2.51	0.45
36:5:269:G:H5''	51:m5:14:LYS:HE2	1.98	0.45
36:5:839:C:H2'	36:5:840:C:H6	1.82	0.45
36:5:1367:G:OP1	68:o2:45:ARG:NH2	2.50	0.45
36:5:2154:U:H4'	39:l2:240:ALA:CB	2.44	0.45
36:5:2561:A:N1	45:l8:32:LYS:HB2	2.32	0.45
36:5:2730:G:H4'	54:m8:184:PHE:CG	2.52	0.45
36:5:2957:G:H5'	36:5:2957:G:C8	2.47	0.45
36:5:3191:G:C6	36:5:3192:U:C4	3.05	0.45
40:l3:46:PHE:HB2	40:l3:209:PHE:HE2	1.81	0.45
40:l3:109:HIS:HB2	40:l3:200:GLU:CD	2.42	0.45
40:l3:361:THR:HG22	40:l3:371:GLN:OE1	2.17	0.45
41:l4:330:TYR:HB2	44:l7:45:LEU:HD23	1.99	0.45
45:l8:24:ASN:C	45:l8:26:LEU:H	2.21	0.45
49:m3:47:ALA:O	49:m3:49:ARG:N	2.50	0.45
54:m8:86:THR:CG2	54:m8:105:ARG:HB3	2.46	0.45
59:n3:79:VAL:HB	59:n3:118:VAL:HG22	1.99	0.45
61:n5:115:ARG:HH11	61:n5:115:ARG:CG	2.30	0.45
62:n6:34:PRO:HA	62:n6:47:ALA:HA	1.99	0.45
64:n8:126:LYS:HB3	64:n8:148:ILE:HG21	1.99	0.45
66:o0:41:LEU:HB3	66:o0:92:ILE:HG13	1.97	0.45
1:2:102:U:H3'	1:2:360:A:H61	1.82	0.44
1:2:381:C:P	11:S9:2:PRO:HA	2.57	0.44
1:2:524:U:H2'	1:2:526:A:OP2	2.17	0.44
1:2:1360:A:H8	1:2:1360:A:OP2	2.00	0.44
3:S1:144:ARG:HB3	3:S1:208:GLN:HB3	2.00	0.44
15:C3:75:LEU:O	15:C3:80:LEU:N	2.41	0.44
20:C8:72:ILE:HG12	20:C8:79:TYR:CD1	2.52	0.44
23:D1:4:ASP:OD1	23:D1:5:LYS:HD3	2.17	0.44
24:D2:31:SER:OG	24:D2:33:VAL:N	2.50	0.44
27:D5:61:SER:H	27:D5:64:VAL:HB	1.82	0.44
35:SM:61:ILE:H	35:SM:61:ILE:HG13	1.56	0.44
36:1:120:G:C6	45:L8:128:LYS:HB2	2.52	0.44
36:1:174:C:H2'	36:1:175:C:H6	1.82	0.44
36:1:196:G:N2	36:1:199:A:OP2	2.50	0.44
36:1:219:A:O2'	36:1:220:G:H8	2.00	0.44
36:1:283:G:H21	36:1:285:A:H5''	1.82	0.44
36:1:304:G:H8	36:1:304:G:H2'	1.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:385:A:H2'	36:1:386:A:H8	1.81	0.44
36:1:402:A:OP1	75:O9:36:ARG:NH2	2.50	0.44
36:1:405:U:C5	36:1:406:G:C5	3.05	0.44
36:1:1098:A:C2	36:1:1099:A:C8	3.05	0.44
36:1:1105:A:H2'	36:1:1106:G:H8	1.81	0.44
36:1:1339:C:C2	36:1:1340:G:C8	3.05	0.44
36:1:1481:A:C5	36:1:1859:A:C8	3.05	0.44
36:1:1518:U:H2'	36:1:1519:G:O4'	2.17	0.44
36:1:1783:U:H2'	36:1:1784:G:H8	1.82	0.44
36:1:2215:A:H1'	36:1:2430:A:O2'	2.17	0.44
36:1:2261:G:O2'	36:1:2263:C:N4	2.50	0.44
36:1:2273:G:O2'	36:1:2311:G:O6	2.33	0.44
36:1:2590:A:C4	36:1:2591:A:C8	3.06	0.44
36:1:2741:C:H4'	78:Q2:19:LYS:HA	1.99	0.44
36:1:2805:G:H2'	36:1:2806:U:H6	1.81	0.44
36:1:2951:G:H2'	36:1:2952:G:H8	1.82	0.44
36:1:3194:C:C2'	36:1:3195:U:H2'	2.43	0.44
37:3:17:A:OP1	42:L5:2:ALA:N	2.51	0.44
39:L2:5:ILE:HG22	39:L2:208:ASP:O	2.16	0.44
40:L3:106:TRP:CH2	40:L3:161:LEU:HD13	2.52	0.44
40:L3:117:ARG:NH1	40:L3:175:LYS:HD3	2.32	0.44
43:L6:39:VAL:HB	43:L6:87:THR:OG1	2.17	0.44
44:L7:174:GLY:HA2	44:L7:177:GLY:O	2.17	0.44
51:M5:23:GLN:HG2	51:M5:122:ASN:OD1	2.17	0.44
55:M9:23:TRP:CE3	55:M9:51:VAL:HG13	2.52	0.44
64:N8:38:GLN:HG3	64:N8:53:PHE:CZ	2.52	0.44
66:O0:14:LEU:HD23	66:O0:14:LEU:HA	1.86	0.44
68:O2:8:LYS:HE3	68:O2:8:LYS:HB2	1.83	0.44
68:O2:75:LEU:HD23	68:O2:75:LEU:HA	1.85	0.44
72:O6:60:LEU:HD12	72:O6:69:ALA:HA	1.98	0.44
1:6:248:U:H4'	13:c1:36:LYS:HD2	1.99	0.44
1:6:511:A:OP2	11:s9:176:ASN:ND2	2.46	0.44
1:6:542:A:HO2'	1:6:543:C:H3'	1.82	0.44
1:6:586:G:H2'	1:6:587:C:C6	2.52	0.44
1:6:1230:A:H8	1:6:1258:U:C4	2.35	0.44
1:6:1332:C:H4'	5:s3:203:PRO:HG2	1.99	0.44
1:6:1497:U:C2	1:6:1498:G:C8	3.05	0.44
3:s1:180:THR:HG23	3:s1:183:GLN:NE2	2.32	0.44
6:s4:101:LEU:HD23	6:s4:101:LEU:HA	1.80	0.44
7:s5:151:GLY:HA3	7:s5:156:ARG:N	2.32	0.44
10:s8:151:LYS:HD2	10:s8:151:LYS:HA	1.59	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:c1:46:LYS:O	13:c1:50:GLU:HG2	2.17	0.44
18:c6:55:VAL:HG21	18:c6:105:LEU:HG	1.99	0.44
22:d0:100:VAL:O	22:d0:104:THR:HG23	2.17	0.44
24:d2:64:GLN:C	24:d2:65:LEU:HD13	2.42	0.44
27:d5:39:ALA:HB3	27:d5:70:LYS:O	2.16	0.44
35:sM:74:LYS:HE2	35:sM:74:LYS:HB2	1.89	0.44
36:5:165:A:H5''	36:5:165:A:H8	1.82	0.44
36:5:251:G:C5	36:5:253:A:C6	3.06	0.44
36:5:722:G:C5	36:5:723:U:C5	3.06	0.44
36:5:998:A:H4'	37:7:103:A:N3	2.32	0.44
36:5:1240:A:H2'	36:5:1241:U:H5'	1.99	0.44
36:5:1402:C:H2'	36:5:1403:C:H6	1.82	0.44
36:5:1608:C:H5''	61:n5:111:ASN:ND2	2.32	0.44
36:5:1922:A:H3'	36:5:1923:C:H6	1.82	0.44
36:5:2136:C:C5	36:5:2142:A:C5	3.05	0.44
36:5:2255:A:C2	36:5:2262:A:C6	3.05	0.44
36:5:3089:C:H2'	36:5:3090:U:O4'	2.17	0.44
36:5:3113:A:O2'	46:l9:70:THR:HG22	2.17	0.44
39:l2:180:LEU:HG	79:q3:26:VAL:HG21	1.99	0.44
40:l3:106:TRP:HB2	40:l3:133:TYR:CE2	2.52	0.44
43:l6:30:LEU:HD11	43:l6:57:HIS:CD2	2.52	0.44
43:l6:42:LEU:HD23	43:l6:42:LEU:HA	1.74	0.44
43:l6:163:PHE:CD1	43:l6:163:PHE:C	2.95	0.44
46:l9:41:ILE:HD13	46:l9:41:ILE:HA	1.82	0.44
47:m0:48:LEU:O	47:m0:139:ARG:HA	2.17	0.44
51:m5:150:TRP:CZ3	51:m5:151:ILE:HG13	2.52	0.44
52:m6:147:TRP:CH2	52:m6:150:GLU:HA	2.53	0.44
54:m8:28:LEU:O	54:m8:31:LYS:N	2.50	0.44
57:n1:108:ARG:NH1	57:n1:130:ARG:HD2	2.32	0.44
60:n4:8:PHE:CZ	60:n4:39:LEU:HB3	2.52	0.44
62:n6:27:ARG:HD3	62:n6:75:ARG:O	2.17	0.44
62:n6:56:VAL:HG11	62:n6:104:LEU:HD13	2.00	0.44
62:n6:59:VAL:HG22	62:n6:103:LYS:O	2.17	0.44
65:n9:32:LEU:HD12	65:n9:40:ARG:NH2	2.32	0.44
68:o2:13:HIS:CD2	68:o2:15:LYS:H	2.34	0.44
71:o5:28:LEU:HB2	71:o5:47:VAL:HG21	1.99	0.44
72:o6:83:ALA:O	72:o6:86:LYS:N	2.50	0.44
78:q2:58:PHE:CZ	78:q2:60:LYS:O	2.70	0.44
79:q3:17:ARG:O	79:q3:19:GLY:N	2.50	0.44
1:2:423:G:H4'	1:2:424:C:OP1	2.17	0.44
1:2:753:A:H2'	1:2:754:A:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:773:C:H4'	1:2:774:A:H5'	1.99	0.44
1:2:1000:C:C5	1:2:1003:A:H2'	2.52	0.44
1:2:1054:U:C4	1:2:1055:U:C4	3.05	0.44
1:2:1226:A:N3	1:2:1256:A:H2	2.15	0.44
1:2:1735:U:H2'	1:2:1736:G:O4'	2.17	0.44
3:S1:218:LEU:H	3:S1:218:LEU:HD22	1.81	0.44
4:S2:98:PHE:O	4:S2:117:THR:HA	2.17	0.44
5:S3:101:GLN:HG3	5:S3:126:VAL:CG2	2.47	0.44
6:S4:95:THR:HG22	26:D4:16:PRO:CG	2.47	0.44
11:S9:105:LEU:O	11:S9:108:ARG:HG3	2.16	0.44
13:C1:6:THR:O	13:C1:8:GLN:N	2.50	0.44
14:C2:97:LEU:HD12	14:C2:118:ALA:HB1	1.98	0.44
16:C4:29:HIS:CB	16:C4:41:ARG:HG3	2.37	0.44
17:C5:90:ILE:HD11	17:C5:112:LEU:HD21	1.99	0.44
24:D2:31:SER:HG	24:D2:34:ILE:H	1.54	0.44
24:D2:50:PHE:HB3	24:D2:63:VAL:HG13	1.99	0.44
24:D2:95:PRO:HD3	24:D2:130:TYR:CE1	2.51	0.44
24:D2:98:GLN:H	24:D2:98:GLN:HG2	1.53	0.44
36:1:372:A:H2'	36:1:373:A:O4'	2.17	0.44
36:1:547:G:O2'	36:1:548:G:O4'	2.34	0.44
36:1:2288:G:H5''	36:1:2289:U:OP2	2.17	0.44
36:1:2393:G:O2'	36:1:2982:A:N6	2.49	0.44
36:1:2404:A:H5''	36:1:2404:A:H8	1.82	0.44
36:1:2572:C:P	63:N7:59:ALA:HB2	2.57	0.44
36:1:2910:A:H5''	36:1:2910:A:H8	1.81	0.44
36:1:3024:A:H4'	46:L9:97:PHE:CE2	2.52	0.44
36:1:3045:G:C2	36:1:3046:A:H1'	2.52	0.44
37:3:31:U:C2	37:3:32:U:C5	3.05	0.44
38:4:53:A:C4	38:4:54:A:C8	3.05	0.44
40:L3:76:VAL:HG12	40:L3:325:LYS:HA	2.00	0.44
46:L9:3:TYR:CD2	46:L9:3:TYR:N	2.85	0.44
47:M0:14:ASN:HD22	47:M0:14:ASN:HA	1.66	0.44
48:M1:21:ILE:O	48:M1:66:ALA:HB1	2.17	0.44
48:M1:103:GLY:HA3	48:M1:128:TYR:CD2	2.52	0.44
62:N6:63:LYS:HG3	62:N6:85:VAL:HG11	1.99	0.44
66:O0:39:SER:OG	66:O0:65:THR:HG21	2.17	0.44
1:6:187:G:H4'	1:6:188:A:OP1	2.18	0.44
1:6:260:U:O4	10:s8:42:ARG:HA	2.17	0.44
1:6:486:G:N2	1:6:501:U:H3	2.12	0.44
1:6:747:C:H4'	24:d2:80:ASN:CG	2.43	0.44
1:6:774:A:C5	1:6:775:G:H1'	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1471:A:OP2	7:s5:185:ARG:HD3	2.17	0.44
1:6:1656:U:H2'	1:6:1658:G:O4'	2.18	0.44
1:6:1740:A:H2'	1:6:1741:U:H6	1.82	0.44
2:s0:126:PRO:HG2	2:s0:152:PRO:HD2	1.98	0.44
2:s0:172:LEU:O	2:s0:176:LEU:HG	2.17	0.44
4:s2:121:VAL:HG11	35:sM:117:LEU:HD12	1.98	0.44
5:s3:206:VAL:HG13	19:c7:41:ILE:HG12	1.99	0.44
6:s4:7:LYS:N	6:s4:7:LYS:HD2	2.32	0.44
6:s4:244:ILE:HA	6:s4:244:ILE:HD12	1.63	0.44
7:s5:62:VAL:HG13	7:s5:89:ILE:HG12	1.98	0.44
11:s9:134:ILE:HD12	11:s9:134:ILE:N	2.32	0.44
12:c0:23:ALA:HB1	12:c0:64:TYR:HD2	1.83	0.44
17:c5:107:ILE:HA	17:c5:111:MET:SD	2.57	0.44
35:sM:109:GLY:C	35:sM:110:TRP:HD1	2.24	0.44
36:5:181:U:C4	36:5:182:U:C5	3.06	0.44
36:5:388:G:H2'	36:5:389:A:O4'	2.16	0.44
36:5:769:G:O2'	36:5:770:G:H5'	2.17	0.44
36:5:1124:U:H2'	36:5:1125:U:C6	2.52	0.44
36:5:1729:A:N1	66:o0:49:PRO:HD3	2.33	0.44
36:5:1779:C:H5''	36:5:1780:G:OP2	2.17	0.44
36:5:1867:A:C2	36:5:1868:G:C4	3.05	0.44
36:5:2341:A:O2'	36:5:3090:U:O2'	2.32	0.44
36:5:2514:U:OP1	36:5:2514:U:C6	2.65	0.44
36:5:2974:U:H2'	36:5:2975:U:H6	1.77	0.44
36:5:3060:C:H1'	36:5:3332:U:H1'	1.98	0.44
36:5:3334:U:H1'	36:5:3370:A:C4	2.52	0.44
82:5:3849:GET:H421	84:5:4211:HOH:O	2.17	0.44
38:8:132:G:C2	38:8:133:G:C8	3.06	0.44
38:8:142:C:H5''	51:m5:38:ARG:NH1	2.32	0.44
43:l6:67:GLY:O	43:l6:72:ASN:ND2	2.49	0.44
44:l7:82:LYS:HB3	44:l7:191:VAL:HG21	1.99	0.44
45:l8:139:VAL:HA	45:l8:142:LEU:HD12	1.99	0.44
45:l8:235:GLY:O	45:l8:237:ILE:HD12	2.17	0.44
46:l9:25:VAL:O	46:l9:35:THR:HA	2.16	0.44
49:m3:194:GLU:CD	49:m3:195:ALA:HB2	2.42	0.44
61:n5:115:ARG:HH11	61:n5:115:ARG:HG3	1.81	0.44
72:o6:81:THR:HA	72:o6:84:LYS:HZ2	1.81	0.44
1:2:446:A:H5''	6:S4:57:ASN:HB3	2.00	0.44
1:2:858:G:H4'	9:S7:113:PRO:HG3	1.99	0.44
1:2:1166:A:H2'	1:2:1167:G:O4'	2.17	0.44
1:2:1196:A:C8	1:2:1602:C:H4'	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1256:A:H4'	1:2:1257:U:O2	2.17	0.44
1:2:1401:A:C8	1:2:1402:G:C8	3.05	0.44
1:2:1511:U:H2'	1:2:1512:G:H8	1.81	0.44
1:2:1636:C:C2	1:2:1765:A:N6	2.86	0.44
1:2:1794:A:C6	28:D6:76:SER:HB3	2.53	0.44
2:S0:9:LEU:HD23	2:S0:54:TRP:CD2	2.53	0.44
2:S0:202:TYR:O	2:S0:203:PHE:CG	2.70	0.44
5:S3:11:LEU:HD12	22:D0:86:ILE:HG12	1.99	0.44
10:S8:150:ALA:O	10:S8:152:ILE:HG13	2.18	0.44
16:C4:117:ASP:OD1	16:C4:119:THR:HG23	2.18	0.44
18:C6:82:ARG:HH22	18:C6:114:ARG:HB3	1.83	0.44
23:D1:10:GLU:OE2	23:D1:10:GLU:HA	2.17	0.44
34:SR:211:ILE:O	34:SR:222:LEU:HD13	2.16	0.44
36:1:348:A:H1'	36:1:352:A:N3	2.33	0.44
36:1:362:U:H2'	36:1:363:G:O4'	2.16	0.44
36:1:688:G:C6	36:1:690:A:C5	3.05	0.44
36:1:696:C:OP1	41:L4:272:VAL:N	2.45	0.44
36:1:814:U:C2	36:1:815:G:C8	3.05	0.44
36:1:1556:C:H6	36:1:1556:C:H2'	1.21	0.44
36:1:1557:A:H5''	45:L8:54:GLU:CD	2.42	0.44
36:1:1613:A:C2	36:1:1614:C:C2	3.05	0.44
36:1:2218:G:H2'	36:1:2219:A:C8	2.49	0.44
36:1:2255:A:C2	36:1:2262:A:C6	3.05	0.44
36:1:2555:G:O2'	70:O4:88:ARG:HB2	2.18	0.44
36:1:2626:A:C4	36:1:2644:C:H5'	2.52	0.44
36:1:3082:C:H2'	36:1:3083:G:H8	1.82	0.44
36:1:3298:C:C4	36:1:3299:A:C5	3.05	0.44
36:1:3315:G:OP1	40:L3:116:ARG:NH1	2.48	0.44
38:4:145:U:H2'	38:4:146:U:H6	1.82	0.44
40:L3:103:THR:HG21	40:L3:147:GLU:OE2	2.17	0.44
40:L3:214:MET:HE3	40:L3:214:MET:HB3	1.87	0.44
44:L7:96:PRO:O	44:L7:99:PRO:HD2	2.17	0.44
47:M0:9:TYR:CG	47:M0:97:LEU:HD13	2.52	0.44
47:M0:210:ILE:HG23	47:M0:217:PHE:CE2	2.52	0.44
48:M1:94:ARG:C	48:M1:96:PHE:N	2.76	0.44
48:M1:101:ASN:OD1	48:M1:130:VAL:HA	2.17	0.44
49:M3:46:ILE:O	49:M3:47:ALA:HB3	2.18	0.44
49:M3:188:ARG:NH1	49:M3:192:GLU:OE1	2.51	0.44
63:N7:110:ALA:O	63:N7:114:VAL:HG23	2.17	0.44
66:O0:70:PHE:CD1	66:O0:77:LEU:HD13	2.51	0.44
69:O3:14:LEU:HB2	69:O3:29:LEU:O	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:O5:12:LYS:HA	71:O5:12:LYS:HD3	1.70	0.44
71:O5:85:THR:HG23	71:O5:88:LEU:H	1.82	0.44
74:O8:20:VAL:HG13	74:O8:46:ARG:O	2.17	0.44
79:Q3:46:THR:HB	79:Q3:58:SER:H	1.83	0.44
1:6:68:A:N6	8:s6:132:ARG:HG2	2.33	0.44
1:6:512:A:H5''	11:s9:163:PRO:HG3	2.00	0.44
1:6:1439:C:H2'	1:6:1440:C:C6	2.51	0.44
1:6:1783:C:O2'	1:6:1784:C:H5'	2.17	0.44
2:s0:41:ARG:NH1	2:s0:45:VAL:HG21	2.28	0.44
12:c0:29:GLN:HB3	12:c0:39:ASN:CB	2.46	0.44
17:c5:75:PRO:HA	17:c5:93:VAL:HB	1.99	0.44
18:c6:95:LYS:HE3	18:c6:96:TYR:CZ	2.52	0.44
19:c7:85:VAL:HG12	19:c7:86:PRO:O	2.17	0.44
23:d1:64:GLU:O	23:d1:68:SER:HB2	2.16	0.44
24:d2:44:HIS:CE1	24:d2:101:TYR:CZ	3.06	0.44
25:d3:103:LEU:O	25:d3:104:LEU:HD23	2.17	0.44
29:d7:44:THR:OG1	29:d7:56:CYS:SG	2.75	0.44
36:5:65:A:HO2'	49:m3:100:ARG:HH21	1.66	0.44
36:5:885:U:H2'	36:5:886:C:H6	1.81	0.44
36:5:1342:C:H2'	36:5:1343:A:O4'	2.17	0.44
36:5:1716:U:O2'	36:5:1717:U:O5'	2.34	0.44
36:5:1952:G:H1	36:5:2094:C:N4	2.13	0.44
36:5:2357:A:H2'	36:5:2358:A:C8	2.48	0.44
36:5:2522:G:O6	39:l2:72:ARG:NH2	2.51	0.44
36:5:3150:A:C2	36:5:3151:U:H1'	2.52	0.44
36:5:3203:U:H2'	36:5:3204:C:C6	2.52	0.44
36:5:3263:G:H2'	36:5:3264:G:C8	2.52	0.44
40:l3:44:THR:HG23	40:l3:184:ASN:HB2	1.98	0.44
40:l3:177:HIS:CG	40:l3:335:ILE:HG12	2.52	0.44
40:l3:238:LEU:HB2	40:l3:246:LEU:O	2.18	0.44
46:l9:79:ILE:O	46:l9:82:VAL:N	2.45	0.44
50:m4:24:LYS:HB3	50:m4:62:GLN:O	2.18	0.44
50:m4:96:ALA:O	50:m4:101:LYS:HE3	2.17	0.44
54:m8:165:ILE:HD12	54:m8:166:LEU:N	2.30	0.44
55:m9:106:LEU:CD1	55:m9:138:LEU:HD11	2.48	0.44
65:n9:23:LYS:HD2	65:n9:24:PRO:HD3	2.00	0.44
67:o1:16:LEU:HD12	67:o1:16:LEU:HA	1.73	0.44
67:o1:68:GLU:HG3	67:o1:69:TYR:H	1.82	0.44
1:2:256:A:H2'	1:2:257:A:O4'	2.17	0.44
1:2:400:A:H2'	10:S8:24:LYS:O	2.18	0.44
1:2:417:A:H5'	1:2:418:G:C5	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:538:A:C8	1:2:543:C:C4	3.05	0.44
1:2:606:A:H1'	1:2:609:U:OP1	2.16	0.44
1:2:885:G:C6	1:2:886:U:O4	2.70	0.44
1:2:908:U:H2'	1:2:909:U:H5'	1.99	0.44
1:2:992:A:H2	1:2:1012:U:H3	1.61	0.44
2:S0:35:PRO:HG3	23:D1:87:ARG:NH2	2.32	0.44
4:S2:170:ILE:N	4:S2:197:TYR:O	2.45	0.44
5:S3:108:LYS:HD3	5:S3:118:ALA:HB1	1.99	0.44
7:S5:120:ILE:O	7:S5:124:LEU:HD12	2.18	0.44
7:S5:145:ASP:HB3	30:D8:45:LYS:HD3	2.00	0.44
7:S5:162:VAL:CG2	7:S5:167:ARG:HG3	2.47	0.44
9:S7:40:PRO:HA	55:M9:185:LEU:HD21	1.98	0.44
15:C3:27:LYS:HD2	15:C3:28:LEU:H	1.82	0.44
19:C7:41:ILE:HD13	19:C7:47:ARG:HA	2.00	0.44
20:C8:125:ILE:HD11	35:SM:57:ASN:HB3	1.98	0.44
29:D7:35:VAL:HA	29:D7:78:SER:O	2.17	0.44
36:1:89:A:N6	36:1:98:G:C2	2.86	0.44
36:1:146:U:H5''	36:1:148:G:O4'	2.17	0.44
36:1:422:A:O3'	82:1:3810:GET:O61	2.34	0.44
36:1:507:U:H2'	36:1:508:U:C6	2.53	0.44
36:1:1128:U:P	47:M0:4:ARG:HH22	2.40	0.44
36:1:1195:A:C2	36:1:1309:U:N3	2.86	0.44
36:1:1509:A:H2'	36:1:1510:G:O4'	2.18	0.44
36:1:1574:C:H2'	36:1:1575:A:H5''	1.99	0.44
36:1:1621:A:H2'	36:1:1622:U:H6	1.80	0.44
36:1:1820:U:H1'	36:1:1821:U:OP2	2.18	0.44
36:1:2526:C:OP1	39:L2:38:HIS:CE1	2.71	0.44
36:1:2623:G:C4	36:1:2624:G:C8	3.06	0.44
36:1:2927:C:H2'	36:1:2928:C:H6	1.79	0.44
36:1:3007:U:H2'	36:1:3008:A:C8	2.52	0.44
36:1:3070:A:OP1	55:M9:62:ARG:HD3	2.17	0.44
36:1:3078:U:H4'	36:1:3079:U:O5'	2.16	0.44
36:1:3217:C:H2'	36:1:3217:C:O2	2.17	0.44
36:1:3358:U:H5''	36:1:3359:A:OP2	2.17	0.44
36:1:3386:G:H5'	67:O1:10:ARG:CZ	2.47	0.44
40:L3:48:GLY:O	40:L3:335:ILE:HD12	2.17	0.44
40:L3:111:SER:O	40:L3:114:VAL:HG23	2.18	0.44
42:L5:119:TYR:OH	42:L5:141:PRO:HD3	2.17	0.44
42:L5:148:ILE:HG22	42:L5:149:GLY:O	2.17	0.44
42:L5:204:VAL:O	42:L5:208:MET:HG3	2.17	0.44
46:L9:36:LYS:HE3	46:L9:74:LEU:HD22	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:96:PHE:HB3	48:M1:156:LYS:HG3	2.00	0.44
50:M4:13:ARG:HG3	56:N0:172:TYR:C	2.42	0.44
52:M6:54:TYR:CD2	52:M6:145:VAL:HG11	2.53	0.44
55:M9:114:LYS:HB3	55:M9:114:LYS:HE2	1.69	0.44
59:N3:109:MET:HE3	59:N3:109:MET:HB3	1.75	0.44
61:N5:82:LEU:HB3	61:N5:84:PHE:CE2	2.52	0.44
71:O5:53:CYS:O	71:O5:57:VAL:HG23	2.17	0.44
1:6:694:U:H3'	1:6:695:U:O2	2.17	0.44
1:6:765:G:C6	11:s9:149:ARG:CZ	3.01	0.44
1:6:1017:U:H2'	1:6:1018:U:H6	1.81	0.44
1:6:1096:C:H4'	1:6:1099:U:H4'	2.00	0.44
1:6:1294:G:H1	1:6:1303:U:H3	1.65	0.44
1:6:1366:U:OP1	18:c6:30:LYS:HD3	2.17	0.44
1:6:1766:A:N1	28:d6:80:HIS:ND1	2.64	0.44
3:s1:101:HIS:ND1	3:s1:217:LEU:HD22	2.33	0.44
4:s2:59:HIS:HA	23:d1:15:ARG:NE	2.29	0.44
4:s2:157:LYS:HG2	4:s2:170:ILE:HG23	1.99	0.44
7:s5:225:ARG:NH1	30:d8:58:GLU:OE1	2.50	0.44
15:c3:55:ARG:O	29:d7:47:PHE:HB2	2.17	0.44
27:d5:44:GLN:HA	27:d5:47:TYR:HB3	1.99	0.44
28:d6:62:TYR:CG	28:d6:63:ALA:N	2.83	0.44
34:sR:262:VAL:O	34:sR:270:LEU:HD12	2.18	0.44
34:sR:276:PRO:HG3	34:sR:313:TRP:CZ2	2.52	0.44
35:sM:65:THR:O	35:sM:70:ASN:ND2	2.49	0.44
36:5:241:G:C2	36:5:242:C:C2	3.06	0.44
36:5:581:U:O2'	36:5:582:G:H5'	2.18	0.44
36:5:962:A:N6	36:5:2814:G:H21	2.16	0.44
36:5:1555:U:O2'	36:5:1556:C:OP2	2.31	0.44
36:5:1606:U:C2	70:o4:8:ARG:NH1	2.85	0.44
36:5:1927:G:OP1	79:q3:8:VAL:HG22	2.17	0.44
36:5:2223:A:C6	36:5:2224:A:C6	3.04	0.44
36:5:2401:A:H5''	41:l4:70:ALA:HB2	1.98	0.44
36:5:2631:U:O2'	36:5:2632:G:H5'	2.18	0.44
36:5:2786:G:N2	64:n8:58:MET:SD	2.85	0.44
36:5:2847:A:N7	36:5:2848:G:C5	2.86	0.44
36:5:2887:A:H2'	36:5:2887:A:N3	2.32	0.44
36:5:2903:A:H2'	36:5:2904:U:O4'	2.17	0.44
37:7:74:C:H2'	37:7:75:G:O4'	2.17	0.44
40:l3:255:TRP:O	40:l3:255:TRP:HD1	2.00	0.44
41:l4:98:ARG:CZ	41:l4:98:ARG:HB3	2.47	0.44
42:l5:211:LEU:C	42:l5:213:ASP:N	2.74	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:l6:43:LEU:HB2	43:l6:83:TYR:O	2.18	0.44
43:l6:66:SER:O	43:l6:68:PRO:HA	2.17	0.44
45:l8:149:LYS:N	45:l8:149:LYS:HD2	2.32	0.44
47:m0:9:TYR:CG	47:m0:97:LEU:HD13	2.53	0.44
47:m0:52:LEU:HA	47:m0:52:LEU:HD23	1.77	0.44
57:n1:14:MET:HE2	57:n1:14:MET:HB3	1.77	0.44
59:n3:18:PRO:HA	59:n3:51:ALA:HA	2.00	0.44
66:o0:43:ILE:HG12	66:o0:68:TYR:HB3	2.00	0.44
70:o4:107:GLU:HA	70:o4:110:GLU:CD	2.43	0.44
80:p0:40:GLU:HA	80:p0:43:LYS:HE3	1.98	0.44
1:2:31:C:O2'	1:2:547:U:H5''	2.18	0.44
1:2:223:U:H2'	1:2:224:C:C6	2.53	0.44
1:2:547:U:C4	1:2:548:G:N7	2.86	0.44
1:2:804:A:C8	24:D2:107:SER:HA	2.52	0.44
1:2:959:U:H6	15:C3:61:THR:HB	1.81	0.44
1:2:1494:C:H2'	1:2:1495:C:C6	2.52	0.44
1:2:1761:U:H5'	82:2:2013:GET:C41	2.48	0.44
3:S1:108:ASP:O	3:S1:112:SER:HB3	2.18	0.44
5:S3:4:LEU:HD22	5:S3:4:LEU:HA	1.63	0.44
5:S3:113:LEU:HD22	5:S3:114:ALA:H	1.83	0.44
9:S7:21:ALA:O	9:S7:25:VAL:HG23	2.17	0.44
9:S7:142:TYR:CE1	9:S7:148:LYS:HD2	2.53	0.44
13:C1:21:ASN:OD1	13:C1:21:ASN:N	2.50	0.44
13:C1:57:LYS:O	13:C1:64:VAL:HG21	2.17	0.44
20:C8:53:ASP:HB3	20:C8:56:LYS:HG3	2.00	0.44
34:SR:89:LEU:HB2	34:SR:103:PHE:CB	2.42	0.44
34:SR:205:SER:OG	34:SR:207:ASP:OD1	2.35	0.44
36:1:561:C:H2'	36:1:562:C:H6	1.82	0.44
36:1:692:A:H2'	36:1:693:A:H8	1.82	0.44
36:1:912:G:H5''	36:1:913:A:OP2	2.17	0.44
36:1:1099:A:C6	36:1:1100:U:C4	3.06	0.44
36:1:1305:U:C2	40:L3:257:PRO:HG3	2.52	0.44
36:1:1856:C:C2	36:1:1857:C:C5	3.05	0.44
36:1:2105:G:H2'	36:1:2106:A:H8	1.82	0.44
36:1:2106:A:H2'	36:1:2107:A:C8	2.46	0.44
36:1:2188:A:C6	36:1:2320:A:N6	2.86	0.44
36:1:2568:C:C4	36:1:2570:U:N3	2.85	0.44
36:1:2642:A:C2	36:1:2643:A:C6	3.05	0.44
36:1:2662:G:H2'	36:1:2663:G:H8	1.81	0.44
36:1:3121:U:C4	36:1:3124:G:O6	2.71	0.44
36:1:3306:U:H2'	36:1:3307:A:H5''	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3342:A:C6	36:1:3343:G:C5	3.05	0.44
82:1:3810:GET:H111	82:1:3810:GET:H322	1.82	0.44
37:3:2:G:C5	37:3:3:U:C5	3.06	0.44
37:3:67:G:H4'	42:L5:13:SER:HB2	1.99	0.44
41:L4:274:TYR:HE1	41:L4:276:LEU:HD23	1.81	0.44
44:L7:39:GLU:O	44:L7:43:ILE:HG13	2.18	0.44
45:L8:148:ALA:CA	45:L8:201:THR:HG22	2.47	0.44
47:M0:150:GLU:HG3	47:M0:154:ARG:HD2	1.99	0.44
51:M5:128:LYS:HB3	51:M5:130:PHE:CE2	2.51	0.44
66:O0:24:THR:HG22	66:O0:91:SER:HB3	1.99	0.44
70:O4:57:LEU:HD12	70:O4:62:TYR:CD1	2.53	0.44
78:Q2:2:VAL:HG23	78:Q2:91:PHE:HD1	1.83	0.44
1:6:97:C:H2'	1:6:98:U:C6	2.52	0.44
1:6:189:C:C2'	1:6:190:C:H5'	2.45	0.44
1:6:616:G:N2	1:6:622:A:C5	2.86	0.44
1:6:621:A:N3	1:6:1107:G:H1'	2.33	0.44
1:6:1514:U:O2	1:6:1514:U:H5'	2.17	0.44
6:s4:45:ILE:HB	6:s4:80:THR:HG22	1.99	0.44
7:s5:73:THR:HG22	7:s5:75:GLY:N	2.29	0.44
8:s6:58:LYS:NZ	8:s6:105:ASP:HA	2.33	0.44
9:s7:56:LYS:O	9:s7:88:ARG:HA	2.16	0.44
9:s7:166:LEU:HD12	9:s7:169:PHE:CD2	2.52	0.44
19:c7:101:ASN:HA	19:c7:120:SER:CB	2.48	0.44
21:c9:86:ARG:NH2	21:c9:89:ARG:HD2	2.33	0.44
26:d4:45:ALA:HA	26:d4:50:ALA:CB	2.45	0.44
26:d4:78:SER:O	26:d4:81:GLU:N	2.51	0.44
34:sR:69:GLN:N	34:sR:83:ALA:O	2.50	0.44
34:sR:89:LEU:HD11	34:sR:124:SER:CB	2.48	0.44
35:sM:83:LYS:HD3	35:sM:83:LYS:HA	1.54	0.44
36:5:20:A:OP2	71:o5:90:ARG:NH1	2.51	0.44
36:5:116:A:OP1	72:o6:36:ARG:NH1	2.50	0.44
36:5:146:U:O2	36:5:148:G:C2	2.70	0.44
36:5:248:U:H5'	36:5:249:U:OP2	2.17	0.44
36:5:627:U:H2'	36:5:628:A:H8	1.78	0.44
36:5:627:U:H4'	36:5:1399:A:O2'	2.17	0.44
36:5:696:C:H5''	41:l4:272:VAL:HG23	2.00	0.44
36:5:696:C:OP1	41:l4:272:VAL:HG23	2.17	0.44
36:5:892:U:C4	36:5:893:C:C4	3.05	0.44
36:5:1148:G:C2	36:5:1156:C:N3	2.84	0.44
36:5:1628:C:H3'	36:5:1628:C:H6	1.83	0.44
36:5:2260:U:C4	36:5:2261:G:C6	3.04	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2675:C:N4	48:m1:22:SER:HB3	2.32	0.44
36:5:2949:U:C5	36:5:2950:G:C6	3.06	0.44
36:5:3139:A:C2'	36:5:3140:G:H5'	2.47	0.44
37:7:47:C:H2'	37:7:48:U:H6	1.83	0.44
38:8:79:A:H5''	38:8:79:A:C8	2.49	0.44
40:l3:115:LYS:HE2	40:l3:129:ALA:HB3	2.00	0.44
41:l4:330:TYR:OH	44:l7:52:GLN:HG2	2.17	0.44
42:l5:266:ALA:O	42:l5:271:LYS:HE2	2.17	0.44
49:m3:64:LYS:HD2	64:n8:66:ALA:HB1	2.00	0.44
49:m3:105:ASN:HB3	49:m3:108:ILE:HB	2.00	0.44
54:m8:71:LEU:HD21	54:m8:99:THR:HG21	1.99	0.44
54:m8:122:ILE:HD11	54:m8:130:ARG:NH1	2.32	0.44
66:o0:10:ILE:HG22	66:o0:11:ASN:N	2.31	0.44
67:o1:30:PRO:O	67:o1:33:VAL:HB	2.17	0.44
80:p0:25:LEU:HG	80:p0:191:TYR:HB3	2.00	0.44
1:2:928:U:H4'	16:C4:124:ASP:OD1	2.17	0.44
1:2:970:A:H5''	1:2:970:A:H8	1.83	0.44
1:2:1002:G:C6	1:2:1003:A:N7	2.86	0.44
1:2:1366:U:H2'	1:2:1367:G:O4'	2.18	0.44
1:2:1489:U:H2'	1:2:1514:U:O4	2.17	0.44
1:2:1526:A:H2'	1:2:1527:C:H5'	2.00	0.44
3:S1:164:ILE:HG22	3:S1:168:ILE:HD12	2.00	0.44
7:S5:82:PHE:CE2	30:D8:49:ARG:HD2	2.53	0.44
8:S6:14:LYS:HG2	8:S6:15:THR:H	1.81	0.44
9:S7:46:ILE:HD11	9:S7:60:ILE:HG12	2.00	0.44
10:S8:188:GLU:HG2	13:C1:13:PHE:CD2	2.52	0.44
15:C3:114:ARG:HD3	15:C3:114:ARG:HA	1.71	0.44
17:C5:64:LYS:HA	17:C5:73:PRO:HB3	1.99	0.44
32:E0:9:ALA:C	32:E0:11:ALA:N	2.75	0.44
34:SR:90:ARG:HD3	34:SR:92:TRP:CZ2	2.52	0.44
35:SM:55:SER:O	35:SM:59:GLY:N	2.45	0.44
36:1:90:C:C2'	36:1:91:G:H5'	2.48	0.44
36:1:873:C:O3'	36:1:875:G:H5'	2.16	0.44
36:1:1419:A:OP1	38:4:20:U:O2'	2.35	0.44
36:1:1443:G:H2'	36:1:1444:G:C8	2.53	0.44
36:1:1635:G:N2	36:1:1639:C:C2	2.86	0.44
36:1:1644:C:H5''	36:1:1645:U:OP1	2.18	0.44
36:1:1945:A:H2'	36:1:1946:A:H8	1.82	0.44
36:1:2428:U:H2'	36:1:2429:G:C8	2.53	0.44
36:1:3174:A:O4'	36:1:3174:A:N3	2.50	0.44
36:1:3260:G:C8	50:M4:129:TYR:CE1	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:131:A:H4'	61:N5:93:TYR:CD2	2.53	0.44
40:L3:59:ASP:OD2	40:L3:357:LYS:HE3	2.18	0.44
40:L3:82:PRO:HB3	40:L3:319:ASN:CG	2.43	0.44
40:L3:296:THR:O	40:L3:299:ASP:N	2.51	0.44
41:L4:44:LYS:HD3	41:L4:47:ARG:NH1	2.33	0.44
42:L5:163:LEU:O	42:L5:166:ALA:N	2.48	0.44
43:L6:174:LEU:HD23	43:L6:174:LEU:HA	1.56	0.44
46:L9:48:VAL:HG13	46:L9:52:LEU:HB3	1.99	0.44
51:M5:99:ARG:O	51:M5:102:ALA:HB3	2.17	0.44
51:M5:178:HIS:ND1	51:M5:179:LYS:N	2.66	0.44
52:M6:76:PRO:HD3	52:M6:147:TRP:CD2	2.53	0.44
52:M6:160:ARG:HH11	52:M6:160:ARG:HB3	1.81	0.44
55:M9:14:VAL:CG1	55:M9:42:ARG:HD3	2.48	0.44
57:N1:57:TYR:CD1	57:N1:89:LEU:HD21	2.52	0.44
61:N5:82:LEU:HB3	61:N5:84:PHE:CZ	2.53	0.44
62:N6:6:LEU:HA	62:N6:6:LEU:HD23	1.77	0.44
71:O5:101:THR:HG22	71:O5:104:GLN:HB2	1.99	0.44
1:6:111:U:C2	1:6:112:A:C8	3.06	0.44
1:6:153:G:O5'	8:s6:15:THR:HG21	2.18	0.44
1:6:305:C:H2'	1:6:306:U:C6	2.52	0.44
1:6:906:A:H2'	1:6:907:A:C8	2.53	0.44
1:6:1163:A:C6	1:6:1164:G:C5	3.06	0.44
1:6:1345:A:N7	1:6:1377:U:C4	2.86	0.44
1:6:1346:A:H2'	1:6:1346:A:N3	2.33	0.44
1:6:1368:G:OP1	21:c9:69:LYS:NZ	2.28	0.44
1:6:1586:A:H1'	1:6:1611:A:N6	2.32	0.44
2:s0:117:GLU:OE2	4:s2:40:LYS:N	2.45	0.44
3:s1:144:ARG:HG3	3:s1:206:PRO:HB2	2.00	0.44
3:s1:194:ASN:OD1	3:s1:194:ASN:N	2.50	0.44
4:s2:233:GLN:HG3	4:s2:234:PRO:HD3	1.99	0.44
5:s3:141:LYS:HB2	5:s3:144:ALA:HA	1.98	0.44
6:s4:51:ARG:HA	6:s4:51:ARG:HE	1.83	0.44
6:s4:164:LEU:HA	6:s4:164:LEU:HD23	1.49	0.44
10:s8:70:GLU:HB3	10:s8:112:TRP:CH2	2.53	0.44
13:c1:10:GLU:HB3	13:c1:14:GLN:NE2	2.33	0.44
14:c2:97:LEU:HD12	14:c2:118:ALA:HB1	2.00	0.44
15:c3:118:ILE:O	15:c3:122:ILE:HG13	2.17	0.44
19:c7:7:LYS:HZ3	19:c7:11:ARG:HH21	1.65	0.44
36:5:10:C:O2'	36:5:1558:A:N6	2.48	0.44
36:5:672:A:O3'	54:m8:21:SER:HB2	2.18	0.44
36:5:828:A:C2	36:5:898:U:C2	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1472:U:C2	36:5:1473:G:C8	3.05	0.44
36:5:1494:U:H1'	36:5:1496:C:C5	2.52	0.44
36:5:1579:C:H2'	36:5:1580:A:C8	2.52	0.44
36:5:1613:A:C2	36:5:1614:C:C2	3.06	0.44
36:5:1815:U:H1'	36:5:1816:A:O5'	2.18	0.44
36:5:2514:U:O2'	36:5:2515:A:H8	2.01	0.44
36:5:2714:G:H4'	36:5:2715:A:H5''	1.99	0.44
36:5:2962:U:C4	36:5:2963:C:C5	3.06	0.44
36:5:3041:U:H2'	36:5:3042:U:H6	1.83	0.44
36:5:3087:A:O2'	36:5:3375:A:N1	2.39	0.44
37:7:26:C:H2'	37:7:27:A:O4'	2.18	0.44
41:14:286:VAL:O	41:14:289:ILE:N	2.51	0.44
42:15:119:TYR:CE1	42:15:135:VAL:HG23	2.53	0.44
46:19:135:GLU:O	46:19:144:ILE:HA	2.18	0.44
49:m3:42:ARG:NH2	49:m3:51:LEU:HD22	2.31	0.44
50:m4:17:VAL:HG13	50:m4:36:VAL:O	2.17	0.44
51:m5:38:ARG:CZ	51:m5:60:VAL:HG13	2.47	0.44
51:m5:113:LEU:HB2	51:m5:134:LEU:HD23	1.99	0.44
54:m8:109:GLY:O	54:m8:112:ALA:HB3	2.17	0.44
58:n2:56:VAL:HA	58:n2:65:VAL:HG22	2.00	0.44
61:n5:135:ILE:O	61:n5:139:ILE:HG13	2.17	0.44
63:n7:15:ARG:HD2	63:n7:79:HIS:CD2	2.52	0.44
64:n8:78:LEU:HD23	64:n8:78:LEU:HA	1.80	0.44
74:o8:11:PHE:O	74:o8:15:THR:HG23	2.17	0.44
1:2:647:G:H22	1:2:687:G:N2	2.15	0.44
1:2:895:G:O2'	16:C4:38:THR:N	2.33	0.44
1:2:1297:G:N2	1:2:1299:G:H3'	2.32	0.44
1:2:1540:G:H2'	1:2:1540:G:N3	2.32	0.44
1:2:1600:A:H4'	1:2:1601:G:OP1	2.17	0.44
2:S0:31:VAL:HB	2:S0:34:GLU:HG3	2.00	0.44
4:S2:168:ARG:O	4:S2:198:THR:HA	2.18	0.44
5:S3:44:THR:HG22	5:S3:45:LYS:HG3	1.99	0.44
5:S3:105:MET:HG2	5:S3:122:VAL:HG21	2.00	0.44
6:S4:193:GLY:HA3	6:S4:212:ASP:HA	1.99	0.44
7:S5:89:ILE:HD12	7:S5:90:ILE:H	1.83	0.44
9:S7:36:ALA:HA	9:S7:39:ARG:HG2	1.98	0.44
10:S8:121:LEU:HD22	10:S8:121:LEU:H	1.82	0.44
11:S9:102:GLU:HA	11:S9:105:LEU:HB2	2.00	0.44
15:C3:89:TYR:CE2	15:C3:150:VAL:HG22	2.53	0.44
33:E1:149:LYS:HE2	33:E1:149:LYS:HB2	1.68	0.44
36:1:190:U:O4	62:N6:103:LYS:NZ	2.41	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:291:C:H2'	36:1:292:U:C6	2.53	0.44
36:1:912:G:C2	36:1:914:A:C2	3.06	0.44
36:1:912:G:O5'	36:1:912:G:H8	2.01	0.44
36:1:1144:U:H1'	36:1:1145:G:C8	2.53	0.44
36:1:1299:U:OP1	76:Q0:113:ARG:NH1	2.51	0.44
36:1:1388:U:O4	41:L4:186:LYS:NZ	2.44	0.44
36:1:1704:A:C8	36:1:1739:U:O4	2.70	0.44
36:1:1844:C:N3	36:1:1852:G:C2	2.86	0.44
36:1:2185:G:C5	36:1:2186:U:C5	3.05	0.44
36:1:2276:G:C6	36:1:2277:C:C4	3.05	0.44
36:1:2392:C:O2'	40:L3:266:ARG:NH2	2.45	0.44
36:1:2757:U:H5''	36:1:2758:A:OP2	2.17	0.44
38:4:21:C:OP1	41:L4:193:LYS:NZ	2.26	0.44
38:4:154:C:H5''	45:L8:181:LYS:HG2	1.98	0.44
39:L2:43:GLY:N	39:L2:88:ILE:O	2.49	0.44
40:L3:92:TYR:OH	40:L3:180:GLU:OE1	2.32	0.44
40:L3:217:ALA:CB	40:L3:328:ILE:HG12	2.48	0.44
40:L3:284:ARG:HB3	40:L3:323:MET:HB3	2.00	0.44
41:L4:188:ARG:HH21	41:L4:197:ARG:HB3	1.83	0.44
43:L6:41:ILE:HB	43:L6:85:ILE:HB	1.99	0.44
45:L8:46:LEU:CD2	45:L8:49:TYR:HB2	2.48	0.44
46:L9:112:ILE:HG21	46:L9:161:LEU:HD11	1.98	0.44
46:L9:118:LEU:HD23	46:L9:118:LEU:HA	1.63	0.44
48:M1:41:SER:C	48:M1:43:GLN:H	2.26	0.44
50:M4:129:TYR:O	50:M4:129:TYR:HD2	2.01	0.44
55:M9:101:VAL:O	55:M9:104:ARG:HG2	2.17	0.44
59:N3:54:LEU:CD2	59:N3:121:GLU:HB2	2.47	0.44
62:N6:74:TYR:CZ	62:N6:77:LYS:HE3	2.53	0.44
66:O0:16:LEU:HD22	66:O0:19:LYS:HE2	2.00	0.44
66:O0:27:TYR:O	66:O0:31:VAL:HG23	2.17	0.44
66:O0:34:LEU:HD12	66:O0:34:LEU:HA	1.73	0.44
69:O3:102:LEU:HD23	69:O3:102:LEU:HA	1.67	0.44
79:Q3:86:LEU:HD23	79:Q3:86:LEU:HA	1.88	0.44
1:6:329:G:H5'	10:s8:99:ALA:HB3	2.00	0.44
1:6:449:C:H2'	1:6:450:U:H6	1.83	0.44
1:6:565:C:O2'	1:6:577:G:N2	2.51	0.44
1:6:1156:C:H6	1:6:1156:C:O5'	2.01	0.44
1:6:1592:A:H2'	1:6:1593:A:C8	2.52	0.44
3:s1:36:SER:HB3	3:s1:231:LEU:O	2.18	0.44
3:s1:85:LYS:HB3	3:s1:101:HIS:HB3	1.99	0.44
10:s8:162:ALA:HA	36:5:3353:G:C5'	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:c4:50:ALA:O	16:c4:51:ASP:HB2	2.17	0.44
16:c4:112:ILE:H	28:d6:57:SER:HA	1.83	0.44
18:c6:45:ARG:O	18:c6:45:ARG:HG3	2.18	0.44
22:d0:98:GLN:O	22:d0:102:ARG:HB3	2.18	0.44
36:5:715:A:H4'	36:5:716:A:OP1	2.18	0.44
36:5:910:G:H5'	36:5:911:C:OP2	2.16	0.44
36:5:978:G:O2'	36:5:979:U:C2	2.71	0.44
36:5:1533:U:C2'	36:5:1534:A:H5'	2.47	0.44
36:5:1641:U:O2'	36:5:1643:A:OP2	2.21	0.44
36:5:1896:A:C5	36:5:3093:C:C5	3.06	0.44
36:5:2167:A:P	51:m5:72:LYS:HZ3	2.40	0.44
36:5:2581:U:O2'	36:5:2582:C:H5'	2.18	0.44
36:5:2712:U:O2'	36:5:2743:A:H4'	2.17	0.44
36:5:2950:G:C5	36:5:2979:U:C4	3.06	0.44
36:5:3157:U:C6	36:5:3157:U:C3'	3.01	0.44
38:8:75:G:H2'	38:8:76:C:C6	2.53	0.44
38:8:131:A:H2'	38:8:132:G:H8	1.82	0.44
39:l2:137:ILE:HG23	39:l2:148:VAL:HA	1.98	0.44
39:l2:145:LYS:HG2	39:l2:157:VAL:CG2	2.47	0.44
41:l4:182:LEU:HD13	41:l4:182:LEU:HA	1.81	0.44
45:l8:73:PRO:HD3	45:l8:233:TRP:CE2	2.53	0.44
45:l8:170:CYS:O	45:l8:175:VAL:N	2.51	0.44
46:l9:49:ASN:OD1	46:l9:51:GLN:N	2.51	0.44
49:m3:118:GLU:O	49:m3:121:SER:OG	2.30	0.44
66:o0:13:LYS:NZ	66:o0:103:THR:HG21	2.33	0.44
67:o1:44:MET:HB3	67:o1:77:ARG:CZ	2.48	0.44
79:q3:77:ALA:O	79:q3:80:ARG:HB3	2.17	0.44
1:2:33:U:N3	1:2:468:A:N7	2.65	0.44
1:2:113:U:O3'	1:2:114:C:H3'	2.17	0.44
1:2:603:U:H2'	1:2:604:A:H8	1.82	0.44
1:2:738:G:C2	1:2:739:G:C5	3.06	0.44
1:2:855:A:O2'	1:2:856:A:H3'	2.17	0.44
1:2:940:A:H2'	1:2:941:A:O4'	2.18	0.44
1:2:1063:U:H5'	1:2:1064:G:OP2	2.17	0.44
1:2:1069:A:C2	1:2:1070:C:C2	3.06	0.44
1:2:1508:U:H2'	1:2:1509:C:C6	2.53	0.44
1:2:1511:U:H2'	1:2:1512:G:C8	2.53	0.44
3:S1:59:ASP:OD1	3:S1:59:ASP:N	2.51	0.44
3:S1:190:PRO:C	3:S1:191:GLU:HG2	2.43	0.44
3:S1:193:ILE:O	3:S1:197:ILE:HG12	2.18	0.44
5:S3:98:ALA:HB2	5:S3:169:ASP:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:59:VAL:C	7:S5:61:TYR:H	2.25	0.44
16:C4:43:THR:OG1	16:C4:44:GLY:N	2.51	0.44
17:C5:82:ASN:OD1	17:C5:82:ASN:N	2.51	0.44
20:C8:15:LEU:CD2	20:C8:15:LEU:H	2.31	0.44
25:D3:97:ASP:HB2	25:D3:100:ASP:OD2	2.18	0.44
30:D8:49:ARG:HG2	30:D8:52:ASP:OD1	2.18	0.44
36:1:10:C:O2'	36:1:1558:A:N6	2.48	0.44
36:1:213:A:N6	36:1:227:G:O2'	2.51	0.44
36:1:765:C:O2'	36:1:766:U:H5'	2.17	0.44
36:1:966:U:C2	36:1:967:A:N7	2.86	0.44
36:1:1001:G:H1'	36:1:1041:U:H5'	2.00	0.44
36:1:1003:A:C5	36:1:1004:U:C5	3.06	0.44
36:1:2164:A:C6	36:1:2165:G:C5	3.06	0.44
36:1:2282:U:O2	36:1:2310:U:H4'	2.18	0.44
36:1:2407:C:H1'	36:1:2818:U:O2	2.17	0.44
36:1:2541:U:O4'	36:1:2542:U:H4'	2.18	0.44
36:1:2608:G:O2'	36:1:2609:A:H5'	2.18	0.44
36:1:3060:C:H4'	36:1:3372:A:N3	2.32	0.44
36:1:3379:C:C4	36:1:3380:U:C5	3.06	0.44
38:4:14:C:N4	38:4:15:G:C6	2.86	0.44
39:L2:127:ALA:O	39:L2:169:ILE:HD11	2.18	0.44
46:L9:57:VAL:HG23	46:L9:68:LEU:HG	1.99	0.44
47:M0:26:VAL:HG23	47:M0:27:PRO:O	2.17	0.44
48:M1:21:ILE:HG21	48:M1:33:ALA:HB1	2.00	0.44
49:M3:156:ALA:HA	64:N8:99:ALA:O	2.18	0.44
50:M4:113:THR:H	50:M4:116:GLU:HB2	1.83	0.44
54:M8:40:THR:C	54:M8:42:ALA:N	2.75	0.44
54:M8:67:ILE:O	54:M8:71:LEU:HD12	2.18	0.44
54:M8:94:PHE:CZ	64:N8:79:TRP:CD1	3.05	0.44
55:M9:67:ALA:O	55:M9:70:LYS:HB2	2.17	0.44
55:M9:140:GLU:HA	55:M9:143:ILE:HB	2.00	0.44
57:N1:45:ASN:H	57:N1:95:HIS:CE1	2.35	0.44
60:N4:4:GLU:HG2	60:N4:30:ARG:HD3	1.99	0.44
62:N6:50:ILE:HD13	62:N6:51:ARG:H	1.83	0.44
65:N9:56:ALA:O	65:N9:59:LYS:HD2	2.17	0.44
70:O4:46:ASP:CG	70:O4:80:ARG:HD2	2.43	0.44
1:6:139:C:C4	1:6:266:A:C2	3.06	0.44
1:6:401:A:O2'	1:6:402:C:H4'	2.18	0.44
1:6:443:C:OP2	26:d4:105:ARG:HB2	2.17	0.44
1:6:640:U:H2'	1:6:641:G:O4'	2.17	0.44
1:6:1098:U:OP2	4:s2:168:ARG:NE	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1420:C:O2'	5:s3:160:SER:O	2.33	0.44
4:s2:214:ALA:O	4:s2:217:ALA:HB3	2.18	0.44
4:s2:218:ILE:H	4:s2:218:ILE:HG13	1.61	0.44
5:s3:11:LEU:HD23	5:s3:11:LEU:HA	1.76	0.44
6:s4:50:ASN:O	6:s4:53:LYS:NZ	2.51	0.44
7:s5:151:GLY:HA3	7:s5:156:ARG:H	1.81	0.44
9:s7:157:LYS:HB2	9:s7:157:LYS:HE3	1.69	0.44
11:s9:37:LYS:HA	32:e0:33:ARG:HB2	2.00	0.44
18:c6:49:TYR:O	18:c6:53:LEU:HG	2.17	0.44
18:c6:99:GLU:CD	34:sR:60:SER:HB2	2.42	0.44
25:d3:43:PHE:C	25:d3:45:GLY:N	2.75	0.44
25:d3:79:ASN:HD22	25:d3:81:LYS:HB2	1.83	0.44
36:5:215:G:H2'	36:5:216:G:C8	2.52	0.44
36:5:1190:A:H8	36:5:1297:C:O3'	2.01	0.44
36:5:1791:C:H2'	36:5:1792:C:C5	2.53	0.44
36:5:2568:C:O2'	36:5:2569:A:O5'	2.30	0.44
36:5:2590:A:C4	36:5:2591:A:C8	3.06	0.44
36:5:2616:C:H3'	36:5:2617:U:C6	2.52	0.44
36:5:2898:G:H5''	36:5:2899:C:O5'	2.18	0.44
36:5:3332:U:O4	36:5:3333:G:N1	2.51	0.44
39:l2:27:ALA:O	39:l2:128:ARG:NH2	2.50	0.44
42:l5:119:TYR:CE1	42:l5:134:ALA:HA	2.53	0.44
42:l5:204:VAL:O	42:l5:208:MET:HG3	2.17	0.44
43:l6:40:LEU:HD13	43:l6:84:VAL:HG11	2.00	0.44
46:l9:45:PHE:CD1	46:l9:55:VAL:HG13	2.53	0.44
47:m0:169:LYS:HE3	57:n1:159:PHE:C	2.42	0.44
49:m3:6:ASN:O	49:m3:7:LEU:HD23	2.17	0.44
50:m4:72:LEU:HD23	50:m4:73:PRO:CD	2.47	0.44
50:m4:113:THR:O	50:m4:117:ARG:HG3	2.18	0.44
62:n6:54:ASP:O	62:n6:69:LYS:HA	2.18	0.44
62:n6:89:LYS:HB2	62:n6:91:ASN:OD1	2.17	0.44
63:n7:4:PHE:HE2	66:o0:63:SER:HB3	1.83	0.44
67:o1:14:ILE:HD13	67:o1:36:ILE:HG12	2.00	0.44
72:o6:58:ILE:HG12	72:o6:59:ASP:N	2.29	0.44
75:o9:36:ARG:HD3	75:o9:36:ARG:HA	1.79	0.44
80:p0:60:ARG:HE	80:p0:60:ARG:HB2	1.66	0.44
1:2:123:G:C6	1:2:295:A:C6	3.06	0.44
1:2:158:U:H1'	1:2:159:U:OP1	2.17	0.44
1:2:532:U:H2'	1:2:533:U:O4'	2.18	0.44
1:2:805:U:C2'	1:2:806:A:H5'	2.47	0.44
1:2:884:A:C2	1:2:945:U:C2	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1201:G:C4	1:2:1600:A:C2	3.06	0.44
6:S4:57:ASN:O	6:S4:61:VAL:HG23	2.18	0.44
6:S4:71:LYS:HG3	6:S4:91:THR:HB	2.00	0.44
6:S4:104:ASP:HB3	6:S4:106:LYS:N	2.32	0.44
13:C1:109:VAL:HG21	13:C1:125:VAL:HG22	1.99	0.44
34:SR:67:ILE:HB	34:SR:85:TRP:CD1	2.52	0.44
36:1:429:U:H2'	36:1:430:U:H6	1.83	0.44
36:1:1393:A:N6	36:1:1417:G:H1'	2.33	0.44
36:1:1434:G:O2'	36:1:1435:A:H5'	2.18	0.44
36:1:1729:A:N1	66:O0:49:PRO:HD3	2.33	0.44
36:1:1889:G:OP1	40:L3:247:ARG:HG3	2.18	0.44
36:1:1925:U:O3'	79:Q3:20:SER:HB3	2.18	0.44
36:1:1941:C:O5'	36:1:1941:C:H6	2.00	0.44
36:1:2113:A:N7	36:1:2114:C:N4	2.65	0.44
36:1:2176:U:C3'	36:1:2177:G:H5''	2.47	0.44
36:1:2341:A:C5	36:1:2342:U:C5	3.06	0.44
36:1:2876:C:C2	36:1:2877:G:C8	3.06	0.44
38:4:65:A:C4	38:4:66:A:C8	3.05	0.44
40:L3:305:ILE:HG12	40:L3:321:PHE:CZ	2.53	0.44
42:L5:286:VAL:O	42:L5:290:ILE:HG12	2.18	0.44
45:L8:97:TYR:OH	45:L8:203:VAL:HG22	2.17	0.44
46:L9:2:LYS:HB3	46:L9:59:ASN:OD1	2.18	0.44
49:M3:131:LYS:N	49:M3:131:LYS:HD3	2.33	0.44
50:M4:60:LEU:HD13	56:N0:152:LEU:HD11	2.00	0.44
56:N0:5:LYS:HD2	56:N0:7:TYR:OH	2.18	0.44
62:N6:56:VAL:HG23	62:N6:106:ILE:HG12	2.00	0.44
69:O3:2:ALA:O	69:O3:5:HIS:HE1	2.01	0.44
71:O5:84:LYS:HB3	71:O5:85:THR:H	1.70	0.44
78:Q2:54:THR:O	78:Q2:55:LYS:HG2	2.18	0.44
1:6:137:U:H6	1:6:137:U:H2'	1.64	0.44
1:6:370:A:H2'	1:6:371:G:C8	2.53	0.44
1:6:788:A:C4	6:s4:19:LEU:HD13	2.53	0.44
1:6:1270:G:C2	1:6:1441:C:O2	2.71	0.44
1:6:1277:G:H22	1:6:1434:U:H3	1.65	0.44
1:6:1671:A:C4	1:6:1731:A:C2	3.06	0.44
1:6:1773:C:H2'	1:6:1774:G:H8	1.81	0.44
2:s0:107:PHE:HB3	2:s0:139:VAL:HG21	2.00	0.44
2:s0:124:THR:HG22	2:s0:174:TRP:NE1	2.33	0.44
3:s1:125:VAL:HG11	3:s1:173:THR:CG2	2.48	0.44
3:s1:180:THR:HG23	3:s1:183:GLN:HE22	1.82	0.44
4:s2:72:LEU:HD12	4:s2:72:LEU:HA	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:s5:63:GLN:HB3	7:s5:88:PRO:HA	2.00	0.44
9:s7:124:LYS:HD2	9:s7:124:LYS:HA	1.66	0.44
13:c1:14:GLN:CB	13:c1:54:ILE:HG13	2.47	0.44
20:c8:6:GLN:CB	27:d5:44:GLN:HB2	2.48	0.44
21:c9:30:VAL:HG12	21:c9:54:PHE:CD2	2.53	0.44
24:d2:5:SER:C	24:d2:7:LEU:H	2.25	0.44
25:d3:41:SER:OG	25:d3:43:PHE:O	2.21	0.44
36:5:67:A:N7	36:5:317:A:H1'	2.33	0.44
36:5:96:G:H2'	36:5:97:U:O4'	2.18	0.44
36:5:359:U:H4'	36:5:817:A:N6	2.33	0.44
36:5:638:C:C2	36:5:652:G:N2	2.86	0.44
36:5:797:U:O2'	36:5:798:G:H5'	2.17	0.44
36:5:991:G:H2'	36:5:992:A:H8	1.82	0.44
36:5:1080:A:OP1	42:l5:140:ARG:HD3	2.18	0.44
36:5:1148:G:N2	36:5:1156:C:C2	2.86	0.44
36:5:1417:G:OP2	36:5:1417:G:C8	2.70	0.44
36:5:1490:A:H5''	36:5:1491:A:OP2	2.18	0.44
36:5:1874:A:H5''	55:m9:18:GLY:CA	2.46	0.44
36:5:3219:G:H1	43:l6:162:SER:CB	2.31	0.44
37:7:97:A:OP1	56:n0:40:ARG:NH1	2.51	0.44
40:l3:19:ARG:HG3	40:l3:273:HIS:CE1	2.53	0.44
40:l3:33:PRO:HD2	40:l3:44:THR:HG21	2.00	0.44
41:l4:60:THR:HG22	41:l4:62:ALA:N	2.33	0.44
42:l5:260:PHE:HA	42:l5:264:GLN:OE1	2.18	0.44
46:l9:129:ARG:HD2	46:l9:157:ASN:HB2	2.00	0.44
48:m1:92:ARG:HH11	48:m1:92:ARG:HG2	1.83	0.44
50:m4:20:VAL:HG13	50:m4:68:LEU:HB2	1.99	0.44
51:m5:36:ILE:HG23	51:m5:106:VAL:HG12	2.00	0.44
52:m6:3:VAL:O	52:m6:3:VAL:HG13	2.18	0.44
52:m6:13:GLY:HA2	52:m6:42:ASN:OD1	2.18	0.44
56:n0:102:ALA:O	56:n0:106:LEU:N	2.48	0.44
59:n3:6:ALA:HB2	59:n3:126:TRP:CH2	2.52	0.44
61:n5:61:LYS:HE3	61:n5:61:LYS:HB2	1.74	0.44
64:n8:6:THR:HG23	64:n8:8:THR:H	1.83	0.44
67:o1:12:TYR:CD2	67:o1:75:ILE:HD12	2.53	0.44
69:o3:24:ASN:OD1	69:o3:26:ASN:HB2	2.17	0.44
79:q3:55:TRP:CD2	79:q3:71:VAL:HG22	2.53	0.44
1:2:920:U:OP1	3:S1:85:LYS:NZ	2.49	0.43
1:2:995:A:H2'	1:2:996:U:O4'	2.18	0.43
1:2:1341:A:H2'	1:2:1342:C:O5'	2.18	0.43
3:S1:119:THR:OG1	3:S1:155:TYR:HD1	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:189:ILE:N	3:S1:190:PRO:HD2	2.33	0.43
4:S2:133:LYS:HA	4:S2:136:VAL:HG13	2.00	0.43
5:S3:34:TYR:CE2	5:S3:37:VAL:HG13	2.49	0.43
20:C8:26:ILE:HD12	20:C8:27:LYS:N	2.33	0.43
22:D0:48:HIS:NE2	22:D0:99:ILE:HG12	2.33	0.43
28:D6:44:ILE:H	28:D6:44:ILE:HD12	1.83	0.43
30:D8:66:LEU:HD23	30:D8:66:LEU:HA	1.77	0.43
34:SR:35:SER:O	34:SR:42:LEU:HA	2.18	0.43
35:SM:68:ARG:HE	35:SM:68:ARG:HB3	1.61	0.43
35:SM:114:LYS:HE3	35:SM:114:LYS:HB2	1.81	0.43
36:1:146:U:O5'	36:1:148:G:H5'	2.18	0.43
36:1:1363:A:OP1	44:L7:160:ARG:HD3	2.17	0.43
36:1:1499:C:H2'	36:1:1500:G:C8	2.53	0.43
36:1:1910:A:H2	36:1:2333:C:O2	2.01	0.43
36:1:2676:A:H1'	36:1:2677:G:N2	2.33	0.43
36:1:2883:U:H2'	36:1:2884:C:C6	2.53	0.43
38:4:52:A:O4'	75:O9:21:ARG:HD2	2.18	0.43
39:L2:181:LYS:HG3	39:L2:184:ARG:HG3	1.99	0.43
40:L3:81:THR:OG1	40:L3:321:PHE:HA	2.17	0.43
40:L3:88:GLY:O	40:L3:161:LEU:N	2.37	0.43
49:M3:43:ALA:HB2	49:M3:51:LEU:HD11	2.00	0.43
51:M5:13:LYS:O	51:M5:19:LEU:HD22	2.17	0.43
54:M8:135:GLN:CD	54:M8:135:GLN:H	2.25	0.43
63:N7:53:VAL:HA	63:N7:57:HIS:HD2	1.82	0.43
64:N8:46:ASP:O	64:N8:47:LYS:HG2	2.18	0.43
66:O0:77:LEU:O	66:O0:80:ALA:HB3	2.18	0.43
68:O2:32:TRP:CZ2	68:O2:53:PRO:HD2	2.52	0.43
1:6:54:C:O3'	26:d4:109:LYS:HD3	2.18	0.43
1:6:344:A:C6	1:6:345:U:C4	3.05	0.43
1:6:841:U:H2'	1:6:842:C:H6	1.83	0.43
1:6:1320:U:HO2'	1:6:1322:A:P	2.40	0.43
1:6:1345:A:OP1	22:d0:54:GLY:N	2.49	0.43
1:6:1380:U:O2'	1:6:1516:A:N1	2.48	0.43
3:s1:70:LEU:HD13	3:s1:79:HIS:CG	2.53	0.43
3:s1:145:LYS:HG3	3:s1:154:SER:HB3	1.99	0.43
9:s7:9:LEU:HD11	9:s7:21:ALA:HB2	2.00	0.43
9:s7:126:LEU:HD22	9:s7:173:TYR:CE2	2.53	0.43
17:c5:118:GLU:O	35:sM:57:ASN:ND2	2.50	0.43
19:c7:109:LEU:O	19:c7:113:LEU:HG	2.18	0.43
24:d2:96:ALA:HB1	24:d2:98:GLN:HE21	1.83	0.43
27:d5:49:ARG:NH2	27:d5:53:GLU:OE2	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:d5:57:TYR:CZ	27:d5:68:ARG:HD2	2.53	0.43
28:d6:31:PRO:O	28:d6:34:LYS:N	2.50	0.43
35:sM:65:THR:OG1	35:sM:66:ALA:N	2.51	0.43
36:5:20:A:N6	36:5:21:G:O6	2.51	0.43
36:5:35:A:H2'	36:5:36:C:O4'	2.18	0.43
36:5:91:G:N7	36:5:93:C:C2	2.86	0.43
36:5:192:C:H6	36:5:192:C:O5'	2.01	0.43
36:5:212:G:OP2	62:n6:2:ALA:N	2.51	0.43
36:5:227:G:N2	36:5:228:U:H1'	2.33	0.43
36:5:282:G:H22	51:m5:178:HIS:HD2	1.66	0.43
36:5:841:A:H1'	55:m9:129:GLY:HA3	1.99	0.43
36:5:974:G:H2'	36:5:975:C:C6	2.52	0.43
36:5:1205:A:H8	36:5:1205:A:O5'	2.01	0.43
36:5:1469:C:C2	36:5:1509:A:C2	3.06	0.43
36:5:1524:A:H2	36:5:1606:U:O2'	2.01	0.43
36:5:1645:U:O4	36:5:1646:G:C6	2.71	0.43
36:5:2105:G:H2'	36:5:2106:A:H8	1.83	0.43
36:5:2167:A:OP1	51:m5:72:LYS:NZ	2.51	0.43
36:5:2771:U:H2'	36:5:2772:C:C6	2.52	0.43
36:5:2807:U:O2'	36:5:2808:A:H5''	2.18	0.43
36:5:2815:G:H5''	36:5:2816:G:OP2	2.18	0.43
36:5:2828:G:N2	36:5:2829:U:H1'	2.33	0.43
38:8:3:A:H2'	38:8:4:C:O4'	2.17	0.43
38:8:132:G:C6	38:8:133:G:N7	2.86	0.43
38:8:137:C:H5''	38:8:138:A:OP2	2.18	0.43
38:8:155:A:H5'	45:l8:185:ARG:HD2	1.99	0.43
40:l3:296:THR:HG21	40:l3:357:LYS:O	2.18	0.43
40:l3:296:THR:CG2	40:l3:298:PHE:H	2.05	0.43
41:l4:191:LYS:C	41:l4:193:LYS:N	2.75	0.43
41:l4:202:ARG:NE	41:l4:202:ARG:HA	2.33	0.43
41:l4:281:ILE:HG22	54:m8:25:TYR:HB3	1.99	0.43
41:l4:325:LEU:HA	41:l4:325:LEU:HD23	1.79	0.43
42:l5:148:ILE:HG22	42:l5:149:GLY:O	2.17	0.43
43:l6:34:LEU:HD23	43:l6:34:LEU:HA	1.59	0.43
44:l7:153:PHE:HB2	44:l7:203:TRP:HB3	2.00	0.43
45:l8:77:GLN:HE22	45:l8:226:TYR:HD1	1.63	0.43
45:l8:77:GLN:NE2	45:l8:226:TYR:CD1	2.86	0.43
46:l9:21:LYS:O	46:l9:24:ILE:HG12	2.18	0.43
46:l9:90:MET:O	46:l9:143:GLU:O	2.36	0.43
49:m3:144:THR:HG21	71:o5:118:ILE:HG21	1.99	0.43
54:m8:143:PRO:O	54:m8:146:SER:HB2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:m9:133:LYS:HB3	55:m9:134:HIS:ND1	2.33	0.43
57:n1:126:VAL:HB	57:n1:128:LEU:HD11	1.99	0.43
61:n5:92:LYS:HA	61:n5:95:ILE:HD12	1.99	0.43
63:n7:9:LYS:HB3	63:n7:25:ILE:CD1	2.46	0.43
64:n8:66:ALA:HA	64:n8:69:TRP:HB2	2.00	0.43
70:o4:83:ASN:OD1	70:o4:83:ASN:N	2.47	0.43
1:2:181:A:H2'	1:2:182:A:C8	2.54	0.43
1:2:280:U:H4'	1:2:281:G:O5'	2.18	0.43
1:2:619:A:N3	1:2:1141:G:H1'	2.34	0.43
1:2:778:G:O6	26:D4:10:ARG:HB3	2.17	0.43
1:2:833:U:O5'	1:2:834:G:H5''	2.18	0.43
1:2:1368:G:C6	1:2:1369:U:C4	3.06	0.43
1:2:1370:U:HO2'	1:2:1371:A:P	2.33	0.43
1:2:1402:G:H5'	19:C7:3:ARG:O	2.17	0.43
1:2:1565:C:OP1	20:C8:41:ARG:NH1	2.52	0.43
3:S1:211:HIS:N	3:S1:211:HIS:CD2	2.87	0.43
4:S2:115:ILE:HD13	4:S2:208:GLU:HG2	1.99	0.43
5:S3:20:GLU:OE2	5:S3:76:ARG:NH2	2.50	0.43
6:S4:126:VAL:HG21	6:S4:155:LYS:O	2.19	0.43
14:C2:131:ASP:OD1	14:C2:132:GLU:N	2.51	0.43
17:C5:36:LEU:HD23	17:C5:36:LEU:H	1.82	0.43
18:C6:14:LYS:O	18:C6:123:ARG:NH2	2.51	0.43
30:D8:32:PHE:HE2	30:D8:38:ARG:HB3	1.81	0.43
36:1:339:C:O2'	36:1:340:C:H5'	2.18	0.43
36:1:386:A:C5	36:1:387:A:H1'	2.53	0.43
36:1:668:G:H2'	36:1:669:U:C6	2.54	0.43
36:1:715:A:H5'	64:N8:133:LEU:HD12	2.01	0.43
36:1:718:G:H8	36:1:718:G:O5'	2.01	0.43
36:1:1759:C:H3'	36:1:1760:A:C8	2.53	0.43
36:1:1927:G:H8	79:Q3:15:GLY:O	2.01	0.43
36:1:2208:A:O3'	36:1:2209:U:H6	2.01	0.43
36:1:2530:G:H2'	36:1:2531:C:H5''	1.99	0.43
36:1:2532:U:H3	36:1:2547:A:N6	2.12	0.43
36:1:2947:G:OP2	36:1:2947:G:H4'	2.18	0.43
38:4:143:U:C2	38:4:144:G:C8	3.06	0.43
38:4:150:G:O2'	38:4:152:G:OP1	2.31	0.43
39:L2:62:VAL:HG11	39:L2:71:LEU:HD23	2.00	0.43
41:L4:6:VAL:HG21	41:L4:149:PRO:HD2	2.00	0.43
41:L4:226:GLU:OE1	41:L4:237:GLN:HG2	2.18	0.43
46:L9:97:PHE:HB3	46:L9:116:ASN:HD21	1.82	0.43
47:M0:213:PHE:N	47:M0:214:PRO:HD3	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:136:ASP:OD2	51:M5:138:GLN:HG2	2.17	0.43
55:M9:101:VAL:HG12	55:M9:102:LEU:HD23	1.99	0.43
55:M9:155:LEU:HA	55:M9:158:GLU:HG2	1.98	0.43
56:N0:14:LEU:HG	56:N0:56:GLY:CA	2.49	0.43
58:N2:90:ARG:O	58:N2:91:ASP:HB2	2.18	0.43
71:O5:15:GLU:O	71:O5:18:ALA:HB3	2.17	0.43
72:O6:45:ARG:HD3	72:O6:45:ARG:C	2.43	0.43
73:O7:19:CYS:HA	73:O7:27:PHE:HB2	1.99	0.43
1:6:158:U:O2'	1:6:160:C:OP2	2.26	0.43
1:6:754:A:N6	1:6:793:A:H62	2.15	0.43
1:6:825:U:O2'	1:6:826:U:P	2.76	0.43
1:6:855:A:O2'	1:6:856:A:H5''	2.17	0.43
1:6:1194:A:H2'	1:6:1195:C:H5'	2.00	0.43
1:6:1317:C:H2'	1:6:1318:G:O4'	2.18	0.43
2:s0:88:LYS:HD2	2:s0:88:LYS:HA	1.61	0.43
3:s1:126:THR:HG22	3:s1:136:ARG:HE	1.83	0.43
9:s7:116:ARG:HD3	9:s7:116:ARG:HA	1.71	0.43
11:s9:168:ARG:NH1	11:s9:171:ARG:HD3	2.33	0.43
17:c5:126:VAL:HG22	35:sM:71:ASN:HD21	1.82	0.43
20:c8:69:ILE:O	20:c8:73:MET:HB2	2.18	0.43
27:d5:58:ARG:HB3	27:d5:103:ARG:NH1	2.27	0.43
32:e0:13:LYS:O	32:e0:17:GLN:HG2	2.18	0.43
34:sR:36:ALA:HB2	34:sR:42:LEU:HD23	1.99	0.43
34:sR:64:HIS:CE1	34:sR:90:ARG:HG3	2.52	0.43
36:5:149:U:H5'	51:m5:55:ALA:O	2.18	0.43
36:5:730:C:H2'	36:5:731:U:H6	1.83	0.43
36:5:855:U:H4'	55:m9:95:TRP:CE2	2.53	0.43
36:5:880:G:C8	53:m7:132:ALA:HB1	2.53	0.43
36:5:986:U:O2'	44:l7:122:ALA:O	2.35	0.43
36:5:1146:C:H4'	36:5:1331:U:C4	2.53	0.43
36:5:1151:U:C4	36:5:1200:A:N6	2.85	0.43
36:5:1235:U:C4'	36:5:1236:G:H5'	2.46	0.43
36:5:1306:G:O6	52:m6:62:THR:HG23	2.18	0.43
36:5:1619:A:C2	36:5:1826:C:C2	3.06	0.43
36:5:2138:A:C4	73:o7:3:LYS:HB3	2.54	0.43
36:5:2328:U:H2'	36:5:2329:C:C6	2.53	0.43
36:5:2330:C:H2'	36:5:2331:C:H6	1.83	0.43
36:5:2417:U:H4'	36:5:2965:U:O2	2.18	0.43
36:5:2885:C:C4	36:5:2886:U:O4	2.71	0.43
36:5:3164:C:O2'	36:5:3165:A:P	2.76	0.43
42:l5:254:LYS:O	42:l5:254:LYS:HG3	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:m3:115:ARG:NH1	49:m3:147:ILE:HG12	2.33	0.43
51:m5:24:ARG:O	51:m5:27:VAL:HG12	2.18	0.43
57:n1:65:TYR:CD1	57:n1:66:ASN:HB2	2.53	0.43
57:n1:73:GLY:HA2	57:n1:89:LEU:O	2.18	0.43
60:n4:59:HIS:C	60:n4:60:LYS:HG2	2.42	0.43
70:o4:44:CYS:SG	70:o4:45:GLY:N	2.90	0.43
71:o5:7:TYR:CE1	71:o5:8:GLU:HG3	2.53	0.43
78:q2:43:TYR:C	78:q2:43:TYR:CD1	2.96	0.43
1:2:204:G:C2	1:2:264:G:C2	3.07	0.43
1:2:1395:G:N2	1:2:1404:C:C2	2.86	0.43
1:2:1524:A:C6	1:2:1525:A:C6	3.06	0.43
1:2:1544:U:OP1	20:C8:136:GLN:NE2	2.51	0.43
1:2:1609:U:OP1	18:C6:76:SER:HB2	2.19	0.43
5:S3:55:THR:HA	5:S3:58:VAL:HG23	2.00	0.43
9:S7:74:GLN:HG2	9:S7:131:PHE:CD1	2.53	0.43
9:S7:80:GLU:OE2	9:S7:83:LYS:NZ	2.32	0.43
10:S8:39:GLY:O	10:S8:59:ARG:HB3	2.17	0.43
15:C3:94:LYS:O	15:C3:98:VAL:HG23	2.18	0.43
19:C7:106:THR:O	19:C7:110:VAL:HG23	2.18	0.43
22:D0:18:GLN:O	22:D0:96:PRO:HA	2.17	0.43
23:D1:38:LYS:NZ	23:D1:49:GLU:HG3	2.33	0.43
27:D5:59:TYR:CD2	27:D5:59:TYR:C	2.97	0.43
28:D6:25:ASN:HB3	28:D6:77:CYS:SG	2.58	0.43
36:1:171:G:C2	36:1:172:G:C8	3.07	0.43
36:1:209:A:H2'	41:L4:162:THR:OG1	2.17	0.43
36:1:258:G:H8	36:1:258:G:O5'	2.00	0.43
36:1:415:G:C2	38:4:9:A:C2	3.06	0.43
36:1:548:G:O2'	36:1:549:U:OP1	2.32	0.43
36:1:1438:U:H2'	36:1:1439:U:H6	1.83	0.43
36:1:2273:G:N2	36:1:2311:G:H2'	2.34	0.43
36:1:2597:U:C2	36:1:2598:G:C8	3.06	0.43
36:1:2897:A:C8	36:1:2899:C:C2	3.06	0.43
36:1:3261:C:O2'	36:1:3262:U:H5'	2.18	0.43
36:1:3341:U:OP1	36:1:3341:U:H3'	2.17	0.43
37:3:16:U:C2	37:3:65:G:N2	2.86	0.43
38:4:126:A:H4'	38:4:127:U:OP2	2.17	0.43
40:L3:110:LEU:HD12	40:L3:110:LEU:HA	1.85	0.43
40:L3:312:VAL:O	40:L3:313:HIS:HB2	2.18	0.43
42:L5:21:ARG:HG2	42:L5:21:ARG:NH1	2.33	0.43
42:L5:141:PRO:HB2	42:L5:172:TYR:HB2	2.01	0.43
44:L7:215:GLY:C	44:L7:216:VAL:HG13	2.43	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:152:LEU:O	47:M0:155:ALA:N	2.49	0.43
49:M3:63:VAL:HG12	64:N8:128:ARG:CZ	2.48	0.43
54:M8:18:ALA:HA	54:M8:53:PHE:CD1	2.53	0.43
56:N0:154:HIS:HA	56:N0:170:THR:HB	2.00	0.43
61:N5:103:TYR:N	61:N5:103:TYR:CD2	2.86	0.43
66:O0:13:LYS:O	66:O0:17:VAL:HG23	2.18	0.43
70:O4:44:CYS:SG	70:O4:81:CYS:HB3	2.59	0.43
70:O4:51:LEU:HD23	70:O4:51:LEU:H	1.83	0.43
71:O5:7:TYR:CD1	71:O5:8:GLU:HG3	2.54	0.43
76:Q0:127:LEU:HD13	76:Q0:128:LYS:HE2	1.99	0.43
78:Q2:72:LEU:HD12	78:Q2:72:LEU:N	2.34	0.43
1:6:219:A:C6	1:6:843:U:H1'	2.52	0.43
1:6:221:A:H5''	1:6:833:U:H1'	2.00	0.43
1:6:935:U:O2'	1:6:936:G:H5'	2.18	0.43
1:6:1147:A:H2'	1:6:1148:C:C6	2.53	0.43
1:6:1458:G:C2	1:6:1459:C:C4	3.06	0.43
1:6:1579:U:O2'	18:c6:139:GLN:HG3	2.18	0.43
1:6:1585:U:O2'	1:6:1586:A:H5'	2.18	0.43
1:6:1603:U:O2'	1:6:1604:U:H5'	2.18	0.43
4:s2:85:PRO:HA	4:s2:98:PHE:HA	1.99	0.43
5:s3:76:ARG:HD2	5:s3:76:ARG:C	2.43	0.43
5:s3:203:PRO:HA	19:c7:42:GLN:CB	2.49	0.43
6:s4:100:ARG:HH12	6:s4:118:GLU:HG2	1.82	0.43
8:s6:48:TYR:CZ	8:s6:121:LEU:HD22	2.52	0.43
8:s6:64:LYS:HE2	8:s6:77:LEU:HD21	1.99	0.43
8:s6:145:PHE:HB2	8:s6:147:LEU:HD11	2.00	0.43
10:s8:103:GLN:HE21	10:s8:166:TYR:HE1	1.66	0.43
11:s9:53:ARG:CZ	11:s9:53:ARG:HB3	2.48	0.43
15:c3:149:LEU:HD12	15:c3:149:LEU:HA	1.79	0.43
22:d0:34:LEU:HD21	22:d0:89:ARG:CZ	2.48	0.43
27:d5:45:GLU:H	27:d5:45:GLU:HG3	1.69	0.43
36:5:36:C:C5	36:5:37:U:C6	3.06	0.43
36:5:346:C:C4	36:5:348:A:N7	2.86	0.43
36:5:409:A:C2	36:5:1442:U:O4'	2.71	0.43
36:5:559:A:OP1	36:5:559:A:H4'	2.18	0.43
36:5:1889:G:H5'	40:l3:245:GLY:HA2	2.00	0.43
36:5:2288:G:C4	36:5:2289:U:C5	3.05	0.43
36:5:2773:C:H2'	36:5:2774:C:C6	2.54	0.43
36:5:3113:A:C5	36:5:3114:A:C8	3.07	0.43
37:7:48:U:OP2	42:l5:94:ASN:HB3	2.18	0.43
40:l3:334:ARG:HG3	40:l3:335:ILE:N	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:l4:338:LYS:O	41:l4:340:GLY:N	2.49	0.43
48:m1:133:ARG:HB2	48:m1:152:HIS:CD2	2.53	0.43
52:m6:138:LEU:HD12	52:m6:138:LEU:HA	1.66	0.43
52:m6:183:ALA:HA	52:m6:186:ALA:HB2	2.00	0.43
54:m8:89:ASP:HB2	54:m8:110:ALA:N	2.32	0.43
54:m8:178:ARG:HD2	54:m8:178:ARG:HA	1.69	0.43
55:m9:25:ASP:HB3	55:m9:28:GLU:HB2	1.99	0.43
55:m9:126:GLU:HB3	55:m9:132:PHE:CE2	2.53	0.43
64:n8:63:LYS:HE2	64:n8:68:PHE:CE2	2.52	0.43
68:o2:82:LEU:HD12	68:o2:108:ILE:CG2	2.47	0.43
69:o3:106:ASN:O	69:o3:106:ASN:ND2	2.52	0.43
75:o9:38:ASN:ND2	75:o9:41:ARG:HB2	2.34	0.43
1:2:645:C:H2'	1:2:646:C:C6	2.53	0.43
1:2:756:A:H5''	1:2:757:A:OP2	2.19	0.43
1:2:816:G:OP2	1:2:816:G:H8	2.01	0.43
1:2:900:A:OP1	16:C4:43:THR:OG1	2.28	0.43
1:2:912:U:C4	1:2:914:G:C6	3.07	0.43
1:2:1067:C:H2'	1:2:1068:C:C6	2.53	0.43
1:2:1174:C:H2'	1:2:1175:U:O4'	2.17	0.43
1:2:1458:G:N3	1:2:1458:G:H2'	2.33	0.43
1:2:1482:C:OP2	1:2:1521:G:C2	2.71	0.43
1:2:1681:A:H2'	1:2:1682:U:H5'	2.01	0.43
1:2:1715:G:C6	1:2:1716:C:C4	3.07	0.43
4:S2:35:TRP:CD1	4:S2:35:TRP:C	2.95	0.43
4:S2:125:ILE:O	4:S2:129:ILE:HG13	2.18	0.43
9:S7:67:LEU:HD11	9:S7:94:ALA:HB2	1.98	0.43
10:S8:159:GLN:HE21	10:S8:189:LEU:HD21	1.83	0.43
11:S9:77:ILE:O	11:S9:81:VAL:HG23	2.18	0.43
15:C3:54:LEU:HB3	15:C3:60:VAL:HG21	2.01	0.43
16:C4:19:ILE:HD13	16:C4:101:ALA:HB3	2.01	0.43
27:D5:71:ILE:CG2	27:D5:75:LEU:HD12	2.45	0.43
29:D7:3:LEU:HD22	29:D7:3:LEU:HA	1.78	0.43
36:1:351:A:H1'	38:4:53:A:O2'	2.19	0.43
36:1:526:C:O2	36:1:567:G:N2	2.52	0.43
36:1:602:A:H2'	36:1:603:A:C8	2.53	0.43
36:1:656:A:H2'	36:1:657:A:H8	1.78	0.43
36:1:1740:U:P	70:O4:55:SER:HA	2.59	0.43
36:1:2569:A:H8	36:1:2569:A:OP2	2.01	0.43
36:1:2596:U:C4	36:1:2597:U:C4	3.06	0.43
36:1:2672:G:H1'	48:M1:97:SER:HB3	2.00	0.43
36:1:2782:U:OP1	49:M3:185:LYS:HE2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2943:G:OP2	40:L3:2:SER:HB2	2.18	0.43
37:3:67:G:H2'	37:3:68:C:C6	2.53	0.43
39:L2:3:ARG:HG2	39:L2:4:VAL:N	2.29	0.43
40:L3:158:VAL:HG23	40:L3:188:ILE:HG22	2.00	0.43
43:L6:164:SER:OG	43:L6:166:LYS:HE2	2.18	0.43
44:L7:173:LEU:HB3	44:L7:178:ILE:HB	2.01	0.43
48:M1:90:GLN:NE2	48:M1:172:LEU:HD21	2.34	0.43
50:M4:8:LYS:HB3	50:M4:8:LYS:HE3	1.84	0.43
50:M4:127:LYS:O	50:M4:131:VAL:HG23	2.17	0.43
57:N1:102:ARG:O	57:N1:106:LEU:HD22	2.18	0.43
61:N5:142:ILE:HD13	61:N5:142:ILE:HA	1.74	0.43
63:N7:25:ILE:HG23	63:N7:41:ALA:HB1	1.99	0.43
64:N8:77:LYS:C	64:N8:79:TRP:N	2.75	0.43
67:O1:16:LEU:HA	67:O1:16:LEU:HD12	1.59	0.43
70:O4:96:GLU:HA	70:O4:99:LYS:HE3	2.00	0.43
79:Q3:17:ARG:HD2	79:Q3:18:TYR:CZ	2.53	0.43
1:6:332:U:OP2	10:s8:56:ARG:NH2	2.51	0.43
1:6:577:G:O6	35:sM:99:LYS:O	2.36	0.43
1:6:1150:G:C6	1:6:1768:G:C5	3.07	0.43
1:6:1535:U:H5'	27:d5:38:HIS:NE2	2.34	0.43
1:6:1662:G:C2	1:6:1740:A:C2	3.06	0.43
2:s0:66:ALA:HB1	23:d1:50:TYR:CD1	2.53	0.43
2:s0:76:ILE:O	2:s0:124:THR:HG23	2.19	0.43
4:s2:67:GLN:HA	4:s2:70:ASP:HB2	2.01	0.43
4:s2:178:ILE:HB	4:s2:185:LYS:HG2	2.00	0.43
6:s4:14:ALA:HB1	6:s4:18:TRP:CE3	2.53	0.43
7:s5:58:LEU:O	7:s5:61:TYR:HB2	2.19	0.43
10:s8:137:LYS:O	10:s8:140:GLU:N	2.51	0.43
26:d4:43:LYS:HB2	26:d4:43:LYS:HE3	1.80	0.43
34:sR:207:ASP:OD2	34:sR:207:ASP:N	2.43	0.43
34:sR:236:ALA:O	34:sR:261:LYS:NZ	2.48	0.43
35:sM:65:THR:O	35:sM:67:GLY:N	2.52	0.43
36:5:72:C:N3	36:5:74:G:C4	2.86	0.43
36:5:168:U:H2'	36:5:169:U:C6	2.53	0.43
36:5:566:G:O2'	36:5:567:G:H5'	2.18	0.43
36:5:611:A:C2	36:5:612:U:C2	3.07	0.43
36:5:769:G:C6	36:5:770:G:C6	3.06	0.43
36:5:819:U:O2'	36:5:918:C:O2'	2.30	0.43
36:5:1103:A:O4'	44:l7:158:LYS:HG3	2.18	0.43
36:5:1696:A:H2'	36:5:1697:A:C8	2.54	0.43
36:5:1810:A:C6	36:5:1811:G:C6	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:7:80:G:H8	37:7:80:G:O5'	2.00	0.43
38:8:71:A:H2'	62:n6:51:ARG:NH1	2.33	0.43
42:l5:55:PHE:CZ	42:l5:158:ARG:HB3	2.53	0.43
44:l7:40:LYS:HG3	44:l7:41:ARG:N	2.33	0.43
44:l7:158:LYS:HD2	44:l7:158:LYS:C	2.43	0.43
48:m1:28:ASP:O	48:m1:31:THR:HG23	2.18	0.43
56:n0:77:VAL:HG22	56:n0:126:VAL:HG22	2.01	0.43
60:n4:106:GLU:HG3	60:n4:106:GLU:H	1.48	0.43
67:o1:80:ASN:OD1	67:o1:81:GLU:N	2.46	0.43
71:o5:30:GLU:HG2	71:o5:34:GLN:OE1	2.18	0.43
75:o9:31:THR:HG22	75:o9:32:ASN:CG	2.43	0.43
1:2:330:G:C5	1:2:331:A:N7	2.87	0.43
1:2:1068:C:H2'	1:2:1069:A:H8	1.83	0.43
1:2:1438:G:C5	1:2:1439:C:C4	3.06	0.43
1:2:1600:A:C5	1:2:1602:C:C2	3.06	0.43
3:S1:30:PHE:CE1	3:S1:96:LEU:HD22	2.54	0.43
3:S1:146:GLN:H	3:S1:149:GLN:NE2	2.16	0.43
5:S3:7:LYS:HA	5:S3:7:LYS:HE3	2.00	0.43
6:S4:126:VAL:HG13	6:S4:158:ASP:O	2.19	0.43
6:S4:127:LYS:HD3	6:S4:127:LYS:HA	1.81	0.43
13:C1:6:THR:O	13:C1:7:VAL:C	2.62	0.43
15:C3:39:LYS:HE2	15:C3:39:LYS:HA	1.99	0.43
15:C3:76:LYS:HB3	15:C3:76:LYS:HE3	1.76	0.43
28:D6:25:ASN:ND2	28:D6:77:CYS:SG	2.90	0.43
28:D6:39:MET:HE2	28:D6:70:LYS:HG3	1.99	0.43
29:D7:72:LYS:HE2	29:D7:72:LYS:HB2	1.78	0.43
30:D8:31:GLU:OE2	30:D8:36:THR:OG1	2.21	0.43
34:SR:108:SER:OG	34:SR:109:ASP:N	2.51	0.43
36:1:200:C:N4	36:1:217:U:H2'	2.34	0.43
36:1:276:U:H2'	36:1:277:G:O4'	2.17	0.43
36:1:306:A:N6	36:1:2784:G:C2	2.86	0.43
36:1:879:U:H2'	53:M7:131:ARG:NH2	2.33	0.43
36:1:1513:G:C4	36:1:1515:A:C8	3.07	0.43
36:1:1522:U:O2	36:1:1835:A:H8	2.01	0.43
36:1:1650:G:C2	36:1:1651:U:C2	3.06	0.43
36:1:1722:U:C1'	55:M9:96:ILE:HG12	2.49	0.43
36:1:2394:G:H5'	40:L3:252:ILE:HG22	1.99	0.43
36:1:2405:C:C4	36:1:2406:C:C5	3.07	0.43
36:1:2534:G:H2'	36:1:2535:A:C8	2.50	0.43
36:1:2744:U:H2'	36:1:2745:G:C8	2.53	0.43
36:1:2746:A:C2	42:L5:146:LEU:HD13	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2887:A:H2'	36:1:2887:A:N3	2.33	0.43
36:1:3160:U:O2	36:1:3291:G:C2	2.71	0.43
36:1:3275:U:H5''	69:O3:68:TRP:HZ2	1.82	0.43
39:L2:44:ILE:H	39:L2:44:ILE:HD12	1.84	0.43
42:L5:205:SER:OG	42:L5:206:GLN:N	2.51	0.43
43:L6:43:LEU:HB2	43:L6:83:TYR:O	2.18	0.43
44:L7:124:LEU:HD22	44:L7:124:LEU:HA	1.75	0.43
52:M6:115:LYS:N	52:M6:115:LYS:HD2	2.33	0.43
53:M7:64:ASN:HB2	53:M7:80:LYS:HE3	1.98	0.43
57:N1:12:ARG:HD3	57:N1:13:TYR:CZ	2.53	0.43
1:6:38:C:C2'	1:6:39:A:H5'	2.49	0.43
1:6:547:U:C2	1:6:548:G:C8	3.06	0.43
1:6:1195:C:H5''	1:6:1197:C:C6	2.54	0.43
1:6:1472:C:H4'	1:6:1473:U:H5''	2.01	0.43
1:6:1509:C:H2'	1:6:1510:U:O4'	2.19	0.43
1:6:1525:A:H2'	1:6:1526:A:C8	2.53	0.43
1:6:1531:G:N7	27:d5:96:SER:OG	2.52	0.43
1:6:1641:C:O4'	1:6:1762:A:C2	2.72	0.43
1:6:1657:U:O2'	1:6:1658:G:P	2.76	0.43
1:6:1781:A:H2'	1:6:1782:A:O4'	2.18	0.43
1:6:1784:C:H2'	1:6:1785:U:C6	2.54	0.43
3:s1:83:LYS:O	3:s1:103:MET:HA	2.18	0.43
8:s6:29:ASP:HA	8:s6:101:ILE:HG23	1.99	0.43
8:s6:52:ILE:HG23	8:s6:109:LEU:HD21	2.00	0.43
11:s9:105:LEU:O	11:s9:108:ARG:HG3	2.19	0.43
16:c4:92:LYS:HD2	16:c4:121:VAL:HG22	1.99	0.43
20:c8:29:VAL:O	20:c8:43:SER:OG	2.25	0.43
21:c9:49:ASP:OD1	21:c9:51:GLU:HB2	2.19	0.43
30:d8:13:ILE:N	30:d8:29:ARG:O	2.41	0.43
34:sR:238:ASP:OD2	34:sR:258:THR:OG1	2.29	0.43
36:5:1014:U:H5'	36:5:1015:U:O5'	2.19	0.43
36:5:1781:C:H2'	36:5:1782:U:H6	1.84	0.43
36:5:2146:C:H2'	36:5:2147:A:O4'	2.18	0.43
36:5:2157:G:H5'	36:5:2178:A:N6	2.33	0.43
36:5:3352:U:O2'	36:5:3353:G:P	2.76	0.43
39:l2:70:ARG:CZ	39:l2:72:ARG:HH21	2.31	0.43
39:l2:143:GLU:HB3	39:l2:145:LYS:HD2	2.00	0.43
41:l4:63:GLU:C	41:l4:75:PRO:HA	2.44	0.43
44:l7:124:LEU:O	44:l7:127:LEU:N	2.50	0.43
46:l9:182:SER:OG	46:l9:183:HIS:N	2.50	0.43
50:m4:45:LEU:HD12	50:m4:46:ILE:N	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:m5:31:ARG:NH1	51:m5:124:ASP:OD1	2.51	0.43
54:m8:34:THR:HG23	54:m8:49:LEU:HD21	2.00	0.43
56:n0:83:SER:N	56:n0:86:GLY:O	2.47	0.43
61:n5:108:LEU:HD23	61:n5:108:LEU:HA	1.79	0.43
64:n8:138:ILE:HD12	64:n8:145:VAL:CG2	2.48	0.43
68:o2:19:ARG:HG3	68:o2:33:ARG:N	2.33	0.43
72:o6:68:ARG:HG2	72:o6:71:LYS:HE2	2.01	0.43
75:o9:5:LYS:HD3	75:o9:13:MET:CE	2.45	0.43
78:q2:52:GLY:O	78:q2:54:THR:HG23	2.19	0.43
1:2:607:G:H5'	1:2:613:G:N2	2.32	0.43
1:2:875:G:H2'	1:2:877:G:OP1	2.18	0.43
1:2:914:G:H4'	1:2:915:A:O4'	2.19	0.43
1:2:1769:U:OP2	82:2:2013:GET:H222	2.19	0.43
1:2:1789:G:C8	16:C4:132:ARG:NH2	2.87	0.43
82:2:2014:GET:H933	82:2:2014:GET:H231	1.72	0.43
2:S0:27:ARG:CG	2:S0:28:ASN:H	2.29	0.43
3:S1:35:PRO:HG3	3:S1:98:THR:O	2.19	0.43
3:S1:36:SER:HB3	3:S1:231:LEU:HD22	2.00	0.43
5:S3:124:ARG:O	5:S3:128:GLU:HB2	2.18	0.43
5:S3:161:GLY:O	5:S3:164:VAL:HB	2.19	0.43
5:S3:224:ASP:OD2	34:SR:228:LYS:HD2	2.19	0.43
10:S8:70:GLU:HG3	10:S8:112:TRP:CH2	2.54	0.43
13:C1:91:LEU:HD23	13:C1:91:LEU:HA	1.74	0.43
17:C5:24:LYS:O	17:C5:28:MET:HB2	2.18	0.43
19:C7:16:LEU:HD23	19:C7:16:LEU:HA	1.88	0.43
20:C8:110:ARG:HB3	20:C8:110:ARG:NH1	2.34	0.43
23:D1:64:GLU:OE1	29:D7:3:LEU:HB2	2.18	0.43
26:D4:124:ARG:O	26:D4:127:LYS:HG3	2.18	0.43
29:D7:64:CYS:HB2	29:D7:71:ALA:HB1	2.01	0.43
34:SR:131:ILE:O	34:SR:144:LEU:N	2.41	0.43
36:1:71:A:C2	36:1:2778:G:H1'	2.53	0.43
36:1:536:U:N3	36:1:556:U:C4	2.87	0.43
36:1:673:U:O5'	36:1:673:U:H6	2.01	0.43
36:1:953:G:OP1	65:N9:12:GLN:NE2	2.46	0.43
36:1:1134:G:O2'	36:1:2642:A:N3	2.46	0.43
36:1:1608:C:H5''	61:N5:111:ASN:ND2	2.34	0.43
36:1:1872:C:C4'	55:M9:58:HIS:HB2	2.49	0.43
36:1:1874:A:H5''	55:M9:18:GLY:CA	2.48	0.43
36:1:2101:C:H1'	36:1:2102:U:C6	2.54	0.43
36:1:2295:A:H2'	36:1:2296:A:O4'	2.18	0.43
36:1:2314:U:H6	36:1:2314:U:H2'	1.55	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2352:A:OP1	53:M7:82:ARG:HB3	2.19	0.43
36:1:2573:G:C2	36:1:2574:G:H1'	2.53	0.43
37:3:91:G:C6	37:3:92:A:C6	3.06	0.43
38:4:14:C:H2'	38:4:15:G:O4'	2.19	0.43
38:4:84:C:H5''	38:4:85:G:C4	2.53	0.43
38:4:85:G:OP2	62:N6:113:LYS:NZ	2.52	0.43
39:L2:183:GLY:O	39:L2:186:PHE:HB3	2.19	0.43
40:L3:66:LYS:NZ	59:N3:120:LYS:HE2	2.33	0.43
41:L4:316:ASN:ND2	44:L7:150:LYS:HD2	2.34	0.43
44:L7:59:GLU:O	44:L7:63:ILE:HG13	2.19	0.43
44:L7:80:GLN:HB2	57:N1:135:PRO:HB2	2.00	0.43
45:L8:157:VAL:HG21	45:L8:163:VAL:HG21	1.99	0.43
45:L8:160:ILE:HG22	45:L8:164:VAL:HG13	2.01	0.43
49:M3:45:LYS:HG2	49:M3:45:LYS:O	2.19	0.43
57:N1:65:TYR:CE1	57:N1:66:ASN:HB2	2.53	0.43
64:N8:47:LYS:HG3	64:N8:48:TYR:CD2	2.54	0.43
70:O4:79:SER:HB3	70:O4:80:ARG:NE	2.34	0.43
1:6:76:A:H2'	1:6:76:A:N3	2.33	0.43
1:6:333:A:C6	1:6:334:G:C6	3.07	0.43
1:6:1490:C:C4	1:6:1492:A:C5	3.07	0.43
1:6:1533:C:N4	1:6:1534:G:C6	2.87	0.43
2:s0:105:GLY:N	2:s0:135:GLU:OE2	2.51	0.43
5:s3:45:LYS:HE2	5:s3:45:LYS:HB3	1.69	0.43
10:s8:97:THR:OG1	10:s8:98:LYS:N	2.52	0.43
11:s9:105:LEU:HA	11:s9:105:LEU:HD12	1.65	0.43
11:s9:150:LEU:HD12	11:s9:150:LEU:HA	1.85	0.43
26:d4:77:ASN:OD1	26:d4:77:ASN:N	2.44	0.43
34:sR:222:LEU:HB3	34:sR:231:MET:HE2	2.01	0.43
36:5:209:A:C5	41:l4:162:THR:HG21	2.53	0.43
36:5:312:C:C2	36:5:313:A:C8	3.06	0.43
36:5:1081:U:O2'	36:5:1082:U:OP2	2.35	0.43
36:5:1668:G:O2'	70:o4:22:VAL:HG11	2.18	0.43
36:5:1908:A:H2'	36:5:1909:A:O4'	2.19	0.43
36:5:2426:U:H2'	36:5:2427:U:C6	2.53	0.43
36:5:2916:U:C5	36:5:2935:U:O2'	2.71	0.43
36:5:3105:U:H2'	36:5:3106:A:H8	1.82	0.43
36:5:3390:G:C2	36:5:3391:A:C8	3.06	0.43
38:8:102:U:C4	38:8:103:G:C6	3.07	0.43
39:l2:77:ILE:HD11	39:l2:128:ARG:NH1	2.33	0.43
41:l4:25:VAL:CG2	41:l4:262:TRP:HB2	2.48	0.43
42:l5:95:TRP:CD1	42:l5:95:TRP:C	2.96	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:m4:47:ASP:CG	50:m4:55:ARG:HB2	2.44	0.43
53:m7:128:ARG:HG2	53:m7:136:ILE:CG2	2.47	0.43
59:n3:69:LEU:HD12	59:n3:69:LEU:HA	1.87	0.43
64:n8:46:ASP:OD1	64:n8:46:ASP:N	2.51	0.43
66:o0:86:ARG:NH2	79:q3:44:LYS:HA	2.32	0.43
67:o1:41:LYS:HA	67:o1:46:THR:HG22	2.01	0.43
76:q0:99:CYS:CB	76:q0:114:LYS:HD3	2.48	0.43
1:2:329:G:H5'	10:S8:99:ALA:HB3	1.99	0.43
1:2:348:U:C4	1:2:349:U:C5	3.07	0.43
1:2:348:U:O2'	10:S8:14:THR:HG22	2.19	0.43
1:2:448:C:H5'	6:S4:29:PRO:HG3	2.01	0.43
1:2:454:U:H3'	1:2:455:C:C5	2.54	0.43
6:S4:11:ARG:HG3	6:S4:28:ALA:HB2	2.01	0.43
9:S7:51:VAL:HG12	9:S7:53:GLY:H	1.83	0.43
9:S7:63:PRO:C	9:S7:64:VAL:HG23	2.43	0.43
11:S9:62:ARG:NH2	11:S9:68:LYS:HD3	2.33	0.43
16:C4:29:HIS:HB3	16:C4:41:ARG:CA	2.42	0.43
17:C5:80:MET:HE2	17:C5:80:MET:HB3	1.78	0.43
19:C7:5:ARG:N	19:C7:5:ARG:HD3	2.33	0.43
22:D0:87:HIS:HB3	22:D0:89:ARG:NH1	2.33	0.43
24:D2:6:VAL:HG11	24:D2:29:PRO:HG2	2.00	0.43
25:D3:102:VAL:HB	25:D3:124:VAL:HG13	2.00	0.43
28:D6:70:LYS:HD2	28:D6:72:HIS:CE1	2.54	0.43
28:D6:86:VAL:HG13	28:D6:87:ARG:N	2.33	0.43
33:E1:123:ASN:OD1	33:E1:124:PRO:HD2	2.18	0.43
33:E1:148:TYR:HD1	33:E1:148:TYR:HA	1.54	0.43
34:SR:112:SER:HB2	34:SR:153:GLN:HA	2.00	0.43
36:1:307:A:H2'	36:1:308:A:C8	2.53	0.43
36:1:863:C:C4	36:1:864:G:C5	3.06	0.43
36:1:881:C:H2'	36:1:882:A:H8	1.84	0.43
36:1:1138:U:H2'	36:1:1139:G:C8	2.54	0.43
36:1:1576:G:C6	36:1:1577:G:C6	3.07	0.43
36:1:1809:A:H2'	36:1:1810:A:O4'	2.19	0.43
36:1:1851:G:O2'	73:O7:6:PRO:HB3	2.18	0.43
36:1:2550:U:C6	45:L8:37:GLY:HA3	2.53	0.43
36:1:3036:G:H2'	36:1:3037:U:H6	1.82	0.43
37:3:1:G:H1'	42:L5:266:ALA:HA	2.00	0.43
37:3:110:G:C6	37:3:111:U:O4	2.72	0.43
39:L2:109:GLU:OE1	39:L2:138:GLY:HA2	2.18	0.43
42:L5:53:VAL:HG22	42:L5:62:CYS:SG	2.58	0.43
45:L8:53:PRO:O	45:L8:56:VAL:HB	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:96:PHE:O	48:M1:156:LYS:HE3	2.19	0.43
52:M6:16:VAL:HG22	52:M6:41:LEU:HD23	2.01	0.43
52:M6:193:GLN:O	52:M6:196:ALA:HB3	2.18	0.43
54:M8:23:ASN:O	54:M8:27:LYS:HG3	2.19	0.43
57:N1:39:ILE:HG12	57:N1:63:VAL:HG22	1.99	0.43
58:N2:36:TYR:OH	58:N2:82:LYS:HG2	2.19	0.43
63:N7:9:LYS:HD3	63:N7:9:LYS:HA	1.85	0.43
71:O5:85:THR:O	71:O5:89:ARG:N	2.51	0.43
1:6:274:G:H2'	1:6:275:C:C6	2.53	0.43
1:6:343:C:H2'	1:6:344:A:O4'	2.19	0.43
1:6:538:A:C8	1:6:543:C:C5	3.06	0.43
1:6:558:U:O2'	1:6:559:C:O5'	2.35	0.43
1:6:1086:A:H2'	1:6:1087:A:C8	2.54	0.43
1:6:1172:G:H21	21:c9:88:VAL:CG2	2.32	0.43
1:6:1223:A:C2	1:6:1261:G:C2	3.07	0.43
1:6:1528:U:OP1	7:s5:109:LYS:HE3	2.18	0.43
1:6:1715:G:C6	1:6:1716:C:C4	3.06	0.43
6:s4:131:LEU:HD22	6:s4:131:LEU:HA	1.87	0.43
6:s4:159:THR:HB	6:s4:227:VAL:HG23	2.00	0.43
10:s8:116:HIS:CD2	10:s8:146:ARG:HD3	2.53	0.43
11:s9:52:ILE:HG23	11:s9:76:LEU:HD11	2.00	0.43
20:c8:102:ALA:O	20:c8:105:VAL:HG13	2.19	0.43
22:d0:26:LEU:HD22	22:d0:114:VAL:HG22	2.00	0.43
24:d2:126:LEU:HA	24:d2:126:LEU:HD23	1.75	0.43
34:sR:264:SER:O	34:sR:268:GLN:HA	2.19	0.43
36:5:21:G:H22	38:8:138:A:H2	1.66	0.43
36:5:151:A:C5	36:5:152:U:C5	3.07	0.43
36:5:1014:U:OP1	36:5:1014:U:H4'	2.18	0.43
36:5:1222:G:H4'	36:5:1223:A:H5'	1.99	0.43
36:5:1317:A:C4	36:5:1319:G:N7	2.87	0.43
36:5:1389:G:OP1	68:o2:104:ASN:ND2	2.46	0.43
36:5:1940:G:H2'	36:5:1941:C:O4'	2.19	0.43
36:5:1953:G:C6	36:5:2094:C:N4	2.87	0.43
36:5:2356:A:O2'	53:m7:137:ASN:HB3	2.19	0.43
36:5:2635:A:H5'	36:5:2636:A:C8	2.54	0.43
36:5:2895:G:H2'	36:5:2896:A:H5'	2.01	0.43
36:5:2992:U:H2'	36:5:2993:G:O4'	2.17	0.43
39:l2:52:SER:HB3	39:l2:191:LEU:HD12	2.00	0.43
40:l3:47:LEU:HA	40:l3:47:LEU:HD12	1.69	0.43
40:l3:152:LYS:HG2	40:l3:192:VAL:HG11	2.00	0.43
41:l4:9:HIS:CD2	41:l4:15:ALA:HB2	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:l5:64:ILE:HG21	42:l5:75:LEU:HD13	2.01	0.43
42:l5:65:ILE:HG22	42:l5:66:SER:O	2.19	0.43
42:l5:122:VAL:C	42:l5:124:GLU:H	2.26	0.43
50:m4:14:LEU:H	50:m4:19:ARG:NH1	2.17	0.43
55:m9:133:LYS:HB3	55:m9:134:HIS:CE1	2.53	0.43
62:n6:27:ARG:HH12	62:n6:76:LEU:HA	1.84	0.43
62:n6:58:VAL:HG22	62:n6:104:LEU:HD21	2.00	0.43
63:n7:16:GLY:O	63:n7:17:ARG:HB2	2.19	0.43
63:n7:90:GLU:OE1	63:n7:90:GLU:HA	2.18	0.43
65:n9:32:LEU:O	65:n9:35:VAL:HG23	2.17	0.43
67:o1:51:LEU:HD23	67:o1:51:LEU:HA	1.82	0.43
73:o7:21:ARG:HH12	73:o7:44:THR:HA	1.82	0.43
75:o9:8:ARG:O	75:o9:11:GLN:HB3	2.19	0.43
1:2:28:A:C2	1:2:29:U:C2	3.07	0.43
1:2:246:G:N3	13:C1:40:LEU:HD22	2.34	0.43
1:2:871:G:H21	29:D7:68:GLY:CA	2.32	0.43
1:2:915:A:N6	16:C4:41:ARG:NH2	2.67	0.43
1:2:1233:G:O2'	33:E1:145:HIS:HB2	2.19	0.43
1:2:1425:A:C6	1:2:1426:C:N4	2.87	0.43
1:2:1536:G:C6	1:2:1538:U:O2	2.72	0.43
1:2:1584:G:N1	1:2:1611:A:OP2	2.47	0.43
1:2:1685:G:N2	1:2:1717:G:C4	2.87	0.43
3:S1:185:THR:O	3:S1:189:ILE:HG13	2.19	0.43
12:C0:69:THR:O	12:C0:73:VAL:HG23	2.19	0.43
20:C8:11:PHE:CD2	20:C8:11:PHE:C	2.96	0.43
32:E0:39:LEU:O	32:E0:43:ARG:HB2	2.18	0.43
33:E1:108:VAL:HG13	33:E1:112:GLY:O	2.19	0.43
35:SM:107:ASN:HB3	35:SM:112:ASP:HB3	2.00	0.43
36:1:129:U:H2'	36:1:130:A:H8	1.82	0.43
36:1:392:G:O2'	36:1:393:U:H5'	2.19	0.43
36:1:971:G:H2'	36:1:972:A:O4'	2.19	0.43
36:1:978:G:N2	36:1:1103:A:C2	2.86	0.43
36:1:996:A:C2	36:1:1054:A:C4	3.07	0.43
36:1:1094:U:H2'	36:1:1095:U:H3'	2.01	0.43
36:1:1380:G:OP1	41:L4:191:LYS:HG3	2.19	0.43
36:1:1482:A:C2	36:1:1867:A:H5'	2.54	0.43
36:1:1655:G:OP1	70:O4:40:THR:OG1	2.35	0.43
36:1:1716:U:HO2'	36:1:1717:U:P	2.42	0.43
36:1:1783:U:H2'	36:1:1784:G:C8	2.54	0.43
36:1:2118:C:H5''	36:1:2119:A:OP2	2.19	0.43
36:1:2349:U:O2'	36:1:3307:A:N3	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2356:A:N6	36:1:2983:C:C5	2.79	0.43
36:1:2631:U:H2'	36:1:2632:G:H8	1.83	0.43
36:1:2913:C:C6	36:1:2913:C:H3'	2.53	0.43
36:1:3141:A:C4	36:1:3144:G:C8	3.06	0.43
36:1:3294:A:H5'	40:L3:128:LYS:HG3	2.00	0.43
38:4:1:A:C2	38:4:2:A:C4	3.07	0.43
38:4:80:A:P	38:4:81:U:H5''	2.58	0.43
39:L2:129:ALA:O	39:L2:169:ILE:HD12	2.18	0.43
43:L6:60:ASP:OD1	43:L6:62:THR:HG23	2.19	0.43
46:L9:106:LYS:H	46:L9:109:ALA:CB	2.32	0.43
47:M0:96:VAL:CG1	47:M0:122:PRO:HB3	2.49	0.43
48:M1:54:VAL:HB	48:M1:59:ILE:HG12	2.00	0.43
51:M5:153:ASP:OD2	51:M5:155:VAL:HG22	2.19	0.43
60:N4:8:PHE:CD1	60:N4:8:PHE:C	2.96	0.43
60:N4:98:PRO:HA	60:N4:101:ARG:HB2	1.99	0.43
63:N7:88:ASP:CB	63:N7:121:ARG:HH22	2.30	0.43
68:O2:11:LYS:O	68:O2:12:LYS:HB2	2.18	0.43
69:O3:60:ARG:HD2	69:O3:60:ARG:HA	1.62	0.43
1:6:237:C:H4'	1:6:238:U:H3	1.83	0.43
1:6:373:G:C6	1:6:374:U:C4	3.06	0.43
1:6:561:G:C2	1:6:585:A:C2	3.06	0.43
1:6:761:G:H8	1:6:761:G:O5'	2.01	0.43
1:6:818:C:H2'	1:6:819:G:H5'	2.00	0.43
1:6:825:U:O2'	1:6:826:U:H6	2.02	0.43
1:6:1176:G:C6	1:6:1177:C:C4	3.07	0.43
1:6:1233:G:O2'	33:e1:145:HIS:HB2	2.18	0.43
1:6:1270:G:H1'	1:6:1447:C:O2	2.19	0.43
1:6:1445:G:C5	33:e1:91:ILE:HB	2.54	0.43
1:6:1460:A:C2	1:6:1461:C:C2	3.07	0.43
2:s0:13:ASP:CG	2:s0:179:ARG:HH22	2.18	0.43
7:s5:120:ILE:O	7:s5:124:LEU:HD13	2.18	0.43
8:s6:3:LEU:CD2	8:s6:109:LEU:HB3	2.49	0.43
9:s7:134:GLU:H	9:s7:134:GLU:HG2	1.47	0.43
13:c1:21:ASN:ND2	13:c1:31:THR:HA	2.33	0.43
17:c5:17:TYR:HB2	17:c5:25:LEU:HD11	2.01	0.43
20:c8:142:GLY:O	20:c8:145:ARG:HD2	2.18	0.43
26:d4:27:VAL:HG11	26:d4:35:VAL:CG1	2.49	0.43
32:e0:8:LEU:H	32:e0:8:LEU:HG	1.44	0.43
36:5:22:G:O4'	38:8:104:A:H1'	2.18	0.43
36:5:353:G:N7	73:o7:55:ARG:HD3	2.33	0.43
36:5:593:C:N4	36:5:594:U:O4	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:956:U:C2	36:5:957:C:C5	3.07	0.43
36:5:1096:U:C6	36:5:1097:G:C4	3.07	0.43
36:5:1307:G:P	52:m6:59:ARG:NH1	2.92	0.43
36:5:1601:U:OP1	55:m9:42:ARG:NH1	2.43	0.43
36:5:2158:A:H4'	36:5:2159:U:H5''	2.00	0.43
36:5:2163:C:O2'	39:l2:8:GLN:O	2.33	0.43
36:5:3024:A:H3'	36:5:3025:C:C6	2.51	0.43
36:5:3059:G:H4'	36:5:3373:U:O2'	2.19	0.43
36:5:3113:A:O2'	46:l9:66:ALA:O	2.26	0.43
36:5:3164:C:N4	36:5:3286:G:H1	2.16	0.43
36:5:3273:A:O2'	36:5:3274:A:H5'	2.19	0.43
37:7:7:G:H4'	42:l5:33:ARG:CZ	2.48	0.43
39:l2:105:GLY:CA	39:l2:160:SER:HB3	2.49	0.43
42:l5:244:HIS:O	42:l5:248:ARG:HG3	2.18	0.43
45:l8:144:GLU:OE1	72:o6:36:ARG:NH2	2.52	0.43
46:l9:100:ASN:OD1	46:l9:102:ASN:ND2	2.52	0.43
47:m0:197:VAL:HG23	47:m0:199:PHE:CE2	2.54	0.43
50:m4:70:PHE:CE2	50:m4:72:LEU:HD12	2.53	0.43
50:m4:123:LEU:HB2	52:m6:194:LEU:HD21	2.00	0.43
52:m6:18:ARG:O	52:m6:22:VAL:HG13	2.18	0.43
52:m6:141:LEU:O	52:m6:144:SER:HB3	2.19	0.43
57:n1:77:ASN:ND2	65:n9:24:PRO:HB3	2.33	0.43
64:n8:4:ARG:HG3	64:n8:5:PHE:HD1	1.82	0.43
66:o0:73:GLY:O	66:o0:76:GLU:HG2	2.19	0.43
68:o2:96:ILE:HD13	68:o2:105:ARG:HG2	2.01	0.43
69:o3:86:ARG:HH11	69:o3:86:ARG:HG3	1.84	0.43
79:q3:55:TRP:CZ2	79:q3:70:THR:C	2.96	0.43
1:2:63:G:C6	1:2:64:U:C5	3.07	0.43
1:2:67:A:O3'	1:2:68:A:H3'	2.18	0.43
1:2:94:U:H2'	1:2:95:G:O4'	2.19	0.43
1:2:105:A:OP1	10:S8:18:ARG:NH1	2.51	0.43
1:2:372:G:H8	1:2:372:G:O5'	2.01	0.43
1:2:455:C:H3'	1:2:456:A:H8	1.84	0.43
1:2:567:A:OP1	25:D3:68:ILE:HB	2.19	0.43
1:2:803:A:C4	9:S7:104:ARG:HG3	2.54	0.43
1:2:850:A:C5'	55:M9:165:LYS:HD3	2.41	0.43
1:2:1043:A:C2	1:2:1044:U:C2	3.07	0.43
1:2:1148:C:N3	1:2:1149:G:N7	2.67	0.43
1:2:1541:G:C5	1:2:1542:G:C6	3.07	0.43
1:2:1609:U:OP2	18:C6:14:LYS:NZ	2.40	0.43
1:2:1650:U:H2'	1:2:1651:A:C8	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:34:ALA:N	3:S1:41:ARG:O	2.40	0.43
5:S3:142:LEU:HB2	35:SM:110:TRP:NE1	2.34	0.43
10:S8:117:TYR:CE1	10:S8:146:ARG:HB3	2.53	0.43
11:S9:169:PRO:HB2	11:S9:174:ARG:HG2	2.00	0.43
13:C1:13:PHE:CE2	13:C1:15:LYS:HB3	2.54	0.43
13:C1:122:ILE:H	13:C1:122:ILE:HD12	1.83	0.43
29:D7:23:THR:CG2	29:D7:29:ARG:HH21	2.31	0.43
29:D7:23:THR:HG21	29:D7:29:ARG:HH21	1.83	0.43
35:SM:48:ARG:H	35:SM:48:ARG:HG3	1.51	0.43
36:1:14:U:O3'	61:N5:42:ARG:NE	2.42	0.43
36:1:68:C:H2'	36:1:69:C:O4'	2.19	0.43
36:1:294:U:H4'	72:O6:77:LEU:HD23	2.00	0.43
36:1:323:A:H2'	36:1:324:A:C8	2.54	0.43
36:1:882:A:OP1	36:1:1847:A:N6	2.47	0.43
36:1:1202:A:N6	36:1:1301:A:N9	2.67	0.43
36:1:1208:U:C4	76:Q0:108:THR:HG21	2.54	0.43
36:1:1460:A:C2	36:1:1461:A:C4	3.06	0.43
36:1:1821:U:H3	70:O4:67:LYS:HD2	1.83	0.43
36:1:2295:A:OP2	59:N3:71:LYS:HA	2.19	0.43
36:1:2303:A:OP1	77:Q1:23:ARG:NH2	2.52	0.43
36:1:2581:U:C2	36:1:2582:C:C5	3.07	0.43
36:1:2660:G:O3'	36:1:2749:G:N2	2.52	0.43
36:1:2717:U:C2	36:1:2740:A:C2	3.07	0.43
36:1:2839:G:C2	36:1:2840:C:C6	3.06	0.43
36:1:2936:A:H2'	36:1:2937:G:H8	1.83	0.43
36:1:3252:G:H8	36:1:3252:G:O5'	2.01	0.43
36:1:3341:U:H3'	36:1:3341:U:P	2.59	0.43
82:1:3810:GET:H932	82:1:3810:GET:H231	1.69	0.43
82:1:3812:GET:H932	82:1:3812:GET:H832	2.00	0.43
38:4:79:A:C6	38:4:81:U:C4	3.06	0.43
40:L3:136:LYS:O	40:L3:139:GLN:NE2	2.51	0.43
42:L5:110:LEU:HD12	42:L5:110:LEU:HA	1.78	0.43
42:L5:155:THR:HA	42:L5:179:ARG:HD3	2.01	0.43
45:L8:153:ILE:HG23	45:L8:163:VAL:HG22	2.00	0.43
46:L9:91:ARG:HG3	46:L9:91:ARG:HH21	1.84	0.43
50:M4:28:SER:O	50:M4:29:ALA:C	2.62	0.43
61:N5:45:LYS:HG2	71:O5:75:TYR:CD2	2.53	0.43
79:Q3:50:GLY:HA3	79:Q3:54:ILE:HG22	2.00	0.43
1:6:91:G:H2'	1:6:92:A:O4'	2.19	0.43
1:6:1433:G:N2	31:d9:42:CYS:SG	2.87	0.43
1:6:1554:U:H5''	1:6:1555:A:OP2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1573:A:O4'	1:6:1574:G:C2	2.72	0.43
3:s1:28:GLU:OE1	3:s1:50:LYS:HG3	2.19	0.43
11:s9:44:ARG:O	11:s9:48:GLN:HG3	2.19	0.43
12:c0:54:TYR:CD2	12:c0:75:TYR:HB2	2.54	0.43
20:c8:14:ILE:HD12	20:c8:22:VAL:O	2.19	0.43
25:d3:118:PRO:O	25:d3:120:VAL:HG23	2.19	0.43
26:d4:62:THR:HA	26:d4:69:SER:HA	2.00	0.43
28:d6:37:LYS:HA	28:d6:71:LEU:O	2.19	0.43
29:d7:37:CYS:HA	29:d7:77:THR:CG2	2.49	0.43
36:5:162:G:C2	36:5:260:C:C2	3.07	0.43
36:5:170:G:H2'	36:5:171:G:C8	2.53	0.43
36:5:170:G:N2	36:5:171:G:C4	2.86	0.43
36:5:262:U:H5''	36:5:263:C:OP2	2.19	0.43
36:5:592:A:C5	36:5:593:C:C5	3.07	0.43
36:5:620:U:C4	36:5:622:A:N1	2.87	0.43
36:5:812:G:C4	36:5:813:G:C8	3.06	0.43
36:5:827:A:O2'	36:5:828:A:H5'	2.18	0.43
36:5:1846:C:H5''	36:5:1849:C:N4	2.33	0.43
36:5:1863:G:H2'	36:5:1865:A:OP2	2.19	0.43
37:7:22:A:N6	42:l5:270:LYS:HD2	2.33	0.43
40:l3:106:TRP:CD1	40:l3:130:PHE:HE1	2.37	0.43
40:l3:340:LYS:HG2	40:l3:340:LYS:H	1.53	0.43
42:l5:127:GLY:O	42:l5:192:PRO:HB3	2.19	0.43
45:l8:210:ALA:O	45:l8:214:LEU:HD22	2.19	0.43
52:m6:12:LYS:HB2	52:m6:37:ARG:HH21	1.83	0.43
52:m6:35:VAL:HG11	52:m6:80:PHE:HE2	1.84	0.43
56:n0:45:LEU:HD12	56:n0:51:VAL:CG2	2.42	0.43
56:n0:89:ASN:ND2	57:n1:156:TYR:HB3	2.33	0.43
73:o7:2:GLY:HA2	73:o7:6:PRO:HG2	2.00	0.43
80:p0:26:PHE:N	80:p0:87:VAL:O	2.51	0.43
80:p0:188:VAL:O	80:p0:189:GLN:HG2	2.19	0.43
1:2:161:U:H2'	1:2:162:A:H8	1.84	0.43
1:2:649:U:H2'	1:2:650:U:C1'	2.49	0.43
1:2:768:C:H2'	1:2:769:A:O4'	2.19	0.43
1:2:945:U:O2'	1:2:946:U:H5'	2.19	0.43
1:2:1555:A:P	17:C5:47:ARG:NH2	2.92	0.43
1:2:1645:G:H22	82:2:2012:GET:H711	1.84	0.43
5:S3:168:ILE:O	5:S3:168:ILE:HD12	2.19	0.43
6:S4:86:PHE:HE1	6:S4:226:PHE:CD2	2.37	0.43
6:S4:131:LEU:HD11	6:S4:135:GLY:HA2	2.01	0.43
10:S8:65:PHE:HA	10:S8:181:GLY:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:97:LEU:HD23	11:S9:97:LEU:HA	1.87	0.43
12:C0:24:LYS:HB3	12:C0:24:LYS:HE2	1.75	0.43
17:C5:80:MET:HE2	17:C5:83:MET:HB2	2.01	0.43
19:C7:19:ARG:H	19:C7:19:ARG:HG2	1.64	0.43
20:C8:80:LYS:HD2	20:C8:80:LYS:HA	1.33	0.43
20:C8:127:HIS:CE1	20:C8:133:VAL:HG21	2.54	0.43
26:D4:20:ARG:C	26:D4:21:LYS:HD2	2.44	0.43
32:E0:13:LYS:O	32:E0:17:GLN:HG2	2.19	0.43
36:1:19:U:H4'	51:M5:138:GLN:OE1	2.18	0.43
36:1:595:G:N1	36:1:609:G:H5''	2.34	0.43
36:1:692:A:C2	36:1:693:A:C4	3.07	0.43
36:1:748:U:H2'	36:1:749:C:C6	2.54	0.43
36:1:823:C:O2'	36:1:1535:A:O2'	2.32	0.43
36:1:1102:A:OP1	44:L7:155:LYS:NZ	2.52	0.43
36:1:1347:U:OP2	54:M8:38:ARG:NE	2.48	0.43
36:1:1654:A:H3'	36:1:1655:G:H5''	2.01	0.43
36:1:1740:U:H1'	36:1:1741:A:H2	1.84	0.43
36:1:1813:A:H3'	36:1:1814:A:H5''	2.01	0.43
36:1:1856:C:C4	36:1:1857:C:N4	2.86	0.43
36:1:1887:A:H4'	40:L3:227:GLU:C	2.44	0.43
36:1:2105:G:O2'	36:1:2106:A:H5'	2.19	0.43
36:1:2554:A:H5''	39:L2:87:PHE:CE2	2.54	0.43
36:1:2792:A:H2'	36:1:2793:G:C8	2.53	0.43
36:1:2816:G:C4	36:1:2869:U:C5	3.07	0.43
36:1:2905:U:H2'	36:1:2906:C:H6	1.84	0.43
36:1:3062:G:C6	36:1:3063:C:C5	3.07	0.43
36:1:3342:A:N6	36:1:3343:G:C6	2.87	0.43
38:4:135:G:P	61:N5:56:ARG:HH22	2.41	0.43
39:L2:83:HIS:HB3	79:Q3:64:VAL:HG22	2.01	0.43
40:L3:61:ASP:OD1	40:L3:68:HIS:HE1	2.01	0.43
40:L3:238:LEU:HB2	40:L3:246:LEU:O	2.18	0.43
41:L4:184:SER:HB2	41:L4:202:ARG:NH1	2.34	0.43
42:L5:106:ALA:O	42:L5:110:LEU:HB2	2.18	0.43
42:L5:181:PRO:HG2	42:L5:195:LEU:HD13	2.01	0.43
44:L7:134:VAL:O	44:L7:229:PHE:HB2	2.18	0.43
45:L8:35:GLY:C	45:L8:36:ILE:HG13	2.43	0.43
51:M5:150:TRP:CH2	51:M5:151:ILE:HG12	2.54	0.43
52:M6:15:LEU:HD23	52:M6:15:LEU:HA	1.56	0.43
60:N4:57:LYS:HB2	60:N4:57:LYS:HE3	1.65	0.43
64:N8:129:PHE:CE1	72:O6:9:ILE:HG23	2.54	0.43
67:O1:6:ASP:O	67:O1:7:VAL:C	2.61	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:O3:47:LYS:HE3	69:O3:102:LEU:O	2.19	0.43
71:O5:14:LYS:H	71:O5:14:LYS:HG3	1.55	0.43
71:O5:50:SER:O	71:O5:53:CYS:N	2.51	0.43
74:O8:40:GLN:OE1	74:O8:42:LYS:HE3	2.19	0.43
78:Q2:69:VAL:HG22	78:Q2:84:THR:HB	1.99	0.43
78:Q2:105:GLN:HB2	78:Q2:106:PHE:HD1	1.84	0.43
1:6:31:C:O3'	25:d3:139:LYS:NZ	2.37	0.43
1:6:39:A:O2'	1:6:40:A:OP2	2.33	0.43
1:6:140:A:N6	1:6:281:G:P	2.92	0.43
1:6:753:A:H62	6:s4:187:ARG:NH2	2.13	0.43
1:6:891:A:H2'	1:6:892:A:C8	2.53	0.43
1:6:1121:C:H2'	1:6:1122:G:C8	2.54	0.43
1:6:1167:G:C2	1:6:1168:U:C2	3.07	0.43
2:s0:202:TYR:CD2	2:s0:202:TYR:N	2.87	0.43
3:s1:187:LYS:HB3	3:s1:193:ILE:HD11	2.01	0.43
6:s4:42:LEU:HD23	6:s4:42:LEU:HA	1.85	0.43
7:s5:104:ASN:HD22	7:s5:104:ASN:HA	1.61	0.43
21:c9:63:ARG:O	21:c9:67:MET:HG3	2.18	0.43
21:c9:64:HIS:CE1	21:c9:68:ARG:NH2	2.87	0.43
25:d3:46:SER:OG	25:d3:78:LYS:NZ	2.52	0.43
25:d3:107:PHE:HD1	25:d3:107:PHE:HA	1.76	0.43
28:d6:38:ARG:HD3	28:d6:38:ARG:HA	1.84	0.43
36:5:8:C:O2	38:8:152:G:C2	2.72	0.43
36:5:37:U:C2	36:5:38:U:C5	3.07	0.43
36:5:638:C:N3	36:5:639:G:C5	2.87	0.43
36:5:726:G:C5'	36:5:726:G:C8	2.97	0.43
36:5:741:U:H2'	36:5:742:G:O4'	2.19	0.43
36:5:1387:G:C2	36:5:1388:U:C5	3.07	0.43
36:5:1482:A:C8	36:5:1866:C:O2'	2.71	0.43
36:5:1716:U:HO2'	36:5:1717:U:P	2.41	0.43
36:5:2117:A:H2'	36:5:2118:C:O4'	2.18	0.43
36:5:2209:U:O2'	36:5:2210:G:P	2.77	0.43
36:5:2321:A:H2'	36:5:2322:C:C6	2.54	0.43
36:5:2352:A:H2'	36:5:2353:G:C8	2.54	0.43
36:5:2392:C:H5''	36:5:2393:G:OP2	2.19	0.43
36:5:2667:A:O2'	36:5:2691:A:OP1	2.31	0.43
38:8:46:G:N2	38:8:58:G:C4	2.86	0.43
38:8:133:G:H2'	38:8:134:G:H8	1.83	0.43
39:l2:133:TYR:CG	39:l2:168:VAL:HG12	2.54	0.43
40:l3:116:ARG:NH1	40:l3:122:TRP:CD1	2.87	0.43
40:l3:283:TYR:CB	40:l3:323:MET:HE2	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:l4:280:ILE:HG22	54:m8:104:LEU:O	2.18	0.43
43:l6:96:VAL:CG1	43:l6:141:VAL:HG13	2.48	0.43
44:l7:138:TYR:O	44:l7:237:ASN:ND2	2.52	0.43
45:l8:134:TYR:CE1	45:l8:190:VAL:HG11	2.53	0.43
45:l8:161:GLU:O	51:m5:7:LEU:HD11	2.19	0.43
46:l9:1:MET:HE2	46:l9:3:TYR:CD1	2.54	0.43
46:l9:92:TYR:CD2	46:l9:92:TYR:N	2.85	0.43
51:m5:114:ARG:HA	51:m5:114:ARG:HD3	1.75	0.43
52:m6:57:PHE:CE2	52:m6:72:HIS:CD2	3.07	0.43
53:m7:181:ARG:HG2	53:m7:182:ILE:HD12	2.00	0.43
54:m8:81:VAL:CG1	54:m8:101:VAL:HG22	2.49	0.43
54:m8:175:ALA:HB3	64:n8:53:PHE:O	2.18	0.43
63:n7:76:ASN:HB3	63:n7:79:HIS:ND1	2.34	0.43
68:o2:13:HIS:NE2	68:o2:15:LYS:HB2	2.34	0.43
70:o4:20:ILE:HG23	70:o4:21:LYS:N	2.33	0.43
71:o5:77:PRO:HG2	71:o5:80:LEU:HD12	2.01	0.43
77:q1:16:LYS:O	77:q1:20:VAL:HG23	2.19	0.43
1:2:66:U:C5'	8:S6:173:PRO:HA	2.47	0.42
1:2:89:G:H2'	1:2:90:C:C6	2.54	0.42
1:2:100:A:H2'	1:2:101:U:O4'	2.19	0.42
1:2:886:U:O2'	16:C4:121:VAL:O	2.36	0.42
1:2:1491:U:H4'	1:2:1492:A:O5'	2.18	0.42
3:S1:122:GLU:O	3:S1:165:ARG:HD3	2.19	0.42
4:S2:214:ALA:O	4:S2:217:ALA:HB3	2.18	0.42
6:S4:42:LEU:HD12	6:S4:109:PHE:CB	2.49	0.42
8:S6:88:ARG:HB3	8:S6:91:GLU:HB2	2.01	0.42
8:S6:193:LEU:HD23	8:S6:196:ARG:HH11	1.84	0.42
11:S9:138:LYS:HB2	11:S9:138:LYS:NZ	2.33	0.42
20:C8:120:ARG:HA	20:C8:120:ARG:HD3	1.67	0.42
24:D2:7:LEU:HD13	24:D2:74:VAL:HG23	2.00	0.42
28:D6:79:ILE:CG1	28:D6:84:VAL:HG11	2.46	0.42
36:1:184:U:H2'	36:1:185:C:H6	1.83	0.42
36:1:188:U:O2	36:1:208:C:H1'	2.19	0.42
36:1:215:G:C2	36:1:216:G:C8	3.07	0.42
36:1:265:A:H5''	36:1:266:A:OP2	2.19	0.42
36:1:361:A:O3'	73:O7:45:ARG:NH2	2.52	0.42
36:1:539:C:O5'	36:1:539:C:H6	2.02	0.42
36:1:761:A:C2'	36:1:762:U:H5'	2.49	0.42
36:1:924:G:O6	84:1:3997:HOH:O	2.21	0.42
36:1:1004:U:C4	36:1:1005:G:N7	2.87	0.42
36:1:1229:G:H2'	36:1:1229:G:N3	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1556:C:H4'	36:1:1557:A:OP2	2.20	0.42
36:1:1591:G:O6	36:1:1592:G:N1	2.51	0.42
36:1:1668:G:H4'	70:O4:22:VAL:HG12	2.00	0.42
36:1:1908:A:N6	36:1:1909:A:C6	2.87	0.42
36:1:2106:A:O2'	36:1:2107:A:O5'	2.26	0.42
36:1:2147:A:H5''	39:L2:198:LYS:O	2.19	0.42
36:1:2734:A:O2'	36:1:2735:U:H5'	2.19	0.42
36:1:3107:U:OP1	76:Q0:114:LYS:NZ	2.51	0.42
37:3:118:A:H8	37:3:118:A:O5'	2.02	0.42
39:L2:117:GLU:HB2	39:L2:162:ALA:HB1	2.01	0.42
41:L4:219:LEU:HD23	41:L4:219:LEU:HA	1.78	0.42
41:L4:329:PRO:C	41:L4:331:ALA:N	2.75	0.42
42:L5:65:ILE:HG12	42:L5:74:VAL:HA	2.01	0.42
42:L5:127:GLY:O	42:L5:192:PRO:HB3	2.19	0.42
43:L6:137:ASP:O	43:L6:140:VAL:HB	2.19	0.42
49:M3:76:THR:O	49:M3:76:THR:OG1	2.28	0.42
49:M3:139:LEU:HA	49:M3:139:LEU:HD23	1.86	0.42
50:M4:112:LEU:HD23	50:M4:112:LEU:HA	1.86	0.42
53:M7:51:VAL:HG11	53:M7:88:VAL:HG21	2.00	0.42
55:M9:106:LEU:HB3	55:M9:120:TYR:HD1	1.80	0.42
56:N0:4:PHE:HB2	56:N0:100:VAL:HG13	2.01	0.42
61:N5:105:VAL:CG1	61:N5:126:LEU:HD22	2.49	0.42
63:N7:38:PHE:CE2	63:N7:40:HIS:HB3	2.54	0.42
65:N9:13:THR:O	65:N9:14:ARG:C	2.60	0.42
68:O2:72:LYS:O	68:O2:92:TYR:HA	2.18	0.42
79:Q3:17:ARG:HB3	79:Q3:18:TYR:CE1	2.53	0.42
1:6:255:U:H2'	1:6:256:A:H8	1.84	0.42
1:6:939:A:H2'	1:6:940:A:C8	2.53	0.42
1:6:1182:U:H4'	17:c5:124:THR:CG2	2.49	0.42
1:6:1575:G:H2'	1:6:1576:A:H8	1.79	0.42
3:s1:35:PRO:HB3	3:s1:231:LEU:HD11	2.01	0.42
3:s1:143:THR:HG21	3:s1:156:ALA:HB2	2.01	0.42
4:s2:137:ILE:HG13	4:s2:138:PRO:HD2	2.00	0.42
9:s7:141:ARG:HD2	24:d2:51:GLU:OE1	2.19	0.42
15:c3:88:LEU:O	15:c3:92:ILE:HG13	2.19	0.42
17:c5:40:ARG:HH21	17:c5:43:ARG:HD3	1.84	0.42
21:c9:11:ALA:HA	21:c9:63:ARG:CZ	2.49	0.42
22:d0:70:THR:HG22	22:d0:71:PRO:O	2.19	0.42
24:d2:24:GLN:CD	29:d7:5:GLN:H	2.27	0.42
27:d5:104:ALA:O	27:d5:105:THR:OG1	2.32	0.42
28:d6:35:ALA:O	28:d6:37:LYS:HG3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:sR:23:LEU:HB2	34:sR:293:ALA:HB2	2.01	0.42
36:5:214:G:C2	36:5:215:G:C4	3.07	0.42
36:5:823:C:H5'	39:l2:19:HIS:CE1	2.54	0.42
36:5:824:C:H4'	36:5:1534:A:O2'	2.18	0.42
36:5:1181:U:O4	52:m6:18:ARG:HA	2.18	0.42
36:5:1191:U:C2	52:m6:48:PHE:CE1	3.07	0.42
36:5:1245:A:N7	36:5:1271:A:O2'	2.46	0.42
36:5:1488:G:H5''	36:5:1838:G:O6	2.19	0.42
36:5:1807:G:C5'	63:n7:135:ARG:HH11	2.30	0.42
36:5:2116:G:H5'	36:5:2116:G:N3	2.34	0.42
36:5:2131:A:H61	79:q3:18:TYR:HA	1.83	0.42
36:5:2296:A:H2	36:5:2918:G:N3	2.16	0.42
36:5:2889:C:H2'	36:5:2890:A:H8	1.83	0.42
37:7:90:U:C4	37:7:91:G:C5	3.07	0.42
38:8:52:A:C6	38:8:53:A:C8	3.06	0.42
38:8:113:U:O2	38:8:113:U:H3'	2.19	0.42
38:8:138:A:C2	38:8:139:U:C2	3.07	0.42
39:l2:32:LEU:HD23	39:l2:32:LEU:HA	1.69	0.42
40:l3:37:ARG:CA	40:l3:186:GLY:HA2	2.49	0.42
40:l3:110:LEU:HA	40:l3:110:LEU:HD12	1.68	0.42
41:l4:60:THR:HG21	41:l4:77:VAL:HG22	2.01	0.42
42:l5:64:ILE:C	42:l5:65:ILE:HG12	2.44	0.42
44:l7:214:TRP:O	44:l7:216:VAL:HG22	2.18	0.42
49:m3:89:TYR:O	49:m3:92:THR:N	2.52	0.42
52:m6:115:LYS:O	52:m6:117:ARG:NH1	2.52	0.42
56:n0:75:PHE:O	56:n0:93:GLU:HA	2.19	0.42
64:n8:91:LEU:HA	64:n8:121:VAL:HG21	2.01	0.42
67:o1:27:LYS:C	67:o1:30:PRO:HD2	2.44	0.42
71:o5:89:ARG:HH11	71:o5:89:ARG:HG2	1.83	0.42
73:o7:39:TYR:CD2	73:o7:40:PRO:HA	2.54	0.42
74:o8:44:LYS:HG2	74:o8:53:THR:HB	2.00	0.42
76:q0:97:ARG:HB2	76:q0:120:GLN:O	2.19	0.42
1:2:17:C:H2'	1:2:18:C:H6	1.83	0.42
1:2:275:C:H2'	1:2:276:C:O4'	2.19	0.42
1:2:279:G:O2'	1:2:280:U:OP1	2.34	0.42
1:2:462:G:OP1	11:S9:3:ARG:HG2	2.19	0.42
1:2:864:U:O4'	29:D7:21:LEU:HD13	2.19	0.42
1:2:867:G:OP2	15:C3:3:ARG:NH1	2.52	0.42
1:2:887:A:H2'	1:2:888:U:C6	2.52	0.42
1:2:1291:G:C2	1:2:1325:A:C2	3.07	0.42
3:S1:87:ARG:HE	3:S1:87:ARG:HB3	1.59	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:184:VAL:HG22	4:S2:211:LEU:HD23	2.01	0.42
6:S4:185:GLY:HA3	6:S4:224:ASN:OD1	2.18	0.42
7:S5:143:ARG:HH12	7:S5:214:LYS:HZ3	1.67	0.42
11:S9:129:ILE:HG22	11:S9:142:ASN:HA	1.99	0.42
12:C0:16:PHE:O	12:C0:88:PRO:HA	2.19	0.42
12:C0:45:ALA:O	12:C0:49:LEU:HD23	2.19	0.42
14:C2:63:VAL:HG22	14:C2:64:SER:H	1.83	0.42
20:C8:8:GLN:C	20:C8:10:SER:H	2.27	0.42
21:C9:93:HIS:O	21:C9:94:ILE:HD12	2.18	0.42
21:C9:118:PRO:O	21:C9:119:LYS:HB2	2.18	0.42
21:C9:131:ASP:O	21:C9:134:ARG:HB3	2.20	0.42
24:D2:105:THR:HG23	24:D2:110:ILE:HG12	2.01	0.42
25:D3:126:LYS:HA	25:D3:131:SER:HA	2.01	0.42
27:D5:39:ALA:HB1	27:D5:70:LYS:C	2.43	0.42
27:D5:71:ILE:HD13	27:D5:76:ALA:HB2	2.00	0.42
28:D6:19:LYS:O	28:D6:31:PRO:HA	2.19	0.42
28:D6:32:LYS:HA	28:D6:35:ALA:HB2	2.01	0.42
28:D6:44:ILE:CD1	28:D6:65:PRO:HD2	2.49	0.42
34:SR:23:LEU:HB2	34:SR:293:ALA:HB2	2.02	0.42
36:1:284:A:N6	36:1:2785:A:O4'	2.52	0.42
36:1:423:A:N6	36:1:424:G:C6	2.87	0.42
36:1:579:G:H2'	36:1:580:C:C6	2.54	0.42
36:1:636:C:O2	36:1:2377:G:O2'	2.36	0.42
36:1:950:G:H1	36:1:1367:G:H2'	1.84	0.42
36:1:993:G:C5	36:1:2637:A:C2	3.07	0.42
36:1:1015:U:O2	36:1:1017:C:O2'	2.23	0.42
36:1:1094:U:H2'	36:1:1094:U:O2	2.18	0.42
36:1:1122:U:C2'	36:1:1123:U:H5'	2.50	0.42
36:1:1307:G:C4	52:M6:60:LYS:HD3	2.54	0.42
36:1:1412:G:OP1	68:O2:105:ARG:NH2	2.52	0.42
36:1:1562:C:H2'	36:1:1563:C:O4'	2.19	0.42
36:1:2168:A:H8	36:1:2168:A:O5'	2.01	0.42
36:1:2712:U:H4'	36:1:2743:A:O3'	2.19	0.42
36:1:2981:U:O5'	36:1:2981:U:H6	2.02	0.42
36:1:3081:C:H2'	36:1:3082:C:H6	1.84	0.42
36:1:3197:G:H2'	36:1:3198:U:H5''	2.00	0.42
36:1:3346:U:H2'	36:1:3347:A:C8	2.54	0.42
36:1:3365:U:H2'	36:1:3366:G:C8	2.54	0.42
38:4:79:A:H8	38:4:79:A:OP2	2.01	0.42
38:4:111:A:O2'	38:4:112:U:H5''	2.19	0.42
40:L3:213:GLU:OE1	40:L3:340:LYS:HD2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:23:PRO:O	41:L4:25:VAL:HG23	2.20	0.42
42:L5:91:GLY:O	42:L5:94:ASN:ND2	2.52	0.42
42:L5:114:GLY:C	42:L5:116:ASP:H	2.26	0.42
46:L9:49:ASN:C	46:L9:51:GLN:N	2.76	0.42
46:L9:86:TYR:CD1	46:L9:151:VAL:HG13	2.54	0.42
46:L9:117:PHE:O	46:L9:120:ASP:HB2	2.19	0.42
49:M3:115:ARG:NH2	49:M3:145:PHE:O	2.46	0.42
54:M8:33:TYR:CD1	54:M8:36:LEU:HD12	2.54	0.42
54:M8:155:MET:HE2	54:M8:163:PRO:HB3	2.00	0.42
60:N4:31:PHE:CD1	60:N4:37:ALA:HA	2.54	0.42
66:O0:40:LYS:N	66:O0:40:LYS:HD2	2.34	0.42
79:Q3:5:THR:HB	79:Q3:8:VAL:HG22	2.01	0.42
1:6:226:A:H2'	1:6:227:U:C6	2.54	0.42
1:6:246:G:C6	1:6:247:A:C6	3.07	0.42
1:6:285:G:H2'	1:6:286:C:C6	2.55	0.42
1:6:569:C:OP1	25:d3:89:ASN:N	2.52	0.42
1:6:1091:A:H4'	1:6:1092:A:O5'	2.20	0.42
1:6:1182:U:O2	1:6:1184:A:C8	2.72	0.42
1:6:1594:G:N2	1:6:1603:U:O2	2.52	0.42
1:6:1642:G:N7	82:6:2013:GET:C93	2.82	0.42
2:s0:108:THR:HA	4:s2:64:LYS:NZ	2.34	0.42
7:s5:56:ALA:O	7:s5:57:SER:OG	2.25	0.42
7:s5:82:PHE:CZ	30:d8:49:ARG:HD2	2.54	0.42
8:s6:1:MET:HE3	8:s6:24:ILE:HG21	2.01	0.42
11:s9:117:GLY:C	11:s9:119:ALA:H	2.27	0.42
15:c3:55:ARG:HA	15:c3:59:GLY:O	2.19	0.42
17:c5:100:LYS:HG3	17:c5:101:ALA:N	2.34	0.42
18:c6:116:LEU:HD23	18:c6:116:LEU:HA	1.69	0.42
19:c7:15:ALA:O	19:c7:19:ARG:NE	2.51	0.42
20:c8:22:VAL:HG22	20:c8:34:THR:CG2	2.49	0.42
21:c9:19:ALA:CB	21:c9:56:LYS:HD3	2.49	0.42
21:c9:33:TYR:O	21:c9:35:ASP:N	2.50	0.42
22:d0:42:VAL:HG21	22:d0:55:PRO:HD3	2.00	0.42
22:d0:68:ARG:NH1	22:d0:77:LYS:HG3	2.34	0.42
26:d4:55:VAL:HG12	26:d4:75:VAL:HG22	2.00	0.42
34:sR:104:VAL:HG12	34:sR:105:GLY:N	2.35	0.42
36:5:156:G:C5	49:m3:99:HIS:CE1	3.07	0.42
36:5:215:G:C4	36:5:216:G:C8	3.07	0.42
36:5:335:G:C2	36:5:336:A:H1'	2.54	0.42
36:5:336:A:C2	38:8:28:C:N3	2.87	0.42
36:5:540:U:H2'	36:5:541:U:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:593:C:OP2	43:16:19:LYS:HG2	2.19	0.42
36:5:728:G:H2'	36:5:729:C:C6	2.54	0.42
36:5:888:A:H2'	36:5:889:U:O4'	2.18	0.42
36:5:899:U:O2'	36:5:900:G:H5'	2.19	0.42
36:5:1064:A:H4'	36:5:1065:A:O5'	2.19	0.42
36:5:1089:G:C2	36:5:1090:G:C8	3.07	0.42
36:5:1169:A:H5''	44:17:219:LYS:HD3	2.01	0.42
36:5:1903:U:C2	36:5:1905:G:OP2	2.73	0.42
36:5:2234:G:H2'	36:5:2235:C:O4'	2.19	0.42
36:5:2327:U:H2'	36:5:2328:U:H6	1.85	0.42
36:5:2609:A:H1'	51:m5:87:GLN:NE2	2.34	0.42
36:5:3017:A:C2	36:5:3038:U:C2	3.07	0.42
36:5:3307:A:OP1	40:13:226:PHE:HB2	2.18	0.42
82:5:3847:GET:H531	82:5:3849:GET:C13	2.49	0.42
40:13:77:THR:CG2	40:13:327:CYS:HA	2.49	0.42
41:14:98:ARG:HG2	41:14:99:MET:H	1.82	0.42
41:14:99:MET:HE3	41:14:103:THR:H	1.84	0.42
42:15:106:ALA:O	42:15:110:LEU:HD22	2.19	0.42
44:17:77:VAL:HG21	57:n1:139:ARG:HD3	2.01	0.42
49:m3:194:GLU:OE2	49:m3:195:ALA:HB2	2.20	0.42
56:n0:99:ARG:NH1	56:n0:126:VAL:O	2.48	0.42
61:n5:69:SER:OG	61:n5:71:THR:HG23	2.18	0.42
64:n8:25:HIS:CD2	64:n8:25:HIS:C	2.96	0.42
65:n9:14:ARG:NH2	65:n9:18:ARG:HH11	2.17	0.42
65:n9:24:PRO:O	65:n9:25:LYS:HB2	2.18	0.42
66:o0:61:MET:HE3	66:o0:62:LEU:CD2	2.49	0.42
68:o2:82:LEU:HD11	68:o2:112:ALA:CB	2.44	0.42
73:o7:65:ARG:HH11	73:o7:65:ARG:CG	2.28	0.42
1:2:212:U:C2	1:2:254:A:C2	3.06	0.42
1:2:267:U:H2'	1:2:268:C:H6	1.85	0.42
1:2:455:C:H3'	1:2:456:A:C8	2.53	0.42
1:2:628:G:C6	1:2:969:C:C5	3.08	0.42
1:2:975:C:H5''	15:C3:109:LYS:NZ	2.34	0.42
1:2:1002:G:H2'	1:2:1003:A:H5'	2.01	0.42
1:2:1125:A:C5	1:2:1126:G:H1'	2.55	0.42
1:2:1251:U:O4'	33:E1:135:HIS:HE1	2.02	0.42
1:2:1291:G:N2	1:2:1324:G:N2	2.66	0.42
1:2:1461:C:C5	20:C8:143:ARG:NH1	2.87	0.42
1:2:1584:G:H22	1:2:1611:A:P	2.41	0.42
1:2:1741:U:H2'	1:2:1742:U:O4'	2.19	0.42
3:S1:34:ALA:HB2	3:S1:43:VAL:HG23	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:96:LEU:O	3:S1:96:LEU:HD23	2.20	0.42
4:S2:161:LYS:HD2	4:S2:166:THR:HG22	2.02	0.42
5:S3:117:ARG:HH11	35:SM:126:ASP:CG	2.26	0.42
6:S4:180:LEU:HD23	6:S4:194:THR:HG22	2.01	0.42
6:S4:197:HIS:CG	6:S4:198:LYS:N	2.87	0.42
8:S6:120:GLU:HG3	8:S6:125:THR:HB	2.01	0.42
9:S7:39:ARG:N	9:S7:40:PRO:HD2	2.33	0.42
10:S8:12:SER:OG	10:S8:14:THR:OG1	2.37	0.42
10:S8:104:ILE:CG1	10:S8:165:LEU:HB2	2.49	0.42
17:C5:12:PHE:CG	17:C5:13:LYS:N	2.84	0.42
19:C7:29:GLN:O	19:C7:32:LYS:HB3	2.19	0.42
25:D3:43:PHE:CE1	25:D3:49:ALA:HB3	2.54	0.42
26:D4:27:VAL:HG21	26:D4:40:LEU:HD11	2.00	0.42
33:E1:120:GLU:HA	33:E1:131:PHE:HA	2.01	0.42
34:SR:179:LYS:HD3	34:SR:181:TRP:CZ2	2.54	0.42
36:1:850:U:H2'	36:1:851:C:C6	2.54	0.42
36:1:933:A:N6	41:L4:98:ARG:HD3	2.33	0.42
36:1:1156:C:OP2	44:L7:94:LYS:NZ	2.48	0.42
36:1:1316:C:C6	52:M6:130:LYS:HB2	2.54	0.42
36:1:1456:A:N1	67:O1:64:VAL:HG13	2.34	0.42
36:1:2568:C:H3'	36:1:2569:A:O4'	2.19	0.42
36:1:3019:U:C4	36:1:3020:U:C4	3.07	0.42
37:3:48:U:C2	37:3:49:G:N7	2.87	0.42
39:L2:98:VAL:HA	39:L2:166:ILE:HG22	2.01	0.42
39:L2:145:LYS:O	39:L2:160:SER:OG	2.37	0.42
40:L3:188:ILE:H	40:L3:188:ILE:HG13	1.59	0.42
45:L8:166:LEU:HB2	45:L8:167:PRO:HD3	2.01	0.42
46:L9:106:LYS:H	46:L9:109:ALA:HB3	1.85	0.42
47:M0:193:ASP:OD1	47:M0:198:LYS:HE3	2.19	0.42
48:M1:133:ARG:HD2	48:M1:152:HIS:O	2.19	0.42
50:M4:16:GLU:OE2	56:N0:149:LYS:HD3	2.19	0.42
52:M6:54:TYR:CE2	52:M6:58:LEU:HD22	2.53	0.42
54:M8:48:VAL:HG13	54:M8:84:VAL:HG21	2.01	0.42
56:N0:21:GLU:N	56:N0:22:PRO:HD3	2.34	0.42
76:Q0:121:LEU:HD23	76:Q0:121:LEU:HA	1.84	0.42
1:6:65:A:OP1	8:s6:174:LYS:HD3	2.19	0.42
1:6:152:U:O2'	8:s6:15:THR:HG23	2.18	0.42
1:6:1030:A:H4'	1:6:1031:U:OP2	2.20	0.42
1:6:1092:A:O2'	1:6:1093:A:H5''	2.19	0.42
1:6:1780:G:H2'	1:6:1781:A:O4'	2.19	0.42
4:s2:147:ASN:HD22	23:d1:3:ASN:C	2.27	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:c0:23:ALA:CB	12:c0:64:TYR:HB2	2.49	0.42
14:c2:54:ARG:HD3	14:c2:56:GLU:OE2	2.19	0.42
20:c8:53:ASP:OD1	20:c8:56:LYS:HG3	2.18	0.42
23:d1:72:LEU:HD23	23:d1:72:LEU:HA	1.83	0.42
32:e0:40:TYR:HD1	32:e0:41:THR:HG23	1.83	0.42
36:5:25:U:H4'	36:5:26:A:N7	2.33	0.42
36:5:377:A:H1'	36:5:392:G:N2	2.34	0.42
36:5:427:C:N4	36:5:428:A:N6	2.67	0.42
36:5:634:C:O2'	68:o2:47:ARG:HD2	2.19	0.42
36:5:655:C:H2'	36:5:656:A:C8	2.53	0.42
36:5:663:C:H2'	36:5:664:U:C6	2.54	0.42
36:5:701:G:H2'	36:5:702:C:C6	2.55	0.42
36:5:1108:U:H2'	36:5:1109:U:C6	2.55	0.42
36:5:1117:G:N2	36:5:1142:G:H1'	2.34	0.42
36:5:1206:G:OP1	47:m0:157:TYR:OH	2.36	0.42
36:5:1746:U:H2'	36:5:1747:G:H8	1.84	0.42
36:5:2184:U:O3'	39:l2:211:HIS:CE1	2.72	0.42
36:5:2242:A:H5''	39:l2:243:THR:O	2.20	0.42
36:5:2278:C:C2	36:5:2307:G:C2	3.07	0.42
36:5:2888:U:H2'	36:5:2910:A:H61	1.84	0.42
36:5:3130:A:C2	36:5:3131:U:H5'	2.54	0.42
36:5:3237:U:H2'	36:5:3238:G:O4'	2.18	0.42
39:l2:230:VAL:O	39:l2:233:GLN:HB2	2.19	0.42
40:l3:257:PRO:HG2	40:l3:261:MET:SD	2.59	0.42
40:l3:283:TYR:CZ	40:l3:325:LYS:HB2	2.55	0.42
42:l5:219:PHE:CE1	42:l5:227:LEU:HD21	2.54	0.42
43:l6:172:HIS:HB3	69:o3:43:PHE:CD2	2.54	0.42
45:l8:154:ALA:HB2	45:l8:186:LEU:HD12	2.02	0.42
46:l9:49:ASN:OD1	46:l9:52:LEU:N	2.53	0.42
48:m1:61:ARG:O	48:m1:62:ASN:HB2	2.17	0.42
49:m3:32:LYS:HA	49:m3:35:ARG:NH1	2.34	0.42
49:m3:59:ARG:NH2	49:m3:67:ARG:O	2.53	0.42
50:m4:19:ARG:NH2	50:m4:67:PRO:O	2.52	0.42
51:m5:136:ASP:OD2	51:m5:136:ASP:C	2.63	0.42
61:n5:94:GLN:O	61:n5:97:LYS:HB3	2.19	0.42
76:q0:87:SER:O	76:q0:88:LYS:C	2.63	0.42
1:2:600:U:H2'	1:2:601:A:C8	2.54	0.42
1:2:856:A:H62	9:S7:97:ARG:H	1.68	0.42
1:2:1486:G:H1'	1:2:1592:A:O2'	2.20	0.42
1:2:1562:G:C6	1:2:1563:C:C4	3.06	0.42
1:2:1573:A:H8	1:2:1573:A:O5'	2.03	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:50:VAL:HG23	19:C7:109:LEU:HD21	2.02	0.42
3:S1:59:ASP:HA	3:S1:62:LYS:HZ2	1.84	0.42
3:S1:109:LYS:HG3	3:S1:113:MET:HE3	2.01	0.42
6:S4:106:LYS:HB2	6:S4:108:ARG:NE	2.34	0.42
14:C2:24:ILE:O	14:C2:25:GLU:HG2	2.19	0.42
19:C7:108:ASP:HA	19:C7:111:LYS:HE2	2.01	0.42
20:C8:126:ARG:HG2	20:C8:133:VAL:HA	2.00	0.42
35:SM:64:LYS:H	35:SM:64:LYS:HD2	1.84	0.42
35:SM:87:THR:HG22	35:SM:88:ARG:N	2.34	0.42
36:1:751:A:C6	36:1:752:C:C4	3.08	0.42
36:1:1080:A:OP1	42:L5:140:ARG:HB2	2.20	0.42
36:1:1402:C:H2'	36:1:1403:C:C6	2.54	0.42
36:1:1462:A:H2'	36:1:1463:U:H6	1.84	0.42
36:1:1641:U:C2	36:1:1644:C:N4	2.87	0.42
36:1:2338:C:OP1	40:L3:236:LYS:HE2	2.20	0.42
36:1:2562:A:H2	45:L8:31:PRO:HD3	1.85	0.42
36:1:2632:G:C6	36:1:2647:A:C6	3.07	0.42
36:1:2688:U:N3	42:L5:16:PHE:CE2	2.88	0.42
36:1:2766:U:C4	36:1:2767:U:C4	3.07	0.42
36:1:2767:U:H2'	36:1:2768:U:H6	1.82	0.42
36:1:2810:C:H4'	82:1:3808:GET:H932	2.00	0.42
36:1:2922:G:N3	36:1:2952:G:H1'	2.34	0.42
36:1:3260:G:O4'	50:M4:129:TYR:CD1	2.73	0.42
37:3:5:G:C5	37:3:6:C:C5	3.07	0.42
38:4:40:A:H8	38:4:40:A:O5'	2.02	0.42
38:4:83:C:H1'	38:4:85:G:N2	2.34	0.42
41:L4:30:ILE:HA	41:L4:124:SER:OG	2.19	0.42
42:L5:142:PHE:HD1	42:L5:171:LEU:HD22	1.84	0.42
44:L7:236:ILE:O	44:L7:240:VAL:HG23	2.19	0.42
45:L8:170:CYS:HB2	45:L8:177:TYR:CD2	2.54	0.42
48:M1:98:ALA:HA	48:M1:156:LYS:HB2	2.01	0.42
51:M5:64:VAL:HG11	51:M5:102:ALA:HB1	2.01	0.42
51:M5:133:ILE:HG13	51:M5:133:ILE:O	2.18	0.42
55:M9:30:SER:O	55:M9:34:GLN:HG2	2.19	0.42
56:N0:108:GLN:O	56:N0:111:ALA:HB3	2.18	0.42
63:N7:122:HIS:HB2	63:N7:131:PHE:CZ	2.54	0.42
75:O9:4:GLN:HE21	75:O9:4:GLN:HB2	1.50	0.42
1:6:520:A:C6	1:6:521:A:C6	3.07	0.42
1:6:763:G:C6	1:6:764:U:C4	3.07	0.42
1:6:926:A:H1'	1:6:988:A:N1	2.34	0.42
1:6:946:U:H5''	3:s1:165:ARG:CZ	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1079:U:H2'	1:6:1080:U:C6	2.55	0.42
1:6:1190:C:N3	35:sM:83:LYS:HE3	2.35	0.42
1:6:1196:A:H4'	1:6:1197:C:O5'	2.19	0.42
1:6:1230:A:H2	1:6:1255:G:N2	2.07	0.42
1:6:1275:A:C2'	5:s3:141:LYS:HZ2	2.33	0.42
1:6:1494:C:C2	1:6:1495:C:C5	3.07	0.42
1:6:1504:G:C6	1:6:1505:A:C6	3.07	0.42
1:6:1555:A:P	17:c5:47:ARG:HH21	2.42	0.42
2:s0:12:GLU:O	2:s0:16:LEU:HG	2.19	0.42
9:s7:67:LEU:HD13	9:s7:71:HIS:CE1	2.55	0.42
16:c4:29:HIS:NE2	16:c4:38:THR:HB	2.34	0.42
16:c4:115:ILE:O	28:d6:65:PRO:HG3	2.19	0.42
17:c5:130:ARG:HH22	35:sM:70:ASN:CB	2.29	0.42
19:c7:34:LEU:HD23	19:c7:34:LEU:HA	1.84	0.42
24:d2:75:ILE:HD13	24:d2:75:ILE:HA	1.94	0.42
27:d5:55:PRO:HG3	27:d5:88:ILE:HG23	2.01	0.42
27:d5:83:LEU:C	27:d5:89:ILE:HG12	2.44	0.42
35:sM:79:SER:O	35:sM:82:THR:OG1	2.38	0.42
36:5:533:A:O2'	36:5:535:G:H5'	2.20	0.42
36:5:589:A:H1'	36:5:1337:A:H5''	2.01	0.42
36:5:752:C:O2'	36:5:753:C:H5'	2.19	0.42
36:5:865:U:C4	36:5:866:A:N7	2.87	0.42
36:5:1096:U:C4	57:n1:116:ARG:NH2	2.88	0.42
36:5:1314:C:H5'	52:m6:17:GLY:HA3	2.01	0.42
36:5:1363:A:H8	36:5:1363:A:O5'	2.02	0.42
36:5:1379:G:C6	36:5:1380:G:C5	3.07	0.42
36:5:2140:U:H5	82:5:3844:GET:N21	2.18	0.42
36:5:2430:A:O5'	36:5:2430:A:H8	2.01	0.42
36:5:2676:A:N1	48:m1:22:SER:OG	2.48	0.42
36:5:3181:C:O2'	52:m6:164:SER:HB3	2.19	0.42
38:8:38:U:O2'	71:o5:83:LYS:NZ	2.48	0.42
39:l2:42:ARG:HE	39:l2:42:ARG:HB3	1.71	0.42
40:l3:238:LEU:HD12	40:l3:239:PRO:HD3	2.00	0.42
40:l3:308:MET:HE2	40:l3:370:PHE:O	2.19	0.42
40:l3:331:ASN:OD1	40:l3:331:ASN:N	2.53	0.42
41:l4:198:ARG:HG3	41:l4:198:ARG:NH1	2.35	0.42
41:l4:330:TYR:HB2	44:l7:45:LEU:CD2	2.49	0.42
42:l5:68:THR:HG22	42:l5:70:THR:H	1.83	0.42
46:l9:69:ARG:O	46:l9:72:LYS:HB3	2.19	0.42
46:l9:159:ALA:HA	46:l9:162:GLN:HB3	2.01	0.42
52:m6:124:LEU:HD13	52:m6:124:LEU:HA	1.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:m8:26:LEU:HD23	54:m8:26:LEU:HA	1.83	0.42
55:m9:146:LYS:HD3	55:m9:146:LYS:HA	1.87	0.42
59:n3:17:LEU:HD21	59:n3:98:ASN:CG	2.45	0.42
60:n4:60:LYS:O	60:n4:63:ILE:HD11	2.20	0.42
65:n9:28:LYS:HG3	65:n9:29:TYR:CD1	2.55	0.42
66:o0:101:LEU:HD22	66:o0:101:LEU:N	2.35	0.42
79:q3:49:ARG:HD3	79:q3:50:GLY:O	2.20	0.42
1:2:145:A:H2	1:2:146:U:N1	2.17	0.42
1:2:167:U:H4'	8:S6:134:GLY:O	2.19	0.42
1:2:197:A:H2'	1:2:198:A:C8	2.54	0.42
1:2:545:A:H4'	1:2:546:U:H5'	2.01	0.42
1:2:980:G:N2	1:2:1022:C:H1'	2.33	0.42
1:2:1045:C:C2	1:2:1074:G:C2	3.07	0.42
1:2:1051:G:H1'	1:2:1052:U:OP1	2.19	0.42
1:2:1351:G:C2	1:2:1375:A:C2	3.07	0.42
1:2:1378:U:C2'	1:2:1379:C:H5'	2.50	0.42
1:2:1559:A:H3'	1:2:1559:A:N3	2.35	0.42
4:S2:139:ILE:HG22	4:S2:141:ARG:CD	2.50	0.42
4:S2:156:THR:HB	24:D2:95:PRO:HB3	2.00	0.42
5:S3:94:ARG:H	5:S3:94:ARG:HG3	1.70	0.42
6:S4:123:LEU:HA	6:S4:160:VAL:O	2.20	0.42
10:S8:98:LYS:C	10:S8:100:ALA:H	2.27	0.42
17:C5:81:ARG:HH12	17:C5:120:SER:HB3	1.84	0.42
17:C5:119:PHE:HE1	20:C8:119:ILE:CG2	2.33	0.42
17:C5:130:ARG:NH1	35:SM:70:ASN:O	2.52	0.42
21:C9:10:ALA:HB3	21:C9:13:ASP:OD2	2.19	0.42
24:D2:70:ASN:HB2	24:D2:130:TYR:HD2	1.84	0.42
27:D5:59:TYR:HD2	27:D5:59:TYR:C	2.27	0.42
33:E1:102:VAL:O	33:E1:104:SER:N	2.53	0.42
36:1:692:A:H2'	36:1:693:A:C8	2.54	0.42
36:1:860:G:C6	39:L2:181:LYS:HB2	2.54	0.42
36:1:1102:A:O3'	36:1:1103:A:O4'	2.36	0.42
36:1:1472:U:H2'	36:1:1473:G:C8	2.54	0.42
36:1:1481:A:N7	36:1:1859:A:C5	2.87	0.42
36:1:1690:C:C4	36:1:1691:U:C4	3.08	0.42
36:1:1714:A:C4	36:1:1728:G:C6	3.07	0.42
36:1:1722:U:H1'	55:M9:96:ILE:HG12	2.01	0.42
36:1:1729:A:H62	66:O0:47:ASN:ND2	2.18	0.42
36:1:2418:G:H4'	36:1:2419:A:OP1	2.19	0.42
36:1:2615:G:H3'	84:1:3925:HOH:O	2.15	0.42
36:1:2885:C:N3	36:1:2886:U:C4	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2918:G:C2	36:1:2919:A:N7	2.88	0.42
36:1:3200:G:C2	36:1:3201:C:C2	3.07	0.42
36:1:3319:U:OP2	36:1:3319:U:H4'	2.18	0.42
37:3:31:U:O2'	37:3:32:U:H5'	2.19	0.42
38:4:85:G:H3'	38:4:85:G:C8	2.54	0.42
38:4:109:A:C2	38:4:114:G:C6	3.07	0.42
39:L2:29:LEU:HD12	39:L2:123:ARG:HA	2.00	0.42
42:L5:41:LYS:HB2	57:N1:69:LYS:O	2.18	0.42
42:L5:225:GLY:HA2	42:L5:228:ALA:HB3	2.01	0.42
46:L9:48:VAL:HG13	46:L9:49:ASN:H	1.83	0.42
49:M3:89:TYR:HB2	71:O5:111:PHE:CE1	2.54	0.42
51:M5:68:ARG:HD3	51:M5:125:SER:O	2.19	0.42
52:M6:124:LEU:HA	52:M6:124:LEU:HD13	1.73	0.42
54:M8:184:PHE:CD1	54:M8:184:PHE:N	2.88	0.42
56:N0:27:MET:HE3	57:N1:151:LEU:O	2.20	0.42
61:N5:49:LYS:HB3	61:N5:49:LYS:HE2	1.77	0.42
61:N5:115:ARG:HB2	61:N5:119:THR:OG1	2.19	0.42
69:O3:11:GLY:O	69:O3:98:VAL:N	2.40	0.42
70:O4:11:ASN:HB3	70:O4:18:ASN:HD21	1.84	0.42
79:Q3:45:LYS:HB2	79:Q3:45:LYS:HE3	1.74	0.42
1:6:215:A:H8	1:6:215:A:O5'	2.02	0.42
1:6:316:A:N6	1:6:349:U:C4	2.87	0.42
1:6:387:A:H5''	1:6:389:G:OP2	2.20	0.42
1:6:512:A:OP1	11:s9:170:GLY:N	2.48	0.42
1:6:846:G:H2'	1:6:847:A:C8	2.55	0.42
1:6:899:G:H4'	16:c4:46:MET:HG2	2.02	0.42
1:6:1380:U:H6	1:6:1380:U:O5'	2.01	0.42
1:6:1582:U:C2	1:6:1614:A:C5	3.08	0.42
2:s0:78:SER:HA	2:s0:100:GLY:HA2	2.02	0.42
2:s0:87:LEU:HD13	2:s0:97:PRO:HG3	2.01	0.42
5:s3:21:LEU:HD23	5:s3:21:LEU:HA	1.70	0.42
5:s3:218:LEU:HD23	5:s3:218:LEU:HA	1.71	0.42
6:s4:166:SER:O	6:s4:168:LYS:HG2	2.19	0.42
10:s8:21:PHE:CE1	10:s8:22:ARG:HD3	2.54	0.42
10:s8:172:ARG:O	10:s8:173:PRO:C	2.62	0.42
11:s9:114:TYR:HB2	11:s9:121:SER:O	2.20	0.42
13:c1:57:LYS:HB2	13:c1:110:HIS:NE2	2.35	0.42
14:c2:103:LEU:H	14:c2:103:LEU:HD22	1.84	0.42
15:c3:84:ILE:HG21	15:c3:139:TRP:HZ2	1.84	0.42
17:c5:69:GLU:HG2	17:c5:70:ASN:N	2.34	0.42
22:d0:27:THR:HG22	22:d0:88:LYS:HD3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:d6:58:VAL:HG12	28:d6:59:TYR:H	1.84	0.42
36:5:291:C:OP1	51:m5:68:ARG:HG3	2.19	0.42
36:5:303:G:C2	36:5:2778:G:N7	2.88	0.42
36:5:421:G:C8	36:5:2365:C:C6	3.08	0.42
36:5:535:G:P	56:n0:146:LYS:HE2	2.60	0.42
36:5:553:U:O5'	36:5:553:U:H6	2.03	0.42
36:5:966:U:N3	36:5:967:A:N7	2.68	0.42
36:5:1087:G:N2	36:5:1088:U:C2	2.88	0.42
36:5:1908:A:N6	36:5:1909:A:C6	2.87	0.42
36:5:2179:C:O2'	39:l2:174:ARG:NH2	2.49	0.42
36:5:2249:G:O5'	36:5:2272:G:O2'	2.35	0.42
36:5:2270:A:H2'	36:5:2271:A:C8	2.54	0.42
36:5:3358:U:H2'	36:5:3359:A:C8	2.54	0.42
37:7:22:A:N3	37:7:22:A:H2'	2.33	0.42
38:8:121:U:C2	38:8:122:U:C5	3.08	0.42
42:l5:179:ARG:HA	42:l5:179:ARG:HD3	1.85	0.42
43:l6:55:LEU:HB3	43:l6:98:VAL:HG21	2.02	0.42
43:l6:142:ASP:O	43:l6:146:ILE:HG13	2.19	0.42
47:m0:27:PRO:HG3	47:m0:124:GLY:HA2	2.01	0.42
48:m1:15:GLU:HB3	48:m1:130:VAL:HG22	2.01	0.42
49:m3:106:GLN:HB3	72:o6:18:THR:OG1	2.20	0.42
49:m3:124:ILE:O	49:m3:124:ILE:HG12	2.18	0.42
51:m5:48:ALA:C	51:m5:53:TYR:HB3	2.44	0.42
55:m9:10:LEU:HD12	55:m9:10:LEU:HA	1.75	0.42
62:n6:63:LYS:HD3	62:n6:63:LYS:HA	1.48	0.42
63:n7:4:PHE:CD2	63:n7:4:PHE:N	2.88	0.42
67:o1:10:ARG:HH12	67:o1:44:MET:CG	2.33	0.42
70:o4:44:CYS:HB3	70:o4:49:SER:H	1.83	0.42
71:o5:82:ALA:HB1	71:o5:84:LYS:HD3	2.02	0.42
77:q1:15:ARG:HA	77:q1:18:ARG:HD3	2.00	0.42
1:2:186:C:C2	1:2:200:A:C2	3.07	0.42
1:2:260:U:O4	10:S8:42:ARG:HA	2.20	0.42
1:2:315:A:H4'	1:2:316:A:H4'	2.01	0.42
1:2:326:G:OP1	13:C1:57:LYS:NZ	2.42	0.42
1:2:542:A:OP2	1:2:544:A:C6	2.73	0.42
1:2:641:G:O2'	9:S7:178:GLY:O	2.36	0.42
1:2:983:A:C6	1:2:984:G:N7	2.87	0.42
1:2:1092:A:C5	1:2:1094:G:C8	3.07	0.42
1:2:1370:U:C1'	1:2:1371:A:H5''	2.49	0.42
1:2:1646:C:H42	1:2:1754:A:H61	1.67	0.42
1:2:1684:U:O2	1:2:1718:G:C2	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:22:THR:HG22	2:S0:169:SER:CB	2.50	0.42
2:S0:198:MET:SD	2:S0:199:PRO:HD2	2.59	0.42
5:S3:71:LEU:HB3	12:C0:20:VAL:HG11	2.02	0.42
9:S7:111:LYS:O	9:S7:112:ARG:HB2	2.18	0.42
13:C1:8:GLN:OE1	13:C1:8:GLN:HA	2.18	0.42
16:C4:24:ASN:N	16:C4:55:SER:HB3	2.33	0.42
23:D1:16:LYS:HB2	23:D1:16:LYS:HE3	1.71	0.42
25:D3:59:ILE:HB	25:D3:69:ARG:HB2	2.00	0.42
31:D9:22:ARG:HG2	31:D9:37:ASN:O	2.20	0.42
32:E0:53:LYS:H	32:E0:53:LYS:HG2	1.72	0.42
36:1:31:C:H4'	51:M5:96:ARG:HD3	2.01	0.42
36:1:144:A:H2'	36:1:145:G:O4'	2.20	0.42
36:1:214:G:N1	36:1:215:G:C5	2.87	0.42
36:1:284:A:OP2	78:Q2:41:ARG:HD2	2.20	0.42
36:1:548:G:HO2'	36:1:549:U:P	2.43	0.42
36:1:673:U:P	54:M8:21:SER:OG	2.77	0.42
36:1:1106:G:C6	36:1:1107:C:C4	3.08	0.42
36:1:1226:G:H2'	36:1:1227:C:C6	2.54	0.42
36:1:1373:A:H2'	36:1:1374:G:C8	2.55	0.42
36:1:1376:C:H1'	36:1:1407:A:C4	2.55	0.42
36:1:1525:G:N3	36:1:1594:A:H2	2.18	0.42
36:1:2103:U:OP1	55:M9:88:ARG:NH2	2.29	0.42
36:1:2117:A:C8	36:1:3064:U:O2	2.73	0.42
36:1:2524:A:H4'	36:1:2525:G:OP1	2.20	0.42
36:1:2653:C:OP1	78:Q2:89:LYS:HB2	2.19	0.42
36:1:2656:A:C8	36:1:2658:G:C8	3.08	0.42
36:1:2673:A:H4'	48:M1:103:GLY:O	2.19	0.42
36:1:2878:G:H2'	36:1:2879:C:H6	1.85	0.42
36:1:2924:U:C5	36:1:2925:C:C6	3.07	0.42
36:1:3200:G:C6	36:1:3201:C:C4	3.08	0.42
38:4:44:A:C5	38:4:45:C:C5	3.08	0.42
40:L3:305:ILE:H	40:L3:305:ILE:HG13	1.43	0.42
42:L5:109:THR:O	42:L5:113:LEU:HB2	2.20	0.42
43:L6:102:ASN:OD1	43:L6:104:GLU:N	2.48	0.42
46:L9:188:THR:HG1	46:L9:190:ASP:CG	2.23	0.42
47:M0:30:LYS:HA	47:M0:30:LYS:HE3	2.01	0.42
51:M5:16:SER:O	51:M5:20:ARG:HG2	2.19	0.42
55:M9:133:LYS:HD3	55:M9:134:HIS:HE2	1.85	0.42
58:N2:43:VAL:HG22	58:N2:50:LEU:HD23	2.01	0.42
61:N5:115:ARG:NH1	61:N5:119:THR:HG1	2.15	0.42
67:O1:74:ARG:HE	67:O1:74:ARG:HB2	1.38	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:O2:93:ALA:HB2	68:O2:118:LYS:HD3	2.02	0.42
1:6:34:G:C2	1:6:35:U:C6	3.08	0.42
1:6:417:A:H4'	1:6:418:G:O5'	2.19	0.42
1:6:1490:C:C5	1:6:1492:A:C4	3.08	0.42
1:6:1559:A:N1	20:c8:134:ARG:NH1	2.67	0.42
1:6:1668:G:H2'	1:6:1669:U:O4'	2.20	0.42
2:s0:60:ALA:HB2	2:s0:160:ILE:HD11	2.02	0.42
2:s0:126:PRO:HA	2:s0:133:ILE:HD11	2.01	0.42
3:s1:28:GLU:HB3	3:s1:94:LYS:NZ	2.34	0.42
3:s1:104:ASP:OD1	3:s1:105:PHE:N	2.43	0.42
4:s2:133:LYS:HA	4:s2:136:VAL:HG13	2.01	0.42
4:s2:152:HIS:H	4:s2:152:HIS:CD2	2.38	0.42
11:s9:106:GLU:O	11:s9:111:THR:OG1	2.35	0.42
12:c0:48:SER:O	12:c0:51:SER:HB3	2.20	0.42
14:c2:36:LEU:HD21	14:c2:43:ARG:NH1	2.34	0.42
16:c4:84:ARG:HH21	16:c4:120:PRO:HG3	1.85	0.42
26:d4:7:ILE:HD12	26:d4:43:LYS:HG2	2.00	0.42
32:e0:56:MET:HE3	32:e0:56:MET:HB2	1.84	0.42
36:5:400:G:H5'	36:5:403:C:H1'	2.02	0.42
36:5:651:G:O2'	36:5:1435:A:OP1	2.35	0.42
36:5:660:A:C2	36:5:1435:A:C2	3.08	0.42
36:5:705:A:N1	36:5:714:G:O2'	2.46	0.42
36:5:714:G:C2	64:n8:113:LEU:HD11	2.55	0.42
36:5:823:C:H2'	36:5:824:C:H6	1.84	0.42
36:5:1011:A:O4'	47:m0:194:GLY:HA3	2.19	0.42
36:5:1024:G:H2'	36:5:1026:A:H8	1.84	0.42
36:5:1135:A:O5'	36:5:2642:A:H1'	2.20	0.42
36:5:1792:C:H5''	36:5:1793:C:OP1	2.20	0.42
36:5:1872:C:H2'	36:5:1873:U:H6	1.83	0.42
36:5:2223:A:N1	36:5:2783:U:H1'	2.35	0.42
36:5:2353:G:C2'	36:5:2354:C:H5'	2.49	0.42
36:5:2530:G:C6	36:5:2531:C:C4	3.07	0.42
36:5:3027:A:H2'	36:5:3028:G:O4'	2.19	0.42
82:5:3850:GET:H131	82:5:3850:GET:N12	2.35	0.42
37:7:28:C:OP1	48:m1:137:ARG:NH1	2.43	0.42
38:8:153:U:OP1	45:l8:63:LYS:HE2	2.19	0.42
39:l2:201:GLY:C	39:l2:211:HIS:HB2	2.44	0.42
40:l3:196:ARG:HA	40:l3:196:ARG:HD2	1.86	0.42
40:l3:233:TRP:CD1	40:l3:265:ALA:HB1	2.54	0.42
42:l5:52:VAL:HA	42:l5:147:ASP:HB3	2.02	0.42
42:l5:273:ARG:O	42:l5:273:ARG:HG2	2.14	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:l8:156:ASP:CG	45:l8:183:LYS:HG2	2.44	0.42
48:m1:24:GLY:HA2	48:m1:65:ILE:HG23	2.02	0.42
48:m1:96:PHE:HB3	48:m1:156:LYS:HG3	2.00	0.42
49:m3:151:ALA:C	49:m3:152:THR:HG23	2.43	0.42
54:m8:23:ASN:HB3	54:m8:26:LEU:HB2	2.00	0.42
64:n8:111:LYS:HG3	64:n8:129:PHE:O	2.19	0.42
67:o1:19:ARG:HD3	67:o1:35:GLU:HG2	2.02	0.42
76:q0:114:LYS:HG2	76:q0:115:CYS:N	2.31	0.42
80:p0:64:ARG:HG3	80:p0:77:LEU:HD11	2.00	0.42
1:2:804:A:C5	24:D2:107:SER:HA	2.55	0.42
1:2:885:G:H2'	1:2:886:U:C6	2.55	0.42
1:2:992:A:H2'	1:2:993:A:H5'	2.02	0.42
1:2:1063:U:OP1	29:D7:72:LYS:NZ	2.31	0.42
1:2:1227:A:C8	14:C2:116:VAL:HG21	2.54	0.42
1:2:1470:C:C5	1:2:1573:A:C6	3.08	0.42
1:2:1500:C:H5''	21:C9:106:GLN:HE21	1.82	0.42
1:2:1754:A:C5	82:2:2012:GET:H21	2.54	0.42
3:S1:62:LYS:CD	3:S1:91:VAL:HB	2.50	0.42
9:S7:51:VAL:HG11	9:S7:89:HIS:ND1	2.34	0.42
9:S7:83:LYS:HB3	9:S7:83:LYS:HE2	1.86	0.42
11:S9:127:VAL:HA	11:S9:130:THR:HG23	2.01	0.42
13:C1:59:PRO:HB3	13:C1:66:ILE:HD11	2.00	0.42
14:C2:89:ILE:HG12	14:C2:90:LYS:N	2.35	0.42
14:C2:119:SER:OG	14:C2:120:VAL:N	2.51	0.42
15:C3:139:TRP:HZ2	15:C3:149:LEU:HD11	1.85	0.42
20:C8:32:LEU:O	20:C8:38:VAL:HG21	2.19	0.42
22:D0:58:LEU:CD1	22:D0:88:LYS:HD2	2.50	0.42
28:D6:24:VAL:HG12	28:D6:72:HIS:O	2.19	0.42
34:SR:245:PHE:CE1	34:SR:252:LEU:HD13	2.55	0.42
36:1:15:C:P	61:N5:42:ARG:HE	2.42	0.42
36:1:31:C:H2'	36:1:32:U:O4'	2.20	0.42
36:1:170:G:H1	36:1:248:U:H3	1.66	0.42
36:1:501:A:O3'	43:L6:28:GLN:HB2	2.20	0.42
36:1:515:C:C2'	36:1:516:A:H5'	2.49	0.42
36:1:620:U:N3	36:1:622:A:C2	2.88	0.42
36:1:634:C:O2'	68:O2:47:ARG:HD2	2.20	0.42
36:1:797:U:O2'	36:1:798:G:H5'	2.19	0.42
36:1:863:C:N4	36:1:864:G:C6	2.87	0.42
36:1:969:C:N3	36:1:1113:G:N2	2.67	0.42
36:1:995:U:N3	36:1:2637:A:C8	2.88	0.42
36:1:1043:C:H2'	36:1:1044:U:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1535:A:C8	36:1:1536:G:C8	3.08	0.42
36:1:1661:G:H2'	36:1:1662:G:C8	2.54	0.42
36:1:1729:A:H4'	36:1:1730:G:OP2	2.19	0.42
36:1:1904:C:N3	36:1:2951:G:H5'	2.35	0.42
36:1:2221:G:N2	36:1:2225:U:C2	2.88	0.42
36:1:2357:A:C6	36:1:2983:C:C5	3.08	0.42
36:1:2602:G:C6	36:1:2603:G:N7	2.88	0.42
36:1:2914:G:H2'	36:1:2915:U:C6	2.54	0.42
36:1:3295:A:OP1	40:L3:119:TYR:HE1	2.03	0.42
37:3:48:U:C4	37:3:49:G:N7	2.87	0.42
38:4:47:C:H1'	38:4:61:A:H2'	2.01	0.42
40:L3:183:LEU:HD12	40:L3:183:LEU:HA	1.67	0.42
40:L3:215:ILE:HG21	40:L3:282:ILE:HD11	2.01	0.42
41:L4:47:ARG:NH1	41:L4:109:TRP:O	2.52	0.42
42:L5:40:HIS:CD2	42:L5:42:ALA:HB3	2.55	0.42
42:L5:41:LYS:HD2	42:L5:41:LYS:HA	1.71	0.42
45:L8:139:VAL:O	45:L8:143:ILE:HG13	2.20	0.42
47:M0:165:ILE:HD13	47:M0:165:ILE:H	1.84	0.42
54:M8:73:GLN:HB2	54:M8:76:ALA:HB3	2.02	0.42
59:N3:28:ASN:OD1	59:N3:111:GLY:HA3	2.20	0.42
61:N5:90:ALA:HA	61:N5:94:GLN:OE1	2.18	0.42
63:N7:101:PHE:HA	63:N7:107:ARG:NE	2.35	0.42
63:N7:128:GLN:O	63:N7:128:GLN:HG2	2.19	0.42
66:O0:40:LYS:HB3	66:O0:101:LEU:HD21	2.02	0.42
74:O8:77:ARG:HG3	74:O8:78:LEU:HD22	2.02	0.42
1:6:187:G:C6	1:6:197:A:N6	2.88	0.42
1:6:611:U:C4	1:6:612:U:C4	3.08	0.42
1:6:647:G:H22	1:6:687:G:N2	2.18	0.42
1:6:1341:A:H1'	34:sR:65:SER:OG	2.19	0.42
1:6:1740:A:O2'	1:6:1741:U:H5'	2.20	0.42
9:s7:84:LYS:HA	9:s7:84:LYS:HD3	1.87	0.42
14:c2:50:LYS:NZ	33:e1:129:GLY:HA2	2.34	0.42
15:c3:3:ARG:HA	15:c3:3:ARG:NE	2.35	0.42
16:c4:17:ALA:N	16:c4:80:HIS:O	2.42	0.42
28:d6:51:ARG:NH2	28:d6:55:GLU:OE1	2.53	0.42
34:sR:38:ARG:NE	34:sR:67:ILE:HD13	2.35	0.42
36:5:119:U:C2	45:l8:138:HIS:CE1	3.07	0.42
36:5:577:C:O2'	36:5:579:G:H5''	2.19	0.42
36:5:598:A:OP1	44:l7:41:ARG:NH1	2.53	0.42
36:5:672:A:OP1	54:m8:55:SER:HA	2.19	0.42
36:5:763:G:C5	36:5:764:U:C5	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:795:G:O2'	36:5:1111:U:H5''	2.20	0.42
36:5:1170:A:OP2	84:5:3996:HOH:O	2.22	0.42
36:5:1596:C:H1'	36:5:1697:A:H1'	2.02	0.42
36:5:2229:A:H2'	36:5:2230:C:O4'	2.19	0.42
36:5:2298:U:C5	36:5:2921:U:H1'	2.55	0.42
36:5:2400:G:H3'	36:5:2401:A:C8	2.54	0.42
36:5:2770:G:O2'	36:5:2771:U:H5'	2.19	0.42
36:5:3230:G:H2'	36:5:3231:U:O4'	2.19	0.42
39:l2:186:PHE:HD2	39:l2:187:HIS:CD2	2.37	0.42
42:l5:21:ARG:O	42:l5:25:GLU:HG2	2.20	0.42
46:l9:34:LEU:HD21	46:l9:149:ASN:CB	2.45	0.42
47:m0:210:ILE:HD13	47:m0:217:PHE:CE2	2.55	0.42
50:m4:55:ARG:HD3	56:n0:70:THR:HB	2.00	0.42
52:m6:14:HIS:HE1	52:m6:119:VAL:HG22	1.81	0.42
52:m6:61:ALA:HA	52:m6:70:PRO:CD	2.46	0.42
53:m7:22:LEU:HB3	53:m7:90:PHE:HE2	1.84	0.42
55:m9:84:THR:O	55:m9:88:ARG:HG2	2.18	0.42
55:m9:105:LEU:HD23	55:m9:135:LYS:HE3	2.01	0.42
59:n3:37:ILE:HD11	59:n3:73:VAL:HG13	2.01	0.42
59:n3:93:LEU:HA	60:n4:20:LEU:O	2.19	0.42
59:n3:128:ARG:HA	59:n3:128:ARG:HD2	1.73	0.42
61:n5:24:LEU:HD23	61:n5:24:LEU:HA	1.76	0.42
62:n6:52:ARG:HA	62:n6:70:ILE:CG2	2.49	0.42
63:n7:67:LYS:C	63:n7:68:ILE:HG13	2.45	0.42
75:o9:27:ILE:HG23	75:o9:30:ARG:NE	2.34	0.42
1:2:297:U:O2'	6:S4:34:GLY:N	2.48	0.42
1:2:1149:G:H1'	1:2:1765:A:C4	2.54	0.42
1:2:1342:C:O2'	1:2:1343:U:H5'	2.20	0.42
1:2:1481:C:O2'	1:2:1482:C:O5'	2.28	0.42
2:S0:133:ILE:H	2:S0:133:ILE:HD12	1.85	0.42
2:S0:173:ILE:HA	2:S0:176:LEU:HD12	2.01	0.42
3:S1:46:THR:HG22	16:C4:32:ASP:CB	2.50	0.42
7:S5:53:VAL:CG2	7:S5:59:VAL:HG22	2.50	0.42
8:S6:18:ILE:O	8:S6:24:ILE:HD11	2.19	0.42
10:S8:185:GLU:HG2	13:C1:23:PRO:CG	2.50	0.42
14:C2:89:ILE:HG12	14:C2:90:LYS:H	1.85	0.42
15:C3:23:PRO:HB3	15:C3:25:TRP:NE1	2.35	0.42
17:C5:75:PRO:HA	17:C5:93:VAL:HG12	2.01	0.42
18:C6:109:PHE:O	18:C6:112:TYR:N	2.53	0.42
21:C9:6:VAL:HG13	21:C9:66:TYR:CE1	2.55	0.42
25:D3:51:GLY:HA3	25:D3:74:VAL:CG1	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:92:CYS:O	25:D3:95:PHE:HB2	2.20	0.42
25:D3:103:LEU:HD22	25:D3:104:LEU:N	2.34	0.42
34:SR:281:TYR:HB3	34:SR:282:SER:H	1.73	0.42
36:1:65:A:H4'	36:1:66:A:C5'	2.49	0.42
36:1:83:U:H4'	36:1:700:C:O2'	2.20	0.42
36:1:707:U:H1'	36:1:754:G:O2'	2.19	0.42
36:1:884:A:C8	36:1:2139:A:C8	3.08	0.42
36:1:1479:U:O2'	36:1:1484:U:OP1	2.29	0.42
36:1:1665:C:H2'	36:1:1666:G:C8	2.53	0.42
36:1:1722:U:H2'	36:1:1723:A:H5'	2.02	0.42
36:1:1843:C:OP1	75:O9:48:LYS:NZ	2.32	0.42
36:1:2103:U:C2	36:1:2104:A:C8	3.07	0.42
36:1:2138:A:O2'	73:O7:3:LYS:HG2	2.19	0.42
36:1:2950:G:C4	36:1:2979:U:C4	3.07	0.42
36:1:2989:U:C2	36:1:2990:G:C8	3.08	0.42
36:1:3232:G:C2	36:1:3256:G:C4	3.08	0.42
36:1:3280:U:O2'	36:1:3281:U:P	2.78	0.42
36:1:3305:A:P	40:L3:334:ARG:HH22	2.43	0.42
41:L4:39:PHE:CD2	41:L4:242:ALA:HB2	2.55	0.42
45:L8:50:VAL:HG22	61:N5:30:ALA:HA	2.02	0.42
52:M6:19:LEU:O	52:M6:23:VAL:HG23	2.20	0.42
52:M6:162:VAL:O	52:M6:166:GLU:HG3	2.19	0.42
56:N0:106:LEU:HD23	56:N0:106:LEU:C	2.45	0.42
57:N1:30:TYR:CD2	57:N1:30:TYR:N	2.88	0.42
68:O2:75:LEU:HD23	68:O2:95:GLU:HB3	2.01	0.42
69:O3:89:LEU:HD23	69:O3:89:LEU:HA	1.81	0.42
74:O8:26:LYS:HE2	74:O8:27:ILE:O	2.19	0.42
1:6:272:U:H4'	1:6:273:G:O5'	2.20	0.42
1:6:341:A:C6	1:6:342:C:C4	3.08	0.42
1:6:636:A:H1'	24:d2:58:SER:OG	2.20	0.42
1:6:1226:A:C2	14:c2:116:VAL:HG11	2.55	0.42
1:6:1274:C:N4	35:sM:94:HIS:O	2.53	0.42
1:6:1746:A:H2'	1:6:1747:G:O4'	2.18	0.42
1:6:1755:A:H5'	25:d3:63:GLN:CD	2.45	0.42
2:s0:81:PHE:HB3	2:s0:170:ILE:HD12	2.01	0.42
4:s2:186:LYS:HD2	4:s2:186:LYS:HA	1.80	0.42
5:s3:70:THR:HG23	5:s3:86:LEU:HB2	2.01	0.42
5:s3:115:ILE:HB	5:s3:116:ARG:H	1.51	0.42
6:s4:210:ILE:HB	6:s4:218:PHE:CE1	2.55	0.42
16:c4:10:ASN:O	16:c4:12:GLN:HG2	2.20	0.42
17:c5:126:VAL:O	17:c5:127:ARG:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:c7:107:SER:O	19:c7:111:LYS:HG3	2.19	0.42
20:c8:119:ILE:HA	20:c8:119:ILE:HD12	1.63	0.42
21:c9:6:VAL:HG22	21:c9:66:TYR:CE1	2.54	0.42
34:sR:267:PRO:HD2	34:sR:269:TYR:CE1	2.51	0.42
36:5:151:A:C4	36:5:152:U:C6	3.07	0.42
36:5:348:A:H1'	36:5:352:A:N3	2.34	0.42
36:5:430:U:H2'	36:5:431:U:O4'	2.20	0.42
36:5:562:C:H5''	56:n0:71:LYS:HD2	2.01	0.42
36:5:653:A:H1'	36:5:2360:C:C2	2.55	0.42
36:5:979:U:H4'	36:5:980:A:OP1	2.20	0.42
36:5:1348:U:H3'	36:5:1348:U:H6	1.85	0.42
36:5:1671:C:OP1	55:m9:60:LYS:NZ	2.33	0.42
36:5:1864:A:C5'	55:m9:88:ARG:HD2	2.47	0.42
36:5:1913:A:N3	36:5:2120:A:H2'	2.34	0.42
36:5:2180:G:H2'	36:5:2181:C:C6	2.55	0.42
36:5:2837:A:H2'	36:5:2845:A:C5	2.54	0.42
36:5:2953:U:O5'	36:5:2953:U:H6	2.03	0.42
36:5:3118:C:H2'	36:5:3119:U:O4'	2.19	0.42
36:5:3182:G:H2'	36:5:3183:A:C8	2.55	0.42
38:8:53:A:H2'	38:8:54:A:C8	2.55	0.42
38:8:57:C:O2'	38:8:58:G:H5'	2.20	0.42
40:l3:106:TRP:CH2	40:l3:161:LEU:HD13	2.55	0.42
40:l3:239:PRO:HD2	40:l3:242:THR:HG21	2.01	0.42
41:l4:337:GLU:HB2	41:l4:339:LEU:HD23	2.02	0.42
42:l5:198:TYR:CE1	42:l5:203:HIS:CD2	3.08	0.42
43:l6:131:LYS:HB2	43:l6:134:ARG:HG2	2.02	0.42
45:l8:160:ILE:HG23	45:l8:164:VAL:CG1	2.50	0.42
46:l9:79:ILE:O	46:l9:82:VAL:HG12	2.20	0.42
67:o1:12:TYR:O	67:o1:72:ARG:HD2	2.19	0.42
69:o3:75:HIS:HB3	69:o3:80:VAL:HB	2.02	0.42
75:o9:5:LYS:HE2	75:o9:13:MET:HE1	2.01	0.42
80:p0:33:VAL:HG13	80:p0:37:GLN:CD	2.45	0.42
1:2:310:C:H4'	25:D3:33:LEU:CD1	2.49	0.42
1:2:428:A:H3'	1:2:429:G:C8	2.54	0.42
1:2:588:U:O2	32:E0:57:ASN:ND2	2.51	0.42
1:2:1035:G:C2	1:2:1101:G:C5	3.08	0.42
1:2:1275:A:H2'	5:S3:141:LYS:HE2	2.01	0.42
1:2:1448:G:C5	1:2:1449:U:C5	3.07	0.42
1:2:1525:A:H5'	21:C9:93:HIS:HB2	2.01	0.42
1:2:1603:U:H2'	1:2:1604:U:H6	1.84	0.42
82:2:2012:GET:O52	82:2:2012:GET:H111	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:134:VAL:HB	3:S1:219:LYS:HB2	2.01	0.42
4:S2:35:TRP:CE2	4:S2:37:PRO:HB3	2.54	0.42
6:S4:196:VAL:N	6:S4:209:HIS:O	2.53	0.42
7:S5:43:PHE:O	7:S5:44:ASN:C	2.63	0.42
7:S5:96:SER:HB3	7:S5:176:THR:HG21	2.02	0.42
7:S5:134:VAL:O	7:S5:138:THR:HG23	2.20	0.42
8:S6:78:THR:HG23	8:S6:92:ARG:HG2	2.02	0.42
9:S7:131:PHE:CD2	9:S7:132:PRO:N	2.88	0.42
13:C1:57:LYS:HA	13:C1:64:VAL:HG11	2.02	0.42
13:C1:68:GLY:HA3	13:C1:127:GLN:OE1	2.20	0.42
16:C4:17:ALA:HB3	16:C4:81:VAL:CB	2.50	0.42
19:C7:65:PRO:HG3	19:C7:78:ARG:HH21	1.84	0.42
22:D0:43:LYS:HA	22:D0:43:LYS:HD2	1.76	0.42
24:D2:7:LEU:O	24:D2:11:LEU:HG	2.20	0.42
24:D2:125:ILE:HG12	24:D2:126:LEU:N	2.35	0.42
32:E0:33:ARG:HB3	32:E0:33:ARG:CZ	2.49	0.42
33:E1:107:LYS:HG3	33:E1:117:LEU:HD11	2.00	0.42
34:SR:129:LYS:HA	34:SR:151:VAL:HG23	2.02	0.42
35:SM:68:ARG:CZ	35:SM:72:ARG:HD3	2.49	0.42
35:SM:102:THR:HG23	35:SM:105:LYS:H	1.84	0.42
35:SM:116:GLU:O	35:SM:119:ALA:HB3	2.20	0.42
36:1:262:U:O5'	36:1:262:U:H6	2.02	0.42
36:1:335:G:H5''	62:N6:9:SER:HB2	2.01	0.42
36:1:357:A:N1	36:1:363:G:C4	2.88	0.42
36:1:379:C:H2'	36:1:380:U:C6	2.54	0.42
36:1:438:A:H2'	36:1:439:C:O4'	2.20	0.42
36:1:928:C:H2'	36:1:929:A:C8	2.54	0.42
36:1:1161:G:O3'	68:O2:54:LYS:NZ	2.49	0.42
36:1:2229:A:H2'	36:1:2230:C:C6	2.55	0.42
36:1:2321:A:H2'	36:1:2322:C:O4'	2.19	0.42
36:1:2361:A:C6	36:1:2362:C:N3	2.88	0.42
36:1:2362:C:O5'	36:1:2362:C:H6	2.03	0.42
36:1:2524:A:C8	39:L2:67:TYR:CD1	3.07	0.42
36:1:2630:C:H5''	57:N1:6:GLY:CA	2.50	0.42
36:1:2746:A:C6	42:L5:148:ILE:HD12	2.55	0.42
36:1:3012:A:C5	36:1:3013:U:C5	3.08	0.42
36:1:3139:A:H5''	36:1:3139:A:H8	1.84	0.42
36:1:3275:U:O2'	69:O3:99:ARG:NH1	2.52	0.42
36:1:3305:A:C5	36:1:3306:U:C5	3.08	0.42
36:1:3375:A:H1'	36:1:3376:A:C8	2.55	0.42
39:L2:245:LEU:HD12	39:L2:246:LEU:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:123:TYR:CZ	40:L3:124:LYS:HG3	2.55	0.42
41:L4:141:ARG:H	41:L4:141:ARG:HG2	1.56	0.42
41:L4:206:LEU:O	41:L4:248:VAL:HA	2.20	0.42
43:L6:5:LYS:HD2	43:L6:5:LYS:HA	1.82	0.42
43:L6:55:LEU:HB2	43:L6:64:LEU:HD13	2.02	0.42
43:L6:62:THR:O	43:L6:63:LEU:HD23	2.20	0.42
44:L7:88:ARG:HD2	44:L7:90:LYS:O	2.20	0.42
45:L8:136:LEU:HD13	51:M5:3:ALA:HB3	2.02	0.42
47:M0:74:LYS:HE3	47:M0:74:LYS:HB2	1.83	0.42
52:M6:105:PHE:CD1	52:M6:109:PRO:HG3	2.55	0.42
53:M7:84:PRO:O	53:M7:87:SER:HB2	2.20	0.42
57:N1:12:ARG:HD3	57:N1:13:TYR:CE2	2.55	0.42
67:O1:86:LYS:HE2	67:O1:86:LYS:N	2.35	0.42
67:O1:107:VAL:HG12	67:O1:108:VAL:N	2.33	0.42
68:O2:20:HIS:O	68:O2:21:HIS:HB2	2.18	0.42
69:O3:103:TYR:HA	69:O3:104:PRO:C	2.44	0.42
71:O5:4:VAL:CG1	71:O5:9:LEU:HD11	2.49	0.42
72:O6:93:ILE:O	72:O6:97:SER:HB3	2.19	0.42
73:O7:26:SER:HB3	73:O7:35:SER:OG	2.19	0.42
1:6:68:A:OP2	1:6:69:G:H8	2.03	0.42
1:6:158:U:O2'	1:6:159:U:H3'	2.19	0.42
1:6:522:U:OP1	26:d4:37:LYS:HG3	2.20	0.42
1:6:631:G:C2	1:6:632:U:C2	3.07	0.42
1:6:860:U:H2'	1:6:861:U:O4'	2.19	0.42
1:6:909:U:O2'	1:6:910:C:H5'	2.19	0.42
1:6:1181:U:C4	1:6:1182:U:C5	3.08	0.42
1:6:1335:U:H2'	1:6:1336:A:C8	2.55	0.42
1:6:1617:U:H2'	1:6:1618:C:C6	2.55	0.42
2:s0:71:GLU:HG2	2:s0:72:ASP:N	2.35	0.42
3:s1:29:TRP:O	3:s1:94:LYS:HE3	2.20	0.42
7:s5:40:ILE:HD13	7:s5:42:LEU:HD23	2.02	0.42
8:s6:48:TYR:CD1	8:s6:116:LYS:HA	2.55	0.42
8:s6:48:TYR:CE1	8:s6:121:LEU:HD22	2.55	0.42
9:s7:96:ARG:NH1	9:s7:124:LYS:HB3	2.34	0.42
21:c9:127:ASN:O	21:c9:130:ARG:HB3	2.20	0.42
24:d2:101:TYR:HA	24:d2:113:HIS:HE1	1.84	0.42
25:d3:134:ALA:HB1	25:d3:140:LYS:HB2	2.02	0.42
26:d4:10:ARG:H	26:d4:10:ARG:HG2	1.73	0.42
34:sR:106:HIS:CD2	34:sR:110:VAL:HG22	2.55	0.42
34:sR:294:TRP:CE2	34:sR:301:LEU:HD13	2.55	0.42
36:5:39:A:H2'	36:5:42:C:N4	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:247:C:H5'	36:5:248:U:P	2.60	0.42
36:5:425:G:O2'	36:5:426:G:H5'	2.20	0.42
36:5:502:U:C4	36:5:503:C:C5	3.08	0.42
36:5:966:U:H2'	36:5:967:A:C8	2.54	0.42
36:5:1222:G:H1'	36:5:1285:G:N2	2.33	0.42
36:5:1322:U:P	56:n0:117:ARG:NH2	2.93	0.42
36:5:1825:G:H5''	74:o8:48:SER:HB3	2.01	0.42
36:5:2106:A:C2	36:5:2107:A:C5	3.08	0.42
36:5:2131:A:H61	79:q3:18:TYR:N	2.17	0.42
36:5:2624:G:H2'	36:5:2625:C:C6	2.55	0.42
36:5:2664:C:O2'	36:5:2665:U:H5'	2.20	0.42
36:5:2681:U:O2'	36:5:2682:C:H5'	2.19	0.42
36:5:3067:C:N3	36:5:3068:U:C5	2.88	0.42
36:5:3129:A:N6	36:5:3131:U:C2	2.88	0.42
38:8:37:A:C8	38:8:39:G:N2	2.88	0.42
38:8:40:A:C8	38:8:103:G:N2	2.88	0.42
39:l2:34:TYR:CE2	45:l8:36:ILE:HD11	2.55	0.42
41:l4:60:THR:HG22	41:l4:61:SER:N	2.34	0.42
41:l4:185:LYS:HA	41:l4:200:THR:O	2.18	0.42
45:l8:68:ARG:H	45:l8:68:ARG:HG2	1.66	0.42
45:l8:189:LEU:HA	45:l8:189:LEU:HD12	1.87	0.42
49:m3:54:LEU:HD13	49:m3:55:ARG:N	2.34	0.42
50:m4:123:LEU:HA	50:m4:123:LEU:HD23	1.82	0.42
52:m6:124:LEU:HB3	52:m6:127:LEU:HG	2.02	0.42
56:n0:1:MET:HE2	56:n0:118:PHE:CD2	2.55	0.42
64:n8:73:LEU:O	64:n8:112:ILE:HA	2.20	0.42
67:o1:14:ILE:HG22	67:o1:71:LEU:O	2.20	0.42
69:o3:7:LEU:HA	69:o3:7:LEU:HD23	1.71	0.42
69:o3:60:ARG:HD2	69:o3:60:ARG:HA	1.86	0.42
69:o3:85:PHE:O	69:o3:86:ARG:C	2.63	0.42
74:o8:54:LEU:HG	74:o8:56:ILE:CD1	2.50	0.42
78:q2:83:LEU:HD23	78:q2:83:LEU:HA	1.72	0.42
79:q3:13:LYS:HD2	79:q3:14:TYR:CZ	2.55	0.42
1:2:15:U:C4	1:2:16:G:C5	3.08	0.42
1:2:223:U:H2'	1:2:224:C:H6	1.85	0.42
1:2:301:A:C6	1:2:302:U:C4	3.07	0.42
1:2:775:G:N2	1:2:786:C:N3	2.68	0.42
1:2:924:A:C6	1:2:925:G:C6	3.07	0.42
1:2:926:A:H2'	1:2:927:C:O4'	2.20	0.42
1:2:1292:G:H2'	1:2:1293:U:C6	2.54	0.42
1:2:1330:G:P	84:2:2137:HOH:O	2.78	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1367:G:C4	1:2:1368:G:C8	3.08	0.42
1:2:1478:G:C4	1:2:1479:A:C8	3.08	0.42
1:2:1558:U:C5	20:C8:122:HIS:CD2	3.08	0.42
1:2:1794:A:H1'	28:D6:79:ILE:HD12	2.02	0.42
3:S1:103:MET:HB3	3:S1:215:VAL:HG13	2.01	0.42
5:S3:217:ILE:HG23	34:SR:196:ASN:OD1	2.20	0.42
8:S6:64:LYS:O	8:S6:67:VAL:HG22	2.20	0.42
9:S7:167:GLU:HG3	9:S7:170:GLN:OE1	2.20	0.42
10:S8:33:PRO:HB2	10:S8:35:ASN:OD1	2.20	0.42
11:S9:109:LEU:HB2	11:S9:146:PHE:HB3	2.02	0.42
14:C2:132:GLU:O	14:C2:136:ILE:HG12	2.20	0.42
15:C3:71:ILE:O	15:C3:75:LEU:HD13	2.20	0.42
16:C4:17:ALA:O	16:C4:29:HIS:O	2.37	0.42
19:C7:24:LEU:HA	19:C7:24:LEU:HD23	1.82	0.42
20:C8:121:ALA:O	20:C8:125:ILE:HG13	2.20	0.42
21:C9:65:ILE:HG12	21:C9:71:VAL:HG21	2.02	0.42
28:D6:22:ARG:HH11	28:D6:22:ARG:HG3	1.85	0.42
30:D8:13:ILE:O	30:D8:14:LYS:HE3	2.20	0.42
32:E0:34:ALA:O	32:E0:37:ARG:HB3	2.20	0.42
34:SR:136:ILE:H	34:SR:136:ILE:HD13	1.84	0.42
35:SM:54:PRO:HB2	35:SM:59:GLY:HA2	2.02	0.42
36:1:170:G:C4	36:1:250:U:O2	2.73	0.42
36:1:198:A:C6	36:1:219:A:C6	3.07	0.42
36:1:277:G:H4'	51:M5:91:GLU:HB3	2.01	0.42
36:1:392:G:C2	36:1:393:U:C5	3.08	0.42
36:1:591:G:H1	36:1:612:U:P	2.43	0.42
36:1:806:A:N3	36:1:2812:C:O2'	2.47	0.42
36:1:1054:A:H5''	36:1:2637:A:H61	1.84	0.42
36:1:1578:C:C4	36:1:1579:C:N4	2.88	0.42
36:1:1613:A:C6	36:1:1614:C:C4	3.08	0.42
36:1:1738:C:O3'	70:O4:53:GLY:HA2	2.20	0.42
36:1:1831:U:P	61:N5:92:LYS:HD3	2.59	0.42
36:1:2164:A:C5	36:1:2165:G:N7	2.88	0.42
36:1:2168:A:O2'	36:1:2169:G:H3'	2.20	0.42
36:1:2570:U:H6	36:1:2570:U:H2'	1.59	0.42
36:1:3215:A:H8	50:M4:121:MET:HE1	1.85	0.42
36:1:3250:U:O2'	36:1:3251:U:H5'	2.20	0.42
36:1:3384:U:H1'	67:O1:105:GLN:OE1	2.20	0.42
38:4:140:G:H2'	38:4:141:C:O4'	2.19	0.42
40:L3:13:HIS:ND1	40:L3:15:GLY:N	2.64	0.42
40:L3:148:LEU:HD12	40:L3:148:LEU:HA	1.71	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:210:ALA:HB2	41:L4:253:ALA:C	2.45	0.42
43:L6:171:PRO:HA	43:L6:174:LEU:HB2	2.02	0.42
44:L7:145:ARG:HA	44:L7:185:ILE:CD1	2.46	0.42
47:M0:63:GLU:CD	47:M0:63:GLU:H	2.26	0.42
49:M3:114:GLN:O	49:M3:118:GLU:HG3	2.19	0.42
53:M7:173:ARG:HA	53:M7:176:ILE:HB	2.01	0.42
60:N4:5:ILE:HD12	60:N4:10:GLY:HA2	2.02	0.42
60:N4:39:LEU:HD12	60:N4:39:LEU:HA	1.90	0.42
62:N6:67:GLU:O	62:N6:84:LYS:HD2	2.19	0.42
67:O1:6:ASP:O	67:O1:8:VAL:HG22	2.20	0.42
1:6:17:C:H2'	1:6:18:C:H6	1.85	0.42
1:6:365:G:C2	1:6:366:A:C8	3.08	0.42
1:6:512:A:O2'	1:6:513:U:H5'	2.20	0.42
1:6:514:G:N7	1:6:537:G:C2	2.88	0.42
1:6:521:A:H4'	26:d4:36:SER:HB2	2.01	0.42
1:6:563:U:C4	1:6:564:G:C6	3.08	0.42
1:6:809:A:C6	1:6:810:G:C6	3.08	0.42
1:6:1092:A:O2'	1:6:1093:A:H3'	2.20	0.42
1:6:1367:G:C4	1:6:1368:G:C8	3.08	0.42
1:6:1490:C:P	1:6:1490:C:O4'	2.78	0.42
2:s0:65:ALA:O	2:s0:66:ALA:HB3	2.20	0.42
5:s3:132:LYS:HB3	5:s3:189:MET:HG3	2.01	0.42
6:s4:43:PRO:HA	6:s4:82:TYR:O	2.20	0.42
8:s6:68:LEU:HA	8:s6:68:LEU:HD13	1.76	0.42
8:s6:131:LYS:NZ	60:n4:79:GLN:HE22	2.18	0.42
13:c1:22:ASN:OD1	13:c1:24:LYS:HB2	2.19	0.42
14:c2:87:PRO:O	14:c2:88:LEU:HB2	2.19	0.42
15:c3:20:ARG:HD3	24:d2:56:HIS:CD2	2.54	0.42
18:c6:42:GLU:C	18:c6:44:LEU:N	2.76	0.42
25:d3:86:PHE:CE1	25:d3:88:PRO:HA	2.55	0.42
26:d4:37:LYS:HA	26:d4:40:LEU:HD12	2.00	0.42
36:5:541:U:H2'	36:5:542:G:C8	2.54	0.42
36:5:798:G:H2'	36:5:799:G:O4'	2.20	0.42
36:5:1151:U:O4	36:5:1200:A:N6	2.53	0.42
36:5:1196:C:H6	36:5:1196:C:H2'	1.57	0.42
36:5:1655:G:H1'	36:5:1800:A:N6	2.35	0.42
36:5:2167:A:C6	36:5:2168:A:C6	3.07	0.42
36:5:2393:G:O2'	36:5:2982:A:N6	2.53	0.42
36:5:2403:G:N3	36:5:2405:C:C4	2.87	0.42
36:5:2747:A:OP1	42:l5:176:SER:OG	2.38	0.42
36:5:2994:A:O2'	38:8:1:A:N1	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3269:U:H6	36:5:3269:U:C5'	2.33	0.42
39:12:49:VAL:HG22	39:12:50:HIS:H	1.85	0.42
39:12:67:TYR:CD2	39:12:67:TYR:N	2.88	0.42
42:15:155:THR:HA	42:15:179:ARG:HA	2.02	0.42
42:15:215:ASP:CG	42:15:218:ARG:HB2	2.45	0.42
45:18:160:ILE:HG23	45:18:164:VAL:HG11	2.01	0.42
46:19:132:VAL:HB	46:19:154:VAL:HG23	2.02	0.42
47:m0:176:LEU:O	47:m0:177:ASP:C	2.63	0.42
47:m0:194:GLY:O	47:m0:196:PHE:N	2.52	0.42
49:m3:123:ILE:HG12	49:m3:124:ILE:N	2.35	0.42
50:m4:36:VAL:HG11	50:m4:55:ARG:NH2	2.34	0.42
53:m7:20:SER:HB3	53:m7:21:TYR:CD2	2.55	0.42
54:m8:2:GLY:C	54:m8:3:ILE:HD13	2.45	0.42
58:n2:42:LYS:HB3	58:n2:45:GLY:O	2.19	0.42
1:2:186:C:H3'	1:2:187:G:H8	1.84	0.41
1:2:289:U:H2'	1:2:290:G:O4'	2.19	0.41
1:2:291:G:C2	1:2:292:U:C4	3.08	0.41
1:2:403:G:OP1	1:2:403:G:C8	2.73	0.41
1:2:545:A:H2'	32:E0:31:LYS:HD2	2.02	0.41
1:2:814:A:H2	1:2:816:G:N9	2.18	0.41
1:2:971:A:C5	1:2:972:G:C8	3.08	0.41
1:2:1360:A:C6	1:2:1361:U:C4	3.08	0.41
1:2:1550:A:C6	1:2:1551:U:C4	3.08	0.41
2:S0:163:ASN:HD21	2:S0:165:ARG:HG3	1.84	0.41
6:S4:212:ASP:OD1	6:S4:244:ILE:HG23	2.20	0.41
9:S7:122:HIS:O	9:S7:126:LEU:HD22	2.20	0.41
11:S9:134:ILE:O	11:S9:134:ILE:HG12	2.20	0.41
11:S9:168:ARG:HG2	11:S9:169:PRO:HD2	2.01	0.41
12:C0:3:MET:SD	12:C0:8:ARG:HD3	2.60	0.41
13:C1:74:THR:HA	13:C1:122:ILE:HA	2.02	0.41
14:C2:30:VAL:O	14:C2:34:THR:HG23	2.19	0.41
18:C6:43:ILE:H	18:C6:43:ILE:HG12	1.45	0.41
22:D0:19:ILE:HG23	22:D0:94:GLU:HB3	2.02	0.41
24:D2:23:ARG:HH12	24:D2:66:ASN:HA	1.85	0.41
24:D2:111:MET:HE1	24:D2:116:ALA:HA	2.01	0.41
25:D3:91:GLY:C	25:D3:93:LEU:N	2.77	0.41
36:1:65:A:H4'	36:1:66:A:O5'	2.20	0.41
36:1:643:U:H5''	36:1:953:G:O6	2.20	0.41
36:1:810:A:C2	36:1:931:C:C2	3.08	0.41
36:1:950:G:H5'	36:1:971:G:OP1	2.19	0.41
36:1:1062:A:H5''	36:1:1063:G:H5'	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1070:U:C4	36:1:1071:U:C4	3.08	0.41
36:1:1125:U:C6	36:1:1134:G:N2	2.88	0.41
36:1:1341:U:H2'	36:1:1342:C:H6	1.84	0.41
36:1:1949:G:H5''	55:M9:104:ARG:CZ	2.50	0.41
36:1:2675:C:H42	48:M1:22:SER:HB2	1.84	0.41
36:1:2722:U:H2'	36:1:2723:U:H6	1.85	0.41
36:1:3069:G:C2	36:1:3070:A:C8	3.08	0.41
38:4:15:G:OP1	53:M7:123:PRO:HB3	2.20	0.41
39:L2:68:LYS:HG2	39:L2:69:TYR:H	1.85	0.41
39:L2:87:PHE:O	39:L2:88:ILE:HD12	2.20	0.41
40:L3:4:ARG:NH1	40:L3:6:TYR:O	2.52	0.41
40:L3:372:THR:HB	40:L3:374:ALA:H	1.85	0.41
44:L7:93:ASN:OD1	44:L7:93:ASN:N	2.53	0.41
46:L9:3:TYR:HA	56:N0:142:GLN:OE1	2.20	0.41
48:M1:60:ARG:N	48:M1:63:GLU:OE1	2.52	0.41
49:M3:25:HIS:CD2	51:M5:200:TRP:CE2	3.08	0.41
53:M7:102:ALA:HB1	53:M7:107:LEU:HB2	2.02	0.41
57:N1:116:ARG:O	57:N1:120:LYS:HB3	2.20	0.41
58:N2:25:ASN:OD1	58:N2:25:ASN:N	2.53	0.41
61:N5:88:MET:HE3	61:N5:88:MET:HB3	1.96	0.41
64:N8:132:LYS:HG2	64:N8:136:GLU:OE2	2.20	0.41
66:O0:51:LEU:HD12	66:O0:51:LEU:HA	1.89	0.41
67:O1:40:ALA:HB3	67:O1:49:VAL:HG21	2.02	0.41
79:Q3:28:LYS:HE3	79:Q3:29:LEU:HD21	2.02	0.41
1:6:90:C:H2'	1:6:91:G:C8	2.55	0.41
1:6:93:A:C3'	1:6:94:U:H5'	2.50	0.41
1:6:102:U:O4	1:6:360:A:H2'	2.20	0.41
1:6:151:G:H1	1:6:163:G:N2	2.16	0.41
1:6:363:G:C2	1:6:382:C:N3	2.88	0.41
1:6:370:A:H2'	1:6:371:G:O4'	2.20	0.41
1:6:444:C:H2'	84:6:2183:HOH:O	2.20	0.41
1:6:484:C:N4	1:6:503:G:H1	2.14	0.41
1:6:917:U:C4	1:6:918:U:C5	3.08	0.41
1:6:931:C:O2	3:s1:120:LEU:HB3	2.19	0.41
1:6:1020:A:C6	1:6:1021:C:C5	3.08	0.41
1:6:1227:A:HO2'	1:6:1228:G:P	2.38	0.41
1:6:1253:U:O2'	33:e1:142:GLY:O	2.25	0.41
1:6:1592:A:H2'	1:6:1593:A:H8	1.85	0.41
3:s1:157:GLN:O	3:s1:161:ILE:HG13	2.20	0.41
4:s2:139:ILE:HD11	4:s2:218:ILE:HG21	2.02	0.41
5:s3:72:LEU:HD22	12:c0:65:TYR:HD1	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:s4:180:LEU:HD22	6:s4:181:VAL:H	1.85	0.41
7:s5:143:ARG:NH1	30:d8:57:MET:HE1	2.35	0.41
8:s6:12:SER:HB3	8:s6:124:LEU:HD12	2.02	0.41
22:d0:23:ARG:HD3	22:d0:92:ASP:OD1	2.19	0.41
25:d3:29:TYR:CZ	25:d3:33:LEU:HD12	2.55	0.41
34:sR:115:ILE:HG12	34:sR:116:ASP:H	1.85	0.41
36:5:65:A:O2'	36:5:66:A:OP2	2.25	0.41
36:5:117:U:N3	45:l8:142:LEU:HD23	2.35	0.41
36:5:686:G:OP2	49:m3:39:ARG:NH2	2.53	0.41
36:5:1655:G:OP1	70:o4:40:THR:OG1	2.34	0.41
36:5:2112:U:H1'	36:5:2113:A:OP2	2.20	0.41
36:5:2355:G:H5'	53:m7:139:TYR:CE1	2.55	0.41
36:5:2770:G:C2'	36:5:2771:U:H5'	2.50	0.41
36:5:3232:G:H2'	36:5:3233:C:O4'	2.20	0.41
37:7:58:C:H2'	37:7:59:U:H6	1.85	0.41
39:l2:209:HIS:ND1	39:l2:210:PRO:HD2	2.35	0.41
40:l3:56:ILE:HD12	40:l3:56:ILE:HA	1.63	0.41
41:l4:208:VAL:HA	41:l4:228:ALA:O	2.20	0.41
42:l5:208:MET:HE1	42:l5:226:TYR:CD1	2.54	0.41
46:l9:23:ARG:NH2	46:l9:39:LYS:O	2.53	0.41
49:m3:134:GLU:HB3	49:m3:135:ALA:H	1.56	0.41
50:m4:12:TRP:O	50:m4:14:LEU:HD23	2.20	0.41
51:m5:160:GLU:HA	51:m5:165:THR:HG23	2.02	0.41
53:m7:67:ILE:N	53:m7:67:ILE:HD13	2.35	0.41
55:m9:62:ARG:CZ	55:m9:62:ARG:HB2	2.48	0.41
59:n3:38:ALA:HB3	59:n3:59:MET:HB2	2.02	0.41
60:n4:6:ASP:OD1	60:n4:9:SER:OG	2.38	0.41
60:n4:38:SER:O	60:n4:42:GLN:N	2.45	0.41
65:n9:39:PHE:O	65:n9:43:HIS:HB2	2.19	0.41
74:o8:46:ARG:HE	74:o8:51:LEU:HD13	1.84	0.41
1:2:62:A:P	84:2:2150:HOH:O	2.78	0.41
1:2:193:U:H2'	1:2:194:U:H2'	2.02	0.41
1:2:514:G:C8	1:2:537:G:N2	2.88	0.41
1:2:700:C:N4	1:2:738:G:H1	2.11	0.41
1:2:827:C:H1'	1:2:846:G:N2	2.35	0.41
1:2:1048:G:N2	1:2:1071:U:O2	2.53	0.41
1:2:1128:C:H2'	1:2:1129:U:O4'	2.20	0.41
1:2:1138:A:C4	1:2:1139:A:C8	3.08	0.41
1:2:1224:A:H2'	1:2:1225:U:H6	1.84	0.41
1:2:1268:G:H1'	1:2:1448:G:H5''	2.02	0.41
1:2:1370:U:O4'	1:2:1371:A:H5''	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1382:A:O2'	1:2:1383:G:H5''	2.20	0.41
1:2:1389:C:O2'	19:C7:52:GLY:HA3	2.20	0.41
1:2:1567:U:C5	1:2:1568:C:N4	2.88	0.41
4:S2:73:LEU:HD13	4:S2:73:LEU:HA	1.77	0.41
6:S4:185:GLY:HA3	6:S4:224:ASN:CG	2.44	0.41
7:S5:61:TYR:OH	30:D8:49:ARG:HD3	2.20	0.41
7:S5:120:ILE:HG23	27:D5:59:TYR:CD1	2.54	0.41
17:C5:39:ALA:HA	17:C5:42:ARG:NH1	2.35	0.41
18:C6:18:ALA:CB	18:C6:69:VAL:HG13	2.43	0.41
24:D2:28:ARG:HD3	24:D2:60:LYS:HE2	2.02	0.41
24:D2:41:MET:HG2	24:D2:129:VAL:HG21	2.02	0.41
30:D8:32:PHE:CD2	30:D8:32:PHE:N	2.87	0.41
36:1:59:G:H4'	36:1:60:A:H4'	2.01	0.41
36:1:677:A:H2'	36:1:785:G:C6	2.56	0.41
36:1:679:U:C2	36:1:680:G:N7	2.88	0.41
36:1:881:C:C2	36:1:882:A:C8	3.08	0.41
36:1:1306:G:O6	52:M6:62:THR:HG23	2.20	0.41
36:1:1336:U:O2'	36:1:1337:A:H5'	2.20	0.41
36:1:1555:U:HO2'	36:1:1556:C:P	2.41	0.41
36:1:1889:G:H2'	36:1:1889:G:N3	2.34	0.41
36:1:2168:A:C6	36:1:2170:U:H1'	2.55	0.41
36:1:2513:U:OP1	45:L8:245:LYS:HE2	2.20	0.41
36:1:2517:U:H2'	36:1:2518:C:H6	1.85	0.41
36:1:2703:A:C6	42:L5:23:ARG:NH2	2.88	0.41
36:1:2722:U:O2'	57:N1:88:ARG:O	2.33	0.41
36:1:2761:G:OP2	78:Q2:67:LYS:NZ	2.44	0.41
36:1:2888:U:C6	36:1:2910:A:N6	2.88	0.41
36:1:2955:U:OP2	36:1:2977:G:N1	2.49	0.41
36:1:3069:G:C6	36:1:3070:A:N7	2.89	0.41
36:1:3358:U:H2'	36:1:3359:A:C1'	2.50	0.41
38:4:14:C:C4	38:4:15:G:C6	3.08	0.41
38:4:31:G:OP1	49:M3:34:SER:OG	2.33	0.41
39:L2:105:GLY:HA3	39:L2:160:SER:HB3	2.02	0.41
39:L2:108:PRO:CG	79:Q3:86:LEU:HD22	2.49	0.41
41:L4:89:ALA:C	41:L4:91:GLY:H	2.27	0.41
41:L4:106:TRP:HA	49:M3:24:VAL:HG11	2.02	0.41
41:L4:280:ILE:HD11	54:M8:25:TYR:HB2	2.02	0.41
41:L4:338:LYS:HD2	41:L4:338:LYS:HA	1.88	0.41
44:L7:89:ILE:HD12	44:L7:214:TRP:CH2	2.55	0.41
47:M0:37:GLY:HA3	47:M0:85:PHE:O	2.20	0.41
49:M3:52:ASP:OD1	49:M3:141:ALA:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:173:ARG:H	53:M7:173:ARG:HG3	1.44	0.41
55:M9:161:ALA:O	55:M9:165:LYS:HB3	2.19	0.41
63:N7:51:LEU:HB2	63:N7:65:ARG:CD	2.50	0.41
70:O4:51:LEU:HD11	70:O4:78:GLY:O	2.20	0.41
76:Q0:93:LYS:HE3	76:Q0:93:LYS:HB3	1.94	0.41
1:6:239:C:H3'	1:6:240:U:O4'	2.20	0.41
1:6:478:A:C2	1:6:479:C:C2	3.08	0.41
1:6:756:A:C4	1:6:757:A:C8	3.08	0.41
1:6:959:U:H5'	29:d7:28:PRO:HB3	2.02	0.41
8:s6:29:ASP:N	8:s6:29:ASP:OD2	2.54	0.41
9:s7:63:PRO:C	9:s7:65:PRO:HD2	2.45	0.41
9:s7:98:ILE:HG12	9:s7:121:VAL:HG21	2.02	0.41
10:s8:76:THR:HG21	10:s8:105:ASP:O	2.19	0.41
13:c1:60:PHE:C	13:c1:62:GLY:H	2.25	0.41
16:c4:49:LYS:HD3	16:c4:49:LYS:HA	1.70	0.41
16:c4:112:ILE:HG22	16:c4:113:GLY:H	1.85	0.41
17:c5:53:PRO:HB2	17:c5:57:MET:CE	2.49	0.41
18:c6:94:GLN:HG3	18:c6:95:LYS:N	2.34	0.41
21:c9:15:ILE:HG23	21:c9:59:ALA:C	2.44	0.41
23:d1:32:VAL:HB	23:d1:60:ARG:CD	2.50	0.41
24:d2:70:ASN:HB2	24:d2:130:TYR:O	2.20	0.41
35:sM:100:THR:HG23	35:sM:101:ASP:H	1.84	0.41
36:5:88:A:H2'	36:5:89:A:O4'	2.20	0.41
36:5:347:G:OP1	41:l4:59:GLN:HG3	2.20	0.41
36:5:409:A:H1'	36:5:655:C:H1'	2.02	0.41
36:5:896:A:H5'	39:l2:183:GLY:HA2	2.02	0.41
36:5:997:A:H4'	37:7:80:G:H5'	2.02	0.41
36:5:1033:U:HO2'	36:5:1034:U:P	2.44	0.41
36:5:1161:G:C2	36:5:1162:U:C6	3.08	0.41
36:5:1617:G:C2	36:5:1828:A:C2	3.07	0.41
36:5:2133:U:O4	36:5:2147:A:H2	2.02	0.41
36:5:2573:G:H5''	36:5:2573:G:H8	1.85	0.41
36:5:2631:U:H2'	36:5:2632:G:C8	2.55	0.41
36:5:2652:U:H4'	78:q2:89:LYS:HE3	2.01	0.41
36:5:2951:G:N2	36:5:2952:G:C4	2.88	0.41
36:5:3256:G:C2	36:5:3257:C:C2	3.08	0.41
37:7:105:C:O5'	37:7:105:C:H6	2.03	0.41
42:l5:83:LEU:HD23	42:l5:83:LEU:HA	1.82	0.41
42:l5:91:GLY:HA3	42:l5:94:ASN:ND2	2.35	0.41
49:m3:4:SER:HB2	49:m3:5:LYS:HG3	2.02	0.41
49:m3:25:HIS:CD2	51:m5:200:TRP:CE3	3.07	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:m5:80:THR:HG22	51:m5:82:GLY:N	2.34	0.41
51:m5:92:LEU:HD12	51:m5:92:LEU:HA	1.77	0.41
52:m6:139:GLY:O	52:m6:143:THR:HB	2.19	0.41
55:m9:13:SER:HG	55:m9:38:ARG:HH12	1.61	0.41
56:n0:11:GLY:HA2	56:n0:59:VAL:H	1.85	0.41
59:n3:125:LEU:HD12	59:n3:125:LEU:HA	1.44	0.41
60:n4:127:LYS:NZ	60:n4:131:ALA:HB2	2.35	0.41
63:n7:54:THR:HG22	63:n7:57:HIS:CD2	2.55	0.41
68:o2:5:PRO:O	68:o2:6:HIS:CG	2.73	0.41
70:o4:42:PRO:HD3	70:o4:56:THR:HG22	2.02	0.41
70:o4:62:TYR:HD1	70:o4:62:TYR:HA	1.69	0.41
78:q2:46:LYS:HD3	78:q2:54:THR:HB	2.02	0.41
1:2:61:A:C6	1:2:62:A:C6	3.08	0.41
1:2:72:A:H5''	8:S6:164:LYS:NZ	2.35	0.41
1:2:269:G:C6	1:2:287:G:C6	3.09	0.41
1:2:477:A:H2'	1:2:478:A:H8	1.85	0.41
1:2:1116:A:C2	1:2:1131:A:C4	3.08	0.41
1:2:1371:A:O2'	1:2:1372:U:H5''	2.20	0.41
1:2:1401:A:N7	1:2:1402:G:C8	2.88	0.41
2:S0:57:LEU:HG	2:S0:160:ILE:HD13	2.02	0.41
3:S1:82:ARG:NH1	3:S1:191:GLU:OE2	2.53	0.41
4:S2:140:ARG:NH2	4:S2:229:LEU:HD13	2.36	0.41
7:S5:40:ILE:HG12	7:S5:42:LEU:H	1.85	0.41
8:S6:211:LEU:HD11	8:S6:215:ARG:HH21	1.85	0.41
9:S7:153:LEU:C	9:S7:154:LEU:HD23	2.44	0.41
9:S7:173:TYR:CD1	9:S7:181:ILE:HD13	2.55	0.41
12:C0:52:LYS:H	12:C0:52:LYS:HG2	1.66	0.41
13:C1:109:VAL:HG23	13:C1:137:PHE:O	2.20	0.41
15:C3:55:ARG:HA	15:C3:60:VAL:O	2.19	0.41
16:C4:19:ILE:HG12	16:C4:28:VAL:HG22	2.01	0.41
16:C4:89:THR:O	16:C4:128:LYS:HG3	2.20	0.41
18:C6:28:LEU:HG	18:C6:64:ASP:OD2	2.21	0.41
32:E0:4:VAL:C	32:E0:6:GLY:N	2.79	0.41
34:SR:70:ASP:HB3	34:SR:113:VAL:HG12	2.02	0.41
35:SM:83:LYS:HG2	35:SM:85:SER:N	2.34	0.41
35:SM:110:TRP:CD1	35:SM:110:TRP:N	2.88	0.41
36:1:715:A:H3'	64:N8:115:LYS:HA	2.02	0.41
36:1:759:U:O4	36:1:760:G:N1	2.53	0.41
36:1:818:C:N3	36:1:920:A:H5'	2.35	0.41
36:1:839:C:C2	36:1:840:C:C5	3.08	0.41
36:1:1060:U:H2'	36:1:1061:A:H8	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1093:A:O2'	36:1:1094:U:H6	2.03	0.41
36:1:1152:G:H2'	36:1:1152:G:N3	2.35	0.41
36:1:1220:U:H1'	36:1:1222:G:C6	2.55	0.41
36:1:1389:G:H5''	68:O2:101:SER:HB3	2.01	0.41
36:1:1593:A:O2'	36:1:1594:A:H5'	2.20	0.41
36:1:1910:A:H8	36:1:1910:A:O5'	2.04	0.41
36:1:2172:A:C6	36:1:2173:U:C4	3.08	0.41
36:1:2401:A:C2	36:1:2872:A:N1	2.88	0.41
36:1:2961:G:N7	39:L2:216:HIS:CE1	2.88	0.41
36:1:3069:G:C4	36:1:3070:A:C8	3.08	0.41
36:1:3386:G:H5'	67:O1:10:ARG:NH2	2.35	0.41
38:4:3:A:O3'	53:M7:61:ARG:HD3	2.20	0.41
38:4:125:U:O2'	38:4:126:A:P	2.79	0.41
41:L4:181:VAL:C	41:L4:183:LYS:H	2.28	0.41
47:M0:156:ARG:NH1	47:M0:164:LYS:HA	2.35	0.41
51:M5:94:TYR:C	51:M5:94:TYR:CD1	2.98	0.41
52:M6:120:VAL:O	52:M6:124:LEU:HD22	2.20	0.41
53:M7:25:SER:CB	53:M7:28:ASN:HB2	2.49	0.41
62:N6:3:LYS:HG3	62:N6:8:VAL:HB	2.02	0.41
68:O2:115:LEU:HA	68:O2:115:LEU:HD23	1.83	0.41
70:O4:82:ALA:O	70:O4:83:ASN:C	2.64	0.41
71:O5:5:LYS:HG3	71:O5:8:GLU:OE2	2.21	0.41
72:O6:56:ARG:O	72:O6:60:LEU:HB2	2.20	0.41
74:O8:11:PHE:CG	74:O8:54:LEU:HD22	2.55	0.41
78:Q2:88:CYS:SG	78:Q2:91:PHE:HB2	2.60	0.41
1:6:25:C:H3'	1:6:367:A:H5'	2.02	0.41
1:6:343:C:C2	1:6:344:A:C8	3.08	0.41
1:6:1175:U:H2'	1:6:1176:G:H8	1.85	0.41
1:6:1200:G:H4'	1:6:1201:G:C5'	2.50	0.41
1:6:1281:G:H4'	22:d0:75:GLY:HA3	2.02	0.41
1:6:1491:U:O2'	1:6:1492:A:H5''	2.20	0.41
1:6:1583:A:OP1	18:c6:135:ARG:NH1	2.47	0.41
1:6:1620:C:O2'	1:6:1621:U:OP1	2.32	0.41
1:6:1734:U:H2'	1:6:1735:U:C6	2.55	0.41
3:s1:114:VAL:HG13	3:s1:120:LEU:HD12	2.01	0.41
3:s1:130:SER:OG	3:s1:180:THR:HG22	2.20	0.41
4:s2:161:LYS:HB2	4:s2:166:THR:HG22	2.02	0.41
5:s3:5:ILE:HG22	5:s3:6:SER:N	2.35	0.41
9:s7:14:THR:HG22	9:s7:17:GLU:OE1	2.20	0.41
9:s7:132:PRO:C	9:s7:133:THR:HG23	2.45	0.41
12:c0:3:MET:HE3	12:c0:8:ARG:NE	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:c0:54:TYR:O	12:c0:68:LEU:HD12	2.21	0.41
13:c1:53:TYR:CD1	13:c1:113:PRO:HB2	2.56	0.41
13:c1:84:ILE:HG13	13:c1:109:VAL:HG22	2.01	0.41
14:c2:35:ALA:HA	14:c2:126:TRP:HA	2.03	0.41
32:e0:41:THR:HA	32:e0:45:VAL:HB	2.00	0.41
36:5:51:A:H2'	36:5:52:A:C8	2.51	0.41
36:5:173:G:C5	36:5:174:C:C5	3.09	0.41
36:5:359:U:H2'	36:5:360:G:O4'	2.19	0.41
36:5:612:U:H2'	36:5:613:G:H8	1.84	0.41
36:5:867:G:C6	36:5:868:C:C4	3.09	0.41
36:5:1024:G:C8	36:5:1026:A:C8	3.08	0.41
36:5:1025:A:H3'	36:5:1026:A:C5'	2.50	0.41
36:5:1135:A:OP1	65:n9:6:ASN:HB2	2.20	0.41
36:5:1246:G:C6	36:5:1247:U:C4	3.09	0.41
36:5:1540:U:H5	36:5:1552:G:N1	2.18	0.41
36:5:1912:U:H2'	36:5:1913:A:O4'	2.20	0.41
36:5:2131:A:N6	79:q3:18:TYR:H	2.18	0.41
36:5:2522:G:O6	39:l2:70:ARG:NH2	2.53	0.41
36:5:2549:G:N1	45:l8:33:ASN:O	2.53	0.41
36:5:2576:G:C6	36:5:2577:C:C4	3.08	0.41
36:5:2693:C:H5''	36:5:2694:A:H5'	2.02	0.41
36:5:2899:C:O2'	36:5:2901:G:OP2	2.27	0.41
36:5:3084:C:O2'	36:5:3332:U:OP1	2.29	0.41
36:5:3165:A:H61	36:5:3285:C:N4	2.16	0.41
38:8:53:A:C4	38:8:54:A:C8	3.08	0.41
40:l3:108:GLU:HG3	40:l3:137:TYR:CG	2.55	0.41
41:l4:30:ILE:HA	41:l4:124:SER:OG	2.21	0.41
41:l4:179:LEU:HD23	41:l4:179:LEU:HA	1.83	0.41
41:l4:329:PRO:O	41:l4:330:TYR:CB	2.68	0.41
42:l5:38:THR:OG1	57:n1:30:TYR:HB3	2.20	0.41
42:l5:51:LEU:HB2	42:l5:144:VAL:HG13	2.02	0.41
42:l5:208:MET:HG2	42:l5:223:PHE:CE2	2.54	0.41
44:l7:232:ARG:HG3	44:l7:236:ILE:N	2.35	0.41
47:m0:43:VAL:HG21	47:m0:197:VAL:HG13	2.02	0.41
48:m1:38:GLU:HA	48:m1:43:GLN:O	2.19	0.41
51:m5:140:LYS:HD3	51:m5:143:ARG:HD3	2.01	0.41
52:m6:56:ASP:O	52:m6:59:ARG:HG2	2.21	0.41
54:m8:34:THR:HA	54:m8:49:LEU:CD1	2.49	0.41
59:n3:95:PHE:CD1	60:n4:22:VAL:HB	2.56	0.41
63:n7:14:VAL:HG23	70:o4:89:ILE:HG21	2.02	0.41
63:n7:57:HIS:HB3	63:n7:62:VAL:CG2	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:o3:43:PHE:CE1	69:o3:107:ILE:HD11	2.56	0.41
1:2:78:A:H2'	1:2:79:C:C6	2.55	0.41
1:2:329:G:H5''	10:S8:98:LYS:HB3	2.02	0.41
1:2:1035:G:N2	1:2:1101:G:C5	2.88	0.41
1:2:1142:A:H2'	1:2:1143:A:O4'	2.20	0.41
1:2:1684:U:O2	1:2:1718:G:N2	2.54	0.41
1:2:1773:C:H2'	1:2:1774:G:C8	2.55	0.41
5:S3:137:VAL:HG22	5:S3:151:LYS:CG	2.51	0.41
11:S9:142:ASN:O	11:S9:144:PRO:HD3	2.21	0.41
13:C1:67:ARG:HD3	13:C1:67:ARG:N	2.36	0.41
22:D0:58:LEU:HD12	22:D0:88:LYS:HD2	2.03	0.41
24:D2:33:VAL:HG13	24:D2:110:ILE:CD1	2.51	0.41
26:D4:34:ASN:CG	26:D4:35:VAL:N	2.79	0.41
27:D5:41:ILE:O	27:D5:75:LEU:HD13	2.20	0.41
27:D5:66:VAL:HG22	27:D5:71:ILE:O	2.20	0.41
36:1:213:A:C8	36:1:214:G:C8	3.07	0.41
36:1:225:C:H2'	36:1:226:C:H6	1.86	0.41
36:1:394:G:N2	36:1:396:A:H3'	2.35	0.41
36:1:440:A:OP2	36:1:440:A:C8	2.73	0.41
36:1:802:C:C2	36:1:803:C:C5	3.09	0.41
36:1:856:G:C6	36:1:857:G:N1	2.88	0.41
36:1:1056:U:H2'	36:1:1057:A:O4'	2.21	0.41
36:1:1065:A:N3	65:N9:28:LYS:HG2	2.36	0.41
36:1:1114:U:O2'	36:1:1115:G:H5'	2.20	0.41
36:1:1304:A:N6	36:1:2860:U:OP1	2.53	0.41
36:1:1397:C:C2'	36:1:1398:U:H5'	2.51	0.41
36:1:1831:U:O2'	38:4:114:G:OP1	2.30	0.41
36:1:1939:G:C6	36:1:2110:G:C6	3.09	0.41
36:1:2172:A:H4'	39:L2:17:THR:HG22	2.02	0.41
36:1:2422:C:O5'	78:Q2:52:GLY:HA3	2.21	0.41
36:1:2697:A:C2	36:1:2698:G:C5	3.08	0.41
36:1:3049:A:C2'	36:1:3050:U:H5'	2.50	0.41
36:1:3260:G:C8	50:M4:129:TYR:HE1	2.38	0.41
37:3:119:U:N3	37:3:120:C:C4	2.89	0.41
39:L2:178:PRO:HG2	79:Q3:26:VAL:HG23	2.01	0.41
41:L4:22:LEU:HD23	41:L4:22:LEU:HA	1.75	0.41
41:L4:31:ARG:O	41:L4:35:VAL:HG23	2.21	0.41
44:L7:236:ILE:HD12	44:L7:236:ILE:HA	1.90	0.41
45:L8:82:LEU:HD12	45:L8:82:LEU:HA	1.72	0.41
53:M7:19:GLY:N	53:M7:94:LEU:HD21	2.34	0.41
55:M9:105:LEU:O	55:M9:105:LEU:HD23	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:82:ASN:O	65:N9:21:ILE:HA	2.19	0.41
61:N5:132:ALA:O	61:N5:135:ILE:HG22	2.20	0.41
69:O3:16:TYR:CD2	69:O3:25:PRO:HA	2.56	0.41
70:O4:90:ILE:O	70:O4:94:LEU:HG	2.20	0.41
74:O8:77:ARG:HG3	74:O8:78:LEU:CD2	2.50	0.41
1:6:249:U:C4	13:c1:17:PRO:HG2	2.55	0.41
1:6:560:U:H2'	1:6:561:G:O4'	2.20	0.41
1:6:804:A:C5	1:6:805:U:C5	3.08	0.41
1:6:886:U:H2'	1:6:887:A:H8	1.85	0.41
1:6:1207:C:H4'	1:6:1208:A:O5'	2.21	0.41
1:6:1244:A:O2'	1:6:1245:G:O5'	2.33	0.41
1:6:1279:C:O2'	31:d9:44:ARG:NH2	2.53	0.41
1:6:1311:U:O3'	19:c7:2:GLY:N	2.53	0.41
1:6:1433:G:H2'	1:6:1434:U:H6	1.86	0.41
1:6:1458:G:N3	1:6:1458:G:H2'	2.35	0.41
1:6:1783:C:H2'	1:6:1784:C:C6	2.55	0.41
2:s0:78:SER:HA	2:s0:100:GLY:CA	2.50	0.41
4:s2:59:HIS:HA	23:d1:15:ARG:HH21	1.86	0.41
4:s2:162:CYS:N	4:s2:213:ALA:HB2	2.33	0.41
5:s3:156:PHE:C	5:s3:157:LEU:HG	2.46	0.41
5:s3:219:ALA:O	5:s3:220:PRO:O	2.38	0.41
6:s4:32:SER:O	6:s4:83:PRO:HG3	2.20	0.41
8:s6:33:GLY:N	8:s6:52:ILE:O	2.43	0.41
9:s7:98:ILE:HD11	9:s7:121:VAL:HG11	2.02	0.41
16:c4:107:ARG:HB2	16:c4:107:ARG:NH2	2.33	0.41
17:c5:125:PRO:HB3	20:c8:129:TRP:CH2	2.55	0.41
18:c6:46:PHE:O	18:c6:50:GLU:HG3	2.20	0.41
18:c6:121:SER:O	18:c6:123:ARG:HG2	2.21	0.41
25:d3:135:LEU:HD23	25:d3:135:LEU:HA	1.89	0.41
29:d7:36:LYS:HE2	29:d7:43:ILE:HG23	2.01	0.41
36:5:23:A:H8	36:5:23:A:O5'	2.03	0.41
36:5:191:U:H2'	36:5:192:C:C6	2.54	0.41
36:5:637:C:C2	36:5:638:C:C5	3.08	0.41
36:5:914:A:N3	39:l2:204:MET:HG2	2.35	0.41
36:5:1039:U:H2'	36:5:1040:A:H8	1.80	0.41
36:5:1284:C:N4	36:5:1285:G:N1	2.69	0.41
36:5:1468:A:N6	36:5:1508:C:O2	2.53	0.41
36:5:1653:G:N2	36:5:1803:C:O2	2.53	0.41
36:5:1731:A:O2'	36:5:1732:U:H5'	2.20	0.41
36:5:1824:U:C2	36:5:1825:G:N7	2.88	0.41
36:5:2157:G:H5'	36:5:2178:A:H61	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2197:C:N4	36:5:2241:U:H2'	2.34	0.41
36:5:2540:A:C2'	36:5:2541:U:H2'	2.49	0.41
36:5:2796:G:H4'	36:5:2798:C:C6	2.55	0.41
36:5:2828:G:C2	36:5:2829:U:H1'	2.55	0.41
36:5:2830:G:H2'	36:5:2831:G:H8	1.85	0.41
36:5:2858:U:O2'	36:5:2859:U:H5'	2.20	0.41
36:5:2895:G:N2	76:q0:100:TYR:CD2	2.84	0.41
36:5:2961:G:C6	36:5:2962:U:C4	3.07	0.41
36:5:3069:G:C2	36:5:3070:A:C8	3.07	0.41
36:5:3110:C:C4	36:5:3111:U:C4	3.08	0.41
36:5:3391:A:H2'	36:5:3392:U:C6	2.55	0.41
38:8:86:U:H2'	71:o5:7:TYR:HE2	1.82	0.41
39:l2:239:ALA:O	39:l2:240:ALA:C	2.62	0.41
40:l3:284:ARG:NH2	40:l3:295:ALA:O	2.52	0.41
43:l6:18:LEU:HD12	43:l6:18:LEU:N	2.35	0.41
43:l6:31:ARG:NH1	69:o3:107:ILE:C	2.79	0.41
43:l6:31:ARG:H	43:l6:31:ARG:HG2	1.53	0.41
44:l7:156:ILE:HD12	44:l7:161:VAL:HG21	2.01	0.41
44:l7:186:HIS:NE2	44:l7:190:THR:HG21	2.35	0.41
45:l8:231:LYS:HE3	45:l8:231:LYS:HB2	1.88	0.41
52:m6:108:ILE:CD1	52:m6:113:ASP:HA	2.50	0.41
57:n1:96:ILE:HD13	57:n1:96:ILE:HA	1.89	0.41
61:n5:56:ARG:H	61:n5:56:ARG:HG2	1.72	0.41
61:n5:103:TYR:O	61:n5:105:VAL:HG23	2.21	0.41
61:n5:110:VAL:CG2	61:n5:124:VAL:HG22	2.47	0.41
66:o0:25:LEU:HD23	66:o0:90:VAL:HG13	2.03	0.41
68:o2:19:ARG:HG3	68:o2:33:ARG:H	1.86	0.41
72:o6:51:SER:O	72:o6:54:GLU:HB2	2.21	0.41
73:o7:18:LEU:HD23	73:o7:24:ARG:O	2.19	0.41
74:o8:64:LYS:HG3	74:o8:65:LEU:N	2.35	0.41
1:2:149:C:H42	1:2:165:G:H1	1.68	0.41
1:2:326:G:C6	1:2:327:U:C4	3.08	0.41
1:2:477:A:H61	1:2:511:A:H61	1.69	0.41
1:2:904:G:H2'	1:2:905:A:O4'	2.20	0.41
1:2:1030:A:C8	1:2:1792:G:C2	3.09	0.41
1:2:1169:G:O6	1:2:1574:G:H8	2.04	0.41
1:2:1182:U:H1'	1:2:1185:U:N3	2.36	0.41
1:2:1230:A:H2'	1:2:1258:U:C5	2.56	0.41
1:2:1237:G:N2	1:2:1249:U:C2	2.89	0.41
1:2:1353:U:H2'	1:2:1354:G:H8	1.85	0.41
3:S1:180:THR:O	3:S1:184:LEU:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:28:GLU:OE2	12:C0:56:LYS:NZ	2.33	0.41
5:S3:29:LEU:HA	5:S3:32:GLU:OE1	2.21	0.41
7:S5:176:THR:OG1	7:S5:177:ILE:N	2.54	0.41
9:S7:99:LEU:HD23	9:S7:100:PRO:HD2	2.01	0.41
10:S8:184:LEU:HD12	10:S8:184:LEU:HA	1.91	0.41
12:C0:31:LYS:HA	12:C0:37:THR:O	2.20	0.41
14:C2:67:THR:C	14:C2:69:ALA:H	2.28	0.41
20:C8:96:LYS:HB2	20:C8:98:TYR:HE2	1.83	0.41
28:D6:82:ARG:O	28:D6:84:VAL:HG22	2.20	0.41
36:1:89:A:H5'	64:N8:60:TYR:O	2.20	0.41
36:1:280:U:O2	36:1:282:G:H3'	2.20	0.41
36:1:407:A:C2'	36:1:408:A:H5'	2.51	0.41
36:1:546:C:H4'	36:1:547:G:C5	2.55	0.41
36:1:611:A:C2	36:1:612:U:C2	3.09	0.41
36:1:661:G:O6	64:N8:19:LYS:HG3	2.21	0.41
36:1:833:G:C2	36:1:862:U:O2	2.74	0.41
36:1:1556:C:H5''	36:1:2169:G:C2	2.55	0.41
36:1:1652:G:H2'	36:1:1653:G:C8	2.56	0.41
36:1:1677:G:OP2	58:N2:103:TYR:OH	2.32	0.41
36:1:1859:A:C2	36:1:1860:G:C8	3.08	0.41
36:1:2252:A:C2	36:1:2265:C:C2	3.08	0.41
36:1:2916:U:C1'	59:N3:44:SER:HB3	2.39	0.41
36:1:3027:A:H2'	36:1:3028:G:O4'	2.21	0.41
36:1:3326:G:H2'	36:1:3327:G:C8	2.54	0.41
37:3:58:C:C2	37:3:59:U:C5	3.08	0.41
38:4:42:G:O2'	38:4:43:A:H5'	2.21	0.41
40:L3:232:ARG:HD2	40:L3:269:GLN:O	2.20	0.41
40:L3:281:LYS:HB2	40:L3:281:LYS:HE2	1.85	0.41
40:L3:334:ARG:O	40:L3:336:VAL:HG23	2.21	0.41
41:L4:257:LYS:O	41:L4:260:GLN:HB2	2.20	0.41
42:L5:58:LYS:N	42:L5:58:LYS:HD3	2.35	0.41
45:L8:190:VAL:HG13	45:L8:192:GLN:HG2	2.02	0.41
51:M5:73:ARG:O	51:M5:75:VAL:HB	2.21	0.41
51:M5:94:TYR:CE1	51:M5:96:ARG:HB2	2.55	0.41
55:M9:14:VAL:HG11	55:M9:42:ARG:HD3	2.03	0.41
55:M9:122:VAL:O	55:M9:126:GLU:HB2	2.20	0.41
59:N3:40:LYS:HD2	59:N3:40:LYS:HA	1.65	0.41
60:N4:14:TYR:O	60:N4:17:ARG:HB3	2.20	0.41
64:N8:79:TRP:HE1	64:N8:119:PRO:HD2	1.85	0.41
64:N8:116:GLY:HA2	64:N8:137:LYS:NZ	2.36	0.41
67:O1:51:LEU:HD22	67:O1:55:LEU:CD1	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:61:LYS:HD3	67:O1:61:LYS:HA	1.85	0.41
68:O2:78:ASN:HA	68:O2:108:ILE:HD11	2.03	0.41
72:O6:9:ILE:C	72:O6:13:LYS:HB2	2.45	0.41
1:6:95:G:O2'	1:6:460:A:O2'	2.29	0.41
1:6:953:G:H2'	1:6:954:G:C8	2.56	0.41
1:6:970:A:H2'	1:6:971:A:C5'	2.50	0.41
1:6:1161:C:H1'	1:6:1619:C:H42	1.85	0.41
1:6:1402:G:P	19:c7:10:LYS:HZ1	2.43	0.41
1:6:1559:A:C5	20:c8:134:ARG:HD3	2.56	0.41
2:s0:149:LEU:HA	2:s0:149:LEU:HD23	1.77	0.41
3:s1:50:LYS:O	3:s1:52:THR:HG23	2.21	0.41
3:s1:87:ARG:O	3:s1:99:ASN:N	2.43	0.41
3:s1:168:ILE:O	3:s1:172:LEU:HG	2.20	0.41
4:s2:57:PHE:CD1	23:d1:26:ALA:HB1	2.55	0.41
4:s2:137:ILE:CG1	4:s2:138:PRO:HD2	2.50	0.41
4:s2:185:LYS:O	4:s2:189:GLN:N	2.53	0.41
5:s3:74:GLN:NE2	5:s3:81:PRO:HA	2.35	0.41
7:s5:21:THR:O	7:s5:21:THR:OG1	2.37	0.41
9:s7:14:THR:HG23	9:s7:15:GLU:N	2.35	0.41
11:s9:28:LEU:CD1	32:e0:43:ARG:HE	2.31	0.41
11:s9:127:VAL:O	11:s9:131:GLN:HB2	2.21	0.41
16:c4:17:ALA:HA	16:c4:30:VAL:HG22	2.01	0.41
17:c5:86:VAL:HG22	17:c5:89:MET:HE3	2.02	0.41
19:c7:81:LYS:HE3	19:c7:81:LYS:HB3	1.89	0.41
22:d0:97:VAL:HG13	22:d0:98:GLN:N	2.30	0.41
28:d6:26:CYS:SG	28:d6:28:LYS:HB2	2.60	0.41
32:e0:53:LYS:HE2	32:e0:53:LYS:HB2	1.77	0.41
36:5:335:G:N2	36:5:336:A:H1'	2.35	0.41
36:5:717:C:C4	36:5:718:G:C5	3.09	0.41
36:5:787:G:H2'	36:5:788:C:H6	1.82	0.41
36:5:1417:G:OP2	36:5:1417:G:H8	2.04	0.41
36:5:1534:A:C6	36:5:1535:A:N1	2.89	0.41
36:5:1841:A:C6	36:5:1848:G:C2	3.08	0.41
36:5:1847:A:C2	36:5:1849:C:O4'	2.74	0.41
36:5:2401:A:C5'	41:l4:70:ALA:HB2	2.50	0.41
36:5:3288:G:O2'	36:5:3289:G:P	2.79	0.41
36:5:3338:C:H2'	36:5:3339:A:C8	2.56	0.41
36:5:3338:C:H2'	36:5:3339:A:H8	1.85	0.41
40:l3:159:ARG:HG2	40:l3:182:GLN:CA	2.49	0.41
41:l4:162:THR:O	41:l4:165:ALA:N	2.53	0.41
42:l5:68:THR:HG22	42:l5:70:THR:N	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:l6:40:LEU:HD22	43:l6:84:VAL:CG1	2.50	0.41
44:l7:73:GLY:O	57:n1:143:THR:HB	2.20	0.41
45:l8:134:TYR:CD2	45:l8:134:TYR:N	2.88	0.41
45:l8:177:TYR:CD1	45:l8:177:TYR:C	2.98	0.41
46:l9:36:LYS:NZ	46:l9:152:GLU:OE1	2.36	0.41
48:m1:12:LEU:HD22	48:m1:12:LEU:HA	1.81	0.41
52:m6:19:LEU:O	52:m6:22:VAL:HG22	2.20	0.41
52:m6:129:LEU:HD12	52:m6:129:LEU:HA	1.75	0.41
53:m7:18:ARG:C	53:m7:94:LEU:HD21	2.45	0.41
53:m7:65:SER:O	53:m7:66:SER:HB2	2.21	0.41
64:n8:97:GLU:CD	64:n8:97:GLU:N	2.78	0.41
70:o4:93:PHE:CD2	70:o4:94:LEU:HD23	2.55	0.41
1:2:53:G:H2'	1:2:54:C:H6	1.84	0.41
1:2:91:G:OP1	1:2:397:A:N6	2.49	0.41
1:2:208:U:H2'	1:2:209:U:H6	1.85	0.41
1:2:569:C:H2'	1:2:570:A:O4'	2.21	0.41
1:2:811:A:N6	9:S7:110:GLN:HG2	2.35	0.41
1:2:1019:A:C6	1:2:1020:A:N7	2.88	0.41
1:2:1164:G:N2	1:2:1165:G:C4	2.89	0.41
1:2:1341:A:H2'	1:2:1341:A:N3	2.36	0.41
1:2:1681:A:H8	8:S6:65:GLN:HG2	1.86	0.41
2:S0:93:THR:HG21	2:S0:181:VAL:HG21	2.03	0.41
2:S0:117:GLU:OE2	4:S2:39:THR:HB	2.20	0.41
6:S4:32:SER:O	6:S4:83:PRO:HG3	2.21	0.41
11:S9:83:VAL:HG23	11:S9:85:VAL:HG23	2.03	0.41
11:S9:110:GLN:NE2	11:S9:122:VAL:O	2.54	0.41
15:C3:129:TYR:HB3	15:C3:134:VAL:HG22	2.02	0.41
34:SR:33:LEU:HD22	34:SR:302:PHE:CD1	2.56	0.41
35:SM:57:ASN:O	35:SM:61:ILE:HG13	2.19	0.41
36:1:154:U:O3'	36:1:155:G:H8	2.03	0.41
36:1:283:G:H21	36:1:285:A:C5'	2.34	0.41
36:1:688:G:C5	36:1:690:A:N7	2.88	0.41
36:1:1057:A:C5	36:1:1058:U:C5	3.08	0.41
36:1:1177:G:N7	69:O3:20:LYS:HD2	2.35	0.41
36:1:1339:C:H2'	36:1:1340:G:H8	1.85	0.41
36:1:1533:U:O2'	36:1:1798:A:N3	2.41	0.41
36:1:1658:G:C5	36:1:1659:U:C5	3.08	0.41
36:1:1709:C:C2	36:1:1736:G:N2	2.89	0.41
36:1:2154:U:P	39:L2:246:LEU:HD11	2.60	0.41
36:1:2229:A:H2'	36:1:2230:C:H6	1.84	0.41
36:1:2352:A:C4	36:1:2353:G:C8	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2611:U:H2'	36:1:2612:U:C6	2.55	0.41
36:1:2649:A:C2	36:1:2650:U:C5	3.09	0.41
36:1:2859:U:H4'	36:1:2860:U:OP1	2.20	0.41
36:1:3283:U:H2'	36:1:3284:G:C8	2.56	0.41
37:3:2:G:C6	37:3:3:U:C4	3.09	0.41
40:L3:25:ILE:HD13	40:L3:25:ILE:N	2.35	0.41
40:L3:67:PHE:O	40:L3:70:ARG:HB2	2.20	0.41
43:L6:85:ILE:HG23	69:O3:107:ILE:HG21	2.03	0.41
43:L6:152:THR:HA	43:L6:153:PRO:HD3	1.91	0.41
45:L8:136:LEU:HD23	45:L8:136:LEU:HA	1.89	0.41
52:M6:98:ALA:HA	52:M6:101:ARG:HH11	1.86	0.41
53:M7:67:ILE:HD12	53:M7:67:ILE:HA	1.80	0.41
55:M9:168:ALA:O	55:M9:172:ARG:HD2	2.21	0.41
59:N3:108:GLU:HG2	59:N3:128:ARG:NH1	2.36	0.41
60:N4:32:GLN:OE1	60:N4:33:ASN:ND2	2.54	0.41
60:N4:123:ARG:HD3	60:N4:123:ARG:C	2.45	0.41
67:O1:74:ARG:O	67:O1:93:VAL:HA	2.20	0.41
73:O7:2:GLY:C	73:O7:4:GLY:N	2.76	0.41
1:6:28:A:C2	1:6:599:A:C2	3.08	0.41
1:6:93:A:C8	1:6:399:A:C4	3.09	0.41
1:6:245:U:N3	1:6:248:U:OP2	2.52	0.41
1:6:390:G:H5''	1:6:390:G:N3	2.35	0.41
1:6:647:G:N2	1:6:687:G:N2	2.67	0.41
1:6:1275:A:C5	1:6:1438:G:C2	3.09	0.41
1:6:1416:G:C6	1:6:1417:A:C5	3.09	0.41
1:6:1489:U:O2'	1:6:1490:C:OP2	2.35	0.41
1:6:1734:U:H2'	1:6:1735:U:H6	1.85	0.41
5:s3:69:LEU:O	5:s3:73:VAL:HG23	2.20	0.41
5:s3:75:LYS:NZ	12:c0:14:TYR:OH	2.43	0.41
5:s3:156:PHE:CZ	5:s3:158:ILE:HG22	2.56	0.41
7:s5:174:LEU:HB3	7:s5:210:ALA:CB	2.51	0.41
13:c1:117:VAL:HG12	13:c1:118:GLN:H	1.86	0.41
17:c5:76:VAL:O	17:c5:95:GLY:N	2.45	0.41
18:c6:117:LEU:HD23	18:c6:117:LEU:H	1.85	0.41
20:c8:124:GLY:O	20:c8:127:HIS:HB2	2.21	0.41
21:c9:15:ILE:HD13	21:c9:60:SER:HA	2.02	0.41
22:d0:104:THR:CG2	22:d0:116:VAL:HG21	2.48	0.41
25:d3:125:VAL:HG12	25:d3:126:LYS:HG3	2.02	0.41
26:d4:20:ARG:HE	26:d4:22:GLN:NE2	2.19	0.41
26:d4:50:ALA:O	26:d4:51:GLU:HB3	2.21	0.41
27:d5:83:LEU:HD22	27:d5:88:ILE:HG21	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:d7:46:VAL:HG13	29:d7:54:VAL:HG21	2.01	0.41
36:5:115:A:H8	36:5:115:A:OP2	2.03	0.41
36:5:158:G:H22	36:5:264:G:H1'	1.85	0.41
36:5:511:G:N1	36:5:512:U:C2	2.88	0.41
36:5:620:U:C2	36:5:622:A:C5	3.09	0.41
36:5:639:G:OP1	68:o2:35:GLN:HG3	2.20	0.41
36:5:1032:C:H5'	36:5:1033:U:OP2	2.21	0.41
36:5:1167:U:H2'	36:5:1168:U:O4'	2.20	0.41
36:5:1190:A:H3'	36:5:1190:A:N3	2.36	0.41
36:5:1314:C:O5'	36:5:1314:C:H6	2.03	0.41
36:5:1451:C:H2'	36:5:1880:U:C5	2.55	0.41
36:5:1472:U:H2'	36:5:1473:G:C8	2.55	0.41
36:5:1556:C:C5'	36:5:2169:G:H1	2.33	0.41
36:5:1613:A:C6	36:5:1614:C:C4	3.09	0.41
36:5:1675:G:H2'	36:5:1676:A:C8	2.55	0.41
36:5:1770:G:C6	36:5:1771:C:C4	3.08	0.41
36:5:2238:G:H2'	36:5:2239:G:H8	1.86	0.41
36:5:2578:U:H2'	36:5:2579:G:O4'	2.21	0.41
36:5:2612:U:H1'	36:5:2803:A:C2	2.56	0.41
36:5:2632:G:H1	36:5:2646:C:H42	1.67	0.41
36:5:2678:A:C4	36:5:2679:A:C8	3.08	0.41
36:5:2958:A:H2'	36:5:2959:C:C6	2.55	0.41
36:5:3065:G:H2'	36:5:3066:U:O4'	2.21	0.41
38:8:76:C:O5'	38:8:76:C:H6	2.03	0.41
40:l3:238:LEU:HD12	40:l3:238:LEU:HA	1.66	0.41
41:l4:5:GLN:HA	41:l4:20:LEU:O	2.21	0.41
41:l4:338:LYS:HD3	41:l4:338:LYS:HA	1.61	0.41
41:l4:361:HIS:CG	41:l4:362:ASP:N	2.89	0.41
46:l9:4:ILE:HD13	46:l9:4:ILE:HG21	1.75	0.41
48:m1:10:ARG:O	48:m1:11:ASP:C	2.64	0.41
50:m4:22:LEU:HD12	50:m4:31:LYS:O	2.20	0.41
52:m6:27:LEU:CD2	52:m6:101:ARG:HB2	2.47	0.41
52:m6:67:THR:O	52:m6:71:PHE:HE1	2.03	0.41
53:m7:95:LEU:HA	53:m7:95:LEU:HD23	1.68	0.41
59:n3:95:PHE:HD1	60:n4:22:VAL:HB	1.86	0.41
59:n3:118:VAL:O	59:n3:136:VAL:HA	2.21	0.41
59:n3:120:LYS:NZ	59:n3:137:VAL:HG21	2.35	0.41
67:o1:88:PRO:C	67:o1:89:LEU:HD12	2.46	0.41
74:o8:8:ILE:O	74:o8:11:PHE:HB3	2.20	0.41
75:o9:3:ALA:O	75:o9:5:LYS:HE3	2.20	0.41
75:o9:28:ARG:NH1	75:o9:36:ARG:HD2	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:q3:33:GLN:HG3	79:q3:34:HIS:ND1	2.36	0.41
1:2:340:U:C2	1:2:341:A:N7	2.89	0.41
1:2:884:A:H5''	3:S1:136:ARG:NE	2.36	0.41
1:2:957:G:C2'	1:2:958:U:H5'	2.50	0.41
1:2:1128:C:C2	1:2:1129:U:C6	3.09	0.41
1:2:1251:U:O4'	33:E1:135:HIS:CE1	2.74	0.41
1:2:1346:A:N6	1:2:1371:A:O4'	2.54	0.41
1:2:1490:C:C5	1:2:1492:A:C4	3.08	0.41
1:2:1525:A:OP1	21:C9:93:HIS:ND1	2.53	0.41
1:2:1527:C:OP1	7:S5:106:LYS:NZ	2.48	0.41
1:2:1641:C:O2'	1:2:1642:G:H5'	2.20	0.41
1:2:1654:G:H2'	1:2:1745:G:H22	1.85	0.41
2:S0:41:ARG:N	2:S0:45:VAL:O	2.50	0.41
4:S2:111:VAL:HG13	4:S2:190:LEU:O	2.20	0.41
7:S5:37:GLN:CD	18:C6:53:LEU:HD22	2.45	0.41
7:S5:97:LEU:HB3	7:S5:110:ALA:HB1	2.03	0.41
8:S6:147:LEU:HB3	8:S6:151:ASP:CB	2.51	0.41
10:S8:193:LEU:HD23	10:S8:193:LEU:HA	1.92	0.41
15:C3:145:THR:O	15:C3:149:LEU:HB2	2.21	0.41
18:C6:47:LYS:HE2	18:C6:114:ARG:NH2	2.35	0.41
19:C7:13:SER:HA	19:C7:54:THR:HG22	2.02	0.41
21:C9:14:PHE:HE1	21:C9:136:ALA:HB2	1.86	0.41
25:D3:54:LEU:HD23	25:D3:54:LEU:HA	1.68	0.41
36:1:22:G:O4'	38:4:104:A:H1'	2.20	0.41
36:1:291:C:H5''	51:M5:68:ARG:NH1	2.35	0.41
36:1:329:U:H4'	36:1:330:G:OP2	2.20	0.41
36:1:396:A:C6	36:1:399:A:C6	3.09	0.41
36:1:437:G:H2'	36:1:438:A:O4'	2.21	0.41
36:1:520:U:O4	41:L4:349:THR:HG23	2.20	0.41
36:1:711:A:H1'	36:1:2774:C:O3'	2.21	0.41
36:1:979:U:H1'	36:1:980:A:C8	2.56	0.41
36:1:1090:G:H2'	36:1:1091:A:H8	1.86	0.41
36:1:1138:U:H2'	36:1:1139:G:H8	1.86	0.41
36:1:1396:C:O5'	36:1:1396:C:H6	2.03	0.41
36:1:1439:U:H2'	36:1:1440:G:O4'	2.21	0.41
36:1:1483:G:H4'	36:1:1484:U:OP1	2.19	0.41
36:1:1517:G:H2'	36:1:1518:U:C6	2.55	0.41
36:1:1522:U:C2	36:1:1835:A:C8	3.09	0.41
36:1:1720:U:C4	55:M9:124:TYR:CE2	3.09	0.41
36:1:1722:U:C4	36:1:1723:A:C8	3.09	0.41
36:1:1725:C:H2'	36:1:1726:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1751:G:H5'	74:O8:26:LYS:NZ	2.34	0.41
36:1:2344:U:C2	36:1:2345:A:N7	2.88	0.41
36:1:2374:C:N4	36:1:2941:A:C4	2.89	0.41
36:1:2890:A:N1	36:1:2913:C:N3	2.68	0.41
84:1:4160:HOH:O	59:N3:44:SER:HA	2.20	0.41
37:3:94:C:H2'	37:3:95:A:C8	2.55	0.41
40:L3:46:PHE:CZ	40:L3:205:VAL:HG22	2.56	0.41
40:L3:287:LYS:HE3	40:L3:287:LYS:HB3	1.83	0.41
41:L4:155:ASP:O	41:L4:156:LEU:C	2.64	0.41
42:L5:40:HIS:HD2	42:L5:42:ALA:H	1.67	0.41
46:L9:49:ASN:O	46:L9:52:LEU:N	2.49	0.41
48:M1:162:TRP:CZ2	48:M1:166:LYS:HD2	2.55	0.41
52:M6:77:SER:HB2	52:M6:104:VAL:HG12	2.03	0.41
52:M6:111:PRO:O	52:M6:112:TYR:C	2.64	0.41
53:M7:13:LYS:HD2	53:M7:152:GLU:OE1	2.20	0.41
55:M9:93:VAL:O	55:M9:97:ARG:HD2	2.20	0.41
56:N0:44:PHE:CE1	57:N1:153:PRO:HB3	2.56	0.41
66:O0:34:LEU:HD23	66:O0:59:TYR:HB3	2.03	0.41
71:O5:85:THR:HG22	71:O5:88:LEU:CG	2.51	0.41
1:6:325:G:C4'	13:c1:80:MET:HE3	2.51	0.41
1:6:606:A:H4'	1:6:607:G:H5''	2.03	0.41
1:6:828:U:C3'	1:6:829:A:H5''	2.51	0.41
1:6:1035:G:OP1	15:c3:2:GLY:N	2.53	0.41
1:6:1164:G:C2	1:6:1165:G:C5	3.09	0.41
1:6:1438:G:C5	1:6:1439:C:C4	3.08	0.41
1:6:1681:A:C8	8:s6:65:GLN:HG3	2.55	0.41
1:6:1797:A:N6	28:d6:84:VAL:HG13	2.35	0.41
5:s3:91:VAL:HG21	5:s3:94:ARG:HB3	2.03	0.41
9:s7:152:VAL:O	9:s7:183:PHE:HA	2.21	0.41
12:c0:23:ALA:HB2	12:c0:64:TYR:HB2	2.02	0.41
13:c1:8:GLN:H	13:c1:8:GLN:HG2	1.69	0.41
18:c6:40:GLU:C	18:c6:42:GLU:H	2.29	0.41
21:c9:28:LEU:HD23	21:c9:28:LEU:HA	1.87	0.41
23:d1:73:ALA:O	23:d1:78:LEU:N	2.43	0.41
33:e1:88:PRO:HB3	33:e1:89:LYS:NZ	2.36	0.41
34:sR:161:ALA:C	34:sR:163:ASP:H	2.29	0.41
34:sR:292:LEU:HD23	34:sR:303:ALA:HB2	2.01	0.41
36:5:19:U:H4'	51:m5:138:GLN:OE1	2.20	0.41
36:5:23:A:C2	38:8:35:C:C4	3.08	0.41
36:5:741:U:O2'	54:m8:73:GLN:NE2	2.49	0.41
36:5:805:G:H5''	41:l4:75:PRO:HD3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:867:G:C5	36:5:868:C:C4	3.08	0.41
36:5:1333:C:OP1	54:m8:2:GLY:N	2.53	0.41
36:5:1378:U:O2	36:5:1430:U:H1'	2.20	0.41
36:5:1886:A:O4'	36:5:3307:A:H5'	2.21	0.41
36:5:1907:C:C5	36:5:1908:A:N7	2.89	0.41
36:5:1908:A:C6	36:5:1909:A:C5	3.09	0.41
36:5:2172:A:H2'	36:5:2173:U:O4'	2.20	0.41
36:5:2405:C:C4	36:5:2406:C:C5	3.09	0.41
36:5:2792:A:H2'	36:5:2793:G:H8	1.86	0.41
36:5:2827:U:C2	36:5:2859:U:O4	2.73	0.41
36:5:3078:U:H4'	36:5:3079:U:O5'	2.21	0.41
36:5:3182:G:N2	36:5:3189:G:OP1	2.49	0.41
36:5:3274:A:C8	53:m7:171:ARG:CZ	3.03	0.41
38:8:22:U:H4'	38:8:23:U:OP1	2.21	0.41
38:8:70:G:C2	38:8:87:G:N3	2.89	0.41
40:l3:108:GLU:HB2	40:l3:137:TYR:CE1	2.55	0.41
40:l3:161:LEU:HD23	40:l3:161:LEU:HA	1.79	0.41
41:l4:6:VAL:HG13	41:l4:147:GLU:OE1	2.20	0.41
41:l4:118:LYS:O	41:l4:122:THR:HG23	2.21	0.41
41:l4:185:LYS:HE3	41:l4:201:GLN:OE1	2.19	0.41
44:l7:127:LEU:HA	44:l7:127:LEU:HD23	1.78	0.41
45:l8:130:TYR:CD1	45:l8:202:GLU:HB3	2.56	0.41
53:m7:25:SER:O	53:m7:29:THR:HG23	2.20	0.41
55:m9:155:LEU:HD23	55:m9:158:GLU:OE2	2.20	0.41
57:n1:83:ARG:HD2	57:n1:85:LEU:HD21	2.03	0.41
58:n2:56:VAL:HG22	58:n2:65:VAL:HG22	2.03	0.41
63:n7:58:GLY:CA	63:n7:61:LYS:HB2	2.51	0.41
67:o1:60:TRP:CZ3	67:o1:64:VAL:HG13	2.56	0.41
72:o6:25:LYS:HB3	72:o6:27:SER:HB2	2.03	0.41
78:q2:38:GLN:HE21	78:q2:38:GLN:CA	2.33	0.41
1:2:827:C:H1'	1:2:846:G:H22	1.85	0.41
1:2:959:U:O2	1:2:959:U:H2'	2.21	0.41
1:2:1081:A:H4'	1:2:1082:C:O5'	2.20	0.41
1:2:1106:U:H2'	1:2:1107:G:H8	1.86	0.41
1:2:1179:G:H2'	1:2:1180:C:O4'	2.21	0.41
1:2:1645:G:H22	82:2:2012:GET:C71	2.33	0.41
1:2:1791:A:C5	1:2:1793:G:N7	2.88	0.41
6:S4:71:LYS:CG	6:S4:91:THR:HB	2.51	0.41
9:S7:51:VAL:HG13	9:S7:168:SER:HB3	2.02	0.41
10:S8:58:LEU:O	10:S8:59:ARG:HB2	2.21	0.41
12:C0:6:GLU:O	12:C0:9:ASN:HB2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C2:74:LEU:HD23	14:C2:74:LEU:HA	1.65	0.41
17:C5:125:PRO:HB3	20:C8:129:TRP:CZ3	2.56	0.41
20:C8:120:ARG:NH2	35:SM:58:GLU:OE1	2.54	0.41
34:SR:141:LEU:H	34:SR:141:LEU:HG	1.45	0.41
36:1:289:A:H2	51:M5:93:LYS:HD2	1.85	0.41
36:1:422:A:N6	36:1:423:A:C6	2.89	0.41
36:1:833:G:N2	36:1:862:U:H1'	2.36	0.41
36:1:833:G:H5''	55:M9:84:THR:HG21	2.03	0.41
36:1:914:A:H5'	36:1:915:A:C8	2.53	0.41
36:1:996:A:H2'	36:1:997:A:O4'	2.20	0.41
36:1:1021:G:C6	36:1:1022:U:C4	3.09	0.41
36:1:1680:G:C6	36:1:1681:U:C4	3.08	0.41
36:1:1945:A:H2'	36:1:1946:A:C8	2.56	0.41
36:1:2106:A:C2	36:1:2107:A:C5	3.09	0.41
36:1:2382:G:OP1	52:M6:85:ARG:NH1	2.54	0.41
36:1:2513:U:H6	36:1:2513:U:H2'	1.70	0.41
36:1:2549:G:C2	45:L8:33:ASN:CG	2.99	0.41
36:1:2774:C:C2	36:1:2775:U:C5	3.09	0.41
36:1:3024:A:H3'	36:1:3025:C:H6	1.86	0.41
36:1:3169:U:H2'	36:1:3170:A:O4'	2.21	0.41
36:1:3181:C:O2'	52:M6:164:SER:OG	2.28	0.41
36:1:3288:G:O2'	36:1:3289:G:OP2	2.37	0.41
40:L3:221:THR:HG21	40:L3:271:GLY:HA2	2.03	0.41
41:L4:157:GLU:HA	41:L4:215:ILE:HG21	2.03	0.41
41:L4:253:ALA:O	41:L4:257:LYS:HB2	2.21	0.41
41:L4:350:LYS:O	44:L7:71:ALA:HA	2.21	0.41
42:L5:57:ASN:OD1	42:L5:58:LYS:NZ	2.54	0.41
44:L7:137:GLY:HA3	44:L7:236:ILE:HB	2.03	0.41
47:M0:76:MET:HE1	47:M0:138:VAL:CG1	2.34	0.41
49:M3:54:LEU:HB3	49:M3:95:ILE:HG23	2.03	0.41
49:M3:105:ASN:OD1	49:M3:107:GLU:HG2	2.20	0.41
50:M4:72:LEU:HD22	50:M4:73:PRO:CD	2.51	0.41
58:N2:33:TYR:O	58:N2:36:TYR:HB3	2.21	0.41
67:O1:19:ARG:HD3	67:O1:35:GLU:CG	2.51	0.41
67:O1:20:LEU:O	67:O1:23:VAL:HG23	2.19	0.41
67:O1:72:ARG:HD3	67:O1:104:LEU:HD12	2.03	0.41
70:O4:81:CYS:O	70:O4:82:ALA:HB3	2.21	0.41
71:O5:56:THR:O	71:O5:60:GLU:HB2	2.20	0.41
71:O5:78:LYS:HA	71:O5:81:ARG:CD	2.43	0.41
71:O5:85:THR:HG22	71:O5:88:LEU:H	1.85	0.41
75:O9:49:MET:O	75:O9:50:ASN:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:29:U:H2'	1:6:30:G:C8	2.56	0.41
1:6:151:G:N2	1:6:163:G:N2	2.69	0.41
1:6:535:A:OP1	11:s9:171:ARG:NH2	2.54	0.41
1:6:538:A:H5'	1:6:543:C:N3	2.36	0.41
1:6:1241:G:H1'	17:c5:79:HIS:CG	2.55	0.41
1:6:1277:G:O3'	5:s3:183:GLY:HA3	2.21	0.41
1:6:1325:A:P	19:c7:11:ARG:NH1	2.85	0.41
1:6:1468:U:H1'	21:c9:88:VAL:HG23	2.02	0.41
1:6:1491:U:H4'	1:6:1492:A:C4'	2.51	0.41
1:6:1558:U:C6	20:c8:122:HIS:CE1	3.09	0.41
2:s0:177:LEU:O	2:s0:181:VAL:HG22	2.21	0.41
6:s4:43:PRO:HB2	6:s4:46:VAL:HG23	2.02	0.41
6:s4:100:ARG:NH2	6:s4:121:TYR:O	2.51	0.41
7:s5:25:LEU:HD22	7:s5:25:LEU:H	1.85	0.41
11:s9:33:GLU:O	11:s9:122:VAL:HG11	2.21	0.41
17:c5:60:LEU:CD1	17:c5:89:MET:HB3	2.51	0.41
18:c6:57:LEU:H	18:c6:57:LEU:HD12	1.86	0.41
25:d3:48:HIS:ND1	25:d3:105:ALA:HB2	2.36	0.41
36:5:346:C:OP1	41:l4:52:VAL:HG22	2.20	0.41
36:5:405:U:O4	36:5:406:G:C2	2.73	0.41
36:5:423:A:C6	36:5:424:G:C6	3.08	0.41
36:5:596:C:O2'	44:l7:165:ASP:OD1	2.28	0.41
36:5:765:C:H4'	36:5:766:U:OP2	2.19	0.41
36:5:987:U:OP1	44:l7:125:GLU:HG3	2.19	0.41
36:5:1208:U:P	76:q0:109:ASN:HD21	2.43	0.41
36:5:1668:G:H4'	70:o4:22:VAL:HG12	2.02	0.41
36:5:1694:U:O2'	36:5:1695:U:H5'	2.20	0.41
36:5:1720:U:C4	55:m9:124:TYR:CE2	3.09	0.41
36:5:1792:C:H5''	36:5:1793:C:P	2.61	0.41
36:5:1873:U:OP2	55:m9:20:ARG:NH1	2.40	0.41
36:5:1933:A:OP1	36:5:2121:G:N1	2.48	0.41
36:5:2208:A:C2'	36:5:2209:U:H5'	2.51	0.41
36:5:2302:G:C6	36:5:2303:A:C5	3.08	0.41
36:5:2838:A:N6	36:5:2850:G:H1'	2.36	0.41
36:5:3024:A:H5''	36:5:3025:C:OP2	2.21	0.41
36:5:3060:C:H2'	36:5:3061:G:O4'	2.20	0.41
36:5:3111:U:H2'	36:5:3112:G:H5'	2.03	0.41
36:5:3298:C:C2	36:5:3299:A:C8	3.09	0.41
37:7:110:G:C6	37:7:111:U:C4	3.09	0.41
38:8:58:G:O2'	38:8:99:C:H4'	2.21	0.41
42:l5:115:LEU:HD13	42:l5:118:THR:HG23	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:l5:212:ALA:HA	42:l5:219:PHE:CG	2.56	0.41
43:l6:50:LYS:HG2	43:l6:74:VAL:HG23	2.03	0.41
44:l7:195:PHE:O	44:l7:196:LYS:C	2.63	0.41
45:l8:78:PHE:C	45:l8:80:TYR:N	2.78	0.41
47:m0:171:TRP:CG	47:m0:181:TYR:CD2	3.08	0.41
49:m3:67:ARG:HG2	64:n8:105:LEU:CG	2.50	0.41
51:m5:37:HIS:CD2	51:m5:63:ARG:HB3	2.56	0.41
53:m7:37:ASN:O	53:m7:39:TRP:HD1	2.03	0.41
56:n0:10:ILE:HA	56:n0:25:PHE:O	2.20	0.41
59:n3:80:ARG:HG2	59:n3:95:PHE:CD2	2.56	0.41
61:n5:100:LYS:HA	61:n5:105:VAL:O	2.20	0.41
66:o0:10:ILE:HD11	66:o0:104:LEU:HD11	2.03	0.41
67:o1:46:THR:HG23	67:o1:47:ASP:H	1.86	0.41
70:o4:100:ILE:HG13	70:o4:100:ILE:H	1.65	0.41
1:2:8:U:C5	1:2:16:G:N2	2.88	0.41
1:2:27:U:H2'	1:2:28:A:H8	1.86	0.41
1:2:275:C:H2'	1:2:276:C:H1'	2.03	0.41
1:2:329:G:H5'	10:S8:99:ALA:CB	2.51	0.41
1:2:357:G:O2'	1:2:358:U:H5'	2.21	0.41
1:2:412:A:H2'	1:2:413:U:C6	2.56	0.41
1:2:416:A:H4'	1:2:417:A:OP2	2.21	0.41
1:2:542:A:H3'	1:2:543:C:H3'	2.03	0.41
1:2:948:G:H2'	1:2:949:C:H6	1.85	0.41
1:2:1006:C:O3'	16:C4:136:ARG:HD3	2.20	0.41
1:2:1096:C:O2'	1:2:1097:U:P	2.78	0.41
1:2:1146:G:C6	1:2:1147:A:C5	3.08	0.41
1:2:1162:C:H1'	1:2:1616:G:N2	2.36	0.41
1:2:1402:G:H2'	1:2:1403:C:H6	1.83	0.41
1:2:1426:C:H3'	1:2:1427:A:H5''	2.03	0.41
1:2:1556:A:P	17:C5:44:ARG:HH11	2.43	0.41
1:2:1575:G:O2'	1:2:1576:A:H5'	2.21	0.41
1:2:1762:A:N3	1:2:1762:A:H2'	2.36	0.41
2:S0:9:LEU:HD13	2:S0:10:THR:O	2.21	0.41
2:S0:75:ALA:C	2:S0:76:ILE:HG12	2.46	0.41
2:S0:123:VAL:HG11	2:S0:133:ILE:HD11	2.03	0.41
2:S0:172:LEU:HD23	2:S0:172:LEU:HA	1.91	0.41
2:S0:198:MET:HE1	19:C7:88:VAL:HG21	2.02	0.41
3:S1:70:LEU:HD12	3:S1:82:ARG:HB2	2.02	0.41
3:S1:117:TRP:HD1	3:S1:152:ARG:O	2.04	0.41
5:S3:164:VAL:HG12	5:S3:165:ASN:N	2.36	0.41
6:S4:42:LEU:CD2	6:S4:46:VAL:HB	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:51:ARG:O	6:S4:53:LYS:HG2	2.21	0.41
6:S4:103:TYR:CD2	6:S4:189:LEU:HD11	2.56	0.41
7:S5:71:ALA:HB3	7:S5:111:VAL:HG22	2.03	0.41
8:S6:211:LEU:HD11	8:S6:215:ARG:NH2	2.36	0.41
11:S9:101:VAL:O	11:S9:105:LEU:HD22	2.20	0.41
11:S9:102:GLU:H	11:S9:102:GLU:CD	2.29	0.41
11:S9:114:TYR:HA	11:S9:119:ALA:HB3	2.02	0.41
12:C0:77:ARG:HG3	12:C0:82:LEU:HD12	2.03	0.41
13:C1:37:ASN:HA	13:C1:44:THR:HG21	2.02	0.41
13:C1:127:GLN:HG2	13:C1:128:CYS:H	1.85	0.41
14:C2:81:ASP:HA	14:C2:82:PRO:HD3	1.68	0.41
15:C3:4:MET:HG3	15:C3:5:HIS:N	2.35	0.41
15:C3:92:ILE:O	15:C3:96:VAL:HG23	2.21	0.41
21:C9:117:SER:HB2	21:C9:123:ARG:HB2	2.03	0.41
24:D2:46:TYR:CE1	24:D2:130:TYR:HA	2.56	0.41
27:D5:61:SER:O	27:D5:65:LEU:HG	2.21	0.41
28:D6:36:ILE:HG23	28:D6:73:TYR:HB2	2.02	0.41
28:D6:79:ILE:HA	28:D6:84:VAL:CG1	2.51	0.41
31:D9:12:ARG:HD3	31:D9:12:ARG:HA	1.81	0.41
34:SR:11:GLY:O	34:SR:312:VAL:HG22	2.20	0.41
34:SR:64:HIS:CE1	34:SR:90:ARG:HD2	2.56	0.41
36:1:422:A:C6	36:1:423:A:C6	3.08	0.41
36:1:645:A:H1'	36:1:647:A:OP2	2.19	0.41
36:1:739:G:C2	36:1:740:G:C8	3.09	0.41
36:1:752:C:O2'	36:1:753:C:H5'	2.21	0.41
36:1:757:C:C2	36:1:775:A:C2	3.09	0.41
36:1:761:A:H2'	36:1:762:U:H5'	2.01	0.41
36:1:814:U:O2	36:1:815:G:C8	2.74	0.41
36:1:993:G:P	57:N1:58:GLN:HE21	2.44	0.41
36:1:1219:C:O2'	36:1:1286:A:N1	2.49	0.41
36:1:1304:A:O2'	36:1:2884:C:O2'	2.30	0.41
36:1:1361:U:O2	44:L7:159:GLN:NE2	2.47	0.41
36:1:1429:G:C6	41:L4:99:MET:HE1	2.56	0.41
36:1:1489:A:H2'	36:1:1490:A:H8	1.86	0.41
36:1:1504:A:N1	36:1:1515:A:O2'	2.47	0.41
36:1:1553:U:H1'	36:1:1554:U:N3	2.36	0.41
36:1:1719:G:H4'	36:1:1732:U:H4'	2.02	0.41
36:1:1724:U:OP2	55:M9:128:LYS:NZ	2.54	0.41
36:1:1808:G:O2'	36:1:1809:A:P	2.78	0.41
36:1:2105:G:H2'	36:1:2106:A:C8	2.56	0.41
36:1:2131:A:N6	79:Q3:18:TYR:HA	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2163:C:H4'	39:L2:7:ASN:O	2.20	0.41
36:1:2183:A:O2'	39:L2:235:ALA:HA	2.21	0.41
36:1:2286:U:C4	36:1:2288:G:H1'	2.56	0.41
36:1:2319:U:O2'	36:1:2320:A:C8	2.67	0.41
36:1:2523:A:OP1	61:N5:31:THR:OG1	2.29	0.41
36:1:2801:A:O2'	36:1:2802:A:H2'	2.21	0.41
36:1:2903:A:H2'	36:1:2904:U:O4'	2.20	0.41
36:1:2955:U:H6	36:1:2955:U:O5'	2.04	0.41
36:1:2985:C:H2'	36:1:2986:U:O4'	2.21	0.41
36:1:2987:A:C5	36:1:2988:C:C4	3.09	0.41
36:1:3027:A:H8	36:1:3027:A:OP1	2.04	0.41
36:1:3061:G:C2	36:1:3083:G:C6	3.09	0.41
36:1:3082:C:H2'	36:1:3083:G:C8	2.56	0.41
36:1:3122:A:C2'	36:1:3123:A:H5'	2.51	0.41
36:1:3163:A:O5'	36:1:3163:A:H8	2.03	0.41
36:1:3197:G:C4	36:1:3199:G:C8	3.08	0.41
36:1:3198:U:O4	46:L9:26:LYS:HB2	2.21	0.41
36:1:3340:G:H8	36:1:3340:G:OP2	2.04	0.41
36:1:3354:U:O5'	36:1:3355:U:H5'	2.21	0.41
37:3:97:A:H2'	37:3:98:C:H6	1.84	0.41
38:4:6:U:H2'	38:4:7:U:H6	1.84	0.41
38:4:75:G:O2'	75:O9:29:LEU:HD23	2.21	0.41
38:4:104:A:N7	38:4:105:A:N7	2.69	0.41
39:L2:192:LYS:HG2	39:L2:193:ARG:NH1	2.36	0.41
39:L2:245:LEU:HD12	39:L2:246:LEU:H	1.85	0.41
40:L3:117:ARG:HA	40:L3:175:LYS:HG3	2.03	0.41
40:L3:187:SER:O	40:L3:187:SER:OG	2.38	0.41
41:L4:181:VAL:O	41:L4:182:LEU:HB2	2.20	0.41
41:L4:324:LEU:HD12	41:L4:324:LEU:O	2.21	0.41
43:L6:158:TYR:CE1	50:M4:115:PHE:HA	2.56	0.41
44:L7:83:LEU:HD23	44:L7:83:LEU:HA	1.93	0.41
44:L7:158:LYS:CE	44:L7:159:GLN:H	2.33	0.41
45:L8:153:ILE:O	45:L8:180:VAL:HG23	2.21	0.41
47:M0:51:HIS:CE1	47:M0:137:SER:OG	2.74	0.41
47:M0:98:ARG:HB3	47:M0:120:GLY:HA3	2.02	0.41
48:M1:57:PHE:N	48:M1:57:PHE:CD1	2.87	0.41
49:M3:9:ILE:HD13	64:N8:52:TYR:CD1	2.56	0.41
51:M5:17:ASP:OD1	51:M5:17:ASP:N	2.52	0.41
51:M5:138:GLN:HA	51:M5:143:ARG:HD2	2.02	0.41
52:M6:54:TYR:CD2	52:M6:58:LEU:HD22	2.56	0.41
52:M6:194:LEU:HD23	52:M6:194:LEU:HA	1.82	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:83:TRP:O	53:M7:85:ALA:N	2.53	0.41
54:M8:169:GLY:C	54:M8:174:ARG:HE	2.28	0.41
58:N2:84:LEU:O	58:N2:89:LEU:N	2.51	0.41
58:N2:95:PHE:C	58:N2:95:PHE:CD2	2.98	0.41
59:N3:10:LYS:HG2	59:N3:11:PHE:O	2.20	0.41
59:N3:11:PHE:CD2	59:N3:88:ARG:CZ	3.04	0.41
59:N3:45:ARG:HD2	59:N3:46:LEU:N	2.36	0.41
64:N8:96:LYS:C	64:N8:98:THR:H	2.29	0.41
67:O1:51:LEU:HD23	67:O1:51:LEU:HA	1.82	0.41
67:O1:72:ARG:C	67:O1:96:VAL:HG13	2.46	0.41
70:O4:99:LYS:HB2	70:O4:99:LYS:HE3	1.76	0.41
79:Q3:73:THR:CG2	79:Q3:76:ALA:H	2.34	0.41
79:Q3:81:SER:HA	79:Q3:84:ARG:HB2	2.03	0.41
1:6:37:U:H2'	1:6:38:C:O4'	2.21	0.41
1:6:52:U:H2'	1:6:53:G:C8	2.56	0.41
1:6:86:A:HO2'	1:6:147:A:HO2'	1.64	0.41
1:6:140:A:H1'	8:s6:179:VAL:HG21	2.02	0.41
1:6:367:A:H2'	1:6:368:U:O4'	2.21	0.41
1:6:518:A:C2'	1:6:519:C:H5''	2.51	0.41
1:6:600:U:OP2	25:d3:108:GLY:HA2	2.20	0.41
1:6:765:G:C6	11:s9:149:ARG:HD2	2.56	0.41
1:6:765:G:N3	1:6:765:G:C2'	2.83	0.41
1:6:814:A:O2'	1:6:815:G:H3'	2.21	0.41
1:6:817:A:H2'	1:6:818:C:C6	2.56	0.41
1:6:900:A:O2'	1:6:901:G:H5'	2.21	0.41
1:6:994:G:O2'	1:6:995:A:H5'	2.20	0.41
1:6:1157:A:C2	1:6:1622:G:C2	3.08	0.41
1:6:1171:A:H2'	1:6:1172:G:C8	2.55	0.41
1:6:1252:C:H1'	33:e1:133:ALA:HB2	2.03	0.41
1:6:1477:G:C2	1:6:1531:G:N3	2.88	0.41
1:6:1479:A:P	21:c9:57:ARG:HH12	2.44	0.41
1:6:1514:U:H5''	1:6:1515:A:C4	2.56	0.41
1:6:1541:G:C5	1:6:1542:G:C6	3.09	0.41
1:6:1637:C:O2'	35:sM:93:ARG:HB2	2.20	0.41
1:6:1724:U:H2'	1:6:1725:U:H6	1.83	0.41
1:6:1756:A:OP1	82:6:2013:GET:N32	2.54	0.41
1:6:1757:G:O6	82:6:2013:GET:H621	2.21	0.41
2:s0:9:LEU:HA	2:s0:54:TRP:CD1	2.56	0.41
2:s0:109:ASN:H	4:s2:64:LYS:HZ2	1.69	0.41
2:s0:184:LEU:HD13	2:s0:184:LEU:HA	1.69	0.41
3:s1:23:PRO:HB3	3:s1:26:ARG:CZ	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:s2:169:LEU:CD1	4:s2:218:ILE:HG23	2.50	0.41
4:s2:174:ARG:O	11:s9:97:LEU:HD13	2.20	0.41
5:s3:220:PRO:HB2	5:s3:221:SER:H	1.54	0.41
6:s4:180:LEU:HD13	6:s4:228:ILE:HG13	2.02	0.41
7:s5:37:GLN:CD	18:c6:53:LEU:HD22	2.45	0.41
7:s5:38:THR:OG1	18:c6:57:LEU:HD21	2.21	0.41
7:s5:93:LEU:HD23	7:s5:93:LEU:HA	1.85	0.41
8:s6:14:LYS:HG2	8:s6:15:THR:N	2.36	0.41
9:s7:40:PRO:HG2	9:s7:41:LEU:HD23	2.03	0.41
10:s8:66:SER:HA	10:s8:73:SER:HA	2.02	0.41
10:s8:107:THR:OG1	10:s8:108:PRO:HD3	2.21	0.41
14:c2:24:ILE:C	14:c2:26:ASP:H	2.29	0.41
14:c2:97:LEU:CD1	14:c2:118:ALA:HB1	2.51	0.41
15:c3:92:ILE:CD1	15:c3:139:TRP:HH2	2.33	0.41
18:c6:16:ALA:HB2	18:c6:76:SER:OG	2.20	0.41
20:c8:49:LYS:HG3	20:c8:81:ILE:HD11	2.02	0.41
24:d2:40:VAL:HG13	24:d2:43:LYS:HE2	2.03	0.41
25:d3:43:PHE:N	25:d3:43:PHE:CD1	2.88	0.41
26:d4:10:ARG:HB3	26:d4:10:ARG:HH11	1.86	0.41
34:sR:129:LYS:HG2	34:sR:149:ASP:O	2.21	0.41
36:5:43:A:N1	36:5:2420:C:O2'	2.52	0.41
36:5:76:G:O2'	49:m3:100:ARG:HG3	2.21	0.41
36:5:185:C:C5'	62:n6:122:LYS:HA	2.45	0.41
36:5:338:A:H2	36:5:1380:G:N2	2.19	0.41
36:5:363:G:C2'	36:5:364:G:H5'	2.51	0.41
36:5:510:G:H1'	36:5:582:G:N2	2.36	0.41
36:5:532:A:H2'	36:5:533:A:H8	1.85	0.41
36:5:591:G:H4'	36:5:592:A:OP1	2.19	0.41
36:5:595:G:O2'	36:5:596:C:H5'	2.21	0.41
36:5:692:A:O2'	36:5:693:A:H5'	2.21	0.41
36:5:836:A:C2	36:5:858:A:H1'	2.56	0.41
36:5:865:U:C5	36:5:866:A:N7	2.89	0.41
36:5:966:U:C2	36:5:967:A:C8	3.09	0.41
36:5:999:G:H1'	36:5:1002:A:H62	1.85	0.41
36:5:1065:A:C4	65:n9:28:LYS:HB2	2.55	0.41
36:5:1133:A:C2'	36:5:1134:G:H5'	2.50	0.41
36:5:1261:G:O6	80:p0:35:SER:HB3	2.20	0.41
36:5:1340:G:C4	36:5:1341:U:C5	3.09	0.41
36:5:1380:G:C2	36:5:1381:A:C8	3.08	0.41
36:5:1385:C:OP1	41:l4:141:ARG:NH1	2.40	0.41
36:5:1475:A:H3'	82:5:3845:GET:O41	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1556:C:O5'	36:5:2169:G:N1	2.53	0.41
36:5:1709:C:C2	36:5:1736:G:N2	2.89	0.41
36:5:1832:C:C6	36:5:1832:C:H3'	2.56	0.41
36:5:1942:U:H2'	36:5:1943:C:O4'	2.21	0.41
36:5:2328:U:H2'	36:5:2329:C:H6	1.84	0.41
36:5:2333:C:H2'	36:5:2334:U:O4'	2.21	0.41
36:5:2608:G:H2'	36:5:2609:A:H8	1.86	0.41
36:5:2632:G:C5	36:5:2633:U:C5	3.09	0.41
36:5:2689:A:N3	36:5:2689:A:H2'	2.35	0.41
36:5:2726:C:C5	36:5:2728:G:C4	3.09	0.41
36:5:2795:U:O2	36:5:2800:G:H1'	2.21	0.41
36:5:2916:U:H5	36:5:2935:U:HO2'	1.66	0.41
36:5:2947:G:C2	40:l3:250:ALA:HB1	2.55	0.41
36:5:3007:U:H2'	36:5:3008:A:C8	2.55	0.41
36:5:3129:A:H2'	36:5:3130:A:H5''	2.02	0.41
36:5:3182:G:C4	36:5:3183:A:C8	3.08	0.41
36:5:3221:C:H2'	36:5:3222:U:O4'	2.21	0.41
36:5:3238:G:N2	36:5:3250:U:H1'	2.36	0.41
36:5:3266:G:C6	36:5:3267:A:C6	3.08	0.41
36:5:3332:U:OP1	60:n4:35:LYS:HE3	2.21	0.41
37:7:28:C:H5''	48:m1:137:ARG:HG2	2.03	0.41
38:8:96:A:OP1	73:o7:80:THR:HG22	2.21	0.41
38:8:136:G:OP1	61:n5:48:SER:OG	2.35	0.41
39:l2:46:LYS:O	39:l2:84:THR:HG22	2.20	0.41
39:l2:58:LEU:HA	39:l2:58:LEU:HD23	1.64	0.41
40:l3:92:TYR:CE1	40:l3:159:ARG:HD2	2.55	0.41
41:l4:198:ARG:HD3	41:l4:199:TRP:HE1	1.86	0.41
43:l6:66:SER:C	43:l6:68:PRO:HA	2.45	0.41
45:l8:136:LEU:O	45:l8:140:VAL:HG23	2.21	0.41
46:l9:55:VAL:HB	46:l9:68:LEU:HD21	2.02	0.41
46:l9:103:ILE:HD11	46:l9:134:ILE:HG21	2.03	0.41
46:l9:166:ARG:HH21	46:l9:168:ARG:HH22	1.67	0.41
49:m3:107:GLU:H	49:m3:107:GLU:HG2	1.46	0.41
49:m3:114:GLN:O	49:m3:114:GLN:HG3	2.19	0.41
53:m7:20:SER:HB3	53:m7:21:TYR:HD2	1.86	0.41
53:m7:39:TRP:O	53:m7:113:TYR:HB2	2.20	0.41
55:m9:67:ALA:HA	55:m9:70:LYS:HB2	2.01	0.41
56:n0:2:ALA:HB3	56:n0:32:SER:CB	2.48	0.41
59:n3:97:ASP:OD2	59:n3:97:ASP:N	2.54	0.41
61:n5:139:ILE:HG13	61:n5:139:ILE:H	1.63	0.41
66:o0:10:ILE:O	66:o0:13:LYS:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:o1:40:ALA:O	67:o1:43:HIS:O	2.39	0.41
71:o5:119:LYS:HD2	71:o5:119:LYS:HA	1.41	0.41
73:o7:18:LEU:CD1	75:o9:51:ILE:HG22	2.50	0.41
74:o8:16:ARG:CZ	74:o8:70:PRO:HG3	2.51	0.41
79:q3:10:ILE:HG13	79:q3:13:LYS:HE3	2.03	0.41
1:2:54:C:O2'	26:D4:109:LYS:HD3	2.21	0.41
1:2:258:C:N4	1:2:259:U:O4	2.53	0.41
1:2:559:C:O2'	1:2:560:U:H5'	2.21	0.41
1:2:682:C:H2'	1:2:683:C:O4'	2.21	0.41
1:2:692:C:H2'	1:2:693:U:O4'	2.21	0.41
1:2:755:A:C6	1:2:756:A:C6	3.09	0.41
1:2:1363:U:H3'	1:2:1364:G:C8	2.54	0.41
1:2:1524:A:N6	1:2:1525:A:N6	2.69	0.41
2:S0:63:ILE:HG23	23:D1:35:ASN:O	2.21	0.41
2:S0:148:ASP:HB2	2:S0:164:ASN:OD1	2.20	0.41
3:S1:107:THR:HG21	16:C4:117:ASP:O	2.20	0.41
5:S3:143:ARG:HD3	35:SM:108:GLN:HB3	2.03	0.41
5:S3:167:PHE:HD1	5:S3:190:ARG:HH11	1.69	0.41
6:S4:180:LEU:HD23	6:S4:194:THR:CG2	2.50	0.41
7:S5:45:LYS:HD3	7:S5:45:LYS:HA	1.72	0.41
7:S5:97:LEU:HD23	7:S5:97:LEU:HA	1.74	0.41
8:S6:7:TYR:CE2	8:S6:9:VAL:HB	2.56	0.41
10:S8:82:VAL:HG21	10:S8:103:GLN:HG3	2.03	0.41
17:C5:22:LEU:O	17:C5:26:LEU:HD22	2.21	0.41
17:C5:37:ALA:HB1	17:C5:38:PRO:HD2	2.01	0.41
22:D0:48:HIS:CE1	22:D0:50:LEU:HD11	2.56	0.41
23:D1:25:LYS:HE3	23:D1:27:ASP:OD1	2.20	0.41
34:SR:117:LYS:NZ	34:SR:159:ASN:HB2	2.36	0.41
36:1:236:G:C6	36:1:237:G:N7	2.89	0.41
36:1:668:G:C5	36:1:795:G:C2	3.09	0.41
36:1:1510:G:H2'	36:1:1512:U:C5	2.56	0.41
36:1:1591:G:H4'	36:1:1656:A:OP1	2.20	0.41
36:1:1604:G:H4'	36:1:1835:A:H4'	2.03	0.41
36:1:1719:G:C4'	36:1:1732:U:H4'	2.51	0.41
36:1:2127:U:O2'	36:1:2128:C:H5'	2.20	0.41
36:1:2249:G:H2'	36:1:2250:G:H8	1.85	0.41
36:1:2828:G:P	47:M0:7:ARG:HH12	2.44	0.41
36:1:3106:A:H2'	36:1:3107:U:O4'	2.21	0.41
36:1:3294:A:H2'	36:1:3295:A:O4'	2.21	0.41
36:1:3316:A:OP1	36:1:3318:G:N2	2.54	0.41
37:3:28:C:OP1	48:M1:137:ARG:HD3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:6:U:C2	38:4:7:U:C5	3.09	0.41
38:4:143:U:C4	38:4:144:G:N7	2.89	0.41
39:L2:67:TYR:CD2	39:L2:67:TYR:N	2.89	0.41
39:L2:242:ARG:NH1	39:L2:246:LEU:HG	2.35	0.41
40:L3:347:SER:C	40:L3:349:LYS:N	2.79	0.41
41:L4:317:PRO:C	41:L4:319:LYS:N	2.79	0.41
43:L6:4:GLN:OE1	68:O2:75:LEU:HB2	2.21	0.41
45:L8:94:PHE:CE2	45:L8:200:LEU:HG	2.56	0.41
45:L8:141:ALA:HA	45:L8:144:GLU:OE2	2.21	0.41
47:M0:89:VAL:HG13	47:M0:136:PHE:CE1	2.54	0.41
51:M5:38:ARG:HD3	51:M5:39:ALA:N	2.35	0.41
54:M8:170:ARG:O	54:M8:171:LYS:CB	2.69	0.41
56:N0:14:LEU:HA	56:N0:15:PRO:HD3	1.95	0.41
56:N0:90:MET:HE1	56:N0:114:HIS:CD2	2.56	0.41
58:N2:43:VAL:HG21	58:N2:50:LEU:N	2.36	0.41
63:N7:88:ASP:HB3	63:N7:121:ARG:NH2	2.34	0.41
63:N7:134:LEU:HD22	63:N7:135:ARG:N	2.36	0.41
64:N8:7:LYS:HA	64:N8:7:LYS:HD2	1.82	0.41
67:O1:19:ARG:HD3	67:O1:35:GLU:HG2	2.02	0.41
79:Q3:73:THR:HG22	79:Q3:76:ALA:H	1.86	0.41
1:6:918:U:H5''	16:c4:18:ARG:HD2	2.02	0.41
1:6:977:A:P	84:6:2158:HOH:O	2.78	0.41
1:6:1325:A:OP1	19:c7:11:ARG:NH1	2.54	0.41
1:6:1438:G:C6	1:6:1439:C:C4	3.09	0.41
1:6:1491:U:H4'	1:6:1492:A:C5'	2.51	0.41
2:s0:147:THR:OG1	2:s0:159:ALA:HB1	2.21	0.41
5:s3:216:PRO:O	5:s3:217:ILE:C	2.64	0.41
6:s4:104:ASP:HB2	6:s4:108:ARG:N	2.29	0.41
6:s4:174:LYS:HB3	6:s4:174:LYS:HE3	1.86	0.41
9:s7:10:SER:O	9:s7:11:GLN:HB2	2.20	0.41
10:s8:62:THR:HB	10:s8:75:LYS:HE3	2.03	0.41
11:s9:77:ILE:HG23	11:s9:86:LEU:HD23	2.03	0.41
11:s9:77:ILE:CG2	11:s9:91:LYS:HB3	2.49	0.41
16:c4:103:ARG:HH22	28:d6:48:ALA:HB1	1.86	0.41
16:c4:111:ARG:HD2	28:d6:56:ALA:O	2.21	0.41
26:d4:18:LEU:HA	26:d4:18:LEU:HD23	1.86	0.41
28:d6:87:ARG:HB2	28:d6:92:ARG:HG2	2.03	0.41
30:d8:33:LEU:HB3	30:d8:34:GLU:H	1.58	0.41
36:5:54:C:H5''	36:5:1548:C:H1'	2.02	0.41
36:5:59:G:H4'	36:5:60:A:H4'	2.03	0.41
36:5:175:C:N3	36:5:244:G:N2	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:576:C:C2	36:5:577:C:C5	3.08	0.41
36:5:692:A:OP1	51:m5:201:ARG:NH2	2.52	0.41
36:5:853:G:N2	55:m9:129:GLY:O	2.54	0.41
36:5:916:G:P	84:5:4020:HOH:O	2.78	0.41
36:5:1010:G:N2	47:m0:193:ASP:OD1	2.54	0.41
36:5:1119:C:C2	36:5:1140:G:N2	2.89	0.41
36:5:1647:A:H2'	36:5:1648:A:O4'	2.21	0.41
36:5:2126:A:H2'	36:5:2127:U:C6	2.56	0.41
36:5:2251:G:H5''	36:5:2252:A:OP2	2.21	0.41
36:5:2842:U:C2	36:5:2843:U:C5	3.09	0.41
36:5:3334:U:O2'	36:5:3368:U:O2	2.36	0.41
38:8:120:C:O2'	38:8:121:U:H5'	2.21	0.41
40:l3:370:PHE:CE2	40:l3:376:LYS:HG3	2.56	0.41
41:l4:188:ARG:NE	41:l4:197:ARG:HB3	2.36	0.41
41:l4:198:ARG:HD3	41:l4:199:TRP:NE1	2.36	0.41
42:l5:22:ARG:HH21	42:l5:27:LYS:HD3	1.87	0.41
42:l5:40:HIS:CE1	57:n1:69:LYS:HB2	2.56	0.41
42:l5:113:LEU:HA	42:l5:113:LEU:HD12	1.77	0.41
42:l5:115:LEU:HD12	42:l5:119:TYR:HD2	1.85	0.41
42:l5:120:LYS:O	42:l5:248:ARG:NH2	2.54	0.41
45:l8:97:TYR:CE1	45:l8:203:VAL:HA	2.56	0.41
53:m7:120:ASN:OD1	53:m7:120:ASN:N	2.54	0.41
54:m8:19:PRO:HD3	54:m8:53:PHE:HD1	1.85	0.41
55:m9:180:LYS:HD3	55:m9:184:LEU:HD12	2.03	0.41
57:n1:48:ILE:HG13	57:n1:94:GLU:HG2	2.03	0.41
58:n2:37:LEU:HD13	58:n2:37:LEU:HA	1.80	0.41
59:n3:81:GLN:NE2	59:n3:85:TRP:HE3	2.19	0.41
60:n4:126:GLU:HA	60:n4:129:LYS:HE3	2.03	0.41
68:o2:26:HIS:C	68:o2:26:HIS:ND1	2.79	0.41
70:o4:82:ALA:O	70:o4:85:VAL:N	2.53	0.41
74:o8:43:PHE:O	74:o8:53:THR:HA	2.21	0.41
80:p0:56:ASN:HB3	80:p0:60:ARG:NH2	2.36	0.41
1:2:142:G:C8	1:2:266:A:C2	3.09	0.40
1:2:552:G:C6	1:2:553:G:C6	3.08	0.40
1:2:649:U:H2'	1:2:650:U:H1'	2.03	0.40
1:2:802:G:H21	24:D2:107:SER:HB3	1.86	0.40
1:2:966:A:H5''	15:C3:4:MET:HE2	2.02	0.40
1:2:1175:U:H2'	1:2:1176:G:C8	2.56	0.40
1:2:1353:U:H2'	1:2:1354:G:C8	2.56	0.40
1:2:1360:A:H2	1:2:1364:G:N1	2.17	0.40
1:2:1503:A:H2'	1:2:1504:G:O4'	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1542:G:H5''	21:C9:88:VAL:N	2.36	0.40
1:2:1627:U:C4	1:2:1628:U:C4	3.09	0.40
1:2:1660:A:H2'	1:2:1661:U:C6	2.56	0.40
1:2:1676:U:O2	1:2:1726:G:C2	2.74	0.40
1:2:1746:A:H3'	1:2:1747:G:H8	1.86	0.40
3:S1:140:ILE:HB	3:S1:213:ARG:HD3	2.03	0.40
3:S1:146:GLN:O	3:S1:149:GLN:NE2	2.54	0.40
10:S8:147:ALA:C	10:S8:149:SER:N	2.78	0.40
14:C2:52:LEU:HD21	14:C2:60:VAL:HG22	2.01	0.40
20:C8:24:GLY:O	20:C8:26:ILE:HG23	2.20	0.40
21:C9:113:ILE:C	21:C9:125:SER:HB3	2.46	0.40
22:D0:63:LEU:HB3	31:D9:34:TYR:CE2	2.56	0.40
31:D9:19:ARG:HD2	31:D9:32:ARG:CD	2.45	0.40
36:1:304:G:N7	64:N8:62:HIS:CD2	2.89	0.40
36:1:426:G:C2	36:1:634:C:O2	2.73	0.40
36:1:915:A:H8	36:1:2136:C:O2'	2.04	0.40
36:1:1491:A:N6	36:1:1838:G:N2	2.69	0.40
36:1:1580:A:O2'	36:1:1581:C:C5	2.74	0.40
36:1:1664:G:C4	36:1:1786:G:N2	2.89	0.40
36:1:1805:C:O2'	70:O4:76:TYR:CD1	2.74	0.40
36:1:1948:G:C2	36:1:2099:A:C2	3.09	0.40
36:1:2100:A:N7	36:1:2101:C:N4	2.69	0.40
36:1:2126:A:H2'	36:1:2127:U:C6	2.52	0.40
36:1:2275:A:H2'	36:1:2276:G:O4'	2.21	0.40
37:3:71:G:N2	37:3:107:C:N3	2.66	0.40
38:4:95:G:OP2	73:O7:72:ARG:NH1	2.54	0.40
39:L2:4:VAL:HG13	39:L2:8:GLN:HB2	2.03	0.40
41:L4:281:ILE:HG13	54:M8:125:ASP:OD2	2.20	0.40
42:L5:99:TYR:CD1	42:L5:99:TYR:C	2.98	0.40
43:L6:43:LEU:HD21	43:L6:85:ILE:HG13	2.02	0.40
45:L8:158:ASP:HB3	45:L8:159:PRO:HD3	2.03	0.40
49:M3:80:VAL:HG11	49:M3:87:ALA:HA	2.03	0.40
50:M4:40:ASP:OD1	50:M4:43:LYS:N	2.54	0.40
51:M5:6:TYR:CE2	72:O6:43:LEU:HD12	2.54	0.40
51:M5:15:GLN:O	51:M5:20:ARG:HD3	2.21	0.40
58:N2:52:ASN:O	58:N2:52:ASN:CG	2.64	0.40
61:N5:58:ASP:O	61:N5:62:VAL:HG23	2.21	0.40
61:N5:117:ASN:OD1	61:N5:117:ASN:N	2.52	0.40
63:N7:46:ILE:HD13	63:N7:68:ILE:HG23	2.04	0.40
64:N8:32:ARG:HH11	64:N8:32:ARG:HD3	1.77	0.40
64:N8:47:LYS:HE2	64:N8:48:TYR:CE2	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:52:TYR:CD2	64:N8:52:TYR:C	2.99	0.40
64:N8:65:GLN:H	64:N8:65:GLN:HG2	1.67	0.40
67:O1:57:GLN:O	67:O1:61:LYS:N	2.54	0.40
69:O3:90:PRO:O	69:O3:91:ALA:HB3	2.20	0.40
70:O4:99:LYS:O	70:O4:103:LYS:HG2	2.21	0.40
71:O5:24:LEU:HD23	71:O5:24:LEU:HA	1.87	0.40
73:O7:18:LEU:HD11	75:O9:51:ILE:HG23	2.02	0.40
1:6:452:A:H3'	1:6:453:U:C6	2.56	0.40
1:6:765:G:H22	11:s9:146:PHE:HZ	1.67	0.40
1:6:994:G:C2'	1:6:995:A:H5'	2.51	0.40
1:6:1065:A:H2'	1:6:1066:C:O4'	2.21	0.40
1:6:1342:C:H2'	1:6:1343:U:C6	2.56	0.40
1:6:1616:G:O2'	30:d8:18:ARG:CZ	2.68	0.40
1:6:1681:A:H8	8:s6:65:GLN:HG3	1.84	0.40
1:6:1756:A:H2'	36:5:2256:A:H61	1.76	0.40
2:s0:198:MET:SD	2:s0:199:PRO:HD2	2.61	0.40
5:s3:116:ARG:NH2	35:sM:113:ASP:OD1	2.41	0.40
8:s6:28:PHE:C	8:s6:30:LYS:H	2.29	0.40
8:s6:148:SER:H	8:s6:151:ASP:HB2	1.86	0.40
15:c3:20:ARG:HD3	24:d2:56:HIS:NE2	2.36	0.40
17:c5:30:THR:O	17:c5:34:VAL:HG13	2.21	0.40
18:c6:83:GLN:HE21	18:c6:87:LYS:HD2	1.86	0.40
32:e0:44:PHE:HD1	32:e0:44:PHE:O	2.04	0.40
36:5:87:U:C5	36:5:98:G:C2	3.09	0.40
36:5:153:U:O3'	36:5:158:G:H4'	2.21	0.40
36:5:513:G:O2'	36:5:514:G:H5'	2.22	0.40
36:5:817:A:C2	73:o7:11:ARG:HB3	2.56	0.40
36:5:895:A:O2'	36:5:897:U:H5'	2.21	0.40
36:5:929:A:C2	36:5:930:U:C2	3.09	0.40
36:5:1003:A:H1'	42:l5:15:ARG:CZ	2.51	0.40
36:5:1159:A:O2'	36:5:1160:C:H5'	2.21	0.40
36:5:1505:C:H42	36:5:1506:A:N6	2.19	0.40
36:5:1581:C:H4'	36:5:1582:C:OP1	2.20	0.40
36:5:1701:C:H2'	36:5:1702:U:O4'	2.21	0.40
36:5:1746:U:H2'	36:5:1747:G:C8	2.55	0.40
36:5:1763:U:H3'	36:5:1764:U:C6	2.57	0.40
36:5:2213:A:N1	36:5:2429:G:H1'	2.35	0.40
36:5:2660:G:OP1	36:5:2750:U:O2'	2.39	0.40
36:5:3020:U:C4	36:5:3021:A:C5	3.09	0.40
38:8:138:A:C2	38:8:139:U:N1	2.89	0.40
40:l3:46:PHE:CE2	40:l3:84:VAL:HG13	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:l5:86:TYR:CE1	42:l5:247:ILE:HA	2.56	0.40
44:l7:158:LYS:O	44:l7:203:TRP:HZ3	2.03	0.40
46:l9:65:VAL:HG12	46:l9:66:ALA:N	2.35	0.40
47:m0:40:LYS:HD2	47:m0:40:LYS:HA	1.91	0.40
47:m0:187:ALA:HB3	47:m0:189:GLU:HG3	2.04	0.40
49:m3:14:PHE:HD2	49:m3:18:TRP:CE2	2.38	0.40
49:m3:76:THR:O	49:m3:78:ALA:N	2.54	0.40
49:m3:116:LEU:HD23	49:m3:116:LEU:HA	1.75	0.40
50:m4:47:ASP:OD1	50:m4:55:ARG:HB2	2.21	0.40
51:m5:4:TYR:CE1	51:m5:49:ARG:HD3	2.56	0.40
56:n0:155:ARG:NH2	56:n0:172:TYR:N	2.68	0.40
57:n1:7:TYR:CZ	57:n1:54:HIS:HB2	2.57	0.40
59:n3:81:GLN:H	59:n3:95:PHE:HD2	1.69	0.40
62:n6:57:LEU:HD22	62:n6:58:VAL:N	2.35	0.40
63:n7:51:LEU:HD12	63:n7:65:ARG:HD2	2.03	0.40
65:n9:21:ILE:O	65:n9:22:LYS:C	2.65	0.40
73:o7:53:ALA:HA	73:o7:56:ARG:HH11	1.86	0.40
74:o8:33:LYS:HB3	74:o8:33:LYS:HE2	1.95	0.40
75:o9:5:LYS:CD	75:o9:13:MET:HE1	2.47	0.40
78:q2:22:GLN:O	78:q2:75:VAL:HG22	2.21	0.40
1:2:57:G:H2'	1:2:58:U:O4'	2.21	0.40
1:2:281:G:C2	1:2:282:C:C4	3.09	0.40
1:2:838:G:H4'	13:C1:26:LYS:O	2.22	0.40
1:2:918:U:H2'	1:2:919:A:C8	2.56	0.40
1:2:1202:A:N1	1:2:1457:C:C5	2.89	0.40
1:2:1231:U:O5'	1:2:1259:U:H1'	2.21	0.40
1:2:1292:G:C5	1:2:1293:U:C4	3.09	0.40
1:2:1435:G:H4'	1:2:1436:A:H5'	2.04	0.40
7:S5:93:LEU:HD23	7:S5:93:LEU:HA	1.94	0.40
9:S7:76:LYS:HE2	9:S7:76:LYS:HB3	1.92	0.40
9:S7:157:LYS:C	9:S7:159:VAL:H	2.30	0.40
16:C4:83:ILE:HG22	16:C4:116:GLU:O	2.21	0.40
17:C5:68:PRO:HD2	17:C5:71:GLU:HB3	2.02	0.40
19:C7:115:LEU:HD22	19:C7:116:LYS:H	1.86	0.40
24:D2:104:LEU:HD23	24:D2:106:THR:HG23	2.03	0.40
26:D4:90:ARG:HA	26:D4:93:ARG:HB2	2.02	0.40
27:D5:38:HIS:CG	27:D5:39:ALA:N	2.88	0.40
29:D7:14:SER:O	29:D7:17:ARG:HG2	2.21	0.40
34:SR:19:TRP:CD2	34:SR:306:THR:HG22	2.56	0.40
34:SR:69:GLN:HG2	34:SR:111:MET:HA	2.02	0.40
34:SR:184:ASN:OD1	34:SR:184:ASN:N	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:40:A:C2	64:N8:40:HIS:CE1	3.09	0.40
36:1:112:U:O2'	36:1:113:C:OP2	2.27	0.40
36:1:188:U:H1'	36:1:208:C:H1'	2.03	0.40
36:1:198:A:O2'	36:1:218:G:C8	2.74	0.40
36:1:214:G:C2	36:1:215:G:C4	3.08	0.40
36:1:266:A:N6	72:O6:30:LYS:HA	2.36	0.40
36:1:563:U:OP1	56:N0:71:LYS:NZ	2.43	0.40
36:1:810:A:H2'	36:1:811:U:H6	1.86	0.40
36:1:1015:U:HO2'	36:1:1017:C:P	2.45	0.40
36:1:1115:G:N2	84:1:3979:HOH:O	2.54	0.40
36:1:1204:A:H2	36:1:2834:G:N3	2.20	0.40
36:1:1488:G:H21	70:O4:12:PRO:CG	2.34	0.40
36:1:1718:G:C2	36:1:1727:G:N1	2.89	0.40
36:1:1744:G:C6	36:1:1745:C:N4	2.89	0.40
36:1:2147:A:H2'	36:1:2148:U:C6	2.56	0.40
36:1:2207:A:C2'	36:1:2208:A:H8	2.33	0.40
36:1:2344:U:C2	36:1:2345:A:C8	3.10	0.40
36:1:2413:A:O5'	36:1:2413:A:H8	2.04	0.40
36:1:2555:G:C2	70:O4:92:ALA:HA	2.56	0.40
36:1:2696:A:N7	36:1:2758:A:N6	2.68	0.40
36:1:3338:C:H2'	36:1:3339:A:O4'	2.21	0.40
36:1:3349:C:H6	36:1:3349:C:O5'	2.04	0.40
82:1:3811:GET:H322	82:1:3811:GET:H511	1.86	0.40
37:3:59:U:C2	37:3:60:G:C8	3.09	0.40
41:L4:120:TYR:CE2	41:L4:277:PRO:HB3	2.55	0.40
42:L5:22:ARG:HG2	42:L5:28:THR:OG1	2.21	0.40
42:L5:108:ARG:CZ	42:L5:253:PHE:HB2	2.50	0.40
43:L6:18:LEU:N	43:L6:18:LEU:HD22	2.36	0.40
43:L6:39:VAL:HG13	43:L6:159:LEU:HD21	2.03	0.40
44:L7:95:ILE:HA	44:L7:96:PRO:HD3	1.91	0.40
46:L9:88:TYR:CZ	46:L9:184:LYS:HG2	2.57	0.40
47:M0:75:TYR:CE2	47:M0:79:VAL:HG21	2.56	0.40
51:M5:80:THR:HG22	51:M5:82:GLY:N	2.35	0.40
56:N0:94:ILE:HG21	56:N0:102:ALA:HA	2.02	0.40
56:N0:132:THR:C	56:N0:134:ASP:H	2.29	0.40
61:N5:136:ALA:O	61:N5:139:ILE:N	2.53	0.40
63:N7:102:GLU:O	63:N7:103:GLN:HB2	2.21	0.40
64:N8:25:HIS:ND1	64:N8:25:HIS:C	2.78	0.40
64:N8:79:TRP:CE3	64:N8:82:ILE:HD12	2.57	0.40
68:O2:9:ILE:HG23	68:O2:63:THR:HB	2.02	0.40
69:O3:16:TYR:CZ	69:O3:91:ALA:HB2	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:82:ALA:C	70:O4:84:CYS:N	2.75	0.40
72:O6:26:ILE:H	72:O6:26:ILE:CD1	2.34	0.40
75:O9:7:PHE:O	75:O9:8:ARG:C	2.63	0.40
1:6:321:C:H1'	1:6:322:G:OP1	2.21	0.40
1:6:388:G:OP1	1:6:402:C:H5	2.03	0.40
1:6:881:A:H2'	1:6:882:U:O4'	2.20	0.40
1:6:981:U:O2'	1:6:1123:C:N3	2.47	0.40
1:6:1010:C:H2'	1:6:1011:G:O4'	2.22	0.40
1:6:1126:G:H5''	1:6:1126:G:H8	1.86	0.40
1:6:1211:A:H1'	17:c5:100:LYS:HA	2.03	0.40
1:6:1679:G:C6	1:6:1680:G:C6	3.09	0.40
1:6:1750:A:H2'	1:6:1751:C:O4'	2.21	0.40
1:6:1754:A:O2'	32:e0:2:ALA:HB1	2.21	0.40
1:6:1793:G:N1	28:d6:75:VAL:HB	2.37	0.40
2:s0:15:GLN:HA	19:c7:100:LEU:HD11	2.03	0.40
2:s0:119:ARG:NH1	4:s2:241:ASP:OD1	2.55	0.40
5:s3:52:ALA:HB3	5:s3:58:VAL:HG21	2.02	0.40
5:s3:64:ARG:C	5:s3:66:ILE:H	2.28	0.40
5:s3:72:LEU:HD22	12:c0:65:TYR:HB3	2.03	0.40
5:s3:115:ILE:HG12	35:sM:109:GLY:O	2.21	0.40
9:s7:121:VAL:O	9:s7:124:LYS:N	2.53	0.40
14:c2:136:ILE:O	14:c2:140:PHE:HB2	2.21	0.40
15:c3:88:LEU:HA	15:c3:88:LEU:HD23	1.87	0.40
16:c4:31:THR:CB	16:c4:38:THR:HA	2.51	0.40
16:c4:87:GLY:O	16:c4:90:ARG:HB2	2.20	0.40
19:c7:90:ALA:N	19:c7:95:ARG:CA	2.84	0.40
19:c7:95:ARG:N	19:c7:96:SER:HA	2.37	0.40
20:c8:120:ARG:HE	35:sM:61:ILE:CG2	2.32	0.40
21:c9:56:LYS:HD3	21:c9:56:LYS:HA	1.88	0.40
24:d2:24:GLN:NE2	29:d7:4:VAL:HA	2.36	0.40
24:d2:111:MET:HE1	24:d2:121:VAL:HG21	2.03	0.40
29:d7:63:LEU:HD23	29:d7:63:LEU:HA	1.99	0.40
29:d7:82:LYS:HE3	29:d7:82:LYS:HB2	1.69	0.40
36:5:36:C:O2'	36:5:808:A:N1	2.46	0.40
36:5:250:U:H3'	36:5:251:G:C5'	2.50	0.40
36:5:277:G:H4'	51:m5:91:GLU:HB3	2.03	0.40
36:5:612:U:H2'	36:5:613:G:C8	2.56	0.40
36:5:673:U:H2'	36:5:674:G:C8	2.56	0.40
36:5:738:A:OP2	82:5:3851:GET:N21	2.54	0.40
36:5:817:A:N3	73:o7:11:ARG:HB3	2.36	0.40
36:5:818:C:C2	36:5:920:A:H5'	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:846:A:H2'	36:5:847:A:O4'	2.21	0.40
36:5:1202:A:N6	36:5:1301:A:C8	2.89	0.40
36:5:1327:C:O2'	36:5:1328:C:H5'	2.20	0.40
36:5:1549:U:O2'	36:5:1550:C:H5'	2.20	0.40
36:5:1718:G:C2	36:5:1727:G:C2	3.09	0.40
36:5:1854:C:O2	70:o4:13:TYR:HE1	2.05	0.40
36:5:1940:G:OP1	55:m9:80:LYS:HE3	2.22	0.40
36:5:2270:A:C6	36:5:2271:A:C6	3.10	0.40
36:5:2567:C:H42	36:5:2568:C:H41	1.69	0.40
36:5:2841:G:H2'	36:5:2898:G:N2	2.35	0.40
36:5:2842:U:O2	36:5:2842:U:H2'	2.21	0.40
36:5:2847:A:N6	36:5:2848:G:C2	2.89	0.40
36:5:3039:C:OP1	40:l3:62:ARG:NH1	2.54	0.40
39:l2:15:ILE:HG22	39:l2:16:PHE:CD1	2.57	0.40
40:l3:37:ARG:HG2	40:l3:187:SER:H	1.87	0.40
41:l4:120:TYR:HD1	41:l4:120:TYR:O	2.04	0.40
44:l7:59:GLU:HG2	44:l7:60:ARG:N	2.35	0.40
46:l9:140:VAL:HG22	46:l9:143:GLU:HB2	2.03	0.40
47:m0:210:ILE:HA	47:m0:217:PHE:HE2	1.85	0.40
53:m7:131:ARG:HG3	53:m7:137:ASN:OD1	2.21	0.40
54:m8:41:ASP:O	54:m8:42:ALA:C	2.65	0.40
63:n7:38:PHE:CE2	63:n7:76:ASN:HB2	2.56	0.40
69:o3:74:THR:HA	69:o3:81:VAL:HG23	2.03	0.40
71:o5:90:ARG:H	71:o5:90:ARG:HG2	1.70	0.40
80:p0:206:ASP:C	80:p0:208:GLU:H	2.29	0.40
1:2:257:A:H8	1:2:257:A:H5''	1.86	0.40
1:2:333:A:OP1	10:S8:31:ARG:NH2	2.54	0.40
1:2:436:A:H8	1:2:436:A:O5'	2.05	0.40
1:2:474:A:OP1	11:S9:145:SER:HB2	2.21	0.40
1:2:486:G:C2	1:2:487:G:C4	3.09	0.40
1:2:605:A:C5	1:2:606:A:C2	3.10	0.40
1:2:611:U:P	25:D3:5:LYS:HZ3	2.44	0.40
1:2:788:A:OP2	6:S4:106:LYS:HE3	2.22	0.40
1:2:1094:G:H2'	1:2:1095:U:H6	1.86	0.40
1:2:1122:G:N2	1:2:1125:A:OP2	2.52	0.40
1:2:1191:U:H5'	18:C6:143:ARG:CZ	2.51	0.40
1:2:1241:G:H5'	17:C5:102:PHE:CZ	2.56	0.40
1:2:1360:A:H2	1:2:1364:G:C6	2.39	0.40
1:2:1530:C:H2'	1:2:1531:G:O4'	2.21	0.40
1:2:1552:U:HO2'	1:2:1597:A:HO2'	1.60	0.40
1:2:1663:G:C6	1:2:1739:C:N3	2.89	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:7:PHE:HD2	2:S0:7:PHE:HA	1.70	0.40
6:S4:31:PRO:HD2	6:S4:38:LEU:HD21	2.03	0.40
7:S5:100:ASN:HD22	7:S5:180:ARG:HD3	1.85	0.40
8:S6:25:ARG:HG3	8:S6:28:PHE:CD1	2.56	0.40
9:S7:30:SER:O	9:S7:31:SER:HB2	2.20	0.40
9:S7:117:THR:CG2	9:S7:120:ALA:H	2.34	0.40
10:S8:151:LYS:HD3	10:S8:151:LYS:O	2.21	0.40
20:C8:36:LYS:HA	20:C8:36:LYS:HD3	1.88	0.40
24:D2:29:PRO:HA	24:D2:59:GLY:O	2.21	0.40
26:D4:20:ARG:HD2	26:D4:74:LEU:HD13	2.02	0.40
28:D6:35:ALA:O	28:D6:36:ILE:HG22	2.21	0.40
34:SR:303:ALA:HB3	34:SR:313:TRP:HZ3	1.86	0.40
36:1:54:C:H5''	36:1:1548:C:H1'	2.04	0.40
36:1:667:C:N3	36:1:795:G:N1	2.50	0.40
36:1:863:C:H2'	36:1:864:G:H5'	2.03	0.40
36:1:1078:U:H1'	36:1:1082:U:O2	2.22	0.40
36:1:1364:C:H2'	36:1:1365:G:C8	2.56	0.40
36:1:1521:G:N2	36:1:1835:A:H1'	2.36	0.40
36:1:1523:U:H4'	84:N5:201:HOH:O	2.21	0.40
36:1:1788:C:H6	36:1:1788:C:H5''	1.86	0.40
36:1:2259:A:O5'	36:1:2259:A:H8	2.04	0.40
36:1:2610:G:C5	36:1:2611:U:C5	3.09	0.40
36:1:2998:U:C4	36:1:2999:U:C4	3.10	0.40
36:1:3374:U:H2'	36:1:3378:C:H41	1.86	0.40
37:3:97:A:C6	37:3:98:C:N4	2.89	0.40
38:4:14:C:N4	38:4:15:G:N1	2.69	0.40
38:4:52:A:C6	38:4:53:A:N7	2.89	0.40
38:4:82:U:O2'	38:4:83:C:P	2.79	0.40
40:L3:173:GLN:O	40:L3:175:LYS:N	2.53	0.40
41:L4:29:PRO:CA	41:L4:279:HIS:CE1	3.04	0.40
42:L5:23:ARG:HE	42:L5:23:ARG:C	2.28	0.40
42:L5:164:LYS:NZ	42:L5:168:ASP:OD1	2.42	0.40
43:L6:54:TYR:CD2	43:L6:55:LEU:N	2.89	0.40
44:L7:223:PHE:HA	44:L7:227:GLY:O	2.22	0.40
48:M1:7:ASN:HA	48:M1:10:ARG:HG2	2.03	0.40
50:M4:55:ARG:HH11	56:N0:70:THR:HB	1.86	0.40
56:N0:107:TYR:CE1	56:N0:118:PHE:CD1	3.06	0.40
61:N5:99:VAL:HG11	61:N5:124:VAL:HG11	2.02	0.40
62:N6:3:LYS:HE2	62:N6:8:VAL:O	2.21	0.40
66:O0:18:ILE:HD12	66:O0:18:ILE:HA	1.88	0.40
70:O4:57:LEU:HB3	70:O4:61:GLN:HB2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:O5:18:ALA:O	71:O5:22:VAL:HG23	2.21	0.40
1:6:93:A:H4'	1:6:94:U:OP2	2.22	0.40
1:6:186:C:C4	1:6:187:G:C5	3.10	0.40
1:6:538:A:C8	1:6:543:C:C4	3.08	0.40
1:6:949:C:C4	1:6:950:C:C5	3.08	0.40
1:6:1147:A:H2'	1:6:1148:C:H6	1.86	0.40
1:6:1588:G:C5	1:6:1589:C:C5	3.09	0.40
1:6:1728:A:H2'	1:6:1729:C:O4'	2.21	0.40
1:6:1784:C:H2'	1:6:1785:U:H6	1.87	0.40
3:s1:126:THR:HG22	3:s1:136:ARG:HG3	2.03	0.40
4:s2:133:LYS:O	4:s2:136:VAL:HG13	2.21	0.40
5:s3:98:ALA:HB2	5:s3:169:ASP:O	2.22	0.40
11:s9:143:ILE:HG22	11:s9:145:SER:H	1.86	0.40
17:c5:52:LYS:HD2	17:c5:54:ALA:HB3	2.02	0.40
18:c6:125:GLU:HB3	18:c6:134:ALA:HB2	2.03	0.40
20:c8:11:PHE:CE1	27:d5:41:ILE:HG12	2.56	0.40
20:c8:32:LEU:O	20:c8:38:VAL:HG21	2.21	0.40
20:c8:122:HIS:CE1	20:c8:126:ARG:HD3	2.57	0.40
20:c8:143:ARG:C	20:c8:145:ARG:H	2.30	0.40
27:d5:71:ILE:CG2	27:d5:76:ALA:HB2	2.51	0.40
29:d7:36:LYS:O	29:d7:77:THR:HG22	2.22	0.40
31:d9:12:ARG:HE	31:d9:12:ARG:HB2	1.66	0.40
34:sR:82:SER:OG	34:sR:92:TRP:NE1	2.40	0.40
34:sR:90:ARG:HD2	34:sR:92:TRP:CZ2	2.57	0.40
34:sR:112:SER:CB	34:sR:153:GLN:HA	2.50	0.40
34:sR:184:ASN:OD1	34:sR:185:GLN:N	2.50	0.40
36:5:80:G:O2'	36:5:326:U:H4'	2.21	0.40
36:5:215:G:OP1	62:n6:12:ARG:HG2	2.21	0.40
36:5:237:G:H2'	36:5:238:A:C8	2.56	0.40
36:5:292:U:P	51:m5:68:ARG:HH22	2.44	0.40
36:5:424:G:OP2	82:5:3850:GET:O23	2.39	0.40
36:5:725:G:C3'	36:5:726:G:H5''	2.44	0.40
36:5:830:A:H3'	36:5:831:G:H8	1.87	0.40
36:5:834:U:H5''	36:5:835:G:OP2	2.21	0.40
36:5:858:A:O2'	36:5:859:G:H5'	2.21	0.40
36:5:908:G:H3'	51:m5:81:TYR:OH	2.21	0.40
36:5:914:A:C2	39:l2:204:MET:HE3	2.57	0.40
36:5:1063:G:C6	36:5:1097:G:C5	3.09	0.40
36:5:1128:U:OP1	47:m0:4:ARG:NH2	2.48	0.40
36:5:1186:G:N3	56:n0:112:ALA:HB1	2.36	0.40
36:5:1213:G:H4'	56:n0:90:MET:SD	2.61	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1406:A:O2'	36:5:1407:A:H5'	2.21	0.40
36:5:1430:U:H2'	64:n8:9:ARG:HH22	1.86	0.40
36:5:1636:U:H5''	63:n7:73:LYS:NZ	2.37	0.40
36:5:1654:A:O2'	70:o4:59:PRO:HD3	2.21	0.40
36:5:1824:U:H2'	36:5:1825:G:H8	1.85	0.40
36:5:1948:G:C2	36:5:2099:A:C2	3.09	0.40
36:5:2208:A:H8	36:5:2209:U:O4'	2.04	0.40
36:5:2261:G:H21	36:5:2262:A:H61	1.70	0.40
36:5:2368:A:H2'	36:5:2369:G:H8	1.86	0.40
36:5:2540:A:H2'	36:5:2541:U:H2'	2.04	0.40
36:5:2630:C:H3'	57:n1:4:SER:OG	2.21	0.40
36:5:2872:A:H8	36:5:2872:A:H2'	1.66	0.40
36:5:3132:C:C2	36:5:3133:C:C5	3.09	0.40
36:5:3163:A:C6	36:5:3288:G:O6	2.74	0.40
36:5:3215:A:H8	50:m4:121:MET:CE	2.35	0.40
36:5:3308:C:C4	36:5:3309:G:C5	3.09	0.40
36:5:3324:C:C4	36:5:3325:G:N7	2.90	0.40
36:5:3334:U:H2'	82:5:3848:GET:H611	2.02	0.40
36:5:3335:A:OP1	82:5:3848:GET:O52	2.40	0.40
37:7:3:U:H2'	37:7:4:U:C6	2.57	0.40
39:12:6:ARG:HE	39:12:6:ARG:HB3	1.56	0.40
39:12:132:ASN:O	39:12:133:TYR:HB3	2.22	0.40
39:12:140:ASN:HD21	39:12:142:ASP:HB3	1.86	0.40
39:12:151:PRO:C	39:12:153:GLY:H	2.29	0.40
40:13:167:ARG:C	40:13:169:THR:H	2.27	0.40
41:14:62:ALA:HB2	41:14:77:VAL:HA	2.01	0.40
41:14:191:LYS:HG3	41:14:194:TYR:CE2	2.56	0.40
42:15:51:LEU:HD23	42:15:51:LEU:HA	1.94	0.40
43:16:51:ARG:HD2	43:16:158:TYR:CE2	2.56	0.40
43:16:52:VAL:HG13	43:16:65:ILE:HD12	2.03	0.40
44:17:88:ARG:HG2	44:17:110:ARG:O	2.22	0.40
44:17:103:LEU:HG	44:17:130:ILE:CG1	2.51	0.40
46:19:176:LEU:HB3	76:q0:86:ALA:CB	2.52	0.40
49:m3:59:ARG:O	49:m3:59:ARG:HG3	2.22	0.40
49:m3:85:LEU:HD13	49:m3:120:GLN:NE2	2.37	0.40
50:m4:16:GLU:HB3	56:n0:149:LYS:HB3	2.02	0.40
50:m4:20:VAL:HG22	50:m4:66:THR:OG1	2.21	0.40
53:m7:19:GLY:N	53:m7:94:LEU:HD21	2.36	0.40
54:m8:124:LEU:HD23	54:m8:124:LEU:HA	1.69	0.40
61:n5:76:VAL:HG22	61:n5:81:ILE:O	2.22	0.40
62:n6:52:ARG:HG2	62:n6:53:ASP:N	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:o3:57:LYS:HE3	69:o3:57:LYS:HB3	1.77	0.40
70:o4:44:CYS:N	70:o4:49:SER:O	2.46	0.40
71:o5:21:LEU:HG	71:o5:54:VAL:CG1	2.50	0.40
1:2:103:A:C4	1:2:309:C:N4	2.89	0.40
1:2:322:G:H4'	1:2:323:A:O5'	2.20	0.40
1:2:595:G:C2	1:2:596:C:C2	3.09	0.40
1:2:603:U:H2'	1:2:604:A:C8	2.57	0.40
1:2:927:C:C4	1:2:928:U:C4	3.10	0.40
1:2:1250:U:O2'	1:2:1251:U:OP1	2.37	0.40
1:2:1492:A:O2'	1:2:1493:A:OP2	2.33	0.40
1:2:1552:U:O2'	1:2:1597:A:O2'	2.30	0.40
1:2:1676:U:O2	1:2:1726:G:N1	2.55	0.40
2:S0:6:THR:C	2:S0:8:ASP:H	2.28	0.40
2:S0:71:GLU:HA	2:S0:94:GLY:C	2.46	0.40
2:S0:188:LEU:HD11	2:S0:195:TRP:CD1	2.56	0.40
5:S3:43:PRO:O	5:S3:44:THR:HB	2.22	0.40
6:S4:180:LEU:HA	6:S4:194:THR:HA	2.03	0.40
6:S4:211:LYS:NZ	6:S4:215:ASP:OD1	2.52	0.40
7:S5:91:GLU:HA	7:S5:94:THR:HG23	2.03	0.40
7:S5:140:THR:O	7:S5:142:PRO:HD3	2.21	0.40
7:S5:166:ARG:HD2	30:D8:46:GLY:HA3	2.02	0.40
8:S6:48:TYR:CD2	8:S6:117:GLY:HA3	2.56	0.40
8:S6:160:ARG:NH2	8:S6:171:LYS:HE2	2.36	0.40
9:S7:158:ASP:O	9:S7:161:GLN:HG3	2.22	0.40
10:S8:6:ASP:O	10:S8:9:HIS:NE2	2.55	0.40
13:C1:57:LYS:HA	13:C1:64:VAL:CG1	2.51	0.40
16:C4:124:ASP:O	16:C4:124:ASP:CG	2.65	0.40
21:C9:31:PRO:HD2	21:C9:54:PHE:CE1	2.56	0.40
25:D3:116:ASP:O	25:D3:118:PRO:HD3	2.22	0.40
26:D4:3:ASP:O	26:D4:4:ALA:HB3	2.21	0.40
28:D6:2:PRO:HB2	28:D6:3:LYS:H	1.75	0.40
35:SM:89:ARG:HA	35:SM:89:ARG:HD2	1.92	0.40
36:1:65:A:N1	36:1:109:A:O2'	2.54	0.40
36:1:676:G:O2'	36:1:678:G:H4'	2.22	0.40
36:1:817:A:N3	73:O7:11:ARG:HB3	2.37	0.40
36:1:1524:A:O2'	36:1:1526:U:OP2	2.33	0.40
36:1:1741:A:O2'	70:O4:38:LEU:HD21	2.20	0.40
36:1:2512:C:C4	36:1:2513:U:O4	2.74	0.40
36:1:2555:G:H21	70:O4:92:ALA:HB1	1.86	0.40
36:1:3062:G:OP1	82:1:3811:GET:H933	2.21	0.40
36:1:3088:G:H2'	36:1:3089:C:O4'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3383:G:H2'	36:1:3384:U:H6	1.86	0.40
82:1:3813:GET:H832	82:1:3813:GET:H933	2.03	0.40
37:3:14:U:C4	37:3:67:G:N2	2.89	0.40
37:3:121:U:OP2	42:L5:265:TYR:OH	2.33	0.40
38:4:9:A:H2'	38:4:10:A:C8	2.56	0.40
38:4:19:C:O2'	38:4:20:U:H5'	2.21	0.40
38:4:44:A:C2	38:4:45:C:C2	3.10	0.40
38:4:107:G:N2	38:4:116:G:C4	2.90	0.40
40:L3:106:TRP:O	40:L3:133:TYR:HE2	2.04	0.40
40:L3:198:HIS:O	40:L3:201:LYS:HB2	2.20	0.40
41:L4:302:ALA:HB2	54:M8:39:ARG:NH2	2.36	0.40
41:L4:361:HIS:O	56:N0:28:ARG:NH2	2.50	0.40
42:L5:200:PHE:HB3	42:L5:237:GLU:HA	2.03	0.40
42:L5:203:HIS:CE1	42:L5:204:VAL:HG23	2.56	0.40
51:M5:38:ARG:HD3	51:M5:38:ARG:C	2.46	0.40
51:M5:60:VAL:O	51:M5:61:ILE:HD13	2.22	0.40
53:M7:18:ARG:C	53:M7:94:LEU:HD21	2.46	0.40
54:M8:27:LYS:O	54:M8:30:VAL:HB	2.21	0.40
56:N0:10:ILE:HG12	56:N0:26:ARG:HB2	2.04	0.40
56:N0:93:GLU:OE1	56:N0:137:ARG:HB2	2.22	0.40
61:N5:57:LEU:HD12	61:N5:57:LEU:HA	1.83	0.40
67:O1:25:PHE:HD2	67:O1:25:PHE:HA	1.64	0.40
73:O7:69:HIS:HB3	73:O7:72:ARG:NH2	2.36	0.40
78:Q2:38:GLN:HA	78:Q2:38:GLN:NE2	2.37	0.40
1:6:239:C:C5	1:6:240:U:H1'	2.56	0.40
1:6:420:A:H2'	1:6:421:A:O4'	2.20	0.40
1:6:624:G:C6	1:6:625:C:C4	3.09	0.40
1:6:800:U:H2'	1:6:801:G:H8	1.82	0.40
1:6:1013:A:H2'	1:6:1014:G:O4'	2.20	0.40
1:6:1486:G:N3	1:6:1486:G:H2'	2.37	0.40
1:6:1490:C:N4	1:6:1492:A:C6	2.90	0.40
1:6:1545:A:H5''	20:c8:133:VAL:HB	2.02	0.40
1:6:1594:G:N2	1:6:1603:U:C2	2.89	0.40
2:s0:23:HIS:CE1	2:s0:24:LEU:HD13	2.57	0.40
4:s2:53:ILE:HD11	4:s2:73:LEU:HD22	2.03	0.40
4:s2:226:THR:H	4:s2:229:LEU:HD22	1.86	0.40
9:s7:19:GLN:HB3	9:s7:85:PHE:HZ	1.86	0.40
9:s7:89:HIS:CG	9:s7:165:LYS:HG2	2.56	0.40
11:s9:123:HIS:O	11:s9:127:VAL:HG23	2.21	0.40
13:c1:78:THR:HA	13:c1:84:ILE:HG22	2.03	0.40
14:c2:30:VAL:O	14:c2:34:THR:HG23	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:d3:132:LEU:HD23	25:d3:132:LEU:HA	1.61	0.40
29:d7:61:THR:O	29:d7:62:ILE:HB	2.21	0.40
32:e0:33:ARG:HB3	32:e0:33:ARG:CZ	2.51	0.40
34:sR:81:LEU:HD11	34:sR:122:ILE:HG12	2.03	0.40
36:5:121:A:C2	45:l8:108:ARG:NH1	2.89	0.40
36:5:153:U:H4'	36:5:158:G:O3'	2.21	0.40
36:5:435:C:O2	36:5:625:G:C2	2.74	0.40
36:5:740:G:H2'	36:5:741:U:C6	2.56	0.40
36:5:748:U:H2'	36:5:749:C:H6	1.87	0.40
36:5:851:C:O2	36:5:851:C:H2'	2.21	0.40
36:5:1063:G:C8	36:5:1066:G:C1'	2.98	0.40
36:5:1096:U:C5	36:5:1097:G:C5	3.09	0.40
36:5:1334:U:H2'	36:5:1335:C:C6	2.57	0.40
36:5:1525:G:C4	36:5:1526:U:C5	3.10	0.40
36:5:1534:A:O4'	36:5:1797:A:H2	2.04	0.40
36:5:1718:G:H8	36:5:1718:G:O5'	2.04	0.40
36:5:2140:U:OP2	82:5:3844:GET:O31	2.39	0.40
36:5:2352:A:H2'	36:5:2353:G:H8	1.86	0.40
36:5:2401:A:C2	36:5:2872:A:N6	2.89	0.40
36:5:2839:G:C2	36:5:2840:C:C6	3.10	0.40
36:5:3123:A:C2	36:5:3124:G:H1'	2.57	0.40
36:5:3233:C:H2'	36:5:3234:A:C8	2.56	0.40
39:l2:42:ARG:HG3	39:l2:89:TYR:CE1	2.56	0.40
39:l2:44:ILE:O	39:l2:61:VAL:HA	2.21	0.40
41:l4:49:ALA:HA	41:l4:109:TRP:CH2	2.57	0.40
42:l5:81:HIS:CD2	42:l5:81:HIS:C	2.99	0.40
43:l6:18:LEU:HD12	43:l6:18:LEU:H	1.85	0.40
43:l6:64:LEU:HD23	43:l6:64:LEU:HA	1.89	0.40
45:l8:69:LEU:O	45:l8:70:LYS:C	2.65	0.40
47:m0:89:VAL:HG13	47:m0:136:PHE:CE1	2.46	0.40
49:m3:46:ILE:O	49:m3:47:ALA:HB3	2.21	0.40
50:m4:59:ASN:O	50:m4:62:GLN:HG2	2.22	0.40
51:m5:113:LEU:HD12	51:m5:134:LEU:HD22	2.02	0.40
52:m6:18:ARG:HH11	52:m6:18:ARG:HD2	1.73	0.40
52:m6:54:TYR:OH	52:m6:73:PHE:O	2.33	0.40
53:m7:181:ARG:HG2	53:m7:182:ILE:N	2.35	0.40
55:m9:9:ARG:O	55:m9:12:ALA:HB3	2.21	0.40
56:n0:155:ARG:HB3	56:n0:170:THR:O	2.21	0.40
57:n1:65:TYR:CE1	57:n1:66:ASN:HB2	2.57	0.40
82:n6:201:GET:H322	82:n6:201:GET:H511	1.86	0.40
70:o4:30:LEU:HD23	70:o4:30:LEU:HA	1.38	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:o4:31:ARG:HG3	70:o4:32:ALA:N	2.35	0.40
71:o5:70:TYR:HD1	71:o5:76:GLN:HA	1.87	0.40
78:q2:78:LYS:O	78:q2:78:LYS:HG2	2.21	0.40
1:2:65:A:O2'	1:2:67:A:OP2	2.39	0.40
1:2:245:U:H2'	1:2:247:A:OP2	2.21	0.40
1:2:293:U:H2'	1:2:294:C:H6	1.87	0.40
1:2:446:A:H61	1:2:461:G:H21	1.69	0.40
1:2:644:C:H2'	1:2:645:C:H6	1.86	0.40
1:2:649:U:H2'	1:2:650:U:O4'	2.22	0.40
1:2:813:U:H6	1:2:813:U:H2'	1.75	0.40
1:2:1006:C:H4'	16:C4:136:ARG:HH11	1.87	0.40
1:2:1109:G:N3	1:2:1110:G:C8	2.90	0.40
1:2:1521:G:O6	21:C9:68:ARG:NH1	2.54	0.40
1:2:1571:C:H6	1:2:1571:C:O5'	2.04	0.40
1:2:1775:U:O4	77:Q1:4:LYS:HD2	2.22	0.40
2:S0:60:ALA:O	2:S0:64:ILE:HG13	2.22	0.40
2:S0:138:TYR:O	23:D1:29:HIS:HB3	2.21	0.40
2:S0:147:THR:HB	2:S0:151:SER:HB2	2.03	0.40
3:S1:81:PHE:HD2	3:S1:82:ARG:HG3	1.87	0.40
3:S1:111:ARG:HD3	3:S1:111:ARG:HA	1.88	0.40
3:S1:146:GLN:HB3	3:S1:149:GLN:HE22	1.86	0.40
4:S2:246:GLU:H	4:S2:246:GLU:HG2	1.29	0.40
5:S3:221:SER:O	34:SR:230:ALA:HB2	2.22	0.40
14:C2:68:GLU:O	14:C2:70:ASN:N	2.54	0.40
17:C5:20:VAL:CG1	17:C5:24:LYS:HB2	2.51	0.40
18:C6:93:HIS:HD1	18:C6:97:VAL:HG21	1.86	0.40
19:C7:19:ARG:HG3	19:C7:20:TYR:HD1	1.85	0.40
21:C9:52:GLY:O	21:C9:53:TRP:CD1	2.75	0.40
22:D0:108:ILE:H	22:D0:108:ILE:HG13	1.52	0.40
25:D3:46:SER:HG	25:D3:78:LYS:HZ1	1.66	0.40
25:D3:83:VAL:HG21	25:D3:122:PHE:CE2	2.57	0.40
28:D6:31:PRO:HB2	28:D6:33:ASP:OD1	2.22	0.40
29:D7:21:LEU:HA	29:D7:21:LEU:HD23	1.74	0.40
30:D8:65:ARG:HD3	30:D8:67:ARG:CZ	2.51	0.40
36:1:55:G:H5'	36:1:1547:G:O2'	2.22	0.40
36:1:64:G:N3	36:1:77:A:H2	2.20	0.40
36:1:246:U:H2'	36:1:247:C:C6	2.56	0.40
36:1:277:G:C6	36:1:278:U:C4	3.09	0.40
36:1:379:C:O5'	36:1:379:C:H6	2.03	0.40
36:1:419:G:H1'	82:1:3810:GET:C53	2.46	0.40
36:1:567:G:H2'	36:1:568:G:C8	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:822:G:H2'	36:1:823:C:O4'	2.21	0.40
36:1:1147:G:C5	36:1:1157:G:C2	3.10	0.40
36:1:1186:G:N3	56:N0:112:ALA:HB1	2.37	0.40
36:1:1539:A:C6	36:1:1540:U:C2	3.09	0.40
36:1:1649:U:C4	36:1:1650:G:N7	2.89	0.40
36:1:1658:G:C4	36:1:1796:G:C6	3.09	0.40
36:1:1730:G:N7	66:O0:28:LYS:HB2	2.36	0.40
36:1:2140:U:OP2	82:1:3808:GET:O41	2.39	0.40
36:1:2238:G:C6	36:1:2239:G:N7	2.90	0.40
36:1:2536:A:H2'	36:1:2537:U:C6	2.56	0.40
36:1:2683:U:H2'	36:1:2684:C:H6	1.87	0.40
36:1:2836:C:O2'	36:1:2837:A:H5'	2.22	0.40
36:1:2926:A:O2'	36:1:2927:C:H5'	2.21	0.40
36:1:3092:C:OP2	36:1:3094:A:N6	2.54	0.40
38:4:85:G:O6	62:N6:112:ASP:HB3	2.22	0.40
38:4:119:C:H6	38:4:119:C:O5'	2.04	0.40
38:4:122:U:C2	38:4:123:G:N7	2.89	0.40
38:4:123:G:H2'	38:4:124:G:H8	1.87	0.40
40:L3:27:ALA:HB3	40:L3:218:ILE:HG22	2.03	0.40
40:L3:291:GLU:HA	40:L3:291:GLU:OE1	2.21	0.40
41:L4:97:GLY:N	84:L4:401:HOH:O	2.54	0.40
41:L4:361:HIS:CD2	41:L4:362:ASP:N	2.89	0.40
42:L5:78:ALA:HB1	42:L5:104:LEU:HD23	2.03	0.40
46:L9:124:ARG:HD3	46:L9:164:ILE:HG23	2.03	0.40
47:M0:101:LYS:HD2	47:M0:101:LYS:HA	1.62	0.40
51:M5:201:ARG:HB2	51:M5:201:ARG:HH11	1.87	0.40
60:N4:106:GLU:HA	60:N4:109:LEU:HB2	2.03	0.40
64:N8:126:LYS:HB3	64:N8:148:ILE:HG21	2.02	0.40
64:N8:133:LEU:HD22	64:N8:133:LEU:O	2.21	0.40
66:O0:44:ILE:HD13	66:O0:53:LYS:HG3	2.04	0.40
69:O3:50:ALA:HB1	69:O3:66:VAL:HG13	2.03	0.40
1:6:749:U:C2	1:6:750:U:C6	3.09	0.40
1:6:930:A:P	28:d6:32:LYS:HZ2	2.43	0.40
1:6:1484:G:H21	1:6:1606:C:H1'	1.87	0.40
1:6:1558:U:H3	17:c5:122:THR:CG2	2.34	0.40
1:6:1559:A:N1	20:c8:134:ARG:HD3	2.37	0.40
1:6:1657:U:C2	36:5:2125:A:H4'	2.57	0.40
1:6:1673:G:O5'	1:6:1673:G:H8	2.04	0.40
7:s5:98:MET:HB2	7:s5:103:ASN:O	2.22	0.40
9:s7:98:ILE:HA	9:s7:116:ARG:O	2.20	0.40
11:s9:179:ARG:HE	11:s9:179:ARG:HB3	1.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:c1:118:GLN:HG3	13:c1:121:ASP:OD2	2.22	0.40
14:c2:83:GLU:C	14:c2:85:LYS:N	2.79	0.40
16:c4:11:SER:OG	16:c4:12:GLN:N	2.53	0.40
18:c6:47:LYS:HA	18:c6:47:LYS:HD2	1.89	0.40
21:c9:39:THR:O	21:c9:96:ALA:HB1	2.22	0.40
24:d2:62:VAL:HG11	29:d7:7:LEU:HB2	2.03	0.40
32:e0:47:VAL:O	32:e0:47:VAL:HG12	2.20	0.40
36:5:8:C:N4	38:8:149:A:H61	2.20	0.40
36:5:155:G:C2	36:5:266:A:C6	3.10	0.40
36:5:262:U:H6	36:5:262:U:O5'	2.05	0.40
36:5:1404:G:C6	36:5:1408:G:C6	3.10	0.40
36:5:1444:G:H2'	36:5:1445:U:O4'	2.20	0.40
36:5:1539:A:C2	36:5:1583:A:C4	3.09	0.40
36:5:1547:G:H2'	36:5:1548:C:C6	2.57	0.40
36:5:1596:C:O2	36:5:1696:A:H2	2.05	0.40
36:5:1599:G:H1	36:5:1608:C:N4	2.20	0.40
36:5:1686:U:O2	36:5:1688:U:H1'	2.21	0.40
36:5:1771:C:C4	36:5:1772:U:C5	3.10	0.40
36:5:1807:G:H5'	63:n7:135:ARG:NH1	2.34	0.40
36:5:1922:A:H2'	36:5:1923:C:O4'	2.21	0.40
36:5:2245:C:H2'	36:5:2246:G:O4'	2.22	0.40
36:5:2830:G:H2'	36:5:2831:G:C8	2.56	0.40
36:5:2841:G:H3'	36:5:2844:C:N4	2.37	0.40
36:5:2876:C:O2	36:5:2876:C:H2'	2.20	0.40
36:5:3000:A:H2'	36:5:3001:C:C6	2.52	0.40
36:5:3288:G:O2'	36:5:3289:G:OP2	2.37	0.40
37:7:1:G:N3	37:7:2:G:C8	2.90	0.40
38:8:150:G:O3'	45:l8:60:ARG:NH2	2.55	0.40
39:l2:10:LYS:HA	39:l2:16:PHE:CE2	2.55	0.40
42:l5:207:TYR:O	42:l5:211:LEU:HB2	2.22	0.40
43:l6:26:ARG:HH11	43:l6:26:ARG:HD2	1.75	0.40
47:m0:76:MET:CE	47:m0:148:VAL:HA	2.41	0.40
47:m0:182:LEU:HD23	47:m0:182:LEU:HA	1.76	0.40
52:m6:9:ILE:HG22	52:m6:10:ASP:N	2.37	0.40
52:m6:77:SER:HB3	52:m6:106:GLU:CD	2.46	0.40
53:m7:172:GLN:HE21	53:m7:172:GLN:HB2	1.70	0.40
53:m7:176:ILE:O	53:m7:177:ALA:C	2.65	0.40
55:m9:44:LEU:HD22	55:m9:49:THR:OG1	2.22	0.40
60:n4:23:ARG:HG2	60:n4:24:GLY:H	1.87	0.40
63:n7:70:PRO:HG3	63:n7:115:LYS:HB2	2.03	0.40
63:n7:80:LEU:O	63:n7:82:PRO:HD3	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:o0:103:THR:HB	66:o0:104:LEU:H	1.66	0.40
79:q3:55:TRP:CE2	79:q3:71:VAL:HA	2.56	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	S0	204/206 (99%)	174 (85%)	26 (13%)	4 (2%)	6	32
2	s0	204/206 (99%)	176 (86%)	23 (11%)	5 (2%)	4	29
3	S1	212/216 (98%)	162 (76%)	45 (21%)	5 (2%)	4	29
3	s1	214/216 (99%)	195 (91%)	15 (7%)	4 (2%)	6	33
4	S2	215/217 (99%)	194 (90%)	19 (9%)	2 (1%)	14	45
4	s2	215/217 (99%)	203 (94%)	11 (5%)	1 (0%)	24	56
5	S3	221/223 (99%)	202 (91%)	15 (7%)	4 (2%)	6	34
5	s3	221/223 (99%)	195 (88%)	18 (8%)	8 (4%)	2	23
6	S4	258/260 (99%)	226 (88%)	30 (12%)	2 (1%)	16	48
6	s4	258/260 (99%)	234 (91%)	21 (8%)	3 (1%)	10	40
7	S5	204/206 (99%)	178 (87%)	21 (10%)	5 (2%)	4	29
7	s5	204/206 (99%)	183 (90%)	18 (9%)	3 (2%)	8	36
8	S6	224/236 (95%)	209 (93%)	9 (4%)	6 (3%)	4	27
8	s6	216/236 (92%)	196 (91%)	17 (8%)	3 (1%)	9	37
9	S7	182/185 (98%)	154 (85%)	20 (11%)	8 (4%)	2	19
9	s7	183/185 (99%)	157 (86%)	23 (13%)	3 (2%)	7	35
10	S8	184/200 (92%)	160 (87%)	23 (12%)	1 (0%)	24	56
10	s8	184/200 (92%)	171 (93%)	11 (6%)	2 (1%)	11	42

