Full wwPDB X-ray Structure Validation Report (i)

Feb 16, 2017 – 09:32 am GMT

PDB ID	:	4U53
Title	:	Crystal structure of Deoxynivalenol bound to the yeast 80S ribosome
Authors	:	Garreau de Loubresse, N.; Prokhorova, I.; Yusupova, G.; Yusupov, M.
Deposited on	:	2014-07-24
Resolution	:	3.30 Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
http://wwpdb.org/validation/2016/XrayValidationReportHelp
with specific help available everywhere you see the (i) symbol.

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

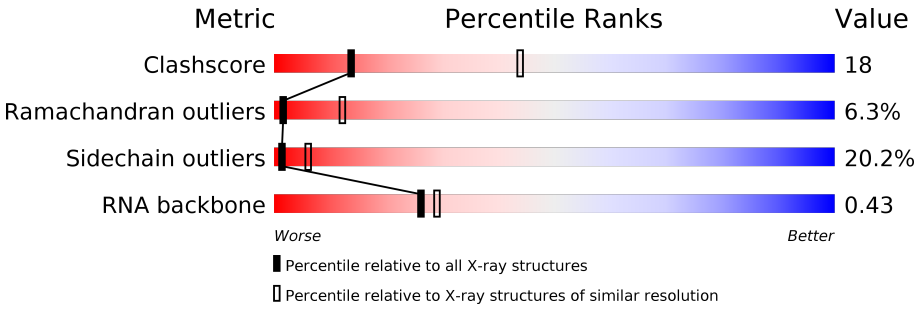
MolProbity	:	4.02b-467
Mogul	:	1.7.2 (RC1), CSD as538be (2017)
Xtriage (Phenix)	:	1.9-1692
EDS	:	FAILED
Percentile statistics	:	20161228.v01 (using entries in the PDB archive December 28th 2016)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	recalc28986

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.30 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
Clashscore	112137	1100 (3.36-3.24)
Ramachandran outliers	110173	1081 (3.36-3.24)
Sidechain outliers	110143	1080 (3.36-3.24)
RNA backbone	2435	1111 (3.80-2.80)

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

Note EDS failed to run properly.

Mol	Chain	Length	Quality of chain
1	2	1800	29% 46% 19%
1	6	1800	31% 46% 21%
2	S0	251	21% 45% 16% 18%
2	s0	251	63% 17% 18%
3	S1	254	17% 48% 17% 16%
3	s1	254	66% 18% 15%

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Mol	Chain	Length	Quality of chain
4	S2	253	28% 42% 15% 14%
4	s2	253	62% 23% • 14%
5	S3	239	29% 49% 14% • 7%
5	s3	239	71% 21% • 7%
6	S4	260	27% 56% 15% •
6	s4	260	80% 18% •
7	S5	224	23% 55% 12% • 8%
7	s5	224	72% 19% 8%
8	S6	236	36% 47% 12% •
8	s6	236	74% 17% • 8%
9	S7	189	29% 49% 17% • •
9	s7	189	72% 24% • •
10	S8	200	23% 56% 14% • 6%
10	s8	200	77% 17% • 6%
11	S9	196	24% 50% 18% • 6%
11	s9	196	69% 23% • 6%
12	C0	105	21% 56% 13% • 9%
12	c0	105	68% 20% • 9%
13	C1	155	30% 56% 13% •
13	c1	155	75% 18% • 6%
14	C2	142	27% 42% 15% • 13%
14	c2	142	64% 22% • 13%
15	C3	150	32% 51% 15% •
15	c3	150	70% 29% •
16	C4	136	28% 48% 14% • 7%

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Mol	Chain	Length	Quality of chain
16	c4	136	67% 26% 6%
17	C5	141	23% 51% 12% 12%
17	c5	141	76% 17%
18	C6	142	27% 49% 23%
18	c6	142	74% 25%
19	C7	136	27% 43% 15% 12%
19	c7	136	68% 16% 14%
20	C8	145	26% 57% 16%
20	c8	145	75% 22%
21	C9	143	25% 62% 13%
21	c9	143	81% 17%
22	D0	120	18% 55% 17% 11%
22	d0	120	60% 31% 8%
23	D1	87	26% 49% 22%
23	d1	87	69% 30%
24	D2	129	31% 57% 11%
24	d2	129	88% 10%
25	D3	144	31% 53% 14%
25	d3	144	77% 23%
26	D4	134	31% 56% 13%
26	d4	134	78% 21%
27	D5	107	11% 34% 19% 35%
27	d5	107	54% 10% 36%
28	D6	97	21% 47% 26% 6%
28	d6	97	71% 26%

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Mol	Chain	Length	Quality of chain
29	D7	81	37% 51% 11%
29	d7	81	85% 14%
30	D8	66	29% 47% 18% 5%
30	d8	66	73% 21% 5%
31	D9	55	27% 55% 15%
31	d9	55	67% 25%
32	E0	60	45% 45% 7%
33	E1	76	16% 47% 24% 7% 7%
33	e1	76	57% 38%
34	SR	318	37% 55% 8%
34	sR	318	85% 15%
35	SM	273	28% 21% 10% 42%
35	sM	273	29% 9% 62%
36	1	3396	26% 41% 22% 7%
36	5	3396	27% 40% 22% 7%
37	3	121	38% 47% 13%
37	7	121	29% 45% 20% 6%
38	4	158	29% 45% 22%
38	8	158	28% 50% 20%
39	L2	253	26% 58% 14%
39	l2	253	77% 22%
40	L3	386	35% 49% 16%
40	l3	386	78% 20%
41	L4	361	32% 51% 14%
41	l4	361	76% 23%

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Mol	Chain	Length	Quality of chain
42	L5	296	33% 51% 15%
42	l5	296	78% 19%
43	L6	175	35% 45% 9% 11%
43	l6	175	75% 14% 10%
44	L7	243	35% 47% 9% 9%
44	l7	243	77% 13% 8%
45	L8	255	32% 44% 15% 9%
45	l8	255	71% 19% 9%
46	L9	191	24% 61% 15%
46	l9	191	74% 25%
47	M0	220	24% 59% 12%
47	m0	220	75% 20%
48	M1	173	26% 49% 19%
48	m1	173	71% 25%
49	M3	198	34% 52% 12%
49	m3	198	76% 21%
50	M4	137	31% 55% 12%
50	m4	137	82% 18%
51	M5	203	32% 55% 14%
51	m5	203	80% 20%
52	M6	198	38% 48% 13%
52	m6	198	78% 20%
53	M7	183	40% 47% 13%
53	m7	183	70% 15% 15%
54	M8	185	35% 57% 8%

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Mol	Chain	Length	Quality of chain
54	m8	185	79% 19%
55	M9	188	35% 53% 12%
55	m9	188	84% 16%
56	N0	172	33% 53% 12%
56	n0	172	78% 22%
57	N1	159	33% 52% 14%
57	n1	159	77% 20%
58	N2	120	28% 46% 10% 17%
58	n2	120	63% 18% 18%
59	N3	136	38% 48% 14%
59	n3	136	88% 12%
60	N4	155	32% 27% 37%
60	n4	155	70% 15% 13%
61	N5	141	35% 38% 13% 14%
61	n5	141	63% 22% 15%
62	N6	126	33% 48% 18%
62	n6	126	79% 21%
63	N7	135	27% 53% 19%
63	n7	135	76% 23%
64	N8	148	37% 48% 13%
64	n8	148	79% 20%
65	N9	58	36% 52% 10%
65	n9	58	72% 26%
66	O0	104	22% 59% 12% 7%
66	o0	104	79% 17%

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Mol	Chain	Length	Quality of chain
67	O1	112	30% 53% 13%
67	o1	112	68% 27%
68	O2	129	29% 53% 16%
68	o2	129	76% 20%
69	O3	106	44% 45% 8%
69	o3	106	80% 17%
70	O4	119	29% 51% 13% 6%
70	o4	119	72% 22% 6%
71	O5	119	29% 59% 10%
71	o5	119	78% 21%
72	O6	99	39% 42% 15%
72	o6	99	70% 30%
73	O7	87	39% 46% 14%
73	o7	87	84% 13%
74	O8	77	18% 65% 17%
74	o8	77	75% 23%
75	O9	50	34% 54% 12%
75	o9	50	84% 16%
76	Q0	52	42% 42% 13%
76	q0	52	69% 29%
77	Q1	25	32% 48% 20%
77	q1	25	64% 32%
78	Q2	105	35% 49% 15%
78	q2	105	82% 17%
79	Q3	91	34% 54% 12%

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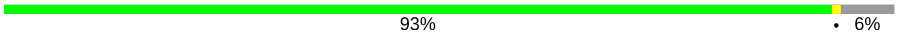
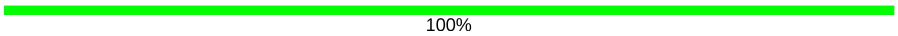
Mol	Chain	Length	Quality of chain
79	q3	91	
80	e0	62	
81	m2	160	
82	p0	311	
83	p1	47	
84	p2	46	

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
86	OHX	1	3959	-	-	X	-
86	OHX	1	3961	-	-	X	-
86	OHX	1	3972	-	-	X	-
86	OHX	1	4004	-	-	X	-
86	OHX	1	4032	-	-	X	-
86	OHX	1	4045	-	-	X	-
86	OHX	1	4056	-	-	X	-
86	OHX	1	4057	-	-	X	-
86	OHX	1	4132	-	-	X	-
86	OHX	1	4140	-	-	X	-
86	OHX	1	4156	-	-	X	-
86	OHX	1	4163	-	-	X	-
86	OHX	1	4172	-	-	X	-
86	OHX	1	4180	-	-	X	-
86	OHX	1	4197	-	-	X	-
86	OHX	2	2031	-	-	X	-
86	OHX	2	2044	-	-	X	-
86	OHX	2	2090	-	-	X	-
86	OHX	2	2099	-	-	X	-
86	OHX	2	2131	-	-	X	-
86	OHX	2	2146	-	-	X	-
86	OHX	5	3936	-	-	X	-
86	OHX	5	3955	-	-	X	-
86	OHX	5	3966	-	-	X	-
86	OHX	5	3971	-	-	X	-
86	OHX	5	3995	-	-	X	-
86	OHX	5	3996	-	-	X	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
86	OHX	5	4005	-	-	X	-
86	OHX	5	4015	-	-	X	-
86	OHX	5	4060	-	-	X	-
86	OHX	5	4084	-	-	X	-
86	OHX	5	4096	-	-	X	-
86	OHX	5	4137	-	-	X	-
86	OHX	5	4193	-	-	X	-
86	OHX	5	4195	-	-	X	-
86	OHX	5	4211	-	-	X	-
86	OHX	5	4228	-	-	X	-
86	OHX	5	4236	-	-	X	-
86	OHX	6	2058	-	-	X	-
86	OHX	6	2118	-	-	X	-
86	OHX	6	2124	-	-	X	-
86	OHX	6	2145	-	-	X	-
86	OHX	6	2170	-	-	X	-
86	OHX	6	2182	-	-	X	-
86	OHX	6	2189	-	-	X	-
86	OHX	8	218	-	-	X	-
86	OHX	8	226	-	-	X	-
86	OHX	O1	201	-	-	X	-
86	OHX	Q2	502	-	-	X	-

2 Entry composition

There are 88 unique types of molecules in this entry. The entry contains 411183 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	1750	Total	C	N	O	P	0	0	0
			37283	16668	6591	12274	1750			
1	6	1795	Total	C	N	O	P	0	0	0
			38238	17095	6758	12590	1795			

- 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	186	Total	C	N	O	0	0	0
			1491	957	267	267			

- 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	96	Total	C	N	O	S	0	0	0
			773	500	126	145	2			
12	c0	96	Total	C	N	O	S	0	0	0
			762	491	125	144	2			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C0	89	ALA	GLY	conflict	UNP Q08745
c0	89	ALA	GLY	conflict	UNP Q08745

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	C1	155	Total	C	N	O	S	0	0	0
			1214	775	230	206	3			
13	c1	146	Total	C	N	O	S	0	0	0
			1168	747	221	197	3			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C1	147	ALA	GLY	conflict	UNP P0CX47
c1	147	ALA	GLY	conflict	UNP P0CX47

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	C2	124	Total	C	N	O	S	0	0	0
			892	562	156	172	2			
14	c2	124	Total	C	N	O	S	0	0	0
			892	562	156	172	2			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C2	104	ALA	GLY	conflict	UNP P48589
C2	110	ALA	GLY	conflict	UNP P48589
c2	104	ALA	GLY	conflict	UNP P48589
c2	110	ALA	GLY	conflict	UNP P48589

- 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	124	Total	C	N	O	S	0	0	0
			977	622	182	166	7			
17	c5	135	Total	C	N	O	S	0	0	0
			1039	658	196	178	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			

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	c6	142	Total	C	N	O	0	0	0
			1111	711	204	196			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	C7	120	Total	C	N	O	S	0	0	0
			926	577	177	170	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	107	Total	C	N	O	S	0	0	0
			855	539	156	159	1			
22	d0	110	Total	C	N	O	S	0	0	0
			882	554	161	166	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			
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			

- 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	76	Total	C	N	O	S	0	0	0
			608	388	117	99	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
			2441	1544	419	470	8			
34	sR	318	Total	C	N	O	S	0	0	0
			2442	1544	418	472	8			

- Molecule 35 is a protein called Suppressor protein STM1.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
35	SM	159	Total	C	N	O	0	0	0
			1104	652	221	231			
35	sM	104	Total	C	N	O	0	0	0
			680	403	140	137			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	1	3149	Total	C	N	O	P	0	0	0
			67355	30086	12142	21978	3149			
36	5	3150	Total	C	N	O	P	0	0	0
			67376	30095	12145	21987	3149			

- 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	158	Total	C	N	O	P	0	0	0
			3353	1500	586	1109	158			

- 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	296	Total	C	N	O	S	0	0	0
			2375	1501	414	458	2			
42	l5	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	l6	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	l7	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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	l8	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	l9	191	Total	C	N	O	S	0	0	0
			1518	963	274	277	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	M0	211	Total	C	N	O	S	0	0	0
			1705	1083	322	294	6			
47	m0	213	Total	C	N	O	S	0	0	0
			1722	1094	325	297	6			

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

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			
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	0	0	0
			1420	882	281	257			
53	m7	155	Total	C	N	O	0	0	0
			1227	764	238	225			

- 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	0	0	0
			1521	935	326	260			
55	m9	188	Total	C	N	O	0	0	0
			1521	935	326	260			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	N0	172	Total	C	N	O	S	0	0	0
			1445	930	267	244	4			
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	100	Total	C	N	O	0	0	0
			796	516	131	149			
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	136	Total	C	N	O	S	0	0	0
			1003	628	189	179	7			
59	n3	136	Total	C	N	O	S	0	0	0
			1003	628	189	179	7			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
60	N4	98	Total	C	N	O	S	0	0	0
			699	443	137	118	1			
60	n4	135	Total	C	N	O	S	0	0	0
			1038	651	206	180	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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
61	n5	120	Total 959	C 617	N 168	O 172	S 2	0	0	0

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

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

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

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

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

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

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

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

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

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

- 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			
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	87	Total	C	N	O	S	0	0	0
			681	414	148	114	5			
73	o7	87	Total	C	N	O	S	0	0	0
			681	414	148	114	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	50	Total	C	N	O	S	0	0	0
			436	272	97	65	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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
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 40S ribosomal protein S30-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
80	e0	62	Total	C	N	O	S	0	0	0
			491	309	101	80	1			

- Molecule 81 is a protein called Unknown Protein m2.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
81	m2	150	Total	C	N	O	0	0	0
			750	450	150	150			

- Molecule 82 is a protein called 60S acidic ribosomal protein P0.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
82	p0	143	Total	C	N	O	S	0	0	0
			1077	687	192	195	3			

- Molecule 83 is a protein called Unknown Protein p1.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
83	p1	47	Total 235	C 141	N 47	O 47	0	0	0

- Molecule 84 is a protein called Unknown Protein p2.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
84	p2	46	Total 230	C 138	N 46	O 46	0	0	0

- Molecule 85 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	L7	2	Total 2	Mg 2	0	0
85	m6	2	Total 2	Mg 2	0	0
85	n8	2	Total 2	Mg 2	0	0
85	q3	2	Total 2	Mg 2	0	0
85	o1	1	Total 1	Mg 1	0	0
85	N5	1	Total 1	Mg 1	0	0
85	6	147	Total 147	Mg 147	0	0
85	sM	2	Total 2	Mg 2	0	0
85	m5	2	Total 2	Mg 2	0	0
85	l3	3	Total 3	Mg 3	0	0
85	M1	1	Total 1	Mg 1	0	0
85	n0	2	Total 2	Mg 2	0	0
85	d6	1	Total 1	Mg 1	0	0
85	2	123	Total 123	Mg 123	0	0
85	O3	1	Total 1	Mg 1	0	0
85	L4	2	Total 2	Mg 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
85	l7	2	Total Mg 2 2	0	0
85	M5	2	Total Mg 2 2	0	0
85	o0	1	Total Mg 1 1	0	0
85	S2	1	Total Mg 1 1	0	0
85	L8	1	Total Mg 1 1	0	0
85	D3	1	Total Mg 1 1	0	0
85	o4	1	Total Mg 1 1	0	0
85	M9	2	Total Mg 2 2	0	0
85	q0	1	Total Mg 1 1	0	0
85	c8	2	Total Mg 2 2	0	0
85	M0	3	Total Mg 3 3	0	0
85	c1	1	Total Mg 1 1	0	0
85	5	496	Total Mg 496 496	0	0
85	L5	1	Total Mg 1 1	0	0
85	O7	1	Total Mg 1 1	0	0
85	l4	1	Total Mg 1 1	0	0
85	n9	1	Total Mg 1 1	0	0
85	1	471	Total Mg 471 471	0	0
85	D0	1	Total Mg 1 1	0	0
85	S8	1	Total Mg 1 1	0	0
85	m1	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
85	O2	2	Total Mg 2 2	0	0
85	s9	1	Total Mg 1 1	0	0
85	o3	2	Total Mg 2 2	0	0
85	d3	3	Total Mg 3 3	0	0
85	M3	3	Total Mg 3 3	0	0
85	N3	3	Total Mg 3 3	0	0
85	4	20	Total Mg 20 20	0	0
85	n6	2	Total Mg 2 2	0	0
85	L2	3	Total Mg 3 3	0	0
85	l5	3	Total Mg 3 3	0	0
85	C3	1	Total Mg 1 1	0	0
85	M7	4	Total Mg 4 4	0	0
85	N8	5	Total Mg 5 5	0	0
85	s1	1	Total Mg 1 1	0	0
85	l9	1	Total Mg 1 1	0	0
85	s8	2	Total Mg 2 2	0	0
85	c7	1	Total Mg 1 1	0	0
85	7	18	Total Mg 18 18	0	0
85	n3	2	Total Mg 2 2	0	0
85	L3	3	Total Mg 3 3	0	0
85	l2	2	Total Mg 2 2	0	0

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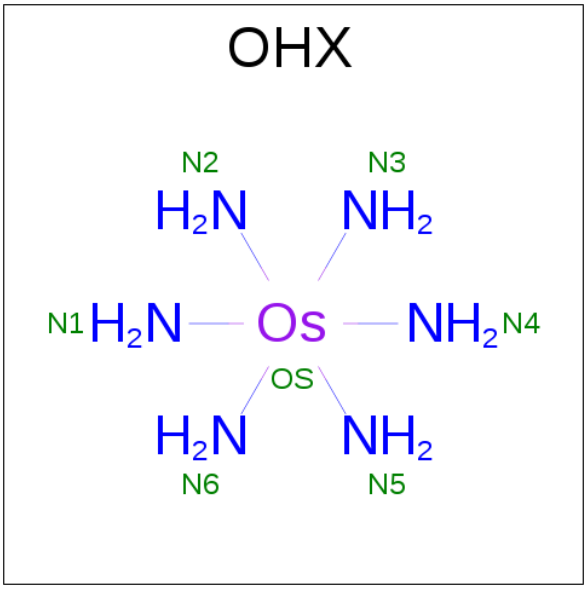
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
85	8	15	Total Mg 15 15	0	0
85	m0	1	Total Mg 1 1	0	0
85	M6	1	Total Mg 1 1	0	0
85	N0	2	Total Mg 2 2	0	0
85	3	14	Total Mg 14 14	0	0
85	m7	5	Total Mg 5 5	0	0

- Molecule 86 is osmium (III) hexammine (three-letter code: OHX) (formula: $H_{12}N_6Os$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
86	2	1	Total N Os 7 6 1	0	0
86	2	1	Total N Os 7 6 1	0	0
86	2	1	Total N Os 7 6 1	0	0
86	2	1	Total N Os 7 6 1	0	0
86	2	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
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86	2	1	Total N Os 7 6 1	0	0
86	2	1	Total N Os 7 6 1	0	0
86	2	1	Total N Os 7 6 1	0	0
86	2	1	Total N Os 7 6 1	0	0
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86	S8	1	Total N Os 7 6 1	0	0
86	C3	1	Total N Os 7 6 1	0	0
86	C5	1	Total N Os 7 6 1	0	0
86	C8	1	Total N Os 7 6 1	0	0
86	D3	1	Total N Os 7 6 1	0	0
86	D9	1	Total N Os 7 6 1	0	0
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86	1	1	Total N Os 7 6 1	0	0
86	1	1	Total N Os 7 6 1	0	0
86	1	1	Total N Os 7 6 1	0	0
86	1	1	Total N Os 7 6 1	0	0
86	1	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
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86	4	1	Total N Os 7 6 1	0	0
86	4	1	Total N Os 7 6 1	0	0
86	4	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	L4	1	Total	N	Os	0	0
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86	M0	1	Total	N	Os	0	0
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86	M5	1	Total	N	Os	0	0
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86	M7	1	Total	N	Os	0	0
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86	M7	1	Total	N	Os	0	0
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86	M9	1	Total	N	Os	0	0
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86	N9	1	Total	N	Os	0	0
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86	O1	1	Total	N	Os	0	0
			7	6	1		
86	O3	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
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86	O6	1	Total N Os 7 6 1	0	0
86	O7	1	Total N Os 7 6 1	0	0
86	O9	1	Total N Os 7 6 1	0	0
86	Q2	1	Total N Os 7 6 1	0	0
86	6	1	Total N Os 7 6 1	0	0
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86	6	1	Total N Os 7 6 1	0	0
86	6	1	Total N Os 7 6 1	0	0
86	6	1	Total N Os 7 6 1	0	0
86	6	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	6	1	Total 7	N 6	Os 1	0	0
86	6	1	Total 7	N 6	Os 1	0	0
86	6	1	Total 7	N 6	Os 1	0	0
86	6	1	Total 7	N 6	Os 1	0	0
86	6	1	Total 7	N 6	Os 1	0	0
86	6	1	Total 7	N 6	Os 1	0	0
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86	6	1	Total 7	N 6	Os 1	0	0
86	6	1	Total 7	N 6	Os 1	0	0
86	s1	1	Total 7	N 6	Os 1	0	0
86	s1	1	Total 7	N 6	Os 1	0	0
86	s8	1	Total 7	N 6	Os 1	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	c5	1	Total	N	Os	0	0
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86	c8	1	Total	N	Os	0	0
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86	d4	1	Total	N	Os	0	0
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86	d9	1	Total	N	Os	0	0
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86	sR	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
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			7	6	1		
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			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	5	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
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			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	7	1	Total	N	Os	0	0
			7	6	1		
86	7	1	Total	N	Os	0	0
			7	6	1		
86	7	1	Total	N	Os	0	0
			7	6	1		
86	7	1	Total	N	Os	0	0
			7	6	1		
86	7	1	Total	N	Os	0	0
			7	6	1		
86	7	1	Total	N	Os	0	0
			7	6	1		
86	7	1	Total	N	Os	0	0
			7	6	1		
86	7	1	Total	N	Os	0	0
			7	6	1		
86	7	1	Total	N	Os	0	0
			7	6	1		
86	7	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	l3	1	Total	N	Os	0	0
			7	6	1		
86	l3	1	Total	N	Os	0	0
			7	6	1		
86	l4	1	Total	N	Os	0	0
			7	6	1		
86	l4	1	Total	N	Os	0	0
			7	6	1		
86	l5	1	Total	N	Os	0	0
			7	6	1		
86	l5	1	Total	N	Os	0	0
			7	6	1		
86	l5	1	Total	N	Os	0	0
			7	6	1		
86	l5	1	Total	N	Os	0	0
			7	6	1		
86	l9	1	Total	N	Os	0	0
			7	6	1		
86	m0	1	Total	N	Os	0	0
			7	6	1		
86	m0	1	Total	N	Os	0	0
			7	6	1		
86	m1	1	Total	N	Os	0	0
			7	6	1		
86	m4	1	Total	N	Os	0	0
			7	6	1		
86	m5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
86	m6	1	Total N Os 7 6 1	0	0
86	m7	1	Total N Os 7 6 1	0	0
86	m8	1	Total N Os 7 6 1	0	0
86	n3	1	Total N Os 7 6 1	0	0
86	n3	1	Total N Os 7 6 1	0	0
86	n6	1	Total N Os 7 6 1	0	0
86	n9	1	Total N Os 7 6 1	0	0
86	o2	1	Total N Os 7 6 1	0	0
86	o3	1	Total N Os 7 6 1	0	0
86	o7	1	Total N Os 7 6 1	0	0
86	o7	1	Total N Os 7 6 1	0	0
86	q2	1	Total N Os 7 6 1	0	0

- Molecule 87 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
87	q0	1	Total Zn 1 1	0	0
87	D6	1	Total Zn 1 1	0	0
87	Q2	1	Total Zn 1 1	0	0
87	e1	1	Total Zn 1 1	0	0
87	Q3	1	Total Zn 1 1	0	0
87	D9	1	Total Zn 1 1	0	0
87	E1	1	Total Zn 1 1	0	0

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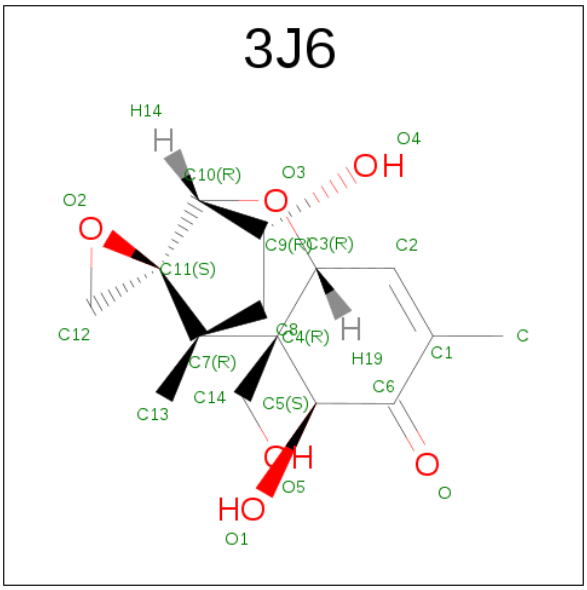
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
87	Q0	1	Total Zn 1 1	0	0
87	d7	1	Total Zn 1 1	0	0
87	q3	1	Total Zn 1 1	0	0
87	d9	1	Total Zn 1 1	0	0
87	D7	1	Total Zn 1 1	0	0
87	d6	1	Total Zn 1 1	0	0
87	o7	1	Total Zn 1 1	0	0
87	O7	1	Total Zn 1 1	0	0
87	q2	1	Total Zn 1 1	0	0

- Molecule 88 is (3beta,7alpha)-3,7,15-trihydroxy-12,13-epoxytrichothec-9-en-8-one (three-letter code: 3J6) (formula: $C_{15}H_{20}O_6$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
88	1	1	Total C O 21 15 6	0	0
88	5	1	Total C O 21 15 6	0	0

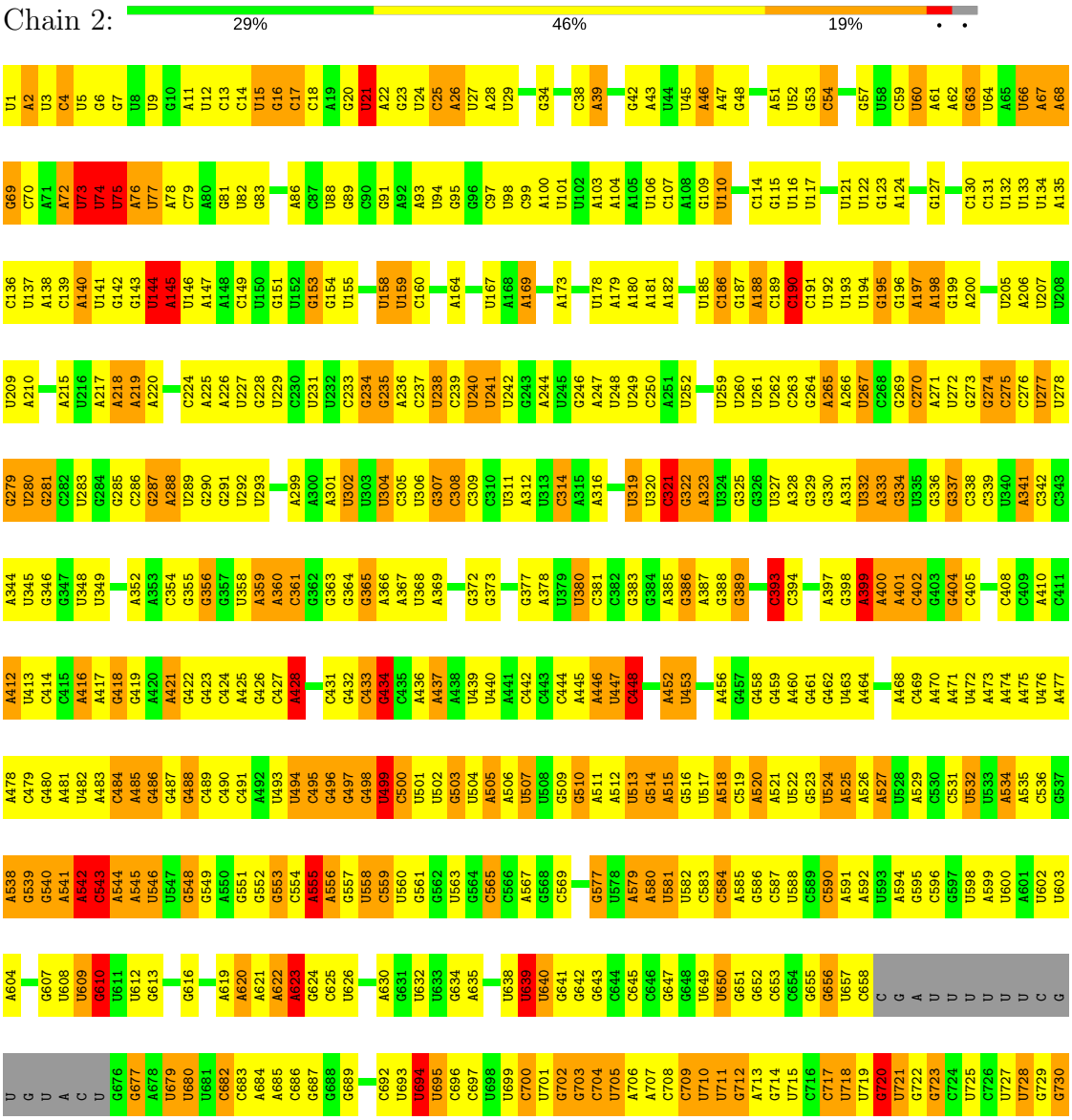
3 Residue-property plots (i)

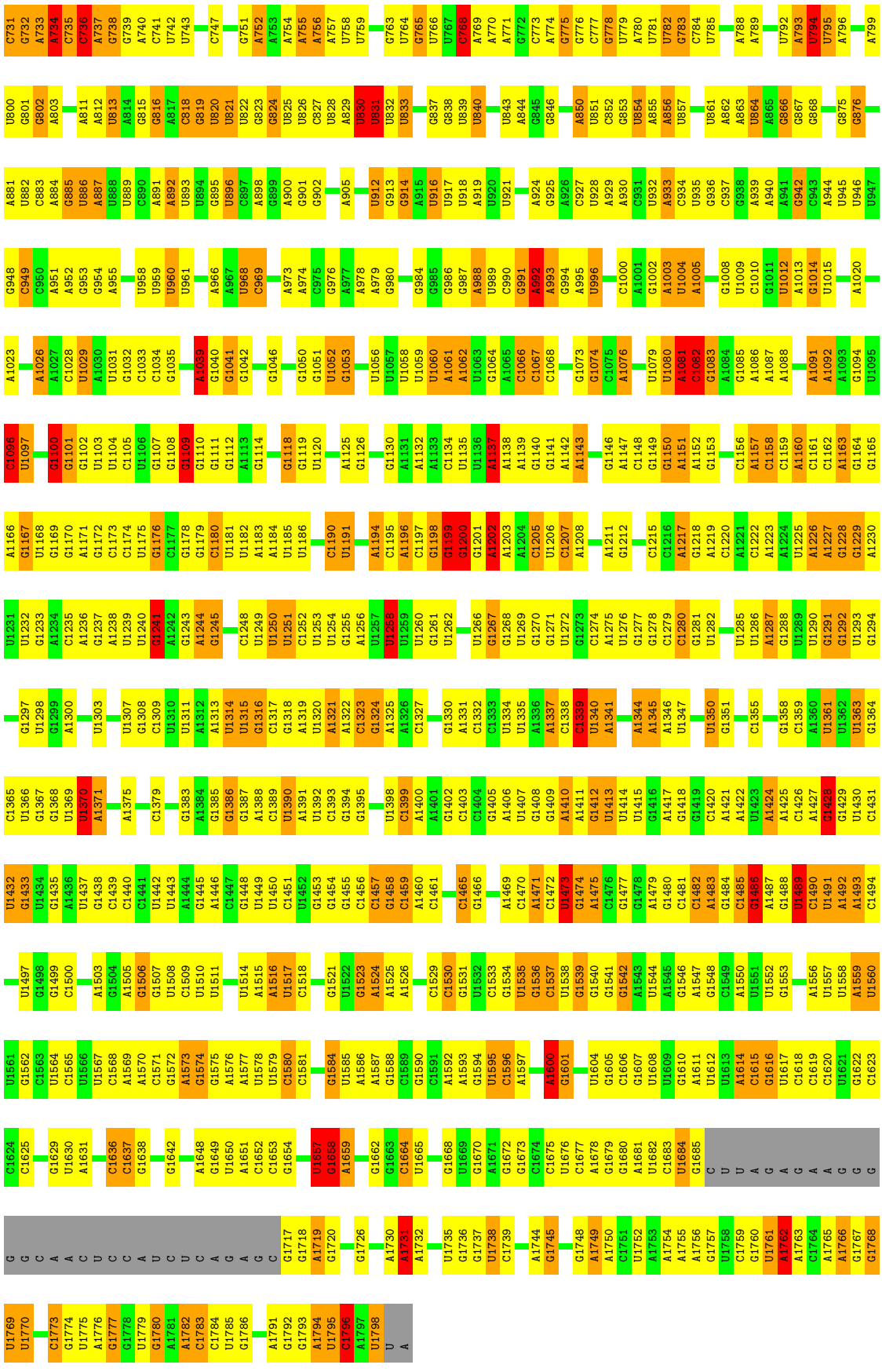
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are 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.

Note EDS failed to run properly.

• Molecule 1: 18S ribosomal RNA

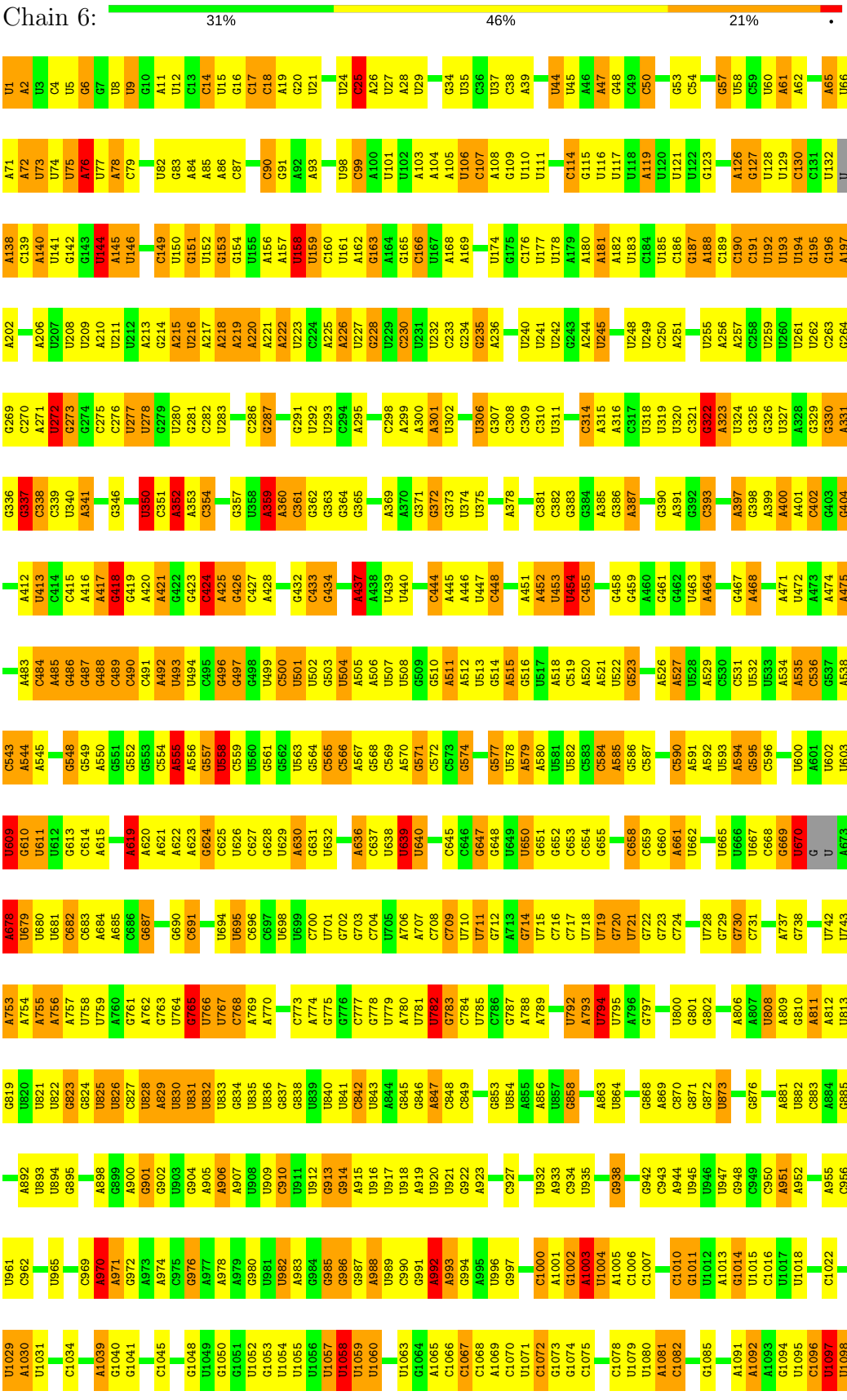
Chain 2:

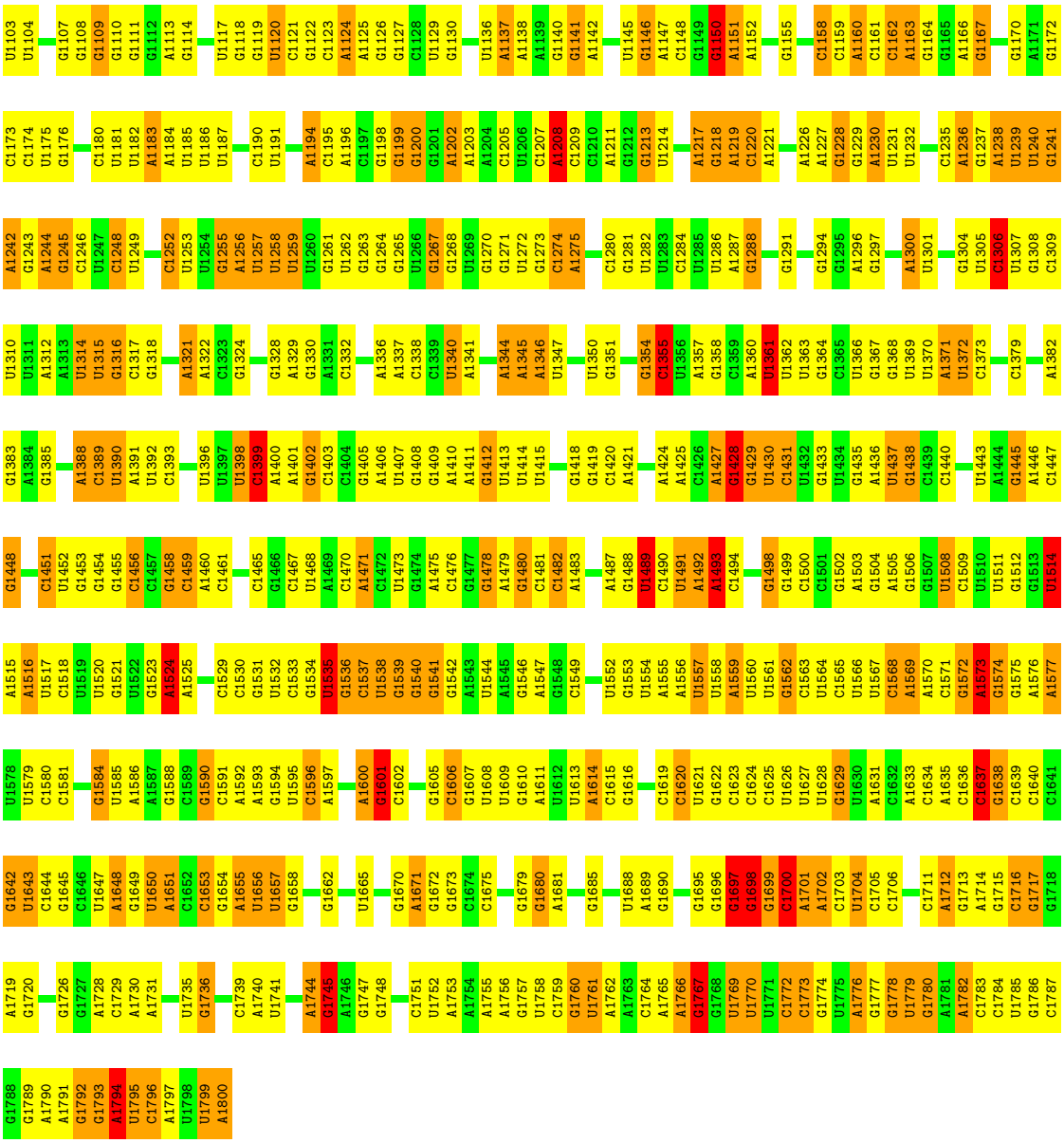




• Molecule 1: 18S ribosomal RNA

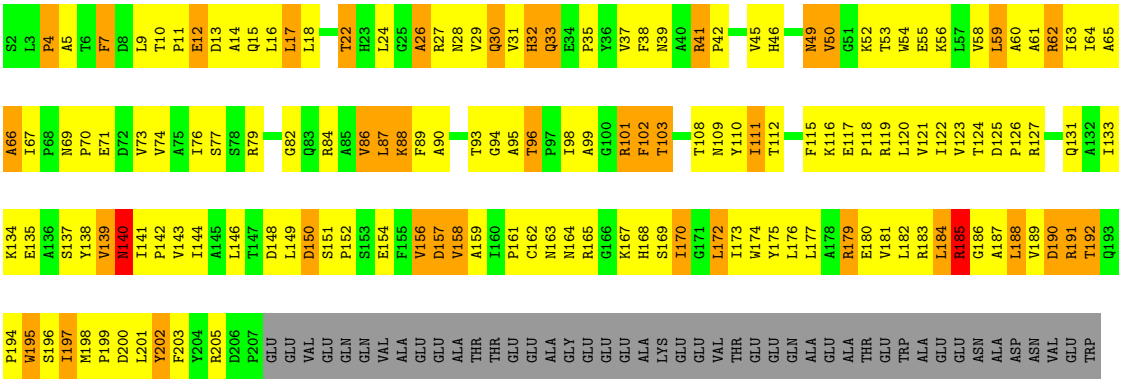
Chain 6:





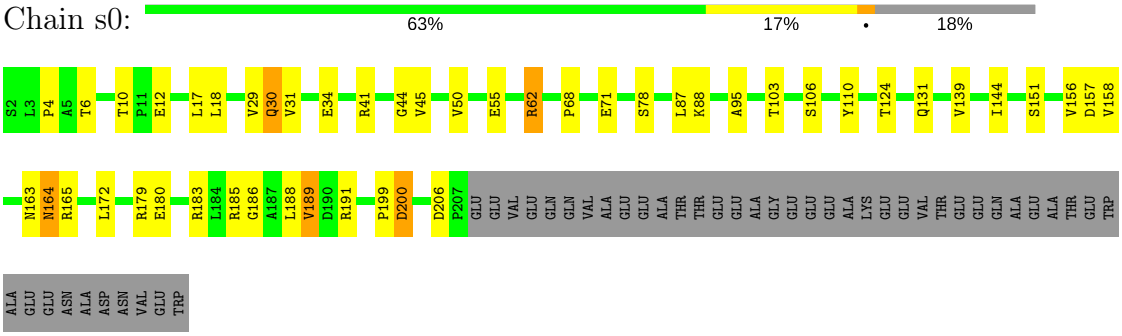
• Molecule 2: 40S ribosomal protein S0-A

Chain S0:



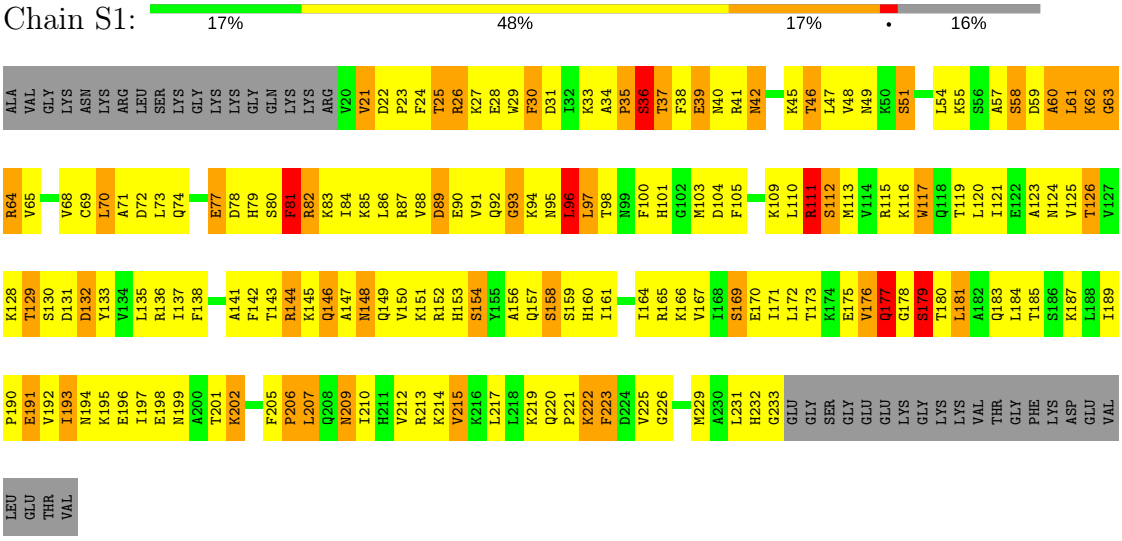
• Molecule 2: 40S ribosomal protein S0-A

Chain s0:



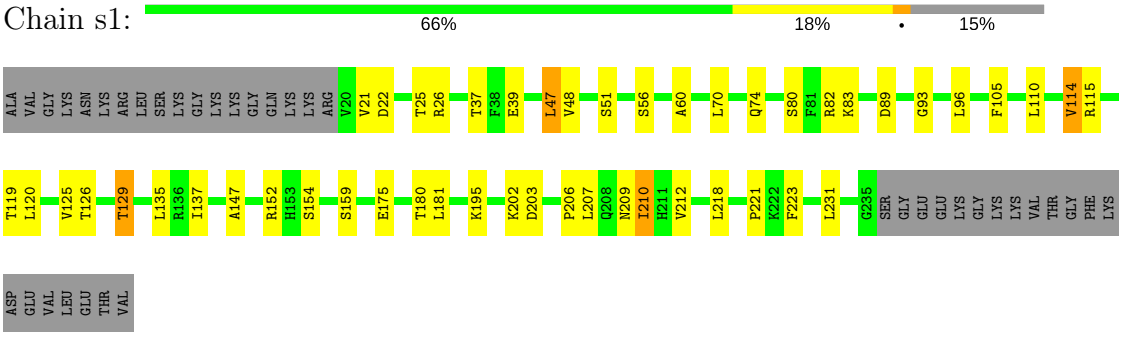
• Molecule 3: 40S ribosomal protein S1-A

Chain S1:



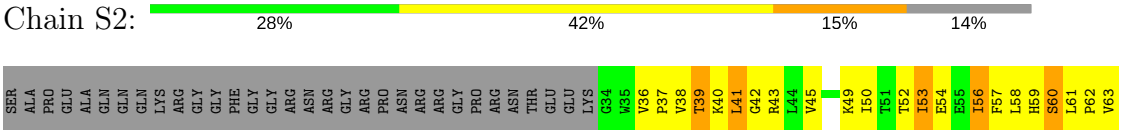
• Molecule 3: 40S ribosomal protein S1-A

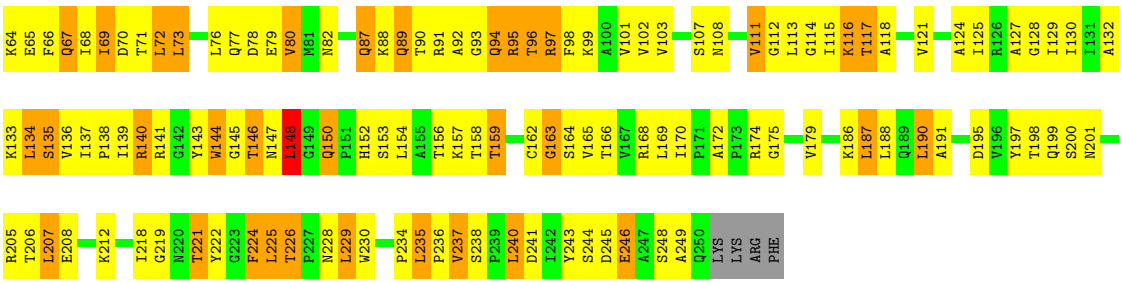
Chain s1:



• Molecule 4: 40S ribosomal protein S2

Chain S2:





• Molecule 4: 40S ribosomal protein S2

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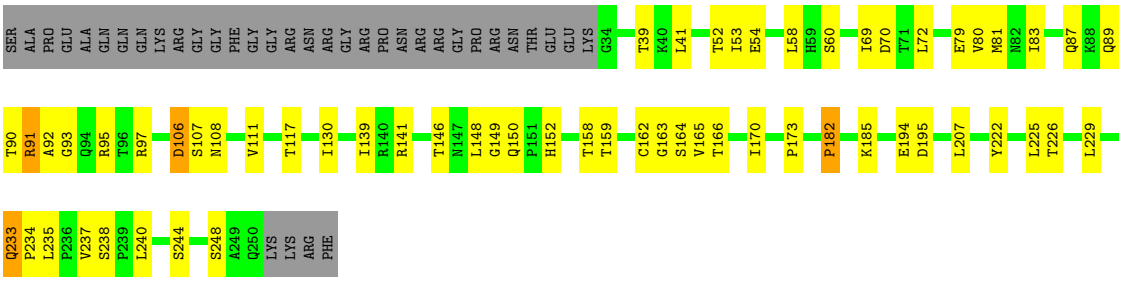
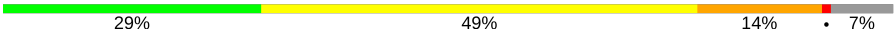
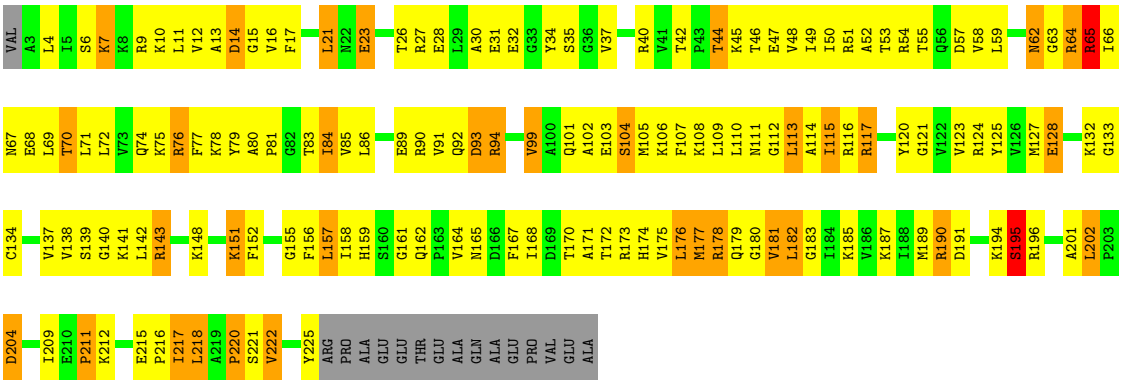


• Molecule 5: 40S ribosomal protein S3

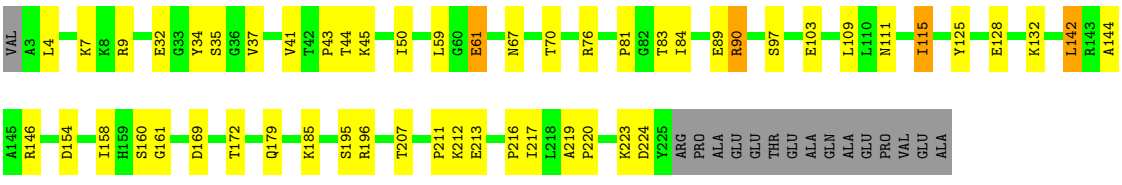
Chain S3:





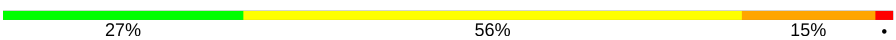
• Molecule 5: 40S ribosomal protein S3

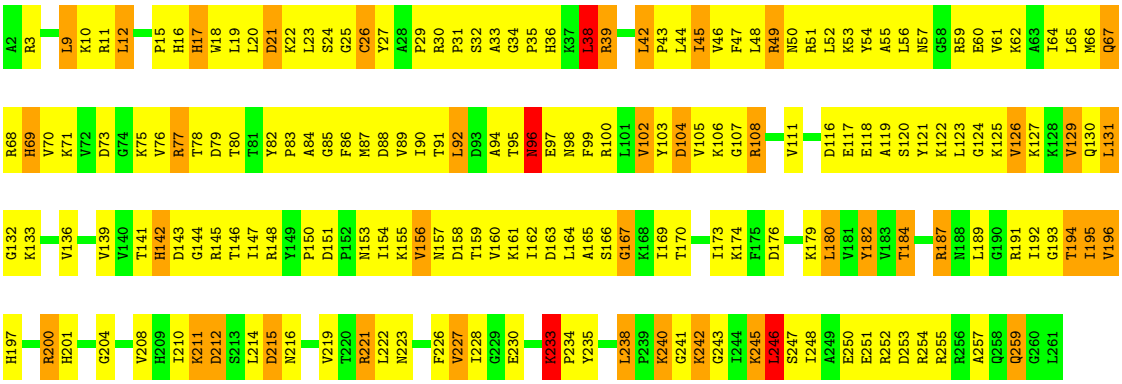
Chain s3:



• Molecule 6: 40S ribosomal protein S4-A

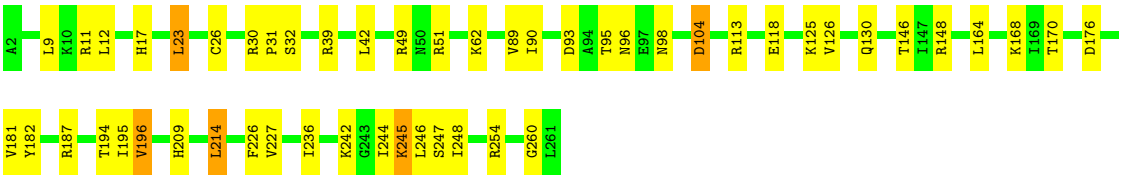
Chain S4:





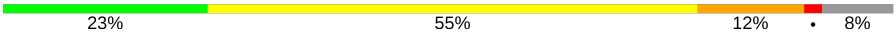
• Molecule 6: 40S ribosomal protein S4-A

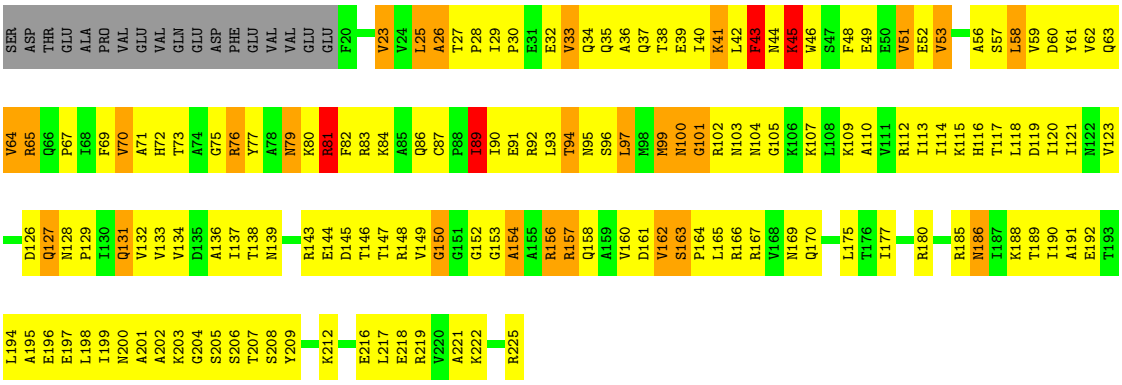
Chain s4:



• Molecule 7: 40S ribosomal protein S5

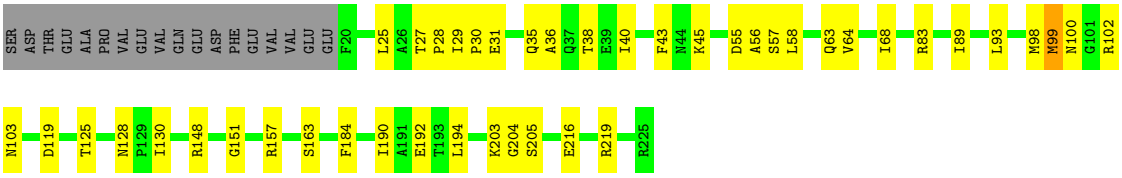
Chain S5:





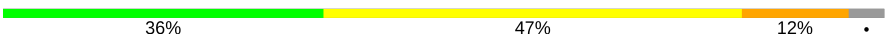
• Molecule 7: 40S ribosomal protein S5

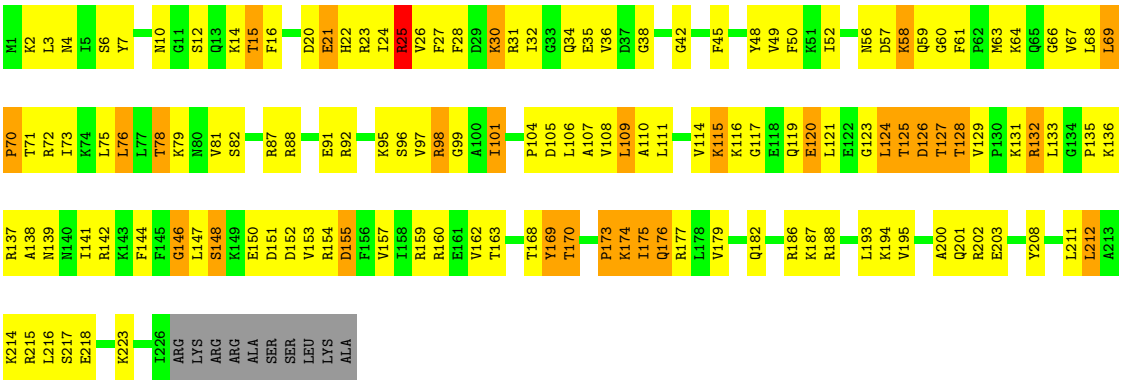
Chain s5:



• Molecule 8: 40S ribosomal protein S6-A

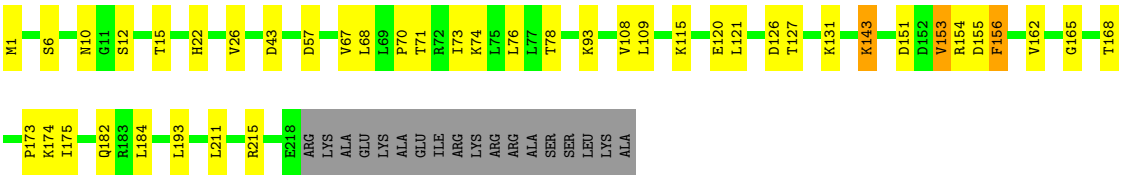
Chain S6:





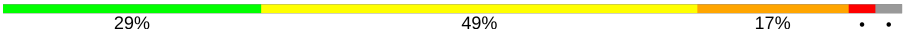
• Molecule 8: 40S ribosomal protein S6-A

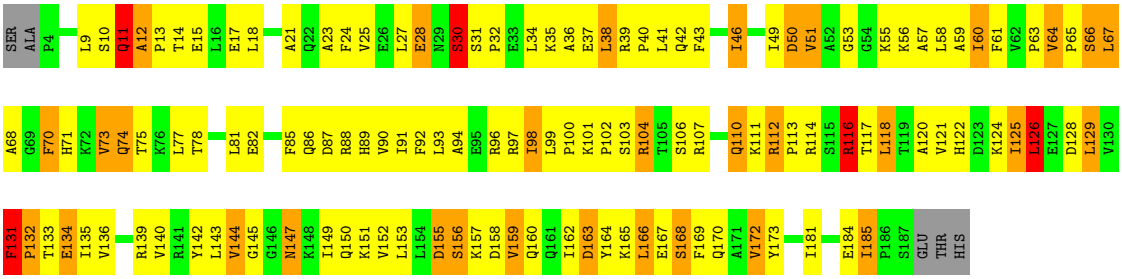
Chain s6:



• Molecule 9: 40S ribosomal protein S7-A

Chain S7:





• Molecule 9: 40S ribosomal protein S7-A

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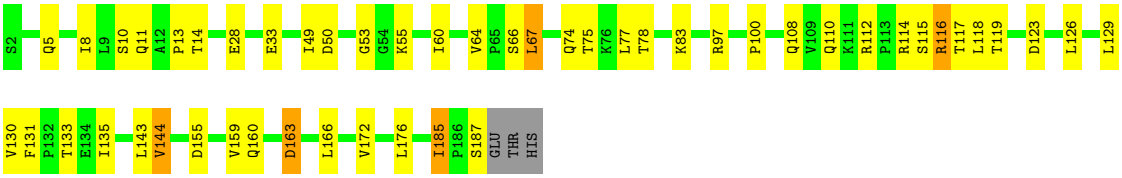
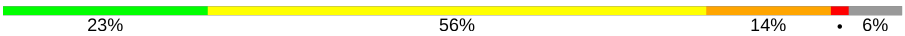
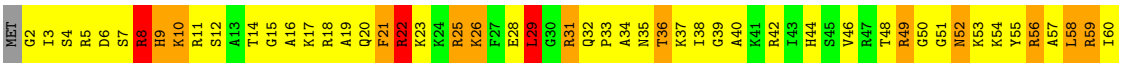
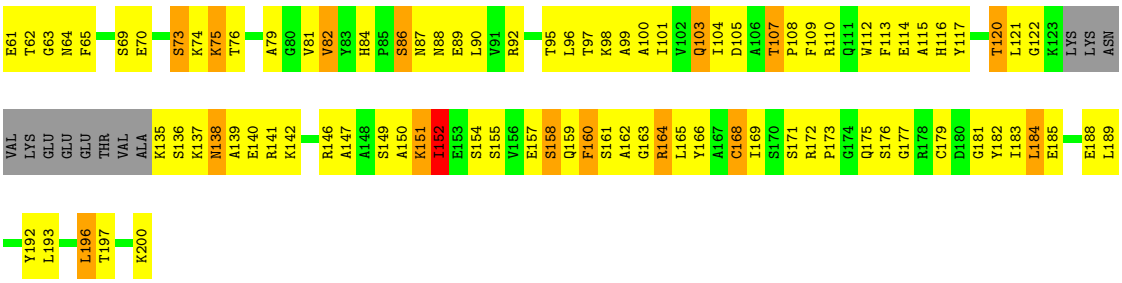


• Molecule 10: 40S ribosomal protein S8-A

Chain S8:





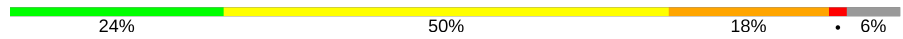


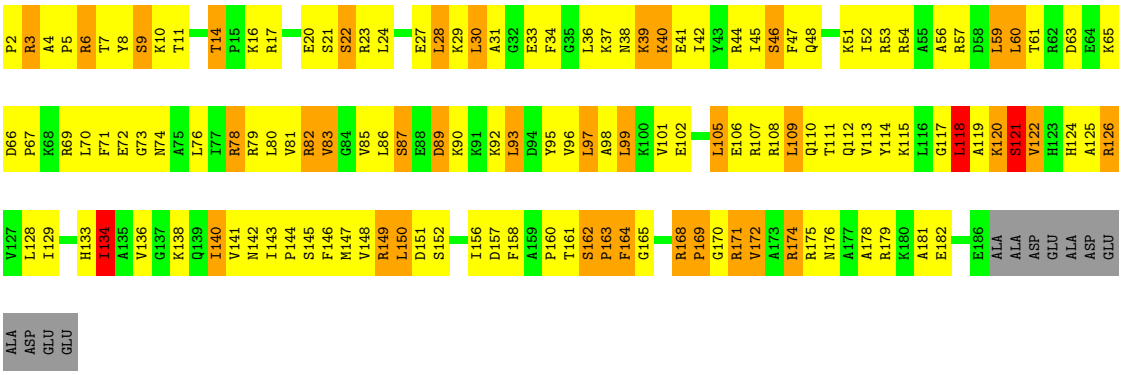
• Molecule 10: 40S ribosomal protein S8-A

Chain s8:

• Molecule 11: 40S ribosomal protein S9-A

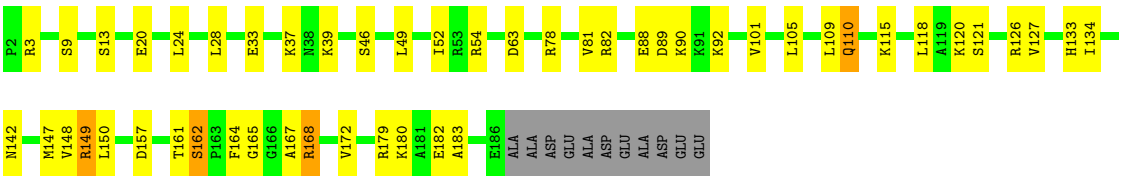
Chain S9:





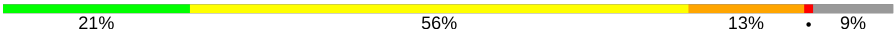
• Molecule 11: 40S ribosomal protein S9-A

Chain s9:



• Molecule 12: 40S ribosomal protein S10-A

Chain C0:

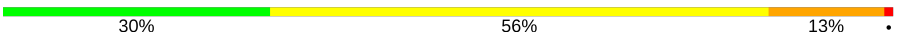


• Molecule 12: 40S ribosomal protein S10-A

Chain c0:

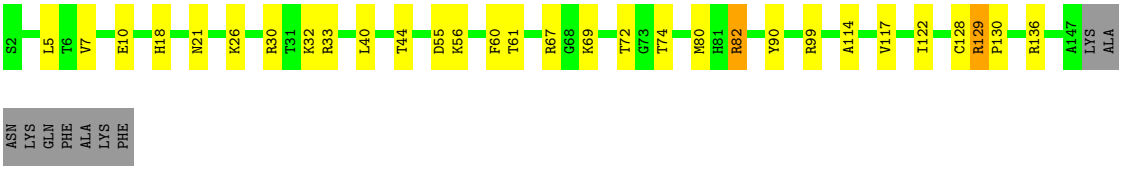
• Molecule 13: 40S ribosomal protein S11-A

Chain C1:



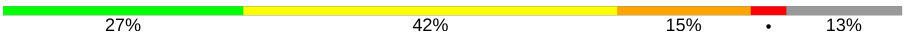
• Molecule 13: 40S ribosomal protein S11-A

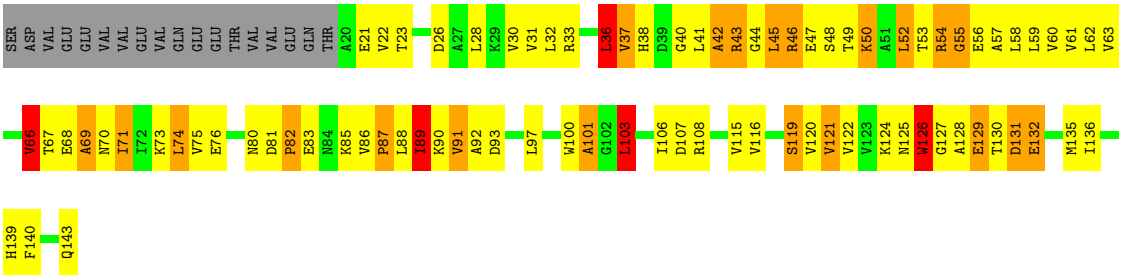
Chain c1:



• Molecule 14: 40S ribosomal protein S12

Chain C2:



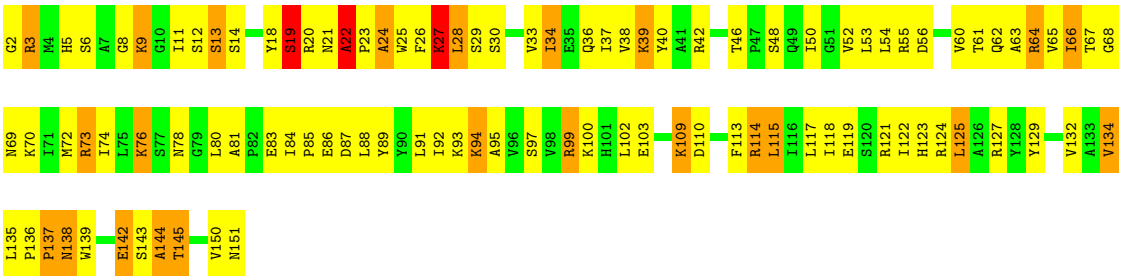


• Molecule 14: 40S ribosomal protein S12

Chain c2:

• Molecule 15: 40S ribosomal protein S13

Chain C3:

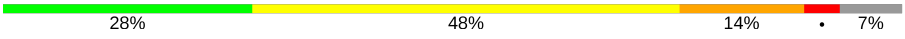


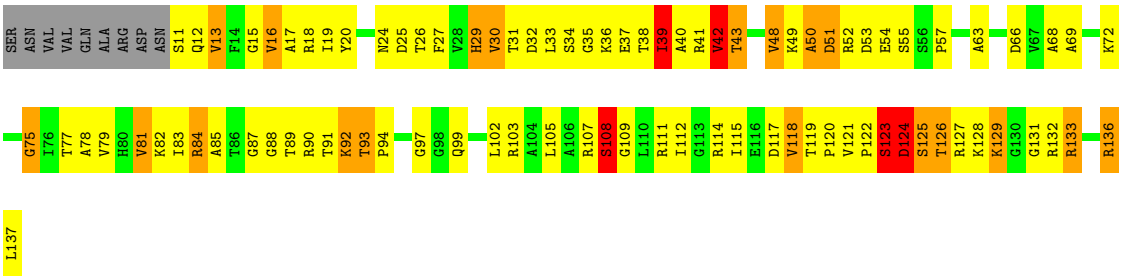
• Molecule 15: 40S ribosomal protein S13

Chain c3:

• Molecule 16: 40S ribosomal protein S14-A

Chain C4:





• Molecule 16: 40S ribosomal protein S14-A

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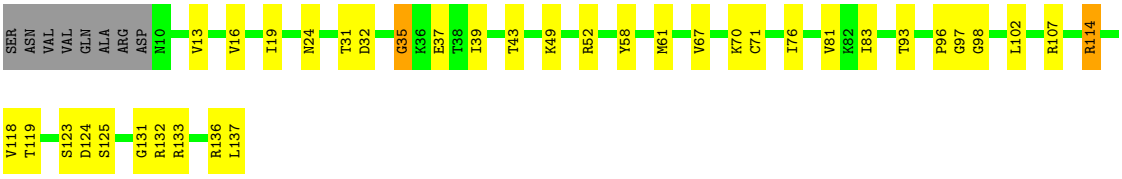
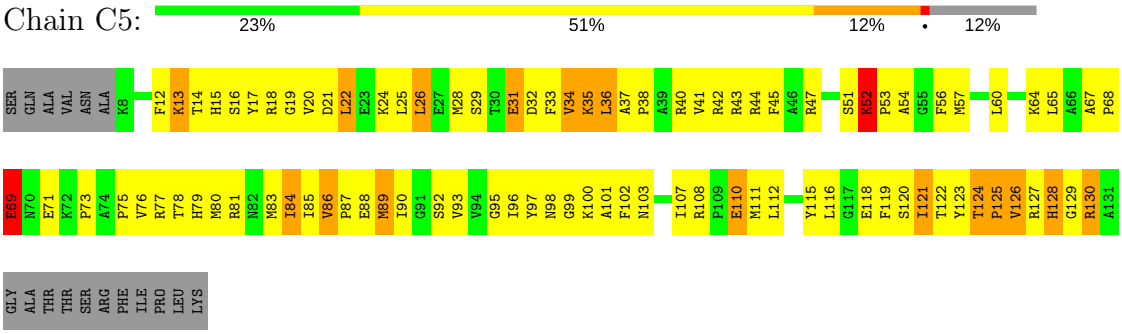


• Molecule 17: 40S ribosomal protein S15

Chain C5:



• Molecule 17: 40S ribosomal protein S15

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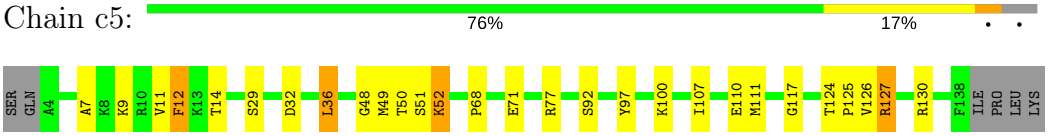
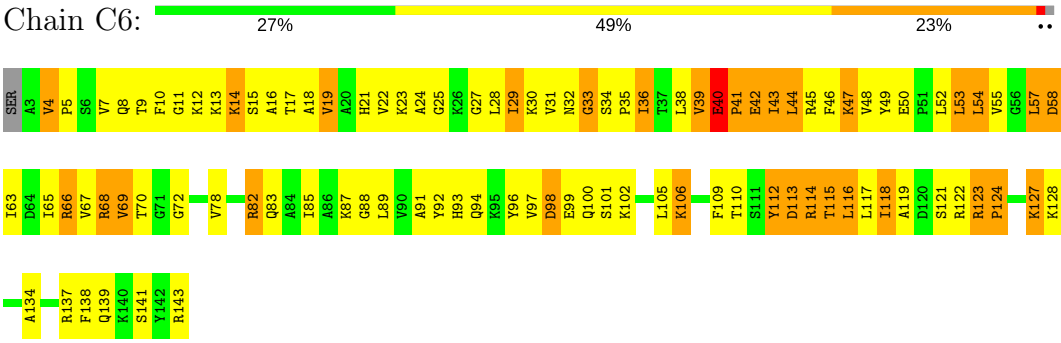


• Molecule 18: 40S ribosomal protein S16-A

Chain C6:



• Molecule 18: 40S ribosomal protein S16-A

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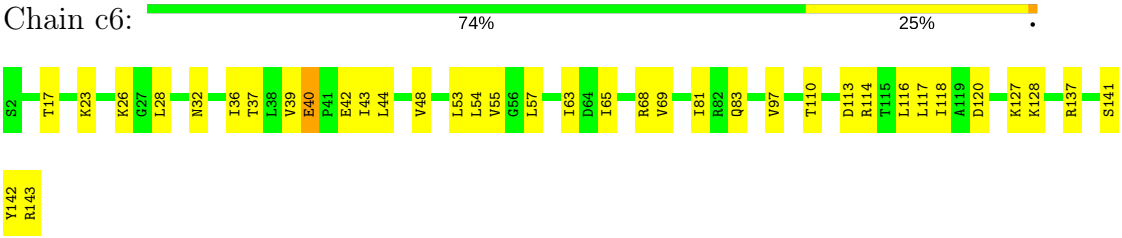
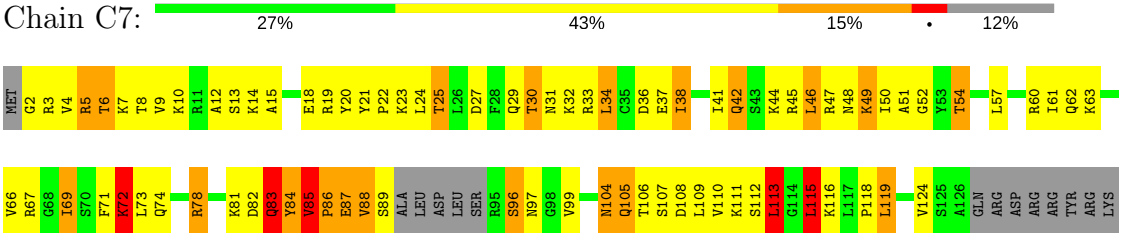


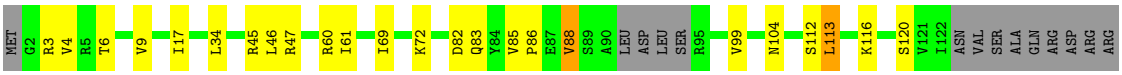
• Molecule 19: 40S ribosomal protein S17-A

Chain C7:



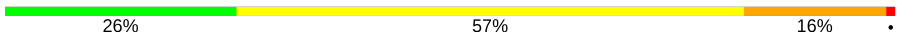
• Molecule 19: 40S ribosomal protein S17-A

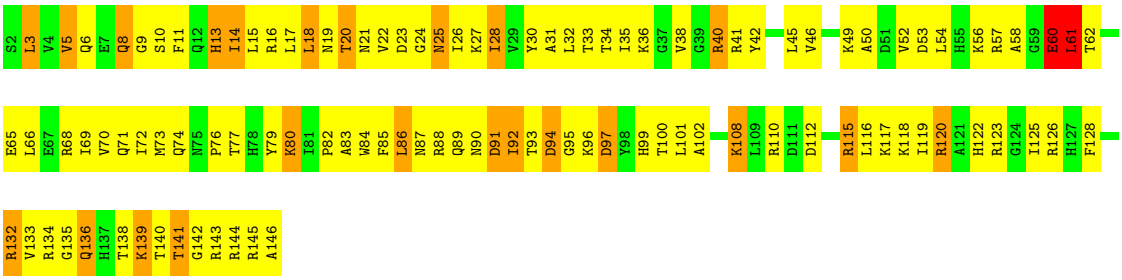
Chain c7:



• Molecule 20: 40S ribosomal protein S18-A

Chain C8:





• Molecule 20: 40S ribosomal protein S18-A

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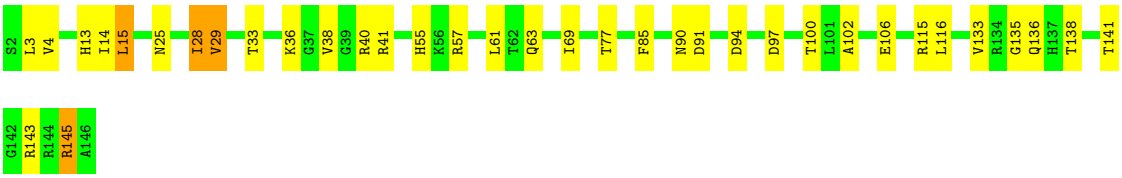


• Molecule 21: 40S ribosomal protein S19-A

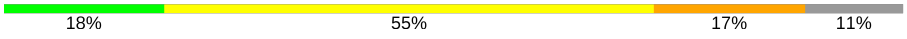
Chain C9:

• Molecule 21: 40S ribosomal protein S19-A

Chain c9:

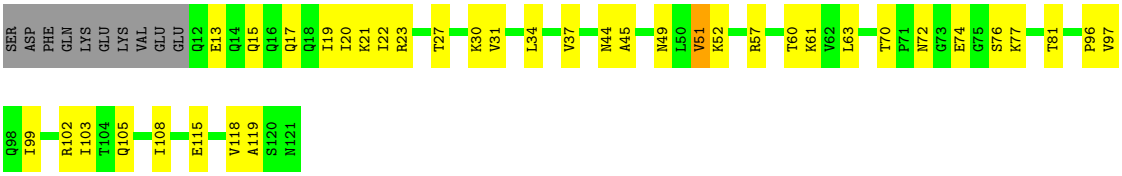
• Molecule 22: 40S ribosomal protein S20

Chain D0:



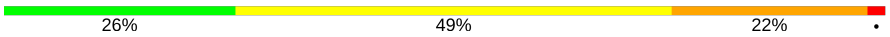
• Molecule 22: 40S ribosomal protein S20

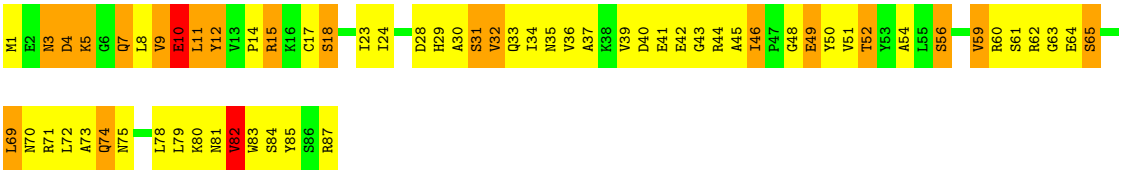
Chain d0:



• Molecule 23: 40S ribosomal protein S21-A

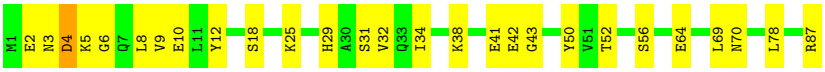
Chain D1:





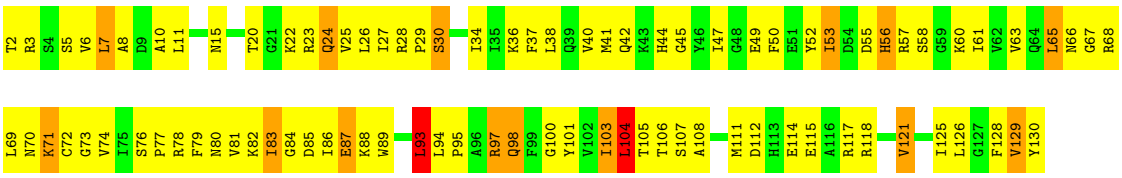
• Molecule 23: 40S ribosomal protein S21-A

Chain d1:



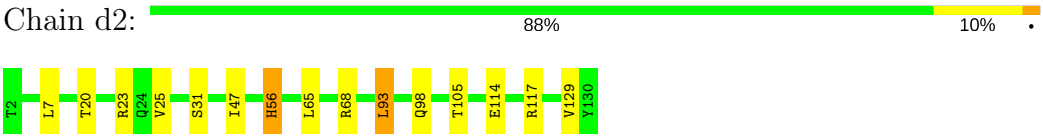
• Molecule 24: 40S ribosomal protein S22-A

Chain D2:



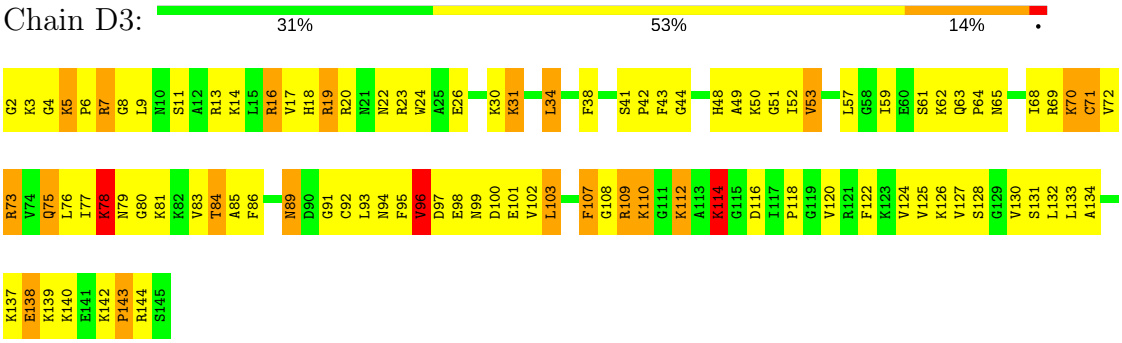
• Molecule 24: 40S ribosomal protein S22-A

Chain d2:



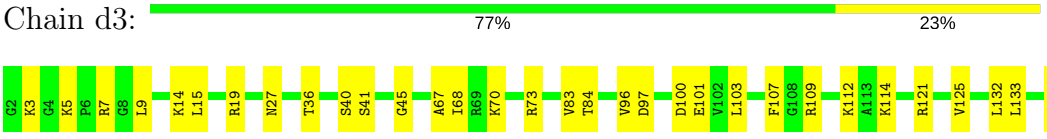
• Molecule 25: 40S ribosomal protein S23-A

Chain D3:



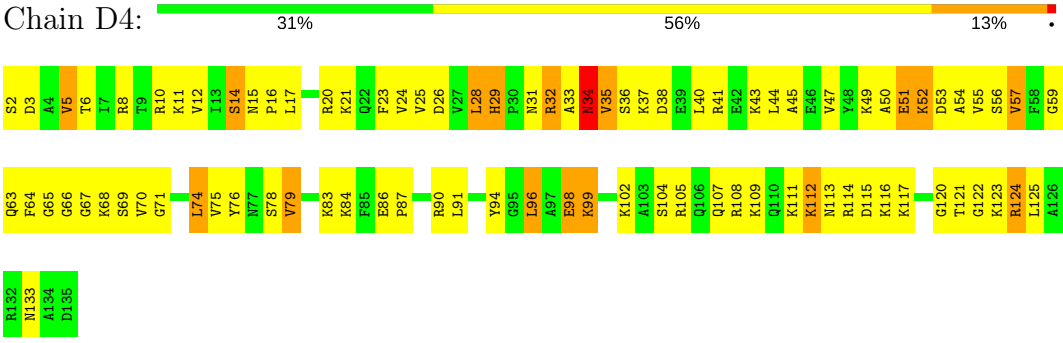
• Molecule 25: 40S ribosomal protein S23-A

Chain d3:



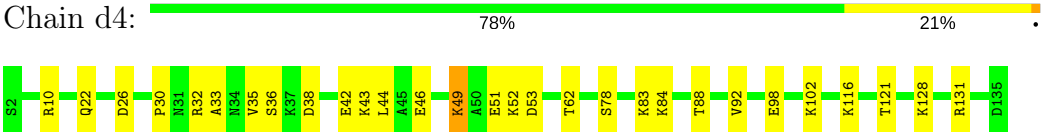
• Molecule 26: 40S ribosomal protein S24-A

Chain D4:



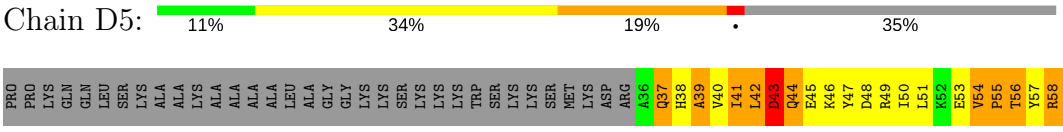
• Molecule 26: 40S ribosomal protein S24-A

Chain d4:



• Molecule 27: 40S ribosomal protein S25-A

Chain D5:

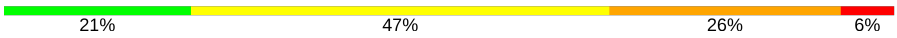


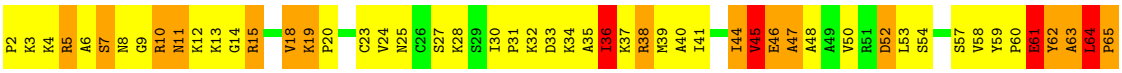
• Molecule 27: 40S ribosomal protein S25-A

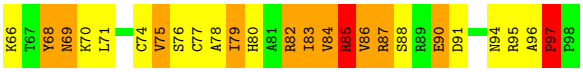
Chain d5:

• Molecule 28: 40S ribosomal protein S26-B

Chain D6:

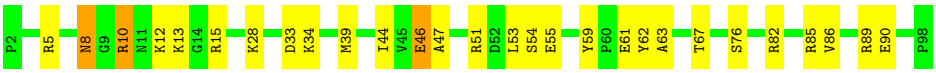






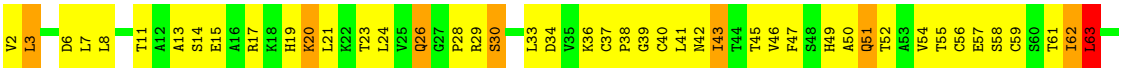
• Molecule 28: 40S ribosomal protein S26-B

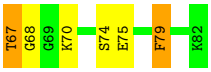
Chain d6:



• Molecule 29: 40S ribosomal protein S27-A

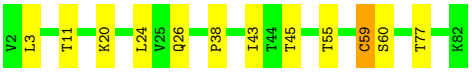
Chain D7:





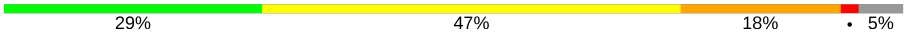
• Molecule 29: 40S ribosomal protein S27-A

Chain d7:



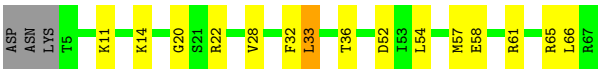
• Molecule 30: 40S ribosomal protein S28-A

Chain D8:



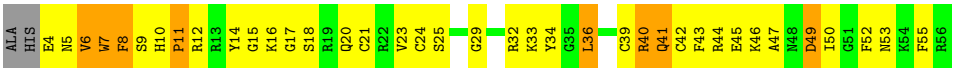
• Molecule 30: 40S ribosomal protein S28-A

Chain d8:



• Molecule 31: 40S ribosomal protein S29-A

Chain D9:

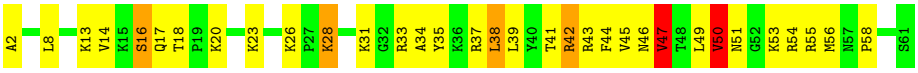


• Molecule 31: 40S ribosomal protein S29-A

Chain d9:

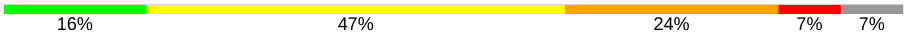
• Molecule 32: 40S ribosomal protein S30-A

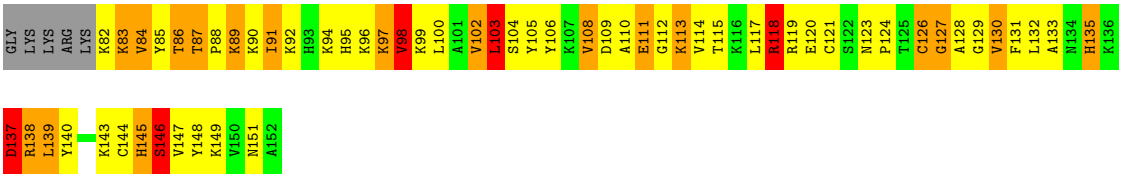
Chain E0:



• Molecule 33: Ubiquitin-40S ribosomal protein S31

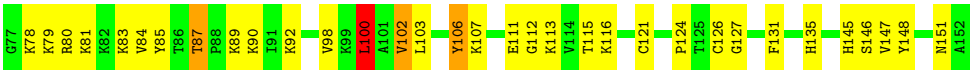
Chain E1:





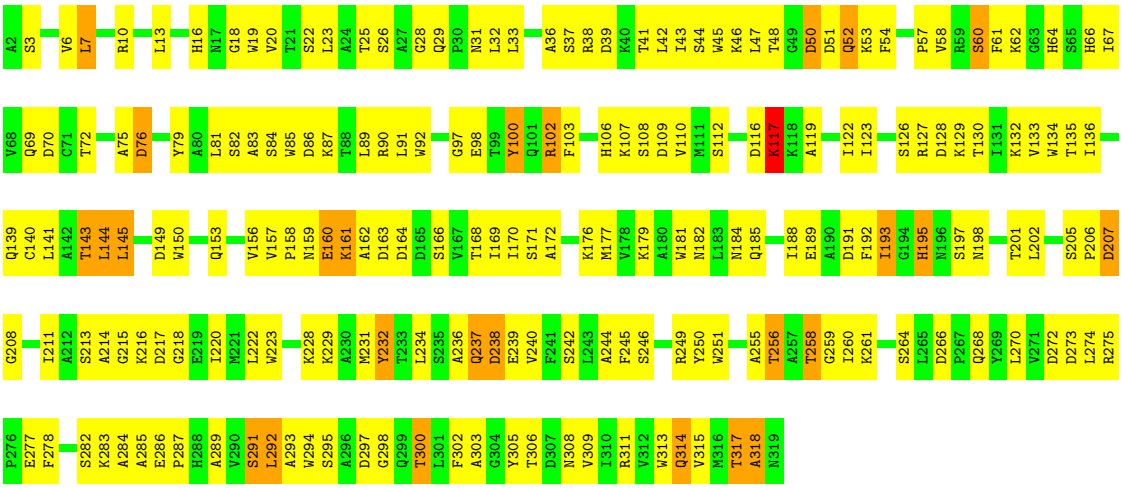
• Molecule 33: Ubiquitin-40S ribosomal protein S31

Chain e1:



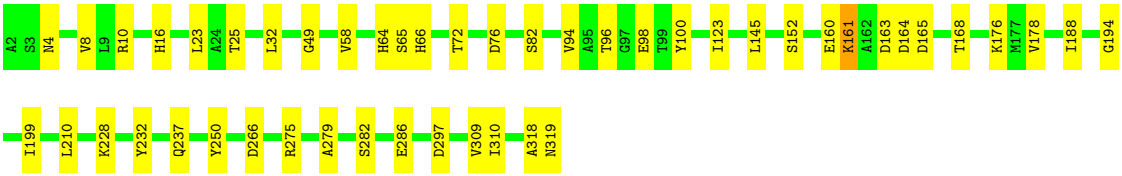
• Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein

Chain SR:



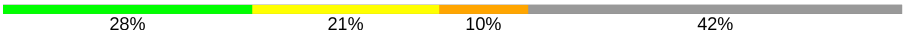
• Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein

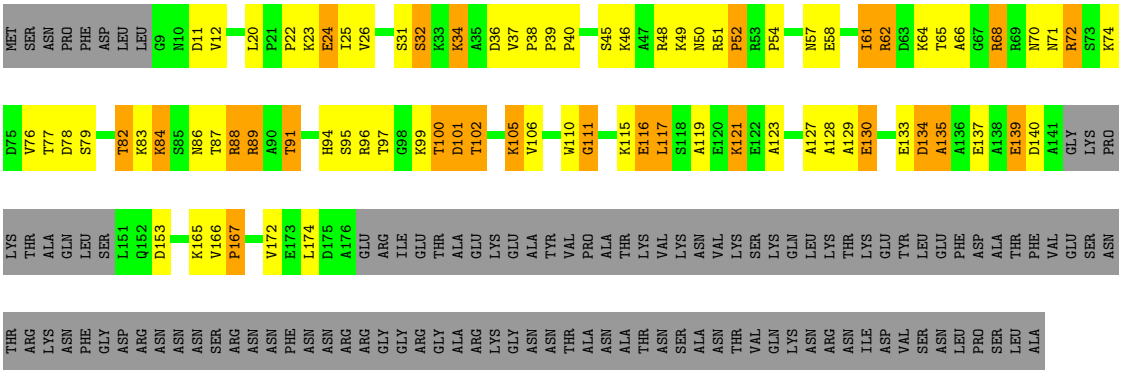
Chain sR:



• Molecule 35: Suppressor protein STM1

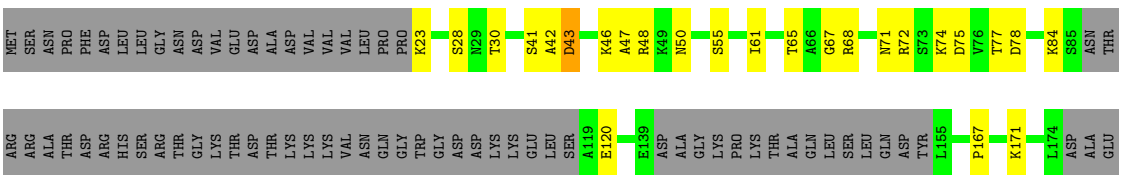
Chain SM:

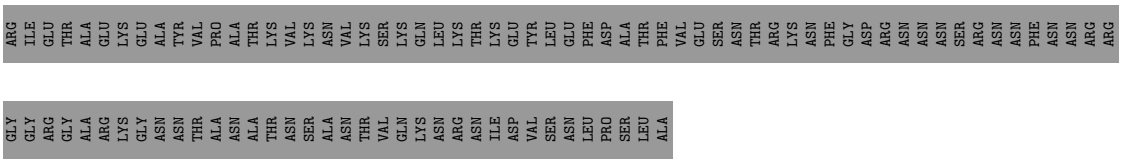




• Molecule 35: Suppressor protein STM1

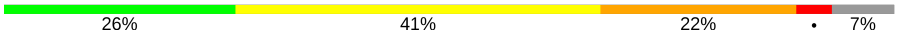
Chain sM:

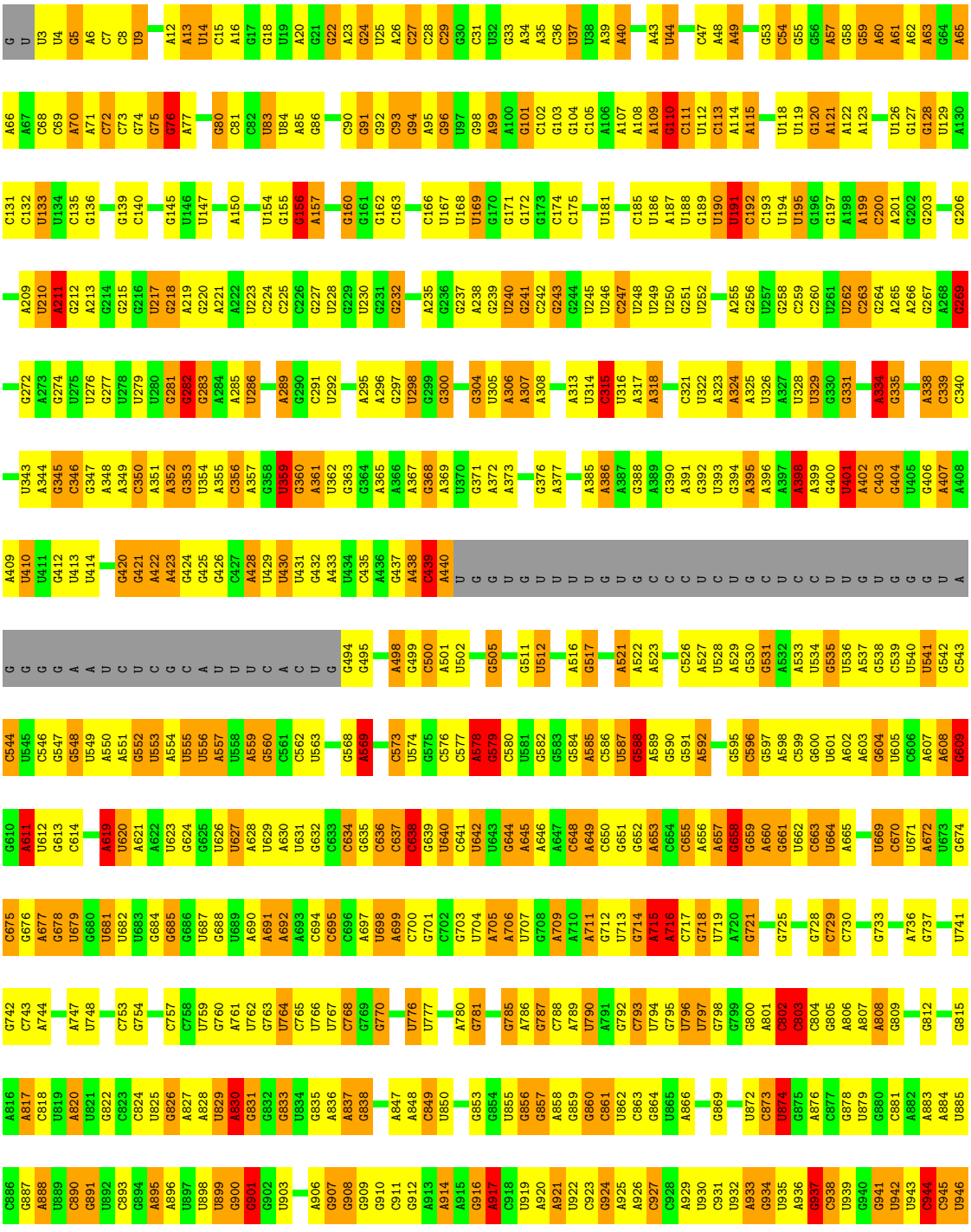


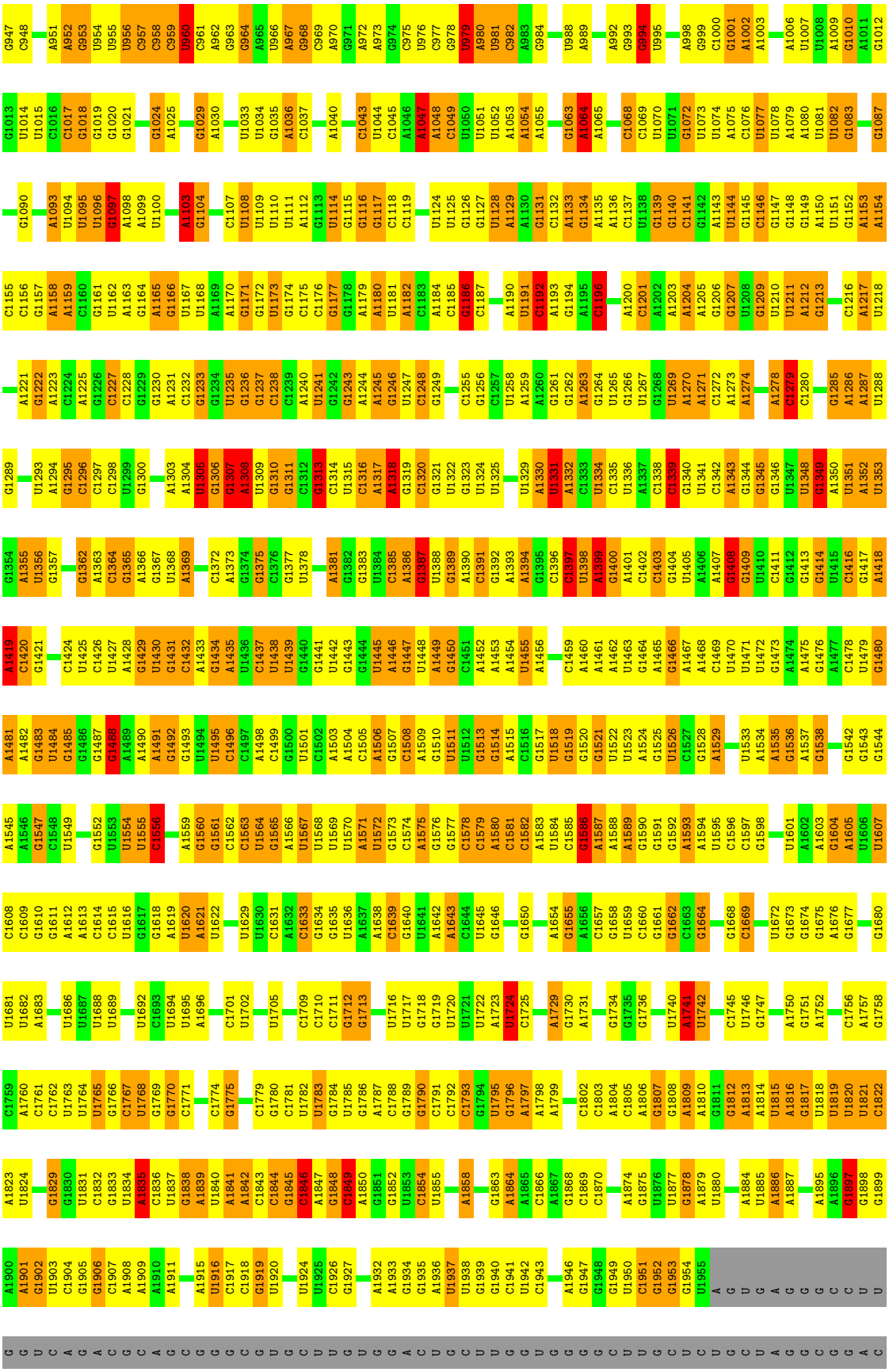


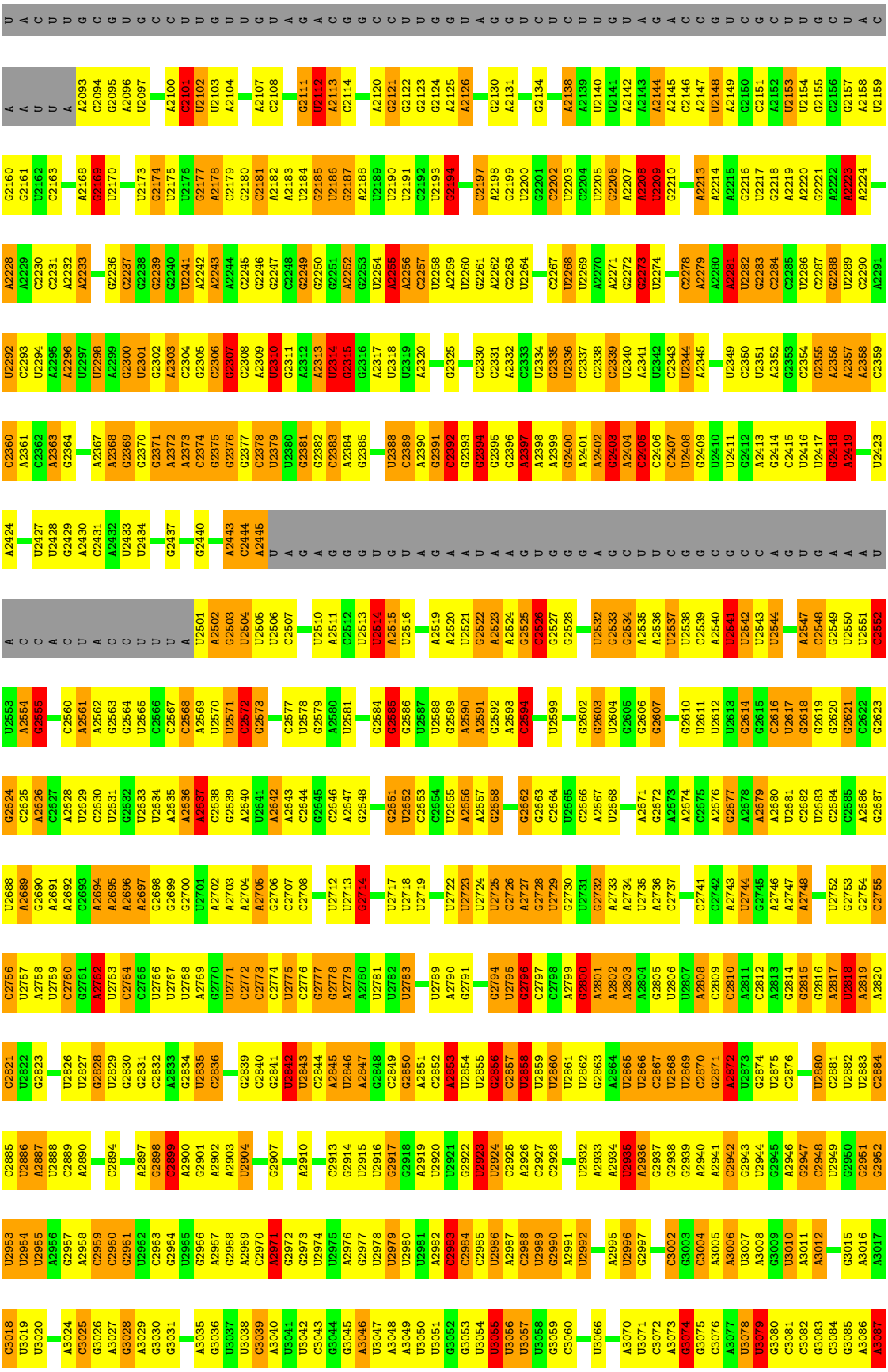
• Molecule 36: 25S ribosomal RNA

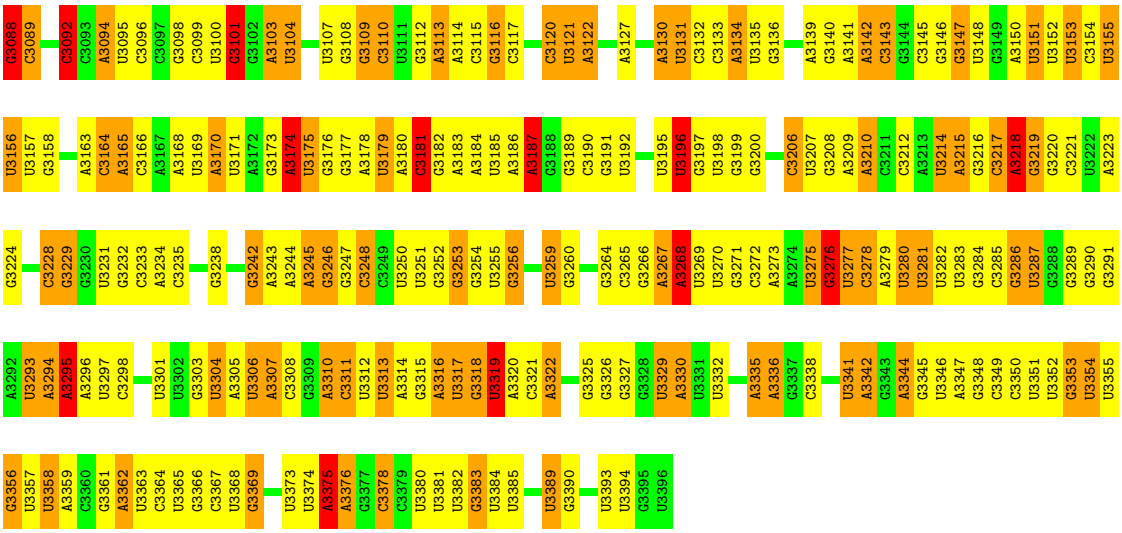
Chain 1:





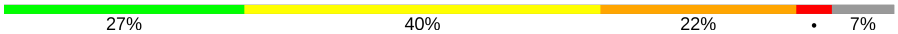


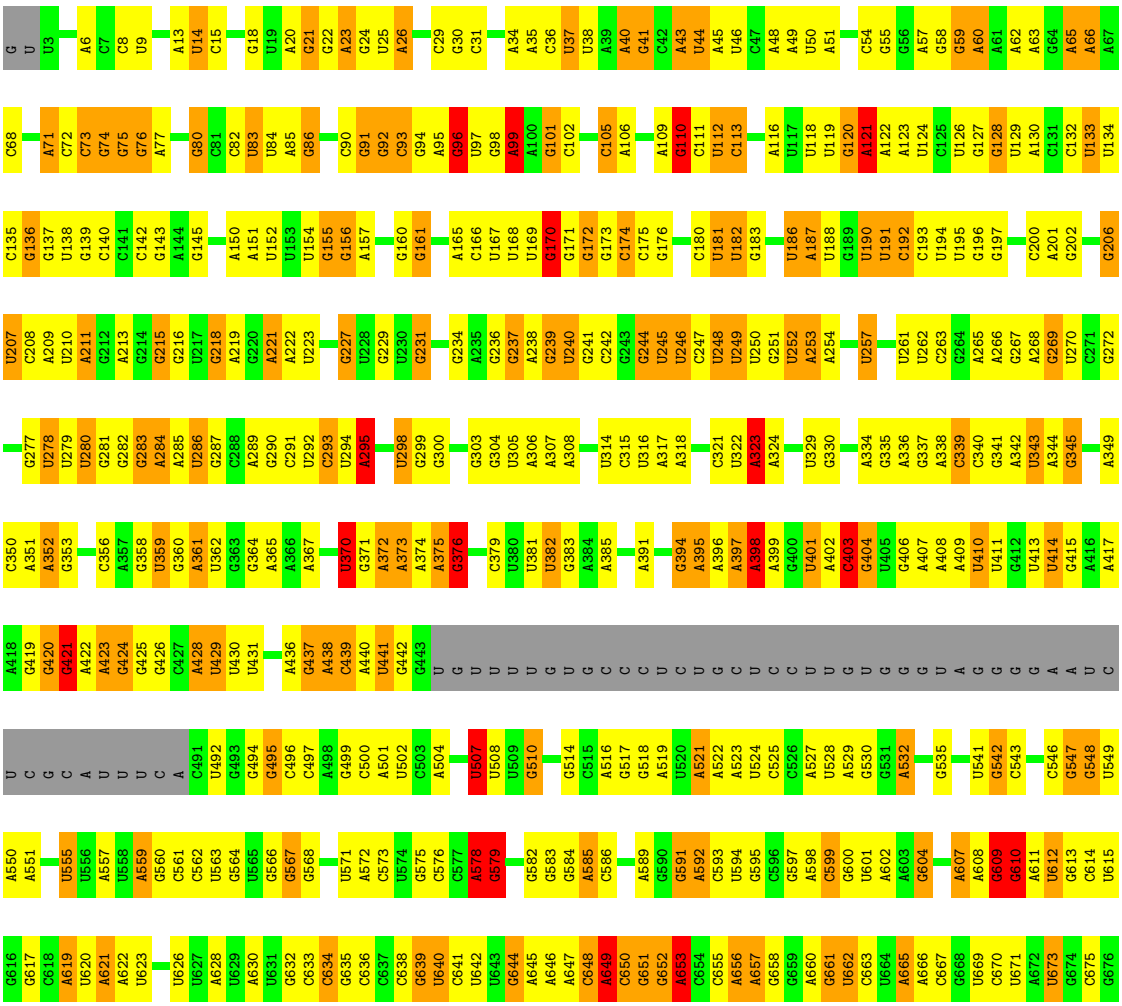


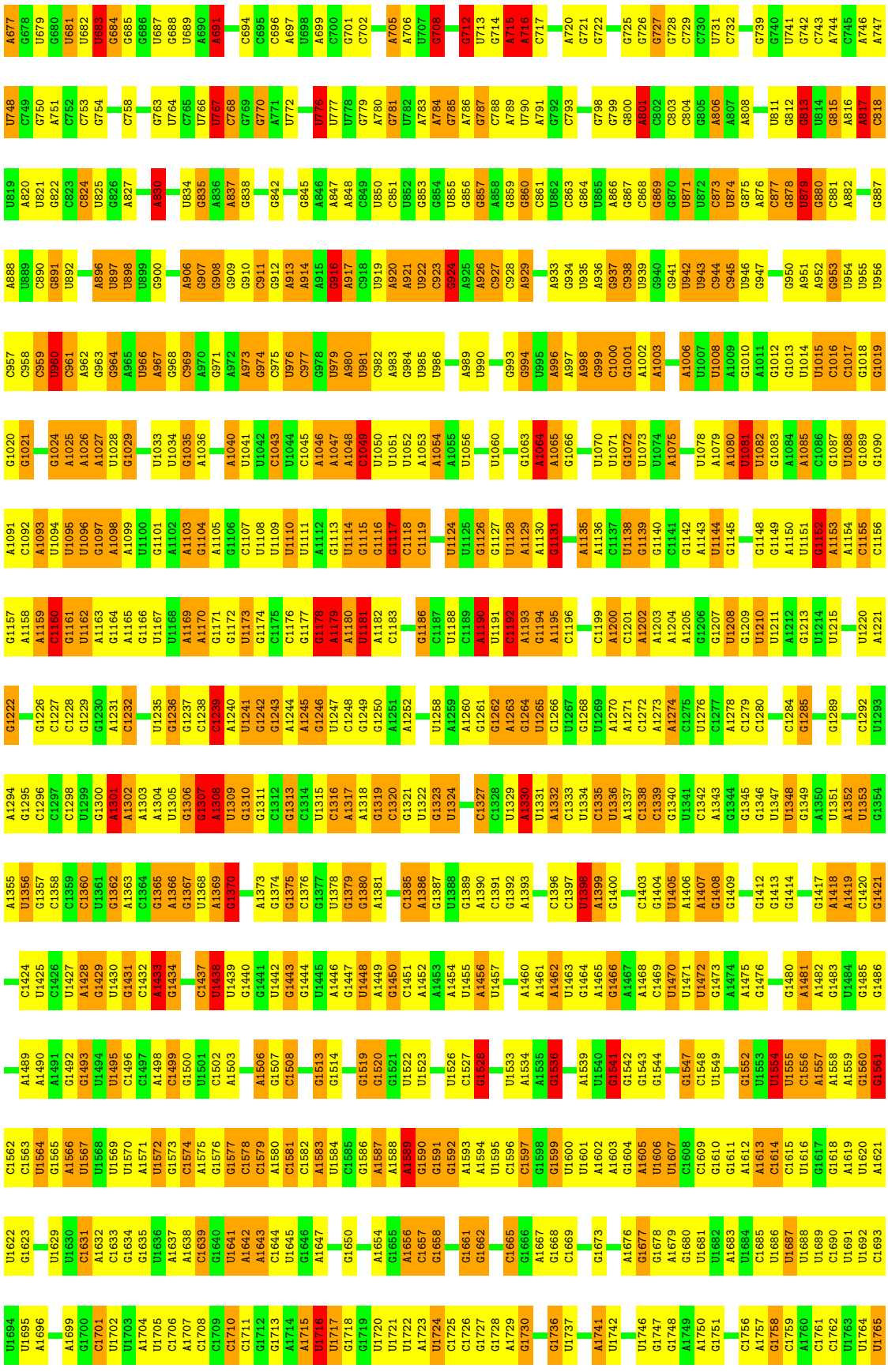


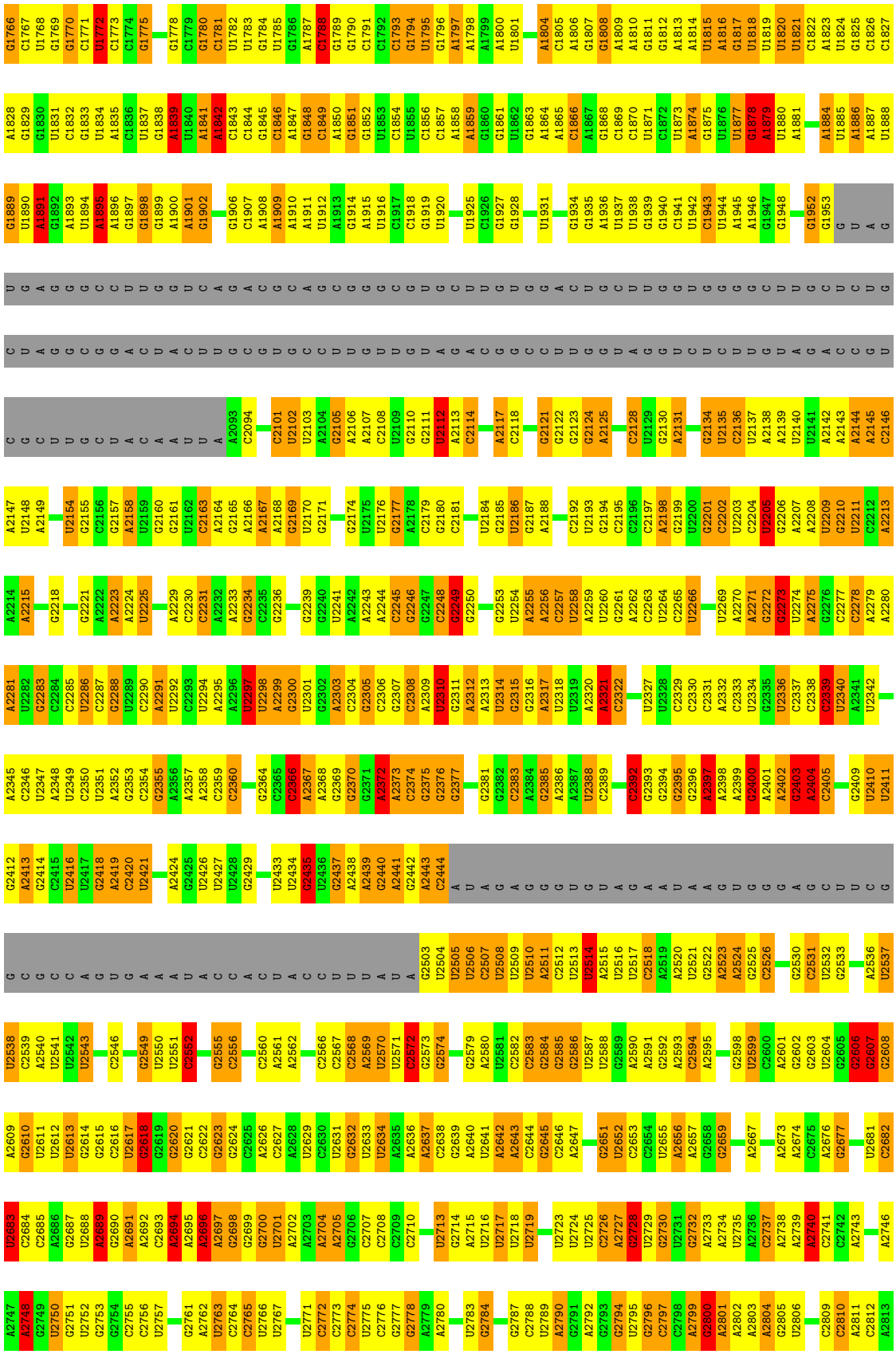
• Molecule 36: 25S ribosomal RNA

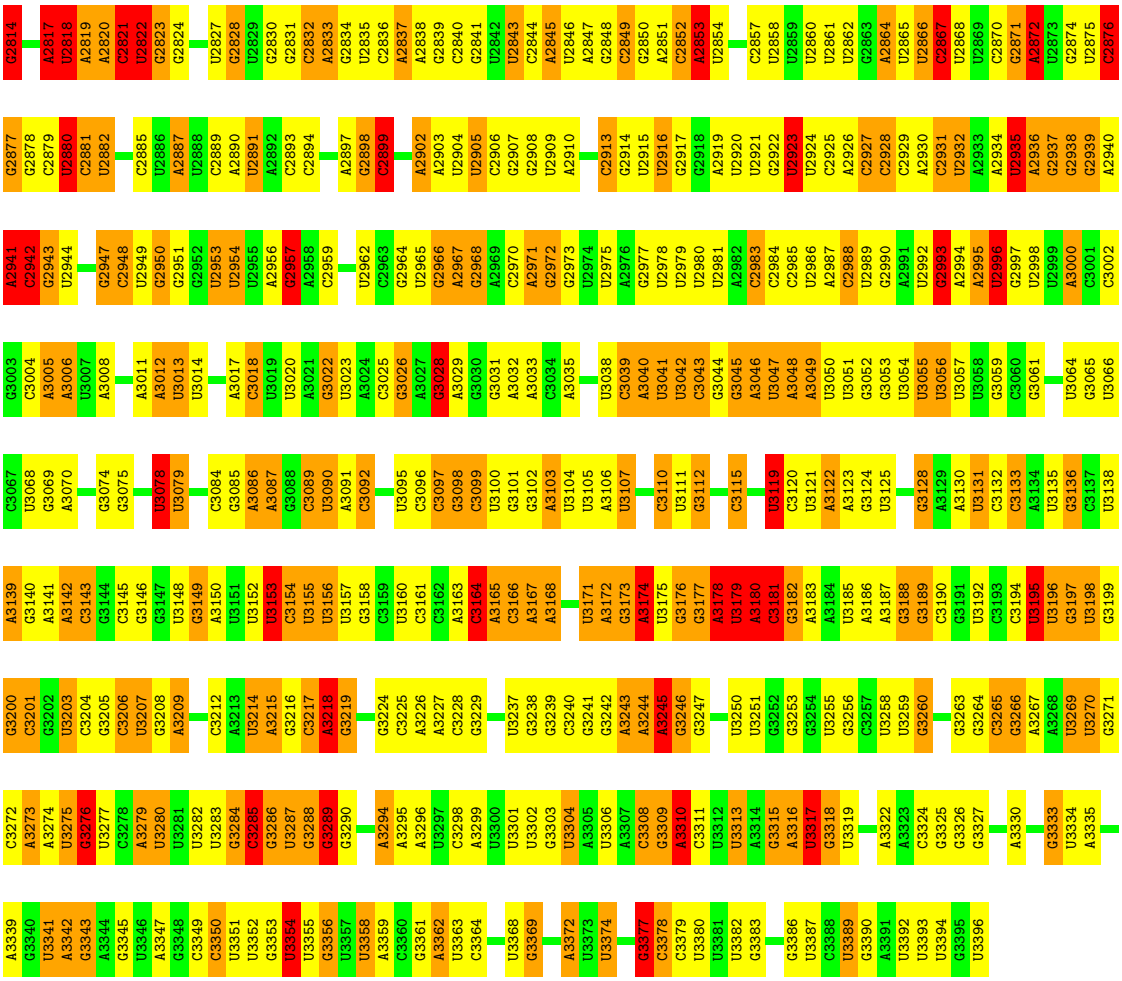
Chain 5:





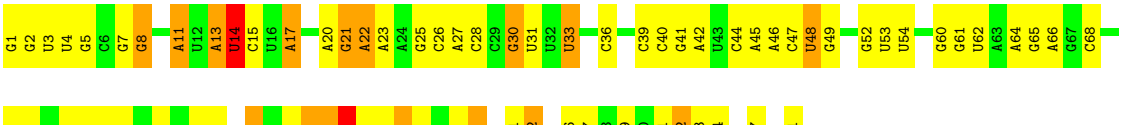






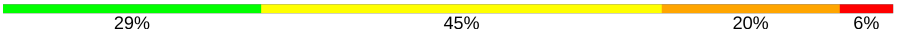
• Molecule 37: 5S ribosomal RNA

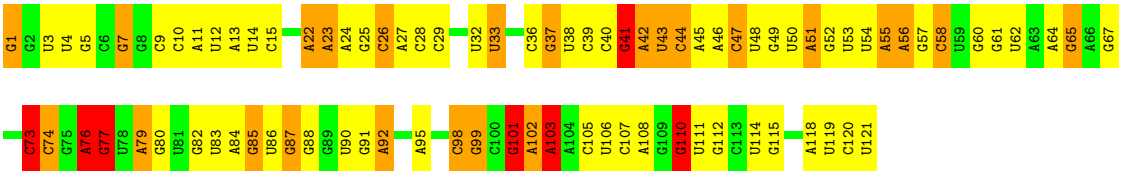
Chain 3:



• Molecule 37: 5S ribosomal RNA

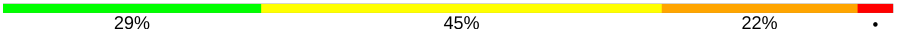
Chain 7:

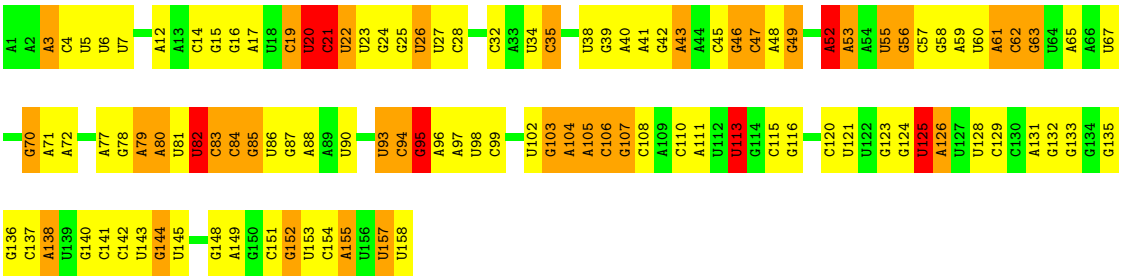




• Molecule 38: 5.8S ribosomal RNA

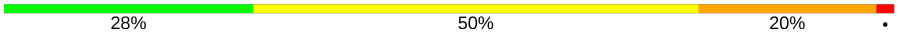
Chain 4:

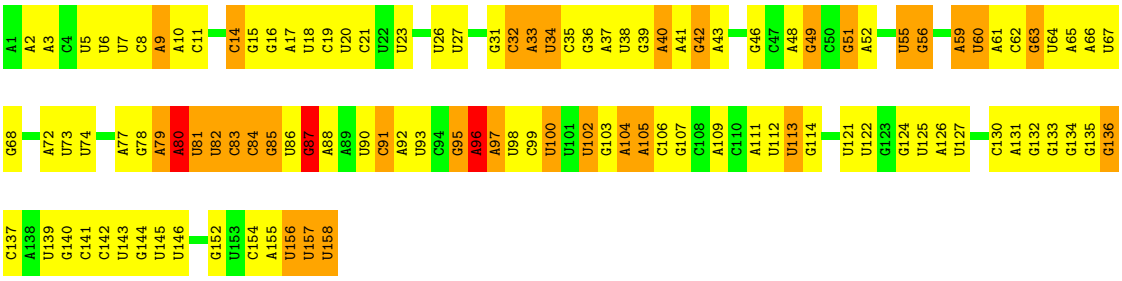




• Molecule 38: 5.8S ribosomal RNA

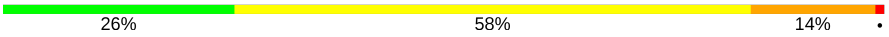
Chain 8:

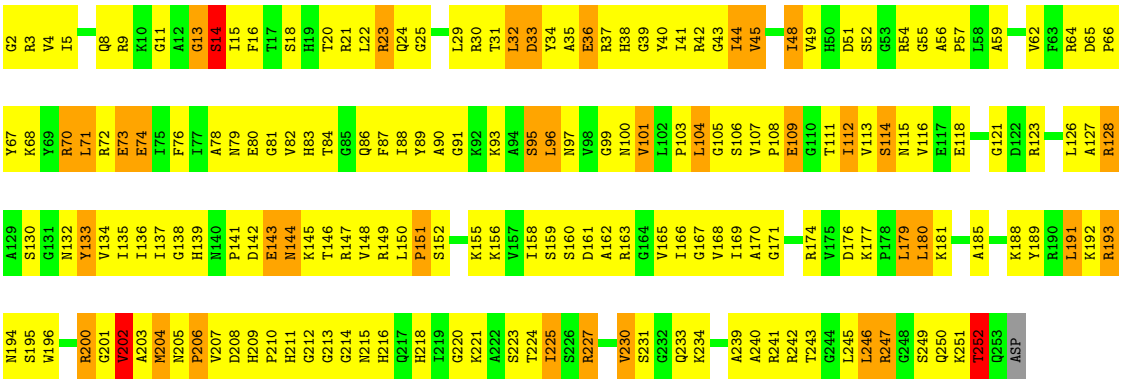




• Molecule 39: 60S ribosomal protein L2-A

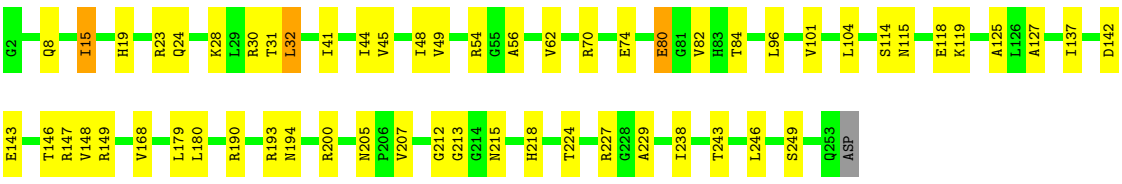
Chain L2:





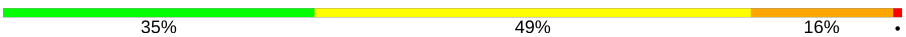
• Molecule 39: 60S ribosomal protein L2-A

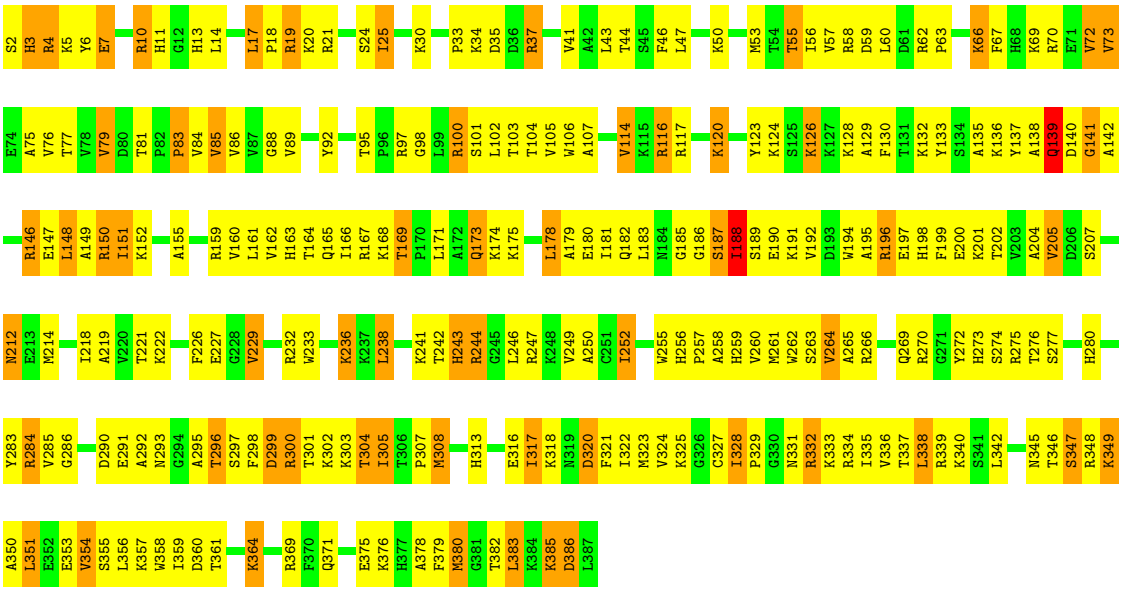
Chain l2:



• Molecule 40: 60S ribosomal protein L3

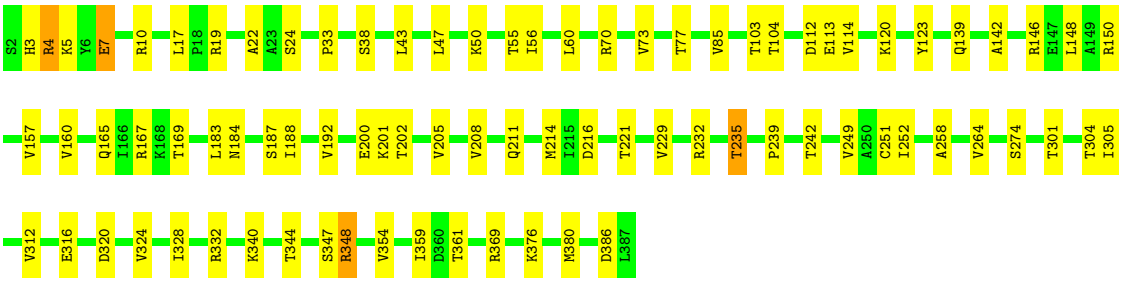
Chain L3:





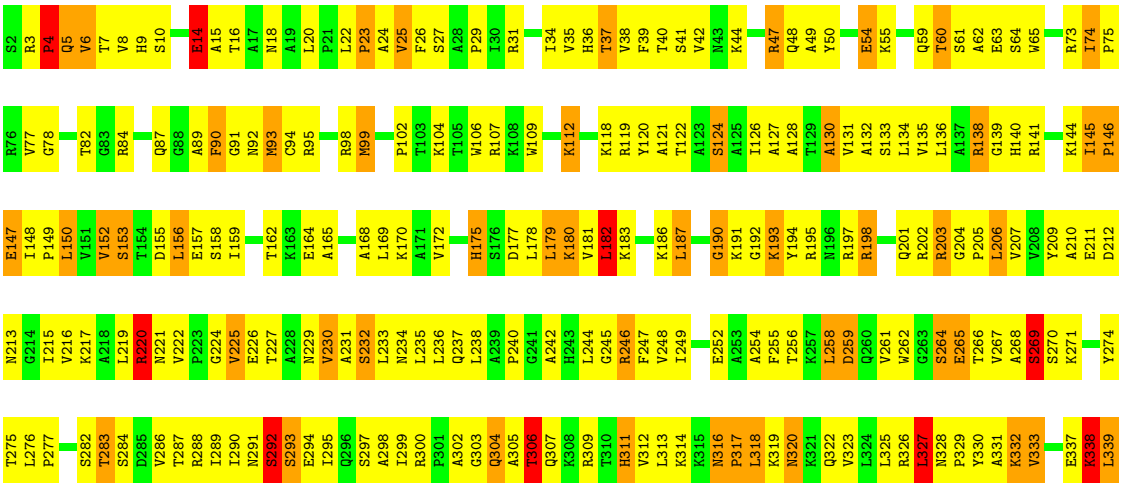
• Molecule 40: 60S ribosomal protein L3

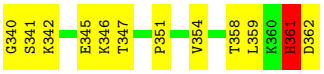
Chain l3:



• Molecule 41: 60S ribosomal protein L4-A

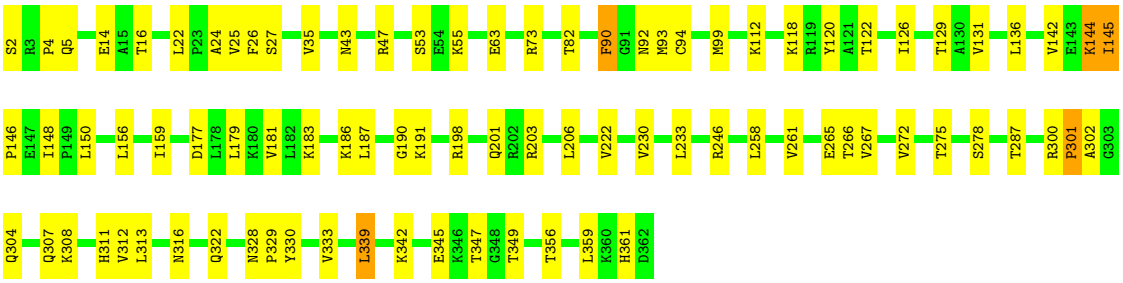
Chain L4:





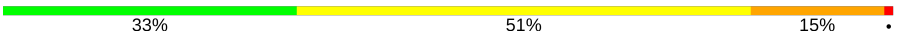
• Molecule 41: 60S ribosomal protein L4-A

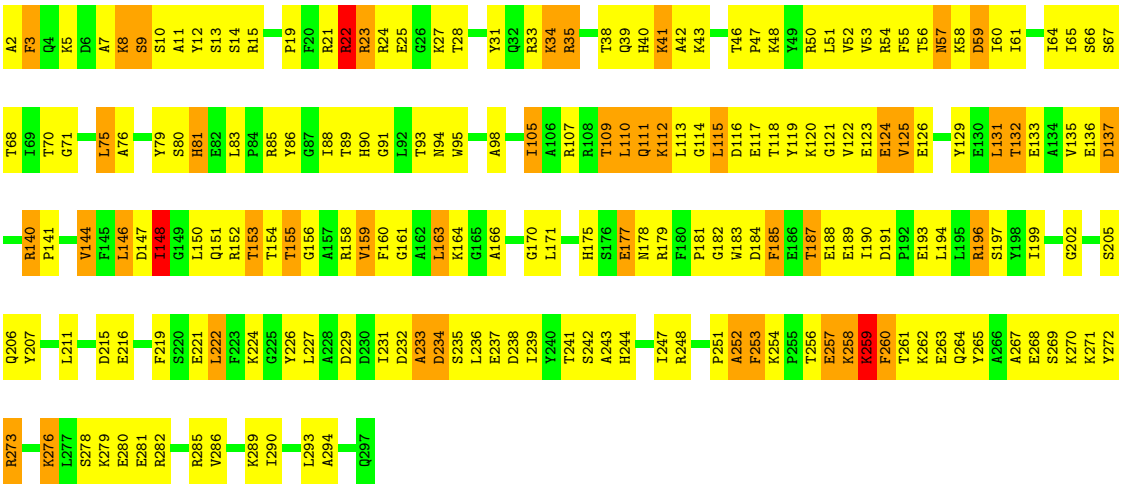
Chain l4:



• Molecule 42: 60S ribosomal protein L5

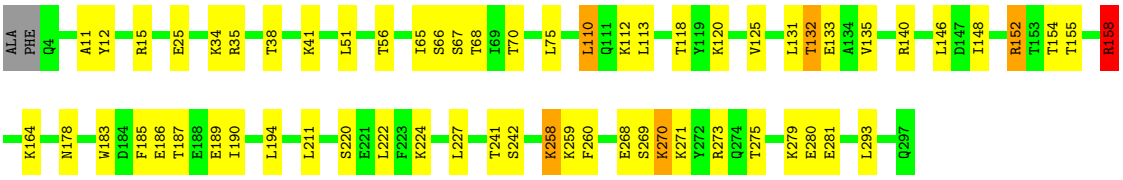
Chain L5:





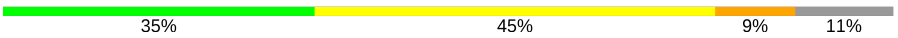
• Molecule 42: 60S ribosomal protein L5

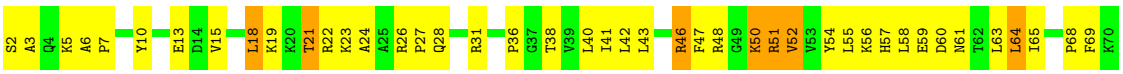
Chain l5:

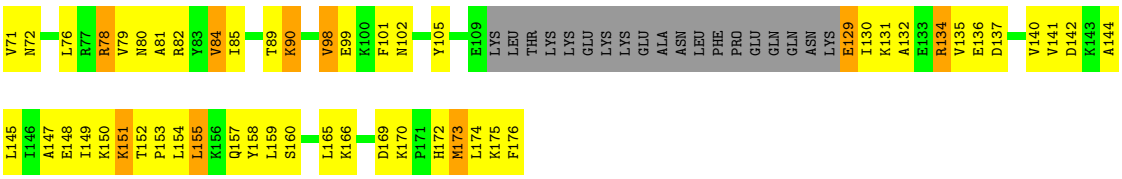


• Molecule 43: 60S ribosomal protein L6-A

Chain L6:

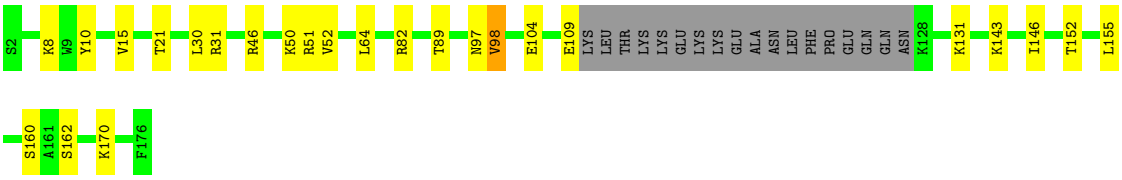






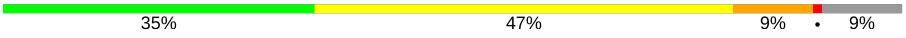
• Molecule 43: 60S ribosomal protein L6-A

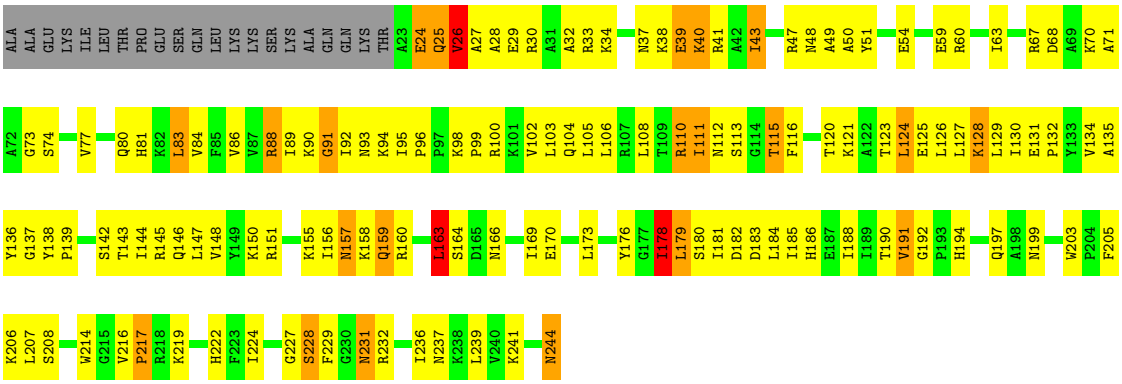
Chain l6:



• Molecule 44: 60S ribosomal protein L7-A

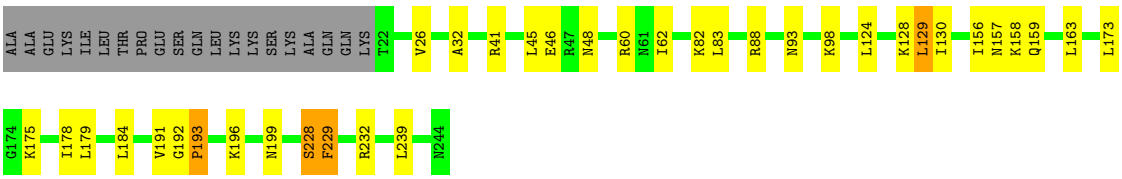
Chain L7:





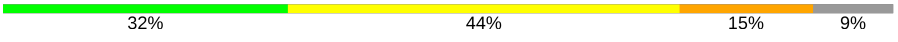
• Molecule 44: 60S ribosomal protein L7-A

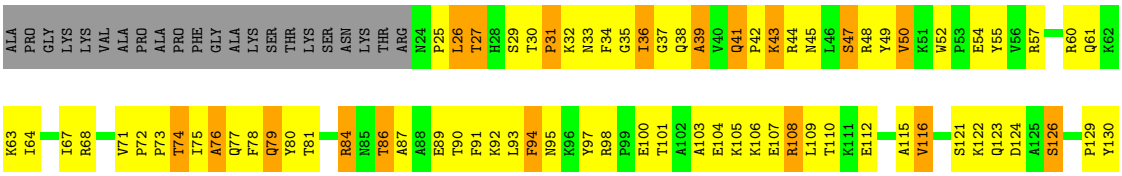
Chain l7:

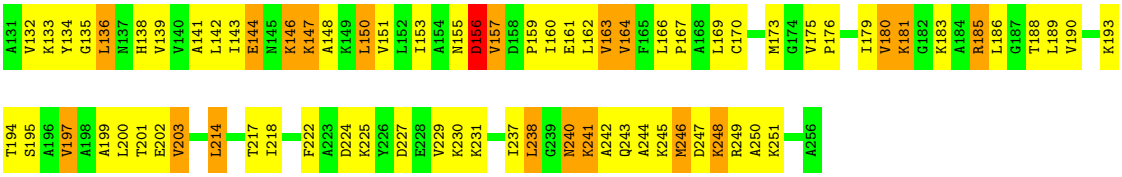


• Molecule 45: 60S ribosomal protein L8-A

Chain L8:

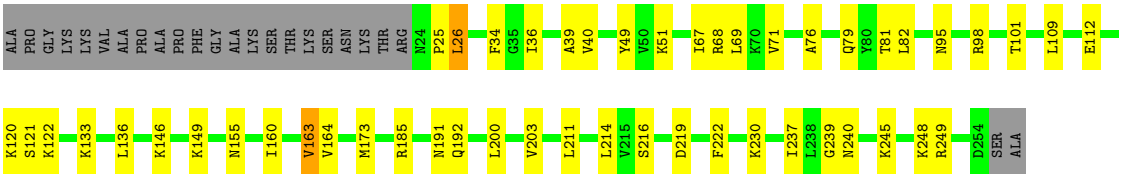






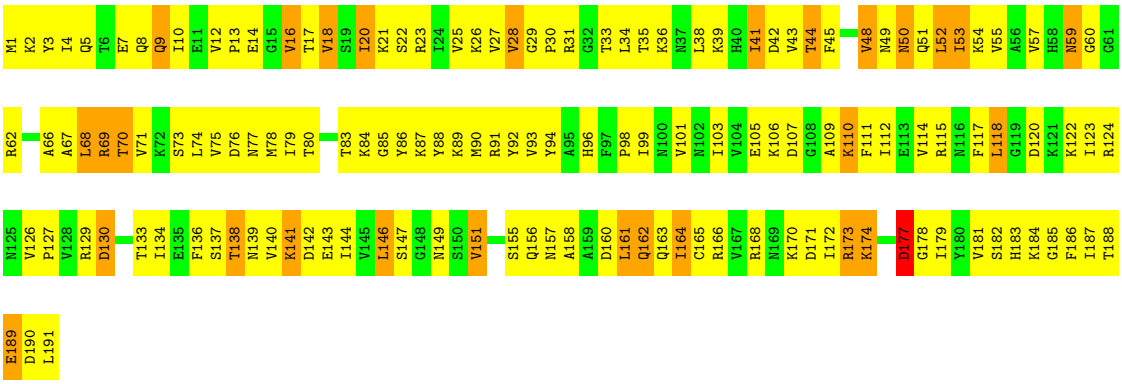
• Molecule 45: 60S ribosomal protein L8-A

Chain l8:



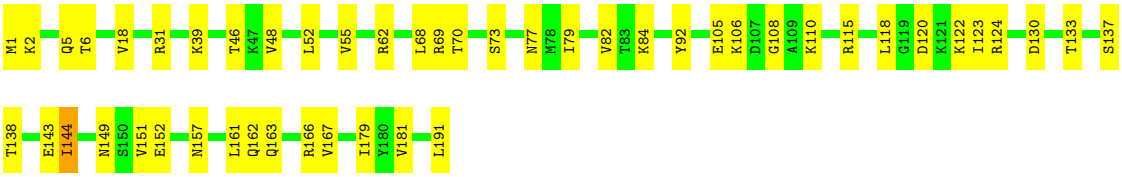
• Molecule 46: 60S ribosomal protein L9-A

Chain L9:



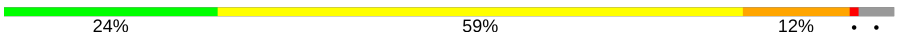
• Molecule 46: 60S ribosomal protein L9-A

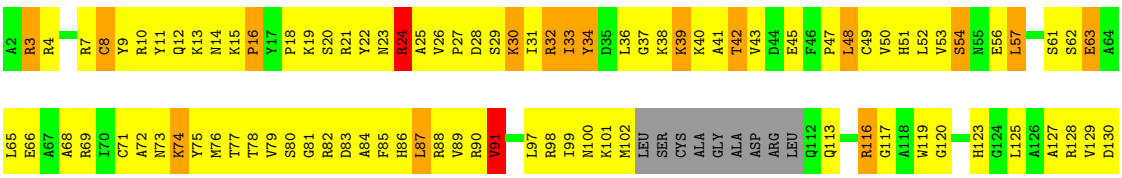
Chain l9:

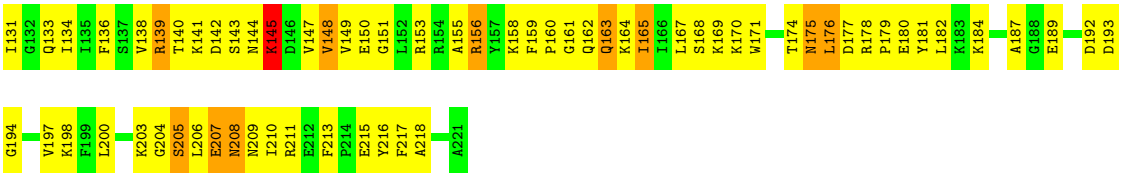


• Molecule 47: 60S ribosomal protein L10

Chain M0:

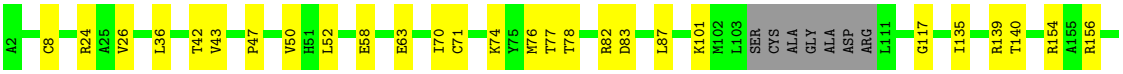






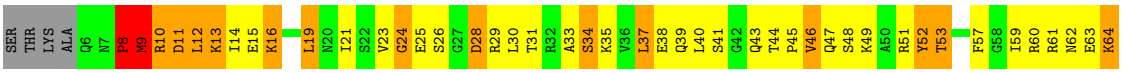
• Molecule 47: 60S ribosomal protein L10

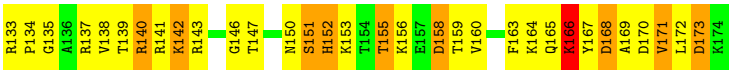
Chain m0:



• Molecule 48: 60S ribosomal protein L11-B

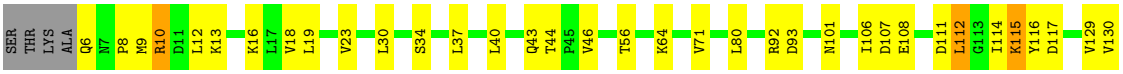
Chain M1:

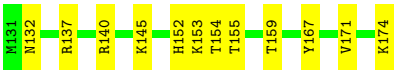




• Molecule 48: 60S ribosomal protein L11-B

Chain m1:



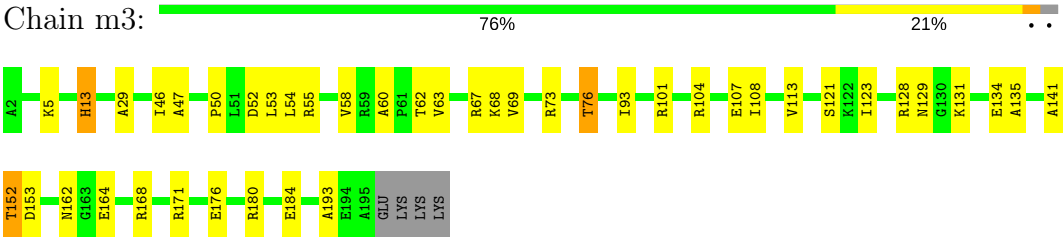


• Molecule 49: 60S ribosomal protein L13-A

Chain M3:

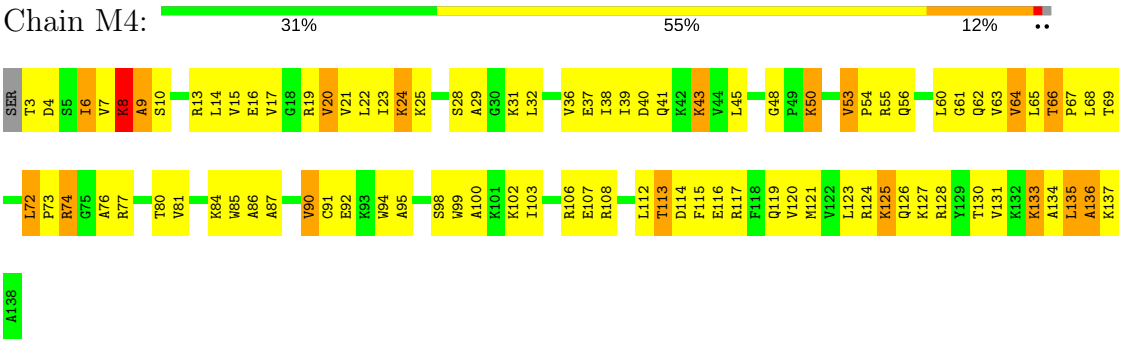
• Molecule 49: 60S ribosomal protein L13-A

Chain m3:



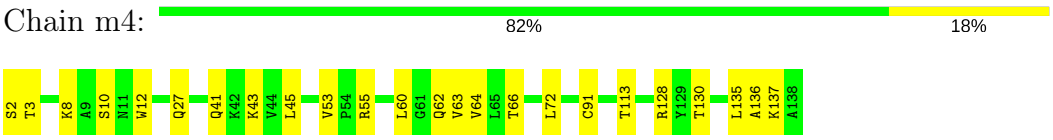
• Molecule 50: 60S ribosomal protein L14-A

Chain M4:



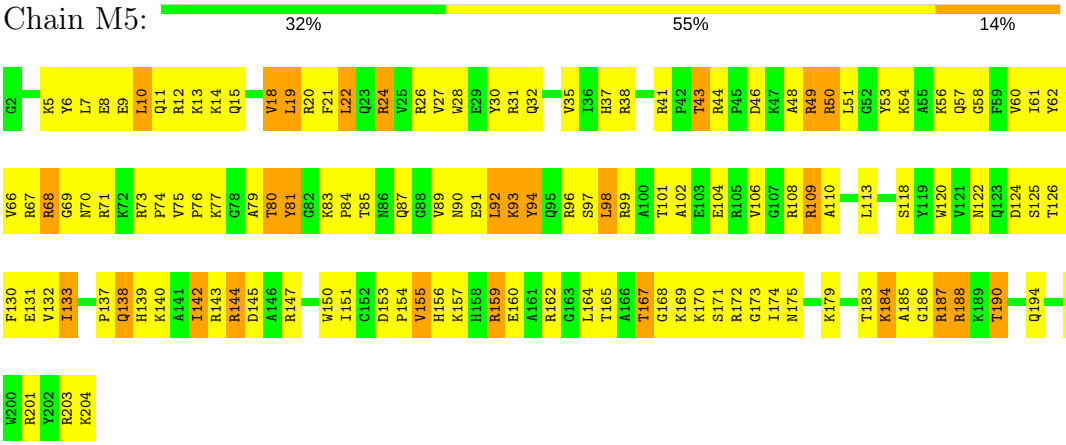
• Molecule 50: 60S ribosomal protein L14-A

Chain m4:



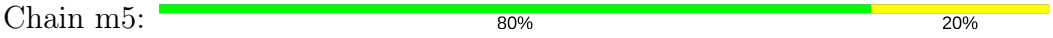
• Molecule 51: 60S ribosomal protein L15-A

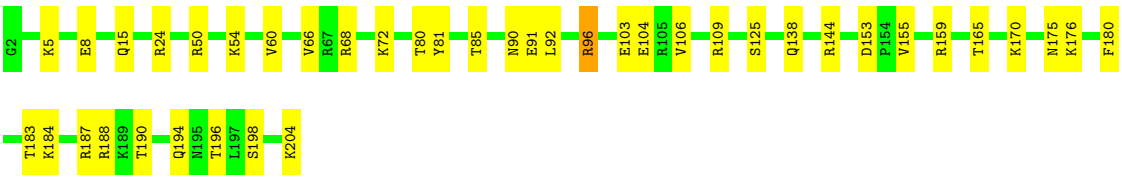
Chain M5:



• Molecule 51: 60S ribosomal protein L15-A

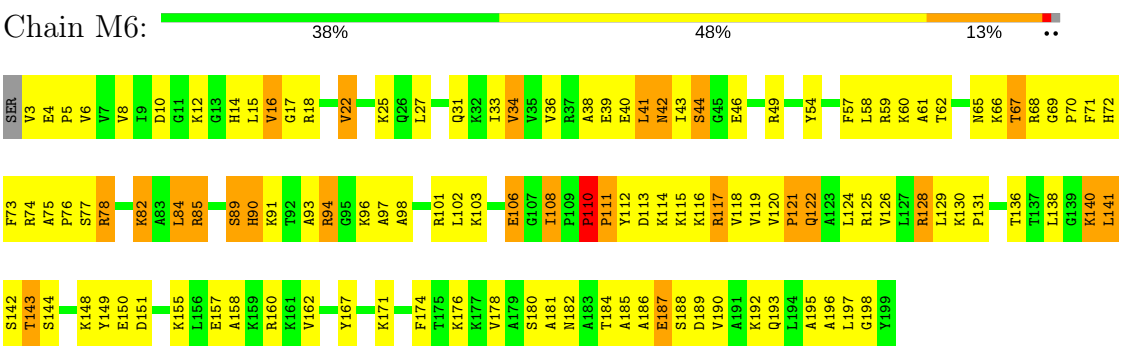
Chain m5:





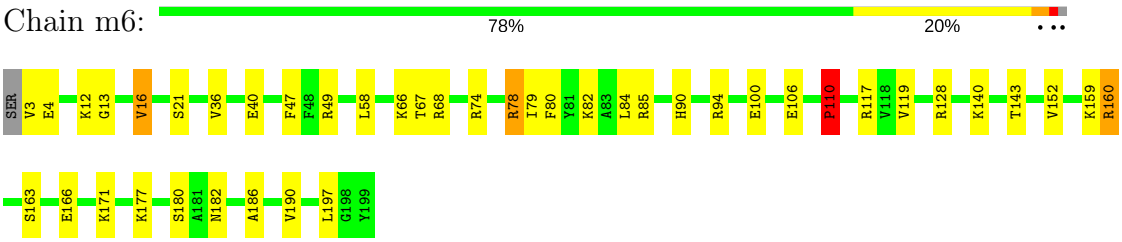
• Molecule 52: 60S ribosomal protein L16-A

Chain M6:



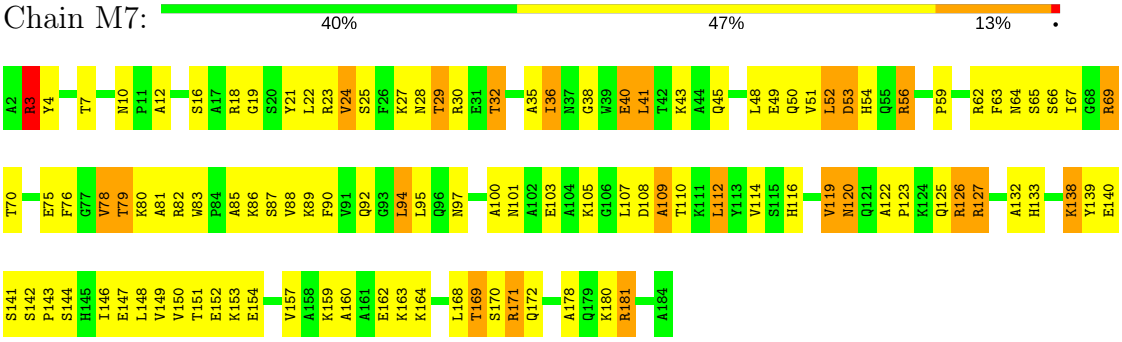
• Molecule 52: 60S ribosomal protein L16-A

Chain m6:



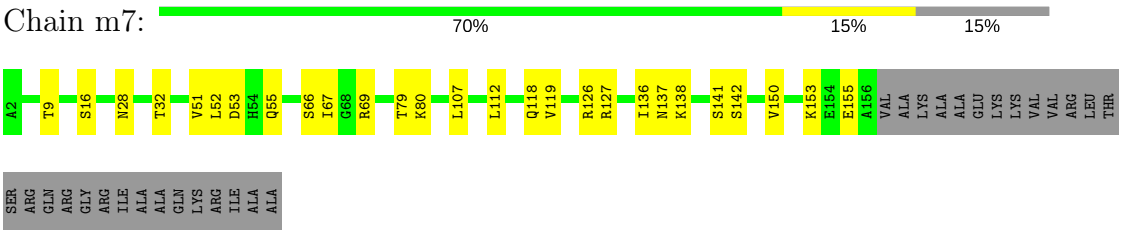
• Molecule 53: 60S ribosomal protein L17-A

Chain M7:



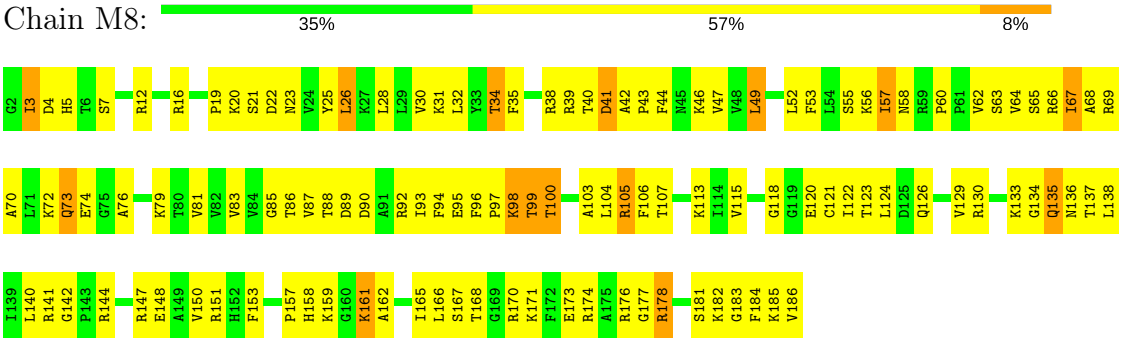
• Molecule 53: 60S ribosomal protein L17-A

Chain m7:



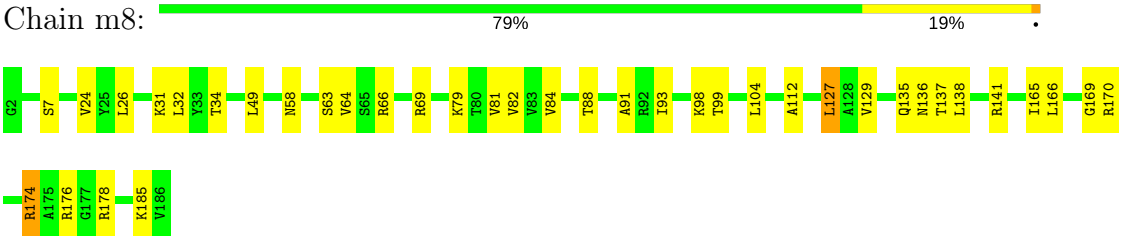
• Molecule 54: 60S ribosomal protein L18-A

Chain M8:



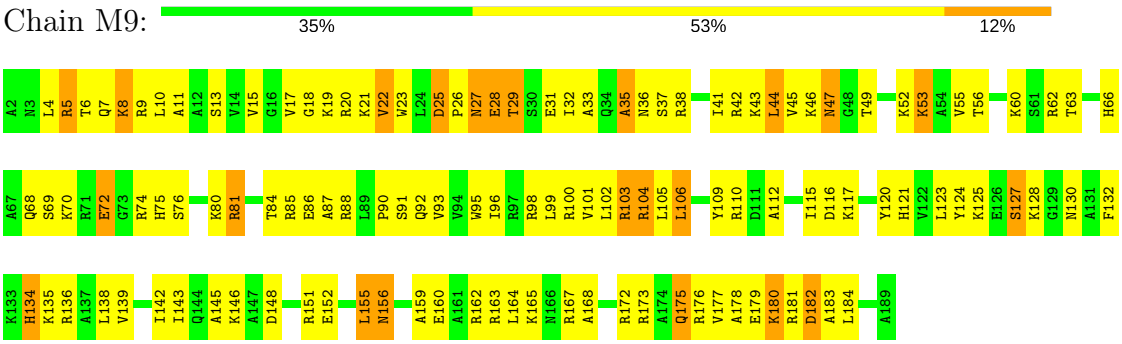
• Molecule 54: 60S ribosomal protein L18-A

Chain m8:



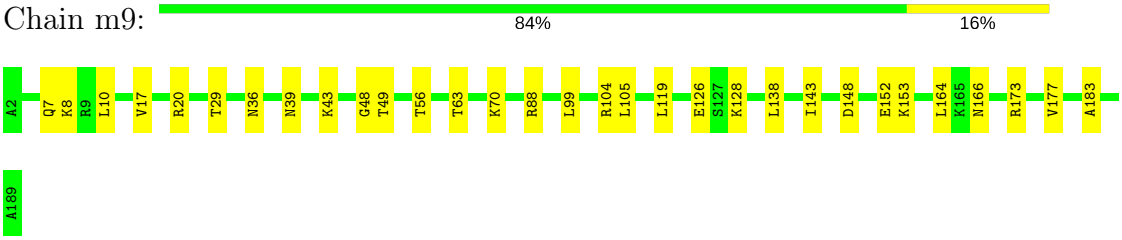
• Molecule 55: 60S ribosomal protein L19-A

Chain M9:



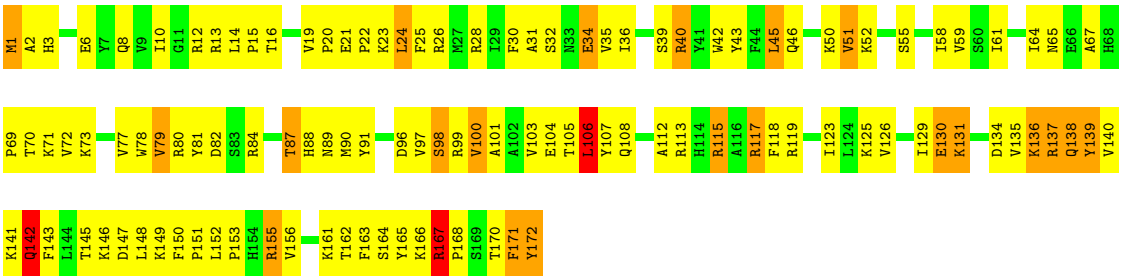
• Molecule 55: 60S ribosomal protein L19-A

Chain m9:



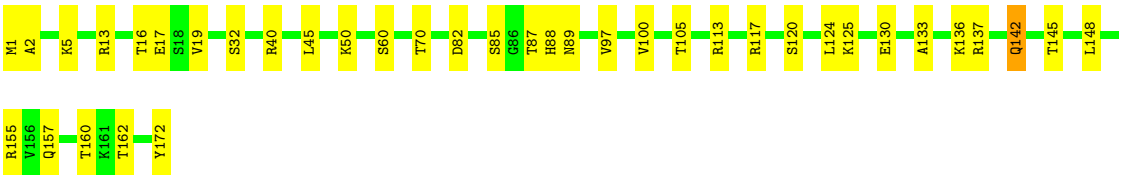
• Molecule 56: 60S ribosomal protein L20-A

Chain N0:



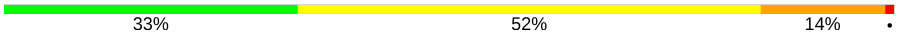
• Molecule 56: 60S ribosomal protein L20-A

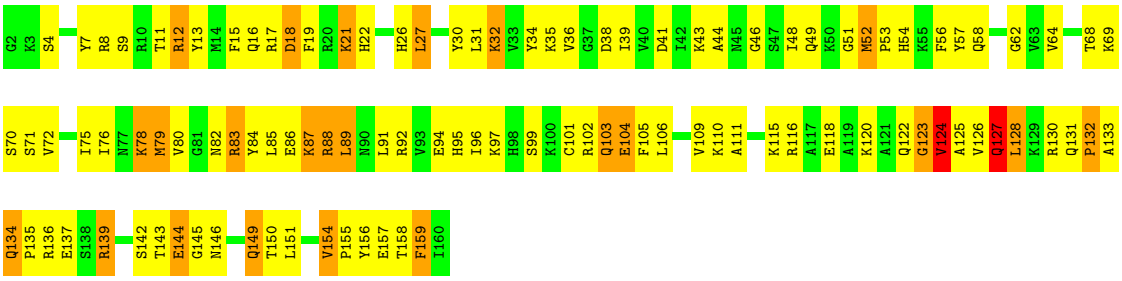
Chain n0:



• Molecule 57: 60S ribosomal protein L21-A

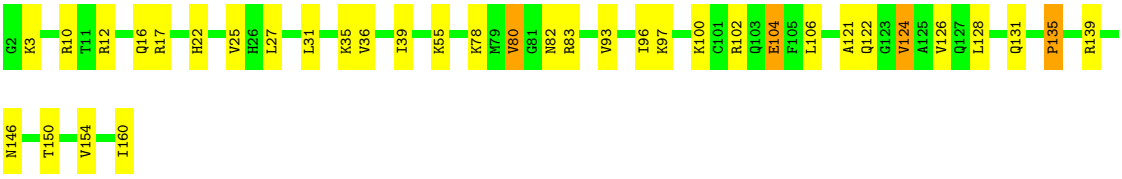
Chain N1:





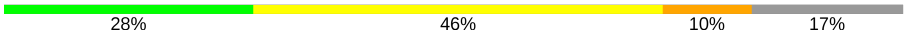
• Molecule 57: 60S ribosomal protein L21-A

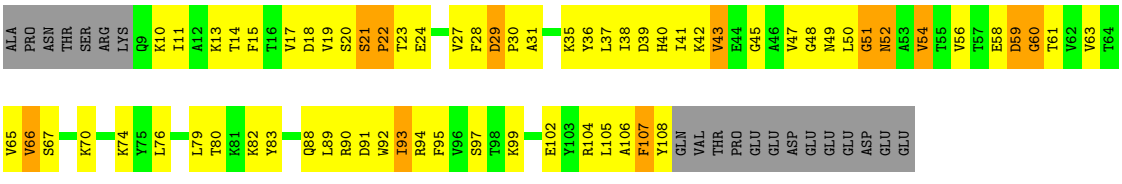
Chain n1:



• Molecule 58: 60S ribosomal protein L22-A

Chain N2:



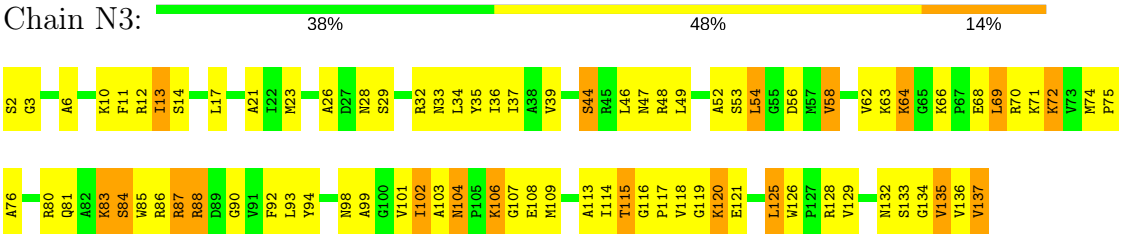


• Molecule 58: 60S ribosomal protein L22-A

Chain n2:

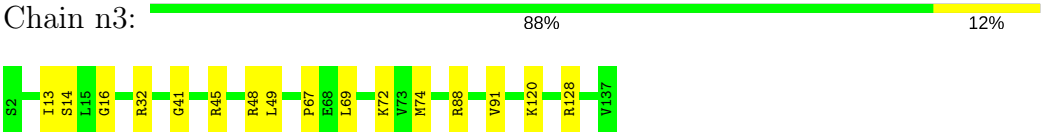
• Molecule 59: 60S ribosomal protein L23-A

Chain N3:



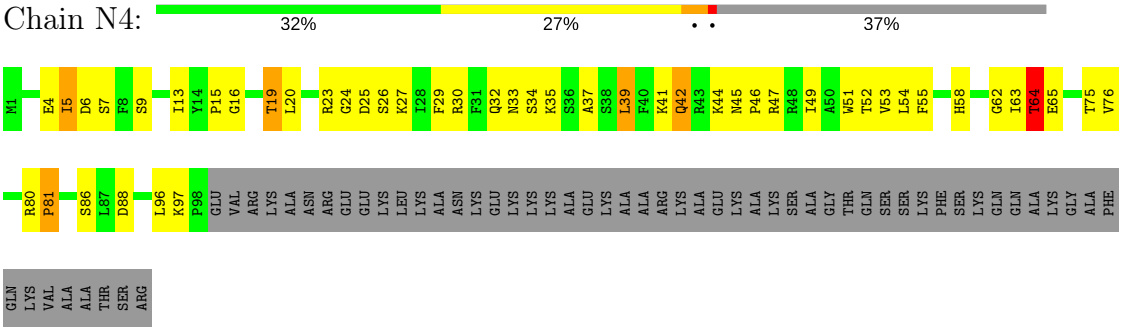
• Molecule 59: 60S ribosomal protein L23-A

Chain n3:



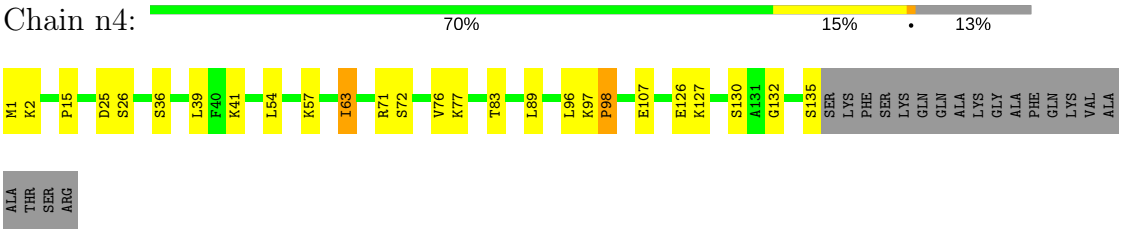
• Molecule 60: 60S ribosomal protein L24-A

Chain N4:



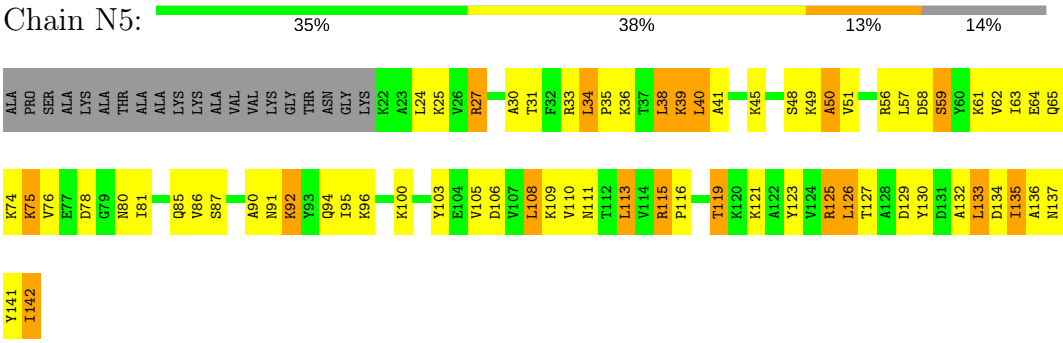
• Molecule 60: 60S ribosomal protein L24-A

Chain n4:



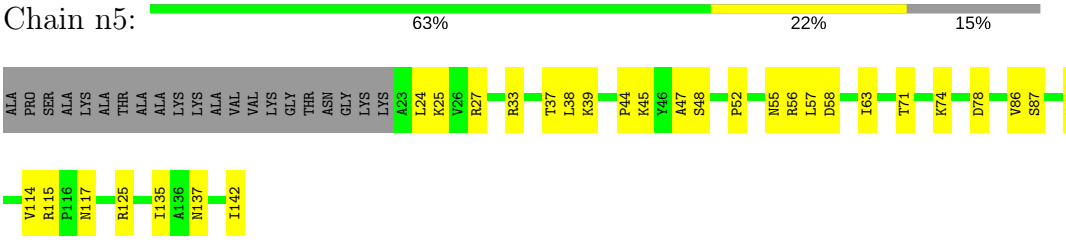
• Molecule 61: 60S ribosomal protein L25

Chain N5:



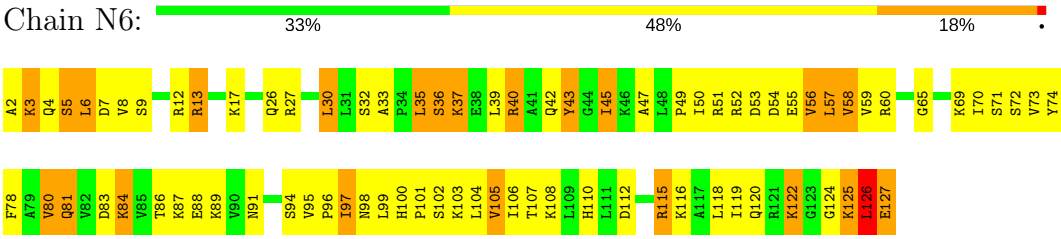
• Molecule 61: 60S ribosomal protein L25

Chain n5:



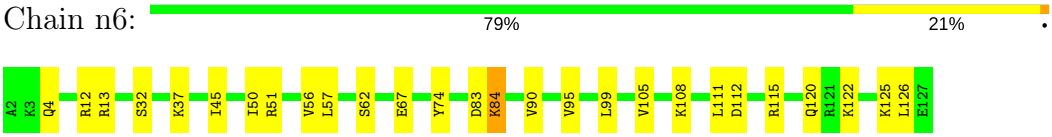
• Molecule 62: 60S ribosomal protein L26-A

Chain N6:



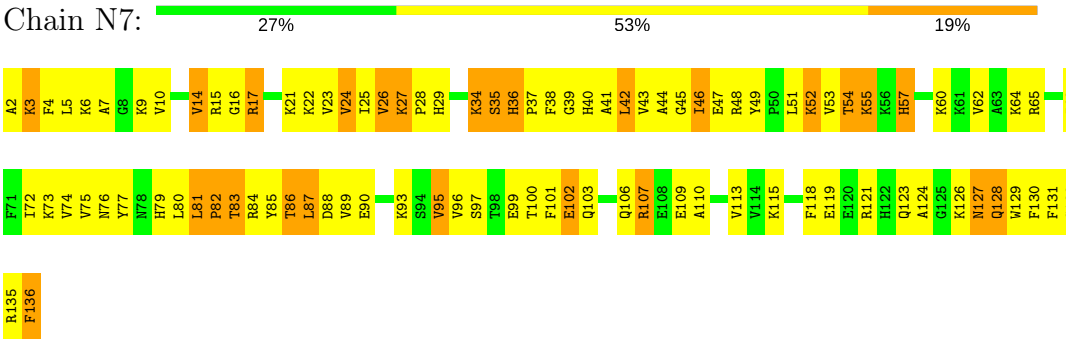
• Molecule 62: 60S ribosomal protein L26-A

Chain n6:



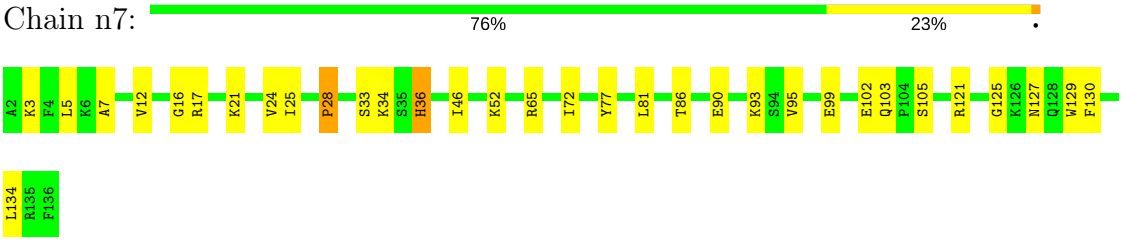
• Molecule 63: 60S ribosomal protein L27-A

Chain N7:



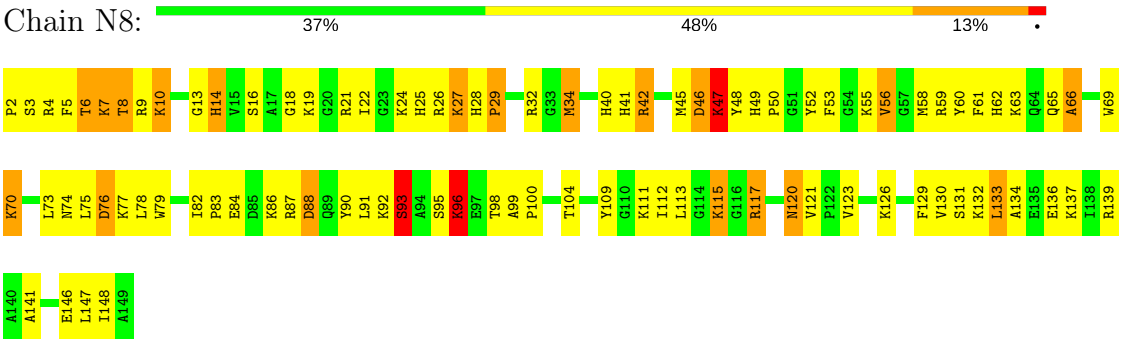
• Molecule 63: 60S ribosomal protein L27-A

Chain n7:



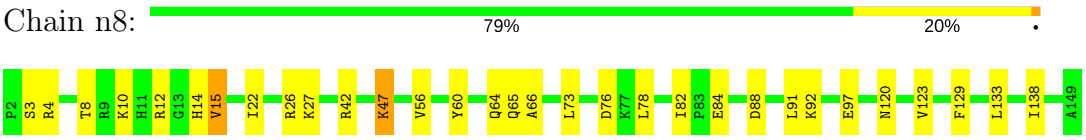
• Molecule 64: 60S ribosomal protein L28

Chain N8:



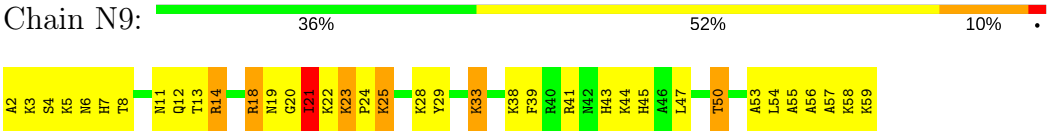
• Molecule 64: 60S ribosomal protein L28

Chain n8:



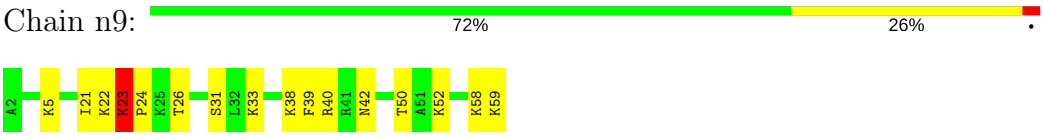
• Molecule 65: 60S ribosomal protein L29

Chain N9:



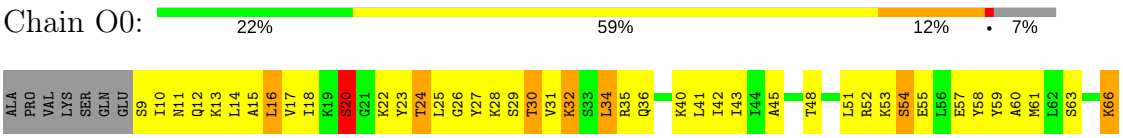
• Molecule 65: 60S ribosomal protein L29

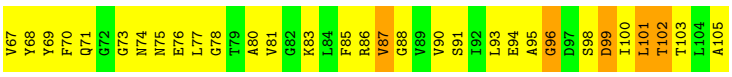
Chain n9:



• Molecule 66: 60S ribosomal protein L30

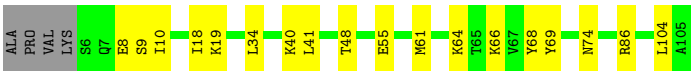
Chain O0:





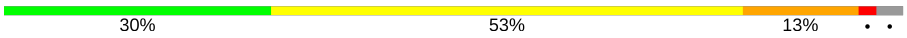
• Molecule 66: 60S ribosomal protein L30

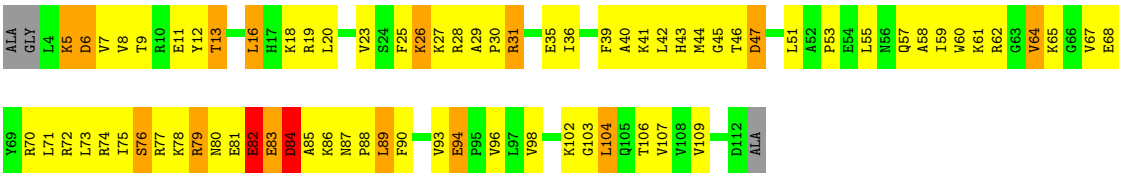
Chain o0:



• Molecule 67: 60S ribosomal protein L31-A

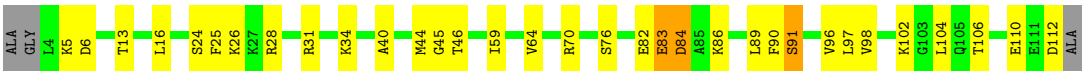
Chain O1:





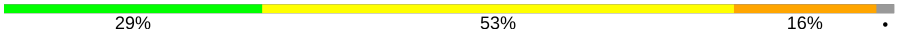
• Molecule 67: 60S ribosomal protein L31-A

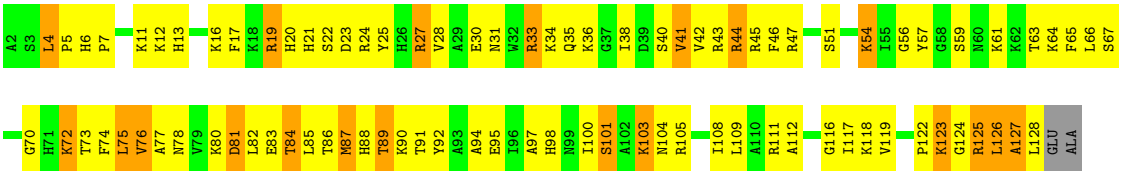
Chain o1:



• Molecule 68: 60S ribosomal protein L32

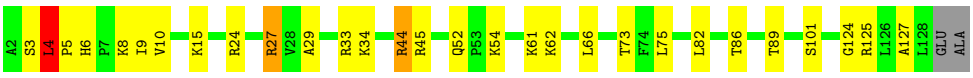
Chain O2:





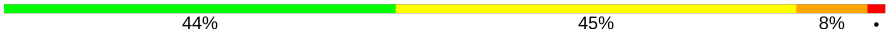
• Molecule 68: 60S ribosomal protein L32

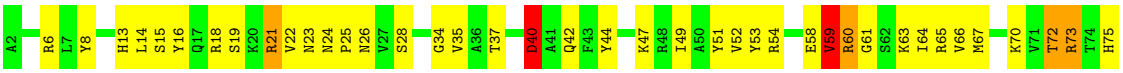
Chain o2:

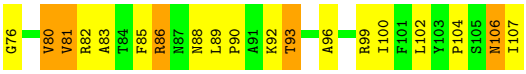


• Molecule 69: 60S ribosomal protein L33-A

Chain O3:

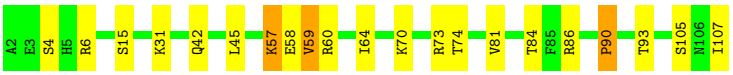






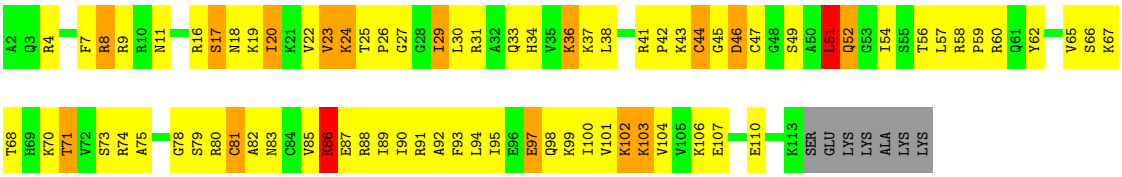
• Molecule 69: 60S ribosomal protein L33-A

Chain o3:



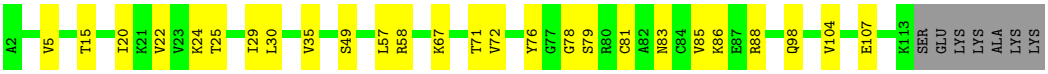
• Molecule 70: 60S ribosomal protein L34-A

Chain O4:



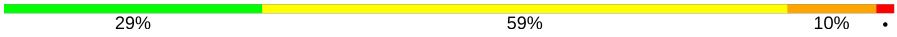
• Molecule 70: 60S ribosomal protein L34-A

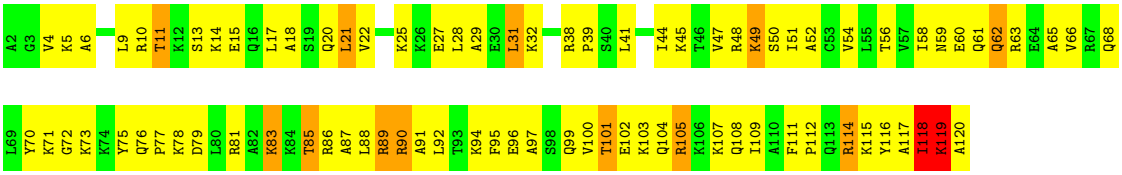
Chain o4:



• Molecule 71: 60S ribosomal protein L35-A

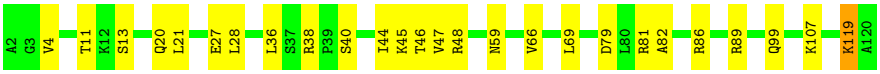
Chain O5:





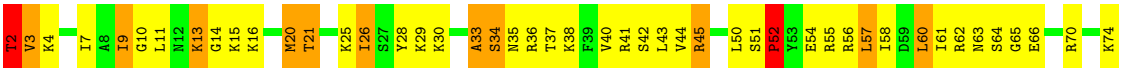
• Molecule 71: 60S ribosomal protein L35-A

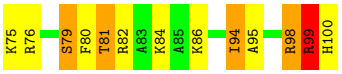
Chain o5:



• Molecule 72: 60S ribosomal protein L36-A

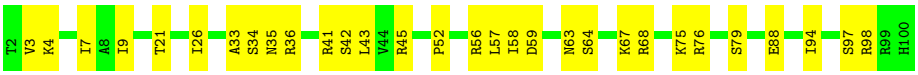
Chain O6:





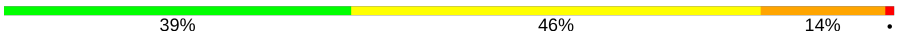
• Molecule 72: 60S ribosomal protein L36-A

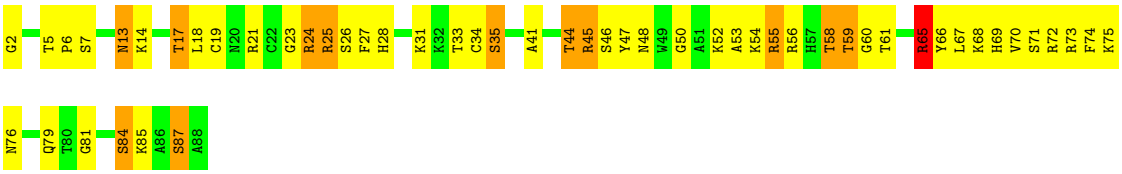
Chain o6:



• Molecule 73: 60S ribosomal protein L37-A

Chain O7:



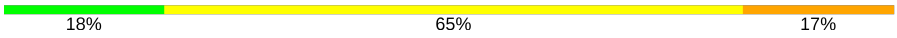


• Molecule 73: 60S ribosomal protein L37-A

Chain o7:

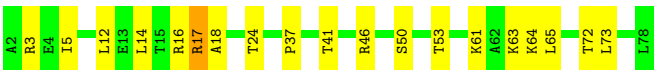
• Molecule 74: 60S ribosomal protein L38

Chain O8:



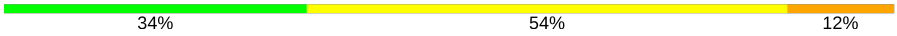
• Molecule 74: 60S ribosomal protein L38

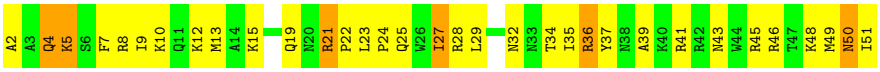
Chain o8:



• Molecule 75: 60S ribosomal protein L39

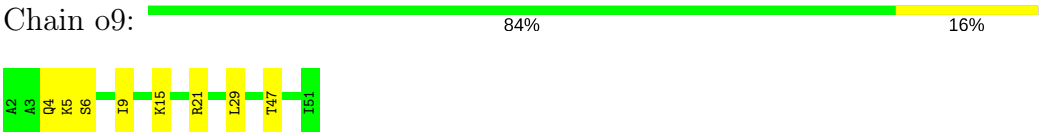
Chain O9:





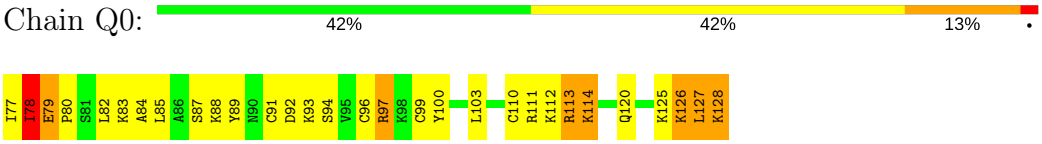
• Molecule 75: 60S ribosomal protein L39

Chain o9:



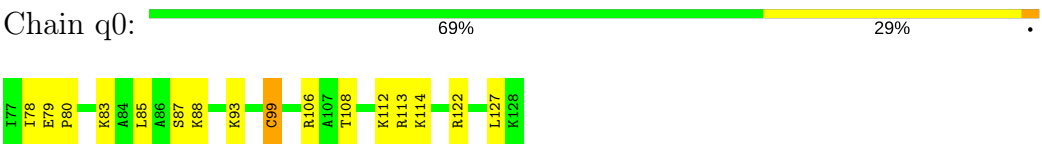
• Molecule 76: Ubiquitin-60S ribosomal protein L40

Chain Q0:



• Molecule 76: Ubiquitin-60S ribosomal protein L40

Chain q0:



• Molecule 77: 60S ribosomal protein L41-A

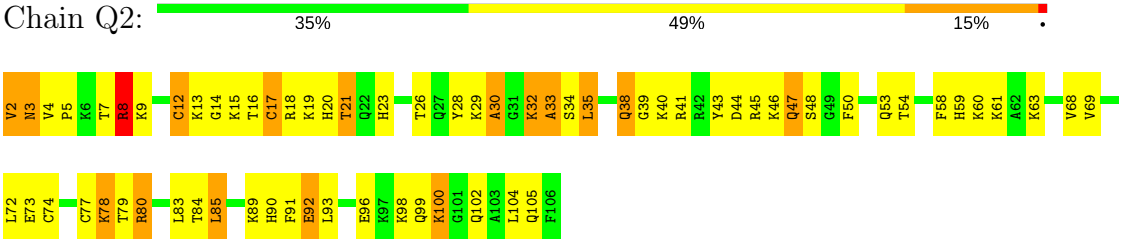
Chain Q1:

• Molecule 77: 60S ribosomal protein L41-A

Chain q1:

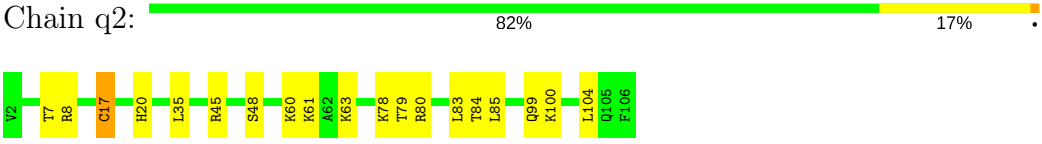
• Molecule 78: 60S ribosomal protein L42-A

Chain Q2:



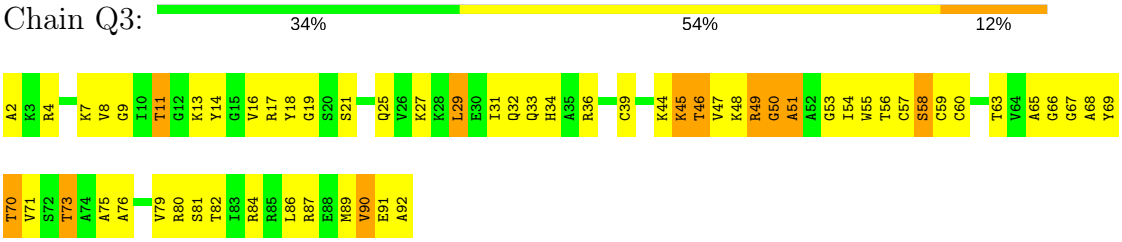
• Molecule 78: 60S ribosomal protein L42-A

Chain q2:



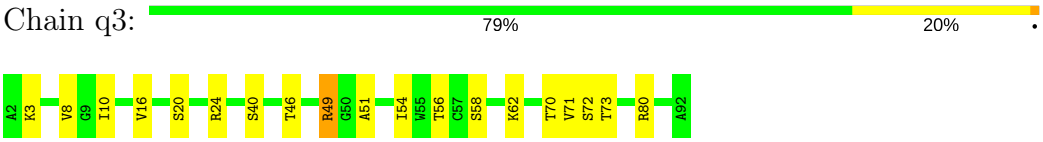
• Molecule 79: 60S ribosomal protein L43-A

Chain Q3:



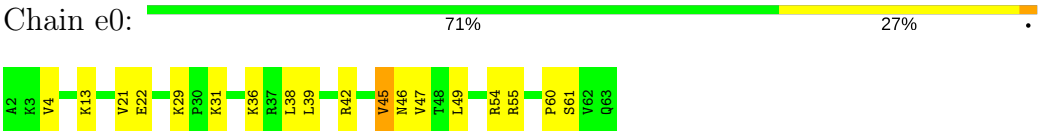
• Molecule 79: 60S ribosomal protein L43-A

Chain q3:



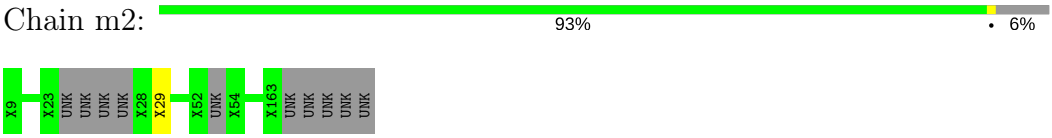
• Molecule 80: 40S ribosomal protein S30-A

Chain e0:



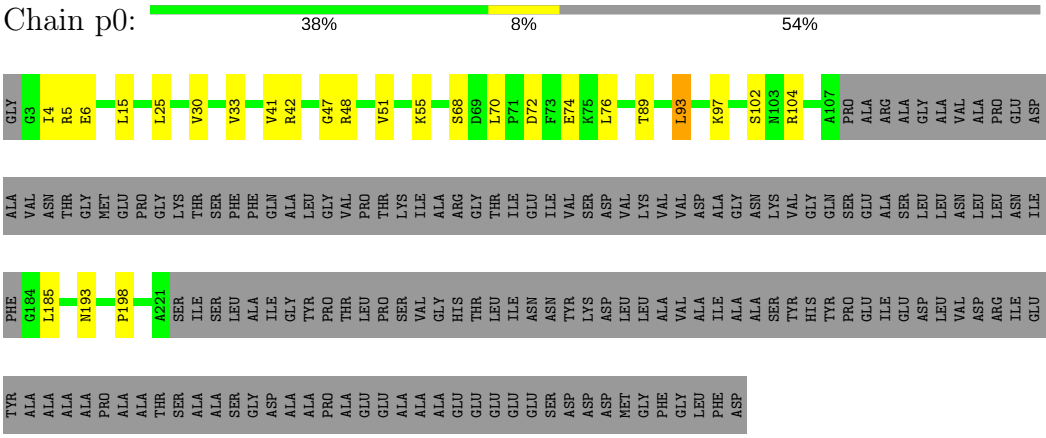
• Molecule 81: Unknown Protein m2

Chain m2:



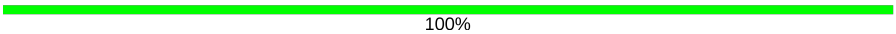
• Molecule 82: 60S acidic ribosomal protein P0

Chain p0:



• Molecule 83: Unknown Protein p1

Chain p1:



There are no outlier residues recorded for this chain.

• Molecule 84: Unknown Protein p2

Chain p2:

There are no outlier residues recorded for this chain.

4 Data and refinement statistics (i)

EDS failed to run properly - this section is therefore incomplete.

