



# Full wwPDB X-ray Structure Validation Report ⓘ

Jan 2, 2024 – 04:29 pm GMT

PDB ID : 4WRA  
Title : Complex of 70S ribosome with tRNA-Tyr and mRNA with A-A mismatch in the first position in the A-site and with antibiotic paromomycin.  
Authors : Rozov, A.; Demeshkina, N.; Yusupov, M.; Yusupova, G.  
Deposited on : 2014-10-23  
Resolution : 3.05 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](mailto:validation@mail.wwpdb.org)

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

MolProbity : 4.02b-467  
Mogul : 1.8.4, CSD as541be (2020)  
Xtrriage (Phenix) : 1.13  
EDS : 2.36  
buster-report : 1.1.7 (2018)  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
Refmac : 5.8.0158  
CCP4 : 7.0.044 (Gargrove)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.36

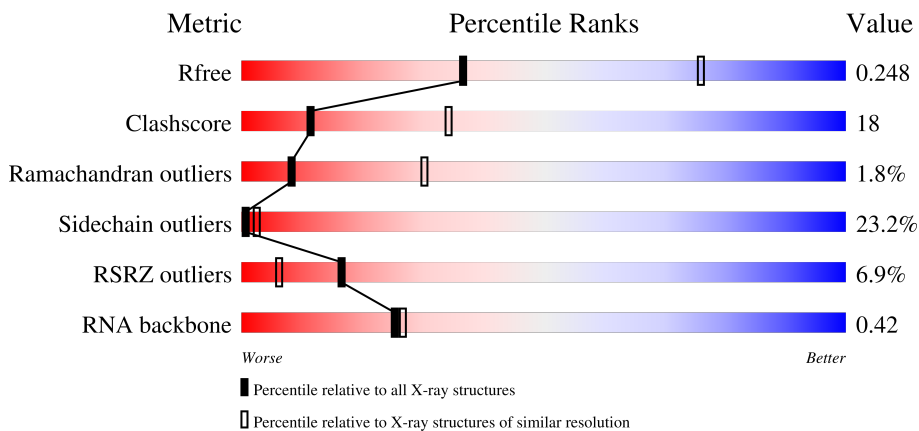
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.05 Å.

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



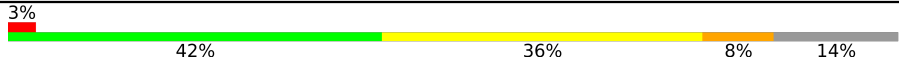


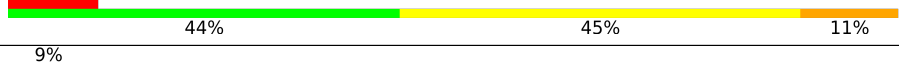



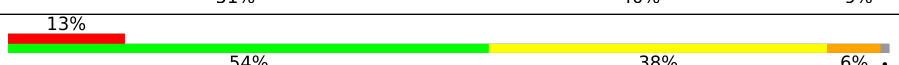
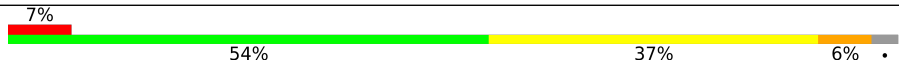

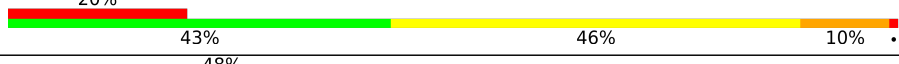

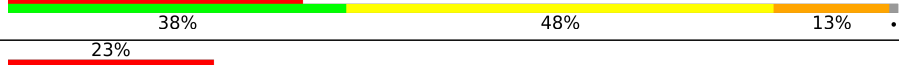

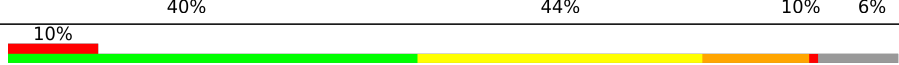
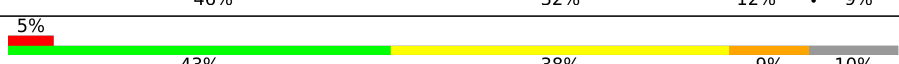
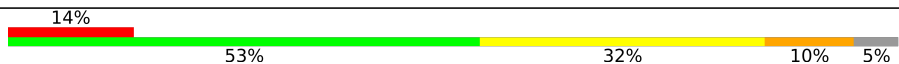
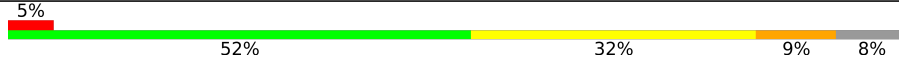
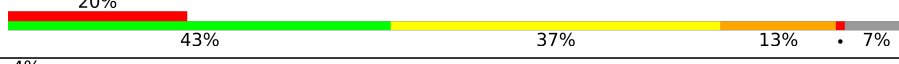






Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
$R_{free}$	130704	1754 (3.10-3.02)
Clashscore	141614	1864 (3.10-3.02)
Ramachandran outliers	138981	1794 (3.10-3.02)
Sidechain outliers	138945	1793 (3.10-3.02)
RSRZ outliers	127900	1713 (3.10-3.02)
RNA backbone	3102	1036 (3.32-2.80)

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

Mol	Chain	Length	Quality of chain
1	13	1522	<div style="display: flex; align-items: center;"> <div style="width: 2%; height: 10px; background-color: red; margin-right: 2px;"></div> <div style="width: 33%; height: 10px; background-color: green; margin-right: 2px;"></div> <div style="width: 44%; height: 10px; background-color: yellow; margin-right: 2px;"></div> <div style="width: 17%; height: 10px; background-color: orange; margin-right: 2px;"></div> <div style="width: 2%; height: 10px; background-color: red; margin-right: 2px;"></div> <div style="width: 2%; height: 10px; background-color: grey;"></div> </div> <p style="font-size: small; margin-top: 5px;">2% 33% 44% 17% ..</p>
1	1G	1522	<div style="display: flex; align-items: center;"> <div style="width: 2%; height: 10px; background-color: red; margin-right: 2px;"></div> <div style="width: 38%; height: 10px; background-color: green; margin-right: 2px;"></div> <div style="width: 42%; height: 10px; background-color: yellow; margin-right: 2px;"></div> <div style="width: 17%; height: 10px; background-color: orange; margin-right: 2px;"></div> <div style="width: 2%; height: 10px; background-color: red; margin-right: 2px;"></div> <div style="width: 2%; height: 10px; background-color: grey;"></div> </div> <p style="font-size: small; margin-top: 5px;">2% 38% 42% 17% ..</p>
2	12	256	<div style="display: flex; align-items: center;"> <div style="width: 3%; height: 10px; background-color: red; margin-right: 2px;"></div> <div style="width: 41%; height: 10px; background-color: green; margin-right: 2px;"></div> <div style="width: 39%; height: 10px; background-color: yellow; margin-right: 2px;"></div> <div style="width: 12%; height: 10px; background-color: orange; margin-right: 2px;"></div> <div style="width: 7%; height: 10px; background-color: grey;"></div> </div> <p style="font-size: small; margin-top: 5px;">3% 41% 39% 12% 7%</p>
2	1E	256	<div style="display: flex; align-items: center;"> <div style="width: 2%; height: 10px; background-color: red; margin-right: 2px;"></div> <div style="width: 39%; height: 10px; background-color: green; margin-right: 2px;"></div> <div style="width: 41%; height: 10px; background-color: yellow; margin-right: 2px;"></div> <div style="width: 12%; height: 10px; background-color: orange; margin-right: 2px;"></div> <div style="width: 7%; height: 10px; background-color: grey;"></div> </div> <p style="font-size: small; margin-top: 5px;">2% 39% 41% 12% 7%</p>

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Mol	Chain	Length	Quality of chain
3	22	239	
3	2E	239	
4	32	209	
4	3E	209	
5	42	162	
5	4E	162	
6	52	101	
6	5E	101	
7	62	156	
7	6E	156	
8	72	138	
8	7E	138	
9	82	128	
9	8E	128	
10	1A	105	
10	1I	105	
11	2A	129	
11	2I	129	
12	3A	132	
12	3I	132	
13	4A	126	
13	4I	126	
14	5A	61	
14	5I	61	
15	6A	89	

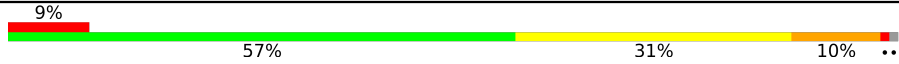
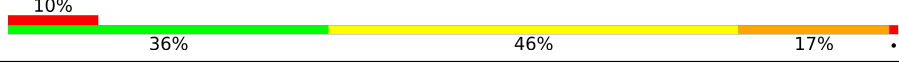
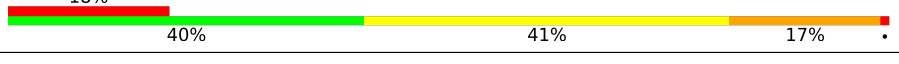
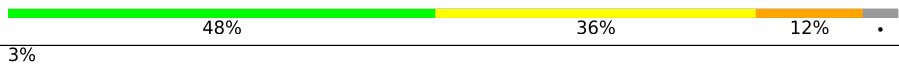
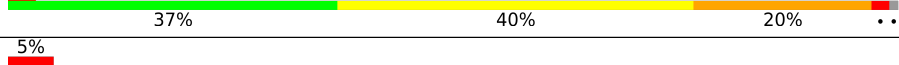

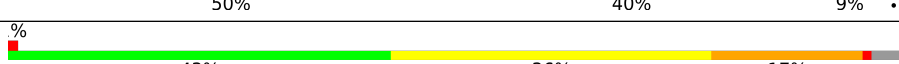
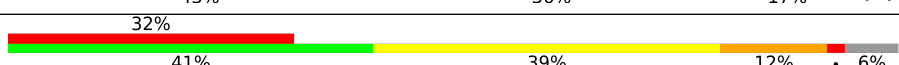
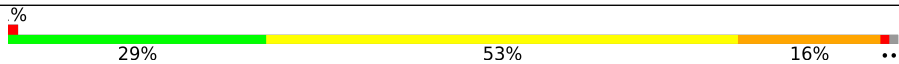

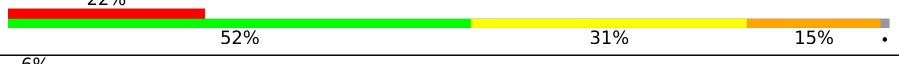
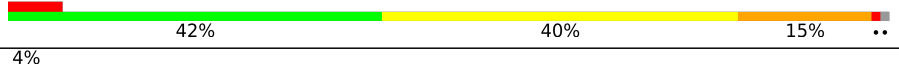

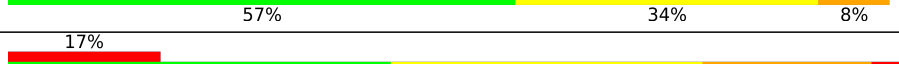
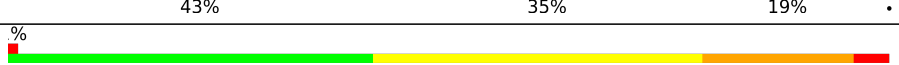
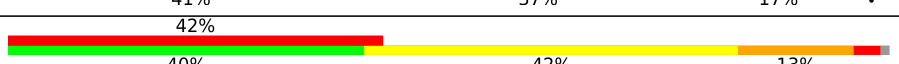

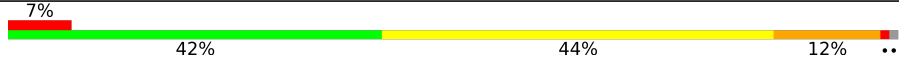
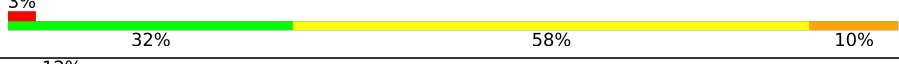






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Mol	Chain	Length	Quality of chain
15	6I	89	3% 53% 42% . .
16	7A	88	32% 43% 42% 10% 5%
16	7I	88	47% 38% 50% 8% 5%
17	8A	105	11% 48% 43% 5% 5%
17	8I	105	7% 37% 50% 9% 5%
18	9A	88	43% 30% 7% . 19%
18	9I	88	39% 38% . . 18%
19	AA	93	5% 40% 32% 10% . 16%
19	AI	93	6% 45% 34% 9% . 11%
20	BA	106	22% 49% 34% 8% . 7%
20	BI	106	44% 38% 42% 13% 7%
21	1B	27	78% 37% 48% 7% 7%
21	1F	27	59% 33% 59% 7%
22	1K	85	6% 19% 45% 33% .
23	2K	77	3% 31% 47% 21% .
23	2L	77	% 45% 36% 13% 5%
24	1L	85	27% 35% 36% 26% .
24	3K	85	2% 32% 47% 20% .
25	4K	30	10% 17% 10% 13% 60%
25	4L	30	13% 10% 7% 20% . 60%
26	14	2918	% 33% 42% 21% .
26	1H	2918	% 28% 42% 23% 6%
27	16	122	37% 43% 17% .
27	1J	122	% 28% 45% 21% 6%
28	11	276	% 54% 36% 8% .

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Mol	Chain	Length	Quality of chain
28	19	276	
29	21	206	
29	29	206	
30	31	210	
30	39	210	
31	41	182	
31	49	182	
32	51	180	
32	59	180	
33	61	148	
33	69	148	
34	15	140	
34	58	140	
35	25	122	
35	68	122	
36	35	150	
36	78	150	
37	45	141	
37	88	141	
38	55	118	
38	98	118	
39	65	112	
39	A8	112	
40	75	146	
40	B8	146	


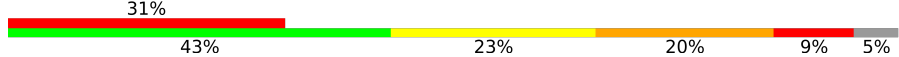
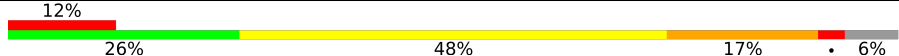
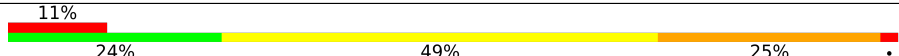
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Mol	Chain	Length	Quality of chain
41	85	118	4% 58% 30% 11% ..
41	C8	118	12% 44% 42% 12% ..
42	95	101	7% 37% 41% 20% .
42	D8	101	7% 45% 46% 8% .
43	A5	113	4% 52% 37% 11%
43	E8	113	58% 32% 10%
44	B5	96	2% 45% 44% 7% .
44	F8	96	48% 40% 9% .
45	C5	110	15% 35% 42% 17% 5%
45	G8	110	3% 35% 45% 12% 5%
46	D5	206	5% 35% 22% 8% 33%
46	H8	206	34% 36% 12% 15%
47	E5	85	18% 45% 35% 11% 9%
47	I8	85	6% 46% 36% 6% 11%
48	F5	98	16% 47% 41% 10% ..
48	J8	98	11% 53% 34% 12% .
49	G5	72	% 33% 42% 14% 8%
49	K8	72	4% 26% 42% 18% 6% 8%
50	H5	60	2% 52% 40% 7% .
50	L8	60	50% 37% 12% .
51	I5	71	39% 24% 48% 15% 11%
51	M8	71	8% 34% 37% 21% 7%
52	J5	60	5% 58% 37% ..
52	N8	60	10% 50% 35% 13% .
53	L5	49	2% 55% 37% 8%

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Mol	Chain	Length	Quality of chain
53	P8	49	
54	M5	65	
54	Q8	65	
55	3L	85	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	13	1623	-	-	-	X
56	MG	14	3118	-	-	-	X
56	MG	14	3158	-	-	-	X
56	MG	14	3280	-	-	-	X
56	MG	14	3293	-	-	-	X
56	MG	14	3298	-	-	-	X
56	MG	1G	1648	-	-	-	X
56	MG	1H	3076	-	-	-	X
56	MG	1H	3101	-	-	-	X
56	MG	1H	3211	-	-	-	X
56	MG	1H	3217	-	-	-	X
56	MG	1H	3223	-	-	-	X
56	MG	1H	3228	-	-	-	X
56	MG	1H	3273	-	-	-	X
56	MG	1H	3274	-	-	-	X
56	MG	1H	3275	-	-	-	X
56	MG	1H	3293	-	-	-	X
56	MG	1H	3319	-	-	-	X
56	MG	1H	3323	-	-	-	X
56	MG	1H	3326	-	-	-	X
56	MG	1H	3328	-	-	-	X
56	MG	1H	3332	-	-	-	X

## 2 Entry composition

There are 59 unique types of molecules in this entry. The entry contains 299607 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
1	13	1505	Total 32352	C 14399	N 5994	O 10454	P 1505	0	0	0
1	1G	1504	Total 32327	C 14389	N 5989	O 10446	P 1503	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	1E	237	Total 1924	C 1228	N 344	O 347	S 5	0	0	0
2	12	237	Total 1924	C 1228	N 344	O 347	S 5	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	2E	205	Total 1605	C 1011	N 313	O 280	S 1	0	0	0
3	22	206	Total 1612	C 1016	N 314	O 281	S 1	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
4	3E	208	Total 1702	C 1066	N 339	O 290	S 7	0	0	0
4	32	208	Total 1702	C 1066	N 339	O 290	S 7	0	0	0

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



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	4E	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			
5	42	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	5E	101	Total	C	N	O	S	0	0	0
			842	531	155	153	3			
6	52	101	Total	C	N	O	S	0	0	0
			842	531	155	153	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	6E	152	Total	C	N	O	S	0	0	0
			1243	774	249	214	6			
7	62	155	Total	C	N	O	S	0	0	0
			1256	781	252	217	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	7E	138	Total	C	N	O	S	0	0	0
			1115	705	215	192	3			
8	72	137	Total	C	N	O	S	0	0	0
			1107	700	214	191	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	8E	127	Total	C	N	O	0	0	0
			1009	639	197	173			
9	82	122	Total	C	N	O	0	0	0
			971	616	189	166			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	1I	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	1A	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	2I	116	Total	C	N	O	S	0	0	0
			864	537	164	160	3			
11	2A	117	Total	C	N	O	S	0	0	0
			873	543	166	161	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	3I	122	Total	C	N	O	S	0	0	0
			956	603	193	159	1			
12	3A	125	Total	C	N	O	S	0	0	0
			975	614	196	164	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	4I	116	Total	C	N	O	S	0	0	0
			928	574	191	161	2			
13	4A	117	Total	C	N	O	S	0	0	0
			933	577	192	162	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	5I	59	Total	C	N	O	S	0	0	0
			480	306	100	70	4			
14	5A	58	Total	C	N	O	S	0	0	0
			475	303	99	69	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	6I	88	Total	C	N	O	S	0	0	0
			733	459	147	125	2			
15	6A	88	Total	C	N	O	S	0	0	0
			733	459	147	125	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	7I	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			
16	7A	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	8I	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			
17	8A	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	9I	72	Total	C	N	O	0	0	0
			590	376	117	97			
18	9A	71	Total	C	N	O	0	0	0
			581	370	115	96			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AI	83	Total	C	N	O	S	0	0	0
			665	424	124	115	2			
19	AA	78	Total	C	N	O	S	0	0	0
			624	398	115	109	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	BI	99	Total	C	N	O	S	0	0	0
			762	470	162	128	2			
20	BA	99	Total	C	N	O	S	0	0	0
			762	470	162	128	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	1F	25	Total	C	N	O	0	0	0
			217	134	52	31			
21	1B	25	Total	C	N	O	0	0	0
			217	134	52	31			

- Molecule 22 is a RNA chain called tRNA-Tyr.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
22	1K	85	Total	C	N	O	P	S	0	0	0
			1824	821	323	594	85	1			

- Molecule 23 is a RNA chain called tRNA-fMet.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
23	2K	77	Total	C	N	O	P	S	0	0	0
			1645	734	298	535	77	1			
23	2L	77	Total	C	N	O	P	S	0	0	0
			1645	734	298	535	77	1			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
2K	18	C	U	conflict	GB 723229079
2L	18	C	U	conflict	GB 723229079

- Molecule 24 is a RNA chain called tRNA-Tyr.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	3K	85	Total	C	N	O	P	0	0	0
			1807	807	323	592	85			
24	1L	85	Total	C	N	O	P	0	0	0
			1807	807	323	592	85			

- Molecule 25 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	4K	12	Total	C	N	O	P	0	1	0
			283	128	60	82	13			
25	4L	12	Total	C	N	O	P	0	0	0
			261	118	55	76	12			

- Molecule 26 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
26	1H	2912	Total 62707	C 27911	N 11722	O 20163	P 2911	0	0	0
26	14	2909	Total 62647	C 27884	N 11716	O 20139	P 2908	0	0	0

There are 18 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
1H	161	U	-	insertion	GB 48268
1H	493	G	-	insertion	GB 48268
1H	654A	A	G	conflict	GB 48268
1H	654E	C	G	conflict	GB 48268
1H	654P	G	C	conflict	GB 48268
1H	654T	A	C	conflict	GB 48268
1H	1058	U	G	conflict	GB 48268
1H	1080	A	C	conflict	GB 48268
1H	1228	G	-	insertion	GB 48268
14	158	U	-	insertion	GB 48268
14	493	G	-	insertion	GB 48268
14	654A	A	G	conflict	GB 48268
14	654E	C	G	conflict	GB 48268
14	654P	G	C	conflict	GB 48268
14	654T	A	C	conflict	GB 48268
14	1058	U	G	conflict	GB 48268
14	1080	A	C	conflict	GB 48268
14	1228	G	-	insertion	GB 48268

- Molecule 27 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
27	16	122	Total 2617	C 1166	N 486	O 844	P 121	0	0	0
27	1J	122	Total 2617	C 1166	N 486	O 844	P 121	0	0	0

- Molecule 28 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
28	11	273	Total 2120	C 1338	N 421	O 358	S 3	0	0	0
28	19	273	Total 2120	C 1338	N 421	O 358	S 3	0	0	0

- Molecule 29 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	21	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			
29	29	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			

- Molecule 30 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	31	202	Total	C	N	O	S	0	0	0
			1585	1011	297	275	2			
30	39	208	Total	C	N	O	S	0	0	0
			1627	1037	304	283	3			

- Molecule 31 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	41	181	Total	C	N	O	S	0	0	0
			1473	942	268	259	4			
31	49	181	Total	C	N	O	S	0	0	0
			1473	942	268	259	4			

- Molecule 32 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	51	173	Total	C	N	O	S	0	0	0
			1321	837	248	235	1			
32	59	170	Total	C	N	O	S	0	0	0
			1307	829	245	232	1			

- Molecule 33 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	61	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			
33	69	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			

- Molecule 34 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	58	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			
34	15	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			

- Molecule 35 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	68	122	Total	C	N	O	S	0	0	0
			932	588	171	169	4			
35	25	122	Total	C	N	O	S	0	0	0
			932	588	171	169	4			

- Molecule 36 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	78	150	Total	C	N	O	S	0	0	0
			1144	712	232	197	3			
36	35	150	Total	C	N	O	S	0	0	0
			1144	712	232	197	3			

- Molecule 37 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	88	141	Total	C	N	O	S	0	0	0
			1121	715	212	187	7			
37	45	139	Total	C	N	O	S	0	0	0
			1107	707	209	184	7			

- Molecule 38 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	98	118	Total	C	N	O	S	0	0	0
			967	604	203	159	1			
38	55	117	Total	C	N	O		0	0	0
			959	599	202	158				

- Molecule 39 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
39	A8	110	Total	C	N	O	0	0	0
			876	553	175	148			

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
39	65	111	881	556	176	149	0	0	0

- Molecule 40 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
40	B8	137	1141	710	234	196	1	0	0	0
40	75	137	1141	710	234	196	1	0	0	0

- Molecule 41 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
41	C8	117	963	610	202	150	1	0	0	0
41	85	117	963	610	202	150	1	0	0	0

- Molecule 42 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
42	D8	101	778	501	142	134	1	0	0	0
42	95	101	778	501	142	134	1	0	0	0

- Molecule 43 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
43	E8	113	899	566	177	154	2	0	0	0
43	A5	113	899	566	177	154	2	0	0	0

- Molecule 44 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms			ZeroOcc	AltConf	Trace	
			Total	C	N				O
44	F8	93	730	474	132	124	0	0	0
44	B5	92	725	471	131	123	0	0	0



- Molecule 45 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
45	G8	104	Total 791	C 510	N 149	O 127	S 5	0	0	0
45	C5	104	Total 794	C 510	N 152	O 127	S 5	0	0	0

- Molecule 46 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
46	H8	175	Total 1397	C 892	N 251	O 251	S 3	0	0	0
46	D5	138	Total 1139	C 732	N 205	O 199	S 3	0	0	0

- Molecule 47 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
47	I8	76	Total 606	C 376	N 128	O 101	S 1	0	0	0
47	E5	77	Total 612	C 379	N 129	O 103	S 1	0	0	0

- Molecule 48 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
48	J8	97	Total 762	C 481	N 150	O 130	S 1	0	0	0
48	F5	97	Total 762	C 481	N 150	O 130	S 1	0	0	0

- Molecule 49 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
49	K8	66	Total 558	C 346	N 113	O 98	S 1	0	0	0
49	G5	66	Total 558	C 346	N 113	O 98	S 1	0	0	0

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
50	L8	59	Total	C	N	O	0	0	0
			468	298	90	80			
50	H5	59	Total	C	N	O	0	0	0
			468	298	90	80			

- Molecule 51 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	M8	66	Total	C	N	O	S	0	0	0
			533	335	96	97	5			
51	I5	63	Total	C	N	O	S	0	0	0
			515	326	93	91	5			

- Molecule 52 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	N8	59	Total	C	N	O	S	0	0	0
			458	288	90	75	5			
52	J5	59	Total	C	N	O	S	0	0	0
			458	288	90	75	5			

- Molecule 53 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	P8	46	Total	C	N	O	S	0	0	0
			396	243	98	53	2			
53	L5	45	Total	C	N	O	S	0	0	0
			391	240	97	52	2			

- Molecule 54 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	Q8	61	Total	C	N	O	S	0	0	0
			488	312	99	75	2			
54	M5	62	Total	C	N	O	S	0	0	0
			495	317	100	76	2			

- Molecule 55 is a RNA chain called tRNA-Tyr.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
55	3L	85	Total	C	N	O	P	S	0	0	0
			1814	813	323	592	85	1			

- Molecule 56 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

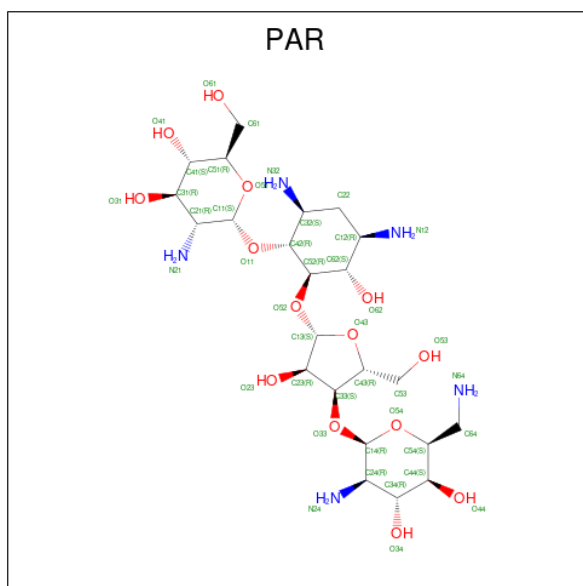
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	13	146	Total Mg 146 146	0	0
56	3E	1	Total Mg 1 1	0	0
56	5E	1	Total Mg 1 1	0	0
56	3I	1	Total Mg 1 1	0	0
56	1K	1	Total Mg 1 1	0	0
56	2K	7	Total Mg 7 7	0	0
56	1H	481	Total Mg 481 481	0	0
56	16	12	Total Mg 12 12	0	0
56	11	2	Total Mg 2 2	0	0
56	21	2	Total Mg 2 2	0	0
56	31	1	Total Mg 1 1	0	0
56	41	1	Total Mg 1 1	0	0
56	78	1	Total Mg 1 1	0	0
56	88	1	Total Mg 1 1	0	0
56	I8	1	Total Mg 1 1	0	0
56	L8	1	Total Mg 1 1	0	0
56	P8	1	Total Mg 1 1	0	0
56	1G	86	Total Mg 86 86	0	0
56	2L	4	Total Mg 4 4	0	0
56	14	391	Total Mg 391 391	0	0
56	1J	6	Total Mg 6 6	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	29	3	Total Mg 3 3	0	0
56	39	1	Total Mg 1 1	0	0
56	25	1	Total Mg 1 1	0	0
56	35	1	Total Mg 1 1	0	0
56	45	1	Total Mg 1 1	0	0
56	85	1	Total Mg 1 1	0	0
56	C5	1	Total Mg 1 1	0	0
56	L5	1	Total Mg 1 1	0	0

- Molecule 57 is PAROMOMYCIN (three-letter code: PAR) (formula:  $C_{23}H_{45}N_5O_{14}$ ).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	13	1	Total C N O 42 23 5 14	0	0
57	1G	1	Total C N O 42 23 5 14	0	0

- Molecule 58 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	3E	1	Total 1	Zn 1	0	0
58	5I	1	Total 1	Zn 1	0	0
58	G8	1	Total 1	Zn 1	0	0
58	32	1	Total 1	Zn 1	0	0
58	5A	1	Total 1	Zn 1	0	0
58	C5	1	Total 1	Zn 1	0	0

- Molecule 59 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	13	141	Total 141	O 141	0	0
59	3E	1	Total 1	O 1	0	0
59	1I	1	Total 1	O 1	0	0
59	3I	2	Total 2	O 2	0	0
59	5I	1	Total 1	O 1	0	0
59	1K	1	Total 1	O 1	0	0
59	2K	6	Total 6	O 6	0	0
59	4K	3	Total 3	O 3	0	0
59	1H	633	Total 633	O 633	0	0
59	16	11	Total 11	O 11	0	0
59	11	10	Total 10	O 10	0	0
59	21	5	Total 5	O 5	0	0
59	31	5	Total 5	O 5	0	0
59	78	4	Total 4	O 4	0	0

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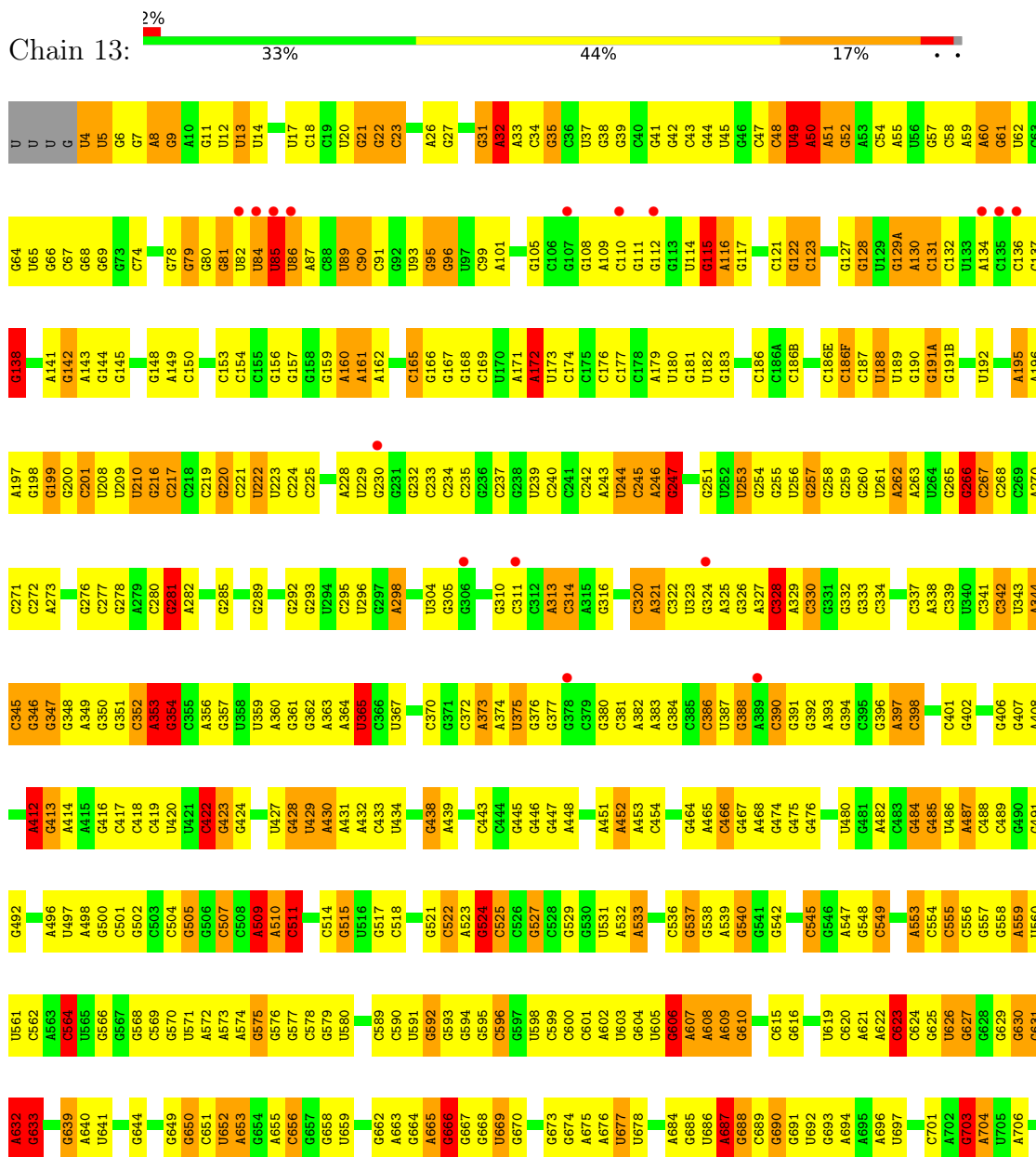
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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	F8	1	Total O 1 1	0	0
59	G8	2	Total O 2 2	0	0
59	J8	1	Total O 1 1	0	0
59	L8	2	Total O 2 2	0	0
59	1G	87	Total O 87 87	0	0
59	5A	1	Total O 1 1	0	0
59	6A	1	Total O 1 1	0	0
59	BA	1	Total O 1 1	0	0
59	14	474	Total O 474 474	0	0
59	1J	6	Total O 6 6	0	0
59	19	9	Total O 9 9	0	0
59	29	3	Total O 3 3	0	0
59	39	5	Total O 5 5	0	0
59	55	1	Total O 1 1	0	0
59	75	1	Total O 1 1	0	0
59	85	1	Total O 1 1	0	0
59	A5	1	Total O 1 1	0	0
59	M5	2	Total O 2 2	0	0

### 3 Residue-property plots i

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

#### • Molecule 1: 16S ribosomal RNA

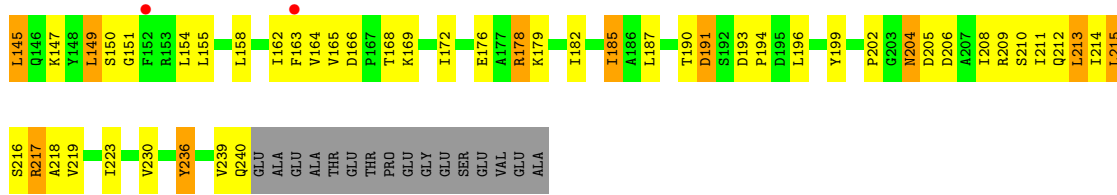




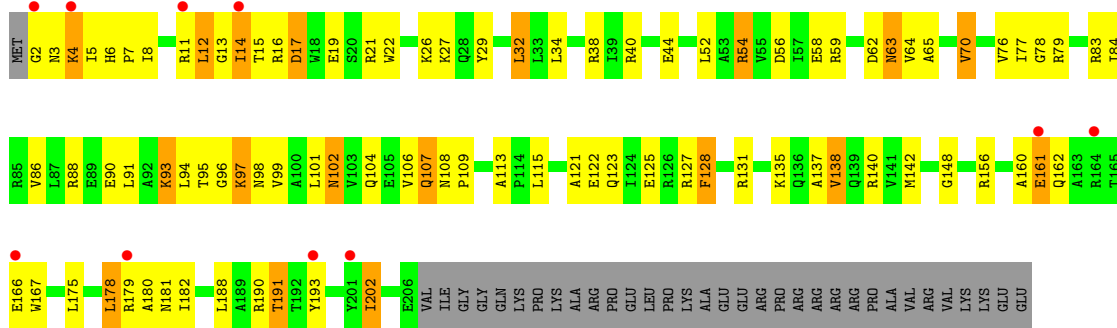




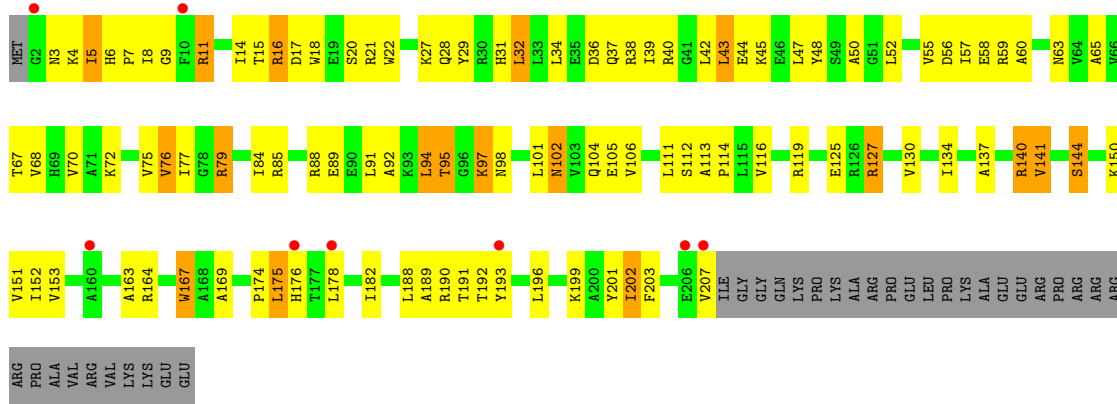




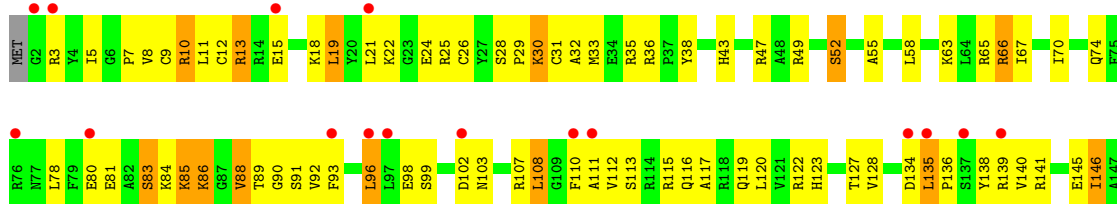
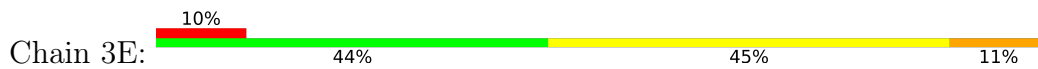
• Molecule 3: 30S ribosomal protein S3



• Molecule 3: 30S ribosomal protein S3

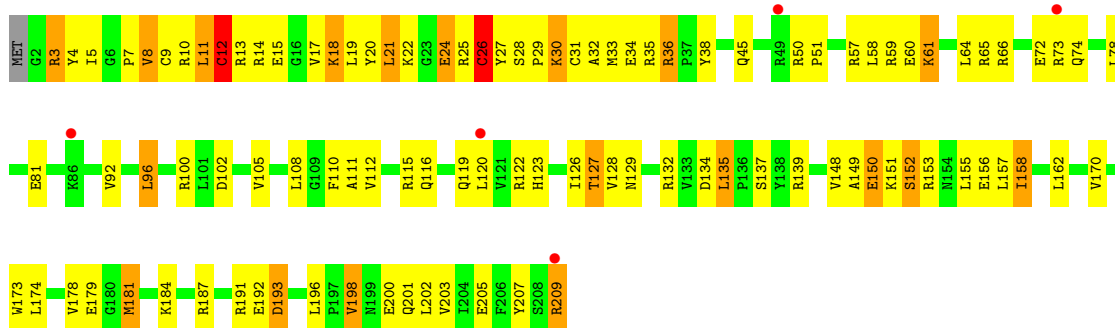


• Molecule 4: 30S ribosomal protein S4

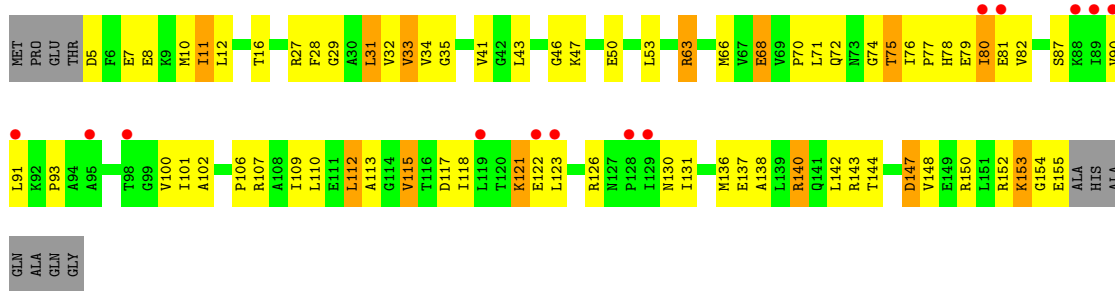




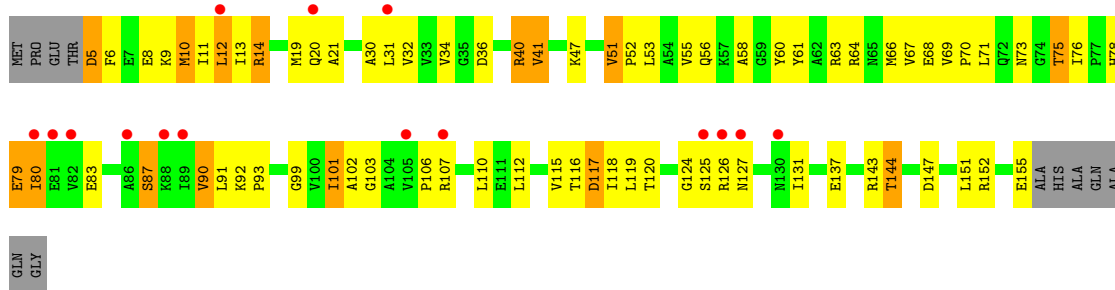
• Molecule 4: 30S ribosomal protein S4



• Molecule 5: 30S ribosomal protein S5

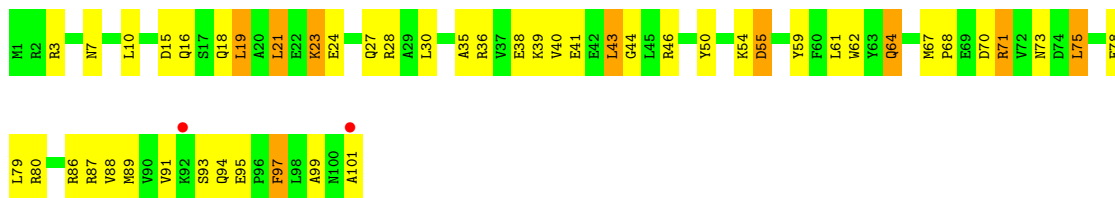


• Molecule 5: 30S ribosomal protein S5



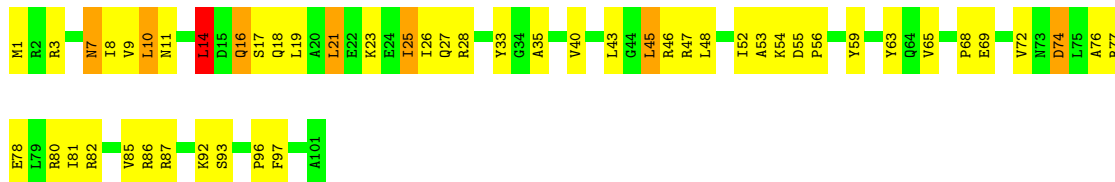
• Molecule 6: 30S ribosomal protein S6





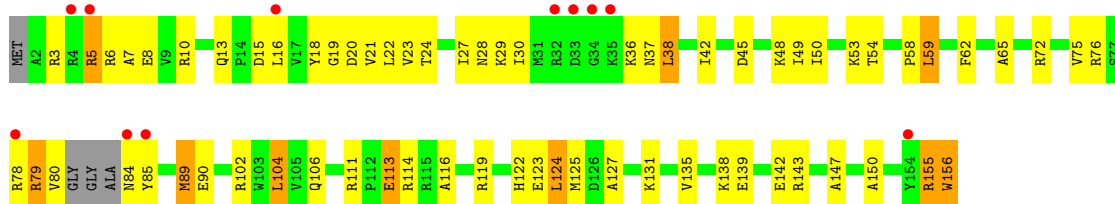
- Molecule 6: 30S ribosomal protein S6

Chain 52: 50% 43% 7%



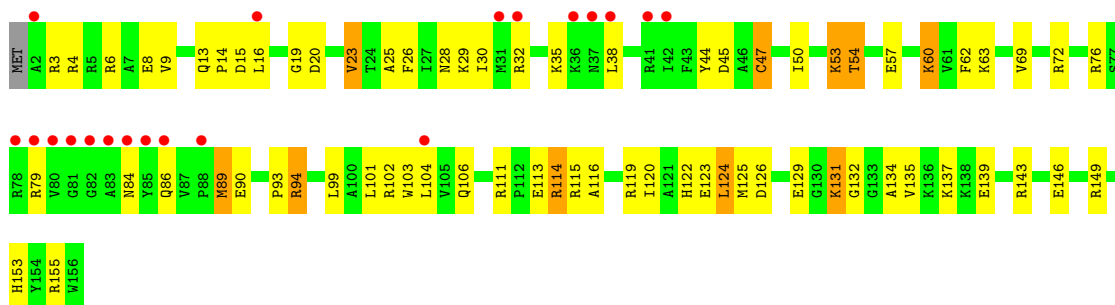
- Molecule 7: 30S ribosomal protein S7

Chain 6E: 7% 54% 37% 6%



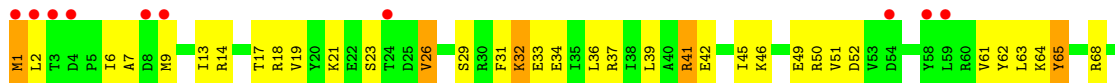
- Molecule 7: 30S ribosomal protein S7

Chain 62: 13% 54% 38% 6%



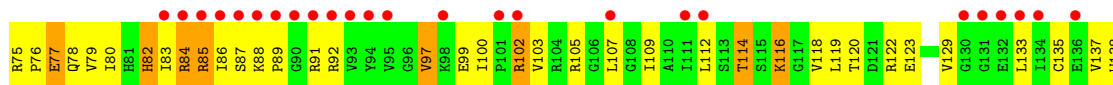
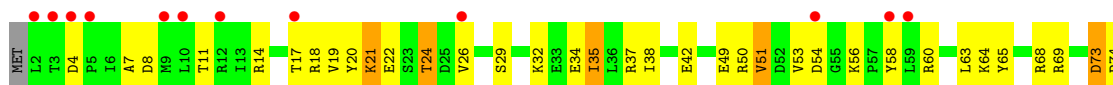
- Molecule 8: 30S ribosomal protein S8

Chain 7E: 20% 43% 46% 10%

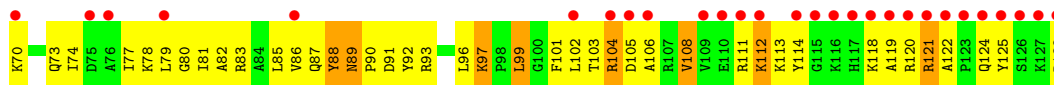




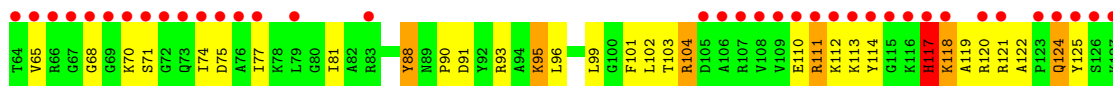
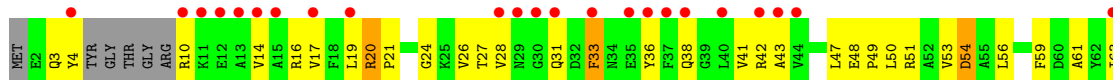
• Molecule 8: 30S ribosomal protein S8



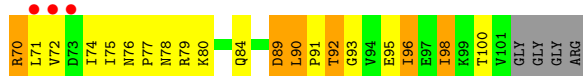
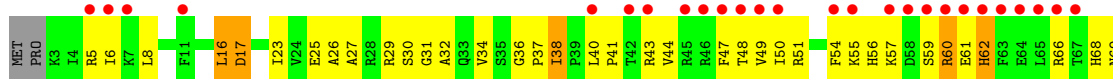
• Molecule 9: 30S ribosomal protein S9



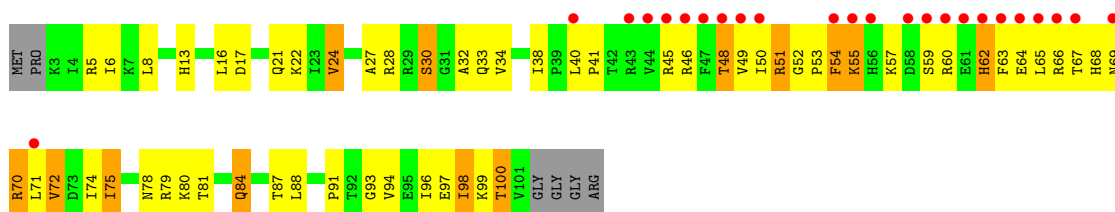
• Molecule 9: 30S ribosomal protein S9



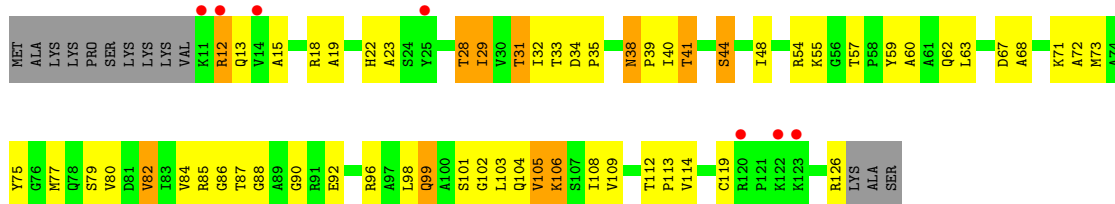
• Molecule 10: 30S ribosomal protein S10



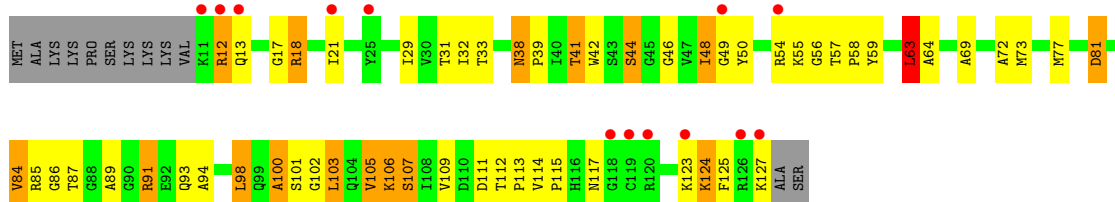
- Molecule 10: 30S ribosomal protein S10



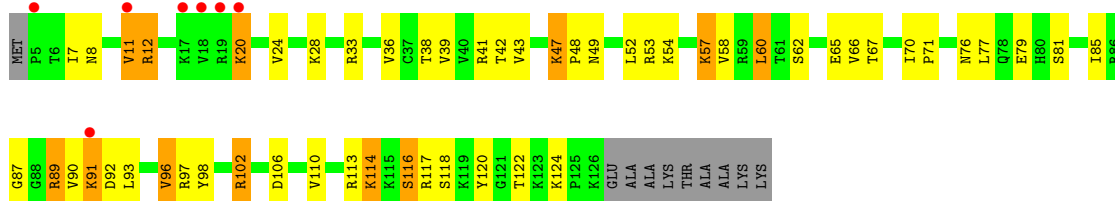
- Molecule 11: 30S ribosomal protein S11



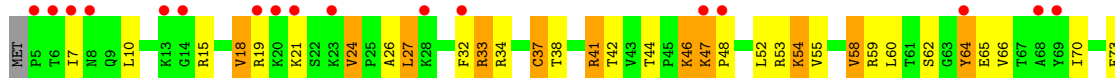
- Molecule 11: 30S ribosomal protein S11



- Molecule 12: 30S ribosomal protein S12

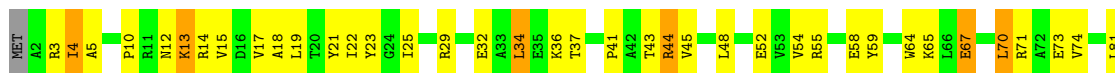


- Molecule 12: 30S ribosomal protein S12

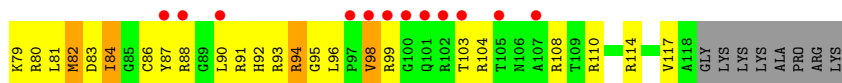
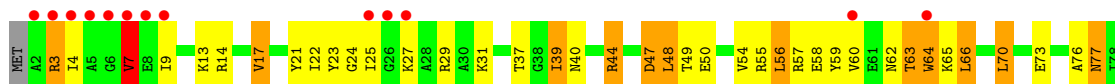
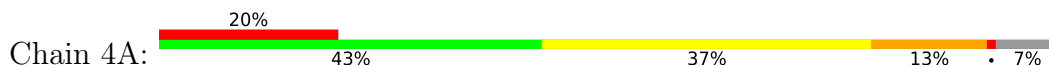




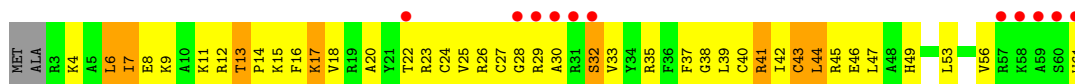
• Molecule 13: 30S ribosomal protein S13



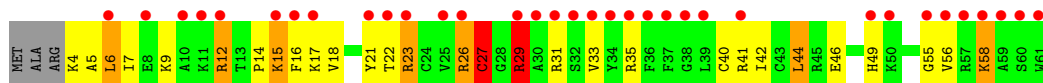
• Molecule 13: 30S ribosomal protein S13



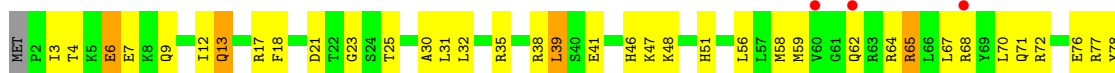
• Molecule 14: 30S ribosomal protein S14 type Z



• Molecule 14: 30S ribosomal protein S14 type Z

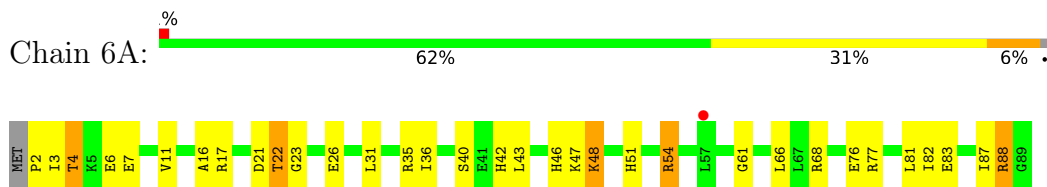


• Molecule 15: 30S ribosomal protein S15

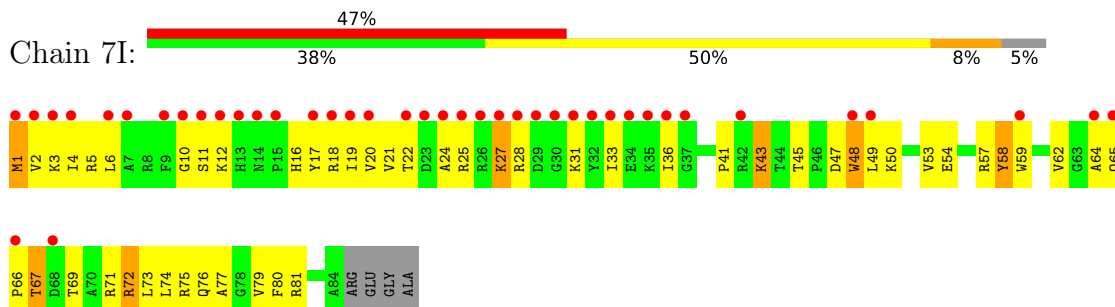




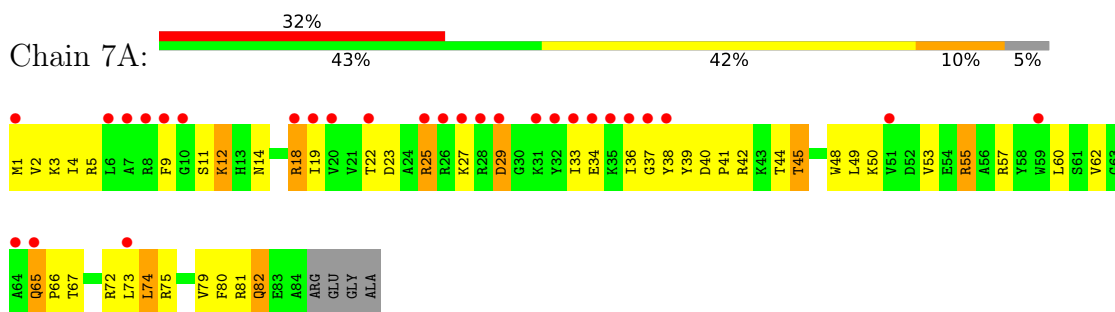
- Molecule 15: 30S ribosomal protein S15



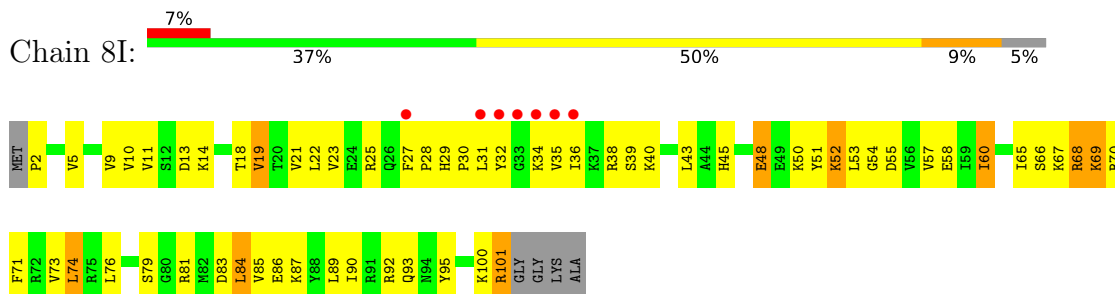
- Molecule 16: 30S ribosomal protein S16



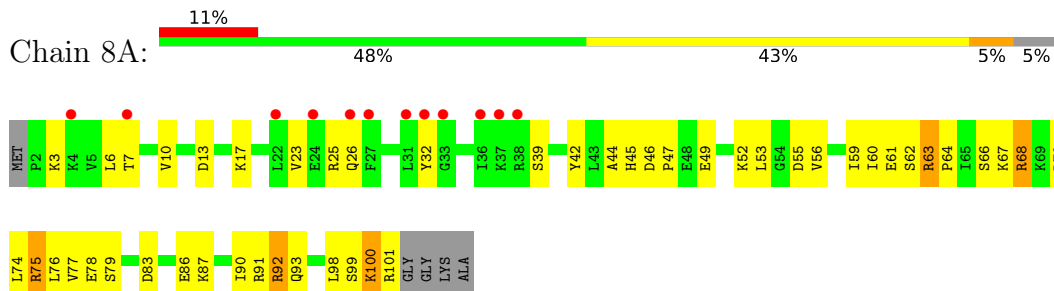
- Molecule 16: 30S ribosomal protein S16



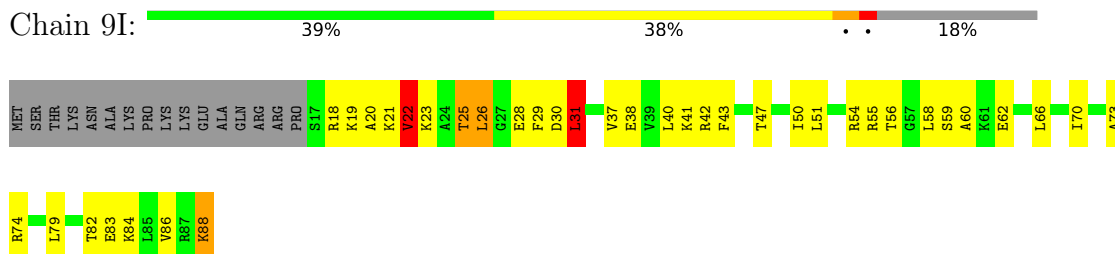
- Molecule 17: 30S ribosomal protein S17



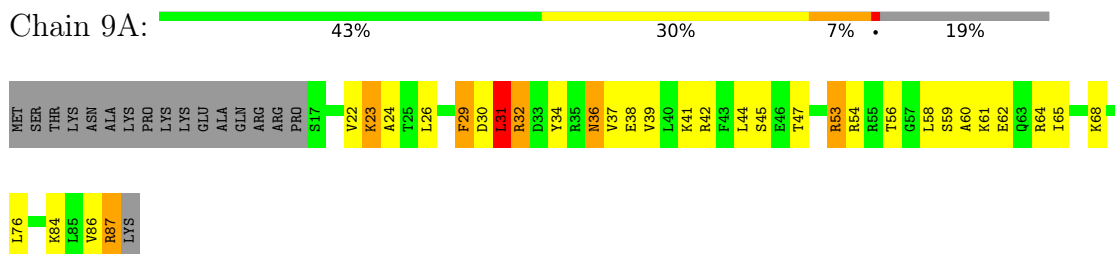
- Molecule 17: 30S ribosomal protein S17



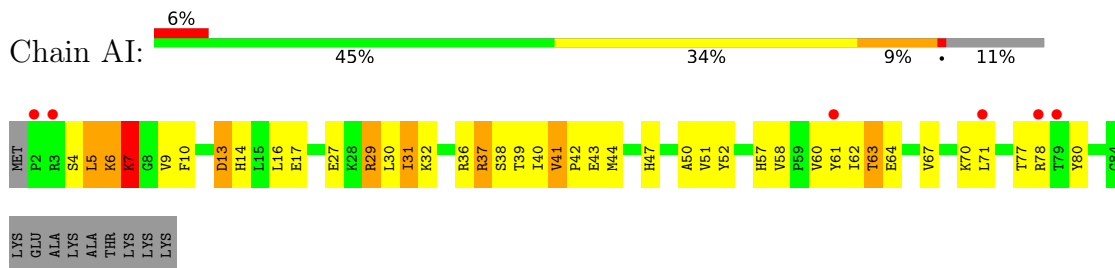
• Molecule 18: 30S ribosomal protein S18



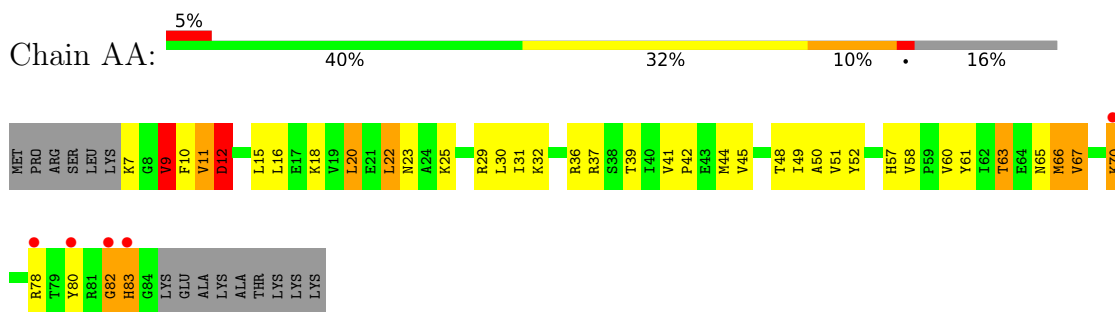
• Molecule 18: 30S ribosomal protein S18



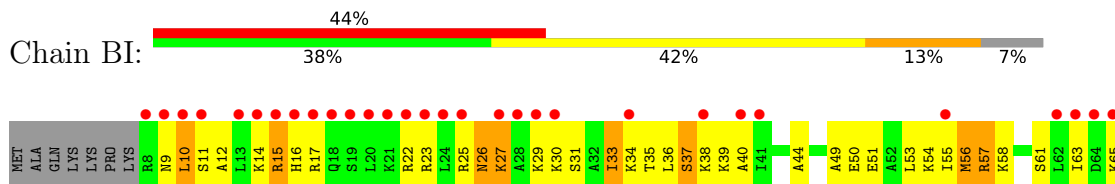
• Molecule 19: 30S ribosomal protein S19



• Molecule 19: 30S ribosomal protein S19

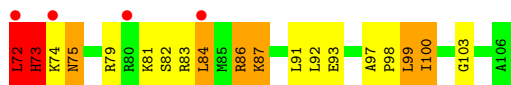
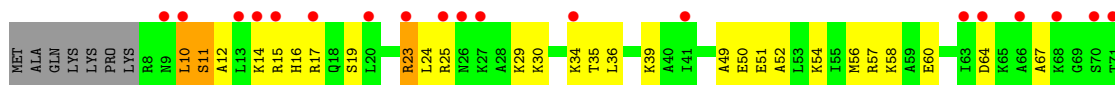


• Molecule 20: 30S ribosomal protein S20

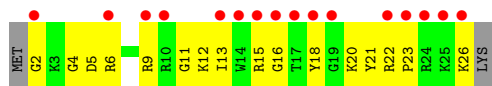




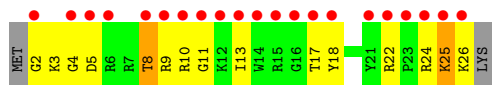
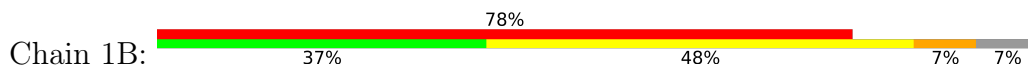
• Molecule 20: 30S ribosomal protein S20



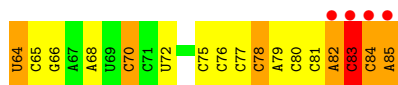
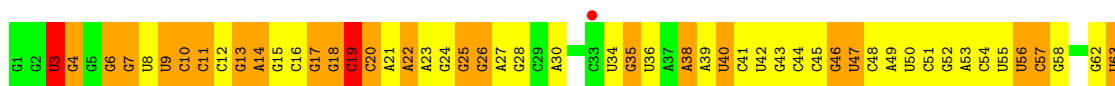
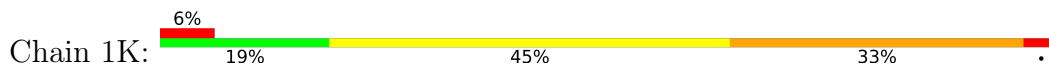
• Molecule 21: 30S ribosomal protein Thx



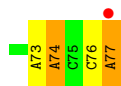
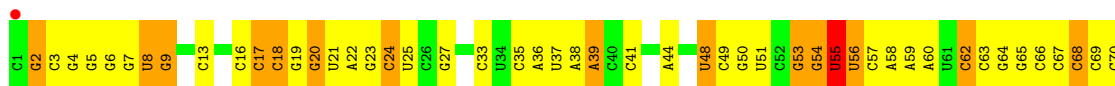
• Molecule 21: 30S ribosomal protein Thx



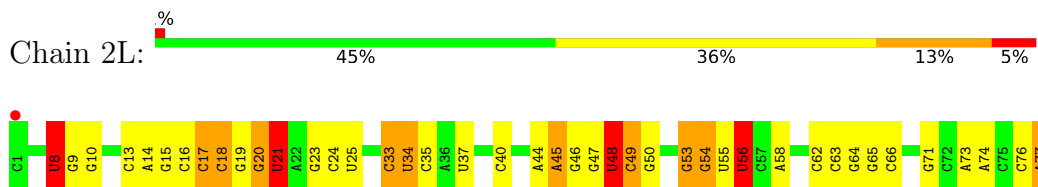
• Molecule 22: tRNA-Tyr



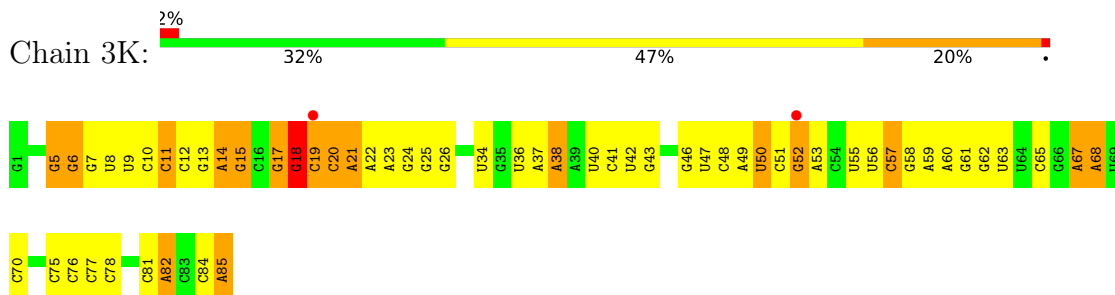
• Molecule 23: tRNA-fMet



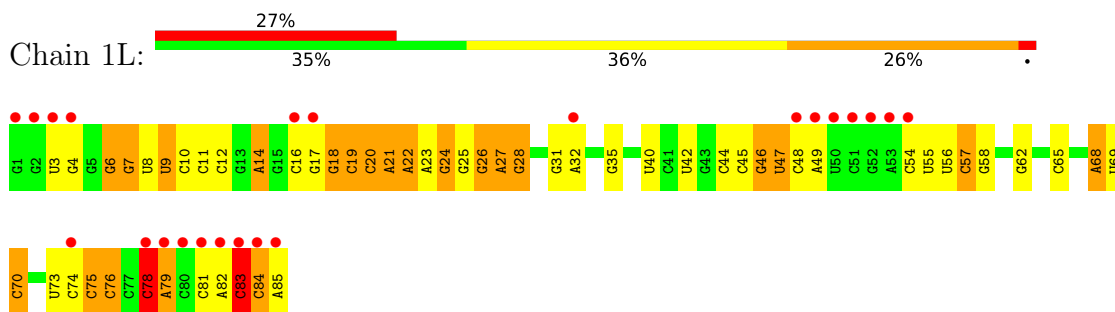
• Molecule 23: tRNA-fMet



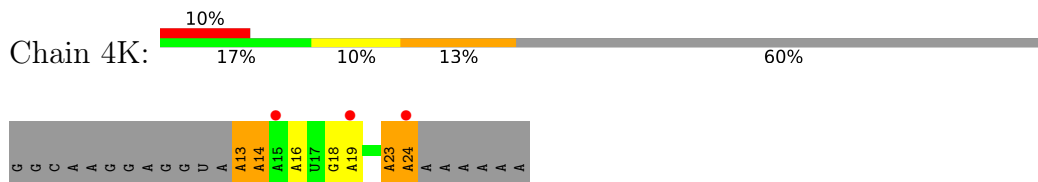
• Molecule 24: tRNA-Tyr



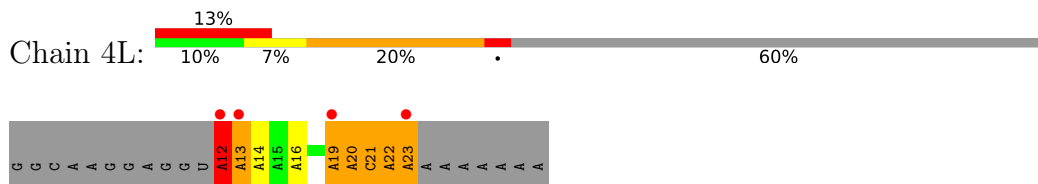
• Molecule 24: tRNA-Tyr



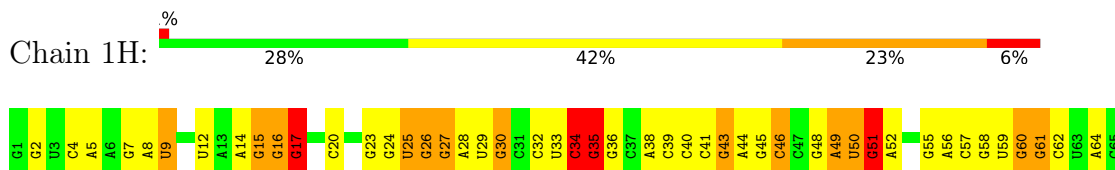
• Molecule 25: mRNA



• Molecule 25: mRNA

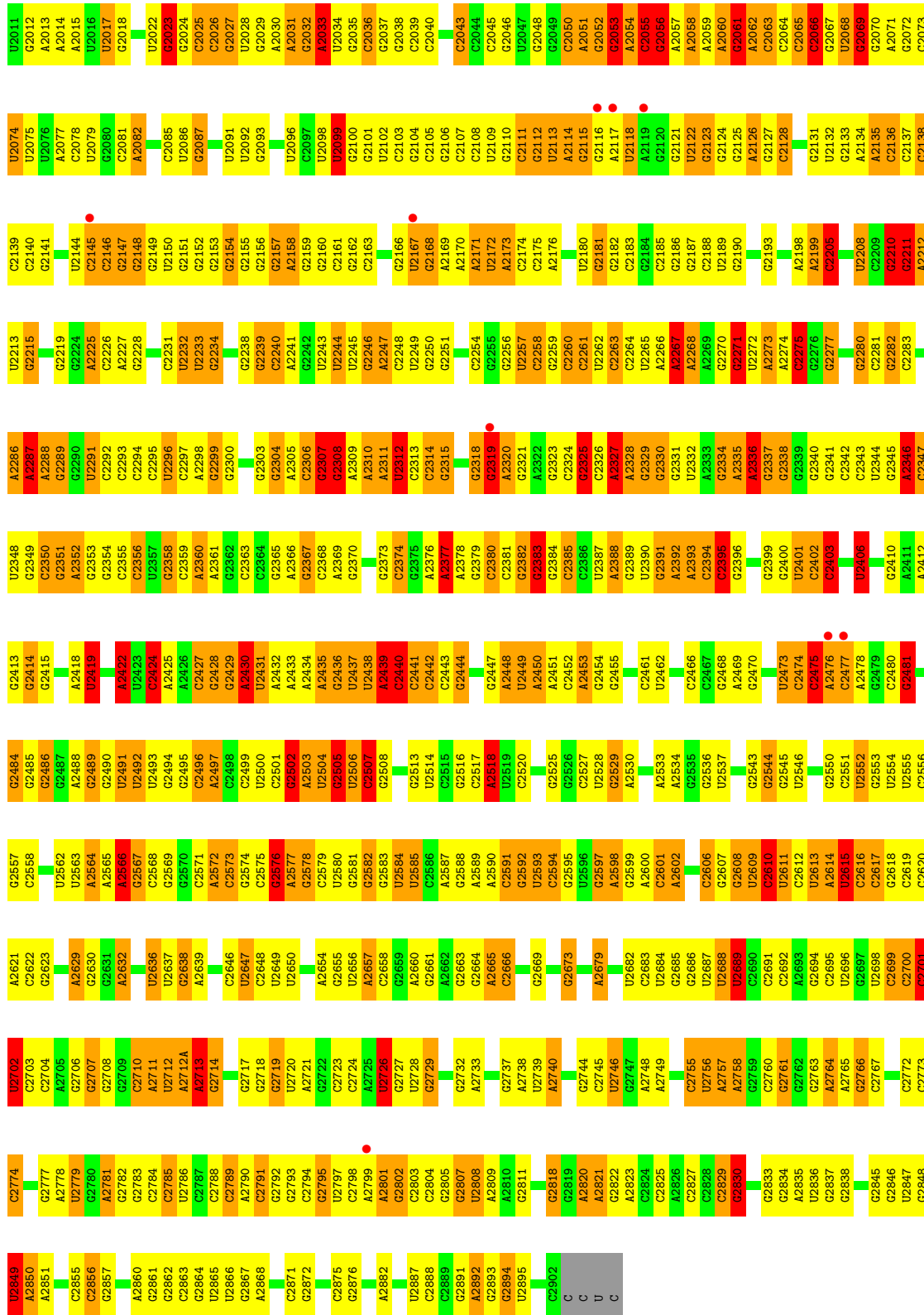


• Molecule 26: 23S ribosomal RNA



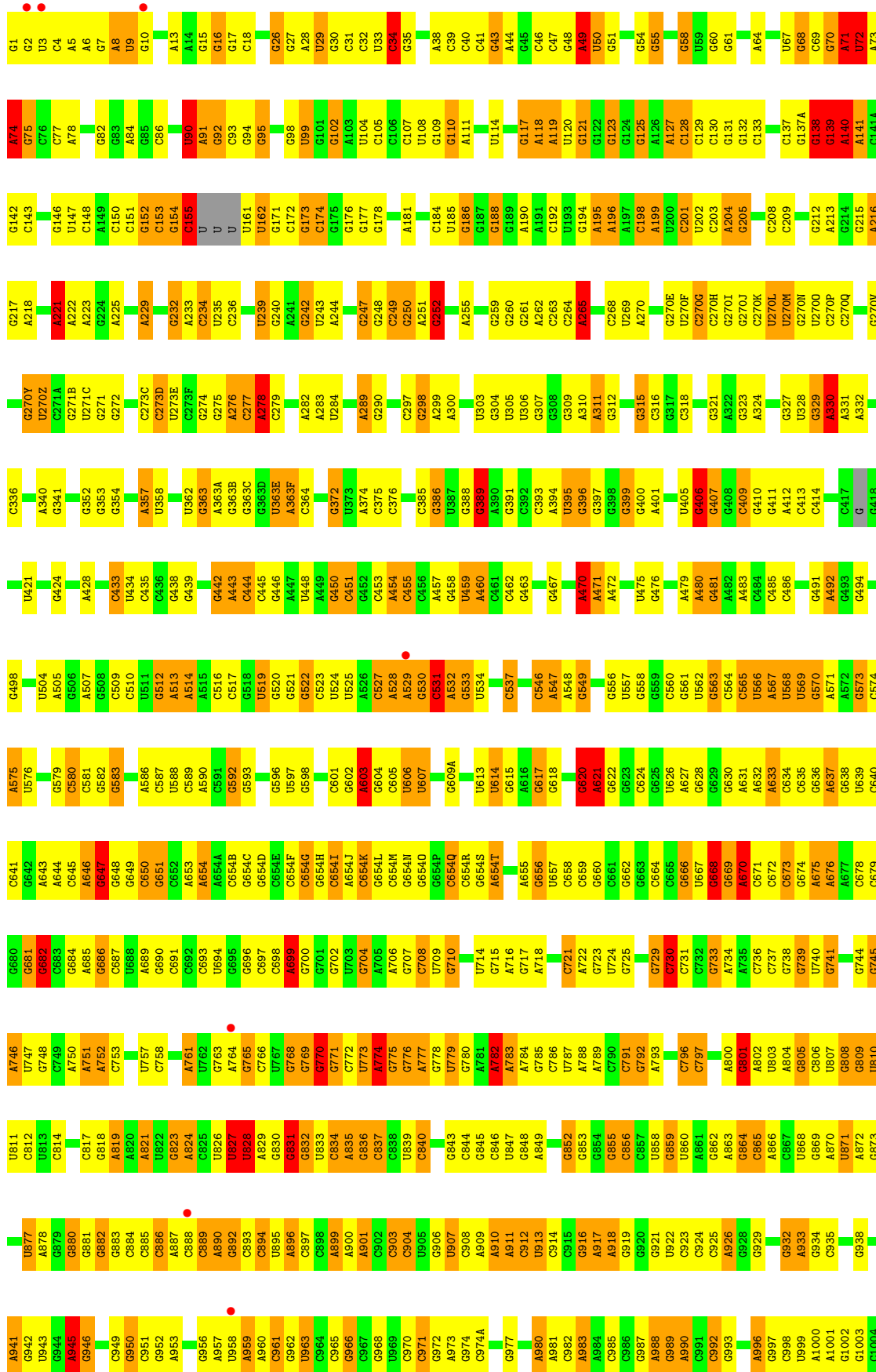
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C985	C914	C846	A784	G654P	A608	C535	A460	G388	A322	C270K	C210	G138	U67
G987	G916	G847	C785	C654Q	A609	A536	C461	G389	G323	U270L	G214	G139	G69
A988	A917	A849	C786	A654T	G609A	C537	C462	C392	G214	G270M	A216	A141	G70
A989	A918	A852	C787	A655	C610	C543	U464	G396	A216	U270N	A217	A141	A71
C991	C919	G853	A788	G656	C611	C544	C465	G397	A330	U270O	A218	C141A	U72
C992	C925	G854	C789	C657	U612	C545	A466	G398	A322	U270P	G220	G142	A73
C993	G954	A727	C790	C658	U613	C546	A467	G399	A331	C270Q	G221	C144	A74
A1000	C926	A728	C791	C659	U614	C547	A468	G400	A222	G270T	A221	C148	C76
A1001	A926	G855	A792	C660	U615	A547	C469	G400	A222	C270U	A223	A149	C77
C1002	C928	C856	A793	C661	U616	A548	A470	G400	A225	G270V	A224	G152	G81
C1003	C929	C857	C796	C662	U617	A549	A471	G404	A225	G270W	G224	G153	G82
A995	U930	U858	C797	C663	U618	G549	A472	U404	A225	G270X	G226	G154	G83
C997	G931	C859	C798	C664	U619	G556	A473	U405	A225	G270Y	G227	C153	G84
C998	A932	U860	G799	C665	U620	U557	G473	G406	A225	G270Z	G228	G154	G85
A1000	A933	U861	G799	C666	U621	U558	A478	G407	A225	G270A	G229	C155	A84
A1001	G938	G862	A800	U667	U622	U559	A479	G408	A225	G270B	G230	C155	G85
C1002	C939	A863	G801	C668	G623	U562	A480	G409	A225	G270C	A228	C156	G88
G1003	G940	C864	A802	C669	G624	U562	G481	G410	A225	G270D	A229	C156	G89
A1004	G941	C865	U803	C670	G627	U566	G482	G411	A225	G270E	U230	U163	U90
C1005	G942	A870	G805	C671	A627	A567	G483	G412	A225	G270F	U231	U164	U91
C1006	U943	U871	U807	C672	G630	C568	G484	A415	A225	G270G	U232	U165	A91
A1010	G944	A872	G808	C673	G631	A568	C485	C416	A225	G270H	U233	U166	G92
G1011	G946	G874	G809	C674	A632	U569	C486	C417	A225	G270I	U234	G171	C93
U1012	G947	G875	U810	C675	A633	G570	G491	G	A225	G270J	U235	G172	G98
C1013	G948	C876	U811	C676	A634	G571	A492	G418	A225	G270K	U236	C174	G99
U1014	G949	C877	C812	C677	A635	A571	A493	G419	A225	G270L	U237	C175	U99
C1018	C950	A878	C813	C678	C636	A572	C493	A422	A225	G270M	U238	C176	U99
U1019	C951	G879	U813	C679	C637	A573	G494	A423	A225	G270N	U239	C177	G101
A1020	C951	G880	C814	C680	A637	C574	G495	G424	A225	G270O	U240	C177	G102
C1021	G952	G881	C815	C681	A638	A575	G496	G425	A225	G270P	U241	C178	G102
G1022	A953	G882	C816	C682	U639	U576	A501	G426	A225	G270Q	U242	C179	G105
U1023	C955	C883	C817	C683	U640	G577	A502	U427	A225	G270R	U243	C180	C106
G1024	C955	C884	G818	C684	C641	A578	A503	U428	A225	G270S	U244	C181	C107
G1025	U956	C885	G821	C685	C642	A579	A504	U429	A225	G270T	U245	C182	U108
A1027	A959	C886	U822	C686	G643	C580	A505	U430	A225	G270U	U246	C183	G109
C1028	A960	C887	G823	C687	A644	C581	A506	U431	A225	G270V	U247	C184	G110
A1029	C962	C888	C824	C688	C645	C582	A507	U432	A225	G270W	U248	C185	G111
G1030	G963	C889	A824	C689	C646	G583	A508	U433	A225	G270X	U249	C186	U112
C1033	U964	C890	C825	C690	A647	C584	A509	C433	A225	G270Y	U250	C187	U113
U1033	C965	C891	U826	C691	G648	C585	A510	G440	A225	G270Z	U251	C188	U114
G1034	G966	C892	C827	C692	G649	C586	A511	U441	A225	G270A	U252	C189	C115
C1035	C967	C893	U827	C693	G650	C587	A512	U442	A225	G270B	U253	C190	C116
G1036	C968	C894	U828	C694	C651	C588	A513	U443	A225	G270C	U254	C191	C117
C1037	C971	C895	A829	C695	G652	C589	A514	U444	A225	G270D	U255	C192	C118
C1038	G972	C896	G830	C696	A654	C590	A515	U445	A225	G270E	U256	C193	A119
G1039	A973	C897	C831	C697	A654A	C591	A516	U446	A225	G270F	U257	C194	U120
C1040	G974	C898	G832	C698	A654B	C592	A517	U447	A225	G270G	U258	C195	G121
C1041	C974A	C899	C833	C699	A654C	C593	A518	U448	A225	G270H	U259	C196	G122
G1042	G975	C900	U834	C700	A654D	C594	A519	U449	A225	G270I	U260	C197	G123
C1043	C976	A901	C835	G701	G654E	C595	A520	U450	A225	G270J	U261	C198	G124
A1045	G977	C901	G836	G702	C654F	C596	A521	U451	A225	G270K	U262	C199	G125
A1046	C978	C902	C837	U703	C654G	C597	A522	U452	A225	G270L	U263	C200	G126
C1047	G979	C903	C838	G704	C654H	C600	A523	U453	A225	G270M	U264	C201	A127
A1048	A910	C904	U839	A705	C654I	G601	A524	U454	A225	G270N	U265	C202	C128
C1049	A911	C905	U840	A706	C654J	G602	A525	U455	A225	G270O	U266	C203	C129
G1049	G983	C906	C841	U709	C654K	A603	A526	U456	A225	G270P	U267	C204	C130
C1049	A983	C907	G842	G710	C654L	A604	A527	U457	A225	G270Q	U268	C205	G131
C1049	A983	C908	G843	G711	C654M	C605	A528	U458	A225	G270R	U269	C206	G132
C1049	A983	C909	C844	G711	C654N	C606	A529	U459	A225	G270S	U270	C207	G133

U1944	G1858	G1633	G1689	A1786	G1868	G1895	G1633	G1506	C1437	G1374	G1311	G1245	G1176	A1111	A1050	A1080	A1058	A1087	A1088
G1945	A1859	A1634	G1696	A1787	A1869	A1635	A1697	A1507	G1440	C1375	U1312	A1246	A1177	G1112	A1054	A1089	A1087	A1088	A1088
C1947	G1697	G1636	A1698	C1790	G1573	G1637	C1509	C1508	G1441	C1376	U1313	G1248	C1178	G1113	G1055	A1090	A1087	A1088	A1088
G1950	A1699	A1636	A1699	A1791	C1574	A1638	A1510	A1511	G1442	A1378	U1314	U1249	C1179	G1114	G1056	A1091	A1087	A1088	A1088
U1951	G1700	G1639	A1700	G1792	C1575	G1638	A1511	A1512	G1443	A1379	U1315	G1250	C1180	G1115	G1057	A1092	A1087	A1088	A1088
A1952	G1705	G1640	G1705	G1793	U1576	G1639	G1512	G1513	G1444	G1380	U1316	G1251	A1182	G1116	A1057	A1093	A1087	A1088	A1088
U1955	U1706	G1641	U1706	U1794	U1577	G1640	G1513	U1514	C1445	G1381	U1317	G1252	G1183	G1117	A1058	A1094	A1087	A1088	A1088
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G1958	G1717	G1644	A1580	G1798	G1581	G1644	G1517	G1517	G1448	G1384	U1320	U1255	G1186	G1120	U1061	A1097	A1087	A1088	A1088
G1959	U1727	G1645	A1581	U1799	C1582	G1645	G1518	G1518	G1449	G1385	U1321	U1256	G1187	G1121	U1062	A1098	A1087	A1088	A1088
A1960	U1727	G1646	A1582	C1800	G1582	G1646	G1519	U1519	G1449A	C1387	U1322	U1257	G1188	G1122	U1063	A1099	A1087	A1088	A1088
U1961	G1728	G1647	A1586	C1801	A1586	G1647	U1520	U1520	G1450	G1388	U1323	U1258	G1189	G1123	U1064	A1100	A1087	A1088	A1088
U1962	A1729	G1648	A1587	A1802	A1587	G1648	U1521	G1521	G1451	G1389	U1324	U1259	G1190	G1124	U1065	A1101	A1087	A1088	A1088
U1963	G1729	G1649	A1588	C1803	C1588	G1649	U1522	G1522	G1452	G1390	U1325	U1260	G1191	G1125	U1066	A1102	A1087	A1088	A1088
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C1965	G1732	G1651	G1590	U1805	A1590	G1651	G1525	G1525	G1454	U1392	U1327	U1262	G1193	G1127	U1068	A1104	A1087	A1088	A1088
A1966	A1732	G1652	G1591	C1806	G1591	G1652	G1526	G1526	G1455	A1393	U1328	U1263	G1194	G1128	U1069	A1105	A1087	A1088	A1088
G1967	G1743	G1653	C1592	G1807	C1592	G1653	G1527	G1527	G1456	A1394	U1329	U1264	G1195	G1129	U1070	A1106	A1087	A1088	A1088
G1968	G1746	G1654	A1593	U1808	A1593	G1654	G1528	U1528	G1457	U1395	U1330	U1265	G1196	G1130	A1071	A1107	A1087	A1088	A1088
A1969	G1747	A1655	A1594	A1809	A1594	G1655	A1529	A1529	G1458	U1396	U1331	U1266	G1197	G1131	A1072	A1108	A1087	A1088	A1088
G1970	G1748	G1656	A1595	A1810	A1595	G1656	G1530	G1530	G1459	U1397	U1332	U1267	G1198	G1132	A1073	A1109	A1087	A1088	A1088
A1971	A1749	G1657	A1596	G1811	A1596	G1657	G1531	G1531	G1460	U1398	U1333	U1268	G1199	G1133	U1074	A1110	A1087	A1088	A1088
A1972	G1750	G1658	A1597	U1812	A1597	G1658	G1532	G1532	G1461	C1399	U1334	U1269	G1200	G1134	U1075	A1111	A1087	A1088	A1088
G1973	G1751	U1659	A1598	G1813	A1598	G1659	G1533	U1533	G1462	C1399	U1335	U1270	G1201	G1135	U1076	A1112	A1087	A1088	A1088
C1974	C1752	G1660	C1599	G1814	C1599	G1660	G1534	G1534	G1463	G1400	U1336	U1271	G1202	G1136	U1077	A1113	A1087	A1088	A1088
G1975	G1753	G1661	A1600	G1815	A1600	G1661	U1535	U1535	G1464	G1401	U1337	U1272	G1203	G1137	U1078	A1114	A1087	A1088	A1088
G1976	G1754	G1662	G1601	G1816	G1601	G1662	A1536	A1536	G1465	C1402	U1338	U1273	G1204	G1138	U1079	A1115	A1087	A1088	A1088
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G1982	A1760	G1668	A1607	G1822	A1607	G1668	G1542	G1542	G1471	C1408	U1344	U1279	G1210	G1144	U1085	A1121	A1087	A1088	A1088
G1983	G1761	A1669	A1608	G1823	A1608	G1669	G1543	G1543	G1472	C1408	U1345	U1280	G1211	G1145	U1086	A1122	A1087	A1088	A1088
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G1988	G1771	U1674	C1613	U1828	C1613	G1674	C1547	C1547	G1477	C1417	U1350	U1285	G1216	G1150	U1091	A1127	A1087	A1088	A1088
G1989	U1675	G1675	A1614	U1829	A1614	G1675	C1548	C1548	G1478	G1418	U1351	U1286	G1217	G1151	U1092	A1128	A1087	A1088	A1088
C1990	A1676	G1676	A1615	U1830	A1615	G1676	C1549	C1549	G1479	G1419	U1352	U1287	G1218	G1152	U1093	A1129	A1087	A1088	A1088
U1923	A1677	G1677	A1616	U1831	A1616	G1677	C1550	C1550	G1484	U1420	U1353	U1288	G1219	G1153	U1094	A1130	A1087	A1088	A1088
G1929	G1678	G1678	A1617	U1832	A1617	G1678	C1551	C1551	G1485	G1421	U1354	U1289	G1220	G1154	U1095	A1131	A1087	A1088	A1088
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A1932	C1774	G1681	G1620	U1835	G1620	G1681	C1556	C1556	G1488	G1424	U1357	U1292	G1223	G1157	U1098	A1134	A1087	A1088	A1088
G1933	U1775	G1682	U1621	U1836	U1621	G1682	C1557	C1557	U1489	G1425	U1358	U1293	G1224	G1158	U1099	A1135	A1087	A1088	A1088
C1934	G1776	G1683	G1622	U1837	G1622	G1683	A1558	A1558	U1427	G1426	C1363	U1300	G1225	G1159	U1100	A1136	A1087	A1088	A1088
G1935	U1777	G1684	G1623	U1838	G1623	G1684	G1559	G1559	C1428	A1427	G1364	A1301	G1226	G1160	U1101	A1137	A1087	A1088	A1088
A2001	U1778	G1685	G1624	U1839	G1624	G1685	G1560	G1560	G1429	A1428	G1365	A1302	G1227	G1161	U1102	A1138	A1087	A1088	A1088
G2002	U1779	G1686	C1625	U1840	C1625	G1686	G1561	G1561	A1486	G1429	G1366	A1303	G1228	G1162	U1103	A1139	A1087	A1088	A1088
G2003	A1781	A1689	G1626	U1841	G1626	A1689	C1562	C1562	A1496	G1431	G1367	A1304	G1229	G1163	U1104	A1140	A1087	A1088	A1088
U1940	C1782	A1690	A1630	U1842	A1630	A1690	G1563	G1563	U1497	U1432	G1368	A1305	G1230	G1164	U1105	A1141	A1087	A1088	A1088
C2008	A1783	G1691	G1664	U1843	G1664	G1691	G1564	G1564	C1502	U1433	C1370	A1307	U1240	G1165	U1106	A1142	A1087	A1088	A1088
G2009	A1784	U1692	A1565	U1844	A1565	U1692	G1565	G1565	G1502	U1434	G1371	A1308	U1241	G1166	U1107	A1143	A1087	A1088	A1088
G2010	A1785	U1693	A1566	U1845	A1566	U1693	G1566	G1566	C1502	G1435	U1372	A1309	U1242	G1167	U1108	A1144	A1087	A1088	A1088
		C1694	A1632	U1846	A1632	C1694	A1567	A1567	C1505	G1436	A1373	A1310	G1244	G1168	U1109	A1145	A1087	A1088	A1088



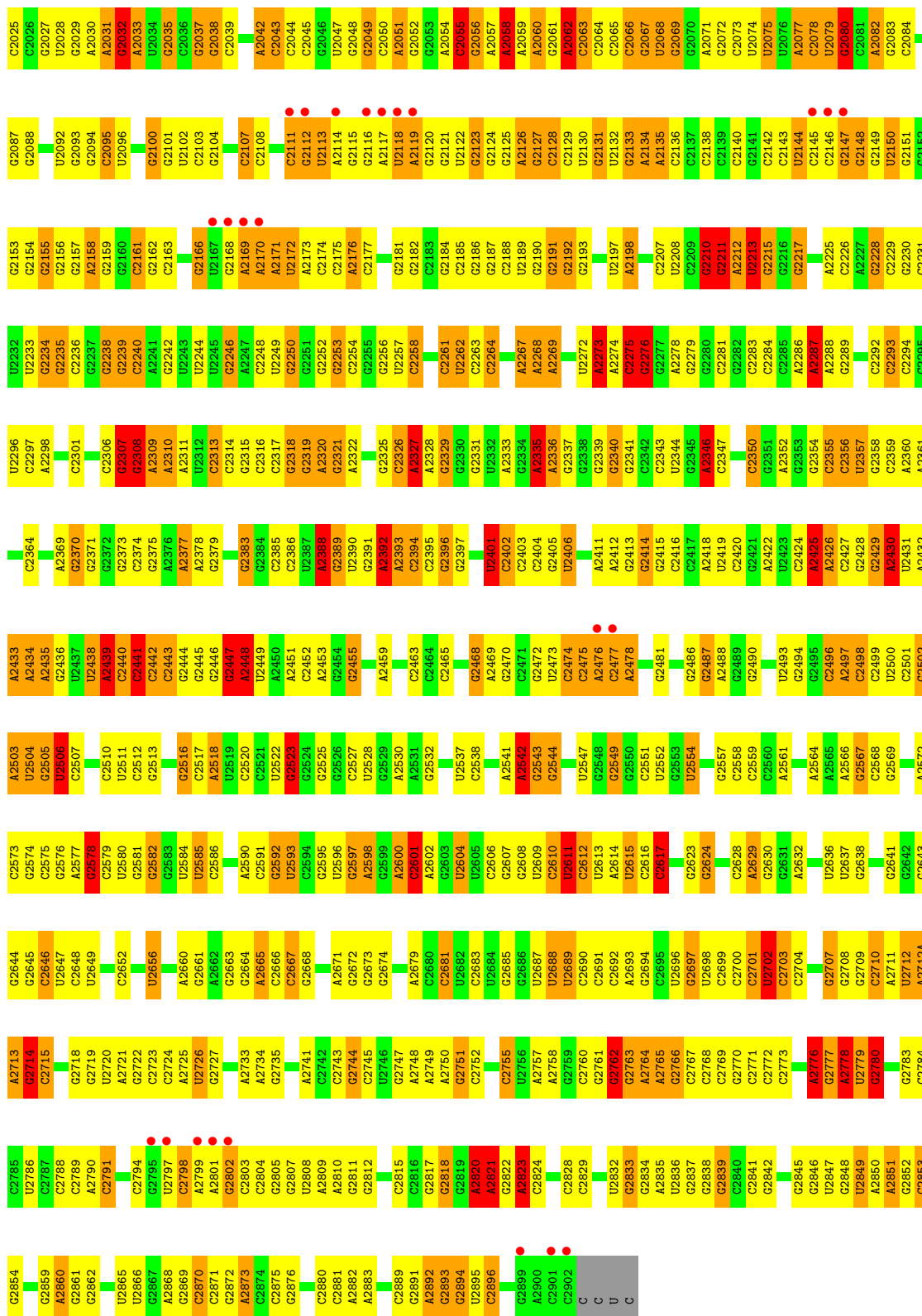
• Molecule 26: 23S ribosomal RNA



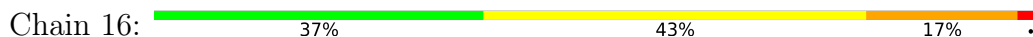


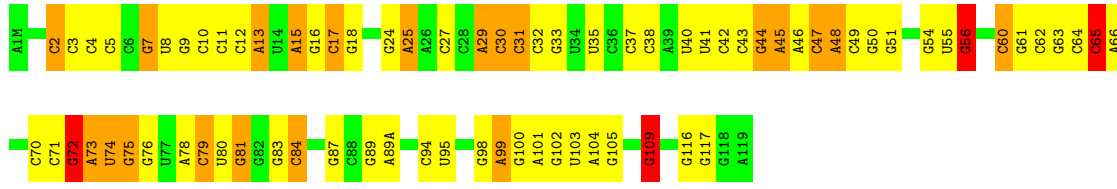


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G1949	A1885	G1800	G1717	G1644	G1573	G1999	C1428	G1363	U1294	A1220	A1143	C1007
G1950	C1886	G1801	G1718	C1644	G1500	G1500	G1429	G1364	G1295	A1221	A1069	C1008
A1951	G1887	A1802	G1725	G1647	C1501	C1501	C1430	A1365	G1296	C1222	C1145	A1009
	G1888	A1803	G1726	C1648	C1502	C1502	U1431	G1368	C1297	C1222	G1071	A1010
	A1889	C1804	U1727	C1648	C1505	C1505	C1432	G1369	C1298	C1225	G1072	G1011
U1955	A1890	U1805	G1728	C1652	A1581	C1506	A1433	G1370	C1299	C1225	A1148	U1012
	G1891	C1806	A1729	A1652	C1581	C1506	A1434	C1371	U1300	C1229A	G1149	C1013
C1958	C1892	U1807	U1730	G1653	A1507	A1507	G1435	G1372	A1301	G1229A	G1074	G1014
	G1893	U1808	G1731	A1654	A1508	A1508	G1436	G1373	A1302	G1229A	C1076	G1015
	C1894	A1812	A1732	C1657	C1585	C1509	C1437	A1373	A1303	G1236	A1077	G1016
C1962	G1895	G1813	G1733	C1658	A1510	A1510	G1443	G1374	C1304	G1236	G1078	G1017
U1963	G1896	G1814	C1742	C1658	A1511	A1511	G1444	C1375	C1305	U1240	A1155	G1018
G1964	G1897	A1814	G1743	C1659	G1512	G1512	A1444A	G1376	C1306	A1241	A1156	C1018
C1965	U1898	G1815	G1743	C1660	U1516	U1516	G1445	G1377	G1310	G1244	C1158	A1020
A1966	G1899	G1816	G1746	G1661	G1517	G1517	C1446	A1378	G1311	G1244	C1159	A1021
G1967	A1900	A1816	G1746	G1662	A1548	C1518	C1445	A1379	G1312	G1244	G1160	G1022
G1968	A1901	U1818	G1753	C1663	G1519	G1519	G1447	G1380	U1312	A1247	G1161	U1023
A1969	C1902	A1819	G1754	G1664	G1520	G1520	G1448	G1381	U1313	G1248	A1088	G1024
A1970	G1903	U1820	G1754	A1665	A1596	A1596	A1449	G1382	C1314	G1248	G1165	G1025
A1971	C1904	A1821	G1756	G1666	A1597	C1583	G1499A	C1383	G1317	G1250	U1166	U1026
A1972	G1905	G1822	U1757	G1667	C1598	G1521	G1499A	C1384	G1318	C1251	U1167	A1027
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	C1908	A1825	C1670	G1670	G1601	A1528	G1455	C1387	C1320	A1254	G1170	G1030
A1978	A1913	G1826	A1671	U1671	U1602	A1529	G1458	C1388	A1321	U1255	G1171	U1033
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		A1829	C1675	A1675	C1605	C1532	A1460	C1391	G1324	C1258	U1175	G1036
G1987	A1918	C1830	C1676	A1676	C1607	G1533	G1461	A1392	G1325	G1259	G1176	G1037
G1988	U1919	U1833	U1768	A1677	A1808	C1534	C1462	A1393	U1326	G1260	A1177	G1038
G1989	G1989	U1834	U1769	G1678	A1609	U1535	C1463	U1394	C1327	C1261	C1104	C1039
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G1992	G1992	U1837	G1772	G1683	C1613	G1538	G1466	G1467	C1330	G1264	U1108	G1042
U1993	U1923	A1837	A1773	C1684	G1614	G1539	C1468	C1468	A1331	G1265	G1110	G1043
C1994	G1924	C1838	C1774	C1685	A1614	G1542	A1469	C1468	G1332	G1266	G1111	G1044
U1995	C1925	G1839	U1775	C1686	C1615	G1544	G1470	C1402	C1333	U1267	A1111	A1045
C1996	U1926	G1840	G1776	G1687	A1616	C1544	A1471	C1403	G1334	U1268	G1112	A1046
	A1927	A1847	U1777	G1688	C1617	C1544	A1471	C1404	U1335	A1269	U1113	G1047
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G2000	G1929	G1849	U1779	A1689	G1619	A1545	G1475	U1406	G1337	A1271	G1122	A1049
A2001	G1930	A1849	A1780	U1690	G1620	G1547	G1478	U1407	G1338	A1272	G1125	A1050
G2002	U1931	G1850	C1781	U1693	U1621	C1548	G1479	C1408	U1341	A1274	C1196	G1051
	A1932	G1856	C1782	G1694	G1622	G1555	G1479	C1409	A1342	A1275	A1128	C1052
A2005	C1933	G1857	A1783	G1695	G1623	C1556	G1480	C1410	U1342	A1275	A1128	C1053
	G1934	G1857	A1784	G1696	G1624	C1557	U1482	G1411	G1345	A1278	A1129	A1054
G2010	G1935	G1858	A1785	G1697	G1625	C1558	G1483	C1411	G1346	G1279	G1130	G1055
	A1936	A1859	A1786	A1698	A1558	A1558	G1486	U1415	G1347	G1280	G1132	G1056
A2014	A1937	G1860	G1699	G1699	G1630	G1559	A1486	G1416	G1348	G1281	U1133	U1057
A2015	U1938	C1861	A1700	A1701	C1630A	G1560	G1487	C1418	G1349	G1282	G1135	A1058
U2016	U1939	G1863	A1701	G1633	C1564	G1560	U1488	C1418	A1349	U1282	G1136	G1059
U2017	U1940	U1864	G1702	A1634	C1564	G1566	U1489	A1418	U1283	U1205	G1136	U1060
G2018	G1941	G1703	G1703	A1635	A1566	A1566	A1490	A1419	G1283	A1284	G1137	U1061
A2019	C1942	G1704	G1704	G1635	A1567	A1567	G1491	U1420	A1353	A1284	G1137	U1061
	U1943	A1871	A1871	C1636	A1567	A1567	G1492	G1421	U1357	A1287	G1138	G1062
	U1944	A1872	U1709	A1637	A1568	A1568	C1493	G1422	G1358	U1288	G1139	G1063
G2023	U1945	G1878	G1710	C1638	A1569	A1569	C1493	G1422	A1359	U1288	G1140	G1064
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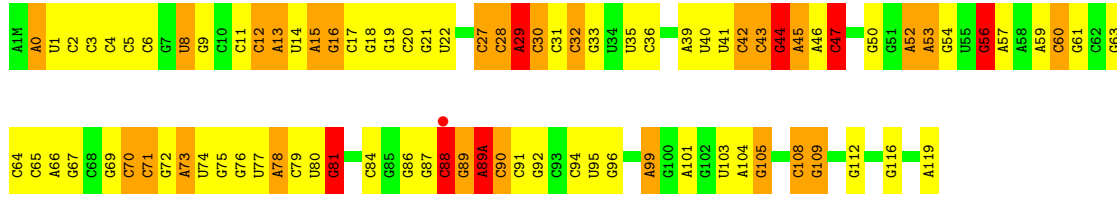


• Molecule 27: 5S ribosomal RNA

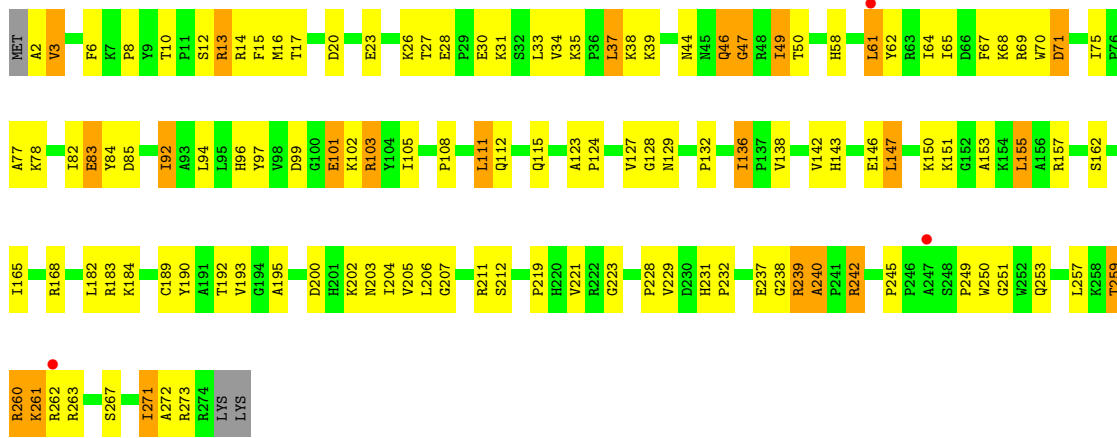




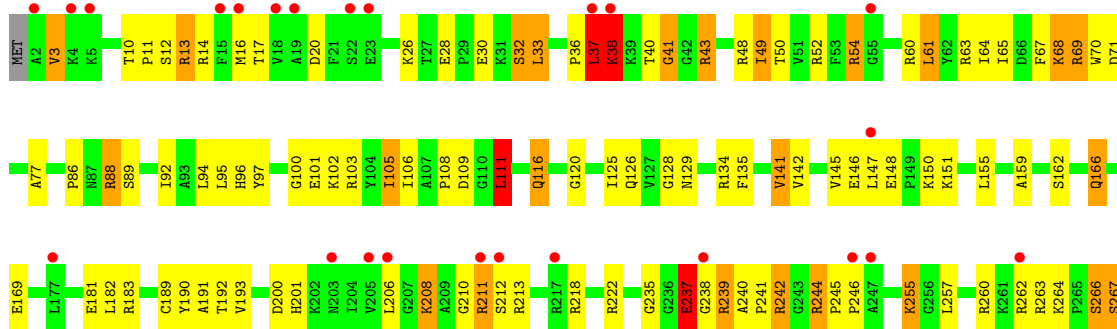
• Molecule 27: 5S ribosomal RNA



• Molecule 28: 50S ribosomal protein L2

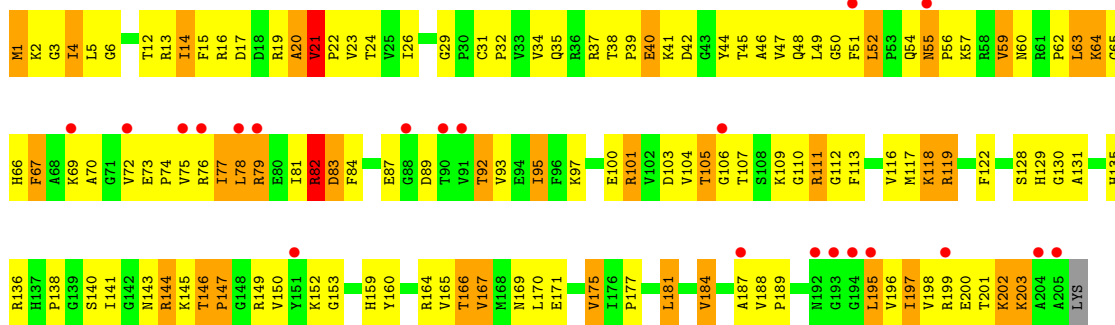


• Molecule 28: 50S ribosomal protein L2

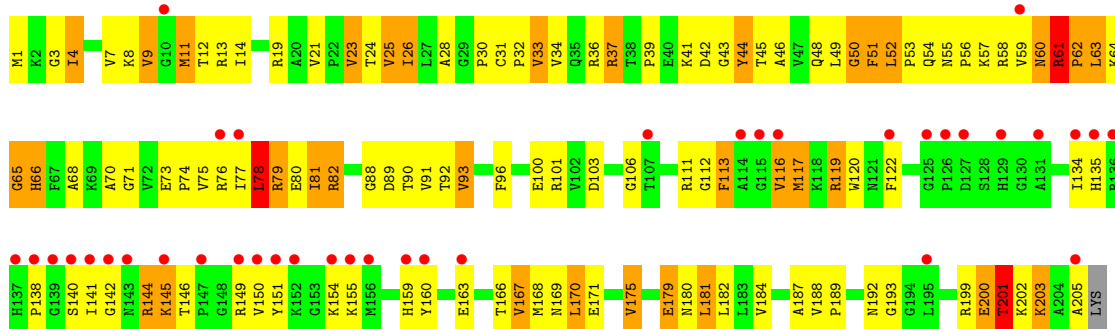




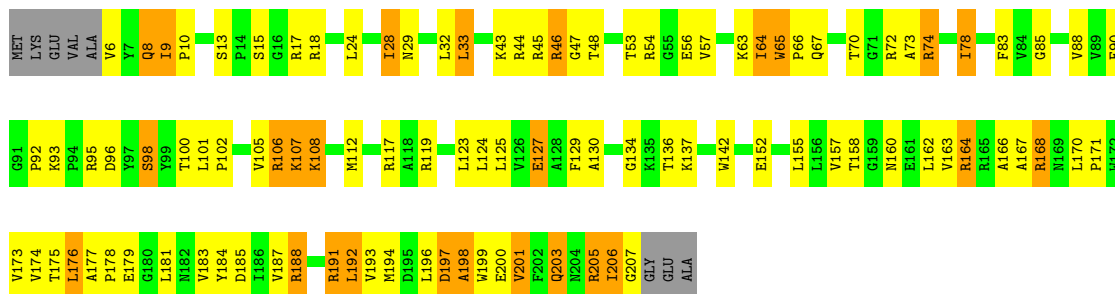
- Molecule 29: 50S ribosomal protein L3



- Molecule 29: 50S ribosomal protein L3

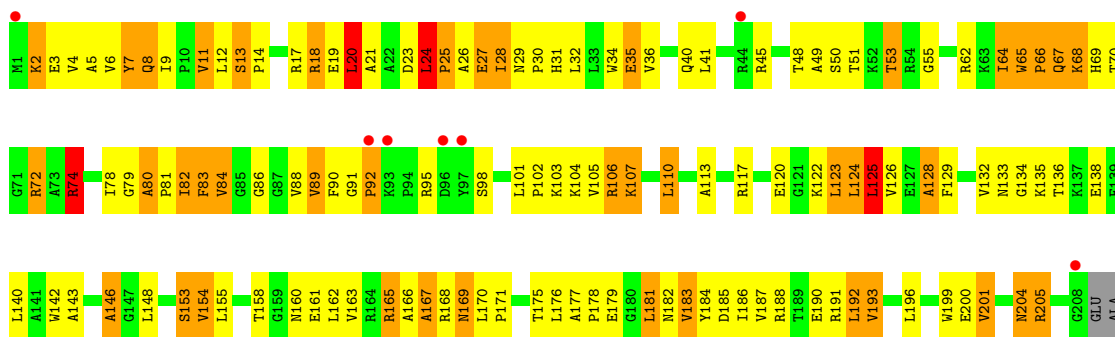


- Molecule 30: 50S ribosomal protein L4

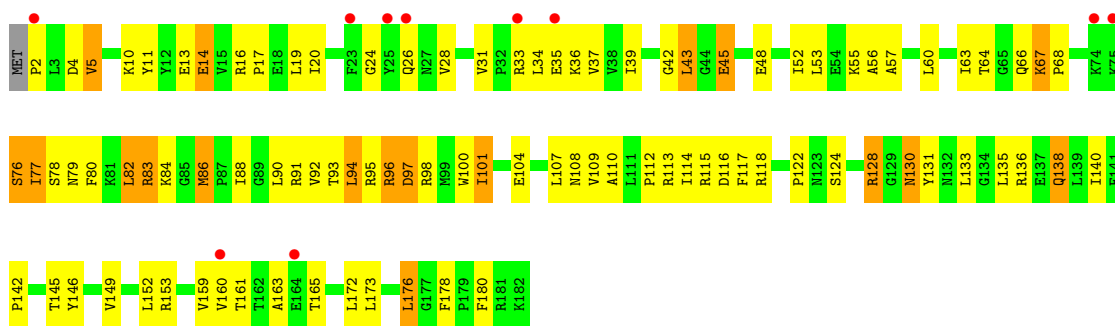


- Molecule 30: 50S ribosomal protein L4

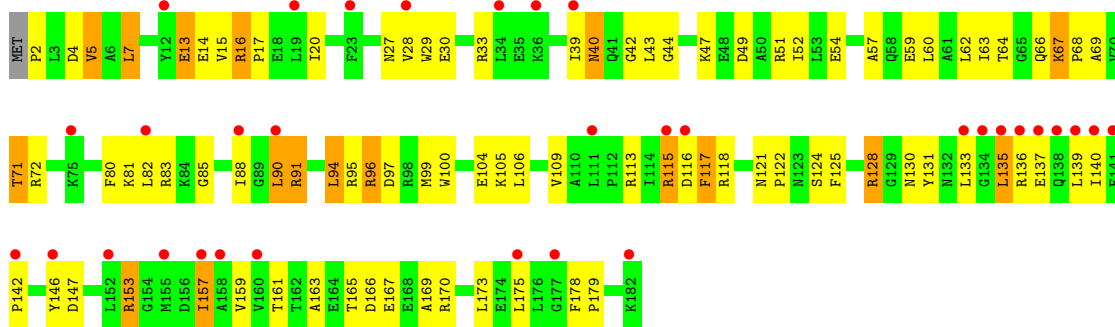




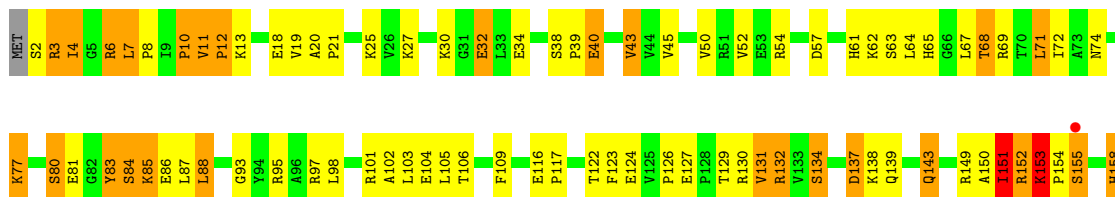
• Molecule 31: 50S ribosomal protein L5



• Molecule 31: 50S ribosomal protein L5

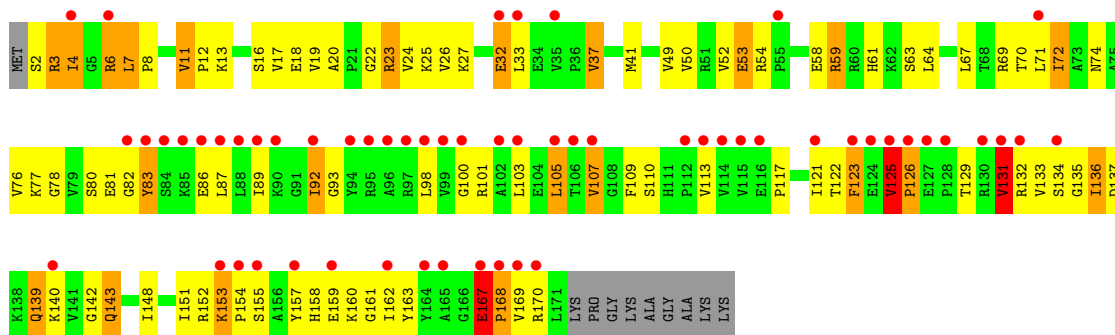


• Molecule 32: 50S ribosomal protein L6

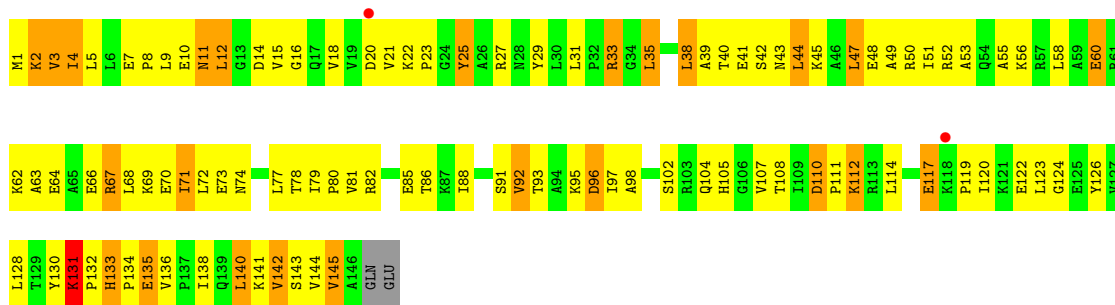




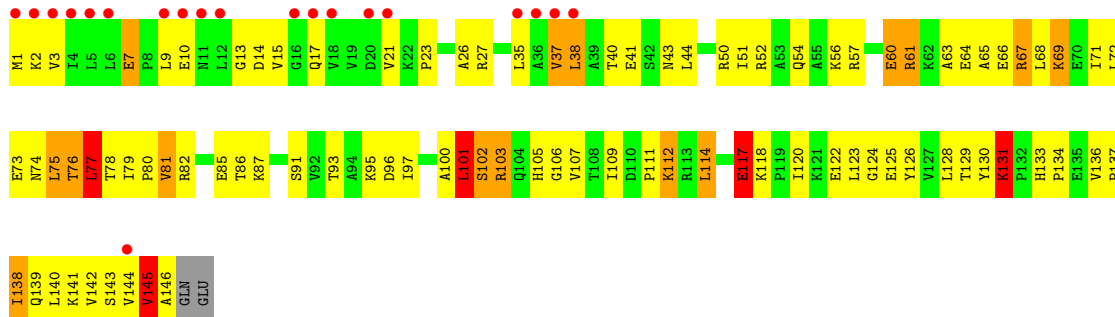
- Molecule 32: 50S ribosomal protein L6



- Molecule 33: 50S ribosomal protein L9

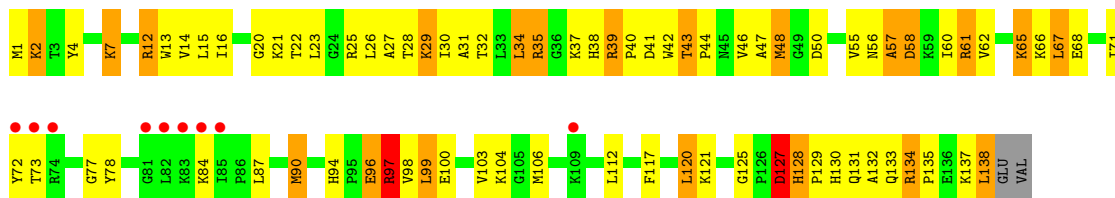


- Molecule 33: 50S ribosomal protein L9

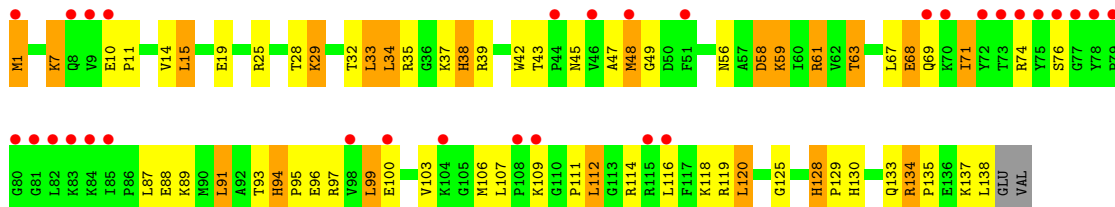


- Molecule 34: 50S ribosomal protein L13

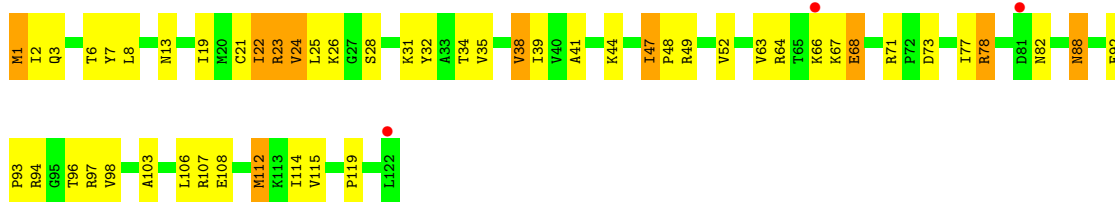




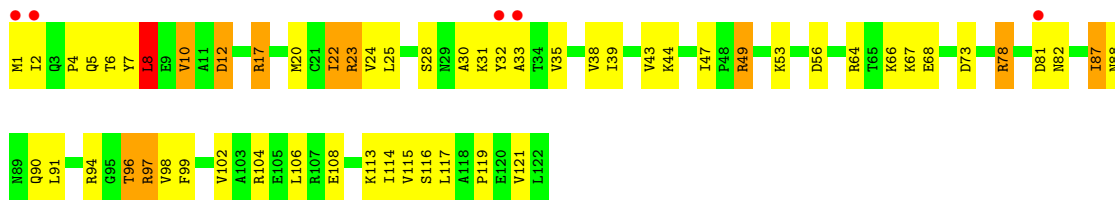
• Molecule 34: 50S ribosomal protein L13



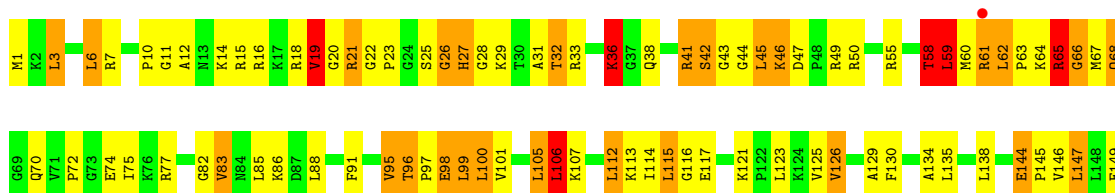
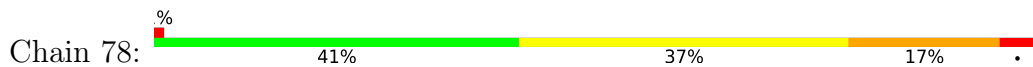
• Molecule 35: 50S ribosomal protein L14



• Molecule 35: 50S ribosomal protein L14

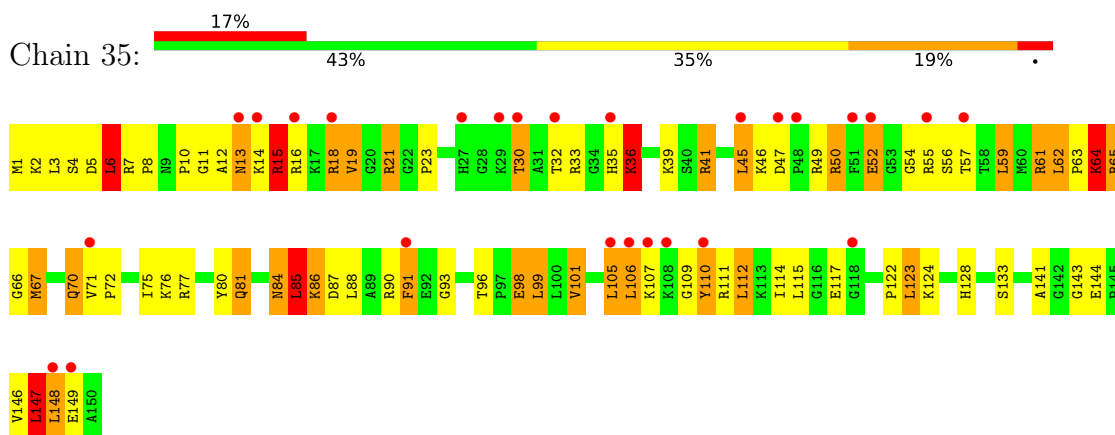


• Molecule 36: 50S ribosomal protein L15

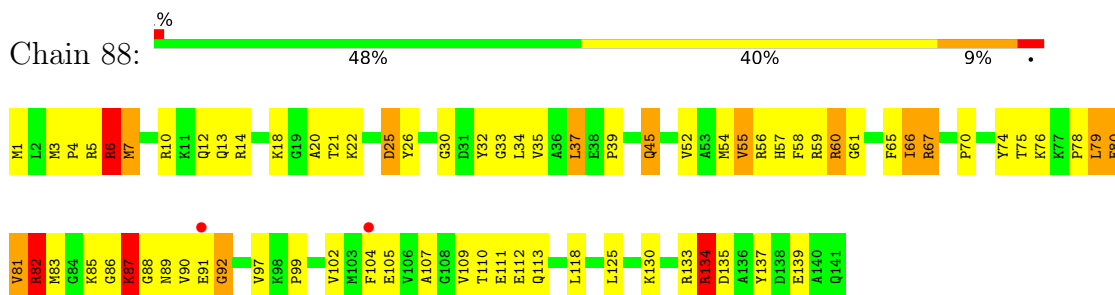


A150

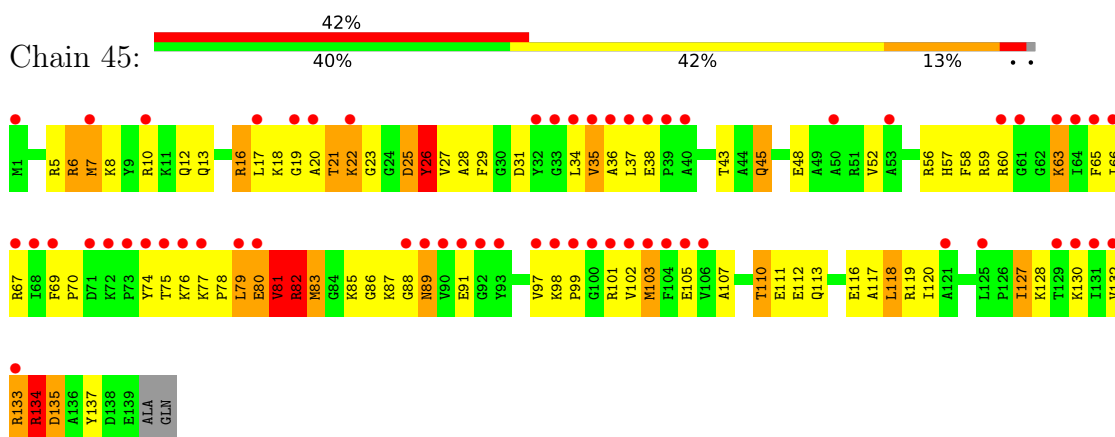
- Molecule 36: 50S ribosomal protein L15



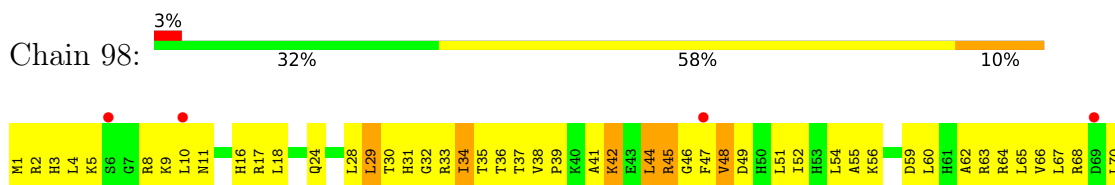
- Molecule 37: 50S ribosomal protein L16



- Molecule 37: 50S ribosomal protein L16



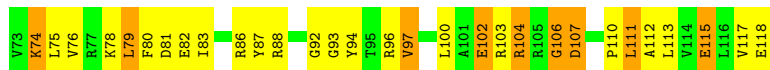
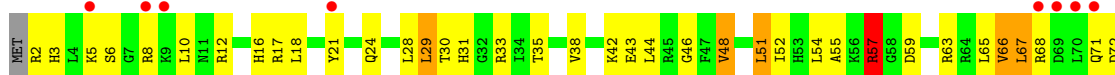
- Molecule 38: 50S ribosomal protein L17



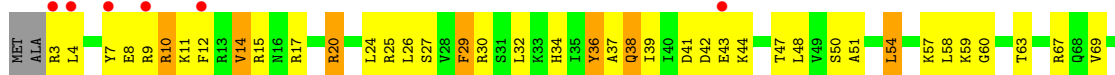




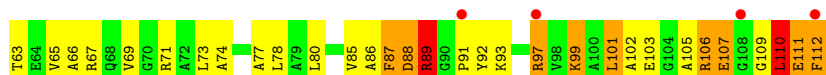
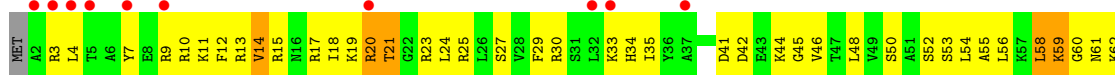
• Molecule 38: 50S ribosomal protein L17



• Molecule 39: 50S ribosomal protein L18



• Molecule 39: 50S ribosomal protein L18

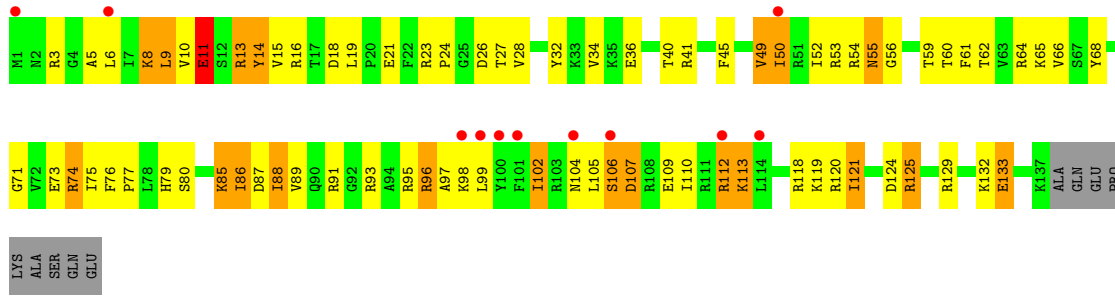


• Molecule 40: 50S ribosomal protein L19

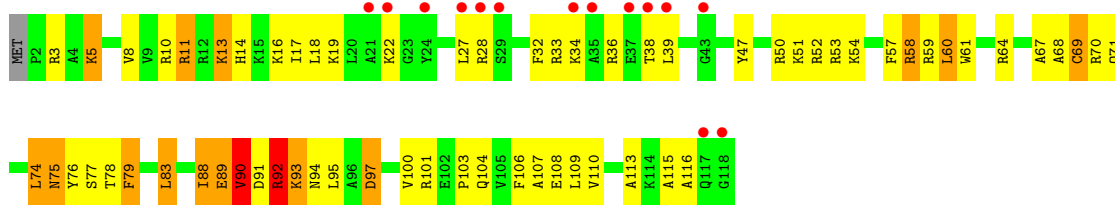
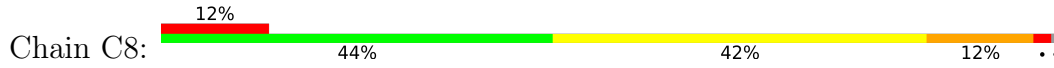


• Molecule 40: 50S ribosomal protein L19

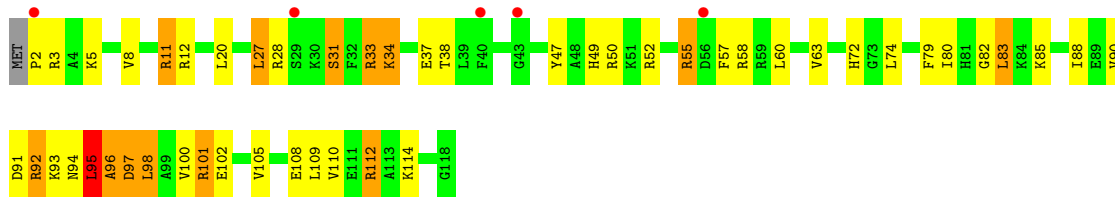




• Molecule 41: 50S ribosomal protein L20



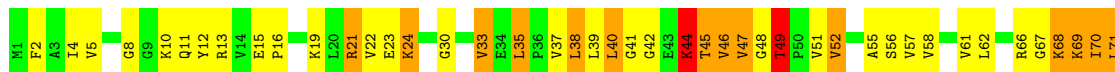
• Molecule 41: 50S ribosomal protein L20

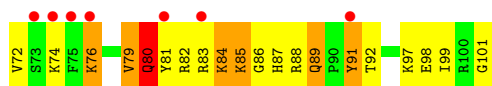


• Molecule 42: 50S ribosomal protein L21



• Molecule 42: 50S ribosomal protein L21

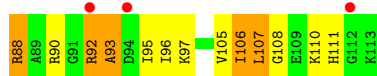




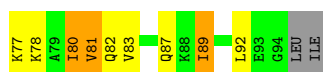
- Molecule 43: 50S ribosomal protein L22



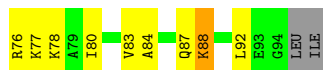
- Molecule 43: 50S ribosomal protein L22



- Molecule 44: 50S ribosomal protein L23

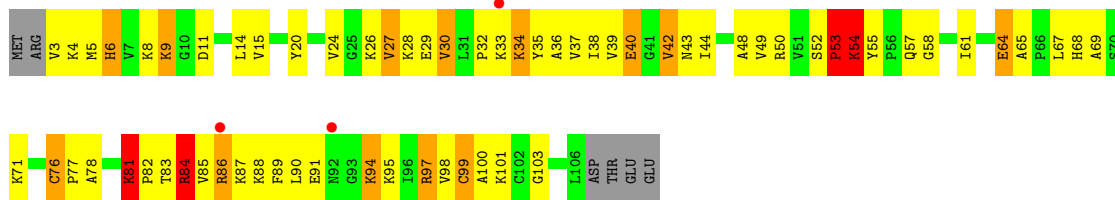


- Molecule 44: 50S ribosomal protein L23

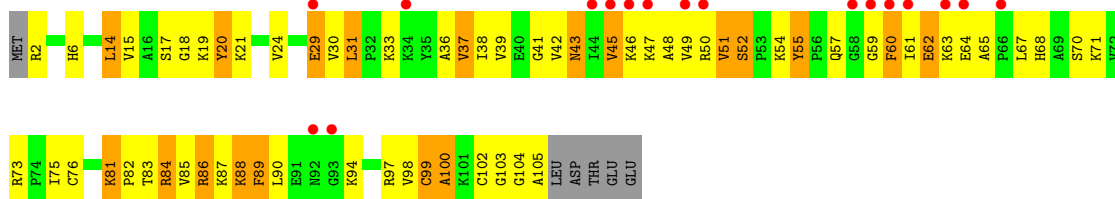


- Molecule 45: 50S ribosomal protein L24

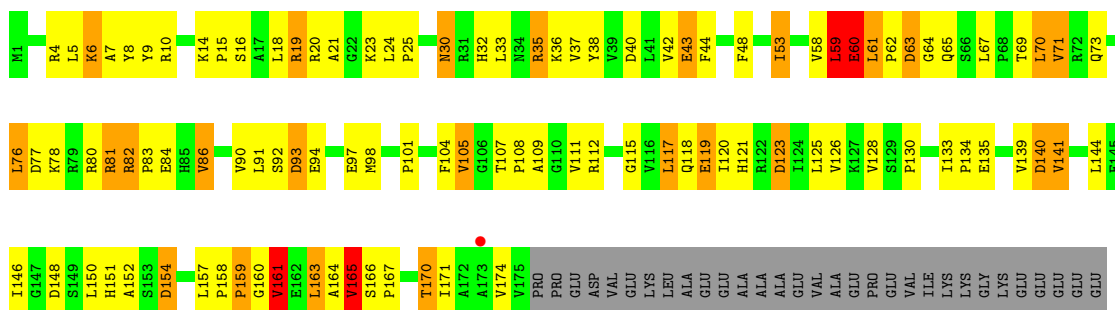




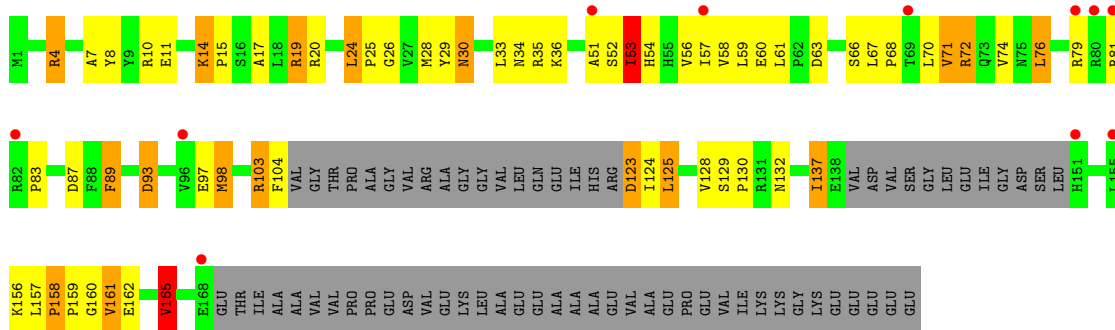
• Molecule 45: 50S ribosomal protein L24



• Molecule 46: 50S ribosomal protein L25

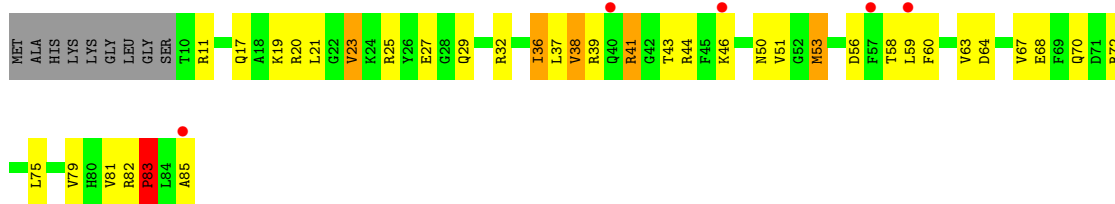


• Molecule 46: 50S ribosomal protein L25

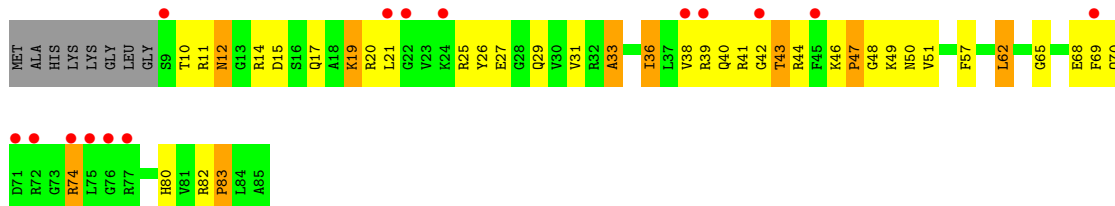


• Molecule 47: 50S ribosomal protein L27

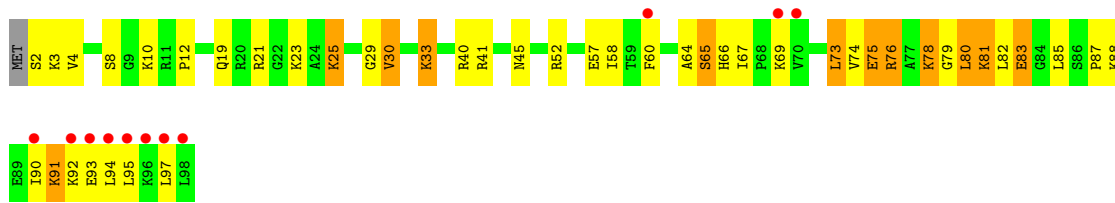




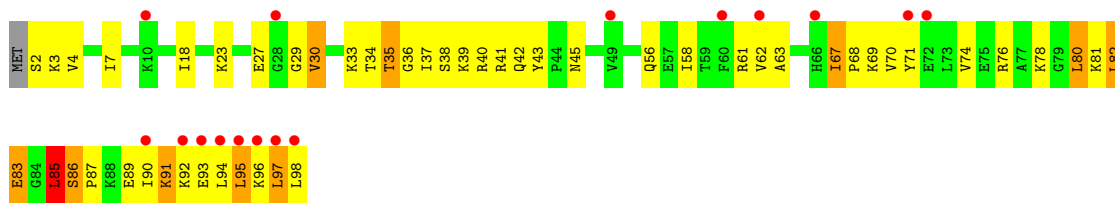
• Molecule 47: 50S ribosomal protein L27



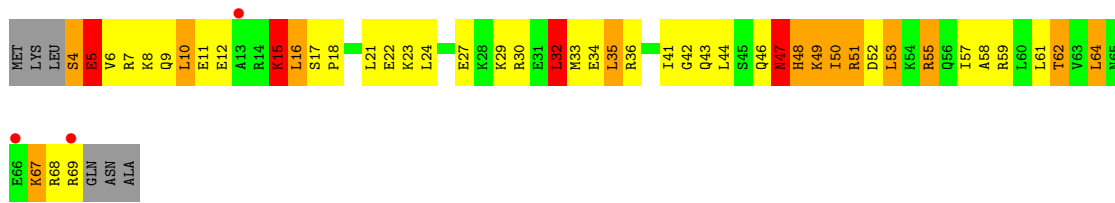
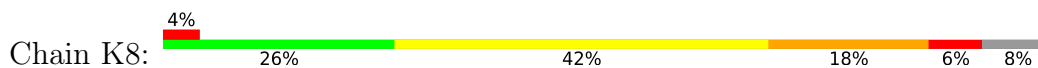
• Molecule 48: 50S ribosomal protein L28



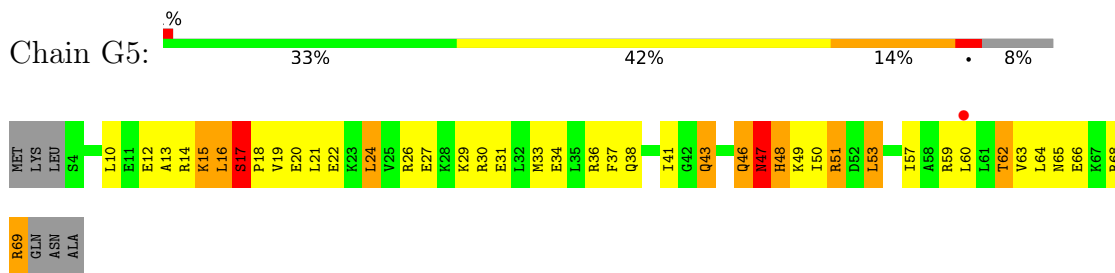
• Molecule 48: 50S ribosomal protein L28



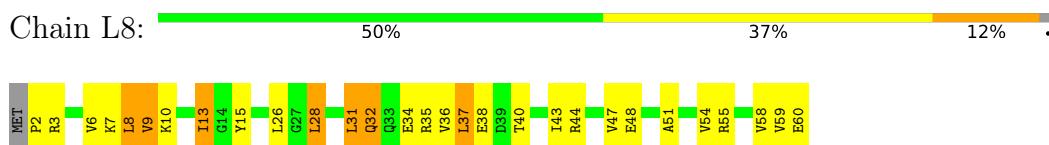
• Molecule 49: 50S ribosomal protein L29



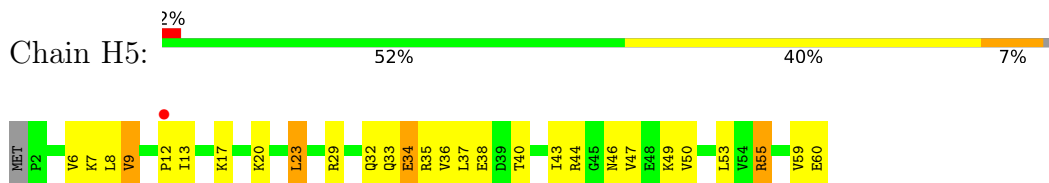
• Molecule 49: 50S ribosomal protein L29



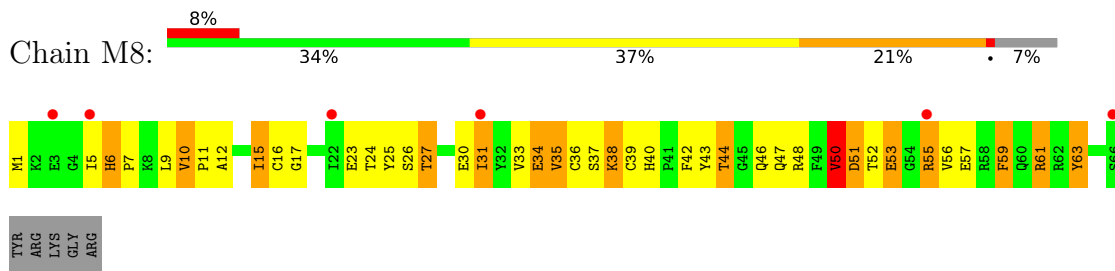
• Molecule 50: 50S ribosomal protein L30



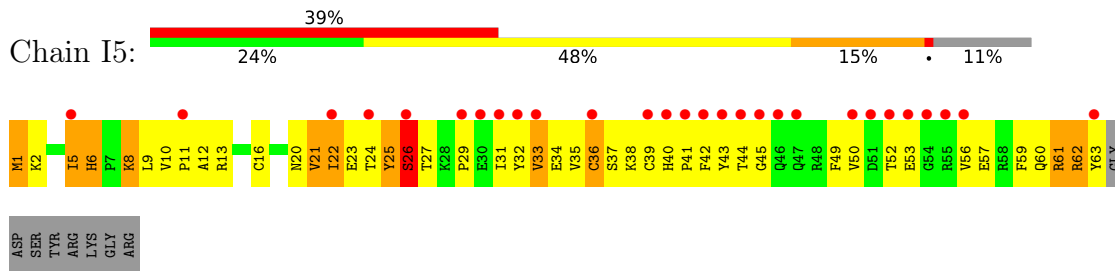
• Molecule 50: 50S ribosomal protein L30



• Molecule 51: 50S ribosomal protein L31



• Molecule 51: 50S ribosomal protein L31

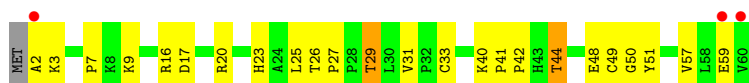


• Molecule 52: 50S ribosomal protein L32





- Molecule 52: 50S ribosomal protein L32



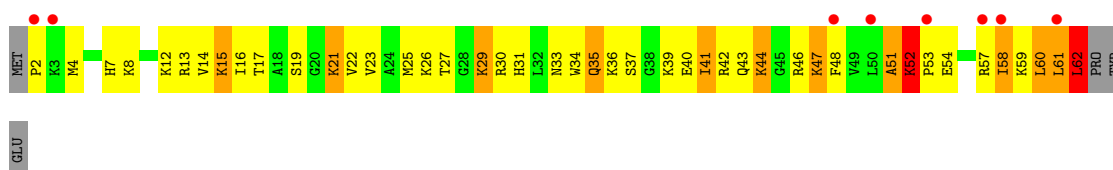
- Molecule 53: 50S ribosomal protein L34



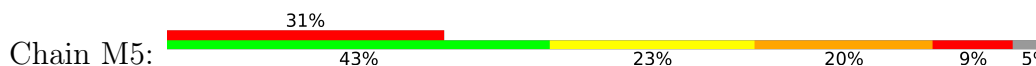
- Molecule 53: 50S ribosomal protein L34



- Molecule 54: 50S ribosomal protein L35

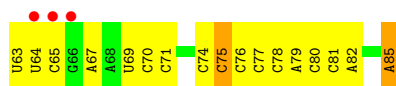


- Molecule 54: 50S ribosomal protein L35



- Molecule 55: tRNA-Tyr







## 4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	209.90Å 450.90Å 622.70Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	225.45 – 3.05 225.45 – 3.05	Depositor EDS
% Data completeness (in resolution range)	99.9 (225.45-3.05) 92.8 (225.45-3.05)	Depositor EDS
$R_{merge}$	0.38	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	0.76 (at 3.07Å)	Xtrriage
Refinement program	PHENIX	Depositor
R, $R_{free}$	0.195 , 0.249 0.196 , 0.248	Depositor DCC
$R_{free}$ test set	1999 reflections (0.18%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	77.5	Xtrriage
Anisotropy	0.277	Xtrriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.27 , 77.3	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.43$ , $\langle L^2 \rangle = 0.26$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
$F_o, F_c$ correlation	0.87	EDS
Total number of atoms	299607	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	101.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.46% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

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

## 5 Model quality

### 5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: 4SU, MG, PSU, OMC, ZN, MIA, 5MU, QUO, PAR

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	13	0.75	4/36215 (0.0%)	1.42	401/56524 (0.7%)
1	1G	0.66	1/36187 (0.0%)	1.30	253/56481 (0.4%)
2	12	0.38	0/1959	0.66	0/2642
2	1E	0.42	0/1959	0.70	1/2642 (0.0%)
3	22	0.42	0/1636	0.65	0/2205
3	2E	0.52	0/1629	0.72	0/2195
4	32	0.50	0/1732	0.76	2/2318 (0.1%)
4	3E	0.60	1/1732 (0.1%)	0.76	1/2318 (0.0%)
5	42	0.47	0/1171	0.70	0/1576
5	4E	0.54	0/1171	0.72	1/1576 (0.1%)
6	52	0.52	0/855	0.68	2/1154 (0.2%)
6	5E	0.54	0/855	0.70	0/1154
7	62	0.45	0/1275	0.64	0/1709
7	6E	0.45	0/1261	0.60	0/1689
8	72	0.44	0/1127	0.65	0/1517
8	7E	0.51	0/1135	0.74	1/1527 (0.1%)
9	82	0.40	0/988	0.66	0/1324
9	8E	0.44	0/1028	0.67	0/1379
10	1A	0.37	0/814	0.62	0/1095
10	1I	0.45	0/814	0.66	0/1095
11	2A	0.47	0/888	0.67	1/1198 (0.1%)
11	2I	0.51	0/879	0.74	1/1187 (0.1%)
12	3A	0.58	0/991	0.80	0/1327
12	3I	0.73	0/972	0.91	0/1301
13	4A	0.38	0/943	0.65	1/1265 (0.1%)
13	4I	0.49	0/938	0.71	0/1258
14	5A	0.44	0/484	0.74	0/643
14	5I	0.69	2/489 (0.4%)	0.86	1/650 (0.2%)
15	6A	0.47	0/744	0.65	0/992
15	6I	0.54	0/744	0.73	0/992
16	7A	0.53	0/721	0.71	0/970
16	7I	0.51	0/721	0.75	0/970

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
17	8A	0.50	0/847	0.65	0/1131
17	8I	0.55	0/847	0.74	0/1131
18	9A	0.50	0/586	0.72	1/779 (0.1%)
18	9I	0.49	0/595	0.79	1/790 (0.1%)
19	AA	0.44	0/638	0.72	1/860 (0.1%)
19	AI	0.53	0/680	0.81	0/915
20	BA	0.48	0/764	0.78	1/1007 (0.1%)
20	BI	0.41	0/764	0.68	0/1007
21	1B	0.52	0/221	0.66	0/288
21	1F	0.49	0/221	0.70	0/288
22	1K	0.49	0/1899	1.15	11/2952 (0.4%)
23	2K	0.81	0/1747	1.41	18/2723 (0.7%)
23	2L	0.69	0/1747	1.26	9/2723 (0.3%)
24	1L	0.47	1/1996 (0.1%)	1.08	5/3108 (0.2%)
24	3K	0.41	0/1996	1.01	1/3108 (0.0%)
25	4K	0.78	0/319	1.31	3/495 (0.6%)
25	4L	0.78	0/294	1.50	5/456 (1.1%)
26	14	0.89	62/70167 (0.1%)	1.58	1423/109541 (1.3%)
26	1H	1.03	114/70233 (0.2%)	1.76	2174/109643 (2.0%)
27	16	0.83	1/2928 (0.0%)	1.57	49/4568 (1.1%)
27	1J	0.70	0/2928	1.37	27/4568 (0.6%)
28	11	0.77	2/2170 (0.1%)	0.93	1/2926 (0.0%)
28	19	0.73	0/2170	0.94	6/2926 (0.2%)
29	21	0.70	0/1601	0.96	1/2160 (0.0%)
29	29	0.66	0/1601	0.98	3/2160 (0.1%)
30	31	0.72	0/1620	0.90	2/2194 (0.1%)
30	39	0.61	1/1662 (0.1%)	0.89	4/2249 (0.2%)
31	41	0.52	0/1498	0.75	1/2016 (0.0%)
31	49	0.42	0/1498	0.70	0/2016
32	51	0.65	0/1346	0.93	1/1821 (0.1%)
32	59	0.40	0/1332	0.74	3/1802 (0.2%)
33	61	0.52	0/1151	0.82	2/1558 (0.1%)
33	69	0.51	0/1151	0.77	3/1558 (0.2%)
34	15	0.49	0/1131	0.76	2/1525 (0.1%)
34	58	0.60	0/1131	0.83	0/1525
35	25	0.62	0/942	0.76	1/1269 (0.1%)
35	68	0.66	0/942	0.76	0/1269
36	35	0.67	0/1161	1.12	7/1544 (0.5%)
36	78	0.71	0/1161	1.13	7/1544 (0.5%)
37	45	0.70	2/1128 (0.2%)	0.98	3/1508 (0.2%)
37	88	0.82	1/1142 (0.1%)	1.11	4/1527 (0.3%)
38	55	0.65	0/973	0.84	1/1302 (0.1%)
38	98	0.57	0/981	0.79	1/1312 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
39	65	0.54	0/891	0.90	2/1187 (0.2%)
39	A8	0.62	0/886	0.89	2/1180 (0.2%)
40	75	0.58	0/1155	0.76	0/1542
40	B8	0.62	0/1155	0.83	1/1542 (0.1%)
41	85	0.59	0/981	0.78	1/1306 (0.1%)
41	C8	0.71	1/981 (0.1%)	0.89	2/1306 (0.2%)
42	95	0.66	0/789	0.88	1/1057 (0.1%)
42	D8	0.60	0/789	0.82	2/1057 (0.2%)
43	A5	0.72	0/910	0.86	1/1220 (0.1%)
43	E8	0.65	0/910	0.84	0/1220
44	B5	0.80	1/739 (0.1%)	0.88	0/993
44	F8	0.73	0/744	0.83	0/1000
45	C5	0.61	0/807	0.89	1/1076 (0.1%)
45	G8	0.65	0/804	0.94	3/1073 (0.3%)
46	D5	0.43	0/1165	0.72	0/1574
46	H8	0.50	0/1427	0.80	1/1935 (0.1%)
47	E5	0.63	0/620	0.85	0/827
47	I8	0.71	0/614	0.89	0/819
48	F5	0.64	0/769	0.96	2/1022 (0.2%)
48	J8	0.70	0/769	0.86	0/1022
49	G5	0.60	0/560	0.81	0/741
49	K8	0.78	1/560 (0.2%)	0.98	2/741 (0.3%)
50	H5	0.48	0/473	0.69	0/635
50	L8	0.61	0/473	0.78	1/635 (0.2%)
51	I5	0.52	0/527	0.84	0/709
51	M8	0.50	0/545	0.87	0/733
52	J5	0.59	0/472	0.84	0/639
52	N8	0.65	0/472	0.86	1/639 (0.2%)
53	L5	0.70	0/399	0.88	0/526
53	P8	0.88	1/404 (0.2%)	0.97	0/533
54	M5	0.88	0/502	1.22	6/661 (0.9%)
54	Q8	0.85	0/494	1.10	1/649 (0.2%)
55	3L	0.39	0/1970	1.00	4/3065 (0.1%)
All	All	0.80	196/322722 (0.1%)	1.40	4482/483529 (0.9%)

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
1	13	1	0

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	12	0	1
2	1E	0	3
4	32	0	2
4	3E	0	1
9	82	0	1
10	1A	0	1
11	2A	0	1
12	3I	0	2
13	4A	0	1
13	4I	0	2
14	5A	0	2
19	AA	0	1
19	AI	0	1
20	BA	0	2
26	14	1	0
28	11	0	1
28	19	0	4
29	21	0	5
29	29	0	4
30	39	0	6
31	41	0	1
31	49	0	2
32	51	0	3
32	59	0	1
33	61	0	4
33	69	0	2
34	58	0	1
36	35	0	4
36	78	0	7
37	45	0	8
37	88	0	2
38	55	0	1
38	98	0	1
39	A8	0	1
40	75	0	2
40	B8	0	2
41	85	0	4
41	C8	0	4
42	95	0	1
42	D8	0	2
43	A5	0	1
44	B5	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
45	C5	0	2
45	G8	0	3
46	D5	0	1
46	H8	0	3
47	E5	0	1
47	I8	0	1
48	F5	0	1
48	J8	0	2
49	G5	0	3
49	K8	0	3
51	I5	0	2
51	M8	0	1
52	N8	0	1
54	M5	0	5
54	Q8	0	3
All	All	2	128

All (196) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	783	A	N3-C4	-11.75	1.27	1.34
26	1H	2430	A	N9-C4	-11.09	1.31	1.37
26	14	783	A	N9-C4	-10.86	1.31	1.37
26	1H	71	A	N9-C4	-10.78	1.31	1.37
26	1H	676	A	N9-C4	-10.74	1.31	1.37
26	1H	774	A	N9-C4	-10.33	1.31	1.37
26	14	774	A	N9-C4	-10.07	1.31	1.37
26	14	783	A	N3-C4	-9.73	1.29	1.34
26	1H	783	A	N7-C5	-9.50	1.33	1.39
26	1H	783	A	C5-C6	-9.23	1.32	1.41
26	1H	1142(A)	A	N9-C4	-9.04	1.32	1.37
26	1H	2346	A	N3-C4	-8.85	1.29	1.34
26	1H	1698	A	N9-C4	-8.37	1.32	1.37
26	1H	676	A	C5-C4	8.16	1.44	1.38
26	1H	1614	A	N9-C4	-8.11	1.32	1.37
26	14	2062	A	N7-C5	7.97	1.44	1.39
26	1H	805	G	N9-C8	-7.63	1.32	1.37
26	14	528	A	N9-C4	-7.58	1.33	1.37
26	14	1786	A	N9-C4	-7.51	1.33	1.37
26	14	783	A	C5-C6	-7.48	1.34	1.41
26	1H	245	G	N7-C5	-7.47	1.34	1.39
26	1H	945	A	N7-C5	-7.42	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	689	A	N3-C4	-7.37	1.30	1.34
26	1H	1899	G	N9-C4	-7.25	1.32	1.38
26	1H	676	A	N9-C8	7.21	1.43	1.37
26	14	1678	G	N9-C4	-7.20	1.32	1.38
26	1H	1899	G	C2-N3	-7.13	1.27	1.32
26	14	1612	C	N1-C6	-7.02	1.32	1.37
26	1H	74	A	N9-C4	-7.02	1.33	1.37
26	14	945	A	N9-C4	-7.01	1.33	1.37
26	1H	2287	A	N9-C4	-6.95	1.33	1.37
26	14	2287	A	N9-C4	-6.92	1.33	1.37
37	88	80	GLU	CG-CD	6.90	1.62	1.51
26	1H	1899	G	N3-C4	-6.89	1.30	1.35
26	1H	829	A	N9-C4	-6.82	1.33	1.37
26	14	783	A	N7-C5	-6.81	1.35	1.39
26	14	676	A	C5-C4	6.81	1.43	1.38
26	1H	1021	A	N9-C4	-6.78	1.33	1.37
26	1H	2490	G	N9-C4	-6.75	1.32	1.38
14	5I	43	CYS	CB-SG	-6.67	1.71	1.82
26	1H	1950	G	N9-C8	6.67	1.42	1.37
1	13	792	A	N9-C4	-6.64	1.33	1.37
26	14	676	A	N9-C8	6.61	1.43	1.37
1	13	1227	A	N9-C4	-6.60	1.33	1.37
26	1H	774	A	N9-C8	6.59	1.43	1.37
44	B5	15	GLU	CG-CD	6.59	1.61	1.51
4	3E	12	CYS	CB-SG	6.58	1.93	1.82
26	1H	685	A	N9-C4	-6.57	1.33	1.37
26	14	2082	A	N3-C4	-6.53	1.30	1.34
26	1H	2377	A	N9-C4	-6.49	1.33	1.37
26	14	746	A	N9-C4	-6.45	1.33	1.37
30	39	65	TRP	CB-CG	-6.45	1.38	1.50
26	1H	241	A	N3-C4	6.44	1.38	1.34
53	P8	5	TRP	NE1-CE2	-6.42	1.29	1.37
28	11	28	GLU	CG-CD	6.40	1.61	1.51
26	14	2518	A	N9-C4	-6.34	1.34	1.37
26	14	1378	A	N9-C4	-6.30	1.34	1.37
26	14	2430	A	N9-C4	-6.28	1.34	1.37
26	14	693	C	N3-C4	-6.27	1.29	1.33
26	1H	528	A	N9-C4	-6.26	1.34	1.37
26	1H	621	A	N9-C4	-6.26	1.34	1.37
26	1H	2053	G	C5-C4	-6.23	1.33	1.38
26	1H	783	A	N9-C4	-6.21	1.34	1.37
26	14	1825	A	N3-C4	-6.20	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	698	C	N1-C6	-6.19	1.33	1.37
26	1H	1678	G	N9-C4	-6.18	1.33	1.38
24	1L	85	A	N9-C4	6.16	1.41	1.37
26	1H	1619	G	C5-C4	-6.16	1.34	1.38
26	14	2452	C	N1-C6	-6.14	1.33	1.37
26	1H	774	A	C2-N3	-6.13	1.28	1.33
26	1H	1614	A	N3-C4	-6.12	1.31	1.34
26	14	1674	G	N7-C5	-6.11	1.35	1.39
26	14	2002	G	C6-N1	-6.05	1.35	1.39
26	1H	729	G	C2-N3	-6.04	1.27	1.32
26	1H	2442	C	N1-C6	-6.02	1.33	1.37
26	1H	2072	G	C8-N7	-6.01	1.27	1.30
26	1H	472	A	N3-C4	-5.98	1.31	1.34
26	14	2346	A	N3-C4	-5.98	1.31	1.34
26	1H	787	U	C2-N3	-5.94	1.33	1.37
26	14	1786	A	N7-C5	-5.93	1.35	1.39
26	1H	988	A	N7-C5	-5.92	1.35	1.39
26	1H	1899	G	N9-C8	5.91	1.42	1.37
26	1H	138	G	N9-C8	5.90	1.42	1.37
26	14	766	C	N3-C4	-5.90	1.29	1.33
26	14	788	A	N7-C5	-5.90	1.35	1.39
26	14	1899	G	C2-N3	-5.87	1.28	1.32
26	1H	188	G	C6-N1	-5.87	1.35	1.39
26	14	1142(A)	A	N9-C4	-5.86	1.34	1.37
26	1H	2060	A	N9-C4	-5.85	1.34	1.37
26	1H	1827	C	N3-C4	-5.83	1.29	1.33
26	1H	2713	A	C5-C4	5.83	1.42	1.38
26	1H	1780	A	C6-N1	-5.83	1.31	1.35
26	14	216	A	N9-C4	-5.82	1.34	1.37
26	1H	471	A	N9-C4	-5.79	1.34	1.37
14	5I	27	CYS	CB-SG	-5.78	1.72	1.81
37	45	80	GLU	CB-CG	5.76	1.63	1.52
26	14	74	A	N9-C4	-5.75	1.34	1.37
26	14	1633	G	N7-C5	-5.74	1.35	1.39
26	1H	2599	G	N9-C8	-5.74	1.33	1.37
26	14	774	A	N9-C8	5.73	1.42	1.37
26	1H	1698	A	N3-C4	-5.70	1.31	1.34
26	1H	2439	A	N7-C5	-5.70	1.35	1.39
26	1H	1937	A	C5-C4	-5.70	1.34	1.38
26	1H	193	U	C2-N3	-5.64	1.33	1.37
26	14	1781	C	N3-C4	5.63	1.37	1.33
26	1H	663	G	C6-N1	-5.62	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	1613	G	C6-N1	-5.61	1.35	1.39
26	1H	687	C	N3-C4	-5.60	1.30	1.33
26	14	733	G	N9-C8	-5.59	1.33	1.37
26	1H	695	G	C6-N1	-5.59	1.35	1.39
1	13	810	C	N1-C6	-5.57	1.33	1.37
26	1H	689	A	N9-C4	-5.57	1.34	1.37
26	14	1616	A	N9-C4	-5.57	1.34	1.37
26	1H	917	A	C5-C6	-5.57	1.36	1.41
26	14	808	G	N7-C5	-5.56	1.35	1.39
26	1H	2392	A	N9-C8	5.54	1.42	1.37
26	1H	2453	A	N7-C5	-5.54	1.35	1.39
26	14	1899	G	C8-N7	5.52	1.34	1.30
26	14	1829	A	N7-C5	-5.51	1.35	1.39
26	1H	1678	G	N9-C8	5.50	1.41	1.37
26	1H	805	G	N7-C5	-5.50	1.35	1.39
26	1H	1267	U	C4-O4	-5.49	1.19	1.23
26	1H	2602	A	N3-C4	5.47	1.38	1.34
26	14	2392	A	C5-C4	5.47	1.42	1.38
26	1H	774	A	C6-N1	5.46	1.39	1.35
26	1H	789	A	N9-C4	-5.46	1.34	1.37
26	1H	828	U	C2-O2	5.44	1.27	1.22
26	1H	1332	G	N9-C4	-5.41	1.33	1.38
26	1H	1325	G	N7-C5	-5.39	1.36	1.39
26	14	472	A	N3-C4	-5.37	1.31	1.34
26	14	1899	G	N9-C8	5.37	1.41	1.37
26	1H	2015	A	N9-C4	-5.37	1.34	1.37
26	14	1784	A	N9-C4	-5.37	1.34	1.37
41	C8	69	CYS	CB-SG	-5.36	1.73	1.81
49	K8	5	GLU	CB-CG	5.36	1.62	1.52
26	1H	2544	G	C6-N1	5.36	1.43	1.39
26	14	2058	A	N3-C4	-5.36	1.31	1.34
26	14	2821	A	N9-C4	-5.34	1.34	1.37
26	1H	122	G	N9-C4	-5.34	1.33	1.38
26	1H	74	A	N3-C4	-5.34	1.31	1.34
26	1H	2254	C	N1-C2	-5.33	1.34	1.40
26	1H	1349	A	C5-C4	5.32	1.42	1.38
26	1H	204	A	N3-C4	-5.29	1.31	1.34
26	1H	1210	A	N7-C5	-5.29	1.36	1.39
26	1H	774	A	C8-N7	5.28	1.35	1.31
28	11	237	GLU	CG-CD	5.28	1.59	1.51
26	1H	821	A	N7-C5	-5.27	1.36	1.39
26	14	828	U	N3-C4	-5.27	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	945	A	C5-C6	-5.26	1.36	1.41
26	1H	1888	G	N9-C4	5.26	1.42	1.38
26	1H	2506	U	N1-C2	5.26	1.43	1.38
26	14	567	A	N9-C4	-5.25	1.34	1.37
26	14	1332	G	C5-C4	5.24	1.42	1.38
26	1H	1332	G	C5-C4	5.24	1.42	1.38
26	14	1332	G	C2-N3	5.23	1.36	1.32
26	1H	71	A	N9-C8	5.22	1.42	1.37
26	1H	1681	G	N9-C4	-5.22	1.33	1.38
26	1H	265	A	N9-C4	-5.20	1.34	1.37
26	14	761	A	N9-C8	-5.20	1.33	1.37
26	1H	2451	A	N9-C4	-5.20	1.34	1.37
26	1H	2048	G	N7-C5	-5.19	1.36	1.39
26	14	2506	U	C2-N3	5.19	1.41	1.37
26	1H	774	A	C5-C4	5.19	1.42	1.38
26	1H	2067	G	N1-C2	-5.19	1.33	1.37
26	14	565	C	N1-C6	-5.18	1.34	1.37
26	14	1786	A	C5-C6	-5.17	1.36	1.41
26	1H	116	C	N1-C6	-5.17	1.34	1.37
26	1H	463	G	N1-C2	-5.15	1.33	1.37
26	14	1678	G	N3-C4	-5.15	1.31	1.35
26	1H	1623	G	C6-N1	-5.15	1.35	1.39
26	1H	1698	A	C5-C6	-5.15	1.36	1.41
26	14	1142(A)	A	N3-C4	-5.15	1.31	1.34
27	16	81	G	C5-C6	-5.15	1.37	1.42
26	1H	1786	A	N7-C5	-5.15	1.36	1.39
26	14	2448	A	N7-C5	-5.15	1.36	1.39
26	1H	781	A	C5-C4	-5.14	1.35	1.38
26	14	2447	G	N7-C5	-5.14	1.36	1.39
26	1H	1984	G	C6-N1	-5.13	1.35	1.39
26	1H	38	A	C6-N6	-5.13	1.29	1.33
37	45	80	GLU	CG-CD	5.13	1.59	1.51
26	1H	2606	C	N3-C4	-5.12	1.30	1.33
26	14	671	C	N3-C4	-5.11	1.30	1.33
26	14	1786	A	C5-C4	5.11	1.42	1.38
26	14	777	A	N3-C4	-5.10	1.31	1.34
26	14	1698	A	C5-C6	-5.08	1.36	1.41
26	1H	664	C	N1-C6	-5.07	1.34	1.37
1	1G	1139	G	N9-C4	-5.06	1.33	1.38
26	1H	945	A	C2-N3	5.06	1.38	1.33
26	1H	2392	A	N9-C4	-5.03	1.34	1.37
26	1H	1564	C	N3-C4	-5.03	1.30	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	13	1526	G	C5-C6	-5.03	1.37	1.42
26	1H	140	A	C5-C6	-5.02	1.36	1.41
26	1H	1616	A	N9-C4	-5.02	1.34	1.37
26	1H	1203	G	N9-C4	5.01	1.42	1.38
26	1H	729	G	N1-C2	-5.00	1.33	1.37
26	1H	1616	A	N7-C5	-5.00	1.36	1.39

