



# Full wwPDB X-ray Structure Validation Report ⓘ

Jan 2, 2024 – 11:20 pm GMT

PDB ID : 4WSD  
Title : Complex of 70S ribosome with tRNA-Phe and mRNA with C-A mismatch in the second position in the A-site and with antibiotic paromomycin.  
Authors : Rozov, A.; Demeshkina, N.; Yusupov, M.; Yusupova, G.  
Deposited on : 2014-10-27  
Resolution : 2.95 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)  
Xtriage (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

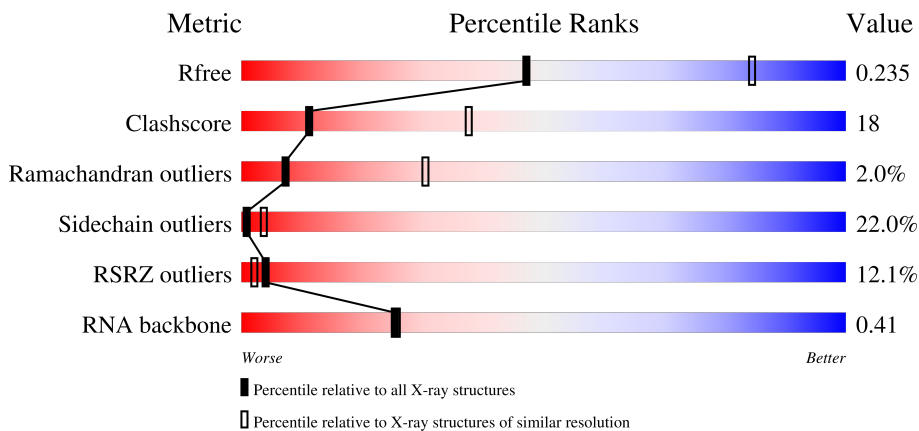
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 2.95 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.



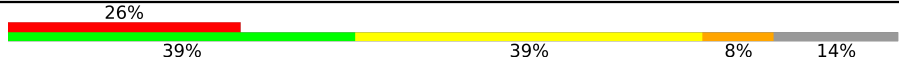

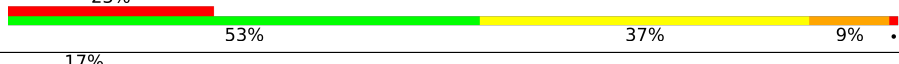
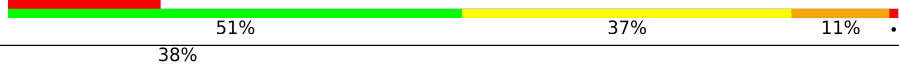

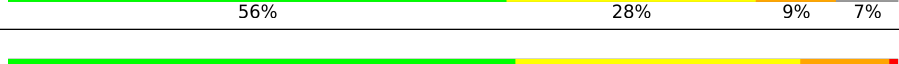
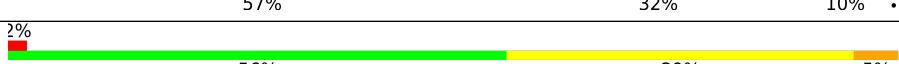
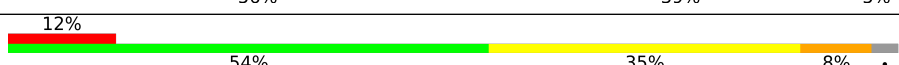
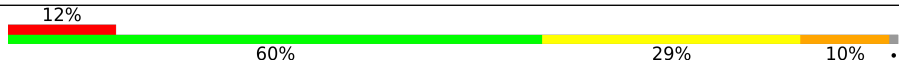



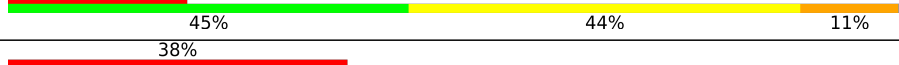





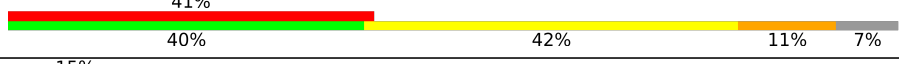






Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
$R_{free}$	130704	3104 (3.00-2.92)
Clashscore	141614	3462 (3.00-2.92)
Ramachandran outliers	138981	3340 (3.00-2.92)
Sidechain outliers	138945	3343 (3.00-2.92)
RSRZ outliers	127900	2986 (3.00-2.92)
RNA backbone	3102	1065 (3.22-2.70)

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	
1	1G	1522	
2	12	256	
2	1E	256	

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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	

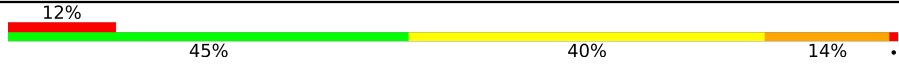


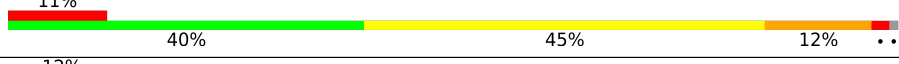


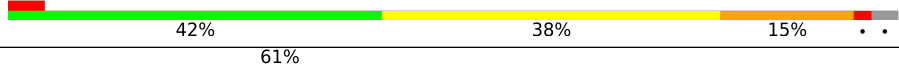

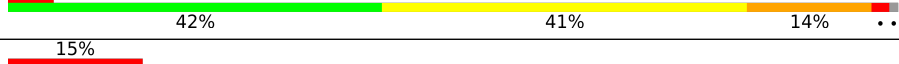



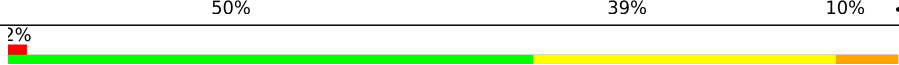
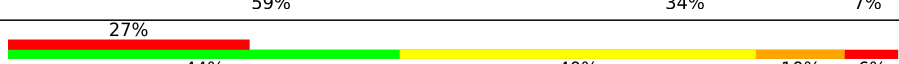
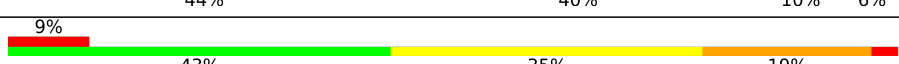
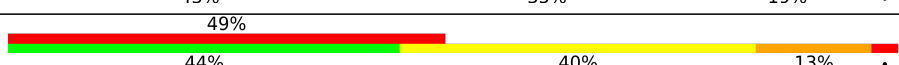

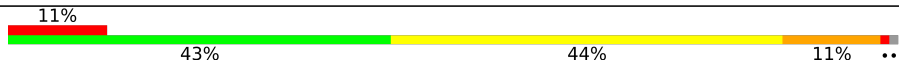
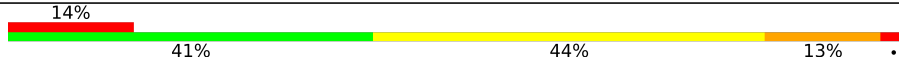


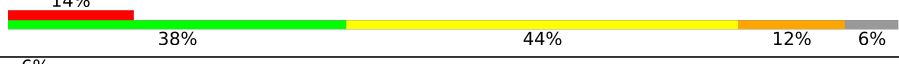



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Mol	Chain	Length	Quality of chain
15	6I	89	11% 62% 29% 8%
16	7A	88	39% 49% 43% 5%
16	7I	88	48% 38% 48% 10% 5%
17	8A	105	39% 60% 30% 6% 5%
17	8I	105	21% 55% 30% 10% 5%
18	9A	88	6% 50% 28% 18%
18	9I	88	44% 33% 5% 18%
19	AA	93	31% 31% 38% 15% 16%
19	AI	93	10% 42% 29% 15% 13%
20	BA	106	40% 51% 35% 7% 7%
20	BI	106	17% 46% 37% 10% 7%
21	1B	27	81% 33% 52% 7% 7%
21	1F	27	56% 63% 26% 7%
22	1K	76	14% 25% 46% 22% 7%
23	2K	77	3% 30% 38% 26% 6%
23	2L	77	3% 31% 45% 16% 8%
24	3K	76	5% 17% 38% 34% 9%
25	4K	30	7% 17% 20% 7% 57%
25	4L	30	3% 10% 13% 7% 7% 63%
26	14	2917	2% 27% 44% 23% 5%
26	1H	2917	% 21% 43% 29% 7%
27	16	122	31% 37% 25% 7%
27	1J	122	2% 26% 43% 26% 5%
28	11	276	4% 58% 31% 10%
28	19	276	19% 55% 33% 8%

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Mol	Chain	Length	Quality of chain
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	
41	85	118	

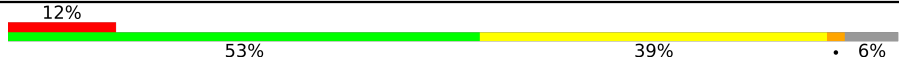

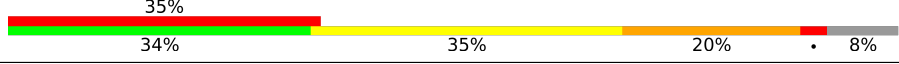

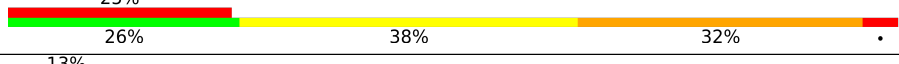
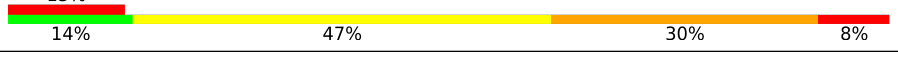
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Mol	Chain	Length	Quality of chain
41	C8	118	15% 42% 47% 10%
42	95	101	22% 39% 45% 14%
42	D8	101	12% 51% 42% 7%
43	A5	113	12% 53% 34% 13%
43	E8	113	9% 52% 37% 10%
44	B5	96	11% 47% 44% 6%
44	F8	96	3% 53% 33% 9%
45	C5	110	25% 39% 36% 18% 5%
45	G8	110	3% 36% 41% 14% 5%
46	D5	206	21% 32% 46% 8% 13%
46	H8	206	2% 33% 39% 11% 15%
47	E5	85	42% 51% 32% 8% 9%
47	I8	85	15% 53% 32% 9% 6%
48	F5	98	40% 51% 35% 8%
48	J8	98	21% 52% 34% 11%
49	G5	72	10% 50% 28% 12% 7%
49	K8	72	3% 24% 47% 18% 7%
50	H5	60	28% 52% 42% 5%
50	L8	60	2% 43% 37% 13% 5%
51	I5	71	17% 21% 55% 7% 15%
51	M8	71	18% 41% 31% 20% 7%
52	J5	60	12% 53% 35% 10%
52	N8	60	13% 57% 23% 15%
53	K5	54	78% 37% 26% 20% 17%
53	O8	54	69% 24% 33% 22% 17%

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Mol	Chain	Length	Quality of chain
54	L5	49	
54	P8	49	
55	M5	65	
55	Q8	65	
56	1L	76	
57	3L	76	

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
58	MG	13	1710	-	-	-	X
58	MG	14	3143	-	-	-	X
58	MG	14	3158	-	-	-	X
58	MG	14	3193	-	-	-	X
58	MG	1H	3020	-	-	-	X
58	MG	1H	3056	-	-	-	X
58	MG	1H	3162	-	-	-	X
58	MG	1H	3247	-	-	-	X
58	MG	1H	3254	-	-	-	X
58	MG	1H	3262	-	-	-	X
58	MG	1H	3310	-	-	-	X
58	MG	1H	3334	-	-	-	X
58	MG	1H	3337	-	-	-	X

## 2 Entry composition

There are 61 unique types of molecules in this entry. The entry contains 300252 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	1498	Total 32207	C 14334	N 5973	O 10402	P 1498	0	0	0
1	1G	1498	Total 32204	C 14334	N 5973	O 10400	P 1497	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	155	Total	C	N	O	S	0	0	0
			1256	781	252	217	6			
7	62	152	Total	C	N	O	S	0	0	0
			1243	774	249	214	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	138	Total	C	N	O	S	0	0	0
			1115	705	215	192	3			

- 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	124	Total	C	N	O	0	0	0
			983	624	190	169			

- 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
			Total	C	N	O	S			
10	1A	99	801	504	157	139	1	0	0	0

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
13	4I	118	938	580	193	163	2	0	0	0
13	4A	117	933	577	192	162	2	0	0	0

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
4I	119	ALA	GLY	conflict	UNP P80377
4A	119	ALA	GLY	conflict	UNP P80377

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
14	5I	60	491	312	104	71	4	0	0	0
14	5A	58	475	303	99	69	4	0	0	0

- 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	72	Total	C	N	O	0	0	0
			590	376	117	97			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AI	81	Total	C	N	O	S	0	0	0
			647	413	119	113	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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
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-Phe.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace	
22	1K	76	Total	C	N	O	P	S	0	0	0
			1627	730	290	530	75	2			

- 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
			1646	735	298	535	77	1			
23	2L	77	Total	C	N	O	P	S	0	0	0
			1646	735	298	535	77	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace	
24	3K	75	Total	C	N	O	P	S	0	0	0
			1603	719	285	524	74	1			

- Molecule 25 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace	
25	4K	13	Total	C	N	O	P	0	0	0
			279	126	55	85	13			
25	4L	11	Total	C	N	O	P	0	0	0
			235	106	45	73	11			

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	11	272	Total	C	N	O	S	0	0	0
			2115	1335	420	357	3			
28	19	273	Total	C	N	O	S	0	0	0
			2120	1338	421	358	3			

- 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			

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
32	51	174	1336	848	251	236	1	0	0	0
32	59	170	1307	829	245	232	1	0	0	0

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	88	138	Total	C	N	O	S	0	0	0
			1086	693	208	179	6			
37	45	141	Total	C	N	O	S	0	0	0
			1121	715	212	187	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	111	Total	C	N	O	0	0	0
			881	556	176	149			
39	65	111	Total	C	N	O	0	0	0
			881	556	176	149			

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	F8	94	Total	C	N	O	S	0	0	0
			742	482	134	125	1			
44	B5	94	Total	C	N	O		0	0	0
			735	477	133	125				

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	H8	175	Total	C	N	O	S	0	0	0
			1397	892	251	251	3			
46	D5	179	Total	C	N	O	S	0	0	0
			1428	911	255	259	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	I8	80	Total	C	N	O	S	0	0	0
			626	388	132	105	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
47	E5	77	612	379	129	103	1	0	0	0

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
I8	6	ALA	GLY	conflict	UNP P60493
I8	8	ALA	GLY	conflict	UNP P60493
E5	6	ALA	GLY	conflict	UNP P60493
E5	8	ALA	GLY	conflict	UNP P60493

- 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	762	481	150	130	1	0	0	0
48	F5	94	737	463	146	127	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	67	563	349	114	99	1	0	0	0
49	G5	67	563	349	114	99	1	0	0	0

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
50	L8	57	452	288	88	76	0	0	0
50	H5	59	468	298	90	80	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
51	M8	66	533	335	96	97	5	0	0	0
51	I5	60	481	305	84	87	5	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	N8	58	Total	C	N	O	S	0	0	0
			453	285	89	74	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 L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	O8	45	Total	C	N	O	S	0	0	0
			389	241	79	65	4			
53	K5	45	Total	C	N	O	S	0	0	0
			389	241	79	65	4			

- Molecule 54 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	P8	45	Total	C	N	O	S	0	0	0
			391	240	97	52	2			
54	L5	46	Total	C	N	O	S	0	0	0
			398	245	98	53	2			

- Molecule 55 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	Q8	60	Total	C	N	O	S	0	0	0
			480	306	98	74	2			
55	M5	60	Total	C	N	O	S	0	0	0
			477	303	98	74	2			

- Molecule 56 is a RNA chain called tRNA-Phe.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace	
56	1L	76	Total	C	N	O	P	S	0	0	0
			1627	730	290	531	75	1			

- Molecule 57 is a RNA chain called tRNA-Phe.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace	
57	3L	76	Total	C	N	O	P	S	0	0	0
			1624	725	290	532	76	1			

- Molecule 58 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

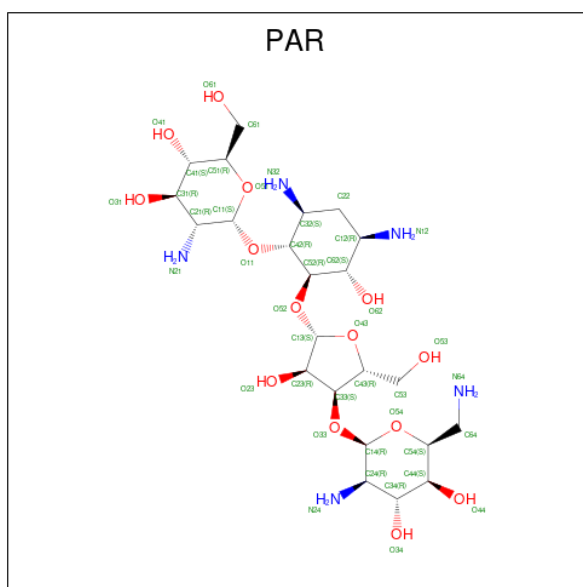
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	13	148	Total Mg 148 148	0	0
58	3E	2	Total Mg 2 2	0	0
58	5E	1	Total Mg 1 1	0	0
58	2I	1	Total Mg 1 1	0	0
58	5I	2	Total Mg 2 2	0	0
58	1K	2	Total Mg 2 2	0	0
58	2K	5	Total Mg 5 5	0	0
58	3K	1	Total Mg 1 1	0	0
58	4K	1	Total Mg 1 1	0	0
58	1H	520	Total Mg 520 520	0	0
58	16	13	Total Mg 13 13	0	0
58	11	4	Total Mg 4 4	0	0
58	21	2	Total Mg 2 2	0	0
58	41	2	Total Mg 2 2	0	0
58	78	1	Total Mg 1 1	0	0
58	88	2	Total Mg 2 2	0	0
58	98	2	Total Mg 2 2	0	0
58	G8	1	Total Mg 1 1	0	0
58	I8	1	Total Mg 1 1	0	0
58	L8	1	Total Mg 1 1	0	0
58	P8	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	1G	96	Total 96	Mg 96	0	0
58	2A	2	Total 2	Mg 2	0	0
58	7A	1	Total 1	Mg 1	0	0
58	2L	3	Total 3	Mg 3	0	0
58	3L	2	Total 2	Mg 2	0	0
58	14	407	Total 407	Mg 407	0	0
58	1J	5	Total 5	Mg 5	0	0
58	29	4	Total 4	Mg 4	0	0
58	49	1	Total 1	Mg 1	0	0
58	25	1	Total 1	Mg 1	0	0
58	55	1	Total 1	Mg 1	0	0
58	C5	1	Total 1	Mg 1	0	0
58	J5	1	Total 1	Mg 1	0	0

- Molecule 59 is PAROMOMYCIN (three-letter code: PAR) (formula: C<sub>23</sub>H<sub>45</sub>N<sub>5</sub>O<sub>14</sub>).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
59	13	1	Total	C	N	O	0	0
			42	23	5	14		
59	1G	1	Total	C	N	O	0	0
			42	23	5	14		

- Molecule 60 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	3E	1	Total	Zn	0	0
			1	1		
60	5I	1	Total	Zn	0	0
			1	1		
60	G8	1	Total	Zn	0	0
			1	1		
60	32	1	Total	Zn	0	0
			1	1		
60	5A	1	Total	Zn	0	0
			1	1		
60	C5	1	Total	Zn	0	0
			1	1		

- Molecule 61 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	13	197	Total	O	0	0
			197	197		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	3E	3	Total O 3 3	0	0
61	8E	2	Total O 2 2	0	0
61	1I	2	Total O 2 2	0	0
61	3I	1	Total O 1 1	0	0
61	5I	2	Total O 2 2	0	0
61	6I	1	Total O 1 1	0	0
61	7I	1	Total O 1 1	0	0
61	1K	5	Total O 5 5	0	0
61	2K	6	Total O 6 6	0	0
61	3K	1	Total O 1 1	0	0
61	4K	2	Total O 2 2	0	0
61	1H	999	Total O 999 999	0	0
61	16	21	Total O 21 21	0	0
61	11	13	Total O 13 13	0	0
61	21	4	Total O 4 4	0	0
61	31	4	Total O 4 4	0	0
61	58	2	Total O 2 2	0	0
61	78	5	Total O 5 5	0	0
61	B8	1	Total O 1 1	0	0
61	C8	3	Total O 3 3	0	0
61	D8	1	Total O 1 1	0	0