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	435.84Å 286.77Å 303.77Å 90.00° 99.03° 90.00°	Depositor
Resolution (Å)	49.70 – 3.30	Depositor
% Data completeness (in resolution range)	99.4 (49.70-3.30)	Depositor
R_{merge}	0.31	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.34 (at 3.33Å)	Xtriage
Refinement program	PHENIX (phenix.refine: dev_1702)	Depositor
R, R_{free}	0.202 , 0.255	Depositor
Wilson B-factor (Å^2)	90.1	Xtriage
Anisotropy	0.099	Xtriage
L-test for twinning[2]	$< \|L\| > = 0.46$, $< L^2 > = 0.28$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
Total number of atoms	411183	wwPDB-VP
Average B, all atoms (Å^2)	79.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.47% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: 3J6, ZN, OHX, MG

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	2	0.74	6/41698 (0.0%)	1.29	289/64972 (0.4%)
1	6	0.88	18/42765 (0.0%)	1.38	477/66634 (0.7%)
2	S0	0.46	0/1617	0.66	0/2215
2	s0	0.48	0/1623	0.69	0/2222
3	S1	0.39	0/1735	0.65	1/2335 (0.0%)
3	s1	0.50	0/1748	0.70	1/2352 (0.0%)
4	S2	0.50	0/1665	0.66	0/2263
4	s2	0.58	0/1665	0.72	0/2263
5	S3	0.50	0/1759	0.66	0/2368
5	s3	0.42	0/1759	0.60	0/2368
6	S4	0.47	0/2109	0.70	1/2839 (0.0%)
6	s4	0.53	0/2109	0.73	0/2839
7	S5	0.40	0/1629	0.59	0/2202
7	s5	0.46	0/1629	0.69	0/2202
8	S6	0.44	0/1823	0.64	0/2439
8	s6	0.55	0/1779	0.70	0/2379
9	S7	0.43	0/1506	0.65	0/2028
9	s7	0.44	0/1516	0.65	0/2043
10	S8	0.54	0/1514	0.71	2/2021 (0.1%)
10	s8	0.60	0/1514	0.74	0/2021
11	S9	0.47	0/1519	0.65	0/2035
11	s9	0.56	0/1519	0.78	1/2035 (0.0%)
12	C0	0.42	0/790	0.64	1/1069 (0.1%)
12	c0	0.37	0/777	0.66	3/1049 (0.3%)
13	C1	0.58	0/1240	0.70	0/1675
13	c1	0.63	0/1194	0.76	0/1610
14	C2	0.38	0/900	0.64	1/1224 (0.1%)
14	c2	0.29	0/900	0.57	0/1224
15	C3	0.47	0/1215	0.68	2/1638 (0.1%)
15	c3	0.54	0/1215	0.71	0/1638
16	C4	0.40	0/901	0.68	0/1217
16	c4	0.52	0/960	0.74	1/1290 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	C5	0.46	0/998	0.65	0/1341
17	c5	0.48	0/1060	0.70	1/1426 (0.1%)
18	C6	0.45	0/1125	0.68	1/1510 (0.1%)
18	c6	0.51	0/1131	0.70	0/1518
19	C7	0.44	0/935	0.63	0/1254
19	c7	0.47	0/914	0.69	0/1224
20	C8	0.42	0/1211	0.64	0/1628
20	c8	0.50	0/1211	0.71	1/1628 (0.1%)
21	C9	0.45	0/1130	0.65	1/1517 (0.1%)
21	c9	0.50	0/1130	0.67	1/1517 (0.1%)
22	D0	0.46	0/865	0.65	0/1169
22	d0	0.48	0/892	0.68	0/1205
23	D1	0.46	0/693	0.65	0/935
23	d1	0.52	0/693	0.68	0/935
24	D2	0.50	0/1038	0.75	2/1395 (0.1%)
24	d2	0.61	0/1038	0.76	1/1395 (0.1%)
25	D3	0.61	0/1139	0.75	0/1518
25	d3	0.75	0/1139	0.86	2/1518 (0.1%)
26	D4	0.45	0/1087	0.61	0/1449
26	d4	0.51	0/1087	0.71	0/1449
27	D5	0.40	0/571	0.72	0/768
27	d5	0.46	0/566	0.71	0/761
28	D6	0.48	0/782	0.71	0/1047
28	d6	0.65	0/782	0.79	1/1047 (0.1%)
29	D7	0.43	0/620	0.67	0/838
29	d7	0.49	0/620	0.64	0/838
30	D8	0.36	0/499	0.56	0/670
30	d8	0.46	0/499	0.63	0/670
31	D9	0.54	0/452	0.70	1/600 (0.2%)
31	d9	0.48	0/452	0.65	0/600
32	E0	0.48	0/483	0.61	0/643
33	E1	0.43	0/577	0.77	0/770
33	e1	0.39	0/619	0.69	1/822 (0.1%)
34	SR	0.37	0/2494	0.58	0/3393
34	sR	0.42	0/2495	0.59	0/3395
35	SM	0.53	0/1113	0.80	4/1502 (0.3%)
35	sM	0.50	0/683	0.73	1/923 (0.1%)
36	1	1.15	144/75394 (0.2%)	1.64	1754/117545 (1.5%)
36	5	1.19	180/75414 (0.2%)	1.67	1900/117575 (1.6%)
37	3	0.94	1/2883 (0.0%)	1.44	31/4491 (0.7%)
37	7	1.14	3/2883 (0.1%)	1.67	68/4491 (1.5%)
38	4	1.06	2/3746 (0.1%)	1.55	59/5832 (1.0%)
38	8	0.98	1/3746 (0.0%)	1.42	27/5832 (0.5%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
39	L2	0.70	0/1948	0.85	4/2617 (0.2%)
39	l2	0.67	0/1946	0.84	0/2614
40	L3	0.73	0/3146	0.82	1/4228 (0.0%)
40	l3	0.83	2/3146 (0.1%)	0.90	2/4228 (0.0%)
41	L4	0.81	2/2800 (0.1%)	0.91	3/3790 (0.1%)
41	l4	0.72	1/2800 (0.0%)	0.87	0/3790
42	L5	0.57	0/2425	0.71	0/3271
42	l5	0.70	0/2408	0.82	4/3248 (0.1%)
43	L6	0.74	0/1260	0.79	0/1694
43	l6	0.75	0/1269	0.82	1/1705 (0.1%)
44	L7	0.76	0/1821	0.88	2/2451 (0.1%)
44	l7	0.84	0/1828	0.88	4/2461 (0.2%)
45	L8	0.56	0/1836	0.69	0/2481
45	l8	0.51	0/1795	0.64	0/2429
46	L9	0.64	0/1539	0.77	0/2073
46	l9	0.80	0/1539	0.84	0/2073
47	M0	0.77	1/1741 (0.1%)	0.83	1/2335 (0.0%)
47	m0	0.77	1/1758 (0.1%)	0.83	0/2358
48	M1	0.51	0/1374	0.70	0/1842
48	m1	0.67	0/1374	0.85	2/1842 (0.1%)
49	M3	0.75	0/1568	0.84	1/2106 (0.0%)
49	m3	0.68	0/1573	0.80	0/2113
50	M4	0.73	0/1068	0.76	0/1438
50	m4	0.82	0/1074	0.82	1/1446 (0.1%)
51	M5	0.72	0/1757	0.84	0/2354
51	m5	0.66	0/1757	0.80	2/2354 (0.1%)
52	M6	0.82	0/1585	0.85	1/2128 (0.0%)
52	m6	0.98	2/1585 (0.1%)	0.96	2/2128 (0.1%)
53	M7	0.80	1/1443 (0.1%)	0.84	2/1944 (0.1%)
53	m7	0.84	0/1250	0.84	0/1683
54	M8	0.78	0/1465	0.91	1/1965 (0.1%)
54	m8	0.71	0/1465	0.94	5/1965 (0.3%)
55	M9	0.56	0/1538	0.66	0/2050
55	m9	0.62	0/1538	0.72	0/2050
56	N0	0.74	0/1481	0.84	3/1990 (0.2%)
56	n0	0.89	0/1481	0.89	0/1990
57	N1	0.76	0/1300	0.78	0/1743
57	n1	0.83	2/1300 (0.2%)	0.82	1/1743 (0.1%)
58	N2	0.46	0/812	0.63	0/1099
58	n2	0.50	0/794	0.67	0/1076
59	N3	0.69	0/1018	0.83	1/1369 (0.1%)
59	n3	0.81	0/1018	0.87	0/1369
60	N4	0.55	0/712	0.66	0/958

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
60	n4	0.67	0/1052	0.79	0/1398
61	N5	0.63	0/979	0.77	1/1321 (0.1%)
61	n5	0.67	0/974	0.79	0/1314
62	N6	0.74	0/1004	0.87	1/1341 (0.1%)
62	n6	0.63	0/1004	0.79	0/1341
63	N7	0.54	0/1118	0.70	0/1497
63	n7	0.49	0/1118	0.65	0/1497
64	N8	0.75	0/1204	0.90	0/1612
64	n8	0.77	0/1204	0.87	0/1612
65	N9	0.65	0/473	0.77	1/629 (0.2%)
65	n9	0.79	0/473	0.97	1/629 (0.2%)
66	O0	0.50	0/751	0.66	0/1008
66	o0	0.52	0/775	0.69	0/1040
67	O1	0.63	0/890	0.72	0/1196
67	o1	0.72	0/897	0.84	0/1205
68	O2	0.84	0/1041	0.90	1/1394 (0.1%)
68	o2	0.81	0/1041	0.90	2/1394 (0.1%)
69	O3	0.89	0/868	0.87	1/1168 (0.1%)
69	o3	0.90	0/868	0.90	0/1168
70	O4	0.59	0/890	0.79	1/1189 (0.1%)
70	o4	0.56	0/890	0.76	0/1189
71	O5	0.71	0/978	0.78	0/1301
71	o5	0.56	0/974	0.68	0/1297
72	O6	0.66	0/778	0.76	0/1034
72	o6	0.55	0/777	0.73	0/1033
73	O7	0.75	0/696	0.99	3/923 (0.3%)
73	o7	0.70	0/696	0.86	1/923 (0.1%)
74	O8	0.52	0/618	0.68	0/826
74	o8	0.50	0/614	0.68	0/822
75	O9	0.74	0/443	0.88	0/588
75	o9	0.66	0/443	0.79	0/588
76	Q0	0.69	0/423	0.82	0/562
76	q0	0.94	1/423 (0.2%)	0.92	0/562
77	Q1	0.61	0/234	0.78	0/300
77	q1	0.78	0/234	1.00	0/300
78	Q2	0.88	1/860 (0.1%)	0.90	0/1136
78	q2	0.79	1/860 (0.1%)	0.77	1/1136 (0.1%)
79	Q3	0.71	0/701	0.81	1/934 (0.1%)
79	q3	0.71	0/701	0.80	0/934
80	e0	0.58	0/499	0.74	0/665
82	p0	0.46	0/1092	0.61	0/1474
All	All	0.90	370/430074 (0.1%)	1.30	4696/631364 (0.7%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
6	S4	0	1
7	s5	0	1
9	S7	0	2
9	s7	0	1
10	s8	0	1
11	s9	0	1
16	C4	0	2
18	c6	0	1
19	C7	0	1
25	D3	0	1
27	D5	0	1
28	D6	0	1
33	E1	0	1
39	L2	0	1
39	l2	0	1
40	L3	0	1
43	L6	0	1
43	l6	0	1
44	l7	0	1
45	L8	0	1
46	L9	0	1
48	M1	0	1
52	M6	0	1
52	m6	0	1
54	m8	0	1
56	N0	0	1
56	n0	0	1
59	n3	0	1
64	n8	0	1
65	N9	0	2
67	O1	0	1
72	O6	0	1
81	m2	0	1
All	All	0	36

All (370) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	Q2	17	CYS	CB-SG	12.26	2.03	1.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	1152	G	N9-C4	-11.12	1.29	1.38
36	5	2726	C	N3-C4	-9.57	1.27	1.33
78	q2	17	CYS	CB-SG	9.14	1.97	1.82
36	1	3181	C	N3-C4	-8.78	1.27	1.33
36	5	1152	G	N3-C4	-8.51	1.29	1.35
36	5	2358	A	N9-C4	-8.41	1.32	1.37
36	1	1116	G	N7-C5	-8.32	1.34	1.39
36	1	2875	U	C2-N3	8.29	1.43	1.37
47	m0	8	CYS	CB-SG	-8.05	1.68	1.82
36	1	1164	G	C6-N1	-8.01	1.33	1.39
47	M0	8	CYS	CB-SG	-7.86	1.68	1.82
36	5	951	A	N7-C5	-7.76	1.34	1.39
36	5	2875	U	C2-N3	7.75	1.43	1.37
36	5	1366	A	N3-C4	-7.68	1.30	1.34
36	1	984	G	N7-C5	-7.58	1.34	1.39
36	5	2704	A	N9-C4	-7.53	1.33	1.37
36	5	960	U	N1-C2	7.45	1.45	1.38
36	1	2812	C	N1-C6	-7.45	1.32	1.37
36	5	876	A	N3-C4	-7.36	1.30	1.34
36	5	1874	A	N9-C4	-7.32	1.33	1.37
36	5	2145	A	C6-N1	-7.29	1.30	1.35
36	5	2943	G	C5-C6	-7.27	1.35	1.42
36	5	646	A	C6-N1	-7.22	1.30	1.35
36	5	2943	G	N7-C5	-7.22	1.34	1.39
36	1	952	A	N3-C4	-7.21	1.30	1.34
36	1	2619	G	C5-C4	-7.15	1.33	1.38
36	5	1159	A	N3-C4	-7.15	1.30	1.34
1	6	1653	C	N1-C6	-7.12	1.32	1.37
36	5	3040	A	N9-C4	-7.12	1.33	1.37
36	5	2799	A	C6-N1	-7.11	1.30	1.35
36	5	2626	A	N3-C4	-7.08	1.30	1.34
36	5	523	A	N3-C4	-7.06	1.30	1.34
57	n1	104	GLU	CB-CG	6.89	1.65	1.52
36	5	3008	A	N9-C4	-6.88	1.33	1.37
36	1	1429	G	N9-C8	-6.87	1.33	1.37
36	5	2640	A	N9-C4	-6.87	1.33	1.37
36	1	2820	A	N9-C4	-6.87	1.33	1.37
36	1	3142	A	N9-C4	-6.86	1.33	1.37
41	L4	94	CYS	CB-SG	-6.85	1.70	1.82
36	1	361	A	C6-N1	-6.80	1.30	1.35
36	1	790	U	C2-N3	-6.78	1.33	1.37
36	5	2375	G	C6-N1	-6.73	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	6	1137	A	N9-C4	-6.73	1.33	1.37
36	5	2644	C	N1-C6	-6.72	1.33	1.37
36	5	999	G	C5-C4	-6.72	1.33	1.38
36	5	1199	C	N1-C6	-6.72	1.33	1.37
36	1	3006	A	N9-C4	-6.72	1.33	1.37
36	1	1432	C	N1-C6	-6.71	1.33	1.37
36	5	2333	C	N1-C6	-6.69	1.33	1.37
36	5	953	G	C5-C4	-6.68	1.33	1.38
36	1	699	A	N9-C4	-6.66	1.33	1.37
36	5	869	G	C6-N1	-6.64	1.34	1.39
1	6	1337	A	N9-C4	-6.61	1.33	1.37
36	1	2213	A	N9-C4	-6.60	1.33	1.37
36	5	3139	A	N3-C4	-6.60	1.30	1.34
36	1	1373	A	N3-C4	-6.59	1.30	1.34
36	5	1301	A	C5-C6	-6.58	1.35	1.41
36	5	2993	G	C5-C4	-6.57	1.33	1.38
36	1	33	G	N7-C5	-6.50	1.35	1.39
1	6	119	A	N9-C4	-6.49	1.33	1.37
36	5	2620	G	N3-C4	-6.49	1.30	1.35
36	1	1116	G	N9-C8	-6.45	1.33	1.37
36	1	2419	A	N9-C4	-6.45	1.33	1.37
36	5	642	U	C2-N3	-6.44	1.33	1.37
36	5	2950	G	C5-C6	-6.44	1.35	1.42
36	5	2804	A	N9-C4	-6.43	1.33	1.37
36	5	1451	C	N1-C6	-6.43	1.33	1.37
36	1	34	A	N9-C4	-6.42	1.33	1.37
36	1	942	U	C4-O4	6.42	1.28	1.23
36	1	2639	G	N7-C5	-6.39	1.35	1.39
36	5	1158	A	C5-C6	-6.37	1.35	1.41
36	1	2714	G	N9-C4	-6.36	1.32	1.38
36	5	519	A	N9-C4	-6.34	1.34	1.37
36	5	1085	A	N9-C4	-6.32	1.34	1.37
36	5	647	A	N9-C8	-6.29	1.32	1.37
36	1	2213	A	N3-C4	-6.27	1.31	1.34
36	5	962	A	C5-C6	-6.27	1.35	1.41
36	5	523	A	N9-C4	-6.22	1.34	1.37
36	1	1143	A	N9-C4	-6.22	1.34	1.37
36	1	1304	A	N9-C4	-6.19	1.34	1.37
36	5	1152	G	C5-C6	-6.18	1.36	1.42
36	5	651	G	N7-C5	-6.17	1.35	1.39
36	5	2814	G	N7-C5	-6.15	1.35	1.39
1	6	337	G	C2-N3	6.14	1.37	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	924	G	C5-C4	-6.13	1.34	1.38
36	5	2381	G	N7-C5	-6.13	1.35	1.39
36	5	1139	G	N9-C4	-6.12	1.33	1.38
36	5	2971	A	N9-C4	6.11	1.41	1.37
36	5	3139	A	N9-C4	-6.11	1.34	1.37
36	5	1338	C	N1-C6	-6.09	1.33	1.37
38	8	14	C	N1-C6	-6.09	1.33	1.37
36	5	2879	C	N1-C6	-6.07	1.33	1.37
36	5	691	A	C6-N1	-6.04	1.31	1.35
36	1	2138	A	N7-C5	-6.02	1.35	1.39
36	1	367	A	N9-C4	-6.02	1.34	1.37
36	1	874	U	C2-N3	-6.00	1.33	1.37
36	1	2402	A	C5-C6	-6.00	1.35	1.41
36	5	2942	C	N1-C6	-6.00	1.33	1.37
36	5	1381	A	N9-C4	-5.99	1.34	1.37
36	5	1099	A	C5-C6	-5.99	1.35	1.41
40	l3	251	CYS	CB-SG	-5.98	1.72	1.81
36	5	1081	U	C2-N3	5.98	1.42	1.37
36	5	1048	A	C6-N1	-5.97	1.31	1.35
36	1	2360	C	N1-C6	-5.97	1.33	1.37
36	1	353	G	N7-C5	-5.96	1.35	1.39
36	1	943	U	C2-N3	-5.96	1.33	1.37
36	1	657	A	C5-C6	-5.96	1.35	1.41
36	5	652	G	N3-C4	-5.96	1.31	1.35
36	5	1462	A	N9-C4	-5.96	1.34	1.37
36	1	2409	G	N7-C5	-5.96	1.35	1.39
36	5	2639	G	N7-C5	-5.94	1.35	1.39
36	1	2406	C	N1-C6	-5.94	1.33	1.37
36	5	1332	A	N9-C4	-5.93	1.34	1.37
36	5	1099	A	N7-C5	-5.93	1.35	1.39
36	5	2833	A	C5-C4	-5.93	1.34	1.38
37	7	55	A	C5-C6	-5.92	1.35	1.41
36	1	695	C	N3-C4	-5.91	1.29	1.33
1	6	1744	A	N9-C4	-5.91	1.34	1.37
36	5	1192	C	N1-C2	5.90	1.46	1.40
36	1	3012	A	N9-C4	-5.90	1.34	1.37
36	5	1434	G	N3-C4	-5.90	1.31	1.35
36	1	920	A	C6-N1	-5.89	1.31	1.35
36	1	699	A	N3-C4	-5.89	1.31	1.34
52	m6	40	GLU	CG-CD	5.89	1.60	1.51
76	q0	99	CYS	CB-SG	-5.89	1.72	1.81
41	L4	65	TRP	CB-CG	-5.88	1.39	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	962	A	N7-C5	-5.88	1.35	1.39
36	1	1364	C	N1-C6	-5.87	1.33	1.37
36	1	937	G	C5-C6	-5.85	1.36	1.42
36	1	1401	A	C6-N1	-5.84	1.31	1.35
36	1	2396	G	N7-C5	-5.84	1.35	1.39
36	5	3107	U	C2-N3	-5.83	1.33	1.37
36	5	1330	A	C5-C6	-5.82	1.35	1.41
36	5	2872	A	N9-C4	-5.82	1.34	1.37
36	1	338	A	N7-C5	-5.81	1.35	1.39
36	5	345	G	N3-C4	-5.78	1.31	1.35
36	5	2872	A	N7-C5	-5.77	1.35	1.39
36	5	1048	A	N3-C4	-5.77	1.31	1.34
36	1	1452	A	N9-C4	-5.75	1.34	1.37
1	2	1651	A	N9-C4	-5.75	1.34	1.37
36	5	1429	G	N9-C4	-5.75	1.33	1.38
36	1	2748	A	N9-C4	-5.74	1.34	1.37
36	5	1456	A	N9-C4	-5.73	1.34	1.37
36	5	2743	A	N7-C5	-5.70	1.35	1.39
36	5	397	A	N3-C4	-5.69	1.31	1.34
36	5	1390	A	N3-C4	-5.69	1.31	1.34
36	5	1195	A	N9-C4	-5.68	1.34	1.37
36	1	2805	G	C8-N7	-5.67	1.27	1.30
36	5	3091	A	C6-N1	-5.65	1.31	1.35
36	5	2954	U	N3-C4	5.65	1.43	1.38
1	2	1657	U	N1-C2	5.64	1.43	1.38
36	1	2402	A	C5-C4	-5.64	1.34	1.38
36	5	1207	G	C5-C4	-5.64	1.34	1.38
1	6	1137	A	C5-C4	-5.64	1.34	1.38
36	5	2891	U	C2-N3	-5.64	1.33	1.37
37	3	82	G	C6-N1	-5.63	1.35	1.39
36	5	1886	A	N7-C5	-5.63	1.35	1.39
36	1	2986	U	N1-C2	-5.63	1.33	1.38
37	7	118	A	N3-C4	-5.63	1.31	1.34
36	5	1303	A	N9-C4	-5.62	1.34	1.37
36	1	2610	G	C5-C6	-5.61	1.36	1.42
36	5	706	A	N9-C4	-5.61	1.34	1.37
36	5	3086	A	N3-C4	-5.61	1.31	1.34
36	5	2291	A	N9-C4	-5.60	1.34	1.37
36	5	3000	A	N9-C4	-5.60	1.34	1.37
36	5	2809	C	N1-C6	-5.60	1.33	1.37
36	1	2382	G	N1-C2	-5.59	1.33	1.37
36	1	1133	A	N7-C5	-5.59	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2875	U	N3-C4	5.59	1.43	1.38
36	1	1468	A	N9-C4	-5.58	1.34	1.37
36	1	2797	C	N1-C6	-5.58	1.33	1.37
36	5	2876	C	N3-C4	-5.58	1.30	1.33
57	n1	104	GLU	CG-CD	5.55	1.60	1.51
53	M7	138	LYS	CD-CE	5.55	1.65	1.51
1	2	1750	A	N7-C5	-5.54	1.35	1.39
36	1	2762	A	N3-C4	-5.54	1.31	1.34
36	1	1296	C	N3-C4	-5.54	1.30	1.33
36	5	2996	U	N1-C2	5.54	1.43	1.38
36	1	939	U	N1-C2	-5.53	1.33	1.38
36	1	657	A	C5-C4	-5.52	1.34	1.38
36	5	1048	A	C5-C4	-5.52	1.34	1.38
36	1	2404	A	C6-N1	5.50	1.39	1.35
1	6	1745	G	N9-C8	-5.50	1.33	1.37
36	5	2743	A	N9-C8	-5.50	1.33	1.37
36	1	1854	C	N3-C4	-5.50	1.30	1.33
36	1	2726	C	N3-C4	-5.50	1.30	1.33
36	1	2966	G	C5-C4	-5.49	1.34	1.38
36	5	1320	C	N3-C4	-5.49	1.30	1.33
1	2	1730	A	N9-C4	-5.49	1.34	1.37
1	6	163	G	N9-C4	-5.49	1.33	1.38
36	5	866	A	N9-C4	-5.49	1.34	1.37
36	1	1206	G	C2-N3	-5.48	1.28	1.32
36	1	2979	U	C2-N3	-5.48	1.33	1.37
36	5	1117	G	C5-C6	-5.48	1.36	1.42
36	5	3004	C	N1-C2	-5.48	1.34	1.40
36	1	790	U	N3-C4	-5.47	1.33	1.38
36	5	3362	A	N3-C4	-5.47	1.31	1.34
36	1	659	G	C5-C4	-5.47	1.34	1.38
36	5	421	G	C6-N1	-5.46	1.35	1.39
36	5	1048	A	C5-C6	-5.46	1.36	1.41
36	1	1330	A	C5-C6	-5.46	1.36	1.41
36	5	2823	G	N7-C5	-5.45	1.35	1.39
52	m6	80	PHE	CB-CG	-5.45	1.42	1.51
36	1	994	G	C6-N1	-5.45	1.35	1.39
36	5	43	A	C5-C6	-5.44	1.36	1.41
36	5	1115	G	P-O5'	-5.44	1.54	1.59
36	1	925	A	N3-C4	-5.44	1.31	1.34
36	5	657	A	N3-C4	-5.43	1.31	1.34
36	5	2398	A	N3-C4	-5.43	1.31	1.34
36	5	2398	A	C5-C4	-5.43	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	1330	A	N9-C4	-5.43	1.34	1.37
41	l4	94	CYS	CB-SG	-5.43	1.73	1.81
36	1	3139	A	N9-C4	-5.42	1.34	1.37
36	1	3180	A	C5-C6	-5.42	1.36	1.41
36	5	2823	G	C5-C6	-5.42	1.36	1.42
36	1	59	G	N7-C5	-5.41	1.36	1.39
36	1	28	C	N1-C6	-5.41	1.33	1.37
36	5	642	U	N1-C2	-5.41	1.33	1.38
36	5	3092	C	N1-C6	-5.40	1.33	1.37
36	1	2725	U	C2-N3	-5.40	1.33	1.37
37	7	56	A	C5-C6	-5.39	1.36	1.41
36	1	957	C	N1-C2	-5.39	1.34	1.40
36	1	627	U	N1-C2	-5.38	1.33	1.38
1	6	630	A	N7-C5	-5.38	1.36	1.39
36	1	1150	A	N9-C4	-5.38	1.34	1.37
36	5	1476	G	N3-C4	-5.38	1.31	1.35
36	1	818	C	N1-C6	-5.38	1.33	1.37
36	5	1587	A	N9-C4	-5.37	1.34	1.37
1	6	1524	A	N9-C4	-5.35	1.34	1.37
36	1	2762	A	N9-C4	-5.34	1.34	1.37
36	5	3382	U	N1-C2	5.34	1.43	1.38
36	1	2169	G	C5-C6	5.34	1.47	1.42
36	1	1167	U	C2-N3	-5.33	1.34	1.37
36	5	2399	A	N9-C4	-5.33	1.34	1.37
36	5	1450	G	C2-N3	-5.33	1.28	1.32
36	1	2924	U	N1-C2	-5.33	1.33	1.38
38	4	52	A	N3-C4	-5.32	1.31	1.34
36	5	367	A	N3-C4	-5.32	1.31	1.34
36	5	952	A	N9-C4	-5.32	1.34	1.37
1	2	334	G	N9-C4	-5.32	1.33	1.38
36	1	1308	A	C6-N1	-5.32	1.31	1.35
36	5	3005	A	N9-C8	-5.32	1.33	1.37
36	1	2363	A	N9-C4	-5.31	1.34	1.37
36	5	1362	G	N9-C8	-5.31	1.34	1.37
36	1	1147	G	N7-C5	-5.30	1.36	1.39
36	5	2280	A	N9-C4	-5.30	1.34	1.37
36	5	923	C	N1-C6	-5.29	1.33	1.37
36	5	3310	A	C6-N1	-5.29	1.31	1.35
36	1	1143	A	N3-C4	-5.29	1.31	1.34
36	1	393	U	C2-N3	-5.28	1.34	1.37
36	1	3306	U	C2-N3	-5.28	1.34	1.37
36	5	343	U	C2-N3	-5.28	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
38	4	19	C	N3-C4	-5.28	1.30	1.33
36	1	1002	A	N9-C4	-5.27	1.34	1.37
36	1	1150	A	N3-C4	-5.27	1.31	1.34
36	1	2286	U	C2-N3	-5.27	1.34	1.37
36	1	3306	U	N3-C4	-5.27	1.33	1.38
36	5	691	A	N3-C4	-5.27	1.31	1.34
36	5	2959	C	N1-C6	-5.26	1.33	1.37
36	5	818	C	N1-C6	-5.26	1.33	1.37
36	1	3130	A	N7-C5	-5.25	1.36	1.39
1	6	986	G	N7-C5	-5.25	1.36	1.39
36	1	505	G	N3-C4	-5.25	1.31	1.35
40	l3	7	GLU	CG-CD	5.25	1.59	1.51
36	5	953	G	N3-C4	-5.24	1.31	1.35
36	1	1373	A	N9-C4	-5.24	1.34	1.37
36	5	3245	A	N7-C5	-5.24	1.36	1.39
36	5	1115	G	N7-C5	-5.24	1.36	1.39
36	5	1794	G	N9-C8	-5.24	1.34	1.37
36	1	1186	G	N1-C2	-5.23	1.33	1.37
36	5	830	A	C5-C6	-5.23	1.36	1.41
36	1	910	G	N9-C8	-5.23	1.34	1.37
36	5	945	C	N1-C6	-5.22	1.34	1.37
36	5	2799	A	N3-C4	-5.22	1.31	1.34
36	1	2692	A	N7-C5	-5.22	1.36	1.39
36	1	2187	G	N7-C5	-5.21	1.36	1.39
36	1	3006	A	N3-C4	-5.21	1.31	1.34
36	1	2358	A	N3-C4	-5.21	1.31	1.34
36	5	1180	A	N3-C4	-5.21	1.31	1.34
36	5	2283	G	C5-C6	-5.20	1.37	1.42
36	5	2243	A	N3-C4	-5.20	1.31	1.34
36	5	1794	G	N9-C4	-5.20	1.33	1.38
36	5	1868	G	C5-C6	-5.19	1.37	1.42
1	2	992	A	N9-C4	-5.18	1.34	1.37
36	1	936	A	C5-C6	-5.17	1.36	1.41
36	1	1369	A	N9-C4	-5.17	1.34	1.37
36	1	1430	U	N1-C2	-5.17	1.33	1.38
36	5	2950	G	N7-C5	-5.17	1.36	1.39
36	5	367	A	C5-C4	-5.17	1.35	1.38
36	5	1174	G	C5-C4	-5.17	1.34	1.38
36	1	1307	G	N1-C2	-5.17	1.33	1.37
36	1	2640	A	C6-N1	-5.17	1.31	1.35
36	5	1454	A	N9-C4	-5.17	1.34	1.37
36	1	421	G	C5-C4	-5.16	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	657	A	N3-C4	-5.16	1.31	1.34
36	1	657	A	N7-C5	-5.16	1.36	1.39
36	1	803	C	N3-C4	-5.16	1.30	1.33
36	5	1194	G	C5-C4	-5.16	1.34	1.38
36	1	423	A	N7-C5	-5.16	1.36	1.39
36	1	967	A	N3-C4	-5.16	1.31	1.34
36	5	2866	U	N1-C2	5.15	1.43	1.38
36	5	3103	A	N3-C4	-5.15	1.31	1.34
36	1	701	G	N3-C4	-5.14	1.31	1.35
36	5	947	G	N3-C4	-5.14	1.31	1.35
36	1	651	G	N9-C8	-5.14	1.34	1.37
36	1	670	C	N1-C6	-5.14	1.34	1.37
36	1	2394	G	N1-C2	-5.14	1.33	1.37
36	1	1394	A	N9-C4	-5.13	1.34	1.37
36	5	1046	A	N3-C4	-5.13	1.31	1.34
36	5	1195	A	C5-C4	-5.13	1.35	1.38
36	1	1192	C	N1-C2	5.13	1.45	1.40
36	5	3245	A	C5-C6	-5.13	1.36	1.41
36	1	1129	A	N7-C5	-5.13	1.36	1.39
1	6	992	A	C5-C6	-5.13	1.36	1.41
36	5	1116	G	N9-C8	-5.12	1.34	1.37
36	5	647	A	C5-C4	-5.12	1.35	1.38
36	5	3138	U	N1-C2	-5.12	1.33	1.38
36	1	339	C	N3-C4	-5.12	1.30	1.33
36	1	2960	C	N3-C4	-5.12	1.30	1.33
36	1	1392	G	C5-C4	-5.11	1.34	1.38
36	5	45	A	N9-C4	-5.11	1.34	1.37
36	5	3026	G	C5-C6	-5.11	1.37	1.42
36	5	406	G	N3-C4	-5.11	1.31	1.35
36	1	2875	U	N3-C4	5.11	1.43	1.38
36	1	884	A	N9-C4	-5.10	1.34	1.37
1	6	397	A	N9-C4	-5.10	1.34	1.37
36	5	2840	C	N1-C6	-5.09	1.34	1.37
36	1	938	C	C4-C5	-5.09	1.38	1.43
36	5	651	G	N3-C4	-5.09	1.31	1.35
36	5	2419	A	N7-C5	-5.09	1.36	1.39
36	1	2868	U	C2-N3	-5.08	1.34	1.37
36	5	2748	A	C5-C6	-5.08	1.36	1.41
36	5	3178	A	N9-C4	-5.08	1.34	1.37
36	5	3330	A	C5-C4	-5.07	1.35	1.38
36	1	635	G	C5-C6	-5.07	1.37	1.42
36	5	896	A	C5-C4	-5.07	1.35	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	1370	G	C6-N1	-5.07	1.36	1.39
36	5	3047	U	N3-C4	-5.06	1.33	1.38
36	1	1180	A	N9-C4	-5.06	1.34	1.37
36	5	55	G	N9-C4	-5.06	1.33	1.38
1	6	65	A	C5-C6	-5.06	1.36	1.41
36	5	635	G	C5-C6	-5.06	1.37	1.42
36	5	3032	A	N7-C5	-5.06	1.36	1.39
36	5	2659	G	N7-C5	-5.06	1.36	1.39
36	1	2335	G	C5-C4	-5.05	1.34	1.38
36	5	1193	A	N7-C5	-5.05	1.36	1.39
36	1	1372	C	C2-N3	-5.04	1.31	1.35
36	1	27	C	N1-C6	-5.04	1.34	1.37
1	6	1137	A	N3-C4	-5.04	1.31	1.34
36	1	360	G	N7-C5	-5.04	1.36	1.39
36	5	1309	U	C2-N3	-5.04	1.34	1.37
36	5	2312	A	N3-C4	-5.03	1.31	1.34
36	1	651	G	C5-C4	-5.03	1.34	1.38
36	1	1429	G	C5-C4	-5.03	1.34	1.38
36	5	2857	C	N1-C6	-5.03	1.34	1.37
36	1	2611	U	C2-N3	-5.03	1.34	1.37
1	6	1764	C	N1-C6	-5.03	1.34	1.37
36	5	2138	A	N7-C5	-5.03	1.36	1.39
36	1	2866	U	C4-O4	5.02	1.27	1.23
36	5	981	U	N1-C2	5.02	1.43	1.38
1	6	1027	A	N9-C4	-5.02	1.34	1.37
36	5	1536	G	C2-N3	-5.01	1.28	1.32
36	1	635	G	N7-C5	-5.00	1.36	1.39
36	1	2626	A	N3-C4	-5.00	1.31	1.34
36	1	2644	C	N1-C6	-5.00	1.34	1.37
36	1	2617	U	N3-C4	-5.00	1.33	1.38
36	5	952	A	C5-C6	-5.00	1.36	1.41
36	5	2637	A	N7-C5	-5.00	1.36	1.39
36	5	2899	C	C2-O2	-5.00	1.20	1.24

All (4696) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	1116	G	O5'-P-OP1	-18.97	87.94	110.70
36	5	1152	G	C2-N3-C4	-18.00	102.90	111.90
36	5	1152	G	N3-C4-C5	17.23	137.22	128.60
36	5	1152	G	N3-C4-N9	-15.73	116.56	126.00
36	1	1495	U	C5-C6-N1	-15.66	114.87	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	639	G	N1-C6-O6	14.78	128.77	119.90
36	5	2199	G	N1-C6-O6	14.34	128.50	119.90
36	5	1158	A	N1-C6-N6	14.13	127.08	118.60
36	5	424	G	C5-C6-O6	-13.84	120.30	128.60
36	5	1179	A	O5'-P-OP1	-13.82	93.26	105.70
36	1	1838	G	N1-C6-O6	13.28	127.87	119.90
36	5	960	U	N3-C2-O2	-12.66	113.34	122.20
36	5	1152	G	C5-N7-C8	-12.50	98.05	104.30
36	1	282	G	C8-N9-C4	-12.33	101.47	106.40
36	5	2950	G	C4-C5-N7	12.21	115.69	110.80
36	1	435	C	C6-N1-C2	12.21	125.18	120.30
36	5	1306	G	C5-C6-O6	-12.20	121.28	128.60
36	1	790	U	N3-C2-O2	-12.15	113.70	122.20
36	1	1166	G	N1-C6-O6	11.87	127.02	119.90
36	1	2819	A	O5'-P-OP2	-11.72	95.15	105.70
36	5	1200	A	N1-C6-N6	11.64	125.58	118.60
36	1	979	U	N3-C2-O2	-11.47	114.17	122.20
36	5	2726	C	C6-N1-C2	-11.47	115.71	120.30
36	5	1897	G	N1-C6-O6	11.47	126.78	119.90
36	5	3245	A	C2-N3-C4	-11.38	104.91	110.60
1	6	448	C	C6-N1-C2	-11.34	115.76	120.30
36	5	2943	G	N1-C6-O6	11.25	126.65	119.90
36	1	2870	C	C2-N1-C1'	-11.22	106.46	118.80
36	1	2636	A	C8-N9-C4	-11.20	101.32	105.80
36	5	1186	G	O5'-P-OP2	-11.19	95.63	105.70
36	5	426	G	O5'-P-OP2	-11.18	95.64	105.70
36	1	639	G	C5-C6-O6	-11.18	121.89	128.60
36	5	2875	U	C5-C6-N1	11.14	128.27	122.70
36	1	957	C	N1-C2-O2	-11.14	112.22	118.90
36	1	2610	G	N1-C6-O6	11.13	126.58	119.90
36	1	645	A	N1-C6-N6	-11.06	111.96	118.60
36	5	2943	G	C6-C5-N7	-11.06	123.76	130.40
36	1	636	C	N3-C4-C5	11.03	126.31	121.90
36	1	2714	G	N3-C4-C5	11.02	134.11	128.60
36	1	2610	G	C5-C6-O6	-10.99	122.01	128.60
36	1	2868	U	N1-C2-O2	10.94	130.46	122.80
36	5	1152	G	N1-C6-O6	10.93	126.46	119.90
36	5	2893	C	N3-C4-C5	-10.85	117.56	121.90
36	5	2971	A	C2-N3-C4	10.85	116.02	110.60
36	5	3245	A	N7-C8-N9	10.81	119.20	113.80
1	6	1026	A	O5'-P-OP1	-10.76	96.02	105.70
36	5	96	G	O5'-P-OP2	-10.75	96.03	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	6	17	C	C6-N1-C2	-10.74	116.00	120.30
36	1	369	A	C8-N9-C4	-10.72	101.51	105.80
36	1	1838	G	C6-C5-N7	-10.68	123.99	130.40
36	5	41	G	C4-C5-N7	10.65	115.06	110.80
36	1	2121	G	N1-C6-O6	-10.64	113.52	119.90
36	5	968	G	O5'-P-OP1	-10.64	96.13	105.70
36	1	363	G	C5-C6-O6	-10.62	122.23	128.60
36	5	1150	A	O5'-P-OP2	-10.60	96.16	105.70
36	1	59	G	N1-C6-O6	10.57	126.24	119.90
36	5	2819	A	O5'-P-OP2	-10.57	96.19	105.70
36	5	2375	G	N1-C6-O6	-10.52	113.59	119.90
36	5	3245	A	C5-N7-C8	-10.52	98.64	103.90
36	1	2617	U	C5-C4-O4	10.46	132.18	125.90
36	5	1306	G	N1-C6-O6	10.44	126.16	119.90
36	1	2714	G	N3-C4-N9	-10.44	119.74	126.00
36	5	2950	G	C5-C6-O6	-10.44	122.34	128.60
36	1	2247	G	N1-C6-O6	10.42	126.15	119.90
36	5	966	U	N3-C2-O2	-10.40	114.92	122.20
36	5	960	U	N1-C2-O2	10.39	130.07	122.80
36	5	2872	A	N1-C6-N6	10.38	124.83	118.60
36	1	1495	U	C4-C5-C6	10.38	125.93	119.70
36	5	2899	C	C6-N1-C2	-10.36	116.15	120.30
36	5	2704	A	O5'-P-OP1	-10.34	96.39	105.70
36	5	1481	A	O5'-P-OP2	-10.33	96.41	105.70
36	5	776	U	N3-C2-O2	-10.29	115.00	122.20
36	5	2400	G	N1-C6-O6	10.27	126.06	119.90
36	1	1308	A	O5'-P-OP2	-10.22	96.50	105.70
36	1	885	U	C5-C6-N1	-10.22	117.59	122.70
36	1	2283	G	N1-C6-O6	10.19	126.02	119.90
36	5	2715	A	N9-C4-C5	10.18	109.87	105.80
36	5	1117	G	O5'-P-OP1	-10.14	96.58	105.70
36	5	640	U	N1-C2-O2	-10.13	115.71	122.80
36	5	2954	U	C2-N1-C1'	10.12	129.84	117.70
36	1	70	A	N1-C6-N6	10.07	124.64	118.60
36	5	869	G	N1-C6-O6	-10.07	113.86	119.90
36	5	2726	C	C5-C4-N4	10.04	127.23	120.20
36	5	2943	G	C4-C5-N7	10.03	114.81	110.80
35	SM	135	ALA	N-CA-CB	10.02	124.13	110.10
36	5	2942	C	O5'-P-OP2	-10.02	96.68	105.70
36	5	280	U	O5'-P-OP2	-10.01	96.69	105.70
36	5	776	U	N1-C2-N3	9.98	120.89	114.90
36	1	1166	G	C5-C6-O6	-9.96	122.62	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	652	G	O5'-P-OP2	-9.94	96.76	105.70
36	1	2618	G	N1-C6-O6	-9.93	113.94	119.90
36	5	3181	C	N3-C2-O2	-9.92	114.96	121.90
36	5	2954	U	O4'-C1'-N1	9.89	116.11	108.20
36	1	2846	U	C5-C4-O4	9.88	131.83	125.90
38	8	80	A	C8-N9-C4	-9.88	101.85	105.80
36	5	2350	C	O5'-P-OP2	-9.87	96.82	105.70
36	1	59	G	C5-C6-O6	-9.84	122.70	128.60
36	5	1158	A	C5-C6-N6	-9.83	115.84	123.70
36	5	2822	U	O5'-P-OP1	-9.82	96.86	105.70
36	5	283	G	C4-C5-N7	9.80	114.72	110.80
36	5	2950	G	C6-C5-N7	-9.79	124.53	130.40
36	1	346	C	N1-C2-O2	-9.79	113.03	118.90
36	5	41	G	N1-C6-O6	9.77	125.76	119.90
36	1	979	U	C6-N1-C2	-9.76	115.14	121.00
36	5	1099	A	N1-C6-N6	9.72	124.44	118.60
36	1	3025	C	C6-N1-C2	9.72	124.19	120.30
36	1	2374	C	N3-C2-O2	-9.71	115.10	121.90
36	1	59	G	C6-C5-N7	-9.71	124.57	130.40
36	1	3110	C	C6-N1-C2	-9.71	116.42	120.30
36	5	776	U	C5-C6-N1	-9.71	117.84	122.70
36	1	645	A	N9-C4-C5	9.70	109.68	105.80
36	1	1437	C	C6-N1-C2	-9.68	116.43	120.30
36	1	1838	G	C5-C6-O6	-9.64	122.81	128.60
36	1	2827	U	N1-C2-N3	9.63	120.68	114.90
1	2	553	G	N1-C6-O6	9.61	125.67	119.90
36	5	2715	A	N1-C6-N6	-9.59	112.85	118.60
1	6	163	G	N3-C4-N9	-9.59	120.25	126.00
36	5	420	G	C8-N9-C4	9.56	110.22	106.40
36	5	3245	A	C8-N9-C4	-9.54	101.98	105.80
36	1	648	C	O5'-P-OP1	-9.52	97.13	105.70
36	5	1117	G	C4-C5-N7	9.52	114.61	110.80
36	5	3245	A	C6-C5-N7	-9.52	125.63	132.30
36	1	2726	C	N3-C4-N4	-9.49	111.36	118.00
36	1	3278	C	N1-C2-O2	9.48	124.59	118.90
36	1	347	G	C4-C5-N7	9.47	114.59	110.80
36	1	1116	G	C4-C5-C6	9.45	124.47	118.80
36	1	2764	C	C5-C6-N1	9.44	125.72	121.00
36	5	428	A	N1-C6-N6	9.44	124.27	118.60
36	1	407	A	O5'-P-OP2	-9.44	97.20	105.70
36	1	1179	A	O5'-P-OP1	-9.43	97.22	105.70
36	5	2315	G	O5'-P-OP1	-9.43	97.22	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	2643	A	O5'-P-OP1	-9.41	97.23	105.70
36	1	2400	G	C6-C5-N7	-9.40	124.76	130.40
36	1	2643	A	C8-N9-C4	9.38	109.55	105.80
36	1	1403	C	C6-N1-C2	9.36	124.05	120.30
36	1	2639	G	C6-C5-N7	-9.35	124.79	130.40
36	5	1434	G	N9-C4-C5	9.34	109.14	105.40
36	1	651	G	O5'-P-OP2	-9.34	97.29	105.70
36	5	922	U	C5-C6-N1	-9.31	118.04	122.70
36	5	2199	G	C5-C6-O6	-9.30	123.02	128.60
36	5	1152	G	C4-C5-N7	9.29	114.52	110.80
36	5	2186	U	O5'-P-OP2	-9.29	97.34	105.70
36	5	404	G	O5'-P-OP2	-9.28	97.34	105.70
36	1	335	G	C5-C6-O6	-9.28	123.03	128.60
36	5	1006	A	O5'-P-OP2	-9.28	97.35	105.70
36	5	1879	A	N1-C6-N6	9.27	124.17	118.60
36	1	1308	A	C8-N9-C4	-9.27	102.09	105.80
36	1	1296	C	C6-N1-C2	-9.25	116.60	120.30
36	5	343	U	O5'-P-OP1	-9.25	97.38	105.70
36	5	2928	C	C6-N1-C2	-9.24	116.60	120.30
1	2	314	C	O5'-P-OP1	-9.21	97.41	105.70
36	5	1450	G	N1-C6-O6	9.21	125.43	119.90
36	5	41	G	C5-C6-O6	-9.21	123.07	128.60
1	6	1700	C	N1-C2-O2	9.20	124.42	118.90
1	2	1096	C	N1-C2-O2	9.20	124.42	118.90
36	1	638	C	O5'-P-OP2	-9.19	97.43	105.70
36	1	1902	G	C6-C5-N7	-9.19	124.89	130.40
36	1	691	A	O5'-P-OP1	-9.18	97.44	105.70
36	5	2634	U	C5-C4-O4	-9.16	120.41	125.90
36	5	2359	C	C6-N1-C2	9.15	123.96	120.30
36	5	952	A	N1-C6-N6	9.14	124.09	118.60
36	1	609	G	O5'-P-OP2	-9.14	97.48	105.70
36	1	2142	A	C2-N3-C4	9.13	115.17	110.60
73	O7	65	ARG	NE-CZ-NH1	9.12	124.86	120.30
36	1	2808	A	N1-C6-N6	9.11	124.07	118.60
36	5	1181	U	C5-C6-N1	-9.11	118.15	122.70
36	5	1116	G	N3-C4-C5	-9.11	124.05	128.60
36	1	1320	C	C6-N1-C2	-9.10	116.66	120.30
36	5	2794	G	C5-C6-O6	-9.09	123.15	128.60
36	1	3181	C	C5-C4-N4	9.08	126.56	120.20
1	2	1773	C	C6-N1-C2	-9.07	116.67	120.30
36	5	1116	G	C4-C5-C6	9.05	124.23	118.80
36	1	1307	G	N1-C6-O6	-9.05	114.47	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	1837	U	O5'-P-OP1	-9.03	97.58	105.70
36	1	1152	G	O5'-P-OP1	-9.02	97.59	105.70
36	5	559	A	O5'-P-OP2	-9.01	97.59	105.70
36	1	2868	U	N3-C2-O2	-9.00	115.90	122.20
36	5	2950	G	C5-N7-C8	-8.99	99.80	104.30
37	3	90	U	O5'-P-OP2	-8.98	97.62	105.70
38	4	94	C	C6-N1-C2	8.98	123.89	120.30
1	2	73	U	O4'-C1'-N1	8.97	115.38	108.20
36	5	1452	A	N1-C6-N6	8.97	123.98	118.60
36	1	2402	A	C5-C6-N6	-8.97	116.53	123.70
36	5	2295	A	C8-N9-C4	-8.96	102.21	105.80
36	5	2954	U	C6-N1-C1'	-8.95	108.67	121.20
36	1	145	G	N1-C6-O6	8.94	125.26	119.90
36	5	1468	A	N1-C6-N6	8.93	123.95	118.60
36	5	2726	C	N3-C4-N4	-8.92	111.75	118.00
36	5	3143	C	N1-C2-O2	-8.91	113.55	118.90
36	1	1167	U	C5-C6-N1	-8.91	118.24	122.70
36	5	592	A	O5'-P-OP1	-8.91	97.68	105.70
36	5	2283	G	C5-C6-O6	-8.90	123.26	128.60
36	5	1200	A	C5-C6-N6	-8.88	116.59	123.70
36	5	1099	A	C5-C6-N6	-8.88	116.59	123.70
36	5	2290	C	C6-N1-C2	8.88	123.85	120.30
36	5	2199	G	C6-C5-N7	-8.87	125.08	130.40
36	5	1513	G	C8-N9-C4	-8.87	102.85	106.40
36	1	794	U	O5'-P-OP2	-8.86	97.72	105.70
36	5	2283	G	C4-C5-N7	8.86	114.34	110.80
36	1	1196	C	C6-N1-C2	8.85	123.84	120.30
36	5	3245	A	N1-C2-N3	8.85	133.72	129.30
36	5	2398	A	N1-C6-N6	-8.84	113.30	118.60
36	5	3313	U	O5'-P-OP2	-8.83	97.75	105.70
36	1	3217	C	C2-N1-C1'	8.83	128.51	118.80
36	5	2943	G	C5-C6-O6	-8.81	123.31	128.60
36	1	2619	G	O5'-P-OP1	-8.81	97.77	105.70
36	1	960	U	C6-N1-C2	8.80	126.28	121.00
36	5	3099	C	C6-N1-C2	8.80	123.82	120.30
36	5	1117	G	C5-C6-O6	-8.79	123.33	128.60
36	1	1151	U	C6-N1-C2	-8.77	115.73	121.00
36	5	283	G	C5-C6-O6	-8.77	123.34	128.60
36	1	960	U	C5-C6-N1	-8.77	118.32	122.70
36	1	3344	A	N7-C8-N9	8.76	118.18	113.80
36	5	2411	U	C5-C6-N1	-8.76	118.32	122.70
36	1	679	U	O5'-P-OP2	-8.75	97.83	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	3092	C	C6-N1-C2	8.74	123.80	120.30
38	8	80	A	N7-C8-N9	8.73	118.17	113.80
36	1	890	C	C6-N1-C2	-8.73	116.81	120.30
36	1	1114	U	C4-C5-C6	-8.72	114.47	119.70
1	2	1291	G	C2-N3-C4	-8.72	107.54	111.90
36	5	1449	A	C4-C5-C6	8.72	121.36	117.00
1	6	1634	C	C2-N1-C1'	8.71	128.39	118.80
1	6	364	G	C5-C6-O6	-8.71	123.37	128.60
37	7	10	C	C2-N1-C1'	8.70	128.37	118.80
36	5	1879	A	C6-C5-N7	-8.69	126.22	132.30
1	2	334	G	N3-C4-C5	8.67	132.94	128.60
1	6	1	U	C2-N1-C1'	8.66	128.10	117.70
1	2	639	U	N3-C2-O2	-8.65	116.14	122.20
36	5	3143	C	N3-C4-C5	-8.65	118.44	121.90
36	1	2247	G	C6-C5-N7	-8.65	125.21	130.40
1	6	29	U	C5-C4-O4	8.65	131.09	125.90
1	6	631	G	O5'-P-OP2	-8.64	97.92	105.70
36	1	984	G	N3-C4-C5	-8.64	124.28	128.60
36	5	2715	A	C8-N9-C4	-8.64	102.34	105.80
36	1	27	C	O5'-P-OP1	-8.64	97.93	105.70
36	5	1428	A	O5'-P-OP2	-8.63	97.93	105.70
36	1	3181	C	N3-C4-N4	-8.63	111.96	118.00
38	4	103	G	N3-C4-C5	-8.62	124.29	128.60
36	5	2283	G	O5'-P-OP2	-8.61	97.95	105.70
36	5	2996	U	N1-C2-O2	8.61	128.83	122.80
36	5	361	A	N1-C6-N6	-8.61	113.44	118.60
36	1	1156	C	N3-C2-O2	-8.60	115.88	121.90
36	5	3245	A	N1-C6-N6	8.60	123.76	118.60
36	5	2732	G	O5'-P-OP2	-8.59	97.97	105.70
36	5	1897	G	C5-C6-O6	-8.59	123.45	128.60
36	1	639	G	C6-C5-N7	-8.59	125.25	130.40
36	5	1390	A	N9-C4-C5	8.58	109.23	105.80
36	1	1151	U	O5'-P-OP2	8.57	120.99	110.70
36	1	1362	G	C8-N9-C4	8.56	109.83	106.40
1	6	858	G	O4'-C1'-N9	8.56	115.05	108.20
48	m1	112	LEU	CA-CB-CG	8.56	134.98	115.30
36	1	3265	C	C6-N1-C2	8.54	123.72	120.30
36	1	1381	A	O5'-P-OP1	-8.54	98.02	105.70
1	6	542	A	O4'-C1'-N9	8.53	115.02	108.20
36	5	2726	C	N3-C2-O2	-8.53	115.93	121.90
36	1	917	A	O5'-P-OP2	-8.53	98.03	105.70
36	5	1127	G	N1-C6-O6	-8.52	114.79	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	907	G	N9-C4-C5	-8.52	101.99	105.40
36	5	1316	C	N3-C4-N4	8.51	123.96	118.00
36	1	645	A	C8-N9-C4	-8.50	102.40	105.80
36	5	1079	A	N1-C6-N6	-8.50	113.50	118.60
36	1	1116	G	C6-C5-N7	-8.50	125.30	130.40
36	1	2379	U	N1-C2-O2	-8.49	116.86	122.80
36	5	1075	A	C8-N9-C4	8.49	109.20	105.80
36	5	2715	A	C5-C6-N6	8.48	130.49	123.70
36	1	797	U	O5'-P-OP1	-8.47	98.07	105.70
36	5	966	U	N1-C2-O2	8.47	128.73	122.80
36	1	1902	G	C4-C5-N7	8.46	114.19	110.80
36	1	1367	G	O5'-P-OP1	-8.46	98.09	105.70
36	5	651	G	C8-N9-C4	-8.46	103.02	106.40
36	1	2714	G	C2-N3-C4	-8.46	107.67	111.90
36	5	1158	A	C6-C5-N7	-8.46	126.38	132.30
1	6	426	G	O5'-P-OP2	-8.45	98.09	105.70
36	5	424	G	N1-C6-O6	8.45	124.97	119.90
36	5	1316	C	N3-C4-C5	-8.44	118.52	121.90
36	1	2400	G	N1-C6-O6	8.44	124.97	119.90
36	5	2818	U	O5'-P-OP1	-8.44	98.11	105.70
36	1	919	U	O5'-P-OP2	-8.44	98.11	105.70
36	1	1729	A	O5'-P-OP2	-8.43	98.11	105.70
36	1	2889	C	N1-C2-O2	8.43	123.96	118.90
1	6	1700	C	C2-N1-C1'	8.43	128.07	118.80
36	5	1379	G	C8-N9-C4	8.43	109.77	106.40
36	5	939	U	O5'-P-OP2	-8.42	98.12	105.70
36	5	2866	U	N3-C2-O2	-8.42	116.31	122.20
36	1	1838	G	N9-C4-C5	-8.41	102.03	105.40
36	5	2572	C	N1-C2-O2	8.41	123.95	118.90
36	1	1495	U	C2-N1-C1'	-8.41	107.61	117.70
36	5	2246	G	O5'-P-OP2	8.40	120.79	110.70
36	1	655	C	N1-C2-O2	-8.40	113.86	118.90
36	1	939	U	N1-C2-O2	-8.40	116.92	122.80
36	5	923	C	C6-N1-C2	8.40	123.66	120.30
36	5	1450	G	N3-C2-N2	-8.39	114.03	119.90
36	5	2358	A	C8-N9-C4	8.39	109.16	105.80
36	1	1343	A	O5'-P-OP2	-8.39	98.15	105.70
36	1	984	G	C8-N9-C4	-8.38	103.05	106.40
36	1	274	G	N1-C6-O6	8.37	124.92	119.90
36	1	421	G	C2-N3-C4	8.37	116.08	111.90
36	1	24	G	C2-N3-C4	-8.36	107.72	111.90
37	7	101	G	N1-C6-O6	8.36	124.91	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2	639	U	N1-C2-O2	8.35	128.65	122.80
36	1	406	G	O4'-C1'-N9	8.34	114.87	108.20
36	5	424	G	C4-C5-N7	8.33	114.13	110.80
36	5	1868	G	C6-C5-N7	-8.33	125.40	130.40
37	7	37	G	N9-C4-C5	-8.33	102.07	105.40
36	1	1902	G	N1-C6-O6	8.32	124.89	119.90
36	5	3154	C	N1-C2-O2	8.31	123.89	118.90
36	5	1306	G	C4-C5-N7	8.31	114.12	110.80
36	1	2827	U	C5-C4-O4	8.30	130.88	125.90
36	1	421	G	C5-C6-N1	8.30	115.65	111.50
36	5	1049	C	C6-N1-C2	-8.30	116.98	120.30
36	1	1414	G	N1-C6-O6	8.29	124.87	119.90
36	1	386	A	N1-C6-N6	8.28	123.57	118.60
36	5	2893	C	C6-N1-C2	-8.28	116.99	120.30
36	5	666	A	N1-C6-N6	-8.27	113.64	118.60
36	1	1114	U	C5-C6-N1	8.26	126.83	122.70
36	1	3260	G	N1-C6-O6	8.26	124.85	119.90
36	5	2944	U	C5-C6-N1	8.25	126.83	122.70
1	6	119	A	C2-N3-C4	-8.25	106.47	110.60
36	1	3134	A	O5'-P-OP2	-8.25	98.28	105.70
36	5	2176	U	N3-C2-O2	-8.24	116.43	122.20
38	4	32	C	N3-C4-C5	8.24	125.20	121.90
36	1	2726	C	N3-C2-O2	-8.23	116.14	121.90
36	5	1493	G	O5'-P-OP1	-8.23	98.29	105.70
36	1	1148	G	C5-C6-O6	-8.23	123.67	128.60
36	1	1484	U	P-O3'-C3'	8.23	129.57	119.70
36	1	925	A	C6-N1-C2	-8.22	113.67	118.60
36	1	3362	A	O4'-C1'-N9	8.22	114.78	108.20
36	5	2287	C	C6-N1-C2	-8.22	117.01	120.30
36	1	2572	C	C2-N1-C1'	8.22	127.84	118.80
37	3	95	A	N1-C6-N6	8.22	123.53	118.60
1	6	1025	A	N1-C6-N6	8.22	123.53	118.60
36	1	716	A	N1-C6-N6	8.21	123.53	118.60
36	5	1307	G	P-O3'-C3'	8.21	129.56	119.70
36	1	1192	C	N1-C2-O2	8.21	123.83	118.90
36	5	1884	A	N1-C6-N6	8.21	123.53	118.60
36	1	2431	C	O5'-P-OP2	-8.21	98.31	105.70
36	5	3244	A	O5'-P-OP2	-8.20	98.32	105.70
37	7	9	C	C6-N1-C2	8.20	123.58	120.30
36	5	640	U	N3-C4-O4	8.20	125.14	119.40
36	5	2145	A	C8-N9-C4	-8.20	102.52	105.80
36	5	1153	A	N1-C6-N6	8.20	123.52	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	1323	G	C5-C6-O6	-8.20	123.68	128.60
36	5	1114	U	OP2-P-O3'	8.19	123.22	105.20
36	1	1365	G	N3-C4-C5	-8.18	124.51	128.60
36	1	107	A	N1-C6-N6	8.18	123.51	118.60
36	5	1370	G	N3-C4-C5	-8.17	124.52	128.60
36	5	2572	C	C2-N1-C1'	8.16	127.78	118.80
1	6	364	G	N3-C4-N9	8.16	130.90	126.00
36	5	2290	C	O5'-P-OP2	-8.16	98.36	105.70
37	7	87	G	N1-C6-O6	8.15	124.79	119.90
36	5	3181	C	C6-N1-C2	-8.14	117.04	120.30
36	5	1158	A	N9-C4-C5	-8.14	102.55	105.80
73	O7	65	ARG	NE-CZ-NH2	-8.13	116.23	120.30
36	1	2392	C	C6-N1-C2	8.13	123.55	120.30
36	1	640	U	N1-C2-O2	-8.13	117.11	122.80
36	1	3210	A	N1-C6-N6	-8.13	113.72	118.60
36	1	2812	C	C6-N1-C2	8.12	123.55	120.30
36	1	1128	U	N3-C4-O4	-8.12	113.72	119.40
36	5	1362	G	C8-N9-C4	8.12	109.65	106.40
36	5	881	C	C5-C6-N1	8.11	125.05	121.00
36	5	907	G	N3-C4-N9	8.11	130.86	126.00
36	1	1308	A	N7-C8-N9	8.10	117.85	113.80
36	1	218	G	O5'-P-OP2	-8.09	98.42	105.70
36	5	1301	A	N1-C6-N6	8.09	123.45	118.60
36	1	2871	G	O5'-P-OP2	-8.08	98.43	105.70
36	5	651	G	N3-C4-C5	-8.08	124.56	128.60
36	5	2872	A	C4-C5-N7	8.08	114.74	110.70
36	5	2375	G	C5-C6-O6	8.07	133.44	128.60
36	1	2636	A	N7-C8-N9	8.07	117.83	113.80
36	1	1320	C	N3-C4-C5	-8.06	118.67	121.90
1	6	1000	C	C2-N1-C1'	8.06	127.67	118.80
1	6	453	U	N3-C2-O2	-8.06	116.56	122.20
36	5	2872	A	C5-C6-N6	-8.06	117.25	123.70
36	5	2634	U	C2-N3-C4	-8.05	122.17	127.00
44	l7	229	PHE	CB-CG-CD1	8.05	126.44	120.80
36	5	651	G	C4-C5-C6	8.04	123.63	118.80
37	7	37	G	C5-C6-O6	-8.04	123.77	128.60
36	5	806	A	O5'-P-OP1	-8.04	98.46	105.70
1	6	889	U	O5'-P-OP1	-8.03	98.47	105.70
1	6	65	A	N1-C6-N6	8.03	123.42	118.60
36	1	2617	U	C5-C6-N1	-8.03	118.69	122.70
36	1	2618	G	C8-N9-C4	-8.03	103.19	106.40
36	5	1366	A	N9-C4-C5	8.01	109.00	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	2603	G	C4-C5-N7	7.99	114.00	110.80
36	1	2617	U	N1-C2-N3	7.98	119.69	114.90
1	6	14	C	C6-N1-C2	-7.98	117.11	120.30
36	5	1392	G	C8-N9-C4	7.98	109.59	106.40
36	1	2846	U	N3-C2-O2	-7.97	116.62	122.20
36	5	2899	C	C2-N1-C1'	7.96	127.56	118.80
1	6	858	G	C4-N9-C1'	7.96	136.85	126.50
36	1	1495	U	N1-C2-O2	-7.95	117.23	122.80
37	7	87	G	C5-C6-O6	-7.95	123.83	128.60
36	1	363	G	N1-C6-O6	7.95	124.67	119.90
36	1	2355	G	N1-C6-O6	7.95	124.67	119.90
36	1	2870	C	C6-N1-C1'	7.94	130.33	120.80
36	5	913	A	C8-N9-C4	-7.94	102.62	105.80
36	1	2197	C	C6-N1-C2	7.92	123.47	120.30
36	1	979	U	C2-N1-C1'	7.92	127.20	117.70
1	2	402	C	C6-N1-C2	7.91	123.47	120.30
36	1	2572	C	N1-C2-O2	7.91	123.65	118.90
36	5	2699	G	C8-N9-C4	7.91	109.56	106.40
38	8	96	A	C8-N9-C4	7.91	108.96	105.80
36	5	1161	G	C5-C6-N1	7.90	115.45	111.50
36	5	1399	A	N1-C6-N6	7.90	123.34	118.60
36	5	1292	C	C6-N1-C2	7.90	123.46	120.30
36	1	2247	G	C5-C6-O6	-7.90	123.86	128.60
36	1	1192	C	C2-N1-C1'	7.90	127.49	118.80
36	1	1495	U	N1-C2-N3	7.90	119.64	114.90
36	5	38	U	O5'-P-OP2	-7.90	98.59	105.70
36	5	1321	G	N1-C6-O6	7.90	124.64	119.90
36	5	2331	C	N3-C4-C5	-7.89	118.74	121.90
36	1	1858	A	C2-N3-C4	7.89	114.54	110.60
36	5	2295	A	C5-C6-N1	7.89	121.64	117.70
36	5	2524	A	O4'-C1'-N9	7.88	114.51	108.20
36	5	776	U	C4-C5-C6	7.88	124.43	119.70
36	5	2332	A	C8-N9-C4	7.87	108.95	105.80
36	1	716	A	N9-C4-C5	-7.86	102.65	105.80
36	5	1437	C	C6-N1-C2	-7.86	117.16	120.30
36	1	1099	A	N1-C6-N6	7.86	123.32	118.60
36	5	3181	C	C2-N1-C1'	7.86	127.45	118.80
36	1	426	G	N3-C4-C5	-7.86	124.67	128.60
1	2	1600	A	N1-C6-N6	7.85	123.31	118.60
37	3	8	G	N1-C6-O6	-7.85	115.19	119.90
36	1	1157	G	N1-C2-N3	7.85	128.61	123.90
36	1	1389	G	C4-C5-N7	7.84	113.94	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	2395	G	O5'-P-OP2	-7.84	98.64	105.70
36	5	610	G	N1-C6-O6	-7.84	115.19	119.90
36	5	708	G	C8-N9-C4	-7.84	103.26	106.40
36	5	1868	G	C4-C5-N7	7.84	113.94	110.80
38	8	114	G	O5'-P-OP1	-7.84	98.64	105.70
36	5	437	G	N3-C4-N9	-7.84	121.30	126.00
36	1	703	G	N3-C4-N9	-7.83	121.30	126.00
36	1	2356	A	N1-C6-N6	7.83	123.30	118.60
36	1	70	A	C6-C5-N7	-7.83	126.82	132.30
36	1	347	G	C5-N7-C8	-7.83	100.39	104.30
36	5	3218	A	N1-C6-N6	7.83	123.30	118.60
1	2	1363	U	N1-C2-O2	7.82	128.28	122.80
36	1	1154	A	C8-N9-C4	-7.82	102.67	105.80
36	1	2283	G	C5-C6-O6	-7.81	123.91	128.60
36	5	907	G	O5'-P-OP1	-7.81	98.67	105.70
36	5	1317	A	C2-N3-C4	7.81	114.50	110.60
36	1	2679	A	C2-N3-C4	-7.80	106.70	110.60
36	5	2820	A	C8-N9-C4	-7.80	102.68	105.80
36	1	2692	A	N1-C6-N6	7.80	123.28	118.60
36	1	65	A	P-O3'-C3'	7.80	129.06	119.70
36	1	3277	U	N3-C2-O2	-7.80	116.74	122.20
36	5	650	C	C2-N1-C1'	-7.79	110.23	118.80
36	5	2938	G	C2-N3-C4	7.79	115.79	111.90
1	2	553	G	C6-C5-N7	-7.78	125.73	130.40
36	1	1852	G	N1-C6-O6	7.78	124.57	119.90
36	1	2679	A	O4'-C1'-N9	7.78	114.42	108.20
38	8	109	A	C5-C6-N1	7.78	121.59	117.70
1	2	1745	G	N3-C4-N9	7.77	130.66	126.00
36	1	1148	G	N1-C6-O6	7.77	124.56	119.90
1	6	957	G	N1-C6-O6	7.77	124.56	119.90
36	5	1592	G	C5-C6-N1	-7.77	107.61	111.50
36	5	1192	C	N1-C2-O2	7.77	123.56	118.90
36	5	1434	G	N3-C4-N9	-7.77	121.34	126.00
1	2	1657	U	O4'-C1'-N1	7.76	114.41	108.20
36	1	2279	A	N9-C4-C5	-7.76	102.70	105.80
36	5	2893	C	N3-C4-N4	7.76	123.43	118.00
36	5	2935	U	O5'-P-OP2	-7.76	98.72	105.70
36	5	880	G	C8-N9-C4	7.76	109.50	106.40
36	1	2314	U	C5-C4-O4	-7.75	121.25	125.90
36	5	647	A	C4-C5-C6	7.75	120.88	117.00
36	1	145	G	C6-C5-N7	-7.75	125.75	130.40
36	1	2887	A	N1-C6-N6	7.75	123.25	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	1902	G	N1-C6-O6	7.75	124.55	119.90
36	1	27	C	C6-N1-C2	-7.74	117.20	120.30
36	1	1902	G	C5-C6-O6	-7.74	123.95	128.60
36	5	2354	C	N1-C2-O2	-7.74	114.25	118.90
36	5	2994	A	C8-N9-C4	-7.74	102.70	105.80
36	5	2699	G	C5-C6-O6	-7.74	123.96	128.60
36	1	2409	G	N3-C4-C5	-7.73	124.73	128.60
1	6	144	U	N3-C2-O2	-7.73	116.79	122.20
36	1	790	U	N1-C2-N3	7.73	119.54	114.90
36	5	964	G	C8-N9-C4	-7.73	103.31	106.40
37	3	91	G	C6-C5-N7	-7.73	125.76	130.40
36	1	2642	A	C5-C6-N1	-7.73	113.84	117.70
36	5	2988	C	C5-C6-N1	-7.73	117.14	121.00
36	1	300	G	O5'-P-OP1	-7.72	98.75	105.70
1	6	1793	G	N1-C6-O6	-7.71	115.27	119.90
36	1	2408	U	O5'-P-OP1	-7.70	98.77	105.70
36	1	282	G	N9-C4-C5	7.70	108.48	105.40
1	6	1629	G	O5'-P-OP2	-7.70	98.77	105.70
36	5	1152	G	C8-N9-C1'	7.70	137.01	127.00
36	1	2889	C	N3-C2-O2	-7.70	116.51	121.90
36	1	2827	U	C5-C6-N1	-7.69	118.85	122.70
36	1	1002	A	C8-N9-C4	7.68	108.87	105.80
36	5	922	U	C2-N3-C4	-7.68	122.39	127.00
36	5	974	G	N3-C4-C5	-7.68	124.76	128.60
36	5	1367	G	N1-C6-O6	7.68	124.51	119.90
36	5	2419	A	C8-N9-C4	-7.67	102.73	105.80
36	5	3245	A	C4-C5-N7	7.67	114.54	110.70
44	l7	232	ARG	NE-CZ-NH1	-7.67	116.46	120.30
1	6	1011	G	O5'-P-OP2	-7.67	98.80	105.70
36	5	2995	A	O5'-P-OP2	-7.67	98.80	105.70
36	5	2848	G	N1-C6-O6	7.66	124.50	119.90
36	1	3181	C	C6-N1-C2	-7.66	117.23	120.30
36	5	960	U	OP2-P-O3'	7.66	122.05	105.20
36	5	3090	U	O5'-P-OP1	-7.66	98.81	105.70
36	1	925	A	C5-C6-N6	-7.66	117.58	123.70
36	5	1323	G	C4-C5-N7	7.66	113.86	110.80
36	5	2928	C	N3-C4-N4	7.65	123.36	118.00
36	5	966	U	C6-N1-C2	-7.65	116.41	121.00
36	1	2617	U	C4-C5-C6	7.65	124.29	119.70
36	1	1335	C	C6-N1-C2	7.65	123.36	120.30
36	1	355	A	C2-N3-C4	-7.64	106.78	110.60
1	2	1560	U	N3-C2-O2	-7.64	116.85	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	1491	A	O5'-P-OP1	-7.64	98.82	105.70
42	l5	152	ARG	NE-CZ-NH1	7.64	124.12	120.30
1	6	1637	C	C2-N1-C1'	7.64	127.20	118.80
36	5	1200	A	C6-C5-N7	-7.63	126.95	132.30
36	1	2624	G	N7-C8-N9	7.63	116.91	113.10
1	2	91	G	N1-C6-O6	7.62	124.47	119.90
36	5	41	G	C5-N7-C8	-7.62	100.49	104.30
36	1	2730	G	N1-C6-O6	7.62	124.47	119.90
36	5	907	G	C8-N9-C4	7.62	109.45	106.40
36	5	2372	A	P-O3'-C3'	7.61	128.83	119.70
1	2	334	G	C8-N9-C4	7.61	109.44	106.40
36	5	2881	C	C6-N1-C2	7.60	123.34	120.30
36	5	1117	G	N1-C6-O6	7.60	124.46	119.90
36	1	586	C	N3-C2-O2	7.60	127.22	121.90
1	2	1100	G	C6-C5-N7	-7.60	125.84	130.40
36	1	53	G	C5-C6-O6	7.60	133.16	128.60
1	6	630	A	N1-C6-N6	7.59	123.16	118.60
36	5	2410	U	N1-C2-O2	-7.59	117.48	122.80
36	1	49	A	N1-C6-N6	7.59	123.16	118.60
36	1	220	G	N1-C6-O6	7.59	124.45	119.90
36	5	877	C	N3-C4-C5	7.59	124.94	121.90
36	1	1049	C	O5'-P-OP1	-7.59	98.87	105.70
36	5	2413	A	C2-N3-C4	-7.59	106.81	110.60
36	5	651	G	C6-C5-N7	-7.58	125.85	130.40
38	4	38	U	N3-C2-O2	-7.58	116.89	122.20
36	5	909	G	C5-C6-O6	7.58	133.15	128.60
36	5	1370	G	N3-C4-N9	7.58	130.55	126.00
36	1	343	U	O5'-P-OP2	-7.57	98.88	105.70
36	5	3377	G	C5-C6-O6	-7.57	124.06	128.60
36	5	591	G	C8-N9-C4	7.57	109.43	106.40
36	5	929	A	O5'-P-OP2	-7.56	98.89	105.70
36	1	1437	C	C2-N1-C1'	7.56	127.11	118.80
36	5	2412	G	N1-C2-N2	-7.56	109.40	116.20
36	1	49	A	C8-N9-C4	7.56	108.82	105.80
1	2	1745	G	C5-C6-O6	-7.55	124.07	128.60
36	1	1001	G	N1-C6-O6	7.55	124.43	119.90
36	1	2730	G	C5-C6-N1	-7.55	107.72	111.50
36	5	800	G	C8-N9-C4	7.55	109.42	106.40
36	5	1886	A	N1-C2-N3	-7.55	125.52	129.30
1	6	1537	C	C6-N1-C1'	7.55	129.86	120.80
37	7	101	G	C6-C5-N7	-7.55	125.87	130.40
36	1	947	G	C2-N3-C4	-7.54	108.13	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	2610	G	C4-C5-N7	7.54	113.81	110.80
1	6	1634	C	C6-N1-C2	-7.54	117.29	120.30
36	5	3140	G	C4-C5-N7	7.54	113.81	110.80
36	5	1912	U	C6-N1-C2	7.53	125.52	121.00
1	6	1614	A	C2-N3-C4	-7.53	106.84	110.60
36	1	2815	G	N9-C4-C5	-7.53	102.39	105.40
1	6	453	U	C2-N1-C1'	7.52	126.73	117.70
36	5	3115	C	C6-N1-C2	-7.52	117.29	120.30
36	1	2779	A	C8-N9-C4	7.51	108.81	105.80
36	5	2234	G	N9-C4-C5	-7.51	102.40	105.40
36	5	1142	G	C8-N9-C4	-7.51	103.40	106.40
36	5	2627	C	C6-N1-C2	-7.51	117.30	120.30
36	1	2304	C	C6-N1-C2	-7.50	117.30	120.30
1	2	934	C	C2-N1-C1'	7.50	127.05	118.80
36	1	2639	G	N3-C4-N9	7.49	130.50	126.00
36	1	2764	C	C6-N1-C2	-7.49	117.30	120.30
1	2	1039	A	O4'-C1'-N9	7.49	114.19	108.20
36	5	907	G	N3-C2-N2	7.49	125.14	119.90
1	6	782	U	N1-C2-O2	7.49	128.04	122.80
1	6	1773	C	N3-C4-C5	-7.49	118.91	121.90
36	5	3181	C	N1-C2-O2	7.49	123.39	118.90
36	1	678	G	N3-C2-N2	-7.48	114.66	119.90
37	7	105	C	N1-C2-O2	7.48	123.39	118.90
36	1	3344	A	C5-N7-C8	-7.48	100.16	103.90
15	C3	22	ALA	C-N-CD	-7.48	104.15	120.60
36	5	3335	A	N1-C6-N6	7.48	123.09	118.60
1	2	1759	C	C6-N1-C2	7.47	123.29	120.30
1	6	25	C	N1-C2-O2	-7.47	114.42	118.90
36	5	2272	G	O4'-C1'-N9	7.47	114.18	108.20
1	2	453	U	C2-N1-C1'	7.47	126.67	117.70
36	1	289	A	N1-C6-N6	7.46	123.08	118.60
36	1	1835	A	O5'-P-OP1	-7.46	98.98	105.70
36	5	2353	G	C5-C6-O6	-7.46	124.12	128.60
36	1	1158	A	N1-C6-N6	7.45	123.07	118.60
36	1	1848	G	O5'-P-OP1	-7.45	99.00	105.70
36	5	1481	A	C8-N9-C4	-7.45	102.82	105.80
36	1	1151	U	N3-C4-C5	-7.45	110.13	114.60
36	1	681	U	N3-C4-O4	7.45	124.61	119.40
1	6	765	G	C8-N9-C4	7.45	109.38	106.40
36	1	2247	G	C4-C5-N7	7.44	113.78	110.80
36	5	3382	U	N3-C2-O2	-7.44	116.99	122.20
36	1	636	C	C2-N3-C4	-7.43	116.18	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	2729	U	O5'-P-OP1	-7.43	99.01	105.70
36	5	1710	C	C6-N1-C2	7.43	123.27	120.30
36	5	977	C	N3-C2-O2	-7.43	116.70	121.90
36	1	578	A	N1-C6-N6	7.43	123.06	118.60
36	1	2610	G	C6-C5-N7	-7.42	125.95	130.40
36	5	2877	G	N3-C4-N9	7.42	130.46	126.00
36	5	2849	C	N1-C2-O2	-7.42	114.45	118.90
36	1	676	G	C4-N9-C1'	7.42	136.14	126.50
36	1	2831	G	N1-C6-O6	7.42	124.35	119.90
36	5	3166	C	N1-C2-O2	7.41	123.34	118.90
36	1	2796	G	C8-N9-C4	-7.41	103.44	106.40
36	5	373	A	C8-N9-C4	7.40	108.76	105.80
36	5	2297	U	C2-N1-C1'	-7.40	108.82	117.70
36	5	1215	U	N1-C2-O2	-7.40	117.62	122.80
1	2	1200	G	N1-C6-O6	7.40	124.34	119.90
36	1	1279	C	C6-N1-C2	-7.39	117.34	120.30
36	5	2121	G	N3-C4-N9	7.39	130.44	126.00
36	5	3382	U	N1-C2-O2	7.39	127.97	122.80
36	5	2121	G	N9-C4-C5	-7.39	102.44	105.40
36	1	716	A	C8-N9-C4	7.39	108.75	105.80
36	5	933	A	C6-N1-C2	-7.38	114.17	118.60
36	5	804	C	N3-C4-N4	7.38	123.17	118.00
36	1	1495	U	C2-N3-C4	-7.38	122.57	127.00
36	1	2356	A	N9-C4-C5	-7.38	102.85	105.80
1	6	558	U	N1-C2-O2	7.37	127.96	122.80
36	1	2777	G	N9-C4-C5	7.37	108.35	105.40
36	5	996	A	O5'-P-OP2	-7.37	99.07	105.70
36	1	1055	A	O5'-P-OP1	-7.37	99.07	105.70
36	1	2795	U	O5'-P-OP1	-7.36	99.07	105.70
36	1	1150	A	O5'-P-OP2	-7.36	99.08	105.70
36	1	96	G	C2-N3-C4	-7.35	108.22	111.90
36	5	951	A	C8-N9-C4	-7.35	102.86	105.80
36	1	1116	G	N3-C4-C5	-7.35	124.93	128.60
36	5	2411	U	C2-N3-C4	-7.35	122.59	127.00
36	5	2620	G	N9-C4-C5	7.35	108.34	105.40
36	1	1114	U	OP2-P-O3'	7.34	121.36	105.20
36	1	645	A	C6-N1-C2	-7.34	114.19	118.60
36	5	1215	U	N3-C2-O2	7.34	127.34	122.20
36	1	2996	U	C2-N1-C1'	7.34	126.51	117.70
1	6	107	C	C6-N1-C2	7.34	123.23	120.30
36	5	2872	A	C5-N7-C8	-7.34	100.23	103.90
1	6	1793	G	C6-C5-N7	7.33	134.80	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	96	G	N1-C6-O6	7.33	124.30	119.90
36	1	394	G	N9-C4-C5	7.33	108.33	105.40
36	1	1365	G	N3-C4-N9	7.33	130.40	126.00
36	5	650	C	N1-C2-O2	-7.32	114.51	118.90
36	1	935	U	N3-C2-O2	-7.32	117.08	122.20
36	1	1128	U	N3-C4-C5	7.31	118.99	114.60
36	5	2421	U	N1-C2-N3	7.31	119.29	114.90
36	5	881	C	C4-C5-C6	-7.31	113.75	117.40
36	1	3187	A	O5'-P-OP2	-7.31	99.12	105.70
36	1	1317	A	O5'-P-OP2	-7.30	99.13	105.70
36	5	1192	C	N3-C2-O2	-7.30	116.79	121.90
36	1	640	U	N3-C2-O2	7.30	127.31	122.20
36	5	216	G	O5'-P-OP1	-7.30	99.13	105.70
36	5	2913	C	N1-C2-O2	-7.30	114.52	118.90
36	5	2983	C	O5'-P-OP1	-7.30	99.13	105.70
36	5	3362	A	O4'-C1'-N9	7.30	114.04	108.20
36	1	347	G	C5-C6-O6	-7.29	124.22	128.60
36	5	2278	C	C4-C5-C6	-7.29	113.75	117.40
36	5	1390	A	N1-C6-N6	-7.29	114.23	118.60
36	1	639	G	C4-C5-N7	7.29	113.72	110.80
36	5	2198	A	O5'-P-OP2	-7.29	99.14	105.70
38	4	28	C	C6-N1-C2	-7.28	117.39	120.30
36	1	1307	G	P-O3'-C3'	7.28	128.44	119.70
36	5	1306	G	C6-C5-N7	-7.28	126.03	130.40
36	5	437	G	C8-N9-C4	-7.28	103.49	106.40
36	5	3154	C	C2-N1-C1'	7.28	126.81	118.80
36	1	3344	A	C8-N9-C4	-7.28	102.89	105.80
1	6	1306	C	C6-N1-C2	-7.27	117.39	120.30
36	1	57	A	C2-N3-C4	-7.27	106.96	110.60
1	6	194	U	C2-N1-C1'	7.27	126.42	117.70
36	5	1846	C	C5-C6-N1	-7.27	117.37	121.00
36	1	919	U	O5'-P-OP1	7.26	119.42	110.70
36	5	3002	C	C6-N1-C2	7.26	123.21	120.30
36	1	2964	G	N9-C4-C5	7.26	108.31	105.40
36	5	2376	G	C6-C5-N7	-7.26	126.04	130.40
36	5	2967	A	O5'-P-OP1	7.26	119.41	110.70
36	1	347	G	N1-C6-O6	7.26	124.25	119.90
1	6	1634	C	N1-C2-O2	7.26	123.25	118.90
36	5	2322	C	C6-N1-C2	-7.26	117.40	120.30
36	5	2737	C	O5'-P-OP2	-7.26	99.17	105.70
36	1	3209	A	N1-C6-N6	7.25	122.95	118.60
36	5	2234	G	C8-N9-C4	7.25	109.30	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	611	A	N1-C6-N6	7.25	122.95	118.60
36	5	2891	U	C5-C6-N1	-7.25	119.08	122.70
36	5	3154	C	C6-N1-C2	-7.25	117.40	120.30
36	1	2405	C	N3-C4-C5	-7.25	119.00	121.90
36	1	2730	G	C2-N3-C4	-7.24	108.28	111.90
36	5	437	G	N9-C4-C5	7.24	108.30	105.40
36	1	1919	G	C8-N9-C4	-7.24	103.50	106.40
36	1	2590	A	N1-C6-N6	-7.24	114.26	118.60
36	1	2870	C	C6-N1-C2	7.24	123.19	120.30
36	5	3004	C	C6-N1-C2	7.24	123.19	120.30
36	5	2375	G	N9-C4-C5	7.24	108.30	105.40
36	5	2950	G	N1-C6-O6	7.24	124.24	119.90
36	1	1820	U	P-O3'-C3'	7.23	128.38	119.70
36	1	649	A	C8-N9-C4	7.22	108.69	105.80
36	5	3285	C	C2-N1-C1'	7.22	126.75	118.80
36	1	1506	A	N1-C6-N6	-7.22	114.27	118.60
1	6	577	G	C6-C5-N7	-7.22	126.07	130.40
36	1	1389	G	N9-C4-C5	-7.22	102.51	105.40
36	1	1905	G	OP2-P-O3'	7.22	121.08	105.20
36	5	1370	G	N1-C2-N2	-7.22	109.70	116.20
36	5	2801	A	N1-C6-N6	-7.22	114.27	118.60
36	5	55	G	N3-C4-C5	7.21	132.21	128.60
1	6	901	G	C4-C5-N7	7.21	113.68	110.80
1	2	287	G	O4'-C1'-N9	7.21	113.97	108.20
36	1	2978	U	O4'-C1'-N1	7.21	113.97	108.20
36	1	350	C	C2-N1-C1'	7.21	126.73	118.80
36	5	3133	C	C6-N1-C2	-7.21	117.42	120.30
36	1	3306	U	N3-C4-O4	-7.20	114.36	119.40
36	5	612	U	O5'-P-OP1	-7.20	99.22	105.70
1	2	15	U	C6-N1-C2	-7.20	116.68	121.00
1	6	453	U	N1-C2-O2	7.20	127.84	122.80
36	5	1155	C	C5-C6-N1	7.20	124.60	121.00
36	5	1390	A	C8-N9-C4	-7.20	102.92	105.80
36	5	715	A	C5-C6-N1	7.20	121.30	117.70
36	1	76	G	N1-C6-O6	7.20	124.22	119.90
36	5	1506	A	C8-N9-C4	-7.20	102.92	105.80
36	1	2702	A	C8-N9-C4	-7.19	102.92	105.80
36	5	817	A	N1-C6-N6	7.19	122.92	118.60
1	2	831	U	C5-C6-N1	7.19	126.30	122.70
36	5	2880	U	N1-C2-N3	7.19	119.21	114.90
1	6	1085	G	N1-C6-O6	-7.19	115.59	119.90
1	6	1748	G	C8-N9-C4	7.19	109.28	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	3218	A	C4-C5-N7	7.19	114.29	110.70
36	1	640	U	N3-C4-O4	7.19	124.43	119.40
36	5	2359	C	C5-C6-N1	-7.19	117.41	121.00
36	1	793	C	C6-N1-C2	-7.18	117.43	120.30
38	4	53	A	C2-N3-C4	7.18	114.19	110.60
38	4	84	C	C6-N1-C2	7.18	123.17	120.30
36	1	1450	G	C4-C5-N7	7.17	113.67	110.80
36	5	2130	G	O5'-P-OP2	-7.17	99.24	105.70
36	1	960	U	C2-N1-C1'	-7.17	109.09	117.70
36	5	1012	G	C4-N9-C1'	-7.17	117.18	126.50
36	5	1183	C	C6-N1-C2	7.17	123.17	120.30
1	2	1100	G	C4-N9-C1'	7.17	135.82	126.50
36	5	86	G	C5-C6-O6	-7.17	124.30	128.60
1	2	1241	G	O4'-C1'-N9	7.16	113.93	108.20
37	3	101	G	C8-N9-C4	7.16	109.27	106.40
1	6	782	U	N3-C2-O2	-7.16	117.19	122.20
36	1	2382	G	N1-C2-N2	-7.16	109.76	116.20
1	6	29	U	N3-C2-O2	-7.16	117.19	122.20
36	1	5	G	C8-N9-C4	-7.16	103.54	106.40
12	C0	88	PRO	N-CA-CB	7.16	111.89	103.30
1	6	364	G	C8-N9-C1'	-7.15	117.70	127.00
36	1	925	A	N1-C6-N6	7.15	122.89	118.60
36	5	803	C	C6-N1-C2	-7.15	117.44	120.30
36	1	2726	C	C5-C4-N4	7.14	125.20	120.20
1	2	542	A	O4'-C1'-N9	7.14	113.91	108.20
1	6	452	A	N1-C6-N6	7.14	122.88	118.60
36	5	830	A	C5-C6-N6	-7.14	117.99	123.70
36	5	3050	U	C5-C4-O4	7.14	130.18	125.90
38	4	26	U	C6-N1-C2	-7.13	116.72	121.00
36	5	3197	G	N3-C4-N9	-7.13	121.72	126.00
36	1	1408	G	C6-C5-N7	-7.13	126.12	130.40
36	5	2381	G	C6-C5-N7	-7.13	126.12	130.40
36	5	2980	U	N3-C2-O2	-7.13	117.21	122.20
36	5	1129	A	O5'-P-OP2	-7.13	99.28	105.70
1	6	1029	U	C2-N1-C1'	-7.13	109.14	117.70
10	S8	29	LEU	CA-CB-CG	7.13	131.69	115.30
36	5	1152	G	N3-C2-N2	-7.13	114.91	119.90
36	5	3136	G	C2-N3-C4	-7.13	108.34	111.90
36	5	3339	A	N1-C6-N6	7.13	122.88	118.60
36	1	2923	U	O5'-P-OP1	-7.12	99.29	105.70
1	6	1581	C	N3-C4-C5	7.12	124.75	121.90
36	1	2884	C	N3-C4-C5	7.12	124.75	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	2205	U	O4'-C1'-N1	7.12	113.89	108.20
36	1	211	A	N1-C2-N3	7.12	132.86	129.30
1	6	1745	G	C8-N9-C1'	-7.11	117.75	127.00
36	1	1838	G	C4-C5-N7	7.11	113.64	110.80
1	6	163	G	N3-C4-C5	7.11	132.15	128.60
36	1	1001	G	N9-C4-C5	-7.10	102.56	105.40
36	1	3344	A	O4'-C1'-N9	7.10	113.88	108.20
36	1	2760	C	N3-C4-C5	-7.10	119.06	121.90
1	6	1180	C	C6-N1-C2	-7.10	117.46	120.30
36	5	2917	G	C5-C6-O6	-7.10	124.34	128.60
36	5	1116	G	C4-N9-C1'	7.09	135.72	126.50
36	5	283	G	C6-C5-N7	-7.09	126.15	130.40
36	5	428	A	C5-C6-N6	-7.09	118.03	123.70
36	5	2131	A	N1-C6-N6	7.09	122.85	118.60
36	1	2936	A	O5'-P-OP1	-7.09	99.32	105.70
1	6	17	C	N3-C2-O2	-7.09	116.94	121.90
36	5	2381	G	N1-C6-O6	7.09	124.15	119.90
1	2	1731	A	N1-C6-N6	7.08	122.85	118.60
36	1	1864	A	C8-N9-C4	7.08	108.63	105.80
54	m8	127	LEU	CA-CB-CG	7.08	131.59	115.30
36	1	3218	A	N1-C6-N6	7.08	122.85	118.60
36	1	59	G	C4-C5-N7	7.08	113.63	110.80
36	5	1317	A	N1-C2-N3	-7.08	125.76	129.30
36	1	1149	G	N1-C6-O6	7.07	124.14	119.90
36	5	1449	A	N1-C2-N3	7.07	132.83	129.30
36	5	3214	U	N3-C2-O2	-7.07	117.25	122.20
36	1	2402	A	C5-C6-N1	7.06	121.23	117.70
36	1	803	C	O5'-P-OP1	7.06	119.18	110.70
36	5	2800	G	N3-C2-N2	-7.05	114.96	119.90
36	5	2927	C	N1-C2-O2	-7.05	114.67	118.90
36	5	2142	A	C5-C6-N1	7.05	121.23	117.70
36	1	339	C	N3-C4-N4	-7.05	113.07	118.00
36	1	2986	U	N1-C2-O2	-7.05	117.87	122.80
36	1	2374	C	C2-N1-C1'	7.05	126.55	118.80
36	5	3153	U	N1-C2-O2	7.05	127.73	122.80
36	1	2381	G	N3-C4-C5	-7.04	125.08	128.60
36	5	2811	A	N1-C6-N6	-7.04	114.37	118.60
36	1	1316	C	N3-C4-N4	7.04	122.93	118.00
36	1	1445	U	N1-C2-O2	-7.04	117.87	122.80
36	5	923	C	C5-C4-N4	-7.04	115.27	120.20
36	5	2848	G	C6-C5-N7	-7.04	126.18	130.40
36	5	2864	A	C8-N9-C4	7.04	108.61	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	6	337	G	C4-N9-C1'	7.03	135.64	126.50
36	5	55	G	O5'-P-OP2	-7.03	99.37	105.70
36	5	2899	C	N1-C2-N3	7.03	124.12	119.20
1	2	551	G	C8-N9-C4	-7.03	103.59	106.40
36	1	663	C	C6-N1-C2	7.03	123.11	120.30
36	1	1793	C	O5'-P-OP1	-7.03	99.37	105.70
1	6	639	U	C2-N1-C1'	7.03	126.14	117.70
36	5	2693	C	C6-N1-C2	7.03	123.11	120.30
1	6	779	U	O4'-C1'-N1	7.03	113.82	108.20
37	7	99	G	N1-C6-O6	-7.03	115.69	119.90
36	1	1389	G	C5-C6-O6	-7.02	124.39	128.60
36	1	874	U	O5'-P-OP1	-7.02	99.38	105.70
36	1	191	U	N1-C2-N3	7.02	119.11	114.90
36	5	2349	U	OP1-P-O3'	7.02	120.64	105.20
1	2	577	G	C4-C5-N7	7.02	113.61	110.80
36	1	2406	C	N3-C4-N4	7.01	122.91	118.00
36	5	3026	G	N1-C6-O6	7.01	124.11	119.90
36	1	3362	A	N7-C8-N9	7.01	117.31	113.80
36	1	1450	G	C5-C6-O6	-7.01	124.39	128.60
36	5	2980	U	C6-N1-C2	-7.01	116.80	121.00
36	1	1174	G	N3-C4-N9	7.00	130.20	126.00
36	5	2201	G	N3-C4-C5	-7.00	125.10	128.60
36	1	1007	U	C6-N1-C2	7.00	125.20	121.00
36	1	2996	U	C6-N1-C1'	-7.00	111.40	121.20
36	1	964	G	N3-C2-N2	-7.00	115.00	119.90
36	1	2325	G	C8-N9-C4	-7.00	103.60	106.40
36	5	1115	G	C4-N9-C1'	7.00	135.60	126.50
36	5	2850	G	C5-C6-O6	-7.00	124.40	128.60
36	1	2639	G	C4-N9-C1'	7.00	135.59	126.50
1	6	1361	U	C2-N1-C1'	7.00	126.09	117.70
37	3	117	A	N1-C6-N6	6.99	122.80	118.60
1	6	322	G	N1-C6-O6	6.99	124.10	119.90
36	1	979	U	N1-C2-O2	6.99	127.69	122.80
36	1	1144	U	C5-C6-N1	-6.99	119.20	122.70
36	1	1173	U	C5-C6-N1	-6.99	119.20	122.70
36	5	1300	G	N1-C6-O6	6.99	124.09	119.90
36	5	2317	A	O5'-P-OP2	-6.99	99.41	105.70
36	5	2872	A	C6-C5-N7	-6.99	127.41	132.30
36	1	1174	G	C8-N9-C1'	-6.99	117.92	127.00
37	7	98	C	O5'-P-OP2	-6.99	99.41	105.70
36	5	2920	U	N1-C2-N3	6.99	119.09	114.90
36	1	2356	A	C5-C6-N6	-6.98	118.11	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	2388	U	N3-C2-O2	6.98	127.09	122.20
36	5	2403	G	O5'-P-OP2	-6.98	99.42	105.70
36	1	2870	C	N3-C4-C5	6.98	124.69	121.90
1	6	1596	C	N3-C2-O2	-6.98	117.02	121.90
36	5	877	C	C5-C4-N4	-6.98	115.32	120.20
36	5	2956	A	C8-N9-C4	-6.98	103.01	105.80
36	5	2868	U	C5-C6-N1	6.98	126.19	122.70
36	1	2169	G	N1-C6-O6	-6.97	115.72	119.90
36	5	2817	A	C2-N3-C4	6.97	114.09	110.60
36	1	925	A	N1-C2-N3	6.97	132.79	129.30
36	1	2853	A	N1-C6-N6	6.97	122.78	118.60
1	6	609	U	N3-C4-O4	-6.97	114.52	119.40
36	5	617	G	N9-C4-C5	-6.97	102.61	105.40
36	5	1099	A	C6-C5-N7	-6.97	127.42	132.30
36	5	3112	G	C4-C5-N7	6.97	113.59	110.80
1	2	334	G	C2-N3-C4	-6.97	108.42	111.90
36	5	1116	G	C5-C6-N1	-6.96	108.02	111.50
36	1	24	G	N1-C2-N2	-6.96	109.93	116.20
36	5	2376	G	N1-C6-O6	6.96	124.08	119.90
1	2	623	A	O5'-P-OP1	-6.96	99.44	105.70
36	1	1048	A	N1-C2-N3	-6.96	125.82	129.30
1	6	364	G	N1-C6-O6	6.96	124.07	119.90
1	6	1396	U	C6-N1-C2	-6.96	116.83	121.00
36	5	43	A	O4'-C1'-N9	6.96	113.77	108.20
36	1	802	C	O5'-P-OP2	6.96	119.05	110.70
36	5	2699	G	N1-C6-O6	6.96	124.07	119.90
36	5	2880	U	C6-N1-C2	-6.95	116.83	121.00
36	5	942	U	N3-C4-C5	-6.94	110.43	114.60
36	1	957	C	N3-C2-O2	6.94	126.76	121.90
1	6	571	G	N9-C4-C5	6.94	108.18	105.40
36	1	220	G	C4-C5-N7	6.94	113.58	110.80
36	1	1442	U	N3-C2-O2	6.94	127.06	122.20
36	1	3344	A	C2-N3-C4	-6.94	107.13	110.60
36	5	57	A	N1-C6-N6	6.94	122.76	118.60
36	5	3098	G	O5'-P-OP2	-6.94	99.46	105.70
1	6	577	G	N7-C8-N9	6.94	116.57	113.10
37	7	53	U	O5'-P-OP2	-6.93	99.46	105.70
1	6	163	G	N3-C2-N2	-6.93	115.05	119.90
36	5	1591	G	C5-C6-O6	-6.93	124.44	128.60
1	2	1600	A	C5-C6-N1	-6.93	114.23	117.70
36	1	3046	A	C2-N3-C4	-6.93	107.14	110.60
1	6	1637	C	N1-C2-O2	6.93	123.06	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	1143	A	C2-N3-C4	-6.93	107.14	110.60
36	5	1507	G	C6-C5-N7	-6.93	126.24	130.40
36	5	2400	G	C6-C5-N7	-6.92	126.25	130.40
36	5	3270	U	O5'-P-OP1	-6.92	99.47	105.70
36	5	1126	G	C5-C6-N1	-6.92	108.04	111.50
36	1	788	C	C6-N1-C2	6.92	123.07	120.30
36	5	776	U	C2-N3-C4	-6.92	122.85	127.00
36	5	1161	G	C2-N3-C4	6.92	115.36	111.90
36	5	1301	A	C4-C5-N7	6.92	114.16	110.70
37	7	56	A	N1-C6-N6	6.92	122.75	118.60
36	1	3265	C	C2-N1-C1'	-6.92	111.19	118.80
36	5	1164	G	O5'-P-OP2	-6.92	99.47	105.70
36	5	1323	G	N1-C6-O6	6.92	124.05	119.90
36	1	2636	A	N9-C4-C5	6.92	108.57	105.80
36	5	1152	G	N1-C2-N3	6.91	128.05	123.90
36	1	804	C	OP1-P-O3'	6.91	120.39	105.20
36	1	2279	A	N1-C6-N6	6.91	122.74	118.60
36	1	3087	A	C4-C5-C6	6.91	120.45	117.00
38	4	32	C	C2-N1-C1'	-6.91	111.20	118.80
36	5	2867	C	N3-C4-C5	-6.91	119.14	121.90
36	5	2283	G	N1-C6-O6	6.90	124.04	119.90
36	1	3217	C	C6-N1-C1'	-6.90	112.52	120.80
36	1	958	C	N3-C4-C5	6.90	124.66	121.90
36	1	2808	A	C6-C5-N7	-6.90	127.47	132.30
36	1	3006	A	C2-N3-C4	-6.90	107.15	110.60
36	5	406	G	O4'-C1'-N9	6.90	113.72	108.20
1	6	467	G	N3-C4-N9	6.90	130.14	126.00
36	1	2298	U	O4'-C1'-N1	6.90	113.72	108.20
1	2	507	U	N1-C2-O2	6.89	127.62	122.80
36	1	2121	G	N3-C2-N2	6.89	124.72	119.90
1	2	768	C	C6-N1-C2	-6.89	117.54	120.30
36	1	361	A	N1-C6-N6	-6.89	114.47	118.60
36	1	363	G	O5'-P-OP1	-6.89	99.50	105.70
37	7	47	C	C2-N3-C4	-6.89	116.46	119.90
36	1	933	A	O5'-P-OP2	-6.89	99.50	105.70
36	5	638	C	O5'-P-OP2	6.89	118.96	110.70
36	1	1405	U	N3-C4-C5	6.88	118.73	114.60
36	5	2968	G	C8-N9-C1'	-6.88	118.05	127.00
36	5	1506	A	N9-C4-C5	6.88	108.55	105.80
36	5	1846	C	C6-N1-C2	6.88	123.05	120.30
36	5	952	A	N9-C4-C5	-6.88	103.05	105.80
36	5	2112	U	C6-N1-C2	-6.88	116.87	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	2409	G	O5'-P-OP2	-6.88	99.51	105.70
36	5	2572	C	N3-C2-O2	-6.88	117.08	121.90
36	1	580	C	O5'-P-OP1	-6.88	99.51	105.70
36	5	428	A	N9-C4-C5	-6.88	103.05	105.80
36	1	2853	A	C5-C6-N6	-6.88	118.20	123.70
36	5	1844	C	C6-N1-C2	-6.88	117.55	120.30
36	1	2802	A	OP2-P-O3'	6.87	120.32	105.20
36	5	2849	C	N3-C2-O2	6.87	126.71	121.90
36	1	2356	A	C8-N9-C4	6.87	108.55	105.80
1	6	257	A	N1-C6-N6	6.87	122.72	118.60
1	2	448	C	C6-N1-C2	-6.87	117.55	120.30
36	1	857	G	C5-C6-N1	-6.87	108.07	111.50
36	1	2364	G	C5-C6-O6	-6.87	124.48	128.60
36	5	2194	G	C2-N3-C4	-6.87	108.47	111.90
37	7	12	U	C5-C4-O4	-6.86	121.78	125.90
36	5	2583	C	C6-N1-C2	-6.86	117.56	120.30
36	5	584	G	C8-N9-C4	-6.86	103.66	106.40
36	5	1379	G	N9-C4-C5	-6.86	102.66	105.40
36	1	646	A	C2-N3-C4	-6.86	107.17	110.60
36	5	1496	C	C5-C6-N1	6.86	124.43	121.00
37	7	10	C	C6-N1-C1'	-6.86	112.57	120.80
1	6	1058	U	OP1-P-O3'	6.86	120.28	105.20
65	n9	23	LYS	C-N-CD	6.86	142.80	128.40
36	1	24	G	N9-C4-C5	-6.85	102.66	105.40
36	5	919	U	C2-N3-C4	-6.85	122.89	127.00
36	5	1695	U	N3-C2-O2	-6.85	117.40	122.20
36	5	2726	C	N1-C2-N3	6.85	124.00	119.20
1	6	1767	G	C8-N9-C4	6.85	109.14	106.40
36	5	2866	U	N1-C2-O2	6.85	127.59	122.80
36	5	784	A	N1-C6-N6	6.85	122.71	118.60
36	5	216	G	N1-C6-O6	6.85	124.01	119.90
36	1	2644	C	C5-C6-N1	-6.84	117.58	121.00
36	5	3050	U	C6-N1-C2	-6.84	116.89	121.00
36	5	1158	A	C4-C5-N7	6.84	114.12	110.70
36	1	938	C	C6-N1-C2	-6.84	117.56	120.30
36	5	816	A	C8-N9-C4	-6.83	103.07	105.80
1	2	553	G	C5-C6-N1	-6.83	108.08	111.50
1	2	554	C	N1-C2-O2	6.83	123.00	118.90
36	1	1428	A	N1-C6-N6	6.83	122.70	118.60
36	5	952	A	C5-C6-N6	-6.83	118.23	123.70
36	5	1317	A	C5-C6-N6	-6.83	118.23	123.70
36	5	1085	A	C2-N3-C4	-6.83	107.19	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	3197	G	N3-C2-N2	-6.83	115.12	119.90
37	7	79	A	N1-C6-N6	6.83	122.70	118.60
1	6	777	C	C6-N1-C2	-6.83	117.57	120.30
38	4	113	U	C5-C4-O4	6.83	130.00	125.90
36	5	2608	G	OP2-P-O3'	6.82	120.21	105.20
36	1	1124	U	N3-C4-C5	6.82	118.69	114.60
36	5	2950	G	N3-C4-N9	6.82	130.09	126.00
36	1	1447	G	N1-C6-O6	-6.82	115.81	119.90
36	1	2618	G	N9-C4-C5	6.82	108.13	105.40
36	5	3218	A	C5-N7-C8	-6.82	100.49	103.90
36	1	2815	G	C8-N9-C4	6.82	109.13	106.40
36	1	1313	G	C6-C5-N7	-6.81	126.31	130.40
36	5	822	G	N1-C6-O6	6.81	123.99	119.90
36	5	1160	C	N3-C4-C5	-6.81	119.17	121.90
36	1	1307	G	C5-C6-O6	6.81	132.69	128.60
1	6	982	U	C6-N1-C2	6.81	125.08	121.00
36	1	1114	U	O5'-P-OP2	-6.81	99.57	105.70
36	5	91	G	C6-C5-N7	-6.81	126.31	130.40
37	7	37	G	N1-C6-O6	6.81	123.98	119.90
36	1	569	A	C8-N9-C4	6.81	108.52	105.80
1	2	543	C	N3-C2-O2	-6.80	117.14	121.90
36	5	2827	U	N1-C2-O2	6.80	127.56	122.80
36	5	2804	A	C8-N9-C4	6.80	108.52	105.80
36	5	3343	G	N1-C2-N2	-6.80	110.08	116.20
36	1	1054	A	O5'-P-OP2	-6.80	99.58	105.70
36	1	1161	G	O5'-P-OP2	-6.80	99.58	105.70
36	5	2353	G	N1-C6-O6	6.80	123.98	119.90
36	5	2400	G	C5-C6-O6	-6.80	124.52	128.60
36	1	2624	G	C5-N7-C8	-6.80	100.90	104.30
36	5	420	G	N7-C8-N9	-6.80	109.70	113.10
36	5	1368	U	N3-C2-O2	6.80	126.96	122.20
1	2	1432	U	C6-N1-C2	6.79	125.08	121.00
36	5	1591	G	O5'-P-OP1	-6.79	99.59	105.70
36	5	2400	G	OP2-P-O3'	6.79	120.14	105.20
36	5	880	G	N7-C8-N9	-6.79	109.71	113.10
1	2	1363	U	N3-C2-O2	-6.79	117.45	122.20
36	1	1300	G	N3-C4-N9	6.79	130.07	126.00
36	1	721	G	C4-C5-N7	6.78	113.51	110.80
36	1	585	A	C8-N9-C4	6.78	108.51	105.80
36	1	3212	C	C6-N1-C2	6.78	123.01	120.30
36	5	1592	G	C5-C6-O6	6.78	132.67	128.60
36	1	1200	A	C5-N7-C8	6.78	107.29	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	2241	U	C5-C4-O4	6.78	129.97	125.90
36	5	2377	G	C8-N9-C4	6.78	109.11	106.40
36	5	3028	G	N1-C2-N2	-6.78	110.10	116.20
36	1	802	C	C6-N1-C2	-6.78	117.59	120.30
36	1	925	A	C6-C5-N7	-6.78	127.56	132.30
36	5	610	G	C4-C5-N7	-6.78	108.09	110.80
36	1	2273	G	N7-C8-N9	-6.77	109.71	113.10
36	5	942	U	N3-C4-O4	6.77	124.14	119.40
36	1	873	C	N1-C2-O2	-6.77	114.84	118.90
36	1	960	U	C2-N3-C4	-6.77	122.94	127.00
36	1	2618	G	C5-C6-N1	6.77	114.89	111.50
36	5	2924	U	O5'-P-OP1	-6.77	99.60	105.70
36	1	331	G	N3-C2-N2	-6.77	115.16	119.90
36	1	1381	A	O5'-P-OP2	6.77	118.82	110.70
1	2	507	U	C2-N1-C1'	6.77	125.82	117.70
36	5	298	U	C5-C6-N1	6.77	126.08	122.70
37	7	41	G	N1-C6-O6	6.77	123.96	119.90
36	1	1459	C	N1-C2-O2	-6.76	114.84	118.90
36	1	2856	G	C8-N9-C4	6.76	109.11	106.40
36	1	3217	C	N1-C2-O2	6.76	122.96	118.90
36	5	3154	C	N3-C2-O2	-6.76	117.17	121.90
36	1	1858	A	C8-N9-C4	-6.76	103.10	105.80
36	1	369	A	N7-C8-N9	6.75	117.18	113.80
36	5	3217	C	C2-N1-C1'	-6.75	111.37	118.80
36	5	2923	U	N1-C2-N3	6.75	118.95	114.90
36	5	869	G	C5-C6-N1	6.75	114.88	111.50
36	5	2333	C	C6-N1-C2	6.75	123.00	120.30
36	1	2846	U	N3-C4-O4	-6.75	114.67	119.40
36	1	2300	G	C8-N9-C4	-6.75	103.70	106.40
36	5	55	G	C8-N9-C4	6.75	109.10	106.40
36	5	195	U	O5'-P-OP2	-6.74	99.63	105.70
36	5	1316	C	N1-C2-O2	-6.74	114.86	118.90
36	1	33	G	N1-C6-O6	6.74	123.94	119.90
36	1	1136	A	C5-C6-N6	-6.74	118.31	123.70
36	5	1475	A	O5'-P-OP1	6.74	118.78	110.70
36	5	2881	C	N3-C2-O2	6.74	126.62	121.90
36	5	2295	A	C2-N3-C4	6.74	113.97	110.60
1	2	590	C	C6-N1-C2	-6.73	117.61	120.30
36	1	3260	G	C5-C6-O6	-6.73	124.56	128.60
36	1	1125	U	O5'-P-OP1	-6.73	99.64	105.70
24	d2	93	LEU	CA-CB-CG	6.73	130.78	115.30
36	1	29	C	C6-N1-C2	6.73	122.99	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	1103	A	P-O3'-C3'	6.72	127.77	119.70
36	1	3278	C	C2-N1-C1'	6.72	126.20	118.80
1	2	1110	G	C8-N9-C4	6.72	109.09	106.40
1	6	1002	G	C6-C5-N7	-6.72	126.37	130.40
36	5	952	A	C4-C5-N7	6.72	114.06	110.70
36	5	1127	G	N3-C4-C5	-6.72	125.24	128.60
36	5	2893	C	N1-C2-O2	-6.72	114.87	118.90
36	1	626	U	O5'-P-OP1	-6.72	99.65	105.70
36	5	1362	G	N7-C8-N9	-6.72	109.74	113.10
36	1	1149	G	C4-C5-C6	6.71	122.83	118.80
36	5	2860	U	N3-C4-O4	-6.71	114.70	119.40
36	1	435	C	C2-N1-C1'	-6.71	111.42	118.80
1	6	1048	G	C4-C5-N7	6.71	113.48	110.80
36	5	1331	U	C5-C6-N1	-6.71	119.34	122.70
36	1	91	G	C8-N9-C4	6.71	109.08	106.40
36	1	377	A	N1-C6-N6	6.71	122.63	118.60
36	1	2915	U	N1-C2-O2	-6.71	118.10	122.80
36	1	664	U	C6-N1-C2	6.71	125.02	121.00
1	2	1658	G	C6-C5-N7	-6.71	126.38	130.40
1	2	1291	G	N3-C4-C5	6.70	131.95	128.60
36	1	699	A	C2-N3-C4	-6.70	107.25	110.60
36	1	716	A	O5'-P-OP1	-6.70	99.67	105.70
36	1	2381	G	C4-N9-C1'	6.70	135.21	126.50
36	1	2273	G	C8-N9-C4	6.70	109.08	106.40
36	5	1589	A	N1-C6-N6	6.70	122.62	118.60
37	7	92	A	N1-C6-N6	6.70	122.62	118.60
36	1	304	G	C4-C5-N7	-6.70	108.12	110.80
36	5	523	A	N1-C6-N6	-6.70	114.58	118.60
36	5	1305	U	N3-C4-O4	6.70	124.09	119.40
36	1	2121	G	C5-C6-O6	6.70	132.62	128.60
36	5	2419	A	N7-C8-N9	6.70	117.15	113.80
25	d3	132	LEU	CA-CB-CG	-6.69	99.90	115.30
1	6	407	A	N1-C2-N3	-6.69	125.95	129.30
36	5	952	A	C8-N9-C4	6.69	108.48	105.80
37	7	37	G	C4-C5-N7	6.69	113.48	110.80
1	6	1096	C	C6-N1-C2	6.69	122.98	120.30
36	1	1151	U	C5-C6-N1	6.69	126.04	122.70
36	5	1329	U	C2-N3-C4	-6.69	122.99	127.00
36	1	1366	A	C8-N9-C4	-6.69	103.13	105.80
1	2	1580	C	C6-N1-C2	6.68	122.97	120.30
1	6	1697	G	N3-C4-C5	-6.68	125.26	128.60
36	5	1157	G	OP2-P-O3'	6.68	119.91	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
42	l5	110	LEU	CA-CB-CG	6.68	130.68	115.30
35	SM	134	ASP	CB-CA-C	-6.68	97.03	110.40
1	6	420	A	N1-C6-N6	6.68	122.61	118.60
36	5	2117	A	N9-C4-C5	6.68	108.47	105.80
36	1	2400	G	C2-N3-C4	-6.68	108.56	111.90
36	1	3278	C	N3-C2-O2	-6.68	117.22	121.90
36	1	937	G	C8-N9-C4	6.68	109.07	106.40
1	6	1470	C	C6-N1-C2	-6.68	117.63	120.30
36	5	1116	G	C4-C5-N7	-6.68	108.13	110.80
36	1	2884	C	C6-N1-C2	6.68	122.97	120.30
36	1	3256	G	N1-C6-O6	6.68	123.91	119.90
36	1	1408	G	N1-C6-O6	6.67	123.91	119.90
36	5	1161	G	C5-C6-O6	-6.67	124.60	128.60
36	5	2249	G	O5'-P-OP2	-6.67	99.69	105.70
36	1	2827	U	N3-C4-O4	-6.67	114.73	119.40
36	5	1301	A	C5-N7-C8	-6.67	100.57	103.90
36	1	72	C	C6-N1-C2	6.66	122.97	120.30
36	1	675	C	N3-C4-N4	6.66	122.66	118.00
36	5	3112	G	C5-C6-O6	-6.66	124.60	128.60
1	2	1745	G	N9-C4-C5	-6.66	102.73	105.40
36	1	347	G	C6-C5-N7	-6.66	126.40	130.40
36	5	914	A	N1-C6-N6	6.66	122.60	118.60
36	1	2727	A	N1-C6-N6	-6.66	114.60	118.60
36	5	2572	C	C6-N1-C2	-6.66	117.64	120.30
36	5	2631	U	OP1-P-O3'	6.66	119.85	105.20
36	5	966	U	O5'-P-OP2	-6.66	99.71	105.70
36	1	2375	G	N1-C6-O6	-6.66	115.91	119.90
36	1	24	G	C8-N9-C4	6.65	109.06	106.40
1	6	858	G	C8-N9-C1'	-6.65	118.35	127.00
36	5	610	G	C5-C6-O6	6.65	132.59	128.60
36	1	2400	G	C4-C5-N7	6.65	113.46	110.80
38	4	140	G	C8-N9-C4	-6.65	103.74	106.40
1	6	1634	C	C5-C6-N1	6.65	124.33	121.00
1	6	1640	C	N1-C2-O2	6.65	122.89	118.90
36	5	617	G	C4-C5-N7	6.65	113.46	110.80
36	5	830	A	N1-C6-N6	6.65	122.59	118.60
36	5	938	C	C5-C4-N4	-6.65	115.55	120.20
1	6	1120	U	N3-C2-O2	-6.65	117.55	122.20
36	5	2875	U	C2-N1-C1'	6.65	125.68	117.70
37	7	105	C	N3-C4-C5	-6.65	119.24	121.90
36	1	790	U	C6-N1-C2	-6.65	117.01	121.00
36	1	2237	C	C6-N1-C2	6.64	122.96	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	6	1000	C	N3-C2-O2	-6.64	117.25	121.90
1	2	1241	G	C4-N9-C1'	6.64	135.13	126.50
1	2	1761	U	C6-N1-C2	-6.64	117.01	121.00
36	5	417	A	OP2-P-O3'	6.64	119.82	105.20
36	5	3335	A	N9-C4-C5	-6.64	103.14	105.80
36	1	3218	A	C5-C6-N6	-6.64	118.39	123.70
36	1	213	A	N1-C6-N6	6.63	122.58	118.60
36	5	1865	A	C2-N3-C4	-6.63	107.28	110.60
51	m5	96	ARG	NE-CZ-NH1	6.63	123.62	120.30
36	5	2692	A	O5'-P-OP1	-6.63	99.73	105.70
36	1	3208	G	C4-N9-C1'	-6.63	117.88	126.50
36	5	911	C	N1-C2-O2	-6.63	114.92	118.90
36	5	2620	G	C5-C6-O6	6.63	132.58	128.60
36	5	644	G	C5-C6-O6	6.63	132.57	128.60
36	1	1151	U	N1-C2-O2	-6.62	118.16	122.80
36	5	2875	U	C2-N3-C4	6.62	130.97	127.00
1	2	577	G	C5-N7-C8	-6.62	100.99	104.30
36	5	2727	A	O5'-P-OP2	-6.62	99.74	105.70
36	1	1103	A	O5'-P-OP2	6.62	118.64	110.70
36	1	2392	C	N3-C4-C5	6.62	124.55	121.90
36	5	1181	U	C4-C5-C6	6.62	123.67	119.70
36	5	1438	U	N3-C2-O2	-6.62	117.57	122.20
36	5	2932	U	O5'-P-OP1	-6.62	99.74	105.70
1	6	421	A	N1-C6-N6	6.62	122.57	118.60
36	5	869	G	O5'-P-OP2	-6.62	99.75	105.70
36	5	1902	G	C6-C5-N7	-6.62	126.43	130.40
36	5	3245	A	C5-C6-N1	-6.61	114.39	117.70
36	5	784	A	C5-C6-N6	-6.61	118.41	123.70
36	5	816	A	N9-C4-C5	6.61	108.44	105.80
36	5	1101	G	C6-C5-N7	-6.61	126.43	130.40
36	1	1514	G	C4-N9-C1'	6.61	135.09	126.50
36	5	2870	C	N3-C4-C5	6.61	124.54	121.90
36	5	283	G	C5-N7-C8	-6.61	101.00	104.30
36	5	641	C	N3-C4-C5	6.61	124.54	121.90
36	5	1889	G	N3-C4-N9	6.61	129.96	126.00
1	6	44	U	N1-C2-O2	-6.60	118.18	122.80
36	1	1192	C	C5-C6-N1	6.60	124.30	121.00
54	M8	138	LEU	CA-CB-CG	6.60	130.48	115.30
1	2	831	U	C6-N1-C2	-6.59	117.04	121.00
36	1	2391	G	N9-C4-C5	6.59	108.04	105.40
38	8	20	U	N1-C2-O2	-6.59	118.18	122.80
36	1	2639	G	C8-N9-C1'	-6.59	118.43	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	3217	C	N3-C2-O2	-6.59	117.29	121.90
36	1	307	A	O5'-P-OP2	-6.59	99.77	105.70
56	N0	40	ARG	NE-CZ-NH2	6.59	123.59	120.30
40	l3	4	ARG	NE-CZ-NH1	6.59	123.59	120.30
36	1	1190	A	C6-C5-N7	-6.58	127.69	132.30
36	1	2972	G	C8-N9-C4	-6.58	103.77	106.40
1	6	1440	C	C6-N1-C2	-6.58	117.67	120.30
36	5	370	U	C2-N1-C1'	6.58	125.60	117.70
36	5	640	U	N3-C2-O2	6.58	126.81	122.20
36	1	2306	C	N1-C2-O2	6.58	122.85	118.90
36	1	2692	A	C6-C5-N7	-6.58	127.69	132.30
35	sM	167	PRO	N-CA-CB	6.58	111.20	103.30
36	5	1716	U	C5-C6-N1	6.58	125.99	122.70
1	2	74	U	O4'-C1'-N1	6.58	113.46	108.20
36	1	1878	G	C8-N9-C4	-6.58	103.77	106.40
36	1	2144	A	O4'-C1'-N9	6.58	113.46	108.20
44	L7	83	LEU	CA-CB-CG	6.58	130.43	115.30
36	1	2836	C	C5-C4-N4	6.58	124.80	120.20
36	5	1710	C	N3-C4-C5	6.58	124.53	121.90
36	5	2114	C	C6-N1-C2	-6.58	117.67	120.30
1	2	1658	G	C4-C5-N7	6.57	113.43	110.80
36	1	672	A	C8-N9-C4	6.57	108.43	105.80
36	1	2869	U	C2-N1-C1'	6.57	125.59	117.70
70	O4	51	LEU	CA-CB-CG	6.57	130.42	115.30
36	5	1366	A	C8-N9-C4	-6.57	103.17	105.80
36	1	1468	A	C2-N3-C4	-6.57	107.31	110.60
36	1	435	C	C5-C6-N1	-6.57	117.72	121.00
36	5	628	A	N1-C6-N6	-6.57	114.66	118.60
36	5	2416	U	C5-C6-N1	6.57	125.98	122.70
36	5	2948	C	N3-C4-C5	6.57	124.53	121.90
36	5	2713	U	C5-C4-O4	-6.57	121.96	125.90
36	1	858	A	O5'-P-OP2	-6.56	99.79	105.70
36	1	1437	C	N3-C2-O2	-6.56	117.31	121.90
36	1	350	C	N1-C2-O2	6.56	122.84	118.90
36	1	2714	G	C5-N7-C8	-6.56	101.02	104.30
36	1	3101	G	N1-C6-O6	-6.56	115.96	119.90
36	1	2124	G	N1-C6-O6	6.56	123.84	119.90
36	1	2182	A	C8-N9-C4	-6.56	103.18	105.80
1	6	151	G	N3-C2-N2	-6.56	115.31	119.90
36	1	1378	U	C5-C4-O4	-6.56	121.97	125.90
1	2	1096	C	C2-N1-C1'	6.56	126.01	118.80
36	1	298	U	N1-C2-O2	6.56	127.39	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	232	G	N3-C4-C5	-6.55	125.32	128.60
36	5	2303	A	C8-N9-C4	6.55	108.42	105.80
1	6	1537	C	C6-N1-C2	-6.55	117.68	120.30
36	5	908	G	C5-C6-O6	-6.55	124.67	128.60
36	1	589	A	O5'-P-OP1	-6.55	99.80	105.70
36	5	1902	G	C5-C6-O6	-6.55	124.67	128.60
36	5	827	A	N1-C6-N6	-6.55	114.67	118.60
36	5	1099	A	C4-C5-N7	6.55	113.97	110.70
36	5	1846	C	C2-N3-C4	-6.55	116.63	119.90
36	5	1370	G	N1-C6-O6	-6.54	115.97	119.90
36	1	942	U	N3-C4-O4	6.54	123.98	119.40
36	1	2183	A	C5-C6-N6	-6.54	118.47	123.70
36	5	816	A	O5'-P-OP2	-6.54	99.81	105.70
1	6	18	C	C6-N1-C2	-6.54	117.68	120.30
36	5	3362	A	N7-C8-N9	6.54	117.07	113.80
1	6	1029	U	C5-C4-O4	6.54	129.82	125.90
1	6	1700	C	C6-N1-C1'	-6.54	112.95	120.80
1	6	1744	A	C8-N9-C4	6.54	108.42	105.80
36	1	1154	A	C4-C5-C6	6.54	120.27	117.00
36	1	1556	C	C2-N1-C1'	6.53	125.99	118.80
36	5	1149	G	C5-C6-O6	-6.53	124.68	128.60
36	5	2941	A	O4'-C1'-N9	-6.53	102.97	108.20
41	L4	182	LEU	CA-CB-CG	6.53	130.32	115.30
36	1	353	G	C6-C5-N7	-6.53	126.48	130.40
36	5	3303	G	O5'-P-OP2	-6.53	99.82	105.70
36	5	2310	U	N3-C2-O2	-6.53	117.63	122.20
36	5	2552	C	N1-C2-O2	6.53	122.82	118.90
36	1	2376	G	C5-N7-C8	-6.53	101.04	104.30
36	1	2603	G	C6-C5-N7	-6.53	126.48	130.40
36	5	2375	G	C4-C5-N7	-6.53	108.19	110.80
1	2	1389	C	C2-N1-C1'	6.52	125.98	118.80
36	1	1124	U	OP1-P-O3'	6.52	119.55	105.20
36	1	1741	A	C2-N3-C4	-6.52	107.34	110.60
36	1	2617	U	N3-C2-O2	-6.52	117.64	122.20
36	1	3179	U	O5'-P-OP1	-6.52	99.83	105.70
36	5	2392	C	N3-C4-C5	6.52	124.51	121.90
1	2	1196	A	P-O3'-C3'	6.51	127.52	119.70
1	6	364	G	N9-C4-C5	-6.51	102.79	105.40
36	1	432	G	C5-C6-N1	-6.51	108.24	111.50
51	m5	96	ARG	NE-CZ-NH2	-6.51	117.04	120.30
36	1	938	C	C5-C6-N1	6.51	124.26	121.00
36	1	1003	A	N1-C6-N6	6.51	122.51	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	1152	G	C4-N9-C1'	-6.51	118.04	126.50
1	2	1761	U	P-O3'-C3'	6.51	127.51	119.70
36	1	24	G	C8-N9-C1'	-6.51	118.54	127.00
36	1	1156	C	C2-N1-C1'	6.51	125.96	118.80
36	1	1884	A	O5'-P-OP2	-6.51	99.84	105.70
36	1	298	U	C2-N1-C1'	6.51	125.51	117.70
36	1	895	A	O5'-P-OP1	-6.51	99.84	105.70
1	2	1595	U	N3-C4-O4	6.50	123.95	119.40
36	5	102	C	C5-C4-N4	-6.50	115.65	120.20
36	5	1152	G	C5-C6-O6	-6.50	124.70	128.60
36	5	1396	C	OP2-P-O3'	6.50	119.51	105.20
73	o7	65	ARG	NE-CZ-NH1	6.50	123.55	120.30
36	1	729	C	C6-N1-C2	-6.50	117.70	120.30
36	5	911	C	C2-N3-C4	-6.50	116.65	119.90
36	5	2314	U	N1-C2-O2	-6.50	118.25	122.80
36	5	3377	G	N1-C6-O6	6.50	123.80	119.90
36	1	639	G	N9-C4-C5	-6.50	102.80	105.40
36	1	704	U	N3-C4-O4	6.50	123.95	119.40
36	1	1001	G	C6-C5-N7	-6.50	126.50	130.40
36	1	2121	G	N3-C4-C5	-6.50	125.35	128.60
35	SM	167	PRO	N-CA-CB	6.50	111.09	103.30
1	6	1137	A	C8-N9-C4	6.50	108.40	105.80
36	1	2306	C	C2-N1-C1'	6.49	125.94	118.80
36	5	1894	U	C5-C6-N1	-6.49	119.45	122.70
36	1	1391	C	C4-C5-C6	6.49	120.65	117.40
36	5	1536	G	N1-C6-O6	6.49	123.80	119.90
36	5	3026	G	C5-C6-O6	-6.49	124.70	128.60
1	2	1761	U	N3-C2-O2	-6.49	117.66	122.20
36	1	428	A	C4-C5-C6	-6.49	113.75	117.00
36	5	2419	A	C6-C5-N7	-6.49	127.76	132.30
36	1	33	G	O5'-P-OP1	-6.49	99.86	105.70
36	5	2696	A	C5-N7-C8	-6.49	100.66	103.90
37	7	51	A	C8-N9-C4	-6.49	103.20	105.80
36	1	1713	G	N3-C4-C5	6.49	131.84	128.60
1	6	1000	C	C6-N1-C2	-6.49	117.71	120.30
36	1	2423	U	O5'-P-OP2	-6.48	99.87	105.70
36	1	2612	U	C5-C6-N1	-6.48	119.46	122.70
1	6	1568	C	P-O3'-C3'	6.48	127.48	119.70
36	5	283	G	O4'-C1'-N9	-6.48	103.01	108.20
36	5	2351	U	N1-C2-N3	6.48	118.79	114.90
36	1	979	U	O4'-C1'-N1	6.48	113.38	108.20
36	5	1181	U	C5-C4-O4	6.48	129.79	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	1445	U	N3-C2-O2	6.48	126.73	122.20
36	1	3215	A	N1-C6-N6	6.48	122.49	118.60
1	6	1340	U	N3-C2-O2	-6.48	117.66	122.20
36	5	694	C	N3-C2-O2	-6.48	117.36	121.90
36	5	1177	G	C6-N1-C2	-6.48	121.21	125.10
36	5	360	G	C8-N9-C4	-6.48	103.81	106.40
36	5	2199	G	N3-C2-N2	-6.48	115.37	119.90
36	1	2818	U	C5-C6-N1	6.48	125.94	122.70
1	6	858	G	C6-C5-N7	-6.48	126.51	130.40
36	1	145	G	C5-C6-O6	-6.47	124.72	128.60
36	1	3214	U	N3-C2-O2	-6.47	117.67	122.20
1	6	1421	A	C8-N9-C4	6.47	108.39	105.80
12	c0	83	PRO	N-CA-CB	6.47	111.07	103.30
36	5	983	A	C6-N1-C2	-6.47	114.72	118.60
36	5	578	A	N1-C6-N6	6.47	122.48	118.60
37	7	105	C	N3-C2-O2	-6.47	117.37	121.90
1	2	1744	A	O5'-P-OP1	-6.47	99.88	105.70
36	1	2403	G	N1-C6-O6	6.47	123.78	119.90
1	6	1657	U	N1-C2-O2	6.47	127.33	122.80
37	7	83	U	C5-C6-N1	-6.47	119.47	122.70
38	4	20	U	C5-C6-N1	-6.47	119.47	122.70
1	6	1780	G	C4-C5-N7	6.47	113.39	110.80
36	5	424	G	C5-C6-N1	6.46	114.73	111.50
36	1	1206	G	O5'-P-OP2	-6.46	99.88	105.70
36	5	1080	A	N7-C8-N9	-6.46	110.57	113.80
36	5	2616	C	O5'-P-OP2	6.46	118.45	110.70
1	6	1029	U	C6-N1-C1'	6.46	130.24	121.20
36	5	1303	A	N1-C2-N3	-6.46	126.07	129.30
36	5	1476	G	C5-C6-O6	6.46	132.47	128.60
36	5	2929	C	C2-N3-C4	-6.46	116.67	119.90
36	5	939	U	O5'-P-OP1	6.46	118.45	110.70
36	5	3172	A	N1-C2-N3	6.46	132.53	129.30
36	1	1433	A	N9-C4-C5	6.45	108.38	105.80
36	1	2383	C	C5-C4-N4	-6.45	115.68	120.20
36	5	649	A	C5-C6-N6	-6.45	118.54	123.70
36	5	2435	G	N9-C4-C5	-6.45	102.82	105.40
36	1	1807	G	N3-C4-C5	-6.45	125.37	128.60
36	1	1886	A	O5'-P-OP2	-6.45	99.89	105.70
36	1	2968	G	N1-C6-O6	6.45	123.77	119.90
36	1	596	C	N3-C2-O2	-6.45	117.39	121.90
1	6	17	C	N1-C2-O2	6.45	122.77	118.90
1	6	298	C	N3-C2-O2	6.45	126.41	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	758	C	C2-N1-C1'	-6.45	111.71	118.80
36	5	2143	A	C2-N3-C4	6.45	113.82	110.60
36	1	2637	A	O5'-P-OP1	-6.44	99.90	105.70
36	1	1336	U	N1-C2-N3	6.44	118.76	114.90
1	6	1650	U	N3-C4-O4	6.44	123.91	119.40
36	5	2245	C	C6-N1-C2	-6.44	117.72	120.30
1	2	410	A	O5'-P-OP1	-6.43	99.91	105.70
1	2	507	U	N3-C2-O2	-6.43	117.70	122.20
36	1	3025	C	C5-C6-N1	-6.43	117.78	121.00
36	5	1110	U	N1-C2-O2	6.43	127.30	122.80
36	1	2942	C	O5'-P-OP1	6.43	118.42	110.70
1	2	1363	U	C2-N1-C1'	6.43	125.42	117.70
36	5	3362	A	C8-N9-C4	-6.43	103.23	105.80
36	1	145	G	C4-C5-N7	6.43	113.37	110.80
36	1	858	A	C4-C5-C6	6.43	120.22	117.00
36	5	358	G	C5-C6-O6	-6.43	124.75	128.60
36	5	2321	A	OP2-P-O3'	6.43	119.34	105.20
36	5	3195	U	OP1-P-O3'	6.43	119.34	105.20
1	2	54	C	C6-N1-C2	-6.42	117.73	120.30
36	5	2334	U	O5'-P-OP2	-6.42	99.92	105.70
36	5	3131	U	C6-N1-C2	6.42	124.85	121.00
1	2	554	C	C2-N1-C1'	6.42	125.86	118.80
36	1	2283	G	N3-C2-N2	-6.42	115.41	119.90
36	5	102	C	N3-C4-N4	6.42	122.49	118.00
1	6	19	A	C8-N9-C4	6.42	108.37	105.80
37	7	37	G	C8-N9-C4	6.42	108.97	106.40
68	o2	44	ARG	NE-CZ-NH1	-6.42	117.09	120.30
36	5	2710	C	N1-C2-O2	-6.41	115.05	118.90
36	1	92	G	N3-C4-C5	-6.41	125.39	128.60
36	1	1869	C	O5'-P-OP2	-6.41	99.93	105.70
36	1	2159	U	C6-N1-C2	6.41	124.85	121.00
41	L4	327	LEU	CA-CB-CG	6.41	130.04	115.30
36	5	1481	A	N7-C8-N9	6.41	117.01	113.80
36	1	2243	A	O5'-P-OP2	-6.41	99.93	105.70
36	5	813	G	C5-C6-O6	-6.41	124.76	128.60
36	5	999	G	N7-C8-N9	-6.41	109.90	113.10
36	5	1321	G	C6-C5-N7	-6.41	126.56	130.40
36	5	2606	G	OP1-P-O3'	6.41	119.29	105.20
36	5	2968	G	C4-N9-C1'	6.41	134.83	126.50
1	6	387	A	C2-N3-C4	6.40	113.80	110.60
36	5	2821	C	N1-C2-O2	-6.40	115.06	118.90
36	1	709	A	C8-N9-C4	6.40	108.36	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	1082	U	C2-N1-C1'	6.40	125.38	117.70
38	4	27	U	C5-C6-N1	6.40	125.90	122.70
36	5	3269	U	P-O3'-C3'	6.40	127.38	119.70
38	8	9	A	N1-C6-N6	6.40	122.44	118.60
36	1	131	C	C6-N1-C2	-6.40	117.74	120.30
36	1	423	A	N9-C4-C5	6.40	108.36	105.80
36	1	3175	U	N3-C2-O2	-6.40	117.72	122.20
1	6	1614	A	O4'-C1'-N9	6.40	113.32	108.20
36	5	2211	U	N3-C2-O2	-6.40	117.72	122.20
36	5	2874	G	C5-C6-O6	6.40	132.44	128.60
36	5	1126	G	C2-N3-C4	-6.39	108.70	111.90
53	M7	138	LYS	CD-CE-NZ	6.39	126.40	111.70
1	6	415	C	N3-C2-O2	-6.39	117.42	121.90
36	5	1661	G	N1-C6-O6	6.39	123.73	119.90
1	6	901	G	C5-C6-O6	-6.39	124.77	128.60
36	5	1470	U	C2-N1-C1'	6.39	125.37	117.70
36	5	2167	A	C8-N9-C4	-6.39	103.25	105.80
36	5	2644	C	O5'-P-OP1	-6.39	99.95	105.70
36	5	2852	C	C6-N1-C2	6.39	122.86	120.30
36	1	1103	A	OP1-P-O3'	6.39	119.25	105.20
36	5	1716	U	C2-N1-C1'	6.39	125.36	117.70
36	5	3140	G	O5'-P-OP1	-6.39	99.95	105.70
36	1	3104	U	C5-C6-N1	-6.38	119.51	122.70
36	5	971	G	C4-C5-N7	-6.38	108.25	110.80
36	5	1897	G	C4-C5-N7	6.38	113.35	110.80
36	1	345	G	N3-C4-C5	-6.38	125.41	128.60
36	1	2924	U	C2-N1-C1'	-6.38	110.04	117.70
1	2	453	U	N3-C2-O2	-6.38	117.73	122.20
36	1	3143	C	N1-C2-O2	-6.38	115.07	118.90
1	6	1785	U	N3-C2-O2	-6.38	117.73	122.20
36	1	627	U	N3-C2-O2	6.38	126.67	122.20
37	3	33	U	N3-C2-O2	-6.38	117.73	122.20
36	5	2978	U	N3-C2-O2	-6.38	117.73	122.20
36	1	2755	C	N3-C2-O2	6.38	126.36	121.90
25	d3	45	GLY	N-CA-C	-6.38	97.16	113.10
36	5	51	A	N1-C6-N6	6.38	122.43	118.60
36	5	3182	G	OP1-P-OP2	-6.37	110.04	119.60
36	1	1269	U	C2-N1-C1'	6.37	125.35	117.70
1	2	830	U	N3-C2-O2	-6.37	117.74	122.20
36	1	857	G	N3-C4-N9	-6.37	122.18	126.00
36	5	2928	C	C2-N1-C1'	6.37	125.81	118.80
36	5	2395	G	O5'-P-OP1	6.37	118.34	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2	75	U	N1-C2-O2	6.37	127.26	122.80
1	6	1117	U	N3-C4-C5	-6.37	110.78	114.60
36	5	3285	C	N1-C2-O2	6.37	122.72	118.90
36	1	350	C	C6-N1-C1'	-6.36	113.17	120.80
36	1	1475	A	C8-N9-C4	6.36	108.35	105.80
36	5	2772	C	P-O3'-C3'	6.36	127.34	119.70
1	6	1793	G	C4-C5-N7	-6.36	108.25	110.80
36	5	994	G	C5-C6-N1	6.36	114.68	111.50
1	2	380	U	N3-C2-O2	-6.36	117.75	122.20
36	1	1405	U	C2-N3-C4	-6.36	123.19	127.00
36	1	2924	U	C6-N1-C2	6.36	124.81	121.00
36	5	2613	U	O5'-P-OP1	-6.36	99.98	105.70
1	2	577	G	N1-C6-O6	6.36	123.71	119.90
36	1	895	A	C6-C5-N7	-6.36	127.85	132.30
36	1	2182	A	N7-C8-N9	6.36	116.98	113.80
1	6	1747	G	O5'-P-OP1	6.36	118.33	110.70
36	1	324	A	C8-N9-C4	-6.35	103.26	105.80
36	1	790	U	C5-C4-O4	6.35	129.71	125.90
38	4	88	A	N9-C4-C5	-6.35	103.26	105.80
36	5	1452	A	C4-C5-N7	6.35	113.88	110.70
36	5	2750	U	O5'-P-OP1	6.35	118.33	110.70
36	1	1488	G	N1-C6-O6	6.35	123.71	119.90
1	2	334	G	N3-C4-N9	-6.35	122.19	126.00
36	1	2700	G	N1-C6-O6	6.35	123.71	119.90
1	2	1198	G	C8-N9-C4	-6.35	103.86	106.40
36	1	685	G	N1-C6-O6	6.35	123.71	119.90
36	1	2314	U	N3-C2-O2	6.35	126.64	122.20
38	4	103	G	C8-N9-C4	-6.35	103.86	106.40
36	5	2117	A	C5-C6-N6	6.35	128.78	123.70
36	5	3041	U	C4-C5-C6	-6.35	115.89	119.70
36	5	1016	C	O5'-P-OP1	-6.35	99.99	105.70
36	5	2598	G	N1-C6-O6	6.35	123.71	119.90
1	2	334	G	C4-N9-C1'	-6.34	118.25	126.50
36	1	2692	A	C8-N9-C4	-6.34	103.26	105.80
36	5	1403	C	N3-C4-N4	6.34	122.44	118.00
36	5	1589	A	C5-C6-N6	-6.34	118.62	123.70
36	1	70	A	N7-C8-N9	6.34	116.97	113.80
1	6	858	G	N7-C8-N9	6.34	116.27	113.10
36	5	1335	C	N3-C2-O2	6.34	126.34	121.90
36	5	1368	U	O5'-P-OP1	-6.34	99.99	105.70
36	5	1909	A	C8-N9-C4	6.34	108.34	105.80
36	1	70	A	C5-N7-C8	-6.34	100.73	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	3266	G	N9-C4-C5	6.34	107.94	105.40
36	1	2952	G	N1-C6-O6	6.34	123.70	119.90
36	5	776	U	C5-C4-O4	6.34	129.70	125.90
36	5	1049	C	C5-C6-N1	6.34	124.17	121.00
36	5	1152	G	N7-C8-N9	6.34	116.27	113.10
36	1	3181	C	N3-C2-O2	-6.34	117.46	121.90
1	6	402	C	N3-C4-C5	6.33	124.43	121.90
36	5	2124	G	C8-N9-C4	6.33	108.93	106.40
36	1	1043	C	N3-C4-C5	6.33	124.43	121.90
38	4	46	G	N1-C6-O6	-6.33	116.10	119.90
1	2	1082	C	C2-N1-C1'	6.33	125.76	118.80
36	1	820	A	C8-N9-C4	-6.33	103.27	105.80
36	1	1330	A	N1-C6-N6	6.33	122.40	118.60
36	5	1392	G	N7-C8-N9	-6.33	109.94	113.10
36	1	1514	G	C6-C5-N7	-6.33	126.61	130.40
36	1	3266	G	C8-N9-C4	-6.32	103.87	106.40
36	5	2139	A	N1-C2-N3	6.32	132.46	129.30
36	5	3004	C	N3-C2-O2	6.32	126.33	121.90
1	2	42	G	N1-C6-O6	-6.32	116.11	119.90
36	1	1943	C	C6-N1-C2	-6.32	117.77	120.30
1	2	244	A	N1-C6-N6	6.32	122.39	118.60
36	1	286	U	N3-C2-O2	-6.32	117.78	122.20
36	1	423	A	C8-N9-C4	-6.32	103.27	105.80
36	5	994	G	N3-C4-N9	6.32	129.79	126.00
36	1	1822	C	C6-N1-C2	-6.32	117.77	120.30
36	1	2887	A	C4-C5-N7	6.32	113.86	110.70
1	6	1745	G	N1-C6-O6	6.32	123.69	119.90
36	5	1053	A	N1-C6-N6	-6.32	114.81	118.60
36	5	1366	A	N1-C6-N6	-6.32	114.81	118.60
36	5	3028	G	N3-C2-N2	6.32	124.32	119.90
36	1	670	C	C4-C5-C6	6.31	120.56	117.40
36	5	998	A	OP2-P-O3'	6.31	119.09	105.20
38	8	56	G	N1-C6-O6	6.31	123.69	119.90
36	1	3074	G	N1-C6-O6	6.31	123.69	119.90
36	1	60	A	N1-C6-N6	6.31	122.39	118.60
36	5	943	U	N1-C2-N3	6.31	118.69	114.90
36	5	1080	A	C8-N9-C4	6.31	108.32	105.80
36	5	1101	G	C8-N9-C1'	-6.31	118.80	127.00
36	5	2944	U	O5'-P-OP1	-6.31	100.02	105.70
36	5	3164	C	O4'-C1'-N1	6.31	113.24	108.20
38	8	84	C	C6-N1-C2	-6.30	117.78	120.30
36	1	1858	A	N3-C4-C5	-6.30	122.39	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	2620	G	C8-N9-C4	6.30	108.92	106.40
36	5	2646	C	C6-N1-C2	6.30	122.82	120.30
36	1	646	A	C5-C6-N1	-6.30	114.55	117.70
36	1	649	A	N7-C8-N9	-6.30	110.65	113.80
36	5	921	A	OP2-P-O3'	6.30	119.05	105.20
36	5	610	G	N9-C4-C5	6.29	107.92	105.40
36	1	716	A	C4-C5-N7	6.29	113.85	110.70
38	4	103	G	C4-N9-C1'	6.29	134.68	126.50
36	5	1788	C	O5'-P-OP2	-6.29	100.04	105.70
36	5	2651	G	C8-N9-C4	6.29	108.92	106.40
36	1	635	G	C5-C6-O6	-6.29	124.83	128.60
36	1	1116	G	C4-N9-C1'	6.29	134.68	126.50
36	5	3311	C	C6-N1-C2	-6.29	117.78	120.30
36	5	428	A	C8-N9-C4	6.29	108.32	105.80
36	1	76	G	C6-C5-N7	-6.29	126.63	130.40
36	1	2344	U	C5-C6-N1	-6.29	119.56	122.70
36	1	2407	C	C6-N1-C2	6.29	122.82	120.30
36	1	2594	C	O5'-P-OP2	-6.29	100.04	105.70
36	1	2777	G	C5-C6-O6	6.29	132.37	128.60
36	5	584	G	N9-C4-C5	6.29	107.92	105.40
36	5	1200	A	C4-C5-C6	6.29	120.14	117.00
36	5	3075	G	C5-C6-N1	-6.29	108.36	111.50
36	5	1710	C	C5-C6-N1	-6.29	117.86	121.00
1	2	91	G	C5-C6-O6	-6.29	124.83	128.60
36	1	770	G	O4'-C1'-N9	6.28	113.23	108.20
36	5	911	C	C5-C6-N1	-6.28	117.86	121.00
36	5	923	C	C6-N1-C1'	-6.28	113.26	120.80
36	5	1148	G	C5-C6-O6	-6.28	124.83	128.60
36	5	57	A	C5-C6-N6	-6.28	118.67	123.70
36	1	2343	C	N3-C4-C5	6.28	124.41	121.90
38	4	56	G	O5'-P-OP2	-6.28	100.05	105.70
1	6	813	U	C2-N1-C1'	6.28	125.24	117.70
36	5	906	A	C8-N9-C4	-6.28	103.29	105.80
36	5	1110	U	C4-C5-C6	-6.28	115.93	119.70
36	5	2950	G	N9-C4-C5	-6.28	102.89	105.40
36	1	3206	C	C2-N1-C1'	-6.28	111.89	118.80
36	5	1450	G	N1-C2-N2	6.28	121.85	116.20
36	1	1157	G	C2-N3-C4	-6.28	108.76	111.90
36	1	2572	C	N3-C2-O2	-6.28	117.51	121.90
36	5	2277	C	C6-N1-C2	6.28	122.81	120.30
20	c8	15	LEU	CA-CB-CG	6.27	129.73	115.30
36	1	2692	A	C5-C6-N6	-6.27	118.68	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2	608	U	C5-C4-O4	6.27	129.66	125.90
1	2	1762	A	O5'-P-OP1	-6.27	100.06	105.70
36	1	2872	A	C5-C6-N6	-6.27	118.69	123.70
36	1	3180	A	C5-C6-N6	-6.27	118.69	123.70
36	1	3206	C	C6-N1-C1'	6.27	128.32	120.80
1	6	65	A	N9-C4-C5	-6.27	103.29	105.80
36	5	922	U	C6-N1-C2	6.27	124.76	121.00
36	5	1152	G	O5'-P-OP1	-6.27	100.06	105.70
36	1	2968	G	N3-C2-N2	-6.27	115.51	119.90
1	6	1150	G	C2-N3-C4	-6.26	108.77	111.90
36	5	1421	G	C5-C6-N1	-6.26	108.37	111.50
36	5	2943	G	N9-C4-C5	-6.26	102.89	105.40
36	1	1300	G	N9-C4-C5	-6.26	102.89	105.40
1	2	1761	U	C5-C4-O4	6.26	129.66	125.90
36	5	1879	A	C5-N7-C8	-6.26	100.77	103.90
36	5	2757	U	O5'-P-OP1	-6.26	100.06	105.70
38	4	22	U	C5-C6-N1	-6.26	119.57	122.70
36	1	1144	U	C2-N3-C4	-6.26	123.25	127.00
36	5	91	G	N1-C6-O6	6.26	123.65	119.90
36	1	101	G	OP2-P-O3'	6.25	118.96	105.20
36	1	362	U	C6-N1-C2	6.25	124.75	121.00
36	1	901	G	N1-C6-O6	6.25	123.65	119.90
36	1	2283	G	N3-C4-C5	6.25	131.73	128.60
1	6	21	U	C5-C4-O4	-6.25	122.15	125.90
1	6	111	U	C6-N1-C2	-6.25	117.25	121.00
36	5	361	A	C4-C5-N7	-6.25	107.57	110.70
36	5	640	U	C6-N1-C2	-6.25	117.25	121.00
36	1	1838	G	N3-C4-N9	6.25	129.75	126.00
36	1	2621	G	N3-C2-N2	-6.25	115.53	119.90
36	1	1190	A	C4-N9-C1'	6.25	137.54	126.30
1	2	542	A	N7-C8-N9	6.25	116.92	113.80
1	2	453	U	N1-C2-O2	6.24	127.17	122.80
36	1	586	C	N1-C2-O2	-6.24	115.15	118.90
36	5	1154	A	C2-N3-C4	6.24	113.72	110.60
36	5	3049	A	C8-N9-C4	6.24	108.30	105.80
37	7	9	C	C2-N1-C1'	-6.24	111.93	118.80
36	5	2283	G	C5-N7-C8	-6.24	101.18	104.30
36	5	3043	C	C6-N1-C2	6.24	122.80	120.30
36	1	1846	C	N1-C2-O2	-6.24	115.16	118.90
36	1	2957	G	N3-C2-N2	-6.24	115.53	119.90
36	5	2275	A	O5'-P-OP1	-6.24	100.08	105.70
36	5	2715	A	OP2-P-O3'	6.24	118.93	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	1306	G	N1-C6-O6	6.24	123.64	119.90
36	5	1126	G	C6-C5-N7	-6.24	126.66	130.40
36	5	2717	U	C5-C6-N1	-6.24	119.58	122.70
1	2	307	G	C8-N9-C1'	-6.24	118.89	127.00
36	5	2710	C	N3-C2-O2	6.24	126.27	121.90
1	6	539	G	C8-N9-C4	-6.24	103.91	106.40
36	5	1552	G	N1-C6-O6	6.24	123.64	119.90
36	5	3276	G	O5'-P-OP1	-6.24	100.09	105.70
36	1	925	A	C8-N9-C4	-6.23	103.31	105.80
36	5	1336	U	C5-C6-N1	6.23	125.82	122.70
36	5	2354	C	N3-C2-O2	6.23	126.26	121.90
36	5	969	C	C5-C6-N1	-6.23	117.88	121.00
36	5	2797	C	N3-C4-C5	-6.23	119.41	121.90
36	5	2812	C	C6-N1-C2	-6.23	117.81	120.30
36	1	1514	G	C8-N9-C1'	-6.23	118.90	127.00
36	1	3310	A	C8-N9-C4	6.23	108.29	105.80
36	5	2610	G	N1-C6-O6	6.23	123.64	119.90
36	5	3000	A	C2-N3-C4	-6.23	107.48	110.60
36	5	2164	A	C4-C5-C6	6.23	120.11	117.00
36	5	3392	U	N3-C2-O2	-6.23	117.84	122.20
1	2	308	C	C2-N1-C1'	-6.23	111.95	118.80
36	5	1591	G	N1-C6-O6	6.23	123.64	119.90
36	1	1487	G	N9-C4-C5	6.22	107.89	105.40
36	1	2827	U	C6-N1-C1'	6.22	129.91	121.20
36	1	2935	U	N3-C4-C5	-6.22	110.87	114.60
36	5	1162	U	OP1-P-OP2	6.22	128.94	119.60
36	5	1914	G	N1-C6-O6	-6.22	116.17	119.90
37	3	98	C	C5-C6-N1	-6.22	117.89	121.00
36	5	3215	A	C5-C6-N1	-6.22	114.59	117.70
36	5	2176	U	N1-C2-N3	6.22	118.63	114.90
36	1	655	C	N3-C4-C5	-6.22	119.41	121.90
1	6	1541	G	C8-N9-C4	-6.22	103.91	106.40
36	5	806	A	N3-C4-N9	-6.22	122.42	127.40
37	7	55	A	N1-C6-N6	6.22	122.33	118.60
36	1	1159	A	O4'-C1'-N9	6.22	113.17	108.20
36	1	1313	G	C4-C5-N7	6.22	113.29	110.80
1	6	1779	U	O5'-P-OP2	-6.22	100.11	105.70
36	5	1475	A	O5'-P-OP2	-6.22	100.11	105.70
1	2	447	U	C6-N1-C2	-6.21	117.27	121.00
1	2	1428	G	O5'-P-OP1	-6.21	100.11	105.70
1	2	794	U	P-O3'-C3'	6.21	127.15	119.70
1	6	1778	G	C5-N7-C8	-6.21	101.19	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	1119	C	OP2-P-O3'	6.21	118.87	105.20
36	5	1907	C	O5'-P-OP2	-6.21	100.11	105.70
36	5	2879	C	O5'-P-OP2	-6.21	100.11	105.70
36	5	3166	C	C2-N1-C1'	6.21	125.63	118.80
36	5	2161	G	N9-C4-C5	6.21	107.88	105.40
1	2	579	A	O4'-C1'-N9	6.21	113.17	108.20
1	6	1514	U	C5-C4-O4	6.21	129.62	125.90
36	5	3143	C	N3-C4-N4	6.21	122.35	118.00
36	1	942	U	OP1-P-OP2	-6.21	110.29	119.60
1	6	1651	A	N1-C6-N6	6.21	122.32	118.60
1	2	728	U	C2-N1-C1'	6.21	125.15	117.70
36	5	2631	U	O5'-P-OP2	-6.21	100.11	105.70
36	1	393	U	C5-C4-O4	6.20	129.62	125.90
37	3	91	G	N1-C6-O6	6.20	123.62	119.90
36	5	2334	U	N3-C2-O2	-6.20	117.86	122.20
36	1	2381	G	N3-C4-N9	6.20	129.72	126.00
36	1	2835	U	C5-C6-N1	-6.20	119.60	122.70
36	5	398	A	O5'-P-OP2	-6.20	100.12	105.70
36	1	645	A	C5-C6-N1	6.20	120.80	117.70
36	1	1838	G	C8-N9-C1'	-6.20	118.94	127.00
36	1	2924	U	N1-C2-O2	-6.20	118.46	122.80
36	5	2346	C	N1-C2-O2	-6.20	115.18	118.90
36	1	2300	G	C6-C5-N7	-6.20	126.68	130.40
36	1	888	A	N1-C6-N6	6.20	122.32	118.60
38	4	107	G	N1-C6-O6	-6.20	116.18	119.90
1	2	1291	G	N3-C4-N9	-6.19	122.28	126.00
36	5	960	U	C5-C4-O4	6.19	129.62	125.90
1	2	74	U	O5'-P-OP1	-6.19	100.13	105.70
1	2	1100	G	N1-C6-O6	6.19	123.62	119.90
38	4	42	G	N9-C4-C5	-6.19	102.92	105.40
36	5	2878	G	C5-C6-O6	-6.19	124.88	128.60
36	1	2300	G	N7-C8-N9	6.19	116.19	113.10
36	5	599	C	N1-C2-O2	-6.19	115.19	118.90
36	1	2910	A	C2-N3-C4	-6.19	107.51	110.60
36	1	3209	A	N9-C4-C5	-6.19	103.32	105.80
36	1	650	C	OP2-P-O3'	6.19	118.81	105.20
36	5	514	G	C5-C6-O6	-6.19	124.89	128.60
36	1	334	A	C8-N9-C4	-6.18	103.33	105.80
36	1	335	G	C4-C5-N7	6.18	113.27	110.80
36	1	3256	G	C5-C6-O6	-6.18	124.89	128.60
36	5	890	C	O5'-P-OP2	-6.18	100.13	105.70
1	6	1785	U	N1-C2-N3	6.18	118.61	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	1343	A	O5'-P-OP2	-6.18	100.14	105.70
36	1	96	G	N3-C4-C5	6.18	131.69	128.60
36	1	394	G	C8-N9-C4	-6.18	103.93	106.40
36	1	627	U	N1-C2-O2	-6.18	118.47	122.80
36	5	585	A	O5'-P-OP2	-6.18	100.14	105.70
37	7	56	A	C2-N3-C4	-6.18	107.51	110.60
36	1	1556	C	N1-C2-O2	6.18	122.61	118.90
31	D9	36	LEU	CA-CB-CG	6.18	129.50	115.30
36	5	3343	G	N3-C2-N2	6.17	124.22	119.90
36	5	2951	G	O5'-P-OP1	-6.17	100.14	105.70
36	5	2790	A	O5'-P-OP2	-6.17	100.15	105.70
1	2	1241	G	C6-C5-N7	-6.17	126.70	130.40
1	6	1123	C	C5-C4-N4	-6.17	115.88	120.20
36	1	1182	A	O5'-P-OP1	-6.17	100.15	105.70
36	1	2354	C	N1-C2-O2	-6.17	115.20	118.90
52	M6	141	LEU	CB-CG-CD2	-6.17	100.52	111.00
1	6	364	G	C8-N9-C4	6.17	108.87	106.40
36	5	2824	G	C5-C6-O6	-6.17	124.90	128.60
36	5	2993	G	C5-C6-N1	6.17	114.58	111.50
38	8	34	U	N1-C2-N3	6.17	118.60	114.90
1	2	17	C	C6-N1-C2	-6.17	117.83	120.30
36	1	721	G	C6-C5-N7	-6.17	126.70	130.40
1	6	158	U	P-O3'-C3'	6.17	127.10	119.70
1	6	1729	C	C6-N1-C2	6.17	122.77	120.30
36	1	1077	U	C5-C6-N1	-6.16	119.62	122.70
36	5	2629	U	N3-C2-O2	6.16	126.52	122.20
36	1	1099	A	C5-C6-N6	-6.16	118.77	123.70
1	6	1152	A	N9-C4-C5	-6.16	103.33	105.80
36	1	2339	C	O5'-P-OP2	-6.16	100.16	105.70
36	5	1452	A	N9-C4-C5	-6.16	103.34	105.80
36	5	2700	G	C5-C6-O6	-6.16	124.90	128.60
36	1	304	G	N9-C4-C5	6.16	107.86	105.40
37	7	77	G	N9-C4-C5	-6.16	102.94	105.40
36	1	2827	U	C2-N1-C1'	-6.16	110.31	117.70
36	5	650	C	C5-C6-N1	-6.16	117.92	121.00
36	1	3004	C	N3-C4-C5	6.15	124.36	121.90
36	1	640	U	C5-C6-N1	6.15	125.78	122.70
1	6	957	G	N3-C2-N2	-6.15	115.59	119.90
36	5	2400	G	N9-C4-C5	-6.15	102.94	105.40
36	1	1795	U	O5'-P-OP1	-6.15	100.17	105.70
36	1	439	C	N1-C2-O2	6.15	122.59	118.90
36	1	2764	C	C2-N1-C1'	6.15	125.56	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	2887	A	C6-C5-N7	-6.15	128.00	132.30
1	6	371	G	C6-C5-N7	-6.15	126.71	130.40
36	1	2257	C	O4'-C1'-N1	6.15	113.12	108.20
36	5	283	G	N9-C4-C5	-6.14	102.94	105.40
36	1	345	G	N3-C4-N9	6.14	129.69	126.00
36	1	1450	G	N1-C6-O6	6.14	123.58	119.90
36	5	1885	U	C6-N1-C2	6.14	124.69	121.00
36	1	1156	C	C2-N3-C4	-6.14	116.83	119.90
36	1	829	U	N1-C2-O2	6.14	127.10	122.80
36	1	2971	A	C2-N3-C4	6.14	113.67	110.60
36	5	323	A	C8-N9-C4	-6.14	103.34	105.80
36	5	1449	A	C6-C5-N7	-6.14	128.00	132.30
1	2	1773	C	N3-C4-C5	-6.14	119.44	121.90
36	5	335	G	O5'-P-OP2	6.14	118.07	110.70
36	5	651	G	C4-N9-C1'	6.14	134.48	126.50
36	5	874	U	O5'-P-OP1	-6.14	100.18	105.70
36	5	1879	A	C4-C5-C6	6.14	120.07	117.00
36	1	1897	G	N1-C6-O6	6.13	123.58	119.90
36	5	1158	A	C2-N3-C4	-6.13	107.53	110.60
1	2	694	U	N1-C2-O2	6.13	127.09	122.80
37	3	95	A	C6-C5-N7	-6.13	128.01	132.30
36	5	1878	G	C4-N9-C1'	6.13	134.47	126.50
1	2	694	U	C2-N1-C1'	6.13	125.06	117.70
1	6	448	C	N3-C4-C5	-6.13	119.45	121.90
1	2	802	G	C8-N9-C4	-6.13	103.95	106.40
36	5	967	A	N1-C6-N6	-6.12	114.92	118.60
36	5	1468	A	N9-C4-C5	-6.12	103.35	105.80
36	5	2730	G	C5-C6-O6	-6.12	124.92	128.60
1	2	1370	U	P-O3'-C3'	6.12	127.05	119.70
36	1	2924	U	C5-C6-N1	-6.12	119.64	122.70
1	6	1600	A	O4'-C1'-N9	6.12	113.10	108.20
36	5	973	A	N1-C6-N6	6.12	122.27	118.60
36	5	1868	G	N9-C4-C5	-6.12	102.95	105.40
36	5	2278	C	N1-C2-O2	6.12	122.57	118.90
1	6	938	G	N1-C6-O6	6.12	123.57	119.90
36	5	1804	A	C8-N9-C4	6.12	108.25	105.80
36	1	2967	A	N1-C6-N6	6.12	122.27	118.60
54	m8	166	LEU	CA-CB-CG	6.12	129.37	115.30
36	5	3033	A	C2-N3-C4	-6.12	107.54	110.60
1	2	942	G	N1-C6-O6	-6.12	116.23	119.90
36	5	227	G	O5'-P-OP2	-6.12	100.20	105.70
36	5	952	A	O5'-P-OP2	-6.12	100.20	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	2383	C	N1-C2-O2	-6.12	115.23	118.90
36	1	1133	A	O5'-P-OP2	-6.11	100.20	105.70
36	5	1163	A	N9-C4-C5	6.11	108.25	105.80
1	6	1389	C	N1-C2-O2	6.11	122.57	118.90
1	2	1100	G	C8-N9-C1'	-6.11	119.06	127.00
36	1	2920	U	N1-C2-O2	-6.11	118.52	122.80
36	5	2199	G	C4-C5-C6	6.11	122.47	118.80
38	8	77	A	C8-N9-C4	6.11	108.24	105.80
1	6	1200	G	N3-C4-N9	-6.11	122.33	126.00
1	6	1389	C	C2-N1-C1'	6.11	125.52	118.80
1	6	1778	G	N7-C8-N9	6.11	116.16	113.10
38	8	34	U	N3-C2-O2	-6.11	117.92	122.20
1	2	825	U	C5-C6-N1	6.11	125.75	122.70
36	1	1185	C	C6-N1-C2	6.11	122.74	120.30
36	1	2151	C	C6-N1-C2	6.11	122.74	120.30
37	3	33	U	N1-C2-O2	6.11	127.07	122.80
1	6	542	A	N1-C2-N3	6.11	132.35	129.30
1	6	864	U	N3-C2-O2	-6.11	117.93	122.20
36	5	2860	U	C6-N1-C2	6.11	124.66	121.00
36	1	960	U	N3-C4-C5	6.10	118.26	114.60
36	5	2730	G	N1-C6-O6	6.10	123.56	119.90
36	1	1434	G	N1-C6-O6	6.10	123.56	119.90
1	6	126	A	C8-N9-C4	6.10	108.24	105.80
1	2	610	G	C8-N9-C1'	-6.10	119.07	127.00
36	1	706	A	C8-N9-C4	6.10	108.24	105.80
36	1	800	G	C5-C6-O6	-6.10	124.94	128.60
36	1	304	G	N3-C2-N2	-6.10	115.63	119.90
36	1	1190	A	N1-C6-N6	6.10	122.26	118.60
36	5	1118	C	N3-C4-C5	6.10	124.34	121.90
36	5	2278	C	N3-C4-C5	6.10	124.34	121.90
1	2	543	C	N1-C2-O2	6.09	122.56	118.90
1	6	406	U	C4-C5-C6	6.09	123.36	119.70
36	1	2959	C	N1-C2-O2	-6.09	115.25	118.90
36	1	3101	G	C6-C5-N7	6.09	134.05	130.40
36	1	893	C	C5-C6-N1	6.09	124.05	121.00
36	5	813	G	N1-C6-O6	6.09	123.55	119.90
36	5	2128	C	C6-N1-C2	-6.09	117.86	120.30
36	1	1442	U	C5-C4-O4	-6.09	122.25	125.90
36	1	76	G	C8-N9-C4	-6.09	103.97	106.40
36	1	3092	C	C5-C6-N1	-6.09	117.96	121.00
1	2	1600	A	N9-C4-C5	-6.08	103.37	105.80
36	1	596	C	C6-N1-C2	-6.08	117.87	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	2187	G	C6-C5-N7	-6.08	126.75	130.40
36	1	2406	C	C5-C4-N4	-6.08	115.94	120.20
36	5	359	U	OP2-P-O3'	6.08	118.58	105.20
36	5	2114	C	C5-C6-N1	6.08	124.04	121.00
36	5	3200	G	N1-C6-O6	6.08	123.55	119.90
36	5	3343	G	N3-C4-N9	6.08	129.65	126.00
36	1	580	C	N1-C2-O2	-6.08	115.25	118.90
1	6	1745	G	N9-C4-C5	-6.08	102.97	105.40
36	5	35	A	O5'-P-OP2	-6.08	100.23	105.70
36	5	1012	G	N3-C4-C5	6.08	131.64	128.60
36	1	937	G	C5-C6-O6	-6.08	124.95	128.60
36	1	2183	A	C5-C6-N1	6.08	120.74	117.70
36	5	582	G	C5-C6-O6	6.08	132.25	128.60
36	5	1791	C	C6-N1-C2	-6.08	117.87	120.30
1	2	620	A	C8-N9-C4	-6.08	103.37	105.80
36	1	2658	G	O5'-P-OP2	-6.08	100.23	105.70
36	1	2732	G	N1-C6-O6	6.08	123.55	119.90
1	6	402	C	C6-N1-C2	6.08	122.73	120.30
36	1	2917	G	O5'-P-OP2	-6.07	100.23	105.70
36	5	1548	C	N1-C2-O2	-6.07	115.26	118.90
36	5	2698	G	N1-C6-O6	6.07	123.54	119.90
36	1	922	U	N1-C2-O2	6.07	127.05	122.80
1	6	577	G	C4-C5-N7	6.07	113.23	110.80
36	1	2402	A	N1-C6-N6	6.07	122.24	118.60
36	1	2625	C	N1-C2-O2	-6.07	115.26	118.90
37	7	74	C	N1-C2-O2	-6.07	115.26	118.90
50	m4	72	LEU	CA-CB-CG	6.07	129.26	115.30
36	5	391	A	C8-N9-C4	6.07	108.23	105.80
36	5	425	G	O5'-P-OP1	6.07	117.98	110.70
36	1	2223	A	C8-N9-C4	-6.07	103.37	105.80
1	6	19	A	N1-C6-N6	6.07	122.24	118.60
36	5	1885	U	C5-C6-N1	-6.07	119.67	122.70
36	5	2215	A	C8-N9-C4	6.07	108.23	105.80
36	5	3195	U	P-O3'-C3'	6.07	126.98	119.70
36	1	369	A	C2-N3-C4	6.06	113.63	110.60
36	1	1386	A	C6-N1-C2	-6.06	114.96	118.60
1	6	1637	C	C6-N1-C1'	-6.06	113.53	120.80
36	5	1060	U	C5-C6-N1	-6.06	119.67	122.70
10	S8	8	ARG	NE-CZ-NH2	6.06	123.33	120.30
1	6	610	G	C8-N9-C1'	-6.06	119.13	127.00
36	5	958	C	N3-C4-C5	6.06	124.32	121.90
36	5	2161	G	C4-C5-N7	-6.06	108.38	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	2743	A	C4-C5-C6	6.06	120.03	117.00
36	1	105	C	C6-N1-C2	6.06	122.72	120.30
36	1	3362	A	C5-N7-C8	-6.05	100.87	103.90
36	5	2199	G	C5-C6-N1	-6.05	108.47	111.50
36	5	2996	U	N3-C2-O2	-6.05	117.96	122.20
1	2	325	G	N3-C4-C5	6.05	131.63	128.60
1	2	1399	C	C5-C6-N1	6.05	124.03	121.00
36	1	2209	U	C5-C6-N1	6.05	125.72	122.70
36	5	1323	G	C6-C5-N7	-6.05	126.77	130.40
36	5	1900	A	N1-C6-N6	6.05	122.23	118.60
36	5	3301	U	C6-N1-C2	6.05	124.63	121.00
36	5	3382	U	C2-N1-C1'	6.05	124.96	117.70
36	1	1320	C	C2-N1-C1'	6.05	125.45	118.80
1	6	1	U	N1-C2-O2	6.05	127.03	122.80
1	2	1389	C	N1-C2-O2	6.04	122.53	118.90
36	5	1476	G	N1-C6-O6	-6.04	116.27	119.90
1	6	1025	A	C6-C5-N7	-6.04	128.07	132.30
36	5	1116	G	N1-C2-N3	6.04	127.53	123.90
37	7	58	C	O5'-P-OP2	-6.04	100.26	105.70
38	8	32	C	C6-N1-C2	6.04	122.72	120.30
36	1	678	G	N1-C2-N2	6.04	121.63	116.20
36	1	2814	G	O5'-P-OP2	6.04	117.95	110.70
36	1	3089	C	C6-N1-C2	-6.04	117.89	120.30
36	5	1306	G	C5-N7-C8	-6.04	101.28	104.30
36	1	706	A	N1-C6-N6	6.04	122.22	118.60
36	1	2812	C	C5-C6-N1	-6.04	117.98	121.00
1	6	1642	G	C5-C6-O6	-6.04	124.98	128.60
36	5	1554	U	C2-N1-C1'	6.04	124.94	117.70
37	3	8	G	C5-C6-O6	6.03	132.22	128.60
36	1	859	G	C8-N9-C1'	-6.03	119.16	127.00
36	1	1192	C	C2-N3-C4	6.03	122.92	119.90
36	1	282	G	N7-C8-N9	6.03	116.11	113.10
36	1	2983	C	O5'-P-OP1	-6.03	100.27	105.70
36	5	1403	C	N1-C2-O2	-6.03	115.28	118.90
1	2	421	A	N1-C6-N6	6.03	122.22	118.60
36	1	398	A	C5-C6-N6	-6.03	118.88	123.70
36	1	1154	A	N9-C4-C5	6.03	108.21	105.80
36	5	2993	G	C5-C6-O6	-6.03	124.98	128.60
36	5	3335	A	C5-C6-N6	-6.03	118.88	123.70
36	1	340	C	N1-C2-O2	6.03	122.52	118.90
36	5	1496	C	C2-N1-C1'	6.03	125.43	118.80
37	7	73	C	C6-N1-C2	-6.03	117.89	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	1431	G	N1-C6-O6	-6.02	116.29	119.90
1	6	577	G	C8-N9-C4	-6.02	103.99	106.40
36	5	1879	A	C4-C5-N7	6.02	113.71	110.70
36	5	2980	U	N1-C2-N3	6.02	118.52	114.90
48	m1	152	HIS	N-CA-C	-6.02	94.74	111.00
36	1	2400	G	N9-C4-C5	-6.02	102.99	105.40
36	1	2639	G	C4-C5-C6	6.02	122.41	118.80
1	6	65	A	C2-N3-C4	-6.02	107.59	110.60
36	5	21	G	N3-C4-N9	-6.02	122.39	126.00
36	5	881	C	N1-C2-O2	6.02	122.51	118.90
36	5	666	A	N9-C4-C5	6.02	108.21	105.80
1	2	1749	A	C8-N9-C4	6.02	108.21	105.80
1	6	1537	C	N1-C2-O2	-6.02	115.29	118.90
36	5	787	G	N1-C6-O6	6.02	123.51	119.90
36	5	1166	G	O5'-P-OP1	-6.02	100.28	105.70
36	5	2823	G	N1-C6-O6	6.02	123.51	119.90
36	5	2978	U	O4'-C1'-N1	6.02	113.02	108.20
36	1	3214	U	N1-C2-O2	6.02	127.01	122.80
36	5	1301	A	C6-C5-N7	-6.01	128.09	132.30
36	1	70	A	C5-C6-N6	-6.01	118.89	123.70
1	6	957	G	C5-C6-N1	-6.01	108.50	111.50
1	6	1634	C	N3-C2-O2	-6.01	117.69	121.90
1	2	321	C	C6-N1-C2	-6.01	117.90	120.30
36	1	3054	U	C5-C6-N1	-6.01	119.70	122.70
36	1	690	A	N1-C6-N6	-6.01	115.00	118.60
38	4	15	G	N3-C2-N2	6.01	124.11	119.90
36	5	80	G	C5-C6-O6	-6.01	125.00	128.60
36	5	1192	C	C4-C5-C6	6.01	120.40	117.40
36	5	1662	G	C6-C5-N7	-6.01	126.80	130.40
38	4	84	C	C5-C6-N1	-6.00	118.00	121.00
36	1	426	G	C4-N9-C1'	6.00	134.31	126.50
38	4	108	C	C6-N1-C2	-6.00	117.90	120.30
36	1	369	A	O5'-P-OP2	-6.00	100.30	105.70
36	1	1885	U	C4-C5-C6	6.00	123.30	119.70
36	5	2687	G	O5'-P-OP2	-6.00	100.30	105.70
36	1	220	G	C5-C6-O6	-6.00	125.00	128.60
36	1	2315	G	C8-N9-C4	-6.00	104.00	106.40
36	5	647	A	C8-N9-C1'	-6.00	116.91	127.70
36	5	961	C	N1-C2-O2	6.00	122.50	118.90
36	5	2727	A	C8-N9-C4	-6.00	103.40	105.80
36	5	420	G	N1-C6-O6	6.00	123.50	119.90
37	7	77	G	C5-C6-O6	-5.99	125.00	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2	1657	U	C4-C5-C6	5.99	123.30	119.70
1	2	307	G	N3-C4-N9	5.99	129.59	126.00
36	1	1783	U	C5-C4-O4	5.99	129.49	125.90
1	6	47	A	N1-C6-N6	5.99	122.19	118.60
36	5	824	C	C6-N1-C2	-5.99	117.90	120.30
36	5	2811	A	C5-C6-N1	5.99	120.69	117.70
36	5	951	A	N7-C8-N9	5.99	116.79	113.80
36	1	695	C	N3-C4-N4	-5.99	113.81	118.00
1	6	257	A	N9-C4-C5	-5.99	103.41	105.80
36	5	1152	G	C6-C5-N7	-5.99	126.81	130.40
36	1	2306	C	C6-N1-C1'	-5.98	113.62	120.80
65	N9	20	GLY	N-CA-C	5.98	128.06	113.10
36	5	2117	A	N1-C6-N6	-5.98	115.01	118.60
36	5	2314	U	N3-C2-O2	5.98	126.39	122.20
36	1	2866	U	N3-C2-O2	-5.98	118.01	122.20
1	6	1729	C	N3-C4-C5	5.98	124.29	121.90
36	5	84	U	C6-N1-C2	5.98	124.59	121.00
36	5	1239	C	C2-N1-C1'	5.98	125.38	118.80
36	1	69	C	N3-C4-C5	-5.98	119.51	121.90
1	6	421	A	N9-C4-C5	-5.98	103.41	105.80
36	5	2305	G	C8-N9-C4	-5.98	104.01	106.40
36	5	2333	C	C5-C4-N4	-5.98	116.01	120.20
36	5	2659	G	C6-C5-N7	-5.98	126.81	130.40
36	1	3319	U	P-O3'-C3'	5.98	126.87	119.70
36	5	110	G	C8-N9-C4	5.98	108.79	106.40
36	1	2376	G	C5-C6-N1	5.98	114.49	111.50
36	1	645	A	C4-C5-N7	-5.97	107.71	110.70
36	1	959	C	N3-C4-C5	5.97	124.29	121.90
36	1	1306	G	C5-C6-O6	-5.97	125.02	128.60
36	1	2374	C	N1-C2-O2	5.97	122.48	118.90
36	5	420	G	N9-C4-C5	-5.97	103.01	105.40
36	5	3188	G	N1-C6-O6	-5.97	116.32	119.90
36	5	1667	A	N9-C4-C5	-5.97	103.41	105.80
36	5	2882	U	O5'-P-OP2	-5.97	100.33	105.70
36	1	1403	C	N3-C2-O2	5.97	126.08	121.90
36	1	676	G	C6-C5-N7	-5.97	126.82	130.40
36	1	1408	G	N3-C4-N9	5.97	129.58	126.00
1	6	245	U	N3-C2-O2	-5.97	118.02	122.20
36	5	1900	A	C5-C6-N6	-5.97	118.93	123.70
36	1	2777	G	C4-C5-N7	-5.96	108.41	110.80
36	5	1101	G	N3-C2-N2	5.96	124.07	119.90
36	5	1879	A	C5-C6-N1	-5.96	114.72	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	2273	G	C4-N9-C1'	-5.96	118.75	126.50
36	5	21	G	N3-C4-C5	5.96	131.58	128.60
36	5	1452	A	C5-C6-N6	-5.96	118.93	123.70
36	5	652	G	C6-C5-N7	-5.96	126.82	130.40
36	5	1667	A	N1-C6-N6	5.96	122.18	118.60
36	5	3105	U	N1-C2-N3	5.96	118.48	114.90
36	5	673	U	N1-C2-O2	-5.96	118.63	122.80
36	5	1448	U	C6-N1-C2	5.96	124.58	121.00
36	1	75	G	C6-C5-N7	-5.96	126.83	130.40
36	1	2526	C	C5-C6-N1	5.96	123.98	121.00
36	5	934	G	C2-N3-C4	5.96	114.88	111.90
36	5	2796	G	C5-C6-O6	5.96	132.18	128.60
36	5	2832	C	C6-N1-C2	5.96	122.68	120.30
36	1	2795	U	OP1-P-OP2	5.96	128.53	119.60
1	6	209	U	C2-N1-C1'	-5.96	110.55	117.70
36	5	2345	A	C8-N9-C4	5.96	108.18	105.80
36	1	988	U	C5-C6-N1	-5.96	119.72	122.70
36	1	2376	G	N7-C8-N9	5.96	116.08	113.10
36	5	24	G	C8-N9-C4	5.96	108.78	106.40
1	6	477	A	N1-C6-N6	5.95	122.17	118.60
36	5	1541	G	C4-C5-N7	5.95	113.18	110.80
36	1	2355	G	C6-C5-N7	-5.95	126.83	130.40
36	1	2374	C	C6-N1-C2	-5.95	117.92	120.30
36	5	2350	C	O5'-P-OP1	5.95	117.84	110.70
36	5	1331	U	C2-N3-C4	-5.95	123.43	127.00
36	5	1631	C	C6-N1-C2	-5.95	117.92	120.30
36	5	2984	C	C2-N3-C4	-5.95	116.92	119.90
36	5	646	A	C2-N3-C4	-5.95	107.63	110.60
36	5	2205	U	C5-C6-N1	5.95	125.67	122.70
36	5	2620	G	N3-C4-N9	-5.95	122.43	126.00
36	1	388	G	N3-C2-N2	-5.95	115.74	119.90
36	1	1450	G	C5-N7-C8	-5.95	101.33	104.30
36	1	2646	C	N3-C4-C5	5.95	124.28	121.90
1	6	1782	A	C8-N9-C4	-5.95	103.42	105.80
36	5	2971	A	N1-C2-N3	-5.95	126.33	129.30
36	1	1174	G	C4-N9-C1'	5.94	134.23	126.50
36	1	1416	C	N3-C4-N4	-5.94	113.84	118.00
36	1	1643	A	C8-N9-C4	5.94	108.18	105.80
36	1	1902	G	C5-N7-C8	-5.94	101.33	104.30
36	5	716	A	N9-C4-C5	-5.94	103.42	105.80
36	5	2397	A	C8-N9-C4	5.94	108.18	105.80
36	1	25	U	O5'-P-OP2	5.94	117.83	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	1308	A	C2-N3-C4	-5.94	107.63	110.60
36	1	2983	C	C5-C4-N4	5.94	124.36	120.20
1	6	1778	G	C8-N9-C4	-5.94	104.02	106.40
36	5	1153	A	C5-C6-N6	-5.94	118.95	123.70
36	5	2409	G	C8-N9-C4	-5.94	104.02	106.40
36	1	836	A	N1-C6-N6	-5.94	115.03	118.60
36	1	1838	G	C4-C5-C6	5.94	122.36	118.80
36	5	2376	G	C5-N7-C8	-5.94	101.33	104.30
36	5	2310	U	O5'-P-OP2	-5.94	100.36	105.70
36	1	961	C	C4-C5-C6	5.94	120.37	117.40
36	1	2419	A	OP1-P-OP2	-5.94	110.69	119.60
36	1	3268	A	N1-C2-N3	5.94	132.27	129.30
36	5	644	G	C4-C5-C6	5.94	122.36	118.80
36	5	891	G	C8-N9-C4	-5.94	104.03	106.40
36	5	2416	U	C6-N1-C2	-5.94	117.44	121.00
1	2	1489	U	N3-C2-O2	-5.94	118.05	122.20
36	1	203	G	C8-N9-C4	5.94	108.78	106.40
36	1	1334	U	N3-C4-O4	5.94	123.56	119.40
36	5	1153	A	C6-C5-N7	-5.94	128.15	132.30
36	1	644	G	C8-N9-C4	-5.93	104.03	106.40
36	1	917	A	N1-C6-N6	-5.93	115.04	118.60
38	8	61	A	O5'-P-OP1	-5.93	100.36	105.70
36	1	1392	G	O4'-C1'-N9	5.93	112.94	108.20
1	6	1773	C	N3-C4-N4	5.93	122.15	118.00
36	5	871	U	N1-C2-N3	5.93	118.46	114.90
36	5	1842	A	OP2-P-O3'	5.93	118.25	105.20
36	1	2904	U	O5'-P-OP1	5.93	117.82	110.70
36	5	3206	C	C6-N1-C2	-5.93	117.93	120.30
1	6	309	C	N3-C2-O2	5.93	126.05	121.90
1	2	794	U	N1-C2-O2	5.93	126.95	122.80
36	1	2114	C	O5'-P-OP2	-5.93	100.37	105.70
1	2	554	C	C6-N1-C1'	-5.92	113.69	120.80
36	1	1864	A	N7-C8-N9	-5.92	110.84	113.80
36	1	2169	G	C4-C5-N7	-5.92	108.43	110.80
36	1	2803	A	O5'-P-OP1	-5.92	100.37	105.70
36	5	2765	C	C5-C6-N1	5.92	123.96	121.00
36	5	3064	U	N1-C2-N3	5.92	118.45	114.90
1	2	380	U	C2-N1-C1'	5.92	124.81	117.70
36	1	637	C	P-O3'-C3'	5.92	126.81	119.70
36	1	953	G	OP1-P-O3'	5.92	118.23	105.20
1	6	1535	U	C5-C6-N1	-5.92	119.74	122.70
36	5	712	G	N1-C6-O6	5.92	123.45	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	406	G	N1-C6-O6	-5.92	116.35	119.90
36	5	2626	A	N1-C2-N3	5.92	132.26	129.30
36	1	3051	U	C5-C6-N1	5.92	125.66	122.70
36	5	881	C	C2-N3-C4	5.92	122.86	119.90
36	5	41	G	C6-C5-N7	-5.92	126.85	130.40
36	5	437	G	C8-N9-C1'	5.92	134.69	127.00
36	5	1178	G	C6-C5-N7	-5.92	126.85	130.40
36	5	2353	G	N9-C4-C5	-5.92	103.03	105.40
36	1	951	A	C5-C6-N1	-5.92	114.74	117.70
36	5	2715	A	C4-C5-N7	-5.92	107.74	110.70
36	1	2372	A	C5-C6-N6	-5.91	118.97	123.70
36	5	994	G	C2-N3-C4	5.91	114.86	111.90
36	5	2871	G	O5'-P-OP2	-5.91	100.38	105.70
36	5	2951	G	N3-C4-N9	5.91	129.55	126.00
36	1	885	U	C6-N1-C2	5.91	124.55	121.00
36	1	1167	U	C2-N1-C1'	-5.91	110.61	117.70
36	1	3362	A	C6-C5-N7	-5.91	128.16	132.30
36	5	2737	C	N1-C2-O2	-5.91	115.35	118.90
36	1	804	C	N3-C2-O2	-5.91	117.76	121.90
36	1	3180	A	C4-C5-N7	5.91	113.65	110.70
1	6	382	C	N1-C2-O2	-5.91	115.35	118.90
36	1	27	C	N3-C4-C5	-5.91	119.54	121.90
1	2	1432	U	C5-C6-N1	-5.91	119.75	122.70
1	6	1412	G	C8-N9-C1'	5.91	134.68	127.00
36	5	3020	U	N1-C2-O2	-5.91	118.67	122.80
36	5	55	G	N1-C6-O6	5.90	123.44	119.90
36	5	857	G	N3-C2-N2	-5.90	115.77	119.90
36	5	2145	A	C4-C5-C6	5.90	119.95	117.00
36	1	39	A	C5-C6-N6	-5.90	118.98	123.70
36	1	650	C	N1-C2-O2	-5.90	115.36	118.90
36	1	2279	A	C5-C6-N6	-5.90	118.98	123.70
36	1	3264	G	C8-N9-C4	5.90	108.76	106.40
36	5	2761	G	C6-N1-C2	-5.90	121.56	125.10
1	2	1081	A	N1-C6-N6	-5.90	115.06	118.60
36	1	281	G	C2-N3-C4	5.90	114.85	111.90
36	1	1424	C	O5'-P-OP1	-5.90	100.39	105.70
36	1	1279	C	C5-C6-N1	5.90	123.95	121.00
36	1	2337	C	C6-N1-C2	-5.90	117.94	120.30
36	1	3266	G	N3-C4-N9	-5.90	122.46	126.00
1	6	992	A	C4-C5-N7	5.90	113.65	110.70
36	1	757	C	N3-C2-O2	5.90	126.03	121.90
36	5	650	C	C6-N1-C2	5.90	122.66	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	2865	U	N1-C2-N3	-5.90	111.36	114.90
1	6	1736	G	C8-N9-C4	-5.89	104.04	106.40
36	5	1116	G	OP2-P-O3'	5.89	118.17	105.20
36	5	1897	G	N3-C2-N2	-5.89	115.77	119.90
36	5	2288	G	O5'-P-OP2	-5.89	100.39	105.70
36	5	3362	A	C5-N7-C8	-5.89	100.95	103.90
36	1	512	U	C6-N1-C2	5.89	124.53	121.00
36	1	908	G	O4'-C1'-N9	-5.89	103.49	108.20
36	1	2624	G	N1-C6-O6	5.89	123.44	119.90
1	6	1274	C	C6-N1-C2	-5.89	117.94	120.30
36	5	1127	G	C2-N3-C4	5.89	114.85	111.90
36	5	1404	G	N3-C2-N2	5.89	124.03	119.90
36	5	2643	A	N9-C4-C5	-5.89	103.44	105.80
36	1	1487	G	N3-C2-N2	-5.89	115.78	119.90
36	1	2305	G	C5-C6-O6	-5.89	125.07	128.60
36	1	2335	G	N7-C8-N9	-5.89	110.16	113.10
1	6	577	G	N1-C6-O6	5.89	123.43	119.90
1	6	1152	A	N1-C6-N6	5.89	122.13	118.60
36	5	1407	A	O5'-P-OP2	-5.89	100.40	105.70
36	5	1434	G	C8-N9-C1'	5.89	134.66	127.00
36	5	1613	A	O4'-C1'-N9	5.89	112.91	108.20
1	2	1600	A	C2-N3-C4	-5.89	107.66	110.60
36	1	61	A	N1-C6-N6	5.89	122.13	118.60
36	1	585	A	N7-C8-N9	-5.89	110.86	113.80
38	4	140	G	N9-C4-C5	5.89	107.75	105.40
36	1	433	A	N1-C6-N6	5.88	122.13	118.60
36	1	1144	U	N1-C2-O2	-5.88	118.68	122.80
36	5	938	C	C4-C5-C6	-5.88	114.46	117.40
36	5	1056	U	C5-C6-N1	5.88	125.64	122.70
36	5	2404	A	N7-C8-N9	5.88	116.74	113.80
36	1	92	G	N3-C4-N9	5.88	129.53	126.00
36	1	968	G	C5-C6-N1	5.88	114.44	111.50
36	1	2585	G	N3-C4-C5	-5.88	125.66	128.60
36	5	650	C	N3-C4-N4	-5.88	113.88	118.00
36	5	1001	G	N1-C6-O6	-5.88	116.37	119.90
36	5	1329	U	C5-C4-O4	-5.88	122.37	125.90
36	1	1465	A	C8-N9-C4	5.88	108.15	105.80
36	5	2398	A	N7-C8-N9	-5.88	110.86	113.80
36	1	797	U	OP2-P-O3'	5.88	118.13	105.20
36	1	1116	G	C8-N9-C4	-5.88	104.05	106.40
1	6	577	G	C5-N7-C8	-5.88	101.36	104.30
36	5	2820	A	C2-N3-C4	5.88	113.54	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	2848	G	C5-C6-O6	-5.88	125.07	128.60
21	C9	57	ARG	NE-CZ-NH1	5.88	123.24	120.30
36	1	932	U	C5-C4-O4	-5.88	122.38	125.90
36	5	1060	U	C2-N3-C4	-5.88	123.47	127.00
1	2	1324	G	N3-C2-N2	-5.87	115.79	119.90
24	D2	93	LEU	CA-CB-CG	5.87	128.81	115.30
36	1	1346	G	N1-C6-O6	5.87	123.42	119.90
36	1	1349	G	C2-N3-C4	5.87	114.84	111.90
36	1	2138	A	C4-C5-C6	5.87	119.94	117.00
36	1	2184	U	C5-C6-N1	5.87	125.64	122.70
36	1	2345	A	N1-C6-N6	5.87	122.12	118.60
36	5	2112	U	C5-C6-N1	5.87	125.64	122.70
1	2	434	G	O5'-P-OP2	-5.87	100.42	105.70
36	1	289	A	N9-C4-C5	-5.87	103.45	105.80
36	5	295	A	C2-N3-C4	-5.87	107.67	110.60
36	5	1868	G	N1-C6-O6	5.87	123.42	119.90
36	5	2811	A	C6-N1-C2	-5.87	115.08	118.60
36	5	2898	G	O4'-C1'-N9	-5.87	103.51	108.20
36	1	394	G	C5-C6-O6	5.86	132.12	128.60
36	1	2381	G	C6-C5-N7	-5.86	126.88	130.40
1	6	1187	U	C6-N1-C2	-5.86	117.48	121.00
36	5	1599	G	C8-N9-C4	5.86	108.75	106.40
36	5	1869	C	C6-N1-C2	5.86	122.65	120.30
36	1	1409	G	N1-C6-O6	-5.86	116.38	119.90
1	2	1280	C	N3-C4-C5	-5.86	119.56	121.90
36	1	994	G	N1-C2-N2	-5.86	110.92	116.20
1	6	151	G	N3-C4-N9	-5.86	122.48	126.00
1	6	539	G	N7-C8-N9	5.86	116.03	113.10
1	6	542	A	P-O3'-C3'	5.86	126.73	119.70
36	5	1496	C	O5'-P-OP1	5.86	117.73	110.70
36	5	1938	U	C6-N1-C2	5.86	124.52	121.00
36	1	2700	G	C6-C5-N7	-5.86	126.89	130.40
36	5	936	A	P-O3'-C3'	5.86	126.73	119.70
36	1	2376	G	C8-N9-C4	-5.86	104.06	106.40
36	5	1119	C	OP1-P-O3'	-5.86	92.31	105.20
36	5	2740	A	C8-N9-C4	-5.86	103.46	105.80
1	6	337	G	C8-N9-C1'	-5.86	119.39	127.00
36	5	101	G	O4'-C1'-N9	5.86	112.89	108.20
36	1	1435	A	O5'-P-OP2	5.85	117.72	110.70
1	6	1396	U	C5-C6-N1	5.85	125.63	122.70
36	5	907	G	N1-C2-N2	-5.85	110.93	116.20
36	5	1412	G	C8-N9-C4	-5.85	104.06	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	1434	G	C8-N9-C4	-5.85	104.06	106.40
36	5	3209	A	O4'-C1'-N9	5.85	112.88	108.20
36	1	2872	A	N1-C6-N6	5.85	122.11	118.60
36	1	2983	C	C4-C5-C6	5.85	120.33	117.40
37	3	52	G	O5'-P-OP2	-5.85	100.43	105.70
1	6	337	G	C6-C5-N7	-5.85	126.89	130.40
1	6	352	A	N1-C6-N6	-5.85	115.09	118.60
36	5	514	G	N1-C6-O6	5.85	123.41	119.90
36	5	938	C	N3-C4-C5	5.85	124.24	121.90
36	1	2961	G	N1-C6-O6	5.85	123.41	119.90
36	5	99	A	C8-N9-C4	5.85	108.14	105.80
36	5	2809	C	C6-N1-C2	5.85	122.64	120.30
37	7	41	G	C8-N9-C4	5.85	108.74	106.40
36	1	676	G	C8-N9-C4	-5.85	104.06	106.40
36	1	3362	A	N1-C6-N6	5.85	122.11	118.60
36	5	410	U	C5-C6-N1	5.85	125.62	122.70
37	7	84	A	O5'-P-OP1	-5.85	100.44	105.70
1	6	29	U	N1-C2-N3	5.85	118.41	114.90
36	5	2308	C	O5'-P-OP2	-5.85	100.44	105.70
36	1	262	U	N3-C2-O2	5.84	126.29	122.20
36	1	2281	A	C8-N9-C4	5.84	108.14	105.80
36	5	1115	G	C6-C5-N7	-5.84	126.89	130.40
36	5	1450	G	C5-C6-O6	-5.84	125.09	128.60
1	6	306	U	C2-N3-C4	-5.84	123.49	127.00
36	5	1163	A	N1-C6-N6	-5.84	115.09	118.60
1	2	448	C	N3-C4-C5	-5.84	119.56	121.90
36	1	369	A	N3-C4-C5	-5.84	122.71	126.80
36	1	787	G	O5'-P-OP2	-5.84	100.44	105.70
36	1	838	G	C8-N9-C4	5.84	108.74	106.40
36	1	1207	G	N1-C6-O6	5.84	123.40	119.90
36	1	1449	A	C2-N3-C4	5.84	113.52	110.60
1	6	194	U	N1-C2-O2	5.84	126.89	122.80
36	5	338	A	OP2-P-O3'	5.84	118.05	105.20
36	5	780	A	N1-C6-N6	5.84	122.11	118.60
36	5	2938	G	N9-C4-C5	5.84	107.74	105.40
36	1	1389	G	N3-C4-N9	5.84	129.50	126.00
1	6	934	C	N3-C2-O2	-5.84	117.81	121.90
36	5	1333	C	C6-N1-C2	-5.84	117.96	120.30
37	3	82	G	N1-C2-N2	-5.84	110.95	116.20
36	1	2634	U	C5-C4-O4	-5.84	122.40	125.90
36	1	3092	C	C2-N3-C4	-5.84	116.98	119.90
36	5	365	A	N9-C4-C5	-5.84	103.47	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	413	U	C5-C6-N1	-5.84	119.78	122.70
36	5	2784	G	C8-N9-C4	-5.84	104.06	106.40
36	5	2914	G	N3-C4-C5	-5.84	125.68	128.60
36	1	2808	A	C4-C5-C6	5.83	119.92	117.00
36	5	1931	U	C2-N1-C1'	-5.83	110.70	117.70
37	7	76	A	O4'-C1'-N9	5.83	112.87	108.20
36	1	916	G	N1-C6-O6	-5.83	116.40	119.90
36	1	1386	A	C5-C6-N6	-5.83	119.03	123.70
36	1	1911	A	N1-C6-N6	5.83	122.10	118.60
1	6	1560	U	N3-C2-O2	-5.83	118.12	122.20
36	5	1500	G	C8-N9-C4	5.83	108.73	106.40
36	5	2412	G	N3-C2-N2	5.83	123.98	119.90
36	1	3101	G	C5-C6-N1	5.83	114.42	111.50
36	1	359	U	N3-C4-C5	-5.83	111.10	114.60
36	1	2351	U	O5'-P-OP2	5.83	117.69	110.70
36	1	2963	C	C4-C5-C6	5.83	120.31	117.40
36	1	2969	A	C2-N3-C4	-5.83	107.69	110.60
36	1	3184	A	N1-C6-N6	5.83	122.10	118.60
1	6	1002	G	C4-C5-N7	5.83	113.13	110.80
1	6	1520	U	N3-C2-O2	5.83	126.28	122.20
36	1	958	C	C2-N3-C4	-5.83	116.99	119.90
36	5	1897	G	C5-N7-C8	-5.83	101.39	104.30
36	5	1368	U	N1-C2-O2	-5.83	118.72	122.80
36	5	2420	C	N1-C2-O2	-5.83	115.41	118.90
36	5	2942	C	N3-C4-N4	5.83	122.08	118.00
1	2	399	A	N1-C6-N6	-5.82	115.11	118.60
36	1	22	G	N1-C6-O6	-5.82	116.41	119.90
36	1	1076	C	N1-C2-O2	5.82	122.39	118.90
1	6	864	U	C2-N1-C1'	5.82	124.69	117.70
36	5	341	G	N3-C4-N9	-5.82	122.51	126.00
36	5	638	C	O5'-P-OP1	-5.82	100.46	105.70
36	5	913	A	N9-C4-C5	5.82	108.13	105.80
36	5	999	G	C8-N9-C4	5.82	108.73	106.40
36	5	2864	A	N9-C4-C5	-5.82	103.47	105.80
36	5	3322	A	N1-C6-N6	5.82	122.09	118.60
38	4	53	A	N1-C6-N6	-5.82	115.11	118.60
1	6	209	U	N3-C2-O2	5.82	126.27	122.20
36	5	2112	U	C2-N1-C1'	5.82	124.68	117.70
36	5	2885	C	C2-N3-C4	-5.82	116.99	119.90
1	2	1412	G	C4-N9-C1'	-5.82	118.94	126.50
36	1	895	A	N1-C6-N6	5.82	122.09	118.60
36	5	567	G	N3-C4-N9	5.82	129.49	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	1302	A	C2-N3-C4	5.82	113.51	110.60
36	5	3167	A	C8-N9-C4	-5.82	103.47	105.80
36	1	76	G	C4-C5-C6	5.82	122.29	118.80
36	1	2378	C	C5-C4-N4	-5.82	116.13	120.20
36	5	2803	A	O5'-P-OP1	-5.82	100.47	105.70
37	7	10	C	N3-C4-N4	5.81	122.07	118.00
36	1	2884	C	C5-C4-N4	-5.81	116.13	120.20
36	5	961	C	N3-C2-O2	-5.81	117.83	121.90
36	5	1160	C	C2-N1-C1'	-5.81	112.41	118.80
36	5	1869	C	N3-C4-C5	5.81	124.22	121.90
36	5	2211	U	N1-C2-N3	5.81	118.39	114.90
36	5	2403	G	O5'-P-OP1	5.81	117.67	110.70
36	5	2640	A	C8-N9-C4	5.81	108.12	105.80
1	2	734	A	P-O3'-C3'	5.81	126.67	119.70
36	1	2884	C	C4-C5-C6	-5.81	114.50	117.40
36	5	59	G	N1-C6-O6	-5.81	116.42	119.90
36	5	3195	U	N1-C2-O2	5.81	126.87	122.80
36	5	1911	A	N1-C6-N6	5.81	122.08	118.60
36	5	2316	G	C4-C5-N7	-5.81	108.48	110.80
36	1	432	G	N1-C6-O6	5.81	123.38	119.90
36	1	925	A	C5-N7-C8	-5.81	101.00	103.90
1	6	1640	C	C2-N1-C1'	5.81	125.19	118.80
36	1	678	G	O5'-P-OP1	-5.80	100.48	105.70
36	1	1420	C	C6-N1-C2	-5.80	117.98	120.30
1	6	858	G	C4-C5-N7	5.80	113.12	110.80
36	5	1854	C	C6-N1-C2	-5.80	117.98	120.30
36	1	1316	C	N3-C4-C5	-5.80	119.58	121.90
36	1	2300	G	C4-C5-C6	5.80	122.28	118.80
36	5	283	G	N1-C6-O6	5.80	123.38	119.90
36	5	1894	U	C2-N1-C1'	-5.80	110.74	117.70
36	5	3124	G	N9-C4-C5	5.80	107.72	105.40
36	1	430	U	N3-C2-O2	-5.80	118.14	122.20
36	1	1112	A	O5'-P-OP2	-5.80	100.48	105.70
36	1	3135	U	C5-C6-N1	-5.80	119.80	122.70
1	6	1	U	N3-C2-O2	-5.80	118.14	122.20
36	1	1837	U	N1-C2-O2	-5.80	118.74	122.80
36	1	715	A	O4'-C1'-N9	5.80	112.84	108.20
36	1	2730	G	C6-C5-N7	-5.80	126.92	130.40
1	6	1745	G	N3-C4-N9	5.79	129.48	126.00
1	2	356	G	N1-C6-O6	5.79	123.38	119.90
36	1	907	G	C5-N7-C8	5.79	107.20	104.30
62	N6	76	LEU	CA-CB-CG	5.79	128.63	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	6	453	U	C6-N1-C2	-5.79	117.52	121.00
36	5	2923	U	C6-N1-C2	-5.79	117.52	121.00
38	8	88	A	C8-N9-C4	5.79	108.12	105.80
36	5	639	G	N1-C6-O6	5.79	123.38	119.90
1	2	1118	G	N1-C6-O6	5.79	123.37	119.90
36	1	1136	A	C5-C6-N1	5.79	120.59	117.70
36	5	1300	G	C5-C6-O6	-5.79	125.13	128.60
36	5	2278	C	C5-C6-N1	5.79	123.89	121.00
1	2	75	U	N3-C2-O2	-5.79	118.15	122.20
36	1	1192	C	C6-N1-C1'	-5.79	113.85	120.80
36	5	1375	G	O5'-P-OP2	-5.79	100.49	105.70
36	5	2552	C	N3-C2-O2	-5.79	117.85	121.90
36	1	2572	C	C6-N1-C1'	-5.79	113.86	120.80
36	1	608	A	N1-C6-N6	5.79	122.07	118.60
36	1	1330	A	C2-N3-C4	-5.79	107.71	110.60
36	1	2865	U	N3-C4-C5	5.79	118.07	114.60
36	1	2899	C	C2-N3-C4	-5.79	117.01	119.90
38	4	113	U	N1-C2-N3	5.79	118.37	114.90
1	6	982	U	C5-C6-N1	-5.79	119.81	122.70
36	5	960	U	N3-C4-O4	-5.79	115.35	119.40
36	5	2389	C	O5'-P-OP1	-5.79	100.49	105.70
36	5	2659	G	N1-C6-O6	5.79	123.37	119.90
36	1	1506	A	C5-C6-N6	5.78	128.33	123.70
36	5	1499	C	N3-C2-O2	5.78	125.95	121.90
36	5	1813	A	C8-N9-C4	-5.78	103.49	105.80
1	2	545	A	OP1-P-O3'	5.78	117.92	105.20
36	1	2406	C	N3-C2-O2	5.78	125.95	121.90
36	1	2590	A	N9-C4-C5	5.78	108.11	105.80
1	2	1745	G	C5-C6-N1	5.78	114.39	111.50
1	2	1779	U	C2-N1-C1'	-5.78	110.76	117.70
12	c0	97	PRO	N-CA-CB	5.78	110.24	103.30
36	5	867	G	N1-C6-O6	5.78	123.37	119.90
36	5	2865	U	C4-C5-C6	-5.78	116.23	119.70
36	5	3087	A	N9-C4-C5	5.78	108.11	105.80
36	5	2420	C	N3-C2-O2	5.78	125.94	121.90
36	5	1373	A	N1-C6-N6	5.78	122.07	118.60
36	1	1592	G	C5-C6-N1	-5.78	108.61	111.50
36	5	914	A	O5'-P-OP2	-5.78	100.50	105.70
36	5	1496	C	O5'-P-OP2	-5.78	100.50	105.70
36	5	2957	G	O4'-C1'-N9	-5.78	103.58	108.20
36	5	3092	C	C6-N1-C2	5.78	122.61	120.30
36	1	1190	A	C8-N9-C1'	-5.77	117.31	127.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	2603	G	N9-C4-C5	-5.77	103.09	105.40
1	2	501	U	OP1-P-O3'	5.77	117.90	105.20
21	c9	57	ARG	NE-CZ-NH1	5.77	123.19	120.30
38	8	51	G	C8-N9-C4	-5.77	104.09	106.40
36	1	2870	C	N3-C2-O2	5.77	125.94	121.90
1	6	542	A	N1-C6-N6	-5.77	115.14	118.60
36	1	410	U	C5-C6-N1	5.77	125.58	122.70
36	1	651	G	O5'-P-OP1	5.77	117.62	110.70
36	5	221	A	C8-N9-C4	5.77	108.11	105.80
36	5	834	U	C2-N1-C1'	-5.76	110.78	117.70
36	5	2943	G	C8-N9-C1'	-5.76	119.51	127.00
1	2	75	U	C2-N1-C1'	5.76	124.62	117.70
36	1	3016	A	N1-C6-N6	5.76	122.06	118.60
36	5	1507	G	N7-C8-N9	5.76	115.98	113.10
36	1	110	G	N9-C1'-C2'	-5.76	105.66	112.00
36	1	1400	G	N3-C4-C5	-5.76	125.72	128.60
36	1	2183	A	C6-N1-C2	-5.76	115.14	118.60
36	5	942	U	C6-N1-C2	-5.76	117.54	121.00
1	2	1114	G	N3-C4-N9	5.76	129.46	126.00
1	6	1537	C	C2-N1-C1'	-5.76	112.47	118.80
36	1	1419	A	O5'-P-OP1	5.76	117.61	110.70
36	1	2178	A	N1-C6-N6	-5.76	115.15	118.60
36	1	2875	U	N3-C2-O2	5.76	126.23	122.20
36	1	2697	A	N1-C6-N6	-5.75	115.15	118.60
36	5	906	A	OP1-P-O3'	5.75	117.86	105.20
1	2	1600	A	C6-C5-N7	-5.75	128.27	132.30
36	1	706	A	N9-C4-C5	-5.75	103.50	105.80
36	1	1445	U	C2-N1-C1'	-5.75	110.80	117.70
36	5	2875	U	N3-C4-O4	5.75	123.43	119.40
36	1	676	G	C8-N9-C1'	-5.75	119.52	127.00
36	1	1907	C	N3-C4-C5	-5.75	119.60	121.90
36	1	2398	A	C8-N9-C4	5.75	108.10	105.80
36	1	2639	G	N3-C4-C5	-5.75	125.72	128.60
36	5	1115	G	C8-N9-C1'	-5.75	119.52	127.00
36	5	3145	C	C5-C6-N1	-5.75	118.12	121.00
1	6	1739	C	N1-C2-O2	-5.75	115.45	118.90
36	5	1910	A	OP2-P-O3'	5.75	117.85	105.20
36	1	578	A	C5-C6-N6	-5.75	119.10	123.70
36	1	3110	C	C5-C6-N1	5.75	123.87	121.00
36	5	82	C	N3-C4-C5	-5.75	119.60	121.90
36	1	156	G	C5-C6-O6	-5.75	125.15	128.60
36	1	401	U	N1-C2-O2	5.75	126.82	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	2590	A	C8-N9-C4	-5.75	103.50	105.80
1	6	298	C	N1-C2-O2	-5.75	115.45	118.90
1	6	1745	G	C6-C5-N7	-5.75	126.95	130.40
36	5	639	G	C5-C6-N1	-5.75	108.63	111.50
36	5	2820	A	N7-C8-N9	5.75	116.67	113.80
36	1	948	C	O5'-P-OP1	5.75	117.59	110.70
36	5	2905	U	C2-N3-C4	-5.74	123.55	127.00
36	5	3052	G	C8-N9-C4	-5.74	104.10	106.40
36	5	3287	U	N3-C2-O2	-5.74	118.18	122.20
1	2	103	A	N1-C6-N6	5.74	122.04	118.60
36	1	55	G	N1-C6-O6	5.74	123.34	119.90
36	1	637	C	C6-N1-C2	5.74	122.60	120.30
36	1	1466	G	N3-C4-N9	5.74	129.44	126.00
1	6	1029	U	N3-C4-O4	-5.74	115.38	119.40
1	6	1745	G	C5-C6-O6	-5.74	125.16	128.60
36	5	41	G	N9-C4-C5	-5.74	103.10	105.40
36	5	2643	A	N1-C6-N6	5.74	122.04	118.60
1	2	720	G	OP1-P-O3'	5.74	117.82	105.20
36	1	432	G	C6-C5-N7	-5.74	126.96	130.40
36	1	3018	C	N1-C2-O2	-5.74	115.46	118.90
36	5	3197	G	N3-C4-C5	5.74	131.47	128.60
37	7	47	C	C5-C6-N1	-5.74	118.13	121.00
36	1	2904	U	O5'-P-OP2	-5.74	100.54	105.70
38	4	26	U	N3-C2-O2	-5.73	118.19	122.20
1	6	610	G	C4-N9-C1'	5.73	133.96	126.50
36	5	909	G	N1-C6-O6	-5.73	116.46	119.90
36	1	682	U	N1-C2-O2	5.73	126.81	122.80
36	1	2760	C	C6-N1-C2	-5.73	118.01	120.30
1	6	418	G	C4-C5-N7	5.73	113.09	110.80
36	5	3141	A	O5'-P-OP1	-5.73	100.54	105.70
36	5	3201	C	C6-N1-C2	-5.73	118.01	120.30
36	5	3335	A	C4-C5-N7	5.73	113.57	110.70
1	2	1664	C	O5'-P-OP2	-5.73	100.54	105.70
36	1	345	G	N1-C2-N2	-5.73	111.04	116.20
36	1	1175	C	C6-N1-C2	5.73	122.59	120.30
36	1	1662	G	N1-C6-O6	5.73	123.34	119.90
36	5	1848	G	OP1-P-OP2	5.73	128.20	119.60
36	5	2340	U	C5-C4-O4	-5.73	122.46	125.90
36	1	70	A	C4-C5-N7	5.73	113.56	110.70
36	1	1492	G	N3-C4-N9	5.73	129.44	126.00
36	1	3087	A	N1-C2-N3	5.73	132.16	129.30
1	6	1058	U	P-O3'-C3'	5.73	126.57	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	2333	C	C5-C6-N1	-5.73	118.14	121.00
36	5	2716	U	C6-N1-C2	-5.73	117.56	121.00
1	6	558	U	C2-N1-C1'	5.73	124.57	117.70
1	6	1700	C	N3-C2-O2	-5.73	117.89	121.90
15	C3	22	ALA	C-N-CA	5.72	146.05	122.00
36	1	2142	A	N3-C4-C5	-5.72	122.79	126.80
36	1	2617	U	N3-C4-O4	-5.72	115.39	119.40
36	5	2638	C	O5'-P-OP2	-5.72	100.55	105.70
36	5	2915	U	C5-C4-O4	-5.72	122.47	125.90
54	m8	174	ARG	NE-CZ-NH1	5.72	123.16	120.30
1	2	1291	G	N1-C2-N3	5.72	127.33	123.90
1	2	499	U	C2-N1-C1'	5.72	124.56	117.70
36	1	883	A	C6-N1-C2	-5.72	115.17	118.60
36	1	1713	G	N3-C4-N9	-5.72	122.57	126.00
36	1	2148	U	N3-C2-O2	5.72	126.20	122.20
36	5	215	G	N3-C4-C5	-5.72	125.74	128.60
36	1	908	G	N3-C2-N2	-5.72	115.90	119.90
1	2	610	G	C4-N9-C1'	5.72	133.93	126.50
36	1	1389	G	N1-C6-O6	5.72	123.33	119.90
1	6	1751	C	C2-N1-C1'	-5.72	112.51	118.80
36	5	1794	G	C8-N9-C4	5.72	108.69	106.40
36	1	220	G	C6-C5-N7	-5.71	126.97	130.40
36	1	2187	G	C8-N9-C4	-5.71	104.11	106.40
36	1	2298	U	N3-C4-O4	-5.71	115.40	119.40
36	5	942	U	N1-C2-O2	-5.71	118.80	122.80
37	7	105	C	C2-N1-C1'	5.71	125.09	118.80
36	5	1889	G	C5-C6-O6	-5.71	125.17	128.60
36	5	2707	C	N3-C4-C5	5.71	124.19	121.90
36	5	2954	U	N3-C4-O4	5.71	123.40	119.40
36	1	536	U	O5'-P-OP1	-5.71	100.56	105.70
36	1	1535	A	N1-C6-N6	5.71	122.03	118.60
36	1	1713	G	C4-N9-C1'	-5.71	119.08	126.50
36	1	1855	U	O5'-P-OP1	-5.71	100.56	105.70
36	1	2306	C	N3-C2-O2	-5.71	117.90	121.90
1	6	1772	C	C6-N1-C2	-5.71	118.02	120.30
36	5	1239	C	C5-C6-N1	5.71	123.86	121.00
36	1	2194	G	N1-C6-O6	5.71	123.33	119.90
36	1	3081	C	C5-C6-N1	-5.71	118.14	121.00
1	6	163	G	C8-N9-C4	-5.71	104.12	106.40
36	5	121	A	N1-C6-N6	5.71	122.03	118.60
1	2	1782	A	C8-N9-C4	-5.71	103.52	105.80
1	6	331	A	C8-N9-C4	5.71	108.08	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	6	378	A	N1-C2-N3	-5.71	126.45	129.30
36	5	1541	G	N9-C4-C5	-5.71	103.12	105.40
36	5	394	G	C4-C5-N7	-5.71	108.52	110.80
36	5	397	A	N9-C4-C5	5.71	108.08	105.80
36	5	2951	G	C8-N9-C1'	-5.71	119.58	127.00
37	7	83	U	C2-N1-C1'	-5.71	110.85	117.70
36	1	644	G	C5-C6-N1	-5.70	108.65	111.50
36	1	3344	A	C6-C5-N7	-5.70	128.31	132.30
36	5	3374	U	N3-C4-C5	5.70	118.02	114.60
36	1	1329	U	C2-N1-C1'	5.70	124.54	117.70
36	5	873	C	C4-C5-C6	5.70	120.25	117.40
36	1	388	G	C8-N9-C4	-5.70	104.12	106.40
36	1	2314	U	N1-C2-N3	-5.70	111.48	114.90
1	6	314	C	C6-N1-C2	-5.70	118.02	120.30
36	5	2757	U	N1-C2-O2	-5.70	118.81	122.80
36	1	2828	G	C4-N9-C1'	5.70	133.91	126.50
36	1	3242	G	C8-N9-C4	5.70	108.68	106.40
36	5	1897	G	C6-C5-N7	-5.70	126.98	130.40
36	1	191	U	OP2-P-O3'	5.70	117.73	105.20
36	1	228	U	C5-C6-N1	-5.70	119.85	122.70
36	1	1349	G	N3-C4-C5	-5.70	125.75	128.60
1	6	1539	G	O4'-C1'-N9	-5.70	103.64	108.20
36	5	2874	G	O5'-P-OP2	-5.70	100.57	105.70
36	1	2964	G	C4-C5-N7	-5.70	108.52	110.80
1	6	901	G	N1-C6-O6	5.70	123.32	119.90
36	5	859	G	N3-C4-N9	5.70	129.42	126.00
36	5	1473	G	C8-N9-C4	5.70	108.68	106.40
36	5	2830	G	N1-C2-N3	5.70	127.32	123.90
36	5	966	U	C2-N1-C1'	5.69	124.53	117.70
1	2	1658	G	N9-C4-C5	-5.69	103.12	105.40
36	1	1149	G	N3-C2-N2	-5.69	115.92	119.90
36	5	953	G	OP1-P-O3'	5.69	117.72	105.20
1	2	969	C	C6-N1-C2	5.69	122.58	120.30
36	1	988	U	C6-N1-C2	5.69	124.42	121.00
1	6	593	U	C6-N1-C2	-5.69	117.58	121.00
11	s9	149	ARG	NE-CZ-NH1	5.69	123.14	120.30
36	5	665	A	N1-C6-N6	5.69	122.01	118.60
36	5	2230	C	C6-N1-C2	5.69	122.58	120.30
36	5	2868	U	C2-N3-C4	5.69	130.41	127.00
36	5	2943	G	C4-N9-C1'	5.69	133.90	126.50
36	1	1932	A	N1-C6-N6	5.69	122.01	118.60
36	1	2325	G	N7-C8-N9	5.69	115.94	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	6	1698	G	C5-C6-O6	5.69	132.01	128.60
59	N3	87	ARG	NE-CZ-NH2	-5.69	117.46	120.30
1	6	1572	G	C8-N9-C4	-5.69	104.12	106.40
36	5	2821	C	C2-N3-C4	-5.69	117.06	119.90
36	1	191	U	C6-N1-C2	-5.69	117.59	121.00
36	1	690	A	N9-C4-C5	5.69	108.08	105.80
36	1	2828	G	N3-C2-N2	5.68	123.88	119.90
37	3	14	U	C6-N1-C2	5.68	124.41	121.00
36	5	2806	U	C5-C6-N1	-5.68	119.86	122.70
38	8	64	U	N3-C2-O2	-5.68	118.22	122.20
36	1	1148	G	C8-N9-C4	5.68	108.67	106.40
36	1	2514	U	O5'-P-OP1	-5.68	100.59	105.70
36	1	2662	G	N3-C4-C5	5.68	131.44	128.60
36	1	2944	U	N3-C2-O2	-5.68	118.22	122.20
36	5	2231	C	O4'-C1'-N1	5.68	112.75	108.20
14	C2	103	LEU	CA-CB-CG	5.68	128.37	115.30
1	6	1568	C	C6-N1-C2	-5.68	118.03	120.30
36	5	3089	C	C5-C6-N1	5.68	123.84	121.00
1	2	968	U	C5-C6-N1	-5.68	119.86	122.70
36	1	1329	U	N3-C2-O2	-5.68	118.22	122.20
36	5	2915	U	N3-C2-O2	5.68	126.18	122.20
36	1	3177	G	N1-C6-O6	5.68	123.31	119.90
36	5	1360	C	N1-C2-O2	-5.68	115.49	118.90
1	2	1292	G	N1-C6-O6	-5.68	116.49	119.90
36	1	232	G	N3-C4-N9	5.68	129.41	126.00
36	1	945	C	C6-N1-C2	5.68	122.57	120.30
36	1	1001	G	C5-C6-O6	-5.68	125.19	128.60
36	1	2607	G	N3-C2-N2	5.68	123.87	119.90
38	4	103	G	N3-C4-N9	5.68	129.41	126.00
36	5	207	U	N3-C2-O2	5.68	126.17	122.20
36	5	1294	A	N1-C6-N6	-5.68	115.19	118.60
36	1	895	A	C2-N3-C4	-5.67	107.76	110.60
36	5	768	C	C6-N1-C2	-5.67	118.03	120.30
36	5	2105	G	N1-C6-O6	5.67	123.30	119.90
36	1	934	G	C4-N9-C1'	5.67	133.87	126.50
36	1	1335	C	C5-C6-N1	-5.67	118.16	121.00
1	6	1656	U	O5'-P-OP2	-5.67	100.60	105.70
36	5	1303	A	C8-N9-C4	5.67	108.07	105.80
36	1	2381	G	C4-C5-C6	5.67	122.20	118.80
1	6	144	U	C2-N1-C1'	5.67	124.50	117.70
36	5	961	C	C2-N1-C1'	5.67	125.04	118.80
36	5	1099	A	C5-N7-C8	-5.67	101.06	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	2981	U	N3-C2-O2	-5.67	118.23	122.20
36	1	1206	G	C5-C6-N1	-5.67	108.67	111.50
36	5	2992	U	C5-C4-O4	-5.67	122.50	125.90
38	8	33	A	C8-N9-C4	5.67	108.07	105.80
52	m6	78	ARG	NE-CZ-NH2	-5.67	117.47	120.30
36	5	1079	A	C5-C6-N6	5.67	128.23	123.70
36	5	635	G	C4-C5-N7	5.67	113.07	110.80
40	l3	216	ASP	CB-CG-OD1	5.67	123.40	118.30
1	6	794	U	C2-N1-C1'	5.66	124.50	117.70
36	1	362	U	O5'-P-OP1	-5.66	100.60	105.70
36	1	790	U	N1-C2-O2	5.66	126.76	122.80
36	5	196	G	N9-C4-C5	-5.66	103.14	105.40
36	1	24	G	N1-C2-N3	5.66	127.30	123.90
36	1	1466	G	C8-N9-C1'	-5.66	119.64	127.00
36	1	2915	U	N3-C2-O2	5.66	126.16	122.20
1	6	104	A	O5'-P-OP2	-5.66	100.61	105.70
36	5	2388	U	C5-C4-O4	-5.66	122.50	125.90
36	5	2402	A	O4'-C1'-N9	5.66	112.73	108.20
36	5	2865	U	C2-N3-C4	5.66	130.40	127.00
36	1	670	C	N3-C4-C5	-5.66	119.64	121.90
36	1	1452	A	C8-N9-C4	5.66	108.06	105.80
36	5	2286	U	N1-C2-N3	5.66	118.30	114.90
36	5	2355	G	C4-C5-N7	5.66	113.06	110.80
36	5	2105	G	C5-C6-O6	-5.66	125.21	128.60
36	1	1346	G	N3-C2-N2	-5.66	115.94	119.90
36	1	1868	G	N3-C4-C5	-5.66	125.77	128.60
36	1	3143	C	N3-C2-O2	5.66	125.86	121.90
37	3	94	C	C6-N1-C2	5.66	122.56	120.30
1	6	1671	A	N1-C2-N3	5.66	132.13	129.30
36	5	922	U	N3-C4-C5	5.66	117.99	114.60
36	5	2632	G	O5'-P-OP1	-5.66	100.61	105.70
1	6	1614	A	N1-C6-N6	5.65	121.99	118.60
36	5	1476	G	N3-C4-N9	-5.65	122.61	126.00
36	5	2938	G	C4-C5-N7	-5.65	108.54	110.80
1	2	542	A	C4-N9-C1'	5.65	136.47	126.30
36	1	1520	G	C2-N3-C4	5.65	114.73	111.90
1	6	1730	A	C4-C5-C6	5.65	119.83	117.00
36	5	278	U	O5'-P-OP2	-5.65	100.61	105.70
36	5	1939	G	N3-C4-N9	5.65	129.39	126.00
36	5	3245	A	C4-C5-C6	5.65	119.83	117.00
36	1	2191	U	C5-C4-O4	5.65	129.29	125.90
1	6	1793	G	C5-C6-O6	5.65	131.99	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	639	G	C4-C5-C6	5.65	122.19	118.80
36	5	798	G	O5'-P-OP1	-5.65	100.61	105.70
36	5	2938	G	C6-C5-N7	5.65	133.79	130.40
36	5	3178	A	O5'-P-OP2	5.65	117.48	110.70
36	5	720	A	N1-C6-N6	5.65	121.99	118.60
36	5	1665	C	N1-C2-O2	5.65	122.29	118.90
36	1	1099	A	C6-C5-N7	-5.65	128.35	132.30
36	1	2815	G	C2-N3-C4	-5.65	109.08	111.90
36	5	2400	G	C4-C5-N7	5.65	113.06	110.80
36	5	3330	A	C6-N1-C2	-5.65	115.21	118.60
36	1	2148	U	C6-N1-C2	5.65	124.39	121.00
36	1	2284	C	C6-N1-C2	-5.64	118.04	120.30
36	1	2325	G	C5-C6-O6	-5.64	125.21	128.60
1	6	765	G	O4'-C1'-N9	-5.64	103.68	108.20
36	5	3042	U	N1-C2-O2	-5.64	118.85	122.80
36	5	3050	U	N1-C2-N3	5.64	118.29	114.90
36	1	619	A	C8-N9-C4	5.64	108.06	105.80
36	1	1330	A	N3-C4-C5	5.64	130.75	126.80
1	6	965	U	N1-C2-O2	5.64	126.75	122.80
36	5	2930	A	O4'-C1'-N9	5.64	112.71	108.20
36	5	3087	A	N1-C6-N6	-5.64	115.22	118.60
36	1	859	G	N9-C4-C5	-5.64	103.14	105.40
36	5	3150	A	C5-C6-N1	-5.64	114.88	117.70
1	2	1100	G	C4-C5-C6	5.64	122.18	118.80
36	5	644	G	N3-C4-C5	-5.64	125.78	128.60
36	5	2145	A	N7-C8-N9	5.64	116.62	113.80
36	5	3105	U	C6-N1-C1'	5.64	129.09	121.20
36	5	3119	U	O5'-P-OP2	-5.64	100.62	105.70
36	5	3330	A	N9-C4-C5	5.64	108.06	105.80
36	1	2836	C	N3-C2-O2	-5.64	117.95	121.90
36	1	2868	U	C2-N1-C1'	5.64	124.47	117.70
1	6	1	U	C6-N1-C1'	-5.64	113.31	121.20
36	5	684	G	O5'-P-OP2	-5.64	100.63	105.70
36	5	2917	G	C6-C5-N7	-5.64	127.02	130.40
1	2	1422	A	C8-N9-C4	5.64	108.06	105.80
36	5	403	C	C6-N1-C2	-5.64	118.05	120.30
36	5	662	U	N1-C2-N3	5.64	118.28	114.90
36	1	2325	G	C4-C5-N7	5.63	113.05	110.80
36	1	2976	A	C6-N1-C2	-5.63	115.22	118.60
36	5	1116	G	C8-N9-C4	-5.63	104.15	106.40
36	5	1135	A	C8-N9-C4	-5.63	103.55	105.80
36	5	2796	G	O5'-P-OP2	-5.63	100.63	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	2824	G	N1-C6-O6	5.63	123.28	119.90
36	5	1126	G	N1-C6-O6	5.63	123.28	119.90
36	5	2931	C	C5-C4-N4	-5.63	116.26	120.20
36	1	653	A	O5'-P-OP2	-5.63	100.63	105.70
36	5	2833	A	C8-N9-C4	5.63	108.05	105.80
36	1	3116	G	N3-C4-C5	-5.63	125.78	128.60
36	1	929	A	OP1-P-O3'	5.63	117.58	105.20
36	1	2815	G	N1-C6-O6	5.63	123.28	119.90
1	6	372	G	N3-C4-N9	5.63	129.38	126.00
36	1	2796	G	N7-C8-N9	5.63	115.91	113.10
36	5	754	G	N1-C6-O6	-5.63	116.52	119.90
36	5	1323	G	C5-N7-C8	-5.63	101.49	104.30
36	5	1448	U	C5-C6-N1	-5.63	119.89	122.70
36	5	2370	G	N3-C2-N2	-5.63	115.96	119.90
36	5	2719	U	C2-N1-C1'	-5.63	110.95	117.70
36	5	361	A	C6-C5-N7	5.62	136.24	132.30
36	5	1307	G	C2'-C3'-O3'	5.62	122.70	113.70
36	1	63	A	C8-N9-C4	-5.62	103.55	105.80
36	1	398	A	C2-N3-C4	5.62	113.41	110.60
36	5	1851	G	N1-C6-O6	5.62	123.27	119.90
36	5	2125	A	C8-N9-C4	-5.62	103.55	105.80
1	2	1176	G	C6-C5-N7	-5.62	127.03	130.40
1	2	1314	U	O4'-C1'-N1	5.62	112.70	108.20
36	1	946	U	N3-C4-O4	5.62	123.33	119.40
36	5	341	G	N3-C4-C5	5.62	131.41	128.60
36	5	968	G	OP1-P-OP2	5.62	128.03	119.60
36	1	2946	A	N1-C6-N6	5.62	121.97	118.60
36	1	3055	U	C5-C4-O4	-5.62	122.53	125.90
1	6	194	U	N3-C2-O2	-5.62	118.27	122.20
1	6	29	U	C6-N1-C2	-5.62	117.63	121.00
36	5	1081	U	N3-C2-O2	5.62	126.13	122.20
36	5	1520	G	N3-C4-C5	-5.62	125.79	128.60
36	5	2988	C	C2-N3-C4	-5.62	117.09	119.90
36	1	1520	G	C5-N7-C8	5.62	107.11	104.30
36	1	2372	A	N1-C6-N6	5.62	121.97	118.60
36	1	2643	A	O5'-P-OP2	5.62	117.44	110.70
1	6	295	A	C8-N9-C4	5.62	108.05	105.80
1	6	433	C	C5-C4-N4	-5.62	116.27	120.20
36	5	582	G	N1-C6-O6	-5.62	116.53	119.90
36	1	2138	A	C6-C5-N7	-5.61	128.37	132.30
36	5	1495	U	C2-N1-C1'	5.61	124.44	117.70
36	5	1548	C	C6-N1-C2	-5.61	118.06	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	2682	C	N1-C1'-C2'	-5.61	105.83	112.00
1	2	1339	C	P-O3'-C3'	5.61	126.43	119.70
36	1	390	G	N1-C6-O6	-5.61	116.53	119.90
1	6	424	C	C6-N1-C1'	-5.61	114.07	120.80
36	5	835	G	N3-C2-N2	5.61	123.83	119.90
36	5	1315	U	N3-C4-O4	5.61	123.33	119.40
36	1	2777	G	C8-N9-C4	-5.61	104.16	106.40
36	5	1170	A	C8-N9-C4	5.61	108.04	105.80
36	5	1302	A	O5'-P-OP2	5.61	117.43	110.70
36	5	2699	G	N9-C4-C5	-5.61	103.16	105.40
36	1	1488	G	N3-C2-N2	-5.61	115.97	119.90
36	1	2702	A	N9-C4-C5	5.61	108.04	105.80
36	1	2846	U	N1-C2-N3	5.61	118.26	114.90
1	6	21	U	N3-C4-O4	5.61	123.33	119.40
36	5	1881	A	N1-C6-N6	5.61	121.97	118.60
36	5	2887	A	OP2-P-O3'	5.61	117.53	105.20
36	1	860	G	N1-C6-O6	5.61	123.26	119.90
36	1	2233	A	N1-C6-N6	-5.61	115.24	118.60
36	1	2302	G	N3-C4-C5	-5.61	125.80	128.60
36	1	2986	U	C5-C6-N1	-5.61	119.90	122.70
36	1	3277	U	N1-C2-O2	5.61	126.72	122.80
1	6	337	G	N3-C2-N2	5.61	123.82	119.90
1	6	352	A	OP2-P-O3'	5.61	117.53	105.20
36	5	1101	G	N9-C4-C5	-5.61	103.16	105.40
36	5	1330	A	N1-C6-N6	5.61	121.96	118.60
36	5	1483	G	O4'-C1'-N9	5.61	112.68	108.20
36	1	1514	G	C4-C5-C6	5.60	122.16	118.80
36	1	1724	U	O5'-P-OP1	5.60	117.42	110.70
36	1	2607	G	N3-C4-N9	5.60	129.36	126.00
36	1	2808	A	N9-C4-C5	-5.60	103.56	105.80
1	2	144	U	N1-C2-N3	5.60	118.26	114.90
36	1	2814	G	O5'-P-OP1	-5.60	100.66	105.70
1	6	535	A	N1-C6-N6	5.60	121.96	118.60
1	6	992	A	C5-C6-N6	-5.60	119.22	123.70
1	6	1027	A	C2-N3-C4	-5.60	107.80	110.60
36	5	2201	G	C2-N3-C4	5.60	114.70	111.90
36	5	2738	A	O5'-P-OP2	-5.60	100.66	105.70
36	5	2927	C	OP2-P-O3'	5.60	117.53	105.20
1	2	608	U	N3-C2-O2	-5.60	118.28	122.20
36	1	694	C	O5'-P-OP2	-5.60	100.66	105.70
36	5	871	U	C5-C4-O4	5.60	129.26	125.90
36	5	1460	A	C8-N9-C4	-5.60	103.56	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	2359	C	C2-N3-C4	-5.60	117.10	119.90
36	5	3050	U	N3-C2-O2	-5.60	118.28	122.20
36	5	3362	A	C2-N3-C4	-5.60	107.80	110.60
37	7	26	C	C4-C5-C6	5.60	120.20	117.40
36	1	1124	U	N3-C4-O4	-5.60	115.48	119.40
1	6	99	C	C6-N1-C2	-5.60	118.06	120.30
36	5	2954	U	N1-C2-O2	5.60	126.72	122.80
36	5	3078	U	C2-N1-C1'	5.60	124.42	117.70
36	1	651	G	C5-N7-C8	5.60	107.10	104.30
36	1	2383	C	N3-C4-C5	5.60	124.14	121.90
36	5	362	U	C5-C6-N1	5.60	125.50	122.70
36	5	649	A	O5'-P-OP2	-5.60	100.66	105.70
36	5	1379	G	C2-N3-C4	-5.60	109.10	111.90
36	5	2774	C	N3-C4-C5	-5.60	119.66	121.90
36	1	1367	G	N1-C6-O6	5.59	123.26	119.90
36	1	1885	U	C5-C6-N1	-5.59	119.90	122.70
36	1	2624	G	C8-N9-C4	-5.59	104.16	106.40
36	5	1391	C	N3-C4-C5	-5.59	119.66	121.90
36	1	49	A	N9-C4-C5	-5.59	103.56	105.80
36	1	1154	A	N1-C2-N3	5.59	132.10	129.30
36	1	1932	A	C5-C6-N6	-5.59	119.22	123.70
36	5	2376	G	N1-C2-N3	5.59	127.26	123.90
36	1	790	U	N3-C4-O4	-5.59	115.49	119.40
36	1	1150	A	C8-N9-C4	5.59	108.04	105.80
36	1	2112	U	P-O3'-C3'	5.59	126.41	119.70
36	1	2279	A	C8-N9-C4	5.59	108.04	105.80
36	1	2827	U	C2-N3-C4	-5.59	123.64	127.00
1	6	101	U	N1-C2-O2	5.59	126.71	122.80
36	5	1001	G	O5'-P-OP2	5.59	117.41	110.70
1	2	1176	G	N1-C6-O6	5.59	123.25	119.90
36	1	395	A	O5'-P-OP2	-5.59	100.67	105.70
36	1	1136	A	C6-N1-C2	-5.59	115.25	118.60
36	1	1168	U	C5-C4-O4	5.59	129.25	125.90
36	1	1713	G	C6-C5-N7	5.59	133.75	130.40
36	1	2550	U	N3-C2-O2	-5.59	118.29	122.20
36	5	41	G	N3-C4-C5	5.59	131.39	128.60
36	5	694	C	N1-C2-N3	5.59	123.11	119.20
36	5	3110	C	N3-C4-C5	5.59	124.14	121.90
36	5	3177	G	C8-N9-C4	5.59	108.64	106.40
38	4	21	C	C6-N1-C2	5.59	122.53	120.30
36	1	95	A	C8-N9-C4	5.59	108.03	105.80
36	1	2957	G	N9-C4-C5	5.59	107.64	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	1338	C	N3-C4-N4	5.59	121.91	118.00
36	1	1332	A	OP2-P-O3'	5.58	117.49	105.20
1	6	1562	G	N1-C6-O6	5.58	123.25	119.90
1	6	1793	G	C4-N9-C1'	-5.58	119.24	126.50
36	5	3317	U	N3-C2-O2	-5.58	118.29	122.20
36	1	802	C	N1-C2-O2	-5.58	115.55	118.90
36	1	2278	C	N1-C2-O2	5.58	122.25	118.90
38	4	88	A	C4-C5-N7	5.58	113.49	110.70
1	6	571	G	C8-N9-C4	-5.58	104.17	106.40
36	5	507	U	N3-C4-O4	5.58	123.31	119.40
36	1	2356	A	C4-C5-N7	5.58	113.49	110.70
36	1	2826	U	C5-C4-O4	-5.58	122.55	125.90
1	6	1655	A	N1-C6-N6	5.58	121.95	118.60
36	5	2201	G	N3-C4-N9	5.58	129.35	126.00
1	6	425	A	OP2-P-O3'	5.58	117.48	105.20
36	1	2403	G	C6-C5-N7	-5.58	127.05	130.40
1	6	29	U	N3-C4-C5	-5.58	111.25	114.60
36	5	2329	C	O5'-P-OP2	-5.58	100.68	105.70
36	5	2336	U	N3-C2-O2	-5.58	118.30	122.20
36	5	3043	C	N3-C4-C5	5.58	124.13	121.90
36	1	577	C	N1-C2-O2	-5.58	115.55	118.90
36	1	1396	C	C6-N1-C2	5.58	122.53	120.30
1	2	1109	G	C8-N9-C4	-5.58	104.17	106.40
36	1	703	G	N3-C4-C5	5.58	131.39	128.60
36	1	1134	G	N3-C4-C5	-5.58	125.81	128.60
36	1	3039	C	C6-N1-C2	-5.58	118.07	120.30
36	5	2315	G	C5-C6-O6	5.58	131.94	128.60
36	5	2915	U	C6-N1-C2	5.58	124.34	121.00
54	m8	104	LEU	CA-CB-CG	5.58	128.12	115.30
36	5	859	G	N3-C4-C5	-5.57	125.81	128.60
36	5	2358	A	C2-N3-C4	-5.57	107.81	110.60
36	5	3140	G	C5-C6-O6	-5.57	125.26	128.60
36	5	799	G	C8-N9-C4	5.57	108.63	106.40
1	2	1258	U	C2-N1-C1'	5.57	124.39	117.70
36	1	1097	G	P-O3'-C3'	5.57	126.38	119.70
1	6	418	G	O5'-P-OP1	-5.57	100.69	105.70
36	5	1316	C	C5-C6-N1	5.57	123.78	121.00
78	q2	17	CYS	CA-CB-SG	5.57	124.03	114.00
36	5	2723	U	O5'-P-OP2	-5.57	100.69	105.70
36	1	1829	G	N9-C4-C5	5.57	107.63	105.40
36	1	3038	U	N3-C2-O2	5.57	126.10	122.20
36	5	1176	C	N1-C2-O2	-5.57	115.56	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	1898	G	O4'-C1'-N9	5.57	112.65	108.20
1	2	15	U	C5-C6-N1	5.57	125.48	122.70
1	2	1174	C	N1-C2-O2	5.57	122.24	118.90
36	1	903	U	N3-C4-C5	-5.57	111.26	114.60
36	1	1842	A	N1-C6-N6	-5.57	115.26	118.60
36	5	2531	C	C2-N1-C1'	5.57	124.92	118.80
1	2	608	U	N1-C2-N3	5.56	118.24	114.90
37	3	48	U	C2-N1-C1'	5.56	124.38	117.70
36	5	1127	G	C8-N9-C4	-5.56	104.17	106.40
36	5	2327	U	C5-C6-N1	-5.56	119.92	122.70
36	5	2708	C	N3-C4-C5	5.56	124.12	121.90
36	1	2702	A	C5-C6-N6	5.56	128.15	123.70
1	6	65	A	C4-C5-N7	5.56	113.48	110.70
1	2	632	U	N3-C4-O4	-5.56	115.51	119.40
36	1	672	A	N1-C6-N6	5.56	121.94	118.60
36	1	808	A	C8-N9-C4	5.56	108.02	105.80
36	5	920	A	OP1-P-OP2	-5.56	111.26	119.60
36	5	2951	G	N3-C4-C5	-5.56	125.82	128.60
37	3	89	G	C8-N9-C4	5.56	108.62	106.40
1	6	144	U	N1-C2-O2	5.56	126.69	122.80
36	5	365	A	O5'-P-OP1	-5.56	100.70	105.70
36	5	1489	A	C4-C5-C6	5.56	119.78	117.00
36	5	3044	G	C8-N9-C4	-5.56	104.18	106.40
36	1	356	C	N1-C2-O2	-5.56	115.57	118.90
1	6	350	U	C5-C6-N1	-5.56	119.92	122.70
36	5	1316	C	N3-C2-O2	5.56	125.79	121.90
36	5	2205	U	C2-N1-C1'	5.56	124.37	117.70
1	2	380	U	N1-C2-O2	5.55	126.69	122.80
1	2	765	G	O4'-C1'-N9	-5.55	103.76	108.20
36	5	612	U	O5'-P-OP2	5.55	117.36	110.70
36	5	1040	A	N1-C6-N6	-5.55	115.27	118.60
36	5	1665	C	N3-C2-O2	-5.55	118.01	121.90
36	5	2404	A	N1-C6-N6	5.55	121.93	118.60
36	5	3317	U	P-O3'-C3'	5.55	126.37	119.70
36	5	1012	G	C8-N9-C1'	5.55	134.22	127.00
37	3	89	G	N3-C4-N9	5.55	129.33	126.00
1	6	1152	A	C5-C6-N6	-5.55	119.26	123.70
36	5	207	U	C5-C4-O4	-5.55	122.57	125.90
36	5	1126	G	C4-C5-C6	5.55	122.13	118.80
36	5	2866	U	C6-N1-C2	-5.55	117.67	121.00
36	1	285	A	N1-C2-N3	5.55	132.07	129.30
36	1	941	G	C8-N9-C4	-5.55	104.18	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	2964	G	O4'-C1'-N9	5.55	112.64	108.20
1	6	1745	G	C8-N9-C4	5.55	108.62	106.40
36	5	358	G	N1-C6-O6	5.55	123.23	119.90
36	5	2659	G	C5-C6-O6	-5.55	125.27	128.60
54	m8	166	LEU	CB-CG-CD1	-5.55	101.56	111.00
36	1	1339	C	C2-N3-C4	-5.55	117.13	119.90
36	1	1369	A	C8-N9-C4	-5.55	103.58	105.80
36	1	2808	A	O4'-C1'-N9	-5.55	103.76	108.20
36	1	942	U	N3-C4-C5	-5.55	111.27	114.60
36	1	1906	G	C6-C5-N7	-5.55	127.07	130.40
36	5	2295	A	N9-C4-C5	5.55	108.02	105.80
36	1	641	C	C5-C6-N1	5.54	123.77	121.00
36	1	1506	A	N9-C4-C5	5.54	108.02	105.80
36	1	517	G	C5-C6-O6	5.54	131.93	128.60
36	1	837	A	N1-C6-N6	5.54	121.93	118.60
1	6	402	C	C5-C6-N1	-5.54	118.23	121.00
36	5	2112	U	P-O3'-C3'	5.54	126.35	119.70
36	1	611	A	C4-C5-N7	5.54	113.47	110.70
36	1	937	G	N9-C4-C5	-5.54	103.18	105.40
36	1	945	C	N3-C4-C5	5.54	124.12	121.90
36	1	1129	A	N1-C6-N6	5.54	121.92	118.60
36	1	1330	A	C8-N9-C4	5.54	108.02	105.80
36	1	1351	U	N3-C2-O2	-5.54	118.32	122.20
36	1	1450	G	N9-C4-C5	-5.54	103.18	105.40
36	1	2823	G	C4-C5-N7	-5.54	108.58	110.80
36	5	869	G	N3-C2-N2	5.54	123.78	119.90
36	5	1939	G	C6-C5-N7	-5.54	127.08	130.40
36	1	1200	A	N7-C8-N9	-5.54	111.03	113.80
36	5	429	U	C5-C6-N1	-5.54	119.93	122.70
36	1	3242	G	O4'-C1'-N9	-5.54	103.77	108.20
1	6	813	U	C6-N1-C1'	-5.54	113.45	121.20
36	5	2845	A	N7-C8-N9	5.54	116.57	113.80
1	2	48	G	OP2-P-O3'	5.54	117.38	105.20
36	1	716	A	C5-C6-N6	-5.54	119.27	123.70
36	1	959	C	C2-N3-C4	-5.54	117.13	119.90
1	6	555	A	C8-N9-C4	-5.54	103.59	105.80
36	5	1403	C	C5-C4-N4	-5.54	116.33	120.20
1	2	16	G	N3-C4-C5	-5.53	125.83	128.60
36	1	830	A	C8-N9-C4	-5.53	103.59	105.80
36	1	3208	G	C8-N9-C4	5.53	108.61	106.40
36	1	984	G	C6-N1-C2	-5.53	121.78	125.10
36	5	3032	A	C8-N9-C4	-5.53	103.59	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	2901	G	C6-C5-N7	-5.53	127.08	130.40
36	5	1101	G	C4-N9-C1'	5.53	133.69	126.50
36	5	514	G	C4-C5-N7	5.53	113.01	110.80
36	5	634	C	OP2-P-O3'	5.53	117.36	105.20
36	1	91	G	N9-C4-C5	-5.53	103.19	105.40
36	1	1157	G	OP2-P-O3'	5.53	117.36	105.20
36	1	2748	A	C2-N3-C4	-5.53	107.84	110.60
1	6	1389	C	N3-C2-O2	-5.53	118.03	121.90
36	5	523	A	O5'-P-OP2	-5.53	100.73	105.70
36	5	3176	G	C4-C5-N7	-5.53	108.59	110.80
36	1	195	U	N3-C2-O2	-5.53	118.33	122.20
36	1	269	G	N3-C4-N9	-5.53	122.69	126.00
1	6	647	G	N3-C4-N9	-5.53	122.68	126.00
1	6	1337	A	C8-N9-C4	5.53	108.01	105.80
36	5	817	A	C6-C5-N7	-5.53	128.43	132.30
36	5	967	A	N9-C4-C5	5.53	108.01	105.80
36	5	2248	C	OP1-P-O3'	5.53	117.36	105.20
36	5	3215	A	C2-N3-C4	-5.53	107.84	110.60
36	5	1131	G	C5-C6-N1	-5.52	108.74	111.50
36	5	1428	A	N1-C6-N6	-5.52	115.29	118.60
36	1	829	U	C2-N1-C1'	5.52	124.33	117.70
36	1	1331	U	N3-C2-O2	-5.52	118.33	122.20
36	1	2273	G	N3-C4-C5	5.52	131.36	128.60
36	5	1190	A	C8-N9-C4	-5.52	103.59	105.80
36	5	1319	G	N3-C4-C5	-5.52	125.84	128.60
36	1	1115	G	OP1-P-O3'	5.52	117.34	105.20
12	c0	88	PRO	N-CA-CB	5.52	109.92	103.30
36	1	901	G	C8-N9-C4	5.52	108.61	106.40
36	1	947	G	C5-C6-N1	-5.52	108.74	111.50
36	1	48	A	O4'-C1'-N9	5.52	112.61	108.20
36	1	220	G	C5-N7-C8	-5.52	101.54	104.30
36	1	1124	U	C4-C5-C6	-5.52	116.39	119.70
36	1	1190	A	C4-C5-C6	5.52	119.76	117.00
36	1	1796	G	N3-C4-C5	-5.52	125.84	128.60
36	1	2805	G	N9-C4-C5	-5.52	103.19	105.40
36	5	75	G	C5-C6-O6	-5.52	125.29	128.60
36	5	784	A	N9-C4-C5	-5.52	103.59	105.80
36	5	1534	A	N3-C4-C5	-5.52	122.94	126.80
36	1	1389	G	C6-C5-N7	-5.52	127.09	130.40
1	6	426	G	C4-N9-C1'	5.52	133.67	126.50
1	6	639	U	N3-C2-O2	-5.52	118.34	122.20
1	2	88	U	N3-C2-O2	-5.51	118.34	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	641	C	C4-C5-C6	-5.51	114.64	117.40
36	1	1399	A	O5'-P-OP1	5.51	117.32	110.70
36	1	2555	G	N3-C4-N9	-5.51	122.69	126.00
1	6	1097	U	P-O3'-C3'	5.51	126.32	119.70
36	5	959	C	N3-C4-C5	-5.51	119.69	121.90
36	5	1900	A	C4-C5-N7	5.51	113.46	110.70
36	5	2245	C	N3-C2-O2	-5.51	118.04	121.90
1	6	338	C	C5-C6-N1	5.51	123.76	121.00
36	5	1208	U	N3-C2-O2	-5.51	118.34	122.20
36	5	2531	C	N1-C2-O2	5.51	122.21	118.90
1	2	1560	U	C5-C4-O4	5.51	129.21	125.90
36	1	2371	G	OP1-P-O3'	5.51	117.32	105.20
36	1	2430	A	C8-N9-C4	-5.51	103.60	105.80
1	6	1614	A	N1-C2-N3	5.51	132.06	129.30
36	5	1193	A	N1-C6-N6	5.51	121.91	118.60
36	5	1398	U	C5-C4-O4	5.51	129.21	125.90
36	5	2874	G	C5-C6-N1	-5.51	108.74	111.50
28	d6	10	ARG	NE-CZ-NH1	-5.51	117.55	120.30
36	5	3309	G	C4-N9-C1'	5.51	133.66	126.50
1	2	734	A	OP1-P-O3'	5.51	117.32	105.20
36	5	868	C	C6-N1-C2	5.51	122.50	120.30
36	5	1390	A	C5-C6-N6	5.51	128.11	123.70
1	2	15	U	C2-N1-C1'	5.51	124.31	117.70
1	2	349	U	C5-C6-N1	-5.51	119.95	122.70
36	1	2278	C	N3-C4-N4	-5.51	114.14	118.00
36	5	40	A	O5'-P-OP1	-5.51	100.74	105.70
36	5	1101	G	N1-C2-N2	-5.51	111.24	116.20
36	1	2858	U	OP2-P-O3'	5.50	117.31	105.20
3	s1	47	LEU	CA-CB-CG	5.50	127.96	115.30
36	5	2914	G	N3-C4-N9	5.50	129.30	126.00
36	1	432	G	N9-C4-C5	-5.50	103.20	105.40
36	1	859	G	N3-C4-N9	5.50	129.30	126.00
36	1	1164	G	C4-N9-C1'	5.50	133.65	126.50
36	1	1346	G	O5'-P-OP2	-5.50	100.75	105.70
36	5	1012	G	C8-N9-C4	5.50	108.60	106.40
36	5	1064	A	N1-C6-N6	5.50	121.90	118.60
36	5	2634	U	N1-C2-N3	5.50	118.20	114.90
1	2	934	C	C6-N1-C1'	-5.50	114.20	120.80
36	1	919	U	N3-C4-C5	5.50	117.90	114.60
36	1	1175	C	C5-C6-N1	-5.50	118.25	121.00
36	5	2887	A	C4-C5-C6	5.50	119.75	117.00
36	5	3000	A	C8-N9-C4	5.50	108.00	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	3131	U	N3-C4-O4	-5.50	115.55	119.40
1	2	1412	G	C8-N9-C1'	5.50	134.15	127.00
36	1	289	A	C5-C6-N6	-5.50	119.30	123.70
36	1	804	C	C2-N3-C4	-5.50	117.15	119.90
36	1	968	G	C6-N1-C2	-5.50	121.80	125.10
36	1	2121	G	N1-C2-N2	-5.50	111.25	116.20
36	1	2513	U	OP1-P-O3'	5.50	117.30	105.20
36	1	3214	U	C2-N1-C1'	5.50	124.30	117.70
1	6	119	A	N3-C4-C5	5.50	130.65	126.80
1	6	424	C	C2-N1-C1'	5.50	124.85	118.80
36	5	648	C	O5'-P-OP1	-5.50	100.75	105.70
36	5	2334	U	N1-C2-N3	5.50	118.20	114.90
36	5	2683	U	N1-C2-O2	5.50	126.65	122.80
36	1	25	U	N1-C2-O2	-5.50	118.95	122.80
36	1	919	U	N1-C2-O2	5.50	126.65	122.80
36	1	1303	A	N9-C4-C5	-5.50	103.60	105.80
36	1	2153	U	C6-N1-C2	-5.50	117.70	121.00
1	6	1100	G	N3-C4-C5	-5.50	125.85	128.60
1	6	1355	C	C6-N1-C2	-5.50	118.10	120.30
36	5	669	U	N3-C2-O2	-5.50	118.35	122.20
36	5	981	U	C6-N1-C2	-5.50	117.70	121.00
36	5	3203	U	O5'-P-OP1	-5.50	100.75	105.70
36	5	3339	A	N9-C4-C5	-5.50	103.60	105.80
36	1	340	C	C2-N1-C1'	5.50	124.84	118.80
36	1	947	G	C6-C5-N7	-5.50	127.10	130.40
36	1	2733	A	O5'-P-OP1	5.50	117.29	110.70
1	6	609	U	C5-C6-N1	-5.50	119.95	122.70
1	2	421	A	N9-C4-C5	-5.49	103.60	105.80
36	1	796	U	N1-C2-O2	-5.49	118.95	122.80
36	1	1428	A	C2-N3-C4	-5.49	107.85	110.60
36	5	1450	G	C5-N7-C8	-5.49	101.55	104.30
36	5	2295	A	C6-N1-C2	-5.49	115.30	118.60
1	6	1117	U	C6-N1-C2	-5.49	117.70	121.00
1	6	1306	C	C5-C6-N1	5.49	123.75	121.00
36	5	1931	U	N3-C4-O4	-5.49	115.56	119.40
1	6	523	G	C8-N9-C4	5.49	108.60	106.40
1	6	1100	G	N3-C4-N9	5.49	129.29	126.00
36	5	2199	G	C8-N9-C1'	-5.49	119.86	127.00
1	2	1202	A	C8-N9-C4	-5.49	103.61	105.80
36	1	704	U	O5'-P-OP2	-5.49	100.76	105.70
36	1	2336	U	C6-N1-C2	5.49	124.29	121.00
36	5	2374	C	N1-C2-O2	-5.49	115.61	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	7	41	G	C8-N9-C1'	-5.49	119.87	127.00
36	1	2391	G	C4-C5-N7	-5.49	108.61	110.80
36	1	2901	G	N1-C6-O6	5.49	123.19	119.90
1	6	1025	A	C8-N9-C4	5.49	108.00	105.80
1	6	1025	A	N9-C4-C5	-5.49	103.61	105.80
1	2	1033	C	N3-C2-O2	-5.49	118.06	121.90
38	4	82	U	N1-C2-O2	-5.49	118.96	122.80
1	6	337	G	C4-C5-C6	5.49	122.09	118.80
36	5	2372	A	C4-C5-C6	5.49	119.74	117.00
1	2	942	G	C8-N9-C4	-5.48	104.21	106.40
36	1	939	U	N3-C2-O2	5.48	126.04	122.20
1	6	536	C	C5-C6-N1	5.48	123.74	121.00
1	6	1456	C	C4-C5-C6	5.48	120.14	117.40
1	2	378	A	N1-C6-N6	5.48	121.89	118.60
36	1	2402	A	O5'-P-OP2	-5.48	100.77	105.70
56	N0	167	ARG	N-CA-C	-5.48	96.20	111.00
36	5	170	G	C4-N9-C1'	5.48	133.62	126.50
36	5	2246	G	O5'-P-OP1	-5.48	100.77	105.70
36	5	2800	G	N3-C4-N9	-5.48	122.71	126.00
1	2	720	G	P-O3'-C3'	5.48	126.28	119.70
36	1	2812	C	OP1-P-O3'	5.48	117.25	105.20
1	6	1680	G	C5-C6-N1	5.48	114.24	111.50
36	1	2552	C	O4'-C1'-N1	5.48	112.58	108.20
36	1	2639	G	N1-C6-O6	5.48	123.19	119.90
36	5	1881	A	C5-C6-N6	-5.48	119.32	123.70
1	6	163	G	C5-N7-C8	-5.48	101.56	104.30
36	5	1124	U	N3-C4-O4	-5.48	115.57	119.40
36	5	2290	C	C5-C6-N1	-5.48	118.26	121.00
36	1	1514	G	N3-C4-N9	5.47	129.28	126.00
36	1	3024	A	O5'-P-OP1	-5.47	100.77	105.70
1	6	163	G	N9-C4-C5	5.47	107.59	105.40
1	6	1412	G	C4-N9-C1'	-5.47	119.38	126.50
36	5	518	G	C5-C6-O6	-5.47	125.31	128.60
36	5	1294	A	O4'-C1'-N9	5.47	112.58	108.20
1	2	145	A	C8-N9-C4	-5.47	103.61	105.80
36	1	967	A	N1-C2-N3	5.47	132.04	129.30
36	1	1389	G	N3-C2-N2	5.47	123.73	119.90
36	1	2836	C	C4-C5-C6	5.47	120.14	117.40
36	1	3266	G	N3-C2-N2	-5.47	116.07	119.90
1	6	639	U	N1-C2-O2	5.47	126.63	122.80
1	6	1162	C	C6-N1-C2	-5.47	118.11	120.30
36	5	1468	A	C4-C5-N7	5.47	113.44	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	1528	G	N3-C4-C5	-5.47	125.86	128.60
36	5	2875	U	N1-C2-N3	-5.47	111.62	114.90
36	5	2877	G	N3-C2-N2	5.47	123.73	119.90
36	5	2962	U	N1-C2-O2	-5.47	118.97	122.80
36	5	3140	G	N1-C6-O6	5.47	123.18	119.90
36	1	63	A	N9-C4-C5	5.47	107.99	105.80
36	1	1425	U	C5-C4-O4	5.47	129.18	125.90
36	1	2937	G	C8-N9-C4	5.47	108.59	106.40
36	1	2948	C	N3-C4-C5	5.47	124.09	121.90
1	6	354	C	C5-C6-N1	5.47	123.73	121.00
36	1	2369	G	N3-C4-N9	5.47	129.28	126.00
37	3	8	G	C4-C5-N7	-5.47	108.61	110.80
1	6	1085	G	C5-C6-O6	5.47	131.88	128.60
1	6	1776	A	N1-C6-N6	5.47	121.88	118.60
36	5	585	A	C2-N3-C4	-5.47	107.87	110.60
36	5	980	A	N1-C6-N6	-5.47	115.32	118.60
37	7	88	G	N1-C6-O6	-5.47	116.62	119.90
38	8	87	G	N3-C4-N9	5.47	129.28	126.00
1	2	1137	A	C8-N9-C4	5.47	107.99	105.80
36	1	72	C	C2-N1-C1'	-5.47	112.79	118.80
36	1	994	G	N1-C6-O6	-5.47	116.62	119.90
36	1	2516	U	N1-C2-N3	5.47	118.18	114.90
1	6	1346	A	O4'-C1'-N9	5.47	112.57	108.20
36	5	2719	U	C5-C6-N1	-5.47	119.97	122.70
1	2	608	U	N3-C4-O4	-5.46	115.57	119.40
1	2	1026	A	O5'-P-OP1	-5.46	100.78	105.70
36	1	107	A	C4-C5-N7	5.46	113.43	110.70
36	1	335	G	N1-C6-O6	5.46	123.18	119.90
36	1	2145	A	C8-N9-C4	-5.46	103.61	105.80
1	6	318	U	O5'-P-OP2	-5.46	100.78	105.70
1	6	1361	U	N1-C2-O2	5.46	126.63	122.80
36	1	279	U	OP1-P-O3'	5.46	117.22	105.20
1	6	1640	C	C6-N1-C1'	-5.46	114.24	120.80
36	5	3372	A	C8-N9-C4	-5.46	103.61	105.80
36	1	701	G	N1-C6-O6	5.46	123.18	119.90
1	6	1697	G	N3-C4-N9	5.46	129.28	126.00
36	5	106	A	C8-N9-C4	5.46	107.98	105.80
36	5	665	A	C5-C6-N6	-5.46	119.33	123.70
36	5	969	C	OP1-P-O3'	5.46	117.21	105.20
36	5	2552	C	C2-N1-C1'	5.46	124.81	118.80
36	1	329	U	C6-N1-C2	-5.46	117.72	121.00
36	1	659	G	OP2-P-O3'	5.46	117.21	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	121	A	C8-N9-C4	5.46	107.98	105.80
36	5	906	A	N9-C4-C5	5.46	107.98	105.80
36	5	2376	G	C5-C6-O6	-5.46	125.32	128.60
36	1	2642	A	C6-N1-C2	5.46	121.88	118.60
36	1	2984	C	C5-C4-N4	5.46	124.02	120.20
36	5	994	G	OP1-P-O3'	5.46	117.21	105.20
1	2	89	G	N3-C4-C5	5.46	131.33	128.60
1	2	794	U	N3-C2-O2	-5.46	118.38	122.20
1	6	687	G	N3-C4-N9	-5.46	122.73	126.00
1	6	1698	G	N1-C6-O6	-5.46	116.63	119.90
36	5	677	A	C8-N9-C4	-5.46	103.62	105.80
36	1	642	U	C6-N1-C2	-5.46	117.73	121.00
36	1	2636	A	C5-N7-C8	-5.46	101.17	103.90
36	1	2175	U	C5-C4-O4	5.45	129.17	125.90
1	6	1562	G	C5-C6-O6	-5.45	125.33	128.60
36	5	969	C	C2-N3-C4	-5.45	117.17	119.90
36	1	619	A	N9-C4-C5	-5.45	103.62	105.80
36	1	1351	U	N1-C2-O2	5.45	126.61	122.80
36	5	1138	U	C5-C4-O4	-5.45	122.63	125.90
36	5	1301	A	N9-C4-C5	-5.45	103.62	105.80
1	2	1280	C	C6-N1-C2	-5.45	118.12	120.30
36	1	200	C	N1-C2-O2	5.45	122.17	118.90
36	1	642	U	N1-C2-N3	5.45	118.17	114.90
36	1	925	A	N7-C8-N9	5.45	116.52	113.80
36	1	1586	G	N3-C4-C5	-5.45	125.88	128.60
36	1	2616	C	O5'-P-OP1	-5.45	100.80	105.70
1	6	65	A	C6-C5-N7	-5.45	128.49	132.30
36	5	652	G	N3-C4-C5	-5.45	125.88	128.60
38	8	20	U	N1-C2-N3	5.45	118.17	114.90
36	1	433	A	C5-C6-N6	-5.45	119.34	123.70
36	5	105	C	C6-N1-C2	5.45	122.48	120.30
36	5	3143	C	C6-N1-C2	-5.45	118.12	120.30
1	2	312	A	C8-N9-C4	-5.45	103.62	105.80
36	1	651	G	N3-C4-N9	5.45	129.27	126.00
36	1	2871	G	C5-N7-C8	-5.45	101.58	104.30
1	6	613	G	N3-C4-C5	-5.45	125.88	128.60
1	2	1324	G	N1-C2-N2	5.44	121.10	116.20
1	6	1698	G	P-O3'-C3'	5.44	126.23	119.70
36	5	283	G	C8-N9-C1'	-5.44	119.92	127.00
36	5	1003	A	C2-N3-C4	-5.44	107.88	110.60
36	5	2273	G	C8-N9-C1'	5.44	134.08	127.00
36	5	2643	A	C5-C6-N6	-5.44	119.34	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	7	99	G	N1-C2-N2	-5.44	111.30	116.20
36	1	701	G	C4-C5-C6	5.44	122.06	118.80
36	1	1201	C	N3-C4-C5	-5.44	119.72	121.90
38	4	47	C	C5-C6-N1	-5.44	118.28	121.00
36	5	510	G	C5-C6-O6	5.44	131.87	128.60
36	5	1155	C	C2-N1-C1'	5.44	124.79	118.80
36	5	1657	C	N1-C2-O2	5.44	122.17	118.90
1	2	992	A	N3-C4-C5	5.44	130.61	126.80
36	1	353	G	C5-C6-O6	-5.44	125.34	128.60
36	1	873	C	C2-N1-C1'	-5.44	112.82	118.80
36	1	2325	G	N1-C6-O6	5.44	123.17	119.90
1	6	1648	A	C8-N9-C4	5.44	107.98	105.80
36	5	1463	U	N1-C2-O2	-5.44	118.99	122.80
36	5	2249	G	N3-C4-C5	-5.44	125.88	128.60
36	5	2633	U	C5-C6-N1	-5.44	119.98	122.70
36	5	3180	A	N1-C2-N3	5.44	132.02	129.30
36	1	2406	C	OP1-P-OP2	5.44	127.76	119.60
37	3	101	G	N9-C4-C5	-5.44	103.22	105.40
1	6	1573	A	P-O3'-C3'	5.44	126.23	119.70
36	1	2181	C	N3-C4-C5	5.44	124.08	121.90
36	1	2775	U	N1-C2-N3	5.44	118.16	114.90
36	1	3002	C	N3-C4-C5	5.44	124.08	121.90
36	5	3045	G	N1-C6-O6	5.44	123.16	119.90
36	1	55	G	N9-C4-C5	-5.44	103.23	105.40
36	1	2815	G	C4-C5-N7	5.44	112.97	110.80
36	1	3103	A	C2-N3-C4	-5.44	107.88	110.60
37	3	15	C	C6-N1-C2	5.44	122.47	120.30
36	5	2376	G	C4-C5-N7	5.44	112.97	110.80
36	5	2867	C	N1-C2-O2	-5.44	115.64	118.90
36	1	188	U	N3-C4-C5	-5.43	111.34	114.60
36	1	1434	G	C6-C5-N7	-5.43	127.14	130.40
36	1	2409	G	C8-N9-C4	-5.43	104.23	106.40
1	6	1514	U	N3-C4-O4	-5.43	115.60	119.40
36	5	1072	G	O5'-P-OP2	-5.43	100.81	105.70
36	5	2306	C	OP2-P-O3'	5.43	117.16	105.20
36	5	2419	A	C5-N7-C8	-5.43	101.18	103.90
36	5	2421	U	C4-C5-C6	5.43	122.96	119.70
36	5	3150	A	C2-N3-C4	-5.43	107.88	110.60
36	5	3218	A	P-O3'-C3'	5.43	126.22	119.70
36	5	3240	C	N1-C2-O2	5.43	122.16	118.90
1	2	830	U	N1-C2-O2	5.43	126.60	122.80
36	1	661	G	C5-C6-O6	5.43	131.86	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	1206	G	N9-C4-C5	5.43	107.57	105.40
36	1	1795	U	N3-C4-C5	5.43	117.86	114.60
1	6	308	C	C5-C6-N1	-5.43	118.28	121.00
36	5	1370	G	N3-C2-N2	5.43	123.70	119.90
36	5	3011	A	N1-C6-N6	-5.43	115.34	118.60
1	2	21	U	C5-C6-N1	5.43	125.42	122.70
36	1	1151	U	N1-C2-N3	5.43	118.16	114.90
36	1	2679	A	N1-C2-N3	5.43	132.01	129.30
36	1	2944	U	N1-C2-O2	5.43	126.60	122.80
36	5	1117	G	N9-C4-C5	-5.43	103.23	105.40
36	1	933	A	C4-C5-C6	5.43	119.72	117.00
36	1	2808	A	C8-N9-C1'	-5.43	117.93	127.70
36	5	2928	C	C5-C6-N1	5.43	123.71	121.00
38	8	55	U	C6-N1-C2	-5.43	117.74	121.00
36	1	718	G	N3-C4-C5	5.43	131.31	128.60
36	1	2643	A	N9-C4-C5	-5.43	103.63	105.80
1	2	543	C	C6-N1-C2	-5.43	118.13	120.30
36	1	682	U	N3-C2-O2	-5.43	118.40	122.20
36	1	1344	G	OP2-P-O3'	5.43	117.14	105.20
36	1	1447	G	C5-C6-O6	5.43	131.86	128.60
36	1	2381	G	C8-N9-C1'	-5.43	119.95	127.00
36	5	2211	U	C4-C5-C6	5.43	122.96	119.70
36	5	2704	A	OP2-P-O3'	5.43	117.14	105.20
36	5	2899	C	N3-C4-N4	5.43	121.80	118.00
36	5	3362	A	N1-C2-N3	5.43	132.01	129.30
36	1	2101	C	P-O3'-C3'	5.42	126.21	119.70
36	1	3265	C	N3-C4-C5	5.42	124.07	121.90
38	4	113	U	C5-C6-N1	-5.42	119.99	122.70
36	5	1043	C	O5'-P-OP1	5.42	117.21	110.70
36	5	1119	C	C2-N3-C4	-5.42	117.19	119.90
36	5	2372	A	N3-C4-C5	-5.42	123.00	126.80
36	5	2891	U	N3-C4-O4	-5.42	115.60	119.40
37	7	74	C	N3-C2-O2	5.42	125.70	121.90
36	5	1178	G	C5-N7-C8	-5.42	101.59	104.30
36	1	1154	A	N3-C4-C5	-5.42	123.01	126.80
36	1	1307	G	C2'-C3'-O3'	5.42	122.38	113.70
36	1	2186	U	C5-C4-O4	5.42	129.15	125.90
69	O3	73	ARG	NE-CZ-NH1	-5.42	117.59	120.30
36	5	2987	A	C6-N1-C2	5.42	121.85	118.60
36	5	3154	C	C5-C6-N1	5.42	123.71	121.00
36	1	1868	G	C8-N9-C4	-5.42	104.23	106.40
36	1	346	C	N3-C2-O2	5.42	125.69	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	809	G	N1-C6-O6	5.42	123.15	119.90
36	1	2551	U	C2-N1-C1'	5.42	124.20	117.70
36	1	2984	C	N1-C2-N3	5.42	122.99	119.20
36	1	3221	C	O5'-P-OP1	-5.42	100.82	105.70
36	5	3018	C	O5'-P-OP2	-5.42	100.82	105.70
36	1	107	A	C5-C6-N6	-5.42	119.37	123.70
36	1	2952	G	C5-C6-O6	-5.42	125.35	128.60
38	4	7	U	N1-C2-N3	5.42	118.15	114.90
1	6	35	U	N1-C2-N3	5.42	118.15	114.90
1	6	552	G	C5-C6-O6	-5.42	125.35	128.60
1	6	1643	U	N1-C2-N3	5.42	118.15	114.90
37	7	1	G	C4-N9-C1'	5.42	133.54	126.50
36	1	2886	U	N3-C2-O2	5.41	125.99	122.20
38	4	3	A	C2-N3-C4	5.41	113.31	110.60
36	5	112	U	C2-N1-C1'	5.41	124.20	117.70
36	5	1149	G	C2-N3-C4	5.41	114.61	111.90
36	5	1839	A	O5'-P-OP1	-5.41	100.83	105.70
37	7	76	A	N1-C6-N6	-5.41	115.35	118.60
1	2	393	C	C6-N1-C2	5.41	122.47	120.30
36	1	2846	U	C6-N1-C2	-5.41	117.75	121.00
36	5	2195	C	C5-C4-N4	-5.41	116.41	120.20
36	5	2794	G	C5-C6-N1	5.41	114.21	111.50
36	1	3276	G	N3-C4-C5	5.41	131.31	128.60
1	6	1129	U	C5-C4-O4	5.41	129.15	125.90
1	6	1791	A	N1-C6-N6	5.41	121.85	118.60
36	5	644	G	C4-N9-C1'	5.41	133.53	126.50
36	5	3153	U	N3-C2-O2	-5.41	118.41	122.20
37	7	92	A	C5-C6-N6	-5.41	119.37	123.70
37	7	110	G	N3-C4-C5	5.41	131.31	128.60
36	1	669	U	C5-C6-N1	-5.41	120.00	122.70
36	1	2361	A	N1-C2-N3	5.41	132.00	129.30
1	6	584	C	C6-N1-C2	-5.41	118.14	120.30
36	5	837	A	C8-N9-C4	-5.41	103.64	105.80
1	2	1081	A	C6-C5-N7	5.41	136.08	132.30
36	1	1331	U	C2-N1-C1'	5.41	124.19	117.70
36	1	2572	C	C6-N1-C2	-5.41	118.14	120.30
36	1	2618	G	O5'-P-OP2	-5.41	100.83	105.70
36	5	2121	G	O5'-P-OP2	-5.41	100.83	105.70
36	1	1320	C	C4-C5-C6	5.40	120.10	117.40
36	5	2851	A	N9-C4-C5	5.40	107.96	105.80
36	5	2992	U	N3-C4-O4	5.40	123.18	119.40
1	2	973	A	O5'-P-OP1	5.40	117.18	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	573	C	N3-C4-C5	5.40	124.06	121.90
36	5	1884	A	O5'-P-OP2	-5.40	100.84	105.70
36	1	282	G	P-O3'-C3'	5.40	126.18	119.70
36	1	2550	U	N1-C2-N3	5.40	118.14	114.90
36	1	2887	A	C5-C6-N6	-5.40	119.38	123.70
1	6	1634	C	C6-N1-C1'	-5.40	114.32	120.80
36	5	2857	C	OP2-P-O3'	5.40	117.08	105.20
36	1	428	A	N1-C6-N6	-5.40	115.36	118.60
36	1	2939	G	C4-C5-N7	-5.40	108.64	110.80
1	6	1000	C	O4'-C1'-N1	5.40	112.52	108.20
36	5	3218	A	C6-C5-N7	-5.40	128.52	132.30
36	1	53	G	N1-C6-O6	-5.40	116.66	119.90
36	1	2644	C	C4-C5-C6	5.40	120.10	117.40
36	5	403	C	N3-C4-N4	5.40	121.78	118.00
1	2	1675	C	C5-C6-N1	-5.39	118.30	121.00
36	1	634	C	C6-N1-C2	5.39	122.46	120.30
36	1	2382	G	N3-C2-N2	5.39	123.68	119.90
36	1	2398	A	N7-C8-N9	-5.39	111.10	113.80
36	5	816	A	N1-C6-N6	-5.39	115.36	118.60
36	1	2185	G	C5-C6-N1	-5.39	108.80	111.50
41	L4	190	GLY	N-CA-C	5.39	126.58	113.10
36	5	364	G	C4-C5-N7	5.39	112.96	110.80
38	8	100	U	C2-N1-C1'	5.39	124.17	117.70
36	5	352	A	O5'-P-OP1	-5.39	100.85	105.70
36	5	414	U	N1-C2-O2	-5.39	119.03	122.80
36	5	873	C	C6-N1-C2	-5.39	118.14	120.30
36	5	1381	A	C2-N3-C4	-5.39	107.90	110.60
36	5	2748	A	N1-C6-N6	5.39	121.83	118.60
36	5	3005	A	OP1-P-OP2	5.39	127.69	119.60
36	1	584	G	N9-C4-C5	5.39	107.56	105.40
36	1	1514	G	N1-C2-N2	-5.39	111.35	116.20
1	6	455	C	N1-C2-O2	-5.39	115.67	118.90
1	6	951	A	C8-N9-C4	5.39	107.96	105.80
1	6	1697	G	C2-N3-C4	5.39	114.59	111.90
36	5	879	U	C5-C4-O4	-5.39	122.67	125.90
36	5	2249	G	C8-N9-C4	-5.39	104.24	106.40
36	5	2993	G	C6-N1-C2	-5.39	121.87	125.10
36	5	3214	U	C5-C4-O4	5.39	129.13	125.90
36	5	3285	C	C6-N1-C1'	-5.39	114.33	120.80
36	1	2126	A	C4-C5-C6	-5.39	114.31	117.00
36	1	3079	U	N1-C2-N3	5.39	118.13	114.90
37	3	91	G	C4-C5-N7	5.39	112.95	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	588	G	C8-N9-C4	-5.39	104.25	106.40
38	4	42	G	C8-N9-C4	5.39	108.56	106.40
36	5	1116	G	C5-C6-O6	5.39	131.83	128.60
36	5	1730	G	C8-N9-C4	5.39	108.55	106.40
36	5	3131	U	N3-C4-C5	5.39	117.83	114.60
1	6	300	A	O5'-P-OP1	-5.38	100.85	105.70
1	6	965	U	N3-C4-C5	5.38	117.83	114.60
36	5	1046	A	O5'-P-OP1	-5.38	100.85	105.70
36	5	1365	G	N1-C2-N3	5.38	127.13	123.90
36	5	1429	G	C8-N9-C4	5.38	108.55	106.40
36	5	1454	A	C8-N9-C4	5.38	107.95	105.80
36	5	2346	C	N3-C2-O2	5.38	125.67	121.90
36	5	3123	A	C8-N9-C4	5.38	107.95	105.80
36	5	2211	U	C5-C4-O4	5.38	129.13	125.90
36	5	2728	G	O5'-P-OP2	-5.38	100.86	105.70
36	5	2943	G	C5-N7-C8	-5.38	101.61	104.30
36	1	587	U	OP2-P-O3'	5.38	117.04	105.20
36	1	1905	G	N3-C4-N9	-5.38	122.77	126.00
37	3	88	G	C8-N9-C4	-5.38	104.25	106.40
36	5	834	U	C6-N1-C2	5.38	124.23	121.00
36	5	2514	U	C5-C6-N1	5.38	125.39	122.70
36	5	3055	U	O5'-P-OP2	-5.38	100.86	105.70
36	1	937	G	O5'-P-OP1	-5.38	100.86	105.70
36	5	2868	U	N1-C2-O2	5.38	126.57	122.80
1	2	389	G	C5-C6-O6	-5.38	125.37	128.60
36	1	688	G	N3-C4-C5	-5.38	125.91	128.60
38	4	95	G	C4-N9-C1'	-5.38	119.51	126.50
36	5	1884	A	C5-C6-N6	-5.38	119.40	123.70
36	5	2411	U	C6-N1-C2	5.38	124.23	121.00
36	5	2818	U	P-O3'-C3'	5.38	126.16	119.70
36	5	3115	C	N1-C2-N3	5.38	122.96	119.20
36	5	3177	G	N9-C4-C5	-5.38	103.25	105.40
1	2	551	G	N7-C8-N9	5.38	115.79	113.10
36	1	221	A	N1-C6-N6	-5.38	115.37	118.60
36	1	1001	G	C8-N9-C1'	-5.38	120.01	127.00
36	1	1408	G	C5-C6-O6	-5.38	125.37	128.60
38	4	20	U	C2-N3-C4	-5.38	123.77	127.00
36	5	1003	A	N1-C2-N3	5.38	131.99	129.30
36	5	2934	A	N1-C2-N3	-5.38	126.61	129.30
1	2	1324	G	N9-C4-C5	5.38	107.55	105.40
36	1	2358	A	N1-C6-N6	5.38	121.83	118.60
36	5	804	C	C6-N1-C2	-5.38	118.15	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	1289	G	N1-C6-O6	-5.38	116.67	119.90
36	5	3040	A	N7-C8-N9	-5.38	111.11	113.80
36	1	2369	G	C5-C6-O6	-5.37	125.38	128.60
36	5	2818	U	C5'-C4'-O4'	-5.37	102.65	109.10
36	1	611	A	C5-C6-N6	-5.37	119.40	123.70
36	1	3174	A	N1-C6-N6	5.37	121.82	118.60
36	5	206	G	C5-C6-N1	5.37	114.19	111.50
36	5	2286	U	C6-N1-C2	-5.37	117.78	121.00
36	5	2860	U	C5-C4-O4	5.37	129.12	125.90
36	5	3115	C	N1-C2-O2	-5.37	115.68	118.90
36	5	916	G	OP1-P-O3'	5.37	117.02	105.20
36	5	3061	G	C5-C6-O6	-5.37	125.38	128.60
1	2	1307	U	N3-C2-O2	-5.37	118.44	122.20
36	1	345	G	C4-N9-C1'	5.37	133.48	126.50
36	1	347	G	N7-C8-N9	5.37	115.78	113.10
36	1	1311	G	N9-C4-C5	-5.37	103.25	105.40
36	1	1364	C	OP2-P-O3'	5.37	117.01	105.20
36	5	196	G	C5-C6-O6	-5.37	125.38	128.60
36	5	640	U	C5-C6-N1	5.37	125.39	122.70
36	5	801	A	N1-C2-N3	5.37	131.98	129.30
36	5	1301	A	C5-C6-N6	-5.37	119.41	123.70
36	5	1433	A	C8-N9-C4	-5.37	103.65	105.80
36	5	2693	C	N3-C4-C5	5.37	124.05	121.90
36	1	2352	A	O5'-P-OP2	-5.37	100.87	105.70
1	6	417	A	C8-N9-C4	-5.37	103.65	105.80
36	1	361	A	C4-C5-C6	-5.37	114.32	117.00
36	1	1408	G	C4-C5-C6	5.37	122.02	118.80
36	5	1310	G	N1-C6-O6	-5.37	116.68	119.90
36	5	2700	G	C5-C6-N1	5.37	114.18	111.50
1	2	1190	C	C6-N1-C2	5.36	122.44	120.30
1	2	1323	C	N3-C2-O2	-5.36	118.14	121.90
36	1	984	G	C6-C5-N7	-5.36	127.18	130.40
36	1	1447	G	C4-C5-N7	-5.36	108.66	110.80
36	1	3046	A	O5'-P-OP1	-5.36	100.87	105.70
1	6	1600	A	N1-C6-N6	5.36	121.82	118.60
36	5	2514	U	O5'-P-OP1	-5.36	100.87	105.70
36	1	1108	U	C6-N1-C2	5.36	124.22	121.00
36	5	2392	C	C2-N1-C1'	-5.36	112.90	118.80
36	5	2412	G	N3-C4-N9	5.36	129.22	126.00
36	5	2623	G	N3-C2-N2	5.36	123.65	119.90
36	1	2113	A	N1-C6-N6	5.36	121.82	118.60
1	6	994	G	C6-C5-N7	-5.36	127.18	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	6	1399	C	C6-N1-C2	-5.36	118.16	120.30
36	5	3040	A	C8-N9-C4	5.36	107.94	105.80
36	1	211	A	C6-N1-C2	-5.36	115.39	118.60
36	1	899	U	N3-C2-O2	-5.36	118.45	122.20
36	1	2190	U	OP2-P-O3'	5.36	116.99	105.20
36	1	2966	G	N3-C4-C5	-5.36	125.92	128.60
1	6	477	A	N9-C4-C5	-5.36	103.66	105.80
1	6	1141	G	O5'-P-OP1	-5.36	100.88	105.70
1	6	1361	U	C6-N1-C1'	-5.36	113.70	121.20
1	6	1614	A	C6-C5-N7	-5.36	128.55	132.30
36	5	2642	A	C5-C6-N6	5.36	127.99	123.70
36	1	315	C	C2-N1-C1'	5.36	124.69	118.80
36	1	1331	U	N1-C2-O2	5.36	126.55	122.80
36	1	2126	A	C8-N9-C4	5.36	107.94	105.80
36	5	437	G	N1-C2-N2	5.36	121.02	116.20
36	5	3289	G	N9-C1'-C2'	-5.36	106.11	112.00
1	2	1199	G	C8-N9-C1'	-5.35	120.04	127.00
36	1	315	C	C5-C6-N1	5.35	123.68	121.00
36	1	576	C	N1-C2-O2	-5.35	115.69	118.90
36	1	657	A	O5'-P-OP2	5.35	117.12	110.70
36	1	1784	G	N3-C4-N9	-5.35	122.79	126.00
36	5	1896	A	O5'-P-OP1	-5.35	100.88	105.70
18	C6	40	GLU	C-N-CD	-5.35	108.82	120.60
36	1	47	C	C6-N1-C2	5.35	122.44	120.30
36	1	757	C	N1-C2-O2	-5.35	115.69	118.90
36	1	3275	U	OP1-P-O3'	5.35	116.97	105.20
36	5	110	G	N7-C8-N9	-5.35	110.42	113.10
36	5	420	G	C5-C6-O6	-5.35	125.39	128.60
36	5	959	C	O4'-C1'-N1	5.35	112.48	108.20
36	5	3022	G	O4'-C1'-N9	5.35	112.48	108.20
36	1	1387	G	C5-C6-O6	5.35	131.81	128.60
36	1	2292	U	C2-N1-C1'	5.35	124.12	117.70
36	5	222	A	O5'-P-OP1	5.35	117.12	110.70
36	5	1469	C	O5'-P-OP2	-5.35	100.88	105.70
36	1	35	A	N1-C6-N6	5.35	121.81	118.60
36	1	676	G	C4-C5-C6	5.35	122.01	118.80
36	1	2283	G	C2-N3-C4	-5.35	109.23	111.90
36	1	2391	G	N3-C2-N2	-5.35	116.16	119.90
36	1	2400	G	OP2-P-O3'	5.35	116.97	105.20
36	5	609	G	N3-C2-N2	-5.35	116.16	119.90
36	5	1152	G	C5-C6-N1	-5.35	108.83	111.50
1	2	1386	G	C8-N9-C4	5.35	108.54	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	1405	U	C5-C6-N1	-5.35	120.03	122.70
1	6	1003	A	C8-N9-C4	5.35	107.94	105.80
36	5	1547	G	N3-C4-C5	5.35	131.27	128.60
36	5	3315	G	N1-C2-N3	5.35	127.11	123.90
36	1	655	C	C4-C5-C6	5.35	120.07	117.40
36	1	1114	U	N1-C2-N3	-5.35	111.69	114.90
1	6	90	C	N3-C2-O2	-5.35	118.16	121.90
1	2	334	G	N7-C8-N9	-5.34	110.43	113.10
24	D2	104	LEU	CA-CB-CG	5.34	127.59	115.30
36	1	1177	G	C8-N9-C4	-5.34	104.26	106.40
36	1	1429	G	N3-C4-N9	5.34	129.21	126.00
36	1	2692	A	N7-C8-N9	5.34	116.47	113.80
37	7	79	A	N9-C4-C5	-5.34	103.66	105.80
1	2	70	C	C6-N1-C2	5.34	122.44	120.30
36	1	936	A	N1-C6-N6	5.34	121.81	118.60
36	5	1149	G	N1-C6-O6	5.34	123.11	119.90
36	5	3041	U	N3-C2-O2	5.34	125.94	122.20
1	2	16	G	N3-C4-N9	5.34	129.21	126.00
1	2	1114	G	C6-C5-N7	-5.34	127.19	130.40
36	1	1168	U	N3-C2-O2	-5.34	118.46	122.20
36	1	2306	C	O4'-C1'-N1	-5.34	103.93	108.20
38	4	144	G	N3-C2-N2	-5.34	116.16	119.90
1	6	106	U	C5-C4-O4	5.34	129.10	125.90
1	6	418	G	C5-C6-O6	-5.34	125.39	128.60
36	5	83	U	N3-C2-O2	-5.34	118.46	122.20
36	5	358	G	C8-N9-C4	5.34	108.54	106.40
36	5	2377	G	C6-C5-N7	5.34	133.60	130.40
36	5	2645	G	C8-N9-C4	5.34	108.54	106.40
1	2	144	U	N3-C2-O2	-5.34	118.46	122.20
36	5	429	U	C6-N1-C2	5.34	124.20	121.00
36	5	1327	C	C6-N1-C2	5.34	122.44	120.30
36	5	2799	A	N9-C4-C5	5.34	107.94	105.80
1	6	631	G	C5-C6-O6	-5.34	125.40	128.60
36	1	910	G	C4-C5-C6	5.34	122.00	118.80
36	1	979	U	N1-C2-N3	5.34	118.10	114.90
36	1	3142	A	C5-N7-C8	-5.34	101.23	103.90
79	Q3	29	LEU	CA-CB-CG	-5.34	103.03	115.30
1	6	782	U	C2-N1-C1'	5.34	124.10	117.70
16	c4	35	GLY	N-CA-C	5.34	126.44	113.10
36	5	2193	U	N3-C2-O2	5.34	125.94	122.20
36	1	420	G	O4'-C1'-N9	5.33	112.47	108.20
36	1	820	A	C6-N1-C2	-5.33	115.40	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	871	U	C6-N1-C1'	5.33	128.67	121.20
36	5	2171	G	N1-C6-O6	-5.33	116.70	119.90
36	1	2403	G	OP1-P-O3'	5.33	116.93	105.20
36	5	1489	A	N3-C4-C5	-5.33	123.07	126.80
36	5	2853	A	C4-C5-C6	-5.33	114.33	117.00
36	5	3309	G	C8-N9-C1'	-5.33	120.06	127.00
36	1	339	C	C2-N3-C4	-5.33	117.23	119.90
36	1	432	G	C2-N3-C4	-5.33	109.23	111.90
36	1	645	A	N3-C4-C5	-5.33	123.07	126.80
36	1	803	C	N3-C4-C5	5.33	124.03	121.90
36	1	933	A	N3-C4-C5	-5.33	123.07	126.80
36	1	1313	G	N1-C6-O6	5.33	123.10	119.90
36	1	1448	U	OP2-P-O3'	5.33	116.93	105.20
36	1	2296	A	C2-N3-C4	-5.33	107.94	110.60
36	1	2372	A	OP1-P-O3'	5.33	116.93	105.20
36	5	1169	A	O5'-P-OP2	-5.33	100.90	105.70
36	5	3048	A	O5'-P-OP2	-5.33	100.90	105.70
36	5	227	G	C8-N9-C4	5.33	108.53	106.40
36	5	793	C	N3-C4-N4	5.33	121.73	118.00
36	5	994	G	N3-C2-N2	5.33	123.63	119.90
36	1	369	A	N9-C4-C5	5.33	107.93	105.80
36	1	1296	C	N3-C2-O2	-5.33	118.17	121.90
1	6	1601	G	N1-C6-O6	-5.33	116.70	119.90
36	5	298	U	C6-N1-C2	-5.33	117.80	121.00
36	5	3207	U	N3-C4-C5	-5.33	111.40	114.60
36	1	1269	U	N1-C2-O2	5.33	126.53	122.80
36	1	1844	C	O5'-P-OP1	-5.33	100.91	105.70
36	5	2694	A	N1-C6-N6	-5.33	115.40	118.60
1	2	190	C	O4'-C1'-N1	5.33	112.46	108.20
36	1	944	C	OP2-P-O3'	5.33	116.92	105.20
36	1	2283	G	C5-N7-C8	-5.33	101.64	104.30
36	1	2639	G	C5-C6-O6	-5.33	125.41	128.60
36	1	2831	G	C5-C6-O6	-5.33	125.40	128.60
36	1	3311	C	OP1-P-OP2	5.33	127.59	119.60
1	6	695	U	C2-N1-C1'	5.33	124.09	117.70
36	1	596	C	N1-C2-O2	5.32	122.09	118.90
36	1	1501	U	C6-N1-C2	5.32	124.19	121.00
36	1	2808	A	C4-N9-C1'	5.32	135.88	126.30
36	1	2850	G	N3-C4-N9	5.32	129.19	126.00
36	1	2966	G	N3-C4-N9	5.32	129.19	126.00
1	6	458	G	C8-N9-C4	-5.32	104.27	106.40
36	5	307	A	N1-C6-N6	-5.32	115.41	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	770	G	N1-C6-O6	-5.32	116.71	119.90
36	5	855	U	OP2-P-O3'	5.32	116.91	105.20
36	5	1110	U	C5-C6-N1	5.32	125.36	122.70
36	1	393	U	N3-C4-O4	-5.32	115.68	119.40
36	1	857	G	N9-C4-C5	5.32	107.53	105.40
36	1	1385	C	C2-N1-C1'	-5.32	112.95	118.80
36	1	2255	A	C8-N9-C4	5.32	107.93	105.80
38	4	94	C	C6-N1-C1'	-5.32	114.42	120.80
36	5	1413	G	N3-C4-N9	5.32	129.19	126.00
36	5	2142	A	C2-N3-C4	5.32	113.26	110.60
36	5	2689	A	O4'-C1'-N9	5.32	112.46	108.20
36	1	866	A	C8-N9-C4	5.32	107.93	105.80
36	1	1300	G	C8-N9-C1'	-5.32	120.09	127.00
36	1	2202	C	C6-N1-C2	-5.32	118.17	120.30
36	5	1420	C	N1-C2-O2	-5.32	115.71	118.90
36	1	3362	A	C8-N9-C4	-5.32	103.67	105.80
73	O7	5	THR	C-N-CD	5.32	139.57	128.40
1	6	678	A	P-O3'-C3'	5.32	126.08	119.70
36	5	510	G	N3-C2-N2	5.32	123.62	119.90
36	5	2370	G	N1-C2-N3	5.32	127.09	123.90
1	2	308	C	N1-C2-O2	-5.31	115.71	118.90
36	1	2870	C	N3-C4-N4	-5.31	114.28	118.00
1	6	609	U	C5-C4-O4	5.31	129.09	125.90
36	5	2971	A	N3-C4-N9	5.31	131.65	127.40
36	1	911	C	C2-N3-C4	-5.31	117.24	119.90
36	5	1012	G	N3-C4-N9	-5.31	122.81	126.00
36	5	2953	U	O5'-P-OP2	5.31	117.08	110.70
36	5	673	U	C5-C6-N1	-5.31	120.04	122.70
36	5	1886	A	O5'-P-OP2	-5.31	100.92	105.70
1	2	949	C	C6-N1-C2	-5.31	118.18	120.30
36	1	2330	C	C5-C4-N4	-5.31	116.48	120.20
36	1	2758	A	N7-C8-N9	-5.31	111.15	113.80
53	M7	3	ARG	NE-CZ-NH2	-5.31	117.64	120.30
36	5	1155	C	O5'-P-OP1	-5.31	100.92	105.70
36	5	2372	A	C8-N9-C4	-5.31	103.68	105.80
36	5	2823	G	C6-C5-N7	-5.31	127.21	130.40
1	2	728	U	N1-C2-O2	5.31	126.52	122.80
36	1	927	C	N3-C4-N4	5.31	121.72	118.00
36	1	1897	G	C6-C5-N7	-5.31	127.22	130.40
1	6	1148	C	OP2-P-O3'	5.31	116.88	105.20
36	5	1113	G	C5-C6-N1	-5.31	108.85	111.50
36	5	1374	G	N1-C2-N2	-5.31	111.42	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	1437	C	N3-C2-O2	-5.31	118.19	121.90
36	5	1943	C	C6-N1-C2	-5.31	118.18	120.30
36	5	2965	U	C5-C4-O4	-5.31	122.72	125.90
37	7	48	U	C4-C5-C6	5.31	122.88	119.70
36	1	357	A	C6-N1-C2	-5.31	115.42	118.60
1	6	585	A	C8-N9-C4	5.31	107.92	105.80
36	5	519	A	N1-C6-N6	5.31	121.78	118.60
36	1	1807	G	C8-N9-C4	-5.30	104.28	106.40
36	5	1480	G	O4'-C1'-N9	5.30	112.44	108.20
39	L2	25	GLY	N-CA-C	-5.30	99.84	113.10
36	5	746	A	OP2-P-O3'	5.30	116.87	105.20
36	1	2783	U	C5-C6-N1	5.30	125.35	122.70
1	6	9	U	O5'-P-OP1	-5.30	100.93	105.70
36	5	610	G	C8-N9-C4	-5.30	104.28	106.40
36	5	2135	U	O5'-P-OP2	-5.30	100.93	105.70
36	5	2629	U	C5-C4-O4	-5.30	122.72	125.90
36	1	956	U	N3-C4-C5	-5.30	111.42	114.60
36	1	2293	C	N3-C4-N4	5.30	121.71	118.00
36	1	2369	G	N3-C4-C5	-5.30	125.95	128.60
37	7	77	G	N1-C6-O6	5.30	123.08	119.90
1	2	412	A	N1-C6-N6	5.30	121.78	118.60
1	2	499	U	C5-C4-O4	-5.30	122.72	125.90
36	1	27	C	OP1-P-OP2	5.30	127.55	119.60
36	1	1082	U	N1-C2-O2	5.30	126.51	122.80
36	1	3181	C	N1-C2-N3	5.30	122.91	119.20
36	5	1116	G	C8-N9-C1'	-5.30	120.11	127.00
36	5	2572	C	C6-N1-C1'	-5.30	114.44	120.80
1	2	103	A	C5-C6-N6	-5.30	119.46	123.70
1	2	1014	G	C8-N9-C4	-5.30	104.28	106.40
36	1	645	A	N1-C2-N3	5.30	131.95	129.30
36	1	1646	G	N3-C4-C5	5.30	131.25	128.60
36	1	1669	C	C6-N1-C2	5.30	122.42	120.30
36	5	994	G	N3-C4-C5	-5.30	125.95	128.60
36	5	2419	A	N1-C6-N6	5.30	121.78	118.60
36	5	2643	A	C4-C5-N7	5.30	113.35	110.70
36	5	2965	U	N1-C2-O2	-5.30	119.09	122.80
36	5	3174	A	N7-C8-N9	5.30	116.45	113.80
36	1	410	U	C6-N1-C2	-5.29	117.82	121.00
36	1	717	C	C6-N1-C2	-5.29	118.18	120.30
36	1	1604	G	C4-N9-C1'	5.29	133.38	126.50
36	5	1127	G	C5-C6-N1	5.29	114.15	111.50
36	5	1200	A	N3-C4-N9	5.29	131.64	127.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	2622	C	N3-C4-C5	-5.29	119.78	121.90
1	2	864	U	N3-C2-O2	-5.29	118.50	122.20
36	1	1296	C	N1-C2-N3	5.29	122.91	119.20
36	1	2781	U	N1-C2-O2	-5.29	119.09	122.80
38	4	7	U	OP2-P-O3'	5.29	116.84	105.20
47	M0	24	ARG	NE-CZ-NH1	5.29	122.95	120.30
36	5	195	U	N3-C2-O2	-5.29	118.50	122.20
36	1	1419	A	C5'-C4'-O4'	5.29	115.45	109.10
36	1	2523	A	N1-C6-N6	5.29	121.78	118.60
36	1	2723	U	N1-C2-O2	-5.29	119.10	122.80
1	6	1614	A	C5-C6-N1	-5.29	115.05	117.70
36	5	2277	C	N1-C2-O2	5.29	122.08	118.90
36	1	128	G	C6-C5-N7	-5.29	127.23	130.40
36	1	2754	G	C8-N9-C4	5.29	108.52	106.40
36	5	3049	A	N7-C8-N9	-5.29	111.16	113.80
36	1	1154	A	C6-N1-C2	-5.29	115.43	118.60
36	1	1724	U	O5'-P-OP2	-5.29	100.94	105.70
36	1	2612	U	C2-N3-C4	-5.29	123.83	127.00
36	1	2982	A	C4-C5-C6	5.29	119.64	117.00
1	6	272	U	P-O3'-C3'	5.29	126.05	119.70
1	6	619	A	C4-N9-C1'	-5.29	116.78	126.30
36	5	55	G	C2-N3-C4	-5.29	109.26	111.90
36	5	1466	G	C5-C6-O6	-5.29	125.43	128.60
36	5	2112	U	N3-C2-O2	-5.29	118.50	122.20
36	5	2871	G	N3-C4-N9	5.29	129.17	126.00
36	1	1849	C	N3-C4-N4	5.29	121.70	118.00
1	6	1412	G	N3-C4-N9	-5.29	122.83	126.00
36	5	1158	A	O5'-P-OP1	5.29	117.04	110.70
36	5	1367	G	C5-C6-N1	-5.29	108.86	111.50
36	5	2823	G	C4-C5-N7	5.29	112.92	110.80
36	1	979	U	C5-C6-N1	5.29	125.34	122.70
36	1	1305	U	N1-C2-N3	5.29	118.07	114.90
36	1	2948	C	C6-N1-C2	5.29	122.41	120.30
36	5	1716	U	C6-N1-C2	-5.29	117.83	121.00
36	5	3006	A	C2-N3-C4	-5.29	107.96	110.60
36	5	421	G	N3-C4-C5	-5.28	125.96	128.60
36	5	2523	A	N1-C6-N6	-5.28	115.43	118.60
36	1	858	A	C8-N9-C4	-5.28	103.69	105.80
38	4	99	C	C6-N1-C2	5.28	122.41	120.30
1	6	943	C	C2-N1-C1'	-5.28	112.99	118.80
36	5	2145	A	N9-C4-C5	5.28	107.91	105.80
36	5	2355	G	N1-C6-O6	5.28	123.07	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	7	110	G	N3-C4-N9	-5.28	122.83	126.00
37	3	86	U	N3-C4-C5	5.28	117.77	114.60
36	5	417	A	C8-N9-C4	5.28	107.91	105.80
36	5	2300	G	C4-C5-N7	5.28	112.91	110.80
36	5	3046	A	C5-C6-N1	5.28	120.34	117.70
36	5	3308	C	C4-C5-C6	5.28	120.04	117.40
36	1	228	U	O5'-P-OP1	-5.28	100.95	105.70
36	1	2643	A	N7-C8-N9	-5.28	111.16	113.80
36	1	2857	C	OP2-P-O3'	5.28	116.81	105.20
36	1	2984	C	N1-C2-O2	-5.28	115.73	118.90
36	1	956	U	C5-C4-O4	5.28	129.07	125.90
36	1	2361	A	N1-C6-N6	-5.28	115.43	118.60
36	1	3121	U	OP1-P-O3'	5.28	116.81	105.20
1	6	1029	U	N1-C2-N3	5.28	118.07	114.90
36	5	1606	U	C5-C6-N1	-5.28	120.06	122.70
36	5	2800	G	N3-C4-C5	5.28	131.24	128.60
36	5	3041	U	N3-C4-C5	5.28	117.77	114.60
1	2	1132	A	C5-C6-N6	-5.28	119.48	123.70
36	1	2405	C	N3-C4-N4	5.28	121.69	118.00
38	4	125	U	N1-C2-O2	5.28	126.49	122.80
36	5	1117	G	C5-N7-C8	-5.28	101.66	104.30
36	1	968	G	N3-C4-C5	-5.27	125.96	128.60
36	1	1453	A	C8-N9-C4	-5.27	103.69	105.80
56	N0	106	LEU	CA-CB-CG	5.27	127.43	115.30
36	5	645	A	C8-N9-C4	-5.27	103.69	105.80
36	5	1365	G	C6-C5-N7	-5.27	127.24	130.40
36	5	2342	U	C5-C6-N1	-5.27	120.06	122.70
36	5	3140	G	C6-C5-N7	-5.27	127.24	130.40
1	2	447	U	N3-C4-O4	5.27	123.09	119.40
36	5	3317	U	C6-N1-C2	-5.27	117.84	121.00
36	1	820	A	N7-C8-N9	5.27	116.44	113.80
36	1	1308	A	C5-C6-N1	-5.27	115.06	117.70
36	1	970	A	C8-N9-C4	-5.27	103.69	105.80
36	1	2821	C	OP1-P-OP2	5.27	127.50	119.60
36	5	1188	U	N1-C2-N3	5.27	118.06	114.90
36	5	2843	U	N3-C2-O2	-5.27	118.51	122.20
36	1	44	U	C5-C4-O4	5.27	129.06	125.90
36	1	1164	G	C5-C6-O6	5.27	131.76	128.60
36	1	1330	A	N9-C4-C5	-5.27	103.69	105.80
36	5	878	G	N3-C2-N2	5.27	123.59	119.90
36	5	1196	C	C6-N1-C2	5.27	122.41	120.30
36	5	1412	G	N7-C8-N9	5.27	115.73	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	2618	G	N3-C4-C5	-5.27	125.97	128.60
36	5	2642	A	N1-C6-N6	-5.27	115.44	118.60
36	1	1377	G	C5-C6-O6	-5.27	125.44	128.60
36	5	808	A	N9-C4-C5	5.27	107.91	105.80
36	5	1327	C	N3-C4-C5	5.27	124.01	121.90
36	5	2366	C	C2-N3-C4	5.27	122.53	119.90
36	1	659	G	C4-C5-N7	5.26	112.91	110.80
36	1	930	U	N1-C2-O2	-5.26	119.11	122.80
37	3	30	G	C8-N9-C4	-5.26	104.29	106.40
36	5	869	G	N1-C2-N2	-5.26	111.46	116.20
36	5	1101	G	N3-C4-N9	5.26	129.16	126.00
36	1	3120	C	N1-C2-O2	5.26	122.06	118.90
1	6	426	G	N3-C4-C5	-5.26	125.97	128.60
36	5	2616	C	N3-C2-O2	5.26	125.58	121.90
36	5	3387	U	N3-C2-O2	-5.26	118.52	122.20
1	2	428	A	N9-C4-C5	5.26	107.91	105.80
36	1	267	G	N1-C6-O6	5.26	123.06	119.90
36	1	925	A	C4-C5-C6	5.26	119.63	117.00
36	1	1164	G	C8-N9-C1'	-5.26	120.16	127.00
1	6	361	C	OP1-P-OP2	-5.26	111.71	119.60
1	6	1267	G	C8-N9-C4	5.26	108.50	106.40
36	5	644	G	C8-N9-C4	-5.26	104.30	106.40
36	1	1141	C	C4-C5-C6	5.26	120.03	117.40
36	1	2842	U	N1-C2-O2	5.26	126.48	122.80
36	1	2980	U	C6-N1-C2	-5.26	117.84	121.00
37	3	48	U	C5-C4-O4	-5.26	122.74	125.90
1	6	552	G	N9-C4-C5	-5.26	103.30	105.40
1	6	1508	U	C6-N1-C2	5.26	124.16	121.00
36	5	29	C	C6-N1-C2	5.26	122.40	120.30
36	5	661	G	N3-C2-N2	5.26	123.58	119.90
36	5	984	G	N3-C4-N9	5.26	129.16	126.00
36	5	1895	A	C5-N7-C8	-5.26	101.27	103.90
36	5	2938	G	N1-C6-O6	-5.26	116.74	119.90
1	2	501	U	P-O3'-C3'	5.26	126.01	119.70
1	2	694	U	N3-C2-O2	-5.26	118.52	122.20
36	1	2604	U	C5-C6-N1	-5.26	120.07	122.70
36	5	2300	G	N1-C2-N2	-5.26	111.47	116.20
36	1	9	U	C2-N1-C1'	-5.26	111.39	117.70
36	1	346	C	C5-C6-N1	-5.26	118.37	121.00
36	1	401	U	N3-C2-O2	-5.26	118.52	122.20
36	1	765	C	N3-C2-O2	-5.26	118.22	121.90
36	5	1128	U	C2-N3-C4	-5.26	123.85	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	7	73	C	C5-C6-N1	5.26	123.63	121.00
36	1	2177	G	C5-C6-N1	5.25	114.13	111.50
1	6	467	G	N3-C4-C5	-5.25	125.97	128.60
1	2	1473	U	C5-C4-O4	5.25	129.05	125.90
36	1	107	A	C6-C5-N7	-5.25	128.62	132.30
36	1	199	A	N1-C6-N6	5.25	121.75	118.60
36	1	1212	A	N9-C4-C5	-5.25	103.70	105.80
36	1	1434	G	C5-N7-C8	-5.25	101.67	104.30
36	5	1144	U	O5'-P-OP1	-5.25	100.97	105.70
36	5	2143	A	OP1-P-O3'	5.25	116.76	105.20
36	5	2621	G	N3-C4-C5	5.25	131.23	128.60
36	5	3149	G	O5'-P-OP1	5.25	117.00	110.70
1	2	15	U	N3-C2-O2	-5.25	118.52	122.20
1	2	1662	G	N1-C6-O6	-5.25	116.75	119.90
36	1	24	G	C6-C5-N7	-5.25	127.25	130.40
36	1	2344	U	C6-N1-C2	5.25	124.15	121.00
36	1	2800	G	N1-C2-N2	-5.25	111.47	116.20
36	5	575	G	C2-N3-C4	5.25	114.53	111.90
36	5	1413	G	N3-C4-C5	-5.25	125.97	128.60
36	5	1476	G	N3-C4-C5	5.25	131.23	128.60
36	5	1561	G	O4'-C1'-N9	5.25	112.40	108.20
1	2	548	G	N3-C4-N9	5.25	129.15	126.00
36	1	2953	U	N3-C4-O4	5.25	123.08	119.40
1	6	1745	G	C4-N9-C1'	5.25	133.32	126.50
36	5	37	U	OP2-P-O3'	5.25	116.75	105.20
36	5	2372	A	OP2-P-O3'	5.25	116.75	105.20
36	1	274	G	C5-C6-O6	-5.25	125.45	128.60
36	1	1043	C	C6-N1-C2	5.25	122.40	120.30
36	1	1484	U	C5-C6-N1	5.25	125.32	122.70
36	1	2382	G	C2-N3-C4	-5.25	109.28	111.90
36	1	3036	G	N3-C4-C5	-5.25	125.97	128.60
1	6	1744	A	N9-C4-C5	-5.25	103.70	105.80
36	5	293	C	C6-N1-C2	5.25	122.40	120.30
36	5	2117	A	C8-N9-C4	-5.25	103.70	105.80
36	5	2902	A	N1-C6-N6	5.25	121.75	118.60
36	1	1076	C	C6-N1-C1'	-5.25	114.50	120.80
36	5	417	A	N7-C8-N9	-5.25	111.18	113.80
36	5	653	A	O5'-P-OP1	-5.25	100.98	105.70
36	5	1329	U	P-O3'-C3'	5.25	126.00	119.70
37	7	29	C	C6-N1-C2	5.25	122.40	120.30
1	6	76	A	OP1-P-O3'	5.25	116.74	105.20
36	1	282	G	C2'-C3'-O3'	5.24	122.09	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	368	G	C6-C5-N7	-5.24	127.25	130.40
36	1	714	G	N1-C6-O6	5.24	123.05	119.90
36	1	1521	G	O5'-P-OP1	-5.24	100.98	105.70
1	6	1200	G	N3-C4-C5	5.24	131.22	128.60
36	5	644	G	C4-C5-N7	-5.24	108.70	110.80
36	5	1049	C	C2-N1-C1'	5.24	124.57	118.80
36	5	1380	G	O5'-P-OP2	-5.24	100.98	105.70
36	5	2891	U	N3-C4-C5	5.24	117.75	114.60
36	5	3044	G	N7-C8-N9	5.24	115.72	113.10
36	5	3091	A	N1-C6-N6	-5.24	115.45	118.60
36	1	1303	A	N1-C6-N6	5.24	121.75	118.60
36	1	3310	A	N9-C4-C5	-5.24	103.70	105.80
36	5	1939	G	N3-C2-N2	5.24	123.57	119.90
36	1	2874	G	C5-C6-N1	-5.24	108.88	111.50
1	6	1027	A	N1-C6-N6	5.24	121.74	118.60
36	5	767	U	O4'-C1'-N1	5.24	112.39	108.20
36	5	1043	C	N3-C2-O2	-5.24	118.23	121.90
36	5	2935	U	C5-C4-O4	-5.24	122.75	125.90
36	1	936	A	C5-C6-N6	-5.24	119.51	123.70
36	1	2526	C	C6-N1-C2	-5.24	118.20	120.30
36	1	2818	U	C4-C5-C6	-5.24	116.56	119.70
36	5	592	A	C8-N9-C4	5.24	107.90	105.80
36	5	960	U	OP1-P-O3'	-5.24	93.67	105.20
36	5	2757	U	N3-C4-O4	5.24	123.07	119.40
36	1	426	G	N3-C4-N9	5.24	129.14	126.00
39	L2	128	ARG	NE-CZ-NH1	-5.24	117.68	120.30
36	5	3146	G	N9-C4-C5	-5.24	103.31	105.40
36	1	39	A	N1-C6-N6	5.24	121.74	118.60
36	1	1137	C	C6-N1-C2	5.24	122.39	120.30
36	1	1414	G	N3-C4-C5	5.24	131.22	128.60
36	1	1431	G	C5-C6-O6	5.24	131.74	128.60
36	1	2187	G	N1-C6-O6	5.24	123.04	119.90
36	1	2418	G	OP2-P-O3'	5.24	116.72	105.20
1	6	217	A	P-O3'-C3'	5.24	125.98	119.70
36	5	411	U	C5-C6-N1	-5.24	120.08	122.70
36	5	1064	A	O4'-C1'-N9	-5.24	104.01	108.20
36	5	2823	G	C5-C6-O6	-5.24	125.46	128.60
36	1	298	U	C6-N1-C1'	-5.23	113.87	121.20
44	L7	163	LEU	CA-CB-CG	-5.23	103.26	115.30
36	1	588	G	N9-C4-C5	5.23	107.49	105.40
36	1	984	G	C2-N3-C4	5.23	114.52	111.90
36	1	2924	U	N3-C2-O2	5.23	125.86	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	2989	U	C5-C4-O4	-5.23	122.76	125.90
36	1	3267	A	N1-C6-N6	-5.23	115.46	118.60
1	6	1606	C	N1-C2-O2	5.23	122.04	118.90
36	5	1468	A	C5-C6-N6	-5.23	119.51	123.70
36	5	2523	A	N9-C4-C5	5.23	107.89	105.80
36	5	2880	U	N3-C2-O2	-5.23	118.54	122.20
36	5	2951	G	C4-N9-C1'	5.23	133.30	126.50
36	5	3354	U	C2-N1-C1'	5.23	123.98	117.70
36	1	70	A	C4-C5-C6	5.23	119.61	117.00
36	1	788	C	C2-N1-C1'	-5.23	113.05	118.80
36	1	907	G	N3-C4-N9	5.23	129.14	126.00
36	1	2361	A	C2-N3-C4	-5.23	107.98	110.60
1	6	397	A	C2-N3-C4	-5.23	107.98	110.60
36	5	379	C	C6-N1-C2	-5.23	118.21	120.30
36	5	1848	G	O5'-P-OP2	-5.23	100.99	105.70
36	5	3296	A	N1-C6-N6	5.23	121.74	118.60
36	1	635	G	C4-C5-N7	5.23	112.89	110.80
36	1	2619	G	OP1-P-O3'	5.23	116.70	105.20
38	4	39	G	O5'-P-OP1	-5.23	100.99	105.70
36	5	1507	G	C8-N9-C4	-5.23	104.31	106.40
36	5	2353	G	C6-C5-N7	-5.23	127.26	130.40
36	1	1200	A	C4-C5-C6	5.23	119.61	117.00
36	1	3006	A	N1-C2-N3	5.23	131.91	129.30
38	4	61	A	OP2-P-O3'	5.23	116.70	105.20
36	5	1154	A	N1-C6-N6	-5.23	115.46	118.60
36	5	2820	A	OP2-P-O3'	5.23	116.70	105.20
36	5	2879	C	N3-C2-O2	5.23	125.56	121.90
36	5	3326	G	N3-C4-N9	5.23	129.14	126.00
37	7	82	G	C6-C5-N7	-5.23	127.26	130.40
1	2	378	A	C5-C6-N6	-5.23	119.52	123.70
1	6	364	G	C4-N9-C1'	5.23	133.29	126.50
1	6	901	G	N9-C4-C5	-5.23	103.31	105.40
36	5	1701	C	C6-N1-C2	-5.23	118.21	120.30
36	5	3119	U	N1-C2-O2	-5.23	119.14	122.80
1	2	555	A	C8-N9-C4	-5.22	103.71	105.80
36	1	2169	G	C6-C5-N7	5.22	133.53	130.40
36	1	2397	A	O5'-P-OP2	-5.22	101.00	105.70
1	6	359	A	C4-N9-C1'	-5.22	116.89	126.30
1	6	1337	A	N3-C4-C5	5.22	130.46	126.80
36	5	927	C	C6-N1-C2	-5.22	118.21	120.30
36	5	1308	A	OP1-P-OP2	-5.22	111.76	119.60
37	7	85	G	OP2-P-O3'	5.22	116.69	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	1365	G	C4-N9-C1'	5.22	133.29	126.50
36	1	2756	C	N3-C4-N4	5.22	121.66	118.00
36	1	2816	G	C5-C6-O6	-5.22	125.47	128.60
36	1	3098	G	C4-C5-N7	5.22	112.89	110.80
36	5	2877	G	C8-N9-C1'	-5.22	120.21	127.00
36	1	1206	G	C4-C5-N7	-5.22	108.71	110.80
36	1	2996	U	N1-C2-O2	5.22	126.45	122.80
40	L3	4	ARG	NE-CZ-NH2	-5.22	117.69	120.30
37	7	41	G	N9-C4-C5	-5.22	103.31	105.40
1	2	1241	G	C4-C5-N7	5.22	112.89	110.80
36	1	2406	C	N1-C2-O2	-5.22	115.77	118.90
36	1	2671	A	C4-C5-C6	-5.22	114.39	117.00
1	6	163	G	C2-N3-C4	-5.22	109.29	111.90
1	6	1361	U	C5-C6-N1	5.22	125.31	122.70
36	5	3322	A	C6-C5-N7	-5.22	128.65	132.30
1	6	970	A	N1-C6-N6	5.22	121.73	118.60
1	6	1438	G	N3-C4-N9	5.22	129.13	126.00
36	5	2916	U	O5'-P-OP2	5.22	116.96	110.70
36	5	3026	G	C8-N9-C4	5.22	108.49	106.40
1	2	354	C	N3-C4-C5	-5.22	119.81	121.90
1	2	1215	C	C6-N1-C2	-5.22	118.21	120.30
36	1	1114	U	N1-C2-O2	5.22	126.45	122.80
36	1	2887	A	C5-N7-C8	-5.22	101.29	103.90
38	4	88	A	C5-C6-N6	-5.22	119.53	123.70
1	6	1537	C	O4'-C1'-N1	5.22	112.37	108.20
36	5	916	G	P-O3'-C3'	5.22	125.96	119.70
36	5	2154	U	C6-N1-C2	-5.22	117.87	121.00
36	5	2234	G	N1-C6-O6	5.22	123.03	119.90
36	1	1151	U	N3-C4-O4	5.21	123.05	119.40
1	6	128	U	N1-C2-O2	-5.21	119.15	122.80
1	6	1637	C	N3-C2-O2	-5.21	118.25	121.90
1	6	1780	G	N9-C4-C5	-5.21	103.31	105.40
1	6	1793	G	C8-N9-C1'	5.21	133.78	127.00
36	5	908	G	N1-C6-O6	5.21	123.03	119.90
36	5	1476	G	C6-C5-N7	5.21	133.53	130.40
36	5	2953	U	N3-C4-O4	5.21	123.05	119.40
36	5	2978	U	C5-C6-N1	-5.21	120.09	122.70
1	2	1339	C	C3'-C2'-C1'	5.21	105.67	101.50
36	1	245	U	N3-C2-O2	-5.21	118.55	122.20
36	5	376	G	N3-C4-C5	-5.21	125.99	128.60
1	2	1041	G	C8-N9-C4	-5.21	104.31	106.40
1	2	1241	G	C8-N9-C1'	-5.21	120.22	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	2376	G	N3-C4-C5	-5.21	125.99	128.60
36	1	2618	G	N3-C4-C5	-5.21	125.99	128.60
36	1	3088	G	N3-C2-N2	-5.21	116.25	119.90
1	6	1643	U	C2-N3-C4	-5.21	123.87	127.00
36	5	830	A	C4-C5-N7	5.21	113.31	110.70
36	5	1834	U	N3-C4-C5	-5.21	111.47	114.60
36	5	2794	G	N9-C4-C5	-5.21	103.31	105.40
1	2	1777	G	C6-C5-N7	-5.21	127.27	130.40
36	1	1519	G	C8-N9-C4	5.21	108.48	106.40
1	6	1600	A	N9-C1'-C2'	5.21	120.77	114.00
36	5	340	C	N3-C4-N4	-5.21	114.35	118.00
36	5	424	G	N9-C4-C5	-5.21	103.32	105.40
36	5	922	U	N3-C4-O4	-5.21	115.75	119.40
36	5	1468	A	C6-C5-N7	-5.21	128.65	132.30
36	1	1403	C	C2-N1-C1'	-5.21	113.07	118.80
36	1	2805	G	N1-C6-O6	5.21	123.03	119.90
38	4	94	C	C5-C4-N4	-5.21	116.55	120.20
1	6	18	C	C5-C6-N1	5.21	123.60	121.00
1	6	858	G	C5-N7-C8	-5.21	101.70	104.30
36	5	803	C	N1-C2-O2	-5.21	115.78	118.90
36	5	1003	A	C8-N9-C4	5.21	107.88	105.80
1	2	1560	U	C6-N1-C2	-5.21	117.88	121.00
36	1	688	G	C5-C6-O6	-5.21	125.48	128.60
36	1	908	G	N1-C2-N2	5.21	120.89	116.20
36	1	2692	A	C4-C5-N7	5.21	113.30	110.70
38	4	115	C	C6-N1-C2	5.21	122.38	120.30
1	6	14	C	N1-C2-O2	-5.21	115.78	118.90
36	5	80	G	N1-C6-O6	5.21	123.02	119.90
36	5	977	C	N1-C2-O2	5.21	122.02	118.90
36	5	1911	A	O5'-P-OP2	-5.21	101.02	105.70
1	2	866	G	N3-C4-C5	5.20	131.20	128.60
36	1	1156	C	C4-C5-C6	5.20	120.00	117.40
36	5	1874	A	C8-N9-C4	5.20	107.88	105.80
36	5	2965	U	N3-C2-O2	5.20	125.84	122.20
36	5	3317	U	C5-C4-O4	5.20	129.02	125.90
1	2	1558	U	C2-N1-C1'	5.20	123.94	117.70
36	1	556	U	N3-C2-O2	5.20	125.84	122.20
36	1	1204	A	O5'-P-OP1	-5.20	101.02	105.70
36	5	1008	U	C5-C6-N1	-5.20	120.10	122.70
36	1	1369	A	O5'-P-OP1	-5.20	101.02	105.70
36	5	798	G	N1-C6-O6	5.20	123.02	119.90
36	5	2697	A	C5-C6-N6	-5.20	119.54	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2	1096	C	N3-C2-O2	-5.20	118.26	121.90
36	1	590	G	C5-C6-O6	-5.20	125.48	128.60
36	1	1045	C	OP2-P-O3'	5.20	116.64	105.20
36	1	2232	A	O5'-P-OP2	-5.20	101.02	105.70
36	1	2400	G	C5-C6-N1	-5.20	108.90	111.50
36	1	2647	A	C6-N1-C2	-5.20	115.48	118.60
36	5	564	G	C4-C5-N7	-5.20	108.72	110.80
36	5	1772	U	N3-C2-O2	-5.20	118.56	122.20
36	5	2848	G	C4-C5-C6	5.20	121.92	118.80
37	7	43	U	C5-C6-N1	-5.20	120.10	122.70
1	2	307	G	N9-C4-C5	-5.20	103.32	105.40
36	1	970	A	C5-N7-C8	-5.20	101.30	103.90
1	6	590	C	C6-N1-C2	-5.20	118.22	120.30
36	5	128	G	N3-C4-N9	5.20	129.12	126.00
36	5	1139	G	C5-C6-O6	-5.20	125.48	128.60
36	5	1870	C	N1-C2-O2	-5.20	115.78	118.90
1	2	866	G	C4-C5-N7	5.20	112.88	110.80
36	1	404	G	C5-C6-N1	-5.20	108.90	111.50
36	1	1139	G	C5-C6-O6	5.20	131.72	128.60
36	5	567	G	N1-C2-N2	-5.20	111.52	116.20
36	5	641	C	C6-N1-C2	5.20	122.38	120.30
36	5	1321	G	C5-C6-N1	-5.20	108.90	111.50
38	4	32	C	N3-C2-O2	5.19	125.54	121.90
36	5	1164	G	OP1-P-OP2	5.19	127.39	119.60
36	5	1695	U	N1-C2-N3	5.19	118.02	114.90
36	1	326	U	O5'-P-OP2	-5.19	101.03	105.70
36	1	1386	A	N1-C6-N6	5.19	121.72	118.60
36	1	1428	A	N1-C2-N3	5.19	131.90	129.30
36	1	2307	G	OP2-P-O3'	5.19	116.62	105.20
1	6	558	U	N3-C2-O2	-5.19	118.56	122.20
36	5	221	A	N7-C8-N9	-5.19	111.20	113.80
36	5	1408	G	OP2-P-O3'	5.19	116.62	105.20
36	5	2299	A	C5-C6-N1	-5.19	115.10	117.70
36	5	2338	C	N3-C4-C5	-5.19	119.82	121.90
36	5	2692	A	N1-C6-N6	-5.19	115.48	118.60
36	5	3302	U	C2-N1-C1'	-5.19	111.47	117.70
1	2	1307	U	C2-N1-C1'	5.19	123.93	117.70
36	1	35	A	O5'-P-OP2	-5.19	101.03	105.70
36	1	636	C	C5-C6-N1	-5.19	118.40	121.00
36	1	967	A	C2-N3-C4	-5.19	108.00	110.60
36	5	1300	G	C6-C5-N7	-5.19	127.29	130.40
36	5	2112	U	OP2-P-O3'	5.19	116.62	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	2865	U	C5-C6-N1	5.19	125.30	122.70
43	l6	30	LEU	CA-CB-CG	5.19	127.24	115.30
36	1	274	G	C6-C5-N7	-5.19	127.29	130.40
36	1	573	C	C6-N1-C2	5.19	122.38	120.30
36	1	984	G	C4-C5-C6	5.19	121.91	118.80
1	6	209	U	N1-C2-O2	-5.19	119.17	122.80
1	6	976	G	C4-C5-N7	5.19	112.88	110.80
36	1	993	G	C5-C6-N1	5.19	114.09	111.50
36	1	1140	G	N3-C2-N2	5.19	123.53	119.90
36	5	934	G	N3-C4-C5	-5.19	126.01	128.60
36	5	2248	C	N1-C2-O2	-5.19	115.79	118.90
36	5	2814	G	C6-C5-N7	-5.19	127.29	130.40
36	1	1330	A	C4-C5-N7	5.19	113.29	110.70
1	6	437	A	N1-C6-N6	-5.19	115.49	118.60
37	7	42	A	O5'-P-OP2	5.19	116.92	110.70
57	n1	106	LEU	CA-CB-CG	-5.19	103.37	115.30
1	6	19	A	N9-C4-C5	-5.18	103.73	105.80
1	6	558	U	P-O3'-C3'	5.18	125.92	119.70
1	2	1650	U	C6-N1-C2	5.18	124.11	121.00
35	SM	134	ASP	CB-CG-OD2	5.18	122.96	118.30
36	1	400	G	C8-N9-C4	-5.18	104.33	106.40
1	6	28	A	OP1-P-O3'	5.18	116.60	105.20
1	6	390	G	OP1-P-OP2	5.18	127.38	119.60
36	5	3128	G	OP2-P-O3'	5.18	116.60	105.20
36	1	1127	G	C5-C6-O6	-5.18	125.49	128.60
37	3	8	G	C6-C5-N7	5.18	133.51	130.40
36	5	382	U	N1-C2-N3	5.18	118.01	114.90
36	5	1085	A	O5'-P-OP1	-5.18	101.04	105.70
36	5	3216	G	C8-N9-C4	5.18	108.47	106.40
1	2	386	G	OP1-P-O3'	5.18	116.59	105.20
36	1	1165	A	C8-N9-C4	5.18	107.87	105.80
36	1	2537	U	P-O3'-C3'	5.18	125.92	119.70
36	1	3210	A	C5-C6-N1	5.18	120.29	117.70
36	5	650	C	C6-N1-C1'	5.18	127.02	120.80
36	5	2618	G	N3-C4-N9	5.18	129.11	126.00
36	5	1305	U	C6-N1-C1'	-5.18	113.95	121.20
36	5	1846	C	P-O3'-C3'	-5.18	113.49	119.70
36	1	590	G	N9-C4-C5	-5.18	103.33	105.40
36	1	1047	A	O5'-P-OP2	-5.18	101.04	105.70
36	1	1175	C	C2-N3-C4	-5.18	117.31	119.90
1	6	413	U	N1-C2-N3	5.18	118.01	114.90
36	5	1520	G	C5-C6-O6	-5.18	125.49	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	2128	C	O5'-P-OP2	-5.18	101.04	105.70
36	5	2337	C	N1-C2-O2	5.18	122.01	118.90
36	1	1129	A	N9-C4-C5	-5.17	103.73	105.80
36	1	1414	G	C4-C5-N7	5.17	112.87	110.80
36	1	1501	U	C2-N1-C1'	-5.17	111.49	117.70
1	6	1657	U	N3-C2-O2	-5.17	118.58	122.20
36	5	2950	G	N7-C8-N9	5.17	115.69	113.10
38	8	80	A	N3-C4-C5	-5.17	123.18	126.80
38	8	113	U	N3-C2-O2	-5.17	118.58	122.20
36	5	976	U	C6-N1-C2	-5.17	117.90	121.00
1	2	323	A	O5'-P-OP2	-5.17	101.05	105.70
36	5	1520	G	C6-C5-N7	-5.17	127.30	130.40
36	5	1727	G	N1-C6-O6	-5.17	116.80	119.90
1	2	139	C	P-O3'-C3'	5.17	125.91	119.70
36	1	1468	A	C8-N9-C4	5.17	107.87	105.80
36	1	1904	C	OP2-P-O3'	5.17	116.57	105.20
36	1	2292	U	N1-C2-O2	5.17	126.42	122.80
36	1	3373	U	C6-N1-C2	5.17	124.10	121.00
1	6	107	C	C5-C6-N1	-5.17	118.42	121.00
36	5	720	A	C4-C5-N7	5.17	113.28	110.70
36	5	1210	U	N3-C4-O4	-5.17	115.78	119.40
36	5	1329	U	C6-N1-C1'	-5.17	113.96	121.20
36	5	1889	G	N3-C4-C5	-5.17	126.02	128.60
36	1	2310	U	O5'-P-OP1	-5.17	101.05	105.70
36	1	3298	C	C6-N1-C2	5.17	122.37	120.30
1	6	593	U	C5-C4-O4	5.17	129.00	125.90
36	5	407	A	C4-N9-C1'	5.17	135.60	126.30
36	5	960	U	N1-C1'-C2'	5.17	120.72	114.00
36	5	2871	G	N3-C4-C5	-5.17	126.02	128.60
36	5	2909	U	N1-C2-O2	-5.17	119.18	122.80
36	1	217	U	OP1-P-OP2	5.17	127.35	119.60
36	1	1545	A	N7-C8-N9	5.17	116.38	113.80
36	1	2624	G	C4-C5-N7	5.17	112.87	110.80
1	6	1650	U	N3-C2-O2	5.17	125.82	122.20
36	5	815	G	C4-N9-C1'	5.17	133.22	126.50
36	5	1336	U	O5'-P-OP2	-5.17	101.05	105.70
36	5	1438	U	C6-N1-C2	-5.17	117.90	121.00
36	5	2850	G	N1-C6-O6	5.17	123.00	119.90
36	5	3086	A	C2-N3-C4	-5.17	108.02	110.60
3	S1	96	LEU	CA-CB-CG	5.17	127.18	115.30
36	1	105	C	C5-C4-N4	-5.17	116.58	120.20
36	1	1201	C	N3-C4-N4	5.17	121.61	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	1495	U	C6-N1-C1'	5.17	128.43	121.20
36	1	2760	C	N1-C2-O2	-5.17	115.80	118.90
1	2	1205	C	C6-N1-C2	5.16	122.37	120.30
36	1	55	G	C8-N9-C4	5.16	108.47	106.40
36	1	903	U	C4-C5-C6	5.16	122.80	119.70
36	1	2283	G	C4-C5-N7	5.16	112.87	110.80
36	5	423	A	OP2-P-O3'	5.16	116.56	105.20
36	5	630	A	C2-N3-C4	-5.16	108.02	110.60
36	5	1449	A	C6-N1-C2	-5.16	115.50	118.60
36	5	2917	G	N1-C6-O6	5.16	123.00	119.90
36	1	1295	G	N1-C6-O6	-5.16	116.80	119.90
36	1	2378	C	C6-N1-C2	5.16	122.36	120.30
36	5	1842	A	O5'-P-OP2	-5.16	101.05	105.70
36	1	2974	U	N1-C2-N3	5.16	118.00	114.90
49	M3	85	LEU	CA-CB-CG	5.16	127.17	115.30
1	6	1124	A	C8-N9-C4	5.16	107.86	105.80
1	6	1186	U	N3-C2-O2	-5.16	118.59	122.20
36	5	424	G	C6-C5-N7	-5.16	127.30	130.40
36	5	2165	G	N3-C2-N2	5.16	123.51	119.90
36	5	2887	A	N1-C6-N6	5.16	121.70	118.60
36	1	2305	G	C6-N1-C2	-5.16	122.00	125.10
1	6	1014	G	C5-C6-O6	5.16	131.70	128.60
36	5	1149	G	N3-C4-N9	5.16	129.09	126.00
36	5	1154	A	C5-C6-N1	5.16	120.28	117.70
36	5	2685	C	C6-N1-C2	5.16	122.36	120.30
36	5	3179	U	C5-C6-N1	5.16	125.28	122.70
36	1	2124	G	C5-C6-O6	-5.16	125.51	128.60
36	5	2772	C	OP2-P-O3'	5.16	116.55	105.20
36	5	3005	A	N1-C6-N6	5.16	121.69	118.60
36	1	225	C	C5-C6-N1	-5.16	118.42	121.00
36	1	2884	C	N3-C2-O2	5.16	125.51	121.90
36	1	3043	C	N1-C2-O2	5.16	121.99	118.90
36	5	411	U	C4-C5-C6	5.16	122.79	119.70
36	5	673	U	N1-C2-N3	5.16	117.99	114.90
36	5	1463	U	N3-C2-O2	5.16	125.81	122.20
36	5	2598	G	C6-C5-N7	-5.16	127.31	130.40
36	1	120	G	C2-N3-C4	-5.15	109.32	111.90
36	1	1187	C	C6-N1-C2	5.15	122.36	120.30
36	1	1724	U	N3-C2-O2	5.15	125.81	122.20
36	1	2368	A	OP2-P-O3'	5.15	116.54	105.20
36	5	2397	A	OP1-P-O3'	5.15	116.54	105.20
36	1	1429	G	N3-C4-C5	-5.15	126.02	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	2360	C	C6-N1-C2	5.15	122.36	120.30
36	1	2376	G	C6-N1-C2	-5.15	122.01	125.10
36	1	3278	C	C5-C6-N1	5.15	123.58	121.00
36	5	391	A	N7-C8-N9	-5.15	111.22	113.80
36	5	800	G	O4'-C1'-N9	-5.15	104.08	108.20
36	5	1434	G	N1-C2-N2	5.15	120.84	116.20
36	5	3086	A	C5-C6-N1	-5.15	115.12	117.70
36	5	3212	C	N1-C2-O2	-5.15	115.81	118.90
37	7	44	C	OP2-P-O3'	5.15	116.53	105.20
1	2	1361	U	C2-N1-C1'	5.15	123.88	117.70
36	1	922	U	C2-N1-C1'	5.15	123.88	117.70
36	1	1064	A	C8-N9-C4	5.15	107.86	105.80
36	1	2868	U	C5-C6-N1	5.15	125.28	122.70
36	1	3297	U	N1-C2-O2	-5.15	119.19	122.80
1	6	318	U	N1-C2-O2	-5.15	119.19	122.80
1	6	337	G	N3-C4-N9	5.15	129.09	126.00
1	6	1164	G	C8-N9-C4	5.15	108.46	106.40
36	5	1495	U	C5-C6-N1	5.15	125.28	122.70
36	5	2202	C	N1-C2-O2	-5.15	115.81	118.90
36	5	2333	C	C2-N3-C4	-5.15	117.33	119.90
36	5	2996	U	O5'-P-OP2	-5.15	101.06	105.70
36	1	2314	U	C4-C5-C6	-5.15	116.61	119.70
38	4	61	A	N1-C6-N6	-5.15	115.51	118.60
39	L2	176	ASP	CB-CG-OD1	-5.15	113.67	118.30
36	5	880	G	C4-N9-C1'	-5.15	119.81	126.50
36	5	2290	C	N3-C4-C5	5.15	123.96	121.90
36	1	803	C	C4-C5-C6	-5.15	114.83	117.40
36	1	1300	G	C6-C5-N7	-5.15	127.31	130.40
36	1	2344	U	C2-N1-C1'	-5.15	111.52	117.70
36	1	2372	A	C8-N9-C4	-5.15	103.74	105.80
1	6	1000	C	C6-N1-C1'	-5.15	114.62	120.80
36	5	1190	A	C4-N9-C1'	5.15	135.57	126.30
36	5	2359	C	N3-C4-C5	5.15	123.96	121.90
36	5	2763	U	C5-C4-O4	-5.15	122.81	125.90
36	5	3266	G	N9-C4-C5	5.15	107.46	105.40
36	1	833	G	N3-C4-N9	-5.15	122.91	126.00
36	5	652	G	C6-N1-C2	-5.15	122.01	125.10
36	5	1118	C	O5'-P-OP2	-5.15	101.07	105.70
36	5	1554	U	N1-C2-O2	5.15	126.40	122.80
36	5	2340	U	C5-C6-N1	5.15	125.27	122.70
36	5	3174	A	C8-N9-C4	-5.15	103.74	105.80
36	1	1428	A	C6-C5-N7	-5.14	128.70	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	6	390	G	N3-C4-C5	-5.14	126.03	128.60
36	5	1012	G	C6-C5-N7	5.14	133.49	130.40
36	5	1307	G	C4-C5-N7	5.14	112.86	110.80
36	5	2331	C	N3-C4-N4	5.14	121.60	118.00
1	2	1662	G	C5-C6-N1	5.14	114.07	111.50
6	S4	246	LEU	CA-CB-CG	5.14	127.13	115.30
36	1	698	U	N1-C2-N3	5.14	117.99	114.90
36	1	1171	G	N9-C4-C5	5.14	107.46	105.40
36	1	1310	G	N1-C2-N2	-5.14	111.57	116.20
36	1	2522	G	C4-N9-C1'	5.14	133.19	126.50
36	1	2791	G	C8-N9-C4	-5.14	104.34	106.40
17	c5	36	LEU	CA-CB-CG	5.14	127.13	115.30
36	1	386	A	C6-C5-N7	-5.14	128.70	132.30
36	5	1176	C	N3-C2-O2	5.14	125.50	121.90
36	5	3105	U	C2-N1-C1'	-5.14	111.53	117.70
36	1	344	A	OP2-P-O3'	5.14	116.51	105.20
36	1	802	C	N3-C4-N4	5.14	121.60	118.00
36	1	2409	G	N3-C4-N9	5.14	129.08	126.00
36	1	2828	G	C5-C6-O6	5.14	131.68	128.60
36	5	935	U	C5-C4-O4	-5.14	122.82	125.90
36	5	1174	G	O5'-P-OP1	-5.14	101.07	105.70
36	5	1417	G	C5-C6-N1	5.14	114.07	111.50
36	5	2572	C	C5-C6-N1	5.14	123.57	121.00
36	5	2794	G	C4-C5-N7	5.14	112.86	110.80
36	1	1163	A	OP1-P-OP2	5.14	127.31	119.60
68	O2	66	LEU	CB-CG-CD2	-5.14	102.27	111.00
36	1	428	A	C6-C5-N7	5.14	135.90	132.30
36	1	1164	G	N1-C6-O6	-5.14	116.82	119.90
36	1	2875	U	C5-C6-N1	5.14	125.27	122.70
1	6	572	C	O5'-P-OP2	5.14	116.86	110.70
1	6	1535	U	N3-C4-O4	-5.14	115.81	119.40
36	5	3070	A	N1-C6-N6	5.14	121.68	118.60
36	5	3368	U	C2-N1-C1'	-5.14	111.54	117.70
1	2	1096	C	C6-N1-C1'	-5.13	114.64	120.80
36	1	1712	G	C5-C6-O6	-5.13	125.52	128.60
36	5	1434	G	C6-C5-N7	5.13	133.48	130.40
36	5	1597	C	N3-C4-N4	5.13	121.59	118.00
36	1	2887	A	OP2-P-O3'	5.13	116.49	105.20
36	1	2996	U	N1-C2-N3	-5.13	111.82	114.90
36	5	776	U	N3-C4-O4	-5.13	115.81	119.40
36	5	3005	A	N3-C4-N9	5.13	131.51	127.40
1	6	751	G	C5-C6-O6	-5.13	125.52	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	682	U	N3-C4-O4	-5.13	115.81	119.40
36	5	1054	A	C8-N9-C4	5.13	107.85	105.80
36	5	1300	G	C4-C5-N7	5.13	112.85	110.80
36	5	2286	U	N3-C2-O2	-5.13	118.61	122.20
36	5	2626	A	O5'-P-OP2	5.13	116.86	110.70
36	1	661	G	O5'-P-OP1	-5.13	101.08	105.70
36	1	931	C	N3-C2-O2	-5.13	118.31	121.90
1	6	29	U	C4-C5-C6	5.13	122.78	119.70
36	5	280	U	O5'-P-OP1	5.13	116.86	110.70
36	1	1515	A	N1-C6-N6	5.13	121.68	118.60
36	1	2121	G	C4-C5-N7	-5.13	108.75	110.80
36	1	2988	C	N1-C2-O2	-5.13	115.82	118.90
36	5	34	A	OP2-P-O3'	5.13	116.48	105.20
36	5	1506	A	N1-C6-N6	-5.13	115.52	118.60
1	2	1745	G	C4-C5-N7	5.13	112.85	110.80
36	1	269	G	C8-N9-C1'	5.13	133.66	127.00
36	1	1373	A	C5-N7-C8	-5.13	101.34	103.90
36	5	2435	G	C8-N9-C4	5.13	108.45	106.40
36	5	2627	C	N1-C2-N3	5.13	122.79	119.20
1	2	110	U	C5-C6-N1	5.12	125.26	122.70
36	1	1186	G	N3-C4-N9	5.12	129.07	126.00
36	1	1852	G	C6-C5-N7	-5.12	127.33	130.40
36	1	2917	G	C2-N3-C4	5.12	114.46	111.90
36	1	2917	G	C4-C5-N7	-5.12	108.75	110.80
36	5	216	G	C5-C6-O6	-5.12	125.53	128.60
1	2	1731	A	N9-C4-C5	-5.12	103.75	105.80
36	1	27	C	N1-C2-O2	-5.12	115.83	118.90
36	1	1518	U	N3-C2-O2	-5.12	118.61	122.20
1	6	323	A	C8-N9-C4	-5.12	103.75	105.80
1	6	421	A	C8-N9-C4	5.12	107.85	105.80
36	5	202	G	N9-C4-C5	-5.12	103.35	105.40
44	l7	232	ARG	NE-CZ-NH2	5.12	122.86	120.30
36	1	1174	G	N3-C4-C5	-5.12	126.04	128.60
36	1	2541	U	P-O3'-C3'	5.12	125.84	119.70
36	1	2938	G	OP1-P-OP2	5.12	127.28	119.60
36	5	1153	A	OP2-P-O3'	5.12	116.47	105.20
36	5	1215	U	N3-C4-O4	5.12	122.98	119.40
36	5	2305	G	N7-C8-N9	5.12	115.66	113.10
36	5	2524	A	N9-C1'-C2'	5.12	120.66	114.00
36	5	2801	A	C6-N1-C2	-5.12	115.53	118.60
36	5	3099	C	C5-C6-N1	-5.12	118.44	121.00
38	4	125	U	C2-N1-C1'	5.12	123.84	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	6	1025	A	C4-C5-C6	5.12	119.56	117.00
1	2	1269	U	C2-N1-C1'	5.12	123.84	117.70
36	1	2292	U	N3-C2-O2	-5.12	118.62	122.20
1	6	1	U	C5-C6-N1	5.12	125.26	122.70
1	6	454	U	C5-C6-N1	-5.12	120.14	122.70
36	5	673	U	C2-N1-C1'	-5.12	111.56	117.70
36	5	706	A	C8-N9-C4	5.12	107.85	105.80
36	5	920	A	O5'-P-OP1	5.12	116.84	110.70
36	5	1413	G	N1-C2-N3	5.12	126.97	123.90
36	5	791	A	N1-C6-N6	5.12	121.67	118.60
36	5	1520	G	C4-N9-C1'	5.12	133.15	126.50
36	1	1905	G	N3-C4-C5	5.12	131.16	128.60
36	5	1178	G	N7-C8-N9	5.12	115.66	113.10
36	5	1196	C	N1-C2-O2	5.12	121.97	118.90
36	5	2984	C	C5-C6-N1	-5.12	118.44	121.00
36	1	199	A	O4'-C1'-N9	5.11	112.29	108.20
36	1	1439	U	N1-C2-N3	5.11	117.97	114.90
36	1	1742	U	C5-C4-O4	-5.11	122.83	125.90
36	1	2174	G	N7-C8-N9	5.11	115.66	113.10
36	1	2273	G	C4-N9-C1'	-5.11	119.85	126.50
36	1	3012	A	C2-N3-C4	-5.11	108.04	110.60
39	L2	191	LEU	CA-CB-CG	-5.11	103.54	115.30
1	6	1412	G	C6-C5-N7	5.11	133.47	130.40
1	6	1489	U	C2-N1-C1'	5.11	123.83	117.70
36	5	530	G	C8-N9-C4	-5.11	104.36	106.40
36	5	640	U	N3-C4-C5	-5.11	111.53	114.60
36	5	2735	U	C5-C6-N1	5.11	125.26	122.70
36	5	667	C	N1-C2-O2	5.11	121.97	118.90
36	5	2194	G	N1-C2-N3	5.11	126.97	123.90
36	1	61	A	N9-C4-C5	-5.11	103.76	105.80
36	1	1311	G	C8-N9-C4	5.11	108.44	106.40
36	1	1545	A	C8-N9-C4	-5.11	103.76	105.80
38	4	15	G	N9-C4-C5	-5.11	103.36	105.40
1	6	257	A	C5-C6-N6	-5.11	119.61	123.70
36	5	971	G	N3-C2-N2	-5.11	116.32	119.90
68	o2	4	LEU	C-N-CA	-5.11	100.54	122.00
36	1	1149	G	C5-C6-N1	-5.11	108.94	111.50
36	1	1375	G	O5'-P-OP2	-5.11	101.10	105.70
36	1	2610	G	N9-C4-C5	-5.11	103.36	105.40
61	N5	34	LEU	CA-CB-CG	5.11	127.05	115.30
36	5	99	A	N7-C8-N9	-5.11	111.25	113.80
36	5	3095	U	OP1-P-O3'	5.11	116.44	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	1916	U	C5-C6-N1	-5.11	120.15	122.70
36	1	2723	U	N3-C2-O2	5.11	125.78	122.20
36	5	867	G	C5-C6-N1	-5.11	108.95	111.50
36	5	1186	G	O5'-P-OP1	5.11	116.83	110.70
36	5	1381	A	OP1-P-O3'	5.11	116.44	105.20
36	5	2881	C	C2-N1-C1'	-5.11	113.18	118.80
1	6	371	G	C4-N9-C1'	5.11	133.14	126.50
1	6	413	U	C6-N1-C2	-5.11	117.94	121.00
1	6	1493	A	N1-C6-N6	5.11	121.66	118.60
36	5	576	C	N3-C4-C5	5.11	123.94	121.90
36	5	1433	A	N1-C6-N6	-5.11	115.54	118.60
1	2	529	A	N1-C6-N6	5.10	121.66	118.60
1	2	736	C	C5-C6-N1	5.10	123.55	121.00
36	1	1835	A	C6-N1-C2	5.10	121.66	118.60
36	1	2402	A	C6-N1-C2	-5.10	115.54	118.60
36	5	1317	A	C4-C5-N7	5.10	113.25	110.70
36	5	1541	G	C5-C6-O6	-5.10	125.54	128.60
36	5	2271	A	N1-C6-N6	-5.10	115.54	118.60
36	5	2937	G	N1-C6-O6	5.10	122.96	119.90
36	1	637	C	N1-C2-O2	5.10	121.96	118.90
36	1	809	G	C5-C6-O6	-5.10	125.54	128.60
36	1	579	G	O5'-P-OP1	5.10	116.82	110.70
1	6	1187	U	C5-C6-N1	5.10	125.25	122.70
36	5	1215	U	C5-C4-O4	-5.10	122.84	125.90
36	5	2145	A	C4-N9-C1'	5.10	135.48	126.30
1	2	408	C	N1-C2-O2	-5.10	115.84	118.90
36	1	1107	C	C6-N1-C2	5.10	122.34	120.30
36	1	1547	G	C5-N7-C8	5.10	106.85	104.30
36	1	2760	C	C4-C5-C6	5.10	119.95	117.40
38	4	113	U	C4-C5-C6	5.10	122.76	119.70
1	6	1152	A	C8-N9-C4	5.10	107.84	105.80
36	5	1590	G	N1-C6-O6	-5.10	116.84	119.90
36	5	3198	U	OP1-P-OP2	5.10	127.25	119.60
36	5	3287	U	C6-N1-C2	-5.10	117.94	121.00
36	5	649	A	N1-C2-N3	-5.10	126.75	129.30
36	5	1140	G	OP1-P-O3'	5.10	116.41	105.20
36	5	1534	A	C2-N3-C4	5.10	113.15	110.60
36	5	2797	C	N1-C2-O2	-5.10	115.84	118.90
36	5	3335	A	C6-C5-N7	-5.10	128.73	132.30
44	l7	229	PHE	CB-CG-CD2	-5.10	117.23	120.80
1	2	1241	G	N7-C8-N9	5.09	115.65	113.10
36	1	859	G	C8-N9-C4	5.09	108.44	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	2249	G	N9-C1'-C2'	-5.09	106.40	112.00
1	6	1480	G	C4-C5-N7	5.09	112.84	110.80
36	5	3004	C	C4-C5-C6	-5.09	114.85	117.40
36	5	2199	G	C4-N9-C1'	5.09	133.12	126.50
36	5	2392	C	N1-C2-O2	-5.09	115.84	118.90
1	2	802	G	N3-C4-C5	-5.09	126.05	128.60
36	1	927	C	C5-C4-N4	-5.09	116.64	120.20
36	1	1849	C	C5-C4-N4	-5.09	116.64	120.20
36	1	2614	G	C5-N7-C8	5.09	106.84	104.30
36	1	2835	U	C6-N1-C2	5.09	124.06	121.00
1	6	337	G	N3-C4-C5	-5.09	126.06	128.60
36	5	1452	A	C6-C5-N7	-5.09	128.74	132.30
37	7	103	A	C5-C6-N1	5.09	120.25	117.70
1	2	885	G	N1-C6-O6	5.09	122.95	119.90
36	1	922	U	C6-N1-C1'	-5.09	114.08	121.20
36	1	2325	G	C5-N7-C8	-5.09	101.76	104.30
36	1	2832	C	OP1-P-OP2	5.09	127.23	119.60
36	1	3101	G	C2-N3-C4	5.09	114.44	111.90
37	3	81	U	C5-C6-N1	-5.09	120.16	122.70
1	6	136	C	C2-N1-C1'	5.09	124.40	118.80
1	6	1412	G	N9-C4-C5	5.09	107.44	105.40
36	5	1178	G	C4-C5-N7	5.09	112.84	110.80
36	5	2830	G	C4-C5-C6	5.09	121.85	118.80
36	5	3330	A	N1-C6-N6	-5.09	115.55	118.60
36	1	298	U	N3-C2-O2	-5.09	118.64	122.20
36	1	1349	G	N3-C4-N9	5.09	129.05	126.00
37	7	105	C	C2-N3-C4	5.09	122.44	119.90
1	2	553	G	C4-C5-C6	5.09	121.85	118.80
1	2	1659	A	N7-C8-N9	5.09	116.34	113.80
36	1	304	G	C6-N1-C2	-5.09	122.05	125.10
36	1	398	A	O5'-P-OP2	-5.09	101.12	105.70
36	1	1664	G	C8-N9-C4	-5.09	104.37	106.40
1	6	571	G	N1-C6-O6	-5.09	116.85	119.90
1	6	636	A	OP1-P-OP2	-5.09	111.97	119.60
36	5	1115	G	OP1-P-OP2	-5.09	111.97	119.60
36	5	1891	A	N1-C6-N6	5.08	121.65	118.60
1	2	1596	C	N3-C2-O2	-5.08	118.34	121.90
36	1	711	A	OP2-P-O3'	5.08	116.38	105.20
36	1	1217	A	OP2-P-O3'	5.08	116.38	105.20
38	4	88	A	C8-N9-C4	5.08	107.83	105.80
1	6	1478	G	C4-N9-C1'	5.08	133.11	126.50
36	5	845	G	N9-C4-C5	-5.08	103.37	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	971	G	C5-N7-C8	5.08	106.84	104.30
36	5	1914	G	C5-C6-O6	5.08	131.65	128.60
36	5	2865	U	N1-C2-O2	5.08	126.36	122.80
1	2	456	A	N1-C6-N6	-5.08	115.55	118.60
36	1	590	G	N3-C4-N9	5.08	129.05	126.00
36	1	1480	G	N1-C6-O6	5.08	122.95	119.90
36	1	1829	G	N1-C2-N3	-5.08	120.85	123.90
36	1	2828	G	C8-N9-C1'	-5.08	120.39	127.00
36	5	651	G	N7-C8-N9	5.08	115.64	113.10
36	5	1142	G	N3-C4-C5	-5.08	126.06	128.60
36	5	2905	U	C5-C6-N1	-5.08	120.16	122.70
36	1	33	G	C4-C5-C6	5.08	121.85	118.80
36	1	269	G	C6-C5-N7	5.08	133.45	130.40
36	1	1433	A	N1-C6-N6	-5.08	115.55	118.60
36	1	1820	U	OP2-P-O3'	5.08	116.38	105.20
1	6	1458	G	C4-N9-C1'	5.08	133.10	126.50
36	5	202	G	N1-C6-O6	5.08	122.95	119.90
36	5	321	C	N1-C2-O2	5.08	121.95	118.90
36	5	647	A	N1-C2-N3	5.08	131.84	129.30
36	5	779	G	C5-C6-O6	-5.08	125.55	128.60
36	5	2231	C	C2-N1-C1'	5.08	124.39	118.80
38	8	91	C	C6-N1-C2	-5.08	118.27	120.30
52	m6	68	ARG	NE-CZ-NH2	5.08	122.84	120.30
36	1	3029	A	C8-N9-C4	-5.08	103.77	105.80
36	5	1177	G	N3-C4-C5	-5.08	126.06	128.60
36	5	1513	G	N7-C8-N9	5.08	115.64	113.10
36	5	2188	A	O5'-P-OP1	-5.08	101.13	105.70
1	2	542	A	C5-N7-C8	-5.08	101.36	103.90
36	1	1001	G	C4-C5-N7	5.08	112.83	110.80
36	1	1484	U	C6-N1-C2	-5.08	117.95	121.00
36	1	1850	A	C4-C5-N7	5.08	113.24	110.70
36	1	2208	A	OP2-P-O3'	5.08	116.37	105.20
36	1	3268	A	C4-C5-C6	5.08	119.54	117.00
37	3	75	G	O5'-P-OP1	-5.08	101.13	105.70
36	5	824	C	N3-C2-O2	-5.08	118.35	121.90
36	5	998	A	N1-C2-N3	5.08	131.84	129.30
36	5	1317	A	C5-C6-N1	5.08	120.24	117.70
36	5	1335	C	N1-C2-O2	-5.08	115.86	118.90
36	5	2908	G	C8-N9-C4	-5.08	104.37	106.40
1	2	1539	G	N7-C8-N9	5.07	115.64	113.10
36	1	989	A	C8-N9-C4	5.07	107.83	105.80
36	1	2355	G	C5-C6-O6	-5.07	125.56	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	6	1117	U	N1-C2-N3	5.07	117.94	114.90
36	5	155	G	OP1-P-O3'	5.07	116.36	105.20
36	5	283	G	C4-N9-C1'	5.07	133.10	126.50
36	5	1202	A	N1-C2-N3	5.07	131.84	129.30
36	5	2330	C	OP2-P-O3'	5.07	116.36	105.20
36	5	2801	A	C5-C6-N1	5.07	120.24	117.70
36	5	3313	U	OP1-P-OP2	5.07	127.21	119.60
37	7	55	A	C4-C5-N7	5.07	113.24	110.70
36	1	212	G	O4'-C1'-N9	5.07	112.26	108.20
36	1	658	G	C8-N9-C1'	-5.07	120.41	127.00
36	1	2899	C	C2-N1-C1'	5.07	124.38	118.80
1	2	581	U	C2-N1-C1'	5.07	123.78	117.70
36	1	414	U	O5'-P-OP2	-5.07	101.14	105.70
36	1	1108	U	N3-C4-C5	5.07	117.64	114.60
36	1	1362	G	N7-C8-N9	-5.07	110.56	113.10
36	5	2831	G	N3-C4-C5	-5.07	126.06	128.60
36	5	3214	U	N1-C2-N3	5.07	117.94	114.90
36	1	33	G	C5-C6-N1	-5.07	108.97	111.50
36	1	893	C	C6-N1-C2	-5.07	118.27	120.30
36	1	1836	C	N1-C2-O2	5.07	121.94	118.90
36	1	3209	A	C5-C6-N6	-5.07	119.64	123.70
38	4	110	C	N1-C2-O2	-5.07	115.86	118.90
36	1	104	G	OP2-P-O3'	5.07	116.35	105.20
36	1	907	G	O4'-C1'-N9	5.07	112.25	108.20
36	1	1187	C	N3-C4-C5	5.07	123.93	121.90
36	1	2585	G	C2-N3-C4	5.07	114.43	111.90
36	1	2697	A	N9-C4-C5	5.07	107.83	105.80
1	6	794	U	C5-C6-N1	5.07	125.23	122.70
36	5	817	A	OP2-P-O3'	5.07	116.35	105.20
36	5	1878	G	C8-N9-C1'	-5.07	120.41	127.00
36	5	2920	U	C2-N3-C4	-5.07	123.96	127.00
36	1	262	U	N1-C2-O2	-5.07	119.25	122.80
36	1	1476	G	C5-C6-O6	5.07	131.64	128.60
36	1	1496	C	C6-N1-C2	-5.07	118.27	120.30
36	1	2357	A	C8-N9-C4	-5.07	103.77	105.80
36	1	2389	C	N3-C4-C5	5.07	123.93	121.90
36	1	3180	A	N1-C6-N6	5.07	121.64	118.60
1	6	163	G	C8-N9-C1'	5.06	133.58	127.00
36	1	500	C	C6-N1-C2	-5.06	118.28	120.30
36	1	1167	U	C5-C4-O4	5.06	128.94	125.90
36	1	1431	G	N3-C4-C5	-5.06	126.07	128.60
36	1	3010	U	C6-N1-C2	-5.06	117.96	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	6	611	U	C2-N1-C1'	5.06	123.78	117.70
36	5	683	U	N3-C4-C5	-5.06	111.56	114.60
36	5	1837	U	N1-C2-O2	-5.06	119.26	122.80
36	5	2968	G	N1-C2-N3	5.06	126.94	123.90
36	5	3309	G	O4'-C1'-N9	5.06	112.25	108.20
36	1	1850	A	C5-N7-C8	-5.06	101.37	103.90
36	1	2599	U	C5-C6-N1	5.06	125.23	122.70
36	1	2814	G	OP1-P-O3'	5.06	116.33	105.20
1	6	1596	C	N3-C4-N4	-5.06	114.46	118.00
36	1	80	G	C5-C6-N1	5.06	114.03	111.50
36	1	885	U	N3-C4-O4	-5.06	115.86	119.40
36	1	2983	C	C5-C6-N1	-5.06	118.47	121.00
1	6	695	U	C5-C6-N1	5.06	125.23	122.70
1	6	1600	A	C4-C5-N7	5.06	113.23	110.70
1	6	1704	U	C2-N1-C1'	5.06	123.77	117.70
36	5	2651	G	N3-C4-C5	5.06	131.13	128.60
42	l5	158	ARG	NE-CZ-NH2	-5.06	117.77	120.30
36	1	649	A	N1-C6-N6	-5.06	115.56	118.60
36	1	856	G	N1-C6-O6	5.06	122.93	119.90
36	1	900	G	C4-C5-N7	-5.06	108.78	110.80
1	6	106	U	C6-N1-C1'	5.06	128.28	121.20
1	6	459	G	C8-N9-C4	-5.06	104.38	106.40
1	6	1794	A	N1-C6-N6	-5.06	115.56	118.60
36	5	543	C	C6-N1-C2	-5.06	118.28	120.30
36	5	919	U	C5-C4-O4	-5.06	122.87	125.90
36	5	1342	C	C5-C6-N1	-5.06	118.47	121.00
36	5	1352	A	P-O3'-C3'	5.06	125.77	119.70
36	5	1665	C	N3-C4-C5	5.06	123.92	121.90
36	5	2353	G	C8-N9-C4	5.06	108.42	106.40
36	5	808	A	C8-N9-C4	-5.06	103.78	105.80
36	5	3212	C	C2-N1-C1'	-5.06	113.24	118.80
36	1	1207	G	N9-C4-C5	-5.05	103.38	105.40
36	1	2871	G	C5-C6-O6	-5.05	125.57	128.60
1	6	1761	U	N3-C2-O2	-5.05	118.66	122.20
36	5	1210	U	C5-C4-O4	5.05	128.93	125.90
36	5	2204	C	P-O3'-C3'	5.05	125.77	119.70
36	5	2923	U	N3-C2-O2	-5.05	118.66	122.20
36	1	2336	U	C5-C6-N1	-5.05	120.17	122.70
1	6	1016	C	N3-C2-O2	5.05	125.44	121.90
36	5	1166	G	C5-C6-O6	-5.05	125.57	128.60
36	5	2130	G	N3-C4-N9	-5.05	122.97	126.00
1	2	447	U	N3-C4-C5	-5.05	111.57	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2	1486	G	C5-N7-C8	-5.05	101.77	104.30
1	2	1573	A	P-O3'-C3'	5.05	125.76	119.70
36	1	1430	U	N3-C2-O2	5.05	125.74	122.20
38	4	28	C	OP2-P-O3'	5.05	116.31	105.20
33	e1	100	LEU	CA-CB-CG	5.05	126.92	115.30
36	5	1442	U	OP1-P-O3'	5.05	116.31	105.20
36	5	2804	A	C5-C6-N6	5.05	127.74	123.70
36	5	2968	G	N3-C4-N9	5.05	129.03	126.00
36	5	3287	U	N1-C2-O2	5.05	126.34	122.80
37	7	92	A	N9-C4-C5	-5.05	103.78	105.80
36	1	939	U	O5'-P-OP2	-5.05	101.16	105.70
36	1	1397	C	C2-N1-C1'	-5.05	113.25	118.80
36	1	1450	G	O5'-P-OP1	-5.05	101.16	105.70
36	1	2617	U	O5'-P-OP1	5.05	116.76	110.70
37	3	117	A	N9-C4-C5	-5.05	103.78	105.80
36	5	352	A	N1-C6-N6	5.05	121.63	118.60
36	5	2689	A	N1-C2-N3	5.05	131.82	129.30
36	5	2699	G	N7-C8-N9	-5.05	110.58	113.10
36	5	2717	U	C2-N1-C1'	-5.05	111.64	117.70
36	5	3125	U	OP1-P-O3'	5.05	116.31	105.20
36	5	3392	U	N1-C2-N3	5.05	117.93	114.90
36	1	1303	A	C8-N9-C4	5.05	107.82	105.80
36	1	1414	G	C5-C6-O6	-5.05	125.57	128.60
36	5	23	A	C8-N9-C4	5.05	107.82	105.80
38	4	72	A	N1-C6-N6	5.05	121.63	118.60
36	5	806	A	N1-C6-N6	-5.05	115.57	118.60
36	5	2360	C	OP2-P-O3'	5.05	116.30	105.20
36	5	2556	C	N3-C2-O2	-5.05	118.37	121.90
36	5	3383	G	N1-C6-O6	5.05	122.93	119.90
36	1	709	A	N7-C8-N9	-5.04	111.28	113.80
36	5	705	A	OP1-P-OP2	-5.04	112.03	119.60
37	7	84	A	OP1-P-O3'	5.04	116.30	105.20
36	1	192	C	C6-N1-C2	-5.04	118.28	120.30
36	1	1475	A	N7-C8-N9	-5.04	111.28	113.80
36	1	1724	U	N1-C2-O2	-5.04	119.27	122.80
36	1	2177	G	N3-C4-N9	5.04	129.03	126.00
36	1	3278	C	C2-N3-C4	5.04	122.42	119.90
1	6	337	G	N1-C2-N2	-5.04	111.66	116.20
1	6	792	U	C6-N1-C2	-5.04	117.97	121.00
1	6	938	G	C6-C5-N7	-5.04	127.37	130.40
1	6	1748	G	N7-C8-N9	-5.04	110.58	113.10
36	5	938	C	OP1-P-O3'	5.04	116.30	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	2792	A	C8-N9-C4	-5.04	103.78	105.80
36	1	2851	A	C8-N9-C4	5.04	107.82	105.80
36	1	2964	G	N3-C4-N9	-5.04	122.97	126.00
36	1	3056	U	N1-C2-O2	-5.04	119.27	122.80
36	1	3278	C	C6-N1-C2	-5.04	118.28	120.30
1	6	1498	G	C6-C5-N7	-5.04	127.38	130.40
36	5	579	G	N3-C4-N9	-5.04	122.98	126.00
36	5	1116	G	N9-C4-C5	5.04	107.42	105.40
36	5	1667	A	C4-C5-N7	5.04	113.22	110.70
36	5	1844	C	C2-N1-C1'	5.04	124.35	118.80
36	5	2616	C	OP2-P-O3'	5.04	116.29	105.20
36	1	227	G	C5-C6-O6	-5.04	125.58	128.60
36	5	1493	G	O4'-C1'-N9	5.04	112.23	108.20
36	1	60	A	N9-C4-C5	-5.04	103.78	105.80
36	1	324	A	OP1-P-O3'	5.04	116.29	105.20
36	1	420	G	O5'-P-OP2	-5.04	101.17	105.70
36	1	1513	G	N3-C4-C5	-5.04	126.08	128.60
36	1	1556	C	N3-C2-O2	-5.04	118.37	121.90
36	1	2651	G	O5'-P-OP1	-5.04	101.17	105.70
1	6	1568	C	C2-N1-C1'	5.04	124.34	118.80
36	5	1261	G	O4'-C1'-N9	5.04	112.23	108.20
36	5	1547	G	C8-N9-C4	5.04	108.42	106.40
36	5	1939	G	C4-N9-C1'	5.04	133.05	126.50
36	5	2599	U	C5-C6-N1	-5.04	120.18	122.70
36	1	221	A	N9-C4-C5	5.04	107.81	105.80
1	6	1602	C	N3-C2-O2	-5.04	118.37	121.90
36	1	107	A	N9-C4-C5	-5.04	103.79	105.80
36	1	2874	G	O5'-P-OP1	5.04	116.74	110.70
1	6	406	U	C5-C6-N1	-5.04	120.18	122.70
36	5	2139	A	C2-N3-C4	-5.04	108.08	110.60
37	7	32	U	OP1-P-O3'	5.04	116.28	105.20
38	8	17	A	C2-N3-C4	-5.04	108.08	110.60
1	2	378	A	C4-C5-N7	5.03	113.22	110.70
36	1	188	U	C6-N1-C2	-5.03	117.98	121.00
36	5	1877	U	C6-N1-C2	5.03	124.02	121.00
36	5	2381	G	C4-C5-C6	5.03	121.82	118.80
36	5	2701	U	O5'-P-OP1	-5.03	101.17	105.70
38	8	40	A	C8-N9-C4	-5.03	103.79	105.80
36	1	292	U	N1-C2-O2	-5.03	119.28	122.80
36	1	2293	C	C6-N1-C2	-5.03	118.29	120.30
1	2	378	A	N9-C4-C5	-5.03	103.79	105.80
1	2	1796	C	C4-C5-C6	5.03	119.92	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	713	U	C5-C6-N1	-5.03	120.19	122.70
36	1	881	C	N1-C2-O2	5.03	121.92	118.90
36	1	934	G	C8-N9-C1'	-5.03	120.46	127.00
36	5	510	G	N1-C6-O6	-5.03	116.88	119.90
36	5	806	A	N9-C4-C5	5.03	107.81	105.80
36	5	2136	C	C6-N1-C2	5.03	122.31	120.30
1	2	42	G	C5-C6-O6	5.03	131.62	128.60
36	1	2697	A	C5-C6-N6	5.03	127.72	123.70
36	1	3101	G	C4-C5-C6	-5.03	115.78	118.80
36	5	666	A	O5'-P-OP1	-5.03	101.17	105.70
36	1	1439	U	C6-N1-C2	-5.03	117.98	121.00
36	1	1790	G	O5'-P-OP1	-5.03	101.17	105.70
1	6	1137	A	O5'-P-OP1	5.03	116.73	110.70
36	5	980	A	C5-C6-N1	5.03	120.21	117.70
36	5	1398	U	C6-N1-C1'	5.03	128.24	121.20
36	5	218	G	N1-C6-O6	-5.03	116.88	119.90
36	5	1159	A	O5'-P-OP2	-5.03	101.18	105.70
36	5	2339	C	O4'-C1'-N1	-5.03	104.18	108.20
36	5	2830	G	C4-N9-C1'	5.03	133.03	126.50
36	5	3208	G	N1-C6-O6	5.03	122.92	119.90
36	5	3326	G	N1-C2-N2	-5.03	111.68	116.20
1	2	1012	U	C2-N3-C4	5.02	130.01	127.00
36	1	352	A	O4'-C1'-N9	5.02	112.22	108.20
1	6	45	U	N3-C4-O4	-5.02	115.88	119.40
36	5	1338	C	C5-C4-N4	-5.02	116.68	120.20
36	5	2676	A	C8-N9-C4	-5.02	103.79	105.80
1	2	1432	U	C2-N1-C1'	-5.02	111.67	117.70
36	1	1168	U	N3-C4-O4	-5.02	115.89	119.40
36	1	1378	U	C6-N1-C1'	-5.02	114.17	121.20
36	1	3293	U	N3-C2-O2	5.02	125.72	122.20
1	6	794	U	N1-C2-O2	5.02	126.31	122.80
36	5	646	A	N1-C6-N6	-5.02	115.59	118.60
36	5	1939	G	C8-N9-C1'	-5.02	120.47	127.00
36	5	2375	G	C6-C5-N7	5.02	133.41	130.40
1	2	1651	A	C5-C6-N1	-5.02	115.19	117.70
36	1	24	G	C5-C6-N1	-5.02	108.99	111.50
36	1	3109	G	C2-N3-C4	5.02	114.41	111.90
1	2	1615	C	C6-N1-C2	-5.02	118.29	120.30
36	1	1164	G	C4-C5-C6	5.02	121.81	118.80
36	1	1483	G	O4'-C1'-N9	5.02	112.21	108.20
36	1	3248	C	C5-C6-N1	5.02	123.51	121.00
1	6	670	U	N1-C2-O2	5.02	126.31	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	2698	G	C5-C6-O6	-5.02	125.59	128.60
42	l5	15	ARG	NE-CZ-NH1	-5.02	117.79	120.30
36	1	1402	C	N3-C4-C5	5.02	123.91	121.90
36	1	3196	U	O4'-C1'-N1	5.02	112.21	108.20
36	5	873	C	P-O3'-C3'	5.02	125.72	119.70
36	5	919	U	C5-C6-N1	-5.02	120.19	122.70
36	5	2968	G	O4'-C1'-N9	-5.02	104.19	108.20
36	5	2988	C	N3-C4-N4	-5.02	114.49	118.00
36	1	1000	C	C6-N1-C1'	-5.01	114.78	120.80
36	1	1318	A	O4'-C1'-N9	-5.01	104.19	108.20
36	1	2521	U	C5-C6-N1	-5.01	120.19	122.70
36	1	2806	U	O5'-P-OP2	-5.01	101.19	105.70
36	1	3295	A	O4'-C1'-N9	5.01	112.21	108.20
1	6	375	U	C2-N1-C1'	-5.01	111.68	117.70
1	6	382	C	N3-C2-O2	5.01	125.41	121.90
1	6	1704	U	C5-C6-N1	5.01	125.21	122.70
36	5	834	U	N3-C4-O4	-5.01	115.89	119.40
36	5	1405	U	N1-C2-N3	5.01	117.91	114.90
36	5	2607	G	N1-C6-O6	-5.01	116.89	119.90
36	1	2223	A	N7-C8-N9	5.01	116.31	113.80
36	5	2218	G	C8-N9-C4	5.01	108.41	106.40
36	5	3176	G	N3-C4-C5	-5.01	126.09	128.60
36	1	60	A	C5-C6-N6	-5.01	119.69	123.70
1	6	751	G	O5'-P-OP1	-5.01	101.19	105.70
1	6	1428	G	C8-N9-C4	-5.01	104.39	106.40
36	5	504	A	N1-C2-N3	-5.01	126.79	129.30
36	5	2617	U	N3-C4-C5	-5.01	111.59	114.60
36	5	2626	A	O5'-P-OP1	-5.01	101.19	105.70
36	5	2707	C	C6-N1-C2	5.01	122.31	120.30
1	2	1659	A	C8-N9-C4	-5.01	103.80	105.80
36	1	1146	C	C5-C6-N1	5.01	123.50	121.00
36	1	3375	A	O5'-P-OP2	-5.01	101.19	105.70
1	6	687	G	N3-C4-C5	5.01	131.10	128.60
1	6	1208	A	O4'-C1'-N9	5.01	112.21	108.20
36	5	2761	G	C5-C6-N1	5.01	114.00	111.50
36	5	2989	U	N1-C2-N3	5.01	117.91	114.90
36	5	2992	U	C6-N1-C1'	-5.01	114.19	121.20
36	5	3097	C	C5-C6-N1	5.01	123.50	121.00
36	1	2400	G	P-O3'-C3'	5.01	125.71	119.70
36	1	3329	U	C6-N1-C2	-5.01	118.00	121.00
36	1	964	G	N1-C2-N2	5.01	120.71	116.20
36	5	6	A	C8-N9-C4	5.01	107.80	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	681	U	C5-C4-O4	-5.01	122.90	125.90
36	1	2944	U	O5'-P-OP1	-5.00	101.20	105.70
38	4	42	G	C2-N3-C4	-5.00	109.40	111.90
1	6	1003	A	O5'-P-OP2	5.00	116.71	110.70
1	6	1421	A	N1-C6-N6	5.00	121.60	118.60
36	5	779	G	N1-C6-O6	5.00	122.90	119.90
36	5	1339	C	C6-N1-C2	-5.00	118.30	120.30
1	2	101	U	C5-C6-N1	-5.00	120.20	122.70
1	2	548	G	N3-C4-C5	-5.00	126.10	128.60
36	1	2748	A	C8-N9-C4	5.00	107.80	105.80
1	6	50	C	N3-C4-C5	-5.00	119.90	121.90
36	5	71	A	O5'-P-OP1	-5.00	101.20	105.70
36	5	370	U	C6-N1-C1'	-5.00	114.19	121.20
36	5	521	A	C2-N3-C4	-5.00	108.10	110.60
36	5	716	A	N1-C6-N6	5.00	121.60	118.60
36	5	2163	C	N3-C2-O2	-5.00	118.40	121.90
36	5	2879	C	N1-C2-O2	-5.00	115.90	118.90
36	1	53	G	C4-C5-N7	-5.00	108.80	110.80
36	1	873	C	C6-N1-C1'	5.00	126.80	120.80
36	1	1329	U	C6-N1-C2	-5.00	118.00	121.00
36	1	1829	G	C2-N3-C4	5.00	114.40	111.90
36	1	2524	A	O4'-C1'-N9	5.00	112.20	108.20
36	1	3140	G	N3-C4-N9	5.00	129.00	126.00
1	6	1030	A	O4'-C1'-N9	-5.00	104.20	108.20
36	5	106	A	N7-C8-N9	-5.00	111.30	113.80
36	5	1117	G	C6-C5-N7	-5.00	127.40	130.40
36	5	1158	A	C4-C5-C6	5.00	119.50	117.00
36	5	1835	A	N1-C6-N6	5.00	121.60	118.60
36	5	3189	G	O5'-P-OP1	-5.00	101.20	105.70