All (4482) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1899	G	N3-C4-N9	-20.97	113.42	126.00
26	14	1899	G	N3-C4-N9	-17.93	115.24	126.00
26	1H	1899	G	N3-C2-N2	-17.01	107.99	119.90
26	1H	2430	A	O5'-P-OP2	-17.00	90.30	110.70
26	1H	676	A	C2-N3-C4	-16.89	102.15	110.60
26	14	783	A	N1-C6-N6	16.16	128.30	118.60
26	14	783	A	C5-N7-C8	-16.10	95.85	103.90
26	14	741	G	O5'-P-OP1	-15.91	91.38	105.70
26	1H	945	A	C6-C5-N7	-15.88	121.18	132.30
26	1H	1614	A	C2-N3-C4	-15.76	102.72	110.60
26	1H	1899	G	N3-C4-C5	15.63	136.42	128.60
26	1H	71	A	C2-N3-C4	-15.57	102.81	110.60
26	1H	774	A	C6-N1-C2	15.12	127.67	118.60
26	1H	774	A	N3-C4-C5	15.05	137.34	126.80
26	14	1786	A	C5-N7-C8	-15.00	96.40	103.90
26	1H	783	A	N1-C6-N6	14.90	127.54	118.60
26	14	1786	A	N7-C8-N9	14.85	121.22	113.80
26	1H	945	A	N1-C6-N6	14.82	127.50	118.60
26	1H	783	A	C5-N7-C8	-14.49	96.66	103.90
26	1H	1614	A	N1-C2-N3	14.48	136.54	129.30
26	1H	1332	G	C5-N7-C8	-14.47	97.06	104.30
26	1H	774	A	N3-C4-N9	-14.38	115.90	127.40
26	1H	783	A	C6-C5-N7	-14.35	122.25	132.30
26	1H	676	A	C5-N7-C8	-14.24	96.78	103.90
26	1H	74	A	C2-N3-C4	-14.17	103.51	110.60
26	1H	801	G	O5'-P-OP2	-14.12	92.99	105.70
26	1H	783	A	C8-N9-C4	-13.99	100.20	105.80
26	14	2430	A	N1-C6-N6	13.89	126.93	118.60
1	13	1054	C	C2-N1-C1'	13.84	134.02	118.80
26	1H	2002	G	N1-C6-O6	13.71	128.13	119.90
26	1H	1786	A	N7-C8-N9	13.70	120.65	113.80
26	14	2430	A	C2-N3-C4	-13.42	103.89	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	783	A	C6-C5-N7	-13.42	122.91	132.30
26	1H	945	A	C4-C5-C6	13.31	123.65	117.00
26	14	1332	G	C6-C5-N7	-13.27	122.44	130.40
26	1H	2544	G	N1-C6-O6	13.23	127.84	119.90
26	1H	783	A	N7-C8-N9	13.18	120.39	113.80
26	1H	774	A	C5-C6-N1	-13.10	111.15	117.70
26	14	1899	G	C8-N9-C1'	13.01	143.91	127.00
26	14	1899	G	N3-C4-C5	12.99	135.09	128.60
26	14	530	G	C6-C5-N7	-12.98	122.61	130.40
26	14	783	A	N7-C8-N9	12.94	120.27	113.80
26	1H	1332	G	N7-C8-N9	12.86	119.53	113.10
26	14	2386	C	C6-N1-C2	12.79	125.42	120.30
26	14	74	A	C2-N3-C4	-12.64	104.28	110.60
26	1H	140	A	C5-N7-C8	-12.63	97.58	103.90
26	1H	676	A	N3-C4-C5	12.62	135.64	126.80
26	14	783	A	C2-N3-C4	-12.61	104.30	110.60
26	1H	735	A	C8-N9-C4	12.60	110.84	105.80
26	14	676	A	C5-N7-C8	-12.58	97.61	103.90
26	14	676	A	N7-C8-N9	12.56	120.08	113.80
26	14	1248	G	O5'-P-OP1	12.52	125.72	110.70
26	1H	2346	A	N1-C2-N3	12.50	135.55	129.30
26	1H	1332	G	C2-N3-C4	-12.47	105.66	111.90
26	14	783	A	C4-C5-N7	12.46	116.93	110.70
26	14	793	A	O5'-P-OP2	-12.34	94.60	105.70
26	14	945	A	N1-C6-N6	12.23	125.94	118.60
26	14	528	A	C2-N3-C4	-12.21	104.50	110.60
26	1H	2439	A	N1-C6-N6	12.19	125.92	118.60
26	1H	49	A	O5'-P-OP2	-12.19	94.73	105.70
1	13	1054	C	C5-C6-N1	12.19	127.09	121.00
26	1H	1786	A	C5-N7-C8	-12.17	97.81	103.90
26	1H	917	A	C2-N3-C4	-12.11	104.54	110.60
26	1H	2287	A	C2-N3-C4	-12.10	104.55	110.60
26	1H	2392	A	O5'-P-OP1	-12.09	94.82	105.70
26	1H	1204	A	O4'-C1'-N9	11.97	117.78	108.20
26	14	1899	G	N3-C2-N2	-11.95	111.53	119.90
26	1H	1899	G	N9-C4-C5	11.90	110.16	105.40
26	1H	676	A	N7-C8-N9	11.86	119.73	113.80
26	1H	2390	U	O5'-P-OP1	-11.84	95.05	105.70
26	1H	1678	G	C5-N7-C8	-11.81	98.39	104.30
26	1H	1332	G	C4-C5-N7	11.80	115.52	110.80
26	1H	2430	A	O5'-P-OP1	11.67	124.71	110.70
26	1H	1698	A	C2-N3-C4	-11.66	104.77	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1698	A	N1-C6-N6	11.65	125.59	118.60
26	1H	789	A	O5'-P-OP1	-11.64	95.22	105.70
26	1H	783	A	C4-C5-N7	11.63	116.52	110.70
26	14	530	G	N9-C4-C5	-11.61	100.76	105.40
26	1H	2430	A	N1-C6-N6	11.60	125.56	118.60
26	14	945	A	C2-N3-C4	-11.59	104.81	110.60
26	1H	1325	G	N1-C6-O6	11.51	126.81	119.90
26	14	530	G	C4-C5-N7	11.49	115.40	110.80
26	1H	1899	G	C2-N3-C4	-11.47	106.16	111.90
26	1H	1284	A	O5'-P-OP2	-11.45	95.39	105.70
26	1H	140	A	N7-C8-N9	11.44	119.52	113.80
26	1H	2490	G	C5-N7-C8	-11.43	98.58	104.30
1	13	792	A	O4'-C1'-N9	11.36	117.29	108.20
26	14	752	A	O5'-P-OP1	-11.35	95.48	105.70
26	14	1585	C	N1-C2-O2	11.33	125.70	118.90
26	1H	2430	A	C5-N7-C8	-11.27	98.27	103.90
26	14	1786	A	C2-N3-C4	-11.25	104.98	110.60
26	14	1899	G	C4-N9-C1'	-11.21	111.93	126.50
26	1H	1950	G	C5-N7-C8	-11.21	98.70	104.30
26	1H	1376	C	O5'-P-OP1	-11.20	95.62	105.70
26	14	1332	G	C4-N9-C1'	11.17	141.02	126.50
26	1H	2688	U	C5-C4-O4	11.17	132.60	125.90
26	1H	2066	C	C6-N1-C2	-11.17	115.83	120.30
26	14	530	G	N1-C6-O6	11.15	126.59	119.90
26	1H	1786	A	C2-N3-C4	-11.13	105.03	110.60
26	1H	2346	A	O4'-C1'-N9	11.13	117.10	108.20
26	1H	2346	A	C8-N9-C4	-11.10	101.36	105.80
26	1H	1786	A	N1-C6-N6	11.09	125.25	118.60
26	1H	2430	A	C2-N3-C4	-11.07	105.06	110.60
26	1H	1332	G	C6-C5-N7	-11.06	123.76	130.40
26	1H	676	A	N3-C4-N9	-11.04	118.57	127.40
26	14	1332	G	N7-C8-N9	10.98	118.59	113.10
26	1H	1950	G	N7-C8-N9	10.96	118.58	113.10
26	1H	574	C	O5'-P-OP2	-10.96	95.84	105.70
26	1H	1496	A	N7-C8-N9	10.93	119.27	113.80
1	13	792	A	C2-N3-C4	-10.92	105.14	110.60
26	1H	1379	A	C5-N7-C8	-10.90	98.45	103.90
26	14	2595	G	C5-C6-O6	-10.89	122.06	128.60
26	1H	2053	G	C5-C6-O6	-10.87	122.08	128.60
26	1H	138	G	C8-N9-C4	-10.87	102.05	106.40
26	14	2430	A	C5-C6-N1	-10.85	112.27	117.70
26	1H	1970	A	O5'-P-OP2	-10.85	95.94	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	245	G	C5-C6-O6	-10.84	122.09	128.60
26	14	2592	G	N3-C4-N9	10.80	132.48	126.00
26	1H	2598	A	O5'-P-OP2	10.79	123.65	110.70
26	1H	774	A	C2-N3-C4	-10.79	105.20	110.60
26	14	774	A	N3-C4-N9	-10.77	118.78	127.40
26	14	2005	A	O5'-P-OP2	-10.74	96.03	105.70
26	1H	621	A	C2-N3-C4	-10.72	105.24	110.60
26	1H	2518	A	N7-C8-N9	10.67	119.14	113.80
26	14	1899	G	N9-C4-C5	10.66	109.67	105.40
26	1H	2490	G	N3-C4-C5	10.66	133.93	128.60
26	1H	2598	A	O5'-P-OP1	-10.66	96.11	105.70
26	1H	2518	A	C5-N7-C8	-10.65	98.57	103.90
26	1H	2002	G	C5-C6-O6	-10.65	122.21	128.60
26	14	676	A	C8-N9-C4	-10.65	101.54	105.80
26	1H	140	A	N1-C6-N6	10.62	124.97	118.60
26	14	1332	G	C4-C5-N7	10.61	115.05	110.80
26	1H	787	U	N3-C4-O4	-10.61	111.97	119.40
26	14	1678	G	C5-N7-C8	-10.61	98.99	104.30
26	1H	2392	A	C5-N7-C8	-10.61	98.60	103.90
26	1H	917	A	N1-C6-N6	10.59	124.95	118.60
26	1H	226	G	O4'-C1'-N9	10.57	116.65	108.20
26	14	774	A	N3-C4-C5	10.56	134.19	126.80
26	1H	56	A	O5'-P-OP1	-10.54	96.21	105.70
26	1H	1379	A	N1-C6-N6	10.52	124.91	118.60
26	1H	1678	G	N3-C4-C5	10.51	133.85	128.60
26	14	2287	A	C2-N3-C4	-10.48	105.36	110.60
26	1H	1325	G	C5-C6-O6	-10.47	122.32	128.60
26	1H	2702	U	C5-C6-N1	10.47	127.93	122.70
26	1H	2550	G	C8-N9-C4	-10.46	102.22	106.40
26	1H	1210	A	C8-N9-C4	-10.45	101.62	105.80
26	14	1602	U	O5'-P-OP2	10.42	123.21	110.70
26	1H	1142(A)	A	C2-N3-C4	-10.42	105.39	110.60
26	1H	1786	A	C6-C5-N7	-10.40	125.02	132.30
1	13	974	A	O4'-C1'-N9	10.39	116.52	108.20
26	1H	1950	G	C8-N9-C4	-10.39	102.25	106.40
26	1H	945	A	N7-C8-N9	10.38	118.99	113.80
1	13	789	U	C5-C4-O4	10.38	132.13	125.90
26	14	1698	A	C2-N3-C4	-10.38	105.41	110.60
26	14	2518	A	C2-N3-C4	-10.36	105.42	110.60
26	14	2217	G	N1-C6-O6	10.36	126.12	119.90
26	14	2615	U	O5'-P-OP1	-10.36	96.38	105.70
26	1H	2430	A	N3-C4-C5	10.33	134.03	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2490	G	C4-C5-N7	10.33	114.93	110.80
26	14	2544	G	N1-C6-O6	10.32	126.09	119.90
26	1H	1968	G	C5-C6-O6	-10.30	122.42	128.60
26	1H	1614	A	O5'-P-OP1	-10.27	96.46	105.70
26	1H	827	U	O5'-P-OP2	-10.27	96.46	105.70
26	1H	2085	C	O5'-P-OP2	-10.26	96.47	105.70
26	1H	245	G	C6-C5-N7	-10.25	124.25	130.40
26	1H	1603	A	C8-N9-C4	-10.22	101.71	105.80
26	1H	2439	A	O5'-P-OP2	-10.22	96.50	105.70
26	1H	2330	G	C5-C6-O6	-10.20	122.48	128.60
26	1H	245	G	N1-C6-O6	10.20	126.02	119.90
26	1H	2403	C	C6-N1-C2	-10.17	116.23	120.30
26	1H	1518	C	O5'-P-OP1	-10.16	96.55	105.70
26	14	2275	C	C6-N1-C2	-10.16	116.23	120.30
26	1H	768	G	O5'-P-OP2	-10.16	96.56	105.70
1	13	1054	C	C6-N1-C1'	-10.14	108.63	120.80
26	1H	840	C	O5'-P-OP2	-10.12	96.60	105.70
26	1H	71	A	C5-N7-C8	-10.10	98.85	103.90
26	1H	210	C	C6-N1-C2	10.10	124.34	120.30
26	1H	860	U	C4-C5-C6	10.05	125.73	119.70
26	1H	1021	A	C2-N3-C4	-10.05	105.58	110.60
26	1H	783	A	C2-N3-C4	-10.05	105.58	110.60
26	14	2346	A	N1-C2-N3	10.03	134.31	129.30
26	1H	1496	A	C8-N9-C4	-10.02	101.79	105.80
1	13	1053	G	C8-N9-C4	9.99	110.39	106.40
27	16	81	G	C4-C5-N7	9.99	114.80	110.80
26	14	2595	G	C4-C5-N7	9.95	114.78	110.80
26	1H	793	A	O5'-P-OP2	-9.94	96.75	105.70
1	1G	690	G	C5-N7-C8	-9.92	99.34	104.30
1	1G	449	C	C6-N1-C2	-9.90	116.34	120.30
26	14	1698	A	C6-C5-N7	-9.86	125.40	132.30
26	14	1774	C	O5'-P-OP1	-9.85	96.83	105.70
26	14	1496	A	N7-C8-N9	9.85	118.72	113.80
26	14	1786	A	C6-C5-N7	-9.85	125.41	132.30
26	14	1786	A	C4-C5-N7	9.84	115.62	110.70
26	1H	1931	U	N3-C2-O2	-9.84	115.31	122.20
26	14	830	G	C8-N9-C4	9.83	110.33	106.40
26	1H	1496	A	C5-N7-C8	-9.82	98.99	103.90
26	1H	2490	G	O5'-P-OP2	-9.81	96.87	105.70
26	1H	567	A	O5'-P-OP1	-9.80	96.88	105.70
26	1H	140	A	C4-C5-N7	9.76	115.58	110.70
26	1H	2311	A	C2-N3-C4	-9.75	105.72	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	774	A	C2-N3-C4	-9.74	105.73	110.60
26	1H	1528	A	C8-N9-C4	-9.74	101.91	105.80
26	1H	1595	G	O5'-P-OP1	-9.74	96.94	105.70
26	14	2700	C	C6-N1-C2	9.73	124.19	120.30
26	14	71	A	C5-N7-C8	-9.72	99.04	103.90
26	1H	74	A	N1-C2-N3	9.71	134.16	129.30
26	1H	2311	A	N1-C2-N3	9.71	134.16	129.30
26	1H	621	A	C5-N7-C8	-9.70	99.05	103.90
26	1H	913	U	O5'-P-OP2	-9.69	96.98	105.70
26	1H	2439	A	C6-C5-N7	-9.70	125.51	132.30
26	1H	2490	G	C2-N3-C4	-9.69	107.05	111.90
26	1H	1681	G	N3-C4-C5	9.65	133.42	128.60
26	1H	2346	A	N7-C8-N9	9.65	118.62	113.80
26	14	774	A	C5-N7-C8	-9.64	99.08	103.90
26	1H	735	A	N7-C8-N9	-9.63	108.98	113.80
26	1H	1021	A	C5-N7-C8	-9.62	99.09	103.90
26	14	2873	A	C2-N3-C4	-9.61	105.79	110.60
26	1H	1616	A	C5-N7-C8	-9.61	99.09	103.90
26	1H	138	G	N7-C8-N9	9.60	117.90	113.10
26	1H	945	A	C5-N7-C8	-9.59	99.11	103.90
26	1H	787	U	O5'-P-OP1	9.56	122.18	110.70
26	14	1332	G	C5-N7-C8	-9.56	99.52	104.30
26	14	1786	A	C8-N9-C4	-9.55	101.98	105.80
26	14	2873	A	N7-C8-N9	9.55	118.58	113.80
26	1H	1312	U	O5'-P-OP1	-9.54	97.11	105.70
26	1H	1325	G	C6-C5-N7	-9.53	124.68	130.40
26	1H	1772	G	N1-C6-O6	-9.53	114.19	119.90
26	1H	2544	G	C5-C6-N1	-9.51	106.75	111.50
26	14	1145	C	C6-N1-C2	-9.51	116.50	120.30
26	1H	1830	C	N1-C2-O2	-9.49	113.20	118.90
26	14	1332	G	C8-N9-C1'	-9.49	114.66	127.00
26	1H	451	C	N1-C2-O2	-9.47	113.22	118.90
26	14	2502	G	O5'-P-OP1	-9.47	97.18	105.70
27	1J	8	U	O5'-P-OP2	-9.46	97.18	105.70
26	1H	2392	A	N7-C8-N9	9.46	118.53	113.80
26	1H	1022	G	N9-C4-C5	9.46	109.18	105.40
26	1H	1786	A	C8-N9-C4	-9.46	102.02	105.80
26	14	1899	G	C2-N3-C4	-9.46	107.17	111.90
26	1H	491	G	O5'-P-OP1	-9.46	97.19	105.70
26	1H	1274	A	C8-N9-C4	-9.45	102.02	105.80
26	1H	835	A	C2-N3-C4	9.44	115.32	110.60
1	1G	1397	C	C6-N1-C2	-9.44	116.52	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1053	G	N7-C8-N9	-9.43	108.39	113.10
26	1H	966	G	C5-C6-O6	9.41	134.25	128.60
26	1H	1210	A	N7-C8-N9	9.38	118.49	113.80
1	1G	1322	C	C2-N1-C1'	9.38	129.12	118.80
36	35	62	LEU	N-CA-C	9.38	136.33	111.00
1	13	827	U	N3-C2-O2	-9.38	115.64	122.20
26	14	788	A	N1-C6-N6	9.37	124.22	118.60
1	13	1198	G	O5'-P-OP1	-9.37	97.27	105.70
26	14	2688	U	C5-C6-N1	-9.36	118.02	122.70
26	14	2273	A	O5'-P-OP2	-9.36	97.28	105.70
26	1H	1678	G	C4-C5-N7	9.35	114.54	110.80
26	1H	1204	A	N1-C2-N3	9.35	133.97	129.30
26	1H	1678	G	C2-N3-C4	-9.34	107.23	111.90
26	1H	1829	A	O5'-P-OP1	-9.34	97.30	105.70
26	1H	1683	C	C6-N1-C2	-9.33	116.57	120.30
27	16	81	G	C5-N7-C8	-9.33	99.63	104.30
1	13	813	U	O5'-P-OP2	-9.31	97.32	105.70
26	1H	945	A	C4-N9-C1'	9.31	143.06	126.30
1	13	1336	C	C2-N1-C1'	9.28	129.01	118.80
26	1H	835	A	C5-C6-N1	9.28	122.34	117.70
26	1H	687	C	C6-N1-C2	-9.27	116.59	120.30
1	13	1054	C	N1-C2-O2	9.27	124.46	118.90
26	1H	1632	A	N1-C6-N6	9.27	124.16	118.60
26	1H	1204	A	C2-N3-C4	-9.26	105.97	110.60
26	14	830	G	N9-C4-C5	-9.26	101.70	105.40
26	1H	917	A	N1-C2-N3	9.25	133.93	129.30
26	14	2779	U	N3-C2-O2	-9.23	115.73	122.20
26	1H	2578	G	N1-C6-O6	-9.23	114.36	119.90
26	14	828	U	C5-C4-O4	9.22	131.43	125.90
26	1H	202	U	C5-C4-O4	-9.20	120.38	125.90
26	14	2592	G	N3-C4-C5	-9.21	124.00	128.60
26	1H	797	C	C5-C6-N1	-9.20	116.40	121.00
26	14	2062	A	C8-N9-C4	9.20	109.48	105.80
26	14	1950	G	N7-C8-N9	9.20	117.70	113.10
26	1H	945	A	N1-C2-N3	9.19	133.89	129.30
26	1H	654(I)	C	C2-N1-C1'	9.18	128.90	118.80
26	14	1678	G	N7-C8-N9	9.18	117.69	113.10
1	1G	254	G	O5'-P-OP1	-9.18	97.44	105.70
26	1H	1678	G	N3-C4-N9	-9.17	120.50	126.00
26	14	765	G	C8-N9-C4	-9.16	102.73	106.40
26	14	1304	C	N3-C4-N4	-9.15	111.59	118.00
26	14	2386	C	C5-C6-N1	-9.15	116.42	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1950	G	C8-N9-C4	-9.14	102.75	106.40
26	1H	216	A	O5'-P-OP2	-9.11	97.50	105.70
26	1H	1647	G	O5'-P-OP1	-9.11	97.50	105.70
26	1H	1899	G	N1-C2-N2	9.11	124.40	116.20
27	16	30	C	C6-N1-C2	-9.10	116.66	120.30
26	1H	691	C	C6-N1-C2	9.10	123.94	120.30
26	1H	2254	C	N1-C2-O2	-9.09	113.45	118.90
1	13	1279	A	N7-C8-N9	9.08	118.34	113.80
26	1H	386	G	C8-N9-C4	-9.07	102.77	106.40
26	1H	120	U	C5-C6-N1	-9.07	118.16	122.70
26	1H	917	A	O5'-P-OP1	-9.07	97.54	105.70
26	1H	512	G	O4'-C1'-N9	9.06	115.45	108.20
26	1H	1379	A	C4-C5-N7	9.06	115.23	110.70
26	1H	1610	A	N1-C6-N6	9.05	124.03	118.60
26	1H	2507	C	C6-N1-C2	-9.05	116.68	120.30
26	1H	16	G	N3-C2-N2	-9.05	113.57	119.90
26	1H	1022	G	C8-N9-C4	-9.04	102.78	106.40
26	1H	654(I)	C	N1-C2-O2	9.04	124.32	118.90
26	1H	71	A	N3-C4-C5	9.02	133.12	126.80
26	14	528	A	N1-C6-N6	9.01	124.01	118.60
26	14	1304	C	N3-C2-O2	-9.01	115.59	121.90
26	14	2712	U	C5-C6-N1	-9.01	118.19	122.70
26	14	2346	A	C2-N3-C4	-9.01	106.10	110.60
26	14	2688	U	N3-C2-O2	-8.99	115.90	122.20
1	13	1227	A	C5-N7-C8	-8.99	99.41	103.90
26	1H	2518	A	C8-N9-C4	-8.98	102.21	105.80
1	13	760	G	N1-C6-O6	8.98	125.29	119.90
26	1H	694	U	O5'-P-OP1	8.98	121.47	110.70
26	1H	774	A	C4-C5-C6	-8.97	112.52	117.00
26	14	1204	A	C2-N3-C4	-8.96	106.12	110.60
26	1H	1380	G	N1-C6-O6	8.95	125.27	119.90
26	1H	1781	C	C6-N1-C2	8.95	123.88	120.30
26	1H	1829	A	N1-C6-N6	-8.94	113.23	118.60
26	14	2518	A	O4'-C1'-N9	-8.93	101.06	108.20
26	14	917	A	O5'-P-OP1	-8.93	97.67	105.70
26	1H	945	A	C4-C5-N7	8.92	115.16	110.70
26	1H	2430	A	N3-C4-N9	-8.92	120.26	127.40
26	1H	389	G	C6-C5-N7	-8.92	125.05	130.40
26	1H	580	C	C6-N1-C2	-8.90	116.74	120.30
26	1H	847	U	N3-C2-O2	-8.89	115.97	122.20
26	14	2032	G	C8-N9-C4	8.89	109.96	106.40
26	14	2511	U	O5'-P-OP2	-8.89	97.70	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2598	A	N1-C6-N6	8.88	123.93	118.60
1	13	281	G	O5'-P-OP1	-8.88	97.71	105.70
26	1H	2700	C	C6-N1-C2	8.88	123.85	120.30
26	1H	1950	G	O4'-C1'-N9	8.87	115.30	108.20
26	14	2873	A	C5-N7-C8	-8.87	99.46	103.90
26	1H	848	G	O5'-P-OP2	-8.87	97.72	105.70
26	1H	1437	C	C6-N1-C2	-8.86	116.75	120.30
26	1H	140	A	C6-C5-N7	-8.86	126.10	132.30
26	1H	1698	A	C5-N7-C8	-8.86	99.47	103.90
1	13	1058	G	C8-N9-C4	8.86	109.94	106.40
26	1H	749	C	N1-C2-O2	8.85	124.21	118.90
26	1H	783	A	C5-C6-N6	-8.85	116.62	123.70
26	14	1950	G	C4-N9-C1'	8.85	138.00	126.50
26	1H	245	G	O5'-P-OP1	-8.84	97.74	105.70
26	14	1204	A	O4'-C1'-N9	8.83	115.27	108.20
26	1H	654(I)	C	C6-N1-C2	-8.83	116.77	120.30
26	1H	774	A	C8-N9-C1'	8.83	143.59	127.70
26	1H	781	A	C8-N9-C4	8.83	109.33	105.80
26	1H	860	U	N3-C2-O2	-8.83	116.02	122.20
1	13	1053	G	C4-N9-C1'	-8.82	115.03	126.50
26	14	2490	G	C8-N9-C4	-8.80	102.88	106.40
26	1H	783	A	N1-C2-N3	8.80	133.70	129.30
26	14	530	G	C2-N3-C4	-8.80	107.50	111.90
1	13	1336	C	N1-C2-O2	8.78	124.17	118.90
26	1H	2392	A	C8-N9-C4	-8.77	102.29	105.80
26	1H	38	A	N1-C6-N6	-8.77	113.34	118.60
26	1H	126	A	O5'-P-OP2	-8.77	97.81	105.70
26	14	252	G	O5'-P-OP2	-8.76	97.82	105.70
26	1H	1996	C	C6-N1-C2	8.75	123.80	120.30
26	1H	774	A	C5-N7-C8	-8.75	99.53	103.90
26	14	1496	A	C5-N7-C8	-8.75	99.53	103.90
1	13	1504	G	O5'-P-OP1	-8.75	97.83	105.70
1	13	758	G	N1-C6-O6	8.74	125.14	119.90
27	16	56	G	C8-N9-C4	-8.74	102.90	106.40
26	1H	71	A	O4'-C1'-N9	-8.74	101.21	108.20
26	1H	2330	G	C8-N9-C4	8.74	109.89	106.40
26	1H	651	G	C8-N9-C4	-8.73	102.91	106.40
26	1H	797	C	C4-C5-C6	8.72	121.76	117.40
26	1H	2699	C	C6-N1-C2	8.71	123.79	120.30
26	1H	1940	U	N3-C4-O4	8.70	125.49	119.40
26	1H	2503	A	C2-N3-C4	8.70	114.95	110.60
26	1H	1309	G	O5'-P-OP2	-8.69	97.88	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2503	A	N1-C2-N3	-8.69	124.95	129.30
26	14	2598	A	C5-C6-N6	-8.69	116.75	123.70
26	1H	1993	U	O5'-P-OP1	-8.68	97.89	105.70
26	14	1786	A	N1-C6-N6	8.68	123.81	118.60
26	14	2498	C	C6-N1-C2	8.68	123.77	120.30
26	14	1678	G	C2-N3-C4	-8.67	107.56	111.90
26	1H	1616	A	N7-C8-N9	8.67	118.13	113.80
26	1H	2620	C	O5'-P-OP1	-8.67	97.90	105.70
26	1H	2688	U	N1-C2-N3	8.66	120.09	114.90
26	1H	71	A	N1-C2-N3	8.65	133.63	129.30
1	1G	690	G	N7-C8-N9	8.65	117.43	113.10
26	14	1614	A	C2-N3-C4	-8.65	106.28	110.60
26	1H	946	G	O5'-P-OP1	-8.64	97.92	105.70
26	1H	271(B)	G	P-O3'-C3'	8.63	130.06	119.70
1	1G	691	G	N1-C6-O6	8.64	125.08	119.90
26	1H	871	U	O5'-P-OP1	-8.63	97.93	105.70
26	1H	1660	C	N3-C4-C5	8.62	125.35	121.90
26	14	2430	A	N1-C2-N3	8.62	133.61	129.30
26	1H	2287	A	N1-C2-N3	8.62	133.61	129.30
26	1H	1825	A	N1-C6-N6	-8.61	113.44	118.60
26	14	2249	U	C6-N1-C2	-8.61	115.84	121.00
26	1H	210	C	N3-C4-C5	8.60	125.34	121.90
26	1H	842	G	C5-C6-O6	-8.60	123.44	128.60
26	1H	1379	A	N7-C8-N9	8.60	118.10	113.80
26	1H	812	C	N1-C2-O2	-8.59	113.75	118.90
36	35	147	LEU	CA-CB-CG	8.58	135.03	115.30
1	13	1054	C	C6-N1-C2	-8.58	116.87	120.30
26	1H	1255	U	N3-C4-O4	8.57	125.40	119.40
26	1H	1997	G	C2-N3-C4	-8.57	107.61	111.90
26	1H	1968	G	C5-C6-N1	8.55	115.78	111.50
26	14	1142	U	C2-N1-C1'	8.55	127.96	117.70
26	1H	2713	A	C5-N7-C8	-8.54	99.63	103.90
26	1H	1203	G	O5'-P-OP2	-8.54	98.02	105.70
26	1H	1786	A	N1-C2-N3	8.53	133.56	129.30
26	1H	1314	C	C2-N1-C1'	8.53	128.18	118.80
26	1H	1569	A	O5'-P-OP1	-8.53	98.03	105.70
1	1G	1200	C	C2-N1-C1'	8.52	128.18	118.80
28	19	37	LEU	CA-CB-CG	8.52	134.89	115.30
26	14	2307	G	C4-N9-C1'	8.52	137.57	126.50
26	1H	238	C	C4-C5-C6	8.51	121.66	117.40
26	1H	828	U	N1-C2-O2	8.51	128.76	122.80
26	1H	1678	G	N7-C8-N9	8.51	117.36	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2477	C	C2-N1-C1'	8.51	128.16	118.80
1	13	1195	C	C6-N1-C2	-8.50	116.90	120.30
37	45	82	ARG	N-CA-C	8.50	133.94	111.00
26	14	1304	C	N1-C2-O2	8.49	124.00	118.90
26	1H	85	G	O5'-P-OP2	-8.49	98.06	105.70
1	13	1502	A	C5-N7-C8	-8.49	99.66	103.90
26	1H	786	C	N3-C4-N4	-8.48	112.06	118.00
26	14	2430	A	C6-C5-N7	-8.48	126.36	132.30
26	14	945	A	N9-C1'-C2'	8.47	125.02	114.00
26	1H	2330	G	N1-C6-O6	8.47	124.98	119.90
26	1H	778	G	C5-C6-O6	8.47	133.68	128.60
26	1H	676	A	C5-C6-N1	-8.46	113.47	117.70
26	1H	783	A	C4-C5-C6	8.46	121.23	117.00
26	1H	835	A	C6-N1-C2	-8.46	113.52	118.60
26	1H	74	A	C5-C6-N1	-8.44	113.48	117.70
26	1H	1299	G	O5'-P-OP1	-8.44	98.11	105.70
27	16	56	G	N3-C4-C5	-8.44	124.38	128.60
26	14	2518	A	C5-N7-C8	-8.44	99.68	103.90
26	1H	2002	G	N3-C2-N2	-8.44	113.99	119.90
1	13	422	C	C5-C6-N1	8.43	125.22	121.00
1	13	1301	U	C2-N1-C1'	8.43	127.82	117.70
11	2I	102	GLY	N-CA-C	-8.43	92.03	113.10
26	1H	1613	G	N1-C2-N2	-8.43	108.61	116.20
1	13	812	C	P-O3'-C3'	8.42	129.80	119.70
26	1H	966	G	N1-C6-O6	-8.41	114.85	119.90
26	14	74	A	N1-C6-N6	8.40	123.64	118.60
26	14	530	G	C5-C6-O6	-8.40	123.56	128.60
1	1G	1200	C	N1-C2-O2	8.39	123.94	118.90
26	1H	2074	U	O5'-P-OP1	-8.38	98.16	105.70
26	1H	1379	A	C5-C6-N6	-8.37	117.00	123.70
26	1H	871	U	N3-C4-O4	8.37	125.26	119.40
1	13	1025	U	C5-C6-N1	8.36	126.88	122.70
26	1H	2053	G	N1-C6-O6	8.36	124.92	119.90
1	13	963	G	N3-C4-N9	8.36	131.01	126.00
26	1H	621	A	N1-C6-N6	8.35	123.61	118.60
26	14	783	A	C5-C6-N6	-8.35	117.02	123.70
26	14	2307	G	O4'-C1'-N9	8.35	114.88	108.20
26	1H	2429	G	OP1-P-OP2	-8.34	107.09	119.60
26	14	1326	U	O5'-P-OP1	-8.34	98.19	105.70
26	1H	528	A	C2-N3-C4	-8.34	106.43	110.60
26	14	2447	G	P-O3'-C3'	8.34	129.70	119.70
26	14	2518	A	N1-C6-N6	8.34	123.60	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	16	81	G	C6-C5-N7	-8.33	125.40	130.40
26	1H	832	G	C8-N9-C4	-8.33	103.07	106.40
26	14	71	A	N7-C8-N9	8.32	117.96	113.80
27	16	79	C	C6-N1-C2	-8.32	116.97	120.30
26	1H	124	G	C8-N9-C4	8.32	109.73	106.40
26	1H	2288	A	N1-C6-N6	8.32	123.59	118.60
1	1G	1139	G	N3-C4-C5	8.32	132.76	128.60
1	13	792	A	N1-C2-N3	8.31	133.46	129.30
26	14	2490	G	N7-C8-N9	8.31	117.26	113.10
26	1H	410	G	O5'-P-OP1	-8.30	98.23	105.70
26	1H	689	A	N9-C4-C5	8.30	109.12	105.80
26	1H	1780	A	C2-N3-C4	-8.30	106.45	110.60
26	14	2871	C	O5'-P-OP2	-8.30	98.23	105.70
26	14	2392	A	N7-C8-N9	8.29	117.94	113.80
26	14	140	A	C5-N7-C8	-8.28	99.76	103.90
26	14	746	A	O5'-P-OP2	8.29	120.64	110.70
26	1H	1781	C	O4'-C1'-N1	8.28	114.82	108.20
26	14	2702	U	O4'-C1'-N1	8.28	114.82	108.20
26	1H	265	A	C5-N7-C8	-8.27	99.76	103.90
1	13	49	U	P-O3'-C3'	8.27	129.62	119.70
26	1H	1967	C	N3-C2-O2	-8.27	116.11	121.90
1	13	807	A	C8-N9-C4	-8.26	102.50	105.80
26	1H	120	U	C5-C4-O4	8.26	130.86	125.90
26	1H	2058	A	O5'-P-OP2	-8.26	98.27	105.70
1	1G	1158	C	N1-C2-O2	8.25	123.85	118.90
26	14	2051	A	C8-N9-C4	-8.25	102.50	105.80
26	1H	2030	A	C5-C6-N6	-8.25	117.10	123.70
26	14	140	A	N7-C8-N9	8.25	117.92	113.80
26	1H	2688	U	N3-C2-O2	-8.24	116.43	122.20
26	1H	749	C	N3-C2-O2	-8.24	116.13	121.90
26	14	676	A	C2-N3-C4	-8.24	106.48	110.60
26	14	783	A	C8-N9-C4	-8.23	102.51	105.80
26	14	1694	C	C6-N1-C2	8.22	123.59	120.30
26	1H	1950	G	C4-C5-N7	8.22	114.09	110.80
26	14	1616	A	C5-N7-C8	-8.21	99.80	103.90
26	14	510	C	O5'-P-OP2	-8.20	98.32	105.70
26	1H	788	A	O5'-P-OP1	-8.20	98.32	105.70
26	14	1496	A	C8-N9-C4	-8.20	102.52	105.80
26	1H	1302	A	N1-C6-N6	-8.19	113.68	118.60
26	14	1779	U	C5-C4-O4	-8.19	120.98	125.90
26	1H	2430	A	C5-C6-N1	-8.19	113.61	117.70
26	1H	1614	A	C5-N7-C8	-8.18	99.81	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1888	G	N3-C4-N9	8.18	130.91	126.00
26	14	1781	C	O4'-C1'-N1	8.18	114.74	108.20
26	1H	144	C	C5-C6-N1	-8.17	116.91	121.00
26	14	1585	C	N3-C2-O2	-8.17	116.18	121.90
26	1H	1159	U	O5'-P-OP2	-8.17	98.34	105.70
26	14	669	G	P-O3'-C3'	8.16	129.50	119.70
26	14	1572	A	N1-C6-N6	8.16	123.50	118.60
26	1H	1257	C	C2-N3-C4	-8.15	115.82	119.90
26	14	684	G	C8-N9-C4	-8.15	103.14	106.40
26	1H	140	A	C8-N9-C4	-8.15	102.54	105.80
26	1H	945	A	C5-C6-N6	-8.15	117.18	123.70
26	14	2501	C	C6-N1-C2	8.15	123.56	120.30
26	1H	2700	C	N3-C4-C5	8.14	125.16	121.90
26	1H	680	G	O5'-P-OP1	-8.13	98.38	105.70
26	1H	774	A	C4-N9-C1'	-8.13	111.66	126.30
1	13	266	G	C4-C5-N7	8.13	114.05	110.80
26	1H	676	A	C4-C5-N7	8.13	114.76	110.70
26	1H	1779	U	O5'-P-OP2	-8.13	98.38	105.70
1	1G	690	G	C4-C5-N7	8.12	114.05	110.80
26	1H	1598	C	C6-N1-C2	-8.11	117.06	120.30
26	1H	193	U	C5-C6-N1	-8.10	118.65	122.70
26	14	2045	C	C5-C6-N1	-8.10	116.95	121.00
26	1H	1644	C	N1-C2-O2	8.09	123.75	118.90
26	1H	192	C	C6-N1-C2	8.08	123.53	120.30
26	14	2060	A	N9-C4-C5	8.08	109.03	105.80
26	14	827	U	N3-C2-O2	8.07	127.85	122.20
26	1H	2688	U	C4-C5-C6	8.07	124.54	119.70
26	1H	1404	C	O5'-P-OP2	-8.06	98.44	105.70
1	1G	1158	C	C2-N1-C1'	8.06	127.67	118.80
27	16	81	G	N7-C8-N9	8.05	117.13	113.10
1	1G	1529	G	C4-N9-C1'	8.05	136.97	126.50
1	13	1354	C	C6-N1-C2	-8.05	117.08	120.30
26	14	1608	A	O5'-P-OP1	-8.05	98.45	105.70
26	14	1615	C	N3-C4-C5	-8.05	118.68	121.90
1	13	826	C	C6-N1-C2	-8.05	117.08	120.30
26	14	2073	C	C6-N1-C2	-8.05	117.08	120.30
26	1H	265	A	C2-N3-C4	-8.04	106.58	110.60
26	14	1899	G	C6-C5-N7	8.04	135.23	130.40
26	1H	835	A	C8-N9-C4	-8.04	102.58	105.80
1	1G	1286	A	C8-N9-C4	-8.04	102.58	105.80
27	1J	30	C	C6-N1-C2	-8.04	117.08	120.30
26	1H	2439	A	C4-C5-C6	8.04	121.02	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	945	A	C2-N3-C4	-8.03	106.58	110.60
26	1H	1603	A	N7-C8-N9	8.03	117.81	113.80
1	13	266	G	C5-N7-C8	-8.03	100.29	104.30
26	1H	1598	C	OP1-P-O3'	8.02	122.85	105.20
1	13	914	A	O5'-P-OP1	-8.02	98.48	105.70
26	1H	845	G	N3-C4-C5	8.02	132.61	128.60
26	14	1024	G	N1-C6-O6	8.01	124.70	119.90
26	14	788	A	C6-C5-N7	-8.00	126.70	132.30
26	1H	1613	G	N3-C2-N2	8.00	125.50	119.90
26	1H	2424	C	OP1-P-OP2	8.00	131.60	119.60
26	1H	411	G	N3-C4-C5	-7.99	124.60	128.60
26	1H	2250	G	C8-N9-C4	-7.99	103.20	106.40
1	13	963	G	N3-C4-C5	-7.99	124.61	128.60
26	14	2062	A	C4-C5-C6	-7.99	113.01	117.00
26	14	2473	U	C2-N1-C1'	7.99	127.29	117.70
26	1H	451	C	C6-N1-C2	7.99	123.49	120.30
26	14	528	A	C5-N7-C8	-7.99	99.91	103.90
26	14	330	A	C2-N3-C4	-7.98	106.61	110.60
27	1J	6	C	C6-N1-C2	7.98	123.49	120.30
26	1H	195	A	N1-C6-N6	7.98	123.39	118.60
29	29	61	ARG	C-N-CD	-7.97	103.06	120.60
22	1K	85	A	C8-N9-C4	-7.97	102.61	105.80
26	1H	128	C	N1-C2-O2	-7.97	114.12	118.90
26	14	765	G	N7-C8-N9	7.97	117.08	113.10
26	1H	830	G	C5-C6-O6	7.96	133.38	128.60
26	1H	781	A	N7-C8-N9	-7.96	109.82	113.80
26	14	265	A	C2-N3-C4	-7.96	106.62	110.60
26	1H	1644	C	N3-C2-O2	-7.96	116.33	121.90
27	1J	88	C	C6-N1-C2	-7.96	117.12	120.30
26	1H	974(A)	C	N3-C2-O2	-7.95	116.33	121.90
26	14	570	G	N3-C2-N2	7.95	125.47	119.90
26	14	827	U	N1-C2-O2	-7.95	117.23	122.80
26	1H	1566	A	O5'-P-OP2	-7.95	98.55	105.70
26	14	1768	U	C5-C4-O4	7.95	130.67	125.90
26	14	2390	U	O5'-P-OP1	-7.95	98.55	105.70
26	14	1332	G	N1-C6-O6	7.94	124.67	119.90
1	13	738	C	C6-N1-C2	-7.94	117.12	120.30
26	1H	930	U	C5-C4-O4	7.94	130.66	125.90
1	1G	197	A	N7-C8-N9	7.94	117.77	113.80
26	1H	1342	A	N1-C6-N6	7.93	123.36	118.60
26	1H	196	A	O4'-C1'-N9	7.93	114.55	108.20
26	1H	2430	A	C4-C5-N7	7.93	114.67	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1992	G	N1-C6-O6	-7.93	115.14	119.90
26	1H	967	C	O5'-P-OP2	-7.92	98.57	105.70
26	1H	1681	G	N3-C4-N9	-7.92	121.25	126.00
1	13	963	G	N1-C2-N2	-7.92	109.07	116.20
26	1H	113	G	O5'-P-OP1	-7.91	98.58	105.70
1	1G	197	A	C8-N9-C4	-7.91	102.64	105.80
26	1H	828	U	C5-C4-O4	7.91	130.65	125.90
26	1H	2307	G	O4'-C1'-N9	7.91	114.53	108.20
1	1G	413	G	C4-N9-C1'	-7.90	116.23	126.50
26	1H	679	C	C6-N1-C2	7.90	123.46	120.30
26	1H	2346	A	C2-N3-C4	-7.89	106.66	110.60
26	1H	788	A	N1-C6-N6	7.89	123.33	118.60
26	14	856	C	C6-N1-C2	-7.89	117.14	120.30
26	1H	1931	U	C5-C4-O4	7.88	130.63	125.90
26	1H	947	G	O5'-P-OP1	-7.87	98.61	105.70
26	14	2823	A	N1-C6-N6	7.87	123.33	118.60
26	1H	1517	G	OP1-P-O3'	7.87	122.52	105.20
26	1H	2638	G	N3-C4-N9	7.87	130.72	126.00
26	14	2217	G	C5-C6-O6	-7.87	123.88	128.60
1	13	1446	A	O4'-C1'-N9	7.86	114.49	108.20
26	1H	835	A	N9-C4-C5	7.86	108.94	105.80
1	13	690	G	O4'-C1'-N9	7.86	114.49	108.20
26	1H	654(I)	C	N3-C2-O2	-7.86	116.40	121.90
26	14	1600	C	C6-N1-C2	7.85	123.44	120.30
26	14	1342	A	C2-N3-C4	-7.85	106.68	110.60
26	1H	787	U	O5'-P-OP2	-7.84	98.64	105.70
26	1H	827	U	O5'-P-OP1	7.84	120.11	110.70
26	1H	1834	U	N3-C2-O2	-7.84	116.71	122.20
26	1H	2328	A	C2-N3-C4	-7.84	106.68	110.60
1	13	1279	A	C8-N9-C4	-7.84	102.66	105.80
26	1H	470	A	C5-C6-N6	-7.84	117.43	123.70
23	2K	9	G	N3-C4-N9	7.83	130.70	126.00
26	14	1674	G	N3-C4-N9	7.83	130.69	126.00
1	1G	1286	A	N7-C8-N9	7.82	117.71	113.80
26	14	912	C	C6-N1-C2	-7.82	117.17	120.30
26	1H	2401	U	C6-N1-C2	-7.82	116.31	121.00
26	1H	389	G	C8-N9-C1'	-7.82	116.84	127.00
26	1H	1314	C	N3-C2-O2	-7.82	116.43	121.90
1	13	1227	A	C2-N3-C4	-7.81	106.70	110.60
26	14	1255	U	O5'-P-OP1	7.81	120.07	110.70
26	1H	799	G	C8-N9-C4	7.80	109.52	106.40
26	1H	786	C	OP2-P-O3'	7.80	122.36	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1564	C	O5'-P-OP2	-7.80	98.68	105.70
1	13	821	G	O5'-P-OP2	-7.79	98.69	105.70
26	1H	1767	C	O5'-P-OP1	-7.79	98.69	105.70
26	1H	732	C	C6-N1-C2	-7.78	117.19	120.30
26	14	2287	A	N3-C4-C5	7.78	132.25	126.80
26	1H	1241	A	C2-N3-C4	-7.78	106.71	110.60
26	14	1313	U	C5-C6-N1	7.78	126.59	122.70
26	14	1614	A	O4'-C1'-N9	7.78	114.42	108.20
26	1H	2053	G	N3-C2-N2	-7.77	114.46	119.90
26	14	689	A	O5'-P-OP2	-7.77	98.71	105.70
26	14	2038	G	N3-C2-N2	7.77	125.34	119.90
26	1H	813	U	OP1-P-OP2	7.76	131.25	119.60
26	1H	768	G	OP1-P-OP2	7.76	131.24	119.60
26	1H	2713	A	N7-C8-N9	7.76	117.68	113.80
26	1H	817	C	C6-N1-C2	-7.76	117.20	120.30
26	1H	1606	G	C8-N9-C4	7.76	109.50	106.40
24	1L	83	C	N1-C2-O2	7.76	123.55	118.90
26	1H	686	G	N3-C4-N9	7.75	130.65	126.00
1	1G	1529	G	N3-C4-C5	-7.75	124.72	128.60
26	1H	389	G	N9-C4-C5	-7.75	102.30	105.40
26	1H	2689	U	O5'-P-OP1	-7.75	98.73	105.70
26	14	676	A	O4'-C1'-N9	7.75	114.40	108.20
26	1H	827	U	C5-C6-N1	-7.74	118.83	122.70
26	1H	2506	U	N1-C2-O2	7.74	128.22	122.80
26	14	1786	A	C5-C6-N1	-7.74	113.83	117.70
26	14	530	G	N1-C2-N2	-7.73	109.24	116.20
26	1H	1672	C	N3-C4-C5	-7.73	118.81	121.90
26	1H	1958	C	OP1-P-O3'	7.73	122.21	105.20
1	13	776	G	O5'-P-OP1	-7.73	98.75	105.70
26	1H	1778	U	OP2-P-O3'	7.73	122.20	105.20
1	1G	1322	C	C6-N1-C1'	-7.72	111.53	120.80
26	14	2688	U	N1-C2-N3	7.72	119.53	114.90
26	1H	203	C	C5-C4-N4	-7.72	114.80	120.20
26	1H	1332	G	C8-N9-C4	-7.72	103.31	106.40
26	14	565	C	C6-N1-C2	7.72	123.39	120.30
26	14	693	C	N3-C4-N4	-7.71	112.60	118.00
26	1H	2584	U	N3-C2-O2	-7.71	116.80	122.20
26	1H	462	C	O5'-P-OP2	-7.71	98.76	105.70
26	14	2038	G	C8-N9-C4	7.71	109.48	106.40
26	1H	1431	U	C5-C6-N1	7.70	126.55	122.70
28	19	272	ALA	N-CA-C	7.70	131.79	111.00
26	1H	730	C	N3-C4-N4	-7.69	112.62	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1585	C	C2-N1-C1'	7.69	127.26	118.80
26	14	2401	U	C5-C6-N1	7.68	126.54	122.70
26	14	2702	U	O5'-P-OP2	-7.68	98.78	105.70
26	14	2429	G	O5'-P-OP1	7.68	119.91	110.70
26	1H	40	C	O5'-P-OP2	-7.67	98.80	105.70
1	13	816	A	C8-N9-C4	-7.67	102.73	105.80
26	1H	528	A	C5-C6-N1	-7.67	113.87	117.70
26	1H	1142(A)	A	N3-C4-C5	7.67	132.17	126.80
26	1H	1781	C	N3-C4-C5	7.67	124.97	121.90
26	14	1342	A	O4'-C1'-N9	7.67	114.33	108.20
26	1H	2427	C	O5'-P-OP2	7.66	119.89	110.70
1	13	1502	A	C2-N3-C4	-7.66	106.77	110.60
26	1H	2232	U	N3-C4-C5	-7.65	110.01	114.60
26	1H	2439	A	C5-C6-N6	-7.65	117.58	123.70
26	1H	655	A	C8-N9-C4	-7.64	102.74	105.80
37	88	92	GLY	N-CA-C	7.64	132.21	113.10
1	1G	1346	A	P-O3'-C3'	7.64	128.87	119.70
26	1H	2272	U	O5'-P-OP1	7.64	119.87	110.70
26	1H	127	A	N9-C4-C5	-7.64	102.74	105.80
26	1H	776	G	C5-C6-O6	-7.64	124.02	128.60
1	1G	197	A	P-O3'-C3'	7.64	128.87	119.70
1	13	893	C	N1-C2-O2	7.63	123.48	118.90
26	1H	773	U	C5-C4-O4	7.63	130.48	125.90
26	1H	530	G	C8-N9-C4	-7.63	103.35	106.40
26	1H	398	G	O5'-P-OP1	-7.63	98.84	105.70
26	1H	1899	G	C8-N9-C1'	7.62	136.91	127.00
26	1H	677	A	OP1-P-OP2	7.62	131.03	119.60
1	13	1053	G	C6-C5-N7	7.62	134.97	130.40
26	1H	1678	G	N1-C6-O6	7.61	124.47	119.90
26	1H	2268	A	O5'-P-OP1	-7.61	98.85	105.70
26	14	1313	U	C2-N1-C1'	7.61	126.84	117.70
26	1H	676	A	O4'-C1'-N9	7.60	114.28	108.20
26	1H	1781	C	C6-N1-C1'	-7.60	111.68	120.80
26	14	613	U	N3-C2-O2	-7.60	116.88	122.20
26	1H	1931	U	N1-C2-N3	7.60	119.46	114.90
26	14	1979	C	C6-N1-C2	-7.60	117.26	120.30
1	13	1158	C	N1-C2-O2	7.59	123.46	118.90
26	1H	245	G	N3-C4-N9	7.59	130.56	126.00
26	1H	640	C	OP1-P-O3'	7.59	121.90	105.20
26	14	681	G	N9-C4-C5	-7.58	102.37	105.40
26	14	2598	A	N9-C4-C5	-7.58	102.77	105.80
26	1H	120	U	C4-C5-C6	7.58	124.25	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1992	G	P-O3'-C3'	7.58	128.80	119.70
1	13	537	G	O5'-P-OP1	-7.58	98.88	105.70
26	1H	945	A	C8-N9-C1'	-7.58	114.06	127.70
26	14	1614	A	N1-C2-N3	7.58	133.09	129.30
26	14	932	G	N3-C4-C5	7.58	132.39	128.60
26	14	2002	G	N1-C6-O6	-7.58	115.36	119.90
26	1H	2437	U	C5-C4-O4	7.57	130.44	125.90
26	14	1619	G	O5'-P-OP2	-7.57	98.89	105.70
26	14	1254	A	C6-N1-C2	-7.57	114.06	118.60
26	14	1698	A	C4-C5-N7	7.57	114.48	110.70
1	13	809	G	N1-C6-O6	-7.56	115.36	119.90
1	13	266	G	N7-C8-N9	7.56	116.88	113.10
26	14	2392	A	C5-N7-C8	-7.55	100.12	103.90
1	1G	1484	C	O5'-P-OP2	-7.55	98.90	105.70
1	13	1498	U	P-O3'-C3'	7.55	128.76	119.70
26	14	2501	C	N3-C2-O2	7.55	127.18	121.90
26	1H	1786	A	C4-C5-N7	7.55	114.47	110.70
26	14	1700	A	O5'-P-OP2	7.55	119.76	110.70
26	1H	825	C	N3-C4-N4	7.54	123.28	118.00
26	1H	1899	G	C6-C5-N7	7.54	134.92	130.40
26	14	829	A	OP1-P-OP2	7.54	130.91	119.60
26	14	2392	A	C2-N3-C4	-7.54	106.83	110.60
26	1H	128	C	C2-N3-C4	-7.54	116.13	119.90
26	1H	2326	C	C6-N1-C2	-7.54	117.28	120.30
1	13	758	G	C5-C6-O6	-7.54	124.08	128.60
26	1H	778	G	N1-C6-O6	-7.53	115.38	119.90
26	1H	2374	C	C5-C6-N1	-7.53	117.23	121.00
26	1H	1752	C	C6-N1-C2	7.53	123.31	120.30
23	2L	17	C	N1-C2-O2	7.52	123.41	118.90
26	1H	842	G	C4-C5-N7	7.52	113.81	110.80
26	1H	1489	U	C5-C4-O4	7.52	130.41	125.90
26	14	74	A	C5-C6-N1	-7.52	113.94	117.70
22	1K	85	A	N7-C8-N9	7.52	117.56	113.80
26	1H	1616	A	C4-C5-N7	7.52	114.46	110.70
26	1H	2367	G	C8-N9-C4	-7.52	103.39	106.40
33	69	77	LEU	CA-CB-CG	7.52	132.59	115.30
26	1H	123	G	C6-N1-C2	-7.51	120.59	125.10
26	1H	1658	C	C6-N1-C2	-7.51	117.30	120.30
26	1H	2070	G	N3-C2-N2	7.51	125.16	119.90
26	1H	945	A	C8-N9-C4	-7.51	102.80	105.80
26	1H	1955	U	P-O3'-C3'	7.51	128.71	119.70
26	14	2873	A	N1-C2-N3	7.51	133.05	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	617	G	O5'-P-OP1	-7.50	98.95	105.70
26	1H	239	U	N3-C4-O4	-7.50	114.15	119.40
26	1H	773	U	C5-C6-N1	-7.50	118.95	122.70
1	1G	518	C	N1-C2-O2	7.50	123.40	118.90
26	1H	2024	G	O5'-P-OP1	-7.50	98.95	105.70
26	1H	1780	A	N1-C2-N3	7.49	133.05	129.30
26	1H	1620	G	C4-C5-N7	-7.49	107.80	110.80
22	1K	83	C	C2-N1-C1'	7.49	127.04	118.80
26	1H	837	C	O5'-P-OP1	-7.49	98.96	105.70
26	1H	1224	G	C5-C6-O6	-7.49	124.11	128.60
1	1G	974	A	O4'-C1'-N9	7.49	114.19	108.20
26	14	1572	A	C5-C6-N6	-7.49	117.71	123.70
26	1H	2712	U	N3-C4-O4	-7.48	114.17	119.40
26	1H	1394	U	C5-C6-N1	7.48	126.44	122.70
26	1H	2388	A	O4'-C1'-N9	7.47	114.18	108.20
1	1G	690	G	C2-N3-C4	-7.47	108.16	111.90
1	13	1260	C	C6-N1-C2	-7.47	117.31	120.30
26	14	1314	C	N1-C2-O2	7.47	123.38	118.90
26	1H	412	A	C8-N9-C4	7.47	108.79	105.80
26	1H	1394	U	O5'-P-OP2	7.46	119.66	110.70
1	13	1502	A	N7-C8-N9	7.46	117.53	113.80
26	1H	2003	G	O5'-P-OP1	-7.45	99.00	105.70
23	2K	17	C	N1-C2-O2	7.44	123.37	118.90
23	2K	9	G	C6-C5-N7	-7.44	125.93	130.40
26	1H	126	A	OP1-P-OP2	7.43	130.75	119.60
26	1H	530	G	N1-C6-O6	-7.43	115.44	119.90
1	1G	576	G	C4-N9-C1'	7.43	136.16	126.50
26	14	2873	A	C6-C5-N7	-7.43	127.10	132.30
26	1H	1623	G	N1-C6-O6	-7.43	115.44	119.90
26	1H	122	G	C2-N3-C4	-7.42	108.19	111.90
26	1H	2256	G	N3-C2-N2	7.42	125.10	119.90
26	14	1382	G	C4-C5-N7	7.42	113.77	110.80
26	1H	1698	A	C4-C5-N7	7.42	114.41	110.70
26	14	1142(A)	A	C2-N3-C4	-7.42	106.89	110.60
26	14	2087	G	N3-C2-N2	7.42	125.09	119.90
26	14	2544	G	C6-C5-N7	-7.42	125.95	130.40
26	14	2287	A	C5-C6-N1	-7.42	113.99	117.70
26	14	746	A	O5'-P-OP1	-7.41	99.03	105.70
26	1H	1820	U	O5'-P-OP2	-7.41	99.03	105.70
26	1H	1496	A	C4-C5-N7	7.41	114.41	110.70
26	1H	144	C	C6-N1-C2	7.41	123.26	120.30
26	14	2287	A	N1-C6-N6	7.41	123.05	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2710	C	N1-C2-O2	-7.41	114.45	118.90
26	1H	1325	G	C4-C5-N7	7.41	113.76	110.80
26	1H	1326	U	N3-C2-O2	-7.41	117.02	122.20
26	1H	860	U	C5-C6-N1	-7.41	119.00	122.70
26	1H	787	U	C5-C4-O4	7.40	130.34	125.90
26	1H	2318	G	O4'-C1'-N9	7.40	114.12	108.20
26	1H	1997	G	C5-C6-N1	-7.39	107.80	111.50
26	14	1642	G	O5'-P-OP1	-7.39	99.05	105.70
26	14	2045	C	C6-N1-C2	7.39	123.26	120.30
26	1H	124	G	N1-C6-O6	7.39	124.33	119.90
26	1H	2502	G	OP2-P-O3'	7.39	121.45	105.20
1	13	328	C	N1-C2-O2	7.38	123.33	118.90
26	1H	189	G	C5-C6-O6	-7.38	124.17	128.60
26	1H	747	U	O5'-P-OP1	-7.38	99.06	105.70
26	1H	1528	A	N7-C8-N9	7.38	117.49	113.80
26	14	1382	G	C5-C6-O6	-7.38	124.17	128.60
26	1H	831	G	C8-N9-C4	7.38	109.35	106.40
26	1H	1021	A	N7-C8-N9	7.38	117.49	113.80
41	C8	74	LEU	CA-CB-CG	7.38	132.26	115.30
26	1H	1616	A	C6-C5-N7	-7.37	127.14	132.30
26	14	675	A	N9-C4-C5	-7.37	102.85	105.80
26	14	1950	G	O4'-C1'-N9	7.37	114.10	108.20
26	1H	621	A	N7-C8-N9	7.37	117.48	113.80
26	1H	1899	G	C8-N9-C4	-7.37	103.45	106.40
26	1H	1992	G	C5-C6-N1	7.37	115.18	111.50
26	14	1241	A	C2-N3-C4	-7.37	106.92	110.60
26	14	1313	U	C6-N1-C2	-7.36	116.58	121.00
26	1H	2392	A	C4-C5-N7	7.36	114.38	110.70
26	14	687	C	O5'-P-OP1	-7.36	99.08	105.70
26	1H	691	C	N1-C2-O2	-7.36	114.49	118.90
26	14	188	G	C5-C6-O6	-7.35	124.19	128.60
26	1H	528	A	N3-C4-C5	7.35	131.95	126.80
26	14	138	G	C5-C6-O6	-7.35	124.19	128.60
26	14	1784	A	C5-N7-C8	-7.35	100.22	103.90
26	1H	216	A	O5'-P-OP1	7.35	119.52	110.70
26	1H	853	G	O5'-P-OP2	-7.35	99.09	105.70
26	1H	1632	A	C4-C5-N7	7.35	114.37	110.70
26	1H	2477	C	O4'-C1'-N1	7.35	114.08	108.20
26	14	1142	U	N1-C2-O2	7.34	127.94	122.80
26	14	1588	C	C6-N1-C2	-7.34	117.36	120.30
1	1G	266	G	P-O3'-C3'	7.34	128.51	119.70
26	1H	2385	C	C2-N3-C4	-7.34	116.23	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1816	G	O5'-P-OP1	-7.33	99.10	105.70
1	13	52	G	C4-C5-N7	7.33	113.73	110.80
26	1H	728	G	C8-N9-C4	7.33	109.33	106.40
26	1H	1940	U	O5'-P-OP2	-7.33	99.11	105.70
26	1H	528	A	N3-C4-N9	-7.33	121.54	127.40
26	1H	2439	A	N7-C8-N9	7.32	117.46	113.80
39	65	110	LEU	CA-CB-CG	7.32	132.14	115.30
26	14	2049	G	O5'-P-OP1	-7.32	99.11	105.70
26	1H	1616	A	O4'-C1'-N9	7.32	114.05	108.20
26	1H	1898	U	O5'-P-OP2	-7.32	99.11	105.70
26	1H	797	C	C6-N1-C2	7.32	123.23	120.30
26	1H	655	A	N7-C8-N9	7.31	117.46	113.80
26	1H	1623	G	C5-C6-O6	7.31	132.98	128.60
26	14	945	A	C5-N7-C8	-7.31	100.25	103.90
26	14	1314	C	C2-N1-C1'	7.31	126.84	118.80
26	14	1332	G	N3-C4-N9	7.31	130.38	126.00
26	14	2002	G	C5-C6-N1	7.31	115.15	111.50
26	1H	1780	A	N1-C6-N6	-7.30	114.22	118.60
26	14	1678	G	C4-C5-N7	7.30	113.72	110.80
25	4L	21	C	C6-N1-C2	-7.30	117.38	120.30
26	1H	1568	G	C4-N9-C1'	-7.30	117.01	126.50
26	1H	839	U	O5'-P-OP2	-7.30	99.13	105.70
26	1H	1314	C	C6-N1-C1'	-7.30	112.04	120.80
26	14	2392	A	C8-N9-C4	-7.29	102.88	105.80
26	14	2498	C	C5-C6-N1	-7.29	117.35	121.00
26	1H	676	A	C8-N9-C4	-7.29	102.88	105.80
26	1H	998	C	C6-N1-C2	-7.29	117.38	120.30
26	1H	1885	A	C8-N9-C4	7.29	108.72	105.80
26	1H	140	A	O4'-C1'-N9	7.29	114.03	108.20
26	1H	2700	C	C5-C4-N4	-7.29	115.10	120.20
26	1H	2507	C	N3-C2-O2	-7.29	116.80	121.90
27	1J	81	G	C4-C5-N7	7.29	113.71	110.80
26	1H	1203	G	N3-C4-C5	-7.28	124.96	128.60
1	13	328	C	C2-N1-C1'	7.28	126.81	118.80
26	1H	2419	U	O5'-P-OP2	7.28	119.44	110.70
26	1H	524	U	N3-C2-O2	-7.28	117.11	122.20
1	1G	305	G	C5-C6-O6	7.28	132.97	128.60
26	1H	1616	A	C8-N9-C4	-7.28	102.89	105.80
1	1G	1158	C	N3-C2-O2	-7.28	116.81	121.90
26	14	49	A	P-O3'-C3'	7.27	128.43	119.70
26	14	676	A	C4-C5-N7	7.27	114.34	110.70
26	1H	461	C	C6-N1-C2	7.27	123.21	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	950	G	O5'-P-OP2	-7.27	99.16	105.70
26	1H	2610	C	P-O3'-C3'	7.27	128.42	119.70
26	14	71	A	C4-C5-N7	7.27	114.33	110.70
26	1H	219	G	C4-C5-N7	-7.26	107.89	110.80
26	1H	987	G	O5'-P-OP2	-7.26	99.17	105.70
26	14	1918	A	N1-C6-N6	7.26	122.96	118.60
26	14	769	G	O5'-P-OP2	-7.26	99.17	105.70
1	13	422	C	C2-N3-C4	7.26	123.53	119.90
26	14	1026	U	C5-C6-N1	7.26	126.33	122.70
23	2K	17	C	C2-N1-C1'	7.25	126.78	118.80
26	1H	1382	G	C5-C6-O6	-7.25	124.25	128.60
26	1H	1224	G	C8-N9-C4	7.25	109.30	106.40
1	1G	1449	C	C2-N1-C1'	7.25	126.78	118.80
26	1H	1210	A	C5-N7-C8	-7.25	100.28	103.90
27	1J	6	C	C5-C6-N1	-7.25	117.38	121.00
26	1H	2247	A	C5-C6-N6	7.25	129.50	123.70
26	14	127	A	C5-C6-N6	-7.24	117.91	123.70
26	14	1900	A	N1-C6-N6	7.24	122.94	118.60
26	14	783	A	N1-C2-N3	7.24	132.92	129.30
26	1H	209	C	N3-C4-C5	7.23	124.79	121.90
26	1H	1313	U	C2-N1-C1'	7.23	126.38	117.70
26	1H	472	A	N1-C2-N3	7.23	132.91	129.30
26	14	752	A	N7-C8-N9	7.23	117.42	113.80
26	14	748	G	N1-C6-O6	-7.22	115.56	119.90
26	14	2702	U	C2-N1-C1'	7.22	126.37	117.70
1	1G	1200	C	C6-N1-C1'	-7.22	112.13	120.80
26	14	1615	C	C6-N1-C2	-7.22	117.41	120.30
26	1H	606	U	O5'-P-OP2	-7.22	99.20	105.70
1	1G	913	A	P-O3'-C3'	7.22	128.36	119.70
26	14	567	A	N1-C6-N6	7.22	122.93	118.60
26	1H	124	G	C5-C6-O6	-7.21	124.27	128.60
26	14	565	C	C5-C6-N1	-7.21	117.39	121.00
1	13	52	G	C6-C5-N7	-7.21	126.08	130.40
26	14	2210	G	C4-N9-C1'	7.20	135.86	126.50
26	1H	2573	C	C6-N1-C2	-7.19	117.42	120.30
26	1H	691	C	C5-C6-N1	-7.19	117.41	121.00
26	14	1993	U	O5'-P-OP1	-7.19	99.23	105.70
27	1J	88	C	C5-C6-N1	7.19	124.60	121.00
26	1H	2401	U	C5-C6-N1	7.19	126.29	122.70
26	14	791	C	C6-N1-C2	7.18	123.17	120.30
26	1H	1187	G	C6-C5-N7	-7.18	126.09	130.40
1	1G	180	U	C5-C6-N1	7.18	126.29	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1980	G	C5-C6-O6	-7.18	124.29	128.60
26	1H	1187	G	N1-C6-O6	7.18	124.21	119.90
26	1H	1347	G	C5-C6-O6	-7.17	124.30	128.60
26	1H	2638	G	N3-C4-C5	-7.17	125.01	128.60
26	14	455	C	C6-N1-C2	7.17	123.17	120.30
26	14	1762	A	N1-C2-N3	7.17	132.88	129.30
26	1H	2346	A	C5-N7-C8	-7.16	100.32	103.90
26	14	528	A	N3-C4-C5	7.16	131.81	126.80
26	1H	1142(A)	A	N3-C4-N9	-7.15	121.68	127.40
26	14	1254	A	N1-C2-N3	7.15	132.88	129.30
26	1H	501	A	O5'-P-OP2	-7.15	99.27	105.70
26	14	1786	A	N9-C1'-C2'	7.15	123.29	114.00
26	1H	762	U	C5-C4-O4	-7.14	121.61	125.90
26	1H	1377	G	C4-C5-N7	-7.14	107.94	110.80
26	1H	444	C	OP1-P-OP2	-7.14	108.89	119.60
26	1H	245	G	C4-C5-N7	7.14	113.66	110.80
26	1H	2308	G	C6-N1-C2	7.14	129.38	125.10
26	1H	965	C	C6-N1-C2	-7.13	117.45	120.30
26	14	2685	G	C4-C5-N7	-7.13	107.95	110.80
1	13	968	A	N1-C6-N6	7.13	122.88	118.60
1	13	789	U	N3-C2-O2	-7.13	117.21	122.20
26	14	1698	A	C5-N7-C8	-7.12	100.34	103.90
26	14	1828	G	C5-C6-O6	7.12	132.87	128.60
26	14	1518	C	O5'-P-OP1	-7.12	99.29	105.70
26	1H	108	U	O5'-P-OP1	-7.12	99.29	105.70
26	1H	1158	C	C5-C6-N1	-7.12	117.44	121.00
26	1H	1632	A	N9-C4-C5	-7.12	102.95	105.80
1	1G	36	C	C6-N1-C2	-7.12	117.45	120.30
26	1H	71	A	C4-C5-N7	7.12	114.26	110.70
26	1H	452	G	N9-C4-C5	7.11	108.25	105.40
26	1H	693	C	OP2-P-O3'	7.11	120.85	105.20
27	16	47	C	C6-N1-C2	7.11	123.14	120.30
26	1H	845	G	P-O3'-C3'	7.11	128.23	119.70
26	14	330	A	C5-N7-C8	-7.11	100.34	103.90
26	14	1142	U	C6-N1-C1'	-7.11	111.24	121.20
26	14	2591	C	N1-C2-O2	-7.11	114.63	118.90
26	1H	917	A	C6-C5-N7	-7.11	127.33	132.30
26	1H	1957	C	C6-N1-C2	-7.11	117.46	120.30
48	F5	97	LEU	CA-CB-CG	7.11	131.65	115.30
26	1H	335	C	C6-N1-C2	-7.10	117.46	120.30
26	1H	410	G	O5'-P-OP2	7.10	119.22	110.70
26	1H	821	A	OP1-P-OP2	7.10	130.25	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1936	A	O4'-C1'-N9	7.10	113.88	108.20
26	1H	138	G	C5-N7-C8	-7.10	100.75	104.30
26	1H	1385	G	N3-C4-N9	-7.10	121.74	126.00
26	14	2029	G	O5'-P-OP1	-7.10	99.31	105.70
1	1G	576	G	C8-N9-C1'	-7.09	117.78	127.00
1	1G	320	C	C6-N1-C2	7.09	123.14	120.30
1	13	971	G	O5'-P-OP2	-7.09	99.32	105.70
26	1H	74	A	N7-C8-N9	7.09	117.34	113.80
26	1H	265	A	N1-C6-N6	7.08	122.85	118.60
26	1H	2827	C	N1-C2-O2	-7.08	114.65	118.90
26	1H	641	C	O5'-P-OP1	-7.08	99.33	105.70
26	1H	1021	A	C4-C5-N7	7.08	114.24	110.70
26	14	2755	C	C2-N1-C1'	7.08	126.58	118.80
26	1H	2622	C	O5'-P-OP2	-7.08	99.33	105.70
36	35	65	ARG	N-CA-C	-7.08	91.89	111.00
26	1H	51	G	N3-C4-C5	-7.08	125.06	128.60
26	1H	71	A	N3-C4-N9	-7.08	121.74	127.40
26	14	774	A	C4-C5-C6	-7.07	113.46	117.00
32	59	153	LYS	C-N-CD	7.07	143.25	128.40
26	1H	470	A	N1-C6-N6	7.07	122.84	118.60
26	14	1332	G	N9-C4-C5	-7.07	102.57	105.40
26	1H	1621	U	N1-C2-O2	-7.06	117.86	122.80
26	1H	389	G	N1-C6-O6	7.06	124.14	119.90
26	1H	979	G	N1-C6-O6	7.06	124.14	119.90
1	13	266	G	C6-C5-N7	-7.06	126.17	130.40
26	1H	510	C	O5'-P-OP2	-7.06	99.35	105.70
26	1H	123	G	C5-C6-O6	-7.06	124.37	128.60
26	1H	1379	A	C6-C5-N7	-7.06	127.36	132.30
26	1H	138	G	O4'-C1'-N9	7.06	113.84	108.20
26	1H	928	G	N1-C6-O6	7.06	124.13	119.90
26	14	1253	A	N1-C6-N6	7.05	122.83	118.60
26	14	2713	A	C5-N7-C8	-7.05	100.37	103.90
1	13	826	C	C5-C6-N1	7.05	124.53	121.00
26	1H	698	C	O5'-P-OP2	-7.05	99.36	105.70
26	14	672	C	O5'-P-OP2	-7.05	99.36	105.70
1	13	422	C	C2-N1-C1'	7.04	126.55	118.80
26	14	1192	G	C8-N9-C4	7.04	109.22	106.40
26	14	1696	G	O5'-P-OP2	-7.04	99.36	105.70
26	1H	762	U	N1-C2-O2	7.04	127.73	122.80
26	1H	1794	U	N1-C2-N3	7.04	119.12	114.90
26	1H	140	A	C2-N3-C4	-7.04	107.08	110.60
26	1H	757	U	C5-C4-O4	7.04	130.12	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1332	G	N1-C2-N3	7.03	128.12	123.90
26	1H	1618	A	C8-N9-C4	-7.03	102.99	105.80
26	1H	676	A	OP1-P-OP2	7.03	130.14	119.60
26	14	558	G	C8-N9-C4	7.03	109.21	106.40
26	14	2504	U	N3-C2-O2	-7.03	117.28	122.20
26	1H	1258	C	OP2-P-O3'	7.02	120.65	105.20
26	1H	2702	U	C6-N1-C2	-7.02	116.79	121.00
26	14	2597	G	C6-C5-N7	-7.02	126.19	130.40
1	1G	854	G	C8-N9-C4	-7.02	103.59	106.40
26	14	2501	C	C2-N1-C1'	-7.02	111.08	118.80
26	1H	2419	U	O5'-P-OP1	-7.02	99.39	105.70
26	14	797	C	N3-C4-C5	-7.02	119.09	121.90
26	1H	1440	G	C5-C6-O6	7.01	132.81	128.60
26	1H	1528	A	O4'-C1'-N9	7.01	113.81	108.20
26	1H	679	C	C5-C6-N1	-7.01	117.49	121.00
26	1H	694	U	O5'-P-OP2	-7.01	99.39	105.70
26	1H	2591	C	N1-C2-O2	-7.01	114.69	118.90
26	1H	130	C	C6-N1-C2	7.01	123.10	120.30
26	1H	139	G	N3-C4-C5	-7.01	125.09	128.60
1	1G	890	G	O4'-C1'-N9	7.01	113.81	108.20
1	1G	536	C	C6-N1-C2	-7.00	117.50	120.30
22	1K	83	C	C6-N1-C1'	-7.00	112.39	120.80
26	1H	1352	U	N1-C2-O2	-7.00	117.90	122.80
26	1H	2033	A	C8-N9-C4	-7.00	103.00	105.80
26	1H	2312	U	O5'-P-OP1	-7.00	99.40	105.70
26	1H	2490	G	N7-C8-N9	7.00	116.60	113.10
26	1H	1632	A	C5-N7-C8	-7.00	100.40	103.90
26	1H	1943	U	O5'-P-OP2	-7.00	99.40	105.70
26	1H	2392	A	C2-N3-C4	-7.00	107.10	110.60
26	1H	1300	U	N1-C2-N3	7.00	119.10	114.90
26	1H	1377	G	N3-C4-C5	-7.00	125.10	128.60
26	1H	1888	G	N3-C4-C5	-7.00	125.10	128.60
26	1H	1191	G	C8-N9-C4	7.00	109.20	106.40
26	1H	913	U	N3-C4-C5	6.99	118.80	114.60
26	1H	1334	G	O5'-P-OP2	6.99	119.09	110.70
1	1G	1529	G	C8-N9-C4	-6.99	103.60	106.40
23	2L	40	C	O5'-P-OP1	-6.99	99.41	105.70
26	1H	1303	G	N1-C6-O6	-6.98	115.71	119.90
1	1G	690	G	C8-N9-C4	-6.98	103.61	106.40
26	1H	1325	G	O5'-P-OP2	6.98	119.08	110.70
26	1H	2002	G	C4-C5-N7	6.98	113.59	110.80
26	14	252	G	O5'-P-OP1	6.98	119.08	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	689	A	O5'-P-OP2	-6.98	99.42	105.70
26	1H	2473	U	C2-N1-C1'	6.98	126.07	117.70
26	14	691	C	C5-C6-N1	-6.98	117.51	121.00
26	14	1807	G	O5'-P-OP2	-6.98	99.42	105.70
22	1K	85	A	O4'-C1'-N9	6.98	113.78	108.20
26	14	2307	G	N7-C8-N9	6.98	116.59	113.10
26	1H	26	G	N3-C4-C5	-6.97	125.11	128.60
26	1H	2030	A	C8-N9-C4	6.97	108.59	105.80
26	14	624	C	N1-C2-O2	-6.97	114.72	118.90
26	1H	809	G	C8-N9-C4	6.97	109.19	106.40
26	1H	2615	U	O5'-P-OP2	-6.97	99.43	105.70
26	1H	641	C	O5'-P-OP2	6.96	119.06	110.70
26	1H	140	A	OP2-P-O3'	6.96	120.51	105.20
26	14	1830	C	C2-N1-C1'	6.96	126.45	118.80
1	13	856	C	C6-N1-C2	-6.96	117.52	120.30
26	14	752	A	C8-N9-C4	-6.96	103.02	105.80
26	1H	1994	C	O5'-P-OP2	-6.95	99.44	105.70
26	14	945	A	C6-C5-N7	-6.95	127.43	132.30
26	14	2441	C	N3-C2-O2	-6.95	117.03	121.90
26	1H	1307	A	N1-C6-N6	6.95	122.77	118.60
26	1H	1558	A	P-O3'-C3'	6.95	128.03	119.70
26	14	659	C	O5'-P-OP2	-6.95	99.45	105.70
1	13	354	G	O5'-P-OP2	-6.94	99.45	105.70
26	14	2067	G	N3-C2-N2	-6.94	115.04	119.90
26	14	2249	U	N3-C4-C5	-6.94	110.43	114.60
26	1H	1958	C	N1-C2-O2	-6.94	114.74	118.90
1	13	1158	C	C2-N1-C1'	6.94	126.43	118.80
26	1H	1649	G	N3-C4-C5	-6.94	125.13	128.60
1	13	1158	C	C6-N1-C2	-6.93	117.53	120.30
26	14	204	A	P-O3'-C3'	6.93	128.02	119.70
26	1H	452	G	C2-N3-C4	6.93	115.37	111.90
26	1H	1621	U	N3-C2-O2	6.93	127.05	122.20
1	13	820	U	OP2-P-O3'	6.93	120.44	105.20
26	1H	1698	A	C6-C5-N7	-6.93	127.45	132.30
26	14	2080	G	O5'-P-OP2	-6.93	99.47	105.70
1	13	606	G	N3-C4-N9	6.93	130.16	126.00
26	1H	1616	A	OP1-P-O3'	6.92	120.44	105.20
26	1H	2307	G	C4-N9-C1'	6.92	135.50	126.50
26	1H	2377	A	C2-N3-C4	-6.92	107.14	110.60
26	14	2430	A	C4-C5-C6	6.92	120.46	117.00
26	1H	2439	A	P-O3'-C3'	6.92	128.01	119.70
26	1H	1786	A	C4-C5-C6	6.92	120.46	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	954	G	N3-C2-N2	-6.92	115.06	119.90
26	1H	1301	A	N1-C6-N6	6.92	122.75	118.60
26	14	675	A	C8-N9-C4	6.92	108.57	105.80
36	78	59	LEU	CA-CB-CG	6.91	131.20	115.30
26	14	1943	U	N1-C2-O2	-6.91	117.96	122.80
26	1H	1621	U	O5'-P-OP1	-6.91	99.48	105.70
23	2L	40	C	C6-N1-C2	-6.91	117.54	120.30
26	1H	1199	U	C5-C6-N1	-6.90	119.25	122.70
26	14	664	C	C5-C6-N1	-6.90	117.55	121.00
26	1H	132	G	O5'-P-OP1	-6.90	99.49	105.70
26	1H	2447	G	C6-N1-C2	-6.90	120.96	125.10
26	1H	598	G	O5'-P-OP2	-6.90	99.49	105.70
26	1H	586	A	O5'-P-OP1	-6.90	99.49	105.70
26	1H	2232	U	C5-C4-O4	6.90	130.04	125.90
23	2K	9	G	N1-C6-O6	6.90	124.04	119.90
26	14	2426	A	N9-C4-C5	-6.89	103.04	105.80
1	13	809	G	C5-C6-O6	6.89	132.74	128.60
26	14	1914	C	C6-N1-C2	-6.89	117.54	120.30
1	13	4	U	C2-N1-C1'	6.89	125.97	117.70
26	14	2688	U	C5-C4-O4	6.89	130.03	125.90
26	1H	1559	G	N1-C6-O6	6.89	124.03	119.90
26	1H	2552	U	N1-C2-N3	6.89	119.03	114.90
26	14	2281	C	C2-N1-C1'	6.89	126.38	118.80
26	1H	245	G	C8-N9-C1'	-6.89	118.05	127.00
26	14	2439	A	P-O3'-C3'	6.89	127.96	119.70
26	1H	1626	G	O5'-P-OP2	6.88	118.96	110.70
1	13	50	A	C8-N9-C4	-6.88	103.05	105.80
26	1H	389	G	N3-C4-N9	6.88	130.13	126.00
26	1H	738	G	N1-C6-O6	6.88	124.03	119.90
26	1H	842	G	N1-C6-O6	6.88	124.03	119.90
26	14	828	U	C4-C5-C6	6.88	123.83	119.70
26	14	856	C	N1-C2-O2	-6.88	114.77	118.90
26	1H	1757	U	C5-C6-N1	-6.88	119.26	122.70
26	14	530	G	C8-N9-C1'	-6.88	118.06	127.00
26	14	774	A	C8-N9-C1'	6.88	140.08	127.70
26	1H	1314	C	N1-C2-O2	6.88	123.03	118.90
26	1H	2610	C	N1-C2-O2	6.88	123.03	118.90
26	1H	784	A	N9-C4-C5	6.87	108.55	105.80
26	14	2592	G	C4-N9-C1'	6.87	135.44	126.50
1	1G	569	C	N3-C2-O2	-6.87	117.09	121.90
26	14	1644	C	C6-N1-C2	-6.87	117.55	120.30
1	13	529	G	C4-C5-N7	6.86	113.55	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	623	G	C5-C6-O6	-6.86	124.48	128.60
26	14	90	U	N3-C2-O2	-6.86	117.40	122.20
26	1H	2205	C	N3-C2-O2	-6.86	117.10	121.90
26	1H	2412	A	C6-N1-C2	-6.86	114.48	118.60
26	14	1674	G	C5-C6-O6	-6.86	124.48	128.60
26	14	2441	C	N3-C4-N4	-6.86	113.20	118.00
26	1H	1428	C	C6-N1-C2	6.85	123.04	120.30
26	1H	2328	A	N1-C2-N3	6.85	132.73	129.30
26	14	647	G	C6-C5-N7	-6.85	126.29	130.40
1	13	32	A	C8-N9-C4	-6.85	103.06	105.80
26	14	471	A	C2-N3-C4	-6.85	107.18	110.60
1	13	1336	C	C5-C6-N1	6.84	124.42	121.00
26	14	2356	C	C6-N1-C2	6.84	123.04	120.30
1	13	757	U	O5'-P-OP2	-6.84	99.54	105.70
26	1H	757	U	N3-C4-O4	-6.84	114.61	119.40
26	14	2443	C	C2-N3-C4	-6.84	116.48	119.90
26	1H	1614	A	O4'-C1'-N9	6.84	113.67	108.20
26	1H	1900	A	O5'-P-OP2	-6.84	99.55	105.70
26	1H	2686	G	N3-C4-N9	6.84	130.10	126.00
1	1G	632	A	O4'-C1'-N9	6.84	113.67	108.20
26	14	1400	G	O5'-P-OP1	6.84	118.91	110.70
26	1H	1626	G	N3-C2-N2	-6.83	115.12	119.90
26	14	2821	A	C2-N3-C4	-6.83	107.19	110.60
26	1H	528	A	C5-N7-C8	-6.82	100.49	103.90
26	1H	2576	G	C8-N9-C4	6.82	109.13	106.40
26	1H	623	G	O5'-P-OP2	-6.82	99.57	105.70
26	14	2060	A	C8-N9-C4	-6.82	103.07	105.80
26	14	250	G	C5-C6-O6	-6.81	124.51	128.60
26	14	710	G	N1-C6-O6	6.81	123.99	119.90
26	1H	245	G	C4-N9-C1'	6.81	135.35	126.50
26	1H	330	A	C2-N3-C4	-6.81	107.19	110.60
1	1G	691	G	C6-C5-N7	-6.81	126.31	130.40
26	14	2593	U	C5-C4-O4	-6.81	121.82	125.90
26	1H	835	A	N3-C4-C5	-6.80	122.04	126.80
26	14	2595	G	C5-N7-C8	-6.80	100.90	104.30
26	1H	74	A	C5-N7-C8	-6.80	100.50	103.90
1	13	960	U	C2-N1-C1'	6.80	125.86	117.70
26	1H	444	C	O5'-P-OP1	6.80	118.86	110.70
26	1H	782	A	C6-N1-C2	-6.80	114.52	118.60
25	4L	12	A	P-O3'-C3'	6.80	127.86	119.70
26	14	298	G	N1-C6-O6	6.80	123.98	119.90
26	14	1644	C	N3-C2-O2	-6.80	117.14	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	621	A	C4-C5-N7	6.79	114.10	110.70
29	29	78	LEU	CA-CB-CG	6.79	130.93	115.30
26	1H	1613	G	N1-C6-O6	-6.79	115.83	119.90
26	1H	2247	A	C5-C6-N1	-6.79	114.30	117.70
26	14	140	A	C8-N9-C4	-6.79	103.08	105.80
1	1G	1499	A	C8-N9-C4	6.79	108.52	105.80
26	1H	2346	A	C4-N9-C1'	6.79	138.51	126.30
26	14	1255	U	O5'-P-OP2	-6.79	99.59	105.70
1	1G	690	G	O4'-C1'-N9	6.78	113.63	108.20
26	1H	735	A	N9-C4-C5	-6.78	103.09	105.80
1	13	1158	C	N3-C2-O2	-6.78	117.16	121.90
26	1H	471	A	C2-N3-C4	-6.78	107.21	110.60
27	16	49	C	C5-C4-N4	-6.78	115.46	120.20
26	14	913	U	O5'-P-OP2	-6.78	99.60	105.70
26	1H	51	G	N3-C4-N9	6.78	130.06	126.00
1	1G	1142	G	N1-C6-O6	-6.78	115.83	119.90
1	13	632	A	N1-C6-N6	6.77	122.66	118.60
26	1H	1806	C	OP1-P-OP2	6.77	129.76	119.60
26	1H	2318	G	C4-N9-C1'	6.77	135.31	126.50
26	1H	2686	G	N3-C4-C5	-6.77	125.21	128.60
26	14	1329	U	N1-C2-O2	-6.77	118.06	122.80
26	1H	1603	A	OP1-P-O3'	6.77	120.10	105.20
26	14	1914	C	C2-N1-C1'	6.77	126.25	118.80
26	1H	2830	G	C8-N9-C4	-6.77	103.69	106.40
26	14	1443	G	N1-C6-O6	6.77	123.96	119.90
1	13	1279	A	N1-C6-N6	6.77	122.66	118.60
26	14	1684	C	N1-C2-O2	-6.77	114.84	118.90
1	1G	413	G	C6-C5-N7	6.77	134.46	130.40
1	13	963	G	N3-C2-N2	6.76	124.64	119.90
1	1G	519	C	C6-N1-C2	6.76	123.01	120.30
26	14	681	G	C8-N9-C4	6.76	109.11	106.40
26	1H	632	A	O5'-P-OP2	6.76	118.82	110.70
26	1H	2391	G	OP1-P-O3'	6.76	120.08	105.20
26	1H	2030	A	N1-C6-N6	6.76	122.66	118.60
27	16	44	G	C4-N9-C1'	-6.76	117.71	126.50
1	1G	449	C	N3-C2-O2	-6.76	117.17	121.90
26	1H	746	A	O5'-P-OP2	6.76	118.81	110.70
26	1H	790	C	N3-C2-O2	6.76	126.63	121.90
26	14	140	A	C4-C5-N7	6.76	114.08	110.70
1	1G	690	G	O5'-P-OP2	-6.75	99.62	105.70
26	1H	238	C	C5-C6-N1	-6.75	117.62	121.00
26	1H	1700	A	O5'-P-OP2	-6.75	99.62	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	988	G	N3-C4-C5	-6.75	125.22	128.60
1	1G	1322	C	N1-C2-O2	6.75	122.95	118.90
26	1H	1257	C	N1-C2-O2	-6.75	114.85	118.90
26	1H	930	U	N3-C4-O4	-6.75	114.68	119.40
26	14	1674	G	C6-C5-N7	-6.75	126.35	130.40
26	1H	121	G	C5-C6-N1	6.74	114.87	111.50
26	1H	2277	G	C4-C5-N7	-6.74	108.10	110.80
26	14	1142(A)	A	N1-C2-N3	6.74	132.67	129.30
26	1H	203	C	O5'-P-OP2	6.74	118.79	110.70
26	1H	736	C	O5'-P-OP2	6.74	118.79	110.70
26	1H	321	G	C6-C5-N7	-6.74	126.36	130.40
26	1H	2689	U	C5-C6-N1	-6.74	119.33	122.70
26	1H	2297	C	N3-C2-O2	-6.74	117.19	121.90
26	14	2542	A	C8-N9-C4	6.74	108.49	105.80
26	14	2506	U	C2-N1-C1'	6.73	125.78	117.70
26	14	459	U	O5'-P-OP2	-6.73	99.64	105.70
26	14	2436	G	O5'-P-OP1	-6.73	99.64	105.70
1	13	1505	G	OP1-P-OP2	-6.73	109.51	119.60
26	1H	871	U	N1-C2-O2	-6.73	118.09	122.80
26	1H	2294	C	C6-N1-C2	-6.73	117.61	120.30
26	14	1558	A	N1-C2-N3	6.73	132.66	129.30
1	13	721	G	N3-C4-N9	6.72	130.03	126.00
1	13	1198	G	O5'-P-OP2	6.72	118.77	110.70
26	1H	2699	C	C5-C6-N1	-6.72	117.64	121.00
1	1G	1498	U	P-O3'-C3'	6.72	127.77	119.70
26	14	130	C	C6-N1-C2	6.72	122.99	120.30
26	1H	1772	G	C5-C6-O6	6.72	132.63	128.60
26	14	570	G	N1-C2-N2	-6.72	110.15	116.20
26	14	1839	G	O5'-P-OP1	-6.72	99.65	105.70
26	14	2824	C	N1-C2-O2	-6.72	114.87	118.90
26	1H	85	G	O5'-P-OP1	6.72	118.76	110.70
26	14	1614	A	C6-C5-N7	-6.72	127.60	132.30
1	1G	1524	C	N1-C2-O2	-6.72	114.87	118.90
26	14	1616	A	O4'-C1'-N9	6.72	113.57	108.20
26	1H	1021	A	N3-C4-C5	6.71	131.50	126.80
26	14	2617	C	C6-N1-C2	6.71	122.99	120.30
26	1H	1295	C	N1-C2-O2	-6.71	114.87	118.90
26	1H	1681	G	C4-N9-C1'	-6.71	117.77	126.50
26	14	1926	U	N3-C2-O2	-6.71	117.50	122.20
26	1H	59	U	N3-C4-C5	-6.71	110.58	114.60
1	13	41	G	C8-N9-C4	6.71	109.08	106.40
26	1H	139	G	C2-N3-C4	6.71	115.25	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	788	A	N9-C4-C5	-6.71	103.12	105.80
26	1H	1355	G	N1-C6-O6	-6.71	115.88	119.90
1	13	1336	C	C6-N1-C2	-6.70	117.62	120.30
26	1H	219	G	C5-N7-C8	6.70	107.65	104.30
26	14	792	G	N3-C4-C5	-6.70	125.25	128.60
26	1H	1513	C	C5-C6-N1	6.70	124.35	121.00
26	14	71	A	N1-C6-N6	6.70	122.62	118.60
1	13	1301	U	C6-N1-C1'	-6.70	111.82	121.20
26	14	1382	G	N1-C6-O6	6.70	123.92	119.90
26	1H	1378	A	C2-N3-C4	-6.70	107.25	110.60
26	14	2072	G	OP1-P-O3'	6.70	119.93	105.20
26	1H	454	A	C8-N9-C4	6.70	108.48	105.80
26	14	682	G	O5'-P-OP2	-6.70	99.67	105.70
1	13	122	G	N1-C6-O6	6.69	123.92	119.90
26	1H	127	A	C8-N9-C4	6.69	108.48	105.80
1	13	579	G	O5'-P-OP2	-6.69	99.68	105.70
26	14	570	G	N1-C6-O6	-6.69	115.88	119.90
26	14	668	G	N3-C4-C5	6.69	131.95	128.60
26	1H	2070	G	N1-C2-N2	-6.69	110.18	116.20
26	14	2002	G	N3-C2-N2	6.69	124.58	119.90
26	1H	2590	A	N1-C2-N3	6.69	132.64	129.30
26	14	2001	A	OP1-P-OP2	-6.69	109.57	119.60
26	1H	1698	A	N1-C6-N6	6.68	122.61	118.60
26	14	733	G	C8-N9-C1'	-6.68	118.31	127.00
26	1H	1602	U	O5'-P-OP1	-6.68	99.69	105.70
26	1H	2441	C	C6-N1-C1'	6.68	128.82	120.80
26	14	140	A	N1-C6-N6	6.68	122.61	118.60
26	14	929	G	N1-C6-O6	6.68	123.91	119.90
26	14	1314	C	C6-N1-C1'	-6.68	112.78	120.80
26	14	1241	A	N1-C6-N6	6.68	122.61	118.60
26	1H	1660	C	C2-N3-C4	-6.68	116.56	119.90
26	1H	2382	G	O5'-P-OP1	6.68	118.71	110.70
26	14	74	A	N3-C4-C5	6.67	131.47	126.80
26	14	2429	G	OP1-P-OP2	-6.67	109.59	119.60
26	1H	1416	G	O4'-C1'-N9	6.67	113.53	108.20
40	B8	105	LEU	CA-CB-CG	6.67	130.63	115.30
26	14	127	A	C5-C6-N1	6.67	121.03	117.70
26	1H	2621	A	C2-N3-C4	-6.67	107.27	110.60
26	1H	938	G	C5-C6-O6	6.66	132.60	128.60
26	1H	2261	C	OP2-P-O3'	6.66	119.86	105.20
26	14	1698	A	N9-C4-C5	-6.66	103.14	105.80
1	13	1279	A	C6-C5-N7	-6.66	127.64	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	130	C	C5-C6-N1	-6.66	117.67	121.00
26	14	2430	A	O5'-P-OP2	6.66	118.69	110.70
23	2K	74	A	N1-C6-N6	6.65	122.59	118.60
26	1H	2067	G	C5-C6-O6	6.65	132.59	128.60
26	14	242	G	C4-N9-C1'	-6.65	117.85	126.50
26	1H	55	G	OP1-P-O3'	6.65	119.82	105.20
26	1H	825	C	C5-C4-N4	-6.65	115.55	120.20
26	1H	1773	A	O5'-P-OP1	6.65	118.68	110.70
26	14	2087	G	N3-C4-N9	6.65	129.99	126.00
26	14	2592	G	C6-C5-N7	-6.65	126.41	130.40
26	1H	1905	C	P-O3'-C3'	6.64	127.67	119.70
26	1H	2575	C	C5-C6-N1	-6.64	117.68	121.00
26	14	1896	G	N1-C6-O6	-6.64	115.91	119.90
26	14	2062	A	C4-N9-C1'	-6.64	114.34	126.30
26	1H	729	G	C8-N9-C4	-6.64	103.74	106.40
26	14	1128	A	C5-C6-N1	6.64	121.02	117.70
26	1H	908	C	OP2-P-O3'	6.64	119.81	105.20
26	1H	2713	A	N1-C6-N6	6.64	122.58	118.60
26	1H	451	C	C2-N1-C1'	-6.64	111.50	118.80
23	2L	21	U	N3-C2-O2	-6.64	117.55	122.20
26	14	737	C	N1-C2-O2	-6.64	114.92	118.90
26	14	1299	G	O5'-P-OP1	-6.64	99.73	105.70
26	14	2287	A	C8-N9-C4	6.63	108.45	105.80
26	1H	1599	C	N3-C2-O2	-6.63	117.26	121.90
26	14	1678	G	C8-N9-C4	-6.63	103.75	106.40
26	1H	2347	C	OP2-P-O3'	6.63	119.78	105.20
27	16	49	C	N3-C4-N4	6.63	122.64	118.00
1	1G	84	U	C2-N1-C1'	6.63	125.65	117.70
1	13	893	C	N3-C2-O2	-6.62	117.26	121.90
26	1H	41	C	C6-N1-C2	-6.62	117.65	120.30
26	1H	389	G	C5-C6-O6	-6.62	124.63	128.60
1	1G	913	A	C8-N9-C4	-6.62	103.15	105.80
26	14	772	C	O5'-P-OP1	-6.62	99.74	105.70
1	13	172	A	C8-N9-C4	-6.62	103.15	105.80
26	1H	1564	C	N3-C4-N4	-6.62	113.37	118.00
26	1H	974(A)	C	N3-C4-N4	-6.62	113.37	118.00
26	1H	189	G	C8-N9-C4	6.62	109.05	106.40
26	14	2051	A	N7-C8-N9	6.62	117.11	113.80
26	14	1607	C	C5-C6-N1	6.61	124.31	121.00
26	14	2077	A	N1-C2-N3	6.61	132.61	129.30
26	14	1434	A	C8-N9-C4	6.61	108.44	105.80
26	14	2035	G	O4'-C1'-N9	6.61	113.49	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2490	G	N3-C4-N9	-6.61	122.03	126.00
1	13	1266	G	N3-C4-N9	-6.61	122.04	126.00
1	13	733	A	C8-N9-C4	6.60	108.44	105.80
1	1G	1139	G	C4-N9-C1'	-6.60	117.92	126.50
26	14	315	G	C6-C5-N7	-6.60	126.44	130.40
26	14	1408	C	N1-C2-O2	-6.60	114.94	118.90
26	14	2598	A	C4-C5-N7	6.60	114.00	110.70
26	1H	633	A	N1-C6-N6	6.60	122.56	118.60
26	1H	1782	C	O5'-P-OP1	-6.60	99.76	105.70
26	1H	530	G	N7-C8-N9	6.60	116.40	113.10
26	1H	1987	G	N9-C4-C5	6.59	108.04	105.40
26	1H	2205	C	N1-C2-O2	6.59	122.86	118.90
26	1H	2033	A	N7-C8-N9	6.59	117.10	113.80
1	1G	569	C	N1-C2-O2	6.59	122.86	118.90
26	14	2077	A	C6-N1-C2	-6.59	114.64	118.60
26	14	684	G	N9-C4-C5	6.59	108.04	105.40
26	1H	691	C	N3-C2-O2	6.59	126.51	121.90
26	1H	859	G	N3-C4-C5	6.59	131.90	128.60
1	1G	353	A	N7-C8-N9	6.59	117.09	113.80
26	14	2067	G	N9-C4-C5	6.59	108.03	105.40
26	1H	1534	G	C2-N3-C4	6.58	115.19	111.90
26	1H	1429	G	C5-C6-O6	6.58	132.55	128.60
1	13	703	G	C4-N9-C1'	6.58	135.06	126.50
26	14	409	C	C5-C4-N4	-6.58	115.59	120.20
1	13	666	G	O5'-P-OP1	-6.58	99.78	105.70
36	78	23	PRO	C-N-CA	-6.58	108.49	122.30
1	13	1219	U	C5-C6-N1	6.57	125.99	122.70
26	1H	2609	U	C5-C6-N1	-6.57	119.41	122.70
26	1H	2613	U	P-O3'-C3'	6.57	127.58	119.70
26	14	1582	C	N1-C2-O2	6.57	122.84	118.90
26	1H	727	A	O5'-P-OP1	-6.57	99.79	105.70
1	1G	1335	C	C6-N1-C2	6.57	122.93	120.30
26	14	1918	A	N9-C4-C5	-6.57	103.17	105.80
26	14	2873	A	C5-C6-N1	-6.57	114.42	117.70
1	13	1336	C	N3-C2-O2	-6.57	117.30	121.90
26	1H	790	C	C6-N1-C2	6.57	122.93	120.30
26	14	330	A	C4-C5-N7	6.57	113.98	110.70
26	14	2714	G	O5'-P-OP2	-6.57	99.79	105.70
26	1H	1192	G	C8-N9-C4	6.56	109.03	106.40
26	14	462	C	O5'-P-OP2	-6.56	99.80	105.70
26	14	2838	G	C5-C6-O6	-6.56	124.66	128.60
26	1H	2544	G	N3-C2-N2	-6.56	115.31	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	16	49	C	C5-C6-N1	6.56	124.28	121.00
26	14	1624	G	C5-C6-O6	-6.56	124.67	128.60
26	14	2501	C	N1-C2-O2	-6.56	114.97	118.90
45	C5	103	GLY	N-CA-C	6.55	129.49	113.10
26	1H	1472	A	N1-C6-N6	-6.55	114.67	118.60
26	1H	2000	G	N1-C2-N3	6.55	127.83	123.90
26	14	2307	G	C8-N9-C1'	-6.55	118.48	127.00
26	1H	2578	G	C5-C6-O6	6.55	132.53	128.60
26	14	1698	A	N1-C2-N3	6.55	132.57	129.30
26	14	2873	A	N1-C6-N6	6.55	122.53	118.60
26	14	121	G	N9-C4-C5	-6.55	102.78	105.40
26	1H	389	G	C4-N9-C1'	6.54	135.01	126.50
26	1H	1158	C	C2-N3-C4	-6.54	116.63	119.90
26	1H	2330	G	C6-C5-N7	-6.54	126.47	130.40
26	1H	1380	G	C6-C5-N7	-6.54	126.47	130.40
26	14	733	G	C4-N9-C1'	6.54	135.01	126.50
26	1H	2002	G	C5-N7-C8	-6.54	101.03	104.30
1	1G	841	U	C5-C6-N1	6.54	125.97	122.70
26	14	1695	G	C6-C5-N7	-6.54	126.48	130.40
26	1H	2617	C	N1-C2-O2	-6.54	114.98	118.90
26	14	1678	G	N3-C4-C5	6.54	131.87	128.60
1	13	452	A	C8-N9-C4	6.54	108.41	105.80
26	14	2335	A	O4'-C1'-N9	6.54	113.43	108.20
26	14	945	A	O4'-C1'-N9	6.53	113.42	108.20
1	13	1281	U	N1-C2-O2	6.53	127.37	122.80
26	1H	1607	C	N3-C4-N4	6.53	122.57	118.00
26	1H	682	G	O5'-P-OP2	-6.53	99.82	105.70
1	13	1227	A	C4-C5-N7	6.53	113.96	110.70
26	14	2610	C	N1-C2-O2	6.53	122.82	118.90
23	2K	9	G	C5-C6-O6	-6.53	124.69	128.60
26	1H	463	G	N3-C2-N2	6.53	124.47	119.90
26	14	782	A	C6-N1-C2	-6.53	114.69	118.60
26	14	2607	G	O5'-P-OP1	6.53	118.53	110.70
1	13	1335	C	C6-N1-C2	6.52	122.91	120.30
26	1H	2710	C	C6-N1-C2	6.52	122.91	120.30
26	1H	245	G	N9-C4-C5	-6.52	102.79	105.40
1	1G	413	G	C8-N9-C1'	6.52	135.48	127.00
26	1H	1022	G	C4-C5-N7	-6.52	108.19	110.80
26	14	809	G	C8-N9-C4	-6.52	103.79	106.40
26	14	2741	A	C8-N9-C4	6.52	108.41	105.80
26	14	1372	U	N3-C4-O4	6.51	123.96	119.40
26	1H	966	G	N1-C2-N2	-6.51	110.34	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1614	A	N7-C8-N9	6.51	117.06	113.80
26	14	2779	U	N1-C2-O2	6.51	127.36	122.80
26	14	862	G	N1-C6-O6	-6.51	116.00	119.90
26	1H	2018	G	C8-N9-C4	-6.50	103.80	106.40
26	14	1955	U	N3-C2-O2	-6.50	117.65	122.20
26	1H	2638	G	C2-N3-C4	6.50	115.15	111.90
1	1G	691	G	C5-C6-O6	-6.50	124.70	128.60
26	14	801	G	N1-C6-O6	-6.50	116.00	119.90
26	14	1992	G	P-O3'-C3'	6.50	127.50	119.70
26	1H	2712	U	C5-C4-O4	6.50	129.80	125.90
23	2K	9	G	C4-N9-C1'	6.50	134.95	126.50
26	1H	1904	G	C8-N9-C4	6.50	109.00	106.40
26	1H	265	A	C6-C5-N7	-6.50	127.75	132.30
26	14	725	G	C5-C6-N1	-6.50	108.25	111.50
26	1H	518	G	O5'-P-OP2	-6.49	99.86	105.70
26	1H	1543	A	C2-N3-C4	-6.49	107.35	110.60
26	1H	2354	G	C8-N9-C1'	-6.49	118.56	127.00
26	1H	2689	U	C2-N3-C4	-6.49	123.10	127.00
1	13	172	A	N7-C8-N9	6.49	117.05	113.80
26	1H	1198	U	N3-C2-O2	-6.49	117.66	122.20
27	1J	60	C	C6-N1-C2	-6.49	117.70	120.30
26	1H	1310	G	N1-C6-O6	6.49	123.79	119.90
26	1H	2503	A	O5'-P-OP2	-6.49	99.86	105.70
26	14	1337	G	OP1-P-O3'	6.49	119.48	105.20
26	1H	197	A	N1-C2-N3	6.49	132.54	129.30
26	14	932	G	N3-C4-N9	-6.49	122.11	126.00
26	14	1346	G	N1-C6-O6	-6.49	116.01	119.90
26	14	1824	G	O5'-P-OP2	-6.49	99.86	105.70
26	1H	2430	A	N7-C8-N9	6.48	117.04	113.80
26	14	2433	A	N1-C6-N6	6.48	122.49	118.60
26	1H	2571	C	C2-N3-C4	-6.48	116.66	119.90
26	1H	2573	C	N1-C2-O2	6.48	122.79	118.90
26	14	1281	G	C5-C6-O6	-6.48	124.71	128.60
26	1H	484	C	OP1-P-O3'	6.48	119.46	105.20
26	1H	1982	C	C6-N1-C2	-6.48	117.71	120.30
26	1H	2822	G	C4-C5-N7	6.48	113.39	110.80
26	14	1808	U	O5'-P-OP1	-6.48	99.87	105.70
26	1H	1336	A	N1-C6-N6	-6.48	114.71	118.60
26	1H	2550	G	N7-C8-N9	6.48	116.34	113.10
1	13	219	C	C6-N1-C2	-6.47	117.71	120.30
26	1H	699	A	C2-N3-C4	6.47	113.84	110.60
26	14	2281	C	N3-C4-N4	6.47	122.53	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1975	G	C5-C6-O6	-6.47	124.72	128.60
26	14	932	G	C4-N9-C1'	-6.47	118.09	126.50
1	13	108	G	C4-C5-N7	6.47	113.39	110.80
1	13	1526	G	C4-C5-N7	6.47	113.39	110.80
26	1H	388	G	N3-C2-N2	6.47	124.43	119.90
26	1H	1764	G	C4-C5-N7	-6.47	108.21	110.80
26	1H	696	G	N1-C6-O6	-6.47	116.02	119.90
26	14	791	C	N3-C4-C5	6.47	124.49	121.90
26	1H	1968	G	C4-C5-N7	6.46	113.39	110.80
26	14	2246	G	N3-C2-N2	-6.46	115.37	119.90
1	13	564	C	N3-C4-C5	-6.46	119.31	121.90
26	1H	1839	G	C4-N9-C1'	6.46	134.90	126.50
26	1H	2318	G	N7-C8-N9	6.46	116.33	113.10
26	1H	2439	A	C8-N9-C4	-6.46	103.22	105.80
26	14	828	U	N1-C2-N3	6.46	118.78	114.90
1	13	760	G	C5-C6-O6	-6.46	124.73	128.60
26	1H	1604	C	O5'-P-OP1	-6.46	99.89	105.70
26	1H	26	G	C4-N9-C1'	6.45	134.89	126.50
26	1H	470	A	O5'-P-OP1	-6.45	99.89	105.70
1	1G	337	C	C6-N1-C2	-6.45	117.72	120.30
26	14	992	C	N1-C2-O2	6.45	122.77	118.90
26	14	1926	U	N1-C2-N3	6.45	118.77	114.90
26	1H	1225	C	C6-N1-C2	6.45	122.88	120.30
26	14	2275	C	P-O3'-C3'	6.45	127.44	119.70
26	1H	774	A	N1-C2-N3	-6.45	126.07	129.30
1	1G	812	C	P-O3'-C3'	6.45	127.44	119.70
1	13	1058	G	N7-C8-N9	-6.45	109.88	113.10
26	14	530	G	N3-C4-N9	6.45	129.87	126.00
1	1G	1158	C	C6-N1-C2	-6.45	117.72	120.30
26	14	1671	U	OP1-P-OP2	6.45	129.27	119.60
1	13	1197	G	OP1-P-O3'	6.45	119.38	105.20
26	14	1995	U	N1-C2-O2	6.45	127.31	122.80
26	14	621	A	C2-N3-C4	-6.44	107.38	110.60
26	1H	106	C	C6-N1-C2	-6.44	117.72	120.30
26	1H	1806	C	O5'-P-OP2	-6.44	99.90	105.70
26	1H	809	G	N7-C8-N9	-6.44	109.88	113.10
26	14	2592	G	O5'-P-OP2	-6.44	99.91	105.70
26	14	2607	G	N1-C2-N2	-6.44	110.41	116.20
26	1H	1558	A	C2-N3-C4	-6.43	107.38	110.60
26	14	514	A	C8-N9-C4	6.43	108.37	105.80
1	13	981	U	N3-C4-O4	6.43	123.90	119.40
26	1H	2573	C	N3-C2-O2	-6.43	117.40	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	641	C	O5'-P-OP2	6.43	118.42	110.70
26	14	2873	A	C8-N9-C4	-6.43	103.23	105.80
26	14	2067	G	O5'-P-OP1	-6.43	99.91	105.70
26	14	2426	A	N1-C6-N6	6.43	122.46	118.60
26	14	2441	C	N1-C2-O2	6.43	122.76	118.90
1	13	1266	G	N3-C4-C5	6.43	131.81	128.60
26	1H	2587	A	C2-N3-C4	-6.43	107.39	110.60
26	14	821	A	N1-C6-N6	6.43	122.46	118.60
26	1H	1968	G	N3-C4-N9	6.42	129.85	126.00
26	14	777	A	C6-N1-C2	-6.42	114.75	118.60
26	14	2451	A	C8-N9-C4	-6.42	103.23	105.80
1	13	767	A	N1-C2-N3	6.42	132.51	129.30
26	1H	1931	U	C4-C5-C6	6.42	123.55	119.70
26	14	2392	A	C5-C6-N1	-6.42	114.49	117.70
26	1H	1029	A	N1-C6-N6	6.42	122.45	118.60
26	1H	324	A	O5'-P-OP1	-6.42	99.92	105.70
26	1H	915	C	C6-N1-C2	-6.42	117.73	120.30
26	1H	2045	C	C6-N1-C2	6.42	122.87	120.30
1	13	690	G	C6-C5-N7	-6.41	126.55	130.40
26	1H	2282	G	O5'-P-OP2	6.41	118.40	110.70
1	13	115	G	P-O3'-C3'	6.41	127.39	119.70
26	14	528	A	C4-C5-N7	6.41	113.91	110.70
26	14	1620	G	OP1-P-O3'	6.41	119.30	105.20
1	13	1299	A	C6-C5-N7	-6.41	127.81	132.30
26	14	2287	A	N9-C4-C5	-6.41	103.24	105.80
26	1H	2066	C	OP1-P-O3'	6.41	119.29	105.20
26	14	1762	A	C2-N3-C4	-6.41	107.40	110.60
26	1H	654(I)	C	C5-C6-N1	6.40	124.20	121.00
26	1H	762	U	C2-N1-C1'	6.40	125.38	117.70
26	1H	780	G	C2-N3-C4	-6.40	108.70	111.90
26	1H	1764	G	N1-C6-O6	-6.40	116.06	119.90
26	1H	127	A	N1-C6-N6	6.40	122.44	118.60
24	1L	78	C	OP1-P-O3'	6.40	119.28	105.20
1	13	1227	A	N7-C8-N9	6.40	117.00	113.80
26	1H	1900	A	O5'-P-OP1	6.40	118.38	110.70
26	1H	2045	C	N3-C4-C5	6.40	124.46	121.90
26	14	2388	A	O4'-C1'-N9	6.40	113.32	108.20
26	1H	2392	A	C5-C6-N1	-6.39	114.50	117.70
26	14	768	G	O5'-P-OP2	-6.39	99.94	105.70
1	13	186	C	C6-N1-C2	-6.39	117.74	120.30
26	1H	2330	G	N9-C4-C5	-6.39	102.84	105.40
26	14	2820	A	N1-C6-N6	6.39	122.44	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1299	A	N1-C6-N6	6.39	122.44	118.60
26	14	2374	C	C5-C6-N1	-6.39	117.80	121.00
26	1H	2451	A	N1-C6-N6	-6.39	114.77	118.60
26	14	2592	G	C8-N9-C1'	-6.39	118.70	127.00
26	1H	966	G	N3-C2-N2	6.39	124.37	119.90
26	14	752	A	P-O3'-C3'	6.39	127.36	119.70
26	1H	2326	C	C5-C6-N1	6.38	124.19	121.00
26	14	74	A	C5-N7-C8	-6.38	100.71	103.90
26	14	270(Y)	G	C5-C6-N1	-6.38	108.31	111.50
26	14	1643	G	O5'-P-OP1	-6.38	99.96	105.70
26	1H	1255	U	N3-C2-O2	6.38	126.67	122.20
26	14	1616	A	N7-C8-N9	6.38	116.99	113.80
1	13	903	G	N3-C4-N9	6.38	129.83	126.00
26	1H	232	G	N1-C6-O6	6.38	123.73	119.90
26	1H	265	A	N7-C8-N9	6.38	116.99	113.80
26	1H	1559	G	C5-C6-O6	-6.38	124.78	128.60
26	1H	247	G	N7-C8-N9	-6.37	109.91	113.10
26	1H	842	G	N3-C4-C5	6.37	131.79	128.60
26	14	1379	A	N1-C6-N6	6.37	122.42	118.60
26	14	2611	U	C5-C4-O4	-6.37	122.08	125.90
26	14	1407	C	C5-C6-N1	6.37	124.19	121.00
1	13	22	G	N3-C2-N2	-6.37	115.44	119.90
26	1H	917	A	N9-C4-C5	-6.37	103.25	105.80
26	1H	1284	A	OP1-P-OP2	6.37	129.15	119.60
26	1H	1830	C	N3-C2-O2	6.37	126.36	121.90
26	1H	1829	A	C5-N7-C8	6.37	107.08	103.90
26	1H	1888	G	C4-N9-C1'	6.37	134.78	126.50
27	16	100	G	N3-C4-N9	6.37	129.82	126.00
26	14	1989	G	N3-C2-N2	-6.37	115.44	119.90
26	14	530	G	C5-N7-C8	-6.36	101.12	104.30
1	13	803	G	N1-C2-N3	6.36	127.72	123.90
1	13	1499	A	N1-C6-N6	6.36	122.42	118.60
26	1H	568	U	C5-C4-O4	-6.36	122.08	125.90
26	1H	51	G	O5'-P-OP1	-6.36	99.98	105.70
33	61	35	LEU	CA-CB-CG	6.36	129.92	115.30
26	1H	113	G	O5'-P-OP2	6.36	118.33	110.70
26	1H	773	U	N3-C4-O4	-6.36	114.95	119.40
26	14	2327	A	N9-C4-C5	6.36	108.34	105.80
26	1H	785	G	C8-N9-C4	-6.35	103.86	106.40
26	1H	142	G	N3-C4-C5	6.35	131.78	128.60
26	1H	148	C	N3-C4-C5	6.35	124.44	121.90
26	14	205	G	O5'-P-OP1	-6.35	99.98	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2239	G	N3-C2-N2	6.35	124.35	119.90
26	1H	830	G	C2-N3-C4	-6.35	108.72	111.90
26	1H	2830	G	N7-C8-N9	6.35	116.27	113.10
26	14	567	A	C5-C6-N6	-6.35	118.62	123.70
1	13	827	U	C5-C4-O4	6.35	129.71	125.90
26	1H	81	G	N1-C6-O6	-6.35	116.09	119.90
26	1H	782	A	N1-C2-N3	6.35	132.47	129.30
26	1H	2701	C	C6-N1-C2	-6.35	117.76	120.30
26	14	2048	G	C8-N9-C4	-6.35	103.86	106.40
26	1H	1440	G	N1-C6-O6	-6.34	116.09	119.90
26	14	1616	A	C4-C5-N7	6.34	113.87	110.70
26	14	1781	C	C6-N1-C1'	-6.34	113.19	120.80
26	1H	831	G	N7-C8-N9	-6.34	109.93	113.10
26	1H	1204	A	C6-C5-N7	-6.34	127.86	132.30
26	14	2823	A	N9-C4-C5	-6.34	103.27	105.80
1	13	570	G	C8-N9-C4	-6.34	103.87	106.40
26	1H	451	C	C5-C6-N1	-6.34	117.83	121.00
26	1H	536	A	C6-N1-C2	-6.34	114.80	118.60
1	1G	15	G	N3-C4-N9	6.34	129.80	126.00
1	1G	1449	C	C6-N1-C1'	-6.34	113.20	120.80
26	1H	251	A	O5'-P-OP1	-6.33	100.00	105.70
26	14	1678	G	C6-C5-N7	-6.33	126.60	130.40
26	1H	988	A	C8-N9-C4	-6.33	103.27	105.80
26	1H	1274	A	N7-C8-N9	6.33	116.97	113.80
26	14	679	C	N1-C2-O2	-6.33	115.10	118.90
26	14	733	G	C4-C5-C6	6.33	122.60	118.80
26	14	988	A	N1-C6-N6	6.33	122.40	118.60
1	13	810	C	C2-N1-C1'	6.33	125.76	118.80
26	14	2326	C	C6-N1-C2	-6.33	117.77	120.30
26	1H	1780	A	C5-C6-N6	6.33	128.76	123.70
26	14	1362	C	C6-N1-C2	6.33	122.83	120.30
26	14	1992	G	C5-C6-N1	6.33	114.67	111.50
26	1H	2017	U	N3-C4-O4	6.33	123.83	119.40
26	14	1475	G	C8-N9-C4	-6.33	103.87	106.40
26	14	530	G	N3-C2-N2	6.33	124.33	119.90
26	14	1899	G	N1-C2-N2	6.33	121.89	116.20
26	1H	34	C	O5'-P-OP2	6.32	118.29	110.70
26	1H	485	C	O5'-P-OP1	-6.32	100.01	105.70
26	1H	2025	C	C6-N1-C2	-6.32	117.77	120.30
26	14	2434	A	C2-N3-C4	-6.32	107.44	110.60
26	14	2435	A	C8-N9-C4	-6.32	103.27	105.80
26	14	2518	A	C6-C5-N7	-6.32	127.88	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1908	C	N3-C2-O2	-6.32	117.48	121.90
26	1H	2584	U	C5-C4-O4	6.32	129.69	125.90
26	14	2051	A	O5'-P-OP2	-6.32	100.01	105.70
26	1H	822	U	N1-C2-N3	6.32	118.69	114.90
1	1G	569	C	C2-N1-C1'	6.32	125.75	118.80
26	14	736	C	O5'-P-OP1	-6.32	100.01	105.70
26	1H	142	G	C4-N9-C1'	-6.32	118.29	126.50
26	1H	1973	G	C5-C6-O6	6.32	132.39	128.60
26	14	675	A	N1-C6-N6	6.32	122.39	118.60
26	1H	1210	A	C6-C5-N7	-6.31	127.88	132.30
23	2K	17	C	C5-C6-N1	6.31	124.16	121.00
26	1H	203	C	N3-C4-C5	6.31	124.42	121.90
26	14	528	A	N1-C2-N3	6.31	132.46	129.30
26	14	2595	G	N9-C4-C5	-6.31	102.88	105.40
26	1H	640	C	C6-N1-C2	-6.31	117.78	120.30
26	14	783	A	C4-C5-C6	6.31	120.16	117.00
26	1H	1639	U	N3-C2-O2	-6.31	117.78	122.20
26	14	2592	G	N1-C2-N2	-6.31	110.52	116.20
26	14	1217	C	C6-N1-C2	-6.31	117.78	120.30
26	1H	2525	G	N9-C4-C5	-6.31	102.88	105.40
26	1H	2550	G	N9-C4-C5	6.31	107.92	105.40
1	1G	898	G	N1-C6-O6	6.30	123.68	119.90
1	1G	1402	C	C4-C5-C6	6.30	120.55	117.40
26	14	791	C	N3-C2-O2	6.30	126.31	121.90
26	1H	2585	U	N1-C2-O2	6.30	127.21	122.80
26	1H	2599	G	C5-N7-C8	6.30	107.45	104.30
26	14	132	G	C5-C6-N1	-6.30	108.35	111.50
26	14	1804	C	C6-N1-C2	-6.30	117.78	120.30
27	16	81	G	N1-C6-O6	6.30	123.68	119.90
26	1H	2577	A	N1-C6-N6	-6.30	114.82	118.60
23	2L	21	U	N1-C2-O2	6.30	127.21	122.80
26	1H	2444	G	N9-C4-C5	6.30	107.92	105.40
27	16	81	G	C8-N9-C4	-6.29	103.88	106.40
26	1H	199	A	C2-N3-C4	6.29	113.75	110.60
4	3E	12	CYS	CA-CB-SG	6.29	125.33	114.00
26	1H	768	G	N1-C6-O6	-6.29	116.13	119.90
26	1H	2354	G	C4-N9-C1'	6.29	134.68	126.50
26	14	2504	U	N1-C2-O2	6.29	127.20	122.80
1	13	1502	A	N9-C1'-C2'	6.29	122.17	114.00
26	14	2776	A	C8-N9-C4	-6.29	103.28	105.80
26	1H	1229(A)	G	O5'-P-OP2	-6.29	100.04	105.70
26	1H	62	C	C6-N1-C2	6.29	122.81	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	822	U	C6-N1-C2	-6.29	117.23	121.00
26	1H	2288	A	N9-C4-C5	-6.29	103.28	105.80
1	1G	314	C	N3-C2-O2	-6.28	117.50	121.90
26	14	2239	G	N1-C2-N2	-6.28	110.54	116.20
26	14	2438	U	O5'-P-OP2	-6.28	100.04	105.70
26	1H	48	G	OP2-P-O3'	6.28	119.02	105.20
26	1H	2066	C	C5-C6-N1	6.28	124.14	121.00
26	14	2779	U	C2-N1-C1'	6.28	125.24	117.70
27	16	99	A	OP1-P-OP2	6.28	129.02	119.60
1	1G	576	G	C6-C5-N7	-6.28	126.63	130.40
26	14	2249	U	C5-C6-N1	6.28	125.84	122.70
1	13	748	C	P-O3'-C3'	6.28	127.23	119.70
1	13	966	G	C5-C6-O6	-6.28	124.83	128.60
26	1H	2616	C	N1-C2-O2	-6.28	115.13	118.90
26	14	777	A	N9-C4-C5	6.28	108.31	105.80
1	13	1336	C	C6-N1-C1'	-6.28	113.27	120.80
26	1H	2070	G	O5'-P-OP2	-6.28	100.05	105.70
1	13	652	U	C5-C6-N1	6.28	125.84	122.70
1	13	1513	A	C8-N9-C4	6.28	108.31	105.80
26	1H	828	U	OP1-P-OP2	6.28	129.01	119.60
26	14	945	A	C4-C5-N7	6.27	113.84	110.70
26	1H	863	A	O5'-P-OP1	6.27	118.23	110.70
1	1G	1338	G	O5'-P-OP1	-6.27	100.06	105.70
26	14	693	C	C5-C6-N1	-6.27	117.86	121.00
26	1H	440	G	N3-C4-N9	6.27	129.76	126.00
26	1H	2422	A	O4'-C1'-N9	6.27	113.22	108.20
26	14	694	U	O5'-P-OP2	-6.27	100.06	105.70
26	14	1614	A	O5'-P-OP1	-6.27	100.06	105.70
26	14	1681	G	C5-N7-C8	-6.27	101.17	104.30
26	1H	77	C	C5-C4-N4	-6.27	115.81	120.20
26	1H	529	A	C8-N9-C4	-6.27	103.29	105.80
26	1H	777	A	OP2-P-O3'	6.27	118.99	105.20
26	1H	2037	G	C8-N9-C4	-6.27	103.89	106.40
26	1H	2068	U	O5'-P-OP1	-6.27	100.06	105.70
26	1H	2576	G	N9-C4-C5	-6.27	102.89	105.40
27	16	79	C	OP2-P-O3'	6.27	118.99	105.20
26	1H	2329	G	N1-C6-O6	-6.27	116.14	119.90
37	88	82	ARG	N-CA-C	6.27	127.92	111.00
26	14	2601	C	C6-N1-C2	-6.27	117.79	120.30
26	14	2710	C	N3-C2-O2	6.26	126.28	121.90
26	14	2210	G	C8-N9-C1'	-6.26	118.86	127.00
26	1H	793	A	C4-C5-C6	6.26	120.13	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2346	A	C6-C5-N7	-6.26	127.92	132.30
1	1G	1322	C	C5-C6-N1	6.26	124.13	121.00
26	14	2702	U	N3-C2-O2	-6.26	117.82	122.20
1	13	1354	C	N3-C2-O2	-6.26	117.52	121.90
26	14	1932	A	O5'-P-OP1	-6.26	100.07	105.70
26	1H	2263	C	C6-N1-C2	-6.26	117.80	120.30
26	1H	2360	A	O5'-P-OP2	-6.26	100.07	105.70
26	1H	2553	G	N1-C6-O6	-6.26	116.14	119.90
26	1H	1568	G	C6-C5-N7	6.26	134.15	130.40
26	14	1281	G	C5-N7-C8	-6.26	101.17	104.30
26	1H	871	U	N3-C4-C5	-6.25	110.85	114.60
1	1G	352	C	N1-C2-O2	-6.25	115.15	118.90
26	14	130	C	N3-C4-C5	6.25	124.40	121.90
26	1H	1800	C	O5'-P-OP2	6.25	118.20	110.70
26	14	330	A	N1-C6-N6	6.25	122.35	118.60
26	1H	799	G	N7-C8-N9	-6.25	109.98	113.10
26	1H	2055	C	N1-C2-O2	-6.25	115.15	118.90
26	1H	1779	U	O5'-P-OP1	-6.24	100.08	105.70
26	14	278	A	OP1-P-O3'	6.24	118.93	105.20
26	14	130	C	C2-N3-C4	-6.24	116.78	119.90
26	14	565	C	C4-C5-C6	6.24	120.52	117.40
26	1H	828	U	C2-N1-C1'	6.24	125.19	117.70
1	1G	243	A	P-O3'-C3'	6.24	127.19	119.70
26	14	196	A	O4'-C1'-N9	6.24	113.19	108.20
26	14	475	U	C2-N1-C1'	6.24	125.18	117.70
26	14	1698	A	C4-C5-C6	6.24	120.12	117.00
1	13	117	G	N1-C6-O6	6.24	123.64	119.90
1	13	548	G	O5'-P-OP2	-6.24	100.09	105.70
1	13	562	C	O5'-P-OP2	-6.24	100.09	105.70
1	13	988	G	N3-C4-N9	6.24	129.74	126.00
26	14	1598	C	C6-N1-C2	-6.24	117.81	120.30
26	1H	2822	G	C6-C5-N7	-6.23	126.66	130.40
26	1H	1246	A	O5'-P-OP2	-6.23	100.09	105.70
26	14	1980	G	N3-C2-N2	-6.23	115.54	119.90
26	1H	682	G	C8-N9-C1'	-6.23	118.90	127.00
26	14	2240	C	N3-C4-C5	-6.23	119.41	121.90
1	1G	721	G	C6-C5-N7	-6.23	126.66	130.40
26	1H	767	U	O5'-P-OP2	-6.22	100.10	105.70
26	1H	1698	A	N9-C1'-C2'	6.22	122.09	114.00
26	1H	2552	U	N1-C2-O2	-6.22	118.44	122.80
1	1G	493	G	N3-C4-C5	-6.22	125.49	128.60
1	1G	1520	G	O5'-P-OP2	-6.22	100.10	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	356	A	O4'-C1'-N9	6.22	113.18	108.20
26	1H	762	U	N1-C2-N3	-6.22	111.17	114.90
26	1H	965	C	C2-N1-C1'	6.22	125.64	118.80
26	1H	2250	G	N9-C4-C5	6.22	107.89	105.40
26	1H	2346	A	C4-C5-C6	6.22	120.11	117.00
1	1G	990	C	C6-N1-C2	-6.22	117.81	120.30
26	14	148	C	C6-N1-C2	6.22	122.79	120.30
26	1H	676	A	C6-N1-C2	6.22	122.33	118.60
26	1H	2377	A	N1-C6-N6	6.22	122.33	118.60
26	14	2430	A	C5-N7-C8	-6.22	100.79	103.90
26	1H	2281	C	C5-C4-N4	-6.21	115.85	120.20
26	14	1948	G	O5'-P-OP1	-6.21	100.11	105.70
26	1H	69	C	N3-C2-O2	-6.21	117.55	121.90
26	1H	1568	G	C8-N9-C1'	6.21	135.08	127.00
26	14	676	A	N1-C6-N6	6.21	122.33	118.60
26	1H	1792	G	O5'-P-OP1	-6.21	100.11	105.70
26	1H	2518	A	C4-C5-N7	6.21	113.80	110.70
26	14	2518	A	C4-C5-N7	6.21	113.80	110.70
26	1H	148	C	C2-N3-C4	-6.21	116.80	119.90
24	1L	85	A	C2-N3-C4	6.21	113.70	110.60
1	13	816	A	N9-C4-C5	6.20	108.28	105.80
1	13	1219	U	N3-C4-O4	6.20	123.74	119.40
26	14	1786	A	C4-N9-C1'	6.20	137.47	126.30
26	14	2702	U	N1-C2-O2	6.20	127.14	122.80
1	13	687	A	P-O3'-C3'	6.20	127.14	119.70
22	1K	3	U	P-O3'-C3'	6.20	127.14	119.70
26	14	1470	G	N1-C6-O6	6.20	123.62	119.90
26	14	2307	G	C8-N9-C4	-6.20	103.92	106.40
5	4E	12	LEU	CA-CB-CG	6.20	129.56	115.30
26	1H	2367	G	N7-C8-N9	6.20	116.20	113.10
26	14	1674	G	N3-C4-C5	-6.20	125.50	128.60
26	14	2593	U	N3-C4-C5	6.20	118.32	114.60
26	14	1681	G	N3-C4-C5	6.20	131.70	128.60
1	13	807	A	N7-C8-N9	6.20	116.90	113.80
26	1H	2256	G	N1-C2-N2	-6.20	110.62	116.20
1	1G	353	A	C5-N7-C8	-6.20	100.80	103.90
26	14	2037	G	N1-C6-O6	-6.20	116.18	119.90
26	14	678	C	C6-N1-C2	6.19	122.78	120.30
1	13	354	G	C4-N9-C1'	6.19	134.55	126.50
26	1H	74	A	C8-N9-C4	-6.19	103.32	105.80
26	1H	1839	G	C8-N9-C1'	-6.19	118.95	127.00
26	1H	2272	U	OP1-P-OP2	-6.19	110.31	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1332	G	C4-C5-C6	6.19	122.52	118.80
26	14	2498	C	N3-C4-C5	6.19	124.38	121.90
26	1H	2239	G	O5'-P-OP2	-6.19	100.13	105.70
1	1G	817	C	C6-N1-C2	6.19	122.78	120.30
26	14	1349	A	N1-C6-N6	6.19	122.31	118.60
1	13	1369	C	O5'-P-OP2	-6.19	100.13	105.70
26	1H	1332	G	N1-C2-N2	-6.19	110.63	116.20
26	1H	2380	C	C2-N3-C4	-6.19	116.81	119.90
26	1H	2527	C	C6-N1-C2	-6.19	117.83	120.30
26	14	71	A	P-O3'-C3'	6.19	127.12	119.70
26	14	409	C	C6-N1-C1'	-6.19	113.38	120.80
26	14	819	A	O5'-P-OP2	-6.19	100.13	105.70
26	14	1678	G	N3-C4-N9	-6.19	122.29	126.00
26	14	1804	C	OP1-P-OP2	-6.19	110.32	119.60
26	1H	1967	C	C4-C5-C6	6.18	120.49	117.40
26	1H	1606	G	N7-C8-N9	-6.18	110.01	113.10
1	1G	312	C	C6-N1-C2	-6.18	117.83	120.30
26	14	2071	A	C5-C6-N1	6.18	120.79	117.70
26	1H	380	U	N1-C2-N3	6.18	118.61	114.90
26	1H	974(A)	C	N1-C2-O2	6.18	122.61	118.90
26	1H	1771	C	C2-N3-C4	-6.18	116.81	119.90
26	1H	1899	G	N1-C2-N3	6.18	127.61	123.90
26	14	2439	A	C8-N9-C4	-6.18	103.33	105.80
26	1H	179	G	N1-C6-O6	6.18	123.61	119.90
26	14	682	G	O5'-P-OP1	6.18	118.11	110.70
26	14	2433	A	O5'-P-OP2	6.18	118.11	110.70
26	1H	1342	A	C5-C6-N6	-6.17	118.76	123.70
1	13	1526	G	C6-C5-N7	-6.17	126.70	130.40
26	1H	2413	G	N1-C6-O6	6.17	123.60	119.90
26	1H	2597	G	C4-C5-N7	6.17	113.27	110.80
26	1H	430	G	N3-C4-N9	6.17	129.70	126.00
26	1H	1321	A	C8-N9-C4	6.17	108.27	105.80
26	14	575	A	O5'-P-OP1	-6.17	100.15	105.70
26	14	1858	G	C5-C6-N1	-6.17	108.42	111.50
26	1H	1022	G	N3-C2-N2	-6.17	115.58	119.90
26	1H	1801	G	C5-C6-O6	-6.17	124.90	128.60
1	1G	547	A	C8-N9-C4	6.17	108.27	105.80
26	1H	946	G	N7-C8-N9	-6.17	110.02	113.10
39	A8	101	LEU	CA-CB-CG	6.17	129.48	115.30
26	14	406	G	N1-C6-O6	6.16	123.60	119.90
26	14	2490	G	C5-N7-C8	-6.16	101.22	104.30
26	1H	1324	G	N1-C6-O6	6.16	123.60	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1544	C	N1-C2-O2	6.16	122.60	118.90
26	14	1051	G	C4-N9-C1'	6.16	134.51	126.50
26	14	1145	C	C5-C6-N1	6.16	124.08	121.00
26	14	2055	C	OP1-P-O3'	6.16	118.75	105.20
26	1H	247	G	C8-N9-C4	6.16	108.86	106.40
26	1H	247	G	N3-C2-N2	6.16	124.21	119.90
26	14	2045	C	C2-N3-C4	-6.16	116.82	119.90
26	1H	972	G	O5'-P-OP1	6.16	118.09	110.70
26	1H	1764	G	N9-C4-C5	6.16	107.86	105.40
26	1H	123	G	N1-C2-N3	6.16	127.59	123.90
26	1H	141	A	O4'-C1'-N9	6.16	113.12	108.20
1	1G	337	C	C5-C6-N1	6.16	124.08	121.00
32	59	125	VAL	C-N-CD	-6.16	107.06	120.60
26	1H	698	C	OP1-P-OP2	6.15	128.83	119.60
26	1H	945	A	O4'-C1'-N9	6.15	113.12	108.20
26	14	1633	G	C8-N9-C4	-6.15	103.94	106.40
26	1H	943	U	N1-C2-O2	-6.15	118.49	122.80
26	14	1329	U	N1-C2-N3	6.15	118.59	114.90
26	1H	428	A	OP1-P-O3'	6.15	118.73	105.20
26	1H	624	C	N1-C2-O2	-6.15	115.21	118.90
26	1H	2271	G	OP2-P-O3'	6.15	118.73	105.20
1	1G	960	U	C4-C5-C6	6.15	123.39	119.70
26	14	2281	C	C5-C4-N4	-6.15	115.90	120.20
26	14	945	A	C5-C6-N6	-6.14	118.78	123.70
26	1H	917	A	C5-C6-N1	-6.14	114.63	117.70
26	1H	1298	C	C6-N1-C2	-6.14	117.84	120.30
26	1H	2073	C	N1-C2-O2	-6.14	115.21	118.90
1	13	863	U	C5-C6-N1	-6.14	119.63	122.70
26	1H	780	G	OP1-P-OP2	-6.14	110.39	119.60
33	61	131	LYS	C-N-CD	-6.14	107.09	120.60
26	14	2688	U	C4-C5-C6	6.14	123.38	119.70
26	1H	2592	G	C4-N9-C1'	6.14	134.48	126.50
1	1G	32	A	C8-N9-C4	-6.14	103.34	105.80
26	14	811	U	N1-C2-N3	6.14	118.58	114.90
26	1H	683	C	N3-C4-C5	6.14	124.36	121.90
1	1G	1346	A	OP2-P-O3'	6.14	118.70	105.20
26	14	1400	G	O5'-P-OP2	-6.14	100.18	105.70
1	13	758	G	N3-C2-N2	-6.13	115.61	119.90
32	59	7	LEU	CA-CB-CG	6.13	129.41	115.30
26	14	2637	U	O5'-P-OP2	-6.13	100.18	105.70
26	1H	238	C	N1-C2-N3	6.13	123.49	119.20
1	1G	1414	U	C2-N1-C1'	-6.13	110.34	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	74	A	N1-C2-N3	6.13	132.37	129.30
1	1G	666	G	N1-C6-O6	6.13	123.58	119.90
26	14	2346	A	O4'-C1'-N9	6.13	113.10	108.20
26	14	788	A	C4-C5-C6	6.13	120.06	117.00
26	14	1279	G	O5'-P-OP2	-6.13	100.18	105.70
26	1H	528	A	C6-N1-C2	6.13	122.28	118.60
26	1H	1204	A	C4-N9-C1'	6.13	137.33	126.30
26	14	1403	C	O5'-P-OP2	-6.13	100.19	105.70
26	14	2778	A	O5'-P-OP2	-6.13	100.19	105.70
26	1H	197	A	OP2-P-O3'	6.12	118.68	105.20
26	1H	465	G	C5-C6-O6	6.12	132.27	128.60
26	1H	738	G	C6-C5-N7	-6.12	126.73	130.40
26	1H	2002	G	N1-C2-N2	6.12	121.71	116.20
1	13	606	G	C4-N9-C1'	6.12	134.46	126.50
26	1H	1610	A	C2-N3-C4	-6.12	107.54	110.60
26	1H	2763	G	C6-C5-N7	-6.12	126.73	130.40
1	13	1054	C	C4-C5-C6	-6.12	114.34	117.40
26	1H	613	U	C5-C4-O4	6.12	129.57	125.90
26	1H	1908	C	C6-N1-C2	-6.12	117.85	120.30
26	14	741	G	O5'-P-OP2	6.12	118.04	110.70
26	14	945	A	N1-C2-N3	6.12	132.36	129.30
26	1H	481	G	O5'-P-OP2	-6.12	100.20	105.70
26	1H	1026	U	O4'-C1'-N1	6.12	113.09	108.20
26	14	2217	G	N3-C2-N2	-6.12	115.62	119.90
26	1H	726	G	C2-N3-C4	-6.11	108.84	111.90
26	1H	1392	A	O5'-P-OP1	-6.11	100.20	105.70
26	1H	1799	G	N3-C4-C5	-6.11	125.55	128.60
26	14	43	G	O5'-P-OP1	-6.11	100.20	105.70
26	14	1342	A	N1-C2-N3	6.11	132.35	129.30
1	13	606	G	N3-C4-C5	-6.11	125.55	128.60
26	1H	190	A	C5-C6-N1	6.11	120.75	117.70
26	1H	2438	U	O5'-P-OP2	-6.11	100.20	105.70
26	14	871	U	O5'-P-OP2	6.11	118.03	110.70
26	1H	1403	C	C6-N1-C2	-6.11	117.86	120.30
26	1H	2551	C	N1-C2-O2	6.11	122.56	118.90
26	1H	265	A	O4'-C1'-N9	6.10	113.08	108.20
23	2K	9	G	C8-N9-C1'	-6.10	119.07	127.00
26	14	1819	A	P-O3'-C3'	6.10	127.02	119.70
26	14	1991	U	O5'-P-OP2	-6.10	100.21	105.70
26	1H	2392	A	N3-C4-C5	6.10	131.07	126.80
26	14	1187	G	C8-N9-C4	-6.10	103.96	106.40
26	1H	1446	C	C6-N1-C2	-6.10	117.86	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2311	A	C5-N7-C8	-6.10	100.85	103.90
26	14	704	G	N1-C6-O6	6.10	123.56	119.90
26	14	2071	A	C6-N1-C2	-6.10	114.94	118.60
26	1H	1622	G	O5'-P-OP1	-6.10	100.21	105.70
26	1H	1786	A	C5-C6-N1	-6.10	114.65	117.70
26	1H	2393	A	N9-C4-C5	6.10	108.24	105.80
26	1H	1306	C	O5'-P-OP1	-6.10	100.21	105.70
1	1G	267	C	O5'-P-OP1	-6.09	100.22	105.70
1	13	564	C	C6-N1-C2	-6.09	117.86	120.30
26	1H	1006	C	O5'-P-OP1	-6.09	100.22	105.70
26	1H	1610	A	C6-C5-N7	-6.09	128.04	132.30
26	1H	1691	C	C6-N1-C2	-6.09	117.86	120.30
26	14	1558	A	P-O3'-C3'	6.09	127.01	119.70
26	14	1624	G	N1-C6-O6	6.09	123.56	119.90
26	1H	411	G	N3-C4-N9	6.09	129.65	126.00
26	1H	2054	A	C8-N9-C4	-6.09	103.36	105.80
26	14	1336	A	C6-N1-C2	-6.09	114.95	118.60
26	14	2228	G	N3-C4-N9	6.09	129.65	126.00
1	13	1222	G	N9-C4-C5	6.09	107.83	105.40
26	1H	265	A	C4-C5-N7	6.09	113.74	110.70
26	1H	1764	G	C5-C6-O6	6.09	132.25	128.60
26	14	1271	G	N3-C4-N9	6.09	129.65	126.00
26	14	1728	G	C2-N3-C4	6.09	114.94	111.90
26	14	1823	G	C8-N9-C4	-6.08	103.97	106.40
26	14	2228	G	C6-C5-N7	-6.08	126.75	130.40
26	1H	74	A	O4'-C1'-N9	-6.08	103.33	108.20
26	1H	319	C	N1-C2-O2	6.08	122.55	118.90
26	1H	762	U	C6-N1-C1'	-6.08	112.69	121.20
26	14	1858	G	N1-C6-O6	6.08	123.55	119.90
1	13	871	U	P-O3'-C3'	6.08	127.00	119.70
26	1H	1158	C	C6-N1-C2	6.08	122.73	120.30
26	14	2518	A	N1-C2-N3	6.08	132.34	129.30
1	13	590	C	N1-C2-O2	6.08	122.55	118.90
26	1H	141(A)	C	N3-C4-C5	6.08	124.33	121.90
26	14	58	G	N1-C6-O6	6.08	123.55	119.90
1	13	246	A	N1-C6-N6	6.08	122.25	118.60
26	14	26	G	N3-C4-C5	-6.08	125.56	128.60
26	14	2500	U	C2-N3-C4	-6.08	123.36	127.00
26	14	2679	A	C8-N9-C4	6.08	108.23	105.80
26	14	2067	G	C6-N1-C2	-6.07	121.46	125.10
26	14	2506	U	C5-C6-N1	6.07	125.74	122.70
26	14	155	C	N1-C2-O2	6.07	122.54	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	1J	44	G	C4-N9-C1'	-6.07	118.61	126.50
1	1G	898	G	C5-C6-O6	-6.07	124.96	128.60
26	14	801	G	OP1-P-OP2	-6.07	110.50	119.60
26	14	1252	G	O4'-C1'-N9	-6.07	103.35	108.20
26	14	2870	C	C6-N1-C2	-6.07	117.87	120.30
26	1H	1406	U	C6-N1-C2	-6.06	117.36	121.00
26	14	512	G	O4'-C1'-N9	6.06	113.05	108.20
1	13	1109	C	C6-N1-C2	6.06	122.72	120.30
26	1H	1224	G	C5-C6-N1	6.06	114.53	111.50
26	1H	1800	C	O4'-C1'-N1	6.06	113.05	108.20
26	14	410	G	N1-C6-O6	6.06	123.54	119.90
26	14	2724	C	N1-C2-O2	-6.06	115.26	118.90
1	1G	353	A	N1-C6-N6	6.06	122.24	118.60
27	1J	47	C	OP1-P-O3'	6.06	118.53	105.20
48	F5	36	GLY	N-CA-C	6.06	128.25	113.10
27	1J	60	C	C5-C6-N1	6.06	124.03	121.00
26	1H	192	C	N3-C2-O2	6.05	126.14	121.90
26	1H	452	G	N1-C6-O6	-6.05	116.27	119.90
1	1G	84	U	N1-C2-O2	6.05	127.04	122.80
26	14	2700	C	C5-C6-N1	-6.05	117.97	121.00
26	1H	702	G	O5'-P-OP2	-6.05	100.25	105.70
26	1H	1799	G	P-O3'-C3'	6.05	126.96	119.70
26	1H	2442	C	N3-C4-N4	6.05	122.24	118.00
26	14	980	A	C8-N9-C4	-6.05	103.38	105.80
1	13	386	C	C6-N1-C2	6.05	122.72	120.30
26	1H	115	C	C5-C4-N4	-6.05	115.97	120.20
26	14	1972	A	C2-N3-C4	6.05	113.62	110.60
1	13	913	A	P-O3'-C3'	6.05	126.95	119.70
26	1H	983	A	OP2-P-O3'	6.05	118.50	105.20
26	1H	1265	A	C5'-C4'-C3'	-6.05	106.33	116.00
26	1H	2477	C	C6-N1-C1'	-6.05	113.55	120.80
26	1H	2714	G	OP2-P-O3'	6.04	118.50	105.20
1	13	789	U	C6-N1-C2	-6.04	117.37	121.00
26	1H	1699	G	O5'-P-OP1	-6.04	100.26	105.70
26	1H	1779	U	OP1-P-OP2	6.04	128.67	119.60
1	13	792	A	N9-C1'-C2'	6.04	121.86	114.00
1	13	1025	U	C2-N1-C1'	6.04	124.95	117.70
26	1H	649	G	N3-C2-N2	-6.04	115.67	119.90
26	14	1543	A	O5'-P-OP1	6.04	117.95	110.70
26	1H	203	C	C4-C5-C6	-6.04	114.38	117.40
26	1H	686	G	N9-C4-C5	-6.04	102.98	105.40
26	1H	870	A	C5-C6-N1	6.04	120.72	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1020	A	N1-C6-N6	6.04	122.22	118.60
26	14	2240	C	C6-N1-C2	-6.04	117.89	120.30
26	1H	796	C	C2-N1-C1'	-6.04	112.16	118.80
26	1H	2393	A	C5-C6-N6	6.04	128.53	123.70
26	14	621	A	N7-C8-N9	6.04	116.82	113.80
26	14	1256	G	C4-N9-C1'	6.04	134.35	126.50
26	1H	451	C	C2-N3-C4	-6.03	116.88	119.90
26	1H	728	G	O5'-P-OP2	-6.03	100.27	105.70
26	14	613	U	C5-C4-O4	6.03	129.52	125.90
26	14	750	A	C8-N9-C4	-6.03	103.39	105.80
26	14	1332	G	N1-C2-N2	-6.03	110.77	116.20
26	14	1385	G	C4-N9-C1'	-6.03	118.66	126.50
26	1H	694	U	N3-C2-O2	-6.03	117.98	122.20
26	14	2395	C	N1-C2-O2	-6.03	115.28	118.90
26	1H	987	G	O5'-P-OP1	6.03	117.94	110.70
26	1H	2000	G	C6-N1-C2	-6.03	121.48	125.10
1	1G	576	G	N3-C4-N9	6.03	129.62	126.00
1	1G	687	A	P-O3'-C3'	6.03	126.94	119.70
26	14	783	A	C5-C6-N1	-6.03	114.68	117.70
26	1H	131	G	C5-C6-O6	-6.03	124.98	128.60
26	1H	813	U	N1-C2-N3	6.03	118.52	114.90
26	1H	2247	A	N1-C2-N3	6.03	132.31	129.30
1	13	771	G	N1-C2-N3	6.03	127.52	123.90
45	G8	81	LYS	C-N-CD	-6.03	107.34	120.60
1	13	690	G	N7-C8-N9	6.02	116.11	113.10
26	1H	1771	C	N3-C4-C5	6.02	124.31	121.90
27	16	81	G	O4'-C1'-N9	6.02	113.02	108.20
26	1H	793	A	N1-C6-N6	6.02	122.21	118.60
26	14	475	U	N3-C2-O2	-6.02	117.99	122.20
1	13	354	G	C8-N9-C1'	-6.02	119.18	127.00
26	1H	2573	C	C2-N1-C1'	6.02	125.42	118.80
26	14	1363	C	C2-N1-C1'	-6.02	112.18	118.80
26	1H	1430	C	OP1-P-O3'	6.01	118.43	105.20
26	1H	1568	G	N3-C4-N9	-6.01	122.39	126.00
1	1G	84	U	N3-C2-O2	-6.01	117.99	122.20
26	14	1558	A	C2-N3-C4	-6.01	107.59	110.60
1	13	818	G	C4-C5-N7	-6.01	108.39	110.80
26	1H	388	G	O5'-P-OP2	-6.01	100.29	105.70
26	1H	1496	A	N1-C6-N6	6.01	122.21	118.60
26	1H	2438	U	N3-C2-O2	-6.01	117.99	122.20
1	1G	180	U	C6-N1-C2	-6.01	117.39	121.00
26	14	2575	C	C5-C4-N4	6.01	124.41	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	626	U	O5'-P-OP2	-6.01	100.29	105.70
26	1H	1076	C	N1-C2-O2	6.01	122.51	118.90
26	1H	1187	G	OP2-P-O3'	6.01	118.42	105.20
26	14	2523	G	N7-C8-N9	6.01	116.11	113.10
1	13	320	C	O5'-P-OP1	6.01	117.91	110.70
26	14	1372	U	N1-C2-O2	-6.01	118.59	122.80
26	1H	116	C	C4-C5-C6	6.01	120.40	117.40
1	1G	110	C	C6-N1-C2	6.01	122.70	120.30
1	1G	1159	U	O4'-C1'-N1	6.01	113.00	108.20
26	1H	845	G	C4-C5-N7	6.00	113.20	110.80
26	1H	1773	A	C5-C6-N1	-6.00	114.70	117.70
26	1H	1805	U	OP2-P-O3'	6.00	118.41	105.20
26	1H	2825	C	N3-C4-C5	-6.00	119.50	121.90
23	2K	24	C	C2-N3-C4	-6.00	116.90	119.90
1	1G	413	G	C4-C5-N7	-6.00	108.40	110.80
1	13	1381	U	C2-N1-C1'	6.00	124.90	117.70
1	1G	576	G	C4-C5-C6	6.00	122.40	118.80
1	13	52	G	N1-C6-O6	6.00	123.50	119.90
1	13	1290	G	C6-C5-N7	-6.00	126.80	130.40
26	1H	26	G	N3-C4-N9	6.00	129.60	126.00
26	1H	127	A	C2-N3-C4	-6.00	107.60	110.60
26	1H	729	G	OP2-P-O3'	6.00	118.40	105.20
26	1H	812	C	N3-C2-O2	6.00	126.10	121.90
26	1H	1162	G	N3-C4-N9	-6.00	122.40	126.00
26	1H	1632	A	C5-C6-N6	-6.00	118.90	123.70
29	21	65	GLY	N-CA-C	-6.00	98.10	113.10
26	14	792	G	C8-N9-C4	-6.00	104.00	106.40
27	16	30	C	O5'-P-OP1	-6.00	100.30	105.70
1	1G	377	G	C6-C5-N7	-6.00	126.80	130.40
26	14	2313	C	C6-N1-C2	-6.00	117.90	120.30
1	13	827	U	C4-C5-C6	6.00	123.30	119.70
26	1H	700	G	C8-N9-C4	-6.00	104.00	106.40
26	14	1674	G	C4-N9-C1'	6.00	134.29	126.50
26	1H	809	G	C5-C6-O6	-5.99	125.00	128.60
26	1H	1763	G	O5'-P-OP1	5.99	117.89	110.70
26	1H	2018	G	N7-C8-N9	5.99	116.10	113.10
26	14	2473	U	N1-C2-O2	5.99	127.00	122.80
26	1H	757	U	C5-C6-N1	-5.99	119.70	122.70
26	1H	2071	A	OP1-P-OP2	-5.99	110.61	119.60
1	1G	632	A	P-O3'-C3'	5.99	126.89	119.70
26	14	2455	G	N1-C6-O6	5.99	123.50	119.90
1	1G	305	G	C4-C5-N7	-5.99	108.40	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	842	G	C2-N3-C4	-5.99	108.91	111.90
26	14	138	G	O4'-C1'-N9	5.99	112.99	108.20
26	14	2314	C	N3-C2-O2	-5.99	117.71	121.90
1	1G	1139	G	C8-N9-C4	5.99	108.80	106.40
26	14	141	A	C2-N3-C4	-5.99	107.61	110.60
26	14	2339	G	O5'-P-OP2	-5.99	100.31	105.70
26	1H	2726	U	C5-C6-N1	-5.98	119.71	122.70
26	14	2253	G	N1-C6-O6	5.98	123.49	119.90
26	1H	199	A	C5-C6-N1	5.98	120.69	117.70
26	1H	2363	C	C2-N1-C1'	-5.98	112.22	118.80
26	1H	2442	C	O5'-P-OP2	5.98	117.88	110.70
26	1H	690	G	N1-C6-O6	5.98	123.49	119.90
26	1H	2822	G	N9-C4-C5	-5.98	103.01	105.40
26	14	2250	G	C5-C6-O6	-5.98	125.01	128.60
26	1H	1757	U	OP1-P-O3'	5.98	118.35	105.20
26	14	998	C	N1-C2-O2	5.98	122.49	118.90
1	13	1374	A	C2-N3-C4	-5.97	107.61	110.60
26	1H	827	U	C5-C4-O4	5.97	129.49	125.90
26	14	1221	C	C6-N1-C2	5.97	122.69	120.30
26	14	1443	G	C6-C5-N7	-5.97	126.82	130.40
26	1H	447	A	O5'-P-OP2	5.97	117.87	110.70
26	1H	946	G	C8-N9-C4	5.97	108.79	106.40
1	13	247	G	C8-N9-C4	-5.97	104.01	106.40
26	1H	1799	G	C2-N3-C4	5.97	114.89	111.90
23	2K	44	A	N1-C6-N6	-5.97	115.02	118.60
26	1H	1535	U	N3-C2-O2	-5.97	118.02	122.20
1	1G	1449	C	N1-C2-O2	5.97	122.48	118.90
26	14	208	C	OP2-P-O3'	5.97	118.33	105.20
23	2K	9	G	N3-C4-C5	-5.97	125.62	128.60
26	1H	501	A	C2-N3-C4	-5.97	107.62	110.60
26	1H	2311	A	N7-C8-N9	5.97	116.78	113.80
27	16	81	G	C5-C6-O6	-5.97	125.02	128.60
1	1G	801	U	O5'-P-OP2	-5.97	100.33	105.70
26	14	332	A	OP2-P-O3'	5.97	118.32	105.20
26	14	1599	C	C6-N1-C2	-5.97	117.91	120.30
26	14	1950	G	C8-N9-C1'	-5.97	119.24	127.00
1	13	328	C	C6-N1-C1'	-5.96	113.64	120.80
26	1H	2440	C	N1-C2-O2	5.96	122.48	118.90
26	14	1186	G	O5'-P-OP1	-5.96	100.33	105.70
26	14	1382	G	N9-C4-C5	-5.96	103.02	105.40
1	13	527	G	N1-C6-O6	-5.96	116.32	119.90
26	1H	791	C	OP2-P-O3'	5.96	118.32	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	862	G	N3-C4-C5	-5.96	125.62	128.60
26	1H	1141	U	O4'-C1'-N1	5.96	112.97	108.20
26	1H	2763	G	C5-C6-O6	-5.96	125.02	128.60
26	1H	1896	G	N1-C6-O6	-5.96	116.32	119.90
26	14	69	C	N1-C2-O2	-5.96	115.33	118.90
26	14	221	A	C8-N9-C4	-5.96	103.42	105.80
26	1H	624	C	N3-C2-O2	5.96	126.07	121.90
26	1H	1305	C	N1-C2-O2	5.96	122.47	118.90
26	1H	1829	A	N7-C8-N9	-5.96	110.82	113.80
26	1H	2070	G	N3-C4-N9	5.96	129.57	126.00
1	13	580	U	C5-C6-N1	-5.95	119.72	122.70
26	14	138	G	C4-C5-N7	5.95	113.18	110.80
26	14	205	G	C5-C6-O6	-5.95	125.03	128.60
1	13	1301	U	N1-C2-O2	5.95	126.96	122.80
23	2K	35	C	C2-N1-C1'	5.95	125.34	118.80
26	1H	703	U	C5-C4-O4	5.95	129.47	125.90
26	1H	2746	U	N3-C2-O2	-5.95	118.04	122.20
27	16	56	G	N7-C8-N9	5.95	116.07	113.10
26	14	1619	G	C5-C6-N1	5.95	114.47	111.50
26	1H	1394	U	C2-N3-C4	5.94	130.56	127.00
1	1G	413	G	N3-C4-N9	-5.94	122.43	126.00
26	1H	120	U	N3-C2-O2	-5.94	118.04	122.20
26	1H	564	C	C6-N1-C2	-5.94	117.92	120.30
26	1H	1162	G	O5'-P-OP1	-5.94	100.35	105.70
26	1H	1625	C	N3-C4-N4	-5.94	113.84	118.00
26	1H	1668	A	O5'-P-OP1	5.94	117.83	110.70
26	1H	2623	G	N3-C4-C5	-5.94	125.63	128.60
54	Q8	62	LEU	CB-CG-CD1	5.94	121.10	111.00
26	14	744	G	N1-C6-O6	5.94	123.46	119.90
26	14	1204	A	N1-C6-N6	5.94	122.16	118.60
26	14	1261	C	O5'-P-OP1	-5.94	100.35	105.70
26	14	1271	G	C8-N9-C1'	-5.94	119.28	127.00
26	14	2439	A	N7-C8-N9	5.94	116.77	113.80
26	1H	1271	G	O5'-P-OP2	-5.94	100.36	105.70
26	1H	686	G	N1-C2-N2	-5.94	110.86	116.20
26	1H	793	A	C6-N1-C2	-5.94	115.04	118.60
26	14	455	C	C5-C6-N1	-5.94	118.03	121.00
26	14	2595	G	C5-C6-N1	5.94	114.47	111.50
26	14	2713	A	N7-C8-N9	5.94	116.77	113.80
26	1H	1336	A	C5-C6-N1	5.94	120.67	117.70
26	1H	1573	G	N9-C4-C5	-5.94	103.03	105.40
26	1H	2030	A	N9-C4-C5	-5.94	103.43	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1304	C	C5-C4-N4	5.94	124.36	120.20
22	1K	83	C	C5-C4-N4	-5.93	116.05	120.20
49	K8	32	LEU	CA-CB-CG	5.93	128.95	115.30
26	14	664	C	C4-C5-C6	5.93	120.37	117.40
26	14	2307	G	C6-C5-N7	-5.93	126.84	130.40
26	14	2595	G	N1-C6-O6	5.93	123.46	119.90
26	1H	1728	G	C4-C5-N7	5.93	113.17	110.80
1	1G	1512	U	N3-C4-C5	-5.93	111.04	114.60
1	13	789	U	N1-C2-N3	5.93	118.46	114.90
26	1H	2329	G	C5-C6-O6	5.93	132.16	128.60
26	1H	2686	G	C2-N3-C4	5.93	114.86	111.90
26	14	2765	A	C8-N9-C4	-5.93	103.43	105.80
26	1H	1385	G	N3-C4-C5	5.93	131.56	128.60
26	1H	2009	G	OP1-P-OP2	-5.93	110.71	119.60
1	1G	121	C	N1-C2-O2	5.93	122.46	118.90
1	13	623	C	C6-N1-C2	-5.92	117.93	120.30
26	1H	389	G	C4-C5-N7	5.92	113.17	110.80
26	1H	2026	C	C4-C5-C6	5.92	120.36	117.40
26	14	621	A	C8-N9-C4	-5.92	103.43	105.80
27	1J	81	G	C5-C6-O6	-5.92	125.05	128.60
26	14	2523	G	C8-N9-C4	-5.92	104.03	106.40
1	13	52	G	C5-C6-O6	-5.92	125.05	128.60
23	2K	17	C	C6-N1-C1'	-5.92	113.69	120.80
26	1H	1321	A	N7-C8-N9	-5.92	110.84	113.80
26	1H	1596	A	OP2-P-O3'	5.92	118.23	105.20
26	1H	1805	U	O5'-P-OP1	-5.92	100.37	105.70
26	1H	2564	A	C8-N9-C4	-5.92	103.43	105.80
26	14	1206	G	C8-N9-C4	-5.92	104.03	106.40
26	1H	1204	A	C8-N9-C1'	-5.92	117.04	127.70
26	1H	1950	G	N3-C4-N9	-5.92	122.45	126.00
26	1H	2441	C	C2-N1-C1'	-5.92	112.29	118.80
26	14	1142(A)	A	C5-C6-N1	-5.92	114.74	117.70
1	13	386	C	C2-N1-C1'	-5.92	112.29	118.80
26	1H	1658	C	N1-C2-O2	-5.91	115.35	118.90
26	1H	764	A	N1-C6-N6	5.91	122.15	118.60
26	1H	764	A	OP1-P-OP2	-5.91	110.73	119.60
1	13	1526	G	N1-C6-O6	5.91	123.45	119.90
26	1H	239	U	O5'-P-OP1	5.91	117.79	110.70
26	1H	2211	G	P-O3'-C3'	5.91	126.79	119.70
26	14	2071	A	C8-N9-C4	-5.91	103.44	105.80
26	14	2518	A	N7-C8-N9	5.91	116.75	113.80
26	14	2582	G	C5-C6-O6	-5.91	125.06	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2767	C	C2-N1-C1'	5.91	125.30	118.80
1	1G	691	G	N9-C4-C5	-5.91	103.04	105.40
26	14	2501	C	N3-C4-C5	5.91	124.26	121.90
1	13	1502	A	C4-C5-N7	5.90	113.65	110.70
26	1H	1694	C	C2-N1-C1'	5.90	125.29	118.80
26	1H	2050	C	C2-N1-C1'	5.90	125.30	118.80
26	14	492	A	O5'-P-OP2	-5.90	100.39	105.70
26	1H	17	G	N3-C4-N9	5.90	129.54	126.00
26	1H	1674	G	O4'-C1'-N9	-5.90	103.48	108.20
26	14	528	A	C5-C6-N1	-5.90	114.75	117.70
26	14	1961	C	C6-N1-C2	5.90	122.66	120.30
26	1H	165	U	N3-C2-O2	-5.90	118.07	122.20
26	1H	1906	G	C8-N9-C4	-5.90	104.04	106.40
26	14	2549	G	N3-C4-C5	-5.90	125.65	128.60
26	1H	668	G	N1-C6-O6	5.90	123.44	119.90
26	1H	119	A	N1-C2-N3	5.90	132.25	129.30
26	1H	613	U	N3-C2-O2	-5.90	118.07	122.20
26	1H	837	C	N1-C2-O2	-5.90	115.36	118.90
26	1H	2571	C	N1-C2-O2	-5.90	115.36	118.90
26	14	1217	C	N3-C4-C5	-5.90	119.54	121.90
26	14	1338	G	N3-C4-N9	5.90	129.54	126.00
26	1H	1386	C	C6-N1-C2	-5.90	117.94	120.30
1	1G	1498	U	C6-N1-C2	-5.90	117.46	121.00
1	1G	518	C	O5'-P-OP2	-5.89	100.39	105.70
26	14	1301	A	O4'-C1'-N9	5.89	112.92	108.20
26	14	1755	A	OP1-P-O3'	5.89	118.17	105.20
26	14	2607	G	N9-C4-C5	-5.89	103.04	105.40
14	5I	44	LEU	CA-CB-CG	5.89	128.85	115.30
1	13	545	C	N3-C4-C5	5.89	124.26	121.90
26	1H	140	A	C5-C6-N6	-5.89	118.99	123.70
26	1H	839	U	N1-C2-N3	5.89	118.43	114.90
26	1H	1309	G	O5'-P-OP1	5.89	117.77	110.70
26	1H	1376	C	N3-C4-C5	-5.89	119.54	121.90
26	14	2824	C	N3-C2-O2	5.89	126.02	121.90
26	1H	738	G	C4-C5-N7	5.89	113.16	110.80
26	1H	1647	G	N1-C6-O6	-5.89	116.37	119.90
26	1H	2688	U	C6-N1-C2	-5.89	117.47	121.00
1	1G	1487	G	C5-C6-O6	-5.89	125.07	128.60
26	1H	648	G	O5'-P-OP2	-5.88	100.40	105.70
26	1H	2071	A	C2-N3-C4	-5.88	107.66	110.60
26	14	74	A	C4-C5-N7	5.88	113.64	110.70
38	98	113	LEU	CA-CB-CG	5.88	128.83	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	690	G	C5-N7-C8	-5.88	101.36	104.30
1	13	892	A	C2-N3-C4	-5.88	107.66	110.60
26	1H	452	G	C8-N9-C4	-5.88	104.05	106.40
26	1H	621	A	N1-C2-N3	5.88	132.24	129.30
26	1H	787	U	O4'-C1'-N1	5.88	112.91	108.20
26	1H	2295	C	C6-N1-C2	-5.88	117.95	120.30
26	1H	2647	U	N3-C2-O2	-5.88	118.08	122.20
26	14	971	C	N1-C2-O2	-5.88	115.37	118.90
26	1H	793	A	C5-C6-N6	-5.88	119.00	123.70
42	D8	49	THR	C-N-CD	5.88	140.75	128.40
26	1H	222	A	P-O3'-C3'	5.88	126.75	119.70
26	1H	1618	A	N9-C4-C5	5.88	108.15	105.80
26	1H	2403	C	N1-C2-O2	-5.88	115.37	118.90
27	16	56	G	N1-C6-O6	-5.88	116.37	119.90
26	14	1731	G	O4'-C1'-N9	5.88	112.90	108.20
26	1H	201	C	C2-N3-C4	-5.88	116.96	119.90
26	1H	330	A	C5-N7-C8	-5.88	100.96	103.90
26	14	114	U	C2-N1-C1'	5.88	124.75	117.70
26	1H	778	G	N3-C2-N2	5.88	124.01	119.90
26	14	34	C	C6-N1-C2	-5.88	117.95	120.30
26	14	209	C	N3-C4-C5	5.87	124.25	121.90
26	14	669	G	N3-C4-C5	-5.87	125.66	128.60
26	14	2656	U	N1-C2-O2	5.87	126.91	122.80
26	14	2262	U	C2-N1-C1'	-5.87	110.66	117.70
26	1H	1784	A	O4'-C1'-N9	-5.87	103.50	108.20
26	14	1336	A	C5-C6-N1	5.87	120.63	117.70
26	14	2592	G	C6-N1-C2	-5.87	121.58	125.10
1	13	1203	C	C6-N1-C2	-5.87	117.95	120.30
26	1H	119	A	C4-C5-N7	-5.87	107.77	110.70
26	1H	1142(A)	A	C5-C6-N1	-5.87	114.77	117.70
1	13	891	U	N3-C2-O2	-5.86	118.10	122.20
26	1H	382	G	OP1-P-O3'	5.86	118.10	105.20
26	1H	1241	A	C5-C6-N1	-5.86	114.77	117.70
26	1H	2308	G	C5-C6-N1	-5.86	108.57	111.50
26	1H	2827	C	N3-C2-O2	5.86	126.00	121.90
26	14	774	A	C4-N9-C1'	-5.86	115.75	126.30
26	14	866	A	N1-C6-N6	5.86	122.12	118.60
26	14	2441	C	OP1-P-OP2	-5.86	110.81	119.60
26	1H	1678	G	C8-N9-C4	-5.86	104.06	106.40
26	1H	2026	C	N3-C2-O2	-5.86	117.80	121.90
26	1H	2318	G	C5-N7-C8	-5.86	101.37	104.30
26	1H	2433	A	O5'-P-OP2	5.86	117.73	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	1529	G	C8-N9-C1'	-5.86	119.38	127.00
26	1H	192	C	N1-C2-N3	-5.86	115.10	119.20
26	1H	776	G	C5-C6-N1	5.86	114.43	111.50
26	1H	2056	G	C4-C5-N7	5.86	113.14	110.80
26	14	2386	C	C2-N3-C4	-5.86	116.97	119.90
1	13	1220	G	N1-C6-O6	-5.86	116.39	119.90
26	1H	73	A	C2-N3-C4	5.86	113.53	110.60
26	1H	1334	G	O5'-P-OP1	-5.86	100.43	105.70
26	1H	1817	G	C8-N9-C4	5.86	108.74	106.40
26	1H	2271	G	C6-C5-N7	-5.86	126.89	130.40
26	14	1281	G	C4-C5-N7	5.86	113.14	110.80
26	1H	740	U	OP2-P-O3'	5.85	118.08	105.20
26	14	621	A	C5-N7-C8	-5.85	100.97	103.90
26	14	801	G	C5-C6-O6	5.85	132.11	128.60
26	14	1207	C	O5'-P-OP1	-5.85	100.43	105.70
26	14	1204	A	C5-C6-N1	-5.85	114.78	117.70
1	13	833	U	C2-N1-C1'	-5.85	110.68	117.70
25	4K	18	G	C8-N9-C4	-5.85	104.06	106.40
26	1H	364	C	C6-N1-C2	-5.85	117.96	120.30
26	1H	910	A	N1-C6-N6	5.85	122.11	118.60
26	1H	2700	C	C2-N3-C4	-5.85	116.97	119.90
46	H8	161	VAL	CB-CA-C	-5.85	100.29	111.40
26	14	933	A	C5-N7-C8	-5.85	100.98	103.90
36	35	85	LEU	CA-CB-CG	5.85	128.75	115.30
26	14	2741	A	N1-C2-N3	-5.85	126.38	129.30
26	1H	738	G	C5-C6-O6	-5.84	125.09	128.60
1	1G	266	G	C8-N9-C4	-5.84	104.06	106.40
26	14	2446	G	N1-C6-O6	-5.84	116.39	119.90
26	14	1657	C	C6-N1-C2	-5.84	117.96	120.30
26	1H	621	A	C6-C5-N7	-5.84	128.21	132.30
26	1H	1973	G	N1-C6-O6	-5.84	116.39	119.90
26	1H	2032	G	C2-N3-C4	-5.84	108.98	111.90
26	1H	2585	U	N3-C4-C5	5.84	118.11	114.60
26	14	1930	G	O5'-P-OP1	-5.84	100.44	105.70
26	14	621	A	C5-C6-N1	-5.84	114.78	117.70
26	14	628	G	C5-C6-O6	-5.84	125.10	128.60
26	14	1603	A	O5'-P-OP1	5.84	117.71	110.70
26	14	2395	C	N3-C2-O2	5.84	125.99	121.90
26	14	2688	U	C2-N3-C4	-5.84	123.50	127.00
26	1H	2261	C	OP1-P-O3'	-5.84	92.36	105.20
26	14	966	G	O5'-P-OP2	-5.84	100.45	105.70
26	1H	704	G	C8-N9-C4	-5.83	104.07	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	686	G	N1-C2-N2	-5.83	110.95	116.20
26	14	399	G	O5'-P-OP2	-5.83	100.45	105.70
1	13	328	C	N3-C2-O2	-5.83	117.82	121.90
1	13	540	G	C8-N9-C4	5.83	108.73	106.40
26	14	208	C	N1-C2-O2	-5.83	115.40	118.90
26	1H	1396	U	N3-C2-O2	-5.83	118.12	122.20
26	1H	2282	G	O5'-P-OP1	-5.83	100.45	105.70
1	1G	721	G	C5-C6-N1	-5.83	108.58	111.50
26	1H	1265	A	C8-N9-C4	-5.83	103.47	105.80
1	13	1053	G	C8-N9-C1'	5.83	134.57	127.00
26	1H	1299	G	C8-N9-C4	-5.83	104.07	106.40
26	1H	1574	C	OP2-P-O3'	5.83	118.02	105.20
26	1H	2352	A	O5'-P-OP1	-5.83	100.46	105.70
26	14	55	G	C8-N9-C4	-5.83	104.07	106.40
1	13	564	C	C2-N3-C4	5.82	122.81	119.90
1	13	865	A	N1-C6-N6	5.82	122.09	118.60
27	16	65	C	N1-C2-O2	5.82	122.39	118.90
27	16	98	G	C6-C5-N7	-5.82	126.91	130.40
26	14	783	A	N9-C1'-C2'	-5.82	105.59	112.00
26	14	1630	G	N1-C6-O6	-5.82	116.41	119.90
26	14	2623	G	N3-C4-C5	-5.82	125.69	128.60
26	14	2426	A	C4-C5-N7	5.82	113.61	110.70
26	1H	1136	G	O5'-P-OP2	-5.82	100.46	105.70
26	1H	1445	C	C6-N1-C2	-5.82	117.97	120.30
26	1H	2392	A	N3-C4-N9	-5.82	122.75	127.40
26	1H	2497	A	C6-N1-C2	-5.82	115.11	118.60
26	1H	134	C	C5-C6-N1	-5.82	118.09	121.00
26	1H	1369	G	C5-N7-C8	5.82	107.21	104.30
26	1H	2227	A	N9-C4-C5	5.82	108.13	105.80
26	14	2617	C	C5-C6-N1	-5.82	118.09	121.00
1	13	1281	U	N3-C2-O2	-5.81	118.13	122.20
26	1H	740	U	OP1-P-O3'	-5.81	92.41	105.20
26	1H	1162	G	N9-C4-C5	5.81	107.73	105.40
26	1H	1619	G	C5-N7-C8	5.81	107.21	104.30
26	14	699	A	N1-C6-N6	-5.81	115.11	118.60
1	13	1290	G	C4-N9-C1'	5.81	134.05	126.50
1	13	1504	G	N3-C2-N2	-5.81	115.83	119.90
26	1H	1327	C	N1-C2-O2	-5.81	115.42	118.90
26	1H	1349	A	N9-C4-C5	-5.81	103.48	105.80
26	1H	1984	G	N3-C2-N2	5.81	123.97	119.90
26	1H	2061	G	O5'-P-OP2	-5.81	100.47	105.70
26	14	1024	G	C6-C5-N7	-5.81	126.92	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1284	A	C5-N7-C8	-5.81	101.00	103.90
26	1H	928	G	C5-C6-O6	-5.81	125.12	128.60
26	14	1283	G	N3-C4-C5	-5.81	125.70	128.60
26	1H	1026	U	C2-N1-C1'	-5.80	110.73	117.70
26	1H	1214	A	OP2-P-O3'	5.80	117.97	105.20
26	1H	2713	A	C2-N3-C4	-5.80	107.70	110.60
27	16	98	G	OP1-P-OP2	5.80	128.31	119.60
26	14	620	G	C8-N9-C4	-5.80	104.08	106.40
26	14	912	C	N3-C4-C5	-5.80	119.58	121.90
26	14	1359	A	C4-C5-C6	-5.80	114.10	117.00
26	14	1987	G	C4-N9-C1'	-5.80	118.95	126.50
26	14	738	G	C8-N9-C4	-5.80	104.08	106.40
1	13	1065	U	P-O3'-C3'	5.80	126.66	119.70
26	1H	1029	A	C5-C6-N6	-5.80	119.06	123.70
26	1H	1642	G	N1-C2-N2	5.80	121.42	116.20
26	1H	1663	C	C5-C4-N4	-5.80	116.14	120.20
26	14	669	G	C8-N9-C4	-5.80	104.08	106.40
26	14	2712	U	N3-C4-O4	-5.80	115.34	119.40
26	1H	787	U	N3-C2-O2	-5.80	118.14	122.20
26	1H	813	U	C4-C5-C6	5.80	123.18	119.70
26	1H	1987	G	N3-C2-N2	-5.80	115.84	119.90
26	1H	2518	A	C6-C5-N7	-5.80	128.24	132.30
26	14	2597	G	C4-C5-N7	5.80	113.12	110.80
26	1H	805	G	OP1-P-O3'	5.80	117.95	105.20
26	1H	2327	A	N1-C6-N6	-5.80	115.12	118.60
26	1H	2555	U	N1-C2-O2	-5.80	118.74	122.80
26	14	1899	G	C8-N9-C4	-5.80	104.08	106.40
1	13	542	G	O5'-P-OP1	-5.80	100.48	105.70
1	13	1151	A	O4'-C1'-N9	5.80	112.84	108.20
26	1H	2763	G	N1-C6-O6	5.80	123.38	119.90
1	1G	132	C	C6-N1-C2	-5.80	117.98	120.30
26	1H	350	U	C5-C4-O4	5.79	129.38	125.90
26	1H	2010	G	O5'-P-OP1	-5.79	100.48	105.70
26	1H	2260	C	OP2-P-O3'	5.79	117.95	105.20
26	14	2426	A	C6-C5-N7	-5.79	128.25	132.30
1	1G	893	C	C6-N1-C2	5.79	122.62	120.30
26	14	2624	G	C5-C6-N1	5.79	114.40	111.50
26	14	507	A	OP1-P-OP2	-5.79	110.92	119.60
26	14	2617	C	N3-C4-C5	5.79	124.22	121.90
1	13	890	G	O5'-P-OP2	-5.79	100.49	105.70
26	1H	1446	C	N3-C2-O2	-5.79	117.85	121.90
26	1H	2433	A	OP2-P-O3'	5.79	117.94	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	835	A	O5'-P-OP1	5.79	117.65	110.70
26	14	2578	G	C5-C6-O6	5.79	132.07	128.60
30	39	68	LYS	C-N-CA	-5.79	107.23	121.70
26	14	297	C	C6-N1-C2	-5.79	117.99	120.30
54	M5	48	PHE	C-N-CA	5.79	136.16	121.70
26	1H	1599	C	C6-N1-C2	-5.78	117.99	120.30
26	1H	470	A	C5-N7-C8	-5.78	101.01	103.90
26	1H	614	U	C5-C4-O4	5.78	129.37	125.90
26	1H	1942	C	C5-C6-N1	5.78	123.89	121.00
1	1G	731	G	C5-C6-O6	-5.78	125.13	128.60
26	14	130	C	C5-C4-N4	-5.78	116.15	120.20
26	14	2261	C	O5'-P-OP1	5.78	117.64	110.70
26	1H	1379	A	OP1-P-O3'	5.78	117.91	105.20
26	1H	2073	C	OP2-P-O3'	5.78	117.91	105.20
26	1H	197	A	C8-N9-C4	-5.78	103.49	105.80
26	1H	208	C	OP2-P-O3'	5.78	117.91	105.20
26	1H	845	G	C2-N3-C4	-5.78	109.01	111.90
26	1H	1979	C	N3-C4-C5	-5.78	119.59	121.90
26	14	1517	G	OP1-P-O3'	5.78	117.91	105.20
26	1H	659	C	OP2-P-O3'	5.77	117.90	105.20
31	41	34	LEU	CA-CB-CG	5.77	128.58	115.30
26	1H	1777	U	N3-C4-C5	-5.77	111.14	114.60
26	1H	1839	G	O4'-C1'-N9	-5.77	103.58	108.20
26	1H	1879	C	C6-N1-C2	-5.77	117.99	120.30
26	1H	2585	U	C6-N1-C2	5.77	124.46	121.00
26	14	855	G	C8-N9-C4	-5.77	104.09	106.40
26	1H	1332	G	N3-C4-C5	5.77	131.49	128.60
26	1H	1647	G	N3-C4-C5	-5.77	125.72	128.60
26	1H	2713	A	OP2-P-O3'	5.77	117.90	105.20
1	13	1279	A	C5-N7-C8	-5.77	101.02	103.90
26	1H	417	C	N3-C2-O2	5.77	125.94	121.90
26	1H	516	C	C6-N1-C2	-5.77	117.99	120.30
26	1H	974(A)	C	C5-C4-N4	5.77	124.24	120.20
26	1H	1936	A	O4'-C1'-N9	5.77	112.81	108.20
26	1H	2451	A	C4-C5-C6	-5.77	114.12	117.00
26	14	1991	U	N3-C2-O2	-5.77	118.16	122.20
26	14	2067	G	C8-N9-C4	-5.77	104.09	106.40
26	14	2688	U	N3-C4-O4	-5.77	115.36	119.40
26	1H	1653	G	N3-C4-N9	5.77	129.46	126.00
26	14	1614	A	C5-N7-C8	-5.77	101.02	103.90
26	14	2873	A	C4-C5-N7	5.77	113.58	110.70
26	1H	2497	A	C2-N3-C4	5.76	113.48	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2449	U	OP2-P-O3'	5.76	117.88	105.20
1	13	748	C	C5-C6-N1	5.76	123.88	121.00
26	1H	1798	U	N3-C4-O4	-5.76	115.37	119.40
26	14	1256	G	N1-C6-O6	5.76	123.36	119.90
26	1H	129	C	C6-N1-C2	5.76	122.60	120.30
26	1H	938	G	N1-C6-O6	-5.76	116.44	119.90
26	1H	2326	C	N3-C4-C5	-5.76	119.60	121.90
26	14	372	G	O4'-C1'-N9	5.76	112.81	108.20
26	1H	2232	U	C6-N1-C2	-5.76	117.55	121.00
26	1H	802	A	N1-C6-N6	5.76	122.05	118.60
1	1G	900	A	C8-N9-C4	5.76	108.10	105.80
26	14	470	A	O5'-P-OP1	-5.76	100.52	105.70
26	1H	1535	U	N1-C2-O2	5.75	126.83	122.80
26	1H	621	A	C5-C6-N1	-5.75	114.82	117.70
26	1H	670	A	N9-C4-C5	-5.75	103.50	105.80
26	1H	678	C	C2-N3-C4	-5.75	117.02	119.90
26	1H	2023	G	C6-C5-N7	-5.75	126.95	130.40
26	1H	913	U	C6-N1-C2	5.75	124.45	121.00
26	1H	1257	C	C4-C5-C6	5.75	120.28	117.40
26	1H	1987	G	C8-N9-C4	-5.75	104.10	106.40
26	1H	2702	U	C5'-C4'-O4'	5.75	116.00	109.10
1	1G	115	G	P-O3'-C3'	5.75	126.60	119.70
26	14	1506	C	C6-N1-C2	-5.75	118.00	120.30
26	1H	1124	C	N1-C2-O2	-5.75	115.45	118.90
1	1G	690	G	N3-C4-C5	5.75	131.47	128.60
26	1H	1829	A	C4-C5-N7	-5.75	107.83	110.70
26	14	450	G	N1-C6-O6	5.75	123.35	119.90
26	1H	16	G	N1-C6-O6	5.75	123.35	119.90
1	1G	906	G	N1-C6-O6	5.75	123.35	119.90
1	13	809	G	C6-C5-N7	5.74	133.85	130.40
26	1H	133	C	C6-N1-C2	5.74	122.60	120.30
26	1H	1368	G	N3-C4-C5	-5.74	125.73	128.60
26	14	1582	C	N3-C2-O2	-5.74	117.88	121.90
26	14	1781	C	C2-N1-C1'	5.74	125.12	118.80
26	14	2544	G	C5-C6-O6	-5.74	125.15	128.60
26	1H	2449	U	C6-N1-C2	-5.74	117.56	121.00
55	3L	54	C	C6-N1-C2	-5.74	118.00	120.30
26	14	2254	C	OP2-P-O3'	5.74	117.83	105.20
1	13	632	A	C5-C6-N6	-5.74	119.11	123.70
26	1H	2871	C	O5'-P-OP2	-5.74	100.53	105.70
26	1H	636	G	C8-N9-C4	-5.74	104.10	106.40
1	1G	1499	A	O5'-P-OP1	-5.74	100.53	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1443	G	C4-N9-C1'	5.74	133.96	126.50
26	1H	967	C	N3-C2-O2	-5.74	117.88	121.90
26	14	1776	G	N1-C2-N2	-5.74	111.04	116.20
26	1H	1257	C	C5-C6-N1	-5.74	118.13	121.00
1	1G	1301	U	C2-N1-C1'	5.74	124.58	117.70
26	14	983	A	OP2-P-O3'	5.74	117.82	105.20
26	14	2044	C	O5'-P-OP1	-5.74	100.54	105.70
1	13	968	A	C5-C6-N6	-5.73	119.11	123.70
26	1H	52	A	O5'-P-OP2	-5.73	100.54	105.70
26	1H	1365	A	O5'-P-OP2	-5.73	100.54	105.70
1	13	857	C	N3-C4-C5	-5.73	119.61	121.90
26	1H	1022	G	N3-C4-C5	-5.73	125.73	128.60
26	1H	1128	A	O5'-P-OP1	-5.73	100.54	105.70
26	1H	1382	G	OP2-P-O3'	5.73	117.81	105.20
26	1H	2277	G	C2-N3-C4	5.73	114.77	111.90
26	14	1950	G	C5-N7-C8	-5.73	101.43	104.30
54	M5	63	PRO	CA-N-CD	-5.73	103.48	111.50
1	13	314	C	N3-C2-O2	-5.73	117.89	121.90
26	1H	59	U	C6-N1-C2	-5.73	117.56	121.00
26	1H	134	C	C2-N3-C4	-5.73	117.03	119.90
26	1H	852	G	O5'-P-OP2	-5.73	100.54	105.70
26	1H	1010	A	C8-N9-C4	5.73	108.09	105.80
26	1H	1791	A	C2-N3-C4	5.73	113.47	110.60
26	14	824	A	OP1-P-OP2	-5.73	111.00	119.60
1	1G	108	G	C2-N3-C4	5.73	114.77	111.90
1	13	1204	A	N1-C6-N6	5.73	122.04	118.60
26	1H	1496	A	C6-C5-N7	-5.73	128.29	132.30
26	1H	2299	G	N3-C2-N2	-5.73	115.89	119.90
26	1H	2618	G	C8-N9-C4	-5.73	104.11	106.40
26	1H	2729	G	O5'-P-OP2	-5.73	100.55	105.70
26	14	1815	A	OP1-P-O3'	5.73	117.80	105.20
26	14	2267	A	OP1-P-OP2	5.73	128.19	119.60
26	1H	2275	C	OP1-P-O3'	5.73	117.80	105.20
1	1G	237	C	C5-C6-N1	-5.73	118.14	121.00
1	13	253	U	O5'-P-OP2	5.72	117.57	110.70
26	1H	828	U	N3-C2-O2	-5.72	118.19	122.20
26	1H	1958	C	N3-C4-N4	5.72	122.01	118.00
18	9A	31	LEU	CA-CB-CG	5.72	128.47	115.30
1	13	507	C	N3-C4-C5	-5.72	119.61	121.90
26	1H	1308	A	N1-C2-N3	5.72	132.16	129.30
26	14	139	G	N3-C4-C5	-5.72	125.74	128.60
1	13	1227	A	N1-C6-N6	5.72	122.03	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	388	G	N1-C2-N2	-5.72	111.05	116.20
26	1H	785	G	N9-C4-C5	5.72	107.69	105.40
1	1G	1234	C	N1-C2-O2	5.72	122.33	118.90
1	1G	1331	G	P-O3'-C3'	5.72	126.56	119.70
26	14	670	A	C8-N9-C4	5.72	108.09	105.80
26	14	823	G	N1-C2-N2	-5.72	111.05	116.20
26	14	1681	G	N1-C6-O6	5.72	123.33	119.90
26	1H	684	G	C8-N9-C4	-5.72	104.11	106.40
26	1H	2099	U	C2-N1-C1'	5.71	124.56	117.70
4	32	135	LEU	CB-CG-CD2	-5.71	101.28	111.00
26	14	1379	A	C5-C6-N6	-5.71	119.13	123.70
26	1H	577	G	OP1-P-OP2	-5.71	111.03	119.60
26	1H	816	C	N3-C4-N4	5.71	122.00	118.00
1	13	703	G	N3-C4-N9	5.71	129.43	126.00
26	1H	789	A	OP1-P-OP2	5.71	128.16	119.60
26	1H	1132	A	N1-C6-N6	-5.71	115.17	118.60
36	78	59	LEU	CB-CG-CD1	5.71	120.71	111.00
26	14	1681	G	C4-C5-N7	5.71	113.08	110.80
26	14	1971	A	OP1-P-O3'	5.71	117.76	105.20
26	1H	2710	C	C5-C6-N1	-5.71	118.15	121.00
26	14	733	G	N3-C4-C5	-5.71	125.75	128.60
26	14	827	U	O5'-P-OP2	-5.71	100.56	105.70
26	14	1762	A	C5-C6-N1	-5.71	114.85	117.70
26	1H	2291	U	N3-C4-C5	-5.71	111.18	114.60
26	1H	2363	C	C6-N1-C2	5.71	122.58	120.30
26	14	752	A	C5-N7-C8	-5.71	101.05	103.90
26	14	808	G	C8-N9-C1'	-5.71	119.58	127.00
54	M5	61	LEU	CA-CB-CG	5.71	128.43	115.30
26	14	205	G	N9-C4-C5	-5.70	103.12	105.40
26	1H	2067	G	N1-C6-O6	-5.70	116.48	119.90
26	1H	2430	A	C6-N1-C2	5.70	122.02	118.60
1	1G	567	G	N3-C4-N9	-5.70	122.58	126.00
26	14	1776	G	N3-C4-N9	5.70	129.42	126.00
26	1H	783	A	N9-C1'-C2'	-5.70	105.73	112.00
1	1G	33	A	C8-N9-C4	-5.70	103.52	105.80
26	14	531	C	C5-C6-N1	-5.70	118.15	121.00
26	14	963	U	O5'-P-OP1	-5.70	100.57	105.70
26	14	1674	G	C8-N9-C1'	-5.70	119.59	127.00
1	13	22	G	N3-C4-N9	-5.70	122.58	126.00
1	1G	672	U	O5'-P-OP1	-5.70	100.57	105.70
26	14	1274	A	N1-C6-N6	5.70	122.02	118.60
1	13	966	G	C4-C5-N7	5.70	113.08	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1053	G	O4'-C1'-N9	5.70	112.76	108.20
26	1H	1607	C	C2-N1-C1'	5.70	125.07	118.80
26	1H	2450	A	N1-C6-N6	-5.70	115.18	118.60
26	14	739	G	O5'-P-OP1	-5.70	100.57	105.70
26	14	949	C	N3-C4-C5	5.70	124.18	121.90
26	14	2780	G	N3-C4-N9	-5.70	122.58	126.00
29	29	50	GLY	N-CA-C	5.70	127.34	113.10
1	13	1054	C	C5-C4-N4	-5.69	116.22	120.20
26	1H	1343	G	N3-C4-C5	-5.69	125.75	128.60
26	1H	2251	G	C4-C5-N7	-5.69	108.52	110.80
26	14	203	C	C6-N1-C1'	5.69	127.63	120.80
8	7E	112	LEU	CA-CB-CG	5.69	128.39	115.30
26	1H	904	C	C6-N1-C2	-5.69	118.02	120.30
26	1H	2060	A	N1-C6-N6	-5.69	115.19	118.60
26	14	1328	G	N9-C4-C5	-5.69	103.12	105.40
26	1H	594	U	C5-C6-N1	-5.69	119.86	122.70
26	1H	1357	U	C4-C5-C6	5.69	123.11	119.70
26	1H	1573	G	C8-N9-C4	5.69	108.68	106.40
26	1H	1964	G	C5-C6-O6	5.69	132.01	128.60
26	14	2038	G	N9-C4-C5	-5.69	103.12	105.40
26	1H	17	G	C4-N9-C1'	5.69	133.89	126.50
26	1H	1967	C	C5-C4-N4	5.69	124.18	120.20
26	1H	2306	C	N1-C2-O2	5.69	122.31	118.90
26	1H	2440	C	O5'-P-OP2	5.69	117.53	110.70
26	1H	2713	A	OP1-P-O3'	-5.69	92.69	105.20
26	14	598	G	C5-C6-O6	-5.69	125.19	128.60
26	14	2559	C	O5'-P-OP1	-5.69	100.58	105.70
27	1J	56	G	N3-C4-N9	5.69	129.41	126.00
26	14	2256	G	O5'-P-OP2	-5.69	100.58	105.70
26	1H	673	C	C5-C4-N4	-5.68	116.22	120.20
26	14	810	U	OP1-P-OP2	-5.68	111.07	119.60
26	14	1633	G	N7-C8-N9	5.68	115.94	113.10
26	1H	2551	C	N3-C2-O2	-5.68	117.92	121.90
26	1H	860	U	N1-C2-N3	5.68	118.31	114.90
26	1H	2620	C	O5'-P-OP2	5.68	117.52	110.70
1	13	527	G	N9-C4-C5	5.68	107.67	105.40
26	1H	122	G	N1-C6-O6	5.68	123.31	119.90
26	1H	1787	A	O4'-C1'-N9	-5.68	103.66	108.20
26	14	670	A	OP1-P-OP2	-5.68	111.08	119.60
26	14	2062	A	N7-C8-N9	-5.68	110.96	113.80
26	1H	967	C	C5-C6-N1	-5.68	118.16	121.00
26	1H	2501	C	C2-N1-C1'	-5.68	112.55	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	768	G	N1-C2-N2	-5.68	111.09	116.20
26	1H	1274	A	N9-C4-C5	5.68	108.07	105.80
1	1G	541	G	C5-C6-O6	-5.68	125.19	128.60
26	14	242	G	O4'-C1'-N9	5.68	112.74	108.20
26	14	2078	C	N3-C4-C5	-5.68	119.63	121.90
26	14	2500	U	O5'-P-OP2	-5.68	100.59	105.70
1	13	1200	C	N1-C2-O2	5.67	122.31	118.90
26	1H	1249	U	N1-C2-O2	-5.67	118.83	122.80
26	14	150	C	C6-N1-C2	-5.67	118.03	120.30
26	14	2597	G	O5'-P-OP1	5.67	117.51	110.70
26	1H	1349	A	N1-C6-N6	5.67	122.00	118.60
26	1H	1399	C	C6-N1-C2	-5.67	118.03	120.30
1	13	803	G	C2-N3-C4	-5.67	109.06	111.90
26	1H	1646	C	C2-N1-C1'	-5.67	112.56	118.80
26	1H	1678	G	C6-C5-N7	-5.67	127.00	130.40
26	1H	1999	C	N3-C4-C5	5.67	124.17	121.90
26	1H	2401	U	C2-N1-C1'	5.67	124.51	117.70
1	13	555	C	C6-N1-C2	-5.67	118.03	120.30
26	14	1402	C	C6-N1-C2	-5.67	118.03	120.30
1	13	1290	G	C8-N9-C4	-5.67	104.13	106.40
26	1H	965	C	C5-C6-N1	5.67	123.83	121.00
26	1H	1616	A	N1-C6-N6	5.67	122.00	118.60
23	2L	48	U	P-O3'-C3'	5.67	126.50	119.70
26	14	2549	G	C4-N9-C1'	5.67	133.87	126.50
1	13	375	U	O5'-P-OP1	-5.67	100.60	105.70
26	1H	2489	G	OP2-P-O3'	5.67	117.67	105.20
26	14	2002	G	N1-C2-N2	-5.67	111.10	116.20
26	1H	1404	C	C6-N1-C2	5.67	122.57	120.30
26	1H	2594	C	C2-N3-C4	-5.67	117.07	119.90
1	13	902	G	C5-C6-O6	-5.66	125.20	128.60
26	1H	456	C	C6-N1-C2	5.66	122.56	120.30
26	1H	2318	G	C6-C5-N7	-5.66	127.00	130.40
1	1G	1397	C	C5-C6-N1	5.66	123.83	121.00
26	14	1341	U	N1-C2-O2	-5.66	118.84	122.80
26	14	2702	U	C6-N1-C1'	-5.66	113.27	121.20
26	1H	111	A	O5'-P-OP2	-5.66	100.61	105.70
26	1H	728	G	N9-C4-C5	-5.66	103.14	105.40
26	1H	826	U	C4-C5-C6	5.66	123.10	119.70
26	14	201	C	C5-C6-N1	-5.66	118.17	121.00
26	14	2762	G	C4-N9-C1'	5.66	133.86	126.50
26	14	2870	C	O5'-P-OP1	-5.66	100.61	105.70
26	1H	2486	G	C5-C6-O6	-5.66	125.21	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1141	U	P-O3'-C3'	5.66	126.49	119.70
1	13	1222	G	C8-N9-C4	-5.66	104.14	106.40
26	1H	736	C	O5'-P-OP1	-5.66	100.61	105.70
27	16	29	A	C8-N9-C4	-5.66	103.54	105.80
1	1G	354	G	C6-C5-N7	-5.66	127.01	130.40
26	14	835	A	O5'-P-OP2	-5.66	100.61	105.70
1	13	1025	U	C2-N3-C4	5.65	130.39	127.00
26	1H	1578	U	C5-C4-O4	5.65	129.29	125.90
26	1H	1610	A	N9-C4-C5	-5.65	103.54	105.80
26	14	1661	G	N3-C2-N2	-5.65	115.94	119.90
26	14	2607	G	C2-N3-C4	-5.65	109.07	111.90
26	1H	1203	G	N1-C6-O6	-5.65	116.51	119.90
26	1H	1786	A	C4-N9-C1'	5.65	136.47	126.30
27	16	56	G	C4-N9-C1'	5.65	133.84	126.50
1	1G	522	C	O5'-P-OP2	-5.65	100.61	105.70
1	1G	541	G	N1-C6-O6	5.65	123.29	119.90
26	1H	670	A	N1-C6-N6	5.65	121.99	118.60
26	14	203	C	N1-C2-O2	-5.65	115.51	118.90
26	1H	1299	G	N7-C8-N9	5.65	115.92	113.10
26	1H	1683	C	N1-C2-N3	5.65	123.15	119.20
26	1H	2002	G	C6-C5-N7	-5.65	127.01	130.40
26	1H	2608	G	O5'-P-OP2	5.65	117.48	110.70
36	78	26	GLY	N-CA-C	-5.65	98.98	113.10
1	1G	1259	C	C6-N1-C2	-5.65	118.04	120.30
26	14	138	G	N1-C6-O6	5.65	123.29	119.90
26	1H	1635	G	OP1-P-OP2	-5.65	111.13	119.60
26	14	834	C	O5'-P-OP2	-5.65	100.62	105.70
26	14	2050	C	C2-N1-C1'	5.65	125.01	118.80
26	1H	1642	G	N3-C2-N2	-5.64	115.95	119.90
26	14	998	C	N3-C2-O2	-5.64	117.95	121.90
1	1G	413	G	O4'-C1'-N9	5.64	112.72	108.20
26	14	140	A	C6-C5-N7	-5.64	128.35	132.30
26	14	1769	G	N3-C4-C5	-5.64	125.78	128.60
54	M5	62	LEU	CB-CG-CD1	5.64	120.59	111.00
1	13	1433	A	O5'-P-OP1	-5.64	100.62	105.70
26	1H	251	A	C2-N3-C4	5.64	113.42	110.60
26	1H	2246	G	N3-C4-C5	-5.64	125.78	128.60
26	14	2042	A	O5'-P-OP2	-5.64	100.62	105.70
1	13	971	G	N3-C2-N2	-5.64	115.95	119.90
26	1H	443	A	O5'-P-OP2	-5.64	100.62	105.70
26	14	527	C	N3-C4-N4	-5.64	114.05	118.00
26	1H	1022	G	C6-N1-C2	-5.64	121.72	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1184	G	N3-C2-N2	-5.64	115.95	119.90
26	1H	1979	C	C6-N1-C2	-5.64	118.05	120.30
26	14	1830	C	C5-C4-N4	-5.64	116.25	120.20
26	1H	1161	C	C6-N1-C2	-5.63	118.05	120.30
1	1G	1234	C	N3-C2-O2	-5.63	117.96	121.90
26	1H	1785	A	C8-N9-C4	-5.63	103.55	105.80
1	1G	484	G	C4-N9-C1'	-5.63	119.18	126.50
1	1G	704	A	N9-C4-C5	-5.63	103.55	105.80
1	13	1502	A	N1-C2-N3	5.63	132.12	129.30
26	1H	46	C	O5'-P-OP2	-5.63	100.63	105.70
26	1H	1377	G	N9-C4-C5	5.63	107.65	105.40
27	16	109	G	C8-N9-C4	-5.63	104.15	106.40
26	14	1396	U	C2-N1-C1'	5.63	124.46	117.70
26	1H	400	G	N1-C6-O6	5.63	123.28	119.90
26	1H	1597	A	O4'-C1'-N9	5.63	112.70	108.20
26	14	410	G	C5-C6-O6	-5.63	125.22	128.60
26	14	669	G	C6-N1-C2	-5.63	121.72	125.10
26	14	1385	G	C8-N9-C1'	5.63	134.32	127.00
26	14	1597	A	N1-C6-N6	-5.63	115.22	118.60
26	14	1828	G	C4-C5-N7	-5.63	108.55	110.80
26	1H	404	C	P-O3'-C3'	5.63	126.45	119.70
26	1H	1166	C	O5'-P-OP1	-5.63	100.64	105.70
26	1H	1773	A	OP1-P-OP2	-5.63	111.16	119.60
26	14	250	G	C4-C5-N7	5.63	113.05	110.80
26	14	1995	U	N3-C2-O2	-5.63	118.26	122.20
26	1H	1885	A	N7-C8-N9	-5.62	110.99	113.80
26	1H	2499	C	N3-C4-N4	5.62	121.94	118.00
1	13	1527	C	C6-N1-C2	-5.62	118.05	120.30
26	1H	941	A	N1-C6-N6	5.62	121.97	118.60
26	1H	1224	G	N9-C4-C5	-5.62	103.15	105.40
26	1H	2246	G	N3-C4-N9	5.62	129.38	126.00
1	1G	1523	G	C4-C5-N7	-5.62	108.55	110.80
11	2A	63	LEU	CA-CB-CG	5.62	128.23	115.30
26	14	252	G	N3-C4-C5	-5.62	125.79	128.60
26	14	1359	A	C4-N9-C1'	-5.62	116.18	126.30
26	1H	2713	A	C5-C6-N1	-5.62	114.89	117.70
26	14	1021	A	C2-N3-C4	-5.62	107.79	110.60
26	14	1434	A	N7-C8-N9	-5.62	110.99	113.80
23	2K	17	C	C2-N3-C4	5.62	122.71	119.90
26	1H	2439	A	C5-N7-C8	-5.62	101.09	103.90
26	14	2604	U	C5-C4-O4	-5.62	122.53	125.90
26	14	2685	G	OP1-P-O3'	5.62	117.56	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	813	U	C5-C6-N1	-5.62	119.89	122.70
26	14	1695	G	N9-C4-C5	-5.62	103.15	105.40
1	13	818	G	C5-N7-C8	5.62	107.11	104.30
26	1H	1374	G	N1-C6-O6	5.62	123.27	119.90
26	14	2211	G	C4-N9-C1'	5.62	133.80	126.50
26	14	2551	C	C5-C6-N1	-5.62	118.19	121.00
1	13	792	A	C5-N7-C8	-5.61	101.09	103.90
1	13	863	U	N1-C2-N3	5.61	118.27	114.90
26	1H	1950	G	C6-C5-N7	-5.61	127.03	130.40
26	14	2554	U	O5'-P-OP1	-5.61	100.65	105.70
41	C8	116	ALA	N-CA-C	-5.61	95.85	111.00
26	14	2440	C	C5-C4-N4	5.61	124.13	120.20
1	13	1455	G	C8-N9-C4	5.61	108.64	106.40
26	1H	946	G	C5-N7-C8	5.61	107.11	104.30
26	1H	1308	A	C8-N9-C4	-5.61	103.56	105.80
26	14	188	G	N1-C6-O6	5.61	123.27	119.90
26	14	223	A	C8-N9-C4	-5.61	103.56	105.80
26	14	992	C	N3-C2-O2	-5.61	117.97	121.90
26	14	1908	C	C6-N1-C2	-5.61	118.06	120.30
26	14	2062	A	C6-C5-N7	5.61	136.23	132.30
26	14	2503	A	C5-C6-N6	-5.61	119.21	123.70
26	14	2258	C	C5-C4-N4	-5.61	116.27	120.20
26	1H	128	C	C5-C6-N1	-5.61	118.20	121.00
26	1H	2086	U	O5'-P-OP2	-5.61	100.65	105.70
26	14	2050	C	N1-C2-O2	5.61	122.26	118.90
42	95	49	THR	C-N-CD	5.61	140.18	128.40
1	13	644	G	O5'-P-OP2	-5.61	100.66	105.70
1	13	652	U	O4'-C1'-N1	5.61	112.69	108.20
26	1H	1614	A	N3-C4-C5	5.61	130.72	126.80
26	14	205	G	C8-N9-C4	5.61	108.64	106.40
26	14	666	G	C2-N3-C4	-5.60	109.10	111.90
26	1H	630	G	C4-N9-C1'	-5.60	119.22	126.50
26	1H	1626	G	C8-N9-C4	-5.60	104.16	106.40
26	14	828	U	N3-C4-C5	-5.60	111.24	114.60
1	13	313	A	O5'-P-OP2	-5.60	100.66	105.70
1	13	697	U	C6-N1-C2	5.60	124.36	121.00
26	1H	201	C	C6-N1-C2	5.60	122.54	120.30
26	1H	1021	A	C5-C6-N1	-5.60	114.90	117.70
26	1H	1758	G	OP2-P-O3'	5.60	117.52	105.20
26	1H	1761	C	C6-N1-C2	5.60	122.54	120.30
26	1H	2502	G	C8-N9-C4	-5.60	104.16	106.40
1	1G	1300	G	P-O3'-C3'	5.60	126.42	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	58	G	C6-C5-N7	-5.60	127.04	130.40
1	13	394	G	C8-N9-C4	-5.60	104.16	106.40
26	1H	239	U	C5-C4-O4	5.60	129.26	125.90
26	1H	530	G	N1-C2-N2	-5.60	111.16	116.20
26	1H	2484	G	C8-N9-C4	5.60	108.64	106.40
1	1G	316	G	OP1-P-O3'	5.60	117.51	105.20
26	14	242	G	C8-N9-C4	5.60	108.64	106.40
26	14	1779	U	C6-N1-C1'	-5.60	113.36	121.20
26	14	1822	G	N9-C4-C5	5.60	107.64	105.40
26	14	2473	U	C6-N1-C1'	-5.60	113.36	121.20
26	1H	1698	A	N1-C2-N3	5.59	132.10	129.30
27	1J	81	G	C6-C5-N7	-5.59	127.04	130.40
26	1H	534	U	OP2-P-O3'	5.59	117.50	105.20
1	1G	1465	C	C2-N1-C1'	5.59	124.95	118.80
26	14	278	A	P-O3'-C3'	5.59	126.41	119.70
1	13	825	G	C8-N9-C4	-5.59	104.16	106.40
26	1H	1575	C	O5'-P-OP1	5.59	117.41	110.70
26	1H	110	G	N7-C8-N9	-5.59	110.31	113.10
26	1H	1579	A	N1-C6-N6	5.59	121.95	118.60
55	3L	55	U	C2-N1-C1'	5.59	124.41	117.70
1	13	1370	G	N1-C6-O6	5.59	123.25	119.90
26	1H	659	C	C6-N1-C2	5.59	122.53	120.30
26	1H	1302	A	C4-C5-N7	-5.59	107.91	110.70
26	1H	1578	U	N3-C2-O2	-5.59	118.29	122.20
26	1H	2056	G	N9-C4-C5	-5.59	103.17	105.40
1	1G	1225	A	N7-C8-N9	5.59	116.59	113.80
1	13	1382	C	N1-C2-O2	5.58	122.25	118.90
26	1H	1559	G	N3-C4-C5	5.58	131.39	128.60
26	1H	1804	C	OP1-P-OP2	-5.58	111.22	119.60
26	1H	1817	G	N3-C2-N2	5.58	123.81	119.90
1	1G	1523	G	N3-C4-C5	-5.58	125.81	128.60
26	14	71	A	C8-N9-C4	-5.58	103.57	105.80
1	13	85	U	C2-N1-C1'	-5.58	111.00	117.70
1	13	771	G	C2-N3-C4	-5.58	109.11	111.90
26	1H	124	G	C2-N3-C4	-5.58	109.11	111.90
26	1H	1302	A	C5-C6-N6	5.58	128.16	123.70
26	1H	1310	G	C4-C5-N7	5.58	113.03	110.80
26	1H	1955	U	N1-C2-N3	5.58	118.25	114.90
26	1H	1969	A	C5-N7-C8	5.58	106.69	103.90
26	14	117	G	O5'-P-OP1	5.58	117.40	110.70
26	1H	451	C	N3-C2-O2	5.58	125.81	121.90
26	1H	1220	A	N1-C6-N6	-5.58	115.25	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	221	C	N1-C2-O2	5.58	122.25	118.90
26	14	2033	A	C2-N3-C4	5.58	113.39	110.60
1	13	1252	A	N1-C6-N6	-5.58	115.25	118.60
1	13	1513	A	C5-C6-N6	-5.58	119.24	123.70
26	1H	1347	G	N1-C6-O6	5.58	123.25	119.90
26	14	2060	A	N1-C6-N6	-5.58	115.25	118.60
1	13	580	U	N3-C2-O2	-5.58	118.30	122.20
26	1H	1647	G	C5-C6-O6	5.58	131.95	128.60
26	14	974(A)	C	C5-C4-N4	5.58	124.10	120.20
26	1H	74	A	N3-C4-N9	-5.57	122.94	127.40
26	14	121	G	C5-C6-O6	-5.57	125.26	128.60
1	13	52	G	N9-C4-C5	-5.57	103.17	105.40
1	13	783	C	C6-N1-C2	5.57	122.53	120.30
26	1H	534	U	O5'-P-OP1	-5.57	100.69	105.70
26	1H	974	G	OP1-P-OP2	5.57	127.95	119.60
26	1H	2336	A	C2-N3-C4	5.57	113.39	110.60
26	14	809	G	N3-C4-C5	-5.57	125.81	128.60
26	14	1768	U	C2-N3-C4	5.57	130.34	127.00
26	1H	784	A	OP1-P-OP2	-5.57	111.25	119.60
26	1H	938	G	N1-C2-N2	-5.57	111.19	116.20
26	1H	1625	C	N1-C2-O2	5.57	122.24	118.90
26	1H	1673	U	C5-C6-N1	-5.57	119.92	122.70
26	14	475	U	C6-N1-C2	-5.57	117.66	121.00
26	14	774	A	O5'-P-OP2	-5.57	100.69	105.70
1	13	833	U	C5-C4-O4	5.57	129.24	125.90
26	1H	2508	G	N1-C6-O6	-5.57	116.56	119.90
26	1H	2530	A	N1-C6-N6	5.57	121.94	118.60
1	1G	180	U	N3-C4-O4	5.57	123.30	119.40
26	14	204	A	C8-N9-C4	-5.57	103.57	105.80
26	14	2346	A	C5-C6-N1	-5.57	114.92	117.70
26	14	2477	C	OP2-P-O3'	5.57	117.44	105.20
1	13	1301	U	C5-C6-N1	5.56	125.48	122.70
26	14	201	C	C2-N1-C1'	-5.56	112.68	118.80
26	14	715	G	C5-C6-O6	-5.56	125.26	128.60
26	1H	1370	C	N1-C2-O2	-5.56	115.56	118.90
26	1H	1610	A	C5-N7-C8	-5.56	101.12	103.90
26	14	725	G	N1-C6-O6	5.56	123.24	119.90
26	14	2092	U	C5-C4-O4	5.56	129.24	125.90
1	13	1227	A	N3-C4-C5	5.56	130.69	126.80
26	14	127	A	O5'-P-OP2	-5.56	100.69	105.70
1	13	793	U	N1-C2-O2	-5.56	118.91	122.80
26	1H	50	U	O5'-P-OP2	-5.56	100.70	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	1438	G	C4-C5-N7	-5.56	108.58	110.80
26	14	1900	A	C6-C5-N7	-5.56	128.41	132.30
26	1H	486	C	N3-C4-N4	5.56	121.89	118.00
26	1H	1307	A	N9-C4-C5	-5.56	103.58	105.80
26	1H	945	A	N9-C1'-C2'	5.56	121.22	114.00
30	39	74	ARG	NE-CZ-NH2	-5.56	117.52	120.30
26	1H	1413	G	C8-N9-C4	-5.55	104.18	106.40
26	1H	1818	U	OP1-P-OP2	5.55	127.93	119.60
26	1H	105	C	C6-N1-C2	-5.55	118.08	120.30
26	1H	1021	A	N1-C6-N6	5.55	121.93	118.60
26	1H	2287	A	N3-C4-C5	5.55	130.69	126.80
26	14	1567	A	OP1-P-O3'	5.55	117.41	105.20
26	1H	1653	G	N3-C2-N2	5.55	123.78	119.90
26	1H	2497	A	N3-C4-C5	-5.55	122.92	126.80
26	14	620	G	O5'-P-OP2	-5.55	100.71	105.70
26	14	2239	G	C5-C6-O6	5.55	131.93	128.60
1	13	733	A	O4'-C1'-N9	5.55	112.64	108.20
26	1H	472	A	C2-N3-C4	-5.55	107.83	110.60
26	1H	1829	A	C5-C6-N6	5.55	128.14	123.70
26	1H	2307	G	C8-N9-C1'	-5.55	119.79	127.00
26	1H	2592	G	C6-C5-N7	-5.55	127.07	130.40
26	1H	2592	G	N3-C4-C5	-5.55	125.83	128.60
26	1H	2447	G	C5-C6-N1	5.54	114.27	111.50
26	1H	209	C	C5-C6-N1	-5.54	118.23	121.00
26	1H	797	C	C2-N3-C4	-5.54	117.13	119.90
26	1H	1535	U	O4'-C1'-N1	5.54	112.64	108.20
26	1H	1698	A	N3-C4-C5	5.54	130.68	126.80
26	1H	2288	A	C5-C6-N6	-5.54	119.26	123.70
26	14	693	C	C5-C4-N4	5.54	124.08	120.20
1	13	1086	U	N3-C4-O4	5.54	123.28	119.40
26	1H	1675	C	N3-C4-C5	-5.54	119.68	121.90
26	1H	2502	G	N7-C8-N9	5.54	115.87	113.10
26	14	1259	G	N1-C2-N2	-5.54	111.21	116.20
26	1H	2441	C	C5-C4-N4	5.54	124.08	120.20
1	1G	481	G	N3-C4-C5	-5.54	125.83	128.60
26	14	2261	C	O5'-P-OP2	-5.54	100.71	105.70
26	14	2597	G	N1-C6-O6	5.54	123.22	119.90
26	1H	776	G	O4'-C1'-N9	-5.54	103.77	108.20
26	1H	1614	A	N7-C8-N9	5.54	116.57	113.80
26	1H	1660	C	N3-C2-O2	-5.54	118.02	121.90
26	1H	2307	G	N7-C8-N9	5.54	115.87	113.10
32	51	171	LEU	N-CA-C	5.54	125.95	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	221	C	C6-N1-C2	-5.54	118.09	120.30
26	1H	1178	C	P-O3'-C3'	5.54	126.34	119.70
26	1H	2439	A	C4-C5-N7	5.54	113.47	110.70
26	14	856	C	O5'-P-OP1	-5.54	100.72	105.70
26	14	1684	C	C6-N1-C2	5.54	122.52	120.30
35	25	8	LEU	CA-CB-CG	5.54	128.03	115.30
1	13	810	C	C6-N1-C1'	-5.53	114.16	120.80
26	1H	470	A	C4-C5-N7	5.53	113.47	110.70
26	1H	2592	G	N3-C4-N9	5.53	129.32	126.00
26	14	2293	C	O5'-P-OP1	5.53	117.34	110.70
37	45	81	VAL	N-CA-C	5.53	125.94	111.00
1	13	1227	A	O5'-P-OP2	-5.53	100.72	105.70
26	1H	2713	A	C4-C5-N7	5.53	113.47	110.70
26	14	730	C	O5'-P-OP1	5.53	117.34	110.70
26	14	1899	G	C4-C5-C6	-5.53	115.48	118.80
27	1J	70	C	C6-N1-C2	-5.53	118.09	120.30
26	1H	791	C	P-O3'-C3'	5.53	126.33	119.70
26	14	1992	G	C2'-C3'-O3'	5.53	122.55	113.70
26	1H	1189	A	N1-C2-N3	-5.53	126.54	129.30
26	1H	2412	A	N1-C2-N3	5.53	132.06	129.30
26	14	388	G	N3-C4-C5	5.53	131.36	128.60
26	14	393	C	C6-N1-C2	-5.53	118.09	120.30
26	1H	416	C	C6-N1-C2	5.53	122.51	120.30
26	1H	1698	A	C5-C6-N1	-5.53	114.94	117.70
1	1G	688	G	N1-C6-O6	-5.53	116.58	119.90
26	1H	1289	C	O5'-P-OP1	-5.52	100.73	105.70
34	15	15	LEU	CA-CB-CG	5.52	128.00	115.30
26	1H	528	A	O4'-C1'-N9	-5.52	103.78	108.20
26	1H	2060	A	C4-C5-C6	-5.52	114.24	117.00
26	14	2275	C	C5-C6-N1	5.52	123.76	121.00
1	13	703	G	N3-C4-C5	-5.52	125.84	128.60
26	1H	247	G	N1-C2-N2	-5.52	111.23	116.20
26	1H	686	G	N3-C2-N2	5.52	123.76	119.90
26	1H	704	G	C6-N1-C2	-5.52	121.79	125.10
26	1H	1326	U	N1-C2-O2	5.52	126.66	122.80
26	1H	1380	G	C5-C6-O6	-5.52	125.29	128.60
26	1H	1397	U	N3-C2-O2	-5.52	118.34	122.20
1	1G	1402	C	C5-C6-N1	-5.52	118.24	121.00
26	14	1830	C	N3-C4-N4	5.52	121.86	118.00
26	1H	667	U	N1-C2-N3	5.52	118.21	114.90
26	1H	1694	C	OP2-P-O3'	5.52	117.34	105.20
26	1H	1895	C	C6-N1-C2	-5.52	118.09	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1984	G	O5'-P-OP2	-5.52	100.73	105.70
26	1H	2264	C	OP1-P-O3'	5.52	117.34	105.20
26	14	729	G	C5-C6-O6	-5.52	125.29	128.60
26	14	933	A	C4-C5-N7	5.52	113.46	110.70
26	14	966	G	N1-C6-O6	-5.52	116.59	119.90
26	1H	2009	G	C5-C6-N1	5.52	114.26	111.50
23	2L	10	G	O5'-P-OP1	-5.52	100.74	105.70
26	14	527	C	C5-C4-N4	5.52	124.06	120.20
1	13	128	G	N3-C4-N9	-5.51	122.69	126.00
1	13	353	A	OP2-P-O3'	5.51	117.33	105.20
26	14	1259	G	N3-C2-N2	5.51	123.76	119.90
1	13	818	G	N7-C8-N9	-5.51	110.34	113.10
26	1H	2392	A	C6-N1-C2	5.51	121.91	118.60
26	14	856	C	C5-C6-N1	5.51	123.76	121.00
26	1H	2319	G	N3-C4-C5	-5.51	125.84	128.60
27	16	2	C	C5-C6-N1	5.51	123.75	121.00
26	14	1293	C	N3-C4-C5	5.51	124.10	121.90
1	13	438	G	O5'-P-OP2	-5.51	100.74	105.70
26	14	1823	G	C5-C6-O6	5.51	131.91	128.60
26	14	1955	U	N1-C2-N3	5.51	118.21	114.90
26	1H	955	C	OP1-P-OP2	5.51	127.86	119.60
26	1H	2299	G	O5'-P-OP2	5.51	117.31	110.70
28	19	272	ALA	N-CA-CB	-5.51	102.39	110.10
26	1H	813	U	N1-C2-O2	-5.51	118.95	122.80
26	1H	793	A	N3-C4-C5	-5.50	122.95	126.80
26	1H	2338	G	C5-C6-O6	-5.50	125.30	128.60
26	1H	621	A	N3-C4-C5	5.50	130.65	126.80
26	1H	786	C	C5-C4-N4	5.50	124.05	120.20
26	1H	2346	A	P-O3'-C3'	5.50	126.30	119.70
26	14	2607	G	C6-C5-N7	-5.50	127.10	130.40
1	13	507	C	C6-N1-C2	-5.50	118.10	120.30
26	1H	799	G	N9-C4-C5	-5.50	103.20	105.40
26	1H	1378	A	N3-C4-C5	5.50	130.65	126.80
26	1H	1511	A	N1-C6-N6	-5.50	115.30	118.60
26	1H	2856	C	C6-N1-C2	-5.50	118.10	120.30
26	14	450	G	C6-C5-N7	-5.50	127.10	130.40
26	14	2544	G	C5-C6-N1	-5.50	108.75	111.50
26	14	1187	G	C6-C5-N7	-5.50	127.10	130.40
26	14	1931	U	OP1-P-OP2	-5.50	111.35	119.60
26	1H	1312	U	C5-C4-O4	5.50	129.20	125.90
26	1H	2436	G	N3-C2-N2	-5.50	116.05	119.90
26	14	1204	A	C5-N7-C8	-5.50	101.15	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2595	G	O5'-P-OP1	-5.50	100.75	105.70
26	1H	258	G	N3-C2-N2	5.50	123.75	119.90
1	1G	264	U	C2-N1-C1'	5.50	124.30	117.70
26	14	770	G	C8-N9-C4	5.50	108.60	106.40
26	14	1496	A	C4-C5-N7	5.50	113.45	110.70
26	14	1681	G	O5'-P-OP1	-5.50	100.75	105.70
26	14	2054	A	N1-C6-N6	-5.50	115.30	118.60
1	13	1503	A	OP1-P-O3'	5.50	117.29	105.20
26	14	1783	A	C2-N3-C4	-5.50	107.85	110.60
26	14	2690	C	C5-C6-N1	-5.50	118.25	121.00
26	1H	1614	A	OP1-P-OP2	5.49	127.84	119.60
26	1H	2582	G	O5'-P-OP1	-5.49	100.76	105.70
26	14	1825	A	N9-C4-C5	5.49	108.00	105.80
26	1H	2502	G	N3-C4-C5	-5.49	125.85	128.60
1	1G	569	C	C6-N1-C2	-5.49	118.10	120.30
26	14	2248	C	N3-C2-O2	-5.49	118.06	121.90
26	1H	831	G	C5-N7-C8	5.49	107.05	104.30
26	14	123	G	C8-N9-C4	5.49	108.60	106.40
26	1H	245	G	C4-C5-C6	5.49	122.09	118.80
26	1H	274	G	N7-C8-N9	5.49	115.84	113.10
26	1H	2566	A	P-O3'-C3'	5.49	126.29	119.70
1	1G	162	A	C8-N9-C4	-5.49	103.60	105.80
26	14	912	C	C2-N1-C1'	5.49	124.84	118.80
26	14	929	G	C6-C5-N7	-5.49	127.11	130.40
26	14	1394	U	OP1-P-OP2	-5.49	111.37	119.60
26	1H	2208	U	N1-C2-O2	-5.49	118.96	122.80
1	1G	567	G	C8-N9-C1'	5.49	134.13	127.00
26	14	1026	U	C2-N1-C1'	5.49	124.28	117.70
26	1H	988	A	N7-C8-N9	5.49	116.54	113.80
1	1G	913	A	OP2-P-O3'	5.49	117.27	105.20
26	14	2084	C	C5-C6-N1	-5.49	118.26	121.00
30	39	125	LEU	CA-CB-CG	5.49	127.92	115.30
26	1H	25	U	C5-C4-O4	-5.48	122.61	125.90
26	1H	2593	U	C4-C5-C6	-5.48	116.41	119.70
26	14	1336	A	O5'-P-OP2	-5.48	100.76	105.70
26	1H	74	A	C6-C5-N7	-5.48	128.46	132.30
26	1H	781	A	C5-N7-C8	5.48	106.64	103.90
27	16	2	C	C6-N1-C2	-5.48	118.11	120.30
26	14	130	C	C5-C6-N1	-5.48	118.26	121.00
26	14	1496	A	O4'-C1'-N9	5.48	112.58	108.20
26	1H	1403	C	O5'-P-OP1	-5.48	100.77	105.70
26	1H	299	A	OP2-P-O3'	5.48	117.25	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1671	U	N3-C4-O4	5.48	123.23	119.40
26	14	1695	G	N3-C4-N9	5.48	129.29	126.00
26	14	1790	C	N3-C4-C5	5.48	124.09	121.90
26	14	1821	A	N1-C2-N3	5.48	132.04	129.30
26	14	2336	A	N1-C6-N6	-5.48	115.31	118.60
33	69	131	LYS	C-N-CD	-5.48	108.55	120.60
1	13	575	G	O4'-C1'-N9	-5.47	103.82	108.20
1	13	590	C	N3-C2-O2	-5.47	118.07	121.90
1	13	1490	C	C2-N1-C1'	-5.47	112.78	118.80
26	1H	574	C	O5'-P-OP1	5.47	117.27	110.70
26	1H	1241	A	C5-N7-C8	-5.47	101.16	103.90
27	16	17	C	N3-C2-O2	-5.47	118.07	121.90
26	14	985	C	N1-C2-O2	5.47	122.18	118.90
1	13	872	A	C6-N1-C2	5.47	121.88	118.60
26	1H	529	A	N7-C8-N9	5.47	116.54	113.80
26	1H	2332	U	OP2-P-O3'	5.47	117.24	105.20
26	1H	2849	U	OP1-P-O3'	5.47	117.24	105.20
26	14	681	G	N1-C6-O6	5.47	123.18	119.90
26	14	1241	A	N9-C4-C5	-5.47	103.61	105.80
26	14	2087	G	N9-C4-C5	-5.47	103.21	105.40
26	14	2239	G	N1-C6-O6	-5.47	116.62	119.90
1	13	1199	U	C6-N1-C2	-5.47	117.72	121.00
1	13	1464	G	C5-C6-O6	-5.47	125.32	128.60
26	1H	1560	G	OP1-P-O3'	5.47	117.23	105.20
26	14	1779	U	C2-N1-C1'	5.47	124.26	117.70
55	3L	55	U	O4'-C1'-N1	5.47	112.58	108.20
26	1H	1142(A)	A	C5-N7-C8	-5.47	101.17	103.90
26	1H	1535	U	C2-N1-C1'	5.47	124.26	117.70
26	1H	1601	G	C5-N7-C8	-5.47	101.57	104.30
26	14	671	C	N3-C4-N4	-5.47	114.17	118.00
26	1H	193	U	C4-C5-C6	5.46	122.98	119.70
26	1H	1653	G	O5'-P-OP2	-5.46	100.78	105.70
26	1H	1920	C	N1-C2-O2	5.46	122.18	118.90
26	1H	2027	G	C4-C5-N7	-5.46	108.61	110.80
26	1H	2234	G	C5-C6-O6	-5.46	125.32	128.60
26	1H	562	U	C5-C6-N1	-5.46	119.97	122.70
26	1H	781	A	N9-C4-C5	-5.46	103.61	105.80
1	1G	251	G	O4'-C1'-N9	-5.46	103.83	108.20
26	1H	209	C	C2-N3-C4	-5.46	117.17	119.90
26	1H	630	G	C8-N9-C4	5.46	108.58	106.40
1	1G	1465	C	N1-C2-O2	5.46	122.18	118.90
26	14	704	G	N3-C2-N2	-5.46	116.08	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	837	C	C6-N1-C2	-5.46	118.11	120.30
26	14	2329	G	C5-C6-N1	5.46	114.23	111.50
26	1H	1683	C	N3-C2-O2	-5.46	118.08	121.90
26	1H	813	U	O5'-P-OP2	-5.46	100.79	105.70
37	88	91	GLU	C-N-CA	-5.46	110.84	122.30
26	14	566	U	C5-C6-N1	-5.46	119.97	122.70
26	1H	266	G	O5'-P-OP2	-5.46	100.79	105.70
26	1H	1210	A	N1-C6-N6	5.46	121.87	118.60
26	1H	1381	G	O5'-P-OP1	-5.46	100.79	105.70
26	1H	2485	G	N3-C4-N9	5.46	129.27	126.00
1	13	1113	C	C6-N1-C2	-5.46	118.12	120.30
1	13	1177	G	O5'-P-OP1	5.46	117.25	110.70
26	1H	1782	C	N3-C2-O2	-5.46	118.08	121.90
26	14	71	A	C6-C5-N7	-5.46	128.48	132.30
26	1H	1204	A	N1-C6-N6	5.45	121.87	118.60
26	1H	1568	G	OP1-P-OP2	-5.45	111.42	119.60
26	1H	2265	U	C6-N1-C2	-5.45	117.73	121.00
1	1G	581	G	N1-C6-O6	5.45	123.17	119.90
26	14	1768	U	C6-N1-C1'	5.45	128.84	121.20
26	1H	646	A	C8-N9-C4	-5.45	103.62	105.80
26	1H	939	G	C5-C6-O6	5.45	131.87	128.60
26	1H	372	G	O4'-C1'-N9	5.45	112.56	108.20
26	1H	1639	U	C2-N3-C4	-5.45	123.73	127.00
25	4L	16	A	C8-N9-C4	5.45	107.98	105.80
26	14	204	A	C2-N3-C4	5.45	113.33	110.60
26	14	945	A	N3-C4-C5	5.45	130.62	126.80
26	14	1372	U	N3-C4-C5	-5.45	111.33	114.60
26	14	1674	G	N1-C6-O6	5.45	123.17	119.90
26	14	2279	G	N3-C2-N2	5.45	123.72	119.90
1	13	690	G	C2-N3-C4	-5.45	109.18	111.90
26	1H	664	C	C2-N3-C4	-5.45	117.18	119.90
26	1H	2711	A	OP1-P-O3'	5.45	117.19	105.20
27	16	48	A	N1-C6-N6	5.45	121.87	118.60
26	14	1022	G	N9-C4-C5	5.45	107.58	105.40
26	1H	110	G	N1-C6-O6	-5.45	116.63	119.90
26	1H	119	A	C5-N7-C8	5.45	106.62	103.90
26	1H	1162	G	C8-N9-C4	-5.45	104.22	106.40
26	1H	1959	G	C8-N9-C4	-5.45	104.22	106.40
1	13	819	A	N1-C6-N6	-5.45	115.33	118.60
26	1H	1332	G	C4-N9-C1'	5.45	133.58	126.50
26	1H	1424	G	O5'-P-OP2	-5.45	100.80	105.70
26	1H	1649	G	O5'-P-OP1	-5.45	100.80	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1784	A	OP1-P-O3'	5.45	117.18	105.20
1	1G	1224	G	OP1-P-OP2	-5.45	111.43	119.60
26	14	808	G	N3-C4-N9	5.45	129.27	126.00
26	14	2038	G	N7-C8-N9	-5.45	110.38	113.10
1	13	1099	G	C5-C6-O6	5.44	131.87	128.60
26	1H	1022	G	P-O3'-C3'	5.44	126.23	119.70
1	1G	909	A	C8-N9-C4	5.44	107.98	105.80
22	1K	83	C	N3-C4-C5	5.44	124.08	121.90
26	1H	23	G	N3-C2-N2	-5.44	116.09	119.90
26	14	1196	C	C6-N1-C2	5.44	122.48	120.30
1	13	1220	G	C8-N9-C4	-5.44	104.22	106.40
1	13	1190	G	N1-C6-O6	5.44	123.16	119.90
26	14	1930	G	OP2-P-O3'	5.44	117.17	105.20
1	13	656	C	C5-C6-N1	5.44	123.72	121.00
26	1H	314	A	C4-C5-C6	-5.44	114.28	117.00
26	1H	1998	G	C2-N3-C4	-5.44	109.18	111.90
26	14	198	C	O5'-P-OP1	-5.44	100.81	105.70
26	14	1370	C	C5-C4-N4	-5.44	116.39	120.20
26	14	2248	C	C6-N1-C2	-5.44	118.12	120.30
26	14	2681	C	N3-C4-N4	-5.44	114.19	118.00
26	1H	774	A	C4-C5-N7	5.44	113.42	110.70
1	13	819	A	N9-C4-C5	5.43	107.97	105.80
26	1H	344	G	N3-C4-C5	-5.43	125.88	128.60
26	1H	2701	C	N3-C2-O2	-5.43	118.10	121.90
27	16	29	A	OP1-P-OP2	-5.43	111.45	119.60
27	16	79	C	C2-N1-C1'	5.43	124.78	118.80
26	14	1394	U	O5'-P-OP2	5.43	117.22	110.70
1	13	529	G	N1-C6-O6	5.43	123.16	119.90
26	1H	990	A	OP2-P-O3'	5.43	117.15	105.20
26	1H	1404	C	C5-C6-N1	-5.43	118.28	121.00
26	14	1950	G	C6-C5-N7	-5.43	127.14	130.40
26	14	647	G	N1-C6-O6	5.43	123.16	119.90
26	14	1482	U	C5-C4-O4	5.43	129.16	125.90
1	13	117	G	C5-C6-O6	-5.43	125.34	128.60
1	13	545	C	N3-C4-N4	-5.43	114.20	118.00
26	1H	654(I)	C	C6-N1-C1'	-5.43	114.28	120.80
26	1H	814	C	O5'-P-OP2	-5.43	100.81	105.70
26	14	628	G	N1-C6-O6	5.43	123.16	119.90
26	1H	216	A	N1-C6-N6	5.43	121.86	118.60
26	1H	1213	A	N1-C6-N6	5.43	121.86	118.60
26	1H	34	C	P-O3'-C3'	5.43	126.21	119.70
26	1H	832	G	N7-C8-N9	5.43	115.81	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1757	U	O4'-C1'-N1	5.43	112.54	108.20
26	14	2600	A	C5-C6-N1	5.43	120.41	117.70
26	1H	1664	A	C8-N9-C4	-5.42	103.63	105.80
26	1H	2485	G	N9-C4-C5	-5.42	103.23	105.40
26	1H	1971	A	C2-N3-C4	5.42	113.31	110.60
26	1H	2199	A	C8-N9-C4	-5.42	103.63	105.80
42	D8	35	LEU	CA-CB-CG	5.42	127.77	115.30
50	L8	31	LEU	CA-CB-CG	5.42	127.77	115.30
26	14	633	A	N1-C6-N6	5.42	121.85	118.60
26	1H	28	A	C8-N9-C4	5.42	107.97	105.80
26	1H	816	C	O5'-P-OP1	5.42	117.21	110.70
26	1H	2430	A	C8-N9-C1'	5.42	137.46	127.70
26	14	47	C	C6-N1-C2	5.42	122.47	120.30
36	78	23	PRO	CA-C-N	5.42	127.04	116.20
26	14	312	G	C6-C5-N7	-5.42	127.15	130.40
1	13	892	A	N1-C6-N6	5.42	121.85	118.60
26	1H	274	G	C8-N9-C4	-5.42	104.23	106.40
26	1H	658	C	N3-C2-O2	-5.42	118.11	121.90
26	1H	1363	C	C2-N3-C4	-5.42	117.19	119.90
26	1H	2505	G	C5-C6-N1	-5.42	108.79	111.50
26	14	1934	C	OP1-P-O3'	5.42	117.12	105.20
26	1H	196	A	C5-C6-N1	-5.42	114.99	117.70
26	1H	2708	G	OP1-P-OP2	5.42	127.72	119.60
26	1H	2740	A	O5'-P-OP2	-5.42	100.83	105.70
1	13	566	G	N3-C4-N9	5.41	129.25	126.00
26	1H	2606	C	OP1-P-O3'	5.41	117.11	105.20
26	14	560	C	N1-C2-O2	-5.41	115.65	118.90
26	14	1318	C	O5'-P-OP2	5.41	117.19	110.70
26	1H	2785	C	C6-N1-C2	-5.41	118.14	120.30
1	1G	108	G	N3-C2-N2	5.41	123.69	119.90
26	14	460	A	N1-C6-N6	5.41	121.85	118.60
26	14	1621	U	N1-C2-O2	-5.41	119.01	122.80
26	1H	828	U	C2-N3-C4	5.41	130.25	127.00
26	1H	1378	A	N3-C4-N9	-5.41	123.07	127.40
26	1H	1634	A	OP1-P-O3'	5.41	117.10	105.20
1	1G	559	A	N7-C8-N9	5.41	116.50	113.80
1	1G	697	U	O5'-P-OP2	-5.41	100.83	105.70
26	14	202	U	N3-C4-O4	5.41	123.19	119.40
26	1H	1613	G	C5-C6-O6	5.41	131.84	128.60
26	1H	2210	G	C4-N9-C1'	5.41	133.53	126.50
26	14	729	G	C5-N7-C8	-5.41	101.60	104.30
26	14	1698	A	C5-C6-N1	-5.41	115.00	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	913	U	C6-N1-C1'	-5.40	113.64	121.20
1	13	1279	A	C4-C5-C6	5.40	119.70	117.00
26	1H	98	G	OP1-P-OP2	5.40	127.70	119.60
26	1H	1817	G	C5-C6-O6	5.40	131.84	128.60
26	1H	2575	C	C2-N3-C4	-5.40	117.20	119.90
26	14	1728	G	N3-C4-C5	-5.40	125.90	128.60
26	14	1901	A	C5-C6-N1	5.40	120.40	117.70
26	14	1978	A	N9-C4-C5	5.40	107.96	105.80
1	13	781	A	C8-N9-C4	5.40	107.96	105.80
26	1H	580	C	N3-C4-C5	-5.40	119.74	121.90
26	1H	971	C	N1-C2-O2	-5.40	115.66	118.90
26	1H	2082	A	C8-N9-C4	5.40	107.96	105.80
1	1G	1502	A	C6-C5-N7	-5.40	128.52	132.30
26	1H	1122	G	C5-C6-O6	-5.40	125.36	128.60
26	1H	2712	U	C5-C6-N1	-5.40	120.00	122.70
36	78	106	LEU	CA-CB-CG	5.40	127.72	115.30
1	1G	449	C	C5-C4-N4	5.40	123.98	120.20
26	1H	1604	C	O5'-P-OP2	5.40	117.18	110.70
26	1H	1694	C	P-O3'-C3'	5.40	126.18	119.70
26	1H	2233	U	N1-C2-O2	-5.40	119.02	122.80
26	14	1210	A	C3'-C2'-C1'	5.40	105.82	101.50
26	14	1999	C	OP2-P-O3'	5.40	117.08	105.20
26	1H	1257	C	N1-C2-N3	5.40	122.98	119.20
26	14	567	A	C5-N7-C8	-5.40	101.20	103.90
26	14	1406	U	OP1-P-O3'	5.40	117.07	105.20
1	13	1266	G	C4-N9-C1'	-5.39	119.49	126.50
26	1H	564	C	C5-C6-N1	5.39	123.70	121.00
26	1H	649	G	N1-C6-O6	5.39	123.14	119.90
26	1H	1649	G	N3-C4-N9	5.39	129.24	126.00
24	1L	78	C	P-O3'-C3'	5.39	126.17	119.70
18	9I	31	LEU	CA-CB-CG	5.39	127.70	115.30
26	1H	2099	U	C5-C6-N1	5.39	125.40	122.70
26	1H	2363	C	C5-C6-N1	-5.39	118.30	121.00
26	1H	1618	A	N1-C6-N6	-5.39	115.37	118.60
26	1H	1997	G	N1-C2-N3	5.39	127.13	123.90
26	1H	2307	G	C6-C5-N7	-5.39	127.17	130.40
26	1H	2699	C	C2-N1-C1'	-5.39	112.87	118.80
26	14	70	G	N3-C2-N2	5.39	123.67	119.90
26	14	2404	C	O5'-P-OP1	-5.39	100.85	105.70
26	14	2727	G	C8-N9-C4	-5.39	104.24	106.40
26	14	929	G	C5-C6-O6	-5.39	125.37	128.60
26	14	2755	C	C5-C6-N1	5.39	123.69	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	69	102	SER	N-CA-C	-5.39	96.46	111.00
26	1H	111	A	N9-C4-C5	5.38	107.95	105.80
26	1H	459	U	OP2-P-O3'	5.38	117.05	105.20
26	1H	462	C	N1-C2-O2	-5.38	115.67	118.90
26	1H	1050	A	O4'-C1'-N9	5.38	112.51	108.20
26	1H	1562	A	N1-C2-N3	5.38	131.99	129.30
26	1H	1599	C	O5'-P-OP2	-5.38	100.85	105.70
26	14	68	G	N1-C6-O6	5.38	123.13	119.90
26	14	1346	G	N3-C2-N2	5.38	123.67	119.90
26	14	1992	G	N3-C4-C5	-5.38	125.91	128.60
26	1H	202	U	N3-C2-O2	5.38	125.97	122.20
26	1H	2442	C	OP1-P-OP2	-5.38	111.53	119.60
26	14	385	C	P-O3'-C3'	5.38	126.16	119.70
26	1H	1401	G	C8-N9-C4	-5.38	104.25	106.40
26	1H	2399	G	C8-N9-C4	5.38	108.55	106.40
26	1H	2507	C	N1-C2-O2	5.38	122.13	118.90
1	1G	353	A	C4-C5-N7	5.38	113.39	110.70
1	1G	1496	C	N1-C2-O2	5.38	122.13	118.90
1	13	1222	G	N3-C2-N2	-5.38	116.13	119.90
26	1H	2572	A	C4-C5-C6	5.38	119.69	117.00
26	14	808	G	C4-N9-C1'	5.38	133.49	126.50
26	14	1304	C	N3-C4-C5	5.38	124.05	121.90
26	14	1782	C	OP2-P-O3'	-5.38	93.36	105.20
1	13	1455	G	N3-C4-C5	5.38	131.29	128.60
26	1H	1265	A	C4-C5-C6	5.38	119.69	117.00
26	1H	2444	G	N3-C2-N2	-5.38	116.14	119.90
26	14	803	U	C5-C6-N1	-5.38	120.01	122.70
26	1H	842	G	N9-C4-C5	-5.38	103.25	105.40
26	1H	974	G	O4'-C1'-N9	-5.38	103.90	108.20
26	1H	1623	G	OP2-P-O3'	5.38	117.03	105.20
26	1H	1835	G	C5'-C4'-C3'	-5.38	107.40	116.00
26	1H	2448	A	C5-C6-N6	-5.38	119.40	123.70
26	1H	2485	G	N1-C2-N2	-5.38	111.36	116.20
26	14	1427	A	N1-C6-N6	-5.38	115.38	118.60
26	14	1704	G	N9-C4-C5	-5.38	103.25	105.40
26	1H	51	G	C2-N3-C4	5.37	114.59	111.90
26	1H	526	A	N1-C6-N6	-5.37	115.38	118.60
26	1H	1129	A	OP1-P-OP2	5.37	127.66	119.60
26	1H	1826	G	OP1-P-O3'	5.37	117.02	105.20
27	16	46	A	C8-N9-C4	5.37	107.95	105.80
26	14	801	G	C6-C5-N7	5.37	133.62	130.40
26	14	1322	A	OP2-P-O3'	5.37	117.02	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1888	G	C8-N9-C1'	-5.37	120.02	127.00
26	1H	2060	A	C4-N9-C1'	-5.37	116.63	126.30
27	16	44	G	C8-N9-C1'	5.37	133.98	127.00
26	14	2066	C	C5-C4-N4	-5.37	116.44	120.20
1	13	32	A	N7-C8-N9	5.37	116.48	113.80
26	1H	1782	C	N1-C2-O2	5.37	122.12	118.90
26	14	388	G	N3-C4-N9	-5.37	122.78	126.00
26	14	1802	A	C6-N1-C2	-5.37	115.38	118.60
26	14	2235	G	N3-C4-N9	5.37	129.22	126.00
26	14	2873	A	O4'-C1'-N9	5.37	112.50	108.20
1	13	122	G	C6-C5-N7	-5.37	127.18	130.40
26	1H	128	C	C6-N1-C2	5.37	122.45	120.30
26	1H	2383	G	N1-C2-N2	-5.37	111.37	116.20
1	1G	1397	C	C3'-C2'-C1'	-5.37	97.21	101.50
1	13	578	C	C6-N1-C2	-5.37	118.15	120.30
26	1H	124	G	O5'-P-OP1	5.37	117.14	110.70
26	1H	1260	G	C8-N9-C4	-5.37	104.25	106.40
26	14	2701	C	N3-C4-C5	5.37	124.05	121.90
26	1H	568	U	N3-C4-O4	5.36	123.15	119.40
26	1H	685	A	C5-C6-N1	-5.36	115.02	117.70
1	1G	1529	G	N3-C4-N9	5.36	129.22	126.00
26	14	1600	C	C5-C6-N1	-5.36	118.32	121.00
26	14	2552	U	N1-C2-O2	-5.36	119.05	122.80
26	1H	324	A	O5'-P-OP2	5.36	117.13	110.70
26	1H	840	C	C2-N1-C1'	-5.36	112.90	118.80
26	14	460	A	N9-C4-C5	-5.36	103.66	105.80
26	14	2702	U	N1-C1'-C2'	5.36	120.97	114.00
27	1J	81	G	C5-N7-C8	-5.36	101.62	104.30
26	1H	115	C	N3-C4-N4	5.36	121.75	118.00
26	1H	530	G	N3-C2-N2	5.36	123.65	119.90
26	1H	614	U	O4'-C1'-N1	5.36	112.49	108.20
26	1H	1303	G	N3-C2-N2	5.36	123.65	119.90
26	14	831	G	N3-C4-C5	-5.36	125.92	128.60
26	14	1698	A	C5-C6-N6	-5.36	119.41	123.70
26	14	2762	G	C8-N9-C1'	-5.36	120.03	127.00
26	14	203	C	C2-N1-C1'	-5.36	112.91	118.80
26	14	911	A	OP1-P-O3'	5.36	116.99	105.20
26	1H	1729	A	O4'-C1'-N9	5.36	112.48	108.20
26	1H	2046	G	C2-N3-C4	5.36	114.58	111.90
26	14	809	G	OP1-P-O3'	5.36	116.99	105.20
26	14	1905	C	O5'-P-OP2	-5.36	100.88	105.70
26	14	2234	G	N3-C4-C5	-5.36	125.92	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	19	235	GLY	N-CA-C	5.36	126.49	113.10
1	13	1502	A	C8-N9-C4	-5.36	103.66	105.80
26	1H	233	A	C8-N9-C4	5.36	107.94	105.80
26	1H	777	A	N1-C2-N3	5.36	131.98	129.30
26	1H	1404	C	OP1-P-OP2	5.36	127.63	119.60
26	1H	2025	C	C2-N1-C1'	5.36	124.69	118.80
26	14	1585	C	C6-N1-C2	-5.36	118.16	120.30
26	1H	1437	C	C2-N1-C1'	5.35	124.69	118.80
26	1H	2335	A	O4'-C1'-N9	5.35	112.48	108.20
26	1H	2592	G	C8-N9-C1'	-5.35	120.04	127.00
27	16	49	C	N3-C2-O2	5.35	125.65	121.90
1	1G	688	G	C5-C6-O6	5.35	131.81	128.60
1	13	298	A	C8-N9-C4	-5.35	103.66	105.80
1	13	1290	G	N7-C8-N9	5.35	115.78	113.10
1	1G	1139	G	N3-C4-N9	-5.35	122.79	126.00
26	14	1382	G	C6-C5-N7	-5.35	127.19	130.40
26	14	2276	G	N3-C2-N2	-5.35	116.15	119.90
26	1H	962	G	N3-C4-C5	-5.35	125.92	128.60
26	1H	1440	G	C5-N7-C8	5.35	106.98	104.30
26	1H	2273	A	OP2-P-O3'	5.35	116.97	105.20
26	14	110	G	N1-C6-O6	5.35	123.11	119.90
27	16	47	C	O5'-P-OP2	-5.35	100.89	105.70
26	14	460	A	C5-C6-N6	-5.35	119.42	123.70
26	14	2228	G	C4-N9-C1'	5.35	133.46	126.50
26	1H	127	A	C5-C6-N6	-5.35	119.42	123.70
26	1H	691	C	C2-N1-C1'	-5.35	112.92	118.80
26	1H	2427	C	C6-N1-C2	-5.35	118.16	120.30
26	14	98	G	C8-N9-C4	-5.35	104.26	106.40
26	14	783	A	N3-C4-C5	5.35	130.54	126.80
26	14	1332	G	C8-N9-C4	-5.35	104.26	106.40
27	16	65	C	N3-C2-O2	-5.35	118.16	121.90
1	13	1512	U	N3-C4-C5	-5.34	111.39	114.60
26	1H	202	U	N3-C4-C5	5.34	117.81	114.60
26	1H	1284	A	C8-N9-C4	-5.34	103.66	105.80
26	1H	2444	G	C8-N9-C4	-5.34	104.26	106.40
26	1H	2587	A	OP2-P-O3'	5.34	116.96	105.20
26	14	2578	G	OP2-P-O3'	5.34	116.96	105.20
26	1H	2592	G	OP2-P-O3'	5.34	116.95	105.20
26	14	74	A	C6-C5-N7	-5.34	128.56	132.30
1	13	84	U	N3-C2-O2	-5.34	118.46	122.20
1	13	633	G	N1-C6-O6	5.34	123.11	119.90
26	14	1769	G	N3-C4-N9	5.34	129.20	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2453	A	C8-N9-C4	5.34	107.94	105.80
1	13	553	A	C8-N9-C4	-5.34	103.66	105.80
26	1H	203	C	N3-C2-O2	5.34	125.64	121.90
26	1H	663	G	N3-C4-C5	-5.34	125.93	128.60
26	1H	674	G	O5'-P-OP2	5.34	117.11	110.70
26	1H	2286	A	C8-N9-C4	-5.34	103.66	105.80
26	14	1278	A	C8-N9-C4	5.34	107.94	105.80
26	14	2253	G	O5'-P-OP1	5.34	117.11	110.70
1	1G	518	C	N3-C2-O2	-5.34	118.16	121.90
26	14	691	C	C4-C5-C6	5.34	120.07	117.40
26	14	2582	G	N1-C6-O6	5.34	123.10	119.90
26	1H	736	C	N3-C2-O2	5.34	125.64	121.90
26	14	1475	G	N7-C8-N9	5.34	115.77	113.10
26	14	1904	G	O5'-P-OP2	-5.34	100.90	105.70
26	14	2391	G	N3-C4-N9	-5.34	122.80	126.00
1	13	748	C	C6-N1-C2	-5.33	118.17	120.30
26	1H	1968	G	OP2-P-O3'	5.33	116.94	105.20
1	1G	739	C	N3-C4-C5	-5.33	119.77	121.90
26	14	1313	U	O4'-C1'-N1	5.33	112.47	108.20
26	1H	1639	U	O5'-P-OP1	5.33	117.10	110.70
26	1H	1899	G	C4-N9-C1'	-5.33	119.57	126.50
26	1H	2318	G	C8-N9-C4	-5.33	104.27	106.40
26	1H	2581	G	O5'-P-OP1	-5.33	100.90	105.70
45	G8	81	LYS	C-N-CA	5.33	144.40	122.00
23	2L	77	A	C4-C5-C6	-5.33	114.33	117.00
1	13	422	C	OP2-P-O3'	5.33	116.93	105.20
26	1H	749	C	C4-C5-C6	5.33	120.07	117.40
26	1H	1189	A	N1-C6-N6	5.33	121.80	118.60
26	14	530	G	C4-N9-C1'	5.33	133.43	126.50
26	14	1186	G	OP2-P-O3'	5.33	116.93	105.20
26	14	1256	G	C6-C5-N7	-5.33	127.20	130.40
26	14	2512	C	N3-C4-C5	5.33	124.03	121.90
1	13	1281	U	C2-N1-C1'	5.33	124.09	117.70
26	1H	1392	A	OP2-P-O3'	5.33	116.92	105.20
26	1H	2070	G	C8-N9-C4	5.33	108.53	106.40
26	1H	2688	U	C5-C6-N1	-5.33	120.04	122.70
1	1G	727	G	N3-C4-N9	5.33	129.20	126.00
26	14	1572	A	C6-C5-N7	-5.33	128.57	132.30
26	14	1821	A	C6-N1-C2	-5.33	115.40	118.60
26	14	1914	C	N3-C2-O2	-5.33	118.17	121.90
26	14	2516	G	OP2-P-O3'	5.33	116.92	105.20
1	13	765	G	C8-N9-C1'	-5.33	120.08	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	55	G	N7-C8-N9	5.33	115.76	113.10
26	1H	796	C	N3-C4-N4	-5.33	114.27	118.00
26	1H	1255	U	N3-C4-C5	-5.33	111.40	114.60
26	1H	2639	A	C2-N3-C4	-5.33	107.94	110.60
26	14	835	A	C6-N1-C2	-5.33	115.41	118.60
27	1J	89(A)	A	N1-C6-N6	-5.33	115.41	118.60
26	1H	207	A	C5-N7-C8	-5.32	101.24	103.90
26	1H	219	G	N1-C6-O6	-5.32	116.70	119.90
26	1H	1379	A	C8-N9-C4	-5.32	103.67	105.80
26	14	216	A	C8-N9-C4	5.32	107.93	105.80
26	14	1377	G	C8-N9-C4	-5.32	104.27	106.40
26	14	2228	G	C8-N9-C1'	-5.32	120.08	127.00
1	13	1054	C	C2-N3-C4	5.32	122.56	119.90
26	1H	1298	C	N3-C2-O2	-5.32	118.17	121.90
26	1H	1967	C	C6-N1-C2	-5.32	118.17	120.30
30	31	192	LEU	CA-CB-CG	5.32	127.54	115.30
1	1G	230	G	N1-C2-N3	5.32	127.09	123.90
26	1H	2374	C	C6-N1-C2	5.32	122.43	120.30
22	1K	19	C	O5'-P-OP2	-5.32	100.91	105.70
26	1H	1305	C	N3-C2-O2	-5.32	118.18	121.90
26	14	1359	A	N1-C2-N3	-5.32	126.64	129.30
26	14	2242	G	N3-C4-N9	5.32	129.19	126.00
1	13	963	G	C4-N9-C1'	5.32	133.41	126.50
26	1H	837	C	C5-C4-N4	-5.32	116.48	120.20
26	1H	939	G	OP2-P-O3'	5.32	116.90	105.20
1	1G	1399	C	C2-N1-C1'	-5.32	112.95	118.80
26	14	1284	A	C4-C5-N7	5.32	113.36	110.70
26	14	1805	U	OP2-P-O3'	5.32	116.90	105.20
26	14	2028	U	N3-C2-O2	-5.32	118.48	122.20
26	14	2281	C	C6-N1-C2	-5.32	118.17	120.30
41	85	95	LEU	CA-CB-CG	-5.32	103.07	115.30
1	13	973	G	C8-N9-C4	-5.32	104.27	106.40
26	1H	1005	C	N3-C2-O2	-5.32	118.18	121.90
26	1H	2354	G	OP1-P-O3'	5.32	116.89	105.20
27	16	60	C	C5-C6-N1	5.32	123.66	121.00
26	14	48	G	OP2-P-O3'	5.32	116.89	105.20
26	14	1404	C	N1-C2-O2	5.32	122.09	118.90
26	14	2369	A	C8-N9-C4	-5.32	103.67	105.80
1	13	703	G	P-O3'-C3'	5.31	126.08	119.70
26	1H	2477	C	C5-C6-N1	5.31	123.66	121.00
26	14	774	A	N7-C8-N9	5.31	116.46	113.80
26	14	1783	A	C5-C6-N1	-5.31	115.04	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2073	C	N1-C2-O2	-5.31	115.71	118.90
26	14	2439	A	N1-C6-N6	5.31	121.79	118.60
26	14	2235	G	N3-C4-C5	-5.31	125.94	128.60
26	1H	2382	G	C4-N9-C1'	5.31	133.41	126.50
26	1H	2712	U	P-O3'-C3'	5.31	126.07	119.70
26	14	530	G	C4-C5-C6	5.31	121.99	118.80
1	13	509	A	O5'-P-OP2	-5.31	100.92	105.70
26	1H	470	A	C6-C5-N7	-5.31	128.58	132.30
26	1H	845	G	C4-N9-C1'	-5.31	119.60	126.50
26	1H	917	A	C4-C5-C6	5.31	119.66	117.00
52	N8	50	GLY	N-CA-C	5.31	126.37	113.10
1	1G	553	A	N9-C4-C5	5.31	107.92	105.80
1	1G	1405	G	C8-N9-C4	5.31	108.52	106.40
26	14	647	G	N7-C8-N9	5.31	115.75	113.10
26	14	1353	A	N1-C6-N6	-5.31	115.42	118.60
26	14	1742	C	C6-N1-C2	-5.31	118.18	120.30
1	13	606	G	C6-C5-N7	-5.31	127.22	130.40
1	13	1529	G	C8-N9-C4	-5.31	104.28	106.40
26	1H	1489	U	C6-N1-C1'	5.31	128.63	121.20
26	1H	1661	G	O5'-P-OP2	-5.31	100.92	105.70
26	1H	2017	U	C6-N1-C2	-5.31	117.81	121.00
26	1H	2544	G	C5-C6-O6	-5.31	125.42	128.60
26	1H	124	G	N9-C4-C5	-5.31	103.28	105.40
1	13	122	G	C4-C5-C6	5.30	121.98	118.80
26	1H	1203	G	C8-N9-C4	-5.30	104.28	106.40
26	1H	1610	A	C4-C5-N7	5.30	113.35	110.70
1	1G	500	G	C5-C6-O6	-5.30	125.42	128.60
1	1G	690	G	C6-C5-N7	-5.30	127.22	130.40
26	14	450	G	N3-C4-N9	5.30	129.18	126.00
26	14	463	G	O5'-P-OP2	-5.30	100.92	105.70
26	1H	928	G	N3-C2-N2	-5.30	116.19	119.90
1	13	511	C	C2-N3-C4	-5.30	117.25	119.90
26	1H	214	G	OP2-P-O3'	5.30	116.86	105.20
1	1G	1478	C	N3-C2-O2	-5.30	118.19	121.90
26	1H	609	A	OP2-P-O3'	5.30	116.86	105.20
26	1H	1950	G	C2-N3-C4	-5.30	109.25	111.90
25	4L	22	A	P-O3'-C3'	5.30	126.06	119.70
26	14	2037	G	C4-C5-N7	-5.30	108.68	110.80
1	13	515	G	N3-C2-N2	-5.30	116.19	119.90
27	16	29	A	N7-C8-N9	5.30	116.45	113.80
26	14	690	G	C4-C5-N7	-5.30	108.68	110.80
26	14	698	C	C6-N1-C2	-5.30	118.18	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2320	A	N1-C6-N6	5.30	121.78	118.60
1	13	1313	U	C5-C6-N1	5.30	125.35	122.70
26	1H	322	A	OP2-P-O3'	5.30	116.85	105.20
26	1H	1202	C	OP2-P-O3'	5.30	116.85	105.20
26	1H	1694	C	C6-N1-C1'	-5.30	114.44	120.80
26	14	138	G	C5-N7-C8	-5.30	101.65	104.30
26	14	676	A	N1-C2-N3	5.30	131.95	129.30
26	14	970	C	C2-N1-C1'	-5.30	112.97	118.80
26	14	1780	A	C8-N9-C4	-5.30	103.68	105.80
26	14	1899	G	C5-C6-O6	5.30	131.78	128.60
1	1G	50	A	N9-C4-C5	5.29	107.92	105.80
1	1G	263	A	C8-N9-C4	5.29	107.92	105.80
26	14	510	C	C6-N1-C2	-5.29	118.18	120.30
26	14	792	G	C4-N9-C1'	5.29	133.38	126.50
26	14	1821	A	C8-N9-C4	-5.29	103.68	105.80
26	1H	1249	U	N3-C2-O2	5.29	125.91	122.20
26	1H	2712	U	OP2-P-O3'	5.29	116.84	105.20
26	14	133	C	C6-N1-C2	5.29	122.42	120.30
26	14	141	A	N1-C6-N6	5.29	121.78	118.60
26	14	1695	G	C4-C5-N7	5.29	112.92	110.80
26	14	2455	G	C5-C6-O6	-5.29	125.42	128.60
26	1H	2429	G	O5'-P-OP1	5.29	117.05	110.70
26	14	1660	C	C6-N1-C2	-5.29	118.18	120.30
26	14	2504	U	C2-N1-C1'	5.29	124.05	117.70
26	1H	845	G	C5-N7-C8	-5.29	101.66	104.30
26	1H	1602	U	O5'-P-OP2	5.29	117.05	110.70
1	13	1202	G	C5-C6-O6	5.29	131.77	128.60
26	14	2497	A	O5'-P-OP1	-5.29	100.94	105.70
26	14	2607	G	O5'-P-OP2	-5.29	100.94	105.70
1	13	1053	G	C5-N7-C8	5.29	106.94	104.30
26	1H	1440	G	C4-C5-N7	-5.29	108.69	110.80
1	1G	1225	A	C8-N9-C4	-5.29	103.69	105.80
26	14	773	U	N1-C2-N3	5.29	118.07	114.90
26	14	1318	C	O5'-P-OP1	-5.29	100.94	105.70
26	14	1837	C	O5'-P-OP1	-5.29	100.94	105.70
43	A5	36	LEU	CA-CB-CG	5.29	127.46	115.30
1	13	808	C	N1-C2-O2	-5.29	115.73	118.90
2	1E	111	ARG	NE-CZ-NH1	5.29	122.94	120.30
26	1H	128	C	N3-C4-C5	5.29	124.01	121.90
26	1H	520	G	N1-C6-O6	-5.29	116.73	119.90
26	1H	736	C	N1-C2-O2	-5.29	115.73	118.90
26	1H	1379	A	P-O3'-C3'	5.29	126.04	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2330	G	C4-C5-N7	5.29	112.91	110.80
26	14	2762	G	N3-C4-N9	5.29	129.17	126.00
26	1H	690	G	C4-C5-C6	5.28	121.97	118.80
26	1H	716	A	C8-N9-C4	-5.28	103.69	105.80
26	1H	2280	G	OP1-P-O3'	5.28	116.83	105.20
1	1G	893	C	N1-C2-O2	5.28	122.07	118.90
26	14	1643	G	OP2-P-O3'	5.28	116.82	105.20
26	14	2075	U	C5-C6-N1	-5.28	120.06	122.70
30	31	44	ARG	NE-CZ-NH1	-5.28	117.66	120.30
26	14	1570	A	C8-N9-C4	-5.28	103.69	105.80
30	39	80	ALA	C-N-CD	5.28	139.49	128.40
25	4K	18	G	N9-C4-C5	5.28	107.51	105.40
26	14	1255	U	C4-C5-C6	5.28	122.87	119.70
26	14	2346	A	C4-C5-C6	5.28	119.64	117.00
26	1H	1185	C	N3-C2-O2	-5.28	118.20	121.90
26	14	139	G	C8-N9-C4	-5.28	104.29	106.40
26	14	2838	G	N1-C6-O6	5.28	123.07	119.90
26	1H	1380	G	C4-C5-C6	5.28	121.97	118.80
26	14	750	A	N7-C8-N9	5.28	116.44	113.80
26	14	1725	G	C4-N9-C1'	5.28	133.36	126.50
26	1H	1346	G	N1-C6-O6	-5.28	116.73	119.90
1	1G	731	G	N1-C6-O6	5.28	123.07	119.90
26	14	1388	G	O5'-P-OP2	-5.28	100.95	105.70
26	14	2308	G	N3-C4-N9	-5.28	122.83	126.00
26	1H	417	C	C5-C4-N4	-5.27	116.51	120.20
26	1H	536	A	N3-C4-C5	-5.27	123.11	126.80
26	1H	2346	A	C6-N1-C2	-5.27	115.44	118.60
26	14	992	C	OP1-P-O3'	5.27	116.80	105.20
26	1H	862	G	C4-C5-C6	5.27	121.96	118.80
26	1H	2455	G	O5'-P-OP1	5.27	117.03	110.70
26	1H	2829	C	O5'-P-OP2	5.27	117.03	110.70
26	14	1920	C	N1-C2-O2	5.27	122.06	118.90
26	1H	77	C	N3-C4-C5	5.27	124.01	121.90
26	1H	2393	A	N1-C6-N6	-5.27	115.44	118.60
26	14	836	G	OP1-P-OP2	-5.27	111.69	119.60
1	13	703	G	C8-N9-C1'	-5.27	120.15	127.00
26	1H	1691	C	N3-C2-O2	-5.27	118.21	121.90
1	1G	1322	C	C2-N3-C4	5.27	122.53	119.90
1	1G	1502	A	C4-C5-N7	5.27	113.33	110.70
26	14	199	A	C2-N3-C4	5.27	113.23	110.60
26	1H	99	U	N3-C2-O2	-5.27	118.51	122.20
26	1H	1298	C	OP1-P-O3'	5.27	116.78	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	189	G	N7-C8-N9	-5.26	110.47	113.10
26	1H	567	A	C5-C6-N6	-5.26	119.49	123.70
26	1H	1600	C	OP1-P-O3'	5.26	116.78	105.20
26	1H	2451	A	N3-C4-N9	-5.26	123.19	127.40
26	14	181	A	C2-N3-C4	-5.26	107.97	110.60
26	14	1334	G	N1-C2-N2	5.26	120.94	116.20
26	1H	1850	G	C8-N9-C4	-5.26	104.30	106.40
26	14	2377	A	C2-N3-C4	-5.26	107.97	110.60
26	1H	681	G	C8-N9-C4	5.26	108.50	106.40
26	1H	862	G	N3-C4-N9	5.26	129.16	126.00
26	1H	1304	C	N3-C4-C5	5.26	124.00	121.90
26	1H	1602	U	N1-C2-N3	5.26	118.06	114.90
26	1H	1835	G	C4-N9-C1'	5.26	133.34	126.50
26	14	774	A	C4-C5-N7	5.26	113.33	110.70
26	14	828	U	N3-C2-O2	-5.26	118.52	122.20
1	13	827	U	N1-C2-N3	5.26	118.06	114.90
26	1H	677	A	C5-C6-N6	5.26	127.91	123.70
26	1H	778	G	OP2-P-O3'	5.26	116.77	105.20
26	1H	845	G	OP1-P-O3'	5.26	116.77	105.20
26	1H	1302	A	N9-C4-C5	5.26	107.90	105.80
26	1H	1698	A	O4'-C1'-N9	5.26	112.41	108.20
26	1H	2413	G	C6-C5-N7	-5.26	127.24	130.40
23	2L	71	G	N3-C4-C5	5.26	131.23	128.60
26	14	1385	G	N3-C4-N9	-5.26	122.84	126.00
26	14	2340	G	N1-C6-O6	-5.26	116.74	119.90
26	14	2364	C	C5-C6-N1	-5.26	118.37	121.00
26	14	1950	G	N3-C4-C5	-5.26	125.97	128.60
26	1H	17	G	C8-N9-C1'	-5.26	120.17	127.00
26	1H	758	C	N3-C4-N4	-5.26	114.32	118.00
26	1H	1827	C	C6-N1-C2	-5.26	118.20	120.30
26	14	2038	G	OP1-P-OP2	-5.26	111.72	119.60
26	14	2412	A	N1-C6-N6	5.26	121.75	118.60
34	15	120	LEU	CA-CB-CG	5.26	127.39	115.30
26	14	407	G	C8-N9-C4	-5.25	104.30	106.40
26	1H	479	A	N7-C8-N9	-5.25	111.17	113.80
26	1H	1837	C	N3-C4-C5	5.25	124.00	121.90
26	1H	2856	C	N1-C2-O2	5.25	122.05	118.90
26	14	250	G	N3-C4-N9	5.25	129.15	126.00
26	14	1460	A	OP1-P-O3'	5.25	116.76	105.20
26	14	1940	U	O5'-P-OP2	-5.25	100.97	105.70
26	14	2213	U	N1-C2-O2	5.25	126.48	122.80
24	3K	18	G	OP2-P-O3'	5.25	116.75	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1389	G	C8-N9-C4	-5.25	104.30	106.40
26	1H	2058	A	N9-C4-C5	5.25	107.90	105.80
26	1H	2330	G	C2-N3-C4	-5.25	109.27	111.90
26	1H	2737	G	N3-C4-C5	5.25	131.23	128.60
1	1G	337	C	N3-C4-N4	5.25	121.68	118.00
1	1G	817	C	C2-N1-C1'	-5.25	113.02	118.80
1	1G	1414	U	C6-N1-C1'	5.25	128.55	121.20
26	14	460	A	OP1-P-OP2	-5.25	111.72	119.60
26	14	467	G	C5-C6-O6	-5.25	125.45	128.60
54	M5	34	TRP	N-CA-C	5.25	125.18	111.00
26	1H	948	G	N3-C2-N2	-5.25	116.22	119.90
1	13	863	U	C2-N1-C1'	-5.25	111.40	117.70
1	13	1214	C	N1-C2-O2	-5.25	115.75	118.90
1	1G	484	G	N3-C4-N9	-5.25	122.85	126.00
1	1G	1158	C	C6-N1-C1'	-5.25	114.50	120.80
26	14	2087	G	O5'-P-OP2	-5.25	100.98	105.70
26	14	2287	A	C6-N1-C2	5.25	121.75	118.60
26	1H	1559	G	C4-C5-N7	5.25	112.90	110.80
26	1H	2046	G	N1-C6-O6	-5.25	116.75	119.90
26	1H	2065	C	OP1-P-O3'	5.25	116.74	105.20
1	13	35	G	C5-C6-N1	-5.25	108.88	111.50
1	13	52	G	C5-N7-C8	-5.25	101.68	104.30
1	13	1279	A	C4-N9-C1'	5.25	135.74	126.30
26	1H	1248	G	C8-N9-C4	-5.25	104.30	106.40
1	13	514	C	C6-N1-C2	5.24	122.40	120.30
26	1H	1060	U	P-O3'-C3'	5.24	125.99	119.70
26	1H	1187	G	N9-C4-C5	-5.24	103.30	105.40
26	1H	2300	G	C8-N9-C4	-5.24	104.30	106.40
1	13	1226	C	N1-C2-O2	-5.24	115.75	118.90
26	1H	953	A	N9-C4-C5	-5.24	103.70	105.80
1	1G	1498	U	C2-N1-C1'	5.24	123.99	117.70
26	14	628	G	C6-C5-N7	-5.24	127.25	130.40
1	13	412	A	P-O3'-C3'	5.24	125.99	119.70
26	1H	751	A	OP1-P-OP2	-5.24	111.74	119.60
26	1H	1514	U	OP2-P-O3'	5.24	116.73	105.20
26	1H	2688	U	N3-C4-O4	-5.24	115.73	119.40
6	52	21	LEU	CA-CB-CG	5.24	127.35	115.30
26	14	2446	G	N3-C4-C5	-5.24	125.98	128.60
1	13	365	U	C6-N1-C2	-5.24	117.86	121.00
26	1H	1598	C	N3-C2-O2	-5.24	118.23	121.90
26	1H	1983	C	C2-N1-C1'	-5.24	113.04	118.80
1	1G	353	A	C8-N9-C4	-5.24	103.70	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2428	G	P-O3'-C3'	5.24	125.99	119.70
26	14	2779	U	C6-N1-C1'	-5.24	113.86	121.20
1	13	138	G	N1-C6-O6	5.24	123.04	119.90
26	1H	735	A	C5-N7-C8	5.24	106.52	103.90
26	1H	1633	G	OP2-P-O3'	5.24	116.72	105.20
26	14	1762	A	N1-C6-N6	5.24	121.74	118.60
1	13	669	U	N3-C2-O2	-5.24	118.53	122.20
26	1H	237	C	C5-C4-N4	-5.24	116.53	120.20
26	1H	252	G	N3-C4-N9	5.24	129.14	126.00
26	1H	1187	G	C8-N9-C1'	-5.24	120.19	127.00
26	1H	1238	G	N1-C6-O6	-5.24	116.76	119.90
26	1H	1955	U	O5'-P-OP2	-5.24	100.99	105.70
27	16	98	G	C8-N9-C1'	-5.24	120.19	127.00
1	1G	386	C	C2-N1-C1'	-5.24	113.04	118.80
26	14	669	G	C5-C6-N1	5.24	114.12	111.50
26	14	835	A	C2-N3-C4	5.24	113.22	110.60
26	14	970	C	N1-C2-O2	-5.24	115.76	118.90
26	14	1804	C	N3-C4-C5	5.24	123.99	121.90
26	14	1907	G	C6-C5-N7	5.24	133.54	130.40
26	14	2258	C	OP1-P-O3'	5.24	116.72	105.20
26	14	537	C	C6-N1-C2	-5.23	118.21	120.30
26	14	988	A	C5-C6-N6	-5.23	119.51	123.70
26	14	1882	C	C2-N1-C1'	5.23	124.56	118.80
26	14	2256	G	O5'-P-OP1	5.23	116.98	110.70
26	14	2628	C	N3-C4-C5	5.23	123.99	121.90
26	1H	685	A	N7-C8-N9	5.23	116.42	113.80
26	1H	1198	U	N1-C2-O2	5.23	126.46	122.80
26	1H	1203	G	C5-C6-O6	5.23	131.74	128.60
26	1H	1302	A	OP1-P-OP2	5.23	127.45	119.60
26	1H	1559	G	O5'-P-OP1	-5.23	100.99	105.70
26	1H	2060	A	C8-N9-C1'	5.23	137.12	127.70
26	1H	2867	G	N1-C6-O6	-5.23	116.76	119.90
26	14	1132	A	N1-C6-N6	-5.23	115.46	118.60
26	14	1271	G	N1-C2-N2	-5.23	111.49	116.20
26	14	1733	G	N1-C6-O6	5.23	123.04	119.90
26	14	2691	C	C6-N1-C2	-5.23	118.21	120.30
26	14	2712	U	C5-C4-O4	5.23	129.04	125.90
26	14	2763	G	N3-C4-C5	-5.23	125.98	128.60
36	35	112	LEU	CA-CB-CG	5.23	127.33	115.30
1	13	1525	G	OP2-P-O3'	5.23	116.71	105.20
23	2K	48	U	P-O3'-C3'	5.23	125.98	119.70
26	1H	695	G	C5-C6-O6	5.23	131.74	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	845	G	C8-N9-C1'	5.23	133.80	127.00
26	1H	870	A	C8-N9-C4	5.23	107.89	105.80
26	14	1257	C	C6-N1-C2	-5.23	118.21	120.30
26	14	2512	C	C6-N1-C2	5.23	122.39	120.30
37	45	26	TYR	CA-CB-CG	5.23	123.34	113.40
1	13	963	G	C8-N9-C1'	-5.23	120.20	127.00
26	1H	2598	A	C5-C6-N6	-5.23	119.52	123.70
26	14	2685	G	C5-C6-N1	-5.23	108.89	111.50
26	14	775	G	N3-C4-N9	5.23	129.14	126.00
1	13	789	U	N3-C4-C5	-5.23	111.47	114.60
1	13	865	A	N7-C8-N9	5.23	116.41	113.80
26	1H	1979	C	C4-C5-C6	5.22	120.01	117.40
26	1H	2286	A	O5'-P-OP2	-5.22	101.00	105.70
26	1H	2506	U	N3-C2-O2	-5.22	118.54	122.20
26	14	1585	C	C6-N1-C1'	-5.22	114.53	120.80
1	13	257	G	C5-C6-N1	-5.22	108.89	111.50
26	1H	2072	G	OP1-P-O3'	5.22	116.69	105.20
26	1H	2497	A	OP1-P-OP2	-5.22	111.77	119.60
26	14	2329	G	C6-N1-C2	-5.22	121.97	125.10
26	1H	1260	G	N3-C4-C5	-5.22	125.99	128.60
26	1H	1281	G	C5-C6-O6	-5.22	125.47	128.60
26	14	268	C	C6-N1-C2	-5.22	118.21	120.30
26	14	770	G	N9-C4-C5	-5.22	103.31	105.40
1	13	108	G	C5-N7-C8	-5.22	101.69	104.30
1	13	684	A	C8-N9-C4	-5.22	103.71	105.80
26	1H	1191	G	N7-C8-N9	-5.22	110.49	113.10
26	1H	2244	U	N3-C2-O2	-5.22	118.55	122.20
27	1J	74	U	N1-C2-N3	5.22	118.03	114.90
27	1J	74	U	O5'-P-OP2	-5.22	101.00	105.70
26	1H	2085	C	C6-N1-C2	5.22	122.39	120.30
1	1G	266	G	O4'-C1'-N9	-5.22	104.03	108.20
26	14	110	G	C8-N9-C4	5.22	108.49	106.40
26	1H	74	A	N3-C4-C5	5.21	130.45	126.80
26	1H	1395	A	C4-N9-C1'	-5.21	116.91	126.30
26	1H	1984	G	N1-C6-O6	-5.21	116.77	119.90
26	1H	2767	C	C6-N1-C1'	-5.21	114.54	120.80
1	1G	111	G	N1-C6-O6	5.21	123.03	119.90
26	14	29	U	C5-C6-N1	5.21	125.31	122.70
26	14	132	G	N3-C2-N2	-5.21	116.25	119.90
26	1H	290	G	N3-C4-N9	5.21	129.13	126.00
26	14	1391	U	O5'-P-OP2	5.21	116.95	110.70
26	14	2581	G	O4'-C1'-N9	5.21	112.37	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	165	U	C2-N1-C1'	5.21	123.95	117.70
26	1H	616	A	OP2-P-O3'	5.21	116.66	105.20
26	1H	1568	G	N3-C4-C5	5.21	131.21	128.60
26	1H	2052	G	OP2-P-O3'	5.21	116.67	105.20
26	14	127	A	OP1-P-O3'	5.21	116.66	105.20
26	14	2240	C	C5-C6-N1	5.21	123.61	121.00
26	1H	693	C	O5'-P-OP2	-5.21	101.01	105.70
26	1H	958	U	C6-N1-C2	-5.21	117.87	121.00
39	A8	110	LEU	CA-CB-CG	5.21	127.28	115.30
1	1G	1409	C	C4-C5-C6	5.21	120.00	117.40
26	14	199	A	N1-C6-N6	-5.21	115.47	118.60
26	14	1051	G	C8-N9-C4	-5.21	104.32	106.40
26	14	2287	A	C4-C5-N7	5.21	113.31	110.70
26	1H	380	U	C4-C5-C6	5.21	122.82	119.70
26	1H	651	G	N9-C4-C5	5.21	107.48	105.40
26	1H	847	U	N1-C2-O2	5.21	126.44	122.80
26	1H	949	C	OP2-P-O3'	5.21	116.66	105.20
26	1H	2395	C	C2-N1-C1'	5.21	124.53	118.80
26	1H	2616	C	C2-N3-C4	-5.21	117.30	119.90
1	1G	232	G	C6-C5-N7	-5.21	127.28	130.40
26	14	522	G	O5'-P-OP1	-5.21	101.02	105.70
26	14	590	A	N1-C2-N3	5.21	131.90	129.30
26	14	687	C	C6-N1-C2	-5.21	118.22	120.30
26	1H	1830	C	C5-C4-N4	-5.21	116.56	120.20
1	13	868	C	N1-C2-O2	5.20	122.02	118.90
26	1H	961	C	N3-C2-O2	-5.20	118.26	121.90
26	1H	1899	G	C4-C5-C6	-5.20	115.68	118.80
26	1H	2273	A	N7-C8-N9	-5.20	111.20	113.80
1	13	1505	G	N9-C4-C5	5.20	107.48	105.40
25	4K	16	A	C8-N9-C4	5.20	107.88	105.80
26	1H	2830	G	C4-N9-C1'	5.20	133.26	126.50
1	13	960	U	C5-C6-N1	5.20	125.30	122.70
26	1H	255	A	N1-C6-N6	-5.20	115.48	118.60
26	14	247	G	C8-N9-C4	5.20	108.48	106.40
26	1H	141(A)	C	C4-C5-C6	-5.20	114.80	117.40
26	1H	271(B)	G	N1-C6-O6	-5.20	116.78	119.90
26	1H	1820	U	O5'-P-OP1	5.20	116.94	110.70
26	1H	2009	G	C2-N3-C4	5.20	114.50	111.90
26	14	932	G	C8-N9-C4	5.20	108.48	106.40
26	14	1259	G	N9-C4-C5	-5.20	103.32	105.40
26	1H	2527	C	C5-C6-N1	5.20	123.60	121.00
26	1H	71	A	N7-C8-N9	5.20	116.40	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	371	A	N1-C6-N6	5.20	121.72	118.60
26	1H	386	G	N7-C8-N9	5.20	115.70	113.10
26	1H	481	G	O4'-C1'-N9	5.20	112.36	108.20
26	1H	1216	G	C6-C5-N7	-5.20	127.28	130.40
26	14	234	C	N1-C2-O2	5.20	122.02	118.90
26	14	871	U	O5'-P-OP1	-5.20	101.02	105.70
26	14	1373	A	C5-C6-N6	-5.20	119.54	123.70
26	1H	1777	U	C6-N1-C2	-5.19	117.88	121.00
26	1H	2211	G	C6-C5-N7	-5.19	127.28	130.40
1	1G	301	G	N1-C6-O6	5.19	123.02	119.90
26	14	531	C	C4-C5-C6	5.19	120.00	117.40
26	1H	122	G	OP1-P-OP2	5.19	127.39	119.60
26	1H	1191	G	OP1-P-OP2	5.19	127.39	119.60
28	11	271	ILE	N-CA-C	5.19	125.02	111.00
1	1G	878	G	N3-C4-C5	-5.19	126.00	128.60
6	52	14	LEU	CA-CB-CG	5.19	127.24	115.30
26	14	269	U	N1-C2-O2	5.19	126.43	122.80
26	14	409	C	C2-N1-C1'	5.19	124.51	118.80
26	14	673	C	C5-C4-N4	-5.19	116.57	120.20
1	13	973	G	N3-C4-C5	-5.19	126.00	128.60
26	1H	119	A	C6-N1-C2	-5.19	115.48	118.60
26	1H	229	A	P-O3'-C3'	5.19	125.93	119.70
26	14	575	A	C5-C6-N6	-5.19	119.55	123.70
26	14	2439	A	C6-C5-N7	-5.19	128.67	132.30
26	1H	2277	G	N3-C4-C5	-5.19	126.00	128.60
26	14	2581	G	N3-C4-C5	-5.19	126.01	128.60
26	1H	1620	G	C5-N7-C8	5.19	106.89	104.30
26	1H	1900	A	C5'-C4'-O4'	-5.19	102.88	109.10
1	1G	115	G	N1-C6-O6	-5.19	116.79	119.90
13	4A	48	LEU	CA-CB-CG	5.19	127.23	115.30
26	14	221	A	O4'-C1'-N9	5.19	112.35	108.20
26	14	796	C	N3-C4-C5	5.19	123.97	121.90
26	14	1132	A	N9-C4-C5	5.19	107.88	105.80
26	14	1694	C	N3-C2-O2	5.19	125.53	121.90
26	1H	30	G	N3-C4-N9	5.19	129.11	126.00
26	1H	2323	G	N1-C6-O6	5.19	123.01	119.90
26	14	1321	A	N1-C2-N3	5.19	131.89	129.30
1	13	525	C	C5-C6-N1	5.18	123.59	121.00
26	1H	43	G	C5-C6-O6	5.18	131.71	128.60
26	1H	250	G	OP1-P-O3'	5.18	116.61	105.20
26	1H	677	A	N1-C6-N6	-5.18	115.49	118.60
26	1H	1528	A	C4-C5-C6	5.18	119.59	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1984	G	C5'-C4'-O4'	5.18	115.32	109.10
27	16	99	A	O5'-P-OP2	-5.18	101.03	105.70
26	1H	1545(A)	A	OP1-P-O3'	5.18	116.60	105.20
26	1H	1599	C	N1-C2-N3	5.18	122.83	119.20
26	1H	1757	U	C2-N1-C1'	-5.18	111.48	117.70
26	1H	1992	G	N3-C4-C5	-5.18	126.01	128.60
26	1H	2673	G	C6-C5-N7	-5.18	127.29	130.40
26	14	265	A	N1-C6-N6	5.18	121.71	118.60
26	14	1482	U	N3-C4-C5	-5.18	111.49	114.60
27	16	102	G	N3-C4-N9	-5.18	122.89	126.00
26	14	2253	G	C5-C6-O6	-5.18	125.49	128.60
1	13	130	A	N1-C6-N6	5.18	121.71	118.60
26	1H	950	G	O5'-P-OP1	5.18	116.92	110.70
26	1H	1122	G	N1-C6-O6	5.18	123.01	119.90
26	1H	1399	C	C5-C6-N1	5.18	123.59	121.00
26	1H	1768	U	N3-C4-O4	-5.18	115.78	119.40
26	1H	2318	G	C8-N9-C1'	-5.18	120.27	127.00
1	1G	1219	U	C5-C6-N1	5.18	125.29	122.70
26	14	2048	G	N9-C4-C5	5.18	107.47	105.40
26	1H	651	G	N3-C4-C5	-5.18	126.01	128.60
26	1H	1215	G	O5'-P-OP2	-5.18	101.04	105.70
1	13	1501	C	O5'-P-OP2	5.18	116.91	110.70
26	1H	28	A	N7-C8-N9	-5.18	111.21	113.80
26	1H	407	G	N1-C2-N2	-5.18	111.54	116.20
26	14	1295	C	OP2-P-O3'	5.18	116.59	105.20
26	1H	1025	G	C5-C6-O6	5.17	131.71	128.60
1	1G	512	U	C6-N1-C2	-5.17	117.89	121.00
1	1G	881	G	N3-C4-N9	5.17	129.10	126.00
26	14	141	A	C4-C5-N7	5.17	113.29	110.70
26	14	647	G	C4-N9-C1'	5.17	133.23	126.50
26	14	1253	A	C5-C6-N6	-5.17	119.56	123.70
26	14	2724	C	OP2-P-O3'	5.17	116.58	105.20
26	1H	787	U	C6-N1-C1'	5.17	128.44	121.20
26	1H	1904	G	N7-C8-N9	-5.17	110.51	113.10
26	14	1754	C	N3-C2-O2	-5.17	118.28	121.90
1	13	765	G	C4-N9-C1'	5.17	133.22	126.50
1	13	792	A	N1-C6-N6	5.17	121.70	118.60
26	1H	464	U	C5-C6-N1	-5.17	120.11	122.70
26	1H	526	A	N9-C4-C5	5.17	107.87	105.80
26	1H	661	C	N1-C2-O2	5.17	122.00	118.90
26	1H	2385	C	N3-C4-C5	5.17	123.97	121.90
26	1H	2703	C	C6-N1-C2	-5.17	118.23	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	1499	A	N7-C8-N9	-5.17	111.21	113.80
26	14	668	G	C2-N3-C4	-5.17	109.31	111.90
38	55	57	ARG	NE-CZ-NH1	5.17	122.89	120.30
26	1H	776	G	C4-C5-N7	5.17	112.87	110.80
26	1H	1332	G	N1-C6-O6	5.17	123.00	119.90
26	1H	2040	C	N3-C4-N4	5.17	121.62	118.00
26	14	2210	G	P-O3'-C3'	5.17	125.90	119.70
1	13	1214	C	C6-N1-C2	5.17	122.37	120.30
26	1H	807	U	OP1-P-OP2	5.17	127.35	119.60
26	1H	1620	G	C5-C6-O6	5.17	131.70	128.60
26	14	1300	U	C2-N3-C4	-5.17	123.90	127.00
26	14	1612	C	C6-N1-C2	5.17	122.37	120.30
26	1H	120	U	N1-C2-N3	5.17	118.00	114.90
26	1H	784	A	O4'-C1'-N9	5.17	112.33	108.20
26	1H	1185	C	C6-N1-C2	-5.17	118.23	120.30
26	1H	1397	U	C5-C4-O4	5.17	129.00	125.90
26	14	70	G	N3-C4-N9	5.17	129.10	126.00
26	14	675	A	C4-C5-N7	5.17	113.28	110.70
26	14	1826	G	O4'-C1'-N9	5.17	112.33	108.20
26	1H	1302	A	C6-C5-N7	5.17	135.92	132.30
26	1H	2475	C	P-O3'-C3'	5.17	125.90	119.70
1	1G	739	C	C6-N1-C2	-5.17	118.23	120.30
26	14	1601	G	OP1-P-O3'	5.17	116.56	105.20
1	13	1058	G	N9-C4-C5	-5.16	103.33	105.40
26	1H	127	A	C4-C5-N7	5.16	113.28	110.70
26	1H	791	C	OP1-P-O3'	-5.16	93.84	105.20
26	1H	1990	C	C2-N3-C4	-5.16	117.32	119.90
26	1H	2544	G	C4-C5-C6	5.16	121.90	118.80
37	88	81	VAL	CA-C-N	5.16	128.56	117.20
4	32	12	CYS	CA-CB-SG	5.16	123.30	114.00
26	14	558	G	N7-C8-N9	-5.16	110.52	113.10
26	14	1620	G	C8-N9-C4	-5.16	104.33	106.40
26	14	2068	U	OP1-P-O3'	5.16	116.56	105.20
26	1H	277	C	N1-C2-O2	5.16	122.00	118.90
26	1H	1428	C	C5-C6-N1	-5.16	118.42	121.00
26	1H	1817	G	N1-C2-N2	-5.16	111.55	116.20
26	1H	2338	G	N1-C6-O6	5.16	123.00	119.90
1	1G	1514	C	N3-C4-N4	5.16	121.61	118.00
26	14	1338	G	N3-C4-C5	-5.16	126.02	128.60
26	14	2596	U	OP1-P-OP2	5.16	127.34	119.60
27	1J	29	A	C5-N7-C8	-5.16	101.32	103.90
26	1H	664	C	C5-C6-N1	-5.16	118.42	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1161	C	O5'-P-OP2	5.16	116.89	110.70
26	1H	1940	U	C5-C4-O4	-5.16	122.80	125.90
26	1H	2299	G	C8-N9-C4	-5.16	104.34	106.40
26	14	603	A	C5-N7-C8	-5.16	101.32	103.90
26	14	777	A	N3-C4-C5	-5.16	123.19	126.80
26	1H	614	U	N1-C1'-C2'	5.16	120.71	114.00
26	1H	698	C	C6-N1-C2	5.16	122.36	120.30
26	1H	940	G	C5-C6-N1	5.16	114.08	111.50
26	1H	2211	G	C8-N9-C1'	-5.16	120.29	127.00
26	1H	2288	A	C4-C5-N7	5.16	113.28	110.70
26	1H	2293	C	N3-C4-C5	5.16	123.96	121.90
26	1H	2392	A	N1-C6-N6	5.16	121.70	118.60
26	14	729	G	N1-C2-N2	5.16	120.84	116.20
26	1H	1240	U	O5'-P-OP2	-5.16	101.06	105.70
26	1H	1888	G	N3-C2-N2	5.16	123.51	119.90
26	1H	1993	U	C5-C6-N1	-5.16	120.12	122.70
26	1H	2638	G	N3-C2-N2	5.16	123.51	119.90
26	14	1980	G	N1-C6-O6	5.16	122.99	119.90
26	1H	783	A	C6-N1-C2	-5.16	115.51	118.60
26	14	961	C	O4'-C1'-N1	5.16	112.32	108.20
26	14	2822	G	N1-C6-O6	-5.16	116.81	119.90
26	1H	1904	G	O5'-P-OP2	-5.15	101.06	105.70
26	1H	2277	G	N1-C6-O6	-5.15	116.81	119.90
26	1H	2473	U	C6-N1-C1'	-5.15	113.98	121.20
1	1G	413	G	N7-C8-N9	-5.15	110.52	113.10
26	1H	177	G	C5-C6-O6	5.15	131.69	128.60
26	1H	2023	G	N7-C8-N9	5.15	115.68	113.10
26	1H	2481	G	C6-C5-N7	-5.15	127.31	130.40
26	14	315	G	C4-C5-C6	5.15	121.89	118.80
26	14	965	C	N1-C2-O2	-5.15	115.81	118.90
26	1H	816	C	C2-N3-C4	5.15	122.47	119.90
26	1H	1035	U	C5-C4-O4	5.15	128.99	125.90
26	1H	2053	G	N1-C2-N2	5.15	120.83	116.20
26	1H	2350	C	N3-C2-O2	-5.15	118.30	121.90
26	1H	2638	G	C5-C6-N1	5.15	114.08	111.50
1	1G	899	C	C5-C4-N4	-5.15	116.59	120.20
26	14	1835	G	N1-C6-O6	-5.15	116.81	119.90
28	19	41	GLY	C-N-CA	-5.15	111.48	122.30
26	1H	109	G	C6-N1-C2	-5.15	122.01	125.10
26	1H	1307	A	C8-N9-C4	5.15	107.86	105.80
26	1H	2091	U	N3-C2-O2	-5.15	118.60	122.20
24	1L	20	C	N1-C2-O2	5.15	121.99	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	144	C	C2-N3-C4	-5.15	117.33	119.90
26	1H	207	A	N1-C6-N6	5.15	121.69	118.60
26	1H	229	A	OP2-P-O3'	5.15	116.52	105.20
26	1H	329	G	O5'-P-OP2	-5.15	101.07	105.70
26	1H	1550	C	N1-C2-O2	-5.15	115.81	118.90
26	1H	1634	A	OP1-P-OP2	5.15	127.32	119.60
26	1H	2448	A	N1-C6-N6	5.15	121.69	118.60
26	1H	2666	C	C6-N1-C2	-5.15	118.24	120.30
27	16	72	G	O5'-P-OP1	-5.15	101.07	105.70
26	14	1187	G	N1-C6-O6	5.15	122.99	119.90
26	1H	774	A	N1-C6-N6	5.15	121.69	118.60
26	1H	917	A	C8-N9-C4	5.15	107.86	105.80
26	1H	1573	G	N3-C2-N2	5.15	123.50	119.90
26	14	567	A	C4-C5-N7	5.15	113.27	110.70
26	14	1630(A)	C	N1-C2-O2	-5.15	115.81	118.90
26	14	1802	A	N1-C2-N3	5.15	131.87	129.30
26	14	2498	C	N3-C4-N4	-5.15	114.40	118.00
1	1G	484	G	C8-N9-C1'	5.14	133.69	127.00
1	1G	484	G	N3-C4-C5	5.14	131.17	128.60
1	1G	1025	U	C5-C6-N1	5.14	125.27	122.70
26	14	1955	U	OP2-P-O3'	5.14	116.52	105.20
26	14	2592	G	N3-C2-N2	5.14	123.50	119.90
26	1H	270(Y)	G	N1-C6-O6	5.14	122.98	119.90
26	1H	1477	A	OP2-P-O3'	5.14	116.51	105.20
26	1H	1593	G	OP1-P-O3'	5.14	116.51	105.20
26	1H	1614	A	C4-C5-N7	5.14	113.27	110.70
26	1H	1624	G	C5-C6-N1	5.14	114.07	111.50
26	1H	1770	G	OP1-P-O3'	5.14	116.52	105.20
1	1G	45	U	C5-C6-N1	-5.14	120.13	122.70
1	1G	493	G	C8-N9-C4	-5.14	104.34	106.40
26	14	530	G	C8-N9-C4	5.14	108.46	106.40
26	14	1762	A	OP2-P-O3'	5.14	116.52	105.20
26	14	2033	A	N1-C6-N6	-5.14	115.52	118.60
26	14	2585	U	C2-N1-C1'	5.14	123.87	117.70
1	13	130	A	C5-C6-N6	-5.14	119.59	123.70
26	1H	1159	U	N3-C2-O2	-5.14	118.60	122.20
26	14	72	U	C4-C5-C6	5.14	122.78	119.70
26	14	204	A	OP2-P-O3'	5.14	116.51	105.20
26	14	570	G	N3-C4-N9	5.14	129.08	126.00
26	14	864	G	C8-N9-C4	-5.14	104.34	106.40
26	14	2001	A	C6-N1-C2	-5.14	115.52	118.60
26	14	2038	G	N1-C2-N2	-5.14	111.57	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1343	G	N3-C4-N9	5.14	129.08	126.00
26	1H	1426	G	N3-C4-C5	-5.14	126.03	128.60
26	1H	1801	G	N3-C4-N9	5.14	129.08	126.00
26	1H	2054	A	N7-C8-N9	5.14	116.37	113.80
26	1H	2382	G	C6-C5-N7	-5.14	127.32	130.40
26	1H	2406	U	N1-C2-O2	5.14	126.40	122.80
26	14	1407	C	C4-C5-C6	-5.14	114.83	117.40
1	13	380	G	C8-N9-C1'	5.14	133.68	127.00
22	1K	83	C	O4'-C1'-N1	5.14	112.31	108.20
26	1H	2571	C	N1-C2-N3	5.14	122.80	119.20
27	16	8	U	O5'-P-OP1	5.14	116.86	110.70
26	1H	567	A	C5-C6-N1	5.14	120.27	117.70
26	1H	782	A	C8-N9-C4	-5.14	103.75	105.80
26	1H	990	A	C8-N9-C4	-5.14	103.75	105.80
1	1G	263	A	N9-C4-C5	-5.14	103.75	105.80
1	1G	898	G	N9-C1'-C2'	-5.14	106.35	112.00
26	14	389	G	C5-C6-O6	-5.14	125.52	128.60
26	14	1827	C	OP1-P-O3'	5.14	116.50	105.20
26	14	2439	A	C5-N7-C8	-5.14	101.33	103.90
27	1J	78	A	OP2-P-O3'	5.14	116.50	105.20
26	1H	386	G	N3-C4-C5	-5.13	126.03	128.60
26	1H	543	C	C5-C6-N1	-5.13	118.43	121.00
26	1H	1985	G	C8-N9-C4	-5.13	104.35	106.40
26	1H	2565	A	C8-N9-C4	5.13	107.85	105.80
26	1H	2686	G	C5-C6-O6	-5.13	125.52	128.60
27	16	103	U	OP2-P-O3'	5.13	116.50	105.20
26	14	765	G	C5-N7-C8	-5.13	101.73	104.30
26	1H	787	U	N3-C4-C5	5.13	117.68	114.60
1	13	1527	C	N3-C4-C5	-5.13	119.85	121.90
26	1H	1681	G	C8-N9-C1'	5.13	133.67	127.00
26	1H	1681	G	C8-N9-C4	5.13	108.45	106.40
26	1H	2713	A	C8-N9-C4	-5.13	103.75	105.80
26	1H	2774	C	C6-N1-C2	5.13	122.35	120.30
26	1H	152	G	N3-C4-N9	-5.13	122.92	126.00
26	1H	502	A	N1-C2-N3	5.13	131.86	129.30
26	1H	566	U	C5-C6-N1	-5.13	120.14	122.70
26	1H	2466	C	N3-C4-C5	5.13	123.95	121.90
26	14	916	G	O5'-P-OP1	-5.13	101.08	105.70
26	1H	764	A	C6-C5-N7	-5.13	128.71	132.30
26	1H	916	G	O5'-P-OP2	5.13	116.85	110.70
26	1H	2573	C	C5-C6-N1	5.13	123.56	121.00
26	14	155	C	N3-C2-O2	-5.13	118.31	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2696	U	C2-N1-C1'	-5.13	111.55	117.70
26	1H	614	U	C6-N1-C1'	5.12	128.38	121.20
26	1H	1950	G	N3-C4-C5	5.12	131.16	128.60
26	14	2240	C	N3-C4-N4	5.12	121.59	118.00
26	1H	731	C	C6-N1-C2	-5.12	118.25	120.30
26	1H	787	U	N1-C2-N3	5.12	117.97	114.90
26	1H	1471	A	N7-C8-N9	5.12	116.36	113.80
26	14	1896	G	C5-C6-O6	5.12	131.68	128.60
26	14	1897	G	C5-C6-O6	-5.12	125.53	128.60
26	14	2425	A	C5'-C4'-O4'	5.12	115.25	109.10
26	14	2575	C	N3-C4-C5	-5.12	119.85	121.90
26	14	2617	C	C2-N1-C1'	-5.12	113.16	118.80
1	13	827	U	C2-N1-C1'	5.12	123.85	117.70
26	1H	179	G	C8-N9-C4	5.12	108.45	106.40
26	1H	279	C	C6-N1-C2	-5.12	118.25	120.30
26	1H	1257	C	OP2-P-O3'	5.12	116.47	105.20
26	14	949	C	OP2-P-O3'	5.12	116.47	105.20
26	14	1528	A	N7-C8-N9	5.12	116.36	113.80
26	14	1695	G	N1-C6-O6	5.12	122.97	119.90
26	14	671	C	C5-C4-N4	5.12	123.78	120.20
26	14	2506	U	C6-N1-C2	-5.12	117.93	121.00
26	14	2715	C	O5'-P-OP1	5.12	116.84	110.70
26	1H	635	C	C6-N1-C2	-5.12	118.25	120.30
26	1H	2257	U	C5-C6-N1	5.12	125.26	122.70
1	1G	481	G	N3-C4-N9	5.12	129.07	126.00
1	1G	1301	U	N1-C2-O2	5.12	126.38	122.80
26	14	786	C	O5'-P-OP2	-5.12	101.09	105.70
26	1H	773	U	N1-C2-N3	5.12	117.97	114.90
26	14	407	G	N3-C4-C5	-5.12	126.04	128.60
26	14	1266	G	C8-N9-C4	5.12	108.45	106.40
1	13	807	A	N9-C4-C5	5.11	107.85	105.80
26	1H	198	C	OP1-P-OP2	-5.11	111.93	119.60
26	1H	1620	G	N1-C6-O6	-5.11	116.83	119.90
26	1H	2267	A	OP1-P-O3'	5.11	116.45	105.20
1	1G	691	G	C4-C5-N7	5.11	112.84	110.80
26	14	471	A	C5-C6-N1	-5.11	115.14	117.70
26	14	1407	C	N1-C2-O2	5.11	121.97	118.90
26	14	2440	C	N1-C2-O2	5.11	121.97	118.90
26	1H	610	C	C5-C6-N1	-5.11	118.44	121.00
26	1H	762	U	C5-C6-N1	5.11	125.26	122.70
26	14	1821	A	N1-C6-N6	-5.11	115.53	118.60
1	13	522	C	O5'-P-OP2	-5.11	101.10	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	35	G	C5-C6-O6	5.11	131.67	128.60
26	1H	613	U	N3-C4-O4	-5.11	115.82	119.40
26	1H	655	A	C4-C5-C6	5.11	119.56	117.00
26	1H	792	G	O4'-C1'-N9	-5.11	104.11	108.20
26	1H	1698	A	N7-C8-N9	5.11	116.36	113.80
26	1H	2026	C	N3-C4-C5	-5.11	119.86	121.90
26	14	2073	C	N1-C2-N3	5.11	122.78	119.20
1	13	23	C	N1-C2-O2	-5.11	115.83	118.90
26	1H	1162	G	C8-N9-C1'	5.11	133.64	127.00
26	14	1332	G	C5-C6-O6	-5.11	125.53	128.60
26	14	2697	G	N1-C6-O6	5.11	122.97	119.90
26	14	2755	C	N1-C2-O2	5.11	121.97	118.90
27	1J	29	A	N7-C8-N9	5.11	116.36	113.80
1	13	320	C	C2-N1-C1'	-5.11	113.18	118.80
26	1H	837	C	N3-C4-C5	5.11	123.94	121.90
26	1H	1959	G	OP2-P-O3'	5.11	116.44	105.20
26	1H	2435	A	C8-N9-C4	-5.11	103.76	105.80
26	1H	2514	U	C5-C6-N1	-5.11	120.15	122.70
26	1H	2609	U	C2-N1-C1'	-5.11	111.57	117.70
1	1G	963	G	C4-N9-C1'	5.11	133.14	126.50
26	14	2075	U	OP2-P-O3'	5.11	116.44	105.20
1	13	720	C	N3-C2-O2	-5.11	118.33	121.90
26	1H	813	U	OP2-P-O3'	5.11	116.43	105.20
26	1H	1488	G	O5'-P-OP1	-5.11	101.11	105.70
1	1G	1305	G	N3-C4-C5	5.11	131.15	128.60
26	14	669	G	C3'-C2'-C1'	5.11	105.58	101.50
26	14	791	C	P-O3'-C3'	5.11	125.83	119.70
26	14	1346	G	C5-N7-C8	5.11	106.85	104.30
26	14	1776	G	N9-C4-C5	-5.11	103.36	105.40
26	14	2433	A	C6-C5-N7	-5.11	128.73	132.30
26	14	1938	A	O5'-P-OP2	-5.10	101.11	105.70
27	1J	43	C	C6-N1-C2	-5.10	118.26	120.30
26	1H	81	G	C5-C6-O6	5.10	131.66	128.60
26	1H	195	A	P-O3'-C3'	5.10	125.82	119.70
26	1H	219	G	N7-C8-N9	-5.10	110.55	113.10
1	1G	666	G	C6-C5-N7	-5.10	127.34	130.40
26	14	613	U	N1-C2-O2	5.10	126.37	122.80
26	14	643	A	O5'-P-OP2	-5.10	101.11	105.70
26	14	1951	U	C6-N1-C2	-5.10	117.94	121.00
26	14	2463	C	C6-N1-C2	5.10	122.34	120.30
28	19	111	LEU	CA-CB-CG	5.10	127.04	115.30
26	1H	328	U	C6-N1-C2	-5.10	117.94	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	775	G	N3-C4-N9	5.10	129.06	126.00
26	1H	1993	U	OP2-P-O3'	5.10	116.42	105.20
26	1H	2063	C	C6-N1-C2	5.10	122.34	120.30
1	1G	1285	A	P-O3'-C3'	5.10	125.82	119.70
26	14	748	G	O4'-C1'-N9	5.10	112.28	108.20
26	14	1256	G	C8-N9-C1'	-5.10	120.37	127.00
26	14	1623	G	OP2-P-O3'	5.10	116.42	105.20
26	14	2079	U	O5'-P-OP1	-5.10	101.11	105.70
26	14	2084	C	C2-N3-C4	-5.10	117.35	119.90
27	1J	44	G	C8-N9-C1'	5.10	133.63	127.00
26	1H	1900	A	OP1-P-O3'	5.10	116.42	105.20
1	13	1266	G	C8-N9-C1'	5.10	133.63	127.00
26	1H	111	A	N1-C6-N6	-5.10	115.54	118.60
26	1H	189	G	N1-C6-O6	5.10	122.96	119.90
26	1H	450	G	N3-C2-N2	-5.10	116.33	119.90
26	1H	1489	U	O4'-C1'-N1	5.10	112.28	108.20
26	1H	1790	C	N3-C4-C5	5.10	123.94	121.90
26	14	1602	U	O5'-P-OP1	-5.10	101.11	105.70
1	13	960	U	C6-N1-C2	-5.10	117.94	121.00
26	1H	1370	C	O5'-P-OP2	5.10	116.81	110.70
26	1H	2085	C	N3-C2-O2	5.10	125.47	121.90
26	14	1128	A	C8-N9-C4	5.10	107.84	105.80
26	14	1379	A	P-O3'-C3'	5.10	125.82	119.70
1	13	811	C	OP2-P-O3'	5.09	116.41	105.20
26	1H	210	C	OP2-P-O3'	5.09	116.41	105.20
26	1H	1204	A	C4-C5-C6	5.09	119.55	117.00
26	1H	1470	G	OP2-P-O3'	5.09	116.41	105.20
26	14	2578	G	N1-C6-O6	-5.09	116.84	119.90
26	1H	110	G	O5'-P-OP2	-5.09	101.12	105.70
26	1H	2258	C	O5'-P-OP1	-5.09	101.12	105.70
26	1H	2508	G	C6-C5-N7	5.09	133.46	130.40
26	14	671	C	N3-C2-O2	-5.09	118.33	121.90
26	1H	1213	A	C2-N3-C4	-5.09	108.05	110.60
26	1H	1303	G	OP2-P-O3'	5.09	116.40	105.20
26	1H	1569	A	N1-C6-N6	5.09	121.66	118.60
26	1H	2060	A	N3-C4-N9	-5.09	123.33	127.40
1	1G	690	G	N3-C4-N9	-5.09	122.94	126.00
26	14	137	C	C6-N1-C2	-5.09	118.26	120.30
26	14	527	C	OP1-P-OP2	-5.09	111.96	119.60
26	14	562	U	N3-C2-O2	-5.09	118.64	122.20
26	14	989	G	O5'-P-OP1	-5.09	101.12	105.70
26	1H	830	G	N1-C6-O6	-5.09	116.85	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1931	U	C6-N1-C2	-5.09	117.95	121.00
26	1H	2289	G	N3-C4-C5	5.09	131.15	128.60
26	1H	2508	G	N9-C4-C5	5.09	107.44	105.40
26	1H	2706	G	O5'-P-OP1	-5.09	101.12	105.70
1	1G	130	A	N1-C6-N6	5.09	121.65	118.60
26	14	229	A	O4'-C1'-N9	5.09	112.27	108.20
26	1H	270(Y)	G	C5-C6-N1	-5.09	108.96	111.50
49	K8	16	LEU	N-CA-C	-5.09	97.26	111.00
26	14	1994	C	C5-C6-N1	-5.09	118.46	121.00
1	13	809	G	C4-C5-N7	-5.09	108.77	110.80
1	1G	867	G	C8-N9-C4	-5.09	104.36	106.40
1	1G	1502	A	C5-N7-C8	-5.09	101.36	103.90
26	14	153	C	C5-C6-N1	5.09	123.54	121.00
26	14	823	G	N3-C2-N2	5.09	123.46	119.90
26	1H	1436	G	OP2-P-O3'	5.08	116.39	105.20
26	14	138	G	N7-C8-N9	5.08	115.64	113.10
1	13	1276	G	C8-N9-C4	-5.08	104.37	106.40
26	1H	141	A	C5-N7-C8	-5.08	101.36	103.90
26	1H	243	U	C5-C6-N1	5.08	125.24	122.70
26	1H	464	U	C4-C5-C6	5.08	122.75	119.70
26	1H	1674	G	C4-N9-C1'	5.08	133.11	126.50
26	1H	1826	G	C5-N7-C8	5.08	106.84	104.30
26	14	774	A	O5'-P-OP1	5.08	116.80	110.70
26	14	1882	C	C6-N1-C2	-5.08	118.27	120.30
26	14	1965	C	N3-C4-C5	5.08	123.93	121.90
26	14	1992	G	C2-N3-C4	5.08	114.44	111.90
26	14	2301	C	C6-N1-C2	-5.08	118.27	120.30
1	13	524	G	N1-C6-O6	5.08	122.95	119.90
26	1H	2356	C	OP2-P-O3'	5.08	116.38	105.20
26	1H	2777	G	O4'-C1'-N9	-5.08	104.13	108.20
1	1G	567	G	C4-N9-C1'	-5.08	119.89	126.50
26	14	121	G	C6-C5-N7	-5.08	127.35	130.40
26	14	1939	U	OP2-P-O3'	5.08	116.38	105.20
26	14	2453	A	N7-C8-N9	-5.08	111.26	113.80
26	1H	614	U	N1-C2-N3	5.08	117.95	114.90
26	1H	1834	U	N1-C2-O2	5.08	126.36	122.80
26	1H	2030	A	C5-C6-N1	5.08	120.24	117.70
26	1H	2544	G	C6-C5-N7	-5.08	127.35	130.40
26	14	74	A	N9-C4-C5	-5.08	103.77	105.80
26	14	1653	G	OP1-P-O3'	5.08	116.37	105.20
26	14	2264	C	O5'-P-OP2	5.08	116.79	110.70
1	1G	1132	C	N1-C2-O2	5.08	121.95	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	788	A	C4-C5-N7	5.08	113.24	110.70
1	13	758	G	C5-N7-C8	-5.08	101.76	104.30
26	1H	25	U	N3-C4-O4	5.08	122.95	119.40
26	1H	117	G	O5'-P-OP2	-5.08	101.13	105.70
26	1H	822	U	O5'-P-OP2	-5.08	101.13	105.70
26	1H	1614	A	N3-C4-N9	-5.08	123.34	127.40
26	1H	2444	G	C2-N3-C4	5.08	114.44	111.90
26	1H	2490	G	O5'-P-OP1	5.08	116.79	110.70
26	14	1566	A	C5-N7-C8	-5.08	101.36	103.90
26	14	2211	G	C6-C5-N7	-5.08	127.36	130.40
26	14	2601	C	N1-C2-N3	5.08	122.75	119.20
1	13	253	U	N3-C2-O2	5.07	125.75	122.20
26	1H	1656	C	C5-C4-N4	-5.07	116.65	120.20
26	1H	2351	G	OP1-P-OP2	5.07	127.21	119.60
26	1H	2440	C	OP1-P-O3'	5.07	116.36	105.20
26	1H	2481	G	C4-N9-C1'	5.07	133.09	126.50
1	1G	266	G	OP2-P-O3'	5.07	116.36	105.20
26	1H	48	G	P-O3'-C3'	5.07	125.79	119.70
26	1H	290	G	N3-C4-C5	-5.07	126.06	128.60
26	14	1653	G	O5'-P-OP2	-5.07	101.14	105.70
26	14	1786	A	N1-C2-N3	5.07	131.84	129.30
26	14	2327	A	N1-C2-N3	5.07	131.84	129.30
26	1H	452	G	N3-C4-C5	-5.07	126.06	128.60
26	1H	464	U	N3-C2-O2	-5.07	118.65	122.20
26	1H	510	C	N3-C4-C5	-5.07	119.87	121.90
26	1H	1315	C	C5-C4-N4	5.07	123.75	120.20
26	1H	1611	C	C2-N3-C4	-5.07	117.36	119.90
26	1H	2053	G	C6-N1-C2	-5.07	122.06	125.10
26	14	603	A	N1-C6-N6	5.07	121.64	118.60
26	14	949	C	C2-N1-C1'	-5.07	113.22	118.80
1	13	422	C	C6-N1-C1'	-5.07	114.72	120.80
26	14	676	A	C6-C5-N7	-5.07	128.75	132.30
26	14	1385	G	C6-C5-N7	5.07	133.44	130.40
26	14	1968	G	OP1-P-O3'	5.07	116.35	105.20
26	1H	51	G	OP2-P-O3'	5.07	116.35	105.20
26	1H	142	G	C8-N9-C4	5.07	108.43	106.40
26	1H	1326	U	C2-N1-C1'	5.07	123.78	117.70
26	1H	1958	C	N3-C2-O2	5.07	125.45	121.90
26	1H	2069	G	OP2-P-O3'	5.07	116.35	105.20
26	14	569	U	C5-C6-N1	-5.07	120.17	122.70
26	1H	192	C	C5-C4-N4	-5.07	116.65	120.20
26	1H	253	C	C2-N1-C1'	-5.07	113.23	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	803	U	C5-C6-N1	-5.07	120.17	122.70
26	1H	2036	C	OP2-P-O3'	5.07	116.34	105.20
26	1H	2210	G	C8-N9-C1'	-5.07	120.41	127.00
26	1H	2589	A	N1-C2-N3	-5.07	126.77	129.30
36	78	138	LEU	CA-CB-CG	5.07	126.95	115.30
26	14	800	A	OP1-P-O3'	5.07	116.34	105.20
26	14	1332	G	N3-C2-N2	5.07	123.45	119.90
26	14	2236	C	O5'-P-OP1	-5.07	101.14	105.70
26	1H	792	G	OP2-P-O3'	5.06	116.34	105.20
26	14	2607	G	N3-C2-N2	5.06	123.44	119.90
1	13	394	G	N9-C4-C5	5.06	107.42	105.40
26	1H	77	C	C2-N3-C4	-5.06	117.37	119.90
26	1H	348	G	N7-C8-N9	5.06	115.63	113.10
26	14	803	U	C2-N1-C1'	-5.06	111.62	117.70
1	13	690	G	C8-N9-C4	-5.06	104.38	106.40
26	1H	837	C	C5-C6-N1	5.06	123.53	121.00
26	14	2699	C	C2-N1-C1'	-5.06	113.23	118.80
26	1H	945	A	C6-N1-C2	-5.06	115.56	118.60
26	1H	1190	G	OP1-P-OP2	5.06	127.19	119.60
26	1H	1819	A	C5-C6-N6	-5.06	119.65	123.70
26	1H	2518	A	O4'-C1'-N9	-5.06	104.15	108.20
26	14	953	A	N1-C6-N6	5.06	121.64	118.60
26	14	1897	G	N3-C4-N9	5.06	129.03	126.00
26	14	1963	U	N1-C2-O2	5.06	126.34	122.80
26	14	2383	G	N1-C2-N2	-5.06	111.65	116.20
26	1H	344	G	N1-C6-O6	-5.06	116.87	119.90
26	1H	530	G	C5-C6-O6	5.06	131.63	128.60
26	1H	2325	G	C8-N9-C4	-5.06	104.38	106.40
26	14	1298	C	O5'-P-OP1	5.06	116.77	110.70
26	14	1968	G	N1-C6-O6	5.06	122.93	119.90
26	1H	2486	G	O5'-P-OP2	-5.06	101.15	105.70
26	1H	2492	U	N1-C2-O2	5.06	126.34	122.80
26	1H	778	G	O5'-P-OP1	5.05	116.77	110.70
26	1H	866	A	N9-C4-C5	-5.05	103.78	105.80
26	1H	1193	G	N7-C8-N9	-5.05	110.57	113.10
26	14	1305	C	O5'-P-OP2	5.05	116.77	110.70
26	14	2848	G	O4'-C1'-N9	5.05	112.24	108.20
1	13	990	C	C6-N1-C2	-5.05	118.28	120.30
26	1H	2584	U	N1-C2-N3	5.05	117.93	114.90
1	1G	799	G	OP2-P-O3'	5.05	116.32	105.20
1	13	414	A	C8-N9-C4	5.05	107.82	105.80
26	1H	842	G	C5-N7-C8	-5.05	101.77	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1376	C	C4-C5-C6	5.05	119.93	117.40
26	1H	2508	G	C8-N9-C1'	5.05	133.57	127.00
26	14	2370	G	N3-C4-C5	-5.05	126.07	128.60
27	16	74	U	OP1-P-O3'	5.05	116.31	105.20
19	AA	82	GLY	N-CA-C	5.05	125.72	113.10
26	14	298	G	C5-C6-O6	-5.05	125.57	128.60
26	14	442	G	C8-N9-C4	-5.05	104.38	106.40
26	14	2213	U	C2-N1-C1'	5.05	123.76	117.70
1	13	1414	U	OP2-P-O3'	5.05	116.31	105.20
26	1H	386	G	N9-C4-C5	5.05	107.42	105.40
26	1H	1579	A	C6-C5-N7	-5.05	128.77	132.30
1	1G	1512	U	C6-N1-C2	-5.05	117.97	121.00
26	1H	1639	U	N1-C2-N3	5.05	117.93	114.90
26	1H	1835	G	N3-C2-N2	5.05	123.43	119.90
26	1H	2393	A	C4-C5-N7	-5.05	108.18	110.70
55	3L	2	G	C8-N9-C4	5.05	108.42	106.40
26	14	199	A	OP2-P-O3'	5.05	116.30	105.20
26	14	1459	G	N1-C6-O6	-5.05	116.87	119.90
26	14	2379	G	C8-N9-C4	-5.05	104.38	106.40
26	1H	2484	G	C8-N9-C1'	-5.04	120.44	127.00
1	1G	842	C	N1-C2-O2	5.04	121.93	118.90
1	13	452	A	N7-C8-N9	-5.04	111.28	113.80
1	13	819	A	C8-N9-C4	-5.04	103.78	105.80
1	13	894	G	OP2-P-O3'	5.04	116.30	105.20
26	1H	405	U	N1-C2-O2	5.04	126.33	122.80
26	1H	941	A	OP2-P-O3'	5.04	116.30	105.20
26	14	670	A	N9-C4-C5	-5.04	103.78	105.80
39	65	73	LEU	CA-CB-CG	5.04	126.90	115.30
1	13	733	A	N7-C8-N9	-5.04	111.28	113.80
1	13	818	G	C8-N9-C4	5.04	108.42	106.40
1	13	872	A	O4'-C1'-N9	5.04	112.23	108.20
26	1H	407	G	N3-C4-C5	-5.04	126.08	128.60
26	1H	1617	C	C6-N1-C2	-5.04	118.28	120.30
20	BA	72	LEU	CA-CB-CG	5.04	126.90	115.30
26	14	463	G	N3-C2-N2	5.04	123.43	119.90
26	14	669	G	OP1-P-O3'	5.04	116.29	105.20
26	14	2293	C	N1-C2-O2	5.04	121.92	118.90
26	1H	775	G	N3-C4-C5	-5.04	126.08	128.60
26	14	1328	G	N1-C6-O6	5.04	122.92	119.90
26	14	1662	C	C2-N3-C4	-5.04	117.38	119.90
26	14	1830	C	C6-N1-C1'	-5.04	114.75	120.80
27	1J	12	C	N3-C2-O2	-5.04	118.37	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	26	G	OP1-P-O3'	5.04	116.28	105.20
26	1H	636	G	O5'-P-OP1	-5.04	101.17	105.70
26	1H	729	G	N7-C8-N9	5.04	115.62	113.10
26	1H	1430	C	O5'-P-OP2	-5.04	101.17	105.70
1	1G	20	U	O5'-P-OP2	-5.04	101.17	105.70
26	14	1271	G	C4-C5-C6	5.04	121.82	118.80
26	14	1776	G	N3-C2-N2	5.04	123.43	119.90
26	14	2319	G	N3-C4-C5	-5.04	126.08	128.60
26	1H	252	G	N3-C4-C5	-5.04	126.08	128.60
26	14	1603	A	C5-N7-C8	-5.04	101.38	103.90
26	14	1787	A	OP1-P-OP2	-5.04	112.04	119.60
1	13	22	G	O5'-P-OP2	-5.04	101.17	105.70
26	14	980	A	N1-C2-N3	5.04	131.82	129.30
26	14	1206	G	N7-C8-N9	5.04	115.62	113.10
26	1H	706	A	N1-C6-N6	5.03	121.62	118.60
26	1H	730	C	C5-C4-N4	5.03	123.72	120.20
26	1H	1769	G	O5'-P-OP2	-5.03	101.17	105.70
26	1H	1834	U	C5-C4-O4	5.03	128.92	125.90
26	1H	1990	C	C4-C5-C6	5.03	119.92	117.40
1	1G	162	A	N7-C8-N9	5.03	116.32	113.80
26	14	864	G	C2-N3-C4	5.03	114.42	111.90
27	1J	88	C	N3-C4-C5	-5.03	119.89	121.90
36	35	62	LEU	CB-CA-C	-5.03	100.64	110.20
1	1G	960	U	N1-C2-N3	5.03	117.92	114.90
1	1G	985	C	N1-C2-O2	5.03	121.92	118.90
1	1G	1435	G	N1-C6-O6	5.03	122.92	119.90
26	14	1694	C	C5-C4-N4	-5.03	116.68	120.20
27	1J	84	C	C5-C6-N1	-5.03	118.48	121.00
22	1K	83	C	C4-C5-C6	-5.03	114.88	117.40
26	1H	412	A	N7-C8-N9	-5.03	111.28	113.80
26	1H	790	C	N1-C2-O2	-5.03	115.88	118.90
26	14	950	G	C5-C6-O6	5.03	131.62	128.60
26	14	1790	C	C2-N3-C4	-5.03	117.38	119.90
26	14	2623	G	C8-N9-C4	-5.03	104.39	106.40
26	1H	1142	U	OP1-P-OP2	-5.03	112.06	119.60
26	1H	1307	A	C5-C6-N6	-5.03	119.68	123.70
26	1H	1825	A	N9-C4-C5	5.03	107.81	105.80
26	1H	2434	A	C2-N3-C4	-5.03	108.09	110.60
1	13	789	U	C4-C5-C6	5.03	122.72	119.70
23	2K	74	A	C5-C6-N6	-5.03	119.68	123.70
26	1H	784	A	N1-C6-N6	-5.03	115.58	118.60
26	1H	1993	U	C2-N3-C4	-5.03	123.98	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	762	C	C6-N1-C2	5.03	122.31	120.30
26	14	827	U	C3'-C2'-C1'	5.03	105.52	101.50
26	14	1334	G	N3-C2-N2	-5.03	116.38	119.90
26	14	1557	C	O5'-P-OP2	-5.03	101.18	105.70
26	14	2250	G	OP1-P-OP2	5.03	127.14	119.60
26	1H	195	A	OP1-P-O3'	-5.03	94.15	105.20
26	1H	763	G	N3-C4-C5	-5.03	126.09	128.60
26	1H	2277	G	C5-N7-C8	5.03	106.81	104.30
26	14	1192	G	N7-C8-N9	-5.03	110.59	113.10
26	14	1779	U	N3-C4-O4	5.03	122.92	119.40
26	14	2374	C	C2-N3-C4	-5.03	117.39	119.90
26	14	2551	C	O5'-P-OP2	-5.03	101.18	105.70
1	13	1027	C	P-O3'-C3'	5.02	125.73	119.70
26	14	2284	C	O5'-P-OP2	-5.02	101.18	105.70
26	14	2473	U	N3-C2-O2	-5.02	118.68	122.20
1	13	123	C	O5'-P-OP2	-5.02	101.18	105.70
26	1H	590	A	N3-C4-C5	-5.02	123.28	126.80
26	1H	1938	A	OP1-P-OP2	5.02	127.13	119.60
26	1H	2491	U	C6-N1-C2	5.02	124.01	121.00
26	1H	2594	C	N3-C4-C5	5.02	123.91	121.90
26	14	1973	G	C5-C6-O6	5.02	131.61	128.60
1	13	903	G	N3-C4-C5	-5.02	126.09	128.60
26	1H	481	G	C5-C6-O6	-5.02	125.59	128.60
26	14	573	G	C2-N3-C4	5.02	114.41	111.90
26	1H	197	A	P-O3'-C3'	5.02	125.72	119.70
26	1H	2414	G	N1-C6-O6	5.02	122.91	119.90
26	1H	2575	C	C4-C5-C6	5.02	119.91	117.40
26	14	1293	C	C5-C4-N4	-5.02	116.69	120.20
1	13	833	U	C6-N1-C1'	5.02	128.22	121.20
26	1H	82	G	C4-C5-N7	-5.02	108.79	110.80
26	1H	2245	U	OP1-P-OP2	-5.02	112.07	119.60
26	1H	2274	A	OP2-P-O3'	5.02	116.24	105.20
45	G8	81	LYS	N-CA-C	-5.02	97.45	111.00
1	1G	314	C	N1-C2-O2	5.02	121.91	118.90
26	14	528	A	N3-C4-N9	-5.02	123.39	127.40
26	14	1555	G	N3-C4-N9	5.02	129.01	126.00
26	14	2032	G	N7-C8-N9	-5.02	110.59	113.10
26	14	2617	C	N3-C4-N4	-5.02	114.49	118.00
54	M5	62	LEU	CA-CB-CG	5.02	126.84	115.30
26	1H	1548	C	OP1-P-O3'	5.02	116.23	105.20
26	14	463	G	OP1-P-O3'	5.02	116.24	105.20
26	14	1271	G	N3-C2-N2	5.02	123.41	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	857	C	C4-C5-C6	5.01	119.91	117.40
26	1H	727	A	OP2-P-O3'	5.01	116.23	105.20
26	1H	2358	G	N3-C4-N9	5.01	129.01	126.00
26	1H	2477	C	C6-N1-C2	-5.01	118.29	120.30
1	1G	253	U	O5'-P-OP1	-5.01	101.19	105.70
26	14	866	A	O4'-C1'-N9	-5.01	104.19	108.20
26	14	1283	G	O5'-P-OP2	-5.01	101.19	105.70
26	14	1923	U	C6-N1-C2	-5.01	117.99	121.00
26	14	2078	C	O5'-P-OP2	5.01	116.72	110.70
26	14	2321	G	N3-C4-C5	-5.01	126.09	128.60
1	13	527	G	C5-C6-O6	5.01	131.61	128.60
1	1G	310	G	N3-C4-N9	-5.01	122.99	126.00
26	14	2083	G	C2-N3-C4	-5.01	109.39	111.90
1	13	108	G	C8-N9-C1'	-5.01	120.49	127.00
26	1H	812	C	C5-C6-N1	5.01	123.50	121.00
26	1H	1158	C	N3-C4-C5	5.01	123.90	121.90
26	1H	2297	C	OP1-P-OP2	5.01	127.11	119.60
25	4L	21	C	C5-C6-N1	5.01	123.50	121.00
1	13	865	A	C5-N7-C8	-5.01	101.40	103.90
26	1H	1817	G	N1-C6-O6	-5.01	116.89	119.90
26	1H	974	G	O5'-P-OP2	-5.01	101.19	105.70
26	1H	1213	A	C4-C5-N7	5.01	113.20	110.70
26	1H	2070	G	N9-C4-C5	-5.01	103.40	105.40
26	14	1647	G	C2-N3-C4	-5.01	109.40	111.90
26	14	2841	C	N3-C2-O2	5.01	125.41	121.90
26	1H	1301	A	C5-C6-N6	-5.00	119.70	123.70
26	14	1603	A	OP1-P-O3'	5.00	116.21	105.20
26	14	2435	A	N7-C8-N9	5.00	116.30	113.80
26	14	2709	G	N1-C6-O6	-5.00	116.90	119.90
1	13	569	C	C6-N1-C2	-5.00	118.30	120.30
26	1H	1631	A	N1-C2-N3	5.00	131.80	129.30
26	1H	2761	G	C2-N3-C4	-5.00	109.40	111.90
26	14	298	G	N7-C8-N9	5.00	115.60	113.10
26	14	684	G	N7-C8-N9	5.00	115.60	113.10
26	14	1271	G	C4-N9-C1'	5.00	133.00	126.50
36	35	59	LEU	CA-CB-CG	5.00	126.81	115.30
1	13	827	U	N1-C2-O2	5.00	126.30	122.80
1	13	1299	A	N7-C8-N9	5.00	116.30	113.80
26	1H	501	A	C5-C6-N6	5.00	127.70	123.70
26	1H	1349	A	C2-N3-C4	-5.00	108.10	110.60