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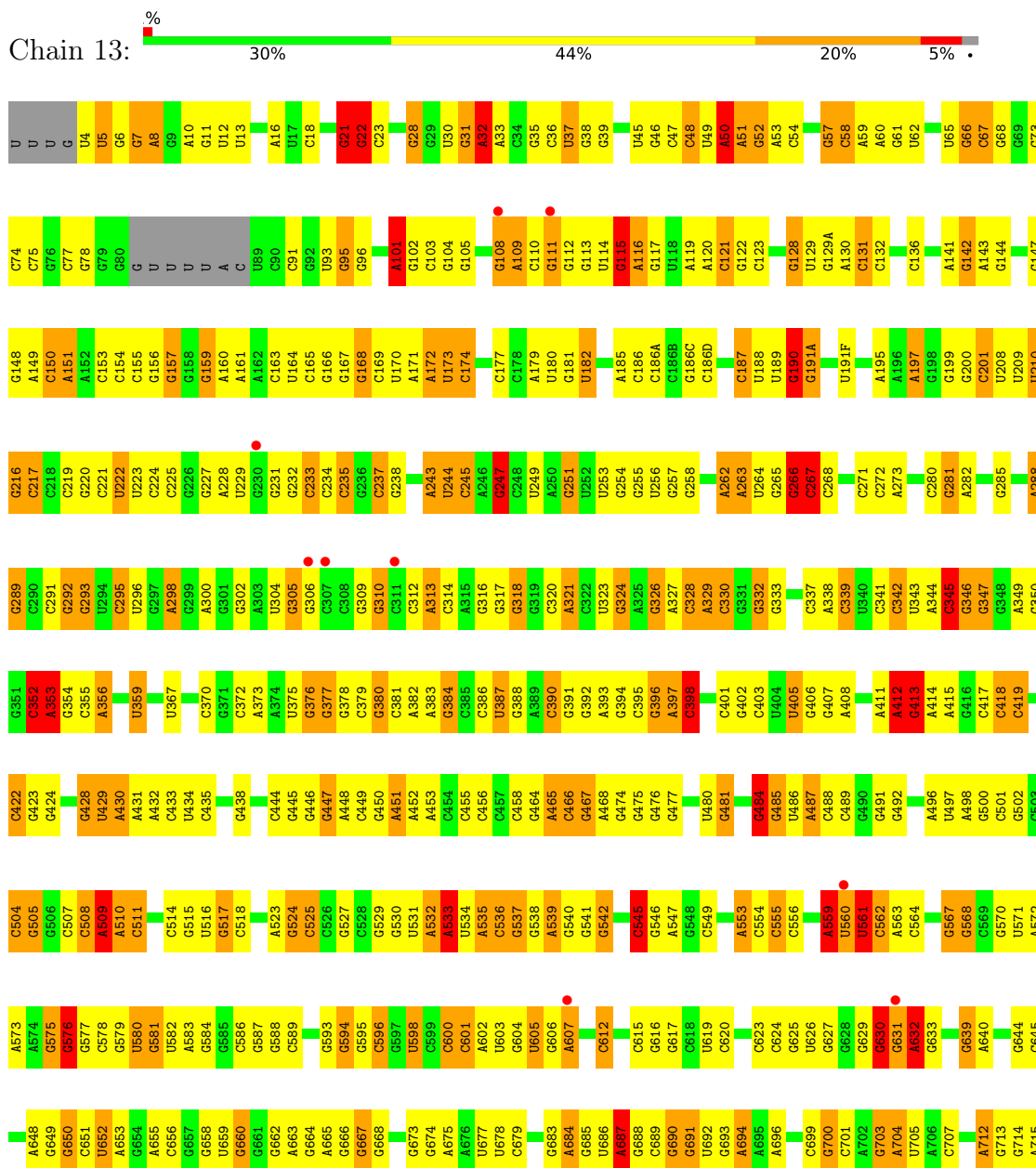
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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	G8	4	Total O 4 4	0	0
61	I8	7	Total O 7 7	0	0
61	L8	1	Total O 1 1	0	0
61	P8	1	Total O 1 1	0	0
61	Q8	2	Total O 2 2	0	0
61	1G	82	Total O 82 82	0	0
61	7A	1	Total O 1 1	0	0
61	BA	1	Total O 1 1	0	0
61	3L	6	Total O 6 6	0	0
61	14	598	Total O 598 598	0	0
61	19	13	Total O 13 13	0	0
61	39	7	Total O 7 7	0	0
61	35	1	Total O 1 1	0	0
61	85	1	Total O 1 1	0	0
61	A5	1	Total O 1 1	0	0
61	G5	1	Total O 1 1	0	0
61	L5	1	Total O 1 1	0	0

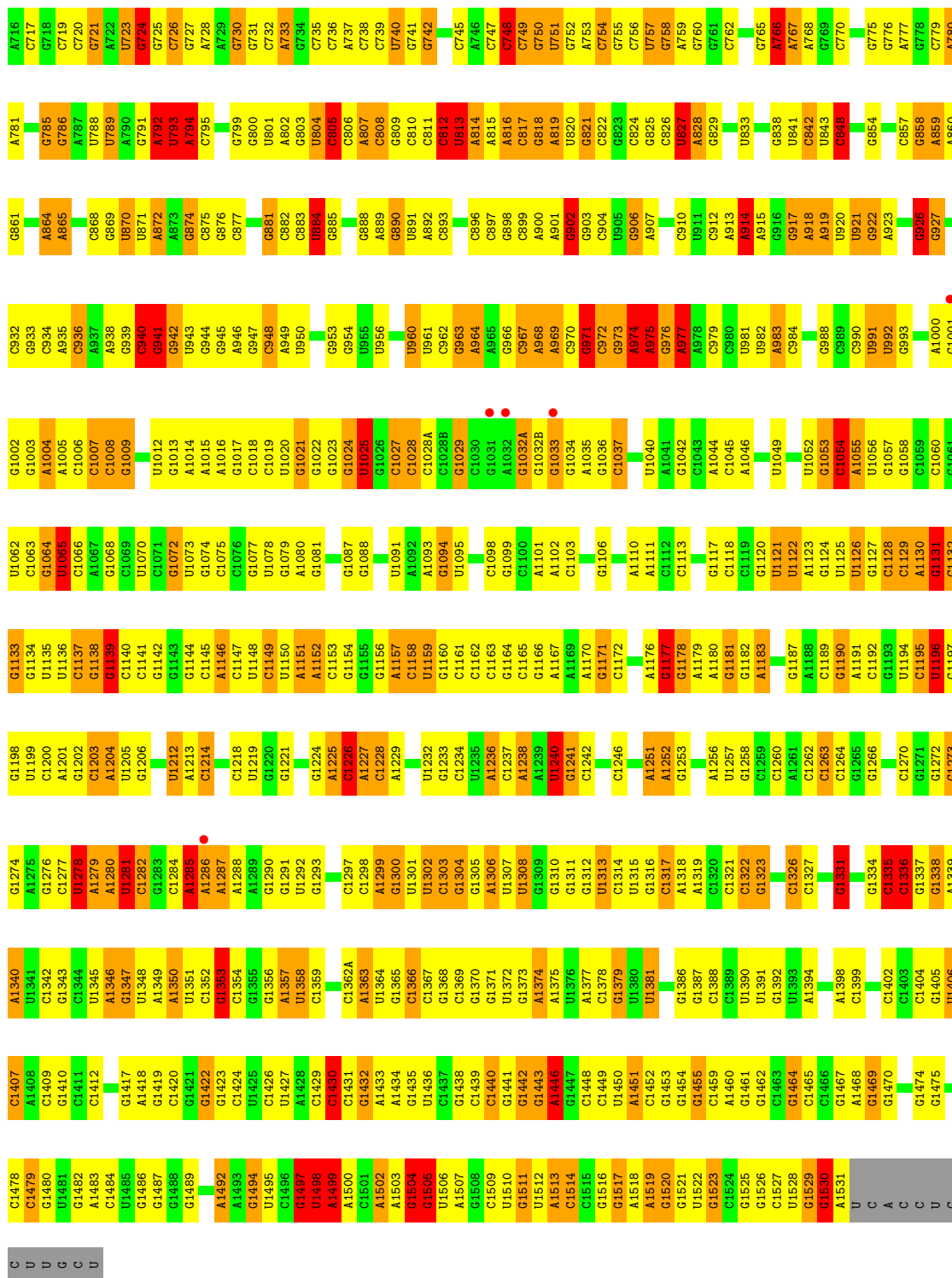
### 3 Residue-property plots i

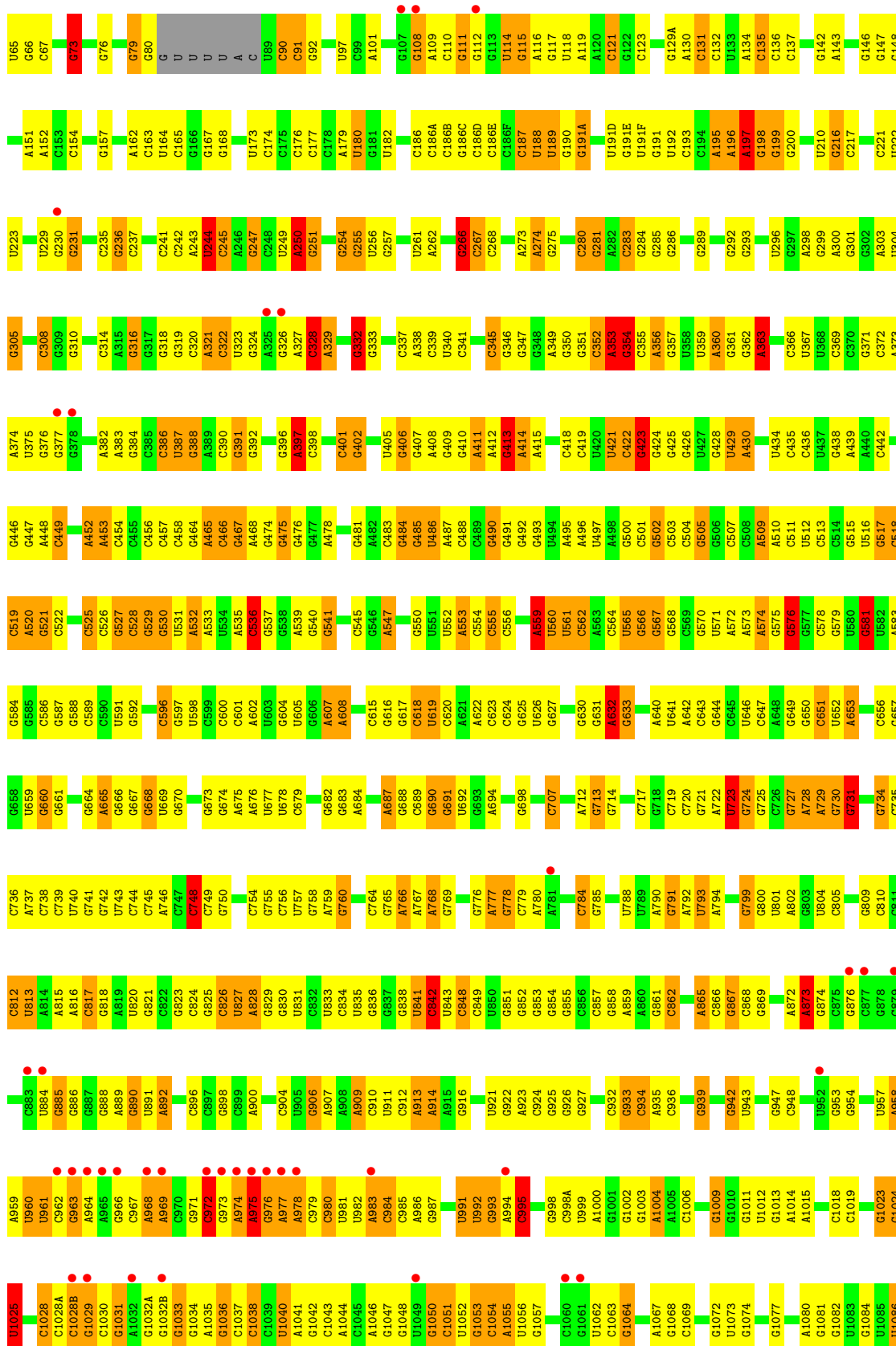
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density.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

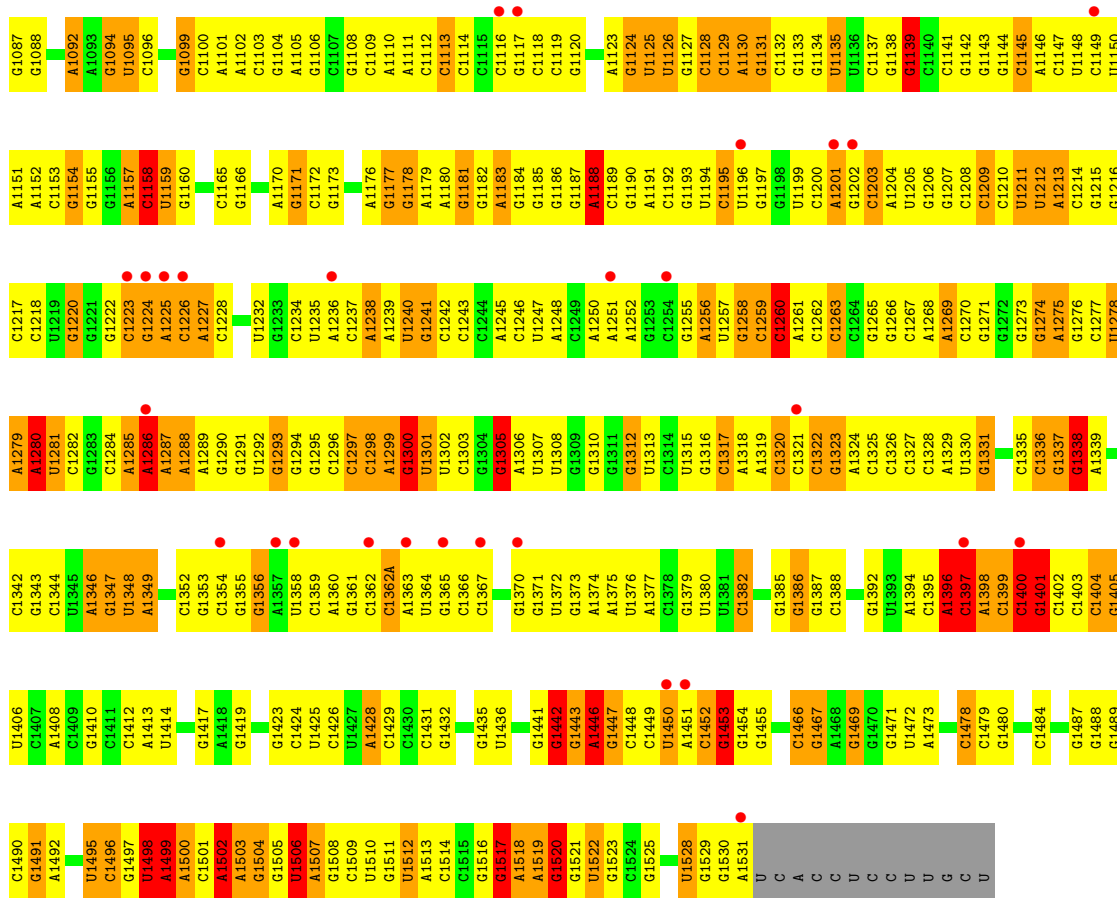
#### • Molecule 1: 16S ribosomal RNA



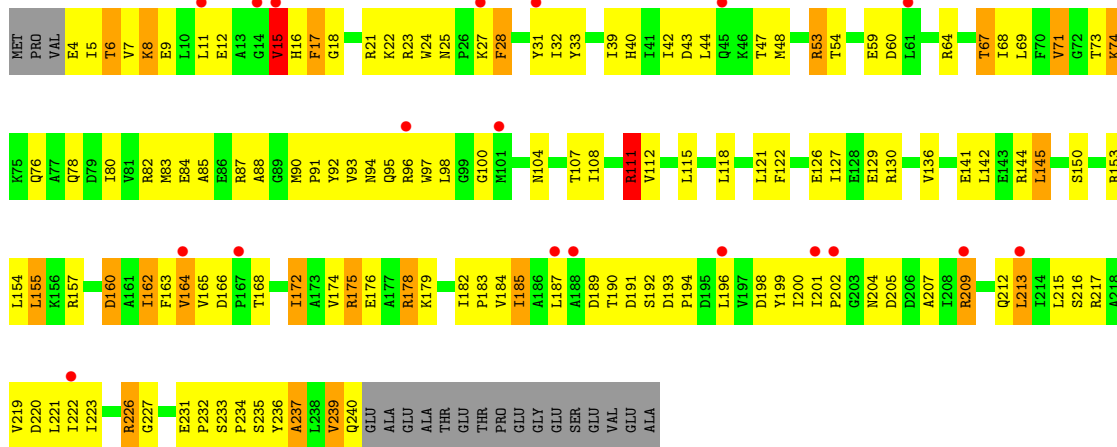








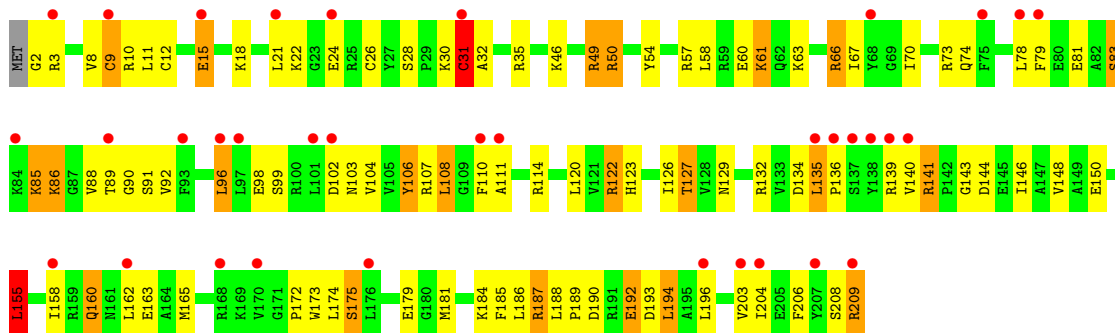
• Molecule 2: 30S ribosomal protein S2



• Molecule 2: 30S ribosomal protein S2

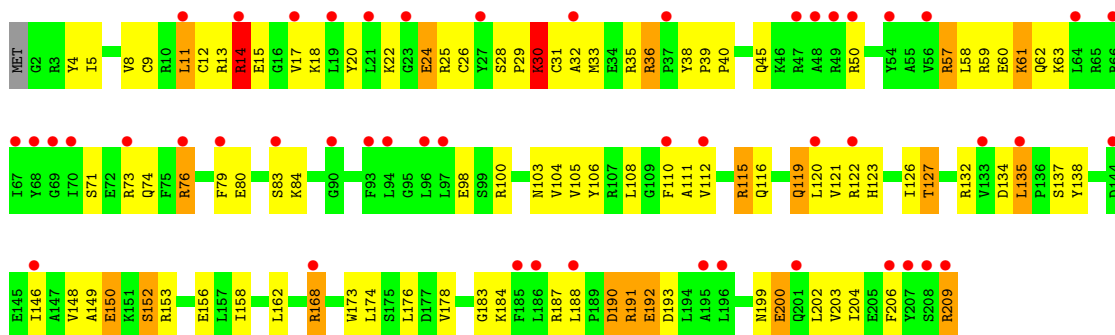






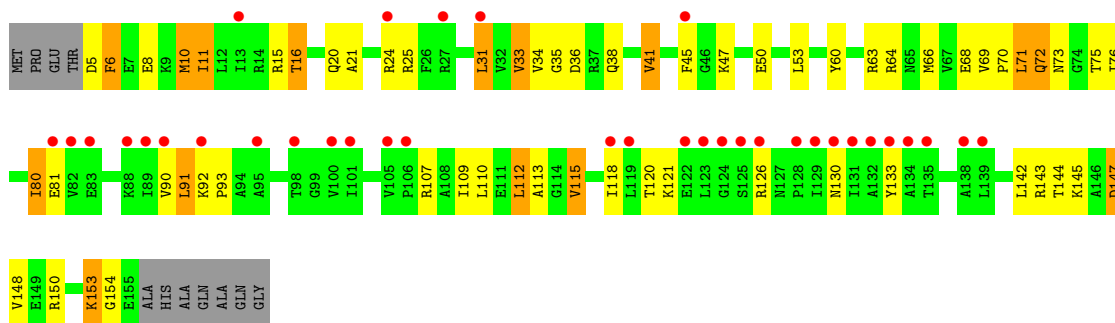
- Molecule 4: 30S ribosomal protein S4

Chain 32:     .