There are no chirality outliers.

All (36) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
16	C4	123	SER	Peptide
16	C4	124	ASP	Peptide
19	C7	85	VAL	Peptide
25	D3	78	LYS	Peptide
27	D5	94	LYS	Peptide
28	D6	97	PRO	Peptide
33	E1	146	SER	Peptide
39	L2	142	ASP	Peptide

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Mol	Chain	Res	Type	Group
40	L3	141	GLY	Peptide
43	L6	51	ARG	Peptide
45	L8	30	THR	Peptide
46	L9	21	LYS	Peptide
48	M1	8	PRO	Peptide
52	M6	110	PRO	Peptide
56	N0	22	PRO	Peptide
65	N9	19	ASN	Peptide
65	N9	23	LYS	Peptide
67	O1	5	LYS	Peptide
72	O6	2	THR	Peptide
6	S4	167	GLY	Peptide
9	S7	131	PHE	Peptide
9	S7	30	SER	Peptide
18	c6	40	GLU	Peptide
39	l2	143	GLU	Peptide
43	l6	51	ARG	Peptide
44	l7	192	GLY	Peptide
81	m2	29	UNK	Peptide
52	m6	110	PRO	Peptide
54	m8	169	GLY	Peptide
56	n0	133	ALA	Peptide
59	n3	41	GLY	Peptide
64	n8	66	ALA	Peptide
7	s5	99	MET	Peptide
9	s7	130	VAL	Peptide
10	s8	60	ILE	Peptide
11	s9	89	ASP	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	2	37283	0	18757	1102	0
1	6	38238	0	19240	1042	0
2	S0	1577	0	1567	189	0
2	s0	1583	0	1578	0	0
3	S1	1709	0	1784	187	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	s1	1722	0	1793	0	0
4	S2	1635	0	1723	148	0
4	s2	1635	0	1723	0	0
5	S3	1734	0	1817	151	0
5	s3	1734	0	1817	0	0
6	S4	2068	0	2154	214	0
6	s4	2068	0	2154	0	0
7	S5	1609	0	1675	187	0
7	s5	1609	0	1675	0	0
8	S6	1799	0	1879	135	0
8	s6	1755	0	1846	0	0
9	S7	1481	0	1572	133	0
9	s7	1491	0	1578	0	0
10	S8	1489	0	1525	154	0
10	s8	1489	0	1525	0	0
11	S9	1494	0	1573	154	0
11	s9	1494	0	1573	0	0
12	C0	773	0	729	84	0
12	c0	762	0	699	0	0
13	C1	1214	0	1259	107	0
13	c1	1168	0	1231	0	0
14	C2	892	0	891	71	0
14	c2	892	0	891	0	0
15	C3	1192	0	1254	111	0
15	c3	1192	0	1255	0	0
16	C4	891	0	883	98	0
16	c4	949	0	985	0	0
17	C5	977	0	1002	112	0
17	c5	1039	0	1050	0	0
18	C6	1105	0	1166	137	0
18	c6	1111	0	1171	0	0
19	C7	926	0	930	96	0
19	c7	906	0	909	0	0
20	C8	1192	0	1222	137	0
20	c8	1192	0	1222	0	0
21	C9	1112	0	1124	113	0
21	c9	1112	0	1124	0	0
22	D0	855	0	917	95	0
22	d0	882	0	939	0	0
23	D1	684	0	672	81	0
23	d1	684	0	672	0	0
24	D2	1021	0	1060	105	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
24	d2	1021	0	1060	0	0
25	D3	1121	0	1196	104	0
25	d3	1121	0	1196	0	0
26	D4	1073	0	1132	101	0
26	d4	1073	0	1132	0	0
27	D5	563	0	603	74	0
27	d5	558	0	598	0	0
28	D6	769	0	814	119	0
28	d6	769	0	814	0	0
29	D7	610	0	631	49	0
29	d7	610	0	633	0	0
30	D8	497	0	535	58	0
30	d8	497	0	535	0	0
31	D9	442	0	428	48	0
31	d9	442	0	429	0	0
32	E0	475	0	525	38	0
33	E1	566	0	602	73	0
33	e1	608	0	657	0	0
34	SR	2441	0	2397	163	0
34	sR	2442	0	2392	0	0
35	SM	1104	0	996	82	0
35	sM	680	0	607	0	0
36	1	67355	0	33845	1582	1
36	5	67376	0	33858	1542	0
37	3	2579	0	1304	62	0
37	7	2579	0	1304	63	0
38	4	3353	0	1695	82	0
38	8	3353	0	1695	95	0
39	L2	1914	0	1981	220	0
39	l2	1912	0	1976	0	0
40	L3	3075	0	3142	272	0
40	l3	3075	0	3142	0	0
41	L4	2748	0	2859	247	0
41	l4	2748	0	2859	0	0
42	L5	2375	0	2325	231	0
42	l5	2359	0	2311	0	0
43	L6	1239	0	1326	97	0
43	l6	1248	0	1339	0	0
44	L7	1784	0	1862	165	0
44	l7	1791	0	1869	0	0
45	L8	1804	0	1877	140	0
45	l8	1763	0	1819	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
46	L9	1518	0	1587	160	0
46	l9	1518	0	1587	0	0
47	M0	1705	0	1735	170	0
47	m0	1722	0	1755	0	0
48	M1	1353	0	1383	117	0
48	m1	1353	0	1383	0	0
49	M3	1543	0	1608	158	0
49	m3	1548	0	1613	0	0
50	M4	1053	0	1149	104	0
50	m4	1059	0	1154	0	0
51	M5	1720	0	1779	184	0
51	m5	1720	0	1779	0	0
52	M6	1555	0	1659	150	0
52	m6	1555	0	1659	0	0
53	M7	1420	0	1437	114	0
53	m7	1227	0	1236	0	0
54	M8	1441	0	1543	132	0
54	m8	1441	0	1543	0	0
55	M9	1521	0	1617	123	0
55	m9	1521	0	1617	0	0
56	N0	1445	0	1487	135	0
56	n0	1445	0	1487	0	0
57	N1	1276	0	1323	123	0
57	n1	1276	0	1323	0	0
58	N2	796	0	812	58	0
58	n2	778	0	791	0	0
59	N3	1003	0	1048	86	0
59	n3	1003	0	1048	0	0
60	N4	699	0	640	36	0
60	n4	1038	0	1071	0	0
61	N5	964	0	1025	75	0
61	n5	959	0	1023	0	0
62	N6	993	0	1081	94	0
62	n6	993	0	1081	0	0
63	N7	1092	0	1155	120	0
63	n7	1092	0	1155	0	0
64	N8	1173	0	1214	111	0
64	n8	1173	0	1215	0	0
65	N9	462	0	491	44	0
65	n9	462	0	491	0	0
66	O0	743	0	797	72	0
66	o0	767	0	816	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
67	O1	876	0	912	72	0
67	o1	883	0	918	0	0
68	O2	1020	0	1090	87	0
68	o2	1020	0	1090	0	0
69	O3	850	0	880	58	0
69	o3	850	0	880	0	0
70	O4	880	0	945	97	0
70	o4	880	0	945	0	0
71	O5	969	0	1078	107	0
71	o5	965	0	1067	0	0
72	O6	771	0	849	73	0
72	o6	770	0	846	0	0
73	O7	681	0	683	52	0
73	o7	681	0	682	0	0
74	O8	612	0	682	64	0
74	o8	608	0	671	0	0
75	O9	436	0	475	44	0
75	o9	436	0	475	0	0
76	Q0	417	0	455	32	0
76	q0	417	0	456	0	0
77	Q1	233	0	284	21	0
77	q1	233	0	284	0	0
78	Q2	847	0	916	58	0
78	q2	847	0	917	0	0
79	Q3	694	0	734	61	0
79	q3	694	0	734	0	0
80	e0	491	0	542	0	0
81	m2	750	0	175	0	0
82	p0	1077	0	1041	0	0
83	p1	235	0	50	0	0
84	p2	230	0	51	0	0
85	1	471	0	0	0	0
85	2	123	0	0	0	0
85	3	14	0	0	0	0
85	4	20	0	0	0	0
85	5	496	0	0	0	0
85	6	147	0	0	0	0
85	7	18	0	0	0	0
85	8	15	0	0	0	0
85	C3	1	0	0	0	0
85	D0	1	0	0	0	0
85	D3	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
85	L2	3	0	0	0	0
85	L3	3	0	0	0	0
85	L4	2	0	0	0	0
85	L5	1	0	0	0	0
85	L7	2	0	0	0	0
85	L8	1	0	0	0	0
85	M0	3	0	0	0	0
85	M1	1	0	0	0	0
85	M3	3	0	0	0	0
85	M5	2	0	0	0	0
85	M6	1	0	0	0	0
85	M7	4	0	0	0	0
85	M9	2	0	0	0	0
85	N0	2	0	0	0	0
85	N3	3	0	0	0	0
85	N5	1	0	0	0	0
85	N8	5	0	0	0	0
85	O2	2	0	0	0	0
85	O3	1	0	0	0	0
85	O7	1	0	0	0	0
85	S2	1	0	0	0	0
85	S8	1	0	0	0	0
85	c1	1	0	0	0	0
85	c7	1	0	0	0	0
85	c8	2	0	0	0	0
85	d3	3	0	0	0	0
85	d6	1	0	0	0	0
85	l2	2	0	0	0	0
85	l3	3	0	0	0	0
85	l4	1	0	0	0	0
85	l5	3	0	0	0	0
85	l7	2	0	0	0	0
85	l9	1	0	0	0	0
85	m0	1	0	0	0	0
85	m1	1	0	0	0	0
85	m5	2	0	0	0	0
85	m6	2	0	0	0	0
85	m7	5	0	0	0	0
85	n0	2	0	0	0	0
85	n3	2	0	0	0	0
85	n6	2	0	0	0	0
85	n8	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
85	n9	1	0	0	0	0
85	o0	1	0	0	0	0
85	o1	1	0	0	0	0
85	o3	2	0	0	0	0
85	o4	1	0	0	0	0
85	q0	1	0	0	0	0
85	q3	2	0	0	0	0
85	s1	1	0	0	0	0
85	s8	2	0	0	0	0
85	s9	1	0	0	0	0
85	sM	2	0	0	0	0
86	1	2429	0	0	223	0
86	2	1099	0	0	115	0
86	3	84	0	0	5	0
86	4	112	0	0	10	0
86	5	2471	0	0	247	0
86	6	1120	0	0	126	0
86	7	70	0	0	4	0
86	8	112	0	0	16	0
86	C3	7	0	0	0	0
86	C5	7	0	0	2	0
86	C8	7	0	0	0	0
86	D3	7	0	0	1	0
86	D9	7	0	0	0	0
86	L3	14	0	0	3	0
86	L4	7	0	0	1	0
86	M0	7	0	0	0	0
86	M5	7	0	0	0	0
86	M7	14	0	0	1	0
86	M9	7	0	0	1	0
86	N9	7	0	0	0	0
86	O1	7	0	0	8	0
86	O3	7	0	0	1	0
86	O4	7	0	0	0	0
86	O6	7	0	0	1	0
86	O7	7	0	0	3	0
86	O9	7	0	0	1	0
86	Q2	7	0	0	5	0
86	S6	7	0	0	1	1
86	S8	7	0	0	1	0
86	SR	7	0	0	0	0
86	c3	7	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
86	c5	7	0	0	0	0
86	c8	7	0	0	0	0
86	d4	7	0	0	0	0
86	d9	7	0	0	0	0
86	l3	14	0	0	0	0
86	l4	14	0	0	0	0
86	l5	28	0	0	0	0
86	l9	7	0	0	0	0
86	m0	14	0	0	0	0
86	m1	7	0	0	0	0
86	m4	7	0	0	0	0
86	m5	7	0	0	0	0
86	m6	7	0	0	0	0
86	m7	7	0	0	0	0
86	m8	7	0	0	0	0
86	n3	14	0	0	0	0
86	n6	7	0	0	0	0
86	n9	7	0	0	0	0
86	o2	7	0	0	0	0
86	o3	7	0	0	0	0
86	o7	14	0	0	0	0
86	q2	7	0	0	0	0
86	s1	14	0	0	0	0
86	s8	7	0	0	0	0
86	sR	7	0	0	0	0
87	D6	1	0	0	0	0
87	D7	1	0	0	0	0
87	D9	1	0	0	0	0
87	E1	1	0	0	0	0
87	O7	1	0	0	0	0
87	Q0	1	0	0	0	0
87	Q2	1	0	0	0	0
87	Q3	1	0	0	0	0
87	d6	1	0	0	0	0
87	d7	1	0	0	0	0
87	d9	1	0	0	0	0
87	e1	1	0	0	0	0
87	o7	1	0	0	0	0
87	q0	1	0	0	0	0
87	q2	1	0	0	0	0
87	q3	1	0	0	0	0
88	1	21	0	20	3	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
88	5	21	0	20	7	0
All	All	411183	0	297329	12131	1

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 18.