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
11	S9	183/185 (99%)	162 (88%)	20 (11%)	1 (0%)	24	56
11	s9	183/185 (99%)	169 (92%)	14 (8%)	0	100	100
12	C0	90/105 (86%)	77 (86%)	10 (11%)	3 (3%)	3	25
12	c0	90/105 (86%)	65 (72%)	19 (21%)	6 (7%)	1	13
13	C1	140/156 (90%)	128 (91%)	10 (7%)	2 (1%)	9	37
13	c1	144/156 (92%)	130 (90%)	11 (8%)	3 (2%)	5	31
14	C2	118/143 (82%)	87 (74%)	27 (23%)	4 (3%)	3	25
14	c2	122/143 (85%)	89 (73%)	25 (20%)	8 (7%)	1	13
15	C3	148/150 (99%)	134 (90%)	12 (8%)	2 (1%)	9	37
15	c3	148/150 (99%)	129 (87%)	16 (11%)	3 (2%)	6	32
16	C4	125/128 (98%)	112 (90%)	12 (10%)	1 (1%)	16	48
16	c4	126/128 (98%)	111 (88%)	15 (12%)	0	100	100
17	C5	120/141 (85%)	100 (83%)	18 (15%)	2 (2%)	7	34
17	c5	117/141 (83%)	99 (85%)	14 (12%)	4 (3%)	3	25
18	C6	139/141 (99%)	121 (87%)	14 (10%)	4 (3%)	3	26
18	c6	139/141 (99%)	130 (94%)	8 (6%)	1 (1%)	18	50
19	C7	113/136 (83%)	100 (88%)	12 (11%)	1 (1%)	14	45
19	c7	115/136 (85%)	104 (90%)	10 (9%)	1 (1%)	14	45
20	C8	143/145 (99%)	123 (86%)	17 (12%)	3 (2%)	5	31
20	c8	143/145 (99%)	122 (85%)	18 (13%)	3 (2%)	5	31
21	C9	141/143 (99%)	125 (89%)	16 (11%)	0	100	100
21	c9	141/143 (99%)	128 (91%)	12 (8%)	1 (1%)	18	50
22	D0	103/107 (96%)	98 (95%)	5 (5%)	0	100	100
22	d0	99/107 (92%)	88 (89%)	9 (9%)	2 (2%)	6	32
23	D1	85/87 (98%)	72 (85%)	11 (13%)	2 (2%)	4	29
23	d1	85/87 (98%)	75 (88%)	10 (12%)	0	100	100
24	D2	127/129 (98%)	113 (89%)	13 (10%)	1 (1%)	16	48
24	d2	127/129 (98%)	119 (94%)	7 (6%)	1 (1%)	16	48
25	D3	142/144 (99%)	119 (84%)	19 (13%)	4 (3%)	4	27
25	d3	142/144 (99%)	131 (92%)	11 (8%)	0	100	100
26	D4	132/134 (98%)	121 (92%)	8 (6%)	3 (2%)	5	30