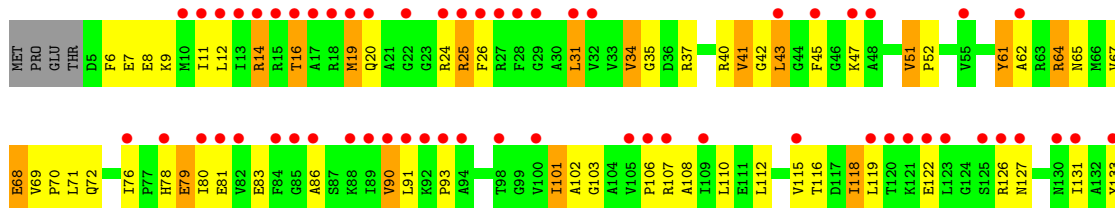
- Molecule 5: 30S ribosomal protein S5

Chain 4E:      .



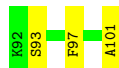
- Molecule 5: 30S ribosomal protein S5

Chain 42:      .

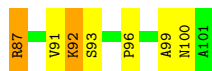




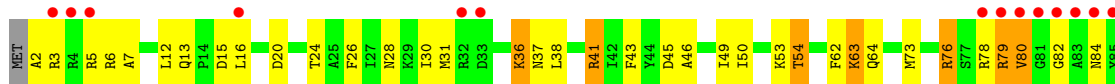
• Molecule 6: 30S ribosomal protein S6



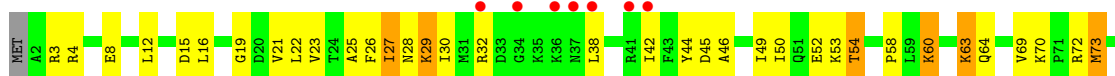
• Molecule 6: 30S ribosomal protein S6



• Molecule 7: 30S ribosomal protein S7

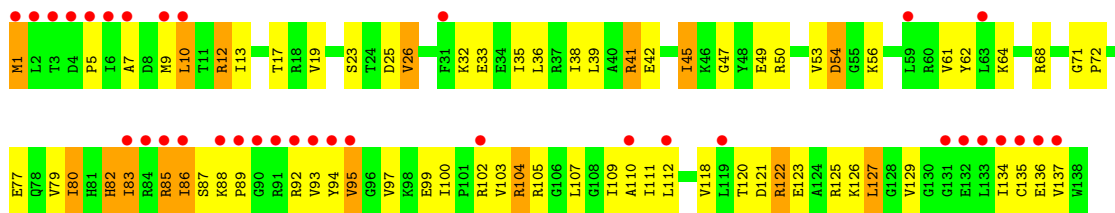


• Molecule 7: 30S ribosomal protein S7

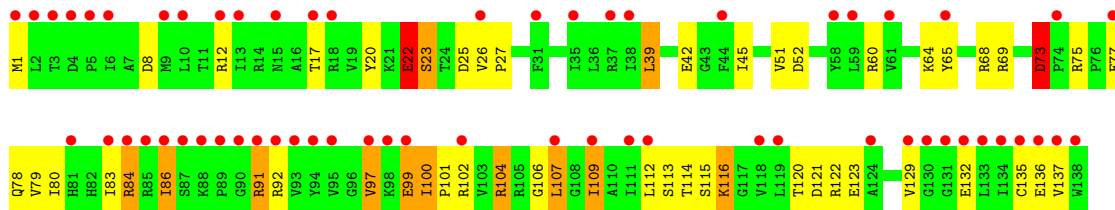
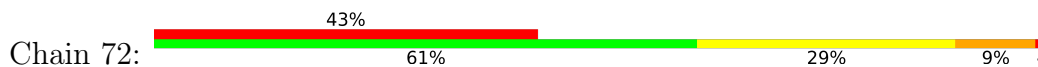


• Molecule 8: 30S ribosomal protein S8

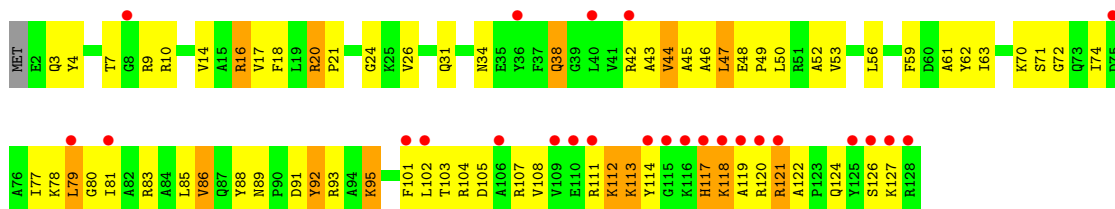




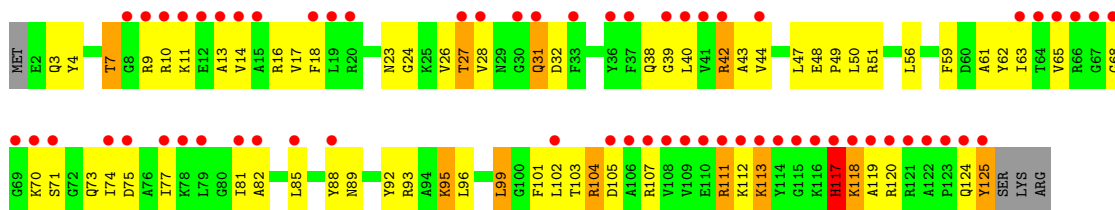
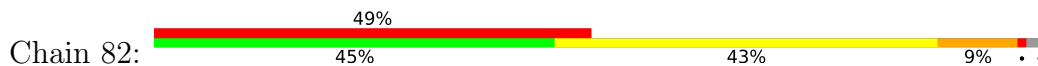
• Molecule 8: 30S ribosomal protein S8



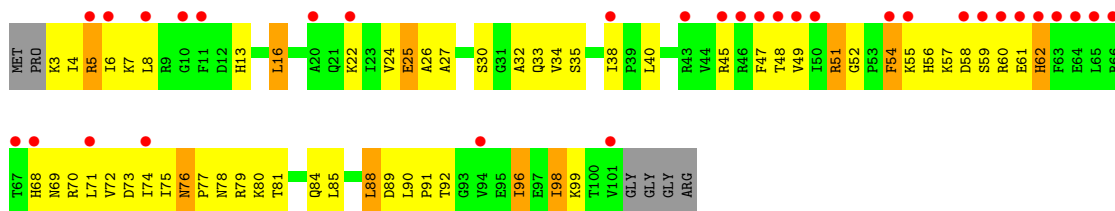
• Molecule 9: 30S ribosomal protein S9



• Molecule 9: 30S ribosomal protein S9

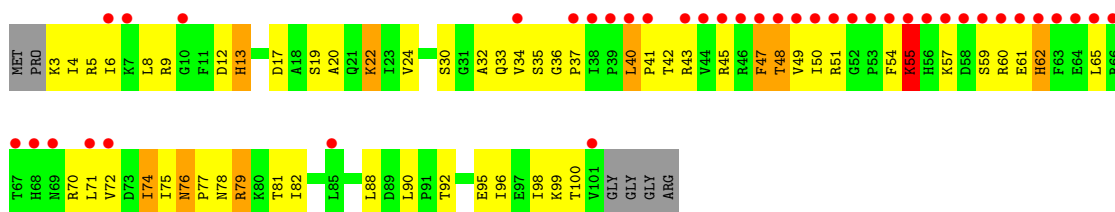


• Molecule 10: 30S ribosomal protein S10



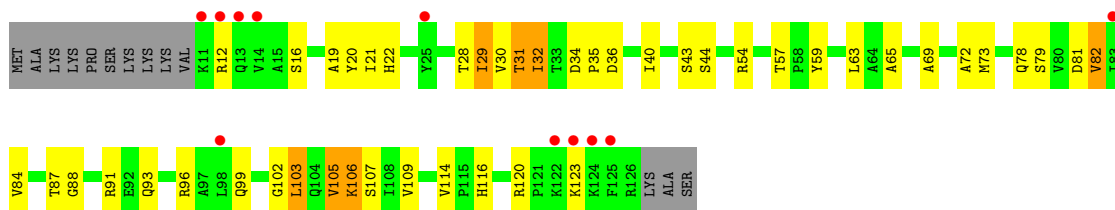
- Molecule 10: 30S ribosomal protein S10

Chain 1A: 38% 40% 45% 9% 6%



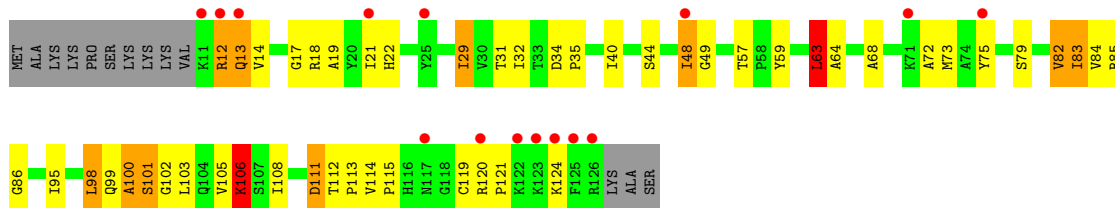
- Molecule 11: 30S ribosomal protein S11

Chain 2I: 9% 54% 30% 5% 10%



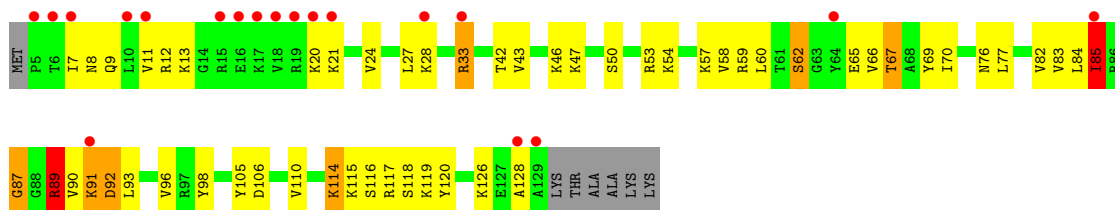
- Molecule 11: 30S ribosomal protein S11

Chain 2A: 12% 51% 29% 8% 10%



- Molecule 12: 30S ribosomal protein S12

Chain 3I: 14% 53% 35% 5% 5%

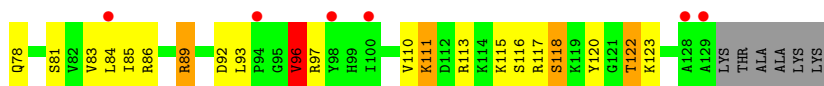


- Molecule 12: 30S ribosomal protein S12

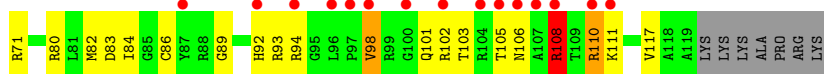
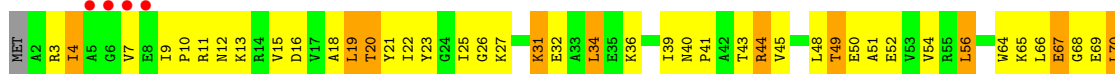
Chain 3A: 25% 54% 27% 13% 5%



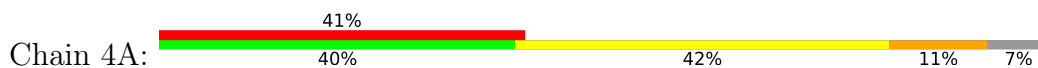




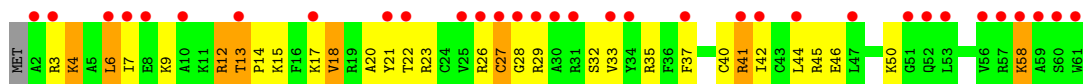
• Molecule 13: 30S ribosomal protein S13



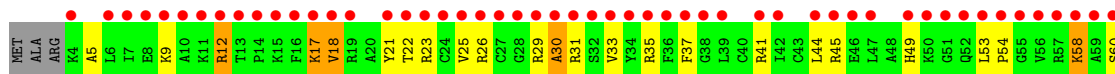
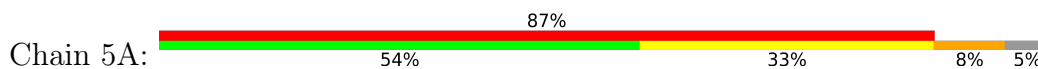
• Molecule 13: 30S ribosomal protein S13



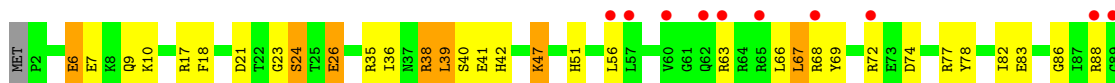
• Molecule 14: 30S ribosomal protein S14 type Z



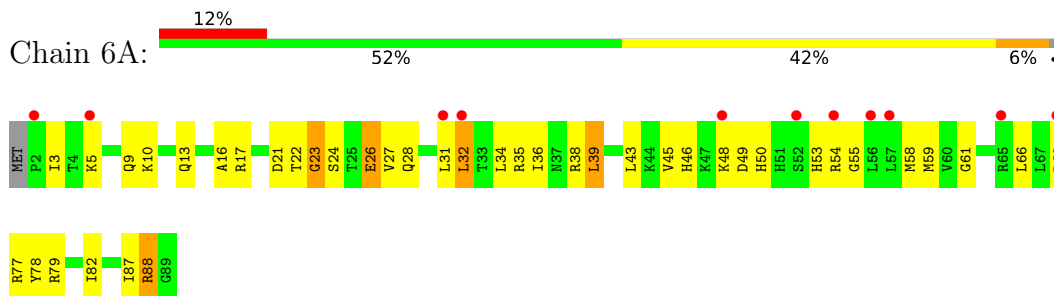
• Molecule 14: 30S ribosomal protein S14 type Z



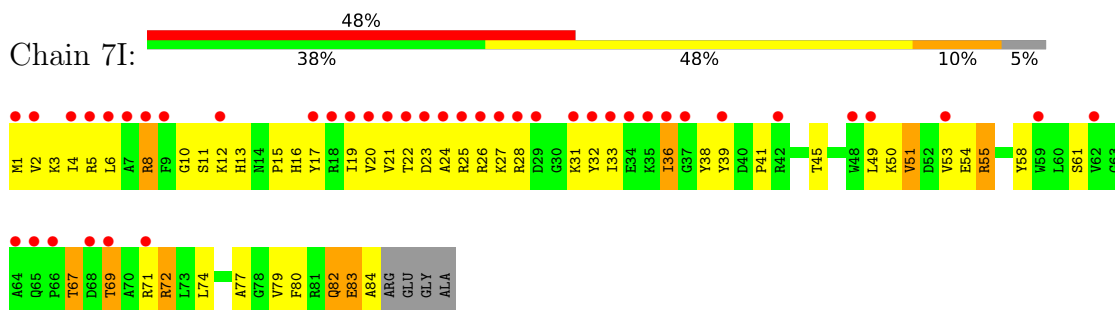
• Molecule 15: 30S ribosomal protein S15



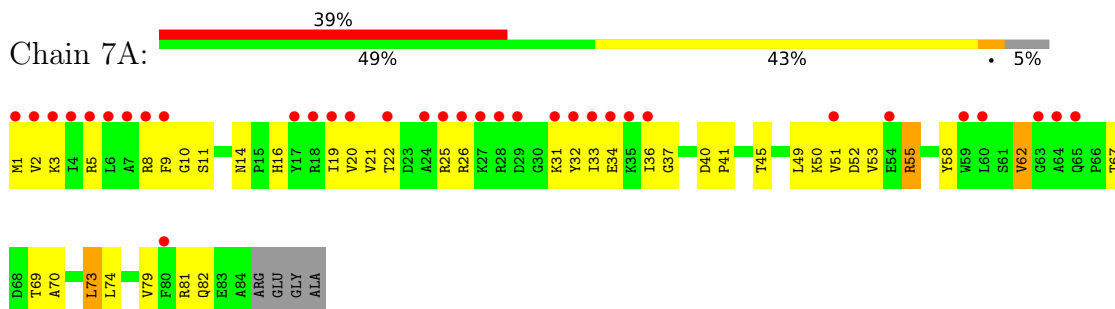
- Molecule 15: 30S ribosomal protein S15



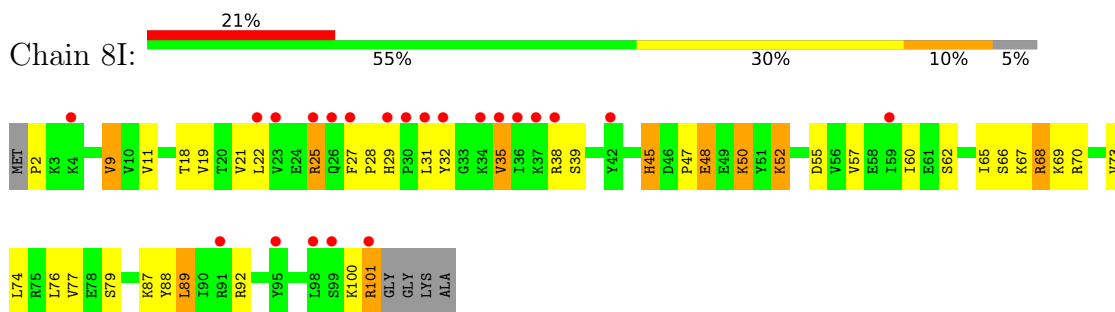
- Molecule 16: 30S ribosomal protein S16



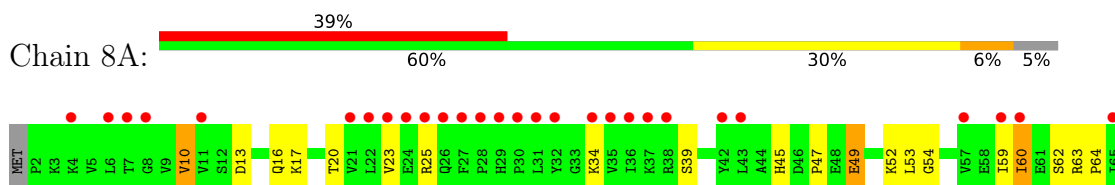
- Molecule 16: 30S ribosomal protein S16

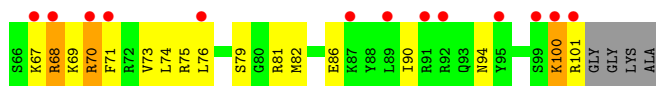


- Molecule 17: 30S ribosomal protein S17

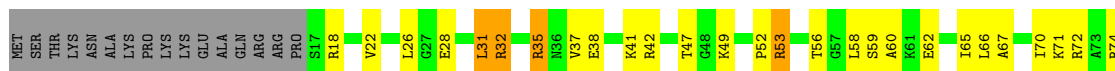


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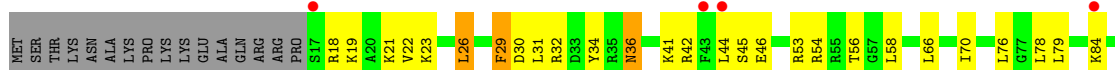




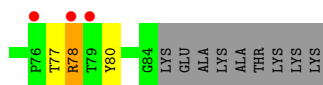
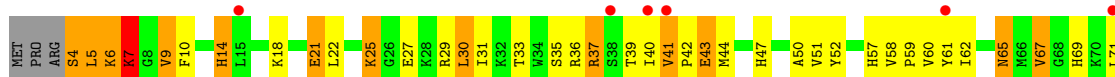
- Molecule 18: 30S ribosomal protein S18