All (12131) 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)
78:Q2:17:CYS:SG	78:Q2:17:CYS:CB	2.03	1.47
78:Q2:17:CYS:SG	78:Q2:77:CYS:HB3	2.03	1.07
36:5:3274:A:H3'	36:5:3275:U:H5"	1.36	1.07
78:Q2:17:CYS:SG	78:Q2:77:CYS:CB	2.70	1.05
36:1:3182:G:OP1	52:M6:160:ARG:NH2	1.90	1.03
43:L6:31:ARG:NH1	69:O3:107:ILE:O	2.42	1.02
47:M0:76:MET:HE1	47:M0:148:VAL:HA	2.32	1.02
1:6:1636:C:H4'	1:6:1637:C:H5'	1.44	1.00
40:L3:227:GLU:HG3	40:L3:270:ARG:HE	3.43	0.99
1:2:1508:U:O4	86:2:2031:OHX:N5	1.96	0.98
74:O8:46:ARG:NH2	36:5:1613:A:OP2	131.39	0.97
36:1:1481:A:O2'	36:1:1858:A:N3	1.98	0.96
36:5:2273:G:O6	86:5:4193:OHX:N5	1.99	0.96
47:M0:3:ARG:NH2	36:5:2854:U:OP2	290.44	0.96
56:N0:42:TRP:HE1	56:N0:58:ILE:HD11	2.40	0.95
24:D2:2:THR:N	1:6:1034:C:HO2'	337.46	0.95
63:N7:102:GLU:H	63:N7:107:ARG:HH21	3.98	0.95
41:L4:317:PRO:O	41:L4:319:LYS:N	1.98	0.94
57:N1:91:LEU:HD12	57:N1:96:ILE:HD11	1.46	0.94
42:L5:111:GLN:HA	42:L5:116:ASP:HB3	3.54	0.94
36:5:2233:A:OP2	86:5:3955:OHX:N5	1.99	0.94
65:N9:50:THR:HG22	36:5:1073:U:H1'	205.05	0.94
52:M6:160:ARG:NH2	36:5:3182:G:OP1	279.98	0.94
36:1:3164:C:HO2'	36:1:3165:A:H8	1.04	0.93
1:6:895:G:H1	1:6:917:U:H3	1.16	0.93
56:N0:6:GLU:OE1	56:N0:99:ARG:NH2	2.90	0.93
25:D3:64:PRO:O	86:6:2157:OHX:N2	360.09	0.93
1:6:1765:A:OP1	86:6:2124:OHX:N2	2.01	0.93
41:L4:329:PRO:O	41:L4:331:ALA:N	3.75	0.93
36:5:3153:U:H4'	36:5:3154:C:H5'	1.51	0.93
25:D3:79:ASN:HB3	25:D3:81:LYS:HG3	4.89	0.93
36:1:1951:C:H42	36:1:2095:G:H1	1.09	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:119:LYS:NZ	1:6:1369:U:OP1	441.90	0.92
39:L2:21:ARG:HD3	36:5:824:C:H5"	170.05	0.92
36:5:3165:A:H61	36:5:3285:C:H42	1.09	0.92
36:1:2392:C:O2'	40:L3:266:ARG:NH2	2.03	0.92
40:L3:41:VAL:HA	40:L3:185:GLY:HA3	1.51	0.92
41:L4:292:SER:OG	41:L4:293:SER:N	2.00	0.91
70:O4:8:ARG:HH21	70:O4:31:ARG:HD2	2.42	0.91
52:M6:68:ARG:NH1	36:5:2988:C:OP1	217.49	0.91
1:2:320:U:H3'	1:2:321:C:H5"	1.52	0.91
6:S4:9:LEU:HB2	6:S4:30:ARG:HB2	1.73	0.91
54:M8:158:HIS:H	54:M8:186:VAL:HG12	1.36	0.90
62:N6:36:SER:OG	62:N6:106:ILE:O	1.89	0.90
45:L8:240:ASN:HA	45:L8:243:GLN:HB2	1.52	0.90
1:2:1796:C:OP1	28:D6:87:ARG:NH1	2.05	0.90
36:5:1239:C:H42	36:5:1249:G:H1	1.08	0.90
59:N3:87:ARG:HH22	59:N3:137:VAL:HG21	1.33	0.90
1:2:140:A:N6	1:2:281:G:OP1	2.03	0.89
16:C4:85:ALA:H	16:C4:119:THR:HG22	1.37	0.89
36:5:1877:U:H5"	36:5:1878:G:H5'	1.53	0.89
8:S6:120:GLU:HG3	8:S6:125:THR:HB	1.52	0.89
10:S8:162:ALA:HA	36:1:3353:G:H5'	1.54	0.89
12:C0:27:PHE:HB3	12:C0:40:LEU:HD23	1.54	0.89
68:O2:81:ASP:O	68:O2:84:THR:OG1	1.90	0.89
36:1:425:G:O6	86:1:3876:OHX:N6	2.05	0.89
36:5:3194:C:O2	36:5:3197:G:N2	2.06	0.89
42:L5:270:LYS:HD2	42:L5:272:TYR:HB2	9.06	0.89
41:L4:269:SER:O	41:L4:271:LYS:N	2.05	0.89
54:M8:157:PRO:HD3	64:N8:47:LYS:HB2	1.55	0.89
1:2:491:C:H42	1:2:496:G:H1	1.21	0.88
34:SR:64:HIS:ND1	34:SR:86:ASP:OD2	2.05	0.88
36:1:640:U:OP1	64:N8:21:ARG:NH2	2.07	0.88
36:1:687:U:OP2	49:M3:36:ARG:NH2	2.07	0.88
36:1:964:G:HO2'	64:N8:41:HIS:HE2	1.15	0.88
32:E0:28:LYS:NZ	1:6:542:A:N1	427.66	0.88
72:O6:28:TYR:O	86:O6:201:OHX:N1	2.07	0.88
7:S5:94:THR:HG22	7:S5:114:ILE:HG13	2.24	0.88
86:2:2039:OHX:N1	25:D3:64:PRO:O	2.07	0.88
79:Q3:36:ARG:HE	79:Q3:48:LYS:HE3	4.39	0.87
1:2:1585:U:H3	1:2:1611:A:H2	1.21	0.87
28:D6:38:ARG:HH21	28:D6:83:ILE:HG21	1.37	0.87
1:6:1579:U:OP1	86:6:2182:OHX:N4	2.08	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:157:ARG:NH1	64:N8:146:GLU:OE2	2.88	0.87
51:M5:110:ALA:HB1	51:M5:113:LEU:HD23	1.55	0.87
41:L4:181:VAL:HG11	41:L4:224:GLY:HA3	2.70	0.87
11:S9:109:LEU:HB2	11:S9:146:PHE:HB3	1.53	0.87
39:L2:30:ARG:NH2	39:L2:33:ASP:OD2	2.07	0.87
36:1:3050:U:OP2	86:1:4180:OHX:N4	2.08	0.86
36:1:2443:A:N6	36:1:2504:U:O4	2.07	0.86
36:1:1639:C:OP2	70:O4:74:ARG:NH2	2.09	0.86
2:S0:35:PRO:HB3	23:D1:87:ARG:HH21	1.40	0.86
64:N8:21:ARG:NH2	36:5:640:U:OP1	182.08	0.86
48:M1:94:ARG:O	48:M1:96:PHE:N	2.08	0.86
11:S9:110:GLN:HE22	11:S9:126:ARG:HG2	2.31	0.86
36:1:1409:G:N7	86:1:4067:OHX:N3	2.24	0.86
44:L7:139:PRO:HA	44:L7:237:ASN:HD21	1.38	0.86
70:O4:74:ARG:NH2	36:5:1639:C:OP2	199.94	0.86
36:5:1919:G:N7	86:5:4066:OHX:N4	2.24	0.86
36:5:2836:C:H5	36:5:2852:C:H42	1.23	0.86
42:L5:294:ALA:HB1	47:M0:217:PHE:HB3	1.57	0.86
48:M1:15:GLU:HB3	48:M1:130:VAL:HG23	1.57	0.86
50:M4:19:ARG:HA	50:M4:69:THR:HG22	2.13	0.86
76:Q0:96:CYS:SG	76:Q0:99:CYS:SG	3.06	0.86
7:S5:166:ARG:NH1	7:S5:170:GLN:OE1	2.09	0.86
36:1:2208:A:N1	86:1:4044:OHX:N2	2.24	0.85
1:2:991:G:OP2	86:2:2131:OHX:N1	2.08	0.85
62:N6:3:LYS:NZ	62:N6:5:SER:O	3.65	0.85
70:O4:65:VAL:O	70:O4:70:LYS:NZ	2.09	0.85
38:4:70:G:O6	86:O7:103:OHX:N4	2.08	0.85
1:6:868:G:H1	1:6:960:U:H3	1.24	0.85
36:1:317:A:OP2	72:O6:30:LYS:NZ	2.09	0.85
36:5:863:C:OP1	86:5:3910:OHX:N3	2.10	0.85
1:6:1011:G:OP2	86:6:2118:OHX:N3	2.09	0.85
1:2:559:C:N4	1:2:586:G:O6	2.09	0.85
40:L3:346:THR:O	40:L3:348:ARG:N	2.54	0.85
1:2:471:A:OP2	86:2:2076:OHX:N4	2.10	0.85
71:O5:85:THR:HG22	71:O5:87:ALA:H	1.58	0.85
1:6:1230:A:H2	1:6:1255:G:H21	1.25	0.85
13:C1:133:LYS:NZ	1:6:324:U:OP1	291.60	0.85
36:5:510:G:O6	86:5:4018:OHX:N2	2.10	0.84
86:5:3993:OHX:N4	37:7:86:U:O2	2.10	0.84
40:L3:291:GLU:OE1	40:L3:302:LYS:NZ	4.53	0.84
41:L4:354:VAL:HG11	57:N1:143:THR:HG21	1.58	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2818:U:H6	36:1:2818:U:H5'	1.41	0.84
36:1:1315:U:OP2	52:M6:44:SER:OG	1.95	0.84
1:6:1680:G:O6	86:6:2189:OHX:N4	2.09	0.84
71:O5:78:LYS:HA	71:O5:81:ARG:HD3	2.97	0.84
5:S3:74:GLN:HA	5:S3:79:TYR:HB2	2.54	0.84
78:Q2:50:PHE:O	86:Q2:502:OHX:N2	2.10	0.84
36:5:1878:G:OP1	86:5:3950:OHX:N5	2.10	0.84
39:L2:128:ARG:NH1	36:5:2177:G:OP2	197.82	0.84
67:O1:13:THR:HG22	67:O1:72:ARG:HH21	4.71	0.84
47:M0:4:ARG:NH1	36:5:2828:G:O2'	263.78	0.84
47:M0:140:THR:HG21	47:M0:144:ASN:HD22	1.41	0.84
72:O6:63:ASN:O	72:O6:65:GLY:N	4.80	0.84
36:1:679:U:O4	86:1:3973:OHX:N1	2.10	0.83
39:L2:70:ARG:NH2	36:5:2522:G:O6	177.11	0.83
1:2:1488:G:H3'	1:2:1515:A:H61	1.42	0.83
4:S2:225:LEU:HD13	24:D2:68:ARG:HA	2.20	0.83
1:6:1280:C:H2'	1:6:1281:G:H8	1.42	0.83
40:L3:169:THR:HG23	40:L3:171:LEU:H	2.57	0.83
13:C1:21:ASN:HD22	13:C1:31:THR:HA	3.92	0.83
36:5:272:G:O6	36:5:293:C:N4	2.12	0.83
1:6:1584:G:N2	1:6:1611:A:OP2	2.09	0.83
16:C4:108:SER:OG	16:C4:109:GLY:N	2.08	0.83
54:M8:133:LYS:HB2	54:M8:135:GLN:HE22	2.18	0.83
55:M9:74:ARG:NH1	36:5:1942:U:OP2	209.54	0.83
1:6:1670:G:O6	86:6:2190:OHX:N4	2.11	0.83
27:D5:43:ASP:HB2	27:D5:46:LYS:HB2	2.56	0.83
78:Q2:12:CYS:SG	78:Q2:17:CYS:HB2	2.58	0.83
1:2:788:A:OP2	6:S4:108:ARG:NH1	2.11	0.83
1:2:1529:C:OP1	7:S5:112:ARG:NH1	2.12	0.83
36:1:1466:G:O6	86:1:3880:OHX:N4	2.10	0.83
6:S4:79:ASP:HB3	6:S4:82:TYR:HB2	1.61	0.83
1:2:79:C:H1'	8:S6:174:LYS:HD3	1.59	0.83
47:M0:175:ASN:OD1	47:M0:176:LEU:N	4.75	0.83
36:1:1320:C:O2	56:N0:115:ARG:NH2	2.11	0.83
44:L7:216:VAL:HG11	44:L7:227:GLY:HA3	4.62	0.83
72:O6:74:LYS:HD2	72:O6:80:PHE:HD2	1.42	0.83
1:2:1097:U:O4	4:S2:201:ASN:ND2	2.12	0.82
50:M4:55:ARG:NH2	50:M4:76:ALA:O	2.12	0.82
52:M6:18:ARG:NH2	36:5:1318:A:OP1	276.68	0.82
79:Q3:49:ARG:HD2	79:Q3:50:GLY:H	1.96	0.82
44:L7:191:VAL:HG12	44:L7:192:GLY:H	4.01	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:SM:32:SER:HG	36:1:2666:C:HO2'	1.15	0.82
18:C6:58:ASP:O	18:C6:60:PHE:N	2.12	0.82
73:O7:65:ARG:HH11	73:O7:65:ARG:HG3	1.50	0.82
1:2:513:U:OP1	11:S9:133:HIS:NE2	2.12	0.82
42:L5:152:ARG:HH11	42:L5:152:ARG:HG3	2.56	0.82
53:M7:25:SER:HB3	53:M7:28:ASN:HB2	1.97	0.82
36:1:3376:A:OP2	86:1:3907:OHX:N5	2.11	0.82
16:C4:81:VAL:H	16:C4:115:ILE:HG22	1.43	0.82
28:D6:87:ARG:NH2	28:D6:94:ASN:O	2.11	0.82
67:O1:20:LEU:O	67:O1:28:ARG:NH2	2.11	0.82
43:L6:85:ILE:HG23	69:O3:107:ILE:HG21	3.60	0.82
63:N7:46:ILE:HD13	63:N7:68:ILE:HG23	1.59	0.82
24:D2:27:ILE:HD11	24:D2:61:ILE:HD12	1.59	0.82
39:L2:96:LEU:O	79:Q3:87:ARG:NH1	3.78	0.82
40:L3:218:ILE:HG12	40:L3:276:THR:HG23	3.17	0.82
36:1:3375:A:O2'	36:1:3378:C:OP2	1.95	0.82
36:1:371:G:O6	86:1:4179:OHX:N4	2.13	0.82
21:C9:16:ASN:OD1	21:C9:56:LYS:NZ	2.32	0.82
75:O9:23:LEU:HD22	75:O9:24:PRO:HD2	1.62	0.82
36:5:2404:A:C8	36:5:2404:A:H5"	2.14	0.82
40:L3:152:LYS:HG2	40:L3:192:VAL:HG11	1.62	0.82
51:M5:31:ARG:NH1	51:M5:124:ASP:OD1	2.13	0.82
52:M6:27:LEU:HD11	52:M6:102:LEU:HB2	1.61	0.82
66:O0:74:ASN:HB2	66:O0:86:ARG:HG3	4.43	0.82
13:C1:99:ARG:NH1	25:D3:7:ARG:O	2.26	0.81
36:1:3165:A:H61	36:1:3285:C:H42	1.27	0.81
36:1:1126:G:OP2	47:M0:14:ASN:ND2	2.11	0.81
48:M1:53:THR:HG23	48:M1:60:ARG:HA	1.61	0.81
7:S5:92:ARG:NH2	7:S5:169:ASN:OD1	2.13	0.81
9:S7:67:LEU:HG	9:S7:94:ALA:HB2	1.76	0.81
19:C7:20:TYR:CZ	19:C7:38:ILE:HG13	2.15	0.81
36:1:1345:G:H21	41:L4:307:GLN:HE22	1.28	0.81
36:1:1789:G:N7	86:1:4168:OHX:N2	2.27	0.81
71:O5:81:ARG:NH2	36:5:18:G:OP1	76.82	0.81
1:2:1073:G:H2'	1:2:1074:G:H5"	1.63	0.81
1:2:1202:A:OP1	86:2:2111:OHX:N1	2.12	0.81
16:C4:38:THR:HG21	1:6:895:G:H21	262.46	0.81
19:C7:63:LYS:HE3	34:SR:284:ALA:HB2	1.62	0.81
36:1:2216:G:OP1	72:O6:75:LYS:NZ	2.14	0.81
36:1:2924:U:O4	86:1:4018:OHX:N1	2.13	0.81
36:5:1940:G:H21	36:5:3362:A:H8	1.28	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:9:SER:OG	36:5:336:A:OP2	79.13	0.81
36:1:1722:U:OP1	55:M9:100:ARG:NH1	2.13	0.81
38:8:79:A:H3'	38:8:80:A:C8	2.16	0.81
1:2:1500:C:OP1	21:C9:122:ARG:NH2	2.14	0.81
73:O7:24:ARG:NH1	36:5:361:A:OP1	120.17	0.81
36:5:1239:C:N3	36:5:1249:G:N2	2.28	0.81
5:S3:170:THR:HG22	5:S3:187:LYS:HA	4.81	0.81
10:S8:182:TYR:OH	10:S8:188:GLU:OE1	1.97	0.81
57:N1:101:CYS:HB3	36:5:990:U:H1'	251.34	0.81
57:N1:51:GLY:HA3	57:N1:92:ARG:HG3	2.89	0.81
41:L4:145:ILE:HD11	41:L4:148:ILE:HG13	1.61	0.81
40:L3:320:ASP:N	40:L3:320:ASP:OD2	2.12	0.81
42:L5:56:THR:O	42:L5:58:LYS:N	2.14	0.81
7:S5:206:SER:O	7:S5:212:LYS:NZ	2.13	0.81
2:S0:139:VAL:HG23	4:S2:62:PRO:HG3	1.63	0.80
1:2:1424:A:H1'	4:S2:92:ALA:HB1	1.62	0.80
36:1:2794:G:N7	86:1:3935:OHX:N2	2.29	0.80
36:1:410:U:O4	86:1:4057:OHX:N5	2.14	0.80
36:1:979:U:H1'	36:1:980:A:C8	2.16	0.80
44:L7:217:PRO:O	86:5:3996:OHX:N3	259.28	0.80
36:1:76:G:O2'	49:M3:100:ARG:NH1	2.14	0.80
36:1:3116:G:OP1	36:1:3116:G:N2	2.14	0.80
36:5:1015:U:O2'	36:5:1017:C:OP1	1.99	0.80
1:6:235:G:H2'	1:6:236:A:H8	1.45	0.80
40:L3:10:ARG:NH2	40:L3:263:SER:O	2.14	0.80
40:L3:347:SER:O	40:L3:349:LYS:N	2.71	0.80
46:L9:28:VAL:HG13	46:L9:33:THR:HB	1.61	0.80
36:1:3215:A:H8	50:M4:121:MET:HE1	1.45	0.80
36:5:955:U:H2'	36:5:956:U:C6	2.16	0.80
1:6:230:C:H42	1:6:235:G:H1	1.29	0.80
6:S4:187:ARG:NH1	1:6:753:A:OP2	376.51	0.80
50:M4:113:THR:HG22	50:M4:116:GLU:HB2	3.75	0.80
60:N4:4:GLU:HG2	60:N4:30:ARG:HD3	1.64	0.80
4:S2:140:ARG:NH1	23:D1:1:MET:SD	2.54	0.80
36:1:1334:U:O2'	44:L7:151:ARG:NH2	2.15	0.80
1:2:1620:C:OP2	86:2:2165:OHX:N6	2.15	0.80
36:5:1231:A:H5"	36:5:1232:C:H5'	1.63	0.80
38:4:136:G:OP1	61:N5:48:SER:OG	2.00	0.80
36:5:1170:A:OP2	86:5:3996:OHX:N4	2.14	0.80
48:M1:101:ASN:HB3	48:M1:130:VAL:HA	1.62	0.80
22:D0:53:LYS:HB2	22:D0:92:ASP:HB2	2.87	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1230:G:H1	36:1:1279:C:H42	1.28	0.80
42:L5:151:GLN:OE1	42:L5:152:ARG:N	2.14	0.80
37:7:95:A:OP2	86:7:226:OHX:N1	2.15	0.79
51:M5:172:ARG:NH1	36:5:30:G:OP1	107.06	0.79
38:4:135:G:OP2	61:N5:56:ARG:NH2	2.15	0.79
23:D1:28:ASP:O	23:D1:30:ALA:N	3.32	0.79
34:SR:16:HIS:ND1	34:SR:39:ASP:OD2	2.31	0.79
70:O4:52:GLN:HG2	36:5:1639:C:H5'	195.65	0.79
39:L2:5:ILE:HG12	39:L2:8:GLN:HG3	1.64	0.79
44:L7:30:ARG:HD2	44:L7:33:ARG:HH21	1.47	0.79
61:N5:67:ILE:HD12	61:N5:121:LYS:HG3	1.65	0.79
70:O4:16:ARG:HB3	70:O4:37:LYS:HD3	1.63	0.79
1:2:1203:A:OP2	86:2:2111:OHX:N5	2.15	0.79
1:6:1265:G:N7	86:6:2194:OHX:N6	2.31	0.79
27:D5:58:ARG:HB3	27:D5:103:ARG:HH11	9.31	0.79
5:S3:66:ILE:O	5:S3:70:THR:OG1	2.63	0.79
5:S3:94:ARG:NH1	35:SM:130:GLU:OE2	2.16	0.79
1:2:74:U:H1'	1:2:75:U:H5"	1.64	0.79
41:L4:292:SER:HG	41:L4:293:SER:H	1.30	0.79
36:1:3155:U:H3'	36:1:3156:U:H4'	1.63	0.79
1:2:190:C:N4	1:2:196:G:O6	2.15	0.79
1:6:569:C:O2	1:6:574:G:N2	2.16	0.79
46:L9:12:VAL:HB	46:L9:51:GLN:HA	1.65	0.79
3:S1:117:TRP:HE1	3:S1:152:ARG:CZ	1.96	0.79
36:5:2404:A:H5"	36:5:2404:A:H8	1.48	0.79
53:M7:50:GLN:OE1	53:M7:56:ARG:NH2	2.13	0.79
54:M8:134:GLY:O	54:M8:137:THR:OG1	2.32	0.79
69:O3:86:ARG:NH2	36:5:497:C:O3'	214.50	0.79
6:S4:100:ARG:NH2	6:S4:121:TYR:O	2.59	0.79
36:1:2255:A:OP1	86:1:3934:OHX:N3	2.16	0.79
36:5:2211:U:O4	86:5:3955:OHX:N4	2.16	0.79
36:1:3272:C:OP2	43:L6:78:ARG:NH1	2.13	0.79
17:C5:14:THR:HB	17:C5:22:LEU:HB2	1.65	0.79
10:S8:76:THR:HG22	10:S8:105:ASP:HB3	3.78	0.79
36:1:1581:C:C2	36:1:1582:C:H5'	2.18	0.78
1:2:1291:G:N2	1:2:1324:G:H22	1.80	0.78
19:C7:7:LYS:N	1:6:1316:G:OP1	409.94	0.78
33:E1:88:PRO:HB2	33:E1:89:LYS:HD3	6.25	0.78
11:S9:93:LEU:HA	11:S9:96:VAL:HG13	1.66	0.78
19:C7:27:ASP:O	19:C7:31:ASN:ND2	3.31	0.78
40:L3:76:VAL:HG11	40:L3:323:MET:HE2	2.32	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:338:LYS:O	41:L4:340:GLY:N	2.17	0.78
3:S1:126:THR:HA	3:S1:136:ARG:HA	2.43	0.78
36:1:562:C:OP2	50:M4:77:ARG:NH1	2.16	0.78
37:3:77:G:N2	37:3:102:A:OP2	2.15	0.78
36:5:2818:U:H6	36:5:2818:U:H5'	1.48	0.78
1:6:1160:A:O5'	86:6:2182:OHX:N2	2.15	0.78
5:S3:211:PRO:HG2	19:C7:19:ARG:HB2	2.06	0.78
42:L5:76:ALA:HB3	42:L5:109:THR:HG22	2.77	0.78
39:L2:21:ARG:NH1	36:5:825:U:OP1	172.42	0.78
22:D0:27:THR:HG23	22:D0:113:ASP:HB3	1.64	0.78
33:E1:103:LEU:HD23	33:E1:105:TYR:HD2	3.28	0.78
67:O1:88:PRO:HG2	67:O1:89:LEU:HD22	1.66	0.78
37:3:4:U:H2'	37:3:5:G:C8	2.19	0.78
78:Q2:45:ARG:NH2	36:5:283:G:OP2	147.02	0.78
38:4:83:C:H42	62:N6:52:ARG:HH22	1.30	0.78
8:S6:2:LYS:HB3	8:S6:108:VAL:HG22	1.66	0.78
36:1:12:A:OP1	86:1:4202:OHX:N6	2.17	0.78
1:6:1588:G:H1	1:6:1608:U:H3	1.31	0.78
1:6:58:U:O2'	1:6:451:A:N3	2.17	0.78
39:L2:51:ASP:HB3	39:L2:54:ARG:HB3	1.64	0.78
41:L4:326:ARG:O	44:L7:41:ARG:NH2	3.42	0.78
59:N3:10:LYS:NZ	59:N3:53:SER:OG	2.72	0.78
5:S3:94:ARG:O	5:S3:101:GLN:NE2	3.40	0.78
7:S5:35:GLN:O	7:S5:37:GLN:N	2.85	0.78
56:N0:90:MET:HG3	36:5:1213:G:H4'	318.03	0.78
3:S1:131:ASP:HB3	3:S1:180:THR:HG23	1.66	0.78
4:S2:170:ILE:HB	4:S2:197:TYR:HB2	1.66	0.78
35:SM:72:ARG:NH1	1:6:1460:A:O3'	325.29	0.78
36:1:837:A:OP2	79:Q3:4:ARG:NH1	2.17	0.78
1:6:1130:G:OP2	86:6:2111:OHX:N1	2.18	0.78
12:C0:21:VAL:HB	12:C0:66:TYR:HB2	2.62	0.78
40:L3:67:PHE:HD1	40:L3:72:VAL:HG12	1.49	0.78
37:3:44:C:OP2	48:M1:137:ARG:NH2	2.16	0.77
17:C5:65:LEU:O	86:C5:201:OHX:N2	4.28	0.77
17:C5:43:ARG:NH2	1:6:1552:U:OP2	402.45	0.77
17:C5:81:ARG:NH1	17:C5:97:TYR:O	2.16	0.77
36:1:2108:C:H1'	36:1:3344:A:H8	1.49	0.77
36:1:978:G:O2'	36:1:979:U:O2	2.02	0.77
1:2:1350:U:OP1	18:C6:68:ARG:NH2	2.16	0.77
1:2:1592:A:H2'	1:2:1593:A:C8	2.19	0.77
36:5:105:C:HO2'	36:5:684:G:HO2'	1.31	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:51:LEU:HD22	67:O1:55:LEU:HD12	2.41	0.77
79:Q3:36:ARG:HB2	79:Q3:48:LYS:HE3	4.74	0.77
47:M0:98:ARG:HB3	47:M0:120:GLY:HA3	2.08	0.77
49:M3:180:ARG:HD3	72:O6:11:LEU:HD21	1.66	0.77
36:1:1308:A:OP2	36:1:1308:A:C8	2.38	0.77
1:2:1010:C:OP2	86:2:2131:OHX:N6	2.18	0.77
36:5:1178:G:H5'	36:5:1178:G:H8	1.48	0.77
36:5:343:U:OP2	86:5:3918:OHX:N3	2.18	0.77
50:M4:72:LEU:HD22	50:M4:73:PRO:HD2	2.42	0.77
36:1:1544:G:O6	86:1:4058:OHX:N4	2.18	0.77
36:1:1808:G:O6	86:1:3982:OHX:N3	2.17	0.77
36:1:200:C:OP1	62:N6:60:ARG:NH1	2.18	0.77
36:5:1934:G:O6	86:5:3909:OHX:N2	2.18	0.77
36:5:419:G:N7	86:8:216:OHX:N3	2.32	0.77
32:E0:17:GLN:NE2	1:6:563:U:H4'	383.28	0.77
6:S4:104:ASP:HB2	6:S4:108:ARG:H	1.97	0.77
1:2:270:C:O2	1:2:285:G:N2	2.17	0.77
36:5:1772:U:H5"	36:5:1773:C:H5'	1.67	0.77
1:6:1227:A:H4'	1:6:1228:G:H5'	1.66	0.77
67:O1:75:ILE:HG12	67:O1:93:VAL:HG13	2.42	0.77
73:O7:21:ARG:NH2	73:O7:41:ALA:O	2.18	0.77
34:SR:249:ARG:NH1	34:SR:298:GLY:O	2.91	0.77
17:C5:123:TYR:OH	20:C8:126:ARG:NH1	3.48	0.77
45:L8:160:ILE:HD12	45:L8:164:VAL:HG13	6.38	0.77
64:N8:9:ARG:NH2	36:5:1431:G:N7	148.05	0.77
40:L3:25:ILE:H	40:L3:25:ILE:HD13	1.47	0.77
42:L5:40:HIS:HD2	42:L5:42:ALA:H	1.33	0.77
39:L2:30:ARG:O	39:L2:163:ARG:NH2	2.18	0.77
47:M0:145:LYS:HD3	47:M0:167:LEU:HD21	1.67	0.77
57:N1:130:ARG:O	36:5:1098:A:O2'	256.04	0.77
51:M5:143:ARG:NH2	71:O5:91:ALA:O	3.22	0.77
36:1:2207:A:H2'	36:1:2208:A:C8	2.19	0.77
14:C2:74:LEU:HD11	33:E1:106:TYR:HB3	4.65	0.77
5:S3:40:ARG:HG2	22:D0:110:PRO:HB3	3.03	0.77
1:2:584:C:H1'	32:E0:18:THR:HG21	1.67	0.77
34:SR:20:VAL:O	34:SR:291:SER:OG	2.03	0.77
1:6:1695:G:H21	1:6:1706:C:H41	1.31	0.76
42:L5:269:SER:OG	37:7:1:G:N3	315.36	0.76
7:S5:163:SER:HB2	30:D8:48:VAL:HG22	2.86	0.76
1:2:741:C:O2	9:S7:107:ARG:NH1	2.18	0.76
36:1:1243:G:N2	36:1:1244:A:N7	2.34	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2656:A:H4'	78:Q2:98:LYS:HD2	1.68	0.76
13:C1:17:PRO:HG2	1:6:249:U:H3	293.50	0.76
46:L9:22:SER:OG	46:L9:23:ARG:N	2.16	0.76
35:SM:134:ASP:OD1	35:SM:135:ALA:N	2.19	0.76
36:1:410:U:O4	86:1:4057:OHX:N2	2.18	0.76
1:2:854:U:O4	55:M9:173:ARG:NH2	2.18	0.76
21:C9:28:LEU:HD13	21:C9:30:VAL:HG22	1.66	0.76
40:L3:116:ARG:HH22	40:L3:174:LYS:HD3	1.49	0.76
41:L4:204:GLY:O	41:L4:246:ARG:NH1	2.18	0.76
36:1:2732:G:OP2	86:1:4203:OHX:N2	2.19	0.76
1:6:918:U:H2'	1:6:919:A:H8	1.50	0.76
61:N5:48:SER:OG	38:8:136:G:OP1	83.99	0.76
21:C9:105:LEU:HD13	21:C9:122:ARG:HD3	3.21	0.76
22:D0:27:THR:HB	22:D0:88:LYS:HG3	1.68	0.76
23:D1:74:GLN:NE2	23:D1:81:ASN:O	2.19	0.76
26:D4:12:VAL:HG23	26:D4:23:PHE:HB3	4.82	0.76
41:L4:299:ILE:HG23	54:M8:39:ARG:HD2	2.90	0.76
41:L4:328:ASN:ND2	44:L7:48:ASN:OD1	6.10	0.76
52:M6:42:ASN:OD1	52:M6:125:ARG:NH1	2.97	0.76
74:O8:44:LYS:HG2	74:O8:53:THR:HB	1.90	0.76
3:S1:128:LYS:HE2	3:S1:132:ASP:HB3	1.67	0.76
1:6:471:A:OP2	86:6:2101:OHX:N5	2.17	0.76
25:D3:75:GLN:NE2	25:D3:80:GLY:O	2.17	0.76
62:N6:5:SER:HB2	62:N6:8:VAL:HG22	6.89	0.76
36:1:2894:C:OP1	46:L9:168:ARG:NH2	2.19	0.76
21:C9:38:LYS:NZ	1:6:1564:U:OP1	374.75	0.76
39:L2:201:GLY:O	39:L2:204:MET:HG2	1.86	0.76
62:N6:83:ASP:O	62:N6:84:LYS:HB2	2.20	0.76
66:O0:66:LYS:H	66:O0:66:LYS:HD2	3.03	0.76
71:O5:58:ILE:O	71:O5:62:GLN:NE2	5.68	0.76
1:2:1619:C:H1'	30:D8:22:ARG:HH21	1.51	0.76
41:L4:3:ARG:HH11	41:L4:22:LEU:HD12	1.51	0.76
36:1:1898:G:OP2	86:1:3932:OHX:N4	2.19	0.76
36:1:3259:U:H5'	36:1:3259:U:H6	1.51	0.76
36:5:2255:A:H5'	36:5:2261:G:H22	1.51	0.76
47:M0:84:ALA:O	47:M0:140:THR:HG22	2.24	0.76
7:S5:57:SER:O	7:S5:59:VAL:N	2.19	0.76
36:1:276:U:O2	51:M5:93:LYS:NZ	2.18	0.75
31:D9:21:CYS:SG	31:D9:39:CYS:HB3	3.78	0.75
40:L3:171:LEU:O	86:L3:404:OHX:N6	2.18	0.75
48:M1:49:LYS:HB3	48:M1:62:ASN:HA	1.67	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:109:LYS:O	3:S1:112:SER:OG	2.81	0.75
6:S4:158:ASP:OD2	6:S4:174:LYS:NZ	2.19	0.75
16:C4:11:SER:OG	16:C4:12:GLN:N	4.24	0.75
48:M1:164:LYS:HE3	48:M1:171:VAL:HB	1.67	0.75
36:1:1369:A:OP1	64:N8:21:ARG:NH1	2.20	0.75
38:4:133:G:O6	86:4:229:OHX:N5	2.20	0.75
41:L4:22:LEU:HD11	41:L4:26:PHE:HB2	1.67	0.75
63:N7:83:THR:HG22	63:N7:85:TYR:H	3.41	0.75
1:2:1056:U:O2'	3:S1:202:LYS:NZ	2.18	0.75
60:N4:9:SER:HA	60:N4:52:THR:HG22	1.67	0.75
36:1:314:U:O4	86:1:4150:OHX:N4	2.19	0.75
1:2:702:G:O6	1:2:736:C:N4	2.19	0.75
1:6:1679:G:N7	86:6:2189:OHX:N3	2.35	0.75
11:S9:79:ARG:NH1	1:6:762:A:OP1	408.70	0.75
41:L4:203:ARG:NH1	41:L4:226:GLU:OE2	2.19	0.75
36:1:1129:A:OP1	47:M0:13:LYS:NZ	2.19	0.75
37:3:14:U:O4	37:3:66:A:N6	2.19	0.75
45:L8:160:ILE:HG22	45:L8:164:VAL:HG13	1.68	0.75
47:M0:80:SER:HB3	47:M0:147:VAL:HG11	1.69	0.75
47:M0:43:VAL:HG21	47:M0:197:VAL:HB	2.32	0.75
49:M3:46:ILE:HG22	49:M3:49:ARG:HB2	1.66	0.75
54:M8:178:ARG:HD3	64:N8:50:PRO:HB2	3.77	0.75
1:2:1254:U:OP2	14:C2:46:ARG:NH1	2.20	0.75
79:Q3:4:ARG:NH2	36:5:838:G:O6	236.25	0.75
1:2:794:U:O2'	1:2:795:U:O2	2.04	0.75
36:5:2996:U:OP1	36:5:2996:U:H4'	1.87	0.75
21:C9:52:GLY:O	21:C9:54:PHE:N	2.18	0.75
42:L5:270:LYS:HG3	42:L5:273:ARG:HB3	3.22	0.75
36:1:1381:A:OP1	41:L4:197:ARG:NH1	2.20	0.75
36:1:1790:G:O6	86:1:4168:OHX:N4	2.18	0.75
1:2:885:G:H21	16:C4:123:SER:HB2	1.50	0.75
36:5:2821:C:H5'	88:5:4246:3J6:H2	1.69	0.75
28:D6:10:ARG:NE	1:6:1795:U:O2	328.23	0.75
47:M0:78:THR:OG1	47:M0:79:VAL:N	3.11	0.75
51:M5:96:ARG:HH11	51:M5:96:ARG:HG2	1.53	0.75
67:O1:19:ARG:HD3	67:O1:35:GLU:HG2	1.69	0.75
70:O4:41:ARG:O	70:O4:43:LYS:NZ	3.83	0.75
36:1:1495:U:H5	36:1:1835:A:N1	1.84	0.74
41:L4:152:VAL:HG23	41:L4:172:VAL:HG21	1.69	0.74
36:1:3107:U:P	76:Q0:112:LYS:HE3	2.26	0.74
36:5:3074:G:OP1	86:5:4113:OHX:N4	2.19	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:174:THR:HG23	47:M0:176:LEU:H	1.51	0.74
36:1:2108:C:H1'	36:1:3344:A:C8	2.22	0.74
1:2:142:G:H22	1:2:173:A:H2	1.36	0.74
1:6:759:U:OP1	86:6:2177:OHX:N2	2.20	0.74
19:C7:47:ARG:NH1	19:C7:48:ASN:OD1	2.27	0.74
36:1:1210:U:OP1	46:L9:62:ARG:NH1	2.20	0.74
47:M0:177:ASP:OD2	47:M0:177:ASP:N	2.86	0.74
50:M4:21:VAL:HG12	50:M4:65:LEU:HA	1.67	0.74
55:M9:173:ARG:HH21	55:M9:177:VAL:HG21	8.51	0.74
67:O1:44:MET:O	67:O1:46:THR:N	3.51	0.74
36:1:2836:C:H5	36:1:2852:C:H42	1.33	0.74
23:D1:17:CYS:SG	23:D1:18:SER:N	2.60	0.74
28:D6:5:ARG:NH2	1:6:1795:U:OP2	337.09	0.74
49:M3:52:ASP:OD1	49:M3:52:ASP:N	2.56	0.74
70:O4:91:ARG:HG3	70:O4:95:ILE:HD13	1.70	0.74
36:1:1485:G:N2	70:O4:4:ARG:HD2	2.03	0.74
36:1:2586:G:N7	45:L8:241:LYS:HB2	2.03	0.74
1:6:1208:A:N1	1:6:1455:G:N2	2.35	0.74
1:6:647:G:H1	1:6:687:G:H1	1.35	0.74
62:N6:45:ILE:HD12	62:N6:119:ILE:HG23	1.70	0.74
10:S8:89:GLU:HA	10:S8:92:ARG:HB3	2.53	0.74
36:1:1720:U:P	55:M9:110:ARG:HH12	2.11	0.74
64:N8:4:ARG:NH2	36:5:1427:U:OP2	135.28	0.74
36:5:2975:U:OP1	86:5:4083:OHX:N3	2.21	0.74
29:D7:37:CYS:O	29:D7:39:GLY:N	2.19	0.74
3:S1:103:MET:HB3	3:S1:215:VAL:HG13	2.34	0.74
36:1:2821:C:N3	88:1:4213:3J6:H13	2.03	0.74
1:2:992:A:OP1	86:2:2035:OHX:N2	2.20	0.74
1:6:987:G:O6	86:6:2117:OHX:N4	2.21	0.74
1:6:140:A:N6	1:6:281:G:OP1	2.20	0.74
36:1:409:A:OP2	86:1:4057:OHX:N5	2.21	0.74
21:C9:69:LYS:NZ	1:6:1369:U:OP2	438.40	0.74
33:E1:82:LYS:HE2	1:6:1447:C:C4	379.29	0.74
40:L3:135:ALA:O	40:L3:137:TYR:N	2.20	0.74
4:S2:137:ILE:HG12	4:S2:138:PRO:HD2	1.70	0.74
11:S9:96:VAL:HA	11:S9:99:LEU:HD22	1.70	0.74
1:2:1280:C:O2	1:2:1428:G:N2	2.12	0.74
39:L2:193:ARG:NH1	36:5:2174:G:OP2	191.30	0.74
13:C1:46:LYS:HE2	1:6:846:G:H21	311.77	0.74
22:D0:50:LEU:HD21	22:D0:95:ALA:HB2	1.68	0.74
33:E1:108:VAL:HB	33:E1:114:VAL:HG22	1.68	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:68:ARG:HH12	36:5:2988:C:P	215.40	0.74
1:6:1095:U:O4	86:6:2180:OHX:N2	2.21	0.74
1:2:901:G:N2	16:C4:54:GLU:OE1	2.21	0.74
21:C9:57:ARG:HG3	21:C9:57:ARG:HH11	1.67	0.74
42:L5:151:GLN:HE21	42:L5:152:ARG:H	4.28	0.74
45:L8:126:SER:O	36:5:120:G:N2	94.05	0.74
63:N7:76:ASN:HB3	63:N7:79:HIS:ND1	2.57	0.74
1:2:1773:C:OP2	77:Q1:2:ARG:NH1	2.21	0.74
34:SR:19:TRP:HB2	34:SR:38:ARG:HG3	2.20	0.74
36:1:2120:A:OP2	86:1:4009:OHX:N2	2.21	0.73
1:2:1642:G:O6	86:2:2023:OHX:N6	2.20	0.73
36:5:1265:U:O4	36:5:1276:U:N3	2.18	0.73
11:S9:126:ARG:NH1	1:6:475:A:OP2	423.72	0.73
40:L3:296:THR:HG22	40:L3:299:ASP:H	1.53	0.73
47:M0:76:MET:HE1	47:M0:148:VAL:HG13	1.67	0.73
10:S8:52:ASN:OD1	86:6:2134:OHX:N3	309.55	0.73
36:1:1170:A:OP2	86:1:3959:OHX:N5	2.21	0.73
36:1:1594:A:OP1	70:O4:36:LYS:NZ	2.21	0.73
86:1:3891:OHX:N5	57:N1:13:TYR:O	2.21	0.73
36:5:1952:G:H1	36:5:2094:C:H42	1.34	0.73
36:5:2128:C:OP1	86:5:4084:OHX:N3	2.21	0.73
39:L2:193:ARG:NH2	36:5:2181:C:OP1	197.23	0.73
42:L5:152:ARG:NH1	42:L5:152:ARG:HG3	2.86	0.73
9:S7:66:SER:O	9:S7:68:ALA:N	2.95	0.73
13:C1:122:ILE:H	13:C1:144:ALA:HB2	1.54	0.73
21:C9:97:SER:O	21:C9:101:ASN:ND2	2.21	0.73
59:N3:81:GLN:O	59:N3:98:ASN:ND2	2.21	0.73
3:S1:101:HIS:HA	3:S1:217:LEU:HD22	1.68	0.73
9:S7:50:ASP:N	9:S7:50:ASP:OD1	2.20	0.73
19:C7:29:GLN:HG2	34:SR:67:ILE:HD11	2.14	0.73
4:S2:168:ARG:NE	1:6:1098:U:OP2	383.74	0.73
48:M1:90:GLN:HG2	48:M1:170:ASP:HB2	1.68	0.73
56:N0:39:SER:OG	37:7:98:C:OP1	284.17	0.73
36:1:2292:U:O2	36:1:2300:G:N1	2.16	0.73
30:D8:21:SER:HB3	30:D8:67:ARG:HG2	6.92	0.73
47:M0:86:HIS:HB3	47:M0:139:ARG:CG	2.76	0.73
71:O5:90:ARG:NH1	36:5:20:A:OP2	85.88	0.73
73:O7:87:SER:O	86:O7:103:OHX:N3	2.22	0.73
6:S4:31:PRO:HB2	6:S4:38:LEU:HD22	2.11	0.73
36:5:1238:C:O2'	36:5:1239:C:OP1	2.07	0.73
1:6:578:U:H4'	1:6:579:A:H5'	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:D0:106:ILE:HG23	22:D0:107:THR:HG23	1.71	0.73
27:D5:41:ILE:HG13	27:D5:42:LEU:HG	1.71	0.73
27:D5:56:THR:H	27:D5:103:ARG:HH11	1.34	0.73
40:L3:116:ARG:NH2	40:L3:174:LYS:HD3	2.03	0.73
36:1:413:U:OP1	53:M7:30:ARG:NH2	2.21	0.73
3:S1:154:SER:O	3:S1:154:SER:OG	2.03	0.73
1:2:328:A:N3	10:S8:86:SER:OG	2.22	0.73
1:6:1294:G:O6	86:6:2067:OHX:N5	2.21	0.73
21:C9:49:ASP:HB3	21:C9:53:TRP:HB3	1.69	0.73
28:D6:37:LYS:O	28:D6:38:ARG:NH1	2.21	0.73
43:L6:31:ARG:NH2	43:L6:81:ALA:O	2.50	0.73
36:1:1949:G:OP1	55:M9:104:ARG:NH1	2.21	0.73
11:S9:168:ARG:HD3	11:S9:174:ARG:HD2	5.45	0.73
36:1:1659:U:O2	36:1:1790:G:N1	2.19	0.73
36:1:2535:A:H61	36:1:2544:U:H3	1.37	0.73
20:C8:27:LYS:O	20:C8:31:ALA:N	2.70	0.73
64:N8:6:THR:HG22	64:N8:9:ARG:HG2	1.71	0.73
64:N8:88:ASP:HA	64:N8:91:LEU:HB2	3.35	0.73
17:C5:129:GLY:HA3	35:SM:74:LYS:HD2	6.40	0.73
28:D6:87:ARG:NH2	28:D6:91:ASP:O	3.15	0.73
1:2:149:C:O2'	8:S6:132:ARG:NH1	2.22	0.73
1:2:770:A:OP2	86:2:2138:OHX:N6	2.21	0.73
36:5:1564:U:H2'	36:5:1565:G:C8	2.24	0.73
15:C3:93:LYS:HG3	15:C3:150:VAL:HG11	1.69	0.73
43:L6:56:LYS:NZ	43:L6:98:VAL:O	3.46	0.73
1:2:1330:G:N1	5:S3:204:ASP:OD1	2.20	0.72
16:C4:13:VAL:HG13	16:C4:77:THR:H	1.54	0.72
41:L4:205:PRO:HG2	41:L4:225:VAL:HG13	1.70	0.72
36:5:1665:C:O2	36:5:1784:G:N2	2.20	0.72
36:5:1541:G:OP2	86:5:4087:OHX:N4	2.22	0.72
23:D1:60:ARG:HA	23:D1:65:SER:HB2	2.24	0.72
42:L5:22:ARG:HA	42:L5:25:GLU:HG3	3.47	0.72
55:M9:27:ASN:O	86:M9:203:OHX:N6	2.22	0.72
56:N0:42:TRP:NE1	56:N0:58:ILE:HD11	2.47	0.72
73:O7:72:ARG:NH1	38:8:95:G:OP2	52.13	0.72
20:C8:135:GLY:HA3	1:6:1559:A:H5"	365.60	0.72
1:2:1429:G:H1'	22:D0:74:GLU:HG2	1.72	0.72
40:L3:232:ARG:NH1	40:L3:269:GLN:O	2.27	0.72
41:L4:4:PRO:HG2	41:L4:22:LEU:HD12	4.15	0.72
36:1:516:A:O3'	44:L7:60:ARG:NH2	2.23	0.72
50:M4:24:LYS:HE2	50:M4:25:LYS:HE2	1.69	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:31:C:OP2	51:M5:188:ARG:NH2	2.22	0.72
52:M6:27:LEU:HD22	52:M6:101:ARG:HB2	1.83	0.72
1:2:1002:G:N1	1:2:1761:U:OP1	2.21	0.72
38:8:74:U:O2	86:8:221:OHX:N5	2.23	0.72
37:3:27:A:O5'	42:L5:57:ASN:ND2	2.22	0.72
74:O8:24:THR:HG23	74:O8:44:LYS:HB2	1.89	0.72
2:S0:119:ARG:HE	4:S2:240:LEU:HD23	3.17	0.72
36:1:860:G:OP1	79:Q3:17:ARG:NH1	2.22	0.72
1:2:730:G:H21	1:2:731:C:H5"	1.53	0.72
11:S9:146:PHE:HZ	1:6:765:G:N1	430.38	0.72
13:C1:6:THR:O	13:C1:8:GLN:N	2.23	0.72
28:D6:36:ILE:H	28:D6:36:ILE:HD12	5.57	0.72
36:1:2179:C:O3'	39:L2:174:ARG:NH2	2.21	0.72
41:L4:170:LYS:HG2	41:L4:175:HIS:HB2	3.51	0.72
66:O0:30:THR:HG22	66:O0:91:SER:HB2	3.32	0.72
72:O6:4:LYS:O	72:O6:16:LYS:NZ	3.44	0.72
7:S5:110:ALA:HA	7:S5:113:ILE:HD12	1.71	0.72
36:1:1015:U:O2'	36:1:1017:C:OP2	2.07	0.72
36:1:1103:A:OP2	36:1:1103:A:H4'	1.88	0.72
36:1:3066:U:O4	86:1:4135:OHX:N5	2.22	0.72
36:1:544:C:H1'	36:1:548:G:H22	1.53	0.72
1:2:1726:G:N7	86:2:2099:OHX:N4	2.38	0.72
39:L2:40:TYR:HA	39:L2:91:GLY:HA3	1.70	0.72
59:N3:54:LEU:HD21	59:N3:119:GLY:HA3	2.89	0.72
6:S4:102:VAL:HG23	6:S4:182:TYR:HE1	1.53	0.72
36:1:1565:G:N2	36:1:1574:C:N3	2.37	0.72
36:1:191:U:H2'	36:1:192:C:C6	2.25	0.72
36:5:409:A:OP2	86:5:4096:OHX:N3	2.23	0.72
49:M3:47:ALA:HB1	49:M3:48:PRO:HD2	1.74	0.72
36:1:438:A:OP1	68:O2:118:LYS:NZ	2.23	0.72
3:S1:111:ARG:HG3	28:D6:68:TYR:HB2	1.71	0.72
11:S9:23:ARG:NH1	11:S9:27:GLU:OE2	2.22	0.72
1:2:1331:A:OP1	19:C7:45:ARG:NH2	2.23	0.72
36:5:1565:G:N1	36:5:1574:C:N3	2.38	0.72
36:5:3274:A:H3'	36:5:3275:U:C5'	2.16	0.72
57:N1:13:TYR:O	86:5:3904:OHX:N4	260.83	0.72
36:5:2841:G:OP2	86:5:4132:OHX:N1	2.23	0.72
18:C6:47:LYS:HZ1	18:C6:114:ARG:HH21	1.38	0.72
27:D5:60:VAL:HG22	27:D5:101:TYR:HB2	1.72	0.72
40:L3:83:PRO:O	40:L3:165:GLN:NE2	3.43	0.72
37:3:17:A:OP1	42:L5:2:ALA:N	2.23	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:77:LYS:O	64:N8:79:TRP:N	2.46	0.72
69:O3:59:VAL:O	69:O3:61:GLY:N	2.79	0.72
36:1:977:C:OP1	54:M8:141:ARG:NH2	2.23	0.72
36:5:2372:A:H5"	36:5:2373:A:H5'	1.72	0.72
1:6:230:C:N3	1:6:235:G:N2	2.37	0.72
13:C1:21:ASN:N	13:C1:21:ASN:OD1	2.98	0.72
26:D4:47:VAL:O	26:D4:49:LYS:NZ	2.19	0.72
46:L9:9:GLN:HG2	46:L9:52:LEU:HD21	1.72	0.72
59:N3:125:LEU:HB3	59:N3:126:TRP:CD1	2.25	0.72
66:O0:57:GLU:OE1	66:O0:69:TYR:OH	2.82	0.72
10:S8:23:LYS:NZ	1:6:391:A:OP2	304.85	0.72
36:1:2169:G:O6	86:1:3913:OHX:N4	2.23	0.72
36:5:1555:U:O4	36:5:1557:A:N6	2.18	0.72
1:6:1767:G:OP1	1:6:1770:U:H4'	1.90	0.72
1:6:218:A:H2'	1:6:219:A:H5"	1.72	0.72
22:D0:30:LYS:HD3	22:D0:33:GLN:HE21	1.53	0.72
26:D4:29:HIS:O	26:D4:31:ASN:N	3.78	0.72
6:S4:151:ASP:OD1	8:S6:215:ARG:NH1	3.72	0.72
1:2:452:A:OP2	86:2:2038:OHX:N5	2.23	0.71
1:2:583:C:OP1	86:2:2026:OHX:N3	2.23	0.71
16:C4:50:ALA:O	16:C4:52:ARG:N	2.22	0.71
36:1:3070:A:OP1	55:M9:62:ARG:NH2	2.22	0.71
8:S6:20:ASP:HB3	8:S6:23:ARG:HB2	1.71	0.71
34:SR:160:GLU:O	34:SR:162:ALA:N	2.20	0.71
36:1:1934:G:N7	86:1:3886:OHX:N2	2.37	0.71
86:5:3936:OHX:N5	86:5:4228:OHX:N6	2.38	0.71
36:5:980:A:H2'	36:5:981:U:C2	2.24	0.71
16:C4:66:ASP:O	16:C4:69:ALA:N	3.42	0.71
39:L2:214:GLY:O	39:L2:215:ASN:HB2	4.56	0.71
35:SM:26:VAL:HG11	48:M1:49:LYS:HE3	1.73	0.71
69:O3:72:THR:HG23	69:O3:83:ALA:HA	1.70	0.71
36:1:2572:C:O2'	36:1:2573:G:O4'	2.07	0.71
1:2:1035:G:OP1	15:C3:2:GLY:N	2.24	0.71
1:2:1230:A:H2'	1:2:1258:U:H5	1.53	0.71
72:O6:30:LYS:NZ	36:5:317:A:OP2	102.41	0.71
1:6:1297:G:N2	1:6:1300:A:OP2	2.24	0.71
12:C0:15:LEU:HD13	12:C0:21:VAL:HG23	1.71	0.71
22:D0:51:VAL:HG13	22:D0:94:GLU:HB2	1.72	0.71
26:D4:34:ASN:ND2	1:6:521:A:N3	424.90	0.71
53:M7:48:LEU:HD22	53:M7:88:VAL:HG13	3.08	0.71
8:S6:163:THR:HG22	8:S6:168:THR:HG22	1.70	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:184:LEU:HB3	10:S8:189:LEU:HB2	1.72	0.71
36:1:1015:U:O4	36:1:1035:G:N1	2.16	0.71
1:2:1584:G:H5"	18:C6:122:ARG:HG2	1.72	0.71
1:2:1680:G:O6	86:2:2110:OHX:N5	2.23	0.71
1:2:1745:G:O6	86:2:2086:OHX:N6	2.23	0.71
37:3:112:G:OP2	86:3:221:OHX:N1	2.23	0.71
40:L3:2:SER:N	36:5:2943:G:N7	236.00	0.71
36:5:3053:G:O6	86:5:4167:OHX:N6	2.23	0.71
18:C6:127:LYS:HA	18:C6:134:ALA:HA	1.71	0.71
36:1:1158:A:OP2	44:L7:90:LYS:NZ	2.22	0.71
47:M0:81:GLY:O	47:M0:83:ASP:N	2.73	0.71
51:M5:9:GLU:OE2	51:M5:13:LYS:NZ	2.21	0.71
36:1:1492:G:O3'	75:O9:48:LYS:NZ	2.23	0.71
36:1:2296:A:OP1	86:1:4147:OHX:N2	2.24	0.71
36:1:2314:U:O2'	36:1:2315:G:OP1	2.09	0.71
1:2:1460:A:C8	17:C5:128:HIS:HB3	2.26	0.71
20:C8:82:PRO:O	20:C8:84:TRP:N	2.23	0.71
22:D0:20:ILE:HD13	22:D0:22:ILE:HD13	1.72	0.71
3:S1:146:GLN:HB3	3:S1:149:GLN:HE21	1.55	0.71
6:S4:129:VAL:HB	6:S4:139:VAL:HG12	1.72	0.71
10:S8:18:ARG:NH1	1:6:105:A:OP1	304.78	0.71
34:SR:238:ASP:OD1	34:SR:238:ASP:N	2.24	0.71
36:1:1134:G:O2'	36:1:2642:A:N3	2.22	0.71
36:1:956:U:OP1	86:1:4125:OHX:N1	2.22	0.71
36:5:2667:A:O2'	36:5:2691:A:OP1	2.07	0.71
1:6:1561:U:H2'	1:6:1562:G:H8	1.53	0.71
16:C4:125:SER:OG	16:C4:126:THR:N	2.73	0.71
22:D0:80:GLU:OE1	31:D9:44:ARG:NH1	2.23	0.71
25:D3:68:ILE:O	25:D3:70:LYS:NZ	2.22	0.71
25:D3:93:LEU:HD21	32:E0:8:LEU:HD13	1.72	0.71
54:M8:158:HIS:H	54:M8:186:VAL:CG1	2.03	0.71
7:S5:163:SER:HB2	30:D8:48:VAL:HG23	1.73	0.71
36:1:1238:C:N4	36:1:1245:A:OP2	2.23	0.71
1:6:1282:U:OP1	86:6:2135:OHX:N4	2.23	0.71
42:L5:265:TYR:OH	37:7:121:U:OP2	311.89	0.71
27:D5:60:VAL:HG13	27:D5:101:TYR:HB2	3.27	0.71
40:L3:188:ILE:HD12	40:L3:188:ILE:H	3.24	0.71
41:L4:311:HIS:NE2	41:L4:314:LYS:HA	2.05	0.71
75:O9:24:PRO:HB2	75:O9:27:ILE:HD12	2.56	0.71
2:S0:150:ASP:OD1	2:S0:165:ARG:NH2	2.23	0.71
36:1:1095:U:H4'	36:1:1096:U:H5'	1.73	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1041:G:H2'	1:2:1042:G:C8	2.25	0.71
1:2:1738:U:O4	86:2:2041:OHX:N4	2.24	0.71
38:4:79:A:H2'	38:4:80:A:H1'	1.71	0.71
36:5:2603:G:O6	86:5:3898:OHX:N1	2.23	0.71
36:5:1650:G:N7	86:5:4176:OHX:N3	2.39	0.71
1:6:1203:A:OP2	86:6:2128:OHX:N1	2.23	0.71
56:N0:50:LYS:NZ	37:7:76:A:O2'	301.64	0.71
54:M8:122:ILE:HG23	54:M8:126:GLN:HB2	1.89	0.71
63:N7:57:HIS:CD2	63:N7:65:ARG:HH12	4.53	0.71
72:O6:28:TYR:O	86:5:4184:OHX:N2	104.26	0.71
2:S0:49:ASN:HA	19:C7:109:LEU:HD21	3.34	0.71
6:S4:105:VAL:HG22	6:S4:243:GLY:HA2	1.73	0.71
1:2:1761:U:O2'	1:2:1762:A:OP2	2.07	0.71
1:2:800:U:H2'	1:2:801:G:H8	1.55	0.71
40:L3:266:ARG:NH2	36:5:2392:C:O2'	208.87	0.71
17:C5:22:LEU:HA	17:C5:25:LEU:HD12	1.85	0.71
2:S0:55:GLU:HG2	23:D1:79:LEU:HD22	3.10	0.71
49:M3:76:THR:HG22	49:M3:101:ARG:HB3	1.71	0.71
52:M6:110:PRO:O	52:M6:113:ASP:N	4.87	0.71
56:N0:70:THR:O	56:N0:70:THR:OG1	3.21	0.71
10:S8:11:ARG:NH1	10:S8:15:GLY:O	2.23	0.71
36:1:1362:G:H4'	44:L7:159:GLN:O	1.90	0.71
36:1:3085:G:OP2	86:1:3888:OHX:N2	2.23	0.71
39:L2:40:TYR:N	36:5:2550:U:O4	213.68	0.71
20:C8:52:VAL:HG21	20:C8:69:ILE:HD11	1.72	0.71
20:C8:91:ASP:HB3	20:C8:95:GLY:H	1.55	0.71
27:D5:88:ILE:HA	27:D5:104:ALA:HB2	1.72	0.71
46:L9:9:GLN:HG2	46:L9:54:LYS:HG2	4.11	0.71
51:M5:90:ASN:ND2	36:5:2424:A:OP1	166.21	0.71
3:S1:175:GLU:OE2	3:S1:187:LYS:NZ	4.79	0.71
7:S5:225:ARG:NH2	30:D8:58:GLU:HB2	5.71	0.71
9:S7:131:PHE:O	9:S7:133:THR:N	2.24	0.71
36:1:2108:C:O2'	36:1:3362:A:N6	2.24	0.70
1:2:68:A:H5'	8:S6:160:ARG:HH12	1.54	0.70
38:4:95:G:OP2	73:O7:72:ARG:NH1	2.24	0.70
15:C3:132:VAL:HG23	15:C3:134:VAL:HG13	2.73	0.70
41:L4:34:ILE:O	41:L4:38:VAL:HG23	1.92	0.70
45:L8:94:PHE:HB3	45:L8:189:LEU:HD21	2.40	0.70
46:L9:49:ASN:ND2	46:L9:51:GLN:H	1.89	0.70
55:M9:62:ARG:NH2	36:5:3068:U:OP2	172.71	0.70
4:S2:53:ILE:HA	4:S2:56:ILE:HG13	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:70:THR:HG23	5:S3:86:LEU:HB2	2.08	0.70
34:SR:42:LEU:HD21	34:SR:82:SER:HB3	1.76	0.70
1:6:1700:C:O2'	1:6:1701:A:OP1	2.08	0.70
1:6:1765:A:OP2	86:6:2124:OHX:N4	2.24	0.70
12:C0:53:GLY:O	12:C0:55:VAL:N	2.23	0.70
20:C8:13:HIS:HA	20:C8:24:GLY:HA3	2.47	0.70
50:M4:16:GLU:HB3	56:N0:149:LYS:HB3	2.70	0.70
57:N1:118:GLU:OE1	57:N1:122:GLN:NE2	9.58	0.70
61:N5:48:SER:OG	61:N5:49:LYS:N	3.65	0.70
7:S5:205:SER:HG	7:S5:207:THR:HG1	3.87	0.70
36:5:2369:G:OP2	86:5:3902:OHX:N5	2.24	0.70
1:6:564:G:O6	86:6:2152:OHX:N5	2.24	0.70
15:C3:36:GLN:HG3	15:C3:39:LYS:HD2	8.88	0.70
7:S5:61:TYR:OH	30:D8:52:ASP:OD1	3.38	0.70
41:L4:82:THR:HG23	41:L4:84:ARG:H	2.01	0.70
42:L5:158:ARG:HB2	37:7:46:A:OP1	278.50	0.70
48:M1:109:HIS:CD2	48:M1:114:ILE:HG21	2.79	0.70
51:M5:173:GLY:O	51:M5:183:THR:OG1	2.90	0.70
50:M4:135:LEU:HD11	52:M6:178:VAL:HG22	1.73	0.70
62:N6:112:ASP:H	62:N6:115:ARG:HB2	1.75	0.70
64:N8:3:SER:OG	36:5:1430:U:O4	139.75	0.70
74:O8:32:ASN:HD21	74:O8:36:LYS:H	1.38	0.70
9:S7:50:ASP:HA	9:S7:56:LYS:HA	1.74	0.70
11:S9:110:GLN:NE2	11:S9:126:ARG:HG2	2.79	0.70
1:2:823:G:H2'	1:2:824:G:C8	2.26	0.70
1:6:1699:G:H22	1:6:1701:A:H3'	1.56	0.70
1:6:991:G:OP2	86:6:2170:OHX:N2	2.25	0.70
10:S8:50:GLY:HA2	1:6:397:A:O3'	314.82	0.70
13:C1:14:GLN:HB3	13:C1:54:ILE:HG13	3.89	0.70
1:2:1584:G:C8	18:C6:122:ARG:HB3	2.27	0.70
41:L4:38:VAL:O	41:L4:42:VAL:HG23	1.91	0.70
45:L8:156:ASP:OD2	45:L8:156:ASP:N	2.19	0.70
59:N3:48:ARG:HG3	59:N3:48:ARG:HH11	1.74	0.70
3:S1:123:ALA:HB2	3:S1:165:ARG:HG2	2.53	0.70
1:2:885:G:OP1	3:S1:136:ARG:NH1	2.24	0.70
7:S5:97:LEU:O	7:S5:99:MET:N	3.15	0.70
36:1:2239:G:O6	86:1:3946:OHX:N5	2.25	0.70
36:1:2433:U:H1'	51:M5:125:SER:HB3	1.73	0.70
36:1:530:G:N7	86:1:3921:OHX:N6	2.39	0.70
1:2:1435:G:N7	12:C0:25:LYS:NZ	2.38	0.70
22:D0:58:LEU:HD12	22:D0:88:LYS:HD2	2.08	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:157:GLU:HG2	41:L4:209:TYR:HB2	1.74	0.70
67:O1:79:ARG:HE	67:O1:79:ARG:H	1.40	0.70
36:1:1723:A:OP2	55:M9:103:ARG:NH2	2.23	0.70
36:1:2683:U:H2'	36:1:2684:C:C6	2.27	0.70
1:2:491:C:N3	1:2:496:G:N2	2.37	0.70
36:5:1194:G:OP1	86:5:4008:OHX:N6	2.25	0.70
36:5:1393:A:N3	36:5:1419:A:O2'	2.24	0.70
36:5:2249:G:OP1	86:5:4193:OHX:N6	2.24	0.70
36:5:22:G:H1'	38:8:104:A:N3	2.07	0.70
36:5:2444:C:H42	36:5:2503:G:H1	1.40	0.70
36:5:2258:U:OP2	86:5:3942:OHX:N4	2.24	0.70
19:C7:6:THR:HG23	19:C7:9:VAL:HG23	1.74	0.70
31:D9:24:CYS:HB3	31:D9:42:CYS:SG	2.96	0.70
39:L2:147:ARG:HH12	39:L2:155:LYS:HD3	6.11	0.70
72:O6:25:LYS:HB2	72:O6:28:TYR:HD2	1.57	0.70
2:S0:126:PRO:HB2	2:S0:152:PRO:HG2	2.46	0.70
4:S2:140:ARG:HH22	4:S2:228:ASN:HD21	1.38	0.70
1:6:833:U:O4	86:6:2099:OHX:N2	2.25	0.70
10:S8:75:LYS:NZ	1:6:259:U:OP1	271.12	0.70
13:C1:2:SER:HB2	13:C1:82:ARG:H	1.56	0.70
20:C8:91:ASP:OD1	20:C8:92:ILE:N	3.09	0.70
40:L3:229:VAL:HG11	40:L3:249:VAL:HG12	5.75	0.70
43:L6:31:ARG:HD3	69:O3:106:ASN:ND2	2.07	0.70
46:L9:90:MET:HE1	46:L9:179:ILE:HG22	1.73	0.70
62:N6:47:ALA:O	62:N6:122:LYS:NZ	2.70	0.70
67:O1:44:MET:HB3	67:O1:77:ARG:HD3	1.74	0.70
36:1:944:C:H4'	68:O2:33:ARG:NH1	2.06	0.70
1:2:1239:U:O4	86:2:2047:OHX:N2	2.24	0.70
1:2:1433:G:C8	31:D9:41:GLN:HG2	2.26	0.70
40:L3:105:VAL:HG21	40:L3:148:LEU:HD13	1.73	0.70
49:M3:58:VAL:HG13	36:5:75:G:H5"	87.52	0.70
10:S8:34:ALA:HB2	10:S8:56:ARG:HD3	2.94	0.70
36:1:239:G:O2'	36:1:240:U:OP1	2.09	0.70
36:1:3338:C:O2	36:1:3366:G:N2	2.21	0.70
76:Q0:125:LYS:NZ	36:5:2898:G:O6	328.39	0.70
1:6:578:U:O2	86:6:2152:OHX:N3	2.25	0.70
33:E1:144:CYS:HB3	33:E1:147:VAL:HG13	1.73	0.70
40:L3:299:ASP:OD1	40:L3:301:THR:OG1	2.32	0.70
41:L4:89:ALA:O	41:L4:91:GLY:N	2.25	0.70
64:N8:131:SER:HB3	64:N8:134:ALA:HB2	1.99	0.70
66:O0:103:THR:O	66:O0:105:ALA:N	3.18	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1173:C:OP1	20:C8:132:ARG:NH1	2.23	0.69
1:2:1773:C:H2'	1:2:1774:G:C8	2.26	0.69
1:2:197:A:H61	10:S8:138:ASN:HD22	1.40	0.69
36:5:1236:G:N2	36:5:1244:A:OP1	2.25	0.69
13:C1:109:VAL:HG12	13:C1:137:PHE:HB2	4.25	0.69
1:2:1369:U:OP1	21:C9:119:LYS:NZ	2.25	0.69
53:M7:69:ARG:HG3	53:M7:79:THR:HG23	5.73	0.69
36:1:3195:U:O2'	36:1:3197:G:N2	2.26	0.69
36:1:1207:G:N7	86:1:4063:OHX:N2	2.40	0.69
1:2:992:A:H2	1:2:1012:U:H3	1.39	0.69
1:2:930:A:OP1	28:D6:32:LYS:NZ	2.25	0.69
19:C7:8:THR:HG21	1:6:1330:G:H21	419.22	0.69
42:L5:85:ARG:NH1	42:L5:86:TYR:OH	2.25	0.69
2:S0:175:TYR:HE1	2:S0:197:ILE:HG22	1.56	0.69
8:S6:67:VAL:HG21	8:S6:99:GLY:HA2	2.00	0.69
36:1:1878:G:OP1	86:1:3928:OHX:N4	2.25	0.69
1:2:1290:U:H2'	1:2:1291:G:C8	2.28	0.69
36:5:1066:G:OP1	86:5:4222:OHX:N2	2.25	0.69
36:5:1414:G:O6	86:5:4141:OHX:N1	2.25	0.69
1:6:1696:G:H2'	1:6:1698:G:O6	1.91	0.69
1:6:363:G:OP1	86:6:2110:OHX:N1	2.25	0.69
1:6:486:G:O6	1:6:488:G:N2	2.25	0.69
10:S8:185:GLU:HG2	13:C1:23:PRO:HG3	1.74	0.69
17:C5:126:VAL:HG13	17:C5:127:ARG:H	1.56	0.69
1:2:851:U:H2'	1:2:852:C:C6	2.28	0.69
16:C4:123:SER:HB2	1:6:885:G:H21	286.96	0.69
26:D4:35:VAL:HG13	26:D4:36:SER:H	1.56	0.69
27:D5:49:ARG:O	27:D5:53:GLU:HB2	2.24	0.69
41:L4:300:ARG:HH11	41:L4:300:ARG:HG2	3.54	0.69
56:N0:79:VAL:HG21	56:N0:106:LEU:HD21	1.74	0.69
63:N7:27:LYS:HB3	63:N7:42:LEU:HB2	2.57	0.69
8:S6:137:ARG:NH2	1:6:169:A:OP2	318.43	0.69
34:SR:159:ASN:O	34:SR:161:LYS:N	4.29	0.69
34:SR:216:LYS:HA	34:SR:239:GLU:HG3	1.74	0.69
36:1:829:U:H3	36:1:895:A:H62	1.40	0.69
1:2:1015:U:OP1	86:2:2045:OHX:N3	2.25	0.69
1:2:656:G:O2'	1:2:657:U:O4'	2.10	0.69
1:2:918:U:H2'	1:2:919:A:C8	2.27	0.69
36:5:2236:G:OP1	86:5:4242:OHX:N3	2.24	0.69
36:5:1129:A:N6	36:5:2864:A:O2'	2.24	0.69
15:C3:12:SER:OG	1:6:956:C:OP2	334.71	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:104:ASN:O	19:C7:106:THR:N	3.46	0.69
23:D1:28:ASP:HB3	23:D1:31:SER:HB3	4.12	0.69
24:D2:15:ASN:ND2	24:D2:72:CYS:O	2.75	0.69
31:D9:20:GLN:HG3	31:D9:25:SER:HA	2.56	0.69
36:1:684:G:OP2	49:M3:28:GLN:NE2	2.25	0.69
39:L2:97:ASN:HA	79:Q3:87:ARG:HH12	4.35	0.69
35:SM:23:LYS:HE3	35:SM:24:GLU:H	6.69	0.69
36:1:2123:G:N7	86:1:4198:OHX:N2	2.41	0.69
1:2:1665:U:O4	86:2:2136:OHX:N4	2.25	0.69
1:6:1280:C:H2'	1:6:1281:G:C8	2.26	0.69
1:6:76:A:H3'	86:6:2192:OHX:N1	2.07	0.69
17:C5:98:ASN:ND2	17:C5:121:ILE:O	2.25	0.69
28:D6:58:VAL:HG22	28:D6:59:TYR:H	3.30	0.69
42:L5:64:ILE:HD12	42:L5:109:THR:HG21	1.74	0.69
46:L9:163:GLN:OE1	46:L9:166:ARG:NH1	3.31	0.69
66:O0:99:ASP:N	66:O0:99:ASP:OD2	2.26	0.69
1:2:1592:A:H2'	1:2:1593:A:H8	1.57	0.69
1:2:1796:C:H5	28:D6:6:ALA:H	1.41	0.69
86:2:2036:OHX:N2	10:S8:17:LYS:O	2.26	0.69
36:5:1586:G:OP1	86:5:3984:OHX:N3	2.25	0.69
38:8:42:G:O6	38:8:102:U:N3	2.19	0.69
17:C5:87:PRO:HA	17:C5:90:ILE:HG13	1.75	0.69
26:D4:14:SER:HB2	26:D4:21:LYS:HE3	1.73	0.69
44:L7:158:LYS:HD2	44:L7:159:GLN:H	3.81	0.69
45:L8:101:THR:HG23	45:L8:104:GLU:H	1.57	0.69
53:M7:122:ALA:HB3	53:M7:143:PRO:HB2	1.75	0.69
44:L7:80:GLN:OE1	57:N1:136:ARG:HB2	2.56	0.69
3:S1:191:GLU:HB2	3:S1:194:ASN:HB2	1.73	0.69
8:S6:155:ASP:OD1	86:S6:301:OHX:N2	2.25	0.69
20:C8:120:ARG:NH2	35:SM:58:GLU:OE1	2.24	0.69
36:1:1233:G:H1	36:1:1255:C:H42	1.39	0.69
1:2:9:U:O4	86:2:2155:OHX:N6	2.26	0.69
44:L7:219:LYS:HE2	36:5:1169:A:H4'	249.37	0.69
1:6:1650:U:H2'	1:6:1651:A:C8	2.28	0.69
55:M9:4:LEU:HA	55:M9:7:GLN:HE21	5.62	0.69
67:O1:83:GLU:OE2	86:O1:201:OHX:N4	2.26	0.69
1:6:915:A:OP1	86:6:2069:OHX:N6	2.26	0.69
1:6:770:A:OP2	86:6:2136:OHX:N3	2.26	0.69
6:S4:49:ARG:NH1	1:6:448:C:OP2	378.83	0.69
1:6:837:G:O6	86:6:2099:OHX:N1	2.26	0.69
20:C8:88:ARG:NH1	20:C8:112:ASP:OD1	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:25:GLN:HG2	44:L7:29:GLU:HB2	1.75	0.69
54:M8:30:VAL:O	54:M8:34:THR:HG23	2.00	0.69
63:N7:26:VAL:HG21	63:N7:96:VAL:HB	1.75	0.69
72:O6:45:ARG:NH2	72:O6:54:GLU:OE1	2.26	0.69
7:S5:123:VAL:O	27:D5:58:ARG:NH1	2.26	0.69
34:SR:161:LYS:O	34:SR:161:LYS:HG2	1.92	0.69
36:1:1363:A:OP2	86:1:4045:OHX:N6	2.26	0.69
36:5:3165:A:N6	36:5:3285:C:H42	1.88	0.69
1:6:340:U:H2'	1:6:341:A:C8	2.28	0.69
26:D4:104:SER:HB3	26:D4:107:GLN:HG3	1.75	0.69
40:L3:50:LYS:HE2	40:L3:328:ILE:HG22	4.23	0.69
43:L6:78:ARG:NH1	36:5:3272:C:OP2	246.78	0.69
47:M0:66:GLU:OE1	47:M0:69:ARG:NH2	2.34	0.69
51:M5:80:THR:HG21	51:M5:87:GLN:HA	1.73	0.69
56:N0:137:ARG:HG2	56:N0:139:TYR:CZ	2.51	0.69
66:O0:24:THR:HG22	66:O0:93:LEU:HD11	2.60	0.69
78:Q2:50:PHE:O	86:Q2:502:OHX:N1	3.75	0.69
11:S9:163:PRO:O	11:S9:165:GLY:N	2.26	0.69
1:2:887:A:H1'	16:C4:122:PRO:HB3	1.75	0.69
36:5:2123:G:N7	86:5:4093:OHX:N1	2.40	0.69
73:O7:45:ARG:NH2	36:5:361:A:O3'	123.80	0.69
19:C7:14:LYS:NZ	19:C7:18:GLU:OE2	2.25	0.69
20:C8:42:TYR:HE2	20:C8:73:MET:HG3	4.39	0.69
40:L3:43:LEU:HG	40:L3:181:ILE:HG21	2.59	0.69
41:L4:73:ARG:NH2	36:5:2814:G:OP1	171.87	0.69
46:L9:20:ILE:HG12	46:L9:25:VAL:HG22	5.20	0.69
78:Q2:3:ASN:HA	78:Q2:92:GLU:O	1.92	0.69
2:S0:183:ARG:NH2	2:S0:191:ARG:O	2.25	0.69
20:C8:145:ARG:HG3	35:SM:68:ARG:HH22	4.03	0.69
1:2:1160:A:H2'	1:2:1161:C:C6	2.28	0.68
1:2:237:C:H5"	1:2:238:U:H5'	1.74	0.68
10:S8:2:GLY:N	1:6:393:C:OP2	291.94	0.68
18:C6:22:VAL:HG13	18:C6:65:ILE:HG12	1.75	0.68
29:D7:59:CYS:O	29:D7:61:THR:N	2.84	0.68
39:L2:204:MET:HB2	39:L2:208:ASP:HB2	1.73	0.68
62:N6:50:ILE:HD13	62:N6:51:ARG:H	4.32	0.68
2:S0:74:VAL:HG23	2:S0:118:PRO:HB3	2.33	0.68
4:S2:108:ASN:O	4:S2:108:ASN:ND2	3.96	0.68
4:S2:116:LYS:HG2	4:S2:127:ALA:HB3	2.33	0.68
71:O5:95:PHE:CD2	36:5:136:G:H5'	63.23	0.68
78:Q2:41:ARG:NH1	36:5:284:A:OP2	156.17	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1698:G:N2	1:6:1699:G:N7	2.40	0.68
18:C6:22:VAL:HG22	18:C6:65:ILE:HG23	2.47	0.68
40:L3:293:ASN:HB2	40:L3:304:THR:HA	1.74	0.68
41:L4:327:LEU:HA	44:L7:166:ASN:HD21	1.58	0.68
51:M5:49:ARG:HH11	51:M5:49:ARG:HB2	1.58	0.68
58:N2:19:VAL:O	58:N2:23:THR:OG1	2.34	0.68
59:N3:87:ARG:HH22	59:N3:137:VAL:CG2	2.05	0.68
74:O8:23:ALA:HB2	74:O8:73:LEU:HD21	1.73	0.68
6:S4:151:ASP:HB3	6:S4:154:ILE:HG13	1.75	0.68
36:1:1674:G:OP2	86:1:3948:OHX:N2	2.26	0.68
1:2:1535:U:O2'	1:2:1536:G:N3	2.25	0.68
70:O4:66:SER:OG	36:5:1643:A:OP1	168.05	0.68
1:6:194:U:O2	1:6:195:G:O2'	2.11	0.68
25:D3:107:PHE:CD2	25:D3:114:LYS:HB2	2.28	0.68
25:D3:69:ARG:NH1	25:D3:116:ASP:OD1	2.26	0.68
66:O0:54:SER:HB3	70:O4:94:LEU:HD13	1.75	0.68
7:S5:56:ALA:O	7:S5:58:LEU:N	3.60	0.68
10:S8:136:SER:HB3	10:S8:139:ALA:HB3	1.75	0.68
36:1:917:A:OP2	86:1:4143:OHX:N2	2.27	0.68
70:O4:9:ARG:NH2	36:5:1606:U:O4	140.21	0.68
20:C8:41:ARG:HD3	1:6:1565:C:OP1	369.28	0.68
1:6:1600:A:H4'	1:6:1601:G:OP1	1.92	0.68
1:6:833:U:O4	86:6:2099:OHX:N5	2.27	0.68
13:C1:33:ARG:NH2	13:C1:51:GLY:O	3.38	0.68
27:D5:37:GLN:N	27:D5:70:LYS:HZ3	10.68	0.68
58:N2:59:ASP:O	58:N2:61:THR:N	2.25	0.68
10:S8:57:ALA:HB2	10:S8:177:GLY:HA2	1.89	0.68
11:S9:102:GLU:HA	11:S9:105:LEU:HB2	2.21	0.68
20:C8:125:ILE:HG12	35:SM:61:ILE:HG23	1.75	0.68
36:1:2971:A:N3	36:1:2971:A:H3'	2.08	0.68
1:2:1533:C:H4'	1:2:1539:G:N1	2.08	0.68
5:S3:75:LYS:HB3	12:C0:22:VAL:HG22	2.44	0.68
49:M3:56:PRO:HG3	49:M3:74:GLY:O	1.94	0.68
68:O2:97:ALA:HB3	68:O2:100:ILE:HG12	1.85	0.68
34:SR:64:HIS:CE1	34:SR:84:SER:HB3	2.92	0.68
36:1:3103:A:OP2	86:1:4167:OHX:N1	2.27	0.68
1:2:1471:A:OP1	7:S5:185:ARG:NH1	2.26	0.68
1:2:1539:G:H8	1:2:1539:G:H5'	1.58	0.68
1:6:350:U:H5"	1:6:352:A:H5'	1.76	0.68
24:D2:55:ASP:O	24:D2:57:ARG:N	2.90	0.68
39:L2:116:VAL:HG13	39:L2:126:LEU:HB2	2.63	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2828:G:OP1	47:M0:7:ARG:NH1	2.27	0.68
63:N7:51:LEU:HB3	63:N7:65:ARG:HH11	1.57	0.68
11:S9:178:ALA:HA	11:S9:181:ALA:HB3	3.81	0.68
1:2:475:A:OP2	11:S9:126:ARG:NH1	2.26	0.68
86:5:3936:OHX:N2	86:5:4228:OHX:N4	2.42	0.68
21:C9:57:ARG:NH1	1:6:1479:A:OP1	392.46	0.68
1:6:1649:G:N7	86:6:2108:OHX:N2	2.41	0.68
40:L3:165:GLN:HB3	40:L3:168:LYS:HG3	3.48	0.68
73:O7:19:CYS:O	73:O7:23:GLY:N	2.23	0.68
36:1:1387:G:OP1	86:1:4156:OHX:N6	2.27	0.68
36:1:2206:G:H1	36:1:2237:C:H42	1.39	0.68
36:1:2526:C:OP1	39:L2:38:HIS:HE1	1.77	0.68
86:1:4205:OHX:N4	38:4:16:G:OP1	2.27	0.68
36:1:582:G:O6	86:1:4172:OHX:N2	2.27	0.68
36:5:3279:A:H2'	36:5:3280:U:H5'	1.76	0.68
17:C5:18:ARG:HH21	17:C5:38:PRO:HD3	1.96	0.68
7:S5:80:LYS:HB2	7:S5:83:ARG:HD3	3.83	0.68
10:S8:163:GLY:HA3	36:1:3354:U:H1'	1.75	0.68
36:5:191:U:H2'	36:5:192:C:C6	2.29	0.68
36:5:1898:G:OP2	86:5:3939:OHX:N5	2.27	0.68
36:5:3035:A:OP2	86:5:4046:OHX:N5	2.27	0.68
79:Q3:4:ARG:NH1	36:5:837:A:OP2	237.71	0.68
10:S8:10:LYS:NZ	1:6:339:C:OP2	283.21	0.68
37:7:91:G:H2'	37:7:92:A:H8	1.59	0.68
1:2:1795:U:N3	28:D6:9:GLY:O	2.27	0.68
41:L4:354:VAL:O	41:L4:358:THR:HG23	2.89	0.68
46:L9:122:LYS:HD3	46:L9:123:ILE:N	5.00	0.68
52:M6:73:PHE:CG	52:M6:78:ARG:HG2	2.29	0.68
34:SR:42:LEU:HB2	34:SR:61:PHE:HB2	2.23	0.68
36:1:3246:G:O6	86:1:4107:OHX:N4	2.27	0.68
86:1:3959:OHX:N6	44:L7:217:PRO:O	2.26	0.68
36:1:3148:U:O4	86:1:4109:OHX:N2	2.27	0.68
36:5:1526:U:OP1	36:5:1527:C:N4	2.24	0.68
47:M0:153:ARG:HG2	47:M0:156:ARG:NH2	4.72	0.68
52:M6:12:LYS:O	56:N0:167:ARG:NH2	2.23	0.68
53:M7:29:THR:HA	53:M7:32:THR:HG23	1.76	0.68
54:M8:89:ASP:OD1	54:M8:90:ASP:N	2.27	0.68
54:M8:64:VAL:HG22	54:M8:96:PHE:CE2	2.28	0.68
74:O8:10:GLN:HA	74:O8:13:GLU:HG3	1.75	0.68
3:S1:142:PHE:O	3:S1:207:LEU:HA	2.23	0.68
36:1:1712:G:N2	36:1:1731:A:OP2	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3344:A:H2	36:1:3361:G:H21	1.42	0.67
1:2:1595:U:H3	1:2:1600:A:H2	1.41	0.67
1:6:263:C:H4'	1:6:292:U:H5'	1.75	0.67
1:6:463:U:OP1	86:6:2204:OHX:N1	2.27	0.67
15:C3:76:LYS:HA	15:C3:81:ALA:HB2	1.76	0.67
44:L7:88:ARG:HD2	44:L7:90:LYS:O	2.05	0.67
45:L8:144:GLU:OE1	72:O6:36:ARG:NH2	2.23	0.67
48:M1:81:GLU:OE2	48:M1:89:TYR:OH	2.98	0.67
52:M6:12:LYS:HA	52:M6:40:GLU:O	2.14	0.67
77:Q1:21:ARG:NH1	1:6:1654:G:OP1	281.56	0.67
6:S4:141:THR:O	6:S4:144:GLY:N	2.26	0.67
7:S5:225:ARG:NH1	30:D8:58:GLU:OE1	5.80	0.67
36:1:314:U:H2'	36:1:315:C:C6	2.29	0.67
9:S7:118:LEU:N	1:6:639:U:OP1	366.14	0.67
15:C3:65:VAL:O	15:C3:67:THR:N	3.25	0.67
33:E1:126:CYS:HB3	33:E1:143:LYS:HG2	1.74	0.67
77:Q1:8:LYS:HD3	77:Q1:12:ARG:NH2	2.48	0.67
3:S1:157:GLN:O	3:S1:159:SER:N	2.26	0.67
3:S1:62:LYS:O	3:S1:64:ARG:N	2.27	0.67
11:S9:171:ARG:CZ	11:S9:174:ARG:HD3	4.61	0.67
36:1:2310:U:OP1	86:1:4139:OHX:N2	2.27	0.67
36:5:118:U:O2	36:5:121:A:H5'	1.95	0.67
36:5:1581:C:OP2	36:5:1581:C:H4'	1.94	0.67
36:5:1523:U:OP2	36:5:1604:G:O2'	2.11	0.67
46:L9:70:THR:HG21	36:5:3122:A:N1	323.92	0.67
36:5:1070:U:O4	86:5:4105:OHX:N6	2.26	0.67
86:5:3936:OHX:N5	86:5:4228:OHX:N3	2.42	0.67
1:6:947:U:H2'	1:6:948:G:C8	2.29	0.67
19:C7:5:ARG:HB2	19:C7:10:LYS:HE2	1.89	0.67
28:D6:57:SER:OG	28:D6:58:VAL:O	4.80	0.67
65:N9:58:LYS:HA	65:N9:58:LYS:NZ	3.39	0.67
74:O8:16:ARG:O	74:O8:18:ALA:N	2.96	0.67
6:S4:251:GLU:O	6:S4:255:ARG:HG2	3.44	0.67
1:2:427:C:O2'	1:2:459:G:N3	2.26	0.67
36:5:2732:G:OP2	86:5:4213:OHX:N1	2.27	0.67
1:6:1595:U:H3	1:6:1600:A:H2	1.41	0.67
1:6:826:U:O4	86:6:2064:OHX:N3	2.28	0.67
42:L5:285:ARG:NH1	37:7:62:U:O3'	340.24	0.67
86:5:3984:OHX:N4	38:8:112:U:O2	2.26	0.67
36:1:824:C:H5"	39:L2:21:ARG:HD3	1.77	0.67
39:L2:3:ARG:HG2	39:L2:4:VAL:H	1.58	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:78:ARG:NH1	52:M6:78:ARG:HG3	2.55	0.67
55:M9:76:SER:O	55:M9:81:ARG:NH1	2.26	0.67
36:1:2736:A:OP1	57:N1:92:ARG:NH1	2.27	0.67
67:O1:82:GLU:OE2	86:O1:201:OHX:N2	2.28	0.67
3:S1:40:ASN:ND2	3:S1:42:ASN:O	2.27	0.67
4:S2:102:VAL:HG11	4:S2:129:ILE:HG12	1.76	0.67
4:S2:89:GLN:HG3	4:S2:94:GLN:HA	4.11	0.67
36:1:2683:U:H2'	36:1:2684:C:H6	1.57	0.67
36:1:770:G:OP1	49:M3:171:ARG:HD2	1.94	0.67
1:2:1338:C:H1'	1:2:1410:A:C4	2.29	0.67
1:2:1518:C:OP1	86:2:2121:OHX:N5	2.27	0.67
36:5:3327:G:O6	86:5:3951:OHX:N1	2.27	0.67
36:5:2964:G:N7	86:5:3975:OHX:N6	2.42	0.67
1:6:145:A:O2'	1:6:146:U:OP1	2.10	0.67
13:C1:3:THR:HA	13:C1:81:HIS:NE2	2.10	0.67
28:D6:10:ARG:HD3	28:D6:34:LYS:HA	2.50	0.67
39:L2:211:HIS:O	39:L2:213:GLY:N	3.84	0.67
52:M6:138:LEU:HD12	52:M6:141:LEU:HD23	2.47	0.67
2:S0:118:PRO:HG2	2:S0:141:ILE:HD13	2.56	0.67
6:S4:176:ASP:N	6:S4:176:ASP:OD2	3.09	0.67
9:S7:99:LEU:HB2	9:S7:112:ARG:HD2	3.46	0.67
36:1:2854:U:OP2	47:M0:3:ARG:NH2	2.28	0.67
36:1:300:G:O6	86:1:4150:OHX:N1	2.27	0.67
1:2:356:G:OP2	86:2:2036:OHX:N6	2.27	0.67
36:5:1025:A:H3'	36:5:1026:A:H4'	1.75	0.67
5:S3:27:ARG:HB3	12:C0:58:GLN:HE22	1.59	0.67
21:C9:15:ILE:HD13	21:C9:60:SER:HA	2.19	0.67
6:S4:139:VAL:HG13	6:S4:150:PRO:HG3	1.77	0.67
7:S5:204:GLY:O	7:S5:206:SER:N	3.99	0.67
36:1:1633:C:H2'	36:1:1634:G:H8	1.60	0.67
36:1:742:G:N7	86:1:3975:OHX:N1	2.42	0.67
1:2:1274:C:H5	35:SM:96:ARG:H	1.40	0.67
11:S9:8:TYR:O	86:6:2177:OHX:N4	383.14	0.67
1:6:500:C:O2'	1:6:501:U:O4'	2.12	0.67
13:C1:72:THR:H	13:C1:88:ARG:HH11	2.69	0.67
27:D5:44:GLN:HA	27:D5:47:TYR:HB3	2.93	0.67
40:L3:194:TRP:O	40:L3:198:HIS:ND1	2.27	0.67
36:1:3122:A:N1	46:L9:70:THR:HG21	2.10	0.67
51:M5:150:TRP:HZ3	51:M5:156:HIS:CD2	3.70	0.67
53:M7:138:LYS:HD2	53:M7:140:GLU:OE1	1.95	0.67
6:S4:117:GLU:O	6:S4:119:ALA:N	3.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:161:ASP:OD2	30:D8:42:ARG:NH1	4.05	0.67
36:1:73:C:C4	72:O6:15:LYS:HD3	2.29	0.67
1:2:416:A:H4'	1:2:417:A:OP2	1.94	0.67
36:5:3269:U:O2	36:5:3271:G:N1	2.27	0.67
36:5:1170:A:OP2	86:5:3996:OHX:N6	2.28	0.67
18:C6:82:ARG:NH1	18:C6:114:ARG:O	2.83	0.67
22:D0:106:ILE:HG13	22:D0:107:THR:H	1.58	0.67
39:L2:20:THR:HA	39:L2:23:ARG:HD2	1.75	0.67
40:L3:383:LEU:N	40:L3:386:ASP:OD2	2.22	0.67
50:M4:13:ARG:NH1	50:M4:65:LEU:O	2.70	0.67
56:N0:98:SER:HB2	56:N0:101:ALA:H	1.60	0.67
67:O1:8:VAL:HG12	67:O1:9:THR:H	3.86	0.67
79:Q3:56:THR:HG22	79:Q3:63:THR:OG1	1.95	0.67
4:S2:111:VAL:O	4:S2:137:ILE:HG22	3.22	0.67
36:1:73:C:N3	49:M3:59:ARG:NH1	2.42	0.67
36:5:1301:A:OP1	36:5:1301:A:H8	1.77	0.67
36:5:2526:C:H1'	36:5:2588:U:H5"	1.77	0.67
1:6:1508:U:O4	86:6:2053:OHX:N4	2.28	0.67
1:6:1726:G:N7	86:6:2145:OHX:N5	2.43	0.67
1:6:938:G:N7	86:6:2104:OHX:N3	2.42	0.67
16:C4:29:HIS:HB3	16:C4:41:ARG:HG3	1.76	0.67
20:C8:94:ASP:OD2	20:C8:96:LYS:N	2.82	0.67
52:M6:110:PRO:O	52:M6:112:TYR:N	3.02	0.67
54:M8:170:ARG:O	54:M8:171:LYS:HB2	2.09	0.67
79:Q3:49:ARG:CD	79:Q3:50:GLY:H	2.18	0.67
7:S5:23:VAL:O	7:S5:34:GLN:NE2	2.57	0.67
36:1:1413:G:N7	86:1:4122:OHX:N4	2.43	0.67
36:1:1662:G:O6	86:1:3887:OHX:N2	2.26	0.67
36:1:2573:G:O6	86:1:3998:OHX:N3	2.27	0.67
1:2:1201:G:N2	1:2:1600:A:H5"	2.10	0.67
1:2:463:U:H2'	1:2:464:A:H8	1.60	0.67
1:2:820:U:H2'	1:2:821:U:H4'	1.77	0.67
36:5:136:G:H2'	36:5:137:G:H8	1.59	0.67
55:M9:18:GLY:HA3	36:5:1874:A:H5"	136.22	0.67
47:M0:116:ARG:HH21	36:5:2618:G:H5'	228.15	0.67
86:5:3936:OHX:N1	86:5:4228:OHX:N4	2.43	0.67
1:6:176:C:OP1	86:6:2094:OHX:N6	2.28	0.67
24:D2:83:ILE:HG12	24:D2:117:ARG:HH12	1.60	0.67
31:D9:44:ARG:HH22	1:6:1280:C:H5'	399.60	0.67
41:L4:300:ARG:O	54:M8:39:ARG:NH1	2.28	0.67
46:L9:90:MET:HB2	46:L9:144:ILE:HG22	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:166:ALA:HB1	64:N8:147:LEU:HD21	2.13	0.67
55:M9:180:LYS:HA	55:M9:183:ALA:HB3	1.77	0.67
56:N0:71:LYS:HG2	56:N0:73:LYS:HD3	4.33	0.67
74:O8:42:LYS:HG2	74:O8:55:VAL:HG13	2.72	0.67
4:S2:159:THR:HG21	1:6:1097:U:O3'	382.91	0.67
36:5:155:G:H5"	36:5:156:G:C8	2.31	0.66
36:5:3350:C:N4	36:5:3353:G:O6	2.19	0.66
1:6:1542:G:N2	1:6:1569:A:OP2	2.26	0.66
37:7:41:G:O6	86:7:227:OHX:N2	2.27	0.66
19:C7:108:ASP:HA	19:C7:111:LYS:HD2	5.72	0.66
2:S0:157:ASP:OD2	23:D1:60:ARG:NH2	2.27	0.66
40:L3:146:ARG:NE	40:L3:146:ARG:HA	2.11	0.66
40:L3:204:ALA:O	40:L3:207:SER:OG	2.60	0.66
51:M5:27:VAL:HB	51:M5:122:ASN:ND2	2.10	0.66
77:Q1:8:LYS:O	77:Q1:12:ARG:HG3	2.37	0.66
34:SR:76:ASP:OD1	34:SR:76:ASP:N	2.18	0.66
36:1:368:G:OP1	86:1:3885:OHX:N1	2.28	0.66
1:2:639:U:OP1	9:S7:117:THR:OG1	2.11	0.66
57:N1:57:TYR:OH	36:5:2724:U:OP1	222.75	0.66
36:5:3341:U:H5"	36:5:3342:A:OP2	1.95	0.66
24:D2:37:PHE:CE2	24:D2:103:ILE:HD11	3.96	0.66
43:L6:7:PRO:HD3	68:O2:74:PHE:HE1	3.48	0.66
36:1:768:C:OP1	49:M3:186:ARG:NH2	2.28	0.66
52:M6:78:ARG:HH11	52:M6:78:ARG:HG3	2.25	0.66
63:N7:14:VAL:HG22	70:O4:86:LYS:HG2	2.84	0.66
2:S0:126:PRO:HG2	2:S0:152:PRO:HD2	2.19	0.66
2:S0:41:ARG:HH11	2:S0:45:VAL:HG21	3.35	0.66
1:2:1564:U:H2'	1:2:1565:C:C6	2.31	0.66
36:5:1613:A:H2'	36:5:1614:C:C6	2.29	0.66
36:5:604:G:N7	86:5:4162:OHX:N2	2.43	0.66
68:O2:33:ARG:NH1	36:5:944:C:H4'	161.64	0.66
1:6:75:U:O2'	1:6:76:A:O5'	2.10	0.66
22:D0:105:GLN:HA	22:D0:108:ILE:HD13	7.98	0.66
31:D9:15:GLY:O	31:D9:17:GLY:N	3.22	0.66
39:L2:143:GLU:O	39:L2:145:LYS:N	2.28	0.66
52:M6:182:ASN:OD1	52:M6:186:ALA:HB2	6.15	0.66
50:M4:38:ILE:HD11	56:N0:150:PHE:HE2	1.59	0.66
36:1:283:G:OP1	78:Q2:45:ARG:NH2	2.28	0.66
2:S0:24:LEU:O	2:S0:163:ASN:ND2	2.28	0.66
3:S1:147:ALA:O	3:S1:148:ASN:ND2	2.25	0.66
6:S4:160:VAL:HG12	6:S4:162:ILE:HG12	1.75	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:52:GLN:HG2	34:SR:53:LYS:H	2.13	0.66
36:1:2579:G:O6	86:1:3927:OHX:N2	2.28	0.66
1:2:1067:C:H2'	1:2:1068:C:H6	1.60	0.66
1:2:638:U:H1'	9:S7:112:ARG:HH12	1.60	0.66
36:5:1346:G:H1	36:5:1358:C:H42	1.41	0.66
36:5:1765:U:OP1	36:5:1765:U:H4'	1.94	0.66
17:C5:86:VAL:HG22	17:C5:88:GLU:H	1.60	0.66
36:1:2202:C:O2'	39:L2:240:ALA:O	2.09	0.66
36:1:2940:A:N7	40:L3:2:SER:N	2.43	0.66
64:N8:6:THR:HG23	64:N8:8:THR:H	1.60	0.66
3:S1:141:ALA:HB1	3:S1:207:LEU:HD22	3.83	0.66
11:S9:52:ILE:HD13	11:S9:76:LEU:HD11	3.55	0.66
36:1:1310:G:O6	86:1:4028:OHX:N1	2.29	0.66
1:2:1773:C:H2'	1:2:1774:G:H8	1.61	0.66
1:2:377:G:O6	86:2:2078:OHX:N5	2.29	0.66
1:2:399:A:OP1	10:S8:49:ARG:NH2	2.27	0.66
1:2:734:A:H5"	1:2:735:C:OP1	1.94	0.66
51:M5:96:ARG:HD2	36:5:31:C:H4'	124.07	0.66
36:5:953:G:H2'	36:5:1117:G:H5"	1.76	0.66
45:L8:41:GLN:HG3	45:L8:44:ARG:HH12	1.58	0.66
49:M3:73:ARG:NH2	36:5:77:A:N7	79.70	0.66
50:M4:14:LEU:H	50:M4:19:ARG:NH1	2.43	0.66
44:L7:121:LYS:HB2	57:N1:133:ALA:HB3	2.39	0.66
1:2:1588:G:H1	1:2:1608:U:H3	1.42	0.66
1:2:1622:G:H2'	1:2:1623:C:C6	2.31	0.66
1:2:385:A:OP1	10:S8:25:ARG:NH1	2.26	0.66
1:2:463:U:H2'	1:2:464:A:C8	2.31	0.66
17:C5:122:THR:HG21	1:6:1455:G:OP1	368.51	0.66
1:6:463:U:H2'	1:6:464:A:C8	2.31	0.66
28:D6:44:ILE:HD12	28:D6:44:ILE:H	1.59	0.66
42:L5:164:LYS:HD2	42:L5:199:ILE:HD11	1.77	0.66
46:L9:171:ASP:OD1	46:L9:173:ARG:HD3	1.95	0.66
55:M9:35:ALA:O	55:M9:37:SER:N	4.06	0.66
56:N0:170:THR:HG1	36:5:3185:U:HO2'	304.65	0.66
62:N6:81:GLN:NE2	62:N6:98:ASN:OD1	2.28	0.66
7:S5:33:VAL:HG13	7:S5:37:GLN:HE22	2.57	0.66
36:1:3131:U:H2'	36:1:3132:C:H6	1.60	0.66
1:2:116:U:H2'	1:2:117:U:C6	2.30	0.66
1:2:703:G:H2'	1:2:704:C:H5'	1.76	0.66
15:C3:119:GLU:O	15:C3:123:HIS:ND1	3.00	0.66
25:D3:71:CYS:HB3	25:D3:86:PHE:HA	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:54:ARG:NH1	42:L5:147:ASP:O	2.28	0.66
44:L7:100:ARG:NH2	54:M8:4:ASP:OD1	2.45	0.66
47:M0:177:ASP:O	47:M0:180:GLU:N	3.04	0.66
59:N3:87:ARG:HH12	59:N3:137:VAL:HG11	2.59	0.66
64:N8:3:SER:O	64:N8:6:THR:HG22	2.66	0.66
72:O6:25:LYS:HB2	72:O6:28:TYR:CD2	2.30	0.66
4:S2:139:ILE:HD12	4:S2:191:ALA:HB1	1.78	0.66
6:S4:166:SER:OG	6:S4:167:GLY:N	2.28	0.66
36:1:2278:C:OP1	86:1:3958:OHX:N3	2.29	0.66
36:1:528:U:H2'	36:1:529:A:C8	2.30	0.66
36:1:729:C:H2'	36:1:730:C:H6	1.61	0.66
1:2:1230:A:H2'	1:2:1258:U:C5	2.31	0.66
1:2:649:U:O2'	1:2:650:U:O5'	2.13	0.66
38:4:137:C:OP2	86:4:232:OHX:N5	2.28	0.66
36:5:3279:A:C2'	36:5:3280:U:H5'	2.26	0.66
19:C7:60:ARG:NH1	1:6:1401:A:OP1	411.38	0.66
16:C4:102:LEU:HD13	28:D6:53:LEU:HD21	5.24	0.66
49:M3:159:VAL:HB	64:N8:96:LYS:HG2	1.77	0.66
53:M7:16:SER:HB2	53:M7:149:VAL:HG22	2.31	0.66
56:N0:96:ASP:OD1	56:N0:97:VAL:N	2.55	0.66
66:O0:40:LYS:HB3	66:O0:101:LEU:HD21	1.77	0.66
75:O9:10:LYS:HA	75:O9:13:MET:HE3	1.77	0.66
2:S0:110:TYR:HA	2:S0:115:PHE:CD1	2.86	0.66
4:S2:80:VAL:HA	4:S2:102:VAL:HG22	1.78	0.66
11:S9:109:LEU:HD22	11:S9:113:VAL:HG23	1.76	0.66
36:1:2503:G:H1'	36:1:2504:U:H5	1.61	0.66
1:2:1681:A:H1'	8:S6:66:GLY:HA3	1.78	0.66
36:5:2209:U:O4	86:5:3955:OHX:N4	2.29	0.66
1:6:1524:A:H2'	1:6:1525:A:C8	2.31	0.66
14:C2:124:LYS:O	14:C2:126:TRP:N	2.28	0.66
41:L4:128:ALA:HB1	41:L4:134:LEU:HD12	1.78	0.66
41:L4:36:HIS:O	41:L4:40:THR:HG23	1.96	0.66
46:L9:171:ASP:OD2	46:L9:173:ARG:NH1	2.29	0.66
47:M0:161:GLY:O	47:M0:163:GLN:NE2	3.67	0.66
49:M3:133:PRO:O	49:M3:135:ALA:N	3.30	0.66
54:M8:25:TYR:HA	54:M8:28:LEU:HD12	2.21	0.66
55:M9:103:ARG:HD2	55:M9:124:TYR:CE1	2.30	0.66
62:N6:3:LYS:HG3	62:N6:8:VAL:HG13	1.78	0.66
74:O8:66:ILE:HA	74:O8:69:LEU:HD23	1.77	0.66
5:S3:105:MET:HA	5:S3:108:LYS:HB2	1.78	0.66
36:1:162:G:N2	36:1:259:C:O2	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1588:G:OP1	86:2:2117:OHX:N3	2.29	0.66
36:5:2953:U:H2'	36:5:2954:U:H2'	1.76	0.66
1:6:357:G:OP2	86:6:2073:OHX:N6	2.29	0.66
19:C7:104:ASN:ND2	19:C7:105:GLN:OE1	5.41	0.66
39:L2:114:SER:HB2	39:L2:169:ILE:HD12	1.77	0.66
42:L5:22:ARG:NH2	42:L5:28:THR:OG1	2.28	0.66
46:L9:188:THR:HG22	46:L9:189:GLU:H	4.41	0.66
47:M0:21:ARG:NH2	47:M0:22:TYR:OH	2.29	0.66
54:M8:135:GLN:CD	54:M8:135:GLN:H	2.25	0.66
55:M9:90:PRO:HB2	55:M9:93:VAL:HG23	1.77	0.66
1:2:1600:A:H4'	1:2:1601:G:OP1	1.96	0.65
36:5:1688:U:H2'	36:5:1689:U:C6	2.32	0.65
36:5:3078:U:O2'	86:5:4190:OHX:N1	2.28	0.65
1:6:1585:U:H2'	1:6:1586:A:H8	1.60	0.65
37:7:3:U:H2'	37:7:4:U:H6	1.59	0.65
18:C6:40:GLU:HA	18:C6:42:GLU:N	2.11	0.65
28:D6:38:ARG:NH2	28:D6:83:ILE:HG21	2.10	0.65
28:D6:40:ALA:HB3	28:D6:69:ASN:HB3	4.54	0.65
41:L4:282:SER:HB3	54:M8:126:GLN:HE21	1.61	0.65
45:L8:100:GLU:OE2	45:L8:108:ARG:NH1	2.86	0.65
48:M1:15:GLU:HB3	48:M1:130:VAL:HG22	2.74	0.65
49:M3:89:TYR:CE1	49:M3:93:ILE:HG13	2.31	0.65
61:N5:108:LEU:HD23	61:N5:127:THR:HG22	3.44	0.65
66:O0:9:SER:OG	66:O0:10:ILE:N	2.42	0.65
10:S8:79:ALA:HB3	10:S8:103:GLN:HB3	1.78	0.65
36:5:1103:A:H3'	36:5:1104:G:H5'	1.78	0.65
64:N8:34:MET:HB2	36:5:95:A:H5"	163.06	0.65
1:6:1057:U:O2'	1:6:1059:U:OP1	2.12	0.65
1:6:73:U:H2'	1:6:74:U:C6	2.31	0.65
1:6:755:A:HO2'	1:6:756:A:H8	1.41	0.65
23:D1:17:CYS:HB2	23:D1:56:SER:HB3	1.77	0.65
33:E1:144:CYS:O	33:E1:146:SER:N	2.58	0.65
56:N0:98:SER:HB2	56:N0:100:VAL:HG12	1.77	0.65
66:O0:22:LYS:HB2	66:O0:94:GLU:HB2	1.95	0.65
4:S2:132:ALA:O	4:S2:135:SER:OG	2.47	0.65
7:S5:143:ARG:NH1	7:S5:218:GLU:OE1	2.28	0.65
36:1:1454:A:OP2	86:1:4207:OHX:N6	2.29	0.65
1:2:399:A:H4'	6:S4:3:ARG:HG2	1.78	0.65
36:5:2998:U:O4	86:5:4136:OHX:N4	2.30	0.65
1:6:542:A:O2'	1:6:543:C:O5'	2.14	0.65
42:L5:151:GLN:NE2	37:7:45:A:OP1	280.49	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:63:ALA:O	15:C3:67:THR:OG1	2.51	0.65
25:D3:62:LYS:HD2	25:D3:118:PRO:HB3	1.77	0.65
39:L2:242:ARG:HH12	39:L2:246:LEU:HD12	4.28	0.65
42:L5:233:ALA:O	42:L5:235:SER:N	2.30	0.65
47:M0:81:GLY:C	47:M0:83:ASP:H	2.52	0.65
53:M7:52:LEU:HD13	53:M7:88:VAL:HG11	1.77	0.65
64:N8:47:LYS:HE2	64:N8:48:TYR:CZ	2.31	0.65
64:N8:6:THR:HG23	64:N8:8:THR:HG23	1.79	0.65
6:S4:146:THR:HG21	1:6:123:G:H21	342.17	0.65
36:1:1815:U:O2'	36:1:1816:A:OP2	2.13	0.65
36:1:1933:A:OP2	86:1:3886:OHX:N6	2.28	0.65
36:1:807:A:H61	36:1:934:G:H22	1.44	0.65
1:2:280:U:O2'	1:2:281:G:OP2	2.13	0.65
1:2:802:G:H21	24:D2:107:SER:HB3	1.62	0.65
36:5:3364:C:OP1	86:5:3936:OHX:N1	2.29	0.65
12:C0:29:GLN:NE2	12:C0:31:LYS:O	4.94	0.65
18:C6:42:GLU:HA	18:C6:45:ARG:HB2	1.78	0.65
1:2:1459:C:N4	20:C8:139:LYS:HE2	2.11	0.65
40:L3:232:ARG:HG2	40:L3:233:TRP:CD1	2.67	0.65
53:M7:25:SER:CB	53:M7:28:ASN:HB2	2.64	0.65
2:S0:13:ASP:HA	2:S0:16:LEU:HD12	1.77	0.65
3:S1:181:LEU:HD13	3:S1:181:LEU:H	1.61	0.65
9:S7:30:SER:HB2	9:S7:34:LEU:HB2	2.16	0.65
9:S7:56:LYS:HB2	9:S7:88:ARG:HH11	2.09	0.65
11:S9:149:ARG:HG3	1:6:765:G:O6	432.24	0.65
34:SR:157:VAL:HB	34:SR:168:THR:HG22	3.26	0.65
36:1:2356:A:H61	36:1:2983:C:H5	1.45	0.65
1:2:1297:G:N2	1:2:1300:A:OP2	2.29	0.65
25:D3:92:CYS:HA	25:D3:95:PHE:CD2	2.31	0.65
26:D4:120:GLY:O	26:D4:122:GLY:N	3.83	0.65
31:D9:15:GLY:O	31:D9:18:SER:OG	2.13	0.65
41:L4:120:TYR:CE2	41:L4:277:PRO:HB3	2.31	0.65
42:L5:111:GLN:HE22	42:L5:252:ALA:HB2	3.20	0.65
46:L9:50:ASN:ND2	50:M4:4:ASP:OD1	5.79	0.65
53:M7:25:SER:O	53:M7:29:THR:HG23	1.97	0.65
38:4:83:C:H42	62:N6:52:ARG:NH2	1.94	0.65
62:N6:87:LYS:HB2	62:N6:97:ILE:HD11	4.26	0.65
63:N7:52:LYS:O	63:N7:65:ARG:NH1	2.29	0.65
63:N7:48:ARG:HB3	63:N7:69:LYS:HB3	2.27	0.65
65:N9:3:LYS:HD3	36:5:2617:U:H3'	224.53	0.65
70:O4:8:ARG:HB2	70:O4:34:HIS:NE2	2.12	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:164:VAL:HG13	5:S3:168:ILE:HD11	1.78	0.65
8:S6:57:ASP:HA	8:S6:106:LEU:HA	1.79	0.65
36:1:3107:U:OP1	76:Q0:114:LYS:NZ	2.25	0.65
36:1:670:C:OP1	54:M8:147:ARG:NH2	2.29	0.65
1:2:1248:C:H2'	1:2:1249:U:H6	1.62	0.65
36:5:2568:C:N4	36:5:2574:G:O6	2.30	0.65
36:5:408:A:N6	38:8:15:G:H1'	2.11	0.65
22:D0:118:VAL:HG13	22:D0:119:ALA:H	2.70	0.65
28:D6:10:ARG:HB2	28:D6:34:LYS:HA	2.53	0.65
42:L5:231:ILE:HG21	42:L5:239:ILE:HD11	1.78	0.65
54:M8:16:ARG:HH12	54:M8:55:SER:HB3	1.61	0.65
54:M8:64:VAL:HG13	54:M8:93:ILE:HD11	1.78	0.65
5:S3:194:LYS:O	5:S3:196:ARG:N	2.29	0.65
6:S4:121:TYR:OH	6:S4:235:TYR:O	2.66	0.65
1:2:68:A:OP1	8:S6:160:ARG:NH2	2.28	0.65
36:5:410:U:O4	86:5:4096:OHX:N1	2.30	0.65
86:5:3936:OHX:N1	86:5:4228:OHX:N3	2.44	0.65
36:5:430:U:OP2	86:5:3976:OHX:N5	2.29	0.65
49:M3:13:HIS:NE2	36:5:98:G:N7	138.94	0.65
1:6:870:C:H42	1:6:957:G:H1	1.44	0.65
14:C2:49:THR:O	14:C2:53:THR:OG1	4.19	0.65
28:D6:18:VAL:O	28:D6:19:LYS:HB2	1.97	0.65
41:L4:264:SER:O	41:L4:266:THR:N	2.27	0.65
42:L5:68:THR:HG22	42:L5:70:THR:H	1.62	0.65
50:M4:24:LYS:NZ	50:M4:61:GLY:O	2.28	0.65
51:M5:118:SER:HB3	51:M5:132:VAL:HG22	2.24	0.65
43:L6:13:GLU:OE1	68:O2:90:LYS:HB2	2.21	0.65
71:O5:68:GLN:HA	71:O5:71:LYS:HB2	1.78	0.65
6:S4:106:LYS:HG3	6:S4:108:ARG:HH11	1.62	0.65
1:2:283:U:H5"	8:S6:188:ARG:HD3	1.78	0.65
1:2:17:C:H2'	1:2:18:C:C6	2.31	0.65
1:2:918:U:H2'	1:2:919:A:H8	1.60	0.65
36:5:3192:U:O4	86:5:4138:OHX:N6	2.29	0.65
86:5:3936:OHX:N2	86:5:4228:OHX:N6	2.44	0.65
1:6:1207:C:H42	1:6:1456:C:H5	1.45	0.65
19:C7:13:SER:HA	19:C7:54:THR:HG22	3.31	0.65
40:L3:150:ARG:HG2	40:L3:150:ARG:HH11	2.04	0.65
40:L3:361:THR:HG22	40:L3:371:GLN:HB3	2.15	0.65
40:L3:56:ILE:HD11	40:L3:359:ILE:HG12	1.78	0.65
41:L4:269:SER:C	41:L4:271:LYS:H	2.00	0.65
46:L9:91:ARG:NH2	46:L9:141:LYS:O	5.94	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:208:ASN:HA	47:M0:211:ARG:HD2	2.00	0.65
50:M4:38:ILE:HD11	56:N0:150:PHE:CE2	2.32	0.65
54:M8:120:GLU:OE2	54:M8:130:ARG:NH2	2.42	0.65
65:N9:14:ARG:HH12	65:N9:18:ARG:HD3	3.77	0.65
39:L2:171:GLY:O	79:Q3:68:ALA:HB2	2.40	0.65
36:1:3042:U:OP2	36:1:3092:C:N4	2.29	0.65
1:2:321:C:H4'	1:2:322:G:OP2	1.96	0.65
53:M7:139:TYR:CE2	36:5:2355:G:H4'	147.35	0.65
36:5:1345:G:N7	86:5:4060:OHX:N5	2.44	0.65
1:6:1645:G:H22	1:6:1756:A:H2	1.45	0.65
1:6:845:G:H2'	1:6:846:G:H8	1.60	0.65
15:C3:136:PRO:O	15:C3:138:ASN:N	2.30	0.65
31:D9:5:ASN:OD1	31:D9:7:TRP:NE1	2.28	0.65
52:M6:65:ASN:OD1	52:M6:67:THR:HB	2.02	0.65
64:N8:82:ILE:HG22	64:N8:87:ARG:HG3	3.29	0.65
49:M3:128:ARG:NH1	71:O5:109:ILE:O	3.97	0.65
8:S6:98:ARG:NH2	8:S6:101:ILE:O	2.91	0.65
9:S7:74:GLN:HE22	9:S7:92:PHE:HB2	1.62	0.65
10:S8:36:THR:HG21	10:S8:173:PRO:HB2	1.88	0.65
86:1:3959:OHX:N3	44:L7:217:PRO:O	2.29	0.65
1:2:123:G:H21	6:S4:146:THR:HG21	1.60	0.65
1:2:397:A:O3'	10:S8:50:GLY:HA2	1.97	0.65
36:5:3164:C:H1'	36:5:3165:A:H5'	1.77	0.65
1:6:453:U:O4	86:6:2060:OHX:N4	2.30	0.65
20:C8:87:ASN:OD1	20:C8:88:ARG:N	2.30	0.65
40:L3:76:VAL:HG12	40:L3:325:LYS:HA	1.78	0.65
42:L5:107:ARG:O	42:L5:111:GLN:N	2.90	0.65
36:1:1942:U:OP2	55:M9:74:ARG:NH1	2.30	0.65
57:N1:43:LYS:HG3	57:N1:58:GLN:HE22	1.61	0.65
63:N7:51:LEU:HB3	63:N7:65:ARG:NH1	2.12	0.65
74:O8:8:ILE:HD12	74:O8:8:ILE:H	1.76	0.65
8:S6:78:THR:HG23	8:S6:92:ARG:HG2	1.79	0.65
36:1:2703:A:OP2	42:L5:23:ARG:NH1	2.30	0.64
36:1:2842:U:OP1	36:1:2844:C:N4	2.30	0.64
36:1:3094:A:H2'	36:1:3095:U:C6	2.32	0.64
36:1:439:C:H3'	36:1:440:A:C8	2.32	0.64
25:D3:70:LYS:HB3	25:D3:93:LEU:HD22	1.77	0.64
42:L5:270:LYS:HD3	37:7:22:A:N6	324.07	0.64
47:M0:4:ARG:NH2	47:M0:99:ILE:HG22	5.95	0.64
49:M3:74:GLY:O	49:M3:101:ARG:NH1	2.29	0.64
36:1:1722:U:H5"	55:M9:99:LEU:HD12	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:2:SER:N	59:N3:56:ASP:OD1	4.17	0.64
34:SR:82:SER:OG	34:SR:92:TRP:NE1	2.76	0.64
36:1:3074:G:OP1	86:1:4039:OHX:N1	2.30	0.64
36:1:223:U:O4	86:1:4195:OHX:N5	2.30	0.64
1:2:169:A:H5"	8:S6:176:GLN:HG2	1.78	0.64
1:2:651:G:N7	86:2:2104:OHX:N6	2.45	0.64
36:5:1024:G:N2	36:5:1026:A:OP2	2.30	0.64
36:5:2101:C:O2'	36:5:2102:U:OP1	2.15	0.64
36:5:549:U:O4	86:5:4007:OHX:N4	2.30	0.64
36:5:3128:G:OP2	86:5:4153:OHX:N3	2.30	0.64
68:O2:33:ARG:HH11	36:5:944:C:H4'	161.84	0.64
36:5:980:A:H2'	36:5:981:U:N1	2.11	0.64
1:6:1515:A:O2'	1:6:1517:U:OP2	2.11	0.64
1:6:709:C:O2	1:6:730:G:N2	2.30	0.64
49:M3:105:ASN:OD1	49:M3:107:GLU:HG2	2.09	0.64
51:M5:8:GLU:HG3	51:M5:50:ARG:HH12	3.52	0.64
36:1:1508:C:OP1	53:M7:127:ARG:NH2	2.30	0.64
56:N0:26:ARG:HH11	57:N1:150:THR:HG21	2.34	0.64
4:S2:153:SER:OG	4:S2:195:ASP:O	2.23	0.64
8:S6:56:ASN:H	8:S6:108:VAL:HG23	5.27	0.64
36:1:2697:A:H2'	36:1:2698:G:C8	2.31	0.64
1:2:1524:A:N3	1:2:1590:G:O2'	2.28	0.64
37:3:49:G:O6	42:L5:58:LYS:NZ	2.18	0.64
36:5:1778:G:O2'	36:5:1780:G:OP2	2.13	0.64
1:6:1799:U:H4'	1:6:1800:A:H2'	1.80	0.64
15:C3:22:ALA:HB1	15:C3:23:PRO:HA	2.39	0.64
22:D0:64:LYS:O	31:D9:33:LYS:NZ	2.82	0.64
39:L2:130:SER:HG	36:5:2179:C:HO2'	215.34	0.64
41:L4:42:VAL:O	41:L4:44:LYS:N	3.50	0.64
45:L8:89:GLU:HA	45:L8:92:LYS:HD3	1.78	0.64
47:M0:86:HIS:HB3	47:M0:139:ARG:HG3	3.40	0.64
51:M5:68:ARG:HD2	51:M5:128:LYS:HG2	4.88	0.64
36:1:1427:U:OP2	64:N8:4:ARG:NH2	2.30	0.64
71:O5:76:GLN:O	71:O5:81:ARG:NH1	2.96	0.64
34:SR:171:SER:OG	34:SR:181:TRP:NE1	3.22	0.64
36:1:1951:C:N4	36:1:2095:G:H1	1.91	0.64
36:1:2264:U:OP2	86:1:3986:OHX:N5	2.31	0.64
36:1:3329:U:H5"	40:L3:308:MET:HE3	1.78	0.64
36:1:2686:A:OP2	86:1:3901:OHX:N2	2.30	0.64
1:2:739:G:O6	86:2:2097:OHX:N4	2.30	0.64
36:5:2437:G:H2'	36:5:2438:A:O4'	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1317:A:OP1	86:5:4091:OHX:N1	2.31	0.64
16:C4:30:VAL:HG22	16:C4:39:ILE:HG13	1.78	0.64
41:L4:145:ILE:HD11	41:L4:148:ILE:HG22	5.60	0.64
42:L5:56:THR:OG1	42:L5:59:ASP:HB3	1.97	0.64
56:N0:12:ARG:HB3	56:N0:24:LEU:HD23	1.78	0.64
62:N6:5:SER:HB3	62:N6:7:ASP:H	3.30	0.64
76:Q0:91:CYS:O	76:Q0:126:LYS:NZ	2.29	0.64
3:S1:92:GLN:O	3:S1:94:LYS:N	2.31	0.64
36:1:1752:A:OP2	86:1:4048:OHX:N3	2.29	0.64
36:1:1946:A:H5"	55:M9:136:ARG:HH12	1.63	0.64
36:1:2209:U:H6	36:1:2209:U:OP2	1.80	0.64
36:1:2376:G:H2'	36:1:2377:G:C8	2.33	0.64
36:1:3174:A:H2'	36:1:3175:U:H5'	1.79	0.64
36:1:603:A:H2'	36:1:604:G:O4'	1.96	0.64
36:1:75:G:H5"	49:M3:58:VAL:HG13	1.78	0.64
1:2:1034:C:HO2'	24:D2:2:THR:N	1.95	0.64
1:2:484:C:H42	1:2:503:G:H22	1.44	0.64
36:5:1611:G:H2'	36:5:1612:A:C8	2.32	0.64
36:5:2299:A:OP2	86:5:3953:OHX:N1	2.31	0.64
36:5:2514:U:H6	36:5:2514:U:OP1	1.81	0.64
36:5:3276:G:OP2	36:5:3276:G:H2'	1.97	0.64
36:5:1536:G:O6	86:5:3916:OHX:N2	2.31	0.64
19:C7:57:LEU:O	19:C7:61:ILE:N	3.25	0.64
23:D1:9:VAL:HG22	23:D1:10:GLU:H	1.94	0.64
30:D8:36:THR:OG1	30:D8:37:SER:N	2.31	0.64
41:L4:22:LEU:HD22	41:L4:23:PRO:HD2	1.79	0.64
58:N2:58:GLU:O	58:N2:60:GLY:N	2.30	0.64
36:1:2744:U:OP1	86:1:4077:OHX:N1	2.31	0.64
1:2:1366:U:O2'	21:C9:7:ARG:HD2	1.97	0.64
1:2:1570:A:OP1	86:2:2154:OHX:N5	2.30	0.64
1:2:775:G:O6	26:D4:11:LYS:NZ	2.27	0.64
36:5:1596:C:H2'	36:5:1597:C:C6	2.33	0.64
86:5:4015:OHX:N5	86:5:4211:OHX:N1	2.45	0.64
1:6:372:G:OP2	86:6:2186:OHX:N6	2.30	0.64
20:C8:52:VAL:HG13	20:C8:61:LEU:HD21	2.37	0.64
2:S0:185:ARG:HB2	23:D1:45:ALA:HB3	1.80	0.64
36:1:2526:C:OP1	39:L2:38:HIS:CE1	2.50	0.64
46:L9:174:LYS:HB2	76:Q0:127:LEU:HD11	1.79	0.64
47:M0:14:ASN:O	47:M0:128:ARG:NH2	2.31	0.64
62:N6:107:THR:O	62:N6:108:LYS:HD3	2.56	0.64
65:N9:14:ARG:NH1	65:N9:18:ARG:HD3	3.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:120:LEU:HD13	2:S0:142:PRO:HB2	1.80	0.64
3:S1:181:LEU:O	3:S1:185:THR:N	2.19	0.64
7:S5:222:LYS:HA	7:S5:225:ARG:HD2	3.95	0.64
10:S8:8:ARG:NH2	10:S8:19:ALA:O	2.30	0.64
36:1:1278:A:O2'	36:1:1279:C:O5'	2.14	0.64
36:1:1443:G:O6	86:1:3977:OHX:N3	2.29	0.64
1:2:1776:A:H2'	1:2:1777:G:C8	2.32	0.64
1:2:818:C:N4	1:2:819:G:O6	2.30	0.64
37:3:60:G:H2'	37:3:61:G:C8	2.32	0.64
36:5:1877:U:OP2	86:5:3950:OHX:N1	2.31	0.64
36:5:300:G:O6	86:5:4186:OHX:N2	2.30	0.64
28:D6:50:VAL:O	28:D6:54:SER:N	2.96	0.64
39:L2:227:ARG:NH2	36:5:2155:G:O2'	205.64	0.64
49:M3:157:ARG:HG2	49:M3:158:ALA:H	1.63	0.64
49:M3:177:LYS:HG3	72:O6:11:LEU:HD13	2.17	0.64
3:S1:34:ALA:N	3:S1:41:ARG:O	2.25	0.64
7:S5:43:PHE:CZ	7:S5:90:ILE:HG21	2.33	0.64
34:SR:25:THR:OG1	34:SR:26:SER:N	3.04	0.64
36:1:2960:C:H2'	36:1:2961:G:C8	2.32	0.64
1:2:151:G:O6	26:D4:124:ARG:NH2	2.24	0.64
86:2:2032:OHX:N3	15:C3:12:SER:O	2.31	0.64
36:5:1580:A:O2'	36:5:1581:C:OP2	2.15	0.64
36:5:1638:A:N1	36:5:1736:G:O2'	2.27	0.64
36:5:191:U:H2'	36:5:192:C:H6	1.62	0.64
1:6:152:U:O2	1:6:163:G:N2	2.31	0.64
13:C1:72:THR:H	13:C1:88:ARG:NH1	3.17	0.64
17:C5:41:VAL:HG13	17:C5:84:ILE:HG21	1.80	0.64
1:2:1430:U:O4'	22:D0:72:ASN:ND2	2.31	0.64
42:L5:79:TYR:HB2	42:L5:81:HIS:CE1	2.33	0.64
46:L9:105:GLU:HG3	46:L9:109:ALA:HB3	1.80	0.64
54:M8:157:PRO:HA	54:M8:186:VAL:HG12	2.36	0.64
55:M9:86:GLU:OE2	55:M9:91:SER:N	2.30	0.64
61:N5:64:GLU:HB2	61:N5:85:GLN:HG2	1.80	0.64
62:N6:32:SER:HA	62:N6:49:PRO:HA	2.22	0.64
71:O5:45:LYS:NZ	38:8:49:G:OP1	47.36	0.64
74:O8:5:ILE:HD11	74:O8:10:GLN:HE22	1.63	0.64
6:S4:57:ASN:HB2	6:S4:60:GLU:H	1.77	0.64
5:S3:115:ILE:HG21	35:SM:110:TRP:HA	1.78	0.64
36:1:3152:U:O2'	36:1:3153:U:H5'	1.97	0.64
1:6:1489:U:H6	1:6:1492:A:H2	1.45	0.64
15:C3:94:LYS:HE3	1:6:952:A:H5"	298.65	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:84:ARG:HA	16:C4:119:THR:HG22	2.77	0.64
20:C8:123:ARG:HG3	20:C8:133:VAL:HG21	1.79	0.64
22:D0:89:ARG:NH2	1:6:1383:G:OP1	446.31	0.64
32:E0:18:THR:HG21	1:6:584:C:H1'	389.03	0.64
36:1:822:G:H4'	39:L2:194:ASN:HB2	1.80	0.64
42:L5:132:THR:HG21	42:L5:170:GLY:HA2	1.80	0.64
55:M9:105:LEU:HD23	55:M9:135:LYS:HD2	6.79	0.64
36:1:2185:G:O2'	36:1:2314:U:OP2	2.14	0.64
36:1:3039:C:OP1	40:L3:62:ARG:NH1	2.30	0.64
38:4:79:A:O3'	38:4:80:A:H4'	1.98	0.64
69:O3:18:ARG:HD3	36:5:1178:G:H5"	238.07	0.64
45:L8:241:LYS:HD3	36:5:2586:G:C8	183.63	0.64
36:5:3242:G:H5'	36:5:3245:A:H8	1.62	0.64
26:D4:51:GLU:O	26:D4:51:GLU:HG2	3.26	0.64
29:D7:62:ILE:HG13	29:D7:63:LEU:H	1.62	0.64
52:M6:158:ALA:O	52:M6:162:VAL:HG23	2.22	0.64
53:M7:51:VAL:O	53:M7:54:HIS:N	2.31	0.64
7:S5:64:VAL:HG13	7:S5:89:ILE:HD11	4.19	0.64
9:S7:13:PRO:HB3	9:S7:14:THR:HB	1.79	0.64
36:1:3308:C:N3	53:M7:69:ARG:NH1	2.46	0.63
1:2:545:A:H4'	1:2:546:U:OP1	1.99	0.63
36:5:2696:A:H2'	36:5:2697:A:C8	2.33	0.63
36:5:731:U:H2'	36:5:732:C:H6	1.63	0.63
21:C9:31:PRO:HG3	21:C9:103:LYS:HG2	1.78	0.63
40:L3:238:LEU:HB3	40:L3:242:THR:HG21	2.66	0.63
47:M0:174:THR:OG1	47:M0:175:ASN:N	2.96	0.63
57:N1:17:ARG:O	57:N1:18:ASP:HB2	1.97	0.63
57:N1:54:HIS:CD2	36:5:2724:U:H4'	228.63	0.63
5:S3:168:ILE:HD13	5:S3:187:LYS:HE3	1.91	0.63
7:S5:51:VAL:HG22	7:S5:131:GLN:HB2	2.13	0.63
9:S7:28:GLU:HG2	9:S7:35:LYS:HG3	1.79	0.63
36:1:1222:G:O2'	36:1:1285:G:N1	2.30	0.63
1:2:1393:C:H2'	1:2:1394:G:O4'	1.99	0.63
1:2:1786:G:OP1	16:C4:136:ARG:NH2	2.32	0.63
36:5:1276:U:OP2	86:5:4001:OHX:N1	2.30	0.63
36:5:3023:U:OP2	36:5:3031:G:N1	2.29	0.63
1:6:1114:G:O2'	1:6:1130:G:O6	2.14	0.63
1:6:477:A:H2'	1:6:478:A:H8	1.63	0.63
1:6:990:C:OP2	86:6:2118:OHX:N2	2.31	0.63
16:C4:50:ALA:HB3	16:C4:53:ASP:HB2	2.71	0.63
25:D3:107:PHE:CD2	25:D3:114:LYS:HB3	3.65	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:161:LEU:HD22	40:L3:178:LEU:HD11	1.80	0.63
42:L5:146:LEU:HB3	36:5:2746:A:H2	258.92	0.63
50:M4:36:VAL:HB	50:M4:45:LEU:HD23	2.93	0.63
52:M6:167:TYR:OH	52:M6:171:LYS:NZ	3.14	0.63
54:M8:34:THR:HG22	54:M8:49:LEU:HD21	1.78	0.63
55:M9:148:ASP:OD1	55:M9:151:ARG:NH2	2.31	0.63
67:O1:79:ARG:NE	67:O1:79:ARG:H	1.96	0.63
5:S3:162:GLN:O	5:S3:162:GLN:NE2	2.32	0.63
34:SR:50:ASP:O	34:SR:52:GLN:N	2.31	0.63
36:1:595:G:N1	36:1:609:G:H5"	2.13	0.63
1:2:1483:A:H2'	1:2:1484:G:C8	2.33	0.63
36:5:742:G:N7	86:5:3997:OHX:N4	2.46	0.63
1:6:1202:A:OP1	86:6:2128:OHX:N2	2.31	0.63
1:6:1370:U:H4'	1:6:1371:A:H4'	1.81	0.63
20:C8:50:ALA:HB2	20:C8:72:ILE:HD11	1.80	0.63
40:L3:169:THR:HG22	40:L3:171:LEU:H	1.64	0.63
43:L6:149:ILE:O	43:L6:151:LYS:N	2.32	0.63
55:M9:104:ARG:NH2	55:M9:105:LEU:HB2	2.14	0.63
58:N2:28:PHE:O	58:N2:30:PRO:HD3	3.20	0.63
61:N5:105:VAL:HA	61:N5:130:TYR:CE2	2.33	0.63
62:N6:27:ARG:HG2	62:N6:78:PHE:CE1	2.33	0.63
2:S0:86:VAL:HG12	2:S0:174:TRP:CE2	3.52	0.63
2:S0:70:PRO:HB2	2:S0:94:GLY:HA3	2.06	0.63
1:2:197:A:H61	10:S8:138:ASN:ND2	1.95	0.63
11:S9:31:ALA:HA	11:S9:36:LEU:HD12	1.80	0.63
36:1:1659:U:H2'	36:1:1660:C:C6	2.33	0.63
36:1:2554:A:C8	36:1:2554:A:H5'	2.34	0.63
36:1:2897:A:H2'	36:1:2899:C:H5"	1.79	0.63
36:1:3200:G:O6	86:1:4128:OHX:N4	2.31	0.63
51:M5:12:ARG:HG2	36:5:268:A:C4	127.81	0.63
40:L3:53:MET:HE3	36:5:3048:A:H5'	233.76	0.63
36:5:917:A:OP2	86:5:4218:OHX:N3	2.31	0.63
1:6:1688:U:H2'	1:6:1689:A:C8	2.34	0.63
1:6:86:A:OP2	86:6:2188:OHX:N1	2.32	0.63
41:L4:292:SER:OG	41:L4:295:ILE:N	2.26	0.63
46:L9:88:TYR:CZ	46:L9:184:LYS:HD3	3.39	0.63
47:M0:3:ARG:CZ	47:M0:63:GLU:HG3	2.37	0.63
36:1:2664:C:OP2	48:M1:142:LYS:NZ	2.30	0.63
49:M3:165:SER:OG	49:M3:165:SER:O	2.10	0.63
52:M6:3:VAL:HG13	52:M6:4:GLU:H	1.64	0.63
56:N0:135:VAL:O	56:N0:141:LYS:NZ	2.30	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:48:ILE:HG13	57:N1:94:GLU:HG2	2.64	0.63
3:S1:71:ALA:HB3	16:C4:114:ARG:HH12	2.35	0.63
6:S4:15:PRO:HG2	6:S4:18:TRP:CE2	2.34	0.63
10:S8:172:ARG:HE	10:S8:175:GLN:HG3	1.63	0.63
10:S8:5:ARG:NH1	10:S8:29:LEU:O	2.27	0.63
34:SR:132:LYS:HG2	34:SR:143:THR:HG23	1.79	0.63
34:SR:164:ASP:O	34:SR:166:SER:N	2.48	0.63
36:1:3308:C:O2	53:M7:69:ARG:HD3	1.99	0.63
36:1:568:G:H2'	36:1:569:A:O4'	1.98	0.63
36:5:1596:C:O2'	36:5:1696:A:N3	2.30	0.63
36:5:2112:U:O2	86:5:3969:OHX:N1	2.32	0.63
15:C3:55:ARG:HD3	29:D7:47:PHE:CD1	2.33	0.63
22:D0:35:GLU:OE1	22:D0:89:ARG:NH1	5.64	0.63
2:S0:55:GLU:OE2	23:D1:80:LYS:N	2.31	0.63
25:D3:109:ARG:NH2	25:D3:114:LYS:O	2.31	0.63
33:E1:109:ASP:O	33:E1:111:GLU:N	2.31	0.63
41:L4:47:ARG:NH1	41:L4:109:TRP:O	2.45	0.63
47:M0:76:MET:CE	47:M0:148:VAL:HA	2.73	0.63
49:M3:91:ARG:NH1	49:M3:97:VAL:HB	2.13	0.63
36:1:291:C:OP1	51:M5:68:ARG:NH1	2.31	0.63
58:N2:43:VAL:HB	58:N2:49:ASN:HB3	1.95	0.63
68:O2:46:PHE:CE1	36:5:1145:G:H5'	210.36	0.63
71:O5:85:THR:HG22	71:O5:88:LEU:H	1.64	0.63
79:Q3:73:THR:HB	79:Q3:76:ALA:H	4.37	0.63
3:S1:87:ARG:NH2	3:S1:89:ASP:OD1	5.99	0.63
11:S9:108:ARG:HB2	11:S9:111:THR:HG23	2.23	0.63
17:C5:130:ARG:NH1	35:SM:71:ASN:OD1	2.94	0.63
36:1:1747:G:OP1	74:O8:42:LYS:NZ	2.27	0.63
36:1:2233:A:OP2	86:1:4044:OHX:N5	2.32	0.63
36:1:498:A:OP1	69:O3:86:ARG:NE	2.23	0.63
36:1:829:U:H3	36:1:895:A:N6	1.96	0.63
1:2:641:G:H1	1:2:693:U:H3	1.46	0.63
1:2:883:C:H2'	1:2:884:A:H8	1.64	0.63
1:6:1680:G:O6	86:6:2189:OHX:N3	2.31	0.63
1:6:1680:G:O6	86:6:2189:OHX:N1	2.32	0.63
14:C2:33:ARG:HA	14:C2:36:LEU:HD12	1.79	0.63
41:L4:93:MET:HE2	41:L4:93:MET:H	4.59	0.63
42:L5:86:TYR:CE1	42:L5:247:ILE:HA	2.34	0.63
47:M0:48:LEU:HD11	47:M0:145:LYS:HG2	1.79	0.63
47:M0:42:THR:HG23	47:M0:45:GLU:HG3	4.71	0.63
48:M1:110:ILE:O	48:M1:112:LEU:N	2.69	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:289:A:O2'	51:M5:94:TYR:O	2.15	0.63
52:M6:85:ARG:HD3	52:M6:90:HIS:ND1	3.04	0.63
9:S7:11:GLN:HG3	9:S7:13:PRO:HD2	1.79	0.63
9:S7:49:ILE:O	9:S7:57:ALA:N	2.23	0.63
35:SM:102:THR:HG23	35:SM:105:LYS:HB2	1.80	0.63
36:5:2385:G:O6	86:5:3927:OHX:N4	2.31	0.63
1:6:25:C:O2	86:6:2106:OHX:N5	2.32	0.63
17:C5:122:THR:CG2	1:6:1558:U:H3	366.32	0.63
25:D3:69:ARG:NH2	1:6:568:G:N7	365.21	0.63
41:L4:178:LEU:O	41:L4:182:LEU:HD23	3.09	0.63
42:L5:115:LEU:H	42:L5:115:LEU:HD22	1.64	0.63
2:S0:182:LEU:HB3	2:S0:188:LEU:HD23	1.80	0.63
4:S2:99:LYS:HA	4:S2:117:THR:HA	2.11	0.63
36:1:1403:C:H42	36:1:1408:G:H1	1.47	0.63
36:1:58:G:OP1	51:M5:157:LYS:NZ	2.31	0.63
36:1:789:A:H2'	36:1:790:U:H6	1.63	0.63
1:2:329:G:H5"	10:S8:98:LYS:HB3	1.79	0.63
1:2:539:G:OP2	1:2:539:G:H8	1.81	0.63
1:2:542:A:H5"	1:2:544:A:C8	2.33	0.63
36:5:1819:U:O4	86:5:4045:OHX:N3	2.32	0.63
36:5:3263:G:O6	86:5:4114:OHX:N2	2.31	0.63
36:5:655:C:H2'	36:5:656:A:H8	1.63	0.63
36:5:94:G:H2'	36:5:95:A:C8	2.34	0.63
21:C9:28:LEU:HD12	21:C9:29:GLU:H	1.63	0.63
28:D6:23:CYS:SG	28:D6:74:CYS:HB3	2.38	0.63
45:L8:163:VAL:HG22	45:L8:166:LEU:HD12	1.90	0.63
49:M3:165:SER:O	49:M3:167:PHE:N	2.32	0.63
56:N0:137:ARG:HG2	56:N0:139:TYR:CE1	2.59	0.63
86:1:4197:OHX:N2	86:O1:201:OHX:N5	2.46	0.63
2:S0:124:THR:HG22	2:S0:174:TRP:HE1	1.62	0.63
5:S3:114:ALA:HB3	5:S3:117:ARG:HB2	1.79	0.63
7:S5:133:VAL:HG22	7:S5:198:LEU:HD13	1.79	0.63
36:1:2571:U:H1'	36:1:2572:C:H5'	1.81	0.63
36:1:3115:C:O2'	36:1:3117:C:N4	2.32	0.63
36:1:801:A:O2'	86:1:3981:OHX:N2	2.32	0.63
36:5:2298:U:O4	36:5:2923:U:H5	1.82	0.63
36:5:314:U:O4	86:5:4186:OHX:N5	2.32	0.63
1:6:1315:U:OP1	1:6:1328:G:N2	2.25	0.63
1:6:213:A:OP2	86:6:2148:OHX:N1	2.32	0.63
18:C6:97:VAL:HG12	18:C6:98:ASP:H	1.89	0.63
19:C7:86:PRO:HG2	19:C7:88:VAL:HA	9.43	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:D0:48:HIS:O	22:D0:48:HIS:ND1	2.32	0.63
48:M1:155:THR:O	48:M1:159:THR:HG23	5.52	0.63
63:N7:15:ARG:HG3	63:N7:79:HIS:HD2	2.58	0.63
67:O1:27:LYS:O	67:O1:30:PRO:HD2	1.99	0.63
72:O6:35:ASN:OD1	72:O6:35:ASN:N	2.85	0.63
1:2:15:U:H2'	1:2:16:G:O4'	1.99	0.62
1:2:51:A:OP2	86:2:2072:OHX:N3	2.32	0.62
1:2:532:U:O2'	26:D4:33:ALA:HB1	1.99	0.62
36:5:188:U:H1'	36:5:208:C:H1'	1.81	0.62
36:5:892:U:OP2	86:5:3910:OHX:N6	2.32	0.62
42:L5:8:LYS:NZ	37:7:15:C:O3'	311.59	0.62
14:C2:70:ASN:HD22	14:C2:73:LYS:HE2	1.63	0.62
15:C3:67:THR:O	15:C3:69:ASN:N	2.31	0.62
36:1:2988:C:O2	40:L3:266:ARG:NH1	2.32	0.62
40:L3:347:SER:HB3	40:L3:350:ALA:H	1.64	0.62
40:L3:41:VAL:CA	40:L3:185:GLY:HA3	2.28	0.62
41:L4:152:VAL:HG11	41:L4:156:LEU:HD12	1.80	0.62
59:N3:75:PRO:HG2	59:N3:103:ALA:O	3.66	0.62
73:O7:2:GLY:O	73:O7:7:SER:HB3	2.65	0.62
7:S5:113:ILE:HD13	7:S5:190:ILE:HG13	3.91	0.62
9:S7:150:GLN:HB2	9:S7:181:ILE:HD12	1.81	0.62
36:1:1554:U:HO2'	36:1:1582:C:H5	1.45	0.62
36:1:3348:G:H1	36:1:3357:U:H3	1.46	0.62
36:1:3361:G:O6	86:1:4160:OHX:N6	2.33	0.62
1:2:1101:G:H5"	24:D2:76:SER:HB3	1.80	0.62
1:2:1347:U:O2	1:2:1516:A:H5'	1.98	0.62
1:2:1370:U:O4	86:2:2121:OHX:N1	2.32	0.62
1:2:702:G:N1	1:2:736:C:N3	2.43	0.62
40:L3:334:ARG:NH2	36:5:3304:U:O3'	213.00	0.62
1:6:1230:A:H8	1:6:1258:U:C4	2.16	0.62
1:6:1766:A:H5"	86:6:2124:OHX:N3	2.14	0.62
1:6:383:G:N7	86:6:2147:OHX:N5	2.47	0.62
42:L5:85:ARG:HH12	42:L5:254:LYS:H	3.53	0.62
68:O2:126:LEU:O	68:O2:128:LEU:N	2.32	0.62
3:S1:48:VAL:HG13	3:S1:61:LEU:HD21	1.80	0.62
5:S3:12:VAL:O	5:S3:15:GLY:N	3.00	0.62
7:S5:57:SER:OG	7:S5:58:LEU:N	2.84	0.62
10:S8:84:HIS:CE1	10:S8:86:SER:HB2	2.35	0.62
36:1:1286:A:N3	36:1:1287:A:H1'	2.15	0.62
36:1:1596:C:H2'	36:1:1597:C:C6	2.34	0.62
36:1:619:A:H5"	36:1:620:U:OP1	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1169:G:N1	1:2:1575:G:OP2	2.27	0.62
36:5:1346:G:O6	86:5:4060:OHX:N2	2.32	0.62
36:5:2704:A:OP2	86:5:3893:OHX:N5	2.32	0.62
36:5:272:G:OP2	86:5:4068:OHX:N6	2.32	0.62
36:5:1464:G:N7	86:5:3967:OHX:N3	2.47	0.62
1:6:353:A:OP2	86:6:2050:OHX:N5	2.33	0.62
18:C6:44:LEU:O	18:C6:47:LYS:HB2	1.99	0.62
33:E1:91:ILE:HG12	33:E1:92:LYS:HG2	6.33	0.62
36:1:2177:G:OP2	39:L2:128:ARG:NH1	2.33	0.62
45:L8:63:LYS:O	45:L8:67:ILE:HG13	1.99	0.62
51:M5:172:ARG:HH11	36:5:30:G:P	107.25	0.62
53:M7:126:ARG:HD3	53:M7:140:GLU:OE2	3.36	0.62
55:M9:181:ARG:NH1	55:M9:182:ASP:OD1	5.85	0.62
57:N1:17:ARG:HD3	57:N1:22:HIS:HA	4.30	0.62
2:S0:66:ALA:HB1	23:D1:50:TYR:CE1	3.54	0.62
7:S5:100:ASN:O	7:S5:102:ARG:N	2.31	0.62
86:1:4197:OHX:N6	86:O1:201:OHX:N5	2.46	0.62
1:2:1766:A:N1	28:D6:80:HIS:ND1	2.40	0.62
36:5:789:A:H2'	36:5:790:U:C6	2.34	0.62
20:C8:139:LYS:HB2	1:6:1458:G:OP2	352.85	0.62
14:C2:54:ARG:O	14:C2:56:GLU:N	2.30	0.62
1:2:1459:C:OP2	20:C8:138:THR:OG1	2.16	0.62
44:L7:173:LEU:HD23	44:L7:178:ILE:HG21	1.80	0.62
61:N5:49:LYS:O	61:N5:51:VAL:N	2.30	0.62
7:S5:37:GLN:HG2	18:C6:53:LEU:HD13	1.79	0.62
36:1:1240:A:H3'	36:1:1241:U:H5'	1.79	0.62
1:2:1681:A:N6	1:2:1720:G:O2'	2.33	0.62
1:2:81:G:OP2	86:2:2140:OHX:N5	2.33	0.62
37:3:60:G:H2'	37:3:61:G:H8	1.64	0.62
38:4:154:C:O2'	45:L8:185:ARG:HG3	1.99	0.62
51:M5:68:ARG:HG3	36:5:291:C:OP1	144.63	0.62
36:5:3241:G:H2'	36:5:3245:A:C8	2.33	0.62
41:L4:93:MET:HB2	36:5:658:G:N2	145.40	0.62
17:C5:122:THR:HG22	1:6:1558:U:H3	366.68	0.62
1:6:315:A:O2'	86:6:2158:OHX:N1	2.33	0.62
36:5:408:A:H61	38:8:15:G:H1'	1.62	0.62
17:C5:79:HIS:O	17:C5:81:ARG:N	2.33	0.62
20:C8:84:TRP:HA	20:C8:89:GLN:OE1	2.33	0.62
24:D2:15:ASN:HD21	24:D2:71:LYS:HG3	2.54	0.62
39:L2:201:GLY:O	39:L2:204:MET:N	2.25	0.62
40:L3:332:ARG:NH1	40:L3:333:LYS:HD2	2.46	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3369:G:N1	40:L3:380:MET:O	2.29	0.62
45:L8:94:PHE:HB3	45:L8:189:LEU:HD11	1.81	0.62
49:M3:36:ARG:HG3	49:M3:39:ARG:HH21	3.27	0.62
61:N5:137:ASN:OD1	61:N5:137:ASN:N	2.30	0.62
68:O2:27:ARG:NH1	36:5:1433:A:N3	168.86	0.62
76:Q0:127:LEU:HD22	76:Q0:128:LYS:H	1.63	0.62
9:S7:98:ILE:HD13	9:S7:118:LEU:HD23	1.82	0.62
10:S8:36:THR:HB	10:S8:57:ALA:O	2.04	0.62
11:S9:117:GLY:O	11:S9:119:ALA:N	2.38	0.62
1:2:365:G:N7	86:2:2106:OHX:N5	2.47	0.62
1:2:373:G:N7	86:2:2159:OHX:N6	2.47	0.62
1:2:513:U:H2'	1:2:514:G:C8	2.34	0.62
1:2:693:U:C5'	1:2:694:U:H5'	2.30	0.62
38:4:155:A:H5'	45:L8:185:ARG:CZ	2.29	0.62
36:5:1192:C:H41	36:5:1302:A:P	2.22	0.62
36:5:549:U:H2'	36:5:550:A:C8	2.34	0.62
36:5:571:U:H2'	36:5:572:A:H8	1.64	0.62
36:5:59:G:H4'	36:5:60:A:H4'	1.79	0.62
1:6:1160:A:H2'	1:6:1161:C:C6	2.34	0.62
1:6:1592:A:H2'	1:6:1593:A:C8	2.33	0.62
1:6:1628:U:H2'	1:6:1629:G:C8	2.34	0.62
6:S4:3:ARG:HB3	1:6:93:A:H1'	326.15	0.62
49:M3:75:PHE:O	49:M3:79:GLU:HB2	1.99	0.62
51:M5:106:VAL:O	51:M5:109:ARG:N	2.32	0.62
45:L8:50:VAL:HG12	61:N5:30:ALA:HA	4.63	0.62
63:N7:46:ILE:HG12	63:N7:49:TYR:CE1	3.37	0.62
68:O2:119:VAL:O	68:O2:122:PRO:HD3	2.86	0.62
70:O4:8:ARG:NH2	70:O4:31:ARG:HD2	3.25	0.62
3:S1:89:ASP:HB3	3:S1:223:PHE:HE2	1.65	0.62
34:SR:260:ILE:HB	34:SR:274:LEU:HB2	1.80	0.62
34:SR:38:ARG:HG2	34:SR:67:ILE:HG23	1.80	0.62
36:1:1043:C:O3'	47:M0:90:ARG:NH1	2.33	0.62
36:1:1441:G:O6	86:1:3926:OHX:N1	2.33	0.62
36:1:2503:G:H1'	36:1:2504:U:C5	2.35	0.62
36:1:2677:G:H2'	36:1:2679:A:H2	1.65	0.62
36:1:3218:A:H4'	36:1:3219:G:O5'	1.99	0.62
1:2:1472:C:OP1	7:S5:102:ARG:NH2	2.27	0.62
36:5:132:C:H2'	36:5:133:U:H5"	1.81	0.62
36:5:1662:G:N2	36:5:1788:C:O2	2.32	0.62
39:L2:152:SER:OG	36:5:2157:G:N7	217.06	0.62
86:5:4015:OHX:N6	86:5:4211:OHX:N2	2.47	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:60:ARG:NH2	36:5:516:A:O3'	303.93	0.62
1:6:491:C:H42	1:6:497:G:H21	1.48	0.62
17:C5:29:SER:HB2	17:C5:32:ASP:H	4.26	0.62
49:M3:192:GLU:O	49:M3:194:GLU:N	2.32	0.62
52:M6:110:PRO:O	52:M6:111:PRO:C	3.33	0.62
53:M7:59:PRO:HG3	53:M7:76:PHE:CD1	2.38	0.62
64:N8:2:PRO:HD2	64:N8:5:PHE:HD2	2.14	0.62
2:S0:10:THR:OG1	2:S0:13:ASP:OD2	2.98	0.62
34:SR:37:SER:OG	34:SR:38:ARG:N	2.68	0.62
36:1:1877:U:OP2	86:1:3928:OHX:N2	2.32	0.62
36:1:2759:U:H5"	36:1:2760:C:H5'	1.82	0.62
36:1:2705:A:OP2	86:1:3870:OHX:N1	2.32	0.62
36:1:838:G:O6	79:Q3:4:ARG:NH2	2.32	0.62
1:2:1235:C:H42	33:E1:135:HIS:HE1	1.48	0.62
1:2:1428:G:H8	1:2:1428:G:H5'	1.64	0.62
1:2:641:G:H2'	1:2:642:G:C8	2.34	0.62
36:5:3287:U:H2'	36:5:3288:G:H5'	1.82	0.62
1:6:1305:U:OP2	1:6:1306:C:N4	2.29	0.62
14:C2:30:VAL:HB	14:C2:132:GLU:HG3	2.36	0.62
56:N0:101:ALA:O	56:N0:104:GLU:HB3	2.27	0.62
44:L7:80:GLN:HB2	57:N1:135:PRO:HB2	1.81	0.62
63:N7:136:PHE:CD2	70:O4:89:ILE:HG12	2.35	0.62
36:1:1114:U:H5"	64:N8:22:ILE:HD13	1.82	0.62
66:O0:74:ASN:OD1	66:O0:74:ASN:N	2.64	0.62
1:2:1775:U:O4	77:Q1:4:LYS:NZ	2.33	0.62
7:S5:121:ILE:HA	7:S5:199:ILE:HD11	1.82	0.62
11:S9:164:PHE:HE2	1:6:512:A:H4'	452.20	0.62
36:1:2588:U:OP1	45:L8:48:ARG:NH2	2.28	0.62
36:1:2651:G:H4'	36:1:2652:U:OP2	1.98	0.62
54:M8:38:ARG:NH2	36:5:1348:U:OP2	187.21	0.62
36:5:1724:U:H1'	36:5:1725:C:C6	2.35	0.62
36:5:714:G:HO2'	36:5:753:C:HO2'	1.45	0.62
15:C3:5:HIS:CE1	15:C3:121:ARG:HG3	2.35	0.62
23:D1:3:ASN:ND2	23:D1:7:GLN:HB3	3.71	0.62
28:D6:7:SER:O	28:D6:9:GLY:N	3.90	0.62
46:L9:111:PHE:HD1	46:L9:127:PRO:HA	2.85	0.62
47:M0:77:THR:O	47:M0:81:GLY:N	2.46	0.62
51:M5:155:VAL:O	51:M5:162:ARG:NH2	2.26	0.62
54:M8:73:GLN:HB3	54:M8:76:ALA:HB3	1.82	0.62
55:M9:25:ASP:OD1	55:M9:25:ASP:N	2.32	0.62
5:S3:64:ARG:O	5:S3:67:ASN:N	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:54:TYR:O	26:D4:15:ASN:ND2	2.33	0.62
7:S5:81:ARG:HD2	1:6:1615:C:H3'	373.48	0.62
36:1:499:G:H2'	36:1:500:C:H6	1.65	0.62
1:2:1118:G:O6	86:2:2148:OHX:N1	2.32	0.62
1:2:1796:C:OP2	28:D6:5:ARG:NH1	2.31	0.62
1:2:1413:U:O2	86:2:2071:OHX:N4	2.33	0.62
75:O9:2:ALA:N	36:5:1493:G:O6	122.39	0.62
36:5:655:C:H2'	36:5:656:A:C8	2.35	0.62
36:5:864:G:OP2	86:5:3910:OHX:N4	2.33	0.62
39:L2:216:HIS:O	39:L2:218:HIS:HD2	2.56	0.62
46:L9:34:LEU:HD21	46:L9:149:ASN:HB3	1.80	0.62
53:M7:41:LEU:O	53:M7:45:GLN:HG3	2.00	0.62
36:1:2916:U:H1'	59:N3:44:SER:HB3	1.82	0.62
63:N7:83:THR:HG23	63:N7:85:TYR:N	2.15	0.62
63:N7:97:SER:HB3	63:N7:99:GLU:HG3	2.90	0.62
4:S2:121:VAL:O	4:S2:125:ILE:HG13	1.98	0.62
8:S6:136:LYS:HG3	8:S6:173:PRO:HB3	2.38	0.62
10:S8:147:ALA:HA	10:S8:150:ALA:HB2	2.45	0.62
36:1:3384:U:H2'	36:1:3385:U:H6	1.64	0.61
1:2:337:G:H3'	13:C1:133:LYS:HB2	1.81	0.61
36:5:1178:G:H5'	36:5:1178:G:C8	2.34	0.61
36:5:181:U:H1'	36:5:236:G:N2	2.15	0.61
36:5:3066:U:O4	86:5:4099:OHX:N4	2.32	0.61
1:6:1756:A:H2'	1:6:1757:G:H8	1.63	0.61
38:8:15:G:OP2	86:8:217:OHX:N3	2.33	0.61
14:C2:81:ASP:O	14:C2:83:GLU:N	2.80	0.61
41:L4:146:PRO:O	86:L4:403:OHX:N5	2.33	0.61
43:L6:54:TYR:CE2	43:L6:63:LEU:HD22	2.34	0.61
51:M5:46:ASP:OD1	51:M5:50:ARG:NH2	2.46	0.61
53:M7:178:ALA:HA	53:M7:181:ARG:HB3	1.82	0.61
55:M9:109:TYR:HB3	55:M9:115:ILE:HB	1.82	0.61
63:N7:73:LYS:HB3	63:N7:75:VAL:HG12	1.82	0.61
68:O2:74:PHE:HB3	68:O2:85:LEU:HD11	2.54	0.61
73:O7:66:TYR:OH	73:O7:73:ARG:NH2	3.45	0.61
2:S0:172:LEU:HD13	2:S0:176:LEU:HD11	1.81	0.61
11:S9:118:LEU:HD23	11:S9:158:PHE:CE1	2.87	0.61
35:SM:79:SER:HA	35:SM:82:THR:HG23	1.80	0.61
36:1:1844:C:H2'	36:1:1845:G:H5"	1.82	0.61
36:1:191:U:H2'	36:1:192:C:H6	1.65	0.61
1:2:652:G:H1	1:2:682:C:H42	1.48	0.61
1:2:992:A:H2'	1:2:993:A:H5'	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2730:G:OP2	86:5:3952:OHX:N4	2.32	0.61
36:5:2897:A:H2'	36:5:2899:C:H5"	1.82	0.61
36:5:1409:G:O6	86:5:4156:OHX:N6	2.33	0.61
1:6:1637:C:H5"	1:6:1637:C:H6	1.64	0.61
16:C4:43:THR:OG1	1:6:900:A:OP1	278.74	0.61
15:C3:99:ARG:O	15:C3:103:GLU:HG2	2.01	0.61
21:C9:77:ASN:ND2	21:C9:96:ALA:O	2.33	0.61
2:S0:52:LYS:HD2	23:D1:82:VAL:HA	1.81	0.61
26:D4:51:GLU:O	26:D4:53:ASP:N	3.28	0.61
27:D5:43:ASP:O	27:D5:45:GLU:N	2.33	0.61
28:D6:5:ARG:HD2	28:D6:8:ASN:O	2.49	0.61
51:M5:50:ARG:HH11	36:5:267:G:H4'	111.44	0.61
63:N7:70:PRO:HD3	63:N7:115:LYS:HD2	3.16	0.61
74:O8:56:ILE:HG21	74:O8:62:ALA:HB2	3.36	0.61
2:S0:26:ALA:HB3	2:S0:149:LEU:HB2	1.97	0.61
9:S7:9:LEU:HD21	9:S7:17:GLU:HB3	2.59	0.61
34:SR:72:THR:HG22	34:SR:81:LEU:HB2	2.42	0.61
36:1:1483:G:O6	70:O4:4:ARG:NH2	2.30	0.61
1:2:1578:U:O2'	1:2:1579:U:H5'	2.00	0.61
1:2:1595:U:N3	1:2:1600:A:H2	1.98	0.61
39:L2:174:ARG:NH2	36:5:2179:C:O3'	213.32	0.61
36:5:2234:G:N7	86:5:3955:OHX:N1	2.49	0.61
36:5:2677:G:OP2	86:5:4151:OHX:N5	2.33	0.61
86:5:4015:OHX:N5	86:5:4211:OHX:N2	2.49	0.61
1:6:107:C:H42	1:6:307:G:H1	1.48	0.61
1:6:1564:U:H2'	1:6:1565:C:C6	2.35	0.61
8:S6:87:ARG:NH2	1:6:161:U:OP2	315.55	0.61
1:6:1518:C:OP2	86:6:2141:OHX:N1	2.33	0.61
14:C2:76:GLU:OE2	14:C2:90:LYS:NZ	2.26	0.61
26:D4:43:LYS:O	26:D4:47:VAL:HG13	5.58	0.61
32:E0:41:THR:HA	32:E0:45:VAL:HB	1.83	0.61
39:L2:185:ALA:O	39:L2:188:LYS:HB3	2.30	0.61
39:L2:48:ILE:HD11	79:Q3:54:ILE:HG12	1.81	0.61
40:L3:44:THR:HA	40:L3:340:LYS:HD3	4.94	0.61
47:M0:153:ARG:O	47:M0:156:ARG:HB2	2.00	0.61
47:M0:47:PRO:HD2	47:M0:141:LYS:HA	1.83	0.61
6:S4:18:TRP:HH2	6:S4:31:PRO:HD3	1.92	0.61
7:S5:43:PHE:HZ	7:S5:90:ILE:HG21	1.64	0.61
8:S6:135:PRO:HB2	8:S6:141:ILE:HG13	1.82	0.61
8:S6:142:ARG:HA	8:S6:147:LEU:HD12	1.80	0.61
11:S9:59:LEU:HD22	11:S9:69:ARG:HA	3.87	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:18:G:OP1	71:O5:81:ARG:NH2	2.33	0.61
36:1:361:A:H5'	73:O7:35:SER:OG	2.00	0.61
1:2:158:U:O2'	1:2:160:C:OP2	2.18	0.61
1:2:38:C:C2'	1:2:39:A:H5'	2.31	0.61
1:6:1488:G:H3'	1:6:1515:A:H61	1.64	0.61
1:2:1386:G:OP2	19:C7:44:LYS:NZ	2.32	0.61
23:D1:59:VAL:HG12	23:D1:64:GLU:HB2	1.81	0.61
39:L2:118:GLU:HG2	39:L2:156:LYS:NZ	2.15	0.61
49:M3:101:ARG:HH22	49:M3:112:ASN:ND2	2.52	0.61
36:1:1145:G:OP1	68:O2:44:ARG:NH1	2.33	0.61
78:Q2:78:LYS:HE2	78:Q2:79:THR:HG22	4.12	0.61
5:S3:168:ILE:HG22	5:S3:189:MET:HB2	2.01	0.61
6:S4:246:LEU:HD21	6:S4:254:ARG:CZ	2.31	0.61
1:2:264:G:N7	86:2:2034:OHX:N1	2.48	0.61
37:3:22:A:H2'	37:3:23:A:C8	2.35	0.61
36:5:1171:G:O6	86:5:3996:OHX:N1	2.33	0.61
36:5:3195:U:O2'	36:5:3196:U:H5'	2.00	0.61
54:M8:147:ARG:NH2	36:5:670:C:OP1	162.60	0.61
1:6:1538:U:HO2'	1:6:1539:G:H8	1.48	0.61
10:S8:33:PRO:HA	1:6:331:A:H5'	276.84	0.61
1:6:340:U:H2'	1:6:341:A:H8	1.65	0.61
56:N0:52:LYS:NZ	37:7:101:G:OP2	281.46	0.61
25:D3:5:LYS:NZ	1:6:611:U:OP2	348.63	0.61
28:D6:75:VAL:O	28:D6:79:ILE:N	2.24	0.61
30:D8:14:LYS:NZ	30:D8:50:GLU:OE2	5.37	0.61
39:L2:70:ARG:HD2	39:L2:72:ARG:HD3	4.11	0.61
43:L6:129:GLU:HG2	43:L6:130:ILE:N	4.12	0.61
43:L6:105:TYR:HE1	43:L6:134:ARG:HD2	1.64	0.61
72:O6:4:LYS:HD2	72:O6:14:GLY:HA3	1.93	0.61
2:S0:14:ALA:O	2:S0:18:LEU:HG	2.01	0.61
5:S3:70:THR:O	5:S3:74:GLN:N	2.29	0.61
8:S6:208:TYR:HE1	8:S6:212:LEU:HD12	1.65	0.61
8:S6:31:ARG:HD2	8:S6:34:GLN:HE21	1.65	0.61
35:SM:58:GLU:HA	35:SM:61:ILE:HD11	1.81	0.61
36:1:263:C:H2'	36:1:264:G:O4'	2.01	0.61
36:1:2771:U:O2'	36:1:2772:C:O4'	2.17	0.61
86:2:2031:OHX:N6	86:2:2146:OHX:N5	2.48	0.61
1:6:1699:G:H22	1:6:1702:A:H5"	1.65	0.61
1:6:85:A:OP1	86:6:2188:OHX:N4	2.33	0.61
1:6:894:U:H2'	1:6:895:G:C8	2.36	0.61
13:C1:21:ASN:ND2	13:C1:31:THR:HA	3.53	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:92:CYS:O	25:D3:95:PHE:N	2.31	0.61
39:L2:204:MET:HG3	39:L2:209:HIS:HB2	1.82	0.61
36:1:3214:U:OP2	50:M4:128:ARG:NH2	2.33	0.61
51:M5:143:ARG:HH21	71:O5:92:LEU:HA	1.65	0.61
70:O4:42:PRO:O	70:O4:51:LEU:HD23	2.01	0.61
6:S4:212:ASP:OD1	6:S4:214:LEU:N	2.33	0.61
6:S4:60:GLU:OE1	26:D4:20:ARG:NH1	2.78	0.61
10:S8:62:THR:HA	10:S8:76:THR:O	2.62	0.61
35:SM:78:ASP:N	35:SM:78:ASP:OD2	4.13	0.61
34:SR:258:THR:O	34:SR:275:ARG:NH1	2.33	0.61
36:1:1492:G:O2'	75:O9:48:LYS:NZ	2.32	0.61
36:1:900:G:H1'	36:1:1589:A:N6	2.16	0.61
1:2:1212:G:O6	86:2:2029:OHX:N3	2.33	0.61
1:2:1339:C:O2'	1:2:1341:A:N7	2.25	0.61
1:2:274:G:H3'	1:2:275:C:C6	2.35	0.61
1:2:480:G:N2	1:2:509:G:H1'	2.16	0.61
1:2:647:G:H22	1:2:687:G:H1	1.48	0.61
74:O8:17:ARG:NH2	36:5:1824:U:O3'	138.53	0.61
36:5:1936:A:H2'	36:5:1937:U:O4'	1.99	0.61
13:C1:73:GLY:HA3	13:C1:86:ILE:HD12	1.83	0.61
18:C6:12:LYS:HD2	18:C6:17:THR:HG22	1.82	0.61
18:C6:93:HIS:HA	18:C6:97:VAL:HG23	2.42	0.61
19:C7:88:VAL:HG22	19:C7:89:SER:H	1.64	0.61
23:D1:18:SER:OG	23:D1:54:ALA:O	2.84	0.61
1:2:1142:A:H5"	28:D6:2:PRO:HG3	1.83	0.61
28:D6:10:ARG:NH1	28:D6:36:ILE:HG13	5.68	0.61
36:1:1429:G:C5	41:L4:99:MET:HE1	2.35	0.61
45:L8:45:ASN:HD21	45:L8:47:SER:HB3	1.65	0.61
36:1:3186:A:N3	46:L9:44:THR:OG1	2.34	0.61
47:M0:153:ARG:HG3	47:M0:165:ILE:HD12	4.34	0.61
54:M8:115:VAL:O	54:M8:118:GLY:N	2.24	0.61
65:N9:21:ILE:O	65:N9:22:LYS:NZ	7.33	0.61
79:Q3:39:CYS:HB2	79:Q3:57:CYS:SG	2.41	0.61
1:2:1321:A:OP2	2:S0:101:ARG:NH2	2.33	0.61
6:S4:157:ASN:OD1	6:S4:222:LEU:HD11	5.01	0.61
36:1:314:U:H2'	36:1:315:C:H6	1.66	0.61
36:1:3353:G:O2'	36:1:3356:G:OP2	2.18	0.61
1:2:1769:U:OP2	86:2:2145:OHX:N1	2.34	0.61
1:6:1010:C:OP2	86:6:2170:OHX:N3	2.34	0.61
1:6:542:A:H1'	1:6:543:C:OP1	2.01	0.61
14:C2:52:LEU:O	14:C2:85:LYS:NZ	2.32	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:87:GLY:HA3	16:C4:120:PRO:HG2	2.15	0.61
22:D0:24:ILE:HG12	22:D0:116:VAL:HG12	3.55	0.61
42:L5:58:LYS:HD3	42:L5:58:LYS:N	2.16	0.61
51:M5:68:ARG:NE	51:M5:124:ASP:O	2.33	0.61
55:M9:175:GLN:HA	55:M9:178:ALA:HB3	1.82	0.61
36:1:992:A:H5"	57:N1:43:LYS:HD3	1.83	0.61
36:1:2338:C:H1'	59:N3:49:LEU:HD12	1.82	0.61
71:O5:118:ILE:HG22	71:O5:119:LYS:H	1.66	0.61
3:S1:77:GLU:OE1	16:C4:114:ARG:NH2	2.17	0.61
7:S5:205:SER:OG	7:S5:207:THR:OG1	4.24	0.61
1:2:1611:A:O2'	7:S5:95:ASN:O	2.15	0.61
34:SR:41:THR:HG22	34:SR:62:LYS:HG2	1.83	0.61
36:1:912:G:OP2	39:L2:9:ARG:NH1	2.25	0.61
1:2:1173:C:H3'	20:C8:141:THR:HG21	1.83	0.61
1:2:1585:U:N3	1:2:1611:A:H2	1.96	0.61
1:2:1664:C:H42	1:2:1737:G:H1	1.48	0.61
1:2:702:G:O6	1:2:737:A:N6	2.33	0.61
1:2:732:G:O2'	1:2:733:A:O4'	2.18	0.61
24:D2:71:LYS:NZ	1:6:1099:U:OP1	374.26	0.61
21:C9:97:SER:OG	1:6:1504:G:OP1	394.22	0.61
9:S7:144:VAL:HG22	24:D2:49:GLU:HB3	1.83	0.61
40:L3:347:SER:HB2	40:L3:350:ALA:HB2	3.07	0.61
41:L4:361:HIS:CG	41:L4:362:ASP:N	2.98	0.61
42:L5:270:LYS:HG3	42:L5:273:ARG:CB	3.67	0.61
47:M0:16:PRO:HG3	47:M0:128:ARG:NH1	3.20	0.61
50:M4:123:LEU:HD22	52:M6:190:VAL:HG23	1.81	0.61
56:N0:42:TRP:O	56:N0:46:GLN:HG3	2.27	0.61
3:S1:113:MET:HB3	3:S1:142:PHE:CE2	3.05	0.61
3:S1:144:ARG:HG2	3:S1:206:PRO:HB3	1.83	0.61
3:S1:70:LEU:HB3	3:S1:79:HIS:HB3	5.14	0.61
1:2:516:G:OP2	86:2:2070:OHX:N6	2.33	0.61
36:5:3165:A:H61	36:5:3285:C:N4	1.91	0.61
1:6:1595:U:N3	1:6:1600:A:H2	1.99	0.61
1:6:1761:U:O4	86:6:2187:OHX:N2	2.33	0.61
10:S8:142:LYS:NZ	1:6:187:G:OP2	271.94	0.61
1:6:235:G:H2'	1:6:236:A:C8	2.32	0.61
18:C6:99:GLU:HG2	34:SR:57:PRO:HB2	2.67	0.61
22:D0:71:PRO:O	22:D0:72:ASN:ND2	5.96	0.61
25:D3:137:LYS:O	25:D3:139:LYS:N	3.78	0.61
1:2:778:G:H1	26:D4:10:ARG:HG2	1.65	0.61
28:D6:25:ASN:ND2	28:D6:77:CYS:SG	2.74	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:142:SER:O	44:L7:146:GLN:HG3	2.49	0.61
46:L9:48:VAL:HG13	46:L9:52:LEU:HB3	1.82	0.61
52:M6:174:PHE:O	52:M6:178:VAL:HG23	2.01	0.61
52:M6:189:ASP:O	52:M6:193:GLN:HG3	2.00	0.61
52:M6:3:VAL:HG13	52:M6:4:GLU:HG3	1.83	0.61
64:N8:104:THR:HG21	64:N8:112:ILE:HD11	1.83	0.61
64:N8:22:ILE:H	64:N8:22:ILE:HD12	2.07	0.61
72:O6:25:LYS:HE2	72:O6:28:TYR:HE2	1.66	0.61
5:S3:28:GLU:OE2	12:C0:56:LYS:NZ	2.32	0.61
6:S4:159:THR:HG22	6:S4:173:ILE:HB	2.27	0.61
8:S6:153:VAL:O	8:S6:155:ASP:N	2.61	0.61
36:1:1362:G:OP1	86:1:4032:OHX:N6	2.34	0.60
1:2:115:G:OP1	13:C1:67:ARG:NH1	2.34	0.60
1:2:1201:G:H22	1:2:1600:A:H5”	1.64	0.60
44:L7:60:ARG:HH22	36:5:517:G:P	306.02	0.60
1:6:151:G:H1	1:6:163:G:H1	1.49	0.60
18:C6:60:PHE:HA	18:C6:63:ILE:HG13	2.42	0.60
20:C8:53:ASP:HB3	20:C8:56:LYS:HG3	1.81	0.60
25:D3:6:PRO:HG3	25:D3:14:LYS:HG2	1.83	0.60
56:N0:89:ASN:HD21	57:N1:156:TYR:HB3	1.65	0.60
58:N2:104:ARG:HH12	58:N2:106:ALA:HB2	4.19	0.60
63:N7:95:VAL:O	63:N7:100:THR:OG1	2.17	0.60
5:S3:42:THR:OG1	5:S3:44:THR:O	5.35	0.60
6:S4:159:THR:HB	6:S4:227:VAL:HG23	1.83	0.60
6:S4:246:LEU:HB2	6:S4:251:GLU:HG3	1.81	0.60
6:S4:49:ARG:HH12	1:6:448:C:P	377.71	0.60
34:SR:172:ALA:HB2	34:SR:202:LEU:HD13	1.83	0.60
36:1:624:G:OP2	86:1:4132:OHX:N3	2.33	0.60
1:2:1481:C:O2’	1:2:1482:C:O5’	2.15	0.60
1:2:205:U:O4	86:2:2067:OHX:N3	2.34	0.60
36:5:3110:C:H2’	36:5:3111:U:C6	2.36	0.60
1:6:918:U:H2’	1:6:919:A:C8	2.35	0.60
23:D1:3:ASN:HD21	23:D1:7:GLN:HB3	3.95	0.60
24:D2:67:GLY:O	24:D2:69:LEU:N	3.22	0.60
40:L3:284:ARG:HB3	40:L3:323:MET:HB3	1.83	0.60
48:M1:117:ASP:O	48:M1:120:ILE:HG22	2.02	0.60
49:M3:144:THR:O	49:M3:146:PRO:HD3	2.85	0.60
62:N6:120:GLN:OE1	62:N6:126:LEU:HA	8.14	0.60
68:O2:27:ARG:HB3	36:5:655:C:OP1	161.59	0.60
2:S0:71:GLU:O	2:S0:96:THR:HG22	2.09	0.60
1:2:1067:C:H2’	1:2:1068:C:C6	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:2:2031:OHX:N3	86:2:2146:OHX:N5	2.48	0.60
1:2:740:A:H2'	1:2:741:C:H5"	1.82	0.60
38:4:62:C:O2	86:4:228:OHX:N5	2.34	0.60
36:5:3242:G:H5'	36:5:3245:A:C8	2.35	0.60
54:M8:21:SER:OG	36:5:673:U:OP1	149.92	0.60
1:6:245:U:O4	86:6:2120:OHX:N4	2.34	0.60
15:C3:127:ARG:HH11	15:C3:127:ARG:HG2	1.66	0.60
4:S2:230:TRP:CE2	24:D2:68:ARG:HD3	2.92	0.60
27:D5:54:VAL:HG13	27:D5:57:TYR:CD1	2.36	0.60
33:E1:126:CYS:HB3	33:E1:130:VAL:HG21	3.32	0.60
46:L9:48:VAL:HG23	46:L9:52:LEU:O	5.41	0.60
48:M1:94:ARG:NH1	48:M1:173:ASP:OD2	2.33	0.60
53:M7:27:LYS:HD3	53:M7:63:PHE:HB3	1.88	0.60
54:M8:85:GLY:O	54:M8:104:LEU:HB2	2.76	0.60
63:N7:53:VAL:HA	63:N7:57:HIS:HD2	1.99	0.60
66:O0:13:LYS:HB3	66:O0:100:ILE:CG2	2.31	0.60
78:Q2:46:LYS:O	86:Q2:502:OHX:N3	4.50	0.60
3:S1:37:THR:HG21	3:S1:185:THR:HB	5.29	0.60
9:S7:35:LYS:HG2	9:S7:36:ALA:H	1.65	0.60
1:2:383:G:N7	86:2:2130:OHX:N4	2.49	0.60
1:2:459:G:OP1	26:D4:109:LYS:NZ	2.33	0.60
56:N0:84:ARG:NH2	36:5:1296:C:OP1	288.61	0.60
36:5:182:U:H2'	36:5:183:G:C8	2.37	0.60
36:5:395:A:H5"	36:5:396:A:OP2	2.00	0.60
36:5:626:U:O4	86:5:3976:OHX:N4	2.35	0.60
36:5:842:G:N2	36:5:851:C:O2	2.26	0.60
1:6:151:G:N2	1:6:163:G:H22	1.98	0.60
13:C1:2:SER:O	13:C1:3:THR:OG1	5.04	0.60
17:C5:127:ARG:CZ	35:SM:66:ALA:HB2	4.80	0.60
25:D3:96:VAL:HG23	25:D3:97:ASP:H	1.66	0.60
28:D6:36:ILE:HD12	28:D6:78:ALA:HB1	1.82	0.60
32:E0:50:VAL:HA	32:E0:54:ARG:HA	3.77	0.60
36:1:2548:C:OP2	39:L2:93:LYS:NZ	2.33	0.60
61:N5:92:LYS:HG3	36:5:1831:U:P	100.59	0.60
79:Q3:36:ARG:HH22	36:5:1725:C:H5'	228.03	0.60
3:S1:30:PHE:HB3	3:S1:96:LEU:HD22	3.77	0.60
3:S1:70:LEU:HA	3:S1:73:LEU:HG	1.83	0.60
7:S5:33:VAL:HG13	7:S5:37:GLN:NE2	2.72	0.60
36:1:169:U:H4'	49:M3:128:ARG:NH1	2.17	0.60
36:1:1770:G:H5'	36:1:1771:C:OP2	2.02	0.60
1:6:761:G:O6	86:6:2082:OHX:N1	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:54:LEU:HB3	15:C3:60:VAL:CG1	3.11	0.60
1:2:1253:U:H5”	33:E1:130:VAL:HB	1.82	0.60
45:L8:91:PHE:CE2	45:L8:185:ARG:HD3	4.70	0.60
36:1:3198:U:O4	46:L9:26:LYS:HB2	2.01	0.60
48:M1:137:ARG:O	48:M1:140:ARG:N	2.29	0.60
62:N6:86:THR:HG22	62:N6:96:PRO:HA	1.90	0.60
3:S1:152:ARG:NH1	1:6:1799:U:O2’	342.78	0.60
3:S1:190:PRO:HG2	3:S1:192:VAL:HG23	2.46	0.60
9:S7:133:THR:HG21	9:S7:162:ILE:HD11	1.83	0.60
11:S9:38:ASN:HB2	11:S9:41:GLU:H	1.66	0.60
36:1:2528:G:N7	86:1:4182:OHX:N3	2.49	0.60
35:SM:34:LYS:NZ	36:1:2707:C:OP1	2.29	0.60
36:1:659:G:H2’	36:1:1432:C:H42	1.67	0.60
36:5:1701:C:H2’	36:5:1702:U:O4’	2.02	0.60
1:6:1429:G:H2’	1:6:1430:U:C6	2.37	0.60
9:S7:101:LYS:HD3	1:6:639:U:H5”	364.79	0.60
20:C8:88:ARG:NH1	20:C8:112:ASP:OD2	3.49	0.60
40:L3:221:THR:HG22	40:L3:272:TYR:N	2.60	0.60
42:L5:95:TRP:CH2	42:L5:181:PRO:HD3	5.01	0.60
47:M0:192:ASP:HA	47:M0:197:VAL:HG23	3.00	0.60
4:S2:118:ALA:HB3	4:S2:124:ALA:HB2	2.04	0.60
36:1:1543:G:O6	86:1:4058:OHX:N2	2.35	0.60
36:1:155:G:H5”	36:1:156:G:C8	2.36	0.60
36:1:3304:U:O3’	40:L3:334:ARG:NH2	2.33	0.60
1:2:1580:C:H2’	1:2:1581:C:C6	2.37	0.60
1:2:514:G:H1	1:2:543:C:H5	1.48	0.60
42:L5:265:TYR:HE1	37:7:121:U:H5”	315.92	0.60
37:7:3:U:H2’	37:7:4:U:C6	2.36	0.60
24:D2:34:ILE:O	24:D2:38:LEU:HG	3.56	0.60
25:D3:38:PHE:CE1	1:6:359:A:H1’	331.62	0.60
40:L3:219:ALA:HB2	40:L3:336:VAL:HG13	1.84	0.60
40:L3:41:VAL:HA	40:L3:185:GLY:CA	2.33	0.60
50:M4:48:GLY:HA3	50:M4:53:VAL:HG13	2.05	0.60
64:N8:90:TYR:CD1	64:N8:100:PRO:HG3	2.36	0.60
65:N9:11:ASN:OD1	65:N9:14:ARG:HD3	4.39	0.60
69:O3:86:ARG:O	86:O3:202:OHX:N1	2.35	0.60
3:S1:137:ILE:HD12	3:S1:172:LEU:HD22	1.84	0.60
36:1:1103:A:H1’	36:1:1104:G:OP1	2.01	0.60
36:1:1288:U:H2’	36:1:1289:G:H8	1.66	0.60
1:2:1499:G:OP1	21:C9:122:ARG:NH1	2.32	0.60
1:6:301:A:OP2	86:6:2091:OHX:N1	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:201:ALA:HB3	19:C7:42:GLN:HE21	2.81	0.60
39:L2:179:LEU:O	39:L2:181:LYS:N	2.35	0.60
39:L2:32:LEU:HD13	39:L2:37:ARG:HD3	1.83	0.60
45:L8:148:ALA:HA	45:L8:201:THR:HG22	1.84	0.60
51:M5:174:ILE:HA	51:M5:184:LYS:HA	2.41	0.60
67:O1:78:LYS:HB2	67:O1:90:PHE:HB2	5.76	0.60
74:O8:44:LYS:HB3	74:O8:51:LEU:HD11	2.86	0.60
75:O9:35:ILE:H	75:O9:35:ILE:HD12	3.66	0.60
7:S5:117:THR:HG21	7:S5:194:LEU:HD13	2.76	0.60
7:S5:57:SER:HB2	30:D8:53:ILE:HB	2.83	0.60
10:S8:184:LEU:HB3	10:S8:189:LEU:HD13	2.77	0.60
36:1:2850:G:O6	86:1:4076:OHX:N6	2.35	0.60
1:2:1175:U:H2'	1:2:1176:G:C8	2.37	0.60
1:2:1186:U:O4	1:2:1200:G:N2	2.34	0.60
1:2:14:C:H2'	1:2:15:U:H6	1.67	0.60
1:2:541:A:O2'	1:2:542:A:H4'	2.02	0.60
45:L8:37:GLY:HA3	36:5:2550:U:C6	211.20	0.60
1:6:1118:G:O6	86:6:2175:OHX:N2	2.34	0.60
5:S3:141:LYS:NZ	1:6:1275:A:N3	390.06	0.60
1:6:1638:G:C2	1:6:1639:C:H1'	2.37	0.60
15:C3:92:ILE:HA	15:C3:122:ILE:HD11	2.40	0.60
28:D6:60:PRO:C	28:D6:62:TYR:H	2.05	0.60
16:C4:114:ARG:HA	28:D6:62:TYR:CZ	2.37	0.60
39:L2:79:ASN:O	39:L2:82:VAL:HG13	2.02	0.60
41:L4:290:ILE:HG23	54:M8:35:PHE:CE2	2.37	0.60
45:L8:164:VAL:O	45:L8:167:PRO:HD2	2.02	0.60
52:M6:119:VAL:HG23	56:N0:164:SER:HB3	1.84	0.60
64:N8:92:LYS:O	64:N8:93:SER:HB3	2.01	0.60
66:O0:13:LYS:HB3	66:O0:100:ILE:HG22	2.06	0.60
68:O2:11:LYS:O	68:O2:13:HIS:N	2.32	0.60
78:Q2:48:SER:O	86:Q2:502:OHX:N3	5.06	0.60
2:S0:117:GLU:O	4:S2:40:LYS:NZ	2.30	0.60
2:S0:142:PRO:HB3	23:D1:34:ILE:HD13	2.42	0.60
4:S2:89:GLN:HA	4:S2:94:GLN:HA	2.80	0.60
36:1:2534:G:H2'	36:1:2535:A:H8	1.66	0.60
36:1:2960:C:H2'	36:1:2961:G:H8	1.67	0.60
36:1:3375:A:H5"	36:1:3378:C:H5	1.67	0.60
36:1:2573:G:N7	86:1:3998:OHX:N1	2.50	0.60
36:1:600:G:N7	86:1:4096:OHX:N1	2.49	0.60
1:2:446:A:H2'	1:2:447:U:H6	1.65	0.60
1:2:694:U:H3	9:S7:98:ILE:HD12	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:143:ARG:NH2	1:6:1191:U:OP2	347.64	0.60
1:6:1405:G:H2'	1:6:1406:A:C8	2.37	0.60
1:6:190:C:N4	1:6:196:G:O6	2.34	0.60
1:6:829:A:OP1	1:6:829:A:H4'	2.01	0.60
26:D4:8:ARG:NH1	26:D4:26:ASP:OD1	2.35	0.60
45:L8:151:VAL:HG13	45:L8:199:ALA:HB2	2.92	0.60
53:M7:30:ARG:HA	53:M7:119:VAL:HG11	2.20	0.60
54:M8:66:ARG:NH2	36:5:744:A:OP1	165.88	0.60
61:N5:38:LEU:HD11	61:N5:40:LEU:HD22	1.84	0.60
36:1:128:G:H2'	36:1:129:U:O4'	2.02	0.59
36:1:1348:U:O2	36:1:1349:G:N2	2.35	0.59
36:1:2416:U:H2'	36:1:2417:U:C6	2.37	0.59
55:M9:43:LYS:HZ3	36:5:1765:U:H6	91.73	0.59
51:M5:93:LYS:HG3	36:5:289:A:C2	145.63	0.59
36:5:1790:G:O6	86:5:4192:OHX:N4	2.35	0.59
51:M5:157:LYS:NZ	36:5:58:G:OP1	84.87	0.59
39:L2:181:LYS:HB3	36:5:860:G:C5	213.03	0.59
1:6:219:A:C6	1:6:843:U:H1'	2.37	0.59
37:7:107:C:H2'	37:7:108:A:C8	2.37	0.59
18:C6:16:ALA:HB2	18:C6:72:GLY:HA3	1.83	0.59
42:L5:120:LYS:O	42:L5:248:ARG:NH2	2.45	0.59
53:M7:56:ARG:O	53:M7:83:TRP:NE1	3.25	0.59
58:N2:36:TYR:CD2	58:N2:83:TYR:HB2	3.32	0.59
71:O5:83:LYS:O	71:O5:89:ARG:NE	2.51	0.59
9:S7:78:THR:HG23	9:S7:92:PHE:HE1	3.70	0.59
1:2:1385:G:N7	86:2:2132:OHX:N3	2.50	0.59
1:2:826:U:H2'	1:2:827:C:C6	2.37	0.59
40:L3:166:ILE:O	40:L3:169:THR:HG22	3.71	0.59
42:L5:278:SER:O	42:L5:280:GLU:N	3.43	0.59
46:L9:147:SER:HB2	46:L9:187:ILE:HD11	2.06	0.59
49:M3:94:GLY:HA3	49:M3:119:TYR:OH	3.20	0.59
57:N1:12:ARG:HD2	57:N1:13:TYR:CE2	2.37	0.59
10:S8:99:ALA:HB3	1:6:329:G:H5'	270.41	0.59
34:SR:83:ALA:HB1	34:SR:110:VAL:HG12	1.83	0.59
1:2:1539:G:C8	1:2:1539:G:H5'	2.36	0.59
86:2:2031:OHX:N3	86:2:2146:OHX:N1	2.50	0.59
1:2:1240:U:OP2	86:2:2144:OHX:N1	2.34	0.59
86:2:2031:OHX:N4	86:2:2146:OHX:N2	2.50	0.59
1:2:5:U:H2'	1:2:6:G:H8	1.67	0.59
18:C6:93:HIS:ND1	18:C6:101:SER:OG	2.32	0.59
21:C9:20:SER:O	21:C9:24:ARG:HB2	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:2:GLY:HA2	86:D3:202:OHX:N2	2.18	0.59
30:D8:44:VAL:HG21	30:D8:48:VAL:HG21	3.61	0.59
40:L3:160:VAL:HG22	40:L3:183:LEU:HD22	2.06	0.59
36:1:2355:G:H4'	53:M7:139:TYR:CE2	2.36	0.59
58:N2:28:PHE:HE1	58:N2:83:TYR:HE2	2.04	0.59
63:N7:25:ILE:HG23	63:N7:41:ALA:HB1	3.69	0.59
5:S3:34:TYR:HE2	5:S3:37:VAL:HG22	4.15	0.59
5:S3:40:ARG:HD2	5:S3:49:ILE:HD11	2.50	0.59
11:S9:108:ARG:HH21	11:S9:145:SER:HB2	1.66	0.59
11:S9:149:ARG:CG	11:S9:149:ARG:HH11	3.94	0.59
35:SM:64:LYS:O	35:SM:66:ALA:N	3.56	0.59
36:1:2357:A:H2'	36:1:2358:A:C8	2.37	0.59
1:2:1417:A:OP1	86:2:2071:OHX:N5	2.34	0.59
1:2:263:C:H4'	1:2:292:U:H5'	1.84	0.59
1:2:488:G:OP1	1:2:488:G:H4'	2.02	0.59
1:2:542:A:O2'	1:2:543:C:O5'	2.20	0.59
1:2:771:A:OP1	11:S9:9:SER:OG	2.20	0.59
1:2:782:U:H4'	1:2:783:G:OP2	2.02	0.59
37:3:4:U:H2'	37:3:5:G:H8	1.66	0.59
38:4:77:A:OP2	86:4:226:OHX:N2	2.35	0.59
36:5:2207:A:H62	36:5:2236:G:H1	1.48	0.59
36:5:1544:G:O6	86:5:4196:OHX:N5	2.35	0.59
1:6:1058:U:H4'	1:6:1059:U:OP1	2.02	0.59
1:6:145:A:HO2'	1:6:146:U:P	2.24	0.59
14:C2:40:GLY:O	14:C2:124:LYS:N	3.56	0.59
16:C4:85:ALA:HB2	16:C4:94:PRO:HA	2.19	0.59
39:L2:204:MET:HE2	39:L2:209:HIS:HB2	1.84	0.59
41:L4:206:LEU:HB3	41:L4:248:VAL:HG22	2.58	0.59
41:L4:229:ASN:OD1	41:L4:231:ALA:N	3.06	0.59
42:L5:105:ILE:O	42:L5:109:THR:HG23	2.02	0.59
54:M8:58:ASN:HB3	54:M8:144:ARG:HD3	4.09	0.59
56:N0:40:ARG:O	56:N0:43:TYR:HB3	2.02	0.59
64:N8:84:GLU:O	64:N8:87:ARG:HB2	3.25	0.59
66:O0:54:SER:HA	66:O0:57:GLU:HB2	2.24	0.59
2:S0:195:TRP:NE1	2:S0:197:ILE:HB	2.95	0.59
2:S0:31:VAL:HG12	2:S0:33:GLN:H	1.66	0.59
4:S2:163:GLY:O	4:S2:165:VAL:N	4.12	0.59
6:S4:141:THR:OG1	6:S4:143:ASP:OD2	2.19	0.59
1:2:1460:A:O3'	35:SM:72:ARG:NH2	2.34	0.59
36:1:3215:A:H8	50:M4:121:MET:CE	2.15	0.59
36:1:979:U:H4'	36:1:980:A:O5'	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1748:G:O6	86:2:2105:OHX:N4	2.35	0.59
1:2:700:C:H42	1:2:738:G:H1	1.50	0.59
36:5:2234:G:O6	86:5:3955:OHX:N1	2.35	0.59
36:5:679:U:O4	86:5:4009:OHX:N2	2.35	0.59
36:5:438:A:H2'	36:5:494:G:N2	2.18	0.59
64:N8:26:ARG:HH12	36:5:938:C:H3'	180.70	0.59
12:C0:59:PHE:CZ	12:C0:62:GLN:HA	2.67	0.59
15:C3:13:SER:OG	15:C3:14:SER:O	2.21	0.59
41:L4:16:THR:HG23	41:L4:18:ASN:N	3.29	0.59
48:M1:107:ASP:N	48:M1:107:ASP:OD1	2.36	0.59
49:M3:48:PRO:HB2	71:O5:117:ALA:HB2	2.01	0.59
53:M7:88:VAL:O	53:M7:92:GLN:HG2	2.03	0.59
41:L4:299:ILE:HG23	54:M8:39:ARG:HB3	1.84	0.59
61:N5:58:ASP:O	61:N5:62:VAL:HG23	2.62	0.59
1:2:7:G:O6	4:S2:205:ARG:NH2	2.35	0.59
36:1:1620:U:H2'	36:1:1621:A:C8	2.37	0.59
1:2:412:A:H2'	1:2:413:U:H6	1.66	0.59
1:6:714:G:N2	1:6:724:C:O2	2.35	0.59
16:C4:81:VAL:HG22	16:C4:115:ILE:HB	1.85	0.59
22:D0:95:ALA:HB1	22:D0:99:ILE:HG13	3.28	0.59
40:L3:159:ARG:HG2	40:L3:182:GLN:HA	1.84	0.59
40:L3:76:VAL:HG21	40:L3:323:MET:HE3	2.91	0.59
41:L4:62:ALA:HB3	41:L4:90:PHE:HE2	1.66	0.59
42:L5:109:THR:O	42:L5:113:LEU:N	2.35	0.59
56:N0:8:GLN:HG3	56:N0:26:ARG:HE	4.56	0.59
42:L5:38:THR:HG22	57:N1:30:TYR:HB3	1.85	0.59
61:N5:103:TYR:HB3	61:N5:135:ILE:HD11	3.95	0.59
78:Q2:14:GLY:C	78:Q2:16:THR:H	2.04	0.59
79:Q3:29:LEU:O	79:Q3:33:GLN:HG2	2.10	0.59
2:S0:35:PRO:HB3	23:D1:87:ARG:NH2	2.16	0.59
10:S8:48:THR:HG21	10:S8:54:LYS:HG3	1.84	0.59
34:SR:19:TRP:CD2	34:SR:306:THR:HG22	2.37	0.59
36:1:2307:G:O2'	36:1:2310:U:OP2	2.21	0.59
36:1:72:C:H5'	49:M3:63:VAL:HG22	1.84	0.59
1:2:1316:G:OP1	19:C7:7:LYS:N	2.36	0.59
36:5:1818:U:H2'	36:5:1819:U:C6	2.38	0.59
36:5:2568:C:O2'	36:5:2569:A:O5'	2.16	0.59
36:5:339:C:OP1	36:5:1380:G:O2'	2.19	0.59
36:5:1808:G:O6	86:5:4019:OHX:N3	2.36	0.59
1:6:489:C:O2'	1:6:490:C:O4'	2.19	0.59
11:S9:172:VAL:HG22	1:6:511:A:H5"	458.47	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:592:A:O2'	1:6:596:C:OP1	2.19	0.59
17:C5:15:HIS:H	17:C5:22:LEU:HD22	2.85	0.59
21:C9:71:VAL:HG21	21:C9:76:LEU:HD21	4.28	0.59
40:L3:259:HIS:CE1	36:5:2366:C:H5'	218.27	0.59
40:L3:70:ARG:HH22	59:N3:120:LYS:HE3	1.66	0.59
67:O1:84:ASP:N	67:O1:84:ASP:OD1	2.35	0.59
6:S4:191:ARG:NH1	6:S4:245:LYS:HG2	4.21	0.59
7:S5:158:GLN:HG2	30:D8:66:LEU:HD11	1.85	0.59
11:S9:113:VAL:HG12	11:S9:119:ALA:HB2	2.32	0.59
36:1:1024:G:N7	86:1:4165:OHX:N6	2.51	0.59
36:1:1235:U:H4'	36:1:1236:G:H5'	1.85	0.59
86:1:4004:OHX:N6	86:1:4172:OHX:N1	2.50	0.59
86:1:4197:OHX:N2	86:O1:201:OHX:N1	2.50	0.59
36:1:7:C:H2'	36:1:8:C:C6	2.38	0.59
1:2:1505:A:H5"	1:2:1506:G:OP2	2.03	0.59
1:2:755:A:H2'	1:2:756:A:C8	2.36	0.59
1:2:913:G:H4'	1:2:914:G:OP2	2.03	0.59
36:5:1560:G:O2'	36:5:1561:G:OP1	2.20	0.59
1:6:193:U:C2	1:6:195:G:H1'	2.38	0.59
26:D4:56:SER:HB3	26:D4:74:LEU:HB2	4.09	0.59
48:M1:63:GLU:HB3	48:M1:65:ILE:HD13	1.84	0.59
53:M7:108:ASP:O	53:M7:110:THR:N	2.35	0.59
36:1:2356:A:H5'	53:M7:138:LYS:HE3	1.84	0.59
66:O0:102:THR:O	66:O0:102:THR:OG1	2.16	0.59
78:Q2:14:GLY:O	78:Q2:16:THR:N	2.35	0.59
6:S4:91:THR:OG1	6:S4:98:ASN:OD1	2.16	0.59
11:S9:78:ARG:HG3	11:S9:79:ARG:N	2.18	0.59
36:1:2340:U:OP1	40:L3:236:LYS:HE3	2.03	0.59
36:1:3151:U:H4'	36:1:3294:A:H1'	1.85	0.59
36:1:3376:A:O3'	86:1:4177:OHX:N2	2.36	0.59
36:1:595:G:H1	36:1:609:G:H5"	1.68	0.59
42:L5:15:ARG:NH2	36:5:1003:A:H1'	288.48	0.59
36:5:3121:U:H1'	36:5:3122:A:H5"	1.83	0.59
12:C0:44:LYS:HG3	1:6:1217:A:H5"	428.32	0.59
1:6:800:U:H2'	1:6:801:G:H8	1.68	0.59
14:C2:41:LEU:O	14:C2:43:ARG:N	2.36	0.59
16:C4:37:GLU:HA	1:6:895:G:O2'	258.34	0.59
18:C6:19:VAL:HG23	18:C6:68:ARG:HG2	1.85	0.59
21:C9:61:VAL:HG11	21:C9:105:LEU:HD21	2.72	0.59
27:D5:61:SER:H	27:D5:64:VAL:HB	1.75	0.59
29:D7:67:THR:O	1:6:871:G:O2'	327.87	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:22:ARG:NH1	42:L5:28:THR:OG1	4.27	0.59
44:L7:30:ARG:HD2	44:L7:33:ARG:NH2	2.16	0.59
50:M4:113:THR:HG22	50:M4:115:PHE:H	1.68	0.59
50:M4:55:ARG:HD3	56:N0:70:THR:HB	1.85	0.59
62:N6:55:GLU:HG3	62:N6:69:LYS:HG3	1.85	0.59
6:S4:57:ASN:HB2	6:S4:60:GLU:HB2	1.85	0.59
8:S6:64:LYS:HZ1	8:S6:81:VAL:HG22	1.67	0.59
11:S9:6:ARG:HH11	11:S9:6:ARG:HB2	1.68	0.59
34:SR:170:ILE:HG21	34:SR:211:ILE:HD11	1.84	0.59
36:1:1460:A:H2'	36:1:1461:A:H8	1.67	0.59
36:1:2810:C:OP1	86:1:4082:OHX:N6	2.35	0.59
1:2:1615:C:O2'	1:2:1616:G:OP2	2.20	0.59
1:2:693:U:H5"	1:2:694:U:H5'	1.85	0.59
36:5:1579:C:H2'	36:5:1580:A:H8	1.68	0.59
36:5:1804:A:H2'	36:5:1805:C:C6	2.38	0.59
15:C3:25:TRP:HA	15:C3:27:LYS:HE2	6.80	0.59
20:C8:30:TYR:HE2	20:C8:40:ARG:HH11	1.50	0.59
2:S0:66:ALA:HB1	23:D1:50:TYR:HE1	2.97	0.59
39:L2:45:VAL:HG22	39:L2:84:THR:HA	2.22	0.59
43:L6:68:PRO:HB2	43:L6:71:VAL:HG23	1.85	0.59
46:L9:18:VAL:HB	46:L9:27:VAL:HG22	1.85	0.59
53:M7:22:LEU:O	53:M7:24:VAL:N	2.34	0.59
59:N3:74:MET:HG3	59:N3:102:ILE:HG23	5.96	0.59
69:O3:23:ASN:ND2	36:5:633:C:H1'	221.40	0.59
10:S8:61:GLU:HG2	10:S8:62:THR:HG23	3.95	0.59
36:1:1040:A:N3	47:M0:198:LYS:NZ	2.46	0.58
1:2:542:A:N1	32:E0:28:LYS:HD2	2.17	0.58
19:C7:52:GLY:HA3	1:6:1389:C:O2'	422.73	0.58
39:L2:247:ARG:HH12	1:6:993:A:H2	253.59	0.58
12:C0:50:THR:HG22	12:C0:55:VAL:HG22	1.88	0.58
1:2:1191:U:H4'	18:C6:143:ARG:HB3	1.84	0.58
19:C7:37:GLU:OE2	34:SR:129:LYS:NZ	4.64	0.58
20:C8:35:ILE:HB	20:C8:38:VAL:HG13	3.55	0.58
22:D0:97:VAL:HG13	22:D0:98:GLN:H	2.20	0.58
25:D3:91:GLY:O	25:D3:93:LEU:N	2.37	0.58
27:D5:59:TYR:HD2	27:D5:60:VAL:N	2.01	0.58
27:D5:39:ALA:N	27:D5:70:LYS:O	4.33	0.58
39:L2:52:SER:HB3	39:L2:191:LEU:HD12	5.76	0.58
41:L4:16:THR:HG23	41:L4:18:ASN:H	2.47	0.58
41:L4:220:ARG:NH1	62:N6:4:GLN:OE1	2.53	0.58
45:L8:136:LEU:HD11	45:L8:162:LEU:O	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:8:PRO:HD2	48:M1:10:ARG:H	1.68	0.58
48:M1:37:LEU:HD13	48:M1:69:VAL:HG12	1.85	0.58
51:M5:14:LYS:HA	51:M5:19:LEU:HD23	1.83	0.58
52:M6:195:ALA:O	52:M6:198:GLY:N	2.68	0.58
59:N3:10:LYS:NZ	59:N3:56:ASP:OD1	2.75	0.58
66:O0:15:ALA:O	66:O0:18:ILE:HG22	2.03	0.58
67:O1:31:ARG:O	67:O1:35:GLU:HB2	2.73	0.58
70:O4:44:CYS:SG	70:O4:81:CYS:HB3	2.72	0.58
11:S9:54:ARG:HA	11:S9:57:ARG:HE	2.18	0.58
1:2:181:A:H2'	1:2:182:A:C8	2.37	0.58
36:5:2440:G:H2'	36:5:2441:A:C8	2.38	0.58
36:5:2569:A:H4'	36:5:2570:U:H5'	1.85	0.58
36:5:2418:G:O6	86:5:4242:OHX:N2	2.35	0.58
13:C1:87:ARG:HH21	13:C1:104:HIS:CE1	2.21	0.58
18:C6:30:LYS:NZ	21:C9:8:ASP:OD2	2.29	0.58
40:L3:339:ARG:HH12	40:L3:342:LEU:HD11	1.68	0.58
42:L5:120:LYS:NZ	42:L5:122:VAL:O	11.33	0.58
50:M4:73:PRO:HG2	50:M4:76:ALA:HB2	3.17	0.58
54:M8:144:ARG:NH2	36:5:976:U:OP1	174.00	0.58
36:1:523:A:O2'	56:N0:69:PRO:HD2	2.03	0.58
57:N1:136:ARG:HD3	57:N1:139:ARG:CZ	3.70	0.58
63:N7:21:LYS:NZ	63:N7:47:GLU:O	2.96	0.58
2:S0:32:HIS:O	2:S0:32:HIS:ND1	2.35	0.58
2:S0:69:ASN:HB3	2:S0:71:GLU:OE1	2.02	0.58
4:S2:45:VAL:HG21	4:S2:68:ILE:HG23	1.85	0.58
5:S3:190:ARG:HH12	5:S3:195:SER:HA	2.04	0.58
6:S4:100:ARG:O	6:S4:102:VAL:HG12	2.14	0.58
36:1:1471:U:H2'	36:1:1472:U:C6	2.38	0.58
36:1:2274:U:OP2	86:1:3966:OHX:N4	2.36	0.58
36:1:706:A:H4'	36:1:781:G:O2'	2.03	0.58
1:2:206:A:OP2	86:2:2101:OHX:N5	2.36	0.58
1:2:485:A:H2'	1:2:486:G:O4'	2.03	0.58
36:5:3372:A:OP2	86:5:4231:OHX:N6	2.36	0.58
1:6:1385:G:N7	86:6:2119:OHX:N6	2.51	0.58
1:6:25:C:O2	86:6:2106:OHX:N6	2.37	0.58
13:C1:46:LYS:O	13:C1:50:GLU:HG2	4.60	0.58
15:C3:113:PHE:HD1	15:C3:114:ARG:HH11	5.05	0.58
1:2:1550:A:P	17:C5:42:ARG:HH22	2.26	0.58
29:D7:28:PRO:HB3	1:6:959:U:H5"	351.18	0.58
36:1:1334:U:H1'	44:L7:208:SER:HB2	1.85	0.58
46:L9:117:PHE:HE1	46:L9:178:GLY:HA2	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:133:ARG:HD2	48:M1:152:HIS:O	2.03	0.58
52:M6:143:THR:OG1	52:M6:150:GLU:HB2	2.76	0.58
58:N2:43:VAL:C	58:N2:45:GLY:H	2.85	0.58
67:O1:46:THR:HG23	67:O1:47:ASP:H	4.46	0.58
3:S1:70:LEU:O	3:S1:74:GLN:N	2.36	0.58
1:2:93:A:H1'	6:S4:3:ARG:O	2.02	0.58
7:S5:113:ILE:HG21	7:S5:190:ILE:HG22	1.85	0.58
36:5:2102:U:H2'	36:5:2103:U:C6	2.38	0.58
47:M0:7:ARG:NH1	36:5:2828:G:OP1	269.37	0.58
36:5:767:U:H1'	36:5:768:C:C6	2.38	0.58
13:C1:3:THR:OG1	13:C1:82:ARG:NE	2.34	0.58
1:2:1525:A:H5'	21:C9:93:HIS:HB2	1.84	0.58
22:D0:43:LYS:O	22:D0:47:GLN:N	2.30	0.58
39:L2:59:ALA:HB2	39:L2:78:ALA:HB2	1.86	0.58
41:L4:351:PRO:HB3	44:L7:70:LYS:HB3	1.83	0.58
48:M1:109:HIS:HD2	48:M1:114:ILE:HG21	1.94	0.58
59:N3:13:ILE:HD12	59:N3:53:SER:HB2	3.78	0.58
62:N6:73:VAL:HA	62:N6:80:VAL:HG23	2.50	0.58
64:N8:13:GLY:HA2	36:5:943:U:H3'	163.29	0.58
57:N1:82:ASN:O	65:N9:21:ILE:HA	2.03	0.58
66:O0:76:GLU:O	66:O0:80:ALA:N	2.36	0.58
4:S2:52:THR:HB	4:S2:54:GLU:HG2	1.85	0.58
5:S3:42:THR:OG1	5:S3:45:LYS:O	2.83	0.58
9:S7:89:HIS:CE1	9:S7:165:LYS:HA	2.99	0.58
36:1:2986:U:H2'	36:1:2987:A:C8	2.38	0.58
1:2:291:G:H2'	1:2:292:U:C6	2.38	0.58
1:2:549:G:OP2	86:2:2026:OHX:N2	2.36	0.58
1:2:603:U:H2'	1:2:604:A:H8	1.68	0.58
36:5:1852:G:N7	86:5:4034:OHX:N6	2.52	0.58
36:5:2311:G:OP2	86:5:4193:OHX:N1	2.36	0.58
1:6:191:C:O2'	1:6:192:U:O5'	2.21	0.58
21:C9:60:SER:OG	1:6:1480:G:OP1	399.26	0.58
29:D7:15:GLU:OE2	29:D7:24:LEU:N	2.89	0.58
41:L4:131:VAL:O	41:L4:135:VAL:HG23	3.14	0.58
36:1:3192:U:OP2	52:M6:176:LYS:NZ	2.35	0.58
54:M8:40:THR:O	54:M8:40:THR:OG1	2.12	0.58
55:M9:134:HIS:CE1	55:M9:136:ARG:HB3	2.71	0.58
57:N1:84:TYR:O	57:N1:85:LEU:HD23	2.19	0.58
63:N7:25:ILE:HA	63:N7:43:VAL:HG12	1.84	0.58
36:1:1491:A:N7	75:O9:2:ALA:HB3	2.18	0.58
78:Q2:77:CYS:SG	78:Q2:79:THR:HG23	3.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:143:LEU:HB2	9:S7:147:ASN:O	2.30	0.58
36:1:2186:U:OP2	39:L2:200:ARG:NH2	2.31	0.58
36:1:2207:A:H2'	36:1:2208:A:H8	1.68	0.58
36:1:2746:A:H2	42:L5:146:LEU:HB3	1.68	0.58
86:1:4197:OHX:N4	86:O1:201:OHX:N3	2.50	0.58
36:1:863:C:H2'	36:1:864:G:O4'	2.03	0.58
36:1:873:C:H5"	36:1:874:U:O5'	2.04	0.58
1:2:16:G:H2'	1:2:17:C:C6	2.38	0.58
36:5:3112:G:O6	86:5:3911:OHX:N6	2.36	0.58
1:6:1092:A:C8	1:6:1094:G:C8	2.91	0.58
1:6:214:G:N7	86:6:2148:OHX:N4	2.51	0.58
15:C3:33:VAL:HA	15:C3:36:GLN:HB2	1.86	0.58
1:2:901:G:H22	16:C4:54:GLU:CD	2.06	0.58
1:2:936:G:N7	28:D6:15:ARG:NH1	2.52	0.58
39:L2:225:ILE:HG21	39:L2:234:LYS:HA	1.85	0.58
40:L3:75:ALA:HB2	36:5:3049:A:C2	245.93	0.58
47:M0:36:LEU:HD11	47:M0:69:ARG:HD3	1.86	0.58
62:N6:100:HIS:CD2	62:N6:101:PRO:HD2	3.01	0.58
66:O0:75:ASN:HA	66:O0:86:ARG:HB2	3.21	0.58
63:N7:136:PHE:CE1	70:O4:89:ILE:HG12	4.84	0.58
7:S5:36:ALA:HB1	7:S5:45:LYS:HD2	2.68	0.58
36:1:1225:A:H1'	36:1:3116:G:C2	2.39	0.58
36:1:1317:A:OP1	86:1:4064:OHX:N2	2.36	0.58
1:2:320:U:H3'	1:2:321:C:C5'	2.30	0.58
36:5:1307:G:O2'	36:5:1308:A:OP2	2.21	0.58
36:5:2964:G:N2	36:5:2967:A:OP2	2.31	0.58
36:5:308:A:H5'	36:5:2223:A:O2'	2.03	0.58
86:5:4015:OHX:N3	86:5:4211:OHX:N1	2.51	0.58
64:N8:27:LYS:NZ	36:5:801:A:OP1	153.80	0.58
20:C8:33:THR:HA	20:C8:38:VAL:HG22	3.33	0.58
29:D7:23:THR:CG2	29:D7:29:ARG:HH21	3.11	0.58
29:D7:46:VAL:HG13	29:D7:54:VAL:HG21	1.86	0.58
42:L5:9:SER:OG	42:L5:10:SER:N	2.33	0.58
44:L7:151:ARG:NH1	44:L7:244:ASN:O	3.64	0.58
48:M1:16:LYS:HG2	48:M1:130:VAL:HG13	3.82	0.58
50:M4:120:VAL:O	50:M4:124:ARG:HG3	2.04	0.58
50:M4:65:LEU:HD11	56:N0:152:LEU:HD12	1.86	0.58
74:O8:5:ILE:HG22	74:O8:54:LEU:HB2	2.14	0.58
3:S1:70:LEU:HG	3:S1:84:ILE:HD11	5.09	0.58
5:S3:64:ARG:HG2	5:S3:65:ARG:H	2.44	0.58
10:S8:138:ASN:HA	10:S8:141:ARG:HB2	2.55	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1033:U:H2'	36:1:1034:U:C6	2.39	0.58
36:1:1563:C:O2	36:1:1577:G:N2	2.29	0.58
36:1:1383:G:O6	86:1:3882:OHX:N3	2.37	0.58
36:1:2429:G:OP2	86:1:3987:OHX:N4	2.36	0.58
1:2:580:A:H5"	5:S3:143:ARG:HH12	1.68	0.58
1:2:59:C:H1'	1:2:60:U:C5	2.38	0.58
1:2:641:G:H2'	1:2:642:G:H8	1.68	0.58
36:5:1363:A:OP2	86:5:4194:OHX:N3	2.37	0.58
45:L8:48:ARG:NH2	36:5:2588:U:OP1	183.29	0.58
1:6:1535:U:O2'	1:6:1536:G:O5'	2.21	0.58
1:6:1681:A:H2	1:6:1720:G:H21	1.51	0.58
1:6:5:U:H2'	1:6:6:G:H8	1.69	0.58
1:6:8:U:O2'	86:6:2070:OHX:N2	2.37	0.58
24:D2:104:LEU:HB2	24:D2:125:ILE:HA	1.85	0.58
25:D3:42:PRO:O	25:D3:79:ASN:ND2	3.79	0.58
40:L3:296:THR:HG22	40:L3:297:SER:N	3.50	0.58
41:L4:288:ARG:O	41:L4:291:ASN:N	2.88	0.58
44:L7:178:ILE:HA	44:L7:183:ASP:HB3	1.91	0.58
36:1:412:G:O2'	53:M7:119:VAL:O	2.19	0.58
60:N4:34:SER:HA	60:N4:37:ALA:HB3	1.84	0.58
69:O3:60:ARG:HD2	36:5:3275:U:C4	213.88	0.58
66:O0:58:TYR:OH	70:O4:97:GLU:OE2	2.11	0.58
4:S2:140:ARG:HH12	4:S2:229:LEU:HD11	4.95	0.58
4:S2:152:HIS:HD2	4:S2:153:SER:H	2.68	0.58
7:S5:128:ASN:O	7:S5:131:GLN:N	2.76	0.58
36:1:2503:G:HO2'	36:1:2504:U:H5	1.52	0.58
36:1:3131:U:H2'	36:1:3132:C:C6	2.39	0.58
36:1:3295:A:H2'	36:1:3296:A:C8	2.39	0.58
36:1:562:C:H2'	36:1:563:U:H6	1.69	0.58
1:2:1280:C:H2'	1:2:1281:G:H8	1.69	0.58
1:2:1670:G:N7	86:2:2123:OHX:N5	2.52	0.58
1:2:875:G:H1	1:2:952:A:H61	1.51	0.58
36:5:1070:U:C4	36:5:1071:U:C4	2.92	0.58
42:L5:140:ARG:HD3	36:5:1080:A:OP1	226.07	0.58
55:M9:85:ARG:HH21	36:5:1916:U:H4'	228.42	0.58
59:N3:48:ARG:HH22	36:5:3043:C:P	250.42	0.58
36:5:3164:C:H42	36:5:3286:G:H1	1.52	0.58
1:6:550:A:OP2	86:6:2048:OHX:N2	2.36	0.58
71:O5:83:LYS:HA	38:8:38:U:C5	66.40	0.58
17:C5:33:PHE:O	17:C5:36:LEU:HD22	4.19	0.58
39:L2:144:ASN:ND2	39:L2:161:ASP:OD1	3.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:261:THR:H	42:L5:264:GLN:NE2	3.70	0.58
47:M0:4:ARG:HH11	36:5:2828:G:HO2'	264.29	0.58
48:M1:92:ARG:HH12	48:M1:94:ARG:HD2	6.60	0.58
51:M5:104:GLU:O	51:M5:108:ARG:HG3	2.04	0.58
53:M7:32:THR:HG21	53:M7:87:SER:HB3	1.96	0.58
7:S5:94:THR:O	7:S5:97:LEU:N	2.36	0.58
8:S6:23:ARG:NH2	8:S6:42:GLY:HA2	4.45	0.58
8:S6:92:ARG:O	1:6:405:C:O2'	303.22	0.58
36:1:1445:U:H5"	36:1:1446:A:OP2	2.04	0.58
36:1:2984:C:H2'	36:1:2985:C:H6	1.69	0.58
1:2:1409:G:N2	1:2:1411:A:H3'	2.19	0.58
1:2:277:U:H6	1:2:279:G:H22	1.50	0.58
36:5:1220:U:OP1	36:5:1221:A:O2'	2.17	0.58
36:5:2255:A:OP2	36:5:2261:G:N1	2.30	0.58
36:5:240:U:HO2'	36:5:241:G:H8	1.52	0.58
36:5:299:G:N7	86:5:4184:OHX:N1	2.51	0.58
1:6:1714:A:H2'	1:6:1715:G:O4'	2.04	0.58
1:6:615:A:O2'	1:6:621:A:N1	2.31	0.58
73:O7:59:THR:HG22	38:8:41:A:O2'	91.76	0.58
17:C5:116:LEU:O	17:C5:118:GLU:N	2.84	0.58
22:D0:18:GLN:O	22:D0:96:PRO:HA	2.04	0.58
24:D2:5:SER:HB2	1:6:1101:G:O2'	352.93	0.58
36:1:2828:G:P	47:M0:7:ARG:HH12	2.26	0.58
50:M4:38:ILE:HD13	56:N0:150:PHE:HE2	2.73	0.58
51:M5:124:ASP:OD2	51:M5:126:THR:N	2.32	0.58
51:M5:138:GLN:HA	51:M5:143:ARG:HD2	1.86	0.58
51:M5:96:ARG:CG	51:M5:96:ARG:HH11	2.31	0.58
54:M8:62:VAL:HG13	54:M8:66:ARG:HD3	2.69	0.58
56:N0:2:ALA:HB3	56:N0:32:SER:HB3	1.84	0.58
61:N5:132:ALA:O	61:N5:135:ILE:HG22	3.31	0.58
86:1:4197:OHX:N4	86:O1:201:OHX:N1	2.51	0.58
2:S0:121:VAL:HG23	2:S0:141:ILE:HG21	1.86	0.58
4:S2:128:GLY:O	4:S2:132:ALA:N	2.45	0.58
8:S6:109:LEU:HD13	8:S6:111:LEU:HD21	2.13	0.58
34:SR:52:GLN:HG2	34:SR:53:LYS:HG2	2.58	0.58
1:2:1542:G:N2	1:2:1568:C:H1'	2.18	0.57
1:2:560:U:H2'	1:2:561:G:H8	1.68	0.57
14:C2:88:LEU:HB3	14:C2:140:PHE:HZ	1.66	0.57
28:D6:79:ILE:HA	28:D6:84:VAL:HG11	1.86	0.57
39:L2:65:ASP:HB3	39:L2:68:LYS:O	2.49	0.57
44:L7:123:THR:HA	44:L7:126:LEU:HD12	2.57	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:119:TRP:HZ3	36:5:1126:G:H5"	256.35	0.57
47:M0:24:ARG:HB2	47:M0:24:ARG:HH11	1.69	0.57
49:M3:24:VAL:O	49:M3:26:PHE:N	2.37	0.57
50:M4:113:THR:CG2	50:M4:116:GLU:H	2.60	0.57
54:M8:176:ARG:NH1	64:N8:46:ASP:OD2	2.37	0.57
62:N6:33:ALA:HB2	62:N6:101:PRO:HB2	3.53	0.57
62:N6:35:LEU:HA	62:N6:106:ILE:HB	1.86	0.57
63:N7:70:PRO:HG3	63:N7:115:LYS:HB2	1.86	0.57
74:O8:2:ALA:HA	36:5:1747:G:H21	144.31	0.57
6:S4:147:ILE:HG21	6:S4:169:ILE:HG13	1.99	0.57
36:1:1752:A:OP2	86:1:4048:OHX:N5	2.36	0.57
36:1:2697:A:H2'	36:1:2698:G:H8	1.68	0.57
36:1:2986:U:H2'	36:1:2987:A:H8	1.69	0.57
1:2:1061:A:H2'	1:2:1062:A:H5'	1.85	0.57
36:5:1456:A:H4'	36:5:1457:U:O5'	2.03	0.57
79:Q3:8:VAL:HG22	36:5:1927:G:OP1	245.32	0.57
36:5:277:G:OP1	86:5:3915:OHX:N4	2.37	0.57
18:C6:139:GLN:NE2	1:6:1465:C:OP1	352.48	0.57
1:6:1504:G:H2'	1:6:1505:A:C8	2.39	0.57
1:6:700:C:H2'	1:6:701:U:C6	2.39	0.57
38:8:6:U:H2'	38:8:7:U:H6	1.69	0.57
17:C5:37:ALA:HB1	17:C5:38:PRO:HD2	2.15	0.57
45:L8:45:ASN:ND2	45:L8:47:SER:HB3	2.19	0.57
51:M5:15:GLN:HG3	51:M5:20:ARG:HD3	5.94	0.57
76:Q0:78:ILE:HG12	76:Q0:83:LYS:HD2	1.86	0.57
34:SR:33:LEU:O	34:SR:45:TRP:HD1	1.86	0.57
36:1:2662:G:H2'	36:1:2663:G:C8	2.38	0.57
36:1:3362:A:H2'	36:1:3363:U:O4'	2.05	0.57
1:2:1280:C:H2'	1:2:1281:G:C8	2.38	0.57
1:2:355:G:OP2	86:2:2036:OHX:N4	2.36	0.57
1:2:823:G:O2'	1:2:824:G:O4'	2.18	0.57
1:2:978:A:H2'	1:2:979:A:O4'	2.04	0.57
66:O0:88:GLY:N	36:5:1729:A:OP1	246.19	0.57
27:D5:77:ARG:NH1	1:6:1533:C:OP2	352.78	0.57
1:6:539:G:H8	1:6:539:G:OP2	1.87	0.57
16:C4:88:GLY:H	16:C4:120:PRO:HG2	1.68	0.57
26:D4:52:LYS:O	26:D4:54:ALA:N	2.60	0.57
31:D9:33:LYS:O	31:D9:36:LEU:HB3	2.04	0.57
41:L4:327:LEU:HA	44:L7:166:ASN:ND2	2.19	0.57
53:M7:108:ASP:N	53:M7:152:GLU:OE2	2.35	0.57
55:M9:36:ASN:OD1	55:M9:37:SER:N	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
77:Q1:2:ARG:HB3	77:Q1:5:TRP:CD1	2.63	0.57
2:S0:119:ARG:HH21	4:S2:240:LEU:HD23	1.67	0.57
3:S1:137:ILE:HG13	3:S1:172:LEU:HD13	1.86	0.57
36:1:2206:G:H8	36:1:2206:G:OP2	1.88	0.57
36:1:3187:A:H5'	46:L9:22:SER:HA	1.85	0.57
1:2:1604:U:C4	1:2:1605:G:N7	2.72	0.57
72:O6:74:LYS:NZ	36:5:2224:A:OP1	158.90	0.57
36:5:2509:U:H2'	36:5:2510:U:H5"	1.86	0.57
36:5:3167:A:O5'	36:5:3167:A:H8	1.87	0.57
1:6:190:C:O2'	1:6:191:C:O5'	2.21	0.57
1:6:1662:G:O6	86:6:2061:OHX:N6	2.38	0.57
1:6:591:A:H2'	1:6:592:A:C8	2.39	0.57
1:6:822:U:H2'	1:6:823:G:H5"	1.85	0.57
12:C0:50:THR:HG21	12:C0:57:THR:HB	4.09	0.57
24:D2:8:ALA:HB2	24:D2:74:VAL:HG11	2.64	0.57
26:D4:12:VAL:HG12	1:6:783:G:H8	422.84	0.57
26:D4:87:PRO:HG2	26:D4:90:ARG:CZ	2.34	0.57
20:C8:25:ASN:HB2	27:D5:40:VAL:HG21	1.85	0.57
1:2:1236:A:C1'	33:E1:138:ARG:HH22	2.17	0.57
49:M3:167:PHE:HA	49:M3:170:LEU:HD12	1.87	0.57
59:N3:33:ASN:ND2	59:N3:64:LYS:HB2	2.84	0.57
61:N5:57:LEU:HA	61:N5:61:LYS:HD3	3.78	0.57
65:N9:28:LYS:HB3	65:N9:29:TYR:HD1	1.69	0.57
36:1:1951:C:H5'	36:1:1952:G:OP1	2.04	0.57
36:1:3305:A:H2'	36:1:3306:U:O2	2.05	0.57
36:1:795:G:O6	86:1:3896:OHX:N3	2.38	0.57
36:1:2766:U:O4	86:1:4038:OHX:N2	2.37	0.57
36:1:662:U:OP1	64:N8:8:THR:HG21	2.05	0.57
36:5:2101:C:H2'	36:5:2102:U:C6	2.39	0.57
40:L3:2:SER:HA	36:5:2940:A:N7	238.24	0.57
36:5:283:G:O6	36:5:304:G:H1'	2.04	0.57
36:5:322:U:H5"	36:5:323:A:OP1	2.04	0.57
33:E1:97:LYS:NZ	1:6:1232:U:O4	437.54	0.57
17:C5:43:ARG:O	17:C5:47:ARG:HG3	2.04	0.57
18:C6:67:VAL:HG21	18:C6:85:ILE:HD11	3.30	0.57
59:N3:2:SER:OG	59:N3:3:GLY:N	4.13	0.57
61:N5:38:LEU:HD21	61:N5:40:LEU:HD13	1.85	0.57
62:N6:4:GLN:HB2	36:5:229:G:H5"	69.01	0.57
67:O1:43:HIS:O	67:O1:44:MET:HE2	6.14	0.57
3:S1:167:VAL:HA	3:S1:170:GLU:HB3	1.87	0.57
3:S1:183:GLN:O	3:S1:187:LYS:N	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:45:ILE:HA	6:S4:61:VAL:HG11	1.97	0.57
36:1:1785:U:H2'	36:1:1786:G:C8	2.39	0.57
36:1:2261:G:H21	36:1:2262:A:N6	2.03	0.57
36:1:2681:U:OP2	48:M1:51:ARG:NH2	2.37	0.57
36:1:391:A:OP2	86:1:4146:OHX:N1	2.38	0.57
1:2:1236:A:O4'	33:E1:138:ARG:NH2	2.29	0.57
1:2:93:A:H4'	1:2:94:U:OP2	2.04	0.57
55:M9:20:ARG:HD2	36:5:1874:A:OP2	141.59	0.57
39:L2:224:THR:HG21	36:5:2201:G:H21	222.64	0.57
36:5:2416:U:O4	86:5:4168:OHX:N5	2.37	0.57
36:5:3309:G:H2'	36:5:3310:A:O5'	2.04	0.57
36:5:2821:C:N3	88:5:4246:3J6:H13	2.20	0.57
36:5:439:C:H4'	36:5:440:A:H5'	1.86	0.57
36:5:499:G:H2'	36:5:500:C:C6	2.40	0.57
1:6:1392:U:H2'	1:6:1393:C:C6	2.40	0.57
1:6:702:G:N7	86:6:2097:OHX:N4	2.52	0.57
12:C0:46:LEU:HA	12:C0:49:LEU:HB2	2.10	0.57
13:C1:97:TYR:CE2	25:D3:16:ARG:HB3	2.39	0.57
41:L4:128:ALA:O	41:L4:131:VAL:HG23	3.97	0.57
49:M3:153:ASP:OD1	49:M3:157:ARG:NH2	2.37	0.57
36:1:1051:U:H4'	57:N1:19:PHE:CD2	2.40	0.57
2:S0:120:LEU:HD11	2:S0:144:ILE:HG13	1.84	0.57
7:S5:121:ILE:HG23	7:S5:199:ILE:HG12	1.86	0.57
9:S7:132:PRO:O	9:S7:133:THR:OG1	4.51	0.57
11:S9:125:ALA:O	11:S9:129:ILE:HG13	2.08	0.57
36:1:499:G:H2'	36:1:500:C:C6	2.38	0.57
36:1:521:A:N3	56:N0:65:ASN:ND2	2.52	0.57
1:2:1785:U:OP2	16:C4:133:ARG:NH2	2.38	0.57
1:2:883:C:H2'	1:2:884:A:C8	2.39	0.57
36:5:277:G:H2'	36:5:278:U:H6	1.68	0.57
36:5:662:U:H2'	36:5:663:C:C6	2.39	0.57
1:6:823:G:H2'	1:6:824:G:O4'	2.04	0.57
1:2:1183:A:N1	17:C5:99:GLY:HA3	2.20	0.57
1:2:311:U:OP2	25:D3:20:ARG:HD2	2.04	0.57
40:L3:92:TYR:OH	40:L3:180:GLU:OE1	2.17	0.57
40:L3:284:ARG:NH1	40:L3:356:LEU:HD12	2.19	0.57
41:L4:191:LYS:HG3	41:L4:194:TYR:CE2	4.02	0.57
41:L4:31:ARG:HG3	41:L4:120:TYR:CE1	2.81	0.57
45:L8:238:LEU:HB2	45:L8:243:GLN:HG2	1.85	0.57
45:L8:75:ILE:HG22	45:L8:76:ALA:H	1.69	0.57
50:M4:115:PHE:O	50:M4:119:GLN:HG3	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:23:TRP:CZ2	55:M9:25:ASP:HB3	2.39	0.57
56:N0:20:PRO:O	56:N0:21:GLU:HB3	3.76	0.57
64:N8:16:SER:HA	36:5:942:U:N3	169.45	0.57
67:O1:74:ARG:NH1	67:O1:109:VAL:HG21	2.20	0.57
10:S8:103:GLN:HG2	10:S8:164:ARG:HB3	1.86	0.57
36:1:1132:C:H2'	36:1:1133:A:H8	1.69	0.57
36:1:1740:U:H1'	36:1:1741:A:C2	2.40	0.57
36:1:2767:U:OP2	86:1:4133:OHX:N2	2.37	0.57
1:2:1226:A:O2'	1:2:1227:A:OP1	2.22	0.57
1:2:1291:G:H22	1:2:1324:G:H1	1.53	0.57
36:5:2705:A:OP2	86:5:3893:OHX:N2	2.37	0.57
44:L7:217:PRO:O	86:5:3996:OHX:N6	258.90	0.57
36:5:583:G:O6	86:5:4015:OHX:N1	2.37	0.57
43:L6:24:ALA:N	36:5:607:A:OP1	245.88	0.57
1:6:218:A:H61	1:6:829:A:H2	1.51	0.57
26:D4:10:ARG:NH1	1:6:778:G:O6	429.63	0.57
38:8:80:A:H2	38:8:83:C:H41	1.53	0.57
1:2:916:U:H3	16:C4:41:ARG:NH2	2.03	0.57
2:S0:59:LEU:HD12	23:D1:79:LEU:HD11	2.45	0.57
25:D3:43:PHE:CE1	25:D3:49:ALA:HB3	2.40	0.57
40:L3:274:SER:OG	36:5:3139:A:OP1	228.34	0.57
45:L8:180:VAL:HG11	45:L8:186:LEU:HD21	2.58	0.57
59:N3:21:ALA:HB3	59:N3:36:ILE:HD12	1.87	0.57
49:M3:177:LYS:HB2	72:O6:11:LEU:HD13	1.85	0.57
49:M3:104:ARG:C	72:O6:20:MET:HB2	2.25	0.57
79:Q3:8:VAL:O	79:Q3:11:THR:HB	2.05	0.57
3:S1:129:THR:OG1	3:S1:131:ASP:OD1	6.41	0.57
6:S4:161:LYS:HB3	6:S4:170:THR:O	4.40	0.57
34:SR:193:ILE:HD12	34:SR:193:ILE:H	4.48	0.57
36:1:160:G:O6	86:1:4194:OHX:N6	2.38	0.57
1:2:1236:A:H1'	33:E1:138:ARG:HH12	1.70	0.57
42:L5:46:THR:HG21	36:5:1078:U:H4'	236.88	0.57
56:N0:108:GLN:NE2	36:5:1322:U:O2	292.54	0.57
53:M7:25:SER:OG	36:5:1447:G:N7	150.16	0.57
39:L2:8:GLN:HA	36:5:2163:C:H4'	183.80	0.57
36:5:2694:A:C6	36:5:2695:A:C6	2.93	0.57
17:C5:122:THR:O	1:6:1183:A:N6	363.22	0.57
1:6:848:C:H2'	1:6:849:C:C6	2.40	0.57
1:2:937:C:N4	28:D6:14:GLY:O	2.37	0.57
39:L2:144:ASN:O	39:L2:160:SER:N	2.36	0.57
41:L4:64:SER:HA	41:L4:75:PRO:HA	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:84:ARG:O	41:L4:87:GLN:HG3	2.04	0.57
42:L5:40:HIS:CD2	42:L5:42:ALA:HB3	2.40	0.57
48:M1:48:SER:N	48:M1:66:ALA:O	3.15	0.57
56:N0:155:ARG:NH1	36:5:3206:C:O2	310.73	0.57
36:1:3276:G:H1	69:O3:60:ARG:HH12	1.53	0.57
49:M3:94:GLY:HA3	71:O5:116:TYR:OH	2.05	0.57
71:O5:86:ARG:O	71:O5:90:ARG:NE	2.38	0.57
78:Q2:35:LEU:HD23	78:Q2:35:LEU:H	1.69	0.57
5:S3:116:ARG:HG2	5:S3:152:PHE:HE1	3.26	0.57
6:S4:170:THR:O	6:S4:170:THR:OG1	3.16	0.57
7:S5:216:GLU:OE2	7:S5:219:ARG:HD3	3.21	0.57
7:S5:42:LEU:HB2	7:S5:46:TRP:O	2.05	0.57
7:S5:62:VAL:HG13	7:S5:89:ILE:HG12	2.22	0.57
7:S5:91:GLU:HG2	7:S5:95:ASN:ND2	2.20	0.57
9:S7:147:ASN:OD1	9:S7:147:ASN:N	2.37	0.57
11:S9:60:LEU:HG	11:S9:93:LEU:HD11	1.87	0.57
11:S9:69:ARG:O	11:S9:73:GLY:N	3.02	0.57
36:1:1237:G:N7	36:1:1263:A:O2'	2.32	0.57
36:1:2535:A:N6	36:1:2544:U:H3	2.01	0.57
36:1:2734:A:OP1	86:1:4007:OHX:N3	2.37	0.57
36:1:3389:U:O2'	36:1:3390:G:OP2	2.22	0.57
36:1:338:A:N7	41:L4:47:ARG:HD2	2.19	0.57
36:1:3301:U:O4	86:1:3898:OHX:N2	2.38	0.57
1:2:1267:G:HO2'	1:2:1448:G:HO2'	1.43	0.57
1:2:1338:C:N3	1:2:1387:G:N2	2.53	0.57
1:2:520:A:H2'	1:2:521:A:C8	2.40	0.57
1:2:68:A:H5"	8:S6:162:VAL:HG21	1.85	0.57
1:2:75:U:H2'	1:2:76:A:O4'	2.05	0.57
68:O2:59:SER:OG	36:5:1405:U:OP2	184.97	0.57
36:5:955:U:H2'	36:5:956:U:H6	1.67	0.57
1:6:1398:U:H4'	1:6:1399:C:OP2	2.04	0.57
1:6:1491:U:H4'	1:6:1492:A:H5"	1.86	0.57
71:O5:83:LYS:HA	38:8:38:U:H5	65.57	0.57
13:C1:112:SER:O	13:C1:114:ALA:N	2.64	0.57
24:D2:47:ILE:HG22	24:D2:65:LEU:HD12	4.52	0.57
32:E0:13:LYS:O	32:E0:16:SER:OG	3.20	0.57
42:L5:290:ILE:O	42:L5:294:ALA:N	3.75	0.57
53:M7:29:THR:HG22	53:M7:87:SER:OG	2.05	0.57
56:N0:46:GLN:HG2	56:N0:51:VAL:O	2.12	0.57
57:N1:111:ALA:O	57:N1:115:LYS:HG3	3.11	0.57
57:N1:157:GLU:HB3	57:N1:159:PHE:CE1	2.98	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:82:ILE:CG2	64:N8:87:ARG:HG3	3.42	0.57
86:1:4197:OHX:N6	86:O1:201:OHX:N3	2.53	0.57
73:O7:76:ASN:O	73:O7:79:GLN:HG3	2.22	0.57
6:S4:73:ASP:OD2	6:S4:122:LYS:NZ	2.37	0.57
10:S8:25:ARG:O	10:S8:28:GLU:HG2	2.63	0.57
10:S8:84:HIS:HE1	10:S8:86:SER:HB2	1.69	0.57
36:1:1524:A:O2'	36:1:1526:U:OP2	2.22	0.56
36:1:1119:C:OP2	86:1:3955:OHX:N1	2.38	0.56
36:1:3191:G:O6	86:1:4128:OHX:N3	2.38	0.56
1:2:1172:G:H4'	1:2:1569:A:H2	1.69	0.56
36:5:1081:U:O2'	36:5:1082:U:O5'	2.17	0.56
36:5:1661:G:N7	86:5:3913:OHX:N5	2.53	0.56
1:6:17:C:H2'	1:6:18:C:C6	2.40	0.56
1:6:848:C:H2'	1:6:849:C:H6	1.70	0.56
16:C4:20:TYR:HB3	16:C4:27:PHE:HB2	1.86	0.56
19:C7:105:GLN:CD	19:C7:105:GLN:H	2.09	0.56
19:C7:33:ARG:NH2	34:SR:109:ASP:OD1	2.37	0.56
20:C8:49:LYS:NZ	20:C8:80:LYS:O	2.32	0.56
21:C9:39:THR:HA	21:C9:100:ILE:HD12	1.95	0.56
25:D3:125:VAL:HG12	25:D3:126:LYS:HG3	2.71	0.56
31:D9:4:GLU:N	31:D9:4:GLU:OE1	4.96	0.56
43:L6:80:ASN:O	43:L6:82:ARG:N	2.37	0.56
49:M3:64:LYS:HG3	64:N8:69:TRP:CG	2.41	0.56
58:N2:19:VAL:HG12	58:N2:105:LEU:HD22	4.35	0.56
59:N3:48:ARG:NH2	36:5:3043:C:OP2	251.20	0.56
64:N8:120:ASN:O	64:N8:141:ALA:HB1	2.65	0.56
66:O0:27:TYR:O	66:O0:31:VAL:HG23	2.05	0.56
70:O4:104:VAL:HA	70:O4:107:GLU:HB2	2.01	0.56
5:S3:40:ARG:HB2	5:S3:47:GLU:HB2	1.86	0.56
7:S5:195:ALA:O	7:S5:199:ILE:HG13	2.29	0.56
7:S5:90:ILE:O	7:S5:94:THR:HG23	2.36	0.56
11:S9:141:VAL:HG11	11:S9:146:PHE:CD2	2.71	0.56
34:SR:112:SER:HB2	34:SR:153:GLN:HA	1.87	0.56
36:1:1636:U:H5"	63:N7:73:LYS:NZ	2.21	0.56
36:1:1887:A:OP2	86:1:3894:OHX:N4	2.37	0.56
1:2:248:U:OP1	86:2:2093:OHX:N6	2.37	0.56
1:2:336:G:N2	10:S8:7:SER:HB2	2.20	0.56
1:2:932:U:H4'	1:2:933:A:O4'	2.05	0.56
53:M7:127:ARG:NH2	36:5:1508:C:OP1	137.95	0.56
36:5:2256:A:H2'	36:5:2256:A:OP2	2.05	0.56
36:5:549:U:H2'	36:5:550:A:H8	1.68	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:8:218:OHX:N2	86:8:226:OHX:N1	2.53	0.56
16:C4:117:ASP:OD1	16:C4:118:VAL:N	2.37	0.56
18:C6:14:LYS:O	18:C6:123:ARG:NH2	2.38	0.56
1:2:1101:G:O3'	24:D2:76:SER:HB2	2.04	0.56
29:D7:56:CYS:SG	29:D7:57:GLU:N	2.78	0.56
33:E1:103:LEU:HD23	33:E1:105:TYR:CD2	3.97	0.56
40:L3:286:GLY:HA3	40:L3:321:PHE:CE2	2.40	0.56
40:L3:88:GLY:O	40:L3:161:LEU:N	2.46	0.56
48:M1:166:LYS:O	48:M1:168:ASP:N	4.57	0.56
51:M5:57:GLN:HB3	51:M5:139:HIS:CE1	3.91	0.56
53:M7:116:HIS:NE2	53:M7:147:GLU:OE2	2.64	0.56
54:M8:165:ILE:HD12	54:M8:167:SER:O	5.00	0.56
54:M8:176:ARG:HG3	36:5:2763:U:H5'	181.60	0.56
59:N3:13:ILE:HG12	59:N3:53:SER:HB2	1.88	0.56
63:N7:136:PHE:HD2	70:O4:89:ILE:HG12	1.70	0.56
69:O3:35:VAL:HG13	69:O3:40:ASP:HB3	1.88	0.56
71:O5:15:GLU:HA	71:O5:18:ALA:HB3	2.55	0.56
2:S0:143:VAL:HB	2:S0:156:VAL:HA	1.86	0.56
3:S1:157:GLN:HB2	3:S1:160:HIS:ND1	2.19	0.56
5:S3:162:GLN:HE22	5:S3:165:ASN:HB2	1.71	0.56
7:S5:76:ARG:HG3	7:S5:79:ASN:HD21	1.70	0.56
9:S7:49:ILE:HG13	9:S7:57:ALA:HB3	2.81	0.56
11:S9:38:ASN:HB3	11:S9:40:LYS:H	1.68	0.56
36:1:1093:A:N3	36:1:1096:U:N3	2.53	0.56
1:2:1445:G:C5	33:E1:91:ILE:HB	2.39	0.56
1:2:488:G:N2	1:2:500:C:O2	2.38	0.56
38:4:45:C:H2'	38:4:46:G:O4'	2.05	0.56
36:5:1807:G:C6	36:5:1808:G:N1	2.73	0.56
36:5:2209:U:H4'	36:5:2210:G:OP1	2.05	0.56
14:C2:56:GLU:OE1	14:C2:124:LYS:NZ	3.49	0.56
23:D1:9:VAL:O	23:D1:10:GLU:HB3	2.64	0.56
26:D4:124:ARG:O	26:D4:127:LYS:HG3	2.05	0.56
31:D9:5:ASN:CG	31:D9:7:TRP:HE1	2.08	0.56
39:L2:133:TYR:HB3	39:L2:168:VAL:HG12	1.86	0.56
40:L3:187:SER:O	40:L3:190:GLU:N	2.34	0.56
40:L3:60:LEU:HD23	40:L3:67:PHE:HB3	2.24	0.56
41:L4:179:LEU:O	41:L4:183:LYS:HG2	2.06	0.56
44:L7:27:ALA:O	44:L7:30:ARG:HB3	2.06	0.56
45:L8:240:ASN:N	45:L8:240:ASN:OD1	2.38	0.56
46:L9:122:LYS:HD3	46:L9:123:ILE:H	4.77	0.56
46:L9:120:ASP:OD1	46:L9:124:ARG:NH2	2.54	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:38:ALA:O	52:M6:41:LEU:HB2	2.05	0.56
54:M8:83:VAL:O	54:M8:85:GLY:N	2.87	0.56
55:M9:35:ALA:HB1	55:M9:41:ILE:HD12	1.88	0.56
56:N0:26:ARG:HH22	56:N0:28:ARG:HD2	1.69	0.56
64:N8:100:PRO:HG2	64:N8:123:VAL:HG13	3.69	0.56
64:N8:14:HIS:ND1	68:O2:36:LYS:HE2	2.81	0.56
70:O4:46:ASP:OD2	70:O4:80:ARG:HD2	3.37	0.56
3:S1:146:GLN:HB3	3:S1:149:GLN:NE2	2.20	0.56
36:1:2298:U:O4	36:1:2923:U:H5	1.87	0.56
36:1:2789:U:H2'	36:1:2790:A:H8	1.70	0.56
36:1:2818:U:C6	36:1:2818:U:H5'	2.31	0.56
36:1:402:A:C6	53:M7:21:TYR:CE2	2.93	0.56
36:1:86:G:O2'	49:M3:11:LYS:HD3	2.06	0.56
1:2:1165:G:C6	1:2:1166:A:C6	2.93	0.56
1:2:1783:C:H2'	1:2:1784:C:H6	1.69	0.56
37:3:39:C:N3	48:M1:70:THR:HG23	2.19	0.56
77:Q1:15:ARG:NH1	1:6:1126:G:OP1	281.15	0.56
1:6:1561:U:H2'	1:6:1562:G:C8	2.39	0.56
1:6:1688:U:H3	1:6:1713:G:H1	1.51	0.56
1:6:1370:U:O4	86:6:2141:OHX:N6	2.38	0.56
1:6:846:G:H2'	1:6:847:A:C8	2.40	0.56
38:8:16:G:O6	86:8:217:OHX:N6	2.39	0.56
15:C3:109:LYS:HZ2	15:C3:109:LYS:HB3	1.69	0.56
40:L3:178:LEU:HD12	40:L3:179:ALA:N	2.20	0.56
40:L3:296:THR:HG22	40:L3:298:PHE:H	2.95	0.56
42:L5:132:THR:OG1	42:L5:132:THR:O	3.31	0.56
42:L5:151:GLN:HE21	42:L5:152:ARG:N	4.97	0.56
46:L9:53:ILE:HD13	50:M4:7:VAL:HG21	1.87	0.56
49:M3:140:SER:OG	49:M3:143:ALA:N	2.59	0.56
54:M8:185:LYS:HD3	54:M8:186:VAL:HG23	2.10	0.56
62:N6:120:GLN:CD	62:N6:126:LEU:HA	8.51	0.56
62:N6:58:VAL:O	62:N6:65:GLY:N	2.73	0.56
63:N7:10:VAL:HB	63:N7:83:THR:HG21	1.86	0.56
64:N8:21:ARG:H	64:N8:22:ILE:HD12	3.08	0.56
64:N8:74:ASN:HB2	64:N8:76:ASP:HB2	2.74	0.56
67:O1:55:LEU:O	67:O1:58:ALA:HB3	2.31	0.56
2:S0:41:ARG:NH1	2:S0:45:VAL:HG21	3.61	0.56
6:S4:102:VAL:HG23	6:S4:182:TYR:CE1	2.39	0.56
10:S8:87:ASN:OD1	10:S8:88:ASN:N	2.39	0.56
4:S2:121:VAL:HG11	35:SM:117:LEU:HB2	1.87	0.56
36:1:192:C:H2'	36:1:193:C:C6	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3060:C:H1'	36:1:3332:U:H1'	1.86	0.56
1:2:1:U:C4	11:S9:54:ARG:HG3	2.41	0.56
1:2:99:C:O2	1:2:100:A:N6	2.33	0.56
36:5:3195:U:H1'	36:5:3196:U:OP1	2.05	0.56
36:5:897:U:H2'	36:5:898:U:C6	2.41	0.56
1:6:151:G:N2	1:6:163:G:N2	2.53	0.56
1:6:711:U:H5'	1:6:712:G:OP2	2.05	0.56
17:C5:24:LYS:O	17:C5:28:MET:HB2	2.05	0.56
18:C6:38:LEU:O	18:C6:40:GLU:N	2.74	0.56
18:C6:83:GLN:HG2	18:C6:116:LEU:O	2.87	0.56
23:D1:5:LYS:O	23:D1:7:GLN:N	3.17	0.56
24:D2:104:LEU:HD23	24:D2:125:ILE:HA	5.18	0.56
29:D7:47:PHE:HE1	29:D7:49:HIS:HB2	1.69	0.56
31:D9:43:PHE:O	31:D9:47:ALA:N	2.39	0.56
36:1:2415:C:OP1	39:L2:2:GLY:HA2	2.05	0.56
40:L3:252:ILE:HD12	40:L3:264:VAL:HG21	2.32	0.56
40:L3:305:ILE:HG12	40:L3:321:PHE:CZ	2.40	0.56
45:L8:78:PHE:O	45:L8:80:TYR:N	2.34	0.56
47:M0:19:LYS:HG3	47:M0:26:VAL:CG1	2.69	0.56
48:M1:132:ASN:HD22	48:M1:132:ASN:N	4.53	0.56
56:N0:96:ASP:OD1	56:N0:97:VAL:HG12	2.05	0.56
61:N5:91:ASN:OD1	61:N5:94:GLN:HG3	2.06	0.56
66:O0:24:THR:CG2	66:O0:91:SER:HB3	2.55	0.56
70:O4:80:ARG:HG3	70:O4:88:ARG:HH21	2.35	0.56
72:O6:45:ARG:HH21	72:O6:50:LEU:HA	3.31	0.56
76:Q0:99:CYS:HB3	76:Q0:114:LYS:HD3	2.32	0.56
2:S0:53:THR:HA	2:S0:161:PRO:HG2	2.12	0.56
3:S1:28:GLU:OE2	3:S1:94:LYS:NZ	2.38	0.56
4:S2:40:LYS:HA	4:S2:43:ARG:NH1	2.20	0.56
6:S4:79:ASP:OD1	6:S4:82:TYR:N	2.39	0.56
7:S5:30:PRO:O	7:S5:33:VAL:HB	2.05	0.56
36:1:3055:U:H1'	36:1:3057:U:OP2	2.06	0.56
1:2:1079:U:H2'	1:2:1080:U:C6	2.40	0.56
1:2:264:G:O2'	8:S6:194:LYS:NZ	2.33	0.56
1:2:891:A:H2'	1:2:892:A:C8	2.40	0.56
50:M4:106:ARG:HD3	36:5:3209:A:C8	293.55	0.56
33:E1:97:LYS:HE2	1:6:1231:U:C5	438.50	0.56
1:6:1354:G:H5'	1:6:1355:C:OP2	2.05	0.56
1:6:845:G:H2'	1:6:846:G:C8	2.40	0.56
24:D2:27:ILE:HG12	24:D2:61:ILE:HB	1.86	0.56
39:L2:245:LEU:O	39:L2:247:ARG:N	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:139:GLN:O	40:L3:141:GLY:N	2.36	0.56
41:L4:48:GLN:HG3	36:5:337:G:H4'	97.90	0.56
43:L6:38:THR:HA	43:L6:90:LYS:HG3	1.88	0.56
46:L9:90:MET:HG2	46:L9:181:VAL:HG22	1.87	0.56
46:L9:91:ARG:NH2	46:L9:140:VAL:HG12	5.21	0.56
51:M5:63:ARG:NH2	51:M5:131:GLU:OE2	2.46	0.56
57:N1:131:GLN:HG3	57:N1:132:PRO:HD2	1.88	0.56
63:N7:54:THR:OG1	63:N7:55:LYS:N	2.36	0.56
72:O6:54:GLU:OE2	72:O6:86:LYS:NZ	2.38	0.56
78:Q2:59:HIS:O	78:Q2:61:LYS:N	2.74	0.56
2:S0:148:ASP:OD1	2:S0:149:LEU:N	2.98	0.56
2:S0:195:TRP:CE2	2:S0:197:ILE:HB	2.52	0.56
1:2:209:U:H5'	10:S8:171:SER:HB3	1.86	0.56
34:SR:133:VAL:O	34:SR:141:LEU:N	2.56	0.56
36:1:1605:A:O2'	36:1:1607:U:OP2	2.16	0.56
36:1:2320:A:H2	79:Q3:16:VAL:HG12	1.70	0.56
36:1:789:A:H2'	36:1:790:U:C6	2.41	0.56
1:2:1171:A:H2'	1:2:1172:G:C8	2.41	0.56
1:2:322:G:O2'	10:S8:10:LYS:NZ	2.36	0.56
36:5:1564:U:H2'	36:5:1565:G:H8	1.69	0.56
36:5:2166:A:H2'	36:5:2167:A:C8	2.40	0.56
36:5:181:U:H1'	36:5:236:G:H22	1.70	0.56
36:5:2970:C:H4'	36:5:2971:A:C6	2.41	0.56
1:6:428:A:N3	1:6:440:U:O2'	2.33	0.56
25:D3:109:ARG:HB3	25:D3:112:LYS:HB2	1.88	0.56
26:D4:111:LYS:NZ	26:D4:115:ASP:OD2	8.55	0.56
26:D4:36:SER:O	26:D4:40:LEU:HG	2.06	0.56
40:L3:21:ARG:HG2	40:L3:269:GLN:HG2	1.87	0.56
40:L3:299:ASP:O	40:L3:300:ARG:HB2	2.05	0.56
41:L4:44:LYS:HB3	41:L4:47:ARG:NH1	2.99	0.56
42:L5:40:HIS:HB3	42:L5:43:LYS:HG3	1.88	0.56
46:L9:173:ARG:NH2	36:5:2898:G:OP2	330.16	0.56
36:1:2680:A:C2	48:M1:24:GLY:HA2	2.41	0.56
48:M1:81:GLU:HA	48:M1:84:LEU:HB2	1.87	0.56
49:M3:55:ARG:O	49:M3:115:ARG:NH2	3.73	0.56
53:M7:172:GLN:NE2	69:O3:60:ARG:O	2.38	0.56
41:L4:302:ALA:HB2	54:M8:39:ARG:CZ	2.36	0.56
57:N1:9:SER:O	57:N1:11:THR:HG23	2.07	0.56
67:O1:76:SER:HB2	67:O1:78:LYS:HE3	1.86	0.56
70:O4:85:VAL:O	70:O4:89:ILE:HG13	2.24	0.56
8:S6:73:ILE:HD11	8:S6:75:LEU:HD21	2.80	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:481:A:H61	1:2:505:A:H62	1.51	0.56
36:5:2248:C:OP2	86:5:3971:OHX:N6	2.39	0.56
36:5:847:A:H2'	36:5:848:A:C8	2.41	0.56
1:6:404:G:H2'	1:6:405:C:H6	1.71	0.56
61:N5:56:ARG:HG2	38:8:134:G:OP1	78.36	0.56
86:8:218:OHX:N6	86:8:226:OHX:N3	2.54	0.56
1:2:780:A:C8	26:D4:8:ARG:HB3	2.40	0.56
29:D7:50:ALA:O	29:D7:52:THR:N	2.38	0.56
40:L3:303:LYS:HD2	40:L3:361:THR:HG21	1.87	0.56
36:1:505:G:OP1	41:L4:320:ASN:ND2	2.33	0.56
42:L5:278:SER:C	42:L5:280:GLU:H	3.14	0.56
43:L6:131:LYS:HE2	43:L6:131:LYS:HA	5.06	0.56
44:L7:229:PHE:CD1	44:L7:229:PHE:C	3.01	0.56
49:M3:57:VAL:HG22	49:M3:147:ILE:HD13	1.88	0.56
46:L9:1:MET:SD	56:N0:138:GLN:HG2	2.46	0.56
58:N2:21:SER:HA	58:N2:24:GLU:HG2	1.86	0.56
58:N2:36:TYR:OH	58:N2:82:LYS:HG2	2.05	0.56
59:N3:48:ARG:HG3	59:N3:48:ARG:NH1	2.41	0.56
59:N3:66:LYS:HB3	59:N3:68:GLU:OE1	2.06	0.56
78:Q2:43:TYR:CZ	78:Q2:47:GLN:NE2	2.74	0.56
3:S1:125:VAL:HG11	3:S1:173:THR:HG23	2.18	0.56
4:S2:143:TYR:OH	4:S2:150:GLN:N	2.39	0.56
7:S5:92:ARG:HG2	7:S5:92:ARG:HH11	2.54	0.56
11:S9:107:ARG:NH1	11:S9:112:GLN:OE1	2.39	0.56
11:S9:42:ILE:O	11:S9:46:SER:OG	2.24	0.56
36:1:129:U:OP1	61:N5:45:LYS:NZ	2.39	0.56
36:1:820:A:OP1	86:1:3942:OHX:N5	2.39	0.56
36:1:955:U:H2'	36:1:956:U:C6	2.40	0.56
1:2:1488:G:H5'	1:2:1489:U:OP1	2.06	0.56
1:2:38:C:H2'	1:2:39:A:H5'	1.88	0.56
36:5:1641:U:O2'	36:5:1642:A:H3'	2.05	0.56
55:M9:125:LYS:NZ	36:5:1720:U:O4	240.44	0.56
36:5:1927:G:N2	36:5:1928:G:C8	2.73	0.56
36:5:36:C:H2'	36:5:37:U:H5'	1.88	0.56
1:6:1119:G:O6	86:6:2175:OHX:N2	2.38	0.56
1:6:188:A:H2'	1:6:189:C:O4'	2.06	0.56
1:6:914:G:H5'	1:6:914:G:H8	1.71	0.56
12:C0:56:LYS:N	12:C0:67:THR:O	2.83	0.56
15:C3:66:ILE:HG13	15:C3:67:THR:HG23	2.27	0.56
18:C6:31:VAL:HG13	18:C6:67:VAL:HB	1.86	0.56
51:M5:168:GLY:O	51:M5:172:ARG:HB2	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:84:PRO:HA	51:M5:87:GLN:HB2	2.01	0.56
72:O6:30:LYS:HD3	36:5:316:U:O2'	103.18	0.56
5:S3:116:ARG:NH2	35:SM:111:GLY:O	2.39	0.56
1:2:1277:G:H5'	5:S3:140:GLY:HA2	1.87	0.56
7:S5:145:ASP:CG	7:S5:146:THR:H	2.08	0.56
8:S6:114:VAL:HG12	8:S6:115:LYS:HD2	1.88	0.56
9:S7:158:ASP:O	9:S7:160:GLN:N	2.39	0.56
34:SR:90:ARG:HH21	34:SR:102:ARG:HE	2.82	0.56
34:SR:22:SER:OG	34:SR:70:ASP:HA	2.96	0.56
36:1:185:C:H2'	36:1:186:U:H6	1.71	0.56
36:1:3136:G:OP2	86:1:4099:OHX:N6	2.39	0.56
36:1:502:U:OP1	86:1:3869:OHX:N3	2.39	0.56
36:1:733:G:O6	86:1:4066:OHX:N2	2.39	0.56
1:2:1576:A:H2'	1:2:1577:A:O4'	2.05	0.56
38:4:21:C:H5"	41:L4:194:TYR:HE1	1.69	0.56
36:5:1088:U:H2'	36:5:1089:G:H8	1.71	0.56
36:5:1335:C:H2'	36:5:1336:U:C6	2.41	0.56
36:5:2339:C:O5'	36:5:2339:C:H6	1.89	0.56
36:5:324:A:H8	36:5:324:A:O5'	1.89	0.56
36:5:712:G:H2'	36:5:713:U:C6	2.40	0.56
36:5:835:G:N2	36:5:857:G:O2'	2.39	0.56
36:5:900:G:H1'	36:5:1589:A:N6	2.21	0.56
1:6:1244:A:N3	1:6:1244:A:H3'	2.21	0.56
1:6:1267:G:H2'	1:6:1268:G:C8	2.41	0.56
1:6:1482:C:OP2	1:6:1521:G:N1	2.39	0.56
1:6:978:A:O2'	1:6:1787:C:O2	2.23	0.56
1:6:219:A:H2'	1:6:831:U:O2	2.06	0.56
1:6:887:A:H2'	1:6:888:U:C6	2.41	0.56
37:7:57:G:H3'	37:7:58:C:H6	1.69	0.56
14:C2:36:LEU:HG	14:C2:41:LEU:HD12	2.40	0.56
15:C3:36:GLN:HA	15:C3:39:LYS:HB3	3.62	0.56
20:C8:30:TYR:O	20:C8:33:THR:OG1	2.73	0.56
1:2:780:A:H8	26:D4:8:ARG:HB3	1.71	0.56
27:D5:85:LYS:HG3	27:D5:86:GLU:N	2.20	0.56
39:L2:188:LYS:HD3	39:L2:189:TYR:CZ	2.98	0.56
42:L5:251:PRO:O	42:L5:253:PHE:N	2.38	0.56
43:L6:26:ARG:HB3	43:L6:27:PRO:HD2	1.87	0.56
51:M5:21:PHE:HD2	51:M5:22:LEU:HD12	4.26	0.56
58:N2:14:THR:HG23	58:N2:66:VAL:HG13	3.52	0.56
62:N6:37:LYS:CD	62:N6:37:LYS:H	2.33	0.56
67:O1:23:VAL:O	67:O1:28:ARG:NH1	2.98	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:95:ILE:O	70:O4:99:LYS:HB2	2.06	0.56
2:S0:140:ASN:ND2	23:D1:29:HIS:HA	2.21	0.56
8:S6:49:VAL:HB	8:S6:115:LYS:HG2	4.42	0.56
10:S8:76:THR:HG22	10:S8:108:PRO:HG2	1.88	0.56
11:S9:79:ARG:HH12	1:6:762:A:P	406.85	0.56
34:SR:218:GLY:HA2	34:SR:240:VAL:HG23	2.87	0.56
1:2:839:U:H2'	1:2:840:U:H5'	1.86	0.56
1:2:968:U:O3'	1:2:1032:G:N2	2.39	0.56
36:5:314:U:H2'	36:5:315:C:C6	2.41	0.56
36:5:231:G:O6	86:5:4127:OHX:N4	2.39	0.56
36:5:811:U:H2'	36:5:812:G:C8	2.41	0.56
1:6:1405:G:H2'	1:6:1406:A:H8	1.71	0.56
1:6:1122:G:O6	86:6:2160:OHX:N6	2.39	0.56
1:6:1041:G:OP1	86:6:2174:OHX:N4	2.39	0.56
1:6:407:A:H2'	1:6:408:C:C6	2.40	0.56
1:6:811:A:C2	1:6:858:G:H1'	2.41	0.56
13:C1:101:GLU:OE1	13:C1:103:ARG:NH2	2.97	0.56
1:2:1584:G:C8	18:C6:122:ARG:HD2	2.41	0.56
18:C6:55:VAL:HG21	18:C6:105:LEU:HG	1.87	0.56
26:D4:2:SER:N	26:D4:32:ARG:HD2	2.99	0.56
41:L4:302:ALA:HB2	54:M8:39:ARG:NH2	2.21	0.56
37:3:49:G:N7	42:L5:58:LYS:HG3	2.21	0.56
44:L7:92:ILE:HD11	54:M8:4:ASP:H	1.71	0.56
46:L9:9:GLN:HB3	46:L9:52:LEU:HD21	3.47	0.56
58:N2:51:GLY:O	58:N2:52:ASN:ND2	2.29	0.56
60:N4:13:ILE:HG12	60:N4:32:GLN:HB2	2.70	0.56
61:N5:137:ASN:HB3	61:N5:142:ILE:HG12	1.87	0.56
68:O2:123:LYS:HA	68:O2:126:LEU:HG	2.53	0.56
74:O8:70:PRO:C	74:O8:72:THR:H	2.29	0.56
3:S1:193:ILE:O	3:S1:197:ILE:HG12	2.06	0.56
3:S1:62:LYS:O	3:S1:88:VAL:HB	2.06	0.56
6:S4:136:VAL:HG11	6:S4:148:ARG:NH2	2.21	0.56
36:1:353:G:N7	73:O7:55:ARG:HD3	2.20	0.55
1:2:1681:A:H2'	1:2:1682:U:H5'	1.87	0.55
86:2:2031:OHX:N4	86:2:2146:OHX:N1	2.53	0.55
38:4:124:G:H3'	38:4:125:U:C5'	2.33	0.55
36:5:1064:A:H4'	36:5:1065:A:O5'	2.05	0.55
36:5:1587:A:OP1	86:5:3984:OHX:N5	2.40	0.55
36:5:2386:A:N6	36:5:2993:G:O2'	2.34	0.55
36:5:850:U:H2'	36:5:851:C:C6	2.41	0.55
1:6:1218:G:O2'	1:6:1219:A:OP2	2.20	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:197:A:H2'	1:6:198:A:C8	2.41	0.55
1:6:577:G:H3'	1:6:577:G:H8	1.72	0.55
1:6:831:U:O2'	1:6:832:U:H5'	2.06	0.55
10:S8:10:LYS:HG2	13:C1:133:LYS:HE3	2.05	0.55
13:C1:93:TYR:CE2	13:C1:95:PRO:HA	2.56	0.55
16:C4:82:LYS:HB3	16:C4:118:VAL:HG21	1.88	0.55
16:C4:31:THR:OG1	16:C4:35:GLY:HA2	2.51	0.55
16:C4:97:GLY:O	16:C4:99:GLN:N	4.08	0.55
19:C7:41:ILE:HD13	19:C7:50:ILE:HD12	2.18	0.55
49:M3:126:PHE:HD2	71:O5:115:LYS:HG2	2.25	0.55
52:M6:42:ASN:OD1	52:M6:125:ARG:HD3	2.24	0.55
52:M6:18:ARG:O	52:M6:22:VAL:HG13	2.06	0.55
54:M8:65:SER:OG	54:M8:90:ASP:OD2	2.14	0.55
55:M9:123:LEU:O	55:M9:127:SER:OG	2.24	0.55
61:N5:38:LEU:O	61:N5:39:LYS:HB2	4.01	0.55
66:O0:20:SER:OG	66:O0:96:GLY:HA3	2.06	0.55
74:O8:5:ILE:HD11	74:O8:10:GLN:NE2	2.21	0.55
3:S1:70:LEU:HB3	3:S1:79:HIS:CB	6.01	0.55
36:1:2795:U:O2	36:1:2800:G:O2'	2.14	0.55
36:5:1090:G:O6	86:5:4185:OHX:N5	2.40	0.55
36:5:1572:U:HO2'	36:5:1573:G:H8	1.52	0.55
36:5:3177:G:O2'	36:5:3179:U:OP1	2.22	0.55
44:L7:217:PRO:HA	86:5:3996:OHX:N5	261.83	0.55
1:6:1745:G:O6	86:6:2076:OHX:N4	2.40	0.55
6:S4:19:LEU:HD22	1:6:788:A:H2'	389.60	0.55
39:L2:42:ARG:HG3	39:L2:89:TYR:CE1	3.16	0.55
42:L5:270:LYS:HG2	42:L5:273:ARG:HD2	1.88	0.55
39:L2:35:ALA:HA	45:L8:36:ILE:HG21	3.10	0.55
63:N7:14:VAL:HG21	70:O4:90:ILE:HD11	1.88	0.55
78:Q2:38:GLN:HE21	78:Q2:38:GLN:HA	1.71	0.55
3:S1:110:LEU:O	3:S1:113:MET:N	2.39	0.55
4:S2:125:ILE:O	4:S2:129:ILE:HG13	2.22	0.55
5:S3:94:ARG:NH2	5:S3:125:TYR:OH	4.04	0.55
8:S6:20:ASP:OD2	8:S6:22:HIS:HB2	5.62	0.55
8:S6:24:ILE:O	8:S6:26:VAL:N	2.40	0.55
35:SM:134:ASP:HA	35:SM:137:GLU:HB3	1.87	0.55
34:SR:7:LEU:HD23	34:SR:315:VAL:HG22	1.87	0.55
36:1:1352:A:H4'	36:1:1353:U:OP1	2.05	0.55
36:5:1593:A:N3	36:5:1615:C:O2'	2.38	0.55
36:5:2439:A:H3'	36:5:2440:G:H8	1.71	0.55
1:6:1218:G:N2	1:6:1443:U:H2'	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1239:U:O4	86:6:2095:OHX:N5	2.38	0.55
44:L7:121:LYS:O	44:L7:121:LYS:HD3	3.55	0.55
44:L7:176:TYR:CZ	44:L7:197:GLN:HG2	2.41	0.55
47:M0:198:LYS:NZ	36:5:1040:A:N3	332.74	0.55
48:M1:96:PHE:CD1	48:M1:160:VAL:HG22	2.98	0.55
49:M3:141:ALA:HA	49:M3:144:THR:HB	2.60	0.55
61:N5:62:VAL:O	61:N5:87:SER:N	2.76	0.55
63:N7:119:GLU:O	63:N7:123:GLN:HG2	2.06	0.55
70:O4:67:LYS:HA	70:O4:70:LYS:HE2	2.19	0.55
71:O5:85:THR:HB	71:O5:88:LEU:HB2	2.17	0.55
74:O8:14:LEU:O	74:O8:20:VAL:HG21	2.06	0.55
36:1:1492:G:N7	75:O9:2:ALA:HB1	2.21	0.55
79:Q3:33:GLN:HG3	79:Q3:34:HIS:CD2	3.19	0.55
2:S0:76:ILE:HB	2:S0:123:VAL:HG22	1.88	0.55
4:S2:88:LYS:HG2	4:S2:89:GLN:H	3.38	0.55
11:S9:30:LEU:HD21	11:S9:102:GLU:HG3	3.09	0.55
11:S9:106:GLU:O	11:S9:111:THR:OG1	2.95	0.55
34:SR:123:ILE:HG21	34:SR:169:ILE:HD13	1.88	0.55
34:SR:43:ILE:HD13	34:SR:60:SER:HA	1.88	0.55
36:1:2400:G:H5"	36:1:2401:A:OP2	2.07	0.55
36:1:2533:G:H2'	36:1:2534:G:O4'	2.07	0.55
36:1:2623:G:H2'	36:1:2624:G:C8	2.41	0.55
86:1:4004:OHX:N3	86:1:4172:OHX:N5	2.55	0.55
36:1:856:G:C6	36:1:857:G:N1	2.74	0.55
1:2:1756:A:H8	1:2:1756:A:OP2	1.89	0.55
1:2:209:U:H2'	1:2:210:A:C8	2.42	0.55
1:2:616:G:C2	1:2:622:A:N7	2.74	0.55
1:2:705:U:H2'	1:2:706:A:C8	2.41	0.55
1:2:917:U:OP2	86:2:2147:OHX:N3	2.39	0.55
36:5:1235:U:H4'	36:5:1236:G:H5'	1.89	0.55
36:5:381:U:H2'	36:5:382:U:H6	1.71	0.55
36:5:897:U:H2'	36:5:898:U:H6	1.71	0.55
1:6:518:A:O2'	1:6:534:A:N6	2.39	0.55
14:C2:66:VAL:HG11	14:C2:71:ILE:HD12	1.88	0.55
40:L3:173:GLN:O	40:L3:173:GLN:HG3	2.06	0.55
40:L3:79:VAL:HG11	40:L3:338:LEU:HD21	1.87	0.55
44:L7:108:LEU:HD21	44:L7:115:THR:HG23	1.89	0.55
48:M1:15:GLU:OE2	48:M1:132:ASN:ND2	2.40	0.55
48:M1:19:LEU:HD12	48:M1:125:MET:SD	4.95	0.55
49:M3:16:LYS:NZ	36:5:98:G:OP1	132.63	0.55
36:1:73:C:O2	49:M3:59:ARG:HD3	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:87:ALA:O	49:M3:91:ARG:HG3	2.06	0.55
50:M4:113:THR:HG22	50:M4:115:PHE:N	2.21	0.55
56:N0:1:MET:HB2	56:N0:118:PHE:CD1	2.41	0.55
36:1:1095:U:O2	57:N1:128:LEU:N	2.39	0.55
56:N0:89:ASN:ND2	57:N1:156:TYR:HB3	2.22	0.55
58:N2:79:LEU:O	58:N2:82:LYS:HB3	2.05	0.55
77:Q1:6:ARG:O	77:Q1:10:THR:HG22	2.06	0.55
2:S0:124:THR:HA	2:S0:146:LEU:HB2	2.48	0.55
2:S0:41:ARG:HD2	2:S0:42:PRO:O	2.06	0.55
4:S2:114:GLY:HA3	4:S2:132:ALA:HB2	1.89	0.55
5:S3:137:VAL:HG22	5:S3:151:LYS:HE2	1.88	0.55
9:S7:118:LEU:HD11	9:S7:122:HIS:CE1	3.54	0.55
34:SR:232:TYR:OH	34:SR:268:GLN:OE1	3.12	0.55
36:1:1141:C:O2'	36:1:1153:A:N3	2.33	0.55
36:1:716:A:C6	64:N8:117:ARG:HD2	2.42	0.55
1:2:895:G:H1	1:2:917:U:H3	1.54	0.55
36:5:1729:A:H4'	36:5:1730:G:OP2	2.04	0.55
36:5:2970:C:H4'	36:5:2971:A:N1	2.21	0.55
36:5:2942:C:O2	86:5:4103:OHX:N2	2.40	0.55
36:5:438:A:C8	36:5:439:C:H5	2.25	0.55
36:5:656:A:H2'	36:5:657:A:C8	2.42	0.55
36:5:789:A:H2'	36:5:790:U:H6	1.70	0.55
1:6:1773:C:H2'	1:6:1774:G:H8	1.72	0.55
15:C3:142:GLU:HB2	15:C3:145:THR:HG23	1.87	0.55
21:C9:49:ASP:O	21:C9:51:GLU:N	2.40	0.55
30:D8:13:ILE:HG12	30:D8:31:GLU:HB2	4.11	0.55
42:L5:58:LYS:HD2	42:L5:93:THR:OG1	2.07	0.55
86:1:3959:OHX:N4	44:L7:217:PRO:HA	2.21	0.55
47:M0:29:SER:HB2	47:M0:125:LEU:HD12	2.61	0.55
49:M3:75:PHE:H	49:M3:97:VAL:HA	1.71	0.55
51:M5:90:ASN:O	51:M5:92:LEU:N	3.22	0.55
78:Q2:29:LYS:HG2	78:Q2:30:ALA:H	1.72	0.55
1:2:1331:A:N6	5:S3:161:GLY:HA3	2.22	0.55
8:S6:176:GLN:HG3	8:S6:177:ARG:H	1.72	0.55
11:S9:120:LYS:O	11:S9:121:SER:HB3	2.07	0.55
36:1:1763:U:H5'	36:1:1764:U:OP2	2.07	0.55
36:1:2318:U:O4	86:1:4040:OHX:N2	2.39	0.55
1:2:1266:U:H2'	1:2:1267:G:C8	2.40	0.55
1:2:1492:A:HO2'	1:2:1493:A:H8	1.52	0.55
1:2:25:C:OP2	1:2:25:C:H4'	2.07	0.55
36:5:1915:A:H2'	36:5:1916:U:C6	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3218:A:H4'	36:5:3219:G:O5'	2.07	0.55
36:5:1071:U:O4	86:5:4105:OHX:N6	2.40	0.55
1:6:1590:G:H2'	1:6:1591:C:H6	1.72	0.55
1:6:980:G:H4'	1:6:1776:A:H4'	1.88	0.55
13:C1:98:ASN:ND2	13:C1:98:ASN:O	2.39	0.55
22:D0:16:GLN:HG3	22:D0:17:GLN:H	3.93	0.55
39:L2:201:GLY:O	39:L2:203:ALA:N	2.39	0.55
42:L5:152:ARG:CG	42:L5:152:ARG:HH11	2.82	0.55
43:L6:166:LYS:HZ1	36:5:3214:U:H6	274.73	0.55
58:N2:13:LYS:HB3	58:N2:15:PHE:CE2	2.42	0.55
59:N3:92:PHE:CE1	36:5:3051:U:H1'	246.02	0.55
60:N4:33:ASN:OD1	60:N4:35:LYS:N	2.40	0.55
62:N6:39:LEU:HD12	62:N6:43:TYR:CE2	5.73	0.55
64:N8:96:LYS:O	64:N8:98:THR:N	2.39	0.55
69:O3:52:VAL:HG21	69:O3:99:ARG:NH1	3.89	0.55
71:O5:10:ARG:NH1	71:O5:60:GLU:OE1	2.90	0.55
5:S3:106:LYS:O	5:S3:110:LEU:HB2	2.07	0.55
6:S4:11:ARG:H	6:S4:27:TYR:HA	1.70	0.55
7:S5:59:VAL:HG12	7:S5:60:ASP:H	2.23	0.55
36:1:1362:G:H2'	36:1:1363:A:C8	2.41	0.55
36:1:1688:U:H2'	36:1:1689:U:C6	2.41	0.55
36:1:1807:G:C6	36:1:1808:G:N1	2.74	0.55
36:1:1899:G:N7	86:1:3932:OHX:N3	2.55	0.55
36:1:2254:U:H2'	36:1:2261:G:N2	2.22	0.55
36:1:2357:A:H2'	36:1:2358:A:H8	1.71	0.55
88:1:4213:3J6:H4	88:1:4213:3J6:H12	1.88	0.55
1:2:1391:A:H2'	1:2:1392:U:C6	2.42	0.55
1:2:1456:C:OP1	1:2:1457:C:O2'	2.20	0.55
36:5:1107:C:H2'	36:5:1108:U:H6	1.72	0.55
36:5:2971:A:H5"	36:5:2972:G:C5'	2.37	0.55
20:C8:138:THR:HB	1:6:1459:C:H2'	345.09	0.55
1:6:1145:U:H3	1:6:1633:A:H61	1.52	0.55
86:6:2118:OHX:N2	86:6:2170:OHX:N1	2.55	0.55
1:6:475:A:H2'	1:6:476:U:O4'	2.07	0.55
1:6:513:U:H2'	1:6:514:G:C8	2.42	0.55
37:7:91:G:H2'	37:7:92:A:C8	2.40	0.55
13:C1:67:ARG:O	13:C1:127:GLN:HB3	2.69	0.55
20:C8:35:ILE:HB	20:C8:38:VAL:HG22	1.87	0.55
30:D8:12:VAL:HA	30:D8:30:VAL:HG12	1.87	0.55
40:L3:233:TRP:CD1	40:L3:265:ALA:HB1	2.62	0.55
40:L3:92:TYR:HE1	40:L3:159:ARG:HD2	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:264:SER:C	41:L4:266:THR:H	2.09	0.55
44:L7:191:VAL:HG12	44:L7:192:GLY:N	3.58	0.55
49:M3:161:ASP:O	49:M3:163:GLY:N	3.34	0.55
43:L6:174:LEU:HD22	50:M4:117:ARG:CZ	4.28	0.55
51:M5:172:ARG:NH2	36:5:63:A:OP1	102.72	0.55
70:O4:83:ASN:OD1	70:O4:83:ASN:N	3.48	0.55
3:S1:61:LEU:HD23	3:S1:62:LYS:H	1.71	0.55
4:S2:67:GLN:HA	4:S2:70:ASP:HB2	1.89	0.55
5:S3:104:SER:OG	5:S3:105:MET:N	2.38	0.55
34:SR:214:ALA:HB2	34:SR:220:ILE:HA	1.88	0.55
1:2:565:C:O2	86:2:2039:OHX:N5	2.40	0.55
1:2:417:A:H4'	1:2:418:G:O5'	2.06	0.55
38:4:131:A:H2'	38:4:132:G:H8	1.72	0.55
41:L4:312:VAL:HG21	36:5:610:G:C8	222.78	0.55
1:6:1257:U:O2'	1:6:1258:U:O4'	2.24	0.55
32:E0:13:LYS:NZ	1:6:566:C:O2	375.61	0.55
12:C0:16:PHE:HD2	12:C0:76:LEU:HB3	1.71	0.55
18:C6:143:ARG:NH1	1:6:1191:U:H5'	350.13	0.55
25:D3:96:VAL:HB	25:D3:127:VAL:HG21	5.85	0.55
41:L4:112:LYS:O	36:5:790:U:H4'	122.46	0.55
41:L4:16:THR:HG22	41:L4:18:ASN:H	1.72	0.55
41:L4:192:GLY:HA2	41:L4:195:ARG:HG3	3.78	0.55
42:L5:184:ASP:HB3	42:L5:187:THR:HG22	1.88	0.55
44:L7:229:PHE:HD1	44:L7:229:PHE:C	2.55	0.55
44:L7:88:ARG:NH1	44:L7:91:GLY:O	2.41	0.55
36:1:1316:C:C2	52:M6:130:LYS:HG3	2.42	0.55
52:M6:27:LEU:HD13	52:M6:98:ALA:O	2.07	0.55
52:M6:38:ALA:O	52:M6:41:LEU:HB3	3.43	0.55
53:M7:132:ALA:O	53:M7:133:HIS:HB2	2.45	0.55
61:N5:50:ALA:HB2	71:O5:79:ASP:HB3	5.51	0.55
63:N7:88:ASP:OD1	63:N7:89:VAL:N	2.39	0.55
69:O3:13:HIS:CD2	69:O3:28:SER:HB3	2.96	0.55
71:O5:58:ILE:O	71:O5:61:GLN:HB2	3.68	0.55
3:S1:176:VAL:HG12	3:S1:177:GLN:H	1.72	0.55
4:S2:90:THR:O	4:S2:92:ALA:N	2.59	0.55
6:S4:191:ARG:HD3	6:S4:245:LYS:HB3	2.69	0.55
8:S6:87:ARG:N	8:S6:91:GLU:OE1	2.37	0.55
10:S8:188:GLU:OE2	13:C1:15:LYS:NZ	2.39	0.55
20:C8:145:ARG:HB3	35:SM:68:ARG:HH12	4.47	0.55
36:1:1162:U:H4'	68:O2:57:TYR:CE1	2.41	0.55
36:1:2173:U:H2'	36:1:2174:G:C8	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:259:C:H2'	36:1:260:C:C6	2.42	0.55
1:2:292:U:H2'	1:2:293:U:C6	2.42	0.55
1:2:623:A:OP1	86:2:2157:OHX:N1	2.40	0.55
1:2:639:U:O2'	1:2:640:U:OP2	2.22	0.55
70:O4:37:LYS:NZ	36:5:1591:G:OP1	160.20	0.55
36:5:2404:A:C5'	36:5:2404:A:H8	2.20	0.55
36:5:2697:A:H2'	36:5:2698:G:C8	2.42	0.55
36:5:916:G:N7	36:5:924:G:C5	2.75	0.55
36:5:979:U:H1'	36:5:980:A:C4	2.42	0.55
15:C3:121:ARG:NH1	1:6:868:G:OP1	310.93	0.55
19:C7:46:LEU:HD22	19:C7:46:LEU:O	2.06	0.55
1:2:1345:A:H5'	22:D0:53:LYS:HD2	1.89	0.55
27:D5:65:LEU:HB3	27:D5:71:ILE:HD12	1.89	0.55
41:L4:20:LEU:HD11	41:L4:252:GLU:HG3	1.98	0.55
47:M0:207:GLU:C	47:M0:209:ASN:H	2.10	0.55
59:N3:80:ARG:HH12	59:N3:116:GLY:HA3	1.71	0.55
71:O5:85:THR:HB	71:O5:88:LEU:HD12	1.89	0.55
51:M5:15:GLN:HB3	72:O6:51:SER:HB2	2.65	0.55
75:O9:10:LYS:HA	75:O9:13:MET:CE	2.37	0.55
9:S7:173:TYR:CE1	9:S7:181:ILE:HD11	3.84	0.55
34:SR:198:ASN:O	34:SR:215:GLY:HA3	2.09	0.55
36:1:2947:G:H4'	36:1:2947:G:OP2	2.07	0.55
36:1:3380:U:H2'	36:1:3381:U:C6	2.41	0.55
36:1:5:G:H2'	36:1:6:A:O4'	2.07	0.55
1:2:93:A:O2'	1:2:398:G:N2	2.39	0.55
1:2:823:G:H2'	1:2:824:G:H8	1.70	0.55
37:3:92:A:H8	37:3:92:A:O5'	1.89	0.55
47:M0:8:CYS:SG	36:5:2828:G:H5'	269.85	0.55
36:5:3089:C:H2'	36:5:3090:U:O4'	2.07	0.55
1:6:1166:A:H2'	1:6:1167:G:O4'	2.07	0.55
19:C7:49:LYS:NZ	1:6:1390:U:OP2	414.69	0.55
1:6:190:C:HO2'	1:6:191:C:C5'	2.20	0.55
1:6:333:A:C6	1:6:334:G:C6	2.95	0.55
12:C0:77:ARG:HD3	12:C0:84:GLU:HA	1.89	0.55
13:C1:36:LYS:HD2	1:6:248:U:H4'	312.95	0.55
15:C3:55:ARG:HD3	29:D7:47:PHE:CG	2.41	0.55
17:C5:76:VAL:O	17:C5:95:GLY:N	2.70	0.55
18:C6:18:ALA:HB2	18:C6:69:VAL:HG13	1.88	0.55
21:C9:113:ILE:HA	21:C9:128:GLY:HA3	3.22	0.55
22:D0:22:ILE:HG22	22:D0:93:LEU:HB2	1.88	0.55
15:C3:18:TYR:CE2	24:D2:56:HIS:CE1	3.33	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:D8:11:LYS:O	30:D8:31:GLU:N	2.71	0.55
36:1:3048:A:H5'	40:L3:53:MET:HE1	1.88	0.55
41:L4:159:ILE:HD13	41:L4:164:GLU:HG2	2.49	0.55
41:L4:351:PRO:HA	44:L7:71:ALA:HA	2.21	0.55
41:L4:8:VAL:HB	41:L4:16:THR:HG21	3.03	0.55
45:L8:34:PHE:CD2	45:L8:42:PRO:HD3	3.08	0.55
46:L9:156:GLN:NE2	46:L9:160:ASP:OD1	4.77	0.55
47:M0:63:GLU:HB2	36:5:2853:A:H5'	296.74	0.55
48:M1:25:GLU:OE1	48:M1:29:ARG:HD2	2.05	0.55
4:S2:90:THR:HG22	4:S2:92:ALA:H	1.71	0.55
5:S3:220:PRO:O	5:S3:221:SER:OG	2.31	0.55
7:S5:40:ILE:HG23	7:S5:42:LEU:HD22	1.89	0.55
8:S6:126:ASP:OD2	8:S6:127:THR:HG22	2.07	0.55
11:S9:176:ASN:HA	11:S9:179:ARG:HG3	3.40	0.55
34:SR:22:SER:HB3	34:SR:36:ALA:HB3	1.88	0.55
36:1:1014:U:H2'	36:1:1015:U:H5"	1.89	0.54
36:1:1952:G:H3'	36:1:1953:G:H5"	1.89	0.54
36:1:210:U:C2	36:1:230:U:H4'	2.42	0.54
36:1:3295:A:OP2	40:L3:126:LYS:N	2.32	0.54
36:1:2236:G:OP1	86:1:4118:OHX:N6	2.40	0.54
36:1:428:A:H2'	36:1:429:U:C6	2.42	0.54
36:1:796:U:H2'	36:1:797:U:C6	2.42	0.54
1:2:1388:A:HO2'	1:2:1411:A:H2	1.55	0.54
1:2:330:G:C6	1:2:331:A:C6	2.95	0.54
1:2:6:G:OP2	4:S2:205:ARG:HD2	2.07	0.54
1:2:717:C:H42	1:2:720:G:H22	1.54	0.54
1:2:990:C:H2'	1:2:991:G:O4'	2.08	0.54
36:5:1831:U:H2'	36:5:1832:C:H6	1.72	0.54
1:6:1317:C:H2'	1:6:1318:G:O4'	2.07	0.54
1:6:478:A:C2	1:6:479:C:C2	2.94	0.54
1:6:950:C:H2'	1:6:951:A:C8	2.42	0.54
15:C3:42:ARG:HH21	15:C3:80:LEU:HD21	1.73	0.54
19:C7:20:TYR:CE2	19:C7:38:ILE:HG13	2.42	0.54
40:L3:46:PHE:CE2	40:L3:205:VAL:HG13	3.10	0.54
40:L3:81:THR:HB	40:L3:321:PHE:HA	2.48	0.54
36:1:599:C:OP1	41:L4:332:LYS:NZ	2.40	0.54
43:L6:31:ARG:HD3	69:O3:106:ASN:HD22	1.71	0.54
46:L9:124:ARG:HD3	46:L9:164:ILE:O	2.07	0.54
47:M0:76:MET:HB3	47:M0:85:PHE:CE2	2.42	0.54
49:M3:42:ARG:HH21	49:M3:51:LEU:HD22	5.99	0.54
66:O0:51:LEU:HD11	70:O4:90:ILE:HG22	3.24	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:58:ALA:O	67:O1:61:LYS:NZ	7.38	0.54
70:O4:99:LYS:O	70:O4:103:LYS:HG2	2.28	0.54
70:O4:86:LYS:O	70:O4:90:ILE:HG12	2.07	0.54
71:O5:28:LEU:HA	71:O5:31:LEU:HD12	1.88	0.54
3:S1:129:THR:HA	3:S1:177:GLN:HA	1.88	0.54
5:S3:124:ARG:NH2	35:SM:128:ALA:HB2	8.61	0.54
6:S4:26:CYS:HB3	6:S4:27:TYR:CE2	3.55	0.54
34:SR:171:SER:OG	34:SR:179:LYS:HB2	2.06	0.54
36:1:1390:A:N6	36:1:1418:A:O2'	2.40	0.54
36:1:2218:G:H2'	36:1:2219:A:H8	1.72	0.54
36:1:2927:C:H2'	36:1:2928:C:C6	2.42	0.54
36:1:2987:A:O2'	40:L3:259:HIS:HB3	2.07	0.54
36:1:85:A:O2'	86:1:4141:OHX:N6	2.40	0.54
36:1:1464:G:N7	86:1:4197:OHX:N6	2.55	0.54
36:1:501:A:H5"	43:L6:28:GLN:HE21	1.73	0.54
1:2:273:G:H2'	1:2:274:G:O4'	2.07	0.54
36:5:1284:C:O2'	36:5:1285:G:H5'	2.07	0.54
36:5:136:G:H2'	36:5:137:G:C8	2.40	0.54
36:5:2818:U:C6	36:5:2818:U:H5'	2.36	0.54
36:5:3393:U:H2'	36:5:3394:U:H6	1.73	0.54
1:6:486:G:N2	1:6:487:G:N7	2.55	0.54
13:C1:55:ASP:OD2	13:C1:58:CYS:HB2	2.30	0.54
13:C1:71:LEU:HB3	13:C1:88:ARG:NH1	2.83	0.54
16:C4:121:VAL:O	1:6:886:U:O2'	287.02	0.54
21:C9:29:GLU:OE1	21:C9:110:LYS:HD2	2.07	0.54
39:L2:149:ARG:NH2	39:L2:252:THR:O	5.00	0.54
40:L3:25:ILE:HD13	40:L3:25:ILE:N	2.19	0.54
41:L4:42:VAL:C	41:L4:44:LYS:H	2.68	0.54
47:M0:37:GLY:O	47:M0:39:LYS:N	2.40	0.54
36:1:3178:A:C2	52:M6:115:LYS:HG2	2.42	0.54
53:M7:69:ARG:HB2	36:5:3308:C:O2	183.99	0.54
53:M7:22:LEU:HB3	53:M7:90:PHE:HE2	1.71	0.54
58:N2:43:VAL:O	58:N2:45:GLY:N	2.97	0.54
59:N3:113:ALA:HA	59:N3:132:ASN:HB3	1.89	0.54
60:N4:33:ASN:OD1	60:N4:34:SER:N	2.40	0.54
60:N4:47:ARG:HD3	60:N4:58:HIS:HD2	5.06	0.54
61:N5:34:LEU:HD22	61:N5:35:PRO:HD2	1.88	0.54
2:S0:38:PHE:HB2	2:S0:49:ASN:HB2	1.89	0.54
3:S1:51:SER:HA	3:S1:57:ALA:H	1.70	0.54
3:S1:68:VAL:HB	3:S1:73:LEU:HD21	5.71	0.54
9:S7:155:ASP:OD2	9:S7:156:SER:N	2.97	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1818:U:H3'	36:1:1819:U:H5"	1.89	0.54
36:1:3121:U:H1'	36:1:3122:A:H5"	1.89	0.54
1:2:1480:G:H3'	1:2:1481:C:C6	2.43	0.54
36:5:1355:A:H1'	36:5:1356:U:OP2	2.08	0.54
72:O6:26:ILE:HD13	36:5:155:G:H1'	87.64	0.54
36:5:2560:C:O2	86:5:4026:OHX:N2	2.41	0.54
45:L8:241:LYS:HB2	36:5:2586:G:N7	184.54	0.54
1:6:927:C:OP1	86:6:2191:OHX:N3	2.40	0.54
32:E0:31:LYS:HD2	1:6:545:A:H2'	415.29	0.54
9:S7:118:LEU:HB2	1:6:639:U:O2	369.72	0.54
38:8:6:U:H2'	38:8:7:U:C6	2.41	0.54
12:C0:24:LYS:HD3	12:C0:63:TYR:CE1	4.07	0.54
16:C4:16:VAL:HG21	16:C4:18:ARG:NH2	2.22	0.54
20:C8:82:PRO:HG3	21:C9:36:ILE:HD12	2.53	0.54
40:L3:187:SER:OG	40:L3:187:SER:O	2.16	0.54
40:L3:347:SER:O	40:L3:348:ARG:HB3	2.06	0.54
41:L4:359:LEU:HA	56:N0:8:GLN:NE2	3.10	0.54
42:L5:53:VAL:O	42:L5:54:ARG:HD3	2.07	0.54
42:L5:60:ILE:H	42:L5:80:SER:HB3	1.72	0.54
46:L9:122:LYS:HG3	46:L9:123:ILE:N	2.22	0.54
46:L9:9:GLN:CG	46:L9:52:LEU:HD21	2.35	0.54
46:L9:94:TYR:CE2	46:L9:98:PRO:HA	2.43	0.54
36:1:1048:A:H2'	47:M0:22:TYR:CZ	2.41	0.54
49:M3:42:ARG:O	49:M3:46:ILE:HB	2.74	0.54
55:M9:21:LYS:O	55:M9:53:LYS:HB2	2.07	0.54
57:N1:68:THR:HG22	57:N1:71:SER:O	5.30	0.54
59:N3:104:ASN:O	59:N3:107:GLY:N	2.37	0.54
36:1:2552:C:H5	66:O0:53:LYS:HE3	1.73	0.54
71:O5:119:LYS:HZ3	71:O5:120:ALA:HB2	1.72	0.54
2:S0:13:ASP:OD1	2:S0:179:ARG:NH2	2.35	0.54
6:S4:230:GLU:HB2	6:S4:233:LYS:HB2	1.89	0.54
6:S4:45:ILE:HB	6:S4:80:THR:HG23	3.19	0.54
9:S7:23:ALA:O	9:S7:27:LEU:HG	2.06	0.54
11:S9:113:VAL:HG21	11:S9:134:ILE:HD12	1.89	0.54
36:1:1230:G:H1	36:1:1279:C:N4	2.03	0.54
36:1:2992:U:H1'	53:M7:69:ARG:NH2	2.23	0.54
1:2:792:U:H2'	1:2:793:A:O4'	2.08	0.54
36:5:112:U:O2'	36:5:113:C:OP2	2.25	0.54
36:5:1461:A:H2'	36:5:1462:A:O4'	2.08	0.54
36:5:277:G:H2'	36:5:278:U:C6	2.43	0.54
36:5:3055:U:O2'	36:5:3057:U:OP1	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:N9:41:ARG:NE	36:5:776:U:OP1	198.04	0.54
1:6:538:A:C4	1:6:543:C:H5	2.25	0.54
1:6:538:A:H2	1:6:542:A:H62	1.54	0.54
86:5:4101:OHX:N5	38:8:139:U:O4	2.40	0.54
13:C1:109:VAL:HA	13:C1:135:VAL:HG13	1.88	0.54
17:C5:15:HIS:O	17:C5:21:ASP:HA	2.07	0.54
21:C9:123:ARG:HG2	21:C9:124:ILE:N	2.22	0.54
7:S5:161:ASP:OD2	30:D8:42:ARG:NH2	2.41	0.54
39:L2:31:THR:HG23	39:L2:123:ARG:HD2	3.37	0.54
40:L3:292:ALA:HB1	40:L3:295:ALA:HB3	1.89	0.54
43:L6:153:PRO:O	43:L6:154:LEU:HB2	2.07	0.54
44:L7:158:LYS:O	44:L7:160:ARG:N	2.37	0.54
44:L7:151:ARG:HD2	44:L7:244:ASN:ND2	2.21	0.54
36:1:147:U:O4	45:L8:157:VAL:HA	2.07	0.54
47:M0:68:ALA:HB2	47:M0:158:LYS:HB2	1.88	0.54
48:M1:8:PRO:CG	48:M1:9:MET:H	3.38	0.54
50:M4:22:LEU:HD12	50:M4:31:LYS:O	2.07	0.54
53:M7:41:LEU:HD23	53:M7:95:LEU:HD22	1.88	0.54
55:M9:46:LYS:O	55:M9:47:ASN:HB3	2.08	0.54
57:N1:120:LYS:O	57:N1:123:GLY:N	3.27	0.54
57:N1:15:PHE:CE2	57:N1:44:ALA:HB3	2.42	0.54
61:N5:100:LYS:HE3	61:N5:106:ASP:OD2	3.48	0.54
63:N7:87:LEU:HB2	63:N7:127:ASN:OD1	2.07	0.54
79:Q3:46:THR:HB	79:Q3:58:SER:HB2	1.89	0.54
6:S4:11:ARG:O	6:S4:12:LEU:HB2	2.07	0.54
7:S5:25:LEU:HD22	7:S5:25:LEU:H	1.72	0.54
8:S6:174:LYS:HG3	1:6:79:C:H1'	341.89	0.54
11:S9:169:PRO:HD2	11:S9:174:ARG:HD2	1.90	0.54
36:1:1176:C:H2'	36:1:1177:G:N2	2.23	0.54
36:1:2178:A:H3'	39:L2:132:ASN:ND2	2.22	0.54
36:1:1019:G:O6	86:1:4059:OHX:N1	2.41	0.54
36:1:541:U:O4	86:1:4192:OHX:N2	2.40	0.54
1:2:1559:A:H4'	1:2:1559:A:OP1	2.08	0.54
36:5:1335:C:H2'	36:5:1336:U:H6	1.71	0.54
36:5:2257:C:H2'	36:5:2258:U:H6	1.73	0.54
36:5:701:G:H2'	36:5:702:C:C6	2.42	0.54
36:5:764:U:O4	86:5:4033:OHX:N4	2.40	0.54
36:5:787:G:H2'	36:5:788:C:C6	2.43	0.54
1:6:1240:U:H3	1:6:1242:A:H5"	1.73	0.54
13:C1:5:LEU:O	13:C1:7:VAL:N	2.31	0.54
21:C9:23:GLN:HG2	21:C9:55:TYR:CG	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:112:LYS:NZ	26:D4:113:ASN:OD1	2.23	0.54
26:D4:63:GLN:HB2	26:D4:68:LYS:HB3	2.32	0.54
27:D5:55:PRO:C	27:D5:57:TYR:H	2.11	0.54
40:L3:17:LEU:HD11	40:L3:233:TRP:HH2	1.73	0.54
46:L9:137:SER:HB2	46:L9:143:GLU:HB3	3.54	0.54
46:L9:41:ILE:HD13	46:L9:41:ILE:O	2.08	0.54
48:M1:23:VAL:O	48:M1:25:GLU:N	2.40	0.54
36:1:685:G:P	49:M3:35:ARG:HH11	2.30	0.54
50:M4:17:VAL:HG21	50:M4:74:ARG:HB2	1.89	0.54
51:M5:138:GLN:HA	51:M5:143:ARG:HH11	1.73	0.54
62:N6:39:LEU:HD21	62:N6:107:THR:O	3.62	0.54
64:N8:83:PRO:HG2	64:N8:86:LYS:HG3	3.84	0.54
2:S0:175:TYR:CE1	2:S0:197:ILE:HG22	2.40	0.54
5:S3:59:LEU:HG	5:S3:63:GLY:HA2	1.89	0.54
8:S6:139:ASN:HA	8:S6:142:ARG:HB3	1.89	0.54
36:1:2808:A:H4'	36:1:2809:C:O5'	2.06	0.54
1:2:1303:U:O4	86:2:2077:OHX:N6	2.41	0.54
1:2:1595:U:H5	1:2:1596:C:C5	2.26	0.54
36:5:2537:U:O2'	36:5:2538:U:O4'	2.21	0.54
36:5:3194:C:C2	36:5:3197:G:N2	2.68	0.54
36:5:3343:G:N2	36:5:3361:G:H2'	2.23	0.54
36:5:3343:G:H21	36:5:3362:A:H2	1.50	0.54
1:6:1592:A:H2'	1:6:1593:A:H8	1.71	0.54
1:6:17:C:H2'	1:6:18:C:H6	1.72	0.54
15:C3:66:ILE:HG13	15:C3:67:THR:N	2.45	0.54
23:D1:3:ASN:ND2	23:D1:5:LYS:O	4.64	0.54
24:D2:15:ASN:ND2	24:D2:71:LYS:HG3	3.30	0.54
28:D6:35:ALA:HB3	28:D6:37:LYS:HE2	1.88	0.54
47:M0:75:TYR:CE2	47:M0:79:VAL:HG21	3.28	0.54
49:M3:98:ASP:OD2	36:5:76:G:O2'	81.67	0.54
36:1:3007:U:H5'	52:M6:73:PHE:CD1	2.43	0.54
54:M8:100:THR:HG23	54:M8:120:GLU:HB3	1.90	0.54
71:O5:5:LYS:O	71:O5:9:LEU:HG	2.08	0.54
2:S0:9:LEU:HD11	2:S0:14:ALA:HB2	2.25	0.54
5:S3:177:MET:HG3	5:S3:178:ARG:H	4.43	0.54
6:S4:100:ARG:HH21	6:S4:122:LYS:HA	1.72	0.54
9:S7:89:HIS:CD2	9:S7:165:LYS:HG2	4.70	0.54
9:S7:74:GLN:O	9:S7:78:THR:OG1	2.61	0.54
36:1:1218:U:HO2'	36:1:1223:A:HO2'	1.54	0.54
36:1:1460:A:H2'	36:1:1461:A:C8	2.43	0.54
36:1:2310:U:OP1	86:1:4139:OHX:N1	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:718:G:C2	36:1:721:G:H1'	2.42	0.54
1:2:523:G:OP2	26:D4:37:LYS:NZ	2.32	0.54
37:3:46:A:OP1	42:L5:158:ARG:HG2	2.08	0.54
36:5:167:U:H2'	36:5:168:U:C6	2.43	0.54
36:5:2837:A:OP2	36:5:2837:A:H8	1.90	0.54
36:5:1895:A:O2'	36:5:3053:G:H4'	2.07	0.54
22:D0:23:ARG:NH2	1:6:1347:U:OP2	457.28	0.54
1:6:196:G:O2'	1:6:197:A:OP2	2.22	0.54
42:L5:224:LYS:NZ	37:7:50:U:O2'	318.95	0.54
20:C8:145:ARG:HG3	35:SM:68:ARG:NH2	4.47	0.54
28:D6:62:TYR:CG	28:D6:63:ALA:N	2.84	0.54
29:D7:36:LYS:HG2	29:D7:43:ILE:HG22	1.89	0.54
30:D8:12:VAL:HB	30:D8:52:ASP:H	1.71	0.54
46:L9:93:VAL:HG22	76:Q0:82:LEU:HB3	1.90	0.54
43:L6:51:ARG:NH1	50:M4:114:ASP:OD2	2.40	0.54
51:M5:172:ARG:HB3	51:M5:174:ILE:HD12	1.89	0.54
55:M9:160:GLU:OE1	55:M9:163:ARG:NE	7.10	0.54
62:N6:39:LEU:HD12	62:N6:43:TYR:HE2	5.04	0.54
62:N6:52:ARG:HA	62:N6:70:ILE:HG22	2.31	0.54
68:O2:40:SER:O	68:O2:44:ARG:HG3	2.21	0.54
69:O3:8:TYR:CE2	69:O3:99:ARG:HG2	5.02	0.54
72:O6:26:ILE:C	72:O6:28:TYR:H	2.11	0.54
74:O8:26:LYS:NZ	74:O8:27:ILE:O	4.11	0.54
2:S0:139:VAL:HG23	4:S2:62:PRO:CG	2.33	0.54
8:S6:208:TYR:CE1	8:S6:212:LEU:HD12	2.43	0.54
9:S7:163:ASP:HA	9:S7:166:LEU:HD22	1.89	0.54
11:S9:63:ASP:O	11:S9:66:ASP:HB2	2.68	0.54
36:1:1051:U:H4'	57:N1:19:PHE:CE2	2.42	0.54
36:1:2746:A:C6	42:L5:148:ILE:HD12	2.43	0.54
36:1:924:G:OP1	86:1:4143:OHX:N5	2.40	0.54
1:2:1738:U:H2'	1:2:1739:C:C6	2.42	0.54
1:2:702:G:O2'	1:2:703:G:O4'	2.25	0.54
37:3:64:A:H3'	47:M0:204:GLY:O	2.08	0.54
36:5:1262:G:H5"	36:5:1263:A:OP2	2.07	0.54
40:L3:236:LYS:HD2	36:5:2340:U:OP1	234.04	0.54
36:5:2821:C:H2'	36:5:2822:U:O5'	2.08	0.54
36:5:3245:A:H2	36:5:3246:G:N1	2.04	0.54
36:5:2748:A:OP1	86:5:4155:OHX:N5	2.41	0.54
86:5:3971:OHX:N4	86:5:4193:OHX:N3	2.56	0.54
1:6:1270:G:H1'	1:6:1447:C:O2	2.07	0.54
1:6:1579:U:H2'	1:6:1580:C:C6	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:89:THR:O	16:C4:90:ARG:HD3	3.77	0.54
7:S5:34:GLN:HG2	18:C6:57:LEU:CD1	2.37	0.54
30:D8:13:ILE:HD11	30:D8:29:ARG:HG2	1.90	0.54
31:D9:39:CYS:O	31:D9:43:PHE:N	2.52	0.54
40:L3:147:GLU:O	40:L3:151:ILE:HD12	4.73	0.54
40:L3:60:LEU:HD11	40:L3:62:ARG:HB2	3.43	0.54
47:M0:130:ASP:OD1	47:M0:131:ILE:N	2.41	0.54
36:1:77:A:H5'	49:M3:100:ARG:NH1	2.23	0.54
54:M8:16:ARG:NH1	54:M8:55:SER:HB3	2.23	0.54
36:1:729:C:O2'	54:M8:79:LYS:HE2	2.07	0.54
54:M8:79:LYS:HG3	54:M8:136:ASN:OD1	3.20	0.54
61:N5:136:ALA:O	61:N5:139:ILE:HG23	2.08	0.54
65:N9:23:LYS:HD2	65:N9:24:PRO:HG3	4.20	0.54
70:O4:24:LYS:HD3	70:O4:30:LEU:HD23	3.07	0.54
39:L2:112:ILE:HD11	79:Q3:79:VAL:HG11	5.71	0.54
2:S0:179:ARG:HD3	2:S0:183:ARG:HH11	1.72	0.54
10:S8:169:ILE:HD12	10:S8:179:CYS:SG	2.54	0.54
36:1:1068:C:N4	36:1:1090:G:H1	2.06	0.54
36:1:1273:A:O2'	36:1:1274:A:OP1	2.23	0.54
36:1:1720:U:OP2	55:M9:110:ARG:NH1	2.40	0.54
36:1:2154:U:OP1	39:L2:242:ARG:NH1	2.41	0.54
36:1:2407:C:H1'	36:1:2818:U:O2	2.08	0.54
35:SM:31:SER:OG	36:1:2667:A:OP1	2.12	0.54
36:1:2898:G:H5"	36:1:2899:C:H5'	1.90	0.54
36:1:715:A:H4'	36:1:716:A:OP1	2.07	0.54
1:2:1183:A:C6	1:2:1184:A:N1	2.76	0.54
1:2:645:C:H42	1:2:689:G:H1	1.55	0.54
37:3:112:G:H2'	37:3:113:C:C6	2.43	0.54
37:3:3:U:H2'	37:3:4:U:H6	1.73	0.54
36:5:22:G:O4'	38:8:104:A:H1'	2.08	0.54
36:5:3288:G:C4	36:5:3289:G:C8	2.96	0.54
1:6:1066:C:C2'	1:6:1067:C:H5'	2.38	0.54
1:6:1202:A:OP1	86:6:2128:OHX:N1	2.41	0.54
38:8:83:C:H4'	38:8:85:G:C2	2.43	0.54
22:D0:118:VAL:HG22	22:D0:119:ALA:H	1.72	0.54
26:D4:10:ARG:HD2	1:6:778:G:O6	430.07	0.54
26:D4:91:LEU:HA	26:D4:96:LEU:HD12	1.90	0.54
30:D8:52:ASP:N	30:D8:52:ASP:OD2	3.85	0.54
39:L2:36:GLU:O	39:L2:91:GLY:HA2	2.08	0.54
42:L5:13:SER:O	37:7:11:A:N6	298.85	0.54
42:L5:181:PRO:HB2	42:L5:194:LEU:HD13	4.18	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:289:LYS:HD3	47:M0:206:LEU:HD23	1.89	0.54
39:L2:64:ARG:HH22	45:L8:39:ALA:N	2.06	0.54
49:M3:101:ARG:HH22	49:M3:112:ASN:HD22	2.31	0.54
36:1:3185:U:HO2'	56:N0:170:THR:HG1	1.56	0.54
64:N8:27:LYS:HZ2	36:5:801:A:P	153.20	0.54
36:1:424:G:O2'	68:O2:23:ASP:OD2	2.23	0.54
2:S0:148:ASP:N	2:S0:151:SER:OG	2.33	0.54
6:S4:57:ASN:HB2	6:S4:60:GLU:HG3	3.41	0.54
8:S6:25:ARG:HG3	8:S6:28:PHE:CD1	2.43	0.54
10:S8:26:LYS:O	10:S8:29:LEU:HB3	2.07	0.54
36:1:1213:G:OP1	56:N0:139:TYR:OH	2.15	0.54
36:1:3084:C:OP2	86:1:3888:OHX:N5	2.41	0.54
1:2:1617:U:O2	1:2:1619:C:N4	2.39	0.54
1:2:482:U:H2'	1:2:483:A:C8	2.42	0.54
64:N8:22:ILE:HD13	36:5:1114:U:H5"	190.67	0.54
36:5:123:A:C6	36:5:150:A:C5	2.97	0.54
36:5:1554:U:H4'	36:5:1555:U:OP1	2.08	0.54
36:5:1858:A:O2'	36:5:1859:A:OP2	2.26	0.54
36:5:2513:U:OP2	86:5:3958:OHX:N3	2.41	0.54
36:5:3155:U:H4'	36:5:3156:U:OP2	2.08	0.54
1:6:1542:G:N2	1:6:1568:C:H1'	2.23	0.54
1:6:548:G:H2'	1:6:549:G:C8	2.43	0.54
1:6:782:U:O2	1:6:782:U:H5"	2.08	0.54
14:C2:41:LEU:O	14:C2:43:ARG:HD2	2.07	0.54
1:2:1466:G:OP1	18:C6:139:GLN:HB3	2.08	0.54
19:C7:109:LEU:O	19:C7:113:LEU:HB2	4.49	0.54
21:C9:20:SER:OG	21:C9:24:ARG:NH2	8.01	0.54
25:D3:53:VAL:HG23	25:D3:100:ASP:O	2.07	0.54
39:L2:149:ARG:HH22	39:L2:155:LYS:HE2	1.74	0.54
42:L5:140:ARG:HB2	42:L5:140:ARG:HH21	1.73	0.54
44:L7:48:ASN:HD22	44:L7:48:ASN:N	4.74	0.54
43:L6:158:TYR:OH	50:M4:114:ASP:OD2	2.13	0.54
57:N1:79:MET:HB3	57:N1:84:TYR:CD2	2.43	0.54
66:O0:68:TYR:HD2	66:O0:69:TYR:N	3.57	0.54
3:S1:30:PHE:CZ	3:S1:94:LYS:HA	2.43	0.54
4:S2:241:ASP:O	4:S2:244:SER:HB3	2.48	0.54
8:S6:148:SER:O	8:S6:150:GLU:N	2.41	0.54
11:S9:93:LEU:O	11:S9:96:VAL:HG22	2.08	0.54
34:SR:236:ALA:O	34:SR:261:LYS:NZ	3.21	0.54
36:1:2369:G:H2'	36:1:2370:G:O4'	2.09	0.53
36:1:3035:A:OP2	86:1:4075:OHX:N4	2.40	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:517:G:P	44:L7:60:ARG:HH22	2.31	0.53
36:5:145:G:O6	86:5:4012:OHX:N5	2.41	0.53
36:5:3022:G:O2'	36:5:3031:G:O6	2.25	0.53
36:5:414:U:O4	86:5:3931:OHX:N6	2.41	0.53
36:5:2733:A:OP1	86:5:4128:OHX:N1	2.42	0.53
1:6:65:A:H2	1:6:84:A:H62	1.55	0.53
1:6:922:G:H2'	1:6:923:A:H8	1.73	0.53
12:C0:88:PRO:C	12:C0:90:THR:H	2.12	0.53
16:C4:112:ILE:H	28:D6:57:SER:HA	1.73	0.53
18:C6:11:GLY:N	18:C6:18:ALA:O	2.41	0.53
24:D2:97:ARG:HB3	24:D2:97:ARG:HH11	1.74	0.53
26:D4:20:ARG:HD2	26:D4:74:LEU:HD22	2.58	0.53
27:D5:58:ARG:HB3	27:D5:103:ARG:NH1	9.73	0.53
27:D5:66:VAL:HA	27:D5:71:ILE:HG22	5.78	0.53
16:C4:92:LYS:HD3	28:D6:69:ASN:OD1	2.08	0.53
30:D8:12:VAL:HG22	30:D8:28:VAL:HG11	1.90	0.53
39:L2:64:ARG:HH12	45:L8:38:GLN:HA	1.72	0.53
52:M6:185:ALA:O	52:M6:188:SER:N	3.61	0.53
36:1:744:A:H1'	54:M8:141:ARG:HH11	1.73	0.53
62:N6:3:LYS:HD2	62:N6:8:VAL:HG23	4.89	0.53
64:N8:133:LEU:HD11	64:N8:137:LYS:HE3	2.25	0.53
76:Q0:94:SER:O	76:Q0:103:LEU:N	2.39	0.53
77:Q1:21:ARG:HH11	1:6:1654:G:P	282.49	0.53
10:S8:138:ASN:N	10:S8:138:ASN:OD1	2.26	0.53
11:S9:53:ARG:HB3	11:S9:53:ARG:NH2	3.38	0.53
36:1:1397:C:C2'	36:1:1398:U:H5'	2.39	0.53
36:1:2852:C:N3	47:M0:158:LYS:NZ	2.55	0.53
36:1:573:C:H2'	36:1:574:U:C6	2.43	0.53
36:1:685:G:OP1	49:M3:35:ARG:HD2	2.07	0.53
1:2:1238:A:OP2	86:2:2047:OHX:N2	2.41	0.53
1:2:289:U:H2'	1:2:290:G:O4'	2.09	0.53
1:2:882:U:H2'	1:2:883:C:C6	2.44	0.53
36:5:2673:A:H61	36:5:2681:U:H3	1.56	0.53
36:5:408:A:OP1	86:5:4096:OHX:N6	2.42	0.53
36:5:601:U:H2'	36:5:602:A:O4'	2.08	0.53
1:6:1350:U:H2'	1:6:1351:G:C8	2.43	0.53
86:6:2058:OHX:N1	86:6:2145:OHX:N3	2.55	0.53
14:C2:119:SER:OG	14:C2:120:VAL:HG23	2.07	0.53
15:C3:85:PRO:HD2	15:C3:88:LEU:HD12	3.83	0.53
19:C7:82:ASP:O	19:C7:83:GLN:HB2	2.08	0.53
21:C9:33:TYR:O	21:C9:34:VAL:HB	4.67	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:142:PRO:HG3	23:D1:32:VAL:HG22	2.46	0.53
26:D4:38:ASP:OD2	26:D4:52:LYS:NZ	4.36	0.53
39:L2:18:SER:O	39:L2:20:THR:HG23	5.06	0.53
43:L6:137:ASP:O	43:L6:141:VAL:HG23	2.07	0.53
45:L8:161:GLU:HA	45:L8:164:VAL:HG22	2.06	0.53
46:L9:106:LYS:O	46:L9:109:ALA:HB2	2.17	0.53
46:L9:57:VAL:HG23	46:L9:68:LEU:HG	2.22	0.53
49:M3:19:GLN:HE22	36:5:801:A:H61	130.69	0.53
50:M4:23:ILE:HA	50:M4:63:VAL:HG23	1.89	0.53
67:O1:19:ARG:HD3	67:O1:35:GLU:HG3	2.94	0.53
67:O1:74:ARG:HH12	67:O1:109:VAL:HG11	2.28	0.53
71:O5:59:ASN:O	71:O5:63:ARG:HG2	4.36	0.53
73:O7:28:HIS:ND1	73:O7:31:LYS:HB2	2.23	0.53
2:S0:162:CYS:SG	2:S0:163:ASN:N	2.81	0.53
1:2:1278:G:H4'	5:S3:174:HIS:HE1	1.73	0.53
5:S3:177:MET:HG3	5:S3:178:ARG:HG2	5.31	0.53
6:S4:95:THR:O	6:S4:97:GLU:N	2.73	0.53
7:S5:136:ALA:HA	7:S5:201:ALA:O	2.09	0.53
34:SR:156:VAL:HG22	34:SR:169:ILE:HG22	1.88	0.53
36:1:120:G:N2	45:L8:126:SER:HB3	2.23	0.53
36:1:1603:A:OP1	55:M9:38:ARG:NH1	2.41	0.53
36:1:192:C:H2'	36:1:193:C:H6	1.73	0.53
36:1:262:U:H2'	36:1:263:C:O4'	2.09	0.53
36:1:304:G:H3'	36:1:304:G:OP2	2.09	0.53
36:1:3365:U:H2'	36:1:3366:G:C8	2.43	0.53
1:2:1256:A:OP1	12:C0:5:LYS:NZ	2.29	0.53
1:2:1320:U:O2	1:2:1322:A:H5'	2.09	0.53
1:2:850:A:H5'	55:M9:165:LYS:HD3	1.90	0.53
1:2:959:U:C6	15:C3:61:THR:HB	2.44	0.53
62:N6:2:ALA:HA	36:5:213:A:H5"	80.38	0.53
36:5:261:U:H2'	36:5:262:U:C6	2.43	0.53
36:5:2734:A:OP1	86:5:4041:OHX:N6	2.41	0.53
76:Q0:97:ARG:HH21	36:5:2847:A:P	321.55	0.53
36:5:3165:A:H2'	36:5:3166:C:H6	1.73	0.53
86:5:4015:OHX:N6	86:5:4211:OHX:N4	2.57	0.53
68:O2:38:ILE:N	36:5:640:U:OP2	186.77	0.53
1:6:138:A:H5"	1:6:138:A:N3	2.23	0.53
1:6:1309:C:O2'	1:6:1401:A:N1	2.30	0.53
1:6:1489:U:H5'	1:6:1494:C:H1'	1.90	0.53
12:C0:69:THR:O	12:C0:73:VAL:HG23	2.08	0.53
14:C2:31:VAL:HG21	14:C2:136:ILE:HD11	1.98	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:30:THR:HG22	34:SR:127:ARG:HH22	4.99	0.53
19:C7:57:LEU:O	19:C7:61:ILE:HG13	2.09	0.53
20:C8:117:LYS:HE2	20:C8:128:PHE:HB2	1.90	0.53
24:D2:8:ALA:HA	24:D2:74:VAL:HG11	1.90	0.53
32:E0:14:VAL:O	32:E0:18:THR:HG23	2.11	0.53
40:L3:73:VAL:HG13	59:N3:90:GLY:HA3	2.25	0.53
41:L4:39:PHE:CD2	41:L4:242:ALA:HB2	2.94	0.53
42:L5:90:HIS:NE2	42:L5:229:ASP:OD2	2.39	0.53
52:M6:138:LEU:O	52:M6:142:SER:N	2.90	0.53
67:O1:70:ARG:HE	67:O1:102:LYS:NZ	5.43	0.53
68:O2:101:SER:O	68:O2:105:ARG:HG3	2.07	0.53
71:O5:86:ARG:HG3	71:O5:90:ARG:NH2	2.50	0.53
77:Q1:21:ARG:HD2	1:6:1653:C:O3'	284.26	0.53
78:Q2:28:TYR:HB3	78:Q2:69:VAL:HB	1.91	0.53
79:Q3:17:ARG:NH1	36:5:860:G:OP1	219.74	0.53
39:L2:97:ASN:HA	79:Q3:87:ARG:NH1	4.06	0.53
2:S0:109:ASN:O	2:S0:112:THR:HG22	2.08	0.53
2:S0:148:ASP:HB3	2:S0:150:ASP:OD2	2.09	0.53
3:S1:83:LYS:N	3:S1:104:ASP:O	2.38	0.53
3:S1:109:LYS:HE3	3:S1:113:MET:HE2	1.90	0.53
8:S6:10:ASN:OD1	8:S6:10:ASN:N	2.93	0.53
36:1:209:A:H4'	36:1:211:A:C8	2.43	0.53
36:1:247:C:H2'	36:1:248:U:H6	1.73	0.53
36:1:2789:U:H2'	36:1:2790:A:C8	2.44	0.53
36:1:634:C:H4'	68:O2:47:ARG:NH1	2.24	0.53
86:2:2044:OHX:N1	86:2:2099:OHX:N3	2.56	0.53
86:2:2031:OHX:N6	86:2:2146:OHX:N2	2.56	0.53
75:O9:4:GLN:HG2	36:5:1588:A:N1	125.15	0.53
36:5:1831:U:H2'	36:5:1832:C:C6	2.43	0.53
36:5:1208:U:H6	36:5:3115:C:H42	1.57	0.53
49:M3:68:LYS:HE2	36:5:699:A:OP1	97.43	0.53
28:D6:95:ARG:HG2	1:6:1797:A:H5'	343.06	0.53
86:6:2058:OHX:N5	86:6:2145:OHX:N6	2.57	0.53
16:C4:124:ASP:O	16:C4:125:SER:HB2	2.09	0.53
19:C7:119:LEU:H	19:C7:119:LEU:HD12	1.73	0.53
20:C8:35:ILE:HB	20:C8:38:VAL:CG1	3.88	0.53
24:D2:37:PHE:CD2	24:D2:103:ILE:HD12	2.44	0.53
40:L3:188:ILE:CD1	40:L3:189:SER:H	2.21	0.53
40:L3:221:THR:HB	40:L3:273:HIS:O	2.45	0.53
40:L3:376:LYS:HG2	40:L3:380:MET:HG3	2.83	0.53
42:L5:286:VAL:HG13	47:M0:206:LEU:HD21	2.63	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:49:ASN:O	46:L9:51:GLN:N	2.42	0.53
59:N3:66:LYS:HB2	59:N3:69:LEU:HD22	1.89	0.53
63:N7:4:PHE:HE2	66:O0:63:SER:HB3	2.62	0.53
63:N7:82:PRO:HG2	66:O0:59:TYR:CE2	2.43	0.53
68:O2:64:LYS:O	68:O2:65:PHE:HB2	2.19	0.53
72:O6:10:GLY:O	72:O6:13:LYS:HB2	2.09	0.53
72:O6:45:ARG:NH2	72:O6:50:LEU:HA	3.78	0.53
2:S0:140:ASN:O	2:S0:142:PRO:HD3	2.69	0.53
3:S1:172:LEU:O	3:S1:176:VAL:HG23	2.17	0.53
4:S2:90:THR:HB	4:S2:93:GLY:O	2.09	0.53
6:S4:160:VAL:HG13	6:S4:169:ILE:HG23	1.90	0.53
36:1:1798:A:H2'	36:1:1799:A:C8	2.43	0.53
36:1:2592:G:H4'	36:1:2594:C:C2	2.43	0.53
36:1:2881:C:H2'	36:1:2882:U:C6	2.43	0.53
36:1:3316:A:OP1	36:1:3318:G:N2	2.42	0.53
36:1:3317:U:H4'	36:1:3318:G:O5'	2.09	0.53
36:1:3026:G:O6	86:1:3940:OHX:N4	2.42	0.53
36:1:677:A:C8	36:1:786:A:C6	2.97	0.53
36:1:926:A:H2'	36:1:927:C:C6	2.44	0.53
1:2:123:G:N2	6:S4:146:THR:HG21	2.21	0.53
1:2:14:C:H2'	1:2:15:U:C6	2.42	0.53
1:2:1720:G:O6	86:2:2082:OHX:N5	2.41	0.53
1:2:560:U:H2'	1:2:561:G:C8	2.44	0.53
1:6:1698:G:O2'	1:6:1699:G:O5'	2.25	0.53
10:S8:51:GLY:H	1:6:397:A:H5"	313.30	0.53
1:6:694:U:H3'	1:6:695:U:O2	2.08	0.53
12:C0:12:HIS:HA	12:C0:15:LEU:HB2	3.37	0.53
12:C0:87:VAL:O	12:C0:89:ALA:N	4.58	0.53
15:C3:52:VAL:HG22	15:C3:55:ARG:HH12	1.73	0.53
19:C7:4:VAL:HA	1:6:1402:G:OP1	404.12	0.53
2:S0:62:ARG:HE	23:D1:39:VAL:HG13	1.73	0.53
41:L4:23:PRO:O	41:L4:25:VAL:N	2.65	0.53
41:L4:135:VAL:HA	41:L4:245:GLY:O	2.08	0.53
48:M1:160:VAL:HG13	48:M1:171:VAL:HG21	1.92	0.53
49:M3:37:ASN:O	49:M3:41:THR:HG23	5.31	0.53
51:M5:167:THR:O	51:M5:170:LYS:HB3	2.76	0.53
70:O4:78:GLY:O	70:O4:80:ARG:N	4.52	0.53
71:O5:101:THR:HG23	71:O5:104:GLN:H	2.17	0.53
78:Q2:39:GLY:HA3	36:5:2765:C:O3'	173.14	0.53
78:Q2:73:GLU:OE1	78:Q2:80:ARG:NH1	4.96	0.53
2:S0:49:ASN:HB3	2:S0:52:LYS:HG3	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:76:ILE:HD13	2:S0:98:ILE:HB	1.89	0.53
3:S1:181:LEU:HA	3:S1:184:LEU:HB3	1.91	0.53
6:S4:46:VAL:O	6:S4:50:ASN:HB2	2.19	0.53
7:S5:132:VAL:HG13	7:S5:202:ALA:HB2	1.90	0.53
7:S5:36:ALA:HB1	7:S5:42:LEU:HD12	4.74	0.53
11:S9:27:GLU:HB3	11:S9:39:LYS:HD2	4.46	0.53
36:1:1454:A:H5"	36:1:1455:U:H5'	1.90	0.53
36:1:2841:G:OP2	86:1:4142:OHX:N2	2.41	0.53
36:1:3174:A:C2'	36:1:3175:U:H5'	2.39	0.53
36:1:2724:U:O4	86:1:3910:OHX:N6	2.41	0.53
1:2:955:A:H4'	1:2:1073:G:O2'	2.09	0.53
1:2:1248:C:H2'	1:2:1249:U:C6	2.42	0.53
1:2:1550:A:OP2	17:C5:42:ARG:NH2	2.41	0.53
1:2:702:G:HO2'	1:2:703:G:H8	1.56	0.53
1:2:702:G:O2'	1:2:703:G:H8	1.92	0.53
38:4:5:U:H2'	38:4:6:U:O4'	2.08	0.53
36:5:1346:G:H1	36:5:1358:C:N4	2.07	0.53
36:5:169:U:H4'	36:5:170:G:OP1	2.08	0.53
36:5:3241:G:H2'	36:5:3245:A:H8	1.73	0.53
1:6:1248:C:H2'	1:6:1249:U:C6	2.43	0.53
5:S3:141:LYS:HD3	1:6:1275:A:O2'	388.02	0.53
1:6:1773:C:H2'	1:6:1774:G:C8	2.44	0.53
7:S5:25:LEU:HB2	18:C6:27:GLY:O	2.37	0.53
20:C8:140:THR:HA	20:C8:143:ARG:NH1	2.34	0.53
20:C8:56:LYS:HB3	20:C8:60:GLU:HG3	1.90	0.53
22:D0:117:VAL:HG22	22:D0:118:VAL:H	1.73	0.53
22:D0:69:LYS:HE2	22:D0:80:GLU:HB2	1.91	0.53
24:D2:114:GLU:O	24:D2:118:ARG:HG3	2.08	0.53
30:D8:15:VAL:HA	30:D8:28:VAL:HG22	1.91	0.53
30:D8:39:THR:O	30:D8:40:ILE:HG13	2.09	0.53
46:L9:86:TYR:CD1	46:L9:151:VAL:HG13	2.43	0.53
47:M0:89:VAL:HG22	47:M0:136:PHE:CE1	3.60	0.53
47:M0:210:ILE:HA	47:M0:217:PHE:CE2	2.49	0.53
47:M0:3:ARG:NH2	47:M0:63:GLU:HG3	2.24	0.53
55:M9:152:GLU:O	55:M9:156:ASN:HB2	3.65	0.53
55:M9:41:ILE:O	55:M9:45:VAL:HG23	2.09	0.53
64:N8:73:LEU:HB2	64:N8:109:TYR:CD2	2.43	0.53
71:O5:10:ARG:NH1	71:O5:60:GLU:OE2	2.42	0.53
6:S4:106:LYS:HG3	6:S4:108:ARG:NH1	2.23	0.53
36:1:1902:G:C6	36:1:1903:U:C2	2.97	0.53
36:1:3002:C:H1'	36:1:3147:G:N2	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:539:C:H2'	36:1:540:U:C6	2.44	0.53
1:2:1235:C:O4'	33:E1:146:SER:HB3	2.08	0.53
1:2:1407:U:H2'	1:2:1408:G:O4'	2.08	0.53
36:5:2400:G:H5"	36:5:2401:A:OP2	2.08	0.53
1:6:1458:G:C2	1:6:1459:C:C4	2.97	0.53
30:D8:22:ARG:HD2	1:6:1619:C:C2	343.21	0.53
1:6:180:A:H2'	1:6:181:A:O4'	2.09	0.53
1:6:906:A:H2'	1:6:907:A:C8	2.43	0.53
1:6:922:G:H2'	1:6:923:A:C8	2.44	0.53
37:7:114:U:H2'	37:7:115:G:H8	1.73	0.53
24:D2:45:GLY:O	24:D2:68:ARG:HD2	2.84	0.53
24:D2:73:GLY:HA3	24:D2:128:PHE:CZ	2.74	0.53
27:D5:88:ILE:O	27:D5:104:ALA:HA	2.81	0.53
39:L2:230:VAL:O	39:L2:233:GLN:HB2	2.09	0.53
39:L2:70:ARG:HG2	39:L2:71:LEU:N	4.91	0.53
39:L2:80:GLU:HG3	79:Q3:66:GLY:HA2	1.89	0.53
46:L9:1:MET:HG2	46:L9:3:TYR:CE1	3.77	0.53
48:M1:48:SER:HB2	48:M1:66:ALA:HB3	2.21	0.53
51:M5:143:ARG:NH2	71:O5:92:LEU:HD23	2.23	0.53
51:M5:156:HIS:O	51:M5:159:ARG:HG2	2.08	0.53
54:M8:106:PHE:CE2	54:M8:121:CYS:HB3	2.44	0.53
55:M9:96:ILE:O	55:M9:100:ARG:HG3	2.09	0.53
58:N2:49:ASN:ND2	58:N2:49:ASN:O	2.40	0.53
62:N6:56:VAL:HG11	62:N6:104:LEU:HD13	1.97	0.53
64:N8:111:LYS:HA	64:N8:129:PHE:O	2.37	0.53
66:O0:26:GLY:O	66:O0:30:THR:HG23	2.09	0.53
67:O1:36:ILE:HD12	67:O1:59:ILE:HD11	1.89	0.53
36:1:1319:G:H2'	36:1:1320:C:H6	1.74	0.53
36:1:1597:C:OP1	70:O4:31:ARG:HD2	2.08	0.53
36:1:1674:G:H2'	36:1:1675:G:O4'	2.09	0.53
36:1:1724:U:H1'	36:1:1725:C:C6	2.44	0.53
36:1:2193:U:H5'	36:1:2194:G:H5'	1.91	0.53
36:1:2209:U:OP2	36:1:2209:U:C6	2.61	0.53
36:1:698:U:H2'	36:1:699:A:O4'	2.09	0.53
1:2:996:U:O2	1:2:1008:G:N2	2.42	0.53
1:2:933:A:OP2	28:D6:37:LYS:NZ	2.31	0.53
36:5:1063:G:OP2	36:5:1097:G:H5"	2.09	0.53
36:5:1725:C:H2'	36:5:1726:C:H6	1.72	0.53
36:5:1824:U:H2'	36:5:1825:G:C8	2.44	0.53
1:6:1235:C:OP2	1:6:1245:G:H8	1.92	0.53
21:C9:25:GLN:OE1	21:C9:27:LYS:HB2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:89:TRP:O	24:D2:93:LEU:HD22	2.09	0.53
28:D6:84:VAL:O	28:D6:86:VAL:N	2.40	0.53
7:S5:161:ASP:O	30:D8:44:VAL:HA	2.33	0.53
39:L2:114:SER:HB2	39:L2:169:ILE:CD1	2.39	0.53
39:L2:203:ALA:HB1	36:5:2146:C:H5"	206.22	0.53
40:L3:117:ARG:CZ	40:L3:175:LYS:HD3	2.90	0.53
43:L6:76:LEU:HD11	43:L6:141:VAL:HG21	1.89	0.53
44:L7:125:GLU:OE1	44:L7:128:LYS:HE2	2.08	0.53
45:L8:142:LEU:HD22	45:L8:201:THR:HG21	1.90	0.53
46:L9:13:PRO:HG2	46:L9:16:VAL:HG11	2.81	0.53
55:M9:104:ARG:HH21	55:M9:105:LEU:HB2	1.74	0.53
55:M9:182:ASP:O	55:M9:184:LEU:N	3.56	0.53
57:N1:18:ASP:HB2	57:N1:21:LYS:HB2	3.42	0.53
63:N7:97:SER:O	63:N7:100:THR:HB	2.09	0.53
73:O7:35:SER:OG	36:5:361:A:H5'	126.18	0.53
78:Q2:73:GLU:CD	78:Q2:80:ARG:HH21	2.12	0.53
2:S0:198:MET:SD	2:S0:199:PRO:HD2	2.49	0.53
3:S1:166:LYS:O	3:S1:170:GLU:HB2	2.88	0.53
3:S1:22:ASP:OD2	3:S1:25:THR:OG1	5.26	0.53
5:S3:10:LYS:HG2	5:S3:11:LEU:HD23	3.32	0.53
6:S4:163:ASP:OD1	6:S4:166:SER:N	2.29	0.53
8:S6:48:TYR:CZ	8:S6:121:LEU:HD22	5.12	0.53
9:S7:102:PRO:HD3	9:S7:112:ARG:NH1	3.96	0.53
11:S9:107:ARG:O	11:S9:147:MET:HA	2.09	0.53
36:1:1245:A:N6	36:1:1272:C:O2'	2.41	0.53
36:1:1740:U:H1'	36:1:1741:A:H2	1.73	0.53
37:3:11:A:H4'	37:3:13:A:C8	2.44	0.53
36:5:119:U:H4'	36:5:120:G:H3'	1.91	0.53
36:5:595:G:H1	36:5:609:G:H5"	1.74	0.53
1:6:1158:C:H42	1:6:1163:A:H61	1.56	0.53
17:C5:100:LYS:HG3	1:6:1211:A:H4'	367.79	0.53
21:C9:72:GLY:HA3	1:6:1498:G:H5"	420.78	0.53
1:6:1699:G:N1	1:6:1701:A:H5"	2.23	0.53
1:6:1703:C:H2'	1:6:1704:U:H6	1.73	0.53
13:C1:86:ILE:HD11	13:C1:125:VAL:HG11	3.46	0.53
19:C7:24:LEU:HD23	19:C7:34:LEU:HD13	1.89	0.53
20:C8:20:THR:OG1	20:C8:21:ASN:N	2.41	0.53
2:S0:154:GLU:HA	23:D1:63:GLY:HA2	1.92	0.53
33:E1:126:CYS:CB	33:E1:143:LYS:HG2	2.39	0.53
39:L2:241:ARG:HA	36:5:2203:U:H4'	220.46	0.53
40:L3:375:GLU:O	40:L3:378:ALA:HB3	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:139:GLY:O	41:L4:180:LYS:HE2	6.50	0.53
41:L4:205:PRO:HB3	41:L4:247:PHE:CD2	2.50	0.53
42:L5:91:GLY:HA3	42:L5:94:ASN:ND2	4.38	0.53
46:L9:117:PHE:CE1	46:L9:165:CYS:HB3	2.59	0.53
47:M0:85:PHE:HA	47:M0:140:THR:HG22	1.91	0.53
47:M0:206:LEU:O	47:M0:210:ILE:HG12	3.76	0.53
47:M0:38:LYS:HG2	47:M0:41:ALA:HB2	2.18	0.53
50:M4:60:LEU:HD13	56:N0:152:LEU:HD11	1.89	0.53
73:O7:28:HIS:CG	73:O7:31:LYS:HB2	2.43	0.53
2:S0:190:ASP:C	2:S0:192:THR:H	4.72	0.53
4:S2:60:SER:OG	23:D1:15:ARG:NH2	2.42	0.53
6:S4:200:ARG:HG2	6:S4:201:HIS:N	3.64	0.53
10:S8:96:LEU:HD13	10:S8:179:CYS:SG	2.48	0.53
10:S8:31:ARG:NH2	1:6:333:A:OP1	297.94	0.53
34:SR:106:HIS:CE1	34:SR:126:SER:HB3	2.44	0.53
36:1:1068:C:H42	36:1:1090:G:H1	1.57	0.53
36:1:2389:C:H42	36:1:2990:G:H1	1.57	0.53
36:1:849:C:H2'	36:1:850:U:H6	1.74	0.53
1:2:1013:A:H2'	1:2:1014:G:O4'	2.09	0.53
1:2:434:G:N7	86:2:2048:OHX:N4	2.56	0.53
64:N8:10:LYS:HE3	36:5:1375:G:O6	159.67	0.53
67:O1:26:LYS:NZ	36:5:1456:A:N7	167.05	0.53
36:5:1944:U:H2'	36:5:1945:A:H8	1.74	0.53
36:5:2922:G:N1	36:5:2923:U:O2	2.41	0.53
36:5:2985:C:H2'	36:5:2986:U:C6	2.43	0.53
36:5:3377:G:O6	86:5:4082:OHX:N1	2.42	0.53
1:6:1698:G:H1'	1:6:1699:G:OP1	2.09	0.53
6:S4:66:MET:HB3	1:6:454:U:C4	375.95	0.53
1:6:351:C:OP1	1:6:630:A:O2'	2.27	0.53
1:6:647:G:N2	1:6:687:G:H22	2.07	0.53
1:6:67:A:O2'	1:6:69:G:OP1	2.08	0.53
1:6:841:U:H2'	1:6:842:C:O4'	2.09	0.53
18:C6:129:PHE:CE1	22:D0:78:THR:HA	2.43	0.53
18:C6:46:PHE:O	18:C6:50:GLU:HG3	2.09	0.53
28:D6:60:PRO:O	28:D6:61:GLU:HB3	2.87	0.53
39:L2:113:VAL:HG12	39:L2:166:ILE:HD13	2.03	0.53
41:L4:148:ILE:HA	41:L4:149:PRO:C	2.56	0.53
42:L5:122:VAL:HG23	42:L5:123:GLU:N	3.16	0.53
42:L5:254:LYS:HG3	42:L5:254:LYS:O	3.47	0.53
44:L7:159:GLN:O	44:L7:160:ARG:HB3	2.09	0.53
46:L9:117:PHE:O	46:L9:120:ASP:HB2	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:150:TRP:CZ3	51:M5:156:HIS:CD2	4.09	0.53
51:M5:28:TRP:O	51:M5:32:GLN:HG2	2.09	0.53
36:1:534:U:O3'	56:N0:146:LYS:HD3	2.09	0.53
63:N7:5:LEU:HD22	63:N7:77:TYR:CE2	5.94	0.53
68:O2:22:SER:HA	68:O2:28:VAL:HG12	1.90	0.53
36:1:1407:A:O3'	68:O2:33:ARG:NH2	2.42	0.53
68:O2:76:VAL:HG21	68:O2:94:ALA:HB1	2.42	0.53
74:O8:46:ARG:NH1	74:O8:47:GLY:O	3.21	0.53
2:S0:150:ASP:N	2:S0:150:ASP:OD2	2.41	0.53
2:S0:167:LYS:HB3	2:S0:168:HIS:CD2	3.03	0.53
2:S0:200:ASP:HA	2:S0:203:PHE:CE1	2.44	0.53
8:S6:173:PRO:HG3	1:6:66:U:C5	333.51	0.53
11:S9:134:ILE:HA	11:S9:158:PHE:HA	1.90	0.53
36:1:2403:G:H5'	36:1:2872:A:C2	2.44	0.52
36:1:3027:A:H2'	36:1:3028:G:O4'	2.09	0.52
36:1:2960:C:OP1	86:1:4002:OHX:N4	2.42	0.52
37:3:3:U:H2'	37:3:4:U:C6	2.44	0.52
38:4:103:G:O6	86:4:223:OHX:N4	2.42	0.52
36:5:126:U:H2'	36:5:127:G:O4'	2.08	0.52
49:M3:63:VAL:HG22	36:5:72:C:H5'	112.54	0.52
7:S5:185:ARG:NH1	1:6:1471:A:OP1	333.38	0.52
26:D4:62:THR:HG23	1:6:531:C:O2	420.80	0.52
21:C9:139:THR:O	21:C9:142:GLU:N	3.46	0.52
26:D4:62:THR:HB	26:D4:69:SER:OG	2.88	0.52
28:D6:10:ARG:HG2	28:D6:10:ARG:NH2	3.67	0.52
40:L3:313:HIS:O	40:L3:333:LYS:HE3	2.44	0.52
41:L4:255:PHE:O	41:L4:258:LEU:HB2	2.18	0.52
53:M7:126:ARG:HD2	53:M7:140:GLU:OE2	2.09	0.52
53:M7:48:LEU:HB3	53:M7:88:VAL:HG13	1.90	0.52
54:M8:150:VAL:HA	54:M8:153:PHE:CD1	2.44	0.52
54:M8:40:THR:O	54:M8:42:ALA:N	2.42	0.52
50:M4:38:ILE:HD13	56:N0:150:PHE:CE2	3.56	0.52
57:N1:39:ILE:HG13	57:N1:102:ARG:HG2	6.20	0.52
40:L3:67:PHE:CE1	59:N3:88:ARG:HB3	2.44	0.52
68:O2:72:LYS:O	68:O2:92:TYR:HA	2.31	0.52
71:O5:18:ALA:O	71:O5:22:VAL:HG23	2.09	0.52
3:S1:117:TRP:HZ2	1:6:1799:U:H5"	336.32	0.52
3:S1:100:PHE:HB3	3:S1:181:LEU:HD13	5.64	0.52
8:S6:116:LYS:HG3	8:S6:117:GLY:N	3.47	0.52
9:S7:14:THR:HG22	9:S7:17:GLU:H	3.05	0.52
9:S7:63:PRO:O	9:S7:64:VAL:HB	2.20	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:89:ASP:HB2	11:S9:90:LYS:HE2	1.91	0.52
36:1:1633:C:H2'	36:1:1634:G:C8	2.41	0.52
36:1:1915:A:H5"	55:M9:84:THR:HG22	1.91	0.52
36:1:3306:U:H5"	40:L3:21:ARG:NH1	2.25	0.52
36:1:345:G:OP1	36:1:1429:G:N1	2.32	0.52
36:1:1078:U:O4	86:1:3967:OHX:N2	2.42	0.52
36:1:562:C:H2'	36:1:563:U:C6	2.44	0.52
36:1:598:A:OP1	44:L7:41:ARG:NH1	2.42	0.52
1:2:1250:U:O2'	1:2:1251:U:OP1	2.26	0.52
1:2:1294:G:O2'	1:2:1321:A:N1	2.35	0.52
1:2:1637:C:O2'	35:SM:94:HIS:NE2	2.34	0.52
1:2:3:U:H5'	4:S2:198:THR:O	2.09	0.52
1:2:67:A:O3'	1:2:68:A:H3'	2.09	0.52
41:L4:141:ARG:NH2	36:5:1385:C:OP1	126.63	0.52
36:5:1595:U:C2	36:5:1596:C:C5	2.98	0.52
36:5:1615:C:H2'	36:5:1616:U:C6	2.43	0.52
55:M9:43:LYS:HZ2	36:5:1765:U:H5'	94.35	0.52
36:5:2795:U:O2	36:5:2800:G:O2'	2.18	0.52
36:5:2370:G:N7	86:5:3902:OHX:N6	2.58	0.52
56:N0:71:LYS:NZ	36:5:563:U:OP1	340.68	0.52
41:L4:322:GLN:OE1	36:5:598:A:H1'	255.80	0.52
36:5:887:G:H2'	36:5:888:A:C8	2.44	0.52
36:5:976:U:H2'	36:5:977:C:O4'	2.08	0.52
1:6:1735:U:O4	86:6:2121:OHX:N5	2.43	0.52
12:C0:1:MET:HG3	12:C0:2:LEU:H	3.20	0.52
15:C3:143:SER:OG	15:C3:144:ALA:N	2.42	0.52
18:C6:10:PHE:O	18:C6:87:LYS:HD3	3.38	0.52
18:C6:9:THR:HG21	18:C6:88:GLY:HA2	1.89	0.52
25:D3:48:HIS:HB3	25:D3:103:LEU:HD21	2.13	0.52
28:D6:79:ILE:HA	28:D6:84:VAL:HG21	1.89	0.52
41:L4:26:PHE:HA	41:L4:127:ALA:HA	2.38	0.52
42:L5:211:LEU:HD22	42:L5:215:ASP:HB3	2.20	0.52
42:L5:237:GLU:O	42:L5:241:THR:HB	2.86	0.52
53:M7:29:THR:HA	53:M7:32:THR:CG2	2.38	0.52
57:N1:130:ARG:NH1	36:5:1098:A:OP2	253.09	0.52
57:N1:64:VAL:HG13	57:N1:72:VAL:HB	2.60	0.52
42:L5:40:HIS:CE1	57:N1:69:LYS:HA	2.87	0.52
57:N1:30:TYR:OH	57:N1:94:GLU:OE2	2.72	0.52
71:O5:10:ARG:NH2	38:8:65:A:O3'	33.85	0.52
51:M5:15:GLN:HG2	72:O6:52:PRO:HG2	3.08	0.52
72:O6:62:ARG:HH22	72:O6:98:ARG:NH1	2.07	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
77:Q1:6:ARG:HA	77:Q1:9:ARG:HB2	1.91	0.52
3:S1:61:LEU:O	3:S1:63:GLY:N	2.42	0.52
5:S3:64:ARG:O	5:S3:66:ILE:N	2.42	0.52
6:S4:195:ILE:HG22	6:S4:196:VAL:N	3.10	0.52
7:S5:166:ARG:HB2	30:D8:46:GLY:HA3	1.91	0.52
9:S7:86:GLN:HG2	9:S7:87:ASP:H	1.74	0.52
34:SR:300:THR:HG23	34:SR:314:GLN:HG3	1.91	0.52
36:1:3248:C:O5'	36:1:3248:C:H6	1.92	0.52
36:1:391:A:C5	36:1:392:G:C8	2.97	0.52
36:1:3:U:C2	38:4:157:U:C2	2.98	0.52
1:2:795:U:OP2	24:D2:82:LYS:NZ	2.38	0.52
1:2:927:C:H2'	1:2:928:U:C6	2.44	0.52
36:5:213:A:N6	36:5:227:G:O2'	2.40	0.52
39:L2:224:THR:HG23	36:5:2202:C:O4'	218.99	0.52
73:O7:55:ARG:NH1	36:5:353:G:O6	112.33	0.52
1:6:1239:U:O4	86:6:2095:OHX:N1	2.42	0.52
1:6:1273:G:H4'	1:6:1274:C:H5"	1.92	0.52
21:C9:37:VAL:HG23	1:6:1503:A:O2'	386.15	0.52
77:Q1:2:ARG:NH1	1:6:1773:C:OP2	309.11	0.52
86:6:2058:OHX:N2	86:6:2145:OHX:N4	2.58	0.52
1:6:485:A:C5	1:6:486:G:H1'	2.45	0.52
1:6:846:G:C2	1:6:847:A:C4	2.98	0.52
38:8:10:A:H2'	38:8:11:C:C6	2.45	0.52
1:2:929:A:H1'	16:C4:124:ASP:H	1.75	0.52
18:C6:41:PRO:O	18:C6:42:GLU:HB3	2.10	0.52
19:C7:104:ASN:OD1	19:C7:104:ASN:N	2.42	0.52
19:C7:105:GLN:NE2	19:C7:105:GLN:H	2.06	0.52
22:D0:102:ARG:HG3	22:D0:103:ILE:N	4.56	0.52
23:D1:18:SER:O	23:D1:72:LEU:HD11	3.31	0.52
40:L3:67:PHE:HA	40:L3:70:ARG:HG3	3.29	0.52
41:L4:295:ILE:O	41:L4:299:ILE:HG12	2.24	0.52
44:L7:26:VAL:HG23	44:L7:27:ALA:H	1.74	0.52
46:L9:67:ALA:HA	46:L9:70:THR:HG23	1.91	0.52
47:M0:19:LYS:HG3	47:M0:26:VAL:HG13	2.08	0.52
48:M1:8:PRO:HD2	48:M1:10:ARG:HG3	2.62	0.52
49:M3:168:ARG:CZ	49:M3:172:LEU:HD21	3.48	0.52
50:M4:22:LEU:HD22	50:M4:94:TRP:CH2	2.69	0.52
36:1:2384:A:N1	52:M6:96:LYS:HE2	2.24	0.52
53:M7:97:ASN:OD1	53:M7:101:ASN:ND2	2.99	0.52
53:M7:75:GLU:HG2	53:M7:76:PHE:CE2	2.45	0.52
55:M9:101:VAL:HG13	55:M9:104:ARG:NH1	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:12:ARG:HG2	36:5:215:G:OP1	87.74	0.52
63:N7:75:VAL:HG13	63:N7:80:LEU:HD11	4.47	0.52
67:O1:20:LEU:HD21	67:O1:31:ARG:HB3	1.90	0.52
68:O2:20:HIS:O	68:O2:21:HIS:HB2	2.08	0.52
3:S1:138:PHE:CD2	3:S1:214:LYS:HB3	2.45	0.52
7:S5:92:ARG:HH21	7:S5:169:ASN:HA	1.74	0.52
11:S9:65:LYS:HA	11:S9:70:LEU:HD11	2.17	0.52
36:1:1308:A:H8	36:1:1308:A:OP2	1.91	0.52
36:1:2859:U:H4'	36:1:2860:U:OP1	2.08	0.52
36:1:3326:G:H2'	36:1:3327:G:H8	1.74	0.52
36:1:2704:A:OP2	86:1:3870:OHX:N4	2.42	0.52
1:2:1157:A:H2'	1:2:1160:A:N7	2.24	0.52
1:2:1277:G:H2'	1:2:1278:G:O4'	2.10	0.52
1:2:1346:A:H8	1:2:1370:U:O2	1.93	0.52
1:2:416:A:H5"	1:2:417:A:N7	2.25	0.52
1:2:558:U:O2'	1:2:559:C:O5'	2.24	0.52
1:2:925:G:N2	1:2:988:A:N3	2.44	0.52
35:SM:25:ILE:HD13	37:3:39:C:H5'	1.92	0.52
36:5:1611:G:H2'	36:5:1612:A:H8	1.74	0.52
1:6:1758:U:O2'	36:5:2262:A:N1	2.34	0.52
46:L9:170:LYS:HE3	36:5:2902:A:OP1	319.31	0.52
36:5:541:U:H2'	36:5:542:G:C8	2.44	0.52
36:5:619:A:H8	36:5:619:A:OP2	1.91	0.52
1:6:1696:G:O2'	1:6:1698:G:N7	2.39	0.52
86:6:2103:OHX:N5	86:6:2190:OHX:N6	2.58	0.52
86:8:218:OHX:N6	86:8:226:OHX:N4	2.57	0.52
18:C6:7:VAL:HG21	18:C6:92:TYR:HA	3.37	0.52
21:C9:57:ARG:CG	21:C9:57:ARG:HH11	2.23	0.52
24:D2:11:LEU:HD12	24:D2:74:VAL:HB	1.92	0.52
1:2:1199:G:N7	31:D9:40:ARG:HD3	2.24	0.52
42:L5:281:GLU:O	42:L5:285:ARG:HG3	2.27	0.52
42:L5:85:ARG:NH1	42:L5:254:LYS:H	3.58	0.52
45:L8:136:LEU:HD21	45:L8:166:LEU:HD11	1.90	0.52
48:M1:10:ARG:NH2	48:M1:151:SER:O	2.43	0.52
55:M9:23:TRP:CH2	55:M9:25:ASP:HB3	2.45	0.52
56:N0:77:VAL:HG11	56:N0:106:LEU:HG	1.91	0.52
62:N6:116:LYS:HG2	62:N6:126:LEU:HD22	1.92	0.52
67:O1:13:THR:HG22	67:O1:72:ARG:HD3	1.91	0.52
71:O5:14:LYS:HB3	71:O5:15:GLU:OE2	7.79	0.52
2:S0:74:VAL:HG22	2:S0:96:THR:HG23	2.05	0.52
3:S1:48:VAL:HG23	3:S1:64:ARG:NH2	4.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:175:VAL:O	5:S3:181:VAL:HB	3.30	0.52
5:S3:27:ARG:HD2	12:C0:60:SER:HB2	1.94	0.52
11:S9:38:ASN:HB2	11:S9:41:GLU:HG3	1.91	0.52
36:1:2199:G:C5	36:1:2200:U:C5	2.98	0.52
36:1:2261:G:O2'	36:1:2263:C:N4	2.42	0.52
36:1:2355:G:H4'	53:M7:139:TYR:CZ	2.44	0.52
36:1:2390:A:H2'	36:1:2391:G:O4'	2.09	0.52
36:1:2552:C:C5	66:O0:53:LYS:HE3	2.44	0.52
36:1:2560:C:O2	86:1:3927:OHX:N1	2.43	0.52
36:1:2589:G:H2'	36:1:2590:A:H8	1.74	0.52
36:1:2890:A:N1	36:1:2913:C:N3	2.57	0.52
1:2:1151:A:H4'	1:2:1766:A:N7	2.24	0.52
1:2:1153:G:N7	86:2:2166:OHX:N1	2.57	0.52
36:5:1307:G:C2	36:5:1308:A:C2	2.98	0.52
36:5:336:A:O2'	36:5:337:G:H5'	2.09	0.52
36:5:2846:U:O2	86:5:4047:OHX:N5	2.42	0.52
36:5:528:U:H2'	36:5:529:A:C8	2.44	0.52
1:6:836:U:H2'	1:6:837:G:H8	1.75	0.52
15:C3:115:LEU:HD22	15:C3:119:GLU:HG3	1.92	0.52
16:C4:42:VAL:HG23	16:C4:63:ALA:HB1	1.92	0.52
28:D6:45:VAL:O	28:D6:46:GLU:HB3	2.34	0.52
40:L3:107:ALA:HA	40:L3:199:PHE:CD2	2.60	0.52
41:L4:3:ARG:NH2	41:L4:259:ASP:OD2	9.07	0.52
49:M3:18:TRP:C	49:M3:20:GLU:H	2.11	0.52
51:M5:65:ARG:HG2	51:M5:127:TYR:CG	3.54	0.52
53:M7:24:VAL:HG12	53:M7:86:LYS:HG2	1.92	0.52
53:M7:40:GLU:OE2	53:M7:43:LYS:HG3	2.09	0.52
36:1:1875:G:N7	55:M9:20:ARG:NE	2.58	0.52
57:N1:120:LYS:O	57:N1:122:GLN:N	2.72	0.52
70:O4:58:ARG:NH1	36:5:1592:G:OP1	160.80	0.52
79:Q3:8:VAL:HG23	79:Q3:9:GLY:H	2.35	0.52
10:S8:50:GLY:O	10:S8:52:ASN:ND2	2.42	0.52
11:S9:129:ILE:HA	11:S9:134:ILE:CG1	3.71	0.52
1:2:577:G:C2	35:SM:99:LYS:HG2	2.44	0.52
36:1:2278:C:O2'	36:1:2279:A:H5"	2.08	0.52
1:2:1460:A:OP2	35:SM:68:ARG:HD3	2.09	0.52
1:2:855:A:C2	1:2:857:U:H1'	2.45	0.52
1:2:892:A:H2'	1:2:893:U:C6	2.44	0.52
36:5:1438:U:H2'	36:5:1439:U:C6	2.45	0.52
61:N5:113:LEU:HD22	36:5:1522:U:H3'	100.26	0.52
36:5:1838:G:H4'	36:5:1839:A:N3	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2977:G:OP1	86:5:4147:OHX:N4	2.43	0.52
1:6:1700:C:HO2'	1:6:1701:A:P	2.31	0.52
1:6:220:A:H3'	1:6:832:U:H1'	1.92	0.52
11:S9:89:ASP:HB3	1:6:660:G:N2	444.14	0.52
1:6:829:A:H61	1:6:843:U:H3	1.56	0.52
15:C3:54:LEU:HB3	15:C3:60:VAL:HG11	2.64	0.52
21:C9:112:GLY:O	21:C9:125:SER:OG	3.55	0.52
22:D0:30:LYS:HD3	22:D0:33:GLN:NE2	2.21	0.52
23:D1:50:TYR:HB2	23:D1:52:THR:HG22	1.92	0.52
24:D2:55:ASP:OD2	24:D2:57:ARG:HB2	2.78	0.52
1:2:778:G:H22	26:D4:10:ARG:CZ	2.23	0.52
27:D5:50:ILE:O	27:D5:54:VAL:HG23	2.10	0.52
27:D5:55:PRO:HG3	27:D5:88:ILE:HG23	6.23	0.52
28:D6:10:ARG:HD3	28:D6:34:LYS:CA	3.12	0.52
33:E1:121:CYS:HB3	33:E1:130:VAL:HG11	5.24	0.52
41:L4:316:ASN:OD1	41:L4:318:LEU:HB2	2.09	0.52
45:L8:95:ASN:O	45:L8:98:ARG:HG3	2.09	0.52
50:M4:13:ARG:CZ	50:M4:67:PRO:HD3	2.40	0.52
50:M4:39:ILE:HB	50:M4:43:LYS:HB2	1.90	0.52
57:N1:38:ASP:O	57:N1:64:VAL:HG23	2.40	0.52
66:O0:30:THR:HB	66:O0:91:SER:HB2	1.91	0.52
71:O5:89:ARG:HG2	71:O5:89:ARG:HH11	1.75	0.52
3:S1:126:THR:HG22	3:S1:136:ARG:HE	1.85	0.52
5:S3:91:VAL:HG21	5:S3:94:ARG:HB3	5.56	0.52
6:S4:132:GLY:N	6:S4:136:VAL:O	2.95	0.52
7:S5:117:THR:HG21	7:S5:194:LEU:HD12	1.92	0.52
7:S5:29:ILE:O	7:S5:34:GLN:NE2	2.42	0.52
11:S9:172:VAL:HG13	1:6:512:A:OP2	454.71	0.52
35:SM:121:LYS:O	35:SM:123:ALA:N	2.84	0.52
5:S3:94:ARG:HH21	35:SM:134:ASP:HB3	1.74	0.52
36:1:1240:A:H2	36:1:1248:C:H41	1.58	0.52
36:1:1495:U:C5	36:1:1835:A:N1	2.72	0.52
36:1:2223:A:H5"	36:1:2223:A:H8	1.75	0.52
1:2:1474:G:H2'	1:2:1475:A:C8	2.44	0.52
1:2:1765:A:H5'	1:2:1767:G:N7	2.25	0.52
1:2:543:C:H5'	1:2:543:C:O2	2.10	0.52
1:2:598:U:H2'	1:2:599:A:H8	1.74	0.52
38:4:104:A:C8	38:4:105:A:C8	2.97	0.52
36:5:1657:C:C5	36:5:1797:A:H5"	2.44	0.52
36:5:2582:C:H2'	36:5:2583:C:H6	1.74	0.52
36:5:2820:A:C5	88:5:4246:3J6:H1	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:102:ARG:NH2	1:6:1502:G:N7	405.03	0.52
28:D6:5:ARG:HB3	1:6:1796:C:C6	341.10	0.52
1:6:373:G:N7	86:6:2186:OHX:N3	2.58	0.52
1:6:914:G:C8	1:6:914:G:H5'	2.45	0.52
16:C4:35:GLY:HA3	1:6:919:A:H5'	269.30	0.52
1:6:9:U:O4	86:6:2144:OHX:N3	2.42	0.52
20:C8:28:ILE:HD11	20:C8:56:LYS:HB2	7.21	0.52
21:C9:42:GLY:HA2	21:C9:84:LYS:HB2	2.34	0.52
25:D3:68:ILE:HB	25:D3:70:LYS:NZ	2.63	0.52
39:L2:200:ARG:HG3	36:5:2147:A:OP1	208.63	0.52
39:L2:240:ALA:O	36:5:2202:C:O2'	218.40	0.52
40:L3:19:ARG:HB3	40:L3:232:ARG:NH1	2.37	0.52
40:L3:77:THR:HG23	40:L3:327:CYS:HA	1.97	0.52
40:L3:4:ARG:HH11	40:L3:4:ARG:HG3	3.29	0.52
43:L6:105:TYR:CE1	43:L6:134:ARG:HD2	2.44	0.52
44:L7:104:GLN:C	44:L7:106:LEU:H	2.12	0.52
50:M4:22:LEU:HB3	50:M4:64:VAL:HG13	2.22	0.52
51:M5:140:LYS:O	51:M5:144:ARG:HD2	2.10	0.52
51:M5:96:ARG:NH1	51:M5:96:ARG:HG2	2.25	0.52
63:N7:88:ASP:O	63:N7:121:ARG:NH2	2.82	0.52
64:N8:46:ASP:O	64:N8:47:LYS:HB3	2.10	0.52
65:N9:39:PHE:O	65:N9:43:HIS:N	2.78	0.52
2:S0:29:VAL:HG22	2:S0:150:ASP:HB3	1.91	0.52
6:S4:163:ASP:O	6:S4:165:ALA:N	2.42	0.52
9:S7:41:LEU:HB3	9:S7:70:PHE:HE1	1.75	0.52
10:S8:35:ASN:HB3	10:S8:37:LYS:HZ3	4.22	0.52
35:SM:129:ALA:O	35:SM:133:GLU:HG3	2.09	0.52
34:SR:79:TYR:HE1	34:SR:100:TYR:HE1	2.53	0.52
34:SR:84:SER:OG	34:SR:85:TRP:N	2.79	0.52
36:1:1565:G:H1'	36:1:1575:A:H2	1.75	0.52
36:1:2155:G:O2'	39:L2:227:ARG:NH2	2.43	0.52
36:1:2747:A:H2'	36:1:2748:A:C8	2.44	0.52
36:1:3224:G:O6	86:1:3895:OHX:N4	2.43	0.52
36:1:855:U:H2'	36:1:856:G:O4'	2.09	0.52
1:2:43:A:H5"	1:2:437:A:N1	2.25	0.52
1:2:524:U:H2'	1:2:525:A:H5"	1.90	0.52
37:3:40:C:O2'	48:M1:72:ARG:HG3	2.10	0.52
38:4:78:G:H2'	38:4:79:A:C8	2.45	0.52
36:5:2101:C:H2'	36:5:2102:U:H6	1.74	0.52
57:N1:17:ARG:HD2	36:5:2701:U:OP1	265.81	0.52
36:5:394:G:N2	36:5:396:A:H3'	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:501:A:H2'	36:5:502:U:C6	2.45	0.52
36:5:600:G:H5'	36:5:601:U:OP2	2.10	0.52
1:6:1314:U:OP1	86:6:2184:OHX:N1	2.43	0.52
1:6:162:A:H2'	1:6:163:G:C8	2.45	0.52
1:6:87:C:O2'	1:6:169:A:N1	2.41	0.52
1:6:291:G:H2'	1:6:292:U:C6	2.45	0.52
37:7:23:A:C6	37:7:24:A:C6	2.98	0.52
13:C1:83:THR:HA	13:C1:111:VAL:HG12	1.92	0.52
16:C4:123:SER:HB2	1:6:885:G:N2	286.15	0.52
17:C5:64:LYS:HG3	17:C5:73:PRO:HG3	1.92	0.52
18:C6:115:THR:HG23	18:C6:118:ILE:O	4.70	0.52
20:C8:65:GLU:HG2	20:C8:68:ARG:HH22	3.06	0.52
21:C9:33:TYR:O	21:C9:36:ILE:HG12	2.10	0.52
22:D0:46:GLU:HG2	22:D0:52:LYS:HZ3	1.73	0.52
33:E1:119:ARG:O	33:E1:132:LEU:HG	2.24	0.52
40:L3:339:ARG:NH1	40:L3:342:LEU:HD11	2.24	0.52
42:L5:152:ARG:O	42:L5:154:THR:N	2.42	0.52
46:L9:101:VAL:HG22	46:L9:114:VAL:HG22	2.09	0.52
47:M0:16:PRO:O	47:M0:18:PRO:HD3	2.10	0.52
50:M4:21:VAL:CG1	50:M4:65:LEU:HD23	2.40	0.52
54:M8:176:ARG:HA	54:M8:182:LYS:O	2.29	0.52
65:N9:24:PRO:O	65:N9:25:LYS:HB2	2.10	0.52
69:O3:13:HIS:HB3	69:O3:93:THR:O	2.10	0.52
38:4:41:A:H4'	73:O7:59:THR:HB	1.92	0.52
2:S0:64:ILE:HG23	2:S0:73:VAL:HG11	1.92	0.52
5:S3:113:LEU:HD12	5:S3:117:ARG:HD2	4.34	0.52
5:S3:13:ALA:HA	5:S3:16:VAL:HG22	4.74	0.52
6:S4:163:ASP:HB3	6:S4:167:GLY:O	3.27	0.52
6:S4:195:ILE:HA	6:S4:210:ILE:HD13	2.48	0.52
7:S5:189:THR:OG1	7:S5:192:GLU:OE1	4.18	0.52
9:S7:58:LEU:HG	9:S7:88:ARG:HD2	1.91	0.52
10:S8:117:TYR:CD1	10:S8:150:ALA:HB2	2.45	0.52
10:S8:42:ARG:O	10:S8:58:LEU:HD12	2.45	0.52
11:S9:72:GLU:OE1	1:6:761:G:H4'	397.95	0.52
34:SR:38:ARG:HA	34:SR:67:ILE:HG23	2.44	0.52
36:1:1947:G:H1	36:1:2101:C:N4	2.07	0.52
36:1:2371:G:O6	86:1:3873:OHX:N3	2.42	0.52
36:1:3233:C:H2'	36:1:3234:A:C8	2.45	0.52
86:1:3972:OHX:N5	86:1:4156:OHX:N2	2.58	0.52
1:2:1433:G:C4	31:D9:41:GLN:HB3	2.45	0.52
1:2:144:U:O2'	1:2:145:A:H8	1.93	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:622:A:H4'	1:2:623:A:OP1	2.10	0.52
37:3:86:U:O2	86:3:218:OHX:N5	2.43	0.52
36:5:1495:U:H4'	36:5:1514:G:H4'	1.91	0.52
36:5:2322:C:OP1	86:5:4154:OHX:N6	2.42	0.52
36:5:23:A:OP1	86:5:3900:OHX:N4	2.43	0.52
86:5:4015:OHX:N3	86:5:4211:OHX:N4	2.57	0.52
36:5:495:G:H2'	36:5:496:C:O4'	2.10	0.52
36:5:612:U:H2'	36:5:613:G:C8	2.45	0.52
36:5:658:G:OP1	86:8:224:OHX:N5	2.43	0.52
77:Q1:11:ARG:NH2	1:6:1127:G:OP1	293.55	0.52
1:6:1367:G:C2	1:6:1368:G:C8	2.97	0.52
8:S6:186:ARG:HD3	1:6:268:C:H41	342.37	0.52
1:6:404:G:H2'	1:6:405:C:C6	2.44	0.52
1:6:836:U:H2'	1:6:837:G:C8	2.44	0.52
37:7:55:A:H2'	37:7:56:A:O4'	2.10	0.52
38:8:2:A:H3'	38:8:3:A:H8	1.75	0.52
12:C0:77:ARG:HA	12:C0:82:LEU:HD12	1.92	0.52
20:C8:5:VAL:HG23	27:D5:42:LEU:HD23	1.91	0.52
22:D0:70:THR:HG22	22:D0:71:PRO:O	6.31	0.52
24:D2:50:PHE:HB3	24:D2:63:VAL:HG13	3.00	0.52
27:D5:38:HIS:ND1	27:D5:70:LYS:HG2	6.53	0.52
40:L3:167:ARG:HH12	40:L3:168:LYS:NZ	2.08	0.52
41:L4:330:TYR:CZ	44:L7:49:ALA:HA	2.71	0.52
43:L6:132:ALA:HA	43:L6:135:VAL:HB	1.91	0.52
45:L8:139:VAL:O	45:L8:143:ILE:HG13	2.30	0.52
49:M3:174:ARG:HG3	72:O6:9:ILE:HD11	6.21	0.52
49:M3:79:GLU:OE1	49:M3:101:ARG:NH2	2.41	0.52
59:N3:58:VAL:HG22	59:N3:76:ALA:HB3	2.56	0.52
63:N7:84:ARG:CZ	63:N7:85:TYR:HE1	3.68	0.52
78:Q2:99:GLN:HG2	78:Q2:102:GLN:HG2	3.58	0.52
5:S3:26:THR:O	5:S3:30:ALA:HB2	3.01	0.52
6:S4:104:ASP:HB3	6:S4:106:LYS:H	1.95	0.52
36:1:1940:G:H21	36:1:3362:A:H8	1.58	0.52
36:1:2350:C:H4'	36:1:3308:C:O2'	2.10	0.52
36:1:2418:G:H4'	36:1:2419:A:OP2	2.10	0.52
36:1:776:U:C5	36:1:2719:U:O2	2.63	0.52
1:2:106:U:H2'	1:2:107:C:O4'	2.09	0.52
1:2:1449:U:O4	86:2:2029:OHX:N1	2.43	0.52
1:2:1718:G:H2'	1:2:1719:A:O4'	2.09	0.52
86:2:2044:OHX:N1	86:2:2099:OHX:N5	2.58	0.52
1:2:2:A:C2	4:S2:170:ILE:HG13	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:494:U:O2'	1:2:495:C:O5'	2.27	0.52
1:2:526:A:C6	1:2:527:A:C5	2.98	0.52
36:5:129:U:H2'	36:5:130:A:C8	2.45	0.52
55:M9:5:ARG:NH1	36:5:1471:U:OP1	118.81	0.52
79:Q3:49:ARG:NH2	36:5:1793:C:OP2	216.71	0.52
36:5:252:U:H4'	36:5:253:A:C5'	2.40	0.52
36:5:566:G:N7	86:5:4125:OHX:N5	2.57	0.52
36:5:622:A:H2'	36:5:623:U:O4'	2.09	0.52
1:6:1102:G:H2'	1:6:1103:U:O4'	2.09	0.52
18:C6:82:ARG:HH22	18:C6:114:ARG:HB3	1.75	0.52
20:C8:140:THR:O	20:C8:143:ARG:NH1	2.43	0.52
25:D3:109:ARG:O	25:D3:112:LYS:HG3	2.79	0.52
26:D4:127:LYS:C	26:D4:127:LYS:HE3	2.30	0.52
1:2:1796:C:N1	28:D6:5:ARG:HG2	2.25	0.52
28:D6:75:VAL:O	28:D6:78:ALA:N	2.43	0.52
39:L2:201:GLY:HA2	39:L2:204:MET:SD	2.95	0.52
37:3:11:A:N6	42:L5:13:SER:O	2.38	0.52
42:L5:60:ILE:HB	42:L5:80:SER:HB3	2.38	0.52
47:M0:41:ALA:O	47:M0:139:ARG:NH2	2.42	0.52
47:M0:4:ARG:NH2	47:M0:99:ILE:HG13	2.25	0.52
50:M4:32:LEU:HD11	50:M4:94:TRP:CG	2.45	0.52
52:M6:115:LYS:HD3	36:5:3178:A:C2	260.38	0.52
53:M7:123:PRO:O	53:M7:143:PRO:HG2	2.09	0.52
69:O3:75:HIS:HB3	69:O3:80:VAL:HB	1.98	0.52
3:S1:77:GLU:C	3:S1:79:HIS:H	2.12	0.52
8:S6:186:ARG:HD3	1:6:268:C:N4	343.00	0.52
35:SM:58:GLU:O	35:SM:62:ARG:HB2	2.42	0.52
36:1:1296:C:OP1	56:N0:84:ARG:NH2	2.37	0.51
36:1:1813:A:OP1	36:1:1817:G:O2'	2.24	0.51
36:1:2254:U:H2'	36:1:2261:G:H22	1.74	0.51
1:2:413:U:H2'	1:2:414:C:C6	2.45	0.51
1:2:52:U:OP2	86:2:2072:OHX:N5	2.43	0.51
1:2:929:A:C8	16:C4:123:SER:HA	2.45	0.51
37:3:47:C:H2'	37:3:48:U:C6	2.46	0.51
38:4:141:C:OP1	51:M5:109:ARG:NH1	2.44	0.51
36:5:1155:C:H2'	36:5:1156:C:H6	1.75	0.51
36:5:1204:A:H2'	36:5:1205:A:H5'	1.92	0.51
36:5:1471:U:H2'	36:5:1472:U:C6	2.44	0.51
36:5:2186:U:H5'	36:5:2314:U:OP2	2.09	0.51
36:5:3163:A:C6	36:5:3288:G:O6	2.63	0.51
52:M6:5:PRO:HD2	36:5:3178:A:H5'	258.27	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3237:U:H2'	36:5:3238:G:O4'	2.10	0.51
36:5:3343:G:N2	36:5:3362:A:H2	2.08	0.51
1:6:1625:C:H2'	1:6:1626:U:C6	2.45	0.51
1:6:278:U:H2'	1:6:278:U:OP2	2.10	0.51
1:6:53:G:H2'	1:6:54:C:O4'	2.09	0.51
16:C4:54:GLU:OE1	1:6:901:G:N2	281.81	0.51
17:C5:22:LEU:O	17:C5:26:LEU:HD22	2.10	0.51
18:C6:99:GLU:O	18:C6:102:LYS:N	2.66	0.51
20:C8:28:ILE:HB	20:C8:58:ALA:HA	1.92	0.51
1:2:1616:G:O2'	30:D8:18:ARG:HD2	2.10	0.51
39:L2:57:PRO:HD2	39:L2:170:ALA:HB3	2.91	0.51
41:L4:120:TYR:O	41:L4:124:SER:HB2	2.11	0.51
41:L4:181:VAL:HG11	41:L4:224:GLY:CA	3.07	0.51
41:L4:192:GLY:O	41:L4:195:ARG:N	2.58	0.51
42:L5:211:LEU:O	42:L5:215:ASP:N	3.47	0.51
43:L6:129:GLU:HG2	43:L6:130:ILE:H	3.57	0.51
46:L9:10:ILE:HD13	46:L9:75:VAL:HG11	2.52	0.51
47:M0:56:GLU:HG3	47:M0:162:GLN:H	1.75	0.51
47:M0:142:ASP:CG	47:M0:178:ARG:HH22	2.13	0.51
53:M7:67:ILE:HD12	53:M7:82:ARG:NH1	3.80	0.51
54:M8:148:GLU:OE1	54:M8:151:ARG:NH2	2.32	0.51
64:N8:74:ASN:OD1	64:N8:113:LEU:HB2	2.12	0.51
36:1:1404:G:OP2	68:O2:11:LYS:NZ	2.43	0.51
72:O6:33:ALA:O	72:O6:34:SER:HB3	2.09	0.51
2:S0:134:LYS:O	2:S0:137:SER:OG	2.21	0.51
5:S3:70:THR:HG23	5:S3:86:LEU:HD22	1.93	0.51
6:S4:26:CYS:HB3	6:S4:27:TYR:CD2	3.39	0.51
10:S8:192:TYR:O	10:S8:196:LEU:HB2	2.10	0.51
1:2:259:U:OP1	10:S8:75:LYS:NZ	2.43	0.51
10:S8:8:ARG:CG	10:S8:8:ARG:HH21	2.23	0.51
34:SR:89:LEU:HB2	34:SR:103:PHE:HB2	2.12	0.51
36:1:1342:C:H2'	36:1:1343:A:O4'	2.10	0.51
36:1:1478:C:H2'	36:1:1479:U:C6	2.45	0.51
36:1:1584:U:H2'	36:1:1585:C:H6	1.76	0.51
36:1:2180:G:P	39:L2:174:ARG:HH22	2.32	0.51
36:1:2662:G:H2'	36:1:2663:G:H8	1.74	0.51
1:2:647:G:N2	1:2:687:G:H1	2.09	0.51
1:2:717:C:H2'	1:2:718:U:H5"	1.92	0.51
36:5:209:A:H4'	36:5:211:A:C8	2.46	0.51
51:M5:76:PRO:HA	36:5:2166:A:OP1	158.17	0.51
36:5:2537:U:O2	36:5:2543:U:N3	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3017:A:H2'	36:5:3018:C:C6	2.45	0.51
36:5:990:U:O4	86:5:4179:OHX:N6	2.42	0.51
1:6:196:G:N3	1:6:197:A:H1'	2.25	0.51
1:6:221:A:C2'	1:6:222:A:H5'	2.41	0.51
1:6:913:G:H3'	1:6:914:G:H5"	1.93	0.51
86:8:218:OHX:N2	86:8:226:OHX:N4	2.57	0.51
12:C0:56:LYS:HD2	12:C0:67:THR:HB	1.92	0.51
15:C3:54:LEU:HD13	15:C3:60:VAL:HG11	3.31	0.51
18:C6:7:VAL:HG12	18:C6:8:GLN:H	4.22	0.51
1:2:1479:A:OP1	21:C9:57:ARG:NH1	2.44	0.51
1:2:522:U:H5"	26:D4:37:LYS:HG3	1.92	0.51
27:D5:47:TYR:CZ	27:D5:51:LEU:HD11	2.90	0.51
28:D6:68:TYR:N	28:D6:68:TYR:CD2	2.78	0.51
39:L2:193:ARG:O	39:L2:195:SER:N	2.43	0.51
40:L3:10:ARG:HG3	40:L3:11:HIS:O	2.11	0.51
42:L5:122:VAL:HG23	42:L5:123:GLU:H	3.13	0.51
42:L5:122:VAL:HG22	42:L5:125:VAL:H	1.75	0.51
47:M0:50:VAL:HG13	47:M0:167:LEU:HD13	6.08	0.51
49:M3:128:ARG:NH2	71:O5:109:ILE:O	2.44	0.51
50:M4:85:TRP:CD1	50:M4:90:VAL:HG13	2.45	0.51
51:M5:183:THR:OG1	51:M5:184:LYS:N	3.81	0.51
36:1:973:A:OP1	54:M8:12:ARG:NH1	2.44	0.51
59:N3:2:SER:N	59:N3:56:ASP:HA	3.35	0.51
63:N7:53:VAL:HG21	63:N7:62:VAL:HG13	1.93	0.51
64:N8:26:ARG:HB3	36:5:937:G:OP2	170.43	0.51
67:O1:12:TYR:O	67:O1:72:ARG:HD2	2.10	0.51
73:O7:28:HIS:CG	73:O7:31:LYS:HG3	3.52	0.51
5:S3:32:GLU:O	5:S3:54:ARG:HB2	3.23	0.51
6:S4:141:THR:O	6:S4:143:ASP:N	2.44	0.51
7:S5:137:ILE:HD13	7:S5:175:LEU:HD12	1.92	0.51
8:S6:142:ARG:C	8:S6:144:PHE:H	3.21	0.51
10:S8:105:ASP:O	10:S8:107:THR:N	2.39	0.51
10:S8:188:GLU:HG3	13:C1:13:PHE:CD2	2.44	0.51
36:1:1194:G:OP1	86:1:3964:OHX:N1	2.43	0.51
36:1:1668:G:C6	36:1:1669:C:C4	2.98	0.51
36:1:2954:U:O5'	36:1:2954:U:H6	1.93	0.51
86:1:3913:OHX:N6	51:M5:32:GLN:O	2.43	0.51
1:2:1183:A:C5	1:2:1184:A:C6	2.99	0.51
1:2:1228:G:H3'	1:2:1229:G:C8	2.45	0.51
1:2:1344:A:H4'	1:2:1345:A:OP1	2.09	0.51
1:2:1546:G:H2'	1:2:1547:A:H8	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:355:G:H2'	1:2:356:G:H8	1.76	0.51
38:4:55:U:O2	86:4:228:OHX:N6	2.43	0.51
36:5:1605:A:O2'	36:5:1607:U:OP2	2.28	0.51
36:5:1804:A:H2'	36:5:1805:C:H6	1.75	0.51
36:5:2641:U:OP1	86:5:4148:OHX:N5	2.43	0.51
1:6:1361:U:H2'	1:6:1361:U:O2	2.10	0.51
1:6:892:A:C6	1:6:893:U:C4	2.99	0.51
13:C1:122:ILE:H	13:C1:144:ALA:CB	2.22	0.51
16:C4:105:LEU:HA	16:C4:108:SER:HB3	1.93	0.51
20:C8:18:LEU:O	20:C8:19:ASN:HB2	2.40	0.51
21:C9:99:SER:O	21:C9:103:LYS:HB2	2.91	0.51
40:L3:152:LYS:CG	40:L3:192:VAL:HG11	2.37	0.51
40:L3:250:ALA:HB3	36:5:2880:U:H1'	224.03	0.51
41:L4:4:PRO:O	41:L4:5:GLN:HB2	2.36	0.51
36:1:1438:U:H5"	41:L4:74:ILE:HD11	1.92	0.51
42:L5:61:ILE:HG23	42:L5:79:TYR:CE1	2.60	0.51
46:L9:89:LYS:HD3	46:L9:183:HIS:HB3	1.93	0.51
47:M0:80:SER:CB	47:M0:147:VAL:HG11	2.39	0.51
47:M0:77:THR:HG22	47:M0:82:ARG:HA	1.91	0.51
50:M4:84:LYS:O	50:M4:87:ALA:HB3	2.10	0.51
56:N0:155:ARG:HG2	56:N0:155:ARG:HH21	2.63	0.51
67:O1:44:MET:O	67:O1:46:THR:HG22	3.79	0.51
67:O1:25:PHE:HB3	67:O1:65:LYS:HG2	4.32	0.51
78:Q2:12:CYS:SG	78:Q2:74:CYS:SG	3.20	0.51
2:S0:110:TYR:HA	2:S0:115:PHE:CE1	2.81	0.51
3:S1:39:GLU:HG3	3:S1:40:ASN:N	2.26	0.51
5:S3:105:MET:O	5:S3:109:LEU:HB2	3.22	0.51
8:S6:63:MET:HE1	8:S6:106:LEU:HD13	2.01	0.51
35:SM:39:PRO:HB2	35:SM:40:PRO:HD2	2.25	0.51
35:SM:88:ARG:HG2	35:SM:91:THR:CG2	2.41	0.51
36:1:1097:G:H8	57:N1:128:LEU:HD13	1.75	0.51
36:1:1565:G:N2	36:1:1574:C:C2	2.79	0.51
36:1:2567:C:C2'	36:1:2568:C:H5'	2.41	0.51
36:1:440:A:OP2	36:1:440:A:H8	1.93	0.51
1:2:1233:G:O2'	33:E1:145:HIS:HB2	2.11	0.51
1:2:1311:U:O4	86:2:2169:OHX:N3	2.43	0.51
1:2:603:U:H2'	1:2:604:A:C8	2.45	0.51
36:1:407:A:C2	38:4:17:A:H1'	2.45	0.51
36:5:856:G:H4'	36:5:1723:A:O2'	2.11	0.51
1:6:138:A:N6	1:6:266:A:H61	2.09	0.51
8:S6:179:VAL:HG21	1:6:140:A:H1'	327.29	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:68:ARG:NH1	1:6:1521:G:O6	414.02	0.51
1:6:554:C:H1'	1:6:555:A:N7	2.25	0.51
1:6:961:U:H2'	1:6:962:C:C6	2.45	0.51
38:8:68:G:OP1	86:8:218:OHX:N3	2.44	0.51
17:C5:22:LEU:HD12	17:C5:26:LEU:HD21	1.93	0.51
19:C7:71:PHE:CD1	19:C7:73:LEU:HB3	2.46	0.51
20:C8:33:THR:HA	20:C8:38:VAL:HG23	1.90	0.51
26:D4:60:PHE:HA	26:D4:70:VAL:O	2.10	0.51
27:D5:55:PRO:HB2	27:D5:103:ARG:NH1	2.25	0.51
42:L5:122:VAL:CG2	42:L5:125:VAL:H	2.23	0.51
42:L5:55:PHE:CZ	42:L5:158:ARG:HG3	2.46	0.51
42:L5:279:LYS:HG2	42:L5:282:ARG:NH1	2.26	0.51
44:L7:132:PRO:HA	44:L7:229:PHE:CD2	2.57	0.51
44:L7:139:PRO:HA	44:L7:237:ASN:ND2	2.17	0.51
46:L9:86:TYR:CG	46:L9:151:VAL:HG13	2.52	0.51
55:M9:11:ALA:O	55:M9:15:VAL:HG23	2.10	0.51
36:1:1213:G:OP1	56:N0:137:ARG:HD3	2.10	0.51
58:N2:50:LEU:HB3	58:N2:54:VAL:HG23	1.99	0.51
67:O1:51:LEU:HD23	67:O1:93:VAL:HB	2.15	0.51
70:O4:74:ARG:HG2	70:O4:75:ALA:N	2.68	0.51
79:Q3:13:LYS:HD2	79:Q3:14:TYR:CZ	3.13	0.51
79:Q3:2:ALA:HB2	36:5:853:G:N7	249.82	0.51
34:SR:176:LYS:HB3	34:SR:195:HIS:O	2.10	0.51
34:SR:237:GLN:HB2	34:SR:238:ASP:OD1	2.10	0.51
36:1:1306:G:O2'	36:1:1307:G:H5'	2.11	0.51
36:1:1536:G:H2'	36:1:1537:A:O4'	2.10	0.51
36:1:1585:C:C2'	36:1:1586:G:H5'	2.41	0.51
36:1:2667:A:N6	36:1:2687:G:H1'	2.25	0.51
36:1:3358:U:H2'	36:1:3359:A:O4'	2.10	0.51
36:1:3384:U:H2'	36:1:3385:U:C6	2.44	0.51
36:1:3393:U:H2'	36:1:3394:U:H6	1.76	0.51
36:1:422:A:C2	36:1:2363:A:H4'	2.46	0.51
1:2:1085:G:O2'	1:2:1087:A:N7	2.42	0.51
1:2:1316:G:H2'	1:2:1317:C:C6	2.46	0.51
1:2:1564:U:H2'	1:2:1565:C:H6	1.76	0.51
1:2:246:G:C4	13:C1:40:LEU:HD13	2.45	0.51
1:2:986:G:H2'	1:2:987:G:O4'	2.11	0.51
35:SM:46:LYS:HA	36:5:1018:G:H4'	324.35	0.51
70:O4:59:PRO:HD3	36:5:1654:A:O2'	167.32	0.51
36:5:281:G:C2	36:5:282:G:C4	2.99	0.51
1:6:1427:A:O2'	1:6:1428:G:OP1	2.27	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:SM:76:VAL:HG22	1:6:1460:A:C8	325.41	0.51
1:6:330:G:C6	1:6:331:A:C5	2.99	0.51
15:C3:85:PRO:HG2	15:C3:129:TYR:CE2	2.60	0.51
15:C3:70:LYS:HB2	15:C3:73:ARG:HG3	1.93	0.51
19:C7:108:ASP:HA	19:C7:111:LYS:HB2	3.68	0.51
26:D4:43:LYS:O	26:D4:47:VAL:HG23	2.10	0.51
26:D4:94:TYR:HD2	26:D4:96:LEU:HD11	1.75	0.51
40:L3:60:LEU:HD11	40:L3:62:ARG:HG3	1.92	0.51
40:L3:92:TYR:CE1	40:L3:159:ARG:HD2	2.45	0.51
42:L5:188:GLU:HG3	42:L5:188:GLU:O	2.11	0.51
44:L7:134:VAL:O	44:L7:229:PHE:HA	2.56	0.51
45:L8:143:ILE:HG23	45:L8:175:VAL:HG21	2.48	0.51
46:L9:88:TYR:CD2	46:L9:184:LYS:HG2	2.45	0.51
79:Q3:75:ALA:O	79:Q3:79:VAL:HG23	2.11	0.51
3:S1:113:MET:HE3	3:S1:142:PHE:HE2	5.49	0.51
7:S5:112:ARG:HD3	27:D5:95:HIS:CE1	2.45	0.51
9:S7:103:SER:OG	9:S7:104:ARG:N	2.82	0.51
34:SR:242:SER:H	34:SR:255:ALA:HB3	1.75	0.51
36:1:1246:G:H8	36:1:1246:G:OP1	1.93	0.51
36:1:1509:A:O2'	36:1:1510:G:H5'	2.11	0.51
36:1:3165:A:H2'	36:1:3166:C:C6	2.46	0.51
36:1:3243:A:H4'	40:L3:95:THR:HG22	1.93	0.51
86:2:2044:OHX:N4	86:2:2099:OHX:N6	2.58	0.51
1:2:479:C:O2	1:2:510:G:N2	2.43	0.51
36:5:1135:A:C2	36:5:1136:A:C8	2.99	0.51
69:O3:76:GLY:HA2	36:5:1327:C:O2'	257.51	0.51
36:5:2274:U:O2'	36:5:2275:A:H5'	2.11	0.51
36:5:286:U:H2'	36:5:287:G:C8	2.45	0.51
36:5:2971:A:H3'	36:5:2971:A:N3	2.25	0.51
36:5:381:U:C2	36:5:382:U:C5	2.99	0.51
1:6:1648:A:H2'	1:6:1649:G:C8	2.45	0.51
1:6:189:C:C2'	1:6:190:C:H5'	2.41	0.51
1:6:1314:U:OP2	86:6:2184:OHX:N4	2.43	0.51
1:6:282:C:H2'	1:6:283:U:O4'	2.10	0.51
12:C0:54:TYR:H	12:C0:71:GLU:HG3	1.76	0.51
13:C1:102:LYS:HE2	1:6:632:U:OP1	327.86	0.51
13:C1:124:THR:HB	13:C1:141:LYS:HB3	2.40	0.51
14:C2:43:ARG:HA	14:C2:121:VAL:HG12	2.87	0.51
14:C2:69:ALA:HA	14:C2:71:ILE:HG23	2.94	0.51
18:C6:31:VAL:O	18:C6:33:GLY:N	2.68	0.51
20:C8:26:ILE:HD11	20:C8:31:ALA:HA	4.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:6:GLN:HE22	27:D5:47:TYR:HB2	1.75	0.51
15:C3:20:ARG:HG3	24:D2:56:HIS:NE2	4.02	0.51
26:D4:70:VAL:HG12	26:D4:71:GLY:H	2.84	0.51
43:L6:55:LEU:HD21	43:L6:145:LEU:HD11	2.77	0.51
44:L7:150:LYS:HD3	44:L7:244:ASN:HD21	1.75	0.51
44:L7:96:PRO:HB2	44:L7:99:PRO:HD2	2.25	0.51
46:L9:126:VAL:HG21	46:L9:161:LEU:HA	1.93	0.51
47:M0:77:THR:HG23	47:M0:85:PHE:CZ	2.87	0.51
49:M3:124:ILE:HD11	49:M3:126:PHE:CE1	2.46	0.51
50:M4:20:VAL:O	50:M4:66:THR:HG23	2.34	0.51
61:N5:31:THR:HB	61:N5:33:ARG:NH1	3.18	0.51
36:1:217:U:O2'	62:N6:103:LYS:HE2	2.11	0.51
67:O1:42:LEU:HD23	67:O1:43:HIS:CD2	2.45	0.51
67:O1:80:ASN:OD1	67:O1:81:GLU:N	2.43	0.51
3:S1:184:LEU:HA	3:S1:187:LYS:HB2	1.93	0.51
4:S2:187:LEU:HG	4:S2:187:LEU:O	2.10	0.51
8:S6:30:LYS:HG3	8:S6:34:GLN:OE1	2.11	0.51
10:S8:64:ASN:HD21	10:S8:73:SER:HB3	2.49	0.51
11:S9:83:VAL:HG23	11:S9:85:VAL:H	2.71	0.51
35:SM:116:GLU:O	35:SM:119:ALA:N	2.40	0.51
36:1:2314:U:HO2'	36:1:2315:G:P	2.34	0.51
36:1:239:G:O6	86:1:4034:OHX:N3	2.43	0.51
36:1:2510:U:O2'	36:1:2511:A:H8	1.93	0.51
36:1:2590:A:C4	36:1:2591:A:C8	2.99	0.51
36:1:2623:G:H2'	36:1:2624:G:H8	1.74	0.51
36:1:308:A:H5'	36:1:2223:A:O2'	2.11	0.51
36:1:563:U:OP1	56:N0:71:LYS:NZ	2.33	0.51
36:1:835:G:O2'	36:1:857:G:N2	2.32	0.51
1:2:739:G:C6	1:2:740:A:C6	2.99	0.51
1:2:851:U:H2'	1:2:852:C:H6	1.76	0.51
1:2:912:U:H4'	1:2:913:G:H2'	1.91	0.51
1:2:933:A:P	3:S1:116:LYS:HZ3	2.33	0.51
36:5:1800:A:H2'	36:5:1801:U:O4'	2.10	0.51
36:5:193:C:H2'	36:5:194:U:C6	2.46	0.51
36:5:2310:U:OP1	86:5:4193:OHX:N2	2.43	0.51
86:5:3966:OHX:N1	86:5:4236:OHX:N5	2.59	0.51
36:5:48:A:O4'	36:5:50:U:C6	2.63	0.51
1:6:1079:U:H2'	1:6:1080:U:O4'	2.10	0.51
1:6:1202:A:H2'	1:6:1203:A:H5"	1.91	0.51
1:6:1533:C:H4'	1:6:1539:G:N1	2.25	0.51
20:C8:123:ARG:NH2	1:6:1547:A:OP2	362.08	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:624:G:H2'	1:6:625:C:H6	1.73	0.51
86:8:218:OHX:N5	86:8:226:OHX:N1	2.59	0.51
16:C4:127:ARG:HG2	16:C4:128:LYS:O	2.09	0.51
18:C6:49:TYR:HB3	18:C6:53:LEU:HD21	1.92	0.51
21:C9:30:VAL:O	21:C9:32:GLY:N	2.44	0.51
24:D2:37:PHE:CD2	24:D2:103:ILE:HD11	3.37	0.51
30:D8:58:GLU:HB3	30:D8:61:ARG:HG3	7.57	0.51
43:L6:40:LEU:HD13	43:L6:84:VAL:HG11	1.96	0.51
46:L9:67:ALA:HA	46:L9:70:THR:CG2	2.40	0.51
50:M4:40:ASP:HA	56:N0:143:PHE:CE1	3.32	0.51
51:M5:58:GLY:HA3	51:M5:142:ILE:HD13	1.91	0.51
52:M6:10:ASP:HB2	52:M6:117:ARG:HG3	1.92	0.51
46:L9:4:ILE:HD11	56:N0:150:PHE:CD2	2.46	0.51
62:N6:37:LYS:HA	62:N6:40:ARG:HB3	2.90	0.51
67:O1:8:VAL:HG12	67:O1:9:THR:N	4.24	0.51
73:O7:25:ARG:HE	75:O9:51:ILE:HG13	1.74	0.51
74:O8:11:PHE:HD1	74:O8:12:LEU:HD22	3.60	0.51
77:Q1:2:ARG:HG3	77:Q1:3:ALA:N	2.25	0.51
2:S0:54:TRP:O	2:S0:58:VAL:HG23	2.73	0.51
2:S0:60:ALA:O	2:S0:64:ILE:HG13	2.47	0.51
3:S1:121:ILE:HG12	3:S1:161:ILE:HG23	1.91	0.51
4:S2:139:ILE:HD11	4:S2:218:ILE:HD13	1.92	0.51
4:S2:53:ILE:HB	4:S2:57:PHE:CE2	2.45	0.51
36:1:1118:C:O2	36:1:1154:A:H2	1.94	0.51
36:1:2294:U:O2	36:1:2296:A:H8	1.94	0.51
36:1:2655:U:H4'	36:1:2656:A:O4'	2.10	0.51
1:2:159:U:H1'	8:S6:87:ARG:HH12	1.75	0.51
1:2:948:G:H2'	1:2:949:C:O4'	2.11	0.51
37:3:8:G:O6	42:L5:21:ARG:NH2	2.27	0.51
36:5:1560:G:HO2'	36:5:1561:G:P	2.34	0.51
36:5:3225:C:H2'	36:5:3226:A:O4'	2.10	0.51
36:5:86:G:O2'	36:5:98:G:O6	2.22	0.51
1:6:1050:G:N2	1:6:1068:C:O2	2.40	0.51
1:6:1172:G:C5	1:6:1173:C:C4	2.98	0.51
18:C6:50:GLU:OE1	18:C6:112:TYR:OH	2.17	0.51
20:C8:120:ARG:O	35:SM:57:ASN:ND2	2.80	0.51
22:D0:105:GLN:HG3	22:D0:106:ILE:N	2.25	0.51
22:D0:88:LYS:HG2	22:D0:89:ARG:H	1.75	0.51
28:D6:87:ARG:HD2	1:6:1797:A:C6	344.53	0.51
33:E1:135:HIS:ND1	33:E1:138:ARG:HD2	2.25	0.51
39:L2:118:GLU:HG2	39:L2:156:LYS:HZ3	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:152:ARG:O	42:L5:154:THR:HG23	2.11	0.51
42:L5:155:THR:HA	42:L5:179:ARG:HD3	1.93	0.51
45:L8:134:TYR:CG	45:L8:190:VAL:HG11	3.79	0.51
46:L9:161:LEU:O	46:L9:164:ILE:HG22	2.09	0.51
46:L9:94:TYR:CD2	46:L9:98:PRO:HA	2.79	0.51
47:M0:207:GLU:O	47:M0:209:ASN:N	2.43	0.51
49:M3:89:TYR:O	49:M3:92:THR:N	2.44	0.51
51:M5:30:TYR:OH	51:M5:43:THR:HG21	2.11	0.51
55:M9:175:GLN:O	55:M9:179:GLU:N	2.39	0.51
58:N2:89:LEU:HD13	58:N2:93:ILE:HD13	3.82	0.51
49:M3:64:LYS:HE3	64:N8:69:TRP:CD1	2.46	0.51
65:N9:21:ILE:HG22	65:N9:22:LYS:O	4.21	0.51
4:S2:157:LYS:HA	4:S2:169:LEU:O	2.10	0.51
5:S3:142:LEU:HD22	5:S3:142:LEU:H	5.15	0.51
5:S3:32:GLU:HG2	5:S3:57:ASP:HB2	2.78	0.51
5:S3:69:LEU:O	5:S3:72:LEU:HB2	2.11	0.51
8:S6:162:VAL:O	8:S6:169:TYR:N	2.25	0.51
10:S8:8:ARG:NH2	10:S8:28:GLU:OE1	9.58	0.51
11:S9:134:ILE:HD13	11:S9:141:VAL:O	4.87	0.51
36:1:1447:G:H3'	53:M7:67:ILE:HD11	1.93	0.51
36:1:1765:U:H5"	55:M9:43:LYS:HE2	1.91	0.51
36:1:2514:U:OP1	36:1:2514:U:H6	1.94	0.51
36:1:3082:C:H2'	36:1:3083:G:C8	2.46	0.51
36:1:3095:U:H2'	36:1:3096:C:C6	2.46	0.51
1:2:121:U:H1'	6:S4:33:ALA:HB3	1.93	0.51
1:2:23:G:C6	1:2:24:U:N3	2.79	0.51
1:2:495:C:H3'	1:2:496:G:O4'	2.11	0.51
1:2:542:A:HO2'	1:2:542:A:H8	1.57	0.51
38:4:23:U:C4'	62:N6:17:LYS:HG2	2.41	0.51
36:5:1192:C:N4	36:5:1301:A:O3'	2.44	0.51
36:5:739:G:O6	86:5:3959:OHX:N6	2.44	0.51
1:6:1081:A:H1'	1:6:1082:C:H5	1.76	0.51
1:6:1218:G:H22	1:6:1443:U:H2'	1.76	0.51
1:6:1594:G:OP2	1:6:1596:C:N4	2.44	0.51
32:E0:2:ALA:HA	1:6:1647:U:O2	330.93	0.51
1:6:454:U:H5"	1:6:455:C:H5	1.76	0.51
17:C5:68:PRO:O	86:C5:201:OHX:N5	7.71	0.51
20:C8:65:GLU:HG2	20:C8:68:ARG:NH2	2.78	0.51
23:D1:71:ARG:O	23:D1:75:ASN:ND2	2.43	0.51
11:S9:28:LEU:HB3	32:E0:44:PHE:HZ	4.04	0.51
33:E1:108:VAL:HG12	33:E1:114:VAL:HG13	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:147:GLU:OE2	40:L3:150:ARG:NH1	2.92	0.51
40:L3:188:ILE:HD12	40:L3:189:SER:H	1.76	0.51
40:L3:35:ASP:OD2	40:L3:191:LYS:NZ	2.79	0.51
43:L6:69:PHE:N	43:L6:142:ASP:OD2	2.43	0.51
44:L7:158:LYS:CD	44:L7:159:GLN:H	3.13	0.51
44:L7:170:GLU:HG3	44:L7:179:LEU:HB3	1.93	0.51
44:L7:214:TRP:CE2	44:L7:219:LYS:HD2	2.46	0.51
51:M5:137:PRO:HD2	51:M5:138:GLN:NE2	2.25	0.51
55:M9:143:ILE:O	55:M9:146:LYS:N	3.58	0.51
56:N0:82:ASP:HA	56:N0:87:THR:HA	1.93	0.51
59:N3:104:ASN:ND2	59:N3:108:GLU:HB2	4.75	0.51
63:N7:46:ILE:HD11	63:N7:49:TYR:HA	1.93	0.51
70:O4:44:CYS:N	70:O4:49:SER:O	2.64	0.51
2:S0:179:ARG:HH11	2:S0:183:ARG:NH1	2.09	0.51
3:S1:178:GLY:HA3	3:S1:187:LYS:HZ1	1.76	0.51
5:S3:137:VAL:HG22	5:S3:151:LYS:HG3	3.84	0.51
6:S4:96:ASN:N	6:S4:96:ASN:OD1	2.43	0.51
7:S5:200:ASN:O	7:S5:205:SER:HB3	3.59	0.51
7:S5:222:LYS:HG3	7:S5:225:ARG:CZ	2.41	0.51
9:S7:42:GLN:HG2	9:S7:43:PHE:N	2.26	0.51
36:1:1355:A:H4'	36:1:1356:U:O5'	2.11	0.51
36:1:2148:U:H2'	36:1:2149:A:C4	2.46	0.51
36:1:2395:G:H5"	40:L3:255:TRP:CD1	2.45	0.51
36:1:2989:U:H2'	36:1:2990:G:O4'	2.10	0.51
1:2:1653:C:N4	1:2:1654:G:C6	2.79	0.51
1:2:332:U:OP2	10:S8:54:LYS:NZ	2.43	0.51
1:2:76:A:H5'	1:2:77:U:OP2	2.11	0.51
38:4:155:A:H5'	45:L8:185:ARG:NH2	2.25	0.51
38:4:85:G:H3'	38:4:85:G:C8	2.46	0.51
36:5:2366:C:H2'	36:5:2367:A:C8	2.46	0.51
78:Q2:89:LYS:HB2	36:5:2653:C:OP1	237.02	0.51
86:5:3971:OHX:N2	86:5:4193:OHX:N1	2.58	0.51
1:6:1535:U:HO2'	1:6:1536:G:P	2.34	0.51
1:6:715:U:H2'	1:6:716:C:C6	2.46	0.51
12:C0:55:VAL:HA	12:C0:69:THR:HG23	1.92	0.51
27:D5:83:LEU:HB3	27:D5:89:ILE:HD13	2.80	0.51
16:C4:107:ARG:NH1	28:D6:52:ASP:OD2	4.91	0.51
40:L3:146:ARG:HE	40:L3:146:ARG:HA	1.76	0.51
41:L4:104:LYS:HD2	41:L4:106:TRP:CZ2	2.46	0.51
42:L5:268:GLU:O	42:L5:270:LYS:N	3.55	0.51
44:L7:207:LEU:O	36:5:1334:U:H5'	240.39	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:157:ARG:HG2	49:M3:158:ALA:N	2.25	0.51
53:M7:67:ILE:HD11	36:5:1447:G:H3'	164.96	0.51
36:1:785:G:N1	54:M8:89:ASP:O	2.39	0.51
56:N0:84:ARG:HG3	36:5:1295:G:OP1	294.24	0.51
56:N0:98:SER:CB	56:N0:100:VAL:HG12	2.41	0.51
63:N7:9:LYS:HD2	63:N7:83:THR:O	2.10	0.51
49:M3:104:ARG:O	72:O6:20:MET:HB2	2.11	0.51
72:O6:50:LEU:HB3	72:O6:55:ARG:HG2	2.93	0.51
74:O8:59:ALA:O	74:O8:62:ALA:HB3	2.10	0.51
1:2:124:A:O2'	6:S4:148:ARG:HD3	2.11	0.51
36:1:129:U:O4	86:1:3892:OHX:N5	2.45	0.50
36:1:1577:G:H2'	36:1:1578:C:O4'	2.11	0.50
36:1:1834:U:H3'	36:1:1835:A:H5'	1.92	0.50
36:1:2373:A:N7	36:1:2867:C:H1'	2.27	0.50
36:1:3134:A:OP1	86:1:3903:OHX:N4	2.43	0.50
36:1:3251:U:H2'	36:1:3252:G:C8	2.45	0.50
86:1:3972:OHX:N3	86:1:4156:OHX:N4	2.59	0.50
1:2:1202:A:N6	1:2:1457:C:H5'	2.27	0.50
1:2:1291:G:H22	1:2:1324:G:H22	1.56	0.50
1:2:28:A:H61	1:2:598:U:H3	1.59	0.50
1:2:400:A:H5"	10:S8:25:ARG:HA	1.94	0.50
1:2:74:U:H1'	1:2:75:U:C5'	2.39	0.50
1:2:788:A:H3'	6:S4:108:ARG:NH2	2.26	0.50
36:5:1756:C:H42	36:5:1769:G:H1	1.58	0.50
53:M7:3:ARG:NH2	36:5:398:A:N7	128.53	0.50
1:6:1324:G:N7	86:6:2102:OHX:N2	2.59	0.50
1:6:1690:G:H1	1:6:1711:C:H42	1.58	0.50
1:6:1697:G:H8	1:6:1705:C:N3	2.09	0.50
1:6:454:U:H5"	1:6:455:C:C5	2.47	0.50
1:6:919:A:H2'	1:6:920:U:C6	2.46	0.50
12:C0:8:ARG:HD2	12:C0:12:HIS:CE1	2.46	0.50
40:L3:129:ALA:O	36:5:3149:G:O2'	213.78	0.50
42:L5:146:LEU:HG	42:L5:163:LEU:HG	1.91	0.50
44:L7:29:GLU:O	44:L7:32:ALA:HB3	2.86	0.50
45:L8:90:THR:HA	45:L8:214:LEU:HD21	1.91	0.50
46:L9:8:GLN:NE2	46:L9:69:ARG:HG2	3.43	0.50
46:L9:93:VAL:O	46:L9:177:ASP:HA	2.11	0.50
47:M0:75:TYR:CE1	47:M0:150:GLU:HB3	3.42	0.50
48:M1:106:ILE:HD13	48:M1:125:MET:HG2	5.10	0.50
50:M4:45:LEU:HD12	50:M4:56:GLN:O	2.10	0.50
51:M5:8:GLU:HG3	51:M5:50:ARG:NH1	3.58	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:16:VAL:CG2	52:M6:43:ILE:HG12	3.07	0.50
56:N0:119:ARG:NH2	37:7:87:G:O2'	278.20	0.50
36:1:2756:C:O4'	57:N1:49:GLN:HG2	2.11	0.50
60:N4:62:GLY:O	60:N4:64:THR:OG1	2.29	0.50
68:O2:16:LYS:O	68:O2:17:PHE:HB2	4.69	0.50
3:S1:219:LYS:NZ	79:Q3:92:ALA:O	8.83	0.50
2:S0:69:ASN:HB3	2:S0:71:GLU:CD	2.31	0.50
4:S2:152:HIS:H	4:S2:152:HIS:CD2	2.28	0.50
4:S2:49:LYS:HG3	4:S2:246:GLU:OE1	3.68	0.50
6:S4:195:ILE:HG22	6:S4:196:VAL:H	3.65	0.50
6:S4:32:SER:HB2	6:S4:83:PRO:HD3	1.93	0.50
9:S7:173:TYR:CE1	9:S7:181:ILE:HD13	2.46	0.50
34:SR:238:ASP:OD2	34:SR:258:THR:OG1	2.25	0.50
34:SR:272:ASP:OD1	34:SR:273:ASP:N	2.70	0.50
36:1:1621:A:H2'	36:1:1622:U:C6	2.45	0.50
36:1:1949:G:H2'	36:1:1950:U:C6	2.46	0.50
36:1:209:A:N3	41:L4:221:ASN:ND2	2.53	0.50
36:1:2252:A:H5"	36:1:2252:A:H8	1.77	0.50
36:1:2727:A:H4'	36:1:2728:G:OP2	2.11	0.50
36:1:1938:U:O4	86:1:3915:OHX:N2	2.44	0.50
86:1:3972:OHX:N3	86:1:4156:OHX:N1	2.59	0.50
36:1:619:A:H4'	36:1:620:U:O4'	2.11	0.50
1:2:1619:C:H2'	1:2:1620:C:C6	2.47	0.50
69:O3:73:ARG:HH22	36:5:1167:U:P	247.54	0.50
36:5:1528:G:O2'	36:5:1588:A:N3	2.41	0.50
36:5:2211:U:H5	36:5:2234:G:O6	1.95	0.50
36:5:2590:A:C5	36:5:2591:A:C8	2.99	0.50
36:5:3098:G:N7	86:5:3914:OHX:N6	2.58	0.50
36:5:532:A:C8	36:5:555:U:C4	2.99	0.50
1:6:1230:A:C8	1:6:1258:U:C4	2.99	0.50
1:6:1756:A:H8	1:6:1756:A:O5'	1.92	0.50
1:6:255:U:H2'	1:6:256:A:H8	1.76	0.50
10:S8:56:ARG:HH22	1:6:332:U:P	287.51	0.50
1:6:446:A:N6	1:6:461:G:H21	2.10	0.50
14:C2:50:LYS:HG3	33:E1:129:GLY:HA2	2.97	0.50
15:C3:55:ARG:HD2	15:C3:56:ASP:OD1	4.25	0.50
18:C6:31:VAL:N	18:C6:34:SER:O	2.43	0.50
23:D1:73:ALA:HB1	23:D1:78:LEU:HD11	1.92	0.50
25:D3:137:LYS:O	25:D3:138:GLU:HB2	2.11	0.50
27:D5:43:ASP:O	27:D5:46:LYS:N	2.33	0.50
39:L2:79:ASN:ND2	39:L2:166:ILE:O	2.56	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:99:MET:SD	41:L4:102:PRO:HA	2.50	0.50
46:L9:91:ARG:HD2	46:L9:143:GLU:HB2	1.93	0.50
51:M5:24:ARG:O	51:M5:27:VAL:HG12	2.10	0.50
52:M6:130:LYS:HG3	52:M6:131:PRO:HD2	3.27	0.50
53:M7:122:ALA:HB1	53:M7:123:PRO:HD2	2.31	0.50
53:M7:50:GLN:OE1	53:M7:56:ARG:HD3	2.11	0.50
59:N3:101:VAL:HG11	59:N3:114:ILE:HG13	1.93	0.50
63:N7:4:PHE:CZ	66:O0:35:ARG:HA	2.46	0.50
69:O3:6:ARG:HD2	69:O3:8:TYR:O	3.24	0.50
72:O6:2:THR:OG1	72:O6:3:VAL:HG22	5.89	0.50
3:S1:180:THR:HG22	3:S1:181:LEU:N	2.26	0.50
7:S5:188:LYS:HG2	27:D5:63:SER:HB2	3.28	0.50
8:S6:64:LYS:NZ	8:S6:81:VAL:HG22	2.26	0.50
10:S8:104:ILE:O	10:S8:164:ARG:HA	2.53	0.50
34:SR:264:SER:O	34:SR:268:GLN:HA	2.11	0.50
36:1:1244:A:N6	36:1:1271:A:OP2	2.44	0.50
36:1:1319:G:C4	36:1:1320:C:C5	2.99	0.50
36:1:1675:G:H2'	36:1:1676:A:C8	2.46	0.50
36:1:1849:C:H6	36:1:1849:C:H5'	1.76	0.50
36:1:2230:C:H6	36:1:2230:C:O5'	1.94	0.50
36:1:2331:C:H2'	36:1:2332:A:O4'	2.10	0.50
36:1:2427:U:H2'	36:1:2428:U:C6	2.47	0.50
36:1:2762:A:OP2	86:1:3935:OHX:N4	2.44	0.50
36:1:812:G:N7	86:1:3984:OHX:N1	2.59	0.50
86:1:4132:OHX:N5	86:1:4164:OHX:N6	2.60	0.50
36:1:94:G:H5'	64:N8:53:PHE:CD2	2.47	0.50
1:2:1060:U:H2'	1:2:1061:A:O4'	2.11	0.50
1:2:1492:A:O2'	1:2:1493:A:H8	1.95	0.50
36:5:1151:U:OP1	86:5:4205:OHX:N1	2.44	0.50
43:L6:2:SER:N	36:5:1385:C:HO2'	136.73	0.50
36:5:2180:G:H2'	36:5:2181:C:C6	2.46	0.50
49:M3:86:THR:HG21	36:5:257:U:H5"	53.21	0.50
36:5:2592:G:H4'	36:5:2594:C:C2	2.47	0.50
36:5:696:C:HO2'	36:5:697:A:H8	1.57	0.50
86:6:2058:OHX:N1	86:6:2145:OHX:N4	2.60	0.50
1:6:488:G:N2	1:6:499:U:H3	2.09	0.50
1:6:577:G:H3'	1:6:577:G:C8	2.47	0.50
1:6:680:U:C2	1:6:682:C:N4	2.79	0.50
37:7:13:A:OP1	37:7:111:U:O2'	2.27	0.50
37:7:25:G:H2'	37:7:26:C:O4'	2.11	0.50
37:7:64:A:H5'	37:7:65:G:H5"	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C0:29:GLN:HB3	12:C0:39:ASN:HB2	1.92	0.50
18:C6:29:ILE:HA	18:C6:65:ILE:O	2.11	0.50
18:C6:67:VAL:HG21	18:C6:85:ILE:CD1	3.99	0.50
23:D1:85:TYR:CD1	29:D7:6:ASP:HB2	2.57	0.50
25:D3:92:CYS:HA	25:D3:95:PHE:HD2	1.73	0.50
27:D5:39:ALA:HB1	27:D5:72:GLY:N	2.26	0.50
28:D6:84:VAL:HG13	28:D6:85:ARG:N	2.26	0.50
29:D7:47:PHE:CE1	29:D7:49:HIS:HB2	2.45	0.50
39:L2:109:GLU:OE1	39:L2:109:GLU:N	4.50	0.50
42:L5:270:LYS:C	42:L5:272:TYR:H	2.86	0.50
44:L7:111:ILE:O	44:L7:112:ASN:HB2	2.10	0.50
44:L7:33:ARG:O	44:L7:37:ASN:N	2.77	0.50
36:1:2562:A:H2	45:L8:31:PRO:HD3	1.75	0.50
47:M0:74:LYS:O	47:M0:78:THR:HG23	2.36	0.50
48:M1:34:SER:HA	48:M1:67:VAL:HG21	1.94	0.50
49:M3:180:ARG:HH12	36:5:2780:A:H4'	130.42	0.50
40:L3:262:TRP:HE1	52:M6:66:LYS:HZ3	1.59	0.50
38:4:12:A:H2	53:M7:120:ASN:ND2	2.09	0.50
55:M9:104:ARG:HE	55:M9:105:LEU:N	2.08	0.50
55:M9:106:LEU:HB3	55:M9:120:TYR:CE1	2.46	0.50
62:N6:39:LEU:HD22	62:N6:43:TYR:HE2	1.75	0.50
67:O1:40:ALA:O	67:O1:43:HIS:N	3.49	0.50
68:O2:5:PRO:HD2	68:O2:6:HIS:H	5.19	0.50
72:O6:57:LEU:O	72:O6:61:ILE:HG12	4.54	0.50
78:Q2:59:HIS:O	78:Q2:61:LYS:HD3	6.41	0.50
79:Q3:27:LYS:O	79:Q3:31:ILE:HG13	2.10	0.50
5:S3:164:VAL:O	5:S3:168:ILE:HG13	2.12	0.50
10:S8:6:ASP:OD2	10:S8:9:HIS:ND1	4.89	0.50
35:SM:48:ARG:NH1	36:5:1017:C:H5"	336.84	0.50
36:1:3078:U:H4'	36:1:3079:U:O5'	2.06	0.50
36:1:353:G:O2'	36:1:354:U:OP2	2.28	0.50
36:1:1365:G:OP2	86:1:3968:OHX:N6	2.44	0.50
36:1:613:G:H2'	36:1:614:C:C6	2.47	0.50
1:2:1000:C:O2'	1:2:1002:G:N7	2.28	0.50
1:2:1156:C:C2'	1:2:1157:A:H5'	2.41	0.50
1:2:522:U:OP1	26:D4:37:LYS:HB2	2.12	0.50
1:2:795:U:C5	1:2:796:A:C8	3.00	0.50
38:4:52:A:H4'	75:O9:19:GLN:HA	1.93	0.50
36:5:1155:C:H2'	36:5:1156:C:C6	2.47	0.50
36:5:1161:G:OP2	36:5:1365:G:O2'	2.17	0.50
40:L3:53:MET:HE3	36:5:3048:A:C5'	232.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3047:U:O2'	36:5:3048:A:H5'	2.11	0.50
54:M8:141:ARG:NH1	36:5:743:C:N3	178.79	0.50
1:6:1459:C:OP2	1:6:1459:C:H6	1.94	0.50
1:6:1579:U:OP2	86:6:2182:OHX:N6	2.44	0.50
1:6:151:G:H22	1:6:163:G:N2	2.09	0.50
13:C1:40:LEU:HB2	13:C1:42:PHE:CD2	3.64	0.50
13:C1:4:GLU:HG3	13:C1:5:LEU:HD22	6.03	0.50
14:C2:129:GLU:OE2	14:C2:130:THR:N	3.05	0.50
15:C3:30:SER:O	15:C3:34:ILE:HG13	2.62	0.50
23:D1:36:VAL:N	23:D1:51:VAL:O	2.95	0.50
24:D2:93:LEU:O	24:D2:94:LEU:HD23	2.88	0.50
27:D5:54:VAL:HG13	27:D5:57:TYR:HD1	1.75	0.50
41:L4:211:GLU:OE2	41:L4:213:ASN:ND2	2.34	0.50
43:L6:98:VAL:HA	43:L6:101:PHE:CD2	2.47	0.50
45:L8:57:ARG:O	45:L8:61:GLN:HG2	4.87	0.50
46:L9:138:THR:O	46:L9:139:ASN:ND2	2.43	0.50
47:M0:88:ARG:HG2	47:M0:90:ARG:HG2	2.35	0.50
50:M4:99:TRP:O	50:M4:103:ILE:HG13	2.12	0.50
51:M5:154:PRO:HB3	51:M5:157:LYS:HZ2	1.77	0.50
52:M6:62:THR:H	52:M6:69:GLY:HA3	1.76	0.50
54:M8:63:SER:OG	54:M8:64:VAL:N	2.95	0.50
56:N0:16:THR:OG1	56:N0:19:VAL:N	3.25	0.50
57:N1:143:THR:O	57:N1:145:GLY:N	2.44	0.50
61:N5:105:VAL:HG11	61:N5:126:LEU:HD22	1.93	0.50
36:1:215:G:OP1	62:N6:12:ARG:HD2	2.12	0.50
66:O0:24:THR:HG23	66:O0:91:SER:HB3	1.94	0.50
70:O4:98:GLN:NE2	70:O4:98:GLN:O	4.76	0.50
7:S5:197:GLU:OE1	7:S5:209:TYR:N	2.45	0.50
8:S6:195:VAL:HG13	1:6:127:G:C2	330.53	0.50
9:S7:96:ARG:CZ	9:S7:124:LYS:HB3	2.40	0.50
11:S9:47:PHE:CZ	11:S9:51:LYS:HD3	2.75	0.50
34:SR:126:SER:OG	34:SR:127:ARG:N	2.45	0.50
36:1:1230:G:N2	36:1:1279:C:N3	2.56	0.50
36:1:1729:A:N6	66:O0:48:THR:HA	2.27	0.50
36:1:1767:C:H2'	36:1:1768:U:C6	2.47	0.50
36:1:3095:U:H2'	36:1:3096:C:H6	1.77	0.50
36:1:3112:G:O6	36:1:3120:C:H5"	2.11	0.50
36:1:36:C:H2'	36:1:37:U:H5'	1.93	0.50
36:1:945:C:H1'	36:1:1407:A:H1'	1.94	0.50
1:2:1202:A:OP2	86:2:2111:OHX:N2	2.45	0.50
1:2:358:U:O2'	1:2:360:A:OP1	2.29	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:609:U:H4'	1:2:610:G:O5'	2.10	0.50
36:5:1716:U:C6	36:5:1716:U:H5'	2.46	0.50
36:5:2442:G:H22	36:5:2506:U:H3	1.58	0.50
36:5:3078:U:H4'	36:5:3079:U:O5'	2.11	0.50
65:N9:12:GLN:NE2	36:5:954:U:H1'	211.64	0.50
1:6:1150:G:O6	86:6:2113:OHX:N5	2.44	0.50
19:C7:67:ARG:NH2	1:6:1398:U:O2'	405.79	0.50
26:D4:121:THR:OG1	1:6:149:C:OP1	335.38	0.50
1:6:365:G:O6	86:6:2132:OHX:N4	2.45	0.50
86:6:2058:OHX:N2	86:6:2145:OHX:N6	2.59	0.50
1:6:427:C:C4	1:6:428:A:N7	2.80	0.50
32:E0:17:GLN:HE21	1:6:563:U:H4'	383.60	0.50
38:8:82:U:O2	38:8:87:G:H4'	2.12	0.50
13:C1:131:ILE:HG22	13:C1:135:VAL:HB	1.94	0.50
17:C5:83:MET:HB3	17:C5:116:LEU:HD12	3.22	0.50
1:2:434:G:H5'	25:D3:78:LYS:HB3	1.92	0.50
28:D6:60:PRO:O	28:D6:62:TYR:N	2.43	0.50
36:1:3113:A:OP1	46:L9:73:SER:OG	2.29	0.50
48:M1:15:GLU:OE1	48:M1:140:ARG:NH1	2.45	0.50
35:SM:24:GLU:OE2	48:M1:64:LYS:NZ	2.44	0.50
44:L7:92:ILE:HD11	54:M8:4:ASP:HB2	1.93	0.50
58:N2:92:TRP:O	58:N2:108:TYR:N	4.19	0.50
59:N3:106:LYS:HD2	59:N3:108:GLU:OE2	2.12	0.50
62:N6:119:ILE:HG22	62:N6:124:GLY:HA3	2.66	0.50
64:N8:93:SER:OG	64:N8:93:SER:O	2.26	0.50
2:S0:169:SER:O	2:S0:173:ILE:HG12	2.12	0.50
2:S0:41:ARG:HE	2:S0:45:VAL:HB	1.77	0.50
5:S3:133:GLY:HA3	5:S3:156:PHE:O	2.11	0.50
7:S5:156:ARG:HA	7:S5:157:ARG:HH21	5.13	0.50
7:S5:48:PHE:O	7:S5:65:ARG:NH1	5.37	0.50
8:S6:4:ASN:OD1	1:6:152:U:O2'	307.65	0.50
10:S8:161:SER:OG	36:5:3353:G:OP1	232.14	0.50
11:S9:134:ILE:HD12	11:S9:134:ILE:N	4.93	0.50
34:SR:201:THR:CB	34:SR:242:SER:HA	2.41	0.50
36:1:1478:C:H2'	36:1:1479:U:H6	1.77	0.50
36:1:2857:C:C2'	36:1:2858:U:H5'	2.41	0.50
36:1:398:A:C5	53:M7:3:ARG:NH2	2.75	0.50
36:1:2677:G:OP2	86:1:4049:OHX:N4	2.45	0.50
1:2:1316:G:H2'	1:2:1317:C:H6	1.75	0.50
1:2:1327:C:O2'	5:S3:159:HIS:ND1	2.40	0.50
1:2:590:C:H2'	1:2:591:A:H8	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:704:C:H4'	1:2:705:U:OP1	2.10	0.50
1:2:839:U:C2'	1:2:840:U:H5'	2.41	0.50
36:5:1239:C:N4	36:5:1249:G:H1	1.91	0.50
36:5:1268:G:O2'	36:5:1273:A:N6	2.43	0.50
41:L4:303:GLY:H	36:5:1347:U:H5"	198.42	0.50
36:5:2239:G:N7	86:5:4187:OHX:N5	2.59	0.50
36:5:2611:U:H2'	36:5:2612:U:C6	2.47	0.50
36:5:3218:A:H5"	36:5:3219:G:C5	2.47	0.50
36:5:2866:U:O4	86:5:3966:OHX:N6	2.45	0.50
1:6:1054:U:H2'	1:6:1055:U:O4'	2.12	0.50
1:6:491:C:N4	1:6:497:G:H21	2.08	0.50
1:6:624:G:H2'	1:6:625:C:C6	2.47	0.50
1:6:629:U:H1'	1:6:971:A:N1	2.27	0.50
86:8:218:OHX:N5	86:8:226:OHX:N3	2.60	0.50
15:C3:13:SER:OG	15:C3:14:SER:N	2.45	0.50
21:C9:16:ASN:HA	21:C9:56:LYS:HZ2	1.75	0.50
24:D2:77:PRO:O	24:D2:79:PHE:N	2.44	0.50
13:C1:99:ARG:HD3	25:D3:8:GLY:O	2.11	0.50
31:D9:9:SER:HA	1:6:1451:C:OP1	410.09	0.50
39:L2:54:ARG:HG2	39:L2:56:ALA:H	1.76	0.50
41:L4:201:GLN:HG3	41:L4:202:ARG:O	2.11	0.50
42:L5:120:LYS:HD2	42:L5:121:GLY:O	6.47	0.50
42:L5:52:VAL:HG21	42:L5:65:ILE:HG13	3.58	0.50
43:L6:41:ILE:HB	43:L6:85:ILE:HB	1.92	0.50
46:L9:94:TYR:OH	46:L9:142:ASP:OD1	2.22	0.50
46:L9:31:ARG:HD3	46:L9:149:ASN:OD1	3.28	0.50
47:M0:51:HIS:ND1	47:M0:134:ILE:HD13	2.26	0.50
47:M0:210:ILE:HD13	47:M0:217:PHE:CE2	4.53	0.50
52:M6:22:VAL:HG21	52:M6:120:VAL:HG11	1.94	0.50
54:M8:23:ASN:HB3	54:M8:26:LEU:HB2	2.31	0.50
55:M9:84:THR:O	55:M9:88:ARG:HG2	3.86	0.50
56:N0:12:ARG:HG3	56:N0:13:ARG:O	3.23	0.50
59:N3:87:ARG:NH2	59:N3:137:VAL:HG21	2.14	0.50
61:N5:80:ASN:O	61:N5:125:ARG:HG2	3.12	0.50
63:N7:88:ASP:HB3	63:N7:121:ARG:HH22	2.33	0.50
69:O3:16:TYR:CD2	69:O3:25:PRO:HA	2.85	0.50
5:S3:124:ARG:O	5:S3:128:GLU:N	3.39	0.50
6:S4:104:ASP:HB2	6:S4:108:ARG:N	2.72	0.50
6:S4:57:ASN:HB3	6:S4:59:ARG:H	2.14	0.50
8:S6:10:ASN:HB3	8:S6:128:THR:HA	1.93	0.50
9:S7:143:LEU:C	9:S7:145:GLY:H	2.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:14:THR:HG22	9:S7:17:GLU:HB2	2.00	0.50
11:S9:78:ARG:O	11:S9:82:ARG:HB2	2.12	0.50
34:SR:305:TYR:HH	34:SR:313:TRP:HH2	3.39	0.50
34:SR:37:SER:HG	34:SR:38:ARG:H	2.06	0.50
36:1:1723:A:N1	36:1:1788:C:O2'	2.34	0.50
36:1:1673:G:C5	36:1:1775:G:C2	3.00	0.50
36:1:437:G:H2'	36:1:438:A:O4'	2.11	0.50
36:1:705:A:C4	36:1:715:A:N6	2.79	0.50
1:2:1087:A:H2'	1:2:1088:A:C8	2.47	0.50
1:2:1291:G:O5'	1:2:1291:G:H8	1.95	0.50
1:2:1370:U:H4'	1:2:1371:A:C5'	2.42	0.50
1:2:448:C:H5'	6:S4:29:PRO:HG3	1.93	0.50
1:2:736:C:H2'	1:2:737:A:H5'	1.93	0.50
36:5:3324:C:H2'	36:5:3325:G:H8	1.76	0.50
36:5:128:G:O6	86:5:3926:OHX:N4	2.44	0.50
36:5:879:U:O2	36:5:2357:A:H1'	2.11	0.50
6:S4:146:THR:HG21	1:6:123:G:N2	341.57	0.50
1:6:784:C:H2'	1:6:785:U:H6	1.77	0.50
15:C3:3:ARG:NH1	1:6:955:A:OP1	326.92	0.50
37:7:57:G:H3'	37:7:58:C:C6	2.47	0.50
18:C6:5:PRO:HG2	18:C6:24:ALA:HB2	1.94	0.50
1:2:1459:C:H42	20:C8:139:LYS:HE2	1.75	0.50
24:D2:108:ALA:HB2	24:D2:121:VAL:HG11	2.43	0.50
29:D7:14:SER:HA	29:D7:17:ARG:HG2	1.93	0.50
33:E1:130:VAL:HG22	33:E1:143:LYS:HG2	3.95	0.50
42:L5:164:LYS:O	42:L5:164:LYS:HD3	2.12	0.50
44:L7:102:VAL:HG12	44:L7:130:ILE:HD12	4.10	0.50
44:L7:197:GLN:OE1	44:L7:197:GLN:N	2.36	0.50
44:L7:47:ARG:O	44:L7:50:ALA:N	3.09	0.50
44:L7:96:PRO:O	44:L7:99:PRO:HD2	2.24	0.50
45:L8:244:ALA:HA	45:L8:247:ASP:HB2	2.30	0.50
49:M3:16:LYS:O	49:M3:17:HIS:HB2	4.64	0.50
53:M7:109:ALA:O	53:M7:112:LEU:HB2	3.56	0.50
53:M7:125:GLN:HA	53:M7:125:GLN:HE21	1.77	0.50
56:N0:91:TYR:O	56:N0:137:ARG:NH1	2.47	0.50
56:N0:78:TRP:CE3	56:N0:125:LYS:HG2	3.55	0.50
61:N5:92:LYS:HD3	61:N5:110:VAL:O	4.21	0.50
68:O2:21:HIS:ND1	68:O2:24:ARG:HD2	2.26	0.50
2:S0:28:ASN:O	2:S0:150:ASP:HB3	6.53	0.50
2:S0:66:ALA:O	2:S0:67:ILE:HD13	2.12	0.50
4:S2:235:LEU:HD13	23:D1:33:GLN:HE21	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:121:ILE:HG13	7:S5:195:ALA:HB1	2.45	0.50
7:S5:91:GLU:HA	7:S5:94:THR:HG23	1.93	0.50
34:SR:260:ILE:HB	34:SR:274:LEU:HD12	2.80	0.50
36:1:2735:U:H2'	36:1:2736:A:C8	2.47	0.50
36:1:3319:U:P	36:1:3319:U:H3'	2.52	0.50
86:1:4004:OHX:N6	86:1:4172:OHX:N5	2.60	0.50
36:1:7:C:H2'	36:1:8:C:H6	1.76	0.50
1:2:1485:C:H1'	1:2:1606:C:H4'	1.92	0.50
1:2:269:G:C6	1:2:287:G:C6	3.00	0.50
1:2:461:G:OP1	11:S9:2:PRO:HG2	2.12	0.50
1:2:755:A:H2'	1:2:756:A:H8	1.75	0.50
1:2:95:G:O2'	1:2:460:A:O2'	2.25	0.50
36:5:2904:U:H2'	36:5:2905:U:C6	2.47	0.50
36:5:293:C:H2'	36:5:294:U:O4'	2.12	0.50
86:5:3966:OHX:N3	86:5:4236:OHX:N6	2.60	0.50
36:5:54:C:O2'	36:5:1547:G:H1'	2.12	0.50
36:5:571:U:H2'	36:5:572:A:C8	2.45	0.50
1:6:255:U:H2'	1:6:256:A:C8	2.47	0.50
1:6:542:A:H2	1:6:544:A:O4'	1.95	0.50
1:6:826:U:H2'	1:6:827:C:C6	2.46	0.50
38:8:92:A:H2'	38:8:93:U:O4'	2.12	0.50
14:C2:32:LEU:O	14:C2:36:LEU:N	2.45	0.50
16:C4:54:GLU:CD	1:6:901:G:H22	281.88	0.50
21:C9:108:LEU:HA	21:C9:111:ILE:HG22	1.94	0.50
25:D3:69:ARG:HD2	25:D3:116:ASP:OD2	2.12	0.50
1:2:1445:G:C6	33:E1:91:ILE:HB	2.47	0.50
40:L3:106:TRP:HB2	40:L3:133:TYR:CE2	2.47	0.50
40:L3:37:ARG:CA	40:L3:186:GLY:HA2	2.57	0.50
41:L4:181:VAL:O	41:L4:182:LEU:HB2	2.12	0.50
41:L4:233:LEU:HD22	41:L4:238:LEU:HD11	3.22	0.50
45:L8:246:MET:HE3	45:L8:249:ARG:HH21	1.77	0.50
46:L9:163:GLN:O	46:L9:166:ARG:HD3	2.12	0.50
49:M3:31:LYS:O	49:M3:35:ARG:HB2	2.12	0.50
50:M4:20:VAL:HG23	50:M4:66:THR:OG1	3.29	0.50
51:M5:69:GLY:O	36:5:290:G:H4'	145.37	0.50
51:M5:67:ARG:O	51:M5:98:LEU:HD11	2.12	0.50
52:M6:8:VAL:HA	52:M6:34:VAL:HG13	1.93	0.50
54:M8:70:ALA:O	54:M8:73:GLN:HB2	2.11	0.50
55:M9:28:GLU:O	55:M9:32:ILE:HG13	2.62	0.50
61:N5:67:ILE:HD13	61:N5:115:ARG:NH2	2.26	0.50
66:O0:70:PHE:CD2	66:O0:77:LEU:HD13	2.88	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3376:A:N3	67:O1:18:LYS:HA	2.26	0.50
68:O2:44:ARG:NH1	36:5:1145:G:OP1	206.95	0.50
70:O4:71:THR:HG22	70:O4:78:GLY:H	1.77	0.50
2:S0:22:THR:HG21	2:S0:173:ILE:HD11	1.93	0.50
4:S2:148:LEU:O	23:D1:4:ASP:HB2	2.11	0.50
5:S3:55:THR:HG21	5:S3:90:ARG:HG2	3.67	0.50
1:2:799:A:H5"	6:S4:201:HIS:CD2	2.47	0.50
8:S6:28:PHE:CE1	8:S6:104:PRO:HG3	2.46	0.50
9:S7:49:ILE:HD12	9:S7:172:VAL:HA	2.29	0.50
9:S7:60:ILE:HD12	9:S7:92:PHE:CZ	2.47	0.50
1:2:333:A:OP1	10:S8:31:ARG:NH2	2.45	0.50
34:SR:159:ASN:HD22	34:SR:163:ASP:HA	1.76	0.50
5:S3:222:VAL:HG11	34:SR:229:LYS:HA	2.76	0.50
36:1:139:G:H2'	36:1:140:C:C6	2.47	0.50
36:1:1919:G:H1'	36:1:1934:G:N2	2.27	0.50
36:1:2657:A:C2	36:1:2694:A:C8	3.00	0.50
36:1:744:A:H4'	54:M8:142:GLY:O	2.12	0.50
36:1:954:U:O2'	36:1:955:U:H5'	2.12	0.50
1:2:1460:A:C4	17:C5:128:HIS:CD2	3.00	0.50
1:2:1548:G:OP1	17:C5:18:ARG:NH1	2.42	0.50
1:2:330:G:H2'	1:2:331:A:C8	2.47	0.50
1:2:523:G:H5"	26:D4:59:GLY:O	2.12	0.50
1:2:682:C:H2'	1:2:683:C:O4'	2.11	0.50
38:4:120:C:H2'	38:4:121:U:O4'	2.12	0.50
36:5:2111:G:H4'	36:5:2112:U:OP2	2.12	0.50
36:5:2283:G:N3	36:5:2285:C:N4	2.58	0.50
36:5:2314:U:O4	86:5:3971:OHX:N5	2.44	0.50
1:6:116:U:H2'	1:6:117:U:C6	2.46	0.50
12:C0:21:VAL:HG21	12:C0:46:LEU:HD11	3.74	0.50
13:C1:29:LYS:O	13:C1:31:THR:N	2.45	0.50
13:C1:35:TYR:CG	13:C1:49:ILE:HG12	3.09	0.50
15:C3:24:ALA:O	15:C3:27:LYS:HE2	8.06	0.50
16:C4:129:LYS:HB2	1:6:990:C:H5"	282.42	0.50
1:2:1241:G:H1'	17:C5:79:HIS:CG	2.47	0.50
19:C7:15:ALA:HA	19:C7:18:GLU:HB2	1.94	0.50
24:D2:53:ILE:HB	24:D2:60:LYS:HB2	4.35	0.50
26:D4:11:LYS:HB2	26:D4:24:VAL:HG23	2.49	0.50
44:L7:116:PHE:HB2	44:L7:199:ASN:OD1	2.12	0.50
44:L7:228:SER:HA	44:L7:232:ARG:HH21	2.27	0.50
46:L9:13:PRO:O	46:L9:16:VAL:HG13	4.32	0.50
46:L9:7:GLU:OE1	46:L9:54:LYS:HD2	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:83:GLY:HA2	48:M1:86:VAL:HG23	1.94	0.50
55:M9:156:ASN:OD1	55:M9:156:ASN:N	2.45	0.50
61:N5:76:VAL:HG12	61:N5:133:LEU:HA	1.94	0.50
63:N7:46:ILE:HD13	63:N7:68:ILE:CG2	2.38	0.50
66:O0:13:LYS:O	66:O0:17:VAL:HG23	2.46	0.50
69:O3:49:ILE:HG22	69:O3:100:ILE:HA	4.31	0.50
71:O5:68:GLN:O	71:O5:71:LYS:N	2.43	0.50
74:O8:64:LYS:HG3	74:O8:65:LEU:N	4.77	0.50
2:S0:30:GLN:HE21	2:S0:33:GLN:HG2	10.81	0.50
6:S4:18:TRP:HE3	6:S4:20:LEU:HD11	1.76	0.50
7:S5:52:GLU:H	7:S5:131:GLN:HE22	1.60	0.50
35:SM:37:VAL:HG12	35:SM:38:PRO:O	2.47	0.50
36:1:1108:U:H2'	36:1:1109:U:C6	2.46	0.49
36:1:1950:U:H3	36:1:2096:A:H2	1.59	0.49
36:1:2383:C:H5'	52:M6:71:PHE:CE2	2.46	0.49
36:1:246:U:H2'	36:1:247:C:H6	1.76	0.49
36:1:2847:A:OP2	76:Q0:97:ARG:NH2	2.29	0.49
36:1:3049:A:OP2	86:1:4180:OHX:N3	2.45	0.49
36:1:533:A:O2'	36:1:535:G:OP2	2.30	0.49
1:2:1051:G:O2'	1:2:1052:U:O5'	2.27	0.49
1:2:1130:G:OP2	86:2:2074:OHX:N2	2.45	0.49
1:2:1459:C:H5'	17:C5:126:VAL:HG11	1.93	0.49
1:2:189:C:H2'	1:2:190:C:H5'	1.93	0.49
1:2:461:G:H2'	1:2:462:G:H8	1.76	0.49
1:2:583:C:H2'	1:2:584:C:H6	1.77	0.49
38:4:49:G:OP1	71:O5:45:LYS:HB2	2.11	0.49
36:5:1238:C:H2'	36:5:1239:C:H5"	1.94	0.49
36:5:2255:A:H5'	36:5:2261:G:N2	2.24	0.49
49:M3:58:VAL:CG1	36:5:75:G:H5"	87.08	0.49
1:6:1458:G:H5"	1:6:1459:C:OP2	2.12	0.49
1:6:1563:C:H2'	1:6:1564:U:C6	2.46	0.49
38:8:81:U:H1'	38:8:82:U:H5"	1.94	0.49
18:C6:25:GLY:H	18:C6:63:ILE:HA	1.77	0.49
18:C6:82:ARG:HH22	18:C6:114:ARG:HB2	2.34	0.49
28:D6:10:ARG:HH11	28:D6:36:ILE:HG13	6.38	0.49
28:D6:46:GLU:HG3	28:D6:47:ALA:HB3	3.46	0.49
40:L3:316:GLU:HB2	40:L3:318:LYS:HE3	3.00	0.49
41:L4:237:GLN:O	41:L4:246:ARG:HG3	2.12	0.49
47:M0:81:GLY:C	47:M0:83:ASP:N	2.99	0.49
48:M1:93:ASP:OD2	48:M1:156:LYS:HE2	4.35	0.49
48:M1:166:LYS:C	48:M1:168:ASP:H	3.25	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:M4:14:LEU:H	50:M4:19:ARG:HH11	2.30	0.49
51:M5:98:LEU:HD22	51:M5:128:LYS:HZ2	4.66	0.49
56:N0:89:ASN:OD1	57:N1:155:PRO:HB3	2.12	0.49
58:N2:47:VAL:C	58:N2:49:ASN:H	2.60	0.49
60:N4:63:ILE:O	60:N4:65:GLU:N	2.78	0.49
62:N6:74:TYR:CZ	62:N6:77:LYS:HD2	5.14	0.49
63:N7:5:LEU:HB3	63:N7:77:TYR:OH	3.90	0.49
67:O1:27:LYS:C	67:O1:30:PRO:HD2	2.32	0.49
69:O3:6:ARG:HG3	69:O3:8:TYR:H	2.58	0.49
2:S0:4:PRO:HB2	2:S0:7:PHE:HB2	1.94	0.49
5:S3:107:PHE:HA	5:S3:110:LEU:HB2	3.09	0.49
8:S6:57:ASP:HA	8:S6:107:ALA:H	1.75	0.49
8:S6:61:PHE:CE1	8:S6:96:SER:HB2	2.89	0.49
9:S7:157:LYS:O	9:S7:159:VAL:HG13	2.12	0.49
34:SR:282:SER:H	34:SR:285:ALA:HB3	1.76	0.49
34:SR:79:TYR:HE1	34:SR:100:TYR:CE1	3.26	0.49
36:1:13:A:H5"	36:1:13:A:H8	1.77	0.49
36:1:1473:G:OP2	55:M9:8:LYS:NZ	2.46	0.49
36:1:824:C:O2'	36:1:1534:A:N3	2.40	0.49
36:1:1839:A:N6	36:1:1843:C:C2	2.80	0.49
36:1:1769:G:N7	86:1:4169:OHX:N2	2.61	0.49
1:2:1379:C:H1'	18:C6:19:VAL:HG11	1.93	0.49
1:2:28:A:H2'	1:2:29:U:C6	2.47	0.49
1:2:538:A:H2	1:2:540:G:H22	1.56	0.49
38:4:70:G:H8	38:4:70:G:OP2	1.95	0.49
36:5:2403:G:H5'	36:5:2872:A:C2	2.47	0.49
36:5:2651:G:H4'	36:5:2652:U:OP2	2.11	0.49
36:5:2820:A:C4	88:5:4246:3J6:H1	2.48	0.49
36:5:3299:A:H61	36:5:3315:G:H1	1.59	0.49
36:5:3324:C:H2'	36:5:3325:G:C8	2.47	0.49
51:M5:84:PRO:HD2	36:5:44:U:OP1	166.23	0.49
39:L2:181:LYS:HZ3	36:5:860:G:P	213.46	0.49
1:6:138:A:H2'	1:6:139:C:H5'	1.94	0.49
1:6:412:A:H2'	1:6:413:U:H6	1.77	0.49
1:6:872:G:H2'	1:6:873:U:O4'	2.12	0.49
13:C1:74:THR:HG22	13:C1:122:ILE:HG23	5.39	0.49
14:C2:132:GLU:HA	14:C2:135:MET:HB2	1.93	0.49
1:2:1544:U:H4'	20:C8:132:ARG:NH2	2.27	0.49
20:C8:45:LEU:HD11	21:C9:36:ILE:HG22	1.95	0.49
25:D3:19:ARG:HD3	1:6:609:U:H1'	343.51	0.49
27:D5:75:LEU:HA	27:D5:78:ILE:HD13	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:112:ILE:HB	28:D6:57:SER:OG	2.11	0.49
28:D6:44:ILE:HD11	28:D6:65:PRO:C	2.32	0.49
41:L4:5:GLN:HA	41:L4:20:LEU:O	2.13	0.49
41:L4:35:VAL:HG21	41:L4:244:LEU:HD21	1.93	0.49
41:L4:294:GLU:N	41:L4:294:GLU:OE1	2.38	0.49
36:1:2899:C:C5	46:L9:171:ASP:HA	2.46	0.49
46:L9:49:ASN:HD22	46:L9:51:GLN:H	1.57	0.49
47:M0:210:ILE:HG12	47:M0:217:PHE:CZ	2.47	0.49
47:M0:33:ILE:HD11	47:M0:36:LEU:HG	1.92	0.49
48:M1:9:MET:O	48:M1:11:ASP:N	3.30	0.49
56:N0:26:ARG:NH1	57:N1:150:THR:HG21	2.68	0.49
60:N4:23:ARG:NH2	60:N4:25:ASP:OD1	4.59	0.49
36:1:1162:U:OP1	68:O2:54:LYS:HE3	2.11	0.49
70:O4:51:LEU:HD23	70:O4:51:LEU:H	1.77	0.49
62:N6:126:LEU:HB2	71:O5:71:LYS:NZ	46.31	0.49
72:O6:74:LYS:HD2	72:O6:80:PHE:CD2	2.33	0.49
34:SR:38:ARG:HB3	34:SR:67:ILE:HG12	1.93	0.49
34:SR:37:SER:HB3	34:SR:39:ASP:OD1	2.63	0.49
36:1:3004:C:O2'	36:1:3005:A:H5'	2.12	0.49
36:1:3199:G:C2	36:1:3200:G:C8	3.00	0.49
86:1:4032:OHX:N2	86:1:4045:OHX:N1	2.61	0.49
36:1:715:A:H8	64:N8:115:LYS:HG2	1.77	0.49
1:2:434:G:N2	1:2:436:A:H3'	2.27	0.49
1:2:563:U:H4'	32:E0:17:GLN:OE1	2.12	0.49
54:M8:181:SER:HB3	36:5:2790:A:OP2	183.01	0.49
36:5:410:U:O4	86:5:4096:OHX:N3	2.45	0.49
36:5:856:G:OP1	36:5:1722:U:O2'	2.25	0.49
1:6:25:C:H4'	1:6:25:C:OP2	2.12	0.49
26:D4:66:GLY:HA2	1:6:532:U:H4'	431.70	0.49
37:7:106:U:H2'	37:7:107:C:C6	2.47	0.49
12:C0:32:HIS:CD2	12:C0:33:GLU:H	3.17	0.49
12:C0:59:PHE:CE2	12:C0:62:GLN:HA	3.59	0.49
13:C1:39:GLY:C	13:C1:41:GLY:H	2.15	0.49
16:C4:25:ASP:OD1	16:C4:26:THR:N	2.78	0.49
18:C6:91:ALA:O	18:C6:94:GLN:HB3	2.12	0.49
25:D3:22:ASN:HB3	1:6:609:U:H5	336.22	0.49
24:D2:22:LYS:HA	29:D7:3:LEU:HD22	1.93	0.49
51:M5:35:VAL:O	51:M5:64:VAL:HA	2.12	0.49
52:M6:138:LEU:O	52:M6:141:LEU:N	2.95	0.49
60:N4:63:ILE:HD12	60:N4:64:THR:H	6.04	0.49
63:N7:10:VAL:HG22	63:N7:24:VAL:HG13	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:2:ALA:O	63:N7:4:PHE:N	2.46	0.49
63:N7:53:VAL:HA	63:N7:57:HIS:CD2	2.52	0.49
66:O0:100:ILE:HG13	66:O0:101:LEU:HD22	4.58	0.49
51:M5:15:GLN:HB3	72:O6:52:PRO:HD2	2.66	0.49
6:S4:240:LYS:H	6:S4:240:LYS:HE2	1.77	0.49
6:S4:71:LYS:HA	6:S4:76:VAL:O	2.11	0.49
9:S7:46:ILE:HA	9:S7:59:ALA:O	2.26	0.49
9:S7:96:ARG:NH2	9:S7:128:ASP:OD2	2.58	0.49
10:S8:53:LYS:HD2	10:S8:55:TYR:CZ	3.10	0.49
5:S3:94:ARG:NH1	35:SM:137:GLU:O	10.89	0.49
36:1:1596:C:O2'	36:1:1696:A:N3	2.39	0.49
36:1:1789:G:O6	86:1:4168:OHX:N4	2.46	0.49
36:1:1791:C:H2'	36:1:1792:C:C6	2.48	0.49
36:1:2153:U:OP1	39:L2:246:LEU:HB2	2.12	0.49
36:1:2843:U:H5"	36:1:2844:C:OP2	2.13	0.49
36:1:3155:U:O2	86:1:4144:OHX:N3	2.46	0.49
1:2:1232:U:H4'	12:C0:2:LEU:HD21	1.95	0.49
1:2:538:A:C8	1:2:543:C:N4	2.81	0.49
38:4:144:G:O2'	38:4:145:U:H5'	2.13	0.49
38:4:47:C:H1'	38:4:61:A:H2'	1.94	0.49
36:5:2254:U:H2'	36:5:2261:G:N2	2.27	0.49
36:5:238:A:H2'	36:5:239:G:C8	2.47	0.49
36:5:591:G:N2	36:5:612:U:OP1	2.34	0.49
36:5:776:U:H5	36:5:2719:U:O2	1.95	0.49
1:6:1015:U:OP1	86:6:2054:OHX:N3	2.45	0.49
1:6:1081:A:H8	1:6:1081:A:OP2	1.95	0.49
1:6:1371:A:H5'	1:6:1372:U:OP2	2.12	0.49
1:6:557:G:O2'	1:6:558:U:H4'	2.13	0.49
13:C1:5:LEU:HD22	13:C1:5:LEU:H	4.56	0.49
18:C6:115:THR:HB	18:C6:118:ILE:O	2.12	0.49
22:D0:68:ARG:HG2	22:D0:79:TRP:CD2	2.47	0.49
25:D3:103:LEU:HB3	25:D3:126:LYS:HB2	1.93	0.49
25:D3:23:ARG:HD2	25:D3:26:GLU:OE1	2.31	0.49
27:D5:87:GLY:O	27:D5:89:ILE:N	2.42	0.49
1:2:958:U:OP2	29:D7:20:LYS:HE3	2.12	0.49
39:L2:104:LEU:HD11	39:L2:113:VAL:HG21	1.95	0.49
39:L2:114:SER:OG	39:L2:115:ASN:N	2.98	0.49
39:L2:64:ARG:HH22	45:L8:39:ALA:H	1.59	0.49
40:L3:76:VAL:HG21	40:L3:323:MET:CE	3.21	0.49
42:L5:126:GLU:HA	42:L5:196:ARG:HD2	1.94	0.49
43:L6:7:PRO:HD3	68:O2:74:PHE:CE1	3.90	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:143:THR:HG22	44:L7:241:LYS:HG3	1.95	0.49
44:L7:160:ARG:HB2	44:L7:203:TRP:CE2	2.71	0.49
48:M1:44:THR:O	37:7:39:C:O2'	299.67	0.49
52:M6:116:LYS:HE2	56:N0:165:TYR:HB3	1.94	0.49
53:M7:169:THR:HG23	69:O3:60:ARG:HH11	1.77	0.49
54:M8:88:THR:HA	54:M8:107:THR:HG23	1.94	0.49
55:M9:20:ARG:HG2	36:5:1875:G:OP2	137.51	0.49
57:N1:17:ARG:HH11	57:N1:17:ARG:HB3	3.90	0.49
69:O3:19:SER:OG	36:5:1330:A:OP2	231.15	0.49
75:O9:5:LYS:HD3	75:O9:13:MET:HE1	2.61	0.49
79:Q3:53:GLY:HA2	79:Q3:67:GLY:O	2.33	0.49
2:S0:30:GLN:HE22	2:S0:32:HIS:HB2	8.76	0.49
2:S0:90:ALA:HB1	2:S0:95:ALA:O	2.41	0.49
6:S4:125:LYS:O	6:S4:141:THR:HA	2.46	0.49
6:S4:29:PRO:HA	1:6:448:C:H5'	367.62	0.49
7:S5:119:ASP:O	7:S5:123:VAL:HG23	2.85	0.49
7:S5:84:LYS:HD3	7:S5:92:ARG:NH2	5.60	0.49
10:S8:44:HIS:O	10:S8:56:ARG:N	2.91	0.49
34:SR:110:VAL:HA	34:SR:126:SER:HB2	1.94	0.49
36:1:1560:G:O6	61:N5:36:LYS:NZ	2.46	0.49
36:1:1634:G:OP1	63:N7:107:ARG:NH1	2.45	0.49
36:1:1919:G:N7	86:1:4014:OHX:N5	2.61	0.49
36:1:2631:U:OP1	36:1:2757:U:O2'	2.26	0.49
36:1:3100:U:O2'	36:1:3101:G:OP2	2.28	0.49
36:1:3242:G:C2	36:1:3245:A:C8	3.00	0.49
36:1:542:G:H1	36:1:549:U:H3	1.60	0.49
1:2:1147:A:H2'	1:2:1148:C:C6	2.48	0.49
1:2:526:A:H2'	1:2:527:A:O4'	2.13	0.49
1:2:900:A:OP1	16:C4:43:THR:OG1	2.24	0.49
36:5:1691:U:H2'	36:5:1692:U:C6	2.47	0.49
75:O9:10:LYS:NZ	36:5:1833:G:OP1	105.14	0.49
36:5:209:A:H4'	36:5:211:A:N7	2.27	0.49
36:5:415:G:OP2	86:5:4215:OHX:N4	2.45	0.49
36:5:612:U:H2'	36:5:613:G:H8	1.78	0.49
1:6:1227:A:H4'	1:6:1228:G:C5'	2.40	0.49
1:6:1321:A:H4'	1:6:1322:A:O5'	2.11	0.49
1:6:187:G:C6	1:6:197:A:N6	2.80	0.49
1:6:219:A:O2'	1:6:220:A:O5'	2.29	0.49
38:8:26:U:H2'	38:8:27:U:C6	2.48	0.49
1:2:1226:A:C2	14:C2:116:VAL:HG11	2.46	0.49
28:D6:95:ARG:NH1	1:6:1796:C:O2'	340.85	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:105:GLY:HA2	39:L2:139:HIS:CD2	5.25	0.49
39:L2:48:ILE:HD12	39:L2:49:VAL:N	2.27	0.49
44:L7:192:GLY:O	44:L7:194:HIS:N	2.90	0.49
48:M1:156:LYS:O	48:M1:160:VAL:HG23	2.78	0.49
49:M3:186:ARG:O	49:M3:190:LYS:HB3	2.12	0.49
52:M6:130:LYS:HA	36:5:1316:C:C4	297.30	0.49
36:1:728:G:H5"	54:M8:43:PRO:HB2	1.92	0.49
57:N1:18:ASP:O	57:N1:21:LYS:N	3.22	0.49
59:N3:62:VAL:CG2	59:N3:74:MET:HE1	2.43	0.49
66:O0:55:GLU:O	66:O0:59:TYR:HD1	1.95	0.49
67:O1:29:ALA:HB3	67:O1:30:PRO:HD3	2.11	0.49
68:O2:104:ASN:O	68:O2:108:ILE:HD12	3.88	0.49
71:O5:89:ARG:HD2	38:8:38:U:C4	68.01	0.49
36:1:853:G:N7	79:Q3:2:ALA:HB2	2.27	0.49
8:S6:69:LEU:O	8:S6:101:ILE:HG13	2.13	0.49
8:S6:67:VAL:O	8:S6:68:LEU:HB2	2.31	0.49
9:S7:157:LYS:O	9:S7:159:VAL:N	2.42	0.49
10:S8:57:ALA:HB1	10:S8:60:ILE:HD11	1.94	0.49
10:S8:6:ASP:OD1	10:S8:8:ARG:N	2.34	0.49
10:S8:76:THR:HG21	10:S8:109:PHE:HE1	1.77	0.49
34:SR:26:SER:OG	34:SR:75:ALA:O	2.27	0.49
36:1:1470:U:H2'	36:1:1471:U:C6	2.47	0.49
36:1:1815:U:O2'	36:1:1816:A:P	2.71	0.49
36:1:334:A:C2	36:1:335:G:C5	3.01	0.49
36:1:714:G:O2'	36:1:753:C:O2'	2.30	0.49
1:2:1102:G:P	24:D2:76:SER:HB2	2.53	0.49
1:2:288:A:H2'	1:2:289:U:C6	2.47	0.49
45:L8:129:PRO:HB3	36:5:121:A:C2	101.57	0.49
36:5:2426:U:H2'	36:5:2427:U:C6	2.47	0.49
36:5:172:G:C6	36:5:247:C:N4	2.81	0.49
36:5:279:U:H2'	36:5:280:U:C6	2.48	0.49
36:5:270:U:O2'	36:5:318:A:N3	2.34	0.49
36:5:381:U:H2'	36:5:382:U:C6	2.46	0.49
36:5:981:U:H2'	36:5:982:C:O4'	2.13	0.49
36:5:996:A:H2'	36:5:997:A:O4'	2.12	0.49
1:6:1027:A:OP1	1:6:1789:G:O2'	2.24	0.49
1:6:1202:A:O2'	1:6:1205:C:N4	2.45	0.49
1:6:1209:C:H42	1:6:1454:G:H1	1.61	0.49
6:S4:155:LYS:NZ	1:6:244:A:OP1	344.70	0.49
1:6:982:U:OP1	86:6:2074:OHX:N2	2.45	0.49
1:2:246:G:N3	13:C1:40:LEU:HD13	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:114:ARG:O	18:C6:115:THR:HB	3.78	0.49
21:C9:15:ILE:HD11	21:C9:63:ARG:HD2	4.88	0.49
22:D0:20:ILE:HG13	22:D0:95:ALA:O	2.13	0.49
24:D2:10:ALA:HB1	24:D2:27:ILE:HD12	1.95	0.49
24:D2:5:SER:HB3	24:D2:8:ALA:HB3	2.57	0.49
39:L2:159:SER:O	39:L2:161:ASP:N	3.31	0.49
36:1:2991:A:OP1	40:L3:20:LYS:HB2	2.11	0.49
40:L3:256:HIS:HA	40:L3:257:PRO:C	2.32	0.49
40:L3:259:HIS:NE2	36:5:2366:C:H5'	216.97	0.49
40:L3:53:MET:HG3	40:L3:77:THR:HG22	2.17	0.49
42:L5:136:GLU:N	42:L5:136:GLU:OE2	5.11	0.49
42:L5:85:ARG:HD3	42:L5:86:TYR:CE2	2.47	0.49
44:L7:160:ARG:HB2	44:L7:203:TRP:CD2	2.53	0.49
45:L8:156:ASP:HB2	45:L8:183:LYS:HD3	1.94	0.49
53:M7:4:TYR:OH	53:M7:16:SER:OG	3.97	0.49
55:M9:6:THR:HG23	55:M9:9:ARG:HH21	1.78	0.49
63:N7:89:VAL:HG13	63:N7:90:GLU:OE2	4.17	0.49
64:N8:111:LYS:HD2	64:N8:129:PHE:HB3	2.39	0.49
65:N9:23:LYS:HE3	65:N9:24:PRO:HD3	1.94	0.49
2:S0:88:LYS:HA	2:S0:88:LYS:HE2	1.94	0.49
3:S1:120:LEU:HD23	3:S1:121:ILE:N	2.28	0.49
7:S5:192:GLU:OE2	27:D5:61:SER:OG	3.62	0.49
8:S6:12:SER:HB3	8:S6:124:LEU:HD12	1.93	0.49
9:S7:38:LEU:HD23	9:S7:41:LEU:HD12	1.94	0.49
9:S7:51:VAL:HG23	9:S7:53:GLY:H	1.77	0.49
34:SR:52:GLN:HG2	34:SR:53:LYS:N	2.40	0.49
36:1:2383:C:H5'	52:M6:71:PHE:HE2	1.77	0.49
36:1:2862:U:H2'	36:1:2863:G:O4'	2.12	0.49
36:1:3070:A:C5	36:1:3071:U:C5	3.01	0.49
86:1:4032:OHX:N6	86:1:4045:OHX:N3	2.61	0.49
36:1:608:A:N6	43:L6:22:ARG:HD3	2.28	0.49
1:2:109:G:C6	1:2:110:U:N3	2.81	0.49
1:2:1219:A:H3'	1:2:1220:C:C6	2.48	0.49
1:2:1236:A:H2'	1:2:1237:G:H8	1.78	0.49
1:2:1521:G:O6	21:C9:68:ARG:NH1	2.45	0.49
1:2:461:G:H2'	1:2:462:G:C8	2.47	0.49
37:3:45:A:H2'	37:3:46:A:C8	2.48	0.49
36:5:1045:C:OP2	86:5:4171:OHX:N1	2.45	0.49
36:5:1205:A:H4'	36:5:2835:U:O2'	2.12	0.49
36:5:1245:A:H5'	36:5:1247:U:OP2	2.13	0.49
36:5:2441:A:H61	36:5:2507:C:N4	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1491:U:H4'	1:6:1492:A:C5'	2.43	0.49
1:6:628:G:N2	1:6:970:A:OP2	2.40	0.49
38:8:15:G:C6	38:8:16:G:N1	2.80	0.49
20:C8:42:TYR:OH	20:C8:76:PRO:HG3	3.54	0.49
22:D0:74:GLU:HG2	1:6:1429:G:H1'	378.09	0.49
25:D3:130:VAL:HG11	25:D3:143:PRO:HD3	1.95	0.49
26:D4:62:THR:HA	26:D4:69:SER:HA	1.95	0.49
31:D9:53:ASN:HB2	31:D9:55:PHE:CE2	3.68	0.49
40:L3:58:ARG:HD2	40:L3:354:VAL:HG12	1.94	0.49
42:L5:132:THR:OG1	42:L5:171:LEU:O	2.29	0.49
44:L7:125:GLU:O	44:L7:128:LYS:HB2	2.13	0.49
45:L8:133:LYS:HB3	45:L8:138:HIS:CE1	2.47	0.49
45:L8:74:THR:HA	45:L8:77:GLN:HE21	2.47	0.49
47:M0:200:LEU:HD13	47:M0:213:PHE:CD1	2.48	0.49
49:M3:91:ARG:HH12	49:M3:97:VAL:HB	1.76	0.49
51:M5:190:THR:O	51:M5:194:GLN:HG2	2.21	0.49
51:M5:194:GLN:NE2	36:5:99:A:OP1	123.69	0.49
52:M6:14:HIS:CD2	52:M6:124:LEU:HD13	3.01	0.49
53:M7:27:LYS:HA	53:M7:63:PHE:CD2	2.69	0.49
55:M9:100:ARG:NE	36:5:1722:U:OP1	214.52	0.49
55:M9:130:ASN:C	55:M9:132:PHE:H	2.16	0.49
57:N1:104:GLU:HG3	57:N1:105:PHE:N	2.27	0.49
58:N2:58:GLU:HB2	58:N2:63:VAL:HA	3.59	0.49
59:N3:80:ARG:HD3	59:N3:117:PRO:O	2.57	0.49
61:N5:103:TYR:O	61:N5:105:VAL:HG23	2.12	0.49
73:O7:18:LEU:HA	73:O7:25:ARG:H	1.77	0.49
5:S3:217:ILE:HG22	5:S3:218:LEU:H	1.78	0.49
5:S3:34:TYR:CE2	5:S3:37:VAL:HG22	4.46	0.49
6:S4:121:TYR:CE2	6:S4:161:LYS:HE3	2.47	0.49
1:2:472:U:H5"	11:S9:11:THR:HG23	1.95	0.49
11:S9:110:GLN:NE2	11:S9:122:VAL:O	2.45	0.49
35:SM:48:ARG:HA	36:5:1019:G:OP1	333.96	0.49
36:1:156:G:OP2	72:O6:25:LYS:HB3	2.12	0.49
36:1:2093:A:H3'	36:1:2093:A:N3	2.28	0.49
36:1:2220:A:N6	36:1:2221:G:C6	2.81	0.49
36:1:2635:A:H4'	36:1:2636:A:O5'	2.12	0.49
36:1:637:C:H4'	36:1:638:C:OP1	2.12	0.49
1:2:1111:G:C2	1:2:1112:G:H1'	2.48	0.49
1:2:1657:U:H5	36:1:2125:A:O3'	1.94	0.49
1:2:497:G:O2'	1:2:498:G:C8	2.63	0.49
1:2:801:G:N2	1:2:802:G:H1'	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:21:ARG:HD2	36:5:1369:A:H5'	185.70	0.49
36:5:1782:U:C4	36:5:1783:U:C4	3.01	0.49
36:5:715:A:H4'	36:5:716:A:OP1	2.13	0.49
36:5:945:C:H2'	36:5:946:U:C6	2.47	0.49
1:6:1182:U:O2'	1:6:1184:A:N7	2.31	0.49
10:S8:51:GLY:N	1:6:397:A:H5"	313.05	0.49
51:M5:109:ARG:NH1	38:8:141:C:OP1	120.82	0.49
51:M5:38:ARG:NH1	38:8:142:C:OP1	112.68	0.49
13:C1:46:LYS:HE2	1:6:846:G:N2	312.01	0.49
14:C2:131:ASP:OD1	14:C2:132:GLU:N	2.40	0.49
17:C5:67:ALA:O	17:C5:69:GLU:N	2.46	0.49
18:C6:34:SER:HB3	18:C6:38:LEU:HD12	1.95	0.49
20:C8:86:LEU:HD12	20:C8:99:HIS:CD2	2.48	0.49
22:D0:70:THR:O	31:D9:40:ARG:NH1	2.46	0.49
23:D1:36:VAL:HG12	23:D1:51:VAL:HB	2.11	0.49
25:D3:110:LYS:O	25:D3:112:LYS:HG2	2.12	0.49
25:D3:134:ALA:HB1	25:D3:140:LYS:HG3	4.98	0.49
29:D7:29:ARG:HH11	29:D7:29:ARG:HG3	1.77	0.49
39:L2:189:TYR:HA	39:L2:192:LYS:HB2	2.29	0.49
42:L5:260:PHE:CE2	37:7:121:U:H5'	320.08	0.49
46:L9:88:TYR:CE2	46:L9:184:LYS:HG2	2.48	0.49
47:M0:89:VAL:HG13	47:M0:136:PHE:CE1	2.48	0.49
48:M1:59:ILE:HG22	48:M1:65:ILE:HD11	1.95	0.49
36:1:665:A:H1'	49:M3:14:PHE:CE1	2.47	0.49
52:M6:72:HIS:O	52:M6:74:ARG:NH1	2.45	0.49
57:N1:82:ASN:OD1	57:N1:82:ASN:N	2.39	0.49
70:O4:88:ARG:NH1	36:5:2556:C:OP1	200.18	0.49
2:S0:17:LEU:HD23	2:S0:22:THR:HG21	2.54	0.49
6:S4:179:LYS:N	6:S4:194:THR:O	2.46	0.49
10:S8:12:SER:OG	10:S8:16:ALA:HB3	2.12	0.49
34:SR:246:SER:HB3	34:SR:251:TRP:HB2	2.10	0.49
36:1:1029:G:H2'	36:1:1030:A:C8	2.48	0.49
36:1:1237:G:H2'	36:1:1237:G:N3	2.28	0.49
36:1:1636:U:H5"	63:N7:73:LYS:HZ2	1.78	0.49
36:1:2206:G:C8	36:1:2206:G:OP2	2.66	0.49
36:1:781:G:O6	86:1:3941:OHX:N5	2.45	0.49
36:1:656:A:H2'	36:1:657:A:C8	2.47	0.49
36:1:860:G:H5'	36:1:861:C:H5'	1.95	0.49
36:1:979:U:H1'	36:1:980:A:N9	2.26	0.49
1:2:489:C:H42	1:2:497:G:H22	1.59	0.49
1:2:734:A:H4'	1:2:735:C:H5'	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2373:A:N7	36:5:2867:C:H1’	2.28	0.49
36:5:3288:G:O2’	36:5:3289:G:OP2	2.28	0.49
36:5:589:A:H1’	36:5:1337:A:H5”	1.94	0.49
1:6:1213:G:O2’	1:6:1244:A:N6	2.45	0.49
21:C9:122:ARG:NH2	1:6:1500:C:OP1	419.15	0.49
86:6:2118:OHX:N2	86:6:2170:OHX:N5	2.61	0.49
1:6:445:A:C2	1:6:446:A:C8	3.01	0.49
1:6:538:A:C8	1:6:543:C:N4	2.75	0.49
38:8:124:G:OP2	86:8:225:OHX:N2	2.46	0.49
38:8:96:A:H2’	38:8:96:A:N3	2.27	0.49
19:C7:99:VAL:CB	19:C7:118:PRO:HB2	2.43	0.49
19:C7:51:ALA:HA	19:C7:54:THR:HG23	1.94	0.49
21:C9:86:ARG:HB2	21:C9:89:ARG:HB2	3.14	0.49
22:D0:70:THR:HG23	1:6:1280:C:O2’	388.55	0.49
25:D3:51:GLY:HA2	25:D3:77:ILE:HG13	1.94	0.49
1:2:1796:C:C5	28:D6:5:ARG:HA	2.48	0.49
39:L2:112:ILE:HG22	39:L2:135:ILE:HG12	5.62	0.49
39:L2:233:GLN:HG2	36:5:2607:G:H5’	192.84	0.49
40:L3:97:ARG:NH1	36:5:3244:A:N1	245.03	0.49
42:L5:158:ARG:HD2	37:7:47:C:OP2	283.65	0.49
46:L9:163:GLN:HB3	46:L9:166:ARG:HH11	1.78	0.49
47:M0:179:PRO:HA	47:M0:182:LEU:HD12	1.94	0.49
50:M4:23:ILE:HG13	50:M4:31:LYS:O	3.52	0.49
52:M6:68:ARG:NH1	36:5:2988:C:P	216.26	0.49
42:L5:41:LYS:NZ	57:N1:32:LYS:O	2.43	0.49
57:N1:68:THR:OG1	57:N1:71:SER:HB2	2.13	0.49
57:N1:76:ILE:HG13	57:N1:89:LEU:HD22	3.01	0.49
64:N8:90:TYR:CG	64:N8:100:PRO:HG3	2.47	0.49
72:O6:4:LYS:HD2	72:O6:13:LYS:O	2.13	0.49
73:O7:21:ARG:HH11	73:O7:44:THR:HG23	1.78	0.49
38:4:113:U:H5”	75:O9:7:PHE:HB3	1.95	0.49
3:S1:33:LYS:HD2	3:S1:232:HIS:ND1	9.52	0.49
9:S7:60:ILE:HD11	9:S7:90:VAL:HG13	2.21	0.49
10:S8:164:ARG:O	10:S8:165:LEU:HD23	3.10	0.49
1:2:331:A:H4’	10:S8:31:ARG:O	2.12	0.49
36:1:1155:C:P	44:L7:94:LYS:HZ1	2.35	0.49
36:1:1559:A:H4’	36:1:1560:G:OP2	2.13	0.49
36:1:1587:A:OP1	86:1:3943:OHX:N6	2.46	0.49
36:1:2373:A:H3’	36:1:2373:A:OP2	2.13	0.49
36:1:2585:G:C6	61:N5:24:LEU:HD13	2.48	0.49
36:1:2948:C:H2’	36:1:2949:U:O4’	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3280:U:O2'	36:1:3281:U:H5"	2.13	0.49
36:1:3087:A:P	86:1:4180:OHX:N5	2.85	0.49
1:2:1162:C:H1'	1:2:1616:G:N2	2.28	0.49
1:2:1253:U:H2'	1:2:1254:U:C6	2.48	0.49
1:2:1586:A:H2'	1:2:1587:A:O4'	2.13	0.49
1:2:487:G:H3'	1:2:488:G:H5"	1.95	0.49
38:4:125:U:O2'	38:4:126:A:P	2.71	0.49
36:5:1348:U:C6	36:5:1355:A:C5	3.00	0.49
36:5:3258:U:O2'	36:5:3260:G:OP1	2.27	0.49
36:5:201:A:OP2	86:5:3980:OHX:N1	2.45	0.49
36:5:1443:G:O6	86:5:4003:OHX:N5	2.46	0.49
86:5:3971:OHX:N6	86:5:4193:OHX:N5	2.61	0.49
12:C0:11:ILE:HD12	12:C0:42:VAL:HA	1.94	0.49
1:2:1539:G:O4'	20:C8:40:ARG:NH1	2.46	0.49
20:C8:8:GLN:C	20:C8:10:SER:H	2.39	0.49
26:D4:98:GLU:OE1	26:D4:99:LYS:N	5.44	0.49
1:2:1795:U:O4	28:D6:9:GLY:HA2	2.13	0.49
30:D8:26:THR:O	30:D8:44:VAL:HG22	2.43	0.49
33:E1:102:VAL:O	33:E1:104:SER:N	2.41	0.49
14:C2:50:LYS:NZ	33:E1:106:TYR:OH	2.46	0.49
39:L2:205:ASN:HB3	39:L2:206:PRO:HD2	2.68	0.49
43:L6:165:LEU:HD11	69:O3:102:LEU:HD11	1.95	0.49
44:L7:130:ILE:O	44:L7:134:VAL:HG22	2.13	0.49
44:L7:169:ILE:HD13	44:L7:181:ILE:HA	1.93	0.49
44:L7:219:LYS:O	44:L7:228:SER:HB2	2.58	0.49
44:L7:59:GLU:O	44:L7:63:ILE:HG13	2.13	0.49
45:L8:161:GLU:OE2	51:M5:26:ARG:NH2	2.91	0.49
47:M0:61:SER:HB2	47:M0:63:GLU:HG2	2.01	0.49
49:M3:106:GLN:HA	72:O6:20:MET:SD	2.91	0.49
51:M5:37:HIS:CD2	51:M5:63:ARG:HB3	2.48	0.49
51:M5:94:TYR:CE2	51:M5:96:ARG:HB2	2.48	0.49
53:M7:41:LEU:O	53:M7:41:LEU:HD22	2.21	0.49
54:M8:26:LEU:O	54:M8:30:VAL:HG23	2.18	0.49
58:N2:90:ARG:O	58:N2:91:ASP:HB2	2.54	0.49
59:N3:11:PHE:CZ	59:N3:88:ARG:HD2	2.48	0.49
60:N4:25:ASP:OD2	60:N4:26:SER:N	4.73	0.49
64:N8:131:SER:HB3	64:N8:134:ALA:CB	2.65	0.49
71:O5:47:VAL:HA	71:O5:50:SER:HB2	2.81	0.49
72:O6:62:ARG:O	72:O6:63:ASN:ND2	5.47	0.49
75:O9:34:THR:O	75:O9:36:ARG:HG2	6.07	0.49
79:Q3:86:LEU:O	79:Q3:89:MET:HB2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:110:LEU:HD21	3:S1:213:ARG:HD2	1.95	0.49
6:S4:118:GLU:HA	6:S4:121:TYR:CE1	2.87	0.49
6:S4:120:SER:O	6:S4:164:LEU:HB2	2.13	0.49
9:S7:82:GLU:OE2	9:S7:165:LYS:NZ	2.41	0.49
36:1:1204:A:H2	36:1:2834:G:N3	2.11	0.48
36:1:1573:G:C2	36:1:1574:C:H1'	2.48	0.48
36:1:1580:A:H1'	36:1:1581:C:H5	1.77	0.48
36:1:1757:A:OP1	58:N2:94:ARG:NH2	2.41	0.48
36:1:1901:A:H5"	36:1:2919:A:OP1	2.13	0.48
36:1:2339:C:P	59:N3:48:ARG:HG3	2.53	0.48
36:1:2440:G:H1	36:1:2507:C:H42	1.60	0.48
36:1:2505:U:H2'	36:1:2506:U:C6	2.48	0.48
1:2:463:U:C2	1:2:464:A:C8	3.01	0.48
1:2:708:C:C2	1:2:709:C:H5	2.31	0.48
36:5:1152:G:H8	36:5:1152:G:O5'	1.96	0.48
36:5:247:C:C2	36:5:248:U:H1'	2.48	0.48
40:L3:250:ALA:HB1	36:5:2947:G:C2	219.52	0.48
36:5:3160:U:H2'	36:5:3161:C:C6	2.48	0.48
36:5:3163:A:C6	36:5:3164:C:N4	2.81	0.48
36:5:2239:G:OP2	86:5:4187:OHX:N6	2.46	0.48
36:5:437:G:H1	36:5:622:A:H61	1.60	0.48
1:6:1237:G:H2'	1:6:1238:A:C8	2.48	0.48
1:6:1488:G:O2'	1:6:1494:C:O2	2.16	0.48
10:S8:146:ARG:NH2	1:6:186:C:OP1	275.14	0.48
1:6:230:C:N4	1:6:235:G:H1	2.05	0.48
13:C1:129:ARG:HG3	13:C1:129:ARG:O	2.46	0.48
17:C5:130:ARG:HH12	35:SM:71:ASN:HA	1.78	0.48
27:D5:55:PRO:HB2	27:D5:103:ARG:HH11	1.77	0.48
28:D6:4:LYS:HG2	28:D6:5:ARG:HG3	5.93	0.48
39:L2:30:ARG:HB2	39:L2:36:GLU:OE2	2.13	0.48
40:L3:97:ARG:NH1	36:5:3244:A:C2	244.12	0.48
43:L6:170:LYS:NZ	69:O3:34:GLY:O	3.82	0.48
43:L6:22:ARG:NH1	36:5:608:A:C4	241.73	0.48
46:L9:174:LYS:O	46:L9:174:LYS:HG3	2.12	0.48
47:M0:181:TYR:O	47:M0:184:LYS:N	2.90	0.48
47:M0:32:ARG:NH1	47:M0:32:ARG:HG2	2.27	0.48
47:M0:75:TYR:CZ	47:M0:79:VAL:HG21	3.35	0.48
50:M4:92:GLU:HA	50:M4:95:ALA:HB3	1.93	0.48
51:M5:44:ARG:HH12	36:5:269:G:P	126.20	0.48
36:1:2790:A:OP2	54:M8:181:SER:HB3	2.13	0.48
61:N5:65:GLN:O	61:N5:85:GLN:N	2.67	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:9:LYS:HG3	63:N7:10:VAL:O	2.12	0.48
66:O0:73:GLY:O	66:O0:76:GLU:HG2	2.13	0.48
68:O2:124:GLY:C	68:O2:126:LEU:H	2.51	0.48
68:O2:12:LYS:HE2	68:O2:56:GLY:O	2.13	0.48
69:O3:90:PRO:O	69:O3:92:LYS:N	2.44	0.48
70:O4:54:ILE:HD11	70:O4:78:GLY:HA2	2.08	0.48
71:O5:21:LEU:HD22	71:O5:25:LYS:HE2	1.95	0.48
76:Q0:97:ARG:HG3	76:Q0:120:GLN:O	2.15	0.48
3:S1:212:VAL:O	3:S1:214:LYS:N	2.38	0.48
4:S2:53:ILE:HG23	4:S2:72:LEU:HD23	1.95	0.48
5:S3:77:PHE:HB2	5:S3:79:TYR:CE2	2.88	0.48
6:S4:19:LEU:HD13	1:6:788:A:C4	393.41	0.48
1:2:144:U:H5	8:S6:137:ARG:NH1	2.11	0.48
9:S7:96:ARG:HH22	9:S7:128:ASP:CG	2.74	0.48
35:SM:36:ASP:OD1	48:M1:53:THR:OG1	2.31	0.48
36:1:1158:A:H8	36:1:1158:A:O5’	1.95	0.48
36:1:1782:U:H2’	36:1:1783:U:O4’	2.13	0.48
36:1:1916:U:H2’	36:1:1917:C:C6	2.48	0.48
36:1:2320:A:C2	79:Q3:16:VAL:HG12	2.48	0.48
36:1:2571:U:O2’	36:1:2572:C:O2	2.30	0.48
36:1:3040:A:OP1	59:N3:12:ARG:N	2.36	0.48
36:1:612:U:OP1	43:L6:21:THR:HB	2.13	0.48
1:2:1547:A:H5’	20:C8:112:ASP:OD2	2.13	0.48
1:2:830:U:O2’	1:2:831:U:H6	1.97	0.48
36:5:1096:U:H4’	36:5:1097:G:O5’	2.13	0.48
52:M6:17:GLY:HA3	36:5:1313:G:O3’	266.63	0.48
36:5:2107:A:C2	36:5:2108:C:C2	3.00	0.48
51:M5:50:ARG:NH1	36:5:267:G:H4’	112.19	0.48
36:5:2861:U:H2’	36:5:2862:U:O4’	2.13	0.48
51:M5:93:LYS:HG3	36:5:289:A:N3	144.56	0.48
36:5:3316:A:OP1	36:5:3318:G:N2	2.32	0.48
36:5:2910:A:N1	86:5:3896:OHX:N4	2.62	0.48
36:5:2429:G:OP2	86:5:4040:OHX:N5	2.45	0.48
36:5:90:C:C2’	36:5:91:G:H5’	2.43	0.48
1:6:107:C:N4	1:6:307:G:H1	2.11	0.48
1:6:1458:G:N2	1:6:1459:C:C2	2.81	0.48
17:C5:40:ARG:NH1	1:6:1556:A:O2’	384.56	0.48
1:6:988:A:C6	1:6:989:U:C2	3.01	0.48
51:M5:38:ARG:HH22	38:8:143:U:P	107.73	0.48
38:8:36:G:N2	38:8:37:A:N1	2.60	0.48
18:C6:31:VAL:C	18:C6:33:GLY:H	2.33	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1350:U:H5'	18:C6:68:ARG:NH2	2.28	0.48
2:S0:52:LYS:NZ	23:D1:82:VAL:O	2.37	0.48
13:C1:101:GLU:OE2	25:D3:16:ARG:NH2	3.16	0.48
27:D5:43:ASP:HB2	27:D5:46:LYS:HE3	2.78	0.48
40:L3:114:VAL:HG22	40:L3:163:HIS:CE1	2.86	0.48
40:L3:128:LYS:HG3	36:5:3294:A:H5'	197.83	0.48
41:L4:209:TYR:O	41:L4:230:VAL:HG22	2.62	0.48
45:L8:121:SER:O	45:L8:123:GLN:N	2.45	0.48
46:L9:3:TYR:H	46:L9:60:GLY:H	1.59	0.48
50:M4:108:ARG:NH1	50:M4:112:LEU:HD23	4.01	0.48
51:M5:204:LYS:HE3	36:5:683:U:OP1	107.23	0.48
52:M6:102:LEU:HD12	52:M6:103:LYS:N	2.28	0.48
58:N2:94:ARG:HD3	58:N2:108:TYR:HE1	3.95	0.48
63:N7:41:ALA:O	63:N7:43:VAL:HG13	2.96	0.48
64:N8:126:LYS:HB3	64:N8:148:ILE:HD13	1.94	0.48
67:O1:11:GLU:OE2	67:O1:74:ARG:NH2	2.46	0.48
2:S0:185:ARG:HB3	2:S0:186:GLY:H	4.30	0.48
4:S2:40:LYS:HA	4:S2:43:ARG:HH12	1.78	0.48
4:S2:54:GLU:N	4:S2:54:GLU:OE2	3.20	0.48
6:S4:21:ASP:HB2	1:6:773:C:OP1	388.35	0.48
6:S4:43:PRO:HA	6:S4:82:TYR:O	2.14	0.48
9:S7:98:ILE:HD11	9:S7:121:VAL:HG11	1.95	0.48
10:S8:8:ARG:NH2	10:S8:21:PHE:HB3	2.28	0.48
34:SR:184:ASN:O	34:SR:185:GLN:NE2	6.48	0.48
34:SR:244:ALA:O	34:SR:294:TRP:NE1	2.43	0.48
36:1:1018:G:H2'	36:1:1019:G:O4'	2.13	0.48
36:1:1560:G:C6	36:1:1561:G:N7	2.81	0.48
36:1:1564:U:H2'	36:1:1565:G:C8	2.47	0.48
36:1:1947:G:H1	36:1:2101:C:H42	1.61	0.48
36:1:2257:C:H2'	36:1:2258:U:O4'	2.12	0.48
36:1:2616:C:H3'	36:1:2617:U:O2	2.13	0.48
36:1:2775:U:H2'	36:1:2776:C:C6	2.48	0.48
36:1:2984:C:C2	36:1:2985:C:C5	3.01	0.48
36:1:304:G:H5'	36:1:304:G:N3	2.28	0.48
36:1:3279:A:C2'	36:1:3280:U:H5'	2.43	0.48
36:1:1940:G:N2	36:1:3362:A:C8	2.80	0.48
86:1:4032:OHX:N2	86:1:4045:OHX:N5	2.61	0.48
36:1:2273:G:N7	86:1:4139:OHX:N5	2.62	0.48
36:1:440:A:OP1	36:1:494:G:H1'	2.13	0.48
1:2:1151:A:H2'	1:2:1152:A:C8	2.48	0.48
1:2:142:G:C5	1:2:266:A:C6	3.00	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:196:G:O2'	1:2:197:A:P	2.71	0.48
1:2:582:U:H5'	1:2:583:C:H5	1.78	0.48
1:2:823:G:O2'	1:2:824:G:O5'	2.31	0.48
36:5:2102:U:H2'	36:5:2103:U:H6	1.78	0.48
36:5:3103:A:OP2	86:5:4153:OHX:N4	2.46	0.48
39:L2:3:ARG:HD3	36:5:911:C:H42	178.70	0.48
36:5:920:A:OP1	36:5:922:U:H5	1.97	0.48
1:6:1160:A:H2'	1:6:1161:C:H6	1.77	0.48
14:C2:45:LEU:HB2	1:6:1228:G:OP1	462.48	0.48
26:D4:124:ARG:NH2	1:6:151:G:N7	321.26	0.48
1:6:1579:U:P	86:6:2182:OHX:N3	2.86	0.48
12:C0:7:ASP:O	12:C0:11:ILE:HG12	2.12	0.48
17:C5:121:ILE:HG12	17:C5:123:TYR:H	5.11	0.48
19:C7:105:GLN:HA	19:C7:108:ASP:HB2	1.95	0.48
20:C8:17:LEU:O	20:C8:20:THR:N	3.32	0.48
20:C8:97:ASP:N	20:C8:97:ASP:OD2	2.46	0.48
25:D3:24:TRP:HE3	25:D3:30:LYS:HE2	4.62	0.48
30:D8:65:ARG:HG3	30:D8:66:LEU:N	2.28	0.48
31:D9:47:ALA:HA	31:D9:50:ILE:HD12	2.40	0.48
39:L2:111:THR:HB	39:L2:136:ILE:HD13	1.95	0.48
40:L3:298:PHE:HD2	40:L3:357:LYS:O	1.95	0.48
41:L4:191:LYS:HG2	41:L4:194:TYR:CE2	2.48	0.48
41:L4:328:ASN:OD1	41:L4:330:TYR:HB3	2.14	0.48
43:L6:10:TYR:HB2	36:5:1353:U:O2	171.84	0.48
45:L8:81:THR:OG1	45:L8:181:LYS:HB2	3.18	0.48
46:L9:48:VAL:HG21	46:L9:52:LEU:HD13	3.16	0.48
47:M0:53:VAL:N	47:M0:164:LYS:O	3.23	0.48
52:M6:89:SER:O	52:M6:91:LYS:N	2.46	0.48
38:4:14:C:OP1	53:M7:123:PRO:HD3	2.13	0.48
54:M8:63:SER:O	54:M8:67:ILE:HG13	3.36	0.48
55:M9:172:ARG:O	55:M9:176:ARG:HG2	2.26	0.48
56:N0:1:MET:HB3	56:N0:118:PHE:CE2	4.58	0.48
57:N1:95:HIS:O	57:N1:96:ILE:HD13	2.23	0.48
58:N2:89:LEU:HB3	58:N2:93:ILE:HD13	3.63	0.48
59:N3:118:VAL:O	59:N3:137:VAL:N	2.38	0.48
62:N6:72:SER:O	62:N6:80:VAL:HG23	3.92	0.48
71:O5:78:LYS:HA	71:O5:81:ARG:HD2	1.95	0.48
36:1:155:G:H1'	72:O6:26:ILE:HD13	1.95	0.48
38:4:67:U:H5"	73:O7:84:SER:O	2.12	0.48
73:O7:84:SER:O	73:O7:85:LYS:HB3	3.78	0.48
2:S0:135:GLU:O	2:S0:138:TYR:HB2	2.36	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:140:ARG:HH22	4:S2:228:ASN:ND2	2.08	0.48
7:S5:146:THR:HG23	7:S5:221:ALA:HA	1.94	0.48
10:S8:197:THR:HA	10:S8:200:LYS:HB2	1.95	0.48
10:S8:35:ASN:HB3	10:S8:37:LYS:NZ	4.25	0.48
11:S9:30:LEU:HD23	11:S9:34:PHE:HE2	3.04	0.48
36:1:1345:G:H21	41:L4:307:GLN:NE2	2.04	0.48
36:1:13:A:H5'	36:1:14:U:OP2	2.12	0.48
36:1:1573:G:N2	36:1:1574:C:O2'	2.47	0.48
36:1:83:U:H2'	36:1:84:U:O4'	2.13	0.48
1:2:1515:A:OP2	5:S3:7:LYS:HB2	2.13	0.48
1:2:623:A:OP1	86:2:2157:OHX:N2	2.46	0.48
1:2:328:A:H2'	1:2:329:G:O4'	2.13	0.48
1:2:623:A:OP2	86:2:2157:OHX:N4	2.46	0.48
1:2:73:U:O2'	1:2:74:U:C2	2.65	0.48
36:5:1240:A:H2'	36:5:1241:U:H5'	1.94	0.48
36:5:1806:A:H2'	36:5:1807:G:O4'	2.14	0.48
36:5:2610:G:H2'	36:5:2611:U:O4'	2.14	0.48
36:5:2318:U:O4	86:5:3989:OHX:N6	2.45	0.48
1:6:1110:G:N2	1:6:1136:U:H1'	2.28	0.48
1:6:1237:G:H2'	1:6:1238:A:H8	1.77	0.48
1:6:1553:G:N2	1:6:1555:A:H3'	2.29	0.48
1:6:1557:U:O2'	1:6:1558:U:H2'	2.12	0.48
1:6:1756:A:H2'	1:6:1757:G:C8	2.47	0.48
86:6:2058:OHX:N5	86:6:2145:OHX:N3	2.62	0.48
1:6:398:G:O5'	1:6:398:G:H8	1.97	0.48
15:C3:61:THR:OG1	15:C3:62:GLN:N	2.67	0.48
19:C7:115:LEU:HD13	19:C7:116:LYS:H	1.78	0.48
19:C7:72:LYS:HA	19:C7:72:LYS:HE3	4.56	0.48
24:D2:103:ILE:HG22	24:D2:112:ASP:HA	5.19	0.48
31:D9:49:ASP:OD1	31:D9:49:ASP:N	2.47	0.48
40:L3:147:GLU:O	40:L3:150:ARG:HB3	2.48	0.48
40:L3:19:ARG:HG3	40:L3:273:HIS:CE1	2.49	0.48
40:L3:81:THR:HG21	40:L3:205:VAL:HG11	2.24	0.48
40:L3:261:MET:O	40:L3:264:VAL:HG13	2.14	0.48
40:L3:33:PRO:HG2	40:L3:340:LYS:HB2	1.94	0.48
42:L5:95:TRP:HZ3	42:L5:156:GLY:O	8.59	0.48
44:L7:132:PRO:HA	44:L7:229:PHE:CE2	2.71	0.48
45:L8:26:LEU:HD13	63:N7:53:VAL:HG11	1.95	0.48
46:L9:75:VAL:HA	46:L9:78:MET:CE	2.75	0.48
48:M1:38:GLU:HB2	48:M1:45:PRO:HD3	2.50	0.48
49:M3:17:HIS:O	49:M3:20:GLU:HB2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:M4:103:ILE:O	50:M4:107:GLU:HG3	2.13	0.48
36:1:3199:G:H5"	50:M4:6:ILE:HG21	1.94	0.48
51:M5:98:LEU:HD22	51:M5:128:LYS:NZ	5.32	0.48
52:M6:15:LEU:HD11	52:M6:129:LEU:HD13	2.53	0.48
53:M7:30:ARG:HA	53:M7:119:VAL:CG1	2.76	0.48
57:N1:137:GLU:HA	57:N1:137:GLU:OE1	4.00	0.48
68:O2:22:SER:OG	68:O2:23:ASP:N	2.45	0.48
68:O2:24:ARG:HG2	68:O2:25:TYR:CE1	2.65	0.48
68:O2:19:ARG:HG3	68:O2:31:ASN:O	2.12	0.48
70:O4:103:LYS:HA	70:O4:103:LYS:HD3	1.68	0.48
78:Q2:46:LYS:O	86:Q2:502:OHX:N6	2.46	0.48
2:S0:133:ILE:H	2:S0:133:ILE:HD12	1.78	0.48
4:S2:38:VAL:HG22	4:S2:39:THR:H	1.79	0.48
5:S3:132:LYS:HB3	5:S3:189:MET:HG3	2.40	0.48
5:S3:170:THR:HG22	5:S3:171:ALA:H	1.78	0.48
5:S3:84:ILE:HD13	5:S3:85:VAL:N	2.28	0.48
7:S5:69:PHE:CE2	18:C6:53:LEU:HD12	2.49	0.48
7:S5:77:TYR:HB3	7:S5:84:LYS:HA	1.94	0.48
8:S6:175:ILE:HG12	1:6:78:A:H1'	337.91	0.48
10:S8:122:GLY:O	86:S8:302:OHX:N5	2.46	0.48
36:1:3087:A:H2'	36:1:3088:G:O4'	2.12	0.48
36:1:3393:U:H2'	36:1:3394:U:C6	2.49	0.48
1:2:1449:U:H2'	1:2:1450:U:C6	2.48	0.48
1:2:68:A:O2'	1:2:69:G:OP2	2.32	0.48
44:L7:94:LYS:HA	36:5:1139:G:O3'	231.67	0.48
36:5:1226:G:H2'	36:5:1227:C:C6	2.48	0.48
36:5:1839:A:N6	36:5:1843:C:C2	2.81	0.48
36:5:776:U:C5	36:5:2719:U:O2	2.67	0.48
36:5:3317:U:H4'	36:5:3318:G:O5'	2.14	0.48
1:6:1013:A:H2'	1:6:1014:G:O4'	2.12	0.48
5:S3:6:SER:N	1:6:1514:U:H1'	440.54	0.48
1:6:1665:U:O4	86:6:2121:OHX:N6	2.46	0.48
42:L5:33:ARG:NH2	37:7:7:G:O3'	270.28	0.48
2:S0:52:LYS:HB3	23:D1:82:VAL:HG22	1.95	0.48
30:D8:21:SER:H	30:D8:67:ARG:HA	3.58	0.48
1:2:478:A:OP1	32:E0:37:ARG:NH1	2.46	0.48
40:L3:296:THR:CG2	40:L3:299:ASP:H	2.26	0.48
41:L4:6:VAL:HG21	41:L4:255:PHE:CZ	2.48	0.48
42:L5:244:HIS:O	42:L5:248:ARG:HG3	2.14	0.48
42:L5:3:PHE:CD2	42:L5:3:PHE:N	2.81	0.48
42:L5:3:PHE:HD2	42:L5:3:PHE:N	2.11	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:1:4193:OHX:N4	43:L6:129:GLU:HB3	2.28	0.48
44:L7:86:VAL:HG21	44:L7:127:LEU:HD21	2.53	0.48
45:L8:108:ARG:NE	45:L8:112:GLU:OE2	2.46	0.48
48:M1:82:ARG:HG3	48:M1:112:LEU:HB2	1.94	0.48
50:M4:39:ILE:HB	50:M4:43:LYS:HB3	3.40	0.48
50:M4:24:LYS:HG2	50:M4:62:GLN:O	2.12	0.48
50:M4:50:LYS:HE3	50:M4:86:ALA:HB2	1.95	0.48
36:1:44:U:OP1	51:M5:84:PRO:HG2	2.13	0.48
52:M6:39:GLU:OE1	52:M6:39:GLU:N	2.35	0.48
41:L4:286:VAL:HG11	54:M8:31:LYS:HD2	4.47	0.48
55:M9:105:LEU:HD11	55:M9:139:VAL:HG23	1.96	0.48
58:N2:18:ASP:OD2	58:N2:20:SER:OG	2.19	0.48
60:N4:6:ASP:OD1	60:N4:32:GLN:N	2.76	0.48
67:O1:41:LYS:O	67:O1:45:GLY:HA2	2.75	0.48
70:O4:22:VAL:CG1	70:O4:30:LEU:HD22	2.42	0.48
71:O5:28:LEU:O	71:O5:32:LYS:HG3	2.14	0.48
71:O5:85:THR:CG2	71:O5:87:ALA:H	2.26	0.48
36:1:181:U:O3'	73:O7:75:LYS:HD3	2.14	0.48
78:Q2:16:THR:OG1	78:Q2:17:CYS:N	3.39	0.48
79:Q3:79:VAL:O	79:Q3:82:THR:N	3.10	0.48
2:S0:124:THR:HB	2:S0:174:TRP:HE1	3.49	0.48
3:S1:137:ILE:HD13	3:S1:172:LEU:HD13	3.80	0.48
3:S1:201:THR:HG21	3:S1:207:LEU:HD22	1.96	0.48
5:S3:10:LYS:O	5:S3:14:ASP:N	2.37	0.48
6:S4:124:GLY:HA2	6:S4:142:HIS:HE1	1.78	0.48
6:S4:248:ILE:HA	6:S4:251:GLU:HG3	3.92	0.48
9:S7:61:PHE:HA	9:S7:93:LEU:O	2.12	0.48
34:SR:249:ARG:NH2	34:SR:315:VAL:HG11	2.28	0.48
36:1:118:U:O2	36:1:121:A:H5'	2.13	0.48
36:1:1397:C:O2'	36:1:1398:U:H5'	2.13	0.48
36:1:1719:G:OP2	55:M9:121:HIS:ND1	2.39	0.48
36:1:2160:G:H2'	36:1:2161:G:C8	2.47	0.48
36:1:2699:G:OP2	86:1:3908:OHX:N1	2.46	0.48
1:2:346:G:H5'	13:C1:79:LYS:HE2	1.95	0.48
1:2:1:U:C4	1:2:369:A:C6	3.02	0.48
1:2:534:A:H3'	1:2:535:A:H8	1.79	0.48
1:2:634:G:HO2'	1:2:635:A:P	2.37	0.48
38:4:149:A:N3	45:L8:55:TYR:OH	2.38	0.48
36:5:1806:A:OP2	86:5:4019:OHX:N5	2.46	0.48
36:5:1819:U:O2'	36:5:1820:U:H5'	2.14	0.48
36:5:2261:G:O2'	36:5:2263:C:N4	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:4:GLN:N	36:5:229:G:OP1	68.87	0.48
36:5:2434:U:H4'	36:5:2435:G:O5'	2.13	0.48
36:5:2525:G:O3'	36:5:2526:C:H6	1.97	0.48
36:5:2794:G:H1'	36:5:2795:U:C6	2.48	0.48
36:5:2948:C:H6	36:5:2948:C:O5'	1.96	0.48
36:5:1817:G:OP1	86:5:4175:OHX:N1	2.47	0.48
36:5:421:G:OP1	86:5:4013:OHX:N2	2.47	0.48
1:6:1263:G:H2'	1:6:1264:G:O4'	2.13	0.48
14:C2:62:LEU:O	14:C2:91:VAL:HG12	4.69	0.48
1:2:1190:C:H1'	18:C6:143:ARG:NH1	2.29	0.48
19:C7:24:LEU:HD21	19:C7:34:LEU:HD22	1.96	0.48
19:C7:34:LEU:HD23	19:C7:38:ILE:HG21	1.96	0.48
20:C8:117:LYS:HE3	20:C8:128:PHE:HB2	3.40	0.48
22:D0:31:VAL:HB	22:D0:32:LYS:HD2	5.57	0.48
25:D3:17:VAL:HG23	25:D3:20:ARG:NH1	4.76	0.48
31:D9:5:ASN:CG	31:D9:7:TRP:NE1	2.67	0.48
39:L2:14:SER:OG	39:L2:15:ILE:N	2.42	0.48
40:L3:84:VAL:HG22	40:L3:162:VAL:HB	2.65	0.48
40:L3:243:HIS:NE2	36:5:878:G:O6	193.61	0.48
41:L4:141:ARG:O	41:L4:144:LYS:NZ	9.93	0.48
41:L4:361:HIS:CG	41:L4:362:ASP:H	2.36	0.48
43:L6:175:LYS:O	50:M4:117:ARG:NH2	2.46	0.48
47:M0:12:GLN:OE1	47:M0:128:ARG:HB3	2.13	0.48
47:M0:171:TRP:O	47:M0:174:THR:HG22	2.14	0.48