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
26	d4	132/134 (98%)	114 (86%)	16 (12%)	2 (2%)	8	36
27	D5	68/70 (97%)	52 (76%)	14 (21%)	2 (3%)	3	26
27	d5	67/70 (96%)	61 (91%)	6 (9%)	0	100	100
28	D6	95/97 (98%)	68 (72%)	17 (18%)	10 (10%)	0	5
28	d6	95/97 (98%)	77 (81%)	17 (18%)	1 (1%)	11	42
29	D7	79/81 (98%)	69 (87%)	9 (11%)	1 (1%)	9	38
29	d7	79/81 (98%)	72 (91%)	6 (8%)	1 (1%)	9	38
30	D8	61/63 (97%)	51 (84%)	10 (16%)	0	100	100
30	d8	61/63 (97%)	52 (85%)	9 (15%)	0	100	100
31	D9	51/53 (96%)	49 (96%)	2 (4%)	0	100	100
31	d9	51/53 (96%)	45 (88%)	4 (8%)	2 (4%)	2	21
32	E0	58/60 (97%)	51 (88%)	4 (7%)	3 (5%)	1	17
32	e0	58/60 (97%)	47 (81%)	8 (14%)	3 (5%)	1	17
33	E1	69/152 (45%)	44 (64%)	19 (28%)	6 (9%)	0	8
33	e1	41/152 (27%)	31 (76%)	8 (20%)	2 (5%)	1	17
34	SR	316/318 (99%)	298 (94%)	18 (6%)	0	100	100
34	sR	311/318 (98%)	291 (94%)	19 (6%)	1 (0%)	36	65
35	SM	131/272 (48%)	116 (88%)	12 (9%)	3 (2%)	5	30
35	sM	113/272 (42%)	94 (83%)	13 (12%)	6 (5%)	1	16
39	L2	250/252 (99%)	235 (94%)	15 (6%)	0	100	100
39	l2	250/252 (99%)	230 (92%)	19 (8%)	1 (0%)	30	60
40	L3	384/386 (100%)	352 (92%)	30 (8%)	2 (0%)	24	56
40	l3	384/386 (100%)	361 (94%)	19 (5%)	4 (1%)	12	43
41	L4	359/361 (99%)	321 (89%)	35 (10%)	3 (1%)	16	48
41	l4	359/361 (99%)	322 (90%)	31 (9%)	6 (2%)	7	34
42	L5	292/296 (99%)	264 (90%)	23 (8%)	5 (2%)	7	34
42	l5	292/296 (99%)	276 (94%)	16 (6%)	0	100	100
43	L6	152/176 (86%)	142 (93%)	6 (4%)	4 (3%)	4	28
43	l6	153/176 (87%)	139 (91%)	11 (7%)	3 (2%)	6	32
44	L7	220/223 (99%)	205 (93%)	15 (7%)	0	100	100
44	l7	221/223 (99%)	210 (95%)	9 (4%)	2 (1%)	14	45