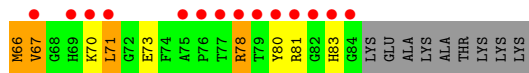
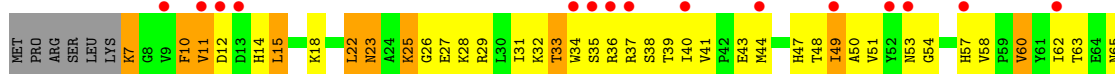
- Molecule 18: 30S ribosomal protein S18



- Molecule 19: 30S ribosomal protein S19

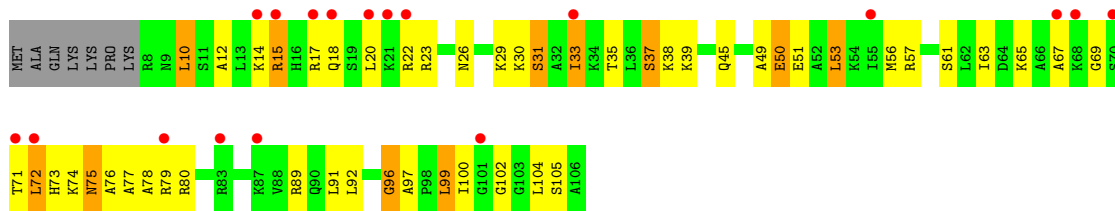


- Molecule 19: 30S ribosomal protein S19

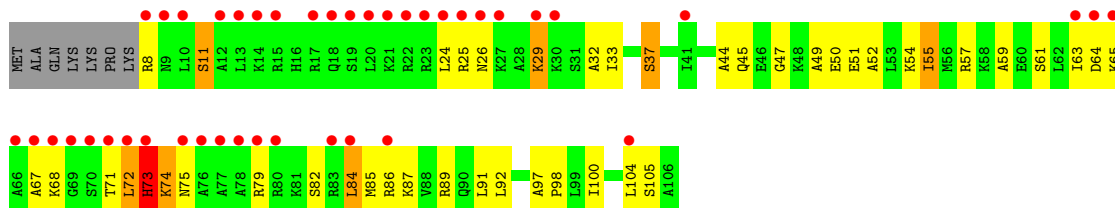
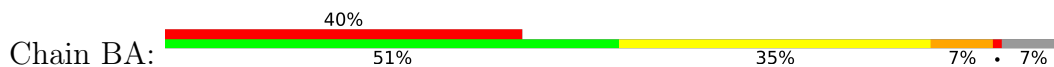


- Molecule 20: 30S ribosomal protein S20

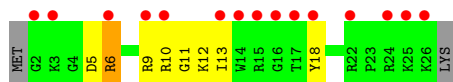




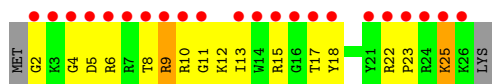
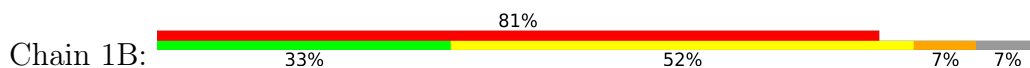
• Molecule 20: 30S ribosomal protein S20



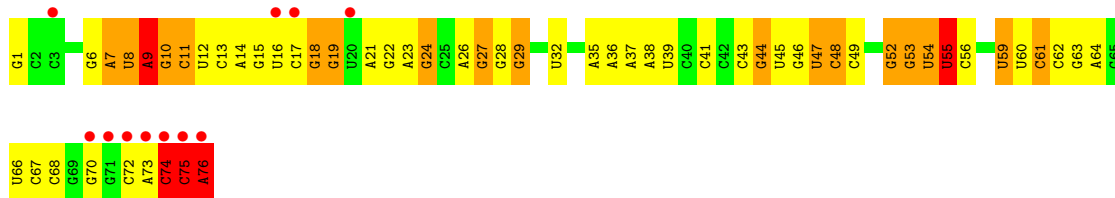
• Molecule 21: 30S ribosomal protein Thx



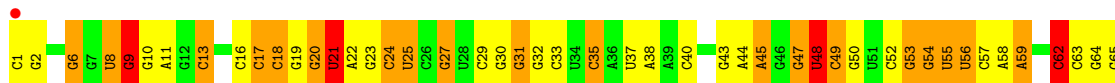
• Molecule 21: 30S ribosomal protein Thx



• Molecule 22: tRNA-Phe

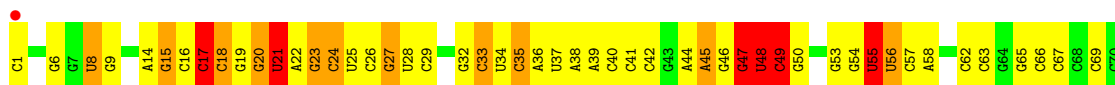


• Molecule 23: tRNA-fMet

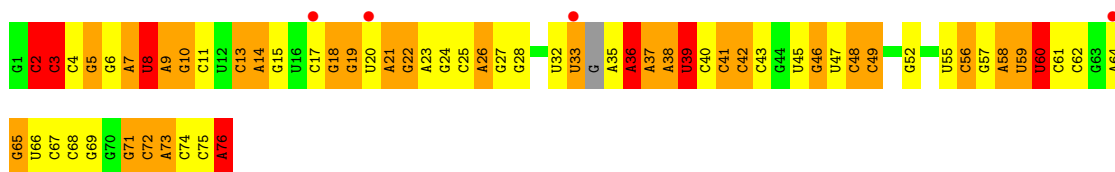
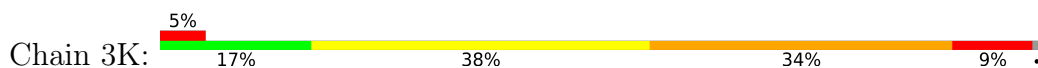




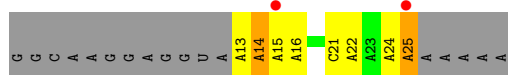
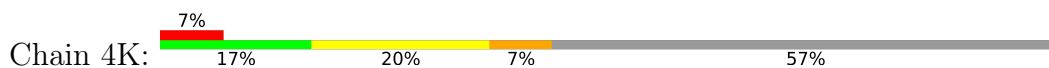
● Molecule 23: tRNA-fMet



● Molecule 24: tRNA-Phe



● Molecule 25: mRNA



● Molecule 25: mRNA



● Molecule 26: 23S ribosomal RNA

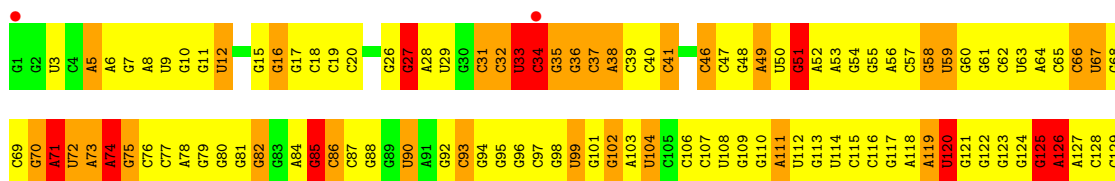
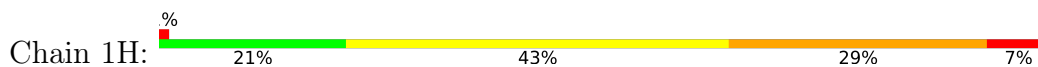
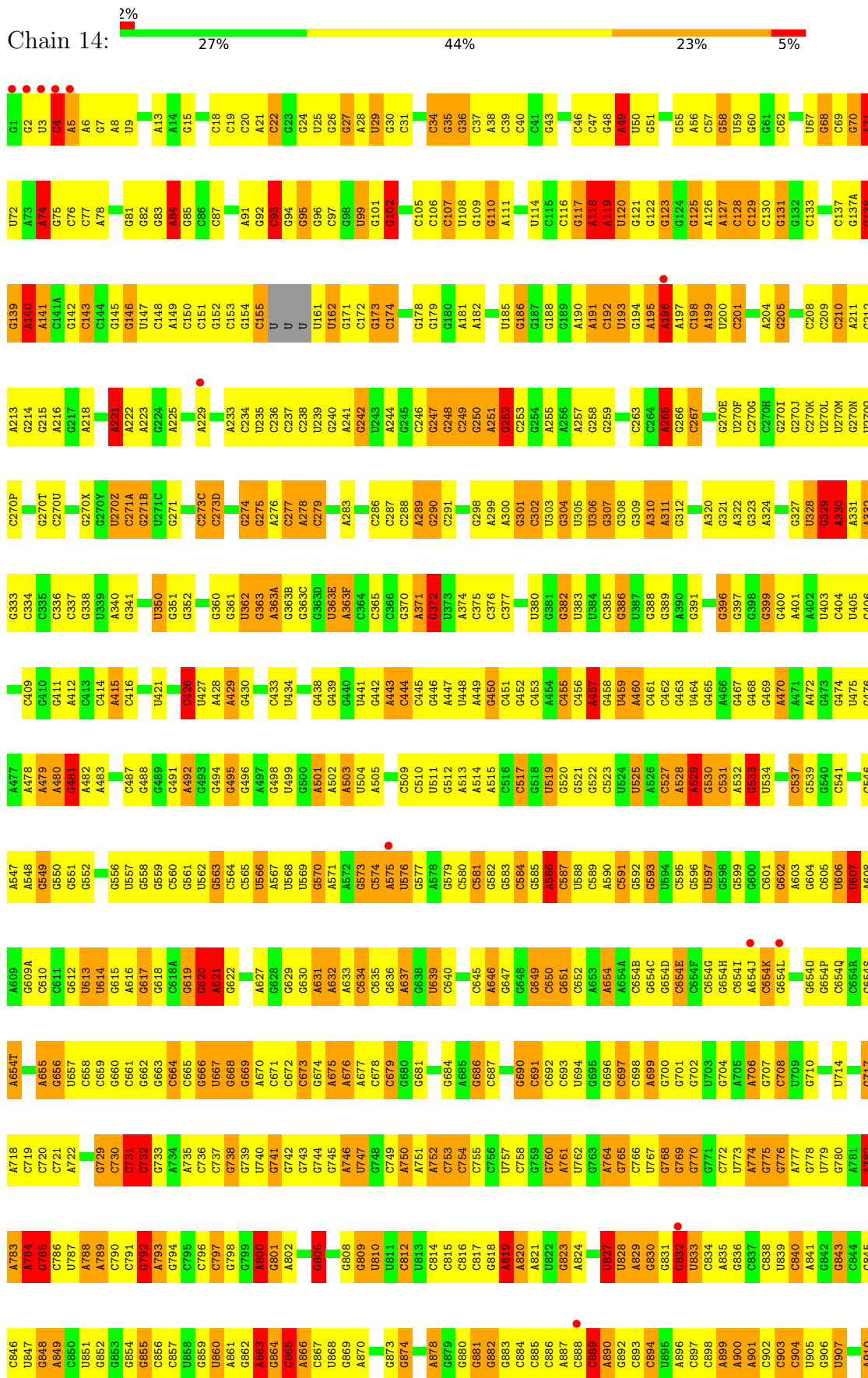


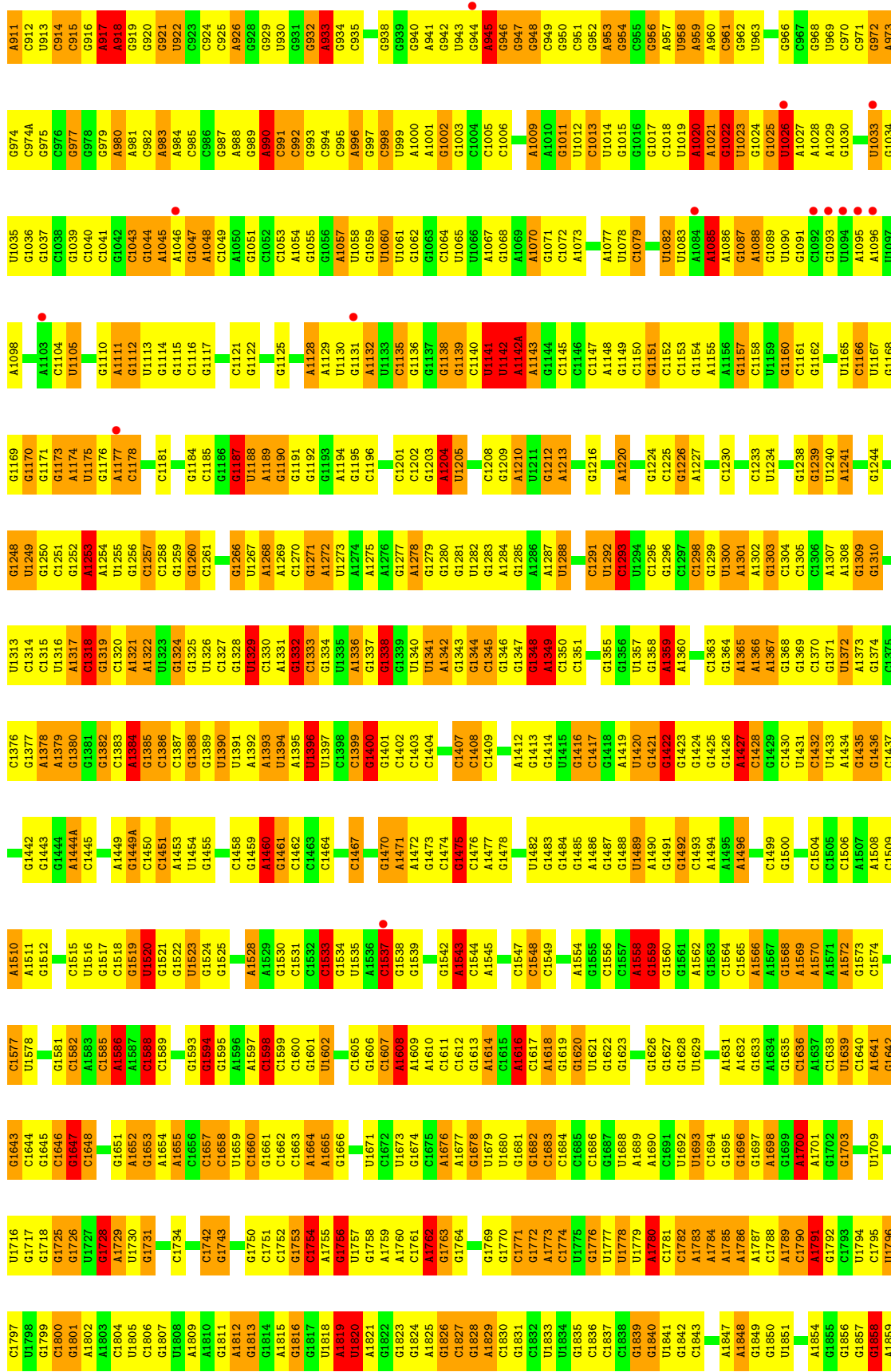


Table with 10 columns of residue identifiers (e.g., U1898, G1899, A1900) and 10 columns of secondary structure element identifiers (e.g., C1102, G1103, A1104). The table lists various residues across the protein structure.

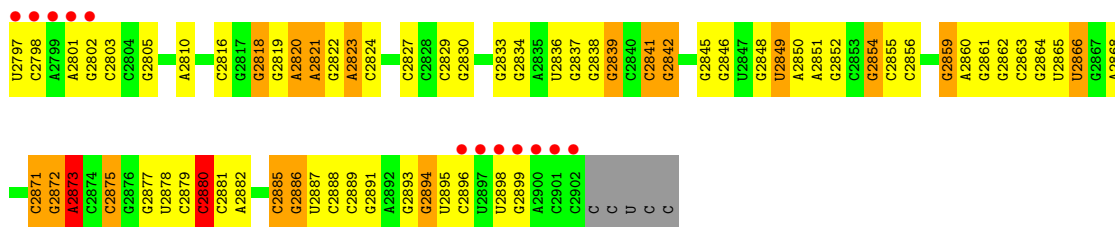




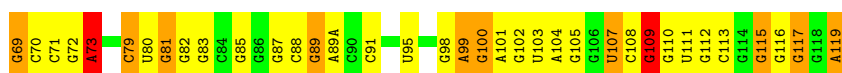




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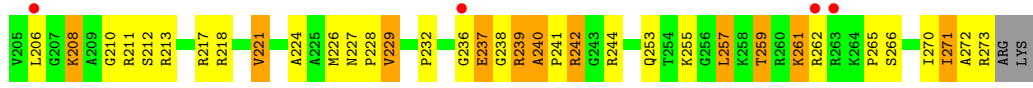
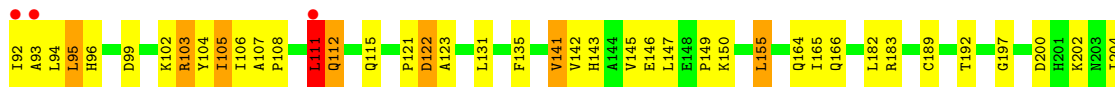
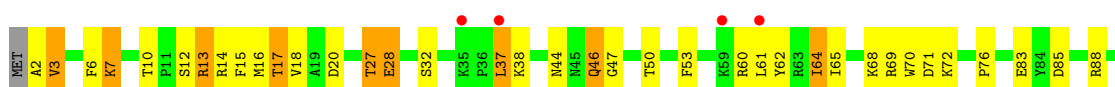
• Molecule 27: 5S ribosomal RNA



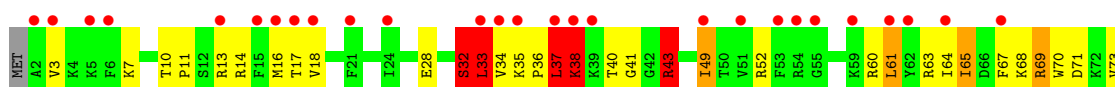
• Molecule 27: 5S ribosomal RNA

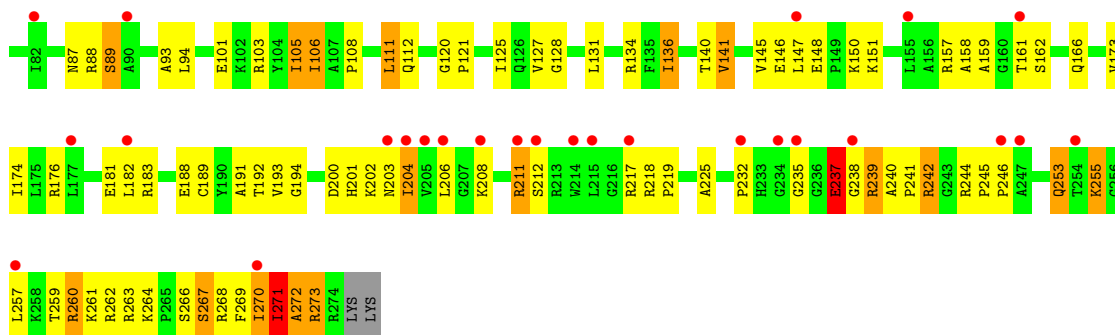


• Molecule 28: 50S ribosomal protein L2

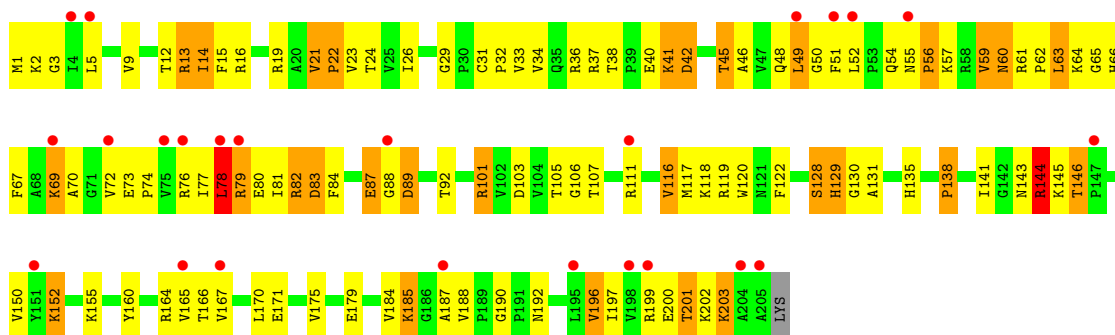


• Molecule 28: 50S ribosomal protein L2

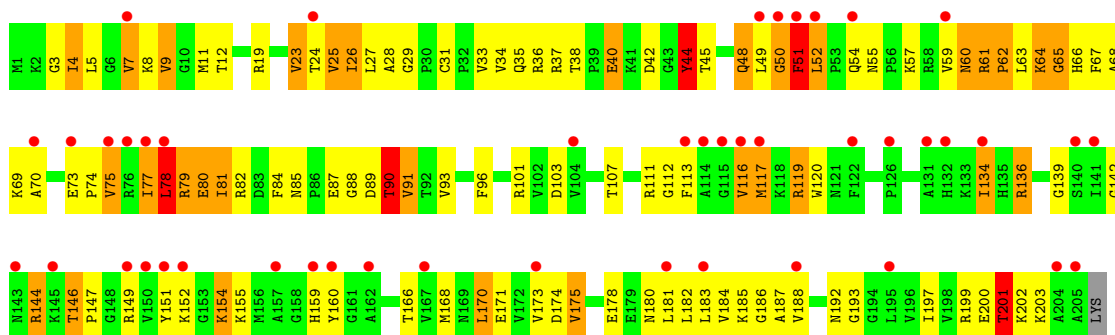
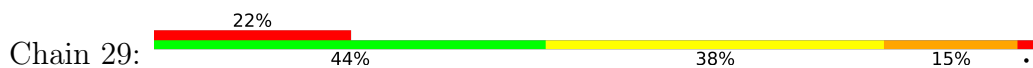