51:M5:65:ARG:HG2	51:M5:127:TYR:CD1	3.89	0.48
52:M6:130:LYS:HG3	52:M6:131:PRO:CD	3.91	0.48
54:M8:57:ILE:HD11	54:M8:147:ARG:NH2	2.28	0.48
54:M8:67:ILE:HG23	54:M8:81:VAL:HG11	3.64	0.48
56:N0:89:ASN:OD1	57:N1:156:TYR:N	2.71	0.48
62:N6:57:LEU:HD13	62:N6:59:VAL:HG12	5.29	0.48
2:S0:66:ALA:HB2	23:D1:37:ALA:HB2	2.01	0.48
3:S1:185:THR:O	3:S1:189:ILE:HG13	2.13	0.48
6:S4:44:LEU:HD13	6:S4:65:LEU:HD21	1.95	0.48
7:S5:82:PHE:CE2	30:D8:49:ARG:HB3	2.48	0.48
8:S6:63:MET:HA	8:S6:98:ARG:O	2.25	0.48
9:S7:35:LYS:C	9:S7:37:GLU:H	2.16	0.48
10:S8:100:ALA:O	10:S8:101:ILE:HG12	4.11	0.48
11:S9:11:THR:HG23	1:6:472:U:H5"	397.71	0.48
11:S9:97:LEU:HA	11:S9:97:LEU:HD23	1.71	0.48
34:SR:309:VAL:HG23	34:SR:311:ARG:NH1	4.17	0.48
36:1:1246:G:H2'	36:1:1247:U:O4'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1307:G:C5	52:M6:60:LYS:HD3	2.49	0.48
36:1:2294:U:O2	36:1:2296:A:C8	2.66	0.48
36:1:2400:G:OP1	86:1:4088:OHX:N2	2.46	0.48
36:1:2933:A:OP1	36:1:3015:G:H4'	2.14	0.48
36:1:761:A:H2'	36:1:762:U:H6	1.78	0.48
1:2:1182:U:O2	1:2:1182:U:H2'	2.13	0.48
1:2:1450:U:H2'	1:2:1451:C:C6	2.48	0.48
1:2:21:U:H2'	1:2:22:A:H8	1.77	0.48
1:2:711:U:H1'	1:2:712:G:H5'	1.95	0.48
36:5:1013:G:C2	36:5:1014:U:H1'	2.48	0.48
36:5:1519:G:H2'	36:5:1520:G:H8	1.78	0.48
63:N7:73:LYS:NZ	36:5:1637:A:OP2	211.24	0.48
36:5:3017:A:H2'	36:5:3018:C:H6	1.79	0.48
36:5:3119:U:H5"	36:5:3120:C:OP2	2.13	0.48
36:5:614:C:H2'	36:5:615:U:H6	1.78	0.48
1:6:1220:C:H2'	1:6:1221:A:C8	2.48	0.48
1:6:1549:C:H42	1:6:1562:G:H1	1.60	0.48
8:S6:176:GLN:HG2	1:6:169:A:H5'	328.32	0.48
1:6:647:G:H22	1:6:687:G:N2	2.11	0.48
17:C5:98:ASN:HB2	17:C5:122:THR:HG22	1.95	0.48
18:C6:8:GLN:O	1:6:1340:U:H5	438.45	0.48
17:C5:123:TYR:OH	20:C8:122:HIS:NE2	2.40	0.48
24:D2:84:GLY:O	24:D2:87:GLU:HG3	2.14	0.48
36:1:2177:G:N2	39:L2:118:GLU:OE2	2.46	0.48
42:L5:177:GLU:H	42:L5:177:GLU:HG3	1.45	0.48
45:L8:133:LYS:NZ	36:5:119:U:O3'	103.60	0.48
45:L8:161:GLU:OE1	51:M5:26:ARG:NH1	2.85	0.48
46:L9:124:ARG:HB3	46:L9:164:ILE:HD13	5.34	0.48
46:L9:22:SER:HB2	36:5:3188:G:OP1	313.14	0.48
50:M4:127:LYS:O	50:M4:131:VAL:HG23	3.40	0.48
51:M5:110:ALA:HB2	38:8:141:C:H4'	110.99	0.48
59:N3:13:ILE:HD13	59:N3:54:LEU:HB2	1.95	0.48
59:N3:29:SER:O	59:N3:69:LEU:HD21	2.13	0.48
63:N7:136:PHE:N	63:N7:136:PHE:CD1	2.82	0.48
65:N9:14:ARG:HH12	65:N9:18:ARG:HH11	3.17	0.48
66:O0:42:ILE:HG12	66:O0:67:VAL:HG22	2.88	0.48
78:Q2:12:CYS:SG	78:Q2:17:CYS:CB	3.06	0.48
3:S1:23:PRO:O	3:S1:27:LYS:HG2	2.60	0.48
6:S4:163:ASP:O	6:S4:164:LEU:HB2	2.22	0.48
7:S5:37:GLN:OE1	18:C6:53:LEU:HD22	2.76	0.48
9:S7:41:LEU:HB3	9:S7:70:PHE:CE1	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:122:VAL:O	11:S9:125:ALA:HB3	2.14	0.48
34:SR:122:ILE:O	34:SR:134:TRP:HD1	2.97	0.48
34:SR:255:ALA:HB1	34:SR:289:ALA:O	2.13	0.48
36:1:2209:U:OP2	36:1:2209:U:H2'	2.14	0.48
36:1:2726:C:O2'	36:1:2727:A:H2'	2.14	0.48
36:1:656:A:H2'	36:1:657:A:H8	1.78	0.48
1:2:142:G:N2	1:2:173:A:H2	2.07	0.48
1:2:730:G:O6	86:2:2156:OHX:N4	2.47	0.48
1:2:61:A:H8	1:2:269:G:HO2'	1.57	0.48
36:5:1471:U:H2'	36:5:1472:U:H6	1.79	0.48
36:5:2603:G:H2'	36:5:2604:U:O4'	2.13	0.48
40:L3:98:GLY:HA3	36:5:3005:A:H5'	249.15	0.48
86:6:2118:OHX:N6	86:6:2170:OHX:N3	2.61	0.48
13:C1:133:LYS:HB2	1:6:337:G:H3'	290.32	0.48
13:C1:77:SER:HB3	13:C1:85:VAL:HB	2.00	0.48
17:C5:89:MET:O	17:C5:107:ILE:HG13	4.08	0.48
18:C6:109:PHE:HB3	18:C6:117:LEU:HD21	1.96	0.48
20:C8:122:HIS:CD2	1:6:1558:U:C5	361.32	0.48
21:C9:38:LYS:NZ	21:C9:43:ASN:O	2.37	0.48
21:C9:74:GLY:O	21:C9:77:ASN:HB2	2.13	0.48
1:2:359:A:C2	25:D3:38:PHE:HB3	2.48	0.48
33:E1:97:LYS:HD3	1:6:1232:U:H5	434.40	0.48
44:L7:92:ILE:HD11	54:M8:4:ASP:N	2.29	0.48
45:L8:141:ALA:HA	45:L8:144:GLU:HB2	2.11	0.48
46:L9:74:LEU:HD23	46:L9:74:LEU:HA	1.66	0.48
53:M7:126:ARG:HA	53:M7:140:GLU:HG3	2.52	0.48
55:M9:92:GLN:O	55:M9:96:ILE:HG13	3.05	0.48
52:M6:124:LEU:HD21	56:N0:168:PRO:HD3	1.94	0.48
36:1:1296:C:P	56:N0:84:ARG:HH22	2.36	0.48
59:N3:129:VAL:O	59:N3:133:SER:OG	2.18	0.48
68:O2:24:ARG:HG2	68:O2:25:TYR:CZ	2.94	0.48
71:O5:21:LEU:HD21	71:O5:25:LYS:HZ2	5.43	0.48
3:S1:137:ILE:HD11	3:S1:172:LEU:HB3	1.96	0.48
3:S1:84:ILE:HG22	3:S1:86:LEU:HD22	1.96	0.48
4:S2:156:THR:HG21	4:S2:224:PHE:CD1	2.49	0.48
6:S4:246:LEU:HD13	6:S4:251:GLU:HG2	1.95	0.48
6:S4:31:PRO:HG2	6:S4:38:LEU:HD13	1.96	0.48
8:S6:27:PHE:O	8:S6:30:LYS:HG3	5.14	0.48
8:S6:64:LYS:NZ	8:S6:82:SER:OG	2.46	0.48
9:S7:135:ILE:HG23	9:S7:152:VAL:HG13	2.42	0.48
9:S7:31:SER:HA	9:S7:35:LYS:HB3	2.58	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:114:TYR:HE1	11:S9:121:SER:H	1.61	0.48
36:1:1682:U:O2	58:N2:82:LYS:NZ	2.35	0.48
36:1:2217:U:H2'	36:1:2218:G:H8	1.78	0.48
36:1:2527:G:N2	36:1:2584:G:C4	2.81	0.48
36:1:3082:C:H2'	36:1:3083:G:H8	1.79	0.48
36:1:3189:G:C2	36:1:3190:C:C2	3.02	0.48
36:1:770:G:N7	86:1:4095:OHX:N6	2.62	0.48
1:2:1228:G:H3'	1:2:1229:G:H8	1.78	0.48
1:2:1676:U:H1'	1:2:1726:G:N2	2.29	0.48
1:2:868:G:H1	1:2:960:U:H3	1.60	0.48
37:3:92:A:C5	37:3:93:C:H1'	2.49	0.48
38:4:85:G:O6	62:N6:112:ASP:HB3	2.14	0.48
36:5:1661:G:H2'	36:5:1662:G:C8	2.49	0.48
36:5:1856:C:H2'	36:5:1857:C:C6	2.49	0.48
36:5:2947:G:OP2	36:5:2947:G:H4'	2.13	0.48
36:5:3065:G:O6	86:5:4099:OHX:N6	2.47	0.48
36:5:770:G:N7	86:5:4090:OHX:N6	2.62	0.48
36:5:985:U:H2'	36:5:986:U:H6	1.79	0.48
1:6:1071:U:H2'	1:6:1072:C:C6	2.48	0.48
1:6:1390:U:HO2'	1:6:1391:A:H8	1.62	0.48
1:6:1573:A:H4'	1:6:1574:G:O5'	2.14	0.48
1:6:1592:A:C2	1:6:1605:G:C2	3.02	0.48
1:6:1655:A:N1	36:5:2291:A:O2'	2.42	0.48
1:6:193:U:C4	1:6:195:G:C8	3.02	0.48
1:6:755:A:O2'	1:6:756:A:H5"	2.14	0.48
12:C0:29:GLN:HB3	12:C0:39:ASN:CB	2.44	0.48
12:C0:50:THR:HG21	12:C0:57:THR:OG1	2.14	0.48
12:C0:8:ARG:HD2	12:C0:12:HIS:HE1	1.77	0.48
16:C4:85:ALA:H	16:C4:119:THR:CG2	2.17	0.48
17:C5:18:ARG:HD3	20:C8:90:ASN:HD21	2.53	0.48
17:C5:77:ARG:HB3	17:C5:102:PHE:CE1	3.13	0.48
18:C6:110:THR:HA	18:C6:113:ASP:HB2	2.37	0.48
18:C6:45:ARG:O	18:C6:48:VAL:HG12	2.39	0.48
19:C7:71:PHE:CZ	19:C7:74:GLN:HB2	5.59	0.48
20:C8:116:LEU:HD23	20:C8:123:ARG:HG2	1.96	0.48
17:C5:110:GLU:HG3	20:C8:119:ILE:HD11	1.96	0.48
25:D3:30:LYS:HE3	25:D3:34:LEU:HD11	1.96	0.48
25:D3:69:ARG:HH11	25:D3:116:ASP:CG	2.17	0.48
39:L2:227:ARG:HG2	39:L2:239:ALA:HB2	1.95	0.48
40:L3:86:VAL:HG22	40:L3:162:VAL:HG12	1.99	0.48
40:L3:17:LEU:HD12	40:L3:17:LEU:HA	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:305:ILE:HD13	40:L3:317:ILE:HD12	1.95	0.48
41:L4:361:HIS:CD2	41:L4:362:ASP:HB2	4.78	0.48
44:L7:180:SER:HG	44:L7:183:ASP:H	1.76	0.48
45:L8:159:PRO:HB2	45:L8:161:GLU:OE2	3.82	0.48
45:L8:248:LYS:C	45:L8:250:ALA:H	3.24	0.48
41:L4:106:TRP:CZ2	49:M3:19:GLN:HG2	5.48	0.48
51:M5:155:VAL:HG23	51:M5:156:HIS:CD2	2.48	0.48
49:M3:28:GLN:HB3	51:M5:201:ARG:HD2	2.20	0.48
52:M6:3:VAL:HG13	52:M6:4:GLU:CG	2.43	0.48
52:M6:98:ALA:HA	52:M6:101:ARG:HH11	1.79	0.48
53:M7:105:LYS:HB3	53:M7:107:LEU:HD13	1.95	0.48
53:M7:53:ASP:O	86:M7:206:OHX:N3	2.47	0.48
64:N8:21:ARG:NH1	36:5:1369:A:OP1	183.21	0.48
70:O4:57:LEU:HD12	70:O4:62:TYR:CD1	2.49	0.48
74:O8:9:LYS:O	74:O8:12:LEU:N	3.00	0.48
79:Q3:87:ARG:O	79:Q3:90:VAL:HG22	3.98	0.48
3:S1:142:PHE:HD2	3:S1:209:ASN:HB2	2.77	0.48
3:S1:91:VAL:HG23	3:S1:96:LEU:HB3	1.95	0.48
5:S3:127:MET:HE1	5:S3:133:GLY:HA2	1.96	0.48
6:S4:25:GLY:HA3	1:6:447:U:O2'	374.65	0.48
7:S5:41:LYS:O	7:S5:67:PRO:HB2	2.14	0.48
8:S6:25:ARG:HG3	8:S6:28:PHE:HD1	1.79	0.48
11:S9:102:GLU:CD	11:S9:102:GLU:H	2.74	0.48
11:S9:178:ALA:HA	11:S9:181:ALA:CB	4.71	0.48
36:1:1793:C:OP1	39:L2:177:LYS:HE2	2.13	0.48
36:1:2794:G:H1'	36:1:2795:U:C6	2.49	0.48
36:1:2990:G:C6	36:1:2991:A:N7	2.82	0.48
86:1:4004:OHX:N3	86:1:4172:OHX:N3	2.62	0.48
86:1:3972:OHX:N5	86:1:4156:OHX:N1	2.62	0.48
1:2:1679:G:N7	86:2:2110:OHX:N6	2.62	0.48
1:2:461:G:N7	86:2:2143:OHX:N1	2.62	0.48
1:2:954:G:H2'	1:2:955:A:C8	2.49	0.48
36:5:2264:U:OP2	86:5:3949:OHX:N4	2.46	0.48
36:5:2320:A:OP2	86:5:4069:OHX:N5	2.47	0.48
36:5:3041:U:H2'	36:5:3042:U:C6	2.49	0.48
1:6:604:A:OP2	86:6:2149:OHX:N4	2.47	0.48
6:S4:66:MET:HG3	1:6:454:U:C6	372.68	0.48
1:6:463:U:H2'	1:6:464:A:H8	1.78	0.48
1:6:717:C:H42	1:6:720:G:H1	1.62	0.48
42:L5:265:TYR:CE1	37:7:121:U:H5"	315.41	0.48
15:C3:56:ASP:O	29:D7:46:VAL:HA	2.40	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:105:GLN:O	19:C7:109:LEU:N	2.38	0.48
19:C7:23:LYS:HB3	19:C7:34:LEU:HD11	2.77	0.48
21:C9:9:VAL:HG22	21:C9:140:LEU:HD21	1.96	0.48
22:D0:99:ILE:O	22:D0:103:ILE:HB	2.14	0.48
24:D2:37:PHE:CZ	24:D2:103:ILE:HD11	5.13	0.48
26:D4:50:ALA:O	26:D4:51:GLU:HB3	2.13	0.48
40:L3:199:PHE:C	40:L3:201:LYS:H	2.17	0.48
40:L3:334:ARG:NH2	36:5:3304:U:O2'	212.56	0.48
42:L5:166:ALA:HB1	42:L5:171:LEU:HD12	1.96	0.48
44:L7:144:ILE:O	44:L7:148:VAL:HG23	2.58	0.48
46:L9:117:PHE:CD2	46:L9:118:LEU:HB2	2.49	0.48
46:L9:36:LYS:HE3	46:L9:74:LEU:HB3	2.95	0.48
51:M5:154:PRO:HB3	51:M5:157:LYS:NZ	2.29	0.48
52:M6:106:GLU:H	52:M6:106:GLU:HG2	1.95	0.48
52:M6:114:LYS:HG2	36:5:3180:A:C6	273.65	0.48
52:M6:61:ALA:HA	52:M6:70:PRO:HD2	1.95	0.48
53:M7:38:GLY:H	53:M7:114:VAL:HG13	1.78	0.48
53:M7:78:VAL:HG13	53:M7:79:THR:N	2.53	0.48
56:N0:115:ARG:NH2	36:5:1320:C:O2	288.78	0.48
56:N0:34:GLU:HB3	56:N0:61:ILE:HD13	2.17	0.48
62:N6:71:SER:OG	62:N6:72:SER:N	2.45	0.48
63:N7:85:TYR:HE2	63:N7:129:TRP:CD2	4.19	0.48
36:1:2617:U:H3'	65:N9:3:LYS:HD3	1.96	0.48
67:O1:72:ARG:NE	67:O1:104:LEU:HD12	2.28	0.48
68:O2:123:LYS:HA	68:O2:126:LEU:CG	3.13	0.48
43:L6:3:ALA:HB2	68:O2:77:ALA:HB2	2.13	0.48
75:O9:9:ILE:HG23	75:O9:13:MET:HE2	3.37	0.48
2:S0:70:PRO:O	2:S0:95:ALA:N	2.83	0.48
3:S1:117:TRP:HE1	3:S1:152:ARG:NH1	2.10	0.48
3:S1:195:LYS:HA	3:S1:195:LYS:HD3	2.56	0.48
3:S1:97:LEU:HD13	3:S1:98:THR:H	1.79	0.48
6:S4:126:VAL:HG22	6:S4:156:VAL:HA	2.13	0.48
7:S5:58:LEU:O	7:S5:62:VAL:N	2.47	0.48
11:S9:129:ILE:HG22	11:S9:142:ASN:O	3.96	0.48
34:SR:256:THR:N	34:SR:259:GLY:O	2.94	0.48
36:1:1080:A:OP1	42:L5:140:ARG:HB2	2.14	0.47
36:1:1117:G:OP1	65:N9:4:SER:HB2	2.14	0.47
36:1:1294:A:C2	36:1:1295:G:C8	3.02	0.47
36:1:1554:U:O2'	36:1:1582:C:H5	1.97	0.47
36:1:1833:G:OP1	75:O9:10:LYS:HD2	2.13	0.47
36:1:1488:G:H5"	36:1:1838:G:O6	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1947:G:N2	36:1:2102:U:C2	2.82	0.47
36:1:2947:G:C2	40:L3:250:ALA:HB1	2.49	0.47
36:1:2983:C:OP1	86:1:4188:OHX:N3	2.47	0.47
36:1:431:U:OP1	69:O3:65:ARG:NH1	2.44	0.47
1:2:1235:C:H42	33:E1:135:HIS:CE1	2.30	0.47
1:2:1252:C:O4'	33:E1:133:ALA:HB2	2.13	0.47
1:2:1594:G:H5"	31:D9:33:LYS:HD2	1.95	0.47
1:2:1610:G:OP1	7:S5:72:HIS:NE2	2.38	0.47
1:2:720:G:H1'	1:2:721:U:H5"	1.96	0.47
37:3:28:C:O3'	48:M1:135:GLY:HA2	2.14	0.47
36:5:1019:G:H22	36:5:1033:U:H3	1.60	0.47
36:5:1565:G:N2	36:5:1566:A:H1'	2.28	0.47
36:5:1811:G:H2'	36:5:1812:G:O4'	2.14	0.47
36:5:186:U:H5"	36:5:187:A:OP2	2.14	0.47
36:5:2317:A:H2'	36:5:2318:U:O4'	2.14	0.47
36:5:2582:C:H2'	36:5:2583:C:C6	2.49	0.47
36:5:3298:C:H2'	36:5:3299:A:O4'	2.14	0.47
36:5:1696:A:OP2	86:5:4180:OHX:N6	2.47	0.47
36:5:783:A:OP2	86:5:4188:OHX:N6	2.46	0.47
36:5:975:C:H2'	36:5:976:U:C6	2.48	0.47
1:6:119:A:H1'	1:6:397:A:C5	2.49	0.47
1:6:485:A:N6	1:6:486:G:N3	2.62	0.47
12:C0:23:ALA:CB	12:C0:64:TYR:HB2	3.53	0.47
13:C1:122:ILE:N	13:C1:144:ALA:HB2	2.28	0.47
16:C4:30:VAL:HG13	16:C4:39:ILE:O	2.13	0.47
21:C9:16:ASN:HA	21:C9:56:LYS:NZ	2.37	0.47
1:2:600:U:OP2	25:D3:108:GLY:HA2	2.13	0.47
25:D3:126:LYS:HA	25:D3:131:SER:HA	3.00	0.47
26:D4:20:ARG:HB3	26:D4:76:TYR:CD2	2.89	0.47
28:D6:94:ASN:OD1	28:D6:96:ALA:HB3	2.53	0.47
12:C0:61:TRP:CE2	31:D9:23:VAL:HG22	2.49	0.47
39:L2:104:LEU:HD23	39:L2:158:ILE:HD11	1.95	0.47
40:L3:187:SER:O	40:L3:189:SER:N	2.47	0.47
42:L5:68:THR:HB	42:L5:71:GLY:O	2.13	0.47
46:L9:26:LYS:HA	46:L9:35:THR:HG22	1.95	0.47
47:M0:38:LYS:HD3	47:M0:83:ASP:OD1	5.35	0.47
49:M3:104:ARG:HA	72:O6:20:MET:O	4.44	0.47
49:M3:131:LYS:NZ	49:M3:131:LYS:HB3	2.29	0.47
53:M7:70:THR:HG21	53:M7:81:ALA:HB3	2.20	0.47
55:M9:13:SER:OG	55:M9:38:ARG:NH2	2.47	0.47
56:N0:8:GLN:HB3	56:N0:64:ILE:HD11	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:56:PHE:CE1	57:N1:78:LYS:HD3	3.38	0.47
58:N2:35:LYS:O	58:N2:38:ILE:HG22	2.13	0.47
36:1:3325:G:H5"	67:O1:103:GLY:HA2	1.96	0.47
67:O1:74:ARG:HD2	67:O1:94:GLU:OE1	2.13	0.47
68:O2:21:HIS:CE1	68:O2:24:ARG:HD2	2.49	0.47
49:M3:94:GLY:HA3	71:O5:116:TYR:CZ	2.50	0.47
72:O6:34:SER:O	72:O6:38:LYS:HG3	2.14	0.47
3:S1:59:ASP:HA	3:S1:62:LYS:NZ	2.29	0.47
6:S4:240:LYS:CD	6:S4:240:LYS:H	2.25	0.47
9:S7:96:ARG:NH1	9:S7:128:ASP:OD2	2.42	0.47
10:S8:8:ARG:HH21	10:S8:22:ARG:HH11	7.46	0.47
11:S9:82:ARG:HH11	11:S9:149:ARG:HD2	6.45	0.47
34:SR:50:ASP:H	34:SR:54:PHE:HA	3.04	0.47
36:1:1256:G:O6	36:1:1261:G:N2	2.48	0.47
36:1:1273:A:HO2'	36:1:1274:A:P	2.36	0.47
36:1:1675:G:H2'	36:1:1676:A:H8	1.79	0.47
36:1:2636:A:H5"	36:1:2637:A:H5'	1.96	0.47
36:1:2869:U:H5"	36:1:2870:C:OP2	2.13	0.47
1:2:1236:A:H2'	1:2:1237:G:C8	2.48	0.47
1:2:1553:G:O2'	31:D9:14:TYR:OH	2.32	0.47
1:2:1556:A:C5	1:2:1560:U:C2	3.02	0.47
1:2:1685:G:C2	1:2:1717:G:C6	3.02	0.47
1:2:422:G:OP1	86:2:2042:OHX:N6	2.48	0.47
1:2:505:A:N3	1:2:505:A:H2'	2.29	0.47
1:2:647:G:N2	1:2:687:G:H22	2.12	0.47
1:2:73:U:H4'	1:2:74:U:OP1	2.12	0.47
1:2:939:A:H2'	1:2:940:A:C8	2.49	0.47
37:3:26:C:H5'	42:L5:56:THR:HB	1.96	0.47
36:1:18:G:N2	38:4:142:C:C2	2.82	0.47
38:4:152:G:H2'	38:4:153:U:O4'	2.14	0.47
38:4:3:A:H2'	38:4:4:C:O4'	2.14	0.47
36:5:1908:A:H2'	36:5:1909:A:O4'	2.14	0.47
36:5:2304:C:C5	36:5:2305:G:C6	3.02	0.47
36:5:2364:G:H22	36:5:2396:G:H1'	1.79	0.47
36:5:2921:U:H2'	36:5:2923:U:H5"	1.95	0.47
36:5:3132:C:H2'	36:5:3133:C:C6	2.49	0.47
86:5:3971:OHX:N4	86:5:4193:OHX:N1	2.62	0.47
36:5:547:G:H2'	36:5:548:G:O4'	2.14	0.47
64:N8:117:ARG:HG2	36:5:716:A:N7	150.33	0.47
1:6:1529:C:H2'	1:6:1530:C:C6	2.49	0.47
1:6:139:C:O2'	1:6:176:C:O2	2.21	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:882:U:H2'	1:6:883:C:C6	2.48	0.47
37:7:110:G:C6	37:7:111:U:C4	3.02	0.47
17:C5:64:LYS:HA	17:C5:73:PRO:HB3	1.95	0.47
21:C9:117:SER:HB3	21:C9:123:ARG:HB3	3.98	0.47
24:D2:95:PRO:HD3	24:D2:130:TYR:CD1	3.07	0.47
33:E1:121:CYS:HB2	33:E1:132:LEU:HD21	3.59	0.47
39:L2:112:ILE:HD11	79:Q3:79:VAL:CG1	5.48	0.47
41:L4:261:VAL:HG12	41:L4:262:TRP:CD1	3.46	0.47
42:L5:259:LYS:HE3	42:L5:259:LYS:HB3	1.76	0.47
42:L5:269:SER:HB2	37:7:1:G:H21	316.50	0.47
37:3:22:A:H1'	42:L5:272:TYR:CZ	2.49	0.47
43:L6:90:LYS:HE3	43:L6:90:LYS:HB2	3.53	0.47
44:L7:124:LEU:HA	44:L7:124:LEU:HD22	2.07	0.47
47:M0:97:LEU:O	47:M0:123:HIS:N	2.77	0.47
48:M1:16:LYS:NZ	36:5:2684:C:OP1	308.61	0.47
36:1:63:A:P	51:M5:172:ARG:HH22	2.37	0.47
54:M8:44:PHE:CD2	54:M8:134:GLY:HA3	2.49	0.47
57:N1:44:ALA:HB2	57:N1:53:PRO:HG2	1.95	0.47
57:N1:83:ARG:NH1	57:N1:85:LEU:HD21	2.28	0.47
57:N1:96:ILE:HA	57:N1:96:ILE:HD13	1.97	0.47
59:N3:128:ARG:HH11	59:N3:128:ARG:HG3	1.79	0.47
61:N5:74:LYS:O	61:N5:78:ASP:HB2	2.95	0.47
65:N9:23:LYS:HB3	65:N9:24:PRO:HD3	2.46	0.47
66:O0:95:ALA:HB2	66:O0:101:LEU:HD23	2.39	0.47
72:O6:95:ALA:O	72:O6:99:ARG:HB3	2.15	0.47
72:O6:98:ARG:HD2	72:O6:98:ARG:H	1.79	0.47
73:O7:27:PHE:HA	73:O7:34:CYS:HA	1.96	0.47
74:O8:69:LEU:HA	74:O8:69:LEU:HD13	1.71	0.47
78:Q2:47:GLN:NE2	78:Q2:53:GLN:OE1	2.72	0.47
2:S0:110:TYR:O	2:S0:112:THR:N	2.47	0.47
2:S0:63:ILE:HG12	23:D1:36:VAL:HG23	2.60	0.47
2:S0:90:ALA:HA	2:S0:95:ALA:HB3	2.88	0.47
3:S1:111:ARG:HA	3:S1:111:ARG:HD3	1.66	0.47
7:S5:150:GLY:O	7:S5:152:GLY:N	2.99	0.47
7:S5:45:LYS:HD3	7:S5:45:LYS:HA	1.42	0.47
9:S7:9:LEU:HB3	9:S7:10:SER:H	2.97	0.47
10:S8:114:GLU:HG2	10:S8:120:THR:HA	1.95	0.47
18:C6:99:GLU:OE2	34:SR:60:SER:HB2	2.29	0.47
36:1:1063:G:C5	36:1:1097:G:C2	3.02	0.47
36:1:1211:U:H2'	36:1:1212:A:C8	2.49	0.47
36:1:1245:A:H3'	36:1:1246:G:H5"	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2199:G:C4	36:1:2200:U:C5	3.03	0.47
36:1:2564:G:C6	36:1:2565:U:C4	3.02	0.47
36:1:2988:C:O2'	40:L3:266:ARG:HD2	2.14	0.47
36:1:3019:U:C4	36:1:3020:U:C4	3.02	0.47
36:1:663:C:H2'	36:1:664:U:H6	1.77	0.47
36:1:75:G:H5"	49:M3:58:VAL:CG1	2.44	0.47
36:1:887:G:H2'	36:1:888:A:C8	2.48	0.47
1:2:1160:A:H2'	1:2:1161:C:H6	1.77	0.47
1:2:1523:G:N7	21:C9:64:HIS:NE2	2.58	0.47
1:2:1562:G:OP1	21:C9:89:ARG:NH2	2.47	0.47
1:2:641:G:N2	1:2:693:U:O2	2.36	0.47
1:2:82:U:H2'	1:2:83:G:O4'	2.13	0.47
36:5:1013:G:H2'	36:5:1014:U:O4'	2.14	0.47
36:5:1602:A:C6	36:5:1603:A:N1	2.81	0.47
36:5:1887:A:OP2	86:5:3924:OHX:N5	2.48	0.47
36:5:2110:G:O2'	36:5:2111:G:H5"	2.15	0.47
36:5:21:G:OP2	38:8:36:G:N1	2.45	0.47
36:5:2435:G:H1	36:5:2512:C:H42	1.61	0.47
36:5:2518:C:C2	36:5:2590:A:C2	3.02	0.47
53:M7:69:ARG:NH1	36:5:3308:C:N3	189.77	0.47
39:L2:181:LYS:NZ	36:5:860:G:O5'	212.00	0.47
1:6:1452:U:H2'	1:6:1453:G:C8	2.49	0.47
1:6:189:C:O2'	1:6:190:C:H5'	2.14	0.47
1:6:412:A:H2'	1:6:413:U:C6	2.49	0.47
1:6:432:G:H2'	1:6:433:C:O4'	2.14	0.47
1:6:492:A:H2'	1:6:493:U:H5"	1.96	0.47
1:6:75:U:O2'	1:6:76:A:O4'	2.32	0.47
13:C1:3:THR:HG22	13:C1:4:GLU:H	2.40	0.47
15:C3:89:TYR:CE2	15:C3:150:VAL:HG13	2.49	0.47
19:C7:96:SER:HA	19:C7:97:ASN:HA	1.60	0.47
23:D1:81:ASN:O	23:D1:82:VAL:HB	2.14	0.47
24:D2:77:PRO:HG2	24:D2:79:PHE:CE2	2.64	0.47
26:D4:104:SER:HB3	26:D4:107:GLN:CG	2.44	0.47
1:2:458:G:OP2	26:D4:105:ARG:NH2	2.47	0.47
28:D6:23:CYS:HB2	28:D6:74:CYS:HB3	1.96	0.47
30:D8:11:LYS:O	30:D8:13:ILE:HG23	2.13	0.47
22:D0:63:LEU:HB3	31:D9:34:TYR:CZ	2.70	0.47
40:L3:146:ARG:O	40:L3:149:ALA:HB3	2.33	0.47
43:L6:43:LEU:HD11	43:L6:85:ILE:HG13	1.98	0.47
45:L8:86:THR:O	45:L8:90:THR:HG23	5.47	0.47
46:L9:20:ILE:HG23	46:L9:25:VAL:HA	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:87:LYS:HD3	48:M1:87:LYS:HA	3.58	0.47
51:M5:184:LYS:HD3	51:M5:185:ALA:N	3.53	0.47
54:M8:21:SER:OG	54:M8:22:ASP:N	2.48	0.47
55:M9:101:VAL:HG22	55:M9:104:ARG:HH11	1.79	0.47
57:N1:116:ARG:O	57:N1:120:LYS:N	2.35	0.47
62:N6:37:LYS:HD3	62:N6:37:LYS:H	1.78	0.47
36:1:937:G:OP2	64:N8:26:ARG:HB3	2.14	0.47
65:N9:41:ARG:O	65:N9:44:LYS:HB2	3.63	0.47
66:O0:99:ASP:HB2	66:O0:103:THR:CG2	2.44	0.47
3:S1:129:THR:OG1	3:S1:131:ASP:O	3.12	0.47
4:S2:88:LYS:HB3	4:S2:95:ARG:HD2	5.51	0.47
5:S3:53:THR:O	5:S3:90:ARG:HG2	2.13	0.47
6:S4:106:LYS:HB2	6:S4:108:ARG:HE	1.79	0.47
9:S7:168:SER:O	9:S7:172:VAL:HG23	2.22	0.47
17:C5:127:ARG:NH2	35:SM:66:ALA:HB2	3.58	0.47
36:1:1233:G:H22	36:1:1255:C:N4	2.12	0.47
36:1:1103:A:N6	36:1:1363:A:H1'	2.29	0.47
36:1:1694:U:N3	36:1:1695:U:C4	2.83	0.47
36:1:535:G:C6	36:1:555:U:N3	2.82	0.47
36:1:695:C:OP1	41:L4:119:ARG:NE	2.42	0.47
1:2:1194:A:H2'	1:2:1195:C:H5'	1.95	0.47
1:2:1275:A:C6	1:2:1438:G:C5	3.02	0.47
1:2:1597:A:OP2	31:D9:32:ARG:NH2	2.38	0.47
1:2:190:C:N4	1:2:196:G:C6	2.81	0.47
86:2:2044:OHX:N4	86:2:2099:OHX:N3	2.63	0.47
1:2:540:G:O3'	1:2:541:A:H3'	2.14	0.47
1:2:590:C:H2'	1:2:591:A:C8	2.49	0.47
1:2:735:C:OP2	1:2:735:C:H2'	2.15	0.47
36:5:1000:C:C2	36:5:1045:C:N4	2.83	0.47
36:5:1789:G:N7	86:5:4192:OHX:N2	2.63	0.47
36:5:2144:A:C4	36:5:2281:A:C6	3.02	0.47
36:5:2804:A:H2'	36:5:2805:G:O5'	2.14	0.47
36:5:1464:G:O2'	86:5:3906:OHX:N5	2.47	0.47
36:5:1119:C:OP2	86:5:3979:OHX:N2	2.47	0.47
36:5:438:A:H3'	36:5:439:C:C6	2.49	0.47
36:5:501:A:H2'	36:5:502:U:H6	1.79	0.47
36:5:550:A:H2'	36:5:551:A:C8	2.50	0.47
36:5:937:G:N3	36:5:963:G:H1'	2.28	0.47
1:6:1402:G:H2'	1:6:1403:C:C6	2.50	0.47
1:6:825:U:O2'	1:6:826:U:H6	1.98	0.47
38:8:66:A:H2'	38:8:67:U:H6	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C0:32:HIS:HB3	12:C0:34:GLU:O	6.65	0.47
13:C1:93:TYR:HD1	13:C1:100:TYR:CZ	2.32	0.47
14:C2:103:LEU:HG	14:C2:116:VAL:HG13	4.41	0.47
16:C4:15:GLY:O	16:C4:79:VAL:HG23	2.15	0.47
17:C5:22:LEU:HA	17:C5:25:LEU:HB2	3.24	0.47
22:D0:47:GLN:HG2	22:D0:47:GLN:O	2.14	0.47
23:D1:5:LYS:C	23:D1:7:GLN:H	3.99	0.47
26:D4:20:ARG:C	26:D4:21:LYS:HD2	2.34	0.47
1:2:1798:U:C6	28:D6:97:PRO:HB3	2.50	0.47
41:L4:25:VAL:O	41:L4:27:SER:N	2.57	0.47
44:L7:121:LYS:HE2	44:L7:125:GLU:OE2	2.15	0.47
44:L7:39:GLU:HG3	44:L7:43:ILE:HD12	6.65	0.47
44:L7:93:ASN:OD1	44:L7:93:ASN:N	2.47	0.47
49:M3:69:VAL:N	49:M3:149:GLN:OE1	2.75	0.47
49:M3:3:ILE:HD13	64:N8:45:MET:HE3	4.73	0.47
51:M5:68:ARG:HA	51:M5:98:LEU:HD21	2.34	0.47
52:M6:102:LEU:HD12	52:M6:103:LYS:H	1.78	0.47
53:M7:32:THR:O	53:M7:35:ALA:HB3	2.80	0.47
56:N0:115:ARG:N	56:N0:115:ARG:HD2	2.28	0.47
57:N1:78:LYS:HG2	57:N1:87:LYS:HD2	1.97	0.47
58:N2:104:ARG:NH1	58:N2:106:ALA:HB2	3.81	0.47
59:N3:13:ILE:CD1	59:N3:53:SER:HB2	2.84	0.47
70:O4:81:CYS:O	70:O4:81:CYS:SG	2.81	0.47
79:Q3:32:GLN:OE1	79:Q3:70:THR:HB	2.14	0.47
3:S1:34:ALA:HB3	3:S1:41:ARG:HA	1.97	0.47
6:S4:62:LYS:HD3	6:S4:66:MET:HG2	4.73	0.47
6:S4:75:LYS:HD3	6:S4:77:ARG:NH2	2.89	0.47
7:S5:144:GLU:HA	7:S5:162:VAL:HG12	1.95	0.47
7:S5:192:GLU:OE2	27:D5:63:SER:OG	3.94	0.47
11:S9:143:ILE:HG22	11:S9:145:SER:H	1.91	0.47
34:SR:44:SER:O	34:SR:58:VAL:HG22	2.14	0.47
36:1:1170:A:H2'	36:1:1171:G:O4'	2.15	0.47
36:1:1227:C:H5'	36:1:1228:C:OP2	2.14	0.47
36:1:1696:A:OP2	86:1:4158:OHX:N3	2.48	0.47
36:1:1854:C:OP2	86:1:4033:OHX:N5	2.47	0.47
36:1:3169:U:H2'	36:1:3170:A:O4'	2.15	0.47
86:1:4004:OHX:N3	86:1:4172:OHX:N1	2.62	0.47
36:1:8:C:H2'	36:1:9:U:O4'	2.14	0.47
1:2:116:U:H2'	1:2:117:U:H6	1.76	0.47
1:2:1339:C:O2'	1:2:1341:A:C8	2.61	0.47
1:2:1477:G:N2	1:2:1530:C:O2	2.40	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1637:C:HO2'	35:SM:94:HIS:CE1	2.32	0.47
1:2:487:G:C6	1:2:488:G:C8	3.02	0.47
1:2:625:C:H2'	1:2:626:U:C6	2.49	0.47
1:2:800:U:H2'	1:2:801:G:C8	2.43	0.47
38:4:43:A:OP1	86:4:234:OHX:N5	2.47	0.47
36:5:1631:C:H5"	36:5:1632:A:H5'	1.95	0.47
36:5:1633:C:H2'	36:5:1634:G:C8	2.49	0.47
1:6:913:G:C8	36:5:2205:U:C4	3.03	0.47
4:S2:206:THR:HG21	1:6:14:C:OP2	375.75	0.47
12:C0:77:ARG:NH1	12:C0:85:HIS:H	2.13	0.47
1:2:868:G:OP1	15:C3:121:ARG:NH1	2.47	0.47
15:C3:38:VAL:HG13	15:C3:80:LEU:HD23	3.24	0.47
19:C7:106:THR:O	19:C7:109:LEU:HB3	2.15	0.47
21:C9:25:GLN:O	21:C9:27:LYS:HG3	4.31	0.47
24:D2:118:ARG:HH11	24:D2:118:ARG:HB2	2.23	0.47
26:D4:8:ARG:CZ	26:D4:28:LEU:HD11	4.27	0.47
39:L2:103:PRO:HG2	39:L2:106:SER:OG	2.79	0.47
41:L4:232:SER:O	41:L4:233:LEU:HB2	2.14	0.47
44:L7:147:LEU:HD22	44:L7:205:PHE:CD1	3.21	0.47
45:L8:214:LEU:HD12	45:L8:214:LEU:HA	1.73	0.47
51:M5:48:ALA:C	51:M5:53:TYR:HB3	2.64	0.47
51:M5:53:TYR:O	51:M5:54:LYS:HD2	2.13	0.47
36:1:972:A:OP1	54:M8:12:ARG:NH2	2.47	0.47
55:M9:128:LYS:NZ	36:5:1721:U:O4	232.70	0.47
57:N1:41:ASP:HB2	57:N1:97:LYS:HG2	2.60	0.47
63:N7:24:VAL:HG23	63:N7:44:ALA:O	2.44	0.47
3:S1:131:ASP:O	3:S1:133:TYR:N	2.43	0.47
6:S4:10:LYS:NZ	11:S9:2:PRO:HB3	4.70	0.47
6:S4:246:LEU:HD21	6:S4:254:ARG:NE	2.28	0.47
7:S5:90:ILE:HD13	7:S5:90:ILE:HA	2.01	0.47
34:SR:16:HIS:CE1	34:SR:37:SER:HB3	2.50	0.47
36:1:1286:A:O2'	36:1:1287:A:OP2	2.24	0.47
36:1:1340:G:H2'	36:1:1341:U:H6	1.79	0.47
36:1:1839:A:C6	36:1:1843:C:C2	3.02	0.47
36:1:2349:U:H5'	36:1:2391:G:OP1	2.15	0.47
36:1:3113:A:H2'	36:1:3114:A:O4'	2.14	0.47
36:1:315:C:OP2	72:O6:28:TYR:OH	2.32	0.47
36:1:3254:G:O6	86:1:4056:OHX:N5	2.47	0.47
36:1:3365:U:H2'	36:1:3366:G:H8	1.78	0.47
36:1:655:C:H2'	36:1:656:A:H8	1.79	0.47
36:1:93:C:O2'	64:N8:55:LYS:HE3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1050:G:OP1	29:D7:70:LYS:NZ	2.37	0.47
1:2:1170:G:C6	1:2:1574:G:C5	3.03	0.47
1:2:1281:G:H2'	1:2:1282:U:H6	1.79	0.47
1:2:25:C:HO2'	1:2:366:A:HO2'	1.61	0.47
1:2:755:A:HO2'	1:2:756:A:P	2.38	0.47
1:2:74:U:O2'	1:2:75:U:OP2	2.28	0.47
36:5:2259:A:H2'	36:5:2260:U:O4'	2.14	0.47
36:5:2505:U:H2'	36:5:2506:U:C4	2.49	0.47
36:5:2733:A:H2'	36:5:2734:A:O4'	2.14	0.47
36:5:3102:G:N2	36:5:3133:C:C2	2.83	0.47
36:5:3167:A:H2'	36:5:3168:A:O4'	2.14	0.47
36:5:772:U:OP1	86:5:4115:OHX:N3	2.47	0.47
36:5:438:A:C8	36:5:439:C:C5	3.02	0.47
36:5:747:A:H2'	36:5:748:U:O4'	2.15	0.47
36:5:92:G:OP2	36:5:93:C:H5"	2.14	0.47
1:6:650:U:H2'	1:6:651:G:H5'	1.96	0.47
38:8:78:G:H2'	38:8:79:A:O4'	2.14	0.47
18:C6:98:ASP:OD2	18:C6:100:GLN:N	2.46	0.47
18:C6:13:LYS:HD3	18:C6:14:LYS:N	2.29	0.47
20:C8:36:LYS:O	20:C8:102:ALA:N	2.51	0.47
22:D0:32:LYS:HA	22:D0:35:GLU:HB2	3.54	0.47
22:D0:63:LEU:HB3	31:D9:34:TYR:CE2	2.49	0.47
26:D4:113:ASN:O	26:D4:116:LYS:HB2	2.15	0.47
39:L2:112:ILE:HG13	39:L2:135:ILE:HG12	1.95	0.47
39:L2:211:HIS:C	39:L2:213:GLY:N	4.23	0.47
39:L2:70:ARG:NH1	39:L2:72:ARG:HH21	7.54	0.47
41:L4:292:SER:OG	41:L4:294:GLU:N	2.48	0.47
42:L5:191:ASP:OD2	42:L5:193:GLU:HB2	2.14	0.47
43:L6:46:ARG:HG3	43:L6:47:PHE:CD1	2.60	0.47
44:L7:214:TRP:CD2	44:L7:219:LYS:HD2	2.49	0.47
46:L9:166:ARG:HD2	46:L9:168:ARG:NH1	12.03	0.47
50:M4:77:ARG:O	50:M4:81:VAL:HG23	2.48	0.47
54:M8:86:THR:CG2	54:M8:105:ARG:HB2	2.96	0.47
57:N1:106:LEU:O	57:N1:110:LYS:HG3	3.14	0.47
62:N6:74:TYR:CE1	62:N6:77:LYS:HG3	2.49	0.47
67:O1:19:ARG:CD	67:O1:35:GLU:HG2	2.41	0.47
69:O3:73:ARG:HD3	69:O3:82:ARG:HD2	1.97	0.47
70:O4:93:PHE:HD2	70:O4:94:LEU:HD23	1.79	0.47
4:S2:102:VAL:HG11	4:S2:129:ILE:HA	2.94	0.47
5:S3:141:LYS:HE3	5:S3:179:GLN:HG3	1.95	0.47
9:S7:136:VAL:N	9:S7:153:LEU:O	2.72	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:94:ALA:HB3	9:S7:96:ARG:NH1	2.29	0.47
35:SM:99:LYS:O	35:SM:100:THR:HG22	2.15	0.47
34:SR:228:LYS:O	34:SR:229:LYS:HG3	2.14	0.47
36:1:1298:C:OP2	86:1:3964:OHX:N2	2.48	0.47
36:1:1427:U:OP1	41:L4:44:LYS:NZ	2.48	0.47
36:1:1507:G:H5'	36:1:1507:G:N3	2.30	0.47
36:1:1523:U:O4	61:N5:75:LYS:NZ	2.48	0.47
36:1:1589:A:OP2	70:O4:11:ASN:HB2	2.15	0.47
36:1:237:G:H2'	36:1:238:A:O4'	2.13	0.47
36:1:247:C:H2'	36:1:248:U:C6	2.50	0.47
36:1:3133:C:H2'	36:1:3134:A:O4'	2.14	0.47
86:1:4032:OHX:N4	86:1:4045:OHX:N1	2.63	0.47
36:1:511:G:H2'	36:1:512:U:O4'	2.15	0.47
36:1:627:U:H2'	36:1:628:A:C8	2.50	0.47
36:1:672:A:OP2	54:M8:55:SER:HB2	2.15	0.47
36:1:699:A:H2'	36:1:700:C:O4'	2.14	0.47
1:2:1537:C:O2'	1:2:1540:G:O6	2.31	0.47
1:2:448:C:OP1	6:S4:29:PRO:HD3	2.13	0.47
1:2:598:U:H2'	1:2:599:A:C8	2.49	0.47
36:5:1235:U:C4'	36:5:1236:G:H5'	2.45	0.47
36:5:1495:U:H2'	36:5:1842:A:C2	2.49	0.47
36:5:1861:G:OP2	86:5:3988:OHX:N2	2.48	0.47
54:M8:93:ILE:HG23	36:5:784:A:C6	150.55	0.47
36:5:900:G:H1'	36:5:1589:A:H61	1.80	0.47
36:5:961:C:N3	86:5:4173:OHX:N4	2.63	0.47
1:6:1030:A:N7	1:6:1792:G:C2	2.82	0.47
1:6:1111:G:N7	86:6:2068:OHX:N3	2.62	0.47
1:6:1382:A:HO2'	1:6:1383:G:H8	1.63	0.47
31:D9:14:TYR:OH	1:6:1553:G:O2'	401.89	0.47
1:6:60:U:H5'	1:6:61:A:OP2	2.14	0.47
1:6:800:U:H2'	1:6:801:G:C8	2.48	0.47
15:C3:33:VAL:O	15:C3:37:ILE:HG12	3.95	0.47
21:C9:57:ARG:HG3	21:C9:57:ARG:NH1	2.30	0.47
22:D0:96:PRO:HB2	22:D0:97:VAL:H	2.25	0.47
26:D4:83:LYS:HA	26:D4:91:LEU:HD11	1.96	0.47
40:L3:221:THR:HB	40:L3:273:HIS:H	1.80	0.47
40:L3:66:LYS:HE2	40:L3:70:ARG:HH21	3.03	0.47
42:L5:119:TYR:OH	42:L5:135:VAL:HG12	2.15	0.47
45:L8:130:TYR:HD1	45:L8:202:GLU:HB3	1.79	0.47
45:L8:134:TYR:CD1	45:L8:190:VAL:HG11	3.58	0.47
39:L2:35:ALA:HA	45:L8:36:ILE:HD13	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:34:TYR:N	47:M0:34:TYR:CD1	2.83	0.47
47:M0:74:LYS:HB2	47:M0:74:LYS:HE3	1.66	0.47
49:M3:166:ALA:O	64:N8:147:LEU:HD11	2.15	0.47
52:M6:42:ASN:HA	52:M6:136:THR:O	2.22	0.47
54:M8:58:ASN:C	54:M8:60:PRO:HD3	2.59	0.47
55:M9:138:LEU:O	55:M9:138:LEU:HD22	3.37	0.47
56:N0:155:ARG:HB3	56:N0:172:TYR:HB2	1.98	0.47
59:N3:80:ARG:NH1	59:N3:116:GLY:HA3	2.42	0.47
64:N8:66:ALA:HA	64:N8:69:TRP:N	4.19	0.47
64:N8:70:LYS:HE2	64:N8:129:PHE:CD2	2.49	0.47
66:O0:16:LEU:HB3	66:O0:98:SER:HB2	1.96	0.47
78:Q2:20:HIS:ND1	36:5:2741:C:O2'	214.21	0.47
78:Q2:98:LYS:HD2	36:5:2656:A:H4'	250.91	0.47
2:S0:82:GLY:O	2:S0:86:VAL:HG22	2.15	0.47
6:S4:19:LEU:HD11	6:S4:108:ARG:HD2	2.32	0.47
6:S4:71:LYS:HB3	6:S4:76:VAL:HA	1.95	0.47
7:S5:152:GLY:O	7:S5:154:ALA:N	2.47	0.47
10:S8:60:ILE:HG21	10:S8:179:CYS:HB3	1.96	0.47
36:1:1480:G:H4'	36:1:1481:A:OP1	2.15	0.47
36:1:1680:G:C5	36:1:1681:U:C5	3.03	0.47
36:1:2768:U:H2'	36:1:2769:A:C8	2.49	0.47
36:1:3131:U:O2'	36:1:3132:C:H5'	2.15	0.47
36:1:3286:G:H3'	36:1:3287:U:H5"	1.96	0.47
36:1:900:G:H2'	36:1:901:G:C8	2.50	0.47
1:2:1465:C:C4	1:2:1466:G:C8	3.03	0.47
1:2:45:U:O2	1:2:434:G:H1'	2.15	0.47
1:2:486:G:H3'	1:2:487:G:C8	2.50	0.47
1:2:442:C:O2'	1:2:525:A:N1	2.47	0.47
1:2:591:A:H2'	1:2:592:A:C8	2.49	0.47
1:2:829:A:O2'	1:2:830:U:OP2	2.24	0.47
1:2:876:G:H1'	1:2:944:A:O4'	2.14	0.47
38:4:85:G:H3'	38:4:85:G:H8	1.79	0.47
36:5:1249:G:H2'	36:5:1250:G:H8	1.79	0.47
36:5:1246:G:O2'	36:5:1264:G:OP2	2.29	0.47
75:O9:45:ARG:NH2	36:5:1841:A:N3	127.86	0.47
36:5:244:G:C6	36:5:245:U:C4	3.03	0.47
36:5:2971:A:H5"	36:5:2972:G:O5'	2.14	0.47
86:5:4060:OHX:N1	86:5:4137:OHX:N2	2.63	0.47
1:6:1011:G:OP2	86:6:2118:OHX:N4	2.47	0.47
1:6:1273:G:H4'	1:6:1274:C:C5'	2.45	0.47
1:6:1636:C:C2	1:6:1638:G:C5	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C0:43:ILE:HG22	12:C0:44:LYS:NZ	5.20	0.47
16:C4:114:ARG:HE	28:D6:62:TYR:HE1	1.62	0.47
5:S3:209:ILE:HG22	19:C7:38:ILE:O	2.65	0.47
41:L4:10:SER:OG	41:L4:14:GLU:HG2	5.70	0.47
42:L5:278:SER:C	42:L5:280:GLU:N	3.33	0.47
46:L9:105:GLU:HB3	46:L9:110:LYS:H	4.28	0.47
46:L9:13:PRO:HD2	46:L9:16:VAL:HG22	1.97	0.47
51:M5:172:ARG:HB3	51:M5:174:ILE:CD1	2.43	0.47
53:M7:116:HIS:HB3	53:M7:149:VAL:HB	1.97	0.47
54:M8:74:GLU:HB3	36:5:741:U:H4'	183.60	0.47
52:M6:120:VAL:HG22	56:N0:163:PHE:HD1	2.19	0.47
57:N1:39:ILE:HD12	57:N1:102:ARG:HD2	1.96	0.47
66:O0:86:ARG:NH1	79:Q3:44:LYS:HG2	2.96	0.47
68:O2:78:ASN:HA	68:O2:108:ILE:HD11	1.96	0.47
70:O4:11:ASN:HB2	36:5:1589:A:OP2	142.60	0.47
71:O5:85:THR:HG22	71:O5:87:ALA:N	2.33	0.47
51:M5:9:GLU:CD	72:O6:41:ARG:HE	3.29	0.47
74:O8:8:ILE:CD1	74:O8:8:ILE:H	2.28	0.47
78:Q2:40:LYS:HE3	78:Q2:44:ASP:OD2	2.40	0.47
2:S0:172:LEU:O	2:S0:176:LEU:HG	2.14	0.47
2:S0:65:ALA:O	2:S0:67:ILE:N	4.78	0.47
3:S1:171:ILE:O	3:S1:175:GLU:N	3.19	0.47
5:S3:179:GLN:HB3	5:S3:180:GLY:H	3.30	0.47
5:S3:46:THR:N	5:S3:83:THR:O	3.02	0.47
6:S4:124:GLY:HA2	6:S4:142:HIS:CE1	2.50	0.47
8:S6:72:ARG:HG2	8:S6:98:ARG:HG2	1.96	0.47
36:1:2180:G:C6	36:1:2181:C:N4	2.82	0.47
1:2:1757:G:H4'	36:1:2256:A:N7	2.30	0.47
36:1:372:A:H2'	36:1:373:A:C8	2.50	0.47
36:1:1231:A:OP2	86:1:4085:OHX:N5	2.48	0.47
36:1:945:C:H2'	36:1:946:U:C6	2.50	0.47
1:2:1107:G:C6	1:2:1108:G:C6	3.02	0.47
1:2:301:A:OP2	86:2:2064:OHX:N2	2.48	0.47
1:2:367:A:C6	1:2:368:U:C4	3.03	0.47
1:2:905:A:H5"	16:C4:52:ARG:HD3	1.97	0.47
36:5:1008:U:C2	36:5:1043:C:C2	3.02	0.47
36:5:2144:A:H1'	36:5:2281:A:N6	2.30	0.47
36:5:2513:U:C2'	36:5:2592:G:H1	2.28	0.47
36:5:2689:A:N3	36:5:2689:A:H2'	2.28	0.47
36:5:2938:G:C2'	36:5:2939:G:H5'	2.44	0.47
36:5:3174:A:H2'	36:5:3175:U:H5'	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:122:ARG:NH1	1:6:1499:G:OP1	420.94	0.47
11:S9:124:HIS:HD2	1:6:478:A:O2'	449.12	0.47
1:6:72:A:H2'	1:6:73:U:C1'	2.45	0.47
1:6:921:U:O4	86:6:2179:OHX:N3	2.48	0.47
38:8:15:G:C6	38:8:16:G:C6	3.02	0.47
71:O5:63:ARG:HH21	38:8:97:A:P	54.98	0.47
12:C0:77:ARG:NH2	12:C0:84:GLU:O	5.57	0.47
1:2:866:G:OP1	15:C3:2:GLY:HA3	2.15	0.47
18:C6:83:GLN:HE22	18:C6:119:ALA:HB2	1.80	0.47
19:C7:81:LYS:O	19:C7:83:GLN:N	3.37	0.47
2:S0:185:ARG:HG2	23:D1:45:ALA:O	4.01	0.47
9:S7:143:LEU:O	24:D2:42:GLN:NE2	2.48	0.47
25:D3:137:LYS:C	25:D3:139:LYS:H	3.03	0.47
27:D5:90:LYS:O	27:D5:92:ILE:HG22	2.15	0.47
32:E0:33:ARG:NH2	1:6:478:A:H5'	436.88	0.47
33:E1:106:TYR:CZ	33:E1:131:PHE:HZ	3.23	0.47
39:L2:211:HIS:C	39:L2:213:GLY:H	4.59	0.47
36:1:1650:G:H5"	39:L2:70:ARG:HB3	1.97	0.47
40:L3:126:LYS:HB2	40:L3:128:LYS:HG2	1.96	0.47
41:L4:219:LEU:HD23	41:L4:219:LEU:HA	1.78	0.47
41:L4:207:VAL:HB	41:L4:227:THR:HG22	3.12	0.47
41:L4:3:ARG:O	41:L4:5:GLN:NE2	2.47	0.47
42:L5:184:ASP:HB3	42:L5:187:THR:OG1	5.05	0.47
42:L5:85:ARG:NH2	42:L5:252:ALA:O	4.23	0.47
43:L6:155:LEU:HA	43:L6:155:LEU:HD23	1.70	0.47
44:L7:102:VAL:HG13	44:L7:126:LEU:HD22	1.96	0.47
44:L7:150:LYS:HD3	44:L7:244:ASN:ND2	2.29	0.47
47:M0:144:ASN:O	47:M0:147:VAL:N	2.47	0.47
47:M0:48:LEU:HD22	47:M0:49:CYS:N	2.30	0.47
48:M1:100:GLY:HA2	48:M1:155:THR:O	2.15	0.47
48:M1:133:ARG:HB3	48:M1:134:PRO:CD	2.88	0.47
48:M1:52:TYR:HB2	48:M1:53:THR:H	1.40	0.47
51:M5:65:ARG:HG3	51:M5:129:TYR:CE1	3.22	0.47
53:M7:109:ALA:HA	53:M7:112:LEU:HD22	1.99	0.47
53:M7:67:ILE:CG2	53:M7:80:LYS:HB3	2.44	0.47
1:2:852:C:OP1	55:M9:172:ARG:HD3	2.14	0.47
56:N0:26:ARG:HH11	57:N1:150:THR:CG2	2.78	0.47
56:N0:10:ILE:O	56:N0:59:VAL:N	2.47	0.47
63:N7:35:SER:O	63:N7:36:HIS:ND1	5.58	0.47
64:N8:91:LEU:HA	64:N8:121:VAL:HG21	1.97	0.47
64:N8:61:PHE:O	64:N8:62:HIS:HB3	2.63	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:O0:23:TYR:HA	66:O0:93:LEU:HG	1.95	0.47
67:O1:13:THR:HG22	67:O1:72:ARG:HH11	1.80	0.47
74:O8:62:ALA:O	74:O8:65:LEU:N	3.00	0.47
75:O9:21:ARG:HD3	75:O9:22:PRO:O	2.31	0.47
36:1:1841:A:H2	75:O9:45:ARG:HH22	1.62	0.47
3:S1:124:ASN:HD22	3:S1:138:PHE:HE1	1.63	0.47
3:S1:189:ILE:HB	3:S1:190:PRO:HD3	2.04	0.47
3:S1:223:PHE:CE1	3:S1:225:VAL:HG12	3.95	0.47
3:S1:36:SER:O	3:S1:38:PHE:N	2.48	0.47
4:S2:140:ARG:HH12	23:D1:1:MET:HB3	1.79	0.47
4:S2:63:VAL:HG12	4:S2:134:LEU:HD12	1.96	0.47
6:S4:92:LEU:HB3	6:S4:94:ALA:O	2.14	0.47
7:S5:109:LYS:HB2	7:S5:109:LYS:HE3	4.72	0.47
8:S6:141:ILE:HG21	8:S6:153:VAL:HG13	1.97	0.47
8:S6:214:LYS:HB3	8:S6:218:GLU:OE1	6.05	0.47
34:SR:222:LEU:O	34:SR:231:MET:HB2	2.14	0.47
36:1:1209:G:C6	36:1:1210:U:N3	2.83	0.47
36:1:1556:C:H5”	36:1:2169:G:H22	1.79	0.47
36:1:1577:G:H2’	36:1:1578:C:C1’	2.45	0.47
36:1:1674:G:C6	36:1:1675:G:C5	3.03	0.47
36:1:1802:C:H2’	36:1:1803:C:O4’	2.15	0.47
36:1:1831:U:H2’	36:1:1832:C:H6	1.79	0.47
36:1:824:C:H2’	36:1:825:U:C6	2.49	0.47
36:1:90:C:H2’	36:1:91:G:H5’	1.96	0.47
1:2:1178:G:H2’	1:2:1179:G:O4’	2.14	0.47
1:2:1291:G:H22	1:2:1324:G:N2	2.13	0.47
1:2:140:A:OP2	8:S6:187:LYS:NZ	2.31	0.47
1:2:1535:U:H6	1:2:1535:U:H2’	1.52	0.47
1:2:1552:U:H2’	1:2:1553:G:O4’	2.15	0.47
1:2:386:G:C6	1:2:387:A:N6	2.82	0.47
1:2:706:A:N1	1:2:734:A:N6	2.63	0.47
1:2:976:G:C6	1:2:1023:A:C4	3.03	0.47
37:3:30:G:C6	37:3:31:U:C4	3.03	0.47
68:O2:31:ASN:ND2	36:5:1408:G:OP1	159.72	0.47
36:5:1706:C:H2’	36:5:1707:A:O4’	2.15	0.47
75:O9:5:LYS:O	36:5:1833:G:H4’	115.03	0.47
36:5:2601:A:H2’	36:5:2602:G:H8	1.80	0.47
36:5:2906:C:H2’	36:5:2907:G:O4’	2.15	0.47
1:6:1173:C:H2’	1:6:1174:C:H6	1.80	0.47
1:6:1483:A:OP2	1:6:1521:G:N2	2.32	0.47
1:6:1716:C:O2’	1:6:1717:G:OP2	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:523:G:O2'	1:6:529:A:N6	2.48	0.47
1:6:82:U:H2'	1:6:83:G:O4'	2.15	0.47
12:C0:38:LYS:O	12:C0:41:TYR:HB2	2.40	0.47
16:C4:91:THR:O	16:C4:93:THR:N	2.65	0.47
17:C5:16:SER:HB2	17:C5:20:VAL:O	3.37	0.47
18:C6:32:ASN:OD1	18:C6:69:VAL:HG23	2.90	0.47
20:C8:134:ARG:O	20:C8:136:GLN:HG2	4.10	0.47
20:C8:36:LYS:HD3	20:C8:36:LYS:HA	1.63	0.47
24:D2:107:SER:O	1:6:802:G:O2'	371.38	0.47
26:D4:114:ARG:HA	26:D4:117:LYS:HD2	1.97	0.47
26:D4:12:VAL:HG12	1:6:783:G:C8	423.22	0.47
29:D7:19:HIS:CE1	29:D7:20:LYS:HB3	4.30	0.47
30:D8:49:ARG:HG2	30:D8:52:ASP:OD1	2.98	0.47
36:1:914:A:C2	39:L2:204:MET:HB3	2.50	0.47
39:L2:31:THR:O	39:L2:33:ASP:N	2.46	0.47
40:L3:187:SER:HB3	40:L3:190:GLU:OE1	2.25	0.47
41:L4:234:ASN:OD1	41:L4:236:LEU:N	2.43	0.47
41:L4:309:ARG:NH2	41:L4:312:VAL:HB	2.30	0.47
41:L4:59:GLN:OE1	73:O7:55:ARG:NH2	2.83	0.47
41:L4:82:THR:HG23	41:L4:84:ARG:N	2.67	0.47
45:L8:225:LYS:O	45:L8:229:VAL:HG23	2.14	0.47
49:M3:46:ILE:HG13	49:M3:49:ARG:CZ	5.29	0.47
50:M4:113:THR:HB	50:M4:116:GLU:HG3	1.97	0.47
51:M5:94:TYR:CZ	51:M5:96:ARG:HD3	2.83	0.47
54:M8:49:LEU:HD22	54:M8:53:PHE:CZ	2.50	0.47
54:M8:65:SER:HA	54:M8:93:ILE:HD13	1.96	0.47
55:M9:44:LEU:HD12	55:M9:49:THR:HB	1.96	0.47
8:S6:131:LYS:HD3	60:N4:81:PRO:O	2.15	0.47
67:O1:96:VAL:O	67:O1:98:VAL:N	2.86	0.47
68:O2:7:PRO:HG2	68:O2:63:THR:CG2	4.54	0.47
71:O5:29:ALA:HA	71:O5:32:LYS:HE2	2.18	0.47
75:O9:49:MET:O	75:O9:51:ILE:N	2.47	0.47
79:Q3:49:ARG:HD3	79:Q3:51:ALA:O	2.15	0.47
3:S1:120:LEU:HD23	3:S1:142:PHE:CE1	5.13	0.47
4:S2:137:ILE:HD11	4:S2:219:GLY:HA3	3.62	0.47
10:S8:168:CYS:HG	10:S8:182:TYR:HE1	1.62	0.47
10:S8:65:PHE:HA	10:S8:181:GLY:O	2.37	0.47
34:SR:69:GLN:OE1	34:SR:85:TRP:NE1	2.48	0.47
36:1:1924:U:H2'	36:1:1926:C:C5	2.49	0.47
36:1:2796:G:N7	78:Q2:63:LYS:NZ	2.63	0.47
36:1:3335:A:H2'	36:1:3336:A:C8	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2107:A:H2	36:1:3344:A:C8	2.33	0.47
36:1:423:A:C6	36:1:424:G:C6	3.03	0.47
36:1:975:C:H2'	36:1:976:U:C6	2.50	0.47
1:2:1546:G:H2'	1:2:1547:A:C8	2.50	0.47
1:2:1525:A:N1	1:2:1608:U:O2'	2.48	0.47
1:2:470:A:OP2	86:2:2076:OHX:N6	2.48	0.47
1:2:819:G:O6	1:2:853:G:C6	2.68	0.47
1:2:886:U:H2'	1:2:887:A:O4'	2.14	0.47
37:3:33:U:C6	42:L5:207:TYR:CE2	3.02	0.47
37:3:71:G:O2'	37:3:72:A:H5'	2.15	0.47
38:4:106:C:O2'	86:4:232:OHX:N4	2.48	0.47
36:5:1202:A:O2'	36:5:1203:A:H5'	2.15	0.47
36:5:1690:C:C4	36:5:1691:U:C4	3.03	0.47
36:5:2788:C:H2'	36:5:2789:U:H6	1.80	0.47
36:5:3245:A:H2	36:5:3246:G:C2	2.32	0.47
36:5:3362:A:C2	36:5:3363:U:C2	3.03	0.47
86:5:3995:OHX:N4	86:5:4084:OHX:N2	2.63	0.47
36:5:969:C:H6	36:5:969:C:O5'	1.98	0.47
1:6:1194:A:H2'	1:6:1195:C:H5'	1.97	0.47
3:S1:117:TRP:CZ2	1:6:1799:U:H5"	335.44	0.47
1:6:76:A:N3	1:6:76:A:H2'	2.30	0.47
1:6:913:G:H3'	1:6:914:G:C5'	2.43	0.47
38:8:141:C:H2'	38:8:142:C:C6	2.50	0.47
12:C0:29:GLN:HB3	12:C0:39:ASN:HB3	2.13	0.47
16:C4:24:ASN:HA	16:C4:55:SER:HB3	2.88	0.47
18:C6:47:LYS:NZ	18:C6:114:ARG:HH21	2.09	0.47
18:C6:38:LEU:HA	18:C6:38:LEU:HD23	2.05	0.47
18:C6:40:GLU:HA	18:C6:41:PRO:C	2.35	0.47
20:C8:70:VAL:HA	20:C8:73:MET:HE2	1.97	0.47
21:C9:63:ARG:O	21:C9:67:MET:HG3	5.02	0.47
21:C9:92:LYS:HG3	21:C9:93:HIS:O	2.15	0.47
2:S0:185:ARG:HB2	23:D1:45:ALA:H	1.80	0.47
24:D2:83:ILE:HG12	24:D2:117:ARG:NH1	2.27	0.47
25:D3:102:VAL:HB	25:D3:124:VAL:HG13	2.25	0.47
25:D3:17:VAL:HG23	25:D3:20:ARG:HH12	4.54	0.47
26:D4:120:GLY:HA2	1:6:85:A:O3'	335.07	0.47
26:D4:29:HIS:CD2	26:D4:29:HIS:N	4.17	0.47
26:D4:96:LEU:H	26:D4:96:LEU:HG	1.42	0.47
28:D6:78:ALA:HA	28:D6:83:ILE:HG13	8.41	0.47
32:E0:13:LYS:HB2	1:6:567:A:H4'	370.47	0.47
33:E1:82:LYS:HE2	1:6:1447:C:C5	379.51	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:132:ASN:O	39:L2:133:TYR:HB3	2.14	0.47
36:1:1793:C:C4	39:L2:179:LEU:HD22	2.50	0.47
41:L4:181:VAL:HG12	41:L4:182:LEU:H	1.80	0.47
43:L6:172:HIS:HB3	69:O3:44:TYR:CE2	2.50	0.47
46:L9:86:TYR:CE2	46:L9:151:VAL:HG22	2.51	0.47
46:L9:77:ASN:HB3	46:L9:151:VAL:HG21	1.96	0.47
47:M0:80:SER:O	47:M0:84:ALA:HB2	2.15	0.47
48:M1:150:ASN:HA	48:M1:153:LYS:HD2	1.97	0.47
50:M4:133:LYS:O	50:M4:136:ALA:HB3	2.15	0.47
52:M6:157:GLU:OE2	36:5:3243:A:N6	271.85	0.47
61:N5:106:ASP:HB2	61:N5:130:TYR:HE1	2.63	0.47
61:N5:86:VAL:HG21	61:N5:95:ILE:HG12	3.15	0.47
62:N6:126:LEU:HB2	71:O5:71:LYS:HZ3	46.35	0.47
66:O0:53:LYS:HZ1	36:5:2552:C:H5	242.09	0.47
67:O1:74:ARG:HH12	67:O1:109:VAL:HG21	1.80	0.47
68:O2:41:VAL:HB	68:O2:46:PHE:HD2	2.33	0.47
79:Q3:8:VAL:HB	79:Q3:11:THR:HG22	1.96	0.47
2:S0:139:VAL:O	2:S0:141:ILE:HG13	2.19	0.47
3:S1:111:ARG:HG3	3:S1:111:ARG:HH11	3.10	0.47
3:S1:131:ASP:N	3:S1:131:ASP:OD1	4.24	0.47
4:S2:37:PRO:HA	4:S2:65:GLU:OE1	2.49	0.47
6:S4:42:LEU:N	6:S4:84:ALA:O	2.48	0.47
7:S5:203:LYS:O	7:S5:205:SER:N	3.25	0.47
8:S6:4:ASN:HB3	8:S6:110:ALA:HA	2.44	0.47
9:S7:21:ALA:O	9:S7:24:PHE:HB2	2.27	0.47
9:S7:39:ARG:N	9:S7:40:PRO:HD2	2.48	0.47
11:S9:117:GLY:C	11:S9:119:ALA:H	2.17	0.47
36:1:1116:G:C4	36:1:2817:A:C2	3.03	0.46
36:1:1887:A:OP1	86:1:4087:OHX:N3	2.48	0.46
36:1:655:C:H2'	36:1:656:A:C8	2.50	0.46
1:2:1199:G:O6	22:D0:67:THR:OG1	2.26	0.46
1:2:657:U:O2	1:2:677:G:N2	2.48	0.46
1:2:827:C:H2'	1:2:828:U:C6	2.50	0.46
38:4:62:C:H4'	38:4:63:G:O5'	2.15	0.46
36:5:1015:U:O3'	36:5:1016:C:H2'	2.16	0.46
36:5:1784:G:H2'	36:5:1785:U:O4'	2.14	0.46
36:5:2118:C:O5'	36:5:2118:C:H6	1.97	0.46
36:5:2433:U:OP2	36:5:2434:U:O2'	2.32	0.46
36:5:2533:G:N2	36:5:2546:C:O2	2.41	0.46
36:5:2584:G:H5'	36:5:2585:G:OP2	2.14	0.46
36:5:1748:G:O6	86:5:4180:OHX:N4	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:169:LYS:HE3	36:5:63:A:OP1	100.64	0.46
36:5:989:A:H2'	36:5:990:U:O4'	2.14	0.46
12:C0:25:LYS:NZ	1:6:1435:G:N7	418.76	0.46
1:6:723:G:H5'	1:6:724:C:OP2	2.15	0.46
37:7:61:G:C6	37:7:62:U:C4	3.02	0.46
38:8:59:A:H4'	38:8:60:U:H5"	1.97	0.46
15:C3:54:LEU:HB3	15:C3:60:VAL:HG13	3.94	0.46
16:C4:17:ALA:HB2	16:C4:79:VAL:HG11	3.51	0.46
17:C5:122:THR:HG22	17:C5:123:TYR:HD1	5.63	0.46
18:C6:47:LYS:HA	18:C6:47:LYS:HD2	1.80	0.46
20:C8:30:TYR:HE2	20:C8:40:ARG:NH1	2.13	0.46
20:C8:70:VAL:O	20:C8:74:GLN:HG3	4.01	0.46
21:C9:52:GLY:HA2	21:C9:55:TYR:CD2	2.50	0.46
22:D0:26:LEU:HD21	22:D0:114:VAL:HG13	2.51	0.46
25:D3:13:ARG:O	25:D3:17:VAL:HG12	4.77	0.46
26:D4:122:GLY:O	26:D4:125:LEU:N	2.74	0.46
26:D4:59:GLY:O	26:D4:60:PHE:HB2	2.14	0.46
28:D6:58:VAL:HG22	28:D6:59:TYR:N	3.11	0.46
39:L2:109:GLU:OE1	39:L2:138:GLY:HA2	2.14	0.46
39:L2:88:ILE:HG23	39:L2:99:GLY:O	3.31	0.46
40:L3:258:ALA:O	40:L3:259:HIS:CD2	2.73	0.46
40:L3:296:THR:CG2	40:L3:297:SER:N	3.14	0.46
41:L4:292:SER:HG	41:L4:295:ILE:H	1.57	0.46
43:L6:7:PRO:HG2	43:L6:10:TYR:CZ	2.50	0.46
36:1:1100:U:O2'	44:L7:105:LEU:O	2.28	0.46
50:M4:123:LEU:HA	50:M4:123:LEU:HD23	1.70	0.46
50:M4:25:LYS:HE3	50:M4:62:GLN:HG2	1.98	0.46
53:M7:67:ILE:HG22	53:M7:80:LYS:HB3	1.96	0.46
54:M8:96:PHE:CG	54:M8:97:PRO:HD2	2.50	0.46
55:M9:68:GLN:NE2	55:M9:72:GLU:OE2	5.51	0.46
58:N2:54:VAL:HG13	58:N2:67:SER:HB2	3.18	0.46
60:N4:23:ARG:HG2	60:N4:24:GLY:H	2.67	0.46
62:N6:37:LYS:CE	62:N6:37:LYS:H	3.45	0.46
63:N7:24:VAL:HG22	63:N7:130:PHE:CE2	3.23	0.46
63:N7:54:THR:H	63:N7:57:HIS:CD2	2.82	0.46
65:N9:23:LYS:HA	65:N9:23:LYS:HD3	3.36	0.46
65:N9:43:HIS:NE2	65:N9:47:LEU:HD11	2.30	0.46
66:O0:45:ALA:O	66:O0:48:THR:HG22	2.15	0.46
70:O4:44:CYS:HB3	70:O4:49:SER:H	2.54	0.46
71:O5:54:VAL:O	71:O5:58:ILE:HG13	2.54	0.46
5:S3:67:ASN:O	5:S3:71:LEU:HG	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:15:PRO:HG2	6:S4:18:TRP:CD2	2.50	0.46
6:S4:122:LYS:HB3	6:S4:164:LEU:HD21	1.97	0.46
6:S4:51:ARG:HE	6:S4:51:ARG:HA	2.25	0.46
8:S6:70:PRO:O	8:S6:98:ARG:NH1	2.50	0.46
9:S7:78:THR:HG22	9:S7:90:VAL:HG12	3.08	0.46
1:2:694:U:N3	9:S7:98:ILE:HD12	2.31	0.46
11:S9:80:LEU:HB3	11:S9:86:LEU:HB2	2.21	0.46
36:1:2163:C:O2'	39:L2:11:GLY:HA3	2.15	0.46
36:1:2168:A:C6	36:1:2170:U:H1'	2.50	0.46
36:1:281:G:C6	36:1:282:G:C6	3.04	0.46
36:1:3276:G:H1	69:O3:60:ARG:NH1	2.12	0.46
36:1:665:A:OP1	51:M5:203:ARG:HD2	2.15	0.46
36:1:743:C:O2	54:M8:141:ARG:HG3	2.15	0.46
36:1:833:G:C2	36:1:862:U:O2	2.68	0.46
1:2:1469:A:H2'	1:2:1470:C:C6	2.50	0.46
1:2:1480:G:H3'	1:2:1481:C:H6	1.79	0.46
1:2:1542:G:H22	1:2:1568:C:H1'	1.79	0.46
1:2:1619:C:H2'	1:2:1620:C:H6	1.80	0.46
1:2:17:C:H4'	1:2:1109:G:C8	2.50	0.46
1:2:552:G:C6	1:2:553:G:C6	3.03	0.46
1:2:759:U:OP1	86:2:2160:OHX:N1	2.48	0.46
1:2:77:U:H4'	1:2:78:A:O5'	2.16	0.46
38:4:125:U:HO2'	38:4:126:A:P	2.38	0.46
36:5:1323:G:C2'	36:5:1324:U:H5'	2.46	0.46
36:5:1514:G:H2'	36:5:1514:G:N3	2.29	0.46
36:5:2836:C:H41	36:5:2852:C:N4	2.13	0.46
36:5:815:G:C2	36:5:906:A:C2	3.04	0.46
10:S8:32:GLN:HE21	1:6:1728:A:H1'	276.98	0.46
1:6:1752:U:H2'	1:6:1753:A:C8	2.50	0.46
1:6:1637:C:OP2	86:6:2113:OHX:N4	2.48	0.46
1:6:706:A:H2'	1:6:707:A:O4'	2.15	0.46
1:6:74:U:C4	1:6:76:A:H5'	2.50	0.46
37:7:77:G:N2	37:7:102:A:OP2	2.42	0.46
71:O5:49:LYS:NZ	38:8:63:G:O2'	49.90	0.46
14:C2:43:ARG:NH2	1:6:1256:A:OP2	461.88	0.46
17:C5:75:PRO:HA	17:C5:93:VAL:HB	2.75	0.46
19:C7:27:ASP:OD2	19:C7:30:THR:HG22	2.15	0.46
22:D0:20:ILE:HD12	22:D0:100:VAL:HG21	4.41	0.46
39:L2:70:ARG:NH1	39:L2:72:ARG:HE	5.46	0.46
39:L2:79:ASN:H	39:L2:82:VAL:HG11	2.68	0.46
41:L4:23:PRO:HD2	41:L4:26:PHE:CD2	2.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:23:PRO:O	41:L4:24:ALA:HB3	2.14	0.46
43:L6:170:LYS:O	43:L6:173:MET:HB2	3.01	0.46
44:L7:88:ARG:CZ	44:L7:103:LEU:HD13	2.45	0.46
45:L8:100:GLU:OE1	45:L8:108:ARG:HD3	2.60	0.46
45:L8:156:ASP:HB2	45:L8:157:VAL:H	1.54	0.46
39:L2:39:GLY:HA3	45:L8:36:ILE:HD12	2.97	0.46
48:M1:11:ASP:O	48:M1:12:LEU:HB3	3.74	0.46
48:M1:91:LEU:HD12	48:M1:163:PHE:CE2	2.50	0.46
49:M3:47:ALA:CB	49:M3:48:PRO:HD2	2.58	0.46
52:M6:62:THR:HA	36:5:1306:G:C6	233.32	0.46
53:M7:19:GLY:HA3	53:M7:22:LEU:HD11	1.97	0.46
54:M8:34:THR:HG22	54:M8:49:LEU:CD2	2.68	0.46
55:M9:168:ALA:HB1	55:M9:172:ARG:CZ	2.45	0.46
58:N2:36:TYR:CD1	58:N2:40:HIS:CE1	3.78	0.46
63:N7:136:PHE:HD1	63:N7:136:PHE:N	2.13	0.46
63:N7:22:LYS:HG3	63:N7:49:TYR:OH	2.68	0.46
65:N9:58:LYS:HZ3	65:N9:58:LYS:HA	2.84	0.46
73:O7:69:HIS:O	73:O7:73:ARG:HG3	2.15	0.46
2:S0:102:PHE:O	2:S0:103:THR:HB	2.15	0.46
2:S0:79:ARG:NH1	2:S0:164:ASN:O	2.59	0.46
8:S6:64:LYS:HD2	8:S6:97:VAL:HG11	3.13	0.46
9:S7:60:ILE:HD12	9:S7:92:PHE:CE2	2.94	0.46
10:S8:89:GLU:CD	10:S8:92:ARG:HH21	2.18	0.46
11:S9:107:ARG:NH2	11:S9:148:VAL:O	2.48	0.46
34:SR:13:LEU:HB3	34:SR:45:TRP:CZ3	2.70	0.46
36:1:1537:A:C2’	36:1:1538:G:H5’	2.45	0.46
36:1:2616:C:C2’	36:1:2617:U:H5’	2.44	0.46
36:1:282:G:C8	36:1:282:G:H3’	2.49	0.46
36:1:2884:C:H2’	36:1:2885:C:H6	1.79	0.46
36:1:981:U:O2’	36:1:982:C:OP1	2.32	0.46
1:2:1202:A:H2’	1:2:1203:A:H5”	1.96	0.46
1:2:1291:G:N2	1:2:1324:G:N2	2.58	0.46
1:2:1323:C:H2’	1:2:1324:G:O4’	2.15	0.46
1:2:1573:A:H4’	1:2:1574:G:H5’	1.97	0.46
1:2:1587:A:H2’	1:2:1588:G:H8	1.80	0.46
36:5:1338:C:H2’	36:5:1339:C:H6	1.80	0.46
36:5:132:C:C2’	36:5:133:U:H5”	2.45	0.46
72:O6:25:LYS:HB3	36:5:156:G:OP2	87.94	0.46
36:5:1716:U:H5’	36:5:1716:U:H6	1.80	0.46
51:M5:12:ARG:HG2	36:5:268:A:C5	127.61	0.46
65:N9:2:ALA:HB2	36:5:2818:U:C5’	211.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1599:G:OP1	86:5:4131:OHX:N4	2.48	0.46
86:5:4060:OHX:N3	86:5:4137:OHX:N6	2.64	0.46
36:5:1656:A:O2'	86:5:4172:OHX:N2	2.48	0.46
36:5:46:U:H6	36:5:46:U:O5'	1.99	0.46
36:5:494:G:H3'	36:5:495:G:H8	1.80	0.46
36:5:621:A:H2'	36:5:622:A:C8	2.50	0.46
51:M5:203:ARG:HD2	36:5:665:A:OP1	121.75	0.46
54:M8:151:ARG:HD2	36:5:781:G:OP1	161.03	0.46
1:6:1122:G:N2	1:6:1125:A:OP2	2.39	0.46
1:6:1227:A:OP1	1:6:1228:G:H3'	2.15	0.46
1:6:1332:C:H42	1:6:1419:G:H1	1.61	0.46
1:6:417:A:H4'	1:6:418:G:O5'	2.14	0.46
1:6:489:C:O2'	1:6:490:C:O5'	2.33	0.46
1:6:660:G:H2'	1:6:661:A:H4'	1.96	0.46
15:C3:114:ARG:HG3	1:6:952:A:O2'	298.51	0.46
48:M1:137:ARG:NH1	37:7:28:C:OP1	301.07	0.46
42:L5:276:LYS:HB2	37:7:62:U:OP1	327.38	0.46
36:5:59:G:H2'	38:8:33:A:O2'	2.15	0.46
12:C0:35:ILE:HG22	12:C0:37:THR:HG23	1.97	0.46
20:C8:31:ALA:O	20:C8:34:THR:HG22	4.64	0.46
20:C8:38:VAL:HG12	20:C8:42:TYR:CD2	2.49	0.46
24:D2:6:VAL:HG13	24:D2:29:PRO:HD2	1.96	0.46
26:D4:79:VAL:O	26:D4:83:LYS:HB2	2.15	0.46
33:E1:127:GLY:O	33:E1:129:GLY:N	2.48	0.46
39:L2:43:GLY:N	39:L2:88:ILE:O	2.49	0.46
40:L3:296:THR:HG23	40:L3:298:PHE:H	1.80	0.46
40:L3:358:TRP:CZ2	40:L3:360:ASP:HA	2.81	0.46
41:L4:40:THR:O	41:L4:44:LYS:HE3	4.43	0.46
45:L8:153:ILE:HD13	45:L8:166:LEU:HB3	2.63	0.46
45:L8:246:MET:HA	45:L8:249:ARG:HB3	1.96	0.46
46:L9:103:ILE:HD12	46:L9:136:PHE:HE2	2.33	0.46
46:L9:49:ASN:OD1	46:L9:51:GLN:N	4.56	0.46
36:1:2854:U:P	47:M0:3:ARG:HH22	2.38	0.46
47:M0:54:SER:HB3	47:M0:130:ASP:O	2.14	0.46
50:M4:113:THR:HG22	50:M4:116:GLU:H	2.03	0.46
50:M4:15:VAL:HG13	56:N0:150:PHE:O	2.15	0.46
36:1:99:A:OP1	51:M5:194:GLN:NE2	2.47	0.46
52:M6:10:ASP:HA	52:M6:36:VAL:HG23	1.97	0.46
53:M7:22:LEU:HB3	53:M7:90:PHE:CE2	2.50	0.46
54:M8:165:ILE:HG23	54:M8:167:SER:H	5.23	0.46
42:L5:34:LYS:HB2	57:N1:27:LEU:HD21	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:N2:47:VAL:O	58:N2:49:ASN:N	2.90	0.46
59:N3:87:ARG:HH22	59:N3:137:VAL:HG22	2.53	0.46
64:N8:14:HIS:O	64:N8:16:SER:N	2.48	0.46
68:O2:22:SER:HB2	68:O2:30:GLU:HA	2.01	0.46
68:O2:87:MET:O	68:O2:88:HIS:ND1	2.48	0.46
63:N7:136:PHE:CZ	70:O4:89:ILE:HG12	3.94	0.46
3:S1:129:THR:OG1	3:S1:130:SER:N	3.95	0.46
6:S4:151:ASP:CG	8:S6:215:ARG:HH12	3.71	0.46
10:S8:38:ILE:HA	10:S8:60:ILE:O	2.35	0.46
34:SR:89:LEU:HB2	34:SR:103:PHE:CD2	2.51	0.46
34:SR:211:ILE:HG22	34:SR:223:TRP:HD1	1.80	0.46
34:SR:32:LEU:HA	34:SR:45:TRP:O	2.52	0.46
36:1:1313:G:P	52:M6:82:LYS:HE3	2.56	0.46
36:1:1355:A:H5"	36:1:1356:U:H5	1.80	0.46
36:1:1471:U:H2'	36:1:1472:U:H6	1.81	0.46
36:1:1672:U:O2'	36:1:1673:G:H5'	2.15	0.46
36:1:2718:U:H2'	36:1:2719:U:C6	2.51	0.46
36:1:2861:U:H2'	36:1:2862:U:O4'	2.15	0.46
36:1:3007:U:OP1	52:M6:73:PHE:HA	2.16	0.46
36:1:3185:U:O2'	56:N0:170:THR:OG1	2.27	0.46
36:1:559:A:N7	36:1:560:G:C8	2.83	0.46
36:1:644:G:H2'	36:1:2372:A:N7	2.31	0.46
36:1:781:G:N7	86:1:3941:OHX:N5	2.64	0.46
1:2:1308:G:C2	1:2:1309:C:C2	3.03	0.46
1:2:1439:C:H2'	1:2:1440:C:H6	1.81	0.46
1:2:144:U:O2'	1:2:145:A:H5'	2.14	0.46
1:2:482:U:H2'	1:2:483:A:H8	1.81	0.46
1:2:75:U:N3	1:2:76:A:N3	2.63	0.46
36:5:1270:A:H2'	36:5:1271:A:C8	2.50	0.46
36:5:1621:A:H2'	36:5:1622:U:C6	2.51	0.46
36:5:1715:A:H4'	36:5:1716:U:OP1	2.16	0.46
36:5:1765:U:H2'	36:5:1766:G:O4'	2.15	0.46
36:5:2263:C:OP1	86:5:3949:OHX:N2	2.49	0.46
36:5:173:G:N1	36:5:246:U:C2	2.83	0.46
36:5:2957:G:H8	36:5:2957:G:H5'	1.80	0.46
86:5:4208:OHX:N4	86:5:4218:OHX:N3	2.63	0.46
86:6:2118:OHX:N6	86:6:2170:OHX:N5	2.63	0.46
1:6:1794:A:OP1	86:6:2124:OHX:N5	2.48	0.46
6:S4:204:GLY:HA2	86:6:2166:OHX:N6	342.18	0.46
15:C3:136:PRO:O	15:C3:139:TRP:N	2.49	0.46
15:C3:30:SER:HB2	15:C3:67:THR:HA	5.70	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:106:THR:O	19:C7:110:VAL:HG13	5.69	0.46
24:D2:30:SER:HB2	24:D2:61:ILE:HG13	1.98	0.46
24:D2:67:GLY:C	24:D2:69:LEU:H	2.71	0.46
26:D4:49:LYS:N	26:D4:49:LYS:HD3	2.46	0.46
29:D7:58:SER:OG	29:D7:59:CYS:N	2.83	0.46
40:L3:383:LEU:HD23	40:L3:383:LEU:HA	2.99	0.46
40:L3:4:ARG:HD3	40:L3:7:GLU:HA	1.97	0.46
40:L3:85:VAL:O	40:L3:162:VAL:HA	2.46	0.46
41:L4:165:ALA:O	41:L4:168:ALA:HB3	2.45	0.46
41:L4:209:TYR:OH	41:L4:229:ASN:HB2	2.15	0.46
41:L4:304:GLN:HB3	41:L4:306:THR:O	2.15	0.46
42:L5:52:VAL:HA	42:L5:147:ASP:HB3	1.98	0.46
42:L5:211:LEU:HB3	42:L5:219:PHE:HB2	2.73	0.46
43:L6:98:VAL:HA	43:L6:101:PHE:HD2	1.80	0.46
44:L7:135:ALA:HB2	44:L7:229:PHE:H	4.91	0.46
45:L8:143:ILE:HD13	45:L8:170:CYS:SG	3.40	0.46
47:M0:99:ILE:HD13	47:M0:101:LYS:HG2	4.50	0.46
36:1:2853:A:H4'	47:M0:63:GLU:O	2.16	0.46
36:1:685:G:P	49:M3:35:ARG:NH1	2.88	0.46
56:N0:82:ASP:OD1	56:N0:87:THR:HB	2.16	0.46
57:N1:17:ARG:HB2	57:N1:22:HIS:CE1	3.07	0.46
38:4:24:G:OP2	62:N6:13:ARG:HD3	2.15	0.46
63:N7:10:VAL:HB	63:N7:83:THR:CG2	2.44	0.46
65:N9:38:LYS:O	65:N9:39:PHE:CB	4.21	0.46
71:O5:118:ILE:O	71:O5:119:LYS:HB2	3.02	0.46
74:O8:32:ASN:ND2	74:O8:34:ALA:HB3	6.30	0.46
2:S0:101:ARG:HG2	2:S0:101:ARG:HH11	3.76	0.46
4:S2:162:CYS:SG	4:S2:212:LYS:HE2	2.55	0.46
6:S4:35:PRO:HD2	6:S4:83:PRO:HG2	2.58	0.46
7:S5:43:PHE:CG	7:S5:44:ASN:N	2.87	0.46
8:S6:69:LEU:N	8:S6:101:ILE:HD12	3.37	0.46
8:S6:98:ARG:HD3	8:S6:99:GLY:N	2.46	0.46
9:S7:122:HIS:HA	9:S7:125:ILE:HD12	1.97	0.46
10:S8:138:ASN:O	10:S8:141:ARG:HB2	2.15	0.46
10:S8:36:THR:HA	10:S8:58:LEU:HA	1.96	0.46
36:1:1210:U:H2'	36:1:1211:U:H6	1.80	0.46
36:1:1597:C:H2'	36:1:1598:G:H8	1.80	0.46
36:1:242:C:HO2'	36:1:243:G:C5'	2.27	0.46
36:1:2519:A:C4	36:1:2589:G:N2	2.84	0.46
36:1:3321:C:H2'	36:1:3322:A:O4'	2.16	0.46
36:1:3366:G:H2'	36:1:3367:C:C6	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:526:C:H2'	36:1:527:A:O4'	2.14	0.46
1:2:1073:G:C2'	1:2:1074:G:H5"	2.41	0.46
1:2:28:A:H2'	1:2:29:U:H6	1.81	0.46
1:2:116:U:O2	1:2:333:A:H2	1.99	0.46
37:3:48:U:O4	42:L5:58:LYS:HE2	2.15	0.46
38:4:19:C:H2'	38:4:20:U:O4'	2.15	0.46
36:5:1824:U:H2'	36:5:1825:G:H8	1.80	0.46
36:5:2275:A:C2	36:5:2312:A:C4	3.04	0.46
36:5:2562:A:N6	36:5:2579:G:O2'	2.44	0.46
36:5:2604:U:OP2	86:5:4010:OHX:N3	2.48	0.46
86:5:4005:OHX:N3	86:5:4195:OHX:N1	2.64	0.46
36:5:428:A:H2'	36:5:429:U:C6	2.51	0.46
36:5:527:A:H2'	36:5:528:U:C6	2.49	0.46
1:6:1022:C:H4'	1:6:1124:A:N6	2.31	0.46
1:6:1542:G:H22	1:6:1568:C:H1'	1.79	0.46
11:S9:38:ASN:ND2	1:6:594:A:OP2	409.59	0.46
1:6:691:C:OP1	1:6:696:C:N4	2.43	0.46
9:S7:111:LYS:H	1:6:810:G:N2	340.87	0.46
1:6:882:U:H2'	1:6:883:C:H6	1.81	0.46
14:C2:61:VAL:HA	14:C2:89:ILE:HG22	1.98	0.46
17:C5:115:TYR:N	17:C5:118:GLU:OE1	3.73	0.46
18:C6:21:HIS:N	18:C6:66:ARG:O	3.05	0.46
19:C7:107:SER:O	19:C7:110:VAL:HG22	4.67	0.46
21:C9:93:HIS:NE2	21:C9:95:ASP:OD1	3.34	0.46
22:D0:25:THR:HG23	22:D0:90:TYR:HB3	3.41	0.46
23:D1:71:ARG:HG3	23:D1:83:TRP:CH2	2.50	0.46
24:D2:114:GLU:O	24:D2:117:ARG:HB3	2.66	0.46
24:D2:53:ILE:HG12	24:D2:60:LYS:HB2	1.98	0.46
7:S5:166:ARG:HD2	30:D8:46:GLY:CA	2.45	0.46
40:L3:137:TYR:O	40:L3:141:GLY:N	2.48	0.46
36:1:2341:A:OP2	40:L3:247:ARG:NH2	2.48	0.46
36:1:119:U:C2	45:L8:138:HIS:CE1	3.04	0.46
46:L9:136:PHE:CE1	46:L9:144:ILE:HG12	4.57	0.46
48:M1:90:GLN:OE1	48:M1:172:LEU:HD11	2.15	0.46
49:M3:168:ARG:NH1	49:M3:172:LEU:HD11	3.24	0.46
50:M4:116:GLU:HG2	52:M6:197:LEU:HD23	4.34	0.46
55:M9:8:LYS:O	55:M9:11:ALA:HB3	2.14	0.46
56:N0:151:PRO:C	56:N0:153:PRO:HD3	2.66	0.46
56:N0:73:LYS:NZ	56:N0:97:VAL:O	3.21	0.46
59:N3:17:LEU:HD21	59:N3:98:ASN:CG	2.58	0.46
66:O0:22:LYS:H	66:O0:94:GLU:HB2	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:O0:27:TYR:OH	66:O0:55:GLU:OE1	2.32	0.46
2:S0:11:PRO:O	2:S0:15:GLN:HG3	2.23	0.46
3:S1:81:PHE:CE1	3:S1:109:LYS:HE2	2.67	0.46
4:S2:152:HIS:HD1	4:S2:174:ARG:HG2	3.48	0.46
4:S2:58:LEU:HA	4:S2:58:LEU:HD23	1.64	0.46
5:S3:50:ILE:O	5:S3:52:ALA:N	2.49	0.46
7:S5:42:LEU:HD21	7:S5:45:LYS:HE2	1.97	0.46
11:S9:110:GLN:HE22	11:S9:126:ARG:CG	2.43	0.46
34:SR:112:SER:CB	34:SR:153:GLN:HA	2.45	0.46
36:1:103:G:OP1	49:M3:70:ARG:NH2	2.32	0.46
36:1:1073:U:H2'	36:1:1074:U:C6	2.50	0.46
36:1:1710:C:H2'	36:1:1711:C:H6	1.81	0.46
36:1:2157:G:O6	39:L2:152:SER:HB3	2.16	0.46
36:1:3166:C:H42	36:1:3284:G:H1	1.62	0.46
36:1:356:C:OP2	86:O9:101:OHX:N1	2.49	0.46
36:1:736:A:H2'	36:1:737:G:O4'	2.16	0.46
36:1:979:U:H1'	36:1:980:A:C4	2.50	0.46
1:2:1140:G:H2'	1:2:1141:G:H8	1.79	0.46
1:2:1497:U:C4	1:2:1511:U:O2	2.69	0.46
1:2:1719:A:H3'	1:2:1720:G:C8	2.51	0.46
1:2:341:A:C5	1:2:342:C:C5	3.04	0.46
36:1:1196:C:O2	86:3:218:OHX:N2	2.49	0.46
36:5:1241:U:O2'	36:5:1242:G:O5'	2.22	0.46
36:5:240:U:O2'	36:5:241:G:H8	1.98	0.46
36:5:2623:G:H2'	36:5:2624:G:O4'	2.16	0.46
36:5:2925:C:H2'	36:5:2926:A:O4'	2.15	0.46
86:5:4060:OHX:N5	86:5:4137:OHX:N2	2.63	0.46
36:5:65:A:C4	36:5:110:G:N7	2.84	0.46
36:5:975:C:O2'	36:5:976:U:H5'	2.16	0.46
1:6:1309:C:H2'	1:6:1310:U:O4'	2.15	0.46
1:6:1609:U:H2'	1:6:1610:G:O4'	2.16	0.46
1:6:182:A:H2'	1:6:183:U:O4'	2.15	0.46
1:6:626:U:H2'	1:6:627:C:H6	1.81	0.46
75:O9:15:LYS:HD3	38:8:46:G:OP2	90.85	0.46
15:C3:28:LEU:HB3	15:C3:29:SER:H	1.51	0.46
7:S5:73:THR:HG23	18:C6:114:ARG:HE	2.66	0.46
20:C8:24:GLY:O	20:C8:26:ILE:N	2.40	0.46
20:C8:26:ILE:HG23	20:C8:31:ALA:HB2	1.96	0.46
22:D0:57:ARG:HD2	22:D0:89:ARG:HD3	1.96	0.46
23:D1:14:PRO:HB2	23:D1:23:ILE:HG23	2.09	0.46
27:D5:45:GLU:O	27:D5:49:ARG:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:24:VAL:HG21	28:D6:71:LEU:HD12	1.97	0.46
39:L2:112:ILE:O	39:L2:167:GLY:N	2.32	0.46
39:L2:14:SER:H	39:L2:16:PHE:H	1.64	0.46
40:L3:360:ASP:OD1	40:L3:361:THR:N	3.58	0.46
42:L5:22:ARG:NH1	42:L5:28:THR:HG1	4.48	0.46
43:L6:149:ILE:HG23	43:L6:155:LEU:HB3	1.97	0.46
44:L7:89:ILE:HD12	44:L7:214:TRP:CZ3	2.50	0.46
45:L8:68:ARG:NE	45:L8:237:ILE:O	2.65	0.46
46:L9:118:LEU:HD23	46:L9:177:ASP:CG	2.36	0.46
46:L9:134:ILE:HG23	46:L9:144:ILE:HD11	2.92	0.46
46:L9:92:TYR:N	46:L9:92:TYR:CD1	2.80	0.46
47:M0:187:ALA:O	47:M0:216:TYR:HD2	9.11	0.46
48:M1:143:ARG:NH2	37:7:5:G:OP1	291.37	0.46
49:M3:167:PHE:CD1	64:N8:132:LYS:HG3	3.71	0.46
51:M5:73:ARG:HB3	51:M5:89:VAL:HG13	2.13	0.46
52:M6:5:PRO:CD	36:5:3178:A:H5'	257.64	0.46
55:M9:106:LEU:HB3	55:M9:120:TYR:HE1	1.81	0.46
60:N4:9:SER:HB2	60:N4:51:TRP:CZ3	2.92	0.46
63:N7:84:ARG:HG3	63:N7:85:TYR:CD1	3.62	0.46
70:O4:58:ARG:CG	70:O4:59:PRO:HD2	3.80	0.46
70:O4:91:ARG:O	70:O4:95:ILE:HG13	4.41	0.46
75:O9:43:ASN:HB3	75:O9:46:ARG:HB2	1.98	0.46
2:S0:29:VAL:HB	2:S0:30:GLN:H	4.12	0.46
5:S3:142:LEU:HD13	5:S3:182:LEU:HD21	1.97	0.46
5:S3:68:GLU:OE2	12:C0:67:THR:HG23	2.16	0.46
10:S8:154:SER:OG	10:S8:155:SER:N	4.27	0.46
36:1:1191:U:H4'	36:1:1192:C:H5"	1.98	0.46
36:1:1528:G:O2'	36:1:1588:A:N3	2.43	0.46
36:1:1804:A:H2'	36:1:1805:C:H6	1.80	0.46
36:1:2688:U:OP1	42:L5:12:TYR:OH	2.31	0.46
36:1:2856:G:H2'	36:1:2857:C:H6	1.81	0.46
36:1:3047:U:O2'	40:L3:53:MET:HE1	2.15	0.46
86:1:4032:OHX:N4	86:1:4045:OHX:N3	2.63	0.46
36:1:595:G:C8	36:1:609:G:C6	3.04	0.46
36:1:827:A:H2'	36:1:828:A:C8	2.50	0.46
1:2:1371:A:H2'	1:2:1371:A:OP1	2.16	0.46
1:2:538:A:H8	1:2:543:C:N4	2.13	0.46
1:2:473:A:H4'	1:2:768:C:O2	2.16	0.46
1:2:912:U:H4'	1:2:913:G:O5'	2.16	0.46
37:3:113:C:H2'	37:3:114:U:O4'	2.15	0.46
37:3:60:G:OP2	86:3:226:OHX:N3	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1160:C:H5”	36:5:1332:A:OP1	2.15	0.46
36:5:1455:U:C4	36:5:3078:U:O2	2.69	0.46
62:N6:12:ARG:HD3	36:5:215:G:H5”	87.75	0.46
36:5:2966:G:C6	36:5:2967:A:N6	2.84	0.46
36:5:3155:U:HO2’	36:5:3156:U:H6	1.63	0.46
36:5:3189:G:H2’	36:5:3190:C:O4’	2.16	0.46
36:5:1940:G:N2	36:5:3362:A:H8	2.06	0.46
86:5:3966:OHX:N4	86:5:4236:OHX:N2	2.63	0.46
36:5:3192:U:O4	86:5:4138:OHX:N2	2.49	0.46
49:M3:101:ARG:HB2	36:5:76:G:N7	84.30	0.46
1:6:1066:C:O2’	1:6:1067:C:H5’	2.16	0.46
1:6:1267:G:H2’	1:6:1268:G:H8	1.79	0.46
1:6:1552:U:H2’	1:6:1553:G:O4’	2.15	0.46
1:6:322:G:O4’	1:6:323:A:H8	1.99	0.46
1:6:675:U:H2’	1:6:676:G:C8	2.51	0.46
37:7:119:U:H2’	37:7:120:C:C6	2.51	0.46
37:7:45:A:H2’	37:7:46:A:O4’	2.16	0.46
38:8:91:C:H2’	38:8:92:A:C8	2.51	0.46
15:C3:85:PRO:HG2	15:C3:129:TYR:CD2	2.88	0.46
15:C3:22:ALA:HB1	15:C3:23:PRO:C	2.35	0.46
18:C6:106:LYS:O	18:C6:110:THR:HB	3.05	0.46
18:C6:58:ASP:OD2	18:C6:59:LYS:N	2.47	0.46
22:D0:26:LEU:N	22:D0:89:ARG:O	2.45	0.46
23:D1:42:GLU:O	23:D1:44:ARG:N	2.40	0.46
24:D2:57:ARG:N	24:D2:57:ARG:HD2	2.31	0.46
25:D3:76:LEU:O	25:D3:80:GLY:N	2.79	0.46
29:D7:51:GLN:NE2	1:6:870:C:O2	327.45	0.46
22:D0:82:TYR:HB3	31:D9:52:PHE:HB3	2.26	0.46
39:L2:137:ILE:HG12	39:L2:147:ARG:HB2	4.67	0.46
40:L3:120:LYS:HD3	36:5:3000:A:H5”	199.54	0.46
43:L6:58:LEU:HD22	43:L6:102:ASN:HA	3.06	0.46
45:L8:50:VAL:HG23	45:L8:52:TRP:NE1	4.49	0.46
46:L9:13:PRO:HG2	46:L9:16:VAL:HG13	1.98	0.46
47:M0:75:TYR:HE1	47:M0:150:GLU:HB3	2.81	0.46
47:M0:36:LEU:HD21	47:M0:69:ARG:HD3	2.16	0.46
48:M1:41:SER:OG	48:M1:43:GLN:O	2.34	0.46
49:M3:140:SER:OG	49:M3:141:ALA:N	2.45	0.46
49:M3:28:GLN:HB3	51:M5:201:ARG:CD	2.46	0.46
51:M5:179:LYS:HD3	36:5:287:G:OP1	126.27	0.46
51:M5:37:HIS:NE2	51:M5:63:ARG:HD2	2.31	0.46
52:M6:46:GLU:O	52:M6:49:ARG:HB2	2.56	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:127:ARG:HB3	53:M7:139:TYR:O	2.48	0.46
54:M8:41:ASP:OD1	54:M8:42:ALA:N	2.49	0.46
55:M9:80:LYS:HE2	36:5:1940:G:OP1	206.16	0.46
56:N0:138:GLN:O	56:N0:140:VAL:N	2.49	0.46
58:N2:22:PRO:HB3	58:N2:93:ILE:HG12	4.83	0.46
61:N5:75:LYS:HB3	61:N5:81:ILE:HB	2.90	0.46
62:N6:60:ARG:NH2	36:5:190:U:H2'	83.43	0.46
49:M3:64:LYS:HG3	64:N8:69:TRP:CD1	2.51	0.46
69:O3:47:LYS:HA	69:O3:104:PRO:HD2	2.87	0.46
70:O4:106:LYS:O	70:O4:110:GLU:HG3	2.41	0.46
71:O5:92:LEU:HB3	71:O5:96:GLU:O	2.16	0.46
73:O7:14:LYS:HD2	75:O9:51:ILE:HD11	1.98	0.46
2:S0:185:ARG:N	23:D1:45:ALA:H	2.29	0.46
2:S0:63:ILE:HG12	23:D1:36:VAL:CG2	3.45	0.46
5:S3:127:MET:HE1	5:S3:155:GLY:HA3	1.97	0.46
1:2:1473:U:O2'	7:S5:103:ASN:ND2	2.49	0.46
7:S5:129:PRO:O	7:S5:133:VAL:HG23	2.16	0.46
9:S7:102:PRO:HD3	9:S7:112:ARG:CZ	4.10	0.46
36:1:1017:C:O2'	36:1:1018:G:OP2	2.34	0.46
36:1:1504:A:C5	36:1:1505:C:C5	3.04	0.46
36:1:1795:U:H4'	36:1:1796:G:C4	2.50	0.46
36:1:2261:G:O6	86:1:3934:OHX:N4	2.49	0.46
36:1:3:U:H2'	36:1:4:U:C6	2.51	0.46
36:1:994:G:N2	36:1:1053:A:H2'	2.30	0.46
1:2:1731:A:H5"	1:2:1732:A:OP2	2.16	0.46
1:2:122:U:O4	86:2:2049:OHX:N3	2.49	0.46
1:2:1765:A:OP1	86:2:2092:OHX:N3	2.48	0.46
1:2:286:C:H2'	1:2:287:G:H5'	1.98	0.46
1:2:393:C:H2'	1:2:394:C:C6	2.51	0.46
1:2:819:G:C6	1:2:853:G:C2	3.04	0.46
1:2:924:A:O2'	1:2:987:G:OP1	2.32	0.46
36:5:1486:G:N2	36:5:1857:C:C2	2.84	0.46
36:5:2369:G:H2'	36:5:2370:G:O4'	2.15	0.46
36:5:2516:U:H2'	36:5:2517:U:C6	2.51	0.46
51:M5:14:LYS:NZ	36:5:269:G:H5"	131.97	0.46
36:5:2702:A:H5'	36:5:2704:A:O4'	2.15	0.46
46:L9:168:ARG:HD2	36:5:2894:C:OP1	306.22	0.46
86:5:4005:OHX:N6	86:5:4195:OHX:N2	2.64	0.46
36:5:975:C:H2'	36:5:976:U:H6	1.81	0.46
1:6:1419:G:H2'	1:6:1420:C:O4'	2.16	0.46
1:6:1576:A:H2'	1:6:1577:A:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:56:PHE:HE2	17:C5:78:THR:HB	1.80	0.46
18:C6:127:LYS:HE3	18:C6:131:GLY:O	4.61	0.46
1:2:1559:A:C6	20:C8:134:ARG:HD2	2.51	0.46
21:C9:141:GLU:C	21:C9:143:ASP:H	2.97	0.46
23:D1:35:ASN:HA	23:D1:52:THR:HB	2.74	0.46
23:D1:56:SER:OG	23:D1:59:VAL:HG23	2.26	0.46
26:D4:23:PHE:HZ	26:D4:44:LEU:HD13	1.80	0.46
7:S5:120:ILE:HG23	27:D5:59:TYR:CE1	2.51	0.46
27:D5:71:ILE:HG21	27:D5:76:ALA:HB2	3.64	0.46
33:E1:97:LYS:HD2	33:E1:97:LYS:HA	1.68	0.46
42:L5:270:LYS:CG	42:L5:273:ARG:HD2	2.46	0.46
43:L6:136:GLU:O	43:L6:140:VAL:HG23	2.15	0.46
44:L7:157:ASN:O	44:L7:159:GLN:HG2	2.16	0.46
44:L7:186:HIS:O	44:L7:190:THR:HG23	2.15	0.46
50:M4:134:ALA:O	50:M4:136:ALA:N	2.48	0.46
45:L8:61:GLN:HG3	51:M5:28:TRP:CH2	5.45	0.46
52:M6:111:PRO:O	52:M6:113:ASP:N	2.49	0.46
56:N0:138:GLN:C	56:N0:140:VAL:H	2.19	0.46
36:1:1593:A:O4'	70:O4:60:ARG:NH1	2.49	0.46
71:O5:118:ILE:CG2	71:O5:119:LYS:H	2.24	0.46
49:M3:177:LYS:HA	72:O6:11:LEU:HD13	2.76	0.46
75:O9:37:TYR:CE1	75:O9:39:ALA:HA	2.51	0.46
79:Q3:45:LYS:HB2	79:Q3:45:LYS:NZ	2.30	0.46
3:S1:70:LEU:HD13	3:S1:79:HIS:CG	3.66	0.46
7:S5:26:ALA:N	18:C6:27:GLY:O	2.95	0.46
8:S6:48:TYR:OH	8:S6:119:GLN:O	2.48	0.46
11:S9:124:HIS:CE1	11:S9:128:LEU:HD11	4.09	0.46
11:S9:136:VAL:HG22	11:S9:156:ILE:HG23	4.13	0.46
35:SM:52:PRO:O	35:SM:54:PRO:HD3	3.78	0.46
36:1:1165:A:H2'	36:1:1166:G:O4'	2.15	0.46
36:1:1493:G:O6	75:O9:2:ALA:HA	2.15	0.46
36:1:1941:C:H2'	36:1:1942:U:H6	1.81	0.46
36:1:2300:G:H2'	36:1:2301:U:O4'	2.15	0.46
36:1:2405:C:O2	36:1:2819:A:N1	2.49	0.46
36:1:2667:A:H2'	36:1:2668:U:O4'	2.15	0.46
36:1:2689:A:H2'	36:1:2689:A:N3	2.31	0.46
36:1:2722:U:H4'	57:N1:88:ARG:HB2	1.96	0.46
36:1:3316:A:H2	36:1:3389:U:H5'	1.80	0.46
86:1:3961:OHX:N1	86:1:4140:OHX:N4	2.64	0.46
36:1:401:U:H4'	36:1:403:C:C2	2.50	0.46
1:2:1244:A:O2'	1:2:1245:G:OP1	2.33	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1370:U:H4'	1:2:1371:A:H5"	1.96	0.46
86:2:2044:OHX:N2	86:2:2099:OHX:N5	2.64	0.46
1:2:559:C:N3	1:2:586:G:N1	2.61	0.46
1:2:639:U:H5"	9:S7:101:LYS:HB2	1.98	0.46
1:2:715:U:H3	1:2:723:G:H1	1.63	0.46
1:2:81:G:C6	1:2:82:U:N3	2.84	0.46
36:5:1221:A:H4'	36:5:1222:G:OP2	2.16	0.46
36:5:2134:G:C2	36:5:2135:U:C6	3.04	0.46
36:5:2510:U:O2'	36:5:2511:A:H5"	2.16	0.46
36:5:304:G:H5'	36:5:304:G:N3	2.31	0.46
36:5:2111:G:O6	36:5:3333:G:H5"	2.16	0.46
36:5:731:U:H2'	36:5:732:C:C6	2.49	0.46
36:5:72:C:C2	36:5:74:G:H1'	2.51	0.46
36:5:80:G:H1	36:5:105:C:H42	1.64	0.46
1:6:1078:C:H2'	1:6:1079:U:C6	2.50	0.46
1:6:1451:C:H2'	1:6:1452:U:H6	1.81	0.46
1:6:152:U:C2	1:6:163:G:N2	2.84	0.46
1:6:276:C:H1'	1:6:277:U:C5	2.51	0.46
1:6:808:U:H2'	1:6:809:A:C8	2.51	0.46
86:5:4101:OHX:N5	38:8:140:G:O6	2.49	0.46
12:C0:52:LYS:HE2	12:C0:54:TYR:CE2	2.51	0.46
13:C1:17:PRO:HB2	13:C1:18:HIS:CE1	4.87	0.46
14:C2:46:ARG:HB2	14:C2:46:ARG:HE	1.32	0.46
15:C3:20:ARG:O	15:C3:65:VAL:HG13	2.16	0.46
15:C3:83:GLU:HG3	15:C3:84:ILE:HG23	2.87	0.46
17:C5:126:VAL:O	17:C5:127:ARG:HB2	2.26	0.46
17:C5:85:ILE:HD12	17:C5:111:MET:HB3	2.57	0.46
18:C6:43:ILE:HG12	18:C6:43:ILE:H	1.45	0.46
22:D0:65:ILE:HG21	31:D9:43:PHE:CE1	2.51	0.46
25:D3:52:ILE:HG22	25:D3:99:ASN:HA	3.48	0.46
20:C8:6:GLN:O	27:D5:42:LEU:HD13	2.16	0.46
27:D5:40:VAL:C	27:D5:75:LEU:HD11	2.36	0.46
28:D6:12:LYS:HB2	28:D6:33:ASP:OD2	2.16	0.46
28:D6:44:ILE:HG22	28:D6:45:VAL:HG13	5.04	0.46
1:2:1796:C:C6	28:D6:5:ARG:HG2	2.51	0.46
39:L2:24:GLN:N	39:L2:51:ASP:OD1	2.76	0.46
40:L3:10:ARG:NH1	40:L3:11:HIS:O	2.48	0.46
45:L8:106:LYS:O	45:L8:110:THR:HG23	2.71	0.46
46:L9:130:ASP:N	46:L9:130:ASP:OD1	2.47	0.46
48:M1:15:GLU:HB2	48:M1:132:ASN:ND2	2.50	0.46
48:M1:9:MET:O	48:M1:9:MET:HG3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:159:PRO:HG3	51:M5:43:THR:O	4.36	0.46
54:M8:3:ILE:HB	54:M8:5:HIS:CD2	4.35	0.46
57:N1:7:TYR:OH	57:N1:54:HIS:HB2	2.16	0.46
63:N7:127:ASN:O	63:N7:129:TRP:N	2.49	0.46
64:N8:132:LYS:O	64:N8:136:GLU:HG3	2.16	0.46
69:O3:51:TYR:CE2	69:O3:53:TYR:HB3	2.73	0.46
70:O4:22:VAL:HG12	70:O4:30:LEU:HD22	1.97	0.46
72:O6:21:THR:OG1	72:O6:21:THR:O	2.24	0.46
74:O8:77:ARG:O	74:O8:78:LEU:HB2	2.15	0.46
2:S0:185:ARG:H	23:D1:45:ALA:H	1.74	0.46
2:S0:189:VAL:HG22	2:S0:190:ASP:H	1.80	0.46
5:S3:212:LYS:HB2	5:S3:212:LYS:NZ	3.66	0.46
5:S3:57:ASP:N	5:S3:57:ASP:OD1	2.47	0.46
5:S3:58:VAL:O	5:S3:66:ILE:HG12	2.16	0.46
6:S4:241:GLY:O	6:S4:243:GLY:N	2.84	0.46
6:S4:52:LEU:HB3	6:S4:54:TYR:CD2	2.51	0.46
6:S4:47:PHE:CE2	6:S4:90:ILE:HG21	3.15	0.46
7:S5:62:VAL:HG13	7:S5:89:ILE:HG21	1.98	0.46
8:S6:200:ALA:O	8:S6:203:GLU:N	2.48	0.46
36:1:2534:G:C2	36:1:2535:A:N7	2.83	0.46
36:1:317:A:C2	36:1:318:A:C4	3.04	0.46
36:1:3252:G:H2'	36:1:3253:G:C8	2.51	0.46
36:1:409:A:H2	36:1:1441:G:N3	2.14	0.46
36:1:40:A:C2	64:N8:40:HIS:CE1	3.04	0.46
36:1:792:G:H2'	36:1:793:C:C6	2.50	0.46
36:1:847:A:H2'	36:1:848:A:C8	2.51	0.46
1:2:1039:A:N6	1:2:1091:A:C2	2.84	0.46
1:2:1092:A:C8	1:2:1094:G:C8	3.04	0.46
1:2:1677:C:H2'	1:2:1678:A:O4'	2.15	0.46
1:2:609:U:N3	25:D3:22:ASN:O	2.49	0.46
1:2:61:A:C8	1:2:269:G:O2'	2.66	0.46
36:5:1901:A:H5"	36:5:1902:G:OP2	2.15	0.46
72:O6:30:LYS:HA	36:5:266:A:N6	99.99	0.46
36:5:281:G:N2	36:5:282:G:N3	2.64	0.46
36:5:2833:A:C2	36:5:2834:G:C8	3.04	0.46
36:5:2903:A:H2'	36:5:2904:U:O4'	2.16	0.46
36:5:2931:C:H2'	36:5:2932:U:O4'	2.16	0.46
51:M5:172:ARG:HD2	36:5:30:G:O5'	110.39	0.46
86:5:4005:OHX:N3	86:5:4195:OHX:N5	2.64	0.46
1:6:219:A:N6	1:6:843:U:C2	2.84	0.46
1:6:93:A:C6	1:6:398:G:C6	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:881:A:C2	1:6:948:G:C2	3.03	0.46
15:C3:119:GLU:O	15:C3:122:ILE:HB	2.15	0.46
16:C4:30:VAL:O	16:C4:39:ILE:HG12	3.26	0.46
17:C5:18:ARG:NH2	17:C5:38:PRO:HD3	2.49	0.46
17:C5:86:VAL:HB	17:C5:87:PRO:HD2	3.03	0.46
21:C9:69:LYS:HB3	21:C9:70:GLN:NE2	2.31	0.46
22:D0:18:GLN:O	22:D0:19:ILE:HG13	4.59	0.46
22:D0:57:ARG:HG3	22:D0:89:ARG:CZ	2.46	0.46
11:S9:140:ILE:HG13	26:D4:65:GLY:HA3	1.97	0.46
29:D7:2:VAL:O	29:D7:3:LEU:HB2	2.72	0.46
31:D9:40:ARG:O	31:D9:43:PHE:HB3	2.61	0.46
33:E1:90:LYS:HB3	33:E1:90:LYS:HE3	1.68	0.46
39:L2:30:ARG:HE	39:L2:36:GLU:HG3	1.80	0.46
36:1:2880:U:H1'	40:L3:250:ALA:HB3	1.98	0.46
40:L3:56:ILE:HD12	40:L3:56:ILE:HA	1.74	0.46
42:L5:114:GLY:O	42:L5:116:ASP:N	2.44	0.46
44:L7:160:ARG:HB2	44:L7:203:TRP:CE3	2.51	0.46
46:L9:171:ASP:HA	36:5:2899:C:C5	322.51	0.46
46:L9:44:THR:HG22	36:5:3186:A:C2	326.20	0.46
47:M0:57:LEU:N	47:M0:131:ILE:HG13	2.31	0.46
37:3:39:C:O2'	48:M1:44:THR:O	2.23	0.46
49:M3:50:PRO:O	49:M3:51:LEU:HB2	4.66	0.46
53:M7:88:VAL:HG12	53:M7:92:GLN:HG3	4.29	0.46
56:N0:1:MET:HE2	56:N0:1:MET:HB3	1.76	0.46
56:N0:26:ARG:NH2	56:N0:28:ARG:HD2	2.31	0.46
59:N3:104:ASN:HD21	59:N3:106:LYS:HB2	1.81	0.46
61:N5:57:LEU:H	61:N5:61:LYS:HD3	5.76	0.46
62:N6:112:ASP:HB2	62:N6:115:ARG:HB2	2.63	0.46
62:N6:50:ILE:HD12	62:N6:70:ILE:HG12	3.89	0.46
63:N7:4:PHE:CE2	66:O0:63:SER:HB3	3.27	0.46
68:O2:4:LEU:HD12	68:O2:5:PRO:HD3	2.93	0.46
71:O5:114:ARG:HE	71:O5:114:ARG:HB3	1.37	0.46
71:O5:15:GLU:OE2	71:O5:15:GLU:N	4.52	0.46
72:O6:42:SER:OG	72:O6:43:LEU:N	3.55	0.46
74:O8:46:ARG:HH21	74:O8:51:LEU:HB2	1.80	0.46
78:Q2:58:PHE:CD1	78:Q2:59:HIS:N	2.84	0.46
1:2:1067:C:H5"	3:S1:150:VAL:H	1.81	0.46
7:S5:44:ASN:O	7:S5:45:LYS:HE3	2.31	0.46
9:S7:184:GLU:HB3	9:S7:185:ILE:H	1.58	0.46
9:S7:51:VAL:HG22	9:S7:55:LYS:O	3.05	0.46
34:SR:205:SER:O	34:SR:207:ASP:N	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1203:A:N3	36:1:2855:U:O2'	2.39	0.45
36:1:1270:A:N6	36:1:1271:A:N3	2.64	0.45
36:1:1470:U:H2'	36:1:1471:U:H6	1.81	0.45
36:1:1513:G:O2'	36:1:1514:G:H5'	2.16	0.45
36:1:1729:A:H4'	36:1:1730:G:OP2	2.17	0.45
36:1:1806:A:H2'	36:1:1807:G:O4'	2.16	0.45
36:1:2259:A:OP2	86:1:3934:OHX:N2	2.48	0.45
36:1:2261:G:H21	36:1:2262:A:H61	1.64	0.45
36:1:645:A:N6	36:1:2869:U:OP1	2.42	0.45
36:1:2922:G:H1'	36:1:2951:G:N3	2.31	0.45
36:1:623:U:OP2	86:1:4132:OHX:N1	2.48	0.45
1:2:1365:C:H5"	18:C6:28:LEU:HD22	1.97	0.45
1:2:1453:G:H21	17:C5:99:GLY:HA2	1.81	0.45
1:2:1606:C:H2'	1:2:1607:G:C8	2.51	0.45
1:2:1629:G:H2'	1:2:1630:U:C6	2.51	0.45
1:2:151:G:C2	1:2:164:A:C6	3.03	0.45
1:2:891:A:O2'	1:2:892:A:H5'	2.17	0.45
1:2:959:U:OP1	29:D7:30:SER:OG	2.29	0.45
38:4:124:G:H1	38:4:129:C:H42	1.64	0.45
36:5:1192:C:H5	86:5:4085:OHX:N4	2.14	0.45
36:5:142:C:H2'	36:5:143:G:O4'	2.16	0.45
36:5:1566:A:H2'	36:5:1567:U:H5'	1.97	0.45
36:5:1647:A:C2	36:5:1809:A:H1'	2.51	0.45
36:5:2213:A:N1	36:5:2429:G:H1'	2.31	0.45
36:5:286:U:H2'	36:5:287:G:H8	1.80	0.45
36:5:2947:G:N2	36:5:2948:C:C2	2.84	0.45
36:5:1899:G:N7	86:5:3939:OHX:N6	2.63	0.45
1:6:1068:C:H2'	1:6:1069:A:C8	2.51	0.45
1:6:1236:A:H2'	1:6:1237:G:C8	2.52	0.45
4:S2:164:SER:HB3	1:6:14:C:OP1	373.72	0.45
1:6:1613:U:C4	1:6:1614:A:C2	3.04	0.45
12:C0:44:LYS:HA	12:C0:44:LYS:HD3	1.80	0.45
16:C4:32:ASP:O	16:C4:35:GLY:N	2.46	0.45
18:C6:52:LEU:HD23	18:C6:60:PHE:CE1	4.16	0.45
20:C8:42:TYR:HA	20:C8:85:PHE:HE1	1.96	0.45
22:D0:22:ILE:N	22:D0:93:LEU:O	2.47	0.45
26:D4:8:ARG:HB2	26:D4:26:ASP:HB3	1.97	0.45
28:D6:36:ILE:HD12	28:D6:78:ALA:CB	2.45	0.45
30:D8:48:VAL:HG12	30:D8:49:ARG:O	3.55	0.45
31:D9:29:GLY:HA3	1:6:1199:G:H5"	395.89	0.45
39:L2:242:ARG:NH1	39:L2:246:LEU:HD12	4.83	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:284:ARG:HG3	40:L3:285:VAL:N	3.06	0.45
41:L4:138:ARG:HH21	41:L4:240:PRO:HB2	1.82	0.45
41:L4:38:VAL:HG11	41:L4:118:LYS:HA	2.52	0.45
42:L5:153:THR:HG23	42:L5:160:PHE:CZ	2.51	0.45
49:M3:108:ILE:O	49:M3:112:ASN:N	3.10	0.45
49:M3:67:ARG:H	49:M3:67:ARG:HG3	1.49	0.45
53:M7:4:TYR:OH	53:M7:18:ARG:HG3	2.16	0.45
54:M8:57:ILE:HD11	54:M8:147:ARG:CZ	2.46	0.45
56:N0:155:ARG:HG2	56:N0:171:PHE:O	2.15	0.45
63:N7:7:ALA:HA	63:N7:25:ILE:HG22	1.98	0.45
63:N7:97:SER:HB3	63:N7:99:GLU:HG2	1.98	0.45
74:O8:17:ARG:O	74:O8:19:ASP:N	2.47	0.45
78:Q2:4:VAL:HA	78:Q2:5:PRO:HD2	1.87	0.45
2:S0:88:LYS:HB3	2:S0:202:TYR:CZ	2.96	0.45
3:S1:24:PHE:HA	3:S1:27:LYS:HG3	3.22	0.45
6:S4:212:ASP:C	6:S4:214:LEU:H	2.53	0.45
7:S5:112:ARG:HD3	1:6:1529:C:OP1	373.12	0.45
11:S9:142:ASN:O	11:S9:144:PRO:HD3	2.55	0.45
36:1:2112:U:O5’	36:1:2112:U:H6	1.99	0.45
36:1:2763:U:OP1	54:M8:183:GLY:N	2.49	0.45
36:1:2853:A:H8	36:1:2853:A:H5”	1.81	0.45
36:1:3278:C:H2’	36:1:3278:C:O2	2.16	0.45
36:1:352:A:N6	36:1:365:A:H5”	2.31	0.45
36:1:542:G:H2’	36:1:543:C:C6	2.52	0.45
1:2:531:C:OP2	86:2:2070:OHX:N4	2.48	0.45
1:2:252:U:H5’	6:S4:131:LEU:O	2.15	0.45
1:2:364:G:O2’	1:2:756:A:N6	2.48	0.45
1:2:980:G:H4’	1:2:1776:A:H4’	1.98	0.45
37:3:97:A:H2’	37:3:98:C:C6	2.51	0.45
86:4:225:OHX:N6	73:O7:60:GLY:O	2.50	0.45
38:4:22:U:OP1	62:N6:12:ARG:NH2	2.49	0.45
76:Q0:113:ARG:NH1	36:5:1298:C:O3’	290.48	0.45
36:5:2205:U:HO2’	36:5:2205:U:H6	1.63	0.45
36:5:249:U:H2’	36:5:249:U:OP2	2.17	0.45
36:5:2444:C:N4	36:5:2503:G:H1	2.10	0.45
36:5:2876:C:H2’	36:5:2877:G:O4’	2.16	0.45
46:L9:70:THR:HB	36:5:3112:G:O2’	328.98	0.45
36:5:68:C:N4	36:5:315:C:O5’	2.50	0.45
36:5:3294:A:H2’	36:5:3295:A:O4’	2.17	0.45
36:5:3318:G:OP2	86:5:4134:OHX:N5	2.50	0.45
36:5:973:A:H2’	36:5:974:G:O4’	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:752:A:C2'	1:6:753:A:H5'	2.46	0.45
38:8:65:A:C2	38:8:96:A:C5	3.04	0.45
12:C0:30:ALA:O	12:C0:31:LYS:HB2	3.07	0.45
12:C0:2:LEU:HB3	12:C0:3:MET:H	4.32	0.45
14:C2:62:LEU:HD22	14:C2:75:VAL:HG11	1.98	0.45
18:C6:82:ARG:NH2	18:C6:114:ARG:HB2	3.13	0.45
19:C7:37:GLU:HG3	34:SR:150:TRP:HE1	1.80	0.45
19:C7:71:PHE:CE1	19:C7:74:GLN:HB2	5.28	0.45
23:D1:69:LEU:O	23:D1:73:ALA:N	2.90	0.45
25:D3:132:LEU:HD23	25:D3:132:LEU:HA	4.43	0.45
26:D4:121:THR:HG22	26:D4:123:LYS:HB2	4.52	0.45
6:S4:95:THR:HG22	26:D4:16:PRO:HG2	1.98	0.45
26:D4:74:LEU:HD13	26:D4:76:TYR:OH	2.62	0.45
1:2:542:A:N6	32:E0:28:LYS:HZ3	2.14	0.45
32:E0:37:ARG:NH1	1:6:478:A:OP1	439.78	0.45
32:E0:38:LEU:O	32:E0:42:ARG:HB2	2.17	0.45
32:E0:39:LEU:O	32:E0:43:ARG:HB2	2.52	0.45
1:2:1253:U:H4'	33:E1:143:LYS:CA	2.46	0.45
40:L3:25:ILE:H	40:L3:25:ILE:CD1	2.22	0.45
42:L5:21:ARG:O	42:L5:24:ARG:N	2.58	0.45
42:L5:270:LYS:HB3	37:7:1:G:O2'	321.70	0.45
44:L7:110:ARG:HG2	44:L7:111:ILE:N	2.31	0.45
44:L7:110:ARG:HG2	44:L7:113:SER:HB3	4.18	0.45
44:L7:68:ASP:O	44:L7:71:ALA:HB3	2.15	0.45
45:L8:150:LEU:HA	45:L8:176:PRO:O	2.47	0.45
46:L9:84:LYS:HZ3	46:L9:191:LEU:HD22	1.80	0.45
47:M0:71:CYS:SG	47:M0:72:ALA:N	4.00	0.45
49:M3:42:ARG:NH1	49:M3:51:LEU:O	2.49	0.45
50:M4:135:LEU:CD1	52:M6:178:VAL:HG22	2.45	0.45
52:M6:73:PHE:HE1	36:5:3006:A:HO2'	242.07	0.45
57:N1:105:PHE:O	57:N1:109:VAL:HG23	2.26	0.45
59:N3:6:ALA:HB2	59:N3:126:TRP:CZ2	2.51	0.45
69:O3:58:GLU:HA	69:O3:63:LYS:HG2	1.98	0.45
71:O5:85:THR:HG23	38:8:36:G:OP2	73.27	0.45
73:O7:28:HIS:CD2	73:O7:31:LYS:HG3	3.51	0.45
74:O8:32:ASN:ND2	74:O8:36:LYS:H	2.11	0.45
78:Q2:68:VAL:O	78:Q2:85:LEU:HB2	2.78	0.45
3:S1:232:HIS:HB3	3:S1:233:GLY:H	2.52	0.45
3:S1:27:LYS:NZ	3:S1:48:VAL:O	2.40	0.45
5:S3:65:ARG:O	5:S3:69:LEU:HG	2.15	0.45
6:S4:62:LYS:HB2	6:S4:62:LYS:HE2	2.75	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:43:PHE:N	7:S5:46:TRP:H	2.71	0.45
8:S6:147:LEU:O	8:S6:148:SER:OG	2.25	0.45
8:S6:21:GLU:O	8:S6:25:ARG:HB2	2.46	0.45
1:2:380:U:H5	11:S9:5:PRO:HA	1.80	0.45
35:SM:37:VAL:HA	35:SM:38:PRO:HD2	1.67	0.45
36:1:1631:C:OP2	63:N7:48:ARG:NH2	2.49	0.45
36:1:2111:G:C8	60:N4:49:ILE:HD13	2.52	0.45
36:1:1054:A:H5"	36:1:2637:A:H61	1.81	0.45
36:1:2723:U:H2'	36:1:2724:U:C6	2.51	0.45
36:1:2970:C:O2'	36:1:2971:A:H2	1.98	0.45
36:1:2995:A:H2'	36:1:2996:U:H5"	1.98	0.45
36:1:3109:G:C2	36:1:3110:C:C6	3.04	0.45
86:1:3972:OHX:N6	86:1:4156:OHX:N2	2.65	0.45
36:1:941:G:O2'	36:1:942:U:H5'	2.16	0.45
1:2:1541:G:C5	1:2:1542:G:C6	3.04	0.45
1:2:1762:A:C1'	1:2:1783:C:H5'	2.47	0.45
1:2:1794:A:H1'	28:D6:79:ILE:HD12	1.99	0.45
1:2:694:U:O2	1:2:694:U:H2'	2.16	0.45
1:2:851:U:H2'	1:2:852:C:C5	2.51	0.45
37:3:45:A:H5'	42:L5:154:THR:HG21	1.98	0.45
38:4:65:A:O3'	71:O5:10:ARG:NH2	2.50	0.45
36:5:113:C:H3'	36:5:154:U:O4	2.16	0.45
36:5:1614:C:H2'	36:5:1615:C:C6	2.51	0.45
36:5:207:U:O5'	36:5:207:U:H6	1.99	0.45
36:5:1556:C:O5'	36:5:2169:G:N2	2.50	0.45
36:5:3358:U:H2'	36:5:3359:A:H8	1.81	0.45
1:6:1357:A:H2'	1:6:1358:G:H8	1.81	0.45
1:6:1436:A:OP2	1:6:1436:A:H4'	2.15	0.45
1:6:483:A:H2'	1:6:484:C:O4'	2.16	0.45
1:6:483:A:H61	1:6:504:U:H3	1.64	0.45
13:C1:75:VAL:HG23	13:C1:121:ASP:O	3.31	0.45
15:C3:100:LYS:O	15:C3:103:GLU:N	3.33	0.45
17:C5:16:SER:HB3	17:C5:21:ASP:OD1	2.16	0.45
19:C7:5:ARG:HB3	19:C7:9:VAL:CG1	3.45	0.45
17:C5:18:ARG:NH1	20:C8:90:ASN:HD21	4.24	0.45
21:C9:132:LEU:O	21:C9:136:ALA:N	2.81	0.45
1:2:1542:G:H5"	21:C9:88:VAL:N	2.30	0.45
22:D0:28:SER:OG	22:D0:29:THR:N	2.46	0.45
24:D2:22:LYS:NZ	29:D7:3:LEU:H	2.14	0.45
27:D5:47:TYR:CE2	27:D5:51:LEU:HD11	3.15	0.45
29:D7:62:ILE:HA	29:D7:62:ILE:HD12	1.87	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2943:G:C8	40:L3:2:SER:HB2	2.51	0.45
42:L5:219:PHE:C	42:L5:221:GLU:H	3.02	0.45
42:L5:267:ALA:O	42:L5:271:LYS:HG2	3.56	0.45
42:L5:46:THR:HA	42:L5:47:PRO:HD3	2.53	0.45
43:L6:58:LEU:O	43:L6:61:ASN:N	2.48	0.45
46:L9:87:LYS:NZ	46:L9:191:LEU:HD11	15.10	0.45
46:L9:75:VAL:HA	46:L9:78:MET:HE2	2.13	0.45
47:M0:30:LYS:H	47:M0:62:SER:HB2	2.58	0.45
51:M5:143:ARG:HH21	71:O5:92:LEU:HD23	1.80	0.45
51:M5:98:LEU:O	51:M5:102:ALA:N	3.02	0.45
52:M6:8:VAL:O	52:M6:117:ARG:HA	2.59	0.45
52:M6:120:VAL:O	52:M6:122:GLN:N	2.49	0.45
50:M4:37:GLU:OE1	56:N0:72:VAL:HB	3.02	0.45
57:N1:103:GLN:HG3	57:N1:104:GLU:N	2.31	0.45
57:N1:78:LYS:HE3	57:N1:87:LYS:HD2	1.98	0.45
61:N5:108:LEU:HA	61:N5:108:LEU:HD22	2.60	0.45
61:N5:91:ASN:O	61:N5:95:ILE:HG13	2.17	0.45
63:N7:102:GLU:H	63:N7:107:ARG:NH2	4.39	0.45
76:Q0:113:ARG:HG3	76:Q0:113:ARG:O	2.28	0.45
76:Q0:127:LEU:HA	76:Q0:127:LEU:HD23	2.19	0.45
39:L2:180:LEU:HD13	79:Q3:18:TYR:CD1	2.51	0.45
2:S0:101:ARG:HG3	2:S0:102:PHE:N	2.45	0.45
2:S0:184:LEU:O	2:S0:185:ARG:C	2.55	0.45
2:S0:77:SER:HB2	2:S0:86:VAL:HG11	3.01	0.45
3:S1:160:HIS:O	3:S1:164:ILE:HG13	2.23	0.45
3:S1:71:ALA:HB3	16:C4:114:ARG:NH1	2.46	0.45
4:S2:140:ARG:HB3	4:S2:221:THR:HB	2.21	0.45
4:S2:170:ILE:O	4:S2:197:TYR:N	2.42	0.45
5:S3:48:VAL:HG23	5:S3:84:ILE:HD11	2.06	0.45
7:S5:219:ARG:HB3	7:S5:219:ARG:NH2	5.06	0.45
11:S9:92:LYS:HB2	11:S9:95:TYR:HD2	8.36	0.45
34:SR:222:LEU:HD23	34:SR:234:LEU:HD13	1.99	0.45
36:1:109:A:H4'	36:1:110:G:OP1	2.15	0.45
36:1:1288:U:H2'	36:1:1289:G:C8	2.49	0.45
36:1:1393:A:N3	36:1:1419:A:O2'	2.42	0.45
36:1:2572:C:OP2	36:1:2572:C:H3'	2.17	0.45
36:1:2681:U:H2'	36:1:2682:C:H6	1.82	0.45
36:1:2800:G:H5"	36:1:2801:A:OP1	2.16	0.45
36:1:3336:A:O5'	36:1:3336:A:H8	2.00	0.45
88:1:4213:3J6:C12	88:1:4213:3J6:H4	2.45	0.45
1:2:1571:C:OP2	86:2:2154:OHX:N1	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:542:A:O2'	1:2:543:C:P	2.75	0.45
36:5:1946:A:H61	36:5:2102:U:H3	1.65	0.45
36:5:2257:C:H2'	36:5:2258:U:C6	2.50	0.45
36:5:2561:A:O2'	36:5:2562:A:H5"	2.16	0.45
36:5:2580:A:O2'	86:5:4124:OHX:N1	2.50	0.45
36:5:701:G:H2'	36:5:702:C:H6	1.81	0.45
36:5:920:A:OP1	36:5:922:U:C5	2.70	0.45
1:6:1074:G:O6	86:6:2138:OHX:N3	2.49	0.45
1:6:107:C:H1'	1:6:362:G:O2'	2.16	0.45
1:6:15:U:C4	1:6:16:G:C5	3.05	0.45
1:6:74:U:H3'	1:6:75:U:H3'	1.98	0.45
38:8:145:U:H2'	38:8:146:U:O4'	2.15	0.45
13:C1:90:TYR:CE1	13:C1:103:ARG:HB2	2.52	0.45
13:C1:99:ARG:HG2	25:D3:9:LEU:HA	2.29	0.45
14:C2:43:ARG:N	14:C2:47:GLU:OE2	3.51	0.45
15:C3:8:GLY:O	15:C3:9:LYS:NZ	3.90	0.45
16:C4:131:GLY:O	16:C4:133:ARG:N	2.98	0.45
17:C5:124:THR:OG1	17:C5:124:THR:O	3.33	0.45
17:C5:89:MET:O	17:C5:92:SER:HB2	2.15	0.45
21:C9:26:GLY:O	21:C9:28:LEU:HG	2.17	0.45
5:S3:7:LYS:HG2	22:D0:88:LYS:HE3	1.98	0.45
23:D1:28:ASP:O	23:D1:31:SER:OG	2.34	0.45
24:D2:3:ARG:HH21	24:D2:28:ARG:HH21	4.92	0.45
25:D3:53:VAL:HG21	25:D3:96:VAL:CG2	5.46	0.45
32:E0:42:ARG:HB3	32:E0:42:ARG:HH11	1.81	0.45
39:L2:139:HIS:CG	39:L2:146:THR:HG23	3.30	0.45
39:L2:169:ILE:HG22	39:L2:170:ALA:O	2.26	0.45
42:L5:140:ARG:NH2	36:5:1080:A:OP2	228.68	0.45
37:3:1:G:N2	42:L5:269:SER:OG	2.41	0.45
36:1:591:G:C1'	43:L6:19:LYS:HG3	2.46	0.45
47:M0:116:ARG:HG3	47:M0:116:ARG:O	2.16	0.45
48:M1:133:ARG:HD2	48:M1:152:HIS:CD2	3.35	0.45
48:M1:26:SER:HB3	48:M1:64:LYS:O	2.17	0.45
49:M3:14:PHE:CE1	36:5:665:A:H1'	133.26	0.45
50:M4:92:GLU:OE2	50:M4:92:GLU:N	2.29	0.45
53:M7:127:ARG:O	53:M7:139:TYR:N	3.17	0.45
53:M7:36:ILE:HD13	53:M7:48:LEU:HD11	3.20	0.45
53:M7:65:SER:O	53:M7:66:SER:HB2	2.31	0.45
55:M9:4:LEU:O	55:M9:7:GLN:HG2	5.26	0.45
56:N0:25:PHE:HA	57:N1:149:GLN:O	2.17	0.45
59:N3:34:LEU:HA	59:N3:34:LEU:HD23	2.02	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:60:ARG:HA	62:N6:60:ARG:HD3	1.76	0.45
36:1:1375:G:O6	64:N8:10:LYS:HE3	2.17	0.45
67:O1:36:ILE:O	67:O1:39:PHE:N	2.49	0.45
72:O6:62:ARG:HH11	72:O6:94:ILE:HD11	4.16	0.45
76:Q0:92:ASP:C	76:Q0:93:LYS:HG2	3.00	0.45
78:Q2:28:TYR:CE1	78:Q2:30:ALA:HA	4.72	0.45
3:S1:55:LYS:HD3	3:S1:55:LYS:HA	2.06	0.45
3:S1:48:VAL:CG1	3:S1:61:LEU:HD21	2.47	0.45
3:S1:61:LEU:CD2	3:S1:62:LYS:H	2.30	0.45
6:S4:251:GLU:O	6:S4:255:ARG:HG3	2.16	0.45
8:S6:214:LYS:HA	8:S6:217:SER:HB2	2.21	0.45
11:S9:59:LEU:HD13	11:S9:69:ARG:HA	1.99	0.45
35:SM:134:ASP:OD1	35:SM:134:ASP:C	2.54	0.45
34:SR:249:ARG:HD3	34:SR:251:TRP:CD2	2.51	0.45
36:1:1307:G:C2	36:1:1308:A:C2	3.04	0.45
36:1:1334:U:C1’	44:L7:208:SER:HB2	2.46	0.45
36:1:941:G:O4’	36:1:1435:A:H1’	2.16	0.45
36:1:1556:C:H5”	36:1:2169:G:N2	2.30	0.45
36:1:1764:U:H3’	36:1:1765:U:C4’	2.46	0.45
36:1:1936:A:H2’	36:1:1937:U:O4’	2.16	0.45
36:1:2278:C:C2’	36:1:2279:A:H5”	2.46	0.45
36:1:2367:A:H2’	36:1:2368:A:O4’	2.17	0.45
36:1:2840:C:N4	36:1:2845:A:O2’	2.44	0.45
36:1:3110:C:O3’	46:L9:155:SER:HB2	2.16	0.45
1:2:1458:G:O5’	1:2:1459:C:H5	2.00	0.45
1:2:1490:C:H4’	1:2:1491:U:OP1	2.17	0.45
1:2:1507:G:H2’	1:2:1508:U:O4’	2.16	0.45
1:2:187:G:H1’	1:2:199:G:H22	1.82	0.45
1:2:332:U:OP1	10:S8:56:ARG:NH1	2.46	0.45
1:2:381:C:O2’	1:2:755:A:N1	2.37	0.45
38:4:40:A:OP2	38:4:103:G:N1	2.28	0.45
36:5:1107:C:H2’	36:5:1108:U:C6	2.51	0.45
36:5:2158:A:H5’	36:5:2160:G:O4’	2.16	0.45
36:5:2766:U:H2’	36:5:2767:U:C6	2.51	0.45
36:5:314:U:H2’	36:5:315:C:H6	1.80	0.45
36:5:1887:A:OP1	86:5:4108:OHX:N6	2.49	0.45
36:5:873:C:H2’	36:5:875:G:O4’	2.16	0.45
36:5:996:A:C2	36:5:1054:A:C4	3.05	0.45
1:6:1287:A:H4’	1:6:1288:G:OP1	2.16	0.45
1:6:1467:C:H2’	1:6:1468:U:H6	1.81	0.45
1:6:1541:G:C5	1:6:1542:G:C6	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1700:C:O2	1:6:1700:C:H2'	2.16	0.45
1:6:48:G:C6	1:6:432:G:C2	3.05	0.45
1:6:690:G:C6	1:6:691:C:C4	3.05	0.45
1:6:37:U:O2'	1:6:770:A:N1	2.40	0.45
12:C0:23:ALA:O	12:C0:24:LYS:HB3	4.46	0.45
13:C1:94:ILE:HG21	13:C1:97:TYR:HD2	2.38	0.45
14:C2:68:GLU:C	14:C2:70:ASN:H	2.19	0.45
19:C7:12:ALA:O	19:C7:15:ALA:HB3	2.91	0.45
20:C8:30:TYR:OH	20:C8:40:ARG:NH1	3.37	0.45
20:C8:35:ILE:O	20:C8:38:VAL:HG22	2.17	0.45
24:D2:15:ASN:OD1	24:D2:71:LYS:HA	2.66	0.45
28:D6:85:ARG:HA	28:D6:85:ARG:HD3	1.49	0.45
32:E0:46:ASN:O	32:E0:47:VAL:HG12	2.16	0.45
33:E1:130:VAL:HG13	33:E1:143:LYS:HB3	4.22	0.45
41:L4:271:LYS:HB2	41:L4:274:TYR:CB	3.15	0.45
41:L4:325:LEU:HD23	41:L4:325:LEU:HA	1.63	0.45
41:L4:330:TYR:O	41:L4:333:VAL:HG13	2.36	0.45
41:L4:74:ILE:HG22	41:L4:75:PRO:HD2	1.98	0.45
42:L5:55:PHE:CE1	42:L5:158:ARG:HG2	4.37	0.45
42:L5:171:LEU:HD23	42:L5:171:LEU:HA	2.20	0.45
43:L6:56:LYS:HG2	43:L6:58:LEU:HD23	1.98	0.45
44:L7:136:TYR:CZ	44:L7:231:ASN:HB2	2.52	0.45
44:L7:63:ILE:O	44:L7:67:ARG:HG3	2.37	0.45
46:L9:45:PHE:CD1	46:L9:55:VAL:HG13	3.63	0.45
47:M0:144:ASN:O	47:M0:145:LYS:C	2.54	0.45
47:M0:175:ASN:CG	47:M0:176:LEU:N	4.61	0.45
47:M0:210:ILE:HG23	47:M0:217:PHE:CE2	2.52	0.45
47:M0:210:ILE:HG23	47:M0:217:PHE:CD2	2.51	0.45
48:M1:166:LYS:HE2	48:M1:166:LYS:HB2	1.71	0.45
49:M3:42:ARG:NH2	49:M3:51:LEU:HD22	5.79	0.45
50:M4:17:VAL:HG22	50:M4:36:VAL:O	2.16	0.45
51:M5:70:ASN:HB3	51:M5:92:LEU:O	2.17	0.45
52:M6:73:PHE:CD1	52:M6:78:ARG:HG2	2.64	0.45
55:M9:29:THR:O	55:M9:33:ALA:N	3.45	0.45
56:N0:31:ALA:HB1	56:N0:36:ILE:HG22	1.97	0.45
57:N1:127:GLN:HA	36:5:1095:U:O2	258.08	0.45
60:N4:39:LEU:HA	60:N4:39:LEU:HD12	1.69	0.45
62:N6:56:VAL:HG22	62:N6:105:VAL:O	2.16	0.45
36:1:1411:C:P	68:O2:98:HIS:HB3	2.57	0.45
36:1:316:U:O2'	72:O6:30:LYS:HD2	2.17	0.45
74:O8:31:LEU:HD12	74:O8:35:GLY:HA2	4.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:180:THR:HG22	3:S1:181:LEU:HD13	1.99	0.45
3:S1:70:LEU:HD21	3:S1:79:HIS:CG	2.51	0.45
5:S3:72:LEU:HD22	12:C0:65:TYR:HD1	2.27	0.45
7:S5:101:GLY:HA3	1:6:1167:G:OP1	356.27	0.45
7:S5:109:LYS:O	7:S5:113:ILE:HG13	2.24	0.45
7:S5:115:LYS:HA	7:S5:118:LEU:HD12	3.08	0.45
8:S6:31:ARG:O	8:S6:34:GLN:HB2	3.11	0.45
9:S7:73:VAL:O	9:S7:75:THR:N	2.57	0.45
10:S8:110:ARG:NH2	36:5:3354:U:O4	239.68	0.45
10:S8:34:ALA:HB2	10:S8:56:ARG:HG3	1.99	0.45
36:1:1306:G:C6	52:M6:62:THR:HA	2.52	0.45
36:1:1317:A:O2'	36:1:1318:A:H3'	2.17	0.45
36:1:163:C:H42	36:1:258:G:H1	1.65	0.45
36:1:2948:C:H2'	36:1:2949:U:H6	1.81	0.45
36:1:1464:G:OP2	86:1:4197:OHX:N5	2.50	0.45
36:1:530:G:H2'	36:1:531:G:O4'	2.16	0.45
1:2:1437:U:H5'	5:S3:176:LEU:HD23	1.98	0.45
1:2:388:G:O2'	1:2:389:G:H5'	2.17	0.45
1:2:540:G:H2'	1:2:540:G:OP2	2.17	0.45
1:2:569:C:OP1	25:D3:89:ASN:N	2.43	0.45
1:2:592:A:O2'	1:2:596:C:OP1	2.34	0.45
1:2:699:U:H2'	1:2:700:C:C6	2.51	0.45
58:N2:42:LYS:HB2	36:5:1687:U:C5	174.42	0.45
36:5:2308:C:O2	86:5:4233:OHX:N1	2.49	0.45
36:5:2514:U:OP1	36:5:2514:U:C6	2.65	0.45
56:N0:161:LYS:NZ	36:5:3209:A:OP2	277.26	0.45
86:5:3971:OHX:N6	86:5:4193:OHX:N3	2.64	0.45
36:5:419:G:O3'	36:5:420:G:C5'	2.65	0.45
36:5:750:G:H2'	36:5:751:A:H8	1.81	0.45
1:6:1271:G:H2'	1:6:1272:U:O4'	2.17	0.45
27:D5:77:ARG:NH2	1:6:1534:G:N7	349.29	0.45
1:6:1637:C:H5"	1:6:1637:C:C6	2.48	0.45
1:6:515:A:H2'	1:6:516:G:O4'	2.17	0.45
1:6:830:U:H2'	1:6:831:U:H5'	1.99	0.45
14:C2:63:VAL:HA	14:C2:91:VAL:O	2.17	0.45
17:C5:16:SER:HB2	17:C5:20:VAL:N	2.32	0.45
20:C8:92:ILE:HG12	20:C8:92:ILE:O	2.16	0.45
22:D0:103:ILE:HA	22:D0:106:ILE:HG22	3.10	0.45
24:D2:5:SER:O	24:D2:7:LEU:N	3.27	0.45
28:D6:38:ARG:HD3	28:D6:38:ARG:HA	3.90	0.45
28:D6:38:ARG:HE	28:D6:83:ILE:HB	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:D9:10:HIS:CG	31:D9:11:PRO:HD2	2.51	0.45
39:L2:209:HIS:ND1	39:L2:210:PRO:HD2	2.51	0.45
36:1:3294:A:H5'	40:L3:126:LYS:HG3	1.99	0.45
42:L5:129:TYR:OH	42:L5:175:HIS:O	2.28	0.45
42:L5:261:THR:OG1	42:L5:264:GLN:HG3	2.26	0.45
44:L7:155:LYS:HB2	44:L7:203:TRP:CE3	2.52	0.45
44:L7:40:LYS:HE3	44:L7:40:LYS:HB2	1.77	0.45
45:L8:231:LYS:HB2	45:L8:231:LYS:HE3	4.25	0.45
46:L9:90:MET:HE3	46:L9:158:ALA:HB1	4.38	0.45
51:M5:160:GLU:HA	51:M5:165:THR:HG23	1.99	0.45
51:M5:197:LEU:HG	51:M5:199:LEU:HD21	1.98	0.45
51:M5:6:TYR:CD2	72:O6:40:VAL:HG13	2.69	0.45
53:M7:92:GLN:HA	53:M7:95:LEU:HD12	1.99	0.45
53:M7:90:PHE:O	53:M7:94:LEU:HD13	2.17	0.45
63:N7:25:ILE:HG13	63:N7:25:ILE:H	2.97	0.45
57:N1:88:ARG:NH2	65:N9:33:LYS:HB3	3.03	0.45
69:O3:85:PHE:CZ	69:O3:89:LEU:HD11	2.51	0.45
71:O5:49:LYS:HD3	71:O5:49:LYS:HA	2.65	0.45
2:S0:22:THR:HG22	2:S0:162:CYS:SG	2.56	0.45
3:S1:133:TYR:CD1	3:S1:220:GLN:HA	2.52	0.45
4:S2:102:VAL:O	4:S2:114:GLY:N	2.77	0.45
4:S2:144:TRP:HB2	4:S2:172:ALA:O	2.33	0.45
4:S2:168:ARG:NH1	4:S2:199:GLN:OE1	4.30	0.45
4:S2:59:HIS:CE1	4:S2:238:SER:HA	4.26	0.45
5:S3:116:ARG:HG2	5:S3:152:PHE:CE1	3.75	0.45
5:S3:143:ARG:HB2	5:S3:148:LYS:NZ	10.73	0.45
1:2:66:U:C5	8:S6:173:PRO:HG3	2.51	0.45
8:S6:61:PHE:HE1	8:S6:96:SER:HB2	2.61	0.45
9:S7:96:ARG:NH2	9:S7:124:LYS:HD2	2.32	0.45
34:SR:130:THR:HG22	34:SR:145:LEU:HD22	1.98	0.45
36:1:669:U:H1'	36:1:1110:U:H4'	1.99	0.45
36:1:1225:A:H1'	36:1:3116:G:N2	2.31	0.45
36:1:126:U:H2'	36:1:127:G:O4'	2.16	0.45
36:1:1680:G:C4	36:1:1681:U:C5	3.05	0.45
36:1:1662:G:N2	36:1:1788:C:O2	2.49	0.45
36:1:2174:G:OP1	36:1:2174:G:H8	1.99	0.45
36:1:3284:G:C6	36:1:3285:C:N4	2.85	0.45
1:2:1163:A:N6	1:2:1164:G:C5	2.85	0.45
1:2:1347:U:C2	1:2:1517:U:C5	3.04	0.45
1:2:195:G:H2'	1:2:196:G:H5"	1.98	0.45
1:2:363:G:OP1	86:2:2078:OHX:N2	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1029:U:O4	86:2:2168:OHX:N3	2.49	0.45
1:2:319:U:H1'	1:2:323:A:C4	2.52	0.45
1:2:607:G:H5'	1:2:613:G:N2	2.32	0.45
1:2:929:A:N6	1:2:930:A:C6	2.84	0.45
36:5:1366:A:C2	36:5:1367:G:C4	3.05	0.45
63:N7:69:LYS:NZ	36:5:1633:C:OP2	194.66	0.45
36:5:1746:U:H2'	36:5:1747:G:H8	1.82	0.45
36:5:1815:U:O2'	36:5:1816:A:P	2.74	0.45
36:5:1822:C:H2'	36:5:1823:A:C8	2.52	0.45
36:5:2372:A:H4'	36:5:2373:A:OP2	2.15	0.45
36:5:2632:G:C6	36:5:2647:A:C6	3.04	0.45
36:5:3182:G:H2'	36:5:3183:A:O4'	2.16	0.45
36:5:3200:G:H2'	36:5:3201:C:C6	2.52	0.45
1:6:1039:A:N7	1:6:1091:A:C5	2.85	0.45
1:6:1406:A:H2'	1:6:1407:U:C6	2.51	0.45
1:6:1541:G:C6	1:6:1542:G:N1	2.84	0.45
1:6:158:U:O2'	1:6:160:C:OP2	2.24	0.45
1:6:1647:U:H2'	1:6:1648:A:C8	2.52	0.45
1:6:385:A:H2'	1:6:386:G:C8	2.51	0.45
1:6:61:A:C6	1:6:62:A:C6	3.05	0.45
38:8:139:U:H2'	38:8:140:G:C8	2.51	0.45
38:8:103:G:O6	86:8:219:OHX:N5	2.50	0.45
1:2:246:G:C2	13:C1:40:LEU:HD22	2.52	0.45
15:C3:109:LYS:NZ	15:C3:109:LYS:HB3	2.31	0.45
15:C3:21:ASN:HB2	15:C3:22:ALA:H	1.89	0.45
15:C3:3:ARG:HH11	1:6:955:A:P	325.29	0.45
15:C3:70:LYS:HE2	15:C3:70:LYS:HB3	4.56	0.45
19:C7:34:LEU:HD22	19:C7:38:ILE:HD13	5.73	0.45
1:2:1565:C:OP1	20:C8:41:ARG:HD3	2.17	0.45
22:D0:42:VAL:HG21	22:D0:55:PRO:HD3	2.08	0.45
23:D1:40:ASP:HB3	23:D1:46:ILE:HD11	2.25	0.45
24:D2:82:LYS:O	24:D2:83:ILE:HG22	2.16	0.45
25:D3:100:ASP:O	25:D3:101:GLU:HB3	4.74	0.45
26:D4:121:THR:HG1	1:6:149:C:P	333.89	0.45
31:D9:6:VAL:O	31:D9:8:PHE:N	4.17	0.45
1:2:476:U:H2'	32:E0:31:LYS:CG	2.46	0.45
39:L2:242:ARG:O	36:5:2154:U:H5"	224.90	0.45
40:L3:345:ASN:OD1	40:L3:346:THR:N	3.11	0.45
42:L5:222:LEU:HG	42:L5:222:LEU:H	1.52	0.45
42:L5:9:SER:OG	42:L5:11:ALA:N	2.49	0.45
45:L8:72:PRO:HA	45:L8:73:PRO:HD3	1.67	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:76:MET:HE1	47:M0:148:VAL:HG22	2.79	0.45
48:M1:23:VAL:C	48:M1:25:GLU:H	2.20	0.45
35:SM:25:ILE:HG22	48:M1:46:VAL:HB	1.98	0.45
48:M1:49:LYS:HA	48:M1:64:LYS:H	1.82	0.45
48:M1:80:LEU:HD22	48:M1:84:LEU:HG	1.98	0.45
48:M1:97:SER:O	48:M1:156:LYS:HB2	2.53	0.45
49:M3:25:HIS:CD2	49:M3:25:HIS:H	2.34	0.45
55:M9:139:VAL:O	55:M9:142:ILE:N	3.21	0.45
57:N1:80:VAL:HG22	57:N1:83:ARG:HH21	1.82	0.45
58:N2:18:ASP:HB3	58:N2:104:ARG:CB	2.46	0.45
62:N6:55:GLU:HB2	62:N6:108:LYS:HB2	2.21	0.45
63:N7:101:PHE:HA	63:N7:107:ARG:HE	2.42	0.45
64:N8:82:ILE:HD11	64:N8:100:PRO:HB2	2.92	0.45
67:O1:27:LYS:O	67:O1:31:ARG:HB2	2.16	0.45
70:O4:71:THR:HG22	70:O4:78:GLY:N	2.31	0.45
71:O5:101:THR:HG22	71:O5:104:GLN:HG2	1.99	0.45
71:O5:9:LEU:HD13	71:O5:54:VAL:HA	1.98	0.45
79:Q3:9:GLY:O	79:Q3:11:THR:N	3.29	0.45
2:S0:64:ILE:HD12	2:S0:181:VAL:HG11	3.45	0.45
2:S0:201:LEU:O	2:S0:203:PHE:N	2.50	0.45
3:S1:119:THR:HB	3:S1:143:THR:CG2	2.47	0.45
4:S2:153:SER:HB3	4:S2:154:LEU:H	1.86	0.45
5:S3:101:GLN:HA	5:S3:104:SER:HB3	1.99	0.45
5:S3:123:VAL:O	5:S3:127:MET:HB2	2.17	0.45
5:S3:162:GLN:NE2	5:S3:165:ASN:HB2	2.31	0.45
9:S7:96:ARG:HB3	1:6:856:A:N6	365.33	0.45
11:S9:175:ARG:HD3	11:S9:179:ARG:NH1	2.31	0.45
11:S9:29:LYS:O	11:S9:33:GLU:HG2	4.01	0.45
36:1:111:C:O2'	36:1:112:U:H5'	2.17	0.45
36:1:1591:G:OP1	70:O4:37:LYS:NZ	2.48	0.45
36:1:167:U:H2'	36:1:168:U:H6	1.81	0.45
36:1:2213:A:H2'	36:1:2214:A:C8	2.52	0.45
36:1:2680:A:C2	48:M1:57:PHE:HB3	2.52	0.45
36:1:71:A:C2	36:1:2778:G:H1'	2.52	0.45
36:1:2881:C:H2'	36:1:2882:U:H6	1.82	0.45
36:1:3055:U:C2	36:1:3085:G:C6	3.05	0.45
86:1:3972:OHX:N6	86:1:4156:OHX:N4	2.65	0.45
36:1:729:C:H2'	36:1:730:C:C6	2.46	0.45
36:1:960:U:H4'	36:1:963:G:N1	2.32	0.45
1:2:969:C:H4'	1:2:1104:U:O2'	2.17	0.45
1:2:127:G:N7	8:S6:202:ARG:NH2	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:138:A:N6	1:2:266:A:H61	2.15	0.45
1:2:1509:C:H2'	1:2:1510:U:O4'	2.17	0.45
1:2:499:U:O2'	1:2:500:C:H5"	2.17	0.45
1:2:544:A:H5"	1:2:545:A:OP2	2.16	0.45
37:3:27:A:OP2	42:L5:57:ASN:HB2	2.17	0.45
38:4:124:G:OP2	86:4:230:OHX:N4	2.49	0.45
36:5:1015:U:O2'	36:5:1016:C:H3'	2.17	0.45
36:5:2804:A:C2'	36:5:2805:G:O5'	2.64	0.45
36:5:3053:G:H2'	36:5:3054:U:C6	2.52	0.45
36:5:3377:G:O6	86:5:4082:OHX:N2	2.50	0.45
36:5:2309:A:H4'	86:5:4193:OHX:N4	2.31	0.45
86:5:4208:OHX:N2	86:5:4218:OHX:N5	2.65	0.45
36:5:937:G:C6	36:5:2410:U:H5"	2.52	0.45
1:6:105:A:H2'	1:6:106:U:O4'	2.17	0.45
1:6:1350:U:H2'	1:6:1351:G:H8	1.82	0.45
1:6:1570:A:C6	1:6:1571:C:C2	3.05	0.45
1:6:542:A:OP1	1:6:542:A:H2'	2.17	0.45
36:5:997:A:H4'	37:7:80:G:H5'	1.99	0.45
13:C1:105:LYS:HD2	1:6:306:U:P	322.72	0.45
13:C1:95:PRO:O	13:C1:98:ASN:N	2.49	0.45
15:C3:65:VAL:HG23	15:C3:66:ILE:N	4.44	0.45
15:C3:84:ILE:HG22	15:C3:135:LEU:HD21	1.99	0.45
17:C5:68:PRO:HG2	17:C5:71:GLU:CD	3.60	0.45
20:C8:118:LYS:O	20:C8:120:ARG:HD2	5.02	0.45
20:C8:41:ARG:HH11	21:C9:38:LYS:HE2	1.82	0.45
20:C8:46:VAL:HG11	20:C8:73:MET:HG3	1.99	0.45
22:D0:48:HIS:HE1	22:D0:50:LEU:HD11	2.61	0.45
4:S2:143:TYR:O	24:D2:98:GLN:NE2	2.92	0.45
25:D3:9:LEU:O	25:D3:9:LEU:HD22	2.17	0.45
28:D6:90:GLU:H	28:D6:90:GLU:CD	3.57	0.45
39:L2:147:ARG:NH1	39:L2:155:LYS:HD3	5.72	0.45
39:L2:68:LYS:HD3	39:L2:70:ARG:CZ	2.46	0.45
40:L3:53:MET:CE	40:L3:77:THR:HG22	2.78	0.45
41:L4:122:THR:HG22	41:L4:235:LEU:HB2	1.98	0.45
41:L4:341:SER:O	41:L4:342:LYS:CB	4.31	0.45
42:L5:60:ILE:HB	42:L5:80:SER:HB2	1.99	0.45
44:L7:131:GLU:O	44:L7:229:PHE:HB2	2.17	0.45
44:L7:27:ALA:HA	44:L7:30:ARG:HB3	1.99	0.45
44:L7:37:ASN:HB3	36:5:597:G:OP1	249.43	0.45
44:L7:92:ILE:HD12	44:L7:92:ILE:HA	1.71	0.45
45:L8:105:LYS:O	45:L8:109:LEU:HB2	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:92:ARG:HA	48:M1:171:VAL:O	2.17	0.45
50:M4:67:PRO:HG2	50:M4:68:LEU:HD23	3.43	0.45
51:M5:98:LEU:O	51:M5:101:THR:N	2.95	0.45
51:M5:27:VAL:HB	51:M5:122:ASN:HD21	1.82	0.45
54:M8:86:THR:HG22	54:M8:105:ARG:HB2	2.06	0.45
36:1:1758:G:H5"	58:N2:104:ARG:NH2	2.32	0.45
58:N2:95:PHE:HA	58:N2:105:LEU:HD12	4.36	0.45
59:N3:93:LEU:HB2	60:N4:20:LEU:HD22	2.31	0.45
40:L3:369:ARG:HG2	60:N4:32:GLN:NE2	2.32	0.45
65:N9:43:HIS:O	65:N9:47:LEU:HG	2.17	0.45
68:O2:20:HIS:ND1	68:O2:42:VAL:HG21	2.69	0.45
74:O8:62:ALA:O	74:O8:66:ILE:HG13	2.28	0.45
2:S0:141:ILE:HG22	2:S0:142:PRO:O	2.17	0.45
6:S4:211:LYS:HA	6:S4:216:ASN:O	2.16	0.45
1:2:79:C:P	8:S6:159:ARG:HH22	2.40	0.45
9:S7:142:TYR:O	24:D2:49:GLU:HB2	2.48	0.45
1:2:393:C:OP2	10:S8:2:GLY:N	2.49	0.45
11:S9:92:LYS:HB2	11:S9:95:TYR:CD2	8.59	0.45
34:SR:177:MET:HE1	34:SR:193:ILE:HA	6.32	0.45
34:SR:250:TYR:N	34:SR:250:TYR:CD1	3.13	0.45
36:1:1245:A:C3'	36:1:1246:G:H5"	2.46	0.45
36:1:1796:G:H5"	36:1:1797:A:OP1	2.17	0.45
36:1:2223:A:C8	36:1:2223:A:H5"	2.52	0.45
36:1:2376:G:C6	36:1:2377:G:O6	2.70	0.45
36:1:3238:G:N2	36:1:3250:U:H1'	2.32	0.45
36:1:437:G:H2'	36:1:438:A:C8	2.52	0.45
36:1:807:A:C2	36:1:808:A:C8	3.04	0.45
1:2:1220:C:OP1	12:C0:48:SER:OG	2.20	0.45
1:2:1270:G:N2	1:2:1271:G:C4	2.85	0.45
1:2:1405:G:P	7:S5:80:LYS:HE3	2.57	0.45
1:2:1573:A:H8	1:2:1573:A:O5'	2.00	0.45
36:5:1195:A:H1'	36:5:1319:G:H4'	1.99	0.45
36:5:1203:A:H5"	37:7:90:U:C2	2.52	0.45
36:5:1502:C:N3	36:5:1513:G:O6	2.50	0.45
36:5:1796:G:H5"	36:5:1797:A:OP1	2.17	0.45
36:5:2101:C:HO2'	36:5:2102:U:P	2.36	0.45
40:L3:259:HIS:HE2	36:5:2366:C:H5'	216.45	0.45
36:5:2369:G:C6	36:5:2370:G:C6	3.05	0.45
36:5:2551:U:H4'	36:5:2552:C:OP1	2.17	0.45
36:5:2682:C:O2'	36:5:2683:U:OP1	2.24	0.45
36:5:2950:G:C5	36:5:2979:U:C4	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:332:ARG:HH22	36:5:3304:U:P	206.78	0.45
36:5:223:U:O4	86:5:4237:OHX:N4	2.50	0.45
36:5:811:U:H2'	36:5:812:G:H8	1.81	0.45
22:D0:73:GLY:HA3	1:6:1198:G:O4'	380.14	0.45
33:E1:149:LYS:NZ	1:6:1235:C:O2'	432.41	0.45
86:6:2118:OHX:N4	86:6:2170:OHX:N3	2.65	0.45
1:6:276:C:O2'	1:6:277:U:H5"	2.17	0.45
1:6:315:A:C2	1:6:353:A:C5	3.04	0.45
13:C1:57:LYS:NZ	1:6:326:G:OP1	290.14	0.45
1:6:708:C:H2'	1:6:709:C:O4'	2.17	0.45
1:6:886:U:H2'	1:6:887:A:H8	1.82	0.45
37:7:36:C:H2'	37:7:37:G:C8	2.52	0.45
12:C0:46:LEU:O	12:C0:50:THR:HG23	2.17	0.45
18:C6:115:THR:OG1	18:C6:116:LEU:N	2.50	0.45
22:D0:27:THR:O	22:D0:113:ASP:HB3	2.59	0.45
25:D3:22:ASN:HB3	1:6:609:U:C5	337.07	0.45
25:D3:73:ARG:HH21	25:D3:84:THR:HG22	2.32	0.45
29:D7:36:LYS:HD3	29:D7:43:ILE:HG22	3.32	0.45
1:2:1198:G:O3'	31:D9:40:ARG:NH2	2.50	0.45
40:L3:221:THR:HG22	40:L3:222:LYS:O	2.17	0.45
40:L3:34:LYS:HG2	40:L3:35:ASP:H	1.82	0.45
41:L4:299:ILE:HG22	41:L4:300:ARG:O	2.17	0.45
41:L4:303:GLY:O	41:L4:305:ALA:N	2.50	0.45
42:L5:238:ASP:HA	42:L5:241:THR:HB	1.98	0.45
43:L6:159:LEU:HD23	43:L6:159:LEU:HA	1.67	0.45
43:L6:38:THR:HG23	43:L6:90:LYS:HE2	1.99	0.45
43:L6:58:LEU:O	43:L6:60:ASP:N	2.50	0.45
46:L9:77:ASN:HB3	46:L9:86:TYR:OH	3.15	0.45
49:M3:89:TYR:CZ	49:M3:93:ILE:HD11	2.74	0.45
49:M3:91:ARG:NH2	49:M3:97:VAL:O	3.00	0.45
51:M5:153:ASP:HB3	51:M5:155:VAL:HG23	2.93	0.45
51:M5:159:ARG:HB2	51:M5:164:LEU:HB2	2.77	0.45
51:M5:164:LEU:HD23	51:M5:172:ARG:HH12	1.82	0.45
51:M5:38:ARG:CZ	51:M5:60:VAL:HG13	2.47	0.45
52:M6:54:TYR:CD2	52:M6:58:LEU:HD22	3.50	0.45
53:M7:85:ALA:O	53:M7:89:LYS:HB2	3.07	0.45
54:M8:58:ASN:N	54:M8:58:ASN:OD1	3.34	0.45
59:N3:17:LEU:HD23	59:N3:17:LEU:HA	1.76	0.45
61:N5:103:TYR:HE1	61:N5:139:ILE:HG12	4.69	0.45
61:N5:40:LEU:HA	61:N5:40:LEU:HD12	1.83	0.45
62:N6:115:ARG:O	62:N6:118:LEU:HB3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:6:THR:OG1	64:N8:8:THR:HG23	3.28	0.45
65:N9:7:HIS:O	36:5:1135:A:H5'	226.70	0.45
69:O3:26:ASN:HA	69:O3:88:ASN:OD1	2.17	0.45
36:1:2138:A:HO2'	73:O7:2:GLY:N	2.15	0.45
74:O8:21:LYS:O	74:O8:73:LEU:HD12	2.17	0.45
79:Q3:76:ALA:O	79:Q3:80:ARG:HB3	3.82	0.45
2:S0:56:LYS:HZ1	2:S0:159:ALA:H	1.64	0.45
1:2:1066:C:H4'	3:S1:149:GLN:NE2	2.32	0.45
3:S1:195:LYS:HA	3:S1:198:GLU:HB3	1.98	0.45
4:S2:101:VAL:HG13	4:S2:115:ILE:HG12	1.98	0.45
5:S3:69:LEU:HD23	5:S3:72:LEU:HD12	1.99	0.45
7:S5:25:LEU:HD21	7:S5:29:ILE:HD12	3.07	0.45
7:S5:33:VAL:HG12	7:S5:34:GLN:N	2.88	0.45
10:S8:116:HIS:CD2	10:S8:146:ARG:HD3	3.86	0.45
34:SR:305:TYR:CE2	34:SR:311:ARG:HB2	2.52	0.45
36:1:1240:A:H61	36:1:1244:A:H5"	1.82	0.45
36:1:1713:G:H1	36:1:1730:G:HO2'	1.62	0.45
36:1:2712:U:H2'	36:1:2713:U:C6	2.52	0.45
36:1:3354:U:OP1	36:1:3356:G:H5'	2.17	0.45
36:1:359:U:H2'	36:1:360:G:O4'	2.17	0.45
36:1:1054:A:OP1	86:1:4152:OHX:N5	2.50	0.45
36:1:998:A:O2'	36:1:999:G:H5'	2.17	0.45
1:2:1334:U:H2'	1:2:1335:U:C6	2.51	0.45
1:2:1489:U:H5'	1:2:1494:C:H1'	1.98	0.45
1:2:843:U:H2'	1:2:844:A:C8	2.52	0.45
36:5:2197:C:C2	36:5:2241:U:C4	3.05	0.45
63:N7:136:PHE:HB2	36:5:2555:G:O2'	207.98	0.45
36:5:2916:U:H5	36:5:2935:U:HO2'	1.63	0.45
36:5:305:U:C5	36:5:2776:C:H1'	2.52	0.45
50:M4:13:ARG:NH2	36:5:3206:C:N3	316.12	0.45
36:5:344:A:C5	36:5:345:G:N7	2.85	0.45
36:5:25:U:O4	86:5:3900:OHX:N6	2.50	0.45
1:6:1699:G:N2	1:6:1702:A:H5"	2.30	0.45
12:C0:24:LYS:HB2	12:C0:63:TYR:CE1	2.55	0.45
12:C0:80:LEU:HB2	12:C0:82:LEU:HD11	1.99	0.45
20:C8:116:LEU:HA	20:C8:119:ILE:HG22	3.83	0.45
20:C8:128:PHE:CE2	35:SM:61:ILE:HG12	6.66	0.45
20:C8:140:THR:HA	20:C8:143:ARG:HH12	1.82	0.45
20:C8:45:LEU:HA	20:C8:45:LEU:HD12	1.64	0.45
1:2:1531:G:N2	21:C9:48:GLN:OE1	2.50	0.45
21:C9:49:ASP:OD1	21:C9:53:TRP:N	2.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:20:THR:HB	24:D2:22:LYS:HD3	2.59	0.45
24:D2:26:LEU:HB2	29:D7:7:LEU:HD13	1.99	0.45
25:D3:31:LYS:HA	25:D3:31:LYS:HD3	1.59	0.45
27:D5:41:ILE:HG23	27:D5:42:LEU:H	1.80	0.45
29:D7:8:LEU:HA	29:D7:8:LEU:HD23	1.69	0.45
1:2:590:C:H5”	32:E0:43:ARG:HH12	1.81	0.45
33:E1:82:LYS:O	33:E1:84:VAL:N	4.93	0.45
33:E1:82:LYS:O	33:E1:83:LYS:HG3	2.18	0.45
40:L3:18:PRO:HG2	40:L3:20:LYS:HD2	2.13	0.45
41:L4:136:LEU:HD23	41:L4:136:LEU:HA	1.72	0.45
41:L4:60:THR:HG21	41:L4:77:VAL:HG22	1.97	0.45
42:L5:131:LEU:O	42:L5:133:GLU:N	2.76	0.45
42:L5:234:ASP:OD2	42:L5:234:ASP:N	2.50	0.45
42:L5:91:GLY:O	42:L5:94:ASN:ND2	4.05	0.45
44:L7:206:LYS:HE3	44:L7:206:LYS:HB3	1.79	0.45
46:L9:190:ASP:O	46:L9:191:LEU:HG	2.16	0.45
46:L9:74:LEU:O	46:L9:78:MET:HG3	2.46	0.45
46:L9:94:TYR:HE1	46:L9:142:ASP:OD1	2.38	0.45
47:M0:68:ALA:HA	47:M0:158:LYS:HG3	2.10	0.45
36:1:1128:U:H5’	47:M0:4:ARG:NH2	2.32	0.45
51:M5:11:GLN:O	51:M5:11:GLN:HG3	2.17	0.45
51:M5:79:ALA:HB1	51:M5:81:TYR:CE1	2.52	0.45
55:M9:66:HIS:O	55:M9:69:SER:HB3	3.86	0.45
57:N1:126:VAL:HG23	57:N1:127:GLN:H	1.82	0.45
59:N3:94:TYR:HE2	60:N4:19:THR:OG1	2.00	0.45
61:N5:115:ARG:N	61:N5:119:THR:O	2.99	0.45
63:N7:36:HIS:CD2	63:N7:74:VAL:HG11	2.92	0.45
63:N7:95:VAL:HG21	63:N7:113:VAL:HG11	1.98	0.45
64:N8:42:ARG:HA	64:N8:45:MET:HB2	2.76	0.45
67:O1:44:MET:HB3	67:O1:77:ARG:NH1	4.27	0.45
36:1:1162:U:H4’	68:O2:57:TYR:CD1	2.52	0.45
68:O2:64:LYS:HE3	68:O2:65:PHE:CZ	4.75	0.45
71:O5:38:ARG:HG2	71:O5:39:PRO:HD2	1.98	0.45
78:Q2:2:VAL:HG23	78:Q2:91:PHE:HA	1.99	0.45
2:S0:32:HIS:C	2:S0:32:HIS:ND1	2.70	0.45
2:S0:82:GLY:O	2:S0:86:VAL:HG13	3.39	0.45
3:S1:69:CYS:HB3	3:S1:72:ASP:OD1	2.16	0.45
4:S2:49:LYS:HB3	4:S2:243:TYR:CE1	3.87	0.45
7:S5:87:CYS:HB3	7:S5:92:ARG:HD2	3.28	0.45
7:S5:99:MET:O	7:S5:103:ASN:ND2	5.05	0.45
9:S7:99:LEU:HG	9:S7:116:ARG:HG2	4.83	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:74:LYS:HE2	10:S8:112:TRP:HB2	1.98	0.45
10:S8:188:GLU:HG2	10:S8:192:TYR:HE2	1.80	0.45
10:S8:36:THR:HG23	10:S8:96:LEU:O	2.27	0.45
11:S9:170:GLY:O	11:S9:171:ARG:HD2	6.03	0.45
17:C5:130:ARG:HD3	35:SM:74:LYS:HG2	1.99	0.45
36:1:1461:A:O2'	36:1:1462:A:H5'	2.16	0.44
36:1:1680:G:H2'	36:1:1681:U:H6	1.82	0.44
36:1:171:G:H2'	36:1:172:G:O4'	2.17	0.44
36:1:1939:G:C6	36:1:1940:G:C5	3.05	0.44
36:1:3163:A:C2'	36:1:3164:C:H5'	2.46	0.44
36:1:431:U:H5"	69:O3:65:ARG:NH1	2.33	0.44
36:1:709:A:H8	36:1:709:A:O5'	2.00	0.44
1:2:1102:G:H2'	1:2:1103:U:H6	1.83	0.44
1:2:1274:C:H4'	1:2:1275:A:O5'	2.18	0.44
1:2:1351:G:C2	1:2:1375:A:C2	3.05	0.44
1:2:462:G:N7	86:2:2143:OHX:N1	2.64	0.44
1:2:3:U:O2'	1:2:4:C:O4'	2.33	0.44
1:2:747:C:H4'	24:D2:80:ASN:ND2	2.33	0.44
1:2:889:U:H4'	1:2:989:U:OP1	2.16	0.44
1:2:995:A:H2'	1:2:996:U:O4'	2.17	0.44
37:3:111:U:O2'	86:3:221:OHX:N1	2.50	0.44
37:3:20:A:H2'	37:3:21:G:H8	1.82	0.44
36:5:2799:A:H5"	36:5:2800:G:O5'	2.16	0.44
69:O3:96:ALA:HB2	36:5:3173:G:C2	230.28	0.44
86:5:4005:OHX:N4	86:5:4195:OHX:N1	2.65	0.44
36:5:561:C:H2'	36:5:562:C:C6	2.52	0.44
36:5:721:G:C2	36:5:722:G:C8	3.05	0.44
1:6:1492:A:O2'	1:6:1493:A:H8	2.00	0.44
20:C8:136:GLN:NE2	1:6:1544:U:OP1	354.11	0.44
1:6:423:G:H4'	1:6:424:C:OP1	2.17	0.44
1:6:766:U:C4	1:6:769:A:C8	3.05	0.44
1:6:768:C:H2'	1:6:769:A:O4'	2.17	0.44
1:6:827:C:C2'	1:6:828:U:H5'	2.47	0.44
1:6:876:G:H1'	1:6:944:A:O4'	2.17	0.44
28:D6:32:LYS:NZ	1:6:932:U:O2	311.08	0.44
14:C2:42:ALA:HB3	14:C2:122:VAL:HB	2.53	0.44
14:C2:75:VAL:HG21	14:C2:120:VAL:HG21	2.10	0.44
16:C4:34:SER:O	16:C4:36:LYS:N	3.37	0.44
20:C8:20:THR:HG21	20:C8:35:ILE:HA	2.47	0.44
21:C9:64:HIS:CE1	21:C9:68:ARG:NH2	3.32	0.44
22:D0:25:THR:HA	22:D0:90:TYR:HA	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:D1:32:VAL:HB	23:D1:60:ARG:HD2	2.87	0.44
24:D2:76:SER:OG	24:D2:77:PRO:HD3	2.17	0.44
25:D3:83:VAL:HG21	25:D3:122:PHE:CE2	3.87	0.44
26:D4:52:LYS:C	26:D4:54:ALA:H	2.21	0.44
27:D5:55:PRO:O	27:D5:57:TYR:N	2.50	0.44
33:E1:103:LEU:HD11	1:6:1252:C:H5'	454.96	0.44
33:E1:87:THR:O	1:6:1445:G:N1	377.80	0.44
39:L2:103:PRO:O	39:L2:105:GLY:N	2.50	0.44
39:L2:43:GLY:O	39:L2:87:PHE:HA	2.41	0.44
40:L3:77:THR:CG2	40:L3:327:CYS:HA	2.69	0.44
40:L3:380:MET:O	36:5:3369:G:N1	228.17	0.44
41:L4:118:LYS:O	41:L4:121:ALA:HB3	2.35	0.44
42:L5:197:SER:OG	42:L5:202:GLY:HA3	2.80	0.44
44:L7:145:ARG:HA	44:L7:185:ILE:HD13	2.78	0.44
48:M1:138:VAL:HG22	48:M1:141:ARG:CZ	2.47	0.44
49:M3:89:TYR:CE1	49:M3:93:ILE:HD11	3.46	0.44
50:M4:80:THR:HG21	36:5:560:G:H5'	353.66	0.44
50:M4:94:TRP:CE2	50:M4:100:ALA:HB2	2.51	0.44
54:M8:178:ARG:HA	54:M8:178:ARG:HD3	1.43	0.44
56:N0:89:ASN:ND2	56:N0:89:ASN:H	2.74	0.44
57:N1:132:PRO:O	57:N1:134:GLN:HG2	4.06	0.44
60:N4:42:GLN:HB3	60:N4:44:LYS:HG2	1.98	0.44
60:N4:5:ILE:HD12	60:N4:6:ASP:O	2.17	0.44
61:N5:39:LYS:HG3	36:5:13:A:H4'	119.14	0.44
62:N6:26:GLN:O	62:N6:30:LEU:HD12	2.17	0.44
65:N9:11:ASN:O	65:N9:11:ASN:CG	2.55	0.44
70:O4:73:SER:O	36:5:1639:C:N4	195.89	0.44
70:O4:74:ARG:CZ	70:O4:82:ALA:HB2	2.47	0.44
38:4:65:A:H5"	71:O5:6:ALA:HB2	1.99	0.44
2:S0:115:PHE:HD2	2:S0:116:LYS:N	4.01	0.44
2:S0:30:GLN:NE2	2:S0:33:GLN:HG2	9.97	0.44
3:S1:180:THR:HG22	3:S1:181:LEU:H	1.82	0.44
3:S1:86:LEU:HB3	3:S1:98:THR:OG1	2.17	0.44
4:S2:229:LEU:HD12	4:S2:229:LEU:HA	1.73	0.44
6:S4:67:GLN:HB3	6:S4:69:HIS:CD2	2.88	0.44
7:S5:51:VAL:O	7:S5:65:ARG:NH1	3.29	0.44
7:S5:73:THR:O	7:S5:75:GLY:N	2.71	0.44
8:S6:95:LYS:NZ	1:6:160:C:O3'	308.73	0.44
10:S8:87:ASN:HB3	10:S8:90:LEU:HD12	2.52	0.44
11:S9:53:ARG:NH2	11:S9:97:LEU:O	2.46	0.44
34:SR:81:LEU:HG	34:SR:91:LEU:HD13	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:174:C:H2'	36:1:175:C:C6	2.52	0.44
36:1:2242:A:H5'	39:L2:243:THR:O	2.17	0.44
36:1:2358:A:H2'	36:1:2359:C:O4'	2.16	0.44
36:1:2617:U:H5	36:1:2621:G:OP2	2.00	0.44
36:1:3353:G:O2'	36:1:3354:U:OP1	2.35	0.44
36:1:658:G:OP1	86:1:4046:OHX:N4	2.50	0.44
36:1:528:U:H2'	36:1:529:A:H8	1.81	0.44
36:1:578:A:H5"	36:1:579:G:O5'	2.18	0.44
36:1:595:G:OP2	44:L7:30:ARG:NH2	2.43	0.44
36:1:644:G:H2'	36:1:2372:A:C5	2.52	0.44
1:2:1052:U:OP1	1:2:1053:G:H5"	2.16	0.44
1:2:1082:C:H2'	1:2:1083:G:H5'	1.99	0.44
1:2:1158:C:O2'	1:2:1581:C:OP2	2.34	0.44
1:2:1636:C:C2	1:2:1638:G:C5	3.05	0.44
1:2:602:U:H2'	1:2:603:U:C6	2.52	0.44
1:2:757:A:H4'	6:S4:22:LYS:HD3	2.00	0.44
37:3:61:G:H2'	37:3:62:U:H6	1.82	0.44
36:5:1049:C:H2'	36:5:1050:U:C6	2.53	0.44
36:5:2612:U:H2'	36:5:2613:U:O4'	2.17	0.44
57:N1:68:THR:OG1	36:5:2737:C:H4'	224.35	0.44
36:5:3135:U:C5	36:5:3136:G:C5	3.05	0.44
88:5:4246:3J6:O5	88:5:4246:3J6:C6	2.64	0.44
54:M8:66:ARG:NH1	36:5:785:G:OP2	157.24	0.44
1:6:1209:C:N4	1:6:1454:G:H1	2.15	0.44
21:C9:82:GLY:HA2	1:6:1525:A:OP1	388.02	0.44
1:6:153:G:H2'	1:6:154:G:C8	2.52	0.44
1:6:794:U:H4'	1:6:795:U:OP2	2.16	0.44
38:8:8:C:H2'	38:8:9:A:C8	2.53	0.44
15:C3:26:PHE:CE2	15:C3:28:LEU:HB2	2.86	0.44
17:C5:57:MET:HE1	17:C5:89:MET:HG2	1.99	0.44
18:C6:109:PHE:O	18:C6:113:ASP:N	2.62	0.44
1:2:1100:G:O4'	25:D3:7:ARG:NH2	2.50	0.44
29:D7:63:LEU:HD23	29:D7:63:LEU:HA	2.48	0.44
40:L3:53:MET:HG2	40:L3:76:VAL:O	2.17	0.44
41:L4:329:PRO:HB2	41:L4:330:TYR:H	3.91	0.44
42:L5:39:GLN:HG3	42:L5:40:HIS:O	2.47	0.44
43:L6:169:ASP:OD1	43:L6:174:LEU:HD11	2.16	0.44
44:L7:155:LYS:HB2	44:L7:203:TRP:HE3	1.82	0.44
47:M0:20:SER:HG	47:M0:22:TYR:HD1	1.64	0.44
47:M0:24:ARG:O	47:M0:25:ALA:HB3	4.58	0.44
47:M0:86:HIS:HB3	47:M0:139:ARG:HG2	2.03	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:52:TYR:HA	48:M1:61:ARG:HG3	3.04	0.44
49:M3:57:VAL:HG23	49:M3:115:ARG:HD2	1.99	0.44
52:M6:65:ASN:HB3	52:M6:68:ARG:HG2	1.99	0.44
53:M7:125:GLN:HG2	53:M7:143:PRO:HG3	2.80	0.44
54:M8:178:ARG:HA	54:M8:178:ARG:HD2	2.81	0.44
54:M8:98:LYS:HB3	54:M8:99:THR:H	1.67	0.44
60:N4:54:LEU:HA	60:N4:54:LEU:HD13	4.12	0.44
62:N6:99:LEU:H	62:N6:99:LEU:HG	2.35	0.44
68:O2:23:ASP:OD1	68:O2:23:ASP:N	2.40	0.44
73:O7:71:SER:O	73:O7:74:PHE:HB3	2.17	0.44
74:O8:46:ARG:NH2	74:O8:51:LEU:HB2	2.32	0.44
78:Q2:14:GLY:C	78:Q2:16:THR:N	2.70	0.44
36:1:2741:C:H4'	78:Q2:19:LYS:HA	1.99	0.44
3:S1:165:ARG:O	3:S1:169:SER:OG	2.32	0.44
3:S1:81:PHE:HB2	3:S1:82:ARG:H	1.50	0.44
4:S2:103:VAL:HA	4:S2:112:GLY:O	2.20	0.44
2:S0:108:THR:HA	4:S2:64:LYS:HE3	1.99	0.44
6:S4:234:PRO:CB	6:S4:238:LEU:HD21	2.47	0.44
6:S4:51:ARG:HE	6:S4:51:ARG:CA	3.07	0.44
6:S4:57:ASN:HB3	6:S4:59:ARG:N	2.75	0.44
7:S5:64:VAL:O	7:S5:65:ARG:HB2	2.17	0.44
10:S8:9:HIS:ND1	10:S8:10:LYS:HB2	2.31	0.44
35:SM:23:LYS:HE3	35:SM:24:GLU:N	6.87	0.44
34:SR:182:ASN:HB2	34:SR:189:GLU:OE1	3.44	0.44
34:SR:197:SER:HB3	34:SR:217:ASP:HB3	1.99	0.44
34:SR:297:ASP:OD2	34:SR:297:ASP:N	3.85	0.44
36:1:1597:C:H2'	36:1:1598:G:C8	2.52	0.44
36:1:1870:C:H6	36:1:1870:C:O5'	2.01	0.44
36:1:2344:U:H1'	36:1:3079:U:O4	2.17	0.44
36:1:241:G:C6	36:1:242:C:C4	3.05	0.44
36:1:2883:U:H2'	36:1:2884:C:C6	2.51	0.44
36:1:2992:U:H5'	36:1:3310:A:O2'	2.16	0.44
36:1:385:A:H2'	36:1:386:A:C8	2.52	0.44
36:1:980:A:H2'	36:1:981:U:C1'	2.47	0.44
1:2:1752:U:OP2	86:2:2058:OHX:N2	2.50	0.44
1:2:21:U:H2'	1:2:22:A:C8	2.51	0.44
1:2:474:A:O2'	11:S9:37:LYS:HE2	2.17	0.44
1:2:616:G:C2	1:2:622:A:C8	3.05	0.44
1:2:901:G:C6	1:2:902:G:C6	3.05	0.44
36:5:118:U:C5	36:5:119:U:C4	3.05	0.44
68:O2:45:ARG:NH2	36:5:1366:A:O3'	199.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2148:U:H2'	36:5:2149:A:C4	2.52	0.44
36:5:2179:C:H4'	36:5:2180:G:OP2	2.17	0.44
36:5:2404:A:C8	36:5:2404:A:C5'	2.93	0.44
36:5:2890:A:N1	36:5:2913:C:N3	2.65	0.44
36:5:916:G:C8	36:5:924:G:C5	3.05	0.44
1:6:359:A:OP1	86:6:2198:OHX:N2	2.50	0.44
1:6:957:G:C6	1:6:958:U:C4	3.06	0.44
37:7:23:A:H2'	37:7:24:A:C8	2.52	0.44
12:C0:16:PHE:O	12:C0:88:PRO:HA	2.17	0.44
14:C2:71:ILE:O	14:C2:75:VAL:HG23	2.17	0.44
18:C6:52:LEU:HD22	18:C6:60:PHE:CZ	2.53	0.44
19:C7:71:PHE:HE1	19:C7:73:LEU:HD22	1.82	0.44
17:C5:119:PHE:HE1	20:C8:119:ILE:HG23	1.81	0.44
20:C8:8:GLN:HB3	20:C8:9:GLY:H	3.20	0.44
22:D0:28:SER:HB3	22:D0:34:LEU:HG	1.99	0.44
23:D1:69:LEU:HD23	23:D1:69:LEU:HA	2.16	0.44
25:D3:65:ASN:ND2	25:D3:116:ASP:OD1	3.02	0.44
27:D5:58:ARG:HA	27:D5:103:ARG:HB2	5.85	0.44
28:D6:11:ASN:O	28:D6:33:ASP:HB2	2.18	0.44
33:E1:132:LEU:HD12	33:E1:139:LEU:HD23	3.12	0.44
39:L2:70:ARG:HB3	39:L2:70:ARG:HE	4.87	0.44
41:L4:271:LYS:HB2	41:L4:274:TYR:HB3	2.47	0.44
41:L4:48:GLN:OE1	36:5:691:A:N6	92.95	0.44
42:L5:51:LEU:HB2	42:L5:144:VAL:HG13	1.98	0.44
44:L7:25:GLN:H	44:L7:28:ALA:HB3	1.82	0.44
45:L8:33:ASN:HA	36:5:2549:G:N2	211.80	0.44
45:L8:94:PHE:CD2	45:L8:189:LEU:HD21	2.52	0.44
47:M0:116:ARG:HB2	47:M0:116:ARG:HE	2.22	0.44
50:M4:121:MET:O	50:M4:125:LYS:HG3	2.89	0.44
51:M5:172:ARG:HB3	51:M5:174:ILE:HG12	4.07	0.44
52:M6:138:LEU:HD12	52:M6:138:LEU:HA	1.70	0.44
54:M8:43:PRO:HB3	36:5:728:G:H5"	191.89	0.44
55:M9:160:GLU:HA	55:M9:163:ARG:HB2	1.98	0.44
55:M9:95:TRP:O	55:M9:99:LEU:N	2.38	0.44
56:N0:166:LYS:HB3	56:N0:167:ARG:H	1.36	0.44
57:N1:46:GLY:HA2	57:N1:52:MET:HE3	2.48	0.44
58:N2:18:ASP:HB3	58:N2:104:ARG:HB2	1.98	0.44
58:N2:48:GLY:O	58:N2:50:LEU:N	3.50	0.44
63:N7:129:TRP:O	63:N7:132:SER:N	3.31	0.44
68:O2:112:ALA:O	68:O2:116:GLY:N	2.49	0.44
69:O3:59:VAL:HB	69:O3:60:ARG:H	1.57	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:O5:41:LEU:O	71:O5:44:ILE:HG22	2.27	0.44
2:S0:87:LEU:HD22	2:S0:99:ALA:HB2	3.80	0.44
3:S1:157:GLN:HB2	3:S1:160:HIS:CG	2.51	0.44
4:S2:205:ARG:HD2	1:6:6:G:OP2	378.88	0.44
4:S2:56:ILE:O	4:S2:60:SER:N	2.55	0.44
6:S4:23:LEU:HB3	6:S4:24:SER:H	1.57	0.44
6:S4:250:GLU:HA	6:S4:253:ASP:OD2	3.36	0.44
6:S4:73:ASP:OD1	6:S4:89:VAL:N	2.50	0.44
7:S5:43:PHE:H	7:S5:46:TRP:H	2.07	0.44
11:S9:54:ARG:HE	11:S9:54:ARG:HB3	1.93	0.44
36:1:132:C:H2'	36:1:133:U:H5"	1.99	0.44
36:1:1525:G:H2'	36:1:1525:G:N3	2.32	0.44
36:1:1686:U:O2	36:1:1688:U:H1'	2.17	0.44
36:1:1875:G:O6	55:M9:20:ARG:NH2	2.47	0.44
36:1:2197:C:C2	36:1:2241:U:C4	3.05	0.44
36:1:2616:C:H2'	36:1:2617:U:H5'	2.00	0.44
36:1:3187:A:OP1	46:L9:23:ARG:NE	2.37	0.44
36:1:3228:C:H4'	36:1:3229:G:O5'	2.18	0.44
36:1:591:G:H4'	36:1:592:A:OP1	2.16	0.44
36:1:595:G:H2'	36:1:596:C:C6	2.53	0.44
36:1:815:G:C2	36:1:906:A:C2	3.05	0.44
1:2:1278:G:OP1	5:S3:185:LYS:HE2	2.17	0.44
1:2:412:A:H2	1:2:421:A:N1	2.16	0.44
1:2:704:C:H3'	1:2:704:C:OP2	2.17	0.44
1:2:768:C:H2'	1:2:769:A:O4'	2.18	0.44
1:2:861:U:H5'	1:2:862:A:OP2	2.18	0.44
1:2:97:C:H2'	1:2:98:U:C6	2.53	0.44
37:3:79:A:C2	37:3:102:A:C4	3.06	0.44
36:5:1222:G:O6	86:5:4123:OHX:N1	2.50	0.44
36:5:173:G:HO2'	36:5:174:C:C5'	2.30	0.44
36:5:1888:U:C4	36:5:1889:G:C8	3.05	0.44
36:5:1944:U:H2'	36:5:1945:A:C8	2.51	0.44
36:5:306:A:C2	36:5:2784:G:H1'	2.53	0.44
36:5:567:G:H2'	36:5:568:G:C8	2.52	0.44
36:5:662:U:O4	36:5:801:A:H1'	2.17	0.44
54:M8:47:VAL:HG21	36:5:728:G:H4'	184.63	0.44
68:O2:33:ARG:HG3	36:5:945:C:OP1	170.09	0.44
1:6:1003:A:H4'	1:6:1004:U:O5'	2.17	0.44
1:6:1045:C:C2	1:6:1074:G:C2	3.05	0.44
1:6:1535:U:H1'	1:6:1536:G:C2	2.52	0.44
37:7:106:U:H2'	37:7:107:C:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:8:43:A:OP1	86:8:227:OHX:N3	2.50	0.44
13:C1:22:ASN:OD1	13:C1:24:LYS:HB2	2.17	0.44
14:C2:50:LYS:HE2	33:E1:103:LEU:HD11	1.98	0.44
17:C5:116:LEU:C	17:C5:118:GLU:H	2.60	0.44
19:C7:19:ARG:HG3	19:C7:20:TYR:CE1	2.53	0.44
20:C8:122:HIS:O	20:C8:126:ARG:HG2	5.00	0.44
21:C9:14:PHE:HZ	21:C9:132:LEU:HG	1.81	0.44
22:D0:69:LYS:HB2	22:D0:78:THR:OG1	3.40	0.44
32:E0:13:LYS:HE3	32:E0:17:GLN:NE2	5.56	0.44
33:E1:108:VAL:HA	33:E1:113:LYS:O	2.18	0.44
33:E1:97:LYS:HE2	1:6:1231:U:C4	439.54	0.44
40:L3:255:TRP:CD1	40:L3:256:HIS:CE1	3.05	0.44
41:L4:192:GLY:HA2	41:L4:195:ARG:CG	4.15	0.44
41:L4:37:THR:OG1	41:L4:38:VAL:N	2.49	0.44
41:L4:49:ALA:HA	41:L4:109:TRP:CZ2	2.53	0.44
42:L5:109:THR:OG1	42:L5:110:LEU:N	2.50	0.44
44:L7:77:VAL:HG22	57:N1:139:ARG:O	2.21	0.44
45:L8:130:TYR:CD1	45:L8:202:GLU:HB3	2.52	0.44
45:L8:200:LEU:HG	45:L8:200:LEU:H	3.10	0.44
48:M1:89:TYR:HB3	48:M1:169:ALA:CB	2.48	0.44
51:M5:140:LYS:O	51:M5:144:ARG:HB2	3.03	0.44
51:M5:38:ARG:NH1	38:8:142:C:H5”	110.11	0.44
52:M6:72:HIS:O	52:M6:74:ARG:HD3	2.98	0.44
36:1:785:G:N2	54:M8:89:ASP:O	2.46	0.44
55:M9:56:THR:HG23	36:5:1873:U:P	152.04	0.44
42:L5:41:LYS:HB2	57:N1:68:THR:O	2.17	0.44
57:N1:86:GLU:OE1	57:N1:88:ARG:NH1	2.50	0.44
58:N2:56:VAL:HG22	58:N2:65:VAL:HG13	1.99	0.44
62:N6:45:ILE:HG12	62:N6:122:LYS:HE2	3.73	0.44
63:N7:24:VAL:HG11	63:N7:87:LEU:HB3	3.47	0.44
36:1:1075:A:C5	65:N9:45:HIS:CD2	3.04	0.44
66:O0:78:GLY:HA2	66:O0:87:VAL:HG13	1.99	0.44
71:O5:105:ARG:HA	71:O5:108:GLN:HB2	1.98	0.44
71:O5:85:THR:O	71:O5:89:ARG:HB2	2.35	0.44
74:O8:27:ILE:HG13	74:O8:39:ARG:NH2	3.25	0.44
75:O9:10:LYS:HD3	36:5:1833:G:OP1	103.71	0.44
78:Q2:12:CYS:HB3	78:Q2:21:THR:CG2	2.47	0.44
2:S0:74:VAL:HA	2:S0:96:THR:O	2.79	0.44
5:S3:108:LYS:O	5:S3:113:LEU:HB2	3.11	0.44
8:S6:3:LEU:HD22	8:S6:109:LEU:HB3	1.99	0.44
9:S7:58:LEU:N	9:S7:89:HIS:O	2.34	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:113:PHE:C	10:S8:115:ALA:H	2.20	0.44
10:S8:196:LEU:HA	10:S8:196:LEU:HD23	4.20	0.44
11:S9:119:ALA:O	11:S9:124:HIS:ND1	4.32	0.44
36:1:1321:G:H2'	36:1:1322:U:O4'	2.18	0.44
36:1:3030:G:C5	36:1:3031:G:C5	3.05	0.44
36:1:733:G:N2	36:1:736:A:OP2	2.51	0.44
36:1:805:G:H1'	41:L4:73:ARG:NH1	2.32	0.44
1:2:1237:G:H2'	1:2:1238:A:C8	2.53	0.44
1:2:1542:G:H5"	21:C9:87:GLY:C	2.38	0.44
1:2:1649:G:N7	86:2:2051:OHX:N1	2.66	0.44
1:2:169:A:OP1	8:S6:137:ARG:NH2	2.51	0.44
1:2:1762:A:O2'	1:2:1763:A:H5'	2.18	0.44
1:2:240:U:H1'	1:2:241:U:P	2.58	0.44
1:2:542:A:H5"	1:2:544:A:C5	2.52	0.44
1:2:881:A:H2'	1:2:882:U:O4'	2.16	0.44
1:2:886:U:C2	1:2:887:A:C8	3.05	0.44
37:3:106:U:H2'	37:3:107:C:C6	2.53	0.44
36:5:1128:U:H2'	36:5:1129:A:O4'	2.18	0.44
36:5:1335:C:O2'	36:5:1336:U:H5'	2.18	0.44
44:L7:159:GLN:HA	36:5:1362:G:O2'	217.40	0.44
36:5:1713:G:H1	36:5:1730:G:HO2'	1.65	0.44
36:5:1768:U:H2'	36:5:1769:G:O4'	2.17	0.44
36:5:1820:U:O2'	36:5:1821:U:OP1	2.29	0.44
78:Q2:9:LYS:O	36:5:2713:U:H3'	223.40	0.44
36:5:2949:U:C5	36:5:2950:G:C6	3.06	0.44
36:5:3056:U:OP2	86:5:3935:OHX:N2	2.51	0.44
36:5:3354:U:H4'	36:5:3355:U:H5"	1.99	0.44
64:N8:8:THR:HG21	36:5:662:U:P	149.46	0.44
36:5:708:G:H8	36:5:708:G:H5"	1.82	0.44
1:6:1315:U:H2'	1:6:1316:G:O4'	2.18	0.44
1:6:1347:U:O2	1:6:1516:A:H5'	2.18	0.44
1:6:1719:A:N6	1:6:1720:G:C2	2.85	0.44
10:S8:87:ASN:ND2	1:6:341:A:H4'	256.85	0.44
1:6:1:U:C5	1:6:369:A:N6	2.86	0.44
26:D4:108:ARG:NH2	1:6:444:C:OP2	372.66	0.44
11:S9:143:ILE:HG23	1:6:474:A:OP1	419.81	0.44
1:6:565:C:N3	86:6:2157:OHX:N4	2.65	0.44
1:6:715:U:H2'	1:6:716:C:H6	1.82	0.44
1:6:853:G:H2'	1:6:854:U:C6	2.52	0.44
15:C3:88:LEU:O	15:C3:92:ILE:HG13	2.18	0.44
21:C9:53:TRP:HH2	21:C9:100:ILE:HD13	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:D1:64:GLU:OE1	29:D7:2:VAL:HG13	2.17	0.44
32:E0:50:VAL:HA	32:E0:53:LYS:O	2.17	0.44
33:E1:119:ARG:O	33:E1:132:LEU:N	3.12	0.44
39:L2:107:VAL:HB	39:L2:111:THR:HG21	2.59	0.44
39:L2:159:SER:O	39:L2:162:ALA:N	3.25	0.44
40:L3:283:TYR:CE1	40:L3:325:LYS:HB3	2.52	0.44
40:L3:376:LYS:O	40:L3:380:MET:HB2	2.17	0.44
42:L5:75:LEU:CD2	42:L5:112:LYS:HE2	4.64	0.44
37:3:27:A:P	42:L5:57:ASN:H	2.40	0.44
43:L6:56:LYS:NZ	43:L6:101:PHE:O	3.26	0.44
43:L6:134:ARG:HA	43:L6:134:ARG:HD2	3.14	0.44
43:L6:154:LEU:HA	43:L6:157:GLN:OE1	2.18	0.44
36:1:591:G:H1'	43:L6:19:LYS:HG3	1.99	0.44
43:L6:56:LYS:H	43:L6:64:LEU:HB3	2.35	0.44
45:L8:147:LYS:O	45:L8:201:THR:HB	2.68	0.44
49:M3:93:ILE:HD12	49:M3:93:ILE:HG23	1.77	0.44
51:M5:173:GLY:O	51:M5:183:THR:HG23	2.16	0.44
51:M5:35:VAL:HA	51:M5:65:ARG:HD3	1.99	0.44
55:M9:88:ARG:H	55:M9:88:ARG:HG2	3.42	0.44
57:N1:71:SER:HB3	57:N1:91:LEU:O	2.60	0.44
57:N1:85:LEU:HD12	36:5:2728:G:C8	208.95	0.44
62:N6:69:LYS:O	62:N6:83:ASP:N	2.95	0.44
62:N6:6:LEU:HD23	62:N6:6:LEU:HA	1.73	0.44
63:N7:54:THR:O	63:N7:57:HIS:HB2	2.17	0.44
63:N7:39:GLY:C	63:N7:77:TYR:HD1	3.61	0.44
68:O2:126:LEU:HD23	68:O2:126:LEU:HA	2.01	0.44
69:O3:13:HIS:NE2	69:O3:28:SER:HB3	2.75	0.44
70:O4:24:LYS:HB2	70:O4:24:LYS:HE3	1.70	0.44
73:O7:58:THR:O	73:O7:61:THR:HG23	2.17	0.44
2:S0:186:GLY:O	2:S0:188:LEU:N	2.50	0.44
3:S1:62:LYS:C	3:S1:64:ARG:H	2.20	0.44
5:S3:190:ARG:NH1	5:S3:195:SER:HA	2.53	0.44
6:S4:10:LYS:HD3	1:6:381:C:OP1	358.35	0.44
6:S4:153:ASN:O	6:S4:155:LYS:HG2	2.18	0.44
6:S4:180:LEU:HA	6:S4:180:LEU:HD23	1.75	0.44
7:S5:177:ILE:HA	7:S5:180:ARG:NH1	2.32	0.44
7:S5:43:PHE:N	7:S5:46:TRP:O	2.84	0.44
8:S6:14:LYS:HD3	8:S6:16:PHE:CZ	2.56	0.44
8:S6:75:LEU:HD23	8:S6:75:LEU:HA	2.18	0.44
9:S7:170:GLN:HA	9:S7:181:ILE:HG22	1.97	0.44
34:SR:317:THR:HG22	34:SR:318:ALA:H	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1077:U:H1'	36:1:1083:G:N2	2.32	0.44
36:1:1498:A:H2'	36:1:1499:C:C6	2.51	0.44
36:1:1804:A:H2'	36:1:1805:C:C6	2.53	0.44
36:1:239:G:HO2'	36:1:240:U:P	2.36	0.44
36:1:3075:G:H5"	67:O1:62:ARG:O	2.17	0.44
36:1:412:G:C6	36:1:413:U:C4	3.06	0.44
36:1:13:A:OP2	86:1:4202:OHX:N5	2.50	0.44
1:2:1009:U:H2'	1:2:1010:C:C6	2.53	0.44
1:2:800:U:O4	86:2:2054:OHX:N5	2.50	0.44
38:4:93:U:H2'	38:4:94:C:O4'	2.17	0.44
36:5:1228:C:H2'	36:5:1229:G:H8	1.83	0.44
36:5:1243:G:C6	36:5:1244:A:N7	2.86	0.44
36:5:1583:A:H3'	36:5:1584:U:H6	1.83	0.44
36:5:1680:G:C5	36:5:1681:U:C5	3.06	0.44
36:5:2520:A:H2'	36:5:2521:U:C6	2.53	0.44
36:5:374:A:N3	36:5:376:G:H5"	2.31	0.44
1:6:1623:C:H2'	1:6:1624:C:C6	2.53	0.44
1:6:1769:U:OP2	86:6:2142:OHX:N2	2.50	0.44
1:6:336:G:OP2	86:6:2153:OHX:N4	2.51	0.44
38:8:157:U:O2'	38:8:158:U:H5'	2.16	0.44
12:C0:1:MET:HG2	12:C0:2:LEU:N	2.33	0.44
13:C1:54:ILE:HD12	13:C1:54:ILE:HG23	4.19	0.44
13:C1:72:THR:O	13:C1:88:ARG:HD2	2.17	0.44
15:C3:136:PRO:HG2	15:C3:139:TRP:HB2	2.01	0.44
15:C3:48:SER:OG	15:C3:86:GLU:OE1	2.96	0.44
15:C3:88:LEU:HD22	15:C3:92:ILE:HD11	3.14	0.44
18:C6:30:LYS:HA	18:C6:35:PRO:HA	2.00	0.44
22:D0:17:GLN:HA	22:D0:97:VAL:HG12	1.99	0.44
4:S2:222:TYR:CE2	23:D1:12:TYR:HD2	2.36	0.44
24:D2:103:ILE:HG22	24:D2:128:PHE:HA	2.00	0.44
24:D2:79:PHE:O	24:D2:125:ILE:HG22	2.17	0.44
24:D2:98:GLN:CD	24:D2:98:GLN:H	2.21	0.44
26:D4:112:LYS:O	26:D4:116:LYS:HG3	2.18	0.44
28:D6:75:VAL:HA	28:D6:78:ALA:HB3	2.00	0.44
28:D6:87:ARG:HD3	1:6:1796:C:OP1	345.24	0.44
29:D7:41:LEU:H	29:D7:41:LEU:HD23	3.87	0.44
30:D8:44:VAL:HG21	30:D8:48:VAL:CG2	4.03	0.44
39:L2:245:LEU:O	39:L2:247:ARG:HG2	2.17	0.44
40:L3:139:GLN:NE2	40:L3:142:ALA:HB3	2.31	0.44
40:L3:67:PHE:CD1	40:L3:72:VAL:HG12	2.38	0.44
41:L4:209:TYR:CE2	41:L4:229:ASN:HB2	3.03	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:150:LEU:HD12	41:L4:249:ILE:HG12	1.99	0.44
41:L4:210:ALA:HB2	41:L4:254:ALA:HA	2.00	0.44
41:L4:330:TYR:CE2	44:L7:49:ALA:HA	2.53	0.44
41:L4:92:ASN:HA	41:L4:98:ARG:O	2.17	0.44
43:L6:42:LEU:HD22	43:L6:79:VAL:HG21	2.68	0.44
44:L7:104:GLN:O	44:L7:106:LEU:N	2.51	0.44
44:L7:155:LYS:C	44:L7:156:ILE:HG12	4.11	0.44
44:L7:51:TYR:CD1	44:L7:186:HIS:CD2	3.05	0.44
44:L7:81:HIS:CD2	44:L7:138:TYR:CG	3.06	0.44
45:L8:41:GLN:HG3	45:L8:42:PRO:HD2	2.00	0.44
47:M0:13:LYS:HB3	47:M0:13:LYS:HE2	1.68	0.44
47:M0:210:ILE:HD13	47:M0:217:PHE:CZ	4.27	0.44
49:M3:9:ILE:HD12	54:M8:173:GLU:OE2	2.18	0.44
50:M4:6:ILE:HA	50:M4:6:ILE:HD13	2.52	0.44
36:1:36:C:OP2	51:M5:83:LYS:HE2	2.16	0.44
52:M6:82:LYS:NZ	36:5:1313:G:OP1	252.67	0.44
59:N3:35:TYR:CE2	59:N3:37:ILE:HG22	2.66	0.44
59:N3:39:VAL:HG22	59:N3:52:ALA:HB2	1.98	0.44
62:N6:50:ILE:HD13	62:N6:51:ARG:N	4.66	0.44
65:N9:56:ALA:C	65:N9:58:LYS:H	3.42	0.44
74:O8:70:PRO:HA	74:O8:71:PRO:HD3	1.74	0.44
76:Q0:96:CYS:HB2	76:Q0:103:LEU:HD11	3.39	0.44
2:S0:179:ARG:HD3	2:S0:183:ARG:NE	3.80	0.44
3:S1:226:GLY:HA2	36:5:2536:A:H4'	256.89	0.44
3:S1:90:GLU:HG2	3:S1:223:PHE:HZ	2.46	0.44
4:S2:94:GLN:HE21	4:S2:94:GLN:HB3	1.63	0.44
5:S3:167:PHE:HD1	5:S3:190:ARG:HD3	1.82	0.44
6:S4:125:LYS:H	6:S4:142:HIS:CE1	2.58	0.44
7:S5:41:LYS:HE2	7:S5:41:LYS:HB3	2.59	0.44
9:S7:139:ARG:HB2	9:S7:151:LYS:HB3	4.01	0.44
9:S7:41:LEU:HD13	9:S7:70:PHE:HD1	1.81	0.44
11:S9:109:LEU:HB3	11:S9:129:ILE:HD13	2.65	0.44
34:SR:122:ILE:O	34:SR:134:TRP:N	2.38	0.44
36:1:1639:C:O2'	36:1:1640:G:H5'	2.17	0.44
36:1:1870:C:H4'	36:1:3076:C:O2	2.17	0.44
36:1:1895:A:O2'	36:1:3053:G:H4'	2.17	0.44
36:1:246:U:H2'	36:1:247:C:C6	2.52	0.44
36:1:2773:C:H2'	36:1:2774:C:C6	2.53	0.44
36:1:741:U:H2'	36:1:742:G:O4'	2.16	0.44
36:1:872:U:H2'	36:1:873:C:C6	2.53	0.44
36:1:898:U:H2'	36:1:899:U:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1317:C:H2'	1:2:1318:G:O4'	2.18	0.44
1:2:1614:A:C6	1:2:1615:C:C4	3.06	0.44
1:2:446:A:C5	1:2:447:U:C5	3.06	0.44
1:2:542:A:H5"	1:2:544:A:N7	2.31	0.44
1:2:693:U:H5'	1:2:694:U:H5'	1.99	0.44
38:4:149:A:H8	38:4:149:A:O5'	2.00	0.44
70:O4:37:LYS:NZ	36:5:1591:G:H5"	160.04	0.44
66:O0:85:PHE:CZ	36:5:1728:G:C6	252.56	0.44
36:5:175:C:H2'	36:5:176:G:H8	1.82	0.44
36:5:1826:C:H2'	36:5:1827:C:C6	2.52	0.44
36:5:2101:C:O2'	36:5:2102:U:P	2.75	0.44
48:M1:126:ASP:HB3	36:5:2673:A:O2'	325.73	0.44
36:5:2726:C:C2	36:5:2728:G:N2	2.85	0.44
51:M5:98:LEU:HD13	36:5:290:G:OP1	135.96	0.44
36:5:3164:C:C2	36:5:3165:A:C8	3.06	0.44
36:5:197:G:N2	36:5:372:A:C8	2.86	0.44
49:M3:15:ARG:NH2	36:5:96:G:H5'	152.17	0.44
1:6:1268:G:H1'	1:6:1448:G:H5"	2.00	0.44
1:6:1408:G:H2'	1:6:1409:G:O4'	2.18	0.44
31:D9:34:TYR:OH	1:6:1487:A:OP1	419.22	0.44
1:6:1648:A:H2'	1:6:1649:G:H8	1.82	0.44
1:6:301:A:H2'	1:6:302:U:O4'	2.18	0.44
1:6:477:A:H2'	1:6:478:A:C8	2.49	0.44
38:8:55:U:C4	38:8:56:G:N7	2.86	0.44
16:C4:48:VAL:HG22	16:C4:49:LYS:N	2.69	0.44
16:C4:51:ASP:O	16:C4:54:GLU:HB2	2.17	0.44
16:C4:72:LYS:O	16:C4:75:GLY:N	4.54	0.44
18:C6:82:ARG:HH12	18:C6:114:ARG:HB2	3.36	0.44
20:C8:145:ARG:HB3	35:SM:68:ARG:NH1	4.54	0.44
21:C9:30:VAL:HA	21:C9:31:PRO:HD2	1.72	0.44
23:D1:1:MET:HB3	23:D1:10:GLU:HB2	4.71	0.44
23:D1:72:LEU:HD23	23:D1:72:LEU:HA	1.86	0.44
24:D2:104:LEU:HA	24:D2:126:LEU:H	1.80	0.44
24:D2:24:GLN:HA	24:D2:63:VAL:O	2.27	0.44
16:C4:107:ARG:HH22	28:D6:52:ASP:CG	4.29	0.44
40:L3:56:ILE:HG23	40:L3:57:VAL:N	2.67	0.44
41:L4:126:ILE:HG13	41:L4:238:LEU:HD13	1.99	0.44
42:L5:242:SER:OG	42:L5:243:ALA:N	3.59	0.44
42:L5:282:ARG:O	42:L5:285:ARG:HB2	2.47	0.44
42:L5:58:LYS:HA	42:L5:93:THR:HB	1.99	0.44
43:L6:166:LYS:NZ	36:5:3214:U:H6	274.42	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:176:PHE:H	50:M4:117:ARG:NH2	5.32	0.44
45:L8:134:TYR:CG	45:L8:190:VAL:HG21	2.53	0.44
47:M0:77:THR:HG23	47:M0:85:PHE:HZ	1.99	0.44
48:M1:153:LYS:O	48:M1:153:LYS:HG2	5.06	0.44
50:M4:128:ARG:NH2	36:5:3214:U:OP2	280.59	0.44
51:M5:9:GLU:HG3	51:M5:9:GLU:O	2.63	0.44
53:M7:62:ARG:O	53:M7:64:ASN:N	2.51	0.44
58:N2:58:GLU:HG2	58:N2:60:GLY:H	5.55	0.44
60:N4:6:ASP:HA	60:N4:13:ILE:HD11	2.37	0.44
63:N7:36:HIS:O	63:N7:38:PHE:N	2.77	0.44
66:O0:99:ASP:O	66:O0:102:THR:N	2.71	0.44
68:O2:87:MET:C	68:O2:88:HIS:CG	2.91	0.44
71:O5:83:LYS:HD2	38:8:38:U:H6	68.40	0.44
76:Q0:85:LEU:O	76:Q0:88:LYS:HB2	2.89	0.44
4:S2:66:PHE:O	4:S2:68:ILE:N	2.50	0.44
4:S2:68:ILE:O	4:S2:72:LEU:HB2	2.18	0.44
5:S3:90:ARG:HB3	5:S3:91:VAL:H	2.95	0.44
6:S4:131:LEU:HD12	1:6:251:A:C2	326.55	0.44
6:S4:130:GLN:HB3	6:S4:131:LEU:H	1.54	0.44
7:S5:121:ILE:CG2	7:S5:132:VAL:HG21	3.36	0.44
7:S5:58:LEU:HD11	7:S5:167:ARG:NH1	2.82	0.44
9:S7:113:PRO:HG2	9:S7:116:ARG:HD2	1.99	0.44
9:S7:117:THR:O	9:S7:121:VAL:HG23	3.53	0.44
9:S7:91:ILE:HD12	9:S7:92:PHE:H	3.51	0.44
10:S8:32:GLN:OE1	1:6:1675:C:H1'	274.80	0.44
35:SM:65:THR:HA	35:SM:70:ASN:HD22	5.11	0.44
34:SR:18:GLY:H	34:SR:39:ASP:HB3	3.15	0.44
36:1:1584:U:H2'	36:1:1585:C:C6	2.53	0.44
36:1:1845:G:H8	36:1:1845:G:H5"	1.81	0.44
36:1:2571:U:H4'	36:1:2572:C:OP1	2.15	0.44
36:1:2735:U:H2'	36:1:2736:A:H8	1.82	0.44
36:1:277:G:OP1	86:1:3878:OHX:N5	2.50	0.44
36:1:2356:A:N6	36:1:2983:C:H5	2.13	0.44
36:1:3259:U:H5'	36:1:3259:U:C6	2.41	0.44
36:1:3316:A:C2	36:1:3389:U:H5'	2.53	0.44
36:1:398:A:C4	53:M7:3:ARG:NH2	2.85	0.44
36:1:1918:C:OP2	86:1:4014:OHX:N2	2.51	0.44
1:2:1438:G:H2'	1:2:1439:C:C6	2.53	0.44
1:2:1648:A:H2'	1:2:1649:G:H8	1.83	0.44
1:2:1537:C:N3	86:2:2154:OHX:N3	2.65	0.44
1:2:813:U:C2	55:M9:163:ARG:NE	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1238:C:HO2'	36:5:1239:C:P	2.36	0.44
51:M5:147:ARG:HH12	36:5:151:A:P	79.53	0.44
36:5:1692:U:C4	36:5:1693:C:N4	2.86	0.44
36:5:1741:A:C6	36:5:1742:U:C2	3.05	0.44
36:5:1890:U:C2	36:5:1891:A:C8	3.06	0.44
36:5:2420:C:N4	36:5:2421:U:O4	2.51	0.44
36:5:2594:C:H5"	36:5:2595:A:OP2	2.17	0.44
36:5:2689:A:C8	36:5:2702:A:N6	2.85	0.44
36:5:3013:U:H5"	36:5:3014:U:OP2	2.17	0.44
36:5:3153:U:H1'	36:5:3154:C:C6	2.53	0.44
36:5:3306:U:O2'	36:5:3308:C:OP2	2.27	0.44
36:5:370:U:H5"	36:5:371:G:OP2	2.17	0.44
36:5:3378:C:OP1	86:5:3928:OHX:N3	2.50	0.44
36:5:420:G:O5'	36:5:420:G:OP2	2.33	0.44
41:L4:322:GLN:HB3	36:5:608:A:H5'	249.69	0.44
73:O7:47:TYR:OH	36:5:813:G:H5'	129.21	0.44
36:5:835:G:N3	36:5:857:G:C2	2.85	0.44
1:6:1304:G:H5'	1:6:1322:A:OP2	2.18	0.44
1:6:196:G:C2	1:6:197:A:H1'	2.52	0.44
11:S9:10:LYS:HA	1:6:471:A:O3'	392.03	0.44
1:6:541:A:OP1	1:6:541:A:H8	2.01	0.44
12:C0:52:LYS:HE2	12:C0:54:TYR:HE2	1.83	0.44
18:C6:39:VAL:HG21	18:C6:48:VAL:HG11	2.60	0.44
18:C6:82:ARG:HH22	18:C6:114:ARG:HD2	1.83	0.44
21:C9:118:PRO:HD2	21:C9:123:ARG:NH2	2.68	0.44
25:D3:108:GLY:HA2	1:6:600:U:OP2	357.57	0.44
27:D5:43:ASP:HB2	27:D5:46:LYS:HG3	1.98	0.44
27:D5:57:TYR:N	27:D5:57:TYR:CD2	3.18	0.44
27:D5:89:ILE:HB	27:D5:101:TYR:CD1	2.53	0.44
28:D6:12:LYS:HZ2	28:D6:12:LYS:HB3	3.35	0.44
28:D6:23:CYS:HB3	28:D6:28:LYS:H	1.83	0.44
30:D8:54:LEU:HD13	30:D8:54:LEU:HA	2.84	0.44
32:E0:13:LYS:HB3	32:E0:13:LYS:HE2	4.53	0.44
33:E1:123:ASN:HA	33:E1:124:PRO:HD2	2.09	0.44
40:L3:101:SER:OG	40:L3:101:SER:O	2.36	0.44
41:L4:34:ILE:HD12	41:L4:120:TYR:CD1	2.52	0.44
41:L4:99:MET:HE1	36:5:1429:G:C5	122.77	0.44
42:L5:197:SER:O	42:L5:202:GLY:N	2.48	0.44
43:L6:18:LEU:HD23	36:5:591:G:C2	215.71	0.44
44:L7:125:GLU:HA	44:L7:128:LYS:HG3	2.00	0.44
46:L9:170:LYS:HD3	46:L9:170:LYS:HA	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:91:VAL:HG12	47:M0:91:VAL:O	2.17	0.44
49:M3:92:THR:HB	71:O5:112:PRO:O	2.69	0.44
51:M5:35:VAL:HG23	36:5:1543:G:OP1	141.10	0.44
51:M5:38:ARG:HD2	51:M5:61:ILE:O	2.18	0.44
51:M5:79:ALA:HB1	51:M5:81:TYR:CZ	2.53	0.44
55:M9:19:LYS:C	55:M9:21:LYS:H	2.21	0.44
57:N1:17:ARG:HD2	57:N1:17:ARG:HA	1.75	0.44
57:N1:54:HIS:NE2	36:5:2724:U:H4'	228.79	0.44
58:N2:29:ASP:OD1	58:N2:31:ALA:HB3	2.17	0.44
59:N3:109:MET:HG3	59:N3:132:ASN:OD1	2.18	0.44
62:N6:50:ILE:HG12	62:N6:106:ILE:HD11	3.85	0.44
64:N8:63:LYS:HD3	64:N8:65:GLN:NE2	2.32	0.44
68:O2:76:VAL:N	68:O2:95:GLU:O	2.41	0.44
69:O3:102:LEU:HA	69:O3:102:LEU:HD23	1.97	0.44
70:O4:19:LYS:HZ3	70:O4:38:LEU:HD12	2.80	0.44
78:Q2:77:CYS:O	78:Q2:79:THR:N	2.51	0.44
2:S0:180:GLU:O	2:S0:184:LEU:HD23	2.23	0.44
2:S0:86:VAL:HG12	2:S0:174:TRP:CZ2	3.08	0.44
3:S1:109:LYS:HG3	3:S1:113:MET:HE3	1.98	0.44
4:S2:186:LYS:HA	4:S2:186:LYS:HD2	1.79	0.44
4:S2:43:ARG:NH1	4:S2:249:ALA:HB2	5.52	0.44
6:S4:88:ASP:HA	6:S4:122:LYS:NZ	2.48	0.44
6:S4:212:ASP:OD1	6:S4:215:ASP:N	4.04	0.44
6:S4:182:TYR:HB2	6:S4:228:ILE:HD13	1.99	0.44
7:S5:194:LEU:HD22	7:S5:198:LEU:HD11	4.91	0.44
8:S6:123:GLY:O	8:S6:127:THR:HG23	2.18	0.44
34:SR:145:LEU:HG	34:SR:145:LEU:H	2.18	0.44
36:1:1615:C:H2'	36:1:1616:U:C6	2.53	0.44
36:1:1701:C:H2'	36:1:1702:U:O4'	2.18	0.44
36:1:2541:U:H1'	36:1:2542:U:OP2	2.18	0.44
36:1:2397:A:H8	36:1:2941:A:N1	2.15	0.44
36:1:2948:C:H2'	36:1:2949:U:C6	2.52	0.44
36:1:3060:C:OP1	86:1:4039:OHX:N4	2.51	0.44
36:1:3341:U:O2'	36:1:3342:A:H5'	2.18	0.44
36:1:595:G:O2'	36:1:596:C:H5'	2.18	0.44
1:2:1334:U:H4'	31:D9:55:PHE:HB3	2.00	0.44
1:2:432:G:C5	1:2:433:C:C4	3.06	0.44
1:2:499:U:C2	1:2:500:C:C5	3.06	0.44
1:2:788:A:C4	6:S4:19:LEU:HD13	2.53	0.44
1:2:884:A:H2'	1:2:885:G:C8	2.53	0.44
1:2:987:G:C2	39:L2:249:SER:HB2	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:97:C:H2'	1:2:98:U:H6	1.83	0.44
36:5:1173:U:H1'	36:5:1179:A:H2'	1.99	0.44
36:5:1260:A:H1'	36:5:1280:C:H1'	1.99	0.44
36:5:1572:U:O2'	36:5:1573:G:H8	2.01	0.44
55:M9:42:ARG:NH2	36:5:1601:U:OP2	104.64	0.44
55:M9:103:ARG:NH2	36:5:1723:A:OP1	227.26	0.44
36:5:1514:G:HO2'	36:5:1841:A:H2	1.65	0.44
36:5:289:A:H2'	36:5:290:G:H8	1.83	0.44
36:5:3245:A:C2	36:5:3246:G:C2	3.06	0.44
36:5:3379:C:H2'	36:5:3380:U:O4'	2.18	0.44
36:5:578:A:H5"	36:5:579:G:O5'	2.18	0.44
1:6:1091:A:H4'	1:6:1092:A:O5'	2.18	0.44
1:6:110:U:H4'	1:6:797:G:C2	2.53	0.44
35:SM:72:ARG:NH1	1:6:1460:A:O2'	323.12	0.44
1:6:1336:A:OP1	86:6:2178:OHX:N1	2.51	0.44
1:6:486:G:H4'	1:6:486:G:OP1	2.18	0.44
1:6:223:U:H3	1:6:838:G:H1	1.64	0.44
1:6:840:U:H2'	1:6:841:U:H6	1.83	0.44
1:6:996:U:H2'	1:6:997:G:H8	1.83	0.44
38:8:39:G:H1'	38:8:105:A:N1	2.33	0.44
12:C0:29:GLN:O	12:C0:30:ALA:HB3	2.18	0.44
13:C1:69:LYS:O	13:C1:127:GLN:HB2	2.18	0.44
14:C2:45:LEU:HB3	14:C2:46:ARG:H	2.38	0.44
14:C2:61:VAL:HG13	14:C2:121:VAL:HG23	2.23	0.44
16:C4:25:ASP:N	16:C4:55:SER:HB3	2.32	0.44
17:C5:67:ALA:C	17:C5:69:GLU:H	2.20	0.44
1:2:1191:U:H5'	18:C6:143:ARG:CZ	2.48	0.44
17:C5:18:ARG:NH1	20:C8:90:ASN:ND2	4.09	0.44
21:C9:7:ARG:HD2	1:6:1366:U:O2'	424.75	0.44
21:C9:85:SER:HB2	21:C9:91:TYR:CZ	3.40	0.44
2:S0:59:LEU:HD12	23:D1:79:LEU:HD21	2.25	0.44
27:D5:71:ILE:CG2	27:D5:76:ALA:HB2	3.78	0.44
28:D6:82:ARG:O	28:D6:84:VAL:HG12	2.18	0.44
30:D8:14:LYS:HA	30:D8:14:LYS:NZ	5.40	0.44
30:D8:19:THR:HG21	30:D8:66:LEU:H	1.83	0.44
39:L2:62:VAL:HG12	39:L2:73:GLU:HB2	1.99	0.44
40:L3:187:SER:C	40:L3:188:ILE:HD12	2.37	0.44
40:L3:332:ARG:HH11	40:L3:332:ARG:HG2	1.82	0.44
40:L3:332:ARG:O	40:L3:333:LYS:HB2	2.19	0.44
41:L4:120:TYR:CD2	41:L4:277:PRO:HG3	2.53	0.44
43:L6:144:ALA:O	43:L6:147:ALA:HB3	2.36	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:51:TYR:O	44:L7:54:GLU:HB3	2.18	0.44
46:L9:90:MET:O	46:L9:143:GLU:O	4.66	0.44
48:M1:59:ILE:HB	48:M1:65:ILE:HD11	3.19	0.44
49:M3:57:VAL:HG22	49:M3:147:ILE:HG23	2.20	0.44
49:M3:18:TRP:C	49:M3:20:GLU:N	2.70	0.44
49:M3:47:ALA:HB1	49:M3:48:PRO:CD	2.50	0.44
52:M6:122:GLN:O	52:M6:128:ARG:HD2	4.48	0.44
52:M6:148:LYS:HB2	52:M6:149:TYR:CE2	2.56	0.44
53:M7:10:ASN:OD1	53:M7:12:ALA:HB3	2.17	0.44
54:M8:177:GLY:HA2	54:M8:184:PHE:CE2	2.93	0.44
54:M8:57:ILE:HG22	54:M8:58:ASN:N	2.33	0.44
58:N2:21:SER:HB3	58:N2:107:PHE:HB3	4.33	0.44
61:N5:115:ARG:HH11	61:N5:115:ARG:HG3	1.83	0.44
61:N5:86:VAL:HG11	61:N5:95:ILE:CD1	2.48	0.44
66:O0:60:ALA:HA	66:O0:63:SER:OG	2.93	0.44
69:O3:44:TYR:HA	69:O3:47:LYS:HG3	2.36	0.44
72:O6:40:VAL:O	72:O6:44:VAL:HG23	2.18	0.44
75:O9:9:ILE:HG22	75:O9:13:MET:CE	2.48	0.44
79:Q3:19:GLY:HA2	36:5:1925:U:O2	239.46	0.44
3:S1:145:LYS:NZ	3:S1:152:ARG:O	2.49	0.44
3:S1:46:THR:OG1	3:S1:47:LEU:N	4.27	0.44
4:S2:98:PHE:O	4:S2:118:ALA:N	3.01	0.44
5:S3:156:PHE:O	5:S3:157:LEU:HD12	2.17	0.44
7:S5:99:MET:HB2	7:S5:100:ASN:H	1.56	0.44
7:S5:29:ILE:HG22	7:S5:34:GLN:HG3	1.99	0.44
8:S6:142:ARG:O	8:S6:146:GLY:N	2.88	0.44
9:S7:14:THR:OG1	9:S7:15:GLU:N	2.51	0.44
34:SR:100:TYR:HA	34:SR:100:TYR:HD2	1.95	0.44
34:SR:195:HIS:NE2	34:SR:213:SER:O	2.50	0.44
36:1:1132:C:H2'	36:1:1133:A:C8	2.51	0.43
36:1:1307:G:C4	52:M6:60:LYS:HD3	2.53	0.43
36:1:1506:A:C2	36:1:1513:G:C2	3.06	0.43
36:1:2287:C:H4'	36:1:2288:G:OP2	2.18	0.43
36:1:2273:G:N2	36:1:2311:G:H2'	2.33	0.43
36:1:2577:C:H2'	36:1:2578:U:O4'	2.17	0.43
36:1:27:C:H1'	36:1:328:U:H1'	1.99	0.43
36:1:2952:G:H2'	36:1:2953:U:O4'	2.18	0.43
36:1:3198:U:H4'	36:1:3199:G:OP2	2.17	0.43
36:1:346:C:C4	36:1:348:A:C8	3.06	0.43
36:1:677:A:H4'	36:1:678:G:O5'	2.17	0.43
1:2:1202:A:H1'	1:2:1207:C:H42	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1278:G:C4'	5:S3:174:HIS:HE1	2.31	0.43
1:2:1279:C:H2'	1:2:1280:C:O4'	2.18	0.43
1:2:1332:C:O2'	5:S3:162:GLN:HB3	2.18	0.43
1:2:1485:C:H5"	1:2:1486:G:OP2	2.18	0.43
1:2:1486:G:C8	1:2:1487:A:C8	3.05	0.43
1:2:1487:A:H2'	1:2:1488:G:C8	2.52	0.43
1:2:1617:U:O2'	1:2:1618:C:H5'	2.18	0.43
1:2:959:U:H5'	29:D7:28:PRO:HB3	2.00	0.43
36:5:13:A:H5"	36:5:14:U:OP2	2.18	0.43
36:5:1519:G:H2'	36:5:1520:G:C8	2.52	0.43
36:5:1566:A:C2'	36:5:1567:U:H5'	2.48	0.43
36:5:1878:G:HO2'	36:5:1879:A:P	2.41	0.43
36:5:1448:U:C5	36:5:2355:G:C2	3.06	0.43
36:5:2726:C:C2	36:5:2728:G:C2	3.06	0.43
36:5:3028:G:H2'	36:5:3029:A:O4'	2.18	0.43
36:5:3389:U:O4	86:5:4244:OHX:N4	2.51	0.43
86:5:3971:OHX:N2	86:5:4193:OHX:N5	2.66	0.43
36:5:522:A:OP1	86:5:3933:OHX:N1	2.51	0.43
36:5:941:G:O2'	36:5:942:U:H5'	2.18	0.43
1:6:1175:U:H2'	1:6:1176:G:C8	2.53	0.43
1:6:720:G:OP2	1:6:720:G:N2	2.50	0.43
1:6:909:U:C2'	1:6:910:C:H5'	2.47	0.43
1:6:625:C:O2	1:6:974:A:N1	2.51	0.43
38:8:72:A:C5	38:8:73:U:C5	3.06	0.43
14:C2:33:ARG:HG3	14:C2:100:TRP:O	4.21	0.43
15:C3:56:ASP:N	15:C3:56:ASP:OD1	3.79	0.43
18:C6:89:LEU:HG	18:C6:105:LEU:HD23	2.94	0.43
18:C6:113:ASP:HA	18:C6:116:LEU:HD12	4.48	0.43
18:C6:59:LYS:O	18:C6:63:ILE:HD11	2.79	0.43
20:C8:8:GLN:HG3	20:C8:10:SER:HB3	1.99	0.43
22:D0:101:LYS:O	22:D0:104:THR:OG1	2.97	0.43
24:D2:41:MET:HG2	24:D2:129:VAL:HG21	3.14	0.43
25:D3:107:PHE:CE2	25:D3:114:LYS:HB2	2.52	0.43
25:D3:127:VAL:O	25:D3:130:VAL:HG22	2.18	0.43
26:D4:122:GLY:C	26:D4:124:ARG:N	3.02	0.43
29:D7:67:THR:HB	29:D7:68:GLY:H	1.70	0.43
29:D7:79:PHE:N	29:D7:79:PHE:CD2	3.28	0.43
30:D8:41:VAL:H	30:D8:62:GLU:HG3	5.69	0.43
39:L2:227:ARG:HG2	39:L2:239:ALA:CB	2.48	0.43
40:L3:167:ARG:O	86:L3:404:OHX:N4	2.50	0.43
41:L4:150:LEU:HD13	41:L4:249:ILE:HG23	2.05	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:25:VAL:C	41:L4:27:SER:H	2.29	0.43
42:L5:187:THR:HG23	42:L5:189:GLU:HB2	1.99	0.43
42:L5:257:GLU:C	42:L5:258:LYS:HD3	4.92	0.43
44:L7:179:LEU:HD13	44:L7:179:LEU:N	2.66	0.43
46:L9:134:ILE:HD12	46:L9:146:LEU:HG	4.44	0.43
43:L6:176:PHE:HA	50:M4:114:ASP:HB2	2.99	0.43
50:M4:116:GLU:HA	50:M4:119:GLN:HG3	2.63	0.43
52:M6:113:ASP:C	52:M6:117:ARG:HH12	2.22	0.43
52:M6:31:GLN:HG3	52:M6:33:ILE:HD12	2.00	0.43
54:M8:87:VAL:O	54:M8:107:THR:HG23	2.17	0.43
54:M8:69:ARG:HG3	36:5:784:A:N7	158.02	0.43
55:M9:151:ARG:O	55:M9:155:LEU:HG	4.44	0.43
61:N5:137:ASN:HB3	61:N5:142:ILE:CG1	2.48	0.43
62:N6:102:SER:O	62:N6:103:LYS:HD3	2.18	0.43
63:N7:100:THR:O	63:N7:107:ARG:HG2	3.76	0.43
63:N7:77:TYR:C	63:N7:79:HIS:H	2.20	0.43
66:O0:20:SER:O	66:O0:20:SER:OG	2.33	0.43
74:O8:45:VAL:HG23	74:O8:52:TYR:HB2	1.99	0.43
74:O8:65:LEU:HD23	74:O8:68:SER:HB2	2.56	0.43
75:O9:12:LYS:HE2	75:O9:12:LYS:HB3	1.87	0.43
46:L9:162:GLN:NE2	76:Q0:89:TYR:CE1	3.85	0.43
39:L2:81:GLY:N	79:Q3:65:ALA:O	2.33	0.43
2:S0:56:LYS:NZ	2:S0:158:VAL:HA	2.58	0.43
3:S1:148:ASN:ND2	1:6:1066:C:O2'	348.44	0.43
3:S1:206:PRO:O	3:S1:207:LEU:HB2	2.27	0.43
2:S0:119:ARG:NE	4:S2:240:LEU:HD23	3.71	0.43
5:S3:21:LEU:HD23	5:S3:21:LEU:HA	1.87	0.43
6:S4:246:LEU:HB3	6:S4:250:GLU:HB2	2.00	0.43
6:S4:49:ARG:HG3	6:S4:50:ASN:N	3.82	0.43
6:S4:55:ALA:HB2	6:S4:64:ILE:HD12	2.00	0.43
8:S6:88:ARG:HB3	8:S6:91:GLU:HB2	1.99	0.43
9:S7:77:LEU:HD22	9:S7:81:LEU:HD11	1.99	0.43
10:S8:12:SER:O	10:S8:15:GLY:N	2.57	0.43
10:S8:138:ASN:HB3	10:S8:141:ARG:NH1	2.32	0.43
11:S9:171:ARG:NH2	11:S9:174:ARG:HD3	4.56	0.43
11:S9:53:ARG:HH21	11:S9:97:LEU:HD22	2.43	0.43
34:SR:123:ILE:HA	34:SR:132:LYS:O	2.66	0.43
34:SR:176:LYS:HE2	34:SR:197:SER:C	5.83	0.43
34:SR:286:GLU:HA	34:SR:287:PRO:HD3	1.75	0.43
36:1:1764:U:H3'	36:1:1765:U:H4'	1.99	0.43
36:1:2667:A:H61	36:1:2687:G:H1'	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2743:A:H2'	36:1:2744:U:O4'	2.18	0.43
36:1:3006:A:H2'	36:1:3007:U:O4'	2.18	0.43
36:1:3108:G:C2	36:1:3127:A:C2	3.05	0.43
1:2:13:C:H4'	1:2:1298:U:O2	2.18	0.43
1:2:1607:G:H2'	1:2:1608:U:H6	1.83	0.43
1:2:224:C:H2'	1:2:225:A:C8	2.53	0.43
1:2:555:A:HO2'	1:2:556:A:P	2.40	0.43
1:2:582:U:H4'	1:2:583:C:OP2	2.18	0.43
37:3:47:C:H2'	37:3:48:U:H6	1.82	0.43
37:3:93:C:O2'	37:3:94:C:H5'	2.19	0.43
36:5:1210:U:H2'	36:5:1211:U:C6	2.53	0.43
36:5:1704:A:HO2'	36:5:1705:U:H6	1.65	0.43
36:5:2168:A:C6	36:5:2170:U:H1'	2.53	0.43
59:N3:48:ARG:HG3	36:5:2339:C:OP2	246.00	0.43
36:5:3263:G:C6	86:5:4114:OHX:N2	2.86	0.43
1:6:1006:C:H5"	1:6:1007:C:OP2	2.17	0.43
17:C5:124:THR:OG1	1:6:1182:U:H4'	350.69	0.43
1:6:1208:A:H5"	1:6:1209:C:OP2	2.18	0.43
1:6:1329:A:O5'	1:6:1329:A:H8	2.01	0.43
26:D4:131:ARG:NH1	1:6:153:G:OP2	320.61	0.43
1:6:165:G:H2'	1:6:166:C:H5"	2.00	0.43
1:6:1698:G:N2	1:6:1699:G:C8	2.86	0.43
1:6:38:C:H2'	1:6:39:A:H5'	1.99	0.43
26:D4:116:LYS:HE2	1:6:57:G:P	339.62	0.43
1:6:901:G:N1	1:6:902:G:C6	2.86	0.43
13:C1:131:ILE:HA	13:C1:131:ILE:HD12	1.55	0.43
14:C2:81:ASP:HA	14:C2:82:PRO:HD3	1.50	0.43
15:C3:23:PRO:HD2	15:C3:26:PHE:HB3	1.99	0.43
15:C3:55:ARG:HA	15:C3:60:VAL:O	2.19	0.43
18:C6:14:LYS:HB3	18:C6:15:SER:H	1.48	0.43
21:C9:73:VAL:HG21	21:C9:102:ARG:HG3	2.20	0.43
22:D0:62:VAL:HG22	22:D0:85:ARG:HG2	2.86	0.43
22:D0:20:ILE:O	22:D0:94:GLU:HA	5.73	0.43
25:D3:86:PHE:HB2	25:D3:120:VAL:HG11	2.31	0.43
32:E0:35:TYR:O	32:E0:38:LEU:HB3	3.23	0.43
39:L2:55:GLY:O	39:L2:56:ALA:HB3	4.70	0.43
39:L2:9:ARG:NH1	36:5:912:G:OP2	179.60	0.43
40:L3:290:ASP:HB3	40:L3:293:ASN:ND2	2.33	0.43
40:L3:358:TRP:CH2	60:N4:15:PRO:HD2	2.53	0.43
42:L5:95:TRP:HZ3	42:L5:156:GLY:C	9.37	0.43
44:L7:137:GLY:HA3	44:L7:236:ILE:HB	2.15	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:94:PHE:HD2	45:L8:189:LEU:HD21	1.83	0.43
46:L9:85:GLY:O	46:L9:186:PHE:HA	2.59	0.43
46:L9:4:ILE:HD11	56:N0:148:LEU:HD11	2.00	0.43
47:M0:129:VAL:HA	47:M0:133:GLN:OE1	3.78	0.43
47:M0:205:SER:O	47:M0:209:ASN:HB2	2.27	0.43
49:M3:116:LEU:HA	49:M3:116:LEU:HD23	1.84	0.43
36:1:147:U:O2'	51:M5:41:ARG:NH1	2.51	0.43
59:N3:53:SER:N	59:N3:56:ASP:OD2	2.62	0.43
62:N6:56:VAL:HG13	62:N6:104:LEU:HD22	2.33	0.43
62:N6:51:ARG:O	62:N6:54:ASP:HB2	2.92	0.43
64:N8:28:HIS:CE1	64:N8:32:ARG:NE	2.86	0.43
64:N8:59:ARG:HB2	64:N8:59:ARG:HE	1.43	0.43
68:O2:75:LEU:HD23	68:O2:95:GLU:O	2.37	0.43
71:O5:70:TYR:CD1	71:O5:77:PRO:HD3	2.96	0.43
74:O8:10:GLN:HA	74:O8:13:GLU:OE1	3.34	0.43
36:1:2907:G:H1'	76:Q0:100:TYR:CD2	2.53	0.43
78:Q2:16:THR:O	78:Q2:18:ARG:N	4.62	0.43
2:S0:88:LYS:HB3	2:S0:202:TYR:CE1	3.30	0.43
4:S2:152:HIS:CD2	4:S2:153:SER:H	2.90	0.43
6:S4:122:LYS:HD3	6:S4:145:ARG:HE	1.82	0.43
8:S6:25:ARG:HA	8:S6:28:PHE:CD2	3.84	0.43
11:S9:6:ARG:HA	11:S9:6:ARG:HD3	1.70	0.43
36:1:1069:C:H2'	36:1:1070:U:C6	2.53	0.43
36:1:1414:G:N7	86:1:4122:OHX:N2	2.66	0.43
36:1:1554:U:H4'	36:1:1555:U:O5'	2.19	0.43
36:1:1834:U:C3'	36:1:1835:A:H5'	2.47	0.43
36:1:2269:U:O2	36:1:2271:A:C8	2.71	0.43
36:1:1897:G:H1	36:1:2338:C:H42	1.66	0.43
36:1:2571:U:OP1	36:1:2571:U:H2'	2.18	0.43
36:1:3007:U:H5'	52:M6:73:PHE:CE1	2.52	0.43
36:1:3335:A:C2	36:1:3336:A:C4	3.06	0.43
36:1:359:U:C4	36:1:360:G:C6	3.06	0.43
86:1:3961:OHX:N1	86:1:4140:OHX:N3	2.66	0.43
36:1:707:U:H1'	36:1:754:G:O2'	2.19	0.43
36:1:835:G:N3	36:1:857:G:C2	2.86	0.43
1:2:1003:A:H1'	1:2:1005:A:N7	2.33	0.43
1:2:1594:G:C5'	31:D9:33:LYS:HD2	2.48	0.43
1:2:265:A:C2	1:2:267:U:C4	3.07	0.43
1:2:320:U:C2	1:2:321:C:H6	2.37	0.43
1:2:460:A:H5'	1:2:461:G:OP2	2.19	0.43
38:4:71:A:H2	38:4:82:U:O2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1049:C:H2'	36:5:1050:U:H6	1.82	0.43
36:5:1085:A:H5"	36:5:1085:A:H8	1.82	0.43
36:5:137:G:H2'	36:5:138:U:C6	2.54	0.43
36:5:1556:C:H2'	36:5:2169:G:N1	2.33	0.43
36:5:1940:G:H2'	36:5:1941:C:O4'	2.19	0.43
36:5:26:A:C4	36:5:330:G:C8	3.06	0.43
86:5:4060:OHX:N3	86:5:4137:OHX:N4	2.66	0.43
36:5:3334:U:OP2	86:5:4228:OHX:N6	2.51	0.43
36:5:423:A:C6	36:5:424:G:C6	3.06	0.43
36:5:820:A:C5	36:5:821:U:C4	3.06	0.43
36:5:928:C:H2'	36:5:929:A:C8	2.53	0.43
28:D6:5:ARG:HB3	1:6:1796:C:C5	341.93	0.43
6:S4:221:ARG:CG	1:6:753:A:H5"	359.58	0.43
1:6:833:U:OP2	86:6:2202:OHX:N5	2.51	0.43
1:6:920:U:H2'	1:6:921:U:O4'	2.18	0.43
1:6:992:A:H5'	1:6:992:A:H8	1.84	0.43
37:7:79:A:H2'	37:7:80:G:O4'	2.18	0.43
38:8:80:A:H8	38:8:80:A:OP2	2.01	0.43
12:C0:45:ALA:O	12:C0:49:LEU:HD23	2.19	0.43
14:C2:87:PRO:HA	14:C2:140:PHE:HE1	2.42	0.43
15:C3:19:SER:O	15:C3:19:SER:OG	2.28	0.43
15:C3:33:VAL:O	15:C3:37:ILE:N	2.54	0.43
16:C4:29:HIS:CD2	16:C4:41:ARG:HB2	4.29	0.43
17:C5:121:ILE:HG23	17:C5:123:TYR:H	1.83	0.43
18:C6:82:ARG:HH22	18:C6:114:ARG:CB	2.31	0.43
23:D1:15:ARG:NH2	23:D1:24:ILE:HG21	3.88	0.43
26:D4:57:VAL:HG13	26:D4:60:PHE:HE2	1.83	0.43
36:1:1305:U:C6	40:L3:257:PRO:HG3	2.53	0.43
41:L4:98:ARG:HD2	41:L4:99:MET:O	2.17	0.43
42:L5:155:THR:HA	42:L5:179:ARG:HA	2.00	0.43
43:L6:80:ASN:C	43:L6:82:ARG:H	2.20	0.43
44:L7:77:VAL:CG2	57:N1:139:ARG:HD3	2.80	0.43
45:L8:101:THR:HG23	45:L8:104:GLU:OE2	3.85	0.43
46:L9:22:SER:HG	46:L9:23:ARG:N	2.16	0.43
46:L9:38:LEU:HD13	46:L9:71:VAL:HG22	3.50	0.43
47:M0:86:HIS:O	47:M0:138:VAL:HA	2.17	0.43
48:M1:30:LEU:HD11	48:M1:47:GLN:HG2	1.99	0.43
51:M5:31:ARG:HG3	51:M5:129:TYR:OH	3.38	0.43
59:N3:87:ARG:NH1	59:N3:137:VAL:HG11	3.42	0.43
61:N5:103:TYR:CE1	61:N5:139:ILE:HG12	5.52	0.43
62:N6:116:LYS:O	62:N6:120:GLN:HG3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:23:VAL:HG12	63:N7:45:GLY:HA3	2.04	0.43
63:N7:27:LYS:HA	63:N7:27:LYS:HD3	1.67	0.43
64:N8:46:ASP:OD1	64:N8:46:ASP:N	2.49	0.43
64:N8:49:HIS:N	64:N8:50:PRO:HD3	3.01	0.43
64:N8:9:ARG:HE	64:N8:9:ARG:HB3	2.17	0.43
66:O0:29:SER:HA	66:O0:32:LYS:HD2	5.31	0.43
69:O3:54:ARG:NH1	69:O3:64:ILE:HD11	2.85	0.43
36:1:430:U:H4'	69:O3:67:MET:HE1	2.01	0.43
70:O4:25:THR:O	70:O4:27:GLY:N	2.52	0.43
70:O4:31:ARG:HB2	70:O4:31:ARG:HE	1.33	0.43
70:O4:95:ILE:O	70:O4:99:LYS:N	2.89	0.43
74:O8:5:ILE:HG22	74:O8:54:LEU:HD13	3.20	0.43
2:S0:13:ASP:O	2:S0:16:LEU:HB2	2.18	0.43
2:S0:26:ALA:HB1	2:S0:29:VAL:CG1	2.49	0.43
2:S0:59:LEU:O	2:S0:63:ILE:HG13	2.17	0.43
4:S2:186:LYS:O	4:S2:190:LEU:HD12	4.92	0.43
5:S3:116:ARG:O	5:S3:120:TYR:HB2	2.18	0.43
6:S4:240:LYS:H	6:S4:240:LYS:CE	2.31	0.43
7:S5:105:GLY:O	1:6:1609:U:O2'	376.11	0.43
7:S5:131:GLN:O	7:S5:134:VAL:HB	2.17	0.43
7:S5:156:ARG:HG3	7:S5:156:ARG:H	1.52	0.43
10:S8:138:ASN:HB3	10:S8:141:ARG:HH12	1.83	0.43
10:S8:158:SER:O	10:S8:160:PHE:N	2.51	0.43
10:S8:166:TYR:O	10:S8:183:ILE:HD12	6.21	0.43
10:S8:26:LYS:O	10:S8:28:GLU:N	3.33	0.43
11:S9:66:ASP:HA	11:S9:67:PRO:HD2	2.01	0.43
34:SR:117:LYS:HD2	34:SR:117:LYS:N	2.33	0.43
34:SR:260:ILE:O	34:SR:274:LEU:N	2.49	0.43
34:SR:292:LEU:HA	34:SR:302:PHE:O	2.18	0.43
36:1:1146:C:H4'	36:1:1331:U:C5	2.54	0.43
36:1:1323:G:O3'	56:N0:2:ALA:HA	2.18	0.43
36:1:2144:A:C4	36:1:2281:A:N6	2.86	0.43
36:1:2433:U:C4	36:1:2434:U:C4	3.06	0.43
36:1:2676:A:H4'	36:1:2677:G:O5'	2.18	0.43
36:1:2913:C:H2'	36:1:2914:G:C8	2.53	0.43
36:1:3099:C:O2'	36:1:3100:U:H5'	2.18	0.43
36:1:437:G:O2'	36:1:438:A:H5'	2.18	0.43
36:1:603:A:C5	36:1:604:G:H1'	2.52	0.43
36:1:692:A:OP1	51:M5:201:ARG:NH2	2.41	0.43
36:1:664:U:H3	36:1:798:G:H1	1.66	0.43
36:1:98:G:N7	49:M3:13:HIS:NE2	2.64	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1244:A:H3'	1:2:1244:A:N3	2.33	0.43
1:2:1482:C:OP2	1:2:1521:G:N2	2.51	0.43
1:2:476:U:H5"	1:2:477:A:O4'	2.18	0.43
1:2:751:G:H2'	1:2:752:A:C8	2.54	0.43
1:2:794:U:H1'	1:2:795:U:OP1	2.18	0.43
36:5:1519:G:O2'	36:5:1520:G:H5'	2.18	0.43
36:5:172:G:H2'	36:5:172:G:N3	2.32	0.43
36:5:1847:A:O2'	36:5:1848:G:H5"	2.19	0.43
36:5:1506:A:H1'	36:5:1848:G:O6	2.18	0.43
36:5:2396:G:OP1	36:5:2397:A:H4'	2.18	0.43
36:5:3188:G:C2	36:5:3205:G:N1	2.86	0.43
36:5:441:U:H2'	36:5:442:G:C8	2.53	0.43
36:5:499:G:H2'	36:5:500:C:H6	1.84	0.43
23:D1:62:ARG:HH21	1:6:1082:C:H1'	380.62	0.43
1:6:1252:C:H2'	1:6:1253:U:O4'	2.18	0.43
1:6:1296:A:N6	1:6:1297:G:C6	2.86	0.43
1:6:1606:C:H2'	1:6:1607:G:C8	2.52	0.43
1:6:168:A:C6	1:6:169:A:N6	2.87	0.43
1:6:228:G:H1	1:6:236:A:H61	1.66	0.43
1:6:514:G:O2'	1:6:515:A:H5'	2.18	0.43
1:6:729:G:C2	1:6:730:G:H1'	2.53	0.43
1:2:327:U:O2'	13:C1:10:GLU:HG2	2.18	0.43
13:C1:141:LYS:HG3	13:C1:142:VAL:N	2.32	0.43
16:C4:78:ALA:HB2	16:C4:111:ARG:HB2	1.99	0.43
17:C5:128:HIS:HD2	35:SM:71:ASN:HD22	4.04	0.43
17:C5:84:ILE:H	17:C5:84:ILE:HG12	1.62	0.43
18:C6:115:THR:O	18:C6:117:LEU:N	2.42	0.43
18:C6:41:PRO:HG2	18:C6:78:VAL:HG21	1.99	0.43
19:C7:112:SER:O	19:C7:113:LEU:HB3	2.18	0.43
20:C8:27:LYS:HA	20:C8:57:ARG:HA	2.01	0.43
1:2:1076:A:O3'	28:D6:13:LYS:HD3	2.18	0.43
28:D6:18:VAL:HG11	28:D6:33:ASP:HB3	2.01	0.43
36:1:3146:G:O2'	40:L3:100:ARG:HG3	2.18	0.43
41:L4:227:THR:O	36:5:689:U:N3	90.41	0.43
41:L4:95:ARG:HD2	36:5:343:U:O2	130.87	0.43
42:L5:122:VAL:C	42:L5:124:GLU:H	3.02	0.43
42:L5:146:LEU:HD13	42:L5:148:ILE:HD13	5.15	0.43
42:L5:33:ARG:HH12	42:L5:50:ARG:NH1	2.17	0.43
45:L8:60:ARG:O	45:L8:64:ILE:HG13	2.36	0.43
46:L9:106:LYS:HZ2	46:L9:106:LYS:HA	4.78	0.43
46:L9:106:LYS:HE3	46:L9:107:ASP:OD1	3.94	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:87:LEU:HD23	47:M0:138:VAL:HG22	2.45	0.43
48:M1:110:ILE:HD13	48:M1:122:ILE:HD11	4.06	0.43
49:M3:90:ALA:O	49:M3:95:ILE:HB	2.19	0.43
51:M5:6:TYR:O	51:M5:10:LEU:HB2	2.76	0.43
50:M4:131:VAL:HG13	52:M6:181:ALA:HB1	2.00	0.43
52:M6:85:ARG:HD3	52:M6:90:HIS:CE1	3.04	0.43
54:M8:103:ALA:HB3	54:M8:106:PHE:CE2	2.94	0.43
57:N1:104:GLU:OE1	57:N1:130:ARG:NH1	2.51	0.43
57:N1:57:TYR:CG	57:N1:89:LEU:HD21	3.12	0.43
59:N3:83:LYS:HE2	59:N3:84:SER:N	2.33	0.43
63:N7:4:PHE:CE2	66:O0:35:ARG:HA	2.53	0.43
65:N9:53:ALA:O	65:N9:56:ALA:HB3	2.18	0.43
68:O2:34:LYS:O	68:O2:36:LYS:NZ	2.33	0.43
73:O7:52:LYS:O	73:O7:56:ARG:HG3	2.18	0.43
74:O8:66:ILE:HG21	74:O8:77:ARG:HH21	1.83	0.43
75:O9:49:MET:O	75:O9:50:ASN:C	2.57	0.43
78:Q2:14:GLY:O	78:Q2:18:ARG:HG3	4.65	0.43
79:Q3:11:THR:HG21	79:Q3:27:LYS:HB2	4.04	0.43
2:S0:122:ILE:HG12	2:S0:144:ILE:HB	2.22	0.43
2:S0:63:ILE:O	2:S0:67:ILE:HG12	2.76	0.43
3:S1:59:ASP:HA	3:S1:62:LYS:HZ1	1.82	0.43
4:S2:143:TYR:CD2	4:S2:147:ASN:HA	4.48	0.43
5:S3:138:VAL:HA	5:S3:183:GLY:O	2.91	0.43
6:S4:16:HIS:C	6:S4:18:TRP:H	2.21	0.43
6:S4:245:LYS:HE3	6:S4:245:LYS:HB2	4.26	0.43
7:S5:166:ARG:HD2	30:D8:46:GLY:N	2.33	0.43
9:S7:133:THR:O	9:S7:134:GLU:HB2	2.19	0.43
20:C8:145:ARG:HB2	35:SM:68:ARG:NH2	2.33	0.43
34:SR:23:LEU:HB3	34:SR:33:LEU:HD11	2.95	0.43
36:1:1522:U:H4'	36:1:1604:G:O2'	2.18	0.43
36:1:2955:U:H6	36:1:2955:U:O5'	2.01	0.43
36:1:1389:G:OP2	86:1:3972:OHX:N4	2.51	0.43
36:1:172:G:N7	86:1:3993:OHX:N2	2.66	0.43
36:1:80:G:H2'	36:1:81:C:H6	1.84	0.43
36:1:80:G:H2'	36:1:81:C:C6	2.53	0.43
36:1:975:C:H2'	36:1:976:U:H6	1.83	0.43
1:2:1294:G:O6	86:2:2077:OHX:N4	2.52	0.43
1:2:1383:G:OP1	22:D0:87:HIS:ND1	2.51	0.43
1:2:142:G:H1	1:2:173:A:H2	1.62	0.43
86:2:2044:OHX:N2	86:2:2099:OHX:N6	2.66	0.43
1:2:625:C:O2	1:2:974:A:N1	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:711:U:H1'	1:2:712:G:C8	2.53	0.43
1:2:720:G:N3	1:2:720:G:H2'	2.34	0.43
1:2:892:A:H2'	1:2:893:U:H6	1.83	0.43
36:5:1131:G:C4	36:5:2373:A:C2	3.06	0.43
36:5:1397:C:O2'	36:5:1398:U:H5'	2.18	0.43
36:5:1432:C:O2'	36:5:1433:A:H3'	2.18	0.43
67:O1:64:VAL:HG22	36:5:1456:A:N6	165.08	0.43
36:5:1668:G:H2'	36:5:1669:C:O4'	2.18	0.43
36:5:1736:G:C6	36:5:1737:U:C4	3.07	0.43
36:5:2890:A:H2'	36:5:2891:U:O4'	2.19	0.43
36:5:3025:C:H2'	36:5:3026:G:O4'	2.18	0.43
36:5:3112:G:O6	36:5:3120:C:H5"	2.18	0.43
36:5:2169:G:O6	86:5:3947:OHX:N5	2.51	0.43
36:5:1470:U:OP1	86:5:3950:OHX:N6	2.51	0.43
86:5:4005:OHX:N6	86:5:4195:OHX:N5	2.66	0.43
36:5:3152:U:O2	86:5:4220:OHX:N5	2.51	0.43
33:E1:97:LYS:HD3	1:6:1232:U:C5	434.98	0.43
1:6:1241:G:O2'	1:6:1242:A:OP1	2.31	0.43
18:C6:30:LYS:HD3	1:6:1366:U:OP1	424.37	0.43
1:6:1473:U:O2	1:6:1473:U:H2'	2.18	0.43
1:6:1685:G:H1	1:6:1716:C:H42	1.66	0.43
1:6:330:G:C4	1:6:331:A:C8	3.06	0.43
1:6:534:A:C6	1:6:535:A:C4	3.06	0.43
13:C1:76:VAL:HG12	13:C1:85:VAL:O	2.54	0.43
15:C3:27:LYS:HB2	15:C3:28:LEU:H	1.50	0.43
15:C3:42:ARG:NH2	15:C3:80:LEU:HD21	2.32	0.43
16:C4:81:VAL:HG13	16:C4:115:ILE:HG21	2.00	0.43
17:C5:127:ARG:N	17:C5:127:ARG:HD2	4.77	0.43
1:2:1180:C:O2	17:C5:128:HIS:HE1	2.02	0.43
18:C6:4:VAL:HG12	18:C6:23:LYS:HB2	6.53	0.43
19:C7:19:ARG:HG3	19:C7:20:TYR:CD1	2.53	0.43
19:C7:36:ASP:N	19:C7:36:ASP:OD2	2.53	0.43
19:C7:71:PHE:CE1	19:C7:73:LEU:HB3	2.54	0.43
20:C8:3:LEU:HD23	20:C8:5:VAL:HG13	2.00	0.43
21:C9:137:ALA:O	21:C9:141:GLU:HG2	2.18	0.43
21:C9:45:MET:HE3	21:C9:46:PRO:HD2	2.00	0.43
25:D3:62:LYS:N	25:D3:116:ASP:O	2.49	0.43
26:D4:41:ARG:NH1	26:D4:52:LYS:HD2	2.33	0.43
28:D6:36:ILE:O	28:D6:36:ILE:HD13	2.18	0.43
28:D6:71:LEU:N	28:D6:71:LEU:HD22	2.34	0.43
33:E1:108:VAL:HA	33:E1:114:VAL:HA	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:305:ILE:HG13	40:L3:305:ILE:H	1.48	0.43
42:L5:178:ASN:HA	42:L5:183:TRP:CG	2.68	0.43
45:L8:101:THR:HG23	45:L8:104:GLU:HG3	3.03	0.43
46:L9:112:ILE:N	46:L9:126:VAL:O	2.51	0.43
52:M6:116:LYS:HG3	52:M6:117:ARG:N	2.65	0.43
52:M6:124:LEU:HD11	56:N0:167:ARG:HH21	1.83	0.43
52:M6:12:LYS:HG2	52:M6:40:GLU:HB3	3.64	0.43
36:1:2763:U:H5'	54:M8:176:ARG:HG3	2.00	0.43
54:M8:42:ALA:HA	54:M8:43:PRO:HD2	1.73	0.43
55:M9:110:ARG:C	55:M9:112:ALA:H	2.21	0.43
56:N0:155:ARG:HH21	56:N0:155:ARG:CG	2.86	0.43
61:N5:130:TYR:CD1	61:N5:130:TYR:N	2.86	0.43
36:1:1809:A:OP1	63:N7:65:ARG:NH2	2.52	0.43
36:1:1391:C:C2	68:O2:103:LYS:HD2	2.54	0.43
36:1:3275:U:O4'	69:O3:66:VAL:HG21	2.18	0.43
71:O5:11:THR:O	71:O5:11:THR:OG1	3.14	0.43
72:O6:50:LEU:HD23	72:O6:50:LEU:HA	1.83	0.43
79:Q3:79:VAL:O	79:Q3:81:SER:N	3.17	0.43
2:S0:188:LEU:HB3	2:S0:189:VAL:H	1.69	0.43
2:S0:200:ASP:N	2:S0:200:ASP:OD1	3.17	0.43
3:S1:131:ASP:HB3	3:S1:180:THR:CG2	2.44	0.43
6:S4:77:ARG:HA	6:S4:77:ARG:HD3	4.26	0.43
7:S5:91:GLU:HG2	7:S5:95:ASN:HD21	1.82	0.43
11:S9:2:PRO:HD2	1:6:461:G:OP1	361.18	0.43
11:S9:74:ASN:O	11:S9:78:ARG:HB3	2.76	0.43
36:1:101:G:C2'	36:1:102:C:H5'	2.49	0.43
36:1:189:G:C6	36:1:206:G:C5	3.07	0.43
36:1:2111:G:H4'	36:1:2112:U:OP2	2.19	0.43
36:1:22:G:H1'	38:4:104:A:N3	2.34	0.43
36:1:2399:A:N6	36:1:2400:G:C6	2.87	0.43
36:1:2652:U:C5	36:1:2653:C:C5	3.07	0.43
35:SM:32:SER:OG	36:1:2666:C:O2'	2.04	0.43
36:1:3006:A:OP2	52:M6:148:LYS:NZ	2.51	0.43
36:1:830:A:OP1	86:1:4011:OHX:N4	2.51	0.43
36:1:587:U:C2'	36:1:588:G:H5'	2.48	0.43
36:1:58:G:H8	36:1:58:G:O5'	2.02	0.43
36:1:70:A:N1	36:1:313:A:O2'	2.47	0.43
36:1:729:C:H6	36:1:729:C:O5'	2.01	0.43
1:2:17:C:HO2'	1:2:1137:A:N6	2.17	0.43
1:2:1088:A:H4'	1:2:1143:A:H5'	2.00	0.43
1:2:1433:G:C4	31:D9:41:GLN:CB	3.02	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1680:G:C2	1:2:1720:G:C2	3.07	0.43
1:2:1735:U:H2'	1:2:1736:G:O4'	2.19	0.43
1:2:1785:U:H2'	1:2:1786:G:H8	1.83	0.43
1:2:180:A:H2'	1:2:181:A:O4'	2.17	0.43
1:2:360:A:H2'	1:2:361:C:H4'	2.01	0.43
1:2:538:A:H8	1:2:543:C:H41	1.67	0.43
1:2:649:U:O2'	1:2:650:U:O4'	2.37	0.43
1:2:758:U:OP1	11:S9:7:THR:HG21	2.18	0.43
36:1:1618:G:H4'	38:4:129:C:H1'	2.00	0.43
36:5:1014:U:H3	36:5:1036:A:H61	1.65	0.43
41:L4:309:ARG:HG2	36:5:1360:C:O3'	211.95	0.43
36:5:2211:U:H5	36:5:2234:G:C6	2.36	0.43
36:5:2294:U:C2	36:5:2297:U:C5	3.07	0.43
78:Q2:13:LYS:NZ	36:5:2718:U:OP1	195.68	0.43
36:5:1662:G:O6	86:5:3913:OHX:N1	2.50	0.43
36:5:2400:G:OP1	86:5:4104:OHX:N1	2.50	0.43
1:6:1109:G:C2'	1:6:1110:G:H5'	2.49	0.43
1:6:1198:G:OP1	1:6:1199:G:O2'	2.18	0.43
1:6:1344:A:H4'	1:6:1345:A:OP1	2.18	0.43
1:6:1511:U:H2'	1:6:1512:G:C8	2.54	0.43
1:6:1558:U:H3'	1:6:1559:A:H4'	2.00	0.43
1:6:1672:G:H2'	1:6:1673:G:C8	2.54	0.43
1:6:325:G:O2'	1:6:326:G:H5'	2.19	0.43
1:6:540:G:O2'	1:6:542:A:H5'	2.19	0.43
71:O5:78:LYS:HG2	38:8:38:U:O2	74.75	0.43
14:C2:59:LEU:HA	14:C2:87:PRO:HB2	2.00	0.43
16:C4:129:LYS:HE3	16:C4:129:LYS:HB2	1.47	0.43
16:C4:17:ALA:HB3	16:C4:81:VAL:HA	1.99	0.43
17:C5:12:PHE:CG	17:C5:13:LYS:N	2.85	0.43
17:C5:89:MET:H	17:C5:89:MET:HG3	1.71	0.43
17:C5:99:GLY:O	1:6:1211:A:H1'	375.20	0.43
20:C8:112:ASP:O	20:C8:115:ARG:HB3	2.26	0.43
20:C8:134:ARG:HG2	1:6:1559:A:C2	360.14	0.43
20:C8:146:ALA:H	35:SM:68:ARG:NH2	2.16	0.43
20:C8:54:LEU:C	20:C8:56:LYS:H	2.72	0.43
24:D2:11:LEU:HA	24:D2:11:LEU:HD23	1.74	0.43
26:D4:66:GLY:H	1:6:532:U:H5"	430.44	0.43
27:D5:57:TYR:HB3	27:D5:60:VAL:HG12	1.99	0.43
29:D7:3:LEU:HA	29:D7:3:LEU:HD22	1.78	0.43
30:D8:19:THR:HG22	30:D8:20:GLY:H	1.83	0.43
7:S5:158:GLN:HG2	30:D8:66:LEU:HD21	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:E1:95:HIS:CG	33:E1:96:LYS:H	2.74	0.43
40:L3:196:ARG:C	40:L3:198:HIS:H	2.22	0.43
41:L4:164:GLU:O	41:L4:168:ALA:N	2.87	0.43
42:L5:205:SER:OG	42:L5:206:GLN:N	3.80	0.43
44:L7:158:LYS:CG	44:L7:159:GLN:H	2.44	0.43
45:L8:78:PHE:C	45:L8:80:TYR:N	2.72	0.43
46:L9:87:LYS:N	46:L9:185:GLY:O	3.03	0.43
46:L9:76:ASP:O	46:L9:80:THR:HG23	2.26	0.43
48:M1:85:LYS:HE3	48:M1:85:LYS:HB2	1.83	0.43
51:M5:133:ILE:HG13	51:M5:133:ILE:O	2.19	0.43
51:M5:194:GLN:NE2	36:5:99:A:H5'	122.52	0.43
52:M6:84:LEU:HD22	52:M6:102:LEU:HD22	3.00	0.43
54:M8:153:PHE:O	54:M8:161:LYS:HD2	2.18	0.43
56:N0:125:LYS:HG3	56:N0:126:VAL:N	2.87	0.43
62:N6:52:ARG:HA	62:N6:70:ILE:CG2	2.73	0.43
67:O1:71:LEU:HA	67:O1:71:LEU:HD23	1.84	0.43
69:O3:21:ARG:O	36:5:634:C:H5'	223.34	0.43
72:O6:14:GLY:HA2	36:5:73:C:OP1	107.41	0.43
73:O7:66:TYR:O	73:O7:68:LYS:N	2.79	0.43
76:Q0:84:ALA:O	76:Q0:87:SER:N	3.54	0.43
2:S0:202:TYR:O	2:S0:203:PHE:CD2	2.71	0.43
3:S1:138:PHE:HD2	3:S1:214:LYS:HB3	1.83	0.43
3:S1:219:LYS:HE2	3:S1:219:LYS:HB3	1.89	0.43
3:S1:23:PRO:O	3:S1:27:LYS:N	2.48	0.43
3:S1:69:CYS:O	3:S1:72:ASP:HB2	2.19	0.43
4:S2:158:THR:HG21	4:S2:221:THR:HG23	2.01	0.43
5:S3:54:ARG:HB3	5:S3:57:ASP:OD1	5.06	0.43
6:S4:15:PRO:HA	6:S4:39:ARG:NH1	4.37	0.43
7:S5:116:HIS:O	7:S5:120:ILE:HG13	2.66	0.43
7:S5:92:ARG:NH2	7:S5:169:ASN:HA	2.33	0.43
8:S6:157:VAL:HG22	8:S6:173:PRO:HD2	2.01	0.43
17:C5:126:VAL:HG13	35:SM:71:ASN:HD21	1.84	0.43
34:SR:249:ARG:HD2	34:SR:251:TRP:CZ3	3.65	0.43
36:1:1310:G:N7	86:1:4028:OHX:N5	2.66	0.43
36:1:1610:G:C6	36:1:1611:G:C6	3.07	0.43
36:1:1886:A:O4'	36:1:3307:A:H5'	2.19	0.43
36:1:2394:G:C8	40:L3:260:VAL:HG23	2.54	0.43
36:1:2707:C:H2'	36:1:2708:C:C6	2.53	0.43
36:1:3150:A:OP1	40:L3:132:LYS:HB2	2.19	0.43
36:1:3155:U:H3'	36:1:3156:U:C4'	2.38	0.43
36:1:849:C:H2'	36:1:850:U:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1105:C:H41	25:D3:4:GLY:HA2	1.83	0.43
1:2:1594:G:OP2	1:2:1596:C:N4	2.51	0.43
1:2:1629:G:H2'	1:2:1630:U:H6	1.84	0.43
1:2:480:G:H22	1:2:509:G:H1'	1.81	0.43
1:2:717:C:N4	1:2:720:G:H22	2.17	0.43
37:3:68:C:OP1	42:L5:14:SER:OG	2.25	0.43
36:5:1114:U:C4	36:5:1115:G:N7	2.87	0.43
36:5:1208:U:H6	36:5:3115:C:N4	2.14	0.43
36:5:2739:A:H2'	36:5:2740:A:H5"	1.99	0.43
36:5:3283:U:H2'	36:5:3284:G:H8	1.83	0.43
86:5:3995:OHX:N3	86:5:4084:OHX:N5	2.66	0.43
86:5:4060:OHX:N5	86:5:4137:OHX:N6	2.65	0.43
64:N8:25:HIS:ND1	36:5:661:G:N7	160.97	0.43
21:C9:39:THR:OG1	1:6:1478:G:OP1	381.95	0.43
1:6:83:G:N7	86:6:2096:OHX:N1	2.67	0.43
1:6:310:C:C4	1:6:311:U:C5	3.07	0.43
10:S8:25:ARG:HA	1:6:400:A:H5"	308.78	0.43
6:S4:59:ARG:NH2	1:6:446:A:OP2	383.88	0.43
1:6:468:A:N1	1:6:595:G:C8	2.86	0.43
1:6:484:C:N4	1:6:503:G:H1	2.16	0.43
1:6:919:A:H2'	1:6:920:U:H6	1.83	0.43
1:6:985:G:H5"	1:6:986:G:OP2	2.18	0.43
38:8:156:U:C4	38:8:157:U:C5	3.07	0.43
13:C1:107:VAL:HA	13:C1:108:PRO:HD2	1.86	0.43
16:C4:103:ARG:HH12	28:D6:48:ALA:CB	3.57	0.43
17:C5:17:TYR:O	17:C5:19:GLY:N	4.22	0.43
18:C6:109:PHE:CB	18:C6:117:LEU:HD21	2.48	0.43
19:C7:106:THR:O	19:C7:110:VAL:HG23	2.18	0.43
20:C8:28:ILE:HA	20:C8:58:ALA:HB2	2.01	0.43
20:C8:46:VAL:O	20:C8:49:LYS:HB2	2.18	0.43
22:D0:42:VAL:O	22:D0:45:ALA:HB3	3.73	0.43
22:D0:89:ARG:HE	22:D0:89:ARG:HB2	1.59	0.43
24:D2:2:THR:N	1:6:1034:C:O2'	336.85	0.43
25:D3:133:LEU:HA	25:D3:133:LEU:HD22	2.41	0.43
25:D3:14:LYS:HD2	25:D3:18:HIS:CD2	2.52	0.43
28:D6:33:ASP:OD1	28:D6:34:LYS:N	2.51	0.43
28:D6:84:VAL:HG13	28:D6:85:ARG:H	1.84	0.43
31:D9:42:CYS:O	31:D9:46:LYS:HG2	2.92	0.43
32:E0:31:LYS:H	32:E0:31:LYS:HG2	2.45	0.43
33:E1:147:VAL:HG22	33:E1:148:TYR:H	4.13	0.43
33:E1:94:LYS:HA	33:E1:94:LYS:HD3	1.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:E1:98:VAL:HG22	33:E1:99:LYS:H	1.82	0.43
39:L2:206:PRO:HD3	39:L2:212:GLY:O	3.73	0.43
39:L2:42:ARG:HD2	39:L2:87:PHE:CD2	2.54	0.43
42:L5:183:TRP:CZ3	42:L5:185:PHE:HA	6.98	0.43
42:L5:40:HIS:HD2	42:L5:42:ALA:N	2.10	0.43
45:L8:163:VAL:O	45:L8:166:LEU:HB2	2.43	0.43
48:M1:106:ILE:HG12	48:M1:107:ASP:O	2.19	0.43
49:M3:190:LYS:HE2	49:M3:190:LYS:HB2	1.67	0.43
52:M6:77:SER:OG	52:M6:106:GLU:OE2	2.39	0.43
52:M6:124:LEU:HD12	52:M6:124:LEU:HA	1.82	0.43
52:M6:57:PHE:HE2	52:M6:72:HIS:HA	1.84	0.43
55:M9:46:LYS:HZ1	36:5:1766:G:H8	102.10	0.43
56:N0:30:PHE:CD2	56:N0:103:VAL:HG21	2.53	0.43
44:L7:73:GLY:O	57:N1:143:THR:HG22	4.84	0.43
62:N6:89:LYS:HD3	62:N6:91:ASN:HD21	1.83	0.43
64:N8:73:LEU:O	64:N8:113:LEU:N	2.92	0.43
68:O2:125:ARG:O	68:O2:127:ALA:N	2.52	0.43
36:1:1669:C:OP1	70:O4:24:LYS:HE2	2.19	0.43
72:O6:30:LYS:HA	36:5:266:A:C6	99.78	0.43
72:O6:56:ARG:O	72:O6:60:LEU:HD13	5.76	0.43
75:O9:9:ILE:HG22	75:O9:13:MET:HE3	2.01	0.43
75:O9:9:ILE:O	75:O9:13:MET:HG3	2.41	0.43
3:S1:121:ILE:HD11	3:S1:161:ILE:HG12	3.21	0.43
3:S1:205:PHE:CG	3:S1:206:PRO:HD2	2.63	0.43
3:S1:36:SER:HB3	3:S1:37:THR:H	1.63	0.43
4:S2:90:THR:HG22	4:S2:94:GLN:O	7.04	0.43
4:S2:99:LYS:HB2	4:S2:117:THR:HB	3.82	0.43
5:S3:14:ASP:O	5:S3:17:PHE:HB3	2.32	0.43
1:2:124:A:H1'	6:S4:146:THR:HG21	2.00	0.43
6:S4:176:ASP:HB2	6:S4:179:LYS:HZ3	1.84	0.43
1:2:1535:U:O4	7:S5:186:ASN:N	2.52	0.43
8:S6:22:HIS:CE1	8:S6:25:ARG:HH22	5.55	0.43
9:S7:140:VAL:HB	24:D2:52:TYR:HB3	2.31	0.43
10:S8:3:ILE:HG13	10:S8:3:ILE:H	1.53	0.43
34:SR:144:LEU:HD13	34:SR:144:LEU:HA	1.70	0.43
34:SR:25:THR:HG22	34:SR:33:LEU:HD13	2.01	0.43
36:1:114:A:H2'	36:1:115:A:O4'	2.18	0.43
36:1:1590:G:OP1	70:O4:17:SER:OG	2.36	0.43
36:1:1618:G:H2'	36:1:1619:A:O4'	2.19	0.43
36:1:1711:C:H2'	36:1:1712:G:O4'	2.19	0.43
36:1:1874:A:H5"	55:M9:18:GLY:HA3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2146:C:OP1	39:L2:200:ARG:NH1	2.51	0.43
36:1:3018:C:H2'	36:1:3019:U:O4'	2.18	0.43
36:1:3182:G:C6	36:1:3183:A:C5	3.07	0.43
36:1:3216:G:C4	36:1:3259:U:C4	3.07	0.43
36:1:3231:U:H2'	36:1:3232:G:H8	1.84	0.43
36:1:2718:U:OP2	86:1:3983:OHX:N3	2.51	0.43
86:1:4180:OHX:N1	40:L3:364:LYS:O	2.51	0.43
36:1:573:C:H2'	36:1:574:U:H6	1.80	0.43
36:1:671:U:OP2	54:M8:57:ILE:HD12	2.19	0.43
1:2:1367:G:C2	1:2:1368:G:C8	3.06	0.43
1:2:515:A:OP2	86:2:2070:OHX:N3	2.51	0.43
1:2:679:U:H2'	1:2:680:U:C6	2.53	0.43
37:3:20:A:H2'	37:3:21:G:C8	2.54	0.43
68:O2:19:ARG:NH2	36:5:1433:A:OP1	165.78	0.43
36:5:1557:A:C6	36:5:1559:A:C2	3.06	0.43
36:5:1609:C:H2'	36:5:1610:G:C8	2.54	0.43
36:5:1643:A:H4'	36:5:1822:C:H5'	2.01	0.43
66:O0:28:LYS:HD3	36:5:1713:G:O6	236.02	0.43
36:5:1717:U:H2'	36:5:1718:G:C8	2.54	0.43
36:5:1770:G:H5'	36:5:1771:C:OP2	2.18	0.43
36:5:2440:G:N2	36:5:2508:U:C2	2.87	0.43
57:N1:17:ARG:HG3	36:5:2700:G:H5"	265.97	0.43
36:5:269:G:N2	36:5:295:A:OP2	2.44	0.43
36:5:298:U:H3'	36:5:298:U:H6	1.84	0.43
36:5:330:G:OP2	86:5:4044:OHX:N1	2.52	0.43
36:5:3349:C:H2'	36:5:3350:C:O4'	2.18	0.43
36:5:344:A:C4	36:5:345:G:C8	3.07	0.43
36:5:614:C:H2'	36:5:615:U:C6	2.53	0.43
1:6:1697:G:H8	1:6:1705:C:C2	2.37	0.43
1:6:1766:A:OP2	86:6:2124:OHX:N6	2.52	0.43
1:6:729:G:O2'	1:6:730:G:O5'	2.32	0.43
15:C3:76:LYS:HE3	15:C3:76:LYS:HB3	1.84	0.43
20:C8:15:LEU:HD23	20:C8:22:VAL:O	2.27	0.43
21:C9:85:SER:C	21:C9:87:GLY:N	2.71	0.43
22:D0:50:LEU:CD2	22:D0:95:ALA:HB2	2.45	0.43
24:D2:70:ASN:HB2	24:D2:130:TYR:C	2.56	0.43
25:D3:50:LYS:NZ	25:D3:101:GLU:OE1	3.72	0.43
25:D3:72:VAL:O	25:D3:84:THR:HA	2.57	0.43
26:D4:10:ARG:HB3	1:6:778:G:O6	427.86	0.43
26:D4:45:ALA:HA	26:D4:55:VAL:HG21	2.01	0.43
24:D2:57:ARG:NH2	29:D7:26:GLN:OE1	2.70	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:E0:55:ARG:O	32:E0:58:PRO:HD3	2.19	0.43
33:E1:103:LEU:HA	33:E1:105:TYR:CD2	3.75	0.43
39:L2:114:SER:O	39:L2:116:VAL:N	3.09	0.43
39:L2:139:HIS:O	39:L2:141:PRO:HD3	2.19	0.43
40:L3:37:ARG:HA	40:L3:186:GLY:HA2	2.08	0.43
40:L3:232:ARG:HD2	40:L3:269:GLN:O	2.98	0.43
41:L4:209:TYR:CZ	41:L4:229:ASN:HB2	2.54	0.43
41:L4:291:ASN:O	41:L4:292:SER:C	2.57	0.43
41:L4:338:LYS:HA	41:L4:338:LYS:HD3	3.34	0.43
43:L6:42:LEU:HD11	43:L6:52:VAL:HG21	2.69	0.43
43:L6:50:LYS:NZ	43:L6:72:ASN:O	3.56	0.43
36:1:2563:G:H5”	45:L8:27:THR:HG23	2.00	0.43
46:L9:110:LYS:HE3	46:L9:110:LYS:HB2	3.26	0.43
46:L9:117:PHE:CE1	46:L9:178:GLY:HA2	2.51	0.43
47:M0:26:VAL:HG23	47:M0:27:PRO:O	2.18	0.43
48:M1:13:LYS:HG3	48:M1:132:ASN:O	2.18	0.43
48:M1:96:PHE:CG	48:M1:160:VAL:HG22	2.93	0.43
49:M3:14:PHE:HB3	49:M3:18:TRP:CD1	2.54	0.43
50:M4:20:VAL:HG22	50:M4:68:LEU:O	3.57	0.43
45:L8:161:GLU:CD	51:M5:26:ARG:HH22	3.17	0.43
52:M6:193:GLN:O	52:M6:196:ALA:HB3	2.19	0.43
56:N0:131:LYS:HE3	56:N0:131:LYS:HB2	4.50	0.43
59:N3:136:VAL:HG12	59:N3:137:VAL:N	3.03	0.43
61:N5:141:TYR:O	61:N5:142:ILE:HG13	3.83	0.43
64:N8:10:LYS:HA	64:N8:10:LYS:HD2	1.61	0.43
67:O1:16:LEU:HD12	67:O1:16:LEU:HA	1.68	0.43
67:O1:85:ALA:O	67:O1:87:ASN:N	2.68	0.43
67:O1:80:ASN:N	67:O1:88:PRO:O	2.37	0.43
71:O5:62:GLN:O	71:O5:65:ALA:HB3	2.18	0.43
1:2:1773:C:OP1	77:Q1:3:ALA:HB3	2.19	0.43
3:S1:70:LEU:HB2	3:S1:82:ARG:O	4.98	0.43
4:S2:103:VAL:HG22	4:S2:113:LEU:HD23	2.16	0.43
5:S3:23:GLU:HG3	12:C0:61:TRP:HE1	1.83	0.43
7:S5:42:LEU:HB2	7:S5:45:LYS:HD3	4.67	0.43
11:S9:110:GLN:HE22	11:S9:126:ARG:HA	3.17	0.43
11:S9:44:ARG:O	11:S9:48:GLN:HG3	2.19	0.43
4:S2:175:GLY:O	11:S9:53:ARG:NH1	3.07	0.43
36:1:1636:U:H3	36:1:1710:C:H4’	1.84	0.43
36:1:2102:U:H2’	36:1:2103:U:C6	2.54	0.43
36:1:209:A:H4’	36:1:211:A:N7	2.34	0.43
36:1:2372:A:H5”	36:1:2373:A:H5”	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3190:C:H2'	36:1:3191:G:C8	2.54	0.43
36:1:3349:C:H42	36:1:3356:G:H1	1.66	0.43
36:1:793:C:O5'	36:1:793:C:H6	2.02	0.43
36:1:921:A:OP1	36:1:921:A:H3'	2.19	0.43
1:2:1119:G:C6	1:2:1120:U:C4	3.07	0.43
1:2:1217:A:H5'	1:2:1217:A:H8	1.84	0.43
1:2:86:A:N3	1:2:147:A:H2	2.17	0.43
1:2:1780:G:H1'	36:1:2262:A:O3'	2.19	0.43
1:2:1783:C:H2'	1:2:1784:C:C6	2.52	0.43
1:2:512:A:H2'	1:2:513:U:C6	2.54	0.43
1:2:587:C:H2'	1:2:588:U:O4'	2.19	0.43
1:2:706:A:C6	1:2:734:A:N6	2.87	0.43
1:2:868:G:C2	1:2:961:U:C2	3.07	0.43
37:3:89:G:N2	37:3:92:A:OP2	2.49	0.43
36:5:1024:G:N7	36:5:1027:A:N6	2.67	0.43
36:5:1093:A:OP1	36:5:1093:A:H4'	2.19	0.43
36:5:1439:U:H2'	36:5:1440:G:O4'	2.18	0.43
36:5:1686:U:O2	36:5:1688:U:H1'	2.19	0.43
49:M3:128:ARG:NH2	36:5:168:U:O2'	39.42	0.43
36:5:2659:G:H4'	36:5:2751:G:O2'	2.19	0.43
36:5:1116:G:N2	36:5:2817:A:O4'	2.52	0.43
36:5:2822:U:H2'	36:5:2823:G:O4'	2.19	0.43
36:5:2881:C:H2'	36:5:2882:U:H6	1.84	0.43
36:5:3100:U:O2	36:5:3101:G:C8	2.71	0.43
36:5:3203:U:H2'	36:5:3204:C:C6	2.54	0.43
36:5:1552:G:OP2	86:5:4000:OHX:N6	2.51	0.43
51:M5:203:ARG:NH1	36:5:665:A:OP1	122.02	0.43
36:5:359:U:H4'	36:5:817:A:N6	2.33	0.43
36:5:830:A:O2'	36:5:1866:C:H2'	2.19	0.43
36:5:956:U:C2	36:5:957:C:C5	3.07	0.43
10:S8:176:SER:HB3	1:6:208:U:H5"	288.41	0.43
1:6:373:G:O2'	1:6:374:U:H5'	2.19	0.43
1:6:690:G:H2'	1:6:690:G:N3	2.33	0.43
1:6:72:A:C6	1:6:73:U:N3	2.86	0.43
1:6:836:U:C2	1:6:837:G:C8	3.07	0.43
38:8:42:G:C6	38:8:103:G:N3	2.87	0.43
38:8:80:A:O3'	38:8:81:U:H4'	2.18	0.43
73:O7:81:GLY:O	38:8:95:G:H1'	41.16	0.43
13:C1:40:LEU:HA	13:C1:40:LEU:HD12	1.76	0.43
14:C2:55:GLY:HA2	14:C2:85:LYS:HE3	1.99	0.43
14:C2:91:VAL:HG22	14:C2:92:ALA:H	4.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:61:THR:HB	1:6:959:U:O2	350.89	0.43
15:C3:64:ARG:HG3	15:C3:70:LYS:HD2	4.06	0.43
15:C3:91:LEU:HB3	15:C3:122:ILE:HG13	2.60	0.43
15:C3:99:ARG:HE	15:C3:115:LEU:HD11	1.84	0.43
16:C4:19:ILE:O	16:C4:83:ILE:HG13	2.18	0.43
19:C7:66:VAL:O	19:C7:69:ILE:HG12	2.18	0.43
19:C7:69:ILE:H	19:C7:69:ILE:HD13	1.84	0.43
20:C8:60:GLU:H	20:C8:60:GLU:HG2	1.62	0.43
21:C9:76:LEU:HD23	21:C9:76:LEU:HA	1.72	0.43
23:D1:11:LEU:HG	23:D1:11:LEU:H	2.01	0.43
24:D2:111:MET:HB2	24:D2:115:GLU:OE2	2.68	0.43
24:D2:94:LEU:HA	24:D2:95:PRO:HD3	1.82	0.43
13:C1:100:TYR:CD2	25:D3:9:LEU:HD22	3.76	0.43
40:L3:192:VAL:O	40:L3:195:ALA:HB3	2.32	0.43
42:L5:256:THR:OG1	42:L5:258:LYS:NZ	2.24	0.43
42:L5:271:LYS:HA	42:L5:271:LYS:HD3	4.15	0.43
44:L7:180:SER:H	44:L7:183:ASP:HB2	2.55	0.43
45:L8:33:ASN:O	45:L8:35:GLY:N	3.51	0.43
46:L9:171:ASP:OD1	46:L9:171:ASP:C	2.66	0.43
48:M1:43:GLN:NE2	48:M1:71:VAL:HG13	3.38	0.43
49:M3:119:TYR:HA	49:M3:145:PHE:CZ	2.54	0.43
52:M6:12:LYS:O	52:M6:14:HIS:N	3.85	0.43
54:M8:20:LYS:HD3	36:5:671:U:O2'	157.14	0.43
56:N0:171:PHE:O	56:N0:172:TYR:C	4.11	0.43
57:N1:87:LYS:NZ	36:5:2728:G:N7	212.42	0.43
59:N3:104:ASN:HD21	59:N3:108:GLU:HB2	4.78	0.43
59:N3:23:MET:HB2	59:N3:99:ALA:HA	2.01	0.43
60:N4:27:LYS:HG2	60:N4:29:PHE:CE1	2.53	0.43
70:O4:60:ARG:HH21	36:5:1616:U:H5"	141.97	0.43
71:O5:56:THR:O	71:O5:60:GLU:HG3	5.65	0.43
76:Q0:99:CYS:O	76:Q0:100:TYR:HB2	2.47	0.43
2:S0:119:ARG:HB3	2:S0:119:ARG:NH1	2.34	0.43
3:S1:180:THR:OG1	3:S1:181:LEU:N	4.36	0.43
3:S1:103:MET:O	3:S1:214:LYS:HA	2.31	0.43
4:S2:145:GLY:O	4:S2:146:THR:HG22	2.19	0.43
5:S3:225:TYR:OH	34:SR:191:ASP:HB2	2.19	0.43
5:S3:30:ALA:C	5:S3:32:GLU:H	2.22	0.43
5:S3:35:SER:O	5:S3:99:VAL:HG11	4.85	0.43
6:S4:86:PHE:O	6:S4:87:MET:HB2	2.18	0.43
7:S5:149:VAL:CG1	7:S5:156:ARG:HG3	5.01	0.43
11:S9:133:HIS:HD2	11:S9:162:SER:HB2	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:283:LYS:HG3	34:SR:284:ALA:N	4.73	0.43
36:1:1321:G:O3'	56:N0:117:ARG:NH2	2.52	0.43
36:1:1364:C:O5'	36:1:1364:C:H6	2.02	0.43
36:1:1449:A:C2	36:1:2356:A:C4	3.07	0.43
36:1:1571:A:H2'	36:1:1572:U:O4'	2.19	0.43
36:1:1786:G:H2'	36:1:1787:A:C8	2.54	0.43
36:1:2867:C:O2'	36:1:2868:U:H5'	2.19	0.43
36:1:3008:A:OP1	52:M6:72:HIS:CD2	2.72	0.43
36:1:3364:C:H2'	36:1:3365:U:C6	2.54	0.43
36:1:2177:G:O6	86:1:3925:OHX:N2	2.51	0.43
36:1:54:C:O2'	36:1:1547:G:H1'	2.19	0.43
36:1:664:U:H5'	41:L4:107:ARG:HA	2.01	0.43
36:1:945:C:H2'	36:1:946:U:H6	1.84	0.43
1:2:100:A:O5'	1:2:100:A:H8	2.02	0.43
1:2:1181:U:H2'	1:2:1182:U:O4'	2.19	0.43
1:2:1390:U:N3	1:2:1413:U:OP2	2.50	0.43
1:2:1684:U:O2	1:2:1718:G:N2	2.52	0.43
1:2:1748:G:H2'	1:2:1749:A:C8	2.54	0.43
1:2:333:A:C6	1:2:334:G:C6	3.07	0.43
1:2:346:G:N3	1:2:346:G:H2'	2.34	0.43
1:2:558:U:HO2'	1:2:559:C:P	2.42	0.43
1:2:63:G:N2	1:2:64:U:H1'	2.33	0.43
1:2:811:A:H5'	1:2:816:G:O2'	2.18	0.43
38:4:107:G:C2	38:4:116:G:C5	3.06	0.43
36:5:1387:G:OP1	86:5:4195:OHX:N3	2.52	0.43
36:5:1466:G:O6	86:5:3906:OHX:N5	2.52	0.43
36:5:3279:A:C6	36:5:3280:U:N3	2.87	0.43
36:5:420:G:OP1	36:5:420:G:O5'	2.37	0.43
36:5:572:A:C5	36:5:573:C:C5	3.07	0.43
36:5:639:G:H1	36:5:650:C:H42	1.67	0.43
36:5:817:A:H4'	36:5:818:C:OP2	2.19	0.43
1:6:1030:A:H4'	1:6:1031:U:OP2	2.19	0.43
1:6:1107:G:C6	1:6:1108:G:C6	3.07	0.43
1:6:1172:G:C6	1:6:1173:C:C4	3.07	0.43
1:6:156:A:H2'	1:6:157:A:O4'	2.19	0.43
1:6:417:A:H5'	1:6:418:G:C5	2.54	0.43
9:S7:110:GLN:HG2	1:6:811:A:C5	340.78	0.43
1:6:886:U:H2'	1:6:887:A:C8	2.54	0.43
13:C1:128:CYS:HB3	13:C1:129:ARG:H	3.34	0.43
13:C1:91:LEU:HD23	13:C1:91:LEU:HA	1.68	0.43
17:C5:33:PHE:HZ	17:C5:112:LEU:HB3	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1211:A:H1'	17:C5:99:GLY:O	2.18	0.43
20:C8:99:HIS:O	20:C8:101:LEU:HG	2.19	0.43
24:D2:86:ILE:HB	24:D2:117:ARG:NH2	7.02	0.43
25:D3:57:LEU:HD23	25:D3:57:LEU:HA	1.79	0.43
26:D4:23:PHE:HE2	26:D4:75:VAL:HG12	1.83	0.43
26:D4:25:VAL:N	26:D4:71:GLY:O	3.33	0.43
27:D5:54:VAL:O	27:D5:54:VAL:HG12	2.19	0.43
28:D6:6:ALA:C	28:D6:8:ASN:H	2.21	0.43
30:D8:40:ILE:HG13	30:D8:62:GLU:HG3	6.70	0.43
39:L2:104:LEU:CD2	39:L2:158:ILE:HD11	2.64	0.43
39:L2:13:GLY:O	39:L2:16:PHE:HB2	4.93	0.43
39:L2:220:GLY:O	39:L2:221:LYS:HG2	2.19	0.43
40:L3:59:ASP:HA	40:L3:70:ARG:O	2.66	0.43
40:L3:4:ARG:O	40:L3:5:LYS:HB3	2.19	0.43
41:L4:177:ASP:O	41:L4:181:VAL:HG23	3.29	0.43
44:L7:158:LYS:HG2	44:L7:159:GLN:N	2.34	0.43
44:L7:180:SER:OG	44:L7:183:ASP:N	2.66	0.43
45:L8:101:THR:HG23	45:L8:103:ALA:HB3	1.99	0.43
45:L8:91:PHE:HE1	45:L8:180:VAL:HG21	4.99	0.43
47:M0:100:ASN:O	47:M0:101:LYS:HB2	4.51	0.43
47:M0:91:VAL:HG22	47:M0:127:ALA:HB1	3.47	0.43
49:M3:100:ARG:O	49:M3:101:ARG:HB3	4.70	0.43
51:M5:187:ARG:HD3	51:M5:187:ARG:HH11	1.70	0.43
51:M5:62:TYR:O	51:M5:132:VAL:N	2.42	0.43
52:M6:94:ARG:HG2	52:M6:94:ARG:NH1	3.10	0.43
55:M9:10:LEU:HD12	55:M9:10:LEU:HA	1.89	0.43
55:M9:25:ASP:C	55:M9:27:ASN:H	2.23	0.43
55:M9:8:LYS:HD3	55:M9:8:LYS:HA	3.15	0.43
56:N0:161:LYS:HZ2	36:5:3209:A:P	278.43	0.43
56:N0:24:LEU:HD22	56:N0:59:VAL:HG21	2.00	0.43
58:N2:43:VAL:C	58:N2:45:GLY:N	3.05	0.43
60:N4:6:ASP:HA	60:N4:30:ARG:O	2.19	0.43
62:N6:115:ARG:O	62:N6:119:ILE:HG13	2.19	0.43
62:N6:36:SER:O	62:N6:39:LEU:N	2.51	0.43
64:N8:58:MET:SD	36:5:2775:U:H1'	152.29	0.43
65:N9:54:LEU:HD23	65:N9:57:ALA:HB2	2.00	0.43
66:O0:13:LYS:NZ	66:O0:103:THR:HG21	2.34	0.43
36:1:2555:G:H21	70:O4:92:ALA:HB1	1.83	0.43
71:O5:101:THR:HG22	71:O5:104:GLN:HB2	2.01	0.43
71:O5:62:GLN:O	71:O5:66:VAL:HG23	2.18	0.43
78:Q2:43:TYR:OH	78:Q2:47:GLN:NE2	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:62:ARG:HG3	2:S0:62:ARG:NH1	4.77	0.43
3:S1:201:THR:CG2	3:S1:207:LEU:HD22	2.49	0.43
3:S1:222:LYS:HD3	3:S1:223:PHE:H	1.83	0.43
5:S3:102:ALA:HB1	5:S3:173:ARG:HG3	3.07	0.43
5:S3:42:THR:O	5:S3:44:THR:N	3.79	0.43
6:S4:247:SER:OG	6:S4:250:GLU:HG3	2.30	0.43
7:S5:27:THR:HG23	18:C6:28:LEU:HA	2.00	0.43
11:S9:171:ARG:NH1	11:S9:174:ARG:HG3	2.34	0.43
11:S9:59:LEU:O	11:S9:61:THR:N	2.51	0.43
36:1:1110:U:H2'	36:1:1111:U:C6	2.54	0.42
36:1:653:A:C2	36:1:1443:G:C4	3.06	0.42
36:1:1720:U:C4	55:M9:124:TYR:CE2	3.07	0.42
36:1:186:U:OP1	62:N6:122:LYS:HE2	2.19	0.42
36:1:2219:A:H2'	36:1:2220:A:C8	2.54	0.42
36:1:2444:C:H3'	36:1:2445:A:H5"	2.01	0.42
36:1:2501:U:H4'	36:1:2502:A:OP1	2.19	0.42
36:1:2427:U:O2	36:1:2603:G:C2	2.72	0.42
36:1:265:A:H5"	36:1:266:A:OP2	2.19	0.42
86:1:3871:OHX:N2	73:O7:46:SER:OG	2.52	0.42
36:1:272:G:OP2	86:1:4030:OHX:N3	2.52	0.42
36:1:550:A:N6	36:1:551:A:H62	2.17	0.42
36:1:660:A:C2	36:1:1435:A:C2	3.06	0.42
1:2:1082:C:N4	1:2:1091:A:H62	2.17	0.42
1:2:1334:U:H2'	1:2:1335:U:H6	1.84	0.42
1:2:1432:U:H4'	1:2:1433:G:O5'	2.19	0.42
1:2:1648:A:H2'	1:2:1649:G:C8	2.53	0.42
1:2:489:C:H2'	1:2:490:C:C6	2.54	0.42
1:2:61:A:H8	1:2:269:G:O2'	2.01	0.42
1:2:711:U:H4'	1:2:712:G:OP1	2.18	0.42
1:2:884:A:C2	1:2:885:G:C5	3.07	0.42
1:2:887:A:H61	1:2:925:G:H1	1.66	0.42
38:4:103:G:C6	38:4:105:A:C6	3.07	0.42
36:5:1064:A:N6	36:5:1096:U:N3	2.67	0.42
36:5:1816:A:H4'	36:5:1816:A:OP1	2.19	0.42
36:5:2105:G:H2'	36:5:2106:A:H8	1.84	0.42
36:5:2271:A:N7	36:5:2272:G:C6	2.87	0.42
36:5:2300:G:C6	36:5:2301:U:C4	3.07	0.42
36:5:2585:G:H2'	36:5:2585:G:N3	2.34	0.42
36:5:270:U:O2	36:5:318:A:H2	2.02	0.42
36:5:2725:U:O4	86:5:3952:OHX:N1	2.51	0.42
36:5:2821:C:C2'	36:5:2822:U:O5'	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1145:U:H3	1:6:1633:A:N6	2.17	0.42
1:6:1391:A:C8	1:6:1412:G:C6	3.07	0.42
1:6:353:A:P	86:6:2050:OHX:N5	2.92	0.42
1:6:264:G:O6	86:6:2057:OHX:N5	2.52	0.42
14:C2:36:LEU:HD11	14:C2:101:ALA:O	2.18	0.42
15:C3:91:LEU:HD12	15:C3:125:LEU:HD12	2.89	0.42
17:C5:98:ASN:ND2	17:C5:103:ASN:HD21	2.17	0.42
19:C7:6:THR:O	19:C7:9:VAL:HG12	4.68	0.42
20:C8:32:LEU:O	20:C8:35:ILE:HG13	2.19	0.42
20:C8:87:ASN:H	20:C8:99:HIS:CD2	2.37	0.42
21:C9:54:PHE:CE1	21:C9:104:VAL:HG23	2.54	0.42
25:D3:62:LYS:H	25:D3:116:ASP:HB2	1.83	0.42
27:D5:42:LEU:HD23	27:D5:42:LEU:HA	4.53	0.42
28:D6:75:VAL:C	28:D6:77:CYS:N	2.72	0.42
29:D7:40:CYS:C	29:D7:42:ASN:H	3.65	0.42
29:D7:36:LYS:HD3	29:D7:43:ILE:CG2	3.88	0.42
29:D7:34:ASP:O	29:D7:79:PHE:HA	2.40	0.42
30:D8:21:SER:HB3	30:D8:67:ARG:CG	6.36	0.42
30:D8:35:ASP:C	30:D8:37:SER:H	4.69	0.42
33:E1:98:VAL:HG12	33:E1:99:LYS:N	3.47	0.42
39:L2:174:ARG:HH22	36:5:2180:G:P	211.83	0.42
40:L3:102:LEU:HD12	40:L3:102:LEU:HA	1.86	0.42
40:L3:293:ASN:HA	40:L3:293:ASN:HD22	1.58	0.42
40:L3:328:ILE:HG23	40:L3:329:PRO:O	2.47	0.42
41:L4:42:VAL:C	41:L4:44:LYS:N	3.22	0.42
41:L4:54:GLU:HG3	41:L4:55:LYS:N	2.34	0.42
41:L4:98:ARG:HD3	41:L4:102:PRO:HG3	2.01	0.42
42:L5:148:ILE:HG23	42:L5:151:GLN:HB3	2.17	0.42
45:L8:97:TYR:OH	45:L8:203:VAL:HG22	2.19	0.42
47:M0:159:PHE:HA	47:M0:160:PRO:HD2	1.87	0.42
47:M0:9:TYR:CG	47:M0:97:LEU:HD13	2.54	0.42
48:M1:155:THR:HG23	48:M1:158:ASP:HB2	2.01	0.42
48:M1:53:THR:CG2	48:M1:60:ARG:HA	2.42	0.42
49:M3:48:PRO:HG3	49:M3:126:PHE:HE2	2.29	0.42
51:M5:19:LEU:HD12	51:M5:19:LEU:HA	1.75	0.42
53:M7:36:ILE:HG21	53:M7:36:ILE:HD13	1.72	0.42
54:M8:41:ASP:HB2	54:M8:42:ALA:H	3.85	0.42
54:M8:43:PRO:O	54:M8:47:VAL:HG23	2.37	0.42
59:N3:136:VAL:HG12	59:N3:137:VAL:H	3.39	0.42
62:N6:3:LYS:HG3	62:N6:8:VAL:CG1	2.47	0.42
63:N7:17:ARG:HB2	36:5:1635:G:O6	202.56	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:26:LYS:HD2	67:O1:26:LYS:HA	1.70	0.42
71:O5:49:LYS:O	71:O5:52:ALA:HB3	2.18	0.42
73:O7:48:ASN:HA	73:O7:54:LYS:NZ	2.46	0.42
74:O8:12:LEU:HD13	74:O8:12:LEU:HA	2.86	0.42
36:1:1613:A:P	74:O8:46:ARG:HH22	2.42	0.42
74:O8:78:LEU:HD13	74:O8:78:LEU:HA	2.28	0.42
36:1:1517:G:P	75:O9:41:ARG:HH22	2.42	0.42
2:S0:110:TYR:HA	2:S0:115:PHE:CE2	2.53	0.42
2:S0:12:GLU:HG2	2:S0:12:GLU:H	3.66	0.42
2:S0:180:GLU:OE1	2:S0:183:ARG:HD3	2.19	0.42
6:S4:107:GLY:HA2	6:S4:189:LEU:HG	2.01	0.42
8:S6:58:LYS:O	8:S6:59:GLN:HB2	2.19	0.42
9:S7:117:THR:HG23	9:S7:120:ALA:H	1.84	0.42
11:S9:105:LEU:C	11:S9:107:ARG:H	2.22	0.42
34:SR:61:PHE:CE1	34:SR:97:GLY:HA2	2.71	0.42
36:1:1496:C:C2	36:1:1521:G:N2	2.86	0.42
36:1:1718:G:C6	36:1:1719:G:C6	3.08	0.42
36:1:2207:A:O2'	36:1:2208:A:H5'	2.19	0.42
36:1:2267:C:H2'	36:1:2268:U:O4'	2.19	0.42
36:1:2933:A:N6	36:1:2934:A:N1	2.67	0.42
86:1:4056:OHX:N4	86:1:4163:OHX:N1	2.67	0.42
1:2:1524:A:H2'	1:2:1525:A:C8	2.54	0.42
1:2:197:A:H2'	1:2:198:A:C8	2.54	0.42
1:2:209:U:H2'	1:2:210:A:H8	1.82	0.42
86:2:2090:OHX:N3	86:2:2131:OHX:N6	2.67	0.42
1:2:25:C:OP2	1:2:26:A:H2'	2.18	0.42
1:2:274:G:C2	1:2:275:C:H1'	2.54	0.42
1:2:602:U:H2'	1:2:603:U:H6	1.84	0.42
1:2:830:U:HO2'	1:2:831:U:P	2.42	0.42
37:3:90:U:H2'	37:3:91:G:O4'	2.20	0.42
36:5:1046:A:H2'	36:5:1049:C:C5	2.54	0.42
36:5:1091:A:O2'	36:5:1092:C:H5'	2.19	0.42
36:5:1152:G:C8	36:5:1152:G:O5'	2.72	0.42
36:5:1424:C:H2'	36:5:1425:U:O4'	2.18	0.42
36:5:1794:G:O2'	36:5:1795:U:H5'	2.20	0.42
35:SM:31:SER:OG	36:5:2667:A:OP1	288.33	0.42
57:N1:17:ARG:HD2	36:5:2701:U:P	265.62	0.42
36:5:2726:C:H3'	36:5:2726:C:O2	2.20	0.42
59:N3:12:ARG:N	36:5:3040:A:OP1	268.31	0.42
36:5:3273:A:O2'	36:5:3274:A:H5'	2.19	0.42
36:5:3284:G:OP1	86:5:4177:OHX:N3	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:595:G:C8	36:5:609:G:C6	3.07	0.42
36:5:651:G:C6	36:5:652:G:C6	3.08	0.42
1:6:1174:C:C4	1:6:1175:U:C4	3.06	0.42
1:6:658:C:H5'	1:6:659:C:OP2	2.19	0.42
1:6:98:U:H2'	1:6:99:C:C6	2.54	0.42
13:C1:11:ARG:HB3	13:C1:11:ARG:HE	2.12	0.42
15:C3:124:ARG:O	15:C3:127:ARG:HB3	2.40	0.42
17:C5:52:LYS:HG3	17:C5:53:PRO:HD3	2.01	0.42
18:C6:29:ILE:HG22	18:C6:36:ILE:HB	4.65	0.42
18:C6:36:ILE:HG23	18:C6:49:TYR:HE1	2.76	0.42
21:C9:91:TYR:N	21:C9:91:TYR:HD1	2.17	0.42
25:D3:42:PRO:HG2	25:D3:122:PHE:CZ	3.28	0.42
28:D6:19:LYS:HG2	28:D6:20:PRO:HD2	1.99	0.42
30:D8:13:ILE:O	30:D8:14:LYS:HD2	2.19	0.42
32:E0:56:MET:HG2	1:6:590:C:H5'	417.55	0.42
39:L2:20:THR:HA	39:L2:23:ARG:NH1	3.33	0.42
39:L2:88:ILE:HD13	39:L2:88:ILE:HA	1.80	0.42
41:L4:212:ASP:OD1	41:L4:216:VAL:HG22	2.19	0.42
41:L4:60:THR:HG22	41:L4:62:ALA:N	2.98	0.42
41:L4:6:VAL:O	41:L4:20:LEU:N	2.44	0.42
42:L5:182:GLY:HA2	42:L5:194:LEU:HD13	2.00	0.42
42:L5:224:LYS:HE3	42:L5:224:LYS:HB2	4.22	0.42
44:L7:188:ILE:HD13	44:L7:188:ILE:HA	2.18	0.42
45:L8:242:ALA:HA	45:L8:245:LYS:HD3	3.57	0.42
48:M1:31:THR:O	48:M1:35:LYS:N	2.45	0.42
48:M1:86:VAL:HG22	48:M1:111:ASP:O	2.20	0.42
49:M3:27:ASP:OD1	49:M3:31:LYS:HE2	2.19	0.42
51:M5:51:LEU:HA	51:M5:51:LEU:HD23	1.98	0.42
51:M5:92:LEU:HD12	51:M5:92:LEU:HA	1.75	0.42
52:M6:58:LEU:HD12	52:M6:58:LEU:HA	1.84	0.42
36:1:412:G:OP1	53:M7:62:ARG:NH1	2.52	0.42
55:M9:98:ARG:O	55:M9:102:LEU:HG	2.19	0.42
56:N0:107:TYR:CE1	56:N0:118:PHE:CD1	3.31	0.42
57:N1:62:GLY:HA3	57:N1:76:ILE:HD13	2.01	0.42
58:N2:35:LYS:HA	58:N2:35:LYS:HD2	2.64	0.42
58:N2:74:LYS:HD2	58:N2:74:LYS:HA	4.60	0.42
59:N3:135:VAL:HG11	60:N4:26:SER:HB3	2.01	0.42
61:N5:64:GLU:O	71:O5:32:LYS:HE3	2.19	0.42
64:N8:126:LYS:HA	64:N8:146:GLU:O	2.27	0.42
67:O1:81:GLU:O	67:O1:82:GLU:HG2	2.62	0.42
73:O7:65:ARG:HG3	73:O7:65:ARG:NH1	2.24	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:O9:28:ARG:HH11	75:O9:36:ARG:HD3	6.24	0.42
2:S0:125:ASP:OD1	2:S0:127:ARG:HB3	2.19	0.42
2:S0:125:ASP:HA	2:S0:126:PRO:HD2	1.90	0.42
6:S4:157:ASN:CG	6:S4:222:LEU:HD11	4.57	0.42
9:S7:12:ALA:HB3	9:S7:13:PRO:HD3	2.09	0.42
10:S8:63:GLY:O	10:S8:75:LYS:HA	2.19	0.42
11:S9:34:PHE:CE1	11:S9:105:LEU:HB3	2.53	0.42
11:S9:105:LEU:O	11:S9:107:ARG:N	2.51	0.42
11:S9:149:ARG:HG2	11:S9:152:SER:HB2	1.99	0.42
11:S9:22:SER:OG	11:S9:23:ARG:N	2.67	0.42
11:S9:81:VAL:O	11:S9:150:LEU:HD22	2.87	0.42
36:1:108:A:O2'	36:1:109:A:H2'	2.19	0.42
36:1:1131:G:C4	36:1:2373:A:C2	3.07	0.42
36:1:2424:A:H8	36:1:2424:A:O5'	2.02	0.42
36:1:2525:G:C6	39:L2:34:TYR:CD2	3.07	0.42
36:1:2532:U:H3	36:1:2547:A:H61	1.66	0.42
36:1:2585:G:N3	38:4:151:C:H5	2.17	0.42
36:1:2594:C:O5'	36:1:2594:C:H6	2.02	0.42
36:1:2900:A:H2	36:1:3025:C:O2	2.02	0.42
36:1:3087:A:OP1	86:1:4180:OHX:N5	2.52	0.42
36:1:3276:G:H1'	36:1:3277:U:O2	2.18	0.42
36:1:685:G:OP2	49:M3:35:ARG:NH1	2.52	0.42
36:1:802:C:H2'	36:1:803:C:H6	1.85	0.42
36:1:976:U:H2'	36:1:977:C:O4'	2.18	0.42
1:2:1134:C:H2'	1:2:1135:U:O4'	2.18	0.42
1:2:1320:U:N3	1:2:1323:C:OP1	2.47	0.42
1:2:1405:G:C2	1:2:1406:A:C4	3.08	0.42
1:2:1637:C:OP2	86:2:2113:OHX:N3	2.51	0.42
1:2:1767:G:OP1	1:2:1770:U:H4'	2.19	0.42
1:2:1119:G:O6	86:2:2148:OHX:N4	2.52	0.42
1:2:320:U:C2	1:2:321:C:C6	3.07	0.42
1:2:827:C:H2'	1:2:828:U:H6	1.83	0.42
37:3:5:G:OP2	42:L5:27:LYS:NZ	2.44	0.42
36:5:2124:G:O2'	36:5:2125:A:H5'	2.19	0.42
39:L2:241:ARG:HG2	36:5:2155:G:OP1	221.26	0.42
36:5:2805:G:N3	36:5:2967:A:H2	2.17	0.42
36:5:801:A:O2'	86:5:4023:OHX:N1	2.53	0.42
36:5:960:U:O2'	36:5:961:C:H5'	2.19	0.42
36:5:998:A:O2'	36:5:999:G:H5'	2.19	0.42
1:6:1478:G:C6	1:6:1479:A:C5	3.08	0.42
27:D5:81:ARG:NH2	1:6:1532:U:OP1	363.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1567:U:H2'	1:6:1568:C:H5'	2.01	0.42
1:6:992:A:OP1	1:6:1786:G:H5'	2.18	0.42
13:C1:10:GLU:HG2	1:6:327:U:O2'	270.06	0.42
1:6:755:A:O2'	1:6:756:A:H8	2.01	0.42
37:7:106:U:C4	37:7:107:C:C4	3.07	0.42
38:8:59:A:N1	38:8:100:U:H1'	2.33	0.42
13:C1:58:CYS:HA	13:C1:59:PRO:HD3	2.29	0.42
13:C1:93:TYR:HD1	13:C1:100:TYR:CE1	2.37	0.42
16:C4:31:THR:HA	16:C4:38:THR:HA	3.15	0.42
17:C5:127:ARG:O	17:C5:129:GLY:N	4.24	0.42
18:C6:54:LEU:HD22	18:C6:54:LEU:HA	1.77	0.42
20:C8:40:ARG:NH2	21:C9:44:GLU:OE2	2.52	0.42
21:C9:85:SER:C	21:C9:87:GLY:H	2.22	0.42
22:D0:77:LYS:HD2	22:D0:77:LYS:H	4.23	0.42
4:S2:230:TRP:NE1	24:D2:68:ARG:HB2	3.89	0.42
24:D2:8:ALA:CB	24:D2:74:VAL:HG11	2.86	0.42
25:D3:3:LYS:HE3	1:6:614:C:OP1	353.01	0.42
26:D4:43:LYS:HE3	26:D4:43:LYS:HB2	4.91	0.42
27:D5:70:LYS:HD3	27:D5:70:LYS:HA	1.79	0.42
39:L2:150:LEU:HD23	39:L2:150:LEU:HA	2.46	0.42
41:L4:158:SER:HA	41:L4:213:ASN:HB2	2.01	0.42
41:L4:138:ARG:NH2	41:L4:240:PRO:HB2	2.39	0.42
42:L5:235:SER:O	42:L5:239:ILE:HG13	2.18	0.42
43:L6:82:ARG:HD2	43:L6:82:ARG:HA	3.22	0.42
44:L7:89:ILE:HG22	44:L7:219:LYS:HE3	2.01	0.42
46:L9:17:THR:HG21	50:M4:3:THR:O	2.18	0.42
46:L9:59:ASN:HB2	50:M4:41:GLN:NE2	2.52	0.42
47:M0:156:ARG:HG2	47:M0:163:GLN:HG2	2.26	0.42
47:M0:193:ASP:OD1	47:M0:198:LYS:HE3	2.19	0.42
47:M0:24:ARG:HG3	47:M0:24:ARG:H	3.48	0.42
51:M5:186:GLY:O	51:M5:190:THR:HG22	2.41	0.42
52:M6:140:LYS:NZ	52:M6:150:GLU:OE1	2.44	0.42
55:M9:165:LYS:HB3	55:M9:165:LYS:HE2	1.59	0.42
56:N0:148:LEU:HD12	56:N0:149:LYS:N	2.35	0.42
60:N4:52:THR:O	60:N4:55:PHE:HB3	2.19	0.42
60:N4:86:SER:C	60:N4:88:ASP:H	2.22	0.42
61:N5:121:LYS:NZ	61:N5:123:TYR:OH	2.46	0.42
63:N7:128:GLN:O	63:N7:131:PHE:N	2.91	0.42
63:N7:38:PHE:CE2	63:N7:40:HIS:HB3	2.58	0.42
64:N8:47:LYS:O	64:N8:48:TYR:HB2	2.19	0.42
68:O2:83:GLU:O	68:O2:86:THR:OG1	2.23	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:29:ILE:HA	70:O4:29:ILE:HD12	4.41	0.42
70:O4:66:SER:O	70:O4:68:THR:N	2.98	0.42
72:O6:62:ARG:NH1	72:O6:94:ILE:HD11	4.22	0.42
75:O9:28:ARG:NH1	75:O9:36:ARG:HD3	6.42	0.42
76:Q0:103:LEU:HA	76:Q0:103:LEU:HD23	1.78	0.42
3:S1:196:GLU:O	3:S1:199:ASN:HB2	2.19	0.42
1:2:2:A:H3'	4:S2:179:VAL:HG11	2.01	0.42
4:S2:66:PHE:C	4:S2:68:ILE:N	2.72	0.42
8:S6:68:LEU:O	8:S6:69:LEU:HB2	2.28	0.42
10:S8:137:LYS:O	10:S8:140:GLU:N	2.92	0.42
10:S8:26:LYS:O	10:S8:29:LEU:HD12	3.53	0.42
10:S8:48:THR:HG22	1:6:333:A:P	297.42	0.42
11:S9:149:ARG:HG2	11:S9:149:ARG:HH11	4.49	0.42
36:1:1613:A:H2'	36:1:1614:C:C6	2.54	0.42
36:1:2748:A:O3'	42:L5:48:LYS:NZ	2.50	0.42
36:1:3181:C:H2'	36:1:3182:G:O4'	2.20	0.42
36:1:3314:A:N1	36:1:3315:G:C6	2.87	0.42
36:1:860:G:C5	39:L2:181:LYS:HB2	2.54	0.42
36:1:981:U:HO2'	36:1:982:C:P	2.43	0.42
1:2:1156:C:O2'	1:2:1157:A:H5'	2.19	0.42
1:2:1172:G:H21	21:C9:88:VAL:CG2	2.33	0.42
69:O3:73:ARG:NH1	36:5:1167:U:OP2	244.80	0.42
36:5:1376:C:H1'	36:5:1407:A:C4	2.54	0.42
36:5:173:G:H1'	36:5:174:C:H5'	2.01	0.42
36:5:1942:U:C4	36:5:1943:C:C5	3.07	0.42
36:5:2117:A:H3'	36:5:2118:C:C6	2.54	0.42
1:6:913:G:N7	36:5:2205:U:C2	2.88	0.42
36:5:2841:G:H2'	36:5:2844:C:H42	1.84	0.42
1:6:286:C:H2'	1:6:287:G:O4'	2.19	0.42
1:6:373:G:N2	1:6:603:U:O3'	2.53	0.42
1:6:737:A:H2'	1:6:738:G:C8	2.55	0.42
14:C2:68:GLU:O	14:C2:70:ASN:N	2.52	0.42
15:C3:72:MET:HB3	15:C3:72:MET:HE2	4.62	0.42
16:C4:24:ASN:O	16:C4:54:GLU:HB3	2.19	0.42
17:C5:15:HIS:CG	17:C5:16:SER:N	2.88	0.42
17:C5:17:TYR:CG	17:C5:18:ARG:N	3.38	0.42
17:C5:34:VAL:HG21	17:C5:45:PHE:HB2	2.01	0.42
20:C8:146:ALA:H	35:SM:68:ARG:HH21	1.67	0.42
23:D1:78:LEU:O	23:D1:79:LEU:HD23	3.70	0.42
26:D4:86:GLU:HA	26:D4:87:PRO:HD2	2.24	0.42
27:D5:80:LEU:HD23	27:D5:80:LEU:HA	2.03	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:D9:20:GLN:HB2	31:D9:25:SER:HA	2.02	0.42
39:L2:66:PRO:HB2	39:L2:67:TYR:CE2	2.55	0.42
40:L3:167:ARG:O	86:L3:404:OHX:N5	5.99	0.42
40:L3:183:LEU:HD12	40:L3:183:LEU:HA	1.82	0.42
41:L4:187:LEU:HD23	41:L4:198:ARG:O	2.38	0.42
42:L5:34:LYS:HD2	57:N1:30:TYR:CZ	2.75	0.42
43:L6:165:LEU:HA	43:L6:165:LEU:HD23	1.90	0.42
43:L6:46:ARG:HG3	43:L6:47:PHE:CE1	2.95	0.42
43:L6:55:LEU:HD12	43:L6:76:LEU:HD21	3.11	0.42
43:L6:57:HIS:NE2	43:L6:61:ASN:HA	2.35	0.42
44:L7:84:VAL:HG21	44:L7:127:LEU:HD11	3.19	0.42
47:M0:82:ARG:O	47:M0:82:ARG:HG2	4.07	0.42
49:M3:46:ILE:HG22	49:M3:46:ILE:O	2.19	0.42
50:M4:121:MET:HE1	36:5:3215:A:O5’	275.80	0.42
52:M6:188:SER:O	52:M6:192:LYS:HG2	2.51	0.42
57:N1:124:VAL:HB	57:N1:125:ALA:H	1.45	0.42
63:N7:54:THR:HG22	63:N7:57:HIS:CE1	3.48	0.42
63:N7:10:VAL:HG23	63:N7:86:THR:HA	2.01	0.42
54:M8:170:ARG:HD2	64:N8:56:VAL:O	2.28	0.42
66:O0:99:ASP:O	66:O0:103:THR:HG23	2.19	0.42
66:O0:68:TYR:C	66:O0:68:TYR:CD2	3.28	0.42
66:O0:68:TYR:HD2	66:O0:68:TYR:C	3.06	0.42
67:O1:42:LEU:O	67:O1:42:LEU:HG	2.18	0.42
68:O2:109:LEU:HD23	68:O2:109:LEU:HA	1.86	0.42
68:O2:85:LEU:HB2	68:O2:117:ILE:HD13	2.00	0.42
68:O2:89:THR:H	68:O2:89:THR:HG22	2.26	0.42
70:O4:8:ARG:HH21	70:O4:31:ARG:HH11	3.22	0.42
70:O4:47:CYS:SG	70:O4:81:CYS:SG	3.18	0.42
71:O5:103:LYS:HE3	71:O5:103:LYS:HB2	1.78	0.42
71:O5:38:ARG:HG3	71:O5:39:PRO:HD2	2.40	0.42
77:Q1:5:TRP:CH2	1:6:1784:C:N4	296.47	0.42
78:Q2:32:LYS:O	78:Q2:33:ALA:HB3	3.45	0.42
2:S0:63:ILE:O	2:S0:66:ALA:HB3	2.19	0.42
3:S1:144:ARG:HG3	3:S1:145:LYS:O	2.19	0.42
5:S3:27:ARG:HB3	12:C0:58:GLN:NE2	2.32	0.42
5:S3:76:ARG:C	5:S3:78:LYS:H	2.50	0.42
7:S5:91:GLU:CD	7:S5:107:LYS:HZ1	2.22	0.42
7:S5:177:ILE:HG12	7:S5:180:ARG:HH12	2.07	0.42
7:S5:70:VAL:HG23	7:S5:72:HIS:H	3.36	0.42
9:S7:117:THR:HG22	9:S7:120:ALA:CB	2.83	0.42
1:2:397:A:H5”	10:S8:51:GLY:H	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:76:THR:HB	10:S8:105:ASP:HB3	2.02	0.42
11:S9:113:VAL:O	11:S9:118:LEU:HB2	3.12	0.42
11:S9:56:ALA:O	11:S9:60:LEU:HG	3.17	0.42
11:S9:52:ILE:HG23	11:S9:76:LEU:HD21	2.66	0.42
36:1:1047:A:C6	36:1:1048:A:C6	3.08	0.42
36:1:111:C:C2'	36:1:112:U:H5'	2.49	0.42
36:1:1230:G:H2'	36:1:1231:A:H8	1.84	0.42
36:1:1636:U:H4'	63:N7:74:VAL:O	2.19	0.42
36:1:199:A:C4	36:1:201:A:C8	3.08	0.42
36:1:2243:A:N1	36:1:2313:A:C5	2.87	0.42
36:1:2856:G:H2'	36:1:2857:C:C6	2.54	0.42
36:1:296:A:C5	36:1:297:G:C6	3.08	0.42
36:1:3045:G:H2'	36:1:3046:A:O4'	2.19	0.42
36:1:3267:A:H2'	43:L6:69:PHE:CZ	2.55	0.42
36:1:3393:U:O2'	36:1:3394:U:H5'	2.19	0.42
36:1:361:A:O3'	73:O7:45:ARG:NH2	2.52	0.42
36:1:256:G:O6	86:1:4159:OHX:N3	2.52	0.42
36:1:952:A:H4'	36:1:968:G:N2	2.35	0.42
1:2:12:U:H2'	1:2:13:C:C6	2.53	0.42
1:2:1344:A:H2'	1:2:1345:A:C8	2.54	0.42
1:2:53:G:H2'	1:2:54:C:O4'	2.20	0.42
1:2:694:U:H5"	1:2:695:U:H5	1.84	0.42
38:4:93:U:H2'	38:4:94:C:H6	1.84	0.42
45:L8:108:ARG:NH1	36:5:121:A:C4	95.68	0.42
36:5:1781:C:H2'	36:5:1782:U:C6	2.54	0.42
36:5:262:U:H2'	36:5:263:C:O4'	2.19	0.42
36:5:2881:C:H2'	36:5:2882:U:C6	2.55	0.42
36:5:2993:G:C6	36:5:3142:A:C4	3.07	0.42
36:5:3237:U:C2	36:5:3251:U:C2	3.08	0.42
36:5:3333:G:H8	36:5:3333:G:OP2	2.03	0.42
36:5:3347:A:H61	36:5:3358:U:H3	1.68	0.42
86:5:4018:OHX:N2	86:5:4211:OHX:N5	2.68	0.42
36:5:438:A:H4'	36:5:439:C:OP2	2.20	0.42
44:L7:105:LEU:HD11	36:5:985:U:C2	238.74	0.42
1:6:103:A:C8	1:6:360:A:C2	3.07	0.42
1:6:1296:A:H61	1:6:1301:U:H3	1.66	0.42
1:6:1312:A:C2	1:6:1414:U:C5	3.07	0.42
20:C8:138:THR:N	1:6:1458:G:OP1	352.99	0.42
1:6:763:G:C5	1:6:764:U:C5	3.07	0.42
1:6:90:C:C2	1:6:91:G:C8	3.08	0.42
38:8:14:C:C4	38:8:15:G:C6	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C2:52:LEU:HD22	14:C2:57:ALA:HB2	2.01	0.42
15:C3:88:LEU:O	15:C3:88:LEU:HD22	2.20	0.42
20:C8:62:THR:O	20:C8:65:GLU:N	2.52	0.42
22:D0:117:VAL:HG22	22:D0:118:VAL:N	2.34	0.42
23:D1:48:GLY:O	23:D1:49:GLU:HB2	2.20	0.42
24:D2:66:ASN:OD1	24:D2:68:ARG:HG2	4.29	0.42
27:D5:75:LEU:H	27:D5:75:LEU:HG	1.48	0.42
16:C4:128:LYS:HD3	28:D6:27:SER:OG	3.27	0.42
28:D6:53:LEU:HD13	28:D6:53:LEU:HA	3.61	0.42
33:E1:87:THR:HA	1:6:1445:G:C6	379.08	0.42
39:L2:68:LYS:HB3	39:L2:70:ARG:HH21	3.44	0.42
40:L3:14:LEU:HA	40:L3:17:LEU:HD22	2.03	0.42
40:L3:187:SER:OG	40:L3:190:GLU:HG3	2.19	0.42
40:L3:284:ARG:NH2	40:L3:295:ALA:O	2.52	0.42
43:L6:43:LEU:HD21	43:L6:85:ILE:HG13	2.00	0.42
44:L7:163:LEU:H	44:L7:163:LEU:HG	2.16	0.42
44:L7:143:THR:HG22	44:L7:241:LYS:HE3	2.01	0.42
36:1:2586:G:C5	45:L8:241:LYS:HB2	2.54	0.42
45:L8:84:ARG:O	45:L8:87:ALA:HB3	2.77	0.42
46:L9:162:GLN:HG3	46:L9:163:GLN:N	2.32	0.42
47:M0:26:VAL:HG23	47:M0:27:PRO:HD2	2.97	0.42
49:M3:75:PHE:HA	49:M3:101:ARG:HH12	1.84	0.42
50:M4:72:LEU:HA	50:M4:73:PRO:HD3	1.82	0.42
51:M5:53:TYR:HB2	51:M5:133:ILE:HD13	2.01	0.42
52:M6:108:ILE:HG12	52:M6:108:ILE:O	4.27	0.42
52:M6:41:LEU:HB3	52:M6:138:LEU:HB2	2.02	0.42
52:M6:59:ARG:HG3	36:5:1307:G:OP1	253.78	0.42
36:1:3271:G:P	53:M7:171:ARG:HG2	2.59	0.42
54:M8:19:PRO:HD3	54:M8:53:PHE:CD1	2.55	0.42
55:M9:102:LEU:O	55:M9:106:LEU:HD22	2.19	0.42
1:2:853:G:N7	55:M9:173:ARG:NH2	2.66	0.42
36:1:642:U:OP1	64:N8:22:ILE:HG23	2.19	0.42
36:1:1430:U:H2'	64:N8:9:ARG:NH2	2.34	0.42
65:N9:6:ASN:ND2	36:5:2643:A:H5'	225.51	0.42
66:O0:34:LEU:HG	66:O0:59:TYR:HB3	2.02	0.42
70:O4:74:ARG:HG2	70:O4:75:ALA:O	2.20	0.42
71:O5:13:SER:O	71:O5:17:LEU:HD12	3.15	0.42
71:O5:41:LEU:HD12	71:O5:41:LEU:HA	1.67	0.42
36:1:1612:A:H5"	74:O8:51:LEU:HD22	2.01	0.42
75:O9:23:LEU:HD22	75:O9:24:PRO:CD	2.45	0.42
2:S0:119:ARG:NH1	4:S2:241:ASP:OD2	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:139:VAL:HG22	2:S0:139:VAL:O	2.32	0.42
2:S0:31:VAL:HG23	2:S0:150:ASP:HA	2.01	0.42
4:S2:140:ARG:NH1	4:S2:229:LEU:HD21	5.33	0.42
4:S2:56:ILE:HG23	4:S2:61:LEU:HB2	2.02	0.42
4:S2:66:PHE:O	4:S2:69:ILE:N	2.51	0.42
5:S3:202:LEU:O	19:C7:42:GLN:HG3	3.08	0.42
6:S4:50:ASN:O	6:S4:53:LYS:NZ	2.53	0.42
7:S5:80:LYS:HG3	7:S5:83:ARG:NH1	3.74	0.42
9:S7:169:PHE:O	9:S7:172:VAL:HB	3.04	0.42
10:S8:105:ASP:O	10:S8:107:THR:HG23	2.20	0.42
11:S9:79:ARG:O	11:S9:83:VAL:HG22	2.20	0.42
5:S3:121:GLY:HA2	35:SM:127:ALA:HB1	5.26	0.42
36:1:1756:C:H2'	36:1:1757:A:C8	2.54	0.42
36:1:1812:G:H5"	36:1:1813:A:OP2	2.20	0.42
36:1:1908:A:H2'	36:1:1909:A:O4'	2.18	0.42
36:1:2202:C:H2'	36:1:2203:U:O4'	2.20	0.42
36:1:3121:U:C1'	36:1:3122:A:H5"	2.49	0.42
36:1:3134:A:H2'	36:1:3134:A:N3	2.35	0.42
36:1:324:A:H2'	36:1:325:A:C8	2.55	0.42
36:1:631:U:H2'	36:1:632:G:C8	2.54	0.42
36:1:763:G:HO2'	36:1:764:U:P	2.42	0.42
1:2:1202:A:C2	1:2:1457:C:C4	3.07	0.42
1:2:1337:A:H5'	1:2:1338:C:OP2	2.18	0.42
1:2:1402:G:H2'	1:2:1403:C:C6	2.55	0.42
1:2:1425:A:C6	1:2:1426:C:N4	2.88	0.42
1:2:1442:U:H2'	1:2:1443:U:H6	1.85	0.42
1:2:1484:G:H8	1:2:1484:G:O5'	2.02	0.42
1:2:1530:C:C2	1:2:1531:G:C8	3.07	0.42
1:2:153:G:H2'	1:2:154:G:C8	2.55	0.42
1:2:1776:A:C2	1:2:1786:G:C6	3.07	0.42
1:2:477:A:N7	1:2:538:A:N1	2.67	0.42
1:2:72:A:C3'	1:2:73:U:H5"	2.50	0.42
1:2:755:A:O2'	1:2:756:A:OP1	2.35	0.42
1:2:902:G:H8	1:2:902:G:O5'	2.02	0.42
38:4:35:C:H5'	73:O7:70:VAL:HG11	2.02	0.42
65:N9:28:LYS:HB2	36:5:1065:A:C4	212.47	0.42
36:5:1241:U:HO2'	36:5:1242:G:P	2.42	0.42
36:5:1304:A:N1	36:5:2938:G:O2'	2.41	0.42
36:5:1339:C:H2'	36:5:1340:G:O4'	2.19	0.42
36:5:3155:U:H3'	36:5:3156:U:H5"	2.01	0.42
36:5:3200:G:H2'	36:5:3201:C:H6	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3255:U:H2'	36:5:3256:G:C8	2.55	0.42
36:5:524:U:H2'	36:5:525:C:H5'	2.00	0.42
36:5:59:G:C4'	36:5:60:A:H4'	2.46	0.42
36:5:90:C:H2'	36:5:91:G:H5'	2.02	0.42
1:6:1026:A:H4'	1:6:1028:C:C5	2.55	0.42
1:6:108:A:H2'	1:6:109:G:C8	2.55	0.42
1:6:1475:A:H2'	1:6:1476:C:O4'	2.20	0.42
20:C8:133:VAL:HG21	1:6:1546:G:OP1	354.67	0.42
1:6:206:A:H1'	1:6:262:U:C2	2.55	0.42
1:6:454:U:H3'	1:6:455:C:C6	2.55	0.42
1:6:475:A:C6	1:6:476:U:C2	3.08	0.42
1:6:909:U:O2'	1:6:910:C:H5'	2.19	0.42
37:7:14:U:C4	37:7:67:G:N2	2.87	0.42
38:8:144:G:O2'	38:8:145:U:H5'	2.20	0.42
38:8:18:U:H2'	38:8:19:C:C6	2.54	0.42
36:5:22:G:O2'	38:8:40:A:N1	2.41	0.42
14:C2:44:GLY:O	14:C2:48:SER:N	2.51	0.42
15:C3:37:ILE:HG21	15:C3:74:ILE:HD12	3.84	0.42
15:C3:87:ASP:HB3	15:C3:88:LEU:H	3.88	0.42
17:C5:87:PRO:O	17:C5:90:ILE:HG13	2.85	0.42
18:C6:116:LEU:HB3	18:C6:117:LEU:HD22	2.01	0.42
1:2:1584:G:H5'	18:C6:123:ARG:H	1.85	0.42
21:C9:125:SER:OG	21:C9:126:GLU:OE1	2.37	0.42
24:D2:117:ARG:HD2	24:D2:117:ARG:HA	1.67	0.42
33:E1:98:VAL:HG13	33:E1:99:LYS:N	2.35	0.42
39:L2:188:LYS:HD3	39:L2:189:TYR:CE2	3.57	0.42
39:L2:83:HIS:CE1	39:L2:86:GLN:HB2	2.54	0.42
40:L3:123:TYR:CZ	40:L3:124:LYS:HG3	2.55	0.42
40:L3:252:ILE:HD13	40:L3:252:ILE:HA	2.51	0.42
41:L4:118:LYS:O	41:L4:122:THR:HG23	2.19	0.42
41:L4:302:ALA:HB2	54:M8:39:ARG:NH1	2.35	0.42
42:L5:111:GLN:HA	42:L5:116:ASP:CG	2.40	0.42
42:L5:150:LEU:HD23	42:L5:150:LEU:HA	1.81	0.42
47:M0:65:LEU:HD23	47:M0:159:PHE:CZ	2.93	0.42
48:M1:21:ILE:HG21	48:M1:33:ALA:HB1	2.01	0.42
51:M5:12:ARG:HH11	51:M5:12:ARG:HD3	1.90	0.42
51:M5:73:ARG:HA	51:M5:74:PRO:HD3	1.74	0.42
56:N0:36:ILE:HD13	56:N0:36:ILE:HG21	1.75	0.42
57:N1:101:CYS:HB3	36:5:990:U:C1'	252.28	0.42
59:N3:120:LYS:HB2	59:N3:120:LYS:HE3	4.85	0.42
59:N3:35:TYR:HB2	59:N3:63:LYS:HD3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:118:PHE:HA	63:N7:118:PHE:HD1	2.06	0.42
36:1:1368:U:H5'	68:O2:43:ARG:NH1	2.34	0.42
75:O9:5:LYS:HD3	75:O9:13:MET:CE	3.35	0.42
76:Q0:111:ARG:HG3	76:Q0:112:LYS:HD2	3.61	0.42
78:Q2:46:LYS:HG2	78:Q2:54:THR:OG1	2.19	0.42
2:S0:173:ILE:HA	2:S0:176:LEU:HD12	2.01	0.42
4:S2:82:ASN:HB2	4:S2:207:LEU:HD13	2.00	0.42
4:S2:76:LEU:H	4:S2:76:LEU:HD23	4.81	0.42
5:S3:62:ASN:ND2	5:S3:62:ASN:O	4.35	0.42
6:S4:195:ILE:HG23	6:S4:208:VAL:HG13	3.25	0.42
7:S5:165:LEU:HG	7:S5:169:ASN:HD21	1.84	0.42
7:S5:30:PRO:HB2	7:S5:33:VAL:CG2	2.50	0.42
8:S6:141:ILE:HD13	8:S6:153:VAL:HG11	2.00	0.42
9:S7:126:LEU:HD11	9:S7:152:VAL:HG21	2.01	0.42
9:S7:153:LEU:HD22	9:S7:184:GLU:HB2	2.02	0.42
11:S9:105:LEU:HD13	11:S9:105:LEU:HA	1.79	0.42
11:S9:41:GLU:OE1	11:S9:126:ARG:NH2	2.52	0.42
1:2:23:G:OP1	11:S9:14:THR:HG21	2.19	0.42
34:SR:293:ALA:HB3	34:SR:302:PHE:HB2	3.47	0.42
36:1:1420:C:OP2	41:L4:193:LYS:NZ	2.51	0.42
36:1:29:C:H4'	36:1:62:A:H4'	2.02	0.42
36:1:3153:U:O2	36:1:3158:G:N1	2.52	0.42
36:1:3255:U:H2'	36:1:3256:G:H8	1.83	0.42
86:1:4056:OHX:N6	86:1:4163:OHX:N3	2.67	0.42
1:2:1003:A:H4'	1:2:1004:U:O5'	2.20	0.42
1:2:1226:A:HO2'	1:2:1227:A:P	2.42	0.42
1:2:1657:U:H4'	1:2:1658:G:O5'	2.18	0.42
1:2:1239:U:OP1	86:2:2144:OHX:N5	2.53	0.42
1:2:306:U:H2'	1:2:307:G:C8	2.55	0.42
1:2:581:U:O4	35:SM:115:LYS:NZ	2.53	0.42
36:5:1027:A:N7	36:5:1029:G:C2	2.87	0.42
36:5:1052:U:O2	37:7:103:A:O2'	2.34	0.42
36:5:1498:A:H2'	36:5:1499:C:C6	2.53	0.42
36:5:160:G:H2'	36:5:161:G:O4'	2.20	0.42
36:5:1673:G:C4	36:5:1775:G:C2	3.07	0.42
36:5:1676:A:C6	36:5:1677:G:N7	2.87	0.42
36:5:1710:C:H2'	36:5:1711:C:C6	2.54	0.42
36:5:2397:A:H8	36:5:2941:A:N1	2.17	0.42
1:6:1315:U:P	1:6:1328:G:H1	2.43	0.42
24:D2:58:SER:OG	1:6:636:A:H1'	354.67	0.42
1:6:669:G:HO2'	1:6:670:U:P	2.42	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:970:A:C6	1:6:971:A:H1'	2.55	0.42
1:6:971:A:C8	1:6:972:G:C8	3.08	0.42
15:C3:94:LYS:O	15:C3:97:SER:N	3.05	0.42
17:C5:96:ILE:HB	17:C5:120:SER:HB2	2.31	0.42
18:C6:10:PHE:CE2	1:6:1379:C:H5'	431.62	0.42
18:C6:66:ARG:HD2	18:C6:67:VAL:N	2.34	0.42
22:D0:63:LEU:HD23	22:D0:63:LEU:N	2.75	0.42
24:D2:97:ARG:HH11	24:D2:97:ARG:HG2	3.08	0.42
25:D3:142:LYS:HA	25:D3:143:PRO:HD3	1.92	0.42
27:D5:46:LYS:HE3	27:D5:46:LYS:HB2	4.16	0.42
28:D6:34:LYS:HB3	28:D6:35:ALA:H	3.65	0.42
28:D6:75:VAL:O	28:D6:77:CYS:N	2.52	0.42
39:L2:68:LYS:HD3	39:L2:70:ARG:HH21	2.98	0.42
40:L3:117:ARG:HA	40:L3:175:LYS:HG3	2.76	0.42
41:L4:22:LEU:CD1	41:L4:26:PHE:HB2	2.44	0.42
41:L4:304:GLN:O	41:L4:305:ALA:HB3	2.43	0.42
42:L5:86:TYR:CD1	42:L5:247:ILE:HG13	2.54	0.42
36:1:120:G:N1	45:L8:124:ASP:OD2	2.53	0.42
46:L9:29:GLY:HA3	46:L9:30:PRO:HD2	2.68	0.42
47:M0:87:LEU:HA	47:M0:87:LEU:HD23	1.97	0.42
48:M1:82:ARG:HH12	48:M1:113:GLY:HA3	4.16	0.42
36:1:96:G:H5'	49:M3:15:ARG:NH2	2.35	0.42
49:M3:28:GLN:HB3	51:M5:201:ARG:HD3	2.02	0.42
50:M4:21:VAL:HG11	50:M4:65:LEU:HD23	2.01	0.42
51:M5:10:LEU:O	51:M5:10:LEU:HD22	2.19	0.42
53:M7:3:ARG:NH2	36:5:398:A:C8	127.31	0.42
54:M8:141:ARG:HD3	36:5:743:C:O2	174.03	0.42
55:M9:180:LYS:HD3	55:M9:184:LEU:HD11	3.39	0.42
56:N0:142:GLN:HB3	56:N0:142:GLN:HE21	1.55	0.42
56:N0:45:LEU:HA	56:N0:45:LEU:HD22	1.74	0.42
57:N1:39:ILE:HG22	57:N1:99:SER:HB3	2.01	0.42
58:N2:36:TYR:CE1	58:N2:40:HIS:ND1	2.87	0.42
59:N3:6:ALA:HB2	59:N3:126:TRP:CH2	2.55	0.42
61:N5:25:LYS:HB2	61:N5:25:LYS:HE3	4.41	0.42
62:N6:51:ARG:HA	62:N6:73:VAL:HG21	2.59	0.42
66:O0:51:LEU:HA	66:O0:51:LEU:HD12	1.88	0.42
68:O2:19:ARG:HH22	36:5:1433:A:P	164.23	0.42
74:O8:10:GLN:O	74:O8:14:LEU:HB2	3.83	0.42
78:Q2:7:THR:O	78:Q2:8:ARG:HB2	2.19	0.42
2:S0:172:LEU:HA	2:S0:172:LEU:HD23	2.02	0.42
5:S3:115:ILE:HB	5:S3:116:ARG:H	3.99	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:191:ASP:HB3	5:S3:194:LYS:HE3	2.01	0.42
6:S4:246:LEU:HD12	6:S4:246:LEU:H	1.84	0.42
6:S4:31:PRO:CB	6:S4:38:LEU:HD22	2.82	0.42
1:2:1167:G:OP1	7:S5:101:GLY:HA3	2.20	0.42
7:S5:89:ILE:HD12	7:S5:90:ILE:H	1.84	0.42
9:S7:77:LEU:O	9:S7:81:LEU:HG	2.20	0.42
1:2:386:G:OP2	10:S8:25:ARG:NH2	2.53	0.42
11:S9:113:VAL:CG1	11:S9:119:ALA:HB2	3.10	0.42
34:SR:107:LYS:HB2	34:SR:128:ASP:CB	3.34	0.42
34:SR:134:TRP:CZ3	34:SR:140:CYS:HB2	3.14	0.42
34:SR:278:PHE:CE1	34:SR:287:PRO:HD2	2.55	0.42
36:1:1009:A:H2'	36:1:1010:G:C1'	2.50	0.42
36:1:1139:G:C6	36:1:1140:G:N7	2.88	0.42
36:1:1807:G:C5	36:1:1808:G:C6	3.07	0.42
36:1:1941:C:H1'	36:1:3362:A:C8	2.55	0.42
36:1:2714:G:H8	36:1:2714:G:H5"	1.85	0.42
36:1:966:U:H2'	36:1:967:A:C8	2.55	0.42
1:2:17:C:HO2'	1:2:1137:A:H61	1.67	0.42
1:2:12:U:H4'	1:2:1300:A:O4'	2.20	0.42
1:2:1607:G:H2'	1:2:1608:U:C6	2.55	0.42
1:2:1776:A:H2'	1:2:1777:G:H8	1.81	0.42
1:2:1497:U:OP2	86:2:2031:OHX:N1	2.52	0.42
1:2:61:A:N1	1:2:62:A:N6	2.68	0.42
1:2:788:A:H3'	6:S4:108:ARG:HH22	1.84	0.42
1:2:867:G:N7	86:2:2032:OHX:N2	2.67	0.42
36:5:999:G:C6	36:5:1000:C:N4	2.88	0.42
36:5:1194:G:HO2'	36:5:1319:G:HO2'	1.65	0.42
36:5:1378:U:OP1	86:5:4022:OHX:N3	2.53	0.42
36:5:173:G:HO2'	36:5:174:C:P	2.43	0.42
36:5:2608:G:H2'	36:5:2609:A:H8	1.85	0.42
86:5:3995:OHX:N4	86:5:4084:OHX:N1	2.68	0.42
1:6:1330:G:O5'	1:6:1330:G:H8	2.02	0.42
1:6:1372:U:H6	1:6:1372:U:OP1	2.03	0.42
1:6:138:A:N6	1:6:266:A:N6	2.68	0.42
1:6:1744:A:N6	1:6:1745:G:C6	2.87	0.42
1:6:1778:G:H2'	1:6:1779:U:H6	1.85	0.42
8:S6:216:LEU:HD21	1:6:242:U:OP1	339.97	0.42
1:6:719:U:C4	1:6:721:U:H5	2.38	0.42
1:6:809:A:O5'	1:6:809:A:H8	2.02	0.42
12:C0:2:LEU:HD22	1:6:1258:U:H4'	433.36	0.42
13:C1:78:THR:HG23	13:C1:119:VAL:HG23	4.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C1:90:TYR:OH	13:C1:105:LYS:HE2	3.23	0.42
15:C3:54:LEU:O	15:C3:60:VAL:HB	2.19	0.42
17:C5:107:ILE:HG12	17:C5:107:ILE:H	2.69	0.42
18:C6:109:PHE:O	18:C6:112:TYR:N	3.22	0.42
18:C6:83:GLN:OE1	18:C6:119:ALA:HA	2.19	0.42
19:C7:5:ARG:HB3	19:C7:9:VAL:HG11	3.01	0.42
19:C7:7:LYS:HG3	19:C7:8:THR:N	3.18	0.42
21:C9:13:ASP:HA	21:C9:16:ASN:HB2	3.10	0.42
25:D3:126:LYS:HG2	25:D3:131:SER:H	1.85	0.42
26:D4:133:ASN:OD1	26:D4:133:ASN:N	2.53	0.42
27:D5:38:HIS:CG	27:D5:70:LYS:HG2	7.20	0.42
27:D5:75:LEU:O	27:D5:79:ALA:N	3.26	0.42
7:S5:81:ARG:HH22	30:D8:48:VAL:H	1.67	0.42
32:E0:34:ALA:O	32:E0:37:ARG:HB3	2.20	0.42
39:L2:121:GLY:C	39:L2:123:ARG:H	2.21	0.42
40:L3:116:ARG:HG2	40:L3:175:LYS:HB2	2.90	0.42
41:L4:130:ALA:HA	41:L4:148:ILE:CG2	2.50	0.42
42:L5:207:TYR:CD2	37:7:33:U:C2	293.06	0.42
44:L7:163:LEU:HA	44:L7:163:LEU:HD23	1.86	0.42
44:L7:33:ARG:HG3	44:L7:34:LYS:N	3.99	0.42
46:L9:79:ILE:O	46:L9:83:THR:HG23	2.32	0.42
47:M0:148:VAL:O	47:M0:151:GLY:N	2.46	0.42
47:M0:51:HIS:CD2	47:M0:168:SER:HB2	3.30	0.42
47:M0:170:LYS:HA	47:M0:177:ASP:HA	2.00	0.42
48:M1:13:LYS:HB2	48:M1:14:ILE:H	2.10	0.42
49:M3:64:LYS:HG3	64:N8:69:TRP:CD2	2.55	0.42
49:M3:9:ILE:HD13	64:N8:52:TYR:CE1	2.55	0.42
50:M4:21:VAL:HB	50:M4:63:VAL:HG13	3.46	0.42
52:M6:65:ASN:O	52:M6:68:ARG:HG2	2.19	0.42
36:1:1447:G:H3'	53:M7:67:ILE:CD1	2.49	0.42
52:M6:118:VAL:HB	56:N0:164:SER:O	2.43	0.42
57:N1:145:GLY:O	57:N1:146:ASN:HB2	3.00	0.42
57:N1:79:MET:HB3	57:N1:84:TYR:CE2	2.54	0.42
64:N8:18:GLY:O	36:5:1370:G:H5"	174.25	0.42
36:1:1456:A:N7	67:O1:26:LYS:HE2	2.34	0.42
70:O4:107:GLU:O	70:O4:110:GLU:HB2	2.19	0.42
70:O4:20:ILE:HA	70:O4:20:ILE:HD12	1.58	0.42
71:O5:21:LEU:HD21	71:O5:51:ILE:HG23	2.01	0.42
2:S0:61:ALA:O	2:S0:63:ILE:N	2.52	0.42
3:S1:229:MET:C	3:S1:231:LEU:H	2.52	0.42
4:S2:134:LEU:O	4:S2:136:VAL:N	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:70:THR:HG22	5:S3:86:LEU:HD13	2.01	0.42
1:2:788:A:P	6:S4:108:ARG:HH12	2.36	0.42
6:S4:47:PHE:HD2	6:S4:48:LEU:HD12	1.84	0.42
7:S5:192:GLU:O	7:S5:195:ALA:N	3.50	0.42
9:S7:41:LEU:HD13	9:S7:70:PHE:CD1	2.54	0.42
10:S8:70:GLU:HG3	10:S8:112:TRP:CH2	2.54	0.42
11:S9:59:LEU:C	11:S9:61:THR:H	2.22	0.42
34:SR:123:ILE:HG22	34:SR:133:VAL:HG22	2.02	0.42
34:SR:228:LYS:HE3	34:SR:228:LYS:HB2	2.33	0.42
36:1:1213:G:C2	36:1:1293:U:C2	3.08	0.42
36:1:1362:G:H2'	36:1:1363:A:H8	1.85	0.42
36:1:1595:U:C2	36:1:1596:C:C5	3.07	0.42
36:1:1745:C:H2'	36:1:1746:U:O4'	2.19	0.42
36:1:1774:C:H2'	36:1:1775:G:O4'	2.20	0.42
36:1:2103:U:H2'	36:1:2104:A:C8	2.54	0.42
36:1:2146:C:O2'	36:1:2147:A:H5'	2.20	0.42
36:1:1311:G:O2'	36:1:2381:G:H4'	2.20	0.42
36:1:2536:A:O5'	36:1:2536:A:H8	2.02	0.42
36:1:255:A:O2'	36:1:256:G:H5'	2.19	0.42
36:1:2578:U:H2'	36:1:2579:G:O4'	2.20	0.42
36:1:3010:U:O2'	36:1:3011:A:H2'	2.19	0.42
36:1:3011:A:C5	40:L3:13:HIS:CD2	3.08	0.42
36:1:3312:U:H2'	36:1:3313:U:H5"	2.02	0.42
36:1:604:G:C2	36:1:605:U:C2	3.07	0.42
36:1:952:A:N3	36:1:1114:U:O2'	2.47	0.42
1:2:1172:G:C5	1:2:1173:C:C4	3.08	0.42
1:2:517:U:H2'	1:2:518:A:O4'	2.19	0.42
1:2:542:A:H8	1:2:543:C:H2'	1.84	0.42
1:2:621:A:N3	1:2:1107:G:H1'	2.35	0.42
1:2:954:G:H2'	1:2:955:A:H8	1.84	0.42
1:2:976:G:C5	1:2:1023:A:C2	3.07	0.42
37:3:25:G:H2'	37:3:26:C:O4'	2.19	0.42
38:4:93:U:H2'	38:4:94:C:C6	2.55	0.42
36:5:1728:G:H4'	36:5:1729:A:H5"	2.02	0.42
36:5:1818:U:H2'	36:5:1819:U:H6	1.83	0.42
36:5:237:G:N2	36:5:238:A:O4'	2.53	0.42
36:5:2601:A:H2'	36:5:2602:G:C8	2.55	0.42
1:6:1120:U:H2'	1:6:1121:C:C6	2.54	0.42
1:6:1344:A:H2'	1:6:1345:A:C8	2.54	0.42
1:6:1643:U:H2'	1:6:1644:C:O4'	2.20	0.42
1:6:15:U:H2'	1:6:16:G:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1715:G:C6	1:6:1716:C:N4	2.88	0.42
1:6:1740:A:H2'	1:6:1741:U:C6	2.55	0.42
1:6:1720:G:O6	86:6:2092:OHX:N4	2.52	0.42
1:6:602:U:H2'	1:6:603:U:C6	2.55	0.42
56:N0:50:LYS:NZ	37:7:76:A:N3	299.16	0.42
12:C0:31:LYS:H	12:C0:38:LYS:HA	3.99	0.42
12:C0:56:LYS:HB2	12:C0:67:THR:HG23	6.64	0.42
13:C1:118:GLN:HG3	13:C1:121:ASP:OD2	2.20	0.42
13:C1:129:ARG:HG3	13:C1:131:ILE:HD13	2.02	0.42
14:C2:23:THR:CB	14:C2:26:ASP:HB2	2.49	0.42
16:C4:16:VAL:HG22	16:C4:33:LEU:HA	2.01	0.42
20:C8:61:LEU:HD22	20:C8:61:LEU:HA	1.83	0.42
22:D0:95:ALA:HB1	22:D0:99:ILE:HG21	2.01	0.42
23:D1:62:ARG:C	23:D1:64:GLU:H	2.99	0.42
24:D2:28:ARG:HG3	24:D2:29:PRO:HA	2.00	0.42
26:D4:29:HIS:HB2	26:D4:67:GLY:HA2	5.72	0.42
28:D6:47:ALA:O	28:D6:50:VAL:HG12	2.20	0.42
30:D8:30:VAL:HG22	30:D8:40:ILE:O	2.20	0.42
30:D8:32:PHE:CE2	30:D8:38:ARG:HB3	2.54	0.42
30:D8:50:GLU:O	30:D8:51:ASN:HB2	2.50	0.42
39:L2:168:VAL:HG23	39:L2:169:ILE:O	3.80	0.42
39:L2:180:LEU:HD23	39:L2:180:LEU:HA	1.85	0.42
39:L2:95:SER:O	39:L2:100:ASN:ND2	3.20	0.42
40:L3:214:MET:HE2	40:L3:350:ALA:HB2	2.02	0.42
41:L4:50:TYR:CD2	41:L4:109:TRP:HH2	2.71	0.42
42:L5:119:TYR:OH	42:L5:141:PRO:HD3	2.61	0.42
36:1:1044:U:OP1	47:M0:90:ARG:NH1	2.53	0.42
52:M6:157:GLU:O	52:M6:160:ARG:HB3	2.26	0.42
52:M6:16:VAL:HG21	52:M6:43:ILE:HG12	2.76	0.42
57:N1:70:SER:O	57:N1:92:ARG:HG2	2.20	0.42
58:N2:19:VAL:O	58:N2:22:PRO:HD2	2.20	0.42
36:1:1677:G:H5'	58:N2:97:SER:HB2	2.02	0.42
59:N3:13:ILE:HG12	59:N3:53:SER:CB	2.50	0.42
61:N5:57:LEU:HD23	61:N5:57:LEU:HA	4.30	0.42
61:N5:75:LYS:HD3	61:N5:123:TYR:CE1	2.54	0.42
61:N5:86:VAL:HG13	61:N5:90:ALA:HB3	2.85	0.42
63:N7:95:VAL:HG13	63:N7:110:ALA:HB1	2.01	0.42
63:N7:51:LEU:CB	63:N7:65:ARG:HD2	2.50	0.42
63:N7:40:HIS:N	63:N7:77:TYR:HD1	3.79	0.42
64:N8:95:SER:O	64:N8:99:ALA:HB2	2.20	0.42
36:1:1072:G:H21	65:N9:50:THR:HB	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:O0:28:LYS:HE2	66:O0:28:LYS:HB3	2.23	0.42
68:O2:12:LYS:HD3	68:O2:57:TYR:C	3.24	0.42
68:O2:91:THR:HG22	68:O2:92:TYR:CD2	2.55	0.42
70:O4:58:ARG:HG3	70:O4:59:PRO:HD2	3.99	0.42
2:S0:58:VAL:O	2:S0:61:ALA:HB3	2.50	0.42
2:S0:89:PHE:HE2	2:S0:177:LEU:HB3	1.90	0.42
3:S1:151:LYS:O	3:S1:151:LYS:HG3	2.56	0.42
3:S1:179:SER:OG	3:S1:179:SER:O	2.36	0.42
4:S2:130:ILE:O	4:S2:134:LEU:HD22	2.20	0.42
4:S2:137:ILE:HG21	4:S2:137:ILE:HD13	2.09	0.42
5:S3:55:THR:HA	5:S3:58:VAL:HG23	2.02	0.42
7:S5:216:GLU:HA	7:S5:216:GLU:OE2	3.40	0.42
1:2:169:A:OP1	8:S6:137:ARG:HG3	2.20	0.42
8:S6:215:ARG:O	8:S6:216:LEU:HD23	4.22	0.42
8:S6:48:TYR:CD1	8:S6:116:LYS:HA	2.54	0.42
9:S7:31:SER:O	9:S7:35:LYS:HB3	2.20	0.42
11:S9:87:SER:O	11:S9:89:ASP:N	2.81	0.42
1:2:577:G:O6	35:SM:100:THR:O	2.38	0.42
35:SM:58:GLU:OE2	35:SM:62:ARG:HD2	5.04	0.42
35:SM:83:LYS:O	35:SM:84:LYS:HB2	4.85	0.42
34:SR:117:LYS:H	34:SR:117:LYS:HD2	1.85	0.42
34:SR:107:LYS:HB2	34:SR:128:ASP:HB3	3.05	0.42
36:1:1355:A:H1'	36:1:1356:U:OP2	2.20	0.42
36:1:1394:A:H4'	36:1:1420:C:H4'	2.02	0.42
36:1:2180:G:O6	86:1:4022:OHX:N1	2.53	0.42
36:1:2584:G:H5"	36:1:2585:G:OP2	2.20	0.42
36:1:2849:C:N4	36:1:2850:G:C6	2.88	0.42
36:1:3195:U:O2'	36:1:3196:U:H5'	2.19	0.42
86:1:4132:OHX:N1	86:1:4164:OHX:N4	2.68	0.42
36:1:900:G:H2'	36:1:901:G:H8	1.85	0.42
36:1:979:U:H1'	36:1:980:A:C5	2.54	0.42
1:2:1313:A:C2	1:2:1315:U:H4'	2.54	0.42
1:2:1454:G:C4	1:2:1455:G:C8	3.07	0.42
1:2:1534:G:OP2	27:D5:74:SER:OG	2.32	0.42
1:2:1535:U:H1'	1:2:1536:G:C2	2.55	0.42
1:2:372:G:H1'	1:2:612:U:O2	2.19	0.42
1:2:61:A:C6	1:2:62:A:C6	3.08	0.42
36:5:1560:G:O2'	36:5:1561:G:P	2.77	0.42
36:5:1578:C:H3'	36:5:1579:C:C6	2.55	0.42
36:5:1587:A:C4	36:5:1590:G:C5	3.08	0.42
36:5:2376:G:C6	36:5:2377:G:O6	2.73	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3166:C:H2'	36:5:3166:C:O2	2.19	0.42
36:5:3353:G:O2'	36:5:3356:G:OP2	2.38	0.42
36:5:688:G:H8	36:5:688:G:O5'	2.03	0.42
1:6:1122:G:C6	86:6:2160:OHX:N6	2.88	0.42
12:C0:1:MET:N	1:6:1217:A:OP2	430.85	0.42
1:6:1431:C:H1'	1:6:1437:U:O4	2.20	0.42
1:6:452:A:OP2	86:6:2060:OHX:N1	2.53	0.42
1:6:496:G:O6	1:6:497:G:N2	2.50	0.42
1:6:483:A:N6	1:6:504:U:H3	2.17	0.42
26:D4:120:GLY:HA2	1:6:85:A:O2'	334.79	0.42
1:6:990:C:H2'	1:6:991:G:O4'	2.20	0.42
38:8:85:G:C2	38:8:87:G:N2	2.88	0.42
16:C4:39:ILE:H	16:C4:39:ILE:HG12	2.94	0.42
18:C6:127:LYS:HG2	18:C6:128:LYS:N	3.12	0.42
18:C6:82:ARG:HH12	18:C6:114:ARG:HB3	1.85	0.42
2:S0:198:MET:SD	19:C7:85:VAL:HG11	2.60	0.42
20:C8:23:ASP:OD1	20:C8:25:ASN:ND2	3.59	0.42
21:C9:88:VAL:O	1:6:1467:C:O2'	363.41	0.42
23:D1:74:GLN:HG2	23:D1:79:LEU:O	4.69	0.42
29:D7:30:SER:O	1:6:959:U:H5	354.76	0.42
33:E1:137:ASP:HB2	33:E1:138:ARG:H	1.63	0.42
36:1:2242:A:H5'	39:L2:243:THR:HG23	2.01	0.42
39:L2:87:PHE:O	39:L2:88:ILE:HD13	2.20	0.42
40:L3:2:SER:N	36:5:2943:G:C8	235.45	0.42
42:L5:75:LEU:HD22	42:L5:112:LYS:HE2	4.09	0.42
42:L5:273:ARG:O	42:L5:273:ARG:HG2	2.75	0.42
42:L5:290:ILE:O	42:L5:293:LEU:N	4.64	0.42
42:L5:40:HIS:CD2	42:L5:42:ALA:H	2.24	0.42
45:L8:78:PHE:C	45:L8:80:TYR:H	2.21	0.42
47:M0:72:ALA:HB2	47:M0:155:ALA:HB2	2.26	0.42
51:M5:91:GLU:HG3	51:M5:91:GLU:H	2.89	0.42
52:M6:155:LYS:HB2	52:M6:155:LYS:HE3	2.00	0.42
38:4:12:A:C2	53:M7:120:ASN:ND2	2.88	0.42
53:M7:151:THR:HG22	53:M7:152:GLU:N	2.49	0.42
56:N0:103:VAL:O	56:N0:106:LEU:HB3	2.58	0.42
56:N0:155:ARG:O	56:N0:170:THR:HG22	2.20	0.42
36:1:2723:U:H5'	57:N1:88:ARG:O	2.20	0.42
58:N2:48:GLY:C	58:N2:50:LEU:H	2.71	0.42
58:N2:28:PHE:CE1	58:N2:83:TYR:HE2	2.74	0.42
60:N4:4:GLU:HG2	60:N4:30:ARG:CD	2.44	0.42
61:N5:135:ILE:HD12	61:N5:135:ILE:HG23	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:5:SER:OG	62:N6:6:LEU:N	2.53	0.42
67:O1:102:LYS:HA	67:O1:102:LYS:HE3	5.05	0.42
68:O2:44:ARG:HD2	68:O2:44:ARG:HH11	1.80	0.42
70:O4:102:LYS:HG2	70:O4:103:LYS:HE3	4.30	0.42
36:1:817:A:C4	73:O7:13:ASN:O	2.73	0.42
74:O8:17:ARG:HG2	74:O8:19:ASP:OD2	3.72	0.42
3:S1:173:THR:O	3:S1:177:GLN:HB2	6.30	0.42
4:S2:49:LYS:HD3	4:S2:49:LYS:HA	1.68	0.42
6:S4:17:HIS:HB2	6:S4:108:ARG:HA	2.02	0.42
6:S4:77:ARG:HD2	6:S4:82:TYR:CE1	4.55	0.42
7:S5:164:PRO:O	7:S5:167:ARG:HB2	2.20	0.42
7:S5:51:VAL:HA	7:S5:131:GLN:CD	2.39	0.42
7:S5:81:ARG:HB3	7:S5:82:PHE:HD2	2.66	0.42
7:S5:81:ARG:HG3	1:6:1615:C:C5	374.27	0.42
8:S6:64:LYS:O	8:S6:67:VAL:HG22	2.20	0.42
9:S7:99:LEU:HA	9:S7:100:PRO:HD2	2.41	0.42
10:S8:39:GLY:HA2	10:S8:61:GLU:HB3	2.01	0.42
10:S8:76:THR:HG21	10:S8:109:PHE:CE1	2.55	0.42
35:SM:101:ASP:HB3	35:SM:102:THR:H	1.63	0.42
35:SM:74:LYS:HB2	35:SM:74:LYS:HE2	4.62	0.42
36:1:20:A:OP2	71:O5:90:ARG:NH1	2.53	0.41
36:1:2220:A:C6	36:1:2221:G:C6	3.08	0.41
36:1:2407:C:H2'	36:1:2408:U:C6	2.55	0.41
36:1:241:G:C5	36:1:242:C:C4	3.08	0.41
36:1:2564:G:C6	36:1:2565:U:N3	2.88	0.41
36:1:2902:A:P	46:L9:170:LYS:HE3	2.60	0.41
36:1:3290:G:C6	36:1:3291:G:C5	3.07	0.41
36:1:331:G:O6	86:1:4043:OHX:N5	2.53	0.41
36:1:40:A:N7	64:N8:29:PRO:O	2.53	0.41
36:1:830:A:H2'	36:1:831:G:O4'	2.20	0.41
1:2:1125:A:C5	1:2:1126:G:H1'	2.55	0.41
1:2:159:U:H1'	8:S6:87:ARG:NH1	2.34	0.41
1:2:240:U:OP1	1:2:240:U:H4'	2.19	0.41
1:2:447:U:C4	1:2:448:C:C4	3.08	0.41
1:2:587:C:OP2	32:E0:23:LYS:NZ	2.48	0.41
38:4:123:G:C6	38:4:131:A:N1	2.88	0.41
38:4:70:G:C8	38:4:70:G:OP2	2.72	0.41
36:5:1020:G:H2'	36:5:1021:G:O4'	2.20	0.41
36:5:1034:U:H2'	36:5:1035:G:O4'	2.19	0.41
36:5:1278:A:H2'	36:5:1279:C:H5'	2.01	0.41
36:5:41:G:H4'	36:5:2410:U:H2'	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2861:U:H2'	36:5:2862:U:C6	2.55	0.41
36:5:2964:G:N1	36:5:2968:G:C6	2.88	0.41
36:5:3096:C:H2'	36:5:3097:C:C6	2.55	0.41
36:5:430:U:H2'	36:5:431:U:O4'	2.20	0.41
36:5:8:C:H2'	36:5:9:U:O4'	2.20	0.41
1:6:1257:U:O2'	1:6:1258:U:O2	2.35	0.41
1:6:1410:A:H2'	1:6:1411:A:O4'	2.20	0.41
1:6:1452:U:H2'	1:6:1453:G:H8	1.85	0.41
31:D9:16:LYS:HG2	1:6:1596:C:OP1	400.08	0.41
1:6:292:U:H2'	1:6:293:U:C6	2.55	0.41
1:6:577:G:C3'	1:6:577:G:C8	3.03	0.41
8:S6:160:ARG:NH1	1:6:68:A:OP1	345.67	0.41
1:6:889:U:H4'	1:6:989:U:OP1	2.20	0.41
12:C0:33:GLU:O	12:C0:34:GLU:HB2	2.20	0.41
12:C0:40:LEU:O	12:C0:40:LEU:HD22	3.29	0.41
13:C1:109:VAL:HG11	13:C1:125:VAL:HG11	2.11	0.41
15:C3:92:ILE:CA	15:C3:122:ILE:HD11	3.23	0.41
1:2:953:G:OP2	15:C3:94:LYS:NZ	2.53	0.41
16:C4:92:LYS:HE2	16:C4:92:LYS:HB2	2.63	0.41
17:C5:119:PHE:HA	35:SM:57:ASN:ND2	2.82	0.41
18:C6:123:ARG:HA	18:C6:124:PRO:HD2	1.67	0.41
18:C6:27:GLY:HA2	18:C6:63:ILE:O	2.20	0.41
23:D1:70:ASN:OD1	23:D1:70:ASN:N	2.80	0.41
24:D2:11:LEU:HD22	24:D2:72:CYS:HB2	2.60	0.41
25:D3:85:ALA:HA	25:D3:120:VAL:HG13	2.02	0.41
27:D5:95:HIS:CG	27:D5:96:SER:N	2.87	0.41
28:D6:44:ILE:CD1	28:D6:44:ILE:H	2.24	0.41
29:D7:20:LYS:HG2	29:D7:21:LEU:HD23	2.02	0.41
40:L3:262:TRP:HE1	52:M6:66:LYS:NZ	2.17	0.41
40:L3:227:GLU:CG	40:L3:270:ARG:HE	2.70	0.41
40:L3:286:GLY:O	40:L3:320:ASP:HA	2.92	0.41
40:L3:55:THR:HG22	40:L3:73:VAL:HG23	3.08	0.41
41:L4:276:LEU:HA	41:L4:277:PRO:HD3	2.17	0.41
42:L5:51:LEU:HB2	42:L5:144:VAL:CG1	2.50	0.41
45:L8:116:VAL:HG13	45:L8:121:SER:O	2.19	0.41
48:M1:106:ILE:HD12	48:M1:112:LEU:HD13	3.80	0.41
48:M1:115:LYS:HB3	48:M1:116:TYR:H	1.50	0.41
51:M5:35:VAL:HG23	36:5:1543:G:P	140.66	0.41
36:1:3268:A:OP2	53:M7:181:ARG:NH1	2.52	0.41
54:M8:43:PRO:HA	54:M8:46:LYS:HD2	2.02	0.41
55:M9:8:LYS:HD2	55:M9:22:VAL:HG23	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:80:ARG:HB2	59:N3:99:ALA:HB3	2.02	0.41
63:N7:6:LYS:HB3	63:N7:6:LYS:HE2	1.89	0.41
68:O2:101:SER:HB3	36:5:1389:G:OP1	130.42	0.41
68:O2:22:SER:HA	68:O2:28:VAL:CG1	2.50	0.41
69:O3:24:ASN:OD1	69:O3:26:ASN:HB2	3.12	0.41
70:O4:46:ASP:OD1	70:O4:88:ARG:NH2	2.53	0.41
71:O5:88:LEU:HD23	71:O5:88:LEU:HA	1.59	0.41
74:O8:11:PHE:O	74:O8:15:THR:HG23	2.20	0.41
79:Q3:54:ILE:HG12	79:Q3:54:ILE:O	4.88	0.41
2:S0:164:ASN:HA	2:S0:170:ILE:HD11	3.99	0.41
2:S0:50:VAL:O	2:S0:53:THR:HB	2.49	0.41
3:S1:222:LYS:HD3	3:S1:222:LYS:HA	1.86	0.41
3:S1:30:PHE:CD1	3:S1:96:LEU:HD22	2.54	0.41
3:S1:31:ASP:OD2	3:S1:45:LYS:HE2	6.65	0.41
1:2:1298:U:H4'	4:S2:212:LYS:NZ	2.35	0.41
4:S2:87:GLN:HA	4:S2:95:ARG:O	2.20	0.41
5:S3:80:ALA:HB3	5:S3:83:THR:CG2	2.50	0.41
6:S4:73:ASP:HB3	6:S4:164:LEU:HD22	2.23	0.41
6:S4:212:ASP:OD2	6:S4:216:ASN:HB2	2.20	0.41
7:S5:53:VAL:HB	7:S5:59:VAL:HG22	2.02	0.41
8:S6:3:LEU:O	8:S6:15:THR:HA	2.36	0.41
9:S7:77:LEU:O	9:S7:81:LEU:N	2.81	0.41
10:S8:157:GLU:O	10:S8:160:PHE:HB2	2.20	0.41
11:S9:111:THR:O	11:S9:115:LYS:HB2	2.55	0.41
6:S4:248:ILE:HD12	11:S9:71:PHE:CD2	3.50	0.41
36:1:1072:G:C4	36:1:1087:G:C2	3.08	0.41
36:1:1172:G:H2'	36:1:1173:U:H6	1.85	0.41
36:1:1205:A:H4'	36:1:2835:U:O2'	2.20	0.41
36:1:1472:U:H2'	36:1:1473:G:H8	1.84	0.41
36:1:1542:G:C5	36:1:1552:G:N2	2.87	0.41
36:1:1613:A:H2'	36:1:1614:C:H6	1.85	0.41
36:1:1661:G:H2'	36:1:1662:G:C8	2.54	0.41
36:1:1823:A:C6	36:1:1824:U:C4	3.08	0.41
36:1:2681:U:H6	36:1:2681:U:O5'	2.04	0.41
36:1:2687:G:N7	86:1:3901:OHX:N5	2.67	0.41
36:1:2746:A:H2'	36:1:2747:A:O4'	2.20	0.41
36:1:2925:C:H2'	36:1:2926:A:O4'	2.20	0.41
36:1:3190:C:H2'	36:1:3191:G:H8	1.84	0.41
36:1:3215:A:C4	36:1:3259:U:C2	3.09	0.41
36:1:360:G:H2'	36:1:361:A:C8	2.55	0.41
36:1:371:G:H4'	36:1:396:A:N1	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:522:A:OP1	86:1:3944:OHX:N5	2.53	0.41
36:1:869:G:H1'	36:1:891:G:N2	2.34	0.41
1:2:1051:G:O2'	1:2:1052:U:P	2.78	0.41
1:2:1142:A:H2'	1:2:1143:A:C8	2.55	0.41
1:2:1358:G:H2'	1:2:1359:C:C6	2.55	0.41
1:2:1433:G:H22	31:D9:45:GLU:CD	2.23	0.41
86:2:2090:OHX:N5	86:2:2131:OHX:N2	2.68	0.41
86:2:2090:OHX:N5	86:2:2131:OHX:N6	2.68	0.41
1:2:237:C:C5'	1:2:238:U:H5'	2.46	0.41
1:2:246:G:C6	1:2:247:A:C6	3.08	0.41
1:2:46:A:N6	1:2:433:C:H4'	2.35	0.41
1:2:567:A:H4'	32:E0:13:LYS:HB3	2.02	0.41
1:2:773:C:OP1	6:S4:22:LYS:N	2.53	0.41
36:5:943:U:C2	36:5:1432:C:C5	3.08	0.41
36:5:1658:G:C2	36:5:1796:G:N1	2.88	0.41
36:5:1845:G:C6	36:5:1849:C:C6	3.08	0.41
36:5:247:C:H3'	36:5:248:U:O4'	2.20	0.41
42:L5:12:TYR:OH	36:5:2688:U:OP1	299.52	0.41
36:5:372:A:C6	36:5:373:A:C6	3.07	0.41
86:5:3995:OHX:N6	86:5:4084:OHX:N2	2.68	0.41
36:5:65:A:H4'	36:5:66:A:O5'	2.20	0.41
36:5:687:U:H2'	36:5:688:G:C8	2.55	0.41
36:5:926:A:H2'	36:5:927:C:C6	2.55	0.41
1:6:1092:A:C5	1:6:1094:G:C8	3.09	0.41
31:D9:44:ARG:NH2	1:6:1280:C:H5'	399.67	0.41
1:6:1367:G:C6	1:6:1368:G:N7	2.88	0.41
1:6:1565:C:H2'	1:6:1566:U:O4'	2.20	0.41
1:6:1758:U:H2'	1:6:1759:C:C6	2.55	0.41
1:6:542:A:H1'	1:6:543:C:P	2.60	0.41
1:6:638:U:H3'	1:6:639:U:H5'	2.02	0.41
1:6:976:G:O6	86:6:2078:OHX:N6	2.53	0.41
38:8:104:A:H3'	38:8:105:A:H5"	2.01	0.41
38:8:91:C:H2'	38:8:92:A:H8	1.84	0.41
12:C0:31:LYS:HA	12:C0:37:THR:O	2.32	0.41
13:C1:128:CYS:HB2	13:C1:136:ARG:O	5.19	0.41
14:C2:66:VAL:HB	14:C2:67:THR:H	1.51	0.41
15:C3:46:THR:O	15:C3:50:ILE:HD12	2.20	0.41
15:C3:40:TYR:CE2	15:C3:53:LEU:HD23	2.55	0.41
17:C5:119:PHE:CE1	20:C8:119:ILE:HG23	2.55	0.41
17:C5:33:PHE:CD2	17:C5:87:PRO:HD2	2.55	0.41
18:C6:47:LYS:HZ1	18:C6:114:ARG:NH2	2.13	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:16:ARG:HG3	20:C8:20:THR:O	2.20	0.41
21:C9:102:ARG:O	21:C9:105:LEU:N	3.27	0.41
24:D2:44:HIS:CG	24:D2:101:TYR:HE1	2.38	0.41
33:E1:82:LYS:HB3	33:E1:82:LYS:HE3	4.75	0.41
39:L2:90:ALA:HB2	39:L2:101:VAL:HG13	2.01	0.41
39:L2:174:ARG:HA	79:Q3:69:TYR:CE2	2.99	0.41
39:L2:5:ILE:HG22	39:L2:208:ASP:O	2.40	0.41
39:L2:4:VAL:HG13	39:L2:8:GLN:HG3	3.85	0.41
40:L3:173:GLN:NE2	40:L3:175:LYS:O	2.47	0.41
40:L3:221:THR:HG22	40:L3:272:TYR:H	2.01	0.41
40:L3:257:PRO:O	40:L3:259:HIS:N	2.78	0.41
36:1:1426:C:H4'	41:L4:40:THR:HB	2.01	0.41
42:L5:211:LEU:HA	42:L5:211:LEU:HD23	1.71	0.41
42:L5:31:TYR:O	42:L5:35:ARG:HD2	2.20	0.41
42:L5:90:HIS:HB3	42:L5:226:TYR:CE1	2.55	0.41
43:L6:148:GLU:OE2	43:L6:151:LYS:HE2	2.20	0.41
43:L6:149:ILE:C	43:L6:151:LYS:H	2.23	0.41
44:L7:236:ILE:HA	44:L7:236:ILE:HD12	1.87	0.41
44:L7:38:LYS:HA	44:L7:38:LYS:HD2	4.28	0.41
45:L8:151:VAL:HA	45:L8:199:ALA:HB2	2.42	0.41
45:L8:153:ILE:HA	45:L8:197:VAL:HG12	3.33	0.41
46:L9:189:GLU:C	46:L9:191:LEU:H	2.24	0.41
46:L9:99:ILE:HG22	46:L9:101:VAL:HG23	2.61	0.41
47:M0:153:ARG:HG3	47:M0:165:ILE:CD1	5.25	0.41
48:M1:101:ASN:HB3	48:M1:129:VAL:O	2.20	0.41
48:M1:40:LEU:HD22	48:M1:40:LEU:O	2.19	0.41
51:M5:175:ASN:H	51:M5:184:LYS:HB2	2.50	0.41
45:L8:161:GLU:CD	51:M5:26:ARG:HH12	2.23	0.41
52:M6:108:ILE:HG21	52:M6:108:ILE:HD13	2.13	0.41
52:M6:192:LYS:O	52:M6:195:ALA:HB3	2.20	0.41
41:L4:302:ALA:HB2	54:M8:39:ARG:HH12	2.15	0.41
42:L5:67:SER:HB2	57:N1:31:LEU:HD11	3.94	0.41
58:N2:36:TYR:O	58:N2:40:HIS:HB2	2.20	0.41
59:N3:26:ALA:HB1	59:N3:115:THR:O	2.69	0.41
63:N7:27:LYS:HA	63:N7:28:PRO:HD2	2.15	0.41
63:N7:36:HIS:HB3	63:N7:40:HIS:CE1	3.46	0.41
67:O1:12:TYR:OH	67:O1:43:HIS:HB3	2.77	0.41
67:O1:13:THR:HG22	67:O1:72:ARG:NH1	2.35	0.41
71:O5:47:VAL:O	71:O5:51:ILE:HG13	2.20	0.41
74:O8:30:LYS:NZ	74:O8:40:GLN:HE22	4.90	0.41
75:O9:9:ILE:HA	75:O9:9:ILE:HD13	1.82	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:9:LEU:HD13	2:S0:10:THR:C	2.92	0.41
2:S0:179:ARG:HD2	2:S0:183:ARG:HD2	2.01	0.41
2:S0:88:LYS:HE2	2:S0:201:LEU:HD21	4.63	0.41
4:S2:139:ILE:CD1	4:S2:191:ALA:HB1	2.49	0.41
7:S5:113:ILE:HG23	7:S5:191:ALA:HB2	2.02	0.41
8:S6:120:GLU:OE1	8:S6:125:THR:HG22	4.80	0.41
8:S6:98:ARG:HD3	8:S6:99:GLY:H	2.35	0.41
10:S8:76:THR:HG21	10:S8:105:ASP:O	5.93	0.41
11:S9:24:LEU:HD23	11:S9:27:GLU:OE1	2.20	0.41
35:SM:49:LYS:HG3	35:SM:50:ASN:N	3.50	0.41
34:SR:127:ARG:C	34:SR:129:LYS:H	2.72	0.41
34:SR:156:VAL:HA	34:SR:169:ILE:HG22	2.48	0.41
36:1:1014:U:C2'	36:1:1015:U:H5"	2.48	0.41
36:1:123:A:C6	36:1:150:A:C5	3.08	0.41
36:1:113:C:H3'	36:1:154:U:O4	2.20	0.41
36:1:1657:C:C5	36:1:1797:A:H5"	2.54	0.41
36:1:2630:C:H3'	57:N1:4:SER:OG	2.19	0.41
36:1:552:G:H5"	36:1:553:U:OP2	2.20	0.41
36:1:747:A:H2'	36:1:748:U:C6	2.55	0.41
1:2:1085:G:N2	1:2:1088:A:OP2	2.45	0.41
1:2:1339:C:O2'	1:2:1340:U:OP1	2.38	0.41
1:2:1612:U:H4'	7:S5:96:SER:OG	2.20	0.41
86:2:2083:OHX:N3	86:2:2085:OHX:N1	2.69	0.41
1:2:327:U:H2'	1:2:328:A:H8	1.85	0.41
1:2:710:U:H2'	1:2:711:U:H5'	2.01	0.41
37:3:1:G:C2	37:3:2:G:C8	3.09	0.41
36:5:1108:U:H2'	36:5:1109:U:C6	2.55	0.41
36:5:1192:C:C5	86:5:4085:OHX:N4	2.87	0.41
44:L7:208:SER:HB2	36:5:1334:U:H1'	241.10	0.41
36:5:139:G:H2'	36:5:140:C:C6	2.54	0.41
36:5:1591:G:C1'	36:5:1798:A:H61	2.33	0.41
36:5:1678:G:N2	36:5:1679:A:H1'	2.36	0.41
36:5:2265:C:H2'	36:5:2266:U:O4'	2.21	0.41
36:5:2634:U:O2	36:5:2645:G:C6	2.73	0.41
36:5:2880:U:H2'	36:5:2881:C:C6	2.55	0.41
36:5:291:C:H2'	36:5:292:U:C6	2.55	0.41
36:5:3038:U:H2'	36:5:3039:C:O4'	2.21	0.41
36:5:3181:C:H2'	36:5:3182:G:O4'	2.20	0.41
36:5:3181:C:H2'	36:5:3182:G:C8	2.55	0.41
36:5:3238:G:N2	36:5:3250:U:H1'	2.36	0.41
36:5:3264:G:N1	36:5:3265:C:C2	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:5:4005:OHX:N4	86:5:4195:OHX:N2	2.68	0.41
36:5:2620:G:O6	86:5:4236:OHX:N4	2.54	0.41
36:5:726:G:H5'	36:5:727:G:P	2.59	0.41
36:5:880:G:C8	36:5:882:A:C8	3.08	0.41
1:6:1207:C:N4	1:6:1456:C:H5	2.14	0.41
1:6:1642:G:H2'	1:6:1643:U:C6	2.55	0.41
1:6:168:A:H2'	1:6:169:A:C8	2.55	0.41
1:6:16:G:H2'	1:6:17:C:C6	2.55	0.41
6:S4:66:MET:HG3	1:6:454:U:N1	373.41	0.41
1:6:74:U:H5"	1:6:75:U:OP2	2.20	0.41
1:6:909:U:H2'	1:6:910:C:H6	1.85	0.41
13:C1:124:THR:O	13:C1:140:VAL:HG12	2.19	0.41
14:C2:66:VAL:HG11	14:C2:71:ILE:HG21	2.02	0.41
15:C3:78:ASN:HB3	15:C3:80:LEU:HD22	3.83	0.41
16:C4:89:THR:O	16:C4:128:LYS:HG3	2.21	0.41
18:C6:82:ARG:NH1	18:C6:114:ARG:HB2	3.95	0.41
18:C6:52:LEU:HA	18:C6:60:PHE:CE1	3.09	0.41
19:C7:21:TYR:N	19:C7:22:PRO:HD2	2.35	0.41
19:C7:6:THR:OG1	19:C7:8:THR:HG23	4.52	0.41
25:D3:79:ASN:HB2	25:D3:81:LYS:H	4.67	0.41
28:D6:12:LYS:HB3	28:D6:13:LYS:H	4.42	0.41
29:D7:11:THR:C	29:D7:13:ALA:H	2.24	0.41
30:D8:54:LEU:HA	30:D8:54:LEU:HD12	1.93	0.41
32:E0:44:PHE:HD2	32:E0:54:ARG:HH22	7.91	0.41
39:L2:108:PRO:O	39:L2:111:THR:OG1	2.29	0.41
40:L3:105:VAL:HG22	40:L3:147:GLU:HB3	2.01	0.41
40:L3:221:THR:O	40:L3:272:TYR:HA	2.49	0.41
36:1:209:A:C4	41:L4:162:THR:HG21	2.56	0.41
42:L5:109:THR:O	42:L5:112:LYS:N	2.53	0.41
43:L6:55:LEU:HB2	43:L6:64:LEU:HD13	2.26	0.41
44:L7:147:LEU:HA	44:L7:147:LEU:HD23	2.17	0.41
44:L7:150:LYS:HE2	44:L7:151:ARG:NH1	2.35	0.41
47:M0:175:ASN:C	47:M0:176:LEU:HG	3.75	0.41
49:M3:124:ILE:HD11	49:M3:126:PHE:HE1	1.85	0.41
49:M3:151:ALA:O	49:M3:153:ASP:N	4.41	0.41
49:M3:57:VAL:HG12	49:M3:69:VAL:HG22	2.03	0.41
36:1:1307:G:OP1	52:M6:59:ARG:NH1	2.53	0.41
53:M7:52:LEU:HD13	53:M7:88:VAL:CG1	2.47	0.41
53:M7:59:PRO:HG3	53:M7:76:PHE:CG	2.78	0.41
36:1:1295:G:OP1	56:N0:84:ARG:HG3	2.21	0.41
57:N1:120:LYS:C	57:N1:122:GLN:H	2.24	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:58:ASP:OD2	61:N5:59:SER:N	3.70	0.41
63:N7:10:VAL:O	63:N7:83:THR:HB	2.93	0.41
63:N7:85:TYR:CE2	63:N7:129:TRP:CD2	4.04	0.41
64:N8:66:ALA:HB1	64:N8:69:TRP:HB2	4.40	0.41
66:O0:18:ILE:HA	66:O0:18:ILE:HD12	1.86	0.41
68:O2:27:ARG:HB3	36:5:655:C:P	160.97	0.41
70:O4:37:LYS:HE3	70:O4:58:ARG:HH22	1.85	0.41
49:M3:89:TYR:HB2	71:O5:111:PHE:HE1	3.70	0.41
76:Q0:77:ILE:HG23	76:Q0:78:ILE:HG22	5.29	0.41
77:Q1:22:ALA:O	77:Q1:25:LYS:HG3	2.21	0.41
2:S0:74:VAL:HG12	2:S0:76:ILE:HG12	2.57	0.41
3:S1:83:LYS:HE2	3:S1:104:ASP:HB3	2.02	0.41
5:S3:71:LEU:O	5:S3:75:LYS:HG2	2.19	0.41
6:S4:99:PHE:CE1	6:S4:111:VAL:HG13	2.56	0.41
6:S4:123:LEU:HD12	6:S4:123:LEU:HA	1.89	0.41
7:S5:27:THR:HG22	18:C6:30:LYS:HE2	2.02	0.41
9:S7:160:GLN:HA	9:S7:163:ASP:HB2	3.65	0.41
9:S7:162:ILE:O	9:S7:165:LYS:N	3.48	0.41
11:S9:129:ILE:HA	11:S9:134:ILE:HG12	3.44	0.41
34:SR:23:LEU:HB2	34:SR:293:ALA:HB2	2.71	0.41
36:1:1064:A:H4'	36:1:1065:A:O5'	2.21	0.41
36:1:112:U:H6	36:1:112:U:H2'	1.70	0.41
36:1:1233:G:H22	36:1:1255:C:H42	1.67	0.41
36:1:1324:U:H2'	36:1:1325:U:O4'	2.20	0.41
36:1:1463:U:H2'	36:1:1464:G:O4'	2.20	0.41
36:1:1467:A:N1	36:1:1511:U:O2'	2.46	0.41
36:1:1580:A:OP1	39:L2:68:LYS:NZ	2.53	0.41
36:1:1924:U:OP1	77:Q1:25:LYS:NZ	2.47	0.41
36:1:2697:A:C2	36:1:2698:G:C5	3.09	0.41
36:1:3020:U:O4	86:1:3989:OHX:N4	2.53	0.41
36:1:3383:G:H2'	36:1:3384:U:C6	2.56	0.41
36:1:611:A:H1'	36:1:612:U:C6	2.55	0.41
36:1:994:G:N2	36:1:995:U:O4	2.49	0.41
1:2:1003:A:N3	1:2:1005:A:C5	2.88	0.41
1:2:1229:G:O2'	1:2:1255:G:N2	2.53	0.41
1:2:1261:G:N2	1:2:1262:U:O2	2.53	0.41
1:2:1292:G:H2'	1:2:1293:U:C6	2.56	0.41
1:2:1150:G:C6	1:2:1768:G:C5	3.08	0.41
1:2:218:A:HO2'	1:2:219:A:P	2.43	0.41
1:2:499:U:H2'	1:2:499:U:H6	1.48	0.41
37:3:71:G:H2'	37:3:72:A:C8	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:60:U:C4	38:4:98:U:H4'	2.56	0.41
38:4:79:A:C6	38:4:80:A:H2	2.38	0.41
36:5:1104:G:N2	36:5:1105:A:C4	2.89	0.41
36:5:1124:U:O4	86:5:4140:OHX:N5	2.53	0.41
36:5:1129:A:C6	36:5:1130:A:C6	3.08	0.41
36:5:1273:A:H3'	36:5:1274:A:H8	1.86	0.41
36:5:1944:U:C2	36:5:1945:A:C8	3.08	0.41
36:5:2405:C:O2	36:5:2819:A:N1	2.53	0.41
36:5:2442:G:C2	36:5:2443:A:N7	2.88	0.41
36:5:3045:G:H2'	36:5:3046:A:O4'	2.21	0.41
36:5:3264:G:N2	36:5:3265:C:H1'	2.35	0.41
36:5:344:A:C6	36:5:345:G:C5	3.09	0.41
36:5:594:U:H2'	36:5:609:G:O6	2.20	0.41
36:5:731:U:O5'	36:5:731:U:H6	2.04	0.41
36:5:815:G:N1	36:5:906:A:C2	2.88	0.41
36:5:86:G:N2	36:5:99:A:OP2	2.34	0.41
1:6:1097:U:OP1	1:6:1098:U:H2'	2.20	0.41
1:6:1388:A:C5	1:6:1411:A:C6	3.09	0.41
1:6:1503:A:H2'	1:6:1504:G:O4'	2.20	0.41
1:6:1759:C:H2'	1:6:1760:G:O4'	2.21	0.41
1:6:386:G:C6	1:6:387:A:N6	2.89	0.41
37:7:22:A:C6	37:7:23:A:C6	3.09	0.41
12:C0:14:TYR:CE1	12:C0:18:GLU:HG3	2.61	0.41
13:C1:93:TYR:HB2	13:C1:100:TYR:HE1	2.54	0.41
15:C3:95:ALA:HB2	15:C3:118:ILE:HG22	2.52	0.41
19:C7:24:LEU:O	19:C7:25:THR:HG23	2.20	0.41
22:D0:37:VAL:O	22:D0:41:ILE:HD13	2.20	0.41
24:D2:85:ASP:O	24:D2:88:LYS:HB2	2.55	0.41
28:D6:41:ILE:HG22	28:D6:68:TYR:CD1	2.56	0.41
39:L2:221:LYS:O	36:5:2245:C:H4'	218.22	0.41
39:L2:31:THR:HG21	36:5:2521:U:C5'	182.64	0.41
39:L2:29:LEU:HA	39:L2:76:PHE:CE1	2.55	0.41
39:L2:83:HIS:NE2	39:L2:86:GLN:HB2	2.59	0.41
41:L4:29:PRO:HD2	41:L4:277:PRO:HB2	2.03	0.41
41:L4:338:LYS:HD2	41:L4:338:LYS:N	2.34	0.41
41:L4:338:LYS:HE2	41:L4:338:LYS:HA	2.03	0.41
41:L4:77:VAL:HG12	41:L4:78:GLY:N	2.58	0.41
36:1:1439:U:H5"	41:L4:87:GLN:NE2	2.35	0.41
42:L5:110:LEU:HD12	42:L5:110:LEU:HA	1.73	0.41
36:1:607:A:C4	43:L6:26:ARG:NH2	2.89	0.41
44:L7:214:TRP:CD2	44:L7:219:LYS:HD3	3.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2561:A:N1	45:L8:32:LYS:HB2	2.34	0.41
45:L8:91:PHE:CZ	45:L8:185:ARG:HD3	4.29	0.41
46:L9:161:LEU:HD22	46:L9:161:LEU:O	2.64	0.41
46:L9:188:THR:HG22	46:L9:189:GLU:N	4.66	0.41
46:L9:7:GLU:O	46:L9:8:GLN:HG2	2.97	0.41
47:M0:16:PRO:HG3	47:M0:128:ARG:HH11	3.03	0.41
47:M0:170:LYS:HA	47:M0:170:LYS:HD3	2.49	0.41
47:M0:174:THR:OG1	47:M0:175:ASN:O	5.97	0.41
49:M3:119:TYR:HD1	49:M3:145:PHE:CE2	2.38	0.41
49:M3:9:ILE:HG12	64:N8:49:HIS:CE1	4.07	0.41
50:M4:32:LEU:HA	50:M4:32:LEU:HD23	1.85	0.41
52:M6:195:ALA:O	52:M6:197:LEU:N	3.05	0.41
53:M7:100:ALA:O	53:M7:103:GLU:N	2.53	0.41
53:M7:168:LEU:HD12	53:M7:168:LEU:O	2.19	0.41
53:M7:170:SER:OG	53:M7:171:ARG:HG3	2.20	0.41
54:M8:94:PHE:N	54:M8:94:PHE:CD2	3.05	0.41
56:N0:1:MET:HE3	56:N0:32:SER:HB3	2.02	0.41
56:N0:40:ARG:HA	56:N0:40:ARG:HD2	1.72	0.41
59:N3:12:ARG:HG2	59:N3:13:ILE:N	2.69	0.41
63:N7:34:LYS:HA	63:N7:34:LYS:HD2	2.00	0.41
63:N7:46:ILE:HD11	63:N7:49:TYR:N	2.35	0.41
70:O4:98:GLN:HE21	70:O4:101:VAL:HB	4.65	0.41
71:O5:95:PHE:O	71:O5:99:GLN:HG2	2.19	0.41
51:M5:5:LYS:HE2	72:O6:37:THR:HG22	2.02	0.41
36:1:2717:U:H4'	78:Q2:13:LYS:HD3	2.01	0.41
79:Q3:36:ARG:HB2	79:Q3:48:LYS:CE	4.31	0.41
3:S1:35:PRO:HB3	3:S1:231:LEU:HD11	4.75	0.41
4:S2:59:HIS:CD2	4:S2:238:SER:HA	2.55	0.41
7:S5:117:THR:HA	7:S5:120:ILE:HD12	2.02	0.41
7:S5:71:ALA:HB1	7:S5:91:GLU:HA	2.03	0.41
8:S6:68:LEU:HA	8:S6:68:LEU:HD13	1.88	0.41
11:S9:146:PHE:O	11:S9:147:MET:HB2	2.21	0.41
11:S9:17:ARG:O	11:S9:23:ARG:NH2	3.32	0.41
5:S3:117:ARG:HA	35:SM:123:ALA:HB1	3.57	0.41
34:SR:303:ALA:HB3	34:SR:313:TRP:HZ3	2.18	0.41
36:1:112:U:O2'	36:1:113:C:H5"	2.21	0.41
36:1:1184:A:C2	36:1:1323:G:C4	3.09	0.41
36:1:1388:U:H5	41:L4:186:LYS:HZ3	1.67	0.41
36:1:1403:C:N4	36:1:1408:G:H1	2.15	0.41
36:1:1484:U:O5'	36:1:1484:U:H6	2.02	0.41
36:1:2289:U:H2'	36:1:2290:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2707:C:H2'	36:1:2708:C:H6	1.85	0.41
36:1:3030:G:C6	36:1:3031:G:C4	3.09	0.41
36:1:3072:C:H2'	36:1:3073:A:O4'	2.20	0.41
36:1:321:C:H2'	36:1:322:U:H6	1.85	0.41
36:1:2603:G:O6	86:1:3867:OHX:N2	2.53	0.41
36:1:906:A:OP1	86:1:4000:OHX:N1	2.54	0.41
36:1:537:A:C2	36:1:557:A:C4	3.08	0.41
36:1:760:G:C2	36:1:770:G:C4	3.08	0.41
1:2:1169:G:O2'	1:2:1576:A:N6	2.50	0.41
1:2:1194:A:C2'	1:2:1195:C:H5'	2.51	0.41
1:2:584:C:OP2	86:2:2026:OHX:N6	2.53	0.41
1:2:348:U:O4	86:2:2127:OHX:N5	2.54	0.41
1:2:585:A:N6	1:2:586:G:O6	2.54	0.41
1:2:729:G:C4	1:2:730:G:H8	2.38	0.41
1:2:756:A:N3	6:S4:12:LEU:HD12	2.35	0.41
1:2:856:A:N6	9:S7:96:ARG:HB3	2.36	0.41
38:4:56:G:C2	38:4:57:C:C2	3.09	0.41
36:5:945:C:O2'	36:5:1406:A:H1'	2.20	0.41
75:O9:48:LYS:NZ	36:5:1492:G:O3'	122.29	0.41
36:5:1635:G:N2	36:5:1638:A:OP2	2.46	0.41
41:L4:221:ASN:OD1	36:5:211:A:H3'	79.55	0.41
36:5:2223:A:OP2	36:5:2223:A:H8	2.03	0.41
40:L3:130:PHE:CE1	36:5:3149:G:H4'	221.70	0.41
36:5:3199:G:C2	36:5:3200:G:C8	3.09	0.41
36:5:3288:G:O2'	36:5:3289:G:P	2.79	0.41
36:5:374:A:H4'	36:5:375:A:OP1	2.20	0.41
36:5:2810:C:OP1	86:5:4073:OHX:N3	2.54	0.41
36:5:926:A:C6	36:5:927:C:C4	3.09	0.41
1:6:1220:C:H6	1:6:1220:C:OP2	2.04	0.41
17:C5:77:ARG:HH12	1:6:1241:G:P	382.42	0.41
1:6:1255:G:OP2	1:6:1255:G:H8	2.03	0.41
1:6:1354:G:C6	1:6:1355:C:C4	3.09	0.41
1:6:1571:C:H5"	1:6:1572:G:OP2	2.20	0.41
1:6:1756:A:O5'	1:6:1756:A:C8	2.72	0.41
1:6:201:G:H2'	1:6:202:A:O4'	2.20	0.41
1:6:521:A:H2'	1:6:522:U:O4'	2.19	0.41
38:8:154:C:H2'	38:8:155:A:O4'	2.20	0.41
38:8:157:U:H2'	38:8:158:U:C6	2.55	0.41
12:C0:17:GLN:O	12:C0:89:ALA:HB2	2.19	0.41
14:C2:67:THR:C	14:C2:69:ALA:H	2.24	0.41
18:C6:5:PRO:HB2	18:C6:96:TYR:CE2	2.78	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:30:THR:HG22	34:SR:127:ARG:NH2	5.57	0.41
21:C9:100:ILE:O	21:C9:104:VAL:HG23	2.73	0.41
22:D0:72:ASN:N	22:D0:72:ASN:OD1	2.49	0.41
25:D3:126:LYS:HB3	25:D3:131:SER:H	3.24	0.41
26:D4:63:GLN:CB	26:D4:68:LYS:HB3	2.64	0.41
33:E1:144:CYS:C	33:E1:146:SER:H	2.60	0.41
40:L3:187:SER:HB3	40:L3:190:GLU:HB2	2.96	0.41
40:L3:332:ARG:NH1	40:L3:332:ARG:HG2	2.36	0.41
40:L3:50:LYS:HE2	40:L3:328:ILE:CG2	5.12	0.41
41:L4:203:ARG:NH2	41:L4:240:PRO:HB3	2.58	0.41
41:L4:298:ALA:HB1	54:M8:133:LYS:HE3	2.02	0.41
45:L8:146:LYS:HE3	45:L8:146:LYS:HB2	1.62	0.41
45:L8:52:TRP:CD1	45:L8:60:ARG:NH1	3.75	0.41
49:M3:83:ALA:HB3	49:M3:116:LEU:HD12	2.02	0.41
50:M4:62:GLN:HG2	50:M4:62:GLN:H	3.68	0.41
52:M6:110:PRO:HA	52:M6:113:ASP:OD2	2.20	0.41
56:N0:134:ASP:O	56:N0:136:LYS:HG2	2.21	0.41
56:N0:13:ARG:NH2	37:7:73:C:O2	302.28	0.41
56:N0:8:GLN:HG3	56:N0:26:ARG:NE	5.14	0.41
59:N3:70:ARG:O	59:N3:72:LYS:HG2	2.28	0.41
61:N5:27:ARG:H	61:N5:27:ARG:HG2	1.99	0.41
65:N9:7:HIS:C	65:N9:7:HIS:ND1	2.74	0.41
36:1:1821:U:C2	70:O4:67:LYS:HB2	2.55	0.41
73:O7:87:SER:C	86:O7:103:OHX:N1	2.74	0.41
73:O7:13:ASN:N	73:O7:13:ASN:HD22	4.69	0.41
74:O8:17:ARG:O	74:O8:18:ALA:HB3	2.47	0.41
76:Q0:127:LEU:HD22	76:Q0:128:LYS:N	2.31	0.41
2:S0:167:LYS:HB3	2:S0:168:HIS:H	1.39	0.41
2:S0:185:ARG:CB	23:D1:45:ALA:H	2.33	0.41
2:S0:77:SER:OG	2:S0:82:GLY:HA3	2.20	0.41
3:S1:35:PRO:HB2	3:S1:36:SER:H	1.61	0.41
4:S2:41:LEU:HA	4:S2:41:LEU:HD22	2.21	0.41
6:S4:242:LYS:N	6:S4:242:LYS:HE3	2.35	0.41
6:S4:248:ILE:O	6:S4:252:ARG:N	2.52	0.41
7:S5:118:LEU:O	7:S5:129:PRO:HB3	2.67	0.41
7:S5:27:THR:HA	7:S5:28:PRO:HD2	2.32	0.41
8:S6:116:LYS:HD3	8:S6:125:THR:HG21	3.89	0.41
10:S8:147:ALA:HA	10:S8:150:ALA:CB	2.77	0.41
35:SM:88:ARG:HG2	35:SM:91:THR:HG23	2.01	0.41
34:SR:201:THR:HB	34:SR:242:SER:HA	2.03	0.41
34:SR:256:THR:HG21	34:SR:261:LYS:NZ	3.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:256:THR:OG1	34:SR:259:GLY:N	3.57	0.41
36:1:1035:G:C6	36:1:1036:A:C6	3.09	0.41
36:1:1109:U:H2'	36:1:1110:U:C6	2.56	0.41
36:1:1579:C:N4	36:1:1580:A:H62	2.19	0.41
36:1:1601:U:H2'	36:1:1603:A:OP2	2.21	0.41
36:1:2958:A:O2'	36:1:2959:C:H5'	2.20	0.41
36:1:2973:G:N7	86:1:4098:OHX:N2	2.67	0.41
36:1:352:A:H61	36:1:365:A:H5"	1.85	0.41
36:1:964:G:OP1	86:1:3965:OHX:N2	2.53	0.41
36:1:2208:A:C6	86:1:4044:OHX:N2	2.88	0.41
86:1:4056:OHX:N2	86:1:4163:OHX:N1	2.68	0.41
36:1:409:A:OP2	86:1:4057:OHX:N6	2.54	0.41
36:1:538:G:N2	36:1:554:A:O2'	2.54	0.41
36:1:596:C:H2'	36:1:597:G:O4'	2.21	0.41
1:2:1672:G:H2'	1:2:1673:G:C8	2.56	0.41
1:2:339:C:OP2	10:S8:10:LYS:NZ	2.53	0.41
1:2:423:G:N7	86:2:2108:OHX:N3	2.67	0.41
1:2:510:G:H8	1:2:510:G:OP2	2.02	0.41
36:5:1047:A:C6	36:5:1048:A:C6	3.09	0.41
52:M6:122:GLN:NE2	36:5:1181:U:H2'	272.34	0.41
36:5:1190:A:C8	36:5:1193:A:H1'	2.55	0.41
56:N0:117:ARG:NH2	36:5:1322:U:OP1	280.99	0.41
36:5:1782:U:H2'	36:5:1783:U:C6	2.55	0.41
36:5:1828:A:O2'	36:5:1829:G:H5'	2.20	0.41
36:5:187:A:C5	36:5:188:U:C4	3.09	0.41
36:5:2340:U:H5"	36:5:2340:U:H6	1.85	0.41
36:5:653:A:H1'	36:5:2360:C:C2	2.56	0.41
36:5:2413:A:H2'	36:5:2414:G:H8	1.85	0.41
36:5:2420:C:C4	36:5:2421:U:C4	3.08	0.41
36:5:265:A:H5"	36:5:266:A:OP2	2.20	0.41
36:5:3374:U:O4	86:5:4030:OHX:N5	2.53	0.41
36:5:966:U:N3	36:5:967:A:N7	2.68	0.41
1:6:1057:U:C5	1:6:1060:U:C2	3.09	0.41
1:6:1605:G:C5	1:6:1606:C:C5	3.09	0.41
1:6:215:A:C6	1:6:216:U:N3	2.89	0.41
61:N5:56:ARG:NH2	38:8:135:G:OP2	82.45	0.41
38:8:80:A:OP2	38:8:80:A:C8	2.74	0.41
15:C3:87:ASP:OD2	15:C3:88:LEU:N	2.48	0.41
20:C8:19:ASN:ND2	35:SM:11:ASP:O	2.54	0.41
22:D0:58:LEU:HD12	22:D0:88:LYS:CD	2.51	0.41
24:D2:28:ARG:HB3	24:D2:28:ARG:HE	2.60	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:30:LYS:O	25:D3:34:LEU:HG	2.21	0.41
27:D5:65:LEU:HD23	27:D5:65:LEU:HA	1.88	0.41
28:D6:90:GLU:N	28:D6:90:GLU:CD	3.27	0.41
23:D1:64:GLU:OE1	29:D7:3:LEU:HB2	2.21	0.41
30:D8:19:THR:HB	30:D8:20:GLY:H	2.38	0.41
40:L3:221:THR:HG22	40:L3:273:HIS:H	2.84	0.41
41:L4:38:VAL:HG21	41:L4:121:ALA:HB2	2.01	0.41
41:L4:22:LEU:HA	41:L4:23:PRO:HD3	1.70	0.41
41:L4:283:THR:HG21	41:L4:288:ARG:HH12	5.73	0.41
44:L7:176:TYR:O	44:L7:178:ILE:HG13	2.73	0.41
46:L9:164:ILE:HD13	46:L9:164:ILE:HA	1.96	0.41
47:M0:171:TRP:CD2	47:M0:181:TYR:CD2	3.08	0.41
51:M5:140:LYS:HA	51:M5:140:LYS:HD3	2.35	0.41
52:M6:112:TYR:O	52:M6:114:LYS:N	3.33	0.41
52:M6:186:ALA:O	52:M6:187:GLU:HB2	2.20	0.41
53:M7:170:SER:OG	53:M7:171:ARG:N	2.54	0.41
54:M8:166:LEU:HA	54:M8:166:LEU:HD23	1.82	0.41
36:1:674:G:O6	54:M8:56:LYS:NZ	2.54	0.41
56:N0:147:ASP:O	56:N0:149:LYS:HG2	3.02	0.41
50:M4:55:ARG:HD3	56:N0:70:THR:OG1	2.80	0.41
57:N1:35:LYS:H	57:N1:38:ASP:CG	2.80	0.41
59:N3:28:ASN:OD1	59:N3:28:ASN:N	2.51	0.41
61:N5:115:ARG:NH1	61:N5:119:THR:OG1	2.97	0.41
63:N7:29:HIS:HB2	63:N7:40:HIS:O	2.89	0.41
63:N7:81:LEU:HD23	63:N7:81:LEU:HA	1.87	0.41
68:O2:35:GLN:HB3	68:O2:43:ARG:HB2	3.42	0.41
71:O5:105:ARG:NH2	71:O5:105:ARG:HB2	2.36	0.41
71:O5:9:LEU:HD23	71:O5:9:LEU:HA	1.75	0.41
73:O7:65:ARG:HH11	73:O7:65:ARG:CG	2.27	0.41
2:S0:117:GLU:OE1	4:S2:39:THR:HG22	4.54	0.41
1:2:875:G:OP1	3:S1:158:SER:HB2	2.20	0.41
4:S2:49:LYS:HB3	4:S2:243:TYR:CD1	3.50	0.41
6:S4:103:TYR:CE2	6:S4:184:THR:HG22	2.55	0.41
6:S4:89:VAL:O	6:S4:99:PHE:O	4.78	0.41
9:S7:43:PHE:CD1	9:S7:60:ILE:HG22	2.55	0.41
10:S8:59:ARG:O	10:S8:60:ILE:HD13	2.20	0.41
36:1:1295:G:C5	36:1:1296:C:C4	3.08	0.41
36:1:1781:C:H2'	36:1:1782:U:C6	2.55	0.41
36:1:1815:U:H6	36:1:1815:U:P	2.44	0.41
36:1:1845:G:C5'	36:1:1845:G:H8	2.33	0.41
36:1:1939:G:C4	36:1:1940:G:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:194:U:H3	36:1:201:A:H61	1.68	0.41
36:1:2100:A:H5'	36:1:2101:C:OP1	2.21	0.41
36:1:2339:C:OP2	59:N3:48:ARG:HG3	2.20	0.41
36:1:2378:C:H2'	36:1:2379:U:C6	2.56	0.41
36:1:2388:U:O3'	53:M7:80:LYS:HE2	2.21	0.41
36:1:2585:G:N3	36:1:2585:G:H2'	2.36	0.41
36:1:2725:U:H5"	36:1:2726:C:OP2	2.21	0.41
36:1:2842:U:C5	36:1:2843:U:C4	3.09	0.41
36:1:3181:C:O4'	36:1:3181:C:O2	2.38	0.41
86:1:3961:OHX:N2	86:1:4140:OHX:N6	2.69	0.41
36:1:815:G:C6	36:1:906:A:C4	3.08	0.41
36:1:956:U:H2'	36:1:957:C:C6	2.55	0.41
36:1:981:U:O2'	36:1:982:C:P	2.78	0.41
1:2:1170:G:H1	1:2:1469:A:H61	1.69	0.41
1:2:12:U:H3	1:2:1142:A:H61	1.68	0.41
1:2:1459:C:OP1	20:C8:126:ARG:NH1	2.54	0.41
42:L5:15:ARG:CZ	36:5:1003:A:H1'	289.75	0.41
36:5:1338:C:H2'	36:5:1339:C:C6	2.56	0.41
36:5:1560:G:C6	36:5:1580:A:N6	2.89	0.41
36:5:2147:A:H2'	36:5:2148:U:O4'	2.21	0.41
36:5:2507:C:O2'	36:5:2508:U:OP1	2.26	0.41
36:5:2764:C:O5'	36:5:2764:C:H6	2.04	0.41
36:5:2820:A:C6	88:5:4246:3J6:C2	3.03	0.41
36:5:1310:G:O6	86:5:4021:OHX:N4	2.54	0.41
52:M6:93:ALA:HB3	36:5:632:G:OP1	219.59	0.41
36:5:767:U:H1'	36:5:768:C:H6	1.82	0.41
1:6:1001:A:C6	1:6:1002:G:C6	3.09	0.41
1:6:1026:A:C2	1:6:1792:G:C4	3.09	0.41
1:6:1158:C:H42	1:6:1163:A:N6	2.16	0.41
18:C6:127:LYS:HD3	1:6:1605:G:OP2	390.22	0.41
1:6:1698:G:N2	1:6:1699:G:C5	2.88	0.41
1:6:350:U:H4'	1:6:351:C:H5"	2.01	0.41
1:6:585:A:H2'	1:6:586:G:C8	2.55	0.41
37:7:43:U:C4	37:7:44:C:C4	3.09	0.41
38:8:145:U:H2'	38:8:146:U:C6	2.56	0.41
38:8:81:U:O2	38:8:82:U:H3'	2.21	0.41
12:C0:14:TYR:CD2	12:C0:35:ILE:HD11	2.55	0.41
13:C1:132:SER:OG	13:C1:135:VAL:HB	2.95	0.41
15:C3:136:PRO:HA	15:C3:137:PRO:HD2	1.93	0.41
1:2:1365:C:H5"	18:C6:28:LEU:CD2	2.50	0.41
20:C8:72:ILE:HA	20:C8:79:TYR:CE2	4.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:D0:32:LYS:O	22:D0:36:ASN:HB2	2.21	0.41
23:D1:18:SER:OG	23:D1:54:ALA:N	3.14	0.41
26:D4:127:LYS:O	26:D4:131:ARG:HG2	2.20	0.41
7:S5:82:PHE:CE1	30:D8:49:ARG:HD2	3.30	0.41
33:E1:148:TYR:O	33:E1:149:LYS:HG3	4.46	0.41
33:E1:95:HIS:CE1	1:6:1245:G:N2	420.76	0.41
39:L2:181:LYS:HB3	36:5:860:G:C6	213.99	0.41
40:L3:89:VAL:HA	40:L3:160:VAL:HA	2.50	0.41
41:L4:146:PRO:HB2	41:L4:147:GLU:H	1.60	0.41
41:L4:337:GLU:HB2	41:L4:339:LEU:HG	2.02	0.41
42:L5:25:GLU:HB2	42:L5:27:LYS:HG3	2.61	0.41
42:L5:22:ARG:HG2	42:L5:28:THR:OG1	2.20	0.41
43:L6:42:LEU:HD23	43:L6:84:VAL:CG2	2.95	0.41
36:1:3276:G:H3'	43:L6:48:ARG:HH22	1.85	0.41
44:L7:88:ARG:HA	44:L7:134:VAL:HG12	2.07	0.41
49:M3:53:LEU:HB3	49:M3:96:ALA:HB2	2.62	0.41
51:M5:63:ARG:HH11	51:M5:63:ARG:HD2	1.70	0.41
51:M5:8:GLU:O	51:M5:12:ARG:HD2	3.13	0.41
52:M6:113:ASP:OD1	52:M6:114:LYS:HG3	2.21	0.41
52:M6:121:PRO:HA	52:M6:124:LEU:HD22	2.70	0.41
53:M7:69:ARG:HB3	36:5:3309:G:O4'	183.69	0.41
54:M8:52:LEU:HD21	54:M8:124:LEU:HD12	2.03	0.41
54:M8:90:ASP:O	54:M8:92:ARG:N	2.86	0.41
55:M9:102:LEU:O	55:M9:106:LEU:HB2	3.15	0.41
55:M9:15:VAL:HG11	55:M9:52:LYS:HG3	2.03	0.41
55:M9:5:ARG:HH11	55:M9:5:ARG:HG3	4.03	0.41
56:N0:35:VAL:HG23	56:N0:35:VAL:H	2.59	0.41
57:N1:34:TYR:CZ	57:N1:96:ILE:HG22	3.12	0.41
58:N2:17:VAL:N	58:N2:63:VAL:O	3.01	0.41
61:N5:27:ARG:HE	61:N5:27:ARG:HB3	2.27	0.41
63:N7:77:TYR:HA	63:N7:80:LEU:HD12	3.07	0.41
64:N8:3:SER:O	64:N8:5:PHE:N	3.82	0.41
66:O0:54:SER:HA	66:O0:57:GLU:OE2	3.40	0.41
66:O0:43:ILE:HB	66:O0:90:VAL:HB	2.15	0.41
36:1:1804:A:H5'	70:O4:70:LYS:HB3	2.03	0.41
2:S0:89:PHE:CE2	2:S0:177:LEU:HB3	2.56	0.41
5:S3:75:LYS:HA	5:S3:75:LYS:HD3	2.70	0.41
6:S4:253:ASP:O	6:S4:257:ALA:N	2.54	0.41
6:S4:34:GLY:HA3	6:S4:83:PRO:CG	2.75	0.41
1:2:401:A:H4'	6:S4:3:ARG:HD3	2.02	0.41
6:S4:95:THR:O	6:S4:95:THR:OG1	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:138:THR:OG1	7:S5:139:ASN:N	3.22	0.41
7:S5:188:LYS:HE2	7:S5:196:GLU:OE2	2.21	0.41
8:S6:211:LEU:HD12	8:S6:211:LEU:O	3.59	0.41
8:S6:32:ILE:HA	8:S6:52:ILE:HG22	2.02	0.41
8:S6:76:LEU:HD23	8:S6:76:LEU:HA	1.96	0.41
9:S7:78:THR:HG23	9:S7:92:PHE:CE1	4.22	0.41
35:SM:64:LYS:HB2	35:SM:65:THR:H	3.37	0.41
36:1:1047:A:N3	36:1:2633:U:O2'	2.51	0.41
36:1:1146:C:H4'	36:1:1331:U:C4	2.55	0.41
36:1:1560:G:H2'	36:1:1561:G:H5'	2.01	0.41
36:1:1635:G:N2	36:1:1638:A:OP2	2.50	0.41
36:1:2571:U:C1'	36:1:2572:C:H5'	2.47	0.41
36:1:269:G:H5'	51:M5:120:TRP:CE3	2.55	0.41
36:1:2724:U:OP1	57:N1:57:TYR:OH	2.30	0.41
36:1:968:G:H2'	36:1:969:C:C6	2.55	0.41
36:1:979:U:O2'	36:1:980:A:N7	2.43	0.41
1:2:1046:G:OP1	3:S1:157:GLN:NE2	2.54	0.41
1:2:11:A:O2'	1:2:12:U:H5'	2.21	0.41
1:2:143:G:C2	1:2:173:A:N3	2.89	0.41
1:2:1796:C:O5'	28:D6:5:ARG:NH1	2.54	0.41
1:2:301:A:C6	1:2:302:U:C4	3.09	0.41
1:2:301:A:H2'	1:2:302:U:O4'	2.21	0.41
37:3:36:C:O2	37:3:45:A:H1'	2.20	0.41
36:5:1116:G:O3'	36:5:1117:G:H4'	2.21	0.41
45:L8:54:GLU:HG3	36:5:1558:A:OP2	149.04	0.41
36:5:2136:C:O2'	36:5:2137:U:H5'	2.20	0.41
36:5:2513:U:C2	36:5:2592:G:N2	2.89	0.41
36:5:2594:C:H2'	36:5:2595:A:O4'	2.21	0.41
36:5:2936:A:H2'	36:5:2937:G:C8	2.55	0.41
36:5:3275:U:H4'	36:5:3276:G:OP2	2.13	0.41
36:5:1658:G:O6	86:5:4192:OHX:N4	2.54	0.41
36:5:648:C:H4'	36:5:649:A:O5'	2.20	0.41
1:6:1014:G:H2'	1:6:1015:U:O4'	2.21	0.41
28:D6:2:PRO:HB3	1:6:1142:A:H5"	346.84	0.41
1:6:114:C:H6	1:6:114:C:H5'	1.85	0.41
1:6:1181:U:H2'	1:6:1182:U:H6	1.86	0.41
1:6:1508:U:H2'	1:6:1509:C:C6	2.56	0.41
1:6:407:A:O2'	1:6:1671:A:N3	2.43	0.41
1:6:433:C:H5"	1:6:434:G:OP2	2.21	0.41
1:6:484:C:H42	1:6:503:G:H1	1.66	0.41
1:6:526:A:N6	1:6:527:A:C6	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:619:A:N3	1:6:1141:G:H1'	2.36	0.41
1:6:869:A:H2'	1:6:870:C:O4'	2.20	0.41
75:O9:8:ARG:NH2	38:8:112:U:OP2	112.61	0.41
12:C0:49:LEU:O	12:C0:54:TYR:HB2	2.21	0.41
14:C2:57:ALA:O	14:C2:58:LEU:HD23	2.20	0.41
14:C2:81:ASP:HA	14:C2:82:PRO:HD2	2.43	0.41
15:C3:125:LEU:HD22	15:C3:129:TYR:CE2	3.87	0.41
15:C3:23:PRO:HG2	15:C3:26:PHE:HB2	2.02	0.41
15:C3:3:ARG:HA	15:C3:3:ARG:NE	2.66	0.41
16:C4:66:ASP:O	16:C4:68:ALA:N	3.76	0.41
17:C5:18:ARG:HE	17:C5:38:PRO:HD3	2.39	0.41
19:C7:25:THR:OG1	19:C7:31:ASN:ND2	4.39	0.41
19:C7:71:PHE:O	19:C7:73:LEU:N	2.51	0.41
20:C8:41:ARG:NH1	21:C9:38:LYS:HG3	2.35	0.41
21:C9:91:TYR:CD1	21:C9:91:TYR:N	2.89	0.41
22:D0:49:ASN:O	22:D0:50:LEU:HD23	5.53	0.41
4:S2:157:LYS:HE3	24:D2:94:LEU:O	2.20	0.41
25:D3:63:GLN:HA	25:D3:65:ASN:H	1.86	0.41
26:D4:86:GLU:OE2	26:D4:90:ARG:NH1	2.53	0.41
1:2:1795:U:H3'	28:D6:5:ARG:HH12	1.85	0.41
39:L2:31:THR:HG21	36:5:2521:U:H5'	183.28	0.41
40:L3:252:ILE:HD12	40:L3:252:ILE:HA	1.60	0.41
40:L3:277:SER:HG	40:L3:280:HIS:CE1	2.38	0.41
41:L4:31:ARG:O	41:L4:35:VAL:HG23	2.20	0.41
43:L6:22:ARG:C	43:L6:23:LYS:HG2	2.41	0.41
44:L7:130:ILE:HG21	44:L7:130:ILE:HD13	2.32	0.41
44:L7:173:LEU:HA	44:L7:173:LEU:HD12	2.15	0.41
46:L9:23:ARG:NH2	46:L9:39:LYS:O	2.51	0.41
46:L9:92:TYR:CD1	46:L9:142:ASP:HB3	3.96	0.41
48:M1:139:THR:HA	48:M1:146:GLY:O	2.21	0.41
48:M1:8:PRO:HG2	48:M1:9:MET:HB3	2.02	0.41
51:M5:93:LYS:HA	51:M5:93:LYS:HD3	1.82	0.41
52:M6:14:HIS:CE1	52:M6:119:VAL:HG12	2.56	0.41
36:1:3008:A:OP1	52:M6:72:HIS:HD2	2.03	0.41
86:1:3971:OHX:N4	55:M9:87:ALA:O	2.54	0.41
56:N0:1:MET:HB3	56:N0:118:PHE:CZ	3.93	0.41
58:N2:99:LYS:HB2	58:N2:102:GLU:OE1	4.39	0.41
58:N2:37:LEU:O	58:N2:41:ILE:HG13	2.20	0.41
61:N5:135:ILE:O	61:N5:139:ILE:HG13	5.90	0.41
62:N6:122:LYS:HE2	62:N6:122:LYS:HB3	1.82	0.41
62:N6:45:ILE:HD12	62:N6:119:ILE:CG2	2.47	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:36:HIS:H	63:N7:37:PRO:HD3	3.27	0.41
67:O1:44:MET:HB3	67:O1:77:ARG:CZ	4.13	0.41
70:O4:85:VAL:HA	70:O4:88:ARG:HB2	4.99	0.41
74:O8:40:GLN:HG2	74:O8:41:THR:N	2.36	0.41
2:S0:38:PHE:CD2	19:C7:109:LEU:HD13	3.15	0.41
2:S0:52:LYS:H	2:S0:52:LYS:HG2	1.46	0.41
3:S1:202:LYS:HE3	3:S1:202:LYS:O	2.21	0.41
3:S1:72:ASP:OD2	28:D6:59:TYR:OH	2.28	0.41
5:S3:170:THR:HG22	5:S3:171:ALA:N	2.35	0.41
5:S3:90:ARG:HH22	5:S3:94:ARG:HE	11.49	0.41
6:S4:44:LEU:HD23	6:S4:44:LEU:HA	1.86	0.41
7:S5:200:ASN:HB3	7:S5:208:SER:HB2	4.12	0.41
8:S6:38:GLY:HA3	8:S6:45:PHE:O	2.21	0.41
8:S6:3:LEU:HA	8:S6:3:LEU:HD23	2.24	0.41
8:S6:56:ASN:HB3	8:S6:60:GLY:HA2	2.02	0.41
8:S6:7:TYR:CD1	8:S6:125:THR:HA	3.41	0.41
9:S7:58:LEU:HA	9:S7:58:LEU:HD23	2.01	0.41
10:S8:84:HIS:CE1	10:S8:90:LEU:HD13	3.14	0.41
11:S9:143:ILE:HD12	1:6:767:U:C5	422.93	0.41
34:SR:192:PHE:HD1	34:SR:223:TRP:CD2	2.39	0.41
34:SR:295:SER:HB3	34:SR:300:THR:HB	3.70	0.41
36:1:1438:U:H5”	41:L4:74:ILE:CD1	2.51	0.41
36:1:2714:G:C8	36:1:2714:G:H5”	2.55	0.41
36:1:2916:U:H5	36:1:2935:U:HO2’	1.64	0.41
36:1:306:A:C2	36:1:307:A:C8	3.09	0.41
86:1:4004:OHX:N5	86:1:4172:OHX:N5	2.69	0.41
36:1:539:C:H2’	36:1:540:U:H6	1.84	0.41
36:1:601:U:H2’	36:1:602:A:O4’	2.21	0.41
36:1:972:A:H2’	36:1:973:A:C8	2.55	0.41
1:2:1096:C:OP2	24:D2:71:LYS:NZ	2.35	0.41
1:2:1141:G:C2	1:2:1142:A:C4	3.08	0.41
1:2:1369:U:O4	86:2:2095:OHX:N5	2.54	0.41
1:2:304:U:H2’	1:2:305:C:H6	1.85	0.41
1:2:830:U:C2	1:2:831:U:C5	3.09	0.41
37:3:22:A:C6	37:3:23:A:C6	3.08	0.41
70:O4:4:ARG:HD2	36:5:1485:G:N2	151.60	0.41
36:5:1622:U:H2’	36:5:1623:G:H8	1.86	0.41
36:5:20:A:O2’	36:5:21:G:H5’	2.21	0.41
36:5:2106:A:H2’	36:5:2107:A:H8	1.84	0.41
36:5:2224:A:N7	36:5:2225:U:H1’	2.36	0.41
36:5:25:U:H4’	36:5:26:A:N7	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:48:LYS:NZ	36:5:2748:A:O3'	243.51	0.41
36:5:2765:C:H2'	36:5:2766:U:C6	2.56	0.41
59:N3:48:ARG:NH2	36:5:3043:C:P	250.92	0.41
36:5:3106:A:H2'	36:5:3107:U:O4'	2.21	0.41
36:5:3199:G:O2'	36:5:3200:G:H5'	2.20	0.41
36:5:1542:G:N7	86:5:4087:OHX:N3	2.68	0.41
86:5:4184:OHX:N1	86:5:4186:OHX:N2	2.69	0.41
36:5:811:U:H2'	36:5:812:G:O4'	2.21	0.41
36:5:950:G:N7	36:5:1367:G:C6	2.89	0.41
36:5:956:U:H2'	36:5:957:C:C6	2.56	0.41
1:6:1231:U:O5'	1:6:1259:U:H1'	2.21	0.41
1:6:1627:U:C4	1:6:1628:U:C4	3.08	0.41
1:6:1685:G:O6	1:6:1716:C:N4	2.53	0.41
1:6:1711:C:H2'	1:6:1712:A:H5"	2.03	0.41
1:6:569:C:N3	1:6:574:G:N1	2.48	0.41
1:6:586:G:C6	1:6:587:C:C4	3.09	0.41
11:S9:149:ARG:NE	1:6:765:G:N7	428.81	0.41
3:S1:65:VAL:HG12	1:6:920:U:H5"	264.21	0.41
12:C0:54:TYR:HA	12:C0:71:GLU:HG2	2.95	0.41
12:C0:56:LYS:HB3	12:C0:56:LYS:HE2	3.41	0.41
13:C1:92:HIS:O	13:C1:100:TYR:HA	2.20	0.41
13:C1:74:THR:HA	13:C1:122:ILE:HA	2.27	0.41
14:C2:56:GLU:HB3	14:C2:124:LYS:NZ	4.01	0.41
14:C2:88:LEU:H	14:C2:140:PHE:HE1	1.69	0.41
14:C2:36:LEU:C	14:C2:38:HIS:H	2.24	0.41
14:C2:87:PRO:HA	14:C2:140:PHE:CE1	3.27	0.41
16:C4:103:ARG:O	16:C4:107:ARG:N	2.79	0.41
16:C4:41:ARG:O	16:C4:42:VAL:HG22	2.21	0.41
16:C4:49:LYS:HD3	16:C4:49:LYS:HA	3.01	0.41
17:C5:57:MET:HA	17:C5:60:LEU:HB3	2.03	0.41
18:C6:38:LEU:HD22	21:C9:10:ALA:HB2	2.03	0.41
19:C7:21:TYR:C	19:C7:23:LYS:H	2.25	0.41
19:C7:46:LEU:O	19:C7:50:ILE:HG13	2.20	0.41
19:C7:71:PHE:C	19:C7:73:LEU:H	2.24	0.41
21:C9:73:VAL:HG11	21:C9:102:ARG:HB2	2.03	0.41
24:D2:36:LYS:O	24:D2:40:VAL:HG23	2.21	0.41
24:D2:53:ILE:HG23	24:D2:60:LYS:O	2.21	0.41
29:D7:26:GLN:HB2	29:D7:26:GLN:HE21	1.67	0.41
39:L2:128:ARG:HH11	39:L2:128:ARG:HD3	1.64	0.41
41:L4:134:LEU:O	41:L4:138:ARG:HB2	2.20	0.41
41:L4:153:SER:OG	41:L4:155:ASP:N	2.48	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:244:LEU:HD23	41:L4:244:LEU:HA	2.39	0.41
41:L4:138:ARG:HD2	41:L4:245:GLY:O	2.67	0.41
41:L4:258:LEU:HD12	41:L4:258:LEU:HA	1.91	0.41
36:1:1079:A:H4'	42:L5:141:PRO:O	2.21	0.41
42:L5:25:GLU:H	42:L5:25:GLU:HG2	2.94	0.41
37:3:1:G:O6	42:L5:262:LYS:HD3	2.20	0.41
42:L5:83:LEU:HB3	42:L5:88:ILE:HB	2.03	0.41
43:L6:157:GLN:O	43:L6:160:SER:N	2.54	0.41
44:L7:104:GLN:C	44:L7:106:LEU:N	2.71	0.41
45:L8:106:LYS:HE2	45:L8:107:GLU:N	2.35	0.41
45:L8:29:SER:O	45:L8:31:PRO:HD3	3.51	0.41
45:L8:43:LYS:HA	45:L8:43:LYS:HD3	1.79	0.41
46:L9:68:LEU:HD23	46:L9:68:LEU:HA	1.84	0.41
45:L8:72:PRO:HG3	51:M5:18:VAL:HA	2.02	0.41
51:M5:204:LYS:HE2	51:M5:204:LYS:HB3	2.12	0.41
55:M9:167:ARG:HB3	55:M9:167:ARG:NH1	4.71	0.41
61:N5:129:ASP:HB2	61:N5:130:TYR:CD1	2.78	0.41
64:N8:75:LEU:O	64:N8:77:LYS:N	2.53	0.41
71:O5:38:ARG:CG	71:O5:39:PRO:HD2	2.51	0.41
71:O5:72:GLY:O	71:O5:73:LYS:HB3	2.21	0.41
74:O8:43:PHE:HB2	74:O8:54:LEU:HB3	2.03	0.41
78:Q2:72:LEU:N	78:Q2:72:LEU:HD12	2.36	0.41
3:S1:158:SER:O	3:S1:161:ILE:N	2.54	0.41
3:S1:181:LEU:HD23	3:S1:181:LEU:HA	4.35	0.41
3:S1:225:VAL:O	3:S1:229:MET:HG2	2.85	0.41
4:S2:188:LEU:HA	4:S2:191:ALA:HB3	2.35	0.41
4:S2:237:VAL:O	4:S2:238:SER:OG	5.29	0.41
4:S2:246:GLU:HG3	4:S2:246:GLU:H	2.43	0.41
5:S3:116:ARG:HD3	5:S3:120:TYR:HE2	3.59	0.41
5:S3:177:MET:HE2	5:S3:178:ARG:HH12	1.85	0.41
6:S4:42:LEU:CD2	6:S4:46:VAL:HB	2.50	0.41
10:S8:6:ASP:OD1	10:S8:8:ARG:HB2	3.57	0.41
34:SR:135:THR:HG23	34:SR:139:GLN:O	2.34	0.41
34:SR:245:PHE:HD1	34:SR:251:TRP:O	3.45	0.41
36:1:1321:G:C6	36:1:1322:U:C4	3.09	0.41
36:1:1709:C:H2'	36:1:1710:C:H6	1.86	0.41
36:1:1908:A:H8	36:1:1908:A:O5'	2.04	0.41
36:1:190:U:N3	36:1:224:C:O4'	2.54	0.41
36:1:190:U:C4	36:1:224:C:H1'	2.55	0.41
36:1:2515:A:H61	36:1:2592:G:H1'	1.86	0.41
36:1:2762:A:C6	36:1:2763:U:C4	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3189:G:C6	36:1:3190:C:C4	3.09	0.41
36:1:3346:U:O5'	36:1:3346:U:H6	2.03	0.41
36:1:3389:U:HO2'	36:1:3390:G:P	2.42	0.41
86:1:3961:OHX:N5	86:1:4140:OHX:N6	2.69	0.41
36:1:627:U:H4'	36:1:1399:A:C2'	2.51	0.41
1:2:1079:U:H2'	1:2:1080:U:H6	1.85	0.41
1:2:1225:U:C2'	1:2:1226:A:H5'	2.51	0.41
1:2:1392:U:H2'	1:2:1393:C:O4'	2.21	0.41
1:2:186:C:H42	1:2:199:G:H1	1.69	0.41
1:2:368:U:H1'	1:2:603:U:O2'	2.21	0.41
1:2:778:G:C5	1:2:783:G:N1	2.89	0.41
1:2:850:A:C2	1:2:851:U:C2	3.09	0.41
38:4:79:A:C6	38:4:80:A:C2	3.09	0.41
36:5:1110:U:H2'	36:5:1111:U:C6	2.55	0.41
36:5:1228:C:H2'	36:5:1229:G:C8	2.56	0.41
36:5:1308:A:C8	36:5:1308:A:OP2	2.74	0.41
36:5:1613:A:C2	36:5:1614:C:C2	3.09	0.41
55:M9:85:ARG:NH2	36:5:1916:U:H4'	228.61	0.41
45:L8:49:TYR:HD2	36:5:2587:U:H4'	177.99	0.41
36:5:2689:A:C8	36:5:2702:A:C6	3.09	0.41
36:5:71:A:C2	36:5:2778:G:H1'	2.56	0.41
36:5:2774:C:C2	36:5:2787:G:C2	3.08	0.41
36:5:317:A:C2	36:5:318:A:C4	3.08	0.41
36:5:599:C:H2'	36:5:600:G:O4'	2.21	0.41
36:5:783:A:OP2	86:5:4188:OHX:N3	2.54	0.41
1:6:1268:G:O4'	1:6:1448:G:H4'	2.21	0.41
1:6:149:C:H2'	1:6:150:U:H6	1.85	0.41
1:6:1540:G:C6	1:6:1541:G:C4	3.08	0.41
1:6:225:A:N6	1:6:226:A:H62	2.19	0.41
1:6:272:U:O2'	1:6:273:G:OP2	2.30	0.41
1:6:281:G:C6	1:6:282:C:C4	3.08	0.41
1:6:561:G:C2	1:6:585:A:C2	3.08	0.41
1:6:647:G:N2	1:6:687:G:N2	2.69	0.41
1:6:793:A:OP2	1:6:793:A:H2'	2.21	0.41
1:6:93:A:C4	1:6:399:A:C2	3.08	0.41
38:8:31:G:C6	38:8:32:C:C4	3.09	0.41
14:C2:89:ILE:HG12	14:C2:90:LYS:H	1.86	0.41
16:C4:81:VAL:HG22	16:C4:115:ILE:CB	2.49	0.41
17:C5:110:GLU:H	17:C5:110:GLU:CD	2.57	0.41
20:C8:61:LEU:HB3	20:C8:66:LEU:HG	2.03	0.41
21:C9:108:LEU:HD23	21:C9:108:LEU:HA	2.22	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:D0:30:LYS:HB3	22:D0:30:LYS:HE2	1.83	0.41
22:D0:96:PRO:HD2	22:D0:99:ILE:HG13	5.02	0.41
23:D1:73:ALA:HB1	23:D1:79:LEU:HG	3.88	0.41
25:D3:19:ARG:O	25:D3:23:ARG:HG2	2.21	0.41
28:D6:2:PRO:HB2	28:D6:3:LYS:H	1.62	0.41
28:D6:23:CYS:CB	28:D6:74:CYS:HB3	2.50	0.41
31:D9:33:LYS:HG2	31:D9:34:TYR:CD2	3.52	0.41
39:L2:137:ILE:HG13	39:L2:138:GLY:N	3.31	0.41
39:L2:230:VAL:O	39:L2:233:GLN:HG3	3.48	0.41
39:L2:41:ILE:HG22	39:L2:90:ALA:O	2.21	0.41
40:L3:139:GLN:HB2	40:L3:141:GLY:H	4.10	0.41
40:L3:139:GLN:C	40:L3:141:GLY:H	2.21	0.41
40:L3:291:GLU:O	40:L3:292:ALA:HB3	2.21	0.41
40:L3:53:MET:HE2	40:L3:77:THR:HG22	2.57	0.41
41:L4:23:PRO:O	41:L4:25:VAL:HG23	2.48	0.41
41:L4:289:ILE:O	41:L4:292:SER:HB3	2.21	0.41
41:L4:345:GLU:OE2	41:L4:345:GLU:HA	4.42	0.41
43:L6:48:ARG:NH2	36:5:3276:G:O2'	239.57	0.41
44:L7:74:SER:OG	57:N1:142:SER:HA	2.37	0.41
45:L8:75:ILE:C	45:L8:77:GLN:H	2.23	0.41
36:1:2899:C:H2'	46:L9:171:ASP:HB2	2.03	0.41
47:M0:207:GLU:C	47:M0:209:ASN:N	2.75	0.41
51:M5:66:VAL:O	51:M5:127:TYR:HA	2.53	0.41
52:M6:121:PRO:O	52:M6:124:LEU:HB2	3.32	0.41
52:M6:3:VAL:HG13	52:M6:4:GLU:N	2.33	0.41
53:M7:112:LEU:HA	53:M7:112:LEU:HD12	1.68	0.41
54:M8:123:THR:OG1	54:M8:126:GLN:HG3	2.20	0.41
55:M9:143:ILE:O	55:M9:145:ALA:N	3.41	0.41
56:N0:14:LEU:HD12	56:N0:55:SER:C	3.51	0.41
56:N0:67:ALA:O	56:N0:69:PRO:HD3	2.70	0.41
62:N6:59:VAL:HG12	62:N6:103:LYS:O	2.20	0.41
63:N7:124:ALA:O	63:N7:126:LYS:N	2.81	0.41
64:N8:7:LYS:HA	64:N8:7:LYS:HD3	3.80	0.41
36:1:1073:U:H1'	65:N9:50:THR:HG22	2.03	0.41
65:N9:55:ALA:O	65:N9:58:LYS:HB2	5.03	0.41
66:O0:25:LEU:HD22	66:O0:90:VAL:HG22	2.02	0.41
67:O1:82:GLU:C	67:O1:84:ASP:H	2.24	0.41
68:O2:6:HIS:HA	68:O2:7:PRO:HD2	2.41	0.41
70:O4:25:THR:HG23	70:O4:29:ILE:HG22	8.00	0.41
71:O5:31:LEU:CD1	71:O5:47:VAL:HG11	2.50	0.41
71:O5:94:LYS:HE2	71:O5:94:LYS:HB2	1.92	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:O8:61:LYS:HG2	74:O8:61:LYS:H	3.05	0.41
1:2:1783:C:C5	77:Q1:5:TRP:CD1	3.09	0.41
2:S0:93:THR:HG21	2:S0:181:VAL:HG21	2.02	0.41
2:S0:50:VAL:HA	2:S0:53:THR:OG1	2.21	0.41
3:S1:152:ARG:H	3:S1:152:ARG:HG3	4.31	0.41
3:S1:35:PRO:HG3	3:S1:98:THR:O	2.20	0.41
3:S1:58:SER:O	3:S1:60:ALA:N	2.53	0.41
4:S2:226:THR:HG23	4:S2:229:LEU:CD2	3.72	0.41
4:S2:53:ILE:CD1	4:S2:73:LEU:HD22	3.02	0.41
4:S2:87:GLN:OE1	4:S2:96:THR:HB	4.44	0.41
5:S3:26:THR:HA	5:S3:34:TYR:HD1	1.85	0.41
5:S3:31:GLU:HB2	5:S3:32:GLU:OE2	2.21	0.41
5:S3:34:TYR:HB2	5:S3:52:ALA:HB2	3.59	0.41
6:S4:11:ARG:O	6:S4:12:LEU:CB	2.69	0.41
8:S6:105:ASP:N	8:S6:105:ASP:OD2	2.69	0.41
9:S7:166:LEU:HA	9:S7:166:LEU:HD12	1.97	0.41
10:S8:138:ASN:O	10:S8:142:LYS:HG3	2.20	0.41
10:S8:81:VAL:HG21	10:S8:95:THR:O	2.67	0.41
11:S9:21:SER:HA	11:S9:24:LEU:HG	4.15	0.41
36:1:1211:U:H1'	36:1:1295:G:N2	2.35	0.41
36:1:1565:G:H1'	36:1:1575:A:C2	2.53	0.41
36:1:2218:G:C4	36:1:2228:A:C2	3.09	0.41
36:1:2413:A:H2'	36:1:2414:G:C8	2.56	0.41
36:1:2694:A:C6	36:1:2695:A:C6	3.09	0.41
36:1:3282:U:H2'	36:1:3283:U:O4'	2.21	0.41
36:1:500:C:O2'	36:1:501:A:H5'	2.21	0.41
36:1:629:U:H2'	36:1:630:A:C8	2.56	0.41
36:1:831:G:H8	36:1:831:G:O5'	2.04	0.41
1:2:1053:G:C2	1:2:1067:C:C2	3.08	0.41
1:2:1368:G:C2	1:2:1369:U:C2	3.09	0.41
1:2:188:A:N7	1:2:197:A:H2	2.18	0.41
1:2:234:G:N1	1:2:235:G:H1'	2.36	0.41
1:2:344:A:C5	1:2:345:U:C5	3.09	0.41
1:2:428:A:N3	1:2:440:U:O2'	2.45	0.41
1:2:4:C:OP2	4:S2:200:SER:OG	2.31	0.41
38:4:106:C:C5	38:4:138:A:C2	3.09	0.41
38:4:143:U:H2'	38:4:144:G:O4'	2.21	0.41
36:5:1271:A:N6	36:5:1272:C:C4	2.89	0.41
36:5:1393:A:C8	36:5:1418:A:C6	3.08	0.41
36:5:1692:U:O4	36:5:1693:C:N4	2.54	0.41
36:5:2202:C:H2'	36:5:2203:U:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2206:G:O2'	36:5:2207:A:H5'	2.21	0.41
36:5:2291:A:H2'	36:5:2292:U:O4'	2.21	0.41
36:5:2297:U:H2'	36:5:2299:A:N7	2.35	0.41
36:5:2572:C:O2'	36:5:2573:G:OP2	2.39	0.41
36:5:383:G:H2'	36:5:385:A:OP2	2.21	0.41
36:5:401:U:H4'	36:5:403:C:C2	2.56	0.41
36:5:729:C:O5'	36:5:729:C:H6	2.04	0.41
1:6:1170:G:C6	1:6:1574:G:C5	3.09	0.41
1:6:1492:A:O2'	1:6:1493:A:C8	2.74	0.41
1:6:1584:G:O2'	1:6:1610:G:O6	2.32	0.41
1:6:1681:A:N6	1:6:1720:G:O2'	2.54	0.41
1:6:1645:G:OP2	86:6:2183:OHX:N3	2.54	0.41
1:6:711:U:C2	1:6:728:U:C2	3.08	0.41
1:6:886:U:H2'	1:6:887:A:O4'	2.20	0.41
37:7:85:G:O6	86:7:221:OHX:N5	2.54	0.41
38:8:107:G:OP2	86:8:230:OHX:N1	2.54	0.41
38:8:121:U:O2'	38:8:122:U:H5'	2.21	0.41
38:8:130:C:H2'	38:8:131:A:C8	2.56	0.41
12:C0:16:PHE:HD2	12:C0:76:LEU:CB	2.34	0.41
13:C1:4:GLU:HG3	13:C1:5:LEU:H	3.33	0.41
14:C2:62:LEU:HA	14:C2:120:VAL:HA	2.03	0.41
15:C3:88:LEU:HD11	15:C3:135:LEU:HD11	3.89	0.41
15:C3:56:ASP:HA	29:D7:47:PHE:HB3	2.40	0.41
16:C4:29:HIS:CG	16:C4:29:HIS:O	2.74	0.41
17:C5:126:VAL:HG13	17:C5:127:ARG:N	2.32	0.41
17:C5:31:GLU:O	17:C5:35:LYS:HG3	4.91	0.41
1:2:1350:U:P	18:C6:68:ARG:HH22	2.43	0.41
20:C8:72:ILE:HA	20:C8:79:TYR:CD2	3.90	0.41
23:D1:60:ARG:HG2	23:D1:65:SER:OG	4.17	0.41
24:D2:104:LEU:HA	24:D2:126:LEU:HB2	2.02	0.41
24:D2:47:ILE:HG22	24:D2:65:LEU:CB	2.51	0.41
25:D3:42:PRO:HG2	25:D3:122:PHE:HZ	2.78	0.41
25:D3:24:TRP:CE3	25:D3:30:LYS:HE2	5.28	0.41
33:E1:144:CYS:HB3	33:E1:147:VAL:HG12	3.22	0.41
39:L2:104:LEU:HD12	39:L2:104:LEU:HA	1.93	0.41
39:L2:54:ARG:HG2	39:L2:55:GLY:O	4.52	0.41
39:L2:30:ARG:HG2	39:L2:74:GLU:OE1	2.21	0.41
40:L3:255:TRP:CD1	36:5:2395:G:H5"	216.09	0.41
40:L3:292:ALA:HA	40:L3:303:LYS:H	1.86	0.41
40:L3:4:ARG:HG3	40:L3:6:TYR:O	4.97	0.41
41:L4:328:ASN:HA	41:L4:329:PRO:HD2	2.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:148:ILE:HG12	42:L5:159:VAL:HG11	2.03	0.41
42:L5:182:GLY:O	42:L5:190:ILE:HD12	2.21	0.41
42:L5:261:THR:H	42:L5:264:GLN:CD	2.57	0.41
42:L5:279:LYS:HG2	42:L5:282:ARG:HH12	1.86	0.41
45:L8:230:LYS:HE3	45:L8:230:LYS:HB2	4.35	0.41
46:L9:52:LEU:HA	46:L9:52:LEU:HD23	1.81	0.41
47:M0:99:ILE:HG22	47:M0:123:HIS:HB2	2.02	0.41
48:M1:37:LEU:HD22	48:M1:37:LEU:HA	2.11	0.41
49:M3:143:ALA:O	49:M3:146:PRO:HD3	2.21	0.41
51:M5:187:ARG:O	51:M5:190:THR:HG23	2.35	0.41
51:M5:9:GLU:O	51:M5:13:LYS:HE3	2.21	0.41
52:M6:94:ARG:O	52:M6:97:ALA:HB3	2.36	0.41
53:M7:51:VAL:HG12	53:M7:52:LEU:N	2.35	0.41
54:M8:140:LEU:HD23	54:M8:140:LEU:HA	2.17	0.41
55:M9:60:LYS:HA	55:M9:63:THR:HG23	5.21	0.41
56:N0:130:GLU:HB3	56:N0:131:LYS:H	1.59	0.41
57:N1:154:VAL:HG23	57:N1:155:PRO:O	2.60	0.41
57:N1:79:MET:HA	57:N1:84:TYR:HA	2.03	0.41
59:N3:13:ILE:HD12	59:N3:85:TRP:CD1	2.55	0.41
63:N7:115:LYS:O	63:N7:119:GLU:HB2	2.79	0.41
63:N7:93:LYS:HD3	63:N7:93:LYS:HA	1.87	0.41
67:O1:16:LEU:O	67:O1:20:LEU:N	2.46	0.41
70:O4:16:ARG:O	70:O4:18:ASN:N	2.53	0.41
70:O4:71:THR:CG2	70:O4:78:GLY:H	2.34	0.41
71:O5:119:LYS:HG3	71:O5:119:LYS:HZ3	1.76	0.41
71:O5:4:VAL:HG21	71:O5:9:LEU:HD11	2.38	0.41
73:O7:50:GLY:O	73:O7:53:ALA:HB3	2.20	0.41
74:O8:21:LYS:HD3	74:O8:21:LYS:HA	4.39	0.41
74:O8:46:ARG:HH11	74:O8:46:ARG:HG3	2.36	0.41
36:1:351:A:N6	75:O9:35:ILE:HG23	2.35	0.41
79:Q3:47:VAL:CG1	79:Q3:55:TRP:HB3	2.51	0.41
2:S0:17:LEU:HA	2:S0:172:LEU:HD12	2.02	0.41
2:S0:26:ALA:O	2:S0:46:HIS:ND1	3.34	0.41
3:S1:68:VAL:HG22	3:S1:69:CYS:O	2.21	0.41
6:S4:163:ASP:O	6:S4:164:LEU:CB	2.91	0.41
6:S4:193:GLY:O	6:S4:195:ILE:N	2.50	0.41
6:S4:211:LYS:HD3	6:S4:215:ASP:OD2	5.11	0.41
6:S4:42:LEU:HA	6:S4:42:LEU:HD23	2.05	0.41
6:S4:36:HIS:CG	6:S4:85:GLY:HA3	2.56	0.41
7:S5:97:LEU:HD11	7:S5:114:ILE:HG12	3.59	0.41
8:S6:137:ARG:NH1	1:6:144:U:C5	311.23	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:169:TYR:HD1	8:S6:170:THR:H	1.69	0.41
1:2:155:U:H4'	8:S6:59:GLN:H	1.85	0.41
9:S7:55:LYS:HB3	9:S7:55:LYS:HE2	2.12	0.41
9:S7:56:LYS:HB2	9:S7:88:ARG:NH1	2.36	0.41
9:S7:67:LEU:HD13	9:S7:71:HIS:CE1	2.62	0.41
10:S8:146:ARG:O	10:S8:147:ALA:HB3	2.21	0.41
34:SR:116:ASP:O	34:SR:119:ALA:N	2.43	0.41
34:SR:158:PRO:O	34:SR:208:GLY:HA3	2.21	0.41
34:SR:16:HIS:CE1	34:SR:43:ILE:HG12	2.76	0.41
36:1:1079:A:C6	36:1:1080:A:C6	3.09	0.40
36:1:1135:A:O5'	36:1:2642:A:H1'	2.21	0.40
36:1:1295:G:H2'	36:1:1296:C:C6	2.56	0.40
36:1:1467:A:O2'	36:1:1469:C:OP2	2.30	0.40
36:1:1528:G:H2'	36:1:1529:A:O4'	2.20	0.40
36:1:1567:U:C2	36:1:1571:A:N6	2.89	0.40
36:1:2107:A:C2	36:1:3344:A:C8	3.09	0.40
36:1:2282:U:O2	36:1:2310:U:H4'	2.21	0.40
36:1:2698:G:O2'	57:N1:12:ARG:HG3	2.21	0.40
36:1:2865:U:C4	36:1:2866:U:C4	3.09	0.40
36:1:3329:U:C4	36:1:3330:A:N7	2.90	0.40
36:1:372:A:H2'	36:1:373:A:O4'	2.21	0.40
36:1:2973:G:O6	86:1:4098:OHX:N2	2.54	0.40
1:2:1222:C:H2'	1:2:1223:A:O4'	2.21	0.40
1:2:1676:U:O2'	1:2:1677:C:H5'	2.21	0.40
1:2:1668:G:OP2	86:2:2055:OHX:N6	2.54	0.40
1:2:404:G:C2	1:2:405:C:C2	3.09	0.40
1:2:582:U:H3'	1:2:583:C:C6	2.56	0.40
1:2:819:G:N3	1:2:820:U:H5	2.18	0.40
1:2:884:A:O2'	1:2:885:G:H5'	2.21	0.40
36:1:345:G:O2'	38:4:25:G:N3	2.50	0.40
36:5:1563:C:O2	36:5:1577:G:N2	2.55	0.40
36:5:3084:C:H2'	36:5:3085:G:O4'	2.22	0.40
36:5:3266:G:C6	36:5:3267:A:C6	3.08	0.40
36:5:342:A:H4'	36:5:344:A:N7	2.36	0.40
36:5:956:U:H2'	36:5:957:C:H6	1.86	0.40
1:6:1240:U:N3	1:6:1242:A:H5"	2.35	0.40
1:6:20:G:H5'	1:6:571:G:C5	2.56	0.40
1:6:210:A:C6	1:6:211:U:C4	3.09	0.40
1:6:678:A:H2'	1:6:679:U:O4'	2.20	0.40
1:6:703:G:H2'	1:6:704:C:C6	2.56	0.40
11:S9:7:THR:HG21	1:6:758:U:OP1	381.78	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:819:G:C2	1:6:853:G:C2	3.08	0.40
1:2:990:C:O2'	16:C4:127:ARG:HD3	2.21	0.40
1:2:896:U:O4'	16:C4:38:THR:HG21	2.21	0.40
18:C6:53:LEU:H	18:C6:53:LEU:HG	1.81	0.40
19:C7:51:ALA:O	19:C7:54:THR:OG1	4.15	0.40
20:C8:91:ASP:O	20:C8:92:ILE:HB	2.22	0.40
21:C9:37:VAL:CG2	21:C9:100:ILE:HD11	3.56	0.40
21:C9:88:VAL:HG13	1:6:1601:G:C2	361.83	0.40
25:D3:53:VAL:HG12	25:D3:98:GLU:HA	3.33	0.40
27:D5:47:TYR:OH	27:D5:51:LEU:HD21	3.05	0.40
28:D6:58:VAL:HG23	28:D6:59:TYR:N	2.37	0.40
28:D6:44:ILE:HD13	28:D6:64:LEU:HD22	2.03	0.40
39:L2:130:SER:HA	39:L2:169:ILE:HG22	2.03	0.40
41:L4:169:LEU:HD22	41:L4:249:ILE:HD12	2.64	0.40
41:L4:179:LEU:HA	41:L4:179:LEU:HD23	2.11	0.40
36:1:7:C:H5"	45:L8:193:LYS:HG2	2.03	0.40
45:L8:218:ILE:O	45:L8:222:PHE:HB2	3.36	0.40
46:L9:101:VAL:HG12	46:L9:136:PHE:HE1	1.87	0.40
48:M1:60:ARG:O	48:M1:63:GLU:HB2	2.21	0.40
49:M3:29:ALA:O	49:M3:32:LYS:N	3.16	0.40
50:M4:21:VAL:HB	50:M4:63:VAL:HG22	2.02	0.40
50:M4:55:ARG:NH2	50:M4:77:ARG:HA	2.49	0.40
51:M5:93:LYS:O	51:M5:94:TYR:HB3	2.21	0.40
52:M6:73:PHE:CE2	52:M6:78:ARG:NH1	2.89	0.40
54:M8:68:ALA:O	54:M8:72:LYS:HG3	2.21	0.40
55:M9:109:TYR:OH	55:M9:139:VAL:HG22	2.21	0.40
36:1:1186:G:N3	56:N0:112:ALA:HB1	2.36	0.40
60:N4:9:SER:O	60:N4:53:VAL:HG23	2.96	0.40
61:N5:111:ASN:N	61:N5:111:ASN:HD22	2.54	0.40
62:N6:126:LEU:HB3	62:N6:127:GLU:H	4.25	0.40
62:N6:52:ARG:HG2	62:N6:53:ASP:N	3.82	0.40
62:N6:75:ARG:HD2	62:N6:75:ARG:HH11	1.77	0.40
63:N7:26:VAL:HB	63:N7:89:VAL:HG21	2.02	0.40
63:N7:3:LYS:O	63:N7:6:LYS:HG3	2.22	0.40
69:O3:49:ILE:CG2	69:O3:100:ILE:HG13	3.03	0.40
69:O3:54:ARG:HD2	36:5:3171:U:O4	220.51	0.40
73:O7:17:THR:C	73:O7:25:ARG:HA	2.41	0.40
74:O8:32:ASN:HD21	74:O8:34:ALA:HB3	6.35	0.40
36:1:1612:A:OP1	74:O8:46:ARG:NE	2.55	0.40
76:Q0:79:GLU:HA	76:Q0:80:PRO:HD2	2.24	0.40
79:Q3:36:ARG:HE	79:Q3:48:LYS:CE	4.48	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:179:ARG:CD	2:S0:183:ARG:HD2	2.51	0.40
1:2:875:G:P	3:S1:158:SER:HB2	2.61	0.40
4:S2:224:PHE:HE2	1:6:1098:U:C4	392.64	0.40
4:S2:97:ARG:H	4:S2:97:ARG:HG2	1.59	0.40
5:S3:17:PHE:HE1	5:S3:77:PHE:CD2	2.93	0.40
7:S5:164:PRO:HA	7:S5:167:ARG:HG3	2.89	0.40
8:S6:22:HIS:HA	8:S6:25:ARG:HH11	1.86	0.40
9:S7:162:ILE:O	9:S7:164:TYR:N	3.94	0.40
9:S7:21:ALA:O	9:S7:25:VAL:HG23	2.46	0.40
1:2:323:A:OP2	10:S8:10:LYS:HA	2.21	0.40
10:S8:82:VAL:HG13	10:S8:196:LEU:HD21	4.59	0.40
10:S8:8:ARG:NH2	10:S8:22:ARG:HH11	8.18	0.40
11:S9:109:LEU:O	11:S9:112:GLN:N	3.60	0.40
11:S9:17:ARG:HD2	11:S9:20:GLU:OE2	4.21	0.40
11:S9:17:ARG:HB2	11:S9:20:GLU:CD	3.81	0.40
11:S9:6:ARG:HD2	11:S9:6:ARG:HA	2.71	0.40
34:SR:70:ASP:CB	34:SR:112:SER:HA	2.51	0.40
34:SR:46:LYS:HB2	34:SR:46:LYS:HE3	1.94	0.40
36:1:1171:G:O6	86:1:3959:OHX:N2	2.54	0.40
36:1:1338:C:C2’	36:1:1339:C:H5’	2.51	0.40
36:1:1544:G:H5’	51:M5:67:ARG:HE	1.86	0.40
36:1:1654:A:H2’	36:1:1655:G:H5’	2.02	0.40
36:1:1815:U:HO2’	36:1:1816:A:P	2.41	0.40
36:1:307:A:H4’	36:1:2224:A:O4’	2.20	0.40
36:1:2294:U:OP2	59:N3:71:LYS:HE2	2.20	0.40
36:1:2656:A:C4	36:1:2658:G:N7	2.90	0.40
36:1:2882:U:H2’	36:1:2883:U:C6	2.56	0.40
36:1:2903:A:H2’	36:1:2904:U:O4’	2.21	0.40
36:1:3006:A:C2	36:1:3141:A:C4	3.09	0.40
36:1:3088:G:H2’	36:1:3089:C:C6	2.56	0.40
36:1:338:A:OP1	41:L4:47:ARG:HG3	2.21	0.40
86:1:4056:OHX:N4	86:1:4163:OHX:N3	2.69	0.40
1:2:1410:A:H2’	1:2:1411:A:O4’	2.20	0.40
1:2:1567:U:C5	1:2:1568:C:C4	3.09	0.40
1:2:1658:G:C4	1:2:1659:A:C8	3.09	0.40
1:2:205:U:H2’	1:2:206:A:O4’	2.21	0.40
1:2:446:A:N1	1:2:461:G:O2’	2.50	0.40
1:2:526:A:N6	1:2:527:A:C6	2.89	0.40
1:2:830:U:O2’	1:2:831:U:P	2.79	0.40
1:2:832:U:H2’	1:2:833:U:O4’	2.21	0.40
38:4:85:G:C3’	38:4:85:G:C8	3.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1302:A:N1	36:5:2832:C:O2'	2.45	0.40
36:5:1443:G:C6	36:5:1444:G:C6	3.09	0.40
36:5:1757:A:H2'	36:5:1758:G:C8	2.56	0.40
36:5:2249:G:C8	36:5:2249:G:H3'	2.56	0.40
36:5:2347:U:H2'	36:5:2348:A:O4'	2.21	0.40
36:5:2516:U:H2'	36:5:2517:U:H6	1.86	0.40
36:5:2429:G:C6	36:5:2601:A:N1	2.89	0.40
36:5:2416:U:H4'	36:5:2967:A:O4'	2.22	0.40
36:5:3255:U:H2'	36:5:3256:G:H8	1.85	0.40
86:5:3966:OHX:N3	86:5:4236:OHX:N2	2.69	0.40
86:5:4049:OHX:N1	86:5:4194:OHX:N4	2.69	0.40
86:5:4060:OHX:N1	86:5:4137:OHX:N4	2.68	0.40
36:5:541:U:O4	86:5:4007:OHX:N3	2.54	0.40
49:M3:35:ARG:NH1	36:5:685:G:P	83.21	0.40
1:6:1140:G:OP2	86:6:2070:OHX:N3	2.54	0.40
1:6:1255:G:H4'	1:6:1256:A:OP1	2.20	0.40
2:S0:109:ASN:ND2	1:6:1294:G:H1'	413.00	0.40
1:6:1308:G:H2'	1:6:1309:C:C6	2.57	0.40
1:6:1151:A:O2'	1:6:1766:A:N7	2.44	0.40
1:6:523:G:O6	86:6:2081:OHX:N6	2.54	0.40
4:S2:179:VAL:HG11	1:6:2:A:H3'	390.30	0.40
1:6:730:G:C5	1:6:731:C:C4	3.09	0.40
38:8:132:G:C6	38:8:133:G:N7	2.89	0.40
38:8:141:C:O2'	38:8:142:C:H5'	2.22	0.40
36:5:419:G:N2	38:8:5:U:C2	2.89	0.40
38:8:80:A:N3	38:8:82:U:O4	2.54	0.40
38:8:98:U:H2'	38:8:99:C:O4'	2.21	0.40
13:C1:83:THR:HB	13:C1:110:HIS:HA	2.03	0.40
13:C1:79:LYS:HA	13:C1:79:LYS:HD3	4.51	0.40
14:C2:140:PHE:O	14:C2:143:GLN:NE2	2.53	0.40
14:C2:76:GLU:O	14:C2:80:ASN:HB2	3.24	0.40
1:2:1553:G:O6	17:C5:43:ARG:HD3	2.21	0.40
18:C6:42:GLU:HG3	18:C6:45:ARG:HH21	1.85	0.40
18:C6:83:GLN:O	18:C6:87:LYS:HB2	2.21	0.40
19:C7:74:GLN:O	19:C7:78:ARG:HD3	2.21	0.40
21:C9:31:PRO:HG3	21:C9:103:LYS:CG	2.48	0.40
21:C9:53:TRP:O	21:C9:56:LYS:HB2	2.56	0.40
21:C9:18:TYR:HB3	21:C9:59:ALA:HB1	2.03	0.40
25:D3:92:CYS:C	25:D3:94:ASN:N	2.73	0.40
27:D5:37:GLN:O	27:D5:70:LYS:HD3	7.53	0.40
30:D8:11:LYS:HE3	30:D8:31:GLU:OE1	2.95	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:D8:33:LEU:HD21	30:D8:53:ILE:HD13	7.03	0.40
33:E1:118:ARG:HD2	33:E1:118:ARG:N	3.08	0.40
39:L2:113:VAL:HG12	39:L2:166:ILE:HA	2.21	0.40
39:L2:44:ILE:HG23	39:L2:87:PHE:CE1	2.57	0.40
40:L3:205:VAL:HG11	40:L3:322:ILE:HD11	2.03	0.40
41:L4:22:LEU:HD22	41:L4:26:PHE:HB2	3.58	0.40
41:L4:98:ARG:HH11	41:L4:98:ARG:HD2	1.69	0.40
41:L4:98:ARG:HG2	41:L4:99:MET:N	2.35	0.40
44:L7:222:HIS:CE1	44:L7:224:ILE:HD12	3.10	0.40
44:L7:95:ILE:HA	44:L7:96:PRO:HD3	1.92	0.40
45:L8:101:THR:HG22	45:L8:104:GLU:CD	2.41	0.40
47:M0:16:PRO:HD3	47:M0:128:ARG:CZ	2.51	0.40
49:M3:153:ASP:CG	49:M3:154:VAL:H	2.25	0.40
50:M4:120:VAL:HG22	52:M6:197:LEU:HD13	2.03	0.40
51:M5:75:VAL:HA	51:M5:76:PRO:HD3	2.46	0.40
51:M5:98:LEU:HD13	51:M5:98:LEU:HA	1.79	0.40
52:M6:4:GLU:HB3	52:M6:6:VAL:O	3.71	0.40
52:M6:54:TYR:CE2	52:M6:58:LEU:HD22	3.58	0.40
52:M6:75:ALA:O	52:M6:76:PRO:C	2.82	0.40
54:M8:57:ILE:HD13	54:M8:57:ILE:HG21	1.67	0.40
55:M9:99:LEU:O	55:M9:103:ARG:HB2	2.21	0.40
55:M9:128:LYS:HZ3	55:M9:128:LYS:HG3	3.82	0.40
57:N1:109:VAL:HG13	36:5:1063:G:C6	245.27	0.40
59:N3:88:ARG:C	59:N3:90:GLY:H	2.48	0.40
60:N4:45:ASN:HA	60:N4:46:PRO:HD3	1.86	0.40
61:N5:135:ILE:HA	61:N5:135:ILE:HD13	1.86	0.40
61:N5:40:LEU:HB3	61:N5:41:ALA:H	3.35	0.40
63:N7:22:LYS:HE3	63:N7:134:LEU:HB2	2.03	0.40
63:N7:81:LEU:HD22	63:N7:81:LEU:HA	2.02	0.40
69:O3:80:VAL:HG12	69:O3:81:VAL:H	2.24	0.40
69:O3:86:ARG:HH22	36:5:497:C:C3'	212.99	0.40
70:O4:44:CYS:SG	70:O4:45:GLY:N	3.26	0.40
71:O5:21:LEU:CD2	71:O5:51:ILE:HG23	2.51	0.40
72:O6:99:ARG:HB3	72:O6:100:HIS:H	1.52	0.40
72:O6:26:ILE:C	72:O6:28:TYR:N	2.74	0.40
72:O6:79:SER:OG	72:O6:82:ARG:HG2	5.75	0.40
72:O6:81:THR:O	72:O6:84:LYS:HB2	2.27	0.40
73:O7:6:PRO:HB3	36:5:1851:G:O2'	164.05	0.40
76:Q0:97:ARG:NH2	36:5:2847:A:OP1	323.58	0.40
79:Q3:47:VAL:HA	79:Q3:56:THR:O	2.21	0.40
3:S1:93:GLY:C	3:S1:95:ASN:H	2.67	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:148:LEU:HA	4:S2:148:LEU:HD22	1.75	0.40
4:S2:230:TRP:NE1	24:D2:68:ARG:HB3	2.36	0.40
4:S2:40:LYS:HA	4:S2:43:ARG:CZ	2.51	0.40
4:S2:42:GLY:HA2	4:S2:68:ILE:HD11	2.03	0.40
4:S2:61:LEU:HD23	4:S2:61:LEU:HA	1.71	0.40
4:S2:69:ILE:HD11	4:S2:133:LYS:HG2	2.03	0.40
4:S2:67:GLN:O	4:S2:71:THR:HG23	2.28	0.40
7:S5:91:GLU:OE2	7:S5:107:LYS:NZ	2.51	0.40
7:S5:91:GLU:HA	7:S5:94:THR:OG1	3.64	0.40
8:S6:27:PHE:CD1	8:S6:36:VAL:HG21	2.57	0.40
9:S7:129:LEU:HD23	9:S7:129:LEU:HA	2.05	0.40
9:S7:30:SER:O	9:S7:34:LEU:HB2	2.21	0.40
9:S7:63:PRO:C	9:S7:65:PRO:HD2	2.42	0.40
11:S9:45:ILE:HD13	11:S9:48:GLN:NE2	2.36	0.40
36:1:1193:A:O2'	36:1:1194:G:H5'	2.21	0.40
36:1:1560:G:N1	36:1:1561:G:C5	2.88	0.40
36:1:156:G:O2'	36:1:157:A:H4'	2.21	0.40
36:1:1831:U:H2'	36:1:1832:C:C6	2.54	0.40
36:1:1506:A:H1'	36:1:1848:G:O6	2.21	0.40
36:1:2696:A:H2'	36:1:2697:A:C8	2.56	0.40
36:1:2846:U:O4'	36:1:2846:U:O2	2.39	0.40
36:1:2932:U:O2	36:1:2934:A:H8	2.04	0.40
36:1:3311:C:C4	36:1:3312:U:C4	3.09	0.40
36:1:3329:U:O5'	36:1:3329:U:H6	2.03	0.40
36:1:3374:U:O5'	36:1:3374:U:H6	2.04	0.40
36:1:827:A:C2	36:1:828:A:C4	3.10	0.40
36:1:94:G:H5'	64:N8:53:PHE:CE2	2.56	0.40
1:2:1205:C:H5"	1:2:1206:U:OP2	2.21	0.40
1:2:1271:G:C6	1:2:1272:U:C4	3.10	0.40
1:2:1287:A:H4'	1:2:1288:G:OP1	2.21	0.40
1:2:1486:G:N7	1:2:1487:A:C8	2.89	0.40
1:2:1524:A:C6	1:2:1525:A:C6	3.09	0.40
1:2:224:C:H2'	1:2:225:A:H8	1.85	0.40
1:2:945:U:H2'	1:2:946:U:H6	1.87	0.40
1:2:925:G:H4'	1:2:986:G:O2'	2.20	0.40
44:L7:206:LYS:HB3	36:5:1334:U:H5"	236.09	0.40
68:O2:80:LYS:NZ	36:5:1386:A:OP2	136.09	0.40
36:5:2321:A:H2'	36:5:2322:C:O4'	2.21	0.40
36:5:2606:G:H2'	36:5:2606:G:N3	2.36	0.40
36:5:2673:A:N6	36:5:2681:U:H3	2.19	0.40
36:5:2919:A:N1	36:5:2927:C:O2	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:9:SER:HA	36:5:336:A:OP1	77.17	0.40
36:5:2820:A:C4	88:5:4246:3J6:C	3.05	0.40
36:5:560:G:C2	36:5:561:C:C2	3.09	0.40
36:5:572:A:H2'	36:5:573:C:H6	1.85	0.40
36:5:593:C:C4	36:5:594:U:C4	3.09	0.40
1:6:1000:C:N4	1:6:1003:A:OP2	2.54	0.40
1:6:11:A:C2'	1:6:12:U:H5'	2.52	0.40
1:6:1230:A:H2	1:6:1255:G:N2	2.06	0.40
1:6:130:C:H4'	1:6:176:C:OP1	2.21	0.40
1:6:1382:A:C2	1:6:1383:G:C5	3.10	0.40
1:6:1654:G:H2'	1:6:1745:G:N2	2.35	0.40
1:6:1713:G:O5'	1:6:1713:G:H8	2.05	0.40
1:6:353:A:C4	1:6:354:C:C6	3.09	0.40
1:6:639:U:H1'	1:6:640:U:C5	2.57	0.40
37:7:40:C:C5	37:7:42:A:N6	2.89	0.40
13:C1:63:LEU:H	13:C1:63:LEU:HG	1.49	0.40
17:C5:108:ARG:O	17:C5:111:MET:HB2	2.83	0.40
17:C5:53:PRO:O	17:C5:56:PHE:HB3	2.21	0.40
19:C7:2:GLY:N	1:6:1312:A:OP1	391.42	0.40
1:2:1390:U:OP1	19:C7:5:ARG:HD2	2.21	0.40
22:D0:45:ALA:HA	22:D0:50:LEU:HD12	4.71	0.40
25:D3:23:ARG:O	25:D3:26:GLU:HB2	2.43	0.40
27:D5:83:LEU:O	27:D5:89:ILE:HG12	3.21	0.40
28:D6:85:ARG:O	28:D6:86:VAL:HG23	2.22	0.40
33:E1:113:LYS:HE3	33:E1:113:LYS:HB3	2.93	0.40
39:L2:116:VAL:HG11	39:L2:134:VAL:HG11	3.15	0.40
39:L2:126:LEU:HD13	39:L2:150:LEU:HD21	2.27	0.40
39:L2:150:LEU:HA	39:L2:151:PRO:HD2	1.79	0.40
40:L3:275:ARG:HD3	40:L3:275:ARG:HA	2.50	0.40
40:L3:63:PRO:HD2	40:L3:348:ARG:HH21	1.87	0.40
40:L3:46:PHE:CE2	40:L3:81:THR:HG22	2.57	0.40
42:L5:131:LEU:HA	42:L5:131:LEU:HD13	2.81	0.40
45:L8:79:GLN:O	45:L8:81:THR:HG22	2.22	0.40
46:L9:173:ARG:HD3	46:L9:173:ARG:HH11	1.84	0.40
46:L9:20:ILE:CG1	46:L9:25:VAL:HG22	4.42	0.40
36:1:3198:U:C4	46:L9:26:LYS:HB2	2.56	0.40
47:M0:47:PRO:HB3	47:M0:171:TRP:CZ2	2.62	0.40
47:M0:51:HIS:O	47:M0:165:ILE:HA	2.43	0.40
48:M1:112:LEU:HD11	48:M1:127:PHE:HZ	2.93	0.40
48:M1:9:MET:HG2	37:7:55:A:C4	326.98	0.40
49:M3:119:TYR:CZ	49:M3:123:ILE:HG21	2.62	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:104:GLU:HG2	36:5:989:A:O2'	257.07	0.40
58:N2:76:LEU:O	58:N2:80:THR:HG23	2.21	0.40
60:N4:39:LEU:O	60:N4:44:LYS:HB2	2.22	0.40
65:N9:14:ARG:HH22	65:N9:18:ARG:HH11	3.57	0.40
67:O1:53:PRO:O	67:O1:57:GLN:HG3	2.21	0.40
70:O4:8:ARG:HB2	70:O4:34:HIS:CD2	2.55	0.40
74:O8:32:ASN:O	74:O8:34:ALA:N	2.54	0.40
76:Q0:103:LEU:CD1	76:Q0:110:CYS:HA	2.52	0.40
36:1:2303:A:P	77:Q1:23:ARG:HH22	2.44	0.40
77:Q1:4:LYS:HG2	77:Q1:5:TRP:CZ3	2.56	0.40
79:Q3:47:VAL:HA	79:Q3:57:CYS:HA	2.56	0.40
4:S2:133:LYS:O	4:S2:136:VAL:HG23	2.21	0.40
5:S3:45:LYS:HB2	5:S3:45:LYS:HE2	1.86	0.40
6:S4:127:LYS:HB3	6:S4:127:LYS:HE3	4.54	0.40
6:S4:121:TYR:HA	6:S4:163:ASP:O	3.21	0.40
7:S5:194:LEU:HD22	7:S5:198:LEU:CD1	5.09	0.40
7:S5:198:LEU:O	7:S5:202:ALA:N	2.54	0.40
8:S6:35:GLU:HA	8:S6:50:PHE:O	2.29	0.40
9:S7:38:LEU:HD23	9:S7:38:LEU:HA	2.12	0.40
10:S8:151:LYS:HZ3	10:S8:152:ILE:H	5.76	0.40
34:SR:87:LYS:HA	34:SR:108:SER:O	2.20	0.40
36:1:1069:C:H2'	36:1:1070:U:H6	1.87	0.40
36:1:1263:A:H2'	36:1:1263:A:N3	2.36	0.40
36:1:627:U:H4'	36:1:1399:A:O2'	2.21	0.40
36:1:398:A:O2'	36:1:1416:C:OP1	2.30	0.40
36:1:1469:C:O2'	36:1:1509:A:H2	2.05	0.40
36:1:1509:A:H2'	36:1:1510:G:C8	2.56	0.40
36:1:1694:U:H2'	36:1:1695:U:C6	2.57	0.40
36:1:2185:G:OP1	39:L2:202:VAL:HB	2.21	0.40
36:1:23:A:H2'	36:1:24:G:H8	1.86	0.40
36:1:3367:C:C4	36:1:3368:U:C4	3.10	0.40
1:2:1081:A:O2'	1:2:1083:G:N7	2.47	0.40
1:2:1281:G:H2'	1:2:1282:U:C6	2.56	0.40
1:2:1433:G:C5	31:D9:41:GLN:HB3	2.56	0.40
86:2:2090:OHX:N1	86:2:2131:OHX:N4	2.70	0.40
1:2:776:G:N2	1:2:785:U:H1'	2.36	0.40
1:2:917:U:H2'	1:2:918:U:H5'	2.03	0.40
36:5:1238:C:H2'	36:5:1239:C:O4'	2.21	0.40
45:L8:54:GLU:OE1	36:5:1557:A:H5"	149.66	0.40
36:5:2112:U:H1'	86:5:3969:OHX:N1	2.36	0.40
36:5:3012:A:OP2	36:5:3099:C:H5	2.05	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:568:G:O6	86:5:3933:OHX:N2	2.54	0.40
36:5:507:U:H2'	36:5:508:U:C6	2.56	0.40
1:6:1079:U:C4	1:6:1080:U:C4	3.09	0.40
1:6:1270:G:N3	1:6:1270:G:H2'	2.35	0.40
1:6:1354:G:C5	1:6:1355:C:C4	3.09	0.40
1:6:1698:G:O2'	1:6:1699:G:P	2.80	0.40
1:6:1776:A:H2'	1:6:1777:G:C8	2.56	0.40
86:6:2103:OHX:N1	86:6:2190:OHX:N4	2.69	0.40
1:6:44:U:OP2	1:6:437:A:N6	2.54	0.40
1:6:486:G:H22	1:6:501:U:H3	1.68	0.40
1:6:655:G:C6	1:6:676:G:C2	3.10	0.40
1:6:71:A:N1	1:6:72:A:C2	2.90	0.40
1:6:381:C:O2'	1:6:755:A:N1	2.46	0.40
86:7:220:OHX:N1	86:7:226:OHX:N5	2.68	0.40
12:C0:3:MET:HA	12:C0:4:PRO:HD2	2.55	0.40
14:C2:44:GLY:HA2	14:C2:120:VAL:O	3.46	0.40
16:C4:30:VAL:HG12	16:C4:39:ILE:HG13	4.60	0.40
18:C6:39:VAL:O	18:C6:45:ARG:HD3	5.26	0.40
18:C6:97:VAL:HG12	18:C6:98:ASP:N	2.53	0.40
20:C8:108:LYS:HA	20:C8:108:LYS:HD2	1.75	0.40
1:2:1281:G:H1'	22:D0:74:GLU:OE1	2.21	0.40
25:D3:142:LYS:HA	25:D3:143:PRO:HD2	2.28	0.40
28:D6:31:PRO:HB2	28:D6:33:ASP:OD1	2.22	0.40
39:L2:51:ASP:HB3	39:L2:54:ARG:HD2	2.50	0.40
39:L2:86:GLN:HG2	39:L2:88:ILE:HD13	2.86	0.40
40:L3:242:THR:HG23	40:L3:246:LEU:HB3	4.15	0.40
40:L3:50:LYS:HG2	40:L3:331:ASN:O	3.06	0.40
43:L6:149:ILE:HG23	43:L6:155:LEU:HD13	2.02	0.40
44:L7:25:GLN:O	44:L7:28:ALA:HB3	3.99	0.40
45:L8:78:PHE:CD2	45:L8:179:ILE:HG21	3.49	0.40
46:L9:43:VAL:HG12	46:L9:57:VAL:CG2	2.52	0.40
47:M0:10:ARG:HG2	47:M0:11:TYR:CD1	2.74	0.40
47:M0:3:ARG:HH22	36:5:2854:U:P	291.26	0.40
48:M1:63:GLU:O	48:M1:64:LYS:HB2	2.21	0.40
49:M3:162:ASN:ND2	49:M3:164:GLU:OE1	6.72	0.40
50:M4:53:VAL:HA	50:M4:54:PRO:HD3	1.88	0.40
54:M8:159:LYS:HD2	54:M8:159:LYS:HA	2.16	0.40
55:M9:159:ALA:HB2	55:M9:162:ARG:HH22	1.86	0.40
55:M9:62:ARG:CZ	55:M9:62:ARG:HB2	3.25	0.40
59:N3:86:ARG:HB2	59:N3:92:PHE:CE1	2.56	0.40
60:N4:37:ALA:O	60:N4:41:LYS:HG2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:113:LEU:O	61:N5:113:LEU:HD12	3.63	0.40
49:M3:3:ILE:HG12	64:N8:34:MET:CE	2.84	0.40
67:O1:29:ALA:HA	67:O1:67:VAL:HG21	2.03	0.40
71:O5:81:ARG:HB3	38:8:38:U:C4	67.39	0.40
51:M5:15:GLN:O	72:O6:52:PRO:HD2	2.22	0.40
72:O6:66:GLU:HB3	72:O6:70:ARG:HH21	1.87	0.40
36:1:3107:U:OP1	76:Q0:112:LYS:HE3	2.21	0.40
78:Q2:5:PRO:HG2	36:5:2655:U:C2	232.84	0.40
2:S0:124:THR:HG22	2:S0:174:TRP:NE1	2.35	0.40
3:S1:113:MET:O	3:S1:115:ARG:N	2.87	0.40
3:S1:178:GLY:HA3	3:S1:187:LYS:NZ	2.36	0.40
3:S1:130:SER:OG	3:S1:180:THR:HG22	5.99	0.40
3:S1:41:ARG:HH22	3:S1:232:HIS:HA	3.07	0.40
5:S3:132:LYS:HG3	5:S3:156:PHE:HB3	2.85	0.40
5:S3:168:ILE:HG22	5:S3:189:MET:CB	2.81	0.40
5:S3:79:TYR:CD1	5:S3:84:ILE:HB	2.57	0.40
7:S5:101:GLY:HA2	7:S5:104:ASN:OD1	2.22	0.40
7:S5:126:ASP:HB3	7:S5:127:GLN:H	1.74	0.40
7:S5:205:SER:O	7:S5:207:THR:N	2.54	0.40
7:S5:59:VAL:O	7:S5:60:ASP:HB2	2.22	0.40
9:S7:124:LYS:HE2	9:S7:124:LYS:HB3	4.35	0.40
9:S7:15:GLU:O	9:S7:18:LEU:HB2	2.21	0.40
10:S8:69:SER:HA	13:C1:22:ASN:HD21	3.73	0.40
11:S9:3:ARG:HB3	11:S9:4:ALA:H	3.26	0.40
34:SR:50:ASP:OD2	34:SR:53:LYS:HG3	3.64	0.40
36:1:1235:U:C4'	36:1:1236:G:H5'	2.50	0.40
36:1:1638:A:N3	36:1:1709:C:H1'	2.37	0.40
36:1:1846:C:H2'	36:1:1846:C:H6	1.75	0.40
36:1:826:G:C4	36:1:827:A:C8	3.10	0.40
1:2:1368:G:C6	1:2:1369:U:C4	3.09	0.40
1:2:1657:U:C4	86:2:2089:OHX:N4	2.89	0.40
1:2:452:A:H3'	1:2:453:U:C5	2.57	0.40
1:2:640:U:C4	1:2:641:G:C5	3.10	0.40
1:2:763:G:C6	1:2:764:U:C4	3.09	0.40
36:5:1438:U:H2'	36:5:1439:U:H6	1.85	0.40
36:5:1610:G:C6	36:5:1611:G:C6	3.10	0.40
36:5:1858:A:O2'	36:5:1859:A:P	2.79	0.40
36:5:2413:A:H2'	36:5:2414:G:C8	2.57	0.40
36:5:2509:U:O4	36:5:2510:U:C4	2.75	0.40
36:5:2586:G:O2'	36:5:2588:U:OP1	2.38	0.40
57:N1:8:ARG:HH21	36:5:2756:C:H1'	246.41	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:303:G:N2	36:5:2778:G:C5	2.89	0.40
36:5:284:A:H4'	36:5:285:A:C2	2.56	0.40
36:5:494:G:H3'	36:5:495:G:C8	2.57	0.40
36:5:585:A:C6	36:5:586:C:N4	2.90	0.40
36:5:741:U:H2'	36:5:742:G:O4'	2.20	0.40
36:5:856:G:C6	36:5:857:G:N1	2.89	0.40
1:6:1146:G:C6	1:6:1147:A:C6	3.10	0.40
6:S4:33:ALA:HB3	1:6:121:U:H1'	348.60	0.40
1:6:158:U:O2'	1:6:159:U:H3'	2.21	0.40
1:6:1619:C:H2'	1:6:1620:C:C6	2.57	0.40
1:6:1699:G:C2	1:6:1701:A:H5"	2.57	0.40
1:6:194:U:O2	1:6:194:U:H2'	2.21	0.40
6:S4:3:ARG:HG2	1:6:399:A:H4'	319.89	0.40
26:D4:64:PHE:CZ	1:6:767:U:C4	423.78	0.40
1:6:98:U:O2'	1:6:99:C:H5'	2.21	0.40
12:C0:34:GLU:O	12:C0:35:ILE:HB	4.66	0.40
13:C1:77:SER:O	13:C1:84:ILE:HB	2.22	0.40
13:C1:94:ILE:HG22	13:C1:97:TYR:H	2.66	0.40
14:C2:60:VAL:HG13	14:C2:122:VAL:HG22	2.02	0.40
16:C4:32:ASP:N	16:C4:39:ILE:HD11	3.55	0.40
18:C6:36:ILE:O	18:C6:36:ILE:HG12	2.21	0.40
19:C7:6:THR:HG23	19:C7:9:VAL:CG2	2.49	0.40
20:C8:28:ILE:HA	20:C8:31:ALA:HB3	2.03	0.40
20:C8:40:ARG:HH11	20:C8:40:ARG:HG2	2.02	0.40
21:C9:113:ILE:HD13	21:C9:128:GLY:HA2	3.29	0.40
22:D0:24:ILE:HG12	22:D0:116:VAL:HG13	2.03	0.40
23:D1:60:ARG:HB3	23:D1:65:SER:HB2	2.03	0.40
24:D2:106:THR:C	24:D2:108:ALA:H	2.53	0.40
26:D4:3:ASP:C	26:D4:5:VAL:H	2.24	0.40
33:E1:111:GLU:HA	33:E1:112:GLY:HA2	1.67	0.40
40:L3:24:SER:OG	40:L3:25:ILE:N	3.15	0.40
40:L3:275:ARG:NH1	36:5:3045:G:O3'	234.38	0.40
41:L4:311:HIS:CE1	41:L4:314:LYS:HA	2.62	0.40
41:L4:60:THR:HG22	41:L4:61:SER:H	1.86	0.40
41:L4:8:VAL:HG12	41:L4:9:HIS:N	2.36	0.40
42:L5:95:TRP:CZ2	42:L5:161:GLY:HA2	2.56	0.40
42:L5:196:ARG:HH11	42:L5:196:ARG:HB3	1.86	0.40
42:L5:278:SER:O	42:L5:281:GLU:HB2	2.20	0.40
42:L5:95:TRP:O	42:L5:98:ALA:HB3	2.22	0.40
43:L6:152:THR:OG1	43:L6:155:LEU:HB2	2.47	0.40
45:L8:186:LEU:HB2	45:L8:195:SER:HB3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:90:ARG:O	47:M0:91:VAL:HG23	2.21	0.40
48:M1:104:PHE:O	48:M1:127:PHE:N	2.52	0.40
48:M1:95:ASN:N	48:M1:95:ASN:OD1	4.34	0.40
49:M3:70:ARG:HD2	49:M3:70:ARG:HH11	2.81	0.40
50:M4:36:VAL:HG11	50:M4:55:ARG:NH2	2.37	0.40
50:M4:8:LYS:HB3	50:M4:9:ALA:H	1.53	0.40
51:M5:70:ASN:ND2	36:5:2599:U:H5"	155.53	0.40
51:M5:99:ARG:HG3	51:M5:130:PHE:CE1	3.30	0.40
53:M7:112:LEU:HG	53:M7:150:VAL:HB	2.68	0.40
44:L7:77:VAL:HG12	56:N0:59:VAL:O	2.41	0.40
59:N3:85:TRP:NE1	59:N3:121:GLU:OE1	2.50	0.40
62:N6:86:THR:HB	62:N6:95:VAL:O	3.06	0.40
65:N9:23:LYS:HB3	65:N9:24:PRO:CD	2.76	0.40
65:N9:23:LYS:HD2	65:N9:23:LYS:HA	1.93	0.40
65:N9:4:SER:O	65:N9:5:LYS:C	2.58	0.40
66:O0:71:GLN:HA	66:O0:71:GLN:OE1	4.76	0.40
66:O0:77:LEU:O	66:O0:81:VAL:HG22	2.22	0.40
68:O2:109:LEU:HD23	68:O2:119:VAL:HG21	2.02	0.40
69:O3:49:ILE:HG13	69:O3:85:PHE:CE1	5.45	0.40
36:1:585:A:H4'	69:O3:72:THR:HB	2.04	0.40
70:O4:23:VAL:HG12	70:O4:24:LYS:O	4.20	0.40
71:O5:105:ARG:HH21	71:O5:105:ARG:HB2	1.86	0.40
71:O5:49:LYS:HD2	71:O5:49:LYS:HA	1.81	0.40
72:O6:56:ARG:O	72:O6:60:LEU:HB2	2.21	0.40
72:O6:74:LYS:O	72:O6:74:LYS:HG2	2.21	0.40
73:O7:18:LEU:HA	73:O7:25:ARG:HA	2.29	0.40
74:O8:69:LEU:HA	74:O8:70:PRO:HD3	1.94	0.40
74:O8:77:ARG:HD2	74:O8:77:ARG:HA	2.21	0.40
79:Q3:17:ARG:HH11	79:Q3:17:ARG:HD2	1.78	0.40
3:S1:167:VAL:O	3:S1:171:ILE:HG13	2.46	0.40
3:S1:191:GLU:O	3:S1:194:ASN:HB2	2.61	0.40
4:S2:78:ASP:HB3	4:S2:129:ILE:HD13	2.04	0.40
6:S4:106:LYS:HB2	6:S4:108:ARG:NE	2.36	0.40
6:S4:176:ASP:HB2	6:S4:179:LYS:NZ	2.37	0.40
6:S4:34:GLY:HA3	6:S4:83:PRO:HG3	2.29	0.40
6:S4:62:LYS:NZ	6:S4:66:MET:HE3	6.86	0.40
7:S5:81:ARG:HH21	30:D8:47:PRO:HB3	1.86	0.40
9:S7:98:ILE:HG12	9:S7:121:VAL:HG21	2.03	0.40
10:S8:18:ARG:HH11	10:S8:18:ARG:HD3	1.73	0.40
10:S8:76:THR:HG23	10:S8:108:PRO:HG2	3.41	0.40
10:S8:98:LYS:C	10:S8:100:ALA:H	2.24	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:60:LEU:HD21	11:S9:93:LEU:HB3	5.18	0.40
34:SR:249:ARG:HD3	34:SR:251:TRP:CE3	2.56	0.40
34:SR:274:LEU:HD13	34:SR:313:TRP:CD2	2.83	0.40
34:SR:31:ASN:O	34:SR:47:LEU:N	2.54	0.40