All (2) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	13	792	A	C1'
26	14	945	A	C1'

All (128) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
28	11	47	GLY	Peptide
2	12	19	HIS	Peptide
28	19	237	GLU	Peptide
28	19	271	ILE	Peptide
28	19	32	SER	Peptide
28	19	37	LEU	Peptide
10	1A	87	THR	Peptide
2	1E	15	VAL	Peptide
2	1E	194	PRO	Peptide
2	1E	237	ALA	Peptide
29	21	153	GLY	Peptide
29	21	20	ALA	Peptide
29	21	21	VAL	Peptide
29	21	77	ILE	Peptide
29	21	82	ARG	Peptide
29	29	201	THR	Peptide
29	29	203	LYS	Peptide
29	29	61	ARG	Peptide
29	29	65	GLY	Peptide
11	2A	49	GLY	Peptide
4	32	152	SER	Peptide
4	32	26	CYS	Peptide
36	35	110	TYR	Peptide
36	35	36	LYS	Peptide
36	35	64	LYS	Peptide
36	35	70	GLN	Peptide
30	39	146	ALA	Peptide
30	39	166	ALA	Peptide
30	39	2	LYS	Peptide
30	39	20	LEU	Peptide
30	39	24	LEU	Peptide
30	39	26	ALA	Peptide
4	3E	29	PRO	Peptide
12	3I	47	LYS	Peptide
12	3I	87	GLY	Peptide
31	41	95	ARG	Peptide
37	45	134	ARG	Peptide

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
37	45	135	ASP	Peptide
37	45	26	TYR	Peptide
37	45	79	LEU	Peptide
37	45	80	GLU	Peptide
37	45	82	ARG	Peptide
37	45	86	GLY	Peptide
37	45	87	LYS	Peptide
31	49	117	PHE	Peptide
31	49	13	GLU	Peptide
13	4A	7	VAL	Peptide
13	4I	105	THR	Peptide
13	4I	107	ALA	Peptide
32	51	137	ASP	Peptide
32	51	153	LYS	Peptide
32	51	158	HIS	Peptide
38	55	106	GLY	Peptide
34	58	57	ALA	Peptide
32	59	125	VAL	Peptide
14	5A	27	CYS	Peptide
14	5A	29	ARG	Peptide
33	61	11	ASN	Peptide
33	61	114	LEU	Peptide
33	61	134	PRO	Peptide
33	61	82	ARG	Peptide
33	69	101	LEU	Peptide
33	69	112	LYS	Peptide
40	75	104	ASN	Peptide
40	75	11	GLU	Peptide
36	78	115	LEU	Peptide
36	78	14	LYS	Peptide
36	78	19	VAL	Peptide
36	78	22	GLY	Peptide
36	78	36	LYS	Peptide
36	78	58	THR	Peptide
36	78	66	GLY	Peptide
9	82	117	HIS	Peptide
41	85	72	HIS	Peptide
41	85	95	LEU	Peptide
41	85	96	ALA	Peptide
41	85	98	LEU	Peptide
37	88	21	THR	Peptide
37	88	87	LYS	Peptide

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
42	95	44	LYS	Peptide
38	98	44	LEU	Peptide
43	A5	43	GLY	Peptide
39	A8	110	LEU	Peptide
19	AA	12	ASP	Peptide
19	AI	7	LYS	Peptide
44	B5	61	GLY	Peptide
40	B8	2	ASN	Peptide
40	B8	58	ASN	Peptide
20	BA	11	SER	Peptide
20	BA	72	LEU	Peptide
45	C5	100	ALA	Peptide
45	C5	81	LYS	Peptide
41	C8	115	ALA	Peptide
41	C8	75	ASN	Peptide
41	C8	90	VAL	Peptide
41	C8	92	ARG	Peptide
46	D5	61	LEU	Peptide
42	D8	44	LYS	Peptide
42	D8	48	GLY	Peptide
47	E5	83	PRO	Peptide
48	F5	85	LEU	Peptide
49	G5	15	LYS	Peptide
49	G5	17	SER	Peptide
49	G5	43	GLN	Peptide
45	G8	53	PRO	Peptide
45	G8	54	LYS	Peptide
45	G8	94	LYS	Peptide
46	H8	165	VAL	Peptide
46	H8	59	LEU	Peptide
46	H8	63	ASP	Peptide
51	I5	26	SER	Peptide
51	I5	60	GLN	Peptide
47	I8	83	PRO	Peptide
48	J8	45	ASN	Peptide
48	J8	75	GLU	Peptide
49	K8	15	LYS	Peptide
49	K8	17	SER	Peptide
49	K8	46	GLN	Peptide
54	M5	34	TRP	Peptide
54	M5	36	LYS	Peptide
54	M5	40	GLU	Peptide

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Mol	Chain	Res	Type	Group
54	M5	49	VAL	Peptide
54	M5	53	PRO	Peptide
51	M8	40	HIS	Peptide
52	N8	58	LEU	Peptide
54	Q8	51	ALA	Peptide
54	Q8	52	LYS	Peptide
54	Q8	60	LEU	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	13	32352	0	16325	789	1
1	1G	32327	0	16316	749	3
2	12	1924	0	1975	103	0
2	1E	1924	0	1975	102	0
3	22	1612	0	1677	70	0
3	2E	1605	0	1668	56	0
4	32	1702	0	1763	78	0
4	3E	1702	0	1761	94	0
5	42	1155	0	1213	55	0
5	4E	1155	0	1213	49	0
6	52	842	0	857	32	0
6	5E	842	0	857	37	0
7	62	1256	0	1296	49	0
7	6E	1243	0	1284	50	0
8	72	1107	0	1165	53	0
8	7E	1115	0	1177	59	0
9	82	971	0	1001	55	0
9	8E	1009	0	1037	68	0
10	1A	801	0	849	52	0
10	1I	801	0	849	46	0
11	2A	873	0	894	47	0
11	2I	864	0	881	41	0
12	3A	975	0	1062	40	0
12	3I	956	0	1046	41	0
13	4A	933	0	992	53	0
13	4I	928	0	987	42	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
14	5A	475	0	511	25	0
14	5I	480	0	513	36	0
15	6A	733	0	771	30	0
15	6I	733	0	771	27	0
16	7A	705	0	725	37	0
16	7I	705	0	725	49	0
17	8A	834	0	904	39	0
17	8I	834	0	904	54	0
18	9A	581	0	649	33	0
18	9I	590	0	662	29	0
19	AA	624	0	636	31	0
19	AI	665	0	686	39	0
20	BA	762	0	861	30	0
20	BI	762	0	861	52	0
21	1B	217	0	234	13	0
21	1F	217	0	234	12	0
22	1K	1824	0	945	57	0
23	2K	1645	0	841	30	0
23	2L	1645	0	841	33	0
24	1L	1807	0	920	32	0
24	3K	1807	0	920	47	0
25	4K	283	0	143	9	0
25	4L	261	0	132	6	0
26	14	62647	0	31582	1375	1
26	1H	62707	0	31612	1450	1
27	16	2617	0	1328	55	0
27	1J	2617	0	1328	80	0
28	11	2120	0	2197	92	0
28	19	2120	0	2197	89	0
29	21	1568	0	1634	111	0
29	29	1568	0	1634	113	0
30	31	1585	0	1632	87	0
30	39	1627	0	1680	110	0
31	41	1473	0	1535	72	0
31	49	1473	0	1535	63	0
32	51	1321	0	1388	82	0
32	59	1307	0	1382	64	1
33	61	1136	0	1223	65	1
33	69	1136	0	1223	50	0
34	15	1104	0	1180	57	0
34	58	1104	0	1180	81	0
35	25	932	0	996	42	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
35	68	932	0	996	40	0
36	35	1144	0	1228	92	0
36	78	1144	0	1228	89	0
37	45	1107	0	1166	74	0
37	88	1121	0	1179	57	0
38	55	959	0	1021	47	0
38	98	967	0	1033	64	0
39	65	881	0	943	62	0
39	A8	876	0	938	47	0
40	75	1141	0	1202	71	0
40	B8	1141	0	1202	64	0
41	85	963	0	1022	44	0
41	C8	963	0	1022	66	0
42	95	778	0	852	69	0
42	D8	778	0	852	40	0
43	A5	899	0	964	27	0
43	E8	899	0	964	32	0
44	B5	725	0	778	36	0
44	F8	730	0	780	31	0
45	C5	794	0	884	54	0
45	G8	791	0	882	54	0
46	D5	1139	0	1163	53	0
46	H8	1397	0	1430	79	0
47	E5	612	0	633	31	0
47	I8	606	0	628	24	0
48	F5	762	0	848	36	0
48	J8	762	0	848	34	0
49	G5	558	0	610	30	0
49	K8	558	0	610	37	0
50	H5	468	0	518	13	0
50	L8	468	0	518	20	0
51	I5	515	0	514	54	0
51	M8	533	0	526	37	0
52	J5	458	0	480	21	0
52	N8	458	0	480	25	0
53	L5	391	0	432	9	0
53	P8	396	0	434	14	0
54	M5	495	0	567	62	0
54	Q8	488	0	560	55	0
55	3L	1814	0	932	51	0
56	11	2	0	0	0	0
56	13	146	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	14	391	0	0	0	0
56	16	12	0	0	0	0
56	1G	86	0	0	0	0
56	1H	481	0	0	0	0
56	1J	6	0	0	0	0
56	1K	1	0	0	0	0
56	2I	2	0	0	0	0
56	25	1	0	0	0	0
56	29	3	0	0	0	0
56	2K	7	0	0	0	0
56	2L	4	0	0	0	0
56	3I	1	0	0	0	0
56	35	1	0	0	0	0
56	39	1	0	0	0	0
56	3E	1	0	0	0	0
56	3I	1	0	0	0	0
56	4I	1	0	0	0	0
56	45	1	0	0	0	0
56	5E	1	0	0	0	0
56	78	1	0	0	0	0
56	85	1	0	0	0	0
56	88	1	0	0	0	0
56	C5	1	0	0	0	0
56	I8	1	0	0	0	0
56	L5	1	0	0	0	0
56	L8	1	0	0	0	0
56	P8	1	0	0	0	0
57	13	42	0	45	2	0
57	1G	42	0	45	0	0
58	32	1	0	0	0	0
58	3E	1	0	0	0	0
58	5A	1	0	0	0	0
58	5I	1	0	0	0	0
58	C5	1	0	0	0	0
58	G8	1	0	0	0	0
59	11	10	0	0	1	0
59	13	141	0	0	25	0
59	14	474	0	0	139	0
59	16	11	0	0	2	0
59	19	9	0	0	4	0
59	1G	87	0	0	19	0
59	1H	633	0	0	156	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	1I	1	0	0	0	0
59	1J	6	0	0	0	0
59	1K	1	0	0	0	0
59	2I	5	0	0	3	0
59	29	3	0	0	1	0
59	2K	6	0	0	0	0
59	3I	5	0	0	0	0
59	39	5	0	0	0	0
59	3E	1	0	0	0	0
59	3I	2	0	0	0	0
59	4K	3	0	0	0	0
59	55	1	0	0	0	0
59	5A	1	0	0	0	0
59	5I	1	0	0	0	0
59	6A	1	0	0	0	0
59	75	1	0	0	0	0
59	78	4	0	0	2	0
59	85	1	0	0	1	0
59	A5	1	0	0	0	0
59	BA	1	0	0	0	0
59	F8	1	0	0	0	0
59	G8	2	0	0	0	0
59	J8	1	0	0	0	0
59	L8	2	0	0	1	0
59	M5	2	0	0	0	0
All	All	299607	0	199932	8541	4