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
45	L8	231/233 (99%)	202 (87%)	25 (11%)	4 (2%)	7	34
45	l8	229/233 (98%)	201 (88%)	23 (10%)	5 (2%)	5	31
46	L9	189/191 (99%)	173 (92%)	15 (8%)	1 (0%)	24	56
46	l9	188/191 (98%)	176 (94%)	9 (5%)	3 (2%)	7	35
47	M0	204/221 (92%)	193 (95%)	11 (5%)	0	100	100
47	m0	205/221 (93%)	186 (91%)	18 (9%)	1 (0%)	24	56
48	M1	167/169 (99%)	136 (81%)	29 (17%)	2 (1%)	10	40
48	m1	167/169 (99%)	141 (84%)	20 (12%)	6 (4%)	2	23
49	M3	191/194 (98%)	172 (90%)	14 (7%)	5 (3%)	4	28
49	m3	192/194 (99%)	162 (84%)	25 (13%)	5 (3%)	4	28
50	M4	134/137 (98%)	123 (92%)	9 (7%)	2 (2%)	8	36
50	m4	135/137 (98%)	127 (94%)	8 (6%)	0	100	100
51	M5	201/203 (99%)	181 (90%)	18 (9%)	2 (1%)	12	43
51	m5	201/203 (99%)	185 (92%)	13 (6%)	3 (2%)	8	36
52	M6	195/197 (99%)	182 (93%)	11 (6%)	2 (1%)	12	43
52	m6	195/197 (99%)	185 (95%)	10 (5%)	0	100	100
53	M7	181/184 (98%)	168 (93%)	11 (6%)	2 (1%)	11	42
53	m7	171/184 (93%)	159 (93%)	12 (7%)	0	100	100
54	M8	183/185 (99%)	171 (93%)	11 (6%)	1 (0%)	24	56
54	m8	183/185 (99%)	171 (93%)	12 (7%)	0	100	100
55	M9	186/188 (99%)	174 (94%)	10 (5%)	2 (1%)	11	42
55	m9	181/188 (96%)	171 (94%)	9 (5%)	1 (1%)	21	52
56	N0	168/172 (98%)	154 (92%)	12 (7%)	2 (1%)	10	40
56	n0	170/172 (99%)	165 (97%)	5 (3%)	0	100	100
57	N1	157/159 (99%)	143 (91%)	13 (8%)	1 (1%)	21	52
57	n1	157/159 (99%)	151 (96%)	5 (3%)	1 (1%)	21	52
58	N2	96/98 (98%)	86 (90%)	10 (10%)	0	100	100
58	n2	96/98 (98%)	91 (95%)	4 (4%)	1 (1%)	12	43
59	N3	133/135 (98%)	128 (96%)	5 (4%)	0	100	100
59	n3	132/135 (98%)	128 (97%)	3 (2%)	1 (1%)	16	48
60	N4	118/155 (76%)	110 (93%)	8 (7%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
60	n4	114/155 (74%)	106 (93%)	8 (7%)	0	100	100
61	N5	119/121 (98%)	109 (92%)	10 (8%)	0	100	100
61	n5	118/121 (98%)	102 (86%)	15 (13%)	1 (1%)	16	48
62	N6	124/126 (98%)	116 (94%)	8 (6%)	0	100	100
62	n6	122/126 (97%)	116 (95%)	4 (3%)	2 (2%)	7	35
63	N7	133/135 (98%)	120 (90%)	11 (8%)	2 (2%)	8	36
63	n7	133/135 (98%)	117 (88%)	14 (10%)	2 (2%)	8	36
64	N8	146/148 (99%)	125 (86%)	16 (11%)	5 (3%)	3	25
64	n8	146/148 (99%)	128 (88%)	16 (11%)	2 (1%)	9	37
65	N9	56/58 (97%)	50 (89%)	6 (11%)	0	100	100
65	n9	56/58 (97%)	46 (82%)	8 (14%)	2 (4%)	2	23
66	O0	95/100 (95%)	93 (98%)	2 (2%)	0	100	100
66	o0	98/100 (98%)	93 (95%)	5 (5%)	0	100	100
67	O1	107/109 (98%)	97 (91%)	7 (6%)	3 (3%)	4	27
67	o1	107/109 (98%)	98 (92%)	7 (6%)	2 (2%)	6	33
68	O2	125/127 (98%)	117 (94%)	8 (6%)	0	100	100
68	o2	125/127 (98%)	112 (90%)	13 (10%)	0	100	100
69	O3	104/106 (98%)	98 (94%)	6 (6%)	0	100	100
69	o3	104/106 (98%)	93 (89%)	11 (11%)	0	100	100
70	O4	110/112 (98%)	102 (93%)	6 (6%)	2 (2%)	6	34
70	o4	110/112 (98%)	105 (96%)	4 (4%)	1 (1%)	14	45
71	O5	117/119 (98%)	106 (91%)	9 (8%)	2 (2%)	7	34
71	o5	117/119 (98%)	107 (92%)	9 (8%)	1 (1%)	14	45
72	O6	97/99 (98%)	84 (87%)	12 (12%)	1 (1%)	12	43
72	o6	97/99 (98%)	88 (91%)	8 (8%)	1 (1%)	12	43
73	O7	82/84 (98%)	76 (93%)	5 (6%)	1 (1%)	10	40
73	o7	80/84 (95%)	74 (92%)	5 (6%)	1 (1%)	9	38
74	O8	75/77 (97%)	67 (89%)	8 (11%)	0	100	100
74	o8	75/77 (97%)	68 (91%)	6 (8%)	1 (1%)	9	38
75	O9	47/50 (94%)	43 (92%)	4 (8%)	0	100	100
75	o9	48/50 (96%)	44 (92%)	3 (6%)	1 (2%)	5	31

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
76	Q0	50/52 (96%)	46 (92%)	3 (6%)	1 (2%)	6	32
76	q0	50/52 (96%)	47 (94%)	2 (4%)	1 (2%)	6	32
77	Q1	23/25 (92%)	22 (96%)	1 (4%)	0	100	100
77	q1	23/25 (92%)	23 (100%)	0	0	100	100
78	Q2	103/105 (98%)	89 (86%)	14 (14%)	0	100	100
78	q2	103/105 (98%)	99 (96%)	4 (4%)	0	100	100
79	Q3	89/91 (98%)	80 (90%)	9 (10%)	0	100	100
79	q3	89/91 (98%)	82 (92%)	7 (8%)	0	100	100
80	p0	134/312 (43%)	121 (90%)	12 (9%)	1 (1%)	18	50
All	All	22212/23608 (94%)	19993 (90%)	1922 (9%)	297 (1%)	9	38

All (297) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	S1	207	LEU
8	S6	153	VAL
9	S7	111	LYS
12	C0	87	VAL
12	C0	88	PRO
18	C6	58	ASP
18	C6	59	LYS
20	C8	28	ILE
20	C8	92	ILE
24	D2	83	ILE
25	D3	97	ASP
33	E1	86	THR
35	SM	167	PRO
43	L6	98	VAL
46	L9	50	ASN
50	M4	8	LYS
52	M6	111	PRO
64	N8	48	TYR
5	s3	220	PRO
6	s4	196	VAL
12	c0	84	GLU
12	c0	88	PRO
13	c1	133	LYS
14	c2	91	VAL
17	c5	126	VAL

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Mol	Chain	Res	Type
18	c6	116	LEU
20	c8	91	ASP
21	c9	34	VAL
24	d2	6	VAL
29	d7	62	ILE
32	e0	4	VAL
43	l6	98	VAL
48	m1	95	ASN
48	m1	115	LYS
51	m5	147	ARG
3	S1	63	GLY
3	S1	206	PRO
5	S3	217	ILE
8	S6	154	ARG
8	S6	173	PRO
8	S6	174	LYS
9	S7	133	THR
13	C1	6	THR
13	C1	7	VAL
14	C2	91	VAL
18	C6	138	PHE
19	C7	88	VAL
28	D6	45	VAL
28	D6	65	PRO
28	D6	75	VAL
28	D6	86	VAL
29	D7	62	ILE
42	L5	261	THR
42	L5	276	LYS
43	L6	5	LYS
45	L8	36	ILE
48	M1	11	ASP
57	N1	124	VAL
67	O1	6	ASP
5	s3	216	PRO
5	s3	217	ILE
5	s3	221	SER
7	s5	58	LEU
8	s6	153	VAL
9	s7	10	SER
9	s7	11	GLN
12	c0	82	LEU

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Mol	Chain	Res	Type
12	c0	87	VAL
13	c1	7	VAL
14	c2	63	VAL
14	c2	84	ASN
14	c2	119	SER
15	c3	66	ILE
17	c5	127	ARG
19	c7	88	VAL
26	d4	52	LYS
35	sM	66	ALA
35	sM	83	LYS
44	l7	229	PHE
59	n3	42	SER
63	n7	18	TYR
65	n9	21	ILE
67	o1	83	GLU
72	o6	63	ASN
74	o8	17	ARG
80	p0	33	VAL
4	S2	146	THR
7	S5	58	LEU
9	S7	112	ARG
9	S7	132	PRO
9	S7	134	GLU
14	C2	89	ILE
14	C2	106	ILE
15	C3	28	LEU
23	D1	82	VAL
26	D4	5	VAL
27	D5	88	ILE
28	D6	46	GLU
33	E1	89	LYS
33	E1	98	VAL
33	E1	137	ASP
33	E1	148	TYR
42	L5	259	LYS
43	L6	6	ALA
56	N0	13	ARG
63	N7	17	ARG
67	O1	5	LYS
70	O4	83	ASN
71	O5	91	ALA

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Mol	Chain	Res	Type
5	s3	45	LYS
5	s3	115	ILE
6	s4	163	ASP
7	s5	184	PHE
13	c1	61	THR
14	c2	106	ILE
14	c2	109	GLU
17	c5	51	SER
17	c5	130	ARG
31	d9	19	ARG
33	e1	136	LYS
33	e1	148	TYR
34	sR	318	ALA
47	m0	175	ASN
62	n6	77	LYS
64	n8	79	TRP
2	S0	4	PRO
2	S0	191	ARG
5	S3	211	PRO
7	S5	51	VAL
7	S5	64	VAL
10	S8	152	ILE
12	C0	60	SER
14	C2	109	GLU
25	D3	96	VAL
26	D4	4	ALA
28	D6	64	LEU
35	SM	87	THR
40	L3	108	GLU
42	L5	20	PHE
49	M3	5	LYS
49	M3	77	LEU
49	M3	166	ALA
52	M6	110	PRO
64	N8	78	LEU
70	O4	82	ALA
3	s1	177	GLN
3	s1	179	SER
4	s2	106	ASP
8	s6	70	PRO
9	s7	74	GLN
22	d0	97	VAL

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Mol	Chain	Res	Type
26	d4	32	ARG
28	d6	61	GLU
31	d9	6	VAL
35	sM	50	ASN
35	sM	65	THR
41	l4	145	ILE
44	l7	191	VAL
45	l8	120	LYS
45	l8	196	ALA
48	m1	10	ARG
49	m3	51	LEU
49	m3	140	SER
58	n2	20	SER
61	n5	77	GLU
64	n8	48	TYR
67	o1	7	VAL
3	S1	62	LYS
4	S2	150	GLN
6	S4	196	VAL
7	S5	31	GLU
7	S5	37	GLN
20	C8	14	ILE
25	D3	3	LYS
32	E0	5	HIS
32	E0	10	ARG
45	L8	31	PRO
49	M3	62	THR
53	M7	156	ALA
53	M7	158	ALA
54	M8	162	ALA
55	M9	95	TRP
56	N0	167	ARG
64	N8	47	LYS
64	N8	117	ARG
2	s0	189	VAL
3	s1	223	PHE
20	c8	92	ILE
22	d0	51	VAL
40	l3	187	SER
41	l4	24	ALA
41	l4	90	PHE
41	l4	329	PRO

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Mol	Chain	Res	Type
43	l6	97	ASN
45	l8	25	PRO
48	m1	11	ASP
48	m1	94	ARG
51	m5	146	ALA
51	m5	183	THR
55	m9	35	ALA
57	n1	136	ARG
62	n6	18	ALA
65	n9	18	ARG
71	o5	40	SER
2	S0	158	VAL
5	S3	212	LYS
6	S4	195	ILE
8	S6	69	LEU
8	S6	70	PRO
9	S7	31	SER
11	S9	134	ILE
16	C4	42	VAL
17	C5	125	PRO
17	C5	126	VAL
18	C6	39	VAL
23	D1	10	GLU
33	E1	84	VAL
40	L3	174	LYS
41	L4	24	ALA
43	L6	140	VAL
45	L8	37	GLY
48	M1	114	ILE
49	M3	47	ALA
51	M5	95	GLN
55	M9	130	ASN
63	N7	103	GLN
64	N8	57	GLY
73	O7	29	VAL
76	Q0	79	GLU
2	s0	103	THR
3	s1	210	ILE
5	s3	144	ALA
12	c0	35	ILE
40	l3	129	ALA
40	l3	385	LYS

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Mol	Chain	Res	Type
41	l4	91	GLY
45	l8	203	VAL
46	l9	144	ILE
49	m3	47	ALA
63	n7	34	LYS
75	o9	11	GLN
9	S7	131	PHE
27	D5	41	ILE
32	E0	47	VAL
41	L4	317	PRO
51	M5	75	VAL
2	s0	158	VAL
12	c0	83	PRO
15	c3	22	ALA
32	e0	60	PRO
35	sM	51	ARG
39	l2	56	ALA
43	l6	10	TYR
45	l8	237	ILE
49	m3	48	PRO
3	S1	210	ILE
71	O5	4	VAL
8	s6	69	LEU
14	c2	66	VAL
32	e0	47	VAL
40	l3	188	ILE
48	m1	114	ILE
76	q0	78	ILE
2	S0	103	THR
26	D4	35	VAL
28	D6	36	ILE
28	D6	84	VAL
35	SM	53	ARG
41	L4	131	VAL
45	L8	157	VAL
67	O1	7	VAL
5	s3	91	VAL
6	s4	90	ILE
10	s8	101	ILE
5	S3	222	VAL
9	S7	98	ILE
28	D6	19	LYS

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Mol	Chain	Res	Type
28	D6	58	VAL
50	M4	6	ILE
72	O6	3	VAL
10	s8	78	ILE
14	c2	115	VAL
15	c3	60	VAL
20	c8	14	ILE
35	sM	43	ASP
41	l4	166	VAL
49	m3	60	ALA
70	o4	89	ILE
15	C3	22	ALA
42	L5	125	VAL
2	s0	10	THR
2	s0	194	PRO
7	s5	29	ILE
46	l9	79	ILE
46	l9	167	VAL
25	D3	64	PRO
73	o7	40	PRO

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	S0	164/173 (95%)	127 (77%)	37 (23%)	1	6
2	s0	165/173 (95%)	133 (81%)	32 (19%)	1	9
3	S1	191/192 (100%)	144 (75%)	47 (25%)	1	5
3	s1	192/192 (100%)	158 (82%)	34 (18%)	2	12
4	S2	176/176 (100%)	131 (74%)	45 (26%)	0	4
4	s2	176/176 (100%)	132 (75%)	44 (25%)	0	4
5	S3	182/182 (100%)	142 (78%)	40 (22%)	1	7
5	s3	182/182 (100%)	141 (78%)	41 (22%)	1	6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
6	S4	221/221 (100%)	178 (80%)	43 (20%)	1	9
6	s4	221/221 (100%)	176 (80%)	45 (20%)	1	8
7	S5	173/173 (100%)	140 (81%)	33 (19%)	1	10
7	s5	153/173 (88%)	123 (80%)	30 (20%)	1	9
8	S6	188/201 (94%)	150 (80%)	38 (20%)	1	8
9	S7	165/165 (100%)	127 (77%)	38 (23%)	1	6
10	S8	150/161 (93%)	126 (84%)	24 (16%)	2	15
11	S9	158/158 (100%)	123 (78%)	35 (22%)	1	7
12	C0	77/98 (79%)	63 (82%)	14 (18%)	2	11
13	C1	127/137 (93%)	104 (82%)	23 (18%)	2	12
14	C2	88/119 (74%)	64 (73%)	24 (27%)	0	3
15	C3	127/127 (100%)	104 (82%)	23 (18%)	2	12
16	C4	81/97 (84%)	59 (73%)	22 (27%)	0	3
17	C5	101/117 (86%)	80 (79%)	21 (21%)	1	8
18	C6	117/117 (100%)	89 (76%)	28 (24%)	1	5
19	C7	94/124 (76%)	75 (80%)	19 (20%)	1	8
20	C8	128/128 (100%)	96 (75%)	32 (25%)	0	4
20	c8	65/128 (51%)	55 (85%)	10 (15%)	2	16
21	C9	115/115 (100%)	89 (77%)	26 (23%)	1	6
21	c9	17/115 (15%)	14 (82%)	3 (18%)	2	12
22	D0	98/100 (98%)	73 (74%)	25 (26%)	0	4
23	D1	74/74 (100%)	58 (78%)	16 (22%)	1	7
24	D2	110/110 (100%)	86 (78%)	24 (22%)	1	7
25	D3	119/119 (100%)	93 (78%)	26 (22%)	1	7
26	D4	112/112 (100%)	85 (76%)	27 (24%)	1	5
27	D5	61/61 (100%)	39 (64%)	22 (36%)	0	1
28	D6	83/83 (100%)	59 (71%)	24 (29%)	0	2
29	D7	70/70 (100%)	59 (84%)	11 (16%)	2	15
30	D8	56/56 (100%)	38 (68%)	18 (32%)	0	2
31	D9	47/47 (100%)	35 (74%)	12 (26%)	0	4
32	E0	51/51 (100%)	41 (80%)	10 (20%)	1	9

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
33	E1	62/135 (46%)	41 (66%)	21 (34%)	0	1
34	SR	259/260 (100%)	223 (86%)	36 (14%)	3	19
34	sR	202/260 (78%)	182 (90%)	20 (10%)	7	30
35	SM	97/227 (43%)	72 (74%)	25 (26%)	0	4
35	sM	36/227 (16%)	28 (78%)	8 (22%)	1	7
39	L2	193/194 (100%)	155 (80%)	38 (20%)	1	9
39	l2	192/194 (99%)	145 (76%)	47 (24%)	1	5
40	L3	320/322 (99%)	254 (79%)	66 (21%)	1	8
40	l3	318/322 (99%)	240 (76%)	78 (24%)	1	5
41	L4	288/288 (100%)	236 (82%)	52 (18%)	2	12
41	l4	288/288 (100%)	219 (76%)	69 (24%)	1	5
42	L5	242/244 (99%)	186 (77%)	56 (23%)	1	6
42	l5	243/244 (100%)	195 (80%)	48 (20%)	1	9
43	L6	134/153 (88%)	101 (75%)	33 (25%)	1	5
43	l6	135/153 (88%)	112 (83%)	23 (17%)	2	13
44	L7	186/187 (100%)	159 (86%)	27 (14%)	3	17
44	l7	187/187 (100%)	155 (83%)	32 (17%)	2	13
45	L8	187/191 (98%)	149 (80%)	38 (20%)	1	8
45	l8	177/191 (93%)	138 (78%)	39 (22%)	1	7
46	L9	171/171 (100%)	127 (74%)	44 (26%)	0	4
46	l9	170/171 (99%)	126 (74%)	44 (26%)	0	4
47	M0	177/187 (95%)	145 (82%)	32 (18%)	2	12
47	m0	177/187 (95%)	138 (78%)	39 (22%)	1	7
48	M1	147/147 (100%)	117 (80%)	30 (20%)	1	8
48	m1	147/147 (100%)	117 (80%)	30 (20%)	1	8
49	M3	154/154 (100%)	118 (77%)	36 (23%)	1	6
49	m3	154/154 (100%)	125 (81%)	29 (19%)	1	10
50	M4	107/108 (99%)	85 (79%)	22 (21%)	1	8
50	m4	108/108 (100%)	86 (80%)	22 (20%)	1	8
51	M5	175/175 (100%)	144 (82%)	31 (18%)	2	12
51	m5	175/175 (100%)	145 (83%)	30 (17%)	2	13

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
52	M6	160/160 (100%)	126 (79%)	34 (21%)	1	7
52	m6	160/160 (100%)	123 (77%)	37 (23%)	1	6
53	M7	140/146 (96%)	102 (73%)	38 (27%)	0	3
53	m7	139/146 (95%)	98 (70%)	41 (30%)	0	2
54	M8	150/150 (100%)	120 (80%)	30 (20%)	1	9
54	m8	150/150 (100%)	121 (81%)	29 (19%)	1	9
55	M9	153/153 (100%)	108 (71%)	45 (29%)	0	2
55	m9	149/153 (97%)	107 (72%)	42 (28%)	0	3
56	N0	155/156 (99%)	121 (78%)	34 (22%)	1	7
56	n0	156/156 (100%)	125 (80%)	31 (20%)	1	9
57	N1	136/136 (100%)	105 (77%)	31 (23%)	1	6
57	n1	136/136 (100%)	110 (81%)	26 (19%)	1	10
58	N2	85/85 (100%)	76 (89%)	9 (11%)	6	27
58	n2	85/85 (100%)	70 (82%)	15 (18%)	2	12
59	N3	103/103 (100%)	87 (84%)	16 (16%)	2	15
59	n3	103/103 (100%)	84 (82%)	19 (18%)	1	11
60	N4	85/129 (66%)	72 (85%)	13 (15%)	3	16
60	n4	97/129 (75%)	82 (84%)	15 (16%)	2	15
61	N5	104/105 (99%)	76 (73%)	28 (27%)	0	4
61	n5	104/105 (99%)	81 (78%)	23 (22%)	1	7
62	N6	109/109 (100%)	83 (76%)	26 (24%)	1	5
62	n6	107/109 (98%)	83 (78%)	24 (22%)	1	7
63	N7	115/115 (100%)	92 (80%)	23 (20%)	1	9
63	n7	115/115 (100%)	87 (76%)	28 (24%)	1	5
64	N8	118/118 (100%)	93 (79%)	25 (21%)	1	7
64	n8	118/118 (100%)	93 (79%)	25 (21%)	1	7
65	N9	46/46 (100%)	38 (83%)	8 (17%)	2	12
65	n9	46/46 (100%)	37 (80%)	9 (20%)	1	9
66	O0	81/84 (96%)	62 (76%)	19 (24%)	1	6
66	o0	84/84 (100%)	67 (80%)	17 (20%)	1	8
67	O1	92/96 (96%)	69 (75%)	23 (25%)	0	4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
67	o1	94/96 (98%)	72 (77%)	22 (23%)	1	6
68	O2	109/109 (100%)	88 (81%)	21 (19%)	1	9
68	o2	109/109 (100%)	85 (78%)	24 (22%)	1	7
69	O3	90/90 (100%)	76 (84%)	14 (16%)	2	15
69	o3	90/90 (100%)	72 (80%)	18 (20%)	1	9
70	O4	95/95 (100%)	71 (75%)	24 (25%)	0	4
70	o4	95/95 (100%)	79 (83%)	16 (17%)	2	13
71	O5	104/104 (100%)	83 (80%)	21 (20%)	1	8
71	o5	103/104 (99%)	80 (78%)	23 (22%)	1	6
72	O6	81/81 (100%)	59 (73%)	22 (27%)	0	3
72	o6	80/81 (99%)	57 (71%)	23 (29%)	0	2
73	O7	69/69 (100%)	51 (74%)	18 (26%)	0	4
73	o7	67/69 (97%)	53 (79%)	14 (21%)	1	7
74	O8	68/68 (100%)	53 (78%)	15 (22%)	1	7
74	o8	67/68 (98%)	54 (81%)	13 (19%)	1	9
75	O9	45/45 (100%)	33 (73%)	12 (27%)	0	4
75	o9	45/45 (100%)	38 (84%)	7 (16%)	2	15
76	Q0	47/47 (100%)	38 (81%)	9 (19%)	1	10
76	q0	47/47 (100%)	39 (83%)	8 (17%)	2	13
77	Q1	23/23 (100%)	20 (87%)	3 (13%)	4	20
77	q1	23/23 (100%)	14 (61%)	9 (39%)	0	0
78	Q2	90/90 (100%)	68 (76%)	22 (24%)	1	5
78	q2	90/90 (100%)	78 (87%)	12 (13%)	4	20
79	Q3	71/71 (100%)	59 (83%)	12 (17%)	2	13
79	q3	71/71 (100%)	54 (76%)	17 (24%)	1	5
80	p0	105/254 (41%)	86 (82%)	19 (18%)	2	12
All	All	16042/17195 (93%)	12630 (79%)	3412 (21%)	1	7

All (3412) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	S0	6	THR
2	S0	7	PHE

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Mol	Chain	Res	Type
2	S0	8	ASP
2	S0	9	LEU
2	S0	27	ARG
2	S0	33	GLN
2	S0	34	GLU
2	S0	37	VAL
2	S0	45	VAL
2	S0	49	ASN
2	S0	50	VAL
2	S0	52	LYS
2	S0	62	ARG
2	S0	76	ILE
2	S0	83	GLN
2	S0	87	LEU
2	S0	88	LYS
2	S0	101	ARG
2	S0	103	THR
2	S0	111	ILE
2	S0	114	SER
2	S0	117	GLU
2	S0	119	ARG
2	S0	123	VAL
2	S0	131	GLN
2	S0	139	VAL
2	S0	154	GLU
2	S0	157	ASP
2	S0	165	ARG
2	S0	170	ILE
2	S0	172	LEU
2	S0	177	LEU
2	S0	184	LEU
2	S0	185	ARG
2	S0	188	LEU
2	S0	197	ILE
2	S0	200	ASP
3	S1	21	VAL
3	S1	22	ASP
3	S1	28	GLU
3	S1	29	TRP
3	S1	32	ILE
3	S1	38	PHE
3	S1	42	ASN

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Mol	Chain	Res	Type
3	S1	46	THR
3	S1	47	LEU
3	S1	61	LEU
3	S1	64	ARG
3	S1	66	VAL
3	S1	70	LEU
3	S1	76	SER
3	S1	77	GLU
3	S1	78	ASP
3	S1	81	PHE
3	S1	83	LYS
3	S1	85	LYS
3	S1	86	LEU
3	S1	91	VAL
3	S1	96	LEU
3	S1	97	LEU
3	S1	108	ASP
3	S1	112	SER
3	S1	124	ASN
3	S1	127	VAL
3	S1	131	ASP
3	S1	135	LEU
3	S1	149	GLN
3	S1	150	VAL
3	S1	154	SER
3	S1	174	LYS
3	S1	176	VAL
3	S1	177	GLN
3	S1	180	THR
3	S1	181	LEU
3	S1	183	GLN
3	S1	184	LEU
3	S1	193	ILE
3	S1	202	LYS
3	S1	207	LEU
3	S1	211	HIS
3	S1	214	LYS
3	S1	215	VAL
3	S1	218	LEU
3	S1	220	GLN
4	S2	41	LEU
4	S2	53	ILE