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:531:G:OP1	86:S6:301:OHX:N1[2_545]	2.16	0.04

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
2	S0	204/251 (81%)	139 (68%)	40 (20%)	25 (12%)	0 2
2	s0	204/251 (81%)	148 (72%)	37 (18%)	19 (9%)	1 5
3	S1	212/254 (84%)	147 (69%)	38 (18%)	27 (13%)	0 2
3	s1	214/254 (84%)	164 (77%)	34 (16%)	16 (8%)	1 9
4	S2	215/253 (85%)	177 (82%)	26 (12%)	12 (6%)	2 14
4	s2	215/253 (85%)	171 (80%)	27 (13%)	17 (8%)	1 8
5	S3	221/239 (92%)	176 (80%)	32 (14%)	13 (6%)	2 14
5	s3	221/239 (92%)	172 (78%)	30 (14%)	19 (9%)	1 6
6	S4	258/260 (99%)	205 (80%)	39 (15%)	14 (5%)	2 15
6	s4	258/260 (99%)	206 (80%)	34 (13%)	18 (7%)	1 10
7	S5	204/224 (91%)	149 (73%)	38 (19%)	17 (8%)	1 7
7	s5	204/224 (91%)	145 (71%)	44 (22%)	15 (7%)	1 9
8	S6	224/236 (95%)	194 (87%)	20 (9%)	10 (4%)	3 20