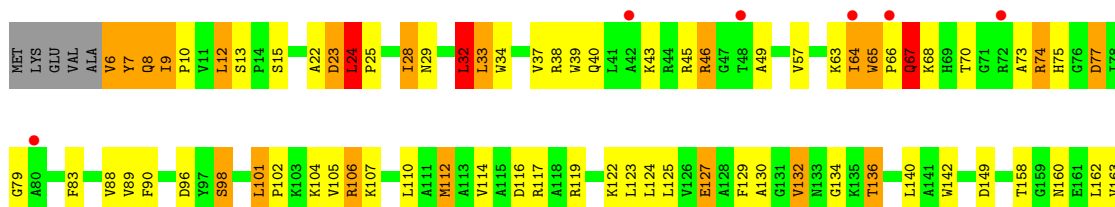
• Molecule 29: 50S ribosomal protein L3

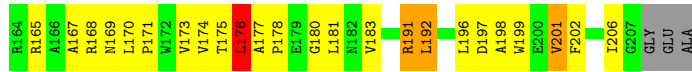


• Molecule 29: 50S ribosomal protein L3

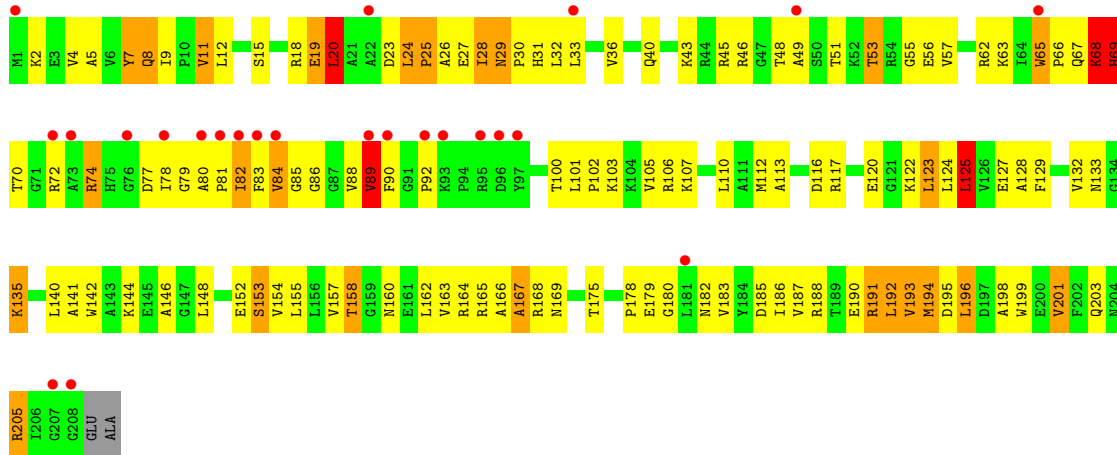


• Molecule 30: 50S ribosomal protein L4

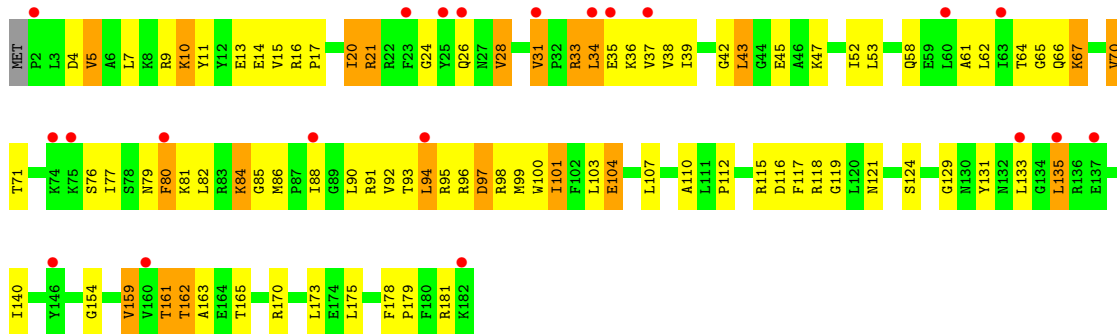




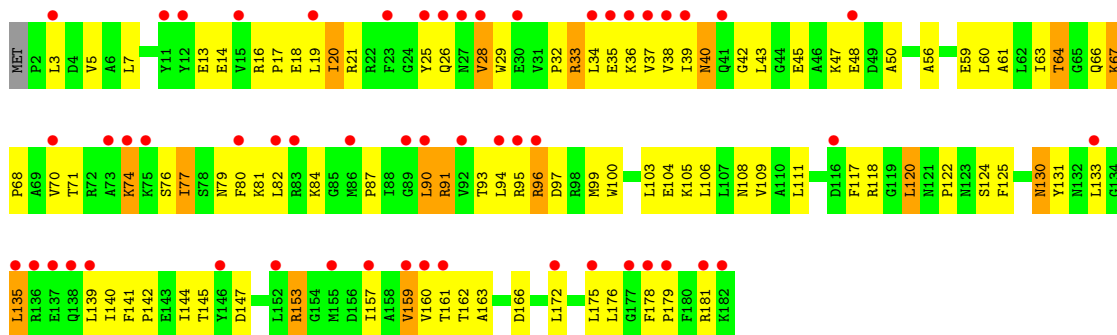
• Molecule 30: 50S ribosomal protein L4



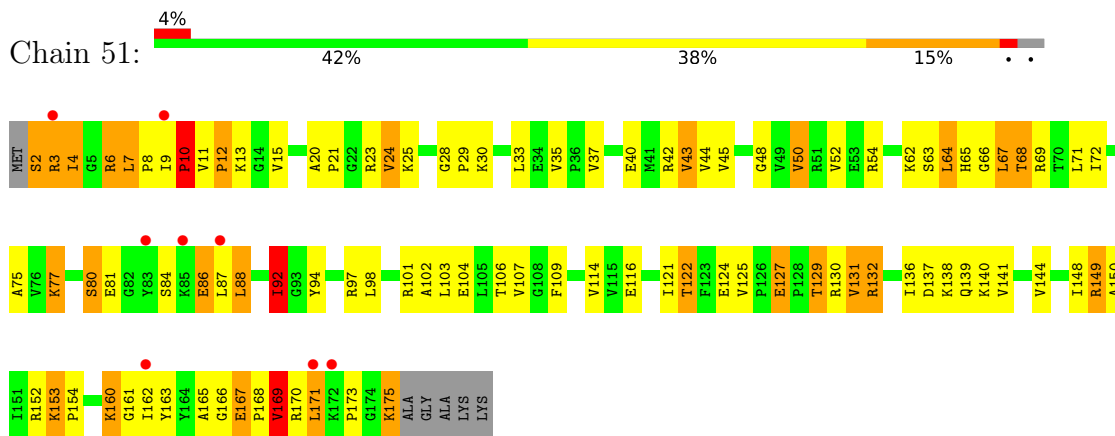
• Molecule 31: 50S ribosomal protein L5



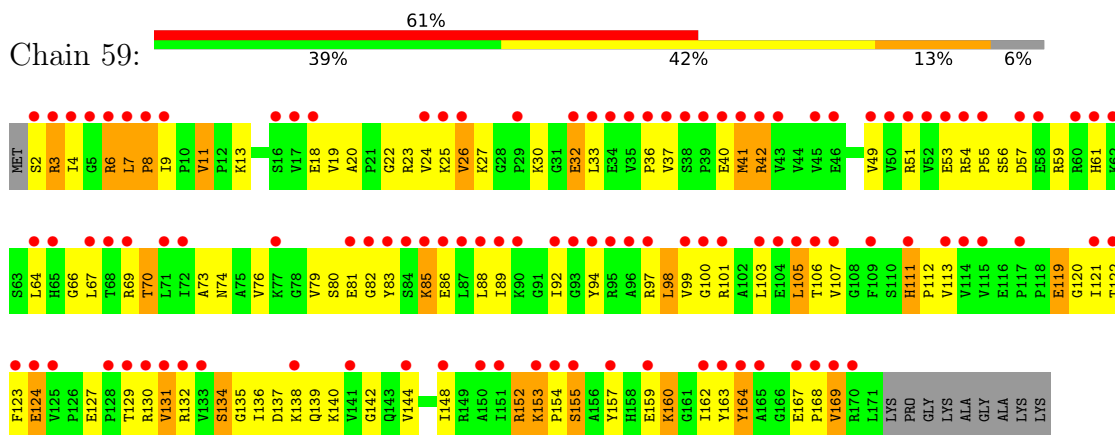
• Molecule 31: 50S ribosomal protein L5



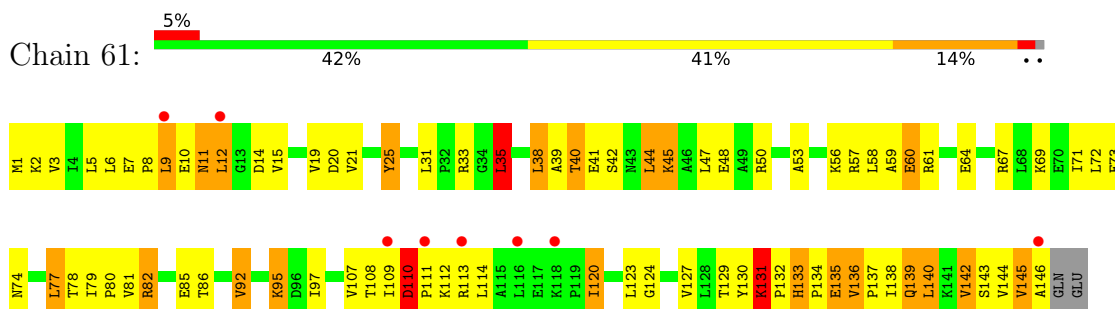
• Molecule 32: 50S ribosomal protein L6



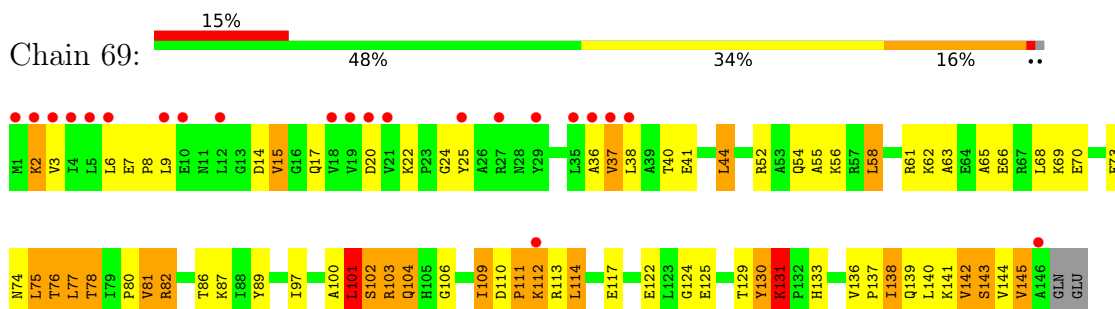
• Molecule 32: 50S ribosomal protein L6



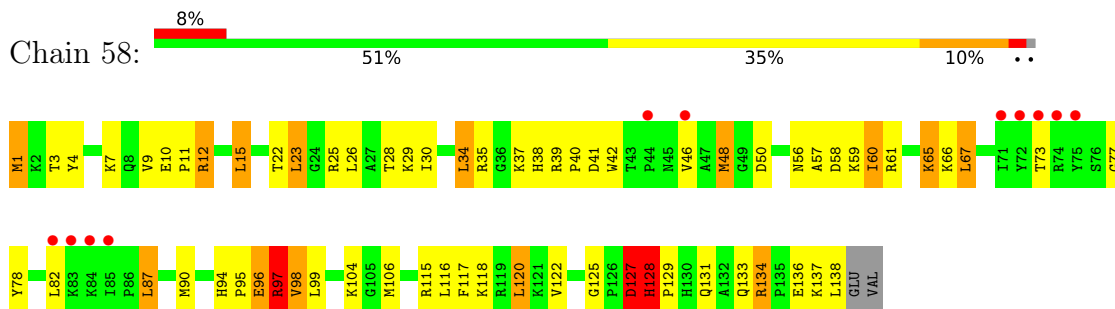
• Molecule 33: 50S ribosomal protein L9



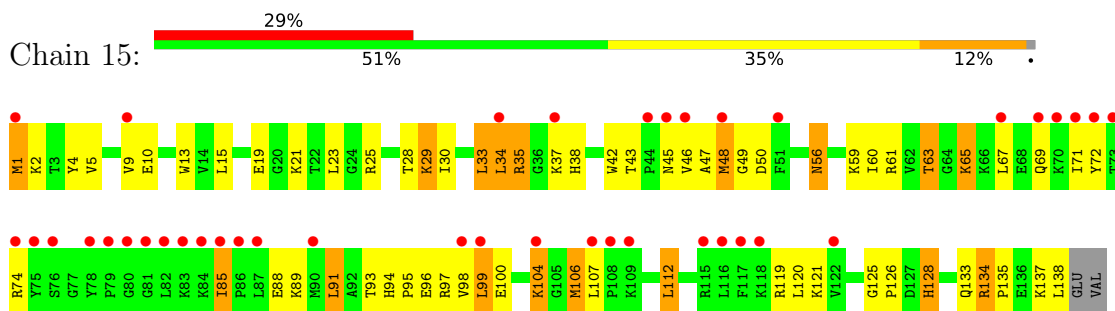
• Molecule 33: 50S ribosomal protein L9



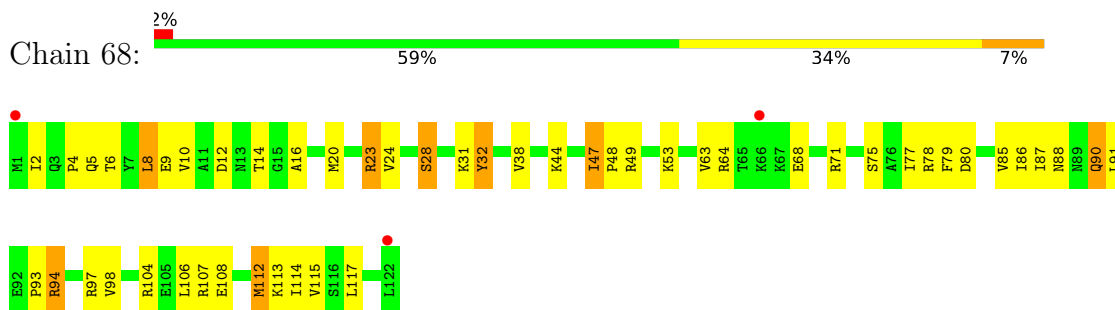
- Molecule 34: 50S ribosomal protein L13



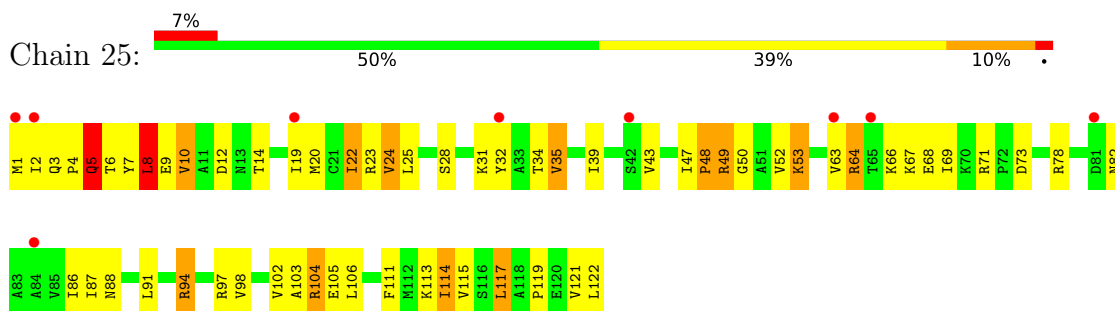
- Molecule 34: 50S ribosomal protein L13



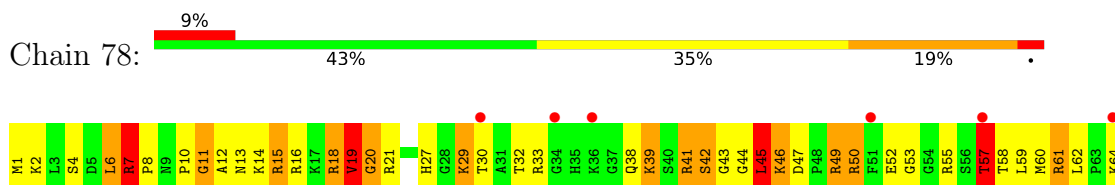
- Molecule 35: 50S ribosomal protein L14



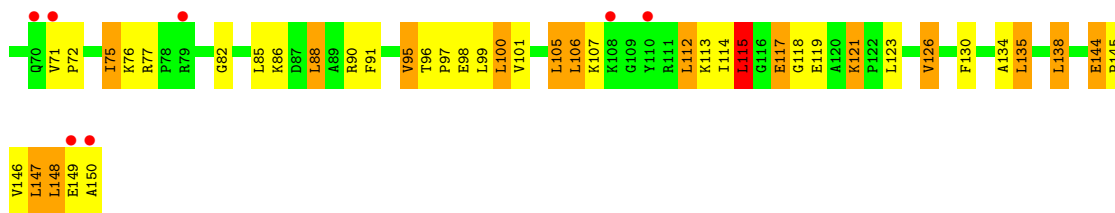
- Molecule 35: 50S ribosomal protein L14



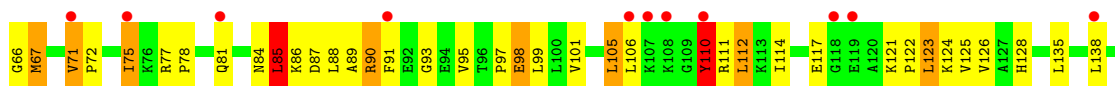
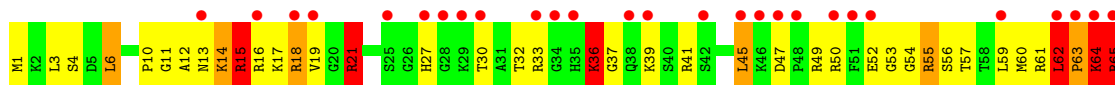
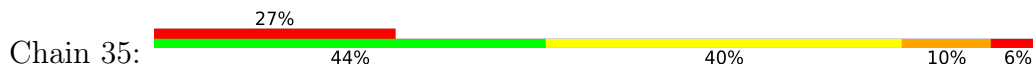
- Molecule 36: 50S ribosomal protein L15