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Mol	Chain	Res	Type
4	S2	55	GLU
4	S2	58	LEU
4	S2	64	LYS
4	S2	69	ILE
4	S2	72	LEU
4	S2	73	LEU
4	S2	76	LEU
4	S2	77	GLN
4	S2	81	MET
4	S2	91	ARG
4	S2	94	GLN
4	S2	95	ARG
4	S2	96	THR
4	S2	97	ARG
4	S2	99	LYS
4	S2	111	VAL
4	S2	117	THR
4	S2	119	LYS
4	S2	130	ILE
4	S2	134	LEU
4	S2	137	ILE
4	S2	139	ILE
4	S2	140	ARG
4	S2	141	ARG
4	S2	148	LEU
4	S2	156	THR
4	S2	159	THR
4	S2	170	ILE
4	S2	179	VAL
4	S2	195	ASP
4	S2	200	SER
4	S2	206	THR
4	S2	208	GLU
4	S2	218	ILE
4	S2	221	THR
4	S2	222	TYR
4	S2	225	LEU
4	S2	226	THR
4	S2	229	LEU
4	S2	237	VAL
4	S2	240	LEU
4	S2	245	ASP

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Mol	Chain	Res	Type
4	S2	246	GLU
5	S3	4	LEU
5	S3	7	LYS
5	S3	23	GLU
5	S3	41	VAL
5	S3	57	ASP
5	S3	65	ARG
5	S3	66	ILE
5	S3	71	LEU
5	S3	84	ILE
5	S3	89	GLU
5	S3	92	GLN
5	S3	93	ASP
5	S3	94	ARG
5	S3	103	GLU
5	S3	104	SER
5	S3	105	MET
5	S3	113	LEU
5	S3	115	ILE
5	S3	117	ARG
5	S3	122	VAL
5	S3	127	MET
5	S3	132	LYS
5	S3	134	CYS
5	S3	141	LYS
5	S3	142	LEU
5	S3	143	ARG
5	S3	148	LYS
5	S3	151	LYS
5	S3	158	ILE
5	S3	164	VAL
5	S3	170	THR
5	S3	172	THR
5	S3	175	VAL
5	S3	176	LEU
5	S3	178	ARG
5	S3	190	ARG
5	S3	195	SER
5	S3	197	THR
5	S3	212	LYS
5	S3	217	ILE
6	S4	6	LYS

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Mol	Chain	Res	Type
6	S4	7	LYS
6	S4	9	LEU
6	S4	23	LEU
6	S4	37	LYS
6	S4	38	LEU
6	S4	39	ARG
6	S4	40	GLU
6	S4	56	LEU
6	S4	57	ASN
6	S4	62	LYS
6	S4	67	GLN
6	S4	77	ARG
6	S4	78	THR
6	S4	92	LEU
6	S4	116	ASP
6	S4	126	VAL
6	S4	129	VAL
6	S4	131	LEU
6	S4	133	LYS
6	S4	140	VAL
6	S4	146	THR
6	S4	160	VAL
6	S4	164	LEU
6	S4	176	ASP
6	S4	179	LYS
6	S4	180	LEU
6	S4	181	VAL
6	S4	187	ARG
6	S4	192	ILE
6	S4	197	HIS
6	S4	206	ASP
6	S4	211	LYS
6	S4	215	ASP
6	S4	222	LEU
6	S4	227	VAL
6	S4	236	ILE
6	S4	240	LYS
6	S4	242	LYS
6	S4	246	LEU
6	S4	247	SER
6	S4	256	ARG
6	S4	259	GLN

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Mol	Chain	Res	Type
7	S5	23	VAL
7	S5	24	VAL
7	S5	25	LEU
7	S5	39	GLU
7	S5	40	ILE
7	S5	41	LYS
7	S5	43	PHE
7	S5	50	GLU
7	S5	53	VAL
7	S5	79	ASN
7	S5	84	LYS
7	S5	89	ILE
7	S5	90	ILE
7	S5	93	LEU
7	S5	94	THR
7	S5	96	SER
7	S5	109	LYS
7	S5	112	ARG
7	S5	119	ASP
7	S5	123	VAL
7	S5	127	GLN
7	S5	146	THR
7	S5	147	THR
7	S5	149	VAL
7	S5	156	ARG
7	S5	161	ASP
7	S5	162	VAL
7	S5	186	ASN
7	S5	194	LEU
7	S5	203	LYS
7	S5	216	GLU
7	S5	223	SER
7	S5	225	ARG
8	S6	12	SER
8	S6	13	GLN
8	S6	15	THR
8	S6	21	GLU
8	S6	25	ARG
8	S6	26	VAL
8	S6	44	GLU
8	S6	45	PHE
8	S6	58	LYS

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Mol	Chain	Res	Type
8	S6	76	LEU
8	S6	78	THR
8	S6	79	LYS
8	S6	81	VAL
8	S6	82	SER
8	S6	83	CYS
8	S6	87	ARG
8	S6	97	VAL
8	S6	105	ASP
8	S6	109	LEU
8	S6	120	GLU
8	S6	124	LEU
8	S6	126	ASP
8	S6	127	THR
8	S6	129	VAL
8	S6	133	LEU
8	S6	143	LYS
8	S6	151	ASP
8	S6	154	ARG
8	S6	155	ASP
8	S6	157	VAL
8	S6	158	ILE
8	S6	175	ILE
8	S6	176	GLN
8	S6	177	ARG
8	S6	178	LEU
8	S6	211	LEU
8	S6	212	LEU
8	S6	223	LYS
9	S7	9	LEU
9	S7	15	GLU
9	S7	26	GLU
9	S7	28	GLU
9	S7	29	ASN
9	S7	37	GLU
9	S7	38	LEU
9	S7	46	ILE
9	S7	55	LYS
9	S7	60	ILE
9	S7	64	VAL
9	S7	67	LEU
9	S7	75	THR

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Mol	Chain	Res	Type
9	S7	77	LEU
9	S7	80	GLU
9	S7	87	ASP
9	S7	97	ARG
9	S7	103	SER
9	S7	106	SER
9	S7	109	VAL
9	S7	110	GLN
9	S7	114	ARG
9	S7	116	ARG
9	S7	117	THR
9	S7	126	LEU
9	S7	127	GLU
9	S7	135	ILE
9	S7	136	VAL
9	S7	139	ARG
9	S7	143	LEU
9	S7	144	VAL
9	S7	159	VAL
9	S7	162	ILE
9	S7	163	ASP
9	S7	168	SER
9	S7	174	ASN
9	S7	181	ILE
9	S7	185	ILE
10	S8	5	ARG
10	S8	8	ARG
10	S8	14	THR
10	S8	21	PHE
10	S8	28	GLU
10	S8	29	LEU
10	S8	32	GLN
10	S8	36	THR
10	S8	56	ARG
10	S8	58	LEU
10	S8	60	ILE
10	S8	72	ILE
10	S8	121	LEU
10	S8	135	LYS
10	S8	137	LYS
10	S8	138	ASN
10	S8	140	GLU

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Mol	Chain	Res	Type
10	S8	151	LYS
10	S8	152	ILE
10	S8	164	ARG
10	S8	176	SER
10	S8	184	LEU
10	S8	196	LEU
10	S8	199	LYS
11	S9	3	ARG
11	S9	6	ARG
11	S9	7	THR
11	S9	14	THR
11	S9	22	SER
11	S9	28	LEU
11	S9	36	LEU
11	S9	39	LYS
11	S9	46	SER
11	S9	49	LEU
11	S9	54	ARG
11	S9	60	LEU
11	S9	78	ARG
11	S9	89	ASP
11	S9	91	LYS
11	S9	92	LYS
11	S9	93	LEU
11	S9	96	VAL
11	S9	97	LEU
11	S9	99	LEU
11	S9	105	LEU
11	S9	109	LEU
11	S9	110	GLN
11	S9	118	LEU
11	S9	126	ARG
11	S9	130	THR
11	S9	133	HIS
11	S9	134	ILE
11	S9	138	LYS
11	S9	141	VAL
11	S9	143	ILE
11	S9	149	ARG
11	S9	161	THR
11	S9	171	ARG
11	S9	182	GLU

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Mol	Chain	Res	Type
12	C0	1	MET
12	C0	20	VAL
12	C0	22	VAL
12	C0	28	ASN
12	C0	31	LYS
12	C0	32	HIS
12	C0	46	LEU
12	C0	47	GLN
12	C0	55	VAL
12	C0	56	LYS
12	C0	76	LEU
12	C0	78	GLU
12	C0	81	ASN
12	C0	82	LEU
13	C1	8	GLN
13	C1	21	ASN
13	C1	29	LYS
13	C1	40	LEU
13	C1	43	LYS
13	C1	44	THR
13	C1	54	ILE
13	C1	67	ARG
13	C1	69	LYS
13	C1	72	THR
13	C1	74	THR
13	C1	83	THR
13	C1	84	ILE
13	C1	86	ILE
13	C1	99	ARG
13	C1	109	VAL
13	C1	111	VAL
13	C1	123	VAL
13	C1	125	VAL
13	C1	131	ILE
13	C1	132	SER
13	C1	138	ASN
13	C1	140	VAL
14	C2	26	ASP
14	C2	28	LEU
14	C2	33	ARG
14	C2	36	LEU
14	C2	43	ARG

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Mol	Chain	Res	Type
14	C2	50	LYS
14	C2	58	LEU
14	C2	59	LEU
14	C2	61	VAL
14	C2	66	VAL
14	C2	71	ILE
14	C2	85	LYS
14	C2	88	LEU
14	C2	89	ILE
14	C2	90	LYS
14	C2	91	VAL
14	C2	93	ASP
14	C2	103	LEU
14	C2	116	VAL
14	C2	121	VAL
14	C2	129	GLU
14	C2	132	GLU
14	C2	138	GLU
14	C2	139	HIS
15	C3	3	ARG
15	C3	12	SER
15	C3	16	ILE
15	C3	21	ASN
15	C3	27	LYS
15	C3	35	GLU
15	C3	39	LYS
15	C3	42	ARG
15	C3	45	LEU
15	C3	55	ARG
15	C3	56	ASP
15	C3	58	HIS
15	C3	60	VAL
15	C3	62	GLN
15	C3	67	THR
15	C3	88	LEU
15	C3	102	LEU
15	C3	115	LEU
15	C3	125	LEU
15	C3	134	VAL
15	C3	142	GLU
15	C3	143	SER
15	C3	150	VAL

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Mol	Chain	Res	Type
16	C4	13	VAL
16	C4	26	THR
16	C4	28	VAL
16	C4	29	HIS
16	C4	30	VAL
16	C4	38	THR
16	C4	39	ILE
16	C4	43	THR
16	C4	51	ASP
16	C4	79	VAL
16	C4	81	VAL
16	C4	89	THR
16	C4	92	LYS
16	C4	93	THR
16	C4	103	ARG
16	C4	105	LEU
16	C4	108	SER
16	C4	114	ARG
16	C4	124	ASP
16	C4	129	LYS
16	C4	136	ARG
16	C4	137	LEU
17	C5	22	LEU
17	C5	26	LEU
17	C5	27	GLU
17	C5	31	GLU
17	C5	34	VAL
17	C5	35	LYS
17	C5	36	LEU
17	C5	40	ARG
17	C5	44	ARG
17	C5	50	THR
17	C5	52	LYS
17	C5	65	LEU
17	C5	69	GLU
17	C5	78	THR
17	C5	86	VAL
17	C5	89	MET
17	C5	94	VAL
17	C5	110	GLU
17	C5	121	ILE
17	C5	124	THR

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Mol	Chain	Res	Type
17	C5	128	HIS
18	C6	4	VAL
18	C6	13	LYS
18	C6	14	LYS
18	C6	15	SER
18	C6	26	LYS
18	C6	29	ILE
18	C6	43	ILE
18	C6	44	LEU
18	C6	53	LEU
18	C6	54	LEU
18	C6	57	LEU
18	C6	58	ASP
18	C6	66	ARG
18	C6	69	VAL
18	C6	76	SER
18	C6	97	VAL
18	C6	98	ASP
18	C6	101	SER
18	C6	106	LYS
18	C6	110	THR
18	C6	123	ARG
18	C6	128	LYS
18	C6	136	SER
18	C6	137	ARG
18	C6	138	PHE
18	C6	140	LYS
18	C6	141	SER
18	C6	143	ARG
19	C7	5	ARG
19	C7	6	THR
19	C7	8	THR
19	C7	19	ARG
19	C7	23	LYS
19	C7	29	GLN
19	C7	38	ILE
19	C7	46	LEU
19	C7	49	LYS
19	C7	62	GLN
19	C7	69	ILE
19	C7	70	SER
19	C7	72	LYS

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Mol	Chain	Res	Type
19	C7	83	GLN
19	C7	88	VAL
19	C7	105	GLN
19	C7	111	LYS
19	C7	113	LEU
19	C7	115	LEU
20	C8	3	LEU
20	C8	5	VAL
20	C8	8	GLN
20	C8	11	PHE
20	C8	12	GLN
20	C8	13	HIS
20	C8	14	ILE
20	C8	15	LEU
20	C8	16	ARG
20	C8	26	ILE
20	C8	28	ILE
20	C8	38	VAL
20	C8	54	LEU
20	C8	60	GLU
20	C8	71	GLN
20	C8	74	GLN
20	C8	80	LYS
20	C8	86	LEU
20	C8	89	GLN
20	C8	92	ILE
20	C8	93	THR
20	C8	108	LYS
20	C8	110	ARG
20	C8	116	LEU
20	C8	119	ILE
20	C8	120	ARG
20	C8	132	ARG
20	C8	133	VAL
20	C8	136	GLN
20	C8	138	THR
20	C8	140	THR
20	C8	143	ARG
21	C9	4	VAL
21	C9	6	VAL
21	C9	13	ASP
21	C9	22	LEU

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Mol	Chain	Res	Type
21	C9	27	LYS
21	C9	28	LEU
21	C9	33	TYR
21	C9	35	ASP
21	C9	57	ARG
21	C9	67	MET
21	C9	84	LYS
21	C9	89	ARG
21	C9	94	ILE
21	C9	97	SER
21	C9	100	ILE
21	C9	111	ILE
21	C9	115	GLU
21	C9	124	ILE
21	C9	125	SER
21	C9	126	GLU
21	C9	129	GLN
21	C9	131	ASP
21	C9	132	LEU
21	C9	135	ILE
21	C9	140	LEU
21	C9	144	GLU
22	D0	17	GLN
22	D0	18	GLN
22	D0	20	ILE
22	D0	21	LYS
22	D0	23	ARG
22	D0	25	THR
22	D0	27	THR
22	D0	30	LYS
22	D0	31	VAL
22	D0	34	LEU
22	D0	35	GLU
22	D0	42	VAL
22	D0	47	GLN
22	D0	48	HIS
22	D0	51	VAL
22	D0	60	THR
22	D0	61	LYS
22	D0	65	ILE
22	D0	66	SER
22	D0	70	THR

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Mol	Chain	Res	Type
22	D0	74	GLU
22	D0	81	THR
22	D0	89	ARG
22	D0	103	ILE
22	D0	108	ILE
23	D1	3	ASN
23	D1	5	LYS
23	D1	8	LEU
23	D1	10	GLU
23	D1	11	LEU
23	D1	18	SER
23	D1	32	VAL
23	D1	41	GLU
23	D1	49	GLU
23	D1	52	THR
23	D1	60	ARG
23	D1	62	ARG
23	D1	69	LEU
23	D1	76	ASP
23	D1	78	LEU
23	D1	80	LYS
24	D2	7	LEU
24	D2	18	GLU
24	D2	20	THR
24	D2	22	LYS
24	D2	23	ARG
24	D2	24	GLN
24	D2	27	ILE
24	D2	34	ILE
24	D2	47	ILE
24	D2	53	ILE
24	D2	56	HIS
24	D2	65	LEU
24	D2	76	SER
24	D2	81	VAL
24	D2	83	ILE
24	D2	86	ILE
24	D2	93	LEU
24	D2	98	GLN
24	D2	103	ILE
24	D2	104	LEU
24	D2	105	THR

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Mol	Chain	Res	Type
24	D2	111	MET
24	D2	121	VAL
24	D2	122	SER
25	D3	7	ARG
25	D3	9	LEU
25	D3	17	VAL
25	D3	18	HIS
25	D3	19	ARG
25	D3	26	GLU
25	D3	28	ASN
25	D3	40	SER
25	D3	46	SER
25	D3	69	ARG
25	D3	79	ASN
25	D3	82	LYS
25	D3	83	VAL
25	D3	94	ASN
25	D3	103	LEU
25	D3	107	PHE
25	D3	114	LYS
25	D3	117	ILE
25	D3	126	LYS
25	D3	131	SER
25	D3	132	LEU
25	D3	133	LEU
25	D3	138	GLU
25	D3	140	LYS
25	D3	144	ARG
25	D3	145	SER
26	D4	10	ARG
26	D4	14	SER
26	D4	17	LEU
26	D4	21	LYS
26	D4	32	ARG
26	D4	34	ASN
26	D4	35	VAL
26	D4	46	GLU
26	D4	47	VAL
26	D4	51	GLU
26	D4	57	VAL
26	D4	61	ARG
26	D4	62	THR

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Mol	Chain	Res	Type
26	D4	74	LEU
26	D4	75	VAL
26	D4	88	THR
26	D4	96	LEU
26	D4	99	LYS
26	D4	100	VAL
26	D4	102	LYS
26	D4	121	THR
26	D4	123	LYS
26	D4	128	LYS
26	D4	129	VAL
26	D4	131	ARG
26	D4	132	ARG
26	D4	135	ASP
27	D5	38	HIS
27	D5	40	VAL
27	D5	41	ILE
27	D5	42	LEU
27	D5	43	ASP
27	D5	44	GLN
27	D5	49	ARG
27	D5	58	ARG
27	D5	59	TYR
27	D5	67	ASP
27	D5	68	ARG
27	D5	69	LEU
27	D5	70	LYS
27	D5	71	ILE
27	D5	75	LEU
27	D5	85	LYS
27	D5	88	ILE
27	D5	92	ILE
27	D5	96	SER
27	D5	100	ILE
27	D5	103	ARG
27	D5	105	THR
28	D6	5	ARG
28	D6	12	LYS
28	D6	36	ILE
28	D6	38	ARG
28	D6	39	MET
28	D6	41	ILE

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Mol	Chain	Res	Type
28	D6	44	ILE
28	D6	45	VAL
28	D6	53	LEU
28	D6	58	VAL
28	D6	61	GLU
28	D6	66	LYS
28	D6	67	THR
28	D6	69	ASN
28	D6	70	LYS
28	D6	71	LEU
28	D6	74	CYS
28	D6	76	SER
28	D6	79	ILE
28	D6	82	ARG
28	D6	83	ILE
28	D6	84	VAL
28	D6	87	ARG
28	D6	90	GLU
29	D7	2	VAL
29	D7	3	LEU
29	D7	20	LYS
29	D7	30	SER
29	D7	33	LEU
29	D7	34	ASP
29	D7	57	GLU
29	D7	60	SER
29	D7	75	GLU
29	D7	77	THR
29	D7	78	SER
30	D8	5	THR
30	D8	13	ILE
30	D8	14	LYS
30	D8	15	VAL
30	D8	19	THR
30	D8	28	VAL
30	D8	30	VAL
30	D8	32	PHE
30	D8	33	LEU
30	D8	36	THR
30	D8	39	THR
30	D8	44	VAL
30	D8	49	ARG

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Mol	Chain	Res	Type
30	D8	56	LEU
30	D8	58	GLU
30	D8	62	GLU
30	D8	64	ARG
30	D8	65	ARG
31	D9	6	VAL
31	D9	8	PHE
31	D9	12	ARG
31	D9	19	ARG
31	D9	25	SER
31	D9	27	HIS
31	D9	28	THR
31	D9	30	LEU
31	D9	31	ILE
31	D9	32	ARG
31	D9	36	LEU
31	D9	48	ASN
32	E0	8	LEU
32	E0	14	VAL
32	E0	20	LYS
32	E0	26	LYS
32	E0	28	LYS
32	E0	42	ARG
32	E0	43	ARG
32	E0	45	VAL
32	E0	47	VAL
32	E0	56	MET
33	E1	84	VAL
33	E1	85	TYR
33	E1	86	THR
33	E1	89	LYS
33	E1	90	LYS
33	E1	91	ILE
33	E1	93	HIS
33	E1	97	LYS
33	E1	98	VAL
33	E1	107	LYS
33	E1	111	GLU
33	E1	113	LYS
33	E1	119	ARG
33	E1	120	GLU
33	E1	130	VAL

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Mol	Chain	Res	Type
33	E1	137	ASP
33	E1	140	TYR
33	E1	147	VAL
33	E1	148	TYR
33	E1	149	LYS
33	E1	151	ASN
34	SR	4	ASN
34	SR	6	VAL
34	SR	9	LEU
34	SR	14	GLU
34	SR	29	GLN
34	SR	44	SER
34	SR	46	LYS
34	SR	51	ASP
34	SR	52	GLN
34	SR	58	VAL
34	SR	59	ARG
34	SR	64	HIS
34	SR	76	ASP
34	SR	106	HIS
34	SR	117	LYS
34	SR	136	ILE
34	SR	137	LYS
34	SR	141	LEU
34	SR	149	ASP
34	SR	153	GLN
34	SR	159	ASN
34	SR	165	ASP
34	SR	185	GLN
34	SR	188	ILE
34	SR	195	HIS
34	SR	202	LEU
34	SR	207	ASP
34	SR	213	SER
34	SR	238	ASP
34	SR	265	LEU
34	SR	266	ASP
34	SR	268	GLN
34	SR	275	ARG
34	SR	314	GLN
34	SR	316	MET
34	SR	317	THR

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Mol	Chain	Res	Type
35	SM	27	LYS
35	SM	33	LYS
35	SM	34	LYS
35	SM	37	VAL
35	SM	43	ASP
35	SM	46	LYS
35	SM	48	ARG
35	SM	51	ARG
35	SM	61	ILE
35	SM	64	LYS
35	SM	68	ARG
35	SM	72	ARG
35	SM	74	LYS
35	SM	76	VAL
35	SM	77	THR
35	SM	78	ASP
35	SM	79	SER
35	SM	83	LYS
35	SM	95	SER
35	SM	100	THR
35	SM	103	LYS
35	SM	105	LYS
35	SM	116	GLU
35	SM	130	GLU
35	SM	131	ILE
39	L2	14	SER
39	L2	20	THR
39	L2	23	ARG
39	L2	32	LEU
39	L2	37	ARG
39	L2	44	ILE
39	L2	45	VAL
39	L2	48	ILE
39	L2	50	HIS
39	L2	62	VAL
39	L2	72	ARG
39	L2	74	GLU
39	L2	88	ILE
39	L2	98	VAL
39	L2	101	VAL
39	L2	102	LEU
39	L2	104	LEU

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Mol	Chain	Res	Type
39	L2	109	GLU
39	L2	113	VAL
39	L2	116	VAL
39	L2	119	LYS
39	L2	143	GLU
39	L2	152	SER
39	L2	157	VAL
39	L2	165	VAL
39	L2	179	LEU
39	L2	180	LEU
39	L2	199	THR
39	L2	202	VAL
39	L2	204	MET
39	L2	225	ILE
39	L2	227	ARG
39	L2	230	VAL
39	L2	238	ILE
39	L2	241	ARG
39	L2	243	THR
39	L2	246	LEU
39	L2	252	THR
40	L3	4	ARG
40	L3	7	GLU
40	L3	17	LEU
40	L3	19	ARG
40	L3	25	ILE
40	L3	37	ARG
40	L3	41	VAL
40	L3	44	THR
40	L3	47	LEU
40	L3	55	THR
40	L3	56	ILE
40	L3	70	ARG
40	L3	73	VAL
40	L3	81	THR
40	L3	85	VAL
40	L3	93	VAL
40	L3	94	GLU
40	L3	95	THR
40	L3	101	SER
40	L3	102	LEU
40	L3	103	THR

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Mol	Chain	Res	Type
40	L3	110	LEU
40	L3	112	ASP
40	L3	114	VAL
40	L3	146	ARG
40	L3	148	LEU
40	L3	156	SER
40	L3	169	THR
40	L3	173	GLN
40	L3	183	LEU
40	L3	187	SER
40	L3	188	ILE
40	L3	192	VAL
40	L3	196	ARG
40	L3	202	THR
40	L3	205	VAL
40	L3	206	ASP
40	L3	210	GLU
40	L3	218	ILE
40	L3	221	THR
40	L3	229	VAL
40	L3	232	ARG
40	L3	241	LYS
40	L3	244	ARG
40	L3	246	LEU
40	L3	252	ILE
40	L3	260	VAL
40	L3	261	MET
40	L3	266	ARG
40	L3	275	ARG
40	L3	277	SER
40	L3	282	ILE
40	L3	287	LYS
40	L3	291	GLU
40	L3	301	THR
40	L3	305	ILE
40	L3	308	MET
40	L3	312	VAL
40	L3	319	ASN
40	L3	324	VAL
40	L3	328	ILE
40	L3	338	LEU
40	L3	344	THR

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Mol	Chain	Res	Type
40	L3	347	SER
40	L3	372	THR
40	L3	387	LEU
41	L4	14	GLU
41	L4	33	ASP
41	L4	37	THR
41	L4	47	ARG
41	L4	60	THR
41	L4	69	ARG
41	L4	73	ARG
41	L4	74	ILE
41	L4	93	MET
41	L4	98	ARG
41	L4	112	LYS
41	L4	124	SER
41	L4	133	SER
41	L4	138	ARG
41	L4	141	ARG
41	L4	148	ILE
41	L4	150	LEU
41	L4	152	VAL
41	L4	156	LEU
41	L4	158	SER
41	L4	161	LYS
41	L4	170	LYS
41	L4	177	ASP
41	L4	179	LEU
41	L4	182	LEU
41	L4	187	LEU
41	L4	193	LYS
41	L4	200	THR
41	L4	201	GLN
41	L4	203	ARG
41	L4	206	LEU
41	L4	216	VAL
41	L4	220	ARG
41	L4	222	VAL
41	L4	230	VAL
41	L4	232	SER
41	L4	246	ARG
41	L4	256	THR
41	L4	258	LEU

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Mol	Chain	Res	Type
41	L4	261	VAL
41	L4	283	THR
41	L4	287	THR
41	L4	295	ILE
41	L4	297	SER
41	L4	306	THR
41	L4	307	GLN
41	L4	310	THR
41	L4	313	LEU
41	L4	323	VAL
41	L4	327	LEU
41	L4	332	LYS
41	L4	349	THR
42	L5	6	ASP
42	L5	10	SER
42	L5	13	SER
42	L5	14	SER
42	L5	22	ARG
42	L5	23	ARG
42	L5	34	LYS
42	L5	35	ARG
42	L5	41	LYS
42	L5	56	THR
42	L5	62	CYS
42	L5	64	ILE
42	L5	68	THR
42	L5	69	ILE
42	L5	70	THR
42	L5	75	LEU
42	L5	89	THR
42	L5	92	LEU
42	L5	93	THR
42	L5	105	ILE
42	L5	107	ARG
42	L5	109	THR
42	L5	110	LEU
42	L5	113	LEU
42	L5	118	THR
42	L5	122	VAL
42	L5	131	LEU
42	L5	135	VAL
42	L5	137	ASP

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Mol	Chain	Res	Type
42	L5	140	ARG
42	L5	144	VAL
42	L5	146	LEU
42	L5	148	ILE
42	L5	151	GLN
42	L5	152	ARG
42	L5	154	THR
42	L5	155	THR
42	L5	159	VAL
42	L5	163	LEU
42	L5	177	GLU
42	L5	179	ARG
42	L5	188	GLU
42	L5	190	ILE
42	L5	203	HIS
42	L5	211	LEU
42	L5	218	ARG
42	L5	222	LEU
42	L5	231	ILE
42	L5	232	ASP
42	L5	234	ASP
42	L5	261	THR
42	L5	263	GLU
42	L5	264	GLN
42	L5	273	ARG
42	L5	277	LEU
42	L5	293	LEU
43	L6	5	LYS
43	L6	15	VAL
43	L6	18	LEU
43	L6	21	THR
43	L6	28	GLN
43	L6	31	ARG
43	L6	33	SER
43	L6	34	LEU
43	L6	35	VAL
43	L6	38	THR
43	L6	46	ARG
43	L6	52	VAL
43	L6	58	LEU
43	L6	64	LEU
43	L6	65	ILE

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Mol	Chain	Res	Type
43	L6	66	SER
43	L6	71	VAL
43	L6	78	ARG
43	L6	79	VAL
43	L6	82	ARG
43	L6	84	VAL
43	L6	89	THR
43	L6	90	LYS
43	L6	98	VAL
43	L6	99	GLU
43	L6	100	LYS
43	L6	108	LYS
43	L6	109	GLU
43	L6	134	ARG
43	L6	146	ILE
43	L6	155	LEU
43	L6	160	SER
43	L6	167	ASN
44	L7	25	GLN
44	L7	26	VAL
44	L7	46	GLU
44	L7	60	ARG
44	L7	77	VAL
44	L7	82	LYS
44	L7	83	LEU
44	L7	84	VAL
44	L7	87	VAL
44	L7	88	ARG
44	L7	92	ILE
44	L7	101	LYS
44	L7	109	THR
44	L7	121	LYS
44	L7	124	LEU
44	L7	140	SER
44	L7	156	ILE
44	L7	173	LEU
44	L7	175	LYS
44	L7	178	ILE
44	L7	179	LEU
44	L7	181	ILE
44	L7	184	LEU
44	L7	191	VAL

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Mol	Chain	Res	Type
44	L7	216	VAL
44	L7	232	ARG
44	L7	239	LEU
45	L8	26	LEU
45	L8	27	THR
45	L8	36	ILE
45	L8	41	GLN
45	L8	46	LEU
45	L8	50	VAL
45	L8	63	LYS
45	L8	65	LEU
45	L8	66	SER
45	L8	74	THR
45	L8	79	GLN
45	L8	83	ASP
45	L8	84	ARG
45	L8	92	LYS
45	L8	95	ASN
45	L8	116	VAL
45	L8	118	GLU
45	L8	132	VAL
45	L8	134	TYR
45	L8	136	LEU
45	L8	150	LEU
45	L8	160	ILE
45	L8	161	GLU
45	L8	162	LEU
45	L8	163	VAL
45	L8	169	LEU
45	L8	180	VAL
45	L8	185	ARG
45	L8	186	LEU
45	L8	189	LEU
45	L8	190	VAL
45	L8	197	VAL
45	L8	203	VAL
45	L8	214	LEU
45	L8	218	ILE
45	L8	240	ASN
45	L8	246	MET
45	L8	251	LYS
46	L9	5	GLN

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Mol	Chain	Res	Type
46	L9	9	GLN
46	L9	18	VAL
46	L9	19	SER
46	L9	20	ILE
46	L9	24	ILE
46	L9	33	THR
46	L9	41	ILE
46	L9	44	THR
46	L9	48	VAL
46	L9	50	ASN
46	L9	52	LEU
46	L9	65	VAL
46	L9	68	LEU
46	L9	69	ARG
46	L9	70	THR
46	L9	80	THR
46	L9	82	VAL
46	L9	92	TYR
46	L9	93	VAL
46	L9	94	TYR
46	L9	104	VAL
46	L9	107	ASP
46	L9	123	ILE
46	L9	132	VAL
46	L9	135	GLU
46	L9	137	SER
46	L9	138	THR
46	L9	139	ASN
46	L9	140	VAL
46	L9	141	LYS
46	L9	146	LEU
46	L9	150	SER
46	L9	151	VAL
46	L9	162	GLN
46	L9	164	ILE
46	L9	166	ARG
46	L9	170	LYS
46	L9	172	ILE
46	L9	173	ARG
46	L9	175	PHE
46	L9	182	SER
46	L9	188	THR

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Mol	Chain	Res	Type
46	L9	189	GLU
47	M0	3	ARG
47	M0	14	ASN
47	M0	24	ARG
47	M0	26	VAL
47	M0	30	LYS
47	M0	31	ILE
47	M0	32	ARG
47	M0	33	ILE
47	M0	42	THR
47	M0	48	LEU
47	M0	52	LEU
47	M0	63	GLU
47	M0	74	LYS
47	M0	87	LEU
47	M0	90	ARG
47	M0	91	VAL
47	M0	116	ARG
47	M0	125	LEU
47	M0	129	VAL
47	M0	130	ASP
47	M0	145	LYS
47	M0	153	ARG
47	M0	156	ARG
47	M0	163	GLN
47	M0	165	ILE
47	M0	177	ASP
47	M0	184	LYS
47	M0	185	ARG
47	M0	191	LYS
47	M0	192	ASP
47	M0	203	LYS
47	M0	210	ILE
48	M1	7	ASN
48	M1	9	MET
48	M1	10	ARG
48	M1	12	LEU
48	M1	13	LYS
48	M1	17	LEU
48	M1	19	LEU
48	M1	20	ASN
48	M1	23	VAL

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Mol	Chain	Res	Type
48	M1	25	GLU
48	M1	44	THR
48	M1	46	VAL
48	M1	56	THR
48	M1	60	ARG
48	M1	70	THR
48	M1	80	LEU
48	M1	95	ASN
48	M1	106	ILE
48	M1	107	ASP
48	M1	110	ILE
48	M1	112	LEU
48	M1	115	LYS
48	M1	137	ARG
48	M1	138	VAL
48	M1	139	THR
48	M1	140	ARG
48	M1	142	LYS
48	M1	155	THR
48	M1	166	LYS
48	M1	173	ASP
49	M3	4	SER
49	M3	10	LEU
49	M3	13	HIS
49	M3	14	PHE
49	M3	15	ARG
49	M3	23	LYS
49	M3	27	ASP
49	M3	42	ARG
49	M3	46	ILE
49	M3	54	LEU
49	M3	58	VAL
49	M3	59	ARG
49	M3	63	VAL
49	M3	67	ARG
49	M3	69	VAL
49	M3	77	LEU
49	M3	85	LEU
49	M3	95	ILE
49	M3	97	VAL
49	M3	100	ARG
49	M3	107	GLU

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Mol	Chain	Res	Type
49	M3	108	ILE
49	M3	112	ASN
49	M3	114	GLN
49	M3	120	GLN
49	M3	124	ILE
49	M3	134	GLU
49	M3	136	GLU
49	M3	140	SER
49	M3	144	THR
49	M3	147	ILE
49	M3	164	GLU
49	M3	165	SER
49	M3	171	ARG
49	M3	182	ILE
49	M3	190	LYS
50	M4	10	SER
50	M4	20	VAL
50	M4	27	GLN
50	M4	28	SER
50	M4	50	LYS
50	M4	53	VAL
50	M4	58	ILE
50	M4	59	ASN
50	M4	60	LEU
50	M4	64	VAL
50	M4	69	THR
50	M4	72	LEU
50	M4	92	GLU
50	M4	102	LYS
50	M4	107	GLU
50	M4	108	ARG
50	M4	113	THR
50	M4	126	GLN
50	M4	130	THR
50	M4	132	LYS
50	M4	133	LYS
50	M4	135	LEU
51	M5	7	LEU
51	M5	10	LEU
51	M5	15	GLN
51	M5	17	ASP
51	M5	18	VAL

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Mol	Chain	Res	Type
51	M5	19	LEU
51	M5	20	ARG
51	M5	22	LEU
51	M5	38	ARG
51	M5	60	VAL
51	M5	75	VAL
51	M5	80	THR
51	M5	83	LYS
51	M5	92	LEU
51	M5	98	LEU
51	M5	104	GLU
51	M5	105	ARG
51	M5	118	SER
51	M5	123	GLN
51	M5	133	ILE
51	M5	134	LEU
51	M5	138	GLN
51	M5	151	ILE
51	M5	159	ARG
51	M5	170	LYS
51	M5	178	HIS
51	M5	182	ASN
51	M5	183	THR
51	M5	194	GLN
51	M5	198	SER
51	M5	204	LYS
52	M6	6	VAL
52	M6	16	VAL
52	M6	25	LYS
52	M6	34	VAL
52	M6	41	LEU
52	M6	44	SER
52	M6	58	LEU
52	M6	67	THR
52	M6	74	ARG
52	M6	78	ARG
52	M6	84	LEU
52	M6	85	ARG
52	M6	102	LEU
52	M6	106	GLU
52	M6	110	PRO
52	M6	116	LYS

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Mol	Chain	Res	Type
52	M6	117	ARG
52	M6	119	VAL
52	M6	122	GLN
52	M6	124	LEU
52	M6	127	LEU
52	M6	128	ARG
52	M6	130	LYS
52	M6	134	LYS
52	M6	137	THR
52	M6	140	LYS
52	M6	143	THR
52	M6	160	ARG
52	M6	170	LYS
52	M6	176	LYS
52	M6	182	ASN
52	M6	187	GLU
52	M6	190	VAL
52	M6	192	LYS
53	M7	3	ARG
53	M7	7	THR
53	M7	9	THR
53	M7	16	SER
53	M7	22	LEU
53	M7	24	VAL
53	M7	29	THR
53	M7	32	THR
53	M7	34	GLN
53	M7	36	ILE
53	M7	42	THR
53	M7	51	VAL
53	M7	52	LEU
53	M7	53	ASP
53	M7	55	GLN
53	M7	61	ARG
53	M7	65	SER
53	M7	67	ILE
53	M7	75	GLU
53	M7	90	PHE
53	M7	94	LEU
53	M7	111	LYS
53	M7	112	LEU
53	M7	114	VAL

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Mol	Chain	Res	Type
53	M7	121	GLN
53	M7	126	ARG
53	M7	127	ARG
53	M7	138	LYS
53	M7	142	SER
53	M7	144	SER
53	M7	149	VAL
53	M7	153	LYS
53	M7	165	VAL
53	M7	168	LEU
53	M7	172	GLN
53	M7	173	ARG
53	M7	180	LYS
53	M7	182	ILE
54	M8	3	ILE
54	M8	6	THR
54	M8	8	LYS
54	M8	13	SER
54	M8	17	THR
54	M8	21	SER
54	M8	24	VAL
54	M8	26	LEU
54	M8	32	LEU
54	M8	39	ARG
54	M8	41	ASP
54	M8	47	VAL
54	M8	49	LEU
54	M8	57	ILE
54	M8	69	ARG
54	M8	74	GLU
54	M8	81	VAL
54	M8	86	THR
54	M8	88	THR
54	M8	93	ILE
54	M8	113	LYS
54	M8	135	GLN
54	M8	138	LEU
54	M8	141	ARG
54	M8	150	VAL
54	M8	161	LYS
54	M8	166	LEU
54	M8	168	THR

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Mol	Chain	Res	Type
54	M8	171	LYS
54	M8	180	ARG
55	M9	6	THR
55	M9	8	LYS
55	M9	10	LEU
55	M9	20	ARG
55	M9	24	LEU
55	M9	25	ASP
55	M9	30	SER
55	M9	31	GLU
55	M9	39	ASN
55	M9	41	ILE
55	M9	42	ARG
55	M9	44	LEU
55	M9	47	ASN
55	M9	49	THR
55	M9	51	VAL
55	M9	59	SER
55	M9	60	LYS
55	M9	62	ARG
55	M9	72	GLU
55	M9	74	ARG
55	M9	81	ARG
55	M9	84	THR
55	M9	85	ARG
55	M9	86	GLU
55	M9	93	VAL
55	M9	97	ARG
55	M9	98	ARG
55	M9	99	LEU
55	M9	103	ARG
55	M9	108	LYS
55	M9	110	ARG
55	M9	122	VAL
55	M9	125	LYS
55	M9	126	GLU
55	M9	128	LYS
55	M9	130	ASN
55	M9	134	HIS
55	M9	138	LEU
55	M9	143	ILE
55	M9	153	LYS

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Mol	Chain	Res	Type
55	M9	165	LYS
55	M9	175	GLN
55	M9	180	LYS
55	M9	182	ASP
55	M9	185	LEU
56	N0	12	ARG
56	N0	13	ARG
56	N0	16	THR
56	N0	18	SER
56	N0	23	LYS
56	N0	32	SER
56	N0	51	VAL
56	N0	59	VAL
56	N0	61	ILE
56	N0	71	LYS
56	N0	80	ARG
56	N0	85	SER
56	N0	87	THR
56	N0	97	VAL
56	N0	98	SER
56	N0	100	VAL
56	N0	113	ARG
56	N0	123	ILE
56	N0	130	GLU
56	N0	131	LYS
56	N0	132	THR
56	N0	136	LYS
56	N0	137	ARG
56	N0	138	GLN
56	N0	145	THR
56	N0	149	LYS
56	N0	155	ARG
56	N0	160	THR
56	N0	161	LYS
56	N0	164	SER
56	N0	166	LYS
56	N0	167	ARG
56	N0	171	PHE
56	N0	172	TYR
57	N1	16	GLN
57	N1	18	ASP
57	N1	26	HIS

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Mol	Chain	Res	Type
57	N1	27	LEU
57	N1	29	THR
57	N1	32	LYS
57	N1	55	LYS
57	N1	64	VAL
57	N1	71	SER
57	N1	75	ILE
57	N1	78	LYS
57	N1	79	MET
57	N1	80	VAL
57	N1	87	LYS
57	N1	88	ARG
57	N1	89	LEU
57	N1	93	VAL
57	N1	96	ILE
57	N1	104	GLU
57	N1	106	LEU
57	N1	108	ARG
57	N1	110	LYS
57	N1	120	LYS
57	N1	124	VAL
57	N1	126	VAL
57	N1	131	GLN
57	N1	139	ARG
57	N1	143	THR
57	N1	149	GLN
57	N1	154	VAL
57	N1	158	THR
58	N2	29	ASP
58	N2	38	ILE
58	N2	39	ASP
58	N2	43	VAL
58	N2	52	ASN
58	N2	66	VAL
58	N2	88	GLN
58	N2	93	ILE
58	N2	100	THR
59	N3	13	ILE
59	N3	40	LYS
59	N3	44	SER
59	N3	58	VAL
59	N3	64	LYS

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Mol	Chain	Res	Type
59	N3	67	PRO
59	N3	69	LEU
59	N3	72	LYS
59	N3	91	VAL
59	N3	102	ILE
59	N3	109	MET
59	N3	115	THR
59	N3	120	LYS
59	N3	125	LEU
59	N3	135	VAL
59	N3	137	VAL
60	N4	4	GLU
60	N4	5	ILE
60	N4	7	SER
60	N4	19	THR
60	N4	27	LYS
60	N4	39	LEU
60	N4	43	ARG
60	N4	54	LEU
60	N4	96	LEU
60	N4	107	GLU
60	N4	113	LYS
60	N4	115	LYS
60	N4	130	SER
61	N5	26	VAL
61	N5	27	ARG
61	N5	34	LEU
61	N5	37	THR
61	N5	38	LEU
61	N5	40	LEU
61	N5	45	LYS
61	N5	48	SER
61	N5	49	LYS
61	N5	51	VAL
61	N5	58	ASP
61	N5	63	ILE
61	N5	68	THR
61	N5	69	SER
61	N5	83	VAL
61	N5	86	VAL
61	N5	92	LYS
61	N5	97	LYS

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Mol	Chain	Res	Type
61	N5	104	GLU
61	N5	105	VAL
61	N5	108	LEU
61	N5	111	ASN
61	N5	112	THR
61	N5	115	ARG
61	N5	133	LEU
61	N5	135	ILE
61	N5	139	ILE
61	N5	142	ILE
62	N6	3	LYS
62	N6	8	VAL
62	N6	13	ARG
62	N6	17	LYS
62	N6	26	GLN
62	N6	37	LYS
62	N6	39	LEU
62	N6	42	GLN
62	N6	45	ILE
62	N6	50	ILE
62	N6	51	ARG
62	N6	56	VAL
62	N6	57	LEU
62	N6	76	LEU
62	N6	80	VAL
62	N6	87	LYS
62	N6	94	SER
62	N6	95	VAL
62	N6	97	ILE
62	N6	103	LYS
62	N6	105	VAL
62	N6	113	LYS
62	N6	115	ARG
62	N6	120	GLN
62	N6	125	LYS
62	N6	126	LEU
63	N7	3	LYS
63	N7	5	LEU
63	N7	14	VAL
63	N7	15	ARG
63	N7	17	ARG
63	N7	24	VAL

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Mol	Chain	Res	Type
63	N7	31	GLU
63	N7	36	HIS
63	N7	46	ILE
63	N7	53	VAL
63	N7	54	THR
63	N7	81	LEU
63	N7	83	THR
63	N7	90	GLU
63	N7	92	PHE
63	N7	95	VAL
63	N7	99	GLU
63	N7	102	GLU
63	N7	103	GLN
63	N7	107	ARG
63	N7	109	GLU
63	N7	121	ARG
63	N7	134	LEU
64	N8	4	ARG
64	N8	10	LYS
64	N8	16	SER
64	N8	22	ILE
64	N8	25	HIS
64	N8	32	ARG
64	N8	40	HIS
64	N8	42	ARG
64	N8	43	ILE
64	N8	44	ASN
64	N8	56	VAL
64	N8	58	MET
64	N8	65	GLN
64	N8	67	HIS
64	N8	72	VAL
64	N8	78	LEU
64	N8	84	GLU
64	N8	85	ASP
64	N8	91	LEU
64	N8	96	LYS
64	N8	115	LYS
64	N8	120	ASN
64	N8	130	VAL
64	N8	133	LEU
64	N8	139	ARG

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Mol	Chain	Res	Type
65	N9	14	ARG
65	N9	22	LYS
65	N9	23	LYS
65	N9	25	LYS
65	N9	28	LYS
65	N9	33	LYS
65	N9	50	THR
65	N9	59	LYS
66	O0	10	ILE
66	O0	16	LEU
66	O0	18	ILE
66	O0	29	SER
66	O0	32	LYS
66	O0	34	LEU
66	O0	36	GLN
66	O0	41	LEU
66	O0	43	ILE
66	O0	48	THR
66	O0	52	ARG
66	O0	61	MET
66	O0	63	SER
66	O0	79	THR
66	O0	83	LYS
66	O0	87	VAL
66	O0	93	LEU
66	O0	100	ILE
66	O0	104	LEU
67	O1	8	VAL
67	O1	13	THR
67	O1	16	LEU
67	O1	24	SER
67	O1	28	ARG
67	O1	31	ARG
67	O1	33	VAL
67	O1	36	ILE
67	O1	46	THR
67	O1	47	ASP
67	O1	55	LEU
67	O1	61	LYS
67	O1	64	VAL
67	O1	74	ARG
67	O1	75	ILE

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Mol	Chain	Res	Type
67	O1	79	ARG
67	O1	84	ASP
67	O1	86	LYS
67	O1	89	LEU
67	O1	96	VAL
67	O1	102	LYS
67	O1	106	THR
67	O1	110	GLU
68	O2	4	LEU
68	O2	8	LYS
68	O2	10	VAL
68	O2	19	ARG
68	O2	27	ARG
68	O2	33	ARG
68	O2	40	SER
68	O2	44	ARG
68	O2	61	LYS
68	O2	62	LYS
68	O2	67	SER
68	O2	73	THR
68	O2	75	LEU
68	O2	76	VAL
68	O2	89	THR
68	O2	99	ASN
68	O2	106	VAL
68	O2	119	VAL
68	O2	122	PRO
68	O2	125	ARG
68	O2	126	LEU
69	O3	3	GLU
69	O3	4	SER
69	O3	9	VAL
69	O3	14	LEU
69	O3	15	SER
69	O3	20	LYS
69	O3	33	GLU
69	O3	49	ILE
69	O3	59	VAL
69	O3	60	ARG
69	O3	81	VAL
69	O3	98	VAL
69	O3	105	SER

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Mol	Chain	Res	Type
69	O3	107	ILE
70	O4	3	GLN
70	O4	8	ARG
70	O4	15	THR
70	O4	20	ILE
70	O4	23	VAL
70	O4	24	LYS
70	O4	29	ILE
70	O4	33	GLN
70	O4	51	LEU
70	O4	52	GLN
70	O4	55	SER
70	O4	58	ARG
70	O4	65	VAL
70	O4	69	HIS
70	O4	72	VAL
70	O4	73	SER
70	O4	74	ARG
70	O4	81	CYS
70	O4	86	LYS
70	O4	90	ILE
70	O4	95	ILE
70	O4	102	LYS
70	O4	103	LYS
70	O4	104	VAL
71	O5	15	GLU
71	O5	16	GLN
71	O5	21	LEU
71	O5	26	LYS
71	O5	27	GLU
71	O5	28	LEU
71	O5	45	LYS
71	O5	47	VAL
71	O5	49	LYS
71	O5	71	LYS
71	O5	81	ARG
71	O5	84	LYS
71	O5	86	ARG
71	O5	89	ARG
71	O5	96	GLU
71	O5	100	VAL
71	O5	101	THR

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Mol	Chain	Res	Type
71	O5	102	GLU
71	O5	104	GLN
71	O5	107	LYS
71	O5	118	ILE
72	O6	11	LEU
72	O6	13	LYS
72	O6	17	VAL
72	O6	20	MET
72	O6	26	ILE
72	O6	29	LYS
72	O6	34	SER
72	O6	36	ARG
72	O6	38	LYS
72	O6	42	SER
72	O6	43	LEU
72	O6	45	ARG
72	O6	57	LEU
72	O6	58	ILE
72	O6	60	LEU
72	O6	62	ARG
72	O6	68	ARG
72	O6	71	LYS
72	O6	76	ARG
72	O6	79	SER
72	O6	81	THR
72	O6	88	GLU
73	O7	10	LYS
73	O7	12	HIS
73	O7	17	THR
73	O7	24	ARG
73	O7	25	ARG
73	O7	33	THR
73	O7	34	CYS
73	O7	36	SER
73	O7	43	LYS
73	O7	45	ARG
73	O7	46	SER
73	O7	55	ARG
73	O7	61	THR
73	O7	64	MET
73	O7	67	LEU
73	O7	68	LYS

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Mol	Chain	Res	Type
73	O7	71	SER
73	O7	84	SER
74	O8	5	ILE
74	O8	6	THR
74	O8	8	ILE
74	O8	24	THR
74	O8	31	LEU
74	O8	41	THR
74	O8	45	VAL
74	O8	48	SER
74	O8	50	SER
74	O8	53	THR
74	O8	64	LYS
74	O8	65	LEU
74	O8	67	GLN
74	O8	69	LEU
74	O8	77	ARG
75	O9	4	GLN
75	O9	5	LYS
75	O9	20	ASN
75	O9	21	ARG
75	O9	23	LEU
75	O9	27	ILE
75	O9	28	ARG
75	O9	34	THR
75	O9	40	LYS
75	O9	45	ARG
75	O9	49	MET
75	O9	51	ILE
76	Q0	78	ILE
76	Q0	83	LYS
76	Q0	85	LEU
76	Q0	91	CYS
76	Q0	93	LYS
76	Q0	106	ARG
76	Q0	113	ARG
76	Q0	114	LYS
76	Q0	127	LEU
77	Q1	2	ARG
77	Q1	11	ARG
77	Q1	19	LYS
78	Q2	8	ARG

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Mol	Chain	Res	Type
78	Q2	21	THR
78	Q2	22	GLN
78	Q2	28	TYR
78	Q2	35	LEU
78	Q2	47	GLN
78	Q2	55	LYS
78	Q2	57	VAL
78	Q2	60	LYS
78	Q2	61	LYS
78	Q2	63	LYS
78	Q2	64	THR
78	Q2	71	ARG
78	Q2	72	LEU
78	Q2	78	LYS
78	Q2	80	ARG
78	Q2	84	THR
78	Q2	85	LEU
78	Q2	97	LYS
78	Q2	100	LYS
78	Q2	104	LEU
78	Q2	105	GLN
79	Q3	4	ARG
79	Q3	7	LYS
79	Q3	11	THR
79	Q3	24	ARG
79	Q3	25	GLN
79	Q3	40	SER
79	Q3	45	LYS
79	Q3	46	THR
79	Q3	60	CYS
79	Q3	73	THR
79	Q3	78	THR
79	Q3	91	GLU
2	s0	6	THR
2	s0	9	LEU
2	s0	12	GLU
2	s0	24	LEU
2	s0	32	HIS
2	s0	37	VAL
2	s0	41	ARG
2	s0	45	VAL
2	s0	50	VAL

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Mol	Chain	Res	Type
2	s0	59	LEU
2	s0	62	ARG
2	s0	72	ASP
2	s0	88	LYS
2	s0	101	ARG
2	s0	103	THR
2	s0	111	ILE
2	s0	131	GLN
2	s0	133	ILE
2	s0	139	VAL
2	s0	144	ILE
2	s0	153	SER
2	s0	157	ASP
2	s0	162	CYS
2	s0	167	LYS
2	s0	172	LEU
2	s0	180	GLU
2	s0	183	ARG
2	s0	184	LEU
2	s0	185	ARG
2	s0	188	LEU
2	s0	189	VAL
2	s0	202	TYR
3	s1	21	VAL
3	s1	36	SER
3	s1	47	LEU
3	s1	51	SER
3	s1	56	SER
3	s1	61	LEU
3	s1	62	LYS
3	s1	68	VAL
3	s1	70	LEU
3	s1	81	PHE
3	s1	83	LYS
3	s1	85	LYS
3	s1	103	MET
3	s1	105	PHE
3	s1	108	ASP
3	s1	110	LEU
3	s1	125	VAL
3	s1	127	VAL
3	s1	137	ILE

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Mol	Chain	Res	Type
3	s1	150	VAL
3	s1	158	SER
3	s1	159	SER
3	s1	177	GLN
3	s1	180	THR
3	s1	181	LEU
3	s1	185	THR
3	s1	202	LYS
3	s1	203	ASP
3	s1	211	HIS
3	s1	212	VAL
3	s1	213	ARG
3	s1	219	LYS
3	s1	222	LYS
3	s1	231	LEU
4	s2	41	LEU
4	s2	53	ILE
4	s2	54	GLU
4	s2	55	GLU
4	s2	65	GLU
4	s2	69	ILE
4	s2	72	LEU
4	s2	73	LEU
4	s2	77	GLN
4	s2	79	GLU
4	s2	80	VAL
4	s2	81	MET
4	s2	83	ILE
4	s2	89	GLN
4	s2	90	THR
4	s2	91	ARG
4	s2	94	GLN
4	s2	96	THR
4	s2	101	VAL
4	s2	106	ASP
4	s2	111	VAL
4	s2	113	LEU
4	s2	115	ILE
4	s2	117	THR
4	s2	139	ILE
4	s2	141	ARG
4	s2	146	THR

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Mol	Chain	Res	Type
4	s2	148	LEU
4	s2	154	LEU
4	s2	161	LYS
4	s2	170	ILE
4	s2	178	ILE
4	s2	179	VAL
4	s2	185	LYS
4	s2	195	ASP
4	s2	206	THR
4	s2	207	LEU
4	s2	218	ILE
4	s2	229	LEU
4	s2	233	GLN
4	s2	237	VAL
4	s2	240	LEU
4	s2	242	ILE
4	s2	250	GLN
5	s3	4	LEU
5	s3	7	LYS
5	s3	26	THR
5	s3	37	VAL
5	s3	44	THR
5	s3	49	ILE
5	s3	53	THR
5	s3	55	THR
5	s3	67	ASN
5	s3	69	LEU
5	s3	76	ARG
5	s3	83	THR
5	s3	84	ILE
5	s3	89	GLU
5	s3	91	VAL
5	s3	92	GLN
5	s3	94	ARG
5	s3	99	VAL
5	s3	105	MET
5	s3	113	LEU
5	s3	115	ILE
5	s3	127	MET
5	s3	128	GLU
5	s3	141	LYS
5	s3	142	LEU

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Mol	Chain	Res	Type
5	s3	146	ARG
5	s3	148	LYS
5	s3	150	MET
5	s3	157	LEU
5	s3	158	ILE
5	s3	162	GLN
5	s3	168	ILE
5	s3	175	VAL
5	s3	178	ARG
5	s3	184	ILE
5	s3	202	LEU
5	s3	209	ILE
5	s3	213	GLU
5	s3	215	GLU
5	s3	217	ILE
5	s3	218	LEU
6	s4	6	LYS
6	s4	7	LYS
6	s4	9	LEU
6	s4	12	LEU
6	s4	23	LEU
6	s4	26	CYS
6	s4	30	ARG
6	s4	38	LEU
6	s4	42	LEU
6	s4	45	ILE
6	s4	49	ARG
6	s4	51	ARG
6	s4	67	GLN
6	s4	69	HIS
6	s4	92	LEU
6	s4	102	VAL
6	s4	111	VAL
6	s4	113	ARG
6	s4	116	ASP
6	s4	120	SER
6	s4	126	VAL
6	s4	128	LYS
6	s4	131	LEU
6	s4	139	VAL
6	s4	140	VAL
6	s4	147	ILE

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Mol	Chain	Res	Type
6	s4	148	ARG
6	s4	160	VAL
6	s4	163	ASP
6	s4	180	LEU
6	s4	181	VAL
6	s4	191	ARG
6	s4	194	THR
6	s4	195	ILE
6	s4	196	VAL
6	s4	206	ASP
6	s4	219	VAL
6	s4	221	ARG
6	s4	222	LEU
6	s4	223	ASN
6	s4	227	VAL
6	s4	236	ILE
6	s4	244	ILE
6	s4	245	LYS
6	s4	246	LEU
7	s5	23	VAL
7	s5	25	LEU
7	s5	27	THR
7	s5	31	GLU
7	s5	33	VAL
7	s5	38	THR
7	s5	41	LYS
7	s5	45	LYS
7	s5	51	VAL
7	s5	59	VAL
7	s5	63	GLN
7	s5	64	VAL
7	s5	68	ILE
7	s5	70	VAL
7	s5	83	ARG
7	s5	84	LYS
7	s5	89	ILE
7	s5	93	LEU
7	s5	119	ASP
7	s5	125	THR
7	s5	128	ASN
7	s5	146	THR
7	s5	149	VAL

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Mol	Chain	Res	Type
7	s5	157	ARG
7	s5	161	ASP
7	s5	162	VAL
7	s5	167	ARG
7	s5	170	GLN
7	s5	187	ILE
7	s5	194	LEU
20	c8	36	LYS
20	c8	40	ARG
20	c8	55	HIS
20	c8	61	LEU
20	c8	119	ILE
20	c8	136	GLN
20	c8	138	THR
20	c8	141	THR
20	c8	143	ARG
20	c8	144	ARG
21	c9	6	VAL
21	c9	13	ASP
21	c9	23	GLN
34	sR	64	HIS
34	sR	76	ASP
34	sR	96	THR
34	sR	106	HIS
34	sR	121	MET
34	sR	145	LEU
34	sR	167	VAL
34	sR	168	THR
34	sR	176	LYS
34	sR	185	GLN
34	sR	188	ILE
34	sR	207	ASP
34	sR	232	TYR
34	sR	266	ASP
34	sR	277	GLU
34	sR	297	ASP
34	sR	300	THR
34	sR	308	ASN
34	sR	309	VAL
34	sR	310	ILE
35	sM	23	LYS
35	sM	25	ILE

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Mol	Chain	Res	Type
35	sM	30	THR
35	sM	43	ASP
35	sM	50	ASN
35	sM	53	ARG
35	sM	61	ILE
35	sM	62	ARG
39	l2	5	ILE
39	l2	15	ILE
39	l2	23	ARG
39	l2	32	LEU
39	l2	41	ILE
39	l2	44	ILE
39	l2	45	VAL
39	l2	46	LYS
39	l2	48	ILE
39	l2	61	VAL
39	l2	62	VAL
39	l2	64	ARG
39	l2	75	ILE
39	l2	80	GLU
39	l2	101	VAL
39	l2	104	LEU
39	l2	107	VAL
39	l2	109	GLU
39	l2	113	VAL
39	l2	119	LYS
39	l2	128	ARG
39	l2	130	SER
39	l2	134	VAL
39	l2	137	ILE
39	l2	145	LYS
39	l2	147	ARG
39	l2	155	LYS
39	l2	157	VAL
39	l2	165	VAL
39	l2	175	VAL
39	l2	179	LEU
39	l2	180	LEU
39	l2	181	LYS
39	l2	190	ARG
39	l2	193	ARG
39	l2	199	THR

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Mol	Chain	Res	Type
39	l2	202	VAL
39	l2	223	SER
39	l2	224	THR
39	l2	225	ILE
39	l2	238	ILE
39	l2	241	ARG
39	l2	243	THR
39	l2	246	LEU
39	l2	247	ARG
39	l2	249	SER
39	l2	251	LYS
40	l3	2	SER
40	l3	3	HIS
40	l3	4	ARG
40	l3	7	GLU
40	l3	10	ARG
40	l3	17	LEU
40	l3	19	ARG
40	l3	20	LYS
40	l3	28	ARG
40	l3	30	LYS
40	l3	37	ARG
40	l3	39	LYS
40	l3	41	VAL
40	l3	43	LEU
40	l3	47	LEU
40	l3	50	LYS
40	l3	55	THR
40	l3	56	ILE
40	l3	65	SER
40	l3	70	ARG
40	l3	73	VAL
40	l3	77	THR
40	l3	81	THR
40	l3	85	VAL
40	l3	95	THR
40	l3	101	SER
40	l3	102	LEU
40	l3	103	THR
40	l3	104	THR
40	l3	110	LEU
40	l3	114	VAL

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Mol	Chain	Res	Type
40	l3	116	ARG
40	l3	120	LYS
40	l3	139	GLN
40	l3	148	LEU
40	l3	162	VAL
40	l3	164	THR
40	l3	169	THR
40	l3	183	LEU
40	l3	184	ASN
40	l3	188	ILE
40	l3	192	VAL
40	l3	201	LYS
40	l3	202	THR
40	l3	205	VAL
40	l3	221	THR
40	l3	229	VAL
40	l3	230	THR
40	l3	235	THR
40	l3	237	LYS
40	l3	238	LEU
40	l3	244	ARG
40	l3	246	LEU
40	l3	248	LYS
40	l3	252	ILE
40	l3	260	VAL
40	l3	264	VAL
40	l3	266	ARG
40	l3	276	THR
40	l3	285	VAL
40	l3	287	LYS
40	l3	304	THR
40	l3	306	THR
40	l3	308	MET
40	l3	316	GLU
40	l3	317	ILE
40	l3	319	ASN
40	l3	320	ASP
40	l3	324	VAL
40	l3	328	ILE
40	l3	336	VAL
40	l3	338	LEU
40	l3	339	ARG

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Mol	Chain	Res	Type
40	l3	340	LYS
40	l3	344	THR
40	l3	361	THR
40	l3	367	LYS
40	l3	369	ARG
41	l4	3	ARG
41	l4	11	LEU
41	l4	14	GLU
41	l4	22	LEU
41	l4	37	THR
41	l4	46	LYS
41	l4	48	GLN
41	l4	52	VAL
41	l4	71	VAL
41	l4	73	ARG
41	l4	76	ARG
41	l4	85	SER
41	l4	92	ASN
41	l4	93	MET
41	l4	98	ARG
41	l4	99	MET
41	l4	103	THR
41	l4	105	THR
41	l4	133	SER
41	l4	136	LEU
41	l4	138	ARG
41	l4	141	ARG
41	l4	144	LYS
41	l4	145	ILE
41	l4	148	ILE
41	l4	150	LEU
41	l4	156	LEU
41	l4	158	SER
41	l4	161	LYS
41	l4	170	LYS
41	l4	172	VAL
41	l4	177	ASP
41	l4	179	LEU
41	l4	182	LEU
41	l4	184	SER
41	l4	186	LYS
41	l4	187	LEU

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Mol	Chain	Res	Type
41	l4	191	LYS
41	l4	193	LYS
41	l4	194	TYR
41	l4	200	THR
41	l4	203	ARG
41	l4	217	LYS
41	l4	220	ARG
41	l4	222	VAL
41	l4	230	VAL
41	l4	232	SER
41	l4	246	ARG
41	l4	256	THR
41	l4	258	LEU
41	l4	259	ASP
41	l4	261	VAL
41	l4	267	VAL
41	l4	275	THR
41	l4	283	THR
41	l4	287	THR
41	l4	295	ILE
41	l4	304	GLN
41	l4	307	GLN
41	l4	308	LYS
41	l4	310	THR
41	l4	312	VAL
41	l4	313	LEU
41	l4	327	LEU
41	l4	345	GLU
41	l4	347	THR
41	l4	356	THR
41	l4	359	LEU
41	l4	360	LYS
42	l5	4	GLN
42	l5	25	GLU
42	l5	32	GLN
42	l5	34	LYS
42	l5	35	ARG
42	l5	38	THR
42	l5	51	LEU
42	l5	56	THR
42	l5	65	ILE
42	l5	68	THR

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Mol	Chain	Res	Type
42	15	69	ILE
42	15	70	THR
42	15	73	VAL
42	15	74	VAL
42	15	110	LEU
42	15	112	LYS
42	15	113	LEU
42	15	115	LEU
42	15	118	THR
42	15	120	LYS
42	15	133	GLU
42	15	136	GLU
42	15	137	ASP
42	15	143	LYS
42	15	144	VAL
42	15	146	LEU
42	15	148	ILE
42	15	152	ARG
42	15	155	THR
42	15	164	LYS
42	15	177	GLU
42	15	185	PHE
42	15	186	GLU
42	15	189	GLU
42	15	190	ILE
42	15	194	LEU
42	15	211	LEU
42	15	213	ASP
42	15	218	ARG
42	15	227	LEU
42	15	234	ASP
42	15	254	LYS
42	15	258	LYS
42	15	259	LYS
42	15	268	GLU
42	15	273	ARG
42	15	275	THR
42	15	282	ARG
43	16	8	LYS
43	16	15	VAL
43	16	20	LYS
43	16	21	THR

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Mol	Chain	Res	Type
43	16	26	ARG
43	16	29	LYS
43	16	33	SER
43	16	35	VAL
43	16	41	ILE
43	16	46	ARG
43	16	52	VAL
43	16	64	LEU
43	16	65	ILE
43	16	71	VAL
43	16	79	VAL
43	16	88	SER
43	16	91	VAL
43	16	98	VAL
43	16	108	LYS
43	16	109	GLU
43	16	130	ILE
43	16	152	THR
43	16	155	LEU
44	17	22	THR
44	17	38	LYS
44	17	45	LEU
44	17	59	GLU
44	17	60	ARG
44	17	77	VAL
44	17	80	GLN
44	17	82	LYS
44	17	83	LEU
44	17	84	VAL
44	17	87	VAL
44	17	88	ARG
44	17	89	ILE
44	17	90	LYS
44	17	98	LYS
44	17	101	LYS
44	17	103	LEU
44	17	108	LEU
44	17	110	ARG
44	17	121	LYS
44	17	124	LEU
44	17	158	LYS
44	17	172	ASN

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Mol	Chain	Res	Type
44	17	178	ILE
44	17	179	LEU
44	17	184	LEU
44	17	196	LYS
44	17	206	LYS
44	17	208	SER
44	17	216	VAL
44	17	229	PHE
44	17	239	LEU
45	18	27	THR
45	18	41	GLN
45	18	50	VAL
45	18	54	GLU
45	18	65	LEU
45	18	68	ARG
45	18	70	LYS
45	18	79	GLN
45	18	81	THR
45	18	83	ASP
45	18	86	THR
45	18	89	GLU
45	18	92	LYS
45	18	98	ARG
45	18	109	LEU
45	18	136	LEU
45	18	146	LYS
45	18	149	LYS
45	18	150	LEU
45	18	156	ASP
45	18	160	ILE
45	18	163	VAL
45	18	164	VAL
45	18	169	LEU
45	18	172	LYS
45	18	180	VAL
45	18	183	LYS
45	18	194	THR
45	18	197	VAL
45	18	208	GLU
45	18	214	LEU
45	18	217	THR
45	18	221	ASN

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Mol	Chain	Res	Type
45	18	224	ASP
45	18	230	LYS
45	18	240	ASN
45	18	241	LYS
45	18	245	LYS
45	18	248	LYS
46	19	4	ILE
46	19	5	GLN
46	19	6	THR
46	19	17	THR
46	19	18	VAL
46	19	19	SER
46	19	21	LYS
46	19	24	ILE
46	19	35	THR
46	19	38	LEU
46	19	39	LYS
46	19	43	VAL
46	19	48	VAL
46	19	52	LEU
46	19	55	VAL
46	19	65	VAL
46	19	68	LEU
46	19	69	ARG
46	19	70	THR
46	19	80	THR
46	19	82	VAL
46	19	92	TYR
46	19	93	VAL
46	19	105	GLU
46	19	106	LYS
46	19	124	ARG
46	19	132	VAL
46	19	133	THR
46	19	134	ILE
46	19	138	THR
46	19	140	VAL
46	19	144	ILE
46	19	147	SER
46	19	149	ASN
46	19	150	SER
46	19	151	VAL

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Mol	Chain	Res	Type
46	l9	154	VAL
46	l9	162	GLN
46	l9	164	ILE
46	l9	165	CYS
46	l9	168	ARG
46	l9	173	ARG
46	l9	181	VAL
46	l9	189	GLU
47	m0	20	SER
47	m0	24	ARG
47	m0	26	VAL
47	m0	32	ARG
47	m0	36	LEU
47	m0	38	LYS
47	m0	39	LYS
47	m0	42	THR
47	m0	48	LEU
47	m0	52	LEU
47	m0	58	GLU
47	m0	61	SER
47	m0	62	SER
47	m0	63	GLU
47	m0	76	MET
47	m0	87	LEU
47	m0	91	VAL
47	m0	113	GLN
47	m0	129	VAL
47	m0	135	ILE
47	m0	139	ARG
47	m0	142	ASP
47	m0	143	SER
47	m0	144	ASN
47	m0	145	LYS
47	m0	163	GLN
47	m0	167	LEU
47	m0	169	LYS
47	m0	174	THR
47	m0	175	ASN
47	m0	177	ASP
47	m0	178	ARG
47	m0	186	GLU
47	m0	200	LEU

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Mol	Chain	Res	Type
47	m0	205	SER
47	m0	210	ILE
47	m0	212	GLU
47	m0	215	GLU
47	m0	217	PHE
48	m1	7	ASN
48	m1	10	ARG
48	m1	11	ASP
48	m1	12	LEU
48	m1	13	LYS
48	m1	17	LEU
48	m1	30	LEU
48	m1	31	THR
48	m1	35	LYS
48	m1	46	VAL
48	m1	48	SER
48	m1	71	VAL
48	m1	80	LEU
48	m1	85	LYS
48	m1	87	LYS
48	m1	92	ARG
48	m1	94	ARG
48	m1	97	SER
48	m1	106	ILE
48	m1	107	ASP
48	m1	112	LEU
48	m1	129	VAL
48	m1	130	VAL
48	m1	139	THR
48	m1	142	LYS
48	m1	147	THR
48	m1	152	HIS
48	m1	158	ASP
48	m1	171	VAL
48	m1	174	LYS
49	m3	9	ILE
49	m3	13	HIS
49	m3	46	ILE
49	m3	54	LEU
49	m3	55	ARG
49	m3	58	VAL
49	m3	59	ARG

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Mol	Chain	Res	Type
49	m3	63	VAL
49	m3	67	ARG
49	m3	68	LYS
49	m3	69	VAL
49	m3	73	ARG
49	m3	75	PHE
49	m3	76	THR
49	m3	77	LEU
49	m3	85	LEU
49	m3	97	VAL
49	m3	100	ARG
49	m3	107	GLU
49	m3	114	GLN
49	m3	123	ILE
49	m3	124	ILE
49	m3	131	LYS
49	m3	149	GLN
49	m3	164	GLU
49	m3	171	ARG
49	m3	176	GLU
49	m3	184	GLU
49	m3	194	GLU
50	m4	10	SER
50	m4	13	ARG
50	m4	20	VAL
50	m4	21	VAL
50	m4	23	ILE
50	m4	27	GLN
50	m4	28	SER
50	m4	39	ILE
50	m4	42	LYS
50	m4	62	GLN
50	m4	63	VAL
50	m4	64	VAL
50	m4	69	THR
50	m4	72	LEU
50	m4	74	ARG
50	m4	90	VAL
50	m4	106	ARG
50	m4	107	GLU
50	m4	108	ARG
50	m4	131	VAL

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Mol	Chain	Res	Type
50	m4	132	LYS
50	m4	135	LEU
51	m5	7	LEU
51	m5	10	LEU
51	m5	15	GLN
51	m5	18	VAL
51	m5	22	LEU
51	m5	24	ARG
51	m5	31	ARG
51	m5	41	ARG
51	m5	49	ARG
51	m5	50	ARG
51	m5	71	ARG
51	m5	73	ARG
51	m5	75	VAL
51	m5	80	THR
51	m5	83	LYS
51	m5	87	GLN
51	m5	91	GLU
51	m5	92	LEU
51	m5	96	ARG
51	m5	109	ARG
51	m5	117	ASN
51	m5	126	THR
51	m5	137	PRO
51	m5	142	ILE
51	m5	155	VAL
51	m5	165	THR
51	m5	190	THR
51	m5	194	GLN
51	m5	201	ARG
51	m5	204	LYS
52	m6	4	GLU
52	m6	12	LYS
52	m6	25	LYS
52	m6	34	VAL
52	m6	36	VAL
52	m6	40	GLU
52	m6	41	LEU
52	m6	44	SER
52	m6	58	LEU
52	m6	67	THR

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Mol	Chain	Res	Type
52	m6	74	ARG
52	m6	77	SER
52	m6	78	ARG
52	m6	85	ARG
52	m6	102	LEU
52	m6	106	GLU
52	m6	108	ILE
52	m6	114	LYS
52	m6	115	LYS
52	m6	116	LYS
52	m6	117	ARG
52	m6	118	VAL
52	m6	119	VAL
52	m6	122	GLN
52	m6	124	LEU
52	m6	126	VAL
52	m6	127	LEU
52	m6	128	ARG
52	m6	130	LYS
52	m6	134	LYS
52	m6	143	THR
52	m6	152	VAL
52	m6	167	TYR
52	m6	170	LYS
52	m6	171	LYS
52	m6	182	ASN
52	m6	184	THR
53	m7	7	THR
53	m7	16	SER
53	m7	22	LEU
53	m7	24	VAL
53	m7	31	GLU
53	m7	32	THR
53	m7	34	GLN
53	m7	41	LEU
53	m7	45	GLN
53	m7	49	GLU
53	m7	52	LEU
53	m7	53	ASP
53	m7	55	GLN
53	m7	56	ARG
53	m7	67	ILE

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Mol	Chain	Res	Type
53	m7	69	ARG
53	m7	74	LYS
53	m7	75	GLU
53	m7	80	LYS
53	m7	94	LEU
53	m7	96	GLN
53	m7	103	GLU
53	m7	107	LEU
53	m7	112	LEU
53	m7	114	VAL
53	m7	115	SER
53	m7	120	ASN
53	m7	126	ARG
53	m7	142	SER
53	m7	144	SER
53	m7	149	VAL
53	m7	153	LYS
53	m7	165	VAL
53	m7	168	LEU
53	m7	169	THR
53	m7	171	ARG
53	m7	172	GLN
53	m7	176	ILE
53	m7	180	LYS
53	m7	181	ARG
53	m7	182	ILE
54	m8	17	THR
54	m8	21	SER
54	m8	26	LEU
54	m8	32	LEU
54	m8	39	ARG
54	m8	41	ASP
54	m8	49	LEU
54	m8	57	ILE
54	m8	80	THR
54	m8	86	THR
54	m8	93	ILE
54	m8	99	THR
54	m8	105	ARG
54	m8	113	LYS
54	m8	127	LEU
54	m8	135	GLN

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Mol	Chain	Res	Type
54	m8	138	LEU
54	m8	141	ARG
54	m8	146	SER
54	m8	159	LYS
54	m8	161	LYS
54	m8	165	ILE
54	m8	166	LEU
54	m8	167	SER
54	m8	168	THR
54	m8	170	ARG
54	m8	178	ARG
54	m8	180	ARG
54	m8	186	VAL
55	m9	7	GLN
55	m9	10	LEU
55	m9	13	SER
55	m9	14	VAL
55	m9	17	VAL
55	m9	20	ARG
55	m9	24	LEU
55	m9	29	THR
55	m9	30	SER
55	m9	31	GLU
55	m9	36	ASN
55	m9	37	SER
55	m9	42	ARG
55	m9	43	LYS
55	m9	46	LYS
55	m9	47	ASN
55	m9	52	LYS
55	m9	55	VAL
55	m9	56	THR
55	m9	62	ARG
55	m9	63	THR
55	m9	69	SER
55	m9	70	LYS
55	m9	74	ARG
55	m9	84	THR
55	m9	88	ARG
55	m9	98	ARG
55	m9	99	LEU
55	m9	105	LEU

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Mol	Chain	Res	Type
55	m9	106	LEU
55	m9	114	LYS
55	m9	126	GLU
55	m9	133	LYS
55	m9	134	HIS
55	m9	138	LEU
55	m9	152	GLU
55	m9	156	ASN
55	m9	158	GLU
55	m9	164	LEU
55	m9	173	ARG
55	m9	175	GLN
55	m9	180	LYS
56	n0	13	ARG
56	n0	17	GLU
56	n0	21	GLU
56	n0	23	LYS
56	n0	32	SER
56	n0	45	LEU
56	n0	50	LYS
56	n0	51	VAL
56	n0	53	LYS
56	n0	60	SER
56	n0	73	LYS
56	n0	80	ARG
56	n0	82	ASP
56	n0	87	THR
56	n0	97	VAL
56	n0	100	VAL
56	n0	104	GLU
56	n0	109	ASP
56	n0	117	ARG
56	n0	120	SER
56	n0	130	GLU
56	n0	136	LYS
56	n0	137	ARG
56	n0	140	VAL
56	n0	148	LEU
56	n0	155	ARG
56	n0	156	VAL
56	n0	160	THR
56	n0	161	LYS

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Mol	Chain	Res	Type
56	n0	167	ARG
56	n0	172	TYR
57	n1	12	ARG
57	n1	25	VAL
57	n1	27	LEU
57	n1	31	LEU
57	n1	35	LYS
57	n1	60	LYS
57	n1	64	VAL
57	n1	68	THR
57	n1	71	SER
57	n1	78	LYS
57	n1	79	MET
57	n1	80	VAL
57	n1	83	ARG
57	n1	93	VAL
57	n1	102	ARG
57	n1	104	GLU
57	n1	118	GLU
57	n1	126	VAL
57	n1	128	LEU
57	n1	139	ARG
57	n1	140	ILE
57	n1	143	THR
57	n1	149	GLN
57	n1	150	THR
57	n1	158	THR
57	n1	160	ILE
58	n2	19	VAL
58	n2	21	SER
58	n2	37	LEU
58	n2	43	VAL
58	n2	50	LEU
58	n2	54	VAL
58	n2	55	THR
58	n2	58	GLU
58	n2	62	VAL
58	n2	63	VAL
58	n2	68	THR
58	n2	74	LYS
58	n2	98	THR
58	n2	100	THR

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Mol	Chain	Res	Type
58	n2	105	LEU
59	n3	13	ILE
59	n3	14	SER
59	n3	19	VAL
59	n3	23	MET
59	n3	39	VAL
59	n3	40	LYS
59	n3	42	SER
59	n3	64	LYS
59	n3	69	LEU
59	n3	73	VAL
59	n3	84	SER
59	n3	88	ARG
59	n3	91	VAL
59	n3	94	TYR
59	n3	120	LYS
59	n3	125	LEU
59	n3	128	ARG
59	n3	129	VAL
59	n3	135	VAL
60	n4	7	SER
60	n4	19	THR
60	n4	39	LEU
60	n4	41	LYS
60	n4	60	LYS
60	n4	63	ILE
60	n4	79	GLN
60	n4	83	THR
60	n4	87	LEU
60	n4	90	ILE
60	n4	97	LYS
60	n4	105	ARG
60	n4	116	LYS
60	n4	126	GLU
60	n4	127	LYS
61	n5	24	LEU
61	n5	27	ARG
61	n5	34	LEU
61	n5	39	LYS
61	n5	45	LYS
61	n5	51	VAL
61	n5	56	ARG

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Mol	Chain	Res	Type
61	n5	57	LEU
61	n5	63	ILE
61	n5	68	THR
61	n5	71	THR
61	n5	73	MET
61	n5	74	LYS
61	n5	86	VAL
61	n5	108	LEU
61	n5	115	ARG
61	n5	125	ARG
61	n5	133	LEU
61	n5	135	ILE
61	n5	137	ASN
61	n5	138	ARG
61	n5	139	ILE
61	n5	142	ILE
62	n6	3	LYS
62	n6	4	GLN
62	n6	12	ARG
62	n6	13	ARG
62	n6	14	LYS
62	n6	17	LYS
62	n6	37	LYS
62	n6	39	LEU
62	n6	45	ILE
62	n6	50	ILE
62	n6	56	VAL
62	n6	57	LEU
62	n6	59	VAL
62	n6	66	GLN
62	n6	70	ILE
62	n6	76	LEU
62	n6	87	LYS
62	n6	95	VAL
62	n6	97	ILE
62	n6	103	LYS
62	n6	105	VAL
62	n6	106	ILE
62	n6	112	ASP
62	n6	115	ARG
63	n7	3	LYS
63	n7	14	VAL

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Mol	Chain	Res	Type
63	n7	28	PRO
63	n7	30	ASP
63	n7	34	LYS
63	n7	35	SER
63	n7	36	HIS
63	n7	46	ILE
63	n7	52	LYS
63	n7	53	VAL
63	n7	55	LYS
63	n7	57	HIS
63	n7	72	ILE
63	n7	74	VAL
63	n7	81	LEU
63	n7	90	GLU
63	n7	93	LYS
63	n7	95	VAL
63	n7	98	THR
63	n7	99	GLU
63	n7	100	THR
63	n7	103	GLN
63	n7	105	SER
63	n7	114	VAL
63	n7	121	ARG
63	n7	126	LYS
63	n7	132	SER
63	n7	134	LEU
64	n8	6	THR
64	n8	8	THR
64	n8	12	ARG
64	n8	14	HIS
64	n8	24	LYS
64	n8	27	LYS
64	n8	42	ARG
64	n8	46	ASP
64	n8	65	GLN
64	n8	67	HIS
64	n8	72	VAL
64	n8	73	LEU
64	n8	77	LYS
64	n8	78	LEU
64	n8	82	ILE
64	n8	85	ASP

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Mol	Chain	Res	Type
64	n8	91	LEU
64	n8	97	GLU
64	n8	98	THR
64	n8	115	LYS
64	n8	118	ILE
64	n8	128	ARG
64	n8	132	LYS
64	n8	133	LEU
64	n8	139	ARG
65	n9	3	LYS
65	n9	5	LYS
65	n9	26	THR
65	n9	33	LYS
65	n9	47	LEU
65	n9	50	THR
65	n9	52	LYS
65	n9	58	LYS
65	n9	59	LYS
66	o0	10	ILE
66	o0	17	VAL
66	o0	32	LYS
66	o0	34	LEU
66	o0	39	SER
66	o0	40	LYS
66	o0	41	LEU
66	o0	52	ARG
66	o0	61	MET
66	o0	67	VAL
66	o0	74	ASN
66	o0	76	GLU
66	o0	86	ARG
66	o0	87	VAL
66	o0	97	ASP
66	o0	100	ILE
66	o0	103	THR
67	o1	6	ASP
67	o1	7	VAL
67	o1	8	VAL
67	o1	13	THR
67	o1	16	LEU
67	o1	24	SER
67	o1	26	LYS

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Mol	Chain	Res	Type
67	o1	31	ARG
67	o1	36	ILE
67	o1	44	MET
67	o1	46	THR
67	o1	55	LEU
67	o1	61	LYS
67	o1	64	VAL
67	o1	71	LEU
67	o1	84	ASP
67	o1	90	PHE
67	o1	96	VAL
67	o1	102	LYS
67	o1	106	THR
67	o1	107	VAL
67	o1	110	GLU
68	o2	4	LEU
68	o2	8	LYS
68	o2	10	VAL
68	o2	14	THR
68	o2	19	ARG
68	o2	24	ARG
68	o2	25	TYR
68	o2	33	ARG
68	o2	34	LYS
68	o2	35	GLN
68	o2	36	LYS
68	o2	45	ARG
68	o2	51	SER
68	o2	63	THR
68	o2	67	SER
68	o2	73	THR
68	o2	75	LEU
68	o2	82	LEU
68	o2	87	MET
68	o2	89	THR
68	o2	106	VAL
68	o2	107	VAL
68	o2	125	ARG
68	o2	126	LEU
69	o3	4	SER
69	o3	10	LYS
69	o3	19	SER

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Mol	Chain	Res	Type
69	o3	28	SER
69	o3	31	LYS
69	o3	32	ILE
69	o3	40	ASP
69	o3	48	ARG
69	o3	49	ILE
69	o3	57	LYS
69	o3	58	GLU
69	o3	59	VAL
69	o3	60	ARG
69	o3	70	LYS
69	o3	80	VAL
69	o3	81	VAL
69	o3	86	ARG
69	o3	98	VAL
70	o4	16	ARG
70	o4	17	SER
70	o4	20	ILE
70	o4	23	VAL
70	o4	29	ILE
70	o4	44	CYS
70	o4	46	ASP
70	o4	47	CYS
70	o4	55	SER
70	o4	58	ARG
70	o4	65	VAL
70	o4	71	THR
70	o4	73	SER
70	o4	79	SER
70	o4	102	LYS
70	o4	104	VAL
71	o5	4	VAL
71	o5	20	GLN
71	o5	21	LEU
71	o5	27	GLU
71	o5	28	LEU
71	o5	36	LEU
71	o5	37	SER
71	o5	38	ARG
71	o5	45	LYS
71	o5	46	THR
71	o5	47	VAL

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Mol	Chain	Res	Type
71	o5	57	VAL
71	o5	62	GLN
71	o5	69	LEU
71	o5	81	ARG
71	o5	84	LYS
71	o5	85	THR
71	o5	89	ARG
71	o5	90	ARG
71	o5	94	LYS
71	o5	107	LYS
71	o5	115	LYS
71	o5	119	LYS
72	o6	3	VAL
72	o6	7	ILE
72	o6	9	ILE
72	o6	11	LEU
72	o6	17	VAL
72	o6	21	THR
72	o6	26	ILE
72	o6	29	LYS
72	o6	36	ARG
72	o6	38	LYS
72	o6	43	LEU
72	o6	45	ARG
72	o6	57	LEU
72	o6	58	ILE
72	o6	60	LEU
72	o6	68	ARG
72	o6	70	ARG
72	o6	76	ARG
72	o6	81	THR
72	o6	87	VAL
72	o6	88	GLU
72	o6	90	MET
72	o6	94	ILE
73	o7	5	THR
73	o7	17	THR
73	o7	19	CYS
73	o7	25	ARG
73	o7	34	CYS
73	o7	35	SER
73	o7	46	SER

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Mol	Chain	Res	Type
73	o7	55	ARG
73	o7	59	THR
73	o7	64	MET
73	o7	65	ARG
73	o7	67	LEU
73	o7	68	LYS
73	o7	80	THR
74	o8	5	ILE
74	o8	12	LEU
74	o8	22	THR
74	o8	24	THR
74	o8	33	LYS
74	o8	41	THR
74	o8	50	SER
74	o8	53	THR
74	o8	61	LYS
74	o8	64	LYS
74	o8	65	LEU
74	o8	67	GLN
74	o8	68	SER
75	o9	5	LYS
75	o9	21	ARG
75	o9	23	LEU
75	o9	28	ARG
75	o9	29	LEU
75	o9	48	LYS
75	o9	51	ILE
76	q0	79	GLU
76	q0	85	LEU
76	q0	89	TYR
76	q0	92	ASP
76	q0	112	LYS
76	q0	113	ARG
76	q0	114	LYS
76	q0	127	LEU
77	q1	2	ARG
77	q1	6	ARG
77	q1	9	ARG
77	q1	13	LEU
77	q1	15	ARG
77	q1	16	LYS
77	q1	18	ARG

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Mol	Chain	Res	Type
77	q1	21	ARG
77	q1	23	ARG
78	q2	7	THR
78	q2	8	ARG
78	q2	22	GLN
78	q2	38	GLN
78	q2	45	ARG
78	q2	48	SER
78	q2	57	VAL
78	q2	78	LYS
78	q2	85	LEU
78	q2	93	LEU
78	q2	100	LYS
78	q2	104	LEU
79	q3	8	VAL
79	q3	16	VAL
79	q3	21	SER
79	q3	24	ARG
79	q3	45	LYS
79	q3	46	THR
79	q3	48	LYS
79	q3	49	ARG
79	q3	54	ILE
79	q3	56	THR
79	q3	59	CYS
79	q3	60	CYS
79	q3	62	LYS
79	q3	79	VAL
79	q3	80	ARG
79	q3	82	THR
79	q3	85	ARG
80	p0	5	ARG
80	p0	10	GLU
80	p0	15	LEU
80	p0	41	VAL
80	p0	48	ARG
80	p0	51	VAL
80	p0	52	LEU
80	p0	58	MET
80	p0	59	VAL
80	p0	60	ARG
80	p0	67	LEU

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Mol	Chain	Res	Type
80	p0	70	LEU
80	p0	72	ASP
80	p0	74	GLU
80	p0	93	LEU
80	p0	99	VAL
80	p0	104	ARG
80	p0	105	VAL
80	p0	196	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (169) such sidechains are listed below:

Mol	Chain	Res	Type
2	S0	15	GLN
2	S0	21	ASN
2	S0	49	ASN
3	S1	42	ASN
3	S1	149	GLN
3	S1	211	HIS
3	S1	220	GLN
4	S2	201	ASN
5	S3	101	GLN
6	S4	36	HIS
6	S4	157	ASN
6	S4	188	ASN
6	S4	259	GLN
7	S5	224	ASN
8	S6	59	GLN
8	S6	176	GLN
9	S7	86	GLN
10	S8	20	GLN
10	S8	32	GLN
11	S9	112	GLN
13	C1	14	GLN
18	C6	21	HIS
18	C6	103	ASN
19	C7	83	GLN
20	C8	12	GLN
20	C8	44	ASN
20	C8	74	GLN
21	C9	70	GLN
22	D0	98	GLN
24	D2	42	GLN

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Mol	Chain	Res	Type
26	D4	63	GLN
26	D4	77	ASN
26	D4	110	GLN
29	D7	42	ASN
30	D8	27	GLN
30	D8	51	ASN
33	E1	145	HIS
34	SR	106	HIS
34	SR	198	ASN
34	SR	268	GLN
34	SR	288	HIS
39	L2	216	HIS
40	L3	139	GLN
40	L3	319	ASN
41	L4	213	ASN
41	L4	221	ASN
42	L5	40	HIS
42	L5	111	GLN
44	L7	25	GLN
44	L7	81	HIS
44	L7	146	GLN
44	L7	186	HIS
46	L9	96	HIS
46	L9	102	ASN
46	L9	139	ASN
46	L9	163	GLN
47	M0	12	GLN
47	M0	92	HIS
47	M0	144	ASN
49	M3	25	HIS
50	M4	126	GLN
51	M5	57	GLN
51	M5	87	GLN
51	M5	178	HIS
51	M5	194	GLN
52	M6	31	GLN
53	M7	34	GLN
53	M7	45	GLN
53	M7	172	GLN
58	N2	88	GLN
59	N3	98	ASN
59	N3	132	ASN

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Mol	Chain	Res	Type
60	N4	33	ASN
60	N4	58	HIS
61	N5	85	GLN
62	N6	110	HIS
63	N7	29	HIS
63	N7	78	ASN
63	N7	127	ASN
64	N8	62	HIS
64	N8	64	GLN
65	N9	19	ASN
66	O0	74	ASN
67	O1	43	HIS
67	O1	87	ASN
69	O3	39	GLN
70	O4	34	HIS
71	O5	99	GLN
78	Q2	47	GLN
79	Q3	25	GLN
79	Q3	34	HIS
3	s1	74	GLN
3	s1	124	ASN
3	s1	146	GLN
3	s1	209	ASN
4	s2	82	ASN
4	s2	87	GLN
4	s2	94	GLN
5	s3	74	GLN
6	s4	17	HIS
6	s4	188	ASN
6	s4	216	ASN
7	s5	100	ASN
7	s5	158	GLN
20	c8	122	HIS
34	sR	159	ASN
39	l2	19	HIS
39	l2	83	HIS
39	l2	132	ASN
39	l2	140	ASN
39	l2	187	HIS
39	l2	205	ASN
40	l3	182	GLN
40	l3	184	ASN

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Mol	Chain	Res	Type
40	l3	224	HIS
40	l3	293	ASN
41	l4	5	GLN
41	l4	160	GLN
41	l4	175	HIS
41	l4	213	ASN
42	l5	4	GLN
42	l5	40	HIS
42	l5	57	ASN
42	l5	264	GLN
44	l7	93	ASN
44	l7	186	HIS
45	l8	28	HIS
45	l8	33	ASN
45	l8	38	GLN
46	l9	162	GLN
47	m0	73	ASN
47	m0	92	HIS
47	m0	113	GLN
47	m0	123	HIS
48	m1	95	ASN
48	m1	101	ASN
49	m3	99	HIS
51	m5	86	ASN
51	m5	95	GLN
51	m5	117	ASN
51	m5	123	GLN
52	m6	50	ASN
53	m7	172	GLN
54	m8	5	HIS
54	m8	9	GLN
54	m8	73	GLN
55	m9	175	GLN
56	n0	62	ASN
57	n1	146	ASN
58	n2	40	HIS
58	n2	49	ASN
59	n3	7	GLN
59	n3	47	ASN
60	n4	79	GLN
61	n5	94	GLN
61	n5	111	ASN

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Mol	Chain	Res	Type
63	n7	36	HIS
63	n7	57	HIS
63	n7	127	ASN
64	n8	40	HIS
64	n8	62	HIS
67	o1	43	HIS
68	o2	13	HIS
68	o2	21	HIS
68	o2	35	GLN
70	o4	98	GLN
71	o5	34	GLN
71	o5	113	GLN
76	q0	117	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	2	1680/1800 (93%)	464 (27%)	67 (3%)
1	6	1695/1800 (94%)	427 (25%)	51 (3%)
36	1	3071/3396 (90%)	768 (25%)	101 (3%)
36	5	3120/3396 (91%)	745 (23%)	109 (3%)
37	3	120/121 (99%)	20 (16%)	1 (0%)
37	7	120/121 (99%)	15 (12%)	1 (0%)
38	4	157/158 (99%)	49 (31%)	6 (3%)
38	8	156/158 (98%)	42 (26%)	8 (5%)
All	All	10119/10950 (92%)	2530 (25%)	344 (3%)

All (2530) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	2	2	A
1	2	4	C
1	2	17	C
1	2	25	C
1	2	26	A
1	2	27	U
1	2	34	G
1	2	39	A
1	2	45	U
1	2	46	A
1	2	47	A

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Mol	Chain	Res	Type
1	2	50	C
1	2	57	G
1	2	60	U
1	2	67	A
1	2	68	A
1	2	69	G
1	2	72	A
1	2	73	U
1	2	74	U
1	2	75	U
1	2	76	A
1	2	77	U
1	2	78	A
1	2	79	C
1	2	80	A
1	2	103	A
1	2	104	A
1	2	105	A
1	2	114	C
1	2	115	G
1	2	128	U
1	2	137	U
1	2	140	A
1	2	141	U
1	2	143	G
1	2	144	U
1	2	145	A
1	2	146	U
1	2	153	G
1	2	158	U
1	2	159	U
1	2	160	C
1	2	161	U
1	2	178	U
1	2	185	U
1	2	186	C
1	2	188	A
1	2	190	C
1	2	191	C
1	2	192	U
1	2	193	U
1	2	194	U

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Mol	Chain	Res	Type
1	2	195	G
1	2	196	G
1	2	197	A
1	2	198	A
1	2	200	A
1	2	215	A
1	2	217	A
1	2	218	A
1	2	220	A
1	2	249	U
1	2	250	C
1	2	257	A
1	2	260	U
1	2	261	U
1	2	265	A
1	2	266	A
1	2	271	A
1	2	272	U
1	2	274	G
1	2	275	C
1	2	276	C
1	2	278	U
1	2	279	G
1	2	280	U
1	2	281	G
1	2	282	C
1	2	288	A
1	2	290	G
1	2	299	A
1	2	301	A
1	2	309	C
1	2	312	A
1	2	314	C
1	2	316	A
1	2	319	U
1	2	320	U
1	2	321	C
1	2	322	G
1	2	323	A
1	2	324	U
1	2	333	A
1	2	337	G

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Mol	Chain	Res	Type
1	2	338	C
1	2	341	A
1	2	352	A
1	2	359	A
1	2	360	A
1	2	361	C
1	2	378	A
1	2	380	U
1	2	390	G
1	2	393	C
1	2	400	A
1	2	401	A
1	2	402	C
1	2	403	G
1	2	404	G
1	2	416	A
1	2	418	G
1	2	423	G
1	2	424	C
1	2	425	A
1	2	426	G
1	2	428	A
1	2	434	G
1	2	437	A
1	2	439	U
1	2	444	C
1	2	448	C
1	2	454	U
1	2	459	G
1	2	475	A
1	2	477	A
1	2	484	C
1	2	485	A
1	2	486	G
1	2	488	G
1	2	501	U
1	2	502	U
1	2	503	G
1	2	504	U
1	2	505	A
1	2	506	A
1	2	507	U

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Mol	Chain	Res	Type
1	2	508	U
1	2	510	G
1	2	511	A
1	2	512	A
1	2	513	U
1	2	515	A
1	2	516	G
1	2	519	C
1	2	527	A
1	2	532	U
1	2	538	A
1	2	539	G
1	2	540	G
1	2	541	A
1	2	542	A
1	2	543	C
1	2	544	A
1	2	545	A
1	2	548	G
1	2	554	C
1	2	555	A
1	2	556	A
1	2	557	G
1	2	558	U
1	2	559	C
1	2	565	C
1	2	570	A
1	2	571	G
1	2	572	C
1	2	579	A
1	2	580	A
1	2	582	U
1	2	583	C
1	2	594	A
1	2	595	G
1	2	606	A
1	2	609	U
1	2	610	G
1	2	611	U
1	2	619	A
1	2	620	A
1	2	622	A

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Mol	Chain	Res	Type
1	2	623	A
1	2	630	A
1	2	635	A
1	2	638	U
1	2	639	U
1	2	640	U
1	2	648	G
1	2	650	U
1	2	684	A
1	2	686	C
1	2	691	C
1	2	696	C
1	2	700	C
1	2	742	U
1	2	743	U
1	2	745	U
1	2	754	A
1	2	755	A
1	2	756	A
1	2	758	U
1	2	759	U
1	2	765	G
1	2	766	U
1	2	771	A
1	2	774	A
1	2	775	G
1	2	779	U
1	2	780	A
1	2	781	U
1	2	782	U
1	2	783	G
1	2	784	C
1	2	789	A
1	2	794	U
1	2	795	U
1	2	803	A
1	2	806	A
1	2	812	A
1	2	813	U
1	2	814	A
1	2	815	G
1	2	816	G

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Mol	Chain	Res	Type
1	2	819	G
1	2	820	U
1	2	821	U
1	2	831	U
1	2	833	U
1	2	856	A
1	2	860	U
1	2	863	A
1	2	864	U
1	2	871	G
1	2	873	U
1	2	896	U
1	2	897	C
1	2	898	A
1	2	912	U
1	2	913	G
1	2	914	G
1	2	916	U
1	2	921	U
1	2	926	A
1	2	933	A
1	2	935	U
1	2	942	G
1	2	944	A
1	2	951	A
1	2	958	U
1	2	959	U
1	2	960	U
1	2	966	A
1	2	970	A
1	2	973	A
1	2	988	A
1	2	992	A
1	2	993	A
1	2	995	A
1	2	997	G
1	2	1003	A
1	2	1004	U
1	2	1005	A
1	2	1007	C
1	2	1020	A
1	2	1021	C

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Mol	Chain	Res	Type
1	2	1026	A
1	2	1028	C
1	2	1029	U
1	2	1032	G
1	2	1039	A
1	2	1040	G
1	2	1052	U
1	2	1053	G
1	2	1057	U
1	2	1058	U
1	2	1059	U
1	2	1060	U
1	2	1063	U
1	2	1074	G
1	2	1079	U
1	2	1081	A
1	2	1082	C
1	2	1083	G
1	2	1086	A
1	2	1091	A
1	2	1092	A
1	2	1093	A
1	2	1094	G
1	2	1095	U
1	2	1096	C
1	2	1097	U
1	2	1099	U
1	2	1100	G
1	2	1109	G
1	2	1138	A
1	2	1146	G
1	2	1149	G
1	2	1150	G
1	2	1151	A
1	2	1155	G
1	2	1157	A
1	2	1158	C
1	2	1160	A
1	2	1164	G
1	2	1167	G
1	2	1185	U
1	2	1188	G

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Mol	Chain	Res	Type
1	2	1191	U
1	2	1194	A
1	2	1196	A
1	2	1197	C
1	2	1199	G
1	2	1200	G
1	2	1202	A
1	2	1204	A
1	2	1205	C
1	2	1207	C
1	2	1208	A
1	2	1217	A
1	2	1218	G
1	2	1227	A
1	2	1228	G
1	2	1229	G
1	2	1241	G
1	2	1244	A
1	2	1245	G
1	2	1250	U
1	2	1251	U
1	2	1257	U
1	2	1258	U
1	2	1260	U
1	2	1286	U
1	2	1288	G
1	2	1301	U
1	2	1314	U
1	2	1315	U
1	2	1321	A
1	2	1329	A
1	2	1336	A
1	2	1337	A
1	2	1339	C
1	2	1340	U
1	2	1341	A
1	2	1342	C
1	2	1343	U
1	2	1344	A
1	2	1345	A
1	2	1349	G
1	2	1354	G

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Mol	Chain	Res	Type
1	2	1360	A
1	2	1361	U
1	2	1362	U
1	2	1363	U
1	2	1364	G
1	2	1367	G
1	2	1370	U
1	2	1371	A
1	2	1372	U
1	2	1379	C
1	2	1380	U
1	2	1383	G
1	2	1384	A
1	2	1385	G
1	2	1386	G
1	2	1388	A
1	2	1390	U
1	2	1397	U
1	2	1398	U
1	2	1399	C
1	2	1400	A
1	2	1413	U
1	2	1414	U
1	2	1415	U
1	2	1427	A
1	2	1428	G
1	2	1432	U
1	2	1446	A
1	2	1448	G
1	2	1454	G
1	2	1457	C
1	2	1459	C
1	2	1460	A
1	2	1461	C
1	2	1473	U
1	2	1474	G
1	2	1475	A
1	2	1481	C
1	2	1482	C
1	2	1486	G
1	2	1487	A
1	2	1489	U