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
8	s6	216/236 (92%)	184 (85%)	20 (9%)	12 (6%)	2 14
9	S7	182/189 (96%)	132 (72%)	33 (18%)	17 (9%)	1 5
9	s7	184/189 (97%)	142 (77%)	23 (12%)	19 (10%)	0 4
10	S8	184/200 (92%)	150 (82%)	23 (12%)	11 (6%)	2 13
10	s8	184/200 (92%)	155 (84%)	21 (11%)	8 (4%)	3 21
11	S9	183/196 (93%)	146 (80%)	24 (13%)	13 (7%)	1 10
11	s9	183/196 (93%)	144 (79%)	25 (14%)	14 (8%)	1 8
12	C0	94/105 (90%)	68 (72%)	17 (18%)	9 (10%)	1 5
12	c0	92/105 (88%)	60 (65%)	16 (17%)	16 (17%)	0 1
13	C1	153/155 (99%)	118 (77%)	22 (14%)	13 (8%)	1 6
13	c1	144/155 (93%)	112 (78%)	25 (17%)	7 (5%)	2 18
14	C2	122/142 (86%)	70 (57%)	28 (23%)	24 (20%)	0 1
14	c2	122/142 (86%)	68 (56%)	36 (30%)	18 (15%)	0 1
15	C3	148/150 (99%)	120 (81%)	16 (11%)	12 (8%)	1 7
15	c3	148/150 (99%)	112 (76%)	23 (16%)	13 (9%)	1 6
16	C4	125/136 (92%)	92 (74%)	22 (18%)	11 (9%)	1 6
16	c4	126/136 (93%)	94 (75%)	22 (18%)	10 (8%)	1 8
17	C5	122/141 (86%)	89 (73%)	24 (20%)	9 (7%)	1 9
17	c5	133/141 (94%)	87 (65%)	28 (21%)	18 (14%)	0 2
18	C6	139/142 (98%)	108 (78%)	18 (13%)	13 (9%)	1 5
18	c6	140/142 (99%)	111 (79%)	19 (14%)	10 (7%)	1 10
19	C7	116/136 (85%)	86 (74%)	19 (16%)	11 (10%)	1 5
19	c7	113/136 (83%)	84 (74%)	21 (19%)	8 (7%)	1 10
20	C8	143/145 (99%)	110 (77%)	22 (15%)	11 (8%)	1 8
20	c8	143/145 (99%)	112 (78%)	21 (15%)	10 (7%)	1 10
21	C9	141/143 (99%)	114 (81%)	20 (14%)	7 (5%)	2 17
21	c9	141/143 (99%)	109 (77%)	27 (19%)	5 (4%)	4 26
22	D0	105/120 (88%)	87 (83%)	13 (12%)	5 (5%)	2 18
22	d0	108/120 (90%)	83 (77%)	13 (12%)	12 (11%)	0 3
23	D1	85/87 (98%)	54 (64%)	21 (25%)	10 (12%)	0 2
23	d1	85/87 (98%)	66 (78%)	12 (14%)	7 (8%)	1 7

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
24	D2	127/129 (98%)	103 (81%)	20 (16%)	4 (3%)	5 30
24	d2	127/129 (98%)	111 (87%)	14 (11%)	2 (2%)	11 43
25	D3	142/144 (99%)	107 (75%)	22 (16%)	13 (9%)	1 5
25	d3	142/144 (99%)	120 (84%)	16 (11%)	6 (4%)	3 22
26	D4	132/134 (98%)	107 (81%)	20 (15%)	5 (4%)	4 24
26	d4	132/134 (98%)	101 (76%)	22 (17%)	9 (7%)	1 10
27	D5	68/107 (64%)	39 (57%)	18 (26%)	11 (16%)	0 1
27	d5	67/107 (63%)	51 (76%)	13 (19%)	3 (4%)	3 20
28	D6	95/97 (98%)	55 (58%)	21 (22%)	19 (20%)	0 1
28	d6	95/97 (98%)	72 (76%)	14 (15%)	9 (10%)	1 5
29	D7	79/81 (98%)	58 (73%)	16 (20%)	5 (6%)	1 12
29	d7	79/81 (98%)	64 (81%)	10 (13%)	5 (6%)	1 12
30	D8	61/66 (92%)	45 (74%)	11 (18%)	5 (8%)	1 7
30	d8	61/66 (92%)	40 (66%)	15 (25%)	6 (10%)	1 4
31	D9	51/55 (93%)	43 (84%)	6 (12%)	2 (4%)	3 23
31	d9	51/55 (93%)	41 (80%)	4 (8%)	6 (12%)	0 2
32	E0	58/60 (97%)	48 (83%)	7 (12%)	3 (5%)	2 16
33	E1	69/76 (91%)	31 (45%)	22 (32%)	16 (23%)	0 0
33	e1	74/76 (97%)	35 (47%)	18 (24%)	21 (28%)	0 0
34	SR	316/318 (99%)	263 (83%)	41 (13%)	12 (4%)	4 24
34	sR	316/318 (99%)	269 (85%)	37 (12%)	10 (3%)	5 29
35	SM	155/273 (57%)	101 (65%)	33 (21%)	21 (14%)	0 2
35	sM	98/273 (36%)	56 (57%)	29 (30%)	13 (13%)	0 2
39	L2	250/253 (99%)	208 (83%)	30 (12%)	12 (5%)	2 18
39	l2	250/253 (99%)	206 (82%)	26 (10%)	18 (7%)	1 10
40	L3	384/386 (100%)	319 (83%)	46 (12%)	19 (5%)	2 18
40	l3	384/386 (100%)	331 (86%)	40 (10%)	13 (3%)	4 27
41	L4	359/361 (99%)	289 (80%)	42 (12%)	28 (8%)	1 8
41	l4	359/361 (99%)	290 (81%)	44 (12%)	25 (7%)	1 10
42	L5	294/296 (99%)	235 (80%)	42 (14%)	17 (6%)	2 14
42	l5	292/296 (99%)	244 (84%)	36 (12%)	12 (4%)	3 22

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
43	L6	152/175 (87%)	126 (83%)	21 (14%)	5 (3%)	4 28
43	l6	153/175 (87%)	129 (84%)	21 (14%)	3 (2%)	9 39
44	L7	220/243 (90%)	175 (80%)	35 (16%)	10 (4%)	3 20
44	l7	221/243 (91%)	179 (81%)	34 (15%)	8 (4%)	4 26
45	L8	231/255 (91%)	176 (76%)	42 (18%)	13 (6%)	2 14
45	l8	229/255 (90%)	179 (78%)	32 (14%)	18 (8%)	1 8
46	L9	189/191 (99%)	159 (84%)	23 (12%)	7 (4%)	4 25
46	l9	189/191 (99%)	159 (84%)	24 (13%)	6 (3%)	5 29
47	M0	207/220 (94%)	165 (80%)	27 (13%)	15 (7%)	1 10
47	m0	209/220 (95%)	155 (74%)	39 (19%)	15 (7%)	1 10
48	M1	167/173 (96%)	120 (72%)	27 (16%)	20 (12%)	0 2
48	m1	167/173 (96%)	134 (80%)	22 (13%)	11 (7%)	1 11
49	M3	191/198 (96%)	151 (79%)	29 (15%)	11 (6%)	2 14
49	m3	192/198 (97%)	159 (83%)	17 (9%)	16 (8%)	1 7
50	M4	134/137 (98%)	108 (81%)	17 (13%)	9 (7%)	1 11
50	m4	135/137 (98%)	113 (84%)	18 (13%)	4 (3%)	5 30
51	M5	201/203 (99%)	176 (88%)	20 (10%)	5 (2%)	6 34
51	m5	201/203 (99%)	167 (83%)	26 (13%)	8 (4%)	3 23
52	M6	195/198 (98%)	172 (88%)	18 (9%)	5 (3%)	6 33
52	m6	195/198 (98%)	164 (84%)	22 (11%)	9 (5%)	3 19
53	M7	181/183 (99%)	139 (77%)	32 (18%)	10 (6%)	2 15
53	m7	153/183 (84%)	134 (88%)	17 (11%)	2 (1%)	14 48
54	M8	183/185 (99%)	154 (84%)	24 (13%)	5 (3%)	6 32
54	m8	183/185 (99%)	151 (82%)	27 (15%)	5 (3%)	6 32
55	M9	186/188 (99%)	157 (84%)	25 (13%)	4 (2%)	8 37
55	m9	186/188 (99%)	154 (83%)	28 (15%)	4 (2%)	8 37
56	N0	170/172 (99%)	151 (89%)	13 (8%)	6 (4%)	4 26
56	n0	170/172 (99%)	157 (92%)	11 (6%)	2 (1%)	15 50
57	N1	157/159 (99%)	134 (85%)	16 (10%)	7 (4%)	3 20
57	n1	157/159 (99%)	128 (82%)	23 (15%)	6 (4%)	4 24
58	N2	98/120 (82%)	74 (76%)	16 (16%)	8 (8%)	1 7

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
58	n2	96/120 (80%)	79 (82%)	11 (12%)	6 (6%)	1 12
59	N3	134/136 (98%)	119 (89%)	12 (9%)	3 (2%)	8 37
59	n3	134/136 (98%)	124 (92%)	9 (7%)	1 (1%)	25 60
60	N4	96/155 (62%)	69 (72%)	19 (20%)	8 (8%)	1 7
60	n4	133/155 (86%)	108 (81%)	14 (10%)	11 (8%)	1 7
61	N5	119/141 (84%)	107 (90%)	11 (9%)	1 (1%)	22 57
61	n5	118/141 (84%)	92 (78%)	17 (14%)	9 (8%)	1 9
62	N6	124/126 (98%)	107 (86%)	13 (10%)	4 (3%)	5 29
62	n6	124/126 (98%)	109 (88%)	11 (9%)	4 (3%)	5 29
63	N7	133/135 (98%)	105 (79%)	20 (15%)	8 (6%)	2 13
63	n7	133/135 (98%)	99 (74%)	24 (18%)	10 (8%)	1 9
64	N8	146/148 (99%)	112 (77%)	25 (17%)	9 (6%)	2 13
64	n8	146/148 (99%)	114 (78%)	24 (16%)	8 (6%)	2 15
65	N9	56/58 (97%)	48 (86%)	7 (12%)	1 (2%)	10 42
65	n9	56/58 (97%)	36 (64%)	14 (25%)	6 (11%)	0 4
66	O0	95/104 (91%)	81 (85%)	12 (13%)	2 (2%)	8 38
66	o0	98/104 (94%)	90 (92%)	7 (7%)	1 (1%)	18 53
67	O1	107/112 (96%)	92 (86%)	8 (8%)	7 (6%)	1 12
67	o1	107/112 (96%)	83 (78%)	12 (11%)	12 (11%)	0 3
68	O2	125/129 (97%)	109 (87%)	12 (10%)	4 (3%)	5 29
68	o2	125/129 (97%)	101 (81%)	17 (14%)	7 (6%)	2 14
69	O3	104/106 (98%)	88 (85%)	14 (14%)	2 (2%)	9 41
69	o3	104/106 (98%)	90 (86%)	10 (10%)	4 (4%)	4 24
70	O4	110/119 (92%)	87 (79%)	19 (17%)	4 (4%)	4 26
70	o4	110/119 (92%)	93 (84%)	13 (12%)	4 (4%)	4 26
71	O5	117/119 (98%)	97 (83%)	16 (14%)	4 (3%)	4 27
71	o5	117/119 (98%)	93 (80%)	20 (17%)	4 (3%)	4 27
72	O6	97/99 (98%)	80 (82%)	9 (9%)	8 (8%)	1 7
72	o6	97/99 (98%)	77 (79%)	12 (12%)	8 (8%)	1 7
73	O7	85/87 (98%)	69 (81%)	15 (18%)	1 (1%)	15 50
73	o7	85/87 (98%)	67 (79%)	15 (18%)	3 (4%)	4 26

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
74	O8	75/77 (97%)	60 (80%)	12 (16%)	3 (4%)	3 23
74	o8	75/77 (97%)	62 (83%)	9 (12%)	4 (5%)	2 16
75	O9	48/50 (96%)	38 (79%)	8 (17%)	2 (4%)	3 22
75	o9	48/50 (96%)	40 (83%)	8 (17%)	0	100 100
76	Q0	50/52 (96%)	45 (90%)	3 (6%)	2 (4%)	3 23
76	q0	50/52 (96%)	43 (86%)	5 (10%)	2 (4%)	3 23
77	Q1	23/25 (92%)	21 (91%)	2 (9%)	0	100 100
77	q1	23/25 (92%)	19 (83%)	2 (9%)	2 (9%)	1 6
78	Q2	103/105 (98%)	72 (70%)	23 (22%)	8 (8%)	1 8
78	q2	103/105 (98%)	93 (90%)	8 (8%)	2 (2%)	9 41
79	Q3	89/91 (98%)	76 (85%)	8 (9%)	5 (6%)	2 14
79	q3	89/91 (98%)	75 (84%)	10 (11%)	4 (4%)	3 20
80	e0	60/62 (97%)	44 (73%)	12 (20%)	4 (7%)	1 11
82	p0	139/311 (45%)	119 (86%)	14 (10%)	6 (4%)	3 21
All	All	22333/24141 (92%)	17773 (80%)	3160 (14%)	1400 (6%)	1 12

All (1400) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	S0	4	PRO
2	S0	39	ASN
2	S0	66	ALA
2	S0	102	PHE
2	S0	103	THR
2	S0	139	VAL
2	S0	140	ASN
2	S0	158	VAL
2	S0	190	ASP
2	S0	191	ARG
2	S0	202	TYR
3	S1	37	THR
3	S1	49	ASN
3	S1	58	SER
3	S1	63	GLY
3	S1	81	PHE
3	S1	93	GLY
3	S1	132	ASP

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Mol	Chain	Res	Type
3	S1	179	SER
4	S2	135	SER
5	S3	62	ASN
5	S3	65	ARG
5	S3	93	ASP
5	S3	195	SER
5	S3	211	PRO
5	S3	220	PRO
6	S4	104	ASP
6	S4	200	ARG
7	S5	39	GLU
7	S5	63	GLN
7	S5	101	GLY
8	S6	173	PRO
8	S6	174	LYS
9	S7	12	ALA
9	S7	64	VAL
9	S7	131	PHE
9	S7	134	GLU
9	S7	159	VAL
10	S8	149	SER
11	S9	134	ILE
11	S9	164	PHE
11	S9	168	ARG
11	S9	169	PRO
12	C0	54	TYR
12	C0	60	SER
12	C0	87	VAL
12	C0	88	PRO
13	C1	3	THR
13	C1	7	VAL
13	C1	30	ARG
14	C2	42	ALA
14	C2	55	GLY
14	C2	125	ASN
14	C2	126	TRP
14	C2	131	ASP
15	C3	3	ARG
15	C3	22	ALA
15	C3	27	LYS
15	C3	68	GLY
15	C3	138	ASN

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Mol	Chain	Res	Type
16	C4	39	ILE
16	C4	50	ALA
16	C4	51	ASP
16	C4	124	ASP
16	C4	125	SER
17	C5	54	ALA
17	C5	80	MET
17	C5	125	PRO
17	C5	126	VAL
18	C6	41	PRO
18	C6	59	LYS
18	C6	115	THR
19	C7	85	VAL
19	C7	86	PRO
19	C7	88	VAL
19	C7	113	LEU
20	C8	14	ILE
20	C8	60	GLU
20	C8	83	ALA
20	C8	91	ASP
20	C8	92	ILE
21	C9	31	PRO
21	C9	53	TRP
26	D4	6	THR
26	D4	51	GLU
27	D5	39	ALA
27	D5	43	ASP
27	D5	44	GLN
27	D5	54	VAL
27	D5	86	GLU
27	D5	97	LYS
28	D6	19	LYS
28	D6	36	ILE
28	D6	45	VAL
28	D6	46	GLU
28	D6	65	PRO
28	D6	84	VAL
28	D6	85	ARG
28	D6	86	VAL
29	D7	38	PRO
29	D7	62	ILE
32	E0	47	VAL

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Mol	Chain	Res	Type
33	E1	84	VAL
33	E1	87	THR
33	E1	98	VAL
33	E1	102	VAL
33	E1	138	ARG
34	SR	117	LYS
34	SR	160	GLU
34	SR	161	LYS
35	SM	32	SER
35	SM	52	PRO
35	SM	87	THR
35	SM	89	ARG
35	SM	140	ASP
35	SM	166	VAL
35	SM	167	PRO
39	L2	202	VAL
39	L2	246	LEU
40	L3	136	LYS
40	L3	138	ALA
40	L3	139	GLN
40	L3	188	ILE
40	L3	212	ASN
40	L3	243	HIS
40	L3	300	ARG
40	L3	385	LYS
41	L4	4	PRO
41	L4	132	ALA
41	L4	146	PRO
41	L4	175	HIS
41	L4	268	ALA
41	L4	270	SER
41	L4	293	SER
41	L4	306	THR
41	L4	317	PRO
41	L4	318	LEU
42	L5	57	ASN
42	L5	153	THR
42	L5	233	ALA
42	L5	234	ASP
42	L5	253	PHE
42	L5	258	LYS
43	L6	59	GLU

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Mol	Chain	Res	Type
43	L6	98	VAL
44	L7	26	VAL
45	L8	25	PRO
45	L8	31	PRO
45	L8	115	ALA
45	L8	116	VAL
47	M0	145	LYS
47	M0	194	GLY
48	M1	8	PRO
48	M1	9	MET
48	M1	11	ASP
48	M1	94	ARG
48	M1	95	ASN
48	M1	115	LYS
48	M1	165	GLN
48	M1	167	TYR
49	M3	129	ASN
49	M3	136	GLU
49	M3	166	ALA
49	M3	193	ALA
50	M4	8	LYS
50	M4	9	ALA
50	M4	136	ALA
52	M6	110	PRO
52	M6	111	PRO
53	M7	109	ALA
53	M7	159	LYS
54	M8	41	ASP
54	M8	99	THR
55	M9	47	ASN
56	N0	130	GLU
56	N0	142	GLN
57	N1	159	PHE
58	N2	59	ASP
58	N2	60	GLY
58	N2	107	PHE
60	N4	64	THR
60	N4	81	PRO
60	N4	97	LYS
63	N7	35	SER
63	N7	128	GLN
64	N8	76	ASP

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Mol	Chain	Res	Type
67	O1	5	LYS
67	O1	83	GLU
68	O2	127	ALA
71	O5	118	ILE
72	O6	33	ALA
72	O6	34	SER
72	O6	99	ARG
75	O9	4	GLN
75	O9	50	ASN
76	Q0	78	ILE
78	Q2	8	ARG
78	Q2	15	LYS
78	Q2	30	ALA
78	Q2	33	ALA
78	Q2	100	LYS
2	s0	4	PRO
2	s0	29	VAL
2	s0	95	ALA
2	s0	189	VAL
2	s0	206	ASP
3	s1	206	PRO
3	s1	210	ILE
4	s2	92	ALA
4	s2	106	ASP
4	s2	107	SER
5	s3	115	ILE
5	s3	195	SER
5	s3	211	PRO
5	s3	216	PRO
5	s3	217	ILE
5	s3	220	PRO
6	s4	95	THR
6	s4	104	ASP
6	s4	195	ILE
6	s4	196	VAL
7	s5	28	PRO
7	s5	36	ALA
7	s5	43	PHE
7	s5	55	ASP
7	s5	184	PHE
7	s5	205	SER
8	s6	70	PRO

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Mol	Chain	Res	Type
8	s6	153	VAL
8	s6	154	ARG
8	s6	156	PHE
8	s6	173	PRO
8	s6	174	LYS
9	s7	10	SER
9	s7	64	VAL
9	s7	66	SER
9	s7	74	GLN
9	s7	131	PHE
9	s7	163	ASP
11	s9	118	LEU
11	s9	183	ALA
12	c0	31	LYS
12	c0	82	LEU
12	c0	83	PRO
12	c0	88	PRO
12	c0	97	PRO
13	c1	82	ARG
13	c1	129	ARG
14	c2	115	VAL
14	c2	131	ASP
15	c3	19	SER
15	c3	87	ASP
15	c3	88	LEU
16	c4	35	GLY
16	c4	98	GLY
17	c5	11	VAL
17	c5	14	THR
17	c5	51	SER
17	c5	52	LYS
17	c5	68	PRO
17	c5	125	PRO
17	c5	126	VAL
18	c6	39	VAL
18	c6	40	GLU
18	c6	42	GLU
18	c6	113	ASP
18	c6	116	LEU
19	c7	82	ASP
19	c7	86	PRO
19	c7	88	VAL

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Mol	Chain	Res	Type
19	c7	99	VAL
19	c7	104	ASN
20	c8	145	ARG
22	d0	15	GLN
22	d0	51	VAL
22	d0	97	VAL
22	d0	118	VAL
23	d1	4	ASP
23	d1	29	HIS
24	d2	68	ARG
25	d3	138	GLU
26	d4	30	PRO
26	d4	32	ARG
26	d4	33	ALA
26	d4	35	VAL
26	d4	52	LYS
26	d4	121	THR
27	d5	85	LYS
28	d6	8	ASN
28	d6	63	ALA
29	d7	38	PRO
29	d7	59	CYS
29	d7	60	SER
30	d8	61	ARG
31	d9	6	VAL
31	d9	16	LYS
80	e0	45	VAL
80	e0	54	ARG
80	e0	60	PRO
33	e1	79	LYS
33	e1	84	VAL
33	e1	87	THR
33	e1	92	LYS
33	e1	98	VAL
33	e1	102	VAL
33	e1	103	LEU
33	e1	106	TYR
34	sR	160	GLU
34	sR	161	LYS
34	sR	163	ASP
34	sR	165	ASP
34	sR	318	ALA

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Mol	Chain	Res	Type
35	sM	50	ASN
35	sM	55	SER
39	l2	24	GLN
39	l2	96	LEU
39	l2	115	ASN
39	l2	212	GLY
39	l2	229	ALA
39	l2	249	SER
40	l3	139	GLN
40	l3	235	THR
40	l3	347	SER
41	l4	4	PRO
41	l4	90	PHE
41	l4	301	PRO
41	l4	302	ALA
41	l4	329	PRO
41	l4	330	TYR
41	l4	342	LYS
41	l4	361	HIS
42	l5	132	THR
42	l5	258	LYS
42	l5	260	PHE
43	l6	98	VAL
44	l7	191	VAL
44	l7	193	PRO
44	l7	228	SER
45	l8	25	PRO
45	l8	26	LEU
45	l8	34	PHE
45	l8	122	LYS
47	m0	82	ARG
48	m1	8	PRO
48	m1	10	ARG
48	m1	108	GLU
48	m1	111	ASP
49	m3	47	ALA
49	m3	129	ASN
49	m3	134	GLU
49	m3	152	THR
49	m3	193	ALA
51	m5	91	GLU
52	m6	16	VAL

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Mol	Chain	Res	Type
52	m6	110	PRO
54	m8	91	ALA
54	m8	99	THR
54	m8	112	ALA
55	m9	36	ASN
56	n0	2	ALA
57	n1	122	GLN
57	n1	135	PRO
57	n1	146	ASN
58	n2	49	ASN
60	n4	26	SER
60	n4	63	ILE
60	n4	71	ARG
60	n4	76	VAL
61	n5	25	LYS
61	n5	44	PRO
61	n5	45	LYS
61	n5	48	SER
61	n5	58	ASP
62	n6	83	ASP
62	n6	84	LYS
62	n6	126	LEU
63	n7	36	HIS
63	n7	129	TRP
64	n8	15	VAL
64	n8	76	ASP
65	n9	23	LYS
65	n9	39	PHE
66	o0	104	LEU
67	o1	5	LYS
67	o1	45	GLY
67	o1	84	ASP
68	o2	4	LEU
68	o2	5	PRO
68	o2	27	ARG
69	o3	90	PRO
70	o4	67	LYS
70	o4	79	SER
72	o6	33	ALA
72	o6	34	SER
72	o6	64	SER
72	o6	98	ARG

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Mol	Chain	Res	Type
74	o8	3	ARG
74	o8	17	ARG
76	q0	80	PRO
78	q2	60	LYS
82	p0	93	LEU
2	S0	5	ALA
2	S0	26	ALA
2	S0	27	ARG
2	S0	30	GLN
2	S0	49	ASN
2	S0	111	ILE
2	S0	185	ARG
2	S0	187	ALA
3	S1	54	LEU
3	S1	62	LYS
3	S1	82	ARG
3	S1	158	SER
3	S1	177	GLN
3	S1	206	PRO
3	S1	221	PRO
4	S2	107	SER
4	S2	144	TRP
4	S2	148	LEU
5	S3	51	ARG
5	S3	64	ARG
5	S3	112	GLY
5	S3	216	PRO
5	S3	218	LEU
6	S4	26	CYS
6	S4	142	HIS
7	S5	26	ALA
7	S5	51	VAL
7	S5	58	LEU
7	S5	81	ARG
7	S5	153	GLY
9	S7	11	GLN
9	S7	32	PRO
9	S7	73	VAL
9	S7	116	ARG
9	S7	126	LEU
9	S7	155	ASP
10	S8	40	ALA

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Mol	Chain	Res	Type
10	S8	120	THR
11	S9	118	LEU
11	S9	120	LYS
11	S9	163	PRO
12	C0	34	GLU
13	C1	29	LYS
13	C1	55	ASP
13	C1	145	ALA
13	C1	146	ALA
13	C1	154	ALA
14	C2	66	VAL
14	C2	89	ILE
14	C2	91	VAL
14	C2	93	ASP
14	C2	106	ILE
14	C2	127	GLY
15	C3	24	ALA
16	C4	42	VAL
16	C4	108	SER
16	C4	126	THR
18	C6	39	VAL
18	C6	42	GLU
20	C8	100	THR
21	C9	29	GLU
21	C9	50	ALA
21	C9	69	LYS
21	C9	130	ARG
22	D0	118	VAL
23	D1	49	GLU
25	D3	61	SER
25	D3	70	LYS
25	D3	128	SER
27	D5	71	ILE
28	D6	11	ASN
28	D6	47	ALA
29	D7	51	GLN
29	D7	63	LEU
30	D8	36	THR
31	D9	8	PHE
33	E1	103	LEU
33	E1	110	ALA
33	E1	111	GLU

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Mol	Chain	Res	Type
33	E1	128	ALA
34	SR	48	THR
34	SR	51	ASP
35	SM	139	GLU
35	SM	153	ASP
35	SM	165	LYS
39	L2	13	GLY
39	L2	143	GLU
39	L2	144	ASN
39	L2	250	GLN
40	L3	140	ASP
40	L3	386	ASP
41	L4	90	PHE
41	L4	190	GLY
41	L4	232	SER
41	L4	292	SER
41	L4	304	GLN
41	L4	320	ASN
41	L4	338	LYS
42	L5	59	ASP
42	L5	252	ALA
43	L6	150	LYS
44	L7	24	GLU
45	L8	39	ALA
45	L8	93	LEU
45	L8	135	GLY
45	L8	156	ASP
46	L9	50	ASN
46	L9	96	HIS
46	L9	110	LYS
47	M0	91	VAL
47	M0	117	GLY
47	M0	149	VAL
47	M0	207	GLU
48	M1	24	GLY
49	M3	13	HIS
49	M3	25	HIS
49	M3	47	ALA
50	M4	28	SER
50	M4	135	LEU
51	M5	81	TYR
52	M6	90	HIS