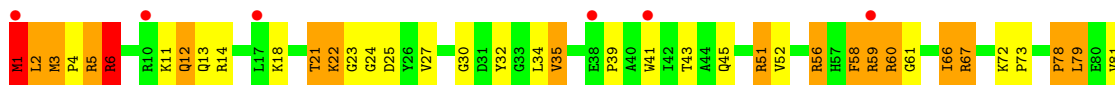




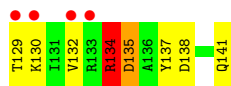
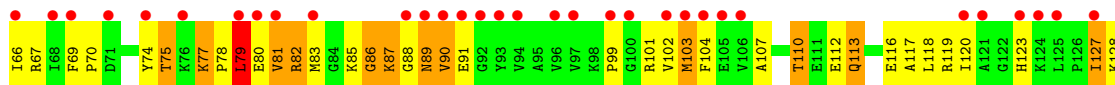
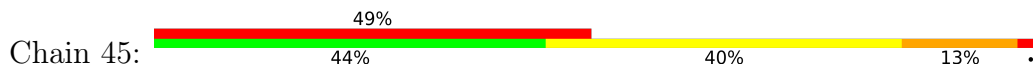
• Molecule 36: 50S ribosomal protein L15



• Molecule 37: 50S ribosomal protein L16

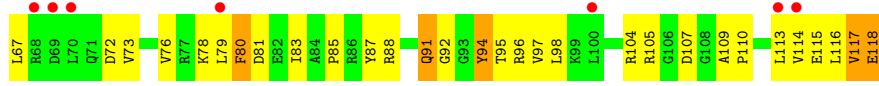
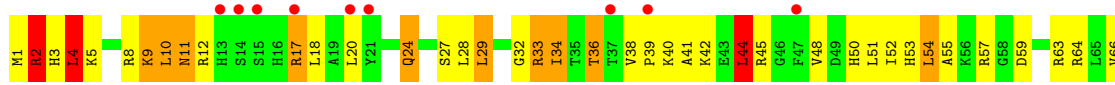


• Molecule 37: 50S ribosomal protein L16

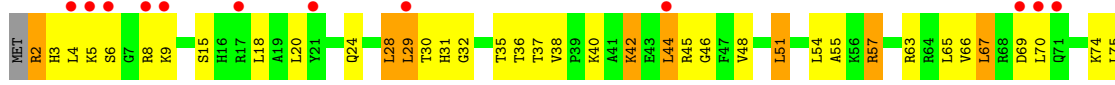


• Molecule 38: 50S ribosomal protein L17

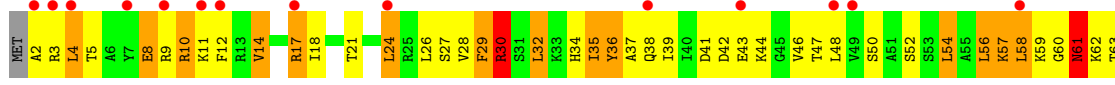




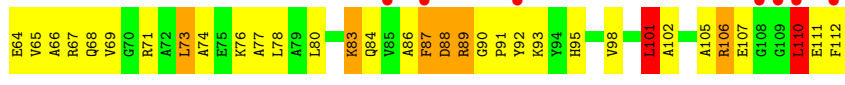
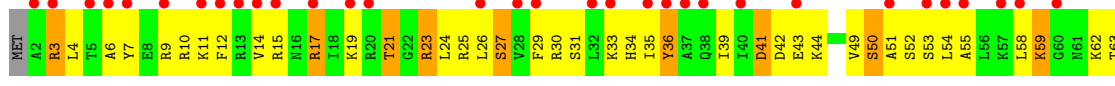
• Molecule 38: 50S ribosomal protein L17



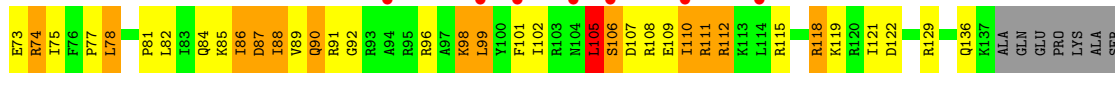
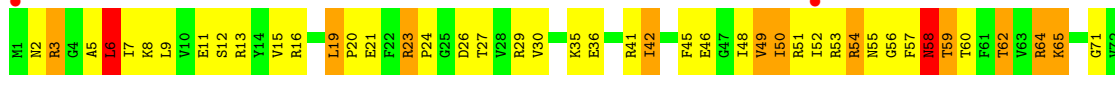
• Molecule 39: 50S ribosomal protein L18



• Molecule 39: 50S ribosomal protein L18

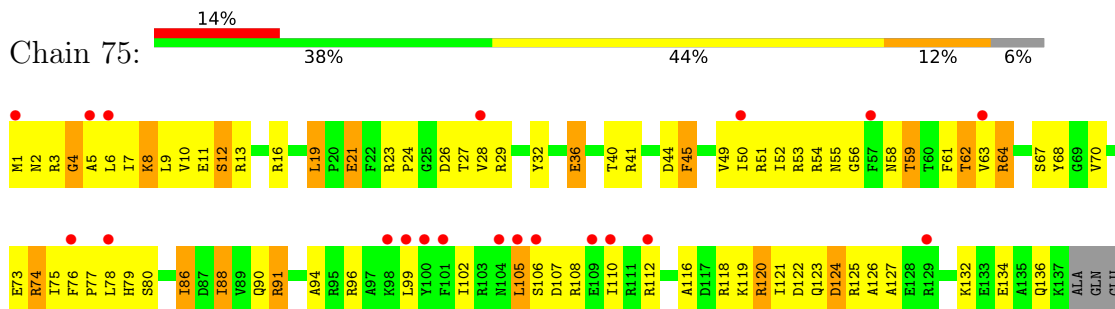


• Molecule 40: 50S ribosomal protein L19

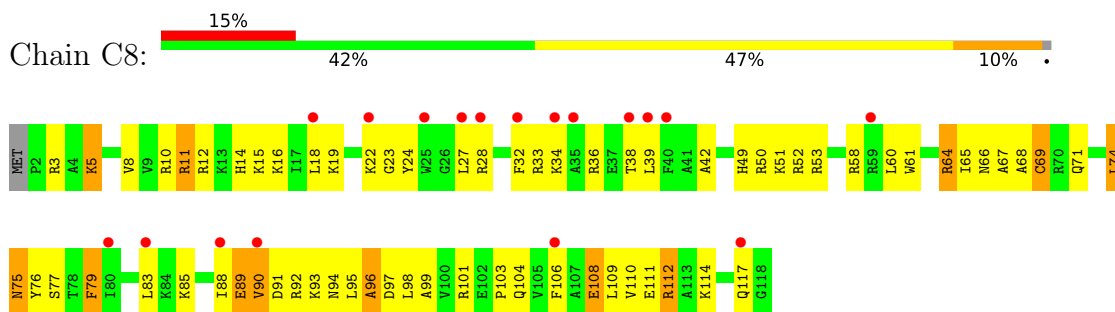


GLN  
GLU

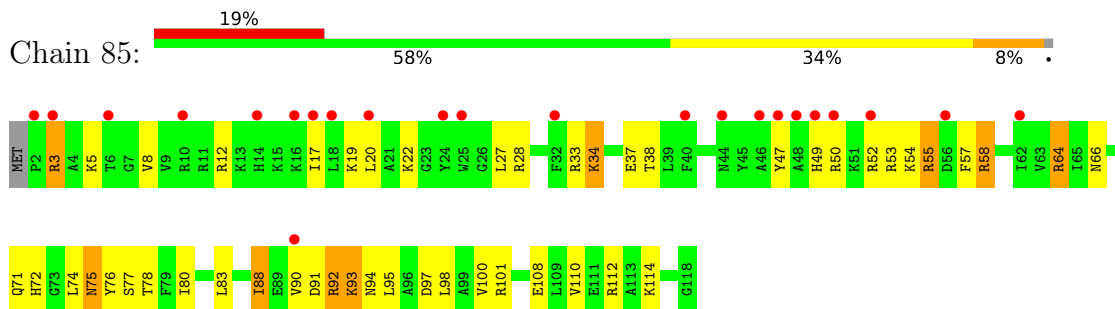
- Molecule 40: 50S ribosomal protein L19

PRO  
LYS  
ALA  
SER  
GLN  
GLU

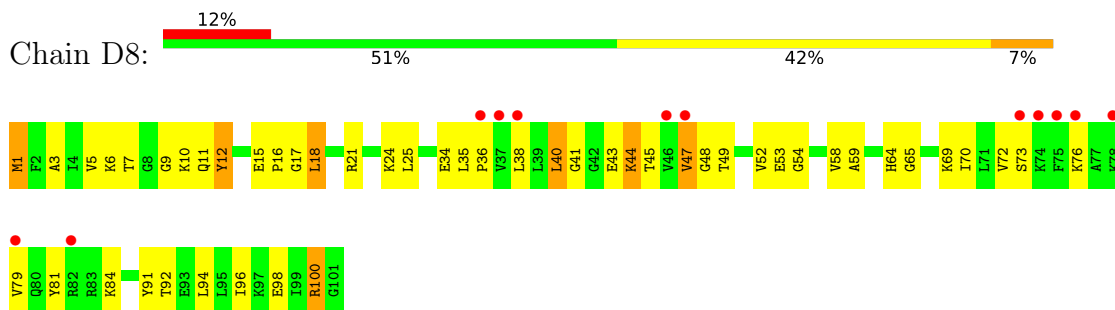
- Molecule 41: 50S ribosomal protein L20



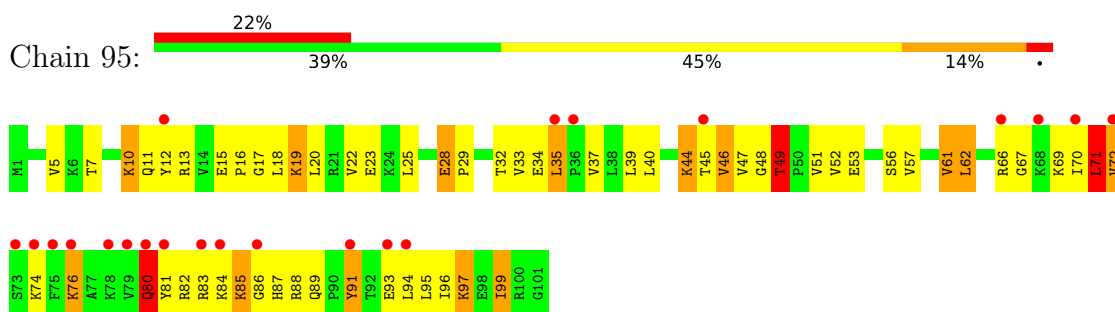
- Molecule 41: 50S ribosomal protein L20



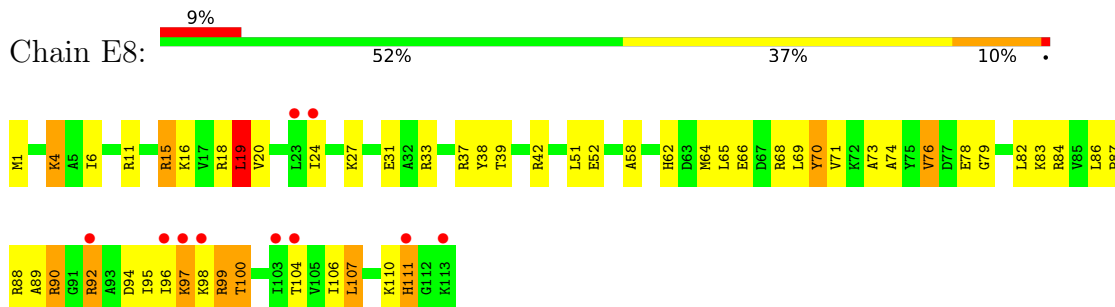
- Molecule 42: 50S ribosomal protein L21



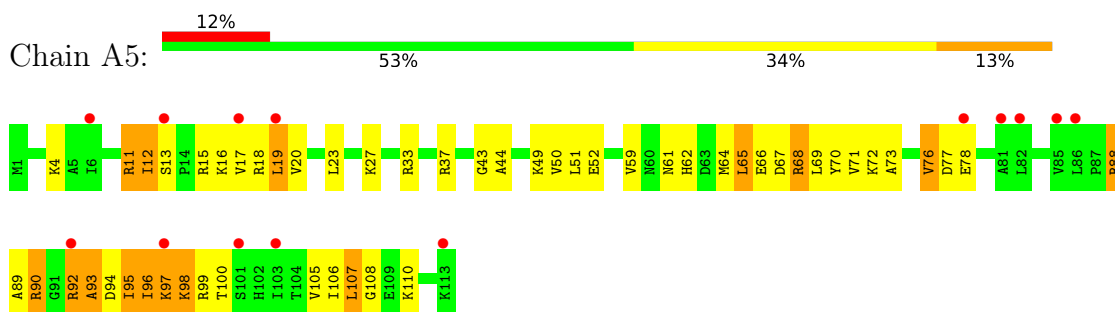
- Molecule 42: 50S ribosomal protein L21



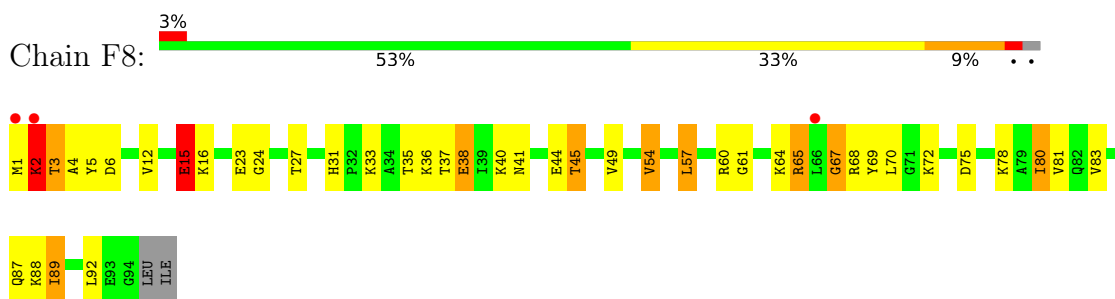
- Molecule 43: 50S ribosomal protein L22



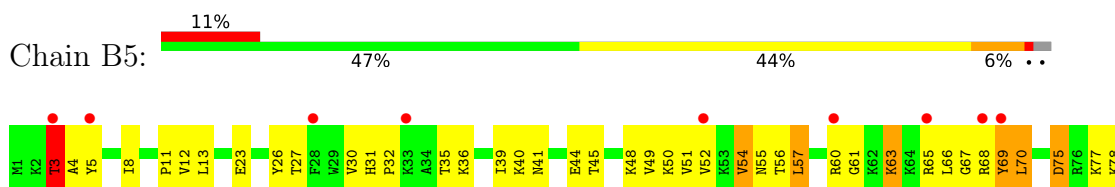
- Molecule 43: 50S ribosomal protein L22

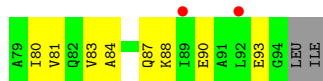


- Molecule 44: 50S ribosomal protein L23



- Molecule 44: 50S ribosomal protein L23

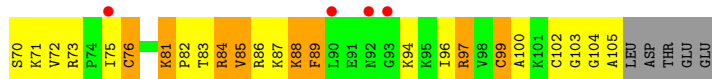
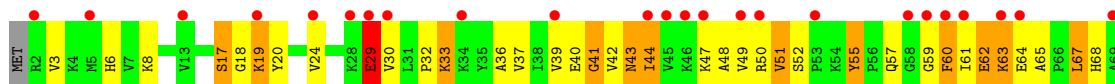




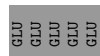
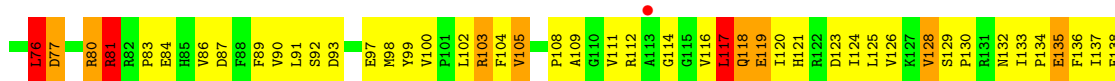
- Molecule 45: 50S ribosomal protein L24



- Molecule 45: 50S ribosomal protein L24

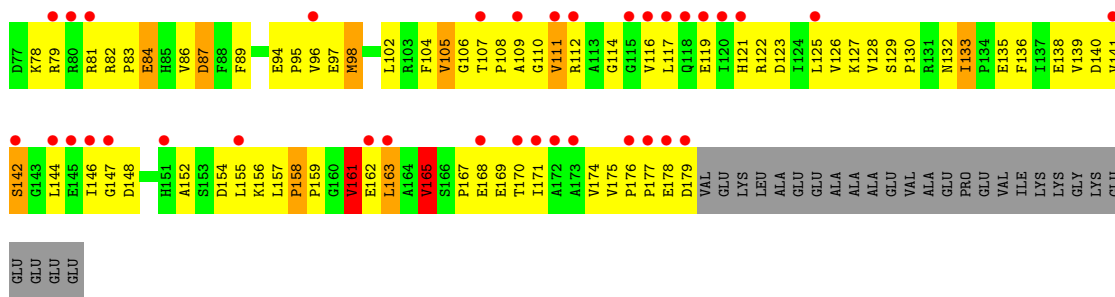


- Molecule 46: 50S ribosomal protein L25

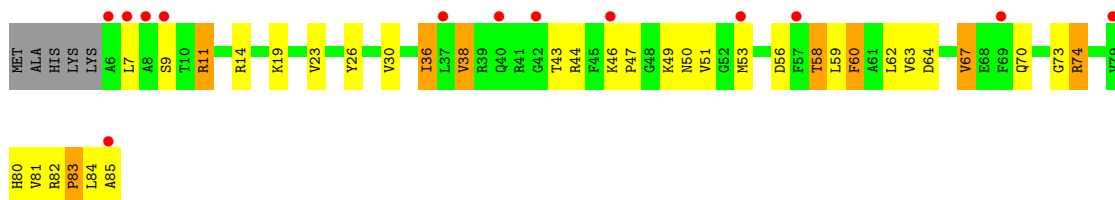


- Molecule 46: 50S ribosomal protein L25

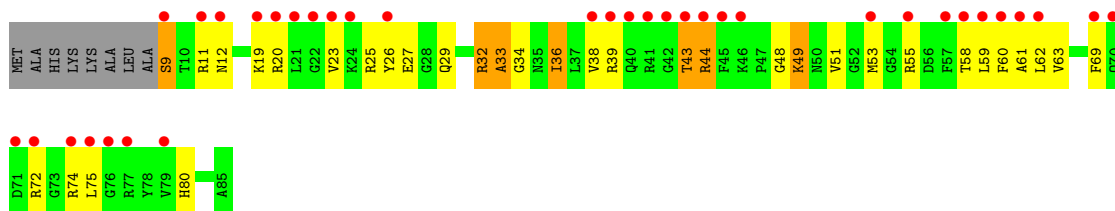
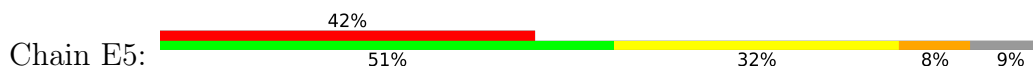




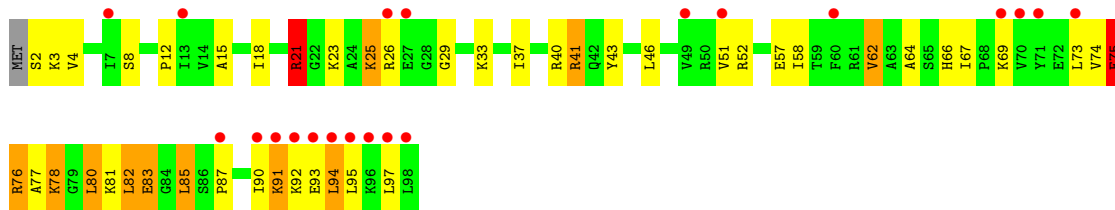
• Molecule 47: 50S ribosomal protein L27



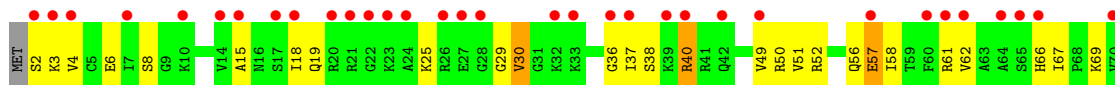
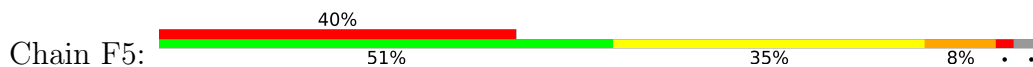
• Molecule 47: 50S ribosomal protein L27