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Mol	Chain	Res	Type
1	2	1490	C
1	2	1491	U
1	2	1492	A
1	2	1493	A
1	2	1494	C
1	2	1499	G
1	2	1500	C
1	2	1506	G
1	2	1514	U
1	2	1515	A
1	2	1516	A
1	2	1517	U
1	2	1521	G
1	2	1523	G
1	2	1524	A
1	2	1535	U
1	2	1536	G
1	2	1537	C
1	2	1538	U
1	2	1542	G
1	2	1556	A
1	2	1557	U
1	2	1559	A
1	2	1569	A
1	2	1572	G
1	2	1573	A
1	2	1574	G
1	2	1584	G
1	2	1590	G
1	2	1601	G
1	2	1607	G
1	2	1614	A
1	2	1616	G
1	2	1624	C
1	2	1631	A
1	2	1634	C
1	2	1636	C
1	2	1643	U
1	2	1644	C
1	2	1656	U
1	2	1657	U
1	2	1658	G

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Mol	Chain	Res	Type
1	2	1664	C
1	2	1681	A
1	2	1683	C
1	2	1684	U
1	2	1693	A
1	2	1712	A
1	2	1713	G
1	2	1716	C
1	2	1729	C
1	2	1731	A
1	2	1742	U
1	2	1750	A
1	2	1752	U
1	2	1754	A
1	2	1755	A
1	2	1757	G
1	2	1759	C
1	2	1760	G
1	2	1761	U
1	2	1762	A
1	2	1766	A
1	2	1769	U
1	2	1770	U
1	2	1780	G
1	2	1782	A
1	2	1783	C
1	2	1791	A
1	2	1792	G
1	2	1793	G
1	2	1794	A
1	2	1795	U
1	2	1796	C
1	2	1798	U
36	1	13	A
36	1	14	U
36	1	21	G
36	1	22	G
36	1	26	A
36	1	40	A
36	1	41	G
36	1	43	A
36	1	44	U

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Mol	Chain	Res	Type
36	1	49	A
36	1	59	G
36	1	60	A
36	1	65	A
36	1	66	A
36	1	71	A
36	1	73	C
36	1	74	G
36	1	76	G
36	1	77	A
36	1	85	A
36	1	92	G
36	1	93	C
36	1	99	A
36	1	109	A
36	1	110	G
36	1	111	C
36	1	120	G
36	1	121	A
36	1	122	A
36	1	133	U
36	1	135	C
36	1	136	G
36	1	142	C
36	1	145	G
36	1	148	G
36	1	156	G
36	1	157	A
36	1	161	G
36	1	166	C
36	1	168	U
36	1	169	U
36	1	170	G
36	1	174	C
36	1	182	U
36	1	187	A
36	1	190	U
36	1	191	U
36	1	192	C
36	1	199	A
36	1	200	C
36	1	210	U

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Mol	Chain	Res	Type
36	1	213	A
36	1	217	U
36	1	218	G
36	1	219	A
36	1	220	G
36	1	221	A
36	1	238	A
36	1	240	U
36	1	242	C
36	1	243	G
36	1	245	U
36	1	249	U
36	1	250	U
36	1	251	G
36	1	252	U
36	1	265	A
36	1	269	G
36	1	279	U
36	1	282	G
36	1	283	G
36	1	284	A
36	1	286	U
36	1	288	C
36	1	295	A
36	1	296	A
36	1	298	U
36	1	301	G
36	1	303	G
36	1	304	G
36	1	305	U
36	1	315	C
36	1	316	U
36	1	323	A
36	1	329	U
36	1	335	G
36	1	336	A
36	1	339	C
36	1	349	A
36	1	350	C
36	1	362	U
36	1	370	U
36	1	376	G

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Mol	Chain	Res	Type
36	1	397	A
36	1	398	A
36	1	399	A
36	1	401	U
36	1	402	A
36	1	403	C
36	1	404	G
36	1	420	G
36	1	421	G
36	1	422	A
36	1	495	G
36	1	498	A
36	1	510	G
36	1	516	A
36	1	518	G
36	1	519	A
36	1	520	U
36	1	521	A
36	1	535	G
36	1	544	C
36	1	545	U
36	1	546	C
36	1	547	G
36	1	548	G
36	1	549	U
36	1	551	A
36	1	552	G
36	1	555	U
36	1	556	U
36	1	557	A
36	1	558	U
36	1	559	A
36	1	569	A
36	1	578	A
36	1	579	G
36	1	594	U
36	1	595	G
36	1	604	G
36	1	609	G
36	1	611	A
36	1	619	A
36	1	620	U

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Mol	Chain	Res	Type
36	1	621	A
36	1	637	C
36	1	638	C
36	1	639	G
36	1	646	A
36	1	649	A
36	1	657	A
36	1	660	A
36	1	677	A
36	1	679	U
36	1	681	U
36	1	690	A
36	1	691	A
36	1	702	C
36	1	704	U
36	1	705	A
36	1	706	A
36	1	708	G
36	1	712	G
36	1	713	U
36	1	715	A
36	1	716	A
36	1	719	U
36	1	720	A
36	1	726	G
36	1	727	G
36	1	747	A
36	1	758	C
36	1	763	G
36	1	764	U
36	1	765	C
36	1	766	U
36	1	767	U
36	1	776	U
36	1	777	U
36	1	781	G
36	1	784	A
36	1	785	G
36	1	790	U
36	1	800	G
36	1	801	A
36	1	802	C

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Mol	Chain	Res	Type
36	1	806	A
36	1	808	A
36	1	817	A
36	1	819	U
36	1	830	A
36	1	849	C
36	1	851	C
36	1	854	G
36	1	861	C
36	1	871	U
36	1	874	U
36	1	877	C
36	1	879	U
36	1	883	A
36	1	896	A
36	1	900	G
36	1	907	G
36	1	908	G
36	1	913	A
36	1	914	A
36	1	916	G
36	1	917	A
36	1	920	A
36	1	921	A
36	1	923	C
36	1	924	G
36	1	934	G
36	1	937	G
36	1	943	U
36	1	944	C
36	1	959	C
36	1	960	U
36	1	974	G
36	1	978	G
36	1	979	U
36	1	980	A
36	1	981	U
36	1	982	C
36	1	993	G
36	1	994	G
36	1	1000	C
36	1	1001	G

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Mol	Chain	Res	Type
36	1	1002	A
36	1	1006	A
36	1	1010	G
36	1	1014	U
36	1	1017	C
36	1	1018	G
36	1	1020	G
36	1	1021	G
36	1	1024	G
36	1	1025	A
36	1	1029	G
36	1	1036	A
36	1	1037	C
36	1	1041	U
36	1	1047	A
36	1	1049	C
36	1	1052	U
36	1	1063	G
36	1	1064	A
36	1	1065	A
36	1	1071	U
36	1	1072	G
36	1	1081	U
36	1	1082	U
36	1	1083	G
36	1	1087	G
36	1	1093	A
36	1	1094	U
36	1	1095	U
36	1	1096	U
36	1	1097	G
36	1	1098	A
36	1	1103	A
36	1	1104	G
36	1	1117	G
36	1	1123	U
36	1	1128	U
36	1	1129	A
36	1	1131	G
36	1	1153	A
36	1	1159	A
36	1	1160	C

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Mol	Chain	Res	Type
36	1	1175	C
36	1	1177	G
36	1	1180	A
36	1	1181	U
36	1	1182	A
36	1	1189	C
36	1	1191	U
36	1	1192	C
36	1	1193	A
36	1	1200	A
36	1	1201	C
36	1	1202	A
36	1	1206	G
36	1	1209	G
36	1	1221	A
36	1	1222	G
36	1	1223	A
36	1	1229	G
36	1	1281	G
36	1	1285	G
36	1	1292	C
36	1	1295	G
36	1	1307	G
36	1	1308	A
36	1	1309	U
36	1	1312	C
36	1	1313	G
36	1	1318	A
36	1	1325	U
36	1	1329	U
36	1	1330	A
36	1	1345	G
36	1	1346	G
36	1	1348	U
36	1	1355	A
36	1	1356	U
36	1	1357	G
36	1	1386	A
36	1	1392	G
36	1	1399	A
36	1	1400	G
36	1	1417	G

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Mol	Chain	Res	Type
36	1	1418	A
36	1	1419	A
36	1	1429	G
36	1	1431	G
36	1	1433	A
36	1	1434	G
36	1	1437	C
36	1	1438	U
36	1	1446	A
36	1	1450	G
36	1	1455	U
36	1	1481	A
36	1	1482	A
36	1	1484	U
36	1	1485	G
36	1	1502	C
36	1	1503	A
36	1	1508	C
36	1	1510	G
36	1	1514	G
36	1	1515	A
36	1	1519	G
36	1	1522	U
36	1	1524	A
36	1	1526	U
36	1	1527	C
36	1	1533	U
36	1	1534	A
36	1	1536	G
36	1	1541	G
36	1	1554	U
36	1	1555	U
36	1	1556	C
36	1	1557	A
36	1	1560	G
36	1	1562	C
36	1	1563	C
36	1	1564	U
36	1	1565	G
36	1	1573	G
36	1	1574	C
36	1	1575	A

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Mol	Chain	Res	Type
36	1	1576	G
36	1	1579	C
36	1	1580	A
36	1	1581	C
36	1	1582	C
36	1	1583	A
36	1	1587	A
36	1	1589	A
36	1	1593	A
36	1	1594	A
36	1	1595	U
36	1	1596	C
36	1	1605	A
36	1	1607	U
36	1	1608	C
36	1	1613	A
36	1	1614	C
36	1	1619	A
36	1	1620	U
36	1	1621	A
36	1	1625	A
36	1	1629	U
36	1	1632	A
36	1	1636	U
36	1	1638	A
36	1	1639	C
36	1	1641	U
36	1	1643	A
36	1	1645	U
36	1	1647	A
36	1	1649	U
36	1	1655	G
36	1	1656	A
36	1	1657	C
36	1	1658	G
36	1	1659	U
36	1	1683	A
36	1	1708	C
36	1	1717	U
36	1	1724	U
36	1	1725	C
36	1	1729	A

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Mol	Chain	Res	Type
36	1	1736	G
36	1	1741	A
36	1	1750	A
36	1	1751	G
36	1	1759	C
36	1	1760	A
36	1	1761	C
36	1	1762	C
36	1	1763	U
36	1	1764	U
36	1	1765	U
36	1	1766	G
36	1	1767	C
36	1	1769	G
36	1	1770	G
36	1	1779	C
36	1	1780	G
36	1	1781	C
36	1	1793	C
36	1	1795	U
36	1	1797	A
36	1	1801	U
36	1	1806	A
36	1	1808	G
36	1	1809	A
36	1	1810	A
36	1	1814	A
36	1	1816	A
36	1	1817	G
36	1	1819	U
36	1	1820	U
36	1	1821	U
36	1	1835	A
36	1	1839	A
36	1	1841	A
36	1	1842	A
36	1	1845	G
36	1	1846	C
36	1	1849	C
36	1	1855	U
36	1	1858	A
36	1	1866	C

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Mol	Chain	Res	Type
36	1	1867	A
36	1	1876	U
36	1	1878	G
36	1	1879	A
36	1	1880	U
36	1	1886	A
36	1	1901	A
36	1	1906	G
36	1	1913	A
36	1	1926	C
36	1	1930	A
36	1	1931	U
36	1	1932	A
36	1	1937	U
36	1	1948	G
36	1	1951	C
36	1	1952	G
36	1	1953	G
36	1	2094	C
36	1	2102	U
36	1	2107	A
36	1	2112	U
36	1	2113	A
36	1	2114	C
36	1	2117	A
36	1	2121	G
36	1	2122	G
36	1	2125	A
36	1	2130	G
36	1	2131	A
36	1	2134	G
36	1	2139	A
36	1	2140	U
36	1	2142	A
36	1	2144	A
36	1	2158	A
36	1	2169	G
36	1	2174	G
36	1	2178	A
36	1	2179	C
36	1	2184	U
36	1	2193	U

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Mol	Chain	Res	Type
36	1	2198	A
36	1	2201	G
36	1	2205	U
36	1	2206	G
36	1	2207	A
36	1	2208	A
36	1	2209	U
36	1	2210	G
36	1	2225	U
36	1	2228	A
36	1	2244	A
36	1	2248	C
36	1	2249	G
36	1	2250	G
36	1	2255	A
36	1	2256	A
36	1	2258	U
36	1	2259	A
36	1	2272	G
36	1	2273	G
36	1	2277	C
36	1	2281	A
36	1	2282	U
36	1	2283	G
36	1	2288	G
36	1	2298	U
36	1	2307	G
36	1	2308	C
36	1	2310	U
36	1	2313	A
36	1	2314	U
36	1	2315	G
36	1	2319	U
36	1	2334	U
36	1	2335	G
36	1	2336	U
36	1	2361	A
36	1	2364	G
36	1	2372	A
36	1	2373	A
36	1	2374	C
36	1	2375	G

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Mol	Chain	Res	Type
36	1	2383	C
36	1	2385	G
36	1	2393	G
36	1	2397	A
36	1	2401	A
36	1	2402	A
36	1	2403	G
36	1	2404	A
36	1	2411	U
36	1	2418	G
36	1	2434	U
36	1	2435	G
36	1	2514	U
36	1	2515	A
36	1	2521	U
36	1	2522	G
36	1	2523	A
36	1	2525	G
36	1	2526	C
36	1	2531	C
36	1	2532	U
36	1	2533	G
36	1	2537	U
36	1	2538	U
36	1	2539	C
36	1	2540	A
36	1	2541	U
36	1	2542	U
36	1	2543	U
36	1	2547	A
36	1	2548	C
36	1	2549	G
36	1	2550	U
36	1	2552	C
36	1	2553	U
36	1	2554	A
36	1	2555	G
36	1	2558	U
36	1	2559	U
36	1	2560	C
36	1	2561	A
36	1	2567	C

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Mol	Chain	Res	Type
36	1	2568	C
36	1	2569	A
36	1	2570	U
36	1	2571	U
36	1	2572	C
36	1	2573	G
36	1	2574	G
36	1	2577	C
36	1	2580	A
36	1	2581	U
36	1	2585	G
36	1	2586	G
36	1	2593	A
36	1	2594	C
36	1	2595	A
36	1	2606	G
36	1	2607	G
36	1	2608	G
36	1	2614	G
36	1	2619	G
36	1	2620	G
36	1	2637	A
36	1	2652	U
36	1	2656	A
36	1	2657	A
36	1	2658	G
36	1	2672	G
36	1	2674	A
36	1	2676	A
36	1	2677	G
36	1	2681	U
36	1	2684	C
36	1	2689	A
36	1	2691	A
36	1	2694	A
36	1	2695	A
36	1	2696	A
36	1	2700	G
36	1	2705	A
36	1	2714	G
36	1	2728	G
36	1	2737	C

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Mol	Chain	Res	Type
36	1	2738	A
36	1	2740	A
36	1	2752	U
36	1	2753	G
36	1	2754	G
36	1	2758	A
36	1	2762	A
36	1	2768	U
36	1	2772	C
36	1	2773	C
36	1	2775	U
36	1	2777	G
36	1	2778	G
36	1	2780	A
36	1	2796	G
36	1	2799	A
36	1	2800	G
36	1	2801	A
36	1	2802	A
36	1	2808	A
36	1	2809	C
36	1	2810	C
36	1	2814	G
36	1	2817	A
36	1	2818	U
36	1	2819	A
36	1	2821	C
36	1	2822	U
36	1	2827	U
36	1	2837	A
36	1	2842	U
36	1	2843	U
36	1	2845	A
36	1	2846	U
36	1	2847	A
36	1	2853	A
36	1	2856	G
36	1	2860	U
36	1	2867	C
36	1	2871	G
36	1	2872	A
36	1	2873	U

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Mol	Chain	Res	Type
36	1	2875	U
36	1	2876	C
36	1	2879	C
36	1	2880	U
36	1	2887	A
36	1	2889	C
36	1	2899	C
36	1	2910	A
36	1	2912	G
36	1	2914	G
36	1	2922	G
36	1	2923	U
36	1	2927	C
36	1	2928	C
36	1	2935	U
36	1	2936	A
36	1	2942	C
36	1	2945	G
36	1	2946	A
36	1	2947	G
36	1	2951	G
36	1	2954	U
36	1	2955	U
36	1	2957	G
36	1	2965	U
36	1	2966	G
36	1	2971	A
36	1	2972	G
36	1	2974	U
36	1	2983	C
36	1	2990	G
36	1	2992	U
36	1	2997	G
36	1	3003	G
36	1	3012	A
36	1	3030	G
36	1	3056	U
36	1	3057	U
36	1	3059	G
36	1	3078	U
36	1	3079	U
36	1	3080	G

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Mol	Chain	Res	Type
36	1	3086	A
36	1	3092	C
36	1	3115	C
36	1	3122	A
36	1	3123	A
36	1	3129	A
36	1	3130	A
36	1	3131	U
36	1	3142	A
36	1	3143	C
36	1	3151	U
36	1	3164	C
36	1	3165	A
36	1	3168	A
36	1	3169	U
36	1	3170	A
36	1	3171	U
36	1	3173	G
36	1	3174	A
36	1	3176	G
36	1	3179	U
36	1	3181	C
36	1	3187	A
36	1	3196	U
36	1	3199	G
36	1	3207	U
36	1	3209	A
36	1	3210	A
36	1	3213	A
36	1	3216	G
36	1	3217	C
36	1	3218	A
36	1	3219	G
36	1	3224	G
36	1	3227	A
36	1	3228	C
36	1	3229	G
36	1	3235	C
36	1	3242	G
36	1	3243	A
36	1	3245	A
36	1	3247	G

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Mol	Chain	Res	Type
36	1	3253	G
36	1	3259	U
36	1	3268	A
36	1	3269	U
36	1	3270	U
36	1	3271	G
36	1	3272	C
36	1	3276	G
36	1	3279	A
36	1	3281	U
36	1	3287	U
36	1	3289	G
36	1	3294	A
36	1	3295	A
36	1	3303	G
36	1	3304	U
36	1	3307	A
36	1	3313	U
36	1	3316	A
36	1	3317	U
36	1	3318	G
36	1	3319	U
36	1	3320	A
36	1	3335	A
36	1	3340	G
36	1	3341	U
36	1	3342	A
36	1	3351	U
36	1	3354	U
36	1	3355	U
36	1	3356	G
36	1	3358	U
36	1	3359	A
36	1	3360	C
36	1	3363	U
36	1	3364	C
36	1	3368	U
36	1	3369	G
36	1	3375	A
36	1	3376	A
36	1	3378	C
36	1	3382	U

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Mol	Chain	Res	Type
36	1	3383	G
36	1	3386	G
36	1	3390	G
37	3	7	G
37	3	13	A
37	3	22	A
37	3	41	G
37	3	53	U
37	3	54	U
37	3	65	G
37	3	74	C
37	3	76	A
37	3	92	A
37	3	93	C
37	3	95	A
37	3	99	G
37	3	102	A
37	3	112	G
37	3	114	U
37	3	116	C
37	3	119	U
37	3	120	C
37	3	121	U
38	4	34	U
38	4	35	C
38	4	37	A
38	4	48	A
38	4	51	G
38	4	52	A
38	4	53	A
38	4	59	A
38	4	60	U
38	4	61	A
38	4	62	C
38	4	63	G
38	4	78	G
38	4	79	A
38	4	80	A
38	4	81	U
38	4	82	U
38	4	83	C
38	4	84	C

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Mol	Chain	Res	Type
38	4	85	G
38	4	86	U
38	4	87	G
38	4	89	A
38	4	90	U
38	4	91	C
38	4	95	G
38	4	96	A
38	4	102	U
38	4	104	A
38	4	106	C
38	4	110	C
38	4	111	A
38	4	112	U
38	4	113	U
38	4	123	G
38	4	124	G
38	4	125	U
38	4	126	A
38	4	127	U
38	4	128	U
38	4	129	C
38	4	132	G
38	4	137	C
38	4	138	A
38	4	151	C
38	4	152	G
38	4	155	A
38	4	157	U
38	4	158	U
1	6	2	A
1	6	4	C
1	6	17	C
1	6	25	C
1	6	26	A
1	6	27	U
1	6	34	G
1	6	42	G
1	6	45	U
1	6	46	A
1	6	47	A
1	6	50	C

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Mol	Chain	Res	Type
1	6	57	G
1	6	60	U
1	6	63	G
1	6	67	A
1	6	68	A
1	6	69	G
1	6	71	A
1	6	77	U
1	6	103	A
1	6	104	A
1	6	114	C
1	6	115	G
1	6	126	A
1	6	132	U
1	6	137	U
1	6	138	A
1	6	140	A
1	6	141	U
1	6	144	U
1	6	145	A
1	6	146	U
1	6	158	U
1	6	159	U
1	6	160	C
1	6	166	C
1	6	178	U
1	6	179	A
1	6	185	U
1	6	188	A
1	6	190	C
1	6	191	C
1	6	192	U
1	6	193	U
1	6	194	U
1	6	195	G
1	6	196	G
1	6	197	A
1	6	199	G
1	6	200	A
1	6	215	A
1	6	218	A
1	6	220	A

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Mol	Chain	Res	Type
1	6	224	C
1	6	226	A
1	6	230	C
1	6	232	U
1	6	233	C
1	6	234	G
1	6	237	C
1	6	238	U
1	6	239	C
1	6	240	U
1	6	241	U
1	6	243	G
1	6	248	U
1	6	250	C
1	6	257	A
1	6	261	U
1	6	265	A
1	6	271	A
1	6	272	U
1	6	273	G
1	6	276	C
1	6	277	U
1	6	278	U
1	6	280	U
1	6	281	G
1	6	299	A
1	6	301	A
1	6	314	C
1	6	316	A
1	6	318	U
1	6	320	U
1	6	321	C
1	6	322	G
1	6	331	A
1	6	333	A
1	6	337	G
1	6	338	C
1	6	344	A
1	6	352	A
1	6	359	A
1	6	360	A
1	6	361	C

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Mol	Chain	Res	Type
1	6	370	A
1	6	387	A
1	6	390	G
1	6	391	A
1	6	399	A
1	6	400	A
1	6	401	A
1	6	402	C
1	6	403	G
1	6	404	G
1	6	411	C
1	6	416	A
1	6	417	A
1	6	418	G
1	6	423	G
1	6	424	C
1	6	425	A
1	6	426	G
1	6	434	G
1	6	437	A
1	6	439	U
1	6	444	C
1	6	448	C
1	6	452	A
1	6	454	U
1	6	460	A
1	6	468	A
1	6	475	A
1	6	480	G
1	6	484	C
1	6	485	A
1	6	486	G
1	6	487	G
1	6	488	G
1	6	500	C
1	6	501	U
1	6	504	U
1	6	505	A
1	6	506	A
1	6	507	U
1	6	508	U
1	6	510	G

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Mol	Chain	Res	Type
1	6	511	A
1	6	512	A
1	6	513	U
1	6	514	G
1	6	515	A
1	6	519	C
1	6	523	G
1	6	527	A
1	6	534	A
1	6	535	A
1	6	538	A
1	6	539	G
1	6	540	G
1	6	541	A
1	6	542	A
1	6	543	C
1	6	544	A
1	6	548	G
1	6	549	G
1	6	555	A
1	6	556	A
1	6	557	G
1	6	558	U
1	6	559	C
1	6	560	U
1	6	565	C
1	6	568	G
1	6	570	A
1	6	571	G
1	6	572	C
1	6	574	G
1	6	578	U
1	6	579	A
1	6	580	A
1	6	582	U
1	6	594	A
1	6	595	G
1	6	596	C
1	6	609	U
1	6	610	G
1	6	619	A
1	6	620	A

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Mol	Chain	Res	Type
1	6	621	A
1	6	622	A
1	6	623	A
1	6	625	C
1	6	630	A
1	6	635	A
1	6	639	U
1	6	640	U
1	6	645	C
1	6	648	G
1	6	688	G
1	6	691	C
1	6	696	C
1	6	698	U
1	6	742	U
1	6	743	U
1	6	751	G
1	6	754	A
1	6	755	A
1	6	756	A
1	6	765	G
1	6	766	U
1	6	774	A
1	6	775	G
1	6	777	C
1	6	778	G
1	6	780	A
1	6	781	U
1	6	782	U
1	6	783	G
1	6	787	G
1	6	789	A
1	6	793	A
1	6	794	U
1	6	811	A
1	6	812	A
1	6	820	U
1	6	826	U
1	6	830	U
1	6	831	U
1	6	835	U
1	6	856	A

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Mol	Chain	Res	Type
1	6	861	U
1	6	862	A
1	6	863	A
1	6	876	G
1	6	886	U
1	6	912	U
1	6	913	G
1	6	914	G
1	6	916	U
1	6	926	A
1	6	933	A
1	6	935	U
1	6	942	G
1	6	951	A
1	6	959	U
1	6	960	U
1	6	966	A
1	6	969	C
1	6	970	A
1	6	971	A
1	6	983	A
1	6	992	A
1	6	993	A
1	6	995	A
1	6	997	G
1	6	1003	A
1	6	1004	U
1	6	1005	A
1	6	1021	C
1	6	1025	A
1	6	1026	A
1	6	1028	C
1	6	1029	U
1	6	1039	A
1	6	1040	G
1	6	1052	U
1	6	1053	G
1	6	1057	U
1	6	1058	U
1	6	1059	U
1	6	1060	U
1	6	1062	A

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Mol	Chain	Res	Type
1	6	1071	U
1	6	1072	C
1	6	1074	G
1	6	1082	C
1	6	1092	A
1	6	1093	A
1	6	1096	C
1	6	1097	U
1	6	1098	U
1	6	1099	U
1	6	1100	G
1	6	1111	G
1	6	1113	A
1	6	1138	A
1	6	1155	G
1	6	1158	C
1	6	1159	C
1	6	1160	A
1	6	1164	G
1	6	1167	G
1	6	1185	U
1	6	1194	A
1	6	1196	A
1	6	1197	C
1	6	1198	G
1	6	1199	G
1	6	1200	G
1	6	1202	A
1	6	1207	C
1	6	1208	A
1	6	1217	A
1	6	1218	G
1	6	1220	C
1	6	1225	U
1	6	1226	A
1	6	1228	G
1	6	1229	G
1	6	1230	A
1	6	1239	U
1	6	1241	G
1	6	1243	G
1	6	1244	A

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Mol	Chain	Res	Type
1	6	1245	G
1	6	1246	C
1	6	1255	G
1	6	1256	A
1	6	1257	U
1	6	1258	U
1	6	1285	U
1	6	1286	U
1	6	1291	G
1	6	1301	U
1	6	1314	U
1	6	1315	U
1	6	1316	G
1	6	1321	A
1	6	1338	C
1	6	1341	A
1	6	1343	U
1	6	1344	A
1	6	1345	A
1	6	1348	A
1	6	1354	G
1	6	1361	U
1	6	1362	U
1	6	1363	U
1	6	1364	G
1	6	1370	U
1	6	1371	A
1	6	1383	G
1	6	1390	U
1	6	1398	U
1	6	1399	C
1	6	1400	A
1	6	1402	G
1	6	1413	U
1	6	1414	U
1	6	1415	U
1	6	1427	A
1	6	1428	G
1	6	1432	U
1	6	1433	G
1	6	1445	G
1	6	1446	A

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Mol	Chain	Res	Type
1	6	1448	G
1	6	1459	C
1	6	1460	A
1	6	1461	C
1	6	1471	A
1	6	1473	U
1	6	1481	C
1	6	1482	C
1	6	1486	G
1	6	1487	A
1	6	1489	U
1	6	1490	C
1	6	1491	U
1	6	1492	A
1	6	1493	A
1	6	1506	G
1	6	1514	U
1	6	1515	A
1	6	1516	A
1	6	1521	G
1	6	1523	G
1	6	1524	A
1	6	1531	G
1	6	1535	U
1	6	1536	G
1	6	1537	C
1	6	1538	U
1	6	1540	G
1	6	1554	U
1	6	1557	U
1	6	1559	A
1	6	1569	A
1	6	1574	G
1	6	1582	U
1	6	1584	G
1	6	1590	G
1	6	1601	G
1	6	1616	G
1	6	1621	U
1	6	1637	C
1	6	1638	G
1	6	1656	U

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Mol	Chain	Res	Type
1	6	1657	U
1	6	1658	G
1	6	1663	G
1	6	1666	U
1	6	1678	A
1	6	1681	A
1	6	1682	U
1	6	1684	U
1	6	1715	G
1	6	1716	C
1	6	1717	G
1	6	1719	A
1	6	1720	G
1	6	1736	G
1	6	1742	U
1	6	1750	A
1	6	1753	A
1	6	1754	A
1	6	1755	A
1	6	1756	A
1	6	1757	G
1	6	1760	G
1	6	1762	A
1	6	1766	A
1	6	1767	G
1	6	1769	U
1	6	1770	U
1	6	1780	G
1	6	1782	A
1	6	1783	C
1	6	1790	A
1	6	1792	G
1	6	1793	G
1	6	1794	A
1	6	1796	C
1	6	1799	U
1	6	1800	A
36	5	15	C
36	5	26	A
36	5	40	A
36	5	43	A
36	5	44	U

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Mol	Chain	Res	Type
36	5	49	A
36	5	57	A
36	5	59	G
36	5	60	A
36	5	65	A
36	5	66	A
36	5	76	G
36	5	85	A
36	5	92	G
36	5	94	G
36	5	96	G
36	5	99	A
36	5	101	G
36	5	109	A
36	5	110	G
36	5	111	C
36	5	115	A
36	5	116	A
36	5	121	A
36	5	122	A
36	5	133	U
36	5	134	U
36	5	136	G
36	5	146	U
36	5	148	G
36	5	152	U
36	5	156	G
36	5	157	A
36	5	158	G
36	5	166	C
36	5	171	G
36	5	184	U
36	5	187	A
36	5	190	U
36	5	191	U
36	5	200	C
36	5	210	U
36	5	211	A
36	5	213	A
36	5	218	G
36	5	219	A
36	5	221	A

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Mol	Chain	Res	Type
36	5	228	U
36	5	239	G
36	5	240	U
36	5	241	G
36	5	245	U
36	5	246	U
36	5	248	U
36	5	250	U
36	5	251	G
36	5	252	U
36	5	253	A
36	5	254	A
36	5	262	U
36	5	263	C
36	5	269	G
36	5	274	G
36	5	282	G
36	5	283	G
36	5	284	A
36	5	286	U
36	5	295	A
36	5	296	A
36	5	315	C
36	5	316	U
36	5	323	A
36	5	329	U
36	5	334	A
36	5	338	A
36	5	339	C
36	5	349	A
36	5	350	C
36	5	351	A
36	5	369	A
36	5	370	U
36	5	376	G
36	5	387	A
36	5	398	A
36	5	399	A
36	5	401	U
36	5	402	A
36	5	403	C
36	5	404	G

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Mol	Chain	Res	Type
36	5	420	G
36	5	421	G
36	5	422	A
36	5	424	G
36	5	440	A
36	5	495	G
36	5	507	U
36	5	510	G
36	5	515	C
36	5	518	G
36	5	520	U
36	5	521	A
36	5	535	G
36	5	542	G
36	5	546	C
36	5	548	G
36	5	549	U
36	5	555	U
36	5	556	U
36	5	557	A
36	5	559	A
36	5	578	A
36	5	579	G
36	5	594	U
36	5	600	G
36	5	604	G
36	5	609	G
36	5	611	A
36	5	620	U
36	5	621	A
36	5	622	A
36	5	625	G
36	5	633	C
36	5	636	C
36	5	638	C
36	5	648	C
36	5	649	A
36	5	653	A
36	5	660	A
36	5	661	G
36	5	677	A
36	5	681	U

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Mol	Chain	Res	Type
36	5	682	U
36	5	683	U
36	5	705	A
36	5	706	A
36	5	712	G
36	5	715	A
36	5	716	A
36	5	720	A
36	5	726	G
36	5	736	A
36	5	750	G
36	5	758	C
36	5	761	A
36	5	766	U
36	5	767	U
36	5	776	U
36	5	777	U
36	5	781	G
36	5	785	G
36	5	786	A
36	5	801	A
36	5	802	C
36	5	806	A
36	5	816	A
36	5	817	A
36	5	820	A
36	5	826	G
36	5	829	U
36	5	830	A
36	5	834	U
36	5	837	A
36	5	851	C
36	5	852	U
36	5	857	G
36	5	861	C
36	5	866	A
36	5	869	G
36	5	874	U
36	5	875	G
36	5	877	C
36	5	879	U
36	5	880	G

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Mol	Chain	Res	Type
36	5	883	A
36	5	890	C
36	5	896	A
36	5	897	U
36	5	907	G
36	5	908	G
36	5	910	G
36	5	914	A
36	5	916	G
36	5	917	A
36	5	921	A
36	5	923	C
36	5	924	G
36	5	932	U
36	5	933	A
36	5	937	G
36	5	944	C
36	5	952	A
36	5	959	C
36	5	960	U
36	5	979	U
36	5	980	A
36	5	993	G
36	5	994	G
36	5	995	U
36	5	1001	G
36	5	1002	A
36	5	1003	A
36	5	1010	G
36	5	1014	U
36	5	1015	U
36	5	1016	C
36	5	1017	C
36	5	1018	G
36	5	1021	G
36	5	1024	G
36	5	1025	A
36	5	1026	A
36	5	1027	A
36	5	1028	U
36	5	1029	G
36	5	1032	C

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Mol	Chain	Res	Type
36	5	1034	U
36	5	1035	G
36	5	1047	A
36	5	1049	C
36	5	1063	G
36	5	1064	A
36	5	1065	A
36	5	1071	U
36	5	1072	G
36	5	1081	U
36	5	1082	U
36	5	1085	A
36	5	1092	C
36	5	1093	A
36	5	1095	U
36	5	1096	U
36	5	1097	G
36	5	1098	A
36	5	1103	A
36	5	1104	G
36	5	1114	U
36	5	1115	G
36	5	1116	G
36	5	1117	G
36	5	1129	A
36	5	1131	G
36	5	1143	A
36	5	1152	G
36	5	1153	A
36	5	1154	A
36	5	1155	C
36	5	1159	A
36	5	1160	C
36	5	1161	G
36	5	1169	A
36	5	1177	G
36	5	1178	G
36	5	1179	A
36	5	1180	A
36	5	1181	U
36	5	1182	A
36	5	1191	U

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Mol	Chain	Res	Type
36	5	1200	A
36	5	1201	C
36	5	1209	G
36	5	1212	A
36	5	1221	A
36	5	1222	G
36	5	1223	A
36	5	1229	G
36	5	1232	C
36	5	1236	G
36	5	1237	G
36	5	1239	C
36	5	1241	U
36	5	1242	G
36	5	1244	A
36	5	1245	A
36	5	1246	G
36	5	1248	C
36	5	1252	A
36	5	1258	U
36	5	1259	A
36	5	1263	A
36	5	1264	G
36	5	1265	U
36	5	1270	A
36	5	1281	G
36	5	1283	C
36	5	1285	G
36	5	1301	A
36	5	1305	U
36	5	1308	A
36	5	1309	U
36	5	1312	C
36	5	1313	G
36	5	1318	A
36	5	1330	A
36	5	1346	G
36	5	1348	U
36	5	1354	G
36	5	1355	A
36	5	1356	U
36	5	1357	G

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Mol	Chain	Res	Type
36	5	1385	C
36	5	1386	A
36	5	1392	G
36	5	1399	A
36	5	1400	G
36	5	1417	G
36	5	1419	A
36	5	1421	G
36	5	1427	U
36	5	1428	A
36	5	1430	U
36	5	1431	G
36	5	1434	G
36	5	1437	C
36	5	1446	A
36	5	1450	G
36	5	1472	U
36	5	1475	A
36	5	1481	A
36	5	1482	A
36	5	1483	G
36	5	1488	G
36	5	1490	A
36	5	1502	C
36	5	1503	A
36	5	1508	C
36	5	1515	A
36	5	1527	C
36	5	1528	G
36	5	1536	G
36	5	1541	G
36	5	1550	C
36	5	1553	U
36	5	1554	U
36	5	1555	U
36	5	1556	C
36	5	1560	G
36	5	1561	G
36	5	1562	C
36	5	1574	C
36	5	1575	A
36	5	1576	G

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Mol	Chain	Res	Type
36	5	1577	G
36	5	1578	C
36	5	1579	C
36	5	1580	A
36	5	1581	C
36	5	1582	C
36	5	1583	A
36	5	1584	U
36	5	1587	A
36	5	1589	A
36	5	1593	A
36	5	1596	C
36	5	1605	A
36	5	1607	U
36	5	1608	C
36	5	1620	U
36	5	1629	U
36	5	1632	A
36	5	1633	C
36	5	1639	C
36	5	1641	U
36	5	1643	A
36	5	1644	C
36	5	1645	U
36	5	1646	G
36	5	1655	G
36	5	1656	A
36	5	1658	G
36	5	1683	A
36	5	1715	A
36	5	1716	U
36	5	1717	U
36	5	1724	U
36	5	1736	G
36	5	1750	A
36	5	1751	G
36	5	1756	C
36	5	1762	C
36	5	1764	U
36	5	1765	U
36	5	1766	G
36	5	1767	C

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Mol	Chain	Res	Type
36	5	1770	G
36	5	1775	G
36	5	1778	G
36	5	1780	G
36	5	1793	C
36	5	1794	G
36	5	1795	U
36	5	1797	A
36	5	1810	A
36	5	1814	A
36	5	1815	U
36	5	1816	A
36	5	1817	G
36	5	1818	U
36	5	1821	U
36	5	1834	U
36	5	1837	U
36	5	1838	G
36	5	1839	A
36	5	1841	A
36	5	1842	A
36	5	1846	C
36	5	1849	C
36	5	1850	A
36	5	1851	G
36	5	1866	C
36	5	1876	U
36	5	1877	U
36	5	1878	G
36	5	1879	A
36	5	1880	U
36	5	1884	A
36	5	1885	U
36	5	1886	A
36	5	1894	U
36	5	1901	A
36	5	1906	G
36	5	1918	C
36	5	1930	A
36	5	1935	G
36	5	1953	G
36	5	2100	A

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Mol	Chain	Res	Type
36	5	2101	C
36	5	2102	U
36	5	2112	U
36	5	2113	A
36	5	2114	C
36	5	2121	G
36	5	2122	G
36	5	2131	A
36	5	2134	G
36	5	2140	U
36	5	2142	A
36	5	2144	A
36	5	2158	A
36	5	2169	G
36	5	2175	U
36	5	2176	U
36	5	2179	C
36	5	2188	A
36	5	2193	U
36	5	2205	U
36	5	2207	A
36	5	2208	A
36	5	2209	U
36	5	2210	G
36	5	2222	A
36	5	2223	A
36	5	2228	A
36	5	2229	A
36	5	2244	A
36	5	2246	G
36	5	2248	C
36	5	2249	G
36	5	2250	G
36	5	2251	G
36	5	2252	A
36	5	2253	G
36	5	2254	U
36	5	2255	A
36	5	2256	A
36	5	2257	C
36	5	2258	U
36	5	2261	G

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Mol	Chain	Res	Type
36	5	2262	A
36	5	2263	C
36	5	2266	U
36	5	2267	C
36	5	2269	U
36	5	2270	A
36	5	2272	G
36	5	2279	A
36	5	2280	A
36	5	2281	A
36	5	2282	U
36	5	2283	G
36	5	2288	G
36	5	2306	C
36	5	2307	G
36	5	2309	A
36	5	2310	U
36	5	2313	A
36	5	2315	G
36	5	2332	A
36	5	2334	U
36	5	2335	G
36	5	2336	U
36	5	2361	A
36	5	2373	A
36	5	2374	C
36	5	2375	G
36	5	2379	U
36	5	2385	G
36	5	2388	U
36	5	2393	G
36	5	2394	G
36	5	2397	A
36	5	2401	A
36	5	2402	A
36	5	2403	G
36	5	2404	A
36	5	2411	U
36	5	2418	G
36	5	2419	A
36	5	2422	C
36	5	2434	U

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Mol	Chain	Res	Type
36	5	2435	G
36	5	2437	G
36	5	2442	G
36	5	2507	C
36	5	2510	U
36	5	2511	A
36	5	2512	C
36	5	2514	U
36	5	2515	A
36	5	2522	G
36	5	2523	A
36	5	2524	A
36	5	2525	G
36	5	2526	C
36	5	2538	U
36	5	2539	C
36	5	2540	A
36	5	2541	U
36	5	2542	U
36	5	2543	U
36	5	2544	U
36	5	2545	C
36	5	2547	A
36	5	2549	G
36	5	2550	U
36	5	2552	C
36	5	2555	G
36	5	2556	C
36	5	2566	C
36	5	2567	C
36	5	2568	C
36	5	2569	A
36	5	2570	U
36	5	2571	U
36	5	2573	G
36	5	2574	G
36	5	2581	U
36	5	2584	G
36	5	2585	G
36	5	2586	G
36	5	2589	G
36	5	2593	A

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Mol	Chain	Res	Type
36	5	2594	C
36	5	2606	G
36	5	2607	G
36	5	2610	G
36	5	2614	G
36	5	2619	G
36	5	2637	A
36	5	2649	A
36	5	2652	U
36	5	2656	A
36	5	2657	A
36	5	2662	G
36	5	2663	G
36	5	2674	A
36	5	2677	G
36	5	2683	U
36	5	2689	A
36	5	2691	A
36	5	2694	A
36	5	2695	A
36	5	2696	A
36	5	2705	A
36	5	2714	G
36	5	2719	U
36	5	2728	G
36	5	2729	U
36	5	2737	C
36	5	2752	U
36	5	2753	G
36	5	2771	U
36	5	2772	C
36	5	2773	C
36	5	2778	G
36	5	2779	A
36	5	2796	G
36	5	2797	C
36	5	2798	C
36	5	2800	G
36	5	2801	A
36	5	2803	A
36	5	2808	A
36	5	2810	C

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Mol	Chain	Res	Type
36	5	2814	G
36	5	2816	G
36	5	2817	A
36	5	2818	U
36	5	2819	A
36	5	2821	C
36	5	2829	U
36	5	2834	G
36	5	2845	A
36	5	2846	U
36	5	2853	A
36	5	2856	G
36	5	2871	G
36	5	2872	A
36	5	2873	U
36	5	2875	U
36	5	2876	C
36	5	2877	G
36	5	2886	U
36	5	2887	A
36	5	2888	U
36	5	2889	C
36	5	2896	A
36	5	2899	C
36	5	2910	A
36	5	2923	U
36	5	2935	U
36	5	2936	A
36	5	2942	C
36	5	2943	G
36	5	2945	G
36	5	2947	G
36	5	2948	C
36	5	2950	G
36	5	2951	G
36	5	2954	U
36	5	2955	U
36	5	2957	G
36	5	2970	C
36	5	2971	A
36	5	2972	G
36	5	2979	U

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Mol	Chain	Res	Type
36	5	2983	C
36	5	2990	G
36	5	2995	A
36	5	2996	U
36	5	2997	G
36	5	3012	A
36	5	3025	C
36	5	3028	G
36	5	3030	G
36	5	3034	C
36	5	3049	A
36	5	3056	U
36	5	3059	G
36	5	3078	U
36	5	3079	U
36	5	3080	G
36	5	3086	A
36	5	3087	A
36	5	3092	C
36	5	3122	A
36	5	3129	A
36	5	3130	A
36	5	3131	U
36	5	3142	A
36	5	3143	C
36	5	3150	A
36	5	3151	U
36	5	3153	U
36	5	3158	G
36	5	3159	C
36	5	3164	C
36	5	3165	A
36	5	3170	A
36	5	3172	A
36	5	3173	G
36	5	3174	A
36	5	3175	U
36	5	3176	G
36	5	3179	U
36	5	3181	C
36	5	3187	A
36	5	3194	C

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Mol	Chain	Res	Type
36	5	3195	U
36	5	3196	U
36	5	3198	U
36	5	3207	U
36	5	3210	A
36	5	3216	G
36	5	3217	C
36	5	3218	A
36	5	3219	G
36	5	3224	G
36	5	3227	A
36	5	3228	C
36	5	3229	G
36	5	3238	G
36	5	3243	A
36	5	3244	A
36	5	3245	A
36	5	3246	G
36	5	3247	G
36	5	3251	U
36	5	3253	G
36	5	3259	U
36	5	3260	G
36	5	3265	C
36	5	3266	G
36	5	3269	U
36	5	3270	U
36	5	3271	G
36	5	3273	A
36	5	3276	G
36	5	3279	A
36	5	3281	U
36	5	3286	G
36	5	3288	G
36	5	3289	G
36	5	3290	G
36	5	3294	A
36	5	3304	U
36	5	3313	U
36	5	3316	A
36	5	3317	U
36	5	3318	G

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Mol	Chain	Res	Type
36	5	3319	U
36	5	3320	A
36	5	3335	A
36	5	3340	G
36	5	3341	U
36	5	3342	A
36	5	3343	G
36	5	3345	G
36	5	3348	G
36	5	3350	C
36	5	3351	U
36	5	3352	U
36	5	3353	G
36	5	3354	U
36	5	3355	U
36	5	3356	G
36	5	3357	U
36	5	3358	U
36	5	3368	U
36	5	3369	G
36	5	3378	C
36	5	3382	U
36	5	3386	G
36	5	3389	U
36	5	3390	G
36	5	3396	U
37	7	7	G
37	7	22	A
37	7	23	A
37	7	38	U
37	7	54	U
37	7	65	G
37	7	73	C
37	7	74	C
37	7	76	A
37	7	93	C
37	7	95	A
37	7	101	G
37	7	102	A
37	7	103	A
37	7	112	G
38	8	16	G

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Mol	Chain	Res	Type
38	8	18	U
38	8	21	C
38	8	34	U
38	8	35	C
38	8	48	A
38	8	49	G
38	8	52	A
38	8	53	A
38	8	58	G
38	8	59	A
38	8	62	C
38	8	63	G
38	8	75	G
38	8	79	A
38	8	80	A
38	8	81	U
38	8	82	U
38	8	83	C
38	8	84	C
38	8	85	G
38	8	86	U
38	8	87	G
38	8	90	U
38	8	91	C
38	8	95	G
38	8	103	G
38	8	104	A
38	8	106	C
38	8	111	A
38	8	112	U
38	8	113	U
38	8	123	G
38	8	125	U
38	8	126	A
38	8	127	U
38	8	128	U
38	8	138	A
38	8	152	G
38	8	155	A
38	8	156	U
38	8	157	U

All (344) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	2	25	C
1	2	45	U
1	2	68	A
1	2	72	A
1	2	73	U
1	2	74	U
1	2	75	U
1	2	103	A
1	2	139	C
1	2	158	U
1	2	187	G
1	2	277	U
1	2	278	U
1	2	279	G
1	2	280	U
1	2	321	C
1	2	322	G
1	2	417	A
1	2	484	C
1	2	501	U
1	2	503	G
1	2	512	A
1	2	541	A
1	2	542	A
1	2	555	A
1	2	571	G
1	2	582	U
1	2	622	A
1	2	755	A
1	2	779	U
1	2	782	U
1	2	794	U
1	2	811	A
1	2	813	U
1	2	814	A
1	2	815	G
1	2	913	G
1	2	1051	G
1	2	1058	U
1	2	1059	U
1	2	1081	A
1	2	1096	C
1	2	1150	G

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Mol	Chain	Res	Type
1	2	1157	A
1	2	1196	A
1	2	1204	A
1	2	1207	C
1	2	1226	A
1	2	1244	A
1	2	1250	U
1	2	1314	U
1	2	1339	C
1	2	1340	U
1	2	1341	A
1	2	1344	A
1	2	1370	U
1	2	1473	U
1	2	1481	C
1	2	1489	U
1	2	1493	A
1	2	1568	C
1	2	1573	A
1	2	1615	C
1	2	1635	A
1	2	1656	U
1	2	1711	C
1	2	1761	U
36	1	13	A
36	1	21	G
36	1	40	A
36	1	133	U
36	1	216	G
36	1	218	G
36	1	219	A
36	1	220	G
36	1	239	G
36	1	282	G
36	1	304	G
36	1	420	G
36	1	518	G
36	1	547	G
36	1	548	G
36	1	558	U
36	1	588	G
36	1	594	U

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Mol	Chain	Res	Type
36	1	637	C
36	1	715	A
36	1	763	G
36	1	764	U
36	1	765	C
36	1	816	A
36	1	873	C
36	1	916	G
36	1	979	U
36	1	981	U
36	1	993	G
36	1	1064	A
36	1	1096	U
36	1	1097	G
36	1	1103	A
36	1	1222	G
36	1	1284	C
36	1	1307	G
36	1	1329	U
36	1	1355	A
36	1	1484	U
36	1	1514	G
36	1	1554	U
36	1	1555	U
36	1	1556	C
36	1	1562	C
36	1	1572	U
36	1	1593	A
36	1	1594	A
36	1	1607	U
36	1	1648	A
36	1	1716	U
36	1	1761	C
36	1	1763	U
36	1	1815	U
36	1	1816	A
36	1	1820	U
36	1	2101	C
36	1	2112	U
36	1	2206	G
36	1	2209	U
36	1	2227	C

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Mol	Chain	Res	Type
36	1	2249	G
36	1	2258	U
36	1	2281	A
36	1	2282	U
36	1	2360	C
36	1	2372	A
36	1	2513	U
36	1	2522	G
36	1	2525	G
36	1	2537	U
36	1	2541	U
36	1	2551	U
36	1	2554	A
36	1	2570	U
36	1	2571	U
36	1	2573	G
36	1	2585	G
36	1	2593	A
36	1	2689	A
36	1	2772	C
36	1	2801	A
36	1	2808	A
36	1	2817	A
36	1	2818	U
36	1	2913	C
36	1	2970	C
36	1	3078	U
36	1	3121	U
36	1	3169	U
36	1	3195	U
36	1	3218	A
36	1	3228	C
36	1	3269	U
36	1	3275	U
36	1	3303	G
36	1	3317	U
36	1	3341	U
36	1	3355	U
36	1	3375	A
36	1	3377	G
36	1	3389	U
37	3	52	G

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Mol	Chain	Res	Type
38	4	60	U
38	4	85	G
38	4	112	U
38	4	125	U
38	4	126	A
38	4	127	U
1	6	25	C
1	6	76	A
1	6	103	A
1	6	114	C
1	6	136	C
1	6	139	C
1	6	158	U
1	6	187	G
1	6	192	U
1	6	240	U
1	6	272	U
1	6	277	U
1	6	321	C
1	6	400	A
1	6	417	A
1	6	422	G
1	6	454	U
1	6	512	A
1	6	542	A
1	6	555	A
1	6	558	U
1	6	622	A
1	6	647	G
1	6	695	U
1	6	755	A
1	6	912	U
1	6	913	G
1	6	1051	G
1	6	1058	U
1	6	1097	U
1	6	1098	U
1	6	1196	A
1	6	1207	C
1	6	1227	A
1	6	1244	A
1	6	1255	G

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Mol	Chain	Res	Type
1	6	1344	A
1	6	1413	U
1	6	1481	C
1	6	1489	U
1	6	1491	U
1	6	1492	A
1	6	1535	U
1	6	1568	C
1	6	1573	A
1	6	1615	C
1	6	1620	C
1	6	1657	U
1	6	1681	A
1	6	1719	A
1	6	1754	A
36	5	65	A
36	5	151	A
36	5	170	G
36	5	240	U
36	5	282	G
36	5	369	A
36	5	420	G
36	5	518	G
36	5	557	A
36	5	648	C
36	5	705	A
36	5	715	A
36	5	735	A
36	5	765	C
36	5	766	U
36	5	816	A
36	5	873	C
36	5	879	U
36	5	916	G
36	5	993	G
36	5	1015	U
36	5	1016	C
36	5	1027	A
36	5	1033	U
36	5	1062	A
36	5	1064	A
36	5	1081	U

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Mol	Chain	Res	Type
36	5	1096	U
36	5	1103	A
36	5	1152	G
36	5	1154	A
36	5	1178	G
36	5	1189	C
36	5	1222	G
36	5	1238	C
36	5	1241	U
36	5	1284	C
36	5	1307	G
36	5	1317	A
36	5	1329	U
36	5	1355	A
36	5	1481	A
36	5	1560	G
36	5	1574	C
36	5	1581	C
36	5	1582	C
36	5	1607	U
36	5	1630	U
36	5	1655	G
36	5	1716	U
36	5	1761	C
36	5	1793	C
36	5	1815	U
36	5	1816	A
36	5	1841	A
36	5	1842	A
36	5	1846	C
36	5	1878	G
36	5	1879	A
36	5	1888	U
36	5	2101	C
36	5	2112	U
36	5	2204	C
36	5	2206	G
36	5	2207	A
36	5	2209	U
36	5	2222	A
36	5	2249	G
36	5	2256	A

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Mol	Chain	Res	Type
36	5	2260	U
36	5	2281	A
36	5	2282	U
36	5	2372	A
36	5	2373	A
36	5	2374	C
36	5	2400	G
36	5	2418	G
36	5	2513	U
36	5	2514	U
36	5	2522	G
36	5	2537	U
36	5	2585	G
36	5	2593	A
36	5	2662	G
36	5	2677	G
36	5	2682	C
36	5	2772	C
36	5	2817	A
36	5	2818	U
36	5	2872	A
36	5	2887	A
36	5	2950	G
36	5	2970	C
36	5	3078	U
36	5	3121	U
36	5	3158	G
36	5	3172	A
36	5	3195	U
36	5	3218	A
36	5	3228	C
36	5	3269	U
36	5	3275	U
36	5	3289	G
36	5	3317	U
36	5	3341	U
36	5	3352	U
36	5	3353	G
36	5	3357	U
36	5	3382	U
37	7	86	U
38	8	79	A

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Mol	Chain	Res	Type
38	8	80	A
38	8	81	U
38	8	82	U
38	8	84	C
38	8	111	A
38	8	126	A
38	8	156	U

5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 1260 ligands modelled in this entry, 1239 are monoatomic - leaving 21 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	$\# Z > 2$
82	GET	1	3809	-	35,36,36	0.36	0	43,55,55	1.09	5 (11%)
82	GET	1	3813	-	35,36,36	0.44	0	43,55,55	1.91	9 (20%)
82	GET	6	2015	-	35,36,36	2.10	11 (31%)	43,55,55	2.97	20 (46%)
82	GET	5	3850	-	35,36,36	0.35	0	43,55,55	1.23	5 (11%)
82	GET	5	3844	-	35,36,36	0.35	0	43,55,55	1.55	8 (18%)
82	GET	2	2012	-	35,36,36	0.37	0	43,55,55	1.02	3 (6%)
82	GET	5	3848	-	35,36,36	0.35	0	43,55,55	1.79	7 (16%)
82	GET	2	2014	-	35,36,36	0.44	0	43,55,55	1.33	5 (11%)
82	GET	5	3846	-	35,36,36	0.40	0	43,55,55	1.15	2 (4%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	GET	5	3851	-	35,36,36	0.30	0	43,55,55	0.70	1 (2%)
82	GET	1	3812	-	35,36,36	0.45	0	43,55,55	1.23	3 (6%)
82	GET	6	2014	-	35,36,36	0.24	0	43,55,55	1.10	4 (9%)
82	GET	1	3811	-	35,36,36	0.34	0	43,55,55	0.65	1 (2%)
82	GET	5	3847	-	35,36,36	0.46	0	43,55,55	1.55	7 (16%)
82	GET	n6	201	-	35,36,36	0.27	0	43,55,55	1.17	4 (9%)
82	GET	2	2013	-	35,36,36	0.37	0	43,55,55	0.96	3 (6%)
82	GET	6	2013	-	35,36,36	0.25	0	43,55,55	0.70	1 (2%)
82	GET	5	3849	-	35,36,36	0.51	0	43,55,55	1.32	4 (9%)
82	GET	5	3845	-	35,36,36	0.40	0	43,55,55	0.95	2 (4%)
82	GET	1	3810	-	35,36,36	0.41	0	43,55,55	1.67	7 (16%)
82	GET	1	3808	-	35,36,36	0.35	0	43,55,55	1.65	8 (18%)

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
82	GET	1	3809	-	-	10/13/74/74	0/3/3/3
82	GET	1	3813	-	-	6/13/74/74	0/3/3/3
82	GET	6	2015	-	-	5/13/74/74	0/3/3/3
82	GET	5	3850	-	-	6/13/74/74	0/3/3/3
82	GET	5	3844	-	-	5/13/74/74	0/3/3/3
82	GET	2	2012	-	-	3/13/74/74	1/3/3/3
82	GET	5	3848	-	-	3/13/74/74	0/3/3/3
82	GET	2	2014	-	-	5/13/74/74	1/3/3/3
82	GET	5	3846	-	-	5/13/74/74	0/3/3/3
82	GET	5	3851	-	-	6/13/74/74	0/3/3/3
82	GET	1	3812	-	-	6/13/74/74	0/3/3/3
82	GET	6	2014	-	-	6/13/74/74	0/3/3/3
82	GET	1	3811	-	-	1/13/74/74	0/3/3/3
82	GET	5	3847	-	-	8/13/74/74	0/3/3/3
82	GET	n6	201	-	-	6/13/74/74	0/3/3/3
82	GET	2	2013	-	-	6/13/74/74	0/3/3/3
82	GET	6	2013	-	-	2/13/74/74	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
82	GET	5	3849	-	-	4/13/74/74	0/3/3/3
82	GET	5	3845	-	-	1/13/74/74	0/3/3/3
82	GET	1	3810	-	-	2/13/74/74	0/3/3/3
82	GET	1	3808	-	-	9/13/74/74	0/3/3/3

All (11) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
82	6	2015	GET	C23-C33	5.33	1.64	1.53
82	6	2015	GET	C53-C43	3.95	1.56	1.52
82	6	2015	GET	C22-C12	3.80	1.61	1.53
82	6	2015	GET	C41-C31	3.47	1.61	1.52
82	6	2015	GET	C33-N33	3.21	1.49	1.45
82	6	2015	GET	C22-C32	3.05	1.60	1.53
82	6	2015	GET	C51-C61	2.83	1.56	1.52
82	6	2015	GET	O51-C11	2.38	1.48	1.41
82	6	2015	GET	C41-C51	2.16	1.58	1.52
82	6	2015	GET	C31-C21	-2.10	1.50	1.53
82	6	2015	GET	C62-C12	2.04	1.57	1.53

All (109) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	5	3848	GET	C23-C33-N33	-7.62	90.62	110.84
82	6	2015	GET	C11-C21-N21	7.35	123.45	110.20
82	6	2015	GET	O31-C31-C21	-7.02	97.61	110.22
82	1	3810	GET	O11-C11-C21	6.91	119.38	108.08
82	5	3847	GET	O11-C11-C21	5.93	117.79	108.08
82	6	2015	GET	C31-C21-N21	-5.66	99.46	111.05
82	6	2015	GET	O31-C31-C41	5.38	123.07	110.38
82	5	3848	GET	O51-C51-C41	5.32	115.46	107.94
82	6	2015	GET	C23-C33-N33	5.30	124.90	110.84
82	1	3813	GET	C23-C33-N33	-5.28	96.83	110.84
82	1	3808	GET	C23-C33-N33	-5.18	97.11	110.84
82	5	3846	GET	C23-C33-N33	-5.10	97.31	110.84
82	1	3813	GET	O11-C11-C21	5.05	116.35	108.08
82	1	3813	GET	O62-C13-O53	5.05	119.36	108.92
82	n6	201	GET	O11-C11-C21	4.96	116.19	108.08
82	5	3849	GET	C23-C33-N33	-4.86	97.94	110.84
82	6	2015	GET	O23-C23-C33	4.63	118.79	109.56
82	1	3812	GET	C23-C33-N33	-4.40	99.17	110.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	5	3847	GET	C11-C21-N21	4.33	118.01	110.20
82	5	3849	GET	C32-C22-C12	4.30	118.40	111.02
82	5	3844	GET	O62-C62-C52	-4.26	96.40	107.23
82	6	2015	GET	C71-C61-C51	4.20	116.77	111.90
82	1	3813	GET	O51-C11-C21	4.14	119.24	110.08
82	6	2014	GET	O11-C42-C32	-4.07	99.48	109.18
82	2	2013	GET	O11-C42-C32	-4.03	99.57	109.18
82	1	3810	GET	C32-C22-C12	4.01	117.90	111.02
82	6	2015	GET	O11-C42-C52	3.95	117.27	107.23
82	5	3844	GET	O11-C42-C52	3.79	116.87	107.23
82	1	3812	GET	C32-C22-C12	-3.77	104.56	111.02
82	6	2015	GET	O51-C51-C61	3.69	116.39	107.18
82	5	3845	GET	O11-C11-C21	3.66	114.08	108.08
82	2	2012	GET	O11-C42-C32	-3.61	100.56	109.18
82	1	3808	GET	O11-C42-C32	-3.61	100.56	109.18
82	5	3844	GET	O11-C42-C32	-3.58	100.63	109.18
82	5	3850	GET	C23-C33-N33	-3.56	101.41	110.84
82	2	2014	GET	O51-C51-C41	3.49	112.88	107.94
82	5	3847	GET	O62-C62-C12	-3.42	101.01	109.18
82	1	3813	GET	C32-C22-C12	-3.42	105.16	111.02
82	1	3813	GET	C13-C23-C33	3.38	114.81	109.31
82	1	3808	GET	O23-C23-C13	3.33	118.01	110.08
82	6	2015	GET	C11-O51-C51	3.31	118.38	113.07
82	1	3813	GET	C53-O53-C13	3.23	116.50	111.53
82	2	2014	GET	C71-C61-C51	3.11	115.50	111.90
82	1	3808	GET	C11-C21-N21	3.07	115.74	110.20
82	5	3844	GET	O52-C52-C42	3.07	117.80	109.94
82	6	2013	GET	O62-C62-C12	-3.04	101.92	109.18
82	6	2015	GET	O41-C41-C31	3.04	117.54	110.38
82	6	2015	GET	O11-C11-O51	3.03	118.66	110.69
82	1	3809	GET	O62-C62-C12	-2.98	102.06	109.18
82	6	2015	GET	C31-C41-C51	2.97	116.41	109.68
82	6	2015	GET	O11-C11-C21	2.93	112.86	108.08
82	n6	201	GET	C32-C22-C12	-2.91	106.04	111.02
82	6	2014	GET	O11-C11-C21	-2.82	103.45	108.08
82	1	3810	GET	C53-O53-C13	2.81	115.86	111.53
82	1	3812	GET	C13-C23-C33	2.78	113.83	109.31
82	6	2015	GET	C32-C22-C12	2.77	115.78	111.02
82	2	2013	GET	O11-C11-C21	-2.75	103.57	108.08
82	1	3808	GET	O62-C13-C23	2.71	114.76	108.09
82	6	2015	GET	O61-C61-C51	2.68	113.87	108.61
82	5	3850	GET	C71-C61-C51	2.66	114.98	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	2	2014	GET	O11-C42-C32	2.65	115.49	109.18
82	5	3851	GET	C32-C22-C12	-2.64	106.50	111.02
82	6	2015	GET	O62-C62-C12	-2.63	102.89	109.18
82	1	3810	GET	C71-C61-C51	2.61	114.93	111.90
82	5	3844	GET	C11-O51-C51	-2.61	108.90	113.07
82	2	2012	GET	C13-C23-C33	-2.59	105.09	109.31
82	1	3809	GET	C32-C22-C12	2.55	115.39	111.02
82	5	3849	GET	O62-C62-C52	2.54	113.69	107.23
82	n6	201	GET	C11-C21-N21	2.54	114.77	110.20
82	5	3847	GET	C62-C52-C42	2.53	114.23	109.11
82	5	3850	GET	O62-C62-C52	-2.51	100.85	107.23
82	2	2014	GET	O11-C11-C21	2.48	112.13	108.08
82	2	2013	GET	C23-C33-N33	-2.44	104.35	110.84
82	6	2015	GET	O52-C52-C62	2.44	116.19	109.94
82	6	2015	GET	O51-C11-C21	2.43	115.46	110.08
82	6	2015	GET	O52-C52-C42	2.43	116.17	109.94
82	1	3809	GET	O51-C51-C61	2.37	113.10	107.18
82	1	3813	GET	C11-O51-C51	2.36	116.86	113.07
82	2	2014	GET	C11-C21-N21	2.35	114.44	110.20
82	1	3808	GET	O52-C52-C42	2.34	115.94	109.94
82	1	3810	GET	O62-C62-C12	-2.34	103.60	109.18
82	5	3848	GET	C31-C41-C51	2.34	114.98	109.68
82	5	3844	GET	C32-C22-C12	2.33	115.02	111.02
82	5	3846	GET	O62-C62-C12	-2.31	103.66	109.18
82	5	3850	GET	O11-C42-C52	2.29	113.05	107.23
82	1	3810	GET	O11-C42-C32	2.29	114.64	109.18
82	5	3845	GET	C41-C31-C21	2.28	114.78	110.99
82	1	3810	GET	C13-C23-C33	2.28	113.01	109.31
82	5	3848	GET	C32-C22-C12	2.23	114.85	111.02
82	6	2014	GET	C71-C61-C51	2.23	114.48	111.90
82	2	2012	GET	C32-C22-C12	-2.22	107.21	111.02
82	5	3847	GET	O11-C42-C52	2.19	112.80	107.23
82	n6	201	GET	C23-C33-N33	-2.19	105.04	110.84
82	1	3813	GET	O53-C13-C23	2.18	113.32	109.99
82	5	3848	GET	O11-C11-C21	2.15	111.60	108.08
82	1	3809	GET	C62-C52-C42	2.14	113.44	109.11
82	5	3848	GET	O62-C13-O53	2.13	113.33	108.92
82	1	3811	GET	O11-C42-C32	-2.12	104.13	109.18
82	5	3848	GET	C71-C61-C51	2.11	114.35	111.90
82	5	3847	GET	C32-C22-C12	-2.10	107.42	111.02
82	5	3849	GET	O11-C11-C21	2.09	111.50	108.08
82	1	3808	GET	O51-C51-C41	2.09	110.89	107.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	6	2014	GET	C11-C21-N21	-2.08	106.46	110.20
82	5	3844	GET	C11-C21-N21	2.07	113.94	110.20
82	1	3809	GET	O11-C42-C32	-2.07	104.23	109.18
82	1	3808	GET	O11-C11-C21	2.06	111.45	108.08
82	5	3844	GET	O41-C41-C31	-2.05	105.55	110.38
82	5	3850	GET	C13-C23-C33	2.03	112.60	109.31
82	5	3847	GET	O11-C42-C32	-2.02	104.36	109.18

There are no chirality outliers.

All (105) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
82	2	2013	GET	C41-C51-C61-O61
82	2	2013	GET	C41-C51-C61-C71
82	2	2013	GET	O51-C51-C61-O61
82	2	2014	GET	C21-C11-O11-C42
82	2	2014	GET	C23-C33-N33-C93
82	1	3808	GET	C21-C11-O11-C42
82	1	3808	GET	C52-C42-O11-C11
82	1	3808	GET	C41-C51-C61-O61
82	1	3808	GET	C41-C51-C61-C71
82	1	3808	GET	O51-C51-C61-O61
82	1	3808	GET	O51-C51-C61-C71
82	1	3808	GET	C23-C13-O62-C62
82	1	3809	GET	C41-C51-C61-O61
82	1	3809	GET	C41-C51-C61-C71
82	1	3809	GET	O51-C51-C61-O61
82	1	3809	GET	C23-C33-N33-C93
82	1	3810	GET	C32-C42-O11-C11
82	1	3810	GET	C23-C33-N33-C93
82	1	3811	GET	C23-C33-N33-C93
82	1	3812	GET	C41-C51-C61-O61
82	1	3812	GET	C41-C51-C61-C71
82	1	3812	GET	O51-C51-C61-O61
82	1	3812	GET	O51-C51-C61-C71
82	1	3812	GET	C23-C33-N33-C93
82	1	3813	GET	C41-C51-C61-O61
82	1	3813	GET	C41-C51-C61-C71
82	1	3813	GET	O51-C51-C61-O61
82	6	2013	GET	C23-C33-N33-C93
82	6	2014	GET	C41-C51-C61-O61
82	6	2014	GET	C41-C51-C61-C71

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Mol	Chain	Res	Type	Atoms
82	6	2014	GET	O51-C51-C61-O61
82	6	2014	GET	O51-C51-C61-C71
82	6	2015	GET	C41-C51-C61-C71
82	5	3844	GET	C21-C11-O11-C42
82	5	3844	GET	C23-C33-N33-C93
82	5	3846	GET	C41-C51-C61-O61
82	5	3846	GET	C41-C51-C61-C71
82	5	3846	GET	O51-C51-C61-O61
82	5	3846	GET	O51-C51-C61-C71
82	5	3847	GET	C41-C51-C61-O61
82	5	3847	GET	C41-C51-C61-C71
82	5	3847	GET	O51-C51-C61-O61
82	5	3847	GET	O51-C51-C61-C71
82	5	3849	GET	C41-C51-C61-O61
82	5	3849	GET	C41-C51-C61-C71
82	5	3849	GET	O51-C51-C61-O61
82	5	3849	GET	O51-C51-C61-C71
82	5	3850	GET	C41-C51-C61-O61
82	5	3850	GET	C41-C51-C61-C71
82	5	3850	GET	O51-C51-C61-O61
82	5	3850	GET	O51-C51-C61-C71
82	5	3851	GET	C41-C51-C61-O61
82	5	3851	GET	C41-C51-C61-C71
82	5	3851	GET	O51-C51-C61-O61
82	5	3851	GET	C23-C33-N33-C93
82	n6	201	GET	C41-C51-C61-O61
82	n6	201	GET	C41-C51-C61-C71
82	n6	201	GET	O51-C51-C61-O61
82	n6	201	GET	C23-C33-N33-C93
82	5	3844	GET	C52-C42-O11-C11
82	5	3847	GET	O51-C11-O11-C42
82	2	2014	GET	O51-C11-O11-C42
82	1	3809	GET	O51-C11-O11-C42
82	1	3813	GET	O53-C13-O62-C62
82	5	3846	GET	O51-C11-O11-C42
82	1	3812	GET	O51-C11-O11-C42
82	5	3850	GET	C52-C62-O62-C13
82	6	2014	GET	O51-C11-O11-C42
82	6	2015	GET	O51-C11-O11-C42
82	1	3808	GET	O53-C13-O62-C62
82	2	2013	GET	O51-C51-C61-C71
82	1	3809	GET	O51-C51-C61-C71

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Mol	Chain	Res	Type	Atoms
82	1	3813	GET	O51-C51-C61-C71
82	n6	201	GET	O51-C51-C61-C71
82	5	3844	GET	O51-C11-O11-C42
82	5	3851	GET	O51-C11-O11-C42
82	5	3848	GET	C52-C42-O11-C11
82	5	3847	GET	C52-C42-O11-C11
82	6	2015	GET	O51-C51-C61-C71
82	5	3848	GET	O51-C51-C61-C71
82	2	2014	GET	C52-C42-O11-C11
82	6	2015	GET	O51-C51-C61-O61
82	2	2013	GET	C52-C42-O11-C11
82	2	2012	GET	C52-C42-O11-C11
82	1	3813	GET	C23-C13-O62-C62
82	5	3851	GET	O51-C51-C61-C71
82	5	3845	GET	C52-C42-O11-C11
82	1	3809	GET	C52-C62-O62-C13
82	5	3848	GET	C32-C42-O11-C11
82	1	3809	GET	C52-C42-O11-C11
82	1	3808	GET	O51-C11-O11-C42
82	6	2014	GET	C52-C42-O11-C11
82	5	3844	GET	O51-C51-C61-C71
82	1	3809	GET	O53-C13-O62-C62
82	2	2012	GET	C23-C33-N33-C93
82	2	2013	GET	C23-C33-N33-C93
82	5	3847	GET	C23-C33-N33-C93
82	n6	201	GET	O51-C11-O11-C42
82	2	2014	GET	C52-C62-O62-C13
82	6	2015	GET	O53-C13-O62-C62
82	5	3847	GET	C32-C42-O11-C11
82	5	3850	GET	C12-C62-O62-C13
82	2	2012	GET	O51-C51-C61-O61
82	1	3809	GET	C23-C13-O62-C62
82	6	2013	GET	O51-C11-O11-C42

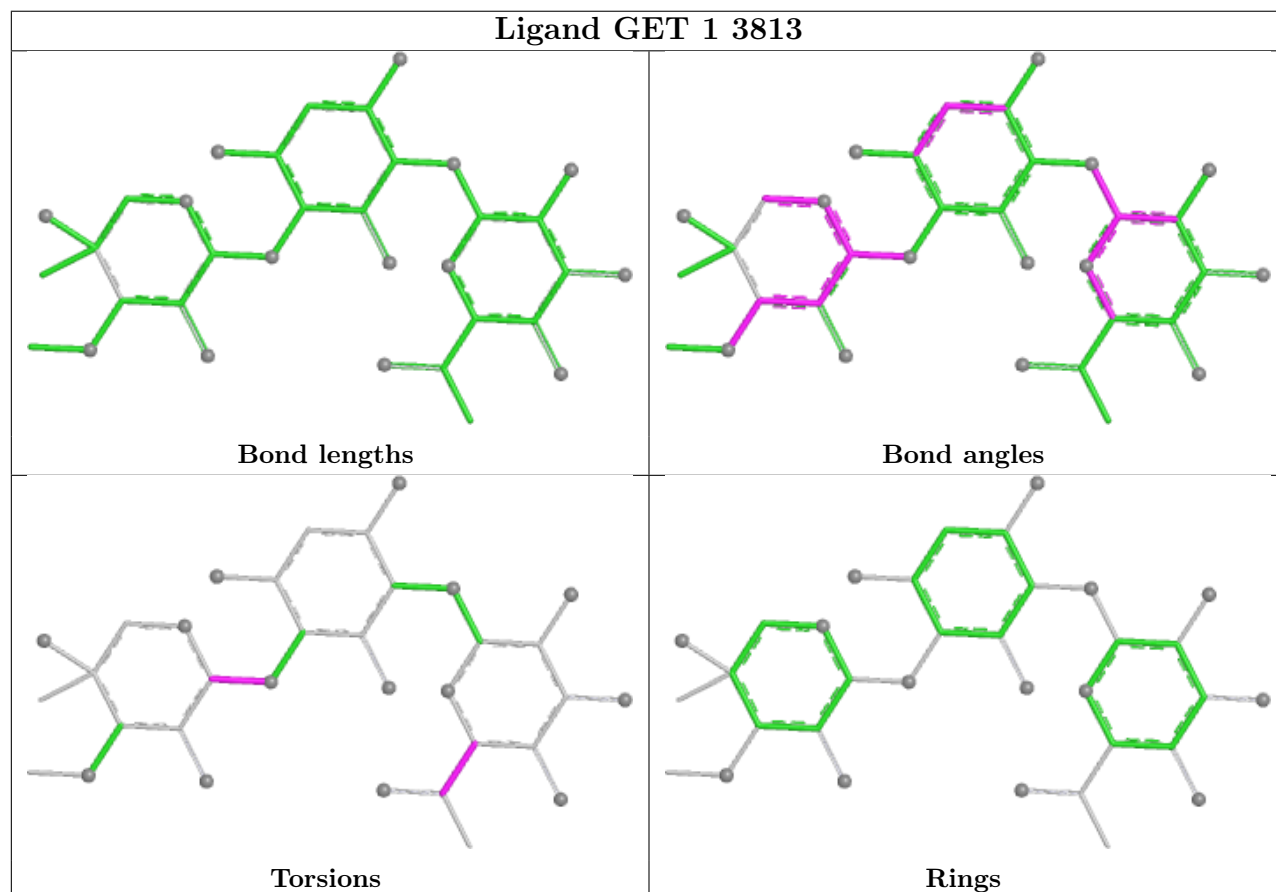
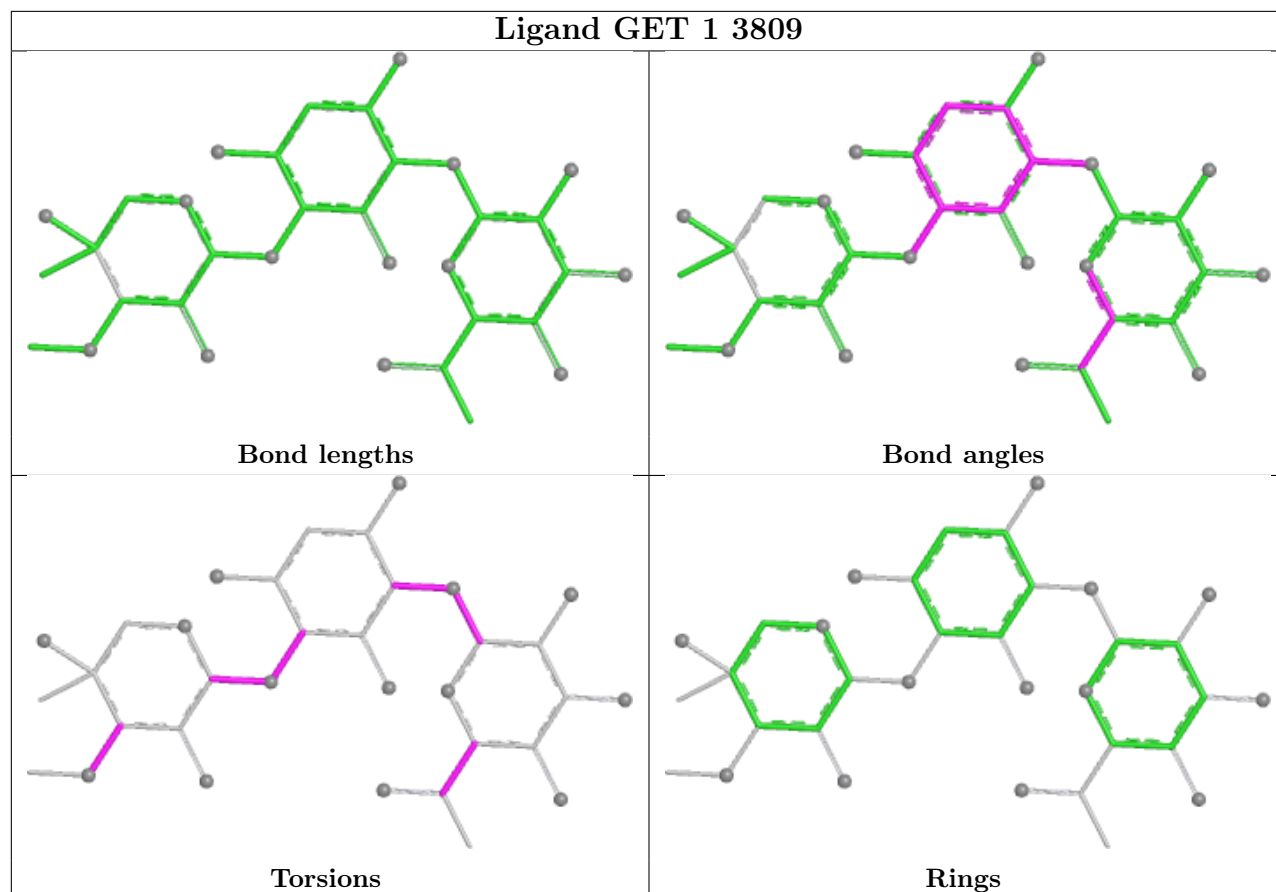
All (2) ring outliers are listed below:

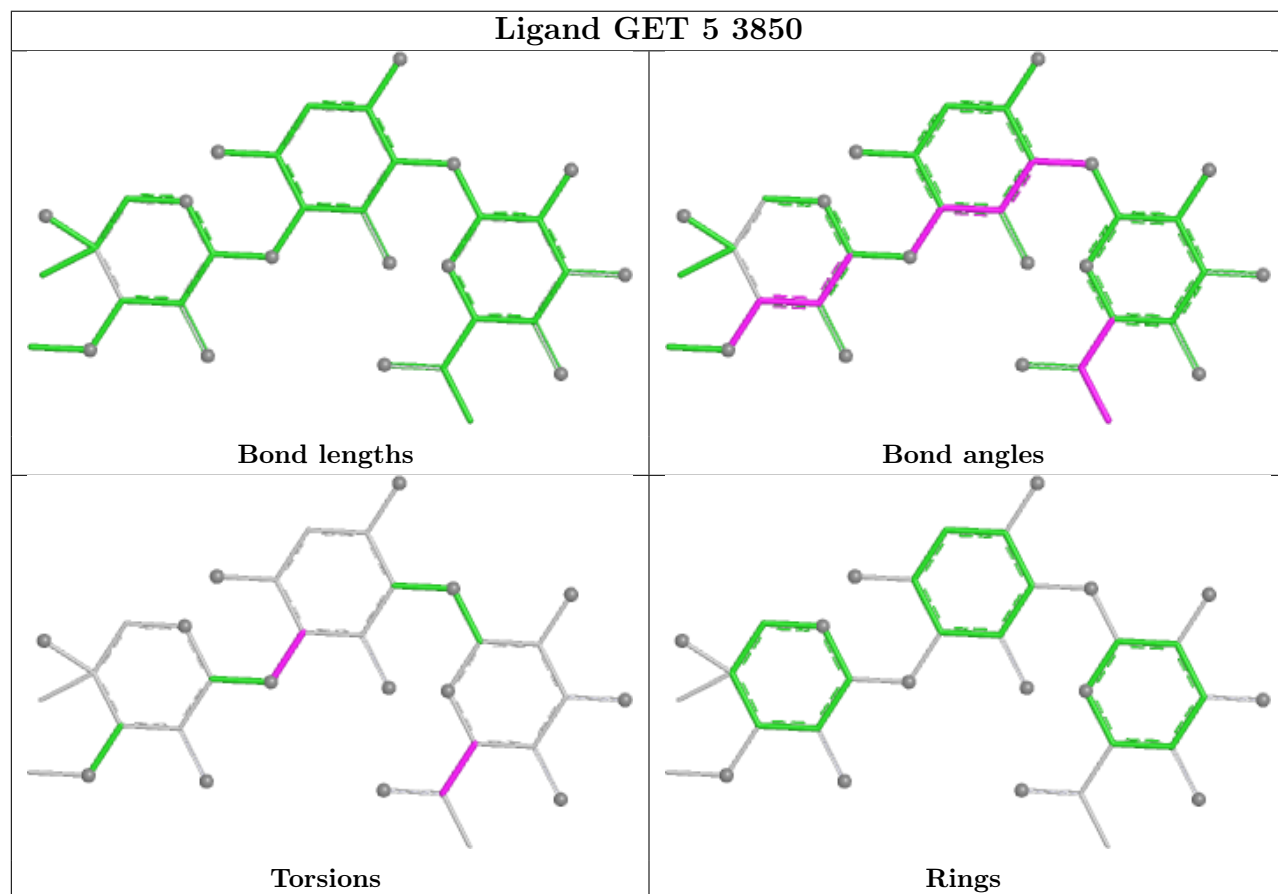
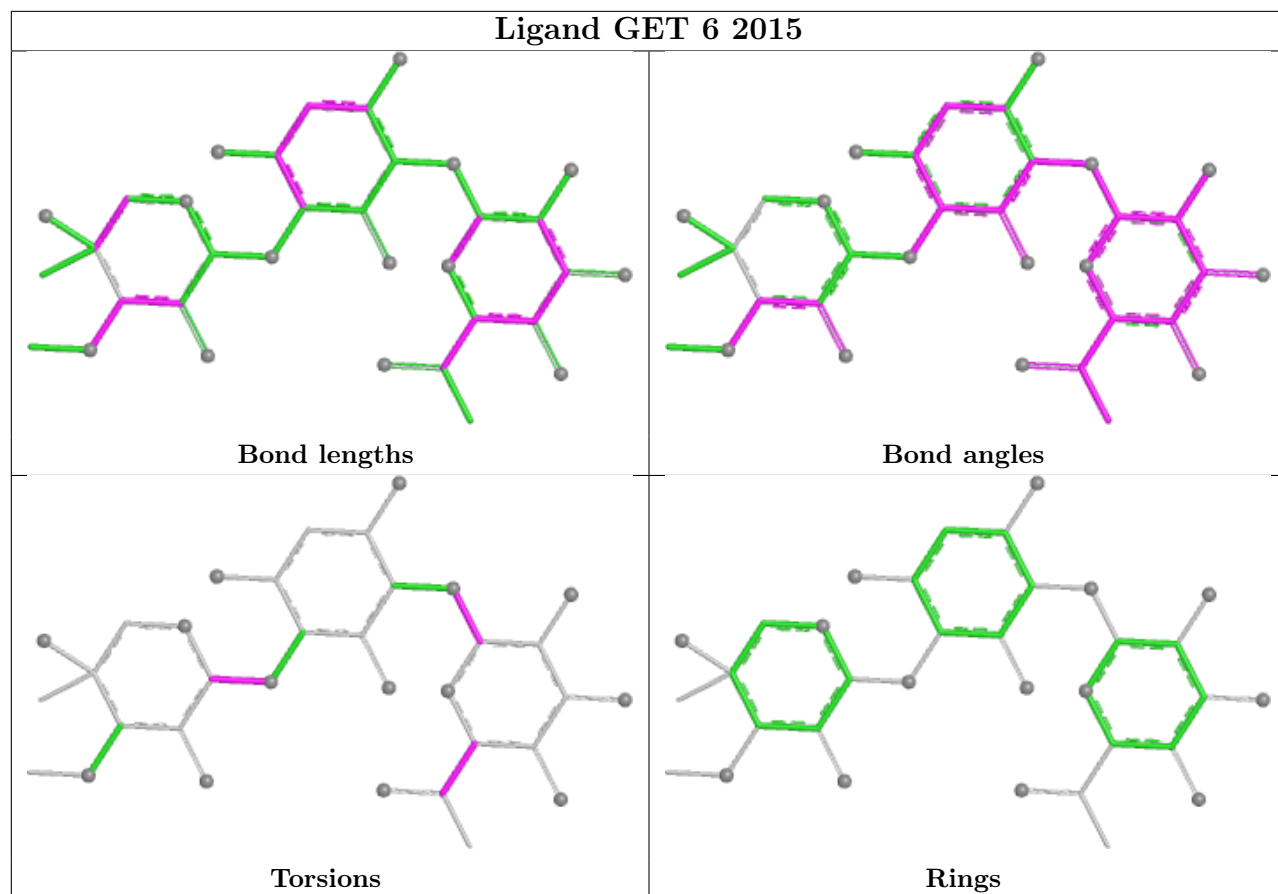
Mol	Chain	Res	Type	Atoms
82	2	2012	GET	C13-C23-C33-C43-C53-O53
82	2	2014	GET	C11-C21-C31-C41-C51-O51

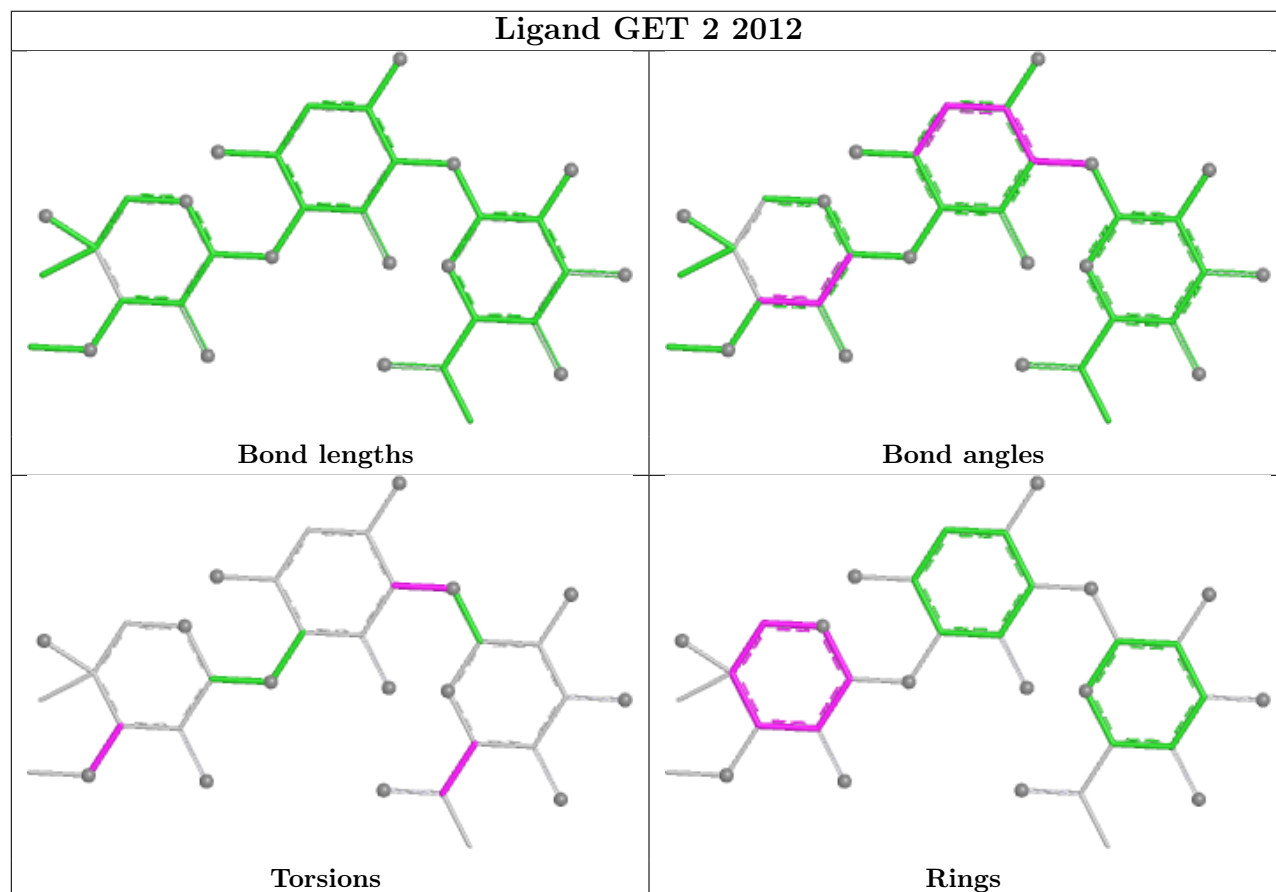
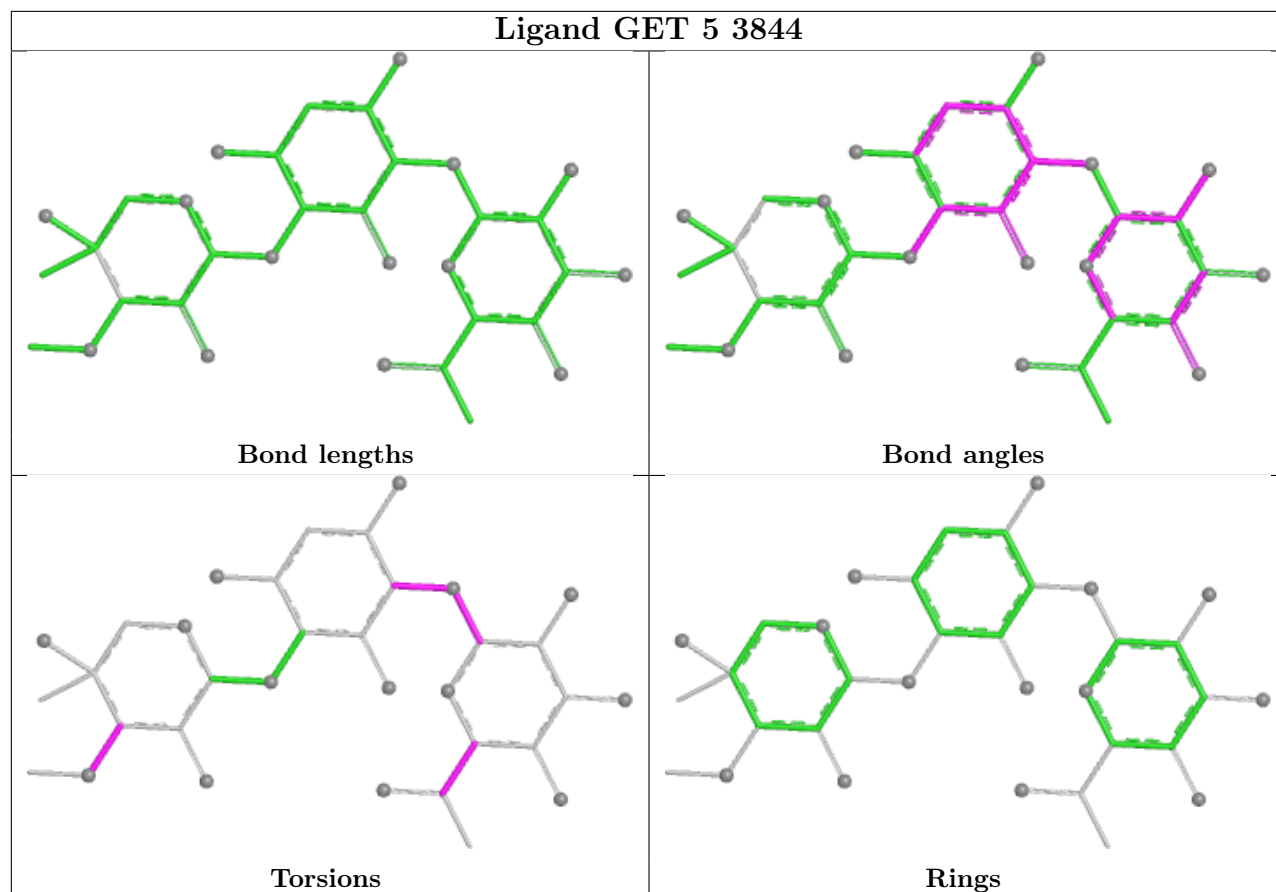
21 monomers are involved in 113 short contacts:

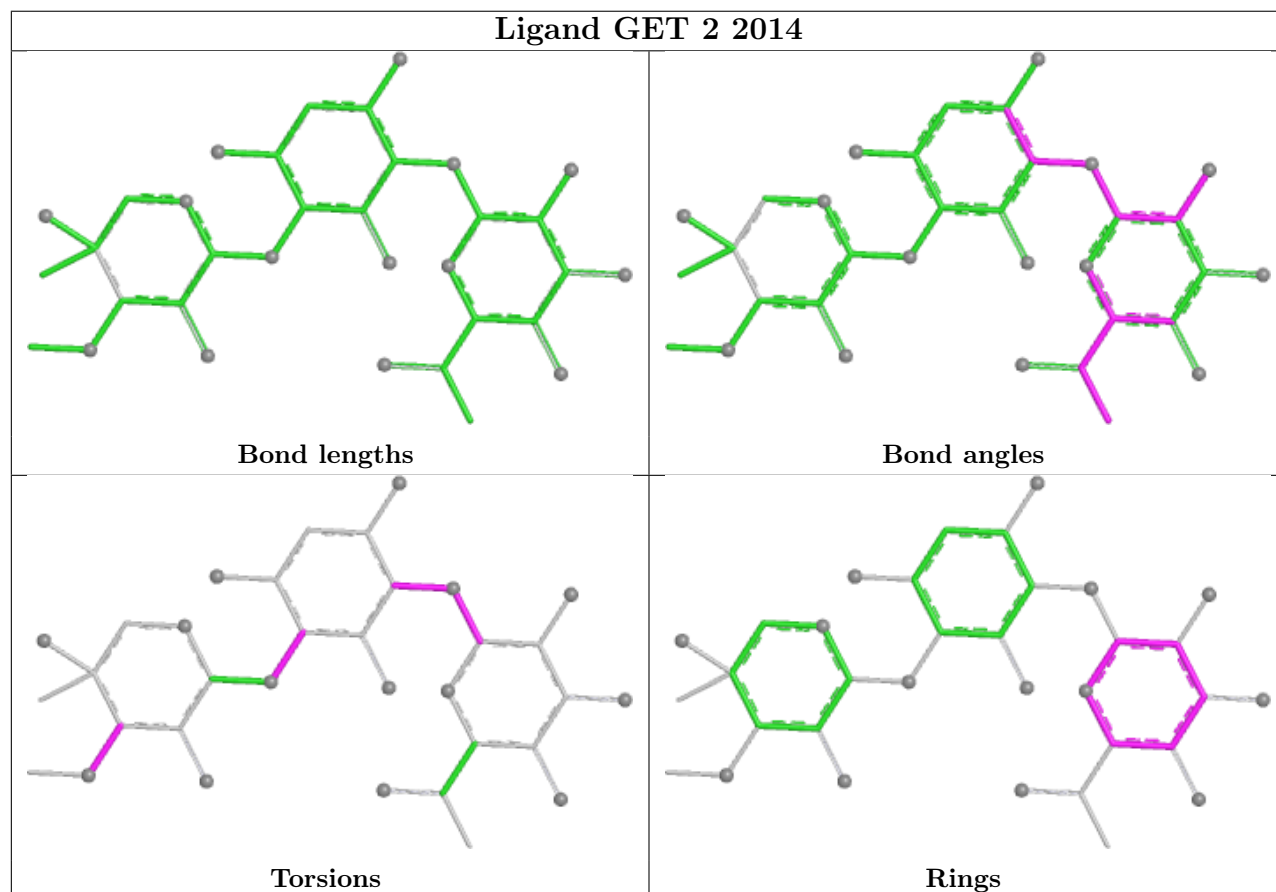
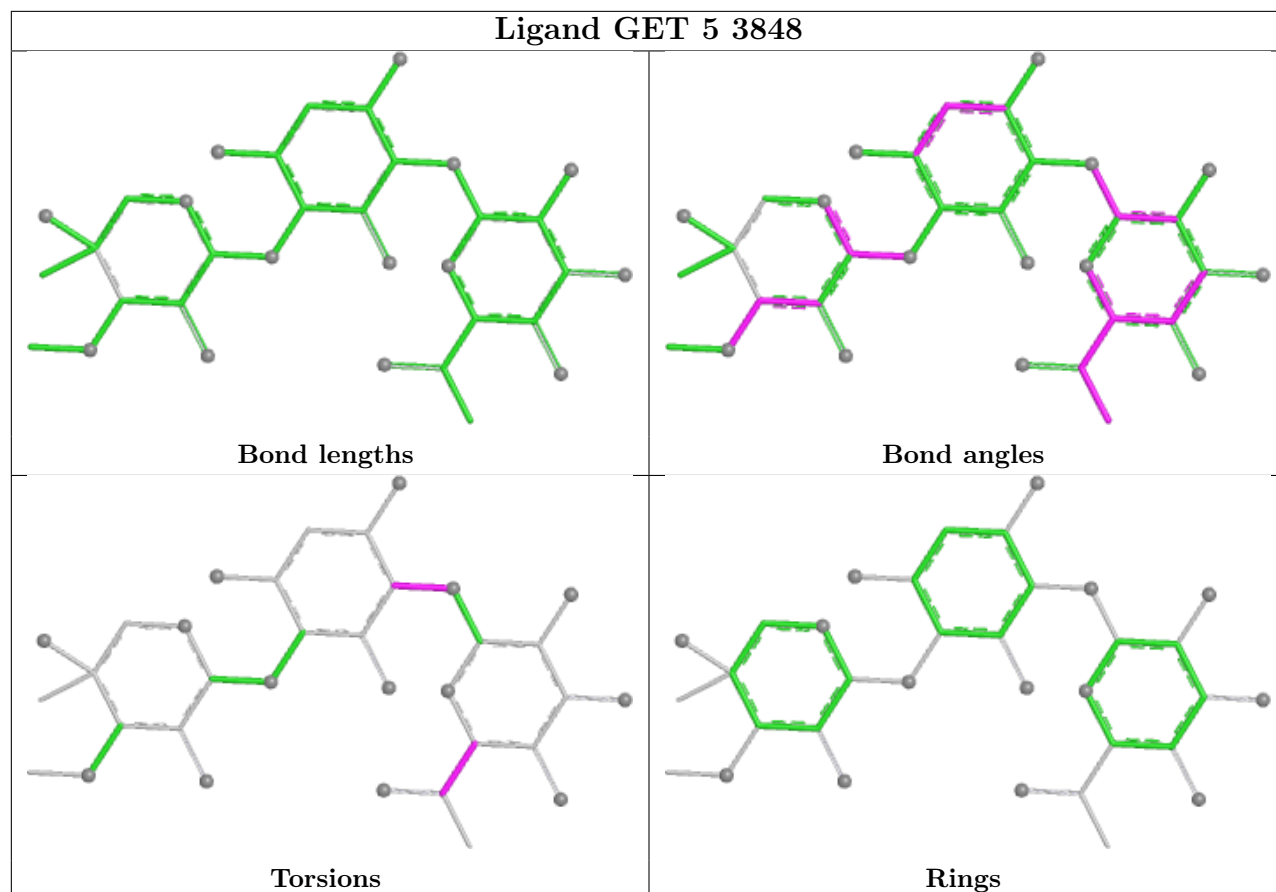
Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	1	3809	GET	1	0
82	1	3813	GET	3	0
82	6	2015	GET	2	0
82	5	3850	GET	7	0
82	5	3844	GET	10	0
82	2	2012	GET	9	0
82	5	3848	GET	4	0
82	2	2014	GET	3	0
82	5	3846	GET	4	0
82	5	3851	GET	4	0
82	1	3812	GET	5	0
82	6	2014	GET	2	0
82	1	3811	GET	5	0
82	5	3847	GET	3	0
82	n6	201	GET	3	0
82	2	2013	GET	8	0
82	6	2013	GET	11	0
82	5	3849	GET	4	0
82	5	3845	GET	3	0
82	1	3810	GET	13	0
82	1	3808	GET	11	0

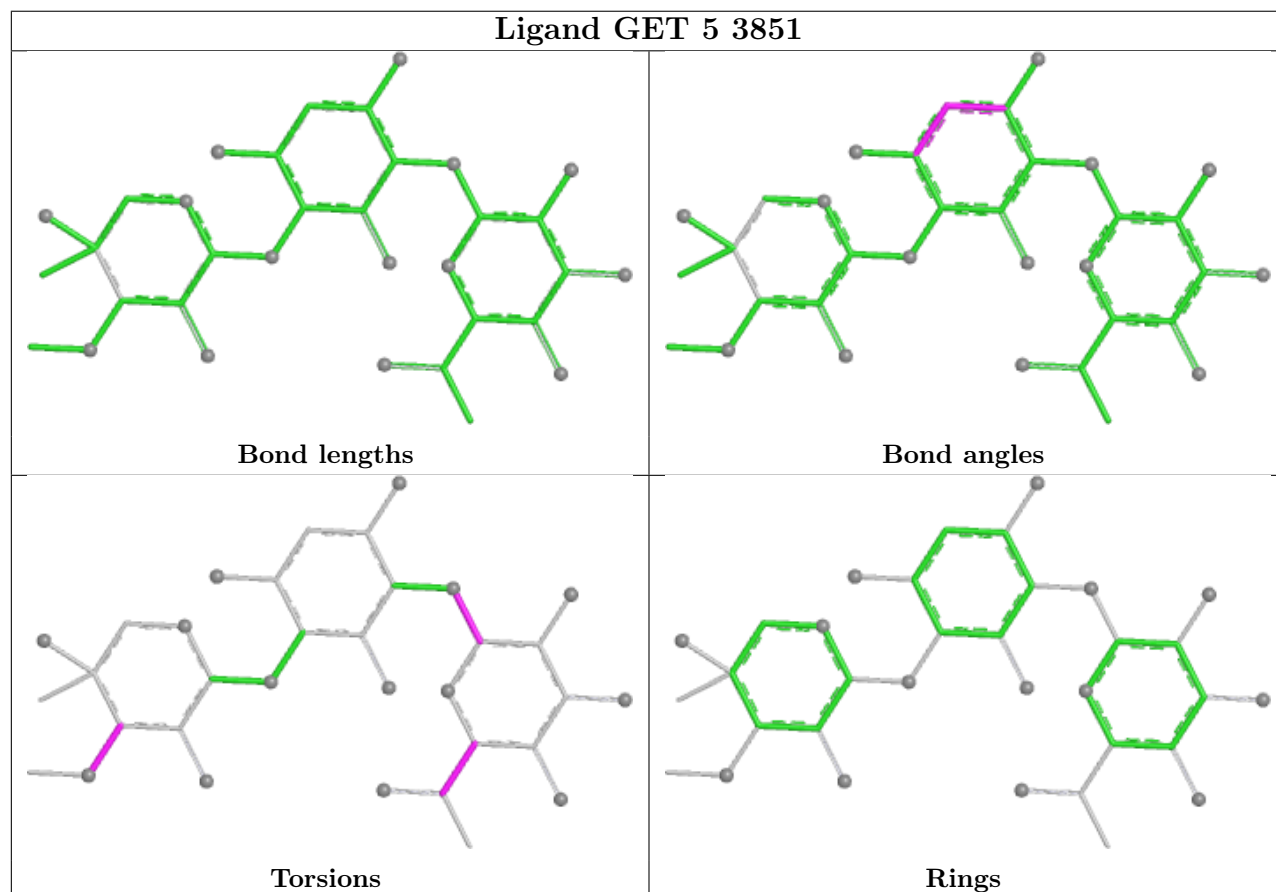
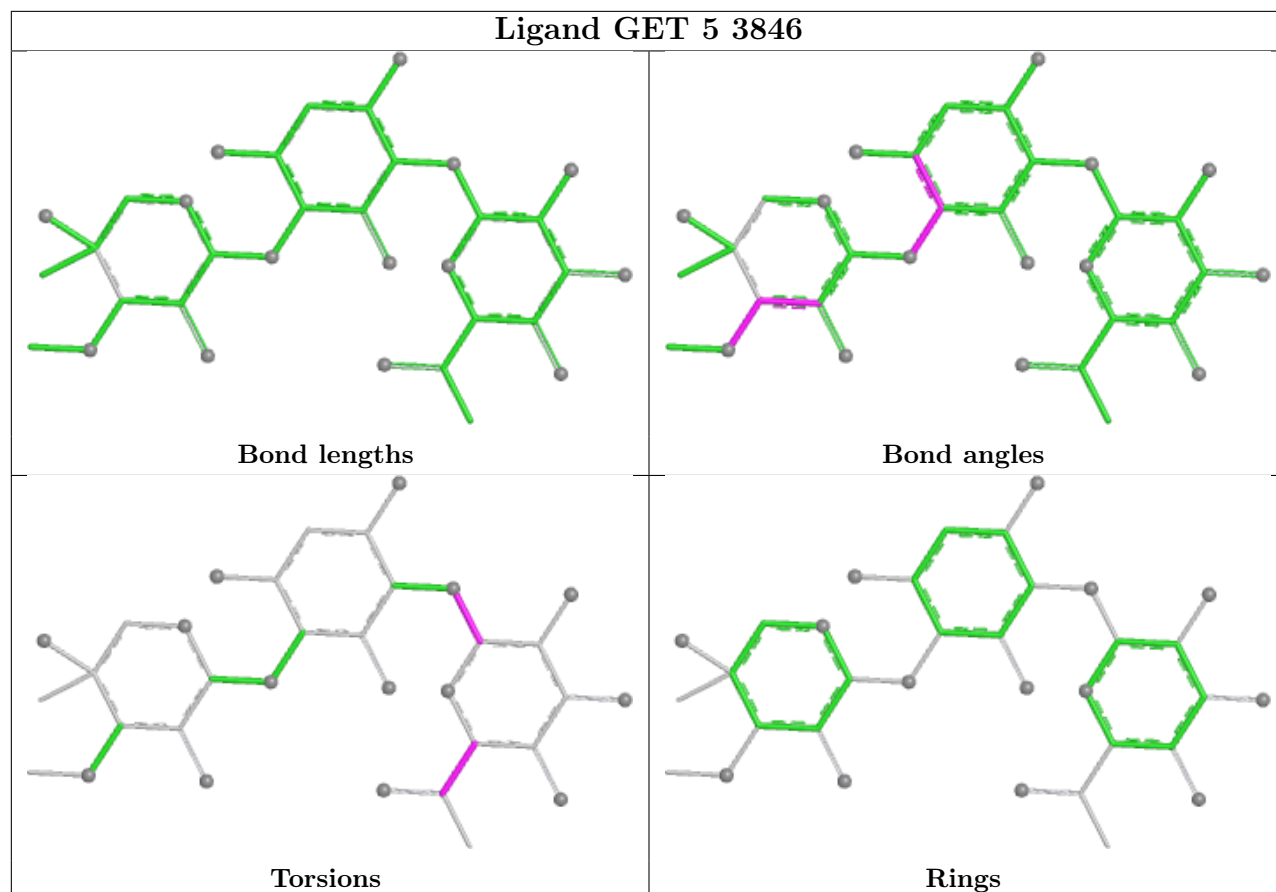
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 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.