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Mol	Chain	Res	Type
53	M7	163	LYS
53	M7	164	LYS
55	M9	53	LYS
56	N0	139	TYR
57	N1	124	VAL
57	N1	144	GLU
58	N2	11	ILE
58	N2	51	GLY
62	N6	43	TYR
62	N6	84	LYS
63	N7	3	LYS
64	N8	66	ALA
64	N8	93	SER
66	O0	96	GLY
67	O1	6	ASP
67	O1	82	GLU
68	O2	27	ARG
69	O3	40	ASP
70	O4	17	SER
71	O5	97	ALA
72	O6	13	LYS
74	O8	33	LYS
78	Q2	32	LYS
79	Q3	84	ARG
2	s0	30	GLN
2	s0	62	ARG
2	s0	158	VAL
2	s0	186	GLY
2	s0	191	ARG
3	s1	26	ARG
3	s1	93	GLY
3	s1	147	ALA
3	s1	209	ASN
3	s1	223	PHE
4	s2	148	LEU
4	s2	163	GLY
4	s2	164	SER
5	s3	61	GLU
5	s3	76	ARG
5	s3	179	GLN
5	s3	219	ALA
6	s4	90	ILE

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Mol	Chain	Res	Type
6	s4	164	LEU
6	s4	242	LYS
7	s5	98	MET
7	s5	151	GLY
7	s5	204	GLY
8	s6	68	LEU
8	s6	131	LYS
9	s7	67	LEU
11	s9	120	LYS
11	s9	121	SER
12	c0	73	VAL
12	c0	92	ILE
12	c0	94	GLU
13	c1	61	THR
14	c2	22	VAL
14	c2	39	ASP
14	c2	66	VAL
14	c2	101	ALA
14	c2	106	ILE
14	c2	119	SER
15	c3	66	ILE
15	c3	139	TRP
16	c4	67	VAL
16	c4	97	GLY
16	c4	131	GLY
16	c4	132	ARG
17	c5	50	THR
17	c5	71	GLU
17	c5	117	GLY
18	c6	120	ASP
19	c7	113	LEU
20	c8	91	ASP
20	c8	135	GLY
21	c9	28	LEU
21	c9	34	VAL
22	d0	17	GLN
22	d0	45	ALA
22	d0	96	PRO
23	d1	6	GLY
23	d1	64	GLU
24	d2	56	HIS
25	d3	70	LYS

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Mol	Chain	Res	Type
25	d3	101	GLU
26	d4	53	ASP
27	d5	87	GLY
28	d6	47	ALA
28	d6	62	TYR
29	d7	20	LYS
30	d8	20	GLY
30	d8	57	MET
30	d8	65	ARG
31	d9	7	TRP
33	e1	81	LYS
33	e1	85	TYR
33	e1	100	LEU
33	e1	127	GLY
33	e1	145	HIS
33	e1	146	SER
33	e1	148	TYR
34	sR	237	GLN
35	sM	47	ALA
35	sM	48	ARG
35	sM	65	THR
35	sM	67	GLY
35	sM	72	ARG
35	sM	120	GLU
39	l2	54	ARG
39	l2	213	GLY
39	l2	215	ASN
39	l2	238	ILE
40	l3	142	ALA
40	l3	187	SER
40	l3	258	ALA
40	l3	348	ARG
41	l4	26	PHE
41	l4	35	VAL
41	l4	142	VAL
41	l4	190	GLY
41	l4	233	LEU
41	l4	272	VAL
41	l4	328	ASN
41	l4	339	LEU
41	l4	349	THR
44	l7	129	LEU

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Mol	Chain	Res	Type
45	l8	120	LYS
45	l8	239	GLY
46	l9	144	ILE
47	m0	101	LYS
47	m0	117	GLY
47	m0	174	THR
47	m0	207	GLU
47	m0	219	ALA
48	m1	115	LYS
48	m1	116	TYR
48	m1	167	TYR
49	m3	29	ALA
49	m3	76	THR
49	m3	93	ILE
49	m3	135	ALA
49	m3	162	ASN
51	m5	81	TYR
52	m6	13	GLY
52	m6	160	ARG
53	m7	66	SER
54	m8	84	VAL
54	m8	98	LYS
55	m9	183	ALA
56	n0	142	GLN
58	n2	104	ARG
60	n4	25	ASP
60	n4	77	LYS
60	n4	83	THR
61	n5	38	LEU
61	n5	47	ALA
61	n5	55	ASN
62	n6	125	LYS
63	n7	7	ALA
63	n7	16	GLY
63	n7	102	GLU
63	n7	125	GLY
64	n8	47	LYS
64	n8	56	VAL
64	n8	84	GLU
65	n9	24	PRO
67	o1	83	GLU
67	o1	86	LYS

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Mol	Chain	Res	Type
67	o1	91	SER
69	o3	60	ARG
71	o5	40	SER
71	o5	119	LYS
72	o6	63	ASN
72	o6	67	LYS
73	o7	67	LEU
78	q2	17	CYS
82	p0	47	GLY
82	p0	68	SER
82	p0	198	PRO
2	S0	195	TRP
3	S1	26	ARG
3	S1	35	PRO
3	S1	36	SER
4	S2	163	GLY
4	S2	236	PRO
5	S3	81	PRO
5	S3	217	ILE
6	S4	17	HIS
6	S4	96	ASN
7	S5	43	PHE
7	S5	64	VAL
8	S6	25	ARG
8	S6	138	ALA
8	S6	148	SER
8	S6	152	ASP
9	S7	30	SER
9	S7	98	ILE
9	S7	112	ARG
10	S8	22	ARG
10	S8	52	ASN
10	S8	59	ARG
10	S8	152	ILE
10	S8	159	GLN
11	S9	60	LEU
11	S9	98	ALA
11	S9	150	LEU
12	C0	25	LYS
12	C0	93	GLN
14	C2	36	LEU
14	C2	37	VAL

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Mol	Chain	Res	Type
14	C2	69	ALA
14	C2	107	ASP
14	C2	115	VAL
17	C5	51	SER
17	C5	52	LYS
17	C5	101	ALA
17	C5	130	ARG
18	C6	33	GLY
18	C6	40	GLU
18	C6	114	ARG
18	C6	116	LEU
19	C7	83	GLN
19	C7	87	GLU
19	C7	115	LEU
20	C8	25	ASN
21	C9	100	ILE
23	D1	4	ASP
23	D1	7	GLN
23	D1	15	ARG
23	D1	43	GLY
24	D2	30	SER
24	D2	100	GLY
25	D3	11	SER
25	D3	41	SER
25	D3	44	GLY
25	D3	112	LYS
25	D3	114	LYS
25	D3	143	PRO
26	D4	34	ASN
27	D5	56	THR
27	D5	70	LYS
28	D6	5	ARG
28	D6	10	ARG
28	D6	61	GLU
28	D6	62	TYR
28	D6	63	ALA
28	D6	75	VAL
28	D6	97	PRO
33	E1	137	ASP
34	SR	318	ALA
35	SM	95	SER
39	L2	127	ALA

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Mol	Chain	Res	Type
39	L2	133	TYR
39	L2	151	PRO
40	L3	3	HIS
40	L3	83	PRO
40	L3	299	ASP
40	L3	351	LEU
41	L4	15	ALA
41	L4	130	ALA
41	L4	220	ARG
41	L4	361	HIS
42	L5	7	ALA
42	L5	22	ARG
42	L5	137	ASP
42	L5	148	ILE
42	L5	259	LYS
42	L5	276	LYS
44	L7	159	GLN
44	L7	163	LEU
46	L9	2	LYS
47	M0	16	PRO
47	M0	23	ASN
47	M0	113	GLN
47	M0	116	ARG
47	M0	218	ALA
48	M1	28	ASP
48	M1	74	PRO
48	M1	152	HIS
48	M1	166	LYS
50	M4	10	SER
50	M4	29	ALA
50	M4	113	THR
51	M5	144	ARG
53	M7	3	ARG
53	M7	157	VAL
53	M7	160	ALA
53	M7	162	GLU
54	M8	98	LYS
55	M9	26	PRO
55	M9	35	ALA
56	N0	24	LEU
57	N1	123	GLY
57	N1	127	GLN

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Mol	Chain	Res	Type
57	N1	132	PRO
58	N2	22	PRO
59	N3	46	LEU
63	N7	102	GLU
64	N8	47	LYS
68	O2	126	LEU
70	O4	26	PRO
70	O4	86	LYS
74	O8	24	THR
2	s0	10	THR
2	s0	163	ASN
2	s0	164	ASN
2	s0	200	ASP
4	s2	91	ARG
4	s2	93	GLY
4	s2	149	GLY
4	s2	234	PRO
4	s2	238	SER
5	s3	90	ARG
5	s3	144	ALA
5	s3	160	SER
5	s3	196	ARG
6	s4	96	ASN
7	s5	35	GLN
7	s5	57	SER
8	s6	165	GLY
8	s6	175	ILE
9	s7	83	LYS
9	s7	133	THR
9	s7	185	ILE
10	s8	12	SER
10	s8	136	SER
10	s8	137	LYS
11	s9	20	GLU
11	s9	88	GLU
11	s9	150	LEU
11	s9	167	ALA
12	c0	2	LEU
12	c0	23	ALA
12	c0	32	HIS
12	c0	35	ILE
14	c2	58	LEU

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Mol	Chain	Res	Type
14	c2	82	PRO
14	c2	108	ARG
15	c3	43	LYS
15	c3	140	LYS
17	c5	7	ALA
17	c5	48	GLY
18	c6	142	TYR
19	c7	116	LYS
20	c8	61	LEU
21	c9	33	TYR
21	c9	100	ILE
22	d0	49	ASN
25	d3	3	LYS
26	d4	49	LYS
28	d6	13	LYS
28	d6	34	LYS
28	d6	61	GLU
30	d8	36	THR
31	d9	11	PRO
31	d9	17	GLY
33	e1	111	GLU
33	e1	131	PHE
34	sR	279	ALA
35	sM	42	ALA
35	sM	46	LYS
35	sM	171	LYS
39	l2	32	LEU
39	l2	127	ALA
40	l3	386	ASP
41	l4	14	GLU
41	l4	24	ALA
41	l4	43	ASN
41	l4	146	PRO
41	l4	311	HIS
42	l5	178	ASN
42	l5	269	SER
42	l5	270	LYS
42	l5	279	LYS
45	l8	39	ALA
45	l8	69	LEU
45	l8	121	SER
45	l8	133	LYS

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Mol	Chain	Res	Type
45	l8	203	VAL
46	l9	2	LYS
46	l9	108	GLY
46	l9	110	LYS
47	m0	196	PHE
47	m0	204	GLY
48	m1	9	MET
48	m1	114	ILE
49	m3	13	HIS
49	m3	141	ALA
50	m4	10	SER
50	m4	136	ALA
51	m5	104	GLU
51	m5	187	ARG
52	m6	90	HIS
52	m6	163	SER
52	m6	186	ALA
57	n1	80	VAL
57	n1	121	ALA
58	n2	23	THR
60	n4	132	GLY
63	n7	134	LEU
64	n8	129	PHE
65	n9	5	LYS
65	n9	21	ILE
67	o1	25	PHE
68	o2	6	HIS
68	o2	124	GLY
68	o2	127	ALA
69	o3	57	LYS
69	o3	59	VAL
71	o5	82	ALA
71	o5	99	GLN
73	o7	55	ARG
74	o8	18	ALA
77	q1	23	ARG
79	q3	10	ILE
79	q3	51	ALA
2	S0	62	ARG
2	S0	192	THR
2	S0	205	ARG
3	S1	156	ALA

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Mol	Chain	Res	Type
3	S1	207	LEU
3	S1	209	ASN
4	S2	39	THR
4	S2	248	SER
6	S4	39	ARG
6	S4	194	THR
6	S4	245	LYS
7	S5	100	ASN
7	S5	150	GLY
7	S5	154	ALA
8	S6	154	ARG
9	S7	132	PRO
11	S9	162	SER
12	C0	94	GLU
13	C1	4	GLU
13	C1	51	GLY
14	C2	87	PRO
14	C2	101	ALA
14	C2	119	SER
15	C3	19	SER
15	C3	28	LEU
15	C3	137	PRO
15	C3	144	ALA
16	C4	40	ALA
16	C4	75	GLY
17	C5	69	GLU
18	C6	113	ASP
18	C6	124	PRO
19	C7	72	LYS
19	C7	84	TYR
20	C8	61	LEU
20	C8	142	GLY
20	C8	144	ARG
22	D0	17	GLN
25	D3	96	VAL
26	D4	5	VAL
28	D6	64	LEU
29	D7	75	GLU
30	D8	22	ARG
30	D8	35	ASP
33	E1	118	ARG
34	SR	98	GLU

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Mol	Chain	Res	Type
34	SR	237	GLN
35	SM	12	VAL
35	SM	82	THR
35	SM	86	ASN
35	SM	88	ARG
35	SM	101	ASP
35	SM	174	LEU
39	L2	251	LYS
40	L3	155	ALA
40	L3	197	GLU
41	L4	5	GLN
41	L4	140	HIS
41	L4	265	GLU
41	L4	269	SER
41	L4	311	HIS
42	L5	260	PHE
44	L7	217	PRO
44	L7	231	ASN
45	L8	36	ILE
45	L8	94	PHE
45	L8	122	LYS
45	L8	157	VAL
46	L9	177	ASP
47	M0	208	ASN
47	M0	215	GLU
48	M1	108	GLU
48	M1	114	ILE
48	M1	117	ASP
48	M1	151	SER
49	M3	76	THR
50	M4	6	ILE
51	M5	145	ASP
53	M7	23	ARG
53	M7	169	THR
54	M8	162	ALA
54	M8	168	THR
59	N3	47	ASN
60	N4	76	VAL
62	N6	125	LYS
62	N6	126	LEU
63	N7	36	HIS
63	N7	82	PRO

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Mol	Chain	Res	Type
64	N8	24	LYS
64	N8	78	LEU
67	O1	7	VAL
67	O1	84	ASP
70	O4	46	ASP
72	O6	64	SER
78	Q2	96	GLU
79	Q3	7	LYS
2	s0	103	THR
3	s1	60	ALA
3	s1	129	THR
3	s1	207	LEU
4	s2	162	CYS
4	s2	235	LEU
5	s3	142	LEU
6	s4	11	ARG
6	s4	17	HIS
6	s4	23	LEU
6	s4	260	GLY
7	s5	56	ALA
8	s6	143	LYS
9	s7	5	GLN
9	s7	116	ARG
10	s8	62	THR
10	s8	94	ASN
10	s8	107	THR
11	s9	115	LYS
12	c0	3	MET
13	c1	114	ALA
16	c4	96	PRO
16	c4	114	ARG
17	c5	9	LYS
17	c5	12	PHE
17	c5	32	ASP
17	c5	130	ARG
18	c6	97	VAL
18	c6	141	SER
20	c8	55	HIS
20	c8	90	ASN
20	c8	102	ALA
21	c9	29	GLU
22	d0	13	GLU

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Mol	Chain	Res	Type
25	d3	67	ALA
27	d5	103	ARG
28	d6	59	TYR
30	d8	33	LEU
31	d9	12	ARG
33	e1	126	CYS
34	sR	4	ASN
35	sM	43	ASP
35	sM	84	LYS
39	l2	15	ILE
39	l2	56	ALA
39	l2	194	ASN
40	l3	200	GLU
40	l3	239	PRO
41	l4	5	GLN
42	l5	11	ALA
43	l6	10	TYR
43	l6	97	ASN
45	l8	51	LYS
45	l8	82	LEU
47	m0	169	LYS
47	m0	176	LEU
49	m3	60	ALA
50	m4	8	LYS
50	m4	137	LYS
51	m5	68	ARG
51	m5	103	GLU
51	m5	183	THR
52	m6	159	LYS
53	m7	67	ILE
55	m9	143	ILE
58	n2	44	GLU
58	n2	105	LEU
59	n3	16	GLY
61	n5	24	LEU
63	n7	103	GLN
64	n8	12	ARG
67	o1	82	GLU
68	o2	29	ALA
72	o6	4	LYS
72	o6	52	PRO
79	q3	49	ARG

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Mol	Chain	Res	Type
2	S0	33	GLN
3	S1	64	ARG
3	S1	111	ARG
4	S2	67	GLN
4	S2	150	GLN
4	S2	234	PRO
6	S4	38	LEU
6	S4	195	ILE
6	S4	259	GLN
7	S5	127	GLN
8	S6	69	LEU
10	S8	10	LYS
10	S8	86	SER
10	S8	158	SER
13	C1	144	ALA
14	C2	21	GLU
14	C2	108	ARG
14	C2	128	ALA
18	C6	58	ASP
18	C6	112	TYR
20	C8	139	LYS
22	D0	16	GLN
22	D0	21	LYS
22	D0	117	VAL
23	D1	8	LEU
23	D1	10	GLU
23	D1	12	TYR
24	D2	78	ARG
25	D3	5	LYS
25	D3	89	ASN
25	D3	110	LYS
27	D5	55	PRO
30	D8	6	PRO
32	E0	51	ASN
33	E1	83	LYS
33	E1	86	THR
33	E1	100	LEU
34	SR	3	SER
35	SM	22	PRO
39	L2	252	THR
40	L3	317	ILE
41	L4	14	GLU

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Mol	Chain	Res	Type
44	L7	164	SER
44	L7	191	VAL
45	L8	76	ALA
47	M0	24	ARG
48	M1	64	LYS
48	M1	112	LEU
48	M1	173	ASP
49	M3	133	PRO
49	M3	141	ALA
51	M5	94	TYR
56	N0	15	PRO
60	N4	96	LEU
64	N8	117	ARG
65	N9	21	ILE
66	O0	20	SER
67	O1	60	TRP
69	O3	59	VAL
71	O5	75	TYR
72	O6	3	VAL
72	O6	52	PRO
73	O7	87	SER
76	Q0	79	GLU
2	s0	199	PRO
3	s1	22	ASP
3	s1	39	GLU
3	s1	218	LEU
5	s3	43	PRO
6	s4	30	ARG
6	s4	118	GLU
6	s4	168	LYS
9	s7	13	PRO
9	s7	155	ASP
10	s8	78	ILE
11	s9	110	GLN
11	s9	168	ARG
12	c0	24	LYS
13	c1	55	ASP
13	c1	130	PRO
14	c2	40	GLY
14	c2	87	PRO
14	c2	103	LEU
14	c2	118	ALA

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Mol	Chain	Res	Type
15	c3	12	SER
15	c3	22	ALA
15	c3	29	SER
15	c3	108	ASP
16	c4	37	GLU
17	c5	127	ARG
18	c6	32	ASN
19	c7	120	SER
20	c8	14	ILE
22	d0	52	LYS
22	d0	119	ALA
26	d4	84	LYS
28	d6	46	GLU
29	d7	24	LEU
80	e0	47	VAL
33	e1	124	PRO
40	l3	22	ALA
41	l4	144	LYS
41	l4	145	ILE
42	l5	158	ARG
42	l5	220	SER
44	l7	32	ALA
44	l7	159	GLN
44	l7	163	LEU
45	l8	76	ALA
45	l8	112	GLU
45	l8	163	VAL
45	l8	237	ILE
45	l8	249	ARG
46	l9	130	ASP
46	l9	167	VAL
47	m0	220	GLN
48	m1	117	ASP
49	m3	62	THR
49	m3	101	ARG
51	m5	90	ASN
52	m6	47	PHE
60	n4	72	SER
63	n7	28	PRO
65	n9	52	LYS
67	o1	40	ALA
67	o1	90	PHE

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Mol	Chain	Res	Type
67	o1	97	LEU
70	o4	76	TYR
73	o7	85	LYS
77	q1	22	ALA
82	p0	33	VAL
82	p0	102	SER
2	S0	194	PRO
3	S1	60	ALA
4	S2	36	VAL
7	S5	45	LYS
9	S7	125	ILE
11	S9	121	SER
15	C3	117	LEU
19	C7	96	SER
24	D2	83	ILE
27	D5	41	ILE
28	D6	88	SER
30	D8	20	GLY
31	D9	11	PRO
33	E1	85	TYR
34	SR	50	ASP
39	L2	14	SER
40	L3	244	ARG
40	L3	307	PRO
41	L4	23	PRO
43	L6	6	ALA
44	L7	91	GLY
46	L9	59	ASN
46	L9	66	ALA
51	M5	77	LYS
52	M6	16	VAL
52	M6	121	PRO
56	N0	129	ILE
57	N1	18	ASP
58	N2	21	SER
58	N2	27	VAL
60	N4	75	THR
61	N5	50	ALA
63	N7	16	GLY
63	N7	103	GLN
64	N8	96	LYS
71	O5	119	LYS

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Mol	Chain	Res	Type
72	O6	94	ILE
78	Q2	34	SER
79	Q3	51	ALA
2	s0	44	GLY
3	s1	154	SER
4	s2	173	PRO
4	s2	233	GLN
5	s3	45	LYS
5	s3	81	PRO
6	s4	31	PRO
6	s4	214	LEU
6	s4	245	LYS
7	s5	100	ASN
9	s7	53	GLY
9	s7	159	VAL
11	s9	164	PHE
12	c0	95	ARG
12	c0	96	ASN
14	c2	54	ARG
15	c3	137	PRO
16	c4	125	SER
17	c5	100	LYS
20	c8	29	VAL
23	d1	42	GLU
25	d3	27	ASN
33	e1	83	LYS
33	e1	112	GLY
39	l2	41	ILE
39	l2	80	GLU
39	l2	125	ALA
42	l5	12	TYR
42	l5	125	VAL
48	m1	12	LEU
57	n1	124	VAL
60	n4	98	PRO
63	n7	130	PHE
70	o4	78	GLY
3	S1	210	ILE
8	S6	146	GLY
34	SR	206	PRO
35	SM	111	GLY
59	N3	134	GLY

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Mol	Chain	Res	Type
68	O2	70	GLY
2	s0	139	VAL
3	s1	114	VAL
4	s2	150	GLN
5	s3	161	GLY
11	s9	162	SER
23	d1	9	VAL
34	sR	49	GLY
40	l3	305	ILE
44	l7	178	ILE
76	q0	78	ILE
3	S1	21	VAL
6	S4	196	VAL
13	C1	130	PRO
15	C3	11	ILE
19	C7	124	VAL
23	D1	46	ILE
35	SM	20	LEU
44	L7	178	ILE
47	M0	148	VAL
60	N4	16	GLY
64	N8	70	LYS
9	s7	100	PRO
9	s7	172	VAL
10	s8	108	PRO
11	s9	165	GLY
22	d0	19	ILE
23	d1	43	GLY
47	m0	47	PRO
55	m9	48	GLY
64	n8	138	ILE
79	q3	71	VAL
7	S5	89	ILE
12	C0	92	ILE
16	C4	57	PRO
43	L6	36	PRO
49	M3	46	ILE
74	O8	37	PRO
79	Q3	50	GLY
79	Q3	71	VAL
4	s2	182	PRO
7	s5	30	PRO

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Mol	Chain	Res	Type
13	c1	7	VAL
14	c2	91	VAL
34	sR	194	GLY
47	m0	70	ILE
49	m3	50	PRO
74	o8	37	PRO
3	S1	176	VAL
6	S4	233	LYS
7	S5	33	VAL
8	S6	70	PRO
11	S9	160	PRO
13	C1	113	PRO
14	C2	82	PRO
33	E1	127	GLY
34	SR	28	GLY
35	SM	172	VAL
42	L5	19	PRO
42	L5	125	VAL
2	s0	68	PRO
3	s1	221	PRO
8	s6	26	VAL
9	s7	144	VAL
14	c2	89	ILE
15	c3	47	PRO
20	c8	28	ILE
40	l3	33	PRO
47	m0	43	VAL
9	S7	172	VAL
14	C2	22	VAL
23	D1	82	VAL
26	D4	35	VAL
32	E0	50	VAL
60	N4	80	ARG
7	s5	29	ILE
47	m0	179	PRO
58	n2	48	GLY
60	n4	15	PRO
67	o1	59	ILE

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	164/209 (78%)	135 (82%)	29 (18%)	2 10
2	s0	165/209 (79%)	131 (79%)	34 (21%)	1 6
3	S1	191/223 (86%)	149 (78%)	42 (22%)	1 4
3	s1	192/223 (86%)	156 (81%)	36 (19%)	2 8
4	S2	176/204 (86%)	134 (76%)	42 (24%)	1 3
4	s2	176/204 (86%)	128 (73%)	48 (27%)	0 2
5	S3	182/194 (94%)	141 (78%)	41 (22%)	1 4
5	s3	182/194 (94%)	144 (79%)	38 (21%)	1 5
6	S4	221/221 (100%)	177 (80%)	44 (20%)	1 6
6	s4	221/221 (100%)	183 (83%)	38 (17%)	2 11
7	S5	173/190 (91%)	143 (83%)	30 (17%)	2 11
7	s5	173/190 (91%)	144 (83%)	29 (17%)	2 12
8	S6	188/201 (94%)	154 (82%)	34 (18%)	2 9
8	s6	187/201 (93%)	153 (82%)	34 (18%)	2 9
9	S7	165/169 (98%)	135 (82%)	30 (18%)	2 9
9	s7	165/169 (98%)	130 (79%)	35 (21%)	1 5
10	S8	150/161 (93%)	117 (78%)	33 (22%)	1 4
10	s8	150/161 (93%)	124 (83%)	26 (17%)	2 11
11	S9	158/165 (96%)	120 (76%)	38 (24%)	1 3
11	s9	158/165 (96%)	120 (76%)	38 (24%)	1 3
12	C0	77/98 (79%)	66 (86%)	11 (14%)	4 19
12	c0	73/98 (74%)	63 (86%)	10 (14%)	4 20
13	C1	129/136 (95%)	109 (84%)	20 (16%)	3 15
13	c1	129/136 (95%)	104 (81%)	25 (19%)	1 7
14	C2	88/118 (75%)	67 (76%)	21 (24%)	1 3
14	c2	88/118 (75%)	71 (81%)	17 (19%)	1 7

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
15	C3	127/127 (100%)	104 (82%)	23 (18%)	2 9
15	c3	127/127 (100%)	93 (73%)	34 (27%)	0 2
16	C4	81/104 (78%)	61 (75%)	20 (25%)	1 2
16	c4	97/104 (93%)	69 (71%)	28 (29%)	0 1
17	C5	101/117 (86%)	83 (82%)	18 (18%)	2 10
17	c5	103/117 (88%)	90 (87%)	13 (13%)	5 23
18	C6	117/118 (99%)	92 (79%)	25 (21%)	1 5
18	c6	118/118 (100%)	91 (77%)	27 (23%)	1 4
19	C7	94/124 (76%)	70 (74%)	24 (26%)	0 2
19	c7	92/124 (74%)	74 (80%)	18 (20%)	1 7
20	C8	128/128 (100%)	102 (80%)	26 (20%)	1 6
20	c8	128/128 (100%)	99 (77%)	29 (23%)	1 4
21	C9	115/115 (100%)	93 (81%)	22 (19%)	2 7
21	c9	115/115 (100%)	91 (79%)	24 (21%)	1 5
22	D0	100/113 (88%)	81 (81%)	19 (19%)	2 8
22	d0	103/113 (91%)	76 (74%)	27 (26%)	0 2
23	D1	74/74 (100%)	56 (76%)	18 (24%)	1 3
23	d1	74/74 (100%)	53 (72%)	21 (28%)	0 2
24	D2	110/110 (100%)	92 (84%)	18 (16%)	2 13
24	d2	110/110 (100%)	96 (87%)	14 (13%)	5 23
25	D3	119/119 (100%)	100 (84%)	19 (16%)	3 14
25	d3	119/119 (100%)	94 (79%)	25 (21%)	1 5
26	D4	112/112 (100%)	92 (82%)	20 (18%)	2 10
26	d4	112/112 (100%)	91 (81%)	21 (19%)	2 8
27	D5	61/88 (69%)	42 (69%)	19 (31%)	0 1
27	d5	61/88 (69%)	53 (87%)	8 (13%)	5 22
28	D6	83/83 (100%)	60 (72%)	23 (28%)	0 2
28	d6	83/83 (100%)	62 (75%)	21 (25%)	0 2
29	D7	70/70 (100%)	58 (83%)	12 (17%)	2 11
29	d7	70/70 (100%)	62 (89%)	8 (11%)	7 28
30	D8	56/59 (95%)	44 (79%)	12 (21%)	1 5

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
30	d8	56/59 (95%)	46 (82%)	10 (18%)	2 10
31	D9	47/48 (98%)	41 (87%)	6 (13%)	5 22
31	d9	47/48 (98%)	35 (74%)	12 (26%)	0 2
32	E0	51/51 (100%)	42 (82%)	9 (18%)	2 10
33	E1	62/66 (94%)	41 (66%)	21 (34%)	0 1
33	e1	66/66 (100%)	50 (76%)	16 (24%)	1 3
34	SR	260/261 (100%)	227 (87%)	33 (13%)	5 23
34	sR	260/261 (100%)	221 (85%)	39 (15%)	3 16
35	SM	97/228 (42%)	75 (77%)	22 (23%)	1 4
35	sM	54/228 (24%)	42 (78%)	12 (22%)	1 4
39	L2	193/195 (99%)	155 (80%)	38 (20%)	1 7
39	l2	192/195 (98%)	150 (78%)	42 (22%)	1 5
40	L3	321/322 (100%)	250 (78%)	71 (22%)	1 4
40	l3	320/322 (99%)	250 (78%)	70 (22%)	1 5
41	L4	288/288 (100%)	224 (78%)	64 (22%)	1 4
41	l4	288/288 (100%)	222 (77%)	66 (23%)	1 4
42	L5	244/244 (100%)	199 (82%)	45 (18%)	2 9
42	l5	243/244 (100%)	190 (78%)	53 (22%)	1 5
43	L6	134/152 (88%)	115 (86%)	19 (14%)	4 19
43	l6	135/152 (89%)	114 (84%)	21 (16%)	3 15
44	L7	186/204 (91%)	162 (87%)	24 (13%)	5 22
44	l7	187/204 (92%)	158 (84%)	29 (16%)	3 15
45	L8	187/207 (90%)	145 (78%)	42 (22%)	1 4
45	l8	177/207 (86%)	143 (81%)	34 (19%)	1 7
46	L9	171/171 (100%)	136 (80%)	35 (20%)	1 6
46	l9	171/171 (100%)	127 (74%)	44 (26%)	0 2
47	M0	177/186 (95%)	143 (81%)	34 (19%)	1 7
47	m0	179/186 (96%)	146 (82%)	33 (18%)	2 9
48	M1	147/150 (98%)	116 (79%)	31 (21%)	1 5
48	m1	147/150 (98%)	110 (75%)	37 (25%)	0 2
49	M3	154/158 (98%)	130 (84%)	24 (16%)	3 15

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
49	m3	154/158 (98%)	123 (80%)	31 (20%)	1 6
50	M4	107/108 (99%)	88 (82%)	19 (18%)	2 10
50	m4	108/108 (100%)	89 (82%)	19 (18%)	2 10
51	M5	175/175 (100%)	142 (81%)	33 (19%)	2 8
51	m5	175/175 (100%)	142 (81%)	33 (19%)	2 8
52	M6	160/161 (99%)	133 (83%)	27 (17%)	2 12
52	m6	160/161 (99%)	126 (79%)	34 (21%)	1 5
53	M7	140/145 (97%)	110 (79%)	30 (21%)	1 5
53	m7	125/145 (86%)	100 (80%)	25 (20%)	1 6
54	M8	150/150 (100%)	132 (88%)	18 (12%)	6 26
54	m8	150/150 (100%)	120 (80%)	30 (20%)	1 6
55	M9	153/153 (100%)	125 (82%)	28 (18%)	2 9
55	m9	153/153 (100%)	126 (82%)	27 (18%)	2 10
56	N0	156/156 (100%)	125 (80%)	31 (20%)	1 6
56	n0	156/156 (100%)	120 (77%)	36 (23%)	1 4
57	N1	136/136 (100%)	109 (80%)	27 (20%)	1 6
57	n1	136/136 (100%)	104 (76%)	32 (24%)	1 3
58	N2	87/106 (82%)	77 (88%)	10 (12%)	6 28
58	n2	85/106 (80%)	69 (81%)	16 (19%)	2 8
59	N3	104/104 (100%)	84 (81%)	20 (19%)	1 7
59	n3	104/104 (100%)	90 (86%)	14 (14%)	4 20
60	N4	57/129 (44%)	51 (90%)	6 (10%)	8 31
60	n4	100/129 (78%)	83 (83%)	17 (17%)	2 11
61	N5	104/117 (89%)	81 (78%)	23 (22%)	1 4
61	n5	104/117 (89%)	82 (79%)	22 (21%)	1 5
62	N6	109/109 (100%)	83 (76%)	26 (24%)	1 3
62	n6	109/109 (100%)	85 (78%)	24 (22%)	1 4
63	N7	115/115 (100%)	89 (77%)	26 (23%)	1 4
63	n7	115/115 (100%)	90 (78%)	25 (22%)	1 5
64	N8	118/118 (100%)	96 (81%)	22 (19%)	2 8
64	n8	118/118 (100%)	94 (80%)	24 (20%)	1 6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
65	N9	46/46 (100%)	37 (80%)	9 (20%)	1 7
65	n9	46/46 (100%)	35 (76%)	11 (24%)	1 3
66	O0	81/87 (93%)	61 (75%)	20 (25%)	1 2
66	o0	84/87 (97%)	67 (80%)	17 (20%)	1 6
67	O1	92/96 (96%)	73 (79%)	19 (21%)	1 6
67	o1	94/96 (98%)	70 (74%)	24 (26%)	0 2
68	O2	109/110 (99%)	86 (79%)	23 (21%)	1 5
68	o2	109/110 (99%)	85 (78%)	24 (22%)	1 4
69	O3	90/90 (100%)	74 (82%)	16 (18%)	2 10
69	o3	90/90 (100%)	70 (78%)	20 (22%)	1 4
70	O4	95/101 (94%)	74 (78%)	21 (22%)	1 4
70	o4	95/101 (94%)	73 (77%)	22 (23%)	1 3
71	O5	104/104 (100%)	84 (81%)	20 (19%)	1 7
71	o5	103/104 (99%)	80 (78%)	23 (22%)	1 4
72	O6	81/81 (100%)	64 (79%)	17 (21%)	1 5
72	o6	80/81 (99%)	58 (72%)	22 (28%)	0 2
73	O7	70/70 (100%)	55 (79%)	15 (21%)	1 5
73	o7	70/70 (100%)	57 (81%)	13 (19%)	2 8
74	O8	68/68 (100%)	50 (74%)	18 (26%)	0 2
74	o8	67/68 (98%)	51 (76%)	16 (24%)	1 3
75	O9	45/45 (100%)	38 (84%)	7 (16%)	3 15
75	o9	45/45 (100%)	37 (82%)	8 (18%)	2 10
76	Q0	47/47 (100%)	40 (85%)	7 (15%)	3 17
76	q0	47/47 (100%)	33 (70%)	14 (30%)	0 1
77	Q1	23/23 (100%)	16 (70%)	7 (30%)	0 1
77	q1	23/23 (100%)	15 (65%)	8 (35%)	0 1
78	Q2	90/90 (100%)	68 (76%)	22 (24%)	1 3
78	q2	90/90 (100%)	73 (81%)	17 (19%)	2 8
79	Q3	71/71 (100%)	58 (82%)	13 (18%)	2 9
79	q3	71/71 (100%)	55 (78%)	16 (22%)	1 4
80	e0	53/53 (100%)	38 (72%)	15 (28%)	0 2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
82	p0	105/253 (42%)	84 (80%)	21 (20%)	1 6
All	All	18729/20239 (92%)	14954 (80%)	3775 (20%)	1 6

All (3775) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	S0	7	PHE
2	S0	12	GLU
2	S0	17	LEU
2	S0	22	THR
2	S0	32	HIS
2	S0	37	VAL
2	S0	41	ARG
2	S0	50	VAL
2	S0	59	LEU
2	S0	84	ARG
2	S0	86	VAL
2	S0	87	LEU
2	S0	88	LYS
2	S0	96	THR
2	S0	101	ARG
2	S0	111	ILE
2	S0	131	GLN
2	S0	140	ASN
2	S0	150	ASP
2	S0	156	VAL
2	S0	157	ASP
2	S0	170	ILE
2	S0	172	LEU
2	S0	179	ARG
2	S0	184	LEU
2	S0	185	ARG
2	S0	188	LEU
2	S0	196	SER
2	S0	197	ILE
3	S1	21	VAL
3	S1	25	THR
3	S1	26	ARG
3	S1	29	TRP
3	S1	30	PHE
3	S1	36	SER
3	S1	39	GLU

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Mol	Chain	Res	Type
3	S1	42	ASN
3	S1	46	THR
3	S1	51	SER
3	S1	61	LEU
3	S1	70	LEU
3	S1	77	GLU
3	S1	78	ASP
3	S1	80	SER
3	S1	81	PHE
3	S1	85	LYS
3	S1	89	ASP
3	S1	96	LEU
3	S1	97	LEU
3	S1	105	PHE
3	S1	111	ARG
3	S1	112	SER
3	S1	117	TRP
3	S1	126	THR
3	S1	129	THR
3	S1	135	LEU
3	S1	144	ARG
3	S1	146	GLN
3	S1	148	ASN
3	S1	153	HIS
3	S1	154	SER
3	S1	169	SER
3	S1	177	GLN
3	S1	179	SER
3	S1	181	LEU
3	S1	191	GLU
3	S1	193	ILE
3	S1	202	LYS
3	S1	215	VAL
3	S1	222	LYS
3	S1	223	PHE
4	S2	41	LEU
4	S2	50	ILE
4	S2	53	ILE
4	S2	56	ILE
4	S2	60	SER
4	S2	69	ILE
4	S2	72	LEU

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Mol	Chain	Res	Type
4	S2	73	LEU
4	S2	77	GLN
4	S2	79	GLU
4	S2	80	VAL
4	S2	87	GLN
4	S2	89	GLN
4	S2	91	ARG
4	S2	94	GLN
4	S2	95	ARG
4	S2	96	THR
4	S2	97	ARG
4	S2	111	VAL
4	S2	116	LYS
4	S2	117	THR
4	S2	134	LEU
4	S2	140	ARG
4	S2	141	ARG
4	S2	146	THR
4	S2	148	LEU
4	S2	159	THR
4	S2	166	THR
4	S2	187	LEU
4	S2	190	LEU
4	S2	207	LEU
4	S2	208	GLU
4	S2	221	THR
4	S2	224	PHE
4	S2	225	LEU
4	S2	226	THR
4	S2	229	LEU
4	S2	235	LEU
4	S2	237	VAL
4	S2	240	LEU
4	S2	245	ASP
4	S2	246	GLU
5	S3	4	LEU
5	S3	7	LYS
5	S3	9	ARG
5	S3	14	ASP
5	S3	21	LEU
5	S3	23	GLU
5	S3	44	THR

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Mol	Chain	Res	Type
5	S3	65	ARG
5	S3	70	THR
5	S3	76	ARG
5	S3	84	ILE
5	S3	89	GLU
5	S3	92	GLN
5	S3	93	ASP
5	S3	94	ARG
5	S3	99	VAL
5	S3	103	GLU
5	S3	104	SER
5	S3	111	ASN
5	S3	113	LEU
5	S3	115	ILE
5	S3	117	ARG
5	S3	128	GLU
5	S3	134	CYS
5	S3	139	SER
5	S3	143	ARG
5	S3	151	LYS
5	S3	157	LEU
5	S3	158	ILE
5	S3	172	THR
5	S3	176	LEU
5	S3	177	MET
5	S3	178	ARG
5	S3	181	VAL
5	S3	182	LEU
5	S3	190	ARG
5	S3	195	SER
5	S3	202	LEU
5	S3	204	ASP
5	S3	215	GLU
5	S3	222	VAL
6	S4	9	LEU
6	S4	12	LEU
6	S4	21	ASP
6	S4	38	LEU
6	S4	42	LEU
6	S4	45	ILE
6	S4	49	ARG
6	S4	56	LEU

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Mol	Chain	Res	Type
6	S4	67	GLN
6	S4	68	ARG
6	S4	69	HIS
6	S4	70	VAL
6	S4	77	ARG
6	S4	78	THR
6	S4	92	LEU
6	S4	96	ASN
6	S4	102	VAL
6	S4	108	ARG
6	S4	116	ASP
6	S4	126	VAL
6	S4	129	VAL
6	S4	131	LEU
6	S4	133	LYS
6	S4	156	VAL
6	S4	180	LEU
6	S4	182	TYR
6	S4	184	THR
6	S4	187	ARG
6	S4	192	ILE
6	S4	197	HIS
6	S4	211	LYS
6	S4	212	ASP
6	S4	215	ASP
6	S4	219	VAL
6	S4	221	ARG
6	S4	223	ASN
6	S4	226	PHE
6	S4	227	VAL
6	S4	233	LYS
6	S4	238	LEU
6	S4	240	LYS
6	S4	242	LYS
6	S4	246	LEU
6	S4	259	GLN
7	S5	23	VAL
7	S5	25	LEU
7	S5	32	GLU
7	S5	38	THR
7	S5	41	LYS
7	S5	43	PHE

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Mol	Chain	Res	Type
7	S5	45	LYS
7	S5	49	GLU
7	S5	53	VAL
7	S5	65	ARG
7	S5	70	VAL
7	S5	76	ARG
7	S5	79	ASN
7	S5	81	ARG
7	S5	86	GLN
7	S5	89	ILE
7	S5	93	LEU
7	S5	94	THR
7	S5	97	LEU
7	S5	99	MET
7	S5	131	GLN
7	S5	147	THR
7	S5	148	ARG
7	S5	156	ARG
7	S5	157	ARG
7	S5	160	VAL
7	S5	162	VAL
7	S5	163	SER
7	S5	186	ASN
7	S5	217	LEU
8	S6	6	SER
8	S6	15	THR
8	S6	21	GLU
8	S6	25	ARG
8	S6	30	LYS
8	S6	58	LYS
8	S6	71	THR
8	S6	76	LEU
8	S6	78	THR
8	S6	79	LYS
8	S6	98	ARG
8	S6	101	ILE
8	S6	109	LEU
8	S6	115	LYS
8	S6	120	GLU
8	S6	124	LEU
8	S6	125	THR
8	S6	126	ASP

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Mol	Chain	Res	Type
8	S6	127	THR
8	S6	128	THR
8	S6	129	VAL
8	S6	132	ARG
8	S6	133	LEU
8	S6	151	ASP
8	S6	155	ASP
8	S6	169	TYR
8	S6	170	THR
8	S6	175	ILE
8	S6	176	GLN
8	S6	182	GLN
8	S6	193	LEU
8	S6	201	GLN
8	S6	212	LEU
8	S6	223	LYS
9	S7	11	GLN
9	S7	28	GLU
9	S7	38	LEU
9	S7	46	ILE
9	S7	50	ASP
9	S7	51	VAL
9	S7	60	ILE
9	S7	66	SER
9	S7	67	LEU
9	S7	70	PHE
9	S7	74	GLN
9	S7	85	PHE
9	S7	97	ARG
9	S7	104	ARG
9	S7	106	SER
9	S7	110	GLN
9	S7	114	ARG
9	S7	116	ARG
9	S7	118	LEU
9	S7	126	LEU
9	S7	129	LEU
9	S7	144	VAL
9	S7	147	ASN
9	S7	149	ILE
9	S7	156	SER
9	S7	163	ASP

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Mol	Chain	Res	Type
9	S7	166	LEU
9	S7	167	GLU
9	S7	168	SER
9	S7	185	ILE
10	S8	4	SER
10	S8	8	ARG
10	S8	9	HIS
10	S8	14	THR
10	S8	20	GLN
10	S8	21	PHE
10	S8	22	ARG
10	S8	25	ARG
10	S8	26	LYS
10	S8	29	LEU
10	S8	31	ARG
10	S8	36	THR
10	S8	46	VAL
10	S8	49	ARG
10	S8	56	ARG
10	S8	58	LEU
10	S8	73	SER
10	S8	75	LYS
10	S8	82	VAL
10	S8	97	THR
10	S8	103	GLN
10	S8	107	THR
10	S8	121	LEU
10	S8	135	LYS
10	S8	138	ASN
10	S8	151	LYS
10	S8	152	ILE
10	S8	160	PHE
10	S8	164	ARG
10	S8	168	CYS
10	S8	184	LEU
10	S8	193	LEU
10	S8	196	LEU
11	S9	3	ARG
11	S9	6	ARG
11	S9	9	SER
11	S9	14	THR
11	S9	16	LYS

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Mol	Chain	Res	Type
11	S9	22	SER
11	S9	28	LEU
11	S9	30	LEU
11	S9	39	LYS
11	S9	40	LYS
11	S9	46	SER
11	S9	59	LEU
11	S9	78	ARG
11	S9	82	ARG
11	S9	83	VAL
11	S9	87	SER
11	S9	89	ASP
11	S9	93	LEU
11	S9	97	LEU
11	S9	99	LEU
11	S9	101	VAL
11	S9	105	LEU
11	S9	109	LEU
11	S9	118	LEU
11	S9	121	SER
11	S9	122	VAL
11	S9	126	ARG
11	S9	134	ILE
11	S9	138	LYS
11	S9	140	ILE
11	S9	149	ARG
11	S9	151	ASP
11	S9	157	ASP
11	S9	161	THR
11	S9	171	ARG
11	S9	172	VAL
11	S9	174	ARG
11	S9	182	GLU
12	C0	8	ARG
12	C0	27	PHE
12	C0	31	LYS
12	C0	46	LEU
12	C0	55	VAL
12	C0	56	LYS
12	C0	71	GLU
12	C0	76	LEU
12	C0	78	GLU

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Mol	Chain	Res	Type
12	C0	81	ASN
12	C0	82	LEU
13	C1	2	SER
13	C1	10	GLU
13	C1	21	ASN
13	C1	29	LYS
13	C1	37	ASN
13	C1	40	LEU
13	C1	44	THR
13	C1	56	LYS
13	C1	63	LEU
13	C1	67	ARG
13	C1	69	LYS
13	C1	83	THR
13	C1	109	VAL
13	C1	119	VAL
13	C1	123	VAL
13	C1	127	GLN
13	C1	131	ILE
13	C1	136	ARG
13	C1	141	LYS
13	C1	143	SER
14	C2	28	LEU
14	C2	36	LEU
14	C2	37	VAL
14	C2	43	ARG
14	C2	45	LEU
14	C2	46	ARG
14	C2	50	LYS
14	C2	52	LEU
14	C2	54	ARG
14	C2	66	VAL
14	C2	71	ILE
14	C2	74	LEU
14	C2	86	VAL
14	C2	89	ILE
14	C2	97	LEU
14	C2	103	LEU
14	C2	121	VAL
14	C2	126	TRP
14	C2	129	GLU
14	C2	132	GLU

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Mol	Chain	Res	Type
14	C2	139	HIS
15	C3	6	SER
15	C3	9	LYS
15	C3	13	SER
15	C3	19	SER
15	C3	27	LYS
15	C3	34	ILE
15	C3	39	LYS
15	C3	64	ARG
15	C3	66	ILE
15	C3	73	ARG
15	C3	76	LYS
15	C3	94	LYS
15	C3	99	ARG
15	C3	102	LEU
15	C3	109	LYS
15	C3	110	ASP
15	C3	114	ARG
15	C3	115	LEU
15	C3	125	LEU
15	C3	134	VAL
15	C3	142	GLU
15	C3	145	THR
15	C3	151	ASN
16	C4	13	VAL
16	C4	16	VAL
16	C4	29	HIS
16	C4	30	VAL
16	C4	39	ILE
16	C4	42	VAL
16	C4	43	THR
16	C4	48	VAL
16	C4	81	VAL
16	C4	84	ARG
16	C4	92	LYS
16	C4	93	THR
16	C4	108	SER
16	C4	118	VAL
16	C4	123	SER
16	C4	129	LYS
16	C4	132	ARG
16	C4	133	ARG

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Mol	Chain	Res	Type
16	C4	136	ARG
16	C4	137	LEU
17	C5	13	LYS
17	C5	22	LEU
17	C5	26	LEU
17	C5	31	GLU
17	C5	34	VAL
17	C5	35	LYS
17	C5	36	LEU
17	C5	44	ARG
17	C5	52	LYS
17	C5	69	GLU
17	C5	84	ILE
17	C5	86	VAL
17	C5	89	MET
17	C5	110	GLU
17	C5	121	ILE
17	C5	124	THR
17	C5	125	PRO
17	C5	128	HIS
18	C6	4	VAL
18	C6	14	LYS
18	C6	19	VAL
18	C6	29	ILE
18	C6	36	ILE
18	C6	43	ILE
18	C6	44	LEU
18	C6	47	LYS
18	C6	53	LEU
18	C6	54	LEU
18	C6	57	LEU
18	C6	66	ARG
18	C6	68	ARG
18	C6	69	VAL
18	C6	70	THR
18	C6	82	ARG
18	C6	98	ASP
18	C6	106	LYS
18	C6	118	ILE
18	C6	121	SER
18	C6	123	ARG
18	C6	127	LYS

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Mol	Chain	Res	Type
18	C6	137	ARG
18	C6	138	PHE
18	C6	141	SER
19	C7	3	ARG
19	C7	5	ARG
19	C7	6	THR
19	C7	25	THR
19	C7	30	THR
19	C7	32	LYS
19	C7	34	LEU
19	C7	38	ILE
19	C7	42	GLN
19	C7	46	LEU
19	C7	49	LYS
19	C7	54	THR
19	C7	62	GLN
19	C7	69	ILE
19	C7	72	LYS
19	C7	78	ARG
19	C7	83	GLN
19	C7	84	TYR
19	C7	87	GLU
19	C7	104	ASN
19	C7	105	GLN
19	C7	113	LEU
19	C7	115	LEU
19	C7	119	LEU
20	C8	3	LEU
20	C8	5	VAL
20	C8	8	GLN
20	C8	11	PHE
20	C8	13	HIS
20	C8	14	ILE
20	C8	18	LEU
20	C8	20	THR
20	C8	28	ILE
20	C8	40	ARG
20	C8	60	GLU
20	C8	61	LEU
20	C8	71	GLN
20	C8	77	THR
20	C8	80	LYS

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Mol	Chain	Res	Type
20	C8	86	LEU
20	C8	93	THR
20	C8	94	ASP
20	C8	97	ASP
20	C8	108	LYS
20	C8	110	ARG
20	C8	115	ARG
20	C8	120	ARG
20	C8	132	ARG
20	C8	136	GLN
20	C8	141	THR
21	C9	4	VAL
21	C9	6	VAL
21	C9	18	TYR
21	C9	22	LEU
21	C9	28	LEU
21	C9	30	VAL
21	C9	33	TYR
21	C9	34	VAL
21	C9	35	ASP
21	C9	36	ILE
21	C9	48	GLN
21	C9	57	ARG
21	C9	67	MET
21	C9	89	ARG
21	C9	105	LEU
21	C9	116	ILE
21	C9	126	GLU
21	C9	127	ASN
21	C9	130	ARG
21	C9	131	ASP
21	C9	139	THR
21	C9	144	GLU
22	D0	18	GLN
22	D0	22	ILE
22	D0	23	ARG
22	D0	27	THR
22	D0	29	THR
22	D0	31	VAL
22	D0	33	GLN
22	D0	34	LEU
22	D0	47	GLN

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Mol	Chain	Res	Type
22	D0	48	HIS
22	D0	51	VAL
22	D0	57	ARG
22	D0	61	LYS
22	D0	74	GLU
22	D0	76	SER
22	D0	89	ARG
22	D0	99	ILE
22	D0	103	ILE
22	D0	121	ASN
23	D1	3	ASN
23	D1	5	LYS
23	D1	9	VAL
23	D1	10	GLU
23	D1	11	LEU
23	D1	18	SER
23	D1	31	SER
23	D1	32	VAL
23	D1	41	GLU
23	D1	52	THR
23	D1	56	SER
23	D1	59	VAL
23	D1	61	SER
23	D1	65	SER
23	D1	69	LEU
23	D1	74	GLN
23	D1	82	VAL
23	D1	84	SER
24	D2	7	LEU
24	D2	23	ARG
24	D2	24	GLN
24	D2	25	VAL
24	D2	53	ILE
24	D2	56	HIS
24	D2	65	LEU
24	D2	71	LYS
24	D2	81	VAL
24	D2	87	GLU
24	D2	93	LEU
24	D2	97	ARG
24	D2	98	GLN
24	D2	103	ILE

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Mol	Chain	Res	Type
24	D2	104	LEU
24	D2	105	THR
24	D2	121	VAL
24	D2	129	VAL
25	D3	7	ARG
25	D3	16	ARG
25	D3	19	ARG
25	D3	31	LYS
25	D3	34	LEU
25	D3	53	VAL
25	D3	59	ILE
25	D3	71	CYS
25	D3	73	ARG
25	D3	75	GLN
25	D3	78	LYS
25	D3	84	THR
25	D3	96	VAL
25	D3	103	LEU
25	D3	107	PHE
25	D3	109	ARG
25	D3	114	LYS
25	D3	138	GLU
25	D3	144	ARG
26	D4	14	SER
26	D4	17	LEU
26	D4	28	LEU
26	D4	29	HIS
26	D4	32	ARG
26	D4	34	ASN
26	D4	52	LYS
26	D4	57	VAL
26	D4	61	ARG
26	D4	74	LEU
26	D4	78	SER
26	D4	79	VAL
26	D4	84	LYS
26	D4	96	LEU
26	D4	98	GLU
26	D4	99	LYS
26	D4	102	LYS
26	D4	112	LYS
26	D4	124	ARG

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Mol	Chain	Res	Type
26	D4	127	LYS
27	D5	37	GLN
27	D5	42	LEU
27	D5	43	ASP
27	D5	48	ASP
27	D5	58	ARG
27	D5	59	TYR
27	D5	60	VAL
27	D5	62	VAL
27	D5	63	SER
27	D5	69	LEU
27	D5	71	ILE
27	D5	75	LEU
27	D5	85	LYS
27	D5	92	ILE
27	D5	95	HIS
27	D5	96	SER
27	D5	100	ILE
27	D5	103	ARG
27	D5	105	THR
28	D6	7	SER
28	D6	15	ARG
28	D6	18	VAL
28	D6	30	ILE
28	D6	36	ILE
28	D6	38	ARG
28	D6	39	MET
28	D6	44	ILE
28	D6	45	VAL
28	D6	52	ASP
28	D6	61	GLU
28	D6	64	LEU
28	D6	66	LYS
28	D6	68	TYR
28	D6	69	ASN
28	D6	70	LYS
28	D6	76	SER
28	D6	79	ILE
28	D6	82	ARG
28	D6	83	ILE
28	D6	85	ARG
28	D6	87	ARG

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Mol	Chain	Res	Type
28	D6	90	GLU
29	D7	3	LEU
29	D7	20	LYS
29	D7	26	GLN
29	D7	30	SER
29	D7	33	LEU
29	D7	43	ILE
29	D7	45	THR
29	D7	55	THR
29	D7	63	LEU
29	D7	67	THR
29	D7	74	SER
29	D7	79	PHE
30	D8	5	THR
30	D8	14	LYS
30	D8	19	THR
30	D8	34	GLU
30	D8	36	THR
30	D8	38	ARG
30	D8	39	THR
30	D8	49	ARG
30	D8	51	ASN
30	D8	54	LEU
30	D8	58	GLU
30	D8	61	ARG
31	D9	6	VAL
31	D9	7	TRP
31	D9	12	ARG
31	D9	40	ARG
31	D9	41	GLN
31	D9	49	ASP
32	E0	16	SER
32	E0	20	LYS
32	E0	26	LYS
32	E0	28	LYS
32	E0	38	LEU
32	E0	42	ARG
32	E0	47	VAL
32	E0	49	LEU
32	E0	50	VAL
33	E1	86	THR
33	E1	89	LYS

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Mol	Chain	Res	Type
33	E1	91	ILE
33	E1	97	LYS
33	E1	98	VAL
33	E1	103	LEU
33	E1	108	VAL
33	E1	113	LYS
33	E1	115	THR
33	E1	117	LEU
33	E1	118	ARG
33	E1	120	GLU
33	E1	126	CYS
33	E1	130	VAL
33	E1	135	HIS
33	E1	137	ASP
33	E1	139	LEU
33	E1	140	TYR
33	E1	145	HIS
33	E1	146	SER
33	E1	151	ASN
34	SR	6	VAL
34	SR	7	LEU
34	SR	10	ARG
34	SR	29	GLN
34	SR	52	GLN
34	SR	60	SER
34	SR	66	HIS
34	SR	76	ASP
34	SR	100	TYR
34	SR	102	ARG
34	SR	117	LYS
34	SR	136	ILE
34	SR	143	THR
34	SR	144	LEU
34	SR	145	LEU
34	SR	149	ASP
34	SR	188	ILE
34	SR	193	ILE
34	SR	195	HIS
34	SR	207	ASP
34	SR	232	TYR
34	SR	238	ASP
34	SR	256	THR

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Mol	Chain	Res	Type
34	SR	258	THR
34	SR	266	ASP
34	SR	270	LEU
34	SR	277	GLU
34	SR	291	SER
34	SR	292	LEU
34	SR	300	THR
34	SR	308	ASN
34	SR	314	GLN
34	SR	317	THR
35	SM	24	GLU
35	SM	34	LYS
35	SM	45	SER
35	SM	51	ARG
35	SM	61	ILE
35	SM	62	ARG
35	SM	68	ARG
35	SM	72	ARG
35	SM	77	THR
35	SM	84	LYS
35	SM	89	ARG
35	SM	91	THR
35	SM	97	THR
35	SM	100	THR
35	SM	102	THR
35	SM	105	LYS
35	SM	106	VAL
35	SM	116	GLU
35	SM	117	LEU
35	SM	121	LYS
35	SM	130	GLU
35	SM	139	GLU
39	L2	14	SER
39	L2	22	LEU
39	L2	23	ARG
39	L2	32	LEU
39	L2	33	ASP
39	L2	36	GLU
39	L2	44	ILE
39	L2	45	VAL
39	L2	48	ILE
39	L2	70	ARG

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Mol	Chain	Res	Type
39	L2	71	LEU
39	L2	73	GLU
39	L2	74	GLU
39	L2	95	SER
39	L2	96	LEU
39	L2	101	VAL
39	L2	104	LEU
39	L2	109	GLU
39	L2	112	ILE
39	L2	114	SER
39	L2	148	VAL
39	L2	165	VAL
39	L2	179	LEU
39	L2	180	LEU
39	L2	193	ARG
39	L2	196	TRP
39	L2	200	ARG
39	L2	202	VAL
39	L2	204	MET
39	L2	206	PRO
39	L2	207	VAL
39	L2	223	SER
39	L2	225	ILE
39	L2	227	ARG
39	L2	230	VAL
39	L2	231	SER
39	L2	247	ARG
39	L2	252	THR
40	L3	3	HIS
40	L3	7	GLU
40	L3	10	ARG
40	L3	17	LEU
40	L3	19	ARG
40	L3	25	ILE
40	L3	30	LYS
40	L3	37	ARG
40	L3	47	LEU
40	L3	55	THR
40	L3	66	LYS
40	L3	69	LYS
40	L3	72	VAL
40	L3	73	VAL

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Mol	Chain	Res	Type
40	L3	79	VAL
40	L3	85	VAL
40	L3	100	ARG
40	L3	103	THR
40	L3	104	THR
40	L3	114	VAL
40	L3	116	ARG
40	L3	120	LYS
40	L3	126	LYS
40	L3	139	GLN
40	L3	146	ARG
40	L3	148	LEU
40	L3	150	ARG
40	L3	151	ILE
40	L3	164	THR
40	L3	169	THR
40	L3	173	GLN
40	L3	178	LEU
40	L3	187	SER
40	L3	188	ILE
40	L3	196	ARG
40	L3	200	GLU
40	L3	202	THR
40	L3	205	VAL
40	L3	212	ASN
40	L3	226	PHE
40	L3	229	VAL
40	L3	236	LYS
40	L3	238	LEU
40	L3	241	LYS
40	L3	244	ARG
40	L3	252	ILE
40	L3	264	VAL
40	L3	284	ARG
40	L3	296	THR
40	L3	304	THR
40	L3	305	ILE
40	L3	308	MET
40	L3	320	ASP
40	L3	324	VAL
40	L3	328	ILE
40	L3	332	ARG

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Mol	Chain	Res	Type
40	L3	335	ILE
40	L3	337	THR
40	L3	338	LEU
40	L3	347	SER
40	L3	349	LYS
40	L3	351	LEU
40	L3	353	GLU
40	L3	354	VAL
40	L3	355	SER
40	L3	364	LYS
40	L3	379	PHE
40	L3	380	MET
40	L3	382	THR
40	L3	383	LEU
40	L3	385	LYS
41	L4	4	PRO
41	L4	6	VAL
41	L4	7	THR
41	L4	14	GLU
41	L4	25	VAL
41	L4	37	THR
41	L4	41	SER
41	L4	47	ARG
41	L4	54	GLU
41	L4	60	THR
41	L4	63	GLU
41	L4	74	ILE
41	L4	93	MET
41	L4	99	MET
41	L4	112	LYS
41	L4	124	SER
41	L4	133	SER
41	L4	138	ARG
41	L4	145	ILE
41	L4	147	GLU
41	L4	150	LEU
41	L4	152	VAL
41	L4	153	SER
41	L4	156	LEU
41	L4	179	LEU
41	L4	180	LYS
41	L4	182	LEU

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Mol	Chain	Res	Type
41	L4	187	LEU
41	L4	193	LYS
41	L4	198	ARG
41	L4	203	ARG
41	L4	206	LEU
41	L4	215	ILE
41	L4	217	LYS
41	L4	220	ARG
41	L4	222	VAL
41	L4	225	VAL
41	L4	230	VAL
41	L4	246	ARG
41	L4	256	THR
41	L4	258	LEU
41	L4	259	ASP
41	L4	264	SER
41	L4	265	GLU
41	L4	267	VAL
41	L4	269	SER
41	L4	275	THR
41	L4	283	THR
41	L4	284	SER
41	L4	287	THR
41	L4	292	SER
41	L4	297	SER
41	L4	306	THR
41	L4	313	LEU
41	L4	316	ASN
41	L4	323	VAL
41	L4	327	LEU
41	L4	332	LYS
41	L4	333	VAL
41	L4	338	LYS
41	L4	339	LEU
41	L4	346	LYS
41	L4	347	THR
41	L4	361	HIS
42	L5	3	PHE
42	L5	5	LYS
42	L5	8	LYS
42	L5	9	SER
42	L5	22	ARG

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Mol	Chain	Res	Type
42	L5	23	ARG
42	L5	34	LYS
42	L5	35	ARG
42	L5	41	LYS
42	L5	66	SER
42	L5	75	LEU
42	L5	81	HIS
42	L5	89	THR
42	L5	105	ILE
42	L5	109	THR
42	L5	110	LEU
42	L5	111	GLN
42	L5	112	LYS
42	L5	115	LEU
42	L5	117	GLU
42	L5	118	THR
42	L5	124	GLU
42	L5	131	LEU
42	L5	132	THR
42	L5	137	ASP
42	L5	140	ARG
42	L5	144	VAL
42	L5	146	LEU
42	L5	148	ILE
42	L5	155	THR
42	L5	159	VAL
42	L5	163	LEU
42	L5	177	GLU
42	L5	185	PHE
42	L5	187	THR
42	L5	196	ARG
42	L5	216	GLU
42	L5	222	LEU
42	L5	227	LEU
42	L5	232	ASP
42	L5	236	LEU
42	L5	257	GLU
42	L5	259	LYS
42	L5	263	GLU
42	L5	273	ARG
43	L6	5	LYS
43	L6	15	VAL

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Mol	Chain	Res	Type
43	L6	18	LEU
43	L6	21	THR
43	L6	46	ARG
43	L6	50	LYS
43	L6	52	VAL
43	L6	64	LEU
43	L6	65	ILE
43	L6	78	ARG
43	L6	84	VAL
43	L6	89	THR
43	L6	90	LYS
43	L6	99	GLU
43	L6	129	GLU
43	L6	134	ARG
43	L6	151	LYS
43	L6	155	LEU
43	L6	173	MET
44	L7	24	GLU
44	L7	25	GLN
44	L7	26	VAL
44	L7	39	GLU
44	L7	40	LYS
44	L7	43	ILE
44	L7	83	LEU
44	L7	88	ARG
44	L7	98	LYS
44	L7	110	ARG
44	L7	111	ILE
44	L7	115	THR
44	L7	120	THR
44	L7	124	LEU
44	L7	128	LYS
44	L7	129	LEU
44	L7	157	ASN
44	L7	178	ILE
44	L7	179	LEU
44	L7	182	ASP
44	L7	184	LEU
44	L7	228	SER
44	L7	239	LEU
44	L7	244	ASN
45	L8	26	LEU

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Mol	Chain	Res	Type
45	L8	27	THR
45	L8	41	GLN
45	L8	43	LYS
45	L8	47	SER
45	L8	50	VAL
45	L8	71	VAL
45	L8	74	THR
45	L8	79	GLN
45	L8	84	ARG
45	L8	86	THR
45	L8	108	ARG
45	L8	126	SER
45	L8	132	VAL
45	L8	136	LEU
45	L8	144	GLU
45	L8	146	LYS
45	L8	147	LYS
45	L8	150	LEU
45	L8	155	ASN
45	L8	156	ASP
45	L8	163	VAL
45	L8	164	VAL
45	L8	169	LEU
45	L8	173	MET
45	L8	180	VAL
45	L8	181	LYS
45	L8	185	ARG
45	L8	188	THR
45	L8	194	THR
45	L8	197	VAL
45	L8	203	VAL
45	L8	214	LEU
45	L8	217	THR
45	L8	224	ASP
45	L8	227	ASP
45	L8	238	LEU
45	L8	240	ASN
45	L8	241	LYS
45	L8	246	MET
45	L8	248	LYS
45	L8	251	LYS
46	L9	5	GLN

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Mol	Chain	Res	Type
46	L9	9	GLN
46	L9	14	GLU
46	L9	16	VAL
46	L9	18	VAL
46	L9	20	ILE
46	L9	28	VAL
46	L9	41	ILE
46	L9	42	ASP
46	L9	44	THR
46	L9	48	VAL
46	L9	52	LEU
46	L9	53	ILE
46	L9	68	LEU
46	L9	69	ARG
46	L9	70	THR
46	L9	115	ARG
46	L9	118	LEU
46	L9	129	ARG
46	L9	130	ASP
46	L9	133	THR
46	L9	138	THR
46	L9	141	LYS
46	L9	146	LEU
46	L9	151	VAL
46	L9	157	ASN
46	L9	161	LEU
46	L9	162	GLN
46	L9	164	ILE
46	L9	172	ILE
46	L9	173	ARG
46	L9	174	LYS
46	L9	177	ASP
46	L9	182	SER
46	L9	189	GLU
47	M0	3	ARG
47	M0	15	LYS
47	M0	24	ARG
47	M0	28	ASP
47	M0	30	LYS
47	M0	31	ILE
47	M0	32	ARG
47	M0	33	ILE

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Mol	Chain	Res	Type
47	M0	34	TYR
47	M0	39	LYS
47	M0	40	LYS
47	M0	42	THR
47	M0	48	LEU
47	M0	52	LEU
47	M0	54	SER
47	M0	57	LEU
47	M0	63	GLU
47	M0	73	ASN
47	M0	74	LYS
47	M0	87	LEU
47	M0	91	VAL
47	M0	102	MET
47	M0	139	ARG
47	M0	143	SER
47	M0	145	LYS
47	M0	156	ARG
47	M0	163	GLN
47	M0	165	ILE
47	M0	169	LYS
47	M0	175	ASN
47	M0	176	LEU
47	M0	189	GLU
47	M0	203	LYS
47	M0	205	SER
48	M1	9	MET
48	M1	10	ARG
48	M1	12	LEU
48	M1	13	LYS
48	M1	16	LYS
48	M1	19	LEU
48	M1	28	ASP
48	M1	34	SER
48	M1	37	LEU
48	M1	39	GLN
48	M1	46	VAL
48	M1	52	TYR
48	M1	53	THR
48	M1	70	THR
48	M1	80	LEU
48	M1	82	ARG

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Mol	Chain	Res	Type
48	M1	92	ARG
48	M1	94	ARG
48	M1	101	ASN
48	M1	106	ILE
48	M1	107	ASP
48	M1	112	LEU
48	M1	115	LYS
48	M1	140	ARG
48	M1	142	LYS
48	M1	147	THR
48	M1	155	THR
48	M1	158	ASP
48	M1	166	LYS
48	M1	168	ASP
48	M1	171	VAL
49	M3	24	VAL
49	M3	33	VAL
49	M3	54	LEU
49	M3	55	ARG
49	M3	59	ARG
49	M3	62	THR
49	M3	67	ARG
49	M3	70	ARG
49	M3	81	LYS
49	M3	107	GLU
49	M3	114	GLN
49	M3	117	LYS
49	M3	124	ILE
49	M3	131	LYS
49	M3	136	GLU
49	M3	138	VAL
49	M3	147	ILE
49	M3	155	GLU
49	M3	157	ARG
49	M3	164	GLU
49	M3	169	THR
49	M3	171	ARG
49	M3	190	LYS
49	M3	194	GLU
50	M4	8	LYS
50	M4	20	VAL
50	M4	24	LYS

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Mol	Chain	Res	Type
50	M4	43	LYS
50	M4	50	LYS
50	M4	53	VAL
50	M4	64	VAL
50	M4	66	THR
50	M4	72	LEU
50	M4	74	ARG
50	M4	90	VAL
50	M4	91	CYS
50	M4	98	SER
50	M4	102	LYS
50	M4	125	LYS
50	M4	126	GLN
50	M4	130	THR
50	M4	133	LYS
50	M4	137	LYS
51	M5	7	LEU
51	M5	10	LEU
51	M5	18	VAL
51	M5	19	LEU
51	M5	22	LEU
51	M5	24	ARG
51	M5	43	THR
51	M5	49	ARG
51	M5	50	ARG
51	M5	56	LYS
51	M5	65	ARG
51	M5	68	ARG
51	M5	71	ARG
51	M5	80	THR
51	M5	85	THR
51	M5	92	LEU
51	M5	93	LYS
51	M5	97	SER
51	M5	98	LEU
51	M5	109	ARG
51	M5	133	ILE
51	M5	138	GLN
51	M5	142	ILE
51	M5	151	ILE
51	M5	155	VAL
51	M5	159	ARG

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Mol	Chain	Res	Type
51	M5	167	THR
51	M5	171	SER
51	M5	184	LYS
51	M5	187	ARG
51	M5	188	ARG
51	M5	190	THR
51	M5	198	SER
52	M6	22	VAL
52	M6	25	LYS
52	M6	34	VAL
52	M6	41	LEU
52	M6	42	ASN
52	M6	44	SER
52	M6	67	THR
52	M6	78	ARG
52	M6	82	LYS
52	M6	84	LEU
52	M6	85	ARG
52	M6	89	SER
52	M6	94	ARG
52	M6	106	GLU
52	M6	108	ILE
52	M6	110	PRO
52	M6	117	ARG
52	M6	122	GLN
52	M6	126	VAL
52	M6	128	ARG
52	M6	140	LYS
52	M6	143	THR
52	M6	144	SER
52	M6	151	ASP
52	M6	180	SER
52	M6	184	THR
52	M6	187	GLU
53	M7	7	THR
53	M7	24	VAL
53	M7	29	THR
53	M7	32	THR
53	M7	36	ILE
53	M7	40	GLU
53	M7	41	LEU
53	M7	49	GLU

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Mol	Chain	Res	Type
53	M7	52	LEU
53	M7	53	ASP
53	M7	56	ARG
53	M7	69	ARG
53	M7	78	VAL
53	M7	79	THR
53	M7	94	LEU
53	M7	112	LEU
53	M7	119	VAL
53	M7	120	ASN
53	M7	126	ARG
53	M7	127	ARG
53	M7	141	SER
53	M7	142	SER
53	M7	144	SER
53	M7	146	ILE
53	M7	148	LEU
53	M7	153	LYS
53	M7	154	GLU
53	M7	171	ARG
53	M7	180	LYS
53	M7	181	ARG
54	M8	3	ILE
54	M8	7	SER
54	M8	26	LEU
54	M8	32	LEU
54	M8	34	THR
54	M8	49	LEU
54	M8	57	ILE
54	M8	67	ILE
54	M8	73	GLN
54	M8	95	GLU
54	M8	100	THR
54	M8	105	ARG
54	M8	113	LYS
54	M8	129	VAL
54	M8	135	GLN
54	M8	161	LYS
54	M8	174	ARG
54	M8	178	ARG
55	M9	5	ARG
55	M9	8	LYS

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Mol	Chain	Res	Type
55	M9	17	VAL
55	M9	22	VAL
55	M9	25	ASP
55	M9	27	ASN
55	M9	28	GLU
55	M9	29	THR
55	M9	31	GLU
55	M9	44	LEU
55	M9	55	VAL
55	M9	70	LYS
55	M9	72	GLU
55	M9	75	HIS
55	M9	81	ARG
55	M9	103	ARG
55	M9	104	ARG
55	M9	106	LEU
55	M9	116	ASP
55	M9	117	LYS
55	M9	127	SER
55	M9	134	HIS
55	M9	155	LEU
55	M9	156	ASN
55	M9	164	LEU
55	M9	175	GLN
55	M9	180	LYS
55	M9	182	ASP
56	N0	1	MET
56	N0	3	HIS
56	N0	23	LYS
56	N0	34	GLU
56	N0	45	LEU
56	N0	51	VAL
56	N0	79	VAL
56	N0	80	ARG
56	N0	81	TYR
56	N0	87	THR
56	N0	88	HIS
56	N0	98	SER
56	N0	100	VAL
56	N0	105	THR
56	N0	106	LEU
56	N0	113	ARG

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Mol	Chain	Res	Type
56	N0	115	ARG
56	N0	117	ARG
56	N0	123	ILE
56	N0	131	LYS
56	N0	136	LYS
56	N0	137	ARG
56	N0	138	GLN
56	N0	142	GLN
56	N0	145	THR
56	N0	155	ARG
56	N0	156	VAL
56	N0	162	THR
56	N0	167	ARG
56	N0	171	PHE
56	N0	172	TYR
57	N1	12	ARG
57	N1	16	GLN
57	N1	21	LYS
57	N1	26	HIS
57	N1	27	LEU
57	N1	32	LYS
57	N1	36	VAL
57	N1	52	MET
57	N1	75	ILE
57	N1	78	LYS
57	N1	79	MET
57	N1	83	ARG
57	N1	87	LYS
57	N1	88	ARG
57	N1	89	LEU
57	N1	103	GLN
57	N1	104	GLU
57	N1	124	VAL
57	N1	127	GLN
57	N1	128	LEU
57	N1	134	GLN
57	N1	139	ARG
57	N1	144	GLU
57	N1	149	GLN
57	N1	151	LEU
57	N1	154	VAL
57	N1	158	THR

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Mol	Chain	Res	Type
58	N2	10	LYS
58	N2	29	ASP
58	N2	39	ASP
58	N2	43	VAL
58	N2	52	ASN
58	N2	54	VAL
58	N2	66	VAL
58	N2	70	LYS
58	N2	88	GLN
58	N2	93	ILE
59	N3	13	ILE
59	N3	14	SER
59	N3	32	ARG
59	N3	44	SER
59	N3	54	LEU
59	N3	58	VAL
59	N3	64	LYS
59	N3	69	LEU
59	N3	72	LYS
59	N3	83	LYS
59	N3	84	SER
59	N3	88	ARG
59	N3	102	ILE
59	N3	104	ASN
59	N3	106	LYS
59	N3	115	THR
59	N3	120	LYS
59	N3	125	LEU
59	N3	135	VAL
59	N3	137	VAL
60	N4	5	ILE
60	N4	7	SER
60	N4	19	THR
60	N4	39	LEU
60	N4	42	GLN
60	N4	64	THR
61	N5	27	ARG
61	N5	38	LEU
61	N5	39	LYS
61	N5	40	LEU
61	N5	59	SER
61	N5	63	ILE

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Mol	Chain	Res	Type
61	N5	75	LYS
61	N5	92	LYS
61	N5	96	LYS
61	N5	108	LEU
61	N5	109	LYS
61	N5	113	LEU
61	N5	115	ARG
61	N5	116	PRO
61	N5	119	THR
61	N5	125	ARG
61	N5	126	LEU
61	N5	133	LEU
61	N5	134	ASP
61	N5	135	ILE
61	N5	138	ARG
61	N5	139	ILE
61	N5	142	ILE
62	N6	3	LYS
62	N6	5	SER
62	N6	6	LEU
62	N6	13	ARG
62	N6	30	LEU
62	N6	35	LEU
62	N6	36	SER
62	N6	37	LYS
62	N6	40	ARG
62	N6	42	GLN
62	N6	45	ILE
62	N6	56	VAL
62	N6	57	LEU
62	N6	58	VAL
62	N6	80	VAL
62	N6	81	GLN
62	N6	88	GLU
62	N6	94	SER
62	N6	97	ILE
62	N6	105	VAL
62	N6	110	HIS
62	N6	115	ARG
62	N6	122	LYS
62	N6	125	LYS
62	N6	126	LEU

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Mol	Chain	Res	Type
62	N6	127	GLU
63	N7	14	VAL
63	N7	17	ARG
63	N7	24	VAL
63	N7	26	VAL
63	N7	27	LYS
63	N7	34	LYS
63	N7	42	LEU
63	N7	46	ILE
63	N7	52	LYS
63	N7	54	THR
63	N7	55	LYS
63	N7	57	HIS
63	N7	60	LYS
63	N7	64	LYS
63	N7	72	ILE
63	N7	81	LEU
63	N7	83	THR
63	N7	86	THR
63	N7	87	LEU
63	N7	95	VAL
63	N7	106	GLN
63	N7	107	ARG
63	N7	109	GLU
63	N7	127	ASN
63	N7	135	ARG
63	N7	136	PHE
64	N8	6	THR
64	N8	7	LYS
64	N8	8	THR
64	N8	10	LYS
64	N8	14	HIS
64	N8	19	LYS
64	N8	27	LYS
64	N8	29	PRO
64	N8	34	MET
64	N8	42	ARG
64	N8	46	ASP
64	N8	47	LYS
64	N8	56	VAL
64	N8	60	TYR
64	N8	88	ASP

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Mol	Chain	Res	Type
64	N8	93	SER
64	N8	96	LYS
64	N8	115	LYS
64	N8	120	ASN
64	N8	130	VAL
64	N8	133	LEU
64	N8	139	ARG
65	N9	8	THR
65	N9	13	THR
65	N9	14	ARG
65	N9	18	ARG
65	N9	21	ILE
65	N9	25	LYS
65	N9	33	LYS
65	N9	50	THR
65	N9	59	LYS
66	O0	11	ASN
66	O0	12	GLN
66	O0	14	LEU
66	O0	16	LEU
66	O0	20	SER
66	O0	24	THR
66	O0	30	THR
66	O0	32	LYS
66	O0	34	LEU
66	O0	36	GLN
66	O0	41	LEU
66	O0	52	ARG
66	O0	54	SER
66	O0	61	MET
66	O0	66	LYS
66	O0	83	LYS
66	O0	87	VAL
66	O0	99	ASP
66	O0	101	LEU
66	O0	102	THR
67	O1	6	ASP
67	O1	13	THR
67	O1	16	LEU
67	O1	26	LYS
67	O1	31	ARG
67	O1	47	ASP

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Mol	Chain	Res	Type
67	O1	64	VAL
67	O1	68	GLU
67	O1	73	LEU
67	O1	76	SER
67	O1	79	ARG
67	O1	82	GLU
67	O1	84	ASP
67	O1	86	LYS
67	O1	89	LEU
67	O1	94	GLU
67	O1	104	LEU
67	O1	106	THR
67	O1	107	VAL
68	O2	4	LEU
68	O2	19	ARG
68	O2	33	ARG
68	O2	41	VAL
68	O2	44	ARG
68	O2	51	SER
68	O2	54	LYS
68	O2	61	LYS
68	O2	67	SER
68	O2	72	LYS
68	O2	73	THR
68	O2	75	LEU
68	O2	76	VAL
68	O2	81	ASP
68	O2	82	LEU
68	O2	84	THR
68	O2	87	MET
68	O2	89	THR
68	O2	101	SER
68	O2	103	LYS
68	O2	111	ARG
68	O2	123	LYS
68	O2	125	ARG
69	O3	14	LEU
69	O3	15	SER
69	O3	21	ARG
69	O3	22	VAL
69	O3	37	THR
69	O3	40	ASP

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Mol	Chain	Res	Type
69	O3	42	GLN
69	O3	59	VAL
69	O3	60	ARG
69	O3	70	LYS
69	O3	72	THR
69	O3	80	VAL
69	O3	81	VAL
69	O3	86	ARG
69	O3	93	THR
69	O3	106	ASN
70	O4	7	PHE
70	O4	8	ARG
70	O4	20	ILE
70	O4	23	VAL
70	O4	24	LYS
70	O4	29	ILE
70	O4	33	GLN
70	O4	36	LYS
70	O4	44	CYS
70	O4	51	LEU
70	O4	52	GLN
70	O4	56	THR
70	O4	71	THR
70	O4	79	SER
70	O4	81	CYS
70	O4	86	LYS
70	O4	87	GLU
70	O4	97	GLU
70	O4	100	ILE
70	O4	102	LYS
70	O4	103	LYS
71	O5	11	THR
71	O5	20	GLN
71	O5	21	LEU
71	O5	27	GLU
71	O5	31	LEU
71	O5	48	ARG
71	O5	49	LYS
71	O5	62	GLN
71	O5	83	LYS
71	O5	85	THR
71	O5	89	ARG

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Mol	Chain	Res	Type
71	O5	90	ARG
71	O5	100	VAL
71	O5	101	THR
71	O5	102	GLU
71	O5	105	ARG
71	O5	107	LYS
71	O5	114	ARG
71	O5	118	ILE
71	O5	119	LYS
72	O6	2	THR
72	O6	7	ILE
72	O6	9	ILE
72	O6	20	MET
72	O6	21	THR
72	O6	26	ILE
72	O6	29	LYS
72	O6	45	ARG
72	O6	52	PRO
72	O6	57	LEU
72	O6	58	ILE
72	O6	60	LEU
72	O6	76	ARG
72	O6	79	SER
72	O6	81	THR
72	O6	98	ARG
72	O6	99	ARG
73	O7	13	ASN
73	O7	17	THR
73	O7	24	ARG
73	O7	25	ARG
73	O7	26	SER
73	O7	33	THR
73	O7	35	SER
73	O7	44	THR
73	O7	45	ARG
73	O7	55	ARG
73	O7	58	THR
73	O7	59	THR
73	O7	65	ARG
73	O7	67	LEU
73	O7	84	SER
74	O8	3	ARG

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Mol	Chain	Res	Type
74	O8	5	ILE
74	O8	8	ILE
74	O8	12	LEU
74	O8	25	VAL
74	O8	29	LYS
74	O8	31	LEU
74	O8	32	ASN
74	O8	39	ARG
74	O8	45	VAL
74	O8	50	SER
74	O8	53	THR
74	O8	58	ASP
74	O8	64	LYS
74	O8	65	LEU
74	O8	67	GLN
74	O8	72	THR
74	O8	77	ARG
75	O9	5	LYS
75	O9	21	ARG
75	O9	25	GLN
75	O9	27	ILE
75	O9	29	LEU
75	O9	32	ASN
75	O9	36	ARG
76	Q0	78	ILE
76	Q0	97	ARG
76	Q0	113	ARG
76	Q0	114	LYS
76	Q0	126	LYS
76	Q0	127	LEU
76	Q0	128	LYS
77	Q1	2	ARG
77	Q1	4	LYS
77	Q1	6	ARG
77	Q1	9	ARG
77	Q1	11	ARG
77	Q1	17	ARG
77	Q1	19	LYS
78	Q2	2	VAL
78	Q2	3	ASN
78	Q2	8	ARG
78	Q2	12	CYS

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Mol	Chain	Res	Type
78	Q2	21	THR
78	Q2	23	HIS
78	Q2	26	THR
78	Q2	35	LEU
78	Q2	38	GLN
78	Q2	47	GLN
78	Q2	60	LYS
78	Q2	78	LYS
78	Q2	80	ARG
78	Q2	83	LEU
78	Q2	84	THR
78	Q2	85	LEU
78	Q2	90	HIS
78	Q2	92	GLU
78	Q2	93	LEU
78	Q2	100	LYS
78	Q2	104	LEU
78	Q2	105	GLN
79	Q3	11	THR
79	Q3	21	SER
79	Q3	25	GLN
79	Q3	45	LYS
79	Q3	46	THR
79	Q3	49	ARG
79	Q3	58	SER
79	Q3	59	CYS
79	Q3	60	CYS
79	Q3	70	THR
79	Q3	73	THR
79	Q3	90	VAL
79	Q3	91	GLU
2	s0	6	THR
2	s0	12	GLU
2	s0	17	LEU
2	s0	18	LEU
2	s0	30	GLN
2	s0	31	VAL
2	s0	34	GLU
2	s0	41	ARG
2	s0	45	VAL
2	s0	50	VAL
2	s0	55	GLU

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Mol	Chain	Res	Type
2	s0	62	ARG
2	s0	71	GLU
2	s0	78	SER
2	s0	87	LEU
2	s0	88	LYS
2	s0	106	SER
2	s0	110	TYR
2	s0	124	THR
2	s0	131	GLN
2	s0	144	ILE
2	s0	151	SER
2	s0	156	VAL
2	s0	157	ASP
2	s0	164	ASN
2	s0	165	ARG
2	s0	172	LEU
2	s0	179	ARG
2	s0	180	GLU
2	s0	183	ARG
2	s0	185	ARG
2	s0	188	LEU
2	s0	189	VAL
2	s0	200	ASP
3	s1	21	VAL
3	s1	25	THR
3	s1	37	THR
3	s1	47	LEU
3	s1	48	VAL
3	s1	51	SER
3	s1	56	SER
3	s1	70	LEU
3	s1	74	GLN
3	s1	80	SER
3	s1	82	ARG
3	s1	83	LYS
3	s1	89	ASP
3	s1	96	LEU
3	s1	105	PHE
3	s1	110	LEU
3	s1	114	VAL
3	s1	115	ARG
3	s1	119	THR

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Mol	Chain	Res	Type
3	s1	120	LEU
3	s1	125	VAL
3	s1	126	THR
3	s1	129	THR
3	s1	135	LEU
3	s1	137	ILE
3	s1	152	ARG
3	s1	159	SER
3	s1	175	GLU
3	s1	180	THR
3	s1	181	LEU
3	s1	195	LYS
3	s1	202	LYS
3	s1	203	ASP
3	s1	210	ILE
3	s1	212	VAL
3	s1	231	LEU
4	s2	39	THR
4	s2	41	LEU
4	s2	52	THR
4	s2	53	ILE
4	s2	54	GLU
4	s2	58	LEU
4	s2	60	SER
4	s2	69	ILE
4	s2	70	ASP
4	s2	72	LEU
4	s2	79	GLU
4	s2	80	VAL
4	s2	81	MET
4	s2	83	ILE
4	s2	87	GLN
4	s2	89	GLN
4	s2	90	THR
4	s2	91	ARG
4	s2	95	ARG
4	s2	97	ARG
4	s2	106	ASP
4	s2	108	ASN
4	s2	111	VAL
4	s2	117	THR
4	s2	130	ILE

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Mol	Chain	Res	Type
4	s2	139	ILE
4	s2	141	ARG
4	s2	146	THR
4	s2	152	HIS
4	s2	158	THR
4	s2	159	THR
4	s2	165	VAL
4	s2	166	THR
4	s2	170	ILE
4	s2	182	PRO
4	s2	185	LYS
4	s2	194	GLU
4	s2	195	ASP
4	s2	207	LEU
4	s2	222	TYR
4	s2	225	LEU
4	s2	226	THR
4	s2	229	LEU
4	s2	233	GLN
4	s2	237	VAL
4	s2	240	LEU
4	s2	244	SER
4	s2	248	SER
5	s3	4	LEU
5	s3	7	LYS
5	s3	9	ARG
5	s3	32	GLU
5	s3	34	TYR
5	s3	35	SER
5	s3	37	VAL
5	s3	41	VAL
5	s3	44	THR
5	s3	50	ILE
5	s3	59	LEU
5	s3	61	GLU
5	s3	67	ASN
5	s3	70	THR
5	s3	83	THR
5	s3	84	ILE
5	s3	89	GLU
5	s3	90	ARG
5	s3	97	SER

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Mol	Chain	Res	Type
5	s3	103	GLU
5	s3	109	LEU
5	s3	111	ASN
5	s3	115	ILE
5	s3	125	TYR
5	s3	128	GLU
5	s3	132	LYS
5	s3	142	LEU
5	s3	146	ARG
5	s3	154	ASP
5	s3	158	ILE
5	s3	169	ASP
5	s3	172	THR
5	s3	185	LYS
5	s3	207	THR
5	s3	212	LYS
5	s3	213	GLU
5	s3	223	LYS
5	s3	224	ASP
6	s4	9	LEU
6	s4	12	LEU
6	s4	23	LEU
6	s4	26	CYS
6	s4	32	SER
6	s4	39	ARG
6	s4	42	LEU
6	s4	49	ARG
6	s4	51	ARG
6	s4	62	LYS
6	s4	89	VAL
6	s4	93	ASP
6	s4	98	ASN
6	s4	104	ASP
6	s4	113	ARG
6	s4	125	LYS
6	s4	126	VAL
6	s4	130	GLN
6	s4	146	THR
6	s4	148	ARG
6	s4	170	THR
6	s4	176	ASP
6	s4	181	VAL

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Mol	Chain	Res	Type
6	s4	182	TYR
6	s4	187	ARG
6	s4	194	THR
6	s4	196	VAL
6	s4	209	HIS
6	s4	214	LEU
6	s4	226	PHE
6	s4	227	VAL
6	s4	236	ILE
6	s4	244	ILE
6	s4	245	LYS
6	s4	246	LEU
6	s4	247	SER
6	s4	248	ILE
6	s4	254	ARG
7	s5	25	LEU
7	s5	27	THR
7	s5	31	GLU
7	s5	38	THR
7	s5	40	ILE
7	s5	45	LYS
7	s5	58	LEU
7	s5	63	GLN
7	s5	64	VAL
7	s5	68	ILE
7	s5	83	ARG
7	s5	89	ILE
7	s5	93	LEU
7	s5	99	MET
7	s5	102	ARG
7	s5	103	ASN
7	s5	119	ASP
7	s5	125	THR
7	s5	128	ASN
7	s5	130	ILE
7	s5	148	ARG
7	s5	157	ARG
7	s5	163	SER
7	s5	190	ILE
7	s5	192	GLU
7	s5	194	LEU
7	s5	203	LYS

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Mol	Chain	Res	Type
7	s5	216	GLU
7	s5	219	ARG
8	s6	1	MET
8	s6	6	SER
8	s6	10	ASN
8	s6	12	SER
8	s6	15	THR
8	s6	22	HIS
8	s6	43	ASP
8	s6	57	ASP
8	s6	67	VAL
8	s6	71	THR
8	s6	73	ILE
8	s6	74	LYS
8	s6	76	LEU
8	s6	78	THR
8	s6	93	LYS
8	s6	108	VAL
8	s6	109	LEU
8	s6	115	LYS
8	s6	120	GLU
8	s6	121	LEU
8	s6	126	ASP
8	s6	127	THR
8	s6	143	LYS
8	s6	151	ASP
8	s6	153	VAL
8	s6	155	ASP
8	s6	156	PHE
8	s6	162	VAL
8	s6	168	THR
8	s6	182	GLN
8	s6	184	LEU
8	s6	193	LEU
8	s6	211	LEU
8	s6	215	ARG
9	s7	8	ILE
9	s7	11	GLN
9	s7	14	THR
9	s7	28	GLU
9	s7	33	GLU
9	s7	49	ILE

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Mol	Chain	Res	Type
9	s7	50	ASP
9	s7	55	LYS
9	s7	60	ILE
9	s7	67	LEU
9	s7	75	THR
9	s7	77	LEU
9	s7	78	THR
9	s7	97	ARG
9	s7	108	GLN
9	s7	110	GLN
9	s7	112	ARG
9	s7	114	ARG
9	s7	115	SER
9	s7	116	ARG
9	s7	117	THR
9	s7	118	LEU
9	s7	119	THR
9	s7	123	ASP
9	s7	126	LEU
9	s7	129	LEU
9	s7	135	ILE
9	s7	143	LEU
9	s7	144	VAL
9	s7	160	GLN
9	s7	163	ASP
9	s7	166	LEU
9	s7	176	LEU
9	s7	185	ILE
9	s7	187	SER
10	s8	6	ASP
10	s8	7	SER
10	s8	12	SER
10	s8	18	ARG
10	s8	20	GLN
10	s8	22	ARG
10	s8	25	ARG
10	s8	29	LEU
10	s8	36	THR
10	s8	46	VAL
10	s8	48	THR
10	s8	58	LEU
10	s8	59	ARG

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Mol	Chain	Res	Type
10	s8	64	ASN
10	s8	66	SER
10	s8	74	LYS
10	s8	76	THR
10	s8	121	LEU
10	s8	152	ILE
10	s8	155	SER
10	s8	161	SER
10	s8	172	ARG
10	s8	175	GLN
10	s8	176	SER
10	s8	183	ILE
10	s8	184	LEU
11	s9	3	ARG
11	s9	9	SER
11	s9	13	SER
11	s9	24	LEU
11	s9	28	LEU
11	s9	33	GLU
11	s9	37	LYS
11	s9	39	LYS
11	s9	46	SER
11	s9	49	LEU
11	s9	52	ILE
11	s9	54	ARG
11	s9	63	ASP
11	s9	78	ARG
11	s9	81	VAL
11	s9	82	ARG
11	s9	90	LYS
11	s9	92	LYS
11	s9	101	VAL
11	s9	105	LEU
11	s9	109	LEU
11	s9	110	GLN
11	s9	126	ARG
11	s9	127	VAL
11	s9	133	HIS
11	s9	134	ILE
11	s9	142	ASN
11	s9	147	MET
11	s9	148	VAL

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Mol	Chain	Res	Type
11	s9	149	ARG
11	s9	157	ASP
11	s9	161	THR
11	s9	162	SER
11	s9	168	ARG
11	s9	172	VAL
11	s9	179	ARG
11	s9	180	LYS
11	s9	182	GLU
12	c0	2	LEU
12	c0	15	LEU
12	c0	20	VAL
12	c0	27	PHE
12	c0	28	ASN
12	c0	40	LEU
12	c0	47	GLN
12	c0	49	LEU
12	c0	55	VAL
12	c0	56	LYS
13	c1	5	LEU
13	c1	10	GLU
13	c1	18	HIS
13	c1	21	ASN
13	c1	26	LYS
13	c1	30	ARG
13	c1	32	LYS
13	c1	33	ARG
13	c1	40	LEU
13	c1	44	THR
13	c1	56	LYS
13	c1	60	PHE
13	c1	67	ARG
13	c1	69	LYS
13	c1	72	THR
13	c1	74	THR
13	c1	80	MET
13	c1	82	ARG
13	c1	90	TYR
13	c1	99	ARG
13	c1	117	VAL
13	c1	122	ILE
13	c1	128	CYS

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Mol	Chain	Res	Type
13	c1	129	ARG
13	c1	136	ARG
14	c2	28	LEU
14	c2	30	VAL
14	c2	53	THR
14	c2	59	LEU
14	c2	61	VAL
14	c2	62	LEU
14	c2	71	ILE
14	c2	74	LEU
14	c2	83	GLU
14	c2	85	LYS
14	c2	89	ILE
14	c2	97	LEU
14	c2	103	LEU
14	c2	121	VAL
14	c2	132	GLU
14	c2	136	ILE
14	c2	140	PHE
15	c3	6	SER
15	c3	12	SER
15	c3	14	SER
15	c3	16	ILE
15	c3	18	TYR
15	c3	21	ASN
15	c3	23	PRO
15	c3	27	LYS
15	c3	28	LEU
15	c3	32	SER
15	c3	35	GLU
15	c3	39	LYS
15	c3	42	ARG
15	c3	46	THR
15	c3	60	VAL
15	c3	66	ILE
15	c3	70	LYS
15	c3	72	MET
15	c3	76	LYS
15	c3	80	LEU
15	c3	84	ILE
15	c3	99	ARG
15	c3	102	LEU

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Mol	Chain	Res	Type
15	c3	104	ARG
15	c3	106	ARG
15	c3	115	LEU
15	c3	116	ILE
15	c3	121	ARG
15	c3	122	ILE
15	c3	125	LEU
15	c3	127	ARG
15	c3	128	TYR
15	c3	134	VAL
15	c3	149	LEU
16	c4	13	VAL
16	c4	16	VAL
16	c4	19	ILE
16	c4	24	ASN
16	c4	31	THR
16	c4	32	ASP
16	c4	39	ILE
16	c4	43	THR
16	c4	49	LYS
16	c4	52	ARG
16	c4	58	TYR
16	c4	61	MET
16	c4	70	LYS
16	c4	71	CYS
16	c4	76	ILE
16	c4	81	VAL
16	c4	83	ILE
16	c4	93	THR
16	c4	102	LEU
16	c4	107	ARG
16	c4	114	ARG
16	c4	118	VAL
16	c4	119	THR
16	c4	123	SER
16	c4	124	ASP
16	c4	133	ARG
16	c4	136	ARG
16	c4	137	LEU
17	c5	12	PHE
17	c5	29	SER
17	c5	36	LEU

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Mol	Chain	Res	Type
17	c5	49	MET
17	c5	52	LYS
17	c5	77	ARG
17	c5	92	SER
17	c5	97	TYR
17	c5	107	ILE
17	c5	110	GLU
17	c5	111	MET
17	c5	124	THR
17	c5	127	ARG
18	c6	17	THR
18	c6	23	LYS
18	c6	26	LYS
18	c6	28	LEU
18	c6	36	ILE
18	c6	37	THR
18	c6	43	ILE
18	c6	44	LEU
18	c6	48	VAL
18	c6	53	LEU
18	c6	54	LEU
18	c6	55	VAL
18	c6	57	LEU
18	c6	63	ILE
18	c6	65	ILE
18	c6	68	ARG
18	c6	69	VAL
18	c6	81	ILE
18	c6	83	GLN
18	c6	110	THR
18	c6	114	ARG
18	c6	117	LEU
18	c6	118	ILE
18	c6	127	LYS
18	c6	128	LYS
18	c6	137	ARG
18	c6	143	ARG
19	c7	3	ARG
19	c7	4	VAL
19	c7	6	THR
19	c7	9	VAL
19	c7	17	ILE

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Mol	Chain	Res	Type
19	c7	34	LEU
19	c7	45	ARG
19	c7	46	LEU
19	c7	47	ARG
19	c7	60	ARG
19	c7	61	ILE
19	c7	69	ILE
19	c7	72	LYS
19	c7	83	GLN
19	c7	85	VAL
19	c7	88	VAL
19	c7	112	SER
19	c7	113	LEU
20	c8	3	LEU
20	c8	4	VAL
20	c8	13	HIS
20	c8	15	LEU
20	c8	25	ASN
20	c8	28	ILE
20	c8	29	VAL
20	c8	33	THR
20	c8	36	LYS
20	c8	38	VAL
20	c8	40	ARG
20	c8	41	ARG
20	c8	57	ARG
20	c8	63	GLN
20	c8	69	ILE
20	c8	77	THR
20	c8	85	PHE
20	c8	94	ASP
20	c8	97	ASP
20	c8	100	THR
20	c8	106	GLU
20	c8	115	ARG
20	c8	116	LEU
20	c8	133	VAL
20	c8	136	GLN
20	c8	138	THR
20	c8	141	THR
20	c8	143	ARG
20	c8	145	ARG

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Mol	Chain	Res	Type
21	c9	6	VAL
21	c9	13	ASP
21	c9	20	SER
21	c9	25	GLN
21	c9	27	LYS
21	c9	28	LEU
21	c9	30	VAL
21	c9	34	VAL
21	c9	57	ARG
21	c9	68	ARG
21	c9	71	VAL
21	c9	75	LYS
21	c9	85	SER
21	c9	86	ARG
21	c9	89	ARG
21	c9	123	ARG
21	c9	125	SER
21	c9	126	GLU
21	c9	133	ASP
21	c9	135	ILE
21	c9	139	THR
21	c9	140	LEU
21	c9	141	GLU
21	c9	142	GLU
22	d0	20	ILE
22	d0	21	LYS
22	d0	22	ILE
22	d0	23	ARG
22	d0	27	THR
22	d0	30	LYS
22	d0	31	VAL
22	d0	34	LEU
22	d0	37	VAL
22	d0	44	ASN
22	d0	51	VAL
22	d0	57	ARG
22	d0	60	THR
22	d0	61	LYS
22	d0	63	LEU
22	d0	70	THR
22	d0	72	ASN
22	d0	74	GLU

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Mol	Chain	Res	Type
22	d0	76	SER
22	d0	77	LYS
22	d0	81	THR
22	d0	99	ILE
22	d0	102	ARG
22	d0	103	ILE
22	d0	105	GLN
22	d0	108	ILE
22	d0	115	GLU
23	d1	2	GLU
23	d1	3	ASN
23	d1	4	ASP
23	d1	5	LYS
23	d1	8	LEU
23	d1	10	GLU
23	d1	12	TYR
23	d1	18	SER
23	d1	25	LYS
23	d1	31	SER
23	d1	32	VAL
23	d1	34	ILE
23	d1	38	LYS
23	d1	41	GLU
23	d1	50	TYR
23	d1	52	THR
23	d1	56	SER
23	d1	69	LEU
23	d1	70	ASN
23	d1	78	LEU
23	d1	87	ARG
24	d2	7	LEU
24	d2	20	THR
24	d2	23	ARG
24	d2	25	VAL
24	d2	31	SER
24	d2	47	ILE
24	d2	56	HIS
24	d2	65	LEU
24	d2	93	LEU
24	d2	98	GLN
24	d2	105	THR
24	d2	114	GLU

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Mol	Chain	Res	Type
24	d2	117	ARG
24	d2	129	VAL
25	d3	5	LYS
25	d3	7	ARG
25	d3	9	LEU
25	d3	14	LYS
25	d3	15	LEU
25	d3	19	ARG
25	d3	36	THR
25	d3	40	SER
25	d3	41	SER
25	d3	68	ILE
25	d3	73	ARG
25	d3	83	VAL
25	d3	84	THR
25	d3	96	VAL
25	d3	97	ASP
25	d3	100	ASP
25	d3	103	LEU
25	d3	107	PHE
25	d3	109	ARG
25	d3	112	LYS
25	d3	114	LYS
25	d3	121	ARG
25	d3	125	VAL
25	d3	133	LEU
25	d3	144	ARG
26	d4	10	ARG
26	d4	22	GLN
26	d4	26	ASP
26	d4	36	SER
26	d4	38	ASP
26	d4	42	GLU
26	d4	43	LYS
26	d4	44	LEU
26	d4	46	GLU
26	d4	49	LYS
26	d4	51	GLU
26	d4	62	THR
26	d4	78	SER
26	d4	83	LYS
26	d4	88	THR

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Mol	Chain	Res	Type
26	d4	92	VAL
26	d4	98	GLU
26	d4	102	LYS
26	d4	116	LYS
26	d4	128	LYS
26	d4	131	ARG
27	d5	41	ILE
27	d5	43	ASP
27	d5	51	LEU
27	d5	53	GLU
27	d5	57	TYR
27	d5	81	ARG
27	d5	88	ILE
27	d5	90	LYS
28	d6	5	ARG
28	d6	8	ASN
28	d6	10	ARG
28	d6	12	LYS
28	d6	15	ARG
28	d6	28	LYS
28	d6	33	ASP
28	d6	39	MET
28	d6	44	ILE
28	d6	46	GLU
28	d6	51	ARG
28	d6	53	LEU
28	d6	54	SER
28	d6	55	GLU
28	d6	67	THR
28	d6	76	SER
28	d6	82	ARG
28	d6	85	ARG
28	d6	86	VAL
28	d6	89	ARG
28	d6	90	GLU
29	d7	3	LEU
29	d7	11	THR
29	d7	26	GLN
29	d7	43	ILE
29	d7	45	THR
29	d7	55	THR
29	d7	59	CYS

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Mol	Chain	Res	Type
29	d7	77	THR
30	d8	11	LYS
30	d8	14	LYS
30	d8	22	ARG
30	d8	28	VAL
30	d8	32	PHE
30	d8	33	LEU
30	d8	52	ASP
30	d8	54	LEU
30	d8	58	GLU
30	d8	66	LEU
31	d9	6	VAL
31	d9	10	HIS
31	d9	12	ARG
31	d9	22	ARG
31	d9	24	CYS
31	d9	25	SER
31	d9	28	THR
31	d9	31	ILE
31	d9	39	CYS
31	d9	42	CYS
31	d9	49	ASP
31	d9	54	LYS
80	e0	4	VAL
80	e0	13	LYS
80	e0	21	VAL
80	e0	22	GLU
80	e0	29	LYS
80	e0	31	LYS
80	e0	36	LYS
80	e0	38	LEU
80	e0	39	LEU
80	e0	42	ARG
80	e0	45	VAL
80	e0	46	ASN
80	e0	49	LEU
80	e0	55	ARG
80	e0	61	SER
33	e1	78	LYS
33	e1	80	ARG
33	e1	87	THR
33	e1	89	LYS

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Mol	Chain	Res	Type
33	e1	90	LYS
33	e1	100	LEU
33	e1	102	VAL
33	e1	106	TYR
33	e1	107	LYS
33	e1	113	LYS
33	e1	115	THR
33	e1	116	LYS
33	e1	121	CYS
33	e1	135	HIS
33	e1	147	VAL
33	e1	151	ASN
34	sR	8	VAL
34	sR	10	ARG
34	sR	16	HIS
34	sR	23	LEU
34	sR	25	THR
34	sR	32	LEU
34	sR	58	VAL
34	sR	64	HIS
34	sR	65	SER
34	sR	66	HIS
34	sR	72	THR
34	sR	76	ASP
34	sR	82	SER
34	sR	94	VAL
34	sR	96	THR
34	sR	98	GLU
34	sR	100	TYR
34	sR	123	ILE
34	sR	145	LEU
34	sR	152	SER
34	sR	161	LYS
34	sR	164	ASP
34	sR	168	THR
34	sR	176	LYS
34	sR	178	VAL
34	sR	188	ILE
34	sR	199	ILE
34	sR	210	LEU
34	sR	228	LYS
34	sR	232	TYR

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Mol	Chain	Res	Type
34	sR	250	TYR
34	sR	266	ASP
34	sR	275	ARG
34	sR	282	SER
34	sR	286	GLU
34	sR	297	ASP
34	sR	309	VAL
34	sR	310	ILE
34	sR	319	ASN
35	sM	23	LYS
35	sM	28	SER
35	sM	30	THR
35	sM	41	SER
35	sM	43	ASP
35	sM	61	ILE
35	sM	68	ARG
35	sM	71	ASN
35	sM	74	LYS
35	sM	75	ASP
35	sM	77	THR
35	sM	78	ASP
39	l2	8	GLN
39	l2	15	ILE
39	l2	19	HIS
39	l2	23	ARG
39	l2	28	LYS
39	l2	30	ARG
39	l2	31	THR
39	l2	32	LEU
39	l2	44	ILE
39	l2	45	VAL
39	l2	48	ILE
39	l2	49	VAL
39	l2	62	VAL
39	l2	70	ARG
39	l2	74	GLU
39	l2	80	GLU
39	l2	82	VAL
39	l2	84	THR
39	l2	101	VAL
39	l2	104	LEU
39	l2	114	SER

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Mol	Chain	Res	Type
39	l2	118	GLU
39	l2	119	LYS
39	l2	137	ILE
39	l2	142	ASP
39	l2	146	THR
39	l2	147	ARG
39	l2	148	VAL
39	l2	149	ARG
39	l2	168	VAL
39	l2	179	LEU
39	l2	180	LEU
39	l2	190	ARG
39	l2	193	ARG
39	l2	200	ARG
39	l2	205	ASN
39	l2	207	VAL
39	l2	218	HIS
39	l2	224	THR
39	l2	227	ARG
39	l2	243	THR
39	l2	246	LEU
40	l3	3	HIS
40	l3	4	ARG
40	l3	5	LYS
40	l3	7	GLU
40	l3	10	ARG
40	l3	17	LEU
40	l3	19	ARG
40	l3	24	SER
40	l3	38	SER
40	l3	43	LEU
40	l3	47	LEU
40	l3	50	LYS
40	l3	55	THR
40	l3	56	ILE
40	l3	60	LEU
40	l3	70	ARG
40	l3	73	VAL
40	l3	77	THR
40	l3	85	VAL
40	l3	103	THR
40	l3	104	THR

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Mol	Chain	Res	Type
40	l3	112	ASP
40	l3	113	GLU
40	l3	114	VAL
40	l3	120	LYS
40	l3	123	TYR
40	l3	146	ARG
40	l3	148	LEU
40	l3	150	ARG
40	l3	157	VAL
40	l3	160	VAL
40	l3	165	GLN
40	l3	167	ARG
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	208	VAL
40	l3	211	GLN
40	l3	214	MET
40	l3	221	THR
40	l3	229	VAL
40	l3	232	ARG
40	l3	235	THR
40	l3	242	THR
40	l3	249	VAL
40	l3	252	ILE
40	l3	264	VAL
40	l3	274	SER
40	l3	301	THR
40	l3	304	THR
40	l3	312	VAL
40	l3	316	GLU
40	l3	320	ASP
40	l3	324	VAL
40	l3	328	ILE
40	l3	332	ARG
40	l3	340	LYS
40	l3	344	THR

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Mol	Chain	Res	Type
40	l3	348	ARG
40	l3	354	VAL
40	l3	359	ILE
40	l3	361	THR
40	l3	369	ARG
40	l3	376	LYS
40	l3	380	MET
41	l4	2	SER
41	l4	16	THR
41	l4	22	LEU
41	l4	25	VAL
41	l4	27	SER
41	l4	47	ARG
41	l4	53	SER
41	l4	55	LYS
41	l4	63	GLU
41	l4	73	ARG
41	l4	82	THR
41	l4	90	PHE
41	l4	92	ASN
41	l4	93	MET
41	l4	99	MET
41	l4	112	LYS
41	l4	118	LYS
41	l4	120	TYR
41	l4	122	THR
41	l4	126	ILE
41	l4	129	THR
41	l4	131	VAL
41	l4	136	LEU
41	l4	144	LYS
41	l4	145	ILE
41	l4	148	ILE
41	l4	150	LEU
41	l4	156	LEU
41	l4	159	ILE
41	l4	177	ASP
41	l4	179	LEU
41	l4	181	VAL
41	l4	183	LYS
41	l4	186	LYS
41	l4	187	LEU

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Mol	Chain	Res	Type
41	l4	191	LYS
41	l4	198	ARG
41	l4	201	GLN
41	l4	203	ARG
41	l4	206	LEU
41	l4	222	VAL
41	l4	230	VAL
41	l4	246	ARG
41	l4	258	LEU
41	l4	261	VAL
41	l4	265	GLU
41	l4	266	THR
41	l4	267	VAL
41	l4	275	THR
41	l4	278	SER
41	l4	287	THR
41	l4	300	ARG
41	l4	301	PRO
41	l4	304	GLN
41	l4	307	GLN
41	l4	308	LYS
41	l4	312	VAL
41	l4	313	LEU
41	l4	316	ASN
41	l4	322	GLN
41	l4	333	VAL
41	l4	339	LEU
41	l4	345	GLU
41	l4	347	THR
41	l4	356	THR
41	l4	359	LEU
42	l5	25	GLU
42	l5	34	LYS
42	l5	35	ARG
42	l5	38	THR
42	l5	41	LYS
42	l5	51	LEU
42	l5	56	THR
42	l5	65	ILE
42	l5	66	SER
42	l5	67	SER
42	l5	68	THR

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Mol	Chain	Res	Type
42	l5	70	THR
42	l5	75	LEU
42	l5	110	LEU
42	l5	112	LYS
42	l5	113	LEU
42	l5	118	THR
42	l5	120	LYS
42	l5	131	LEU
42	l5	132	THR
42	l5	133	GLU
42	l5	135	VAL
42	l5	140	ARG
42	l5	146	LEU
42	l5	148	ILE
42	l5	152	ARG
42	l5	154	THR
42	l5	155	THR
42	l5	158	ARG
42	l5	164	LYS
42	l5	183	TRP
42	l5	185	PHE
42	l5	186	GLU
42	l5	187	THR
42	l5	189	GLU
42	l5	190	ILE
42	l5	194	LEU
42	l5	211	LEU
42	l5	222	LEU
42	l5	224	LYS
42	l5	227	LEU
42	l5	241	THR
42	l5	242	SER
42	l5	258	LYS
42	l5	259	LYS
42	l5	268	GLU
42	l5	270	LYS
42	l5	271	LYS
42	l5	273	ARG
42	l5	275	THR
42	l5	280	GLU
42	l5	281	GLU
42	l5	293	LEU

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Mol	Chain	Res	Type
43	l6	8	LYS
43	l6	15	VAL
43	l6	21	THR
43	l6	31	ARG
43	l6	46	ARG
43	l6	50	LYS
43	l6	52	VAL
43	l6	64	LEU
43	l6	82	ARG
43	l6	89	THR
43	l6	98	VAL
43	l6	104	GLU
43	l6	109	GLU
43	l6	131	LYS
43	l6	143	LYS
43	l6	146	ILE
43	l6	152	THR
43	l6	155	LEU
43	l6	160	SER
43	l6	162	SER
43	l6	170	LYS
44	l7	26	VAL
44	l7	41	ARG
44	l7	45	LEU
44	l7	46	GLU
44	l7	48	ASN
44	l7	60	ARG
44	l7	62	ILE
44	l7	82	LYS
44	l7	83	LEU
44	l7	88	ARG
44	l7	93	ASN
44	l7	98	LYS
44	l7	124	LEU
44	l7	128	LYS
44	l7	129	LEU
44	l7	130	ILE
44	l7	156	ILE
44	l7	157	ASN
44	l7	158	LYS
44	l7	173	LEU
44	l7	175	LYS

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Mol	Chain	Res	Type
44	l7	179	LEU
44	l7	184	LEU
44	l7	193	PRO
44	l7	196	LYS
44	l7	199	ASN
44	l7	228	SER
44	l7	229	PHE
44	l7	239	LEU
45	l8	26	LEU
45	l8	36	ILE
45	l8	40	VAL
45	l8	49	TYR
45	l8	67	ILE
45	l8	68	ARG
45	l8	71	VAL
45	l8	79	GLN
45	l8	81	THR
45	l8	95	ASN
45	l8	98	ARG
45	l8	101	THR
45	l8	109	LEU
45	l8	136	LEU
45	l8	146	LYS
45	l8	149	LYS
45	l8	155	ASN
45	l8	160	ILE
45	l8	163	VAL
45	l8	164	VAL
45	l8	173	MET
45	l8	185	ARG
45	l8	191	ASN
45	l8	192	GLN
45	l8	200	LEU
45	l8	211	LEU
45	l8	214	LEU
45	l8	216	SER
45	l8	219	ASP
45	l8	222	PHE
45	l8	230	LYS
45	l8	240	ASN
45	l8	245	LYS
45	l8	248	LYS

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Mol	Chain	Res	Type
46	l9	1	MET
46	l9	5	GLN
46	l9	6	THR
46	l9	18	VAL
46	l9	31	ARG
46	l9	39	LYS
46	l9	46	THR
46	l9	48	VAL
46	l9	52	LEU
46	l9	55	VAL
46	l9	62	ARG
46	l9	68	LEU
46	l9	69	ARG
46	l9	70	THR
46	l9	73	SER
46	l9	77	ASN
46	l9	79	ILE
46	l9	82	VAL
46	l9	84	LYS
46	l9	92	TYR
46	l9	105	GLU
46	l9	106	LYS
46	l9	115	ARG
46	l9	118	LEU
46	l9	120	ASP
46	l9	122	LYS
46	l9	123	ILE
46	l9	124	ARG
46	l9	133	THR
46	l9	137	SER
46	l9	138	THR
46	l9	143	GLU
46	l9	144	ILE
46	l9	149	ASN
46	l9	151	VAL
46	l9	152	GLU
46	l9	157	ASN
46	l9	161	LEU
46	l9	162	GLN
46	l9	163	GLN
46	l9	166	ARG
46	l9	179	ILE

Continued on next page...

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Mol	Chain	Res	Type
46	l9	181	VAL
46	l9	191	LEU
47	m0	24	ARG
47	m0	26	VAL
47	m0	36	LEU
47	m0	42	THR
47	m0	50	VAL
47	m0	52	LEU
47	m0	58	GLU
47	m0	63	GLU
47	m0	71	CYS
47	m0	74	LYS
47	m0	76	MET
47	m0	77	THR
47	m0	78	THR
47	m0	83	ASP
47	m0	87	LEU
47	m0	135	ILE
47	m0	139	ARG
47	m0	140	THR
47	m0	154	ARG
47	m0	156	ARG
47	m0	162	GLN
47	m0	169	LYS
47	m0	176	LEU
47	m0	177	ASP
47	m0	189	GLU
47	m0	197	VAL
47	m0	200	LEU
47	m0	206	LEU
47	m0	208	ASN
47	m0	209	ASN
47	m0	211	ARG
47	m0	212	GLU
47	m0	217	PHE
48	m1	6	GLN
48	m1	10	ARG
48	m1	13	LYS
48	m1	16	LYS
48	m1	18	VAL
48	m1	19	LEU
48	m1	23	VAL

Continued on next page...

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Mol	Chain	Res	Type
48	m1	30	LEU
48	m1	34	SER
48	m1	37	LEU
48	m1	40	LEU
48	m1	43	GLN
48	m1	44	THR
48	m1	46	VAL
48	m1	56	THR
48	m1	64	LYS
48	m1	71	VAL
48	m1	80	LEU
48	m1	92	ARG
48	m1	93	ASP
48	m1	101	ASN
48	m1	106	ILE
48	m1	107	ASP
48	m1	112	LEU
48	m1	115	LYS
48	m1	129	VAL
48	m1	130	VAL
48	m1	132	ASN
48	m1	137	ARG
48	m1	140	ARG
48	m1	145	LYS
48	m1	153	LYS
48	m1	154	THR
48	m1	155	THR
48	m1	159	THR
48	m1	171	VAL
48	m1	174	LYS
49	m3	5	LYS
49	m3	13	HIS
49	m3	46	ILE
49	m3	52	ASP
49	m3	53	LEU
49	m3	54	LEU
49	m3	55	ARG
49	m3	58	VAL
49	m3	63	VAL
49	m3	67	ARG
49	m3	68	LYS
49	m3	69	VAL

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Mol	Chain	Res	Type
49	m3	73	ARG
49	m3	76	THR
49	m3	104	ARG
49	m3	107	GLU
49	m3	108	ILE
49	m3	113	VAL
49	m3	121	SER
49	m3	123	ILE
49	m3	128	ARG
49	m3	131	LYS
49	m3	149	GLN
49	m3	152	THR
49	m3	153	ASP
49	m3	164	GLU
49	m3	168	ARG
49	m3	171	ARG
49	m3	176	GLU
49	m3	180	ARG
49	m3	184	GLU
50	m4	2	SER
50	m4	3	THR
50	m4	12	TRP
50	m4	27	GLN
50	m4	41	GLN
50	m4	43	LYS
50	m4	45	LEU
50	m4	53	VAL
50	m4	55	ARG
50	m4	60	LEU
50	m4	62	GLN
50	m4	63	VAL
50	m4	64	VAL
50	m4	66	THR
50	m4	91	CYS
50	m4	113	THR
50	m4	128	ARG
50	m4	130	THR
50	m4	135	LEU
51	m5	5	LYS
51	m5	8	GLU
51	m5	15	GLN
51	m5	24	ARG

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Mol	Chain	Res	Type
51	m5	50	ARG
51	m5	54	LYS
51	m5	60	VAL
51	m5	66	VAL
51	m5	72	LYS
51	m5	80	THR
51	m5	85	THR
51	m5	92	LEU
51	m5	96	ARG
51	m5	106	VAL
51	m5	109	ARG
51	m5	125	SER
51	m5	138	GLN
51	m5	144	ARG
51	m5	153	ASP
51	m5	155	VAL
51	m5	159	ARG
51	m5	165	THR
51	m5	170	LYS
51	m5	175	ASN
51	m5	176	LYS
51	m5	180	PHE
51	m5	184	LYS
51	m5	188	ARG
51	m5	190	THR
51	m5	194	GLN
51	m5	196	THR
51	m5	198	SER
51	m5	204	LYS
52	m6	3	VAL
52	m6	4	GLU
52	m6	12	LYS
52	m6	16	VAL
52	m6	21	SER
52	m6	36	VAL
52	m6	49	ARG
52	m6	58	LEU
52	m6	66	LYS
52	m6	67	THR
52	m6	74	ARG
52	m6	78	ARG
52	m6	79	ILE

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Mol	Chain	Res	Type
52	m6	82	LYS
52	m6	84	LEU
52	m6	85	ARG
52	m6	94	ARG
52	m6	100	GLU
52	m6	106	GLU
52	m6	110	PRO
52	m6	117	ARG
52	m6	119	VAL
52	m6	128	ARG
52	m6	140	LYS
52	m6	143	THR
52	m6	152	VAL
52	m6	160	ARG
52	m6	166	GLU
52	m6	171	LYS
52	m6	177	LYS
52	m6	180	SER
52	m6	182	ASN
52	m6	190	VAL
52	m6	197	LEU
53	m7	9	THR
53	m7	16	SER
53	m7	28	ASN
53	m7	32	THR
53	m7	51	VAL
53	m7	52	LEU
53	m7	53	ASP
53	m7	55	GLN
53	m7	69	ARG
53	m7	79	THR
53	m7	80	LYS
53	m7	107	LEU
53	m7	112	LEU
53	m7	118	GLN
53	m7	119	VAL
53	m7	126	ARG
53	m7	127	ARG
53	m7	136	ILE
53	m7	137	ASN
53	m7	138	LYS
53	m7	141	SER

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Mol	Chain	Res	Type
53	m7	142	SER
53	m7	150	VAL
53	m7	153	LYS
53	m7	155	GLU
54	m8	7	SER
54	m8	24	VAL
54	m8	26	LEU
54	m8	31	LYS
54	m8	32	LEU
54	m8	34	THR
54	m8	49	LEU
54	m8	58	ASN
54	m8	63	SER
54	m8	64	VAL
54	m8	66	ARG
54	m8	69	ARG
54	m8	79	LYS
54	m8	81	VAL
54	m8	82	VAL
54	m8	88	THR
54	m8	93	ILE
54	m8	127	LEU
54	m8	129	VAL
54	m8	135	GLN
54	m8	136	ASN
54	m8	137	THR
54	m8	138	LEU
54	m8	141	ARG
54	m8	165	ILE
54	m8	170	ARG
54	m8	174	ARG
54	m8	176	ARG
54	m8	178	ARG
54	m8	185	LYS
55	m9	7	GLN
55	m9	8	LYS
55	m9	10	LEU
55	m9	17	VAL
55	m9	20	ARG
55	m9	29	THR
55	m9	39	ASN
55	m9	43	LYS

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Mol	Chain	Res	Type
55	m9	49	THR
55	m9	56	THR
55	m9	63	THR
55	m9	70	LYS
55	m9	88	ARG
55	m9	99	LEU
55	m9	104	ARG
55	m9	105	LEU
55	m9	119	LEU
55	m9	126	GLU
55	m9	128	LYS
55	m9	138	LEU
55	m9	148	ASP
55	m9	152	GLU
55	m9	153	LYS
55	m9	164	LEU
55	m9	166	ASN
55	m9	173	ARG
55	m9	177	VAL
56	n0	1	MET
56	n0	5	LYS
56	n0	13	ARG
56	n0	16	THR
56	n0	17	GLU
56	n0	19	VAL
56	n0	32	SER
56	n0	40	ARG
56	n0	45	LEU
56	n0	50	LYS
56	n0	60	SER
56	n0	70	THR
56	n0	82	ASP
56	n0	85	SER
56	n0	87	THR
56	n0	88	HIS
56	n0	89	ASN
56	n0	97	VAL
56	n0	100	VAL
56	n0	105	THR
56	n0	113	ARG
56	n0	117	ARG
56	n0	120	SER

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Mol	Chain	Res	Type
56	n0	124	LEU
56	n0	125	LYS
56	n0	130	GLU
56	n0	136	LYS
56	n0	137	ARG
56	n0	142	GLN
56	n0	145	THR
56	n0	148	LEU
56	n0	155	ARG
56	n0	157	GLN
56	n0	160	THR
56	n0	162	THR
56	n0	172	TYR
57	n1	3	LYS
57	n1	10	ARG
57	n1	12	ARG
57	n1	16	GLN
57	n1	17	ARG
57	n1	22	HIS
57	n1	25	VAL
57	n1	27	LEU
57	n1	31	LEU
57	n1	35	LYS
57	n1	36	VAL
57	n1	39	ILE
57	n1	55	LYS
57	n1	78	LYS
57	n1	80	VAL
57	n1	82	ASN
57	n1	83	ARG
57	n1	93	VAL
57	n1	96	ILE
57	n1	97	LYS
57	n1	100	LYS
57	n1	102	ARG
57	n1	104	GLU
57	n1	124	VAL
57	n1	126	VAL
57	n1	128	LEU
57	n1	131	GLN
57	n1	135	PRO
57	n1	139	ARG

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Mol	Chain	Res	Type
57	n1	150	THR
57	n1	154	VAL
57	n1	160	ILE
58	n2	13	LYS
58	n2	14	THR
58	n2	16	THR
58	n2	27	VAL
58	n2	33	TYR
58	n2	38	ILE
58	n2	39	ASP
58	n2	50	LEU
58	n2	58	GLU
58	n2	68	THR
58	n2	74	LYS
58	n2	75	TYR
58	n2	90	ARG
58	n2	94	ARG
58	n2	96	VAL
58	n2	100	THR
59	n3	13	ILE
59	n3	14	SER
59	n3	32	ARG
59	n3	45	ARG
59	n3	48	ARG
59	n3	49	LEU
59	n3	67	PRO
59	n3	69	LEU
59	n3	72	LYS
59	n3	74	MET
59	n3	88	ARG
59	n3	91	VAL
59	n3	120	LYS
59	n3	128	ARG
60	n4	1	MET
60	n4	2	LYS
60	n4	36	SER
60	n4	39	LEU
60	n4	41	LYS
60	n4	54	LEU
60	n4	57	LYS
60	n4	63	ILE
60	n4	89	LEU

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Mol	Chain	Res	Type
60	n4	96	LEU
60	n4	97	LYS
60	n4	98	PRO
60	n4	107	GLU
60	n4	126	GLU
60	n4	127	LYS
60	n4	130	SER
60	n4	135	SER
61	n5	27	ARG
61	n5	33	ARG
61	n5	37	THR
61	n5	39	LYS
61	n5	52	PRO
61	n5	56	ARG
61	n5	57	LEU
61	n5	63	ILE
61	n5	71	THR
61	n5	74	LYS
61	n5	78	ASP
61	n5	86	VAL
61	n5	87	SER
61	n5	105	VAL
61	n5	108	LEU
61	n5	114	VAL
61	n5	115	ARG
61	n5	117	ASN
61	n5	125	ARG
61	n5	135	ILE
61	n5	137	ASN
61	n5	142	ILE
62	n6	4	GLN
62	n6	12	ARG
62	n6	13	ARG
62	n6	32	SER
62	n6	37	LYS
62	n6	45	ILE
62	n6	50	ILE
62	n6	51	ARG
62	n6	56	VAL
62	n6	57	LEU
62	n6	62	SER
62	n6	67	GLU

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Mol	Chain	Res	Type
62	n6	74	TYR
62	n6	84	LYS
62	n6	90	VAL
62	n6	95	VAL
62	n6	99	LEU
62	n6	105	VAL
62	n6	108	LYS
62	n6	111	LEU
62	n6	112	ASP
62	n6	115	ARG
62	n6	120	GLN
62	n6	122	LYS
63	n7	3	LYS
63	n7	5	LEU
63	n7	12	VAL
63	n7	17	ARG
63	n7	21	LYS
63	n7	24	VAL
63	n7	25	ILE
63	n7	28	PRO
63	n7	33	SER
63	n7	34	LYS
63	n7	36	HIS
63	n7	46	ILE
63	n7	52	LYS
63	n7	65	ARG
63	n7	72	ILE
63	n7	77	TYR
63	n7	81	LEU
63	n7	86	THR
63	n7	90	GLU
63	n7	93	LYS
63	n7	95	VAL
63	n7	99	GLU
63	n7	105	SER
63	n7	121	ARG
63	n7	127	ASN
64	n8	3	SER
64	n8	4	ARG
64	n8	8	THR
64	n8	10	LYS
64	n8	14	HIS

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Mol	Chain	Res	Type
64	n8	15	VAL
64	n8	22	ILE
64	n8	26	ARG
64	n8	27	LYS
64	n8	42	ARG
64	n8	47	LYS
64	n8	60	TYR
64	n8	64	GLN
64	n8	65	GLN
64	n8	73	LEU
64	n8	78	LEU
64	n8	82	ILE
64	n8	88	ASP
64	n8	91	LEU
64	n8	92	LYS
64	n8	97	GLU
64	n8	120	ASN
64	n8	123	VAL
64	n8	133	LEU
65	n9	22	LYS
65	n9	23	LYS
65	n9	26	THR
65	n9	31	SER
65	n9	33	LYS
65	n9	38	LYS
65	n9	40	ARG
65	n9	42	ASN
65	n9	50	THR
65	n9	58	LYS
65	n9	59	LYS
66	o0	8	GLU
66	o0	9	SER
66	o0	10	ILE
66	o0	18	ILE
66	o0	19	LYS
66	o0	34	LEU
66	o0	40	LYS
66	o0	41	LEU
66	o0	48	THR
66	o0	55	GLU
66	o0	61	MET
66	o0	64	LYS

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Mol	Chain	Res	Type
66	o0	66	LYS
66	o0	68	TYR
66	o0	69	TYR
66	o0	74	ASN
66	o0	86	ARG
67	o1	6	ASP
67	o1	13	THR
67	o1	16	LEU
67	o1	24	SER
67	o1	26	LYS
67	o1	28	ARG
67	o1	31	ARG
67	o1	34	LYS
67	o1	44	MET
67	o1	46	THR
67	o1	64	VAL
67	o1	70	ARG
67	o1	76	SER
67	o1	83	GLU
67	o1	84	ASP
67	o1	89	LEU
67	o1	91	SER
67	o1	96	VAL
67	o1	98	VAL
67	o1	102	LYS
67	o1	104	LEU
67	o1	106	THR
67	o1	110	GLU
67	o1	112	ASP
68	o2	3	SER
68	o2	4	LEU
68	o2	8	LYS
68	o2	9	ILE
68	o2	10	VAL
68	o2	15	LYS
68	o2	24	ARG
68	o2	27	ARG
68	o2	33	ARG
68	o2	34	LYS
68	o2	44	ARG
68	o2	45	ARG
68	o2	52	GLN

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Mol	Chain	Res	Type
68	o2	54	LYS
68	o2	61	LYS
68	o2	62	LYS
68	o2	66	LEU
68	o2	73	THR
68	o2	75	LEU
68	o2	82	LEU
68	o2	86	THR
68	o2	89	THR
68	o2	101	SER
68	o2	125	ARG
69	o3	4	SER
69	o3	6	ARG
69	o3	15	SER
69	o3	31	LYS
69	o3	42	GLN
69	o3	45	LEU
69	o3	57	LYS
69	o3	58	GLU
69	o3	59	VAL
69	o3	64	ILE
69	o3	70	LYS
69	o3	73	ARG
69	o3	74	THR
69	o3	81	VAL
69	o3	84	THR
69	o3	86	ARG
69	o3	90	PRO
69	o3	93	THR
69	o3	105	SER
69	o3	107	ILE
70	o4	5	VAL
70	o4	15	THR
70	o4	20	ILE
70	o4	22	VAL
70	o4	24	LYS
70	o4	25	THR
70	o4	29	ILE
70	o4	30	LEU
70	o4	35	VAL
70	o4	49	SER
70	o4	57	LEU

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Mol	Chain	Res	Type
70	o4	58	ARG
70	o4	71	THR
70	o4	72	VAL
70	o4	81	CYS
70	o4	83	ASN
70	o4	85	VAL
70	o4	86	LYS
70	o4	88	ARG
70	o4	98	GLN
70	o4	104	VAL
70	o4	107	GLU
71	o5	4	VAL
71	o5	11	THR
71	o5	13	SER
71	o5	20	GLN
71	o5	21	LEU
71	o5	27	GLU
71	o5	28	LEU
71	o5	36	LEU
71	o5	38	ARG
71	o5	44	ILE
71	o5	45	LYS
71	o5	46	THR
71	o5	47	VAL
71	o5	48	ARG
71	o5	59	ASN
71	o5	66	VAL
71	o5	69	LEU
71	o5	79	ASP
71	o5	81	ARG
71	o5	86	ARG
71	o5	89	ARG
71	o5	107	LYS
71	o5	119	LYS
72	o6	3	VAL
72	o6	7	ILE
72	o6	9	ILE
72	o6	21	THR
72	o6	26	ILE
72	o6	35	ASN
72	o6	36	ARG
72	o6	41	ARG

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Mol	Chain	Res	Type
72	o6	42	SER
72	o6	43	LEU
72	o6	45	ARG
72	o6	56	ARG
72	o6	57	LEU
72	o6	58	ILE
72	o6	59	ASP
72	o6	68	ARG
72	o6	75	LYS
72	o6	76	ARG
72	o6	79	SER
72	o6	88	GLU
72	o6	94	ILE
72	o6	97	SER
73	o7	17	THR
73	o7	19	CYS
73	o7	25	ARG
73	o7	31	LYS
73	o7	33	THR
73	o7	36	SER
73	o7	44	THR
73	o7	58	THR
73	o7	59	THR
73	o7	65	ARG
73	o7	67	LEU
73	o7	80	THR
73	o7	85	LYS
74	o8	5	ILE
74	o8	12	LEU
74	o8	14	LEU
74	o8	16	ARG
74	o8	17	ARG
74	o8	24	THR
74	o8	41	THR
74	o8	46	ARG
74	o8	50	SER
74	o8	53	THR
74	o8	61	LYS
74	o8	63	LYS
74	o8	64	LYS
74	o8	65	LEU
74	o8	72	THR

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Mol	Chain	Res	Type
74	o8	73	LEU
75	o9	4	GLN
75	o9	5	LYS
75	o9	6	SER
75	o9	9	ILE
75	o9	15	LYS
75	o9	21	ARG
75	o9	29	LEU
75	o9	47	THR
76	q0	79	GLU
76	q0	83	LYS
76	q0	85	LEU
76	q0	87	SER
76	q0	88	LYS
76	q0	93	LYS
76	q0	99	CYS
76	q0	106	ARG
76	q0	108	THR
76	q0	112	LYS
76	q0	113	ARG
76	q0	114	LYS
76	q0	122	ARG
76	q0	127	LEU
77	q1	6	ARG
77	q1	9	ARG
77	q1	11	ARG
77	q1	13	LEU
77	q1	16	LYS
77	q1	19	LYS
77	q1	21	ARG
77	q1	23	ARG
78	q2	7	THR
78	q2	8	ARG
78	q2	20	HIS
78	q2	35	LEU
78	q2	45	ARG
78	q2	48	SER
78	q2	61	LYS
78	q2	63	LYS
78	q2	78	LYS
78	q2	79	THR
78	q2	80	ARG

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Mol	Chain	Res	Type
78	q2	83	LEU
78	q2	84	THR
78	q2	85	LEU
78	q2	99	GLN
78	q2	100	LYS
78	q2	104	LEU
79	q3	3	LYS
79	q3	8	VAL
79	q3	16	VAL
79	q3	20	SER
79	q3	24	ARG
79	q3	40	SER
79	q3	46	THR
79	q3	49	ARG
79	q3	54	ILE
79	q3	56	THR
79	q3	58	SER
79	q3	62	LYS
79	q3	70	THR
79	q3	72	SER
79	q3	73	THR
79	q3	80	ARG
82	p0	4	ILE
82	p0	5	ARG
82	p0	6	GLU
82	p0	15	LEU
82	p0	25	LEU
82	p0	30	VAL
82	p0	41	VAL
82	p0	42	ARG
82	p0	48	ARG
82	p0	51	VAL
82	p0	55	LYS
82	p0	70	LEU
82	p0	72	ASP
82	p0	74	GLU
82	p0	76	LEU
82	p0	89	THR
82	p0	93	LEU
82	p0	97	LYS
82	p0	104	ARG
82	p0	185	LEU

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Mol	Chain	Res	Type
82	p0	193	ASN

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (79) such sidechains are listed below:

Mol	Chain	Res	Type
3	S1	149	GLN
3	S1	211	HIS
4	S2	87	GLN
5	S3	162	GLN
5	S3	165	ASN
7	S5	131	GLN
9	S7	74	GLN
11	S9	139	GLN
13	C1	104	HIS
14	C2	70	ASN
16	C4	12	GLN
17	C5	103	ASN
19	C7	105	GLN
20	C8	19	ASN
20	C8	99	HIS
21	C9	70	GLN
22	D0	33	GLN
23	D1	74	GLN
26	D4	63	GLN
33	E1	135	HIS
34	SR	17	ASN
39	L2	38	HIS
39	L2	79	ASN
40	L3	293	ASN
41	L4	307	GLN
42	L5	40	HIS
44	L7	244	ASN
46	L9	49	ASN
48	M1	39	GLN
51	M5	194	GLN
54	M8	126	GLN
56	N0	65	ASN
56	N0	142	GLN
57	N1	98	HIS
59	N3	98	ASN
61	N5	111	ASN
65	N9	48	HIS

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Mol	Chain	Res	Type
69	O3	106	ASN
74	O8	32	ASN
76	Q0	117	HIS
79	Q3	33	GLN
6	s4	98	ASN
9	s7	71	HIS
11	s9	110	GLN
11	s9	124	HIS
12	c0	32	HIS
12	c0	58	GLN
19	c7	42	GLN
20	c8	25	ASN
20	c8	90	ASN
22	d0	98	GLN
23	d1	3	ASN
24	d2	113	HIS
25	d3	79	ASN
27	d5	37	GLN
30	d8	27	GLN
80	e0	17	GLN
33	e1	95	HIS
34	sR	187	GLN
39	l2	38	HIS
39	l2	218	HIS
40	l3	165	GLN
41	l4	328	ASN
42	l5	94	ASN
42	l5	151	GLN
42	l5	264	GLN
43	l6	61	ASN
44	l7	48	ASN
48	m1	132	ASN
51	m5	194	GLN
54	m8	145	ASN
55	m9	7	GLN
57	n1	98	HIS
57	n1	122	GLN
59	n3	33	ASN
62	n6	120	GLN
63	n7	57	HIS
68	o2	88	HIS
73	o7	13	ASN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	2	1747/1800 (97%)	511 (29%)	0
1	6	1792/1800 (99%)	498 (27%)	0
36	1	3145/3396 (92%)	747 (23%)	0
36	5	3145/3396 (92%)	744 (23%)	0
37	3	120/121 (99%)	19 (15%)	0
37	7	120/121 (99%)	23 (19%)	0
38	4	157/158 (99%)	45 (28%)	0
38	8	157/158 (99%)	41 (26%)	0
All	All	10383/10950 (94%)	2628 (25%)	0

All (2628) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	2	2	A
1	2	4	C
1	2	20	G
1	2	21	U
1	2	25	C
1	2	26	A
1	2	27	U
1	2	34	G
1	2	39	A
1	2	46	A
1	2	47	A
1	2	57	G
1	2	60	U
1	2	63	G
1	2	66	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	104	A
1	2	114	C
1	2	130	C
1	2	131	C

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Mol	Chain	Res	Type
1	2	132	U
1	2	133	U
1	2	134	U
1	2	135	A
1	2	136	C
1	2	137	U
1	2	140	A
1	2	141	U
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	167	U
1	2	169	A
1	2	178	U
1	2	179	A
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
1	2	195	G
1	2	197	A
1	2	198	A
1	2	200	A
1	2	207	U
1	2	215	A
1	2	217	A
1	2	218	A
1	2	219	A
1	2	220	A
1	2	226	A
1	2	227	U
1	2	228	G
1	2	229	U
1	2	231	U
1	2	233	C

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Mol	Chain	Res	Type
1	2	234	G
1	2	235	G
1	2	236	A
1	2	238	U
1	2	239	C
1	2	240	U
1	2	241	U
1	2	242	U
1	2	249	U
1	2	250	C
1	2	260	U
1	2	261	U
1	2	262	U
1	2	265	A
1	2	267	U
1	2	270	C
1	2	271	A
1	2	272	U
1	2	274	G
1	2	275	C
1	2	276	C
1	2	277	U
1	2	278	U
1	2	279	G
1	2	280	U
1	2	281	G
1	2	288	A
1	2	299	A
1	2	302	U
1	2	304	U
1	2	308	C
1	2	309	C
1	2	314	C
1	2	316	A
1	2	319	U
1	2	321	C
1	2	322	G
1	2	332	U
1	2	333	A
1	2	337	G
1	2	338	C
1	2	341	A

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Mol	Chain	Res	Type
1	2	352	A
1	2	359	A
1	2	360	A
1	2	361	C
1	2	365	G
1	2	393	C
1	2	399	A
1	2	400	A
1	2	401	A
1	2	402	C
1	2	404	G
1	2	416	A
1	2	418	G
1	2	419	G
1	2	424	C
1	2	425	A
1	2	426	G
1	2	428	A
1	2	431	C
1	2	433	C
1	2	434	G
1	2	437	A
1	2	439	U
1	2	444	C
1	2	445	A
1	2	446	A
1	2	448	C
1	2	452	A
1	2	468	A
1	2	469	C
1	2	484	C
1	2	485	A
1	2	486	G
1	2	488	G
1	2	493	U
1	2	494	U
1	2	495	C
1	2	496	G
1	2	497	G
1	2	498	G
1	2	499	U
1	2	500	C

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Mol	Chain	Res	Type
1	2	502	U
1	2	503	G
1	2	504	U
1	2	505	A
1	2	506	A
1	2	507	U
1	2	510	G
1	2	511	A
1	2	513	U
1	2	514	G
1	2	515	A
1	2	518	A
1	2	519	C
1	2	520	A
1	2	524	U
1	2	525	A
1	2	527	A
1	2	532	U
1	2	534	A
1	2	536	C
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	546	U
1	2	548	G
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	579	A
1	2	580	A
1	2	584	C
1	2	594	A
1	2	595	G
1	2	609	U
1	2	610	G

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Mol	Chain	Res	Type
1	2	619	A
1	2	620	A
1	2	622	A
1	2	623	A
1	2	624	G
1	2	630	A
1	2	639	U
1	2	640	U
1	2	643	G
1	2	650	U
1	2	653	C
1	2	655	G
1	2	656	G
1	2	658	C
1	2	677	G
1	2	679	U
1	2	680	U
1	2	682	C
1	2	684	A
1	2	685	A
1	2	686	C
1	2	692	C
1	2	694	U
1	2	695	U
1	2	696	C
1	2	697	C
1	2	700	C
1	2	701	U
1	2	702	G
1	2	703	G
1	2	704	C
1	2	705	U
1	2	707	A
1	2	709	C
1	2	710	U
1	2	711	U
1	2	712	G
1	2	713	A
1	2	714	G
1	2	717	C
1	2	718	U
1	2	719	U

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Mol	Chain	Res	Type
1	2	720	G
1	2	721	U
1	2	722	G
1	2	723	G
1	2	725	U
1	2	727	U
1	2	728	U
1	2	730	G
1	2	731	C
1	2	732	G
1	2	733	A
1	2	734	A
1	2	735	C
1	2	736	C
1	2	737	A
1	2	738	G
1	2	742	U
1	2	743	U
1	2	752	A
1	2	754	A
1	2	755	A
1	2	756	A
1	2	765	G
1	2	766	U
1	2	768	C
1	2	774	A
1	2	775	G
1	2	777	C
1	2	778	G
1	2	779	U
1	2	781	U
1	2	782	U
1	2	783	G
1	2	784	C
1	2	789	A
1	2	793	A
1	2	794	U
1	2	795	U
1	2	803	A
1	2	812	A
1	2	813	U
1	2	815	G

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Mol	Chain	Res	Type
1	2	816	G
1	2	818	C
1	2	819	G
1	2	820	U
1	2	821	U
1	2	822	U
1	2	824	G
1	2	830	U
1	2	831	U
1	2	833	U
1	2	837	G
1	2	838	G
1	2	840	U
1	2	846	G
1	2	850	A
1	2	854	U
1	2	856	A
1	2	863	A
1	2	864	U
1	2	876	G
1	2	886	U
1	2	887	A
1	2	892	A
1	2	896	U
1	2	898	A
1	2	912	U
1	2	914	G
1	2	916	U
1	2	921	U
1	2	933	A
1	2	935	U
1	2	942	G
1	2	951	A
1	2	960	U
1	2	966	A
1	2	984	G
1	2	988	A
1	2	991	G
1	2	992	A
1	2	993	A
1	2	994	G
1	2	996	U

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Mol	Chain	Res	Type
1	2	1003	A
1	2	1004	U
1	2	1005	A
1	2	1020	A
1	2	1026	A
1	2	1028	C
1	2	1029	U
1	2	1031	U
1	2	1039	A
1	2	1040	G
1	2	1052	U
1	2	1053	G
1	2	1058	U
1	2	1059	U
1	2	1060	U
1	2	1061	A
1	2	1062	A
1	2	1064	G
1	2	1066	C
1	2	1067	C
1	2	1074	G
1	2	1076	A
1	2	1080	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	1096	C
1	2	1097	U
1	2	1100	G
1	2	1101	G
1	2	1109	G
1	2	1137	A
1	2	1138	A
1	2	1139	A
1	2	1143	A
1	2	1146	G
1	2	1149	G
1	2	1150	G
1	2	1151	A

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Mol	Chain	Res	Type
1	2	1157	A
1	2	1158	C
1	2	1159	C
1	2	1160	A
1	2	1163	A
1	2	1167	G
1	2	1168	U
1	2	1180	C
1	2	1185	U
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	1207	C
1	2	1208	A
1	2	1217	A
1	2	1218	G
1	2	1226	A
1	2	1227	A
1	2	1228	G
1	2	1229	G
1	2	1241	G
1	2	1243	G
1	2	1244	A
1	2	1245	G
1	2	1250	U
1	2	1251	U
1	2	1258	U
1	2	1260	U
1	2	1267	G
1	2	1268	G
1	2	1276	U
1	2	1285	U
1	2	1286	U
1	2	1287	A
1	2	1314	U
1	2	1315	U
1	2	1316	G
1	2	1319	A

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Mol	Chain	Res	Type
1	2	1321	A
1	2	1325	A
1	2	1337	A
1	2	1339	C
1	2	1340	U
1	2	1341	A
1	2	1344	A
1	2	1345	A
1	2	1350	U
1	2	1355	C
1	2	1361	U
1	2	1363	U
1	2	1364	G
1	2	1370	U
1	2	1371	A
1	2	1390	U
1	2	1395	G
1	2	1398	U
1	2	1399	C
1	2	1400	A
1	2	1410	A
1	2	1412	G
1	2	1413	U
1	2	1414	U
1	2	1415	U
1	2	1418	G
1	2	1420	C
1	2	1421	A
1	2	1424	A
1	2	1427	A
1	2	1428	G
1	2	1431	C
1	2	1433	G
1	2	1446	A
1	2	1457	C
1	2	1458	G
1	2	1459	C
1	2	1461	C
1	2	1465	C
1	2	1471	A
1	2	1473	U
1	2	1474	G

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Mol	Chain	Res	Type
1	2	1475	A
1	2	1482	C
1	2	1483	A
1	2	1485	C
1	2	1486	G
1	2	1489	U
1	2	1490	C
1	2	1491	U
1	2	1492	A
1	2	1493	A
1	2	1503	A
1	2	1506	G
1	2	1514	U
1	2	1516	A
1	2	1517	U
1	2	1523	G
1	2	1524	A
1	2	1526	A
1	2	1530	C
1	2	1535	U
1	2	1536	G
1	2	1537	C
1	2	1538	U
1	2	1542	G
1	2	1557	U
1	2	1559	A
1	2	1572	G
1	2	1574	G
1	2	1584	G
1	2	1600	A
1	2	1601	G
1	2	1614	A
1	2	1616	G
1	2	1625	C
1	2	1631	A
1	2	1636	C
1	2	1637	C
1	2	1652	C
1	2	1657	U
1	2	1658	G
1	2	1683	C
1	2	1684	U

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Mol	Chain	Res	Type
1	2	1719	A
1	2	1731	A
1	2	1738	U
1	2	1754	A
1	2	1755	A
1	2	1760	G
1	2	1762	A
1	2	1766	A
1	2	1768	G
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	15	C
36	1	16	A
36	1	26	A
36	1	37	U
36	1	40	A
36	1	43	A
36	1	49	A
36	1	54	C
36	1	57	A
36	1	59	G
36	1	60	A
36	1	61	A
36	1	65	A
36	1	66	A
36	1	68	C
36	1	74	G
36	1	76	G
36	1	83	U
36	1	93	C

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Mol	Chain	Res	Type
36	1	94	G
36	1	99	A
36	1	109	A
36	1	110	G
36	1	111	C
36	1	113	C
36	1	115	A
36	1	121	A
36	1	122	A
36	1	133	U
36	1	135	C
36	1	136	G
36	1	156	G
36	1	157	A
36	1	160	G
36	1	166	C
36	1	169	U
36	1	187	A
36	1	190	U
36	1	191	U
36	1	195	U
36	1	197	G
36	1	210	U
36	1	211	A
36	1	218	G
36	1	219	A
36	1	232	G
36	1	235	A
36	1	240	U
36	1	241	G
36	1	243	G
36	1	247	C
36	1	249	U
36	1	250	U
36	1	251	G
36	1	252	U
36	1	263	C
36	1	269	G
36	1	282	G
36	1	283	G
36	1	286	U
36	1	295	A

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Mol	Chain	Res	Type
36	1	298	U
36	1	305	U
36	1	306	A
36	1	315	C
36	1	318	A
36	1	323	A
36	1	329	U
36	1	334	A
36	1	339	C
36	1	349	A
36	1	350	C
36	1	359	U
36	1	376	G
36	1	395	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	438	A
36	1	439	C
36	1	440	A
36	1	495	G
36	1	498	A
36	1	521	A
36	1	531	G
36	1	535	G
36	1	541	U
36	1	544	C
36	1	546	C
36	1	547	G
36	1	548	G
36	1	552	G
36	1	553	U
36	1	555	U
36	1	556	U
36	1	557	A
36	1	559	A

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Mol	Chain	Res	Type
36	1	560	G
36	1	569	A
36	1	578	A
36	1	579	G
36	1	588	G
36	1	592	A
36	1	604	G
36	1	609	G
36	1	611	A
36	1	619	A
36	1	620	U
36	1	621	A
36	1	636	C
36	1	638	C
36	1	648	C
36	1	649	A
36	1	658	G
36	1	660	A
36	1	661	G
36	1	675	C
36	1	677	A
36	1	681	U
36	1	691	A
36	1	692	A
36	1	697	A
36	1	705	A
36	1	711	A
36	1	712	G
36	1	715	A
36	1	716	A
36	1	719	U
36	1	725	G
36	1	759	U
36	1	764	U
36	1	766	U
36	1	767	U
36	1	768	C
36	1	776	U
36	1	777	U
36	1	780	A
36	1	781	G
36	1	785	G

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Mol	Chain	Res	Type
36	1	787	G
36	1	802	C
36	1	803	C
36	1	806	A
36	1	817	A
36	1	826	G
36	1	830	A
36	1	831	G
36	1	849	C
36	1	861	C
36	1	874	U
36	1	876	A
36	1	878	G
36	1	879	U
36	1	890	C
36	1	891	G
36	1	896	A
36	1	901	G
36	1	907	G
36	1	908	G
36	1	909	G
36	1	914	A
36	1	916	G
36	1	917	A
36	1	921	A
36	1	923	C
36	1	924	G
36	1	933	A
36	1	937	G
36	1	938	C
36	1	944	C
36	1	953	G
36	1	958	C
36	1	959	C
36	1	960	U
36	1	962	A
36	1	979	U
36	1	980	A
36	1	981	U
36	1	982	C
36	1	994	G
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	1012	G
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	1047	A
36	1	1049	C
36	1	1052	U
36	1	1063	G
36	1	1064	A
36	1	1068	C
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	1131	G
36	1	1144	U
36	1	1153	A
36	1	1159	A
36	1	1180	A
36	1	1181	U
36	1	1182	A
36	1	1186	G
36	1	1191	U

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Mol	Chain	Res	Type
36	1	1192	C
36	1	1196	C
36	1	1201	C
36	1	1209	G
36	1	1211	U
36	1	1213	G
36	1	1216	C
36	1	1217	A
36	1	1221	A
36	1	1222	G
36	1	1227	C
36	1	1232	C
36	1	1233	G
36	1	1235	U
36	1	1236	G
36	1	1237	G
36	1	1238	C
36	1	1241	U
36	1	1243	G
36	1	1245	A
36	1	1246	G
36	1	1248	C
36	1	1249	G
36	1	1258	U
36	1	1259	A
36	1	1262	G
36	1	1263	A
36	1	1264	G
36	1	1265	U
36	1	1266	G
36	1	1267	U
36	1	1269	U
36	1	1270	A
36	1	1271	A
36	1	1274	A
36	1	1278	A
36	1	1279	C
36	1	1280	C
36	1	1285	G
36	1	1286	A
36	1	1287	A
36	1	1297	C

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Mol	Chain	Res	Type
36	1	1305	U
36	1	1307	G
36	1	1308	A
36	1	1309	U
36	1	1313	G
36	1	1314	C
36	1	1318	A
36	1	1330	A
36	1	1331	U
36	1	1332	A
36	1	1339	C
36	1	1345	G
36	1	1348	U
36	1	1349	G
36	1	1350	A
36	1	1351	U
36	1	1352	A
36	1	1353	U
36	1	1355	A
36	1	1356	U
36	1	1357	G
36	1	1385	C
36	1	1386	A
36	1	1387	G
36	1	1397	C
36	1	1398	U
36	1	1399	A
36	1	1400	G
36	1	1408	G
36	1	1417	G
36	1	1418	A
36	1	1419	A
36	1	1421	G
36	1	1431	G
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

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Mol	Chain	Res	Type
36	1	1485	G
36	1	1488	G
36	1	1490	A
36	1	1503	A
36	1	1508	C
36	1	1511	U
36	1	1518	U
36	1	1519	G
36	1	1526	U
36	1	1529	A
36	1	1533	U
36	1	1535	A
36	1	1536	G
36	1	1538	G
36	1	1549	U
36	1	1554	U
36	1	1555	U
36	1	1556	C
36	1	1560	G
36	1	1561	G
36	1	1562	C
36	1	1563	C
36	1	1564	U
36	1	1565	G
36	1	1566	A
36	1	1567	U
36	1	1568	U
36	1	1569	U
36	1	1570	U
36	1	1571	A
36	1	1572	U
36	1	1575	A
36	1	1576	G
36	1	1578	C
36	1	1579	C
36	1	1580	A
36	1	1581	C
36	1	1582	C
36	1	1583	A
36	1	1586	G
36	1	1587	A
36	1	1589	A

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Mol	Chain	Res	Type
36	1	1593	A
36	1	1605	A
36	1	1607	U
36	1	1608	C
36	1	1609	C
36	1	1620	U
36	1	1621	A
36	1	1629	U
36	1	1633	C
36	1	1639	C
36	1	1642	A
36	1	1643	A
36	1	1645	U
36	1	1655	G
36	1	1658	G
36	1	1664	G
36	1	1683	A
36	1	1692	U
36	1	1705	U
36	1	1716	U
36	1	1717	U
36	1	1724	U
36	1	1734	G
36	1	1736	G
36	1	1741	A
36	1	1742	U
36	1	1750	A
36	1	1751	G
36	1	1760	A
36	1	1761	C
36	1	1762	C
36	1	1765	U
36	1	1766	G
36	1	1767	C
36	1	1768	U
36	1	1770	G
36	1	1775	G
36	1	1779	C
36	1	1780	G
36	1	1797	A
36	1	1809	A
36	1	1810	A

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Mol	Chain	Res	Type
36	1	1812	G
36	1	1813	A
36	1	1814	A
36	1	1815	U
36	1	1816	A
36	1	1817	G
36	1	1819	U
36	1	1820	U
36	1	1821	U
36	1	1822	C
36	1	1829	G
36	1	1835	A
36	1	1839	A
36	1	1840	U
36	1	1841	A
36	1	1842	A
36	1	1845	G
36	1	1846	C
36	1	1847	A
36	1	1849	C
36	1	1863	G
36	1	1864	A
36	1	1866	C
36	1	1879	A
36	1	1880	U
36	1	1897	G
36	1	1901	A
36	1	1906	G
36	1	1920	U
36	1	1927	G
36	1	1935	G
36	1	1937	U
36	1	1951	C
36	1	1952	G
36	1	1953	G
36	1	1954	G
36	1	2094	C
36	1	2097	U
36	1	2101	C
36	1	2102	U
36	1	2111	G
36	1	2112	U

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Mol	Chain	Res	Type
36	1	2113	A
36	1	2121	G
36	1	2122	G
36	1	2126	A
36	1	2130	G
36	1	2131	A
36	1	2134	G
36	1	2140	U
36	1	2158	A
36	1	2169	G
36	1	2187	G
36	1	2188	A
36	1	2194	G
36	1	2198	A
36	1	2205	U
36	1	2206	G
36	1	2208	A
36	1	2209	U
36	1	2210	G
36	1	2223	A
36	1	2228	A
36	1	2231	C
36	1	2239	G
36	1	2245	C
36	1	2246	G
36	1	2249	G
36	1	2250	G
36	1	2252	A
36	1	2255	A
36	1	2256	A
36	1	2260	U
36	1	2268	U
36	1	2272	G
36	1	2273	G
36	1	2281	A
36	1	2282	U
36	1	2283	G
36	1	2284	C
36	1	2288	G
36	1	2301	U
36	1	2303	A
36	1	2306	C

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Mol	Chain	Res	Type
36	1	2307	G
36	1	2308	C
36	1	2309	A
36	1	2310	U
36	1	2313	A
36	1	2314	U
36	1	2315	G
36	1	2317	A
36	1	2334	U
36	1	2335	G
36	1	2336	U
36	1	2360	C
36	1	2373	A
36	1	2374	C
36	1	2375	G
36	1	2385	G
36	1	2392	C
36	1	2393	G
36	1	2394	G
36	1	2397	A
36	1	2402	A
36	1	2403	G
36	1	2404	A
36	1	2405	C
36	1	2411	U
36	1	2418	G
36	1	2419	A
36	1	2437	G
36	1	2443	A
36	1	2444	C
36	1	2445	A
36	1	2502	A
36	1	2503	G
36	1	2504	U
36	1	2514	U
36	1	2515	A
36	1	2520	A
36	1	2522	G
36	1	2523	A
36	1	2525	G
36	1	2526	C
36	1	2532	U

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Mol	Chain	Res	Type
36	1	2533	G
36	1	2534	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	2544	U
36	1	2547	A
36	1	2548	C
36	1	2549	G
36	1	2552	C
36	1	2554	A
36	1	2555	G
36	1	2561	A
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	2581	U
36	1	2585	G
36	1	2591	A
36	1	2593	A
36	1	2594	C
36	1	2602	G
36	1	2606	G
36	1	2607	G
36	1	2614	G
36	1	2618	G
36	1	2626	A
36	1	2628	A
36	1	2629	U
36	1	2637	A
36	1	2638	C
36	1	2648	G
36	1	2652	U
36	1	2656	A
36	1	2672	G

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Mol	Chain	Res	Type
36	1	2674	A
36	1	2677	G
36	1	2689	A
36	1	2690	G
36	1	2691	A
36	1	2694	A
36	1	2695	A
36	1	2696	A
36	1	2705	A
36	1	2706	G
36	1	2714	G
36	1	2728	G
36	1	2729	U
36	1	2737	C
36	1	2744	U
36	1	2752	U
36	1	2753	G
36	1	2755	C
36	1	2762	A
36	1	2764	C
36	1	2771	U
36	1	2772	C
36	1	2773	C
36	1	2777	G
36	1	2778	G
36	1	2779	A
36	1	2783	U
36	1	2794	G
36	1	2796	G
36	1	2799	A
36	1	2800	G
36	1	2801	A
36	1	2802	A
36	1	2803	A
36	1	2810	C
36	1	2815	G
36	1	2817	A
36	1	2818	U
36	1	2829	U
36	1	2830	G
36	1	2839	G
36	1	2842	U

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Mol	Chain	Res	Type
36	1	2843	U
36	1	2845	A
36	1	2847	A
36	1	2853	A
36	1	2856	G
36	1	2858	U
36	1	2860	U
36	1	2867	C
36	1	2871	G
36	1	2872	A
36	1	2876	C
36	1	2880	U
36	1	2886	U
36	1	2887	A
36	1	2888	U
36	1	2898	G
36	1	2899	C
36	1	2917	G
36	1	2923	U
36	1	2935	U
36	1	2936	A
36	1	2942	C
36	1	2947	G
36	1	2951	G
36	1	2954	U
36	1	2955	U
36	1	2971	A
36	1	2977	G
36	1	2979	U
36	1	2983	C
36	1	2990	G
36	1	2992	U
36	1	2997	G
36	1	3012	A
36	1	3028	G
36	1	3055	U
36	1	3056	U
36	1	3057	U
36	1	3059	G
36	1	3074	G
36	1	3078	U
36	1	3079	U

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Mol	Chain	Res	Type
36	1	3080	G
36	1	3086	A
36	1	3087	A
36	1	3088	G
36	1	3092	C
36	1	3094	A
36	1	3101	G
36	1	3104	U
36	1	3113	A
36	1	3122	A
36	1	3130	A
36	1	3131	U
36	1	3142	A
36	1	3143	C
36	1	3145	C
36	1	3147	G
36	1	3151	U
36	1	3153	U
36	1	3154	C
36	1	3155	U
36	1	3156	U
36	1	3157	U
36	1	3164	C
36	1	3165	A
36	1	3168	A
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	3206	C
36	1	3207	U
36	1	3210	A
36	1	3217	C
36	1	3218	A
36	1	3219	G
36	1	3220	G
36	1	3223	A

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Mol	Chain	Res	Type
36	1	3228	C
36	1	3229	G
36	1	3235	C
36	1	3244	A
36	1	3245	A
36	1	3246	G
36	1	3247	G
36	1	3253	G
36	1	3259	U
36	1	3268	A
36	1	3269	U
36	1	3270	U
36	1	3273	A
36	1	3276	G
36	1	3280	U
36	1	3281	U
36	1	3286	G
36	1	3287	U
36	1	3289	G
36	1	3293	U
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	3322	A
36	1	3330	A
36	1	3335	A
36	1	3336	A
36	1	3341	U
36	1	3342	A
36	1	3345	G
36	1	3347	A
36	1	3350	C
36	1	3351	U
36	1	3352	U

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Mol	Chain	Res	Type
36	1	3353	G
36	1	3354	U
36	1	3355	U
36	1	3356	G
36	1	3358	U
36	1	3369	G
36	1	3375	A
36	1	3376	A
36	1	3378	C
36	1	3382	U
36	1	3383	G
36	1	3389	U
37	3	7	G
37	3	11	A
37	3	13	A
37	3	14	U
37	3	17	A
37	3	21	G
37	3	22	A
37	3	41	G
37	3	42	A
37	3	53	U
37	3	54	U
37	3	65	G
37	3	74	C
37	3	76	A
37	3	91	G
37	3	102	A
37	3	109	G
37	3	112	G
37	3	121	U
38	4	20	U
38	4	21	C
38	4	26	U
38	4	34	U
38	4	35	C
38	4	43	A
38	4	48	A
38	4	49	G
38	4	52	A
38	4	53	A
38	4	55	U

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Mol	Chain	Res	Type
38	4	58	G
38	4	59	A
38	4	62	C
38	4	63	G
38	4	70	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
38	4	85	G
38	4	86	U
38	4	87	G
38	4	90	U
38	4	93	U
38	4	95	G
38	4	96	A
38	4	97	A
38	4	102	U
38	4	104	A
38	4	105	A
38	4	106	C
38	4	111	A
38	4	113	U
38	4	125	U
38	4	126	A
38	4	128	U
38	4	138	A
38	4	148	G
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	6	G
1	6	24	U
1	6	25	C
1	6	26	A
1	6	27	U
1	6	34	G

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Mol	Chain	Res	Type
1	6	47	A
1	6	50	C
1	6	57	G
1	6	61	A
1	6	68	A
1	6	69	G
1	6	72	A
1	6	73	U
1	6	75	U
1	6	76	A
1	6	77	U
1	6	78	A
1	6	114	C
1	6	115	G
1	6	126	A
1	6	127	G
1	6	129	U
1	6	130	C
1	6	132	U
1	6	137	U
1	6	138	A
1	6	140	A
1	6	141	U
1	6	142	G
1	6	144	U
1	6	145	A
1	6	146	U
1	6	149	C
1	6	153	G
1	6	158	U
1	6	159	U
1	6	166	C
1	6	174	U
1	6	177	U
1	6	178	U
1	6	181	A
1	6	185	U
1	6	187	G
1	6	188	A
1	6	190	C
1	6	191	C
1	6	192	U

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Mol	Chain	Res	Type
1	6	193	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	216	U
1	6	218	A
1	6	219	A
1	6	220	A
1	6	222	A
1	6	226	A
1	6	227	U
1	6	228	G
1	6	230	C
1	6	232	U
1	6	233	C
1	6	234	G
1	6	235	G
1	6	240	U
1	6	241	U
1	6	250	C
1	6	261	U
1	6	265	A
1	6	269	G
1	6	270	C
1	6	271	A
1	6	272	U
1	6	273	G
1	6	275	C
1	6	277	U
1	6	278	U
1	6	280	U
1	6	287	G
1	6	299	A
1	6	301	A
1	6	314	C
1	6	316	A
1	6	319	U
1	6	320	U
1	6	321	C

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Mol	Chain	Res	Type
1	6	322	G
1	6	330	G
1	6	333	A
1	6	337	G
1	6	338	C
1	6	341	A
1	6	346	G
1	6	350	U
1	6	352	A
1	6	359	A
1	6	360	A
1	6	361	C
1	6	393	C
1	6	400	A
1	6	401	A
1	6	402	C
1	6	404	G
1	6	416	A
1	6	418	G
1	6	419	G
1	6	421	A
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	454	U
1	6	464	A
1	6	468	A
1	6	475	A
1	6	477	A
1	6	484	C
1	6	485	A
1	6	486	G
1	6	487	G
1	6	488	G
1	6	489	C
1	6	490	C
1	6	492	A
1	6	493	U

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Mol	Chain	Res	Type
1	6	494	U
1	6	496	G
1	6	497	G
1	6	500	C
1	6	501	U
1	6	502	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
1	6	511	A
1	6	515	A
1	6	519	C
1	6	520	A
1	6	527	A
1	6	536	C
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	555	A
1	6	556	A
1	6	557	G
1	6	558	U
1	6	559	C
1	6	565	C
1	6	566	C
1	6	570	A
1	6	574	G
1	6	579	A
1	6	580	A
1	6	582	U
1	6	594	A
1	6	595	G
1	6	606	A
1	6	609	U
1	6	610	G

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Mol	Chain	Res	Type
1	6	619	A
1	6	620	A
1	6	622	A
1	6	623	A
1	6	624	G
1	6	637	C
1	6	639	U
1	6	640	U
1	6	645	C
1	6	648	G
1	6	650	U
1	6	652	G
1	6	653	C
1	6	654	C
1	6	658	C
1	6	661	A
1	6	662	U
1	6	665	U
1	6	667	U
1	6	668	C
1	6	669	G
1	6	670	U
1	6	676	G
1	6	678	A
1	6	679	U
1	6	681	U
1	6	682	C
1	6	683	C
1	6	684	A
1	6	685	A
1	6	691	C
1	6	698	U
1	6	709	C
1	6	710	U
1	6	711	U
1	6	714	G
1	6	718	U
1	6	719	U
1	6	720	G
1	6	721	U
1	6	722	G
1	6	730	G

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Mol	Chain	Res	Type
1	6	742	U
1	6	743	U
1	6	744	U
1	6	751	G
1	6	753	A
1	6	754	A
1	6	755	A
1	6	756	A
1	6	757	A
1	6	765	G
1	6	766	U
1	6	767	U
1	6	768	C
1	6	774	A
1	6	775	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	792	U
1	6	793	A
1	6	794	U
1	6	806	A
1	6	808	U
1	6	811	A
1	6	812	A
1	6	815	G
1	6	816	G
1	6	821	U
1	6	823	G
1	6	825	U
1	6	826	U
1	6	828	U
1	6	829	A
1	6	830	U
1	6	831	U
1	6	832	U
1	6	834	G
1	6	835	U
1	6	842	C

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Mol	Chain	Res	Type
1	6	847	A
1	6	863	A
1	6	873	U
1	6	886	U
1	6	898	A
1	6	904	G
1	6	905	A
1	6	906	A
1	6	910	C
1	6	912	U
1	6	913	G
1	6	914	G
1	6	916	U
1	6	933	A
1	6	935	U
1	6	942	G
1	6	945	U
1	6	958	U
1	6	959	U
1	6	960	U
1	6	969	C
1	6	970	A
1	6	971	A
1	6	983	A
1	6	985	G
1	6	988	A
1	6	992	A
1	6	993	A
1	6	1003	A
1	6	1004	U
1	6	1005	A
1	6	1010	C
1	6	1018	U
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

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Mol	Chain	Res	Type
1	6	1059	U
1	6	1060	U
1	6	1063	U
1	6	1065	A
1	6	1067	C
1	6	1070	C
1	6	1072	C
1	6	1073	G
1	6	1075	C
1	6	1081	A
1	6	1082	C
1	6	1092	A
1	6	1096	C
1	6	1097	U
1	6	1098	U
1	6	1099	U
1	6	1100	G
1	6	1101	G
1	6	1104	U
1	6	1109	G
1	6	1113	A
1	6	1137	A
1	6	1138	A
1	6	1146	G
1	6	1150	G
1	6	1151	A
1	6	1155	G
1	6	1158	C
1	6	1159	C
1	6	1160	A
1	6	1162	C
1	6	1163	A
1	6	1167	G
1	6	1183	A
1	6	1185	U
1	6	1190	C
1	6	1194	A
1	6	1196	A
1	6	1199	G
1	6	1200	G
1	6	1202	A
1	6	1208	A

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Mol	Chain	Res	Type
1	6	1213	G
1	6	1214	U
1	6	1217	A
1	6	1218	G
1	6	1219	A
1	6	1220	C
1	6	1226	A
1	6	1228	G
1	6	1229	G
1	6	1230	A
1	6	1236	A
1	6	1238	A
1	6	1239	U
1	6	1240	U
1	6	1241	G
1	6	1242	A
1	6	1243	G
1	6	1244	A
1	6	1245	G
1	6	1246	C
1	6	1248	C
1	6	1252	C
1	6	1255	G
1	6	1256	A
1	6	1257	U
1	6	1258	U
1	6	1259	U
1	6	1261	G
1	6	1262	U
1	6	1275	A
1	6	1284	C
1	6	1286	U
1	6	1288	G
1	6	1291	G
1	6	1300	A
1	6	1306	C
1	6	1307	U
1	6	1314	U
1	6	1315	U
1	6	1316	G
1	6	1321	A
1	6	1338	C

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Mol	Chain	Res	Type
1	6	1341	A
1	6	1344	A
1	6	1345	A
1	6	1346	A
1	6	1354	G
1	6	1355	C
1	6	1360	A
1	6	1361	U
1	6	1362	U
1	6	1363	U
1	6	1364	G
1	6	1371	A
1	6	1372	U
1	6	1373	C
1	6	1388	A
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	1415	U
1	6	1418	G
1	6	1424	A
1	6	1425	A
1	6	1427	A
1	6	1428	G
1	6	1429	G
1	6	1430	U
1	6	1431	C
1	6	1433	G
1	6	1437	U
1	6	1438	G
1	6	1445	G
1	6	1446	A
1	6	1448	G
1	6	1451	C
1	6	1459	C
1	6	1461	C
1	6	1471	A
1	6	1481	C
1	6	1482	C

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Mol	Chain	Res	Type
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	1516	A
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	1573	A
1	6	1574	G
1	6	1575	G
1	6	1577	A
1	6	1584	G
1	6	1590	G
1	6	1597	A
1	6	1601	G
1	6	1616	G
1	6	1620	C
1	6	1621	U
1	6	1622	G
1	6	1631	A
1	6	1635	A
1	6	1637	C
1	6	1638	G
1	6	1656	U
1	6	1657	U
1	6	1658	G
1	6	1697	G
1	6	1698	G
1	6	1699	G

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Mol	Chain	Res	Type
1	6	1700	C
1	6	1701	A
1	6	1702	A
1	6	1712	A
1	6	1716	C
1	6	1717	G
1	6	1731	A
1	6	1736	G
1	6	1745	G
1	6	1755	A
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	1772	C
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	1795	U
1	6	1796	C
1	6	1799	U
1	6	1800	A
36	5	14	U
36	5	15	C
36	5	26	A
36	5	40	A
36	5	43	A
36	5	44	U
36	5	49	A
36	5	60	A
36	5	62	A
36	5	65	A
36	5	66	A
36	5	73	C
36	5	74	G
36	5	76	G

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Mol	Chain	Res	Type
36	5	83	U
36	5	85	A
36	5	92	G
36	5	93	C
36	5	96	G
36	5	97	U
36	5	99	A
36	5	101	G
36	5	109	A
36	5	110	G
36	5	111	C
36	5	113	C
36	5	116	A
36	5	120	G
36	5	121	A
36	5	122	A
36	5	124	U
36	5	133	U
36	5	134	U
36	5	135	C
36	5	136	G
36	5	152	U
36	5	156	G
36	5	157	A
36	5	161	G
36	5	165	A
36	5	166	C
36	5	170	G
36	5	171	G
36	5	172	G
36	5	174	C
36	5	180	C
36	5	181	U
36	5	182	U
36	5	186	U
36	5	187	A
36	5	190	U
36	5	191	U
36	5	192	C
36	5	200	C
36	5	206	G
36	5	210	U

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Mol	Chain	Res	Type
36	5	211	A
36	5	218	G
36	5	219	A
36	5	221	A
36	5	231	G
36	5	234	G
36	5	237	G
36	5	239	G
36	5	240	U
36	5	242	C
36	5	244	G
36	5	245	U
36	5	246	U
36	5	248	U
36	5	249	U
36	5	250	U
36	5	251	G
36	5	252	U
36	5	253	A
36	5	254	A
36	5	257	U
36	5	269	G
36	5	284	A
36	5	286	U
36	5	295	A
36	5	323	A
36	5	329	U
36	5	334	A
36	5	339	C
36	5	349	A
36	5	350	C
36	5	351	A
36	5	352	A
36	5	356	C
36	5	370	U
36	5	372	A
36	5	375	A
36	5	376	G
36	5	395	A
36	5	397	A
36	5	398	A
36	5	399	A

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Mol	Chain	Res	Type
36	5	401	U
36	5	402	A
36	5	403	C
36	5	404	G
36	5	421	G
36	5	422	A
36	5	436	A
36	5	438	A
36	5	439	C
36	5	441	U
36	5	492	U
36	5	495	G
36	5	507	U
36	5	521	A
36	5	532	A
36	5	535	G
36	5	542	G
36	5	546	C
36	5	547	G
36	5	548	G
36	5	555	U
36	5	557	A
36	5	559	A
36	5	578	A
36	5	579	G
36	5	592	A
36	5	604	G
36	5	607	A
36	5	609	G
36	5	610	G
36	5	611	A
36	5	619	A
36	5	620	U
36	5	621	A
36	5	636	C
36	5	644	G
36	5	649	A
36	5	653	A
36	5	656	A
36	5	660	A
36	5	675	C
36	5	677	A

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Mol	Chain	Res	Type
36	5	681	U
36	5	683	U
36	5	691	A
36	5	705	A
36	5	708	G
36	5	712	G
36	5	715	A
36	5	716	A
36	5	717	C
36	5	725	G
36	5	727	G
36	5	748	U
36	5	763	G
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	806	A
36	5	813	G
36	5	817	A
36	5	830	A
36	5	860	G
36	5	861	C
36	5	869	G
36	5	871	U
36	5	874	U
36	5	877	C
36	5	879	U
36	5	891	G
36	5	896	A
36	5	897	U
36	5	898	U
36	5	907	G
36	5	908	G
36	5	910	G
36	5	913	A
36	5	914	A
36	5	916	G

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Mol	Chain	Res	Type
36	5	917	A
36	5	921	A
36	5	923	C
36	5	924	G
36	5	926	A
36	5	937	G
36	5	944	C
36	5	959	C
36	5	960	U
36	5	964	G
36	5	979	U
36	5	993	G
36	5	994	G
36	5	1000	C
36	5	1001	G
36	5	1002	A
36	5	1006	A
36	5	1010	G
36	5	1015	U
36	5	1017	C
36	5	1019	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	1035	G
36	5	1041	U
36	5	1047	A
36	5	1049	C
36	5	1051	U
36	5	1064	A
36	5	1065	A
36	5	1072	G
36	5	1075	A
36	5	1081	U
36	5	1082	U
36	5	1083	G
36	5	1087	G
36	5	1088	U

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Mol	Chain	Res	Type
36	5	1093	A
36	5	1094	U
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	1117	G
36	5	1118	C
36	5	1131	G
36	5	1138	U
36	5	1144	U
36	5	1152	G
36	5	1153	A
36	5	1159	A
36	5	1160	C
36	5	1162	U
36	5	1165	A
36	5	1172	G
36	5	1173	U
36	5	1178	G
36	5	1179	A
36	5	1180	A
36	5	1181	U
36	5	1182	A
36	5	1186	G
36	5	1190	A
36	5	1191	U
36	5	1192	C
36	5	1200	A
36	5	1201	C
36	5	1209	G
36	5	1222	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	1243	G
36	5	1245	A

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Mol	Chain	Res	Type
36	5	1246	G
36	5	1248	C
36	5	1252	A
36	5	1258	U
36	5	1262	G
36	5	1263	A
36	5	1264	G
36	5	1265	U
36	5	1266	G
36	5	1274	A
36	5	1285	G
36	5	1301	A
36	5	1307	G
36	5	1308	A
36	5	1309	U
36	5	1311	G
36	5	1313	G
36	5	1324	U
36	5	1330	A
36	5	1348	U
36	5	1349	G
36	5	1351	U
36	5	1352	A
36	5	1353	U
36	5	1356	U
36	5	1357	G
36	5	1369	A
36	5	1370	G
36	5	1379	G
36	5	1385	C
36	5	1386	A
36	5	1398	U
36	5	1399	A
36	5	1400	G
36	5	1418	A
36	5	1419	A
36	5	1421	G
36	5	1428	A
36	5	1431	G
36	5	1433	A
36	5	1434	G
36	5	1437	C

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Mol	Chain	Res	Type
36	5	1438	U
36	5	1443	G
36	5	1446	A
36	5	1450	G
36	5	1465	A
36	5	1472	U
36	5	1481	A
36	5	1482	A
36	5	1490	A
36	5	1503	A
36	5	1508	C
36	5	1519	G
36	5	1528	G
36	5	1533	U
36	5	1536	G
36	5	1539	A
36	5	1541	G
36	5	1549	U
36	5	1554	U
36	5	1555	U
36	5	1556	C
36	5	1557	A
36	5	1560	G
36	5	1561	G
36	5	1562	C
36	5	1564	U
36	5	1566	A
36	5	1567	U
36	5	1569	U
36	5	1570	U
36	5	1571	A
36	5	1572	U
36	5	1574	C
36	5	1575	A
36	5	1576	G
36	5	1577	G
36	5	1578	C
36	5	1579	C
36	5	1581	C
36	5	1582	C
36	5	1583	A
36	5	1589	A

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Mol	Chain	Res	Type
36	5	1594	A
36	5	1600	U
36	5	1605	A
36	5	1607	U
36	5	1614	C
36	5	1618	G
36	5	1619	A
36	5	1620	U
36	5	1629	U
36	5	1639	C
36	5	1641	U
36	5	1642	A
36	5	1643	A
36	5	1644	C
36	5	1645	U
36	5	1656	A
36	5	1658	G
36	5	1677	G
36	5	1683	A
36	5	1685	C
36	5	1687	U
36	5	1699	A
36	5	1708	C
36	5	1715	A
36	5	1716	U
36	5	1717	U
36	5	1724	U
36	5	1736	G
36	5	1741	A
36	5	1750	A
36	5	1751	G
36	5	1758	G
36	5	1759	C
36	5	1761	C
36	5	1762	C
36	5	1764	U
36	5	1765	U
36	5	1766	G
36	5	1767	C
36	5	1770	G
36	5	1772	U
36	5	1775	G

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Mol	Chain	Res	Type
36	5	1780	G
36	5	1781	C
36	5	1787	A
36	5	1788	C
36	5	1793	C
36	5	1795	U
36	5	1797	A
36	5	1808	G
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	1820	U
36	5	1821	U
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	1859	A
36	5	1863	G
36	5	1864	A
36	5	1866	C
36	5	1871	U
36	5	1878	G
36	5	1879	A
36	5	1880	U
36	5	1884	A
36	5	1886	A
36	5	1891	A
36	5	1893	A
36	5	1895	A
36	5	1901	A
36	5	1906	G
36	5	1918	C
36	5	1920	U
36	5	1935	G
36	5	1948	G
36	5	1952	G

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Mol	Chain	Res	Type
36	5	1953	G
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	2144	A
36	5	2145	A
36	5	2146	C
36	5	2158	A
36	5	2169	G
36	5	2177	G
36	5	2184	U
36	5	2185	G
36	5	2187	G
36	5	2192	C
36	5	2198	A
36	5	2205	U
36	5	2208	A
36	5	2209	U
36	5	2210	G
36	5	2213	A
36	5	2215	A
36	5	2221	G
36	5	2223	A
36	5	2225	U
36	5	2229	A
36	5	2231	C
36	5	2244	A
36	5	2246	G
36	5	2249	G
36	5	2250	G
36	5	2253	G
36	5	2255	A
36	5	2256	A
36	5	2257	C
36	5	2258	U

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Mol	Chain	Res	Type
36	5	2266	U
36	5	2269	U
36	5	2270	A
36	5	2273	G
36	5	2278	C
36	5	2279	A
36	5	2281	A
36	5	2286	U
36	5	2288	G
36	5	2297	U
36	5	2298	U
36	5	2303	A
36	5	2307	G
36	5	2310	U
36	5	2313	A
36	5	2315	G
36	5	2321	A
36	5	2336	U
36	5	2339	C
36	5	2352	A
36	5	2366	C
36	5	2367	A
36	5	2368	A
36	5	2372	A
36	5	2373	A
36	5	2374	C
36	5	2375	G
36	5	2383	C
36	5	2385	G
36	5	2388	U
36	5	2392	C
36	5	2393	G
36	5	2394	G
36	5	2397	A
36	5	2400	G
36	5	2402	A
36	5	2403	G
36	5	2404	A
36	5	2405	C
36	5	2411	U
36	5	2418	G
36	5	2419	A

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Mol	Chain	Res	Type
36	5	2435	G
36	5	2437	G
36	5	2439	A
36	5	2440	G
36	5	2441	A
36	5	2443	A
36	5	2444	C
36	5	2504	U
36	5	2505	U
36	5	2506	U
36	5	2507	C
36	5	2508	U
36	5	2510	U
36	5	2511	A
36	5	2514	U
36	5	2515	A
36	5	2518	C
36	5	2523	A
36	5	2524	A
36	5	2526	C
36	5	2530	G
36	5	2531	C
36	5	2532	U
36	5	2537	U
36	5	2538	U
36	5	2539	C
36	5	2540	A
36	5	2541	U
36	5	2543	U
36	5	2549	G
36	5	2552	C
36	5	2555	G
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	2572	C
36	5	2574	G
36	5	2584	G
36	5	2585	G

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Mol	Chain	Res	Type
36	5	2586	G
36	5	2593	A
36	5	2594	C
36	5	2606	G
36	5	2607	G
36	5	2614	G
36	5	2615	G
36	5	2618	G
36	5	2636	A
36	5	2637	A
36	5	2642	A
36	5	2652	U
36	5	2656	A
36	5	2657	A
36	5	2674	A
36	5	2677	G
36	5	2683	U
36	5	2689	A
36	5	2690	G
36	5	2691	A
36	5	2694	A
36	5	2696	A
36	5	2705	A
36	5	2714	G
36	5	2717	U
36	5	2727	A
36	5	2728	G
36	5	2729	U
36	5	2740	A
36	5	2748	A
36	5	2750	U
36	5	2752	U
36	5	2753	G
36	5	2755	C
36	5	2762	A
36	5	2771	U
36	5	2772	C
36	5	2773	C
36	5	2777	G
36	5	2778	G
36	5	2783	U
36	5	2796	G

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Mol	Chain	Res	Type
36	5	2797	C
36	5	2800	G
36	5	2801	A
36	5	2802	A
36	5	2810	C
36	5	2814	G
36	5	2817	A
36	5	2818	U
36	5	2821	C
36	5	2822	U
36	5	2828	G
36	5	2837	A
36	5	2838	A
36	5	2839	G
36	5	2843	U
36	5	2845	A
36	5	2849	C
36	5	2853	A
36	5	2858	U
36	5	2867	C
36	5	2871	G
36	5	2872	A
36	5	2876	C
36	5	2880	U
36	5	2887	A
36	5	2889	C
36	5	2899	C
36	5	2923	U
36	5	2928	C
36	5	2935	U
36	5	2936	A
36	5	2939	G
36	5	2941	A
36	5	2942	C
36	5	2947	G
36	5	2957	G
36	5	2966	G
36	5	2972	G
36	5	2973	G
36	5	2983	C
36	5	2990	G
36	5	2993	G

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Mol	Chain	Res	Type
36	5	2995	A
36	5	2996	U
36	5	2997	G
36	5	3012	A
36	5	3013	U
36	5	3028	G
36	5	3039	C
36	5	3056	U
36	5	3059	G
36	5	3069	G
36	5	3078	U
36	5	3079	U
36	5	3086	A
36	5	3087	A
36	5	3092	C
36	5	3104	U
36	5	3119	U
36	5	3122	A
36	5	3130	A
36	5	3131	U
36	5	3142	A
36	5	3143	C
36	5	3148	U
36	5	3153	U
36	5	3155	U
36	5	3156	U
36	5	3157	U
36	5	3158	G
36	5	3164	C
36	5	3165	A
36	5	3168	A
36	5	3171	U
36	5	3172	A
36	5	3173	G
36	5	3174	A
36	5	3176	G
36	5	3178	A
36	5	3179	U
36	5	3180	A
36	5	3181	C
36	5	3187	A
36	5	3195	U

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Mol	Chain	Res	Type
36	5	3196	U
36	5	3198	U
36	5	3207	U
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	3239	G
36	5	3243	A
36	5	3245	A
36	5	3246	G
36	5	3247	G
36	5	3253	G
36	5	3259	U
36	5	3260	G
36	5	3265	C
36	5	3270	U
36	5	3273	A
36	5	3275	U
36	5	3276	G
36	5	3277	U
36	5	3279	A
36	5	3280	U
36	5	3282	U
36	5	3284	G
36	5	3285	C
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	3310	A
36	5	3313	U
36	5	3316	A
36	5	3317	U
36	5	3318	G
36	5	3319	U
36	5	3333	G

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Mol	Chain	Res	Type
36	5	3341	U
36	5	3342	A
36	5	3345	G
36	5	3350	C
36	5	3351	U
36	5	3352	U
36	5	3354	U
36	5	3356	G
36	5	3358	U
36	5	3369	G
36	5	3377	G
36	5	3378	C
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	27	A
37	7	33	U
37	7	38	U
37	7	41	G
37	7	49	G
37	7	51	A
37	7	52	G
37	7	54	U
37	7	60	G
37	7	65	G
37	7	73	C
37	7	74	C
37	7	76	A
37	7	77	G
37	7	99	G
37	7	101	G
37	7	102	A
37	7	103	A
37	7	110	G
37	7	112	G
38	8	21	C
38	8	23	U
38	8	34	U

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Mol	Chain	Res	Type
38	8	35	C
38	8	42	G
38	8	48	A
38	8	49	G
38	8	51	G
38	8	52	A
38	8	59	A
38	8	60	U
38	8	62	C
38	8	63	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	95	G
38	8	96	A
38	8	97	A
38	8	102	U
38	8	104	A
38	8	105	A
38	8	106	C
38	8	111	A
38	8	113	U
38	8	125	U
38	8	126	A
38	8	127	U
38	8	136	G
38	8	137	C
38	8	152	G
38	8	156	U
38	8	157	U
38	8	158	U

There are no RNA pucker outliers to report.

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 carbohydrates in this entry.

5.6 Ligand geometry (i)

Of 2554 ligands modelled in this entry, 1422 are monoatomic - leaving 1132 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	$\#\|Z\| > 2$
86	OHX	1	3866	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3867	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3868	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3869	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3870	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3871	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3872	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3873	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3874	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3875	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3876	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3877	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3878	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3879	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3880	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3881	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3882	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3883	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3884	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3885	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3886	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3887	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	1	3888	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3889	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3890	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3891	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3892	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3893	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3894	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3895	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3896	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3897	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3898	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3899	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3900	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3901	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3902	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3903	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3904	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3905	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3906	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3907	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3908	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3909	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3910	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3911	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3912	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3913	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3914	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3915	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3916	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3917	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3918	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3919	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3920	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3921	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3922	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3923	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3924	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3925	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3926	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3927	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3928	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3929	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3930	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	1	3931	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3932	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3933	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3934	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3935	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3936	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3937	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3938	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3939	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3940	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3941	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3942	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3943	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3944	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3945	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3946	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3947	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3948	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3949	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3950	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3951	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3952	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3953	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3954	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3955	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3956	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3957	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3958	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3959	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3960	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3961	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3962	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3963	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3964	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3965	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3966	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3967	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3968	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3969	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3970	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3971	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3972	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3973	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	1	3974	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3975	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3976	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3977	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3978	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3979	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3980	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3981	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3982	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3983	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3984	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3985	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3986	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3987	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3988	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3989	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3990	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3991	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3992	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3993	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3994	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3995	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3996	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3997	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3998	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3999	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4000	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4001	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4002	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4003	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4004	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4005	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4006	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4007	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4008	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4009	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4010	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4011	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4012	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4013	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4014	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4015	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4016	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	1	4017	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4018	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4019	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4020	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4021	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4022	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4023	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4024	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4025	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4026	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4027	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4028	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4029	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4030	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4031	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4032	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4033	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4034	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4035	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4036	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4037	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4038	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4039	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4040	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4041	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4042	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4043	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4044	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4045	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4046	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4048	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4058	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4059	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	1	4060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4069	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4077	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4078	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4079	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4080	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4082	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4083	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4091	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4102	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	1	4103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4112	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4120	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4121	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4122	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4123	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4125	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4126	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4134	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4140	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4144	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4145	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	1	4146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4151	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4154	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4155	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4157	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4158	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4163	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4164	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4169	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4178	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4180	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4181	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4182	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4183	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4184	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4185	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4186	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4187	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4188	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	1	4189	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4190	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4191	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4192	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4193	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4194	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4195	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4196	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4197	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4198	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4199	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4200	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4204	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4205	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4207	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4208	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4209	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4210	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4211	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4212	-	0,6,6	0.00	-	0,15,15	0.00	-
88	3J6	1	4213	85	22,24,24	2.15	3 (13%)	25,42,42	2.06	8 (32%)
86	OHX	2	2023	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2024	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2025	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2026	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2027	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2028	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2029	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2030	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2031	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2032	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2033	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2034	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2035	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2036	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2037	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2038	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2039	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2040	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	2	2041	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2042	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2043	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2044	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2045	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2046	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2048	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2058	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2059	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2069	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2077	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2078	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2079	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2080	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2082	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2083	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	2	2084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2091	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2112	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2120	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2121	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2122	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2123	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2125	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2126	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	2	2127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2134	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2140	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2144	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2145	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2151	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2154	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2155	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2157	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2158	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2163	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2164	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2169	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	2	2170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2178	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	215	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	216	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	217	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	228	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	229	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	230	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	231	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	232	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	233	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	234	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	235	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	236	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3893	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3894	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3895	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3896	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3897	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	5	3898	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3899	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3900	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3901	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3902	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3903	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3904	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3905	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3906	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3907	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3908	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3909	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3910	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3911	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3912	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3913	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3914	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3915	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3916	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3917	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3918	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3919	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3920	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3921	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3922	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3923	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3924	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3925	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3926	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3927	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3928	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3929	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3930	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3931	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3932	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3933	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3934	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3935	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3936	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3937	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3938	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3939	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3940	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	5	3941	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3942	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3943	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3944	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3945	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3946	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3947	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3948	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3949	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3950	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3951	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3952	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3953	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3954	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3955	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3956	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3957	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3958	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3959	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3960	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3961	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3962	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3963	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3964	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3965	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3966	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3967	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3968	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3969	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3970	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3971	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3972	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3973	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3974	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3975	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3976	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3977	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3978	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3979	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3980	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3981	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3982	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3983	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	5	3984	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3985	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3986	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3987	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3988	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3989	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3990	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3991	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3992	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3993	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3994	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3995	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3996	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3997	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3998	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3999	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4000	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4001	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4002	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4003	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4004	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4005	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4006	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4007	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4008	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4009	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4010	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4011	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4012	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4013	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4014	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4015	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4016	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4017	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4018	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4019	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4020	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4021	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4022	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4023	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4024	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4025	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4026	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	5	4027	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4028	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4029	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4030	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4031	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4032	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4033	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4034	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4035	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4036	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4037	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4038	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4039	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4040	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4041	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4042	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4043	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4044	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4045	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4046	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4048	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4058	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4059	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4069	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	5	4070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4077	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4078	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4079	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4080	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4082	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4083	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4091	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4112	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	5	4113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4120	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4121	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4122	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4123	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4125	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4126	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4134	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4140	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4144	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4145	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4151	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4154	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4155	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	5	4156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4157	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4158	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4163	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4164	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4169	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4178	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4180	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4181	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4182	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4183	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4184	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4185	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4186	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4187	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4188	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4189	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4190	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4191	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4192	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4193	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4194	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4195	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4196	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4197	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4198	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	5	4199	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4200	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4204	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4205	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4207	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4208	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4209	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4210	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4211	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4212	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4213	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4214	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4215	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4216	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4217	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4228	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4229	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4230	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4231	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4232	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4233	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4234	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4235	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4236	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4237	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4238	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4239	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4240	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4241	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	5	4242	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4243	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4244	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4245	-	0,6,6	0.00	-	0,15,15	0.00	-
88	3J6	5	4246	85	22,24,24	1.12	1 (4%)	25,42,42	1.41	3 (12%)
86	OHX	6	2045	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2046	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2048	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2058	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2059	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2069	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2077	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2078	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2079	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2080	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2082	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	6	2083	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2091	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2112	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2120	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2121	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2122	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2123	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2125	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	6	2126	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2134	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2140	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2144	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2145	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2151	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2154	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2155	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2157	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2158	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2163	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2164	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2168	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	6	2169	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2178	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2180	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2181	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2182	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2183	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2184	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2185	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2186	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2187	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2188	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2189	1	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2190	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2191	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2192	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2193	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2194	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2195	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2196	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2197	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2198	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2199	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2200	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2204	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	224	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	7	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	216	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	217	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	228	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	229	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	230	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	231	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C3	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C5	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	D3	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	D9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L3	404	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L3	405	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L4	403	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M0	304	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M5	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M7	205	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M7	206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M9	203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	N9	101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O1	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O3	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O4	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O6	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O7	103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O9	101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	Q2	502	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	S6	301	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	S8	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	SR	401	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
86	OHX	c3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	c5	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	c8	203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	d4	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	d9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l3	404	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l3	405	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l4	402	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l4	403	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	304	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	305	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	306	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	307	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l9	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m0	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m0	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m1	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m4	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m5	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m6	203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m7	206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	n3	203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	n3	204	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	n6	203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	n9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	o2	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	o3	203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	o7	502	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	o7	503	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	q2	502	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s1	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s1	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s8	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	sR	401	-	0,6,6	0.00	-	0,15,15	0.00	-

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
86	OHX	1	3866	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3867	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3868	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3869	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3870	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3871	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3872	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3873	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3874	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3875	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3876	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3877	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3878	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3879	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3880	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3881	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3882	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3883	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3884	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3885	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3886	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3887	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3888	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3889	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3890	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3891	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3892	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3893	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3894	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3895	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3896	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3897	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3898	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3899	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3900	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3901	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3902	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3903	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3904	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3905	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3906	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3907	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3908	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3909	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3910	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3911	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3912	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3913	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3914	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3915	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3916	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3917	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3918	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3919	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3920	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3921	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3922	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3923	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3924	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3925	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3926	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3927	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3928	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3929	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3930	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3931	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3932	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3933	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3934	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3935	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3936	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3937	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3938	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3939	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3940	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3941	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3942	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3943	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3944	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3945	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3946	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3947	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3948	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3949	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3950	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3951	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3952	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3953	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3954	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3955	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3956	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3957	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3958	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3959	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3960	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3961	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3962	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3963	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3964	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3965	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3966	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3967	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3968	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3969	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3970	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3971	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3972	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3973	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3974	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3975	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3976	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3977	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3978	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3979	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3980	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3981	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3982	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3983	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3984	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3985	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3986	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3987	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3988	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3989	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3990	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3991	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3992	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3993	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3994	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3995	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3996	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3997	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3998	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3999	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4000	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4001	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4002	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4003	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4004	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4005	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4006	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4007	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4008	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4009	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4010	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4011	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4012	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4013	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4014	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4015	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4016	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4017	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4018	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4019	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4020	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4021	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4022	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4023	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4024	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4025	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4026	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4027	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4028	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4029	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4030	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4031	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4032	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4033	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4034	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4035	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4036	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4037	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4038	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4039	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4040	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4041	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4042	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4043	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4044	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4045	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4046	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4047	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4048	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4049	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4050	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4051	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4052	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4053	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4054	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4055	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4056	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4057	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4058	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4059	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4060	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4061	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4062	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4063	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4064	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4065	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4066	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4067	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4068	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4069	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4070	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4071	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4072	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4073	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4074	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4075	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4076	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4077	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4078	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4079	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4080	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4081	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4082	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4083	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4084	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4085	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4086	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4087	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4088	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4089	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4090	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4091	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4092	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4093	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4094	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4095	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4096	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4097	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4098	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4099	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4100	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4101	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4102	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4103	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4104	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4105	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4106	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4107	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4108	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4109	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4110	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4111	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4112	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4113	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4114	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4115	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4116	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4117	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4118	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4119	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4120	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4121	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4122	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4123	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4124	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4125	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4126	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4127	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4128	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4129	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4130	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4131	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4132	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4133	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4134	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4135	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4136	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4137	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4138	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4139	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4140	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4141	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4142	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4143	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4144	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4145	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4146	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4147	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4148	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4149	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4150	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4151	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4152	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4153	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4154	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4155	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4156	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4157	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4158	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4159	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4160	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4161	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4162	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4163	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4164	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4165	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4166	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4167	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4168	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4169	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4170	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4171	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4172	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4173	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4174	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4175	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4176	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4177	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4178	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4179	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4180	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4181	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4182	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4183	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4184	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4185	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4186	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4187	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4188	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4189	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4190	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4191	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4192	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4193	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4194	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4195	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4196	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4197	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4198	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4199	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4200	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4201	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4202	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4203	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4204	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4205	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4206	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4207	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4208	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4209	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4210	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4211	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4212	-	-	0/0/0/0	0/0/0/0
88	3J6	1	4213	85	-	0/3/68/68	0/1/4/4
86	OHX	2	2023	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2024	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2025	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2026	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2027	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2028	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2029	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2030	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2031	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2032	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2033	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2034	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2035	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2036	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2037	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2038	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2039	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2040	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2041	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2042	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2043	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2044	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2045	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2046	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2047	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2048	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2049	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2050	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2051	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2052	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2053	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2054	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2055	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2056	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2057	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2058	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2059	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2060	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2061	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2062	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2063	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2064	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2065	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2066	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2067	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2068	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2069	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2070	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2071	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2072	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2073	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2074	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2075	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2076	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2077	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2078	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2079	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2080	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2081	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2082	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2083	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2084	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2085	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2086	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2087	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2088	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2089	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2090	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2091	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2092	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2093	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2094	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2095	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2096	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2097	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2098	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2099	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2100	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2101	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2102	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2103	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2104	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2105	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2106	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2107	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2108	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2109	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2110	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2111	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2112	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2113	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2114	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2115	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2116	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2117	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2118	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2119	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2120	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2121	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2122	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2123	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2124	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2125	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2126	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2127	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2128	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2129	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2130	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2131	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2132	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2133	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2134	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2135	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2136	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2137	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2138	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2139	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2140	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2141	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2142	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2143	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2144	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2145	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2146	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2147	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2148	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2149	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2150	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2151	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2152	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2153	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2154	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2155	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2156	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2157	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2158	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2159	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2160	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2161	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2162	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2163	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2164	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2165	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2166	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2167	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2168	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2169	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2170	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2171	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2172	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2173	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2174	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2175	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2176	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2177	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2178	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2179	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	3	215	-	-	0/0/0/0	0/0/0/0
86	OHX	3	216	-	-	0/0/0/0	0/0/0/0
86	OHX	3	217	-	-	0/0/0/0	0/0/0/0
86	OHX	3	218	-	-	0/0/0/0	0/0/0/0
86	OHX	3	219	-	-	0/0/0/0	0/0/0/0
86	OHX	3	220	-	-	0/0/0/0	0/0/0/0
86	OHX	3	221	-	-	0/0/0/0	0/0/0/0
86	OHX	3	222	-	-	0/0/0/0	0/0/0/0
86	OHX	3	223	-	-	0/0/0/0	0/0/0/0
86	OHX	3	224	-	-	0/0/0/0	0/0/0/0
86	OHX	3	225	-	-	0/0/0/0	0/0/0/0
86	OHX	3	226	-	-	0/0/0/0	0/0/0/0
86	OHX	4	221	-	-	0/0/0/0	0/0/0/0
86	OHX	4	222	-	-	0/0/0/0	0/0/0/0
86	OHX	4	223	-	-	0/0/0/0	0/0/0/0
86	OHX	4	224	-	-	0/0/0/0	0/0/0/0
86	OHX	4	225	-	-	0/0/0/0	0/0/0/0
86	OHX	4	226	-	-	0/0/0/0	0/0/0/0
86	OHX	4	227	-	-	0/0/0/0	0/0/0/0
86	OHX	4	228	-	-	0/0/0/0	0/0/0/0
86	OHX	4	229	-	-	0/0/0/0	0/0/0/0
86	OHX	4	230	-	-	0/0/0/0	0/0/0/0
86	OHX	4	231	-	-	0/0/0/0	0/0/0/0
86	OHX	4	232	-	-	0/0/0/0	0/0/0/0
86	OHX	4	233	-	-	0/0/0/0	0/0/0/0
86	OHX	4	234	-	-	0/0/0/0	0/0/0/0
86	OHX	4	235	-	-	0/0/0/0	0/0/0/0
86	OHX	4	236	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3893	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3894	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3895	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3896	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3897	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3898	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3899	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3900	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3901	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3902	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3903	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3904	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3905	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3906	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	3907	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3908	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3909	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3910	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3911	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3912	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3913	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3914	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3915	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3916	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3917	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3918	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3919	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3920	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3921	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3922	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3923	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3924	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3925	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3926	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3927	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3928	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3929	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3930	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3931	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3932	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3933	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3934	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3935	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3936	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3937	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3938	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3939	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3940	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3941	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3942	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3943	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3944	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3945	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3946	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3947	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3948	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	3949	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3950	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3951	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3952	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3953	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3954	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3955	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3956	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3957	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3958	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3959	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3960	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3961	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3962	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3963	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3964	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3965	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3966	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3967	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3968	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3969	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3970	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3971	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3972	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3973	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3974	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3975	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3976	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3977	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3978	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3979	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3980	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3981	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3982	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3983	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3984	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3985	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3986	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3987	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3988	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3989	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3990	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	3991	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3992	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3993	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3994	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3995	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3996	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3997	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3998	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3999	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4000	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4001	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4002	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4003	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4004	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4005	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4006	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4007	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4008	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4009	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4010	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4011	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4012	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4013	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4014	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4015	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4016	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4017	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4018	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4019	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4020	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4021	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4022	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4023	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4024	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4025	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4026	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4027	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4028	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4029	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4030	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4031	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4032	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4033	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4034	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4035	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4036	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4037	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4038	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4039	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4040	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4041	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4042	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4043	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4044	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4045	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4046	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4047	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4048	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4049	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4050	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4051	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4052	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4053	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4054	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4055	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4056	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4057	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4058	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4059	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4060	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4061	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4062	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4063	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4064	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4065	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4066	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4067	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4068	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4069	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4070	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4071	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4072	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4073	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4074	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4075	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4076	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4077	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4078	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4079	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4080	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4081	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4082	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4083	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4084	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4085	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4086	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4087	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4088	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4089	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4090	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4091	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4092	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4093	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4094	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4095	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4096	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4097	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4098	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4099	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4100	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4101	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4102	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4103	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4104	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4105	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4106	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4107	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4108	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4109	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4110	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4111	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4112	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4113	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4114	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4115	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4116	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4117	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4118	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4119	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4120	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4121	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4122	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4123	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4124	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4125	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4126	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4127	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4128	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4129	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4130	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4131	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4132	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4133	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4134	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4135	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4136	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4137	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4138	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4139	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4140	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4141	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4142	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4143	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4144	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4145	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4146	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4147	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4148	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4149	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4150	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4151	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4152	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4153	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4154	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4155	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4156	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4157	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4158	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4159	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4160	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4161	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4162	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4163	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4164	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4165	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4166	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4167	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4168	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4169	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4170	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4171	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4172	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4173	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4174	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4175	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4176	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4177	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4178	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4179	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4180	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4181	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4182	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4183	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4184	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4185	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4186	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4187	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4188	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4189	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4190	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4191	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4192	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4193	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4194	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4195	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4196	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4197	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4198	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4199	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4200	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4201	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4202	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4203	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4204	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4205	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4206	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4207	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4208	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4209	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4210	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4211	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4212	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4213	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4214	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4215	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4216	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4217	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4218	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4219	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4220	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4221	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4222	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4223	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4224	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4225	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4226	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4227	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4228	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4229	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4230	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4231	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4232	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4233	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4234	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4235	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4236	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4237	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4238	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4239	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4240	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4241	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4242	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4243	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4244	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4245	-	-	0/0/0/0	0/0/0/0
88	3J6	5	4246	85	-	0/3/68/68	0/1/4/4
86	OHX	6	2045	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2046	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2047	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2048	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2049	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2050	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2051	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2052	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2053	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2054	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2055	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2056	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2057	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2058	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2059	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2060	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2061	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2062	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2063	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2064	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2065	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2066	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2067	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2068	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2069	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2070	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2071	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2072	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2073	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2074	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2075	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2076	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2077	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2078	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2079	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2080	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2081	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2082	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2083	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2084	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2085	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2086	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2087	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2088	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2089	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2090	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2091	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2092	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2093	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2094	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2095	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2096	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2097	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2098	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2099	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2100	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2101	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2102	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2103	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2104	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2105	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2106	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2107	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2108	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2109	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2110	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2111	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2112	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2113	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2114	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2115	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2116	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2117	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2118	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2119	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2120	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2121	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2122	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2123	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2124	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2125	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2126	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2127	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2128	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2129	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2130	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2131	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2132	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2133	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2134	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2135	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2136	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2137	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2138	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2139	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2140	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2141	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2142	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2143	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2144	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2145	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2146	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2147	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2148	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2149	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2150	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2151	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2152	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2153	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2154	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2155	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2156	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2157	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2158	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2159	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2160	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2161	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2162	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2163	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2164	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2165	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2166	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2167	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2168	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2169	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2170	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2171	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2172	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2173	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2174	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2175	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2176	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2177	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2178	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2179	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2180	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2181	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2182	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2183	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2184	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2185	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2186	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2187	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2188	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2189	1	-	0/0/0/0	0/0/0/0
86	OHX	6	2190	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2191	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2192	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2193	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2194	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2195	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2196	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2197	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2198	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2199	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2200	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2201	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2202	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2203	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2204	-	-	0/0/0/0	0/0/0/0
86	OHX	7	218	-	-	0/0/0/0	0/0/0/0
86	OHX	7	219	-	-	0/0/0/0	0/0/0/0
86	OHX	7	220	-	-	0/0/0/0	0/0/0/0
86	OHX	7	221	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	7	222	-	-	0/0/0/0	0/0/0/0
86	OHX	7	223	-	-	0/0/0/0	0/0/0/0
86	OHX	7	224	-	-	0/0/0/0	0/0/0/0
86	OHX	7	225	-	-	0/0/0/0	0/0/0/0
86	OHX	7	226	-	-	0/0/0/0	0/0/0/0
86	OHX	7	227	-	-	0/0/0/0	0/0/0/0
86	OHX	8	216	-	-	0/0/0/0	0/0/0/0
86	OHX	8	217	-	-	0/0/0/0	0/0/0/0
86	OHX	8	218	-	-	0/0/0/0	0/0/0/0
86	OHX	8	219	-	-	0/0/0/0	0/0/0/0
86	OHX	8	220	-	-	0/0/0/0	0/0/0/0
86	OHX	8	221	-	-	0/0/0/0	0/0/0/0
86	OHX	8	222	-	-	0/0/0/0	0/0/0/0
86	OHX	8	223	-	-	0/0/0/0	0/0/0/0
86	OHX	8	224	-	-	0/0/0/0	0/0/0/0
86	OHX	8	225	-	-	0/0/0/0	0/0/0/0
86	OHX	8	226	-	-	0/0/0/0	0/0/0/0
86	OHX	8	227	-	-	0/0/0/0	0/0/0/0
86	OHX	8	228	-	-	0/0/0/0	0/0/0/0
86	OHX	8	229	-	-	0/0/0/0	0/0/0/0
86	OHX	8	230	-	-	0/0/0/0	0/0/0/0
86	OHX	8	231	-	-	0/0/0/0	0/0/0/0
86	OHX	C3	202	-	-	0/0/0/0	0/0/0/0
86	OHX	C5	201	-	-	0/0/0/0	0/0/0/0
86	OHX	C8	201	-	-	0/0/0/0	0/0/0/0
86	OHX	D3	202	-	-	0/0/0/0	0/0/0/0
86	OHX	D9	102	-	-	0/0/0/0	0/0/0/0
86	OHX	L3	404	-	-	0/0/0/0	0/0/0/0
86	OHX	L3	405	-	-	0/0/0/0	0/0/0/0
86	OHX	L4	403	-	-	0/0/0/0	0/0/0/0
86	OHX	M0	304	-	-	0/0/0/0	0/0/0/0
86	OHX	M5	303	-	-	0/0/0/0	0/0/0/0
86	OHX	M7	205	-	-	0/0/0/0	0/0/0/0
86	OHX	M7	206	-	-	0/0/0/0	0/0/0/0
86	OHX	M9	203	-	-	0/0/0/0	0/0/0/0
86	OHX	N9	101	-	-	0/0/0/0	0/0/0/0
86	OHX	O1	201	-	-	0/0/0/0	0/0/0/0
86	OHX	O3	202	-	-	0/0/0/0	0/0/0/0
86	OHX	O4	201	-	-	0/0/0/0	0/0/0/0
86	OHX	O6	201	-	-	0/0/0/0	0/0/0/0
86	OHX	O7	103	-	-	0/0/0/0	0/0/0/0
86	OHX	O9	101	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	Q2	502	-	-	0/0/0/0	0/0/0/0
86	OHX	S6	301	-	-	0/0/0/0	0/0/0/0
86	OHX	S8	302	-	-	0/0/0/0	0/0/0/0
86	OHX	SR	401	-	-	0/0/0/0	0/0/0/0
86	OHX	c3	201	-	-	0/0/0/0	0/0/0/0
86	OHX	c5	201	-	-	0/0/0/0	0/0/0/0
86	OHX	c8	203	-	-	0/0/0/0	0/0/0/0
86	OHX	d4	201	-	-	0/0/0/0	0/0/0/0
86	OHX	d9	102	-	-	0/0/0/0	0/0/0/0
86	OHX	l3	404	-	-	0/0/0/0	0/0/0/0
86	OHX	l3	405	-	-	0/0/0/0	0/0/0/0
86	OHX	l4	402	-	-	0/0/0/0	0/0/0/0
86	OHX	l4	403	-	-	0/0/0/0	0/0/0/0
86	OHX	l5	304	-	-	0/0/0/0	0/0/0/0
86	OHX	l5	305	-	-	0/0/0/0	0/0/0/0
86	OHX	l5	306	-	-	0/0/0/0	0/0/0/0
86	OHX	l5	307	-	-	0/0/0/0	0/0/0/0
86	OHX	l9	202	-	-	0/0/0/0	0/0/0/0
86	OHX	m0	302	-	-	0/0/0/0	0/0/0/0
86	OHX	m0	303	-	-	0/0/0/0	0/0/0/0
86	OHX	m1	202	-	-	0/0/0/0	0/0/0/0
86	OHX	m4	201	-	-	0/0/0/0	0/0/0/0
86	OHX	m5	303	-	-	0/0/0/0	0/0/0/0
86	OHX	m6	203	-	-	0/0/0/0	0/0/0/0
86	OHX	m7	206	-	-	0/0/0/0	0/0/0/0
86	OHX	m8	201	-	-	0/0/0/0	0/0/0/0
86	OHX	n3	203	-	-	0/0/0/0	0/0/0/0
86	OHX	n3	204	-	-	0/0/0/0	0/0/0/0
86	OHX	n6	203	-	-	0/0/0/0	0/0/0/0
86	OHX	n9	102	-	-	0/0/0/0	0/0/0/0
86	OHX	o2	201	-	-	0/0/0/0	0/0/0/0
86	OHX	o3	203	-	-	0/0/0/0	0/0/0/0
86	OHX	o7	502	-	-	0/0/0/0	0/0/0/0
86	OHX	o7	503	-	-	0/0/0/0	0/0/0/0
86	OHX	q2	502	-	-	0/0/0/0	0/0/0/0
86	OHX	s1	302	-	-	0/0/0/0	0/0/0/0
86	OHX	s1	303	-	-	0/0/0/0	0/0/0/0
86	OHX	s8	303	-	-	0/0/0/0	0/0/0/0
86	OHX	sR	401	-	-	0/0/0/0	0/0/0/0

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
88	1	4213	3J6	C11-C7	-2.53	1.49	1.56
88	5	4246	3J6	C4-C3	2.24	1.58	1.54
88	1	4213	3J6	O2-C11	5.99	1.55	1.44
88	1	4213	3J6	C4-C3	7.29	1.66	1.54

All (11) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
88	1	4213	3J6	C11-C7-C4	-4.78	103.63	106.62
88	5	4246	3J6	O1-C5-C6	-3.71	101.39	109.55
88	1	4213	3J6	O2-C11-C7	-3.15	113.91	118.03
88	5	4246	3J6	C7-C11-C10	-2.78	99.32	104.68
88	1	4213	3J6	C12-O2-C11	-2.69	57.23	60.97
88	1	4213	3J6	O1-C5-C6	-2.63	103.77	109.55
88	1	4213	3J6	O-C6-C5	-2.27	115.78	119.90
88	5	4246	3J6	O3-C3-C2	2.16	109.28	105.61
88	1	4213	3J6	O2-C11-C10	2.52	120.38	115.59
88	1	4213	3J6	O3-C3-C4	3.07	116.13	112.38
88	1	4213	3J6	O2-C12-C11	5.04	64.68	59.30

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

504 monomers are involved in 781 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	3867	OHX	1	0
86	1	3869	OHX	1	0
86	1	3870	OHX	2	0
86	1	3871	OHX	1	0
86	1	3873	OHX	1	0
86	1	3876	OHX	1	0
86	1	3878	OHX	1	0
86	1	3880	OHX	1	0
86	1	3882	OHX	1	0
86	1	3885	OHX	1	0
86	1	3886	OHX	2	0
86	1	3887	OHX	1	0
86	1	3888	OHX	2	0
86	1	3891	OHX	1	0
86	1	3892	OHX	1	0
86	1	3894	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	3895	OHX	1	0
86	1	3896	OHX	1	0
86	1	3898	OHX	1	0
86	1	3901	OHX	2	0
86	1	3903	OHX	1	0
86	1	3907	OHX	1	0
86	1	3908	OHX	1	0
86	1	3910	OHX	1	0
86	1	3913	OHX	2	0
86	1	3915	OHX	1	0
86	1	3921	OHX	1	0
86	1	3925	OHX	1	0
86	1	3926	OHX	1	0
86	1	3927	OHX	2	0
86	1	3928	OHX	2	0
86	1	3932	OHX	2	0
86	1	3934	OHX	3	0
86	1	3935	OHX	2	0
86	1	3940	OHX	1	0
86	1	3941	OHX	2	0
86	1	3942	OHX	1	0
86	1	3943	OHX	1	0
86	1	3944	OHX	1	0
86	1	3946	OHX	1	0
86	1	3948	OHX	1	0
86	1	3955	OHX	1	0
86	1	3958	OHX	1	0
86	1	3959	OHX	5	0
86	1	3961	OHX	4	0
86	1	3964	OHX	2	0
86	1	3965	OHX	1	0
86	1	3966	OHX	1	0
86	1	3967	OHX	1	0
86	1	3968	OHX	1	0
86	1	3971	OHX	1	0
86	1	3972	OHX	7	0
86	1	3973	OHX	1	0
86	1	3975	OHX	1	0
86	1	3977	OHX	1	0
86	1	3981	OHX	1	0
86	1	3982	OHX	1	0
86	1	3983	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	3984	OHX	1	0
86	1	3986	OHX	1	0
86	1	3987	OHX	1	0
86	1	3989	OHX	1	0
86	1	3993	OHX	1	0
86	1	3998	OHX	2	0
86	1	4000	OHX	1	0
86	1	4002	OHX	1	0
86	1	4004	OHX	6	0
86	1	4007	OHX	1	0
86	1	4009	OHX	1	0
86	1	4011	OHX	1	0
86	1	4014	OHX	2	0
86	1	4018	OHX	1	0
86	1	4022	OHX	1	0
86	1	4028	OHX	2	0
86	1	4030	OHX	1	0
86	1	4032	OHX	6	0
86	1	4033	OHX	1	0
86	1	4034	OHX	1	0
86	1	4038	OHX	1	0
86	1	4039	OHX	2	0
86	1	4040	OHX	1	0
86	1	4043	OHX	1	0
86	1	4044	OHX	3	0
86	1	4045	OHX	6	0
86	1	4046	OHX	1	0
86	1	4048	OHX	2	0
86	1	4049	OHX	1	0
86	1	4056	OHX	5	0
86	1	4057	OHX	4	0
86	1	4058	OHX	2	0
86	1	4059	OHX	1	0
86	1	4063	OHX	1	0
86	1	4064	OHX	1	0
86	1	4066	OHX	1	0
86	1	4067	OHX	1	0
86	1	4075	OHX	1	0
86	1	4076	OHX	1	0
86	1	4077	OHX	1	0
86	1	4082	OHX	1	0
86	1	4085	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	4087	OHX	1	0
86	1	4088	OHX	1	0
86	1	4095	OHX	1	0
86	1	4096	OHX	1	0
86	1	4098	OHX	2	0
86	1	4099	OHX	1	0
86	1	4107	OHX	1	0
86	1	4109	OHX	1	0
86	1	4118	OHX	1	0
86	1	4122	OHX	2	0
86	1	4125	OHX	1	0
86	1	4128	OHX	2	0
86	1	4132	OHX	4	0
86	1	4133	OHX	1	0
86	1	4135	OHX	1	0
86	1	4139	OHX	3	0
86	1	4140	OHX	4	0
86	1	4141	OHX	1	0
86	1	4142	OHX	1	0
86	1	4143	OHX	2	0
86	1	4144	OHX	1	0
86	1	4146	OHX	1	0
86	1	4147	OHX	1	0
86	1	4150	OHX	2	0
86	1	4152	OHX	1	0
86	1	4156	OHX	7	0
86	1	4158	OHX	1	0
86	1	4159	OHX	1	0
86	1	4160	OHX	1	0
86	1	4163	OHX	4	0
86	1	4164	OHX	2	0
86	1	4165	OHX	1	0
86	1	4167	OHX	1	0
86	1	4168	OHX	3	0
86	1	4169	OHX	1	0
86	1	4172	OHX	7	0
86	1	4177	OHX	1	0
86	1	4179	OHX	1	0
86	1	4180	OHX	5	0
86	1	4182	OHX	1	0
86	1	4188	OHX	1	0
86	1	4192	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	4193	OHX	1	0
86	1	4194	OHX	1	0
86	1	4195	OHX	1	0
86	1	4197	OHX	8	0
86	1	4198	OHX	1	0
86	1	4202	OHX	2	0
86	1	4203	OHX	1	0
86	1	4205	OHX	1	0
86	1	4207	OHX	1	0
88	1	4213	3J6	3	0
86	2	2023	OHX	1	0
86	2	2026	OHX	3	0
86	2	2029	OHX	2	0
86	2	2031	OHX	8	0
86	2	2032	OHX	2	0
86	2	2034	OHX	1	0
86	2	2035	OHX	1	0
86	2	2036	OHX	3	0
86	2	2038	OHX	1	0
86	2	2039	OHX	2	0
86	2	2041	OHX	1	0
86	2	2042	OHX	1	0
86	2	2044	OHX	6	0
86	2	2045	OHX	1	0
86	2	2047	OHX	2	0
86	2	2048	OHX	1	0
86	2	2049	OHX	1	0
86	2	2051	OHX	1	0
86	2	2054	OHX	1	0
86	2	2055	OHX	1	0
86	2	2058	OHX	1	0
86	2	2064	OHX	1	0
86	2	2067	OHX	1	0
86	2	2070	OHX	3	0
86	2	2071	OHX	2	0
86	2	2072	OHX	2	0
86	2	2074	OHX	1	0
86	2	2076	OHX	2	0
86	2	2077	OHX	2	0
86	2	2078	OHX	2	0
86	2	2082	OHX	1	0
86	2	2083	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	2	2085	OHX	1	0
86	2	2086	OHX	1	0
86	2	2089	OHX	1	0
86	2	2090	OHX	4	0
86	2	2092	OHX	1	0
86	2	2093	OHX	1	0
86	2	2095	OHX	1	0
86	2	2097	OHX	1	0
86	2	2099	OHX	7	0
86	2	2101	OHX	1	0
86	2	2104	OHX	1	0
86	2	2105	OHX	1	0
86	2	2106	OHX	1	0
86	2	2108	OHX	1	0
86	2	2110	OHX	2	0
86	2	2111	OHX	3	0
86	2	2113	OHX	1	0
86	2	2117	OHX	1	0
86	2	2121	OHX	2	0
86	2	2123	OHX	1	0
86	2	2127	OHX	1	0
86	2	2130	OHX	1	0
86	2	2131	OHX	6	0
86	2	2132	OHX	1	0
86	2	2136	OHX	1	0
86	2	2138	OHX	1	0
86	2	2140	OHX	1	0
86	2	2143	OHX	2	0
86	2	2144	OHX	2	0
86	2	2145	OHX	1	0
86	2	2146	OHX	6	0
86	2	2147	OHX	1	0
86	2	2148	OHX	2	0
86	2	2154	OHX	3	0
86	2	2155	OHX	1	0
86	2	2156	OHX	1	0
86	2	2157	OHX	3	0
86	2	2159	OHX	1	0
86	2	2160	OHX	1	0
86	2	2165	OHX	1	0
86	2	2166	OHX	1	0
86	2	2168	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	2	2169	OHX	1	0
86	3	218	OHX	2	0
86	3	221	OHX	2	0
86	3	226	OHX	1	0
86	4	223	OHX	1	0
86	4	225	OHX	1	0
86	4	226	OHX	1	0
86	4	228	OHX	2	0
86	4	229	OHX	1	0
86	4	230	OHX	1	0
86	4	232	OHX	2	0
86	4	234	OHX	1	0
86	5	3893	OHX	2	0
86	5	3896	OHX	1	0
86	5	3898	OHX	1	0
86	5	3900	OHX	2	0
86	5	3902	OHX	2	0
86	5	3904	OHX	1	0
86	5	3906	OHX	2	0
86	5	3909	OHX	1	0
86	5	3910	OHX	3	0
86	5	3911	OHX	1	0
86	5	3913	OHX	2	0
86	5	3914	OHX	1	0
86	5	3915	OHX	1	0
86	5	3916	OHX	1	0
86	5	3918	OHX	1	0
86	5	3924	OHX	1	0
86	5	3926	OHX	1	0
86	5	3927	OHX	1	0
86	5	3928	OHX	1	0
86	5	3931	OHX	1	0
86	5	3933	OHX	2	0
86	5	3935	OHX	1	0
86	5	3936	OHX	7	0
86	5	3939	OHX	2	0
86	5	3942	OHX	1	0
86	5	3947	OHX	1	0
86	5	3949	OHX	2	0
86	5	3950	OHX	3	0
86	5	3951	OHX	1	0
86	5	3952	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	3953	OHX	1	0
86	5	3955	OHX	5	0
86	5	3958	OHX	1	0
86	5	3959	OHX	1	0
86	5	3966	OHX	5	0
86	5	3967	OHX	1	0
86	5	3969	OHX	2	0
86	5	3971	OHX	8	0
86	5	3975	OHX	1	0
86	5	3976	OHX	2	0
86	5	3979	OHX	1	0
86	5	3980	OHX	1	0
86	5	3984	OHX	3	0
86	5	3988	OHX	1	0
86	5	3989	OHX	1	0
86	5	3993	OHX	1	0
86	5	3995	OHX	4	0
86	5	3996	OHX	6	0
86	5	3997	OHX	1	0
86	5	4000	OHX	1	0
86	5	4001	OHX	1	0
86	5	4003	OHX	1	0
86	5	4005	OHX	6	0
86	5	4007	OHX	2	0
86	5	4008	OHX	1	0
86	5	4009	OHX	1	0
86	5	4010	OHX	1	0
86	5	4012	OHX	1	0
86	5	4013	OHX	1	0
86	5	4015	OHX	7	0
86	5	4018	OHX	2	0
86	5	4019	OHX	2	0
86	5	4021	OHX	1	0
86	5	4022	OHX	1	0
86	5	4023	OHX	1	0
86	5	4026	OHX	1	0
86	5	4030	OHX	1	0
86	5	4033	OHX	1	0
86	5	4034	OHX	1	0
86	5	4040	OHX	1	0
86	5	4041	OHX	1	0
86	5	4044	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	4045	OHX	1	0
86	5	4046	OHX	1	0
86	5	4047	OHX	1	0
86	5	4049	OHX	1	0
86	5	4060	OHX	8	0
86	5	4066	OHX	1	0
86	5	4068	OHX	1	0
86	5	4069	OHX	1	0
86	5	4073	OHX	1	0
86	5	4082	OHX	2	0
86	5	4083	OHX	1	0
86	5	4084	OHX	5	0
86	5	4085	OHX	2	0
86	5	4087	OHX	2	0
86	5	4090	OHX	1	0
86	5	4091	OHX	1	0
86	5	4093	OHX	1	0
86	5	4096	OHX	4	0
86	5	4099	OHX	2	0
86	5	4101	OHX	2	0
86	5	4103	OHX	1	0
86	5	4104	OHX	1	0
86	5	4105	OHX	2	0
86	5	4108	OHX	1	0
86	5	4113	OHX	1	0
86	5	4114	OHX	2	0
86	5	4115	OHX	1	0
86	5	4123	OHX	1	0
86	5	4124	OHX	1	0
86	5	4125	OHX	1	0
86	5	4127	OHX	1	0
86	5	4128	OHX	1	0
86	5	4131	OHX	1	0
86	5	4132	OHX	1	0
86	5	4134	OHX	1	0
86	5	4136	OHX	1	0
86	5	4137	OHX	6	0
86	5	4138	OHX	2	0
86	5	4140	OHX	1	0
86	5	4141	OHX	1	0
86	5	4147	OHX	1	0
86	5	4148	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	4151	OHX	1	0
86	5	4153	OHX	2	0
86	5	4154	OHX	1	0
86	5	4155	OHX	1	0
86	5	4156	OHX	1	0
86	5	4162	OHX	1	0
86	5	4167	OHX	1	0
86	5	4168	OHX	1	0
86	5	4171	OHX	1	0
86	5	4172	OHX	1	0
86	5	4173	OHX	1	0
86	5	4175	OHX	1	0
86	5	4176	OHX	1	0
86	5	4177	OHX	1	0
86	5	4179	OHX	1	0
86	5	4180	OHX	2	0
86	5	4184	OHX	3	0
86	5	4185	OHX	1	0
86	5	4186	OHX	3	0
86	5	4187	OHX	2	0
86	5	4188	OHX	2	0
86	5	4190	OHX	1	0
86	5	4192	OHX	3	0
86	5	4193	OHX	11	0
86	5	4194	OHX	2	0
86	5	4195	OHX	7	0
86	5	4196	OHX	1	0
86	5	4205	OHX	1	0
86	5	4208	OHX	2	0
86	5	4211	OHX	7	0
86	5	4213	OHX	1	0
86	5	4215	OHX	1	0
86	5	4218	OHX	3	0
86	5	4220	OHX	1	0
86	5	4222	OHX	1	0
86	5	4228	OHX	7	0
86	5	4231	OHX	1	0
86	5	4233	OHX	1	0
86	5	4236	OHX	5	0
86	5	4237	OHX	1	0
86	5	4242	OHX	2	0
86	5	4244	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
88	5	4246	3J6	7	0
86	6	2048	OHX	1	0
86	6	2050	OHX	2	0
86	6	2053	OHX	1	0
86	6	2054	OHX	1	0
86	6	2057	OHX	1	0
86	6	2058	OHX	6	0
86	6	2060	OHX	2	0
86	6	2061	OHX	1	0
86	6	2064	OHX	1	0
86	6	2067	OHX	1	0
86	6	2068	OHX	1	0
86	6	2069	OHX	1	0
86	6	2070	OHX	2	0
86	6	2073	OHX	1	0
86	6	2074	OHX	1	0
86	6	2076	OHX	1	0
86	6	2078	OHX	1	0
86	6	2081	OHX	1	0
86	6	2082	OHX	1	0
86	6	2091	OHX	1	0
86	6	2092	OHX	1	0
86	6	2094	OHX	1	0
86	6	2095	OHX	2	0
86	6	2096	OHX	1	0
86	6	2097	OHX	1	0
86	6	2099	OHX	3	0
86	6	2101	OHX	1	0
86	6	2102	OHX	1	0
86	6	2103	OHX	2	0
86	6	2104	OHX	1	0
86	6	2106	OHX	2	0
86	6	2108	OHX	1	0
86	6	2110	OHX	1	0
86	6	2111	OHX	1	0
86	6	2113	OHX	2	0
86	6	2117	OHX	1	0
86	6	2118	OHX	8	0
86	6	2119	OHX	1	0
86	6	2120	OHX	1	0
86	6	2121	OHX	2	0
86	6	2124	OHX	5	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	6	2128	OHX	3	0
86	6	2132	OHX	1	0
86	6	2134	OHX	1	0
86	6	2135	OHX	1	0
86	6	2136	OHX	1	0
86	6	2138	OHX	1	0
86	6	2141	OHX	2	0
86	6	2142	OHX	1	0
86	6	2144	OHX	1	0
86	6	2145	OHX	7	0
86	6	2147	OHX	1	0
86	6	2148	OHX	2	0
86	6	2149	OHX	1	0
86	6	2152	OHX	2	0
86	6	2153	OHX	1	0
86	6	2157	OHX	2	0
86	6	2158	OHX	1	0
86	6	2160	OHX	2	0
86	6	2166	OHX	1	0
86	6	2170	OHX	7	0
86	6	2174	OHX	1	0
86	6	2175	OHX	2	0
86	6	2177	OHX	2	0
86	6	2178	OHX	1	0
86	6	2179	OHX	1	0
86	6	2180	OHX	1	0
86	6	2182	OHX	4	0
86	6	2183	OHX	1	0
86	6	2184	OHX	2	0
86	6	2186	OHX	2	0
86	6	2187	OHX	1	0
86	6	2188	OHX	2	0
86	6	2189	OHX	4	0
86	6	2190	OHX	3	0
86	6	2191	OHX	1	0
86	6	2192	OHX	1	0
86	6	2194	OHX	1	0
86	6	2198	OHX	1	0
86	6	2202	OHX	1	0
86	6	2204	OHX	1	0
86	7	220	OHX	1	0
86	7	221	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	7	226	OHX	2	0
86	7	227	OHX	1	0
86	8	216	OHX	1	0
86	8	217	OHX	2	0
86	8	218	OHX	7	0
86	8	219	OHX	1	0
86	8	221	OHX	1	0
86	8	224	OHX	1	0
86	8	225	OHX	1	0
86	8	226	OHX	6	0
86	8	227	OHX	1	0
86	8	230	OHX	1	0
86	C5	201	OHX	2	0
86	D3	202	OHX	1	0
86	L3	404	OHX	3	0
86	L4	403	OHX	1	0
86	M7	206	OHX	1	0
86	M9	203	OHX	1	0
86	O1	201	OHX	8	0
86	O3	202	OHX	1	0
86	O6	201	OHX	1	0
86	O7	103	OHX	3	0
86	O9	101	OHX	1	0
86	Q2	502	OHX	5	0
86	S6	301	OHX	1	1
86	S8	302	OHX	1	0

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

EDS failed to run properly - this section is therefore empty.

6.2 Non-standard residues in protein, DNA, RNA chains

EDS failed to run properly - this section is therefore empty.

6.3 Carbohydrates

EDS failed to run properly - this section is therefore empty.

6.4 Ligands

EDS failed to run properly - this section is therefore empty.

6.5 Other polymers

EDS failed to run properly - this section is therefore empty.