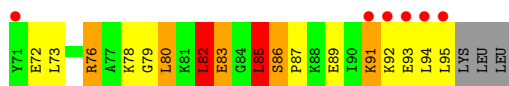


• Molecule 48: 50S ribosomal protein L28

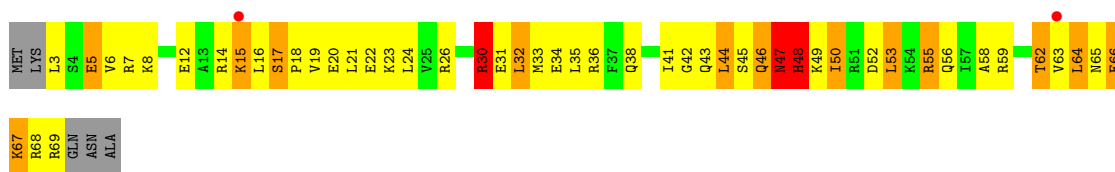


• Molecule 48: 50S ribosomal protein L28

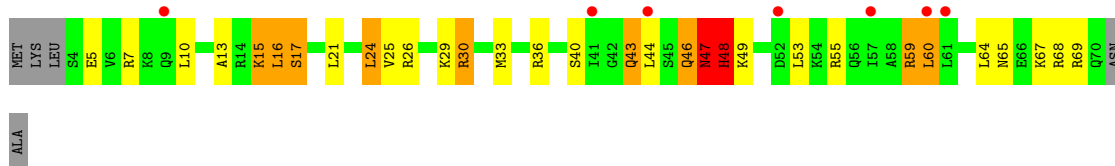




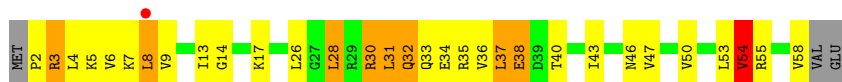
- Molecule 49: 50S ribosomal protein L29



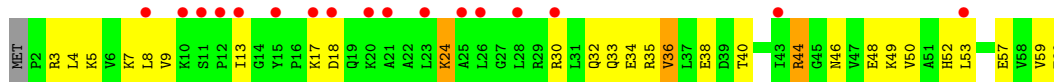
- Molecule 49: 50S ribosomal protein L29



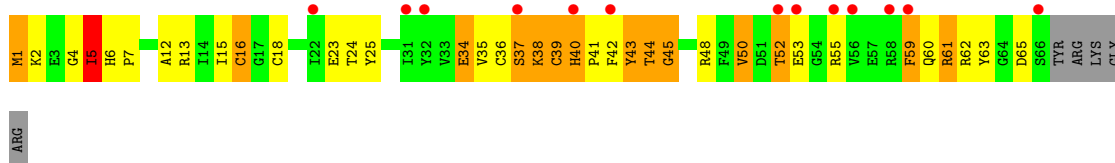
- Molecule 50: 50S ribosomal protein L30



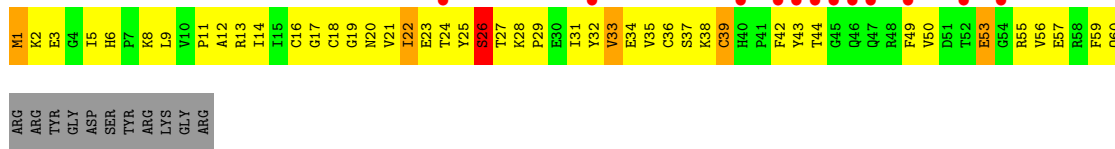
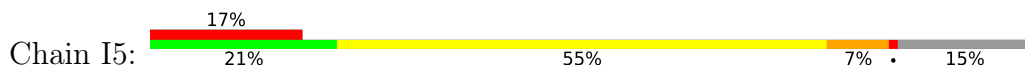
- Molecule 50: 50S ribosomal protein L30



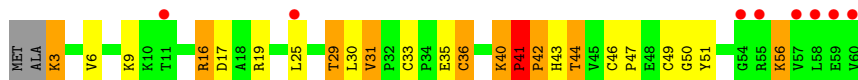
- Molecule 51: 50S ribosomal protein L31



- Molecule 51: 50S ribosomal protein L31



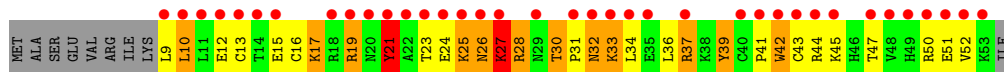
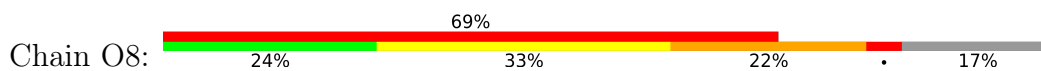
• Molecule 52: 50S ribosomal protein L32



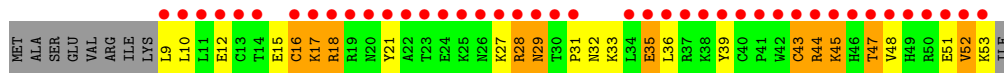
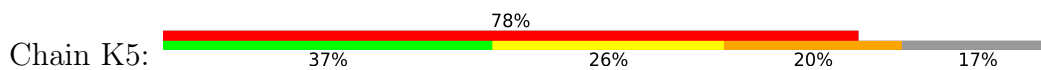
• Molecule 52: 50S ribosomal protein L32



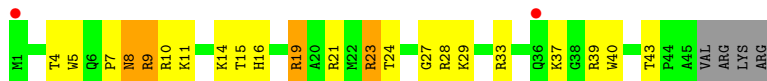
• Molecule 53: 50S ribosomal protein L33



• Molecule 53: 50S ribosomal protein L33



• Molecule 54: 50S ribosomal protein L34



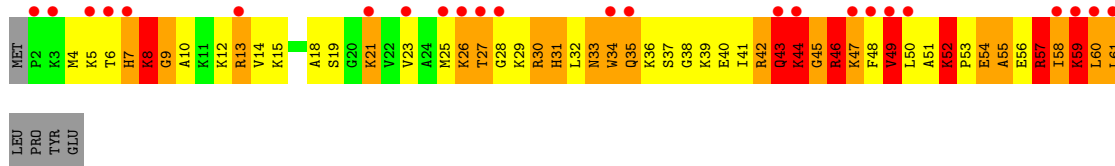
• Molecule 54: 50S ribosomal protein L34



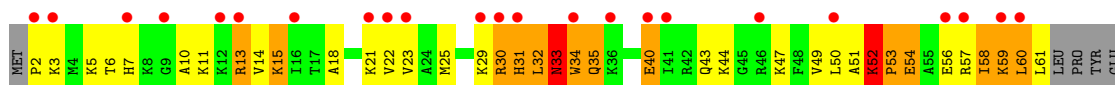




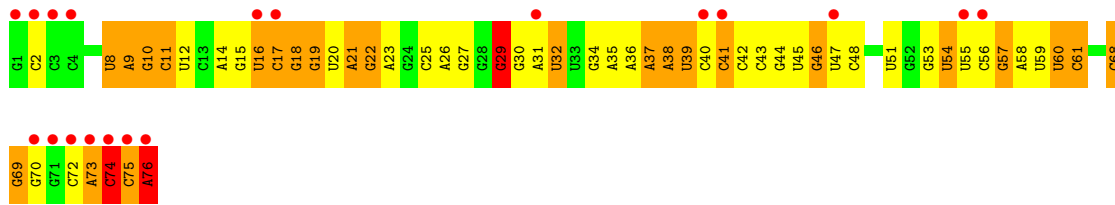
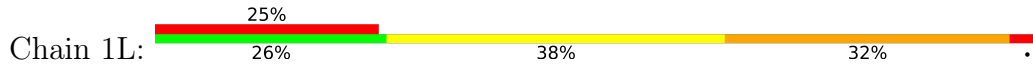
• Molecule 55: 50S ribosomal protein L35



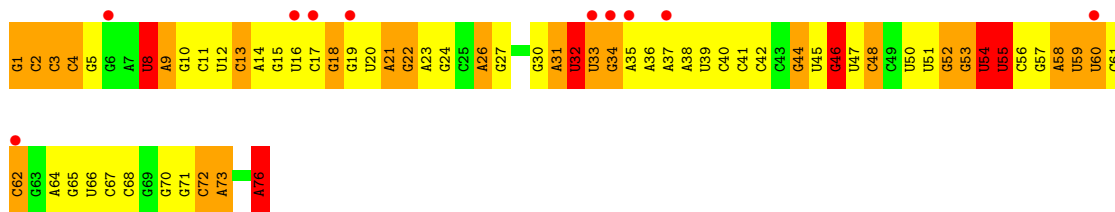
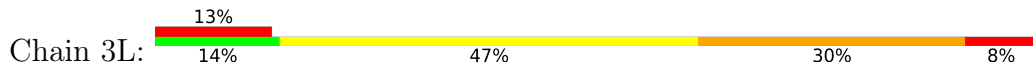
• Molecule 55: 50S ribosomal protein L35



• Molecule 56: tRNA-Phe



• Molecule 57: tRNA-Phe



## 4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	209.40Å 449.20Å 621.20Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	255.47 – 2.95 255.48 – 2.95	Depositor EDS
% Data completeness (in resolution range)	99.9 (255.47-2.95) 94.1 (255.48-2.95)	Depositor EDS
$R_{merge}$	0.30	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	0.89 (at 2.96Å)	Xtrriage
Refinement program	PHENIX	Depositor
R, $R_{free}$	0.193 , 0.235 0.194 , 0.235	Depositor DCC
$R_{free}$ test set	1999 reflections (0.16%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	78.0	Xtrriage
Anisotropy	0.287	Xtrriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.28 , 77.7	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.45$ , $\langle L^2 \rangle = 0.27$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
$F_o, F_c$ correlation	0.91	EDS
Total number of atoms	300252	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	104.0	wwPDB-VP

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

<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: MG, 4SU, 5MU, PAR, PSU, ZN, MIA, 7MG, OMC

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	0.93	27/36052 (0.1%)	1.65	832/56266 (1.5%)
1	1G	0.76	3/36049 (0.0%)	1.45	463/56262 (0.8%)
2	12	0.40	0/1959	0.65	2/2642 (0.1%)
2	1E	0.46	0/1959	0.72	1/2642 (0.0%)
3	22	0.42	0/1636	0.65	1/2205 (0.0%)
3	2E	0.60	0/1629	0.76	0/2195
4	32	0.56	0/1732	0.76	0/2318
4	3E	0.75	2/1732 (0.1%)	0.83	1/2318 (0.0%)
5	42	0.50	0/1171	0.74	1/1576 (0.1%)
5	4E	0.65	0/1171	0.80	0/1576
6	52	0.61	0/855	0.77	1/1154 (0.1%)
6	5E	0.63	0/855	0.78	0/1154
7	62	0.49	0/1261	0.62	0/1689
7	6E	0.55	0/1275	0.68	0/1709
8	72	0.45	0/1135	0.64	0/1527
8	7E	0.62	0/1135	0.83	0/1527
9	82	0.47	0/1002	0.70	0/1346
9	8E	0.54	0/1028	0.75	1/1379 (0.1%)
10	1A	0.41	0/814	0.65	0/1095
10	1I	0.58	0/814	0.73	0/1095
11	2A	0.53	0/879	0.74	1/1187 (0.1%)
11	2I	0.61	0/879	0.80	1/1187 (0.1%)
12	3A	0.62	0/991	0.84	2/1327 (0.2%)
12	3I	0.82	0/991	1.02	3/1327 (0.2%)
13	4A	0.39	0/943	0.63	0/1265
13	4I	0.59	0/948	0.79	1/1272 (0.1%)
14	5A	0.42	0/484	0.69	0/643
14	5I	0.81	1/500 (0.2%)	0.83	0/664
15	6A	0.55	0/744	0.67	1/992 (0.1%)
15	6I	0.62	0/744	0.82	0/992
16	7A	0.59	0/721	0.73	0/970
16	7I	0.58	0/721	0.79	0/970

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
17	8A	0.60	1/847 (0.1%)	0.70	0/1131
17	8I	0.62	0/847	0.80	0/1131
18	9A	0.57	0/595	0.73	0/790
18	9I	0.61	0/595	0.87	1/790 (0.1%)
19	AA	0.40	0/638	0.64	0/860
19	AI	0.61	0/661	0.87	1/890 (0.1%)
20	BA	0.53	0/764	0.81	0/1007
20	BI	0.48	0/764	0.74	0/1007
21	1B	0.52	0/221	0.64	0/288
21	1F	0.57	0/221	0.81	0/288
22	1K	0.62	3/1673 (0.2%)	1.31	20/2606 (0.8%)
23	2K	1.06	5/1721 (0.3%)	1.71	46/2682 (1.7%)
23	2L	0.81	1/1721 (0.1%)	1.49	33/2682 (1.2%)
24	3K	0.64	1/1712 (0.1%)	1.32	18/2663 (0.7%)
25	4K	1.10	0/313	1.39	1/485 (0.2%)
25	4L	1.01	1/262 (0.4%)	1.64	6/403 (1.5%)
26	14	1.05	136/70167 (0.2%)	1.79	2340/109541 (2.1%)
26	1H	1.28	361/70233 (0.5%)	2.08	3902/109643 (3.6%)
27	16	1.03	6/2928 (0.2%)	1.88	107/4568 (2.3%)
27	1J	0.83	1/2928 (0.0%)	1.52	38/4568 (0.8%)
28	11	0.99	4/2165 (0.2%)	1.09	6/2919 (0.2%)
28	19	0.85	0/2170	1.02	5/2926 (0.2%)
29	21	0.79	0/1601	1.01	4/2160 (0.2%)
29	29	0.75	0/1601	1.02	6/2160 (0.3%)
30	31	0.90	1/1620 (0.1%)	1.05	6/2194 (0.3%)
30	39	0.71	1/1662 (0.1%)	0.96	3/2249 (0.1%)
31	41	0.65	0/1498	0.85	1/2016 (0.0%)
31	49	0.43	0/1498	0.68	0/2016
32	51	0.70	0/1362	0.92	2/1841 (0.1%)
32	59	0.43	0/1332	0.72	1/1802 (0.1%)
33	61	0.57	0/1151	0.83	3/1558 (0.2%)
33	69	0.54	0/1151	0.81	2/1558 (0.1%)
34	15	0.57	0/1131	0.77	0/1525
34	58	0.67	0/1131	0.89	2/1525 (0.1%)
35	25	0.71	0/942	0.88	2/1269 (0.2%)
35	68	0.79	0/942	0.88	1/1269 (0.1%)
36	35	0.76	0/1161	1.19	5/1544 (0.3%)
36	78	0.87	0/1161	1.12	3/1544 (0.2%)
37	45	0.74	1/1142 (0.1%)	0.99	2/1527 (0.1%)
37	88	0.97	3/1106 (0.3%)	1.20	5/1478 (0.3%)
38	55	0.78	0/973	1.02	2/1302 (0.2%)
38	98	0.70	0/981	0.99	1/1312 (0.1%)
39	65	0.61	0/891	0.94	2/1187 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
39	A8	0.76	0/891	1.01	3/1187 (0.3%)
40	75	0.67	0/1155	0.85	0/1542
40	B8	0.80	0/1155	0.96	2/1542 (0.1%)
41	85	0.66	0/981	0.82	0/1306
41	C8	0.84	1/981 (0.1%)	1.04	3/1306 (0.2%)
42	95	0.71	0/789	0.93	3/1057 (0.3%)
42	D8	0.75	0/789	0.94	1/1057 (0.1%)
43	A5	0.84	1/910 (0.1%)	0.91	0/1220
43	E8	0.78	0/910	0.97	2/1220 (0.2%)
44	B5	0.86	1/749 (0.1%)	0.88	0/1007
44	F8	1.00	1/756 (0.1%)	1.03	3/1014 (0.3%)
45	C5	0.74	0/807	0.97	2/1076 (0.2%)
45	G8	0.84	0/804	1.09	5/1073 (0.5%)
46	D5	0.47	0/1460	0.71	0/1982
46	H8	0.55	0/1427	0.86	3/1935 (0.2%)
47	E5	0.72	0/620	0.88	0/827
47	I8	0.88	0/634	0.97	1/847 (0.1%)
48	F5	0.77	0/744	1.03	2/989 (0.2%)
48	J8	0.87	0/769	0.98	3/1022 (0.3%)
49	G5	0.66	0/565	0.88	0/748
49	K8	1.00	2/565 (0.4%)	1.11	1/748 (0.1%)
50	H5	0.60	0/473	0.77	0/635
50	L8	0.72	0/457	0.99	2/613 (0.3%)
51	I5	0.47	0/492	0.80	0/663
51	M8	0.64	0/545	0.87	1/733 (0.1%)
52	J5	0.73	0/472	0.94	0/639
52	N8	0.74	0/467	0.98	1/632 (0.2%)
53	K5	0.74	0/396	0.98	1/529 (0.2%)
53	O8	0.82	1/396 (0.3%)	1.05	1/529 (0.2%)
54	L5	0.81	0/406	0.94	0/536
54	P8	1.07	0/399	1.26	5/526 (1.0%)
55	M5	1.07	2/483 (0.4%)	1.16	1/634 (0.2%)
55	Q8	1.43	2/486 (0.4%)	1.85	9/638 (1.4%)
56	1L	0.49	0/1717	1.05	5/2674 (0.2%)
57	3L	0.68	2/1698 (0.1%)	1.27	11/2646 (0.4%)
All	All	0.96	572/322340 (0.2%)	1.61	7960/482707 (1.6%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
2	1E	0	2
4	32	0	2
9	82	0	1
10	1A	0	1
11	2A	0	1
12	3I	0	1
13	4I	0	2
14	5A	0	1
19	AI	0	2
20	BA	0	2
20	BI	0	1
28	11	0	2
28	19	0	5
29	21	0	4
29	29	0	5
30	31	0	3
30	39	0	7
31	41	0	2
31	49	0	1
32	59	0	1
33	61	0	4
33	69	0	3
36	35	0	3
36	78	0	3
37	45	0	6
37	88	0	4
38	55	0	2
38	98	0	2
39	65	0	1
40	75	0	2
40	B8	0	2
41	85	0	2
41	C8	0	1
42	95	0	2
42	D8	0	1
43	A5	0	2
44	B5	0	1
45	C5	0	1
45	G8	0	3
46	D5	0	1
46	H8	0	3
47	I8	0	2
48	F5	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
48	J8	0	2
49	G5	0	4
49	K8	0	2
51	I5	0	1
51	M8	0	2
52	N8	0	1
53	K5	0	4
53	O8	0	2
55	M5	0	3
55	Q8	0	8
All	All	0	127