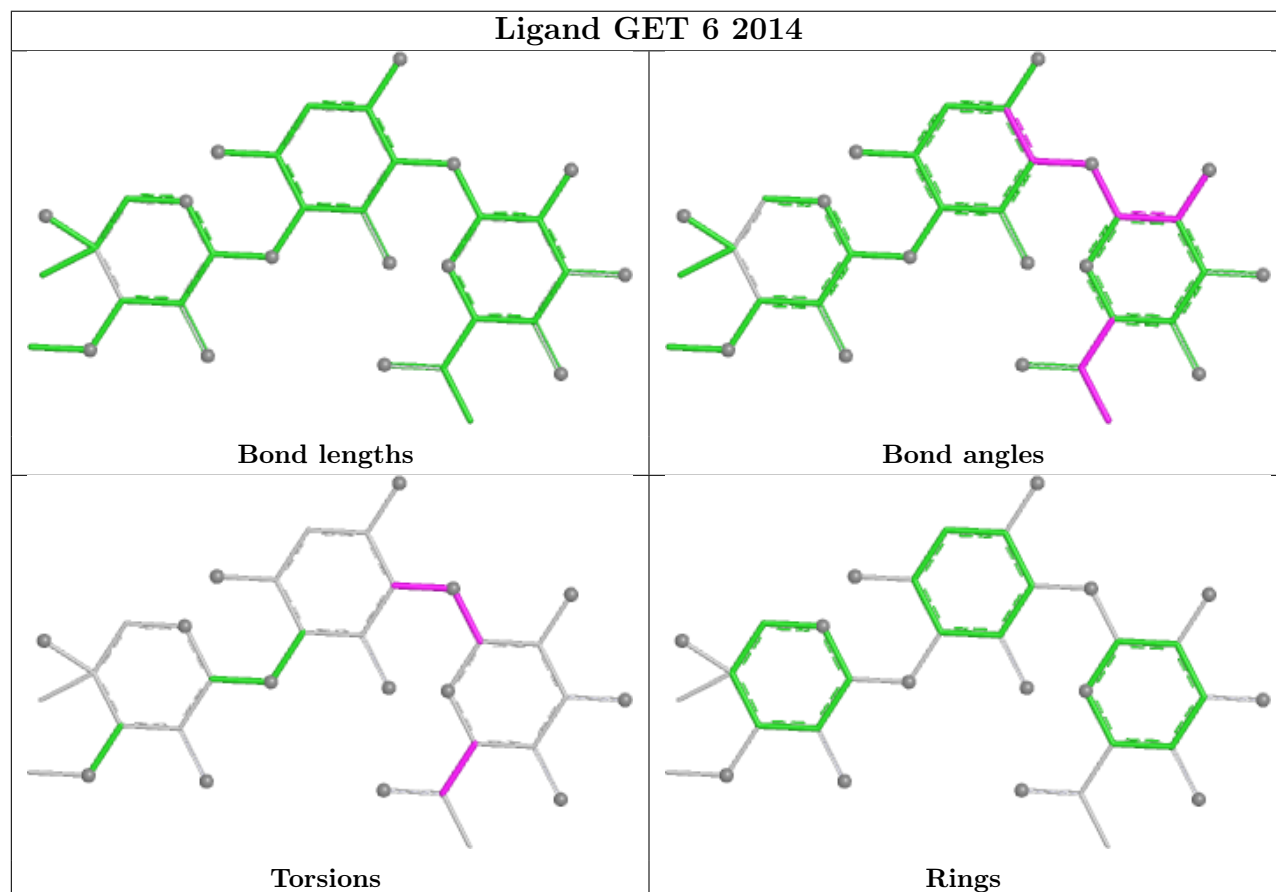
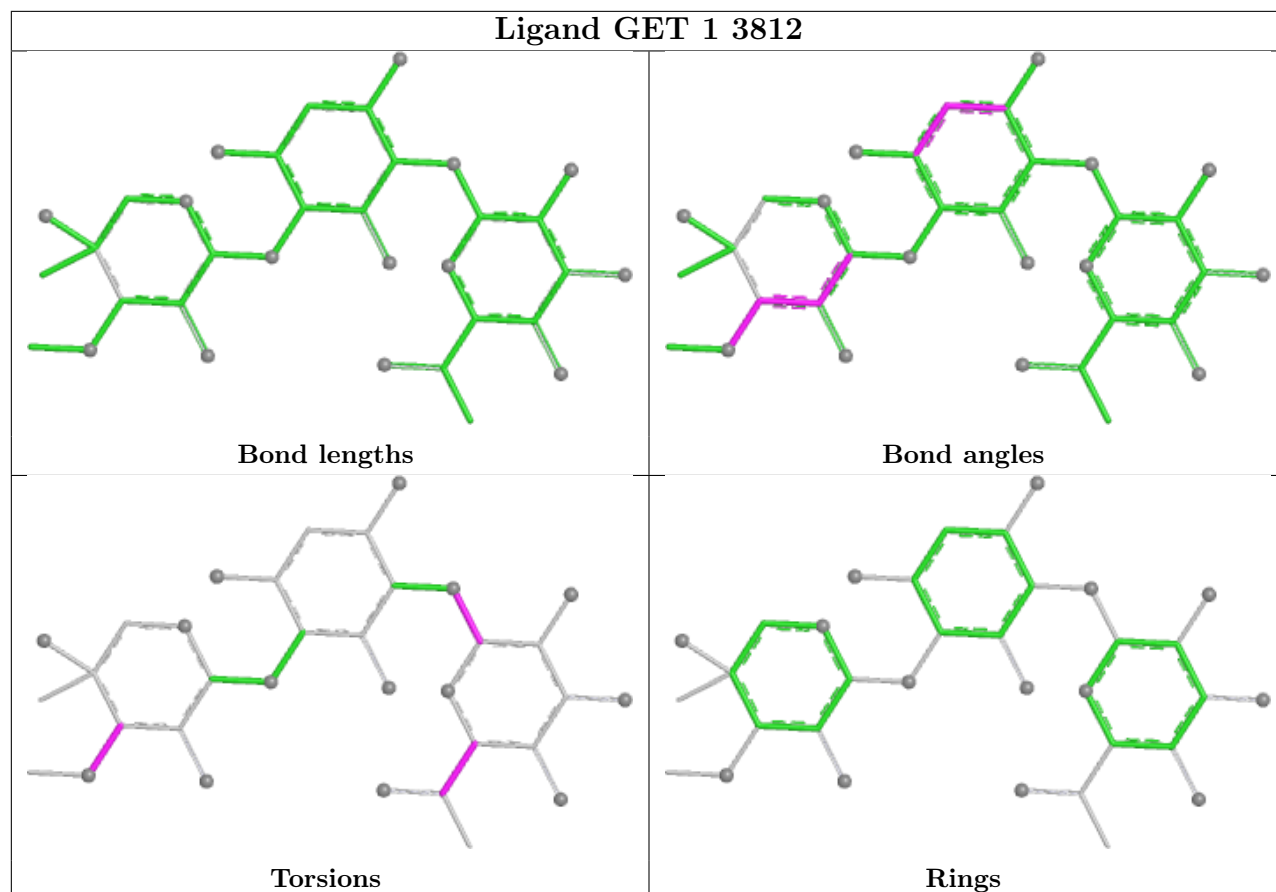


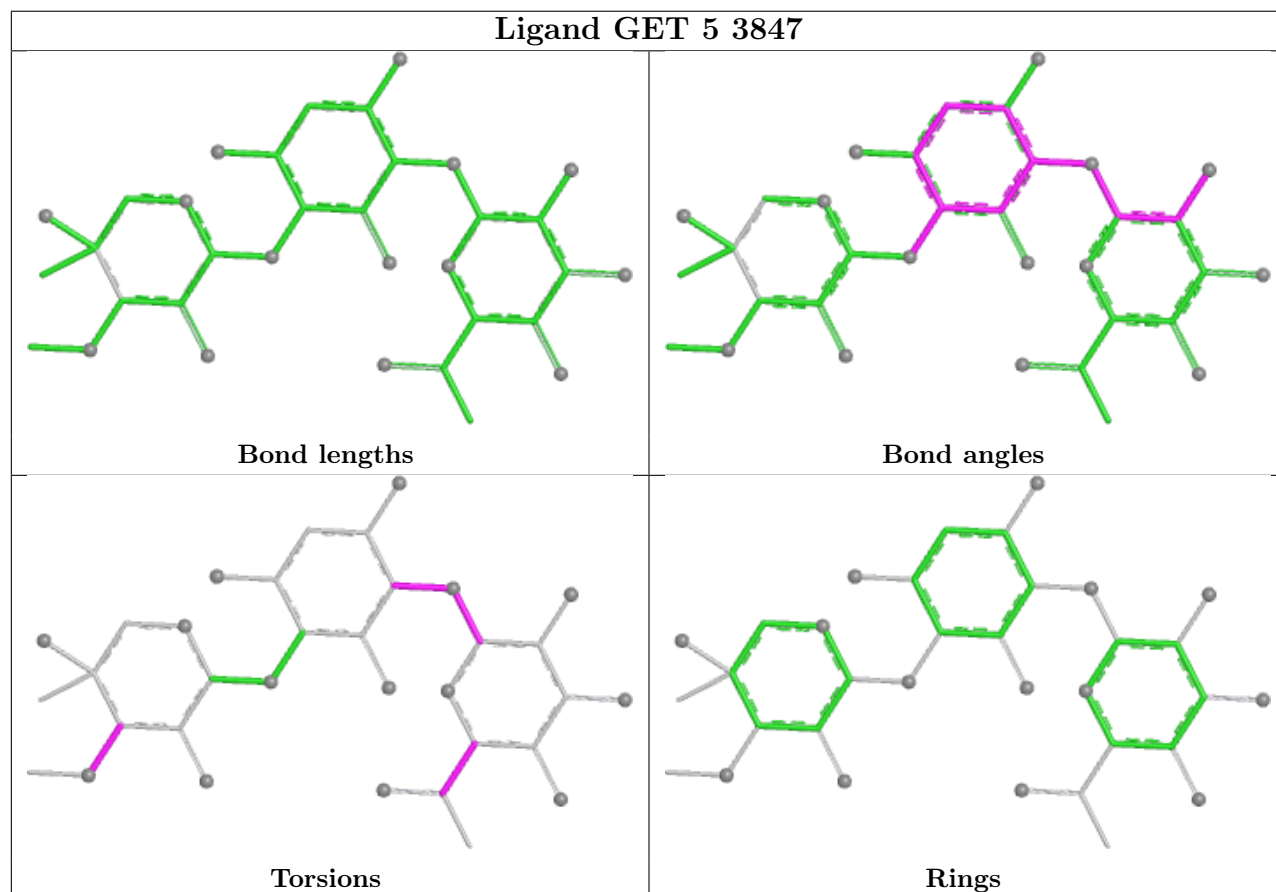
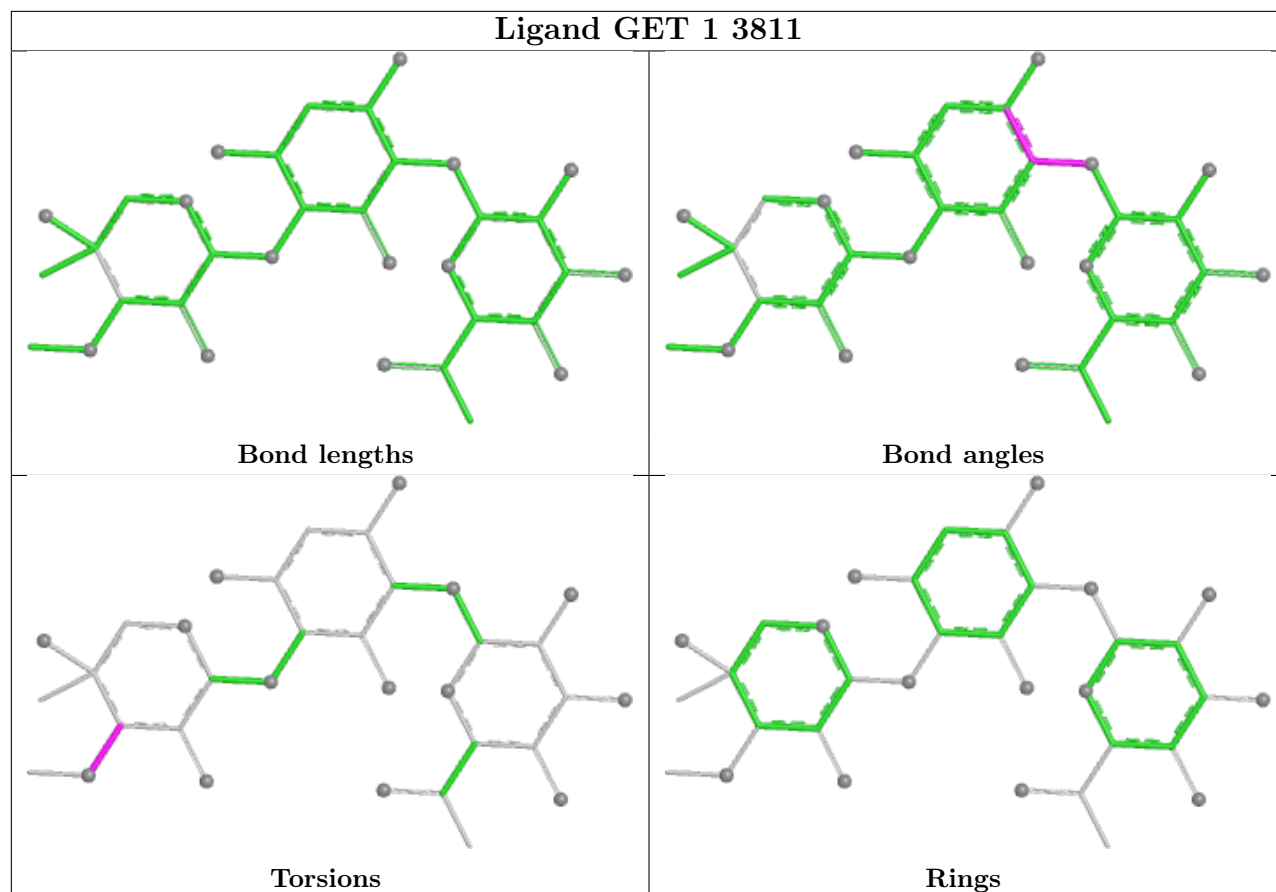


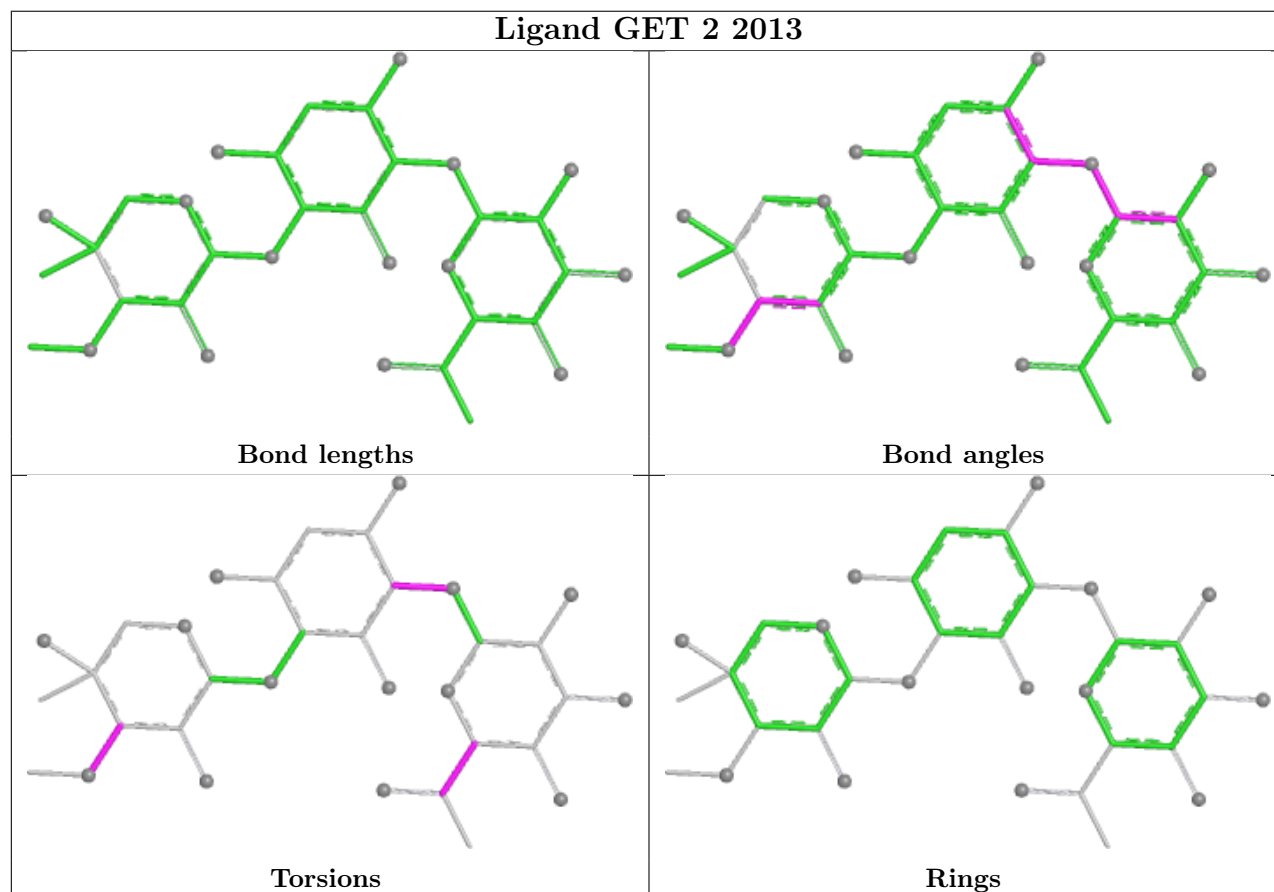
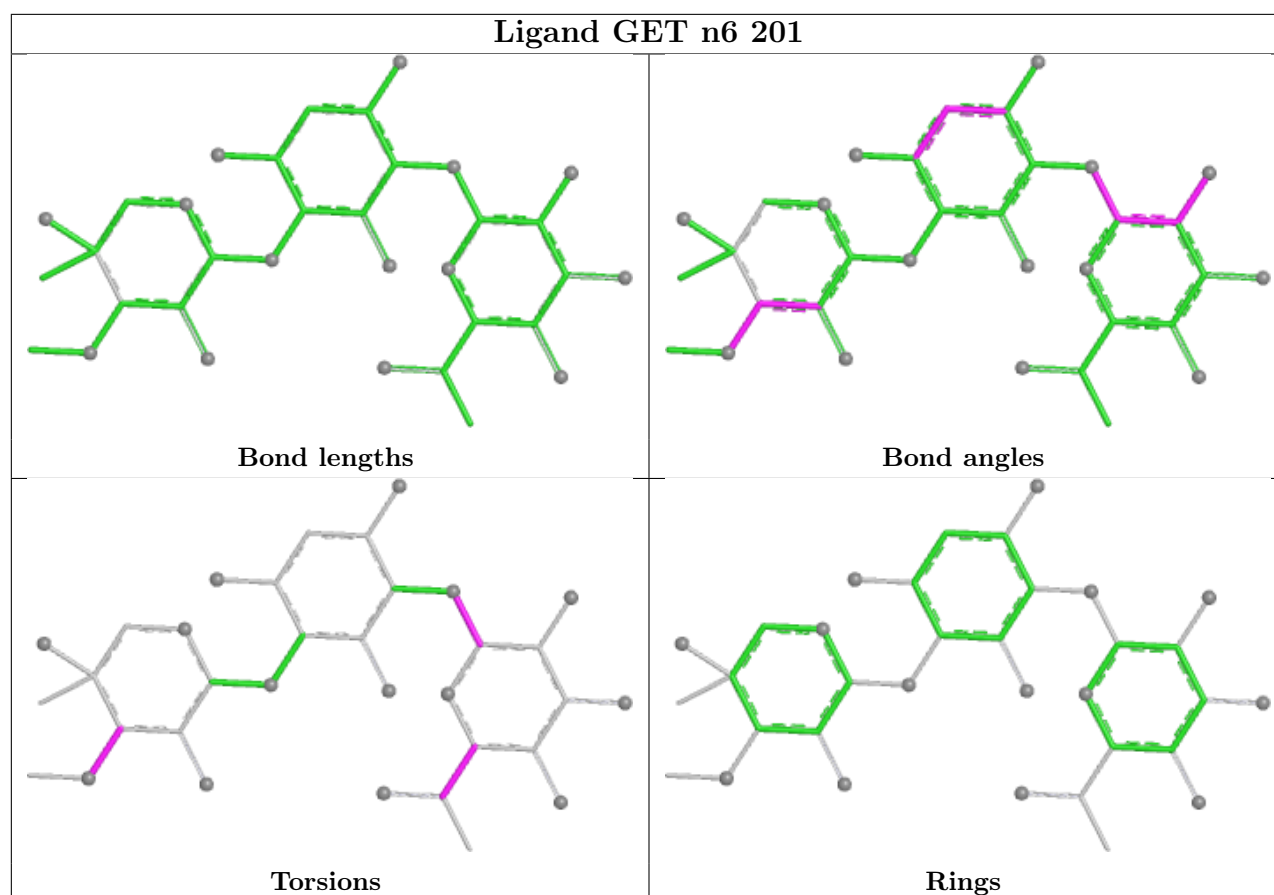


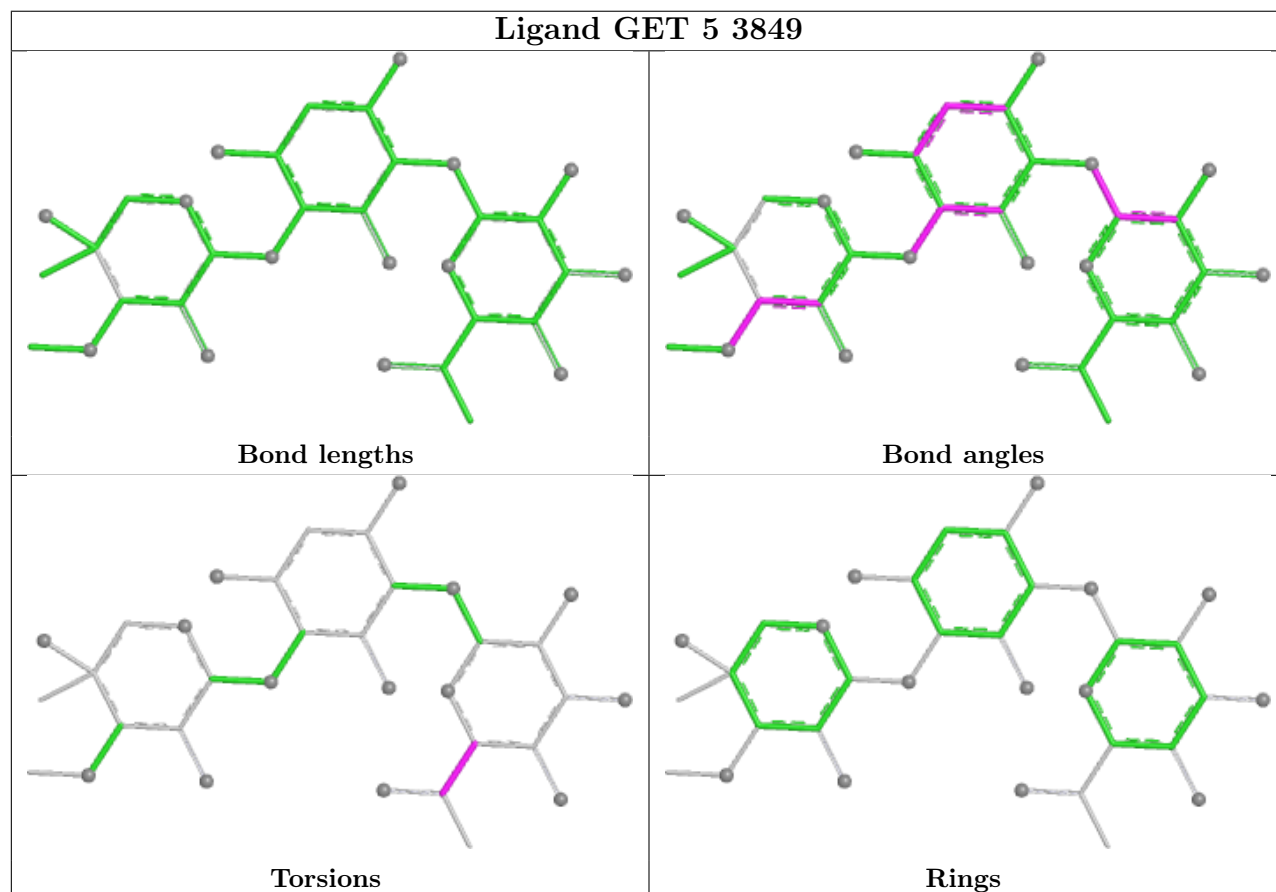
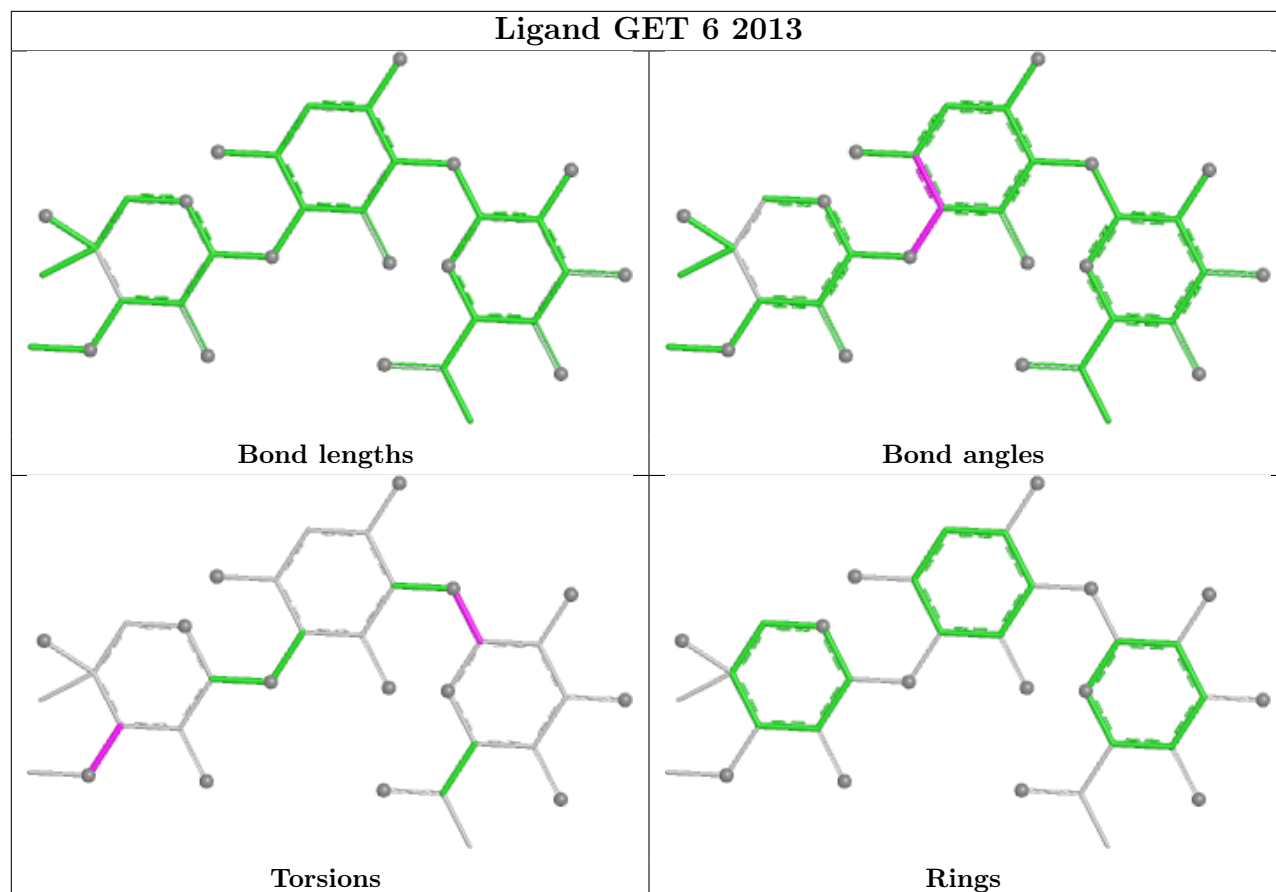


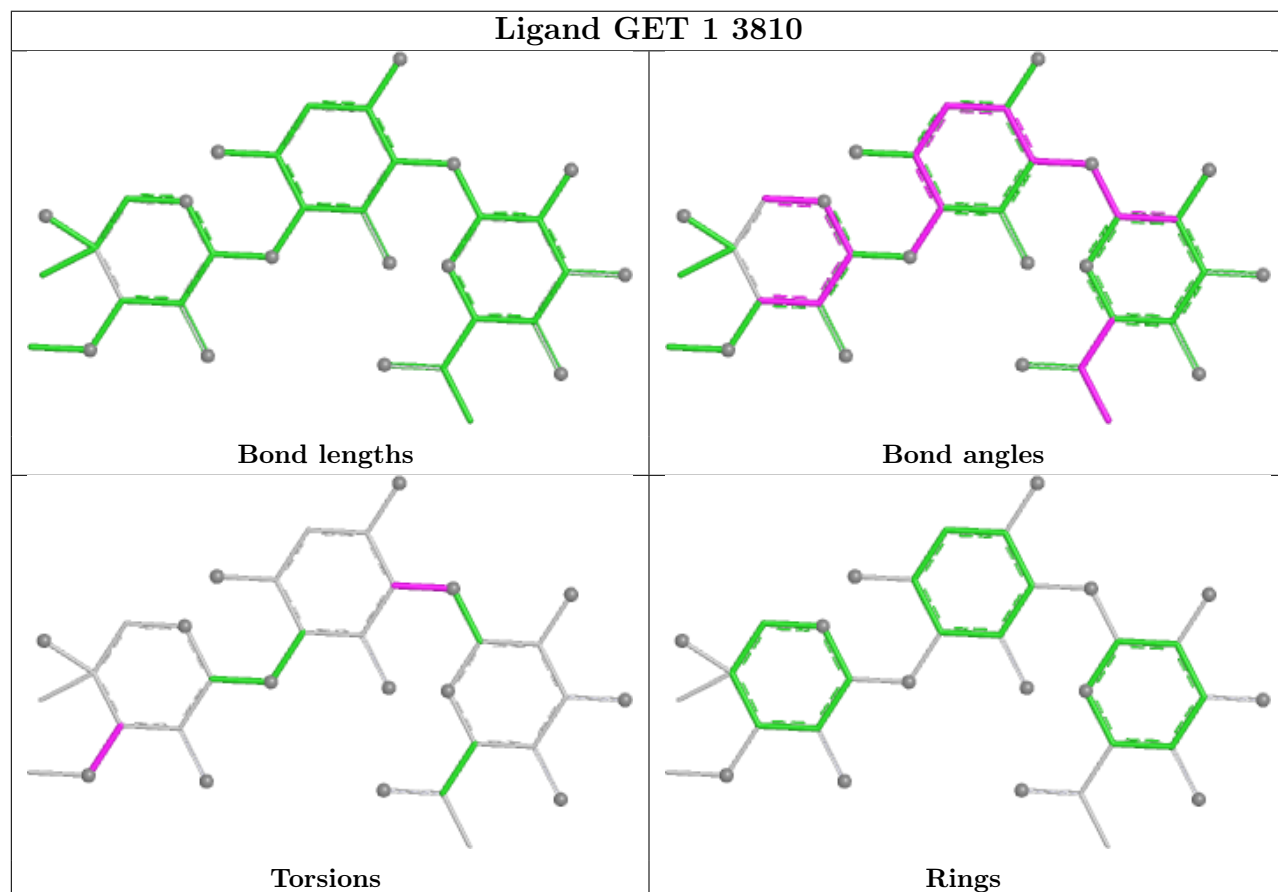
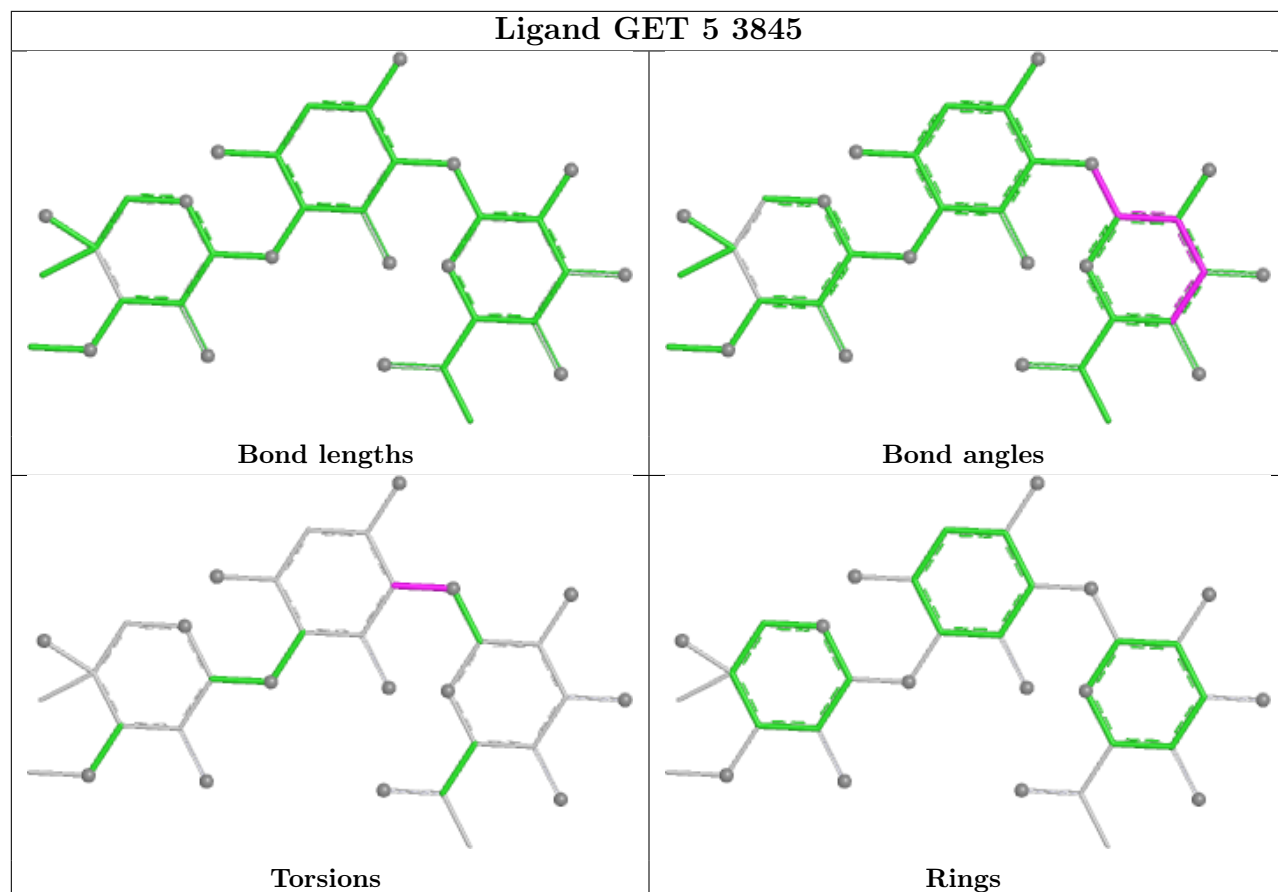


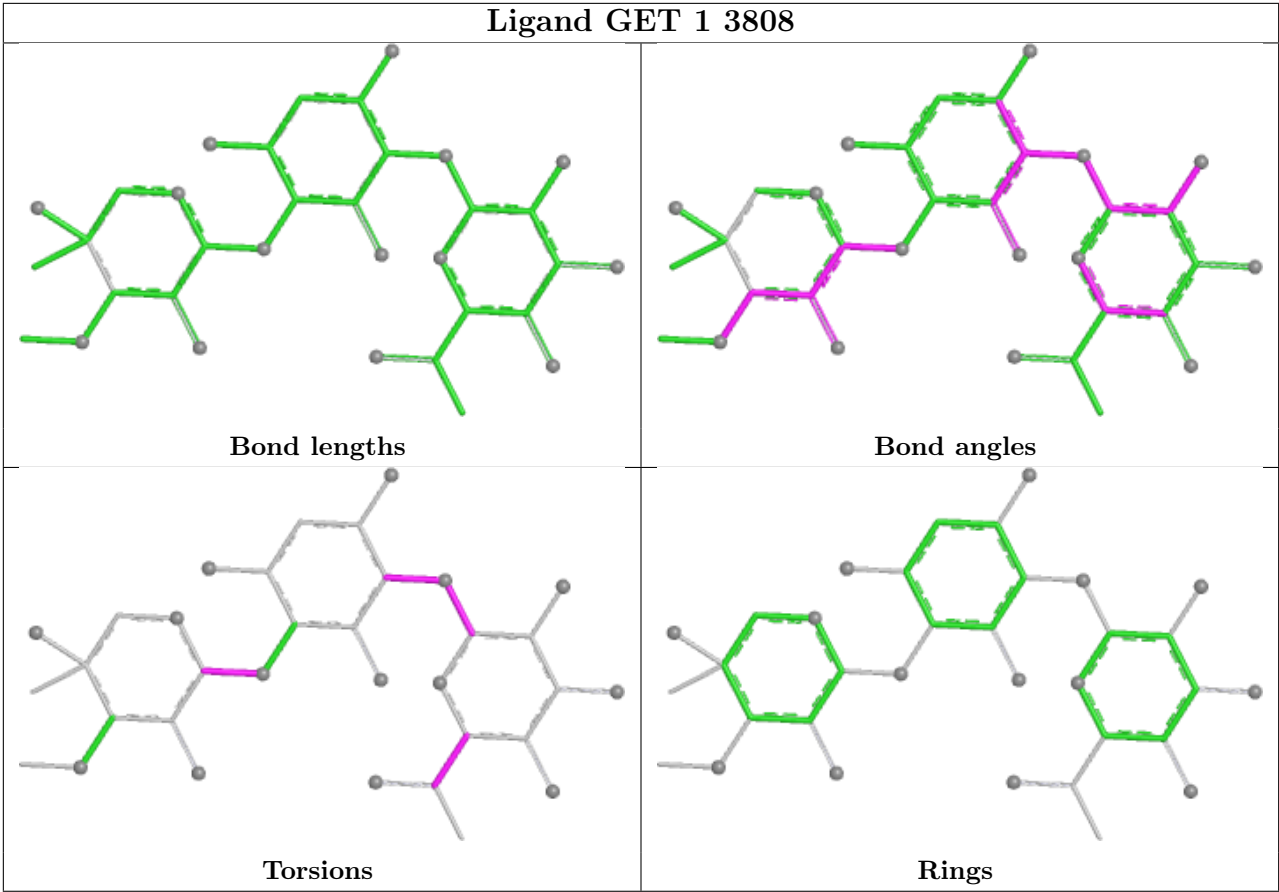












5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	2	1
30	D8	1
18	c6	1
30	d8	1
28	D6	1
39	l2	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	2	1716:C	O3'	1717:G	P	3.84

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	D8	5:THR	C	6:PRO	N	1.82
1	c6	4:VAL	C	5:PRO	N	1.69
1	d8	5:THR	C	6:PRO	N	1.67
1	D6	59:TYR	C	60:PRO	N	1.65
1	l2	204:MET	C	205:ASN	N	1.16

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, 95th 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	2	1688/1800 (93%)	-0.17	7 (0%) 88 72	109, 170, 289, 329	0
1	6	1700/1800 (94%)	-0.23	6 (0%) 88 72	101, 171, 254, 295	0
2	S0	206/206 (100%)	0.05	2 (0%) 79 55	173, 208, 229, 240	0
2	s0	206/206 (100%)	-0.10	0 100 100	171, 192, 212, 220	0
3	S1	214/216 (99%)	0.23	6 (2%) 55 34	194, 239, 265, 270	0
3	s1	216/216 (100%)	0.02	5 (2%) 61 38	171, 207, 229, 241	0
4	S2	217/217 (100%)	-0.02	4 (1%) 67 42	147, 178, 199, 213	0
4	s2	217/217 (100%)	-0.13	4 (1%) 67 42	144, 169, 192, 211	0
5	S3	223/223 (100%)	-0.13	1 (0%) 88 72	133, 156, 222, 235	0
5	s3	223/223 (100%)	0.06	4 (1%) 67 42	168, 198, 240, 247	0
6	S4	260/260 (100%)	0.17	8 (3%) 51 32	175, 227, 242, 258	0
6	s4	260/260 (100%)	0.10	4 (1%) 72 46	126, 174, 193, 231	0
7	S5	206/206 (100%)	-0.07	1 (0%) 87 69	153, 185, 199, 206	0
7	s5	206/206 (100%)	0.30	9 (4%) 39 25	199, 217, 245, 248	0
8	S6	226/236 (95%)	0.22	11 (4%) 35 23	166, 211, 269, 303	0
8	s6	218/236 (92%)	-0.11	7 (3%) 50 31	128, 177, 205, 214	0
9	S7	184/185 (99%)	0.26	2 (1%) 78 53	209, 268, 310, 313	0
9	s7	185/185 (100%)	-0.09	0 100 100	166, 204, 230, 235	0
10	S8	188/200 (94%)	0.17	3 (1%) 70 45	160, 200, 261, 281	0
10	s8	188/200 (94%)	0.03	0 100 100	124, 153, 209, 238	0
11	S9	185/185 (100%)	0.14	5 (2%) 56 35	162, 210, 238, 253	0
11	s9	185/185 (100%)	-0.00	2 (1%) 78 53	151, 188, 220, 261	0
12	C0	92/105 (87%)	-0.07	0 100 100	141, 170, 190, 194	0
12	c0	92/105 (87%)	0.36	5 (5%) 31 21	197, 228, 244, 246	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	C1	142/156 (91%)	0.35	2 (1%) 73 48	161, 194, 232, 265	0
13	c1	146/156 (93%)	-0.10	0 100 100	128, 142, 181, 197	0
14	C2	120/143 (83%)	-0.08	0 100 100	212, 235, 252, 258	0
14	c2	124/143 (86%)	-0.03	2 (1%) 70 45	275, 290, 306, 315	0
15	C3	150/150 (100%)	0.06	1 (0%) 84 63	167, 208, 244, 247	0
15	c3	150/150 (100%)	-0.14	0 100 100	138, 161, 184, 191	0
16	C4	127/128 (99%)	0.34	8 (6%) 26 18	147, 201, 230, 236	0
16	c4	128/128 (100%)	0.14	9 (7%) 22 16	136, 198, 216, 223	0
17	C5	122/141 (86%)	-0.07	0 100 100	134, 163, 182, 196	0
17	c5	119/141 (84%)	0.11	2 (1%) 69 43	179, 214, 233, 237	0
18	C6	141/141 (100%)	0.07	2 (1%) 73 48	133, 170, 188, 197	0
18	c6	141/141 (100%)	0.47	6 (4%) 40 25	177, 226, 241, 246	0
19	C7	117/136 (86%)	0.10	2 (1%) 69 43	162, 195, 242, 247	0
19	c7	117/136 (86%)	0.06	0 100 100	190, 206, 225, 229	0
20	C8	145/145 (100%)	-0.15	1 (0%) 84 63	133, 172, 206, 215	0
20	c8	145/145 (100%)	0.01	2 (1%) 73 48	175, 221, 248, 254	0
21	C9	143/143 (100%)	-0.08	0 100 100	138, 163, 181, 198	0
21	c9	143/143 (100%)	0.26	5 (3%) 47 30	197, 234, 253, 259	0
22	D0	105/107 (98%)	-0.06	1 (0%) 79 55	125, 164, 196, 202	0
22	d0	101/107 (94%)	0.30	4 (3%) 42 27	171, 227, 255, 261	0
23	D1	87/87 (100%)	-0.25	0 100 100	182, 200, 226, 237	0
23	d1	87/87 (100%)	-0.29	0 100 100	170, 179, 208, 215	0
24	D2	129/129 (100%)	0.11	2 (1%) 70 45	176, 195, 212, 224	0
24	d2	129/129 (100%)	-0.07	1 (0%) 82 60	142, 159, 172, 186	0
25	D3	144/144 (100%)	0.10	4 (2%) 55 34	130, 139, 163, 169	0
25	d3	144/144 (100%)	0.09	1 (0%) 84 63	122, 131, 147, 164	0
26	D4	134/134 (100%)	0.14	2 (1%) 72 46	186, 230, 242, 250	0
26	d4	134/134 (100%)	0.04	2 (1%) 72 46	146, 190, 211, 227	0
27	D5	70/70 (100%)	0.03	3 (4%) 40 25	175, 202, 214, 217	0
27	d5	69/70 (98%)	0.09	1 (1%) 73 48	223, 244, 254, 258	0
28	D6	97/97 (100%)	0.45	5 (5%) 33 22	145, 167, 227, 233	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	d6	97/97 (100%)	0.23	5 (5%) 33 22	140, 154, 218, 222	0
29	D7	81/81 (100%)	-0.13	0 100 100	196, 233, 277, 288	0
29	d7	81/81 (100%)	-0.16	0 100 100	161, 181, 221, 225	0
30	D8	63/63 (100%)	-0.25	0 100 100	169, 197, 216, 226	0
30	d8	63/63 (100%)	-0.21	0 100 100	187, 211, 225, 229	0
31	D9	53/53 (100%)	0.24	0 100 100	125, 132, 160, 170	0
31	d9	53/53 (100%)	0.37	0 100 100	180, 191, 224, 249	0
32	E0	60/60 (100%)	-0.07	1 (1%) 69 43	137, 178, 205, 210	0
32	e0	60/60 (100%)	-0.02	1 (1%) 69 43	141, 182, 208, 215	0
33	E1	71/152 (46%)	0.15	2 (2%) 55 34	157, 207, 238, 244	0
33	e1	45/152 (29%)	0.24	0 100 100	198, 263, 280, 283	0
34	SR	318/318 (100%)	-0.36	1 (0%) 90 76	189, 218, 242, 262	0
34	sR	313/318 (98%)	-0.13	1 (0%) 90 76	221, 240, 258, 318	0
35	SM	135/272 (49%)	-0.01	0 100 100	133, 155, 230, 255	0
35	sM	115/272 (42%)	0.23	2 (1%) 69 43	154, 179, 231, 293	0
36	1	3078/3396 (90%)	-0.30	9 (0%) 90 76	82, 131, 236, 350	0
36	5	3127/3396 (92%)	-0.39	5 (0%) 91 80	83, 121, 213, 304	0
37	3	121/121 (100%)	-0.41	0 100 100	92, 159, 191, 204	0
37	7	121/121 (100%)	-0.28	0 100 100	95, 170, 205, 211	0
38	4	158/158 (100%)	-0.26	0 100 100	100, 159, 221, 285	0
38	8	157/158 (99%)	-0.40	0 100 100	96, 132, 183, 217	0
39	L2	252/252 (100%)	0.17	6 (2%) 59 37	104, 154, 189, 209	0
39	l2	252/252 (100%)	-0.01	3 (1%) 76 51	97, 127, 152, 170	0
40	L3	386/386 (100%)	-0.04	13 (3%) 48 30	84, 121, 147, 180	0
40	l3	386/386 (100%)	-0.21	1 (0%) 90 76	83, 111, 131, 164	0
41	L4	361/361 (100%)	-0.02	3 (0%) 82 60	94, 144, 170, 183	0
41	l4	361/361 (100%)	-0.06	7 (1%) 66 42	91, 125, 147, 160	0
42	L5	294/296 (99%)	0.29	20 (6%) 23 17	127, 188, 205, 210	0
42	l5	294/296 (99%)	0.20	12 (4%) 41 26	141, 197, 221, 235	0
43	L6	156/176 (88%)	-0.20	3 (1%) 66 42	109, 127, 147, 163	0
43	l6	157/176 (89%)	-0.23	0 100 100	105, 118, 143, 164	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	L7	222/223 (99%)	-0.19	0 100 100	95, 123, 164, 193	0
44	l7	223/223 (100%)	-0.21	1 (0%) 88 72	96, 114, 149, 189	0
45	L8	233/233 (100%)	0.18	6 (2%) 57 35	188, 228, 265, 283	0
45	l8	231/233 (99%)	0.00	2 (0%) 81 58	152, 178, 213, 223	0
46	L9	191/191 (100%)	-0.22	0 100 100	113, 131, 146, 172	0
46	l9	190/191 (99%)	-0.22	1 (0%) 87 69	110, 125, 145, 154	0
47	M0	208/221 (94%)	-0.19	0 100 100	97, 115, 162, 181	0
47	m0	209/221 (94%)	-0.12	0 100 100	102, 125, 180, 194	0
48	M1	169/169 (100%)	-0.18	0 100 100	151, 165, 173, 175	0
48	m1	169/169 (100%)	-0.01	1 (0%) 85 66	171, 191, 201, 204	0
49	M3	193/194 (99%)	0.01	2 (1%) 79 55	109, 185, 219, 232	0
49	m3	194/194 (100%)	0.17	5 (2%) 57 35	102, 156, 197, 209	0
50	M4	136/137 (99%)	-0.23	0 100 100	118, 129, 144, 153	0
50	m4	137/137 (100%)	-0.20	0 100 100	113, 121, 146, 176	0
51	M5	203/203 (100%)	0.49	8 (3%) 43 28	117, 163, 193, 205	0
51	m5	203/203 (100%)	0.18	2 (0%) 79 55	106, 133, 154, 163	0
52	M6	197/197 (100%)	-0.18	0 100 100	83, 97, 140, 150	0
52	m6	197/197 (100%)	-0.14	1 (0%) 87 69	85, 97, 139, 147	0
53	M7	183/184 (99%)	-0.21	1 (0%) 87 69	92, 108, 159, 196	0
53	m7	175/184 (95%)	-0.12	0 100 100	91, 104, 140, 157	0
54	M8	185/185 (100%)	-0.01	0 100 100	103, 149, 173, 180	0
54	m8	185/185 (100%)	-0.04	2 (1%) 78 53	102, 131, 147, 155	0
55	M9	188/188 (100%)	0.19	5 (2%) 56 35	137, 167, 298, 318	0
55	m9	183/188 (97%)	-0.00	2 (1%) 78 53	114, 135, 212, 223	0
56	N0	170/172 (98%)	-0.15	0 100 100	104, 121, 143, 156	0
56	n0	172/172 (100%)	-0.19	2 (1%) 76 51	100, 116, 137, 154	0
57	N1	159/159 (100%)	0.17	3 (1%) 66 42	100, 136, 196, 205	0
57	n1	159/159 (100%)	0.15	6 (3%) 44 28	110, 134, 182, 186	0
58	N2	98/98 (100%)	-0.02	2 (2%) 65 41	186, 205, 216, 219	0
58	n2	98/98 (100%)	0.06	2 (2%) 65 41	159, 174, 187, 190	0
59	N3	135/135 (100%)	-0.09	1 (0%) 84 63	95, 117, 129, 137	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
59	n3	134/135 (99%)	-0.30	0 100 100	89, 104, 116, 128	0
60	N4	122/155 (78%)	0.16	2 (1%) 70 45	123, 163, 280, 283	0
60	n4	118/155 (76%)	-0.10	0 100 100	103, 136, 235, 242	0
61	N5	121/121 (100%)	0.13	3 (2%) 58 36	143, 176, 210, 245	0
61	n5	120/121 (99%)	0.06	0 100 100	119, 143, 165, 189	0
62	N6	126/126 (100%)	-0.09	2 (1%) 70 45	130, 150, 177, 192	0
62	n6	124/126 (98%)	-0.29	0 100 100	113, 138, 166, 177	0
63	N7	135/135 (100%)	0.37	3 (2%) 62 39	209, 238, 257, 269	0
63	n7	135/135 (100%)	-0.08	0 100 100	155, 177, 193, 203	0
64	N8	148/148 (100%)	0.19	3 (2%) 65 41	92, 165, 197, 210	0
64	n8	148/148 (100%)	0.11	1 (0%) 84 63	92, 144, 169, 173	0
65	N9	58/58 (100%)	0.05	0 100 100	93, 154, 197, 203	0
65	n9	58/58 (100%)	0.63	3 (5%) 33 22	96, 150, 197, 206	0
66	O0	97/100 (97%)	-0.08	0 100 100	197, 217, 237, 241	0
66	o0	100/100 (100%)	-0.29	0 100 100	151, 166, 186, 197	0
67	O1	109/109 (100%)	0.07	1 (0%) 81 58	116, 141, 173, 183	0
67	o1	109/109 (100%)	-0.07	1 (0%) 81 58	105, 132, 166, 186	0
68	O2	127/127 (100%)	0.09	3 (2%) 59 37	89, 118, 134, 153	0
68	o2	127/127 (100%)	-0.05	0 100 100	88, 111, 124, 154	0
69	O3	106/106 (100%)	-0.05	1 (0%) 81 58	88, 103, 119, 122	0
69	o3	106/106 (100%)	-0.07	0 100 100	89, 101, 116, 123	0
70	O4	112/112 (100%)	0.62	12 (10%) 11 12	138, 186, 249, 258	0
70	o4	112/112 (100%)	0.31	7 (6%) 26 18	113, 144, 201, 211	0
71	O5	119/119 (100%)	0.12	3 (2%) 58 36	162, 182, 210, 218	0
71	o5	119/119 (100%)	-0.00	2 (1%) 69 43	129, 152, 174, 182	0
72	O6	99/99 (100%)	0.28	1 (1%) 79 55	170, 194, 221, 241	0
72	o6	99/99 (100%)	-0.05	0 100 100	150, 162, 186, 207	0
73	O7	84/84 (100%)	0.02	0 100 100	103, 129, 178, 189	0
73	o7	82/84 (97%)	0.18	1 (1%) 76 51	94, 111, 140, 153	0
74	O8	77/77 (100%)	0.01	1 (1%) 75 50	194, 216, 228, 229	0
74	o8	77/77 (100%)	-0.08	0 100 100	154, 174, 185, 187	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
75	O9	49/50 (98%)	0.60	2 (4%) 41 26	122, 135, 142, 146	0
75	o9	50/50 (100%)	0.32	2 (4%) 42 27	106, 117, 127, 129	0
76	Q0	52/52 (100%)	-0.24	1 (1%) 66 42	100, 107, 147, 156	0
76	q0	52/52 (100%)	-0.10	0 100 100	101, 111, 138, 145	0
77	Q1	25/25 (100%)	0.38	0 100 100	113, 125, 130, 132	0
77	q1	25/25 (100%)	0.43	0 100 100	113, 121, 125, 126	0
78	Q2	105/105 (100%)	-0.13	0 100 100	113, 143, 167, 178	0
78	q2	105/105 (100%)	-0.18	2 (1%) 66 42	109, 144, 170, 189	0
79	Q3	91/91 (100%)	0.10	0 100 100	118, 158, 189, 203	0
79	q3	91/91 (100%)	-0.15	1 (1%) 78 53	102, 129, 153, 167	0
80	p0	138/312 (44%)	-0.01	1 (0%) 84 63	202, 229, 270, 271	0
All	All	32690/34558 (94%)	-0.08	373 (1%) 78 53	82, 159, 244, 350	0

All (373) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
16	C4	133	ARG	6.7
42	L5	38	THR	6.6
42	l5	69	ILE	5.9
42	L5	31	TYR	5.8
63	N7	37	PRO	5.3
71	O5	75	TYR	5.2
40	L3	4	ARG	5.2
42	l5	34	LYS	5.1
33	E1	93	HIS	4.9
18	c6	52	LEU	4.8
3	s1	122	GLU	4.7
6	S4	33	ALA	4.5
42	l5	68	THR	4.5
55	M9	64	ARG	4.3
42	L5	37	VAL	4.2
25	d3	28	ASN	4.2
5	s3	25	PHE	4.2
7	s5	102	ARG	4.1
74	O8	43	PHE	4.1
35	sM	37	VAL	4.0
57	n1	31	LEU	4.0
28	D6	34	LYS	3.9

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Mol	Chain	Res	Type	RSRZ
45	L8	199	ALA	3.9
72	O6	8	ALA	3.9
42	L5	47	PRO	3.9
41	l4	198	ARG	3.9
42	L5	35	ARG	3.9
5	s3	17	PHE	3.9
11	s9	141	VAL	3.9
16	C4	129	LYS	3.9
42	L5	49	TYR	3.8
41	l4	185	LYS	3.8
11	S9	104	PHE	3.8
28	D6	18	VAL	3.7
57	N1	31	LEU	3.7
6	s4	25	GLY	3.6
42	l5	67	SER	3.6
6	s4	6	LYS	3.6
13	C1	35	TYR	3.6
2	S0	18	LEU	3.6
8	S6	190	GLN	3.6
28	d6	29	SER	3.6
70	O4	78	GLY	3.5
42	L5	30	TYR	3.5
22	d0	81	THR	3.5
4	S2	90	THR	3.5
33	E1	94	LYS	3.5
61	N5	40	LEU	3.5
39	L2	250	GLN	3.5
3	s1	165	ARG	3.5
70	O4	39	ALA	3.4
61	N5	41	ALA	3.4
40	L3	6	TYR	3.4
42	l5	146	LEU	3.4
6	S4	31	PRO	3.4
57	n1	33	VAL	3.4
36	1	2875	U	3.4
70	O4	38	LEU	3.4
17	c5	101	ALA	3.4
16	c4	127	ARG	3.4
1	6	1228	G	3.4
70	O4	30	LEU	3.4
36	5	1815	U	3.4
12	c0	64	TYR	3.4

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Mol	Chain	Res	Type	RSRZ
40	L3	263	SER	3.3
18	c6	132	LYS	3.3
16	c4	135	ARG	3.3
41	l4	187	LEU	3.3
70	O4	3	GLN	3.3
22	d0	64	LYS	3.3
39	L2	198	LYS	3.2
42	l5	37	VAL	3.2
70	O4	16	ARG	3.2
71	o5	87	ALA	3.2
70	o4	28	GLY	3.2
18	C6	132	LYS	3.2
6	S4	32	SER	3.2
69	O3	52	VAL	3.1
36	5	1573	G	3.1
7	s5	43	PHE	3.1
39	L2	242	ARG	3.1
42	L5	27	LYS	3.1
70	o4	3	GLN	3.1
20	C8	4	VAL	3.1
39	L2	247	ARG	3.1
70	o4	30	LEU	3.1
75	O9	29	LEU	3.1
28	D6	73	TYR	3.1
42	l5	42	ALA	3.1
36	1	2205	U	3.1
65	n9	36	ASP	3.1
10	S8	8	ARG	3.1
51	M5	181	ASN	3.1
40	L3	5	LYS	3.1
3	S1	84	ILE	3.0
21	c9	62	ALA	3.0
6	S4	7	LYS	3.0
1	2	913	G	3.0
1	2	249	U	3.0
60	N4	99	GLU	3.0
41	l4	324	LEU	3.0
36	1	2598	G	3.0
73	o7	66	TYR	3.0
8	S6	83	CYS	3.0
34	sR	136	ILE	3.0
9	S7	5	GLN	3.0

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Mol	Chain	Res	Type	RSRZ
51	M5	123	GLN	3.0
7	s5	71	ALA	3.0
70	o4	2	ALA	3.0
12	c0	40	LEU	2.9
58	n2	69	ALA	2.9
16	c4	124	ASP	2.8
3	S1	137	ILE	2.8
18	c6	44	LEU	2.8
26	d4	119	PHE	2.8
65	n9	39	PHE	2.8
6	s4	10	LYS	2.8
70	O4	37	LYS	2.8
8	S6	193	LEU	2.8
4	S2	92	ALA	2.8
4	s2	92	ALA	2.8
21	c9	58	ALA	2.8
70	O4	2	ALA	2.8
63	N7	77	TYR	2.8
57	n1	70	SER	2.8
67	O1	71	LEU	2.8
12	c0	23	ALA	2.8
64	N8	63	LYS	2.8
16	C4	83	ILE	2.8
55	M9	54	ALA	2.8
6	S4	12	LEU	2.8
12	c0	62	GLN	2.8
45	L8	196	ALA	2.8
45	L8	198	ALA	2.8
42	L5	290	ILE	2.8
7	s5	133	VAL	2.8
51	M5	56	LYS	2.8
70	O4	21	LYS	2.8
57	n1	75	ILE	2.7
61	N5	43	ALA	2.7
64	n8	38	GLN	2.7
40	L3	146	ARG	2.7
75	o9	51	ILE	2.7
40	L3	233	TRP	2.7
42	L5	67	SER	2.7
11	S9	76	LEU	2.7
3	S1	139	ALA	2.7
40	L3	251	CYS	2.7

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Mol	Chain	Res	Type	RSRZ
58	N2	95	PHE	2.7
27	D5	79	ALA	2.7
25	D3	28	ASN	2.7
28	D6	19	LYS	2.7
36	1	2597	U	2.6
18	c6	89	LEU	2.6
16	c4	125	SER	2.6
15	C3	7	ALA	2.6
16	C4	130	GLY	2.6
25	D3	3	LYS	2.6
42	l5	70	THR	2.6
16	c4	102	LEU	2.6
68	O2	41	VAL	2.6
40	L3	267	ALA	2.6
42	L5	42	ALA	2.6
80	p0	54	GLY	2.6
49	m3	2	ALA	2.6
62	N6	120	GLN	2.6
4	s2	219	GLY	2.6
8	S6	76	LEU	2.6
7	s5	44	ASN	2.6
26	d4	123	LYS	2.6
2	S0	14	ALA	2.6
1	2	1778	G	2.6
51	M5	6	TYR	2.6
43	L6	14	ASP	2.6
5	S3	17	PHE	2.6
21	c9	64	HIS	2.5
22	d0	86	ILE	2.5
8	S6	166	GLU	2.5
42	l5	163	LEU	2.5
34	SR	302	PHE	2.5
40	L3	223	GLY	2.5
19	C7	25	THR	2.5
40	l3	256	HIS	2.5
42	L5	46	THR	2.5
42	L5	45	ASN	2.5
35	sM	35	ALA	2.5
18	c6	114	ARG	2.5
28	d6	73	TYR	2.5
64	N8	109	TYR	2.5
49	M3	139	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
55	m9	51	VAL	2.5
63	N7	75	VAL	2.5
12	c0	45	ALA	2.5
28	D6	20	PRO	2.5
21	c9	92	LYS	2.5
27	D5	50	ILE	2.5
51	M5	193	ARG	2.5
8	S6	96	SER	2.5
58	N2	71	PHE	2.5
3	S1	151	LYS	2.5
49	m3	91	ARG	2.5
6	S4	2	ALA	2.5
41	l4	71	VAL	2.4
55	m9	19	LYS	2.4
57	n1	65	TYR	2.4
41	L4	199	TRP	2.4
5	s3	166	ASP	2.4
27	d5	67	ASP	2.4
18	c6	48	VAL	2.4
36	5	2996	U	2.4
28	d6	19	LYS	2.4
57	N1	72	VAL	2.4
11	S9	80	LEU	2.4
16	c4	137	LEU	2.4
40	L3	227	GLU	2.4
45	L8	161	GLU	2.4
6	s4	13	ALA	2.4
25	D3	32	ARG	2.4
27	D5	71	ILE	2.4
42	L5	92	LEU	2.4
49	m3	54	LEU	2.4
3	s1	156	ALA	2.4
49	m3	88	ALA	2.4
14	c2	71	ILE	2.4
55	M9	49	THR	2.4
57	N1	160	ILE	2.4
8	s6	89	ASP	2.4
68	O2	39	ASP	2.4
71	O5	68	GLN	2.3
1	6	782	U	2.3
42	l5	55	PHE	2.3
1	2	119	A	2.3

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Mol	Chain	Res	Type	RSRZ
7	s5	130	ILE	2.3
36	1	100	A	2.3
25	D3	29	TYR	2.3
40	L3	8	ALA	2.3
8	S6	75	LEU	2.3
36	5	778	U	2.3
7	s5	37	GLN	2.3
64	N8	65	GLN	2.3
9	S7	176	LEU	2.3
16	C4	137	LEU	2.3
39	L2	16	PHE	2.3
58	n2	52	ASN	2.3
13	C1	36	LYS	2.3
70	O4	33	GLN	2.3
8	S6	97	VAL	2.3
17	c5	103	ASN	2.3
16	C4	132	ARG	2.3
16	C4	135	ARG	2.3
41	L4	185	LYS	2.3
1	6	1000	C	2.3
43	L6	3	ALA	2.3
8	s6	79	LYS	2.3
16	c4	129	LYS	2.3
4	s2	117	THR	2.3
39	L2	246	LEU	2.3
45	L8	162	LEU	2.3
8	S6	156	PHE	2.3
1	6	696	C	2.3
11	S9	141	VAL	2.3
42	L5	43	LYS	2.3
71	o5	84	LYS	2.3
75	o9	24	PRO	2.3
51	M5	109	ARG	2.3
11	s9	142	ASN	2.2
42	L5	150	LEU	2.2
48	m1	91	LEU	2.2
70	o4	61	GLN	2.2
16	C4	128	LYS	2.2
51	M5	184	LYS	2.2
11	S9	85	VAL	2.2
65	n9	35	VAL	2.2
1	6	1588	G	2.2

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Mol	Chain	Res	Type	RSRZ
36	1	1894	U	2.2
79	q3	24	ARG	2.2
28	d6	17	HIS	2.2
42	L5	34	LYS	2.2
32	E0	45	VAL	2.2
55	M9	14	VAL	2.2
8	s6	76	LEU	2.2
16	c4	126	THR	2.2
10	S8	21	PHE	2.2
7	s5	194	LEU	2.2
8	s6	196	ARG	2.2
68	O2	10	VAL	2.2
70	o4	16	ARG	2.2
78	q2	72	LEU	2.2
1	6	755	A	2.2
75	O9	51	ILE	2.2
76	Q0	78	ILE	2.2
8	s6	189	HIS	2.2
53	M7	2	ALA	2.2
24	D2	108	ALA	2.2
1	2	1011	G	2.2
70	o4	33	GLN	2.2
16	c4	121	VAL	2.2
22	d0	62	VAL	2.2
3	s1	121	ILE	2.2
36	1	2821	C	2.2
45	l8	198	ALA	2.1
39	l2	228	GLY	2.1
14	c2	49	THR	2.1
49	M3	38	ALA	2.1
62	N6	26	GLN	2.1
6	S4	134	LYS	2.1
54	m8	160	GLY	2.1
59	N3	16	GLY	2.1
70	O4	59	PRO	2.1
3	S1	188	LEU	2.1
8	S6	77	LEU	2.1
4	S2	215	PHE	2.1
26	D4	119	PHE	2.1
36	1	2404	A	2.1
42	L5	20	PHE	2.1
4	s2	85	PRO	2.1

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Mol	Chain	Res	Type	RSRZ
1	2	1213	G	2.1
36	5	1574	C	2.1
40	L3	19	ARG	2.1
10	S8	23	LYS	2.1
44	l7	40	LYS	2.1
3	S1	134	VAL	2.1
42	l5	40	HIS	2.1
41	l4	318	LEU	2.1
70	O4	57	LEU	2.1
51	m5	190	THR	2.1
51	m5	56	LYS	2.1
6	S4	47	PHE	2.1
42	L5	55	PHE	2.1
56	n0	143	PHE	2.1
49	m3	97	VAL	2.1
20	c8	15	LEU	2.1
41	L4	190	GLY	2.1
8	S6	78	THR	2.1
24	d2	2	THR	2.1
39	l2	252	THR	2.1
51	M5	43	THR	2.1
4	S2	91	ARG	2.1
42	l5	35	ARG	2.1
54	m8	180	ARG	2.1
3	s1	140	ILE	2.1
28	d6	83	ILE	2.1
46	l9	67	ALA	2.1
21	c9	54	PHE	2.1
8	s6	193	LEU	2.1
26	D4	129	VAL	2.1
40	L3	11	HIS	2.0
57	n1	34	TYR	2.0
45	L8	99	PRO	2.0
42	L5	68	THR	2.0
5	s3	21	LEU	2.0
7	S5	37	GLN	2.0
7	s5	108	LEU	2.0
56	n0	152	LEU	2.0
52	m6	50	ASN	2.0
1	2	293	U	2.0
55	M9	78	TYR	2.0
8	s6	88	ARG	2.0

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Mol	Chain	Res	Type	RSRZ
19	C7	95	ARG	2.0
41	l4	188	ARG	2.0
43	L6	11	PRO	2.0
67	o1	38	LYS	2.0
18	C6	46	PHE	2.0
32	e0	49	LEU	2.0
78	q2	81	ALA	2.0
60	N4	48	ARG	2.0
22	D0	70	THR	2.0
36	1	1563	C	2.0
39	l2	143	GLU	2.0
71	O5	69	LEU	2.0
20	c8	58	ALA	2.0
45	l8	199	ALA	2.0
24	D2	121	VAL	2.0