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 (8541) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1K:35:QUO:N3	22:1K:35:QUO:C4	1.70	1.51
4:32:26:CYS:HB3	4:32:31:CYS:SG	1.85	1.17
26:14:2701:C:H3'	26:14:2702:U:H5''	1.31	1.12
26:14:2711:A:OP2	59:14:3464:HOH:O	1.70	1.09
26:1H:229:A:H4'	26:1H:230:U:H5'	1.33	1.08
26:1H:2588:G:OP2	59:1H:3558:HOH:O	1.70	1.07
26:14:2032:G:N7	59:14:3630:HOH:O	1.87	1.07
26:14:662:G:H5'	36:35:15:ARG:HA	1.40	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:913:U:O4	59:1H:3818:HOH:O	1.76	1.02
26:1H:862:G:OP2	59:1H:3827:HOH:O	1.76	1.01
40:B8:26:ASP:HB3	40:B8:92:GLY:H	1.24	1.01
26:1H:1496:A:H8	26:1H:1577:C:HO2'	1.05	1.00
26:1H:784:A:OP1	59:1H:3741:HOH:O	1.79	0.99
26:1H:2726:U:HO2'	26:1H:2727:G:H8	1.10	0.98
26:1H:2308:G:H1	26:1H:2311:A:H2	1.03	0.98
26:14:602:G:N2	26:14:655:A:N7	2.11	0.98
26:14:676:A:H8	26:14:2069:G:H21	1.07	0.97
37:88:76:LYS:H	37:88:88:GLY:HA3	1.29	0.97
26:1H:2056:G:OP2	59:1H:3516:HOH:O	1.81	0.97
26:14:2593:U:O4	59:14:3527:HOH:O	1.83	0.96
41:85:92:ARG:HD3	41:85:94:ASN:HB3	1.46	0.96
26:1H:676:A:H8	26:1H:2069:G:H21	1.04	0.96
26:14:2035:G:OP1	59:14:3636:HOH:O	1.84	0.96
26:14:1418:G:N2	26:14:1580:A:N7	2.13	0.96
14:5I:43:CYS:HA	14:5I:46:GLU:HG3	1.47	0.95
26:14:1416:G:H1	26:14:1582:C:H42	1.11	0.95
26:1H:2593:U:O4	59:1H:3563:HOH:O	1.84	0.95
26:14:1664:A:OP2	59:14:3540:HOH:O	1.84	0.95
26:1H:192:C:N3	59:1H:3537:HOH:O	2.00	0.95
10:1A:51:ARG:HB2	10:1A:60:ARG:HA	1.46	0.95
26:14:2057:A:OP2	59:14:3437:HOH:O	1.84	0.95
42:95:85:LYS:HD2	42:95:86:GLY:H	1.31	0.95
26:1H:2061:G:OP2	59:1H:3526:HOH:O	1.86	0.94
26:1H:943:U:OP2	36:78:36:LYS:NZ	2.00	0.94
26:14:1359:A:H62	26:14:1372:U:H3	0.95	0.94
26:1H:1169:G:H1	26:1H:1180:C:H42	1.14	0.94
26:1H:1138:G:H21	34:58:106:MET:HE3	1.33	0.93
26:14:801:G:OP2	59:14:3765:HOH:O	1.86	0.93
26:14:1774:C:OP1	59:14:3493:HOH:O	1.84	0.93
26:14:2598:A:OP1	59:14:3524:HOH:O	1.85	0.93
1:13:171:A:H2'	1:13:172:A:H8	1.33	0.93
54:M5:61:LEU:HB2	54:M5:63:PRO:HG3	1.51	0.93
26:1H:450:G:OP2	59:1H:3722:HOH:O	1.84	0.93
26:14:1647:G:OP2	59:14:3558:HOH:O	1.83	0.93
26:14:733:G:N7	59:14:3413:HOH:O	2.02	0.93
2:12:185:ILE:HG22	2:12:199:TYR:HB2	1.50	0.92
26:1H:1774:C:OP1	59:1H:3644:HOH:O	1.85	0.92
26:1H:2533:A:OP2	59:1H:4074:HOH:O	1.86	0.92
26:14:945:A:OP1	59:14:3700:HOH:O	1.86	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:877:C:OP1	8:7E:88:LYS:NZ	2.01	0.92
26:1H:2053:G:OP2	59:1H:3653:HOH:O	1.88	0.92
1:13:780:A:OP2	59:13:1912:HOH:O	1.86	0.92
2:1E:111:ARG:HG2	2:1E:111:ARG:HH11	1.33	0.92
26:14:1048:A:N6	26:14:1112:G:O2'	2.02	0.91
39:65:41:ASP:HB2	39:65:48:LEU:HD21	1.51	0.91
31:41:161:THR:HG22	31:41:163:ALA:H	1.35	0.91
26:14:1614:A:OP1	59:14:3419:HOH:O	1.88	0.90
26:1H:805:G:OP1	59:1H:3667:HOH:O	1.89	0.90
41:85:28:ARG:NH1	41:85:38:THR:OG1	2.04	0.90
26:14:84:A:N6	26:14:102:G:O2'	2.02	0.90
26:14:1658:C:OP1	59:14:3537:HOH:O	1.89	0.90
40:B8:102:ILE:HA	40:B8:105:LEU:HD22	1.53	0.90
1:13:664:G:H22	1:13:741:G:H1	1.17	0.90
1:1G:411:A:H62	1:1G:413:G:H21	1.20	0.89
26:1H:631:A:OP2	54:Q8:46:ARG:NH2	2.06	0.89
26:1H:2588:G:OP1	59:1H:3743:HOH:O	1.90	0.89
1:1G:766:A:OP2	59:1G:1703:HOH:O	1.88	0.89
26:14:2393:A:H4'	36:35:62:LEU:H	1.37	0.89
36:35:85:LEU:HA	36:35:88:LEU:HB3	1.53	0.89
26:14:1780:A:OP1	59:14:3403:HOH:O	1.91	0.89
1:13:1297:C:OP1	13:4I:13:LYS:NZ	2.04	0.89
1:1G:1189:C:O2	59:1G:1763:HOH:O	1.89	0.89
26:1H:974(A):C:OP1	59:1H:3979:HOH:O	1.90	0.89
26:14:761:A:N7	59:14:3413:HOH:O	2.05	0.89
26:1H:741:G:OP1	59:1H:3775:HOH:O	1.90	0.88
55:3L:61:G:H1	55:3L:71:C:H42	1.22	0.88
34:15:14:VAL:HA	34:15:135:PRO:HD2	1.56	0.88
46:H8:111:VAL:HG11	46:H8:146:ILE:HG12	1.55	0.88
26:1H:2406:U:OP1	59:1H:3605:HOH:O	1.89	0.88
26:14:1298:C:OP2	59:14:3433:HOH:O	1.91	0.88
26:1H:958:U:OP2	37:88:14:ARG:NH1	2.07	0.88
26:14:654(D):G:N2	26:14:654(Q):C:N3	2.22	0.88
26:1H:1828:G:OP1	59:1H:3791:HOH:O	1.92	0.87
1:13:1004:A:O5'	1:13:1025:U:N3	2.08	0.87
26:14:1783:A:OP2	59:14:3404:HOH:O	1.91	0.87
30:39:181:LEU:HD21	30:39:186:ILE:HD11	1.56	0.87
4:3E:9:CYS:HB3	4:3E:32:ALA:HB2	1.57	0.87
1:1G:957:U:H1'	1:1G:960:U:H5	1.37	0.87
26:14:1639:U:OP2	59:14:3432:HOH:O	1.92	0.87
26:1H:219:G:N7	59:1H:3634:HOH:O	2.08	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1225:C:H4'	42:95:85:LYS:HG2	1.57	0.87
1:13:8:A:N7	4:3E:208:SER:OG	2.06	0.86
26:14:733:G:OP2	59:14:3417:HOH:O	1.90	0.86
26:14:1428:C:N4	26:14:1570:A:OP2	2.08	0.86
26:14:1782:C:OP1	59:14:3406:HOH:O	1.92	0.86
9:82:3:GLN:HG2	9:82:20:ARG:HD2	1.57	0.86
26:1H:1187:G:OP2	59:1H:3713:HOH:O	1.92	0.86
3:22:95:THR:HG22	3:22:97:LYS:HG3	1.57	0.86
26:1H:1783:A:OP2	59:1H:3522:HOH:O	1.92	0.86
31:49:67:LYS:H	51:I5:6:HIS:CD2	1.92	0.86
29:21:119:ARG:HH11	29:21:119:ARG:HG3	1.40	0.86
1:13:171:A:H2'	1:13:172:A:C8	2.11	0.86
20:BI:73:HIS:HB3	20:BI:74:LYS:HG2	1.55	0.86
26:1H:1264:G:OP1	52:N8:19:ARG:NH2	2.08	0.86
1:13:1182:G:H4'	1:13:1183:A:H5'	1.56	0.86
26:14:1616:A:O2'	59:14:3561:HOH:O	1.94	0.86
26:1H:142:G:H1'	44:F8:37:THR:HG21	1.56	0.86
1:1G:1127:G:H22	1:1G:1144:G:H1	1.17	0.86
54:M5:30:ARG:O	54:M5:32:LEU:N	2.09	0.86
1:1G:377:G:H1	1:1G:386:C:H42	1.19	0.85
26:14:450:G:O6	59:14:3661:HOH:O	1.92	0.85
26:14:1364:G:OP2	48:F5:2:SER:N	2.09	0.85
26:1H:2469:A:H2	26:1H:2481:G:H21	1.21	0.85
26:14:2032:G:H21	29:29:146:THR:HG23	1.40	0.85
42:D8:59:ALA:HB2	42:D8:96:ILE:HD13	1.56	0.85
1:1G:533:A:OP1	59:1G:1747:HOH:O	1.91	0.85
26:14:2448:A:N1	59:14:3705:HOH:O	2.09	0.85
31:49:67:LYS:H	51:I5:6:HIS:HD2	1.21	0.85
26:1H:801:G:OP2	59:1H:3975:HOH:O	1.94	0.85
1:1G:664:G:H22	1:1G:741:G:H1	1.18	0.85
29:21:135:HIS:NE2	59:21:401:HOH:O	2.09	0.85
39:65:58:LEU:HD12	39:65:65:VAL:HG13	1.57	0.85
26:1H:392:C:OP1	59:1H:3607:HOH:O	1.93	0.85
26:1H:1664:A:OP2	59:1H:3904:HOH:O	1.93	0.85
26:1H:2135:A:N6	26:1H:2156:G:O2'	2.10	0.85
26:14:741:G:OP1	59:14:3490:HOH:O	1.94	0.85
34:15:61:ARG:HA	34:15:61:ARG:HE	1.40	0.85
54:M5:40:GLU:H	54:M5:43:GLN:HG3	1.42	0.84
1:13:972:C:OP1	59:13:1829:HOH:O	1.93	0.84
28:11:146:GLU:HB2	28:11:189:CYS:HB3	1.58	0.84
6:5E:68:PRO:HG2	6:5E:71:ARG:HG3	1.59	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:79:G:N2	1:13:89:U:O4	2.09	0.84
1:13:1305:G:N2	1:13:1331:G:H2'	1.92	0.84
11:2I:18:ARG:NH2	11:2I:35:PRO:O	2.10	0.84
5:42:102:ALA:HB1	5:42:106:PRO:HG2	1.60	0.84
11:2I:79:SER:HB2	11:2I:106:LYS:HD2	1.59	0.84
2:12:42:ILE:HD11	2:12:202:PRO:HB2	1.59	0.84
26:14:2875:C:O2	40:75:3:ARG:NH2	2.10	0.84
1:13:1318:A:H1'	19:AI:37:ARG:HH21	1.43	0.84
26:1H:67:U:H3	26:1H:74:A:H2	1.20	0.84
26:1H:2032:G:H21	29:21:146:THR:HG23	1.42	0.84
34:58:96:GLU:HG2	34:58:97:ARG:H	1.43	0.84
9:8E:13:ALA:HB2	9:8E:68:GLY:HA3	1.59	0.84
1:13:974:A:OP2	14:5I:29:ARG:NH2	2.10	0.83
1:1G:1305:G:H22	1:1G:1331:G:H2'	1.43	0.83
29:29:55:ASN:O	29:29:57:LYS:NZ	2.10	0.83
26:14:1022:G:H22	26:14:1142(A):A:H2	1.24	0.83
26:14:2420:C:H41	54:M5:31:HIS:HB3	1.43	0.83
15:6I:6:GLU:HA	15:6I:9:GLN:HB2	1.61	0.83
26:1H:1887:C:H2'	26:1H:1888:G:H5''	1.59	0.83
33:61:7:GLU:HA	33:61:15:VAL:HG22	1.59	0.83
9:82:128:ARG:HH22	23:2L:33:OMC:HM23	1.43	0.83
26:14:1828:G:OP1	59:14:3503:HOH:O	1.96	0.83
10:1I:48:THR:HA	10:1I:62:HIS:HB3	1.60	0.83
1:13:1502:A:H2	1:13:1505:G:H1	1.27	0.83
26:1H:2576:G:OP1	59:1H:3654:HOH:O	1.96	0.83
26:14:847:U:O4	26:14:933:A:N6	2.11	0.83
41:C8:92:ARG:HD2	42:D8:11:GLN:HB2	1.61	0.83
1:13:330:C:O2	59:13:1860:HOH:O	1.96	0.83
34:58:132:ALA:O	34:58:134:ARG:NH1	2.12	0.83
26:1H:732:C:OP2	59:1H:3894:HOH:O	1.96	0.83
26:1H:2058:A:N6	59:1H:3514:HOH:O	2.07	0.83
1:1G:780:A:OP2	59:1G:1768:HOH:O	1.95	0.83
36:78:64:LYS:O	36:78:66:GLY:N	2.12	0.83
12:3I:38:THR:HG22	12:3I:39:VAL:HG23	1.59	0.82
16:7I:4:ILE:HB	16:7I:66:PRO:HB3	1.61	0.82
26:1H:2062:A:OP1	59:1H:3672:HOH:O	1.97	0.82
26:1H:1658:C:OP1	59:1H:3580:HOH:O	1.98	0.82
26:1H:1780:A:OP1	59:1H:3523:HOH:O	1.97	0.82
26:1H:1728:G:H8	26:1H:1732:A:H62	1.27	0.82
26:1H:2789:C:O2	26:1H:2894:G:N2	2.12	0.82
1:13:974:A:OP2	14:5I:41:ARG:NH1	2.12	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1970:A:OP1	59:1H:3803:HOH:O	1.96	0.82
2:12:75:LYS:HA	2:12:78:GLN:HB2	1.61	0.82
12:3A:47:LYS:HG3	12:3A:48:PRO:HD2	1.62	0.82
1:1G:1028(A):C:O2	1:1G:1032(B):G:N2	2.11	0.82
26:14:907:U:O2'	37:45:101:ARG:NH2	2.11	0.82
26:14:2056:G:OP2	59:14:3441:HOH:O	1.96	0.82
10:1I:50:ILE:HD11	10:1I:57:LYS:HD2	1.62	0.81
26:1H:1250:G:N7	36:78:18:ARG:NH1	2.28	0.81
26:1H:2597:G:O3'	59:1H:3544:HOH:O	1.97	0.81
48:J8:83:GLU:HG2	48:J8:85:LEU:H	1.44	0.81
32:51:153:LYS:O	32:51:155:SER:OG	1.97	0.81
1:1G:235:C:H5'	17:8A:70:ARG:HG2	1.62	0.81
15:6A:26:GLU:OE2	15:6A:77:ARG:NH1	2.13	0.81
26:14:1225:C:O3'	42:95:85:LYS:HA	1.78	0.81
4:3E:90:GLY:HA3	4:3E:204:ILE:HD11	1.61	0.81
28:11:69:ARG:NH2	28:11:128:GLY:O	2.13	0.81
15:6A:87:ILE:HG22	15:6A:88:ARG:H	1.43	0.81
26:14:259:G:H21	26:14:621:A:H8	1.29	0.81
26:1H:2582:G:OP2	59:1H:3662:HOH:O	1.98	0.81
26:14:450:G:O6	59:14:3658:HOH:O	1.96	0.81
1:13:186(E):C:H42	1:13:191(B):G:H1	1.27	0.81
26:1H:945:A:N3	59:1H:3690:HOH:O	2.13	0.81
1:13:1009:G:N1	1:13:1020:U:O2	2.10	0.81
30:31:9:ILE:HD11	30:31:125:LEU:HG	1.61	0.81
26:14:399:G:OP2	59:14:3743:HOH:O	1.98	0.81
26:14:1331:A:OP2	59:14:3676:HOH:O	1.99	0.81
26:1H:860:U:H5	26:1H:917:A:C2	1.99	0.81
26:1H:2432:A:C5	48:J8:33:LYS:HG2	2.15	0.81
1:1G:1133:G:N2	1:1G:1141:C:O2	2.14	0.81
26:14:729:G:OP2	28:19:13:ARG:NH1	2.12	0.81
28:19:242:ARG:O	59:19:307:HOH:O	1.97	0.81
1:13:201:C:H42	1:13:216:G:H1	1.29	0.81
20:BI:53:LEU:HB3	20:BI:57:ARG:HH12	1.46	0.81
26:1H:2615:U:OP2	59:1H:3510:HOH:O	1.98	0.81
40:B8:51:ARG:HB2	40:B8:98:LYS:HD3	1.60	0.81
14:5I:26:ARG:HH11	14:5I:43:CYS:HB2	1.46	0.81
26:1H:751:A:OP1	59:1H:3750:HOH:O	1.98	0.81
26:1H:761:A:N7	59:1H:3893:HOH:O	2.13	0.81
1:13:1277:C:HO2'	1:13:1279:A:H8	1.26	0.80
46:H8:165:VAL:HB	46:H8:167:PRO:HD3	1.64	0.80
26:14:2714:G:OP2	59:14:3464:HOH:O	1.98	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:39:188:ARG:HA	36:35:3:LEU:HD11	1.61	0.80
26:1H:1614:A:OP1	59:1H:3748:HOH:O	1.97	0.80
26:14:2296:U:OP2	39:65:9:ARG:NH1	2.14	0.80
41:85:92:ARG:HD2	41:85:95:LEU:HD12	1.64	0.80
36:35:39:LYS:HD2	36:35:45:LEU:HD21	1.63	0.80
34:58:96:GLU:C	34:58:98:VAL:H	1.84	0.80
26:14:2447:G:O3'	59:14:3621:HOH:O	1.97	0.80
9:8E:3:GLN:OE1	9:8E:20:ARG:NH1	2.15	0.80
1:1G:1368:G:H5'	9:82:112:LYS:HB3	1.64	0.80
3:22:199:LYS:HB3	3:22:201:TYR:HE1	1.46	0.80
26:1H:2057:A:OP2	59:1H:3517:HOH:O	2.00	0.80
26:1H:2393:A:H5''	36:78:62:LEU:HB3	1.64	0.80
15:6A:16:ALA:HB1	15:6A:21:ASP:HB3	1.63	0.80
26:14:2102:U:H3	26:14:2187:G:H1	1.28	0.80
26:14:71:A:OP2	26:14:71:A:H3'	1.79	0.80
26:1H:535:C:O3'	41:C8:53:ARG:NH1	2.15	0.80
26:14:1019:U:H2'	26:14:1020:A:C8	2.17	0.80
26:14:1381:G:N7	59:14:3723:HOH:O	2.13	0.80
1:1G:544:G:OP1	4:32:59:ARG:NH2	2.13	0.80
26:14:67:U:H3	26:14:74:A:H2	1.27	0.80
26:1H:780:G:H21	26:1H:783:A:N6	1.80	0.79
26:1H:2502:G:OP2	59:1H:3528:HOH:O	1.99	0.79
42:D8:71:LEU:HD21	42:D8:84:LYS:HE2	1.63	0.79
33:69:81:VAL:HG23	33:69:143:SER:HB2	1.61	0.79
1:13:1178:G:OP2	9:8E:93:ARG:NH2	2.15	0.79
2:1E:63:MET:HB3	2:1E:225:ALA:HB1	1.62	0.79
26:1H:1534:G:H2'	26:1H:1535:U:H4'	1.64	0.79
1:1G:870:U:H4'	1:1G:871:U:H5''	1.65	0.79
33:69:130:TYR:HB3	33:69:136:VAL:HG13	1.63	0.79
51:I5:56:VAL:HG22	51:I5:57:GLU:HG3	1.63	0.79
1:13:510:A:OP2	59:13:1816:HOH:O	2.00	0.79
26:1H:2271:G:N7	59:1H:4019:HOH:O	2.16	0.79
1:13:1007:C:H42	1:13:1022:G:H1	1.30	0.79
26:1H:1381:G:N7	59:1H:3843:HOH:O	2.16	0.79
26:14:1759:A:HO2'	26:14:2714:G:HO2'	1.30	0.79
30:39:24:LEU:HD12	30:39:25:PRO:HD3	1.63	0.79
26:1H:2503:A:OP1	59:1H:3968:HOH:O	2.01	0.79
26:14:808:G:OP2	59:14:3599:HOH:O	2.00	0.79
26:14:399:G:OP2	59:14:3741:HOH:O	2.00	0.79
44:B5:63:LYS:H	44:B5:63:LYS:HE3	1.48	0.79
1:13:1321:C:H3'	1:13:1322:C:H5''	1.63	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1265:A:OP2	59:1H:3507:HOH:O	2.01	0.79
51:M8:37:SER:HA	51:M8:42:PHE:HB3	1.64	0.79
26:14:1970:A:OP2	59:14:3512:HOH:O	2.01	0.79
26:14:2126:A:N6	26:14:2163:C:O2'	2.16	0.79
1:1G:1298:C:OP2	7:62:114:ARG:NH2	2.16	0.79
26:14:1327:C:OP2	59:14:3574:HOH:O	2.00	0.79
26:14:2681:C:H5	26:14:2725:A:H62	1.30	0.79
26:14:2744:G:N2	32:59:143:GLN:OE1	2.15	0.79
1:13:362:G:N7	59:13:1895:HOH:O	2.15	0.79
26:1H:1042:G:H1	26:1H:1113:U:H3	1.31	0.79
26:1H:1332:G:H21	26:1H:1610:A:H8	1.31	0.79
32:51:4:ILE:HG13	32:51:6:ARG:CZ	2.13	0.79
41:C8:92:ARG:NH1	42:D8:11:GLN:O	2.16	0.79
26:14:833:U:O2	36:35:55:ARG:NH1	2.14	0.79
26:14:1858:G:O2'	26:14:1884:A:N6	2.16	0.79
52:J5:41:PRO:O	52:J5:44:THR:OG1	2.00	0.79
26:1H:309:G:N3	26:1H:329:G:O2'	2.16	0.78
42:95:69:LYS:HG3	42:95:86:GLY:HA3	1.66	0.78
54:Q8:33:ASN:HA	54:Q8:36:LYS:HD2	1.65	0.78
26:1H:574:C:OP2	59:1H:3841:HOH:O	2.00	0.78
45:G8:87:LYS:H	45:G8:94:LYS:HG2	1.47	0.78
26:14:571:A:OP2	59:14:3612:HOH:O	2.01	0.78
32:59:152:ARG:HG3	32:59:153:LYS:HB2	1.64	0.78
26:14:635:C:O2'	26:14:639:U:OP1	1.99	0.78
1:1G:446:G:O6	59:1G:1774:HOH:O	2.02	0.78
26:14:517:C:OP1	52:J5:16:ARG:NH2	2.16	0.78
26:14:2597:G:O3'	59:14:3523:HOH:O	2.02	0.78
30:39:123:LEU:O	30:39:125:LEU:N	2.15	0.78
26:1H:1021:A:H62	26:1H:1141:U:H3	1.30	0.78
26:14:7:G:H1	26:14:2896:C:H42	1.31	0.78
36:35:50:ARG:HG2	36:35:50:ARG:HH11	1.47	0.78
42:95:37:VAL:HG21	42:95:57:VAL:H	1.48	0.78
2:1E:178:ARG:NH1	2:1E:196:LEU:O	2.16	0.78
52:J5:16:ARG:HH11	52:J5:16:ARG:HG2	1.49	0.78
46:H8:165:VAL:HB	46:H8:166:SER:HA	1.66	0.78
41:C8:92:ARG:O	41:C8:94:ASN:N	2.16	0.78
26:14:1434:A:H61	26:14:1558:A:N6	1.81	0.78
26:1H:1782:C:OP1	59:1H:3523:HOH:O	2.01	0.77
40:B8:6:LEU:HA	40:B8:9:LEU:HB2	1.66	0.77
55:3L:18:G:O6	55:3L:65:C:N4	2.15	0.77
1:13:1256:A:OP2	3:2E:26:LYS:NZ	2.16	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:30:LYS:HD3	4:3E:35:ARG:HE	1.47	0.77
26:1H:2380:C:OP1	39:A8:20:ARG:NH2	2.17	0.77
29:21:82:ARG:O	29:21:84:PHE:N	2.17	0.77
26:14:2499:C:N3	59:14:3631:HOH:O	2.16	0.77
1:13:445:G:H1	1:13:489:C:H42	1.32	0.77
1:13:677:U:H3	1:13:713:G:H22	1.32	0.77
22:1K:38:MIA:H113	25:4K:19[A]:A:H1'	1.65	0.77
26:1H:620:G:H4'	26:1H:621:A:H5''	1.65	0.77
26:1H:1900:A:H5'	26:1H:1900:A:H8	1.48	0.77
26:1H:2406:U:OP1	59:1H:3604:HOH:O	2.03	0.77
9:82:95:LYS:HZ3	9:82:96:LEU:HD13	1.48	0.77
26:14:30:G:O6	59:14:3838:HOH:O	2.01	0.77
26:14:1225:C:O2'	42:95:85:LYS:N	2.17	0.77
28:11:228:PRO:O	59:11:409:HOH:O	2.02	0.77
2:12:91:PRO:HG3	2:12:154:LEU:HB2	1.67	0.77
19:AA:11:VAL:HG22	19:AA:12:ASP:H	1.49	0.77
26:14:576:U:OP1	59:14:3587:HOH:O	2.01	0.77
26:1H:1061:U:H4'	26:1H:1070:A:H1'	1.65	0.77
1:1G:363:A:OP2	12:3A:34:ARG:NH2	2.16	0.77
55:3L:24:G:H2'	55:3L:25:G:H8	1.49	0.77
1:13:187:C:O2	1:13:191(A):G:N1	2.18	0.77
1:13:523:A:H61	12:3I:92:ASP:HB2	1.48	0.77
26:1H:2577:A:OP1	59:1H:3654:HOH:O	2.03	0.77
45:G8:76:CYS:HB2	45:G8:82:PRO:HD3	1.65	0.77
26:14:321:G:OP1	30:39:135:LYS:NZ	2.18	0.77
36:35:146:VAL:HG13	36:35:147:LEU:HD12	1.66	0.77
1:13:1133:G:N2	1:13:1141:C:N3	2.32	0.77
26:1H:71:A:H2	44:F8:31:HIS:HE2	1.31	0.77
1:1G:1223:C:H5''	1:1G:1224:G:H5''	1.64	0.77
38:55:100:LEU:HD21	38:55:113:LEU:HD13	1.64	0.77
26:14:453:C:OP1	59:14:3661:HOH:O	2.01	0.77
26:14:486:C:O2'	43:A5:60:ASN:OD1	2.01	0.77
26:1H:2308:G:N1	26:1H:2311:A:H2	1.82	0.77
26:14:1385:G:HO2'	26:14:1396:U:H6	1.32	0.77
29:29:55:ASN:O	29:29:57:LYS:N	2.18	0.77
29:21:128:SER:OG	29:21:129:HIS:N	2.18	0.77
30:31:32:LEU:HD21	30:31:105:VAL:HG13	1.66	0.77
49:K8:47:ASN:O	49:K8:49:LYS:N	2.17	0.77
26:1H:2115:G:N2	26:1H:2172:U:O2	2.18	0.76
27:16:101:A:OP2	59:16:307:HOH:O	2.01	0.76
38:98:56:LYS:NZ	38:98:90:ARG:O	2.18	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:998(A):C:H42	1:1G:1042:G:H1	1.33	0.76
36:35:23:PRO:HB3	42:95:80:GLN:HG3	1.67	0.76
40:75:3:ARG:HG2	40:75:6:LEU:H	1.50	0.76
46:H8:82:ARG:HG2	46:H8:83:PRO:HD2	1.66	0.76
34:15:47:ALA:HB2	34:15:112:LEU:HD21	1.68	0.76
26:1H:879:G:N1	26:1H:898:C:N3	2.32	0.76
52:N8:41:PRO:O	52:N8:44:THR:OG1	2.04	0.76
26:14:2415:G:H4'	36:35:67:MET:H	1.49	0.76
26:14:2499:C:OP2	59:14:3446:HOH:O	2.03	0.76
29:29:81:ILE:HG22	29:29:82:ARG:H	1.51	0.76
37:45:75:THR:HG21	37:45:85:LYS:HE3	1.67	0.76
4:32:20:TYR:HA	4:32:26:CYS:HB2	1.67	0.76
37:45:25:ASP:HA	37:45:102:VAL:HG23	1.67	0.76
45:C5:19:LYS:HG3	45:C5:20:TYR:H	1.50	0.76
2:1E:16:HIS:HD2	2:1E:210:SER:HA	1.49	0.76
2:1E:166:ASP:HB3	2:1E:169:LYS:HB2	1.68	0.76
26:1H:2781:A:H5''	26:1H:2782:G:H5'	1.67	0.76
53:P8:35:ARG:HG3	53:P8:42:LEU:HD11	1.67	0.76
7:6E:62:PHE:HD1	7:6E:124:LEU:HD11	1.51	0.76
26:1H:751:A:OP1	59:1H:3749:HOH:O	2.03	0.76
46:H8:7:ALA:HB3	46:H8:61:LEU:HB2	1.67	0.76
46:H8:128:VAL:HA	46:H8:161:VAL:HG11	1.67	0.76
54:Q8:16:ILE:HD11	54:Q8:57:ARG:HG2	1.67	0.76
26:14:273(D):C:N4	26:14:363(B):G:O6	2.18	0.76
1:13:64:G:O6	1:13:99:C:N4	2.19	0.76
1:13:1202:G:H21	14:5I:43:CYS:HB3	1.49	0.76
26:14:1019:U:H2'	26:14:1020:A:H8	1.51	0.76
20:BI:49:ALA:HB1	20:BI:99:LEU:HB2	1.68	0.76
26:1H:2502:G:OP2	59:1H:3529:HOH:O	2.03	0.76
30:39:40:GLN:HE22	30:39:182:ASN:HB2	1.51	0.76
33:69:112:LYS:HA	33:69:114:LEU:H	1.51	0.76
1:13:1129:C:H4'	1:13:1130:A:H5'	1.68	0.76
26:1H:646:A:H2'	26:1H:647:G:O4'	1.85	0.76
26:1H:1171:G:N2	26:1H:1178:C:N3	2.34	0.76
27:16:25:A:OP1	59:16:301:HOH:O	2.03	0.76
26:14:453:C:OP1	59:14:3662:HOH:O	2.04	0.76
26:14:2701:C:H3'	26:14:2702:U:C5'	2.13	0.76
26:14:2808:U:H3	26:14:2892:A:H62	1.34	0.76
1:1G:957:U:H1'	1:1G:960:U:C5	2.21	0.75
3:22:152:ILE:HB	3:22:199:LYS:HB2	1.69	0.75
26:14:1022:G:O2'	26:14:1023:U:OP2	2.04	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:D5:157:LEU:HA	46:D5:161:VAL:HG11	1.67	0.75
17:8I:66:SER:O	17:8I:70:ARG:NH1	2.19	0.75
23:2K:54:G:H2'	23:2K:55:5MU:H6	1.49	0.75
26:1H:1062:G:N2	26:1H:1076:C:N3	2.33	0.75
23:2L:48:U:O2'	23:2L:49:C:OP2	2.05	0.75
1:13:1128:C:O2'	1:13:1139:G:O6	2.05	0.75
26:1H:2683:C:OP1	40:B8:53:ARG:NH2	2.19	0.75
1:1G:1157:A:H61	1:1G:1178:G:H21	1.32	0.75
26:1H:1794:U:H2'	26:1H:1795:C:H6	1.51	0.75
27:16:15:A:H5'	27:16:16:G:H8	1.52	0.75
28:11:223:GLY:HA3	28:11:231:HIS:ND1	2.01	0.75
26:1H:567:A:OP1	59:1H:3504:HOH:O	2.05	0.75
26:14:2503:A:OP1	59:14:3591:HOH:O	2.04	0.75
31:49:161:THR:HG22	31:49:163:ALA:H	1.51	0.75
26:1H:2615:U:OP1	59:1H:3507:HOH:O	2.05	0.75
32:51:153:LYS:HB3	32:51:162:ILE:H	1.51	0.75
18:9A:59:SER:HB3	18:9A:62:GLU:HG3	1.69	0.75
36:35:14:LYS:O	36:35:16:ARG:N	2.19	0.75
36:35:47:ASP:OD2	36:35:50:ARG:NH1	2.20	0.75
4:3E:98:GLU:OE2	4:3E:103:ASN:ND2	2.17	0.75
26:1H:1798:U:H5'	28:11:259:THR:HG22	1.69	0.75
26:1H:2315:G:OP1	31:41:36:LYS:NZ	2.19	0.75
30:31:179:GLU:OE1	30:31:179:GLU:N	2.19	0.75
1:13:505:G:N7	59:13:1848:HOH:O	2.20	0.75
26:1H:1782:C:OP1	59:1H:3522:HOH:O	2.05	0.75
26:1H:1997:G:OP2	59:1H:3834:HOH:O	2.05	0.75
1:1G:662:G:O2'	1:1G:836:G:OP1	2.03	0.75
16:7A:1:MET:HE1	16:7A:65:GLN:HB2	1.67	0.75
26:14:273(C):C:H42	26:14:363(C):G:H1	1.34	0.75
26:14:2298:A:H62	26:14:2318:G:H8	1.35	0.75
1:13:736:C:H2'	1:13:737:A:H8	1.52	0.75
13:4I:4:ILE:HG22	13:4I:5:ALA:H	1.51	0.75
28:11:96:HIS:CE1	28:11:102:LYS:HE2	2.22	0.75
26:14:1568:G:OP1	28:19:63:ARG:NH1	2.19	0.75
16:7I:3:LYS:HG3	16:7I:24:ALA:HB2	1.68	0.74
26:1H:298:G:OP2	45:G8:84:ARG:NH1	2.17	0.74
26:1H:459:U:H5''	53:P8:40:TRP:CD2	2.21	0.74
26:1H:1997:G:OP2	59:1H:3835:HOH:O	2.05	0.74
45:G8:30:VAL:HG22	45:G8:37:VAL:HG12	1.69	0.74
45:G8:94:LYS:HZ2	45:G8:95:LYS:H	1.32	0.74
26:14:1693:U:O2'	28:19:14:ARG:NH2	2.21	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:I8:27:GLU:HG3	47:I8:68:GLU:HA	1.69	0.74
1:1G:1502:A:H2	1:1G:1505:G:H1	1.33	0.74
46:H8:62:PRO:C	46:H8:64:GLY:HA2	2.08	0.74
26:14:1828:G:OP2	59:14:3451:HOH:O	2.04	0.74
24:3K:18:G:O6	24:3K:65:C:N4	2.20	0.74
26:1H:61:G:OP1	49:K8:51:ARG:NH1	2.21	0.74
26:1H:848:G:H2'	26:1H:849:A:C8	2.23	0.74
41:C8:92:ARG:HH21	42:D8:10:LYS:HG2	1.52	0.74
46:H8:7:ALA:HB2	46:H8:59:LEU:HD22	1.69	0.74
8:72:4:ASP:OD1	8:72:7:ALA:N	2.20	0.74
8:72:86:ILE:HG21	8:72:133:LEU:HD22	1.69	0.74
11:2A:29:ILE:HG22	11:2A:44:SER:HB2	1.66	0.74
28:19:95:LEU:HD11	28:19:105:ILE:HD12	1.69	0.74
1:13:186(F):C:N3	1:13:191(B):G:N2	2.34	0.74
24:3K:19:C:H2'	24:3K:20:C:H4'	1.70	0.74
26:1H:138:G:N2	44:F8:44:GLU:OE2	2.19	0.74
26:1H:945:A:OP1	59:1H:3934:HOH:O	2.06	0.74
26:14:1639:U:OP1	59:14:3469:HOH:O	2.05	0.74
33:69:54:GLN:HA	33:69:57:ARG:HB3	1.69	0.74
35:25:115:VAL:HG13	35:25:121:VAL:HG21	1.68	0.74
36:35:52:GLU:HG2	36:35:55:ARG:HB3	1.69	0.74
26:1H:2580:U:H4'	29:21:130:GLY:HA3	1.70	0.74
28:11:182:LEU:H	28:11:272:ALA:HB3	1.51	0.74
26:14:751:A:OP1	59:14:3418:HOH:O	2.05	0.74
26:14:1716:U:H2'	26:14:1717:G:H8	1.52	0.74
1:1G:1125:U:O4	10:1A:5:ARG:NH1	2.21	0.74
26:14:1019:U:OP1	26:14:1035:U:O2'	2.04	0.74
26:1H:287:C:H2'	26:1H:288:C:H6	1.52	0.74
2:12:236:TYR:HB2	2:12:239:VAL:HB	1.68	0.74
26:14:242:G:H5''	54:M5:63:PRO:C	2.08	0.74
32:59:3:ARG:HH21	32:59:4:ILE:HD11	1.52	0.74
9:8E:27:THR:HB	9:8E:62:TYR:HA	1.69	0.74
26:1H:2168:G:H22	26:1H:2170:A:H62	1.35	0.74
40:B8:27:THR:HG23	40:B8:90:GLN:HB3	1.69	0.74
3:22:8:ILE:HG23	3:22:16:ARG:HG2	1.70	0.74
8:72:17:THR:O	8:72:78:GLN:NE2	2.19	0.74
26:14:1443:G:H1	26:14:1548:C:H42	1.34	0.74
26:14:1689:A:H62	26:14:1698:A:H2	1.34	0.74
45:C5:87:LYS:HB2	45:C5:94:LYS:HA	1.70	0.74
17:8I:76:LEU:HD11	17:8I:79:SER:HB3	1.70	0.73
26:1H:2452:C:OP1	59:1H:4086:HOH:O	2.04	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:31:46:ARG:HG2	30:31:46:ARG:HH11	1.53	0.73
2:12:43:ASP:O	2:12:47:THR:OG1	2.06	0.73
26:14:1754:C:OP1	40:75:96:ARG:NH1	2.21	0.73
26:14:2523:G:H5'	26:14:2523:G:H8	1.52	0.73
26:1H:1022:G:N2	26:1H:1023:U:O4	2.20	0.73
1:1G:575:G:O2'	59:1G:1724:HOH:O	2.06	0.73
1:1G:768:A:OP2	59:1G:1711:HOH:O	2.05	0.73
1:1G:1127:G:N1	1:1G:1145:C:N3	2.36	0.73
1:1G:1298:C:H41	7:62:114:ARG:HB3	1.51	0.73
30:39:103:LYS:HA	30:39:106:ARG:HG3	1.70	0.73
9:8E:26:VAL:HA	9:8E:61:ALA:HB3	1.70	0.73
42:D8:15:GLU:HG3	42:D8:16:PRO:HD2	1.68	0.73
26:14:574:C:OP2	59:14:3584:HOH:O	2.06	0.73
1:13:737:A:H2'	1:13:738:C:H6	1.52	0.73
7:6E:79:ARG:HE	7:6E:84:ASN:HB2	1.52	0.73
10:1I:61:GLU:OE2	14:5I:45:ARG:NH1	2.21	0.73
26:1H:890:A:H3'	26:1H:892:G:H8	1.53	0.73
26:1H:2849:U:O4	40:B8:23:ARG:NH2	2.18	0.73
26:14:531:C:OP1	26:14:561:G:N2	2.22	0.73
28:19:146:GLU:HB2	28:19:189:CYS:HB3	1.70	0.73
5:4E:81:GLU:HG2	5:4E:90:VAL:HG23	1.70	0.73
26:14:617:G:OP1	30:39:40:GLN:NE2	2.22	0.73
26:14:2498:C:OP2	59:14:3442:HOH:O	2.06	0.73
1:13:352:C:OP1	59:13:1859:HOH:O	2.06	0.73
4:3E:26:CYS:HB3	4:3E:31:CYS:SG	2.28	0.73
2:12:19:HIS:CE1	2:12:204:ASN:HB3	2.24	0.73
26:14:1043:C:O2	26:14:1112:G:N2	2.20	0.73
26:14:2168:G:N2	26:14:2170:A:OP2	2.20	0.73
26:14:2712(A):A:OP2	59:14:3467:HOH:O	2.05	0.73
31:49:109:VAL:HG11	31:49:142:PRO:HG3	1.69	0.73
52:J5:16:ARG:NH1	52:J5:17:ASP:OD1	2.21	0.73
1:13:453:A:H4'	16:7I:72:ARG:HB2	1.71	0.73
1:13:1305:G:H22	1:13:1331:G:H2'	1.51	0.73
26:1H:800:A:OP1	59:1H:3538:HOH:O	2.06	0.73
26:1H:1026:U:H1'	26:1H:1027:A:O5'	1.88	0.73
26:1H:1676:A:OP2	59:1H:3587:HOH:O	2.05	0.73
26:14:1537:C:H2'	26:14:1538:G:C8	2.23	0.73
26:14:1614:A:OP1	59:14:3420:HOH:O	2.06	0.73
26:1H:1665:A:N7	59:1H:3906:HOH:O	2.21	0.73
39:A8:11:LYS:HD3	39:A8:91:PRO:HD3	1.70	0.73
1:1G:1446:A:N7	40:75:118:ARG:NH1	2.37	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:7:PRO:O	3:22:11:ARG:NH1	2.22	0.73
26:14:1007:C:OP1	34:15:37:LYS:NZ	2.22	0.73
36:78:15:ARG:HA	36:78:16:ARG:HB3	1.71	0.73
26:14:2135:A:N7	26:14:2156:G:N2	2.37	0.73
1:13:991:U:O4	1:13:1212:U:O2'	2.06	0.73
1:13:1226:C:H4'	19:AI:80:TYR:CZ	2.23	0.73
19:AI:40:ILE:HG23	19:AI:41:VAL:HG13	1.70	0.73
32:51:86:GLU:HG2	32:51:87:LEU:H	1.54	0.73
29:29:33:VAL:HG11	29:29:88:GLY:HA3	1.71	0.73
34:15:56:ASN:H	34:15:125:GLY:HA3	1.54	0.73
35:25:24:VAL:HB	35:25:33:ALA:HB2	1.71	0.73
26:1H:1968:G:OP1	59:1H:3814:HOH:O	2.05	0.72
11:2I:32:ILE:HD11	11:2I:68:ALA:HB1	1.69	0.72
26:1H:973:A:OP2	59:1H:3706:HOH:O	2.07	0.72
41:C8:8:VAL:HG23	41:C8:11:ARG:HH21	1.53	0.72
1:1G:1348:U:H3	1:1G:1374:A:H2	1.35	0.72
26:14:177:G:OP2	26:14:177:G:N2	2.20	0.72
37:45:75:THR:HA	37:45:89:ASN:HA	1.70	0.72
49:G5:31:GLU:HB2	49:G5:53:LEU:HD11	1.72	0.72
31:41:17:PRO:HA	31:41:20:ILE:HD12	1.71	0.72
1:1G:1158:C:O2'	2:12:133:LYS:NZ	2.17	0.72
2:12:131:PRO:HG2	2:12:134:GLU:HB2	1.72	0.72
14:5A:23:ARG:NH1	14:5A:29:ARG:O	2.22	0.72
26:14:1420:U:O2'	26:14:1421:G:OP1	2.05	0.72
26:14:2250:G:C4	37:45:82:ARG:HG3	2.24	0.72
27:1J:80:U:H2'	27:1J:81:G:H21	1.54	0.72
37:45:135:ASP:OD2	46:D5:81:ARG:NH1	2.21	0.72
1:1G:742:G:OP2	15:6A:35:ARG:NH2	2.19	0.72
20:BI:86:ARG:O	20:BI:90:GLN:NE2	2.23	0.72
22:1K:3:U:O2'	22:1K:4:G:O5'	2.07	0.72
26:14:2340:G:H2'	26:14:2341:G:H8	1.54	0.72
2:1E:67:THR:HG21	2:1E:155:LEU:HG	1.71	0.72
2:1E:82:ARG:NE	2:1E:92:TYR:OH	2.23	0.72
20:BI:14:LYS:HG3	20:BI:17:ARG:HE	1.52	0.72
26:1H:945:A:OP1	59:1H:3937:HOH:O	2.07	0.72
26:1H:2127:G:H22	26:1H:2162:G:H1'	1.53	0.72
36:78:64:LYS:HD2	54:Q8:25:MET:SD	2.28	0.72
46:H8:19:ARG:NH1	46:H8:84:GLU:O	2.22	0.72
1:1G:176:C:OP1	20:BA:29:LYS:NZ	2.23	0.72
1:1G:516:U:O4	59:1G:1747:HOH:O	2.07	0.72
9:82:112:LYS:HA	9:82:119:ALA:HB2	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:1L:62:G:H1	24:1L:70:C:H42	1.36	0.72
26:14:71:A:H5'	26:14:71:A:C8	2.24	0.72
26:14:1783:A:OP2	59:14:3406:HOH:O	2.08	0.72
26:14:2472:G:H2'	26:14:2475:C:H41	1.55	0.72
32:59:159:GLU:O	32:59:163:TYR:OH	2.07	0.72
1:13:962:C:N4	1:13:973:G:O6	2.13	0.72
29:21:21:VAL:HB	29:21:22:PRO:HD3	1.69	0.72
1:1G:1251:A:H2'	1:1G:1252:A:C8	2.24	0.72
26:14:249:C:OP1	59:14:3426:HOH:O	2.07	0.72
26:14:309:G:H4'	45:C5:18:GLY:HA3	1.72	0.72
52:J5:49:CYS:SG	52:J5:50:GLY:N	2.62	0.72
13:4I:108:ARG:NH1	13:4I:112:GLY:O	2.23	0.72
26:14:674:G:O2'	30:39:74:ARG:HG3	1.88	0.72
26:14:1359:A:N6	26:14:1372:U:H3	1.80	0.72
2:1E:69:LEU:HB3	2:1E:162:ILE:HG22	1.71	0.72
26:1H:2415:G:H4'	36:78:67:MET:N	2.05	0.72
15:6A:17:ARG:HD3	15:6A:26:GLU:HG3	1.70	0.72
26:14:2784:C:H1'	29:29:37:ARG:HH21	1.55	0.72
1:13:507:C:OP2	59:13:1815:HOH:O	2.07	0.72
26:1H:1406:U:H2'	26:1H:1407:C:C6	2.24	0.72
26:1H:1678:G:H22	26:1H:1989:G:H22	1.38	0.72
26:1H:2656:U:H3	26:1H:2665:A:H2	1.38	0.72
32:51:4:ILE:HG13	32:51:6:ARG:NE	2.03	0.72
26:14:2350:C:OP2	59:14:3834:HOH:O	2.08	0.72
44:F8:61:GLY:N	44:F8:75:ASP:OD1	2.23	0.71
1:1G:803:G:OP1	59:1G:1716:HOH:O	2.08	0.71
1:13:509:A:OP2	59:13:1814:HOH:O	2.08	0.71
1:13:517:G:N1	1:13:533:A:OP2	2.23	0.71
8:7E:41:ARG:NH2	8:7E:123:GLU:OE1	2.23	0.71
26:1H:987:G:OP2	59:1H:3832:HOH:O	2.06	0.71
26:1H:2287:A:N6	26:1H:2344:U:H3	1.88	0.71
1:1G:1157:A:N6	1:1G:1178:G:H21	1.88	0.71
1:1G:1343:G:H2'	1:1G:1344:C:C6	2.25	0.71
37:45:27:VAL:HG13	46:D5:81:ARG:HH22	1.55	0.71
1:13:1000:A:H2'	1:13:1001:G:C8	2.25	0.71
26:1H:409:C:OP1	59:1H:3607:HOH:O	2.07	0.71
29:21:2:LYS:NZ	29:21:100:GLU:OE2	2.22	0.71
26:14:1141:U:OP2	34:15:63:THR:OG1	2.08	0.71
26:14:1782:C:OP1	59:14:3402:HOH:O	2.06	0.71
1:13:509:A:OP2	59:13:1818:HOH:O	2.08	0.71
45:G8:76:CYS:O	45:G8:78:ALA:N	2.21	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:4:TYR:HE2	4:32:11:LEU:HD11	1.54	0.71
26:14:2611:U:H6	26:14:2611:U:H5'	1.53	0.71
30:39:25:PRO:HB2	30:39:27:GLU:H	1.55	0.71
1:13:736:C:H2'	1:13:737:A:C8	2.26	0.71
26:1H:442:G:H1'	30:31:48:THR:HG21	1.70	0.71
26:1H:1689:A:H62	26:1H:1698:A:H2	1.36	0.71
26:14:1568:G:H5'	28:19:60:ARG:HA	1.72	0.71
26:14:2592:G:N7	59:14:3528:HOH:O	2.24	0.71
11:2I:28:THR:HG21	11:2I:90:GLY:HA3	1.73	0.71
26:1H:2023:G:H5'	26:1H:2617:C:H4'	1.72	0.71
26:1H:2228:G:OP2	28:11:263:ARG:NH2	2.24	0.71
26:1H:2296:U:OP2	39:A8:9:ARG:NH2	2.22	0.71
34:58:39:ARG:NH1	34:58:41:ASP:OD2	2.22	0.71
1:1G:1435:G:H2'	1:1G:1436:U:C6	2.26	0.71
26:14:2123:G:H2'	26:14:2124:G:H8	1.55	0.71
44:F8:55:ASN:HB2	44:F8:80:ILE:HG13	1.72	0.71
16:7A:74:LEU:HD13	16:7A:79:VAL:HG21	1.73	0.71
21:1B:8:THR:HG22	21:1B:11:GLY:H	1.56	0.71
26:14:821:A:N1	59:14:3609:HOH:O	2.22	0.71
29:29:25:VAL:HG12	29:29:26:ILE:H	1.55	0.71
44:B5:41:ASN:HA	44:B5:44:GLU:HB2	1.72	0.71
54:M5:32:LEU:O	54:M5:33:ASN:ND2	2.24	0.71
26:1H:654(D):G:H1	26:1H:654(Q):C:H42	1.37	0.71
28:11:17:THR:HB	28:11:205:VAL:H	1.54	0.71
30:39:182:ASN:ND2	30:39:185:ASP:OD2	2.23	0.71
1:13:156:G:H1	1:13:165:C:H42	1.39	0.71
13:4I:90:LEU:HA	13:4I:93:ARG:HG3	1.73	0.71
26:1H:259:G:O2'	26:1H:621:A:O2'	2.07	0.71
26:1H:989:G:N7	50:L8:13:ILE:HD11	2.06	0.71
33:61:144:VAL:HG22	33:61:145:VAL:HG13	1.71	0.71
1:1G:1392:G:H21	1:1G:1502:A:H8	1.37	0.71
16:7A:53:VAL:HG13	16:7A:79:VAL:HG22	1.73	0.71
55:3L:6:G:O6	55:3L:76:C:N4	2.23	0.71
36:35:64:LYS:HB2	54:M5:30:ARG:HH22	1.54	0.71
1:13:186(E):C:N3	1:13:191(B):G:N2	2.38	0.71
1:13:1086:U:H3	1:13:1099:G:H22	1.39	0.71
2:1E:174:VAL:HG13	2:1E:184:VAL:HG11	1.71	0.71
26:1H:780:G:H21	26:1H:783:A:H62	1.36	0.71
29:21:105:THR:OG1	29:21:199:ARG:NH2	2.21	0.71
1:1G:1503:A:O2'	25:4L:13:A:N1	2.24	0.71
8:72:64:LYS:HG2	8:72:79:VAL:HG21	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1B:18:TYR:HE1	21:1B:22:ARG:HD3	1.56	0.71
26:14:900:A:H3'	26:14:901:A:H8	1.56	0.71
26:14:2102:U:O2	26:14:2187:G:N2	2.21	0.71
26:14:2250:G:C6	37:45:82:ARG:HD2	2.26	0.71
26:1H:1189:A:OP2	59:1H:3708:HOH:O	2.06	0.70
27:16:15:A:H5'	27:16:16:G:C8	2.25	0.70
43:E8:86:LEU:HD12	43:E8:87:PRO:HD2	1.71	0.70
1:1G:1286:A:C8	1:1G:1287:A:H4'	2.26	0.70
26:14:2577:A:OP2	52:J5:3:LYS:NZ	2.18	0.70
9:8E:89:ASN:ND2	9:8E:91:ASP:OD1	2.23	0.70
29:21:105:THR:HG1	29:21:199:ARG:HH21	1.38	0.70
9:82:50:LEU:HB3	9:82:56:LEU:HA	1.72	0.70
26:14:273(E):U:O4	26:14:363(A):A:N6	2.18	0.70
1:13:361:G:OP2	59:13:1894:HOH:O	2.08	0.70
20:BI:71:THR:HG22	20:BI:72:LEU:H	1.54	0.70
26:14:1111:A:H4'	32:59:3:ARG:HD3	1.72	0.70
26:14:1772:G:N3	59:14:3493:HOH:O	2.23	0.70
26:14:2638:G:OP2	29:29:82:ARG:NH2	2.24	0.70
26:14:2839:G:H5'	38:55:46:GLY:HA2	1.73	0.70
48:F5:91:LYS:HG3	48:F5:92:LYS:H	1.56	0.70
54:M5:61:LEU:HB2	54:M5:63:PRO:CG	2.20	0.70
26:1H:2001:A:H2'	26:1H:2002:G:C8	2.27	0.70
48:J8:85:LEU:HD12	48:J8:88:LYS:HB2	1.71	0.70
1:1G:353:A:H5'	1:1G:353:A:H8	1.53	0.70
26:1H:338:G:OP2	59:1H:3941:HOH:O	2.08	0.70
26:1H:1525:G:H2'	26:1H:1526:G:H8	1.55	0.70
26:1H:2400:G:H2'	26:1H:2401:U:C6	2.26	0.70
34:58:56:ASN:N	34:58:125:GLY:O	2.19	0.70
1:1G:377:G:OP1	16:7A:3:LYS:NZ	2.25	0.70
1:1G:474:G:H2'	1:1G:475:G:H8	1.56	0.70
26:14:2131:G:H5''	26:14:2158:A:H61	1.57	0.70
26:14:2415:G:H4'	36:35:67:MET:N	2.07	0.70
14:5I:4:LYS:O	14:5I:7:ILE:N	2.23	0.70
32:51:152:ARG:HB3	32:51:153:LYS:HZ3	1.55	0.70
1:1G:600:C:H2'	1:1G:601:C:H6	1.56	0.70
26:14:2130:U:H2'	26:14:2158:A:N1	2.06	0.70
38:55:67:LEU:HD12	38:55:76:VAL:HG21	1.72	0.70
26:1H:7:G:H2'	26:1H:8:A:O4'	1.91	0.70
26:1H:450:G:O6	59:1H:3724:HOH:O	2.05	0.70
26:1H:2210:G:H5'	26:1H:2211:G:N7	2.07	0.70
2:12:208:ILE:HA	2:12:211:ILE:HD12	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:9A:53:ARG:HH21	18:9A:60:ALA:H	1.36	0.70
26:14:491:G:H2'	26:14:492:A:C8	2.26	0.70
1:13:838:G:H1	1:13:848:C:N4	1.89	0.70
24:3K:13:G:H2'	24:3K:14:A:H8	1.57	0.70
26:1H:155:C:H42	26:1H:171:G:H1	1.37	0.70
26:1H:1187:G:OP2	59:1H:3716:HOH:O	2.09	0.70
1:1G:1438:G:O6	1:1G:1463:C:N4	2.20	0.70
26:14:1154:G:OP2	41:85:58:ARG:NH1	2.22	0.70
26:14:1856:G:H1	26:14:1886:C:H42	1.40	0.70
13:4I:23:TYR:HD2	13:4I:67:GLU:HA	1.55	0.70
26:1H:2123:G:H22	26:1H:2175:C:H42	1.38	0.70
32:51:86:GLU:HG3	32:51:165:ALA:HB3	1.73	0.70
32:51:149:ARG:NH1	32:51:167:GLU:OE2	2.24	0.70
47:I8:64:ASP:HB2	47:I8:85:ALA:HB1	1.73	0.70
1:1G:474:G:H2'	1:1G:475:G:C8	2.27	0.70
1:1G:1255:G:O2'	1:1G:1258:G:O2'	2.10	0.70
13:4A:58:GLU:O	13:4A:62:ASN:ND2	2.25	0.70
26:14:2499:C:OP1	59:14:3621:HOH:O	2.09	0.70
26:1H:249:C:O2	54:Q8:12:LYS:NZ	2.24	0.70
26:1H:607:U:H3	26:1H:621:A:H2	1.38	0.70
26:1H:2502:G:N7	59:1H:3679:HOH:O	2.25	0.70
2:12:5:ILE:HG12	2:12:6:THR:HG22	1.72	0.70
39:65:11:LYS:HG3	39:65:91:PRO:HD3	1.73	0.70
44:B5:60:ARG:HH11	44:B5:60:ARG:HG2	1.57	0.70
47:E5:27:GLU:HG3	47:E5:68:GLU:HA	1.74	0.70
24:3K:22:A:N7	24:3K:57:C:N4	2.40	0.69
26:1H:2270:G:OP2	59:1H:4021:HOH:O	2.09	0.69
37:88:89:ASN:O	37:88:92:GLY:N	2.17	0.69
26:14:1727:U:H3	26:14:1733:G:H1	1.40	0.69
26:14:2720:U:H3	26:14:2873:A:H2	1.39	0.69
37:45:88:GLY:O	37:45:89:ASN:ND2	2.25	0.69
26:1H:1078:U:H1'	26:1H:1088:A:H2	1.55	0.69
42:D8:44:LYS:O	42:D8:46:VAL:N	2.24	0.69
1:1G:673:G:H2'	1:1G:674:G:C8	2.27	0.69
18:9I:26:LEU:HD22	18:9I:42:ARG:HH22	1.57	0.69
26:1H:273(F):C:H3'	26:1H:274:G:H5''	1.73	0.69
30:31:65:TRP:CH2	30:31:72:ARG:HD2	2.27	0.69
51:M8:9:LEU:H	51:M8:27:THR:HG23	1.57	0.69
26:14:1614:A:H61	43:A5:88:ARG:H	1.40	0.69
2:1E:80:ILE:HD11	2:1E:208:ILE:HG23	1.74	0.69
36:78:47:ASP:OD2	36:78:50:ARG:NH2	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:45:U:H2'	1:1G:46:G:C8	2.26	0.69
11:2A:100:ALA:O	11:2A:102:GLY:N	2.23	0.69
26:14:141:A:H8	26:14:1595:G:H21	1.41	0.69
26:14:607:U:H3	26:14:621:A:H2	1.39	0.69
31:49:104:GLU:HG2	51:I5:23:GLU:HG2	1.74	0.69
40:B8:84:GLN:HG2	40:B8:85:LYS:HG2	1.73	0.69
1:13:1023:G:H3'	1:13:1024:G:H5''	1.74	0.69
26:1H:860:U:H5	26:1H:917:A:H2	1.39	0.69
26:1H:1434:A:H61	26:1H:1558:A:N6	1.91	0.69
36:78:61:ARG:CZ	36:78:61:ARG:HB2	2.22	0.69
1:1G:957:U:O2'	1:1G:959:A:N7	2.20	0.69
3:22:36:ASP:HA	3:22:39:ILE:HD12	1.74	0.69
4:3E:88:VAL:HB	4:3E:91:SER:HB3	1.73	0.69
26:1H:1779:U:H2'	59:1H:3519:HOH:O	1.91	0.69
26:1H:1815:A:O3'	59:1H:3870:HOH:O	2.11	0.69
1:1G:619:U:O2	4:32:135:LEU:HD22	1.93	0.69
17:8A:66:SER:O	17:8A:70:ARG:NH1	2.25	0.69
1:13:1122:U:O4	1:13:1123:A:N6	2.26	0.69
2:1E:8:LYS:HG2	2:1E:9:GLU:H	1.57	0.69
26:1H:76:C:O2'	49:K8:62:THR:HG21	1.92	0.69
26:1H:218:A:OP2	59:1H:3635:HOH:O	2.10	0.69
26:1H:376:C:OP2	59:1H:3608:HOH:O	2.10	0.69
26:1H:1386:C:H2'	26:1H:1387:C:H6	1.55	0.69
34:58:21:LYS:HE2	34:58:138:LEU:HD12	1.74	0.69
35:68:88:ASN:ND2	35:68:92:GLU:H	1.91	0.69
41:C8:32:PHE:HZ	41:C8:36:ARG:HH21	1.39	0.69
41:C8:97:ASP:OD2	41:C8:101:ARG:NH1	2.25	0.69
50:L8:13:ILE:O	59:L8:201:HOH:O	2.11	0.69
54:Q8:61:LEU:HD13	54:Q8:62:LEU:HD12	1.73	0.69
1:1G:1347:G:O2'	1:1G:1373:G:O6	2.08	0.69
3:22:63:ASN:HA	3:22:98:ASN:HB2	1.75	0.69
8:72:114:THR:HG21	8:72:119:LEU:HG	1.75	0.69
26:14:1170:G:O6	26:14:1179:C:N4	2.25	0.69
26:14:1652:A:OP1	38:55:8:ARG:NH1	2.25	0.69
26:14:1786:A:OP1	59:14:3496:HOH:O	2.10	0.69
26:14:2019:A:N7	52:J5:9:LYS:HE3	2.08	0.69
26:14:2101:G:H1	26:14:2188:C:H42	1.38	0.69
26:14:2791:C:H42	26:14:2805:G:H1	1.39	0.69
33:69:67:ARG:HB3	33:69:68:LEU:HD12	1.74	0.69
39:65:30:ARG:HG3	39:65:35:ILE:HD13	1.74	0.69
42:95:5:VAL:HB	42:95:37:VAL:HG12	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1346:A:H5''	9:8E:120:ARG:HH12	1.57	0.69
26:1H:2141:G:H22	26:1H:2150:U:H1'	1.58	0.69
26:1H:2343:C:O2'	26:1H:2373:G:O2'	2.11	0.69
46:H8:76:LEU:HA	46:H8:83:PRO:HA	1.73	0.69
7:62:44:TYR:HA	7:62:47:CYS:HB2	1.75	0.69
26:14:249:C:OP1	59:14:3428:HOH:O	2.10	0.69
26:14:2882:A:H5'	38:55:96:ARG:HG3	1.75	0.69
40:75:105:LEU:HD23	40:75:109:GLU:HG3	1.74	0.69
5:4E:142:LEU:O	5:4E:143:ARG:NH1	2.26	0.69
26:1H:583:G:H5''	41:C8:10:ARG:HH12	1.58	0.69
26:14:570:G:O6	59:14:3619:HOH:O	2.09	0.69
1:13:235:C:H5'	17:8I:70:ARG:HG2	1.75	0.68
31:49:135:LEU:HD23	31:49:140:ILE:HD11	1.75	0.68
35:25:25:LEU:HB2	35:25:38:VAL:HG23	1.76	0.68
44:B5:8:ILE:O	49:G5:36:ARG:NH2	2.26	0.68
1:13:200:G:H1	1:13:217:C:H42	1.41	0.68
1:13:1075:C:OP1	2:1E:179:LYS:NZ	2.22	0.68
12:3I:117:ARG:HB3	12:3I:122:THR:HB	1.76	0.68
46:H8:30:ASN:HD22	46:H8:32:HIS:H	1.41	0.68
1:1G:1239:A:O2'	1:1G:1298:C:N4	2.26	0.68
26:14:751:A:OP1	59:14:3421:HOH:O	2.12	0.68
26:14:1310:G:OP2	53:L5:9:ARG:NH1	2.26	0.68
26:14:2150:U:H2'	26:14:2151:G:H8	1.57	0.68
40:75:6:LEU:HD12	40:75:9:LEU:HD13	1.73	0.68
22:1K:56:U:H3	22:1K:57:C:H5	1.40	0.68
26:1H:1316:U:H2'	26:1H:1317:A:H8	1.58	0.68
26:1H:1728:G:N1	26:1H:1730:U:OP2	2.27	0.68
1:1G:411:A:C5	1:1G:413:G:H1'	2.29	0.68
1:13:4:U:O4	8:7E:105:ARG:HG3	1.93	0.68
1:13:1292:U:H2'	1:13:1293:G:C8	2.29	0.68
26:1H:453:C:OP1	59:1H:3724:HOH:O	2.11	0.68
26:14:1676:A:OP2	59:14:3458:HOH:O	2.11	0.68
26:14:1778:U:H2'	26:14:1784:A:N6	2.09	0.68
28:19:148:GLU:HB2	28:19:151:LYS:HD2	1.76	0.68
32:59:18:GLU:HG3	32:59:25:LYS:HB2	1.75	0.68
36:35:55:ARG:HG2	36:35:56:SER:H	1.57	0.68
51:I5:22:ILE:HG12	51:I5:23:GLU:N	2.09	0.68
16:7I:53:VAL:HG13	16:7I:79:VAL:HG22	1.76	0.68
17:8I:67:LYS:HA	17:8I:70:ARG:HH12	1.59	0.68
30:31:134:GLY:H	30:31:162:LEU:HD22	1.57	0.68
26:14:29:U:H2'	26:14:30:G:C8	2.28	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1061:U:H4'	26:14:1070:A:H1'	1.76	0.68
26:14:2444:G:OP2	30:39:68:LYS:NZ	2.25	0.68
30:39:101:LEU:O	30:39:106:ARG:NH1	2.25	0.68
1:13:74:C:H42	1:13:96:G:H1	1.40	0.68
26:1H:1060:U:H3	26:1H:1088:A:H8	1.41	0.68
26:1H:1086:A:H1'	26:1H:1103:A:H61	1.59	0.68
1:1G:560:U:O2'	1:1G:561:U:OP2	2.11	0.68
26:14:400:G:O6	59:14:3744:HOH:O	2.08	0.68
26:14:1047:G:HO2'	26:14:1110:G:H1	1.40	0.68
12:3I:58:VAL:O	12:3I:65:GLU:HA	1.94	0.68
22:1K:7:G:H1	22:1K:75:C:H42	1.40	0.68
32:51:74:ASN:HA	32:51:77:LYS:HD3	1.75	0.68
36:78:50:ARG:HD3	54:Q8:7:HIS:CD2	2.29	0.68
1:1G:664:G:N2	1:1G:741:G:H1	1.91	0.68
11:2A:85:ARG:HE	11:2A:111:ASP:HB3	1.58	0.68
51:I5:38:LYS:HA	51:I5:44:THR:HG21	1.76	0.68
24:3K:51:C:H3'	24:3K:52:G:O4'	1.94	0.68
26:1H:249:C:OP1	59:1H:3553:HOH:O	2.11	0.68
26:1H:2349:G:OP2	54:Q8:42:ARG:HD3	1.93	0.68
26:1H:2583:G:OP2	59:1H:3666:HOH:O	2.11	0.68
1:1G:362:G:O2'	12:3A:33:ARG:NH2	2.25	0.68
1:1G:974:A:OP2	14:5A:41:ARG:NH1	2.27	0.68
12:3A:70:ILE:HD13	12:3A:77:LEU:HD12	1.74	0.68
26:14:2142:C:O2	26:14:2149:G:N2	2.23	0.68
42:95:85:LYS:CD	42:95:86:GLY:H	2.07	0.68
1:13:1160:G:H1	1:13:1177:G:H22	1.42	0.68
1:13:1279:A:O2'	1:13:1281:U:OP2	2.11	0.68
16:7I:45:THR:HG22	16:7I:47:ASP:H	1.57	0.68
17:8I:11:VAL:HG12	17:8I:85:VAL:HG13	1.76	0.68
26:1H:739:G:OP1	59:1H:3785:HOH:O	2.10	0.68
26:1H:963:U:OP1	59:1H:3684:HOH:O	2.09	0.68
26:1H:1190:G:N7	59:1H:3709:HOH:O	2.26	0.68
13:4A:37:THR:O	13:4A:55:ARG:NE	2.26	0.68
20:BA:16:HIS:O	20:BA:19:SER:OG	2.08	0.68
27:1J:92:G:OP1	46:D5:79:ARG:NH2	2.27	0.68
26:1H:739:G:OP1	59:1H:3782:HOH:O	2.11	0.68
37:88:65:PHE:O	37:88:66:ILE:HG13	1.93	0.68
45:G8:95:LYS:HE2	45:G8:97:ARG:HH22	1.59	0.68
1:13:13:U:OP1	59:13:1837:HOH:O	2.12	0.67
26:1H:1828:G:OP1	59:1H:3788:HOH:O	2.11	0.67
26:1H:2701:C:H3'	26:1H:2702:U:H5''	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:78:116:GLY:H	36:78:134:ALA:HB2	1.58	0.67
26:14:1971:A:OP1	59:14:3507:HOH:O	2.11	0.67
1:13:5:U:OP1	1:13:5:U:H4'	1.93	0.67
1:13:975:A:H4'	1:13:976:G:H5''	1.75	0.67
26:1H:2292:C:P	39:A8:17:ARG:HH22	2.17	0.67
29:21:97:LYS:N	29:21:100:GLU:OE1	2.23	0.67
42:D8:26:ASP:OD1	42:D8:26:ASP:N	2.24	0.67
46:H8:120:ILE:HG21	46:H8:170:THR:HB	1.75	0.67
10:1A:48:THR:HA	10:1A:62:HIS:HB3	1.77	0.67
26:14:1418:G:OP2	59:14:3730:HOH:O	2.12	0.67
26:14:2210:G:H3'	26:14:2211:G:C5	2.29	0.67
26:14:2572:A:OP1	26:14:2574:G:O2'	2.12	0.67
40:75:56:GLY:O	40:75:59:THR:HG23	1.94	0.67
1:13:688:G:H2'	1:13:689:C:H6	1.59	0.67
1:13:1000:A:H2'	1:13:1001:G:H8	1.57	0.67
1:13:1346:A:H5''	9:8E:120:ARG:NH1	2.08	0.67
26:1H:817:C:O2'	26:1H:839:U:OP1	2.12	0.67
26:1H:2439:A:H5'	26:1H:2439:A:C8	2.30	0.67
30:31:28:ILE:HG22	30:31:112:MET:HB3	1.76	0.67
31:41:67:LYS:HE2	51:M8:6:HIS:CE1	2.28	0.67
1:1G:126:G:O2'	1:1G:634:C:O2'	2.10	0.67
1:1G:222:U:H2'	1:1G:223:U:H6	1.59	0.67
1:1G:971:G:N2	1:1G:1363:A:OP2	2.24	0.67
42:95:15:GLU:HG3	42:95:16:PRO:HD2	1.76	0.67
1:13:963:G:H21	10:1I:55:LYS:CE	2.07	0.67
8:7E:85:ARG:HD3	8:7E:88:LYS:HG2	1.75	0.67
26:1H:587:C:N3	36:78:33:ARG:NH1	2.41	0.67
1:1G:1055:A:N7	1:1G:1200:C:N4	2.42	0.67
1:13:652:U:OP2	59:13:1922:HOH:O	2.12	0.67
1:13:766:A:OP2	59:13:1803:HOH:O	2.12	0.67
1:1G:261:U:OP2	20:BA:79:ARG:NH2	2.28	0.67
26:14:1417:C:OP2	59:14:3733:HOH:O	2.13	0.67
46:D5:10:ARG:NH2	46:D5:26:GLY:O	2.28	0.67
1:13:963:G:H21	10:1I:55:LYS:HE2	1.57	0.67
19:AI:41:VAL:HG21	19:AI:67:VAL:HG22	1.75	0.67
26:1H:2784:C:O2'	29:21:37:ARG:NH1	2.27	0.67
3:22:50:ALA:HB2	3:22:75:VAL:HB	1.76	0.67
26:14:634:C:H2'	26:14:635:C:C6	2.29	0.67
26:14:2447:G:O2'	59:14:3446:HOH:O	2.12	0.67
1:13:353:A:H8	1:13:353:A:H5'	1.59	0.67
13:4I:108:ARG:HA	13:4I:108:ARG:HH11	1.57	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:879:G:O6	26:1H:898:C:N4	2.19	0.67
26:1H:1534:G:H1	26:1H:1538:G:N2	1.92	0.67
26:1H:2496:C:OP1	37:88:81:VAL:HG13	1.94	0.67
49:K8:4:SER:OG	49:K8:5:GLU:OE2	2.12	0.67
1:1G:60:A:N6	1:1G:110:C:N3	2.41	0.67
26:14:566:U:O3'	59:14:3600:HOH:O	2.11	0.67
36:35:52:GLU:N	36:35:52:GLU:OE2	2.28	0.67
39:65:110:LEU:HG	39:65:112:PHE:CZ	2.30	0.67
40:75:3:ARG:HG2	40:75:6:LEU:HB2	1.77	0.67
44:B5:49:VAL:HB	44:B5:83:VAL:HG21	1.77	0.67
1:13:310:G:OP2	16:7I:27:LYS:NZ	2.25	0.67
1:13:352:C:OP2	59:13:1861:HOH:O	2.11	0.67
2:1E:82:ARG:HH21	2:1E:150:SER:HB3	1.60	0.67
26:1H:2314:C:H2'	26:1H:2315:G:H8	1.59	0.67
3:22:14:ILE:HG12	3:22:15:THR:H	1.60	0.67
26:14:2420:C:P	54:M5:34:TRP:H	2.18	0.67
34:15:38:HIS:CE1	34:15:39:ARG:HG3	2.29	0.67
1:13:1301:U:H3'	1:13:1302:U:H5'	1.75	0.67
1:1G:1059:C:O2	10:1A:53:PRO:HG3	1.95	0.67
26:14:34:C:O2'	26:14:35:G:OP2	2.11	0.67
26:14:620:G:N3	26:14:620:G:H5''	2.09	0.67
29:29:3:GLY:HA3	29:29:81:ILE:HD12	1.76	0.67
1:13:1029:G:O2'	1:13:1032(A):G:N2	2.28	0.67
26:1H:1316:U:H2'	26:1H:1317:A:C8	2.30	0.67
37:88:66:ILE:HD12	37:88:67:ARG:H	1.59	0.67
20:BA:25:ARG:HG3	20:BA:29:LYS:HE3	1.77	0.67
26:14:2405:G:N7	59:14:3802:HOH:O	2.28	0.67
27:1J:12:C:O2'	47:E5:74:ARG:HG3	1.95	0.67
37:45:31:ASP:H	37:45:107:ALA:HB2	1.59	0.67
1:13:177:C:OP1	20:BI:65:LYS:NZ	2.22	0.66
2:1E:16:HIS:CD2	2:1E:210:SER:HA	2.30	0.66
40:B8:60:THR:HG22	40:B8:77:PRO:HA	1.77	0.66
39:65:102:ALA:HA	39:65:105:ALA:HB3	1.76	0.66
43:A5:18:ARG:HG3	43:A5:76:VAL:HG13	1.77	0.66
1:13:619:U:H3	4:3E:134:ASP:HB2	1.59	0.66
22:1K:34:U:H1'	22:1K:38:MIA:H161	1.78	0.66
26:1H:252:G:OP2	36:78:50:ARG:NH1	2.28	0.66
5:42:101:ILE:HD11	5:42:119:LEU:HD23	1.77	0.66
9:82:112:LYS:HE3	9:82:118:LYS:H	1.60	0.66
26:14:852:G:H2'	26:14:853:G:H8	1.60	0.66
26:14:1035:U:H2'	26:14:1036:G:C8	2.31	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1899:G:H22	26:14:1902:C:N4	1.93	0.66
26:14:2836:U:H2'	26:14:2837:G:C8	2.30	0.66
29:29:52:LEU:C	29:29:74:PRO:HB3	2.16	0.66
1:13:27:G:H4'	4:3E:209:ARG:HB3	1.77	0.66
1:13:1348:U:H2'	1:13:1349:A:H8	1.60	0.66
14:5I:26:ARG:NH1	14:5I:43:CYS:HB2	2.11	0.66
26:1H:993:G:OP1	41:C8:50:ARG:NH2	2.28	0.66
26:14:2880:C:H1'	38:55:92:GLY:HA3	1.76	0.66
30:39:6:VAL:HB	30:39:124:LEU:HA	1.77	0.66
54:M5:30:ARG:C	54:M5:32:LEU:H	1.99	0.66
26:1H:524:U:H2'	26:1H:525:U:C6	2.29	0.66
26:1H:1021:A:H8	26:1H:1022:G:H5''	1.59	0.66
46:H8:105:VAL:HG22	46:H8:140:ASP:HB3	1.78	0.66
52:N8:40:LYS:HE2	52:N8:47:PRO:HD2	1.76	0.66
1:1G:1095:U:OP1	1:1G:1108:G:N1	2.28	0.66
26:14:654(B):C:H2'	26:14:654(C):G:C8	2.30	0.66
26:14:1329:U:H5''	26:14:1330:C:H5	1.60	0.66
26:14:2499:C:OP1	59:14:3619:HOH:O	2.12	0.66
30:39:8:GLN:HG2	30:39:124:LEU:HD11	1.76	0.66
30:39:168:ARG:HG3	30:39:175:THR:HG21	1.77	0.66
25:4K:13:A:O2'	25:4K:14:A:OP1	2.14	0.66
26:1H:49:A:N7	26:1H:120:U:H5	1.94	0.66
1:1G:1023:G:H3'	1:1G:1024:G:H5''	1.76	0.66
26:14:213:A:OP2	59:14:3853:HOH:O	2.14	0.66
26:14:943:U:OP2	36:35:36:LYS:HG3	1.95	0.66
54:M5:34:TRP:HA	54:M5:34:TRP:CE3	2.31	0.66
18:9I:59:SER:HB3	18:9I:62:GLU:HB2	1.77	0.66
1:1G:800:G:O6	59:1G:1771:HOH:O	2.09	0.66
1:1G:1154:G:H2'	1:1G:1155:G:H8	1.60	0.66
5:42:143:ARG:NH1	8:72:77:GLU:OE2	2.28	0.66
10:1A:50:ILE:HD13	10:1A:60:ARG:HD3	1.78	0.66
26:14:528:A:OP2	34:15:114:ARG:NH1	2.26	0.66
26:14:1341:U:OP2	26:14:1394:U:O2'	2.08	0.66
26:14:2016:U:OP1	59:14:3804:HOH:O	2.14	0.66
1:13:1301:U:O3'	13:4I:21:TYR:OH	2.13	0.66
1:13:1328:C:OP1	21:1F:21:TYR:OH	2.13	0.66
26:1H:2504:U:OP1	59:1H:3969:HOH:O	2.12	0.66
37:88:86:GLY:C	37:88:88:GLY:H	1.97	0.66
49:K8:42:GLY:O	49:K8:44:LEU:N	2.28	0.66
51:M8:51:ASP:OD1	51:M8:51:ASP:N	2.27	0.66
26:14:1342:A:H2	26:14:1602:U:H3	1.43	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1417:C:OP2	59:14:3731:HOH:O	2.13	0.66
26:14:2074:U:OP1	59:14:3408:HOH:O	2.13	0.66
26:14:2287:A:N6	26:14:2344:U:H3	1.94	0.66
31:49:64:THR:HG23	31:49:66:GLN:H	1.61	0.66
1:13:827:U:H5	1:13:872:A:N1	1.93	0.66
3:2E:96:GLY:H	3:2E:97:LYS:NZ	1.93	0.66
26:1H:141:A:H8	26:1H:1595:G:H21	1.44	0.66
26:1H:1778:U:H2'	26:1H:1784:A:N6	2.10	0.66
33:61:144:VAL:HG13	33:61:145:VAL:HG22	1.78	0.66
41:C8:69:CYS:HG	41:C8:79:PHE:HD2	1.43	0.66
20:BA:87:LYS:O	20:BA:91:LEU:HG	1.96	0.66
26:14:918:A:O2'	27:1J:96:G:N2	2.28	0.66
26:1H:563:G:OP2	59:1H:3535:HOH:O	2.13	0.66
26:1H:1037:G:O6	26:1H:1118:C:N4	2.14	0.66
26:1H:2062:A:H62	26:1H:2503:A:H62	1.44	0.66
26:1H:2113:U:H5	26:1H:2167:U:H3	1.44	0.66
39:A8:26:LEU:HD12	39:A8:39:ILE:HD11	1.78	0.66
1:1G:1246:C:H2'	1:1G:1247:U:H6	1.60	0.66
26:14:476:G:N1	26:14:479:A:OP2	2.25	0.66
26:14:1899:G:H22	26:14:1902:C:H41	1.41	0.66
34:15:35:ARG:HB3	34:15:42:TRP:CZ3	2.30	0.66
7:6E:62:PHE:HA	7:6E:124:LEU:HD21	1.78	0.66
8:7E:86:ILE:HG21	8:7E:133:LEU:HD13	1.77	0.66
26:1H:1858:G:H2'	26:1H:1883:G:H22	1.61	0.66
26:1H:1997:G:H5''	59:1H:3835:HOH:O	1.95	0.66
3:22:20:SER:HB2	3:22:40:ARG:HH22	1.59	0.66
21:1B:5:ASP:O	21:1B:11:GLY:HA3	1.96	0.66
34:15:28:THR:HG22	34:15:29:LYS:HE3	1.78	0.66
26:1H:1265:A:H3'	52:N8:19:ARG:NH1	2.11	0.65
26:1H:1786:A:H1'	26:1H:1938:A:N6	2.11	0.65
26:1H:2607:G:O3'	59:1H:3780:HOH:O	2.12	0.65
2:12:48:MET:O	2:12:52:GLU:N	2.29	0.65
2:12:97:TRP:HZ3	2:12:99:GLY:HA2	1.61	0.65
26:14:570:G:OP1	59:14:3610:HOH:O	2.14	0.65
26:14:1324:G:N7	59:14:3571:HOH:O	2.28	0.65
26:14:2406:U:O5'	59:14:3484:HOH:O	2.13	0.65
26:14:2652:C:H42	26:14:2668:G:H1	1.42	0.65
26:14:2777:G:H5''	26:14:2778:A:H5'	1.77	0.65
42:95:76:LYS:HD2	42:95:80:GLN:O	1.96	0.65
1:13:1133:G:H2'	1:13:1134:G:H8	1.60	0.65
26:1H:1430:C:H2'	26:1H:1431:U:H6	1.60	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1697:G:OP2	26:1H:1698:A:O2'	2.12	0.65
26:1H:1781:C:H3'	59:1H:3523:HOH:O	1.94	0.65
26:1H:2513:G:N2	29:21:143:ASN:HD21	1.94	0.65
26:1H:2588:G:OP1	59:1H:3741:HOH:O	2.13	0.65
28:11:71:ASP:OD2	28:11:103:ARG:NH2	2.29	0.65
28:11:162:SER:HB3	28:11:195:ALA:HA	1.79	0.65
29:21:3:GLY:HA3	29:21:81:ILE:HG21	1.77	0.65
37:88:35:VAL:HG13	37:88:130:LYS:HB3	1.78	0.65
1:1G:1343:G:H4'	9:82:122:ALA:HB3	1.77	0.65
13:4A:81:LEU:HD21	13:4A:88:ARG:CZ	2.26	0.65
26:14:2065:C:H1'	26:14:2449:U:H3	1.60	0.65
27:1J:40:U:O2'	27:1J:45:A:N6	2.28	0.65
29:29:39:PRO:HA	29:29:43:GLY:HA2	1.79	0.65
1:13:838:G:H1	1:13:848:C:H42	1.42	0.65
3:2E:40:ARG:O	3:2E:44:GLU:HG2	1.96	0.65
10:1I:40:LEU:HB2	10:1I:69:ASN:HB2	1.78	0.65
13:4I:13:LYS:O	13:4I:44:ARG:NH1	2.30	0.65
26:1H:1164:G:H2'	26:1H:1165:U:C6	2.32	0.65
26:1H:1798:U:C5'	28:11:259:THR:HG22	2.27	0.65
29:21:29:GLY:H	29:21:51:PHE:HE1	1.44	0.65
38:98:117:VAL:O	38:98:118:GLU:HB2	1.96	0.65
40:B8:3:ARG:HG3	40:B8:3:ARG:O	1.96	0.65
46:H8:115:GLY:HA3	46:H8:174:VAL:HG21	1.78	0.65
46:H8:152:ALA:HB3	46:H8:167:PRO:HA	1.76	0.65
1:1G:345:C:H1'	1:1G:346:G:C2	2.32	0.65
1:1G:1300:G:O2'	1:1G:1301:U:O5'	2.14	0.65
55:3L:13:G:H1'	55:3L:23:A:H61	1.61	0.65
26:14:1060:U:H4'	26:14:1061:U:H5''	1.78	0.65
26:14:2074:U:OP1	59:14:3410:HOH:O	2.13	0.65
39:65:27:SER:HA	39:65:88:ASP:HB2	1.77	0.65
46:D5:4:ARG:HA	46:D5:58:VAL:HB	1.79	0.65
48:F5:87:PRO:HA	48:F5:90:ILE:HG22	1.79	0.65
5:4E:102:ALA:HB1	5:4E:106:PRO:HG2	1.78	0.65
26:1H:323:G:C8	30:31:171:PRO:HG3	2.31	0.65
26:1H:857:C:H4'	47:18:23:VAL:HG21	1.79	0.65
26:1H:1257:C:H4'	30:31:83:PHE:CD1	2.31	0.65
30:31:183:VAL:O	30:31:187:VAL:HG23	1.97	0.65
31:41:112:PRO:HB3	51:M8:36:CYS:HA	1.79	0.65
41:C8:92:ARG:CZ	42:D8:11:GLN:H	2.08	0.65
45:G8:28:LYS:HD2	45:G8:40:GLU:HG2	1.77	0.65
46:H8:150:LEU:HD22	46:H8:171:ILE:HG13	1.76	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:266:G:N3	1:1G:266:G:H5'	2.10	0.65
1:1G:1395:C:HO2'	1:1G:1401:G:HO2'	1.43	0.65
12:3A:27:LEU:HD23	12:3A:33:ARG:HG2	1.78	0.65
26:14:323:G:O2'	26:14:1205:U:N3	2.29	0.65
26:14:872:A:H4'	37:45:66:ILE:HD11	1.78	0.65
26:14:1130:U:O2	29:29:149:ARG:NH2	2.29	0.65
28:19:69:ARG:NH2	28:19:128:GLY:O	2.29	0.65
1:13:524:G:H2'	1:13:525:C:C6	2.32	0.65
26:1H:330:A:HO2'	26:1H:331:A:H8	1.42	0.65
1:1G:1237:C:O2'	1:1G:1300:G:N2	2.29	0.65
1:1G:1288:A:N3	1:1G:1352:C:O2'	2.28	0.65
7:62:116:ALA:HA	7:62:119:ARG:HE	1.62	0.65
10:1A:34:VAL:HG22	10:1A:74:ILE:HG22	1.76	0.65
26:14:1138:G:H21	34:15:106:MET:HE3	1.62	0.65
34:15:133:GLN:HG2	34:15:135:PRO:HD3	1.79	0.65
1:13:376:G:O3'	16:7I:5:ARG:NH1	2.28	0.65
4:3E:25:ARG:NH1	4:3E:30:LYS:HG3	2.11	0.65
26:1H:1780:A:OP1	59:1H:3519:HOH:O	2.13	0.65
1:1G:811:C:N4	59:1G:1702:HOH:O	2.21	0.65
2:12:69:LEU:HB3	2:12:162:ILE:HG22	1.78	0.65
5:42:79:GLU:HG2	5:42:92:LYS:HG2	1.78	0.65
55:3L:14:A:H3'	55:3L:15:G:H5''	1.78	0.65
26:14:855:G:O2'	47:E5:27:GLU:OE2	2.14	0.65
26:14:1388:G:H2'	26:14:1389:G:H8	1.60	0.65
26:14:2207:C:H42	26:14:2217:G:H1	1.45	0.65
29:29:32:PRO:HA	29:29:90:THR:HG22	1.79	0.65
10:1I:49:VAL:HG23	14:5I:41:ARG:HB2	1.79	0.65
11:2I:86:GLY:N	11:2I:112:THR:OG1	2.19	0.65
26:1H:1058:U:H3	26:1H:1080:A:H61	1.42	0.65
26:1H:2593:U:H2'	26:1H:2594:C:C6	2.32	0.65
29:21:152:LYS:HG2	34:58:78:TYR:CE1	2.32	0.65
3:2E:11:ARG:HB3	3:2E:15:THR:HB	1.78	0.65
4:3E:172:PRO:HB2	4:3E:187:ARG:HH12	1.61	0.65
26:1H:220:G:O6	59:1H:3636:HOH:O	2.11	0.65
26:1H:918:A:N3	27:16:80:U:O2'	2.28	0.65
26:1H:1935:G:H1'	26:1H:1964:G:N2	2.12	0.65
1:1G:1268:A:H2'	1:1G:1269:A:C8	2.32	0.65
5:42:60:TYR:HB3	5:42:64:ARG:HE	1.61	0.65
26:14:567:A:OP1	59:14:3600:HOH:O	2.13	0.65
30:39:51:THR:HG23	30:39:92:PRO:HG2	1.79	0.65
8:7E:82:HIS:NE2	8:7E:136:GLU:OE2	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1495:A:OP2	59:1H:4081:HOH:O	2.14	0.65
26:1H:2820:A:OP1	38:98:2:ARG:NH2	2.30	0.65
1:1G:179:A:H2'	1:1G:180:U:C6	2.32	0.65
26:14:993:G:OP1	41:85:50:ARG:NH2	2.29	0.65
26:14:1111:A:H4'	32:59:3:ARG:HH11	1.62	0.65
26:14:1210:A:H5''	26:14:1211:U:H3'	1.78	0.65
26:14:2138:C:O2	26:14:2154:G:N2	2.30	0.65
26:14:2238:G:N7	59:14:3646:HOH:O	2.30	0.65
28:19:40:THR:OG1	28:19:41:GLY:N	2.30	0.65
36:35:52:GLU:OE1	36:35:54:GLY:N	2.29	0.65
1:13:176:C:OP1	20:BI:29:LYS:NZ	2.29	0.65
1:13:538:G:H5''	12:3I:114:LYS:HB2	1.78	0.65
26:1H:589:C:H2'	26:1H:590:A:C8	2.32	0.65
26:1H:1430:C:H2'	26:1H:1431:U:C6	2.32	0.65
26:1H:1441:G:H2'	26:1H:1442:G:H8	1.62	0.65
28:11:85:ASP:HB2	28:11:92:ILE:HG12	1.79	0.65
33:61:92:VAL:HG13	33:61:120:ILE:HG23	1.79	0.65
51:M8:9:LEU:HD12	51:M8:26:SER:HA	1.79	0.65
1:1G:538:G:H5''	12:3A:114:LYS:HB2	1.78	0.65
1:1G:617:G:H1	1:1G:623:C:H42	1.45	0.65
1:1G:1238:A:N3	1:1G:1241:G:O2'	2.28	0.65
26:14:329:G:O6	45:C5:19:LYS:HG2	1.96	0.65
31:49:125:PHE:HB3	31:49:166:ASP:HB2	1.77	0.65
38:55:51:LEU:HD23	38:55:66:VAL:HG22	1.79	0.65
1:13:1015:A:H2'	1:13:1016:A:C8	2.32	0.64
26:1H:1332:G:H5'	26:1H:1332:G:C8	2.33	0.64
26:1H:2392:A:H2	26:1H:2424:C:H42	1.45	0.64
1:1G:877:C:OP1	8:72:88:LYS:NZ	2.30	0.64
2:12:74:LYS:NZ	2:12:206:ASP:OD1	2.29	0.64
26:14:2448:A:OP1	59:14:3616:HOH:O	2.13	0.64
26:14:2468:G:OP1	37:45:119:ARG:NH2	2.27	0.64
26:14:2503:A:OP2	59:14:3589:HOH:O	2.14	0.64
1:13:165:C:H2'	1:13:166:G:C8	2.33	0.64
7:6E:50:ILE:HB	7:6E:58:PRO:HB3	1.79	0.64
17:8I:22:LEU:HD11	17:8I:39:SER:HB3	1.79	0.64
26:1H:1129:A:N6	26:1H:2491:U:OP1	2.27	0.64
26:1H:1900:A:H5'	26:1H:1900:A:C8	2.31	0.64
36:78:50:ARG:HD3	54:Q8:59:LYS:HE3	1.79	0.64
1:1G:1348:U:N3	1:1G:1374:A:H2	1.94	0.64
2:12:27:LYS:NZ	2:12:193:ASP:OD2	2.30	0.64
16:7A:37:GLY:HA2	16:7A:50:LYS:HD3	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:147:ASP:HA	5:4E:150:ARG:HH12	1.63	0.64
17:8I:81:ARG:NH2	17:8I:83:ASP:OD2	2.29	0.64
22:1K:51:C:C5	22:1K:52:G:H1'	2.32	0.64
26:1H:1512:G:H2'	26:1H:1513:C:C6	2.32	0.64
37:88:135:ASP:HB3	37:88:137:TYR:H	1.62	0.64
52:N8:42:PRO:O	52:N8:44:THR:OG1	2.15	0.64
1:1G:1292:U:H2'	1:1G:1293:G:C8	2.32	0.64
1:13:750:G:N3	15:6I:23:GLY:HA3	2.13	0.64
24:3K:25:G:H2'	24:3K:26:G:H8	1.61	0.64
26:1H:1228:G:OP2	41:C8:16:LYS:NZ	2.31	0.64
26:1H:1279:G:H4'	38:98:31:HIS:CD2	2.32	0.64
39:A8:10:ARG:O	39:A8:14:VAL:HG12	1.97	0.64
51:M8:12:ALA:HB1	51:M8:30:GLU:H	1.63	0.64
1:1G:363:A:OP1	12:3A:33:ARG:HG3	1.97	0.64
1:1G:1385:G:H2'	1:1G:1386:G:H8	1.63	0.64
26:14:2264:C:N4	47:E5:15:ASP:OD2	2.29	0.64
28:19:255:LYS:CE	28:19:255:LYS:H	2.10	0.64
37:45:26:TYR:CD2	37:45:26:TYR:O	2.50	0.64
1:13:320:C:H42	1:13:333:G:H1	1.45	0.64
1:13:1314:C:N4	19:AI:4:SER:O	2.27	0.64
26:1H:1156:A:C8	41:C8:51:LYS:HD3	2.33	0.64
36:78:64:LYS:C	36:78:66:GLY:H	1.97	0.64
2:12:40:HIS:CE1	2:12:190:THR:HG21	2.33	0.64
19:AA:66:MET:SD	19:AA:66:MET:N	2.71	0.64
26:14:34:C:OP2	26:14:34:C:H6	1.80	0.64
26:14:528:A:C2	26:14:2042:A:H2'	2.33	0.64
26:14:1788:C:H2'	26:14:1789:A:H8	1.62	0.64
1:13:1368:G:H5''	9:8E:112:LYS:HB3	1.79	0.64
10:1I:77:PRO:HB2	10:1I:79:ARG:HH12	1.61	0.64
26:1H:1525:G:H2'	26:1H:1526:G:C8	2.33	0.64
32:51:12:PRO:HG2	32:51:13:LYS:HG2	1.79	0.64
36:78:65:ARG:HH21	54:Q8:15:LYS:HB2	1.62	0.64
1:1G:588:G:H1	1:1G:651:C:H42	1.44	0.64
26:14:1183:G:O3'	50:H5:29:ARG:NH2	2.30	0.64
33:69:57:ARG:HA	33:69:60:GLU:HG2	1.79	0.64
11:2I:32:ILE:HD12	11:2I:72:ALA:HB2	1.80	0.64
26:1H:2584:U:H2'	26:1H:2585:U:H2'	1.79	0.64
30:31:101:LEU:O	30:31:106:ARG:NH1	2.31	0.64
31:41:35:GLU:HG3	31:41:36:LYS:HB2	1.80	0.64
32:51:30:LYS:HG3	32:51:80:SER:HA	1.79	0.64
39:A8:38:GLN:HG2	39:A8:47:THR:HG21	1.77	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BA:51:GLU:HA	20:BA:54:LYS:HE3	1.80	0.64
23:2L:48:U:HO2'	23:2L:49:C:P	2.20	0.64
26:14:323:G:HO2'	26:14:1205:U:H3	1.43	0.64
26:14:592:G:H21	54:M5:4:MET:CE	2.10	0.64
1:13:730:G:C5	1:13:731:G:H1'	2.33	0.64
6:5E:97:PHE:N	18:9I:30:ASP:OD1	2.25	0.64
13:4I:88:ARG:HD3	13:4I:98:VAL:HG11	1.80	0.64
26:1H:2334:G:H5'	39:A8:9:ARG:HG2	1.77	0.64
41:C8:92:ARG:HD3	41:C8:94:ASN:HB3	1.80	0.64
2:12:91:PRO:HG2	2:12:155:LEU:HB2	1.78	0.64
9:82:28:VAL:HG22	9:82:63:ILE:HB	1.78	0.64
26:14:607:U:OP1	30:39:102:PRO:HA	1.97	0.64
26:14:1840:G:OP2	59:14:3754:HOH:O	2.15	0.64
45:C5:15:VAL:HG12	45:C5:21:LYS:HA	1.78	0.64
4:3E:152:SER:HB2	4:3E:155:LEU:HG	1.80	0.64
26:1H:2065:C:H2'	26:1H:2066:C:H6	1.62	0.64
26:1H:2543:G:H2'	26:1H:2544:G:C8	2.33	0.64
37:88:37:LEU:HD21	37:88:130:LYS:HE3	1.80	0.64
40:B8:55:ASN:N	40:B8:59:THR:HG22	2.12	0.64
1:1G:179:A:H2'	1:1G:180:U:H6	1.62	0.64
10:1A:6:ILE:HG22	10:1A:98:ILE:HG23	1.79	0.64
29:29:199:ARG:HB3	29:29:200:GLU:OE1	1.96	0.64
13:4I:54:VAL:O	13:4I:58:GLU:HG2	1.98	0.64
24:3K:18:G:H1'	24:3K:19:C:OP2	1.97	0.64
24:3K:59:A:H2'	24:3K:60:A:C8	2.32	0.64
26:1H:587:C:OP2	36:78:21:ARG:NH2	2.31	0.64
26:1H:1165:U:H2'	26:1H:1166:C:C6	2.33	0.64
28:11:206:LEU:HD22	28:11:211:ARG:HB3	1.80	0.64
37:88:76:LYS:N	37:88:88:GLY:HA3	2.08	0.64
45:G8:54:LYS:O	45:G8:54:LYS:NZ	2.26	0.64
1:1G:838:G:H1	1:1G:848:C:H42	1.46	0.64
2:12:163:PHE:HD2	2:12:185:ILE:HG13	1.63	0.64
24:1L:54:C:N3	24:1L:55:U:N3	2.46	0.64
26:14:1024:G:H3'	26:14:1025:G:H5''	1.80	0.64
26:1H:2210:G:H3'	26:1H:2211:G:N7	2.12	0.63
45:G8:34:LYS:HD3	45:G8:36:ALA:HB2	1.81	0.63
26:14:593:G:H4'	54:M5:61:LEU:HD22	1.79	0.63
26:14:2419:U:O4	54:M5:31:HIS:ND1	2.30	0.63
45:C5:14:LEU:HD22	45:C5:15:VAL:H	1.63	0.63
2:1E:126:GLU:OE1	2:1E:130:ARG:NH2	2.29	0.63
4:3E:108:LEU:HB3	4:3E:110:PHE:HD1	1.62	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:5:LEU:HD13	19:AI:10:PHE:CD1	2.33	0.63
26:1H:355:G:H2'	26:1H:356:G:H8	1.63	0.63
26:1H:1794:U:H2'	26:1H:1795:C:C6	2.33	0.63
26:1H:2212:A:H1'	26:1H:2215:G:C5	2.32	0.63
26:1H:2610:C:H4'	26:1H:2611:U:OP2	1.99	0.63
37:88:20:ALA:HB1	37:88:99:PRO:HB2	1.80	0.63
1:1G:960:U:H3	1:1G:1225:A:H1'	1.63	0.63
21:1B:2:GLY:O	21:1B:4:GLY:N	2.31	0.63
37:45:57:HIS:CD2	37:45:117:ALA:HB2	2.34	0.63
51:I5:2:LYS:HB3	51:I5:6:HIS:HB2	1.78	0.63
26:1H:1478:G:H2'	26:1H:1479:G:H8	1.63	0.63
26:1H:1771:C:O2'	26:1H:1786:A:H8	1.81	0.63
29:21:77:ILE:O	29:21:79:ARG:N	2.31	0.63
29:21:105:THR:HG22	29:21:106:GLY:H	1.61	0.63
38:98:55:ALA:HA	38:98:80:PHE:CE1	2.33	0.63
45:G8:84:ARG:NE	45:G8:84:ARG:O	2.31	0.63
51:M8:16:CYS:SG	51:M8:17:GLY:N	2.71	0.63
1:1G:657:G:H21	15:6A:22:THR:HB	1.63	0.63
1:1G:1157:A:O2'	1:1G:1158:C:O5'	2.17	0.63
26:14:1817:G:OP1	28:19:88:ARG:NH2	2.31	0.63
27:1J:42:C:H4'	31:49:67:LYS:HD3	1.80	0.63
29:29:11:MET:HA	29:29:24:THR:HA	1.79	0.63
4:3E:9:CYS:HB3	4:3E:32:ALA:CB	2.27	0.63
26:1H:229:A:H4'	26:1H:230:U:C5'	2.22	0.63
26:1H:1371:G:H2'	26:1H:1372:U:H5	1.63	0.63
40:B8:54:ARG:HA	40:B8:59:THR:HG22	1.79	0.63
1:1G:1499:A:H1'	1:1G:1520:G:H5'	1.80	0.63
2:12:137:ARG:HH22	2:12:141:GLU:HB2	1.61	0.63
8:72:29:SER:HB3	8:72:32:LYS:HG3	1.81	0.63
26:14:446:G:OP2	59:14:3737:HOH:O	2.16	0.63
26:14:1537:C:O2'	26:14:1538:G:O4'	2.16	0.63
26:1H:33:U:H4'	26:1H:34:C:OP1	1.98	0.63
26:1H:1586:A:H3'	26:1H:1587:A:H8	1.63	0.63
30:31:66:PRO:O	30:31:67:GLN:HB3	1.99	0.63
31:41:5:VAL:H	51:M8:25:TYR:HE2	1.46	0.63
1:1G:36:C:OP1	12:3A:123:LYS:NZ	2.31	0.63
17:8A:100:LYS:HB2	17:8A:101:ARG:HB2	1.81	0.63
26:14:71:A:H5''	26:14:73:A:C8	2.34	0.63
26:14:2107:C:H42	26:14:2182:G:H1	1.45	0.63
39:65:88:ASP:O	39:65:89:ARG:HB3	1.99	0.63
17:8I:60:ILE:HB	17:8I:74:LEU:HD23	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1K:18:G:H4'	22:1K:19:C:OP2	1.98	0.63
27:16:7:G:H4'	39:A8:29:PHE:CD2	2.34	0.63
32:51:88:LEU:HB3	32:51:130:ARG:HG2	1.80	0.63
26:14:602:G:O2'	26:14:604:G:O2'	2.16	0.63
26:14:1027:A:C2	26:14:2488:A:H5'	2.33	0.63
26:14:1478:G:H2'	26:14:1479:G:H8	1.64	0.63
26:14:1665:A:H4'	35:25:67:LYS:HB2	1.80	0.63
26:14:2185:C:H2'	26:14:2186:G:H8	1.64	0.63
26:14:2475:C:O2'	26:14:2476:A:H5'	1.98	0.63
37:45:81:VAL:O	37:45:82:ARG:NE	2.32	0.63
1:13:89:U:O2'	1:13:90:C:O5'	2.17	0.63
23:2K:54:G:H2'	23:2K:55:5MU:C6	2.32	0.63
26:1H:1614:A:P	59:1H:3748:HOH:O	2.56	0.63
35:68:107:ARG:NH1	40:B8:36:GLU:OE2	2.31	0.63
50:L8:10:LYS:NZ	50:L8:15:TYR:OH	2.24	0.63
17:8A:63:ARG:HG2	17:8A:64:PRO:HD2	1.79	0.63
26:14:479:A:N3	26:14:481:G:H5''	2.13	0.63
32:59:87:LEU:HB2	32:59:131:VAL:HG12	1.79	0.63
1:13:4:U:O2'	1:13:5:U:OP1	2.16	0.63
1:13:953:G:H2'	1:13:954:G:O4'	1.98	0.63
1:13:1053:G:H5'	1:13:1054:C:H5'	1.81	0.63
26:1H:620:G:H4'	26:1H:621:A:C5'	2.28	0.63
26:1H:676:A:H8	26:1H:2069:G:N2	1.87	0.63
26:1H:2065:C:H2'	26:1H:2066:C:C6	2.34	0.63
37:88:78:PRO:HB2	37:88:80:GLU:HG2	1.80	0.63
26:14:90:U:H1'	26:14:91:A:C8	2.34	0.63
26:14:2111:C:N4	26:14:2147:G:H21	1.97	0.63
1:13:649:G:H2'	1:13:650:G:H8	1.64	0.63
19:AI:50:ALA:HB1	19:AI:57:HIS:HB3	1.80	0.63
22:1K:35:QUO:C4	22:1K:35:QUO:C2	2.70	0.63
26:1H:256:A:OP2	59:1H:4094:HOH:O	2.16	0.63
26:1H:1069:A:H4'	26:1H:1070:A:H5''	1.80	0.63
26:1H:1088:A:H5'	26:1H:1089:G:H5'	1.81	0.63
26:1H:1537:C:H2'	26:1H:1538:G:O4'	1.98	0.63
29:21:117:MET:CE	29:21:136:ARG:HA	2.29	0.63
9:82:128:ARG:NH2	23:2L:33:OMC:HM23	2.11	0.63
26:14:640:C:H42	26:14:648:G:H1	1.47	0.63
26:14:823:G:H2'	26:14:824:A:C8	2.34	0.63
26:14:1416:G:H1	26:14:1582:C:N4	1.90	0.63
26:14:1636:C:H2'	26:14:1637:A:C8	2.34	0.63
26:14:2656:U:H3	26:14:2665:A:H2	1.46	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:59:11:VAL:HB	32:59:13:LYS:HG3	1.79	0.63
51:I5:22:ILE:HG12	51:I5:23:GLU:H	1.64	0.63
3:2E:58:GLU:H	3:2E:65:ALA:HB3	1.63	0.62
12:3I:53:ARG:HG3	12:3I:93:LEU:HD21	1.81	0.62
13:4I:10:PRO:HB2	13:4I:18:ALA:HB1	1.81	0.62
26:1H:527:C:H4'	26:1H:528:A:O5'	1.99	0.62
26:1H:987:G:OP2	59:1H:3831:HOH:O	2.15	0.62
26:1H:1778:U:OP2	59:1H:3786:HOH:O	2.15	0.62
29:21:166:THR:HG21	29:21:199:ARG:HH22	1.64	0.62
34:58:67:LEU:HA	34:58:87:LEU:HD12	1.80	0.62
54:Q8:15:LYS:HD2	54:Q8:16:ILE:H	1.63	0.62
10:1A:40:LEU:HB3	10:1A:69:ASN:HB3	1.81	0.62
26:14:162:U:H4'	26:14:171:G:C4	2.34	0.62
26:14:2287:A:H62	26:14:2344:U:H3	1.47	0.62
26:14:2476:A:N3	26:14:2476:A:H5''	2.14	0.62
32:59:153:LYS:O	32:59:161:GLY:HA3	1.99	0.62
40:75:62:THR:HG22	40:75:75:ILE:HG12	1.79	0.62
45:C5:52:SER:HA	45:C5:55:TYR:O	1.99	0.62
2:1E:124:SER:HB2	2:1E:125:PRO:HD2	1.81	0.62
6:5E:50:TYR:OH	18:9I:74:ARG:O	2.14	0.62
26:1H:588:U:H2'	26:1H:589:C:C6	2.34	0.62
26:1H:732:C:H3'	59:1H:3892:HOH:O	1.98	0.62
26:1H:1515:C:H2'	26:1H:1516:U:H6	1.64	0.62
26:1H:2309:A:H2'	26:1H:2310:A:O4'	1.99	0.62
1:1G:371:G:H1	1:1G:390:C:H42	1.47	0.62
26:14:859:G:O2'	26:14:916:G:O6	2.13	0.62
26:14:2762:G:H5'	26:14:2763:G:OP2	1.98	0.62
35:25:68:GLU:HB3	35:25:78:ARG:NH1	2.14	0.62
41:85:88:ILE:HB	41:85:90:VAL:HG23	1.81	0.62
3:2E:17:ASP:O	3:2E:54:ARG:NH2	2.32	0.62
24:3K:7:G:N2	24:3K:76:C:O2	2.32	0.62
26:1H:2577:A:OP1	59:1H:3651:HOH:O	2.16	0.62
32:51:54:ARG:HD3	32:51:65:HIS:ND1	2.14	0.62
39:A8:7:TYR:HA	39:A8:10:ARG:HH21	1.65	0.62
1:1G:1441:G:H4'	1:1G:1442:G:C8	2.34	0.62
26:14:603:A:H8	26:14:604:G:H1'	1.64	0.62
26:14:1496:A:H8	26:14:1577:C:HO2'	1.46	0.62
26:14:1796:U:H2'	26:14:1797:C:C6	2.34	0.62
26:14:2318:G:H5'	26:14:2319:G:OP2	1.99	0.62
32:59:77:LYS:HE2	32:59:81:GLU:HB3	1.80	0.62
35:25:68:GLU:OE2	35:25:78:ARG:NH1	2.28	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2K:24:C:H2'	23:2K:25:U:C6	2.34	0.62
26:1H:569:U:O2'	26:1H:983:A:N1	2.32	0.62
26:1H:1509:C:N4	26:1H:1511:A:H62	1.97	0.62
26:1H:1771:C:HO2'	26:1H:1786:A:H8	1.48	0.62
26:1H:2306:C:H3'	26:1H:2307:G:H5''	1.82	0.62
26:1H:2355:C:O2	47:I8:39:ARG:NH2	2.32	0.62
31:41:107:LEU:HD21	31:41:178:PHE:CE1	2.34	0.62
26:14:1657:C:H2'	26:14:1658:C:H6	1.64	0.62
38:55:104:ARG:HD2	38:55:111:LEU:HD21	1.79	0.62
39:65:87:PHE:CE1	39:65:102:ALA:HB2	2.34	0.62
1:13:1182:G:C4'	1:13:1183:A:H5'	2.29	0.62
26:1H:460:A:H5''	26:1H:461:C:OP2	2.00	0.62
26:1H:606:U:H4'	26:1H:658:C:H4'	1.81	0.62
26:1H:1405:U:H2'	26:1H:1406:U:C6	2.33	0.62
26:1H:2836:U:H2'	26:1H:2837:G:C8	2.34	0.62
41:C8:88:ILE:O	41:C8:90:VAL:N	2.33	0.62
46:H8:4:ARG:HA	46:H8:58:VAL:HG22	1.81	0.62
4:32:153:ARG:HA	4:32:181:MET:HE1	1.81	0.62
26:14:729:G:O5'	28:19:208:LYS:NZ	2.31	0.62
26:14:2058:A:N6	59:14:3438:HOH:O	2.23	0.62
26:14:2392:A:H2	26:14:2424:C:H42	1.44	0.62
2:1E:98:LEU:HB2	2:1E:101:MET:HG3	1.81	0.62
17:8I:13:ASP:HA	17:8I:19:VAL:HG12	1.80	0.62
19:AI:5:LEU:HD13	19:AI:10:PHE:HD1	1.64	0.62
26:1H:1607:C:H4'	26:1H:1608:A:O5'	2.00	0.62
26:1H:2646:C:OP2	26:1H:2732:G:O2'	2.16	0.62
42:D8:1:MET:SD	42:D8:43:GLU:HG2	2.39	0.62
1:1G:600:C:H2'	1:1G:601:C:C6	2.34	0.62
1:1G:1352:C:H42	1:1G:1370:G:H1	1.47	0.62
37:45:133:ARG:O	37:45:134:ARG:HB3	1.99	0.62
42:95:44:LYS:O	42:95:46:VAL:N	2.26	0.62
9:8E:97:LYS:HB2	9:8E:102:LEU:HD12	1.81	0.62
26:1H:1221:C:H2'	26:1H:1222:C:H6	1.64	0.62
26:1H:1678:G:H22	26:1H:1989:G:N2	1.98	0.62
36:78:125:VAL:O	36:78:144:GLU:HB2	1.98	0.62
26:14:1678:G:H22	26:14:1989:G:H22	1.47	0.62
26:14:2357:U:OP1	47:E5:20:ARG:NH1	2.32	0.62
26:14:2812:G:N2	26:14:2889:C:O2	2.32	0.62
31:49:124:SER:HB2	31:49:131:TYR:CE2	2.35	0.62
11:2I:73:MET:HG2	11:2I:103:LEU:HD13	1.81	0.62
45:G8:49:VAL:HG21	45:G8:55:TYR:HE2	1.63	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:411:A:H62	1:1G:413:G:N2	1.94	0.62
1:1G:656:C:H42	1:1G:750:G:H1	1.48	0.62
1:1G:933:G:O6	7:62:3:ARG:NH2	2.33	0.62
1:1G:1297:C:OP1	13:4A:44:ARG:NH2	2.27	0.62
4:32:150:GLU:HA	4:32:153:ARG:HG2	1.81	0.62
6:52:74:ASP:OD1	6:52:74:ASP:N	2.32	0.62
26:14:987:G:O2'	26:14:1000:A:N3	2.33	0.62
26:14:1716:U:H2'	26:14:1717:G:C8	2.34	0.62
1:13:838:G:OP2	1:13:842:C:N4	2.33	0.62
3:2E:12:LEU:O	3:2E:14:ILE:N	2.31	0.62
5:4E:126:ARG:HG3	5:4E:126:ARG:HH11	1.64	0.62
11:2I:19:ALA:O	11:2I:82:VAL:HA	1.99	0.62
18:9I:54:ARG:HG3	18:9I:55:ARG:HG3	1.81	0.62
26:1H:319:C:OP1	30:31:137:LYS:NZ	2.26	0.62
26:1H:1063:G:N2	26:1H:1076:C:O2	2.33	0.62
26:1H:2210:G:H3'	26:1H:2211:G:C8	2.35	0.62
34:58:47:ALA:HB2	34:58:112:LEU:HD11	1.81	0.62
45:G8:20:TYR:CE1	45:G8:43:ASN:HA	2.35	0.62
1:1G:426:G:OP1	4:32:38:TYR:OH	2.17	0.62
10:1A:6:ILE:HG13	10:1A:72:VAL:HG23	1.82	0.62
25:4L:19:A:H4'	25:4L:20:A:OP1	1.98	0.62
26:14:639:U:H2'	26:14:640:C:C6	2.35	0.62
26:14:2849:U:OP1	40:75:95:ARG:NH1	2.32	0.62
30:39:74:ARG:O	30:39:74:ARG:HG2	2.00	0.62
33:69:133:HIS:CG	33:69:134:PRO:HD3	2.35	0.62
1:13:1227:A:OP2	13:4I:111:LYS:NZ	2.32	0.62
26:1H:2845:G:N7	59:1H:4114:HOH:O	2.31	0.62
1:1G:1095:U:P	1:1G:1108:G:H1	2.23	0.62
1:1G:1452:C:H4'	1:1G:1453:G:H5'	1.80	0.62
5:42:68:GLU:HG3	5:42:70:PRO:HD3	1.81	0.62
26:14:459:U:H5''	53:L5:40:TRP:CD2	2.34	0.62
26:14:2127:G:H1	26:14:2161:C:N4	1.98	0.62
27:1J:52:A:N6	39:65:33:LYS:HG3	2.15	0.62
29:29:101:ARG:HB2	29:29:203:LYS:HD2	1.81	0.62
29:29:111:ARG:HA	38:55:2:ARG:HH12	1.65	0.62
1:13:86:U:O2'	1:13:87:A:O4'	2.12	0.61
7:6E:62:PHE:CD1	7:6E:124:LEU:HD11	2.33	0.61
26:1H:1138:G:N2	34:58:106:MET:HE3	2.12	0.61
26:1H:1204:A:H2	26:1H:1241:A:N1	1.97	0.61
26:1H:1210:A:H5'	26:1H:1210:A:H8	1.65	0.61
26:1H:2313:C:H4'	31:41:91:ARG:HG3	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:31:29:ASN:H	30:31:112:MET:CE	2.13	0.61
4:32:30:LYS:HB3	4:32:35:ARG:HD2	1.81	0.61
17:8A:98:LEU:O	17:8A:100:LYS:NZ	2.33	0.61
26:14:8:A:H2'	26:14:9:U:C6	2.35	0.61
26:14:2016:U:O2	52:J5:7:PRO:HG2	1.98	0.61
41:85:11:ARG:HH11	41:85:11:ARG:HG3	1.64	0.61
1:13:539:A:H2'	1:13:540:G:C8	2.34	0.61
1:13:1148:U:H2'	1:13:1149:C:O4'	2.01	0.61
3:2E:14:ILE:HG12	3:2E:15:THR:N	2.13	0.61
26:1H:607:U:OP1	30:31:102:PRO:HA	2.00	0.61
26:1H:1859:A:N6	26:1H:1883:G:O2'	2.34	0.61
26:1H:2695:C:H2'	26:1H:2696:U:H6	1.63	0.61
31:41:66:GLN:NE2	31:41:93:THR:O	2.22	0.61
38:98:72:ASP:O	38:98:76:VAL:HG23	2.00	0.61
55:3L:12:C:H3'	55:3L:13:G:C8	2.35	0.61
26:14:2378:A:H4'	39:65:23:ARG:HH12	1.65	0.61
33:69:102:SER:O	33:69:106:GLY:N	2.33	0.61
37:45:110:THR:HG23	37:45:113:GLN:HB2	1.82	0.61
45:C5:42:VAL:O	45:C5:65:ALA:N	2.30	0.61
1:13:1062:U:H2'	1:13:1063:C:C6	2.35	0.61
5:4E:11:ILE:HG13	5:4E:31:LEU:HB3	1.81	0.61
24:3K:75:C:H2'	24:3K:76:C:C6	2.35	0.61
26:1H:589:C:H2'	26:1H:590:A:H8	1.65	0.61
26:1H:1087:G:C5	26:1H:1089:G:H1'	2.35	0.61
26:1H:2331:G:O3'	47:I8:43:THR:HG22	1.99	0.61
26:1H:2702:U:H6	26:1H:2702:U:OP1	1.84	0.61
37:88:66:ILE:O	37:88:104:PHE:N	2.33	0.61
38:98:32:GLY:HA2	38:98:116:LEU:HD12	1.82	0.61
39:A8:25:ARG:NH1	39:A8:42:ASP:OD2	2.33	0.61
1:1G:1347:G:N2	1:1G:1373:G:H2'	2.15	0.61
26:14:91:A:H2'	26:14:92:G:H5'	1.80	0.61
26:14:2273:A:H2'	26:14:2274:A:C8	2.36	0.61
29:29:9:VAL:HG12	40:75:8:LYS:HZ1	1.66	0.61
34:15:61:ARG:HA	34:15:61:ARG:NE	2.14	0.61
54:M5:30:ARG:CD	54:M5:31:HIS:H	2.12	0.61
1:13:81:G:O6	1:13:87:A:N6	2.33	0.61
1:13:601:C:H2'	1:13:602:A:H8	1.65	0.61
22:1K:13:G:H2'	22:1K:14:A:H8	1.64	0.61
26:1H:2593:U:H2'	26:1H:2594:C:H6	1.64	0.61
36:78:50:ARG:HD3	54:Q8:7:HIS:HD2	1.65	0.61
43:E8:52:GLU:O	43:E8:55:ALA:N	2.32	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:G8:97:ARG:NH1	45:G8:103:GLY:O	2.33	0.61
26:14:2096:U:H3	26:14:2193:G:H1	1.48	0.61
45:C5:76:CYS:SG	45:C5:97:ARG:HG3	2.39	0.61
1:13:1213:A:O2'	1:13:1215:G:N7	2.27	0.61
16:7I:1:MET:SD	16:7I:1:MET:N	2.68	0.61
1:1G:426:G:OP1	4:32:36:ARG:NH2	2.34	0.61
1:13:134:A:H1'	1:13:325:A:C5	2.36	0.61
1:13:690:G:H22	11:2I:55:LYS:HE2	1.65	0.61
1:13:1177:G:OP1	1:13:1177:G:H4'	1.99	0.61
1:13:1346:A:OP1	9:8E:120:ARG:NH1	2.31	0.61
2:1E:189:ASP:OD1	2:1E:190:THR:N	2.34	0.61
32:51:43:VAL:HB	32:51:52:VAL:HG22	1.83	0.61
37:88:133:ARG:O	37:88:134:ARG:HB2	1.99	0.61
50:L8:44:ARG:O	50:L8:48:GLU:HG2	2.00	0.61
1:1G:1143:G:H2'	1:1G:1144:G:C8	2.35	0.61
20:BA:82:SER:HG	20:BA:86:ARG:HH22	1.49	0.61
26:14:780:G:H21	26:14:783:A:H62	1.49	0.61
26:14:1379:A:H1'	26:14:1380:G:OP1	2.01	0.61
48:F5:91:LYS:HG3	48:F5:92:LYS:N	2.16	0.61
1:13:688:G:H2'	1:13:689:C:C6	2.36	0.61
1:13:1378:C:O2	7:6E:76:ARG:NH1	2.34	0.61
6:5E:101:ALA:HB2	18:9I:28:GLU:HG2	1.83	0.61
11:2I:109:VAL:HG12	18:9I:86:VAL:HA	1.82	0.61
22:1K:11:C:H2'	22:1K:12:C:H6	1.64	0.61
11:2A:57:THR:HG22	11:2A:59:TYR:H	1.65	0.61
26:14:848:G:H2'	26:14:849:A:C8	2.36	0.61
26:14:1558:A:O2'	26:14:1559:G:OP2	2.17	0.61
1:13:991:U:O2'	1:13:992:U:O5'	2.17	0.61
3:2E:79:ARG:HH22	11:2A:105:VAL:HG13	1.66	0.61
10:1I:32:ALA:HB3	10:1I:76:ASN:O	2.00	0.61
10:1I:34:VAL:HG12	10:1I:74:ILE:HG23	1.83	0.61
26:1H:355:G:H2'	26:1H:356:G:C8	2.35	0.61
26:1H:746:A:C5	26:1H:2611:U:H5''	2.36	0.61
26:1H:1594:G:H5'	59:1H:3501:HOH:O	1.99	0.61
29:21:70:ALA:O	29:21:73:GLU:N	2.34	0.61
31:41:37:VAL:HG22	31:41:159:VAL:HG12	1.81	0.61
35:68:64:ARG:O	35:68:82:ASN:HA	1.99	0.61
1:1G:683:G:N2	1:1G:707:C:O2	2.31	0.61
1:1G:964:A:H1'	10:1A:55:LYS:HE2	1.81	0.61
9:82:24:GLY:HA2	9:82:59:PHE:O	2.01	0.61
26:14:2873:A:C8	38:55:5:LYS:HA	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:90:C:P	37:45:16:ARG:HH21	2.23	0.61
1:13:272:C:H2'	1:13:273:A:H8	1.66	0.61
1:13:601:C:H2'	1:13:602:A:C8	2.36	0.61
8:7E:83:ILE:HB	8:7E:137:VAL:HG13	1.82	0.61
8:7E:87:SER:HB2	8:7E:93:VAL:H	1.65	0.61
26:1H:1520:U:H2'	26:1H:1521:G:O4'	2.01	0.61
26:1H:2400:G:H2'	26:1H:2401:U:H6	1.65	0.61
41:C8:68:ALA:O	41:C8:71:GLN:HB2	2.01	0.61
50:L8:9:VAL:HG21	50:L8:55:ARG:HB2	1.82	0.61
1:1G:501:C:H2'	1:1G:502:G:H8	1.65	0.61
26:14:198:C:H5'	26:14:2244:U:OP1	2.00	0.61
26:14:395:U:H2'	26:14:396:G:N7	2.16	0.61
29:29:58:ARG:O	29:29:60:ASN:ND2	2.33	0.61
41:85:82:GLY:HA2	41:85:85:LYS:HB2	1.83	0.61
42:95:33:VAL:HG22	42:95:35:LEU:HD23	1.82	0.61
4:3E:8:VAL:HG13	4:3E:21:LEU:HB2	1.83	0.61
11:2I:99:GLN:HA	11:2I:105:VAL:HG11	1.83	0.61
26:1H:315:G:H2'	26:1H:316:C:C6	2.36	0.61
26:1H:320:A:H2'	30:31:136:THR:HG21	1.81	0.61
26:1H:1018:C:H2'	26:1H:1019:U:H6	1.65	0.61
26:1H:2156:G:H2'	26:1H:2157:G:C2	2.35	0.61
26:1H:2591:C:OP1	28:11:239:ARG:HG3	2.00	0.61
34:58:62:VAL:HG22	34:58:66:LYS:HD2	1.82	0.61
36:78:61:ARG:O	36:78:62:LEU:HD23	1.99	0.61
51:M8:42:PHE:HD1	51:M8:43:TYR:HB3	1.65	0.61
1:1G:187:C:H2'	1:1G:188:U:O4'	2.01	0.61
1:1G:735:C:H2'	1:1G:736:C:H6	1.66	0.61
26:14:889:C:H2'	26:14:890:A:H4'	1.82	0.61
26:14:2378:A:O2'	39:65:21:THR:HG21	2.01	0.61
28:19:96:HIS:HD2	28:19:102:LYS:HG2	1.66	0.61
29:29:66:HIS:CE1	29:29:71:GLY:HA2	2.35	0.61
30:39:110:LEU:HD21	30:39:181:LEU:HD13	1.82	0.61
31:49:40:ASN:HB2	31:49:91:ARG:HG3	1.81	0.61
42:95:70:ILE:N	42:95:86:GLY:O	2.27	0.61
1:13:1133:G:H2'	1:13:1134:G:C8	2.36	0.60
4:3E:158:ILE:O	4:3E:162:LEU:N	2.32	0.60
26:1H:207:A:H2'	26:1H:208:C:O4'	2.01	0.60
26:1H:1265:A:H3'	52:N8:19:ARG:HH12	1.64	0.60
26:1H:1510:A:H2'	26:1H:1510:A:N3	2.15	0.60
26:1H:2544:G:H8	26:1H:2544:G:O5'	1.84	0.60
26:1H:2572:A:N7	29:21:144:ARG:HD2	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:61:73:GLU:HG3	33:61:136:VAL:HG23	1.83	0.60
2:12:73:THR:HG21	2:12:97:TRP:H	1.64	0.60
26:14:5:A:H2'	26:14:6:A:C8	2.36	0.60
26:14:77:C:H5''	49:G5:10:LEU:HD21	1.81	0.60
29:29:54:GLN:HG2	29:29:56:PRO:HD3	1.83	0.60
37:45:110:THR:OG1	37:45:112:GLU:OE2	2.19	0.60
40:75:3:ARG:CG	40:75:6:LEU:H	2.14	0.60
42:95:71:LEU:N	42:95:86:GLY:HA2	2.16	0.60
2:1E:212:GLN:O	2:1E:216:SER:OG	2.17	0.60
11:2I:87:THR:HG22	11:2I:88:GLY:H	1.65	0.60
26:1H:299:A:H5'	26:1H:300:A:OP2	2.01	0.60
26:1H:1143:A:OP1	34:58:25:ARG:NH1	2.28	0.60
26:1H:2695:C:H2'	26:1H:2696:U:C6	2.35	0.60
29:21:131:ALA:HB1	59:21:401:HOH:O	2.01	0.60
34:58:22:THR:OG1	34:58:23:LEU:N	2.34	0.60
35:68:35:VAL:HG11	35:68:103:ALA:HB3	1.82	0.60
40:B8:55:ASN:H	40:B8:59:THR:HG22	1.66	0.60
2:12:16:HIS:HD2	2:12:210:SER:HA	1.66	0.60
2:12:21:ARG:HA	2:12:39:ILE:HA	1.83	0.60
5:42:70:PRO:HB3	5:42:144:THR:HG22	1.83	0.60
11:2A:48:ILE:HD11	11:2A:64:ALA:HA	1.83	0.60
26:14:2155:G:H2'	26:14:2156:G:O4'	2.00	0.60
30:39:117:ARG:HH22	36:35:1:MET:H2	1.48	0.60
42:95:58:VAL:HG23	42:95:98:GLU:HB2	1.83	0.60
49:G5:29:LYS:HG2	49:G5:57:ILE:HD13	1.82	0.60
1:13:963:G:H21	10:1I:55:LYS:NZ	1.99	0.60
6:5E:99:ALA:HB1	18:9I:23:LYS:HE3	1.82	0.60
33:61:56:LYS:O	33:61:60:GLU:HB3	2.01	0.60
40:B8:77:PRO:HG2	40:B8:80:SER:HB2	1.83	0.60
46:H8:140:ASP:N	46:H8:140:ASP:OD1	2.33	0.60
1:1G:330:C:O2	59:1G:1733:HOH:O	2.15	0.60
26:14:852:G:H2'	26:14:853:G:C8	2.35	0.60
26:14:1036:G:OP1	32:59:59:ARG:N	2.29	0.60
26:14:1678:G:N2	26:14:1989:G:H22	1.99	0.60
1:13:859:A:H2'	1:13:860:A:H8	1.65	0.60
24:3K:25:G:H2'	24:3K:26:G:C8	2.36	0.60
26:1H:67:U:N3	26:1H:74:A:H2	1.97	0.60
26:1H:270(E):G:N2	26:1H:270(U):C:N3	2.49	0.60
26:1H:2126:A:N6	26:1H:2163:C:O2'	2.34	0.60
26:1H:2287:A:H2	26:1H:2346:A:H2	1.49	0.60
32:51:3:ARG:HH21	32:51:7:LEU:HD11	1.65	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:78:95:VAL:O	36:78:126:VAL:HG23	2.01	0.60
38:98:30:THR:HG22	38:98:31:HIS:ND1	2.17	0.60
49:K8:47:ASN:C	49:K8:49:LYS:H	2.04	0.60
1:1G:56:U:H2'	1:1G:57:G:C8	2.36	0.60
1:1G:445:G:N7	59:1G:1777:HOH:O	2.32	0.60
1:1G:975:A:H4'	1:1G:976:G:H5''	1.83	0.60
26:14:270(I):G:H2'	26:14:270(J):G:H8	1.66	0.60
26:14:567:A:P	59:14:3600:HOH:O	2.59	0.60
26:14:2122:U:H2'	26:14:2123:G:O4'	2.01	0.60
35:25:24:VAL:HA	35:25:39:ILE:HG22	1.83	0.60
38:55:97:VAL:HA	38:55:113:LEU:O	2.02	0.60
14:5I:6:LEU:HB3	14:5I:23:ARG:HH22	1.66	0.60
26:1H:107:C:H2'	26:1H:108:U:H6	1.67	0.60
26:1H:583:G:H5''	41:C8:10:ARG:NH1	2.16	0.60
26:1H:881:G:H3'	26:1H:882:G:O4'	2.00	0.60
36:78:64:LYS:C	36:78:66:GLY:N	2.54	0.60
1:1G:1110:A:OP2	59:1G:1761:HOH:O	2.15	0.60
18:9A:22:VAL:HG22	18:9A:23:LYS:H	1.65	0.60
24:1L:11:C:H2'	24:1L:12:C:C6	2.36	0.60
26:14:243:U:OP2	54:M5:8:LYS:HE2	2.01	0.60
26:14:2103:C:H2'	26:14:2104:G:C8	2.37	0.60
29:29:37:ARG:HD3	29:29:44:TYR:CE2	2.36	0.60
29:29:58:ARG:HG3	29:29:59:VAL:HG23	1.84	0.60
1:13:737:A:H2'	1:13:738:C:C6	2.35	0.60
1:13:1036:G:N7	1:13:1037:C:N4	2.50	0.60
26:1H:1614:A:H2	59:1H:3748:HOH:O	1.84	0.60
29:21:117:MET:HE1	29:21:136:ARG:HA	1.82	0.60
44:F8:15:GLU:H	44:F8:15:GLU:CD	2.02	0.60
26:14:10:G:N2	26:14:2802:G:OP1	2.34	0.60
26:14:86:C:HO2'	26:14:104:U:HO2'	1.45	0.60
26:14:588:U:H2'	26:14:589:C:C6	2.35	0.60
26:14:1328:G:H2'	26:14:1330:C:C5	2.37	0.60
26:14:2352:A:C2	47:E5:33:ALA:HB1	2.37	0.60
26:1H:277:C:H3'	26:1H:278:A:O4'	2.01	0.60
26:1H:654(B):C:H2'	26:1H:654(C):G:H8	1.67	0.60
26:1H:1535:U:H5''	26:1H:1537:C:N4	2.16	0.60
26:1H:1748:G:H2'	26:1H:1749:A:H8	1.66	0.60
26:1H:2168:G:N2	26:1H:2170:A:H62	2.00	0.60
34:58:96:GLU:C	34:58:98:VAL:N	2.55	0.60
49:K8:18:PRO:HA	49:K8:21:LEU:HB2	1.83	0.60
1:1G:45:U:H2'	1:1G:46:G:H8	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:999:U:H2'	1:1G:1000:A:C8	2.36	0.60
21:1B:18:TYR:CE1	21:1B:22:ARG:HD3	2.37	0.60
26:14:273(C):C:N4	26:14:363(C):G:H1	2.00	0.60
26:14:770:G:OP2	59:14:3821:HOH:O	2.17	0.60
26:14:2378:A:H4'	39:65:23:ARG:NH1	2.17	0.60
46:D5:14:LYS:NZ	46:D5:14:LYS:H	1.99	0.60
54:M5:40:GLU:HA	54:M5:43:GLN:HB2	1.82	0.60
4:3E:141:ARG:HB2	4:3E:141:ARG:NH1	2.17	0.60
6:5E:39:LYS:HB2	6:5E:64:GLN:HB2	1.82	0.60
7:6E:15:ASP:HB3	7:6E:19:GLY:H	1.66	0.60
8:7E:88:LYS:HB3	8:7E:89:PRO:HD2	1.84	0.60
26:1H:270(L):U:O2	33:61:50:ARG:HG2	2.01	0.60
26:1H:600:G:N2	26:1H:605:C:O3'	2.34	0.60
26:1H:1049:C:C2'	26:1H:1050:A:H5'	2.32	0.60
26:1H:1113:U:H5'	32:51:2:SER:HB2	1.84	0.60
28:11:16:MET:CE	28:11:211:ARG:HD2	2.32	0.60
31:41:138:GLN:OE1	31:41:153:ARG:N	2.27	0.60
44:F8:25:LYS:HA	44:F8:81:VAL:O	2.01	0.60
1:1G:198:G:H2'	1:1G:199:G:C8	2.36	0.60
1:1G:407:G:OP1	4:32:115:ARG:NE	2.30	0.60
26:14:957:A:H5'	37:45:76:LYS:HD2	1.83	0.60
26:14:2415:G:O3'	36:35:66:GLY:HA3	2.01	0.60
29:29:11:MET:SD	29:29:24:THR:HG22	2.41	0.60
36:35:71:VAL:HG13	36:35:72:PRO:HD3	1.83	0.60
51:I5:37:SER:C	51:I5:39:CYS:H	2.05	0.60
26:1H:883:G:H2'	26:1H:884:C:O4'	2.01	0.60
26:1H:2112:G:O2'	26:1H:2113:U:O2	2.19	0.60
26:1H:2846:G:N7	59:1H:4110:HOH:O	2.30	0.60
38:98:91:GLN:O	38:98:91:GLN:NE2	2.33	0.60
41:C8:17:ILE:HD12	41:C8:32:PHE:HE1	1.67	0.60
41:C8:108:GLU:HG3	42:D8:44:LYS:HE3	1.82	0.60
44:F8:18:TYR:O	44:F8:20:GLY:N	2.35	0.60
48:J8:52:ARG:HH11	48:J8:57:GLU:HG3	1.66	0.60
3:22:119:ARG:HH22	3:22:140:ARG:HG2	1.67	0.60
12:3A:52:LEU:O	12:3A:54:LYS:NZ	2.35	0.60
19:AA:80:TYR:CZ	19:AA:82:GLY:HA2	2.36	0.60
26:14:152:G:H1	26:14:174:C:H42	1.50	0.60
26:14:2275:C:O2	37:45:83:MET:HG2	2.02	0.60
54:M5:49:VAL:HB	54:M5:50:LEU:HD13	1.82	0.60
1:13:271:C:H2'	1:13:272:C:H6	1.67	0.60
1:13:1529:G:H4'	1:13:1530:G:OP2	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1093:G:O2'	26:1H:1099:G:N2	2.34	0.60
27:16:44:G:H1'	27:16:47:C:H42	1.66	0.60
30:31:67:GLN:HG3	30:31:67:GLN:O	2.02	0.60
33:61:21:VAL:HG21	33:61:25:TYR:HD2	1.67	0.60
1:1G:542:G:OP1	4:32:10:ARG:NH2	2.34	0.60
1:1G:991:U:O4	1:1G:1212:U:O2'	2.14	0.60
23:2L:8:4SU:C2	23:2L:14:A:H62	2.15	0.60
23:2L:62:C:H2'	23:2L:63:C:C6	2.37	0.60
55:3L:8:U:H3	55:3L:14:A:H62	1.50	0.60
26:14:275:G:N2	26:14:276:A:N1	2.43	0.60
26:14:2185:C:H2'	26:14:2186:G:C8	2.37	0.60
26:14:2693:A:H2'	26:14:2694:G:H8	1.66	0.60
28:19:242:ARG:N	28:19:242:ARG:HD3	2.16	0.60
32:59:121:ILE:HG23	32:59:133:VAL:HG11	1.83	0.60
51:I5:42:PHE:O	51:I5:43:TYR:HB3	2.02	0.60
1:13:67:C:H2'	1:13:68:G:H8	1.67	0.59
1:13:1095:U:H5'	1:13:1109:C:O2	2.02	0.59
18:9I:50:ILE:HG12	18:9I:70:ILE:HD12	1.84	0.59
26:1H:2000:G:HO2'	26:1H:2689:U:H5	1.50	0.59
26:1H:2418:A:OP2	54:Q8:29:LYS:HE3	2.01	0.59
26:1H:2592:G:OP1	59:1H:3811:HOH:O	2.15	0.59
30:31:65:TRP:CZ3	30:31:72:ARG:HB3	2.36	0.59
34:58:73:THR:HG22	34:58:84:LYS:HG3	1.84	0.59
1:1G:1353:G:N2	1:1G:1370:G:N3	2.49	0.59
14:5A:21:TYR:OH	14:5A:23:ARG:NH2	2.35	0.59
26:14:1252:G:O4'	41:85:33:ARG:HD3	2.02	0.59
1:13:595:G:H1'	1:13:596:C:H5	1.67	0.59
25:4K:24:A:H8	25:4K:24:A:O5'	1.85	0.59
26:1H:1105:U:H2'	26:1H:1106:G:C8	2.36	0.59
26:1H:1259:G:H2'	26:1H:1260:G:H8	1.66	0.59
26:1H:2123:G:H22	26:1H:2175:C:N4	2.00	0.59
36:78:98:GLU:O	36:78:101:VAL:HG12	2.02	0.59
44:F8:24:GLY:O	44:F8:83:VAL:HG22	2.02	0.59
1:1G:345:C:O2'	1:1G:346:G:O5'	2.20	0.59
2:12:92:TYR:CE1	2:12:151:GLY:HA3	2.37	0.59
5:42:91:LEU:HD12	5:42:120:THR:HG22	1.84	0.59
26:14:2439:A:H5'	26:14:2439:A:C8	2.37	0.59
28:19:70:TRP:CH2	28:19:150:LYS:HA	2.36	0.59
35:25:2:ILE:HD12	35:25:6:THR:HG21	1.82	0.59
1:13:1078:U:O2'	5:4E:130:ASN:OD1	2.12	0.59
1:13:1118:C:H1'	1:13:1179:A:C4	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1490:C:OP2	57:13:1745:PAR:N64	2.35	0.59
9:8E:99:LEU:HD12	9:8E:101:PHE:HE1	1.67	0.59
28:11:231:HIS:CD2	28:11:232:PRO:HD2	2.38	0.59
44:F8:67:GLY:O	44:F8:68:ARG:HB3	2.03	0.59
1:1G:8:A:N6	4:32:209:ARG:HB2	2.17	0.59
1:1G:920:U:H2'	1:1G:921:U:C6	2.37	0.59
13:4A:22:ILE:HB	13:4A:25:ILE:HG13	1.85	0.59
14:5A:12:ARG:HB2	14:5A:14:PRO:HD3	1.83	0.59
26:14:2645:G:H3'	26:14:2646:C:H5'	1.85	0.59
29:29:9:VAL:HG12	40:75:8:LYS:NZ	2.17	0.59
40:75:107:ASP:H	40:75:110:ILE:HG13	1.66	0.59
45:C5:17:SER:O	45:C5:21:LYS:HB2	2.01	0.59
45:C5:42:VAL:HG13	45:C5:65:ALA:HB3	1.84	0.59
1:13:1239:A:H62	1:13:1299:A:H62	1.50	0.59
4:3E:22:LYS:HB2	4:3E:26:CYS:SG	2.42	0.59
11:2I:67:ASP:O	11:2I:71:LYS:HG3	2.02	0.59
24:3K:13:G:H2'	24:3K:14:A:C8	2.38	0.59
26:1H:192:C:P	59:1H:3591:HOH:O	2.60	0.59
26:1H:2108:C:O2	26:1H:2181:G:N2	2.30	0.59
30:31:6:VAL:N	30:31:24:LEU:O	2.36	0.59
38:98:52:ILE:HG12	38:98:79:LEU:HD21	1.83	0.59
1:1G:757:U:H2'	1:1G:758:G:O4'	2.03	0.59
1:1G:1148:U:H2'	1:1G:1149:C:O4'	2.02	0.59
4:32:78:LEU:HD12	4:32:96:LEU:HB3	1.84	0.59
9:82:27:THR:OG1	9:82:31:GLN:O	2.12	0.59
24:1L:23:A:H3'	24:1L:24:G:H5''	1.85	0.59
26:14:910:A:H62	37:45:12:GLN:HA	1.67	0.59
26:14:1757:U:H3	26:14:1762:A:H2	1.51	0.59
26:1H:1486:A:H2'	26:1H:1487:G:H8	1.67	0.59
26:1H:2393:A:H5''	36:78:62:LEU:CB	2.30	0.59
26:1H:2496:C:P	37:88:81:VAL:HG13	2.42	0.59
46:H8:154:ASP:OD1	46:H8:154:ASP:N	2.36	0.59
49:K8:50:ILE:HD12	49:K8:51:ARG:H	1.67	0.59
1:1G:1342:C:H4'	9:82:125:TYR:HB3	1.83	0.59
26:14:1252:G:N2	41:85:37:GLU:OE2	2.32	0.59
1:13:21:G:OP1	59:13:1833:HOH:O	2.16	0.59
9:8E:114:TYR:CE2	10:1I:59:SER:HA	2.38	0.59
19:AI:41:VAL:HB	19:AI:42:PRO:HA	1.84	0.59
22:1K:40:PSU:H2'	22:1K:41:C:H6	1.68	0.59
29:21:104:VAL:HG22	29:21:198:VAL:HG22	1.83	0.59
32:51:77:LYS:HE2	32:51:138:LYS:HD2	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:58:96:GLU:CG	34:58:97:ARG:H	2.14	0.59
40:B8:5:ALA:HA	40:B8:8:LYS:HD3	1.84	0.59
46:H8:9:TYR:HE2	46:H8:35:ARG:HD3	1.67	0.59
13:4A:23:TYR:HE2	13:4A:70:LEU:HB3	1.68	0.59
26:14:95:G:H4'	49:G5:46:GLN:HB2	1.84	0.59
26:14:2068:U:H3	26:14:2430:A:H2	1.49	0.59
27:1J:13:A:N1	27:1J:69:G:O2'	2.31	0.59
29:29:134:ILE:HD12	29:29:134:ILE:O	2.02	0.59
30:39:126:VAL:HG11	30:39:142:TRP:HH2	1.68	0.59
34:15:19:GLU:HA	34:15:59:LYS:O	2.03	0.59
26:1H:467:G:OP1	53:P8:33:ARG:NH1	2.35	0.59
26:1H:1265:A:H8	26:1H:1265:A:OP1	1.85	0.59
26:1H:1728:G:C2	26:1H:1730:U:OP2	2.56	0.59
26:1H:1796:U:H2'	26:1H:1797:C:C6	2.37	0.59
26:1H:2396:G:H5''	48:J8:25:LYS:HD3	1.84	0.59
40:B8:58:ASN:O	40:B8:58:ASN:ND2	2.34	0.59
46:H8:117:LEU:HD13	46:H8:118:GLN:H	1.67	0.59
1:1G:1379:G:OP1	7:62:6:ARG:NH1	2.35	0.59
26:14:1839:G:H2'	26:14:1839:G:N3	2.16	0.59
26:14:2815:C:H5'	52:J5:29:THR:HG21	1.84	0.59
33:69:101:LEU:HB2	33:69:105:HIS:HB2	1.83	0.59
36:35:122:PRO:HB3	36:35:141:ALA:HB1	1.84	0.59
40:75:24:PRO:HD3	40:75:52:ILE:HD12	1.85	0.59
47:E5:48:GLY:HA3	47:E5:80:HIS:ND1	2.17	0.59
1:13:559:A:OP1	5:4E:126:ARG:NH2	2.35	0.59
1:13:1180:A:OP1	9:8E:103:THR:OG1	2.19	0.59
2:1E:17:PHE:HB3	2:1E:44:LEU:HD21	1.83	0.59
4:3E:110:PHE:HE2	4:3E:148:VAL:HG23	1.67	0.59
26:1H:217:G:OP2	59:1H:3622:HOH:O	2.17	0.59
26:1H:330:A:O2'	26:1H:331:A:H8	1.85	0.59
26:1H:569:U:C4	26:1H:570:G:C6	2.90	0.59
26:14:1025:G:O2'	26:14:1026:U:OP1	2.20	0.59
26:14:1188:U:O2'	26:14:1189:A:H5'	2.02	0.59
26:14:1900:A:OP2	59:14:3513:HOH:O	2.17	0.59
41:85:34:LYS:NZ	41:85:37:GLU:OE1	2.36	0.59
1:13:751:U:OP2	59:13:1919:HOH:O	2.17	0.59
1:13:791:G:C6	1:13:792:A:C2	2.91	0.59
1:13:824:C:H4'	8:7E:1:MET:HB2	1.85	0.59
1:13:1117:G:H5''	9:8E:104:ARG:NH1	2.17	0.59
1:13:1202:G:N2	14:5I:43:CYS:HB3	2.17	0.59
2:1E:178:ARG:HG3	8:7E:72:PRO:HA	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:9I:59:SER:OG	18:9I:60:ALA:N	2.36	0.59
26:1H:270(C):C:H42	26:1H:270(W):G:H1	1.49	0.59
26:1H:287:C:H2'	26:1H:288:C:C6	2.36	0.59
26:1H:1221:C:H2'	26:1H:1222:C:C6	2.38	0.59
26:1H:1417:C:N3	26:1H:1581:G:N2	2.46	0.59
36:78:62:LEU:O	36:78:62:LEU:HG	2.03	0.59
45:G8:68:HIS:O	45:G8:71:LYS:HB2	2.03	0.59
3:22:44:GLU:HG2	3:22:52:LEU:HD11	1.83	0.59
4:32:9:CYS:SG	4:32:22:LYS:HD2	2.43	0.59
12:3A:58:VAL:O	12:3A:65:GLU:HA	2.02	0.59
29:29:14:ILE:HB	40:75:14:TYR:CE2	2.37	0.59
31:49:44:GLY:HA2	31:49:88:ILE:HD11	1.85	0.59
50:H5:7:LYS:HE2	50:H5:32:GLN:HG3	1.84	0.59
1:13:407:G:OP1	4:3E:115:ARG:NH1	2.36	0.59
5:4E:8:GLU:HG2	5:4E:34:VAL:HG22	1.84	0.59
24:3K:24:G:H2'	24:3K:25:G:C8	2.38	0.59
26:1H:1769:G:O2'	26:1H:1958:C:OP1	2.17	0.59
26:1H:1814:G:O6	59:1H:3866:HOH:O	2.15	0.59
26:1H:1857:G:O2'	26:1H:1885:A:N6	2.31	0.59
29:21:201:THR:HG22	29:21:203:LYS:H	1.68	0.59
30:31:155:LEU:HD11	30:31:176:LEU:HD23	1.85	0.59
33:61:126:TYR:HB2	33:61:140:LEU:HD11	1.84	0.59
45:G8:40:GLU:HB3	45:G8:64:GLU:HG3	1.83	0.59
46:H8:105:VAL:N	46:H8:139:VAL:O	2.28	0.59
48:J8:78:LYS:N	48:J8:78:LYS:HD2	2.18	0.59
1:1G:114:U:H2'	1:1G:115:G:C8	2.38	0.59
18:9A:31:LEU:HD23	18:9A:31:LEU:H	1.68	0.59
23:2L:62:C:H2'	23:2L:63:C:H6	1.68	0.59
55:3L:34:U:H2'	55:3L:36:U:OP2	2.01	0.59
26:14:2327:A:H2'	26:14:2328:A:C8	2.38	0.59
26:14:2544:G:O5'	26:14:2544:G:H8	1.86	0.59
26:14:2818:G:OP2	38:55:42:LYS:NZ	2.35	0.59
35:25:96:THR:OG1	35:25:97:ARG:N	2.36	0.59
40:75:16:ARG:HD3	40:75:79:HIS:HA	1.84	0.59
1:13:1160:G:H1	1:13:1177:G:H1	1.50	0.58
2:1E:46:LYS:HA	2:1E:49:GLU:HG3	1.85	0.58
26:1H:531:C:H4'	26:1H:532:A:H5''	1.84	0.58
26:1H:2205:C:H42	26:1H:2219:G:H1	1.51	0.58
26:1H:2785:C:H2'	26:1H:2786:U:O4'	2.03	0.58
28:11:108:PRO:HG3	28:11:143:HIS:CE1	2.38	0.58
31:41:66:GLN:OE1	31:41:98:ARG:NH1	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:61:4:ILE:HG21	33:61:47:LEU:HD13	1.85	0.58
33:61:131:LYS:HB3	33:61:132:PRO:HA	1.84	0.58
38:98:62:ALA:O	38:98:66:VAL:HG23	2.02	0.58
44:F8:57:LEU:HD11	44:F8:78:LYS:HD2	1.85	0.58
1:1G:1235:U:O2'	1:1G:1305:G:O5'	2.21	0.58
8:72:51:VAL:HG11	8:72:60:ARG:HH21	1.68	0.58
26:14:1899:G:N2	26:14:1902:C:H41	2.00	0.58
29:29:8:LYS:HG2	29:29:192:ASN:HA	1.84	0.58
44:B5:63:LYS:H	44:B5:63:LYS:CE	2.15	0.58
54:M5:62:LEU:N	54:M5:63:PRO:HD3	2.18	0.58
1:13:272:C:H2'	1:13:273:A:C8	2.37	0.58
8:7E:7:ALA:HB2	8:7E:85:ARG:HD2	1.85	0.58
12:3I:90:VAL:O	12:3I:91:LYS:HB3	2.02	0.58
26:1H:872:A:H4'	37:88:66:ILE:HD11	1.85	0.58
29:21:38:THR:HG23	29:21:40:GLU:HG2	1.86	0.58
30:31:201:VAL:O	30:31:205:ARG:N	2.36	0.58
31:41:122:PRO:HB3	31:41:180:PHE:HD2	1.68	0.58
33:61:110:ASP:HB2	33:61:112:LYS:H	1.68	0.58
40:B8:56:GLY:O	40:B8:59:THR:HG23	2.03	0.58
1:1G:1135:U:HO2'	1:1G:1136:U:H5	1.51	0.58
9:82:77:ILE:O	9:82:81:ILE:HG12	2.03	0.58
12:3A:47:LYS:CG	12:3A:48:PRO:HD2	2.33	0.58
26:14:574:C:OP2	59:14:3581:HOH:O	2.17	0.58
26:14:1225:C:H4'	42:95:85:LYS:CG	2.30	0.58
26:14:2111:C:C2	26:14:2118:U:H4'	2.38	0.58
37:45:66:ILE:HG13	37:45:67:ARG:H	1.69	0.58
40:75:107:ASP:N	40:75:107:ASP:OD1	2.35	0.58
49:G5:53:LEU:O	49:G5:57:ILE:HG13	2.03	0.58
1:13:142:G:H2'	1:13:143:A:C8	2.39	0.58
1:13:714:G:H2'	1:13:715:A:C8	2.38	0.58
1:13:1366:C:O2'	10:11:60:ARG:NH1	2.36	0.58
3:2E:12:LEU:C	3:2E:14:ILE:H	2.07	0.58
4:3E:156:GLU:O	4:3E:160:GLN:HB3	2.04	0.58
6:5E:18:GLN:HA	6:5E:21:LEU:HD22	1.85	0.58
26:1H:90:U:H4'	26:1H:91:A:H5'	1.85	0.58
26:1H:958:U:OP1	37:88:74:TYR:OH	2.12	0.58
26:1H:2876:G:H5'	40:B8:2:ASN:HB3	1.84	0.58
1:1G:176:C:H2'	1:1G:177:C:H6	1.68	0.58
1:1G:1117:G:H4'	9:82:104:ARG:HH11	1.68	0.58
12:3A:60:LEU:HD23	12:3A:64:TYR:HB3	1.84	0.58
26:14:389:G:H1	36:35:71:VAL:HG12	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1815:A:OP2	28:19:54:ARG:NH2	2.33	0.58
28:19:36:PRO:HA	28:19:61:LEU:HD12	1.85	0.58
54:M5:60:LEU:O	54:M5:61:LEU:HD12	2.03	0.58
15:6I:39:LEU:HD13	15:6I:56:LEU:HB2	1.83	0.58
17:8I:43:LEU:HD12	17:8I:68:ARG:HG2	1.86	0.58
20:BI:49:ALA:HB2	20:BI:99:LEU:HD23	1.85	0.58
26:1H:1533:C:H3'	26:1H:1534:G:H5''	1.85	0.58
26:1H:1614:A:C2	59:1H:3748:HOH:O	2.51	0.58
26:1H:1899:G:H22	26:1H:1902:C:N4	2.01	0.58
30:31:197:ASP:O	30:31:199:TRP:N	2.36	0.58
34:58:127:ASP:OD1	34:58:127:ASP:N	2.36	0.58
37:88:6:ARG:HG2	37:88:6:ARG:HH11	1.69	0.58
43:E8:27:LYS:HB3	43:E8:31:GLU:HG3	1.86	0.58
1:1G:980:C:H5'	1:1G:981:U:C5	2.38	0.58
3:22:150:LYS:HG3	3:22:169:ALA:HB2	1.85	0.58
4:32:21:LEU:HD12	4:32:21:LEU:H	1.67	0.58
26:14:309:G:N3	26:14:329:G:O2'	2.36	0.58
26:14:1579:A:H2'	26:14:1580:A:C8	2.38	0.58
26:14:2074:U:H2'	26:14:2075:U:C6	2.38	0.58
26:14:2331:G:O3'	47:E5:43:THR:HG22	2.03	0.58
26:14:2542:A:N3	26:14:2542:A:H5''	2.19	0.58
27:1J:17:C:H2'	27:1J:18:G:O4'	2.04	0.58
30:39:79:GLY:HA2	30:39:86:GLY:HA2	1.84	0.58
1:13:58:C:O2'	1:13:388:G:N7	2.34	0.58
1:13:342:C:H2'	1:13:343:U:O4'	2.03	0.58
4:3E:26:CYS:CB	4:3E:31:CYS:SG	2.87	0.58
8:7E:121:ASP:HB2	8:7E:125:ARG:NH2	2.18	0.58
12:3I:47:LYS:HA	12:3I:49:ASN:H	1.69	0.58
17:8I:70:ARG:O	17:8I:71:PHE:HD1	1.86	0.58
17:8I:90:ILE:HA	17:8I:93:GLN:HB3	1.86	0.58
22:1K:22:A:HO2'	22:1K:23:A:H8	1.52	0.58
26:1H:634:C:H2'	26:1H:635:C:C6	2.39	0.58
26:1H:1748:G:H2'	26:1H:1749:A:C8	2.37	0.58
31:41:112:PRO:HB3	51:M8:37:SER:H	1.69	0.58
46:H8:63:ASP:HB2	46:H8:65:GLN:HG3	1.85	0.58
1:1G:134:A:H61	16:7A:25:ARG:NH1	2.01	0.58
1:1G:564:C:O2'	8:72:91:ARG:NH2	2.35	0.58
1:1G:1216:G:H5''	14:5A:5:ALA:HB3	1.85	0.58
26:14:1338:G:N3	26:14:1393:A:H2	2.01	0.58
26:14:2786:U:H4'	29:29:64:LYS:HA	1.85	0.58
32:59:137:ASP:HB3	32:59:140:LYS:HB3	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1124:G:H3'	1:13:1145:C:H41	1.68	0.58
2:1E:21:ARG:HB2	2:1E:39:ILE:HA	1.86	0.58
10:1I:37:PRO:HA	10:1I:72:VAL:HG22	1.85	0.58
26:1H:49:A:N7	26:1H:120:U:C5	2.71	0.58
26:1H:1086:A:H1'	26:1H:1103:A:N6	2.19	0.58
26:1H:1843:C:H5'	28:11:253:GLN:OE1	2.03	0.58
41:C8:95:LEU:HD22	42:D8:4:ILE:HD13	1.84	0.58
7:62:113:GLU:HB2	7:62:119:ARG:HG2	1.84	0.58
24:1L:44:C:H2'	24:1L:45:C:H5'	1.85	0.58
26:14:375:C:H2'	26:14:376:C:C6	2.38	0.58
26:14:957:A:OP1	37:45:76:LYS:NZ	2.24	0.58
27:1J:3:C:H2'	27:1J:4:C:C6	2.38	0.58
44:B5:8:ILE:H	44:B5:8:ILE:HD12	1.69	0.58
54:M5:48:PHE:O	54:M5:50:LEU:HD22	2.03	0.58
26:1H:1278:A:OP1	38:98:36:THR:HG22	2.02	0.58
26:1H:2689:U:P	26:1H:2719:G:H22	2.27	0.58
36:78:50:ARG:HH21	36:78:50:ARG:HG3	1.67	0.58
40:B8:26:ASP:HB3	40:B8:92:GLY:N	2.08	0.58
43:E8:73:ALA:HB3	43:E8:106:ILE:HB	1.85	0.58
48:J8:2:SER:O	48:J8:2:SER:OG	2.15	0.58
54:Q8:44:LYS:HD2	54:Q8:44:LYS:N	2.18	0.58
3:22:17:ASP:OD1	3:22:18:TRP:N	2.37	0.58
26:14:2392:A:H8	36:35:61:ARG:HD2	1.68	0.58
41:85:90:VAL:HG22	42:95:39:LEU:HB3	1.86	0.58
49:G5:47:ASN:O	49:G5:49:LYS:N	2.29	0.58
1:13:598:U:H4'	8:7E:94:TYR:CD2	2.38	0.58
9:8E:112:LYS:HD2	9:8E:113:LYS:N	2.19	0.58
19:AI:40:ILE:HD11	19:AI:62:ILE:HG23	1.84	0.58
26:1H:692:C:O2'	28:11:38:LYS:HE2	2.03	0.58
26:1H:1257:C:H4'	30:31:83:PHE:CE1	2.38	0.58
26:1H:2312:U:H5'	31:41:88:ILE:HG13	1.86	0.58
26:1H:2394:C:OP1	36:78:63:PRO:HD2	2.04	0.58
46:H8:119:GLU:H	46:H8:119:GLU:CD	2.05	0.58
1:1G:1292:U:H2'	1:1G:1293:G:H8	1.69	0.58
4:32:31:CYS:C	4:32:33:MET:H	2.06	0.58
5:42:71:LEU:HD21	5:42:115:VAL:HG22	1.86	0.58
26:14:2294:C:P	39:65:89:ARG:HH22	2.26	0.58
26:14:2702:U:HO2'	26:14:2703:C:H6	1.51	0.58
26:14:2745:C:O2	32:59:139:GLN:NE2	2.37	0.58
45:C5:47:LYS:HA	45:C5:60:PHE:CD2	2.39	0.58
54:M5:22:VAL:HG12	54:M5:49:VAL:HG21	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:652:U:HO2'	1:13:653:A:P	2.26	0.58
1:13:1022:G:H2'	1:13:1023:G:H8	1.69	0.58
14:5I:13:THR:HG23	14:5I:20:ALA:HB2	1.86	0.58
19:AI:7:LYS:NZ	19:AI:7:LYS:HB3	2.18	0.58
26:1H:773:U:C4'	28:11:47:GLY:HA3	2.33	0.58
26:1H:2712:U:H1'	26:1H:2712(A):A:C8	2.39	0.58
5:42:75:THR:OG1	5:42:117:ASP:O	2.20	0.58
7:62:15:ASP:HB3	7:62:19:GLY:H	1.69	0.58
9:82:21:PRO:HA	9:82:59:PHE:HA	1.86	0.58
10:1A:99:LYS:HD3	10:1A:100:THR:H	1.69	0.58
20:BA:67:ALA:HA	20:BA:73:HIS:HA	1.85	0.58
26:14:942:G:O2'	26:14:1189:A:N3	2.33	0.58
26:14:2448:A:O5'	59:14:3618:HOH:O	2.17	0.58
31:49:60:LEU:O	31:49:64:THR:HG22	2.03	0.58
36:35:13:ASN:C	36:35:15:ARG:H	2.07	0.58
40:75:66:VAL:HA	40:75:71:GLY:HA2	1.85	0.58
4:3E:30:LYS:HB2	4:3E:32:ALA:H	1.68	0.58
13:4I:37:THR:O	13:4I:55:ARG:NH2	2.28	0.58
18:9I:37:VAL:HG12	18:9I:41:LYS:HD3	1.85	0.58
26:1H:1076:C:H2'	26:1H:1077:A:H5''	1.85	0.58
26:1H:1590:U:H2'	26:1H:1591:G:C8	2.38	0.58
26:1H:2298:A:H62	26:1H:2318:G:H8	1.51	0.58
26:1H:2801:A:H2'	26:1H:2802:G:C4'	2.34	0.58
28:11:111:LEU:HD23	28:11:127:VAL:HG12	1.86	0.58
33:61:3:VAL:HG12	33:61:38:LEU:HA	1.85	0.58
42:D8:24:LYS:HA	42:D8:92:THR:HG23	1.85	0.58
6:52:7:ASN:N	6:52:7:ASN:OD1	2.37	0.58
21:1B:9:ARG:HG3	21:1B:10:ARG:N	2.18	0.58
26:14:1047:G:HO2'	26:14:1110:G:H22	1.51	0.58
26:14:1782:C:H5''	59:14:3406:HOH:O	2.04	0.58
45:C5:45:VAL:HG12	45:C5:60:PHE:HB3	1.86	0.58
1:13:1004:A:P	1:13:1025:U:H3	2.27	0.57
6:5E:36:ARG:NH2	6:5E:38:GLU:OE2	2.36	0.57
18:9I:22:VAL:HA	18:9I:25:THR:OG1	2.04	0.57
22:1K:22:A:N7	22:1K:57:C:N4	2.51	0.57
26:1H:612:G:H2'	26:1H:613:U:O2	2.03	0.57
26:1H:1680:U:H2'	26:1H:1681:G:O4'	2.05	0.57
28:11:13:ARG:NH1	28:11:16:MET:SD	2.76	0.57
39:A8:48:LEU:HD23	39:A8:82:ILE:HD11	1.85	0.57
1:1G:20:U:H2'	1:1G:21:G:O4'	2.04	0.57
1:1G:1181:G:O2'	1:1G:1182:G:O5'	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1406:U:O2	1:1G:1517:G:N2	2.37	0.57
2:12:6:THR:OG1	2:12:7:VAL:N	2.36	0.57
26:14:1074:G:N2	26:14:1075:C:O2	2.36	0.57
26:14:1425:G:N2	26:14:1573:G:N7	2.52	0.57
26:14:1786:A:H2	26:14:2606:C:H1'	1.69	0.57
46:D5:158:PRO:HB2	46:D5:159:PRO:HD2	1.86	0.57
1:13:233:C:H2'	1:13:234:C:H6	1.67	0.57
1:13:447:G:H8	1:13:447:G:O5'	1.87	0.57
1:13:963:G:H5'	59:13:1905:HOH:O	2.03	0.57
1:13:1060:C:OP1	14:5I:45:ARG:NH2	2.36	0.57
2:1E:42:ILE:HD11	2:1E:202:PRO:HB2	1.86	0.57
13:4I:34:LEU:HG	13:4I:41:PRO:HG3	1.85	0.57
26:1H:2233:U:H2'	26:1H:2234:G:C8	2.39	0.57
29:21:103:ASP:OD1	29:21:201:THR:HG23	2.04	0.57
35:68:25:LEU:HD12	35:68:38:VAL:HG22	1.85	0.57
38:98:51:LEU:HD22	38:98:66:VAL:HG13	1.86	0.57
1:1G:827:U:H3	1:1G:872:A:H62	1.50	0.57
8:72:19:VAL:HG23	8:72:21:LYS:HB3	1.86	0.57
8:72:120:THR:HG23	8:72:123:GLU:H	1.70	0.57
26:14:71:A:H2	44:B5:31:HIS:CE1	2.22	0.57
26:14:443:A:H1'	26:14:1201:C:O4'	2.04	0.57
26:14:651:G:OP2	54:M5:21:LYS:NZ	2.30	0.57
26:14:805:G:OP2	26:14:806:C:N4	2.36	0.57
26:14:962:G:H2'	26:14:963:U:C6	2.39	0.57
28:19:71:ASP:N	28:19:71:ASP:OD1	2.33	0.57
29:29:8:LYS:HB3	29:29:193:GLY:H	1.68	0.57
33:69:3:VAL:HG12	33:69:38:LEU:HA	1.86	0.57
37:45:20:ALA:HB2	46:D5:79:ARG:HG3	1.86	0.57
46:D5:54:HIS:NE2	46:D5:123:ASP:HB3	2.18	0.57
51:I5:16:CYS:HA	51:I5:33:VAL:HG13	1.85	0.57
1:13:362:G:OP2	59:13:1892:HOH:O	2.18	0.57
1:13:972:C:OP2	10:1I:57:LYS:NZ	2.27	0.57
1:13:1117:G:O3'	9:8E:104:ARG:HD2	2.04	0.57
19:AI:13:ASP:HA	19:AI:16:LEU:HB3	1.85	0.57
24:3K:15:G:OP1	24:3K:15:G:H4'	2.03	0.57
26:1H:1705:G:C2'	26:1H:1706:U:H5'	2.35	0.57
26:1H:2027:G:N7	59:1H:3889:HOH:O	2.33	0.57
26:1H:2636:U:OP1	29:21:79:ARG:HA	2.05	0.57
26:1H:2789:C:H2'	26:1H:2790:A:H5''	1.87	0.57
1:1G:1128:C:H42	1:1G:1143:G:H22	1.50	0.57
1:1G:1238:A:H62	1:1G:1301:U:H3	1.50	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:98:LEU:O	2:12:101:MET:HG2	2.04	0.57
3:22:58:GLU:HB2	3:22:65:ALA:HB3	1.85	0.57
10:1A:33:GLN:HB3	10:1A:75:ILE:HG12	1.87	0.57
18:9A:38:GLU:OE2	18:9A:38:GLU:N	2.24	0.57
26:14:2111:C:H42	26:14:2147:G:H21	1.52	0.57
36:35:90:ARG:HG3	36:35:91:PHE:H	1.70	0.57
50:H5:9:VAL:HG11	50:H5:55:ARG:HB2	1.86	0.57
1:13:1128:C:H5'	9:8E:16:ARG:HH22	1.68	0.57
14:5I:9:LYS:HA	14:5I:12:ARG:HG2	1.85	0.57
26:1H:882:G:H22	26:1H:894:C:H42	1.53	0.57
26:1H:910:A:C5	37:88:13:GLN:HG3	2.39	0.57
26:1H:1614:A:H62	43:E8:93:ALA:HB2	1.69	0.57
26:1H:2369:A:H2'	26:1H:2370:G:H8	1.69	0.57
28:11:75:ILE:HG21	28:11:99:ASP:HB2	1.87	0.57
45:G8:85:VAL:HG13	45:G8:98:VAL:HB	1.86	0.57
1:1G:661:G:H1	1:1G:744:C:H42	1.51	0.57
5:42:69:VAL:O	5:42:71:LEU:N	2.37	0.57
17:8A:75:ARG:HB2	17:8A:75:ARG:HH11	1.68	0.57
55:3L:60:A:H2'	55:3L:61:G:H8	1.70	0.57
33:69:93:THR:OG1	33:69:96:ASP:OD1	2.21	0.57
1:13:339:C:OP2	35:68:97:ARG:HD3	2.05	0.57
1:13:686:U:O4	1:13:703:G:H1'	2.04	0.57
1:13:963:G:N2	10:1I:55:LYS:HZ1	2.02	0.57
1:13:1448:C:H42	1:13:1455:G:H1	1.52	0.57
22:1K:40:PSU:H2'	22:1K:41:C:C6	2.40	0.57
26:1H:2845:G:H2'	26:1H:2846:G:C8	2.39	0.57
59:1H:3721:HOH:O	30:31:85:GLY:HA2	2.05	0.57
29:21:119:ARG:HG3	29:21:119:ARG:NH1	2.16	0.57
34:58:41:ASP:OD1	34:58:41:ASP:N	2.35	0.57
35:68:67:LYS:HG3	35:68:68:GLU:N	2.20	0.57
45:G8:53:PRO:O	45:G8:54:LYS:NZ	2.37	0.57
1:1G:543:C:OP1	4:32:14:ARG:HD2	2.04	0.57
15:6A:4:THR:OG1	15:6A:7:GLU:OE2	2.11	0.57
26:14:1007:C:OP1	34:15:35:ARG:NH1	2.38	0.57
26:14:1310:G:H1	26:14:1604:C:H42	1.52	0.57
26:14:1962:C:O2'	26:14:1964:G:OP2	2.22	0.57
26:14:2420:C:N4	54:M5:31:HIS:HB3	2.17	0.57
27:1J:15:A:O2'	27:1J:109:G:N7	2.29	0.57
31:49:94:LEU:HD12	31:49:99:MET:HA	1.85	0.57
36:35:62:LEU:HD13	54:M5:25:MET:HB2	1.85	0.57
1:13:142:G:H2'	1:13:143:A:H8	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:427:U:OP2	4:3E:36:ARG:NH1	2.38	0.57
1:13:962:C:N3	1:13:973:G:N1	2.39	0.57
1:13:971:G:N2	1:13:1363:A:OP2	2.26	0.57
15:6I:56:LEU:HA	15:6I:59:MET:HE2	1.86	0.57
16:7I:17:TYR:HE2	16:7I:41:PRO:HG3	1.69	0.57
26:1H:32:C:O2'	26:1H:33:U:H5'	2.04	0.57
26:1H:270(G):C:H2'	26:1H:270(H):C:C6	2.40	0.57
26:1H:2688:U:H5	26:1H:2720:U:OP2	1.87	0.57
27:16:50:G:OP1	39:A8:63:THR:HG23	2.05	0.57
28:11:231:HIS:CD2	28:11:249:PRO:HA	2.40	0.57
36:78:44:GLY:O	59:78:302:HOH:O	2.18	0.57
1:1G:222:U:H2'	1:1G:223:U:C6	2.38	0.57
1:1G:632:A:H1'	1:1G:633:G:OP2	2.04	0.57
1:1G:937:A:N6	1:1G:1345:U:O4	2.35	0.57
1:1G:1122:U:O4	1:1G:1123:A:N6	2.38	0.57
1:1G:1126:U:H4'	1:1G:1127:G:C8	2.38	0.57
26:14:49:A:H5''	26:14:51:G:O4'	2.03	0.57
26:14:247:G:H4'	26:14:386:G:C5	2.39	0.57
26:14:580:C:H2'	26:14:581:C:C6	2.38	0.57
26:14:2402:C:H41	26:14:2416:C:H1'	1.69	0.57
27:1J:15:A:H1'	27:1J:109:G:C8	2.40	0.57
28:19:60:ARG:HD2	28:19:86:PRO:HB2	1.87	0.57
30:39:34:TRP:CZ3	36:35:8:PRO:HB3	2.39	0.57
42:95:71:LEU:O	42:95:72:VAL:HG12	2.04	0.57
1:13:223:U:H2'	1:13:224:C:C6	2.40	0.57
1:13:631:G:H2'	1:13:632:A:N3	2.19	0.57
2:1E:118:LEU:HD13	2:1E:142:LEU:HA	1.87	0.57
10:1I:6:ILE:HG12	10:1I:72:VAL:O	2.04	0.57
10:1I:90:LEU:N	10:1I:91:PRO:HD3	2.20	0.57
30:31:28:ILE:HG22	30:31:112:MET:HE3	1.87	0.57
1:1G:1256:A:H62	1:1G:1277:C:H3'	1.70	0.57
3:22:199:LYS:HB3	3:22:201:TYR:CE1	2.35	0.57
4:32:19:LEU:HB2	4:32:21:LEU:HD11	1.85	0.57
4:32:26:CYS:CB	4:32:31:CYS:SG	2.66	0.57
9:82:112:LYS:HA	9:82:119:ALA:CB	2.34	0.57
25:4L:12:A:O2'	25:4L:13:A:OP1	2.20	0.57
26:14:71:A:H4'	26:14:72:U:H5''	1.87	0.57
26:14:1921:G:H2'	26:14:1922:G:H8	1.70	0.57
27:1J:44:G:H1'	27:1J:47:C:H42	1.70	0.57
28:19:145:VAL:HG13	28:19:191:ALA:HB2	1.87	0.57
28:19:166:GLN:OE1	28:19:166:GLN:HA	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:L5:24:THR:O	53:L5:28:ARG:HG3	2.04	0.57
2:1E:18:GLY:N	2:1E:42:ILE:HG22	2.20	0.57
2:1E:31:TYR:O	2:1E:42:ILE:HG13	2.04	0.57
3:2E:107:GLN:OE1	3:2E:107:GLN:N	2.36	0.57
7:6E:16:LEU:HD13	9:8E:44:VAL:HG22	1.86	0.57
10:1I:23:ILE:HA	10:1I:26:ALA:HB3	1.87	0.57
26:1H:2327:A:H2'	26:1H:2328:A:C8	2.40	0.57
26:14:531:C:H4'	26:14:532:A:H5''	1.87	0.57
26:14:739:G:OP1	59:14:3675:HOH:O	2.18	0.57
26:14:2712:U:O2'	59:14:3466:HOH:O	2.17	0.57
31:49:27:ASN:HB3	31:49:30:GLU:HG3	1.86	0.57
34:15:43:THR:H	34:15:48:MET:HE3	1.68	0.57
46:D5:29:TYR:CE2	46:D5:87:ASP:HB3	2.40	0.57
52:J5:31:VAL:HG13	52:J5:42:PRO:HG3	1.86	0.57
1:13:159:G:N2	1:13:162:A:OP2	2.38	0.57
2:1E:185:ILE:HG22	2:1E:199:TYR:HB2	1.87	0.57
8:7E:120:THR:H	8:7E:123:GLU:HB2	1.69	0.57
11:2I:34:ASP:HB3	11:2I:40:ILE:HD11	1.85	0.57
13:4I:81:LEU:HD22	13:4I:88:ARG:HB3	1.87	0.57
26:1H:751:A:H5'	43:E8:90:ARG:HA	1.87	0.57
26:1H:1371:G:H2'	26:1H:1372:U:C5	2.40	0.57
31:41:43:LEU:HB3	31:41:45:GLU:HG2	1.87	0.57
38:98:2:ARG:NH1	38:98:5:LYS:O	2.37	0.57
47:I8:23:VAL:HA	47:I8:38:VAL:HG22	1.86	0.57
26:14:2629:A:O2'	26:14:2895:U:O4	2.17	0.57
39:65:99:LYS:HG3	39:65:103:GLU:HG3	1.86	0.57
1:13:859:A:H2'	1:13:860:A:C8	2.40	0.57
4:3E:92:VAL:HG12	4:3E:96:LEU:HD21	1.86	0.57
4:3E:192:GLU:OE1	4:3E:192:GLU:N	2.34	0.57
6:5E:35:ALA:HA	6:5E:67:MET:HB3	1.86	0.57
26:1H:1803:A:O2'	28:11:259:THR:HG21	2.05	0.57
26:1H:2845:G:H2'	26:1H:2846:G:H8	1.66	0.57
27:16:73:A:C4	27:16:104:A:C2	2.93	0.57
29:21:200:GLU:N	29:21:200:GLU:OE2	2.37	0.57
46:H8:125:LEU:HG	46:H8:164:ALA:HB3	1.87	0.57
54:Q8:29:LYS:HB3	54:Q8:44:LYS:HG2	1.87	0.57
1:1G:853:G:H2'	1:1G:854:G:H8	1.68	0.57
10:1A:49:VAL:O	10:1A:60:ARG:HB2	2.04	0.57
13:4A:13:LYS:HA	13:4A:44:ARG:NH1	2.20	0.57
26:14:140:A:H8	26:14:1408:C:HO2'	1.51	0.57
26:14:780:G:H21	26:14:783:A:N6	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2638:G:P	29:29:82:ARG:HH22	2.28	0.57
27:1J:9:G:H5'	39:65:25:ARG:HH12	1.69	0.57
1:13:633:G:OP2	1:13:633:G:H8	1.87	0.56
1:13:1075:C:H4'	2:1E:175:ARG:HH22	1.70	0.56
26:1H:860:U:C5	26:1H:917:A:H2	2.22	0.56
26:1H:1357:U:H2'	26:1H:1358:G:C8	2.40	0.56
26:1H:2615:U:P	59:1H:3510:HOH:O	2.62	0.56
29:21:64:LYS:O	29:21:70:ALA:HB2	2.04	0.56
42:D8:19:LYS:HG3	42:D8:95:LEU:HD23	1.86	0.56
42:D8:27:ALA:HB3	42:D8:61:VAL:HG11	1.86	0.56
1:1G:490:G:P	4:32:132:ARG:HH22	2.27	0.56
26:14:29:U:H2'	26:14:30:G:H8	1.70	0.56
26:14:666:G:H5''	36:35:47:ASP:O	2.05	0.56
1:13:1120:G:H2'	1:13:1121:U:C6	2.40	0.56
20:BI:23:ARG:O	20:BI:27:LYS:HB3	2.05	0.56
26:1H:2657:A:O2'	32:51:160:LYS:NZ	2.28	0.56
38:98:86:ARG:HH21	38:98:118:GLU:HB2	1.70	0.56
42:D8:29:PRO:HG3	42:D8:63:GLY:HA2	1.87	0.56
1:1G:192:U:H2'	1:1G:193:C:H6	1.70	0.56
1:1G:618:C:H5'	1:1G:619:U:H5''	1.86	0.56
1:1G:1177:G:O2'	1:1G:1178:G:O4'	2.22	0.56
2:12:12:GLU:HB3	2:12:213:LEU:HD22	1.87	0.56
4:32:14:ARG:HH11	4:32:14:ARG:HG3	1.70	0.56
9:82:54:ASP:OD1	9:82:54:ASP:N	2.25	0.56
26:14:831:G:H5''	26:14:832:G:OP2	2.05	0.56
26:14:1040:C:H2'	26:14:1041:C:C6	2.40	0.56
26:14:1675:C:OP2	59:14:3458:HOH:O	2.18	0.56
26:14:2261:C:H1'	26:14:2388:A:N3	2.20	0.56
26:14:2340:G:H2'	26:14:2341:G:C8	2.40	0.56
34:15:67:LEU:HG	34:15:88:GLU:HG2	1.87	0.56
40:75:11:GLU:OE1	40:75:11:GLU:N	2.38	0.56
45:C5:61:ILE:HG22	45:C5:62:GLU:HG3	1.85	0.56
1:13:67:C:H2'	1:13:68:G:C8	2.40	0.56
1:13:448:A:OP2	1:13:485:G:N2	2.35	0.56
1:13:1346:A:C5	7:6E:10:ARG:NH1	2.73	0.56
1:13:1504:G:H3'	1:13:1504:G:P	2.45	0.56
4:3E:7:PRO:HB2	4:3E:10:ARG:HG2	1.87	0.56
4:3E:107:ARG:HH22	4:3E:194:LEU:HD22	1.69	0.56
7:6E:15:ASP:HB3	7:6E:19:GLY:N	2.21	0.56
9:8E:77:ILE:O	9:8E:81:ILE:HG12	2.05	0.56
16:7I:19:ILE:HB	16:7I:36:ILE:O	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:51:VAL:HG12	19:AI:52:TYR:H	1.68	0.56
26:1H:270(V):G:H2'	26:1H:270(W):G:H8	1.69	0.56
26:1H:459:U:H2'	26:1H:460:A:C8	2.40	0.56
26:1H:492:A:H2'	26:1H:493:G:O4'	2.05	0.56
26:1H:863:A:H2'	26:1H:864:G:C8	2.40	0.56
26:1H:1140:C:OP1	34:58:23:LEU:HB3	2.05	0.56
26:1H:2394:C:H2'	26:1H:2395:C:H6	1.70	0.56
29:21:51:PHE:O	29:21:74:PRO:HB2	2.05	0.56
29:21:78:LEU:HD23	29:21:79:ARG:HE	1.71	0.56
30:31:29:ASN:H	30:31:112:MET:HE3	1.70	0.56
42:D8:47:VAL:HG22	42:D8:48:GLY:N	2.20	0.56
45:G8:76:CYS:SG	45:G8:97:ARG:HG2	2.45	0.56
1:1G:108:G:H5'	1:1G:109:A:H5''	1.88	0.56
1:1G:1024:G:H4'	1:1G:1024:G:OP1	2.03	0.56
4:32:18:LYS:HB3	4:32:31:CYS:SG	2.45	0.56
12:3A:100:ILE:HG22	12:3A:101:VAL:N	2.19	0.56
24:1L:14:A:H61	24:1L:22:A:H1'	1.70	0.56
24:1L:23:A:H3'	24:1L:24:G:C5'	2.35	0.56
26:14:323:G:H5'	30:39:169:ASN:HD21	1.70	0.56
26:14:751:A:H5'	43:A5:90:ARG:HA	1.86	0.56
26:14:1416:G:O2'	26:14:1417:C:O5'	2.18	0.56
26:14:1530:G:H2'	26:14:1531:C:O4'	2.05	0.56
26:14:1657:C:H2'	26:14:1658:C:C6	2.40	0.56
26:14:2153:G:H2'	26:14:2154:G:C8	2.41	0.56
26:14:2707:G:H5'	38:55:68:ARG:NH2	2.20	0.56
32:59:92:ILE:HG22	32:59:93:GLY:N	2.19	0.56
49:G5:13:ALA:HA	49:G5:16:LEU:HD23	1.86	0.56
51:I5:37:SER:HB3	51:I5:39:CYS:HB2	1.86	0.56
54:M5:29:LYS:HB3	54:M5:44:LYS:CB	2.34	0.56
1:13:1327:C:OP2	21:1F:12:LYS:NZ	2.36	0.56
26:1H:1210:A:H5'	26:1H:1210:A:C8	2.41	0.56
26:1H:1658:C:OP1	59:1H:3582:HOH:O	2.18	0.56
26:1H:2598:A:P	59:1H:3544:HOH:O	2.63	0.56
26:1H:2688:U:C5	26:1H:2720:U:OP2	2.59	0.56
27:16:7:G:H4'	39:A8:29:PHE:HD2	1.70	0.56
27:16:43:C:OP1	31:41:67:LYS:NZ	2.38	0.56
32:51:8:PRO:HG2	32:51:69:ARG:NH2	2.21	0.56
36:78:88:LEU:HD12	36:78:95:VAL:HG11	1.86	0.56
1:1G:841:U:H3'	1:1G:841:U:H6	1.70	0.56
1:1G:972:C:O3'	10:1A:57:LYS:HG3	2.05	0.56
1:1G:1129:C:C4	1:1G:1139:G:N1	2.73	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1226:C:N4	13:4A:104:ARG:HD2	2.21	0.56
1:1G:1305:G:H22	1:1G:1331:G:C2'	2.17	0.56
2:12:9:GLU:O	2:12:12:GLU:HG3	2.05	0.56
2:12:82:ARG:HA	2:12:92:TYR:CE2	2.41	0.56
2:12:215:LEU:HA	2:12:218:ALA:HB3	1.88	0.56
26:14:1257:C:H4'	30:39:83:PHE:CE1	2.41	0.56
26:14:1488:G:H5'	26:14:1489:U:OP2	2.06	0.56
36:35:86:LYS:HB3	36:35:117:GLU:O	2.05	0.56
40:75:77:PRO:HG2	40:75:80:SER:HB2	1.87	0.56
45:C5:31:LEU:HD12	45:C5:36:ALA:HB3	1.86	0.56
45:C5:68:HIS:HB3	45:C5:71:LYS:HG3	1.87	0.56
46:D5:53:ILE:HG22	46:D5:71:VAL:HG13	1.87	0.56
14:5I:29:ARG:HD3	14:5I:40:CYS:SG	2.46	0.56
26:1H:39:C:O2	30:31:46:ARG:NH2	2.38	0.56
26:1H:528:A:C2	26:1H:2043:C:H4'	2.41	0.56
26:1H:839:U:H2'	26:1H:840:C:C6	2.41	0.56
31:41:130:ASN:HB3	31:41:160:VAL:HA	1.88	0.56
33:61:2:LYS:HB2	33:61:39:ALA:HB3	1.86	0.56
28:19:43:ARG:HH11	28:19:43:ARG:CG	2.19	0.56
30:39:176:LEU:HD12	30:39:177:ALA:H	1.71	0.56
35:25:31:LYS:HB3	35:25:32:TYR:CD1	2.40	0.56
38:55:106:GLY:O	38:55:107:ASP:HB3	2.05	0.56
39:65:59:LYS:HD2	39:65:60:GLY:H	1.71	0.56
46:D5:124:ILE:HD11	46:D5:165:VAL:HG11	1.88	0.56
47:E5:36:ILE:HD11	47:E5:39:ARG:HG2	1.87	0.56
54:M5:52:LYS:H	54:M5:52:LYS:HD2	1.69	0.56
1:13:1077:G:N2	1:13:1080:A:OP2	2.35	0.56
8:7E:39:LEU:HB3	8:7E:45:ILE:HG12	1.87	0.56
11:2I:59:TYR:CZ	11:2I:63:LEU:HD11	2.40	0.56
17:8I:55:ASP:HA	17:8I:79:SER:HA	1.87	0.56
26:1H:1835:G:H5'	26:1H:1836:C:OP2	2.06	0.56
29:21:197:ILE:HD11	29:21:199:ARG:HE	1.71	0.56
34:58:39:ARG:HB3	34:58:41:ASP:OD1	2.06	0.56
34:58:43:THR:HB	34:58:46:VAL:HB	1.87	0.56
35:68:71:ARG:HH21	35:68:77:ILE:HG21	1.70	0.56
38:98:100:LEU:HD11	38:98:113:LEU:HD13	1.87	0.56
40:B8:57:PHE:O	40:B8:58:ASN:ND2	2.39	0.56
1:1G:280:C:H3'	1:1G:281:G:H5'	1.88	0.56
1:1G:649:G:H2'	1:1G:650:G:H8	1.69	0.56
1:1G:954:G:H2'	1:1G:955:U:C6	2.40	0.56
4:32:31:CYS:HB3	4:32:33:MET:HB2	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1A:84:GLN:HB3	10:1A:88:LEU:HD22	1.87	0.56
26:14:5:A:H2'	26:14:6:A:H8	1.70	0.56
26:14:38:A:H2'	26:14:39:C:C6	2.41	0.56
26:14:568:U:N3	59:14:3612:HOH:O	2.24	0.56
26:14:660:G:H21	36:35:12:ALA:HB2	1.71	0.56
26:14:2513:G:O2'	29:29:151:TYR:OH	2.08	0.56
33:69:27:ARG:HG2	48:F5:71:TYR:CZ	2.40	0.56
39:65:77:ALA:O	39:65:80:LEU:N	2.39	0.56
42:95:40:LEU:HD23	42:95:41:GLY:H	1.70	0.56
1:13:276:G:O3'	17:8I:68:ARG:NH1	2.39	0.56
9:8E:34:ASN:OD1	9:8E:34:ASN:N	2.37	0.56
17:8I:52:LYS:HD2	17:8I:55:ASP:OD1	2.06	0.56
26:1H:1337:G:H2'	26:1H:1338:G:H8	1.71	0.56
26:1H:1899:G:N2	26:1H:1902:C:C5	2.74	0.56
31:41:16:ARG:O	31:41:20:ILE:HG13	2.06	0.56
40:B8:16:ARG:HE	40:B8:19:LEU:HD11	1.71	0.56
1:1G:370:C:H42	1:1G:391:G:H1	1.53	0.56
1:1G:429:U:H1'	1:1G:430:A:H5''	1.88	0.56
1:1G:963:G:H21	10:1A:55:LYS:CE	2.17	0.56
10:1A:13:HIS:O	10:1A:17:ASP:N	2.26	0.56
12:3A:7:ILE:HA	12:3A:10:LEU:HD12	1.87	0.56
26:14:414:C:O2	26:14:1864:U:O2'	2.24	0.56
26:14:882:G:H1	26:14:894:C:H42	1.54	0.56
26:14:2343:C:HO2'	26:14:2373:G:HO2'	1.54	0.56
27:1J:52:A:H62	39:65:33:LYS:HG3	1.71	0.56
32:59:107:VAL:HG11	32:59:152:ARG:HG2	1.87	0.56
54:M5:29:LYS:HB3	54:M5:44:LYS:HB2	1.86	0.56
1:13:1227:A:O3'	13:4I:115:LYS:NZ	2.36	0.56
1:13:1319:A:OP1	19:AI:70:LYS:NZ	2.39	0.56
7:6E:20:ASP:HB3	7:6E:23:VAL:HG23	1.88	0.56
12:3I:91:LYS:HG3	12:3I:91:LYS:O	2.06	0.56
20:BI:97:ALA:O	20:BI:99:LEU:HD22	2.06	0.56
26:1H:219:G:O2'	26:1H:220:G:H5'	2.06	0.56
26:1H:232:G:H8	26:1H:232:G:OP2	1.89	0.56
26:1H:930:U:H4'	26:1H:931:G:O5'	2.05	0.56
26:1H:1486:A:H2'	26:1H:1487:G:C8	2.40	0.56
42:D8:65:GLY:N	42:D8:91:TYR:O	2.36	0.56
46:H8:9:TYR:CE2	46:H8:35:ARG:HD3	2.41	0.56
50:L8:8:LEU:HB3	50:L8:31:LEU:HA	1.88	0.56
50:L8:8:LEU:HD13	50:L8:31:LEU:HD23	1.87	0.56
1:1G:1095:U:H2'	1:1G:1096:C:C6	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:3L:57:C:H4'	55:3L:58:G:O5'	2.06	0.56
26:14:1859:A:N6	26:14:1883:G:O2'	2.39	0.56
28:19:37:LEU:HA	28:19:38:LYS:HD3	1.88	0.56
32:59:82:GLY:HA3	32:59:135:GLY:O	2.06	0.56
46:D5:157:LEU:CA	46:D5:161:VAL:HG11	2.36	0.56
1:13:1305:G:O2'	1:13:1331:G:N2	2.39	0.56
1:13:1329:A:H5'	13:4I:29:ARG:HD2	1.88	0.56
19:AI:51:VAL:O	19:AI:57:HIS:HA	2.06	0.56
22:1K:85:A:H1'	26:1H:2583:G:H21	1.70	0.56
26:1H:1061:U:H4'	26:1H:1070:A:C1'	2.33	0.56
26:1H:1515:C:H2'	26:1H:1516:U:C6	2.40	0.56
26:1H:2061:G:P	59:1H:3526:HOH:O	2.58	0.56
26:1H:2151:G:H2'	26:1H:2152:G:H8	1.70	0.56
26:1H:2308:G:N1	26:1H:2311:A:C2	2.66	0.56
27:16:116:G:H2'	27:16:117:G:O4'	2.06	0.56
1:1G:979:C:H3'	1:1G:980:C:H5''	1.86	0.56
1:1G:1158:C:H2'	1:1G:1158:C:O2	2.06	0.56
4:32:119:GLN:HG2	4:32:123:HIS:CD2	2.40	0.56
20:BA:50:GLU:N	20:BA:100:ILE:HG12	2.20	0.56
35:25:73:ASP:OD2	40:75:32:TYR:OH	2.17	0.56
1:13:429:U:OP2	4:3E:36:ARG:NH2	2.38	0.56
1:13:1190:G:OP1	3:2E:4:LYS:HA	2.06	0.56
1:13:1263:C:H2'	1:13:1264:C:H6	1.70	0.56
22:1K:44:C:H2'	22:1K:45:C:H5'	1.88	0.56
26:1H:184:C:H2'	26:1H:185:U:C6	2.41	0.56
26:1H:2557:G:H2'	26:1H:2558:C:C6	2.41	0.56
33:61:69:LYS:O	33:61:73:GLU:HB2	2.06	0.56
35:68:47:ILE:HG13	35:68:48:PRO:HD2	1.87	0.56
44:F8:12:VAL:HG13	44:F8:27:THR:O	2.06	0.56
8:72:85:ARG:NH1	8:72:87:SER:O	2.38	0.56
12:3A:46:LYS:HG2	12:3A:47:LYS:N	2.21	0.56
26:14:71:A:H2	44:B5:31:HIS:HE1	1.53	0.56
26:14:184:C:H2'	26:14:185:U:C6	2.40	0.56
26:14:2287:A:N1	26:14:2346:A:H2	2.04	0.56
26:14:2557:G:H2'	26:14:2558:C:C6	2.41	0.56
27:1J:112:G:H21	39:65:45:GLY:C	2.09	0.56
29:29:68:ALA:C	29:29:70:ALA:H	2.09	0.56
38:55:103:ARG:HH11	38:55:110:PRO:HB3	1.71	0.56
1:13:881:G:OP2	12:3I:12:ARG:NH2	2.38	0.55
1:13:1014:A:C2	1:13:1219:U:H1'	2.40	0.55
1:13:1132:C:H2'	1:13:1133:G:C8	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1374:A:O2'	7:6E:28:ASN:HB3	2.07	0.55
2:1E:6:THR:OG1	2:1E:7:VAL:N	2.38	0.55
2:1E:19:HIS:NE2	2:1E:206:ASP:OD2	2.38	0.55
4:3E:110:PHE:CE2	4:3E:148:VAL:HG23	2.41	0.55
10:1I:89:ASP:OD1	10:1I:89:ASP:N	2.32	0.55
17:8I:76:LEU:HD21	17:8I:79:SER:HB3	1.87	0.55
24:3K:77:C:H2'	24:3K:78:C:H6	1.71	0.55
26:1H:307:G:H21	26:1H:330:A:H62	1.55	0.55
26:1H:1259:G:H2'	26:1H:1260:G:C8	2.41	0.55
26:1H:1290:C:H2'	26:1H:1291:C:C6	2.41	0.55
26:1H:1405:U:H2'	26:1H:1406:U:H6	1.71	0.55
26:1H:2110:G:H5''	26:1H:2145:C:H42	1.69	0.55
27:16:2:C:H2'	27:16:3:C:C6	2.42	0.55
32:51:152:ARG:C	32:51:153:LYS:HD2	2.25	0.55
36:78:18:ARG:O	36:78:19:VAL:HG22	2.06	0.55
45:G8:35:TYR:CD2	45:G8:69:ALA:HB3	2.42	0.55
1:1G:17:U:H2'	1:1G:18:C:C6	2.42	0.55
4:32:162:LEU:HD11	4:32:181:MET:SD	2.46	0.55
55:3L:15:G:N1	55:3L:57:C:O2	2.30	0.55
26:14:91:A:C2'	26:14:92:G:H5'	2.35	0.55
26:14:413:C:H2'	26:14:414:C:H6	1.71	0.55
26:14:910:A:C5	37:45:13:GLN:HG3	2.41	0.55
26:14:1112:G:H5'	32:59:3:ARG:HB3	1.87	0.55
26:14:2310:A:H5'	26:14:2311:A:OP2	2.06	0.55
28:19:134:ARG:HG3	28:19:135:PHE:HD1	1.71	0.55
29:29:61:ARG:HA	29:29:63:LEU:HD22	1.88	0.55
29:29:171:GLU:O	29:29:184:VAL:HA	2.06	0.55
30:39:31:HIS:NE2	30:39:35:GLU:HG3	2.21	0.55
32:59:109:PHE:CZ	32:59:152:ARG:HD3	2.41	0.55
40:75:99:LEU:O	40:75:102:ILE:HG12	2.07	0.55
41:85:91:ASP:O	41:85:92:ARG:HG3	2.06	0.55
1:13:376:G:H1	1:13:387:U:H3	1.53	0.55
29:21:51:PHE:CD2	29:21:52:LEU:HG	2.40	0.55
32:51:7:LEU:H	32:51:7:LEU:HD12	1.72	0.55
34:58:34:LEU:HD21	34:58:120:LEU:HB2	1.89	0.55
46:H8:120:ILE:O	46:H8:121:HIS:ND1	2.39	0.55
51:M8:24:THR:OG1	51:M8:25:TYR:N	2.39	0.55
1:1G:34:C:H2'	1:1G:35:G:C8	2.42	0.55
7:62:15:ASP:OD1	7:62:44:TYR:OH	2.24	0.55
7:62:26:PHE:O	7:62:30:ILE:HG13	2.06	0.55
9:82:16:ARG:O	9:82:63:ILE:HG23	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3A:24:VAL:HG12	12:3A:98:TYR:CE1	2.41	0.55
26:14:1450:C:H2'	26:14:1451:C:C6	2.42	0.55
26:14:1496:A:H1'	26:14:1577:C:O2'	2.07	0.55
26:14:2889:C:H2'	26:14:2891:G:O4'	2.07	0.55
27:1J:15:A:H1'	27:1J:109:G:C5	2.41	0.55
30:39:107:LYS:HE2	30:39:205:ARG:HD2	1.88	0.55
35:25:119:PRO:HB2	40:75:68:TYR:CE2	2.42	0.55
1:13:1320:C:H2'	1:13:1321:C:O4'	2.05	0.55
1:13:1494:G:O2'	26:1H:1912:A:O2'	2.24	0.55
4:3E:148:VAL:HG21	4:3E:158:ILE:HG21	1.89	0.55
9:8E:47:LEU:H	9:8E:47:LEU:HD22	1.72	0.55
11:2I:18:ARG:HG2	11:2I:33:THR:OG1	2.06	0.55
20:BI:30:LYS:NZ	20:BI:80:ARG:HH12	2.04	0.55
22:1K:35:QUO:H8	22:1K:35:QUO:O5'	2.07	0.55
26:1H:943:U:OP2	36:78:36:LYS:HG3	2.07	0.55
26:1H:1590:U:H2'	26:1H:1591:G:H8	1.70	0.55
45:G8:28:LYS:CD	45:G8:40:GLU:HG2	2.35	0.55
52:N8:49:CYS:H	52:N8:59:GLU:HB2	1.72	0.55
1:1G:448:A:P	1:1G:485:G:H22	2.28	0.55
1:1G:1118:C:H1'	1:1G:1179:A:C4	2.40	0.55
1:1G:1275:A:H2'	1:1G:1276:G:O4'	2.06	0.55
1:1G:1368:G:OP1	9:82:111:ARG:NH2	2.39	0.55
4:32:30:LYS:C	4:32:32:ALA:H	2.10	0.55
16:7A:57:ARG:HA	16:7A:60:LEU:HD12	1.88	0.55
20:BA:72:LEU:O	20:BA:73:HIS:HB2	2.07	0.55
26:14:70:G:H21	26:14:71:A:N6	2.04	0.55
26:14:2250:G:C8	26:14:2496:C:H5'	2.41	0.55
26:14:2743:C:H2'	26:14:2744:G:O4'	2.05	0.55
30:39:7:TYR:CD1	30:39:18:ARG:HB2	2.41	0.55
42:95:35:LEU:C	42:95:37:VAL:HG13	2.27	0.55
42:95:38:LEU:O	42:95:52:VAL:HG23	2.06	0.55
1:13:396:G:O2'	1:13:398:C:OP1	2.08	0.55
1:13:464:G:C6	1:13:466:C:H5'	2.40	0.55
4:3E:108:LEU:HB3	4:3E:110:PHE:CD1	2.42	0.55
10:1I:27:ALA:O	10:1I:31:GLY:N	2.38	0.55
14:5I:6:LEU:HB3	14:5I:23:ARG:NH2	2.22	0.55
36:78:19:VAL:HG23	36:78:20:GLY:N	2.21	0.55
36:78:65:ARG:HH11	36:78:65:ARG:HG3	1.69	0.55
2:12:16:HIS:CD2	2:12:210:SER:HA	2.41	0.55
11:2A:41:THR:OG1	11:2A:42:TRP:N	2.39	0.55
24:1L:46:G:O2'	24:1L:47:U:OP1	2.20	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2L:44:A:H2'	23:2L:45:A:C8	2.40	0.55
26:14:1359:A:N7	26:14:1372:U:O4	2.39	0.55
26:14:1500:G:O2'	28:19:100:GLY:O	2.23	0.55
26:14:2845:G:H2'	26:14:2846:G:C8	2.41	0.55
28:19:134:ARG:HG3	28:19:135:PHE:CD1	2.42	0.55
32:59:12:PRO:HD2	32:59:49:VAL:HA	1.89	0.55
32:59:81:GLU:HG3	32:59:83:TYR:H	1.71	0.55
32:59:92:ILE:HG22	32:59:93:GLY:H	1.71	0.55
33:69:65:ALA:O	33:69:69:LYS:N	2.39	0.55
1:13:1218:C:H2'	1:13:1219:U:C6	2.41	0.55
1:13:1226:C:H4'	19:AI:80:TYR:OH	2.06	0.55
1:13:1497:G:H2'	1:13:1498:U:H5'	1.87	0.55
4:3E:83:SER:HA	4:3E:89:THR:HG23	1.89	0.55
19:AI:39:THR:HG22	19:AI:40:ILE:H	1.72	0.55
25:4K:19[B]:A:N3	25:4K:19[B]:A:H5'	2.22	0.55
26:1H:2061:G:H5''	26:1H:2503:A:C2	2.41	0.55
1:1G:458:C:H2'	1:1G:464:G:H8	1.72	0.55
1:1G:976:G:N2	1:1G:1362(A):C:OP2	2.27	0.55
4:32:72:GLU:OE1	4:32:207:TYR:OH	2.24	0.55
7:62:53:LYS:HB3	7:62:53:LYS:NZ	2.21	0.55
23:2L:24:C:H2'	23:2L:25:U:H6	1.71	0.55
55:3L:61:G:H1	55:3L:71:C:N4	1.97	0.55
26:14:1417:C:H42	26:14:1581:G:H1	1.55	0.55
26:14:1839:G:C8	26:14:1927:A:H1'	2.42	0.55
36:35:124:LYS:HA	36:35:143:GLY:O	2.06	0.55
1:13:141:A:H1'	1:13:182:U:O2	2.06	0.55
1:13:377:G:H5'	16:7I:5:ARG:HH12	1.71	0.55
1:13:392:G:H5'	16:7I:12:LYS:HE3	1.89	0.55
2:1E:33:TYR:HB2	2:1E:43:ASP:HB2	1.87	0.55
6:5E:55:ASP:HB2	6:5E:86:ARG:HH12	1.71	0.55
12:3I:52:LEU:O	12:3I:54:LYS:NZ	2.40	0.55
21:1F:2:GLY:O	21:1F:4:GLY:N	2.39	0.55
31:4I:142:PRO:HB2	51:M8:31:ILE:HG21	1.87	0.55
46:H8:104:PHE:CZ	46:H8:119:GLU:HB3	2.41	0.55
1:1G:963:G:N3	10:1A:55:LYS:NZ	2.52	0.55
1:1G:1326:C:H2'	1:1G:1327:C:C6	2.41	0.55
6:52:10:LEU:HB2	6:52:59:TYR:HB3	1.86	0.55
12:3A:60:LEU:HB2	12:3A:64:TYR:HB2	1.89	0.55
55:3L:62:G:H2'	55:3L:63:U:C6	2.42	0.55
26:14:239:U:H2'	26:14:240:G:O4'	2.07	0.55
26:14:882:G:H22	26:14:894:C:H42	1.55	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1427:A:H4'	26:14:1428:C:O4'	2.06	0.55
26:14:1729:A:H2'	26:14:1731:G:N2	2.21	0.55
26:14:2308:G:O2'	26:14:2309:A:OP1	2.21	0.55
26:14:2392:A:H2	26:14:2424:C:N4	2.04	0.55
28:19:264:LYS:HG2	28:19:266:SER:HB3	1.88	0.55
30:39:4:VAL:HA	30:39:19:GLU:HB3	1.87	0.55
1:13:955:U:H1'	1:13:1227:A:H61	1.72	0.55
1:13:1054:C:O2'	1:13:1055:A:O5'	2.24	0.55
1:13:1178:G:N2	1:13:1181:G:H8	2.04	0.55
1:13:1363:A:H1'	1:13:1365:G:N7	2.22	0.55
4:3E:111:ALA:HB2	4:3E:120:LEU:HD12	1.87	0.55
26:1H:71:A:H4'	26:1H:72:U:H5''	1.88	0.55
26:1H:495:G:O2'	43:E8:62:HIS:HE1	1.90	0.55
26:1H:1973:G:H2'	26:1H:1974:C:C6	2.42	0.55
26:1H:2144:U:H1'	26:1H:2148:G:N2	2.22	0.55
26:1H:2232:U:P	48:J8:40:ARG:HH12	2.30	0.55
27:16:13:A:N6	27:16:70:C:H5'	2.22	0.55
28:11:136:ILE:O	28:11:168:ARG:NH2	2.40	0.55
29:21:52:LEU:O	29:21:75:VAL:N	2.34	0.55
38:98:33:ARG:NH1	52:N8:55:ARG:O	2.38	0.55
51:M8:36:CYS:HB2	51:M8:39:CYS:SG	2.47	0.55
1:1G:457:C:H2'	1:1G:458:C:C6	2.41	0.55
9:82:102:LEU:O	9:82:103:THR:OG1	2.22	0.55
13:4A:66:LEU:HA	13:4A:70:LEU:HB2	1.87	0.55
26:14:1677:A:N6	59:14:3463:HOH:O	2.34	0.55
26:14:2131:G:N2	26:14:2158:A:OP2	2.40	0.55
27:1J:56:G:H4'	27:1J:57:A:C8	2.42	0.55
28:19:68:LYS:HD3	28:19:70:TRP:CZ2	2.42	0.55
43:A5:13:SER:HB3	43:A5:16:LYS:HD2	1.89	0.55
2:1E:112:VAL:O	2:1E:115:LEU:N	2.40	0.55
11:2I:41:THR:HG21	11:2I:71:LYS:HB2	1.88	0.55
17:8I:13:ASP:OD1	17:8I:14:LYS:NZ	2.40	0.55
23:2K:20:G:C2	23:2K:58:A:N3	2.75	0.55
34:58:38:HIS:O	41:C8:67:ALA:HB1	2.07	0.55
36:78:85:LEU:O	36:78:88:LEU:HD23	2.07	0.55
48:J8:83:GLU:HG2	48:J8:85:LEU:N	2.19	0.55
1:1G:967:C:H3'	1:1G:968:A:H2'	1.89	0.55
1:1G:1259:C:O2'	1:1G:1283:G:N2	2.31	0.55
3:22:112:SER:O	3:22:116:VAL:HG23	2.06	0.55
8:72:97:VAL:HA	8:72:100:ILE:HD11	1.89	0.55
18:9A:53:ARG:HH21	18:9A:60:ALA:N	2.03	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2065:C:H2'	26:14:2066:C:H6	1.72	0.55
30:39:160:ASN:HB3	30:39:163:VAL:HB	1.88	0.55
39:65:106:ARG:HB3	39:65:112:PHE:O	2.07	0.55
54:M5:49:VAL:HG12	54:M5:50:LEU:H	1.71	0.55
1:13:792:A:O2'	1:13:794:A:N7	2.36	0.55
3:2E:34:LEU:O	3:2E:38:ARG:N	2.35	0.55
4:3E:173:TRP:CD1	4:3E:174:LEU:HG	2.41	0.55
8:7E:87:SER:HB2	8:7E:93:VAL:N	2.21	0.55
14:5I:23:ARG:HH11	14:5I:30:ALA:HB2	1.72	0.55
26:1H:580:C:H2'	26:1H:581:C:H6	1.72	0.55
26:1H:821:A:H2'	26:1H:946:G:H5''	1.87	0.55
26:1H:1047:G:HO2'	26:1H:1048:A:H8	1.53	0.55
26:1H:1332:G:N2	26:1H:1610:A:C8	2.74	0.55
26:1H:1858:G:O2'	26:1H:1859:A:O5'	2.19	0.55
26:1H:2361:A:OP1	54:Q8:27:THR:HG23	2.05	0.55
32:51:97:ARG:HG2	32:51:98:LEU:H	1.72	0.55
35:68:112:MET:HA	35:68:115:VAL:HG22	1.88	0.55
38:98:55:ALA:HB2	38:98:79:LEU:HD13	1.88	0.55
24:1L:78:C:O2'	24:1L:79:A:H5''	2.06	0.55
55:3L:60:A:H2'	55:3L:61:G:C8	2.42	0.55
26:14:1784:A:H4'	26:14:1785:A:O5'	2.06	0.55
29:29:13:ARG:HH21	40:75:77:PRO:HB3	1.70	0.55
31:49:7:LEU:N	51:I5:23:GLU:OE2	2.29	0.55
31:49:14:GLU:O	31:49:17:PRO:HG2	2.07	0.55
37:45:89:ASN:ND2	37:45:89:ASN:O	2.36	0.55
39:65:20:ARG:HH21	39:65:21:THR:HA	1.71	0.55
40:75:26:ASP:OD1	40:75:120:ARG:NH2	2.37	0.55
42:95:67:GLY:O	42:95:88:ARG:HD2	2.07	0.55
1:13:454:C:OP1	16:7I:75:ARG:NH2	2.40	0.55
1:13:1226:C:O2'	13:4I:111:LYS:NZ	2.32	0.55
1:13:1238:A:N3	1:13:1241:G:O2'	2.36	0.55
9:8E:10:ARG:NH2	9:8E:105:ASP:OD2	2.39	0.55
17:8I:29:HIS:CD2	17:8I:30:PRO:HD2	2.41	0.55
20:BI:89:ARG:NH2	20:BI:104:LEU:HD21	2.22	0.55
26:1H:315:G:H2'	26:1H:316:C:H6	1.72	0.55
26:1H:593:G:H1'	54:Q8:4:MET:HE1	1.88	0.55
49:K8:59:ARG:O	49:K8:62:THR:HG23	2.06	0.55
1:1G:146:G:H2'	1:1G:147:G:H8	1.72	0.55
13:4A:65:LYS:NZ	13:4A:73:GLU:OE2	2.26	0.55
26:14:329:G:H8	26:14:329:G:OP1	1.89	0.55
26:14:528:A:O2'	26:14:529:A:H5'	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:586:A:H5'	30:39:89:VAL:HG21	1.89	0.55
26:14:805:G:OP2	36:35:41:ARG:HG2	2.07	0.55
26:14:990:A:H5'	26:14:990:A:H8	1.72	0.55
26:14:2025:C:N4	59:14:3639:HOH:O	2.40	0.55
26:14:2632:A:O2'	26:14:2811:G:O2'	2.18	0.55
30:39:185:ASP:OD1	30:39:188:ARG:NH2	2.29	0.55
48:F5:3:LYS:H	48:F5:61:ARG:HH22	1.55	0.55
48:F5:85:LEU:HA	48:F5:87:PRO:HD2	1.88	0.55
1:13:7:G:H5'	1:13:298:A:O4'	2.07	0.54
1:13:1060:C:C5	3:2E:2:GLY:HA3	2.41	0.54
1:13:1349:A:H2'	1:13:1350:A:C8	2.41	0.54
2:1E:27:LYS:HD2	2:1E:193:ASP:HB2	1.88	0.54
5:4E:147:ASP:HA	5:4E:150:ARG:NH1	2.21	0.54
13:4I:15:VAL:O	13:4I:19:LEU:HD22	2.07	0.54
26:1H:573:G:O2'	26:1H:574:C:H3'	2.06	0.54
26:1H:1786:A:H2	26:1H:2606:C:H1'	1.72	0.54
26:1H:2101:G:H1	26:1H:2188:C:H42	1.56	0.54
26:1H:2516:G:O2'	26:1H:2517:C:H5'	2.07	0.54
26:1H:2567:G:H2'	26:1H:2568:C:C6	2.42	0.54
26:1H:2632:A:O2'	26:1H:2811:G:O2'	2.14	0.54
26:1H:2712:U:O2'	26:1H:2713:A:H5'	2.07	0.54
27:16:87:G:N2	27:16:89(A):A:OP2	2.39	0.54
34:58:13:TRP:HB2	34:58:133:GLN:HG2	1.87	0.54
39:A8:34:HIS:O	39:A8:97:ARG:NH2	2.40	0.54
1:1G:162:A:O5'	1:1G:162:A:H8	1.90	0.54
1:1G:456:C:H42	1:1G:476:G:H1	1.55	0.54
1:1G:750:G:H21	15:6A:23:GLY:HA3	1.72	0.54
1:1G:963:G:N2	1:1G:972:C:N3	2.45	0.54
4:32:148:VAL:HG12	4:32:152:SER:HB2	1.88	0.54
26:14:988:A:N6	50:H5:13:ILE:HG21	2.22	0.54
26:14:2166:G:N3	26:14:2171:A:N6	2.53	0.54
26:14:2441:C:OP2	26:14:2586:C:O2'	2.23	0.54
29:29:179:GLU:HB3	29:29:181:LEU:HD22	1.89	0.54
36:35:96:THR:HG22	36:35:99:LEU:HD22	1.89	0.54
42:95:85:LYS:CG	42:95:87:HIS:H	2.20	0.54
44:B5:11:PRO:HD3	49:G5:37:PHE:CD2	2.42	0.54
46:D5:30:ASN:HA	46:D5:89:PHE:HE1	1.72	0.54
1:13:1348:U:H4'	9:8E:120:ARG:HD2	1.90	0.54
5:4E:150:ARG:CZ	5:4E:150:ARG:HB3	2.38	0.54
12:3I:57:LYS:HE3	12:3I:67:THR:HG22	1.89	0.54
22:1K:83:C:H2'	22:1K:84:C:H5'	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:518:G:H2'	26:1H:519:U:C6	2.42	0.54
26:1H:863:A:H2'	26:1H:864:G:H8	1.71	0.54
26:1H:1101:U:H2'	26:1H:1102:C:C6	2.42	0.54
26:1H:1107:G:H2'	26:1H:1108:U:C6	2.42	0.54
26:1H:1542:G:OP2	26:1H:1543:A:O2'	2.23	0.54
26:1H:2050:C:H2'	26:1H:2051:A:O4'	2.07	0.54
26:1H:2577:A:H5''	26:1H:2578:G:H5'	1.88	0.54
26:1H:2600:A:N6	59:1H:3563:HOH:O	2.30	0.54
33:61:93:THR:HG22	33:61:119:PRO:HB3	1.88	0.54
37:88:34:LEU:HB2	37:88:118:LEU:HD22	1.89	0.54
46:H8:97:GLU:HB3	46:H8:125:LEU:HD11	1.89	0.54
1:1G:555:C:H2'	1:1G:556:C:C6	2.41	0.54
1:1G:624:C:H2'	1:1G:625:G:H8	1.72	0.54
1:1G:793:U:O2	1:1G:1516:G:H4'	2.07	0.54
1:1G:1310:G:OP1	13:4A:77:ASN:ND2	2.41	0.54
10:1A:99:LYS:HD3	10:1A:100:THR:N	2.23	0.54
26:14:375:C:H2'	26:14:376:C:H6	1.71	0.54
26:14:646:A:H2'	26:14:647:G:O4'	2.07	0.54
26:14:1434:A:H61	26:14:1558:A:H62	1.54	0.54
26:14:1871:A:H2'	26:14:1872:A:C8	2.41	0.54
26:14:2590:A:OP2	28:19:237:GLU:HB3	2.07	0.54
37:45:110:THR:OG1	37:45:111:GLU:N	2.39	0.54
1:13:390:C:H2'	1:13:391:G:C8	2.42	0.54
1:13:1143:G:H8	1:13:1143:G:O5'	1.90	0.54
9:8E:26:VAL:HB	9:8E:33:PHE:HB2	1.89	0.54
15:6I:9:GLN:HA	15:6I:12:ILE:HD12	1.88	0.54
26:1H:250:G:H2'	26:1H:251:A:C8	2.43	0.54
26:1H:1077:A:H5'	26:1H:1078:U:H5''	1.90	0.54
26:1H:1839:G:H5''	26:1H:1839:G:H8	1.71	0.54
26:1H:2820:A:O2'	26:1H:2821:A:OP1	2.24	0.54
30:31:107:LYS:HE3	30:31:207:GLY:H	1.71	0.54
33:61:78:THR:HB	33:61:141:LYS:HD2	1.89	0.54
1:1G:963:G:H1	1:1G:972:C:H42	1.55	0.54
9:82:112:LYS:HG2	9:82:119:ALA:HB2	1.90	0.54
10:1A:78:ASN:HD22	10:1A:80:LYS:HB3	1.72	0.54
26:14:273(C):C:H5'	26:14:273(D):C:OP2	2.06	0.54
26:14:817:C:H2'	26:14:818:G:O4'	2.07	0.54
26:14:910:A:N7	37:45:13:GLN:HG3	2.22	0.54
26:14:1024:G:H8	26:14:1024:G:O5'	1.91	0.54
26:14:1133:U:O2	26:14:1137:G:H5''	2.07	0.54
26:14:1754:C:H2'	26:14:1755:A:C8	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1784:A:H5''	59:14:3491:HOH:O	2.06	0.54
26:14:1819:A:H4'	26:14:1820:U:O5'	2.06	0.54
26:14:2418:A:H2'	26:14:2419:U:C6	2.42	0.54
26:14:2441:C:O2'	26:14:2442:C:H5'	2.07	0.54
26:14:2760:C:H2'	26:14:2761:G:H8	1.72	0.54
29:29:66:HIS:CE1	29:29:73:GLU:HG3	2.41	0.54
46:D5:103:ARG:HB2	46:D5:137:ILE:O	2.07	0.54
1:13:1054:C:H6	1:13:1196:U:HO2'	1.55	0.54
1:13:1391:U:H2'	1:13:1392:G:C8	2.42	0.54
4:3E:90:GLY:O	4:3E:93:PHE:HB3	2.06	0.54
16:7I:49:LEU:HD12	16:7I:50:LYS:N	2.22	0.54
26:1H:631:A:P	54:Q8:46:ARG:HH21	2.30	0.54
31:41:83:ARG:H	31:41:86:MET:CE	2.21	0.54
31:41:97:ASP:O	31:41:100:TRP:N	2.40	0.54
37:88:111:GLU:OE1	37:88:133:ARG:NH2	2.40	0.54
49:K8:15:LYS:HD3	49:K8:67:LYS:HZ3	1.73	0.54
1:1G:80:G:O2'	1:1G:81:G:OP1	2.16	0.54
1:1G:503:C:OP2	12:3A:116:SER:HB3	2.08	0.54
1:1G:1348:U:H4'	9:82:120:ARG:HD2	1.90	0.54
9:82:70:LYS:O	9:82:74:ILE:HG13	2.07	0.54
24:1L:6:G:O2'	24:1L:7:G:OP1	2.25	0.54
26:14:674:G:H1'	30:39:74:ARG:HD3	1.88	0.54
26:14:1568:G:P	28:19:63:ARG:HH12	2.30	0.54
26:14:1856:G:H1	26:14:1886:C:N4	2.03	0.54
1:13:838:G:N2	1:13:848:C:N3	2.52	0.54
1:13:1015:A:H2'	1:13:1016:A:H8	1.72	0.54
5:4E:113:ALA:O	5:4E:115:VAL:HG23	2.08	0.54
5:4E:148:VAL:HG21	8:7E:107:LEU:HD13	1.88	0.54
12:3I:89:ARG:HH21	12:3I:91:LYS:HD2	1.72	0.54
13:4I:14:ARG:HB2	13:4I:17:VAL:HG23	1.90	0.54
26:1H:1434:A:H61	26:1H:1558:A:H62	1.54	0.54
26:1H:1899:G:H22	26:1H:1902:C:H41	1.54	0.54
26:1H:2146:C:H4'	26:1H:2147:G:N7	2.22	0.54
26:1H:2257:U:O2'	26:1H:2258:C:H5'	2.08	0.54
26:1H:2335:A:C8	26:1H:2337:G:C5	2.95	0.54
26:1H:2376:A:H2'	26:1H:2377:A:O4'	2.07	0.54
30:31:6:VAL:HG21	30:31:119:ARG:HB2	1.90	0.54
30:31:197:ASP:N	30:31:197:ASP:OD1	2.41	0.54
37:88:135:ASP:HB3	37:88:137:TYR:N	2.22	0.54
51:M8:57:GLU:OE2	51:M8:61:ARG:NH1	2.41	0.54
1:1G:501:C:H2'	1:1G:502:G:C8	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:730:G:C5	1:1G:731:G:H1'	2.43	0.54
1:1G:1127:G:H1'	1:1G:1148:U:N3	2.22	0.54
1:1G:1240:U:H5'	1:1G:1241:G:C8	2.42	0.54
4:32:105:VAL:HG13	4:32:110:PHE:HB2	1.88	0.54
18:9A:38:GLU:HG2	18:9A:39:VAL:H	1.73	0.54
26:14:184:C:H2'	26:14:185:U:H6	1.73	0.54
26:14:579:G:H2'	26:14:580:C:C6	2.42	0.54
26:14:660:G:H21	36:35:12:ALA:CB	2.20	0.54
26:14:856:C:O5'	26:14:856:C:H6	1.89	0.54
26:14:1416:G:N2	26:14:1582:C:N3	2.45	0.54
26:14:2320:A:H61	26:14:2333:A:H2'	1.73	0.54
26:14:2688:U:H1'	26:14:2721:A:N6	2.22	0.54
26:14:2748:A:H2'	26:14:2749:A:C8	2.42	0.54
27:1J:44:G:H1'	27:1J:47:C:N4	2.23	0.54
28:19:255:LYS:H	28:19:255:LYS:HE3	1.70	0.54
34:15:99:LEU:O	34:15:103:VAL:HG23	2.07	0.54
26:1H:1021:A:C8	26:1H:1022:G:H5''	2.42	0.54
26:1H:1156:A:OP2	59:1H:3655:HOH:O	2.18	0.54
26:1H:1805:U:O2	28:11:50:THR:HB	2.08	0.54
26:1H:1899:G:N2	26:1H:1902:C:H41	2.05	0.54
26:1H:2168:G:H3'	26:1H:2168:G:N3	2.23	0.54
26:1H:2820:A:O5'	38:98:4:LEU:HD23	2.08	0.54
1:1G:1312:G:H2'	1:1G:1313:U:O4'	2.07	0.54
7:62:45:ASP:OD2	7:62:115:ARG:NH2	2.41	0.54
9:82:3:GLN:OE1	9:82:20:ARG:NH1	2.41	0.54
26:14:587:C:O2	36:35:33:ARG:NH1	2.40	0.54
26:14:654(C):G:H2'	26:14:654(D):G:O4'	2.07	0.54
26:14:1255:U:H5''	26:14:1256:G:O5'	2.07	0.54
26:14:2647:U:H2'	26:14:2648:C:C6	2.42	0.54
36:35:111:ARG:HG2	36:35:128:HIS:CG	2.43	0.54
38:55:78:LYS:O	38:55:83:ILE:HG13	2.08	0.54
39:65:74:ALA:HB1	39:65:107:GLU:HB2	1.90	0.54
1:13:674:G:N2	1:13:717:C:O2	2.40	0.54
1:13:1292:U:H2'	1:13:1293:G:H8	1.72	0.54
7:6E:155:ARG:O	7:6E:155:ARG:NH2	2.40	0.54
9:8E:48:GLU:HB2	9:8E:78:LYS:HE3	1.89	0.54
10:1I:49:VAL:CG2	14:5I:41:ARG:HB2	2.38	0.54
16:7I:5:ARG:HE	16:7I:22:THR:HG21	1.72	0.54
26:1H:484:C:H2'	26:1H:485:C:C6	2.43	0.54
26:1H:633:A:H2'	26:1H:634:C:H5'	1.89	0.54
29:21:38:THR:HG22	29:21:41:LYS:HB2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:61:29:TYR:O	33:61:33:ARG:HB2	2.07	0.54
45:G8:40:GLU:HA	45:G8:42:VAL:N	2.23	0.54
46:H8:60:GLU:O	46:H8:61:LEU:HB3	2.07	0.54
1:1G:48:C:H5''	1:1G:365:U:O4	2.07	0.54
1:1G:373:A:C2	1:1G:374:A:C8	2.96	0.54
8:72:86:ILE:HG12	8:72:135:CYS:HA	1.89	0.54
26:14:814:C:O3'	42:95:84:LYS:HD3	2.07	0.54
36:35:50:ARG:HG2	36:35:50:ARG:NH1	2.18	0.54
40:75:5:ALA:O	40:75:8:LYS:HB3	2.08	0.54
1:13:304:U:H2'	1:13:305:G:C8	2.42	0.54
1:13:626:U:C2	1:13:627:G:C8	2.96	0.54
1:13:1160:G:H1	1:13:1177:G:N2	2.05	0.54
1:13:1240:U:OP2	7:6E:116:ALA:N	2.41	0.54
4:3E:209:ARG:HA	4:3E:209:ARG:HE	1.72	0.54
8:7E:36:LEU:HA	8:7E:39:LEU:HB2	1.89	0.54
10:1I:16:LEU:HD12	10:1I:68:HIS:HB2	1.90	0.54
11:2I:23:ALA:HA	11:2I:28:THR:HG22	1.89	0.54
17:8I:66:SER:OG	17:8I:69:LYS:HB2	2.08	0.54
24:3K:5:G:H1	24:3K:77:C:H42	1.55	0.54
26:1H:270(V):G:H2'	26:1H:270(W):G:C8	2.43	0.54
26:1H:524:U:H2'	26:1H:525:U:H6	1.73	0.54
26:1H:566:U:P	36:78:29:LYS:HZ2	2.29	0.54
26:1H:2572:A:N7	29:21:145:LYS:HB2	2.23	0.54
28:11:16:MET:HE3	28:11:211:ARG:HD2	1.89	0.54
32:51:87:LEU:HB2	32:51:131:VAL:HG12	1.90	0.54
33:61:63:ALA:HA	33:61:66:GLU:OE2	2.08	0.54
42:D8:65:GLY:HA3	42:D8:91:TYR:CE2	2.42	0.54
1:1G:32:A:H2'	1:1G:33:A:C8	2.43	0.54
1:1G:198:G:H2'	1:1G:199:G:H8	1.72	0.54
1:1G:956:U:H4'	19:AA:83:HIS:HB3	1.90	0.54
4:32:7:PRO:HB2	4:32:10:ARG:HD2	1.90	0.54
9:82:43:ALA:HA	9:82:74:ILE:HD13	1.89	0.54
10:1A:46:ARG:HA	10:1A:64:GLU:HA	1.90	0.54
15:6A:87:ILE:HG22	15:6A:88:ARG:N	2.16	0.54
16:7A:34:GLU:OE2	16:7A:55:ARG:NH1	2.41	0.54
23:2L:64:G:H2'	23:2L:65:G:H8	1.72	0.54
27:1J:16:G:H2'	27:1J:17:C:H6	1.72	0.54
33:69:133:HIS:CD2	33:69:134:PRO:HD3	2.42	0.54
42:95:35:LEU:O	42:95:37:VAL:HG22	2.07	0.54
44:B5:34:ALA:O	44:B5:77:LYS:NZ	2.41	0.54
54:M5:48:PHE:CG	54:M5:49:VAL:N	2.76	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1139:G:N2	1:13:1143:G:H1	2.06	0.54
2:1E:24:TRP:CZ3	2:1E:26:PRO:HA	2.42	0.54
13:4I:23:TYR:CD2	13:4I:67:GLU:HA	2.41	0.54
20:BI:26:ASN:HB2	20:BI:71:THR:OG1	2.07	0.54
26:1H:443:A:H1'	26:1H:1201:C:O4'	2.08	0.54
26:1H:1049:C:H2'	26:1H:1050:A:H5'	1.89	0.54
26:1H:1069:A:O2'	26:1H:1072:C:OP1	2.26	0.54
26:1H:1401:G:H2'	26:1H:1402:C:C6	2.42	0.54
26:1H:1858:G:HO2'	26:1H:1859:A:P	2.31	0.54
27:16:11:C:OP2	27:16:12:C:N4	2.30	0.54
40:B8:6:LEU:HG	40:B8:9:LEU:HD12	1.90	0.54
40:B8:50:ILE:O	40:B8:99:LEU:HD12	2.08	0.54
46:H8:63:ASP:OD2	46:H8:65:GLN:NE2	2.41	0.54
1:1G:19:C:OP1	5:42:125:SER:OG	2.23	0.54
1:1G:922:G:H4'	5:42:20:GLN:HA	1.90	0.54
1:1G:1224:G:C6	1:1G:1322:C:H1'	2.43	0.54
2:12:70:PHE:HB2	2:12:92:TYR:HB2	1.90	0.54
26:14:137(A):G:H2'	26:14:139:G:N7	2.23	0.54
26:14:639:U:H2'	26:14:640:C:H6	1.73	0.54
26:14:1266:G:O4'	43:A5:15:ARG:NH2	2.40	0.54
26:14:2532:G:H1'	26:14:2663:G:N2	2.22	0.54
26:14:2720:U:N3	26:14:2873:A:H2	2.06	0.54
27:1J:103:U:O2'	46:D5:72:ARG:HG3	2.08	0.54
28:19:238:GLY:O	59:19:308:HOH:O	2.18	0.54
30:39:129:PHE:HA	30:39:142:TRP:NE1	2.22	0.54
39:65:89:ARG:HG3	39:65:92:TYR:O	2.07	0.54
49:G5:17:SER:N	49:G5:20:GLU:OE1	2.35	0.54
1:13:1151:A:H5'	10:1I:41:PRO:HA	1.89	0.54
1:13:1315:U:H2'	1:13:1316:G:O4'	2.07	0.54
14:5I:6:LEU:HD12	14:5I:23:ARG:HH22	1.72	0.54
26:1H:944:G:H5''	26:1H:945:A:O5'	2.07	0.54
26:1H:1858:G:H1'	26:1H:1884:A:N6	2.23	0.54
26:1H:1971:A:OP1	59:1H:3795:HOH:O	2.18	0.54
26:1H:2392:A:H8	36:78:60:MET:HB2	1.72	0.54
26:1H:2818:G:OP2	38:98:42:LYS:NZ	2.40	0.54
33:61:9:LEU:HD21	33:61:35:LEU:HD11	1.88	0.54
36:78:116:GLY:N	36:78:134:ALA:HB2	2.23	0.54
39:A8:88:ASP:OD1	39:A8:90:GLY:N	2.41	0.54
41:C8:83:LEU:HD13	41:C8:113:ALA:HB2	1.89	0.54
15:6A:17:ARG:HH11	15:6A:17:ARG:HG3	1.72	0.54
55:3L:55:U:OP1	55:3L:55:U:H4'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:30:G:H2'	26:14:31:C:C6	2.42	0.54
26:14:580:C:H2'	26:14:581:C:H6	1.73	0.54
26:14:796:C:H2'	26:14:797:C:C6	2.43	0.54
26:14:1098:A:H2'	26:14:1099:G:H5'	1.90	0.54
26:14:1171:G:H1	26:14:1178:C:H42	1.56	0.54
26:14:1425:G:H2'	26:14:1426:G:C8	2.43	0.54
26:14:2065:C:H1'	26:14:2449:U:N3	2.23	0.54
34:15:116:LEU:O	34:15:119:ARG:N	2.37	0.54
41:85:92:ARG:NH2	42:95:10:LYS:HA	2.23	0.54
1:13:345:C:O2'	1:13:346:G:N2	2.41	0.53
1:13:963:G:H21	10:1I:55:LYS:HZ1	1.56	0.53
1:13:1502:A:H2	1:13:1505:G:N1	2.01	0.53
5:4E:75:THR:OG1	5:4E:76:ILE:N	2.41	0.53
26:1H:1336:A:H2'	26:1H:1337:G:H8	1.73	0.53
26:1H:2500:U:O2'	26:1H:2504:U:OP1	2.25	0.53
38:98:104:ARG:HB3	38:98:107:ASP:HB3	1.90	0.53
1:1G:1131:G:C8	1:1G:1132:C:H5	2.26	0.53
3:22:84:ILE:HG12	3:22:88:ARG:NH2	2.22	0.53
5:42:51:VAL:HG23	5:42:52:PRO:HD3	1.89	0.53
12:3A:41:ARG:HB3	12:3A:41:ARG:NH1	2.24	0.53
13:4A:91:ARG:HB2	13:4A:98:VAL:HG13	1.90	0.53
14:5A:12:ARG:H	14:5A:12:ARG:HD3	1.72	0.53
26:14:15:G:H1	26:14:525:U:H3	1.55	0.53
26:14:138:G:N2	44:B5:44:GLU:OE2	2.37	0.53
26:14:1780:A:OP1	59:14:3402:HOH:O	2.18	0.53
26:14:2100:G:N2	26:14:2190:G:H1'	2.22	0.53
26:14:2820:A:O2'	26:14:2821:A:OP1	2.23	0.53
27:1J:101:A:OP2	27:1J:101:A:H8	1.90	0.53
30:39:66:PRO:O	30:39:67:GLN:HB3	2.06	0.53
31:49:115:ARG:NH2	31:49:137:GLU:OE1	2.40	0.53
35:25:10:VAL:HG13	35:25:17:ARG:O	2.07	0.53
41:85:92:ARG:CZ	42:95:11:GLN:H	2.21	0.53
44:B5:36:LYS:HA	44:B5:39:ILE:HD12	1.90	0.53
45:C5:19:LYS:HG3	45:C5:20:TYR:HD1	1.72	0.53
1:13:17:U:O4'	1:13:1080:A:H1'	2.07	0.53
1:13:138:G:H1	1:13:225:C:H42	1.56	0.53
2:1E:88:ALA:HB2	2:1E:219:VAL:HG13	1.90	0.53
3:2E:78:GLY:HA3	3:2E:83:ARG:HB3	1.90	0.53
4:3E:80:GLU:HA	4:3E:83:SER:HB2	1.88	0.53
4:3E:145:GLU:HG2	4:3E:184:LYS:HG3	1.90	0.53
26:1H:2698:U:H2'	26:1H:2699:C:C6	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:31:70:THR:OG1	30:31:72:ARG:HB2	2.07	0.53
43:E8:17:VAL:HG13	43:E8:76:VAL:HG11	1.90	0.53
1:1G:167:G:H2'	1:1G:168:G:H8	1.72	0.53
1:1G:1343:G:H1'	9:82:121:ARG:HH11	1.72	0.53
3:22:92:ALA:HA	3:22:95:THR:HB	1.91	0.53
7:62:26:PHE:HD1	7:62:101:LEU:HD22	1.72	0.53
13:4A:47:ASP:OD1	13:4A:47:ASP:N	2.41	0.53
13:4A:65:LYS:HB3	51:I5:49:PHE:HE2	1.72	0.53
23:2L:76:C:H2'	23:2L:77:A:C8	2.44	0.53
26:14:1588:C:H5'	26:14:1589:C:OP2	2.09	0.53
26:14:1952:A:C6	35:25:22:ILE:HD12	2.44	0.53
26:14:2611:U:H5'	26:14:2611:U:C6	2.40	0.53
27:1J:15:A:H3'	27:1J:16:G:H5'	1.90	0.53
27:1J:89(A):A:C8	27:1J:90:C:H1'	2.43	0.53
29:29:62:PRO:C	29:29:64:LYS:H	2.07	0.53
46:D5:29:TYR:HE2	46:D5:87:ASP:HB3	1.72	0.53
1:13:933:G:OP2	7:6E:3:ARG:HG3	2.08	0.53
1:13:1074:G:O4'	2:1E:104:ASN:ND2	2.42	0.53
1:13:1145:C:H4'	1:13:1146:A:H8	1.73	0.53
7:6E:111:ARG:NH1	7:6E:113:GLU:OE2	2.36	0.53
26:1H:176:G:O2'	26:1H:177:G:H5'	2.08	0.53
26:1H:1063:G:H22	26:1H:1076:C:H1'	1.74	0.53
26:1H:1420:U:HO2'	26:1H:1421:G:P	2.31	0.53
26:1H:2154:G:H2'	26:1H:2155:G:H8	1.73	0.53
28:11:146:GLU:HB2	28:11:189:CYS:CB	2.35	0.53
30:31:107:LYS:HD2	30:31:206:ILE:HA	1.90	0.53
38:98:2:ARG:O	38:98:5:LYS:HG2	2.08	0.53
1:1G:677:U:H3	1:1G:713:G:H22	1.56	0.53
1:1G:927:G:H1	1:1G:1390:U:H3	1.56	0.53
55:3L:61:G:N2	55:3L:71:C:N3	2.42	0.53
26:14:154:G:O6	26:14:172:C:N4	2.41	0.53
26:14:2126:A:N1	26:14:2163:C:H1'	2.24	0.53
26:14:2786:U:H5''	29:29:65:GLY:HA3	1.89	0.53
30:39:146:ALA:CB	30:39:148:LEU:HG	2.39	0.53
42:95:71:LEU:CA	42:95:86:GLY:HA2	2.38	0.53
43:A5:88:ARG:HB3	43:A5:92:ARG:HB3	1.89	0.53
1:13:973:G:P	10:1I:57:LYS:HZ2	2.31	0.53
1:13:1015:A:H1'	1:13:1219:U:H5'	1.91	0.53
1:13:1029:G:H1'	1:13:1032(A):G:H1	1.73	0.53
19:AI:32:LYS:HD3	19:AI:57:HIS:ND1	2.22	0.53
26:1H:120:U:C5	26:1H:149:A:N6	2.77	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:429:A:OP2	59:1H:3623:HOH:O	2.18	0.53
26:1H:960:A:C8	26:1H:962:G:C8	2.95	0.53
30:31:184:TYR:O	30:31:188:ARG:HG3	2.08	0.53
54:Q8:29:LYS:NZ	54:Q8:44:LYS:HB2	2.22	0.53
1:1G:749:C:H2'	1:1G:750:G:H8	1.73	0.53
1:1G:1443:G:N2	40:75:119:LYS:HB2	2.24	0.53
7:62:102:ARG:O	7:62:106:GLN:HG3	2.07	0.53
9:82:117:HIS:O	9:82:118:LYS:HB2	2.09	0.53
26:14:582:G:H2'	26:14:583:G:C8	2.42	0.53
26:14:1159:U:H2'	26:14:1160:G:H8	1.74	0.53
29:29:167:VAL:HG11	29:29:189:PRO:HD3	1.90	0.53
30:39:113:ALA:HB1	30:39:186:ILE:HG21	1.90	0.53
30:39:161:GLU:HB3	30:39:162:LEU:HD12	1.89	0.53
42:95:22:VAL:HG22	42:95:23:GLU:H	1.72	0.53
43:A5:72:LYS:HG2	43:A5:106:ILE:HD11	1.91	0.53
51:I5:34:GLU:HG2	51:I5:35:VAL:H	1.74	0.53
1:13:1113:C:H2'	1:13:1114:C:H6	1.72	0.53
1:13:1120:G:H2'	1:13:1121:U:H6	1.73	0.53
1:13:1133:G:H1	1:13:1141:C:H42	1.56	0.53
1:13:1486:G:H2'	1:13:1487:G:O4'	2.09	0.53
6:5E:44:GLY:HA2	6:5E:59:TYR:CZ	2.44	0.53
19:AI:63:THR:OG1	19:AI:64:GLU:N	2.42	0.53
26:1H:468:G:N7	53:P8:39:ARG:NH2	2.56	0.53
26:1H:516:C:OP1	52:N8:13:LYS:NZ	2.38	0.53
26:1H:1177:A:H4'	26:1H:1178:C:O5'	2.08	0.53
26:1H:1332:G:N2	26:1H:1609:A:O2'	2.42	0.53
26:1H:1533:C:H3'	26:1H:1534:G:C5'	2.37	0.53
26:1H:1778:U:P	59:1H:3786:HOH:O	2.66	0.53
26:1H:1839:G:H5''	26:1H:1839:G:C8	2.43	0.53
29:21:181:LEU:HD21	40:B8:7:ILE:HG23	1.91	0.53
31:41:138:GLN:HE21	31:41:149:VAL:HG12	1.74	0.53
34:58:42:TRP:O	41:C8:60:LEU:HD21	2.08	0.53
36:78:144:GLU:OE2	36:78:144:GLU:N	2.41	0.53
48:J8:52:ARG:NH1	48:J8:57:GLU:HG3	2.22	0.53
48:J8:79:GLY:O	48:J8:80:LEU:HD13	2.09	0.53
1:1G:1080:A:OP1	5:42:14:ARG:NH2	2.41	0.53
7:62:50:ILE:HD12	7:62:125:MET:HG3	1.89	0.53
7:62:116:ALA:O	7:62:120:ILE:HG12	2.09	0.53
55:3L:18:G:H1'	55:3L:19:C:OP2	2.08	0.53
26:14:908:C:O2'	26:14:909:A:H5'	2.09	0.53
26:14:2031:A:N3	26:14:2455:G:O2'	2.35	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2068:U:N3	26:14:2430:A:C2	2.72	0.53
26:14:2134:A:OP2	26:14:2157:G:N2	2.41	0.53
26:14:2542:A:O2'	26:14:2543:G:OP2	2.25	0.53
26:14:2600:A:H2'	26:14:2601:C:C6	2.43	0.53
26:14:2745:C:H4'	32:59:142:GLY:O	2.08	0.53
28:19:32:SER:O	28:19:32:SER:OG	2.27	0.53
34:15:94:HIS:HB2	34:15:97:ARG:HG3	1.90	0.53
48:F5:41:ARG:HD3	48:F5:43:TYR:OH	2.09	0.53
49:G5:47:ASN:HD22	49:G5:47:ASN:N	2.06	0.53
1:13:142:G:C2	1:13:143:A:C5	2.96	0.53
2:1E:8:LYS:HE2	2:1E:10:LEU:H	1.74	0.53
6:5E:10:LEU:HD13	6:5E:61:LEU:HD13	1.90	0.53
19:AI:5:LEU:HB2	19:AI:10:PHE:HE1	1.74	0.53
24:3K:17:G:H4'	24:3K:18:G:OP2	2.08	0.53
26:1H:249:C:P	59:1H:3553:HOH:O	2.66	0.53
26:1H:270(T):G:H2'	26:1H:270(U):C:C6	2.43	0.53
26:1H:1952:A:N3	35:68:22:ILE:HD11	2.23	0.53
26:1H:2148:G:H2'	26:1H:2149:G:H8	1.72	0.53
26:1H:2340:G:O2'	26:1H:2341:G:H5'	2.09	0.53
34:58:4:TYR:O	41:C8:64:ARG:NH1	2.27	0.53
1:1G:467:G:N2	16:7A:82:GLN:OE1	2.42	0.53
1:1G:1387:G:H2'	1:1G:1388:C:C6	2.43	0.53
2:12:77:ALA:HB2	2:12:211:ILE:HD13	1.89	0.53
15:6A:36:ILE:O	15:6A:40:SER:N	2.40	0.53
26:14:1486:A:H2'	26:14:1487:G:C8	2.44	0.53
26:14:1731:G:H2'	26:14:1732:A:H8	1.74	0.53
26:14:2064:C:H2'	26:14:2065:C:C6	2.43	0.53
26:14:2392:A:OP2	54:M5:32:LEU:HD12	2.08	0.53
29:29:33:VAL:HG11	29:29:88:GLY:CA	2.38	0.53
30:39:67:GLN:HG3	30:39:67:GLN:O	2.07	0.53
40:75:53:ARG:NH1	40:75:60:THR:HG23	2.23	0.53
46:D5:123:ASP:N	46:D5:123:ASP:OD1	2.41	0.53
1:13:322:C:H41	1:13:328:C:H6	1.57	0.53
1:13:323:U:H2'	1:13:324:G:O4'	2.08	0.53
2:1E:73:THR:HB	2:1E:169:LYS:HD2	1.91	0.53
3:2E:59:ARG:HA	3:2E:63:ASN:O	2.08	0.53
8:7E:13:ILE:O	8:7E:17:THR:HG23	2.08	0.53
26:1H:1188:U:H4'	42:D8:79:VAL:HG22	1.91	0.53
26:1H:1401:G:H2'	26:1H:1402:C:H6	1.73	0.53
26:1H:1683:C:H2'	26:1H:1684:C:C6	2.44	0.53
26:1H:2151:G:H2'	26:1H:2152:G:C8	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:61:110:ASP:OD1	33:61:130:TYR:HE1	1.91	0.53
36:78:95:VAL:HA	36:78:99:LEU:HD23	1.91	0.53
47:I8:25:ARG:HG3	47:I8:37:LEU:HD23	1.91	0.53
1:1G:1262:C:H42	1:1G:1273:G:H1	1.54	0.53
1:1G:1322:C:O2'	1:1G:1323:G:O5'	2.24	0.53
5:42:80:ILE:HG13	5:42:91:LEU:HB2	1.91	0.53
17:8A:100:LYS:CB	17:8A:101:ARG:HB2	2.38	0.53
26:14:413:C:H2'	26:14:414:C:C6	2.43	0.53
26:14:459:U:H2'	26:14:460:A:C8	2.44	0.53
26:14:630:G:N2	26:14:633:A:OP2	2.42	0.53
26:14:2438:U:O3'	26:14:2439:A:H3'	2.09	0.53
39:65:106:ARG:HA	39:65:110:LEU:HD21	1.90	0.53
41:85:91:ASP:OD1	41:85:96:ALA:N	2.41	0.53
50:H5:59:VAL:HG12	50:H5:60:GLU:H	1.72	0.53
54:M5:33:ASN:ND2	54:M5:33:ASN:O	2.40	0.53
1:13:129(A):G:N1	1:13:188:U:O2'	2.41	0.53
1:13:154:C:N3	1:13:168:G:N2	2.57	0.53
1:13:156:G:H1'	1:13:166:G:N2	2.24	0.53
1:13:710:G:H5''	6:5E:54:LYS:NZ	2.23	0.53
1:13:1131:G:H2'	1:13:1132:C:C6	2.44	0.53
8:7E:86:ILE:HG22	8:7E:87:SER:H	1.73	0.53
9:8E:46:ALA:HB2	9:8E:74:ILE:HG23	1.90	0.53
18:9I:31:LEU:HD11	18:9I:62:GLU:HG2	1.90	0.53
24:3K:5:G:N2	24:3K:77:C:N3	2.47	0.53
28:11:8:PRO:HB3	28:11:14:ARG:HG2	1.90	0.53
29:21:50:GLY:HA2	29:21:77:ILE:HA	1.91	0.53
29:21:119:ARG:HH11	29:21:119:ARG:CG	2.17	0.53
31:41:77:ILE:HB	31:41:82:LEU:HD12	1.90	0.53
36:78:61:ARG:HH22	54:Q8:13:ARG:HD3	1.74	0.53
38:98:38:VAL:HB	38:98:39:PRO:HD3	1.89	0.53
39:A8:37:ALA:HB2	39:A8:101:LEU:HD21	1.91	0.53
42:D8:47:VAL:HG22	42:D8:48:GLY:H	1.74	0.53
1:1G:409:G:H1	1:1G:433:C:H42	1.56	0.53
1:1G:964:A:N3	1:1G:969:A:O2'	2.39	0.53
3:22:127:ARG:HH21	3:22:191:THR:HG22	1.71	0.53
19:AA:18:LYS:O	19:AA:22:LEU:HB2	2.09	0.53
26:14:885:C:H3'	26:14:886:C:H4'	1.91	0.53
26:14:1496:A:H8	26:14:1577:C:O2'	1.91	0.53
26:14:1945:G:H2'	26:14:1946:U:C6	2.43	0.53
28:19:16:MET:HE1	28:19:208:LYS:HE2	1.91	0.53
29:29:79:ARG:N	29:29:79:ARG:HD2	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:75:19:LEU:HD22	40:75:86:ILE:HG22	1.91	0.53
24:3K:6:G:C6	24:3K:7:G:C6	2.97	0.53
24:3K:85:A:H5''	48:J8:30:VAL:HG21	1.89	0.53
26:1H:270(G):C:H2'	26:1H:270(H):C:H6	1.74	0.53
26:1H:910:A:H62	37:88:12:GLN:HA	1.74	0.53
26:1H:2749:A:H1'	32:51:63:SER:OG	2.07	0.53
32:51:154:PRO:HD3	32:51:162:ILE:O	2.09	0.53
34:58:46:VAL:HG11	34:58:48:MET:HG3	1.90	0.53
36:78:43:GLY:N	59:78:303:HOH:O	2.37	0.53
38:98:41:ALA:O	38:98:44:LEU:N	2.37	0.53
46:H8:108:PRO:HB2	46:H8:112:ARG:HA	1.90	0.53
1:1G:987:G:H1	1:1G:1218:C:H42	1.54	0.53
1:1G:1176:A:C2'	1:1G:1177:G:H5'	2.39	0.53
1:1G:1245:A:H61	1:1G:1292:U:H3	1.56	0.53
11:2A:32:ILE:HD13	11:2A:72:ALA:HB2	1.91	0.53
13:4A:65:LYS:HE3	51:I5:50:VAL:HG21	1.90	0.53
26:14:667:U:O2	54:M5:2:PRO:HD2	2.09	0.53
26:14:2143:C:H2'	26:14:2144:U:O4'	2.09	0.53
26:14:2499:C:OP2	59:14:3445:HOH:O	2.18	0.53
26:14:2786:U:H4'	29:29:64:LYS:CA	2.39	0.53
30:39:53:THR:HG23	30:39:55:GLY:H	1.74	0.53
1:13:295:C:H2'	1:13:296:U:O4'	2.08	0.53
1:13:864:A:H3'	1:13:865:A:C8	2.44	0.53
5:4E:144:THR:OG1	5:4E:147:ASP:OD1	2.22	0.53
10:1I:92:THR:HG23	10:1I:93:GLY:H	1.73	0.53
24:3K:34:U:H2'	24:3K:36:U:OP2	2.08	0.53
26:1H:270(T):G:H2'	26:1H:270(U):C:H6	1.74	0.53
26:1H:557:U:H2'	26:1H:558:G:C8	2.44	0.53
26:1H:1021:A:OP2	34:58:65:LYS:NZ	2.41	0.53
28:11:23:GLU:HG3	28:11:82:ILE:HG21	1.91	0.53
38:98:117:VAL:HG22	38:98:118:GLU:H	1.74	0.53
41:C8:17:ILE:HG23	41:C8:39:LEU:HD12	1.90	0.53
49:K8:52:ASP:N	49:K8:52:ASP:OD1	2.41	0.53
52:N8:40:LYS:HG2	52:N8:46:CYS:HA	1.91	0.53
54:Q8:33:ASN:OD1	54:Q8:36:LYS:NZ	2.24	0.53
5:42:60:TYR:HB3	5:42:64:ARG:NE	2.24	0.53
21:1B:25:LYS:HZ1	21:1B:26:LYS:HG3	1.74	0.53
26:14:768:G:O2'	26:14:769:G:H5'	2.09	0.53
26:14:1789:A:H2'	26:14:1790:C:C6	2.44	0.53
26:14:2648:C:H2'	26:14:2649:U:C6	2.44	0.53
29:29:93:VAL:HG21	29:29:180:ASN:HA	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:39:143:ALA:O	30:39:148:LEU:HB2	2.09	0.53
40:75:18:ASP:OD1	40:75:18:ASP:N	2.27	0.53
51:I5:50:VAL:HG23	51:I5:52:THR:H	1.74	0.53
1:13:454:C:P	16:7I:75:ARG:HH22	2.32	0.52
1:13:631:G:H8	1:13:632:A:H2	1.57	0.52
4:3E:170:VAL:HG13	4:3E:171:GLY:O	2.09	0.52
10:1I:38:ILE:HG23	10:1I:71:LEU:O	2.09	0.52
12:3I:8:ASN:O	12:3I:11:VAL:HG23	2.08	0.52
26:1H:764:A:H2	28:11:219:PRO:HG3	1.73	0.52
26:1H:963:U:OP1	59:1H:3686:HOH:O	2.18	0.52
26:1H:1899:G:N2	26:1H:1902:C:H5	2.06	0.52
26:1H:2287:A:H2	26:1H:2346:A:C2	2.27	0.52
28:11:182:LEU:N	28:11:272:ALA:HB3	2.21	0.52
29:21:20:ALA:O	29:21:21:VAL:HG22	2.09	0.52
30:31:6:VAL:HG11	30:31:119:ARG:HA	1.90	0.52
45:G8:94:LYS:HA	45:G8:94:LYS:HZ3	1.74	0.52
54:Q8:15:LYS:HD2	54:Q8:16:ILE:N	2.24	0.52
54:Q8:29:LYS:HZ3	54:Q8:44:LYS:HB2	1.74	0.52
5:42:20:GLN:OE1	5:42:21:ALA:N	2.42	0.52
17:8A:67:LYS:HA	17:8A:70:ARG:HH12	1.73	0.52
26:14:300:A:O2'	26:14:318:C:O2	2.26	0.52
26:14:993:G:H1'	42:95:87:HIS:NE2	2.24	0.52
26:14:1025:G:C4	26:14:1135:C:H1'	2.44	0.52
26:14:2667:C:N3	32:59:110:SER:OG	2.41	0.52
29:29:56:PRO:HD2	29:29:58:ARG:NH2	2.23	0.52
33:69:1:MET:HG3	33:69:23:PRO:HB3	1.90	0.52
1:13:222:U:H2'	1:13:223:U:H6	1.73	0.52
1:13:501:C:H2'	1:13:502:G:C8	2.44	0.52
1:13:504:C:OP1	59:13:1849:HOH:O	2.19	0.52
2:1E:60:ASP:HB3	2:1E:64:ARG:HH12	1.74	0.52
2:1E:78:GLN:NE2	2:1E:94:ASN:O	2.42	0.52
17:8I:5:VAL:HG22	17:8I:60:ILE:HG13	1.92	0.52
26:1H:286:C:H2'	26:1H:287:C:H6	1.74	0.52
26:1H:994:C:O2'	26:1H:996:A:OP1	2.23	0.52
26:1H:2756:U:H4'	26:1H:2757:A:OP1	2.08	0.52
28:11:67:PHE:HB3	28:11:153:ALA:HB3	1.91	0.52
33:61:93:THR:O	33:61:97:ILE:HG12	2.10	0.52
51:M8:23:GLU:OE1	51:M8:24:THR:N	2.43	0.52
1:1G:747:C:OP2	1:1G:748:C:N4	2.39	0.52
1:1G:1127:G:N3	1:1G:1147:C:N4	2.57	0.52
1:1G:1250:A:H4'	9:82:68:GLY:N	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1279:A:O2'	1:1G:1281:U:OP2	2.17	0.52
1:1G:1404:C:H2'	1:1G:1405:G:C8	2.44	0.52
3:22:60:ALA:HA	10:1A:93:GLY:HA2	1.90	0.52
4:32:13:ARG:C	4:32:15:GLU:H	2.11	0.52
6:52:33:TYR:HE2	6:52:74:ASP:HB2	1.73	0.52
8:72:24:THR:HG22	8:72:63:LEU:HD21	1.91	0.52
19:AA:18:LYS:HE3	19:AA:22:LEU:HD23	1.90	0.52
19:AA:51:VAL:HG12	19:AA:52:TYR:H	1.73	0.52
26:14:2783:G:H2'	26:14:2784:C:C6	2.44	0.52
26:14:2784:C:H1'	29:29:37:ARG:NH2	2.24	0.52
29:29:30:PRO:HA	29:29:92:THR:HG22	1.91	0.52
39:65:18:ILE:HD13	39:65:87:PHE:O	2.09	0.52
40:75:106:SER:HA	40:75:110:ILE:HD11	1.91	0.52
1:13:348:G:C2	1:13:349:A:C8	2.98	0.52
1:13:939:G:H2'	1:13:940:C:C6	2.45	0.52
1:13:1089:G:O6	1:13:1096:C:N4	2.41	0.52
1:13:1225:A:H2'	1:13:1225:A:N3	2.24	0.52
7:6E:5:ARG:HG2	7:6E:7:ALA:H	1.75	0.52
20:BI:75:ASN:O	20:BI:79:ARG:N	2.41	0.52
23:2K:57:C:O2'	31:41:78:SER:HB2	2.09	0.52
26:1H:1050:A:H2'	26:1H:1051:G:C8	2.44	0.52
26:1H:2135:A:O2'	26:1H:2136:C:OP1	2.26	0.52
26:1H:2379:G:O2'	39:A8:17:ARG:NH1	2.42	0.52
29:21:3:GLY:HA3	29:21:81:ILE:CG2	2.39	0.52
30:31:185:ASP:OD1	30:31:188:ARG:NH1	2.38	0.52
32:51:153:LYS:HG2	32:51:162:ILE:HB	1.90	0.52
34:58:26:LEU:O	34:58:30:ILE:HG13	2.10	0.52
46:H8:130:PRO:O	46:H8:133:ILE:HG13	2.09	0.52
49:K8:29:LYS:HG2	49:K8:57:ILE:HD13	1.91	0.52
1:1G:160:A:H1'	1:1G:344:A:C5	2.44	0.52
1:1G:619:U:H3	4:32:135:LEU:HD13	1.74	0.52
2:12:84:GLU:OE2	2:12:212:GLN:NE2	2.34	0.52
2:12:105:PHE:O	2:12:109:SER:N	2.38	0.52
4:32:127:THR:HG21	4:32:149:ALA:HB2	1.90	0.52
18:9A:36:ASN:HB2	18:9A:38:GLU:OE1	2.09	0.52
19:AA:41:VAL:HG13	51:I5:63:TYR:HB3	1.91	0.52
26:14:26:G:N2	26:14:513:A:OP2	2.34	0.52
29:29:119:ARG:HA	29:29:160:TYR:CD2	2.45	0.52
36:35:80:TYR:HA	36:35:111:ARG:O	2.10	0.52
39:65:34:HIS:CE1	39:65:54:LEU:HB2	2.44	0.52
52:J5:20:ARG:HA	52:J5:23:HIS:ND1	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:8:A:H5'	5:4E:101:ILE:HG22	1.90	0.52
1:13:963:G:N3	10:1I:55:LYS:NZ	2.53	0.52
1:13:1085:U:H3'	1:13:1086:U:C5	2.44	0.52
9:8E:106:ALA:O	9:8E:108:VAL:HG22	2.08	0.52
13:4I:108:ARG:NH1	13:4I:111:LYS:HB3	2.24	0.52
26:1H:155:C:N4	26:1H:171:G:H1	2.04	0.52
26:1H:747:U:O2	26:1H:2014:A:H1'	2.10	0.52
26:1H:1442:G:C2	26:1H:1550:C:O2	2.63	0.52
35:68:26:LYS:NZ	35:68:32:TYR:O	2.43	0.52
35:68:63:VAL:HG12	35:68:106:LEU:HD11	1.91	0.52
1:1G:328:C:H4'	1:1G:329:A:H5''	1.92	0.52
1:1G:575:G:OP1	1:1G:575:G:H4'	2.09	0.52
1:1G:690:G:H2'	1:1G:691:G:O4'	2.09	0.52
1:1G:1179:A:H2'	1:1G:1180:A:O4'	2.09	0.52
1:1G:1194:U:H2'	1:1G:1195:C:C6	2.43	0.52
3:22:22:TRP:HB3	3:22:59:ARG:HB2	1.90	0.52
26:14:2757:A:N1	32:59:67:LEU:HD22	2.25	0.52
28:19:37:LEU:HB2	28:19:38:LYS:HG2	1.91	0.52
30:39:3:GLU:HG3	30:39:20:LEU:O	2.10	0.52
46:D5:93:ASP:N	46:D5:130:PRO:HG2	2.24	0.52
46:D5:98:MET:O	46:D5:125:LEU:HA	2.09	0.52
47:E5:38:VAL:HG12	47:E5:40:GLN:HG2	1.91	0.52
1:13:57:G:H2'	1:13:58:C:C6	2.44	0.52
1:13:280:C:C2	17:8I:38:ARG:HG3	2.45	0.52
1:13:1336:C:H4'	1:13:1336:C:OP1	2.09	0.52
2:1E:15:VAL:H	2:1E:16:HIS:CE1	2.27	0.52
8:7E:121:ASP:OD1	8:7E:121:ASP:N	2.35	0.52
22:1K:85:A:H8	26:1H:2583:G:H21	1.56	0.52
26:1H:1111:A:N3	26:1H:1112:G:H1'	2.25	0.52
26:1H:1441:G:H2'	26:1H:1442:G:C8	2.42	0.52
27:16:29:A:H2'	27:16:30:C:C6	2.44	0.52
32:51:101:ARG:NH1	32:51:122:THR:OG1	2.43	0.52
41:C8:88:ILE:O	41:C8:88:ILE:HG22	2.10	0.52
43:E8:92:ARG:NH1	43:E8:94:ASP:OD1	2.43	0.52
48:J8:78:LYS:HD2	48:J8:78:LYS:H	1.75	0.52
1:1G:186:C:C1'	20:BA:81:LYS:HZ3	2.22	0.52
1:1G:409:G:OP1	4:32:24:GLU:HB2	2.10	0.52
1:1G:984:C:H2'	1:1G:985:C:H6	1.74	0.52
1:1G:1154:G:H2'	1:1G:1155:G:C8	2.43	0.52
5:42:8:GLU:HB3	5:42:34:VAL:HG23	1.91	0.52
5:42:41:VAL:O	5:42:67:VAL:HG12	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:37:ARG:NH2	8:72:118:VAL:O	2.43	0.52
11:2A:59:TYR:CE1	11:2A:63:LEU:HD21	2.45	0.52
14:5A:15:LYS:HZ3	14:5A:15:LYS:HA	1.74	0.52
55:3L:24:G:H2'	55:3L:25:G:C8	2.36	0.52
26:14:582:G:H2'	26:14:583:G:H8	1.74	0.52
26:14:2561:A:H2	35:25:23:ARG:NH1	2.07	0.52
27:1J:21:G:H2'	27:1J:22:U:O4'	2.08	0.52
30:39:25:PRO:HB3	30:39:28:ILE:HG23	1.92	0.52
35:25:12:ASP:HA	35:25:99:PHE:HD2	1.75	0.52
40:75:11:GLU:O	40:75:13:ARG:HD3	2.10	0.52
46:D5:10:ARG:HH21	46:D5:26:GLY:H	1.58	0.52
50:H5:20:LYS:HA	50:H5:23:LEU:HD12	1.92	0.52
1:13:89:U:HO2'	1:13:90:C:H6	1.58	0.52
1:13:153:C:H42	1:13:168:G:H22	1.55	0.52
1:13:376:G:H5''	16:7I:5:ARG:HD2	1.90	0.52
1:13:417:C:H2'	1:13:418:C:C6	2.45	0.52
1:13:1262:C:H42	1:13:1273:G:H1	1.57	0.52
2:1E:19:HIS:HB3	2:1E:189:ASP:OD1	2.09	0.52
2:1E:82:ARG:NH2	2:1E:150:SER:HB3	2.23	0.52
4:3E:19:LEU:HB3	4:3E:21:LEU:HD21	1.90	0.52
14:5I:6:LEU:CD1	14:5I:23:ARG:HH22	2.23	0.52
15:6I:25:THR:HG21	15:6I:70:LEU:HB2	1.92	0.52
18:9I:88:LYS:NZ	18:9I:88:LYS:HB3	2.23	0.52
22:1K:38:MIA:H113	25:4K:19[B]:A:C8	2.44	0.52
26:1H:90:U:H6	26:1H:90:U:OP1	1.92	0.52
26:1H:172:C:H2'	26:1H:173:G:H8	1.75	0.52
26:1H:991:C:H2'	26:1H:992:C:H6	1.75	0.52
26:1H:1782:C:H3'	59:1H:3522:HOH:O	2.10	0.52
26:1H:1858:G:H2'	26:1H:1883:G:N2	2.24	0.52
26:1H:2110:G:H5''	26:1H:2145:C:N4	2.24	0.52
26:1H:2171:A:O2'	26:1H:2172:U:O5'	2.27	0.52
26:1H:2505:G:O6	26:1H:2576:G:H2'	2.09	0.52
36:78:121:LYS:O	36:78:123:LEU:N	2.43	0.52
46:H8:160:GLY:O	46:H8:161:VAL:HG13	2.09	0.52
51:M8:15:ILE:O	51:M8:33:VAL:HB	2.10	0.52
1:1G:32:A:C2	1:1G:33:A:C4	2.98	0.52
1:1G:78:G:O6	1:1G:91:C:N4	2.42	0.52
2:12:18:GLY:O	2:12:19:HIS:ND1	2.38	0.52
7:62:16:LEU:HD12	9:82:41:VAL:O	2.10	0.52
17:8A:87:LYS:O	17:8A:91:ARG:HG3	2.09	0.52
20:BA:49:ALA:HA	20:BA:52:ALA:HB3	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2L:20:G:H1	31:49:83:ARG:HH22	1.58	0.52
26:14:1639:U:P	59:14:3469:HOH:O	2.67	0.52
26:14:2577:A:H2'	26:14:2614:A:N6	2.24	0.52
29:29:90:THR:OG1	29:29:90:THR:O	2.27	0.52
30:39:65:TRP:CZ3	30:39:72:ARG:HB3	2.44	0.52
33:69:72:LEU:HD21	33:69:107:VAL:HG11	1.92	0.52
37:45:35:VAL:HG12	37:45:36:ALA:H	1.74	0.52
40:75:8:LYS:HB2	40:75:8:LYS:HZ2	1.75	0.52
4:3E:197:PRO:HD3	6:52:16:GLN:HG3	1.92	0.52
12:3I:90:VAL:HG11	12:3I:93:LEU:HG	1.91	0.52
18:9I:38:GLU:HA	18:9I:41:LYS:HE3	1.92	0.52
21:1F:5:ASP:O	21:1F:11:GLY:HA3	2.10	0.52
26:1H:1093:G:HO2'	26:1H:1099:G:N2	2.07	0.52
26:1H:1406:U:H2'	26:1H:1407:C:H6	1.72	0.52
27:16:80:U:H2'	27:16:81:G:H21	1.75	0.52
28:11:231:HIS:HD2	28:11:249:PRO:HA	1.73	0.52
29:21:48:GLN:OE1	29:21:77:ILE:HG21	2.10	0.52
30:31:8:GLN:H	30:31:8:GLN:CD	2.12	0.52
30:31:96:ASP:OD1	30:31:98:SER:HB3	2.09	0.52
31:41:124:SER:HB2	31:41:131:TYR:CE1	2.44	0.52
36:78:96:THR:C	36:78:98:GLU:H	2.13	0.52
42:D8:27:ALA:HB1	42:D8:31:ALA:HB3	1.92	0.52
1:1G:420:U:O2'	1:1G:423:G:O6	2.14	0.52
1:1G:994:A:C2	14:5A:5:ALA:HB2	2.45	0.52
9:82:99:LEU:HB3	9:82:101:PHE:HE1	1.75	0.52
13:4A:77:ASN:O	13:4A:80:ARG:HB2	2.09	0.52
23:2L:44:A:H2'	23:2L:45:A:H8	1.75	0.52
26:14:557:U:O2'	34:15:45:ASN:O	2.26	0.52
26:14:1291:C:H2'	26:14:1292:U:C6	2.44	0.52
26:14:2057:A:H2'	26:14:2058:A:O4'	2.10	0.52
26:14:2624:G:O6	59:14:3644:HOH:O	2.19	0.52
27:1J:16:G:H2'	27:1J:17:C:C6	2.44	0.52
34:15:58:ASP:OD1	34:15:58:ASP:N	2.37	0.52
1:13:243:A:H4'	1:13:244:U:H3'	1.92	0.52
1:13:987:G:H1	1:13:1218:C:H42	1.58	0.52
1:13:1130:A:H62	1:13:1144:G:H21	1.57	0.52
5:4E:126:ARG:HG3	5:4E:126:ARG:NH1	2.25	0.52
26:1H:459:U:H2'	26:1H:460:A:H8	1.75	0.52
26:1H:1266:G:O2'	26:1H:2012:G:O6	2.21	0.52
26:1H:1386:C:H2'	26:1H:1387:C:C6	2.41	0.52
26:1H:2025:C:H2'	26:1H:2026:C:C6	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2199:A:H5'	26:1H:2205:C:OP2	2.09	0.52
29:21:135:HIS:CE1	59:21:401:HOH:O	2.58	0.52
36:78:82:GLY:HA2	36:78:113:LYS:O	2.10	0.52
38:98:1:MET:O	38:98:3:HIS:N	2.42	0.52
38:98:78:LYS:O	38:98:83:ILE:HG13	2.10	0.52
42:D8:28:GLU:CD	42:D8:28:GLU:H	2.11	0.52
1:1G:111:G:H8	1:1G:111:G:O5'	1.92	0.52
1:1G:691:G:O6	11:2A:55:LYS:NZ	2.37	0.52
1:1G:1194:U:H2'	1:1G:1195:C:H6	1.74	0.52
2:12:17:PHE:CE2	2:12:44:LEU:HA	2.45	0.52
6:52:7:ASN:HD21	18:9A:34:TYR:HE1	1.58	0.52
55:3L:9:U:H5	55:3L:22:A:H61	1.58	0.52
26:14:64:A:O3'	44:B5:71:GLY:HA3	2.10	0.52
26:14:839:U:H2'	26:14:840:C:C6	2.45	0.52
26:14:1337:G:H2'	26:14:1338:G:H8	1.75	0.52
26:14:1794:U:H2'	26:14:1795:C:H6	1.75	0.52
26:14:1839:G:OP2	59:14:3751:HOH:O	2.19	0.52
26:14:2394:C:OP1	36:35:63:PRO:HG2	2.10	0.52
27:1J:11:C:OP2	27:1J:12:C:N4	2.37	0.52
44:B5:57:LEU:N	44:B5:57:LEU:HD23	2.25	0.52
1:13:1007:C:N4	1:13:1022:G:H1	2.03	0.52
4:3E:81:GLU:OE1	4:3E:139:ARG:NH2	2.26	0.52
6:5E:23:LYS:O	6:5E:27:GLN:HG3	2.10	0.52
26:1H:507:A:H5''	26:1H:508:G:H5'	1.91	0.52
26:1H:2495:G:H5''	37:88:81:VAL:HG22	1.92	0.52
26:1H:2504:U:P	59:1H:3969:HOH:O	2.67	0.52
26:1H:2801:A:H2'	26:1H:2802:G:H4'	1.92	0.52
28:11:26:LYS:HB3	28:11:83:GLU:HG2	1.91	0.52
35:68:2:ILE:HD12	35:68:6:THR:HG21	1.92	0.52
39:A8:74:ALA:HB1	39:A8:107:GLU:O	2.10	0.52
47:I8:51:VAL:HG21	47:I8:79:VAL:HG12	1.91	0.52
54:Q8:60:LEU:O	54:Q8:61:LEU:HD12	2.09	0.52
1:1G:1127:G:H1'	1:1G:1148:U:H3	1.73	0.52
2:12:100:GLY:HA2	2:12:103:THR:OG1	2.09	0.52
17:8A:3:LYS:HB3	17:8A:61:GLU:HB3	1.92	0.52
26:14:111:A:H4'	49:G5:69:ARG:NH2	2.25	0.52
26:14:592:G:H21	54:M5:4:MET:HE2	1.73	0.52
30:39:25:PRO:O	30:39:27:GLU:HB2	2.10	0.52
30:39:32:LEU:O	30:39:36:VAL:HG23	2.10	0.52
34:15:47:ALA:O	34:15:119:ARG:NH2	2.42	0.52
37:45:26:TYR:O	37:45:28:ALA:N	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:429:U:H1'	1:13:430:A:H5''	1.92	0.52
1:13:789:U:H5	1:13:792:A:OP2	1.93	0.52
26:1H:319:C:C2	26:1H:333:G:N2	2.78	0.52
26:1H:432:A:H2'	26:1H:433:C:C6	2.44	0.52
26:1H:618:G:H2'	26:1H:618(A):C:H6	1.75	0.52
26:1H:1614:A:H61	43:E8:88:ARG:H	1.58	0.52
26:1H:2647:U:H2'	26:1H:2648:C:C6	2.45	0.52
26:1H:2773:C:H5''	29:21:164:ARG:HG2	1.92	0.52
26:1H:2855:C:H2'	26:1H:2856:C:H6	1.74	0.52
26:1H:2882:A:OP1	38:98:96:ARG:NH1	2.37	0.52
46:H8:30:ASN:OD1	46:H8:90:VAL:HB	2.10	0.52
47:I8:36:ILE:O	47:I8:36:ILE:HD13	2.08	0.52
1:1G:141:A:H1'	1:1G:182:U:O2	2.09	0.52
2:12:22:LYS:NZ	2:12:35:GLU:OE1	2.34	0.52
8:72:11:THR:OG1	8:72:14:ARG:NH1	2.41	0.52
9:82:99:LEU:HB3	9:82:101:PHE:CE1	2.44	0.52
11:2A:59:TYR:CZ	11:2A:63:LEU:HD21	2.45	0.52
26:14:13:A:H61	26:14:525:U:H3'	1.74	0.52
26:14:1478:G:H2'	26:14:1479:G:C8	2.45	0.52
26:14:1585:C:O2	26:14:1585:C:H2'	2.09	0.52
26:14:2127:G:N2	26:14:2161:C:N3	2.50	0.52
26:14:2666:C:H3'	26:14:2667:C:H6	1.75	0.52
26:14:2786:U:H4'	29:29:64:LYS:C	2.31	0.52
27:1J:70:C:H2'	27:1J:71:C:H6	1.75	0.52
31:49:42:GLY:O	31:49:43:LEU:HD13	2.09	0.52
31:49:173:LEU:HD22	31:49:178:PHE:CE1	2.45	0.52
46:D5:128:VAL:HG22	46:D5:129:SER:H	1.75	0.52
47:E5:27:GLU:HB2	47:E5:69:PHE:HD1	1.74	0.52
1:13:1227:A:P	13:4I:111:LYS:HZ1	2.32	0.51
8:7E:109:ILE:HD11	8:7E:120:THR:HG22	1.91	0.51
9:8E:82:ALA:O	9:8E:86:VAL:HG23	2.10	0.51
24:3K:8:U:H3	24:3K:14:A:H62	1.58	0.51
26:1H:64:A:H1'	44:F8:66:LEU:HB2	1.93	0.51
26:1H:762:U:H4'	26:1H:763:G:O5'	2.09	0.51
26:1H:881:G:H3'	26:1H:882:G:C4'	2.41	0.51
26:1H:2125:G:H1'	26:1H:2173:A:H61	1.74	0.51
26:1H:2152:G:H2'	26:1H:2153:G:O4'	2.10	0.51
27:16:78:A:C2	27:16:99:A:C4	2.98	0.51
31:41:96:ARG:O	31:41:97:ASP:HB2	2.10	0.51
36:78:1:MET:HE1	36:78:6:LEU:HA	1.92	0.51
37:88:75:THR:HA	37:88:88:GLY:O	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:B8:58:ASN:HD22	40:B8:58:ASN:C	2.12	0.51
49:K8:33:MET:O	49:K8:36:ARG:HB2	2.10	0.51
1:1G:1352:C:N3	1:1G:1370:G:N2	2.50	0.51
55:3L:75:C:H2'	55:3L:76:C:C6	2.44	0.51
26:14:459:U:H2'	26:14:460:A:H8	1.74	0.51
29:29:34:VAL:HG21	29:29:78:LEU:HD22	1.92	0.51
48:F5:87:PRO:HA	48:F5:90:ILE:CG2	2.39	0.51
50:H5:43:ILE:O	50:H5:47:VAL:HG23	2.11	0.51
10:1I:17:ASP:OD1	10:1I:70:ARG:HD3	2.11	0.51
26:1H:26:G:C6	26:1H:27:G:N1	2.78	0.51
26:1H:1252:G:H4'	26:1H:1253:A:OP1	2.10	0.51
28:11:2:ALA:HA	28:11:20:ASP:HB2	1.92	0.51
33:61:64:GLU:O	33:61:67:ARG:N	2.43	0.51
33:61:98:ALA:HB2	33:61:111:PRO:HB3	1.90	0.51
36:78:68:GLN:OE1	36:78:68:GLN:HA	2.10	0.51
1:1G:539:A:OP2	12:3A:115:LYS:NZ	2.43	0.51
1:1G:878:G:H5'	8:72:89:PRO:HG2	1.92	0.51
1:1G:1131:G:H2'	1:1G:1132:C:H6	1.75	0.51
1:1G:1295:G:O2'	13:4A:14:ARG:NH1	2.43	0.51
3:22:134:ILE:HG23	3:22:151:VAL:HB	1.91	0.51
6:52:33:TYR:CE2	6:52:74:ASP:HB2	2.45	0.51
16:7A:29:ASP:OD1	16:7A:29:ASP:N	2.43	0.51
26:14:445:C:O2'	26:14:446:G:H5'	2.10	0.51
26:14:1048:A:H2	26:14:1112:G:H21	1.58	0.51
26:14:1132:A:H2'	26:14:1133:U:C6	2.46	0.51
26:14:1771:C:H1'	26:14:1786:A:C8	2.44	0.51
26:14:2493:U:H2'	26:14:2494:G:O4'	2.11	0.51
26:14:2689:U:P	26:14:2719:G:H22	2.32	0.51
29:29:116:VAL:HG13	29:29:122:PHE:HB2	1.91	0.51
40:75:16:ARG:HB3	40:75:18:ASP:OD1	2.11	0.51
43:A5:36:LEU:HD13	43:A5:48:ALA:HA	1.93	0.51
48:F5:93:GLU:O	48:F5:97:LEU:HB3	2.10	0.51
1:13:413:G:N2	1:13:428:G:H1'	2.25	0.51
1:13:417:C:H2'	1:13:418:C:H6	1.74	0.51
1:13:1054:C:HO2'	1:13:1055:A:P	2.33	0.51
2:1E:166:ASP:C	2:1E:168:THR:H	2.14	0.51
2:1E:237:ALA:O	2:1E:239:VAL:N	2.44	0.51
4:3E:11:LEU:HD22	4:3E:66:ARG:HG2	1.92	0.51
7:6E:143:ARG:NH1	24:3K:42:U:O2'	2.43	0.51
22:1K:77:C:N3	22:1K:78:C:N4	2.59	0.51
26:1H:882:G:H22	26:1H:894:C:N4	2.07	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1012:U:O4	34:58:25:ARG:HA	2.10	0.51
26:1H:1475:G:C2	26:1H:1519:G:C2	2.98	0.51
26:1H:2033:A:OP1	59:1H:3887:HOH:O	2.19	0.51
26:1H:2157:G:O2'	26:1H:2158:A:O5'	2.29	0.51
26:1H:2298:A:H2'	26:1H:2299:G:O4'	2.11	0.51
31:41:2:PRO:HB3	51:M8:25:TYR:CE1	2.45	0.51
32:51:102:ALA:HA	32:51:117:PRO:HD3	1.92	0.51
32:51:153:LYS:HG2	32:51:162:ILE:CG1	2.41	0.51
40:B8:29:ARG:NH1	40:B8:46:GLU:OE1	2.42	0.51
40:B8:107:ASP:O	40:B8:110:ILE:HG23	2.10	0.51
1:1G:500:G:N2	1:1G:545:C:O2	2.43	0.51
1:1G:888:G:O2'	1:1G:1488:G:O2'	2.28	0.51
2:12:55:PHE:HZ	2:12:218:ALA:HA	1.75	0.51
23:2L:20:G:H3'	23:2L:21:U:H5''	1.93	0.51
26:14:660:G:H21	36:35:12:ALA:CA	2.23	0.51
26:14:660:G:H21	36:35:12:ALA:HA	1.75	0.51
26:14:746:A:H2'	26:14:2612:C:H5''	1.91	0.51
26:14:890:A:O2'	26:14:892:G:H5'	2.09	0.51
26:14:2120:G:H2'	26:14:2121:G:H8	1.76	0.51
26:14:2274:A:C6	26:14:2276:G:C8	2.98	0.51
30:39:18:ARG:HE	30:39:19:GLU:N	2.09	0.51
36:35:55:ARG:HG2	36:35:56:SER:N	2.24	0.51
36:35:93:GLY:H	36:35:123:LEU:HD12	1.74	0.51
46:D5:4:ARG:NH1	46:D5:60:GLU:OE2	2.35	0.51
1:13:143:A:H2	1:13:220:G:H1	1.57	0.51
1:13:1064:G:H4'	1:13:1065:U:OP1	2.10	0.51
1:13:1085:U:H3'	1:13:1086:U:H5	1.73	0.51
12:3I:71:PRO:O	12:3I:102:ARG:HD3	2.11	0.51
26:1H:536:A:H5'	41:C8:53:ARG:HD3	1.92	0.51
26:1H:1047:G:O2'	26:1H:1111:A:N6	2.44	0.51
26:1H:1094:U:C2	26:1H:1096:A:H5'	2.46	0.51
26:1H:1126:A:H4'	26:1H:1127:A:O5'	2.10	0.51
26:1H:1637:A:H4'	26:1H:2711:A:O2'	2.09	0.51
26:1H:1728:G:C6	26:1H:1730:U:OP2	2.63	0.51
26:1H:1731:G:H2'	26:1H:1732:A:H8	1.74	0.51
26:1H:2324:C:H5''	26:1H:2325:G:H5''	1.92	0.51
27:16:2:C:H2'	27:16:3:C:H6	1.76	0.51
30:31:64:ILE:HG23	30:31:65:TRP:CD1	2.45	0.51
36:78:38:GLN:HG2	36:78:45:LEU:HD12	1.92	0.51
1:1G:409:G:H2'	1:1G:410:G:O4'	2.11	0.51
1:1G:1256:A:N6	1:1G:1277:C:H3'	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1442:G:C5	1:1G:1446:A:N1	2.78	0.51
1:1G:1508:G:H2'	1:1G:1509:C:C6	2.45	0.51
2:12:21:ARG:HB3	2:12:39:ILE:HG12	1.93	0.51
2:12:115:LEU:HD13	2:12:145:LEU:HD12	1.92	0.51
15:6A:4:THR:HG22	15:6A:6:GLU:H	1.76	0.51
26:14:389:G:N1	36:35:71:VAL:HG12	2.25	0.51
26:14:2250:G:C5	37:45:82:ARG:HD2	2.45	0.51
26:14:2272:U:H5''	26:14:2273:A:OP1	2.11	0.51
26:14:2388:A:C2'	26:14:2389:G:H5'	2.40	0.51
26:14:2547:U:O2	35:25:23:ARG:NH2	2.40	0.51
49:G5:22:GLU:HG2	49:G5:64:LEU:HD11	1.92	0.51
50:H5:46:ASN:O	50:H5:50:VAL:HG22	2.09	0.51
4:3E:13:ARG:NH1	4:3E:38:TYR:O	2.43	0.51
7:6E:102:ARG:O	7:6E:106:GLN:HG3	2.11	0.51
9:8E:118:LYS:O	9:8E:119:ALA:HB3	2.11	0.51
26:1H:975:G:H1'	26:1H:990:A:C2	2.45	0.51
26:1H:1771:C:H1'	26:1H:1786:A:C8	2.45	0.51
26:1H:2127:G:H2'	26:1H:2128:C:O4'	2.09	0.51
35:68:21:CYS:HB2	35:68:39:ILE:HD12	1.91	0.51
38:98:83:ILE:HG22	38:98:87:TYR:HE2	1.76	0.51
39:A8:34:HIS:HB2	39:A8:36:TYR:CE1	2.46	0.51
1:1G:1321:C:C4	1:1G:1322:C:N3	2.78	0.51
3:22:38:ARG:NH1	3:22:94:LEU:HD22	2.26	0.51
4:32:96:LEU:HD13	4:32:139:ARG:NH1	2.25	0.51
13:4A:37:THR:HG21	13:4A:56:LEU:HA	1.92	0.51
16:7A:22:THR:HA	16:7A:33:ILE:HG13	1.93	0.51
18:9A:29:PHE:N	18:9A:29:PHE:HD1	2.09	0.51
26:14:271(B):G:N7	26:14:421:U:H2'	2.25	0.51
26:14:934:G:H2'	26:14:935:C:C6	2.45	0.51
26:14:1430:C:H2'	26:14:1431:U:C6	2.46	0.51
26:14:1914:C:H2'	26:14:1915:U:O4'	2.11	0.51
1:13:116:A:H61	1:13:313:A:H1'	1.75	0.51
1:13:919:A:O2'	1:13:920:U:H5'	2.09	0.51
1:13:939:G:H5''	7:6E:102:ARG:NH2	2.26	0.51
1:13:1060:C:O2'	10:1I:56:HIS:ND1	2.43	0.51
1:13:1127:G:H21	1:13:1147:C:H41	1.57	0.51
4:3E:13:ARG:HA	4:3E:33:MET:SD	2.51	0.51
5:4E:5:ASP:OD1	5:4E:5:ASP:N	2.44	0.51
22:1K:62:G:H1	22:1K:70:C:H42	1.59	0.51
26:1H:631:A:O2'	36:78:67:MET:HB3	2.11	0.51
26:1H:2153:G:H2'	26:1H:2154:G:O4'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:58:137:LYS:HZ1	34:58:138:LEU:HD23	1.76	0.51
40:B8:3:ARG:HB2	40:B8:6:LEU:HB2	1.92	0.51
45:G8:82:PRO:HB2	45:G8:98:VAL:HG12	1.93	0.51
1:1G:81:G:H1	1:1G:88:C:H42	1.57	0.51
1:1G:1359:C:H5''	59:1G:1779:HOH:O	2.11	0.51
4:32:3:ARG:HH11	4:32:115:ARG:HD2	1.74	0.51
10:1A:24:VAL:O	10:1A:28:ARG:HB3	2.11	0.51
26:14:1709:U:H2'	26:14:1710:C:C6	2.46	0.51
26:14:1814:G:H5''	28:19:54:ARG:HH12	1.74	0.51
26:14:2611:U:C4	52:J5:3:LYS:HG3	2.45	0.51
27:1J:5:C:O2'	27:1J:27:C:O2	2.27	0.51
34:15:35:ARG:HB3	34:15:42:TRP:HZ3	1.74	0.51
37:45:19:GLY:O	37:45:99:PRO:HD2	2.11	0.51
50:H5:12:PRO:HB2	50:H5:20:LYS:HD3	1.92	0.51
54:M5:49:VAL:HG12	54:M5:50:LEU:N	2.26	0.51
1:13:156:G:H1	1:13:165:C:N4	2.08	0.51
1:13:228:A:H2'	1:13:229:U:O4'	2.11	0.51
1:13:232:G:H2'	1:13:233:C:C6	2.46	0.51
1:13:554:C:H2'	1:13:555:C:H6	1.75	0.51
1:13:765:G:N2	1:13:813:U:OP2	2.43	0.51
13:4I:82:MET:O	13:4I:84:ILE:N	2.44	0.51
20:BI:25:ARG:O	20:BI:29:LYS:HG3	2.11	0.51
23:2K:76:C:H3'	23:2K:77:A:H3'	1.92	0.51
26:1H:70:G:H21	26:1H:71:A:H62	1.57	0.51
26:1H:804:A:P	59:1H:3667:HOH:O	2.68	0.51
33:61:4:ILE:HG23	33:61:18:VAL:HG22	1.93	0.51
39:A8:51:ALA:HB3	39:A8:73:LEU:HG	1.93	0.51
40:B8:2:ASN:O	40:B8:3:ARG:HG2	2.09	0.51
49:K8:42:GLY:C	49:K8:44:LEU:H	2.14	0.51
50:L8:43:ILE:O	50:L8:47:VAL:HG23	2.11	0.51
1:1G:624:C:H2'	1:1G:625:G:C8	2.45	0.51
1:1G:1016:A:H2'	1:1G:1017:G:O4'	2.10	0.51
1:1G:1448:C:H2'	1:1G:1449:C:O4'	2.10	0.51
2:12:15:VAL:HG12	2:12:209:ARG:NH2	2.25	0.51
9:82:17:VAL:HG22	9:82:63:ILE:HG12	1.93	0.51
55:3L:77:C:H2'	55:3L:78:C:H6	1.75	0.51
26:14:363(E):U:H5'	26:14:363(F):A:OP2	2.10	0.51
26:14:668:G:H2'	26:14:670:A:H62	1.75	0.51
26:14:776:G:H4'	26:14:777:A:O5'	2.11	0.51
26:14:1665:A:C4'	35:25:67:LYS:HB2	2.41	0.51
26:14:2068:U:N3	26:14:2430:A:H2	2.08	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2176:A:H2'	26:14:2177:C:C6	2.46	0.51
26:14:2577:A:O4'	52:J5:3:LYS:HB2	2.09	0.51
27:1J:103:U:HO2'	46:D5:29:TYR:HH	1.53	0.51
37:45:34:LEU:HB2	37:45:118:LEU:HD13	1.93	0.51
1:13:1349:A:H2'	1:13:1350:A:H8	1.75	0.51
1:13:1375:A:O2'	7:6E:29:LYS:NZ	2.44	0.51
1:13:1493:A:O2'	25:4K:19[A]:A:O2'	2.28	0.51
2:1E:165:VAL:HG23	2:1E:166:ASP:H	1.76	0.51
7:6E:72:ARG:HG3	7:6E:142:GLU:OE1	2.10	0.51
16:7I:72:ARG:HD3	16:7I:73:LEU:HG	1.92	0.51
20:BI:67:ALA:HA	20:BI:72:LEU:O	2.11	0.51
26:1H:1914:C:H2'	26:1H:1915:U:O4'	2.11	0.51
26:1H:2162:G:H2'	26:1H:2163:C:O4'	2.11	0.51
26:1H:2406:U:H5''	59:1H:3605:HOH:O	2.10	0.51
34:58:35:ARG:O	34:58:42:TRP:HZ3	1.93	0.51
35:68:23:ARG:HG3	35:68:24:VAL:N	2.25	0.51
40:B8:65:LYS:HE3	40:B8:67:SER:HB2	1.92	0.51
40:B8:107:ASP:OD1	40:B8:107:ASP:N	2.33	0.51
46:H8:98:MET:O	46:H8:125:LEU:HA	2.11	0.51
1:1G:157:G:H1	1:1G:164:U:H3	1.59	0.51
1:1G:1127:G:N3	1:1G:1127:G:H2'	2.25	0.51
1:1G:1246:C:H2'	1:1G:1247:U:C6	2.43	0.51
2:12:92:TYR:CD1	2:12:151:GLY:HA3	2.46	0.51
5:42:152:ARG:O	8:72:64:LYS:NZ	2.31	0.51
55:3L:48:C:H3'	55:3L:49:A:H8	1.74	0.51
26:14:244:A:C2	26:14:255:A:C4	2.98	0.51
26:14:438:G:H2'	26:14:439:G:H8	1.75	0.51
26:14:1636:C:H2'	26:14:1637:A:H8	1.72	0.51
26:14:2123:G:H2'	26:14:2124:G:C8	2.40	0.51
26:14:2274:A:C5	26:14:2276:G:C8	2.98	0.51
26:14:2671:A:H2'	26:14:2672:G:O4'	2.11	0.51
27:1J:19:G:N2	27:1J:64:C:O2	2.37	0.51
34:15:49:GLY:H	34:15:119:ARG:NH1	2.09	0.51
39:65:86:ALA:O	39:65:87:PHE:HB2	2.10	0.51
45:C5:51:VAL:HA	45:C5:57:GLN:HA	1.91	0.51
52:J5:40:LYS:HE3	52:J5:44:THR:O	2.11	0.51
1:13:271:C:H2'	1:13:272:C:C6	2.46	0.51
1:13:375:U:O3'	16:7I:6:LEU:HB2	2.11	0.51
1:13:703:G:O2'	1:13:704:A:OP2	2.26	0.51
1:13:922:G:C6	1:13:923:A:C6	2.98	0.51
4:3E:18:LYS:HD2	4:3E:31:CYS:HB2	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:82:ILE:O	15:6I:86:GLY:N	2.44	0.51
26:1H:322:A:H5'	26:1H:340:A:H1'	1.93	0.51
26:1H:1855:G:H1	26:1H:1887:C:H42	1.58	0.51
26:1H:2056:G:C2	26:1H:2057:A:C8	2.99	0.51
28:11:17:THR:CG2	28:11:204:ILE:HA	2.41	0.51
32:51:152:ARG:O	32:51:153:LYS:HB2	2.10	0.51
33:61:62:LYS:HG3	33:61:133:HIS:NE2	2.26	0.51
44:F8:39:ILE:O	44:F8:43:VAL:HG23	2.10	0.51
1:1G:1281:U:H3'	1:1G:1282:C:C5	2.46	0.51
2:12:16:HIS:O	2:12:204:ASN:ND2	2.43	0.51
20:BA:23:ARG:HH11	20:BA:23:ARG:HG3	1.76	0.51
28:19:70:TRP:CD1	28:19:70:TRP:C	2.84	0.51
35:25:87:ILE:HG23	35:25:88:ASN:O	2.11	0.51
40:75:112:ARG:HD2	40:75:113:LYS:HD2	1.91	0.51
1:13:652:U:O4	1:13:752:G:O2'	2.19	0.51
1:13:1044:A:C5	1:13:1045:C:H1'	2.46	0.51
7:6E:122:HIS:HA	7:6E:125:MET:HE2	1.93	0.51
8:7E:87:SER:CB	8:7E:93:VAL:H	2.24	0.51
22:1K:38:MIA:HN6	22:1K:38:MIA:H163	1.76	0.51
26:1H:2154:G:O6	26:1H:2156:G:N2	2.43	0.51
26:1H:2212:A:H1'	26:1H:2215:G:C4	2.46	0.51
26:1H:2857:G:N2	26:1H:2860:A:OP2	2.40	0.51
26:1H:2876:G:C5'	40:B8:2:ASN:HB3	2.41	0.51
34:58:46:VAL:CG1	34:58:48:MET:HG3	2.41	0.51
1:1G:130:A:C8	17:8A:63:ARG:HG3	2.45	0.51
1:1G:491:G:H2'	1:1G:492:G:O4'	2.10	0.51
1:1G:589:C:H42	1:1G:650:G:H1	1.59	0.51
1:1G:1299:A:C6	1:1G:1301:U:C2	2.99	0.51
1:1G:1319:A:OP1	19:AA:10:PHE:HB3	2.10	0.51
3:22:70:VAL:HG12	3:22:72:LYS:H	1.76	0.51
5:42:60:TYR:HB3	5:42:64:ARG:HH21	1.77	0.51
6:52:82:ARG:HB2	6:52:85:VAL:HG23	1.92	0.51
26:14:70:G:H21	26:14:71:A:H62	1.59	0.51
26:14:1812:A:H2'	26:14:1813:G:C8	2.46	0.51
26:14:1849:G:H2'	26:14:1850:G:H8	1.76	0.51
30:39:49:ALA:O	30:39:92:PRO:HB2	2.11	0.51
34:15:97:ARG:O	34:15:100:GLU:N	2.44	0.51
1:13:591:U:H2'	1:13:592:G:C8	2.46	0.50
1:13:1138:G:C6	1:13:1140:C:H1'	2.46	0.50
1:13:1423:G:P	35:68:49:ARG:HH22	2.33	0.50
3:2E:32:LEU:HD13	3:2E:59:ARG:HD3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:74:GLN:O	4:3E:78:LEU:HD13	2.12	0.50
17:8I:28:PRO:HA	17:8I:34:LYS:O	2.11	0.50
20:BI:14:LYS:HG3	20:BI:17:ARG:NE	2.24	0.50
25:4K:13:A:HO2'	25:4K:14:A:P	2.34	0.50
26:1H:1021:A:C8	26:1H:1021:A:H3'	2.46	0.50
26:1H:1142(A):A:H4'	34:58:25:ARG:HH22	1.76	0.50
26:1H:1432:C:H2'	26:1H:1433:U:O4'	2.11	0.50
28:11:2:ALA:HA	28:11:20:ASP:CB	2.41	0.50
32:51:149:ARG:HG3	32:51:162:ILE:HG22	1.91	0.50
48:J8:92:LYS:HA	48:J8:95:LEU:HB2	1.93	0.50
50:L8:7:LYS:HG3	50:L8:34:GLU:CG	2.42	0.50
1:1G:1443:G:H22	40:75:119:LYS:HB2	1.76	0.50
2:12:212:GLN:O	2:12:216:SER:N	2.42	0.50
13:4A:57:ARG:NH1	51:I5:34:GLU:O	2.43	0.50
13:4A:65:LYS:HB3	51:I5:49:PHE:CE2	2.45	0.50
26:14:270(L):U:H3	33:69:50:ARG:NH1	2.09	0.50
26:14:1171:G:H1	26:14:1178:C:N4	2.09	0.50
26:14:1405:U:H2'	26:14:1406:U:C6	2.46	0.50
26:14:1416:G:O2'	26:14:1417:C:O4'	2.29	0.50
26:14:1939:U:OP1	26:14:2604:U:O2'	2.27	0.50
26:14:2133:G:C4	26:14:2157:G:O6	2.65	0.50
26:14:2275:C:H6	26:14:2275:C:H5'	1.77	0.50
31:49:131:TYR:HE1	31:49:133:LEU:HD23	1.76	0.50
34:15:7:LYS:N	34:15:7:LYS:HZ2	2.08	0.50
1:13:621:A:H2'	1:13:622:A:O4'	2.11	0.50
1:13:1022:G:H2'	1:13:1023:G:C8	2.46	0.50
1:13:1104:G:OP1	2:1E:144:ARG:NH2	2.44	0.50
1:13:1184:G:H2'	1:13:1185:G:C8	2.46	0.50
2:1E:17:PHE:CD2	2:1E:44:LEU:HD11	2.46	0.50
2:1E:185:ILE:CG2	2:1E:199:TYR:HB2	2.41	0.50
7:6E:22:LEU:HD23	7:6E:62:PHE:HE2	1.76	0.50
26:1H:270(M):U:H1'	26:1H:270(N):G:N7	2.26	0.50
26:1H:574:C:OP2	59:1H:3838:HOH:O	2.18	0.50
26:1H:1359:A:N1	26:1H:1372:U:C4	2.78	0.50
26:1H:1412:A:H2'	26:1H:1413:G:C8	2.47	0.50
26:1H:2096:U:H3	26:1H:2193:G:H1	1.59	0.50
39:A8:27:SER:HA	39:A8:88:ASP:HB2	1.93	0.50
52:N8:50:GLY:H	52:N8:56:LYS:HG3	1.76	0.50
2:12:168:THR:HG21	2:12:191:ASP:O	2.11	0.50
6:52:8:ILE:HG12	6:52:26:ILE:HD13	1.93	0.50
7:62:126:ASP:HB3	7:62:131:LYS:O	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1A:78:ASN:ND2	10:1A:81:THR:HG23	2.26	0.50
26:14:176:G:O2'	26:14:177:G:H5'	2.12	0.50
26:14:397:G:O2'	26:14:2231:C:H1'	2.12	0.50
26:14:451:C:H41	26:14:454:A:H5'	1.76	0.50
26:14:2056:G:C2	26:14:2057:A:C8	2.99	0.50
26:14:2292:C:H4'	26:14:2375:G:H4'	1.94	0.50
26:14:2411:A:H8	26:14:2411:A:OP2	1.93	0.50
31:49:39:ILE:HG12	31:49:157:ILE:HG23	1.93	0.50
33:69:123:LEU:HD22	33:69:143:SER:HB3	1.93	0.50
41:85:88:ILE:HA	42:95:49:THR:O	2.10	0.50
48:F5:80:LEU:HD22	48:F5:80:LEU:H	1.75	0.50
1:13:160:A:H61	1:13:347:G:H1'	1.75	0.50
2:1E:100:GLY:O	2:1E:104:ASN:N	2.41	0.50
11:2I:57:THR:HG23	11:2I:60:ALA:H	1.75	0.50
16:7I:4:ILE:HG12	16:7I:21:VAL:HG12	1.92	0.50
16:7I:43:LYS:HA	16:7I:48:TRP:HB2	1.92	0.50
26:1H:1433:U:O2	26:1H:1561:G:C2	2.64	0.50
26:1H:1443:G:C2	26:1H:1549:C:N3	2.80	0.50
26:1H:1973:G:H2'	26:1H:1974:C:H6	1.75	0.50
36:78:97:PRO:HB3	36:78:112:LEU:HD12	1.93	0.50
39:A8:38:GLN:HG2	39:A8:47:THR:CG2	2.42	0.50
46:H8:33:LEU:HD11	46:H8:35:ARG:HG3	1.92	0.50
50:L8:51:ALA:HA	50:L8:54:VAL:HG12	1.93	0.50
1:1G:243:A:H4'	1:1G:244:U:O5'	2.11	0.50
1:1G:468:A:H2'	1:1G:474:G:H5'	1.92	0.50
1:1G:827:U:H5''	1:1G:828:A:OP2	2.12	0.50
1:1G:1141:C:H2'	1:1G:1142:G:H8	1.75	0.50
1:1G:1386:G:C2	1:1G:1387:G:C8	2.99	0.50
11:2A:18:ARG:HB3	11:2A:33:THR:OG1	2.11	0.50
26:14:249:C:H4'	26:14:250:G:O5'	2.12	0.50
26:14:654(I):C:H5''	26:14:654(M):C:H41	1.75	0.50
26:14:997:G:OP1	41:85:93:LYS:HB2	2.11	0.50
26:14:1057:A:H2'	26:14:1058:U:O4'	2.11	0.50
26:14:1171:G:H1'	26:14:1173:G:O4'	2.11	0.50
26:14:1333:C:H2'	26:14:1334:G:H8	1.76	0.50
26:14:2414:G:H21	36:35:67:MET:CE	2.24	0.50
26:14:2749:A:O4'	32:59:63:SER:HA	2.10	0.50
26:14:2873:A:H8	38:55:6:SER:H	1.57	0.50
27:1J:4:C:H42	27:1J:116:G:H1	1.58	0.50
54:M5:14:VAL:HG13	54:M5:22:VAL:HG13	1.92	0.50
1:13:412:A:H4'	1:13:413:G:O5'	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:622:A:C8	1:13:623:C:C6	2.99	0.50
4:3E:107:ARG:HH22	4:3E:194:LEU:CD2	2.24	0.50
4:3E:113:SER:O	4:3E:117:ALA:N	2.40	0.50
6:5E:18:GLN:O	6:5E:21:LEU:HB2	2.11	0.50
11:2I:40:ILE:HG22	11:2I:75:TYR:HD2	1.76	0.50
17:8I:9:VAL:O	17:8I:21:VAL:HA	2.12	0.50
22:1K:19:C:O2'	22:1K:20:C:OP1	2.21	0.50
26:1H:16:G:H2'	26:1H:17:G:H8	1.76	0.50
26:1H:1174:A:H1'	26:1H:1178:C:H41	1.75	0.50
26:1H:1210:A:OP1	26:1H:1211:U:O2'	2.20	0.50
26:1H:1593:G:H2'	26:1H:1594:G:C8	2.47	0.50
26:1H:2772:C:H2'	26:1H:2773:C:H6	1.76	0.50
26:1H:2849:U:H4'	26:1H:2868:A:C2	2.47	0.50
33:61:8:PRO:HA	33:61:14:ASP:HA	1.92	0.50
33:61:48:GLU:HG3	33:61:52:ARG:NH1	2.26	0.50
35:68:88:ASN:HD21	35:68:92:GLU:H	1.55	0.50
36:78:65:ARG:HG3	36:78:65:ARG:NH1	2.26	0.50
39:A8:27:SER:HA	39:A8:88:ASP:CB	2.41	0.50
40:B8:109:GLU:OE2	40:B8:112:ARG:NH1	2.45	0.50
45:G8:55:TYR:HB2	45:G8:58:GLY:HA3	1.93	0.50
1:1G:963:G:H21	10:1A:55:LYS:NZ	2.09	0.50
1:1G:1022:G:H2'	1:1G:1023:G:O4'	2.10	0.50
2:12:141:GLU:O	2:12:145:LEU:HB2	2.12	0.50
6:52:97:PHE:O	18:9A:31:LEU:HD23	2.11	0.50
9:82:128:ARG:NH2	23:2L:33:OMC:OP2	2.37	0.50
13:4A:92:HIS:HE2	13:4A:98:VAL:HG21	1.76	0.50
17:8A:6:LEU:HD13	17:8A:42:TYR:HE2	1.77	0.50
26:14:1047:G:HO2'	26:14:1110:G:N2	2.10	0.50
26:14:1487:G:H1	26:14:1502:C:H42	1.59	0.50
26:14:1786:A:C2	26:14:2606:C:H1'	2.47	0.50
26:14:2018:G:OP1	52:J5:9:LYS:NZ	2.44	0.50
26:14:2418:A:OP1	54:M5:29:LYS:NZ	2.45	0.50
26:14:2499:C:OP1	59:14:3616:HOH:O	2.19	0.50
26:14:2880:C:O2	38:55:93:GLY:N	2.31	0.50
29:29:112:GLY:O	29:29:159:HIS:HA	2.11	0.50
30:39:123:LEU:HB2	30:39:192:LEU:HB3	1.94	0.50
31:49:166:ASP:HA	31:49:169:ALA:HB3	1.94	0.50
36:35:147:LEU:HD22	36:35:148:LEU:O	2.11	0.50
38:55:57:ARG:HH11	38:55:57:ARG:HG3	1.77	0.50
40:75:118:ARG:O	40:75:121:ILE:HG22	2.11	0.50
42:95:69:LYS:CG	42:95:86:GLY:HA3	2.38	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:182:U:H5	1:13:183:G:C4	2.29	0.50
1:13:556:C:H2'	1:13:557:G:H8	1.76	0.50
1:13:603:U:H2'	1:13:604:G:C8	2.47	0.50
1:13:651:C:H2'	1:13:652:U:C6	2.46	0.50
1:13:1417:G:N2	1:13:1482:G:H2'	2.26	0.50
11:2I:34:ASP:HB2	11:2I:35:PRO:HD2	1.92	0.50
15:6I:39:LEU:HB3	15:6I:56:LEU:HD12	1.92	0.50
17:8I:27:PHE:CE1	17:8I:36:ILE:HD11	2.46	0.50
22:1K:10:C:H2'	22:1K:11:C:C6	2.47	0.50
26:1H:634:C:H2'	26:1H:635:C:H6	1.75	0.50
26:1H:780:G:N2	26:1H:783:A:N6	2.56	0.50
26:1H:1109:C:HO2'	26:1H:1110:G:C4'	2.21	0.50
26:1H:1387:C:C2	26:1H:1388:G:C8	3.00	0.50
26:1H:2291:U:H2'	26:1H:2292:C:C6	2.46	0.50
32:51:143:GLN:HE21	32:51:143:GLN:HA	1.76	0.50
43:E8:11:ARG:CZ	43:E8:98:LYS:HB3	2.42	0.50
46:H8:19:ARG:NH1	46:H8:84:GLU:HB2	2.26	0.50
23:2L:24:C:H2'	23:2L:25:U:C6	2.46	0.50
55:3L:48:C:H3'	55:3L:49:A:C8	2.46	0.50
26:14:127:A:H5''	26:14:128:C:C6	2.47	0.50
26:14:1073:A:OP2	26:14:1094:U:N3	2.45	0.50
26:14:1353:A:OP2	59:14:3476:HOH:O	2.20	0.50
26:14:1416:G:O2'	26:14:1417:C:H6	1.94	0.50
26:14:2648:C:H2'	26:14:2649:U:H6	1.75	0.50
27:1J:3:C:H2'	27:1J:4:C:H6	1.77	0.50
27:1J:40:U:H1'	27:1J:45:A:H61	1.75	0.50
30:39:192:LEU:O	30:39:193:VAL:HG23	2.12	0.50
34:15:135:PRO:O	34:15:137:LYS:NZ	2.30	0.50
37:45:134:ARG:N	37:45:135:ASP:OD1	2.45	0.50
39:65:7:TYR:HA	39:65:10:ARG:HH21	1.76	0.50
41:85:110:VAL:O	41:85:114:LYS:HG2	2.12	0.50
1:13:186(E):C:N4	1:13:191(B):G:H1	2.03	0.50
1:13:554:C:H2'	1:13:555:C:C6	2.46	0.50
2:1E:189:ASP:OD2	2:1E:191:ASP:HB2	2.11	0.50
4:3E:201:GLN:O	4:3E:205:GLU:HG3	2.11	0.50
10:1I:6:ILE:HD11	10:1I:72:VAL:HB	1.92	0.50
12:3I:43:VAL:HG23	12:3I:93:LEU:HD22	1.93	0.50
22:1K:85:A:H1'	26:1H:2583:G:N2	2.27	0.50
26:1H:1496:A:H8	26:1H:1577:C:O2'	1.83	0.50
26:1H:1580:A:H8	26:1H:1580:A:OP2	1.94	0.50
26:1H:1996:C:OP1	35:68:31:LYS:HE3	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2171:A:O2'	26:1H:2172:U:O4'	2.25	0.50
26:1H:2314:C:H2'	26:1H:2315:G:C8	2.44	0.50
29:21:38:THR:HG23	29:21:41:LYS:H	1.77	0.50
31:41:11:TYR:OH	31:41:16:ARG:NH1	2.40	0.50
34:58:62:VAL:CG2	34:58:66:LYS:HD2	2.42	0.50
45:G8:35:TYR:CE2	45:G8:69:ALA:HB3	2.46	0.50
46:H8:10:ARG:HG3	46:H8:36:LYS:HB3	1.93	0.50
46:H8:93:ASP:HA	46:H8:130:PRO:HG2	1.93	0.50
1:1G:1278:U:H5'	1:1G:1279:A:O4'	2.12	0.50
55:3L:74:C:N3	55:3L:75:C:N4	2.56	0.50
26:14:138:G:H22	44:B5:44:GLU:CD	2.14	0.50
26:14:1358:G:N2	26:14:1372:U:C5	2.80	0.50
26:14:1771:C:O2'	26:14:1786:A:H8	1.94	0.50
26:14:1788:C:H2'	26:14:1789:A:C8	2.45	0.50
26:14:2080:G:H5'	48:F5:35:THR:OG1	2.12	0.50
26:14:2308:G:HO2'	26:14:2309:A:P	2.34	0.50
26:14:2420:C:N4	54:M5:31:HIS:O	2.44	0.50
27:1J:43:C:P	51:I5:6:HIS:HE1	2.34	0.50
39:65:85:VAL:HG22	39:65:110:LEU:HB2	1.94	0.50
41:85:92:ARG:C	41:85:94:ASN:H	2.15	0.50
45:C5:87:LYS:H	45:C5:94:LYS:HG2	1.77	0.50
1:13:129(A):G:C2	1:13:188:U:O2'	2.64	0.50
1:13:431:A:H2'	1:13:432:A:O4'	2.11	0.50
1:13:942:G:C2	1:13:943:U:C6	2.99	0.50
1:13:1051:C:H2'	1:13:1052:U:C6	2.46	0.50
1:13:1118:C:P	9:8E:104:ARG:HH11	2.35	0.50
1:13:1412:C:H2'	1:13:1413:A:C8	2.46	0.50
5:4E:29:GLY:HA2	5:4E:46:GLY:O	2.12	0.50
9:8E:114:TYR:HE2	10:1I:59:SER:HA	1.76	0.50
10:1I:47:PHE:CZ	14:5I:37:PHE:HE2	2.29	0.50
17:8I:48:GLU:O	17:8I:50:LYS:HG2	2.12	0.50
20:BI:25:ARG:HH11	20:BI:25:ARG:HG3	1.77	0.50
22:1K:13:G:H2'	22:1K:14:A:C8	2.45	0.50
26:1H:660:G:H21	36:78:12:ALA:HA	1.77	0.50
26:1H:870:A:OP1	37:88:6:ARG:NH2	2.45	0.50
26:1H:1001:A:H2'	26:1H:1002:G:O4'	2.12	0.50
26:1H:2749:A:H4'	32:51:62:LYS:HB3	1.93	0.50
31:41:83:ARG:H	31:41:86:MET:HE3	1.77	0.50
41:C8:47:TYR:CD1	41:C8:47:TYR:C	2.85	0.50
1:1G:1324:A:H2'	1:1G:1325:C:C6	2.47	0.50
13:4A:60:VAL:HG13	13:4A:64:TRP:HE1	1.75	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:90:LEU:HA	13:4A:93:ARG:HG3	1.94	0.50
15:6A:87:ILE:CG2	15:6A:88:ARG:H	2.20	0.50
26:14:773:U:O2'	28:19:48:ARG:HD3	2.11	0.50
26:14:882:G:H22	26:14:894:C:N4	2.08	0.50
26:14:981:A:N1	26:14:2027:G:O2'	2.33	0.50
26:14:1062:G:H2'	26:14:1063:G:C8	2.46	0.50
26:14:1330:C:OP1	59:14:3681:HOH:O	2.19	0.50
26:14:1432:C:H2'	26:14:1433:U:O4'	2.11	0.50
26:14:1569:A:H5'	28:19:61:LEU:HD21	1.93	0.50
26:14:2037:G:H2'	26:14:2038:G:C8	2.46	0.50
26:14:2748:A:H2'	26:14:2749:A:H8	1.77	0.50
26:14:2893:G:H4'	26:14:2894:G:O5'	2.12	0.50
35:25:88:ASN:OD1	35:25:91:LEU:N	2.45	0.50
38:55:33:ARG:HA	38:55:115:GLU:HA	1.94	0.50
1:13:114:U:H2'	1:13:115:G:C8	2.47	0.50
1:13:352:C:O2'	1:13:354:G:OP1	2.19	0.50
1:13:692:U:O2'	1:13:694:A:N7	2.31	0.50
3:2E:15:THR:HG22	3:2E:16:ARG:N	2.27	0.50
17:8I:45:HIS:O	17:8I:73:VAL:HG23	2.12	0.50
20:BI:25:ARG:HG2	20:BI:29:LYS:HE3	1.94	0.50
20:BI:35:THR:HA	20:BI:38:LYS:HD3	1.94	0.50
24:3K:20:C:H5''	24:3K:68:A:H62	1.77	0.50
26:1H:152:G:H2'	26:1H:153:C:C6	2.47	0.50
26:1H:322:A:P	30:31:168:ARG:HH21	2.35	0.50
26:1H:483:A:O4'	45:G8:48:ALA:HB1	2.12	0.50
26:1H:1359:A:C2	26:1H:1372:U:O4	2.65	0.50
26:1H:1408:C:C2	26:1H:1595:G:N2	2.79	0.50
26:1H:2154:G:H2'	26:1H:2155:G:C8	2.47	0.50
30:31:10:PRO:O	30:31:124:LEU:HD12	2.12	0.50
32:51:25:LYS:HG2	32:51:34:GLU:HG2	1.94	0.50
46:H8:48:PHE:HE1	46:H8:71:VAL:HG11	1.76	0.50
1:1G:604:G:H2'	1:1G:605:U:O4'	2.11	0.50
1:1G:1053:G:H4'	1:1G:1054:C:H5'	1.93	0.50
1:1G:1129:C:C4	1:1G:1142:G:O6	2.65	0.50
9:82:42:ARG:NH1	9:82:71:SER:O	2.45	0.50
10:1A:30:SER:HB2	10:1A:81:THR:HG22	1.93	0.50
11:2A:86:GLY:N	11:2A:112:THR:OG1	2.44	0.50
18:9A:53:ARG:NH2	18:9A:60:ALA:H	2.07	0.50
20:BA:99:LEU:HD12	20:BA:99:LEU:H	1.77	0.50
55:3L:18:G:O2'	26:14:2112:G:O4'	2.29	0.50
26:14:51:G:N3	26:14:119:A:C2	2.80	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:614:U:H4'	26:14:615:G:OP1	2.12	0.50
26:14:635:C:H2'	26:14:636:G:O4'	2.12	0.50
26:14:1022:G:C6	26:14:1140:C:C4	3.00	0.50
26:14:1190:G:OP1	36:35:32:THR:HA	2.12	0.50
26:14:1790:C:H5''	26:14:1791:A:OP1	2.12	0.50
26:14:1820:U:O2	28:19:201:HIS:HB3	2.12	0.50
26:14:2275:C:H5'	26:14:2275:C:C6	2.47	0.50
26:14:2773:C:OP1	29:29:166:THR:OG1	2.29	0.50
27:1J:44:G:H5''	27:1J:45:A:OP1	2.12	0.50
33:69:68:LEU:HA	33:69:71:ILE:HG22	1.94	0.50
33:69:129:THR:HA	33:69:137:PRO:HA	1.93	0.50
35:25:1:MET:HE3	35:25:67:LYS:HE2	1.94	0.50
37:45:21:THR:HB	37:45:23:GLY:HA3	1.94	0.50
38:55:10:LEU:O	38:55:12:ARG:HG3	2.11	0.50
39:65:59:LYS:HD2	39:65:60:GLY:N	2.27	0.50
40:75:26:ASP:O	40:75:49:VAL:HG22	2.11	0.50
51:I5:34:GLU:HG2	51:I5:35:VAL:N	2.27	0.50
1:13:438:G:H4'	4:3E:123:HIS:CE1	2.47	0.50
1:13:953:G:H5'	1:13:965:A:H61	1.76	0.50
1:13:1497:G:C2'	1:13:1498:U:H5'	2.42	0.50
26:1H:277:C:C5	26:1H:278:A:H1'	2.46	0.50
26:1H:879:G:O5'	26:1H:879:G:H8	1.95	0.50
26:1H:1288:U:C2	26:1H:1327:C:O2	2.64	0.50
26:1H:1337:G:H2'	26:1H:1338:G:C8	2.46	0.50
28:11:10:THR:OG1	28:11:13:ARG:HB2	2.12	0.50
1:1G:718:G:H5'	11:2A:117:ASN:CG	2.32	0.50
1:1G:980:C:H3'	1:1G:981:U:H6	1.77	0.50
1:1G:1301:U:O3'	13:4A:21:TYR:OH	2.29	0.50
3:22:22:TRP:CZ3	3:22:32:LEU:HB3	2.47	0.50
9:82:119:ALA:O	9:82:120:ARG:HB2	2.12	0.50
24:1L:6:G:O6	24:1L:75:C:N4	2.44	0.50
26:14:389:G:H22	36:35:72:PRO:HD3	1.77	0.50
26:14:833:U:O4'	36:35:52:GLU:HA	2.12	0.50
26:14:1697:G:OP2	26:14:1698:A:O2'	2.28	0.50
26:14:2875:C:O2'	40:75:3:ARG:NE	2.45	0.50
44:B5:50:LYS:H	44:B5:83:VAL:HG23	1.77	0.50
45:C5:75:ILE:O	45:C5:76:CYS:HB3	2.11	0.50
1:13:128:G:H5'	17:8I:2:PRO:O	2.12	0.49
1:13:377:G:H1	1:13:386:C:H42	1.58	0.49
1:13:665:A:N3	1:13:732:C:H2'	2.27	0.49
1:13:812:C:OP1	1:13:903:G:H1'	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1266:G:N2	1:13:1270:C:N3	2.60	0.49
2:1E:60:ASP:HB3	2:1E:64:ARG:NH1	2.27	0.49
2:1E:97:TRP:HZ2	2:1E:102:LEU:HD13	1.76	0.49
2:1E:144:ARG:HG3	2:1E:145:LEU:N	2.25	0.49
4:3E:128:VAL:HG22	4:3E:146:ILE:HG23	1.92	0.49
5:4E:27:ARG:HG3	5:4E:28:PHE:N	2.28	0.49
17:8I:9:VAL:HG12	17:8I:10:VAL:H	1.77	0.49
26:1H:7:G:C2	26:1H:8:A:H1'	2.47	0.49
26:1H:298:G:N7	59:1H:3942:HOH:O	2.35	0.49
26:1H:699:A:H2'	26:1H:700:G:O4'	2.11	0.49
26:1H:1336:A:H2'	26:1H:1337:G:C8	2.47	0.49
26:1H:1479:G:O2'	26:1H:1558:A:H5'	2.12	0.49
26:1H:1900:A:C8	26:1H:1900:A:C5'	2.94	0.49
36:78:31:ALA:O	36:78:32:THR:HG22	2.11	0.49
38:98:24:GLN:OE1	38:98:36:THR:HG21	2.10	0.49
1:1G:543:C:C2'	1:1G:544:G:H5'	2.42	0.49
1:1G:1227:A:OP1	19:AA:80:TYR:OH	2.12	0.49
13:4A:23:TYR:CE2	13:4A:70:LEU:HB3	2.47	0.49
19:AA:42:PRO:HA	19:AA:45:VAL:HG13	1.94	0.49
26:14:836:G:H2'	26:14:837:C:C6	2.46	0.49
37:45:27:VAL:HG13	46:D5:81:ARG:NH2	2.25	0.49
48:F5:91:LYS:HZ3	48:F5:91:LYS:HA	1.77	0.49
2:1E:76:GLN:HA	2:1E:208:ILE:HG12	1.93	0.49
3:2E:83:ARG:O	3:2E:86:VAL:HG22	2.12	0.49
7:6E:65:ALA:HB1	7:6E:127:ALA:HB3	1.94	0.49
11:2I:29:ILE:HB	11:2I:44:SER:HB2	1.92	0.49
12:3I:47:LYS:HG3	12:3I:47:LYS:O	2.11	0.49
26:1H:270(K):C:N3	26:1H:270(M):U:H5''	2.27	0.49
26:1H:674:G:H1'	30:31:74:ARG:HD3	1.94	0.49
26:1H:813:U:HO2'	26:1H:1226:G:HO2'	1.59	0.49
26:1H:919:G:H4'	27:16:81:G:H4'	1.94	0.49
26:1H:2134:A:OP2	26:1H:2157:G:N2	2.45	0.49
28:11:12:SER:O	28:11:16:MET:HB2	2.12	0.49
31:41:84:LYS:O	31:41:84:LYS:HG2	2.12	0.49
32:51:43:VAL:HG12	32:51:52:VAL:HG13	1.93	0.49
45:G8:11:ASP:O	45:G8:26:LYS:HG3	2.11	0.49
45:G8:39:VAL:HB	45:G8:42:VAL:HG11	1.94	0.49
1:1G:464:G:C6	1:1G:466:C:H5'	2.47	0.49
1:1G:620:C:H2'	1:1G:621:A:O4'	2.12	0.49
1:1G:713:G:H2'	1:1G:714:G:C8	2.47	0.49
5:42:34:VAL:HG21	5:42:63:ARG:HG2	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:62:120:ILE:O	7:62:124:LEU:HB2	2.12	0.49
9:82:26:VAL:HG22	9:82:61:ALA:N	2.28	0.49
10:1A:65:LEU:HD12	14:5A:55:GLY:O	2.12	0.49
17:8A:45:HIS:CD2	17:8A:47:PRO:HD3	2.47	0.49
19:AA:50:ALA:HB1	19:AA:57:HIS:HB3	1.94	0.49
24:1L:9:U:H5''	24:1L:11:C:H5	1.77	0.49
26:14:77:C:OP1	49:G5:59:ARG:HD3	2.11	0.49
26:14:730:C:H2'	26:14:731:C:H6	1.77	0.49
26:14:768:G:H2'	26:14:769:G:H8	1.77	0.49
26:14:770:G:H5''	26:14:771:G:OP2	2.12	0.49
26:14:1141:U:H3'	34:15:63:THR:HG21	1.94	0.49
26:14:1462:C:H4'	26:14:2703:C:H5'	1.94	0.49
26:14:2401:U:H2'	26:14:2402:C:H5''	1.95	0.49
26:14:2873:A:H8	38:55:6:SER:N	2.10	0.49
27:1J:28:C:H2'	27:1J:29:A:H8	1.77	0.49
27:1J:104:A:H2'	27:1J:105:G:O4'	2.12	0.49
28:19:120:GLY:HA2	28:19:190:TYR:OH	2.11	0.49
48:F5:7:ILE:HD13	48:F5:91:LYS:HE3	1.93	0.49
1:13:1014:A:H2	1:13:1219:U:H1'	1.77	0.49
1:13:1342:C:O2'	9:8E:124:GLN:HG3	2.12	0.49
1:13:1434:A:H2'	1:13:1435:G:O4'	2.13	0.49
5:4E:76:ILE:HG13	5:4E:93:PRO:HB3	1.92	0.49
6:5E:16:GLN:HA	6:5E:19:LEU:HB2	1.93	0.49
11:2I:85:ARG:HG2	11:2I:113:PRO:HD3	1.94	0.49
22:1K:18:G:N2	22:1K:66:G:H1'	2.27	0.49
26:1H:274:G:H8	26:1H:274:G:H3'	1.76	0.49
26:1H:580:C:H2'	26:1H:581:C:C6	2.46	0.49
26:1H:1055:G:H1'	26:1H:1085:A:C2	2.46	0.49
26:1H:1287:A:N7	38:98:107:ASP:HB2	2.27	0.49
26:1H:2081:C:H2'	26:1H:2082:A:C8	2.47	0.49
28:11:146:GLU:HG3	28:11:190:TYR:H	1.77	0.49
30:31:101:LEU:HD22	30:31:102:PRO:HD2	1.93	0.49
37:88:88:GLY:C	37:88:90:VAL:N	2.63	0.49
41:C8:75:ASN:HB3	41:C8:77:SER:N	2.27	0.49
45:G8:29:GLU:HB3	45:G8:38:ILE:CG2	2.42	0.49
53:P8:23:ARG:HH11	53:P8:23:ARG:HG3	1.77	0.49
1:1G:338:A:C5	1:1G:339:C:C5	3.01	0.49
1:1G:406:G:C2	1:1G:407:G:C8	3.00	0.49
5:42:51:VAL:O	5:42:55:VAL:HG23	2.13	0.49
9:82:4:TYR:HB2	9:82:19:LEU:HB2	1.94	0.49
26:14:33:U:H4'	26:14:34:C:OP1	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:270:A:H5''	48:F5:98:LEU:HD22	1.93	0.49
26:14:1252:G:N3	41:85:33:ARG:HD2	2.28	0.49
26:14:1658:C:OP1	59:14:3535:HOH:O	2.19	0.49
26:14:1856:G:N2	26:14:1886:C:N3	2.50	0.49
26:14:2557:G:H2'	26:14:2558:C:H6	1.76	0.49
28:19:41:GLY:HA3	28:19:43:ARG:HD3	1.95	0.49
29:29:103:ASP:OD1	29:29:201:THR:HG23	2.13	0.49
30:39:122:LYS:HD2	30:39:191:ARG:HB3	1.94	0.49
39:65:87:PHE:HD2	39:65:88:ASP:O	1.95	0.49
1:13:244:U:H4'	1:13:245:C:O5'	2.12	0.49
1:13:615:C:C2	1:13:616:G:C8	3.01	0.49
1:13:664:G:N2	1:13:741:G:H1	1.98	0.49
1:13:706:A:N3	11:2I:31:THR:HG21	2.28	0.49
1:13:748:C:H6	1:13:748:C:O5'	1.95	0.49
1:13:1306:A:H61	1:13:1331:G:H1'	1.78	0.49
1:13:1510:U:H2'	1:13:1511:G:C8	2.47	0.49
8:7E:123:GLU:O	8:7E:127:LEU:HB2	2.13	0.49
14:5I:25:VAL:HG22	14:5I:38:GLY:O	2.13	0.49
26:1H:507:A:H5''	26:1H:508:G:H3'	1.94	0.49
26:1H:674:G:C1'	30:31:74:ARG:HD3	2.42	0.49
26:1H:1731:G:H2'	26:1H:1732:A:C8	2.46	0.49
26:1H:2862:G:H2'	26:1H:2863:C:H6	1.78	0.49
37:88:33:GLY:HA2	37:88:105:GLU:HA	1.95	0.49
1:1G:595:G:H1'	1:1G:596:C:H5	1.76	0.49
1:1G:1281:U:OP2	1:1G:1282:C:N4	2.42	0.49
4:32:111:ALA:HB2	4:32:120:LEU:HD12	1.93	0.49
7:62:62:PHE:HA	7:62:124:LEU:HD21	1.94	0.49
8:72:82:HIS:HB3	8:72:138:TRP:CZ3	2.47	0.49
23:2L:73:A:C6	23:2L:74:A:C6	3.00	0.49
26:14:278:A:H8	26:14:278:A:OP2	1.95	0.49
26:14:1176:G:H5'	26:14:1177:A:OP1	2.11	0.49
26:14:1291:C:H2'	26:14:1292:U:H6	1.77	0.49
26:14:2062:A:HO2'	26:14:2063:C:P	2.35	0.49
26:14:2197:U:H1'	26:14:2198:A:C8	2.47	0.49
26:14:2313:C:OP1	31:49:71:THR:HG21	2.12	0.49
26:14:2578:G:C5	29:29:140:SER:HB3	2.48	0.49
26:14:2842:G:N2	40:75:3:ARG:HH22	2.10	0.49
27:1J:45:A:OP2	31:49:96:ARG:HD2	2.12	0.49
34:15:111:PRO:HA	34:15:114:ARG:NH1	2.26	0.49
36:35:30:THR:HG21	36:35:35:HIS:H	1.77	0.49
45:C5:86:ARG:HG3	45:C5:87:LYS:N	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:D5:7:ALA:O	46:D5:8:TYR:CG	2.65	0.49
48:F5:86:SER:N	48:F5:87:PRO:HD2	2.27	0.49
1:13:110:C:H2'	1:13:111:G:O4'	2.13	0.49
1:13:246:A:C2	1:13:282:A:C5	3.01	0.49
1:13:742:G:H5'	15:6I:58:MET:HE3	1.93	0.49
1:13:1347:G:H22	1:13:1374:A:P	2.35	0.49
9:8E:21:PRO:HA	9:8E:59:PHE:HA	1.95	0.49
26:1H:84:A:OP2	45:G8:8:LYS:NZ	2.32	0.49
26:1H:733:G:C8	59:1H:3893:HOH:O	2.66	0.49
26:1H:822:U:OP2	59:1H:3930:HOH:O	2.20	0.49
26:1H:1055:G:H2'	26:1H:1056:G:O4'	2.12	0.49
26:1H:2305:A:O2'	31:4I:136:ARG:NH1	2.45	0.49
26:1H:2432:A:C4	48:J8:33:LYS:HG2	2.46	0.49
27:16:71:C:C2	27:16:72:G:C8	3.00	0.49
30:31:185:ASP:HA	30:31:188:ARG:HD3	1.95	0.49
1:1G:233:C:H2'	1:1G:234:C:H6	1.76	0.49
1:1G:421:U:O2'	1:1G:423:G:N7	2.45	0.49
1:1G:986:A:H2'	1:1G:987:G:O4'	2.13	0.49
1:1G:1002:G:H2'	1:1G:1003:G:H8	1.78	0.49
26:14:142:G:H2'	26:14:143:C:C6	2.47	0.49
26:14:1505:C:H2'	26:14:1506:C:C6	2.48	0.49
26:14:2802:G:H2'	26:14:2803:C:O4'	2.13	0.49
27:1J:28:C:H2'	27:1J:29:A:C8	2.48	0.49
29:29:7:VAL:HG12	29:29:8:LYS:H	1.77	0.49
29:29:41:LYS:HG3	29:29:42:ASP:H	1.76	0.49
30:39:135:LYS:HB3	30:39:138:GLU:HG3	1.94	0.49
39:65:53:SER:OG	39:65:54:LEU:N	2.45	0.49
48:F5:29:GLY:O	48:F5:30:VAL:HG22	2.12	0.49
1:13:280:C:H3'	1:13:281:G:H5'	1.94	0.49
26:1H:219:G:C2'	26:1H:220:G:H5'	2.43	0.49
26:1H:1319:G:C6	26:1H:1320:C:N4	2.80	0.49
26:1H:2261:C:H1'	26:1H:2388:A:N3	2.27	0.49
48:J8:60:PHE:HE2	48:J8:91:LYS:HZ1	1.60	0.49
49:K8:53:LEU:O	49:K8:57:ILE:HG13	2.11	0.49
1:1G:192:U:O4'	20:BA:103:GLY:HA2	2.13	0.49
1:1G:999:U:H2'	1:1G:1000:A:H8	1.74	0.49
7:62:14:PRO:HB3	7:62:19:GLY:O	2.13	0.49
55:3L:8:U:H3	55:3L:14:A:N6	2.11	0.49
55:3L:35:G:H2'	55:3L:36:U:H6	1.78	0.49
26:14:596:G:H2'	26:14:597:U:O4'	2.13	0.49
26:14:601:C:O2	26:14:605:C:H4'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1321:A:H2'	26:14:1322:A:O4'	2.13	0.49
26:14:1329:U:H5''	26:14:1330:C:C5	2.46	0.49
26:14:1894:C:C2'	26:14:1895:C:H5'	2.42	0.49
26:14:2150:U:H2'	26:14:2151:G:C8	2.44	0.49
26:14:2262:U:O2'	26:14:2263:C:H5'	2.12	0.49
27:1J:116:G:C5'	39:65:55:ALA:HB2	2.43	0.49
30:39:36:VAL:HG11	30:39:183:VAL:HG11	1.95	0.49
31:49:131:TYR:O	31:49:159:VAL:HG22	2.12	0.49
32:59:6:ARG:HG2	32:59:7:LEU:N	2.28	0.49
42:95:37:VAL:HG21	42:95:57:VAL:HG12	1.95	0.49
43:A5:71:VAL:HA	43:A5:107:LEU:HD12	1.93	0.49
49:G5:38:GLN:O	49:G5:41:ILE:HG12	2.13	0.49
51:I5:13:ARG:HA	51:I5:22:ILE:HB	1.94	0.49
1:13:624:C:O3'	16:7I:10:GLY:HA2	2.13	0.49
1:13:989:C:H42	1:13:1216:G:H1	1.60	0.49
1:13:1003:G:N2	1:13:1004:A:O2'	2.46	0.49
2:1E:102:LEU:HB3	2:1E:180:LEU:CD1	2.43	0.49
7:6E:147:ALA:HB1	24:3K:41:C:H4'	1.93	0.49
10:1I:77:PRO:HB2	10:1I:79:ARG:NH1	2.27	0.49
23:2K:6:G:H1	23:2K:68:C:H42	1.60	0.49
26:1H:1509:C:H3'	26:1H:1510:A:H4'	1.95	0.49
26:1H:2658:C:H5''	32:51:158:HIS:CE1	2.47	0.49
30:31:178:PRO:HB3	30:31:198:ALA:HA	1.94	0.49
32:51:153:LYS:CB	32:51:162:ILE:H	2.23	0.49
37:88:75:THR:HA	37:88:88:GLY:C	2.32	0.49
42:D8:65:GLY:HA3	42:D8:91:TYR:CZ	2.48	0.49
45:G8:94:LYS:HA	45:G8:94:LYS:NZ	2.27	0.49
54:Q8:58:ILE:HG22	54:Q8:59:LYS:HG2	1.95	0.49
1:1G:80:G:H2'	1:1G:81:G:C8	2.47	0.49
1:1G:431:A:H2'	1:1G:432:A:C8	2.47	0.49
1:1G:742:G:P	15:6A:35:ARG:HH22	2.34	0.49
1:1G:1112:C:C4	3:22:178:LEU:HD23	2.47	0.49
1:1G:1280:A:OP1	10:1A:40:LEU:HD21	2.13	0.49
1:1G:1321:C:H4'	13:4A:87:TYR:CE1	2.48	0.49
1:1G:1356:G:H2'	1:1G:1357:A:C8	2.47	0.49
8:72:37:ARG:HH21	8:72:38:ILE:HD11	1.78	0.49
17:8A:67:LYS:O	17:8A:68:ARG:HB3	2.11	0.49
18:9A:22:VAL:C	18:9A:24:ALA:H	2.14	0.49
26:14:2023:G:OP2	26:14:2617:C:H4'	2.13	0.49
26:14:2805:G:H2'	26:14:2807:G:C8	2.48	0.49
27:1J:42:C:H5''	31:49:69:ALA:HB2	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:324:G:OP1	20:BI:22:ARG:HG2	2.13	0.49
1:13:1004:A:H1'	1:13:1036:G:N2	2.27	0.49
24:3K:12:C:H2'	24:3K:13:G:O4'	2.13	0.49
26:1H:748:G:OP2	43:E8:88:ARG:HG3	2.13	0.49
26:1H:749:C:C5	26:1H:1618:A:C6	3.01	0.49
26:1H:773:U:H4'	28:11:47:GLY:HA3	1.95	0.49
26:1H:1359:A:N6	26:1H:1372:U:H3	2.10	0.49
29:21:195:LEU:HG	29:21:196:VAL:N	2.28	0.49
32:51:86:GLU:HG3	32:51:165:ALA:CB	2.42	0.49
33:61:128:LEU:O	33:61:138:ILE:HG22	2.13	0.49
36:78:59:LEU:H	36:78:61:ARG:HD3	1.78	0.49
39:A8:93:LYS:HG2	39:A8:95:HIS:HB2	1.94	0.49
43:E8:24:ILE:HD12	43:E8:24:ILE:O	2.13	0.49
1:1G:164:U:H2'	1:1G:165:C:H6	1.78	0.49
1:1G:537:G:H5''	12:3A:113:ARG:NH1	2.28	0.49
1:1G:1218:C:H2'	1:1G:1219:U:C6	2.48	0.49
1:1G:1287:A:H2'	1:1G:1288:A:C8	2.48	0.49
1:1G:1422:G:O3'	35:25:49:ARG:NH1	2.38	0.49
4:32:9:CYS:O	4:32:13:ARG:HG2	2.12	0.49
14:5A:15:LYS:HG3	14:5A:16:PHE:CD2	2.48	0.49
26:14:270:A:OP2	26:14:270(Y):G:N2	2.32	0.49
26:14:636:G:O2'	26:14:638:G:O2'	2.26	0.49
26:14:717:G:H2'	26:14:718:A:O4'	2.13	0.49
26:14:934:G:H2'	26:14:935:C:H6	1.78	0.49
26:14:2355:C:H5''	26:14:2356:C:OP2	2.12	0.49
26:14:2361:A:OP1	54:M5:26:LYS:HD3	2.12	0.49
27:1J:39:A:N1	51:I5:1:MET:N	2.49	0.49
28:19:67:PHE:HE1	28:19:106:ILE:HD11	1.78	0.49
30:39:117:ARG:HH12	36:35:1:MET:H2	1.60	0.49
1:13:501:C:OP2	12:3I:124:LYS:HE2	2.13	0.49
1:13:735:C:O2'	1:13:736:C:H5'	2.13	0.49
1:13:964:A:N3	1:13:969:A:O2'	2.34	0.49
1:13:1455:G:OP1	20:BI:35:THR:OG1	2.16	0.49
4:3E:207:TYR:O	4:3E:209:ARG:HG2	2.13	0.49
6:5E:39:LYS:HD3	6:5E:64:GLN:HG3	1.94	0.49
22:1K:18:G:O2'	26:1H:883:G:OP1	2.29	0.49
26:1H:336:C:OP1	45:G8:83:THR:HG23	2.12	0.49
26:1H:667:U:O2	54:Q8:2:PRO:HD2	2.12	0.49
26:1H:1443:G:N2	26:1H:1549:C:C2	2.81	0.49
26:1H:2208:U:H4'	28:11:151:LYS:HG2	1.94	0.49
28:11:124:PRO:HG2	28:11:129:ASN:ND2	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:21:147:PRO:HB2	29:21:149:ARG:HG2	1.95	0.49
30:31:164:ARG:HG3	30:31:175:THR:OG1	2.13	0.49
36:78:20:GLY:HA2	36:78:27:HIS:O	2.13	0.49
39:A8:34:HIS:CE1	39:A8:54:LEU:HD23	2.48	0.49
46:H8:61:LEU:HD22	46:H8:67:LEU:HD12	1.95	0.49
1:1G:428:G:O4'	1:1G:430:A:C8	2.66	0.49
1:1G:1108:G:H5'	3:22:176:HIS:HD1	1.77	0.49
4:32:126:ILE:HG22	4:32:127:THR:H	1.78	0.49
5:42:147:ASP:O	5:42:151:LEU:HG	2.13	0.49
26:14:276:A:H2'	26:14:277:C:C6	2.48	0.49
26:14:2208:U:H4'	28:19:151:LYS:HG2	1.95	0.49
26:14:2523:G:H5'	26:14:2523:G:C8	2.41	0.49
38:55:48:VAL:HA	38:55:51:LEU:HD12	1.94	0.49
41:85:88:ILE:HG22	42:95:49:THR:HA	1.94	0.49
42:95:30:GLY:H	42:95:61:VAL:HB	1.78	0.49
45:C5:87:LYS:CG	45:C5:88:LYS:H	2.26	0.49
48:F5:45:ASN:O	48:F5:63:ALA:HA	2.13	0.49
54:M5:30:ARG:HD2	54:M5:31:HIS:H	1.78	0.49
1:13:667:G:H4'	15:6I:51:HIS:CE1	2.48	0.49
1:13:820:U:H4'	1:13:821:G:OP2	2.12	0.49
1:13:981:U:H5	1:13:982:U:HO2'	1.59	0.49
1:13:1060:C:C4	3:2E:2:GLY:HA3	2.47	0.49
4:3E:9:CYS:O	4:3E:13:ARG:HG2	2.12	0.49
4:3E:30:LYS:HB2	4:3E:32:ALA:HA	1.95	0.49
4:3E:111:ALA:HB2	4:3E:120:LEU:CD1	2.43	0.49
4:3E:150:GLU:HA	4:3E:153:ARG:HG3	1.95	0.49
26:1H:139:G:N3	26:1H:141:A:N1	2.61	0.49
26:1H:242:G:H5''	54:Q8:62:LEU:HD13	1.95	0.49
26:1H:537:C:H2'	26:1H:539:G:C8	2.48	0.49
26:1H:1021:A:H8	26:1H:1021:A:H3'	1.77	0.49
26:1H:1310:G:OP2	53:P8:9:ARG:NH1	2.46	0.49
26:1H:1478:G:O2'	26:1H:1558:A:H2	1.96	0.49
26:1H:1635:G:H2'	26:1H:1636:C:C6	2.48	0.49
26:1H:1882:C:H2'	26:1H:1883:G:O4'	2.12	0.49
26:1H:2033:A:H8	59:1H:3887:HOH:O	1.95	0.49
26:1H:2068:U:N3	26:1H:2430:A:C2	2.78	0.49
26:1H:2246:G:H2'	26:1H:2247:A:C8	2.47	0.49
27:16:5:C:O2'	27:16:27:C:O2	2.31	0.49
28:11:147:LEU:HD22	28:11:155:LEU:HD11	1.93	0.49
29:21:51:PHE:HD2	29:21:52:LEU:HG	1.75	0.49
33:61:86:THR:HA	33:61:123:LEU:HD13	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:61:130:TYR:O	33:61:135:GLU:HB2	2.13	0.49
34:58:43:THR:N	34:58:48:MET:HE3	2.28	0.49
34:58:96:GLU:O	34:58:98:VAL:N	2.45	0.49
46:H8:19:ARG:HD3	46:H8:25:PRO:HD2	1.95	0.49
47:I8:53:MET:HB2	47:I8:59:LEU:CD2	2.42	0.49
52:N8:50:GLY:N	52:N8:56:LYS:HG3	2.28	0.49
1:1G:54:C:N4	1:1G:353:A:OP2	2.37	0.49
1:1G:306:G:H2'	1:1G:307:C:H6	1.78	0.49
1:1G:353:A:H5'	1:1G:353:A:C8	2.42	0.49
1:1G:1281:U:H3'	1:1G:1282:C:H5	1.77	0.49
3:22:111:LEU:HD11	3:22:144:SER:HB3	1.95	0.49
4:32:149:ALA:O	4:32:153:ARG:HG2	2.13	0.49
5:42:10:MET:HA	5:42:32:VAL:HG22	1.95	0.49
14:5A:27:CYS:O	14:5A:27:CYS:SG	2.70	0.49
16:7A:9:PHE:CE1	16:7A:18:ARG:HG3	2.48	0.49
18:9A:29:PHE:N	18:9A:29:PHE:CD1	2.79	0.49
26:14:54:G:O2'	53:L5:35:ARG:HD3	2.12	0.49
26:14:751:A:P	59:14:3418:HOH:O	2.70	0.49
26:14:2306:C:H3'	26:14:2307:G:H5''	1.94	0.49
26:14:2791:C:H4'	26:14:2791:C:OP2	2.13	0.49
29:29:11:MET:HE3	29:29:187:ALA:H	1.78	0.49
30:39:11:VAL:HG23	30:39:12:LEU:H	1.78	0.49
30:39:25:PRO:C	30:39:27:GLU:N	2.66	0.49
32:59:58:GLU:HB2	32:59:61:HIS:CD2	2.48	0.49
32:59:136:ILE:H	32:59:136:ILE:HD12	1.78	0.49
44:B5:36:LYS:HG2	44:B5:54:VAL:HB	1.95	0.49
45:C5:86:ARG:NE	45:C5:87:LYS:O	2.46	0.49
51:I5:40:HIS:CG	51:I5:45:GLY:HA3	2.48	0.49
54:M5:36:LYS:HG3	54:M5:37:SER:H	1.76	0.49
1:13:61:G:H2'	1:13:62:U:O4'	2.13	0.48
1:13:1060:C:H5''	10:11:51:ARG:HG2	1.94	0.48
1:13:1288:A:H2'	1:13:1289:A:C8	2.47	0.48
1:13:1288:A:H2'	1:13:1289:A:H8	1.78	0.48
6:5E:23:LYS:NZ	6:5E:23:LYS:HB2	2.26	0.48
26:1H:143:C:H4'	44:F8:38:GLU:OE2	2.13	0.48
26:1H:2002:G:H8	26:1H:2002:G:O5'	1.96	0.48
26:1H:2239:G:H5'	28:11:251:GLY:HA3	1.95	0.48
26:1H:2453:A:H2'	26:1H:2454:G:O4'	2.13	0.48
26:1H:2663:G:H3'	26:1H:2664:G:H8	1.78	0.48
26:1H:2804:C:H2'	26:1H:2805:G:C8	2.47	0.48
33:61:110:ASP:HB2	33:61:112:LYS:HG2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:A8:59:LYS:HD3	39:A8:60:GLY:H	1.77	0.48
40:B8:42:ILE:HG21	40:B8:84:GLN:NE2	2.28	0.48
41:C8:5:LYS:H	41:C8:5:LYS:HG3	1.44	0.48
54:Q8:26:LYS:HE2	54:Q8:47:LYS:HG2	1.94	0.48
1:1G:27:G:H2'	1:1G:28:G:O4'	2.13	0.48
1:1G:448:A:H2'	1:1G:449:C:O2	2.12	0.48
1:1G:628:G:H2'	1:1G:629:G:C8	2.48	0.48
1:1G:750:G:N3	15:6A:23:GLY:HA3	2.28	0.48
1:1G:1159:U:C4'	1:1G:1181:G:H22	2.25	0.48
1:1G:1259:C:N4	1:1G:1260:C:O2	2.46	0.48
1:1G:1270:C:OP2	21:1B:24:ARG:NH2	2.45	0.48
1:1G:1277:C:HO2'	1:1G:1279:A:H8	1.54	0.48
4:32:150:GLU:C	4:32:152:SER:H	2.15	0.48
5:42:93:PRO:HG3	8:72:105:ARG:HG3	1.95	0.48
8:72:53:VAL:HB	8:72:58:TYR:CD1	2.47	0.48
16:7A:75:ARG:HG3	16:7A:80:PHE:CD2	2.48	0.48
26:14:903:C:H2'	26:14:904:C:C6	2.48	0.48
26:14:1028:A:N6	26:14:1125:G:H2'	2.28	0.48
26:14:1054:A:H3'	26:14:1055:G:H8	1.78	0.48
26:14:1444(A):A:H2'	26:14:1444(A):A:N3	2.27	0.48
26:14:1688:U:O2	26:14:1700:A:H5'	2.14	0.48
30:39:80:ALA:O	30:39:83:PHE:HB2	2.12	0.48
36:35:107:LYS:O	36:35:109:GLY:N	2.44	0.48
49:G5:47:ASN:HD22	49:G5:47:ASN:H	1.61	0.48
1:13:153:C:N4	1:13:168:G:H22	2.11	0.48
2:1E:209:ARG:HG3	2:1E:240:GLN:OE1	2.13	0.48
14:5I:39:LEU:HD11	14:5I:47:LEU:HD12	1.94	0.48
22:1K:20:C:O2'	22:1K:68:A:N6	2.43	0.48
26:1H:265:A:H1'	26:1H:266:G:O4'	2.13	0.48
26:1H:1543:A:C8	26:1H:1545:A:H5''	2.48	0.48
26:1H:2470:G:H5'	37:88:56:ARG:NH2	2.28	0.48
33:61:38:LEU:H	33:61:38:LEU:HD12	1.77	0.48
34:58:90:MET:O	34:58:94:HIS:N	2.43	0.48
35:68:7:TYR:CZ	35:68:44:LYS:HG3	2.48	0.48
40:B8:17:THR:O	40:B8:17:THR:OG1	2.30	0.48
41:C8:28:ARG:HH11	41:C8:38:THR:HG1	1.60	0.48
46:H8:107:THR:H	46:H8:109:ALA:HB2	1.78	0.48
49:K8:58:ALA:O	49:K8:62:THR:HG22	2.12	0.48
1:1G:736:C:H2'	1:1G:737:A:C8	2.48	0.48
1:1G:1240:U:H5'	1:1G:1241:G:H8	1.77	0.48
5:42:40:ARG:HH21	5:42:66:MET:HG2	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:76:ILE:O	5:42:93:PRO:HB3	2.14	0.48
8:72:20:TYR:HA	8:72:65:TYR:CZ	2.48	0.48
24:1L:23:A:N6	24:1L:24:G:N7	2.61	0.48
26:14:362:U:H5'	26:14:363:G:OP2	2.13	0.48
26:14:374:A:C2	26:14:401:A:C4	3.01	0.48
26:14:843:G:H1	26:14:935:C:H42	1.61	0.48
26:14:1049:C:H42	26:14:2751:G:H1	1.60	0.48
26:14:1510:A:H2'	26:14:1511:A:O4'	2.13	0.48
26:14:1899:G:N2	26:14:1902:C:C5	2.81	0.48
26:14:2419:U:H2'	26:14:2420:C:H6	1.78	0.48
26:14:2791:C:N4	26:14:2805:G:H1	2.09	0.48
26:14:2850:A:C2	26:14:2851:A:C4	3.01	0.48
26:14:2869:G:H2'	26:14:2870:C:O4'	2.14	0.48
28:19:141:VAL:HG23	28:19:162:SER:HB2	1.95	0.48
30:39:110:LEU:HD13	30:39:205:ARG:HG2	1.95	0.48
32:59:74:ASN:O	32:59:78:GLY:N	2.46	0.48
33:69:79:ILE:O	33:69:143:SER:N	2.41	0.48
41:85:49:HIS:HA	41:85:52:ARG:HB2	1.94	0.48
48:F5:92:LYS:O	48:F5:94:LEU:N	2.46	0.48
1:13:961:U:OP1	1:13:1223:C:O2'	2.25	0.48
4:3E:170:VAL:HG11	4:3E:174:LEU:HB2	1.94	0.48
9:8E:9:ARG:HD2	9:8E:14:VAL:HG13	1.94	0.48
19:AI:7:LYS:HG2	19:AI:7:LYS:O	2.12	0.48
26:1H:140:A:H8	26:1H:1408:C:HO2'	1.55	0.48
26:1H:1204:A:H61	26:1H:1240:U:H2'	1.77	0.48
26:1H:1296:G:O2'	26:1H:1297:C:H5'	2.13	0.48
26:1H:1754:C:OP1	40:B8:96:ARG:NH1	2.46	0.48
26:1H:2864:G:H2'	26:1H:2865:U:O4'	2.12	0.48
30:31:152:GLU:HG3	30:31:191:ARG:HD2	1.95	0.48
31:41:178:PHE:HB3	31:41:180:PHE:HE1	1.78	0.48
35:68:34:THR:OG1	35:68:35:VAL:N	2.46	0.48
42:D8:35:LEU:HD23	42:D8:35:LEU:O	2.13	0.48
1:1G:1126:U:N3	1:1G:1281:U:O4'	2.46	0.48
1:1G:1137:C:O2'	1:1G:1138:G:N2	2.46	0.48
1:1G:1299:A:N1	1:1G:1301:U:N3	2.61	0.48
4:32:29:PRO:HD2	4:32:30:LYS:HE2	1.94	0.48
7:62:62:PHE:HA	7:62:124:LEU:CD2	2.43	0.48
18:9A:53:ARG:HA	18:9A:56:THR:OG1	2.13	0.48
19:AA:39:THR:OG1	19:AA:70:LYS:NZ	2.43	0.48
20:BA:79:ARG:O	20:BA:83:ARG:HG3	2.13	0.48
55:3L:85:A:O2'	26:14:2394:C:N3	2.42	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:232:G:H8	26:14:232:G:OP2	1.97	0.48
26:14:1418:G:H2'	26:14:1579:A:N6	2.29	0.48
26:14:1614:A:N6	43:A5:88:ARG:H	2.10	0.48
26:14:1794:U:H2'	26:14:1795:C:C6	2.48	0.48
26:14:2537:U:H2'	26:14:2538:C:C6	2.48	0.48
26:14:2615:U:C2	52:J5:7:PRO:HA	2.47	0.48
28:19:32:SER:O	28:19:33:LEU:HB2	2.12	0.48
29:29:32:PRO:HA	29:29:90:THR:CG2	2.42	0.48
29:29:169:ASN:OD1	29:29:203:LYS:HG2	2.13	0.48
39:65:15:ARG:HD3	39:65:88:ASP:OD2	2.12	0.48
42:95:58:VAL:HB	42:95:97:LYS:HB3	1.94	0.48
46:D5:14:LYS:H	46:D5:14:LYS:HZ2	1.61	0.48
49:G5:18:PRO:O	49:G5:21:LEU:HB2	2.13	0.48
1:13:498:A:H4'	1:13:500:G:OP1	2.11	0.48
1:13:609:A:H2'	1:13:610:G:H5'	1.95	0.48
8:7E:6:ILE:HD13	8:7E:32:LYS:HG3	1.95	0.48
26:1H:547:A:H2'	26:1H:548:A:C8	2.49	0.48
26:1H:1448:G:H1'	26:1H:1528:A:H62	1.78	0.48
26:1H:1754:C:H5	40:B8:96:ARG:NH2	2.11	0.48
26:1H:1897:G:H2'	26:1H:1898:U:O4'	2.13	0.48
26:1H:2392:A:OP2	54:Q8:31:HIS:ND1	2.32	0.48
26:1H:2789:C:H1'	26:1H:2892:A:H2	1.78	0.48
28:11:68:LYS:HB3	28:11:70:TRP:CZ3	2.47	0.48
29:21:101:ARG:HG2	29:21:169:ASN:OD1	2.13	0.48
29:21:201:THR:HG22	29:21:202:LYS:N	2.27	0.48
31:41:109:VAL:O	31:41:113:ARG:HG3	2.13	0.48
34:58:96:GLU:HG2	34:58:97:ARG:N	2.20	0.48
35:68:78:ARG:HB3	35:68:78:ARG:HH11	1.78	0.48
36:78:101:VAL:HG23	36:78:107:LYS:O	2.13	0.48
38:98:52:ILE:O	38:98:55:ALA:N	2.45	0.48
46:H8:126:VAL:HA	46:H8:164:ALA:H	1.78	0.48
1:1G:578:C:OP1	59:1G:1720:HOH:O	2.19	0.48
1:1G:1281:U:P	1:1G:1282:C:H41	2.36	0.48
2:12:71:VAL:HG21	2:12:164:VAL:HG22	1.94	0.48
2:12:74:LYS:HD2	2:12:166:ASP:HB2	1.94	0.48
2:12:178:ARG:HH22	2:12:196:LEU:HA	1.78	0.48
8:72:21:LYS:N	8:72:65:TYR:OH	2.47	0.48
26:14:152:G:O6	26:14:174:C:N4	2.46	0.48
26:14:654(J):A:H5'	26:14:654(K):C:OP2	2.13	0.48
26:14:774:A:H5'	26:14:778:G:H4'	1.95	0.48
26:14:2166:G:N2	26:14:2171:A:N7	2.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2726:U:H6	35:25:67:LYS:HZ3	1.62	0.48
26:14:2776:A:OP1	26:14:2776:A:H3'	2.13	0.48
26:14:2817:G:OP1	38:55:42:LYS:NZ	2.42	0.48
27:1J:19:G:H2'	27:1J:20:C:O4'	2.13	0.48
32:59:105:LEU:HG	32:59:113:VAL:O	2.14	0.48
32:59:153:LYS:C	32:59:155:SER:H	2.15	0.48
37:45:22:LYS:N	37:45:23:GLY:HA3	2.28	0.48
1:13:136:C:O2'	16:7I:65:GLN:HG3	2.14	0.48
1:13:872:A:C4	1:13:874:G:N7	2.82	0.48
1:13:1503:A:O2'	1:13:1504:G:O5'	2.31	0.48
2:1E:20:GLU:HB3	2:1E:23:ARG:HB2	1.95	0.48
2:1E:28:PHE:O	2:1E:32:ILE:HG13	2.14	0.48
20:BI:50:GLU:HB2	20:BI:100:ILE:HB	1.94	0.48
26:1H:172:C:H2'	26:1H:173:G:C8	2.48	0.48
26:1H:1124:C:H2'	26:1H:1125:G:O4'	2.13	0.48
26:1H:1212:G:O2'	26:1H:1213:A:OP2	2.28	0.48
26:1H:1784:A:H5''	59:1H:3777:HOH:O	2.13	0.48
26:1H:2439:A:C8	26:1H:2439:A:C5'	2.95	0.48
26:1H:2638:G:OP2	29:21:82:ARG:NH2	2.46	0.48
28:11:17:THR:HG21	28:11:204:ILE:HA	1.95	0.48
28:11:245:PRO:HB2	28:11:253:GLN:HE21	1.78	0.48
41:C8:92:ARG:HB2	42:D8:11:GLN:NE2	2.28	0.48
45:G8:89:PHE:HD1	45:G8:90:LEU:N	2.11	0.48
48:J8:83:GLU:CD	48:J8:85:LEU:HB2	2.34	0.48
1:1G:576:G:N2	1:1G:759:A:OP1	2.41	0.48
1:1G:991:U:O2	1:1G:993:G:H8	1.96	0.48
1:1G:1256:A:H4'	1:1G:1257:U:OP1	2.13	0.48
1:1G:1403:C:H1'	1:1G:1500:A:N1	2.28	0.48
2:12:88:ALA:HB2	2:12:219:VAL:HG23	1.96	0.48
2:12:101:MET:O	2:12:105:PHE:HB2	2.14	0.48
11:2A:69:ALA:O	11:2A:73:MET:HG3	2.12	0.48
13:4A:57:ARG:NH2	51:I5:34:GLU:HB2	2.28	0.48
26:14:259:G:N2	26:14:621:A:H8	2.04	0.48
26:14:631:A:H2'	26:14:632:A:O4'	2.13	0.48
26:14:922:U:H2'	26:14:923:C:C6	2.49	0.48
26:14:1022:G:H8	34:15:69:GLN:HE22	1.61	0.48
26:14:1190:G:H2'	26:14:1191:G:H8	1.78	0.48
26:14:2065:C:H2'	26:14:2066:C:C6	2.48	0.48
26:14:2233:U:H2'	26:14:2234:G:C8	2.48	0.48
26:14:2505:G:HO2'	26:14:2506:U:H6	1.61	0.48
29:29:64:LYS:HB2	29:29:66:HIS:CD2	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:25:7:TYR:CE1	35:25:20:MET:HB2	2.48	0.48
36:35:15:ARG:NH1	36:35:15:ARG:HB2	2.29	0.48
47:E5:26:TYR:N	47:E5:29:GLN:OE1	2.47	0.48
1:13:975:A:C4'	1:13:976:G:H5''	2.40	0.48
1:13:1149:C:H2'	1:13:1150:U:C6	2.49	0.48
2:1E:189:ASP:HB3	2:1E:205:ASP:CG	2.34	0.48
5:4E:122:GLU:O	5:4E:123:LEU:HD23	2.14	0.48
7:6E:45:ASP:O	7:6E:49:ILE:HG13	2.13	0.48
8:7E:87:SER:HB2	8:7E:93:VAL:HB	1.95	0.48
12:3I:93:LEU:O	12:3I:96:VAL:HG13	2.14	0.48
12:3I:117:ARG:NH2	12:3I:124:LYS:HB2	2.29	0.48
15:6I:18:PHE:CZ	15:6I:21:ASP:HB2	2.48	0.48
20:BI:22:ARG:O	20:BI:26:ASN:ND2	2.47	0.48
26:1H:265:A:C8	26:1H:266:G:H1'	2.49	0.48
26:1H:274:G:H3'	26:1H:274:G:C8	2.49	0.48
26:1H:529:A:H8	26:1H:530:G:C6	2.32	0.48
26:1H:2377:A:H2'	26:1H:2378:A:C8	2.48	0.48
26:1H:2591:C:O3'	59:1H:3815:HOH:O	2.20	0.48
38:98:84:ALA:HB3	38:98:85:PRO:HD3	1.95	0.48
1:1G:34:C:H2'	1:1G:35:G:H8	1.76	0.48
1:1G:107:G:C2	1:1G:108:G:H1'	2.49	0.48
1:1G:1054:C:O2'	1:1G:1055:A:O5'	2.31	0.48
1:1G:1320:C:H2'	1:1G:1321:C:C6	2.49	0.48
1:1G:1512:U:H2'	1:1G:1513:A:H8	1.79	0.48
7:62:99:LEU:HD22	7:62:103:TRP:CZ2	2.48	0.48
26:14:702:G:C2	26:14:731:C:C2	3.02	0.48
26:14:1776:G:P	59:14:3454:HOH:O	2.70	0.48
26:14:2708:G:H5'	38:55:68:ARG:HG2	1.95	0.48
27:1J:0:A:H2'	27:1J:1:U:C6	2.48	0.48
33:69:131:LYS:HD2	33:69:131:LYS:N	2.28	0.48
37:45:18:LYS:H	37:45:98:LYS:NZ	2.11	0.48
45:C5:63:LYS:NZ	45:C5:63:LYS:HA	2.27	0.48
1:13:341:C:C2'	1:13:342:C:H5'	2.43	0.48
1:13:703:G:H8	1:13:703:G:O5'	1.97	0.48
2:1E:94:ASN:OD1	2:1E:95:GLN:N	2.46	0.48
4:3E:173:TRP:CZ3	4:3E:193:ASP:HB3	2.49	0.48
5:4E:68:GLU:O	5:4E:70:PRO:HD3	2.13	0.48
7:6E:80:VAL:HG11	7:6E:85:TYR:HE2	1.78	0.48
24:3K:81:C:H2'	24:3K:82:A:O4'	2.13	0.48
26:1H:226:G:H21	26:1H:228:A:H2	1.62	0.48
26:1H:425:G:H2'	26:1H:426:C:H6	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:21:1:MET:HG2	29:21:83:ASP:O	2.13	0.48
46:H8:14:LYS:HA	46:H8:15:PRO:HD2	1.65	0.48
52:N8:16:ARG:HG3	52:N8:17:ASP:N	2.29	0.48
1:1G:562:C:H1'	12:3A:15:ARG:HD2	1.96	0.48
1:1G:1129:C:N4	1:1G:1139:G:H22	2.12	0.48
1:1G:1280:A:H5''	10:1A:40:LEU:HD11	1.96	0.48
12:3A:111:LYS:H	12:3A:111:LYS:HD2	1.78	0.48
26:14:1784:A:H4'	26:14:1785:A:C5'	2.44	0.48
26:14:2402:C:H5	26:14:2415:G:H22	1.61	0.48
27:1J:64:C:H2'	27:1J:65:C:C6	2.48	0.48
48:F5:91:LYS:NZ	48:F5:95:LEU:HD12	2.28	0.48
1:13:129(A):G:H4'	1:13:130:A:H5''	1.95	0.48
1:13:186(B):C:O4'	20:BI:89:ARG:NH2	2.47	0.48
1:13:975:A:O2'	14:5I:32:SER:OG	2.23	0.48
1:13:1285:A:H4'	1:13:1286:A:O5'	2.14	0.48
8:7E:64:LYS:HG2	8:7E:79:VAL:HG21	1.95	0.48
8:7E:112:LEU:HD12	8:7E:113:SER:N	2.28	0.48
11:2I:126:ARG:HG2	11:2I:126:ARG:HH11	1.77	0.48
26:1H:198:C:H4'	26:1H:2243:U:O2'	2.14	0.48
26:1H:566:U:OP1	36:78:29:LYS:HD2	2.14	0.48
26:1H:1287:A:C8	38:98:107:ASP:HB2	2.49	0.48
26:1H:1952:A:C5	35:68:22:ILE:HG13	2.49	0.48
26:1H:2123:G:N2	26:1H:2175:C:H42	2.07	0.48
26:1H:2199:A:H3'	26:1H:2205:C:H6	1.78	0.48
33:61:31:LEU:HD21	33:61:38:LEU:HG	1.96	0.48
49:K8:30:ARG:O	49:K8:34:GLU:HG3	2.14	0.48
52:N8:58:LEU:HD22	52:N8:60:VAL:HG13	1.96	0.48
1:1G:109:A:H5'	1:1G:110:C:C5	2.48	0.48
1:1G:371:G:O2'	1:1G:373:A:N7	2.43	0.48
1:1G:664:G:P	18:9A:64:ARG:HH21	2.37	0.48
1:1G:768:A:N6	59:1G:1704:HOH:O	2.45	0.48
1:1G:1145:C:H4'	1:1G:1146:A:O5'	2.14	0.48
1:1G:1333:A:O5'	1:1G:1333:A:H8	1.97	0.48
1:1G:1516:G:N2	1:1G:1519:A:OP2	2.45	0.48
3:22:44:GLU:HA	3:22:52:LEU:HD11	1.95	0.48
4:32:128:VAL:HG12	4:32:129:ASN:ND2	2.29	0.48
13:4A:25:ILE:O	13:4A:29:ARG:HB2	2.14	0.48
15:6A:51:HIS:O	15:6A:54:ARG:HB3	2.14	0.48
23:2L:33:OMC:O2'	23:2L:34:U:H6	1.97	0.48
55:3L:15:G:H2'	55:3L:16:C:C5	2.49	0.48
55:3L:21:A:H2	55:3L:54:C:H42	1.62	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:26:G:C6	26:14:27:G:C6	3.01	0.48
26:14:311:A:C6	26:14:328:U:C4	3.02	0.48
26:14:730:C:H2'	26:14:731:C:C6	2.48	0.48
26:14:2212:A:H1'	26:14:2215:G:C5	2.49	0.48
26:14:2359:C:H2'	26:14:2360:A:O4'	2.13	0.48
26:14:2714:G:P	59:14:3464:HOH:O	2.66	0.48
27:1J:88:C:P	27:1J:88:C:H6	2.37	0.48
29:29:13:ARG:NH2	40:75:77:PRO:HB3	2.28	0.48
31:49:16:ARG:O	31:49:20:ILE:HG13	2.14	0.48
36:35:15:ARG:HB2	36:35:15:ARG:CZ	2.43	0.48
39:65:109:GLY:O	39:65:111:GLU:N	2.40	0.48
46:D5:51:ALA:HB1	46:D5:57:ILE:HD11	1.95	0.48
46:D5:81:ARG:HG3	46:D5:81:ARG:O	2.13	0.48
46:D5:103:ARG:O	46:D5:104:PHE:HB2	2.14	0.48
48:F5:80:LEU:HD22	48:F5:80:LEU:N	2.29	0.48
51:I5:12:ALA:H	51:I5:25:TYR:HA	1.78	0.48
1:13:253:U:OP2	17:8I:67:LYS:NZ	2.40	0.48
2:1E:20:GLU:HG2	2:1E:189:ASP:OD1	2.13	0.48
20:BI:75:ASN:N	20:BI:75:ASN:OD1	2.47	0.48
21:1F:12:LYS:O	21:1F:16:GLY:N	2.47	0.48
24:3K:13:G:H1'	24:3K:24:G:H22	1.79	0.48
26:1H:71:A:H2	44:F8:31:HIS:NE2	2.05	0.48
26:1H:300:A:N3	26:1H:319:C:H1'	2.29	0.48
26:1H:882:G:N2	26:1H:895:U:N3	2.62	0.48
26:1H:1006:C:H5'	34:58:28:THR:HG23	1.95	0.48
26:1H:1011:G:OP2	41:C8:70:ARG:NH2	2.47	0.48
26:1H:1470:G:H5''	26:1H:1471:A:OP1	2.14	0.48
26:1H:2646:C:H2'	26:1H:2647:U:O4'	2.14	0.48
26:1H:2772:C:H2'	26:1H:2773:C:C6	2.49	0.48
35:68:67:LYS:HG3	35:68:68:GLU:H	1.78	0.48
44:F8:53:LYS:H	44:F8:82:GLN:HB3	1.79	0.48
53:P8:37:LYS:O	53:P8:37:LYS:HG2	2.13	0.48
1:1G:598:U:H2'	1:1G:599:C:H6	1.79	0.48
1:1G:1318:A:O2'	19:AA:37:ARG:HB3	2.14	0.48
8:72:116:LYS:HD2	8:72:129:VAL:HG11	1.94	0.48
16:7A:18:ARG:HA	16:7A:38:TYR:HA	1.95	0.48
23:2L:9:G:H21	23:2L:46:G:H3'	1.79	0.48
26:14:1204:A:O2'	26:14:1205:U:OP2	2.29	0.48
26:14:1298:C:OP2	59:14:3434:HOH:O	2.20	0.48
26:14:2184:G:C2	26:14:2185:C:C2	3.02	0.48
26:14:2441:C:C2'	26:14:2442:C:H5'	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2532:G:O5'	26:14:2532:G:H8	1.97	0.48
26:14:2666:C:H3'	26:14:2667:C:C6	2.49	0.48
46:D5:24:LEU:HD12	46:D5:25:PRO:O	2.13	0.48
1:13:1084:G:C5	1:13:1085:U:C4	3.02	0.48
1:13:1128:C:C2	1:13:1144:G:N2	2.82	0.48
1:13:1263:C:H2'	1:13:1264:C:C6	2.49	0.48
1:13:1352:C:H2'	1:13:1353:G:C8	2.49	0.48
4:3E:150:GLU:OE1	4:3E:150:GLU:N	2.47	0.48
6:5E:19:LEU:O	6:5E:23:LYS:NZ	2.32	0.48
13:4I:115:LYS:HB2	13:4I:115:LYS:HZ2	1.79	0.48
17:8I:53:LEU:H	17:8I:53:LEU:HD12	1.79	0.48
22:1K:9:U:H5	22:1K:22:A:C2	2.31	0.48
24:3K:77:C:H2'	24:3K:78:C:C6	2.48	0.48
26:1H:270(P):C:H2'	26:1H:270(Q):C:C6	2.49	0.48
26:1H:910:A:N7	37:88:13:GLN:HG3	2.29	0.48
26:1H:994:C:H3'	41:C8:54:LYS:HE3	1.96	0.48
26:1H:1835:G:H5''	26:1H:1835:G:C8	2.49	0.48
26:1H:2469:A:O2'	37:88:56:ARG:HG2	2.14	0.48
26:1H:2865:U:C4	26:1H:2866:U:C4	3.02	0.48
30:31:188:ARG:HG3	30:31:188:ARG:H	1.47	0.48
30:31:192:LEU:HD23	30:31:193:VAL:N	2.29	0.48
31:41:67:LYS:HD2	31:41:67:LYS:O	2.13	0.48
42:D8:62:LEU:HD21	42:D8:95:LEU:HB2	1.96	0.48
1:1G:148:G:H1	1:1G:174:C:H42	1.62	0.48
1:1G:194:C:H2'	1:1G:195:A:H5''	1.95	0.48
1:1G:1239:A:C2'	1:1G:1298:C:H42	2.27	0.48
1:1G:1286:A:C8	1:1G:1286:A:H3'	2.49	0.48
23:2L:33:OMC:HM22	23:2L:34:U:OP2	2.14	0.48
55:3L:42:U:H2'	55:3L:43:G:C8	2.49	0.48
55:3L:70:C:H2'	55:3L:71:C:C5	2.48	0.48
26:14:146:G:H2'	26:14:147:U:O4'	2.13	0.48
26:14:340:A:H2'	26:14:341:G:O4'	2.13	0.48
26:14:839:U:H2'	26:14:840:C:H6	1.79	0.48
26:14:1022:G:N2	26:14:1142(A):A:C2	2.77	0.48
29:29:66:HIS:NE2	29:29:73:GLU:OE1	2.47	0.48
32:59:61:HIS:HA	32:59:64:LEU:HD12	1.96	0.48
47:E5:51:VAL:N	47:E5:62:LEU:HD12	2.28	0.48
51:I5:21:VAL:HG22	51:I5:22:ILE:H	1.77	0.48
1:13:1284:C:H2'	1:13:1285:A:N7	2.29	0.47
1:13:1316:G:N2	1:13:1318:A:H3'	2.29	0.47
1:13:1435:G:H2'	1:13:1436:U:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6E:79:ARG:HA	7:6E:84:ASN:HA	1.96	0.47
8:7E:118:VAL:O	8:7E:119:LEU:HD23	2.14	0.47
13:4I:70:LEU:O	13:4I:74:VAL:HG23	2.13	0.47
17:8I:54:GLY:HA2	17:8I:81:ARG:O	2.14	0.47
20:BI:26:ASN:HB2	20:BI:71:THR:HG23	1.96	0.47
26:1H:2287:A:C2	26:1H:2346:A:C2	3.02	0.47
26:1H:2292:C:OP2	39:A8:17:ARG:NH2	2.47	0.47
27:16:40:U:O2'	27:16:45:A:N6	2.40	0.47
27:16:75:G:H5''	27:16:76:G:OP2	2.14	0.47
29:21:14:ILE:HD12	29:21:14:ILE:HA	1.60	0.47
29:21:37:ARG:HB2	29:21:46:ALA:HB3	1.96	0.47
33:61:93:THR:OG1	33:61:96:ASP:OD1	2.22	0.47
1:1G:1189:C:O5'	1:1G:1189:C:H6	1.97	0.47
1:1G:1320:C:O2	19:AA:36:ARG:NH2	2.47	0.47
7:62:113:GLU:HB2	7:62:119:ARG:CG	2.44	0.47
9:82:14:VAL:O	9:82:65:VAL:HG23	2.13	0.47
9:82:17:VAL:HA	9:82:63:ILE:HG12	1.96	0.47
26:14:458:G:O2'	53:L5:39:ARG:HD3	2.14	0.47
26:14:480:A:H2'	26:14:480:A:N3	2.29	0.47
27:1J:116:G:H5'	39:65:55:ALA:HB2	1.96	0.47
39:65:13:ARG:HG2	39:65:14:VAL:N	2.28	0.47
39:65:62:LYS:O	39:65:66:ALA:N	2.45	0.47
46:D5:60:GLU:HA	46:D5:66:SER:HA	1.96	0.47
46:D5:97:GLU:HB3	46:D5:125:LEU:HD21	1.95	0.47
48:F5:62:VAL:HG21	48:F5:70:VAL:HG21	1.95	0.47
54:M5:34:TRP:HA	54:M5:34:TRP:HE3	1.79	0.47
1:13:44:G:C2	1:13:45:U:H1'	2.49	0.47
1:13:606:G:H5''	1:13:607:A:H5'	1.96	0.47
1:13:1003:G:H1	1:13:1037:C:H42	1.62	0.47
3:2E:88:ARG:HA	3:2E:91:LEU:HD12	1.96	0.47
4:3E:99:SER:HB3	4:3E:139:ARG:HG2	1.96	0.47
8:7E:23:SER:HA	8:7E:61:VAL:O	2.13	0.47
9:8E:20:ARG:O	9:8E:60:ASP:N	2.34	0.47
9:8E:70:LYS:O	9:8E:74:ILE:HG13	2.14	0.47
18:9I:73:ALA:HB3	18:9I:79:LEU:HD12	1.95	0.47
26:1H:729:G:C2	26:1H:1775:U:C2	3.02	0.47
26:1H:1011:G:P	41:C8:77:SER:HG	2.33	0.47
26:1H:1263:U:O2'	52:N8:11:THR:HG23	2.14	0.47
26:1H:1509:C:H2'	26:1H:1511:A:C8	2.49	0.47
26:1H:1662:C:O2'	26:1H:2687:U:OP1	2.31	0.47
26:1H:1695:G:H2'	26:1H:1696:G:O4'	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2121:G:H2'	26:1H:2122:U:C6	2.49	0.47
27:16:40:U:H1'	27:16:45:A:H61	1.78	0.47
34:58:43:THR:H	34:58:48:MET:HE3	1.78	0.47
47:I8:63:VAL:HG23	47:I8:64:ASP:O	2.14	0.47
48:J8:91:LYS:O	48:J8:93:GLU:N	2.47	0.47
49:K8:23:LYS:O	49:K8:27:GLU:HG3	2.14	0.47
49:K8:64:LEU:HD11	49:K8:68:ARG:HH11	1.78	0.47
1:1G:35:G:N2	1:1G:550:G:H1'	2.29	0.47
1:1G:1053:G:N7	1:1G:1199:U:H3'	2.28	0.47
1:1G:1239:A:H4'	1:1G:1240:U:C5'	2.44	0.47
11:2A:106:LYS:NZ	11:2A:106:LYS:HB2	2.29	0.47
21:1B:8:THR:HG22	21:1B:11:GLY:N	2.26	0.47
26:14:142:G:H2'	26:14:143:C:H6	1.79	0.47
26:14:270(F):U:H2'	26:14:270(G):C:C6	2.49	0.47
26:14:533:G:H2'	26:14:534:U:O4'	2.14	0.47
26:14:900:A:H2'	26:14:900:A:N3	2.30	0.47
26:14:952:G:C6	26:14:966:G:C6	3.02	0.47
26:14:992:C:OP1	41:85:47:TYR:OH	2.23	0.47
26:14:1005:C:H2'	26:14:1006:C:C6	2.48	0.47
26:14:1011:G:N2	26:14:1150:C:O2	2.47	0.47
26:14:1777:U:O2'	26:14:1778:U:H5'	2.13	0.47
26:14:2162:G:H2'	26:14:2163:C:H5'	1.95	0.47
26:14:2520:C:H41	26:14:2542:A:H62	1.60	0.47
29:29:52:LEU:O	29:29:74:PRO:HB3	2.14	0.47
35:25:17:ARG:NH1	35:25:47:ILE:HD11	2.29	0.47
36:35:49:ARG:HD2	54:M5:58:ILE:CG2	2.45	0.47
40:75:19:LEU:HD22	40:75:86:ILE:CG2	2.44	0.47
45:C5:83:THR:HG22	45:C5:84:ARG:H	1.78	0.47
1:13:341:C:O2'	1:13:342:C:H5'	2.14	0.47
1:13:666:G:H8	1:13:666:G:OP1	1.97	0.47
1:13:1230:C:H2'	1:13:1231:G:H8	1.79	0.47
2:1E:184:VAL:HG23	2:1E:198:ASP:H	1.79	0.47
3:2E:161:GLU:HG3	3:2E:162:GLN:N	2.29	0.47
8:7E:95:VAL:HG12	8:7E:99:GLU:HB2	1.96	0.47
16:7I:49:LEU:HD12	16:7I:50:LYS:H	1.78	0.47
26:1H:340:A:H2'	26:1H:341:G:O4'	2.14	0.47
26:1H:639:U:H2'	26:1H:640:C:C6	2.50	0.47
26:1H:654(H):G:H2'	26:1H:654(H):G:N3	2.29	0.47
26:1H:1094:U:O2	26:1H:1096:A:H5'	2.13	0.47
26:1H:2115:G:N1	26:1H:2117:A:N7	2.62	0.47
26:1H:2173:A:H3'	26:1H:2174:C:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2702:U:OP1	26:1H:2702:U:C6	2.65	0.47
36:78:113:LYS:HA	36:78:129:ALA:O	2.15	0.47
40:B8:20:PRO:HG2	40:B8:86:ILE:O	2.15	0.47
41:C8:58:ARG:HA	41:C8:61:TRP:CE3	2.49	0.47
50:L8:35:ARG:HB3	50:L8:37:LEU:HD21	1.96	0.47
1:1G:1062:U:H2'	1:1G:1063:C:C6	2.49	0.47
19:AA:20:LEU:HA	19:AA:23:ASN:HB3	1.94	0.47
24:1L:45:C:H5''	24:1L:46:G:P	2.54	0.47
26:14:999:U:O2'	26:14:1000:A:H5'	2.14	0.47
26:14:1788:C:C2	26:14:1789:A:C8	3.01	0.47
26:14:1805:U:O2	28:19:50:THR:HB	2.14	0.47
26:14:2067:G:O2'	26:14:2069:G:H5''	2.14	0.47
26:14:2292:C:OP1	39:65:17:ARG:NH2	2.47	0.47
26:14:2734:A:C8	26:14:2735:G:C8	3.02	0.47
26:14:2747:G:O6	26:14:2755:C:H5''	2.14	0.47
28:19:3:VAL:H	28:19:20:ASP:HB2	1.77	0.47
29:29:50:GLY:HA2	29:29:78:LEU:HD23	1.96	0.47
30:39:155:LEU:HD23	30:39:186:ILE:HD13	1.96	0.47
30:39:187:VAL:HG11	36:35:6:LEU:HD21	1.95	0.47
30:39:204:ASN:OD1	30:39:204:ASN:N	2.47	0.47
32:59:148:ILE:HA	32:59:151:ILE:HG12	1.96	0.47
33:69:75:LEU:HD23	33:69:76:THR:H	1.79	0.47
36:35:85:LEU:CA	36:35:88:LEU:HB3	2.36	0.47
36:35:124:LYS:HE2	36:35:143:GLY:O	2.13	0.47
41:85:108:GLU:OE2	42:95:44:LYS:HB3	2.15	0.47
43:A5:6:ILE:HG22	43:A5:8:ARG:HG3	1.96	0.47
1:13:393:A:OP2	16:7I:12:LYS:NZ	2.29	0.47
1:13:631:G:C8	1:13:632:A:H2	2.33	0.47
1:13:1386:G:O2'	1:13:1387:G:H5'	2.14	0.47
2:1E:46:LYS:HA	2:1E:49:GLU:HB2	1.97	0.47
5:4E:10:MET:HB2	5:4E:32:VAL:HG22	1.96	0.47
8:7E:29:SER:OG	8:7E:32:LYS:HE3	2.14	0.47
15:6I:9:GLN:O	15:6I:13:GLN:HG3	2.14	0.47
16:7I:5:ARG:HB3	16:7I:67:THR:OG1	2.14	0.47
26:1H:478:A:C6	26:1H:480:A:C6	3.03	0.47
26:1H:962:G:H2'	26:1H:963:U:C6	2.49	0.47
26:1H:1728:G:H2'	26:1H:1731:G:O6	2.15	0.47
26:1H:2692:C:H42	26:1H:2717:G:H1	1.62	0.47
26:1H:2761:G:H1'	32:51:143:GLN:OE1	2.14	0.47
26:1H:2820:A:P	38:98:2:ARG:HH21	2.37	0.47
28:11:70:TRP:CZ2	28:11:150:LYS:HD3	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:21:111:ARG:HG3	29:21:160:TYR:CD2	2.50	0.47
30:31:101:LEU:HA	30:31:101:LEU:HD23	1.59	0.47
32:51:124:GLU:HB3	32:51:132:ARG:HG2	1.96	0.47
37:88:66:ILE:CD1	37:88:67:ARG:H	2.25	0.47
1:1G:658:G:H2'	1:1G:659:U:C6	2.49	0.47
1:1G:872:A:O2'	1:1G:873:A:H5''	2.13	0.47
1:1G:1112:C:C2	3:22:178:LEU:HB2	2.49	0.47
1:1G:1346:A:H3'	1:1G:1346:A:OP2	2.14	0.47
2:12:133:LYS:O	2:12:137:ARG:HB2	2.14	0.47
2:12:187:LEU:HD13	2:12:205:ASP:HA	1.97	0.47
13:4A:79:LYS:O	13:4A:82:MET:HB3	2.14	0.47
14:5A:4:LYS:N	14:5A:6:LEU:HD12	2.29	0.47
19:AA:66:MET:HA	19:AA:67:VAL:O	2.15	0.47
26:14:305:U:H2'	26:14:306:U:C6	2.50	0.47
26:14:569:U:C4	26:14:570:G:C6	3.03	0.47
26:14:606:U:OP1	30:39:104:LYS:HG3	2.14	0.47
26:14:780:G:OP1	28:19:218:ARG:NH2	2.46	0.47
26:14:1252:G:N1	41:85:37:GLU:OE2	2.46	0.47
26:14:1420:U:HO2'	26:14:1421:G:P	2.34	0.47
27:1J:46:A:H2'	27:1J:47:C:C6	2.50	0.47
29:29:57:LYS:HA	29:29:57:LYS:HD3	1.60	0.47
32:59:19:VAL:HG12	32:59:20:ALA:H	1.78	0.47
33:69:80:PRO:HA	33:69:143:SER:HA	1.94	0.47
37:45:57:HIS:CG	37:45:117:ALA:HB2	2.49	0.47
37:45:102:VAL:O	37:45:102:VAL:HG12	2.14	0.47
40:75:55:ASN:N	40:75:59:THR:HG22	2.30	0.47
1:13:160:A:H2'	1:13:161:A:O4'	2.13	0.47
1:13:416:G:C5	1:13:417:C:C4	3.02	0.47
1:13:501:C:H2'	1:13:502:G:H8	1.78	0.47
1:13:1028(B):C:N4	1:13:1032(B):G:O6	2.48	0.47
1:13:1178:G:H5''	9:8E:93:ARG:NH2	2.30	0.47
1:13:1280:A:H3'	1:13:1281:U:H5'	1.97	0.47
2:1E:183:PRO:HA	2:1E:198:ASP:OD2	2.14	0.47
6:5E:24:GLU:HB3	6:5E:28:ARG:NH1	2.30	0.47
12:3I:76:ASN:ND2	12:3I:106:ASP:O	2.47	0.47
26:1H:1345:C:H2'	26:1H:1346:G:H8	1.80	0.47
26:1H:1417:C:H42	26:1H:1581:G:H1	1.62	0.47
26:1H:1676:A:P	59:1H:3587:HOH:O	2.73	0.47
26:1H:1918:A:O2'	26:1H:1920:C:N4	2.48	0.47
26:1H:2343:C:HO2'	26:1H:2373:G:HO2'	1.47	0.47
27:16:15:A:H3'	27:16:16:G:H5'	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:11:238:GLY:O	28:11:240:ALA:N	2.47	0.47
31:41:53:LEU:O	31:41:56:ALA:N	2.48	0.47
31:41:64:THR:HG21	31:41:94:LEU:HD22	1.97	0.47
32:51:6:ARG:HH21	32:51:7:LEU:HD21	1.79	0.47
38:98:34:ILE:HG22	38:98:114:VAL:HB	1.97	0.47
41:C8:92:ARG:NH2	42:D8:10:LYS:HG2	2.26	0.47
48:J8:3:LYS:O	48:J8:12:PRO:HD3	2.14	0.47
1:1G:297:G:N2	1:1G:300:A:OP2	2.48	0.47
1:1G:668:G:H4'	15:6A:48:LYS:HB3	1.96	0.47
1:1G:1086:U:O5'	1:1G:1086:U:H6	1.97	0.47
1:1G:1113:C:H2'	1:1G:1114:C:H6	1.79	0.47
1:1G:1230:C:H2'	1:1G:1231:G:C8	2.49	0.47
2:12:61:LEU:HD23	2:12:68:ILE:HD11	1.96	0.47
3:22:39:ILE:HG21	3:22:57:ILE:HD11	1.97	0.47
11:2A:103:LEU:HD12	11:2A:103:LEU:HA	1.64	0.47
15:6A:88:ARG:HD3	15:6A:88:ARG:HA	1.47	0.47
26:14:111:A:H4'	49:G5:69:ARG:HH22	1.79	0.47
26:14:706:A:H2'	26:14:707:G:O4'	2.15	0.47
26:14:2397:G:N2	26:14:2420:C:H1'	2.30	0.47
26:14:2643:G:H2'	26:14:2644:G:O4'	2.14	0.47
31:49:67:LYS:NZ	51:I5:5:ILE:HB	2.29	0.47
33:69:120:ILE:HG22	33:69:122:GLU:H	1.79	0.47
35:25:64:ARG:NH1	35:25:81:ASP:OD1	2.45	0.47
39:65:42:ASP:C	39:65:44:LYS:H	2.17	0.47
1:13:198:G:H2'	1:13:199:G:H8	1.80	0.47
5:4E:11:ILE:H	5:4E:11:ILE:HG12	1.50	0.47
26:1H:1138:G:H21	34:58:106:MET:CE	2.14	0.47
26:1H:1340:U:H4'	26:1H:1341:U:OP2	2.14	0.47
26:1H:2081:C:H2'	26:1H:2082:A:H8	1.78	0.47
29:21:167:VAL:HG21	29:21:187:ALA:HB3	1.96	0.47
37:88:39:PRO:HA	37:88:97:VAL:O	2.14	0.47
1:1G:1002:G:H2'	1:1G:1003:G:C8	2.49	0.47
3:22:36:ASP:OD1	3:22:57:ILE:HG21	2.14	0.47
6:52:86:ARG:O	6:52:87:ARG:HG2	2.14	0.47
7:62:149:ARG:HD3	11:2A:59:TYR:CE1	2.50	0.47
20:BA:56:MET:HG3	20:BA:84:LEU:HD13	1.96	0.47
26:14:108:U:H2'	26:14:109:G:C8	2.49	0.47
26:14:1149:G:H2'	26:14:1150:C:C6	2.50	0.47
26:14:1614:A:H2	59:14:3419:HOH:O	1.96	0.47
26:14:2296:U:H4'	26:14:2297:C:OP1	2.13	0.47
31:49:117:PHE:HZ	31:49:179:PRO:HG2	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:59:26:VAL:HG12	32:59:33:LEU:H	1.79	0.47
34:15:128:HIS:HB2	34:15:129:PRO:HD2	1.96	0.47
38:55:21:TYR:OH	38:55:43:GLU:HG2	2.15	0.47
46:D5:19:ARG:HE	46:D5:19:ARG:HB2	1.24	0.47
48:F5:67:ILE:N	48:F5:68:PRO:HD2	2.30	0.47
1:13:37:U:O2'	1:13:500:G:H4'	2.15	0.47
1:13:354:G:N7	59:13:1862:HOH:O	2.35	0.47
1:13:607:A:C2	16:7I:31:LYS:HG3	2.49	0.47
1:13:811:C:N4	59:13:1802:HOH:O	2.46	0.47
1:13:901:A:C5	1:13:902:G:H1'	2.49	0.47
1:13:1308:U:OP1	13:4I:98:VAL:HG23	2.15	0.47
1:13:1423:G:OP1	35:68:49:ARG:NH2	2.48	0.47
2:1E:88:ALA:HB2	2:1E:219:VAL:CG1	2.44	0.47
3:2E:156:ARG:HB3	3:2E:160:ALA:O	2.14	0.47
5:4E:152:ARG:HA	8:7E:64:LYS:HZ3	1.80	0.47
20:BI:33:ILE:O	20:BI:37:SER:OG	2.32	0.47
26:1H:15:G:C2	26:1H:16:G:C8	3.02	0.47
26:1H:132:G:H2'	26:1H:133:C:O4'	2.15	0.47
26:1H:370:G:H5''	26:1H:423:A:N6	2.30	0.47
26:1H:654(D):G:H22	26:1H:654(Q):C:N4	2.12	0.47
26:1H:845:G:H8	26:1H:845:G:OP2	1.98	0.47
26:1H:884:C:N3	26:1H:885:C:N4	2.61	0.47
26:1H:1021:A:H3'	26:1H:1022:G:H5''	1.95	0.47
26:1H:1093:G:N2	26:1H:1099:G:O6	2.47	0.47
26:1H:1215:G:C5	26:1H:1216:G:C8	3.02	0.47
26:1H:1268:A:C2	26:1H:2013:A:C4	3.03	0.47
26:1H:1396:U:O2	26:1H:1396:U:H2'	2.14	0.47
26:1H:2074:U:H2'	26:1H:2075:U:C6	2.50	0.47
26:1H:2211:G:O2'	26:1H:2212:A:OP1	2.23	0.47
26:1H:2287:A:O2'	26:1H:2288:A:H3'	2.14	0.47
26:1H:2309:A:C6	26:1H:2310:A:N7	2.83	0.47
26:1H:2394:C:H2'	26:1H:2395:C:C6	2.50	0.47
26:1H:2592:G:C6	26:1H:2593:U:N3	2.82	0.47
27:16:43:C:P	31:41:67:LYS:HZ2	2.38	0.47
29:21:37:ARG:O	29:21:45:THR:HA	2.15	0.47
29:21:170:LEU:HD21	29:21:187:ALA:HB3	1.97	0.47
30:31:198:ALA:O	30:31:201:VAL:HG13	2.14	0.47
32:51:68:THR:O	32:51:72:ILE:HG13	2.14	0.47
32:51:137:ASP:OD1	32:51:138:LYS:N	2.42	0.47
33:61:42:SER:O	33:61:45:LYS:HB2	2.15	0.47
33:61:71:ILE:HG12	33:61:72:LEU:HD12	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:61:78:THR:HA	33:61:141:LYS:HB3	1.97	0.47
33:61:120:ILE:HG12	33:61:126:TYR:CE2	2.49	0.47
34:58:35:ARG:HB2	34:58:42:TRP:CH2	2.49	0.47
40:B8:29:ARG:HB2	40:B8:46:GLU:HG3	1.95	0.47
43:E8:107:LEU:HD12	43:E8:107:LEU:HA	1.69	0.47
46:H8:7:ALA:HB3	46:H8:61:LEU:CB	2.42	0.47
46:H8:58:VAL:O	46:H8:60:GLU:N	2.46	0.47
46:H8:105:VAL:O	46:H8:140:ASP:HA	2.15	0.47
53:P8:1:MET:O	53:P8:3:ARG:HD3	2.14	0.47
54:Q8:52:LYS:HG3	54:Q8:52:LYS:O	2.13	0.47
1:1G:390:C:H2'	1:1G:391:G:C8	2.49	0.47
1:1G:1050:G:N2	1:1G:1208:C:O2	2.48	0.47
1:1G:1151:A:H5'	10:1A:41:PRO:HA	1.96	0.47
1:1G:1325:C:H2'	1:1G:1326:C:C6	2.49	0.47
1:1G:1436:U:H2'	1:1G:1437:C:O4'	2.14	0.47
2:12:11:LEU:HD23	2:12:217:ARG:NH2	2.30	0.47
3:22:111:LEU:HD11	3:22:144:SER:O	2.15	0.47
4:32:9:CYS:HA	4:32:12:CYS:HB2	1.97	0.47
6:52:33:TYR:CE1	6:52:78:GLU:HG3	2.50	0.47
7:62:153:HIS:NE2	11:2A:57:THR:HG23	2.29	0.47
8:72:17:THR:HG21	8:72:80:ILE:HD12	1.97	0.47
10:1A:69:ASN:O	10:1A:70:ARG:NE	2.46	0.47
13:4A:3:ARG:HG3	13:4A:9:ILE:CG1	2.45	0.47
18:9A:41:LYS:O	18:9A:41:LYS:HD3	2.15	0.47
19:AA:36:ARG:HD2	19:AA:52:TYR:O	2.15	0.47
55:3L:15:G:H4'	55:3L:15:G:OP1	2.12	0.47
26:14:195:A:H4'	26:14:251:A:O2'	2.15	0.47
26:14:270(I):G:H2'	26:14:270(J):G:C8	2.49	0.47
26:14:868:U:C4	26:14:869:G:N7	2.83	0.47
26:14:899:A:H5'	26:14:900:A:OP2	2.15	0.47
26:14:1448:G:H1'	26:14:1528:A:H62	1.79	0.47
26:14:1597:A:H5''	26:14:1598:C:OP1	2.15	0.47
26:14:2402:C:N4	26:14:2416:C:H1'	2.30	0.47
26:14:2576:G:O2'	26:14:2579:C:OP2	2.24	0.47
27:1J:15:A:H1'	27:1J:109:G:C4	2.50	0.47
29:29:81:ILE:HG22	29:29:82:ARG:N	2.25	0.47
30:39:133:ASN:HA	30:39:162:LEU:HD23	1.97	0.47
31:49:109:VAL:HG13	51:15:33:VAL:HG23	1.97	0.47
31:49:115:ARG:HB3	31:49:115:ARG:CZ	2.43	0.47
34:15:10:GLU:OE2	34:15:11:PRO:HD2	2.15	0.47
38:55:55:ALA:HA	38:55:80:PHE:CZ	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:55:55:ALA:HB2	38:55:79:LEU:HD13	1.96	0.47
40:75:52:ILE:O	40:75:98:LYS:NZ	2.47	0.47
42:95:2:PHE:H	42:95:42:GLY:HA2	1.78	0.47
42:95:48:GLY:HA3	42:95:51:VAL:C	2.35	0.47
42:95:84:LYS:HA	42:95:84:LYS:HD2	1.48	0.47
45:C5:48:ALA:HB3	45:C5:59:GLY:HA2	1.95	0.47
46:D5:76:LEU:HA	46:D5:83:PRO:HA	1.96	0.47
47:E5:49:LYS:HG2	47:E5:80:HIS:HB3	1.95	0.47
1:13:568:G:O2'	1:13:574:A:N1	2.36	0.47
1:13:1157:A:N6	1:13:1178:G:H21	2.12	0.47
1:13:1453:G:H2'	20:BI:39:LYS:HE2	1.96	0.47
3:2E:123:GLN:O	3:2E:128:PHE:HB2	2.15	0.47
3:2E:180:ALA:HB1	3:2E:182:ILE:HG13	1.97	0.47
8:7E:14:ARG:O	8:7E:18:ARG:HD3	2.15	0.47
8:7E:87:SER:HB2	8:7E:93:VAL:CB	2.43	0.47
20:BI:26:ASN:HB2	20:BI:71:THR:CG2	2.45	0.47
22:1K:55:U:H3'	22:1K:56:U:H5''	1.96	0.47
26:1H:307:G:H21	26:1H:330:A:N6	2.12	0.47
26:1H:817:C:H2'	26:1H:818:G:O4'	2.15	0.47
26:1H:1443:G:N2	26:1H:1549:C:O2	2.46	0.47
26:1H:2106:G:C6	26:1H:2107:C:C4	3.03	0.47
27:16:29:A:P	39:A8:32:LEU:HD12	2.55	0.47
29:21:15:PHE:HA	29:21:19:ARG:O	2.14	0.47
30:31:136:THR:HG22	30:31:166:ALA:O	2.14	0.47
32:51:154:PRO:HB3	32:51:163:TYR:CE2	2.50	0.47
45:G8:84:ARG:HH11	45:G8:86:ARG:HE	1.63	0.47
46:H8:30:ASN:HD22	46:H8:32:HIS:N	2.10	0.47
46:H8:30:ASN:ND2	46:H8:32:HIS:H	2.11	0.47
48:J8:58:ILE:HG12	48:J8:87:PRO:HD3	1.96	0.47
1:1G:108:G:H5'	1:1G:109:A:C5'	2.45	0.47
1:1G:236:G:H2'	1:1G:237:C:O4'	2.15	0.47
1:1G:1385:G:H2'	1:1G:1386:G:C8	2.46	0.47
11:2A:57:THR:HG22	11:2A:59:TYR:N	2.28	0.47
26:14:218:A:H2	26:14:235:U:H4'	1.78	0.47
26:14:1019:U:H3	26:14:1142(A):A:H62	1.61	0.47
26:14:2019:A:O4'	41:85:34:LYS:HD2	2.14	0.47
26:14:2615:U:H2'	26:14:2616:C:H6	1.79	0.47
26:14:2772:C:H2'	26:14:2773:C:H6	1.80	0.47
29:29:203:LYS:C	29:29:205:ALA:H	2.18	0.47
32:59:92:ILE:HD13	32:59:160:LYS:HD3	1.96	0.47
48:F5:58:ILE:HG23	48:F5:87:PRO:HG3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:I5:49:PHE:CD2	51:I5:50:VAL:HG22	2.50	0.47
1:13:265:G:N2	1:13:267:C:H5'	2.30	0.47
1:13:276:G:C6	1:13:277:C:C4	3.03	0.47
1:13:278:G:N2	17:8I:95:TYR:HB3	2.29	0.47
1:13:360:A:H2'	1:13:361:G:C8	2.50	0.47
1:13:448:A:P	1:13:485:G:H22	2.38	0.47
1:13:491:G:H2'	1:13:492:G:C8	2.50	0.47
1:13:511:C:H4'	4:3E:43:HIS:CD2	2.50	0.47
1:13:1023:G:H3'	1:13:1024:G:C5'	2.45	0.47
1:13:1029:G:H1'	1:13:1032(A):G:H22	1.80	0.47
5:4E:136:MET:O	5:4E:140:ARG:HD2	2.15	0.47
19:AI:40:ILE:O	19:AI:41:VAL:HG22	2.15	0.47
26:1H:279:C:N4	26:1H:361:G:H1	2.13	0.47
26:1H:363(A):A:H2'	26:1H:363(B):G:H8	1.79	0.47
26:1H:882:G:N2	26:1H:895:U:H3	2.13	0.47
26:1H:1803:A:H4'	28:11:259:THR:CG2	2.44	0.47
26:1H:2124:G:N2	26:1H:2174:C:O2	2.42	0.47
26:1H:2591:C:H2'	26:1H:2592:G:C8	2.50	0.47
32:51:8:PRO:O	32:51:10:PRO:HD3	2.15	0.47
34:58:38:HIS:NE2	34:58:50:ASP:OD2	2.43	0.47
48:J8:85:LEU:HA	48:J8:85:LEU:HD13	1.61	0.47
50:L8:7:LYS:HG3	50:L8:34:GLU:HG2	1.97	0.47
51:M8:10:VAL:HG22	51:M8:11:PRO:HD2	1.96	0.47
1:1G:761:G:H2'	1:1G:762:C:O4'	2.15	0.47
1:1G:1413:A:H2'	1:1G:1414:U:O4'	2.15	0.47
5:42:107:ARG:O	5:42:110:LEU:N	2.48	0.47
8:72:42:GLU:HG3	8:72:109:ILE:HD12	1.97	0.47
12:3A:60:LEU:HD21	12:3A:66:VAL:HG22	1.97	0.47
13:4A:76:ALA:O	13:4A:80:ARG:HG3	2.15	0.47
13:4A:80:ARG:HH22	19:AA:66:MET:HG2	1.80	0.47
26:14:491:G:H2'	26:14:492:A:H8	1.78	0.47
26:14:617:G:OP1	30:39:40:GLN:HG3	2.15	0.47
26:14:649:G:C5	26:14:650:C:C4	3.03	0.47
26:14:962:G:H2'	26:14:963:U:H6	1.80	0.47
26:14:1064:C:O2	26:14:1074:G:N2	2.48	0.47
26:14:1389:G:C2	26:14:1399:C:O2	2.68	0.47
26:14:1593:G:H2'	26:14:1594:G:C8	2.50	0.47
26:14:1686:C:H2'	26:14:1687:G:O4'	2.15	0.47
26:14:2250:G:N3	37:45:82:ARG:HG3	2.30	0.47
30:39:102:PRO:HB2	30:39:105:VAL:HG23	1.97	0.47
32:59:6:ARG:HH21	32:59:54:ARG:HH22	1.61	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:75:14:TYR:N	40:75:14:TYR:CD1	2.82	0.47
42:95:35:LEU:O	42:95:37:VAL:HG13	2.15	0.47
49:G5:33:MET:O	49:G5:37:PHE:HD1	1.97	0.47
50:H5:6:VAL:O	50:H5:34:GLU:HA	2.14	0.47
1:13:31:G:O2'	1:13:48:C:N4	2.48	0.47
1:13:545:C:O2'	1:13:549:C:OP1	2.30	0.47
1:13:662:G:H2'	1:13:663:A:C8	2.50	0.47
1:13:1003:G:H2'	1:13:1004:A:H5'	1.96	0.47
1:13:1343:G:O2'	9:8E:121:ARG:HD3	2.14	0.47
8:7E:102:ARG:NE	8:7E:102:ARG:H	2.13	0.47
26:1H:270(T):G:H5''	48:J8:97:LEU:HD23	1.97	0.47
26:1H:270(X):G:C6	26:1H:270(Y):G:N1	2.82	0.47
26:1H:1264:G:H5'	52:N8:11:THR:HG23	1.97	0.47
26:1H:1569:A:H5'	28:11:61:LEU:HD21	1.97	0.47
26:1H:2108:C:H2'	26:1H:2109:U:O4'	2.14	0.47
26:1H:2475:C:H4'	26:1H:2476:A:OP1	2.14	0.47
28:11:249:PRO:HD2	28:11:250:TRP:CZ3	2.50	0.47
30:31:125:LEU:HD21	30:31:199:TRP:CE3	2.50	0.47
32:51:150:ALA:C	32:51:152:ARG:H	2.19	0.47
32:51:166:GLY:O	32:51:167:GLU:HG2	2.15	0.47
40:B8:26:ASP:O	40:B8:49:VAL:HG12	2.15	0.47
40:B8:74:ARG:HD3	40:B8:76:PHE:CZ	2.50	0.47
43:E8:51:LEU:HD23	43:E8:105:VAL:HG11	1.95	0.47
51:M8:12:ALA:HB3	51:M8:24:THR:HB	1.97	0.47
1:1G:452:A:HO2'	1:1G:453:A:C4'	2.28	0.47
1:1G:1513:A:H2'	1:1G:1514:C:C6	2.50	0.47
3:22:14:ILE:HG12	3:22:15:THR:N	2.28	0.47
4:32:173:TRP:CZ3	4:32:193:ASP:HB3	2.50	0.47
9:82:42:ARG:HH11	9:82:71:SER:HB3	1.80	0.47
10:1A:78:ASN:ND2	10:1A:80:LYS:HB3	2.30	0.47
11:2A:81:ASP:HB3	11:2A:107:SER:OG	2.15	0.47
12:3A:89:ARG:HG2	12:3A:90:VAL:N	2.30	0.47
20:BA:12:ALA:O	20:BA:15:ARG:HB2	2.15	0.47
26:14:15:G:C2	26:14:16:G:C8	3.03	0.47
26:14:61:G:H1	26:14:93:C:H42	1.62	0.47
26:14:546:C:H2'	26:14:547:A:C8	2.50	0.47
26:14:1509:C:H5'	26:14:1510:A:O4'	2.15	0.47
26:14:2472:G:N3	26:14:2475:C:N4	2.63	0.47
26:14:2660:A:H8	26:14:2660:A:OP1	1.98	0.47
29:29:116:VAL:O	29:29:117:MET:HB3	2.15	0.47
30:39:146:ALA:HB3	30:39:148:LEU:HG	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:39:154:VAL:HA	30:39:191:ARG:O	2.15	0.47
31:49:7:LEU:HB2	31:49:104:GLU:OE1	2.15	0.47
36:35:63:PRO:O	36:35:64:LYS:HB2	2.15	0.47
38:55:72:ASP:O	38:55:76:VAL:HG23	2.15	0.47
39:65:89:ARG:O	39:65:92:TYR:N	2.48	0.47
1:13:1348:U:C2	1:13:1349:A:C8	3.03	0.46
3:2E:19:GLU:O	3:2E:40:ARG:NH2	2.49	0.46
3:2E:91:LEU:HB2	3:2E:99:VAL:HG21	1.97	0.46
4:3E:155:LEU:HD22	4:3E:155:LEU:HA	1.76	0.46
23:2K:62:C:H2'	23:2K:63:C:H6	1.80	0.46
23:2K:73:A:C6	23:2K:74:A:C6	3.02	0.46
26:1H:1105:U:H2'	26:1H:1106:G:H8	1.80	0.46
26:1H:1359:A:H2'	26:1H:1360:A:H5'	1.96	0.46
26:1H:2057:A:P	59:1H:3517:HOH:O	2.68	0.46
29:21:92:THR:O	29:21:95:ILE:HG12	2.16	0.46
30:31:63:LYS:CE	30:31:67:GLN:HB2	2.44	0.46
30:31:157:VAL:HB	30:31:194:MET:HG2	1.97	0.46
37:88:32:TYR:HE1	37:88:133:ARG:HE	1.63	0.46
37:88:78:PRO:O	37:88:79:LEU:HB2	2.14	0.46
54:Q8:39:LYS:HA	54:Q8:42:ARG:HH21	1.79	0.46
1:1G:490:G:OP2	4:32:132:ARG:NH1	2.43	0.46
1:1G:591:U:H2'	1:1G:592:G:C8	2.50	0.46
1:1G:626:U:C2	1:1G:627:G:C8	3.03	0.46
1:1G:1214:C:H3'	1:1G:1215:G:H8	1.78	0.46
1:1G:1328:C:H2'	1:1G:1329:A:O4'	2.15	0.46
5:42:118:ILE:HG12	5:42:119:LEU:N	2.30	0.46
26:14:1104:C:H2'	26:14:1105:U:C6	2.51	0.46
26:14:2119:A:C2	26:14:2171:A:H1'	2.50	0.46
26:14:2772:C:H2'	26:14:2773:C:C6	2.50	0.46
29:29:119:ARG:HD2	29:29:120:TRP:CE2	2.51	0.46
30:39:120:GLU:OE1	30:39:122:LYS:NZ	2.46	0.46
31:49:72:ARG:HD2	31:49:85:GLY:O	2.14	0.46
36:35:47:ASP:HB3	36:35:49:ARG:N	2.30	0.46
39:65:101:LEU:O	39:65:105:ALA:N	2.38	0.46
46:D5:30:ASN:N	46:D5:33:LEU:O	2.48	0.46
1:13:266:G:H5'	1:13:268:C:H41	1.81	0.46
1:13:827:U:C5	1:13:872:A:N1	2.80	0.46
1:13:1015:A:N3	1:13:1218:C:O2'	2.44	0.46
1:13:1313:U:OP1	19:AI:6:LYS:HG2	2.15	0.46
3:2E:90:GLU:HA	3:2E:93:LYS:HB2	1.97	0.46
4:3E:52:SER:O	4:3E:55:ALA:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1K:48:C:H42	22:1K:52:G:H1	1.63	0.46
26:1H:155:C:H5'	26:1H:161:U:OP2	2.15	0.46
26:1H:530:G:C5	26:1H:2022:U:H5''	2.49	0.46
26:1H:1219:G:OP2	41:C8:19:LYS:HE3	2.14	0.46
26:1H:1252:G:H5''	59:1H:3616:HOH:O	2.13	0.46
26:1H:1906:G:C2	26:1H:1907:G:C8	3.03	0.46
26:1H:2156:G:H2'	26:1H:2157:G:N2	2.30	0.46
27:16:42:C:O2'	31:41:67:LYS:HE3	2.15	0.46
47:I8:53:MET:HB2	47:I8:59:LEU:HD23	1.97	0.46
54:Q8:37:SER:O	54:Q8:40:GLU:N	2.48	0.46
54:Q8:52:LYS:N	54:Q8:53:PRO:HD2	2.29	0.46
1:1G:765:G:N2	1:1G:813:U:OP2	2.42	0.46
1:1G:1023:G:H3'	1:1G:1024:G:C5'	2.45	0.46
1:1G:1207:G:C6	1:1G:1208:C:C4	3.04	0.46
1:1G:1263:C:N3	1:1G:1273:G:N2	2.63	0.46
2:12:67:THR:HG21	2:12:155:LEU:HG	1.96	0.46
12:3A:60:LEU:HB2	12:3A:64:TYR:CB	2.45	0.46
20:BA:49:ALA:HB2	20:BA:92:LEU:HD22	1.98	0.46
26:14:1021:A:H3'	26:14:1021:A:C8	2.50	0.46
26:14:1288:U:C2	26:14:1327:C:O2	2.68	0.46
26:14:1322:A:N1	26:14:1333:C:O2'	2.37	0.46
26:14:2010:G:H5''	43:A5:42:ARG:HB2	1.96	0.46
26:14:2123:G:C4	26:14:2124:G:C8	3.03	0.46
26:14:2572:A:C8	29:29:144:ARG:HD2	2.50	0.46
29:29:9:VAL:HG23	29:29:26:ILE:O	2.14	0.46
43:A5:92:ARG:HD3	43:A5:93:ALA:O	2.15	0.46
54:M5:23:VAL:HG22	54:M5:47:LYS:HB3	1.97	0.46
1:13:242:C:C2	1:13:285:G:N2	2.84	0.46
1:13:323:U:H5'	20:BI:23:ARG:HB2	1.97	0.46
1:13:390:C:O2'	16:7I:28:ARG:NH2	2.47	0.46
1:13:658:G:H2'	1:13:659:U:H6	1.80	0.46
1:13:1310:G:O2'	1:13:1311:G:H5'	2.15	0.46
1:13:1446:A:OP1	1:13:1446:A:H4'	2.16	0.46
1:13:1478:C:H2'	1:13:1479:C:C6	2.50	0.46
2:1E:239:VAL:O	2:1E:239:VAL:HG12	2.15	0.46
3:2E:102:ASN:OD1	3:2E:102:ASN:N	2.48	0.46
15:6I:4:THR:OG1	15:6I:7:GLU:OE2	2.28	0.46
26:1H:412:A:H2'	26:1H:412:A:N3	2.31	0.46
26:1H:1359:A:H5'	26:1H:1359:A:N3	2.31	0.46
26:1H:1429:G:O2'	26:1H:1430:C:H5'	2.15	0.46
26:1H:1505:C:H2'	26:1H:1506:C:C6	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2173:A:H3'	26:1H:2174:C:C5	2.49	0.46
26:1H:2567:G:H2'	26:1H:2568:C:H6	1.78	0.46
26:1H:2838:G:H1'	38:98:45:ARG:NH2	2.31	0.46
28:11:77:ALA:HB2	28:11:97:TYR:HA	1.97	0.46
28:11:260:ARG:NH1	28:11:267:SER:OG	2.49	0.46
30:31:46:ARG:HH11	30:31:46:ARG:CG	2.24	0.46
32:51:27:LYS:HA	32:51:32:GLU:HA	1.96	0.46
34:58:48:MET:SD	34:58:48:MET:O	2.73	0.46
36:78:61:ARG:NH1	54:Q8:14:VAL:HG23	2.30	0.46
40:B8:81:PRO:HG2	40:B8:82:LEU:HD12	1.96	0.46
51:M8:43:TYR:CG	51:M8:44:THR:N	2.84	0.46
51:M8:52:THR:OG1	51:M8:53:GLU:N	2.46	0.46
1:1G:366:C:O2'	1:1G:394:G:N2	2.49	0.46
1:1G:826:C:O2	1:1G:874:G:N2	2.32	0.46
1:1G:841:U:H3'	1:1G:841:U:C6	2.51	0.46
1:1G:979:C:C5	1:1G:980:C:C6	3.03	0.46
1:1G:991:U:O2'	1:1G:992:U:O5'	2.33	0.46
1:1G:1159:U:O4'	1:1G:1181:G:N2	2.47	0.46
1:1G:1266:G:N2	1:1G:1270:C:N3	2.63	0.46
2:12:108:ILE:HD13	2:12:108:ILE:HA	1.62	0.46
4:32:8:VAL:O	4:32:11:LEU:HD12	2.16	0.46
4:32:201:GLN:O	4:32:205:GLU:HG3	2.15	0.46
10:1A:63:PHE:HD1	14:5A:58:LYS:HA	1.80	0.46
16:7A:36:ILE:O	16:7A:36:ILE:HG13	2.15	0.46
17:8A:10:VAL:HG21	17:8A:52:LYS:O	2.15	0.46
26:14:110:G:C2	26:14:111:A:C8	3.04	0.46
26:14:957:A:N6	26:14:2459:A:C8	2.82	0.46
26:14:1729:A:C5	26:14:1731:G:C6	3.03	0.46
26:14:1743:G:C2	26:14:1746:G:C8	3.03	0.46
26:14:1991:U:H2'	26:14:1992:G:H5''	1.96	0.46
26:14:2418:A:H2'	26:14:2419:U:H6	1.80	0.46
26:14:2516:G:C6	26:14:2517:C:N4	2.84	0.46
26:14:2520:C:H41	26:14:2542:A:N6	2.13	0.46
27:1J:116:G:H4'	39:65:54:LEU:HD21	1.98	0.46
29:29:135:HIS:CE1	59:29:402:HOH:O	2.68	0.46
37:45:69:PHE:CD1	37:45:70:PRO:HD2	2.50	0.46
46:D5:52:SER:O	46:D5:52:SER:OG	2.16	0.46
1:13:749:C:H2'	1:13:750:G:H8	1.81	0.46
1:13:1326:C:H2'	1:13:1327:C:C6	2.50	0.46
3:2E:137:ALA:HA	3:2E:140:ARG:HG2	1.98	0.46
4:3E:92:VAL:O	4:3E:96:LEU:HD22	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:100:VAL:O	5:4E:107:ARG:NH2	2.48	0.46
13:4I:65:LYS:HB3	51:M8:50:VAL:HG11	1.96	0.46
16:7I:74:LEU:HA	16:7I:77:ALA:HB2	1.96	0.46
22:1K:27:A:H3'	22:1K:28:G:H8	1.80	0.46
24:3K:15:G:HO2'	24:3K:68:A:H2	1.64	0.46
26:1H:654:A:H2'	26:1H:654(A):A:C8	2.51	0.46
26:1H:660:G:N2	36:78:12:ALA:HA	2.31	0.46
26:1H:806:C:O2	26:1H:2444:G:O2'	2.30	0.46
26:1H:1095:A:H2'	26:1H:1095:A:N3	2.29	0.46
26:1H:1116:C:H2'	26:1H:1117:G:O4'	2.16	0.46
26:1H:1174:A:H2'	26:1H:1176:G:OP1	2.15	0.46
26:1H:1368:G:C2	26:1H:1369:G:C8	3.03	0.46
26:1H:2111:C:C6	26:1H:2118:U:H4'	2.50	0.46
26:1H:2125:G:H1'	26:1H:2173:A:N6	2.30	0.46
26:1H:2159:G:H2'	26:1H:2160:G:O4'	2.16	0.46
27:16:15:A:H1'	27:16:109:G:C4	2.51	0.46
32:51:153:LYS:HG2	32:51:162:ILE:CB	2.45	0.46
33:61:110:ASP:CB	33:61:112:LYS:H	2.27	0.46
35:68:22:ILE:HG22	35:68:41:ALA:HA	1.97	0.46
38:98:70:LEU:HA	38:98:70:LEU:HD23	1.62	0.46
41:C8:14:HIS:O	41:C8:18:LEU:HD12	2.15	0.46
1:1G:9:G:C8	5:42:126:ARG:NH2	2.84	0.46
1:1G:272:C:H2'	1:1G:273:A:C8	2.51	0.46
1:1G:756:C:H2'	1:1G:757:U:O4'	2.15	0.46
1:1G:1179:A:H4'	9:82:103:THR:HA	1.96	0.46
1:1G:1298:C:O2'	1:1G:1299:A:OP2	2.33	0.46
13:4A:27:LYS:HE3	13:4A:31:LYS:NZ	2.29	0.46
26:14:13:A:O2'	26:14:15:G:O6	2.27	0.46
26:14:194:G:H2'	26:14:195:A:O4'	2.15	0.46
26:14:638:G:C5	26:14:639:U:C4	3.04	0.46
26:14:747:U:O2	26:14:2014:A:H1'	2.16	0.46
26:14:779:U:OP1	28:19:49:ILE:HG22	2.15	0.46
26:14:877:U:O4	26:14:899:A:N6	2.48	0.46
26:14:1161:C:H1'	42:95:8:GLY:O	2.15	0.46
26:14:1247:A:OP1	30:39:95:ARG:NH2	2.48	0.46
26:14:1298:C:P	59:14:3433:HOH:O	2.66	0.46
26:14:1517:G:H2'	26:14:1518:C:C6	2.50	0.46
26:14:2116:G:N1	26:14:2162:G:OP1	2.49	0.46
26:14:2147:G:C4	26:14:2148:G:H1'	2.50	0.46
26:14:2647:U:H2'	26:14:2648:C:H6	1.80	0.46
26:14:2707:G:H5'	38:55:68:ARG:HH21	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:69:37:VAL:HB	33:69:43:ASN:ND2	2.29	0.46
36:35:62:LEU:HD13	54:M5:25:MET:CB	2.46	0.46
39:65:88:ASP:HB3	39:65:89:ARG:H	1.57	0.46
49:G5:13:ALA:HA	49:G5:16:LEU:CD2	2.46	0.46
1:13:825:G:H2'	1:13:826:C:H6	1.80	0.46
1:13:1298:C:P	7:6E:114:ARG:HH22	2.39	0.46
1:13:1494:G:N7	57:13:1745:PAR:N32	2.63	0.46
2:1E:172:ILE:O	2:1E:176:GLU:HG3	2.15	0.46
4:3E:199:ASN:OD1	4:3E:201:GLN:HB3	2.16	0.46
5:4E:82:VAL:HB	5:4E:138:ALA:HB2	1.97	0.46
10:1I:6:ILE:HG22	10:1I:98:ILE:HG13	1.96	0.46
18:9I:70:ILE:O	18:9I:74:ARG:HG3	2.15	0.46
26:1H:469:G:O6	53:P8:37:LYS:NZ	2.36	0.46
26:1H:507:A:C5'	26:1H:508:G:H5'	2.45	0.46
26:1H:637:A:H2'	36:78:117:GLU:OE1	2.15	0.46
26:1H:724:U:H2'	26:1H:725:G:O4'	2.15	0.46
26:1H:878:A:C6	26:1H:900:A:C8	3.03	0.46
26:1H:893:C:O2'	26:1H:894:C:OP1	2.28	0.46
26:1H:1290:C:H2'	26:1H:1291:C:H6	1.80	0.46
26:1H:2123:G:H2'	26:1H:2124:G:H8	1.80	0.46
26:1H:2168:G:H22	26:1H:2170:A:N6	2.08	0.46
26:1H:2592:G:P	59:1H:3815:HOH:O	2.73	0.46
27:16:32:C:C2	27:16:51:G:N2	2.84	0.46
28:11:68:LYS:HB3	28:11:70:TRP:CH2	2.50	0.46
29:21:4:ILE:C	29:21:5:LEU:HD23	2.35	0.46
32:51:154:PRO:HB3	32:51:163:TYR:CZ	2.51	0.46
39:A8:87:PHE:CE1	39:A8:102:ALA:HB2	2.51	0.46
41:C8:90:VAL:HG12	41:C8:91:ASP:HA	1.98	0.46
1:1G:490:G:OP2	4:32:132:ARG:NH2	2.48	0.46
4:32:61:LYS:NZ	4:32:72:GLU:OE2	2.34	0.46
11:2A:46:GLY:HA2	11:2A:50:TYR:H	1.80	0.46
11:2A:85:ARG:HD3	11:2A:113:PRO:HD3	1.98	0.46
11:2A:124:LYS:HE2	11:2A:125:PHE:CZ	2.50	0.46
55:3L:22:A:H2'	55:3L:22:A:N3	2.29	0.46
26:14:234:C:H2'	26:14:235:U:H6	1.81	0.46
26:14:925:C:H2'	26:14:926:A:H8	1.80	0.46
26:14:1021:A:H3'	26:14:1021:A:H8	1.80	0.46
26:14:1113:U:H5'	32:59:2:SER:HA	1.98	0.46
26:14:1204:A:H2	26:14:1241:A:N1	2.14	0.46
26:14:1222:C:C2	26:14:1229(A):G:C2	3.04	0.46
26:14:2331:G:H4'	47:E5:43:THR:H	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2377:A:H4'	39:65:111:GLU:HB3	1.98	0.46
26:14:2600:A:H2'	26:14:2601:C:H6	1.79	0.46
26:14:2771:C:O3'	29:29:168:MET:HE1	2.15	0.46
27:1J:40:U:H1'	27:1J:45:A:N6	2.31	0.46
38:55:12:ARG:HD3	38:55:16:HIS:CG	2.51	0.46
40:75:85:LYS:HD3	40:75:87:ASP:OD2	2.16	0.46
1:13:350:G:C6	1:13:351:G:O6	2.69	0.46
1:13:986:A:H2'	1:13:987:G:O4'	2.16	0.46
8:7E:37:ARG:O	8:7E:41:ARG:HB2	2.16	0.46
8:7E:49:GLU:HG2	8:7E:62:TYR:HE2	1.79	0.46
13:4I:36:LYS:HE2	13:4I:59:TYR:CE1	2.51	0.46
15:6I:30:ALA:HB2	15:6I:85:LEU:HD11	1.98	0.46
26:1H:270(E):G:H1	26:1H:270(U):C:H42	1.64	0.46
26:1H:305:U:H2'	26:1H:306:U:C6	2.51	0.46
26:1H:654(A):A:H2	26:1H:654(T):A:N1	2.14	0.46
26:1H:1683:C:H2'	26:1H:1684:C:H6	1.80	0.46
26:1H:1952:A:C6	35:68:22:ILE:HG13	2.51	0.46
26:1H:2579:C:H2'	26:1H:2580:U:O4'	2.14	0.46
26:1H:2591:C:P	28:11:239:ARG:HG3	2.55	0.46
26:1H:2594:C:H2'	26:1H:2595:G:C8	2.50	0.46
26:1H:2791:C:H42	26:1H:2805:G:H1	1.62	0.46
29:21:112:GLY:O	29:21:159:HIS:HA	2.16	0.46
32:51:3:ARG:NE	32:51:3:ARG:HA	2.29	0.46
36:78:121:LYS:HE2	36:78:123:LEU:HD11	1.98	0.46
41:C8:75:ASN:HB2	41:C8:78:THR:OG1	2.16	0.46
43:E8:78:GLU:OE1	43:E8:99:ARG:HD3	2.16	0.46
1:1G:142:G:H2'	1:1G:143:A:H8	1.81	0.46
1:1G:1178:G:H5'	9:82:93:ARG:HH21	1.81	0.46
4:32:25:ARG:CZ	4:32:30:LYS:HG3	2.45	0.46
4:32:57:ARG:HH22	5:42:107:ARG:CZ	2.29	0.46
11:2A:124:LYS:HB2	11:2A:124:LYS:HE3	1.78	0.46
26:14:1033:U:H3'	26:14:1033:U:H6	1.81	0.46
26:14:1999:C:H4'	26:14:2723:C:O2	2.15	0.46
26:14:2394:C:H1'	59:14:3424:HOH:O	2.16	0.46
26:14:2687:U:C4	26:14:2688:U:C5	3.03	0.46
27:1J:0:A:H2'	27:1J:1:U:H6	1.80	0.46
31:49:51:ARG:NH1	31:49:51:ARG:HB3	2.31	0.46
42:95:87:HIS:NE2	42:95:89:GLN:HB2	2.30	0.46
45:C5:97:ARG:HG2	45:C5:102:CYS:O	2.15	0.46
1:13:123:C:OP1	1:13:311:C:O2'	2.25	0.46
1:13:262:A:H5''	1:13:263:A:OP2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:407:G:H2'	1:13:408:A:C8	2.50	0.46
1:13:474:G:H2'	1:13:475:G:C8	2.51	0.46
1:13:609:A:H5'	16:7I:18:ARG:NH2	2.31	0.46
1:13:1206:G:C6	1:13:1207:G:C5	3.03	0.46
1:13:1260:C:O5'	1:13:1284:C:H4'	2.16	0.46
3:2E:58:GLU:HB2	3:2E:65:ALA:CB	2.46	0.46
3:2E:58:GLU:HB2	3:2E:65:ALA:HB3	1.97	0.46
13:4I:52:GLU:HA	13:4I:55:ARG:HB2	1.98	0.46
26:1H:455:C:N3	26:1H:473:G:H5'	2.31	0.46
26:1H:1280:G:N2	26:1H:1291:C:C2	2.84	0.46
26:1H:1530:G:C5	26:1H:1531:C:C4	3.04	0.46
26:1H:2287:A:C2	26:1H:2346:A:H2	2.31	0.46
28:11:223:GLY:HA3	28:11:231:HIS:CE1	2.51	0.46
34:58:120:LEU:HD22	34:58:121:LYS:N	2.31	0.46
1:1G:493:G:H8	1:1G:493:G:O5'	1.99	0.46
2:12:8:LYS:NZ	2:12:217:ARG:HE	2.13	0.46
7:62:15:ASP:HB3	7:62:19:GLY:N	2.30	0.46
12:3A:44:THR:HG22	12:3A:52:LEU:HD23	1.97	0.46
26:14:38:A:H1'	30:39:48:THR:HB	1.97	0.46
26:14:480:A:OP2	45:C5:46:LYS:HE3	2.15	0.46
26:14:919:G:N2	26:14:2269:A:OP2	2.48	0.46
26:14:950:G:C2	26:14:968:G:C2	3.04	0.46
26:14:1511:A:H2'	26:14:1512:G:O4'	2.15	0.46
26:14:1800:C:OP2	28:19:183:ARG:NH2	2.48	0.46
26:14:2786:U:H5''	29:29:65:GLY:CA	2.46	0.46
26:14:2850:A:H2'	26:14:2851:A:C8	2.51	0.46
30:39:192:LEU:HD23	30:39:193:VAL:H	1.81	0.46
31:49:113:ARG:NH1	31:49:142:PRO:HB3	2.31	0.46
34:15:96:GLU:H	34:15:96:GLU:CD	2.19	0.46
36:35:46:LYS:HE2	36:35:46:LYS:HB3	1.66	0.46
44:B5:63:LYS:HA	44:B5:72:LYS:HA	1.98	0.46
49:G5:63:VAL:O	49:G5:66:GLU:HG2	2.16	0.46
1:13:26:A:H2'	1:13:27:G:H5'	1.97	0.46
1:13:112:G:P	16:7I:27:LYS:HD2	2.56	0.46
1:13:180:U:H2'	1:13:181:G:O4'	2.16	0.46
1:13:381:C:H2'	1:13:382:A:O4'	2.16	0.46
2:1E:47:THR:HG22	2:1E:51:LEU:HD12	1.98	0.46
3:2E:7:PRO:O	3:2E:11:ARG:HG2	2.16	0.46
4:3E:108:LEU:HD23	4:3E:110:PHE:HE1	1.81	0.46
6:5E:67:MET:HB2	6:5E:68:PRO:HD2	1.98	0.46
26:1H:529:A:H4'	26:1H:530:G:H5'	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:571:A:OP2	59:1H:3702:HOH:O	2.20	0.46
26:1H:1324:G:C4	26:1H:1328:G:O6	2.69	0.46
26:1H:1534:G:H1	26:1H:1538:G:H22	1.63	0.46
26:1H:2032:G:N2	29:21:146:THR:HG23	2.21	0.46
26:1H:2262:U:H4'	26:1H:2328:A:C2	2.51	0.46
29:21:24:THR:HG21	29:21:188:VAL:CG2	2.46	0.46
29:21:152:LYS:HE2	34:58:77:GLY:HA3	1.96	0.46
45:G8:9:LYS:HA	45:G8:27:VAL:HG22	1.98	0.46
49:K8:5:GLU:H	49:K8:5:GLU:HG3	1.31	0.46
1:1G:371:G:H1	1:1G:390:C:N4	2.12	0.46
1:1G:690:G:H22	11:2A:55:LYS:HE2	1.81	0.46
1:1G:1114:C:H42	1:1G:1186:G:H1	1.64	0.46
1:1G:1142:G:H3'	1:1G:1143:G:C8	2.51	0.46
3:22:43:LEU:HD12	3:22:52:LEU:HD13	1.98	0.46
9:82:95:LYS:HB2	9:82:95:LYS:HE2	1.69	0.46
11:2A:85:ARG:NE	11:2A:111:ASP:HB3	2.28	0.46
17:8A:75:ARG:HH22	17:8A:77:VAL:HA	1.81	0.46
18:9A:37:VAL:O	18:9A:41:LYS:N	2.36	0.46
26:14:443:A:N7	30:39:45:ARG:HD2	2.31	0.46
26:14:602:G:N2	26:14:655:A:C8	2.80	0.46
26:14:1516:U:H2'	26:14:1517:G:C8	2.51	0.46
26:14:2419:U:H2'	26:14:2420:C:C6	2.51	0.46
26:14:2542:A:H4'	26:14:2542:A:OP1	2.15	0.46
28:19:126:GLN:HB2	28:19:129:ASN:ND2	2.31	0.46
28:19:181:GLU:HA	28:19:272:ALA:HB1	1.98	0.46
38:55:107:ASP:C	38:55:107:ASP:OD1	2.55	0.46
40:75:133:GLU:H	40:75:133:GLU:HG3	1.53	0.46
46:D5:72:ARG:HD2	46:D5:72:ARG:HA	1.52	0.46
50:H5:9:VAL:HG22	50:H5:53:LEU:O	2.16	0.46
1:13:230:G:O2'	16:7I:25:ARG:NH2	2.49	0.46
1:13:620:C:H5''	59:13:1917:HOH:O	2.16	0.46
1:13:738:C:H2'	1:13:739:C:C6	2.51	0.46
1:13:1139:G:H22	1:13:1144:G:H1	1.63	0.46
1:13:1528:U:C2	1:13:1530:G:C8	3.03	0.46
2:1E:109:SER:O	2:1E:112:VAL:HB	2.16	0.46
4:3E:30:LYS:HB2	4:3E:32:ALA:CA	2.46	0.46
7:6E:123:GLU:O	7:6E:127:ALA:N	2.48	0.46
8:7E:9:MET:HG3	8:7E:26:VAL:HG21	1.98	0.46
13:4I:84:ILE:HD12	13:4I:84:ILE:HA	1.77	0.46
15:6I:4:THR:O	15:6I:7:GLU:HB3	2.15	0.46
24:3K:84:C:H5'	48:J8:30:VAL:HG11	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:482:A:H5''	26:1H:483:A:OP1	2.16	0.46
26:1H:1045:A:H1'	26:1H:1047:G:C4	2.51	0.46
26:1H:1270:C:H5''	26:1H:1271:G:O5'	2.16	0.46
26:1H:1312:U:H4'	26:1H:1313:U:O5'	2.16	0.46
26:1H:1424:G:H2'	26:1H:1425:G:O4'	2.15	0.46
26:1H:2243:U:O2'	26:1H:2244:U:H5'	2.15	0.46
26:1H:2611:U:H2'	52:N8:2:ALA:O	2.16	0.46
30:31:108:LYS:HB3	30:31:108:LYS:HE2	1.69	0.46
31:41:16:ARG:N	31:41:17:PRO:HD2	2.31	0.46
31:41:178:PHE:HB3	31:41:180:PHE:CE1	2.51	0.46
39:A8:78:LEU:HD12	39:A8:108:GLY:HA3	1.98	0.46
41:C8:8:VAL:HG23	41:C8:11:ARG:NH2	2.27	0.46
46:H8:63:ASP:CB	46:H8:65:GLN:HG3	2.44	0.46
1:1G:298:A:O5'	1:1G:298:A:H8	1.99	0.46
1:1G:406:G:H1	1:1G:436:C:H42	1.64	0.46
1:1G:1423:G:OP1	35:25:49:ARG:NH2	2.47	0.46
4:32:126:ILE:HG22	4:32:127:THR:N	2.30	0.46
9:82:51:ARG:HG2	9:82:56:LEU:HD13	1.98	0.46
14:5A:40:CYS:O	14:5A:44:LEU:HB3	2.16	0.46
15:6A:4:THR:HB	15:6A:7:GLU:H	1.81	0.46
18:9A:29:PHE:HD1	18:9A:29:PHE:H	1.64	0.46
24:1L:73:U:H2'	24:1L:74:C:C6	2.51	0.46
26:14:977:G:N3	26:14:1001:A:H2	2.14	0.46
26:14:1013:C:H42	26:14:1149:G:H1	1.64	0.46
26:14:1221:C:H2'	26:14:1222:C:C6	2.51	0.46
26:14:1572:A:H2'	26:14:1573:G:O4'	2.14	0.46
26:14:1677:A:H2'	26:14:1678:G:C8	2.51	0.46
26:14:1729:A:C2	26:14:1730:U:H5	2.34	0.46
26:14:2031:A:C6	26:14:2498:C:H1'	2.51	0.46
26:14:2124:G:H2'	26:14:2125:G:H5'	1.97	0.46
26:14:2528:U:O2'	26:14:2530:A:OP1	2.27	0.46
26:14:2876:G:H1'	40:75:3:ARG:NH1	2.31	0.46
30:39:128:ALA:O	30:39:129:PHE:C	2.55	0.46
32:59:20:ALA:HB3	32:59:23:ARG:O	2.16	0.46
36:35:111:ARG:HG2	36:35:128:HIS:CD2	2.51	0.46
37:45:134:ARG:O	37:45:134:ARG:HG3	2.14	0.46
45:C5:104:GLY:HA2	45:C5:105:ALA:HA	1.69	0.46
54:M5:23:VAL:HA	54:M5:49:VAL:HG23	1.97	0.46
1:13:1427:U:H2'	1:13:1428:A:C8	2.51	0.46
2:1E:7:VAL:HG22	2:1E:8:LYS:NZ	2.31	0.46
7:6E:113:GLU:HG3	7:6E:119:ARG:HG2	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:17:G:N1	24:3K:67:A:C6	2.84	0.46
26:1H:64:A:C5	44:F8:66:LEU:HD22	2.51	0.46
26:1H:270(V):G:H2'	26:1H:270(W):G:O4'	2.16	0.46
26:1H:357:A:H2'	26:1H:358:U:H6	1.79	0.46
26:1H:1429:G:H2'	26:1H:1430:C:C6	2.50	0.46
26:1H:1535:U:C4	26:1H:1537:C:H1'	2.51	0.46
26:1H:1567:A:H5''	28:11:58:HIS:ND1	2.31	0.46
26:1H:2032:G:H21	29:21:146:THR:CG2	2.19	0.46
33:61:110:ASP:OD1	33:61:111:PRO:HA	2.16	0.46
40:B8:50:ILE:HD11	40:B8:102:ILE:HD11	1.98	0.46
46:H8:157:LEU:HD21	46:H8:163:LEU:HG	1.99	0.46
50:L8:37:LEU:HD12	50:L8:43:ILE:HD13	1.98	0.46
1:1G:452:A:O2'	1:1G:453:A:O5'	2.34	0.46
1:1G:977:A:H2'	1:1G:978:A:H5'	1.98	0.46
1:1G:1053:G:O6	1:1G:1199:U:H2'	2.17	0.46
1:1G:1181:G:N2	1:1G:1182:G:H1'	2.31	0.46
1:1G:1199:U:H4'	10:1A:54:PHE:CD2	2.51	0.46
2:12:16:HIS:CE1	2:12:213:LEU:HD13	2.51	0.46
3:22:18:TRP:H	3:22:18:TRP:HE3	1.64	0.46
5:42:90:VAL:O	5:42:120:THR:HA	2.16	0.46
15:6A:82:ILE:HB	15:6A:87:ILE:HB	1.98	0.46
26:14:1279:G:H4'	38:55:31:HIS:CD2	2.51	0.46
26:14:1532:C:H42	26:14:1539:G:H1	1.64	0.46
26:14:1946:U:H2'	26:14:1947:C:C6	2.51	0.46
26:14:2176:A:H2'	26:14:2177:C:H6	1.81	0.46
26:14:2853:C:O2'	26:14:2854:G:H5'	2.15	0.46
27:1J:60:C:H2'	27:1J:61:G:H8	1.81	0.46
27:1J:76:G:H2'	27:1J:77:U:O4'	2.16	0.46
30:39:64:ILE:HG13	30:39:65:TRP:CD1	2.51	0.46
36:35:64:LYS:HE3	54:M5:31:HIS:NE2	2.31	0.46
38:55:94:TYR:O	38:55:117:VAL:HG12	2.15	0.46
38:55:102:GLU:HG3	38:55:103:ARG:N	2.30	0.46
51:I5:36:CYS:SG	51:I5:39:CYS:HB3	2.56	0.46
1:13:598:U:H2'	1:13:599:C:H6	1.81	0.45
1:13:1333:A:H2'	1:13:1334:G:O4'	2.16	0.45
12:3I:110:VAL:CG2	12:3I:120:TYR:HB3	2.46	0.45
23:2K:53:G:C6	23:2K:54:G:N7	2.84	0.45
24:3K:41:C:H2'	24:3K:42:U:H6	1.81	0.45
26:1H:8:A:H2'	26:1H:9:U:C6	2.51	0.45
26:1H:184:C:H2'	26:1H:185:U:H6	1.80	0.45
26:1H:1102:C:H2'	26:1H:1103:A:C8	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1968:G:P	59:1H:3814:HOH:O	2.72	0.45
26:1H:2140:C:N3	26:1H:2151:G:N2	2.48	0.45
26:1H:2150:U:H2'	26:1H:2151:G:C8	2.51	0.45
26:1H:2369:A:H2'	26:1H:2370:G:C8	2.51	0.45
26:1H:2430:A:H8	26:1H:2431:U:C5	2.34	0.45
26:1H:2478:A:C8	26:1H:2529:G:C5	3.03	0.45
27:16:10:C:H2'	27:16:11:C:H6	1.80	0.45
28:11:112:GLN:H	28:11:115:GLN:HG3	1.82	0.45
29:21:101:ARG:HE	29:21:171:GLU:HB2	1.81	0.45
45:G8:99:CYS:SG	45:G8:100:ALA:N	2.88	0.45
46:H8:111:VAL:CG1	46:H8:146:ILE:HG12	2.38	0.45
1:1G:452:A:O2'	1:1G:453:A:O4'	2.28	0.45
1:1G:1157:A:H1'	1:1G:1158:C:C2	2.51	0.45
3:22:37:GLN:O	3:22:40:ARG:N	2.49	0.45
6:52:33:TYR:CZ	6:52:78:GLU:HG3	2.51	0.45
7:62:93:PRO:HG2	7:62:94:ARG:HD3	1.98	0.45
23:2L:64:G:H2'	23:2L:65:G:C8	2.51	0.45
26:14:708:C:H42	26:14:723:G:H1	1.64	0.45
26:14:710:G:H1	26:14:721:C:H42	1.62	0.45
26:14:858:U:O2	26:14:2268:A:H2'	2.16	0.45
26:14:1054:A:H5'	26:14:1055:G:OP2	2.16	0.45
26:14:1578:U:C2'	26:14:1579:A:H5'	2.46	0.45
26:14:1812:A:H2'	26:14:1813:G:H8	1.79	0.45
26:14:2396:G:H4'	48:F5:30:VAL:H	1.80	0.45
30:39:107:LYS:HA	30:39:107:LYS:HE3	1.97	0.45
30:39:132:VAL:HG13	30:39:133:ASN:HB2	1.98	0.45
31:49:4:ASP:OD2	31:49:5:VAL:N	2.48	0.45
36:35:101:VAL:HA	36:35:105:LEU:O	2.16	0.45
1:13:247:G:OP2	17:8I:100:LYS:HB2	2.16	0.45
1:13:558:G:C4	1:13:559:A:C2	3.05	0.45
1:13:1004:A:H1'	1:13:1036:G:H22	1.81	0.45
3:2E:58:GLU:N	3:2E:65:ALA:HB3	2.30	0.45
3:2E:96:GLY:H	3:2E:97:LYS:HZ3	1.64	0.45
7:6E:79:ARG:HG2	7:6E:84:ASN:ND2	2.32	0.45
7:6E:150:ALA:HA	11:2I:59:TYR:HD2	1.81	0.45
8:7E:81:HIS:N	8:7E:138:TRP:O	2.46	0.45
10:1I:31:GLY:HA2	10:1I:78:ASN:ND2	2.31	0.45
12:3I:89:ARG:NH2	12:3I:91:LYS:HD2	2.31	0.45
12:3I:102:ARG:HE	12:3I:102:ARG:HB3	1.54	0.45
15:6I:7:GLU:OE1	15:6I:38:ARG:NH2	2.49	0.45
19:AI:14:HIS:CD2	19:AI:14:HIS:N	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:598:G:H5'	36:78:11:GLY:HA3	1.98	0.45
26:1H:838:C:H2'	26:1H:839:U:O4'	2.16	0.45
26:1H:1230:C:H2'	26:1H:1231:G:C8	2.51	0.45
26:1H:1329:U:H5''	26:1H:1330:C:H5	1.81	0.45
26:1H:1448:G:H1'	26:1H:1528:A:N6	2.31	0.45
26:1H:1705:G:C6	26:1H:1706:U:C4	3.04	0.45
26:1H:1971:A:H5''	59:1H:3797:HOH:O	2.15	0.45
26:1H:2345:G:N3	26:1H:2381:C:H2'	2.31	0.45
30:31:199:TRP:NE1	30:31:203:GLN:OE1	2.48	0.45
31:41:82:LEU:HD21	31:41:88:ILE:HD11	1.98	0.45
32:51:86:GLU:H	32:51:86:GLU:CD	2.12	0.45
40:B8:111:ARG:O	40:B8:112:ARG:HB3	2.16	0.45
42:D8:79:VAL:CG1	42:D8:81:TYR:HB3	2.46	0.45
49:K8:6:VAL:O	49:K8:10:LEU:HD12	2.16	0.45
54:Q8:23:VAL:HG12	54:Q8:46:ARG:HD3	1.97	0.45
1:1G:396:G:O2'	1:1G:398:C:OP1	2.18	0.45
1:1G:518:C:H5''	1:1G:519:C:C6	2.51	0.45
1:1G:1169:A:C6	1:1G:1170:A:C6	3.04	0.45
1:1G:1315:U:H2'	1:1G:1316:G:O4'	2.16	0.45
12:3A:32:PHE:O	12:3A:33:ARG:HD2	2.17	0.45
14:5A:42:ILE:O	14:5A:46:GLU:HG3	2.15	0.45
26:14:603:A:C8	26:14:604:G:H1'	2.48	0.45
26:14:654(D):G:H1	26:14:654(Q):C:H42	1.64	0.45
26:14:1049:C:H1'	26:14:1113:U:O2'	2.17	0.45
26:14:1421:G:C2	26:14:1422:G:C8	3.05	0.45
26:14:1542:G:O6	26:14:1543:A:N6	2.49	0.45
26:14:1780:A:P	59:14:3402:HOH:O	2.75	0.45
26:14:2157:G:O2'	26:14:2158:A:O5'	2.34	0.45
26:14:2228:G:C6	26:14:2229:C:C4	3.04	0.45
26:14:2319:G:O6	39:65:4:LEU:HB3	2.16	0.45
26:14:2710:C:P	59:14:3465:HOH:O	2.74	0.45
27:1J:46:A:H2'	27:1J:47:C:H6	1.80	0.45
28:19:267:SER:C	28:19:269:PHE:N	2.68	0.45
37:45:48:GLU:O	37:45:52:VAL:HG23	2.16	0.45
40:75:88:ILE:HG12	40:75:91:ARG:NH1	2.31	0.45
45:C5:73:ARG:NH2	45:C5:81:LYS:O	2.46	0.45
48:F5:82:LEU:HB2	48:F5:83:GLU:H	1.62	0.45
1:13:656:C:H4'	15:6I:62:GLN:HE21	1.82	0.45
1:13:946:A:H2'	1:13:947:G:C8	2.51	0.45
4:3E:99:SER:O	4:3E:140:VAL:HG22	2.16	0.45
5:4E:71:LEU:HD22	5:4E:115:VAL:H	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5E:75:LEU:HD22	6:5E:79:LEU:HD11	1.98	0.45
9:8E:112:LYS:HD2	9:8E:113:LYS:H	1.81	0.45
9:8E:128:ARG:HH21	23:2K:36:A:P	2.40	0.45
11:2I:79:SER:HA	11:2I:104:GLN:O	2.17	0.45
14:5I:29:ARG:HD3	14:5I:40:CYS:CB	2.47	0.45
17:8I:13:ASP:H	17:8I:14:LYS:NZ	2.14	0.45
19:AI:42:PRO:HD3	51:M8:63:TYR:OH	2.16	0.45
20:BI:100:ILE:HD12	20:BI:100:ILE:HA	1.87	0.45
26:1H:1488:G:N2	26:1H:1502:C:O2	2.49	0.45
26:1H:1528:A:H2	26:1H:1542:G:C2	2.34	0.45
26:1H:1680:U:O2	26:1H:1763:G:H3'	2.15	0.45
26:1H:2104:G:C2	26:1H:2186:G:C2	3.04	0.45
27:16:43:C:H5''	51:M8:1:MET:HG2	1.97	0.45
29:21:75:VAL:HG12	29:21:76:ARG:HD2	1.97	0.45
34:58:32:THR:HG23	34:58:37:LYS:HB2	1.98	0.45
34:58:43:THR:HA	34:58:44:PRO:HD2	1.73	0.45
37:88:54:MET:O	37:88:57:HIS:N	2.50	0.45
39:A8:83:LYS:HE2	39:A8:83:LYS:O	2.16	0.45
41:C8:88:ILE:C	41:C8:90:VAL:H	2.20	0.45
54:Q8:22:VAL:HB	54:Q8:53:PRO:HB3	1.98	0.45
1:1G:106:C:H2'	1:1G:107:G:H5'	1.99	0.45
1:1G:151:A:H2'	1:1G:152:A:O4'	2.17	0.45
1:1G:430:A:OP2	4:32:8:VAL:HG23	2.16	0.45
1:1G:607:A:H2'	1:1G:608:A:O4'	2.17	0.45
1:1G:741:G:H2'	1:1G:742:G:O4'	2.17	0.45
1:1G:1171:G:H2'	1:1G:1172:C:C6	2.52	0.45
1:1G:1226:C:H2'	13:4A:103:THR:HB	1.99	0.45
24:1L:9:U:H5'	24:1L:11:C:OP2	2.16	0.45
23:2L:65:G:C6	23:2L:66:C:C4	3.03	0.45
55:3L:22:A:N6	55:3L:56:U:H3	2.15	0.45
26:14:155:C:N3	26:14:171:G:N2	2.64	0.45
26:14:275:G:N2	26:14:276:A:C6	2.84	0.45
26:14:413:C:O5'	26:14:413:C:H6	1.98	0.45
26:14:653:A:H5''	26:14:654:A:OP2	2.16	0.45
26:14:1005:C:H2'	26:14:1006:C:H6	1.82	0.45
26:14:1678:G:N2	26:14:1989:G:N2	2.64	0.45
27:1J:60:C:H2'	27:1J:61:G:C8	2.51	0.45
31:49:97:ASP:HA	31:49:100:TRP:HD1	1.82	0.45
31:49:99:MET:HG3	31:49:100:TRP:N	2.32	0.45
31:49:121:ASN:HA	31:49:122:PRO:HD2	1.81	0.45
33:69:77:LEU:HD12	33:69:78:THR:H	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:15:29:LYS:H	34:15:29:LYS:HG2	1.38	0.45
37:45:29:PHE:HB3	37:45:65:PHE:CD2	2.51	0.45
37:45:58:PHE:HB3	37:45:113:GLN:NE2	2.31	0.45
41:85:98:LEU:C	41:85:100:VAL:H	2.18	0.45
54:M5:30:ARG:HA	54:M5:30:ARG:HD3	1.88	0.45
1:13:255:G:C2	1:13:272:C:C2	3.04	0.45
1:13:721:G:C6	1:13:733:A:C2	3.04	0.45
1:13:1327:C:P	21:1F:12:LYS:HZ1	2.39	0.45
17:8I:65:ILE:HG21	17:8I:69:LYS:HE2	1.98	0.45
26:1H:107:C:H2'	26:1H:108:U:C6	2.48	0.45
26:1H:783:A:C8	26:1H:783:A:H3'	2.51	0.45
26:1H:910:A:N1	26:1H:2277:G:H1'	2.31	0.45
26:1H:1632:A:H8	26:1H:1632:A:O5'	1.99	0.45
26:1H:2038:G:H2'	26:1H:2039:C:H6	1.81	0.45
26:1H:2182:G:H2'	26:1H:2183:C:C6	2.51	0.45
26:1H:2231:C:H2'	26:1H:2232:U:O4'	2.16	0.45
26:1H:2436:G:C6	26:1H:2437:U:C4	3.05	0.45
26:1H:2600:A:C6	26:1H:2601:C:N4	2.85	0.45
26:1H:2689:U:OP1	26:1H:2719:G:N2	2.47	0.45
26:1H:2760:C:O2'	26:1H:2761:G:H5'	2.17	0.45
31:41:68:PRO:HB3	31:41:92:VAL:HB	1.99	0.45
32:51:93:GLY:O	32:51:95:ARG:NH2	2.50	0.45
33:61:10:GLU:HG3	33:61:10:GLU:O	2.16	0.45
33:61:67:ARG:O	33:61:71:ILE:HG22	2.17	0.45
39:A8:34:HIS:HB2	39:A8:36:TYR:HE1	1.80	0.45
1:1G:736:C:OP2	18:9A:68:LYS:HE2	2.17	0.45
1:1G:977:A:O2'	1:1G:981:U:N3	2.50	0.45
1:1G:1288:A:O5'	1:1G:1288:A:H8	1.99	0.45
1:1G:1325:C:H2'	1:1G:1326:C:H6	1.81	0.45
2:12:214:ILE:O	2:12:218:ALA:HB2	2.16	0.45
3:22:45:LYS:O	3:22:48:TYR:HB3	2.16	0.45
11:2A:111:ASP:CG	18:9A:84:LYS:HD2	2.36	0.45
16:7A:19:ILE:HB	16:7A:36:ILE:O	2.16	0.45
24:1L:31:G:H2'	24:1L:32:A:H8	1.81	0.45
26:14:519:U:H2'	26:14:520:G:C8	2.52	0.45
26:14:1464:C:HO2'	26:14:1528:A:H8	1.63	0.45
26:14:2292:C:H2'	26:14:2293:C:C6	2.51	0.45
29:29:203:LYS:HB2	29:29:205:ALA:HB3	1.97	0.45
30:39:9:ILE:O	30:39:128:ALA:HB2	2.16	0.45
30:39:29:ASN:HA	30:39:30:PRO:HD3	1.58	0.45
30:39:132:VAL:O	30:39:134:GLY:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:45:74:TYR:O	37:45:89:ASN:HB2	2.16	0.45
41:85:94:ASN:O	41:85:97:ASP:N	2.45	0.45
45:C5:97:ARG:NH1	45:C5:104:GLY:O	2.47	0.45
1:13:60:A:N6	1:13:110:C:N3	2.62	0.45
1:13:280:C:H4'	1:13:281:G:OP2	2.15	0.45
1:13:960:U:C2	1:13:1225:A:N7	2.84	0.45
6:5E:41:GLU:HB2	6:5E:62:TRP:HB3	1.97	0.45
9:8E:48:GLU:HB2	9:8E:101:PHE:HE2	1.82	0.45
11:2I:99:GLN:HA	11:2I:105:VAL:CG1	2.45	0.45
12:3I:42:THR:HG22	12:3I:54:LYS:HG3	1.98	0.45
26:1H:66:C:H2'	26:1H:67:U:H6	1.80	0.45
26:1H:717:G:H2'	26:1H:718:A:O4'	2.17	0.45
26:1H:810:U:H5''	26:1H:811:U:OP1	2.16	0.45
26:1H:1000:A:N6	26:1H:1154:G:O2'	2.49	0.45
26:1H:1210:A:H5''	26:1H:1212:G:O4'	2.17	0.45
26:1H:2010:G:H5''	43:E8:42:ARG:HB2	1.98	0.45
26:1H:2700:C:C2'	26:1H:2701:C:H5'	2.46	0.45
26:1H:2875:C:H4'	40:B8:5:ALA:HB2	1.99	0.45
27:16:24:G:N7	27:16:56:G:H2'	2.32	0.45
28:11:146:GLU:HG3	28:11:190:TYR:N	2.31	0.45
30:31:53:THR:HG23	30:31:56:GLU:OE1	2.16	0.45
32:51:20:ALA:HB1	32:51:21:PRO:HD2	1.98	0.45
35:68:68:GLU:OE2	35:68:78:ARG:NH1	2.49	0.45
48:J8:69:LYS:HD2	48:J8:69:LYS:HA	1.81	0.45
51:M8:6:HIS:ND1	51:M8:7:PRO:HD2	2.32	0.45
51:M8:37:SER:CA	51:M8:42:PHE:HB3	2.42	0.45
52:N8:16:ARG:O	52:N8:19:ARG:HB3	2.17	0.45
1:1G:458:C:H2'	1:1G:464:G:C8	2.50	0.45
1:1G:1015:A:H2'	1:1G:1016:A:C8	2.52	0.45
1:1G:1326:C:OP1	21:1B:17:THR:OG1	2.22	0.45
1:1G:1382:C:H1'	7:62:79:ARG:HD2	1.98	0.45
6:52:11:ASN:O	6:52:14:LEU:HD22	2.16	0.45
6:52:48:LEU:HD22	6:52:52:ILE:HD12	1.98	0.45
8:72:34:GLU:O	8:72:37:ARG:HB3	2.15	0.45
26:14:172:C:H2'	26:14:173:G:H8	1.80	0.45
26:14:235:U:H2'	26:14:236:C:C6	2.51	0.45
26:14:638:G:C5	26:14:651:G:C2	3.05	0.45
26:14:873:G:H1'	37:45:29:PHE:HE2	1.81	0.45
26:14:1410:G:H2'	26:14:1411:C:H6	1.81	0.45
26:14:1482:U:H5'	26:14:1483:G:OP2	2.16	0.45
26:14:1826:G:H4'	28:19:242:ARG:CZ	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2107:C:N4	26:14:2182:G:H1	2.12	0.45
26:14:2808:U:H3	26:14:2892:A:N6	2.08	0.45
29:29:39:PRO:HA	29:29:43:GLY:CA	2.46	0.45
49:G5:43:GLN:O	49:G5:43:GLN:HG2	2.17	0.45
51:I5:13:ARG:HE	51:I5:22:ILE:HG21	1.81	0.45
1:13:20:U:H2'	1:13:21:G:O4'	2.16	0.45
1:13:571:U:O2	1:13:918:A:H5'	2.16	0.45
1:13:1199:U:H4'	10:1I:54:PHE:CE2	2.52	0.45
2:1E:115:LEU:HD22	2:1E:145:LEU:HB3	1.99	0.45
3:2E:15:THR:HG23	3:2E:181:ASN:HA	1.98	0.45
6:5E:41:GLU:O	6:5E:43:LEU:HD12	2.16	0.45
9:8E:59:PHE:HZ	9:8E:88:TYR:CD2	2.34	0.45
17:8I:52:LYS:HG2	17:8I:53:LEU:N	2.32	0.45
20:BI:40:ALA:HB2	20:BI:55:ILE:HG22	1.99	0.45
26:1H:50:U:H3'	26:1H:51:G:H5'	1.99	0.45
26:1H:654(M):C:H5'	26:1H:654(N):G:N7	2.31	0.45
26:1H:1136:G:H2'	26:1H:1136:G:N3	2.32	0.45
26:1H:1264:G:H5'	52:N8:11:THR:CG2	2.47	0.45
26:1H:1516:U:H2'	26:1H:1517:G:H8	1.82	0.45
26:1H:1541:U:H2'	26:1H:1542:G:O4'	2.16	0.45
26:1H:2503:A:P	59:1H:3968:HOH:O	2.73	0.45
26:1H:2785:C:OP1	29:21:41:LYS:NZ	2.49	0.45
28:11:101:GLU:HG3	28:11:102:LYS:N	2.29	0.45
29:21:63:LEU:HD23	29:21:63:LEU:O	2.16	0.45
31:41:57:ALA:HB2	31:41:90:LEU:HG	1.99	0.45
31:41:109:VAL:HG11	31:41:142:PRO:HD3	1.98	0.45
32:51:86:GLU:CG	32:51:165:ALA:H	2.30	0.45
33:61:49:ALA:O	33:61:53:ALA:N	2.44	0.45
33:61:55:ALA:HA	33:61:58:LEU:HB3	1.97	0.45
37:88:130:LYS:NZ	46:H8:81:ARG:HG2	2.32	0.45
45:G8:39:VAL:O	45:G8:39:VAL:HG12	2.16	0.45
1:1G:193:C:H2'	1:1G:194:C:H6	1.82	0.45
1:1G:652:U:H1'	1:1G:653:A:H2	1.82	0.45
1:1G:1015:A:C6	1:1G:1016:A:C6	3.04	0.45
1:1G:1054:C:O2'	1:1G:1055:A:P	2.74	0.45
1:1G:1072:G:H2'	1:1G:1073:U:O4'	2.16	0.45
1:1G:1189:C:P	10:1A:51:ARG:HH22	2.35	0.45
1:1G:1325:C:H5''	21:1B:17:THR:HG21	1.99	0.45
1:1G:1414:U:H2'	1:1G:1415:G:C8	2.52	0.45
2:12:8:LYS:HE3	2:12:11:LEU:HD22	1.98	0.45
3:22:39:ILE:O	3:22:43:LEU:HB2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:113:ALA:HB2	3:22:202:ILE:HG13	1.98	0.45
7:62:13:GLN:HA	7:62:14:PRO:HD3	1.67	0.45
7:62:50:ILE:O	7:62:54:THR:HG23	2.17	0.45
8:72:97:VAL:O	8:72:100:ILE:HG13	2.16	0.45
10:1A:6:ILE:HA	10:1A:97:GLU:O	2.17	0.45
15:6A:42:HIS:HD2	15:6A:43:LEU:HD23	1.82	0.45
26:14:1169:G:H1	26:14:1180:C:H42	1.65	0.45
26:14:1753:G:N1	26:14:1756:G:C2	2.85	0.45
26:14:1942:C:OP2	26:14:1943:U:O2'	2.16	0.45
26:14:2212:A:O2'	26:14:2213:U:O5'	2.32	0.45
26:14:2808:U:H5''	26:14:2891:G:O6	2.17	0.45
28:19:237:GLU:OE2	28:19:239:ARG:HA	2.17	0.45
32:59:53:GLU:HG3	32:59:54:ARG:N	2.31	0.45
36:35:2:LYS:O	36:35:5:ASP:HB2	2.16	0.45
41:85:92:ARG:HG2	42:95:11:GLN:OE1	2.15	0.45
43:A5:23:LEU:HD13	43:A5:23:LEU:HA	1.77	0.45
46:D5:15:PRO:HB2	46:D5:19:ARG:NH2	2.31	0.45
47:E5:26:TYR:O	47:E5:29:GLN:HB2	2.17	0.45
1:13:626:U:N3	1:13:627:G:N7	2.65	0.45
1:13:692:U:H2'	1:13:694:A:OP2	2.17	0.45
1:13:975:A:H5''	1:13:976:G:H5''	1.97	0.45
1:13:1048:G:OP1	14:5I:4:LYS:HB2	2.17	0.45
5:4E:34:VAL:HG21	5:4E:63:ARG:HD3	1.98	0.45
8:7E:49:GLU:O	8:7E:51:VAL:HG13	2.16	0.45
15:6I:17:ARG:NE	15:6I:17:ARG:HA	2.31	0.45
23:2K:8:4SU:O5'	23:2K:8:4SU:H6	2.16	0.45
23:2K:19:G:C2	23:2K:59:A:C5	3.05	0.45
23:2K:38:A:C4	23:2K:39:A:C8	3.05	0.45
26:1H:1268:A:H2'	26:1H:1269:A:O4'	2.16	0.45
26:1H:2438:U:O3'	26:1H:2439:A:H3'	2.16	0.45
26:1H:2439:A:C5'	26:1H:2439:A:H8	2.30	0.45
29:21:1:MET:N	29:21:83:ASP:O	2.42	0.45
29:21:31:CYS:HA	29:21:32:PRO:HD3	1.63	0.45
30:31:92:PRO:O	30:31:93:LYS:HD2	2.16	0.45
32:51:86:GLU:HG2	32:51:87:LEU:N	2.28	0.45
34:58:40:PRO:CB	41:C8:68:ALA:HB2	2.46	0.45
45:G8:5:MET:HG3	45:G8:6:HIS:H	1.81	0.45
1:1G:43:C:H5''	16:7A:12:LYS:HB2	1.98	0.45
1:1G:128:G:H4'	17:8A:3:LYS:HG2	1.97	0.45
1:1G:1121:U:H2'	1:1G:1122:U:C6	2.52	0.45
1:1G:1259:C:HO2'	1:1G:1283:G:H21	1.57	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:59:GLU:HA	2:12:62:ALA:HB3	1.99	0.45
3:22:91:LEU:HD11	3:22:101:LEU:HG	1.98	0.45
3:22:137:ALA:O	3:22:141:VAL:HG23	2.16	0.45
6:52:9:VAL:HB	6:52:87:ARG:HB2	1.97	0.45
6:52:76:ALA:HB1	6:52:80:ARG:HH21	1.81	0.45
26:14:105:C:O2'	45:C5:2:ARG:HD3	2.16	0.45
26:14:118:A:N3	26:14:178:G:H1'	2.32	0.45
26:14:118:A:H1'	26:14:178:G:O4'	2.17	0.45
26:14:142:G:H5''	26:14:1598:C:O2'	2.17	0.45
26:14:155:C:H42	26:14:171:G:H1	1.64	0.45
26:14:675:A:C8	26:14:804:A:C6	3.04	0.45
26:14:912:C:C2	26:14:913:U:C5	3.04	0.45
26:14:1386:C:H2'	26:14:1387:C:C6	2.52	0.45
26:14:1796:U:H2'	26:14:1797:C:H6	1.80	0.45
26:14:2697:G:H2'	26:14:2698:U:O4'	2.17	0.45
26:14:2783:G:H2'	26:14:2784:C:H6	1.82	0.45
26:14:2873:A:H8	38:55:5:LYS:HA	1.79	0.45
28:19:108:PRO:HG2	28:19:111:LEU:HB2	1.99	0.45
30:39:78:ILE:HA	30:39:83:PHE:CD2	2.51	0.45
30:39:178:PRO:HB2	30:39:201:VAL:HG11	1.98	0.45
38:55:29:LEU:HD12	38:55:29:LEU:HA	1.83	0.45
39:65:61:ASN:OD1	39:65:62:LYS:N	2.41	0.45
39:65:62:LYS:HB3	39:65:97:ARG:HD2	1.99	0.45
41:85:27:LEU:HD13	41:85:31:SER:HB3	1.98	0.45
44:B5:11:PRO:HG2	44:B5:13:LEU:HD21	1.98	0.45
1:13:452:A:H62	1:13:480:U:H3	1.65	0.45
1:13:593:G:H2'	1:13:594:G:H8	1.82	0.45
1:13:911:U:OP2	12:3I:97:ARG:NH1	2.50	0.45
1:13:1242:C:H42	1:13:1295:G:H1	1.63	0.45
1:13:1325:C:H2'	1:13:1326:C:H6	1.80	0.45
2:1E:162:ILE:O	2:1E:185:ILE:HG13	2.15	0.45
6:5E:86:ARG:O	6:5E:87:ARG:HG2	2.16	0.45
7:6E:16:LEU:HD21	9:8E:45:ALA:HB2	1.99	0.45
8:7E:87:SER:OG	8:7E:92:ARG:HA	2.17	0.45
17:8I:58:GLU:O	17:8I:74:LEU:N	2.41	0.45
18:9I:26:LEU:HD22	18:9I:42:ARG:NH2	2.27	0.45
26:1H:458:G:C8	53:P8:37:LYS:HG2	2.51	0.45
26:1H:844:C:H3'	26:1H:845:G:C8	2.51	0.45
26:1H:1045:A:H1'	26:1H:1047:G:N3	2.31	0.45
26:1H:1228:G:OP1	41:C8:13:LYS:NZ	2.50	0.45
26:1H:1375:C:H2'	26:1H:1376:C:H6	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1542:G:P	26:1H:1543:A:HO2'	2.38	0.45
26:1H:1858:G:O2'	26:1H:1859:A:H8	2.00	0.45
26:1H:2051:A:H4'	29:21:141:ILE:HG12	1.98	0.45
26:1H:2110:G:N2	26:1H:2180:U:O2	2.49	0.45
26:1H:2320:A:H2'	26:1H:2320:A:N3	2.31	0.45
26:1H:2788:C:O2'	26:1H:2809:A:N3	2.45	0.45
30:31:160:ASN:ND2	30:31:163:VAL:HG23	2.32	0.45
36:78:61:ARG:HH22	54:Q8:13:ARG:CD	2.30	0.45
37:88:32:TYR:CE1	37:88:133:ARG:HG3	2.52	0.45
37:88:45:GLN:CD	37:88:45:GLN:H	2.20	0.45
38:98:100:LEU:CD1	38:98:113:LEU:HB2	2.47	0.45
43:E8:29:LEU:HD12	43:E8:33:ARG:HG3	1.98	0.45
44:F8:63:LYS:O	44:F8:64:LYS:HG2	2.17	0.45
51:M8:34:GLU:HG2	51:M8:35:VAL:N	2.32	0.45
51:M8:42:PHE:CD1	51:M8:43:TYR:HB3	2.50	0.45
1:1G:9:G:C6	1:1G:26:A:N6	2.84	0.45
1:1G:1349:A:OP2	9:82:118:LYS:NZ	2.50	0.45
4:32:60:GLU:HG2	4:32:202:LEU:HB2	1.98	0.45
10:1A:8:LEU:HB3	10:1A:16:LEU:HD22	1.99	0.45
10:1A:54:PHE:CE2	10:1A:55:LYS:HD2	2.52	0.45
11:2A:33:THR:HG22	11:2A:39:PRO:HA	1.98	0.45
13:4A:7:VAL:HG21	31:49:115:ARG:NH1	2.31	0.45
16:7A:72:ARG:NH1	16:7A:72:ARG:HB3	2.32	0.45
55:3L:77:C:H2'	55:3L:78:C:C6	2.52	0.45
26:14:656:G:H2'	26:14:657:U:O4'	2.16	0.45
26:14:827:U:H2'	26:14:2430:A:H2	1.81	0.45
26:14:959:A:N6	26:14:960:A:N1	2.65	0.45
26:14:971:C:H2'	26:14:972:G:O4'	2.17	0.45
26:14:1762:A:H4'	26:14:1763:G:OP2	2.17	0.45
26:14:2275:C:O2'	37:45:83:MET:HG3	2.17	0.45
29:29:201:THR:HB	29:29:203:LYS:HG3	1.98	0.45
36:35:6:LEU:O	36:35:7:ARG:HG2	2.16	0.45
36:35:56:SER:O	36:35:57:THR:HB	2.17	0.45
44:B5:41:ASN:HB3	44:B5:44:GLU:OE2	2.17	0.45
45:C5:36:ALA:HA	45:C5:67:LEU:O	2.17	0.45
54:M5:33:ASN:O	54:M5:34:TRP:CE3	2.69	0.45
1:13:78:G:C5	1:13:79:G:H1'	2.52	0.45
1:13:468:A:H5''	16:7I:80:PHE:HB3	1.99	0.45
1:13:920:U:H2'	1:13:921:U:C6	2.52	0.45
1:13:1286:A:H5''	21:1F:26:LYS:HG2	1.99	0.45
1:13:1387:G:C6	1:13:1388:C:N4	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1K:25:G:H2'	22:1K:26:G:H8	1.82	0.45
23:2K:63:C:O2	23:2K:64:G:C8	2.70	0.45
23:2K:65:G:H2'	23:2K:66:C:C6	2.52	0.45
26:1H:29:U:H2'	26:1H:30:G:C8	2.52	0.45
26:1H:242:G:H5'	54:Q8:62:LEU:HD22	1.98	0.45
26:1H:363(C):G:H2'	26:1H:363(D):G:C8	2.52	0.45
26:1H:1418:G:OP1	26:1H:1588:C:O2'	2.27	0.45
26:1H:1887:C:C2'	26:1H:1888:G:H5''	2.40	0.45
26:1H:2027:G:C5	26:1H:2028:U:C5	3.05	0.45
26:1H:2783:G:H2'	26:1H:2784:C:C6	2.52	0.45
28:11:206:LEU:HA	28:11:206:LEU:HD23	1.80	0.45
34:58:23:LEU:O	34:58:27:ALA:N	2.44	0.45
37:88:104:PHE:HE2	37:88:125:LEU:HD11	1.82	0.45
40:B8:30:VAL:HG23	40:B8:83:ILE:HG23	1.99	0.45
47:I8:56:ASP:OD1	47:I8:58:THR:HB	2.16	0.45
1:1G:983:A:H2	1:1G:984:C:C6	2.34	0.45
1:1G:1137:C:HO2'	1:1G:1138:G:N2	2.15	0.45
1:1G:1177:G:H8	1:1G:1177:G:OP2	1.99	0.45
6:52:96:PRO:HB3	18:9A:30:ASP:OD2	2.16	0.45
12:3A:37:CYS:HA	12:3A:58:VAL:HA	1.99	0.45
13:4A:39:ILE:HG22	13:4A:40:ASN:H	1.81	0.45
16:7A:23:ASP:OD1	16:7A:25:ARG:HG3	2.17	0.45
17:8A:7:THR:O	17:8A:23:VAL:HG13	2.17	0.45
17:8A:56:VAL:O	17:8A:77:VAL:N	2.44	0.45
26:14:657:U:H2'	26:14:658:C:C6	2.52	0.45
26:14:827:U:H4'	26:14:828:U:O2	2.17	0.45
26:14:1169:G:H2'	26:14:1170:G:O4'	2.17	0.45
26:14:1178:C:H2'	26:14:1179:C:C6	2.52	0.45
26:14:1251:C:H5	59:14:3848:HOH:O	1.99	0.45
26:14:1731:G:H2'	26:14:1732:A:C8	2.52	0.45
26:14:1769:G:O2'	26:14:1958:C:OP1	2.20	0.45
26:14:2154:G:H2'	26:14:2155:G:H5'	1.99	0.45
26:14:2579:C:H4'	29:29:134:ILE:HG12	1.98	0.45
26:14:2860:A:N7	26:14:2861:G:H1'	2.32	0.45
28:19:206:LEU:HD22	28:19:211:ARG:HG2	1.98	0.45
30:39:21:ALA:C	30:39:23:ASP:H	2.19	0.45
31:49:113:ARG:HH12	31:49:142:PRO:HB3	1.81	0.45
34:15:42:TRP:HA	34:15:48:MET:HE1	1.99	0.45
35:25:7:TYR:HE1	35:25:20:MET:HE3	1.82	0.45
38:55:74:LYS:HA	38:55:74:LYS:HD2	1.76	0.45
43:A5:33:ARG:NH2	43:A5:52:GLU:OE2	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:321:A:H62	1:13:328:C:H1'	1.82	0.45
1:13:337:C:H2'	1:13:338:A:C8	2.52	0.45
1:13:693:G:H2'	1:13:694:A:C8	2.52	0.45
1:13:1003:G:C2'	1:13:1004:A:H5'	2.47	0.45
1:13:1029:G:C1'	1:13:1032(A):G:H22	2.30	0.45
2:1E:59:GLU:HB2	2:1E:221:LEU:HD21	1.99	0.45
4:3E:107:ARG:NH2	4:3E:194:LEU:HD22	2.32	0.45
5:4E:35:GLY:HA3	5:4E:112:LEU:O	2.17	0.45
7:6E:104:LEU:HA	7:6E:104:LEU:HD13	1.81	0.45
8:7E:29:SER:O	8:7E:33:GLU:HG3	2.16	0.45
11:2I:112:THR:HA	11:2I:113:PRO:HD3	1.78	0.45
26:1H:1337:G:C4	26:1H:1338:G:C8	3.05	0.45
26:1H:1358:G:N2	26:1H:1372:U:C5	2.85	0.45
26:1H:1429:G:N2	26:1H:1430:C:C2	2.85	0.45
26:1H:1474:C:H2'	26:1H:1475:G:C8	2.52	0.45
26:1H:1516:U:H2'	26:1H:1517:G:C8	2.52	0.45
26:1H:1684:C:C2	26:1H:1705:G:N2	2.84	0.45
26:1H:2246:G:H2'	26:1H:2247:A:H8	1.81	0.45
27:16:3:C:H42	27:16:117:G:H1	1.64	0.45
30:31:167:ALA:HB1	30:31:173:VAL:HG11	1.99	0.45
31:41:39:ILE:HG13	31:41:94:LEU:HD21	1.99	0.45
44:F8:37:THR:O	44:F8:40:LYS:HB3	2.16	0.45
45:G8:89:PHE:CD1	45:G8:90:LEU:N	2.85	0.45
46:H8:77:ASP:HB3	46:H8:84:GLU:CD	2.38	0.45
1:1G:581:G:N2	1:1G:760:G:N7	2.64	0.45
1:1G:963:G:H21	10:1A:55:LYS:HE3	1.81	0.45
7:62:25:ALA:HA	7:62:28:ASN:ND2	2.32	0.45
8:72:82:HIS:CD2	8:72:82:HIS:C	2.90	0.45
14:5A:29:ARG:HD3	14:5A:31:ARG:O	2.16	0.45
16:7A:3:LYS:N	16:7A:22:THR:O	2.50	0.45
19:AA:18:LYS:HG2	19:AA:31:ILE:HG12	1.99	0.45
20:BA:73:HIS:HB3	20:BA:74:LYS:HG2	1.98	0.45
55:3L:35:G:H2'	55:3L:36:U:C6	2.52	0.45
26:14:16:G:H5''	52:J5:17:ASP:HB2	1.99	0.45
26:14:1667:G:H22	26:14:1992:G:H5'	1.81	0.45
26:14:1972:A:OP2	59:14:3503:HOH:O	2.21	0.45
26:14:2335:A:C8	26:14:2337:G:C5	3.05	0.45
26:14:2438:U:H5''	26:14:2600:A:OP1	2.17	0.45
26:14:2468:G:N2	26:14:2481:G:O2'	2.45	0.45
28:19:49:ILE:HD11	28:19:52:ARG:HA	1.99	0.45
30:39:167:ALA:O	30:39:170:LEU:HD12	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:59:76:VAL:O	32:59:80:SER:OG	2.26	0.45
39:65:7:TYR:CZ	39:65:91:PRO:HG3	2.52	0.45
40:75:45:PHE:CD2	40:75:74:ARG:HD3	2.52	0.45
45:C5:54:LYS:C	45:C5:55:TYR:CG	2.90	0.45
1:13:438:G:H4'	4:3E:123:HIS:ND1	2.32	0.44
1:13:491:G:H2'	1:13:492:G:H8	1.82	0.44
1:13:605:U:C2	1:13:606:G:H8	2.34	0.44
1:13:711:G:O2'	1:13:712:A:H5'	2.17	0.44
1:13:945:G:N1	1:13:1337:G:C2	2.86	0.44
1:13:1132:C:H2'	1:13:1133:G:H8	1.82	0.44
3:2E:15:THR:CG2	3:2E:181:ASN:HA	2.47	0.44
6:5E:24:GLU:O	6:5E:27:GLN:N	2.50	0.44
19:AI:31:ILE:O	19:AI:31:ILE:HG12	2.17	0.44
23:2K:2:G:H2'	23:2K:3:C:C6	2.52	0.44
26:1H:311:A:C6	26:1H:328:U:C4	3.06	0.44
26:1H:638:G:C5	26:1H:651:G:C2	3.05	0.44
26:1H:654(C):G:C2	26:1H:654(D):G:H1'	2.52	0.44
26:1H:987:G:P	59:1H:3831:HOH:O	2.74	0.44
26:1H:2646:C:O5'	26:1H:2646:C:H6	2.00	0.44
28:11:70:TRP:CD1	28:11:70:TRP:C	2.90	0.44
28:11:238:GLY:O	28:11:239:ARG:C	2.56	0.44
29:21:57:LYS:HE2	29:21:59:VAL:HG12	1.99	0.44
31:41:37:VAL:O	31:41:94:LEU:HG	2.17	0.44
36:78:38:GLN:O	36:78:41:ARG:HB2	2.17	0.44
38:98:44:LEU:O	38:98:45:ARG:C	2.55	0.44
41:C8:92:ARG:NE	42:D8:11:GLN:H	2.15	0.44
54:Q8:16:ILE:CD1	54:Q8:57:ARG:HG2	2.44	0.44
1:1G:370:C:N4	1:1G:391:G:H1	2.14	0.44
1:1G:849:C:H2'	1:1G:850:U:O4'	2.18	0.44
1:1G:1426:C:H2'	1:1G:1427:U:C6	2.52	0.44
6:52:33:TYR:OH	6:52:78:GLU:HG3	2.16	0.44
7:62:111:ARG:HD2	7:62:123:GLU:HB2	1.97	0.44
10:1A:32:ALA:CB	10:1A:81:THR:HG21	2.47	0.44
23:2L:24:C:C2	23:2L:25:U:C5	3.06	0.44
26:14:26:G:C6	26:14:27:G:N1	2.85	0.44
26:14:171:G:H2'	26:14:172:C:C6	2.52	0.44
26:14:307:G:N2	26:14:309:G:H3'	2.32	0.44
26:14:633:A:H2'	26:14:634:C:H5'	2.00	0.44
26:14:1581:G:H2'	26:14:1582:C:O4'	2.17	0.44
26:14:1639:U:P	59:14:3432:HOH:O	2.68	0.44
26:14:2317:C:H2'	26:14:2318:G:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2543:G:H2'	26:14:2544:G:C8	2.51	0.44
26:14:2667:C:H1'	32:59:109:PHE:CD1	2.52	0.44
26:14:2823:A:OP1	29:29:113:PHE:HB2	2.17	0.44
29:29:23:VAL:HA	29:29:184:VAL:O	2.17	0.44
29:29:56:PRO:HD2	29:29:58:ARG:HH22	1.81	0.44
30:39:117:ARG:HA	30:39:117:ARG:HD3	1.73	0.44
34:15:134:ARG:N	34:15:135:PRO:HD3	2.32	0.44
47:E5:31:VAL:HG22	47:E5:65:GLY:O	2.17	0.44
51:I5:61:ARG:HB3	51:I5:62:ARG:NH1	2.33	0.44
54:M5:60:LEU:O	54:M5:63:PRO:HD3	2.18	0.44
1:13:80:G:H2'	1:13:80:G:N3	2.31	0.44
1:13:258:G:H2'	1:13:259:G:H8	1.81	0.44
1:13:451:A:N6	1:13:480:U:H2'	2.33	0.44
1:13:991:U:HO2'	1:13:992:U:P	2.40	0.44
2:1E:156:LYS:HD3	2:1E:156:LYS:HA	1.77	0.44
2:1E:236:TYR:HA	2:1E:239:VAL:HG21	1.99	0.44
7:6E:48:LYS:HD2	7:6E:49:ILE:HG12	1.99	0.44
8:7E:6:ILE:HD13	8:7E:6:ILE:HA	1.81	0.44
9:8E:17:VAL:HG11	9:8E:81:ILE:HD13	1.99	0.44
16:7I:22:THR:HA	16:7I:33:ILE:HG13	1.98	0.44
23:2K:63:C:H2'	23:2K:64:G:H8	1.82	0.44
26:1H:35:G:H2'	26:1H:36:G:O4'	2.16	0.44
26:1H:445:C:O2'	26:1H:446:G:H5'	2.17	0.44
26:1H:881:G:C5	26:1H:882:G:H1'	2.52	0.44
26:1H:1467:C:C2'	26:1H:1468:C:H5'	2.47	0.44
26:1H:1510:A:OP1	26:1H:1511:A:H5'	2.17	0.44
26:1H:2114:A:H2'	26:1H:2114:A:N3	2.32	0.44
26:1H:2243:U:H2'	26:1H:2244:U:C6	2.53	0.44
26:1H:2275:C:H5'	26:1H:2275:C:H6	1.81	0.44
26:1H:2345:G:H4'	26:1H:2346:A:O5'	2.17	0.44
26:1H:2440:C:H5'	59:1H:3744:HOH:O	2.17	0.44
26:1H:2723:C:OP1	29:21:109:LYS:HD3	2.18	0.44
28:11:44:ASN:O	28:11:46:GLN:O	2.35	0.44
31:41:108:ASN:OD1	31:41:108:ASN:N	2.50	0.44
31:41:128:ARG:CZ	31:41:128:ARG:HB2	2.47	0.44
34:58:96:GLU:HG2	34:58:100:GLU:HG3	1.98	0.44
36:78:106:LEU:O	36:78:106:LEU:HD22	2.17	0.44
37:88:4:PRO:HD3	37:88:70:PRO:O	2.17	0.44
37:88:81:VAL:HG12	37:88:82:ARG:N	2.31	0.44
41:C8:39:LEU:HD23	41:C8:39:LEU:HA	1.63	0.44
44:F8:5:TYR:CE1	49:K8:30:ARG:HG3	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:G8:44:ILE:HA	45:G8:64:GLU:HA	1.97	0.44
47:I8:82:ARG:HA	47:I8:83:PRO:HD2	1.83	0.44
1:1G:107:G:H2'	1:1G:108:G:O4'	2.17	0.44
1:1G:539:A:H2'	1:1G:540:G:C8	2.52	0.44
1:1G:942:G:C2	1:1G:1342:C:C2	3.05	0.44
1:1G:1060:C:N4	1:1G:1197:G:O6	2.50	0.44
1:1G:1202:G:N1	14:5A:42:ILE:HG21	2.32	0.44
1:1G:1449:C:H3'	1:1G:1450:U:H4'	1.98	0.44
10:1A:91:PRO:HB2	10:1A:93:GLY:H	1.82	0.44
13:4A:3:ARG:NH1	51:I5:34:GLU:OE2	2.49	0.44
14:5A:23:ARG:HD3	14:5A:29:ARG:O	2.17	0.44
16:7A:14:ASN:HA	16:7A:42:ARG:NH2	2.31	0.44
20:BA:97:ALA:HA	20:BA:98:PRO:HD3	1.72	0.44
25:4L:23:A:N3	25:4L:23:A:H3'	2.31	0.44
26:14:588:U:O4	26:14:670:A:H1'	2.17	0.44
26:14:702:G:N2	26:14:731:C:C2	2.86	0.44
26:14:826:U:H2'	26:14:828:U:O4'	2.18	0.44
26:14:1174:A:N6	26:14:1176:G:O2'	2.51	0.44
26:14:1786:A:P	59:14:3496:HOH:O	2.75	0.44
27:1J:72:G:O2'	27:1J:104:A:N6	2.48	0.44
30:39:41:LEU:HD21	30:39:184:TYR:CD1	2.51	0.44
35:25:22:ILE:HA	35:25:22:ILE:HD13	1.53	0.44
38:55:54:LEU:HD12	38:55:54:LEU:HA	1.77	0.44
54:M5:49:VAL:O	54:M5:50:LEU:HB2	2.17	0.44
1:13:166:G:H2'	1:13:167:G:H8	1.82	0.44
1:13:262:A:H2'	1:13:263:A:C8	2.52	0.44
1:13:827:U:C5	1:13:870:U:C4	3.05	0.44
4:3E:63:LYS:O	4:3E:67:ILE:HG13	2.17	0.44
8:7E:95:VAL:HG12	8:7E:99:GLU:CB	2.47	0.44
9:8E:128:ARG:NH2	23:2K:36:A:OP2	2.43	0.44
11:2I:98:LEU:O	11:2I:101:SER:OG	2.26	0.44
13:4I:82:MET:C	13:4I:84:ILE:H	2.20	0.44
17:8I:76:LEU:HD21	17:8I:79:SER:CB	2.47	0.44
26:1H:34:C:O2'	26:1H:35:G:OP2	2.30	0.44
26:1H:733:G:N7	59:1H:3893:HOH:O	2.36	0.44
26:1H:833:U:O2	36:78:55:ARG:NH2	2.47	0.44
26:1H:1060:U:N3	26:1H:1088:A:C8	2.85	0.44
26:1H:2383:G:O2'	26:1H:2384:G:H5'	2.17	0.44
26:1H:2422:A:N7	54:Q8:31:HIS:HE1	2.14	0.44
26:1H:2427:C:H5''	26:1H:2428:G:OP1	2.17	0.44
26:1H:2724:C:OP1	29:21:118:LYS:HE3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:41:131:TYR:O	31:41:159:VAL:HG22	2.18	0.44
33:61:102:SER:HA	33:61:107:VAL:O	2.17	0.44
34:58:96:GLU:CG	34:58:97:ARG:N	2.78	0.44
44:F8:32:PRO:O	44:F8:77:LYS:HE3	2.18	0.44
45:G8:40:GLU:HA	45:G8:42:VAL:H	1.81	0.44
45:G8:40:GLU:O	45:G8:40:GLU:HG3	2.14	0.44
49:K8:32:LEU:HA	49:K8:35:LEU:HD23	2.00	0.44
1:1G:28:G:C6	1:1G:29:G:C5	3.06	0.44
1:1G:84:U:O2	1:1G:84:U:H2'	2.16	0.44
1:1G:279:A:C8	1:1G:281:G:C2	3.05	0.44
1:1G:625:G:H2'	1:1G:626:U:H6	1.83	0.44
1:1G:1402:C:H2'	1:1G:1403:C:O4'	2.17	0.44
2:12:81:VAL:HG12	2:12:92:TYR:HD2	1.83	0.44
5:42:5:ASP:HA	5:42:63:ARG:NH1	2.32	0.44
6:52:35:ALA:HB1	6:52:65:VAL:HG11	1.99	0.44
6:52:81:ILE:HD11	28:19:125:ILE:CG1	2.47	0.44
7:62:113:GLU:OE1	7:62:122:HIS:ND1	2.48	0.44
12:3A:78:GLN:O	12:3A:81:SER:OG	2.36	0.44
26:14:43:G:H2'	26:14:44:A:O4'	2.17	0.44
26:14:780:G:C2	26:14:782:A:C2	3.04	0.44
26:14:1533:C:C4	26:14:1534:G:H1'	2.52	0.44
26:14:2155:G:C8	26:14:2156:G:C8	3.05	0.44
26:14:2370:G:C6	26:14:2371:G:C6	3.04	0.44
26:14:2393:A:H2'	26:14:2394:C:O4'	2.16	0.44
33:69:54:GLN:HA	33:69:57:ARG:CB	2.45	0.44
33:69:76:THR:HG23	33:69:77:LEU:H	1.83	0.44
42:95:48:GLY:N	42:95:52:VAL:HG22	2.32	0.44
44:B5:26:TYR:OH	44:B5:88:LYS:HB2	2.17	0.44
50:H5:7:LYS:HG3	50:H5:34:GLU:HG3	1.98	0.44
52:J5:33:CYS:SG	52:J5:40:LYS:HB3	2.57	0.44
1:13:160:A:H1'	1:13:344:A:C8	2.52	0.44
1:13:631:G:H8	1:13:632:A:C2	2.34	0.44
1:13:690:G:H2'	1:13:691:G:O4'	2.18	0.44
1:13:710:G:H5''	6:5E:54:LYS:HZ1	1.80	0.44
1:13:1113:C:H2'	1:13:1114:C:C6	2.51	0.44
1:13:1164:G:C6	1:13:1165:C:C4	3.05	0.44
1:13:1184:G:H2'	1:13:1185:G:H8	1.83	0.44
1:13:1350:A:C6	1:13:1351:U:N3	2.86	0.44
4:3E:98:GLU:HG2	4:3E:189:PRO:HG2	1.99	0.44
7:6E:13:GLN:O	7:6E:24:THR:HG21	2.17	0.44
21:1F:9:ARG:O	21:1F:13:ILE:HG13	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1K:7:G:H1	22:1K:75:C:N4	2.11	0.44
22:1K:81:C:N4	22:1K:82:A:N1	2.66	0.44
26:1H:456:C:C4	44:F8:69:TYR:CE1	3.06	0.44
26:1H:562:U:O4	26:1H:2036:C:H1'	2.17	0.44
26:1H:805:G:H4'	26:1H:806:C:OP2	2.17	0.44
26:1H:1652:A:OP1	38:98:8:ARG:NH1	2.51	0.44
26:1H:1931:U:H5	26:1H:1969:A:N7	2.15	0.44
26:1H:2262:U:O2'	26:1H:2263:C:H5'	2.16	0.44
30:31:129:PHE:O	30:31:130:ALA:HB3	2.18	0.44
37:88:87:LYS:HE3	37:88:90:VAL:HG23	2.00	0.44
38:98:109:ALA:HA	38:98:110:PRO:HD2	1.70	0.44
46:H8:8:TYR:HB2	46:H8:38:TYR:CZ	2.52	0.44
46:H8:18:LEU:O	46:H8:21:ALA:HB3	2.18	0.44
1:1G:57:G:C6	1:1G:58:C:C4	3.05	0.44
1:1G:615:C:C2	1:1G:616:G:C8	3.06	0.44
1:1G:1126:U:H4'	1:1G:1127:G:N7	2.32	0.44
1:1G:1317:C:O2	19:AA:37:ARG:NH2	2.50	0.44
2:12:204:ASN:N	2:12:204:ASN:OD1	2.50	0.44
5:42:12:LEU:O	5:42:30:ALA:HA	2.17	0.44
9:82:48:GLU:N	9:82:49:PRO:HD2	2.32	0.44
16:7A:57:ARG:NH2	16:7A:79:VAL:O	2.46	0.44
24:1L:11:C:O2	24:1L:26:G:N2	2.51	0.44
55:3L:14:A:H61	55:3L:15:G:H21	1.65	0.44
25:4L:19:A:O2'	25:4L:20:A:H5'	2.18	0.44
26:14:49:A:H4'	26:14:50:U:H5''	1.98	0.44
26:14:234:C:H2'	26:14:235:U:C6	2.53	0.44
26:14:270(E):G:C2	26:14:270(F):U:C2	3.06	0.44
26:14:774:A:H5'	26:14:778:G:C4'	2.47	0.44
26:14:956:G:H5''	37:45:77:LYS:HD2	2.00	0.44
26:14:1264:G:H2'	26:14:2014:A:N6	2.32	0.44
26:14:1572:A:H8	26:14:1572:A:O5'	2.01	0.44
26:14:1889:A:N1	26:14:2234:G:H1'	2.33	0.44
26:14:2112:G:O2'	26:14:2113:U:O4'	2.35	0.44
26:14:2262:U:OP2	47:E5:19:LYS:HE2	2.17	0.44
26:14:2893:G:H5'	26:14:2894:G:OP1	2.17	0.44
29:29:106:GLY:HA3	29:29:189:PRO:HB2	1.99	0.44
31:49:104:GLU:CG	51:I5:23:GLU:HG2	2.44	0.44
36:35:19:VAL:HG13	36:35:21:ARG:H	1.83	0.44
36:35:98:GLU:HA	36:35:101:VAL:HG12	1.98	0.44
49:G5:64:LEU:O	49:G5:64:LEU:HD23	2.18	0.44
1:13:179:A:H2'	1:13:180:U:C6	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:266:G:H5''	1:13:267:C:C5	2.53	0.44
1:13:377:G:P	16:7I:5:ARG:HH11	2.41	0.44
1:13:401:C:H2'	1:13:402:G:C8	2.53	0.44
1:13:1002:G:C4	1:13:1003:G:C8	3.05	0.44
1:13:1106:G:C4	1:13:1107:C:C5	3.06	0.44
1:13:1203:C:H2'	1:13:1204:A:O4'	2.18	0.44
1:13:1422:G:H5'	35:68:48:PRO:HB3	1.99	0.44
4:3E:153:ARG:HH12	4:3E:181:MET:HB2	1.83	0.44
9:8E:85:LEU:O	9:8E:92:TYR:HD2	2.01	0.44
22:1K:3:U:HO2'	22:1K:4:G:P	2.38	0.44
26:1H:242:G:C5'	54:Q8:62:LEU:HD13	2.47	0.44
26:1H:249:C:O5'	59:1H:3553:HOH:O	2.21	0.44
26:1H:286:C:H2'	26:1H:287:C:C6	2.52	0.44
26:1H:796:C:H2'	26:1H:797:C:C6	2.53	0.44
26:1H:954:G:H4'	37:88:13:GLN:NE2	2.32	0.44
26:1H:1029:A:H2'	26:1H:1030:G:O4'	2.18	0.44
26:1H:1131:G:C8	26:1H:2025:C:H4'	2.53	0.44
26:1H:1315:C:H42	26:1H:1337:G:H1	1.64	0.44
26:1H:1400:G:H2'	26:1H:1401:G:C8	2.52	0.44
26:1H:1509:C:H3'	26:1H:1510:A:H5''	2.00	0.44
26:1H:1826:G:H4'	28:11:242:ARG:CZ	2.48	0.44
26:1H:1945:G:H2'	26:1H:1946:U:C6	2.52	0.44
26:1H:2488:A:H2'	26:1H:2489:G:O4'	2.16	0.44
27:16:7:G:H5''	27:16:7:G:H8	1.81	0.44
30:31:129:PHE:HA	30:31:142:TRP:NE1	2.33	0.44
35:68:8:LEU:HB2	35:68:19:ILE:HG13	2.00	0.44
36:78:46:LYS:O	36:78:47:ASP:HB3	2.17	0.44
39:A8:59:LYS:HD3	39:A8:60:GLY:N	2.32	0.44
46:H8:69:THR:HG22	46:H8:90:VAL:HG22	1.98	0.44
1:1G:256:U:H2'	1:1G:257:G:C8	2.52	0.44
1:1G:393:A:OP2	16:7A:12:LYS:NZ	2.43	0.44
1:1G:456:C:N4	1:1G:476:G:H1	2.14	0.44
1:1G:1018:C:H2'	1:1G:1019:C:O4'	2.16	0.44
1:1G:1375:A:H4'	7:62:29:LYS:HE3	1.99	0.44
2:12:27:LYS:HB2	2:12:194:PRO:HD2	1.99	0.44
2:12:41:ILE:HG22	2:12:42:ILE:O	2.17	0.44
3:22:38:ARG:HH11	3:22:94:LEU:HD22	1.82	0.44
5:42:93:PRO:HG2	8:72:105:ARG:NE	2.33	0.44
7:62:132:GLY:H	7:62:135:VAL:HB	1.83	0.44
10:1A:13:HIS:HB3	10:1A:68:HIS:ND1	2.32	0.44
13:4A:80:ARG:NH2	19:AA:66:MET:HG2	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:5A:46:GLU:O	14:5A:49:HIS:HB2	2.18	0.44
26:14:270(Z):U:H6	26:14:270(Z):U:H2'	1.62	0.44
26:14:739:G:P	59:14:3675:HOH:O	2.76	0.44
26:14:783:A:C8	26:14:783:A:H3'	2.53	0.44
26:14:827:U:O2	26:14:2246:G:H4'	2.17	0.44
26:14:864:G:C6	26:14:865:C:N4	2.85	0.44
26:14:959:A:C6	26:14:960:A:N1	2.85	0.44
26:14:1292:U:H2'	26:14:1293:C:C6	2.52	0.44
26:14:1798:U:C4	26:14:1819:A:C2	3.05	0.44
26:14:2393:A:OP1	54:M5:30:ARG:HB2	2.18	0.44
26:14:2577:A:H5'	52:J5:3:LYS:HD3	2.00	0.44
26:14:2641:G:P	34:15:74:ARG:HH21	2.41	0.44
29:29:51:PHE:O	29:29:52:LEU:HB2	2.16	0.44
29:29:200:GLU:OE1	29:29:200:GLU:N	2.50	0.44
31:49:130:ASN:HB3	31:49:159:VAL:O	2.18	0.44
34:15:94:HIS:O	34:15:97:ARG:HG3	2.18	0.44
35:25:31:LYS:HB3	35:25:32:TYR:CE1	2.53	0.44
41:85:92:ARG:NH2	42:95:11:GLN:H	2.15	0.44
45:C5:20:TYR:CZ	45:C5:42:VAL:HA	2.53	0.44
47:E5:42:GLY:H	47:E5:57:PHE:HD2	1.66	0.44
1:13:210:U:O2'	1:13:216:G:C8	2.71	0.44
1:13:750:G:H2'	1:13:751:U:H6	1.82	0.44
1:13:826:C:H2'	1:13:827:U:O2	2.17	0.44
1:13:1202:G:C4	14:5I:42:ILE:HD13	2.52	0.44
1:13:1277:C:O2'	1:13:1279:A:H8	1.93	0.44
2:1E:21:ARG:C	2:1E:23:ARG:H	2.21	0.44
4:3E:30:LYS:C	4:3E:32:ALA:H	2.20	0.44
5:4E:63:ARG:HA	5:4E:66:MET:CE	2.48	0.44
6:5E:24:GLU:HB3	6:5E:28:ARG:HH12	1.83	0.44
15:6I:39:LEU:HA	15:6I:39:LEU:HD23	1.70	0.44
26:1H:2766:G:H2'	26:1H:2766:G:N3	2.32	0.44
29:21:35:GLN:HB3	29:21:48:GLN:HB2	2.00	0.44
32:51:10:PRO:O	32:51:11:VAL:HG13	2.18	0.44
33:61:11:ASN:O	33:61:12:LEU:HB2	2.17	0.44
34:58:99:LEU:HD22	34:58:103:VAL:HG23	2.00	0.44
46:H8:70:LEU:HD11	46:H8:98:MET:HE3	1.99	0.44
46:H8:141:VAL:O	46:H8:144:LEU:HG	2.17	0.44
1:1G:587:G:N2	1:1G:754:C:OP2	2.51	0.44
1:1G:977:A:C8	1:1G:1223:C:C4	3.05	0.44
1:1G:1322:C:O2	1:1G:1322:C:H2'	2.17	0.44
2:12:35:GLU:HA	2:12:40:HIS:HA	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:79:ARG:H	3:22:79:ARG:NE	2.15	0.44
3:22:182:ILE:HG22	3:22:203:PHE:HA	2.00	0.44
4:32:15:GLU:OE1	4:32:66:ARG:NH1	2.51	0.44
8:72:35:ILE:H	8:72:35:ILE:HG13	1.61	0.44
8:72:84:ARG:O	8:72:135:CYS:HB2	2.18	0.44
11:2A:56:GLY:O	11:2A:89:ALA:HB3	2.17	0.44
17:8A:92:ARG:HG3	17:8A:93:GLN:N	2.32	0.44
18:9A:38:GLU:HG2	18:9A:39:VAL:HG23	2.00	0.44
23:2L:20:G:C2	23:2L:58:A:N3	2.86	0.44
55:3L:35:G:C2	25:4L:14:A:C2	3.06	0.44
26:14:880:G:C2	26:14:881:G:C8	3.06	0.44
26:14:972:G:OP2	26:14:973:A:O2'	2.17	0.44
26:14:1204:A:H61	26:14:1240:U:H2'	1.82	0.44
26:14:1945:G:H2'	26:14:1946:U:H6	1.80	0.44
26:14:2832:U:H3'	26:14:2833:G:C8	2.52	0.44
28:19:13:ARG:HA	28:19:13:ARG:HD2	1.37	0.44
28:19:142:VAL:HG12	28:19:193:VAL:HA	1.99	0.44
42:95:5:VAL:HB	42:95:37:VAL:CG1	2.43	0.44
51:I5:13:ARG:NE	51:I5:22:ILE:HG21	2.31	0.44
1:13:575:G:C5	1:13:881:G:C2	3.06	0.44
1:13:591:U:H2'	1:13:592:G:H8	1.82	0.44
1:13:1402:C:H2'	1:13:1403:C:O4'	2.17	0.44
2:1E:8:LYS:NZ	2:1E:8:LYS:H	2.16	0.44
2:1E:178:ARG:HD3	2:1E:178:ARG:HA	1.76	0.44
6:5E:80:ARG:NH1	6:5E:88:VAL:O	2.50	0.44
12:3I:70:ILE:HD13	12:3I:77:LEU:HD12	2.00	0.44
22:1K:38:MIA:H163	22:1K:38:MIA:N6	2.32	0.44
26:1H:20:C:OP1	41:C8:22:LYS:HE2	2.18	0.44
26:1H:88:G:O2'	26:1H:89:G:H5'	2.18	0.44
26:1H:363(D):G:C2	26:1H:363(E):U:C2	3.05	0.44
26:1H:442:G:O4'	30:31:46:ARG:HD3	2.18	0.44
26:1H:806:C:H2'	26:1H:807:U:H6	1.81	0.44
26:1H:883:G:H22	26:1H:894:C:N4	2.15	0.44
26:1H:1047:G:H2'	26:1H:1110:G:N1	2.33	0.44
26:1H:1493:C:N3	26:1H:2210:G:H1'	2.33	0.44
26:1H:2478:A:C8	26:1H:2529:G:C6	3.05	0.44
26:1H:2837:G:H21	38:98:45:ARG:HH21	1.65	0.44
26:1H:2855:C:H2'	26:1H:2856:C:C6	2.52	0.44
26:1H:2887:U:H2'	26:1H:2888:C:C6	2.52	0.44
27:16:37:C:H2'	27:16:38:C:H5'	2.00	0.44
33:61:16:GLY:O	33:61:47:LEU:HD11	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:61:40:THR:O	33:61:44:LEU:HD22	2.18	0.44
36:78:144:GLU:HA	36:78:145:PRO:HD3	1.67	0.44
45:G8:76:CYS:CB	45:G8:97:ARG:HG2	2.47	0.44
45:G8:81:LYS:HB3	45:G8:82:PRO:HA	1.99	0.44
51:M8:12:ALA:C	51:M8:24:THR:HG21	2.38	0.44
1:1G:186(A):C:H2'	1:1G:186(B):C:H6	1.82	0.44
1:1G:192:U:H2'	1:1G:193:C:C6	2.50	0.44
1:1G:222:U:C2	1:1G:223:U:C5	3.06	0.44
1:1G:416:G:C5	1:1G:417:C:C4	3.06	0.44
1:1G:520:A:N1	1:1G:536:C:H1'	2.31	0.44
1:1G:680:C:H42	1:1G:710:G:H1	1.66	0.44
1:1G:784:C:H2'	1:1G:785:G:O4'	2.17	0.44
1:1G:921:U:O2	5:42:19:MET:HB3	2.18	0.44
1:1G:1036:G:H3'	1:1G:1037:C:C6	2.53	0.44
1:1G:1347:G:H22	1:1G:1373:G:H2'	1.83	0.44
1:1G:1399:C:C2	1:1G:1502:A:N6	2.86	0.44
1:1G:1502:A:H2	1:1G:1505:G:N1	2.08	0.44
8:72:82:HIS:CD2	8:72:138:TRP:CE2	3.06	0.44
9:82:19:LEU:C	9:82:20:ARG:HD3	2.37	0.44
19:AA:63:THR:OG1	19:AA:65:ASN:OD1	2.35	0.44
26:14:94:G:OP1	45:C5:54:LYS:NZ	2.51	0.44
26:14:243:U:C2'	26:14:244:A:H5'	2.48	0.44
26:14:451:C:N4	26:14:454:A:H5'	2.33	0.44
26:14:864:G:H1'	26:14:914:C:H42	1.82	0.44
26:14:1154:G:O5'	26:14:1154:G:H8	2.00	0.44
26:14:1445:C:H2'	26:14:1446:C:C6	2.52	0.44
29:29:120:TRP:CE3	29:29:155:LYS:HD3	2.53	0.44
32:59:83:TYR:HA	32:59:134:SER:OG	2.17	0.44
33:69:13:GLY:HA3	33:69:17:GLN:OE1	2.18	0.44
33:69:60:GLU:HG3	33:69:61:ARG:N	2.32	0.44
34:15:34:LEU:O	34:15:49:GLY:HA3	2.18	0.44
37:45:37:LEU:HD11	37:45:130:LYS:HB2	2.00	0.44
1:13:115:G:H4'	1:13:116:A:O5'	2.17	0.44
1:13:328:C:H4'	1:13:329:A:H5'	2.00	0.44
1:13:792:A:H4'	1:13:793:U:O5'	2.18	0.44
1:13:1368:G:H5'	9:8E:111:ARG:HH21	1.83	0.44
5:4E:33:VAL:HG11	5:4E:109:ILE:HA	1.99	0.44
9:8E:121:ARG:NH1	9:8E:122:ALA:O	2.51	0.44
20:BI:26:ASN:O	20:BI:30:LYS:HB2	2.18	0.44
21:1F:12:LYS:HB3	21:1F:22:ARG:HD2	1.99	0.44
26:1H:821:A:C2'	26:1H:946:G:H5''	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:942:G:H4'	26:1H:1190:G:H5'	2.00	0.44
26:1H:1445:C:H2'	26:1H:1446:C:H6	1.82	0.44
26:1H:1537:C:O2	26:1H:1538:G:H1'	2.18	0.44
26:1H:1693:U:O2'	28:11:14:ARG:NH2	2.51	0.44
26:1H:1970:A:H4'	26:1H:1971:A:OP1	2.18	0.44
26:1H:2360:A:H2'	26:1H:2361:A:O4'	2.17	0.44
26:1H:2636:U:OP2	29:21:79:ARG:NH1	2.51	0.44
39:A8:103:GLU:O	39:A8:106:ARG:HD3	2.17	0.44
40:B8:57:PHE:CE1	40:B8:79:HIS:HB2	2.52	0.44
48:J8:73:LEU:HD23	48:J8:73:LEU:HA	1.80	0.44
1:1G:34:C:O2'	1:1G:35:G:H5'	2.17	0.44
1:1G:183:G:H1	1:1G:194:C:H42	1.65	0.44
1:1G:838:G:H2'	1:1G:841:U:H5''	2.00	0.44
1:1G:1119:C:H2'	1:1G:1120:G:C8	2.52	0.44
1:1G:1182:G:H4'	1:1G:1183:A:H5''	1.99	0.44
1:1G:1356:G:N2	1:1G:1367:C:C2	2.86	0.44
2:12:8:LYS:HB3	2:12:9:GLU:H	1.45	0.44
3:22:28:GLN:O	3:22:32:LEU:HB2	2.18	0.44
3:22:113:ALA:HB3	3:22:114:PRO:HD3	2.00	0.44
16:7A:40:ASP:HA	16:7A:41:PRO:HD2	1.70	0.44
17:8A:78:GLU:HG2	17:8A:79:SER:O	2.18	0.44
17:8A:86:GLU:O	17:8A:90:ILE:HG12	2.17	0.44
24:1L:83:C:H5'	24:1L:84:C:C5	2.53	0.44
23:2L:17:C:OP2	23:2L:18:C:O2'	2.27	0.44
23:2L:45:A:H5''	23:2L:46:G:OP2	2.18	0.44
26:14:329:G:N7	45:C5:71:LYS:NZ	2.66	0.44
26:14:654(S):G:C2	26:14:654(T):A:C6	3.06	0.44
26:14:723:G:H2'	26:14:724:U:O4'	2.18	0.44
26:14:1024:G:C3'	26:14:1025:G:H5''	2.48	0.44
26:14:1664:A:P	59:14:3540:HOH:O	2.69	0.44
26:14:1970:A:P	59:14:3512:HOH:O	2.74	0.44
34:15:103:VAL:O	34:15:107:LEU:HG	2.18	0.44
36:35:85:LEU:CD2	36:35:85:LEU:H	2.31	0.44
49:G5:47:ASN:N	49:G5:47:ASN:ND2	2.65	0.44
1:13:370:C:C2	1:13:392:G:N2	2.86	0.44
1:13:376:G:H5''	16:7I:5:ARG:HB2	2.00	0.44
1:13:474:G:H5''	16:7I:81:ARG:NH2	2.33	0.44
1:13:1226:C:OP2	13:4I:103:THR:OG1	2.20	0.44
2:1E:9:GLU:HA	2:1E:12:GLU:HB3	1.98	0.44
4:3E:85:LYS:HE2	4:3E:85:LYS:HB2	1.78	0.44
6:5E:23:LYS:HB2	6:5E:23:LYS:HZ3	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5E:27:GLN:HA	6:5E:30:LEU:HD12	1.99	0.44
8:7E:87:SER:HB2	8:7E:93:VAL:HG23	2.00	0.44
17:8I:74:LEU:HD22	17:8I:74:LEU:HA	1.64	0.44
23:2K:69:C:H2'	23:2K:70:C:C6	2.53	0.44
24:3K:49:A:C2'	24:3K:50:U:H5''	2.48	0.44
26:1H:1074:G:H2'	26:1H:1075:C:C6	2.53	0.44
26:1H:1179:C:H2'	26:1H:1180:C:H6	1.83	0.44
26:1H:1339:G:N2	26:1H:1603:A:H1'	2.33	0.44
26:1H:1378:A:OP1	53:P8:10:ARG:NH2	2.50	0.44
26:1H:1404:C:O2'	26:1H:1405:U:H5'	2.18	0.44
26:1H:1557:C:H5''	26:1H:1558:A:OP2	2.18	0.44
26:1H:1799:G:H5'	26:1H:1819:A:H61	1.83	0.44
26:1H:2054:A:H5''	26:1H:2055:C:O5'	2.17	0.44
26:1H:2078:C:H2'	26:1H:2079:U:C6	2.53	0.44
26:1H:2473:U:C2'	26:1H:2474:C:H5'	2.48	0.44
32:51:40:GLU:OE1	32:51:61:HIS:NE2	2.50	0.44
34:58:96:GLU:O	34:58:98:VAL:HG12	2.17	0.44
1:1G:186(A):C:H2'	1:1G:186(B):C:C6	2.53	0.44
1:1G:431:A:H2'	1:1G:432:A:H8	1.81	0.44
1:1G:978:A:H5'	1:1G:979:C:OP2	2.18	0.44
1:1G:1230:C:H2'	1:1G:1231:G:H8	1.83	0.44
4:32:15:GLU:OE1	4:32:59:ARG:NE	2.46	0.44
4:32:18:LYS:H	4:32:18:LYS:HG3	1.51	0.44
6:52:10:LEU:N	6:52:59:TYR:O	2.46	0.44
15:6A:26:GLU:OE2	15:6A:77:ARG:HD2	2.18	0.44
18:9A:38:GLU:HG2	18:9A:39:VAL:N	2.33	0.44
19:AA:51:VAL:O	19:AA:57:HIS:HA	2.17	0.44
24:1L:18:G:OP1	24:1L:69:U:N3	2.49	0.44
26:14:906:G:OP1	37:45:26:TYR:OH	2.35	0.44
26:14:1027:A:H2	26:14:2487:G:O2'	2.01	0.44
26:14:1030:G:OP2	37:45:128:LYS:HE2	2.17	0.44
26:14:1138:G:H21	34:15:106:MET:CE	2.29	0.44
26:14:1638:C:H1'	26:14:2698:U:O2'	2.17	0.44
26:14:2115:G:H21	26:14:2172:U:H3	1.64	0.44
26:14:2187:G:C6	26:14:2188:C:N4	2.86	0.44
26:14:2850:A:H2'	26:14:2851:A:H8	1.82	0.44
28:19:77:ALA:O	28:19:116:GLN:HA	2.18	0.44
31:49:63:ILE:HG13	31:49:64:THR:N	2.33	0.44
32:59:6:ARG:NH2	32:59:54:ARG:HH22	2.16	0.44
45:C5:82:PRO:HB3	45:C5:97:ARG:HB3	2.00	0.44
54:M5:61:LEU:C	54:M5:63:PRO:HD3	2.38	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:280:C:O2	17:8I:38:ARG:HG3	2.18	0.43
1:13:446:G:H1	1:13:488:C:H42	1.65	0.43
1:13:484:G:O2'	1:13:485:G:OP2	2.31	0.43
1:13:598:U:H2'	1:13:599:C:C6	2.53	0.43
1:13:825:G:O4'	8:7E:2:LEU:HD21	2.18	0.43
1:13:1131:G:OP2	1:13:1131:G:H8	2.01	0.43
1:13:1366:C:H2'	1:13:1367:C:C6	2.53	0.43
7:6E:138:LYS:NZ	7:6E:142:GLU:OE2	2.42	0.43
18:9I:56:THR:HB	18:9I:58:LEU:HD13	2.00	0.43
26:1H:225:A:O2'	26:1H:257:A:H4'	2.18	0.43
26:1H:827:U:H5'	26:1H:828:U:O5'	2.18	0.43
26:1H:1026:U:H4'	26:1H:1027:A:OP1	2.18	0.43
26:1H:1038:C:H2'	26:1H:1039:G:O4'	2.18	0.43
26:1H:2093:G:C6	26:1H:2225:A:C8	3.06	0.43
26:1H:2262:U:OP1	26:1H:2387:U:O2'	2.20	0.43
26:1H:2820:A:P	38:98:2:ARG:NH2	2.91	0.43
27:16:54:G:H2'	27:16:55:U:H6	1.83	0.43
27:16:61:G:C6	27:16:62:C:C4	3.06	0.43
29:21:116:VAL:HG11	29:21:138:PRO:HB3	2.00	0.43
31:41:104:GLU:CD	51:M8:23:GLU:HG3	2.39	0.43
31:41:173:LEU:HB3	31:41:178:PHE:CD2	2.53	0.43
32:51:19:VAL:HG12	32:51:20:ALA:H	1.83	0.43
32:51:97:ARG:O	32:51:103:LEU:HD12	2.18	0.43
33:61:1:MET:C	33:61:20:ASP:HB2	2.37	0.43
36:78:96:THR:O	36:78:98:GLU:N	2.42	0.43
36:78:105:LEU:O	36:78:106:LEU:HB3	2.17	0.43
37:88:118:LEU:HA	37:88:118:LEU:HD23	1.74	0.43
38:98:29:LEU:HA	38:98:29:LEU:HD12	1.70	0.43
39:A8:41:ASP:OD2	39:A8:44:LYS:HB2	2.18	0.43
41:C8:32:PHE:O	41:C8:32:PHE:CG	2.71	0.43
43:E8:97:LYS:HE3	43:E8:99:ARG:CZ	2.48	0.43
45:G8:87:LYS:O	45:G8:94:LYS:HB2	2.18	0.43
47:I8:21:LEU:HD23	47:I8:21:LEU:HA	1.79	0.43
49:K8:61:LEU:HD23	49:K8:61:LEU:HA	1.79	0.43
1:1G:1108:G:OP2	3:22:174:PRO:HA	2.17	0.43
1:1G:1130:A:N6	1:1G:1131:G:O6	2.51	0.43
2:12:75:LYS:H	2:12:78:GLN:HG3	1.83	0.43
24:1L:18:G:H4'	24:1L:19:C:OP2	2.15	0.43
26:14:107:C:H2'	26:14:108:U:C6	2.53	0.43
26:14:424:G:N7	59:14:3865:HOH:O	2.36	0.43
26:14:531:C:OP1	26:14:561:G:C2	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:631:A:O2'	36:35:67:MET:HB3	2.18	0.43
26:14:1203:G:H3'	26:14:1204:A:H5''	2.00	0.43
26:14:1849:G:H2'	26:14:1850:G:C8	2.53	0.43
26:14:1886:C:OP2	26:14:1886:C:H6	2.01	0.43
26:14:1935:G:H1'	26:14:1964:G:N2	2.33	0.43
26:14:2002:G:C6	59:14:3810:HOH:O	2.70	0.43
26:14:2116:G:H2'	26:14:2117:A:C4	2.54	0.43
26:14:2541:A:H4'	26:14:2764:A:N1	2.33	0.43
26:14:2646:C:H2'	26:14:2647:U:O4'	2.17	0.43
27:1J:1:U:C4	27:1J:2:C:C4	3.06	0.43
28:19:33:LEU:HD12	28:19:33:LEU:HA	1.82	0.43
33:69:21:VAL:HG21	33:69:26:ALA:HB2	2.01	0.43
40:75:132:LYS:HB3	40:75:132:LYS:NZ	2.33	0.43
41:85:79:PHE:CZ	41:85:83:LEU:HD11	2.53	0.43
44:B5:3:THR:HG22	44:B5:6:ASP:OD2	2.18	0.43
45:C5:99:CYS:SG	45:C5:100:ALA:N	2.91	0.43
47:E5:51:VAL:C	47:E5:62:LEU:HD12	2.38	0.43
1:13:114:U:O2'	1:13:115:G:H5'	2.17	0.43
1:13:254:G:O3'	17:8I:69:LYS:NZ	2.37	0.43
1:13:1428:A:H2'	1:13:1429:C:C6	2.53	0.43
7:6E:18:TYR:HB3	7:6E:59:LEU:HD11	2.00	0.43
9:8E:112:LYS:HA	9:8E:119:ALA:HB2	2.00	0.43
22:1K:11:C:O2'	22:1K:12:C:H5'	2.18	0.43
23:2K:7:G:H1	23:2K:67:C:H42	1.66	0.43
23:2K:37:U:H2'	23:2K:38:A:H8	1.83	0.43
26:1H:7:G:N1	26:1H:8:A:N3	2.66	0.43
26:1H:200:U:O2	26:1H:386:G:N2	2.51	0.43
26:1H:270(K):C:C4	26:1H:270(M):U:H5''	2.53	0.43
26:1H:887:A:H5'	26:1H:888:C:OP1	2.18	0.43
26:1H:1011:G:C2	26:1H:1151:G:C2	3.07	0.43
26:1H:1657:C:H2'	26:1H:1658:C:C6	2.53	0.43
26:1H:2098:U:H2'	26:1H:2099:U:O4'	2.17	0.43
26:1H:2115:G:H1'	26:1H:2171:A:N1	2.34	0.43
26:1H:2436:G:C5	26:1H:2437:U:C5	3.06	0.43
26:1H:2619:C:H5'	29:21:150:VAL:O	2.18	0.43
31:41:145:THR:O	31:41:146:TYR:HB3	2.17	0.43
32:51:84:SER:O	32:51:85:LYS:HB2	2.18	0.43
33:61:64:GLU:O	33:61:68:LEU:N	2.40	0.43
33:61:104:GLN:HG2	33:61:105:HIS:CE1	2.53	0.43
41:C8:90:VAL:HA	42:D8:39:LEU:HD23	1.99	0.43
1:1G:109:A:H5'	1:1G:110:C:H5	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:142:G:H2'	1:1G:143:A:C8	2.53	0.43
1:1G:147:G:N2	1:1G:148:G:C4	2.86	0.43
1:1G:474:G:O5'	1:1G:474:G:H8	2.02	0.43
1:1G:750:G:N2	15:6A:23:GLY:HA3	2.33	0.43
1:1G:1157:A:O2'	1:1G:1158:C:P	2.76	0.43
1:1G:1287:A:H2	1:1G:1353:G:N3	2.16	0.43
59:1G:1782:HOH:O	14:5A:21:TYR:HB3	2.17	0.43
4:32:78:LEU:O	4:32:81:GLU:HB3	2.18	0.43
17:8A:56:VAL:HG12	17:8A:77:VAL:HB	2.00	0.43
55:3L:22:A:N7	55:3L:57:C:N4	2.66	0.43
26:14:270(E):G:C6	26:14:270(F):U:C4	3.06	0.43
26:14:446:G:P	59:14:3740:HOH:O	2.77	0.43
26:14:516:C:H6	26:14:516:C:O5'	2.01	0.43
26:14:860:U:C2	26:14:2268:A:C8	3.06	0.43
26:14:870:A:P	37:45:6:ARG:HH11	2.41	0.43
26:14:1053:C:H2'	26:14:1054:A:O4'	2.17	0.43
26:14:1188:U:C2'	26:14:1189:A:H5'	2.47	0.43
26:14:1858:G:H8	26:14:1858:G:OP2	2.00	0.43
26:14:2101:G:H1	26:14:2188:C:N4	2.12	0.43
28:19:3:VAL:HG12	28:19:17:THR:HB	2.00	0.43
28:19:267:SER:O	28:19:268:ARG:HG2	2.17	0.43
29:29:26:ILE:HD12	29:29:26:ILE:HG23	1.73	0.43
29:29:61:ARG:HG2	29:29:61:ARG:O	2.18	0.43
29:29:117:MET:HB2	29:29:122:PHE:O	2.17	0.43
32:59:86:GLU:H	32:59:86:GLU:CD	2.22	0.43
32:59:87:LEU:HA	32:59:163:TYR:O	2.18	0.43
32:59:125:VAL:HG22	32:59:126:PRO:HD3	2.00	0.43
35:25:20:MET:HE3	35:25:44:LYS:HE3	2.00	0.43
37:45:16:ARG:HB2	37:45:18:LYS:HD3	2.00	0.43
44:B5:15:GLU:CD	44:B5:15:GLU:H	2.22	0.43
44:B5:67:GLY:C	44:B5:69:TYR:H	2.20	0.43
48:F5:92:LYS:O	48:F5:93:GLU:C	2.55	0.43
1:13:420:U:H2'	1:13:422:C:H5	1.84	0.43
1:13:422:C:O2'	1:13:423:G:O5'	2.36	0.43
1:13:564:C:C6	17:8I:31:LEU:HD11	2.53	0.43
1:13:763:G:H2'	1:13:764:C:H6	1.81	0.43
1:13:1388:C:H2'	1:13:1389:C:H6	1.81	0.43
1:13:1429:C:H2'	1:13:1430:C:C6	2.54	0.43
3:2E:115:LEU:HA	3:2E:115:LEU:HD23	1.78	0.43
8:7E:39:LEU:HD12	8:7E:39:LEU:HA	1.83	0.43
9:8E:112:LYS:CA	9:8E:119:ALA:HB2	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:18:PHE:CE1	15:6I:21:ASP:HB2	2.54	0.43
16:7I:58:TYR:C	16:7I:58:TYR:CD1	2.91	0.43
20:BI:26:ASN:HD22	20:BI:26:ASN:H	1.66	0.43
24:3K:21:A:H4'	24:3K:22:A:O5'	2.17	0.43
24:3K:37:A:C2	24:3K:38:A:H1'	2.54	0.43
24:3K:62:G:H1	24:3K:70:C:H42	1.65	0.43
26:1H:127:A:H5''	26:1H:128:C:C6	2.52	0.43
26:1H:232:G:OP2	26:1H:232:G:C8	2.70	0.43
26:1H:409:C:P	59:1H:3609:HOH:O	2.76	0.43
26:1H:755:C:H2'	26:1H:756:C:C6	2.53	0.43
26:1H:883:G:H1	26:1H:893:C:N4	2.16	0.43
26:1H:1061:U:O3'	26:1H:1070:A:H4'	2.17	0.43
26:1H:1174:A:C4	26:1H:1178:C:N4	2.86	0.43
26:1H:1480:G:C6	26:1H:1482:U:N3	2.87	0.43
26:1H:1488:G:N2	26:1H:1502:C:C2	2.86	0.43
26:1H:1564:C:O2'	26:1H:1565:C:H5'	2.18	0.43
26:1H:1681:G:N2	26:1H:1763:G:O5'	2.49	0.43
26:1H:2353:G:O6	26:1H:2365:G:C2	2.72	0.43
26:1H:2492:U:H2'	26:1H:2493:U:C6	2.53	0.43
26:1H:2577:A:H2'	26:1H:2614:A:N6	2.32	0.43
33:6I:5:LEU:HD23	33:6I:5:LEU:HA	1.63	0.43
43:E8:22:ASP:HA	43:E8:25:ARG:NH1	2.34	0.43
46:H8:40:ASP:OD2	46:H8:43:GLU:N	2.41	0.43
49:K8:50:ILE:HD12	49:K8:51:ARG:N	2.31	0.43
1:1G:598:U:H2'	1:1G:599:C:C6	2.54	0.43
2:12:7:VAL:HG22	2:12:8:LYS:H	1.83	0.43
2:12:10:LEU:HA	2:12:13:ALA:HB2	2.01	0.43
2:12:70:PHE:HB2	2:12:92:TYR:CB	2.48	0.43
2:12:185:ILE:CG2	2:12:199:TYR:HB2	2.33	0.43
3:22:91:LEU:HD11	3:22:101:LEU:CG	2.49	0.43
5:42:13:ILE:O	5:42:13:ILE:HD12	2.18	0.43
7:62:69:VAL:HG13	7:62:134:ALA:O	2.19	0.43
11:2A:106:LYS:H	11:2A:106:LYS:HG3	1.41	0.43
19:AA:12:ASP:O	19:AA:16:LEU:HD13	2.18	0.43
26:14:72:U:H3	49:G5:62:THR:HG23	1.83	0.43
26:14:696:G:H2'	26:14:697:C:H6	1.84	0.43
26:14:1045:A:O2'	26:14:1046:A:OP2	2.30	0.43
26:14:1475:G:C2	26:14:1519:G:N3	2.86	0.43
26:14:1899:G:N2	26:14:1902:C:H5	2.16	0.43
26:14:2056:G:H3'	59:14:3437:HOH:O	2.16	0.43
26:14:2420:C:C5	54:M5:31:HIS:O	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2542:A:C8	26:14:2544:G:O6	2.71	0.43
26:14:2579:C:H2'	26:14:2580:U:O4'	2.18	0.43
27:1J:87:G:N2	27:1J:89:G:H3'	2.33	0.43
34:15:91:LEU:O	34:15:95:PRO:HB3	2.19	0.43
37:45:98:LYS:HB3	37:45:99:PRO:HD2	2.00	0.43
39:65:7:TYR:O	39:65:11:LYS:HB2	2.18	0.43
39:65:30:ARG:HE	39:65:30:ARG:HB3	1.50	0.43
43:A5:57:ASN:HA	43:A5:61:ASN:HD22	1.83	0.43
1:13:51:A:OP2	1:13:52:G:H8	2.01	0.43
1:13:364:A:O2'	1:13:365:U:H5'	2.18	0.43
1:13:501:C:OP1	12:3I:117:ARG:NH2	2.46	0.43
1:13:652:U:O2'	1:13:653:A:O5'	2.33	0.43
1:13:955:U:H1'	1:13:1227:A:N6	2.32	0.43
1:13:1351:U:O2'	1:13:1352:C:H5'	2.17	0.43
1:13:1352:C:H2'	1:13:1353:G:H8	1.83	0.43
2:1E:8:LYS:H	2:1E:8:LYS:HD3	1.83	0.43
2:1E:160:ASP:O	2:1E:183:PRO:HD2	2.19	0.43
3:2E:178:LEU:HD13	3:2E:178:LEU:HA	1.81	0.43
4:3E:8:VAL:HG12	4:3E:9:CYS:N	2.33	0.43
5:4E:137:GLU:HA	5:4E:140:ARG:CD	2.48	0.43
6:5E:3:ARG:HB3	6:5E:93:SER:HB2	2.00	0.43
20:BI:30:LYS:HZ1	20:BI:80:ARG:HH12	1.66	0.43
20:BI:73:HIS:O	20:BI:76:ALA:HB3	2.18	0.43
23:2K:55:5MU:H5'	23:2K:56:PSU:OP2	2.18	0.43
26:1H:192:C:OP2	59:1H:3591:HOH:O	2.21	0.43
26:1H:270(V):G:C2	26:1H:270(W):G:C4	3.07	0.43
26:1H:610:C:H2'	26:1H:611:C:H6	1.82	0.43
26:1H:646:A:C8	26:1H:647:G:H1'	2.54	0.43
26:1H:659:C:H4'	30:31:100:THR:O	2.19	0.43
26:1H:996:A:H4'	41:C8:92:ARG:HG2	1.99	0.43
26:1H:1142(A):A:C5	26:1H:1144:G:C5	3.06	0.43
26:1H:1420:U:O2'	26:1H:1421:G:OP1	2.30	0.43
26:1H:1665:A:C2'	26:1H:1666:G:H5'	2.48	0.43
26:1H:2402:C:O2'	26:1H:2403:C:OP1	2.34	0.43
27:16:18:G:H1	27:16:65:C:H42	1.66	0.43
28:11:30:GLU:HB3	28:11:33:LEU:HB2	2.00	0.43
30:31:65:TRP:HZ3	30:31:73:ALA:O	2.00	0.43
31:41:112:PRO:HB3	51:M8:36:CYS:CA	2.47	0.43
32:51:10:PRO:HD2	32:51:50:VAL:O	2.18	0.43
32:51:130:ARG:HH11	32:51:130:ARG:HB3	1.83	0.43
33:61:33:ARG:HB3	33:61:35:LEU:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:68:119:PRO:HB2	40:B8:68:TYR:CE2	2.53	0.43
39:A8:80:LEU:HD22	39:A8:80:LEU:HA	1.86	0.43
45:G8:29:GLU:HG2	45:G8:30:VAL:N	2.33	0.43
48:J8:64:ALA:HA	48:J8:67:ILE:HG13	1.99	0.43
1:1G:397:A:H3'	1:1G:397:A:N3	2.32	0.43
1:1G:718:G:H5'	11:2A:117:ASN:ND2	2.33	0.43
1:1G:980:C:H5'	1:1G:981:U:H5	1.79	0.43
1:1G:1241:G:OP1	7:62:35:LYS:NZ	2.51	0.43
1:1G:1423:G:P	35:25:49:ARG:HH12	2.41	0.43
3:22:47:LEU:CD2	3:22:68:VAL:HG11	2.48	0.43
4:32:61:LYS:HA	4:32:203:VAL:HG22	2.01	0.43
4:32:65:ARG:HD2	4:32:72:GLU:HA	2.00	0.43
4:32:74:GLN:O	4:32:78:LEU:HD23	2.18	0.43
5:42:87:SER:HB3	5:42:125:SER:O	2.18	0.43
13:4A:7:VAL:HG11	31:49:115:ARG:CZ	2.48	0.43
17:8A:75:ARG:NH2	17:8A:77:VAL:HG22	2.33	0.43
26:14:107:C:H2'	26:14:108:U:H6	1.83	0.43
26:14:173:G:N3	26:14:173:G:H2'	2.33	0.43
26:14:190:A:OP2	48:F5:39:LYS:NZ	2.52	0.43
26:14:1062:G:H8	26:14:1062:G:OP1	2.01	0.43
26:14:1250:G:H5'	59:85:301:HOH:O	2.19	0.43
26:14:1257:C:H4'	30:39:83:PHE:CD1	2.53	0.43
26:14:1332:G:H8	26:14:1332:G:H2'	1.44	0.43
26:14:1827:C:OP2	28:19:222:ARG:NH1	2.49	0.43
26:14:2014:A:H2'	26:14:2015:A:C8	2.54	0.43
28:19:16:MET:HE2	28:19:208:LYS:HG2	2.00	0.43
37:45:135:ASP:O	37:45:137:TYR:HD1	2.00	0.43
42:95:85:LYS:HE3	42:95:88:ARG:H	1.82	0.43
1:13:575:G:C4	1:13:881:G:C2	3.07	0.43
1:13:1202:G:O2'	14:5I:29:ARG:HB2	2.18	0.43
1:13:1489:G:H2'	1:13:1490:C:O4'	2.18	0.43
4:3E:8:VAL:CG1	4:3E:21:LEU:HB2	2.48	0.43
11:2I:38:ASN:HA	11:2I:39:PRO:HD3	1.85	0.43
15:6I:35:ARG:HE	15:6I:35:ARG:HB2	1.71	0.43
17:8I:50:LYS:HG3	17:8I:51:TYR:CD2	2.53	0.43
20:BI:50:GLU:HG3	20:BI:100:ILE:HG12	2.00	0.43
22:1K:3:U:H1'	22:1K:4:G:OP1	2.19	0.43
25:4K:19[A]:A:H2'	25:4K:19[A]:A:N3	2.34	0.43
26:1H:141(A):C:H2'	26:1H:142:G:O4'	2.18	0.43
26:1H:198:C:O2'	26:1H:199:A:H5''	2.18	0.43
26:1H:602:G:O2'	26:1H:655:A:N6	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1163:G:C2	26:1H:1164:G:C8	3.06	0.43
26:1H:1313:U:OP1	59:1H:3765:HOH:O	2.21	0.43
26:1H:1649:G:C6	26:1H:2009:G:O6	2.71	0.43
26:1H:1761:C:H42	26:1H:1762:A:H62	1.66	0.43
26:1H:1780:A:P	59:1H:3523:HOH:O	2.73	0.43
26:1H:1814:G:H3'	26:1H:1815:A:H2'	1.99	0.43
26:1H:2286:A:H4'	26:1H:2287:A:O4'	2.18	0.43
26:1H:2337:G:H2'	26:1H:2338:G:H8	1.84	0.43
27:16:44:G:C2	27:16:48:A:C2	3.06	0.43
27:16:83:G:C6	27:16:84:C:C5	3.07	0.43
31:41:114:ILE:HG22	31:41:115:ARG:O	2.19	0.43
33:61:79:ILE:HA	33:61:80:PRO:HD2	1.85	0.43
36:78:91:PHE:O	36:78:121:LYS:NZ	2.35	0.43
42:D8:36:PRO:HA	42:D8:56:SER:HB3	2.00	0.43
46:H8:150:LEU:HB3	46:H8:171:ILE:HB	2.00	0.43
54:Q8:17:THR:OG1	54:Q8:21:LYS:N	2.42	0.43
54:Q8:52:LYS:H	54:Q8:54:GLU:HG3	1.83	0.43
1:1G:80:G:HO2'	1:1G:81:G:P	2.36	0.43
1:1G:95:G:H2'	1:1G:96:G:C8	2.53	0.43
1:1G:330:C:H2'	59:1G:1732:HOH:O	2.17	0.43
1:1G:451:A:N6	1:1G:480:U:H2'	2.34	0.43
1:1G:553:A:C6	1:1G:554:C:C4	3.06	0.43
1:1G:560:U:HO2'	1:1G:561:U:P	2.35	0.43
1:1G:617:G:H1	1:1G:623:C:N4	2.13	0.43
1:1G:957:U:C1'	1:1G:960:U:H5	2.20	0.43
7:62:26:PHE:CE2	7:62:30:ILE:HD11	2.54	0.43
17:8A:83:ASP:O	17:8A:86:GLU:HB2	2.19	0.43
19:AA:9:VAL:HG13	19:AA:10:PHE:N	2.33	0.43
24:1L:22:A:N7	24:1L:57:C:N4	2.66	0.43
23:2L:33:OMC:H6	23:2L:33:OMC:O5'	2.02	0.43
23:2L:53:G:C4	23:2L:54:G:C8	3.07	0.43
55:3L:26:G:H2'	55:3L:27:A:O4'	2.18	0.43
26:14:242:G:H8	54:M5:4:MET:O	2.02	0.43
26:14:654(R):C:N4	26:14:654(S):G:O6	2.52	0.43
26:14:782:A:H5'	26:14:783:A:C2	2.53	0.43
26:14:834:C:O3'	54:M5:52:LYS:HG2	2.18	0.43
26:14:950:G:C5	26:14:951:C:C4	3.06	0.43
26:14:1015:G:C2	26:14:1016:G:C4	3.06	0.43
26:14:1142:U:O2	26:14:1142:U:H2'	2.18	0.43
26:14:1729:A:C6	26:14:1731:G:C5	3.06	0.43
26:14:1759:A:H4'	26:14:2715:C:O4'	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1991:U:C2'	26:14:1992:G:H5''	2.48	0.43
26:14:2052:G:O4'	29:29:142:GLY:HA3	2.18	0.43
26:14:2154:G:C6	26:14:2155:G:N7	2.86	0.43
26:14:2315:G:H2'	26:14:2316:C:C6	2.54	0.43
26:14:2360:A:H2'	26:14:2361:A:O4'	2.18	0.43
26:14:2760:C:H2'	26:14:2761:G:C8	2.53	0.43
26:14:2849:U:O4	40:75:23:ARG:NH2	2.42	0.43
59:14:3537:HOH:O	29:29:135:HIS:NE2	2.00	0.43
36:35:86:LYS:HG3	36:35:87:ASP:N	2.34	0.43
41:85:90:VAL:O	41:85:92:ARG:N	2.52	0.43
42:95:85:LYS:CB	42:95:87:HIS:H	2.32	0.43
45:C5:76:CYS:HB2	45:C5:97:ARG:HG3	2.00	0.43
46:D5:28:MET:O	46:D5:34:ASN:HA	2.18	0.43
51:I5:8:LYS:O	51:I5:10:VAL:HG12	2.18	0.43
54:M5:36:LYS:HG3	54:M5:37:SER:N	2.34	0.43
1:13:452:A:O2'	1:13:453:A:O4'	2.28	0.43
1:13:515:G:N2	1:13:537:G:C4	2.87	0.43
1:13:629:G:N1	1:13:630:G:C6	2.86	0.43
1:13:677:U:H2'	1:13:678:U:C6	2.53	0.43
1:13:939:G:H2'	1:13:940:C:H6	1.84	0.43
1:13:963:G:N2	10:1I:55:LYS:NZ	2.61	0.43
1:13:1061:G:O6	3:2E:2:GLY:N	2.52	0.43
11:2I:103:LEU:HD12	11:2I:103:LEU:HA	1.81	0.43
16:7I:4:ILE:HA	16:7I:20:VAL:O	2.18	0.43
18:9I:19:LYS:HB3	18:9I:20:ALA:H	1.60	0.43
26:1H:49:A:H4'	26:1H:50:U:H5''	2.00	0.43
26:1H:287:C:O2'	26:1H:288:C:H5'	2.18	0.43
26:1H:389:G:H22	36:78:72:PRO:HD3	1.83	0.43
26:1H:818:G:H4'	26:1H:838:C:O3'	2.19	0.43
26:1H:1113:U:H2'	26:1H:1114:G:C8	2.54	0.43
26:1H:1174:A:C1'	26:1H:1178:C:H41	2.31	0.43
26:1H:1231:G:H2'	26:1H:1232:G:C8	2.54	0.43
26:1H:1288:U:H4'	26:1H:1289:C:OP2	2.18	0.43
26:1H:1783:A:P	59:1H:3522:HOH:O	2.70	0.43
26:1H:2616:C:H2'	26:1H:2617:C:C6	2.53	0.43
26:1H:2694:G:C6	26:1H:2695:C:C4	3.07	0.43
30:31:125:LEU:HD11	30:31:199:TRP:CD2	2.53	0.43
34:58:28:THR:HA	34:58:106:MET:HE2	2.00	0.43
36:78:130:PHE:CZ	36:78:144:GLU:HG2	2.53	0.43
40:B8:19:LEU:HA	40:B8:20:PRO:HD3	1.78	0.43
41:C8:34:LYS:HE2	41:C8:34:LYS:HA	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:H8:125:LEU:HG	46:H8:164:ALA:CB	2.49	0.43
48:J8:23:LYS:HB3	48:J8:29:GLY:HA3	2.01	0.43
52:N8:9:LYS:HD3	52:N8:9:LYS:HA	1.62	0.43
1:1G:843:U:H3'	1:1G:848:C:O4'	2.18	0.43
1:1G:992:U:H4'	1:1G:993:G:O5'	2.18	0.43
1:1G:1093:A:N3	1:1G:1109:C:O2'	2.46	0.43
1:1G:1286:A:H3'	1:1G:1286:A:H8	1.84	0.43
1:1G:1418:A:H2	26:14:1948:G:N3	2.15	0.43
3:22:56:ASP:OD1	3:22:57:ILE:N	2.51	0.43
4:32:50:ARG:HA	4:32:51:PRO:HD3	1.79	0.43
5:42:34:VAL:O	5:42:41:VAL:HG12	2.19	0.43
7:62:131:LYS:NZ	7:62:131:LYS:HB3	2.34	0.43
8:72:88:LYS:O	8:72:92:ARG:HD2	2.19	0.43
18:9A:61:LYS:O	18:9A:65:ILE:HG23	2.18	0.43
26:14:1337:G:H2'	26:14:1338:G:C8	2.53	0.43
26:14:1491:G:O2'	28:19:101:GLU:HB2	2.19	0.43
26:14:2128:C:H5'	26:14:2129:C:OP2	2.19	0.43
26:14:2352:A:N1	47:E5:33:ALA:O	2.52	0.43
26:14:2498:C:H3'	59:14:3445:HOH:O	2.18	0.43
26:14:2721:A:H2'	26:14:2722:G:C8	2.54	0.43
26:14:2788:C:O2'	26:14:2809:A:N3	2.52	0.43
28:19:69:ARG:CD	28:19:105:ILE:HD11	2.48	0.43
28:19:239:ARG:NE	59:19:302:HOH:O	2.50	0.43
30:39:83:PHE:O	30:39:84:VAL:HB	2.18	0.43
32:59:33:LEU:HD11	32:59:78:GLY:HA3	1.99	0.43
36:35:35:HIS:HB3	36:35:36:LYS:H	1.55	0.43
37:45:19:GLY:O	37:45:98:LYS:HB3	2.18	0.43
38:55:30:THR:HG22	38:55:31:HIS:ND1	2.32	0.43
39:65:80:LEU:HD23	39:65:80:LEU:HA	1.78	0.43
41:85:55:ARG:H	41:85:55:ARG:HG2	1.36	0.43
48:F5:34:THR:O	48:F5:34:THR:HG22	2.17	0.43
1:13:524:G:H2'	1:13:525:C:C5	2.53	0.43
1:13:675:A:H2'	1:13:676:A:O4'	2.19	0.43
1:13:881:G:P	12:3I:12:ARG:HH22	2.41	0.43
1:13:947:G:H2'	1:13:948:C:O4'	2.19	0.43
1:13:1158:C:C2	1:13:1160:G:C8	3.06	0.43
1:13:1160:G:H22	1:13:1177:G:N2	2.17	0.43
1:13:1388:C:H2'	1:13:1389:C:C6	2.53	0.43
1:13:1470:G:H2'	1:13:1471:G:O4'	2.19	0.43
3:2E:12:LEU:HD22	3:2E:12:LEU:HA	1.89	0.43
3:2E:70:VAL:N	3:2E:106:VAL:HG23	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:7I:58:TYR:O	16:7I:62:VAL:HG22	2.19	0.43
26:1H:298:G:H5''	26:1H:299:A:OP1	2.19	0.43
26:1H:975:G:C2	26:1H:976:C:C6	3.07	0.43
26:1H:984:A:H5''	26:1H:985:C:H5	1.83	0.43
26:1H:1013:C:O2'	26:1H:1014:U:H5'	2.19	0.43
26:1H:1167:U:C2	26:1H:1183:G:N2	2.87	0.43
26:1H:1453:A:O2'	26:1H:1454:U:H2'	2.18	0.43
26:1H:1999:C:H4'	26:1H:2723:C:O2	2.19	0.43
26:1H:2545:G:H2'	26:1H:2546:U:O4'	2.19	0.43
27:16:4:C:H42	27:16:116:G:H1	1.65	0.43
27:16:89:G:H2'	27:16:89(A):A:C8	2.54	0.43
28:11:97:TYR:CE1	28:11:103:ARG:HG3	2.54	0.43
31:41:13:GLU:O	31:41:14:GLU:HB3	2.18	0.43
31:41:42:GLY:O	31:41:43:LEU:HD13	2.19	0.43
32:51:152:ARG:HB3	32:51:153:LYS:NZ	2.28	0.43
36:78:61:ARG:HB3	54:Q8:27:THR:HG22	1.99	0.43
36:78:121:LYS:HE2	36:78:121:LYS:HB3	1.72	0.43
40:B8:108:ARG:HA	40:B8:111:ARG:NE	2.33	0.43
42:D8:45:THR:O	42:D8:47:VAL:HG12	2.18	0.43
49:K8:4:SER:N	49:K8:7:ARG:HD2	2.34	0.43
54:Q8:41:ILE:HG13	54:Q8:42:ARG:N	2.33	0.43
1:1G:176:C:H2'	1:1G:177:C:C6	2.51	0.43
1:1G:448:A:OP2	1:1G:485:G:N2	2.45	0.43
1:1G:617:G:H4'	16:7A:44:THR:HB	2.00	0.43
1:1G:1054:C:N4	24:1L:35:G:C8	2.86	0.43
2:12:12:GLU:HB2	2:12:16:HIS:ND1	2.34	0.43
3:22:18:TRP:HE1	14:5A:56:VAL:H	1.66	0.43
5:42:55:VAL:O	5:42:58:ALA:HB3	2.19	0.43
5:42:124:GLY:O	5:42:126:ARG:HG3	2.19	0.43
13:4A:96:LEU:N	13:4A:110:ARG:HH21	2.16	0.43
16:7A:14:ASN:OD1	16:7A:42:ARG:NH2	2.52	0.43
26:14:221:A:N6	26:14:265:A:C8	2.86	0.43
26:14:817:C:C5	26:14:818:G:N7	2.87	0.43
26:14:844:C:C5	26:14:845:G:C6	3.07	0.43
26:14:1385:G:O2'	26:14:1396:U:H6	1.96	0.43
26:14:1496:A:C8	26:14:1577:C:O2'	2.69	0.43
26:14:1496:A:H2'	26:14:1498:C:C5	2.54	0.43
26:14:2852:G:H2'	26:14:2853:C:C6	2.54	0.43
26:14:2861:G:C2	26:14:2862:G:C4	3.06	0.43
26:14:2876:G:H4'	40:75:3:ARG:HD2	2.01	0.43
29:29:4:ILE:HD12	29:29:28:ALA:HB1	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:49:122:PRO:HB3	31:49:170:ARG:HH12	1.83	0.43
38:55:86:ARG:NH2	38:55:87:TYR:OH	2.52	0.43
44:B5:83:VAL:HG22	44:B5:87:GLN:HB2	2.00	0.43
1:13:593:G:H2'	1:13:594:G:C8	2.54	0.43
1:13:593:G:H2'	1:13:594:G:O4'	2.18	0.43
3:2E:79:ARG:NH2	11:2A:105:VAL:HG13	2.32	0.43
3:2E:95:THR:HB	3:2E:97:LYS:HZ1	1.84	0.43
11:2I:13:GLN:HG3	11:2I:75:TYR:O	2.18	0.43
13:4I:15:VAL:HG23	13:4I:43:THR:O	2.18	0.43
13:4I:36:LYS:HG3	13:4I:59:TYR:OH	2.18	0.43
17:8I:70:ARG:C	17:8I:71:PHE:HD1	2.22	0.43
23:2K:2:G:H2'	23:2K:3:C:H6	1.83	0.43
23:2K:63:C:H2'	23:2K:64:G:C8	2.54	0.43
24:3K:17:G:H1'	24:3K:18:G:OP1	2.19	0.43
26:1H:116:C:O2'	26:1H:117:G:H5'	2.19	0.43
26:1H:312:G:H5'	26:1H:331:A:O2'	2.18	0.43
26:1H:575:A:OP2	26:1H:2055:C:N4	2.50	0.43
26:1H:583:G:C5	26:1H:584:C:C5	3.06	0.43
26:1H:882:G:H2'	26:1H:883:G:N7	2.33	0.43
26:1H:1255:U:H1'	59:1H:4012:HOH:O	2.18	0.43
26:1H:1484:G:C2	26:1H:1485:G:C8	3.07	0.43
26:1H:1858:G:H8	26:1H:1858:G:OP2	2.02	0.43
26:1H:1946:U:H2'	26:1H:1947:C:C6	2.54	0.43
26:1H:2017:U:O2	52:N8:10:LYS:HB2	2.19	0.43
26:1H:2607:G:H4'	59:1H:3780:HOH:O	2.17	0.43
26:1H:2679:A:H4'	29:21:165:VAL:HG11	2.01	0.43
27:16:31:C:N4	39:A8:32:LEU:HD22	2.34	0.43
28:11:61:LEU:HD13	28:11:61:LEU:HA	1.70	0.43
28:11:92:ILE:H	28:11:92:ILE:HG13	1.72	0.43
29:21:6:GLY:HA2	29:21:51:PHE:CZ	2.54	0.43
30:31:78:ILE:HA	30:31:83:PHE:CD2	2.54	0.43
30:31:185:ASP:HA	30:31:188:ARG:CD	2.48	0.43
32:51:19:VAL:HG12	32:51:20:ALA:N	2.33	0.43
32:51:170:ARG:HA	32:51:170:ARG:HD3	1.89	0.43
34:58:4:TYR:CD2	41:C8:100:VAL:HG11	2.54	0.43
34:58:78:TYR:CD1	34:58:78:TYR:N	2.84	0.43
36:78:147:LEU:HA	36:78:147:LEU:HD12	1.74	0.43
37:88:59:ARG:C	37:88:61:GLY:H	2.21	0.43
39:A8:89:ARG:HG3	39:A8:92:TYR:O	2.19	0.43
40:B8:125:ARG:O	40:B8:129:ARG:N	2.49	0.43
46:H8:92:SER:O	46:H8:130:PRO:HG2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:106:C:C2'	1:1G:107:G:H5'	2.48	0.43
1:1G:440:A:H8	1:1G:440:A:OP2	2.02	0.43
1:1G:540:G:H2'	1:1G:541:G:O4'	2.19	0.43
1:1G:581:G:OP1	15:6A:61:GLY:HA3	2.18	0.43
1:1G:1190:G:H5'	3:22:176:HIS:NE2	2.34	0.43
1:1G:1213:A:N6	1:1G:1215:G:N3	2.67	0.43
1:1G:1342:C:H1'	9:82:124:GLN:NE2	2.33	0.43
1:1G:1367:C:H5'	10:1A:60:ARG:HH21	1.84	0.43
1:1G:1369:C:H2'	1:1G:1370:G:O4'	2.19	0.43
3:22:5:ILE:HG12	3:22:6:HIS:N	2.34	0.43
3:22:76:VAL:HG22	3:22:77:ILE:HG13	2.00	0.43
8:72:109:ILE:HG22	8:72:137:VAL:HB	1.99	0.43
13:4A:22:ILE:HB	13:4A:25:ILE:CG1	2.49	0.43
17:8A:44:ALA:HA	17:8A:71:PHE:O	2.16	0.43
17:8A:52:LYS:N	17:8A:55:ASP:OD2	2.51	0.43
19:AA:66:MET:HA	19:AA:67:VAL:C	2.39	0.43
20:BA:35:THR:O	20:BA:39:LYS:N	2.48	0.43
26:14:27:G:N2	26:14:512:G:O2'	2.45	0.43
26:14:298:G:O5'	26:14:298:G:H8	2.01	0.43
26:14:729:G:O4'	28:19:208:LYS:NZ	2.50	0.43
26:14:941:A:H2'	26:14:942:G:C8	2.54	0.43
27:1J:79:C:H2'	27:1J:80:U:O4'	2.19	0.43
29:29:63:LEU:CD2	29:29:63:LEU:H	2.31	0.43
29:29:170:LEU:HA	29:29:170:LEU:HD13	1.62	0.43
29:29:182:LEU:HD12	29:29:182:LEU:HA	1.65	0.43
30:39:5:ALA:HB1	30:39:125:LEU:HD21	2.01	0.43
31:49:59:GLU:CD	31:49:153:ARG:HH21	2.22	0.43
32:59:3:ARG:HG3	32:59:4:ILE:H	1.83	0.43
36:35:59:LEU:O	36:35:59:LEU:HD22	2.18	0.43
39:65:29:PHE:O	39:65:35:ILE:HD12	2.19	0.43
39:65:66:ALA:HA	39:65:69:VAL:HG12	1.99	0.43
42:95:55:ALA:HA	42:95:101:GLY:HA2	2.00	0.43
47:E5:82:ARG:HA	47:E5:83:PRO:HD2	1.71	0.43
51:I5:23:GLU:O	51:I5:24:THR:OG1	2.37	0.43
1:13:9:G:C6	1:13:26:A:N6	2.87	0.43
1:13:38:G:C2	1:13:397:A:C2	3.07	0.43
1:13:55:A:H2	33:69:82:ARG:HD3	1.83	0.43
1:13:109:A:N7	1:13:326:G:H2'	2.34	0.43
1:13:134:A:H1'	1:13:325:A:C4	2.54	0.43
1:13:445:G:H1	1:13:489:C:N4	2.09	0.43
1:13:539:A:OP1	12:3I:114:LYS:HE2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:804:U:H5'	1:13:805:C:OP2	2.17	0.43
2:1E:8:LYS:HD3	2:1E:8:LYS:N	2.34	0.43
2:1E:179:LYS:HA	8:7E:72:PRO:HD3	2.00	0.43
5:4E:53:LEU:HD23	5:4E:53:LEU:HA	1.69	0.43
8:7E:34:GLU:HB3	8:7E:118:VAL:HG21	2.00	0.43
9:8E:48:GLU:N	9:8E:49:PRO:HD2	2.33	0.43
13:4I:22:ILE:HB	13:4I:25:ILE:HD12	2.01	0.43
20:BI:31:SER:HA	20:BI:34:LYS:HE3	2.01	0.43
22:1K:11:C:H2'	22:1K:12:C:C6	2.48	0.43
26:1H:754:C:H2'	26:1H:755:C:C6	2.53	0.43
26:1H:755:C:H2'	26:1H:756:C:H6	1.84	0.43
26:1H:997:G:OP1	41:C8:93:LYS:N	2.46	0.43
26:1H:1385:G:O2'	26:1H:1396:U:C6	2.67	0.43
26:1H:2518:A:H8	26:1H:2518:A:H5'	1.84	0.43
30:31:181:LEU:HD23	30:31:181:LEU:HA	1.85	0.43
32:51:98:LEU:HD12	32:51:98:LEU:HA	1.76	0.43
33:61:68:LEU:HA	33:61:71:ILE:CG2	2.49	0.43
35:68:31:LYS:HB3	35:68:32:TYR:CE2	2.54	0.43
45:G8:29:GLU:HB3	45:G8:38:ILE:HG22	2.01	0.43
1:1G:110:C:H2'	1:1G:111:G:O4'	2.19	0.43
1:1G:707:C:H2'	1:1G:708:C:C6	2.53	0.43
1:1G:825:G:H1	1:1G:875:C:H42	1.65	0.43
1:1G:1218:C:OP2	14:5A:9:LYS:NZ	2.45	0.43
2:12:111:ARG:HD3	2:12:111:ARG:HA	1.44	0.43
2:12:176:GLU:HA	2:12:179:LYS:HB3	2.01	0.43
2:12:182:ILE:H	2:12:182:ILE:HD12	1.84	0.43
4:32:9:CYS:SG	4:32:31:CYS:O	2.77	0.43
5:42:36:ASP:OD2	5:42:40:ARG:HG3	2.19	0.43
5:42:118:ILE:HG12	5:42:119:LEU:H	1.84	0.43
7:62:143:ARG:NH1	55:3L:43:G:H5'	2.33	0.43
10:1A:16:LEU:HD23	10:1A:16:LEU:HA	1.85	0.43
10:1A:84:GLN:O	10:1A:88:LEU:HB2	2.19	0.43
19:AA:7:LYS:HE3	19:AA:7:LYS:HB3	1.87	0.43
24:1L:31:G:H2'	24:1L:32:A:C8	2.54	0.43
26:14:74:A:H4'	26:14:75:G:O5'	2.18	0.43
26:14:77:C:H2'	26:14:78:A:O4'	2.19	0.43
26:14:521:G:H2'	26:14:522:G:H8	1.84	0.43
26:14:528:A:C8	26:14:528:A:H3'	2.54	0.43
26:14:699:A:H2'	26:14:700:G:O4'	2.18	0.43
26:14:996:A:C2	26:14:997:G:C8	3.07	0.43
26:14:1036:G:H2'	26:14:1037:G:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1210:A:H5'	26:14:1212:G:O4'	2.18	0.43
26:14:1332:G:C8	26:14:1332:G:H5'	2.54	0.43
26:14:1357:U:C4	26:14:1358:G:C5	3.07	0.43
26:14:1496:A:H1'	26:14:1577:C:HO2'	1.83	0.43
26:14:1771:C:HO2'	26:14:1786:A:H8	1.67	0.43
26:14:1925:C:O2'	26:14:1926:U:H5'	2.19	0.43
26:14:2078:C:H2'	26:14:2079:U:C6	2.54	0.43
26:14:2798:C:N4	26:14:2799:A:H62	2.17	0.43
27:1J:14:U:H4'	27:1J:15:A:OP2	2.18	0.43
27:1J:35:U:H2'	27:1J:36:C:O4'	2.19	0.43
34:15:33:LEU:HD12	34:15:33:LEU:HA	1.77	0.43
36:35:2:LYS:HB2	36:35:2:LYS:HE3	1.85	0.43
37:45:133:ARG:HB3	37:45:135:ASP:HB3	2.00	0.43
41:85:97:ASP:OD2	41:85:101:ARG:NE	2.51	0.43
44:B5:49:VAL:HB	44:B5:83:VAL:CG2	2.48	0.43
44:B5:65:ARG:HB3	44:B5:70:LEU:HA	2.00	0.43
46:D5:24:LEU:HA	46:D5:25:PRO:HD3	1.89	0.43
47:E5:50:ASN:C	47:E5:62:LEU:HB2	2.39	0.43
51:I5:43:TYR:O	51:I5:43:TYR:CG	2.72	0.43
1:13:156:G:H1'	1:13:166:G:H22	1.84	0.43
1:13:192:U:H4'	20:BI:103:GLY:HA2	2.00	0.43
2:1E:21:ARG:O	2:1E:23:ARG:N	2.52	0.43
4:3E:28:SER:OG	4:3E:30:LYS:HE3	2.18	0.43
9:8E:25:LYS:N	9:8E:60:ASP:OD1	2.49	0.43
12:3I:20:LYS:H	12:3I:20:LYS:HD3	1.84	0.43
12:3I:85:ILE:HA	12:3I:85:ILE:HD13	1.79	0.43
15:6I:17:ARG:HH11	15:6I:77:ARG:HH11	1.66	0.43
16:7I:57:ARG:HH21	16:7I:79:VAL:HA	1.84	0.43
19:AI:67:VAL:HG12	51:M8:59:PHE:HB3	2.00	0.43
21:1F:9:ARG:NH2	21:1F:23:PRO:HD2	2.34	0.43
26:1H:991:C:H2'	26:1H:992:C:C6	2.53	0.43
26:1H:2105:C:H2'	26:1H:2106:G:H8	1.84	0.43
26:1H:2137:C:H1'	26:1H:2155:G:N2	2.33	0.43
26:1H:2157:G:HO2'	26:1H:2158:A:P	2.42	0.43
26:1H:2473:U:O2	26:1H:2473:U:H2'	2.19	0.43
28:11:12:SER:HB2	28:11:207:GLY:O	2.18	0.43
29:21:116:VAL:HG13	29:21:122:PHE:CD2	2.54	0.43
33:61:44:LEU:HD12	33:61:44:LEU:HA	1.94	0.43
35:68:2:ILE:HG23	35:68:6:THR:HG21	2.01	0.43
42:D8:9:GLY:O	42:D8:10:LYS:HG3	2.18	0.43
46:H8:81:ARG:HG3	46:H8:81:ARG:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:H8:101:PRO:HA	46:H8:123:ASP:HB3	1.99	0.43
48:J8:81:LYS:HA	48:J8:81:LYS:HD2	1.57	0.43
49:K8:64:LEU:HD21	49:K8:68:ARG:NH1	2.33	0.43
53:P8:15:THR:HG22	53:P8:16:HIS:CE1	2.54	0.43
1:1G:440:A:H3'	1:1G:442:C:C6	2.54	0.43
1:1G:537:G:H5''	12:3A:113:ARG:HH12	1.83	0.43
1:1G:973:G:H3'	1:1G:974:A:H5''	2.01	0.43
1:1G:1512:U:H2'	1:1G:1513:A:C8	2.53	0.43
2:12:91:PRO:HG3	2:12:154:LEU:CB	2.44	0.43
3:22:47:LEU:HD23	3:22:68:VAL:HG11	1.99	0.43
4:32:193:ASP:OD1	4:32:193:ASP:N	2.52	0.43
7:62:76:ARG:HB2	7:62:89:MET:HG3	2.00	0.43
13:4A:94:ARG:O	13:4A:96:LEU:N	2.52	0.43
15:6A:7:GLU:O	15:6A:11:VAL:HG23	2.19	0.43
55:3L:13:G:H1'	55:3L:23:A:N6	2.29	0.43
26:14:61:G:OP1	49:G5:51:ARG:HD2	2.19	0.43
26:14:270(E):G:C2	26:14:270(V):G:C2	3.06	0.43
26:14:330:A:H2	26:14:1210:A:HO2'	1.63	0.43
26:14:654(F):C:H2'	26:14:654(G):C:O4'	2.19	0.43
26:14:1260:G:H2'	26:14:1261:C:C6	2.54	0.43
26:14:2286:A:H4'	26:14:2287:A:O4'	2.19	0.43
26:14:2567:G:H2'	26:14:2568:C:C6	2.53	0.43
27:1J:63:G:H2'	27:1J:64:C:C6	2.54	0.43
28:19:43:ARG:HA	28:19:49:ILE:HA	2.01	0.43
33:69:73:GLU:HG3	33:69:136:VAL:HG23	2.00	0.43
34:15:1:MET:HG2	42:95:13:ARG:H	1.84	0.43
34:15:71:ILE:HD12	34:15:71:ILE:H	1.84	0.43
42:95:37:VAL:CG2	42:95:57:VAL:H	2.27	0.43
46:D5:29:TYR:HA	46:D5:33:LEU:O	2.19	0.43
53:L5:12:ARG:NH2	53:L5:44:PRO:HB3	2.34	0.43
1:13:49:U:O2'	1:13:50:A:H3'	2.18	0.42
1:13:122:G:H1	1:13:239:U:H3	1.67	0.42
1:13:375:U:OP1	16:7I:69:THR:HG21	2.19	0.42
1:13:720:C:N3	1:13:721:G:C6	2.87	0.42
1:13:1286:A:C2	21:1F:18:TYR:OH	2.72	0.42
3:2E:97:LYS:HE2	3:2E:97:LYS:HB2	1.76	0.42
4:3E:141:ARG:HB2	4:3E:141:ARG:HH11	1.84	0.42
13:4I:4:ILE:HG22	13:4I:5:ALA:N	2.27	0.42
22:1K:20:C:O2'	22:1K:68:A:N7	2.52	0.42
23:2K:59:A:H4'	23:2K:60:A:OP1	2.19	0.42
26:1H:432:A:H2'	26:1H:433:C:H6	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:511:U:C5	26:1H:512:G:C5	3.07	0.42
26:1H:743:G:O3'	59:1H:3579:HOH:O	2.22	0.42
26:1H:844:C:H2'	26:1H:845:G:O4'	2.19	0.42
26:1H:945:A:OP2	26:1H:945:A:H4'	2.18	0.42
26:1H:1137:G:H2'	26:1H:1138:G:C8	2.53	0.42
26:1H:1138:G:H2'	26:1H:1139:G:O4'	2.19	0.42
26:1H:1178:C:H1'	26:1H:1179:C:O5'	2.18	0.42
26:1H:1321:A:H2'	26:1H:1322:A:O4'	2.19	0.42
26:1H:1339:G:H21	26:1H:1603:A:H1'	1.84	0.42
26:1H:1348:G:C2'	26:1H:1349:A:H5''	2.49	0.42
26:1H:1509:C:H42	26:1H:1511:A:H62	1.65	0.42
26:1H:1716:U:O2'	26:1H:1717:G:H5'	2.18	0.42
26:1H:1931:U:O2	26:1H:1931:U:O4'	2.36	0.42
26:1H:2052:G:H4'	29:21:143:ASN:O	2.18	0.42
26:1H:2358:G:C5	26:1H:2359:C:C5	3.07	0.42
26:1H:2616:C:H2'	26:1H:2617:C:H6	1.84	0.42
27:16:15:A:H1'	27:16:109:G:C8	2.54	0.42
31:41:107:LEU:O	51:M8:38:LYS:HD3	2.19	0.42
34:58:31:ALA:O	34:58:35:ARG:HG2	2.19	0.42
34:58:128:HIS:HB2	34:58:129:PRO:HD2	2.01	0.42
1:1G:362:G:H3'	12:3A:34:ARG:HH21	1.83	0.42
1:1G:445:G:H2'	1:1G:446:G:C8	2.54	0.42
1:1G:498:A:H4'	1:1G:500:G:OP1	2.20	0.42
1:1G:652:U:C5	1:1G:752:G:N3	2.86	0.42
1:1G:1053:G:N7	1:1G:1200:C:H5''	2.34	0.42
1:1G:1075:C:OP1	2:12:179:LYS:HE2	2.19	0.42
8:72:69:ARG:HD3	8:72:75:ARG:O	2.19	0.42
8:72:75:ARG:HA	8:72:76:PRO:HD2	1.83	0.42
8:72:83:ILE:HB	8:72:137:VAL:HG13	2.01	0.42
8:72:97:VAL:HG22	8:72:129:VAL:C	2.39	0.42
9:82:17:VAL:HG11	9:82:81:ILE:HD13	2.01	0.42
12:3A:62:SER:O	12:3A:64:TYR:N	2.52	0.42
20:BA:75:ASN:OD1	20:BA:75:ASN:N	2.42	0.42
26:14:108:U:H2'	26:14:109:G:H8	1.82	0.42
26:14:125:G:C6	53:L5:10:ARG:HG3	2.54	0.42
26:14:809:G:H2'	26:14:810:U:C6	2.54	0.42
26:14:809:G:H2'	26:14:810:U:H6	1.84	0.42
26:14:1050:A:N3	26:14:2751:G:H2'	2.34	0.42
26:14:1076:C:H2'	26:14:1077:A:H5'	2.01	0.42
26:14:1171:G:H2'	26:14:1171:G:OP2	2.19	0.42
26:14:1186:G:H2'	26:14:1187:G:O4'	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1204:A:HO2'	26:14:1205:U:P	2.41	0.42
26:14:1682:G:C2	26:14:1683:C:C2	3.07	0.42
26:14:2135:A:C5	26:14:2156:G:N2	2.86	0.42
26:14:2142:C:H2'	26:14:2143:C:C6	2.53	0.42
26:14:2420:C:H41	54:M5:31:HIS:CB	2.22	0.42
26:14:2734:A:H2'	26:14:2735:G:O4'	2.18	0.42
26:14:2849:U:H4'	26:14:2868:A:C2	2.54	0.42
27:1J:33:G:N3	27:1J:50:G:N2	2.67	0.42
28:19:89:SER:HB2	28:19:159:ALA:HB2	2.01	0.42
31:49:2:PRO:HG2	51:I5:25:TYR:CE2	2.54	0.42
33:69:126:TYR:O	33:69:139:GLN:HA	2.19	0.42
37:45:66:ILE:HG13	37:45:67:ARG:N	2.33	0.42
42:95:37:VAL:HG23	42:95:56:SER:HA	1.99	0.42
43:A5:24:ILE:O	43:A5:27:LYS:HG3	2.18	0.42
47:E5:12:ASN:HA	47:E5:14:ARG:NH2	2.34	0.42
53:L5:5:TRP:NE1	53:L5:7:PRO:HG3	2.33	0.42
1:13:33:A:C6	1:13:34:C:N4	2.87	0.42
1:13:42:G:H2'	1:13:43:C:O4'	2.19	0.42
1:13:112:G:OP1	16:7I:27:LYS:HD2	2.19	0.42
1:13:257:G:N1	1:13:258:G:C5	2.87	0.42
1:13:668:G:O2'	15:6I:46:HIS:HB3	2.19	0.42
1:13:712:A:C6	1:13:713:G:C6	3.07	0.42
1:13:814:A:N7	1:13:816:A:C4	2.87	0.42
1:13:843:U:H5'	1:13:848:C:C5	2.55	0.42
1:13:1124:G:C8	1:13:1145:C:C5	3.07	0.42
1:13:1132:C:O2'	1:13:1133:G:H5'	2.19	0.42
1:13:1318:A:H5''	19:AI:10:PHE:CD2	2.54	0.42
1:13:1320:C:O2	19:AI:36:ARG:NH2	2.45	0.42
1:13:1413:A:H2'	1:13:1414:U:O4'	2.19	0.42
2:1E:97:TRP:CH2	2:1E:173:ALA:HA	2.54	0.42
13:4I:84:ILE:CG2	13:4I:86:CYS:HB2	2.48	0.42
16:7I:3:LYS:O	16:7I:21:VAL:HA	2.18	0.42
20:BI:23:ARG:HA	20:BI:26:ASN:HD21	1.84	0.42
22:1K:35:QUO:H5''	22:1K:36:U:OP2	2.19	0.42
26:1H:140:A:C8	26:1H:1408:C:O2'	2.66	0.42
26:1H:182:A:H2'	26:1H:183:C:C6	2.54	0.42
26:1H:282:A:C4	26:1H:359:A:C2	3.07	0.42
26:1H:962:G:C2	26:1H:963:U:C2	3.07	0.42
26:1H:1164:G:H2'	26:1H:1165:U:H6	1.83	0.42
26:1H:1225:C:O2'	42:D8:85:LYS:HA	2.20	0.42
26:1H:1387:C:O2	26:1H:1388:G:C8	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2746:U:O4	26:1H:2755:C:H4'	2.19	0.42
26:1H:2830:G:H5''	26:1H:2830:G:H8	1.84	0.42
26:1H:2850:A:OP2	26:1H:2866:U:N3	2.31	0.42
26:1H:2860:A:N7	26:1H:2861:G:H1'	2.34	0.42
28:11:202:LYS:HG3	28:11:203:ASN:OD1	2.19	0.42
31:41:83:ARG:HG2	31:41:86:MET:HE2	2.02	0.42
31:41:116:ASP:HB3	31:41:117:PHE:H	1.61	0.42
32:51:124:GLU:HG2	32:51:126:PRO:HG3	2.00	0.42
34:58:20:GLY:HA2	34:58:61:ARG:HD3	2.01	0.42
36:78:106:LEU:HD13	36:78:107:LYS:O	2.19	0.42
37:88:85:LYS:HG2	37:88:86:GLY:N	2.34	0.42
38:98:60:LEU:O	38:98:64:ARG:HG3	2.19	0.42
47:I8:41:ARG:NE	47:I8:41:ARG:HA	2.33	0.42
48:J8:60:PHE:HE2	48:J8:91:LYS:NZ	2.17	0.42
48:J8:90:ILE:HG22	48:J8:94:LEU:HD12	2.00	0.42
1:1G:90:C:H2'	1:1G:91:C:O4'	2.19	0.42
1:1G:197:A:H8	1:1G:198:G:N9	2.17	0.42
1:1G:374:A:C6	1:1G:375:U:C4	3.07	0.42
1:1G:512:U:H2'	1:1G:513:C:C6	2.55	0.42
1:1G:631:G:H3'	1:1G:632:A:H8	1.84	0.42
1:1G:696:A:N3	1:1G:786:G:O2'	2.38	0.42
1:1G:993:G:O2'	1:1G:994:A:N7	2.51	0.42
4:32:24:GLU:O	4:32:27:TYR:N	2.52	0.42
5:42:11:ILE:HB	5:42:31:LEU:HD12	2.01	0.42
6:52:53:ALA:HB3	6:52:86:ARG:HD3	2.00	0.42
8:72:83:ILE:HG13	8:72:137:VAL:HG22	2.01	0.42
10:1A:38:ILE:HB	10:1A:71:LEU:O	2.19	0.42
24:1L:46:G:N2	24:1L:55:U:O4	2.52	0.42
26:14:7:G:C2	26:14:8:A:C4	3.07	0.42
26:14:521:G:H2'	26:14:522:G:C8	2.55	0.42
26:14:768:G:H2'	26:14:769:G:C8	2.52	0.42
26:14:1324:G:H4'	26:14:1616:A:C2	2.54	0.42
26:14:1468:C:H2'	26:14:1469:A:C8	2.54	0.42
26:14:2051:A:H8	26:14:2051:A:OP2	2.03	0.42
26:14:2319:G:H4'	26:14:2320:A:O4'	2.19	0.42
26:14:2439:A:C8	26:14:2439:A:C5'	3.02	0.42
26:14:2612:C:OP2	52:J5:2:ALA:HB3	2.18	0.42
26:14:2847:U:OP1	40:75:98:LYS:HE2	2.19	0.42
27:1J:73:A:C4	27:1J:104:A:C2	3.07	0.42
30:39:20:LEU:HD12	30:39:199:TRP:CH2	2.55	0.42
30:39:170:LEU:HA	30:39:171:PRO:HD3	1.70	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:59:22:GLY:O	32:59:37:VAL:HG12	2.18	0.42
32:59:125:VAL:HG22	32:59:126:PRO:CD	2.49	0.42
33:69:7:GLU:HA	33:69:15:VAL:HG22	2.01	0.42
33:69:102:SER:OG	33:69:103:ARG:N	2.51	0.42
33:69:145:VAL:HB	33:69:146:ALA:H	1.53	0.42
34:15:28:THR:HG22	34:15:29:LYS:N	2.34	0.42
37:45:117:ALA:HA	37:45:120:ILE:HB	2.00	0.42
39:65:67:ARG:CZ	39:65:67:ARG:HB2	2.49	0.42
40:75:112:ARG:CZ	40:75:113:LYS:HE2	2.50	0.42
40:75:125:ARG:HB3	40:75:129:ARG:NH2	2.34	0.42
42:95:24:LYS:HA	42:95:92:THR:OG1	2.19	0.42
45:C5:2:ARG:HE	45:C5:2:ARG:HB3	1.40	0.42
47:E5:26:TYR:HB2	47:E5:29:GLN:OE1	2.18	0.42
1:13:11:G:C6	1:13:12:U:C4	3.06	0.42
1:13:131:C:H2'	1:13:132:C:C6	2.54	0.42
1:13:515:G:O5'	1:13:515:G:H8	2.01	0.42
1:13:724:G:O2'	1:13:725:G:H5'	2.19	0.42
1:13:917:G:H2'	1:13:918:A:C8	2.54	0.42
1:13:1240:U:P	7:6E:116:ALA:HB2	2.60	0.42
11:2I:12:ARG:HE	11:2I:12:ARG:HB2	1.43	0.42
17:8I:100:LYS:HB3	17:8I:101:ARG:NE	2.34	0.42
22:1K:53:A:H2'	22:1K:54:C:H5'	2.02	0.42
26:1H:197:A:N6	26:1H:2430:A:H2'	2.34	0.42
26:1H:649:G:C5	26:1H:650:C:C4	3.07	0.42
26:1H:686:G:N7	53:P8:5:TRP:CH2	2.88	0.42
26:1H:1419:A:C8	26:1H:1421:G:C6	3.07	0.42
26:1H:1999:C:H5''	26:1H:2723:C:O2'	2.18	0.42
26:1H:2092:U:H4'	26:1H:2093:G:O5'	2.19	0.42
26:1H:2807:G:H3'	26:1H:2808:U:H5''	1.99	0.42
28:11:78:LYS:HA	28:11:115:GLN:O	2.19	0.42
30:31:123:LEU:HD13	30:31:192:LEU:HD22	2.02	0.42
32:51:117:PRO:HB3	32:51:123:PHE:CE2	2.55	0.42
34:58:72:TYR:OH	34:58:98:VAL:HG23	2.19	0.42
34:58:137:LYS:HG3	34:58:138:LEU:O	2.19	0.42
51:M8:43:TYR:CE2	51:M8:44:THR:HG23	2.54	0.42
1:1G:277:C:P	17:8A:68:ARG:HH12	2.41	0.42
1:1G:620:C:C2	4:32:135:LEU:HD23	2.55	0.42
1:1G:1032(B):G:H2'	1:1G:1033:G:C8	2.53	0.42
1:1G:1053:G:C6	1:1G:1199:U:H2'	2.54	0.42
1:1G:1135:U:O2'	1:1G:1136:U:H5	2.01	0.42
1:1G:1423:G:H2'	1:1G:1424:C:C6	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:103:GLY:O	5:42:106:PRO:HD2	2.18	0.42
6:52:25:ILE:H	6:52:25:ILE:HG12	1.64	0.42
20:BA:30:LYS:O	20:BA:34:LYS:HG3	2.19	0.42
24:1L:57:C:C2	24:1L:68:A:H1'	2.54	0.42
55:3L:23:A:C6	55:3L:24:G:C2	3.07	0.42
26:14:195:A:H61	26:14:198:C:H3'	1.83	0.42
26:14:745:G:H5''	26:14:746:A:OP2	2.20	0.42
26:14:1062:G:H2'	26:14:1063:G:H8	1.83	0.42
26:14:1165:U:H2'	26:14:1166:C:C6	2.55	0.42
26:14:1408:C:C2	26:14:1595:G:N2	2.87	0.42
26:14:2252:G:H2'	26:14:2253:G:O4'	2.18	0.42
26:14:2375:G:O2'	26:14:2377:A:N7	2.44	0.42
26:14:2472:G:H2'	26:14:2475:C:N4	2.27	0.42
26:14:2674:G:H4'	35:25:30:ALA:HB2	2.00	0.42
36:35:47:ASP:HB3	36:35:49:ARG:H	1.83	0.42
51:I5:40:HIS:N	51:I5:41:PRO:HD3	2.35	0.42
1:13:522:C:H2'	1:13:523:A:O4'	2.19	0.42
1:13:595:G:H1	1:13:641:U:HO2'	1.68	0.42
1:13:836:G:C6	1:13:851:G:C6	3.07	0.42
1:13:1332:A:C2	1:13:1333:A:C4	3.08	0.42
2:1E:70:PHE:HB2	2:1E:92:TYR:CB	2.49	0.42
4:3E:135:LEU:HA	4:3E:136:PRO:HD2	1.81	0.42
5:4E:35:GLY:H	5:4E:112:LEU:HD13	1.84	0.42
5:4E:110:LEU:HD13	5:4E:118:ILE:HG21	2.01	0.42
6:5E:97:PHE:O	18:9I:31:LEU:HD22	2.19	0.42
8:7E:100:ILE:HA	8:7E:101:PRO:HD3	1.74	0.42
10:1I:5:ARG:O	10:1I:98:ILE:HA	2.20	0.42
10:1I:25:GLU:O	10:1I:29:ARG:HB3	2.20	0.42
22:1K:38:MIA:H2'	22:1K:39:A:O4'	2.19	0.42
24:3K:52:G:H2'	24:3K:53:A:O4'	2.18	0.42
26:1H:185:U:C2	26:1H:186:G:C8	3.07	0.42
26:1H:270(O):U:O5'	26:1H:270(O):U:H6	2.03	0.42
26:1H:363(F):A:H4'	26:1H:364:C:H5'	2.01	0.42
26:1H:1509:C:C2	26:1H:1511:A:N7	2.88	0.42
26:1H:1665:A:H1'	35:68:1:MET:HG3	2.02	0.42
26:1H:1858:G:HO2'	26:1H:1859:A:C5'	2.29	0.42
26:1H:2287:A:N3	26:1H:2289:G:C8	2.87	0.42
26:1H:2442:C:H2'	26:1H:2443:C:H6	1.83	0.42
26:1H:2864:G:O2'	26:1H:2865:U:H5'	2.19	0.42
27:16:31:C:H2'	27:16:32:C:C6	2.54	0.42
34:58:7:LYS:HD2	34:58:7:LYS:H	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:58:12:ARG:HD2	34:58:50:ASP:OD1	2.18	0.42
45:G8:43:ASN:OD1	45:G8:65:ALA:HB3	2.19	0.42
46:H8:163:LEU:H	46:H8:163:LEU:HD12	1.84	0.42
1:1G:76:G:C6	1:1G:77:C:C4	3.08	0.42
1:1G:229:U:H5''	16:7A:33:ILE:HD13	2.02	0.42
1:1G:254:G:OP1	17:8A:67:LYS:O	2.36	0.42
1:1G:272:C:H2'	1:1G:273:A:H8	1.84	0.42
1:1G:521:G:H4'	12:3A:73:GLU:HG3	2.00	0.42
1:1G:791:G:O6	1:1G:792:A:N6	2.49	0.42
1:1G:885:G:O2'	1:1G:914:A:N1	2.39	0.42
1:1G:1227:A:H8	1:1G:1227:A:H3'	1.85	0.42
1:1G:1286:A:C8	1:1G:1286:A:C3'	3.02	0.42
4:32:108:LEU:HD11	4:32:174:LEU:HB3	2.01	0.42
7:62:115:ARG:O	7:62:119:ARG:HG3	2.19	0.42
11:2A:58:PRO:HB2	11:2A:93:GLN:HG3	2.01	0.42
13:4A:59:TYR:O	13:4A:63:THR:OG1	2.38	0.42
16:7A:53:VAL:O	16:7A:57:ARG:HG3	2.20	0.42
26:14:528:A:H3'	26:14:528:A:H8	1.84	0.42
26:14:673:C:H5''	30:39:81:PRO:HD2	2.01	0.42
26:14:714:U:O2	26:14:716:A:C8	2.73	0.42
26:14:807:U:C2	26:14:808:G:C8	3.08	0.42
26:14:883:G:C6	26:14:884:C:N4	2.87	0.42
26:14:1317:A:H2'	26:14:1318:C:C6	2.53	0.42
26:14:2258:C:O2'	26:14:2427:C:OP2	2.35	0.42
26:14:2780:G:OP2	34:15:118:LYS:HD3	2.20	0.42
26:14:2845:G:H5''	40:75:54:ARG:O	2.20	0.42
27:1J:31:C:H4'	31:49:29:TRP:CH2	2.54	0.42
28:19:26:LYS:HZ3	28:19:30:GLU:HB2	1.83	0.42
30:39:153:SER:OG	30:39:190:GLU:HB2	2.19	0.42
32:59:6:ARG:HG2	32:59:7:LEU:H	1.84	0.42
33:69:77:LEU:HA	33:69:141:LYS:HB3	2.00	0.42
40:75:14:TYR:HD1	40:75:14:TYR:H	1.66	0.42
41:85:27:LEU:HD22	41:85:27:LEU:HA	1.81	0.42
41:85:91:ASP:C	41:85:92:ARG:HG3	2.38	0.42
41:85:98:LEU:HB2	41:85:102:GLU:HB2	2.01	0.42
45:C5:43:ASN:N	45:C5:43:ASN:OD1	2.53	0.42
46:D5:156:LYS:H	46:D5:156:LYS:HG2	1.60	0.42
50:H5:59:VAL:HG12	50:H5:60:GLU:N	2.34	0.42
1:13:109:A:C6	1:13:326:G:C6	3.08	0.42
1:13:192:U:C4'	20:BI:103:GLY:HA2	2.49	0.42
1:13:443:C:H42	1:13:491:G:H1	1.66	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:509:A:H5''	4:3E:55:ALA:HB2	2.00	0.42
1:13:834:C:C2	1:13:853:G:C2	3.08	0.42
3:2E:142:MET:SD	3:2E:148:GLY:HA2	2.59	0.42
4:3E:7:PRO:CB	4:3E:10:ARG:HG2	2.49	0.42
7:6E:27:ILE:HA	7:6E:30:ILE:HD12	2.00	0.42
7:6E:113:GLU:H	7:6E:113:GLU:HG2	1.58	0.42
12:3I:41:ARG:HE	12:3I:41:ARG:HB2	1.70	0.42
16:7I:58:TYR:C	16:7I:58:TYR:HD1	2.23	0.42
23:2K:41:C:H5'	24:3K:36:U:O2'	2.19	0.42
26:1H:563:G:P	59:1H:3533:HOH:O	2.77	0.42
26:1H:1372:U:O5'	26:1H:1372:U:H6	2.02	0.42
26:1H:1705:G:C6	26:1H:1706:U:N3	2.88	0.42
26:1H:2111:C:H5	26:1H:2147:G:H1	1.66	0.42
26:1H:2710:C:H2'	26:1H:2711:A:O4'	2.19	0.42
30:31:33:LEU:HD23	36:78:1:MET:HG3	2.00	0.42
30:31:47:GLY:HA3	30:31:95:ARG:O	2.18	0.42
35:68:13:ASN:ND2	35:68:97:ARG:HB2	2.34	0.42
41:C8:106:PHE:O	41:C8:109:LEU:HB2	2.20	0.42
44:F8:89:ILE:HG22	44:F8:92:LEU:HB2	2.01	0.42
52:N8:40:LYS:HD3	52:N8:46:CYS:SG	2.59	0.42
54:Q8:61:LEU:CD1	54:Q8:62:LEU:HD12	2.47	0.42
1:1G:49:U:C2	1:1G:361:G:N2	2.87	0.42
1:1G:407:G:P	4:32:115:ARG:HH21	2.43	0.42
1:1G:453:A:H4'	16:7A:72:ARG:HG3	2.01	0.42
1:1G:523:A:H61	12:3A:92:ASP:HB2	1.83	0.42
1:1G:652:U:O2'	1:1G:653:A:O5'	2.37	0.42
1:1G:918:A:H2'	1:1G:919:A:O4'	2.20	0.42
1:1G:960:U:O2	1:1G:1225:A:C8	2.72	0.42
1:1G:1056:U:OP1	3:22:163:ALA:N	2.50	0.42
1:1G:1069:C:O2'	1:1G:1192:C:H1'	2.18	0.42
1:1G:1112:C:N3	3:22:178:LEU:HD23	2.35	0.42
1:1G:1469:G:H2'	1:1G:1470:G:C8	2.55	0.42
2:12:47:THR:HG23	2:12:202:PRO:HG2	2.02	0.42
3:22:9:GLY:HA3	14:5A:49:HIS:HA	2.01	0.42
11:2A:29:ILE:CG2	11:2A:44:SER:HB2	2.42	0.42
11:2A:48:ILE:HG21	11:2A:63:LEU:HB2	2.01	0.42
20:BA:86:ARG:NH1	20:BA:86:ARG:HB3	2.34	0.42
26:14:797:C:OP2	30:39:62:ARG:HG3	2.18	0.42
26:14:864:G:N2	26:14:913:U:C2	2.87	0.42
26:14:1069:A:H2	26:14:1094:U:N3	2.17	0.42
26:14:1259:G:O2'	26:14:1260:G:H5'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1266:G:O5'	43:A5:15:ARG:NH2	2.52	0.42
28:19:244:ARG:HB2	28:19:245:PRO:HD2	2.01	0.42
35:25:87:ILE:HG13	35:25:91:LEU:HA	2.00	0.42
36:35:13:ASN:C	36:35:15:ARG:N	2.72	0.42
45:C5:36:ALA:O	45:C5:37:VAL:HG13	2.20	0.42
49:G5:10:LEU:HD12	49:G5:10:LEU:HA	1.88	0.42
54:M5:25:MET:O	54:M5:48:PHE:HE1	2.03	0.42
1:13:34:C:H2'	1:13:35:G:C8	2.55	0.42
1:13:486:U:H2'	1:13:487:A:H8	1.84	0.42
1:13:687:A:H2'	1:13:701:C:N4	2.34	0.42
1:13:960:U:C2	1:13:1225:A:C5	3.07	0.42
1:13:1057:G:H2'	1:13:1058:G:O4'	2.19	0.42
4:3E:30:LYS:HB2	4:3E:32:ALA:N	2.35	0.42
10:1I:8:LEU:HB3	10:1I:16:LEU:HD21	2.01	0.42
11:2I:73:MET:CG	11:2I:103:LEU:HD13	2.49	0.42
22:1K:46:G:N2	22:1K:47:U:O2	2.52	0.42
22:1K:57:C:C2	22:1K:68:A:H1'	2.55	0.42
24:3K:49:A:H2'	24:3K:50:U:H5''	2.01	0.42
26:1H:57:C:H2'	26:1H:58:G:O4'	2.18	0.42
26:1H:654(M):C:H5'	26:1H:654(N):G:C5	2.55	0.42
26:1H:751:A:P	59:1H:3749:HOH:O	2.73	0.42
26:1H:884:C:N4	26:1H:885:C:H41	2.18	0.42
26:1H:1142(A):A:C4	26:1H:1144:G:C8	3.07	0.42
26:1H:1692:U:O2'	26:1H:1693:U:H2'	2.19	0.42
26:1H:1994:C:O2'	26:1H:1995:U:H5'	2.19	0.42
26:1H:2102:U:H2'	26:1H:2103:C:C6	2.54	0.42
26:1H:2266:A:H4'	26:1H:2267:A:N3	2.35	0.42
27:16:37:C:C2'	27:16:38:C:H5'	2.50	0.42
28:11:37:LEU:HD22	28:11:62:TYR:HB2	2.00	0.42
30:31:127:GLU:OE2	30:31:127:GLU:HA	2.15	0.42
30:31:176:LEU:HB3	30:31:177:ALA:O	2.20	0.42
31:41:79:ASN:OD1	31:41:79:ASN:N	2.53	0.42
32:51:130:ARG:HB3	32:51:130:ARG:NH1	2.34	0.42
37:88:104:PHE:CE2	37:88:125:LEU:HD11	2.55	0.42
40:B8:22:PHE:N	40:B8:22:PHE:CD1	2.88	0.42
54:Q8:23:VAL:CG1	54:Q8:46:ARG:HD3	2.49	0.42
1:1G:219:C:H2'	1:1G:220:G:O4'	2.20	0.42
1:1G:410:G:H21	1:1G:432:A:H62	1.66	0.42
1:1G:446:G:H1	1:1G:488:C:H42	1.67	0.42
1:1G:668:G:O2'	15:6A:46:HIS:HB3	2.19	0.42
1:1G:676:A:H1'	11:2A:115:PRO:HB3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:923:A:H1'	1:1G:1398:A:C2	2.54	0.42
1:1G:1035:A:H2'	1:1G:1036:G:H4'	2.02	0.42
2:12:117:GLU:O	2:12:120:ALA:HB3	2.19	0.42
5:42:60:TYR:HB3	5:42:64:ARG:NH2	2.34	0.42
9:82:33:PHE:HE2	9:82:47:LEU:HD23	1.84	0.42
11:2A:87:THR:HA	11:2A:91:ARG:HD3	2.01	0.42
12:3A:10:LEU:HB3	17:8A:32:TYR:CE2	2.55	0.42
12:3A:100:ILE:CG2	12:3A:101:VAL:N	2.82	0.42
26:14:528:A:C2	26:14:2043:C:H4'	2.55	0.42
26:14:734:A:O2'	26:14:1635:G:H5'	2.19	0.42
26:14:761:A:C5	59:14:3413:HOH:O	2.65	0.42
26:14:1287:A:N7	38:55:106:GLY:HA3	2.35	0.42
26:14:1728:G:C5	26:14:1730:U:OP2	2.73	0.42
26:14:2002:G:N7	59:14:3810:HOH:O	2.37	0.42
26:14:2062:A:O2'	26:14:2063:C:OP1	2.36	0.42
26:14:2328:A:H2'	26:14:2329:G:C8	2.55	0.42
30:39:13:SER:HA	30:39:14:PRO:HD3	1.83	0.42
31:49:67:LYS:N	51:I5:6:HIS:CD2	2.73	0.42
36:35:18:ARG:O	36:35:19:VAL:HG23	2.20	0.42
37:45:38:GLU:HB2	37:45:127:ILE:HG22	2.02	0.42
41:85:50:ARG:HH12	42:95:72:VAL:HG23	1.85	0.42
42:95:79:VAL:C	42:95:80:GLN:OE1	2.57	0.42
42:95:85:LYS:HB3	42:95:87:HIS:H	1.85	0.42
45:C5:48:ALA:HB1	45:C5:50:ARG:HD3	2.02	0.42
51:I5:37:SER:OG	51:I5:38:LYS:N	2.52	0.42
54:M5:34:TRP:CE3	54:M5:34:TRP:CA	3.02	0.42
1:13:255:G:C5	1:13:256:U:C5	3.07	0.42
1:13:266:G:H8	1:13:266:G:H2'	1.72	0.42
1:13:553:A:H5''	12:3I:24:VAL:HG21	2.02	0.42
1:13:626:U:N3	1:13:627:G:C5	2.88	0.42
1:13:1054:C:H6	1:13:1196:U:O2'	2.01	0.42
1:13:1286:A:H2'	1:13:1287:A:H4'	2.02	0.42
1:13:1449:C:H42	1:13:1454:G:H1	1.68	0.42
4:3E:83:SER:HB3	4:3E:84:LYS:HD2	2.02	0.42
5:4E:90:VAL:HG12	5:4E:121:LYS:O	2.20	0.42
8:7E:134:ILE:HG22	8:7E:135:CYS:SG	2.60	0.42
9:8E:11:LYS:C	9:8E:13:ALA:H	2.23	0.42
9:8E:42:ARG:HE	9:8E:42:ARG:HB2	1.73	0.42
9:8E:87:GLN:O	9:8E:90:PRO:HD3	2.19	0.42
11:2I:22:HIS:HB3	11:2I:29:ILE:HG23	2.01	0.42
14:5I:15:LYS:HG2	14:5I:16:PHE:CD2	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BI:12:ALA:O	20:BI:15:ARG:HB2	2.20	0.42
26:1H:353:G:H2'	26:1H:354:G:H8	1.84	0.42
26:1H:536:A:H2'	26:1H:537:C:C6	2.55	0.42
26:1H:582:G:H2'	26:1H:583:G:C8	2.55	0.42
26:1H:882:G:N2	26:1H:894:C:H42	2.17	0.42
26:1H:931:G:C4	26:1H:933:A:C8	3.07	0.42
26:1H:1060:U:H4'	26:1H:1061:U:H5'	2.02	0.42
26:1H:1379:A:O3'	26:1H:1380:G:H8	2.02	0.42
26:1H:1542:G:C8	26:1H:1543:A:C2	3.07	0.42
26:1H:1988:C:H2'	26:1H:1989:G:O4'	2.19	0.42
26:1H:2029:G:H2'	26:1H:2031:A:OP1	2.20	0.42
26:1H:2334:G:C2	39:A8:12:PHE:CE1	3.07	0.42
26:1H:2395:C:H5''	26:1H:2396:G:OP2	2.19	0.42
26:1H:2562:U:H1'	35:68:23:ARG:NH1	2.34	0.42
29:21:13:ARG:HH21	40:B8:77:PRO:HB3	1.85	0.42
29:21:13:ARG:NH2	40:B8:77:PRO:HB3	2.34	0.42
30:31:9:ILE:HD11	30:31:125:LEU:CG	2.41	0.42
32:51:109:PHE:CE1	32:51:152:ARG:NH1	2.87	0.42
32:51:151:ILE:O	32:51:151:ILE:HG22	2.20	0.42
36:78:64:LYS:HB2	54:Q8:25:MET:HG3	2.00	0.42
36:78:100:LEU:O	36:78:105:LEU:HD12	2.19	0.42
44:F8:9:LEU:O	49:K8:36:ARG:HD2	2.20	0.42
46:H8:165:VAL:CB	46:H8:166:SER:HA	2.43	0.42
1:1G:23:C:OP2	1:1G:561:U:N3	2.37	0.42
1:1G:149:A:O2'	1:1G:150:C:H5'	2.20	0.42
1:1G:475:G:OP1	16:7A:81:ARG:NH2	2.53	0.42
1:1G:590:C:H2'	1:1G:591:U:C6	2.55	0.42
1:1G:894:G:C6	1:1G:895:G:C5	3.08	0.42
1:1G:965:A:C2	1:1G:969:A:C2	3.08	0.42
1:1G:1104:G:C6	1:1G:1105:A:C5	3.07	0.42
1:1G:1128:C:C4	1:1G:1139:G:C6	3.07	0.42
1:1G:1155:G:H2'	1:1G:1156:G:O4'	2.20	0.42
1:1G:1187:G:N3	1:1G:1187:G:H2'	2.35	0.42
1:1G:1348:U:N3	1:1G:1374:A:C2	2.81	0.42
1:1G:1489:G:H2'	1:1G:1490:C:O4'	2.20	0.42
2:12:16:HIS:NE2	2:12:213:LEU:HD13	2.34	0.42
6:52:14:LEU:HB2	6:52:18:GLN:OE1	2.20	0.42
8:72:68:ARG:HD3	8:72:69:ARG:O	2.19	0.42
10:1A:78:ASN:HD21	10:1A:81:THR:HG23	1.84	0.42
16:7A:4:ILE:O	16:7A:66:PRO:HA	2.19	0.42
18:9A:36:ASN:ND2	18:9A:36:ASN:O	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BA:10:LEU:O	20:BA:10:LEU:HD13	2.19	0.42
23:2L:56:PSU:O4	23:2L:58:A:C8	2.73	0.42
26:14:1:G:H2'	26:14:2:G:O4'	2.19	0.42
26:14:470:A:C5'	26:14:470:A:H8	2.32	0.42
26:14:871:U:OP1	37:45:5:ARG:HG2	2.20	0.42
26:14:1336:A:OP2	44:B5:64:LYS:NZ	2.43	0.42
27:1J:31:C:H4'	31:49:29:TRP:HH2	1.84	0.42
30:39:163:VAL:O	30:39:167:ALA:HB2	2.20	0.42
36:35:11:GLY:C	36:35:13:ASN:H	2.22	0.42
37:45:18:LYS:H	37:45:98:LYS:HZ1	1.65	0.42
38:55:48:VAL:O	38:55:52:ILE:HG12	2.20	0.42
39:65:3:ARG:HD2	39:65:4:LEU:H	1.84	0.42
43:A5:13:SER:HA	43:A5:14:PRO:HD3	1.94	0.42
45:C5:87:LYS:HG2	45:C5:88:LYS:H	1.83	0.42
45:C5:88:LYS:O	45:C5:89:PHE:HB3	2.19	0.42
1:13:313:A:H2'	1:13:314:C:C6	2.54	0.42
1:13:313:A:H2'	1:13:314:C:H6	1.85	0.42
1:13:938:A:C6	1:13:939:G:N7	2.87	0.42
2:1E:140:HIS:HA	2:1E:143:GLU:OE2	2.19	0.42
6:5E:7:ASN:OD1	6:5E:62:TRP:HD1	2.02	0.42
8:7E:17:THR:HG21	8:7E:80:ILE:HG13	2.01	0.42
14:5I:47:LEU:HD23	14:5I:47:LEU:HA	1.84	0.42
24:3K:63:U:H3	24:3K:67:A:H62	1.67	0.42
26:1H:442:G:C6	26:1H:444:C:N4	2.87	0.42
26:1H:640:C:O2	26:1H:649:G:C2	2.73	0.42
26:1H:779:U:P	28:11:49:ILE:HG13	2.59	0.42
26:1H:1058:U:N3	26:1H:1059:G:N7	2.68	0.42
26:1H:1266:G:O4'	43:E8:15:ARG:NH2	2.52	0.42
26:1H:1519:G:H2'	26:1H:1520:U:O4'	2.20	0.42
26:1H:1649:G:N1	26:1H:2009:G:C6	2.88	0.42
26:1H:1878:G:H2'	26:1H:1879:C:H6	1.85	0.42
26:1H:2137:C:N3	26:1H:2138:C:N4	2.67	0.42
26:1H:2801:A:H2'	26:1H:2802:G:O4'	2.20	0.42
26:1H:2850:A:C2	26:1H:2851:A:C4	3.07	0.42
27:16:60:C:C2	27:16:61:G:C8	3.08	0.42
29:21:81:ILE:O	29:21:81:ILE:HG22	2.20	0.42
31:41:10:LYS:HG2	31:41:14:GLU:OE1	2.18	0.42
31:41:11:TYR:O	31:41:16:ARG:HG3	2.19	0.42
34:58:12:ARG:HG2	34:58:13:TRP:H	1.84	0.42
34:58:13:TRP:O	34:58:135:PRO:HD2	2.19	0.42
34:58:130:HIS:HA	34:58:134:ARG:NH2	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:68:93:PRO:HG3	35:68:114:ILE:HG12	2.00	0.42
37:88:59:ARG:O	37:88:61:GLY:N	2.52	0.42
41:C8:5:LYS:HB2	41:C8:5:LYS:NZ	2.35	0.42
41:C8:75:ASN:ND2	41:C8:77:SER:OG	2.52	0.42
42:D8:35:LEU:O	42:D8:37:VAL:N	2.53	0.42
44:F8:8:ILE:HD11	44:F8:43:VAL:HG22	2.02	0.42
45:G8:100:ALA:HB1	45:G8:101:LYS:CB	2.49	0.42
1:1G:157:G:C2	1:1G:165:C:C2	3.08	0.42
1:1G:1073:U:H2'	1:1G:1074:G:C8	2.55	0.42
1:1G:1129:C:H5	1:1G:1141:C:H42	1.68	0.42
1:1G:1250:A:H4'	9:82:68:GLY:H	1.83	0.42
2:12:145:LEU:O	2:12:149:LEU:HB2	2.19	0.42
5:42:6:PHE:HD2	5:42:36:ASP:HB3	1.85	0.42
6:52:97:PHE:CD1	18:9A:65:ILE:HD11	2.55	0.42
7:62:20:ASP:O	7:62:23:VAL:HG23	2.19	0.42
8:72:102:ARG:H	8:72:102:ARG:HG3	1.61	0.42
11:2A:21:ILE:HB	11:2A:84:VAL:HG13	2.01	0.42
11:2A:73:MET:SD	11:2A:103:LEU:HD13	2.60	0.42
13:4A:13:LYS:HG2	13:4A:14:ARG:H	1.85	0.42
13:4A:54:VAL:HA	13:4A:57:ARG:HB3	2.00	0.42
16:7A:82:GLN:HE21	16:7A:82:GLN:HB3	1.61	0.42
20:BA:49:ALA:HA	20:BA:52:ALA:CB	2.49	0.42
24:1L:27:A:H3'	24:1L:28:G:H8	1.85	0.42
26:14:1771:C:C1'	26:14:1786:A:H8	2.33	0.42
26:14:1863:G:H2'	26:14:1864:U:O4'	2.20	0.42
26:14:2660:A:H2'	26:14:2661:G:O4'	2.19	0.42
27:1J:94:C:H2'	27:1J:95:U:C6	2.54	0.42
29:29:19:ARG:O	29:29:21:VAL:HG23	2.20	0.42
30:39:117:ARG:NH2	36:35:1:MET:H2	2.15	0.42
31:49:47:LYS:HD3	31:49:81:LYS:HG3	2.01	0.42
33:69:75:LEU:HG	33:69:139:GLN:OE1	2.20	0.42
35:25:43:VAL:HG23	35:25:56:ASP:O	2.20	0.42
36:35:81:GLN:CD	36:35:106:LEU:HA	2.40	0.42
39:65:106:ARG:O	39:65:106:ARG:HD2	2.20	0.42
40:75:21:GLU:O	40:75:91:ARG:NH2	2.52	0.42
42:95:21:ARG:HD3	42:95:91:TYR:HB3	2.02	0.42
43:A5:28:SER:OG	43:A5:31:GLU:OE1	2.38	0.42
46:D5:161:VAL:HG23	46:D5:162:GLU:H	1.85	0.42
54:M5:60:LEU:O	54:M5:62:LEU:N	2.52	0.42
1:13:247:G:O6	1:13:278:G:C6	2.73	0.42
1:13:486:U:H2'	1:13:487:A:C8	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:639:G:C2	1:13:640:A:C8	3.08	0.42
1:13:874:G:C4	1:13:875:C:C5	3.08	0.42
1:13:976:G:H5'	1:13:1358:U:O2'	2.20	0.42
1:13:1053:G:C5'	1:13:1054:C:H5'	2.49	0.42
1:13:1316:G:H2'	1:13:1318:A:OP2	2.20	0.42
1:13:1316:G:H5''	14:5I:17:LYS:NZ	2.34	0.42
1:13:1413:A:C2	1:13:1488:G:C2	3.08	0.42
2:1E:209:ARG:O	2:1E:213:LEU:HD13	2.20	0.42
3:2E:8:ILE:O	3:2E:11:ARG:N	2.53	0.42
5:4E:11:ILE:HG13	5:4E:31:LEU:HD13	2.02	0.42
5:4E:47:LYS:HE2	5:4E:47:LYS:HB2	1.85	0.42
7:6E:49:ILE:O	7:6E:53:LYS:HB2	2.20	0.42
9:8E:114:TYR:CD2	10:1I:59:SER:HA	2.54	0.42
17:8I:9:VAL:CG2	17:8I:84:LEU:HD12	2.49	0.42
17:8I:22:LEU:HD12	17:8I:40:LYS:O	2.20	0.42
19:AI:27:GLU:HG3	19:AI:29:ARG:HG3	2.02	0.42
23:2K:17:C:OP2	23:2K:18:C:O2'	2.27	0.42
26:1H:581:C:OP1	41:C8:33:ARG:HG3	2.20	0.42
26:1H:671:C:OP1	36:78:42:SER:O	2.38	0.42
26:1H:783:A:C8	26:1H:783:A:C3'	3.02	0.42
26:1H:1063:G:H22	26:1H:1076:C:C1'	2.33	0.42
26:1H:1174:A:N3	26:1H:1178:C:N4	2.67	0.42
26:1H:1210:A:H5''	26:1H:1212:G:H5'	2.01	0.42
26:1H:1385:G:O6	26:1H:1403:C:N4	2.52	0.42
26:1H:1517:G:H2'	26:1H:1518:C:C6	2.54	0.42
26:1H:1654:A:OP2	38:98:1:MET:N	2.50	0.42
26:1H:1900:A:N1	26:1H:1970:A:C6	2.88	0.42
26:1H:2248:C:H2'	26:1H:2249:U:O4'	2.20	0.42
26:1H:2637:U:H5'	29:21:44:TYR:CE1	2.55	0.42
26:1H:2707:G:O3'	38:98:68:ARG:HG2	2.20	0.42
26:1H:2728:U:H2'	26:1H:2729:G:C8	2.55	0.42
29:21:144:ARG:HB3	29:21:145:LYS:H	1.68	0.42
31:41:76:SER:HB2	31:41:84:LYS:HB2	2.02	0.42
36:78:26:GLY:O	36:78:28:GLY:N	2.53	0.42
38:98:44:LEU:O	38:98:47:PHE:N	2.44	0.42
39:A8:26:LEU:HD22	39:A8:87:PHE:HD1	1.83	0.42
41:C8:36:ARG:O	41:C8:36:ARG:HG2	2.20	0.42
46:H8:98:MET:O	46:H8:125:LEU:HD12	2.19	0.42
47:I8:50:ASN:HB3	47:I8:63:VAL:HG22	2.02	0.42
52:N8:33:CYS:HB2	52:N8:40:LYS:HD3	2.01	0.42
52:N8:56:LYS:HD3	52:N8:60:VAL:CG1	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:109:A:C6	1:1G:326:G:C6	3.08	0.42
1:1G:188:U:O2'	1:1G:189:U:H5'	2.19	0.42
1:1G:635:G:C6	1:1G:636:U:C4	3.07	0.42
1:1G:726:C:H2'	1:1G:727:G:H8	1.85	0.42
1:1G:771:G:H2'	1:1G:772:U:C6	2.55	0.42
1:1G:1239:A:H4'	1:1G:1240:U:H5'	2.02	0.42
2:12:21:ARG:H	2:12:21:ARG:HG2	1.59	0.42
4:32:18:LYS:NZ	4:32:31:CYS:HB2	2.35	0.42
4:32:153:ARG:HA	4:32:153:ARG:HD3	1.83	0.42
12:3A:18:VAL:O	12:3A:19:ARG:HB2	2.20	0.42
17:8A:63:ARG:HG2	17:8A:64:PRO:CD	2.48	0.42
19:AA:41:VAL:O	19:AA:44:MET:HB2	2.20	0.42
20:BA:25:ARG:O	20:BA:29:LYS:HG3	2.20	0.42
24:1L:25:G:C2	24:1L:26:G:C4	3.08	0.42
26:14:336:C:OP1	45:C5:83:THR:HG23	2.20	0.42
26:14:548:A:C4	26:14:549:G:H1'	2.55	0.42
26:14:637:A:H2'	36:35:117:GLU:OE2	2.19	0.42
26:14:821:A:O2'	26:14:946:G:OP2	2.20	0.42
26:14:921:G:H4'	26:14:2269:A:C5	2.55	0.42
26:14:1025:G:H8	26:14:1025:G:OP1	2.03	0.42
26:14:1767:C:H2'	26:14:1768:U:O4'	2.19	0.42
26:14:2522:U:H2'	26:14:2523:G:H5''	2.01	0.42
27:1J:22:U:H3	27:1J:61:G:H1	1.68	0.42
29:29:26:ILE:HG21	29:29:28:ALA:HB2	2.01	0.42
30:39:68:LYS:HB3	30:39:69:HIS:CD2	2.55	0.42
34:15:7:LYS:HZ2	34:15:7:LYS:HG2	1.61	0.42
37:45:43:THR:OG1	37:45:45:GLN:HG2	2.19	0.42
42:95:76:LYS:HB2	42:95:79:VAL:HG23	2.02	0.42
47:E5:46:LYS:HA	47:E5:47:PRO:HD3	1.80	0.42
51:I5:8:LYS:HD3	51:I5:8:LYS:HA	1.70	0.42
51:I5:11:PRO:HB3	51:I5:25:TYR:CD2	2.55	0.42
1:13:812:C:H6	1:13:812:C:H2'	1.68	0.42
1:13:953:G:C2	1:13:954:G:H1'	2.55	0.42
1:13:1112:C:O2	3:2E:179:ARG:HG2	2.19	0.42
2:1E:27:LYS:CB	2:1E:194:PRO:HD2	2.49	0.42
9:8E:17:VAL:HG21	9:8E:80:GLY:HA3	2.02	0.42
9:8E:40:LEU:HD11	9:8E:70:LYS:HG2	2.02	0.42
19:AI:51:VAL:HG12	19:AI:52:TYR:N	2.34	0.42
26:1H:321:G:O3'	30:31:168:ARG:NH2	2.53	0.42
26:1H:746:A:C6	26:1H:2611:U:H5''	2.55	0.42
26:1H:876:C:H2'	26:1H:877:U:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1444:G:H1	26:1H:1547:C:N4	2.18	0.42
26:1H:1508:A:O2'	26:1H:1509:C:O4'	2.28	0.42
26:1H:1945:G:N2	26:1H:1946:U:C2	2.88	0.42
26:1H:2114:A:H4'	26:1H:2167:U:O4	2.20	0.42
26:1H:2185:C:H2'	26:1H:2186:G:C8	2.54	0.42
26:1H:2419:U:H5''	54:Q8:33:ASN:HB2	2.02	0.42
27:16:94:C:H2'	27:16:95:U:C6	2.53	0.42
29:21:175:VAL:O	29:21:177:PRO:HD3	2.20	0.42
32:51:122:THR:O	32:51:134:SER:OG	2.30	0.42
39:A8:25:ARG:O	39:A8:39:ILE:HA	2.20	0.42
40:B8:33:LYS:H	40:B8:33:LYS:HG2	1.58	0.42
43:E8:86:LEU:HD12	43:E8:87:PRO:CD	2.47	0.42
45:G8:15:VAL:HG21	45:G8:42:VAL:HG21	2.01	0.42
46:H8:44:PHE:CE2	46:H8:86:VAL:HG11	2.55	0.42
47:I8:51:VAL:HG23	47:I8:81:VAL:HG23	2.02	0.42
48:J8:65:SER:HB2	48:J8:66:HIS:ND1	2.35	0.42
50:L8:2:PRO:HB2	50:L8:3:ARG:H	1.64	0.42
1:1G:42:G:H2'	1:1G:43:C:O4'	2.19	0.42
1:1G:376:G:H1	1:1G:387:U:H3	1.67	0.42
1:1G:1477:C:C2'	1:1G:1478:C:H5'	2.49	0.42
6:52:45:LEU:O	6:52:46:ARG:HG2	2.20	0.42
7:62:137:LYS:HB3	7:62:137:LYS:NZ	2.34	0.42
16:7A:9:PHE:CD1	16:7A:18:ARG:HG3	2.55	0.42
24:1L:57:C:H2'	24:1L:68:A:H4'	2.01	0.42
23:2L:34:U:N3	23:2L:37:U:OP2	2.53	0.42
55:3L:29:C:H2'	55:3L:30:A:C8	2.55	0.42
26:14:783:A:C8	26:14:783:A:C3'	3.01	0.42
26:14:981:A:H8	26:14:982:C:C5	2.38	0.42
26:14:1317:A:H2'	26:14:1318:C:H6	1.85	0.42
27:1J:9:G:P	39:65:25:ARG:HH22	2.43	0.42
27:1J:78:A:C2	27:1J:99:A:C4	3.08	0.42
30:39:89:VAL:O	30:39:90:PHE:C	2.55	0.42
33:69:63:ALA:HA	33:69:66:GLU:HG2	2.02	0.42
35:25:78:ARG:HG2	40:75:73:GLU:HB2	2.02	0.42
40:75:76:PHE:HA	40:75:77:PRO:HD2	1.86	0.42
42:95:4:ILE:HA	42:95:12:TYR:O	2.20	0.42
46:D5:30:ASN:HA	46:D5:89:PHE:CE1	2.52	0.42
48:F5:91:LYS:HA	48:F5:91:LYS:NZ	2.35	0.42
51:I5:2:LYS:HG3	51:I5:8:LYS:NZ	2.34	0.42
1:13:78:G:H3'	1:13:79:G:O4'	2.19	0.41
1:13:247:G:OP2	17:8I:100:LYS:N	2.52	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:259:G:H1	1:13:267:C:H42	1.68	0.41
1:13:1194:U:H2'	1:13:1195:C:C6	2.55	0.41
1:13:1288:A:N1	1:13:1371:G:H1'	2.35	0.41
1:13:1499:A:O2'	1:13:1520:G:H5'	2.20	0.41
4:3E:102:ASP:OD1	4:3E:103:ASN:N	2.53	0.41
4:3E:108:LEU:HD23	4:3E:110:PHE:CE1	2.54	0.41
6:5E:67:MET:SD	6:5E:75:LEU:HD12	2.60	0.41
7:6E:5:ARG:NH1	7:6E:7:ALA:HA	2.35	0.41
18:9I:66:LEU:O	18:9I:70:ILE:HG13	2.20	0.41
19:AI:37:ARG:H	19:AI:37:ARG:HG3	1.44	0.41
22:1K:14:A:H61	22:1K:22:A:H1'	1.84	0.41
22:1K:17:G:O6	22:1K:64:PSU:H1'	2.20	0.41
26:1H:511:U:H5''	26:1H:512:G:OP2	2.19	0.41
26:1H:602:G:N2	26:1H:655:A:C8	2.85	0.41
26:1H:888:C:H2'	26:1H:889:C:C2	2.55	0.41
26:1H:1060:U:N3	26:1H:1088:A:H8	2.12	0.41
26:1H:1301:A:N3	26:1H:1301:A:H2'	2.35	0.41
26:1H:1665:A:H2'	26:1H:1666:G:O4'	2.20	0.41
26:1H:1680:U:N3	26:1H:1764:G:OP2	2.45	0.41
26:1H:1854:A:C2	26:1H:2087:G:N3	2.88	0.41
26:1H:1956:U:H1'	26:1H:2552:U:OP1	2.20	0.41
26:1H:2757:A:N1	32:51:67:LEU:HD22	2.35	0.41
32:51:105:LEU:HD23	32:51:105:LEU:H	1.84	0.41
32:51:168:PRO:O	32:51:169:VAL:HG12	2.19	0.41
33:61:68:LEU:HA	33:61:68:LEU:HD12	1.69	0.41
38:98:67:LEU:HD22	38:98:76:VAL:HG21	2.02	0.41
38:98:92:GLY:N	38:98:94:TYR:CE1	2.88	0.41
47:I8:19:LYS:HD3	47:I8:19:LYS:HA	1.38	0.41
1:1G:192:U:H4'	20:BA:57:ARG:HD3	2.02	0.41
1:1G:581:G:O2'	1:1G:582:U:H5'	2.19	0.41
1:1G:904:C:C4	1:1G:905:U:C4	3.08	0.41
1:1G:991:U:HO2'	1:1G:992:U:P	2.44	0.41
1:1G:1037:C:H2'	1:1G:1038:C:C6	2.54	0.41
4:32:112:VAL:HG12	4:32:116:GLN:OE1	2.20	0.41
7:62:60:LYS:HA	7:62:60:LYS:HD2	1.51	0.41
13:4A:3:ARG:N	51:I5:34:GLU:HG3	2.34	0.41
15:6A:81:LEU:HD12	15:6A:81:LEU:HA	1.83	0.41
17:8A:63:ARG:HE	17:8A:63:ARG:HB3	1.62	0.41
55:3L:79:A:H2'	55:3L:80:C:O4'	2.20	0.41
26:14:185:U:H2'	26:14:186:G:H8	1.85	0.41
26:14:513:A:C2	26:14:514:A:C5	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:925:C:H2'	26:14:926:A:C8	2.55	0.41
26:14:1036:G:P	32:59:59:ARG:HB2	2.60	0.41
26:14:1263:U:H2'	26:14:1264:G:C8	2.54	0.41
26:14:1872:A:H5'	26:14:1878:G:OP2	2.20	0.41
26:14:1973:G:H2'	26:14:1974:C:C6	2.54	0.41
26:14:2030:A:H2	59:14:3619:HOH:O	2.02	0.41
26:14:2712:U:H1'	26:14:2712(A):A:C8	2.55	0.41
27:1J:86:G:H1	27:1J:90:C:H42	1.67	0.41
38:55:38:VAL:HG22	38:55:112:ALA:HB2	2.01	0.41
44:B5:4:ALA:C	44:B5:6:ASP:N	2.73	0.41
45:C5:60:PHE:CD1	45:C5:60:PHE:N	2.88	0.41
46:D5:160:GLY:O	46:D5:162:GLU:HG3	2.20	0.41
47:E5:49:LYS:HE3	47:E5:82:ARG:HD3	2.01	0.41
1:13:1041:A:H2'	1:13:1042:G:O4'	2.20	0.41
1:13:1051:C:H2'	1:13:1052:U:H6	1.85	0.41
1:13:1160:G:N3	1:13:1160:G:H2'	2.35	0.41
1:13:1464:G:H2'	1:13:1465:C:H6	1.85	0.41
8:7E:42:GLU:OE2	8:7E:120:THR:HG21	2.19	0.41
18:9I:47:THR:C	18:9I:83:GLU:HG2	2.40	0.41
18:9I:47:THR:O	18:9I:83:GLU:HG2	2.19	0.41
19:AI:6:LYS:O	19:AI:7:LYS:HB3	2.19	0.41
22:1K:6:G:HO2'	22:1K:7:G:P	2.43	0.41
22:1K:83:C:N4	26:1H:2507:C:O3'	2.53	0.41
26:1H:357:A:H2'	26:1H:358:U:C6	2.54	0.41
26:1H:835:A:N6	26:1H:836:G:C6	2.88	0.41
26:1H:864:G:O2'	26:1H:865:C:H5'	2.21	0.41
26:1H:1137:G:H2'	26:1H:1138:G:H8	1.85	0.41
26:1H:1678:G:N2	26:1H:1989:G:N2	2.66	0.41
26:1H:1965:C:H2'	26:1H:1966:A:C8	2.55	0.41
26:1H:2240:C:O2'	26:1H:2241:A:H5'	2.20	0.41
26:1H:2260:C:OP1	47:I8:17:GLN:NE2	2.53	0.41
26:1H:2292:C:P	39:A8:17:ARG:NH2	2.90	0.41
26:1H:2528:U:O2'	26:1H:2529:G:H3'	2.19	0.41
28:11:77:ALA:HB1	28:11:96:HIS:O	2.20	0.41
29:21:105:THR:HG21	29:21:164:ARG:CZ	2.49	0.41
31:41:110:ALA:HA	31:41:140:ILE:O	2.20	0.41
38:98:45:ARG:HB3	38:98:46:GLY:H	1.47	0.41
38:98:98:LEU:HD23	38:98:98:LEU:HA	1.82	0.41
39:A8:51:ALA:CB	39:A8:73:LEU:HG	2.50	0.41
43:E8:29:LEU:HD12	43:E8:29:LEU:O	2.20	0.41
51:M8:43:TYR:O	51:M8:46:GLN:HA	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:407:G:C2	1:1G:436:C:C2	3.09	0.41
1:1G:436:C:H2'	1:1G:437:U:O4'	2.19	0.41
1:1G:561:U:O2'	1:1G:562:C:P	2.78	0.41
1:1G:688:G:H2'	1:1G:689:C:H6	1.84	0.41
1:1G:739:C:OP1	15:6A:2:PRO:HD3	2.21	0.41
1:1G:1519:A:H5''	1:1G:1520:G:OP2	2.20	0.41
2:12:162:ILE:O	2:12:185:ILE:HG12	2.20	0.41
5:42:99:GLY:O	5:42:117:ASP:HA	2.20	0.41
8:72:32:LYS:HA	8:72:35:ILE:HD12	2.03	0.41
8:72:51:VAL:HG11	8:72:60:ARG:HE	1.85	0.41
14:5A:26:ARG:NH2	14:5A:46:GLU:OE2	2.54	0.41
16:7A:45:THR:O	16:7A:48:TRP:HD1	2.03	0.41
26:14:162:U:H5'	26:14:171:G:O4'	2.19	0.41
26:14:218:A:C2	26:14:235:U:H4'	2.54	0.41
26:14:270(M):U:H4'	26:14:270(N):G:C2	2.55	0.41
26:14:282:A:C6	26:14:284:U:C2	3.08	0.41
26:14:289:A:H3'	26:14:290:G:H8	1.85	0.41
26:14:406:G:H1	26:14:421:U:H3	1.68	0.41
26:14:565:C:H4'	26:14:1253:A:C6	2.55	0.41
26:14:710:G:H1	26:14:721:C:N4	2.18	0.41
26:14:848:G:H2'	26:14:849:A:H8	1.81	0.41
26:14:868:U:N3	26:14:869:G:N7	2.69	0.41
26:14:1348:G:C6	26:14:1349:A:N1	2.88	0.41
26:14:1903:G:OP1	28:19:241:PRO:HB2	2.20	0.41
26:14:2191:G:O2'	26:14:2192:G:OP1	2.34	0.41
26:14:2327:A:H2'	26:14:2328:A:H8	1.85	0.41
26:14:2474:C:H5''	26:14:2475:C:OP2	2.20	0.41
27:1J:33:G:C2	27:1J:50:G:C2	3.08	0.41
28:19:33:LEU:HD21	28:19:103:ARG:HA	2.02	0.41
29:29:31:CYS:O	29:29:90:THR:HA	2.20	0.41
29:29:37:ARG:HA	29:29:42:ASP:OD2	2.20	0.41
29:29:52:LEU:HA	29:29:53:PRO:HD2	1.88	0.41
29:29:96:PHE:O	29:29:175:VAL:HG11	2.20	0.41
31:49:15:VAL:HG13	31:49:175:LEU:HD13	2.01	0.41
33:69:97:ILE:O	33:69:100:ALA:HB3	2.20	0.41
33:69:112:LYS:CA	33:69:114:LEU:H	2.29	0.41
33:69:138:ILE:HG12	33:69:139:GLN:N	2.34	0.41
34:15:68:GLU:HA	34:15:88:GLU:HG3	2.02	0.41
36:35:47:ASP:OD1	36:35:49:ARG:NE	2.34	0.41
40:75:8:LYS:NZ	40:75:8:LYS:HB2	2.17	0.41
40:75:99:LEU:HD23	40:75:99:LEU:HA	1.79	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:95:82:ARG:C	42:95:83:ARG:HD2	2.40	0.41
44:B5:60:ARG:HG2	44:B5:60:ARG:NH1	2.28	0.41
45:C5:48:ALA:HB3	45:C5:59:GLY:C	2.40	0.41
1:13:17:U:H2'	1:13:18:C:C6	2.55	0.41
1:13:35:G:O2'	12:3I:118:SER:O	2.29	0.41
1:13:57:G:C5	1:13:58:C:C4	3.07	0.41
1:13:243:A:H5''	1:13:244:U:H3'	2.02	0.41
1:13:763:G:H2'	1:13:764:C:C6	2.54	0.41
1:13:1171:G:H2'	1:13:1172:C:C6	2.55	0.41
3:2E:121:ALA:HB1	3:2E:188:LEU:O	2.21	0.41
4:3E:85:LYS:HG3	4:3E:86:LYS:N	2.35	0.41
5:4E:131:ILE:HD13	5:4E:131:ILE:HA	1.91	0.41
7:6E:135:VAL:O	7:6E:139:GLU:HG3	2.20	0.41
26:1H:315:G:C5	26:1H:316:C:C5	3.08	0.41
26:1H:1671:U:O2'	26:1H:1673:U:H5	2.03	0.41
26:1H:2064:C:H2'	26:1H:2065:C:C6	2.55	0.41
26:1H:2392:A:H2	26:1H:2424:C:N4	2.13	0.41
26:1H:2580:U:H4'	29:21:130:GLY:CA	2.46	0.41
26:1H:2740:A:C6	26:1H:2764:A:C8	3.07	0.41
28:11:70:TRP:CD1	28:11:70:TRP:O	2.73	0.41
32:51:38:SER:HA	32:51:39:PRO:HD3	1.92	0.41
33:61:23:PRO:O	33:61:27:ARG:HG3	2.19	0.41
34:58:71:ILE:HG21	34:58:84:LYS:HG2	2.03	0.41
34:58:132:ALA:N	34:58:134:ARG:HH11	2.18	0.41
37:88:32:TYR:CZ	37:88:111:GLU:HG3	2.54	0.41
42:D8:39:LEU:HD12	42:D8:51:VAL:HG22	2.03	0.41
43:E8:2:GLU:HB2	43:E8:107:LEU:O	2.21	0.41
45:G8:54:LYS:O	45:G8:55:TYR:CG	2.73	0.41
46:H8:133:ILE:HA	46:H8:134:PRO:HD2	1.79	0.41
50:L8:26:LEU:HB2	50:L8:28:LEU:HD12	2.02	0.41
52:N8:42:PRO:HB2	52:N8:43:HIS:ND1	2.34	0.41
54:Q8:39:LYS:HA	54:Q8:42:ARG:NH2	2.36	0.41
54:Q8:60:LEU:C	54:Q8:61:LEU:HG	2.41	0.41
1:1G:526:C:H2'	1:1G:527:G:H4'	2.02	0.41
1:1G:626:U:H2'	1:1G:627:G:H8	1.84	0.41
1:1G:892:A:C2	1:1G:907:A:C4	3.08	0.41
1:1G:1088:G:N2	1:1G:1097:C:O2	2.47	0.41
2:12:118:LEU:HB3	2:12:142:LEU:HD12	2.02	0.41
3:22:125:GLU:OE2	3:22:189:ALA:HA	2.21	0.41
8:72:20:TYR:HA	8:72:65:TYR:CE1	2.56	0.41
12:3A:100:ILE:HG22	12:3A:101:VAL:H	1.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1B:18:TYR:CD2	21:1B:24:ARG:HD3	2.54	0.41
26:14:152:G:H1	26:14:174:C:N4	2.17	0.41
26:14:832:G:H5'	36:35:45:LEU:CD1	2.50	0.41
26:14:1042:G:H2'	26:14:1043:C:O4'	2.20	0.41
26:14:1312:U:H4'	26:14:1313:U:O5'	2.20	0.41
26:14:1519:G:C6	26:14:1520:U:C4	3.08	0.41
26:14:1668:A:C8	26:14:1674:G:C6	3.09	0.41
26:14:2156:G:C5	26:14:2157:G:N2	2.89	0.41
26:14:2402:C:H5'	26:14:2403:C:OP2	2.20	0.41
26:14:2425:A:H5'	26:14:2427:C:O4'	2.21	0.41
26:14:2432:A:H2'	26:14:2433:A:C8	2.56	0.41
26:14:2666:C:O2	32:59:152:ARG:NH1	2.53	0.41
27:1J:32:C:C2	27:1J:33:G:C8	3.09	0.41
27:1J:66:A:C2	27:1J:108:C:C4	3.09	0.41
28:19:210:GLY:O	28:19:213:ARG:N	2.53	0.41
29:29:4:ILE:HD12	29:29:28:ALA:CB	2.50	0.41
29:29:36:ARG:HH21	29:29:88:GLY:N	2.18	0.41
32:59:167:GLU:HA	32:59:168:PRO:HD3	1.69	0.41
37:45:25:ASP:HA	37:45:102:VAL:CG2	2.45	0.41
37:45:34:LEU:HD12	37:45:130:LYS:O	2.21	0.41
42:95:2:PHE:H	42:95:42:GLY:CA	2.33	0.41
42:95:85:LYS:HG3	42:95:87:HIS:HA	2.02	0.41
45:C5:82:PRO:CB	45:C5:97:ARG:HB3	2.51	0.41
49:G5:24:LEU:O	49:G5:27:GLU:HB2	2.20	0.41
49:G5:47:ASN:C	49:G5:49:LYS:H	2.19	0.41
51:I5:9:LEU:HD22	51:I5:9:LEU:H	1.84	0.41
1:13:93:U:H2'	1:13:95:G:H5''	2.02	0.41
1:13:182:U:C5	1:13:183:G:C4	3.07	0.41
1:13:864:A:H5''	1:13:865:A:OP2	2.20	0.41
1:13:872:A:C5	1:13:874:G:C8	3.08	0.41
1:13:929:G:C6	1:13:930:C:C4	3.09	0.41
1:13:975:A:C5'	1:13:976:G:H5''	2.51	0.41
1:13:1110:A:H5''	1:13:1183:A:C2	2.55	0.41
1:13:1247:U:H3	1:13:1290:G:H1	1.67	0.41
2:1E:32:ILE:HG21	2:1E:40:HIS:ND1	2.34	0.41
16:7I:79:VAL:HG12	16:7I:80:PHE:HD1	1.85	0.41
18:9I:43:PHE:O	18:9I:51:LEU:HG	2.20	0.41
20:BI:53:LEU:HD13	20:BI:56:MET:HB3	2.01	0.41
26:1H:973:A:O4'	26:1H:1188:U:C6	2.73	0.41
26:1H:1055:G:O2'	26:1H:1086:A:N6	2.43	0.41
26:1H:1357:U:H2'	26:1H:1358:G:H8	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1668:A:C8	26:1H:1674:G:C6	3.08	0.41
26:1H:1838:C:H4'	26:1H:1839:G:H5''	2.03	0.41
26:1H:2056:G:N3	26:1H:2056:G:H2'	2.35	0.41
26:1H:2331:G:N3	26:1H:2336:A:C2	2.88	0.41
26:1H:2348:U:O4	26:1H:2382:G:C2	2.73	0.41
26:1H:2536:G:C6	26:1H:2537:U:C4	3.07	0.41
26:1H:2663:G:C6	26:1H:2664:G:C4	3.09	0.41
26:1H:2685:G:OP2	40:B8:51:ARG:NH2	2.53	0.41
26:1H:2795:G:C5	26:1H:2802:G:C6	3.08	0.41
28:11:132:PRO:HG3	28:11:190:TYR:CE1	2.55	0.41
28:11:261:LYS:HG3	28:11:262:ARG:N	2.36	0.41
29:21:17:ASP:C	29:21:19:ARG:H	2.22	0.41
29:21:78:LEU:HD23	29:21:79:ARG:NE	2.35	0.41
34:58:35:ARG:O	34:58:42:TRP:CZ3	2.73	0.41
37:88:52:VAL:HA	37:88:55:VAL:HG13	2.03	0.41
47:I8:60:PHE:CD1	47:I8:60:PHE:N	2.88	0.41
48:J8:8:SER:OG	48:J8:10:LYS:HG3	2.19	0.41
1:1G:164:U:H2'	1:1G:165:C:C6	2.56	0.41
1:1G:685:G:C2	1:1G:686:U:C4	3.08	0.41
1:1G:947:G:C6	1:1G:948:C:C4	3.09	0.41
1:1G:1072:G:C6	1:1G:1073:U:N3	2.89	0.41
1:1G:1080:A:H5'	5:42:14:ARG:NH2	2.36	0.41
1:1G:1179:A:O3'	9:82:103:THR:HG23	2.19	0.41
1:1G:1203:C:H2'	1:1G:1204:A:O4'	2.20	0.41
1:1G:1277:C:O2'	1:1G:1279:A:H8	2.03	0.41
1:1G:1308:U:OP1	13:4A:98:VAL:HG23	2.21	0.41
1:1G:1321:C:H4'	13:4A:87:TYR:CZ	2.55	0.41
1:1G:1511:G:H2'	1:1G:1512:U:O4'	2.20	0.41
3:22:102:ASN:OD1	3:22:102:ASN:N	2.53	0.41
3:22:130:VAL:O	3:22:134:ILE:HG12	2.20	0.41
3:22:152:ILE:HA	3:22:167:TRP:HB2	2.02	0.41
5:42:61:TYR:HA	5:42:64:ARG:HD2	2.02	0.41
7:62:139:GLU:HB3	7:62:143:ARG:NH2	2.35	0.41
11:2A:38:ASN:HA	11:2A:39:PRO:HD3	1.79	0.41
18:9A:87:ARG:HD2	18:9A:87:ARG:HA	1.71	0.41
19:AA:18:LYS:HE2	19:AA:31:ILE:HG12	2.03	0.41
24:1L:75:C:O2'	24:1L:76:C:OP1	2.30	0.41
26:14:31:C:O2'	26:14:32:C:H5'	2.20	0.41
26:14:262:A:H2'	26:14:263:C:O4'	2.21	0.41
26:14:303:U:H2'	26:14:304:G:O4'	2.20	0.41
26:14:315:G:H2'	26:14:316:C:C6	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:943:U:P	36:35:36:LYS:HG3	2.59	0.41
26:14:1091:G:C6	26:14:1092:C:C4	3.08	0.41
26:14:2055:C:OP1	26:14:2056:G:H4'	2.21	0.41
26:14:2572:A:N7	29:29:145:LYS:HB2	2.36	0.41
27:1J:53:A:H2'	27:1J:54:G:O4'	2.21	0.41
29:29:81:ILE:HD12	29:29:81:ILE:HG23	1.74	0.41
37:45:118:LEU:HD23	37:45:118:LEU:HA	1.87	0.41
46:D5:52:SER:C	46:D5:54:HIS:H	2.24	0.41
46:D5:59:LEU:HB3	46:D5:60:GLU:H	1.68	0.41
52:J5:26:THR:HA	52:J5:27:PRO:HD2	1.91	0.41
1:13:556:C:H2'	1:13:557:G:C8	2.55	0.41
1:13:669:U:C2	1:13:670:G:C8	3.07	0.41
1:13:717:C:H5''	1:13:717:C:H6	1.85	0.41
1:13:758:G:H8	1:13:758:G:O5'	2.04	0.41
1:13:825:G:H2'	1:13:826:C:C6	2.55	0.41
1:13:938:A:C6	1:13:939:G:C5	3.09	0.41
1:13:948:C:OP1	13:4I:109:THR:OG1	2.38	0.41
1:13:1176:A:H2'	1:13:1177:G:H4'	2.02	0.41
1:13:1178:G:O6	9:8E:97:LYS:NZ	2.51	0.41
1:13:1249:C:O2'	9:8E:73:GLN:OE1	2.31	0.41
2:1E:27:LYS:HB3	2:1E:194:PRO:HD2	2.02	0.41
2:1E:85:ALA:O	2:1E:90:MET:N	2.54	0.41
2:1E:192:SER:OG	2:1E:193:ASP:N	2.53	0.41
3:2E:84:ILE:HD11	3:2E:101:LEU:HD22	2.02	0.41
9:8E:4:TYR:CZ	9:8E:88:TYR:HB2	2.56	0.41
26:1H:44:A:O2'	26:1H:45:G:H5'	2.20	0.41
26:1H:77:C:H5''	49:K8:10:LEU:HD21	2.01	0.41
26:1H:193:U:H5	59:1H:3591:HOH:O	2.01	0.41
26:1H:443:A:N7	30:31:45:ARG:HG2	2.35	0.41
26:1H:1287:A:C5	26:1H:1288:U:C4	3.08	0.41
26:1H:1576:U:N3	26:1H:1577:C:C5	2.88	0.41
26:1H:1638:C:H5''	26:1H:2710:C:O2'	2.20	0.41
26:1H:1727:U:H2'	26:1H:1728:G:O4'	2.20	0.41
26:1H:2533:A:H2'	26:1H:2534:A:O4'	2.21	0.41
26:1H:2638:G:P	29:21:82:ARG:HH22	2.42	0.41
26:1H:2649:U:H2'	26:1H:2650:U:C6	2.55	0.41
26:1H:2783:G:H2'	26:1H:2784:C:H6	1.85	0.41
29:21:4:ILE:HG22	29:21:198:VAL:HB	2.01	0.41
29:21:167:VAL:HG13	29:21:189:PRO:HD3	2.01	0.41
30:31:33:LEU:HB3	36:78:6:LEU:HD11	2.02	0.41
34:58:14:VAL:HG12	34:58:15:LEU:H	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:78:63:PRO:HB3	54:Q8:12:LYS:O	2.20	0.41
38:98:38:VAL:HG23	38:98:110:PRO:O	2.20	0.41
41:C8:107:ALA:O	41:C8:110:VAL:HB	2.21	0.41
49:K8:18:PRO:O	49:K8:22:GLU:HG3	2.21	0.41
51:M8:55:ARG:NH2	51:M8:56:VAL:HB	2.35	0.41
1:1G:407:G:H2'	1:1G:408:A:C8	2.54	0.41
2:12:22:LYS:HB3	2:12:40:HIS:NE2	2.34	0.41
2:12:24:TRP:HD1	2:12:25:ASN:C	2.22	0.41
2:12:121:LEU:HD21	2:12:126:GLU:HB3	2.02	0.41
3:22:95:THR:C	3:22:97:LYS:H	2.23	0.41
4:32:158:ILE:O	4:32:162:LEU:HG	2.20	0.41
5:42:12:LEU:HD13	5:42:13:ILE:N	2.35	0.41
8:72:73:ASP:HA	8:72:74:PRO:HD2	1.53	0.41
8:72:103:VAL:HG11	8:72:109:ILE:O	2.20	0.41
18:9A:31:LEU:HD11	18:9A:62:GLU:HB3	2.02	0.41
24:1L:18:G:H3'	24:1L:19:C:C5	2.54	0.41
26:14:140:A:C8	26:14:1408:C:O2'	2.70	0.41
26:14:442:G:C6	26:14:444:C:N4	2.88	0.41
26:14:676:A:H2	26:14:802:A:H61	1.64	0.41
26:14:757:U:H2'	26:14:758:C:O4'	2.20	0.41
26:14:872:A:C6	26:14:873:G:C6	3.08	0.41
26:14:908:C:P	37:45:22:LYS:HD3	2.60	0.41
26:14:1543:A:H1'	26:14:1545:A:H1'	2.02	0.41
26:14:1891:G:C6	26:14:1892:C:C4	3.09	0.41
26:14:2094:G:C2'	26:14:2095:C:H5'	2.50	0.41
26:14:2465:C:O2	26:14:2486:G:C2	2.73	0.41
26:14:2683:C:OP1	40:75:53:ARG:NH2	2.53	0.41
26:14:2766:G:H2'	26:14:2766:G:N3	2.36	0.41
30:39:132:VAL:HG22	30:39:133:ASN:N	2.35	0.41
30:39:205:ARG:HB2	30:39:205:ARG:NH1	2.36	0.41
31:49:105:LYS:NZ	51:I5:26:SER:HA	2.35	0.41
33:69:124:GLY:H	33:69:142:VAL:HB	1.84	0.41
34:15:59:LYS:HD2	34:15:59:LYS:HA	1.89	0.41
35:25:4:PRO:O	35:25:5:GLN:CB	2.68	0.41
35:25:87:ILE:HA	35:25:87:ILE:HD12	1.69	0.41
38:55:96:ARG:HD2	38:55:115:GLU:OE1	2.21	0.41
41:85:55:ARG:HH11	41:85:55:ARG:HD3	1.73	0.41
44:B5:12:VAL:HG13	44:B5:27:THR:O	2.20	0.41
1:13:32:A:C2	1:13:33:A:C4	3.09	0.41
1:13:774:G:H3'	1:13:775:G:H8	1.85	0.41
1:13:823:G:C2	1:13:878:G:C2	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1004:A:H2'	1:13:1005:A:O4'	2.21	0.41
1:13:1024:G:H2'	1:13:1025:U:C6	2.56	0.41
1:13:1075:C:O3'	2:1E:175:ARG:NH2	2.54	0.41
1:13:1347:G:N2	1:13:1374:A:OP2	2.48	0.41
3:2E:96:GLY:H	3:2E:97:LYS:HZ1	1.66	0.41
5:4E:11:ILE:HD11	5:4E:43:LEU:HD11	2.02	0.41
13:4I:23:TYR:CE2	13:4I:71:ARG:HG3	2.56	0.41
18:9I:26:LEU:HD12	18:9I:29:PHE:CD1	2.56	0.41
20:BI:10:LEU:HD11	20:BI:12:ALA:HB3	2.01	0.41
26:1H:24:G:O2'	43:E8:77:ASP:HB3	2.21	0.41
26:1H:174:C:H2'	26:1H:175:G:O4'	2.20	0.41
26:1H:415:A:H2'	26:1H:416:C:O4'	2.20	0.41
26:1H:643:A:O2'	26:1H:644:A:H5'	2.21	0.41
26:1H:648:G:O2'	26:1H:2351:G:OP1	2.26	0.41
26:1H:758:C:O2	26:1H:1981:A:H2	2.04	0.41
26:1H:978:G:C2	26:1H:986:C:C2	3.09	0.41
26:1H:1131:G:H8	26:1H:2025:C:H4'	1.84	0.41
26:1H:1567:A:C8	28:11:84:TYR:CE2	3.09	0.41
26:1H:1641:A:N6	26:1H:1642:G:C2	2.89	0.41
26:1H:1878:G:H2'	26:1H:1879:C:C6	2.55	0.41
26:1H:2212:A:N3	26:1H:2215:G:N1	2.69	0.41
26:1H:2259:G:C2	26:1H:2282:G:N1	2.88	0.41
26:1H:2572:A:C4	29:21:144:ARG:NH1	2.88	0.41
26:1H:2837:G:H21	38:98:45:ARG:NH2	2.18	0.41
29:21:67:PHE:C	29:21:69:LYS:H	2.24	0.41
32:51:86:GLU:HG2	32:51:165:ALA:H	1.85	0.41
35:68:68:GLU:H	35:68:68:GLU:HG2	1.58	0.41
37:88:86:GLY:C	37:88:88:GLY:N	2.61	0.41
43:E8:74:ALA:HA	43:E8:104:THR:O	2.21	0.41
44:F8:52:VAL:HG23	44:F8:82:GLN:HB3	2.03	0.41
46:H8:6:LYS:HE3	46:H8:6:LYS:HB2	1.79	0.41
47:I8:25:ARG:HA	47:I8:29:GLN:NE2	2.36	0.41
50:L8:31:LEU:HB3	50:L8:32:GLN:OE1	2.20	0.41
53:P8:30:VAL:O	53:P8:34:ARG:HG3	2.21	0.41
1:1G:280:C:N3	17:8A:39:SER:N	2.68	0.41
1:1G:726:C:H2'	1:1G:727:G:C8	2.56	0.41
6:52:19:LEU:HD11	6:52:59:TYR:CE1	2.55	0.41
8:72:105:ARG:HD3	8:72:105:ARG:HA	1.83	0.41
18:9A:22:VAL:HG22	18:9A:23:LYS:N	2.33	0.41
18:9A:37:VAL:N	18:9A:38:GLU:OE2	2.53	0.41
24:1L:21:A:C2	24:1L:56:U:C2	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:3L:65:C:N4	26:14:2169:A:H62	2.17	0.41
26:14:2472:G:H1'	26:14:2478:A:H61	1.85	0.41
26:14:2527:C:C4	26:14:2528:U:C5	3.09	0.41
26:14:2881:C:O2'	38:55:96:ARG:HA	2.21	0.41
28:19:239:ARG:CZ	59:19:302:HOH:O	2.69	0.41
30:39:107:LYS:HE2	30:39:205:ARG:HG3	2.02	0.41
36:35:52:GLU:H	36:35:52:GLU:CD	2.24	0.41
44:B5:21:PHE:CZ	44:B5:92:LEU:HD22	2.56	0.41
44:B5:50:LYS:HB3	44:B5:84:ALA:H	1.86	0.41
46:D5:67:LEU:HA	46:D5:68:PRO:HD3	1.57	0.41
51:I5:31:ILE:HG22	51:I5:32:TYR:CG	2.55	0.41
1:13:68:G:C2	1:13:69:G:C4	3.09	0.41
1:13:257:G:C2	1:13:258:G:C4	3.09	0.41
1:13:428:G:C5	1:13:430:A:C6	3.09	0.41
1:13:760:G:H2'	1:13:761:G:H5'	2.02	0.41
1:13:942:G:C2	1:13:1342:C:C2	3.08	0.41
1:13:1284:C:H3'	1:13:1285:A:C8	2.55	0.41
1:13:1285:A:O5'	1:13:1285:A:H8	2.04	0.41
1:13:1346:A:N7	1:13:1374:A:H2	2.18	0.41
2:1E:142:LEU:O	2:1E:146:GLN:N	2.46	0.41
3:2E:135:LYS:O	3:2E:138:VAL:HG12	2.20	0.41
4:3E:13:ARG:HG2	4:3E:13:ARG:H	1.49	0.41
4:3E:85:LYS:HG3	4:3E:86:LYS:H	1.86	0.41
9:8E:34:ASN:O	9:8E:38:GLN:HB2	2.21	0.41
22:1K:3:U:O2'	22:1K:4:G:H8	2.03	0.41
26:1H:44:A:C2	26:1H:45:G:C4	3.09	0.41
26:1H:223:A:O4'	26:1H:422:A:H5'	2.20	0.41
26:1H:547:A:C5	26:1H:548:A:C6	3.09	0.41
26:1H:562:U:H6	26:1H:562:U:H2'	1.73	0.41
26:1H:654(A):A:C2	26:1H:654(T):A:N1	2.88	0.41
26:1H:991:C:C4	26:1H:1185:C:N4	2.89	0.41
26:1H:1429:G:C2	26:1H:1430:C:C2	3.09	0.41
26:1H:1517:G:H2'	26:1H:1518:C:H6	1.85	0.41
26:1H:1582:C:O2'	26:1H:1586:A:C8	2.71	0.41
26:1H:2138:C:H42	26:1H:2153:G:H1	1.68	0.41
26:1H:2329:G:H2'	26:1H:2330:G:C8	2.56	0.41
28:11:33:LEU:HD23	28:11:33:LEU:HA	1.78	0.41
28:11:102:LYS:C	28:11:103:ARG:HG2	2.40	0.41
30:31:64:ILE:HA	30:31:64:ILE:HD13	1.76	0.41
32:51:167:GLU:HA	32:51:168:PRO:HD3	1.62	0.41
33:61:124:GLY:O	33:61:142:VAL:HG23	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:B8:21:GLU:H	40:B8:21:GLU:HG3	1.73	0.41
44:F8:43:VAL:HG13	44:F8:47:PHE:CD2	2.56	0.41
46:H8:8:TYR:HB2	46:H8:38:TYR:CE1	2.56	0.41
1:1G:22:G:H2'	1:1G:23:C:C6	2.56	0.41
1:1G:41:G:H2'	1:1G:42:G:C8	2.55	0.41
1:1G:108:G:OP1	1:1G:326:G:N2	2.48	0.41
1:1G:167:G:H2'	1:1G:168:G:C8	2.53	0.41
1:1G:246:A:OP1	17:8A:101:ARG:NH2	2.54	0.41
1:1G:447:G:H2'	1:1G:485:G:N2	2.36	0.41
1:1G:625:G:H2'	1:1G:626:U:C6	2.55	0.41
1:1G:626:U:H2'	1:1G:627:G:C8	2.55	0.41
1:1G:827:U:C4	1:1G:870:U:C4	3.08	0.41
1:1G:954:G:H21	1:1G:1227:A:H62	1.68	0.41
1:1G:1127:G:N2	1:1G:1144:G:H1	1.99	0.41
1:1G:1236:A:H2'	1:1G:1237:C:C6	2.56	0.41
1:1G:1359:C:OP2	14:5A:35:ARG:HD3	2.20	0.41
2:12:19:HIS:NE2	2:12:204:ASN:HB3	2.34	0.41
3:22:42:LEU:HD13	3:22:42:LEU:HA	1.95	0.41
10:1A:27:ALA:HA	10:1A:81:THR:HB	2.03	0.41
11:2A:12:ARG:NH2	11:2A:13:GLN:O	2.54	0.41
15:6A:48:LYS:NZ	15:6A:48:LYS:HA	2.36	0.41
19:AA:48:THR:HG22	19:AA:61:TYR:HB2	2.02	0.41
26:14:192:C:O2'	26:14:802:A:N3	2.50	0.41
26:14:270(G):C:H2'	26:14:270(H):C:H6	1.84	0.41
26:14:353:G:H2'	26:14:354:G:H8	1.85	0.41
26:14:654(B):C:H2'	26:14:654(C):G:H8	1.81	0.41
26:14:824:A:H1'	26:14:2358:G:N7	2.36	0.41
26:14:913:U:H4'	26:14:914:C:OP1	2.20	0.41
26:14:1051:G:H8	26:14:1051:G:OP2	2.03	0.41
26:14:1486:A:H2'	26:14:1487:G:H8	1.85	0.41
26:14:1783:A:P	59:14:3401:HOH:O	2.79	0.41
26:14:2181:G:C2	26:14:2182:G:C4	3.09	0.41
30:39:51:THR:HB	30:39:88:VAL:HG11	2.02	0.41
33:69:117:GLU:HB2	33:69:118:LYS:H	1.73	0.41
36:35:84:ASN:HA	36:35:115:LEU:H	1.86	0.41
42:95:68:LYS:HA	42:95:68:LYS:HE3	2.02	0.41
43:A5:50:VAL:HG22	43:A5:105:VAL:HG23	2.03	0.41
44:B5:31:HIS:HA	44:B5:32:PRO:HD3	1.81	0.41
46:D5:124:ILE:HD12	46:D5:125:LEU:H	1.85	0.41
1:13:373:A:C2	1:13:374:A:C8	3.08	0.41
1:13:447:G:C6	1:13:485:G:H1'	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:673:G:H2'	1:13:674:G:C8	2.56	0.41
1:13:954:G:H2'	1:13:955:U:C6	2.56	0.41
1:13:976:G:OP1	14:5I:32:SER:N	2.52	0.41
1:13:1123:A:O2'	10:1I:36:GLY:O	2.38	0.41
1:13:1219:U:H2'	1:13:1220:G:O4'	2.21	0.41
2:1E:163:PHE:HA	2:1E:185:ILE:HG13	2.01	0.41
12:3I:60:LEU:HB2	12:3I:65:GLU:H	1.85	0.41
15:6I:65:ARG:O	15:6I:68:ARG:HB3	2.21	0.41
17:8I:9:VAL:HG21	17:8I:84:LEU:HD12	2.03	0.41
17:8I:31:LEU:HD23	17:8I:32:TYR:CZ	2.56	0.41
19:AI:38:SER:O	19:AI:70:LYS:HA	2.21	0.41
22:1K:42:U:H3'	22:1K:43:G:H8	1.86	0.41
26:1H:51:G:N3	26:1H:119:A:C2	2.89	0.41
26:1H:182:A:C6	26:1H:183:C:C4	3.08	0.41
26:1H:315:G:C5	26:1H:316:C:C4	3.09	0.41
26:1H:751:A:C5'	43:E8:90:ARG:HA	2.50	0.41
26:1H:984:A:H5''	26:1H:985:C:C5	2.56	0.41
26:1H:1189:A:P	59:1H:3711:HOH:O	2.79	0.41
26:1H:1346:G:C6	26:1H:1601:G:N1	2.89	0.41
26:1H:2093:G:OP2	33:61:22:LYS:HD2	2.21	0.41
30:31:196:LEU:C	30:31:197:ASP:O	2.59	0.41
31:41:20:ILE:O	31:41:24:GLY:HA2	2.20	0.41
33:61:40:THR:HB	33:61:43:ASN:H	1.85	0.41
34:58:30:ILE:HG22	34:58:34:LEU:HD22	2.03	0.41
36:78:58:THR:HA	36:78:60:MET:H	1.86	0.41
37:88:37:LEU:HD21	37:88:130:LYS:HB2	2.02	0.41
38:98:47:PHE:HE1	38:98:51:LEU:HD11	1.85	0.41
40:B8:87:ASP:OD1	40:B8:87:ASP:N	2.53	0.41
46:H8:35:ARG:HB3	46:H8:35:ARG:HH11	1.86	0.41
49:K8:50:ILE:H	49:K8:50:ILE:HG13	1.59	0.41
1:1G:792:A:H4'	1:1G:793:U:C5'	2.50	0.41
1:1G:881:G:H2'	1:1G:882:C:O4'	2.21	0.41
1:1G:1028:C:C4	1:1G:1034:G:N2	2.87	0.41
1:1G:1033:G:H2'	1:1G:1034:G:O4'	2.20	0.41
1:1G:1126:U:O2'	1:1G:1127:G:OP1	2.35	0.41
1:1G:1366:C:H5''	1:1G:1367:C:OP2	2.21	0.41
1:1G:1469:G:H2'	1:1G:1470:G:H8	1.86	0.41
2:12:130:ARG:HD3	2:12:130:ARG:HA	1.79	0.41
4:32:92:VAL:O	4:32:96:LEU:HD23	2.21	0.41
11:2A:17:GLY:HA3	11:2A:77:MET:SD	2.60	0.41
11:2A:81:ASP:N	11:2A:81:ASP:OD1	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:7A:11:SER:HB2	16:7A:14:ASN:HB3	2.03	0.41
17:8A:99:SER:O	17:8A:100:LYS:NZ	2.43	0.41
26:14:28:A:OP2	59:14:3842:HOH:O	2.22	0.41
26:14:251:A:C5	26:14:252:G:H1'	2.56	0.41
26:14:1026:U:OP2	26:14:1026:U:H6	2.03	0.41
26:14:1141:U:P	34:15:25:ARG:HH21	2.44	0.41
26:14:2018:G:H21	41:85:34:LYS:HZ1	1.67	0.41
26:14:2828:C:H2'	26:14:2829:C:C6	2.56	0.41
26:14:2865:U:C4	26:14:2866:U:C4	3.09	0.41
28:19:273:ARG:O	28:19:274:ARG:C	2.59	0.41
29:29:50:GLY:HA2	29:29:78:LEU:HB3	2.02	0.41
29:29:66:HIS:ND1	29:29:71:GLY:HA2	2.35	0.41
30:39:20:LEU:HD12	30:39:199:TRP:HH2	1.86	0.41
30:39:27:GLU:O	30:39:28:ILE:HG12	2.20	0.41
30:39:178:PRO:HG2	30:39:179:GLU:OE1	2.20	0.41
32:59:27:LYS:HA	32:59:32:GLU:HB3	2.03	0.41
32:59:72:ILE:H	32:59:72:ILE:HG13	1.52	0.41
32:59:152:ARG:HG3	32:59:153:LYS:N	2.35	0.41
32:59:158:HIS:O	32:59:158:HIS:ND1	2.50	0.41
40:75:118:ARG:HA	40:75:118:ARG:HD3	1.88	0.41
47:E5:12:ASN:HA	47:E5:14:ARG:HH21	1.85	0.41
1:13:78:G:O6	1:13:79:G:N2	2.53	0.41
1:13:127:G:N2	1:13:235:C:C2	2.89	0.41
1:13:260:G:C6	1:13:261:U:O4	2.74	0.41
1:13:607:A:H2'	1:13:608:A:O4'	2.21	0.41
1:13:685:G:O2'	1:13:686:U:H5'	2.21	0.41
1:13:721:G:H4'	1:13:722:A:O4'	2.21	0.41
1:13:771:G:O2'	1:13:772:U:H5'	2.21	0.41
1:13:779:C:H2'	1:13:780:A:O4'	2.21	0.41
1:13:987:G:H1	1:13:1218:C:N4	2.19	0.41
1:13:1132:C:C2'	1:13:1133:G:H5'	2.51	0.41
1:13:1325:C:H2'	1:13:1326:C:C6	2.56	0.41
1:13:1350:A:C5	1:13:1351:U:C4	3.09	0.41
1:13:1365:G:C6	1:13:1366:C:C4	3.09	0.41
2:1E:25:ASN:ND2	2:1E:193:ASP:HB3	2.36	0.41
2:1E:130:ARG:H	2:1E:130:ARG:HG2	1.52	0.41
3:2E:122:GLU:HA	3:2E:125:GLU:HG3	2.03	0.41
5:4E:77:PRO:HG2	5:4E:78:HIS:CD2	2.55	0.41
6:5E:44:GLY:HA2	6:5E:59:TYR:CE2	2.55	0.41
8:7E:21:LYS:O	8:7E:65:TYR:OH	2.38	0.41
9:8E:5:TYR:OH	9:8E:16:ARG:HG2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:111:ARG:HD2	14:5I:61:TRP:CD1	2.56	0.41
11:2I:15:ALA:HA	11:2I:77:MET:HA	2.02	0.41
11:2I:29:ILE:HD13	11:2I:29:ILE:HG21	1.88	0.41
12:3I:66:VAL:HG21	12:3I:98:TYR:CE1	2.56	0.41
12:3I:90:VAL:HG11	12:3I:93:LEU:CG	2.50	0.41
12:3I:113:ARG:HH21	12:3I:116:SER:HB2	1.85	0.41
18:9I:50:ILE:HG21	18:9I:50:ILE:HD13	1.84	0.41
24:3K:12:C:H42	24:3K:24:G:H1	1.67	0.41
26:1H:255:A:O2'	26:1H:384:U:OP1	2.39	0.41
26:1H:444:C:H2'	26:1H:445:C:H6	1.86	0.41
26:1H:518:G:H2'	26:1H:519:U:H6	1.82	0.41
26:1H:651:G:OP1	54:Q8:19:SER:OG	2.22	0.41
26:1H:673:C:H5''	30:31:54:ARG:NH1	2.35	0.41
26:1H:709:U:H2'	26:1H:710:G:C8	2.56	0.41
26:1H:859:G:H5'	26:1H:2268:A:O2'	2.21	0.41
26:1H:996:A:H4'	41:C8:92:ARG:CG	2.51	0.41
26:1H:1048:A:C4	26:1H:1049:C:C5	3.09	0.41
26:1H:1144:G:C6	26:1H:1145:C:C4	3.09	0.41
26:1H:1348:G:H2'	26:1H:1349:A:H5''	2.03	0.41
26:1H:1355:G:C6	26:1H:1356:G:C5	3.08	0.41
26:1H:1606:G:H5''	26:1H:1607:C:OP1	2.20	0.41
26:1H:1651:G:N2	26:1H:2007:C:C2	2.89	0.41
26:1H:1658:C:H2'	26:1H:1659:U:C6	2.56	0.41
26:1H:1743:G:C2	26:1H:1746:G:C8	3.08	0.41
26:1H:1799:G:H5'	26:1H:1819:A:N6	2.36	0.41
26:1H:1809:A:N6	26:1H:1810:A:N1	2.68	0.41
26:1H:1899:G:N2	26:1H:1901:A:C5	2.88	0.41
26:1H:1999:C:H2'	26:1H:2000:G:O4'	2.20	0.41
26:1H:2038:G:H2'	26:1H:2039:C:C6	2.56	0.41
26:1H:2058:A:H5''	26:1H:2059:A:OP2	2.21	0.41
26:1H:2078:C:H2'	26:1H:2079:U:H6	1.85	0.41
26:1H:2127:G:H22	26:1H:2162:G:C1'	2.28	0.41
26:1H:2304:G:H5''	31:41:124:SER:HB3	2.02	0.41
26:1H:2311:A:H8	31:41:88:ILE:HD12	1.86	0.41
26:1H:2352:A:C4	26:1H:2366:A:C2	3.09	0.41
26:1H:2419:U:O4	54:Q8:30:ARG:NH2	2.54	0.41
26:1H:2533:A:OP1	26:1H:2665:A:H1'	2.20	0.41
26:1H:2556:C:H2'	26:1H:2557:G:O4'	2.20	0.41
26:1H:2687:U:C4	26:1H:2688:U:C5	3.08	0.41
26:1H:2692:C:H1'	26:1H:2847:U:H1'	2.02	0.41
27:16:63:G:C2	27:16:64:C:C2	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:11:183:ARG:HG3	28:11:184:LYS:O	2.21	0.41
29:21:29:GLY:N	29:21:51:PHE:HE1	2.16	0.41
29:21:39:PRO:HD3	29:21:45:THR:HG22	2.03	0.41
29:21:110:GLY:O	38:98:3:HIS:HE1	2.04	0.41
29:21:110:GLY:O	38:98:3:HIS:CE1	2.74	0.41
31:41:98:ARG:HA	31:41:101:ILE:HG23	2.03	0.41
31:41:172:LEU:O	31:41:176:LEU:HB2	2.20	0.41
34:58:65:LYS:HE3	34:58:65:LYS:HB2	1.60	0.41
34:58:127:ASP:O	34:58:128:HIS:HB3	2.19	0.41
35:68:71:ARG:HB2	35:68:73:ASP:OD1	2.21	0.41
38:98:70:LEU:O	38:98:71:GLN:HB3	2.20	0.41
40:B8:26:ASP:OD2	40:B8:120:ARG:NH2	2.28	0.41
40:B8:53:ARG:NH1	40:B8:60:THR:OG1	2.54	0.41
41:C8:103:PRO:O	41:C8:106:PHE:N	2.53	0.41
44:F8:35:THR:HG23	44:F8:38:GLU:H	1.86	0.41
44:F8:66:LEU:HD12	44:F8:66:LEU:HA	1.64	0.41
44:F8:72:LYS:HD2	44:F8:73:ARG:O	2.21	0.41
45:G8:5:MET:HE1	45:G8:32:PRO:HA	2.01	0.41
45:G8:94:LYS:HG3	45:G8:95:LYS:N	2.35	0.41
46:H8:67:LEU:HD22	46:H8:90:VAL:HG11	2.02	0.41
47:I8:72:ARG:HB3	47:I8:75:LEU:HB2	2.03	0.41
48:J8:82:LEU:H	48:J8:82:LEU:HD22	1.85	0.41
49:K8:55:ARG:O	49:K8:58:ALA:HB3	2.20	0.41
1:1G:87:A:N3	1:1G:87:A:H2'	2.36	0.41
1:1G:130:A:H1'	1:1G:263:A:O2'	2.21	0.41
1:1G:174:C:O2'	1:1G:175:C:H5'	2.21	0.41
1:1G:338:A:C6	1:1G:339:C:C4	3.09	0.41
1:1G:359:U:H2'	1:1G:360:A:C8	2.56	0.41
1:1G:376:G:H5''	16:7A:5:ARG:HB2	2.02	0.41
1:1G:954:G:H2'	1:1G:955:U:H6	1.83	0.41
1:1G:1122:U:C4	1:1G:1123:A:N7	2.89	0.41
1:1G:1165:C:H2'	1:1G:1166:G:O4'	2.21	0.41
1:1G:1431:C:H2'	1:1G:1432:G:O4'	2.20	0.41
1:1G:1447:G:O5'	1:1G:1447:G:H8	2.04	0.41
2:12:98:LEU:HD23	2:12:98:LEU:HA	1.86	0.41
3:22:134:ILE:HD11	3:22:153:VAL:HG21	2.02	0.41
5:42:9:LYS:HD2	5:42:10:MET:HE3	2.03	0.41
6:52:1:MET:HG2	6:52:68:PRO:HA	2.02	0.41
12:3A:53:ARG:HH12	12:3A:92:ASP:CB	2.34	0.41
16:7A:49:LEU:HD13	16:7A:73:LEU:HD22	2.02	0.41
17:8A:23:VAL:O	17:8A:39:SER:HA	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2L:20:G:C2	23:2L:58:A:C2	3.09	0.41
55:3L:76:C:H2'	55:3L:77:C:H6	1.85	0.41
26:14:17:G:H2'	26:14:18:C:C6	2.55	0.41
26:14:117:G:OP2	26:14:119:A:O2'	2.32	0.41
26:14:117:G:C6	26:14:119:A:C6	3.09	0.41
26:14:681:G:H2'	26:14:682:G:O4'	2.21	0.41
26:14:807:U:H2'	26:14:808:G:H8	1.85	0.41
26:14:1200:C:H1'	41:85:2:PRO:HG3	2.02	0.41
26:14:1269:A:H2'	26:14:1270:C:C6	2.56	0.41
26:14:1389:G:C2	26:14:1390:U:C2	3.08	0.41
26:14:1392:A:N6	26:14:1393:A:N6	2.68	0.41
26:14:1459:G:O2'	26:14:1460:A:H5'	2.20	0.41
26:14:1510:A:OP2	26:14:1510:A:H8	2.04	0.41
26:14:1538:G:H2'	26:14:1539:G:H8	1.85	0.41
26:14:2692:C:H1'	26:14:2847:U:H1'	2.03	0.41
28:19:71:ASP:OD2	28:19:103:ARG:NH1	2.50	0.41
28:19:77:ALA:HB2	28:19:97:TYR:CD2	2.56	0.41
28:19:267:SER:C	28:19:269:PHE:H	2.20	0.41
29:29:64:LYS:HB3	29:29:65:GLY:H	1.39	0.41
29:29:119:ARG:HG2	29:29:160:TYR:HB2	2.02	0.41
29:29:141:ILE:HD12	29:29:150:VAL:HG21	2.03	0.41
30:39:165:ARG:HD3	30:39:168:ARG:HH12	1.86	0.41
31:49:68:PRO:HB2	31:49:90:LEU:HD22	2.02	0.41
31:49:131:TYR:CE1	31:49:133:LEU:HD23	2.56	0.41
35:25:102:VAL:HB	35:25:106:LEU:HD12	2.03	0.41
35:25:119:PRO:HB2	40:75:68:TYR:CZ	2.56	0.41
37:45:57:HIS:NE2	37:45:116:GLU:HB3	2.36	0.41
41:85:112:ARG:NH2	42:95:47:VAL:HG13	2.36	0.41
42:95:37:VAL:HG11	42:95:57:VAL:HG12	2.01	0.41
46:D5:17:ALA:HA	46:D5:20:ARG:HE	1.86	0.41
47:E5:21:LEU:HA	47:E5:21:LEU:HD23	1.81	0.41
47:E5:25:ARG:HD3	47:E5:25:ARG:HA	1.90	0.41
48:F5:91:LYS:HZ1	48:F5:95:LEU:HD12	1.86	0.41
1:13:22:G:H2'	1:13:23:C:C6	2.55	0.41
1:13:51:A:N7	1:13:114:U:O2'	2.54	0.41
1:13:237:C:H5''	17:8I:25:ARG:CZ	2.50	0.41
1:13:475:G:H2'	1:13:476:G:H8	1.86	0.41
1:13:1178:G:N2	1:13:1181:G:C8	2.87	0.41
1:13:1178:G:H5''	9:8E:93:ARG:HH22	1.86	0.41
1:13:1365:G:H2'	1:13:1366:C:C6	2.56	0.41
1:13:1423:G:P	35:68:49:ARG:NH2	2.94	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:13:ALA:HA	2:1E:17:PHE:HE2	1.85	0.41
5:4E:74:GLY:O	5:4E:115:VAL:HA	2.21	0.41
9:8E:29:ASN:OD1	9:8E:65:VAL:N	2.54	0.41
15:6I:32:LEU:O	15:6I:35:ARG:N	2.54	0.41
17:8I:100:LYS:HB3	17:8I:101:ARG:NH1	2.36	0.41
20:BI:55:ILE:O	20:BI:58:LYS:N	2.54	0.41
26:1H:9:U:O4	26:1H:2629:A:H8	2.03	0.41
26:1H:60:G:C2	26:1H:74:A:C5	3.09	0.41
26:1H:248:G:H5'	26:1H:250:G:N7	2.35	0.41
26:1H:289:A:H2'	26:1H:290:G:O4'	2.20	0.41
26:1H:527:C:OP2	26:1H:2779:U:H5	2.03	0.41
26:1H:546:C:N4	26:1H:547:A:N1	2.69	0.41
26:1H:562:U:C4	26:1H:2036:C:O4'	2.74	0.41
26:1H:1329:U:H3'	26:1H:1330:C:H6	1.86	0.41
26:1H:1614:A:N6	43:E8:88:ARG:H	2.18	0.41
26:1H:2054:A:OP1	26:1H:2055:C:O2'	2.36	0.41
26:1H:2148:G:N2	26:1H:2149:G:H1'	2.35	0.41
26:1H:2773:C:H2'	26:1H:2774:C:H6	1.86	0.41
27:16:17:C:H2'	27:16:18:G:O4'	2.22	0.41
28:11:17:THR:HB	28:11:205:VAL:N	2.28	0.41
29:21:105:THR:HA	29:21:166:THR:HG23	2.03	0.41
33:61:117:GLU:H	33:61:117:GLU:HG2	1.31	0.41
36:78:3:LEU:HA	36:78:3:LEU:HD23	1.76	0.41
41:C8:93:LYS:H	41:C8:93:LYS:HG3	1.67	0.41
42:D8:29:PRO:HA	42:D8:61:VAL:HG23	2.03	0.41
49:K8:4:SER:HB3	49:K8:7:ARG:HG2	2.01	0.41
49:K8:21:LEU:HD13	49:K8:64:LEU:HA	2.03	0.41
49:K8:47:ASN:C	49:K8:49:LYS:N	2.70	0.41
1:1G:81:G:H8	1:1G:81:G:O5'	2.03	0.41
1:1G:440:A:H3'	1:1G:442:C:H6	1.86	0.41
1:1G:957:U:H2'	1:1G:959:A:OP2	2.21	0.41
1:1G:1028(B):C:N3	1:1G:1032(A):G:N2	2.69	0.41
1:1G:1523:G:OP1	11:2A:123:LYS:HD2	2.21	0.41
4:32:64:LEU:HB2	4:32:198:VAL:HG11	2.02	0.41
6:52:69:GLU:O	6:52:72:VAL:HG12	2.20	0.41
13:4A:3:ARG:O	51:I5:34:GLU:HG3	2.20	0.41
18:9A:32:ARG:HD3	18:9A:65:ILE:HD12	2.02	0.41
26:14:563:G:C6	26:14:564:C:C4	3.08	0.41
26:14:823:G:H2'	26:14:824:A:H8	1.82	0.41
26:14:895:U:H4'	26:14:896:A:C5	2.55	0.41
26:14:1006:C:C2	26:14:1138:G:N2	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1046:A:H4'	26:14:1047:G:OP2	2.21	0.41
26:14:1287:A:C5	26:14:1288:U:C4	3.09	0.41
26:14:1410:G:H2'	26:14:1411:C:C6	2.56	0.41
26:14:1729:A:C6	26:14:1731:G:C6	3.09	0.41
26:14:1803:A:C8	26:14:1804:C:C5	3.08	0.41
26:14:1833:U:O2	26:14:1969:A:H2	2.02	0.41
26:14:1857:G:C6	26:14:1858:G:N1	2.89	0.41
26:14:1894:C:H2'	26:14:1895:C:H5'	2.03	0.41
26:14:2663:G:H3'	26:14:2664:G:H8	1.86	0.41
27:1J:57:A:O5'	27:1J:57:A:H8	2.04	0.41
31:49:57:ALA:HB2	31:49:90:LEU:HD11	2.02	0.41
34:15:10:GLU:HA	34:15:11:PRO:HD2	1.75	0.41
34:15:56:ASN:H	34:15:125:GLY:CA	2.28	0.41
37:45:63:LYS:NZ	37:45:63:LYS:HA	2.36	0.41
40:75:24:PRO:HA	40:75:49:VAL:HG23	2.02	0.41
43:A5:65:LEU:HD13	43:A5:68:ARG:CD	2.51	0.41
43:A5:69:LEU:HA	43:A5:108:GLY:O	2.20	0.41
51:I5:37:SER:C	51:I5:39:CYS:N	2.73	0.41
1:13:359:U:H2'	1:13:360:A:C8	2.56	0.40
1:13:452:A:C6	1:13:453:A:C6	3.09	0.40
1:13:696:A:O5'	1:13:696:A:H8	2.04	0.40
1:13:1267:C:O2	21:1F:20:LYS:NZ	2.34	0.40
3:2E:108:ASN:HA	3:2E:109:PRO:HD2	1.98	0.40
4:3E:65:ARG:HD2	4:3E:70:ILE:O	2.21	0.40
7:6E:59:LEU:HD23	7:6E:59:LEU:HA	1.93	0.40
9:8E:18:PHE:HB2	9:8E:62:TYR:O	2.21	0.40
11:2I:87:THR:HG22	11:2I:88:GLY:N	2.33	0.40
13:4I:34:LEU:HD13	13:4I:34:LEU:HA	1.86	0.40
14:5I:11:LYS:C	14:5I:13:THR:H	2.23	0.40
15:6I:71:GLN:O	15:6I:71:GLN:HG2	2.20	0.40
16:7I:53:VAL:O	16:7I:57:ARG:HG2	2.20	0.40
18:9I:38:GLU:CD	18:9I:41:LYS:HE3	2.41	0.40
25:4K:23:A:H2'	25:4K:24:A:N7	2.35	0.40
26:1H:25:U:O2'	26:1H:26:G:H5'	2.21	0.40
26:1H:111:A:H4'	49:K8:69:ARG:NH2	2.36	0.40
26:1H:577:G:C6	26:1H:578:A:C6	3.09	0.40
26:1H:583:G:OP2	41:C8:10:ARG:NH1	2.45	0.40
26:1H:817:C:H4'	26:1H:932:G:C5	2.56	0.40
26:1H:1071:G:H8	26:1H:1071:G:O5'	2.04	0.40
26:1H:1337:G:C2	26:1H:1338:G:C4	3.09	0.40
26:1H:1359:A:H61	26:1H:1372:U:H3	1.67	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1394:U:H6	26:1H:1394:U:H3'	1.86	0.40
26:1H:1477:A:C2	26:1H:1517:G:C2	3.09	0.40
26:1H:1566:A:O2'	26:1H:1567:A:H5'	2.20	0.40
26:1H:1932:A:H2'	26:1H:1933:G:O4'	2.20	0.40
26:1H:2186:G:H2'	26:1H:2187:G:H8	1.87	0.40
26:1H:2786:U:O2'	29:21:62:PRO:HA	2.20	0.40
30:31:108:LYS:O	30:31:112:MET:HG3	2.21	0.40
34:58:2:LYS:HD2	34:58:2:LYS:HA	1.69	0.40
34:58:104:LYS:HB2	34:58:117:PHE:CE1	2.56	0.40
36:78:83:VAL:O	36:78:114:ILE:HA	2.22	0.40
37:88:30:GLY:HA2	37:88:107:ALA:HB2	2.03	0.40
38:98:63:ARG:HG3	38:98:80:PHE:CE2	2.56	0.40
40:B8:54:ARG:HA	40:B8:59:THR:CG2	2.47	0.40
43:E8:24:ILE:H	43:E8:24:ILE:HG13	1.72	0.40
50:L8:7:LYS:O	50:L8:54:VAL:HA	2.21	0.40
1:1G:66:G:C2	1:1G:67:C:C6	3.09	0.40
1:1G:1232:U:OP1	9:82:124:GLN:HG2	2.21	0.40
2:12:10:LEU:HA	2:12:10:LEU:HD13	1.79	0.40
8:72:107:LEU:HA	8:72:107:LEU:HD23	1.84	0.40
10:1A:54:PHE:CD2	10:1A:55:LYS:HD2	2.56	0.40
17:8A:68:ARG:HG3	17:8A:68:ARG:O	2.22	0.40
21:1B:9:ARG:O	21:1B:13:ILE:HG13	2.21	0.40
55:3L:44:C:H2'	55:3L:45:C:O4'	2.21	0.40
26:14:433:C:C4	26:14:434:U:O4	2.74	0.40
26:14:654(C):G:C2	26:14:654(D):G:H1'	2.57	0.40
26:14:1615:C:C5	26:14:1617:C:C4	3.09	0.40
26:14:2077:A:O2'	26:14:2078:C:H5'	2.21	0.40
28:19:245:PRO:HA	28:19:246:PRO:HD3	1.99	0.40
30:39:82:ILE:H	30:39:82:ILE:HG13	1.58	0.40
37:45:97:VAL:HG11	37:45:103:MET:HE2	2.02	0.40
40:75:61:PHE:CE1	40:75:76:PHE:HB2	2.56	0.40
40:75:97:ALA:C	40:75:98:LYS:HD3	2.41	0.40
43:A5:81:ALA:HB1	43:A5:97:LYS:HB2	2.02	0.40
1:13:148:G:C2	1:13:149:A:C8	3.10	0.40
1:13:342:C:N3	1:13:348:G:C2	2.88	0.40
1:13:433:C:H2'	1:13:434:U:C6	2.57	0.40
1:13:600:C:H2'	1:13:601:C:C6	2.55	0.40
1:13:625:G:H4'	16:7I:16:HIS:ND1	2.36	0.40
1:13:1016:A:H8	1:13:1016:A:O5'	2.05	0.40
1:13:1054:C:N3	22:1K:35:QUO:H1'	2.35	0.40
1:13:1191:A:H5''	1:13:1192:C:OP2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1268:A:N3	1:13:1326:C:O2'	2.52	0.40
5:4E:80:ILE:HG12	5:4E:81:GLU:H	1.86	0.40
5:4E:110:LEU:CD1	5:4E:118:ILE:HG21	2.52	0.40
7:6E:38:LEU:O	7:6E:42:ILE:HG13	2.21	0.40
10:1I:95:GLU:HG2	10:1I:96:ILE:H	1.86	0.40
11:2I:54:ARG:O	11:2I:57:THR:HG22	2.21	0.40
11:2I:59:TYR:O	11:2I:62:GLN:HB3	2.21	0.40
17:8I:67:LYS:CA	17:8I:70:ARG:HH12	2.31	0.40
22:1K:57:C:O2'	22:1K:68:A:H4'	2.21	0.40
23:2K:38:A:H2'	23:2K:39:A:H8	1.86	0.40
24:3K:5:G:H2'	24:3K:6:G:O4'	2.20	0.40
24:3K:10:C:N3	24:3K:11:C:N4	2.69	0.40
24:3K:61:G:H2'	24:3K:62:G:O4'	2.20	0.40
26:1H:449:A:C6	26:1H:450:G:C5	3.09	0.40
26:1H:587:C:C2	36:78:33:ARG:NH1	2.88	0.40
26:1H:588:U:C2	30:31:90:PHE:CE1	3.09	0.40
26:1H:880:G:N2	26:1H:898:C:C2	2.89	0.40
26:1H:988:A:O5'	26:1H:988:A:H8	2.04	0.40
26:1H:1213:A:H1'	26:1H:1238:G:N3	2.36	0.40
26:1H:1338:G:O2'	26:1H:1339:G:H5'	2.22	0.40
26:1H:1346:G:C4	26:1H:1347:G:C8	3.09	0.40
26:1H:1535:U:N3	26:1H:1537:C:H1'	2.36	0.40
26:1H:1641:A:H2'	26:1H:1642:G:O4'	2.21	0.40
26:1H:1691:C:C2'	26:1H:1692:U:H5'	2.51	0.40
26:1H:1833:U:C4	26:1H:1834:U:C4	3.09	0.40
26:1H:1992:G:H5'	26:1H:1994:C:H41	1.86	0.40
26:1H:2012:G:OP2	43:E8:16:LYS:NZ	2.52	0.40
26:1H:2303:G:C2'	26:1H:2304:G:H5'	2.50	0.40
26:1H:2655:G:O2'	26:1H:2664:G:O6	2.31	0.40
26:1H:2660:A:C2	26:1H:2661:G:H1'	2.57	0.40
26:1H:2700:C:O2'	26:1H:2701:C:H5'	2.20	0.40
26:1H:2748:A:C2	26:1H:2757:A:C4	3.09	0.40
27:16:29:A:OP2	39:A8:32:LEU:HD12	2.22	0.40
27:16:78:A:H2'	27:16:79:C:O4'	2.22	0.40
28:11:13:ARG:HD2	28:11:13:ARG:HA	1.67	0.40
29:21:50:GLY:HA2	29:21:76:ARG:O	2.21	0.40
30:31:6:VAL:HG21	30:31:119:ARG:CB	2.51	0.40
34:58:4:TYR:CE2	41:C8:100:VAL:HG11	2.56	0.40
34:58:29:LYS:H	34:58:29:LYS:HG2	1.62	0.40
42:D8:21:ARG:HG2	42:D8:91:TYR:CE1	2.56	0.40
50:L8:7:LYS:HG3	50:L8:34:GLU:HG3	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:L8:37:LEU:HD12	50:L8:43:ILE:CG2	2.52	0.40
1:1G:129(A):G:C2	1:1G:188:U:O2'	2.72	0.40
1:1G:129(A):G:C2	1:1G:191(A):G:C8	3.09	0.40
1:1G:186:C:O4'	20:BA:81:LYS:NZ	2.50	0.40
1:1G:261:U:H2'	1:1G:263:A:OP2	2.21	0.40
1:1G:1064:G:OP1	1:1G:1386:G:H4'	2.22	0.40
1:1G:1206:G:C6	1:1G:1207:G:C5	3.09	0.40
2:12:90:MET:HA	2:12:91:PRO:HD3	1.95	0.40
2:12:236:TYR:HB2	2:12:239:VAL:CB	2.44	0.40
4:32:8:VAL:HG12	4:32:21:LEU:HD22	2.03	0.40
6:52:55:ASP:HA	6:52:56:PRO:HD3	1.84	0.40
7:62:114:ARG:H	7:62:114:ARG:HG2	1.37	0.40
13:4A:17:VAL:HG13	13:4A:27:LYS:NZ	2.37	0.40
13:4A:92:HIS:NE2	13:4A:98:VAL:HG21	2.35	0.40
17:8A:17:LYS:HA	17:8A:46:ASP:O	2.21	0.40
23:2L:15:G:N2	23:2L:49:C:H42	2.19	0.40
26:14:8:A:H2'	26:14:9:U:H6	1.85	0.40
26:14:40:C:H2'	26:14:41:C:C6	2.56	0.40
26:14:523:C:C2'	26:14:524:U:H5'	2.51	0.40
26:14:640:C:N4	26:14:648:G:H1	2.15	0.40
26:14:814:C:OP1	42:95:83:ARG:HG2	2.20	0.40
26:14:835:A:OP1	54:M5:52:LYS:HG2	2.20	0.40
26:14:863:A:H2'	26:14:864:G:C8	2.56	0.40
26:14:1003:G:O2'	26:14:1010:A:N1	2.41	0.40
26:14:1005:C:O2'	34:15:28:THR:HG23	2.21	0.40
26:14:1712:C:H2'	26:14:1716:U:H6	1.86	0.40
26:14:2212:A:H1'	26:14:2215:G:C4	2.56	0.40
27:1J:9:G:OP1	39:65:25:ARG:NH2	2.54	0.40
33:69:75:LEU:HD22	33:69:77:LEU:HD23	2.04	0.40
33:69:140:LEU:HA	33:69:140:LEU:HD12	1.74	0.40
34:15:15:LEU:HB2	34:15:134:ARG:HG2	2.03	0.40
35:25:8:LEU:HD13	35:25:82:ASN:CB	2.51	0.40
42:95:37:VAL:HG21	42:95:57:VAL:N	2.27	0.40
45:C5:20:TYR:CE2	45:C5:42:VAL:HA	2.56	0.40
46:D5:4:ARG:CZ	46:D5:58:VAL:HG11	2.51	0.40
1:13:354:G:OP1	59:13:1864:HOH:O	2.21	0.40
1:13:475:G:H2'	1:13:476:G:O4'	2.22	0.40
1:13:509:A:H3'	59:13:1814:HOH:O	2.21	0.40
1:13:658:G:H2'	1:13:659:U:C6	2.57	0.40
1:13:912:C:O2'	1:13:913:A:H5'	2.22	0.40
1:13:1072:G:C5	1:13:1073:U:C4	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1237:C:O2'	1:13:1300:G:N2	2.42	0.40
2:1E:178:ARG:HG3	8:7E:72:PRO:CA	2.51	0.40
3:2E:191:THR:HG21	3:2E:193:TYR:CZ	2.57	0.40
7:6E:89:MET:SD	7:6E:155:ARG:HB2	2.61	0.40
12:3I:76:ASN:OD1	12:3I:76:ASN:N	2.43	0.40
14:5I:23:ARG:HD2	14:5I:28:GLY:O	2.21	0.40
15:6I:78:TYR:CZ	15:6I:82:ILE:HD11	2.55	0.40
16:7I:59:TRP:O	16:7I:64:ALA:N	2.53	0.40
19:AI:41:VAL:HG21	19:AI:67:VAL:HG13	2.04	0.40
19:AI:44:MET:O	19:AI:47:HIS:HB2	2.22	0.40
20:BI:69:GLY:O	20:BI:73:HIS:NE2	2.55	0.40
20:BI:75:ASN:O	20:BI:79:ARG:HB2	2.21	0.40
26:1H:315:G:C6	26:1H:316:C:C4	3.09	0.40
26:1H:363:G:C2	26:1H:363(A):A:C5	3.10	0.40
26:1H:370:G:H4'	26:1H:371:A:OP2	2.21	0.40
26:1H:579:G:C2	26:1H:1262:A:C4	3.10	0.40
26:1H:613:U:O2	26:1H:613:U:O4'	2.38	0.40
26:1H:1194:A:H8	26:1H:1194:A:OP2	2.04	0.40
26:1H:1746:G:H2'	26:1H:1747:G:C8	2.56	0.40
26:1H:1957:C:H2'	26:1H:1958:C:C6	2.57	0.40
26:1H:2366:A:H2'	26:1H:2367:G:O4'	2.21	0.40
26:1H:2461:C:H2'	26:1H:2462:U:C6	2.56	0.40
26:1H:2563:U:H1'	26:1H:2566:A:N6	2.36	0.40
29:21:23:VAL:HA	29:21:184:VAL:O	2.21	0.40
39:A8:67:ARG:HB2	39:A8:67:ARG:NH1	2.36	0.40
40:B8:16:ARG:HH21	40:B8:19:LEU:HD21	1.86	0.40
46:H8:150:LEU:HD23	46:H8:151:HIS:N	2.36	0.40
46:H8:158:PRO:HB3	46:H8:159:PRO:HD2	2.02	0.40
48:J8:76:ARG:HD3	48:J8:76:ARG:H	1.85	0.40
50:L8:35:ARG:HB3	50:L8:37:LEU:CD2	2.51	0.40
54:Q8:60:LEU:HD23	54:Q8:60:LEU:HA	1.97	0.40
1:1G:583:A:H2'	1:1G:584:G:O4'	2.22	0.40
1:1G:658:G:C6	1:1G:659:U:C4	3.10	0.40
1:1G:998(A):C:N3	1:1G:1042:G:N2	2.49	0.40
1:1G:1105:A:H2'	1:1G:1106:G:H8	1.86	0.40
1:1G:1184:G:O2'	1:1G:1185:G:H5'	2.20	0.40
1:1G:1243:C:O2	1:1G:1295:G:N2	2.54	0.40
1:1G:1360:A:H2'	1:1G:1361:G:O4'	2.21	0.40
2:12:61:LEU:HD12	2:12:61:LEU:HA	1.86	0.40
3:22:175:LEU:H	3:22:175:LEU:HD12	1.85	0.40
9:82:88:TYR:O	9:82:90:PRO:HD3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1A:50:ILE:HG22	10:1A:52:GLY:H	1.86	0.40
17:8A:6:LEU:O	17:8A:59:ILE:N	2.52	0.40
26:14:67:U:H2'	26:14:68:G:C8	2.56	0.40
26:14:99:U:H1'	26:14:102:G:N2	2.35	0.40
26:14:357:A:C2	26:14:358:U:C2	3.09	0.40
26:14:1323:U:H2'	26:14:1324:G:H5'	2.04	0.40
26:14:1815:A:P	28:19:54:ARG:HH22	2.43	0.40
26:14:2134:A:N3	26:14:2159:G:H1'	2.36	0.40
26:14:2230:G:H1'	48:F5:45:ASN:OD1	2.21	0.40
26:14:2767:C:H2'	26:14:2768:C:C6	2.56	0.40
28:19:11:PRO:O	28:19:12:SER:OG	2.32	0.40
29:29:46:ALA:HB1	29:29:80:GLU:O	2.21	0.40
31:49:95:ARG:HB3	31:49:96:ARG:H	1.72	0.40
33:69:9:LEU:HD21	33:69:35:LEU:HD13	2.02	0.40
37:45:89:ASN:HD22	37:45:89:ASN:C	2.20	0.40
38:55:54:LEU:HD23	38:55:66:VAL:HG23	2.03	0.40
39:65:54:LEU:O	39:65:55:ALA:HB3	2.20	0.40
45:C5:39:VAL:HG23	45:C5:41:GLY:N	2.36	0.40
48:F5:92:LYS:HG2	48:F5:93:GLU:H	1.86	0.40
48:F5:97:LEU:O	48:F5:98:LEU:HD23	2.21	0.40
49:G5:15:LYS:HA	49:G5:15:LYS:HD2	1.81	0.40
51:I5:12:ALA:O	51:I5:24:THR:OG1	2.38	0.40
1:13:195:A:C5	1:13:196:A:N1	2.89	0.40
1:13:277:C:P	17:8I:68:ARG:HH12	2.44	0.40
1:13:963:G:H1	1:13:972:C:H42	1.69	0.40
1:13:1053:G:N7	1:13:1199:U:H3'	2.37	0.40
1:13:1095:U:P	1:13:1108:G:H1	2.44	0.40
1:13:1221:G:H4'	19:AI:77:THR:HG22	2.04	0.40
1:13:1449:C:N4	1:13:1454:G:H1	2.19	0.40
3:2E:113:ALA:HB2	3:2E:202:ILE:HG13	2.03	0.40
4:3E:26:CYS:HA	4:3E:31:CYS:HA	2.02	0.40
4:3E:112:VAL:HG12	4:3E:116:GLN:CD	2.42	0.40
5:4E:137:GLU:HA	5:4E:140:ARG:HD2	2.03	0.40
5:4E:153:LYS:HD3	5:4E:154:GLY:N	2.37	0.40
7:6E:156:TRP:CD1	7:6E:156:TRP:N	2.90	0.40
13:4I:10:PRO:CB	13:4I:18:ALA:HB1	2.49	0.40
14:5I:53:LEU:HB3	14:5I:56:VAL:HG21	2.02	0.40
19:AI:40:ILE:HD11	19:AI:62:ILE:CG2	2.50	0.40
23:2K:4:G:H2'	23:2K:5:G:C8	2.57	0.40
24:3K:41:C:H2'	24:3K:42:U:C6	2.57	0.40
26:1H:192:C:O2'	26:1H:802:A:N3	2.48	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:214:G:OP1	26:1H:214:G:H4'	2.21	0.40
26:1H:1005:C:O2	26:1H:1005:C:H2'	2.20	0.40
26:1H:1086:A:H5''	26:1H:1087:G:OP1	2.20	0.40
26:1H:1417:C:N4	26:1H:1581:G:H1	2.19	0.40
26:1H:1816:G:O6	28:11:35:LYS:NZ	2.37	0.40
26:1H:1950:G:C2	26:1H:1951:U:C5	3.09	0.40
26:1H:2266:A:H4'	26:1H:2267:A:C4	2.57	0.40
26:1H:2356:C:O3'	47:I8:20:ARG:HD3	2.21	0.40
26:1H:2592:G:C5	26:1H:2593:U:C4	3.09	0.40
26:1H:2745:C:C4	26:1H:2746:U:C4	3.09	0.40
28:11:155:LEU:HD13	28:11:155:LEU:N	2.36	0.40
31:41:60:LEU:HD23	31:41:60:LEU:HA	1.83	0.40
32:51:71:LEU:HA	32:51:71:LEU:HD13	1.76	0.40
34:58:57:ALA:O	34:58:58:ASP:HB3	2.20	0.40
37:88:25:ASP:OD2	46:H8:78:LYS:NZ	2.30	0.40
38:98:67:LEU:CD2	38:98:76:VAL:HG21	2.51	0.40
38:98:74:LYS:HD3	38:98:77:ARG:HH21	1.86	0.40
40:B8:80:SER:HB3	40:B8:83:ILE:HG13	2.04	0.40
1:1G:389:A:N3	1:1G:389:A:H2'	2.35	0.40
1:1G:518:C:H5''	1:1G:519:C:H6	1.87	0.40
1:1G:659:U:C4	1:1G:660:G:N7	2.89	0.40
1:1G:828:A:H4'	1:1G:828:A:OP1	2.21	0.40
1:1G:865:A:H5'	1:1G:1078:U:C5	2.56	0.40
1:1G:976:G:N2	1:1G:1362:C:H2'	2.36	0.40
1:1G:1088:G:H2'	1:1G:1089:G:O4'	2.21	0.40
1:1G:1126:U:C4	1:1G:1281:U:C6	3.09	0.40
1:1G:1255:G:OP1	10:1A:45:ARG:NH2	2.47	0.40
1:1G:1300:G:HO2'	1:1G:1301:U:P	2.41	0.40
1:1G:1313:U:H2'	1:1G:1314:C:C6	2.57	0.40
1:1G:1468:A:H5''	1:1G:1469:G:OP2	2.21	0.40
3:22:32:LEU:O	3:22:36:ASP:HB2	2.21	0.40
3:22:119:ARG:HH12	3:22:140:ARG:HG2	1.86	0.40
6:52:23:LYS:O	6:52:27:GLN:HG3	2.22	0.40
10:1A:54:PHE:C	10:1A:55:LYS:HG3	2.40	0.40
11:2A:94:ALA:O	11:2A:98:LEU:HB2	2.22	0.40
11:2A:111:ASP:OD1	18:9A:84:LYS:HD2	2.22	0.40
15:6A:47:LYS:H	15:6A:47:LYS:HG3	1.68	0.40
23:2L:47:G:H5''	23:2L:48:U:OP1	2.20	0.40
55:3L:10:C:H2'	55:3L:11:C:C6	2.56	0.40
26:14:260:G:C6	26:14:261:G:N7	2.89	0.40
26:14:459:U:H4'	53:L5:40:TRP:CZ3	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:494:G:OP1	43:A5:8:ARG:HD3	2.21	0.40
26:14:945:A:C6	26:14:2448:A:C5	3.10	0.40
26:14:1421:G:C2	26:14:1422:G:N7	2.89	0.40
26:14:1516:U:H2'	26:14:1517:G:H8	1.87	0.40
26:14:1535:U:H6	26:14:1535:U:OP1	2.05	0.40
26:14:2078:C:C4	26:14:2079:U:C4	3.10	0.40
26:14:2892:A:N6	26:14:2893:G:N1	2.69	0.40
28:19:266:SER:O	28:19:270:ILE:HD12	2.21	0.40
30:39:89:VAL:O	30:39:91:GLY:N	2.55	0.40
31:49:125:PHE:HB3	31:49:166:ASP:CB	2.48	0.40
31:49:128:ARG:HD3	31:49:128:ARG:HA	1.86	0.40
32:59:117:PRO:HG3	32:59:123:PHE:HZ	1.85	0.40
32:59:154:PRO:HB3	32:59:162:ILE:O	2.22	0.40
34:15:99:LEU:HD22	34:15:99:LEU:HA	1.86	0.40
40:75:50:ILE:HD11	40:75:102:ILE:HD11	2.03	0.40
43:A5:47:VAL:HA	43:A5:50:VAL:HG12	2.02	0.40
45:C5:17:SER:OG	45:C5:18:GLY:O	2.39	0.40
48:F5:87:PRO:O	48:F5:91:LYS:HB3	2.21	0.40
1:13:292:G:N7	1:13:293:G:H1'	2.36	0.40
1:13:575:G:C4	1:13:881:G:N2	2.90	0.40
1:13:589:C:OP1	8:7E:32:LYS:NZ	2.54	0.40
1:13:1003:G:H1	1:13:1037:C:N4	2.19	0.40
1:13:1014:A:H4'	19:AI:14:HIS:ND1	2.36	0.40
1:13:1111:A:H2'	1:13:1112:C:C6	2.56	0.40
1:13:1137:C:O2	1:13:1138:G:N2	2.54	0.40
1:13:1156:G:O2'	1:13:1179:A:N6	2.54	0.40
1:13:1348:U:H2'	1:13:1349:A:C8	2.48	0.40
6:5E:44:GLY:HA2	6:5E:59:TYR:CE1	2.57	0.40
8:7E:21:LYS:O	8:7E:63:LEU:HD23	2.22	0.40
18:9I:74:ARG:HG2	18:9I:79:LEU:HB2	2.04	0.40
20:BI:44:ALA:O	20:BI:91:LEU:HB3	2.20	0.40
20:BI:61:SER:O	20:BI:65:LYS:HB2	2.21	0.40
20:BI:100:ILE:HG23	20:BI:102:GLY:N	2.36	0.40
26:1H:16:G:N3	26:1H:17:G:C8	2.89	0.40
26:1H:26:G:OP1	43:E8:80:PRO:HB3	2.22	0.40
26:1H:184:C:H1'	26:1H:217:G:H1'	2.03	0.40
26:1H:710:G:H2'	26:1H:711:G:C8	2.56	0.40
26:1H:823:G:H2'	26:1H:824:A:C8	2.57	0.40
26:1H:950:G:H2'	26:1H:951:C:C6	2.57	0.40
26:1H:1168:G:C2	26:1H:1182:A:C2	3.10	0.40
26:1H:1203:G:H5'	36:78:3:LEU:HD12	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1435:G:H2'	26:1H:1436:G:C8	2.56	0.40
26:1H:1463:C:N3	26:1H:1464:C:C5	2.89	0.40
26:1H:2319:G:N7	39:A8:3:ARG:HB3	2.37	0.40
26:1H:2393:A:C2'	26:1H:2394:C:H5'	2.51	0.40
26:1H:2758:A:C4	32:51:67:LEU:HD21	2.57	0.40
29:21:73:GLU:HA	29:21:74:PRO:HD3	1.98	0.40
32:51:8:PRO:HD2	32:51:69:ARG:HG2	2.02	0.40
33:61:8:PRO:HG3	33:61:14:ASP:CB	2.51	0.40
33:61:110:ASP:HB2	33:61:112:LYS:CG	2.51	0.40
38:98:33:ARG:HH11	38:98:113:LEU:HD21	1.86	0.40
38:98:48:VAL:O	38:98:51:LEU:N	2.54	0.40
42:D8:35:LEU:HD22	42:D8:57:VAL:O	2.21	0.40
43:E8:80:PRO:O	43:E8:100:THR:HB	2.21	0.40
49:K8:8:LYS:HD3	49:K8:12:GLU:HG2	2.03	0.40
1:1G:951:G:C2	1:1G:1231:G:C2	3.10	0.40
1:1G:1053:G:C3'	1:1G:1054:C:H5'	2.52	0.40
1:1G:1330:U:C5'	13:4A:24:GLY:H	2.34	0.40
1:1G:1344:C:O2'	1:1G:1348:U:O2'	2.27	0.40
1:1G:1355:G:H2'	1:1G:1356:G:C8	2.56	0.40
2:12:15:VAL:HB	2:12:16:HIS:CE1	2.56	0.40
2:12:53:ARG:NH1	2:12:199:TYR:HD1	2.19	0.40
2:12:97:TRP:CZ3	2:12:99:GLY:HA2	2.49	0.40
2:12:166:ASP:CG	2:12:169:LYS:HB2	2.42	0.40
2:12:239:VAL:HG12	2:12:240:GLN:HG3	2.03	0.40
4:32:100:ARG:HB3	4:32:102:ASP:OD1	2.22	0.40
5:42:9:LYS:HG3	5:42:10:MET:O	2.22	0.40
7:62:15:ASP:N	7:62:19:GLY:HA2	2.36	0.40
8:72:51:VAL:HG11	8:72:60:ARG:NH2	2.36	0.40
13:4A:84:ILE:C	13:4A:86:CYS:H	2.25	0.40
26:14:270(P):C:H2'	26:14:270(Q):C:C6	2.57	0.40
26:14:1466:G:H2'	26:14:1466:G:N3	2.36	0.40
26:14:2058:A:OP1	59:14:3595:HOH:O	2.22	0.40
26:14:2134:A:O2'	26:14:2159:G:N2	2.55	0.40
26:14:2188:C:H2'	26:14:2189:U:O4'	2.20	0.40
26:14:2257:U:H2'	26:14:2258:C:C6	2.57	0.40
26:14:2442:C:H2'	26:14:2443:C:H6	1.85	0.40
31:49:135:LEU:HD12	31:49:135:LEU:N	2.37	0.40
32:59:6:ARG:HE	32:59:54:ARG:HH12	1.69	0.40
33:69:2:LYS:H	33:69:2:LYS:HG2	1.72	0.40
35:25:12:ASP:CA	35:25:99:PHE:HD2	2.35	0.40
36:35:14:LYS:O	36:35:14:LYS:HD3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:35:52:GLU:N	36:35:52:GLU:CD	2.74	0.40
44:B5:32:PRO:HA	44:B5:77:LYS:HB2	2.03	0.40
45:C5:30:VAL:C	45:C5:31:LEU:HG	2.42	0.40
47:E5:49:LYS:CG	47:E5:80:HIS:HB3	2.51	0.40
48:F5:23:LYS:HE3	48:F5:23:LYS:HB2	1.99	0.40