6.2 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

6.3 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th 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($\text{\AA}^2$)	Q<0.9
81	MG	2	1967	1/1	0.03	0.19	175,175,175,175	0
81	MG	1	3704	1/1	0.03	0.16	195,195,195,195	0
81	MG	4	211	1/1	0.09	0.27	142,142,142,142	0
81	MG	6	2000	1/1	0.17	0.29	123,123,123,123	0
81	MG	2	1965	1/1	0.18	0.18	162,162,162,162	0
81	MG	2	1970	1/1	0.19	0.18	145,145,145,145	0
81	MG	2	1988	1/1	0.20	0.18	202,202,202,202	0
81	MG	S1	301	1/1	0.27	0.19	193,193,193,193	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	MG	2	1985	1/1	0.27	0.29	133,133,133,133	0
81	MG	1	3781	1/1	0.28	0.30	137,137,137,137	0
81	MG	6	1918	1/1	0.30	0.39	123,123,123,123	0
81	MG	4	213	1/1	0.31	0.14	178,178,178,178	0
81	MG	1	3807	1/1	0.32	0.24	173,173,173,173	0
81	MG	2	1984	1/1	0.34	0.14	192,192,192,192	0
81	MG	5	3835	1/1	0.36	0.20	157,157,157,157	0
81	MG	1	3802	1/1	0.37	0.25	133,133,133,133	0
81	MG	5	3648	1/1	0.40	0.15	147,147,147,147	0
81	MG	1	3777	1/1	0.46	0.15	117,117,117,117	0
81	MG	2	1915	1/1	0.47	0.27	125,125,125,125	0
81	MG	5	3842	1/1	0.47	0.28	105,105,105,105	0
81	MG	5	3810	1/1	0.48	0.24	115,115,115,115	0
81	MG	4	216	1/1	0.48	0.12	143,143,143,143	0
81	MG	1	3681	1/1	0.48	0.26	128,128,128,128	0
81	MG	8	212	1/1	0.48	0.14	110,110,110,110	0
81	MG	5	3820	1/1	0.49	0.35	123,123,123,123	0
81	MG	6	1978	1/1	0.49	0.26	158,158,158,158	0
81	MG	5	3673	1/1	0.50	0.18	132,132,132,132	0
81	MG	2	1931	1/1	0.50	0.23	140,140,140,140	0
81	MG	5	3812	1/1	0.50	0.33	90,90,90,90	0
81	MG	5	3818	1/1	0.50	0.21	129,129,129,129	0
81	MG	1	3543	1/1	0.51	0.22	134,134,134,134	0
81	MG	5	3603	1/1	0.51	0.25	143,143,143,143	0
81	MG	2	1986	1/1	0.51	0.22	139,139,139,139	0
81	MG	6	1959	1/1	0.51	0.23	165,165,165,165	0
81	MG	5	3805	1/1	0.51	0.16	161,161,161,161	0
81	MG	1	3423	1/1	0.51	0.21	159,159,159,159	0
81	MG	5	3794	1/1	0.52	0.16	122,122,122,122	0
81	MG	5	3804	1/1	0.52	0.15	168,168,168,168	0
81	MG	S8	301	1/1	0.52	0.21	161,161,161,161	0
81	MG	1	3783	1/1	0.52	0.17	140,140,140,140	0
81	MG	7	204	1/1	0.52	0.21	171,171,171,171	0
81	MG	6	1939	1/1	0.52	0.16	156,156,156,156	0
81	MG	O9	101	1/1	0.53	0.14	124,124,124,124	0
81	MG	2	1911	1/1	0.53	0.36	150,150,150,150	0
81	MG	1	3784	1/1	0.53	0.20	146,146,146,146	0
81	MG	3	205	1/1	0.53	0.23	149,149,149,149	0
81	MG	6	1999	1/1	0.54	0.12	206,206,206,206	0
81	MG	1	3540	1/1	0.54	0.23	115,115,115,115	0
81	MG	5	3811	1/1	0.54	0.28	115,115,115,115	0
81	MG	5	3559	1/1	0.54	0.16	139,139,139,139	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	MG	7	208	1/1	0.54	0.16	132,132,132,132	0
81	MG	4	215	1/1	0.54	0.19	133,133,133,133	0
81	MG	5	3777	1/1	0.55	0.26	91,91,91,91	0
81	MG	6	2006	1/1	0.55	0.37	126,126,126,126	0
81	MG	2	1966	1/1	0.56	0.18	152,152,152,152	0
81	MG	1	3795	1/1	0.56	0.21	133,133,133,133	0
81	MG	6	1995	1/1	0.56	0.25	157,157,157,157	0
81	MG	2	1979	1/1	0.57	0.18	147,147,147,147	0
81	MG	2	1916	1/1	0.57	0.18	158,158,158,158	0
81	MG	6	1903	1/1	0.57	0.28	128,128,128,128	0
81	MG	1	3485	1/1	0.57	0.11	143,143,143,143	0
81	MG	6	1931	1/1	0.57	0.12	169,169,169,169	0
81	MG	1	3789	1/1	0.58	0.34	128,128,128,128	0
81	MG	1	3691	1/1	0.58	0.17	152,152,152,152	0
81	MG	4	208	1/1	0.58	0.32	130,130,130,130	0
81	MG	1	3799	1/1	0.58	0.25	112,112,112,112	0
81	MG	1	3530	1/1	0.58	0.23	111,111,111,111	0
81	MG	1	3806	1/1	0.58	0.16	141,141,141,141	0
81	MG	1	3689	1/1	0.59	0.14	141,141,141,141	0
81	MG	6	1952	1/1	0.59	0.15	175,175,175,175	0
81	MG	5	3551	1/1	0.59	0.17	105,105,105,105	0
81	MG	1	3804	1/1	0.59	0.13	128,128,128,128	0
81	MG	5	3829	1/1	0.59	0.17	124,124,124,124	0
81	MG	o3	203	1/1	0.59	0.32	99,99,99,99	0
81	MG	6	1998	1/1	0.60	0.21	124,124,124,124	0
81	MG	4	202	1/1	0.60	0.25	131,131,131,131	0
81	MG	2	2008	1/1	0.60	0.29	117,117,117,117	0
81	MG	2	1950	1/1	0.60	0.21	126,126,126,126	0
81	MG	6	2008	1/1	0.60	0.17	111,111,111,111	0
81	MG	5	3830	1/1	0.60	0.21	131,131,131,131	0
81	MG	1	3763	1/1	0.61	0.23	118,118,118,118	0
81	MG	5	3647	1/1	0.61	0.16	143,143,143,143	0
81	MG	d3	202	1/1	0.61	0.31	125,125,125,125	0
81	MG	1	3769	1/1	0.61	0.20	115,115,115,115	0
81	MG	5	3717	1/1	0.61	0.29	106,106,106,106	0
81	MG	5	3728	1/1	0.61	0.19	98,98,98,98	0
81	MG	5	3750	1/1	0.61	0.29	99,99,99,99	0
81	MG	SM	301	1/1	0.61	0.22	126,126,126,126	0
81	MG	2	1980	1/1	0.62	0.11	202,202,202,202	1
81	MG	1	3425	1/1	0.62	0.30	122,122,122,122	0
81	MG	1	3788	1/1	0.62	0.23	140,140,140,140	0
81	MG	5	3752	1/1	0.62	0.12	164,164,164,164	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	MG	6	1958	1/1	0.62	0.20	120,120,120,120	0
81	MG	5	3793	1/1	0.62	0.22	128,128,128,128	0
81	MG	5	3611	1/1	0.62	0.29	99,99,99,99	0
81	MG	6	2004	1/1	0.62	0.23	124,124,124,124	0
81	MG	1	3724	1/1	0.62	0.29	125,125,125,125	0
81	MG	1	3745	1/1	0.62	0.26	133,133,133,133	0
81	MG	5	3677	1/1	0.62	0.36	112,112,112,112	0
81	MG	6	2003	1/1	0.63	0.17	119,119,119,119	0
81	MG	1	3780	1/1	0.63	0.20	104,104,104,104	0
81	MG	4	212	1/1	0.63	0.20	142,142,142,142	0
81	MG	6	1980	1/1	0.63	0.19	106,106,106,106	0
81	MG	C8	201	1/1	0.63	0.15	161,161,161,161	0
81	MG	2	1921	1/1	0.63	0.49	125,125,125,125	0
81	MG	5	3807	1/1	0.63	0.22	145,145,145,145	0
81	MG	5	3727	1/1	0.63	0.36	103,103,103,103	0
81	MG	8	205	1/1	0.63	0.19	102,102,102,102	0
81	MG	1	3429	1/1	0.63	0.23	136,136,136,136	0
81	MG	1	3744	1/1	0.63	0.27	111,111,111,111	0
81	MG	5	3722	1/1	0.64	0.23	84,84,84,84	0
81	MG	2	1953	1/1	0.64	0.20	151,151,151,151	0
81	MG	5	3597	1/1	0.64	0.12	151,151,151,151	0
81	MG	5	3667	1/1	0.64	0.21	119,119,119,119	0
81	MG	5	3598	1/1	0.64	0.20	137,137,137,137	0
81	MG	1	3720	1/1	0.64	0.40	122,122,122,122	0
81	MG	5	3706	1/1	0.64	0.29	93,93,93,93	0
81	MG	2	1907	1/1	0.64	0.21	145,145,145,145	0
81	MG	5	3823	1/1	0.64	0.28	103,103,103,103	0
81	MG	5	3789	1/1	0.65	0.14	102,102,102,102	0
81	MG	6	1954	1/1	0.65	0.19	176,176,176,176	0
81	MG	2	1935	1/1	0.65	0.19	147,147,147,147	0
81	MG	6	1985	1/1	0.65	0.20	127,127,127,127	0
81	MG	5	3693	1/1	0.65	0.46	95,95,95,95	0
81	MG	1	3486	1/1	0.65	0.11	151,151,151,151	0
81	MG	5	3666	1/1	0.65	0.30	102,102,102,102	0
81	MG	1	3542	1/1	0.66	0.26	127,127,127,127	0
81	MG	2	1952	1/1	0.66	0.31	145,145,145,145	0
81	MG	5	3669	1/1	0.66	0.21	103,103,103,103	0
81	MG	2	1996	1/1	0.66	0.22	103,103,103,103	0
81	MG	5	3514	1/1	0.66	0.32	109,109,109,109	0
81	MG	5	3720	1/1	0.67	0.23	119,119,119,119	0
81	MG	1	3662	1/1	0.67	0.22	114,114,114,114	0
81	MG	5	3636	1/1	0.67	0.15	109,109,109,109	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	MG	1	3693	1/1	0.67	0.22	116,116,116,116	0
81	MG	1	3674	1/1	0.67	0.16	115,115,115,115	0
81	MG	5	3467	1/1	0.67	0.29	106,106,106,106	0
81	MG	1	3782	1/1	0.67	0.16	123,123,123,123	0
81	MG	1	3733	1/1	0.68	0.09	110,110,110,110	0
81	MG	5	3519	1/1	0.68	0.18	122,122,122,122	0
81	MG	1	3673	1/1	0.68	0.35	110,110,110,110	0
81	MG	1	3452	1/1	0.68	0.30	93,93,93,93	0
81	MG	5	3774	1/1	0.68	0.17	98,98,98,98	0
81	MG	5	3712	1/1	0.68	0.12	104,104,104,104	0
81	MG	6	2010	1/1	0.68	0.21	109,109,109,109	0
81	MG	1	3761	1/1	0.68	0.31	96,96,96,96	0
81	MG	2	1983	1/1	0.68	0.21	144,144,144,144	0
81	MG	1	3712	1/1	0.69	0.25	125,125,125,125	0
81	MG	5	3438	1/1	0.69	0.27	117,117,117,117	0
81	MG	5	3637	1/1	0.69	0.09	122,122,122,122	0
81	MG	5	3561	1/1	0.69	0.19	137,137,137,137	0
81	MG	1	3653	1/1	0.69	0.30	98,98,98,98	0
81	MG	2	2007	1/1	0.69	0.35	126,126,126,126	0
81	MG	5	3825	1/1	0.69	0.23	107,107,107,107	0
81	MG	1	3513	1/1	0.69	0.14	139,139,139,139	0
81	MG	5	3495	1/1	0.70	0.17	133,133,133,133	0
81	MG	2	1959	1/1	0.70	0.17	151,151,151,151	0
81	MG	1	3426	1/1	0.70	0.20	126,126,126,126	0
81	MG	1	3716	1/1	0.70	0.15	104,104,104,104	0
81	MG	4	223	1/1	0.70	0.12	99,99,99,99	0
81	MG	2	1995	1/1	0.70	0.21	123,123,123,123	0
81	MG	5	3564	1/1	0.70	0.21	109,109,109,109	0
81	MG	1	3671	1/1	0.70	0.20	118,118,118,118	0
81	MG	1	3487	1/1	0.70	0.32	105,105,105,105	0
81	MG	6	1966	1/1	0.71	0.16	140,140,140,140	0
81	MG	1	3565	1/1	0.71	0.35	86,86,86,86	0
81	MG	1	3579	1/1	0.71	0.16	120,120,120,120	0
81	MG	1	3743	1/1	0.71	0.17	147,147,147,147	0
81	MG	1	3505	1/1	0.71	0.30	92,92,92,92	0
81	MG	5	3549	1/1	0.72	0.18	83,83,83,83	0
81	MG	6	1946	1/1	0.72	0.18	163,163,163,163	0
81	MG	6	1947	1/1	0.72	0.11	165,165,165,165	0
81	MG	5	3814	1/1	0.72	0.33	109,109,109,109	0
81	MG	6	1901	1/1	0.72	0.24	122,122,122,122	0
81	MG	1	3732	1/1	0.72	0.29	91,91,91,91	0
81	MG	5	3758	1/1	0.72	0.25	100,100,100,100	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
81	MG	5	3762	1/1	0.72	0.19	100,100,100,100	0
81	MG	5	3769	1/1	0.72	0.32	106,106,106,106	0
81	MG	5	3426	1/1	0.72	0.15	81,81,81,81	0
81	MG	2	1940	1/1	0.72	0.34	119,119,119,119	0
81	MG	5	3684	1/1	0.72	0.11	125,125,125,125	0
81	MG	6	1929	1/1	0.72	0.23	139,139,139,139	0
81	MG	6	2002	1/1	0.72	0.22	121,121,121,121	0
81	MG	1	3723	1/1	0.72	0.10	119,119,119,119	0
81	MG	2	1927	1/1	0.72	0.20	140,140,140,140	0
81	MG	5	3643	1/1	0.72	0.17	104,104,104,104	0
81	MG	q2	503	1/1	0.72	0.31	106,106,106,106	0
81	MG	6	2005	1/1	0.73	0.26	101,101,101,101	0
81	MG	2	1951	1/1	0.73	0.24	127,127,127,127	0
81	MG	5	3792	1/1	0.73	0.13	108,108,108,108	0
81	MG	1	3711	1/1	0.73	0.23	116,116,116,116	0
81	MG	2	1993	1/1	0.73	0.44	121,121,121,121	0
81	MG	c3	200	1/1	0.73	0.27	127,127,127,127	0
81	MG	5	3836	1/1	0.73	0.17	128,128,128,128	0
81	MG	1	3798	1/1	0.73	0.25	85,85,85,85	0
81	MG	1	3762	1/1	0.73	0.23	90,90,90,90	0
81	MG	7	205	1/1	0.73	0.14	154,154,154,154	0
81	MG	6	1915	1/1	0.73	0.12	133,133,133,133	0
81	MG	1	3584	1/1	0.73	0.27	109,109,109,109	0
81	MG	1	3553	1/1	0.73	0.24	97,97,97,97	0
81	MG	5	3623	1/1	0.73	0.19	104,104,104,104	0
81	MG	1	3786	1/1	0.73	0.19	123,123,123,123	0
81	MG	1	3771	1/1	0.74	0.41	82,82,82,82	0
81	MG	1	3439	1/1	0.74	0.22	117,117,117,117	0
81	MG	1	3517	1/1	0.74	0.32	124,124,124,124	0
81	MG	2	2009	1/1	0.74	0.17	110,110,110,110	0
81	MG	1	3680	1/1	0.74	0.07	148,148,148,148	0
81	MG	4	219	1/1	0.74	0.13	117,117,117,117	0
81	MG	s8	302	1/1	0.74	0.45	112,112,112,112	0
81	MG	5	3700	1/1	0.74	0.14	90,90,90,90	0
81	MG	5	3702	1/1	0.74	0.25	109,109,109,109	0
81	MG	5	3518	1/1	0.74	0.15	128,128,128,128	0
81	MG	1	3668	1/1	0.75	0.21	131,131,131,131	0
81	MG	4	206	1/1	0.75	0.16	97,97,97,97	0
81	MG	5	3799	1/1	0.75	0.29	91,91,91,91	0
81	MG	5	3744	1/1	0.75	0.27	94,94,94,94	0
81	MG	1	3746	1/1	0.75	0.16	118,118,118,118	0
81	MG	2	1937	1/1	0.75	0.20	120,120,120,120	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	MG	2	2003	1/1	0.75	0.15	141,141,141,141	0
81	MG	5	3658	1/1	0.75	0.07	117,117,117,117	0
81	MG	1	3441	1/1	0.75	0.18	108,108,108,108	0
81	MG	3	202	1/1	0.75	0.15	133,133,133,133	0
81	MG	2	1957	1/1	0.75	0.21	126,126,126,126	0
81	MG	l3	403	1/1	0.75	0.25	106,106,106,106	0
81	MG	l7	302	1/1	0.75	0.14	93,93,93,93	0
81	MG	n4	201	1/1	0.75	0.27	114,114,114,114	0
81	MG	6	2001	1/1	0.75	0.18	168,168,168,168	0
81	MG	5	3725	1/1	0.75	0.20	100,100,100,100	0
81	MG	2	1962	1/1	0.76	0.12	164,164,164,164	0
81	MG	1	3474	1/1	0.76	0.15	136,136,136,136	0
81	MG	L2	301	1/1	0.76	0.17	97,97,97,97	0
81	MG	O6	201	1/1	0.76	0.14	167,167,167,167	0
81	MG	1	3587	1/1	0.76	0.30	123,123,123,123	0
81	MG	5	3463	1/1	0.76	0.30	99,99,99,99	0
81	MG	5	3838	1/1	0.76	0.23	101,101,101,101	0
81	MG	1	3767	1/1	0.76	0.29	88,88,88,88	0
81	MG	6	1993	1/1	0.76	0.12	142,142,142,142	0
81	MG	5	3736	1/1	0.76	0.13	157,157,157,157	0
81	MG	5	3501	1/1	0.76	0.19	96,96,96,96	0
81	MG	5	3682	1/1	0.76	0.23	95,95,95,95	0
81	MG	1	3639	1/1	0.76	0.10	134,134,134,134	0
81	MG	5	3634	1/1	0.76	0.18	102,102,102,102	0
81	MG	6	1997	1/1	0.76	0.22	111,111,111,111	0
81	MG	5	3764	1/1	0.76	0.14	114,114,114,114	0
81	MG	1	3805	1/1	0.76	0.09	154,154,154,154	0
81	MG	5	3821	1/1	0.76	0.17	92,92,92,92	0
81	MG	2	1934	1/1	0.77	0.21	128,128,128,128	0
81	MG	1	3659	1/1	0.77	0.10	87,87,87,87	0
81	MG	5	3708	1/1	0.77	0.18	134,134,134,134	0
81	MG	6	1919	1/1	0.77	0.15	123,123,123,123	0
81	MG	1	3582	1/1	0.77	0.18	100,100,100,100	0
81	MG	1	3525	1/1	0.77	0.12	161,161,161,161	0
81	MG	4	225	1/1	0.77	0.11	156,156,156,156	0
81	MG	5	3819	1/1	0.77	0.24	90,90,90,90	0
81	MG	2	1969	1/1	0.77	0.20	140,140,140,140	0
81	MG	5	3516	1/1	0.77	0.14	99,99,99,99	0
81	MG	1	3731	1/1	0.77	0.25	105,105,105,105	0
81	MG	1	3635	1/1	0.77	0.18	93,93,93,93	0
81	MG	1	3764	1/1	0.77	0.24	110,110,110,110	0
81	MG	o5	201	1/1	0.77	0.20	120,120,120,120	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	MG	1	3473	1/1	0.77	0.17	131,131,131,131	0
81	MG	4	218	1/1	0.78	0.25	134,134,134,134	0
81	MG	5	3493	1/1	0.78	0.20	102,102,102,102	0
81	MG	5	3579	1/1	0.78	0.17	102,102,102,102	0
81	MG	6	1910	1/1	0.78	0.25	94,94,94,94	0
81	MG	1	3609	1/1	0.78	0.32	98,98,98,98	0
81	MG	5	3672	1/1	0.78	0.13	119,119,119,119	0
81	MG	5	3796	1/1	0.78	0.23	124,124,124,124	0
81	MG	5	3506	1/1	0.78	0.31	84,84,84,84	0
81	MG	1	3670	1/1	0.78	0.06	127,127,127,127	0
81	MG	5	3618	1/1	0.78	0.15	123,123,123,123	0
81	MG	5	3745	1/1	0.78	0.19	80,80,80,80	0
81	MG	2	1904	1/1	0.78	0.19	158,158,158,158	0
81	MG	6	1961	1/1	0.78	0.07	197,197,197,197	0
81	MG	5	3753	1/1	0.78	0.27	117,117,117,117	0
81	MG	5	3757	1/1	0.78	0.15	115,115,115,115	0
81	MG	1	3773	1/1	0.78	0.28	89,89,89,89	0
81	MG	1	3776	1/1	0.78	0.22	101,101,101,101	0
81	MG	1	3801	1/1	0.78	0.20	114,114,114,114	0
81	MG	2	1941	1/1	0.78	0.21	126,126,126,126	0
83	ZN	d7	101	1/1	0.78	0.08	247,247,247,247	0
81	MG	L2	303	1/1	0.79	0.23	115,115,115,115	0
81	MG	5	3689	1/1	0.79	0.33	89,89,89,89	0
81	MG	5	3490	1/1	0.79	0.24	102,102,102,102	0
81	MG	O2	202	1/1	0.79	0.27	84,84,84,84	0
81	MG	2	1954	1/1	0.79	0.12	128,128,128,128	0
81	MG	5	3703	1/1	0.79	0.14	110,110,110,110	0
81	MG	1	3757	1/1	0.79	0.16	123,123,123,123	0
81	MG	6	1957	1/1	0.79	0.12	175,175,175,175	0
81	MG	5	3710	1/1	0.79	0.14	114,114,114,114	0
81	MG	1	3518	1/1	0.79	0.16	126,126,126,126	0
81	MG	1	3634	1/1	0.79	0.19	74,74,74,74	0
81	MG	6	1909	1/1	0.79	0.28	120,120,120,120	0
81	MG	1	3727	1/1	0.79	0.12	123,123,123,123	0
81	MG	5	3529	1/1	0.79	0.21	113,113,113,113	0
81	MG	8	211	1/1	0.79	0.37	110,110,110,110	0
81	MG	5	3545	1/1	0.79	0.24	89,89,89,89	0
81	MG	2	1999	1/1	0.79	0.23	104,104,104,104	0
81	MG	1	3697	1/1	0.79	0.16	127,127,127,127	0
81	MG	l9	201	1/1	0.79	0.39	113,113,113,113	0
81	MG	n0	201	1/1	0.79	0.20	109,109,109,109	0
81	MG	1	3467	1/1	0.79	0.23	101,101,101,101	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
81	MG	2	2000	1/1	0.79	0.49	118,118,118,118	0
81	MG	1	3675	1/1	0.79	0.29	112,112,112,112	0
81	MG	2	1990	1/1	0.79	0.25	93,93,93,93	0
81	MG	6	1940	1/1	0.79	0.22	115,115,115,115	0
81	MG	5	3740	1/1	0.80	0.20	98,98,98,98	0
81	MG	5	3430	1/1	0.80	0.19	100,100,100,100	0
81	MG	2	1945	1/1	0.80	0.23	131,131,131,131	0
81	MG	5	3747	1/1	0.80	0.14	112,112,112,112	0
81	MG	2	1920	1/1	0.80	0.14	162,162,162,162	0
81	MG	1	3699	1/1	0.80	0.11	126,126,126,126	0
81	MG	1	3736	1/1	0.80	0.22	103,103,103,103	0
81	MG	5	3492	1/1	0.80	0.13	111,111,111,111	0
81	MG	6	1955	1/1	0.80	0.17	171,171,171,171	0
81	MG	5	3606	1/1	0.80	0.17	107,107,107,107	0
81	MG	5	3833	1/1	0.80	0.45	103,103,103,103	0
81	MG	1	3408	1/1	0.80	0.29	109,109,109,109	0
81	MG	5	3766	1/1	0.80	0.12	103,103,103,103	0
81	MG	5	3613	1/1	0.80	0.21	105,105,105,105	0
81	MG	5	3617	1/1	0.80	0.08	127,127,127,127	0
81	MG	2	1975	1/1	0.80	0.17	133,133,133,133	0
81	MG	5	3786	1/1	0.80	0.11	110,110,110,110	0
81	MG	1	3499	1/1	0.80	0.11	91,91,91,91	0
81	MG	5	3633	1/1	0.80	0.14	98,98,98,98	0
81	MG	1	3454	1/1	0.80	0.20	93,93,93,93	0
81	MG	5	3635	1/1	0.80	0.15	115,115,115,115	0
81	MG	6	1965	1/1	0.80	0.14	154,154,154,154	0
81	MG	5	3797	1/1	0.80	0.15	139,139,139,139	0
81	MG	1	3717	1/1	0.80	0.13	116,116,116,116	0
81	MG	5	3801	1/1	0.80	0.09	86,86,86,86	0
81	MG	4	222	1/1	0.80	0.10	123,123,123,123	0
81	MG	1	3458	1/1	0.80	0.28	91,91,91,91	0
81	MG	2	1930	1/1	0.80	0.12	149,149,149,149	0
81	MG	1	3660	1/1	0.80	0.34	108,108,108,108	0
81	MG	2	1994	1/1	0.80	0.18	136,136,136,136	0
81	MG	L3	402	1/1	0.81	0.17	128,128,128,128	0
81	MG	6	1986	1/1	0.81	0.18	91,91,91,91	0
81	MG	M7	205	1/1	0.81	0.28	101,101,101,101	0
81	MG	2	1913	1/1	0.81	0.19	142,142,142,142	0
81	MG	8	206	1/1	0.81	0.12	97,97,97,97	0
81	MG	1	3794	1/1	0.81	0.21	117,117,117,117	0
81	MG	1	3524	1/1	0.81	0.32	130,130,130,130	0
81	MG	1	3460	1/1	0.81	0.33	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	MG	6	1902	1/1	0.81	0.12	136,136,136,136	0
81	MG	1	3592	1/1	0.81	0.33	87,87,87,87	0
81	MG	6	1974	1/1	0.81	0.18	169,169,169,169	0
81	MG	5	3455	1/1	0.81	0.14	133,133,133,133	0
81	MG	5	3460	1/1	0.81	0.12	140,140,140,140	0
81	MG	1	3463	1/1	0.81	0.20	94,94,94,94	0
81	MG	1	3489	1/1	0.81	0.24	114,114,114,114	0
81	MG	q2	504	1/1	0.81	0.33	107,107,107,107	0
81	MG	5	3558	1/1	0.81	0.26	115,115,115,115	0
81	MG	5	3678	1/1	0.82	0.16	105,105,105,105	0
81	MG	5	3737	1/1	0.82	0.16	112,112,112,112	0
81	MG	1	3791	1/1	0.82	0.17	107,107,107,107	0
81	MG	1	3404	1/1	0.82	0.31	91,91,91,91	0
81	MG	5	3491	1/1	0.82	0.14	108,108,108,108	0
81	MG	6	2011	1/1	0.82	0.23	111,111,111,111	0
81	MG	3	201	1/1	0.82	0.21	102,102,102,102	0
81	MG	5	3562	1/1	0.82	0.12	134,134,134,134	0
81	MG	2	1972	1/1	0.82	0.19	134,134,134,134	0
81	MG	5	3755	1/1	0.82	0.19	97,97,97,97	0
81	MG	5	3756	1/1	0.82	0.38	90,90,90,90	0
81	MG	1	3475	1/1	0.82	0.15	139,139,139,139	0
81	MG	5	3423	1/1	0.82	0.24	89,89,89,89	0
81	MG	1	3490	1/1	0.82	0.33	103,103,103,103	0
81	MG	4	203	1/1	0.82	0.09	160,160,160,160	0
81	MG	1	3785	1/1	0.82	0.14	120,120,120,120	0
81	MG	1	3721	1/1	0.82	0.15	86,86,86,86	0
81	MG	5	3526	1/1	0.82	0.16	119,119,119,119	0
81	MG	1	3413	1/1	0.82	0.21	112,112,112,112	0
81	MG	5	3676	1/1	0.82	0.34	106,106,106,106	0
81	MG	1	3548	1/1	0.82	0.08	144,144,144,144	0
81	MG	5	3790	1/1	0.82	0.11	105,105,105,105	0
81	MG	1	3545	1/1	0.83	0.12	114,114,114,114	0
81	MG	5	3624	1/1	0.83	0.09	92,92,92,92	0
81	MG	1	3401	1/1	0.83	0.19	97,97,97,97	0
81	MG	1	3538	1/1	0.83	0.10	153,153,153,153	0
81	MG	5	3749	1/1	0.83	0.21	83,83,83,83	0
81	MG	1	3790	1/1	0.83	0.22	98,98,98,98	0
81	MG	2	1982	1/1	0.83	0.17	152,152,152,152	0
81	MG	5	3802	1/1	0.83	0.22	113,113,113,113	0
81	MG	7	206	1/1	0.83	0.30	100,100,100,100	0
81	MG	6	1925	1/1	0.83	0.37	115,115,115,115	0
81	MG	1	3612	1/1	0.83	0.10	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	MG	5	3806	1/1	0.83	0.12	118,118,118,118	0
81	MG	8	210	1/1	0.83	0.27	103,103,103,103	0
81	MG	1	3507	1/1	0.83	0.18	91,91,91,91	0
81	MG	2	2001	1/1	0.83	0.27	109,109,109,109	0
81	MG	5	3590	1/1	0.83	0.22	90,90,90,90	0
81	MG	s8	301	1/1	0.83	0.13	124,124,124,124	0
81	MG	1	3748	1/1	0.83	0.21	102,102,102,102	0
81	MG	1	3751	1/1	0.83	0.07	181,181,181,181	0
81	MG	1	3583	1/1	0.83	0.08	100,100,100,100	0
81	MG	1	3725	1/1	0.83	0.11	111,111,111,111	0
81	MG	1	3703	1/1	0.83	0.29	106,106,106,106	0
81	MG	5	3729	1/1	0.83	0.15	111,111,111,111	0
81	MG	1	3645	1/1	0.83	0.22	92,92,92,92	0
81	MG	6	1908	1/1	0.83	0.25	103,103,103,103	0
81	MG	1	3713	1/1	0.84	0.13	133,133,133,133	0
81	MG	2	1902	1/1	0.84	0.08	145,145,145,145	0
81	MG	5	3824	1/1	0.84	0.33	98,98,98,98	0
81	MG	6	1956	1/1	0.84	0.13	168,168,168,168	0
81	MG	6	1904	1/1	0.84	0.24	123,123,123,123	0
81	MG	5	3782	1/1	0.84	0.37	85,85,85,85	0
81	MG	5	3464	1/1	0.84	0.22	99,99,99,99	0
81	MG	5	3724	1/1	0.84	0.30	98,98,98,98	0
81	MG	1	3688	1/1	0.84	0.15	114,114,114,114	0
81	MG	5	3660	1/1	0.84	0.40	89,89,89,89	0
81	MG	5	3477	1/1	0.84	0.20	95,95,95,95	0
81	MG	1	3419	1/1	0.84	0.13	161,161,161,161	0
81	MG	1	3568	1/1	0.84	0.43	79,79,79,79	0
81	MG	1	3793	1/1	0.84	0.14	111,111,111,111	1
81	MG	1	3516	1/1	0.84	0.14	118,118,118,118	0
81	MG	5	3601	1/1	0.84	0.16	95,95,95,95	0
81	MG	2	1926	1/1	0.84	0.09	117,117,117,117	0
81	MG	5	3499	1/1	0.84	0.20	92,92,92,92	0
81	MG	2	1901	1/1	0.84	0.15	140,140,140,140	0
81	MG	6	2012	1/1	0.84	0.28	116,116,116,116	0
81	MG	4	207	1/1	0.84	0.11	132,132,132,132	0
81	MG	5	3809	1/1	0.84	0.23	119,119,119,119	0
81	MG	5	3691	1/1	0.84	0.33	91,91,91,91	0
81	MG	M0	301	1/1	0.84	0.30	101,101,101,101	0
81	MG	2	1998	1/1	0.84	0.14	224,224,224,224	0
81	MG	5	3813	1/1	0.84	0.16	104,104,104,104	0
81	MG	2	2004	1/1	0.84	0.11	136,136,136,136	0
81	MG	1	3676	1/1	0.84	0.22	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	MG	1	3588	1/1	0.84	0.20	115,115,115,115	0
81	MG	4	214	1/1	0.84	0.14	147,147,147,147	0
81	MG	M7	203	1/1	0.85	0.24	85,85,85,85	0
81	MG	5	3671	1/1	0.85	0.11	125,125,125,125	0
81	MG	2	1968	1/1	0.85	0.09	132,132,132,132	0
81	MG	5	3817	1/1	0.85	0.09	105,105,105,105	0
81	MG	5	3596	1/1	0.85	0.15	128,128,128,128	0
81	MG	2	2002	1/1	0.85	0.09	214,214,214,214	0
81	MG	1	3663	1/1	0.85	0.20	101,101,101,101	0
81	MG	6	1953	1/1	0.85	0.08	171,171,171,171	0
81	MG	5	3602	1/1	0.85	0.16	138,138,138,138	0
81	MG	1	3506	1/1	0.85	0.14	96,96,96,96	0
81	MG	5	3687	1/1	0.85	0.14	89,89,89,89	0
81	MG	1	3617	1/1	0.85	0.21	88,88,88,88	0
81	MG	1	3737	1/1	0.85	0.12	143,143,143,143	0
81	MG	1	3620	1/1	0.85	0.12	108,108,108,108	0
81	MG	5	3834	1/1	0.85	0.25	98,98,98,98	0
81	MG	1	3412	1/1	0.85	0.27	104,104,104,104	0
81	MG	5	3775	1/1	0.85	0.15	115,115,115,115	0
81	MG	6	1905	1/1	0.85	0.21	128,128,128,128	0
81	MG	5	3619	1/1	0.85	0.32	89,89,89,89	0
81	MG	1	3509	1/1	0.85	0.35	97,97,97,97	0
81	MG	2	1938	1/1	0.85	0.15	128,128,128,128	0
81	MG	5	3628	1/1	0.85	0.19	107,107,107,107	0
81	MG	5	3791	1/1	0.85	0.09	125,125,125,125	0
81	MG	1	3644	1/1	0.85	0.32	92,92,92,92	0
81	MG	6	1972	1/1	0.85	0.15	136,136,136,136	0
81	MG	6	1911	1/1	0.85	0.29	108,108,108,108	0
81	MG	1	3434	1/1	0.85	0.26	99,99,99,99	0
81	MG	5	3411	1/1	0.85	0.23	89,89,89,89	0
81	MG	2	1944	1/1	0.85	0.18	127,127,127,127	0
81	MG	1	3656	1/1	0.85	0.17	96,96,96,96	0
81	MG	1	3658	1/1	0.85	0.12	204,204,204,204	0
81	MG	5	3652	1/1	0.85	0.24	88,88,88,88	0
81	MG	5	3657	1/1	0.85	0.20	91,91,91,91	0
81	MG	1	3420	1/1	0.85	0.16	137,137,137,137	0
81	MG	5	3739	1/1	0.85	0.43	83,83,83,83	0
81	MG	6	1994	1/1	0.85	0.12	175,175,175,175	0
81	MG	1	3726	1/1	0.85	0.20	115,115,115,115	0
82	GET	2	2014	34/34	0.85	0.13	145,145,145,145	0
81	MG	M4	201	1/1	0.85	0.11	135,135,135,135	0
81	MG	5	3822	1/1	0.86	0.15	105,105,105,105	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	MG	5	3444	1/1	0.86	0.41	87,87,87,87	0
81	MG	2	1989	1/1	0.86	0.14	125,125,125,125	0
81	MG	1	3643	1/1	0.86	0.10	89,89,89,89	0
81	MG	5	3828	1/1	0.86	0.15	103,103,103,103	0
81	MG	2	1939	1/1	0.86	0.22	125,125,125,125	0
81	MG	5	3568	1/1	0.86	0.12	89,89,89,89	0
81	MG	1	3448	1/1	0.86	0.44	90,90,90,90	0
81	MG	5	3589	1/1	0.86	0.12	88,88,88,88	0
81	MG	2	1910	1/1	0.86	0.09	160,160,160,160	0
81	MG	1	3523	1/1	0.86	0.31	114,114,114,114	0
81	MG	5	3731	1/1	0.86	0.12	97,97,97,97	0
81	MG	5	3482	1/1	0.86	0.18	72,72,72,72	0
81	MG	1	3686	1/1	0.86	0.22	94,94,94,94	0
81	MG	1	3752	1/1	0.86	0.10	145,145,145,145	0
81	MG	1	3595	1/1	0.86	0.20	86,86,86,86	0
81	MG	7	207	1/1	0.86	0.29	99,99,99,99	0
81	MG	2	1974	1/1	0.86	0.15	137,137,137,137	0
81	MG	6	1913	1/1	0.86	0.16	149,149,149,149	0
81	MG	6	1970	1/1	0.86	0.16	123,123,123,123	0
81	MG	1	3690	1/1	0.86	0.21	107,107,107,107	0
81	MG	L3	401	1/1	0.86	0.23	81,81,81,81	0
81	MG	1	3476	1/1	0.86	0.06	194,194,194,194	0
81	MG	8	214	1/1	0.86	0.14	113,113,113,113	0
81	MG	L6	201	1/1	0.86	0.12	111,111,111,111	0
81	MG	1	3417	1/1	0.86	0.15	129,129,129,129	0
81	MG	1	3618	1/1	0.86	0.18	90,90,90,90	0
81	MG	1	3571	1/1	0.86	0.16	80,80,80,80	0
81	MG	n3	202	1/1	0.86	0.28	93,93,93,93	0
81	MG	4	210	1/1	0.86	0.13	114,114,114,114	0
81	MG	2	2011	1/1	0.86	0.13	93,93,93,93	0
81	MG	5	3433	1/1	0.86	0.20	83,83,83,83	0
81	MG	5	3436	1/1	0.86	0.09	83,83,83,83	0
81	MG	5	3767	1/1	0.86	0.18	91,91,91,91	0
81	MG	1	3539	1/1	0.86	0.10	139,139,139,139	0
81	MG	5	3772	1/1	0.86	0.39	97,97,97,97	0
81	MG	O3	202	1/1	0.87	0.19	97,97,97,97	0
81	MG	5	3680	1/1	0.87	0.25	83,83,83,83	0
81	MG	1	3415	1/1	0.87	0.25	103,103,103,103	0
81	MG	6	1982	1/1	0.87	0.09	181,181,181,181	0
81	MG	2	1987	1/1	0.87	0.17	144,144,144,144	0
81	MG	d3	201	1/1	0.87	0.28	107,107,107,107	0
81	MG	5	3505	1/1	0.87	0.31	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	MG	2	1992	1/1	0.87	0.07	130,130,130,130	0
81	MG	5	3826	1/1	0.87	0.36	101,101,101,101	0
81	MG	5	3768	1/1	0.87	0.16	115,115,115,115	0
81	MG	1	3740	1/1	0.87	0.12	80,80,80,80	0
81	MG	5	3701	1/1	0.87	0.21	121,121,121,121	0
81	MG	5	3832	1/1	0.87	0.28	102,102,102,102	0
81	MG	5	3773	1/1	0.87	0.20	94,94,94,94	0
81	MG	1	3742	1/1	0.87	0.15	90,90,90,90	0
81	MG	2	1960	1/1	0.87	0.13	154,154,154,154	0
81	MG	L2	302	1/1	0.87	0.36	99,99,99,99	0
81	MG	1	3504	1/1	0.87	0.23	87,87,87,87	0
81	MG	5	3785	1/1	0.87	0.10	144,144,144,144	0
81	MG	1	3446	1/1	0.87	0.15	102,102,102,102	0
81	MG	5	3532	1/1	0.87	0.44	93,93,93,93	0
81	MG	5	3536	1/1	0.87	0.14	89,89,89,89	0
81	MG	5	3538	1/1	0.87	0.11	99,99,99,99	0
81	MG	1	3422	1/1	0.87	0.10	129,129,129,129	0
81	MG	5	3546	1/1	0.87	0.38	87,87,87,87	0
81	MG	5	3441	1/1	0.87	0.22	82,82,82,82	0
81	MG	5	3726	1/1	0.87	0.26	107,107,107,107	0
81	MG	1	3611	1/1	0.87	0.11	109,109,109,109	0
81	MG	5	3649	1/1	0.87	0.09	151,151,151,151	0
81	MG	C0	201	1/1	0.87	0.16	126,126,126,126	0
81	MG	5	3458	1/1	0.87	0.20	117,117,117,117	0
81	MG	C4	202	1/1	0.87	0.12	116,116,116,116	0
81	MG	1	3677	1/1	0.87	0.37	97,97,97,97	0
81	MG	1	3706	1/1	0.87	0.19	107,107,107,107	0
81	MG	6	1967	1/1	0.87	0.09	152,152,152,152	0
81	MG	5	3475	1/1	0.87	0.24	107,107,107,107	0
81	MG	o3	201	1/1	0.87	0.19	97,97,97,97	0
81	MG	2	1964	1/1	0.87	0.13	130,130,130,130	0
81	MG	5	3480	1/1	0.87	0.23	90,90,90,90	0
81	MG	o7	505	1/1	0.87	0.11	111,111,111,111	0
81	MG	6	2009	1/1	0.87	0.10	98,98,98,98	0
81	MG	5	3675	1/1	0.87	0.30	90,90,90,90	0
81	MG	O3	201	1/1	0.87	0.18	88,88,88,88	0
82	GET	6	2015	34/34	0.87	0.14	145,145,145,145	0
81	MG	6	1930	1/1	0.87	0.12	155,155,155,155	0
81	MG	5	3778	1/1	0.88	0.11	96,96,96,96	0
81	MG	5	3781	1/1	0.88	0.10	115,115,115,115	0
81	MG	6	1936	1/1	0.88	0.13	113,113,113,113	0
81	MG	4	217	1/1	-	-	113,113,113,113	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	MG	1	3778	1/1	0.88	0.14	91,91,91,91	0
81	MG	1	3440	1/1	0.88	0.11	114,114,114,114	0
81	MG	6	1945	1/1	0.88	0.15	153,153,153,153	0
81	MG	1	3574	1/1	0.88	0.15	87,87,87,87	0
81	MG	1	3575	1/1	0.88	0.16	92,92,92,92	0
81	MG	1	3427	1/1	0.88	0.17	122,122,122,122	0
81	MG	5	3837	1/1	0.88	0.33	96,96,96,96	0
81	MG	D2	201	1/1	0.88	0.13	184,184,184,184	0
81	MG	5	3839	1/1	0.88	0.24	105,105,105,105	0
81	MG	5	3840	1/1	0.88	0.25	98,98,98,98	0
81	MG	5	3841	1/1	0.88	0.31	102,102,102,102	0
81	MG	5	3743	1/1	0.88	0.22	99,99,99,99	0
81	MG	2	1961	1/1	0.88	0.13	139,139,139,139	0
81	MG	1	3622	1/1	0.88	0.18	80,80,80,80	0
81	MG	1	3633	1/1	0.88	0.18	74,74,74,74	0
81	MG	3	206	1/1	0.88	0.06	161,161,161,161	0
81	MG	1	3500	1/1	0.88	0.29	102,102,102,102	0
81	MG	1	3585	1/1	0.88	0.20	102,102,102,102	0
81	MG	5	3557	1/1	0.88	0.16	111,111,111,111	0
81	MG	5	3754	1/1	0.88	0.08	98,98,98,98	0
81	MG	1	3556	1/1	0.88	0.19	88,88,88,88	0
81	MG	5	3808	1/1	0.88	0.09	84,84,84,84	0
81	MG	2	1933	1/1	0.88	0.12	135,135,135,135	0
81	MG	l2	304	1/1	0.88	0.08	116,116,116,116	0
81	MG	6	1914	1/1	0.88	0.10	159,159,159,159	0
81	MG	5	3645	1/1	0.88	0.12	93,93,93,93	0
81	MG	1	3472	1/1	0.88	0.19	137,137,137,137	0
81	MG	m0	301	1/1	0.88	0.13	107,107,107,107	0
81	MG	5	3763	1/1	0.88	0.14	105,105,105,105	0
81	MG	6	1916	1/1	0.88	0.18	121,121,121,121	0
81	MG	5	3815	1/1	0.88	0.18	85,85,85,85	0
81	MG	1	3569	1/1	0.88	0.32	88,88,88,88	0
81	MG	M5	301	1/1	0.88	0.13	130,130,130,130	0
81	MG	5	3713	1/1	0.88	0.20	89,89,89,89	0
81	MG	M6	201	1/1	0.88	0.38	98,98,98,98	0
81	MG	1	3797	1/1	0.88	0.13	90,90,90,90	0
81	MG	5	3659	1/1	0.88	0.13	107,107,107,107	0
81	MG	1	3651	1/1	0.88	0.16	86,86,86,86	0
81	MG	1	3604	1/1	0.88	0.14	94,94,94,94	0
82	GET	5	3850	34/34	0.88	0.14	110,110,110,110	0
81	MG	5	3412	1/1	0.88	0.12	97,97,97,97	0
81	MG	5	3474	1/1	0.89	0.30	104,104,104,104	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	MG	2	1928	1/1	0.89	0.12	95,95,95,95	0
81	MG	2	1922	1/1	0.89	0.17	124,124,124,124	0
81	MG	5	3594	1/1	0.89	0.23	84,84,84,84	0
81	MG	1	3715	1/1	0.89	0.19	108,108,108,108	0
81	MG	1	3750	1/1	0.89	0.07	169,169,169,169	0
81	MG	5	3489	1/1	0.89	0.12	91,91,91,91	0
81	MG	5	3599	1/1	0.89	0.19	95,95,95,95	0
81	MG	2	1923	1/1	0.89	0.15	134,134,134,134	0
81	MG	1	3586	1/1	0.89	0.08	145,145,145,145	0
81	MG	1	3792	1/1	0.89	0.15	96,96,96,96	0
81	MG	5	3604	1/1	0.89	0.20	96,96,96,96	0
81	MG	5	3696	1/1	0.89	0.21	81,81,81,81	0
81	MG	2	1947	1/1	0.89	0.11	157,157,157,157	0
81	MG	1	3758	1/1	0.89	0.24	92,92,92,92	0
81	MG	5	3612	1/1	0.89	0.19	105,105,105,105	0
81	MG	1	3471	1/1	0.89	0.16	147,147,147,147	0
81	MG	5	3616	1/1	0.89	0.14	104,104,104,104	0
81	MG	1	3590	1/1	0.89	0.30	95,95,95,95	0
81	MG	7	203	1/1	0.89	0.06	180,180,180,180	0
81	MG	1	3566	1/1	0.89	0.36	80,80,80,80	0
81	MG	1	3648	1/1	0.89	0.25	92,92,92,92	0
81	MG	5	3620	1/1	0.89	0.12	108,108,108,108	0
81	MG	5	3513	1/1	0.89	0.18	85,85,85,85	0
81	MG	1	3594	1/1	0.89	0.26	89,89,89,89	0
81	MG	8	204	1/1	0.89	0.20	108,108,108,108	0
81	MG	1	3444	1/1	0.89	0.15	104,104,104,104	0
81	MG	1	3770	1/1	0.89	0.26	135,135,135,135	0
81	MG	1	3655	1/1	0.89	0.07	106,106,106,106	0
81	MG	1	3416	1/1	0.89	0.10	121,121,121,121	0
81	MG	5	3416	1/1	0.89	0.23	90,90,90,90	1
81	MG	1	3447	1/1	0.89	0.33	90,90,90,90	0
81	MG	5	3638	1/1	0.89	0.11	94,94,94,94	0
81	MG	5	3730	1/1	0.89	0.11	98,98,98,98	1
81	MG	1	3572	1/1	0.89	0.13	87,87,87,87	0
81	MG	6	1924	1/1	0.89	0.24	109,109,109,109	0
81	MG	5	3542	1/1	0.89	0.22	82,82,82,82	0
81	MG	m7	204	1/1	0.89	0.16	86,86,86,86	0
81	MG	5	3738	1/1	0.89	0.16	76,76,76,76	0
81	MG	2	1909	1/1	0.89	0.14	160,160,160,160	0
81	MG	1	3615	1/1	0.89	0.07	93,93,93,93	0
81	MG	n5	201	1/1	0.89	0.31	98,98,98,98	0
81	MG	6	1992	1/1	0.89	0.10	164,164,164,164	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	MG	1	3741	1/1	0.89	0.08	92,92,92,92	0
81	MG	2	1903	1/1	0.89	0.08	201,201,201,201	0
81	MG	6	1933	1/1	0.89	0.20	106,106,106,106	0
81	MG	6	1996	1/1	0.89	0.13	125,125,125,125	0
81	MG	1	3481	1/1	0.89	0.09	130,130,130,130	0
81	MG	6	1938	1/1	0.89	0.17	115,115,115,115	0
81	MG	1	3431	1/1	0.89	0.15	75,75,75,75	0
81	MG	5	3565	1/1	0.89	0.22	100,100,100,100	0
82	GET	5	3851	34/34	0.89	0.08	154,154,154,154	0
81	MG	N2	201	1/1	0.89	0.11	193,193,193,193	0
81	MG	5	3699	1/1	0.90	0.13	107,107,107,107	1
81	MG	5	3454	1/1	0.90	0.07	148,148,148,148	0
81	MG	1	3803	1/1	0.90	0.36	115,115,115,115	0
81	MG	5	3843	1/1	0.90	0.19	116,116,116,116	0
81	MG	5	3803	1/1	0.90	0.08	81,81,81,81	0
81	MG	1	3695	1/1	0.90	0.09	122,122,122,122	0
81	MG	1	3641	1/1	0.90	0.33	93,93,93,93	0
81	MG	5	3461	1/1	0.90	0.22	108,108,108,108	0
81	MG	1	3768	1/1	0.90	0.32	93,93,93,93	0
81	MG	5	3522	1/1	0.90	0.08	132,132,132,132	0
81	MG	5	3760	1/1	0.90	0.12	81,81,81,81	0
81	MG	2	1912	1/1	0.90	0.13	147,147,147,147	0
81	MG	sM	301	1/1	0.90	0.08	147,147,147,147	0
81	MG	5	3714	1/1	0.90	0.23	134,134,134,134	0
81	MG	5	3469	1/1	0.90	0.19	98,98,98,98	0
81	MG	5	3472	1/1	0.90	0.17	103,103,103,103	0
81	MG	8	213	1/1	0.90	0.11	118,118,118,118	0
81	MG	5	3605	1/1	0.90	0.10	98,98,98,98	0
81	MG	l2	301	1/1	0.90	0.17	91,91,91,91	0
81	MG	1	3591	1/1	0.90	0.18	97,97,97,97	0
81	MG	2	1971	1/1	0.90	0.08	123,123,123,123	0
81	MG	1	3685	1/1	0.90	0.17	113,113,113,113	0
81	MG	1	3710	1/1	0.90	0.10	118,118,118,118	0
81	MG	5	3424	1/1	0.90	0.13	84,84,84,84	0
81	MG	m6	201	1/1	0.90	0.36	92,92,92,92	0
81	MG	5	3488	1/1	0.90	0.15	82,82,82,82	0
81	MG	2	1963	1/1	0.90	0.10	141,141,141,141	0
81	MG	5	3779	1/1	0.90	0.12	106,106,106,106	0
81	MG	5	3428	1/1	0.90	0.20	93,93,93,93	0
81	MG	5	3732	1/1	0.90	0.13	114,114,114,114	0
81	MG	2	2006	1/1	0.90	0.12	105,105,105,105	0
81	MG	5	3432	1/1	0.90	0.19	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
81	MG	5	3787	1/1	0.90	0.19	109,109,109,109	0
81	MG	o7	502	1/1	0.90	0.15	100,100,100,100	0
81	MG	5	3681	1/1	0.90	0.23	96,96,96,96	0
81	MG	o7	506	1/1	0.90	0.13	104,104,104,104	0
81	MG	1	3491	1/1	0.90	0.18	108,108,108,108	0
81	MG	1	3714	1/1	0.90	0.14	145,145,145,145	0
81	MG	2	1929	1/1	0.90	0.08	144,144,144,144	0
82	GET	1	3812	34/34	0.90	0.10	158,158,158,158	0
81	MG	1	3531	1/1	0.90	0.09	113,113,113,113	0
81	MG	5	3569	1/1	0.90	0.14	85,85,85,85	0
81	MG	2	1925	1/1	0.90	0.09	141,141,141,141	0
81	MG	5	3580	1/1	0.90	0.08	111,111,111,111	0
81	MG	1	3528	1/1	0.91	0.12	105,105,105,105	0
81	MG	6	1937	1/1	0.91	0.11	120,120,120,120	0
81	MG	1	3529	1/1	0.91	0.16	85,85,85,85	0
81	MG	1	3624	1/1	0.91	0.13	86,86,86,86	0
81	MG	1	3765	1/1	0.91	0.22	103,103,103,103	0
81	MG	5	3574	1/1	0.91	0.21	107,107,107,107	0
81	MG	5	3577	1/1	0.91	0.06	129,129,129,129	0
81	MG	1	3694	1/1	0.91	0.08	103,103,103,103	0
81	MG	1	3465	1/1	0.91	0.23	99,99,99,99	0
81	MG	5	3584	1/1	0.91	0.11	88,88,88,88	0
81	MG	2	1958	1/1	0.91	0.08	132,132,132,132	0
81	MG	1	3665	1/1	0.91	0.09	109,109,109,109	0
81	MG	5	3504	1/1	0.91	0.23	88,88,88,88	0
81	MG	1	3534	1/1	0.91	0.14	101,101,101,101	0
81	MG	5	3800	1/1	0.91	0.21	97,97,97,97	0
81	MG	1	3772	1/1	0.91	0.15	122,122,122,122	0
81	MG	5	3510	1/1	0.91	0.14	109,109,109,109	0
81	MG	5	3511	1/1	0.91	0.14	125,125,125,125	0
81	MG	1	3638	1/1	0.91	0.07	138,138,138,138	0
81	MG	1	3495	1/1	0.91	0.16	97,97,97,97	0
81	MG	5	3746	1/1	0.91	0.22	71,71,71,71	0
81	MG	1	3515	1/1	0.91	0.05	147,147,147,147	0
81	MG	1	3496	1/1	0.91	0.14	97,97,97,97	0
81	MG	1	3779	1/1	0.91	0.06	144,144,144,144	0
81	MG	5	3751	1/1	0.91	0.24	87,87,87,87	0
81	MG	1	3468	1/1	0.91	0.24	108,108,108,108	0
81	MG	1	3578	1/1	0.91	0.16	109,109,109,109	0
81	MG	1	3647	1/1	0.91	0.18	92,92,92,92	0
81	MG	2	1976	1/1	0.91	0.12	152,152,152,152	0
81	MG	5	3534	1/1	0.91	0.12	98,98,98,98	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	MG	5	3816	1/1	0.91	0.19	111,111,111,111	0
81	MG	5	3692	1/1	0.91	0.17	88,88,88,88	0
81	MG	5	3465	1/1	0.91	0.22	83,83,83,83	0
81	MG	5	3695	1/1	0.91	0.21	86,86,86,86	0
81	MG	1	3409	1/1	0.91	0.12	103,103,103,103	0
81	MG	1	3682	1/1	0.91	0.11	130,130,130,130	0
81	MG	5	3471	1/1	0.91	0.15	99,99,99,99	0
81	MG	6	1973	1/1	0.91	0.15	107,107,107,107	0
81	MG	1	3652	1/1	0.91	0.12	102,102,102,102	0
81	MG	2	2010	1/1	0.91	0.12	139,139,139,139	0
81	MG	5	3631	1/1	0.91	0.15	99,99,99,99	0
81	MG	5	3707	1/1	0.91	0.13	132,132,132,132	0
82	GET	2	2013	34/34	0.91	0.11	140,140,140,140	0
81	MG	5	3552	1/1	0.91	0.14	95,95,95,95	0
82	GET	1	3808	34/34	0.91	0.12	106,106,106,106	0
81	MG	5	3554	1/1	0.91	0.10	103,103,103,103	0
81	MG	1	3552	1/1	0.91	0.19	86,86,86,86	0
81	MG	5	3478	1/1	0.91	0.15	95,95,95,95	0
81	MG	6	1932	1/1	0.91	0.11	120,120,120,120	0
81	MG	2	1948	1/1	0.91	0.07	172,172,172,172	0
81	MG	1	3559	1/1	0.92	0.11	90,90,90,90	0
81	MG	5	3456	1/1	0.92	0.21	130,130,130,130	0
81	MG	6	1944	1/1	0.92	0.07	190,190,190,190	0
81	MG	1	3560	1/1	0.92	0.19	82,82,82,82	0
81	MG	1	3747	1/1	0.92	0.11	101,101,101,101	0
81	MG	2	1949	1/1	0.92	0.05	176,176,176,176	0
81	MG	5	3655	1/1	0.92	0.09	89,89,89,89	0
81	MG	6	1950	1/1	0.92	0.10	193,193,193,193	0
81	MG	6	1951	1/1	0.92	0.07	224,224,224,224	0
81	MG	5	3555	1/1	0.92	0.11	108,108,108,108	0
81	MG	5	3556	1/1	0.92	0.06	106,106,106,106	1
81	MG	5	3661	1/1	0.92	0.15	97,97,97,97	0
81	MG	5	3662	1/1	0.92	0.09	114,114,114,114	0
81	MG	5	3665	1/1	0.92	0.17	92,92,92,92	0
81	MG	5	3466	1/1	0.92	0.11	88,88,88,88	0
81	MG	2	1919	1/1	0.92	0.07	184,184,184,184	0
81	MG	5	3468	1/1	0.92	0.24	96,96,96,96	0
81	MG	2	1905	1/1	0.92	0.14	154,154,154,154	0
81	MG	1	3649	1/1	0.92	0.20	92,92,92,92	0
81	MG	4	220	1/1	0.92	0.15	117,117,117,117	0
81	MG	1	3754	1/1	0.92	0.17	110,110,110,110	0
81	MG	1	3698	1/1	0.92	0.09	113,113,113,113	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	MG	5	3476	1/1	0.92	0.08	108,108,108,108	1
81	MG	1	3414	1/1	0.92	0.12	119,119,119,119	0
81	MG	5	3575	1/1	0.92	0.18	97,97,97,97	0
81	MG	1	3760	1/1	0.92	0.08	147,147,147,147	0
81	MG	6	1960	1/1	0.92	0.07	169,169,169,169	0
81	MG	2	1917	1/1	0.92	0.05	160,160,160,160	0
81	MG	5	3582	1/1	0.92	0.21	88,88,88,88	0
81	MG	5	3485	1/1	0.92	0.17	89,89,89,89	0
81	MG	6	1964	1/1	0.92	0.10	164,164,164,164	0
81	MG	3	204	1/1	0.92	0.07	147,147,147,147	0
81	MG	5	3591	1/1	0.92	0.24	98,98,98,98	0
81	MG	5	3784	1/1	0.92	0.10	98,98,98,98	0
81	MG	1	3493	1/1	0.92	0.13	106,106,106,106	0
81	MG	1	3627	1/1	0.92	0.15	78,78,78,78	0
81	MG	5	3407	1/1	0.92	0.21	87,87,87,87	0
81	MG	5	3410	1/1	0.92	0.21	84,84,84,84	0
81	MG	6	1969	1/1	0.92	0.12	181,181,181,181	0
81	MG	5	3600	1/1	0.92	0.14	89,89,89,89	0
81	MG	3	208	1/1	0.92	0.08	162,162,162,162	0
81	MG	5	3500	1/1	0.92	0.26	87,87,87,87	0
81	MG	3	209	1/1	0.92	0.10	141,141,141,141	0
81	MG	5	3419	1/1	0.92	0.18	86,86,86,86	0
81	MG	6	1922	1/1	0.92	0.14	113,113,113,113	0
81	MG	5	3711	1/1	0.92	0.20	86,86,86,86	0
81	MG	1	3547	1/1	0.92	0.07	92,92,92,92	0
81	MG	5	3508	1/1	0.92	0.19	107,107,107,107	0
81	MG	1	3511	1/1	0.92	0.16	113,113,113,113	0
81	MG	o2	202	1/1	0.92	0.25	92,92,92,92	0
81	MG	1	3684	1/1	0.92	0.08	101,101,101,101	0
81	MG	5	3429	1/1	0.92	0.17	92,92,92,92	0
81	MG	M7	201	1/1	0.92	0.26	105,105,105,105	0
81	MG	5	3515	1/1	0.92	0.15	109,109,109,109	0
81	MG	1	3470	1/1	0.92	0.11	132,132,132,132	0
81	MG	M7	204	1/1	0.92	0.06	94,94,94,94	0
81	MG	5	3435	1/1	0.92	0.11	93,93,93,93	0
81	MG	5	3521	1/1	0.92	0.14	151,151,151,151	0
81	MG	q2	505	1/1	0.92	0.11	126,126,126,126	0
81	MG	1	3597	1/1	0.92	0.10	105,105,105,105	0
81	MG	4	209	1/1	0.92	0.19	111,111,111,111	0
81	MG	5	3527	1/1	0.92	0.17	116,116,116,116	0
82	GET	1	3809	34/34	0.92	0.16	101,101,101,101	0
82	GET	1	3810	34/34	0.92	0.12	108,108,108,108	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	MG	5	3528	1/1	0.92	0.14	105,105,105,105	0
82	GET	1	3813	34/34	0.92	0.19	103,103,103,103	0
81	MG	N8	202	1/1	0.92	0.27	108,108,108,108	0
81	MG	1	3484	1/1	0.92	0.09	157,157,157,157	0
81	MG	5	3448	1/1	0.92	0.24	97,97,97,97	0
82	GET	n6	201	34/34	0.92	0.09	128,128,128,128	0
81	MG	1	3430	1/1	0.92	0.23	92,92,92,92	0
81	MG	5	3827	1/1	0.93	0.26	81,81,81,81	0
81	MG	6	1963	1/1	0.93	0.06	197,197,197,197	0
81	MG	5	3401	1/1	0.93	0.10	76,76,76,76	0
81	MG	5	3570	1/1	0.93	0.09	91,91,91,91	0
81	MG	5	3831	1/1	0.93	0.12	76,76,76,76	0
81	MG	1	3522	1/1	0.93	0.06	104,104,104,104	1
81	MG	6	1912	1/1	0.93	0.13	127,127,127,127	0
81	MG	1	3729	1/1	0.93	0.06	171,171,171,171	0
81	MG	D2	202	1/1	0.93	0.06	180,180,180,180	0
81	MG	1	3581	1/1	0.93	0.14	113,113,113,113	0
81	MG	5	3494	1/1	0.93	0.05	129,129,129,129	0
81	MG	5	3418	1/1	0.93	0.28	77,77,77,77	0
81	MG	5	3585	1/1	0.93	0.55	69,69,69,69	0
81	MG	5	3497	1/1	0.93	0.19	93,93,93,93	0
81	MG	1	3421	1/1	0.93	0.10	144,144,144,144	0
81	MG	1	3550	1/1	0.93	0.29	94,94,94,94	0
81	MG	1	3696	1/1	0.93	0.13	92,92,92,92	0
81	MG	1	3402	1/1	0.93	0.16	102,102,102,102	0
81	MG	1	3488	1/1	0.93	0.19	108,108,108,108	0
81	MG	1	3625	1/1	0.93	0.07	89,89,89,89	1
81	MG	1	3701	1/1	0.93	0.16	96,96,96,96	0
81	MG	5	3431	1/1	0.93	0.09	101,101,101,101	0
81	MG	5	3780	1/1	0.93	0.07	85,85,85,85	0
81	MG	8	203	1/1	0.93	0.04	112,112,112,112	0
81	MG	6	1984	1/1	0.93	0.11	135,135,135,135	0
81	MG	5	3512	1/1	0.93	0.06	121,121,121,121	0
81	MG	D9	102	1/1	0.93	0.24	126,126,126,126	0
81	MG	5	3434	1/1	0.93	0.14	85,85,85,85	0
81	MG	1	3461	1/1	0.93	0.11	104,104,104,104	0
81	MG	5	3704	1/1	0.93	0.21	84,84,84,84	0
81	MG	6	1988	1/1	0.93	0.15	120,120,120,120	0
81	MG	6	1990	1/1	0.93	0.08	139,139,139,139	0
81	MG	5	3440	1/1	0.93	0.19	83,83,83,83	0
81	MG	12	302	1/1	0.93	0.08	95,95,95,95	0
81	MG	12	303	1/1	0.93	0.20	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	MG	4	201	1/1	0.93	0.15	130,130,130,130	0
81	MG	l3	402	1/1	0.93	0.09	91,91,91,91	0
81	MG	M7	202	1/1	0.93	0.15	100,100,100,100	0
81	MG	l4	401	1/1	0.93	0.16	95,95,95,95	0
81	MG	5	3524	1/1	0.93	0.13	132,132,132,132	0
81	MG	1	3705	1/1	0.93	0.14	114,114,114,114	0
81	MG	1	3510	1/1	0.93	0.17	105,105,105,105	0
81	MG	4	204	1/1	0.93	0.07	160,160,160,160	0
81	MG	1	3589	1/1	0.93	0.06	139,139,139,139	1
81	MG	m7	205	1/1	0.93	0.26	77,77,77,77	0
81	MG	1	3562	1/1	0.93	0.19	92,92,92,92	0
81	MG	5	3627	1/1	0.93	0.15	103,103,103,103	0
81	MG	6	1941	1/1	0.93	0.08	145,145,145,145	0
81	MG	1	3533	1/1	0.93	0.20	110,110,110,110	0
81	MG	5	3462	1/1	0.93	0.13	104,104,104,104	0
81	MG	5	3540	1/1	0.93	0.12	89,89,89,89	0
81	MG	1	3445	1/1	0.93	0.12	105,105,105,105	0
81	MG	5	3543	1/1	0.93	0.23	97,97,97,97	0
81	MG	1	3537	1/1	0.93	0.08	143,143,143,143	0
81	MG	o7	504	1/1	0.93	0.12	80,80,80,80	0
81	MG	O5	201	1/1	0.93	0.06	165,165,165,165	0
81	MG	5	3547	1/1	0.93	0.18	87,87,87,87	0
81	MG	6	1949	1/1	0.93	0.06	172,172,172,172	0
81	MG	1	3492	1/1	0.93	0.14	109,109,109,109	0
81	MG	O6	202	1/1	0.93	0.10	150,150,150,150	0
81	MG	1	3424	1/1	0.93	0.11	114,114,114,114	0
81	MG	5	3742	1/1	0.93	0.09	107,107,107,107	0
81	MG	1	3599	1/1	0.93	0.34	87,87,87,87	0
81	MG	1	3683	1/1	0.93	0.10	98,98,98,98	0
81	MG	1	3477	1/1	0.93	0.11	138,138,138,138	0
82	GET	1	3811	34/34	0.93	0.10	147,147,147,147	0
81	MG	1	3607	1/1	0.93	0.15	90,90,90,90	0
81	MG	2	1906	1/1	0.93	0.12	155,155,155,155	0
82	GET	6	2014	34/34	0.93	0.09	132,132,132,132	0
81	MG	6	1907	1/1	0.93	0.11	122,122,122,122	0
82	GET	5	3844	34/34	0.93	0.13	100,100,100,100	0
82	GET	5	3846	34/34	0.93	0.09	138,138,138,138	0
82	GET	5	3848	34/34	0.93	0.10	127,127,127,127	0
81	MG	1	3610	1/1	0.93	0.12	100,100,100,100	0
81	MG	1	3435	1/1	0.93	0.17	102,102,102,102	0
81	MG	4	221	1/1	0.93	0.09	137,137,137,137	0
83	ZN	D7	101	1/1	0.93	0.06	287,287,287,287	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	MG	5	3566	1/1	0.93	0.08	93,93,93,93	0
81	MG	1	3457	1/1	0.94	0.34	81,81,81,81	0
81	MG	5	3578	1/1	-	-	120,120,120,120	1
81	MG	5	3553	1/1	0.94	0.12	98,98,98,98	0
81	MG	2	1997	1/1	0.94	0.07	200,200,200,200	0
81	MG	5	3470	1/1	0.94	0.16	96,96,96,96	0
81	MG	1	3700	1/1	0.94	0.07	97,97,97,97	0
81	MG	1	3512	1/1	0.94	0.07	110,110,110,110	0
81	MG	5	3663	1/1	0.94	0.20	95,95,95,95	0
81	MG	2	1955	1/1	0.94	0.09	134,134,134,134	0
81	MG	Q2	502	1/1	0.94	0.12	122,122,122,122	0
81	MG	2	1914	1/1	0.94	0.07	195,195,195,195	0
81	MG	1	3632	1/1	0.94	0.09	62,62,62,62	0
81	MG	5	3765	1/1	0.94	0.25	91,91,91,91	0
81	MG	1	3462	1/1	0.94	0.15	98,98,98,98	0
81	MG	1	3707	1/1	0.94	0.18	86,86,86,86	0
81	MG	1	3708	1/1	0.94	0.33	83,83,83,83	0
81	MG	C4	201	1/1	0.94	0.10	176,176,176,176	0
81	MG	1	3483	1/1	0.94	0.12	150,150,150,150	0
81	MG	1	3521	1/1	0.94	0.14	101,101,101,101	0
81	MG	5	3573	1/1	0.94	0.14	113,113,113,113	0
81	MG	2	1946	1/1	0.94	0.10	115,115,115,115	0
81	MG	1	3640	1/1	0.94	0.06	105,105,105,105	0
81	MG	8	207	1/1	0.94	0.10	115,115,115,115	0
81	MG	5	3576	1/1	0.94	0.06	125,125,125,125	0
81	MG	1	3503	1/1	0.94	0.09	97,97,97,97	0
81	MG	1	3642	1/1	0.94	0.07	103,103,103,103	0
81	MG	1	3602	1/1	0.94	0.24	87,87,87,87	0
81	MG	1	3577	1/1	0.94	0.09	109,109,109,109	0
81	MG	6	1968	1/1	0.94	0.17	130,130,130,130	0
81	MG	1	3605	1/1	0.94	0.11	85,85,85,85	0
81	MG	6	1917	1/1	0.94	0.15	122,122,122,122	0
81	MG	6	1971	1/1	0.94	0.04	192,192,192,192	0
81	MG	l3	401	1/1	0.94	0.18	84,84,84,84	0
81	MG	5	3503	1/1	0.94	0.13	93,93,93,93	0
81	MG	1	3418	1/1	0.94	0.11	152,152,152,152	0
81	MG	1	3407	1/1	0.94	0.06	109,109,109,109	1
81	MG	6	1920	1/1	0.94	0.09	134,134,134,134	0
81	MG	5	3507	1/1	0.94	0.18	103,103,103,103	0
81	MG	6	1975	1/1	0.94	0.09	161,161,161,161	0
81	MG	5	3509	1/1	0.94	0.19	111,111,111,111	0
81	MG	6	1977	1/1	0.94	0.05	197,197,197,197	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	MG	6	1921	1/1	0.94	0.09	115,115,115,115	0
81	MG	6	1979	1/1	0.94	0.19	113,113,113,113	0
81	MG	n0	202	1/1	0.94	0.20	103,103,103,103	0
81	MG	n3	201	1/1	0.94	0.07	89,89,89,89	0
81	MG	1	3687	1/1	0.94	0.24	79,79,79,79	0
81	MG	1	3580	1/1	0.94	0.07	121,121,121,121	0
81	MG	6	1983	1/1	0.94	0.08	152,152,152,152	0
81	MG	M0	302	1/1	0.94	0.19	96,96,96,96	0
81	MG	5	3437	1/1	0.94	0.09	91,91,91,91	0
81	MG	o3	202	1/1	0.94	0.08	102,102,102,102	0
81	MG	6	1928	1/1	0.94	0.14	114,114,114,114	0
81	MG	5	3520	1/1	0.94	0.08	144,144,144,144	0
81	MG	3	203	1/1	0.94	0.04	142,142,142,142	0
81	MG	6	1987	1/1	0.94	0.11	169,169,169,169	0
81	MG	5	3523	1/1	0.94	0.09	113,113,113,113	0
81	MG	2	1908	1/1	0.94	0.09	163,163,163,163	0
81	MG	q2	502	1/1	0.94	0.29	107,107,107,107	0
81	MG	6	1989	1/1	0.94	0.06	125,125,125,125	0
81	MG	5	3451	1/1	0.94	0.12	97,97,97,97	0
81	MG	5	3452	1/1	0.94	0.24	96,96,96,96	0
82	GET	2	2012	34/34	0.94	0.09	131,131,131,131	0
81	MG	1	3728	1/1	0.94	0.11	93,93,93,93	0
81	MG	2	1943	1/1	0.94	0.17	97,97,97,97	0
81	MG	5	3733	1/1	0.94	0.46	88,88,88,88	0
81	MG	5	3734	1/1	0.94	0.31	88,88,88,88	0
81	MG	1	3554	1/1	0.94	0.15	96,96,96,96	0
81	MG	5	3457	1/1	0.94	0.06	141,141,141,141	0
81	MG	5	3537	1/1	0.94	0.10	100,100,100,100	0
81	MG	6	1935	1/1	0.94	0.10	124,124,124,124	0
82	GET	6	2013	34/34	0.94	0.09	132,132,132,132	0
81	MG	1	3616	1/1	0.94	0.19	88,88,88,88	0
81	MG	1	3555	1/1	0.94	0.15	96,96,96,96	0
81	MG	1	3657	1/1	0.94	0.10	97,97,97,97	0
82	GET	5	3845	34/34	0.94	0.10	119,119,119,119	0
81	MG	2	1918	1/1	0.94	0.11	181,181,181,181	0
81	MG	N7	201	1/1	0.94	0.09	204,204,204,204	0
81	MG	1	3738	1/1	0.94	0.22	87,87,87,87	0
81	MG	4	205	1/1	0.94	0.11	118,118,118,118	0
81	MG	5	3651	1/1	0.94	0.16	91,91,91,91	0
81	MG	5	3550	1/1	0.94	0.08	99,99,99,99	0
81	MG	1	3619	1/1	0.94	0.09	92,92,92,92	0
83	ZN	e1	501	1/1	0.94	0.05	282,282,282,282	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	MG	1	3464	1/1	0.95	0.24	102,102,102,102	0
81	MG	5	3450	1/1	0.95	0.36	94,94,94,94	0
81	MG	5	3719	1/1	0.95	0.23	88,88,88,88	0
81	MG	1	3411	1/1	0.95	0.12	106,106,106,106	0
81	MG	1	3561	1/1	0.95	0.15	87,87,87,87	0
81	MG	1	3478	1/1	0.95	0.10	133,133,133,133	0
81	MG	5	3567	1/1	0.95	0.07	88,88,88,88	0
81	MG	5	3644	1/1	0.95	0.05	103,103,103,103	0
81	MG	1	3739	1/1	0.95	0.09	114,114,114,114	0
81	MG	5	3798	1/1	0.95	0.35	88,88,88,88	0
81	MG	O7	102	1/1	0.95	0.08	121,121,121,121	0
81	MG	1	3614	1/1	0.95	0.21	91,91,91,91	0
81	MG	1	3563	1/1	0.95	0.20	82,82,82,82	0
81	MG	5	3650	1/1	0.95	0.10	79,79,79,79	0
81	MG	6	1976	1/1	0.95	0.05	149,149,149,149	0
81	MG	1	3564	1/1	0.95	0.26	88,88,88,88	0
81	MG	4	224	1/1	0.95	0.08	144,144,144,144	0
81	MG	1	3456	1/1	0.95	0.43	78,78,78,78	0
81	MG	1	3437	1/1	0.95	0.19	104,104,104,104	0
81	MG	5	3403	1/1	0.95	0.12	94,94,94,94	0
81	MG	m7	201	1/1	0.95	0.06	84,84,84,84	0
81	MG	5	3581	1/1	0.95	0.12	112,112,112,112	0
81	MG	5	3406	1/1	0.95	0.17	86,86,86,86	0
81	MG	1	3567	1/1	0.95	0.21	81,81,81,81	0
81	MG	1	3526	1/1	0.95	0.07	133,133,133,133	0
81	MG	2	1942	1/1	0.95	0.15	123,123,123,123	0
81	MG	6	1948	1/1	0.95	0.09	167,167,167,167	0
81	MG	5	3525	1/1	0.95	0.05	128,128,128,128	0
81	MG	5	3593	1/1	0.95	0.13	102,102,102,102	0
81	MG	o2	201	1/1	0.95	0.15	92,92,92,92	0
81	MG	5	3748	1/1	0.95	0.17	97,97,97,97	0
81	MG	1	3459	1/1	0.95	0.17	100,100,100,100	0
81	MG	5	3595	1/1	0.95	0.18	94,94,94,94	0
81	MG	1	3514	1/1	0.95	0.07	144,144,144,144	0
81	MG	1	3626	1/1	0.95	0.20	78,78,78,78	0
81	MG	5	3421	1/1	0.95	0.13	90,90,90,90	0
81	MG	1	3433	1/1	0.95	0.11	111,111,111,111	0
81	MG	1	3722	1/1	0.95	0.11	92,92,92,92	0
81	MG	6	1991	1/1	0.95	0.10	198,198,198,198	0
81	MG	1	3755	1/1	0.95	0.10	111,111,111,111	0
81	MG	5	3481	1/1	0.95	0.10	90,90,90,90	0
81	MG	5	3759	1/1	0.95	0.09	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
81	MG	1	3630	1/1	0.95	0.38	78,78,78,78	0
81	MG	2	2005	1/1	0.95	0.10	169,169,169,169	0
81	MG	5	3487	1/1	0.95	0.17	84,84,84,84	0
81	MG	5	3607	1/1	0.95	0.17	101,101,101,101	0
81	MG	1	3576	1/1	0.95	0.17	101,101,101,101	0
81	MG	1	3600	1/1	0.95	0.08	87,87,87,87	0
81	MG	5	3694	1/1	0.95	0.11	89,89,89,89	0
81	MG	1	3450	1/1	0.95	0.22	90,90,90,90	0
81	MG	5	3614	1/1	0.95	0.13	95,95,95,95	0
81	MG	1	3536	1/1	0.95	0.07	163,163,163,163	0
81	MG	M7	206	1/1	0.95	0.21	93,93,93,93	0
81	MG	6	1962	1/1	0.95	0.09	191,191,191,191	0
81	MG	1	3443	1/1	0.95	0.06	117,117,117,117	0
81	MG	1	3672	1/1	0.95	0.15	107,107,107,107	0
81	MG	5	3439	1/1	0.95	0.09	87,87,87,87	0
81	MG	1	3557	1/1	0.95	0.13	108,108,108,108	0
82	GET	5	3847	34/34	0.95	0.14	101,101,101,101	0
81	MG	1	3800	1/1	0.95	0.19	111,111,111,111	0
82	GET	5	3849	34/34	0.95	0.14	101,101,101,101	0
81	MG	5	3442	1/1	0.95	0.06	88,88,88,88	0
81	MG	5	3629	1/1	0.95	0.14	93,93,93,93	0
81	MG	5	3783	1/1	0.95	0.06	105,105,105,105	0
81	MG	5	3502	1/1	0.95	0.12	83,83,83,83	0
81	MG	5	3632	1/1	0.95	0.08	118,118,118,118	0
81	MG	O2	203	1/1	0.95	0.12	92,92,92,92	0
81	MG	1	3613	1/1	0.96	0.10	88,88,88,88	0
81	MG	5	3646	1/1	0.96	0.08	131,131,131,131	0
81	MG	1	3527	1/1	0.96	0.15	103,103,103,103	0
81	MG	17	301	1/1	0.96	0.08	92,92,92,92	0
81	MG	1	3598	1/1	0.96	0.14	101,101,101,101	0
81	MG	5	3761	1/1	0.96	0.23	88,88,88,88	0
81	MG	1	3549	1/1	0.96	0.16	145,145,145,145	0
81	MG	1	3520	1/1	0.96	0.10	103,103,103,103	0
81	MG	1	3469	1/1	0.96	0.12	120,120,120,120	0
81	MG	m7	202	1/1	0.96	0.13	94,94,94,94	0
81	MG	3	207	1/1	0.96	0.07	159,159,159,159	0
81	MG	1	3692	1/1	0.96	0.08	127,127,127,127	0
81	MG	1	3775	1/1	0.96	0.08	98,98,98,98	0
81	MG	1	3796	1/1	0.96	0.11	100,100,100,100	0
81	MG	5	3716	1/1	0.96	0.23	66,66,66,66	0
81	MG	N8	201	1/1	0.96	0.06	119,119,119,119	0
81	MG	5	3718	1/1	0.96	0.07	103,103,103,103	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	MG	5	3479	1/1	0.96	0.09	93,93,93,93	0
81	MG	5	3517	1/1	0.96	0.14	123,123,123,123	0
81	MG	5	3721	1/1	0.96	0.06	93,93,93,93	0
81	MG	6	1942	1/1	0.96	0.05	146,146,146,146	0
81	MG	5	3404	1/1	0.96	0.13	89,89,89,89	0
81	MG	1	3654	1/1	0.96	0.09	95,95,95,95	0
81	MG	5	3484	1/1	0.96	0.10	85,85,85,85	0
81	MG	5	3446	1/1	0.96	0.16	87,87,87,87	0
81	MG	o7	503	1/1	0.96	0.05	126,126,126,126	0
81	MG	5	3668	1/1	0.96	0.12	86,86,86,86	0
81	MG	5	3615	1/1	0.96	0.07	108,108,108,108	0
81	MG	5	3670	1/1	0.96	0.10	112,112,112,112	0
81	MG	1	3508	1/1	0.96	0.05	98,98,98,98	0
81	MG	5	3409	1/1	0.96	0.21	88,88,88,88	0
81	MG	5	3788	1/1	0.96	0.13	98,98,98,98	0
81	MG	1	3734	1/1	0.96	0.07	120,120,120,120	0
81	MG	5	3572	1/1	0.96	0.12	87,87,87,87	1
81	MG	5	3735	1/1	0.96	0.07	102,102,102,102	0
81	MG	1	3410	1/1	0.96	0.17	94,94,94,94	0
81	MG	2	1936	1/1	0.96	0.05	140,140,140,140	0
81	MG	5	3415	1/1	0.96	0.10	89,89,89,89	0
81	MG	5	3625	1/1	0.96	0.07	99,99,99,99	0
81	MG	5	3626	1/1	0.96	0.11	106,106,106,106	0
81	MG	8	201	1/1	0.96	0.11	99,99,99,99	0
81	MG	1	3428	1/1	0.96	0.09	140,140,140,140	0
81	MG	5	3683	1/1	0.96	0.12	116,116,116,116	0
81	MG	1	3546	1/1	0.96	0.07	98,98,98,98	0
81	MG	5	3533	1/1	0.96	0.13	91,91,91,91	0
81	MG	1	3558	1/1	0.96	0.19	90,90,90,90	0
81	MG	8	208	1/1	0.96	0.06	123,123,123,123	0
81	MG	L8	301	1/1	0.96	0.15	182,182,182,182	0
81	MG	5	3498	1/1	0.96	0.10	94,94,94,94	0
81	MG	O8	101	1/1	0.96	0.09	168,168,168,168	0
81	MG	1	3432	1/1	0.96	0.10	94,94,94,94	0
81	MG	1	3646	1/1	0.96	0.08	95,95,95,95	0
81	MG	5	3427	1/1	0.96	0.07	85,85,85,85	0
81	MG	5	3698	1/1	0.96	0.08	80,80,80,80	0
81	MG	6	2007	1/1	0.96	0.04	148,148,148,148	0
81	MG	5	3592	1/1	0.96	0.18	97,97,97,97	0
81	MG	1	3664	1/1	0.96	0.10	99,99,99,99	0
81	MG	1	3735	1/1	0.97	0.10	98,98,98,98	0
81	MG	5	3413	1/1	0.97	0.09	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
81	MG	2	1956	1/1	0.97	0.05	130,130,130,130	0
81	MG	5	3586	1/1	0.97	0.10	80,80,80,80	0
81	MG	5	3587	1/1	0.97	0.05	95,95,95,95	0
81	MG	5	3654	1/1	0.97	0.05	96,96,96,96	0
81	MG	5	3795	1/1	0.97	0.05	104,104,104,104	1
81	MG	1	3551	1/1	0.97	0.07	138,138,138,138	0
81	MG	5	3656	1/1	0.97	0.11	96,96,96,96	0
81	MG	1	3570	1/1	0.97	0.09	92,92,92,92	0
81	MG	1	3679	1/1	0.97	0.07	102,102,102,102	0
81	MG	6	1906	1/1	0.97	0.06	119,119,119,119	0
81	MG	5	3422	1/1	0.97	0.12	91,91,91,91	0
81	MG	2	1991	1/1	0.97	0.12	182,182,182,182	0
81	MG	L5	301	1/1	0.97	0.07	135,135,135,135	0
81	MG	1	3449	1/1	0.97	0.16	100,100,100,100	0
81	MG	1	3593	1/1	0.97	0.10	91,91,91,91	0
81	MG	1	3573	1/1	0.97	0.08	92,92,92,92	0
81	MG	1	3535	1/1	0.97	0.07	153,153,153,153	0
81	MG	1	3519	1/1	0.97	0.11	94,94,94,94	0
81	MG	5	3541	1/1	0.97	0.09	91,91,91,91	0
81	MG	5	3741	1/1	0.97	0.08	92,92,92,92	0
81	MG	2	1981	1/1	0.97	0.10	135,135,135,135	0
81	MG	2	1932	1/1	0.97	0.08	137,137,137,137	0
81	MG	5	3544	1/1	0.97	0.15	81,81,81,81	0
81	MG	1	3453	1/1	0.97	0.07	98,98,98,98	0
81	MG	5	3674	1/1	0.97	0.05	98,98,98,98	0
81	MG	1	3749	1/1	0.97	0.09	80,80,80,80	0
81	MG	1	3718	1/1	0.97	0.08	83,83,83,83	0
81	MG	5	3608	1/1	0.97	0.06	108,108,108,108	1
81	MG	1	3719	1/1	0.97	0.13	86,86,86,86	0
81	MG	5	3679	1/1	0.97	0.14	98,98,98,98	0
81	MG	1	3628	1/1	0.97	0.12	83,83,83,83	0
81	MG	1	3753	1/1	0.97	0.06	129,129,129,129	0
81	MG	1	3601	1/1	0.97	0.08	95,95,95,95	0
81	MG	6	1923	1/1	0.97	0.09	119,119,119,119	0
81	MG	1	3631	1/1	0.97	0.07	100,100,100,100	0
81	MG	1	3756	1/1	0.97	0.24	94,94,94,94	0
81	MG	5	3688	1/1	0.97	0.06	140,140,140,140	0
81	MG	5	3443	1/1	0.97	0.07	89,89,89,89	0
81	MG	6	1926	1/1	0.97	0.07	121,121,121,121	0
81	MG	5	3445	1/1	0.97	0.06	86,86,86,86	0
81	MG	5	3621	1/1	0.97	0.05	98,98,98,98	0
81	MG	6	1927	1/1	0.97	0.05	123,123,123,123	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
81	MG	2	1977	1/1	0.97	0.04	134,134,134,134	0
81	MG	O2	201	1/1	0.97	0.07	101,101,101,101	0
81	MG	5	3563	1/1	0.97	0.05	140,140,140,140	0
81	MG	1	3603	1/1	0.97	0.09	84,84,84,84	0
81	MG	1	3541	1/1	0.97	0.10	119,119,119,119	0
81	MG	1	3466	1/1	0.97	0.07	111,111,111,111	0
81	MG	5	3771	1/1	0.97	0.35	93,93,93,93	0
81	MG	5	3630	1/1	0.97	0.13	86,86,86,86	0
81	MG	1	3637	1/1	0.97	0.11	89,89,89,89	0
81	MG	6	1934	1/1	0.97	0.07	124,124,124,124	0
81	MG	1	3405	1/1	0.97	0.08	108,108,108,108	0
81	MG	5	3402	1/1	0.97	0.07	88,88,88,88	0
81	MG	1	3479	1/1	0.97	0.08	122,122,122,122	0
81	MG	1	3480	1/1	0.97	0.11	127,127,127,127	1
81	MG	5	3405	1/1	0.97	0.09	88,88,88,88	0
81	MG	1	3766	1/1	0.97	0.10	104,104,104,104	0
81	MG	5	3642	1/1	0.97	0.07	116,116,116,116	0
81	MG	6	1981	1/1	0.97	0.08	133,133,133,133	0
81	MG	8	202	1/1	0.97	0.07	114,114,114,114	0
81	MG	5	3715	1/1	0.97	0.08	86,86,86,86	0
81	MG	5	3408	1/1	0.97	0.06	86,86,86,86	0
81	MG	2	1924	1/1	0.97	0.08	141,141,141,141	0
81	MG	1	3497	1/1	0.97	0.07	106,106,106,106	0
81	MG	1	3436	1/1	0.97	0.11	104,104,104,104	0
81	MG	1	3544	1/1	0.98	0.07	116,116,116,116	0
81	MG	1	3606	1/1	0.98	0.12	92,92,92,92	0
81	MG	1	3636	1/1	0.98	0.07	85,85,85,85	0
81	MG	m7	203	1/1	0.98	0.09	88,88,88,88	0
81	MG	5	3535	1/1	0.98	0.05	103,103,103,103	0
81	MG	5	3609	1/1	0.98	0.03	103,103,103,103	0
81	MG	5	3571	1/1	0.98	0.06	87,87,87,87	0
81	MG	5	3697	1/1	0.98	0.08	98,98,98,98	0
81	MG	5	3653	1/1	0.98	0.09	94,94,94,94	0
81	MG	1	3501	1/1	0.98	0.09	95,95,95,95	0
81	MG	1	3621	1/1	0.98	0.04	96,96,96,96	0
81	MG	1	3608	1/1	0.98	0.09	100,100,100,100	0
81	MG	n7	201	1/1	0.98	0.19	148,148,148,148	1
81	MG	5	3539	1/1	0.98	0.07	93,93,93,93	0
81	MG	1	3678	1/1	0.98	0.08	89,89,89,89	0
81	MG	5	3473	1/1	0.98	0.06	109,109,109,109	0
81	MG	5	3705	1/1	0.98	0.04	116,116,116,116	0
81	MG	7	201	1/1	0.98	0.09	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	MG	7	202	1/1	0.98	0.07	152,152,152,152	0
81	MG	1	3774	1/1	0.98	0.12	148,148,148,148	0
81	MG	1	3623	1/1	0.98	0.11	93,93,93,93	0
81	MG	1	3596	1/1	0.98	0.12	107,107,107,107	0
81	MG	5	3709	1/1	0.98	0.07	112,112,112,112	0
81	MG	5	3414	1/1	0.98	0.06	94,94,94,94	0
81	MG	5	3622	1/1	0.98	0.06	106,106,106,106	0
81	MG	5	3583	1/1	0.98	0.04	90,90,90,90	0
81	MG	2	1973	1/1	0.98	0.09	135,135,135,135	1
81	MG	1	3406	1/1	0.98	0.05	110,110,110,110	0
81	MG	5	3417	1/1	0.98	0.12	87,87,87,87	0
81	MG	5	3449	1/1	0.98	0.10	95,95,95,95	0
81	MG	1	3661	1/1	0.98	0.04	106,106,106,106	0
81	MG	5	3483	1/1	0.98	0.06	94,94,94,94	0
81	MG	1	3730	1/1	0.98	0.06	123,123,123,123	0
81	MG	8	209	1/1	0.98	0.11	111,111,111,111	0
81	MG	1	3451	1/1	0.98	0.08	89,89,89,89	0
81	MG	2	1978	1/1	0.98	0.07	138,138,138,138	0
81	MG	1	3709	1/1	0.98	0.10	114,114,114,114	0
81	MG	5	3723	1/1	0.98	0.10	92,92,92,92	0
81	MG	1	3442	1/1	0.98	0.07	133,133,133,133	0
81	MG	1	3532	1/1	0.98	0.04	113,113,113,113	0
81	MG	1	3666	1/1	0.98	0.15	107,107,107,107	0
81	MG	5	3560	1/1	0.98	0.09	133,133,133,133	0
81	MG	1	3667	1/1	0.98	0.04	110,110,110,110	0
81	MG	5	3640	1/1	0.98	0.07	84,84,84,84	0
81	MG	5	3776	1/1	0.98	0.08	93,93,93,93	0
81	MG	1	3438	1/1	0.98	0.07	109,109,109,109	0
81	MG	l3	404	1/1	0.98	0.10	85,85,85,85	0
81	MG	1	3669	1/1	0.98	0.06	98,98,98,98	0
81	MG	5	3685	1/1	0.98	0.05	126,126,126,126	0
81	MG	1	3455	1/1	0.98	0.08	89,89,89,89	0
83	ZN	E1	501	1/1	0.98	0.04	209,209,209,209	0
81	MG	1	3650	1/1	0.98	0.03	110,110,110,110	0
83	ZN	d9	101	1/1	0.98	0.04	184,184,184,184	0
81	MG	6	1943	1/1	0.98	0.10	157,157,157,157	0
83	ZN	q2	501	1/1	0.98	0.04	167,167,167,167	0
81	MG	5	3420	1/1	0.99	0.10	88,88,88,88	0
81	MG	1	3502	1/1	0.99	0.05	92,92,92,92	0
81	MG	1	3498	1/1	0.99	0.05	97,97,97,97	0
81	MG	5	3486	1/1	0.99	0.08	92,92,92,92	0
81	MG	1	3629	1/1	0.99	0.06	86,86,86,86	0

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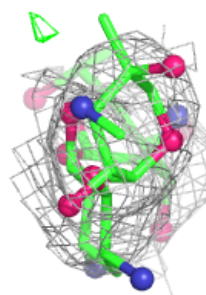
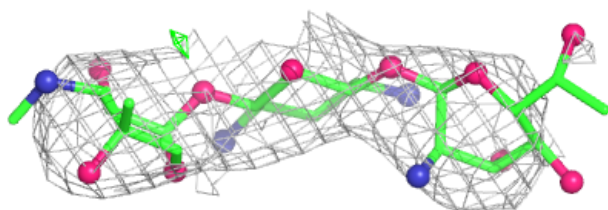
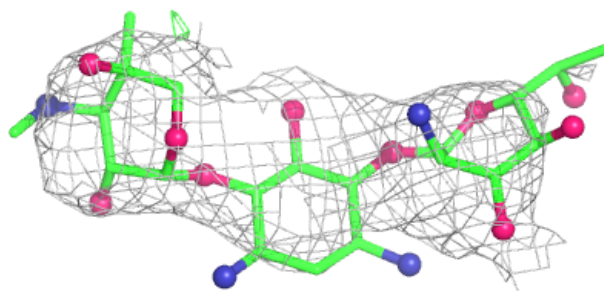
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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	MG	5	3459	1/1	0.99	0.05	124,124,124,124	0
81	MG	1	3702	1/1	0.99	0.09	101,101,101,101	0
81	MG	5	3639	1/1	0.99	0.10	85,85,85,85	0
81	MG	5	3447	1/1	0.99	0.11	92,92,92,92	0
81	MG	5	3686	1/1	0.99	0.08	108,108,108,108	0
81	MG	5	3641	1/1	0.99	0.06	90,90,90,90	0
81	MG	5	3664	1/1	0.99	0.09	111,111,111,111	0
81	MG	5	3425	1/1	0.99	0.07	81,81,81,81	0
81	MG	5	3690	1/1	0.99	0.07	100,100,100,100	0
81	MG	1	3759	1/1	0.99	0.04	112,112,112,112	0
81	MG	1	3482	1/1	0.99	0.05	136,136,136,136	0
81	MG	1	3403	1/1	0.99	0.10	99,99,99,99	0
81	MG	1	3494	1/1	0.99	0.05	102,102,102,102	0
81	MG	5	3770	1/1	0.99	0.03	106,106,106,106	0
81	MG	5	3496	1/1	0.99	0.07	102,102,102,102	0
81	MG	5	3453	1/1	0.99	0.06	112,112,112,112	0
81	MG	5	3548	1/1	0.99	0.05	90,90,90,90	0
83	ZN	O4	500	1/1	0.99	0.03	192,192,192,192	0
83	ZN	Q2	501	1/1	0.99	0.03	170,170,170,170	0
83	ZN	Q3	501	1/1	0.99	0.03	177,177,177,177	0
83	ZN	d6	500	1/1	0.99	0.02	147,147,147,147	0
81	MG	5	3530	1/1	0.99	0.04	104,104,104,104	0
81	MG	5	3531	1/1	0.99	0.03	99,99,99,99	0
81	MG	5	3610	1/1	0.99	0.04	106,106,106,106	0
83	ZN	o4	500	1/1	0.99	0.04	143,143,143,143	0
81	MG	1	3787	1/1	0.99	0.09	157,157,157,157	0
83	ZN	q3	501	1/1	0.99	0.03	138,138,138,138	0
83	ZN	Q0	500	1/1	1.00	0.02	98,98,98,98	0
83	ZN	D9	101	1/1	1.00	0.02	124,124,124,124	0
83	ZN	D6	500	1/1	1.00	0.02	149,149,149,149	0
83	ZN	o7	501	1/1	1.00	0.07	115,115,115,115	0
83	ZN	q0	500	1/1	1.00	0.01	100,100,100,100	0
81	MG	5	3588	1/1	1.00	0.03	88,88,88,88	0
83	ZN	O7	101	1/1	1.00	0.02	130,130,130,130	0

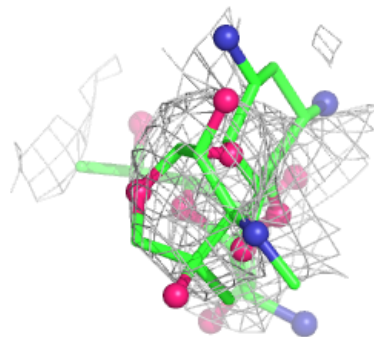
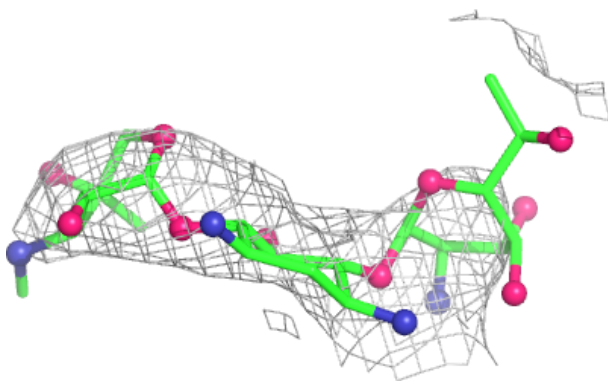
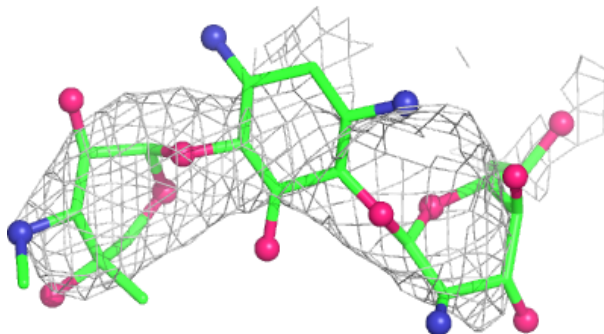
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

Electron density around GET 2 2014:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

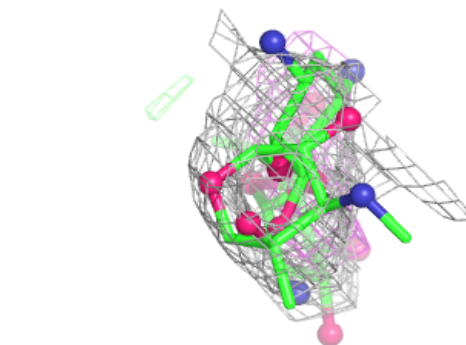
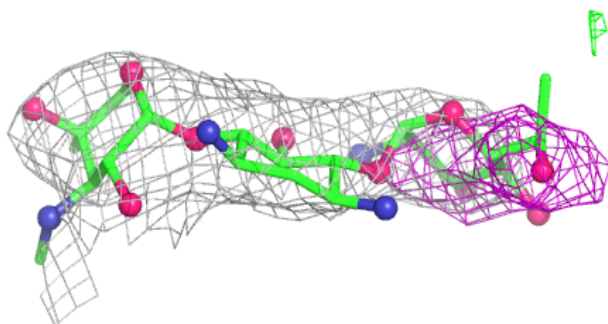
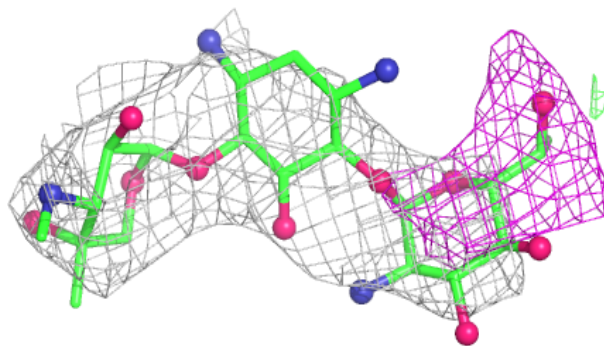
**Electron density around GET 6 2015:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

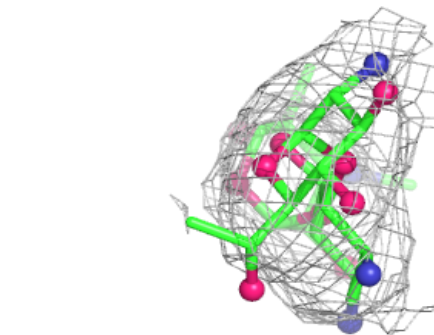
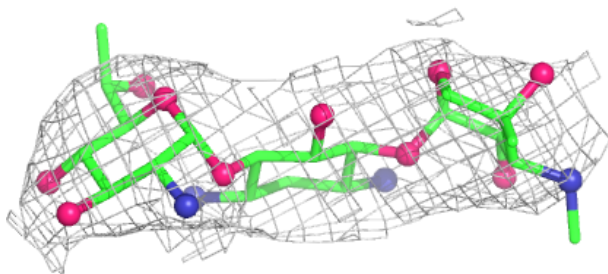
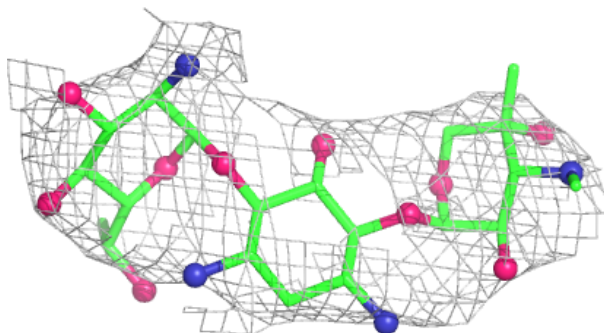


Electron density around GET 5 3850:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

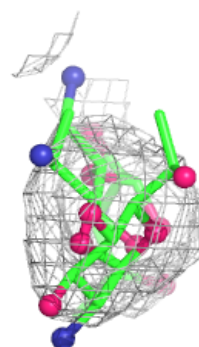
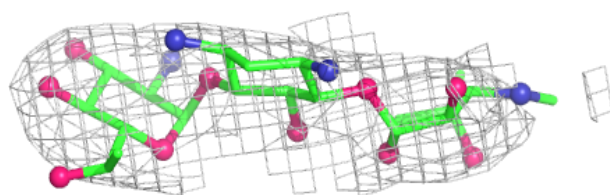
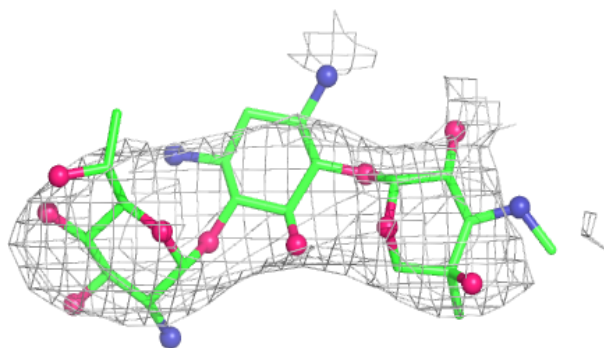
**Electron density around GET 5 3851:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

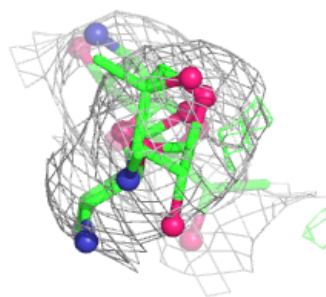
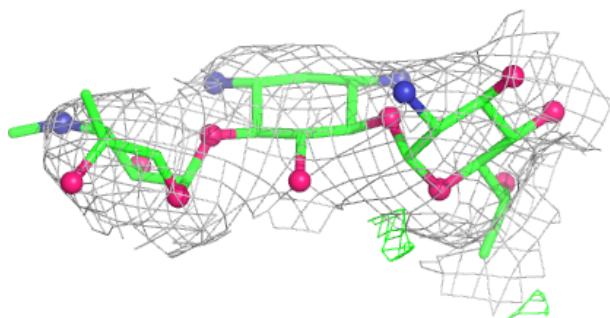
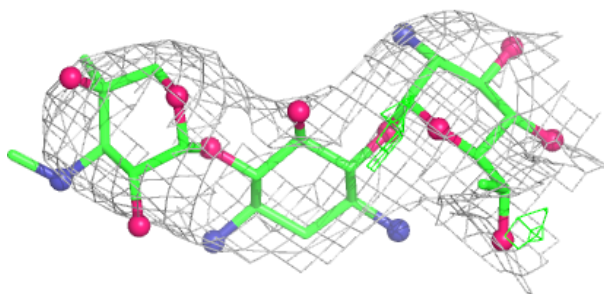


Electron density around GET 1 3812:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

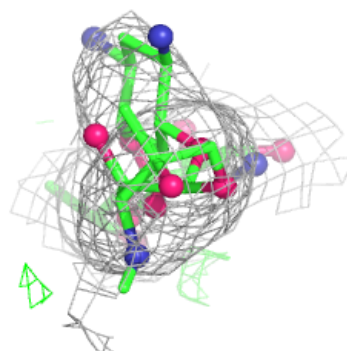
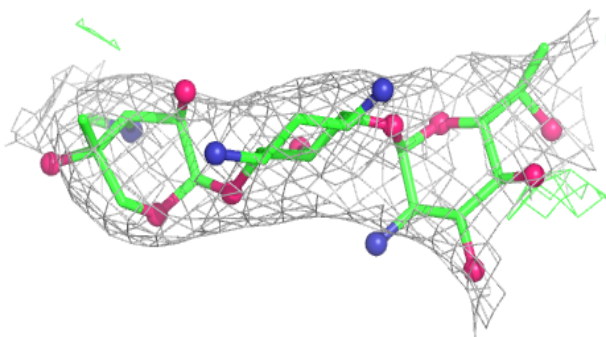
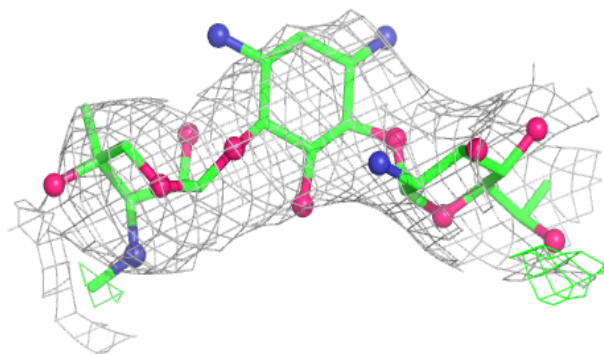
**Electron density around GET 2 2013:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

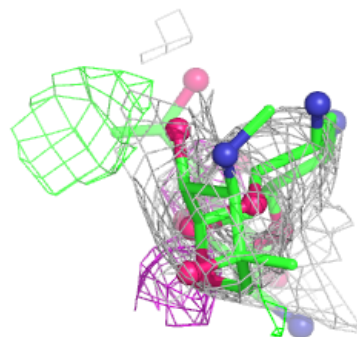
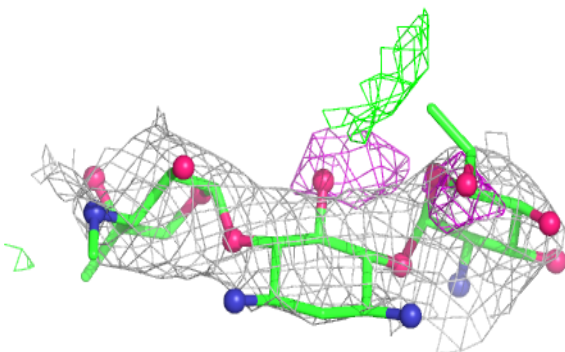
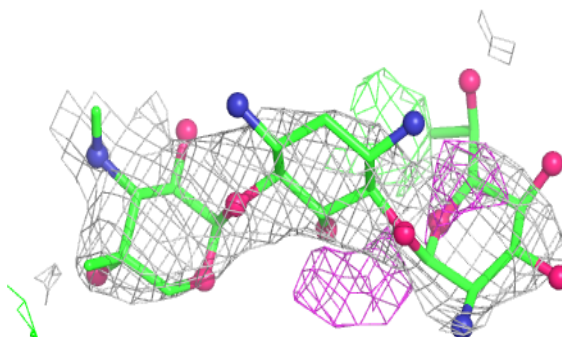


Electron density around GET 1 3808:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

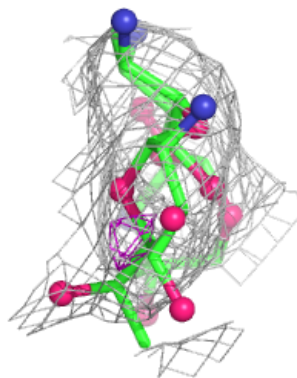
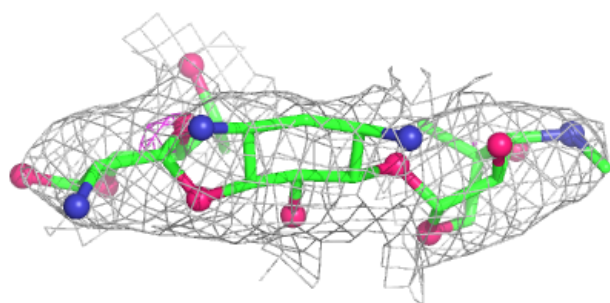
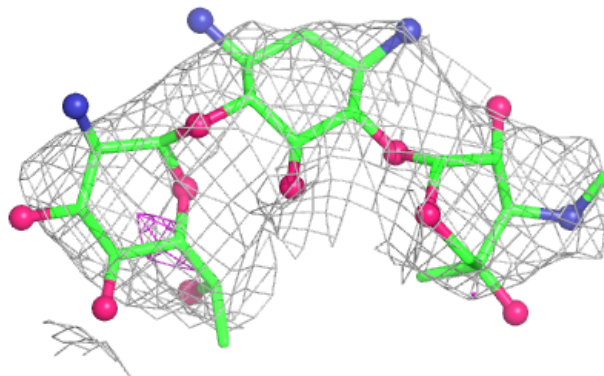
**Electron density around GET 1 3809:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

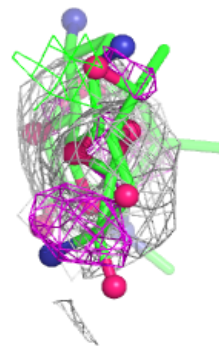
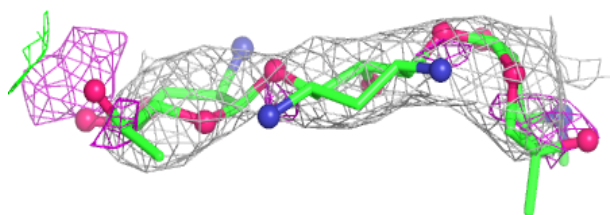
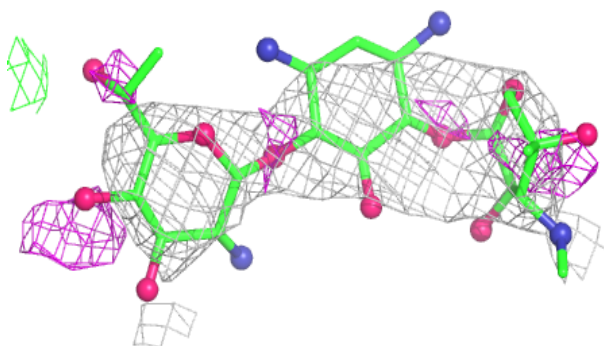


Electron density around GET 1 3810:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

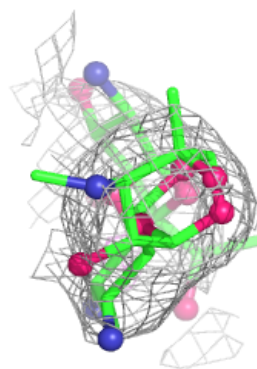
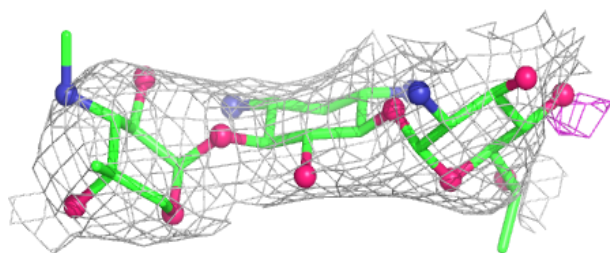
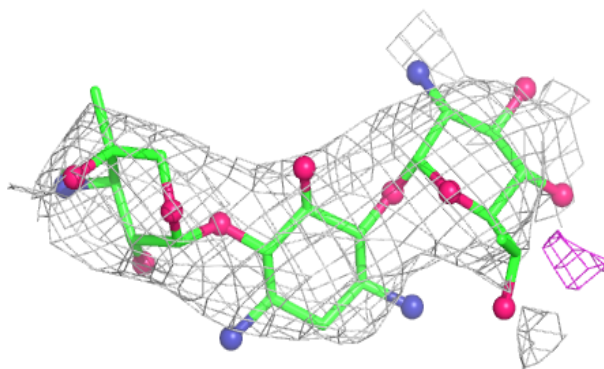
**Electron density around GET 1 3813:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

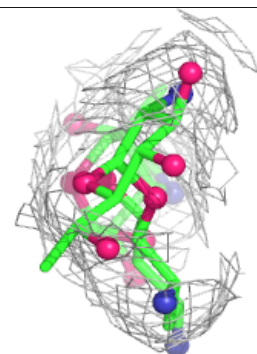
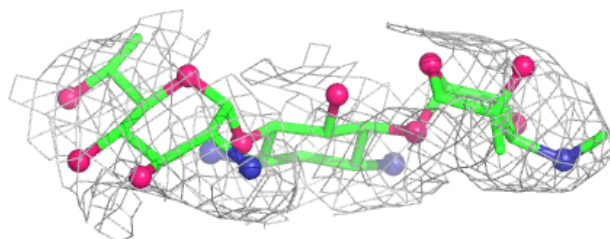
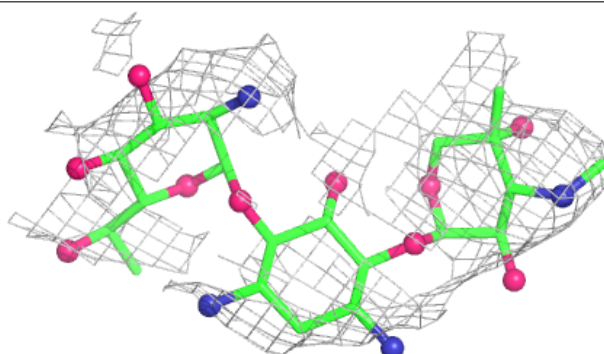


Electron density around GET n6 201:

$2mF_o - DF_c$ (at 0.7 rmsd) in gray
 $mF_o - DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)

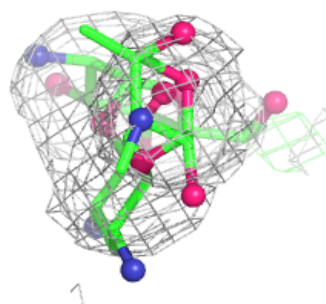
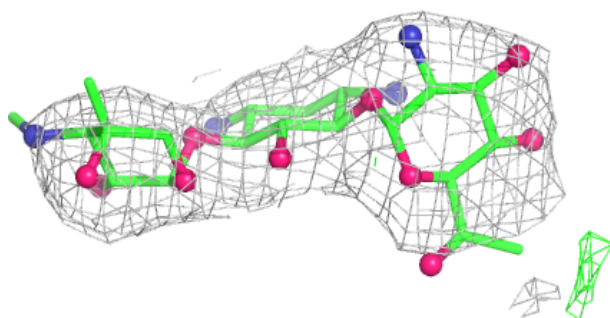
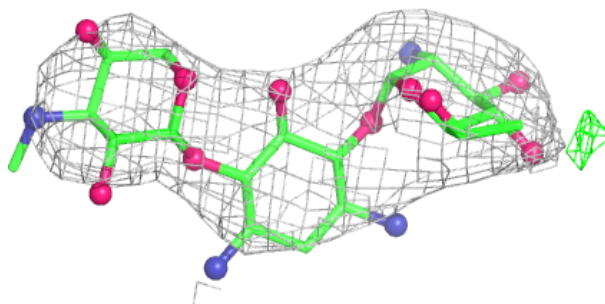
**Electron density around GET 1 3811:**

$2mF_o - DF_c$ (at 0.7 rmsd) in gray
 $mF_o - DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)

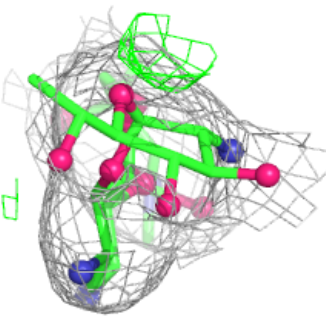
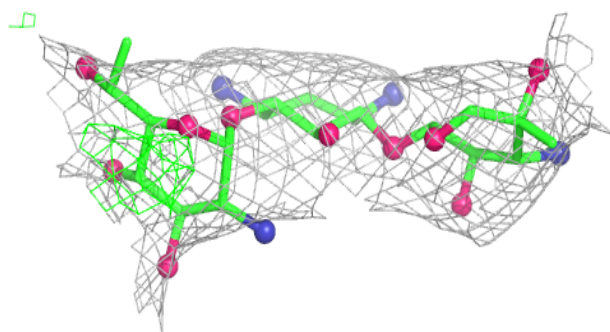
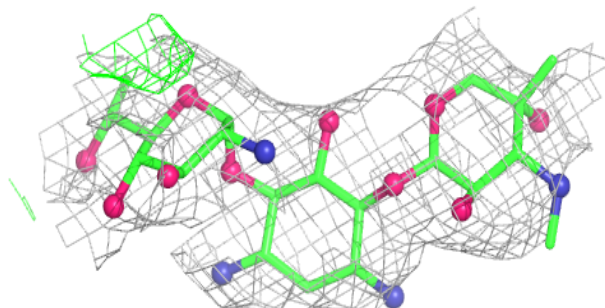


Electron density around GET 6 2014:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

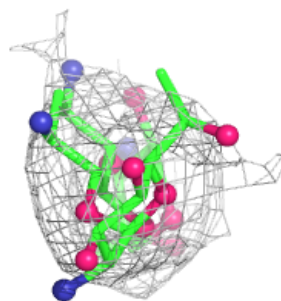
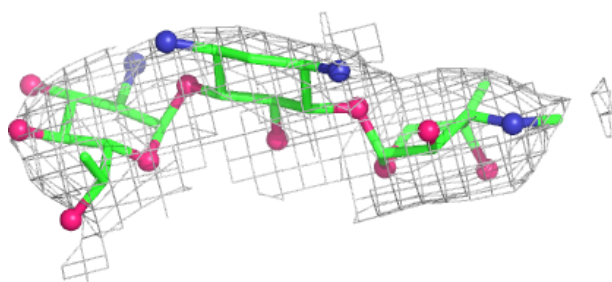
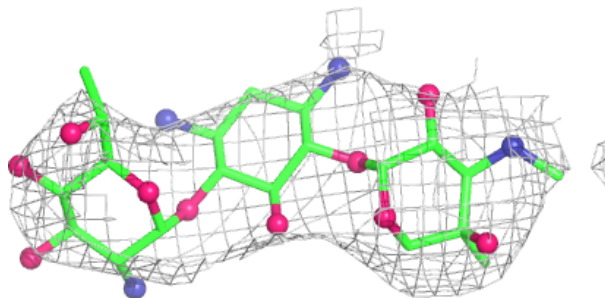
**Electron density around GET 5 3844:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

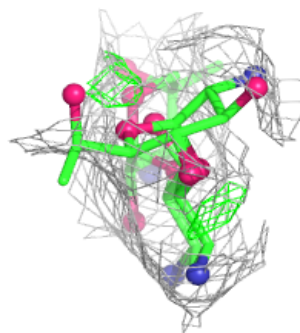
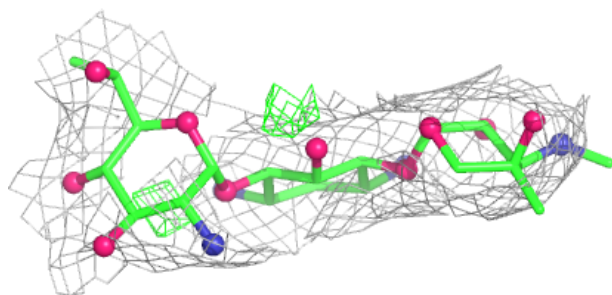
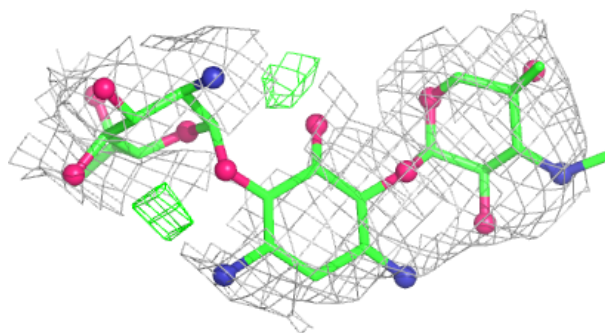


Electron density around GET 5 3846:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

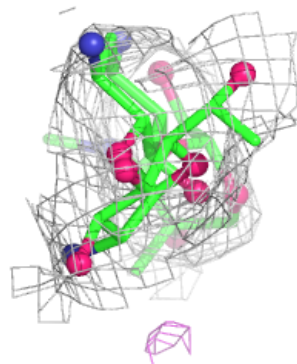
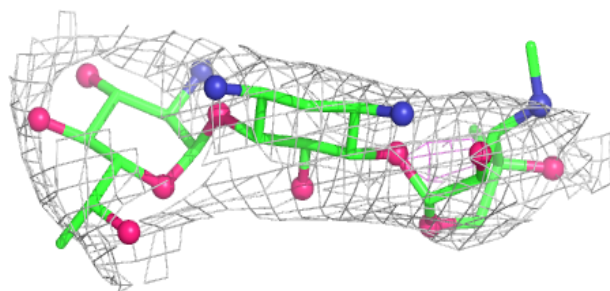
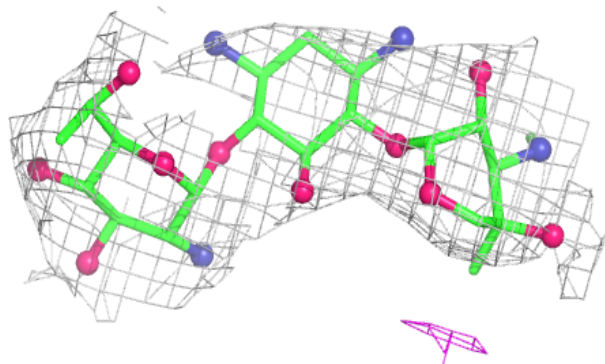
**Electron density around GET 5 3848:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

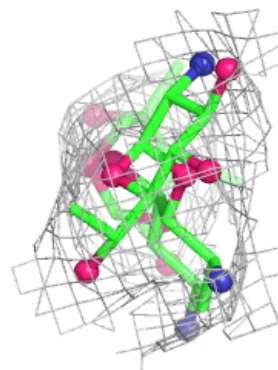
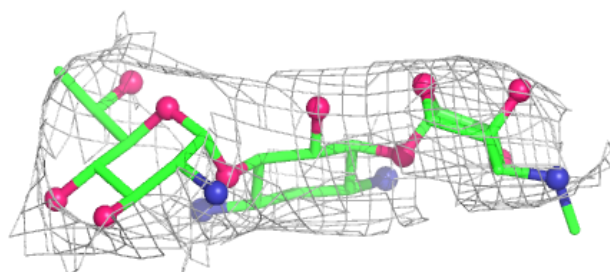
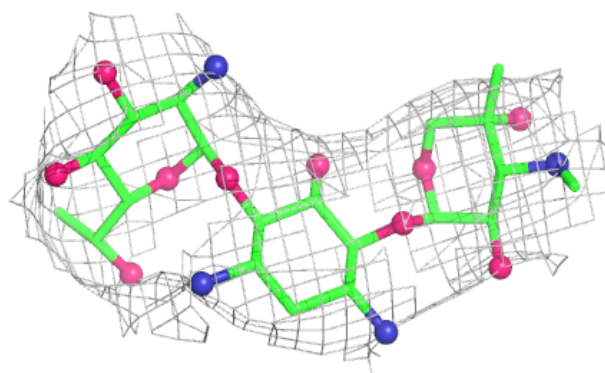


Electron density around GET 2 2012:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

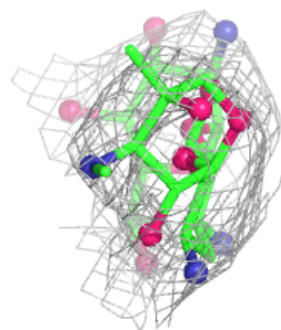
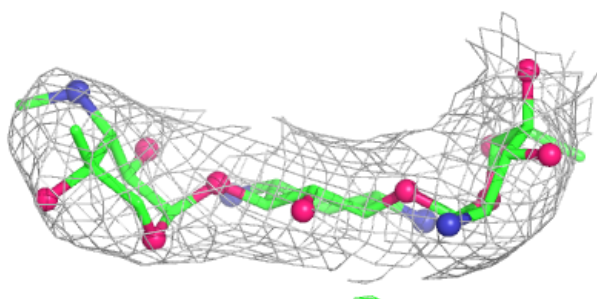
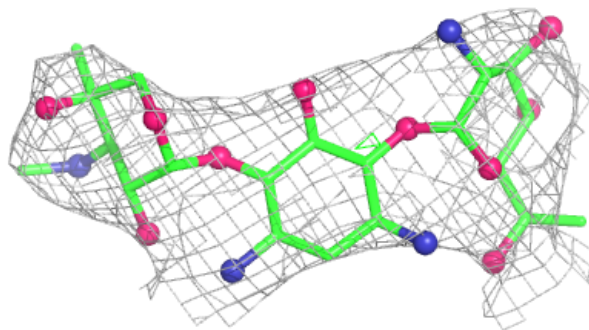
**Electron density around GET 6 2013:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

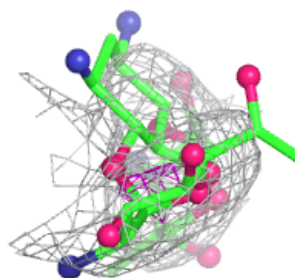
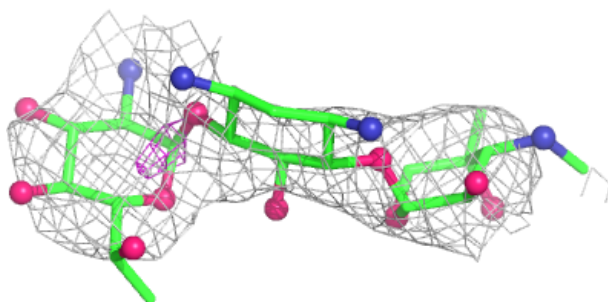
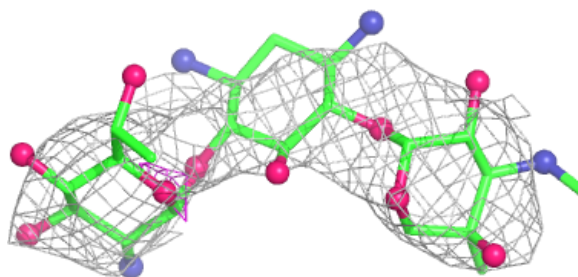


Electron density around GET 5 3845:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

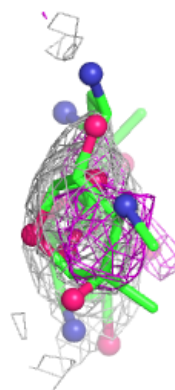
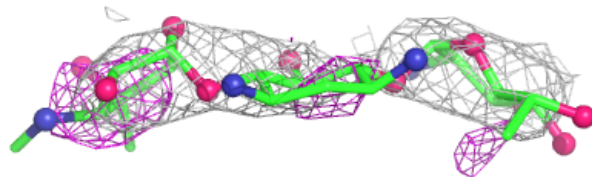
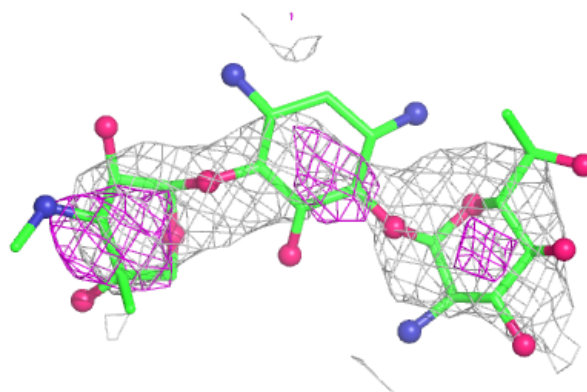
**Electron density around GET 5 3847:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around GET 5 3849:

$2mF_o - DF_c$ (at 0.7 rmsd) in gray
 $mF_o - DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)



6.5 Other polymers ⓘ

There are no such residues in this entry.