All (4) 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)
1:13:85:U:O2'	32:59:100:GLY:O[3_555]	1.97	0.23
1:1G:86:U:N3	26:14:275:G:OP2[3_545]	2.14	0.06
26:1H:2137:C:OP1	1:1G:999:U:O2'[4_555]	2.19	0.01
33:61:91:SER:OG	1:1G:368:U:OP1[4_555]	2.19	0.01

## 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	12	235/256 (92%)	195 (83%)	35 (15%)	5 (2%)	7	26
2	1E	235/256 (92%)	200 (85%)	34 (14%)	1 (0%)	34	64
3	22	204/239 (85%)	184 (90%)	20 (10%)	0	100	100
3	2E	203/239 (85%)	180 (89%)	22 (11%)	1 (0%)	29	60
4	32	206/209 (99%)	181 (88%)	24 (12%)	1 (0%)	29	60
4	3E	206/209 (99%)	191 (93%)	15 (7%)	0	100	100
5	42	149/162 (92%)	140 (94%)	9 (6%)	0	100	100
5	4E	149/162 (92%)	141 (95%)	7 (5%)	1 (1%)	22	52
6	52	99/101 (98%)	94 (95%)	5 (5%)	0	100	100
6	5E	99/101 (98%)	94 (95%)	5 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
7	62	153/156 (98%)	144 (94%)	9 (6%)	0	100	100
7	6E	148/156 (95%)	140 (95%)	8 (5%)	0	100	100
8	72	135/138 (98%)	122 (90%)	11 (8%)	2 (2%)	10	35
8	7E	136/138 (99%)	126 (93%)	9 (7%)	1 (1%)	22	52
9	82	118/128 (92%)	105 (89%)	12 (10%)	1 (1%)	19	50
9	8E	125/128 (98%)	106 (85%)	19 (15%)	0	100	100
10	1A	97/105 (92%)	90 (93%)	7 (7%)	0	100	100
10	1I	97/105 (92%)	90 (93%)	7 (7%)	0	100	100
11	2A	115/129 (89%)	104 (90%)	8 (7%)	3 (3%)	5	22
11	2I	114/129 (88%)	101 (89%)	12 (10%)	1 (1%)	17	47
12	3A	123/132 (93%)	101 (82%)	19 (15%)	3 (2%)	6	23
12	3I	120/132 (91%)	103 (86%)	16 (13%)	1 (1%)	19	50
13	4A	115/126 (91%)	95 (83%)	18 (16%)	2 (2%)	9	32
13	4I	114/126 (90%)	96 (84%)	16 (14%)	2 (2%)	8	30
14	5A	56/61 (92%)	46 (82%)	9 (16%)	1 (2%)	8	30
14	5I	57/61 (93%)	46 (81%)	9 (16%)	2 (4%)	3	17
15	6A	86/89 (97%)	78 (91%)	8 (9%)	0	100	100
15	6I	86/89 (97%)	76 (88%)	10 (12%)	0	100	100
16	7A	82/88 (93%)	76 (93%)	6 (7%)	0	100	100
16	7I	82/88 (93%)	72 (88%)	10 (12%)	0	100	100
17	8A	98/105 (93%)	92 (94%)	6 (6%)	0	100	100
17	8I	98/105 (93%)	90 (92%)	8 (8%)	0	100	100
18	9A	69/88 (78%)	66 (96%)	3 (4%)	0	100	100
18	9I	70/88 (80%)	62 (89%)	7 (10%)	1 (1%)	11	36
19	AA	76/93 (82%)	62 (82%)	11 (14%)	3 (4%)	3	15
19	AI	81/93 (87%)	67 (83%)	12 (15%)	2 (2%)	5	22
20	BA	97/106 (92%)	83 (86%)	13 (13%)	1 (1%)	15	45
20	BI	97/106 (92%)	83 (86%)	13 (13%)	1 (1%)	15	45
21	1B	23/27 (85%)	21 (91%)	1 (4%)	1 (4%)	2	13
21	1F	23/27 (85%)	21 (91%)	2 (9%)	0	100	100
28	11	271/276 (98%)	249 (92%)	18 (7%)	4 (2%)	10	35

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
28	19	271/276 (98%)	253 (93%)	13 (5%)	5 (2%)	8	30
29	21	203/206 (98%)	161 (79%)	33 (16%)	9 (4%)	2	12
29	29	203/206 (98%)	158 (78%)	36 (18%)	9 (4%)	2	12
30	31	200/210 (95%)	178 (89%)	21 (10%)	1 (0%)	29	60
30	39	206/210 (98%)	161 (78%)	38 (18%)	7 (3%)	3	17
31	41	179/182 (98%)	157 (88%)	19 (11%)	3 (2%)	9	32
31	49	179/182 (98%)	158 (88%)	20 (11%)	1 (1%)	25	55
32	51	171/180 (95%)	137 (80%)	21 (12%)	13 (8%)	1	4
32	59	168/180 (93%)	128 (76%)	31 (18%)	9 (5%)	2	9
33	61	144/148 (97%)	113 (78%)	28 (19%)	3 (2%)	7	26
33	69	144/148 (97%)	113 (78%)	27 (19%)	4 (3%)	5	21
34	15	136/140 (97%)	121 (89%)	14 (10%)	1 (1%)	22	52
34	58	136/140 (97%)	117 (86%)	15 (11%)	4 (3%)	4	20
35	25	120/122 (98%)	112 (93%)	7 (6%)	1 (1%)	19	50
35	68	120/122 (98%)	112 (93%)	8 (7%)	0	100	100
36	35	148/150 (99%)	113 (76%)	32 (22%)	3 (2%)	7	27
36	78	148/150 (99%)	110 (74%)	30 (20%)	8 (5%)	2	9
37	45	137/141 (97%)	110 (80%)	25 (18%)	2 (2%)	10	35
37	88	139/141 (99%)	107 (77%)	26 (19%)	6 (4%)	2	13
38	55	115/118 (98%)	106 (92%)	7 (6%)	2 (2%)	9	32
38	98	116/118 (98%)	106 (91%)	9 (8%)	1 (1%)	17	47
39	65	109/112 (97%)	85 (78%)	22 (20%)	2 (2%)	8	30
39	A8	108/112 (96%)	89 (82%)	18 (17%)	1 (1%)	17	47
40	75	135/146 (92%)	121 (90%)	14 (10%)	0	100	100
40	B8	135/146 (92%)	123 (91%)	12 (9%)	0	100	100
41	85	115/118 (98%)	98 (85%)	17 (15%)	0	100	100
41	C8	115/118 (98%)	107 (93%)	4 (4%)	4 (4%)	3	17
42	95	99/101 (98%)	77 (78%)	18 (18%)	4 (4%)	3	14
42	D8	99/101 (98%)	90 (91%)	6 (6%)	3 (3%)	4	19
43	A5	111/113 (98%)	101 (91%)	7 (6%)	3 (3%)	5	21
43	E8	111/113 (98%)	102 (92%)	9 (8%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
44	B5	90/96 (94%)	76 (84%)	12 (13%)	2 (2%)	6	25
44	F8	91/96 (95%)	83 (91%)	6 (7%)	2 (2%)	6	25
45	C5	102/110 (93%)	76 (74%)	24 (24%)	2 (2%)	7	27
45	G8	102/110 (93%)	83 (81%)	13 (13%)	6 (6%)	1	8
46	D5	132/206 (64%)	104 (79%)	24 (18%)	4 (3%)	4	19
46	H8	173/206 (84%)	133 (77%)	33 (19%)	7 (4%)	3	14
47	E5	75/85 (88%)	68 (91%)	5 (7%)	2 (3%)	5	21
47	I8	74/85 (87%)	66 (89%)	6 (8%)	2 (3%)	5	21
48	F5	95/98 (97%)	86 (90%)	8 (8%)	1 (1%)	14	42
48	J8	95/98 (97%)	85 (90%)	8 (8%)	2 (2%)	7	26
49	G5	64/72 (89%)	60 (94%)	2 (3%)	2 (3%)	4	19
49	K8	64/72 (89%)	59 (92%)	2 (3%)	3 (5%)	2	12
50	H5	57/60 (95%)	52 (91%)	5 (9%)	0	100	100
50	L8	57/60 (95%)	54 (95%)	3 (5%)	0	100	100
51	I5	61/71 (86%)	36 (59%)	21 (34%)	4 (7%)	1	6
51	M8	64/71 (90%)	36 (56%)	25 (39%)	3 (5%)	2	12
52	J5	57/60 (95%)	52 (91%)	4 (7%)	1 (2%)	8	30
52	N8	57/60 (95%)	50 (88%)	7 (12%)	0	100	100
53	L5	43/49 (88%)	41 (95%)	2 (5%)	0	100	100
53	P8	44/49 (90%)	42 (96%)	2 (4%)	0	100	100
54	M5	60/65 (92%)	46 (77%)	11 (18%)	3 (5%)	2	11
54	Q8	59/65 (91%)	52 (88%)	3 (5%)	4 (7%)	1	6
All	All	11183/11946 (94%)	9677 (86%)	1306 (12%)	200 (2%)	8	30

All (200) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
18	9I	22	VAL
29	21	83	ASP
32	51	172	LYS
32	51	173	PRO
36	78	19	VAL
41	C8	89	GLU
49	K8	48	HIS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
9	82	118	LYS
14	5A	29	ARG
19	AA	9	VAL
28	19	38	LYS
28	19	237	GLU
29	29	25	VAL
29	29	61	ARG
30	39	28	ILE
30	39	84	VAL
36	35	15	ARG
38	55	107	ASP
42	95	45	THR
46	D5	53	ILE
46	D5	165	VAL
48	F5	30	VAL
51	I5	5	ILE
54	M5	31	HIS
54	M5	49	VAL
54	M5	50	LEU
12	3I	48	PRO
32	51	10	PRO
32	51	152	ARG
32	51	169	VAL
36	78	25	SER
36	78	59	LEU
37	88	6	ARG
37	88	66	ILE
37	88	79	LEU
38	98	11	ASN
41	C8	93	LYS
42	D8	45	THR
45	G8	54	LYS
46	H8	6	LYS
46	H8	60	GLU
46	H8	165	VAL
51	M8	50	VAL
2	12	71	VAL
11	2A	48	ILE
11	2A	101	SER
12	3A	18	VAL
12	3A	26	ALA
20	BA	73	HIS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
28	19	33	LEU
29	29	81	ILE
30	39	128	ALA
32	59	131	VAL
36	35	6	LEU
36	35	110	TYR
39	65	87	PHE
39	65	89	ARG
42	95	44	LYS
49	G5	47	ASN
49	G5	48	HIS
52	J5	57	VAL
3	2E	13	GLY
8	7E	86	ILE
13	4I	83	ASP
29	21	78	LEU
29	21	118	LYS
31	41	97	ASP
32	51	84	SER
33	61	145	VAL
34	58	128	HIS
36	78	27	HIS
36	78	42	SER
45	G8	53	PRO
45	G8	84	ARG
47	I8	83	PRO
48	J8	75	GLU
51	M8	34	GLU
54	Q8	51	ALA
54	Q8	52	LYS
8	72	73	ASP
11	2A	100	ALA
29	29	51	PHE
30	39	124	LEU
32	59	126	PRO
33	69	111	PRO
33	69	117	GLU
37	45	7	MET
43	A5	93	ALA
45	C5	20	TYR
45	C5	29	GLU
46	D5	161	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
47	E5	33	ALA
28	11	3	VAL
28	11	239	ARG
29	21	56	PRO
31	41	96	ARG
32	51	83	TYR
32	51	85	LYS
32	51	151	ILE
32	51	170	ARG
33	61	12	LEU
33	61	133	HIS
34	58	58	ASP
34	58	97	ARG
34	58	127	ASP
36	78	65	ARG
37	88	7	MET
44	F8	19	ALA
46	H8	59	LEU
47	I8	44	ARG
49	K8	43	GLN
49	K8	47	ASN
54	Q8	35	GLN
2	12	7	VAL
8	72	22	GLU
13	4A	95	GLY
29	29	9	VAL
30	39	25	PRO
30	39	89	VAL
30	39	167	ALA
32	59	92	ILE
32	59	168	PRO
33	69	145	VAL
38	55	3	HIS
42	95	80	GLN
43	A5	44	ALA
47	E5	44	ARG
51	I5	26	SER
11	2I	82	VAL
14	5I	14	PRO
29	21	60	ASN
29	21	82	ARG
31	41	5	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	51	167	GLU
37	88	60	ARG
39	A8	88	ASP
45	G8	77	PRO
48	J8	76	ARG
51	M8	5	ILE
54	Q8	61	LEU
12	3A	47	LYS
29	29	26	ILE
34	15	128	HIS
35	25	12	ASP
37	45	78	PRO
44	B5	68	ARG
46	D5	158	PRO
29	21	55	ASN
30	31	198	ALA
32	51	153	LYS
37	88	134	ARG
42	D8	49	THR
44	F8	40	LYS
45	G8	76	CYS
2	12	73	THR
21	1B	3	LYS
28	19	3	VAL
29	29	62	PRO
32	59	4	ILE
32	59	167	GLU
43	A5	12	ILE
51	I5	33	VAL
5	4E	115	VAL
28	11	240	ALA
32	51	12	PRO
31	49	5	VAL
32	59	169	VAL
44	B5	51	VAL
2	1E	239	VAL
29	21	4	ILE
41	C8	90	VAL
45	G8	81	LYS
2	12	32	ILE
19	AA	11	VAL
29	29	77	ILE

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Mol	Chain	Res	Type
33	69	144	VAL
51	I5	29	PRO
14	5I	13	THR
19	AI	41	VAL
36	78	95	VAL
41	C8	88	ILE
46	H8	53	ILE
4	32	178	VAL
19	AA	67	VAL
28	19	240	ALA
13	4I	4	ILE
19	AI	9	VAL
28	11	123	ALA
29	21	21	VAL
36	78	7	ARG
42	D8	47	VAL
46	H8	141	VAL
46	H8	161	VAL
2	12	39	ILE
13	4A	84	ILE
29	29	52	LEU
32	59	8	PRO
32	59	17	VAL
20	BI	63	ILE
42	95	99	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	12	205/220 (93%)	161 (78%)	44 (22%)	1	3
2	1E	205/220 (93%)	159 (78%)	46 (22%)	1	3
3	22	160/188 (85%)	121 (76%)	39 (24%)	0	2
3	2E	159/188 (85%)	119 (75%)	40 (25%)	0	1
4	32	180/181 (99%)	139 (77%)	41 (23%)	1	3

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	3E	180/181 (99%)	138 (77%)	42 (23%)	1	2
5	42	116/123 (94%)	89 (77%)	27 (23%)	1	2
5	4E	116/123 (94%)	94 (81%)	22 (19%)	1	5
6	52	90/90 (100%)	71 (79%)	19 (21%)	1	4
6	5E	90/90 (100%)	71 (79%)	19 (21%)	1	4
7	62	126/127 (99%)	101 (80%)	25 (20%)	1	5
7	6E	126/127 (99%)	106 (84%)	20 (16%)	2	9
8	72	118/119 (99%)	96 (81%)	22 (19%)	1	6
8	7E	119/119 (100%)	92 (77%)	27 (23%)	1	3
9	82	95/99 (96%)	76 (80%)	19 (20%)	1	4
9	8E	98/99 (99%)	74 (76%)	24 (24%)	0	2
10	1A	89/92 (97%)	68 (76%)	21 (24%)	1	2
10	1I	89/92 (97%)	70 (79%)	19 (21%)	1	4
11	2A	89/99 (90%)	69 (78%)	20 (22%)	1	3
11	2I	88/99 (89%)	70 (80%)	18 (20%)	1	4
12	3A	104/109 (95%)	81 (78%)	23 (22%)	1	3
12	3I	103/109 (94%)	85 (82%)	18 (18%)	2	7
13	4A	94/101 (93%)	70 (74%)	24 (26%)	0	1
13	4I	94/101 (93%)	72 (77%)	22 (23%)	1	2
14	5A	48/50 (96%)	34 (71%)	14 (29%)	0	0
14	5I	48/50 (96%)	35 (73%)	13 (27%)	0	1
15	6A	79/80 (99%)	68 (86%)	11 (14%)	3	13
15	6I	79/80 (99%)	65 (82%)	14 (18%)	2	7
16	7A	72/74 (97%)	58 (81%)	14 (19%)	1	5
16	7I	72/74 (97%)	60 (83%)	12 (17%)	2	8
17	8A	95/97 (98%)	80 (84%)	15 (16%)	2	9
17	8I	95/97 (98%)	78 (82%)	17 (18%)	2	6
18	9A	62/77 (80%)	46 (74%)	16 (26%)	0	1
18	9I	63/77 (82%)	53 (84%)	10 (16%)	2	9
19	AA	67/80 (84%)	50 (75%)	17 (25%)	0	1
19	AI	72/80 (90%)	56 (78%)	16 (22%)	1	3

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
20	BA	76/82 (93%)	58 (76%)	18 (24%)	1	2
20	BI	76/82 (93%)	54 (71%)	22 (29%)	0	1
21	1B	20/22 (91%)	18 (90%)	2 (10%)	7	25
21	1F	20/22 (91%)	18 (90%)	2 (10%)	7	25
28	11	214/218 (98%)	172 (80%)	42 (20%)	1	5
28	19	214/218 (98%)	170 (79%)	44 (21%)	1	4
29	21	165/166 (99%)	121 (73%)	44 (27%)	0	1
29	29	165/166 (99%)	124 (75%)	41 (25%)	0	2
30	31	161/166 (97%)	125 (78%)	36 (22%)	1	3
30	39	165/166 (99%)	121 (73%)	44 (27%)	0	1
31	41	155/156 (99%)	124 (80%)	31 (20%)	1	4
31	49	155/156 (99%)	123 (79%)	32 (21%)	1	4
32	51	142/148 (96%)	108 (76%)	34 (24%)	0	2
32	59	142/148 (96%)	107 (75%)	35 (25%)	0	2
33	61	122/124 (98%)	90 (74%)	32 (26%)	0	1
33	69	122/124 (98%)	86 (70%)	36 (30%)	0	0
34	15	117/119 (98%)	90 (77%)	27 (23%)	1	2
34	58	117/119 (98%)	91 (78%)	26 (22%)	1	3
35	25	100/100 (100%)	77 (77%)	23 (23%)	1	2
35	68	100/100 (100%)	82 (82%)	18 (18%)	1	6
36	35	116/116 (100%)	76 (66%)	40 (34%)	0	0
36	78	116/116 (100%)	81 (70%)	35 (30%)	0	0
37	45	110/111 (99%)	81 (74%)	29 (26%)	0	1
37	88	111/111 (100%)	85 (77%)	26 (23%)	1	2
38	55	100/101 (99%)	72 (72%)	28 (28%)	0	1
38	98	101/101 (100%)	76 (75%)	25 (25%)	0	2
39	65	87/88 (99%)	61 (70%)	26 (30%)	0	0
39	A8	87/88 (99%)	62 (71%)	25 (29%)	0	1
40	75	120/127 (94%)	86 (72%)	34 (28%)	0	1
40	B8	120/127 (94%)	89 (74%)	31 (26%)	0	1
41	85	93/94 (99%)	69 (74%)	24 (26%)	0	1

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
41	C8	93/94 (99%)	75 (81%)	18 (19%)	1	5
42	95	82/82 (100%)	55 (67%)	27 (33%)	0	0
42	D8	82/82 (100%)	63 (77%)	19 (23%)	1	2
43	A5	92/92 (100%)	69 (75%)	23 (25%)	0	1
43	E8	92/92 (100%)	72 (78%)	20 (22%)	1	3
44	B5	74/78 (95%)	59 (80%)	15 (20%)	1	4
44	F8	74/78 (95%)	62 (84%)	12 (16%)	2	9
45	C5	85/91 (93%)	59 (69%)	26 (31%)	0	0
45	G8	85/91 (93%)	60 (71%)	25 (29%)	0	0
46	D5	127/179 (71%)	102 (80%)	25 (20%)	1	5
46	H8	154/179 (86%)	118 (77%)	36 (23%)	1	2
47	E5	62/67 (92%)	50 (81%)	12 (19%)	1	5
47	I8	61/67 (91%)	50 (82%)	11 (18%)	1	6
48	F5	82/83 (99%)	57 (70%)	25 (30%)	0	0
48	J8	82/83 (99%)	67 (82%)	15 (18%)	1	6
49	G5	62/67 (92%)	42 (68%)	20 (32%)	0	0
49	K8	62/67 (92%)	41 (66%)	21 (34%)	0	0
50	H5	51/52 (98%)	37 (72%)	14 (28%)	0	1
50	L8	51/52 (98%)	38 (74%)	13 (26%)	0	1
51	I5	57/63 (90%)	44 (77%)	13 (23%)	1	3
51	M8	59/63 (94%)	42 (71%)	17 (29%)	0	1
52	J5	51/52 (98%)	45 (88%)	6 (12%)	5	18
52	N8	51/52 (98%)	39 (76%)	12 (24%)	1	2
53	L5	38/42 (90%)	31 (82%)	7 (18%)	1	6
53	P8	38/42 (90%)	30 (79%)	8 (21%)	1	4
54	M5	52/55 (94%)	36 (69%)	16 (31%)	0	0
54	Q8	51/55 (93%)	38 (74%)	13 (26%)	0	1
All	All	9444/9894 (96%)	7253 (77%)	2191 (23%)	1	2

All (2191) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	1E	4	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	1E	8	LYS
2	1E	9	GLU
2	1E	19	HIS
2	1E	21	ARG
2	1E	28	PHE
2	1E	35	GLU
2	1E	48	MET
2	1E	71	VAL
2	1E	75	LYS
2	1E	78	GLN
2	1E	79	ASP
2	1E	82	ARG
2	1E	87	ARG
2	1E	96	ARG
2	1E	108	ILE
2	1E	109	SER
2	1E	111	ARG
2	1E	115	LEU
2	1E	121	LEU
2	1E	124	SER
2	1E	142	LEU
2	1E	144	ARG
2	1E	153	ARG
2	1E	155	LEU
2	1E	162	ILE
2	1E	163	PHE
2	1E	164	VAL
2	1E	165	VAL
2	1E	170	GLU
2	1E	172	ILE
2	1E	175	ARG
2	1E	178	ARG
2	1E	184	VAL
2	1E	187	LEU
2	1E	189	ASP
2	1E	190	THR
2	1E	191	ASP
2	1E	195	ASP
2	1E	196	LEU
2	1E	200	ILE
2	1E	209	ARG
2	1E	214	ILE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	1E	222	ILE
2	1E	233	SER
2	1E	240	GLN
3	2E	3	ASN
3	2E	4	LYS
3	2E	5	ILE
3	2E	6	HIS
3	2E	12	LEU
3	2E	14	ILE
3	2E	17	ASP
3	2E	21	ARG
3	2E	22	TRP
3	2E	27	LYS
3	2E	29	TYR
3	2E	32	LEU
3	2E	52	LEU
3	2E	54	ARG
3	2E	56	ASP
3	2E	62	ASP
3	2E	63	ASN
3	2E	64	VAL
3	2E	70	VAL
3	2E	76	VAL
3	2E	77	ILE
3	2E	93	LYS
3	2E	94	LEU
3	2E	97	LYS
3	2E	98	ASN
3	2E	102	ASN
3	2E	104	GLN
3	2E	107	GLN
3	2E	127	ARG
3	2E	128	PHE
3	2E	131	ARG
3	2E	138	VAL
3	2E	161	GLU
3	2E	166	GLU
3	2E	167	TRP
3	2E	175	LEU
3	2E	178	LEU
3	2E	190	ARG
3	2E	191	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	2E	202	ILE
4	3E	3	ARG
4	3E	5	ILE
4	3E	10	ARG
4	3E	13	ARG
4	3E	15	GLU
4	3E	19	LEU
4	3E	24	GLU
4	3E	30	LYS
4	3E	47	ARG
4	3E	49	ARG
4	3E	52	SER
4	3E	58	LEU
4	3E	66	ARG
4	3E	83	SER
4	3E	85	LYS
4	3E	86	LYS
4	3E	88	VAL
4	3E	96	LEU
4	3E	108	LEU
4	3E	119	GLN
4	3E	122	ARG
4	3E	127	THR
4	3E	135	LEU
4	3E	138	TYR
4	3E	146	ILE
4	3E	150	GLU
4	3E	151	LYS
4	3E	154	ASN
4	3E	155	LEU
4	3E	157	LEU
4	3E	160	GLN
4	3E	168	ARG
4	3E	179	GLU
4	3E	184	LYS
4	3E	187	ARG
4	3E	188	LEU
4	3E	190	ASP
4	3E	193	ASP
4	3E	197	PRO
4	3E	200	GLU
4	3E	208	SER

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	3E	209	ARG
5	4E	7	GLU
5	4E	11	ILE
5	4E	16	THR
5	4E	31	LEU
5	4E	33	VAL
5	4E	41	VAL
5	4E	50	GLU
5	4E	63	ARG
5	4E	68	GLU
5	4E	72	GLN
5	4E	75	THR
5	4E	79	GLU
5	4E	80	ILE
5	4E	87	SER
5	4E	91	LEU
5	4E	112	LEU
5	4E	117	ASP
5	4E	121	LYS
5	4E	140	ARG
5	4E	147	ASP
5	4E	153	LYS
5	4E	155	GLU
6	5E	15	ASP
6	5E	19	LEU
6	5E	21	LEU
6	5E	23	LYS
6	5E	40	VAL
6	5E	43	LEU
6	5E	46	ARG
6	5E	55	ASP
6	5E	64	GLN
6	5E	70	ASP
6	5E	71	ARG
6	5E	73	ASN
6	5E	75	LEU
6	5E	78	GLU
6	5E	89	MET
6	5E	91	VAL
6	5E	94	GLN
6	5E	95	GLU
6	5E	97	PHE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
7	6E	5	ARG
7	6E	6	ARG
7	6E	8	GLU
7	6E	21	VAL
7	6E	36	LYS
7	6E	37	ASN
7	6E	38	LEU
7	6E	54	THR
7	6E	59	LEU
7	6E	75	VAL
7	6E	78	ARG
7	6E	79	ARG
7	6E	89	MET
7	6E	90	GLU
7	6E	104	LEU
7	6E	113	GLU
7	6E	124	LEU
7	6E	131	LYS
7	6E	155	ARG
7	6E	156	TRP
8	7E	1	MET
8	7E	19	VAL
8	7E	26	VAL
8	7E	31	PHE
8	7E	32	LYS
8	7E	41	ARG
8	7E	46	LYS
8	7E	50	ARG
8	7E	52	ASP
8	7E	65	TYR
8	7E	68	ARG
8	7E	75	ARG
8	7E	77	GLU
8	7E	80	ILE
8	7E	84	ARG
8	7E	85	ARG
8	7E	91	ARG
8	7E	95	VAL
8	7E	102	ARG
8	7E	104	ARG
8	7E	105	ARG
8	7E	112	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
8	7E	121	ASP
8	7E	122	ARG
8	7E	127	LEU
8	7E	129	VAL
8	7E	137	VAL
9	8E	9	ARG
9	8E	10	ARG
9	8E	20	ARG
9	8E	26	VAL
9	8E	31	GLN
9	8E	34	ASN
9	8E	38	GLN
9	8E	41	VAL
9	8E	42	ARG
9	8E	44	VAL
9	8E	47	LEU
9	8E	53	VAL
9	8E	79	LEU
9	8E	83	ARG
9	8E	88	TYR
9	8E	89	ASN
9	8E	96	LEU
9	8E	97	LYS
9	8E	99	LEU
9	8E	104	ARG
9	8E	108	VAL
9	8E	112	LYS
9	8E	121	ARG
9	8E	125	TYR
10	1I	16	LEU
10	1I	17	ASP
10	1I	30	SER
10	1I	38	ILE
10	1I	43	ARG
10	1I	44	VAL
10	1I	60	ARG
10	1I	62	HIS
10	1I	66	ARG
10	1I	70	ARG
10	1I	75	ILE
10	1I	80	LYS
10	1I	84	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
10	1I	89	ASP
10	1I	90	LEU
10	1I	92	THR
10	1I	96	ILE
10	1I	98	ILE
10	1I	100	THR
11	2I	12	ARG
11	2I	28	THR
11	2I	29	ILE
11	2I	31	THR
11	2I	38	ASN
11	2I	41	THR
11	2I	44	SER
11	2I	48	ILE
11	2I	80	VAL
11	2I	84	VAL
11	2I	92	GLU
11	2I	96	ARG
11	2I	99	GLN
11	2I	105	VAL
11	2I	106	LYS
11	2I	108	ILE
11	2I	114	VAL
11	2I	119	CYS
12	3I	7	ILE
12	3I	11	VAL
12	3I	12	ARG
12	3I	20	LYS
12	3I	28	LYS
12	3I	33	ARG
12	3I	36	VAL
12	3I	57	LYS
12	3I	60	LEU
12	3I	62	SER
12	3I	79	GLU
12	3I	81	SER
12	3I	89	ARG
12	3I	91	LYS
12	3I	96	VAL
12	3I	102	ARG
12	3I	114	LYS
12	3I	116	SER

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
13	4I	3	ARG
13	4I	12	ASN
13	4I	13	LYS
13	4I	32	GLU
13	4I	34	LEU
13	4I	44	ARG
13	4I	45	VAL
13	4I	48	LEU
13	4I	64	TRP
13	4I	67	GLU
13	4I	70	LEU
13	4I	73	GLU
13	4I	83	ASP
13	4I	88	ARG
13	4I	94	ARG
13	4I	98	VAL
13	4I	99	ARG
13	4I	105	THR
13	4I	106	ASN
13	4I	108	ARG
13	4I	109	THR
13	4I	117	VAL
14	5I	6	LEU
14	5I	7	ILE
14	5I	8	GLU
14	5I	17	LYS
14	5I	18	VAL
14	5I	22	THR
14	5I	24	CYS
14	5I	32	SER
14	5I	33	VAL
14	5I	35	ARG
14	5I	41	ARG
14	5I	44	LEU
14	5I	49	HIS
15	6I	3	ILE
15	6I	6	GLU
15	6I	13	GLN
15	6I	31	LEU
15	6I	39	LEU
15	6I	41	GLU
15	6I	47	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
15	6I	48	LYS
15	6I	64	ARG
15	6I	65	ARG
15	6I	67	LEU
15	6I	72	ARG
15	6I	76	GLU
15	6I	79	ARG
16	7I	1	MET
16	7I	2	VAL
16	7I	11	SER
16	7I	27	LYS
16	7I	43	LYS
16	7I	48	TRP
16	7I	54	GLU
16	7I	58	TYR
16	7I	67	THR
16	7I	71	ARG
16	7I	72	ARG
16	7I	76	GLN
17	8I	18	THR
17	8I	19	VAL
17	8I	23	VAL
17	8I	35	VAL
17	8I	48	GLU
17	8I	52	LYS
17	8I	57	VAL
17	8I	60	ILE
17	8I	68	ARG
17	8I	69	LYS
17	8I	74	LEU
17	8I	84	LEU
17	8I	86	GLU
17	8I	87	LYS
17	8I	89	LEU
17	8I	92	ARG
17	8I	101	ARG
18	9I	18	ARG
18	9I	21	LYS
18	9I	22	VAL
18	9I	25	THR
18	9I	26	LEU
18	9I	31	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
18	9I	40	LEU
18	9I	82	THR
18	9I	84	LYS
18	9I	88	LYS
19	AI	5	LEU
19	AI	6	LYS
19	AI	7	LYS
19	AI	13	ASP
19	AI	17	GLU
19	AI	29	ARG
19	AI	30	LEU
19	AI	31	ILE
19	AI	37	ARG
19	AI	43	GLU
19	AI	58	VAL
19	AI	60	VAL
19	AI	61	TYR
19	AI	63	THR
19	AI	71	LEU
19	AI	78	ARG
20	BI	9	ASN
20	BI	10	LEU
20	BI	11	SER
20	BI	15	ARG
20	BI	16	HIS
20	BI	26	ASN
20	BI	27	LYS
20	BI	33	ILE
20	BI	36	LEU
20	BI	37	SER
20	BI	51	GLU
20	BI	54	LYS
20	BI	56	MET
20	BI	57	ARG
20	BI	71	THR
20	BI	73	HIS
20	BI	75	ASN
20	BI	87	LYS
20	BI	90	GLN
20	BI	99	LEU
20	BI	104	LEU
20	BI	105	SER

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
21	1F	6	ARG
21	1F	15	ARG
28	11	3	VAL
28	11	6	PHE
28	11	13	ARG
28	11	15	PHE
28	11	27	THR
28	11	31	LYS
28	11	34	VAL
28	11	37	LEU
28	11	39	LYS
28	11	46	GLN
28	11	49	ILE
28	11	61	LEU
28	11	64	ILE
28	11	65	ILE
28	11	71	ASP
28	11	83	GLU
28	11	92	ILE
28	11	94	LEU
28	11	101	GLU
28	11	103	ARG
28	11	105	ILE
28	11	111	LEU
28	11	136	ILE
28	11	138	VAL
28	11	142	VAL
28	11	147	LEU
28	11	155	LEU
28	11	157	ARG
28	11	165	ILE
28	11	192	THR
28	11	193	VAL
28	11	200	ASP
28	11	212	SER
28	11	221	VAL
28	11	229	VAL
28	11	242	ARG
28	11	257	LEU
28	11	259	THR
28	11	260	ARG
28	11	261	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
28	11	271	ILE
28	11	273	ARG
29	21	1	MET
29	21	12	THR
29	21	14	ILE
29	21	16	ARG
29	21	26	ILE
29	21	34	VAL
29	21	40	GLU
29	21	42	ASP
29	21	47	VAL
29	21	49	LEU
29	21	52	LEU
29	21	54	GLN
29	21	55	ASN
29	21	59	VAL
29	21	63	LEU
29	21	64	LYS
29	21	66	HIS
29	21	67	PHE
29	21	72	VAL
29	21	79	ARG
29	21	87	GLU
29	21	89	ASP
29	21	92	THR
29	21	93	VAL
29	21	95	ILE
29	21	101	ARG
29	21	105	THR
29	21	107	THR
29	21	111	ARG
29	21	113	PHE
29	21	119	ARG
29	21	140	SER
29	21	144	ARG
29	21	146	THR
29	21	147	PRO
29	21	166	THR
29	21	167	VAL
29	21	175	VAL
29	21	181	LEU
29	21	184	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
29	21	195	LEU
29	21	197	ILE
29	21	202	LYS
29	21	203	LYS
30	31	8	GLN
30	31	9	ILE
30	31	13	SER
30	31	15	SER
30	31	17	ARG
30	31	18	ARG
30	31	28	ILE
30	31	33	LEU
30	31	43	LYS
30	31	46	ARG
30	31	57	VAL
30	31	64	ILE
30	31	65	TRP
30	31	74	ARG
30	31	78	ILE
30	31	88	VAL
30	31	98	SER
30	31	106	ARG
30	31	107	LYS
30	31	108	LYS
30	31	117	ARG
30	31	127	GLU
30	31	158	THR
30	31	164	ARG
30	31	168	ARG
30	31	170	LEU
30	31	174	VAL
30	31	176	LEU
30	31	188	ARG
30	31	191	ARG
30	31	197	ASP
30	31	200	GLU
30	31	201	VAL
30	31	203	GLN
30	31	205	ARG
30	31	206	ILE
31	41	4	ASP
31	41	14	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
31	41	19	LEU
31	41	26	GLN
31	41	28	VAL
31	41	31	VAL
31	41	33	ARG
31	41	43	LEU
31	41	45	GLU
31	41	48	GLU
31	41	52	ILE
31	41	55	LYS
31	41	63	ILE
31	41	67	LYS
31	41	76	SER
31	41	77	ILE
31	41	80	PHE
31	41	82	LEU
31	41	83	ARG
31	41	86	MET
31	41	94	LEU
31	41	101	ILE
31	41	118	ARG
31	41	128	ARG
31	41	130	ASN
31	41	133	LEU
31	41	135	LEU
31	41	138	GLN
31	41	152	LEU
31	41	165	THR
31	41	176	LEU
32	51	3	ARG
32	51	4	ILE
32	51	6	ARG
32	51	7	LEU
32	51	11	VAL
32	51	18	GLU
32	51	32	GLU
32	51	40	GLU
32	51	43	VAL
32	51	45	VAL
32	51	57	ASP
32	51	64	LEU
32	51	68	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	51	71	LEU
32	51	77	LYS
32	51	80	SER
32	51	81	GLU
32	51	83	TYR
32	51	88	LEU
32	51	104	GLU
32	51	106	THR
32	51	116	GLU
32	51	127	GLU
32	51	129	THR
32	51	131	VAL
32	51	132	ARG
32	51	134	SER
32	51	139	GLN
32	51	143	GLN
32	51	151	ILE
32	51	153	LYS
32	51	155	SER
32	51	159	GLU
32	51	171	LEU
33	61	2	LYS
33	61	3	VAL
33	61	4	ILE
33	61	25	TYR
33	61	33	ARG
33	61	38	LEU
33	61	41	GLU
33	61	44	LEU
33	61	47	LEU
33	61	51	ILE
33	61	60	GLU
33	61	67	ARG
33	61	70	GLU
33	61	71	ILE
33	61	74	ASN
33	61	77	LEU
33	61	81	VAL
33	61	85	GLU
33	61	88	ILE
33	61	92	VAL
33	61	95	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
33	61	96	ASP
33	61	108	THR
33	61	110	ASP
33	61	112	LYS
33	61	117	GLU
33	61	122	GLU
33	61	131	LYS
33	61	135	GLU
33	61	140	LEU
33	61	142	VAL
33	61	143	SER
34	58	1	MET
34	58	2	LYS
34	58	7	LYS
34	58	12	ARG
34	58	16	ILE
34	58	29	LYS
34	58	34	LEU
34	58	35	ARG
34	58	39	ARG
34	58	43	THR
34	58	48	MET
34	58	55	VAL
34	58	60	ILE
34	58	61	ARG
34	58	65	LYS
34	58	67	LEU
34	58	68	GLU
34	58	90	MET
34	58	96	GLU
34	58	97	ARG
34	58	99	LEU
34	58	120	LEU
34	58	127	ASP
34	58	131	GLN
34	58	134	ARG
34	58	138	LEU
35	68	1	MET
35	68	3	GLN
35	68	22	ILE
35	68	23	ARG
35	68	24	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	68	28	SER
35	68	38	VAL
35	68	47	ILE
35	68	52	VAL
35	68	66	LYS
35	68	68	GLU
35	68	78	ARG
35	68	88	ASN
35	68	94	ARG
35	68	96	THR
35	68	98	VAL
35	68	108	GLU
35	68	112	MET
36	78	3	LEU
36	78	6	LEU
36	78	10	PRO
36	78	21	ARG
36	78	32	THR
36	78	36	LYS
36	78	41	ARG
36	78	45	LEU
36	78	46	LYS
36	78	49	ARG
36	78	58	THR
36	78	61	ARG
36	78	62	LEU
36	78	65	ARG
36	78	68	GLN
36	78	70	GLN
36	78	74	GLU
36	78	75	ILE
36	78	77	ARG
36	78	83	VAL
36	78	86	LYS
36	78	96	THR
36	78	98	GLU
36	78	99	LEU
36	78	100	LEU
36	78	105	LEU
36	78	106	LEU
36	78	112	LEU
36	78	115	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
36	78	126	VAL
36	78	135	LEU
36	78	144	GLU
36	78	146	VAL
36	78	147	LEU
36	78	149	GLU
37	88	1	MET
37	88	3	MET
37	88	5	ARG
37	88	6	ARG
37	88	7	MET
37	88	10	ARG
37	88	18	LYS
37	88	22	LYS
37	88	25	ASP
37	88	26	TYR
37	88	37	LEU
37	88	45	GLN
37	88	55	VAL
37	88	58	PHE
37	88	60	ARG
37	88	67	ARG
37	88	82	ARG
37	88	83	MET
37	88	87	LYS
37	88	102	VAL
37	88	109	VAL
37	88	110	THR
37	88	112	GLU
37	88	113	GLN
37	88	134	ARG
37	88	139	GLU
38	98	9	LYS
38	98	10	LEU
38	98	16	HIS
38	98	17	ARG
38	98	18	LEU
38	98	28	LEU
38	98	29	LEU
38	98	34	ILE
38	98	35	THR
38	98	37	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
38	98	42	LYS
38	98	45	ARG
38	98	48	VAL
38	98	49	ASP
38	98	54	LEU
38	98	59	ASP
38	98	65	LEU
38	98	79	LEU
38	98	82	GLU
38	98	91	GLN
38	98	102	GLU
38	98	104	ARG
38	98	105	ARG
38	98	117	VAL
38	98	118	GLU
39	A8	4	LEU
39	A8	8	GLU
39	A8	10	ARG
39	A8	14	VAL
39	A8	15	ARG
39	A8	20	ARG
39	A8	24	LEU
39	A8	29	PHE
39	A8	30	ARG
39	A8	36	TYR
39	A8	38	GLN
39	A8	43	GLU
39	A8	50	SER
39	A8	54	LEU
39	A8	57	LYS
39	A8	58	LEU
39	A8	69	VAL
39	A8	73	LEU
39	A8	80	LEU
39	A8	83	LYS
39	A8	89	ARG
39	A8	98	VAL
39	A8	101	LEU
39	A8	106	ARG
39	A8	111	GLU
40	B8	6	LEU
40	B8	7	ILE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
40	B8	8	LYS
40	B8	15	VAL
40	B8	16	ARG
40	B8	17	THR
40	B8	19	LEU
40	B8	21	GLU
40	B8	23	ARG
40	B8	27	THR
40	B8	33	LYS
40	B8	42	ILE
40	B8	53	ARG
40	B8	58	ASN
40	B8	62	THR
40	B8	65	LYS
40	B8	74	ARG
40	B8	83	ILE
40	B8	86	ILE
40	B8	87	ASP
40	B8	88	ILE
40	B8	98	LYS
40	B8	99	LEU
40	B8	105	LEU
40	B8	106	SER
40	B8	110	ILE
40	B8	111	ARG
40	B8	112	ARG
40	B8	128	GLU
40	B8	129	ARG
40	B8	136	GLN
41	C8	3	ARG
41	C8	5	LYS
41	C8	11	ARG
41	C8	13	LYS
41	C8	27	LEU
41	C8	52	ARG
41	C8	57	PHE
41	C8	58	ARG
41	C8	59	ARG
41	C8	60	LEU
41	C8	74	LEU
41	C8	76	TYR
41	C8	79	PHE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
41	C8	83	LEU
41	C8	89	GLU
41	C8	92	ARG
41	C8	97	ASP
41	C8	104	GLN
42	D8	5	VAL
42	D8	6	LYS
42	D8	7	THR
42	D8	15	GLU
42	D8	18	LEU
42	D8	20	LEU
42	D8	25	LEU
42	D8	26	ASP
42	D8	34	GLU
42	D8	35	LEU
42	D8	40	LEU
42	D8	47	VAL
42	D8	52	VAL
42	D8	62	LEU
42	D8	64	HIS
42	D8	71	LEU
42	D8	73	SER
42	D8	78	LYS
42	D8	89	GLN
43	E8	11	ARG
43	E8	37	ARG
43	E8	42	ARG
43	E8	51	LEU
43	E8	52	GLU
43	E8	60	ASN
43	E8	64	MET
43	E8	65	LEU
43	E8	66	GLU
43	E8	68	ARG
43	E8	70	TYR
43	E8	76	VAL
43	E8	78	GLU
43	E8	88	ARG
43	E8	90	ARG
43	E8	92	ARG
43	E8	96	ILE
43	E8	100	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
43	E8	107	LEU
43	E8	111	HIS
44	F8	12	VAL
44	F8	23	GLU
44	F8	27	THR
44	F8	52	VAL
44	F8	54	VAL
44	F8	57	LEU
44	F8	70	LEU
44	F8	72	LYS
44	F8	80	ILE
44	F8	81	VAL
44	F8	87	GLN
44	F8	89	ILE
45	G8	3	VAL
45	G8	4	LYS
45	G8	6	HIS
45	G8	9	LYS
45	G8	14	LEU
45	G8	24	VAL
45	G8	27	VAL
45	G8	30	VAL
45	G8	33	LYS
45	G8	34	LYS
45	G8	40	GLU
45	G8	42	VAL
45	G8	50	ARG
45	G8	52	SER
45	G8	54	LYS
45	G8	57	GLN
45	G8	61	ILE
45	G8	64	GLU
45	G8	67	LEU
45	G8	84	ARG
45	G8	86	ARG
45	G8	88	LYS
45	G8	91	GLU
45	G8	97	ARG
45	G8	99	CYS
46	H8	5	LEU
46	H8	16	SER
46	H8	19	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
46	H8	20	ARG
46	H8	23	LYS
46	H8	24	LEU
46	H8	30	ASN
46	H8	35	ARG
46	H8	37	VAL
46	H8	42	VAL
46	H8	43	GLU
46	H8	53	ILE
46	H8	60	GLU
46	H8	61	LEU
46	H8	70	LEU
46	H8	71	VAL
46	H8	73	GLN
46	H8	76	LEU
46	H8	80	ARG
46	H8	81	ARG
46	H8	82	ARG
46	H8	86	VAL
46	H8	91	LEU
46	H8	93	ASP
46	H8	94	GLU
46	H8	105	VAL
46	H8	117	LEU
46	H8	119	GLU
46	H8	123	ASP
46	H8	135	GLU
46	H8	140	ASP
46	H8	148	ASP
46	H8	154	ASP
46	H8	159	PRO
46	H8	163	LEU
46	H8	170	THR
47	I8	11	ARG
47	I8	23	VAL
47	I8	32	ARG
47	I8	36	ILE
47	I8	38	VAL
47	I8	41	ARG
47	I8	46	LYS
47	I8	53	MET
47	I8	67	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
47	I8	70	GLN
47	I8	83	PRO
48	J8	4	VAL
48	J8	19	GLN
48	J8	21	ARG
48	J8	25	LYS
48	J8	30	VAL
48	J8	33	LYS
48	J8	41	ARG
48	J8	65	SER
48	J8	73	LEU
48	J8	74	VAL
48	J8	78	LYS
48	J8	80	LEU
48	J8	81	LYS
48	J8	83	GLU
48	J8	91	LYS
49	K8	4	SER
49	K8	5	GLU
49	K8	9	GLN
49	K8	10	LEU
49	K8	11	GLU
49	K8	15	LYS
49	K8	16	LEU
49	K8	24	LEU
49	K8	32	LEU
49	K8	35	LEU
49	K8	41	ILE
49	K8	47	ASN
49	K8	48	HIS
49	K8	49	LYS
49	K8	50	ILE
49	K8	51	ARG
49	K8	53	LEU
49	K8	55	ARG
49	K8	62	THR
49	K8	64	LEU
49	K8	67	LYS
50	L8	6	VAL
50	L8	8	LEU
50	L8	9	VAL
50	L8	13	ILE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
50	L8	28	LEU
50	L8	32	GLN
50	L8	36	VAL
50	L8	37	LEU
50	L8	38	GLU
50	L8	40	THR
50	L8	58	VAL
50	L8	59	VAL
50	L8	60	GLU
51	M8	6	HIS
51	M8	10	VAL
51	M8	15	ILE
51	M8	27	THR
51	M8	31	ILE
51	M8	35	VAL
51	M8	38	LYS
51	M8	44	THR
51	M8	47	GLN
51	M8	48	ARG
51	M8	50	VAL
51	M8	51	ASP
51	M8	53	GLU
51	M8	55	ARG
51	M8	59	PHE
51	M8	61	ARG
51	M8	63	TYR
52	N8	6	VAL
52	N8	11	THR
52	N8	16	ARG
52	N8	29	THR
52	N8	31	VAL
52	N8	35	GLU
52	N8	37	LYS
52	N8	40	LYS
52	N8	44	THR
52	N8	51	TYR
52	N8	56	LYS
52	N8	60	VAL
53	P8	1	MET
53	P8	3	ARG
53	P8	4	THR
53	P8	8	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
53	P8	10	ARG
53	P8	14	LYS
53	P8	24	THR
53	P8	43	THR
54	Q8	8	LYS
54	Q8	15	LYS
54	Q8	21	LYS
54	Q8	29	LYS
54	Q8	34	TRP
54	Q8	35	GLN
54	Q8	41	ILE
54	Q8	43	GLN
54	Q8	44	LYS
54	Q8	47	LYS
54	Q8	48	PHE
54	Q8	58	ILE
54	Q8	62	LEU
2	12	5	ILE
2	12	9	GLU
2	12	15	VAL
2	12	17	PHE
2	12	19	HIS
2	12	20	GLU
2	12	21	ARG
2	12	22	LYS
2	12	23	ARG
2	12	31	TYR
2	12	36	ARG
2	12	40	HIS
2	12	42	ILE
2	12	45	GLN
2	12	51	LEU
2	12	52	GLU
2	12	55	PHE
2	12	69	LEU
2	12	75	LYS
2	12	82	ARG
2	12	92	TYR
2	12	108	ILE
2	12	111	ARG
2	12	121	LEU
2	12	122	PHE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	12	128	GLU
2	12	137	ARG
2	12	145	LEU
2	12	147	LYS
2	12	149	LEU
2	12	150	SER
2	12	158	LEU
2	12	165	VAL
2	12	172	ILE
2	12	178	ARG
2	12	185	ILE
2	12	191	ASP
2	12	204	ASN
2	12	213	LEU
2	12	215	LEU
2	12	217	ARG
2	12	223	ILE
2	12	230	VAL
2	12	236	TYR
3	22	3	ASN
3	22	4	LYS
3	22	5	ILE
3	22	11	ARG
3	22	16	ARG
3	22	21	ARG
3	22	27	LYS
3	22	29	TYR
3	22	31	HIS
3	22	32	LEU
3	22	34	LEU
3	22	43	LEU
3	22	55	VAL
3	22	67	THR
3	22	76	VAL
3	22	79	ARG
3	22	85	ARG
3	22	89	GLU
3	22	94	LEU
3	22	95	THR
3	22	97	LYS
3	22	102	ASN
3	22	104	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	22	105	GLU
3	22	106	VAL
3	22	127	ARG
3	22	140	ARG
3	22	141	VAL
3	22	144	SER
3	22	164	ARG
3	22	167	TRP
3	22	175	LEU
3	22	188	LEU
3	22	190	ARG
3	22	192	THR
3	22	193	TYR
3	22	196	LEU
3	22	202	ILE
3	22	207	VAL
4	32	3	ARG
4	32	5	ILE
4	32	8	VAL
4	32	11	LEU
4	32	12	CYS
4	32	17	VAL
4	32	18	LYS
4	32	21	LEU
4	32	24	GLU
4	32	26	CYS
4	32	28	SER
4	32	30	LYS
4	32	34	GLU
4	32	36	ARG
4	32	45	GLN
4	32	58	LEU
4	32	61	LYS
4	32	73	ARG
4	32	96	LEU
4	32	122	ARG
4	32	127	THR
4	32	134	ASP
4	32	137	SER
4	32	150	GLU
4	32	151	LYS
4	32	155	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	32	156	GLU
4	32	157	LEU
4	32	158	ILE
4	32	170	VAL
4	32	179	GLU
4	32	181	MET
4	32	184	LYS
4	32	187	ARG
4	32	191	ARG
4	32	192	GLU
4	32	193	ASP
4	32	196	LEU
4	32	198	VAL
4	32	200	GLU
4	32	209	ARG
5	42	5	ASP
5	42	10	MET
5	42	12	LEU
5	42	14	ARG
5	42	40	ARG
5	42	41	VAL
5	42	47	LYS
5	42	51	VAL
5	42	53	LEU
5	42	56	GLN
5	42	73	ASN
5	42	75	THR
5	42	78	HIS
5	42	79	GLU
5	42	80	ILE
5	42	83	GLU
5	42	87	SER
5	42	90	VAL
5	42	101	ILE
5	42	112	LEU
5	42	116	THR
5	42	117	ASP
5	42	127	ASN
5	42	131	ILE
5	42	137	GLU
5	42	144	THR
5	42	155	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
6	52	3	ARG
6	52	7	ASN
6	52	10	LEU
6	52	14	LEU
6	52	16	GLN
6	52	17	SER
6	52	21	LEU
6	52	25	ILE
6	52	28	ARG
6	52	40	VAL
6	52	43	LEU
6	52	45	LEU
6	52	47	ARG
6	52	54	LYS
6	52	63	TYR
6	52	74	ASP
6	52	77	ARG
6	52	92	LYS
6	52	93	SER
7	62	4	ARG
7	62	8	GLU
7	62	9	VAL
7	62	23	VAL
7	62	32	ARG
7	62	38	LEU
7	62	47	CYS
7	62	53	LYS
7	62	54	THR
7	62	57	GLU
7	62	60	LYS
7	62	63	LYS
7	62	72	ARG
7	62	84	ASN
7	62	86	GLN
7	62	89	MET
7	62	90	GLU
7	62	94	ARG
7	62	104	LEU
7	62	114	ARG
7	62	124	LEU
7	62	129	GLU
7	62	131	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
7	62	146	GLU
7	62	155	ARG
8	72	8	ASP
8	72	18	ARG
8	72	21	LYS
8	72	24	THR
8	72	26	VAL
8	72	35	ILE
8	72	49	GLU
8	72	50	ARG
8	72	51	VAL
8	72	54	ASP
8	72	56	LYS
8	72	77	GLU
8	72	82	HIS
8	72	84	ARG
8	72	85	ARG
8	72	97	VAL
8	72	99	GLU
8	72	102	ARG
8	72	112	LEU
8	72	114	THR
8	72	116	LYS
8	72	122	ARG
9	82	10	ARG
9	82	20	ARG
9	82	33	PHE
9	82	36	TYR
9	82	38	GLN
9	82	53	VAL
9	82	54	ASP
9	82	75	ASP
9	82	88	TYR
9	82	91	ASP
9	82	95	LYS
9	82	104	ARG
9	82	110	GLU
9	82	111	ARG
9	82	113	LYS
9	82	114	TYR
9	82	117	HIS
9	82	124	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
9	82	128	ARG
10	1A	21	GLN
10	1A	22	LYS
10	1A	24	VAL
10	1A	30	SER
10	1A	48	THR
10	1A	51	ARG
10	1A	54	PHE
10	1A	55	LYS
10	1A	59	SER
10	1A	62	HIS
10	1A	66	ARG
10	1A	67	THR
10	1A	70	ARG
10	1A	72	VAL
10	1A	75	ILE
10	1A	79	ARG
10	1A	84	GLN
10	1A	94	VAL
10	1A	96	ILE
10	1A	98	ILE
10	1A	100	THR
11	2A	12	ARG
11	2A	18	ARG
11	2A	31	THR
11	2A	38	ASN
11	2A	41	THR
11	2A	44	SER
11	2A	54	ARG
11	2A	63	LEU
11	2A	81	ASP
11	2A	84	VAL
11	2A	91	ARG
11	2A	98	LEU
11	2A	103	LEU
11	2A	105	VAL
11	2A	106	LYS
11	2A	107	SER
11	2A	109	VAL
11	2A	114	VAL
11	2A	124	LYS
11	2A	127	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
12	3A	21	LYS
12	3A	24	VAL
12	3A	27	LEU
12	3A	33	ARG
12	3A	37	CYS
12	3A	38	THR
12	3A	41	ARG
12	3A	42	THR
12	3A	46	LYS
12	3A	54	LYS
12	3A	55	VAL
12	3A	58	VAL
12	3A	59	ARG
12	3A	64	TYR
12	3A	80	HIS
12	3A	81	SER
12	3A	82	VAL
12	3A	83	VAL
12	3A	84	LEU
12	3A	85	ILE
12	3A	102	ARG
12	3A	111	LYS
12	3A	122	THR
13	4A	3	ARG
13	4A	4	ILE
13	4A	7	VAL
13	4A	17	VAL
13	4A	39	ILE
13	4A	44	ARG
13	4A	47	ASP
13	4A	48	LEU
13	4A	49	THR
13	4A	50	GLU
13	4A	56	LEU
13	4A	63	THR
13	4A	64	TRP
13	4A	66	LEU
13	4A	70	LEU
13	4A	77	ASN
13	4A	82	MET
13	4A	83	ASP
13	4A	94	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
13	4A	98	VAL
13	4A	99	ARG
13	4A	108	ARG
13	4A	114	ARG
13	4A	117	VAL
14	5A	6	LEU
14	5A	7	ILE
14	5A	12	ARG
14	5A	15	LYS
14	5A	17	LYS
14	5A	18	VAL
14	5A	22	THR
14	5A	23	ARG
14	5A	26	ARG
14	5A	27	CYS
14	5A	29	ARG
14	5A	33	VAL
14	5A	44	LEU
14	5A	58	LYS
15	6A	3	ILE
15	6A	4	THR
15	6A	22	THR
15	6A	31	LEU
15	6A	48	LYS
15	6A	54	ARG
15	6A	66	LEU
15	6A	68	ARG
15	6A	76	GLU
15	6A	83	GLU
15	6A	88	ARG
16	7A	2	VAL
16	7A	12	LYS
16	7A	18	ARG
16	7A	25	ARG
16	7A	27	LYS
16	7A	29	ASP
16	7A	39	TYR
16	7A	45	THR
16	7A	55	ARG
16	7A	62	VAL
16	7A	65	GLN
16	7A	67	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
16	7A	74	LEU
16	7A	82	GLN
17	8A	13	ASP
17	8A	25	ARG
17	8A	26	GLN
17	8A	49	GLU
17	8A	53	LEU
17	8A	60	ILE
17	8A	62	SER
17	8A	63	ARG
17	8A	68	ARG
17	8A	72	ARG
17	8A	74	LEU
17	8A	75	ARG
17	8A	76	LEU
17	8A	92	ARG
17	8A	100	LYS
18	9A	23	LYS
18	9A	26	LEU
18	9A	29	PHE
18	9A	31	LEU
18	9A	32	ARG
18	9A	36	ASN
18	9A	42	ARG
18	9A	44	LEU
18	9A	45	SER
18	9A	47	THR
18	9A	53	ARG
18	9A	54	ARG
18	9A	58	LEU
18	9A	76	LEU
18	9A	86	VAL
18	9A	87	ARG
19	AA	9	VAL
19	AA	12	ASP
19	AA	15	LEU
19	AA	20	LEU
19	AA	22	LEU
19	AA	25	LYS
19	AA	29	ARG
19	AA	30	LEU
19	AA	32	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
19	AA	49	ILE
19	AA	58	VAL
19	AA	60	VAL
19	AA	63	THR
19	AA	66	MET
19	AA	70	LYS
19	AA	78	ARG
19	AA	83	HIS
20	BA	10	LEU
20	BA	11	SER
20	BA	14	LYS
20	BA	17	ARG
20	BA	23	ARG
20	BA	24	LEU
20	BA	36	LEU
20	BA	58	LYS
20	BA	60	GLU
20	BA	64	ASP
20	BA	73	HIS
20	BA	75	ASN
20	BA	84	LEU
20	BA	86	ARG
20	BA	87	LYS
20	BA	93	GLU
20	BA	99	LEU
20	BA	100	ILE
21	1B	8	THR
21	1B	25	LYS
28	19	10	THR
28	19	13	ARG
28	19	28	GLU
28	19	37	LEU
28	19	38	LYS
28	19	43	ARG
28	19	49	ILE
28	19	54	ARG
28	19	61	LEU
28	19	64	ILE
28	19	65	ILE
28	19	68	LYS
28	19	69	ARG
28	19	88	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
28	19	92	ILE
28	19	94	LEU
28	19	105	ILE
28	19	109	ASP
28	19	111	LEU
28	19	116	GLN
28	19	141	VAL
28	19	147	LEU
28	19	155	LEU
28	19	166	GLN
28	19	169	GLU
28	19	182	LEU
28	19	192	THR
28	19	200	ASP
28	19	208	LYS
28	19	211	ARG
28	19	212	SER
28	19	239	ARG
28	19	242	ARG
28	19	244	ARG
28	19	255	LYS
28	19	257	LEU
28	19	260	ARG
28	19	262	ARG
28	19	263	ARG
28	19	266	SER
28	19	267	SER
28	19	268	ARG
28	19	271	ILE
28	19	273	ARG
29	29	1	MET
29	29	4	ILE
29	29	11	MET
29	29	12	THR
29	29	23	VAL
29	29	33	VAL
29	29	37	ARG
29	29	44	TYR
29	29	45	THR
29	29	48	GLN
29	29	49	LEU
29	29	60	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
29	29	63	LEU
29	29	66	HIS
29	29	75	VAL
29	29	76	ARG
29	29	78	LEU
29	29	79	ARG
29	29	82	ARG
29	29	89	ASP
29	29	91	VAL
29	29	93	VAL
29	29	100	GLU
29	29	113	PHE
29	29	116	VAL
29	29	117	MET
29	29	119	ARG
29	29	138	PRO
29	29	144	ARG
29	29	145	LYS
29	29	154	LYS
29	29	163	GLU
29	29	167	VAL
29	29	170	LEU
29	29	175	VAL
29	29	179	GLU
29	29	181	LEU
29	29	188	VAL
29	29	200	GLU
29	29	201	THR
29	29	202	LYS
30	39	2	LYS
30	39	7	TYR
30	39	8	GLN
30	39	11	VAL
30	39	13	SER
30	39	17	ARG
30	39	18	ARG
30	39	20	LEU
30	39	24	LEU
30	39	27	GLU
30	39	35	GLU
30	39	50	SER
30	39	53	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
30	39	64	ILE
30	39	66	PRO
30	39	67	GLN
30	39	70	THR
30	39	72	ARG
30	39	74	ARG
30	39	82	ILE
30	39	83	PHE
30	39	92	PRO
30	39	98	SER
30	39	106	ARG
30	39	107	LYS
30	39	110	LEU
30	39	123	LEU
30	39	125	LEU
30	39	136	THR
30	39	140	LEU
30	39	153	SER
30	39	154	VAL
30	39	158	THR
30	39	165	ARG
30	39	169	ASN
30	39	181	LEU
30	39	183	VAL
30	39	192	LEU
30	39	193	VAL
30	39	196	LEU
30	39	200	GLU
30	39	201	VAL
30	39	204	ASN
30	39	205	ARG
31	49	7	LEU
31	49	13	GLU
31	49	16	ARG
31	49	28	VAL
31	49	33	ARG
31	49	40	ASN
31	49	49	ASP
31	49	52	ILE
31	49	54	GLU
31	49	62	LEU
31	49	67	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
31	49	71	THR
31	49	80	PHE
31	49	82	LEU
31	49	90	LEU
31	49	91	ARG
31	49	94	LEU
31	49	96	ARG
31	49	106	LEU
31	49	115	ARG
31	49	116	ASP
31	49	118	ARG
31	49	128	ARG
31	49	135	LEU
31	49	136	ARG
31	49	139	LEU
31	49	146	TYR
31	49	147	ASP
31	49	153	ARG
31	49	157	ILE
31	49	165	THR
31	49	167	GLU
32	59	3	ARG
32	59	6	ARG
32	59	11	VAL
32	59	16	SER
32	59	23	ARG
32	59	24	VAL
32	59	32	GLU
32	59	37	VAL
32	59	41	MET
32	59	50	VAL
32	59	52	VAL
32	59	53	GLU
32	59	59	ARG
32	59	69	ARG
32	59	70	THR
32	59	71	LEU
32	59	72	ILE
32	59	83	TYR
32	59	89	ILE
32	59	98	LEU
32	59	101	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	59	103	LEU
32	59	105	LEU
32	59	107	VAL
32	59	122	THR
32	59	123	PHE
32	59	129	THR
32	59	131	VAL
32	59	132	ARG
32	59	136	ILE
32	59	139	GLN
32	59	143	GLN
32	59	157	TYR
32	59	167	GLU
32	59	170	ARG
33	69	7	GLU
33	69	10	GLU
33	69	14	ASP
33	69	37	VAL
33	69	38	LEU
33	69	40	THR
33	69	41	GLU
33	69	44	LEU
33	69	51	ILE
33	69	52	ARG
33	69	56	LYS
33	69	60	GLU
33	69	61	ARG
33	69	64	GLU
33	69	67	ARG
33	69	69	LYS
33	69	74	ASN
33	69	75	LEU
33	69	76	THR
33	69	77	LEU
33	69	81	VAL
33	69	85	GLU
33	69	86	THR
33	69	87	LYS
33	69	91	SER
33	69	95	LYS
33	69	101	LEU
33	69	103	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
33	69	109	ILE
33	69	114	LEU
33	69	117	GLU
33	69	125	GLU
33	69	128	LEU
33	69	131	LYS
33	69	138	ILE
33	69	145	VAL
34	15	1	MET
34	15	7	LYS
34	15	29	LYS
34	15	32	THR
34	15	33	LEU
34	15	34	LEU
34	15	38	HIS
34	15	48	MET
34	15	58	ASP
34	15	59	LYS
34	15	61	ARG
34	15	63	THR
34	15	68	GLU
34	15	71	ILE
34	15	76	SER
34	15	87	LEU
34	15	89	LYS
34	15	91	LEU
34	15	93	THR
34	15	94	HIS
34	15	99	LEU
34	15	109	LYS
34	15	112	LEU
34	15	120	LEU
34	15	130	HIS
34	15	134	ARG
34	15	138	LEU
35	25	8	LEU
35	25	10	VAL
35	25	17	ARG
35	25	22	ILE
35	25	23	ARG
35	25	28	SER
35	25	35	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	25	49	ARG
35	25	53	LYS
35	25	66	LYS
35	25	78	ARG
35	25	87	ILE
35	25	90	GLN
35	25	94	ARG
35	25	96	THR
35	25	97	ARG
35	25	98	VAL
35	25	104	ARG
35	25	108	GLU
35	25	113	LYS
35	25	114	ILE
35	25	116	SER
35	25	117	LEU
36	35	4	SER
36	35	6	LEU
36	35	10	PRO
36	35	13	ASN
36	35	15	ARG
36	35	18	ARG
36	35	19	VAL
36	35	21	ARG
36	35	30	THR
36	35	36	LYS
36	35	41	ARG
36	35	45	LEU
36	35	50	ARG
36	35	52	GLU
36	35	61	ARG
36	35	64	LYS
36	35	65	ARG
36	35	67	MET
36	35	70	GLN
36	35	75	ILE
36	35	76	LYS
36	35	77	ARG
36	35	81	GLN
36	35	84	ASN
36	35	85	LEU
36	35	86	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
36	35	91	PHE
36	35	98	GLU
36	35	99	LEU
36	35	101	VAL
36	35	105	LEU
36	35	106	LEU
36	35	112	LEU
36	35	114	ILE
36	35	123	LEU
36	35	133	SER
36	35	144	GLU
36	35	147	LEU
36	35	148	LEU
36	35	149	GLU
37	45	6	ARG
37	45	7	MET
37	45	8	LYS
37	45	10	ARG
37	45	16	ARG
37	45	17	LEU
37	45	21	THR
37	45	22	LYS
37	45	25	ASP
37	45	26	TYR
37	45	35	VAL
37	45	45	GLN
37	45	56	ARG
37	45	59	ARG
37	45	60	ARG
37	45	63	LYS
37	45	79	LEU
37	45	81	VAL
37	45	83	MET
37	45	89	ASN
37	45	91	GLU
37	45	103	MET
37	45	105	GLU
37	45	110	THR
37	45	118	LEU
37	45	127	ILE
37	45	132	VAL
37	45	133	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
37	45	134	ARG
38	55	17	ARG
38	55	18	LEU
38	55	24	GLN
38	55	28	LEU
38	55	29	LEU
38	55	35	THR
38	55	44	LEU
38	55	48	VAL
38	55	51	LEU
38	55	57	ARG
38	55	59	ASP
38	55	63	ARG
38	55	65	LEU
38	55	66	VAL
38	55	67	LEU
38	55	71	GLN
38	55	74	LYS
38	55	75	LEU
38	55	79	LEU
38	55	81	ASP
38	55	82	GLU
38	55	88	ARG
38	55	97	VAL
38	55	102	GLU
38	55	104	ARG
38	55	111	LEU
38	55	115	GLU
38	55	118	GLU
39	65	12	PHE
39	65	14	VAL
39	65	19	LYS
39	65	20	ARG
39	65	21	THR
39	65	24	LEU
39	65	46	VAL
39	65	50	SER
39	65	52	SER
39	65	56	LEU
39	65	58	LEU
39	65	59	LYS
39	65	63	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
39	65	71	ARG
39	65	78	LEU
39	65	88	ASP
39	65	89	ARG
39	65	93	LYS
39	65	97	ARG
39	65	99	LYS
39	65	101	LEU
39	65	106	ARG
39	65	107	GLU
39	65	110	LEU
39	65	111	GLU
39	65	112	PHE
40	75	8	LYS
40	75	9	LEU
40	75	10	VAL
40	75	11	GLU
40	75	13	ARG
40	75	14	TYR
40	75	15	VAL
40	75	27	THR
40	75	28	VAL
40	75	34	VAL
40	75	36	GLU
40	75	40	THR
40	75	41	ARG
40	75	49	VAL
40	75	50	ILE
40	75	55	ASN
40	75	64	ARG
40	75	65	LYS
40	75	74	ARG
40	75	85	LYS
40	75	86	ILE
40	75	88	ILE
40	75	89	VAL
40	75	93	ARG
40	75	96	ARG
40	75	102	ILE
40	75	106	SER
40	75	107	ASP
40	75	112	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
40	75	113	LYS
40	75	121	ILE
40	75	124	ASP
40	75	125	ARG
40	75	133	GLU
41	85	3	ARG
41	85	5	LYS
41	85	8	VAL
41	85	11	ARG
41	85	12	ARG
41	85	20	LEU
41	85	27	LEU
41	85	31	SER
41	85	33	ARG
41	85	34	LYS
41	85	55	ARG
41	85	57	PHE
41	85	60	LEU
41	85	63	VAL
41	85	74	LEU
41	85	80	ILE
41	85	83	LEU
41	85	92	ARG
41	85	95	LEU
41	85	97	ASP
41	85	101	ARG
41	85	105	VAL
41	85	109	LEU
41	85	112	ARG
42	95	19	LYS
42	95	21	ARG
42	95	24	LYS
42	95	33	VAL
42	95	35	LEU
42	95	38	LEU
42	95	40	LEU
42	95	45	THR
42	95	46	VAL
42	95	47	VAL
42	95	49	THR
42	95	52	VAL
42	95	62	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
42	95	66	ARG
42	95	68	LYS
42	95	69	LYS
42	95	70	ILE
42	95	71	LEU
42	95	74	LYS
42	95	76	LYS
42	95	79	VAL
42	95	80	GLN
42	95	81	TYR
42	95	84	LYS
42	95	85	LYS
42	95	89	GLN
42	95	91	TYR
43	A5	1	MET
43	A5	11	ARG
43	A5	17	VAL
43	A5	23	LEU
43	A5	28	SER
43	A5	37	ARG
43	A5	39	THR
43	A5	41	LYS
43	A5	51	LEU
43	A5	52	GLU
43	A5	65	LEU
43	A5	67	ASP
43	A5	70	TYR
43	A5	72	LYS
43	A5	76	VAL
43	A5	88	ARG
43	A5	92	ARG
43	A5	95	ILE
43	A5	96	ILE
43	A5	106	ILE
43	A5	107	LEU
43	A5	110	LYS
43	A5	111	HIS
44	B5	27	THR
44	B5	30	VAL
44	B5	38	GLU
44	B5	40	LYS
44	B5	43	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
44	B5	45	THR
44	B5	53	LYS
44	B5	54	VAL
44	B5	60	ARG
44	B5	63	LYS
44	B5	69	TYR
44	B5	76	ARG
44	B5	78	LYS
44	B5	80	ILE
44	B5	88	LYS
45	C5	6	HIS
45	C5	14	LEU
45	C5	24	VAL
45	C5	29	GLU
45	C5	31	LEU
45	C5	33	LYS
45	C5	37	VAL
45	C5	38	ILE
45	C5	43	ASN
45	C5	45	VAL
45	C5	49	VAL
45	C5	51	VAL
45	C5	52	SER
45	C5	55	TYR
45	C5	60	PHE
45	C5	62	GLU
45	C5	64	GLU
45	C5	70	SER
45	C5	84	ARG
45	C5	85	VAL
45	C5	86	ARG
45	C5	88	LYS
45	C5	89	PHE
45	C5	90	LEU
45	C5	98	VAL
45	C5	99	CYS
46	D5	4	ARG
46	D5	11	GLU
46	D5	14	LYS
46	D5	19	ARG
46	D5	24	LEU
46	D5	30	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
46	D5	35	ARG
46	D5	36	LYS
46	D5	53	ILE
46	D5	56	VAL
46	D5	63	ASP
46	D5	70	LEU
46	D5	71	VAL
46	D5	72	ARG
46	D5	74	VAL
46	D5	76	LEU
46	D5	89	PHE
46	D5	93	ASP
46	D5	98	MET
46	D5	103	ARG
46	D5	123	ASP
46	D5	125	LEU
46	D5	132	ASN
46	D5	137	ILE
46	D5	165	VAL
47	E5	10	THR
47	E5	11	ARG
47	E5	12	ASN
47	E5	17	GLN
47	E5	19	LYS
47	E5	36	ILE
47	E5	41	ARG
47	E5	43	THR
47	E5	47	PRO
47	E5	62	LEU
47	E5	70	GLN
47	E5	74	ARG
48	F5	4	VAL
48	F5	18	ILE
48	F5	27	GLU
48	F5	33	LYS
48	F5	35	THR
48	F5	37	ILE
48	F5	38	SER
48	F5	40	ARG
48	F5	42	GLN
48	F5	56	GLN
48	F5	67	ILE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
48	F5	69	LYS
48	F5	74	VAL
48	F5	76	ARG
48	F5	78	LYS
48	F5	80	LEU
48	F5	81	LYS
48	F5	82	LEU
48	F5	83	GLU
48	F5	85	LEU
48	F5	86	SER
48	F5	89	GLU
48	F5	91	LYS
48	F5	95	LEU
48	F5	96	LYS
49	G5	12	GLU
49	G5	14	ARG
49	G5	16	LEU
49	G5	17	SER
49	G5	19	VAL
49	G5	24	LEU
49	G5	26	ARG
49	G5	30	ARG
49	G5	34	GLU
49	G5	46	GLN
49	G5	47	ASN
49	G5	48	HIS
49	G5	50	ILE
49	G5	51	ARG
49	G5	53	LEU
49	G5	60	LEU
49	G5	62	THR
49	G5	65	ASN
49	G5	68	ARG
49	G5	69	ARG
50	H5	8	LEU
50	H5	9	VAL
50	H5	17	LYS
50	H5	23	LEU
50	H5	33	GLN
50	H5	34	GLU
50	H5	35	ARG
50	H5	36	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
50	H5	37	LEU
50	H5	38	GLU
50	H5	40	THR
50	H5	44	ARG
50	H5	49	LYS
50	H5	55	ARG
51	I5	1	MET
51	I5	6	HIS
51	I5	8	LYS
51	I5	20	ASN
51	I5	21	VAL
51	I5	22	ILE
51	I5	25	TYR
51	I5	27	THR
51	I5	36	CYS
51	I5	53	GLU
51	I5	59	PHE
51	I5	61	ARG
51	I5	62	ARG
52	J5	25	LEU
52	J5	29	THR
52	J5	44	THR
52	J5	48	GLU
52	J5	51	TYR
52	J5	59	GLU
53	L5	3	ARG
53	L5	4	THR
53	L5	8	ASN
53	L5	14	LYS
53	L5	33	ARG
53	L5	36	GLN
53	L5	43	THR
54	M5	8	LYS
54	M5	13	ARG
54	M5	15	LYS
54	M5	22	VAL
54	M5	30	ARG
54	M5	32	LEU
54	M5	33	ASN
54	M5	37	SER
54	M5	41	ILE
54	M5	50	LEU

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Mol	Chain	Res	Type
54	M5	52	LYS
54	M5	53	PRO
54	M5	58	ILE
54	M5	61	LEU
54	M5	62	LEU
54	M5	63	PRO

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (19) such sidechains are listed below:

Mol	Chain	Res	Type
2	1E	110	GLN
2	1E	240	GLN
4	3E	123	HIS
9	8E	89	ASN
20	BI	26	ASN
29	21	143	ASN
34	58	69	GLN
35	68	88	ASN
37	88	13	GLN
41	C8	75	ASN
46	H8	30	ASN
8	72	82	HIS
10	1A	78	ASN
16	7A	16	HIS
18	9A	36	ASN
28	19	96	HIS
29	29	60	ASN
33	69	104	GLN
51	I5	6	HIS

### 5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	13	1504/1522 (98%)	381 (25%)	35 (2%)
1	1G	1503/1522 (98%)	361 (24%)	37 (2%)
22	1K	82/85 (96%)	37 (45%)	8 (9%)
23	2K	76/77 (98%)	21 (27%)	3 (3%)
23	2L	76/77 (98%)	17 (22%)	1 (1%)
24	1L	84/85 (98%)	35 (41%)	8 (9%)
24	3K	84/85 (98%)	27 (32%)	4 (4%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
25	4K	11/30 (36%)	3 (27%)	1 (9%)
25	4L	12/30 (40%)	6 (50%)	3 (25%)
26	14	2908/2918 (99%)	759 (26%)	56 (1%)
26	1H	2911/2918 (99%)	725 (24%)	60 (2%)
27	16	121/122 (99%)	20 (16%)	0
27	1J	121/122 (99%)	33 (27%)	3 (2%)
55	3L	83/85 (97%)	34 (40%)	4 (4%)
All	All	9576/9678 (98%)	2459 (25%)	223 (2%)

All (2459) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	13	5	U
1	13	6	G
1	13	8	A
1	13	9	G
1	13	13	U
1	13	14	U
1	13	21	G
1	13	32	A
1	13	39	G
1	13	47	C
1	13	48	C
1	13	49	U
1	13	50	A
1	13	51	A
1	13	54	C
1	13	59	A
1	13	60	A
1	13	61	G
1	13	65	U
1	13	66	G
1	13	79	G
1	13	81	G
1	13	82	U
1	13	84	U
1	13	85	U
1	13	86	U
1	13	89	U
1	13	90	C
1	13	91	C
1	13	95	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	13	96	G
1	13	101	A
1	13	105	G
1	13	116	A
1	13	121	C
1	13	129(A)	G
1	13	131	C
1	13	137	C
1	13	138	G
1	13	142	G
1	13	144	G
1	13	145	G
1	13	150	C
1	13	157	G
1	13	160	A
1	13	161	A
1	13	165	C
1	13	169	C
1	13	172	A
1	13	173	U
1	13	174	C
1	13	186(F)	C
1	13	188	U
1	13	189	U
1	13	190	G
1	13	191(A)	G
1	13	195	A
1	13	197	A
1	13	199	G
1	13	201	C
1	13	208	U
1	13	209	U
1	13	210	U
1	13	216	G
1	13	217	C
1	13	220	G
1	13	222	U
1	13	240	C
1	13	245	C
1	13	247	G
1	13	251	G
1	13	262	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	13	266	G
1	13	267	C
1	13	270	A
1	13	281	G
1	13	289	G
1	13	316	G
1	13	321	A
1	13	328	C
1	13	330	C
1	13	332	G
1	13	334	C
1	13	342	C
1	13	344	A
1	13	345	C
1	13	346	G
1	13	347	G
1	13	352	C
1	13	353	A
1	13	354	G
1	13	357	G
1	13	363	A
1	13	365	U
1	13	367	U
1	13	372	C
1	13	373	A
1	13	383	A
1	13	384	G
1	13	388	G
1	13	390	C
1	13	397	A
1	13	398	C
1	13	406	G
1	13	412	A
1	13	413	G
1	13	419	C
1	13	422	C
1	13	423	G
1	13	424	G
1	13	429	U
1	13	430	A
1	13	439	A
1	13	465	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	13	466	C
1	13	467	G
1	13	482	A
1	13	485	G
1	13	487	A
1	13	496	A
1	13	497	U
1	13	505	G
1	13	509	A
1	13	510	A
1	13	511	C
1	13	518	C
1	13	521	G
1	13	524	G
1	13	527	G
1	13	531	U
1	13	532	A
1	13	533	A
1	13	536	C
1	13	547	A
1	13	549	C
1	13	559	A
1	13	561	U
1	13	564	C
1	13	572	A
1	13	573	A
1	13	576	G
1	13	577	G
1	13	592	G
1	13	596	C
1	13	606	G
1	13	607	A
1	13	608	A
1	13	609	A
1	13	610	G
1	13	623	C
1	13	627	G
1	13	630	G
1	13	631	G
1	13	632	A
1	13	633	G
1	13	639	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	13	650	G
1	13	653	A
1	13	655	A
1	13	665	A
1	13	666	G
1	13	677	U
1	13	687	A
1	13	688	G
1	13	703	G
1	13	704	A
1	13	723	U
1	13	724	G
1	13	734	G
1	13	749	C
1	13	752	G
1	13	753	A
1	13	754	C
1	13	755	G
1	13	759	A
1	13	760	G
1	13	766	A
1	13	767	A
1	13	774	G
1	13	777	A
1	13	793	U
1	13	794	A
1	13	802	A
1	13	813	U
1	13	817	C
1	13	818	G
1	13	821	G
1	13	828	A
1	13	836	G
1	13	837	G
1	13	841	U
1	13	842	C
1	13	843	U
1	13	848	C
1	13	853	G
1	13	858	G
1	13	859	A
1	13	864	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	13	870	U
1	13	871	U
1	13	872	A
1	13	873	A
1	13	902	G
1	13	914	A
1	13	921	U
1	13	922	G
1	13	926	G
1	13	927	G
1	13	934	C
1	13	935	A
1	13	936	C
1	13	940	C
1	13	942	G
1	13	960	U
1	13	968	A
1	13	969	A
1	13	971	G
1	13	972	C
1	13	974	A
1	13	975	A
1	13	976	G
1	13	977	A
1	13	978	A
1	13	982	U
1	13	983	A
1	13	991	U
1	13	992	U
1	13	993	G
1	13	994	A
1	13	998	G
1	13	1004	A
1	13	1005	A
1	13	1006	C
1	13	1007	C
1	13	1008	C
1	13	1009	G
1	13	1012	U
1	13	1017	G
1	13	1021	G
1	13	1024	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	13	1025	U
1	13	1026	G
1	13	1028	C
1	13	1028(B)	C
1	13	1029	G
1	13	1030	C
1	13	1032(A)	G
1	13	1033	G
1	13	1040	U
1	13	1042	G
1	13	1044	A
1	13	1046	A
1	13	1053	G
1	13	1054	C
1	13	1055	A
1	13	1056	U
1	13	1058	G
1	13	1064	G
1	13	1065	U
1	13	1066	C
1	13	1077	G
1	13	1081	G
1	13	1094	G
1	13	1095	U
1	13	1101	A
1	13	1121	U
1	13	1124	G
1	13	1125	U
1	13	1126	U
1	13	1127	G
1	13	1128	C
1	13	1129	C
1	13	1130	A
1	13	1131	G
1	13	1133	G
1	13	1136	U
1	13	1137	C
1	13	1138	G
1	13	1139	G
1	13	1140	C
1	13	1146	A
1	13	1147	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	13	1152	A
1	13	1154	G
1	13	1157	A
1	13	1158	C
1	13	1159	U
1	13	1161	C
1	13	1166	G
1	13	1170	A
1	13	1171	G
1	13	1174	G
1	13	1177	G
1	13	1178	G
1	13	1181	G
1	13	1183	A
1	13	1189	C
1	13	1190	G
1	13	1191	A
1	13	1193	G
1	13	1194	U
1	13	1196	U
1	13	1197	G
1	13	1201	A
1	13	1202	G
1	13	1212	U
1	13	1213	A
1	13	1220	G
1	13	1225	A
1	13	1226	C
1	13	1227	A
1	13	1238	A
1	13	1240	U
1	13	1241	G
1	13	1253	G
1	13	1256	A
1	13	1257	U
1	13	1258	G
1	13	1260	C
1	13	1270	C
1	13	1272	G
1	13	1275	A
1	13	1278	U
1	13	1279	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	13	1280	A
1	13	1281	U
1	13	1282	C
1	13	1285	A
1	13	1286	A
1	13	1287	A
1	13	1299	A
1	13	1300	G
1	13	1301	U
1	13	1302	U
1	13	1303	C
1	13	1305	G
1	13	1322	C
1	13	1323	G
1	13	1331	G
1	13	1333	A
1	13	1335	C
1	13	1336	C
1	13	1337	G
1	13	1346	A
1	13	1347	G
1	13	1350	A
1	13	1353	G
1	13	1363	A
1	13	1365	G
1	13	1370	G
1	13	1377	A
1	13	1378	C
1	13	1381	U
1	13	1388	C
1	13	1398	A
1	13	1401	G
1	13	1419	G
1	13	1422	G
1	13	1429	C
1	13	1442	G
1	13	1443	G
1	13	1446	A
1	13	1451	A
1	13	1452	C
1	13	1453	G
1	13	1467	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	13	1487	G
1	13	1492	A
1	13	1495	U
1	13	1497	G
1	13	1498	U
1	13	1499	A
1	13	1503	A
1	13	1504	G
1	13	1505	G
1	13	1506	U
1	13	1517	G
1	13	1519	A
1	13	1529	G
1	13	1530	G
1	13	1531	A
22	1K	4	G
22	1K	7	G
22	1K	8	U
22	1K	9	U
22	1K	10	C
22	1K	11	C
22	1K	13	G
22	1K	14	A
22	1K	15	G
22	1K	16	C
22	1K	17	G
22	1K	18	G
22	1K	19	C
22	1K	20	C
22	1K	21	A
22	1K	22	A
22	1K	24	G
22	1K	25	G
22	1K	26	G
22	1K	30	A
22	1K	46	G
22	1K	47	U
22	1K	49	A
22	1K	50	U
22	1K	56	U
22	1K	58	G
22	1K	63	5MU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
22	1K	65	C
22	1K	70	C
22	1K	72	U
22	1K	76	C
22	1K	78	C
22	1K	79	A
22	1K	80	C
22	1K	82	A
22	1K	83	C
22	1K	84	C
23	2K	2	G
23	2K	9	G
23	2K	13	C
23	2K	16	C
23	2K	18	C
23	2K	20	G
23	2K	21	U
23	2K	22	A
23	2K	23	G
23	2K	27	G
23	2K	39	A
23	2K	48	U
23	2K	49	C
23	2K	50	G
23	2K	51	U
23	2K	53	G
23	2K	54	G
23	2K	55	5MU
23	2K	62	C
23	2K	68	C
23	2K	77	A
24	3K	5	G
24	3K	6	G
24	3K	9	U
24	3K	11	C
24	3K	14	A
24	3K	15	G
24	3K	17	G
24	3K	18	G
24	3K	19	C
24	3K	20	C
24	3K	21	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
24	3K	23	A
24	3K	38	A
24	3K	43	G
24	3K	46	G
24	3K	47	U
24	3K	48	C
24	3K	50	U
24	3K	52	G
24	3K	55	U
24	3K	56	U
24	3K	57	C
24	3K	58	G
24	3K	67	A
24	3K	68	A
24	3K	82	A
24	3K	85	A
25	4K	14	A
25	4K	23	A
25	4K	24	A
26	1H	2	G
26	1H	4	C
26	1H	5	A
26	1H	9	U
26	1H	12	U
26	1H	14	A
26	1H	15	G
26	1H	17	G
26	1H	27	G
26	1H	34	C
26	1H	35	G
26	1H	43	G
26	1H	46	C
26	1H	51	G
26	1H	60	G
26	1H	61	G
26	1H	66	C
26	1H	71	A
26	1H	72	U
26	1H	74	A
26	1H	75	G
26	1H	85	G
26	1H	93	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	99	U
26	1H	102	G
26	1H	106	C
26	1H	110	G
26	1H	118	A
26	1H	119	A
26	1H	120	U
26	1H	123	G
26	1H	125	G
26	1H	140	A
26	1H	155	C
26	1H	163	U
26	1H	164	U
26	1H	171	G
26	1H	174	C
26	1H	181	A
26	1H	188	G
26	1H	196	A
26	1H	197	A
26	1H	199	A
26	1H	201	C
26	1H	214	G
26	1H	215	G
26	1H	216	A
26	1H	220	G
26	1H	222	A
26	1H	223	A
26	1H	227	A
26	1H	228	A
26	1H	229	A
26	1H	230	U
26	1H	232	G
26	1H	233	A
26	1H	248	G
26	1H	250	G
26	1H	252	G
26	1H	261	G
26	1H	269	U
26	1H	270(M)	U
26	1H	270(N)	G
26	1H	271(B)	G
26	1H	271(C)	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	271	G
26	1H	273(E)	U
26	1H	274	G
26	1H	275	G
26	1H	276	A
26	1H	278	A
26	1H	291	C
26	1H	295	G
26	1H	299	A
26	1H	311	A
26	1H	323	G
26	1H	324	A
26	1H	329	G
26	1H	330	A
26	1H	331	A
26	1H	342	G
26	1H	352	G
26	1H	362	U
26	1H	363	G
26	1H	364	C
26	1H	371	A
26	1H	372	G
26	1H	380	U
26	1H	386	G
26	1H	396	G
26	1H	405	U
26	1H	406	G
26	1H	407	G
26	1H	411	G
26	1H	428	A
26	1H	444	C
26	1H	448	U
26	1H	451	C
26	1H	454	A
26	1H	455	C
26	1H	457	A
26	1H	459	U
26	1H	460	A
26	1H	463	G
26	1H	467	G
26	1H	470	A
26	1H	471	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	481	G
26	1H	482	A
26	1H	483	A
26	1H	491	G
26	1H	502	A
26	1H	505	A
26	1H	508	G
26	1H	509	C
26	1H	528	A
26	1H	529	A
26	1H	530	G
26	1H	531	C
26	1H	532	A
26	1H	533	G
26	1H	545	G
26	1H	546	C
26	1H	549	G
26	1H	556	G
26	1H	563	G
26	1H	564	C
26	1H	567	A
26	1H	573	G
26	1H	575	A
26	1H	580	C
26	1H	587	C
26	1H	588	U
26	1H	593	G
26	1H	602	G
26	1H	603	A
26	1H	607	U
26	1H	609	A
26	1H	613	U
26	1H	614	U
26	1H	617	G
26	1H	621	A
26	1H	622	G
26	1H	627	A
26	1H	636	G
26	1H	637	A
26	1H	645	C
26	1H	646	A
26	1H	648	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	649	G
26	1H	654	A
26	1H	654(A)	A
26	1H	654(G)	C
26	1H	654(H)	G
26	1H	654(I)	C
26	1H	654(J)	A
26	1H	654(K)	C
26	1H	654(M)	C
26	1H	654(N)	G
26	1H	654(O)	G
26	1H	654(P)	G
26	1H	654(T)	A
26	1H	664	C
26	1H	678	C
26	1H	686	G
26	1H	690	G
26	1H	703	U
26	1H	717	G
26	1H	729	G
26	1H	730	C
26	1H	738	G
26	1H	745	G
26	1H	752	A
26	1H	753	C
26	1H	764	A
26	1H	765	G
26	1H	775	G
26	1H	776	G
26	1H	782	A
26	1H	784	A
26	1H	785	G
26	1H	790	C
26	1H	791	C
26	1H	792	G
26	1H	805	G
26	1H	810	U
26	1H	812	C
26	1H	822	U
26	1H	827	U
26	1H	828	U
26	1H	829	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	846	C
26	1H	847	U
26	1H	855	G
26	1H	859	G
26	1H	860	U
26	1H	861	A
26	1H	866	A
26	1H	877	U
26	1H	879	G
26	1H	880	G
26	1H	881	G
26	1H	882	G
26	1H	883	G
26	1H	884	C
26	1H	885	C
26	1H	886	C
26	1H	887	A
26	1H	888	C
26	1H	890	A
26	1H	893	C
26	1H	894	C
26	1H	895	U
26	1H	896	A
26	1H	897	C
26	1H	898	C
26	1H	900	A
26	1H	901	A
26	1H	906	G
26	1H	907	U
26	1H	910	A
26	1H	917	A
26	1H	918	A
26	1H	925	C
26	1H	926	A
26	1H	932	G
26	1H	938	G
26	1H	941	A
26	1H	945	A
26	1H	946	G
26	1H	947	G
26	1H	958	U
26	1H	959	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	961	C
26	1H	968	G
26	1H	974	G
26	1H	974(A)	C
26	1H	975	G
26	1H	983	A
26	1H	990	A
26	1H	996	A
26	1H	999	U
26	1H	1003	G
26	1H	1005	C
26	1H	1011	G
26	1H	1012	U
26	1H	1013	C
26	1H	1020	A
26	1H	1022	G
26	1H	1023	U
26	1H	1025	G
26	1H	1026	U
26	1H	1027	A
26	1H	1033	U
26	1H	1040	C
26	1H	1045	A
26	1H	1046	A
26	1H	1047	G
26	1H	1050	A
26	1H	1054	A
26	1H	1061	U
26	1H	1062	G
26	1H	1064	C
26	1H	1066	U
26	1H	1067	A
26	1H	1068	G
26	1H	1071	G
26	1H	1072	C
26	1H	1077	A
26	1H	1078	U
26	1H	1079	C
26	1H	1080	A
26	1H	1081	U
26	1H	1082	U
26	1H	1084	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	1085	A
26	1H	1086	A
26	1H	1087	G
26	1H	1088	A
26	1H	1090	U
26	1H	1093	G
26	1H	1095	A
26	1H	1096	A
26	1H	1097	U
26	1H	1105	U
26	1H	1106	G
26	1H	1109	C
26	1H	1110	G
26	1H	1112	G
26	1H	1122	G
26	1H	1126	A
26	1H	1127	A
26	1H	1129	A
26	1H	1130	U
26	1H	1135	C
26	1H	1136	G
26	1H	1139	G
26	1H	1142	U
26	1H	1142(A)	A
26	1H	1144	G
26	1H	1149	G
26	1H	1155	A
26	1H	1156	A
26	1H	1171	G
26	1H	1175	U
26	1H	1176	G
26	1H	1178	C
26	1H	1179	C
26	1H	1187	G
26	1H	1188	U
26	1H	1195	G
26	1H	1204	A
26	1H	1205	U
26	1H	1210	A
26	1H	1211	U
26	1H	1220	A
26	1H	1221	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	1225	C
26	1H	1229(A)	G
26	1H	1240	U
26	1H	1244	G
26	1H	1250	G
26	1H	1253	A
26	1H	1256	G
26	1H	1265	A
26	1H	1267	U
26	1H	1271	G
26	1H	1272	A
26	1H	1300	U
26	1H	1301	A
26	1H	1306	C
26	1H	1313	U
26	1H	1314	C
26	1H	1321	A
26	1H	1329	U
26	1H	1345	C
26	1H	1347	G
26	1H	1349	A
26	1H	1359	A
26	1H	1360	A
26	1H	1365	A
26	1H	1367	A
26	1H	1368	G
26	1H	1369	G
26	1H	1370	C
26	1H	1378	A
26	1H	1379	A
26	1H	1380	G
26	1H	1384	A
26	1H	1385	G
26	1H	1386	C
26	1H	1391	U
26	1H	1397	U
26	1H	1407	C
26	1H	1416	G
26	1H	1420	U
26	1H	1421	G
26	1H	1422	G
26	1H	1427	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	1428	C
26	1H	1437	C
26	1H	1444(A)	A
26	1H	1449	A
26	1H	1449(A)	G
26	1H	1455	G
26	1H	1456	G
26	1H	1458	C
26	1H	1459	G
26	1H	1460	A
26	1H	1461	G
26	1H	1467	C
26	1H	1471	A
26	1H	1473	G
26	1H	1478	G
26	1H	1493	C
26	1H	1495	A
26	1H	1497	U
26	1H	1508	A
26	1H	1509	C
26	1H	1510	A
26	1H	1511	A
26	1H	1517	G
26	1H	1522	G
26	1H	1526	G
26	1H	1528	A
26	1H	1534	G
26	1H	1535	U
26	1H	1536	A
26	1H	1537	C
26	1H	1538	G
26	1H	1540	G
26	1H	1543	A
26	1H	1544	C
26	1H	1545	A
26	1H	1547	C
26	1H	1548	C
26	1H	1554	A
26	1H	1556	C
26	1H	1558	A
26	1H	1559	G
26	1H	1560	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	1566	A
26	1H	1567	A
26	1H	1569	A
26	1H	1578	U
26	1H	1580	A
26	1H	1586	A
26	1H	1593	G
26	1H	1606	G
26	1H	1608	A
26	1H	1609	A
26	1H	1610	A
26	1H	1613	G
26	1H	1616	A
26	1H	1617	C
26	1H	1618	A
26	1H	1634	A
26	1H	1647	G
26	1H	1648	C
26	1H	1651	G
26	1H	1652	A
26	1H	1658	C
26	1H	1659	U
26	1H	1660	C
26	1H	1669	A
26	1H	1674	G
26	1H	1685	C
26	1H	1695	G
26	1H	1700	A
26	1H	1706	U
26	1H	1728	G
26	1H	1730	U
26	1H	1731	G
26	1H	1743	G
26	1H	1751	C
26	1H	1756	G
26	1H	1757	U
26	1H	1758	G
26	1H	1763	G
26	1H	1764	G
26	1H	1771	C
26	1H	1773	A
26	1H	1777	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	1782	C
26	1H	1785	A
26	1H	1791	A
26	1H	1799	G
26	1H	1800	C
26	1H	1801	G
26	1H	1802	A
26	1H	1808	U
26	1H	1811	G
26	1H	1816	G
26	1H	1819	A
26	1H	1829	A
26	1H	1830	C
26	1H	1839	G
26	1H	1840	G
26	1H	1847	A
26	1H	1858	G
26	1H	1859	A
26	1H	1860	G
26	1H	1864	U
26	1H	1870	C
26	1H	1878	G
26	1H	1888	G
26	1H	1896	G
26	1H	1900	A
26	1H	1902	C
26	1H	1906	G
26	1H	1913	A
26	1H	1914	C
26	1H	1919	A
26	1H	1920	C
26	1H	1923	U
26	1H	1929	G
26	1H	1930	G
26	1H	1931	U
26	1H	1938	A
26	1H	1945	G
26	1H	1955	U
26	1H	1956	U
26	1H	1960	A
26	1H	1963	U
26	1H	1965	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	1967	C
26	1H	1969	A
26	1H	1970	A
26	1H	1971	A
26	1H	1972	A
26	1H	1982	C
26	1H	1983	C
26	1H	1986	A
26	1H	1992	G
26	1H	1993	U
26	1H	2023	G
26	1H	2031	A
26	1H	2033	A
26	1H	2034	U
26	1H	2035	G
26	1H	2043	C
26	1H	2051	A
26	1H	2053	G
26	1H	2055	C
26	1H	2056	G
26	1H	2060	A
26	1H	2061	G
26	1H	2062	A
26	1H	2063	C
26	1H	2066	C
26	1H	2069	G
26	1H	2077	A
26	1H	2087	G
26	1H	2099	U
26	1H	2100	G
26	1H	2111	C
26	1H	2112	G
26	1H	2113	U
26	1H	2114	A
26	1H	2115	G
26	1H	2116	G
26	1H	2118	U
26	1H	2122	U
26	1H	2123	G
26	1H	2126	A
26	1H	2128	C
26	1H	2131	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	2132	U
26	1H	2133	G
26	1H	2135	A
26	1H	2136	C
26	1H	2138	C
26	1H	2139	C
26	1H	2145	C
26	1H	2146	C
26	1H	2147	G
26	1H	2148	G
26	1H	2154	G
26	1H	2158	A
26	1H	2161	C
26	1H	2166	G
26	1H	2167	U
26	1H	2168	G
26	1H	2169	A
26	1H	2172	U
26	1H	2173	A
26	1H	2176	A
26	1H	2181	G
26	1H	2189	U
26	1H	2190	G
26	1H	2198	A
26	1H	2205	C
26	1H	2210	G
26	1H	2211	G
26	1H	2212	A
26	1H	2213	U
26	1H	2215	G
26	1H	2225	A
26	1H	2226	C
26	1H	2238	G
26	1H	2240	C
26	1H	2267	A
26	1H	2271	G
26	1H	2273	A
26	1H	2275	C
26	1H	2280	G
26	1H	2283	C
26	1H	2287	A
26	1H	2296	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	2304	G
26	1H	2307	G
26	1H	2308	G
26	1H	2310	A
26	1H	2312	U
26	1H	2314	C
26	1H	2315	G
26	1H	2319	G
26	1H	2320	A
26	1H	2321	G
26	1H	2325	G
26	1H	2327	A
26	1H	2334	G
26	1H	2336	A
26	1H	2337	G
26	1H	2342	C
26	1H	2346	A
26	1H	2347	C
26	1H	2350	C
26	1H	2368	C
26	1H	2374	C
26	1H	2377	A
26	1H	2383	G
26	1H	2385	C
26	1H	2389	G
26	1H	2391	G
26	1H	2394	C
26	1H	2395	C
26	1H	2402	C
26	1H	2403	C
26	1H	2406	U
26	1H	2410	G
26	1H	2414	G
26	1H	2419	U
26	1H	2422	A
26	1H	2424	C
26	1H	2425	A
26	1H	2428	G
26	1H	2429	G
26	1H	2430	A
26	1H	2431	U
26	1H	2435	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	2439	A
26	1H	2440	C
26	1H	2441	C
26	1H	2448	A
26	1H	2449	U
26	1H	2450	A
26	1H	2468	G
26	1H	2474	C
26	1H	2475	C
26	1H	2476	A
26	1H	2477	C
26	1H	2480	C
26	1H	2481	G
26	1H	2484	G
26	1H	2486	G
26	1H	2494	G
26	1H	2496	C
26	1H	2497	A
26	1H	2502	G
26	1H	2504	U
26	1H	2505	G
26	1H	2506	U
26	1H	2507	C
26	1H	2518	A
26	1H	2520	C
26	1H	2529	G
26	1H	2554	U
26	1H	2564	A
26	1H	2566	A
26	1H	2567	G
26	1H	2569	G
26	1H	2573	C
26	1H	2574	G
26	1H	2576	G
26	1H	2601	C
26	1H	2602	A
26	1H	2608	G
26	1H	2609	U
26	1H	2611	U
26	1H	2612	C
26	1H	2614	A
26	1H	2615	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	2629	A
26	1H	2630	G
26	1H	2632	A
26	1H	2636	U
26	1H	2654	A
26	1H	2657	A
26	1H	2665	A
26	1H	2666	C
26	1H	2669	G
26	1H	2673	G
26	1H	2679	A
26	1H	2682	U
26	1H	2684	U
26	1H	2689	U
26	1H	2691	C
26	1H	2701	C
26	1H	2702	U
26	1H	2704	C
26	1H	2707	G
26	1H	2712(A)	A
26	1H	2713	A
26	1H	2714	G
26	1H	2718	G
26	1H	2719	G
26	1H	2721	A
26	1H	2726	U
26	1H	2733	A
26	1H	2738	A
26	1H	2739	U
26	1H	2744	G
26	1H	2755	C
26	1H	2756	U
26	1H	2757	A
26	1H	2758	A
26	1H	2764	A
26	1H	2765	A
26	1H	2766	G
26	1H	2778	A
26	1H	2779	U
26	1H	2781	A
26	1H	2789	C
26	1H	2791	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	2792	G
26	1H	2793	G
26	1H	2794	C
26	1H	2795	G
26	1H	2797	U
26	1H	2798	C
26	1H	2799	A
26	1H	2801	A
26	1H	2802	G
26	1H	2803	C
26	1H	2807	G
26	1H	2808	U
26	1H	2818	G
26	1H	2820	A
26	1H	2821	A
26	1H	2823	A
26	1H	2829	C
26	1H	2830	G
26	1H	2833	G
26	1H	2834	G
26	1H	2835	A
26	1H	2848	G
26	1H	2849	U
26	1H	2850	A
26	1H	2872	G
26	1H	2891	G
26	1H	2892	A
26	1H	2893	G
26	1H	2894	G
26	1H	2895	U
27	16	7	G
27	16	9	G
27	16	13	A
27	16	15	A
27	16	25	A
27	16	31	C
27	16	33	G
27	16	35	U
27	16	41	U
27	16	45	A
27	16	56	G
27	16	65	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
27	16	66	A
27	16	72	G
27	16	73	A
27	16	74	U
27	16	75	G
27	16	84	C
27	16	105	G
27	16	109	G
1	1G	5	U
1	1G	9	G
1	1G	22	G
1	1G	31	G
1	1G	32	A
1	1G	39	G
1	1G	41	G
1	1G	47	C
1	1G	48	C
1	1G	50	A
1	1G	51	A
1	1G	54	C
1	1G	76	G
1	1G	81	G
1	1G	84	U
1	1G	86	U
1	1G	87	A
1	1G	90	C
1	1G	91	C
1	1G	101	A
1	1G	115	G
1	1G	116	A
1	1G	121	C
1	1G	126	G
1	1G	127	G
1	1G	131	C
1	1G	144	G
1	1G	161	A
1	1G	163	C
1	1G	174	C
1	1G	182	U
1	1G	184	G
1	1G	185	A
1	1G	188	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1G	189	U
1	1G	190	G
1	1G	191(A)	G
1	1G	191(D)	U
1	1G	191(E)	G
1	1G	195	A
1	1G	196	A
1	1G	197	A
1	1G	198	G
1	1G	208	U
1	1G	209	U
1	1G	210	U
1	1G	216	G
1	1G	231	G
1	1G	237	C
1	1G	243	A
1	1G	244	U
1	1G	247	G
1	1G	250	A
1	1G	251	G
1	1G	266	G
1	1G	267	C
1	1G	281	G
1	1G	289	G
1	1G	298	A
1	1G	316	G
1	1G	318	G
1	1G	321	A
1	1G	328	C
1	1G	329	A
1	1G	332	G
1	1G	345	C
1	1G	346	G
1	1G	347	G
1	1G	350	G
1	1G	351	G
1	1G	352	C
1	1G	353	A
1	1G	354	G
1	1G	363	A
1	1G	366	C
1	1G	367	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1G	372	C
1	1G	373	A
1	1G	382	A
1	1G	388	G
1	1G	397	A
1	1G	398	C
1	1G	406	G
1	1G	411	A
1	1G	412	A
1	1G	413	G
1	1G	417	C
1	1G	419	C
1	1G	422	C
1	1G	423	G
1	1G	424	G
1	1G	429	U
1	1G	430	A
1	1G	439	A
1	1G	442	C
1	1G	447	G
1	1G	449	C
1	1G	451	A
1	1G	452	A
1	1G	457	C
1	1G	466	C
1	1G	467	G
1	1G	477	G
1	1G	478	A
1	1G	484	G
1	1G	485	G
1	1G	486	U
1	1G	495	A
1	1G	496	A
1	1G	497	U
1	1G	502	G
1	1G	505	G
1	1G	507	C
1	1G	509	A
1	1G	510	A
1	1G	511	C
1	1G	517	G
1	1G	518	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1G	521	G
1	1G	527	G
1	1G	528	C
1	1G	529	G
1	1G	530	G
1	1G	531	U
1	1G	532	A
1	1G	533	A
1	1G	541	G
1	1G	544	G
1	1G	547	A
1	1G	559	A
1	1G	561	U
1	1G	562	C
1	1G	564	C
1	1G	566	G
1	1G	572	A
1	1G	573	A
1	1G	575	G
1	1G	576	G
1	1G	577	G
1	1G	581	G
1	1G	596	C
1	1G	607	A
1	1G	614	A
1	1G	618	C
1	1G	630	G
1	1G	631	G
1	1G	632	A
1	1G	633	G
1	1G	651	C
1	1G	653	A
1	1G	656	C
1	1G	658	G
1	1G	665	A
1	1G	687	A
1	1G	688	G
1	1G	702	A
1	1G	704	A
1	1G	705	U
1	1G	706	A
1	1G	721	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1G	723	U
1	1G	724	G
1	1G	728	A
1	1G	731	G
1	1G	748	C
1	1G	750	G
1	1G	755	G
1	1G	760	G
1	1G	762	C
1	1G	771	G
1	1G	777	A
1	1G	778	G
1	1G	787	A
1	1G	792	A
1	1G	793	U
1	1G	794	A
1	1G	813	U
1	1G	816	A
1	1G	817	C
1	1G	821	G
1	1G	822	C
1	1G	827	U
1	1G	828	A
1	1G	841	U
1	1G	842	C
1	1G	843	U
1	1G	848	C
1	1G	859	A
1	1G	871	U
1	1G	873	A
1	1G	885	G
1	1G	914	A
1	1G	926	G
1	1G	927	G
1	1G	934	C
1	1G	935	A
1	1G	936	C
1	1G	958	A
1	1G	960	U
1	1G	961	U
1	1G	968	A
1	1G	969	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1G	971	G
1	1G	972	C
1	1G	974	A
1	1G	975	A
1	1G	976	G
1	1G	977	A
1	1G	978	A
1	1G	979	C
1	1G	980	C
1	1G	982	U
1	1G	991	U
1	1G	992	U
1	1G	993	G
1	1G	1004	A
1	1G	1006	C
1	1G	1009	G
1	1G	1013	G
1	1G	1016	A
1	1G	1021	G
1	1G	1023	G
1	1G	1024	G
1	1G	1025	U
1	1G	1026	G
1	1G	1027	C
1	1G	1028	C
1	1G	1028(A)	C
1	1G	1029	G
1	1G	1030	C
1	1G	1031	G
1	1G	1032(A)	G
1	1G	1033	G
1	1G	1034	G
1	1G	1035	A
1	1G	1036	G
1	1G	1040	U
1	1G	1050	G
1	1G	1053	G
1	1G	1054	C
1	1G	1055	A
1	1G	1081	G
1	1G	1086	U
1	1G	1089	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1G	1092	A
1	1G	1094	G
1	1G	1095	U
1	1G	1096	C
1	1G	1101	A
1	1G	1108	G
1	1G	1117	G
1	1G	1124	G
1	1G	1125	U
1	1G	1127	G
1	1G	1128	C
1	1G	1129	C
1	1G	1130	A
1	1G	1131	G
1	1G	1136	U
1	1G	1137	C
1	1G	1138	G
1	1G	1139	G
1	1G	1146	A
1	1G	1147	C
1	1G	1154	G
1	1G	1157	A
1	1G	1158	C
1	1G	1159	U
1	1G	1160	G
1	1G	1171	G
1	1G	1177	G
1	1G	1181	G
1	1G	1182	G
1	1G	1183	A
1	1G	1184	G
1	1G	1186	G
1	1G	1187	G
1	1G	1196	U
1	1G	1197	G
1	1G	1200	C
1	1G	1201	A
1	1G	1202	G
1	1G	1204	A
1	1G	1212	U
1	1G	1213	A
1	1G	1214	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1G	1215	G
1	1G	1225	A
1	1G	1226	C
1	1G	1227	A
1	1G	1238	A
1	1G	1240	U
1	1G	1241	G
1	1G	1246	C
1	1G	1255	G
1	1G	1256	A
1	1G	1257	U
1	1G	1258	G
1	1G	1260	C
1	1G	1268	A
1	1G	1273	G
1	1G	1278	U
1	1G	1279	A
1	1G	1280	A
1	1G	1286	A
1	1G	1287	A
1	1G	1288	A
1	1G	1291	G
1	1G	1293	G
1	1G	1297	C
1	1G	1298	C
1	1G	1299	A
1	1G	1301	U
1	1G	1303	C
1	1G	1305	G
1	1G	1320	C
1	1G	1322	C
1	1G	1323	G
1	1G	1331	G
1	1G	1335	C
1	1G	1338	G
1	1G	1346	A
1	1G	1347	G
1	1G	1353	G
1	1G	1362(A)	C
1	1G	1363	A
1	1G	1364	U
1	1G	1368	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1G	1370	G
1	1G	1379	G
1	1G	1388	C
1	1G	1397	C
1	1G	1398	A
1	1G	1399	C
1	1G	1400	C
1	1G	1401	G
1	1G	1404	C
1	1G	1419	G
1	1G	1440	C
1	1G	1442	G
1	1G	1443	G
1	1G	1446	A
1	1G	1450	U
1	1G	1451	A
1	1G	1453	G
1	1G	1463	C
1	1G	1467	G
1	1G	1469	G
1	1G	1478	C
1	1G	1482	G
1	1G	1492	A
1	1G	1499	A
1	1G	1502	A
1	1G	1503	A
1	1G	1504	G
1	1G	1506	U
1	1G	1507	A
1	1G	1517	G
1	1G	1520	G
1	1G	1529	G
1	1G	1530	G
24	1L	4	G
24	1L	6	G
24	1L	7	G
24	1L	8	U
24	1L	9	U
24	1L	10	C
24	1L	14	A
24	1L	16	C
24	1L	17	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
24	1L	18	G
24	1L	19	C
24	1L	20	C
24	1L	21	A
24	1L	22	A
24	1L	24	G
24	1L	26	G
24	1L	27	A
24	1L	28	G
24	1L	42	U
24	1L	46	G
24	1L	47	U
24	1L	48	C
24	1L	49	A
24	1L	58	G
24	1L	65	C
24	1L	68	A
24	1L	70	C
24	1L	75	C
24	1L	76	C
24	1L	78	C
24	1L	79	A
24	1L	81	C
24	1L	82	A
24	1L	83	C
24	1L	84	C
23	2L	8	4SU
23	2L	13	C
23	2L	16	C
23	2L	18	C
23	2L	19	G
23	2L	20	G
23	2L	21	U
23	2L	23	G
23	2L	34	U
23	2L	35	C
23	2L	45	A
23	2L	48	U
23	2L	49	C
23	2L	50	G
23	2L	53	G
23	2L	54	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
23	2L	56	PSU
55	3L	2	G
55	3L	7	G
55	3L	8	U
55	3L	9	U
55	3L	11	C
55	3L	14	A
55	3L	15	G
55	3L	17	G
55	3L	18	G
55	3L	19	C
55	3L	20	C
55	3L	21	A
55	3L	22	A
55	3L	30	A
55	3L	32	A
55	3L	34	U
55	3L	35	G
55	3L	46	G
55	3L	47	U
55	3L	48	C
55	3L	49	A
55	3L	52	G
55	3L	54	C
55	3L	55	U
55	3L	56	U
55	3L	58	G
55	3L	62	G
55	3L	64	U
55	3L	67	A
55	3L	69	U
55	3L	75	C
55	3L	81	C
55	3L	82	A
55	3L	85	A
25	4L	13	A
25	4L	19	A
25	4L	20	A
25	4L	21	C
25	4L	22	A
25	4L	23	A
26	14	3	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	4	C
26	14	8	A
26	14	9	U
26	14	16	G
26	14	34	C
26	14	46	C
26	14	49	A
26	14	50	U
26	14	55	G
26	14	58	G
26	14	60	G
26	14	71	A
26	14	72	U
26	14	74	A
26	14	75	G
26	14	82	G
26	14	90	U
26	14	91	A
26	14	92	G
26	14	95	G
26	14	99	U
26	14	102	G
26	14	118	A
26	14	119	A
26	14	120	U
26	14	121	G
26	14	123	G
26	14	125	G
26	14	129	C
26	14	131	G
26	14	138	G
26	14	139	G
26	14	140	A
26	14	151	C
26	14	152	G
26	14	153	C
26	14	154	G
26	14	155	C
26	14	161	U
26	14	162	U
26	14	173	G
26	14	174	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	186	G
26	14	188	G
26	14	195	A
26	14	196	A
26	14	199	A
26	14	201	C
26	14	205	G
26	14	212	G
26	14	215	G
26	14	216	A
26	14	217	G
26	14	221	A
26	14	222	A
26	14	225	A
26	14	229	A
26	14	232	G
26	14	233	A
26	14	239	U
26	14	248	G
26	14	249	C
26	14	252	G
26	14	264	C
26	14	265	A
26	14	270(G)	C
26	14	270(K)	C
26	14	270(L)	U
26	14	270(M)	U
26	14	270(O)	U
26	14	270(Z)	U
26	14	271(C)	U
26	14	271	G
26	14	272	G
26	14	273(D)	C
26	14	274	G
26	14	276	A
26	14	277	C
26	14	278	A
26	14	279	C
26	14	283	A
26	14	289	A
26	14	299	A
26	14	311	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	324	A
26	14	327	G
26	14	329	G
26	14	330	A
26	14	331	A
26	14	352	G
26	14	357	A
26	14	363	G
26	14	363(E)	U
26	14	363(F)	A
26	14	364	C
26	14	372	G
26	14	386	G
26	14	389	G
26	14	391	G
26	14	394	A
26	14	395	U
26	14	396	G
26	14	405	U
26	14	406	G
26	14	407	G
26	14	409	C
26	14	411	G
26	14	412	A
26	14	428	A
26	14	433	C
26	14	435	C
26	14	443	A
26	14	444	C
26	14	448	U
26	14	451	C
26	14	454	A
26	14	455	C
26	14	457	A
26	14	470	A
26	14	471	A
26	14	480	A
26	14	481	G
26	14	483	A
26	14	485	C
26	14	498	G
26	14	504	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	505	A
26	14	509	C
26	14	513	A
26	14	519	U
26	14	527	C
26	14	529	A
26	14	530	G
26	14	531	C
26	14	532	A
26	14	533	G
26	14	537	C
26	14	546	C
26	14	547	A
26	14	549	G
26	14	556	G
26	14	563	G
26	14	568	U
26	14	573	G
26	14	575	A
26	14	580	C
26	14	583	G
26	14	592	G
26	14	603	A
26	14	606	U
26	14	607	U
26	14	609(A)	G
26	14	614	U
26	14	617	G
26	14	618	G
26	14	620	G
26	14	621	A
26	14	622	G
26	14	626	U
26	14	627	A
26	14	637	A
26	14	645	C
26	14	646	A
26	14	647	G
26	14	650	C
26	14	651	G
26	14	654	A
26	14	654(G)	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	654(H)	G
26	14	654(I)	C
26	14	654(K)	C
26	14	654(L)	G
26	14	654(N)	G
26	14	654(O)	G
26	14	654(Q)	C
26	14	654(T)	A
26	14	656	G
26	14	668	G
26	14	669	G
26	14	670	A
26	14	682	G
26	14	686	G
26	14	699	A
26	14	704	G
26	14	708	C
26	14	709	U
26	14	721	C
26	14	722	A
26	14	730	C
26	14	740	U
26	14	745	G
26	14	751	A
26	14	752	A
26	14	753	C
26	14	763	G
26	14	764	A
26	14	765	G
26	14	770	G
26	14	771	G
26	14	775	G
26	14	776	G
26	14	779	U
26	14	782	A
26	14	784	A
26	14	785	G
26	14	787	U
26	14	789	A
26	14	791	C
26	14	792	G
26	14	801	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	805	G
26	14	812	C
26	14	819	A
26	14	827	U
26	14	828	U
26	14	831	G
26	14	832	G
26	14	840	C
26	14	846	C
26	14	852	G
26	14	859	G
26	14	865	C
26	14	878	A
26	14	880	G
26	14	882	G
26	14	886	C
26	14	887	A
26	14	888	C
26	14	889	C
26	14	890	A
26	14	892	G
26	14	894	C
26	14	896	A
26	14	897	C
26	14	899	A
26	14	901	A
26	14	903	C
26	14	904	C
26	14	907	U
26	14	910	A
26	14	911	A
26	14	917	A
26	14	918	A
26	14	924	C
26	14	926	A
26	14	932	G
26	14	938	G
26	14	941	A
26	14	945	A
26	14	946	G
26	14	958	U
26	14	959	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	961	C
26	14	974	G
26	14	980	A
26	14	983	A
26	14	989	G
26	14	990	A
26	14	996	A
26	14	1002	G
26	14	1008	C
26	14	1012	U
26	14	1013	C
26	14	1017	G
26	14	1020	A
26	14	1021	A
26	14	1022	G
26	14	1023	U
26	14	1025	G
26	14	1026	U
26	14	1027	A
26	14	1028	A
26	14	1029	A
26	14	1034	G
26	14	1037	G
26	14	1038	C
26	14	1043	C
26	14	1044	G
26	14	1045	A
26	14	1046	A
26	14	1047	G
26	14	1048	A
26	14	1049	C
26	14	1051	G
26	14	1054	A
26	14	1057	A
26	14	1058	U
26	14	1060	U
26	14	1061	U
26	14	1062	G
26	14	1063	G
26	14	1066	U
26	14	1067	A
26	14	1068	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	1070	A
26	14	1071	G
26	14	1072	C
26	14	1073	A
26	14	1074	G
26	14	1077	A
26	14	1079	C
26	14	1085	A
26	14	1086	A
26	14	1087	G
26	14	1088	A
26	14	1090	U
26	14	1091	G
26	14	1093	G
26	14	1094	U
26	14	1095	A
26	14	1096	A
26	14	1098	A
26	14	1099	G
26	14	1105	U
26	14	1108	U
26	14	1111	A
26	14	1112	G
26	14	1122	G
26	14	1129	A
26	14	1130	U
26	14	1135	C
26	14	1136	G
26	14	1138	G
26	14	1139	G
26	14	1142	U
26	14	1143	A
26	14	1148	A
26	14	1151	G
26	14	1154	G
26	14	1155	A
26	14	1157	G
26	14	1167	U
26	14	1170	G
26	14	1171	G
26	14	1174	A
26	14	1175	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	1177	A
26	14	1178	C
26	14	1204	A
26	14	1205	U
26	14	1210	A
26	14	1211	U
26	14	1220	A
26	14	1225	C
26	14	1236	G
26	14	1241	A
26	14	1244	G
26	14	1250	G
26	14	1253	A
26	14	1255	U
26	14	1256	G
26	14	1268	A
26	14	1272	A
26	14	1273	U
26	14	1275	A
26	14	1284	A
26	14	1287	A
26	14	1297	C
26	14	1300	U
26	14	1301	A
26	14	1302	A
26	14	1306	C
26	14	1313	U
26	14	1314	C
26	14	1320	C
26	14	1325	G
26	14	1329	U
26	14	1332	G
26	14	1338	G
26	14	1345	C
26	14	1348	G
26	14	1349	A
26	14	1360	A
26	14	1365	A
26	14	1368	G
26	14	1369	G
26	14	1375	C
26	14	1379	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	1380	G
26	14	1383	C
26	14	1384	A
26	14	1385	G
26	14	1400	G
26	14	1403	C
26	14	1405	U
26	14	1407	C
26	14	1415	U
26	14	1416	G
26	14	1417	C
26	14	1419	A
26	14	1420	U
26	14	1421	G
26	14	1427	A
26	14	1428	C
26	14	1429	G
26	14	1436	G
26	14	1437	C
26	14	1443	G
26	14	1444(A)	A
26	14	1445	C
26	14	1449	A
26	14	1449(A)	G
26	14	1451	C
26	14	1455	G
26	14	1458	C
26	14	1460	A
26	14	1461	G
26	14	1467	C
26	14	1471	A
26	14	1475	G
26	14	1482	U
26	14	1483	G
26	14	1489	U
26	14	1490	A
26	14	1493	C
26	14	1506	C
26	14	1508	A
26	14	1509	C
26	14	1510	A
26	14	1521	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	1523	U
26	14	1528	A
26	14	1533	C
26	14	1534	G
26	14	1535	U
26	14	1537	C
26	14	1543	A
26	14	1547	C
26	14	1558	A
26	14	1559	G
26	14	1560	G
26	14	1566	A
26	14	1569	A
26	14	1573	G
26	14	1578	U
26	14	1579	A
26	14	1581	G
26	14	1583	A
26	14	1585	C
26	14	1586	A
26	14	1588	C
26	14	1596	A
26	14	1597	A
26	14	1598	C
26	14	1608	A
26	14	1609	A
26	14	1610	A
26	14	1613	G
26	14	1619	G
26	14	1625	C
26	14	1639	U
26	14	1647	G
26	14	1648	C
26	14	1654	A
26	14	1669	A
26	14	1671	U
26	14	1674	G
26	14	1675	C
26	14	1682	G
26	14	1696	G
26	14	1700	A
26	14	1701	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	1703	G
26	14	1718	G
26	14	1725	G
26	14	1726	G
26	14	1728	G
26	14	1729	A
26	14	1730	U
26	14	1731	G
26	14	1742	C
26	14	1743	G
26	14	1756	G
26	14	1762	A
26	14	1763	G
26	14	1764	G
26	14	1773	A
26	14	1774	C
26	14	1777	U
26	14	1780	A
26	14	1781	C
26	14	1782	C
26	14	1791	A
26	14	1800	C
26	14	1801	G
26	14	1802	A
26	14	1808	U
26	14	1816	G
26	14	1820	U
26	14	1829	A
26	14	1830	C
26	14	1839	G
26	14	1847	A
26	14	1848	A
26	14	1858	G
26	14	1860	G
26	14	1872	A
26	14	1878	G
26	14	1883	G
26	14	1886	C
26	14	1888	G
26	14	1889	A
26	14	1895	C
26	14	1899	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	1900	A
26	14	1906	G
26	14	1913	A
26	14	1929	G
26	14	1930	G
26	14	1931	U
26	14	1934	C
26	14	1936	A
26	14	1938	A
26	14	1944	U
26	14	1955	U
26	14	1963	U
26	14	1964	G
26	14	1967	C
26	14	1970	A
26	14	1971	A
26	14	1972	A
26	14	1991	U
26	14	1993	U
26	14	1995	U
26	14	1996	C
26	14	2016	U
26	14	2022	U
26	14	2023	G
26	14	2031	A
26	14	2032	G
26	14	2033	A
26	14	2039	C
26	14	2043	C
26	14	2047	U
26	14	2049	G
26	14	2055	C
26	14	2056	G
26	14	2058	A
26	14	2059	A
26	14	2060	A
26	14	2061	G
26	14	2062	A
26	14	2063	C
26	14	2069	G
26	14	2080	G
26	14	2082	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	2088	G
26	14	2093	G
26	14	2095	C
26	14	2100	G
26	14	2107	C
26	14	2108	C
26	14	2111	C
26	14	2112	G
26	14	2113	U
26	14	2114	A
26	14	2118	U
26	14	2119	A
26	14	2123	G
26	14	2126	A
26	14	2127	G
26	14	2128	C
26	14	2131	G
26	14	2132	U
26	14	2133	G
26	14	2134	A
26	14	2135	A
26	14	2136	C
26	14	2140	C
26	14	2144	U
26	14	2145	C
26	14	2146	C
26	14	2147	G
26	14	2148	G
26	14	2150	U
26	14	2155	G
26	14	2158	A
26	14	2161	C
26	14	2166	G
26	14	2169	A
26	14	2171	A
26	14	2172	U
26	14	2173	A
26	14	2174	C
26	14	2175	C
26	14	2176	A
26	14	2191	G
26	14	2192	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	2198	A
26	14	2210	G
26	14	2211	G
26	14	2212	A
26	14	2213	U
26	14	2215	G
26	14	2225	A
26	14	2226	C
26	14	2235	G
26	14	2238	G
26	14	2239	G
26	14	2240	C
26	14	2267	A
26	14	2268	A
26	14	2269	A
26	14	2273	A
26	14	2275	C
26	14	2276	G
26	14	2278	A
26	14	2283	C
26	14	2287	A
26	14	2288	A
26	14	2289	G
26	14	2307	G
26	14	2308	G
26	14	2309	A
26	14	2310	A
26	14	2318	G
26	14	2321	G
26	14	2322	A
26	14	2325	G
26	14	2326	C
26	14	2327	A
26	14	2335	A
26	14	2336	A
26	14	2346	A
26	14	2347	C
26	14	2350	C
26	14	2354	G
26	14	2355	C
26	14	2357	U
26	14	2383	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	2385	C
26	14	2388	A
26	14	2389	G
26	14	2392	A
26	14	2393	A
26	14	2394	C
26	14	2396	G
26	14	2401	U
26	14	2402	C
26	14	2406	U
26	14	2413	G
26	14	2414	G
26	14	2422	A
26	14	2425	A
26	14	2426	A
26	14	2429	G
26	14	2430	A
26	14	2431	U
26	14	2434	A
26	14	2435	A
26	14	2439	A
26	14	2440	C
26	14	2441	C
26	14	2442	C
26	14	2445	G
26	14	2447	G
26	14	2448	A
26	14	2468	G
26	14	2469	A
26	14	2470	G
26	14	2474	C
26	14	2475	C
26	14	2476	A
26	14	2477	C
26	14	2478	A
26	14	2487	G
26	14	2496	C
26	14	2497	A
26	14	2502	G
26	14	2504	U
26	14	2505	G
26	14	2506	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	2507	C
26	14	2510	C
26	14	2518	A
26	14	2523	G
26	14	2525	G
26	14	2542	A
26	14	2543	G
26	14	2549	G
26	14	2554	U
26	14	2564	A
26	14	2566	A
26	14	2567	G
26	14	2569	G
26	14	2573	C
26	14	2578	G
26	14	2582	G
26	14	2584	U
26	14	2585	U
26	14	2601	C
26	14	2602	A
26	14	2608	G
26	14	2609	U
26	14	2610	C
26	14	2611	U
26	14	2612	C
26	14	2613	U
26	14	2617	C
26	14	2630	G
26	14	2636	U
26	14	2646	C
26	14	2665	A
26	14	2667	C
26	14	2673	G
26	14	2689	U
26	14	2702	U
26	14	2703	C
26	14	2704	C
26	14	2707	G
26	14	2712(A)	A
26	14	2713	A
26	14	2714	G
26	14	2718	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	2726	U
26	14	2733	A
26	14	2744	G
26	14	2750	A
26	14	2751	G
26	14	2752	C
26	14	2758	A
26	14	2762	G
26	14	2764	A
26	14	2765	A
26	14	2766	G
26	14	2769	C
26	14	2770	G
26	14	2777	G
26	14	2778	A
26	14	2779	U
26	14	2780	G
26	14	2789	C
26	14	2790	A
26	14	2791	C
26	14	2794	C
26	14	2797	U
26	14	2798	C
26	14	2801	A
26	14	2802	G
26	14	2804	C
26	14	2810	A
26	14	2818	G
26	14	2820	A
26	14	2821	A
26	14	2823	A
26	14	2833	G
26	14	2834	G
26	14	2835	A
26	14	2839	G
26	14	2849	U
26	14	2851	A
26	14	2853	C
26	14	2860	A
26	14	2872	G
26	14	2883	A
26	14	2892	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	2894	G
26	14	2896	C
27	1J	0	A
27	1J	8	U
27	1J	13	A
27	1J	15	A
27	1J	16	G
27	1J	27	C
27	1J	28	C
27	1J	29	A
27	1J	30	C
27	1J	32	C
27	1J	41	U
27	1J	42	C
27	1J	44	G
27	1J	45	A
27	1J	47	C
27	1J	52	A
27	1J	53	A
27	1J	59	A
27	1J	67	G
27	1J	71	C
27	1J	73	A
27	1J	75	G
27	1J	81	G
27	1J	88	C
27	1J	89	G
27	1J	89(A)	A
27	1J	90	C
27	1J	91	C
27	1J	99	A
27	1J	105	G
27	1J	108	C
27	1J	109	G
27	1J	119	A

All (223) RNA pucker outliers are listed below:

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	13	31	G
1	13	49	U
1	13	50	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	13	115	G
1	13	244	U
1	13	251	G
1	13	266	G
1	13	327	A
1	13	412	A
1	13	422	C
1	13	428	G
1	13	429	U
1	13	484	G
1	13	509	A
1	13	560	U
1	13	687	A
1	13	703	G
1	13	748	C
1	13	758	G
1	13	792	A
1	13	793	U
1	13	812	C
1	13	820	U
1	13	871	U
1	13	913	A
1	13	975	A
1	13	991	U
1	13	992	U
1	13	1027	C
1	13	1054	C
1	13	1065	U
1	13	1285	A
1	13	1452	C
1	13	1498	U
1	13	1504	G
22	1K	3	U
22	1K	6	G
22	1K	18	G
22	1K	19	C
22	1K	21	A
22	1K	46	G
22	1K	57	C
22	1K	78	C
23	2K	20	G
23	2K	21	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
23	2K	48	U
24	3K	17	G
24	3K	18	G
24	3K	57	C
24	3K	67	A
25	4K	13	A
26	1H	196	A
26	1H	197	A
26	1H	222	A
26	1H	229	A
26	1H	232	G
26	1H	271(B)	G
26	1H	404	C
26	1H	508	G
26	1H	528	A
26	1H	574	C
26	1H	587	C
26	1H	645	C
26	1H	685	A
26	1H	752	A
26	1H	764	A
26	1H	776	G
26	1H	974	G
26	1H	1022	G
26	1H	1026	U
26	1H	1060	U
26	1H	1081	U
26	1H	1085	A
26	1H	1109	C
26	1H	1177	A
26	1H	1178	C
26	1H	1210	A
26	1H	1301	A
26	1H	1312	U
26	1H	1378	A
26	1H	1379	A
26	1H	1420	U
26	1H	1493	C
26	1H	1508	A
26	1H	1536	A
26	1H	1558	A
26	1H	1608	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	1609	A
26	1H	1694	C
26	1H	1757	U
26	1H	1799	G
26	1H	1858	G
26	1H	1905	C
26	1H	1912	A
26	1H	1955	U
26	1H	1992	G
26	1H	2062	A
26	1H	2135	A
26	1H	2157	G
26	1H	2171	A
26	1H	2172	U
26	1H	2211	G
26	1H	2402	C
26	1H	2428	G
26	1H	2439	A
26	1H	2448	A
26	1H	2475	C
26	1H	2566	A
26	1H	2610	C
26	1H	2613	U
26	1H	2756	U
1	1G	31	G
1	1G	80	G
1	1G	89	U
1	1G	115	G
1	1G	197	A
1	1G	201	C
1	1G	209	U
1	1G	243	A
1	1G	250	A
1	1G	266	G
1	1G	327	A
1	1G	345	C
1	1G	412	A
1	1G	429	U
1	1G	465	A
1	1G	485	G
1	1G	509	A
1	1G	560	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1G	632	A
1	1G	687	A
1	1G	812	C
1	1G	913	A
1	1G	991	U
1	1G	992	U
1	1G	1025	U
1	1G	1054	C
1	1G	1126	U
1	1G	1145	C
1	1G	1157	A
1	1G	1196	U
1	1G	1285	A
1	1G	1297	C
1	1G	1300	G
1	1G	1346	A
1	1G	1397	C
1	1G	1442	G
1	1G	1498	U
24	1L	3	U
24	1L	6	G
24	1L	18	G
24	1L	19	C
24	1L	46	G
24	1L	57	C
24	1L	75	C
24	1L	78	C
23	2L	48	U
55	3L	17	G
55	3L	18	G
55	3L	21	A
55	3L	57	C
25	4L	12	A
25	4L	19	A
25	4L	22	A
26	14	49	A
26	14	71	A
26	14	128	C
26	14	204	A
26	14	278	A
26	14	310	A
26	14	530	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	644	A
26	14	668	G
26	14	669	G
26	14	685	A
26	14	752	A
26	14	764	A
26	14	774	A
26	14	827	U
26	14	877	U
26	14	888	C
26	14	893	C
26	14	1022	G
26	14	1045	A
26	14	1085	A
26	14	1210	A
26	14	1240	U
26	14	1249	U
26	14	1379	A
26	14	1420	U
26	14	1460	A
26	14	1558	A
26	14	1608	A
26	14	1762	A
26	14	1819	A
26	14	1963	U
26	14	1992	G
26	14	2062	A
26	14	2170	A
26	14	2173	A
26	14	2191	G
26	14	2210	G
26	14	2212	A
26	14	2238	G
26	14	2275	C
26	14	2308	G
26	14	2335	A
26	14	2406	U
26	14	2425	A
26	14	2439	A
26	14	2447	G
26	14	2477	C
26	14	2506	U

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Mol	Chain	Res	Type
26	14	2542	A
26	14	2611	U
26	14	2629	A
26	14	2776	A
26	14	2790	A
26	14	2859	G
26	14	2893	G
27	1J	52	A
27	1J	56	G
27	1J	88	C

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

17 non-standard protein/DNA/RNA residues are modelled in this entry.

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
22	QUO	1K	35	22,25	29,35,36	5.17	10 (34%)	31,52,55	4.02	10 (32%)
23	PSU	2K	56	23	18,21,22	1.23	2 (11%)	22,30,33	1.72	3 (13%)
23	5MU	2L	55	23	19,22,23	3.89	5 (26%)	28,32,35	3.35	9 (32%)
23	4SU	2K	8	23	18,21,22	1.94	3 (16%)	26,30,33	2.67	6 (23%)
23	OMC	2L	33	23	19,22,23	1.78	4 (21%)	26,31,34	1.20	2 (7%)
55	PSU	3L	40	55	18,21,22	1.15	1 (5%)	22,30,33	1.47	2 (9%)
22	MIA	1K	38	22	24,31,32	2.33	4 (16%)	26,44,47	3.09	6 (23%)
23	OMC	2K	33	23	19,22,23	1.71	3 (15%)	26,31,34	0.62	0
22	PSU	1K	40	22	18,21,22	1.02	1 (5%)	22,30,33	1.54	3 (13%)
23	PSU	2L	56	23	18,21,22	1.16	1 (5%)	22,30,33	1.79	2 (9%)
23	4SU	2L	8	23	18,21,22	1.77	3 (16%)	26,30,33	2.81	5 (19%)
22	PSU	1K	64	22	18,21,22	1.22	1 (5%)	22,30,33	1.68	4 (18%)
24	PSU	1L	40	24	18,21,22	1.22	1 (5%)	22,30,33	1.61	3 (13%)
23	5MU	2K	55	23	19,22,23	3.93	5 (26%)	28,32,35	3.21	7 (25%)
24	PSU	3K	40	24	18,21,22	1.17	1 (5%)	22,30,33	1.66	2 (9%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
55	MIA	3L	38	55	24,31,32	2.44	3 (12%)	26,44,47	2.60	10 (38%)
22	5MU	1K	63	22	19,22,23	3.77	5 (26%)	28,32,35	3.13	7 (25%)

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
22	QUO	1K	35	22,25	-	4/6/43/44	0/4/4/4
23	PSU	2K	56	23	-	0/7/25/26	0/2/2/2
23	5MU	2L	55	23	-	0/7/25/26	0/2/2/2
23	4SU	2K	8	23	-	0/7/25/26	0/2/2/2
23	OMC	2L	33	23	-	2/9/27/28	0/2/2/2
55	PSU	3L	40	55	-	0/7/25/26	0/2/2/2
22	MIA	1K	38	22	-	3/11/33/34	0/3/3/3
23	OMC	2K	33	23	-	0/9/27/28	0/2/2/2
22	PSU	1K	40	22	-	1/7/25/26	0/2/2/2
23	PSU	2L	56	23	-	1/7/25/26	0/2/2/2
23	4SU	2L	8	23	-	0/7/25/26	0/2/2/2
22	PSU	1K	64	22	-	0/7/25/26	0/2/2/2
24	PSU	1L	40	24	-	0/7/25/26	0/2/2/2
23	5MU	2K	55	23	-	3/7/25/26	0/2/2/2
24	PSU	3K	40	24	-	0/7/25/26	0/2/2/2
55	MIA	3L	38	55	-	4/11/33/34	0/3/3/3
22	5MU	1K	63	22	-	3/7/25/26	0/2/2/2

All (53) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	1K	35	QUO	C6-N1	-14.81	1.15	1.37
22	1K	35	QUO	C4-N3	13.48	1.70	1.37
23	2K	55	5MU	C2-N1	13.09	1.59	1.38
23	2L	55	5MU	C2-N1	12.54	1.58	1.38
22	1K	63	5MU	C2-N1	12.26	1.58	1.38
22	1K	35	QUO	C8-N9	-10.26	1.22	1.38
22	1K	35	QUO	C5-C7	9.71	1.57	1.39
22	1K	38	MIA	C13-C14	8.73	1.57	1.32
55	3L	38	MIA	C13-C14	8.53	1.56	1.32
22	1K	35	QUO	C5-C6	-7.51	1.31	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	1K	35	QUO	C2-N3	7.39	1.51	1.33
23	2K	55	5MU	C2-N3	6.11	1.48	1.38
23	2L	55	5MU	C4-N3	-6.07	1.27	1.38
22	1K	63	5MU	C4-N3	-6.04	1.27	1.38
23	2K	8	4SU	C5-C4	5.78	1.50	1.42
22	1K	63	5MU	C2-N3	5.74	1.48	1.38
55	3L	38	MIA	C6-N6	5.63	1.44	1.34
23	2K	55	5MU	C4-N3	-5.60	1.28	1.38
23	2K	55	5MU	C6-N1	5.50	1.47	1.38
23	2L	55	5MU	C2-N3	5.49	1.47	1.38
23	2L	55	5MU	C4-C5	5.45	1.53	1.44
23	2L	55	5MU	C6-N1	5.33	1.47	1.38
23	2L	8	4SU	C5-C4	5.32	1.49	1.42
22	1K	63	5MU	C6-N1	5.23	1.47	1.38
22	1K	38	MIA	C6-N6	4.83	1.43	1.34
23	2L	33	OMC	C2-N3	4.74	1.46	1.36
22	1K	35	QUO	C13-C12	-4.63	1.48	1.53
55	3L	38	MIA	C2-S10	4.59	1.79	1.75
23	2K	55	5MU	C4-C5	4.37	1.52	1.44
22	1K	63	5MU	C4-C5	4.32	1.52	1.44
22	1K	64	PSU	C6-C5	4.26	1.40	1.35
23	2K	33	OMC	C4-N4	4.14	1.43	1.33
23	2L	56	PSU	C6-C5	4.08	1.40	1.35
24	1L	40	PSU	C6-C5	4.08	1.40	1.35
23	2L	33	OMC	C4-N4	4.08	1.43	1.33
24	3K	40	PSU	C6-C5	4.06	1.40	1.35
23	2K	8	4SU	C2-N1	4.05	1.44	1.38
23	2K	33	OMC	C2-N3	4.03	1.44	1.36
22	1K	35	QUO	C2-N2	3.78	1.43	1.34
23	2K	56	PSU	C6-C5	3.68	1.39	1.35
23	2L	8	4SU	C2-N1	3.63	1.44	1.38
55	3L	40	PSU	C6-C5	3.55	1.39	1.35
23	2K	33	OMC	C5-C4	3.42	1.50	1.42
22	1K	40	PSU	C6-C5	3.23	1.39	1.35
23	2L	33	OMC	C5-C4	3.23	1.50	1.42
23	2L	8	4SU	C6-N1	2.72	1.44	1.38
23	2K	8	4SU	C6-N1	2.72	1.44	1.38
22	1K	38	MIA	C2-S10	2.70	1.78	1.75
22	1K	35	QUO	C16-C15	2.45	1.60	1.54
22	1K	38	MIA	C4-N3	-2.45	1.31	1.35
22	1K	35	QUO	C14-C13	-2.27	1.50	1.53
23	2L	33	OMC	C6-N1	2.19	1.43	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2K	56	PSU	C2-N1	2.11	1.39	1.36

All (81) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	1K	35	QUO	C5-C6-N1	14.32	127.49	115.36
22	1K	35	QUO	C8-N9-C1'	-13.50	113.53	125.48
23	2L	55	5MU	C5-C4-N3	10.76	124.50	115.31
22	1K	63	5MU	C5-C4-N3	10.74	124.48	115.31
22	1K	38	MIA	C11-S10-C2	-10.67	94.30	102.27
23	2K	55	5MU	C5-C4-N3	10.50	124.27	115.31
23	2L	8	4SU	C4-N3-C2	-9.39	118.22	127.34
23	2K	8	4SU	C4-N3-C2	-8.84	118.75	127.34
55	3L	38	MIA	C12-C13-C14	-7.85	111.87	127.14
22	1K	38	MIA	C12-C13-C14	-7.60	112.35	127.14
23	2L	8	4SU	C5-C4-N3	7.30	121.46	114.69
23	2L	55	5MU	C5-C6-N1	-6.90	116.24	123.34
23	2L	55	5MU	C4-N3-C2	-6.71	118.66	127.35
23	2K	55	5MU	O4-C4-C5	-6.69	117.14	124.90
23	2K	8	4SU	C5-C4-N3	6.49	120.71	114.69
22	1K	35	QUO	O6-C6-N1	-6.45	113.03	120.65
23	2K	55	5MU	C4-N3-C2	-6.06	119.50	127.35
23	2L	55	5MU	C6-C5-C4	5.93	122.99	118.03
22	1K	63	5MU	O4-C4-C5	-5.86	118.11	124.90
22	1K	63	5MU	C4-N3-C2	-5.86	119.77	127.35
22	1K	63	5MU	C5-C6-N1	-5.81	117.36	123.34
23	2K	55	5MU	C6-C5-C4	5.68	122.78	118.03
23	2K	55	5MU	C5-C6-N1	-5.51	117.67	123.34
22	1K	63	5MU	C6-C5-C4	5.09	122.28	118.03
23	2L	56	PSU	C4-N3-C2	-4.90	119.28	126.34
55	3L	38	MIA	C15-C14-C13	-4.89	108.50	122.65
23	2L	8	4SU	C5-C4-S4	-4.83	118.24	124.47
23	2K	56	PSU	C4-N3-C2	-4.76	119.48	126.34
23	2L	55	5MU	C5M-C5-C6	-4.73	116.53	122.85
23	2K	8	4SU	C5-C4-S4	-4.67	118.45	124.47
23	2L	8	4SU	N3-C2-N1	4.56	120.95	114.89
23	2L	56	PSU	N1-C2-N3	4.40	120.12	115.13
24	1L	40	PSU	C4-N3-C2	-4.35	120.07	126.34
24	3K	40	PSU	C4-N3-C2	-4.33	120.09	126.34
22	1K	38	MIA	C2-N3-C4	4.32	121.27	115.32
23	2L	55	5MU	O4-C4-C5	-4.31	119.91	124.90
23	2K	8	4SU	N3-C2-N1	4.28	120.57	114.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	3L	40	PSU	C4-N3-C2	-4.22	120.26	126.34
24	3K	40	PSU	N1-C2-N3	4.19	119.88	115.13
55	3L	38	MIA	C16-C14-C13	-4.11	110.77	122.65
22	1K	40	PSU	C4-N3-C2	-4.08	120.46	126.34
22	1K	38	MIA	C16-C14-C13	-4.08	110.87	122.65
55	3L	38	MIA	C11-S10-C2	4.06	105.30	102.27
23	2K	56	PSU	N1-C2-N3	4.04	119.71	115.13
22	1K	64	PSU	N1-C2-N3	4.02	119.69	115.13
23	2L	33	OMC	O2'-C2'-C1'	3.95	116.78	109.08
22	1K	38	MIA	C15-C14-C13	-3.94	111.25	122.65
22	1K	64	PSU	C4-N3-C2	-3.92	120.70	126.34
22	1K	40	PSU	N1-C2-N3	3.90	119.55	115.13
24	1L	40	PSU	N1-C2-N3	3.90	119.55	115.13
22	1K	35	QUO	C16-C12-C13	3.71	108.69	103.18
55	3L	38	MIA	C5-C6-N1	-3.63	117.80	120.81
22	1K	63	5MU	C5M-C5-C6	-3.59	118.06	122.85
23	2K	55	5MU	C5M-C5-C6	-3.49	118.19	122.85
22	1K	35	QUO	C15-C14-C13	3.42	109.35	103.91
23	2K	8	4SU	C1'-N1-C2	3.20	123.37	117.57
22	1K	38	MIA	C4-C5-N7	-3.19	106.07	109.40
55	3L	40	PSU	N1-C2-N3	3.10	118.64	115.13
22	1K	35	QUO	N1-C2-N3	-2.96	117.78	123.32
22	1K	35	QUO	N2-C2-N1	2.95	122.99	116.71
55	3L	38	MIA	C1'-N9-C4	2.83	131.61	126.64
23	2K	55	5MU	C6-N1-C2	-2.75	118.51	121.30
22	1K	64	PSU	O2-C2-N1	-2.74	119.78	122.79
22	1K	35	QUO	C10-N11-C12	-2.74	109.15	114.90
22	1K	64	PSU	C6-N1-C2	-2.63	119.99	122.68
23	2L	8	4SU	C1'-N1-C2	2.61	122.30	117.57
23	2L	55	5MU	N3-C2-N1	2.61	118.35	114.89
55	3L	38	MIA	C2-N3-C4	2.58	118.88	115.32
55	3L	38	MIA	C12-N6-C6	-2.44	118.93	122.55
23	2L	55	5MU	O4-C4-N3	-2.36	115.59	120.12
55	3L	38	MIA	C2-N1-C6	2.33	121.37	117.19
23	2L	33	OMC	C1'-N1-C2	2.17	123.26	118.42
22	1K	35	QUO	C7-C8-N9	-2.16	102.74	108.55
22	1K	40	PSU	C6-N1-C2	-2.16	120.47	122.68
55	3L	38	MIA	C16-C14-C15	-2.16	109.84	114.60
22	1K	35	QUO	O6-C6-C5	-2.14	119.48	123.98
23	2K	56	PSU	C6-N1-C2	-2.14	120.50	122.68
24	1L	40	PSU	O2-C2-N1	-2.11	120.47	122.79
23	2K	8	4SU	C1'-N1-C6	-2.06	116.34	120.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	2L	55	5MU	C6-N1-C2	-2.03	119.24	121.30
22	1K	63	5MU	C6-N1-C2	-2.03	119.24	121.30

There are no chirality outliers.

All (21) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
22	1K	35	QUO	O4'-C4'-C5'-O5'
22	1K	35	QUO	C16-C12-N11-C10
22	1K	38	MIA	N6-C12-C13-C14
22	1K	38	MIA	C12-C13-C14-C15
22	1K	38	MIA	C12-C13-C14-C16
23	2K	55	5MU	O4'-C4'-C5'-O5'
55	3L	38	MIA	N1-C2-S10-C11
55	3L	38	MIA	N3-C2-S10-C11
55	3L	38	MIA	C12-C13-C14-C15
55	3L	38	MIA	C12-C13-C14-C16
22	1K	35	QUO	C3'-C4'-C5'-O5'
23	2K	55	5MU	C3'-C4'-C5'-O5'
22	1K	63	5MU	C3'-C4'-C5'-O5'
22	1K	63	5MU	O4'-C4'-C5'-O5'
22	1K	35	QUO	C7-C10-N11-C12
22	1K	40	PSU	O4'-C1'-C5-C4
23	2L	33	OMC	C2'-C1'-N1-C6
23	2L	56	PSU	C4'-C5'-O5'-P
22	1K	63	5MU	C4'-C5'-O5'-P
23	2L	33	OMC	O4'-C1'-N1-C6
23	2K	55	5MU	C2'-C1'-N1-C2

There are no ring outliers.

10 monomers are involved in 26 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
22	1K	35	QUO	5	0
23	2K	56	PSU	1	0
23	2K	8	4SU	1	0
23	2L	33	OMC	6	0
22	1K	38	MIA	6	0
22	1K	40	PSU	2	0
23	2L	56	PSU	1	0
23	2L	8	4SU	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
22	1K	64	PSU	1	0
23	2K	55	5MU	3	0

## 5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

## 5.6 Ligand geometry [i](#)

Of 1166 ligands modelled in this entry, 1164 are monoatomic - leaving 2 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with  $|Z| > 2$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
57	PAR	13	1745	-	45,45,45	0.83	2 (4%)	64,67,67	2.07	18 (28%)
57	PAR	1G	1686	-	45,45,45	0.72	1 (2%)	64,67,67	1.85	12 (18%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
57	PAR	13	1745	-	-	6/18/94/94	0/4/4/4
57	PAR	1G	1686	-	-	5/18/94/94	0/4/4/4

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	1G	1686	PAR	C24-N24	-2.32	1.43	1.47
57	13	1745	PAR	C21-N21	-2.19	1.44	1.47
57	13	1745	PAR	C24-N24	-2.19	1.44	1.47

All (30) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	1G	1686	PAR	C13-O52-C52	-6.63	101.57	117.96
57	13	1745	PAR	C11-O51-C51	5.23	123.95	113.69
57	13	1745	PAR	C14-O54-C54	5.04	123.58	113.69
57	1G	1686	PAR	C11-O51-C51	4.98	123.46	113.69
57	1G	1686	PAR	C14-O54-C54	4.89	123.29	113.69
57	13	1745	PAR	O51-C51-C41	4.54	117.94	109.69
57	1G	1686	PAR	O52-C13-O43	-4.53	106.53	111.43
57	13	1745	PAR	C11-C21-N21	-4.37	102.33	110.20
57	13	1745	PAR	C22-C12-C62	-4.26	103.60	110.04
57	13	1745	PAR	O11-C11-C21	-3.52	102.15	108.22
57	1G	1686	PAR	O52-C13-C23	3.46	115.14	107.96
57	1G	1686	PAR	O51-C11-C21	3.34	117.57	110.06
57	13	1745	PAR	C31-C21-N21	-3.20	104.49	111.05
57	13	1745	PAR	C14-O33-C33	-3.15	110.17	117.96
57	13	1745	PAR	O51-C11-C21	3.14	117.13	110.06
57	1G	1686	PAR	O51-C51-C41	3.13	115.39	109.69
57	13	1745	PAR	O62-C62-C52	3.04	118.00	109.94
57	1G	1686	PAR	O54-C54-C64	3.02	111.64	106.01
57	13	1745	PAR	O54-C54-C44	2.97	115.08	109.69
57	13	1745	PAR	C32-C22-C12	-2.92	105.18	111.18
57	1G	1686	PAR	C62-C12-N12	-2.92	105.19	110.97
57	13	1745	PAR	C11-C21-C31	2.79	117.50	110.21
57	1G	1686	PAR	C14-O33-C33	-2.66	111.39	117.96
57	13	1745	PAR	O62-C62-C12	-2.52	105.20	109.81
57	13	1745	PAR	O52-C13-C23	2.52	113.17	107.96
57	1G	1686	PAR	O11-C42-C32	-2.29	103.71	109.18
57	13	1745	PAR	O44-C44-C54	2.29	114.98	109.30
57	13	1745	PAR	C62-C12-N12	-2.21	106.59	110.97
57	1G	1686	PAR	C11-O11-C42	-2.20	112.51	117.96
57	13	1745	PAR	O61-C61-C51	-2.02	104.37	111.29

There are no chirality outliers.

All (11) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
57	1G	1686	PAR	O51-C51-C61-O61
57	1G	1686	PAR	C33-C43-C53-O53
57	1G	1686	PAR	C41-C51-C61-O61
57	1G	1686	PAR	O51-C11-O11-C42
57	13	1745	PAR	O43-C43-C53-O53
57	13	1745	PAR	C33-C43-C53-O53

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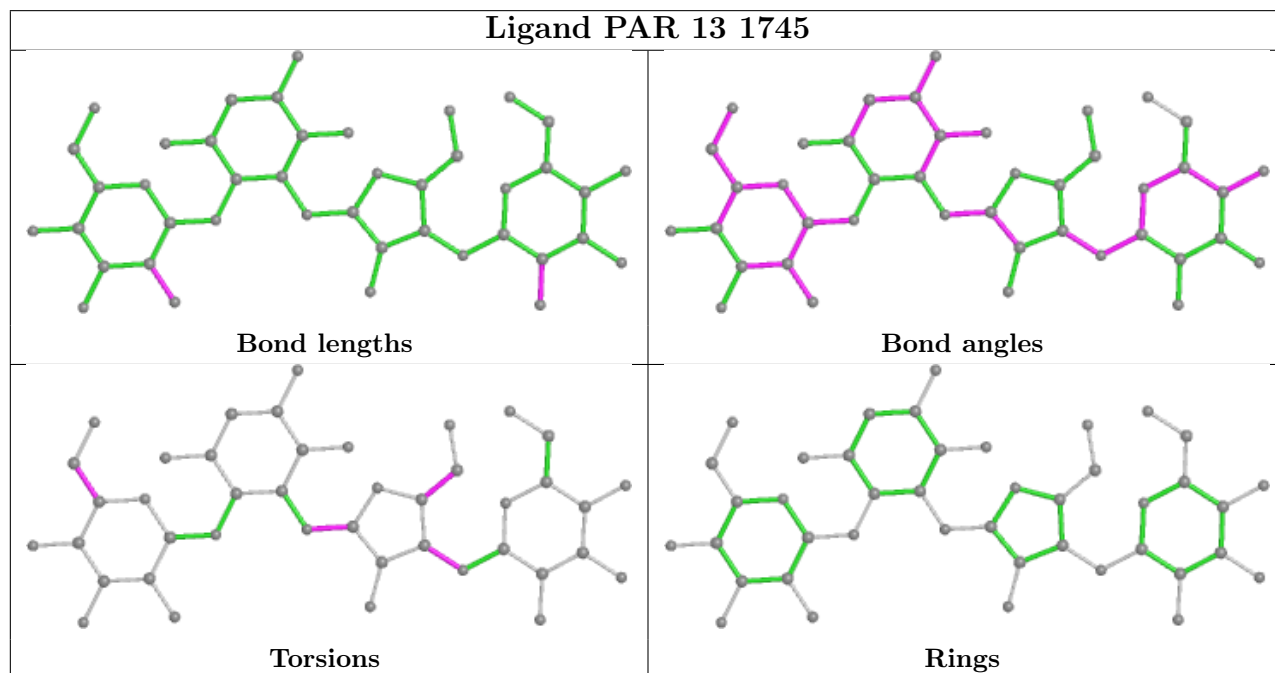
Mol	Chain	Res	Type	Atoms
57	1G	1686	PAR	O43-C43-C53-O53
57	13	1745	PAR	C41-C51-C61-O61
57	13	1745	PAR	C23-C13-O52-C52
57	13	1745	PAR	O43-C13-O52-C52
57	13	1745	PAR	C43-C33-O33-C14

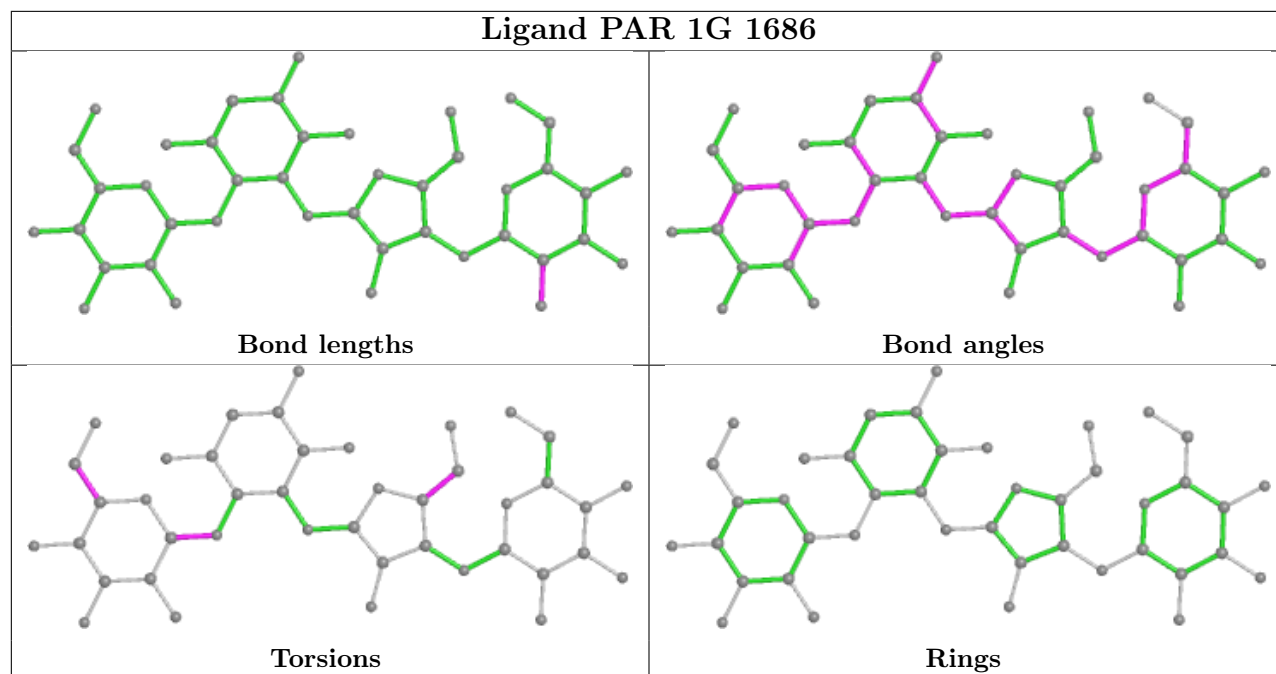
There are no ring outliers.

1 monomer is involved in 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
57	13	1745	PAR	2	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.





## 5.7 Other polymers [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 [i](#)

### 6.1 Protein, DNA and RNA chains [i](#)

In the following table, the column labelled '#RSRZ > 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95<sup>th</sup> percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q < 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
1	13	1505/1522 (98%)	0.12	30 (1%) 65 41	53, 96, 178, 280	0
1	1G	1504/1522 (98%)	0.10	34 (2%) 60 36	67, 108, 172, 272	0
2	12	237/256 (92%)	0.03	7 (2%) 50 25	122, 156, 179, 190	0
2	1E	237/256 (92%)	-0.04	5 (2%) 63 39	101, 137, 165, 175	0
3	22	206/239 (86%)	-0.00	8 (3%) 39 19	114, 132, 162, 173	0
3	2E	205/239 (85%)	0.16	10 (4%) 29 13	81, 103, 132, 138	0
4	32	208/209 (99%)	0.28	5 (2%) 59 34	88, 109, 130, 142	0
4	3E	208/209 (99%)	0.67	21 (10%) 7 2	77, 98, 122, 131	0
5	42	151/162 (93%)	0.53	15 (9%) 7 2	99, 115, 136, 155	0
5	4E	151/162 (93%)	0.42	13 (8%) 10 4	72, 91, 112, 150	0
6	52	101/101 (100%)	-0.39	0 100 100	78, 94, 114, 144	0
6	5E	101/101 (100%)	-0.12	2 (1%) 65 41	75, 94, 115, 132	0
7	62	155/156 (99%)	0.49	20 (12%) 3 1	105, 120, 143, 157	0
7	6E	152/156 (97%)	0.27	11 (7%) 15 5	96, 114, 137, 148	0
8	72	137/138 (99%)	1.22	37 (27%) 0 0	98, 119, 131, 137	0
8	7E	138/138 (100%)	1.00	28 (20%) 1 0	81, 100, 114, 126	0
9	82	122/128 (95%)	2.19	61 (50%) 0 0	102, 149, 166, 170	0
9	8E	127/128 (99%)	1.39	42 (33%) 0 0	81, 135, 158, 168	0
10	1A	99/105 (94%)	0.93	24 (24%) 0 0	111, 148, 164, 171	0
10	1I	99/105 (94%)	1.34	29 (29%) 0 0	73, 128, 159, 161	0
11	2A	117/129 (90%)	0.72	13 (11%) 5 2	81, 103, 120, 147	0
11	2I	116/129 (89%)	0.27	7 (6%) 21 9	72, 98, 120, 150	0
12	3A	125/132 (94%)	0.71	19 (15%) 2 1	78, 96, 129, 157	0
12	3I	122/132 (92%)	0.32	7 (5%) 23 10	61, 71, 97, 126	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
13	4A	117/126 (92%)	0.93	25 (21%) 0 0	102, 137, 157, 170	0
13	4I	116/126 (92%)	0.09	5 (4%) 35 16	78, 117, 136, 144	0
14	5A	58/61 (95%)	2.78	34 (58%) 0 0	116, 131, 146, 154	0
14	5I	59/61 (96%)	1.26	11 (18%) 1 0	82, 92, 108, 118	0
15	6A	88/89 (98%)	0.15	1 (1%) 80 60	80, 105, 121, 127	0
15	6I	88/89 (98%)	0.31	3 (3%) 45 22	67, 93, 110, 123	0
16	7A	84/88 (95%)	1.63	28 (33%) 0 0	85, 98, 124, 154	0
16	7I	84/88 (95%)	1.88	41 (48%) 0 0	90, 104, 132, 160	0
17	8A	100/105 (95%)	0.50	12 (12%) 4 1	91, 106, 124, 128	0
17	8I	100/105 (95%)	0.09	7 (7%) 16 6	81, 99, 111, 121	0
18	9A	71/88 (80%)	-0.33	0 100 100	84, 107, 134, 164	0
18	9I	72/88 (81%)	-0.02	0 100 100	80, 98, 126, 161	0
19	AA	78/93 (83%)	0.35	5 (6%) 19 7	124, 142, 171, 180	0
19	AI	83/93 (89%)	0.22	6 (7%) 15 5	90, 116, 137, 145	0
20	BA	99/106 (93%)	0.99	23 (23%) 0 0	83, 105, 133, 143	0
20	BI	99/106 (93%)	1.75	47 (47%) 0 0	101, 115, 146, 151	0
21	1B	25/27 (92%)	3.83	21 (84%) 0 0	110, 126, 143, 163	0
21	1F	25/27 (92%)	2.86	16 (64%) 0 0	90, 102, 116, 142	0
22	1K	80/85 (94%)	0.11	5 (6%) 20 8	81, 190, 249, 257	0
23	2K	73/77 (94%)	-0.05	2 (2%) 54 28	68, 96, 122, 140	0
23	2L	73/77 (94%)	-0.29	1 (1%) 75 53	76, 105, 138, 160	0
24	1L	84/85 (98%)	1.36	23 (27%) 0 0	107, 214, 302, 318	0
24	3K	84/85 (98%)	-0.18	2 (2%) 59 34	68, 209, 252, 259	0
25	4K	12/30 (40%)	1.37	3 (25%) 0 0	64, 94, 132, 145	0
25	4L	12/30 (40%)	1.32	4 (33%) 0 0	85, 117, 155, 188	0
26	14	2909/2918 (99%)	0.11	39 (1%) 77 56	48, 80, 223, 333	0
26	1H	2912/2918 (99%)	0.14	22 (0%) 86 70	38, 71, 216, 270	0
27	16	122/122 (100%)	-0.20	0 100 100	65, 91, 113, 185	0
27	1J	122/122 (100%)	-0.32	1 (0%) 86 70	73, 107, 128, 182	0
28	11	273/276 (98%)	0.34	3 (1%) 80 60	39, 62, 80, 92	0
28	19	273/276 (98%)	0.75	24 (8%) 10 3	42, 70, 88, 102	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
29	21	205/206 (99%)	0.80	21 (10%) 6 2	48, 85, 125, 137	0
29	29	205/206 (99%)	0.84	38 (18%) 1 0	56, 87, 129, 148	0
30	31	202/210 (96%)	0.02	0 100 100	38, 74, 110, 127	0
30	39	208/210 (99%)	0.20	7 (3%) 45 22	54, 95, 146, 178	0
31	41	181/182 (99%)	0.27	10 (5%) 25 10	79, 102, 133, 149	0
31	49	181/182 (99%)	1.02	33 (18%) 1 0	104, 125, 154, 169	0
32	51	173/180 (96%)	-0.03	2 (1%) 79 58	79, 102, 115, 151	0
32	59	170/180 (94%)	1.82	58 (34%) 0 0	134, 183, 210, 241	0
33	61	146/148 (98%)	-0.07	2 (1%) 75 53	74, 122, 140, 145	0
33	69	146/148 (98%)	0.47	20 (13%) 3 1	77, 118, 142, 146	0
34	15	138/140 (98%)	1.04	31 (22%) 0 0	75, 100, 129, 137	0
34	58	138/140 (98%)	0.47	9 (6%) 18 7	61, 88, 126, 143	0
35	25	122/122 (100%)	0.43	5 (4%) 37 18	61, 84, 102, 110	0
35	68	122/122 (100%)	0.49	3 (2%) 57 32	55, 74, 92, 101	0
36	35	150/150 (100%)	0.85	26 (17%) 1 0	54, 96, 133, 159	0
36	78	150/150 (100%)	0.24	1 (0%) 87 72	45, 81, 111, 152	0
37	45	139/141 (98%)	1.85	59 (42%) 0 0	69, 98, 116, 136	0
37	88	141/141 (100%)	0.36	2 (1%) 75 53	52, 77, 101, 129	0
38	55	117/118 (99%)	0.63	8 (6%) 17 6	56, 75, 92, 108	0
38	98	118/118 (100%)	0.51	4 (3%) 45 22	56, 80, 101, 107	0
39	65	111/112 (99%)	0.71	14 (12%) 3 1	75, 102, 120, 132	0
39	A8	110/112 (98%)	0.28	6 (5%) 25 10	70, 86, 110, 125	0
40	75	137/146 (93%)	0.34	11 (8%) 12 4	75, 91, 148, 185	0
40	B8	137/146 (93%)	0.50	14 (10%) 6 2	70, 89, 136, 159	0
41	85	117/118 (99%)	0.41	5 (4%) 35 16	62, 88, 122, 143	0
41	C8	117/118 (99%)	0.84	14 (11%) 4 1	50, 76, 107, 141	0
42	95	101/101 (100%)	0.28	7 (6%) 16 6	61, 116, 131, 136	0
42	D8	101/101 (100%)	0.29	7 (6%) 16 6	53, 100, 124, 139	0
43	A5	113/113 (100%)	0.40	4 (3%) 44 22	56, 71, 100, 159	0
43	E8	113/113 (100%)	0.16	0 100 100	52, 72, 105, 140	0
44	B5	92/96 (95%)	0.12	2 (2%) 62 38	64, 79, 106, 119	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
44	F8	93/96 (96%)	-0.05	0 100 100	51, 67, 93, 102	0
45	C5	104/110 (94%)	0.99	17 (16%) 1 0	89, 119, 158, 166	0
45	G8	104/110 (94%)	0.45	3 (2%) 51 26	69, 96, 140, 148	0
46	D5	138/206 (66%)	0.40	11 (7%) 12 4	103, 134, 178, 186	0
46	H8	175/206 (84%)	-0.21	1 (0%) 89 76	84, 119, 190, 195	0
47	E5	77/85 (90%)	1.24	15 (19%) 1 0	64, 81, 99, 131	0
47	I8	76/85 (89%)	0.68	5 (6%) 18 7	52, 69, 85, 113	0
48	F5	97/98 (98%)	1.41	16 (16%) 1 0	57, 77, 122, 143	0
48	J8	97/98 (98%)	0.88	11 (11%) 5 1	48, 72, 124, 150	0
49	G5	66/72 (91%)	0.15	1 (1%) 73 51	74, 96, 114, 135	0
49	K8	66/72 (91%)	0.36	3 (4%) 33 15	59, 77, 90, 124	0
50	H5	59/60 (98%)	0.51	1 (1%) 70 46	74, 94, 132, 157	0
50	L8	59/60 (98%)	0.40	0 100 100	56, 78, 114, 137	0
51	I5	63/71 (88%)	2.20	28 (44%) 0 0	138, 171, 190, 192	0
51	M8	66/71 (92%)	0.50	6 (9%) 9 3	105, 154, 174, 184	0
52	J5	59/60 (98%)	0.50	3 (5%) 28 12	56, 80, 147, 187	0
52	N8	59/60 (98%)	0.66	6 (10%) 6 2	51, 86, 152, 158	0
53	L5	45/49 (91%)	0.45	1 (2%) 62 38	47, 56, 69, 84	0
53	P8	46/49 (93%)	0.10	0 100 100	40, 48, 66, 81	0
54	M5	62/65 (95%)	1.56	20 (32%) 0 0	65, 77, 93, 107	0
54	Q8	61/65 (93%)	1.01	8 (13%) 3 1	56, 66, 80, 98	0
55	3L	83/85 (97%)	0.32	9 (10%) 5 2	72, 217, 260, 269	0
All	All	20954/21624 (96%)	0.37	1450 (6%) 16 6	38, 95, 175, 333	0

All (1450) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
32	59	99	VAL	15.8
48	F5	98	LEU	14.8
48	F5	97	LEU	11.8
32	59	96	ALA	11.0
11	2A	11	LYS	10.3
48	J8	96	LYS	9.4
32	59	124	GLU	9.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
24	1L	50	U	9.2
39	65	2	ALA	9.2
32	59	128	PRO	8.7
31	41	2	PRO	8.7
13	4A	6	GLY	8.3
7	62	81	GLY	8.2
51	I5	54	GLY	8.2
37	45	1	MET	8.2
24	1L	80	C	7.9
32	59	125	VAL	7.9
24	1L	51	C	7.8
21	1B	14	TRP	7.7
24	1L	52	G	7.7
13	4A	2	ALA	7.7
14	5A	34	TYR	7.7
9	82	66	ARG	7.6
24	1L	85	A	7.6
21	1F	26	LYS	7.5
48	J8	98	LEU	7.5
9	82	127	LYS	7.4
14	5A	61	TRP	7.4
9	82	110	GLU	7.3
7	62	82	GLY	7.2
40	B8	106	SER	7.2
10	1I	64	GLU	7.2
10	1A	64	GLU	7.2
51	I5	52	THR	7.0
21	1B	22	ARG	6.9
8	72	87	SER	6.9
1	1G	1032	A	6.9
7	62	84	ASN	6.9
20	BI	72	LEU	6.8
41	C8	117	GLN	6.8
48	F5	96	LYS	6.8
32	59	86	GLU	6.8
20	BI	68	LYS	6.8
9	82	64	THR	6.7
51	I5	46	GLN	6.6
32	59	168	PRO	6.6
12	3A	20	LYS	6.6
31	41	26	GLN	6.6
37	45	103	MET	6.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
14	5A	6	LEU	6.6
26	14	1094	U	6.6
1	13	85	U	6.5
11	2A	12	ARG	6.5
54	M5	63	PRO	6.5
51	I5	42	PHE	6.5
1	13	1032	A	6.5
11	2I	11	LYS	6.5
32	59	100	GLY	6.4
16	7I	1	MET	6.4
10	1A	55	LYS	6.4
20	BI	18	GLN	6.4
13	4A	7	VAL	6.3
48	J8	92	LYS	6.3
24	1L	83	C	6.3
24	1L	53	A	6.2
16	7I	32	TYR	6.2
40	75	1	MET	6.2
24	1L	84	C	6.2
20	BI	70	SER	6.2
27	1J	88	C	6.2
9	82	106	ALA	6.1
9	82	128	ARG	6.1
9	8E	126	SER	6.0
14	5A	60	SER	6.0
21	1B	25	LYS	6.0
32	59	169	VAL	5.9
24	1L	79	A	5.9
10	1A	59	SER	5.9
32	59	88	LEU	5.9
36	35	106	LEU	5.9
19	AI	3	ARG	5.9
32	59	90	LYS	5.9
33	69	1	MET	5.8
10	1I	62	HIS	5.8
26	14	2901	C	5.8
51	M8	66	SER	5.8
9	82	75	ASP	5.8
9	82	65	VAL	5.8
10	1I	47	PHE	5.8
26	14	2799	A	5.8
52	N8	60	VAL	5.8

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Mol	Chain	Res	Type	RSRZ
45	C5	58	GLY	5.7
8	7E	1	MET	5.7
37	45	104	PHE	5.7
10	1A	46	ARG	5.7
36	35	110	TYR	5.7
11	2I	12	ARG	5.7
37	45	91	GLU	5.7
37	45	90	VAL	5.7
14	5A	39	LEU	5.7
9	8E	110	GLU	5.7
11	2A	127	LYS	5.7
48	J8	93	GLU	5.6
10	1I	60	ARG	5.6
21	1B	13	ILE	5.6
51	I5	44	THR	5.5
8	7E	2	LEU	5.5
26	14	2902	C	5.5
10	1A	47	PHE	5.5
14	5A	58	LYS	5.5
26	14	1093	G	5.4
52	N8	59	GLU	5.4
13	4A	4	ILE	5.4
29	29	59	VAL	5.4
16	7A	31	LYS	5.4
10	1A	65	LEU	5.4
19	AA	82	GLY	5.4
9	82	10	ARG	5.3
32	59	170	ARG	5.3
34	15	72	TYR	5.3
45	C5	59	GLY	5.3
26	1H	2476	A	5.3
32	59	85	LYS	5.3
24	1L	1	G	5.3
8	72	2	LEU	5.3
45	C5	29	GLU	5.3
19	AI	2	PRO	5.2
16	7A	29	ASP	5.2
12	3A	129	ALA	5.2
32	59	115	VAL	5.2
7	6E	84	ASN	5.2
9	8E	118	LYS	5.2
16	7A	33	ILE	5.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
10	1I	46	ARG	5.2
14	5A	23	ARG	5.2
32	59	105	LEU	5.2
9	8E	120	ARG	5.2
9	82	115	GLY	5.2
14	5A	41	ARG	5.2
9	82	36	TYR	5.2
21	1B	18	TYR	5.1
9	82	69	GLY	5.1
10	1A	62	HIS	5.1
9	82	109	VAL	5.1
10	1I	48	THR	5.1
13	4A	102	ARG	5.1
32	59	103	LEU	5.1
2	12	133	LYS	5.1
7	62	80	VAL	5.1
47	E5	76	GLY	5.1
9	82	126	SER	5.1
32	59	132	ARG	5.1
9	8E	36	TYR	5.1
32	59	164	TYR	5.0
22	1K	85	A	5.0
12	3A	64	TYR	5.0
34	15	75	TYR	5.0
9	8E	117	HIS	5.0
9	8E	102	LEU	5.0
1	1G	84	U	5.0
31	49	139	LEU	4.9
10	1I	58	ASP	4.9
9	8E	111	ARG	4.9
1	13	1286	A	4.9
21	1F	14	TRP	4.9
9	8E	115	GLY	4.9
21	1B	10	ARG	4.9
12	3A	19	ARG	4.8
21	1F	16	GLY	4.8
16	7A	32	TYR	4.8
24	1L	82	A	4.8
40	75	104	ASN	4.8
21	1F	25	LYS	4.8
36	35	107	LYS	4.8
32	59	89	ILE	4.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
20	BI	15	ARG	4.7
21	1F	15	ARG	4.7
16	7A	1	MET	4.7
24	1L	81	C	4.7
40	B8	104	ASN	4.7
48	J8	97	LEU	4.7
10	1A	54	PHE	4.7
21	1B	16	GLY	4.7
32	59	84	SER	4.7
7	62	79	ARG	4.7
32	59	130	ARG	4.7
47	E5	21	LEU	4.7
16	7I	22	THR	4.7
1	1G	1286	A	4.7
46	D5	155	LEU	4.6
29	29	151	TYR	4.6
51	I5	32	TYR	4.6
9	82	33	PHE	4.6
14	5A	31	ARG	4.6
7	6E	85	TYR	4.6
29	21	78	LEU	4.6
16	7I	31	LYS	4.6
21	1B	6	ARG	4.6
34	58	109	LYS	4.6
2	12	131	PRO	4.6
29	29	150	VAL	4.6
29	21	204	ALA	4.5
40	B8	1	MET	4.5
53	L5	1	MET	4.5
32	59	159	GLU	4.5
51	I5	41	PRO	4.5
52	N8	58	LEU	4.5
9	8E	109	VAL	4.5
13	4A	8	GLU	4.5
10	1I	61	GLU	4.5
34	15	84	LYS	4.5
10	1A	66	ARG	4.5
14	5A	32	SER	4.5
16	7I	30	GLY	4.5
48	J8	95	LEU	4.5
11	2A	13	GLN	4.5
9	8E	121	ARG	4.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
10	1A	60	ARG	4.5
21	1B	5	ASP	4.5
21	1B	23	PRO	4.5
38	55	69	ASP	4.4
17	8A	32	TYR	4.4
29	21	79	ARG	4.4
31	49	116	ASP	4.4
34	15	73	THR	4.4
26	14	2112	G	4.4
20	BI	69	GLY	4.4
1	1G	85	U	4.4
9	82	71	SER	4.4
20	BI	71	THR	4.4
12	3I	20	LYS	4.4
14	5I	59	ALA	4.4
45	C5	47	LYS	4.4
45	C5	63	LYS	4.4
13	4A	101	GLN	4.4
21	1B	2	GLY	4.4
14	5A	30	ALA	4.3
8	72	83	ILE	4.3
51	I5	40	HIS	4.3
32	59	131	VAL	4.3
20	BA	70	SER	4.3
9	8E	119	ALA	4.3
9	82	14	VAL	4.3
35	25	1	MET	4.3
10	1I	66	ARG	4.3
9	82	11	LYS	4.3
10	1I	65	LEU	4.3
26	1H	2119	A	4.3
37	45	130	LYS	4.3
16	7A	27	LYS	4.3
9	82	107	ARG	4.3
21	1B	21	TYR	4.3
13	4I	102	ARG	4.3
14	5A	29	ARG	4.3
5	42	82	VAL	4.3
8	72	86	ILE	4.3
12	3I	19	ARG	4.2
21	1F	6	ARG	4.2
37	45	33	GLY	4.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
55	3L	17	G	4.2
26	14	2476	A	4.2
37	45	68	ILE	4.2
26	14	1092	C	4.2
9	82	37	PHE	4.2
37	45	66	ILE	4.2
9	82	111	ARG	4.2
12	3A	28	LYS	4.2
10	1A	58	ASP	4.2
16	7I	68	ASP	4.2
8	72	133	LEU	4.2
51	I5	63	TYR	4.1
8	7E	4	ASP	4.1
16	7A	8	ARG	4.1
20	BI	66	ALA	4.1
25	4K	24	A	4.1
51	I5	30	GLU	4.1
47	I8	85	ALA	4.1
29	21	193	GLY	4.1
45	C5	45	VAL	4.1
21	1F	2	GLY	4.1
16	7I	28	ARG	4.1
21	1B	15	ARG	4.1
9	82	108	VAL	4.1
4	3E	137	SER	4.1
8	72	84	ARG	4.1
9	82	70	LYS	4.1
12	3A	21	LYS	4.1
16	7I	25	ARG	4.1
16	7I	9	PHE	4.1
9	82	68	GLY	4.1
10	1I	59	SER	4.1
16	7A	7	ALA	4.1
5	42	130	ASN	4.1
8	72	112	LEU	4.1
16	7A	35	LYS	4.1
33	69	4	ILE	4.1
37	45	65	PHE	4.0
7	62	83	ALA	4.0
7	6E	16	LEU	4.0
20	BI	16	HIS	4.0
8	72	89	PRO	4.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
29	29	77	ILE	4.0
9	82	125	TYR	4.0
16	7I	33	ILE	4.0
44	B5	69	TYR	4.0
16	7A	6	LEU	4.0
26	1H	2117	A	4.0
14	5I	58	LYS	4.0
14	5A	10	ALA	4.0
48	F5	95	LEU	4.0
7	6E	154	TYR	4.0
16	7A	9	PHE	4.0
32	59	98	LEU	4.0
51	I5	31	ILE	4.0
12	3A	128	ALA	4.0
14	5I	61	TRP	4.0
7	6E	33	ASP	4.0
4	3E	209	ARG	4.0
32	59	106	THR	4.0
7	62	85	TYR	3.9
8	72	136	GLU	3.9
31	49	137	GLU	3.9
51	M8	3	GLU	3.9
20	BA	9	ASN	3.9
32	59	114	VAL	3.9
9	82	67	GLY	3.9
13	4A	5	ALA	3.9
45	C5	44	ILE	3.9
37	45	34	LEU	3.9
8	7E	3	THR	3.9
17	8I	35	VAL	3.9
10	1I	5	ARG	3.9
20	BI	8	ARG	3.9
21	1B	17	THR	3.9
34	15	85	ILE	3.9
32	59	155	SER	3.9
37	45	102	VAL	3.9
34	58	74	ARG	3.9
9	82	114	TYR	3.9
26	14	2797	U	3.9
31	49	138	GLN	3.9
12	3A	5	PRO	3.9
51	I5	45	GLY	3.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
9	8E	106	ALA	3.9
21	1B	26	LYS	3.9
32	59	83	TYR	3.9
44	B5	68	ARG	3.9
26	14	2802	G	3.9
8	72	92	ARG	3.8
9	8E	114	TYR	3.8
9	82	12	GLU	3.8
16	7I	27	LYS	3.8
8	72	4	ASP	3.8
14	5A	37	PHE	3.8
54	M5	57	ARG	3.8
9	82	44	VAL	3.8
8	72	88	LYS	3.8
36	35	16	ARG	3.8
32	59	4	ILE	3.8
10	1I	63	PHE	3.8
36	35	35	HIS	3.8
9	8E	8	GLY	3.8
37	88	91	GLU	3.8
1	13	84	U	3.8
9	82	116	LYS	3.8
51	I5	47	GLN	3.8
40	75	99	LEU	3.8
29	29	116	VAL	3.8
54	M5	4	MET	3.8
33	69	10	GLU	3.8
14	5A	26	ARG	3.8
5	42	81	GLU	3.7
10	1A	43	ARG	3.7
20	BI	20	LEU	3.7
10	1A	49	VAL	3.7
14	5A	38	GLY	3.7
54	Q8	57	ARG	3.7
17	8A	27	PHE	3.7
5	4E	98	THR	3.7
21	1F	22	ARG	3.7
48	F5	94	LEU	3.7
29	21	205	ALA	3.7
17	8I	36	ILE	3.7
10	1A	61	GLU	3.7
31	49	133	LEU	3.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
51	I5	5	ILE	3.7
24	1L	74	C	3.7
48	F5	93	GLU	3.7
31	41	25	TYR	3.7
8	72	5	PRO	3.7
9	8E	128	ARG	3.7
19	AA	78	ARG	3.7
33	69	35	LEU	3.7
1	13	86	U	3.7
9	82	117	HIS	3.7
8	72	93	VAL	3.7
14	5A	11	LYS	3.7
32	59	126	PRO	3.7
51	I5	55	ARG	3.7
37	45	17	LEU	3.7
16	7I	10	GLY	3.7
16	7A	26	ARG	3.7
41	C8	38	THR	3.6
20	BI	23	ARG	3.6
32	59	94	TYR	3.6
37	45	100	GLY	3.6
7	62	37	ASN	3.6
14	5A	33	VAL	3.6
9	82	112	LYS	3.6
14	5A	21	TYR	3.6
8	7E	91	ARG	3.6
16	7I	14	ASN	3.6
8	72	3	THR	3.6
33	69	36	ALA	3.6
7	62	86	GLN	3.6
8	7E	88	LYS	3.6
9	8E	122	ALA	3.6
9	8E	9	ARG	3.6
37	45	19	GLY	3.6
20	BI	21	LYS	3.6
51	I5	24	THR	3.6
8	72	91	ARG	3.6
9	8E	116	LYS	3.6
37	45	98	LYS	3.6
42	95	74	LYS	3.6
10	1I	54	PHE	3.6
7	6E	32	ARG	3.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
8	72	111	ILE	3.6
40	75	106	SER	3.6
14	5A	56	VAL	3.6
37	45	105	GLU	3.6
2	1E	31	TYR	3.6
47	E5	22	GLY	3.6
14	5I	57	ARG	3.6
14	5A	25	VAL	3.6
32	59	167	GLU	3.6
34	15	83	LYS	3.6
5	4E	89	ILE	3.5
41	C8	35	ALA	3.5
48	J8	94	LEU	3.5
21	1B	9	ARG	3.5
1	1G	1249	C	3.5
20	BI	22	ARG	3.5
39	65	3	ARG	3.5
10	1A	63	PHE	3.5
37	45	35	VAL	3.5
36	35	14	LYS	3.5
40	B8	99	LEU	3.5
40	75	100	TYR	3.5
29	29	152	LYS	3.5
37	45	38	GLU	3.5
16	7I	59	TRP	3.5
21	1B	24	ARG	3.5
10	1I	7	LYS	3.5
20	BI	14	LYS	3.5
26	14	2167	U	3.5
16	7I	29	ASP	3.5
34	58	73	THR	3.5
47	E5	75	LEU	3.5
31	49	75	LYS	3.5
37	45	99	PRO	3.5
29	21	76	ARG	3.5
45	C5	50	ARG	3.5
40	B8	105	LEU	3.5
16	7I	18	ARG	3.5
22	1K	83	C	3.5
31	41	75	LYS	3.5
32	59	127	GLU	3.5
21	1F	17	THR	3.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
38	55	8	ARG	3.5
39	65	20	ARG	3.5
8	72	131	GLY	3.5
16	7I	2	VAL	3.4
52	J5	60	VAL	3.4
10	1I	57	LYS	3.4
14	5A	12	ARG	3.4
8	72	9	MET	3.4
8	7E	136	GLU	3.4
14	5A	59	ALA	3.4
52	N8	57	VAL	3.4
29	21	194	GLY	3.4
20	BI	67	ALA	3.4
34	15	109	LYS	3.4
24	1L	78	C	3.4
29	29	125	GLY	3.4
16	7I	35	LYS	3.4
21	1F	24	ARG	3.4
13	4A	27	LYS	3.4
16	7I	4	ILE	3.4
16	7I	23	ASP	3.4
16	7I	20	VAL	3.4
36	35	91	PHE	3.4
43	A5	112	GLY	3.4
31	49	39	ILE	3.4
37	45	61	GLY	3.4
30	39	96	ASP	3.4
5	42	125	SER	3.4
34	15	98	VAL	3.4
10	1I	43	ARG	3.4
45	C5	46	LYS	3.4
29	29	126	PRO	3.4
16	7I	11	SER	3.4
32	59	87	LEU	3.4
37	45	69	PHE	3.4
33	69	12	LEU	3.4
9	8E	75	ASP	3.4
1	13	1031	G	3.4
38	55	5	LYS	3.4
34	15	70	LYS	3.3
24	1L	2	G	3.3
9	82	13	ALA	3.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
8	72	58	TYR	3.3
29	29	76	ARG	3.3
7	62	16	LEU	3.3
20	BA	71	THR	3.3
31	49	157	ILE	3.3
24	3K	19	C	3.3
54	M5	40	GLU	3.3
9	82	31	GLN	3.3
7	62	78	ARG	3.3
5	4E	81	GLU	3.3
32	59	121	ILE	3.3
10	1A	44	VAL	3.3
29	29	134	ILE	3.3
33	69	38	LEU	3.3
51	I5	43	TYR	3.3
14	5A	35	ARG	3.3
17	8A	31	LEU	3.3
32	59	123	PHE	3.3
29	29	163	GLU	3.3
34	15	82	LEU	3.3
51	I5	36	CYS	3.3
37	88	104	PHE	3.3
9	82	42	ARG	3.3
31	49	155	MET	3.3
26	1H	2167	U	3.3
32	59	82	GLY	3.3
32	59	97	ARG	3.2
9	82	73	GLN	3.2
16	7A	59	TRP	3.2
21	1B	8	THR	3.2
25	4K	19[A]	A	3.2
29	29	205	ALA	3.2
54	M5	3	LYS	3.2
9	82	105	ASP	3.2
51	I5	51	ASP	3.2
4	3E	135	LEU	3.2
16	7A	64	ALA	3.2
14	5A	36	PHE	3.2
16	7I	26	ARG	3.2
20	BI	64	ASP	3.2
13	4A	100	GLY	3.2
40	75	50	ILE	3.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
20	BA	64	ASP	3.2
51	M8	22	ILE	3.2
26	14	2146	C	3.2
48	F5	10	LYS	3.2
37	45	64	ILE	3.2
38	55	68	ARG	3.2
51	I5	29	PRO	3.2
42	95	81	TYR	3.2
3	22	206	GLU	3.2
8	72	132	GLU	3.2
29	29	195	LEU	3.2
9	8E	112	LYS	3.2
10	1I	45	ARG	3.2
9	82	79	LEU	3.2
29	29	141	ILE	3.2
26	1H	2116	G	3.2
31	49	134	GLY	3.2
1	1G	1250	A	3.2
3	2E	179	ARG	3.2
26	14	2170	A	3.2
9	8E	123	PRO	3.2
42	D8	36	PRO	3.2
3	2E	2	GLY	3.2
7	62	38	LEU	3.2
34	15	77	GLY	3.2
4	3E	139	ARG	3.2
3	22	160	ALA	3.2
20	BI	106	ALA	3.2
9	82	76	ALA	3.1
9	82	124	GLN	3.1
20	BI	87	LYS	3.1
29	29	159	HIS	3.1
34	58	83	LYS	3.1
17	8A	36	ILE	3.1
34	15	1	MET	3.1
28	19	5	LYS	3.1
31	49	182	LYS	3.1
34	15	69	GLN	3.1
41	C8	21	ALA	3.1
10	1I	71	LEU	3.1
8	7E	9	MET	3.1
37	45	22	LYS	3.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
10	1I	50	ILE	3.1
24	1L	48	C	3.1
26	14	2111	C	3.1
55	3L	65	C	3.1
36	35	71	VAL	3.1
46	D5	168	GLU	3.1
16	7I	12	LYS	3.1
34	15	81	GLY	3.1
25	4L	12	A	3.1
11	2I	14	VAL	3.1
32	59	116	GLU	3.1
5	4E	95	ALA	3.1
41	C8	118	GLY	3.1
20	BI	76	ALA	3.1
10	1A	56	HIS	3.1
12	3A	48	PRO	3.1
36	35	13	ASN	3.1
9	8E	127	LYS	3.1
20	BI	19	SER	3.1
16	7A	28	ARG	3.1
37	45	129	THR	3.1
20	BA	41	ILE	3.1
32	59	32	GLU	3.1
31	49	175	LEU	3.1
20	BA	26	ASN	3.1
29	29	122	PHE	3.1
13	4A	64	TRP	3.0
54	M5	8	LYS	3.0
8	7E	24	THR	3.0
47	E5	74	ARG	3.0
32	59	162	ILE	3.0
33	69	20	ASP	3.0
54	M5	16	ILE	3.0
34	58	72	TYR	3.0
5	42	127	ASN	3.0
26	14	1509	C	3.0
20	BI	17	ARG	3.0
32	59	107	VAL	3.0
14	5A	17	LYS	3.0
34	58	84	LYS	3.0
47	E5	9	SER	3.0
24	1L	3	U	3.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
14	5I	31	ARG	3.0
17	8A	24	GLU	3.0
32	59	35	VAL	3.0
48	F5	49	VAL	3.0
33	61	118	LYS	3.0
20	BI	9	ASN	3.0
21	1F	9	ARG	3.0
8	7E	58	TYR	3.0
16	7I	64	ALA	3.0
16	7I	3	LYS	3.0
42	D8	70	ILE	3.0
37	45	106	VAL	3.0
51	M8	55	ARG	3.0
8	7E	110	ALA	3.0
8	72	12	ARG	3.0
3	22	10	PHE	3.0
9	82	29	ASN	3.0
45	C5	92	ASN	3.0
54	M5	22	VAL	3.0
29	29	115	GLY	3.0
10	1I	49	VAL	3.0
16	7A	18	ARG	3.0
16	7A	25	ARG	3.0
31	49	152	LEU	3.0
33	69	5	LEU	3.0
39	65	32	LEU	3.0
13	4A	3	ARG	3.0
31	49	140	ILE	3.0
31	49	34	LEU	3.0
48	F5	62	VAL	3.0
10	1A	69	ASN	3.0
33	69	11	ASN	3.0
1	1G	1117	G	2.9
14	5A	55	GLY	2.9
16	7A	10	GLY	2.9
8	7E	85	ARG	2.9
10	1A	45	ARG	2.9
38	55	9	LYS	2.9
54	Q8	3	LYS	2.9
26	1H	887	A	2.9
50	H5	12	PRO	2.9
4	3E	21	LEU	2.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
9	82	15	ALA	2.9
11	2A	25	TYR	2.9
29	29	142	GLY	2.9
54	M5	49	VAL	2.9
13	4I	104	ARG	2.9
16	7A	73	LEU	2.9
20	BI	24	LEU	2.9
38	55	70	LEU	2.9
1	1G	1115	C	2.9
17	8I	34	LYS	2.9
35	25	32	TYR	2.9
40	B8	112	ARG	2.9
47	E5	45	PHE	2.9
31	49	28	VAL	2.9
32	59	113	VAL	2.9
9	8E	125	TYR	2.9
45	C5	34	LYS	2.9
1	13	230	G	2.9
17	8A	33	GLY	2.9
5	4E	119	LEU	2.9
15	6I	62	GLN	2.9
20	BA	13	LEU	2.9
28	19	262	ARG	2.9
49	K8	69	ARG	2.9
16	7I	7	ALA	2.9
29	29	131	ALA	2.9
37	45	63	LYS	2.9
16	7I	66	PRO	2.9
8	7E	59	LEU	2.9
31	49	82	LEU	2.9
40	75	114	LEU	2.9
45	C5	61	ILE	2.9
20	BI	29	LYS	2.9
29	29	154	LYS	2.9
26	14	2147	G	2.9
37	45	88	GLY	2.9
2	12	135	GLN	2.9
40	B8	101	PHE	2.9
26	1H	2145	C	2.9
9	82	120	ARG	2.9
32	59	154	PRO	2.9
20	BA	68	LYS	2.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
22	1K	82	A	2.9
26	14	2119	A	2.9
36	35	30	THR	2.9
4	3E	111	ALA	2.9
20	BI	79	ARG	2.9
37	45	80	GLU	2.9
10	1I	55	LYS	2.9
12	3I	91	LYS	2.9
13	4I	100	GLY	2.9
26	1H	2477	C	2.9
20	BI	80	ARG	2.9
32	59	157	TYR	2.9
39	65	33	LYS	2.9
10	1A	40	LEU	2.9
17	8A	22	LEU	2.9
37	45	89	ASN	2.8
26	14	2145	C	2.8
11	2I	122	LYS	2.8
8	7E	93	VAL	2.8
8	7E	84	ARG	2.8
3	2E	166	GLU	2.8
16	7I	17	TYR	2.8
16	7A	34	GLU	2.8
30	39	97	TYR	2.8
9	82	19	LEU	2.8
9	8E	65	VAL	2.8
39	A8	3	ARG	2.8
55	3L	18	G	2.8
5	4E	90	VAL	2.8
8	7E	95	VAL	2.8
8	7E	101	PRO	2.8
13	4A	97	PRO	2.8
9	8E	12	GLU	2.8
45	C5	64	GLU	2.8
16	7I	65	GLN	2.8
36	35	18	ARG	2.8
37	45	75	THR	2.8
40	B8	114	LEU	2.8
9	82	118	LYS	2.8
7	62	31	MET	2.8
31	49	23	PHE	2.8
26	1H	654(K)	C	2.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
9	82	43	ALA	2.8
34	15	8	GLN	2.8
41	85	29	SER	2.8
34	15	74	ARG	2.8
47	I8	57	PHE	2.8
8	72	54	ASP	2.8
9	8E	42	ARG	2.8
9	8E	70	LYS	2.8
4	3E	93	PHE	2.8
8	7E	83	ILE	2.8
16	7A	36	ILE	2.8
8	72	95	VAL	2.8
13	4A	25	ILE	2.8
16	7A	19	ILE	2.8
13	4A	88	ARG	2.8
14	5I	60	SER	2.8
20	BI	25	ARG	2.8
32	51	155	SER	2.8
55	3L	66	G	2.8
29	29	114	ALA	2.8
14	5A	16	PHE	2.8
33	69	16	GLY	2.8
38	55	21	TYR	2.8
43	A5	92	ARG	2.8
28	19	203	ASN	2.8
4	32	209	ARG	2.8
20	BI	30	LYS	2.8
41	C8	22	LYS	2.8
41	C8	34	LYS	2.8
54	M5	2	PRO	2.8
39	65	4	LEU	2.7
54	M5	11	LYS	2.7
14	5I	22	THR	2.7
36	35	48	PRO	2.7
19	AI	78	ARG	2.7
20	BA	23	ARG	2.7
28	19	206	LEU	2.7
8	72	94	TYR	2.7
16	7A	51	VAL	2.7
13	4A	9	ILE	2.7
19	AA	83	HIS	2.7
20	BI	40	ALA	2.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
31	49	142	PRO	2.7
1	1G	112	G	2.7
10	1I	11	PHE	2.7
1	13	1367	C	2.7
9	82	4	TYR	2.7
28	19	2	ALA	2.7
30	39	93	LYS	2.7
47	I8	46	LYS	2.7
4	3E	102	ASP	2.7
10	1A	48	THR	2.7
1	1G	975	A	2.7
2	1E	188	ALA	2.7
52	J5	2	ALA	2.7
20	BI	11	SER	2.7
26	14	1026	U	2.7
2	12	163	PHE	2.7
9	8E	76	ALA	2.7
9	82	77	ILE	2.7
1	13	1368	G	2.7
54	Q8	48	PHE	2.7
9	8E	7	THR	2.7
12	3A	68	ALA	2.7
16	7A	22	THR	2.7
20	BA	63	ILE	2.7
32	59	71	LEU	2.7
9	8E	66	ARG	2.7
29	29	143	ASN	2.7
31	41	160	VAL	2.7
22	1K	84	C	2.7
35	25	2	ILE	2.7
7	6E	5	ARG	2.7
52	N8	54	GLY	2.7
36	35	45	LEU	2.7
48	F5	92	LYS	2.7
7	6E	78	ARG	2.7
20	BI	85	MET	2.7
42	D8	73	SER	2.7
5	42	88	LYS	2.7
37	45	37	LEU	2.7
13	4A	26	GLY	2.7
28	19	23	GLU	2.7
34	15	108	PRO	2.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
21	1F	18	TYR	2.6
28	19	38	LYS	2.6
39	65	37	ALA	2.7
2	12	70	PHE	2.6
9	8E	104	ARG	2.6
1	1G	1032(B)	G	2.6
54	M5	21	LYS	2.6
8	7E	89	PRO	2.6
20	BA	72	LEU	2.6
9	8E	28	VAL	2.6
9	82	35	GLU	2.6
12	3A	8	ASN	2.6
4	3E	96	LEU	2.6
4	3E	97	LEU	2.6
10	1I	6	ILE	2.6
1	13	389	A	2.6
36	35	27	HIS	2.6
11	2A	126	ARG	2.6
20	BA	80	ARG	2.6
14	5A	22	THR	2.6
20	BI	55	ILE	2.6
54	Q8	61	LEU	2.6
26	1H	1059	G	2.6
11	2A	123	LYS	2.6
37	45	72	LYS	2.6
16	7A	20	VAL	2.6
26	14	2801	A	2.6
40	B8	109	GLU	2.6
20	BA	34	LYS	2.6
20	BA	15	ARG	2.6
21	1F	23	PRO	2.6
9	8E	86	VAL	2.6
3	2E	4	LYS	2.6
9	82	113	LYS	2.6
12	3A	7	ILE	2.6
21	1F	13	ILE	2.6
40	B8	51	ARG	2.6
46	D5	69	THR	2.6
33	69	18	VAL	2.6
9	82	40	LEU	2.6
20	BA	84	LEU	2.6
3	22	193	TYR	2.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
12	3A	32	PHE	2.6
26	14	2795	G	2.6
31	49	141	PHE	2.6
54	M5	6	THR	2.6
29	21	88	GLY	2.6
34	15	80	GLY	2.6
51	I5	50	VAL	2.6
16	7I	6	LEU	2.6
47	I8	59	LEU	2.6
1	1G	378	G	2.6
37	45	97	VAL	2.6
48	F5	28	GLY	2.6
7	62	41	ARG	2.6
48	J8	90	ILE	2.6
9	8E	124	GLN	2.6
7	6E	34	GLY	2.6
9	82	30	GLY	2.6
1	1G	876	G	2.6
46	H8	173	ALA	2.6
5	4E	122	GLU	2.6
14	5A	50	LYS	2.6
10	1I	72	VAL	2.6
11	2A	49	GLY	2.6
47	E5	77	ARG	2.6
51	I5	56	VAL	2.6
8	7E	135	CYS	2.6
20	BA	14	LYS	2.5
25	4K	15	A	2.5
25	4L	13	A	2.5
23	2L	1	C	2.5
28	19	18	VAL	2.5
28	19	16	MET	2.5
2	12	152	PHE	2.5
4	3E	110	PHE	2.5
54	M5	12	LYS	2.5
47	I8	40	GLN	2.5
9	82	17	VAL	2.5
29	21	106	GLY	2.5
25	4L	19	A	2.5
26	1H	529	A	2.5
35	68	122	LEU	2.5
1	1G	973	G	2.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
16	7I	15	PRO	2.5
26	14	888	C	2.5
32	59	112	PRO	2.5
28	19	247	ALA	2.5
32	59	102	ALA	2.5
16	7I	37	GLY	2.5
48	J8	70	VAL	2.5
5	4E	88	LYS	2.5
32	51	171	LEU	2.5
42	D8	71	LEU	2.5
1	13	82	U	2.5
36	35	47	ASP	2.5
1	13	134	A	2.5
4	3E	76	ARG	2.5
10	1I	42	THR	2.5
17	8A	26	GLN	2.5
29	29	137	HIS	2.5
36	35	52	GLU	2.5
33	69	21	VAL	2.5
5	4E	123	LEU	2.5
29	29	155	LYS	2.5
9	8E	105	ASP	2.5
14	5I	29	ARG	2.5
26	14	2118	U	2.5
54	M5	56	GLU	2.5
24	1L	4	G	2.5
26	14	2	G	2.5
17	8A	37	LYS	2.5
36	35	108	LYS	2.5
54	Q8	2	PRO	2.5
37	45	50	ALA	2.5
45	C5	49	VAL	2.5
54	M5	60	LEU	2.5
13	4I	103	THR	2.5
10	1A	50	ILE	2.5
31	41	23	PHE	2.5
29	29	129	HIS	2.5
16	7I	42	ARG	2.5
31	49	90	LEU	2.5
35	25	33	ALA	2.5
47	E5	72	ARG	2.5
51	I5	39	CYS	2.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
45	C5	60	PHE	2.5
10	1I	67	THR	2.5
17	8A	7	THR	2.5
9	8E	15	ALA	2.5
12	3A	14	GLY	2.5
19	AI	71	LEU	2.5
31	49	19	LEU	2.5
26	14	529	A	2.5
34	15	79	PRO	2.5
37	45	73	PRO	2.5
14	5I	32	SER	2.5
20	BA	17	ARG	2.5
26	1H	1078	U	2.5
3	2E	193	TYR	2.5
6	5E	101	ALA	2.5
9	8E	79	LEU	2.5
12	3A	69	TYR	2.5
20	BA	20	LEU	2.5
36	35	148	LEU	2.5
7	62	88	PRO	2.5
20	BI	27	LYS	2.5
20	BI	65	LYS	2.5
20	BA	27	LYS	2.5
38	55	71	GLN	2.5
26	1H	1759	A	2.5
26	14	1537	C	2.5
26	14	2477	C	2.5
29	29	140	SER	2.5
38	98	6	SER	2.5
48	F5	66	HIS	2.5
32	59	6	ARG	2.5
39	65	5	THR	2.5
41	85	43	GLY	2.5
43	A5	17	VAL	2.5
9	8E	11	LYS	2.5
37	45	93	TYR	2.5
41	85	40	PHE	2.5
5	42	89	ILE	2.5
15	6I	68	ARG	2.5
51	M8	31	ILE	2.5
20	BI	13	LEU	2.4
29	21	195	LEU	2.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
39	A8	7	TYR	2.4
37	45	101	ARG	2.4
32	59	140	LYS	2.4
34	15	48	MET	2.4
8	72	90	GLY	2.4
13	4A	98	VAL	2.4
26	14	2168	G	2.4
29	29	10	GLY	2.4
29	21	90	THR	2.4
29	29	149	ARG	2.4
36	78	61	ARG	2.4
9	82	63	ILE	2.4
16	7I	19	ILE	2.4
8	7E	8	ASP	2.4
13	4I	96	LEU	2.4
20	BI	62	LEU	2.4
33	69	6	LEU	2.4
7	6E	4	ARG	2.4
1	13	311	C	2.4
1	13	1369	C	2.4
1	13	1287	A	2.4
1	1G	86	U	2.4
1	1G	825	G	2.4
9	8E	49	PRO	2.4
29	29	127	ASP	2.4
20	BI	83	ARG	2.4
28	19	212	SER	2.4
29	21	187	ALA	2.4
3	2E	11	ARG	2.4
8	7E	137	VAL	2.4
23	2K	1	C	2.4
37	45	125	LEU	2.4
1	1G	377	G	2.4
39	65	108	GLY	2.4
12	3A	13	LYS	2.4
14	5A	15	LYS	2.4
34	15	78	TYR	2.4
1	13	378	G	2.4
51	I5	22	ILE	2.4
4	3E	3	ARG	2.4
31	41	35	GLU	2.4
37	45	121	ALA	2.4

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Mol	Chain	Res	Type	RSRZ
8	72	59	LEU	2.4
33	69	9	LEU	2.4
34	15	116	LEU	2.4
1	1G	82	U	2.4
1	13	135	C	2.4
1	13	1354	C	2.4
47	E5	38	VAL	2.4
5	42	107	ARG	2.4
12	3A	6	THR	2.4
14	5I	30	ALA	2.4
37	45	20	ALA	2.4
13	4A	90	LEU	2.4
17	8I	31	LEU	2.4
5	42	20	GLN	2.4
55	3L	19	C	2.4
1	1G	60	A	2.4
37	45	74	TYR	2.4
16	7I	13	HIS	2.4
35	25	81	ASP	2.4
8	72	98	LYS	2.4
26	1H	1057	A	2.3
26	14	1177	A	2.3
30	39	208	GLY	2.3
31	49	115	ARG	2.3
16	7A	65	GLN	2.3
30	39	1	MET	2.3
2	12	132	LYS	2.3
35	68	66	LYS	2.3
3	22	176	HIS	2.3
4	3E	180	GLY	2.3
21	1B	11	GLY	2.3
11	2I	123	LYS	2.3
21	1B	12	LYS	2.3
14	5A	8	GLU	2.3
29	21	151	TYR	2.3
55	3L	50	U	2.3
1	13	324	G	2.3
31	49	177	GLY	2.3
45	C5	93	GLY	2.3
8	72	85	ARG	2.3
13	4A	107	ALA	2.3
7	62	36	LYS	2.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
17	8A	4	LYS	2.3
33	69	3	VAL	2.3
51	I5	33	VAL	2.3
40	B8	2	ASN	2.3
26	14	2899	G	2.3
28	11	61	LEU	2.3
37	45	32	TYR	2.3
37	45	131	ILE	2.3
40	B8	94	ALA	2.3
42	95	91	TYR	2.3
12	3I	5	PRO	2.3
12	3A	47	LYS	2.3
15	6I	60	VAL	2.3
26	14	2117	A	2.3
28	19	238	GLY	2.3
3	2E	161	GLU	2.3
29	29	135	HIS	2.3
42	D8	81	TYR	2.3
1	13	112	G	2.3
8	7E	90	GLY	2.3
9	82	72	GLY	2.3
28	19	22	SER	2.3
34	15	76	SER	2.3
14	5A	49	HIS	2.3
37	45	60	ARG	2.3
37	45	133	ARG	2.3
46	D5	82	ARG	2.3
3	2E	201	TYR	2.3
31	49	158	ALA	2.3
33	69	37	VAL	2.3
42	D8	75	PHE	2.3
54	M5	23	VAL	2.3
8	7E	92	ARG	2.3
20	BA	25	ARG	2.3
7	6E	35	LYS	2.3
24	1L	16	C	2.3
1	1G	878	G	2.3
8	72	17	THR	2.3
8	72	134	ILE	2.3
9	82	74	ILE	2.3
16	7I	36	ILE	2.3
31	49	135	LEU	2.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
29	21	72	VAL	2.3
37	45	92	GLY	2.3
36	35	149	GLU	2.3
11	2A	119	CYS	2.3
26	1H	1092	C	2.3
11	2A	120	ARG	2.3
20	BA	66	ALA	2.3
31	49	146	TYR	2.3
33	69	144	VAL	2.3
39	65	7	TYR	2.3
39	65	112	PHE	2.3
1	13	107	G	2.3
1	1G	111	G	2.3
14	5I	28	GLY	2.3
26	14	2114	A	2.3
31	41	164	GLU	2.3
31	49	36	LYS	2.3
12	3I	18	VAL	2.3
39	65	9	ARG	2.3
3	22	178	LEU	2.3
24	1L	32	A	2.3
40	B8	110	ILE	2.3
48	F5	90	ILE	2.3
19	AI	79	THR	2.3
36	35	57	THR	2.3
20	BI	10	LEU	2.3
28	19	37	LEU	2.3
38	98	10	LEU	2.3
20	BI	74	LYS	2.3
34	58	85	ILE	2.3
24	1L	49	A	2.3
37	45	132	VAL	2.3
1	1G	326	G	2.2
1	1G	1032(A)	G	2.2
3	22	2	GLY	2.2
21	1F	19	GLY	2.2
48	F5	72	GLU	2.2
41	C8	27	LEU	2.2
5	4E	129	ILE	2.2
5	42	80	ILE	2.2
29	29	147	PRO	2.2
37	45	39	PRO	2.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
55	3L	16	C	2.2
4	3E	2	GLY	2.2
11	2A	118	GLY	2.2
21	1B	4	GLY	2.2
1	1G	1251	A	2.2
9	82	83	ARG	2.2
8	7E	54	ASP	2.2
40	75	98	LYS	2.2
54	M5	59	LYS	2.2
29	29	107	THR	2.2
12	3I	11	VAL	2.2
4	3E	80	GLU	2.2
36	35	55	ARG	2.2
39	A8	9	ARG	2.2
12	3I	17	LYS	2.2
26	1H	1762	A	2.2
38	98	69	ASP	2.2
34	15	9	VAL	2.2
1	1G	230	G	2.2
16	7A	38	TYR	2.2
24	1L	17	G	2.2
26	1H	654(I)	C	2.2
42	95	73	SER	2.2
28	19	205	VAL	2.2
9	82	121	ARG	2.2
17	8A	38	ARG	2.2
19	AI	61	TYR	2.2
25	4L	23	A	2.2
34	15	100	GLU	2.2
41	85	2	PRO	2.2
10	1A	71	LEU	2.2
1	13	306	G	2.2
41	C8	29	SER	2.2
3	2E	164	ARG	2.2
8	7E	134	ILE	2.2
41	C8	28	ARG	2.2
46	D5	79	ARG	2.2
51	M8	5	ILE	2.2
54	Q8	58	ILE	2.2
8	72	130	GLY	2.2
29	29	145	LYS	2.2
34	15	104	LYS	2.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
37	45	71	ASP	2.2
47	E5	24	LYS	2.2
49	K8	13	ALA	2.2
21	1F	10	ARG	2.2
41	C8	37	GLU	2.2
10	1I	73	ASP	2.2
45	C5	66	PRO	2.2
39	A8	4	LEU	2.2
40	75	6	LEU	2.2
1	13	1531	A	2.2
4	32	86	LYS	2.2
12	3A	23	LYS	2.2
31	49	136	ARG	2.2
48	J8	60	PHE	2.2
28	19	55	GLY	2.2
51	I5	53	GLU	2.2
1	13	1366	C	2.2
11	2I	120	ARG	2.2
30	39	44	ARG	2.2
33	69	2	LYS	2.2
16	7I	48	TRP	2.2
11	2I	25	TYR	2.2
31	49	12	TYR	2.2
32	59	134	SER	2.2
26	14	1084	A	2.2
28	19	147	LEU	2.2
28	19	211	ARG	2.2
42	95	83	ARG	2.2
46	D5	80	ARG	2.2
10	1A	67	THR	2.2
16	7A	37	GLY	2.2
5	42	126	ARG	2.2
28	11	262	ARG	2.2
37	45	10	ARG	2.2
45	G8	33	LYS	2.2
1	1G	965	A	2.2
29	21	192	ASN	2.2
36	35	105	LEU	2.2
48	J8	69	LYS	2.2
32	59	165	ALA	2.2
46	D5	51	ALA	2.2
26	14	3	U	2.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
55	3L	64	U	2.2
1	1G	1368	G	2.2
2	1E	195	ASP	2.2
32	59	55	PRO	2.2
7	62	42	ILE	2.2
7	62	32	ARG	2.2
20	BI	75	ASN	2.2
20	BI	101	GLY	2.2
26	1H	2799	A	2.2
29	29	139	GLY	2.2
52	N8	55	ARG	2.2
4	3E	207	TYR	2.1
8	7E	133	LEU	2.1
54	Q8	50	LEU	2.1
28	19	15	PHE	2.1
29	21	51	PHE	2.1
1	1G	323	U	2.1
13	4A	60	VAL	2.1
29	21	91	VAL	2.1
26	14	2116	G	2.1
41	C8	39	LEU	2.1
1	1G	311	C	2.1
5	4E	80	ILE	2.1
8	72	101	PRO	2.1
8	72	102	ARG	2.1
46	D5	81	ARG	2.1
55	3L	20	C	2.1
37	45	7	MET	2.1
4	3E	202	LEU	2.1
5	42	12	LEU	2.1
7	62	2	ALA	2.1
13	4A	105	THR	2.1
29	29	160	TYR	2.1
26	14	10	G	2.1
29	29	136	ARG	2.1
28	19	246	PRO	2.1
1	13	754	C	2.1
33	61	20	ASP	2.1
49	G5	60	LEU	2.1
28	19	4	LYS	2.1
42	95	75	PHE	2.1
49	K8	66	GLU	2.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
19	AA	80	TYR	2.1
38	98	47	PHE	2.1
54	M5	29	LYS	2.1
4	3E	15	GLU	2.1
5	42	105	VAL	2.1
54	M5	54	GLU	2.1
8	7E	119	LEU	2.1
20	BI	34	LYS	2.1
32	59	153	LYS	2.1
40	75	101	PHE	2.1
26	1H	2319	G	2.1
1	1G	879	C	2.1
2	1E	54	THR	2.1
3	2E	14	ILE	2.1
31	49	88	ILE	2.1
4	32	73	ARG	2.1
20	BA	10	LEU	2.1
34	58	81	GLY	2.1
37	45	76	LYS	2.1
34	15	44	PRO	2.1
48	F5	60	PHE	2.1
48	F5	71	TYR	2.1
51	I5	26	SER	2.1
37	45	40	ALA	2.1
42	D8	77	ALA	2.1
43	A5	94	ASP	2.1
8	72	26	VAL	2.1
29	21	75	VAL	2.1
32	59	92	ILE	2.1
6	5E	92	LYS	2.1
1	1G	1397	C	2.1
8	72	107	LEU	2.1
40	B8	98	LYS	2.1
41	C8	43	GLY	2.1
47	E5	69	PHE	2.1
4	3E	134	ASP	2.1
11	2A	21	ILE	2.1
31	49	160	VAL	2.1
5	4E	91	LEU	2.1
32	59	95	ARG	2.1
24	1L	54	C	2.1
26	1H	1630	G	2.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
30	39	92	PRO	2.1
39	65	91	PRO	2.1
16	7I	24	ALA	2.1
28	11	247	ALA	2.1
45	G8	86	ARG	2.1
4	32	120	LEU	2.1
15	6A	57	LEU	2.1
46	D5	151	HIS	2.1
47	E5	42	GLY	2.1
47	E5	71	ASP	2.1
34	15	51	PHE	2.1
14	5A	57	ARG	2.1
16	7I	34	GLU	2.1
20	BI	38	LYS	2.1
28	19	19	ALA	2.1
28	19	217	ARG	2.1
39	A8	43	GLU	2.1
40	75	112	ARG	2.1
1	13	1352	C	2.1
20	BI	41	ILE	2.1
1	1G	1370	G	2.1
2	1E	138	LEU	2.1
8	72	10	LEU	2.1
16	7I	49	LEU	2.1
17	8I	33	GLY	2.1
28	19	177	LEU	2.1
41	85	56	ASP	2.1
17	8I	27	PHE	2.1
29	29	156	MET	2.1
13	4A	103	THR	2.1
31	41	33	ARG	2.1
34	15	10	GLU	2.1
34	15	115	ARG	2.1
39	65	97	ARG	2.1
5	4E	128	PRO	2.1
1	13	1349	A	2.1
37	45	79	LEU	2.1
22	1K	33	C	2.1
13	4A	99	ARG	2.0
29	21	199	ARG	2.0
47	E5	39	ARG	2.0
4	3E	203	VAL	2.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
9	82	28	VAL	2.0
26	14	958	U	2.0
29	29	138	PRO	2.0
45	G8	92	ASN	2.0
34	58	82	LEU	2.0
54	Q8	53	PRO	2.0
1	1G	134	A	2.0
42	95	76	LYS	2.0
4	32	49	ARG	2.0
1	13	110	C	2.0
52	J5	59	GLU	2.0
3	22	207	VAL	2.0
5	42	86	ALA	2.0
13	4A	87	TYR	2.0
17	8I	32	TYR	2.0
37	45	36	ALA	2.0
9	82	123	PRO	2.0
20	BI	63	ILE	2.0
32	59	33	LEU	2.0
51	I5	11	PRO	2.0
1	1G	1033	G	2.0
9	8E	10	ARG	2.0
9	8E	37	PHE	2.0
5	42	31	LEU	2.0
10	1I	40	LEU	2.0
20	BI	28	ALA	2.0
34	15	46	VAL	2.0
37	45	53	ALA	2.0
46	D5	57	ILE	2.0
36	35	51	PHE	2.0
24	3K	52	G	2.0
26	1H	1758	G	2.0
19	AA	70	LYS	2.0
29	21	69	LYS	2.0
11	2A	54	ARG	2.0
23	2K	77	A	2.0
26	14	2169	A	2.0
36	35	118	GLY	2.0
37	45	67	ARG	2.0
1	13	136	C	2.0
39	A8	12	PHE	2.0
20	BA	74	LYS	2.0

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Mol	Chain	Res	Type	RSRZ
31	49	111	LEU	2.0
35	68	81	ASP	2.0
36	35	29	LYS	2.0
37	45	77	LYS	2.0
7	62	104	LEU	2.0
41	C8	24	TYR	2.0
1	13	1032(A)	G	2.0
26	14	764	A	2.0
9	82	38	GLN	2.0
26	1H	1383	C	2.0
29	21	55	ASN	2.0
31	41	74	LYS	2.0
36	35	32	THR	2.0
33	69	17	GLN	2.0
46	D5	96	VAL	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95<sup>th</sup> percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
23	4SU	2L	8	20/21	0.91	0.14	99,106,113,117	0
23	OMC	2L	33	21/22	0.91	0.22	86,95,99,102	0
23	PSU	2L	56	20/21	0.91	0.10	101,108,114,119	0
22	5MU	1K	63	21/22	0.92	0.16	106,124,138,141	0
22	PSU	1K	64	20/21	0.92	0.14	106,129,138,140	0
24	PSU	1L	40	20/21	0.92	0.26	99,116,121,124	0
55	MIA	3L	38	29/30	0.93	0.26	102,116,135,141	0
55	PSU	3L	40	20/21	0.93	0.24	110,117,123,123	0
22	QUO	1K	35	32/33	0.94	0.37	67,86,101,111	0
23	4SU	2K	8	20/21	0.94	0.16	83,89,99,107	0
22	MIA	1K	38	29/30	0.95	0.29	67,84,98,112	0
23	5MU	2K	55	21/22	0.95	0.14	88,99,104,112	0
23	5MU	2L	55	21/22	0.95	0.11	101,110,116,118	0
23	PSU	2K	56	20/21	0.95	0.12	93,98,101,113	0
24	PSU	3K	40	20/21	0.95	0.12	106,113,117,119	0
22	PSU	1K	40	20/21	0.95	0.15	78,96,104,105	0
23	OMC	2K	33	21/22	0.98	0.26	70,74,82,85	0

### 6.3 Carbohydrates [i](#)

There are no monosaccharides in this entry.

### 6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95<sup>th</sup> percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
58	ZN	G8	201	1/1	0.23	0.14	178,178,178,178	0
56	MG	25	201	1/1	0.43	0.38	107,107,107,107	0
56	MG	14	3261	1/1	0.44	0.38	93,93,93,93	0
56	MG	14	3182	1/1	0.49	0.24	72,72,72,72	0
56	MG	1G	1641	1/1	0.49	0.26	73,73,73,73	0
56	MG	1H	3223	1/1	0.51	0.58	102,102,102,102	0
56	MG	14	3289	1/1	0.53	0.28	79,79,79,79	0
56	MG	2L	102	1/1	0.54	0.22	79,79,79,79	0
56	MG	14	3254	1/1	0.54	0.27	102,102,102,102	0
58	ZN	C5	202	1/1	0.57	0.14	192,192,192,192	0
56	MG	1G	1684	1/1	0.58	0.12	122,122,122,122	0
56	MG	13	1685	1/1	0.59	0.22	91,91,91,91	0
56	MG	13	1647	1/1	0.59	0.21	77,77,77,77	0
56	MG	13	1743	1/1	0.61	0.36	102,102,102,102	0
56	MG	13	1617	1/1	0.62	0.26	86,86,86,86	0
56	MG	14	3148	1/1	0.62	0.22	82,82,82,82	0
56	MG	1H	3416	1/1	0.62	0.12	77,77,77,77	0
56	MG	14	3118	1/1	0.63	0.42	86,86,86,86	0
56	MG	1H	3239	1/1	0.63	0.22	72,72,72,72	0
56	MG	1G	1646	1/1	0.63	0.23	79,79,79,79	0
56	MG	14	3151	1/1	0.64	0.23	72,72,72,72	0
56	MG	1H	3275	1/1	0.64	0.44	75,75,75,75	0
56	MG	1H	3300	1/1	0.64	0.31	77,77,77,77	0
56	MG	1H	3185	1/1	0.64	0.19	71,71,71,71	0
56	MG	13	1715	1/1	0.65	0.14	83,83,83,83	0
56	MG	1H	3274	1/1	0.65	0.47	80,80,80,80	0
56	MG	14	3144	1/1	0.65	0.39	79,79,79,79	0
56	MG	14	3265	1/1	0.66	0.34	121,121,121,121	0
56	MG	14	3199	1/1	0.66	0.20	69,69,69,69	0
56	MG	14	3249	1/1	0.66	0.19	77,77,77,77	0
56	MG	14	3180	1/1	0.66	0.18	71,71,71,71	0
56	MG	1H	3451	1/1	0.66	0.13	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1H	3178	1/1	0.67	0.27	63,63,63,63	0
56	MG	1H	3467	1/1	0.67	0.09	75,75,75,75	0
56	MG	14	3293	1/1	0.67	0.48	88,88,88,88	0
56	MG	1H	3319	1/1	0.68	0.56	92,92,92,92	0
56	MG	13	1688	1/1	0.68	0.26	77,77,77,77	0
56	MG	13	1623	1/1	0.68	0.44	94,94,94,94	0
56	MG	14	3139	1/1	0.69	0.20	81,81,81,81	0
56	MG	1H	3326	1/1	0.69	0.55	96,96,96,96	0
56	MG	1H	3030	1/1	0.69	0.34	81,81,81,81	0
56	MG	1H	3295	1/1	0.69	0.17	76,76,76,76	0
56	MG	1H	3098	1/1	0.70	0.20	87,87,87,87	0
56	MG	1H	3248	1/1	0.70	0.32	80,80,80,80	0
56	MG	14	3260	1/1	0.70	0.27	85,85,85,85	0
56	MG	1H	3273	1/1	0.70	0.41	87,87,87,87	0
56	MG	13	1673	1/1	0.70	0.23	73,73,73,73	0
56	MG	1H	3228	1/1	0.71	0.42	74,74,74,74	0
56	MG	1H	3201	1/1	0.71	0.20	59,59,59,59	0
56	MG	1H	3144	1/1	0.71	0.27	66,66,66,66	0
56	MG	14	3132	1/1	0.71	0.30	86,86,86,86	0
56	MG	14	3377	1/1	0.71	0.12	96,96,96,96	0
56	MG	1H	3282	1/1	0.71	0.40	83,83,83,83	0
56	MG	1H	3330	1/1	0.71	0.21	67,67,67,67	0
56	MG	1G	1667	1/1	0.71	0.25	80,80,80,80	0
56	MG	16	203	1/1	0.72	0.17	68,68,68,68	0
56	MG	1H	3207	1/1	0.72	0.21	73,73,73,73	0
56	MG	2K	102	1/1	0.72	0.23	83,83,83,83	0
56	MG	1H	3459	1/1	0.72	0.08	77,77,77,77	0
56	MG	1H	3339	1/1	0.72	0.30	88,88,88,88	0
56	MG	14	3282	1/1	0.72	0.32	86,86,86,86	0
56	MG	1H	3349	1/1	0.73	0.35	85,85,85,85	0
56	MG	14	3167	1/1	0.73	0.14	59,59,59,59	0
56	MG	14	3264	1/1	0.73	0.28	67,67,67,67	0
56	MG	14	3169	1/1	0.73	0.14	77,77,77,77	0
56	MG	1H	3171	1/1	0.73	0.14	79,79,79,79	0
56	MG	14	3286	1/1	0.73	0.23	78,78,78,78	0
56	MG	1H	3243	1/1	0.74	0.23	69,69,69,69	0
56	MG	14	3094	1/1	0.74	0.18	69,69,69,69	0
56	MG	1H	3217	1/1	0.74	0.46	93,93,93,93	0
56	MG	1G	1620	1/1	0.74	0.34	78,78,78,78	0
56	MG	1H	3299	1/1	0.74	0.38	82,82,82,82	0
56	MG	14	3226	1/1	0.74	0.18	82,82,82,82	0
56	MG	13	1658	1/1	0.74	0.24	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
56	MG	1H	3076	1/1	0.74	0.41	75,75,75,75	0
56	MG	13	1741	1/1	0.74	0.09	110,110,110,110	0
56	MG	14	3158	1/1	0.74	0.41	67,67,67,67	0
56	MG	13	1720	1/1	0.75	0.11	62,62,62,62	0
56	MG	31	301	1/1	0.75	0.10	56,56,56,56	0
56	MG	14	3149	1/1	0.75	0.33	84,84,84,84	0
56	MG	1H	3386	1/1	0.75	0.12	53,53,53,53	0
56	MG	14	3290	1/1	0.75	0.22	82,82,82,82	0
56	MG	1H	3314	1/1	0.76	0.37	90,90,90,90	0
56	MG	13	1616	1/1	0.76	0.37	93,93,93,93	0
56	MG	14	3217	1/1	0.76	0.28	68,68,68,68	0
56	MG	1H	3293	1/1	0.76	0.46	90,90,90,90	0
56	MG	1H	3205	1/1	0.76	0.36	62,62,62,62	0
56	MG	14	3250	1/1	0.76	0.22	74,74,74,74	0
56	MG	13	1687	1/1	0.76	0.21	70,70,70,70	0
56	MG	1H	3163	1/1	0.76	0.34	87,87,87,87	0
56	MG	1H	3366	1/1	0.76	0.40	74,74,74,74	0
56	MG	1H	3311	1/1	0.76	0.27	78,78,78,78	0
56	MG	14	3275	1/1	0.77	0.27	60,60,60,60	0
56	MG	1H	3264	1/1	0.77	0.22	58,58,58,58	0
56	MG	14	3284	1/1	0.77	0.11	88,88,88,88	0
56	MG	1H	3305	1/1	0.77	0.29	75,75,75,75	0
56	MG	1H	3222	1/1	0.77	0.36	80,80,80,80	0
56	MG	1H	3101	1/1	0.77	0.43	62,62,62,62	0
56	MG	1H	3298	1/1	0.77	0.29	79,79,79,79	0
56	MG	14	3298	1/1	0.77	0.40	103,103,103,103	0
56	MG	14	3305	1/1	0.77	0.17	79,79,79,79	0
56	MG	13	1697	1/1	0.77	0.15	82,82,82,82	0
56	MG	39	301	1/1	0.77	0.23	71,71,71,71	0
56	MG	1H	3328	1/1	0.77	0.47	91,91,91,91	0
56	MG	14	3190	1/1	0.77	0.26	85,85,85,85	0
56	MG	1H	3453	1/1	0.77	0.12	76,76,76,76	0
56	MG	1G	1665	1/1	0.78	0.13	94,94,94,94	0
56	MG	14	3267	1/1	0.78	0.22	81,81,81,81	0
56	MG	1H	3332	1/1	0.78	0.47	88,88,88,88	0
56	MG	13	1692	1/1	0.78	0.17	79,79,79,79	0
56	MG	13	1707	1/1	0.78	0.25	96,96,96,96	0
56	MG	14	3077	1/1	0.78	0.30	68,68,68,68	0
56	MG	1H	3250	1/1	0.78	0.16	68,68,68,68	0
56	MG	13	1696	1/1	0.78	0.26	116,116,116,116	0
56	MG	14	3283	1/1	0.79	0.12	102,102,102,102	0
56	MG	14	3218	1/1	0.79	0.19	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
56	MG	1G	1648	1/1	0.79	0.43	121,121,121,121	0
56	MG	1H	3211	1/1	0.79	0.43	64,64,64,64	0
56	MG	1H	3233	1/1	0.79	0.21	53,53,53,53	0
56	MG	1H	3461	1/1	0.79	0.09	108,108,108,108	0
56	MG	1H	3368	1/1	0.79	0.27	74,74,74,74	0
56	MG	14	3302	1/1	0.79	0.15	72,72,72,72	0
56	MG	1H	3477	1/1	0.79	0.06	106,106,106,106	0
56	MG	14	3365	1/1	0.79	0.07	85,85,85,85	0
56	MG	1H	3322	1/1	0.79	0.36	80,80,80,80	0
56	MG	1H	3393	1/1	0.79	0.10	65,65,65,65	0
56	MG	13	1649	1/1	0.79	0.21	85,85,85,85	0
56	MG	1H	3431	1/1	0.79	0.21	99,99,99,99	0
56	MG	1H	3341	1/1	0.79	0.33	67,67,67,67	0
56	MG	14	3096	1/1	0.80	0.19	78,78,78,78	0
56	MG	14	3117	1/1	0.80	0.34	76,76,76,76	0
56	MG	1H	3203	1/1	0.80	0.40	80,80,80,80	0
56	MG	1G	1622	1/1	0.80	0.16	72,72,72,72	0
56	MG	14	3287	1/1	0.80	0.20	79,79,79,79	0
56	MG	1H	3358	1/1	0.80	0.25	80,80,80,80	0
56	MG	1H	3068	1/1	0.80	0.29	67,67,67,67	0
56	MG	13	1663	1/1	0.80	0.12	88,88,88,88	0
56	MG	1H	3323	1/1	0.80	0.50	82,82,82,82	0
56	MG	1H	3462	1/1	0.80	0.06	92,92,92,92	0
56	MG	14	3153	1/1	0.80	0.17	94,94,94,94	0
56	MG	1H	3238	1/1	0.80	0.21	54,54,54,54	0
56	MG	1H	3409	1/1	0.80	0.20	53,53,53,53	0
56	MG	1H	3342	1/1	0.80	0.30	98,98,98,98	0
56	MG	14	3170	1/1	0.80	0.31	79,79,79,79	0
56	MG	1H	3421	1/1	0.80	0.07	57,57,57,57	0
56	MG	14	3280	1/1	0.80	0.43	87,87,87,87	0
56	MG	14	3135	1/1	0.81	0.10	78,78,78,78	0
56	MG	14	3137	1/1	0.81	0.34	69,69,69,69	0
56	MG	1H	3313	1/1	0.81	0.21	65,65,65,65	0
56	MG	13	1662	1/1	0.81	0.30	73,73,73,73	0
56	MG	13	1701	1/1	0.81	0.12	80,80,80,80	0
56	MG	1G	1650	1/1	0.81	0.40	87,87,87,87	0
56	MG	13	1637	1/1	0.81	0.24	61,61,61,61	0
56	MG	1H	3139	1/1	0.81	0.17	66,66,66,66	0
56	MG	1G	1675	1/1	0.81	0.08	110,110,110,110	0
56	MG	1H	3240	1/1	0.81	0.18	73,73,73,73	0
56	MG	3E	301	1/1	0.81	0.11	112,112,112,112	0
56	MG	14	3020	1/1	0.81	0.15	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
56	MG	14	3171	1/1	0.81	0.24	80,80,80,80	0
56	MG	1H	3146	1/1	0.81	0.24	75,75,75,75	0
56	MG	14	3091	1/1	0.81	0.22	84,84,84,84	0
56	MG	13	1708	1/1	0.81	0.22	85,85,85,85	0
56	MG	P8	101	1/1	0.81	0.29	68,68,68,68	0
56	MG	14	3216	1/1	0.81	0.17	83,83,83,83	0
56	MG	14	3342	1/1	0.81	0.13	74,74,74,74	0
56	MG	13	1710	1/1	0.81	0.12	128,128,128,128	0
56	MG	14	3369	1/1	0.81	0.12	97,97,97,97	0
56	MG	13	1670	1/1	0.81	0.13	78,78,78,78	0
56	MG	14	3122	1/1	0.81	0.14	68,68,68,68	0
56	MG	14	3127	1/1	0.81	0.17	64,64,64,64	0
56	MG	C5	201	1/1	0.81	0.28	104,104,104,104	0
56	MG	1G	1623	1/1	0.81	0.22	73,73,73,73	0
56	MG	14	3133	1/1	0.81	0.19	86,86,86,86	0
56	MG	14	3303	1/1	0.82	0.15	101,101,101,101	0
56	MG	1H	3321	1/1	0.82	0.42	86,86,86,86	0
56	MG	14	3332	1/1	0.82	0.17	73,73,73,73	0
56	MG	1H	3281	1/1	0.82	0.37	74,74,74,74	0
56	MG	1H	3170	1/1	0.82	0.22	61,61,61,61	0
56	MG	14	3033	1/1	0.82	0.17	64,64,64,64	0
56	MG	1H	3288	1/1	0.82	0.13	54,54,54,54	0
56	MG	14	3378	1/1	0.82	0.10	79,79,79,79	0
56	MG	1H	3290	1/1	0.82	0.41	84,84,84,84	0
56	MG	1H	3067	1/1	0.82	0.25	49,49,49,49	0
56	MG	14	3272	1/1	0.82	0.35	82,82,82,82	0
56	MG	13	1679	1/1	0.82	0.28	77,77,77,77	0
56	MG	13	1703	1/1	0.82	0.20	89,89,89,89	0
56	MG	1H	3249	1/1	0.83	0.26	85,85,85,85	0
56	MG	14	3214	1/1	0.83	0.17	65,65,65,65	0
56	MG	1G	1670	1/1	0.83	0.20	77,77,77,77	0
56	MG	16	207	1/1	0.83	0.28	71,71,71,71	0
56	MG	1H	3338	1/1	0.83	0.23	60,60,60,60	0
56	MG	1H	3053	1/1	0.83	0.36	72,72,72,72	0
56	MG	1H	3259	1/1	0.83	0.20	81,81,81,81	0
56	MG	13	1704	1/1	0.83	0.20	80,80,80,80	0
56	MG	1H	3172	1/1	0.83	0.40	84,84,84,84	0
56	MG	1H	3129	1/1	0.83	0.20	68,68,68,68	0
56	MG	1G	1642	1/1	0.83	0.34	81,81,81,81	0
56	MG	14	3161	1/1	0.83	0.24	86,86,86,86	0
56	MG	1H	3138	1/1	0.83	0.35	66,66,66,66	0
56	MG	1H	3168	1/1	0.83	0.44	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1H	3202	1/1	0.83	0.17	66,66,66,66	0
56	MG	14	3121	1/1	0.83	0.17	58,58,58,58	0
56	MG	1G	1652	1/1	0.83	0.30	74,74,74,74	0
56	MG	1G	1656	1/1	0.83	0.28	72,72,72,72	0
56	MG	14	3189	1/1	0.83	0.16	60,60,60,60	0
56	MG	1H	3331	1/1	0.83	0.23	76,76,76,76	0
56	MG	1H	3359	1/1	0.84	0.53	84,84,84,84	0
56	MG	1G	1654	1/1	0.84	0.42	101,101,101,101	0
56	MG	1H	3209	1/1	0.84	0.31	77,77,77,77	0
56	MG	14	3104	1/1	0.84	0.28	84,84,84,84	0
56	MG	1G	1659	1/1	0.84	0.20	93,93,93,93	0
56	MG	14	3159	1/1	0.84	0.22	73,73,73,73	0
56	MG	1G	1664	1/1	0.84	0.42	102,102,102,102	0
56	MG	1H	3334	1/1	0.84	0.23	60,60,60,60	0
56	MG	1H	3197	1/1	0.84	0.29	66,66,66,66	0
56	MG	1H	3271	1/1	0.84	0.30	65,65,65,65	0
56	MG	1G	1636	1/1	0.84	0.16	84,84,84,84	0
56	MG	14	3173	1/1	0.84	0.16	62,62,62,62	0
56	MG	1H	3057	1/1	0.84	0.36	57,57,57,57	0
56	MG	1H	3221	1/1	0.84	0.24	80,80,80,80	0
56	MG	1H	3125	1/1	0.84	0.20	49,49,49,49	0
56	MG	16	205	1/1	0.84	0.30	77,77,77,77	0
56	MG	14	3195	1/1	0.84	0.25	65,65,65,65	0
56	MG	14	3142	1/1	0.84	0.21	59,59,59,59	0
56	MG	1H	3280	1/1	0.84	0.20	59,59,59,59	0
56	MG	1H	3312	1/1	0.85	0.47	78,78,78,78	0
56	MG	14	3220	1/1	0.85	0.22	82,82,82,82	0
56	MG	14	3223	1/1	0.85	0.24	62,62,62,62	0
56	MG	1H	3177	1/1	0.85	0.30	55,55,55,55	0
56	MG	14	3069	1/1	0.85	0.27	78,78,78,78	0
56	MG	1H	3117	1/1	0.85	0.31	80,80,80,80	0
56	MG	14	3136	1/1	0.85	0.28	73,73,73,73	0
56	MG	1H	3316	1/1	0.85	0.15	74,74,74,74	0
56	MG	13	1728	1/1	0.85	0.11	85,85,85,85	0
56	MG	1H	3435	1/1	0.85	0.05	90,90,90,90	0
56	MG	1H	3128	1/1	0.85	0.28	57,57,57,57	0
56	MG	14	3145	1/1	0.85	0.16	81,81,81,81	0
56	MG	14	3268	1/1	0.85	0.19	57,57,57,57	0
56	MG	14	3115	1/1	0.85	0.36	88,88,88,88	0
56	MG	1H	3077	1/1	0.85	0.23	73,73,73,73	0
56	MG	1H	3153	1/1	0.85	0.33	64,64,64,64	0
56	MG	1G	1609	1/1	0.85	0.35	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	14	3154	1/1	0.85	0.12	82,82,82,82	0
56	MG	2L	103	1/1	0.85	0.23	89,89,89,89	0
56	MG	14	3285	1/1	0.85	0.40	74,74,74,74	0
56	MG	13	1716	1/1	0.86	0.14	92,92,92,92	0
56	MG	1H	3199	1/1	0.86	0.31	57,57,57,57	0
56	MG	1H	3438	1/1	0.86	0.12	54,54,54,54	0
56	MG	1H	3156	1/1	0.86	0.11	54,54,54,54	0
56	MG	13	1628	1/1	0.86	0.13	48,48,48,48	0
56	MG	1H	3276	1/1	0.86	0.34	55,55,55,55	0
56	MG	14	3042	1/1	0.86	0.16	72,72,72,72	0
56	MG	1G	1643	1/1	0.86	0.37	88,88,88,88	0
56	MG	14	3292	1/1	0.86	0.24	82,82,82,82	0
56	MG	13	1643	1/1	0.86	0.35	80,80,80,80	0
56	MG	13	1730	1/1	0.86	0.11	86,86,86,86	0
56	MG	13	1733	1/1	0.86	0.06	73,73,73,73	0
56	MG	13	1644	1/1	0.86	0.34	76,76,76,76	0
56	MG	13	1711	1/1	0.86	0.21	79,79,79,79	0
56	MG	14	3110	1/1	0.86	0.19	64,64,64,64	0
56	MG	14	3258	1/1	0.86	0.14	73,73,73,73	0
56	MG	13	1686	1/1	0.86	0.18	69,69,69,69	0
56	MG	3I	201	1/1	0.86	0.07	58,58,58,58	0
56	MG	14	3372	1/1	0.86	0.22	84,84,84,84	0
56	MG	16	208	1/1	0.86	0.33	66,66,66,66	0
56	MG	1H	3263	1/1	0.86	0.32	76,76,76,76	0
56	MG	14	3389	1/1	0.86	0.18	97,97,97,97	0
56	MG	1H	3194	1/1	0.86	0.24	62,62,62,62	0
56	MG	1G	1668	1/1	0.86	0.26	82,82,82,82	0
56	MG	85	201	1/1	0.86	0.22	69,69,69,69	0
56	MG	14	3129	1/1	0.86	0.24	63,63,63,63	0
56	MG	14	3130	1/1	0.86	0.26	71,71,71,71	0
56	MG	1H	3269	1/1	0.86	0.36	62,62,62,62	0
56	MG	1H	3122	1/1	0.87	0.24	49,49,49,49	0
56	MG	14	3274	1/1	0.87	0.26	82,82,82,82	0
56	MG	13	1633	1/1	0.87	0.38	77,77,77,77	0
56	MG	14	3276	1/1	0.87	0.15	76,76,76,76	0
56	MG	1H	3463	1/1	0.87	0.18	101,101,101,101	0
56	MG	14	3116	1/1	0.87	0.25	56,56,56,56	0
56	MG	1H	3464	1/1	0.87	0.08	92,92,92,92	0
56	MG	1H	3029	1/1	0.87	0.29	73,73,73,73	0
56	MG	1H	3468	1/1	0.87	0.14	71,71,71,71	0
56	MG	1H	3475	1/1	0.87	0.10	79,79,79,79	0
56	MG	13	1668	1/1	0.87	0.22	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	16	202	1/1	0.87	0.38	59,59,59,59	0
56	MG	1H	3078	1/1	0.87	0.14	63,63,63,63	0
56	MG	14	3207	1/1	0.87	0.59	81,81,81,81	0
56	MG	14	3208	1/1	0.87	0.15	68,68,68,68	0
56	MG	1H	3173	1/1	0.87	0.32	52,52,52,52	0
56	MG	1G	1669	1/1	0.87	0.20	88,88,88,88	0
56	MG	1H	3213	1/1	0.87	0.32	77,77,77,77	0
56	MG	1H	3401	1/1	0.87	0.07	64,64,64,64	0
56	MG	1G	1677	1/1	0.87	0.19	104,104,104,104	0
56	MG	11	302	1/1	0.87	0.19	42,42,42,42	0
56	MG	14	3345	1/1	0.87	0.15	81,81,81,81	0
56	MG	1H	3096	1/1	0.87	0.23	54,54,54,54	0
56	MG	13	1698	1/1	0.87	0.15	74,74,74,74	0
56	MG	13	1684	1/1	0.87	0.30	62,62,62,62	0
56	MG	1H	3150	1/1	0.87	0.20	59,59,59,59	0
56	MG	1H	3301	1/1	0.87	0.28	79,79,79,79	0
56	MG	1H	3272	1/1	0.87	0.31	69,69,69,69	0
56	MG	1H	3152	1/1	0.87	0.21	75,75,75,75	0
56	MG	14	3089	1/1	0.87	0.38	79,79,79,79	0
56	MG	1H	3106	1/1	0.87	0.17	58,58,58,58	0
56	MG	1H	3458	1/1	0.87	0.15	84,84,84,84	0
56	MG	13	1602	1/1	0.87	0.14	66,66,66,66	0
56	MG	14	3271	1/1	0.87	0.14	87,87,87,87	0
56	MG	13	1705	1/1	0.88	0.36	94,94,94,94	0
56	MG	14	3172	1/1	0.88	0.35	69,69,69,69	0
56	MG	1H	3255	1/1	0.88	0.26	76,76,76,76	0
56	MG	14	3175	1/1	0.88	0.15	56,56,56,56	0
56	MG	1H	3443	1/1	0.88	0.06	58,58,58,58	0
56	MG	1H	3444	1/1	0.88	0.13	59,59,59,59	0
56	MG	14	3125	1/1	0.88	0.19	53,53,53,53	0
56	MG	41	201	1/1	0.88	0.37	82,82,82,82	0
56	MG	1H	3344	1/1	0.88	0.52	87,87,87,87	0
56	MG	1G	1608	1/1	0.88	0.25	88,88,88,88	0
56	MG	1H	3148	1/1	0.88	0.29	82,82,82,82	0
56	MG	1G	1685	1/1	0.88	0.08	111,111,111,111	0
56	MG	1H	3353	1/1	0.88	0.24	73,73,73,73	0
56	MG	1H	3261	1/1	0.88	0.15	61,61,61,61	0
56	MG	13	1653	1/1	0.88	0.09	75,75,75,75	0
56	MG	14	3300	1/1	0.88	0.27	109,109,109,109	0
56	MG	1H	3227	1/1	0.88	0.49	74,74,74,74	0
56	MG	14	3034	1/1	0.88	0.10	86,86,86,86	0
56	MG	13	1641	1/1	0.88	0.16	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1H	3384	1/1	0.88	0.07	57,57,57,57	0
56	MG	14	3241	1/1	0.88	0.26	91,91,91,91	0
56	MG	1H	3174	1/1	0.88	0.27	63,63,63,63	0
56	MG	13	1717	1/1	0.88	0.23	74,74,74,74	0
56	MG	14	3367	1/1	0.88	0.13	70,70,70,70	0
56	MG	13	1660	1/1	0.88	0.13	91,91,91,91	0
56	MG	14	3256	1/1	0.88	0.30	66,66,66,66	0
56	MG	1H	3110	1/1	0.88	0.37	57,57,57,57	0
56	MG	14	3095	1/1	0.88	0.20	56,56,56,56	0
56	MG	14	3381	1/1	0.88	0.09	62,62,62,62	0
56	MG	14	3155	1/1	0.88	0.24	75,75,75,75	0
56	MG	1J	203	1/1	0.88	0.29	81,81,81,81	0
56	MG	16	201	1/1	0.88	0.24	78,78,78,78	0
56	MG	14	3102	1/1	0.88	0.15	49,49,49,49	0
56	MG	1H	3186	1/1	0.88	0.20	83,83,83,83	0
56	MG	1H	3189	1/1	0.88	0.34	63,63,63,63	0
56	MG	16	204	1/1	0.88	0.19	86,86,86,86	0
56	MG	1H	3042	1/1	0.88	0.30	74,74,74,74	0
56	MG	14	3059	1/1	0.89	0.23	52,52,52,52	0
56	MG	1H	3113	1/1	0.89	0.13	41,41,41,41	0
56	MG	1G	1610	1/1	0.89	0.37	77,77,77,77	0
56	MG	13	1666	1/1	0.89	0.12	58,58,58,58	0
56	MG	1H	3234	1/1	0.89	0.22	75,75,75,75	0
56	MG	1H	3192	1/1	0.89	0.19	72,72,72,72	0
56	MG	1G	1633	1/1	0.89	0.25	76,76,76,76	0
56	MG	1H	3446	1/1	0.89	0.15	78,78,78,78	0
56	MG	1H	3336	1/1	0.89	0.26	79,79,79,79	0
56	MG	1H	3154	1/1	0.89	0.34	74,74,74,74	0
56	MG	1H	3454	1/1	0.89	0.12	98,98,98,98	0
56	MG	14	3177	1/1	0.89	0.19	72,72,72,72	0
56	MG	13	1631	1/1	0.89	0.28	73,73,73,73	0
56	MG	1H	3159	1/1	0.89	0.12	71,71,71,71	0
56	MG	1H	3161	1/1	0.89	0.26	55,55,55,55	0
56	MG	13	1609	1/1	0.89	0.35	86,86,86,86	0
56	MG	14	3119	1/1	0.89	0.22	69,69,69,69	0
56	MG	1H	3165	1/1	0.89	0.23	61,61,61,61	0
56	MG	1H	3167	1/1	0.89	0.15	67,67,67,67	0
56	MG	1H	3257	1/1	0.89	0.42	85,85,85,85	0
56	MG	13	1719	1/1	0.89	0.24	89,89,89,89	0
56	MG	1H	3470	1/1	0.89	0.12	106,106,106,106	0
56	MG	14	3306	1/1	0.89	0.15	69,69,69,69	0
56	MG	1H	3364	1/1	0.89	0.09	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
56	MG	14	3341	1/1	0.89	0.11	48,48,48,48	0
56	MG	1H	3091	1/1	0.89	0.21	55,55,55,55	0
56	MG	1H	3210	1/1	0.89	0.43	77,77,77,77	0
56	MG	1H	3372	1/1	0.89	0.08	37,37,37,37	0
56	MG	1H	3137	1/1	0.89	0.20	49,49,49,49	0
56	MG	13	1747	1/1	0.89	0.21	64,64,64,64	0
56	MG	14	3243	1/1	0.89	0.22	72,72,72,72	0
56	MG	14	3138	1/1	0.89	0.33	79,79,79,79	0
56	MG	1H	3054	1/1	0.89	0.33	59,59,59,59	0
56	MG	14	3379	1/1	0.89	0.12	72,72,72,72	0
56	MG	1H	3394	1/1	0.89	0.10	57,57,57,57	0
56	MG	14	3388	1/1	0.89	0.06	88,88,88,88	0
56	MG	13	1693	1/1	0.89	0.15	65,65,65,65	0
56	MG	1J	202	1/1	0.89	0.34	73,73,73,73	0
56	MG	1H	3406	1/1	0.89	0.10	45,45,45,45	0
56	MG	2L	104	1/1	0.89	0.14	65,65,65,65	0
56	MG	1H	3058	1/1	0.89	0.17	61,61,61,61	0
56	MG	14	3263	1/1	0.89	0.32	71,71,71,71	0
56	MG	1H	3109	1/1	0.89	0.15	60,60,60,60	0
56	MG	1H	3224	1/1	0.89	0.22	61,61,61,61	0
56	MG	13	1642	1/1	0.89	0.29	72,72,72,72	0
56	MG	13	1700	1/1	0.90	0.26	71,71,71,71	0
56	MG	1H	3245	1/1	0.90	0.12	58,58,58,58	0
56	MG	13	1651	1/1	0.90	0.20	87,87,87,87	0
56	MG	1H	3452	1/1	0.90	0.13	49,49,49,49	0
56	MG	14	3088	1/1	0.90	0.43	71,71,71,71	0
56	MG	14	3164	1/1	0.90	0.16	64,64,64,64	0
56	MG	1G	1628	1/1	0.90	0.22	77,77,77,77	0
56	MG	1H	3343	1/1	0.90	0.43	75,75,75,75	0
56	MG	14	3278	1/1	0.90	0.19	98,98,98,98	0
56	MG	13	1689	1/1	0.90	0.38	120,120,120,120	0
56	MG	2K	105	1/1	0.90	0.35	78,78,78,78	0
56	MG	1H	3169	1/1	0.90	0.35	62,62,62,62	0
56	MG	14	3097	1/1	0.90	0.21	59,59,59,59	0
56	MG	1H	3081	1/1	0.90	0.22	61,61,61,61	0
56	MG	13	1690	1/1	0.90	0.25	113,113,113,113	0
56	MG	1H	3142	1/1	0.90	0.14	39,39,39,39	0
56	MG	14	3288	1/1	0.90	0.16	74,74,74,74	0
56	MG	13	1634	1/1	0.90	0.25	74,74,74,74	0
56	MG	1H	3218	1/1	0.90	0.14	61,61,61,61	0
56	MG	14	3291	1/1	0.90	0.26	55,55,55,55	0
56	MG	1H	3033	1/1	0.90	0.15	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	14	3192	1/1	0.90	0.35	80,80,80,80	0
56	MG	1H	3379	1/1	0.90	0.10	46,46,46,46	0
56	MG	14	3299	1/1	0.90	0.32	70,70,70,70	0
56	MG	1H	3147	1/1	0.90	0.47	68,68,68,68	0
56	MG	1G	1662	1/1	0.90	0.19	73,73,73,73	0
56	MG	1G	1663	1/1	0.90	0.20	75,75,75,75	0
56	MG	14	3210	1/1	0.90	0.26	71,71,71,71	0
56	MG	14	3213	1/1	0.90	0.27	85,85,85,85	0
56	MG	14	3323	1/1	0.90	0.06	55,55,55,55	0
56	MG	13	1665	1/1	0.90	0.24	67,67,67,67	0
56	MG	14	3339	1/1	0.90	0.17	94,94,94,94	0
56	MG	1H	3050	1/1	0.90	0.28	36,36,36,36	0
56	MG	13	1694	1/1	0.90	0.20	82,82,82,82	0
56	MG	1H	3325	1/1	0.90	0.39	96,96,96,96	0
56	MG	13	1740	1/1	0.90	0.12	88,88,88,88	0
56	MG	13	1648	1/1	0.90	0.19	69,69,69,69	0
56	MG	1G	1671	1/1	0.90	0.09	73,73,73,73	0
56	MG	14	3228	1/1	0.90	0.46	98,98,98,98	0
56	MG	14	3233	1/1	0.90	0.11	61,61,61,61	0
56	MG	16	206	1/1	0.90	0.40	60,60,60,60	0
56	MG	13	1659	1/1	0.90	0.21	66,66,66,66	0
56	MG	14	3247	1/1	0.90	0.11	67,67,67,67	0
56	MG	14	3387	1/1	0.90	0.09	97,97,97,97	0
56	MG	1H	3158	1/1	0.90	0.15	70,70,70,70	0
56	MG	1H	3425	1/1	0.90	0.07	67,67,67,67	0
56	MG	1H	3426	1/1	0.90	0.13	59,59,59,59	0
56	MG	1H	3118	1/1	0.90	0.26	52,52,52,52	0
56	MG	1J	205	1/1	0.90	0.10	82,82,82,82	0
56	MG	L8	101	1/1	0.90	0.24	70,70,70,70	0
56	MG	14	3259	1/1	0.90	0.23	82,82,82,82	0
56	MG	14	3018	1/1	0.90	0.13	68,68,68,68	0
56	MG	1H	3285	1/1	0.90	0.21	61,61,61,61	0
56	MG	13	1646	1/1	0.90	0.18	95,95,95,95	0
56	MG	1H	3241	1/1	0.90	0.26	65,65,65,65	0
56	MG	1H	3034	1/1	0.91	0.12	51,51,51,51	0
56	MG	1H	3333	1/1	0.91	0.46	93,93,93,93	0
56	MG	14	3296	1/1	0.91	0.15	74,74,74,74	0
56	MG	1H	3140	1/1	0.91	0.45	63,63,63,63	0
56	MG	1H	3450	1/1	0.91	0.05	67,67,67,67	0
56	MG	1H	3335	1/1	0.91	0.26	87,87,87,87	0
56	MG	1H	3284	1/1	0.91	0.18	62,62,62,62	0
56	MG	1H	3045	1/1	0.91	0.35	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1H	3226	1/1	0.91	0.27	69,69,69,69	0
56	MG	1H	3151	1/1	0.91	0.20	66,66,66,66	0
56	MG	14	3184	1/1	0.91	0.15	53,53,53,53	0
56	MG	14	3185	1/1	0.91	0.11	52,52,52,52	0
56	MG	1H	3246	1/1	0.91	0.26	79,79,79,79	0
56	MG	14	3340	1/1	0.91	0.10	59,59,59,59	0
56	MG	1H	3215	1/1	0.91	0.22	85,85,85,85	0
56	MG	1H	3231	1/1	0.91	0.14	31,31,31,31	0
56	MG	14	3140	1/1	0.91	0.31	92,92,92,92	0
56	MG	14	3348	1/1	0.91	0.09	54,54,54,54	0
56	MG	14	3350	1/1	0.91	0.11	83,83,83,83	0
56	MG	14	3353	1/1	0.91	0.23	83,83,83,83	0
56	MG	14	3359	1/1	0.91	0.09	87,87,87,87	0
56	MG	14	3269	1/1	0.91	0.19	59,59,59,59	0
56	MG	14	3270	1/1	0.91	0.11	56,56,56,56	0
56	MG	14	3196	1/1	0.91	0.20	90,90,90,90	0
56	MG	1H	3346	1/1	0.91	0.21	73,73,73,73	0
56	MG	14	3375	1/1	0.91	0.06	91,91,91,91	0
56	MG	14	3273	1/1	0.91	0.09	73,73,73,73	0
56	MG	1H	3092	1/1	0.91	0.11	50,50,50,50	0
56	MG	1H	3424	1/1	0.91	0.14	58,58,58,58	0
56	MG	1H	3254	1/1	0.91	0.19	77,77,77,77	0
56	MG	1H	3469	1/1	0.91	0.10	90,90,90,90	0
56	MG	1H	3356	1/1	0.91	0.14	79,79,79,79	0
56	MG	1G	1625	1/1	0.91	0.38	84,84,84,84	0
56	MG	14	3113	1/1	0.91	0.13	42,42,42,42	0
56	MG	1G	1626	1/1	0.91	0.27	79,79,79,79	0
56	MG	1G	1680	1/1	0.91	0.27	94,94,94,94	0
56	MG	1H	3145	1/1	0.91	0.25	49,49,49,49	0
56	MG	14	3160	1/1	0.91	0.12	73,73,73,73	0
56	MG	1H	3103	1/1	0.91	0.16	30,30,30,30	0
56	MG	1H	3478	1/1	0.91	0.10	102,102,102,102	0
56	MG	14	3238	1/1	0.91	0.23	85,85,85,85	0
56	MG	1H	3308	1/1	0.91	0.22	65,65,65,65	0
56	MG	13	1736	1/1	0.92	0.07	73,73,73,73	0
56	MG	14	3257	1/1	0.92	0.18	79,79,79,79	0
56	MG	1H	3270	1/1	0.92	0.30	94,94,94,94	0
56	MG	13	1699	1/1	0.92	0.20	75,75,75,75	0
56	MG	1H	3016	1/1	0.92	0.22	45,45,45,45	0
56	MG	1G	1644	1/1	0.92	0.18	70,70,70,70	0
56	MG	1H	3028	1/1	0.92	0.27	67,67,67,67	0
56	MG	1H	3105	1/1	0.92	0.15	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1H	3180	1/1	0.92	0.18	59,59,59,59	0
56	MG	1H	3183	1/1	0.92	0.38	66,66,66,66	0
56	MG	1H	3278	1/1	0.92	0.25	76,76,76,76	0
56	MG	1H	3279	1/1	0.92	0.16	73,73,73,73	0
56	MG	1H	3337	1/1	0.92	0.18	94,94,94,94	0
56	MG	1H	3066	1/1	0.92	0.17	67,67,67,67	0
56	MG	13	1677	1/1	0.92	0.17	71,71,71,71	0
56	MG	1H	3188	1/1	0.92	0.15	60,60,60,60	0
56	MG	13	1742	1/1	0.92	0.10	115,115,115,115	0
56	MG	1G	1666	1/1	0.92	0.16	74,74,74,74	0
56	MG	1H	3465	1/1	0.92	0.10	94,94,94,94	0
56	MG	1H	3236	1/1	0.92	0.18	68,68,68,68	0
56	MG	1H	3237	1/1	0.92	0.15	57,57,57,57	0
56	MG	1H	3289	1/1	0.92	0.32	62,62,62,62	0
56	MG	14	3156	1/1	0.92	0.18	60,60,60,60	0
56	MG	1H	3347	1/1	0.92	0.56	85,85,85,85	0
56	MG	1H	3474	1/1	0.92	0.11	64,64,64,64	0
56	MG	1H	3112	1/1	0.92	0.24	66,66,66,66	0
56	MG	1H	3070	1/1	0.92	0.16	46,46,46,46	0
56	MG	1G	1683	1/1	0.92	0.10	104,104,104,104	0
56	MG	1H	3354	1/1	0.92	0.29	89,89,89,89	0
56	MG	14	3168	1/1	0.92	0.24	71,71,71,71	0
56	MG	1H	3479	1/1	0.92	0.15	90,90,90,90	0
56	MG	13	1610	1/1	0.92	0.29	72,72,72,72	0
56	MG	1H	3198	1/1	0.92	0.43	82,82,82,82	0
56	MG	1H	3155	1/1	0.92	0.15	74,74,74,74	0
56	MG	13	1746	1/1	0.92	0.18	72,72,72,72	0
56	MG	13	1672	1/1	0.92	0.07	91,91,91,91	0
56	MG	14	3023	1/1	0.92	0.17	40,40,40,40	0
56	MG	14	3301	1/1	0.92	0.27	86,86,86,86	0
56	MG	14	3029	1/1	0.92	0.12	80,80,80,80	0
56	MG	1H	3304	1/1	0.92	0.29	69,69,69,69	0
56	MG	13	1669	1/1	0.92	0.19	76,76,76,76	0
56	MG	1H	3306	1/1	0.92	0.27	86,86,86,86	0
56	MG	14	3307	1/1	0.92	0.17	60,60,60,60	0
56	MG	14	3314	1/1	0.92	0.12	55,55,55,55	0
56	MG	14	3051	1/1	0.92	0.14	78,78,78,78	0
56	MG	14	3054	1/1	0.92	0.35	74,74,74,74	0
56	MG	16	210	1/1	0.92	0.28	89,89,89,89	0
56	MG	14	3067	1/1	0.92	0.18	48,48,48,48	0
56	MG	16	212	1/1	0.92	0.14	73,73,73,73	0
56	MG	14	3076	1/1	0.92	0.29	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	14	3205	1/1	0.92	0.25	71,71,71,71	0
56	MG	1H	3204	1/1	0.92	0.25	59,59,59,59	0
56	MG	1H	3310	1/1	0.92	0.28	69,69,69,69	0
56	MG	1H	3083	1/1	0.92	0.12	69,69,69,69	0
56	MG	78	201	1/1	0.92	0.18	59,59,59,59	0
56	MG	88	201	1/1	0.92	0.20	78,78,78,78	0
56	MG	1H	3085	1/1	0.92	0.21	66,66,66,66	0
56	MG	1H	3134	1/1	0.92	0.12	61,61,61,61	0
56	MG	1H	3135	1/1	0.92	0.23	54,54,54,54	0
56	MG	14	3373	1/1	0.92	0.11	69,69,69,69	0
56	MG	1H	3088	1/1	0.92	0.33	73,73,73,73	0
56	MG	1H	3317	1/1	0.92	0.18	61,61,61,61	0
56	MG	14	3224	1/1	0.92	0.48	48,48,48,48	0
56	MG	1H	3318	1/1	0.92	0.15	56,56,56,56	0
56	MG	1H	3089	1/1	0.92	0.26	45,45,45,45	0
56	MG	14	3385	1/1	0.92	0.20	72,72,72,72	0
56	MG	1H	3320	1/1	0.92	0.18	91,91,91,91	0
56	MG	14	3234	1/1	0.92	0.21	68,68,68,68	0
56	MG	13	1674	1/1	0.92	0.19	94,94,94,94	0
56	MG	14	3240	1/1	0.92	0.10	77,77,77,77	0
56	MG	1H	3051	1/1	0.92	0.15	65,65,65,65	0
56	MG	1J	204	1/1	0.92	0.12	95,95,95,95	0
56	MG	1H	3265	1/1	0.92	0.84	54,54,54,54	0
56	MG	14	3246	1/1	0.92	0.12	66,66,66,66	0
56	MG	1G	1629	1/1	0.92	0.24	79,79,79,79	0
56	MG	1H	3437	1/1	0.92	0.11	59,59,59,59	0
56	MG	1G	1634	1/1	0.92	0.33	76,76,76,76	0
56	MG	L5	101	1/1	0.92	0.21	73,73,73,73	0
56	MG	14	3252	1/1	0.92	0.38	96,96,96,96	0
56	MG	14	3124	1/1	0.92	0.22	63,63,63,63	0
56	MG	1H	3422	1/1	0.93	0.09	54,54,54,54	0
56	MG	14	3092	1/1	0.93	0.28	41,41,41,41	0
56	MG	1H	3212	1/1	0.93	0.15	63,63,63,63	0
56	MG	14	3176	1/1	0.93	0.35	81,81,81,81	0
56	MG	13	1636	1/1	0.93	0.18	66,66,66,66	0
56	MG	14	3279	1/1	0.93	0.11	60,60,60,60	0
56	MG	13	1613	1/1	0.93	0.27	71,71,71,71	0
56	MG	14	3281	1/1	0.93	0.22	73,73,73,73	0
56	MG	1G	1657	1/1	0.93	0.17	126,126,126,126	0
56	MG	1H	3429	1/1	0.93	0.08	40,40,40,40	0
56	MG	1H	3247	1/1	0.93	0.24	64,64,64,64	0
56	MG	14	3186	1/1	0.93	0.28	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
56	MG	1H	3434	1/1	0.93	0.08	75,75,75,75	0
56	MG	1H	3216	1/1	0.93	0.24	67,67,67,67	0
56	MG	1H	3348	1/1	0.93	0.53	80,80,80,80	0
56	MG	14	3193	1/1	0.93	0.14	59,59,59,59	0
56	MG	13	1691	1/1	0.93	0.12	64,64,64,64	0
56	MG	21	302	1/1	0.93	0.32	66,66,66,66	0
56	MG	14	3197	1/1	0.93	0.28	89,89,89,89	0
56	MG	14	3198	1/1	0.93	0.25	78,78,78,78	0
56	MG	1H	3350	1/1	0.93	0.08	67,67,67,67	0
56	MG	14	3297	1/1	0.93	0.08	74,74,74,74	0
56	MG	14	3201	1/1	0.93	0.25	72,72,72,72	0
56	MG	1H	3351	1/1	0.93	0.25	70,70,70,70	0
56	MG	14	3120	1/1	0.93	0.28	75,75,75,75	0
56	MG	1H	3131	1/1	0.93	0.28	67,67,67,67	0
56	MG	1H	3157	1/1	0.93	0.37	72,72,72,72	0
56	MG	1G	1672	1/1	0.93	0.10	78,78,78,78	0
56	MG	13	1721	1/1	0.93	0.14	90,90,90,90	0
56	MG	13	1722	1/1	0.93	0.11	76,76,76,76	0
56	MG	1H	3097	1/1	0.93	0.15	67,67,67,67	0
56	MG	1G	1681	1/1	0.93	0.18	110,110,110,110	0
56	MG	14	3131	1/1	0.93	0.17	70,70,70,70	0
56	MG	1H	3360	1/1	0.93	0.32	73,73,73,73	0
56	MG	1H	3361	1/1	0.93	0.21	53,53,53,53	0
56	MG	1H	3065	1/1	0.93	0.20	54,54,54,54	0
56	MG	1H	3327	1/1	0.93	0.47	79,79,79,79	0
56	MG	14	3229	1/1	0.93	0.14	65,65,65,65	0
56	MG	14	3231	1/1	0.93	0.22	74,74,74,74	0
56	MG	1H	3032	1/1	0.93	0.30	78,78,78,78	0
56	MG	1G	1624	1/1	0.93	0.18	63,63,63,63	0
56	MG	14	3352	1/1	0.93	0.08	84,84,84,84	0
56	MG	14	3011	1/1	0.93	0.18	43,43,43,43	0
56	MG	14	3017	1/1	0.93	0.17	49,49,49,49	0
56	MG	14	3363	1/1	0.93	0.07	74,74,74,74	0
56	MG	14	3141	1/1	0.93	0.11	76,76,76,76	0
56	MG	13	1682	1/1	0.93	0.11	86,86,86,86	0
56	MG	13	1713	1/1	0.93	0.16	70,70,70,70	0
56	MG	1G	1627	1/1	0.93	0.18	57,57,57,57	0
56	MG	14	3147	1/1	0.93	0.18	78,78,78,78	0
56	MG	14	3026	1/1	0.93	0.13	65,65,65,65	0
56	MG	14	3251	1/1	0.93	0.15	48,48,48,48	0
56	MG	1H	3037	1/1	0.93	0.21	62,62,62,62	0
56	MG	1H	3039	1/1	0.93	0.19	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
56	MG	1G	1631	1/1	0.93	0.21	86,86,86,86	0
56	MG	1H	3388	1/1	0.93	0.14	64,64,64,64	0
56	MG	1H	3390	1/1	0.93	0.10	66,66,66,66	0
56	MG	1H	3041	1/1	0.93	0.28	87,87,87,87	0
56	MG	14	3058	1/1	0.93	0.19	61,61,61,61	0
56	MG	14	3391	1/1	0.93	0.71	58,58,58,58	0
56	MG	13	1671	1/1	0.93	0.11	98,98,98,98	0
56	MG	1H	3307	1/1	0.93	0.21	80,80,80,80	0
56	MG	1K	101	1/1	0.93	0.19	75,75,75,75	0
56	MG	14	3072	1/1	0.93	0.15	45,45,45,45	0
56	MG	1J	206	1/1	0.93	0.13	73,73,73,73	0
56	MG	14	3266	1/1	0.93	0.21	68,68,68,68	0
56	MG	14	3166	1/1	0.93	0.21	70,70,70,70	0
56	MG	35	201	1/1	0.93	0.20	60,60,60,60	0
56	MG	1H	3047	1/1	0.93	0.21	70,70,70,70	0
56	MG	13	1706	1/1	0.93	0.17	79,79,79,79	0
56	MG	14	3087	1/1	0.93	0.33	62,62,62,62	0
56	MG	1G	1647	1/1	0.93	0.16	102,102,102,102	0
56	MG	1H	3086	1/1	0.93	0.29	66,66,66,66	0
56	MG	1H	3062	1/1	0.94	0.36	65,65,65,65	0
56	MG	13	1681	1/1	0.94	0.23	81,81,81,81	0
56	MG	14	3037	1/1	0.94	0.16	61,61,61,61	0
56	MG	1H	3179	1/1	0.94	0.25	55,55,55,55	0
56	MG	14	3045	1/1	0.94	0.32	57,57,57,57	0
56	MG	1H	3220	1/1	0.94	0.11	50,50,50,50	0
56	MG	13	1709	1/1	0.94	0.22	89,89,89,89	0
56	MG	1H	3181	1/1	0.94	0.14	54,54,54,54	0
56	MG	13	1607	1/1	0.94	0.18	77,77,77,77	0
56	MG	14	3174	1/1	0.94	0.18	66,66,66,66	0
56	MG	1H	3457	1/1	0.94	0.06	92,92,92,92	0
56	MG	1H	3355	1/1	0.94	0.22	60,60,60,60	0
56	MG	1G	1632	1/1	0.94	0.20	70,70,70,70	0
56	MG	1H	3315	1/1	0.94	0.28	66,66,66,66	0
56	MG	1H	3460	1/1	0.94	0.13	55,55,55,55	0
56	MG	1H	3038	1/1	0.94	0.13	55,55,55,55	0
56	MG	1H	3069	1/1	0.94	0.09	44,44,44,44	0
56	MG	1H	3187	1/1	0.94	0.30	56,56,56,56	0
56	MG	13	1611	1/1	0.94	0.30	70,70,70,70	0
56	MG	1H	3229	1/1	0.94	0.33	95,95,95,95	0
56	MG	13	1729	1/1	0.94	0.06	97,97,97,97	0
56	MG	1H	3190	1/1	0.94	0.14	67,67,67,67	0
56	MG	2K	101	1/1	0.94	0.34	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
56	MG	1H	3373	1/1	0.94	0.15	45,45,45,45	0
56	MG	1H	3471	1/1	0.94	0.09	68,68,68,68	0
56	MG	1H	3377	1/1	0.94	0.07	44,44,44,44	0
56	MG	14	3106	1/1	0.94	0.13	50,50,50,50	0
56	MG	14	3107	1/1	0.94	0.24	40,40,40,40	0
56	MG	1H	3324	1/1	0.94	0.26	87,87,87,87	0
56	MG	1H	3043	1/1	0.94	0.45	84,84,84,84	0
56	MG	1G	1658	1/1	0.94	0.17	79,79,79,79	0
56	MG	14	3304	1/1	0.94	0.10	68,68,68,68	0
56	MG	14	3209	1/1	0.94	0.16	74,74,74,74	0
56	MG	13	1612	1/1	0.94	0.16	63,63,63,63	0
56	MG	13	1714	1/1	0.94	0.34	99,99,99,99	0
56	MG	14	3308	1/1	0.94	0.12	46,46,46,46	0
56	MG	14	3310	1/1	0.94	0.09	50,50,50,50	0
56	MG	1H	3283	1/1	0.94	0.31	74,74,74,74	0
56	MG	14	3315	1/1	0.94	0.13	68,68,68,68	0
56	MG	14	3322	1/1	0.94	0.10	77,77,77,77	0
56	MG	14	3215	1/1	0.94	0.12	50,50,50,50	0
56	MG	14	3327	1/1	0.94	0.10	58,58,58,58	0
56	MG	1H	3329	1/1	0.94	0.39	73,73,73,73	0
56	MG	14	3338	1/1	0.94	0.13	53,53,53,53	0
56	MG	1H	3048	1/1	0.94	0.24	48,48,48,48	0
56	MG	1H	3397	1/1	0.94	0.11	66,66,66,66	0
56	MG	1H	3399	1/1	0.94	0.08	47,47,47,47	0
56	MG	2K	106	1/1	0.94	0.06	84,84,84,84	0
56	MG	1H	3130	1/1	0.94	0.24	54,54,54,54	0
56	MG	14	3346	1/1	0.94	0.12	59,59,59,59	0
56	MG	14	3225	1/1	0.94	0.20	78,78,78,78	0
56	MG	14	3349	1/1	0.94	0.20	63,63,63,63	0
56	MG	13	1655	1/1	0.94	0.13	73,73,73,73	0
56	MG	1H	3244	1/1	0.94	0.17	39,39,39,39	0
56	MG	1H	3420	1/1	0.94	0.16	48,48,48,48	0
56	MG	14	3354	1/1	0.94	0.10	71,71,71,71	0
56	MG	1G	1673	1/1	0.94	0.06	74,74,74,74	0
56	MG	1G	1674	1/1	0.94	0.11	70,70,70,70	0
56	MG	1H	3292	1/1	0.94	0.21	60,60,60,60	0
56	MG	14	3237	1/1	0.94	0.13	54,54,54,54	0
56	MG	2I	301	1/1	0.94	0.15	53,53,53,53	0
56	MG	14	3239	1/1	0.94	0.16	76,76,76,76	0
56	MG	1G	1679	1/1	0.94	0.10	90,90,90,90	0
56	MG	13	1657	1/1	0.94	0.27	69,69,69,69	0
56	MG	14	3376	1/1	0.94	0.13	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	13	1632	1/1	0.94	0.18	63,63,63,63	0
56	MG	1H	3055	1/1	0.94	0.11	61,61,61,61	0
56	MG	1H	3094	1/1	0.94	0.28	41,41,41,41	0
56	MG	14	3380	1/1	0.94	0.10	93,93,93,93	0
56	MG	1H	3340	1/1	0.94	0.14	74,74,74,74	0
56	MG	14	3383	1/1	0.94	0.10	86,86,86,86	0
56	MG	I8	101	1/1	0.94	0.39	53,53,53,53	0
56	MG	1H	3095	1/1	0.94	0.41	49,49,49,49	0
56	MG	13	1718	1/1	0.94	0.20	90,90,90,90	0
56	MG	14	3146	1/1	0.94	0.29	69,69,69,69	0
56	MG	14	3390	1/1	0.94	0.15	90,90,90,90	0
56	MG	14	3255	1/1	0.94	0.14	65,65,65,65	0
56	MG	1J	201	1/1	0.94	0.16	87,87,87,87	0
56	MG	14	3002	1/1	0.94	0.18	43,43,43,43	0
56	MG	14	3008	1/1	0.94	0.21	54,54,54,54	0
56	MG	1H	3141	1/1	0.94	0.38	60,60,60,60	0
56	MG	14	3015	1/1	0.94	0.18	71,71,71,71	0
56	MG	13	1622	1/1	0.94	0.35	79,79,79,79	0
56	MG	1H	3345	1/1	0.94	0.11	60,60,60,60	0
56	MG	1G	1617	1/1	0.94	0.16	80,80,80,80	0
56	MG	14	3022	1/1	0.94	0.14	72,72,72,72	0
56	MG	14	3157	1/1	0.94	0.12	88,88,88,88	0
56	MG	1G	1619	1/1	0.94	0.19	84,84,84,84	0
56	MG	1H	3060	1/1	0.94	0.20	74,74,74,74	0
56	MG	14	3028	1/1	0.94	0.18	73,73,73,73	0
56	MG	1G	1621	1/1	0.94	0.15	81,81,81,81	0
56	MG	1H	3382	1/1	0.95	0.09	45,45,45,45	0
56	MG	1H	3383	1/1	0.95	0.18	52,52,52,52	0
56	MG	14	3074	1/1	0.95	0.17	66,66,66,66	0
56	MG	14	3075	1/1	0.95	0.15	53,53,53,53	0
56	MG	1H	3286	1/1	0.95	0.21	70,70,70,70	0
56	MG	14	3181	1/1	0.95	0.18	55,55,55,55	0
56	MG	1H	3119	1/1	0.95	0.29	52,52,52,52	0
56	MG	1H	3120	1/1	0.95	0.13	60,60,60,60	0
56	MG	1H	3121	1/1	0.95	0.18	64,64,64,64	0
56	MG	1G	1653	1/1	0.95	0.23	90,90,90,90	0
56	MG	1H	3214	1/1	0.95	0.34	68,68,68,68	0
56	MG	1H	3063	1/1	0.95	0.44	65,65,65,65	0
56	MG	1H	3396	1/1	0.95	0.18	57,57,57,57	0
56	MG	1H	3294	1/1	0.95	0.19	47,47,47,47	0
56	MG	14	3194	1/1	0.95	0.16	52,52,52,52	0
56	MG	14	3294	1/1	0.95	0.24	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1H	3064	1/1	0.95	0.26	56,56,56,56	0
56	MG	1G	1660	1/1	0.95	0.10	74,74,74,74	0
56	MG	1G	1661	1/1	0.95	0.20	73,73,73,73	0
56	MG	14	3103	1/1	0.95	0.21	67,67,67,67	0
56	MG	1H	3251	1/1	0.95	0.10	61,61,61,61	0
56	MG	1H	3253	1/1	0.95	0.15	78,78,78,78	0
56	MG	14	3204	1/1	0.95	0.19	51,51,51,51	0
56	MG	13	1635	1/1	0.95	0.12	59,59,59,59	0
56	MG	14	3206	1/1	0.95	0.15	48,48,48,48	0
56	MG	1H	3044	1/1	0.95	0.16	51,51,51,51	0
56	MG	1H	3303	1/1	0.95	0.18	65,65,65,65	0
56	MG	14	3114	1/1	0.95	0.25	44,44,44,44	0
56	MG	16	209	1/1	0.95	0.20	56,56,56,56	0
56	MG	1H	3256	1/1	0.95	0.20	57,57,57,57	0
56	MG	1H	3219	1/1	0.95	0.15	53,53,53,53	0
56	MG	13	1661	1/1	0.95	0.29	54,54,54,54	0
56	MG	5E	201	1/1	0.95	0.18	70,70,70,70	0
56	MG	1H	3262	1/1	0.95	0.39	56,56,56,56	0
56	MG	14	3326	1/1	0.95	0.14	65,65,65,65	0
56	MG	1H	3427	1/1	0.95	0.23	76,76,76,76	0
56	MG	14	3219	1/1	0.95	0.14	56,56,56,56	0
56	MG	14	3337	1/1	0.95	0.06	55,55,55,55	0
56	MG	1H	3309	1/1	0.95	0.48	98,98,98,98	0
56	MG	1H	3430	1/1	0.95	0.07	76,76,76,76	0
56	MG	1H	3132	1/1	0.95	0.21	45,45,45,45	0
56	MG	1H	3432	1/1	0.95	0.12	65,65,65,65	0
56	MG	14	3128	1/1	0.95	0.29	58,58,58,58	0
56	MG	14	3343	1/1	0.95	0.14	46,46,46,46	0
56	MG	13	1737	1/1	0.95	0.07	62,62,62,62	0
56	MG	1H	3191	1/1	0.95	0.18	75,75,75,75	0
56	MG	1G	1604	1/1	0.95	0.12	77,77,77,77	0
56	MG	1G	1606	1/1	0.95	0.25	79,79,79,79	0
56	MG	1H	3436	1/1	0.95	0.10	60,60,60,60	0
56	MG	14	3235	1/1	0.95	0.26	72,72,72,72	0
56	MG	14	3134	1/1	0.95	0.17	64,64,64,64	0
56	MG	1H	3031	1/1	0.95	0.17	71,71,71,71	0
56	MG	14	3356	1/1	0.95	0.09	72,72,72,72	0
56	MG	1H	3352	1/1	0.95	0.13	61,61,61,61	0
56	MG	1G	1611	1/1	0.95	0.13	72,72,72,72	0
56	MG	1H	3439	1/1	0.95	0.10	69,69,69,69	0
56	MG	14	3366	1/1	0.95	0.13	66,66,66,66	0
56	MG	14	3007	1/1	0.95	0.13	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	14	3244	1/1	0.95	0.15	65,65,65,65	0
56	MG	1H	3162	1/1	0.95	0.25	68,68,68,68	0
56	MG	1H	3195	1/1	0.95	0.27	65,65,65,65	0
56	MG	1H	3196	1/1	0.95	0.08	68,68,68,68	0
56	MG	1H	3073	1/1	0.95	0.27	63,63,63,63	0
56	MG	13	1723	1/1	0.95	0.08	86,86,86,86	0
56	MG	13	1726	1/1	0.95	0.13	77,77,77,77	0
56	MG	14	3253	1/1	0.95	0.30	74,74,74,74	0
56	MG	1H	3235	1/1	0.95	0.14	38,38,38,38	0
56	MG	13	1678	1/1	0.95	0.21	74,74,74,74	0
56	MG	14	3382	1/1	0.95	0.08	69,69,69,69	0
56	MG	14	3024	1/1	0.95	0.15	74,74,74,74	0
56	MG	14	3384	1/1	0.95	0.09	62,62,62,62	0
56	MG	2K	103	1/1	0.95	0.18	81,81,81,81	0
56	MG	1H	3082	1/1	0.95	0.27	70,70,70,70	0
56	MG	1H	3143	1/1	0.95	0.13	49,49,49,49	0
56	MG	1H	3369	1/1	0.95	0.12	45,45,45,45	0
56	MG	1H	3370	1/1	0.95	0.12	54,54,54,54	0
56	MG	14	3035	1/1	0.95	0.14	54,54,54,54	0
56	MG	2K	104	1/1	0.95	0.29	98,98,98,98	0
56	MG	13	1645	1/1	0.95	0.10	79,79,79,79	0
56	MG	14	3044	1/1	0.95	0.08	53,53,53,53	0
56	MG	1G	1635	1/1	0.95	0.34	98,98,98,98	0
56	MG	14	3162	1/1	0.95	0.38	56,56,56,56	0
56	MG	14	3047	1/1	0.95	0.11	60,60,60,60	0
56	MG	1H	3375	1/1	0.95	0.09	37,37,37,37	0
56	MG	1G	1638	1/1	0.95	0.16	75,75,75,75	0
56	MG	14	3056	1/1	0.95	0.18	51,51,51,51	0
56	MG	14	3057	1/1	0.95	0.16	68,68,68,68	0
56	MG	13	1624	1/1	0.95	0.28	48,48,48,48	0
56	MG	1H	3378	1/1	0.95	0.14	55,55,55,55	0
56	MG	14	3066	1/1	0.95	0.14	49,49,49,49	0
56	MG	1H	3004	1/1	0.95	0.41	47,47,47,47	0
56	MG	1H	3391	1/1	0.96	0.09	71,71,71,71	0
56	MG	14	3277	1/1	0.96	0.17	66,66,66,66	0
56	MG	1H	3392	1/1	0.96	0.12	64,64,64,64	0
56	MG	1H	3011	1/1	0.96	0.20	48,48,48,48	0
56	MG	1H	3127	1/1	0.96	0.19	52,52,52,52	0
56	MG	14	3068	1/1	0.96	0.19	69,69,69,69	0
56	MG	1G	1651	1/1	0.96	0.17	84,84,84,84	0
56	MG	1H	3012	1/1	0.96	0.34	45,45,45,45	0
56	MG	14	3179	1/1	0.96	0.28	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1H	3013	1/1	0.96	0.20	31,31,31,31	0
56	MG	1H	3481	1/1	0.96	0.12	77,77,77,77	0
56	MG	1G	1655	1/1	0.96	0.39	79,79,79,79	0
56	MG	1H	3398	1/1	0.96	0.11	55,55,55,55	0
56	MG	14	3081	1/1	0.96	0.25	52,52,52,52	0
56	MG	14	3082	1/1	0.96	0.16	67,67,67,67	0
56	MG	14	3188	1/1	0.96	0.17	56,56,56,56	0
56	MG	1H	3164	1/1	0.96	0.18	52,52,52,52	0
56	MG	1H	3015	1/1	0.96	0.22	59,59,59,59	0
56	MG	1H	3405	1/1	0.96	0.20	61,61,61,61	0
56	MG	14	3295	1/1	0.96	0.23	64,64,64,64	0
56	MG	1H	3166	1/1	0.96	0.26	72,72,72,72	0
56	MG	1H	3296	1/1	0.96	0.25	90,90,90,90	0
56	MG	1H	3297	1/1	0.96	0.33	71,71,71,71	0
56	MG	13	1695	1/1	0.96	0.21	79,79,79,79	0
56	MG	1H	3208	1/1	0.96	0.26	78,78,78,78	0
56	MG	1H	3018	1/1	0.96	0.17	52,52,52,52	0
56	MG	14	3100	1/1	0.96	0.17	63,63,63,63	0
56	MG	14	3200	1/1	0.96	0.13	66,66,66,66	0
56	MG	1H	3133	1/1	0.96	0.17	60,60,60,60	0
56	MG	14	3203	1/1	0.96	0.19	55,55,55,55	0
56	MG	1H	3027	1/1	0.96	0.22	32,32,32,32	0
56	MG	13	1683	1/1	0.96	0.14	69,69,69,69	0
56	MG	13	1732	1/1	0.96	0.12	62,62,62,62	0
56	MG	14	3309	1/1	0.96	0.11	58,58,58,58	0
56	MG	1H	3059	1/1	0.96	0.13	68,68,68,68	0
56	MG	14	3312	1/1	0.96	0.07	67,67,67,67	0
56	MG	14	3108	1/1	0.96	0.21	76,76,76,76	0
56	MG	14	3109	1/1	0.96	0.09	78,78,78,78	0
56	MG	14	3317	1/1	0.96	0.10	41,41,41,41	0
56	MG	14	3321	1/1	0.96	0.08	62,62,62,62	0
56	MG	1H	3258	1/1	0.96	0.22	63,63,63,63	0
56	MG	14	3211	1/1	0.96	0.15	67,67,67,67	0
56	MG	14	3325	1/1	0.96	0.12	63,63,63,63	0
56	MG	14	3212	1/1	0.96	0.12	65,65,65,65	0
56	MG	14	3112	1/1	0.96	0.11	65,65,65,65	0
56	MG	14	3328	1/1	0.96	0.10	62,62,62,62	0
56	MG	14	3330	1/1	0.96	0.06	48,48,48,48	0
56	MG	13	1712	1/1	0.96	0.16	77,77,77,77	0
56	MG	14	3334	1/1	0.96	0.08	79,79,79,79	0
56	MG	14	3336	1/1	0.96	0.09	52,52,52,52	0
56	MG	1H	3260	1/1	0.96	0.11	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1H	3433	1/1	0.96	0.09	83,83,83,83	0
56	MG	1H	3176	1/1	0.96	0.16	60,60,60,60	0
56	MG	13	1734	1/1	0.96	0.07	86,86,86,86	0
56	MG	1G	1603	1/1	0.96	0.12	76,76,76,76	0
56	MG	13	1650	1/1	0.96	0.16	68,68,68,68	0
56	MG	13	1603	1/1	0.96	0.15	58,58,58,58	0
56	MG	1G	1682	1/1	0.96	0.08	74,74,74,74	0
56	MG	13	1739	1/1	0.96	0.21	73,73,73,73	0
56	MG	1H	3268	1/1	0.96	0.23	46,46,46,46	0
56	MG	1H	3441	1/1	0.96	0.10	86,86,86,86	0
56	MG	1G	1687	1/1	0.96	0.10	81,81,81,81	0
56	MG	13	1614	1/1	0.96	0.19	79,79,79,79	0
56	MG	14	3232	1/1	0.96	0.29	62,62,62,62	0
56	MG	1G	1612	1/1	0.96	0.18	63,63,63,63	0
56	MG	1G	1614	1/1	0.96	0.27	72,72,72,72	0
56	MG	14	3358	1/1	0.96	0.22	77,77,77,77	0
56	MG	1G	1616	1/1	0.96	0.15	86,86,86,86	0
56	MG	14	3362	1/1	0.96	0.08	69,69,69,69	0
56	MG	14	3004	1/1	0.96	0.17	46,46,46,46	0
56	MG	1H	3363	1/1	0.96	0.23	68,68,68,68	0
56	MG	1H	3182	1/1	0.96	0.20	87,87,87,87	0
56	MG	1H	3449	1/1	0.96	0.06	72,72,72,72	0
56	MG	14	3013	1/1	0.96	0.18	54,54,54,54	0
56	MG	14	3371	1/1	0.96	0.13	56,56,56,56	0
56	MG	13	1725	1/1	0.96	0.08	62,62,62,62	0
56	MG	14	3016	1/1	0.96	0.12	54,54,54,54	0
56	MG	14	3245	1/1	0.96	0.21	70,70,70,70	0
56	MG	1H	3184	1/1	0.96	0.19	45,45,45,45	0
56	MG	13	1639	1/1	0.96	0.12	56,56,56,56	0
56	MG	14	3248	1/1	0.96	0.16	76,76,76,76	0
56	MG	1H	3040	1/1	0.96	0.14	49,49,49,49	0
56	MG	13	1619	1/1	0.96	0.26	64,64,64,64	0
56	MG	1H	3456	1/1	0.96	0.12	92,92,92,92	0
56	MG	1H	3003	1/1	0.96	0.26	35,35,35,35	0
56	MG	1H	3116	1/1	0.96	0.37	62,62,62,62	0
56	MG	1H	3376	1/1	0.96	0.08	36,36,36,36	0
56	MG	1H	3074	1/1	0.96	0.28	70,70,70,70	0
56	MG	14	3386	1/1	0.96	0.22	60,60,60,60	0
56	MG	14	3031	1/1	0.96	0.27	60,60,60,60	0
56	MG	1H	3075	1/1	0.96	0.39	70,70,70,70	0
56	MG	13	1744	1/1	0.96	0.07	95,95,95,95	0
56	MG	1H	3381	1/1	0.96	0.11	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	14	3036	1/1	0.96	0.16	42,42,42,42	0
56	MG	1H	3193	1/1	0.96	0.29	69,69,69,69	0
56	MG	14	3039	1/1	0.96	0.17	38,38,38,38	0
56	MG	1H	3005	1/1	0.96	0.23	53,53,53,53	0
56	MG	14	3043	1/1	0.96	0.15	67,67,67,67	0
56	MG	1G	1637	1/1	0.96	0.41	81,81,81,81	0
56	MG	1H	3466	1/1	0.96	0.06	56,56,56,56	0
56	MG	29	302	1/1	0.96	0.29	65,65,65,65	0
56	MG	1H	3008	1/1	0.96	0.33	42,42,42,42	0
56	MG	14	3048	1/1	0.96	0.15	67,67,67,67	0
56	MG	14	3165	1/1	0.96	0.16	58,58,58,58	0
56	MG	1H	3046	1/1	0.96	0.34	67,67,67,67	0
56	MG	1H	3123	1/1	0.96	0.23	52,52,52,52	0
56	MG	14	3055	1/1	0.96	0.15	64,64,64,64	0
56	MG	1H	3287	1/1	0.96	0.14	50,50,50,50	0
56	MG	1G	1645	1/1	0.96	0.12	73,73,73,73	0
56	MG	13	1702	1/1	0.97	0.26	62,62,62,62	0
56	MG	14	3098	1/1	0.97	0.22	54,54,54,54	0
56	MG	1H	3149	1/1	0.97	0.34	65,65,65,65	0
56	MG	14	3101	1/1	0.97	0.26	84,84,84,84	0
56	MG	1H	3071	1/1	0.97	0.16	53,53,53,53	0
56	MG	2L	101	1/1	0.97	0.15	76,76,76,76	0
56	MG	1H	3302	1/1	0.97	0.12	59,59,59,59	0
56	MG	13	1680	1/1	0.97	0.28	69,69,69,69	0
56	MG	13	1626	1/1	0.97	0.29	68,68,68,68	0
56	MG	14	3202	1/1	0.97	0.38	55,55,55,55	0
56	MG	14	3001	1/1	0.97	0.23	53,53,53,53	0
56	MG	13	1731	1/1	0.97	0.10	94,94,94,94	0
56	MG	1H	3014	1/1	0.97	0.27	43,43,43,43	0
56	MG	14	3006	1/1	0.97	0.16	48,48,48,48	0
56	MG	13	1654	1/1	0.97	0.23	75,75,75,75	0
56	MG	1H	3225	1/1	0.97	0.32	57,57,57,57	0
56	MG	1H	3400	1/1	0.97	0.13	47,47,47,47	0
56	MG	14	3012	1/1	0.97	0.26	77,77,77,77	0
56	MG	13	1627	1/1	0.97	0.21	62,62,62,62	0
56	MG	14	3014	1/1	0.97	0.22	58,58,58,58	0
56	MG	1H	3404	1/1	0.97	0.08	45,45,45,45	0
56	MG	14	3313	1/1	0.97	0.06	50,50,50,50	0
56	MG	1H	3080	1/1	0.97	0.29	53,53,53,53	0
56	MG	1H	3473	1/1	0.97	0.17	73,73,73,73	0
56	MG	14	3316	1/1	0.97	0.10	49,49,49,49	0
56	MG	13	1656	1/1	0.97	0.26	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	14	3123	1/1	0.97	0.13	60,60,60,60	0
56	MG	1H	3019	1/1	0.97	0.22	38,38,38,38	0
56	MG	1H	3476	1/1	0.97	0.07	79,79,79,79	0
56	MG	14	3324	1/1	0.97	0.10	52,52,52,52	0
56	MG	14	3126	1/1	0.97	0.31	66,66,66,66	0
56	MG	14	3221	1/1	0.97	0.29	58,58,58,58	0
56	MG	14	3222	1/1	0.97	0.18	83,83,83,83	0
56	MG	1G	1639	1/1	0.97	0.10	85,85,85,85	0
56	MG	14	3329	1/1	0.97	0.12	45,45,45,45	0
56	MG	1G	1640	1/1	0.97	0.19	80,80,80,80	0
56	MG	14	3331	1/1	0.97	0.12	70,70,70,70	0
56	MG	1H	3411	1/1	0.97	0.08	53,53,53,53	0
56	MG	14	3027	1/1	0.97	0.13	70,70,70,70	0
56	MG	14	3335	1/1	0.97	0.06	55,55,55,55	0
56	MG	1H	3414	1/1	0.97	0.13	53,53,53,53	0
56	MG	1H	3415	1/1	0.97	0.17	68,68,68,68	0
56	MG	1H	3160	1/1	0.97	0.14	56,56,56,56	0
56	MG	14	3032	1/1	0.97	0.17	65,65,65,65	0
56	MG	1H	3232	1/1	0.97	0.13	43,43,43,43	0
56	MG	1H	3021	1/1	0.97	0.22	45,45,45,45	0
56	MG	1H	3023	1/1	0.97	0.22	51,51,51,51	0
56	MG	1H	3357	1/1	0.97	0.29	62,62,62,62	0
56	MG	1G	1649	1/1	0.97	0.14	72,72,72,72	0
56	MG	1H	3052	1/1	0.97	0.22	46,46,46,46	0
56	MG	14	3041	1/1	0.97	0.21	39,39,39,39	0
56	MG	1H	3277	1/1	0.97	0.27	70,70,70,70	0
56	MG	14	3242	1/1	0.97	0.17	74,74,74,74	0
56	MG	1H	3024	1/1	0.97	0.32	46,46,46,46	0
56	MG	1H	3025	1/1	0.97	0.23	53,53,53,53	0
56	MG	1H	3200	1/1	0.97	0.19	59,59,59,59	0
56	MG	1H	3026	1/1	0.97	0.23	53,53,53,53	0
56	MG	14	3357	1/1	0.97	0.15	62,62,62,62	0
56	MG	1H	3365	1/1	0.97	0.17	64,64,64,64	0
56	MG	13	1735	1/1	0.97	0.06	71,71,71,71	0
56	MG	14	3361	1/1	0.97	0.07	60,60,60,60	0
56	MG	14	3052	1/1	0.97	0.24	62,62,62,62	0
56	MG	14	3152	1/1	0.97	0.11	67,67,67,67	0
56	MG	14	3364	1/1	0.97	0.08	75,75,75,75	0
56	MG	1H	3367	1/1	0.97	0.30	66,66,66,66	0
56	MG	13	1664	1/1	0.97	0.21	59,59,59,59	0
56	MG	13	1638	1/1	0.97	0.19	53,53,53,53	0
56	MG	13	1738	1/1	0.97	0.09	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1H	3371	1/1	0.97	0.16	46,46,46,46	0
56	MG	1H	3206	1/1	0.97	0.23	63,63,63,63	0
56	MG	14	3060	1/1	0.97	0.15	48,48,48,48	0
56	MG	14	3374	1/1	0.97	0.17	76,76,76,76	0
56	MG	14	3065	1/1	0.97	0.28	46,46,46,46	0
56	MG	1H	3440	1/1	0.97	0.12	61,61,61,61	0
56	MG	13	1676	1/1	0.97	0.16	62,62,62,62	0
56	MG	14	3163	1/1	0.97	0.20	80,80,80,80	0
56	MG	13	1620	1/1	0.97	0.21	51,51,51,51	0
56	MG	1H	3100	1/1	0.97	0.17	43,43,43,43	0
56	MG	14	3070	1/1	0.97	0.21	39,39,39,39	0
56	MG	1H	3001	1/1	0.97	0.18	49,49,49,49	0
56	MG	14	3073	1/1	0.97	0.16	80,80,80,80	0
56	MG	1G	1605	1/1	0.97	0.13	74,74,74,74	0
56	MG	1H	3447	1/1	0.97	0.11	76,76,76,76	0
56	MG	1H	3448	1/1	0.97	0.06	88,88,88,88	0
56	MG	1H	3102	1/1	0.97	0.14	60,60,60,60	0
56	MG	14	3079	1/1	0.97	0.15	57,57,57,57	0
56	MG	14	3080	1/1	0.97	0.07	69,69,69,69	0
56	MG	13	1724	1/1	0.97	0.18	78,78,78,78	0
56	MG	1H	3252	1/1	0.97	0.12	49,49,49,49	0
56	MG	14	3083	1/1	0.97	0.15	60,60,60,60	0
56	MG	14	3178	1/1	0.97	0.21	80,80,80,80	0
56	MG	14	3085	1/1	0.97	0.13	50,50,50,50	0
56	MG	1H	3036	1/1	0.97	0.33	57,57,57,57	0
56	MG	1G	1676	1/1	0.97	0.07	75,75,75,75	0
56	MG	1G	1613	1/1	0.97	0.08	87,87,87,87	0
56	MG	14	3183	1/1	0.97	0.26	46,46,46,46	0
56	MG	14	3090	1/1	0.97	0.20	52,52,52,52	0
56	MG	13	1667	1/1	0.97	0.19	92,92,92,92	0
56	MG	1G	1615	1/1	0.97	0.17	87,87,87,87	0
56	MG	45	201	1/1	0.97	0.11	50,50,50,50	0
56	MG	14	3093	1/1	0.97	0.26	48,48,48,48	0
56	MG	13	1606	1/1	0.97	0.20	63,63,63,63	0
56	MG	1H	3385	1/1	0.97	0.10	54,54,54,54	0
57	PAR	13	1745	42/42	0.97	0.22	57,66,72,75	0
57	PAR	1G	1686	42/42	0.97	0.25	69,76,87,91	0
58	ZN	3E	302	1/1	0.97	0.35	89,89,89,89	0
56	MG	14	3191	1/1	0.97	0.20	57,57,57,57	0
58	ZN	5A	101	1/1	0.97	0.14	121,121,121,121	0
56	MG	1H	3006	1/1	0.97	0.16	49,49,49,49	0
56	MG	14	3084	1/1	0.98	0.18	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1H	3072	1/1	0.98	0.19	43,43,43,43	0
56	MG	14	3086	1/1	0.98	0.06	65,65,65,65	0
56	MG	1H	3099	1/1	0.98	0.33	53,53,53,53	0
56	MG	1H	3230	1/1	0.98	0.19	37,37,37,37	0
56	MG	14	3009	1/1	0.98	0.18	51,51,51,51	0
56	MG	14	3010	1/1	0.98	0.22	58,58,58,58	0
56	MG	1H	3428	1/1	0.98	0.15	47,47,47,47	0
56	MG	13	1625	1/1	0.98	0.34	45,45,45,45	0
56	MG	1H	3267	1/1	0.98	0.24	60,60,60,60	0
56	MG	2K	107	1/1	0.98	0.20	59,59,59,59	0
56	MG	14	3333	1/1	0.98	0.12	58,58,58,58	0
56	MG	13	1727	1/1	0.98	0.06	76,76,76,76	0
56	MG	1H	3380	1/1	0.98	0.12	41,41,41,41	0
56	MG	1H	3035	1/1	0.98	0.15	61,61,61,61	0
56	MG	1H	3104	1/1	0.98	0.16	41,41,41,41	0
56	MG	14	3019	1/1	0.98	0.12	74,74,74,74	0
56	MG	1H	3017	1/1	0.98	0.20	41,41,41,41	0
56	MG	14	3021	1/1	0.98	0.19	55,55,55,55	0
56	MG	16	211	1/1	0.98	0.13	85,85,85,85	0
56	MG	1H	3056	1/1	0.98	0.33	70,70,70,70	0
56	MG	14	3105	1/1	0.98	0.19	47,47,47,47	0
56	MG	14	3344	1/1	0.98	0.09	51,51,51,51	0
56	MG	1H	3108	1/1	0.98	0.20	34,34,34,34	0
56	MG	14	3025	1/1	0.98	0.22	84,84,84,84	0
56	MG	14	3262	1/1	0.98	0.13	66,66,66,66	0
56	MG	1H	3079	1/1	0.98	0.26	45,45,45,45	0
56	MG	1H	3387	1/1	0.98	0.08	54,54,54,54	0
56	MG	1H	3175	1/1	0.98	0.29	67,67,67,67	0
56	MG	14	3111	1/1	0.98	0.22	55,55,55,55	0
56	MG	14	3187	1/1	0.98	0.21	53,53,53,53	0
56	MG	14	3355	1/1	0.98	0.09	47,47,47,47	0
56	MG	1H	3442	1/1	0.98	0.11	42,42,42,42	0
56	MG	1H	3389	1/1	0.98	0.14	68,68,68,68	0
56	MG	1H	3002	1/1	0.98	0.18	40,40,40,40	0
56	MG	1H	3445	1/1	0.98	0.10	52,52,52,52	0
56	MG	14	3360	1/1	0.98	0.13	63,63,63,63	0
56	MG	1H	3242	1/1	0.98	0.29	58,58,58,58	0
56	MG	13	1640	1/1	0.98	0.10	75,75,75,75	0
56	MG	1G	1601	1/1	0.98	0.20	65,65,65,65	0
56	MG	1G	1602	1/1	0.98	0.11	64,64,64,64	0
56	MG	14	3038	1/1	0.98	0.15	34,34,34,34	0
56	MG	13	1621	1/1	0.98	0.27	74,74,74,74	0

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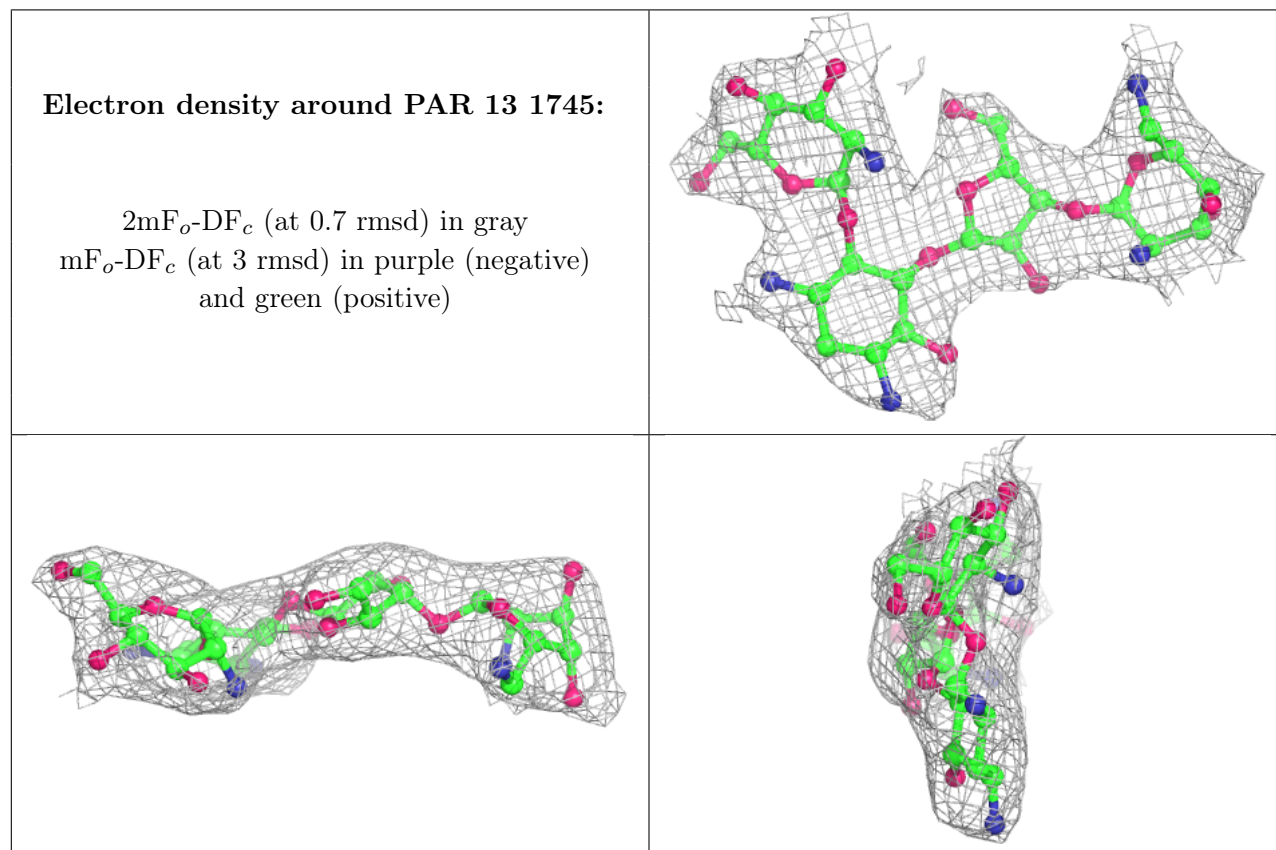
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	14	3040	1/1	0.98	0.21	43,43,43,43	0
56	MG	14	3368	1/1	0.98	0.10	53,53,53,53	0
56	MG	1H	3114	1/1	0.98	0.23	48,48,48,48	0
56	MG	14	3370	1/1	0.98	0.10	68,68,68,68	0
56	MG	1H	3395	1/1	0.98	0.09	45,45,45,45	0
56	MG	1H	3115	1/1	0.98	0.34	51,51,51,51	0
56	MG	1G	1607	1/1	0.98	0.16	81,81,81,81	0
56	MG	1H	3022	1/1	0.98	0.27	53,53,53,53	0
56	MG	1H	3084	1/1	0.98	0.28	48,48,48,48	0
56	MG	13	1675	1/1	0.98	0.10	73,73,73,73	0
56	MG	13	1605	1/1	0.98	0.18	67,67,67,67	0
56	MG	1H	3007	1/1	0.98	0.32	46,46,46,46	0
56	MG	1H	3402	1/1	0.98	0.10	48,48,48,48	0
56	MG	13	1615	1/1	0.98	0.28	92,92,92,92	0
56	MG	1H	3090	1/1	0.98	0.21	44,44,44,44	0
56	MG	1H	3362	1/1	0.98	0.23	69,69,69,69	0
56	MG	1H	3407	1/1	0.98	0.07	57,57,57,57	0
56	MG	1G	1618	1/1	0.98	0.13	88,88,88,88	0
56	MG	1H	3408	1/1	0.98	0.11	47,47,47,47	0
56	MG	14	3064	1/1	0.98	0.15	71,71,71,71	0
56	MG	1G	1678	1/1	0.98	0.16	98,98,98,98	0
56	MG	1H	3009	1/1	0.98	0.27	43,43,43,43	0
56	MG	1H	3410	1/1	0.98	0.11	46,46,46,46	0
56	MG	14	3143	1/1	0.98	0.21	67,67,67,67	0
56	MG	1H	3291	1/1	0.98	0.25	40,40,40,40	0
56	MG	1H	3412	1/1	0.98	0.15	32,32,32,32	0
56	MG	1H	3413	1/1	0.98	0.17	44,44,44,44	0
56	MG	1H	3010	1/1	0.98	0.18	54,54,54,54	0
56	MG	1H	3126	1/1	0.98	0.34	60,60,60,60	0
56	MG	1H	3093	1/1	0.98	0.09	47,47,47,47	0
56	MG	14	3150	1/1	0.98	0.18	51,51,51,51	0
56	MG	14	3227	1/1	0.98	0.13	88,88,88,88	0
56	MG	1H	3417	1/1	0.98	0.15	61,61,61,61	0
56	MG	1H	3418	1/1	0.98	0.06	42,42,42,42	0
56	MG	1G	1630	1/1	0.98	0.24	75,75,75,75	0
56	MG	14	3311	1/1	0.98	0.12	51,51,51,51	0
56	MG	14	3078	1/1	0.98	0.29	50,50,50,50	0
56	MG	13	1629	1/1	0.98	0.18	46,46,46,46	0
56	MG	13	1630	1/1	0.98	0.18	43,43,43,43	0
56	MG	1H	3049	1/1	0.98	0.28	60,60,60,60	0
56	MG	14	3236	1/1	0.98	0.23	75,75,75,75	0
56	MG	14	3003	1/1	0.98	0.09	54,54,54,54	0

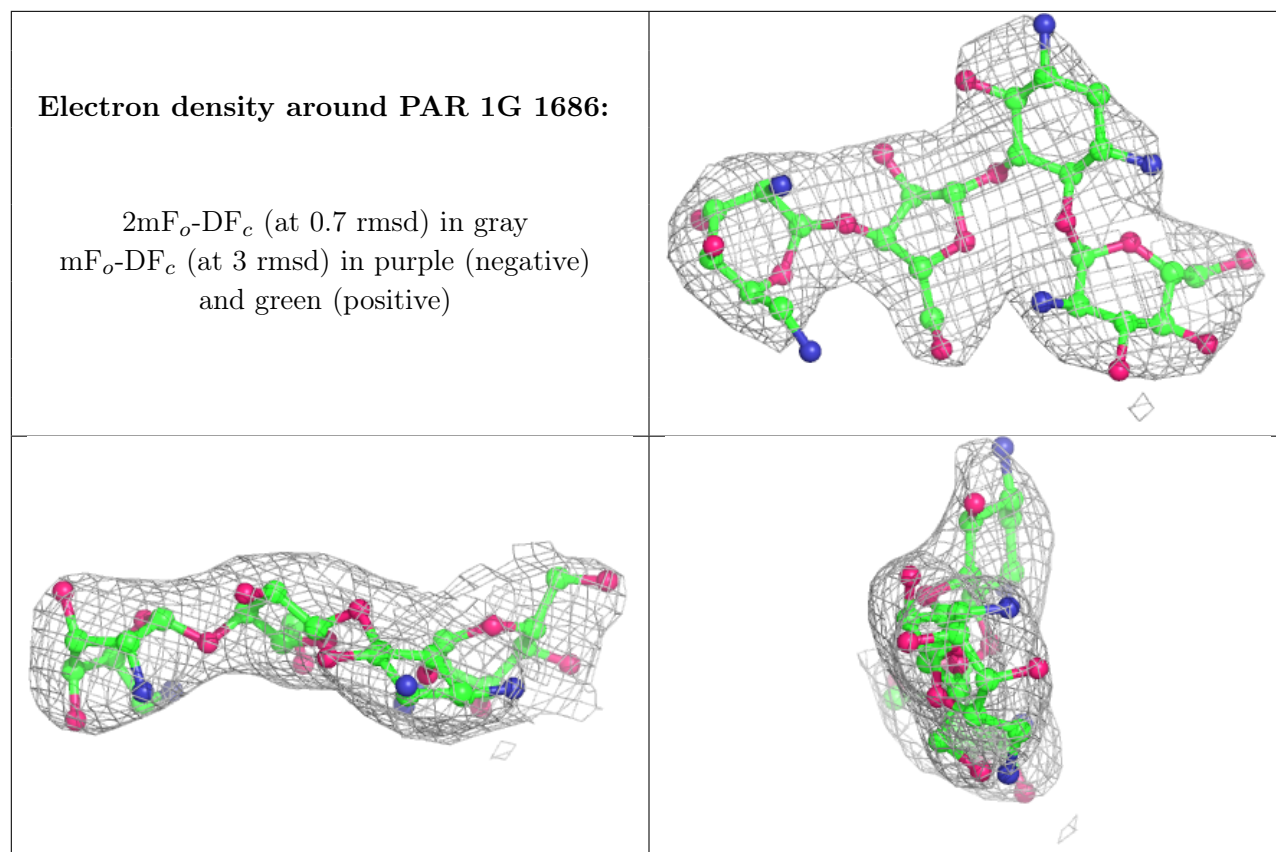
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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
58	ZN	5I	101	1/1	0.98	0.16	88,88,88,88	0
56	MG	14	3319	1/1	0.98	0.08	62,62,62,62	0
58	ZN	32	301	1/1	0.98	0.36	96,96,96,96	0
56	MG	14	3320	1/1	0.98	0.23	60,60,60,60	0
56	MG	13	1604	1/1	0.98	0.10	68,68,68,68	0
56	MG	14	3061	1/1	0.99	0.22	50,50,50,50	0
56	MG	14	3062	1/1	0.99	0.18	56,56,56,56	0
56	MG	14	3063	1/1	0.99	0.29	66,66,66,66	0
56	MG	14	3347	1/1	0.99	0.07	56,56,56,56	0
56	MG	1H	3061	1/1	0.99	0.12	48,48,48,48	0
56	MG	1H	3419	1/1	0.99	0.10	37,37,37,37	0
56	MG	1H	3136	1/1	0.99	0.27	41,41,41,41	0
56	MG	14	3351	1/1	0.99	0.13	43,43,43,43	0
56	MG	1H	3107	1/1	0.99	0.28	65,65,65,65	0
56	MG	14	3318	1/1	0.99	0.10	57,57,57,57	0
56	MG	13	1608	1/1	0.99	0.17	71,71,71,71	0
56	MG	14	3099	1/1	0.99	0.19	46,46,46,46	0
56	MG	1H	3472	1/1	0.99	0.14	56,56,56,56	0
56	MG	1H	3455	1/1	0.99	0.08	57,57,57,57	0
56	MG	14	3071	1/1	0.99	0.19	61,61,61,61	0
56	MG	1H	3423	1/1	0.99	0.07	44,44,44,44	0
56	MG	11	301	1/1	0.99	0.20	48,48,48,48	0
56	MG	1H	3087	1/1	0.99	0.37	43,43,43,43	0
56	MG	14	3230	1/1	0.99	0.30	73,73,73,73	0
56	MG	29	301	1/1	0.99	0.18	44,44,44,44	0
56	MG	13	1601	1/1	0.99	0.23	46,46,46,46	0
56	MG	29	303	1/1	0.99	0.20	71,71,71,71	0
56	MG	14	3046	1/1	0.99	0.09	53,53,53,53	0
56	MG	1H	3111	1/1	0.99	0.20	43,43,43,43	0
56	MG	13	1618	1/1	0.99	0.17	58,58,58,58	0
56	MG	14	3049	1/1	0.99	0.18	54,54,54,54	0
56	MG	14	3050	1/1	0.99	0.20	63,63,63,63	0
56	MG	14	3005	1/1	0.99	0.21	53,53,53,53	0
56	MG	13	1652	1/1	0.99	0.20	80,80,80,80	0
56	MG	14	3053	1/1	0.99	0.22	52,52,52,52	0
56	MG	1H	3480	1/1	0.99	0.20	56,56,56,56	0
56	MG	1H	3020	1/1	0.99	0.20	47,47,47,47	0
56	MG	14	3030	1/1	0.99	0.14	55,55,55,55	0
56	MG	1H	3374	1/1	0.99	0.10	50,50,50,50	0
56	MG	1H	3266	1/1	0.99	0.07	64,64,64,64	0
56	MG	1H	3124	1/1	0.99	0.19	52,52,52,52	0
56	MG	1H	3403	1/1	0.99	0.16	43,43,43,43	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.





## 6.5 Other polymers [i](#)

There are no such residues in this entry.