All (572) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	2430	A	N9-C4	-14.70	1.29	1.37
26	14	783	A	N9-C4	-13.46	1.29	1.37
26	1H	774	A	N9-C4	-13.24	1.29	1.37
26	1H	676	A	N9-C4	-13.22	1.29	1.37
26	1H	783	A	N3-C4	-13.21	1.26	1.34
26	1H	783	A	C5-C6	-13.05	1.29	1.41
26	1H	71	A	N9-C4	-12.95	1.30	1.37
26	1H	783	A	N9-C4	-12.55	1.30	1.37
26	1H	1698	A	N9-C4	-12.21	1.30	1.37
26	1H	1332	G	N9-C4	-11.95	1.28	1.38
26	1H	1614	A	N9-C4	-11.89	1.30	1.37
26	1H	676	A	N9-C8	11.45	1.47	1.37
26	1H	1786	A	N9-C4	-11.32	1.31	1.37
26	1H	1698	A	N3-C4	-11.27	1.28	1.34
14	5I	27	CYS	CB-SG	-11.05	1.63	1.82
1	13	792	A	N9-C4	-10.56	1.31	1.37
26	14	774	A	N9-C4	-10.47	1.31	1.37
26	1H	2346	A	N3-C4	-10.44	1.28	1.34
26	1H	1899	G	N9-C4	-10.30	1.29	1.38
26	14	74	A	N9-C4	-10.08	1.31	1.37
26	1H	2072	G	C8-N7	-10.00	1.25	1.30
26	1H	1950	G	N9-C8	9.98	1.44	1.37
26	14	1616	A	N9-C4	-9.94	1.31	1.37
1	13	792	A	C5-C6	-9.86	1.32	1.41
26	1H	805	G	N9-C8	-9.82	1.30	1.37
26	1H	1776	G	C8-N7	-9.82	1.25	1.30
26	1H	1678	G	N9-C8	9.78	1.44	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	2430	A	C5-C6	-9.73	1.32	1.41
26	14	1950	G	C2-N3	9.70	1.40	1.32
26	1H	74	A	N9-C4	-9.64	1.32	1.37
26	1H	2451	A	C6-N1	-9.51	1.28	1.35
26	1H	774	A	N9-C8	9.51	1.45	1.37
26	14	1786	A	N9-C4	-9.40	1.32	1.37
26	1H	1786	A	C5-C6	-9.35	1.32	1.41
26	1H	945	A	N7-C5	-9.30	1.33	1.39
26	1H	71	A	C6-N6	-9.29	1.26	1.33
4	3E	9	CYS	CB-SG	9.23	1.98	1.82
26	1H	732	C	N1-C6	-9.09	1.31	1.37
4	3E	12	CYS	CB-SG	9.00	1.97	1.82
26	1H	1786	A	N3-C4	-8.93	1.29	1.34
26	1H	1899	G	N9-C8	8.88	1.44	1.37
26	1H	2062	A	N7-C5	8.80	1.44	1.39
26	1H	676	A	C5-C4	8.79	1.45	1.38
26	1H	774	A	N3-C4	-8.77	1.29	1.34
26	1H	945	A	N1-C2	8.77	1.42	1.34
26	14	783	A	C5-C6	-8.77	1.33	1.41
26	1H	1142(A)	A	N9-C4	-8.69	1.32	1.37
26	1H	2713	A	N9-C4	-8.53	1.32	1.37
26	14	783	A	N3-C4	-8.52	1.29	1.34
26	14	676	A	N9-C8	8.48	1.44	1.37
26	1H	71	A	N9-C8	8.43	1.44	1.37
26	1H	689	A	N3-C4	-8.42	1.29	1.34
26	1H	71	A	C5-C4	8.40	1.44	1.38
26	1H	1786	A	N7-C5	-8.33	1.34	1.39
26	1H	1616	A	C5-C6	-8.32	1.33	1.41
26	14	2506	U	C2-N3	8.31	1.43	1.37
26	1H	945	A	C2-N3	8.22	1.41	1.33
28	11	237	GLU	CG-CD	8.21	1.64	1.51
26	1H	621	A	N9-C4	-8.21	1.32	1.37
26	1H	71	A	C5-C6	-8.15	1.33	1.41
30	39	65	TRP	CB-CG	-8.01	1.35	1.50
26	1H	783	A	C6-N1	-8.01	1.29	1.35
26	1H	1021	A	N9-C4	-7.99	1.33	1.37
26	1H	945	A	N9-C4	-7.87	1.33	1.37
26	1H	783	A	N9-C8	7.83	1.44	1.37
26	1H	1899	G	C2-N3	-7.82	1.26	1.32
26	1H	1678	G	C5-C4	7.82	1.43	1.38
26	1H	2392	A	N9-C8	7.81	1.44	1.37
26	1H	945	A	C5-C4	7.80	1.44	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	14	1786	A	C5-C4	7.79	1.44	1.38
26	1H	2392	A	C5-C4	7.78	1.44	1.38
49	K8	5	GLU	CG-CD	7.77	1.63	1.51
28	11	28	GLU	CG-CD	7.71	1.63	1.51
26	1H	2442	C	N1-C6	-7.69	1.32	1.37
26	1H	1332	G	N9-C8	7.68	1.43	1.37
23	2L	77	A	N9-C4	-7.67	1.33	1.37
26	1H	2713	A	C5-C4	7.61	1.44	1.38
26	14	2062	A	C6-N1	7.58	1.40	1.35
26	1H	821	A	N7-C5	-7.58	1.34	1.39
26	1H	1616	A	N9-C4	-7.57	1.33	1.37
26	14	1204	A	N9-C4	-7.53	1.33	1.37
26	1H	1676	A	N9-C4	-7.50	1.33	1.37
1	13	1227	A	N9-C4	-7.46	1.33	1.37
26	1H	729	G	C2-N3	-7.40	1.26	1.32
26	1H	1899	G	N3-C4	-7.38	1.30	1.35
26	14	1678	G	N9-C4	-7.36	1.32	1.38
26	14	945	A	N9-C4	-7.29	1.33	1.37
26	14	783	A	N7-C5	-7.29	1.34	1.39
26	1H	1349	A	C5-C4	7.28	1.43	1.38
26	1H	909	A	N3-C4	-7.28	1.30	1.34
26	1H	2287	A	N9-C4	-7.26	1.33	1.37
26	1H	2448	A	N7-C5	-7.25	1.34	1.39
1	13	1502	A	C5-C6	-7.23	1.34	1.41
26	1H	528	A	N9-C4	-7.23	1.33	1.37
26	14	1773	A	N9-C4	-7.22	1.33	1.37
26	14	2392	A	C5-C4	7.22	1.43	1.38
27	16	81	G	C2-N3	7.20	1.38	1.32
26	1H	1621	U	N1-C6	-7.19	1.31	1.38
26	1H	251	A	N9-C4	7.16	1.42	1.37
26	1H	1332	G	N3-C4	-7.15	1.30	1.35
26	14	945	A	C5-C6	-7.13	1.34	1.41
26	1H	1786	A	C5-C4	7.12	1.43	1.38
27	16	115	G	C2-N3	7.11	1.38	1.32
26	1H	2490	G	N9-C8	7.10	1.42	1.37
26	1H	585	G	N7-C5	-7.08	1.34	1.39
1	13	539	A	N3-C4	-7.07	1.30	1.34
26	1H	735	A	C5-C4	-7.06	1.33	1.38
49	K8	5	GLU	CB-CG	7.05	1.65	1.52
23	2K	38	A	N3-C4	-7.02	1.30	1.34
26	1H	695	G	C6-N1	-7.01	1.34	1.39
26	1H	2432	A	N9-C4	-6.99	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	14	1827	C	N3-C4	-6.99	1.29	1.33
26	1H	390	A	N3-C4	-6.98	1.30	1.34
26	1H	945	A	C5-C6	-6.98	1.34	1.41
26	1H	1569	A	N9-C4	-6.96	1.33	1.37
26	1H	1787	A	C6-N1	-6.94	1.30	1.35
26	1H	2060	A	N9-C4	-6.94	1.33	1.37
26	1H	729	G	N3-C4	-6.93	1.30	1.35
26	1H	2269	A	N9-C4	-6.93	1.33	1.37
26	14	71	A	N9-C4	-6.93	1.33	1.37
26	1H	825	C	N1-C6	-6.92	1.32	1.37
26	14	1903	G	N9-C8	-6.91	1.33	1.37
26	1H	1599	C	C2-O2	-6.91	1.18	1.24
26	1H	678	C	C4'-C3'	-6.90	1.45	1.53
26	1H	2071	A	N7-C5	-6.89	1.35	1.39
26	14	2506	U	N1-C2	6.87	1.44	1.38
26	1H	2392	A	N9-C4	-6.85	1.33	1.37
26	1H	1960	A	N7-C5	-6.85	1.35	1.39
26	1H	2051	A	N7-C5	-6.84	1.35	1.39
26	1H	1616	A	N7-C5	-6.82	1.35	1.39
26	1H	472	A	N3-C4	-6.81	1.30	1.34
26	1H	1678	G	N9-C4	-6.79	1.32	1.38
1	13	1418	A	N9-C4	-6.78	1.33	1.37
26	1H	1275	A	N7-C5	-6.76	1.35	1.39
26	1H	1984	G	C6-N1	-6.75	1.34	1.39
26	1H	1785	A	N9-C4	6.75	1.41	1.37
26	1H	2457	U	C4-O4	-6.70	1.18	1.23
26	1H	860	U	N1-C2	6.70	1.44	1.38
26	14	1612	C	N1-C6	-6.70	1.33	1.37
26	1H	2510	C	N3-C4	-6.68	1.29	1.33
26	14	2821	A	N9-C4	-6.68	1.33	1.37
26	1H	795	C	N1-C6	-6.68	1.33	1.37
1	13	792	A	N3-C4	-6.67	1.30	1.34
26	1H	2297	C	N3-C4	-6.66	1.29	1.33
26	1H	774	A	C8-N7	6.65	1.36	1.31
26	1H	1311	G	N9-C4	-6.64	1.32	1.38
26	1H	1253	A	N9-C8	-6.62	1.32	1.37
26	1H	869	G	C6-N1	-6.61	1.34	1.39
26	1H	739	G	C2-N3	-6.60	1.27	1.32
26	1H	2430	A	N9-C8	6.59	1.43	1.37
1	13	792	A	N7-C5	-6.59	1.35	1.39
26	14	1698	A	N7-C5	-6.58	1.35	1.39
26	1H	463	G	N1-C2	-6.58	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	13	760	G	N7-C5	-6.58	1.35	1.39
26	14	2062	A	N7-C5	6.57	1.43	1.39
26	1H	138	G	N9-C8	6.55	1.42	1.37
26	1H	774	A	C6-N1	6.55	1.40	1.35
26	1H	2377	A	N9-C4	-6.54	1.33	1.37
26	1H	2688	U	N3-C4	-6.54	1.32	1.38
26	1H	452	G	C6-N1	-6.53	1.34	1.39
26	14	2599	G	C6-N1	-6.52	1.34	1.39
26	14	2361	A	N9-C4	-6.52	1.33	1.37
26	1H	1971	A	C5-C4	-6.51	1.34	1.38
26	1H	2346	A	N9-C4	-6.51	1.33	1.37
26	1H	1634	A	N7-C5	-6.50	1.35	1.39
26	1H	783	A	N7-C5	-6.49	1.35	1.39
26	14	2873	A	N7-C5	-6.47	1.35	1.39
26	1H	189	G	C5-C4	-6.47	1.33	1.38
1	13	690	G	C2-N3	6.46	1.38	1.32
26	1H	1392	A	N9-C4	6.45	1.41	1.37
26	1H	779	U	C5-C6	-6.45	1.28	1.34
26	1H	911	A	C6-N1	-6.44	1.31	1.35
26	1H	663	G	N7-C5	-6.43	1.35	1.39
26	14	190	A	C5-C6	-6.42	1.35	1.41
26	1H	787	U	C2-N3	-6.42	1.33	1.37
26	14	1278	A	N9-C4	-6.39	1.34	1.37
26	1H	213	A	N9-C4	-6.38	1.34	1.37
26	1H	2277	G	N9-C8	-6.38	1.33	1.37
26	1H	1815	A	N3-C4	-6.38	1.31	1.34
26	1H	1210	A	C5-C6	-6.38	1.35	1.41
26	14	1332	G	C5-C4	6.36	1.42	1.38
26	14	2515	C	N1-C6	-6.34	1.33	1.37
26	14	945	A	N7-C5	-6.33	1.35	1.39
26	14	2346	A	N3-C4	-6.32	1.31	1.34
26	14	746	A	N3-C4	-6.32	1.31	1.34
26	1H	2062	A	C5-C6	6.30	1.46	1.41
26	1H	839	U	C4-O4	6.30	1.28	1.23
26	1H	245	G	N7-C5	-6.28	1.35	1.39
26	1H	785	G	N7-C5	-6.28	1.35	1.39
26	14	676	A	C5-C4	6.28	1.43	1.38
26	1H	122	G	C2-N3	6.27	1.37	1.32
26	14	1902	C	C4-N4	-6.27	1.28	1.33
26	1H	621	A	C5-C6	-6.26	1.35	1.41
26	1H	2590	A	C6-N1	-6.26	1.31	1.35
26	14	1332	G	C2-N3	6.25	1.37	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	14	1786	A	C5-C6	-6.25	1.35	1.41
26	14	1899	G	C5-C4	6.24	1.42	1.38
26	14	1829	A	N7-C5	-6.23	1.35	1.39
26	1H	676	A	N3-C4	-6.22	1.31	1.34
26	14	2707	G	C2-N3	6.21	1.37	1.32
26	1H	585	G	C5-C6	-6.19	1.36	1.42
26	14	1617	C	N1-C6	-6.19	1.33	1.37
26	14	2873	A	N9-C4	-6.18	1.34	1.37
26	1H	774	A	C5-C6	-6.18	1.35	1.41
26	1H	1251	C	N1-C6	-6.18	1.33	1.37
55	Q8	49	VAL	CA-CB	6.17	1.67	1.54
26	14	2424	C	N3-C4	-6.17	1.29	1.33
26	1H	2675	A	N7-C5	-6.17	1.35	1.39
1	13	890	G	N7-C5	-6.17	1.35	1.39
24	3K	36	A	N9-C4	6.16	1.41	1.37
26	1H	2277	G	N7-C5	-6.15	1.35	1.39
27	16	81	G	N9-C8	6.14	1.42	1.37
26	1H	1678	G	N1-C2	6.14	1.42	1.37
26	1H	621	A	N7-C5	-6.13	1.35	1.39
26	1H	1566	A	C8-N7	6.13	1.35	1.31
26	1H	829	A	N3-C4	-6.13	1.31	1.34
26	14	1342	A	N3-C4	-6.12	1.31	1.34
26	1H	120	U	N3-C4	-6.11	1.32	1.38
26	1H	789	A	N9-C4	-6.11	1.34	1.37
26	1H	330	A	N9-C4	-6.10	1.34	1.37
26	1H	2287	A	C5-C6	-6.09	1.35	1.41
1	13	507	C	N1-C6	-6.09	1.33	1.37
26	1H	1836	C	N3-C4	-6.09	1.29	1.33
26	14	1254	A	N9-C4	6.08	1.41	1.37
26	1H	122	G	N7-C5	-6.07	1.35	1.39
26	14	1676	A	N3-C4	-6.07	1.31	1.34
26	1H	1241	A	N9-C4	-6.06	1.34	1.37
1	13	1498	U	N1-C2	6.06	1.44	1.38
26	14	1272	A	N3-C4	6.06	1.38	1.34
26	14	1786	A	N3-C4	-6.06	1.31	1.34
26	1H	1966	A	C5-C4	-6.04	1.34	1.38
26	1H	663	G	C6-N1	-6.01	1.35	1.39
26	1H	1332	G	N1-C2	6.00	1.42	1.37
26	1H	2518	A	N9-C4	-6.00	1.34	1.37
1	1G	690	G	N9-C8	6.00	1.42	1.37
1	13	1502	A	N7-C5	-6.00	1.35	1.39
26	1H	70	G	C6-N1	-5.98	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	1810	A	C5-C4	-5.97	1.34	1.38
25	4L	12	A	N9-C4	5.97	1.41	1.37
26	14	1308	A	N7-C5	-5.97	1.35	1.39
41	C8	69	CYS	CB-SG	-5.96	1.72	1.81
30	31	65	TRP	CB-CG	-5.95	1.39	1.50
1	13	808	C	N1-C6	-5.94	1.33	1.37
26	1H	2490	G	N1-C2	5.94	1.42	1.37
1	13	1502	A	N9-C4	-5.93	1.34	1.37
26	1H	265	A	N7-C5	-5.93	1.35	1.39
26	1H	1161	C	N1-C6	5.91	1.40	1.37
26	14	774	A	N9-C8	5.91	1.42	1.37
26	1H	1966	A	N9-C4	-5.90	1.34	1.37
26	1H	470	A	C5-C6	-5.89	1.35	1.41
26	1H	685	A	N9-C4	-5.89	1.34	1.37
26	1H	1950	G	N9-C4	-5.88	1.33	1.38
1	13	974	A	N7-C5	-5.88	1.35	1.39
26	14	2058	A	C6-N1	-5.88	1.31	1.35
26	1H	2053	G	C5-C4	-5.86	1.34	1.38
26	1H	2058	A	N9-C8	-5.85	1.33	1.37
26	1H	1827	C	N3-C4	-5.85	1.29	1.33
26	1H	1382	G	C5-C6	-5.84	1.36	1.42
26	1H	2346	A	N7-C5	-5.84	1.35	1.39
26	1H	2506	U	N1-C2	5.84	1.43	1.38
26	14	1313	U	C2-O2	-5.84	1.17	1.22
26	1H	2440	C	N1-C6	-5.83	1.33	1.37
26	1H	1364	G	C5-C4	-5.83	1.34	1.38
26	14	1950	G	N1-C2	5.82	1.42	1.37
26	14	2713	A	C5-C6	-5.82	1.35	1.41
26	1H	1678	G	N3-C4	-5.82	1.31	1.35
26	1H	1698	A	C5-C6	-5.82	1.35	1.41
57	3L	76	A	C5-C4	5.81	1.42	1.38
1	13	1530	G	N9-C4	-5.81	1.33	1.38
26	1H	2602	A	N9-C4	5.81	1.41	1.37
26	1H	1658	C	N3-C4	5.78	1.38	1.33
26	14	1786	A	N7-C5	-5.78	1.35	1.39
26	14	1698	A	C5-C6	-5.78	1.35	1.41
26	1H	609	A	C5-C6	-5.78	1.35	1.41
26	1H	775	G	N9-C8	-5.78	1.33	1.37
26	14	621	A	N9-C4	-5.77	1.34	1.37
26	1H	776	G	N7-C5	-5.76	1.35	1.39
26	1H	2025	C	C4-C5	-5.76	1.38	1.43
26	1H	683	C	C4-N4	-5.75	1.28	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	1957	C	C4-N4	-5.75	1.28	1.33
26	1H	1661	G	N7-C5	-5.75	1.35	1.39
26	1H	2525	G	N3-C4	5.75	1.39	1.35
26	1H	2451	A	C2-N3	-5.75	1.28	1.33
26	1H	673	C	C4-C5	-5.74	1.38	1.43
26	1H	2330	G	C5-C6	-5.74	1.36	1.42
26	1H	2490	G	N9-C4	-5.74	1.33	1.38
57	3L	76	A	C6-N1	5.73	1.39	1.35
26	1H	1600	C	C2-O2	-5.73	1.19	1.24
26	1H	2068	U	C2-N3	-5.73	1.33	1.37
37	88	79	LEU	N-CA	5.73	1.57	1.46
26	14	2065	C	N1-C6	-5.73	1.33	1.37
22	1K	74	C	N1-C2	5.72	1.45	1.40
26	1H	2373	G	C2-N3	5.72	1.37	1.32
26	1H	1990	C	N3-C4	-5.72	1.29	1.33
26	1H	739	G	C5-C4	-5.71	1.34	1.38
26	1H	1368	G	N3-C4	-5.71	1.31	1.35
26	1H	2248	C	N3-C4	-5.71	1.29	1.33
26	1H	777	A	N3-C4	-5.71	1.31	1.34
26	1H	675	A	C5-C6	-5.70	1.35	1.41
26	1H	1362	C	N1-C6	-5.69	1.33	1.37
53	O8	42	TRP	CB-CG	5.69	1.60	1.50
26	1H	2311	A	N9-C4	-5.69	1.34	1.37
26	14	2600	A	N7-C5	-5.69	1.35	1.39
26	1H	140	A	N7-C5	-5.68	1.35	1.39
26	1H	788	A	C6-N1	-5.67	1.31	1.35
26	1H	2064	C	N3-C4	-5.67	1.29	1.33
26	1H	2324	C	N1-C2	5.67	1.45	1.40
26	1H	530	G	N9-C8	5.66	1.41	1.37
26	1H	768	G	N7-C5	-5.66	1.35	1.39
26	1H	1786	A	C6-N6	-5.66	1.29	1.33
26	1H	451	C	N1-C2	-5.66	1.34	1.40
26	1H	2058	A	N7-C5	-5.65	1.35	1.39
26	14	1376	C	N1-C6	-5.65	1.33	1.37
26	14	2238	G	C8-N7	-5.65	1.27	1.30
26	1H	930	U	N3-C4	-5.64	1.33	1.38
26	14	1786	A	N9-C8	5.63	1.42	1.37
26	14	1899	G	C2-N3	5.63	1.37	1.32
22	1K	35	A	N3-C4	5.63	1.38	1.34
1	13	1525	G	C8-N7	5.62	1.34	1.30
26	1H	1188	U	C4-O4	-5.62	1.19	1.23
55	M5	54	GLU	CG-CD	5.62	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	2503	A	C5-C6	-5.62	1.35	1.41
26	1H	1950	G	N3-C4	-5.61	1.31	1.35
26	14	945	A	N3-C4	-5.61	1.31	1.34
26	1H	1332	G	C5-C6	-5.61	1.36	1.42
23	2K	11	A	N3-C4	-5.60	1.31	1.34
26	14	792	G	C6-N1	-5.60	1.35	1.39
26	1H	2448	A	C5-C4	-5.60	1.34	1.38
26	1H	1674	G	N7-C5	-5.59	1.35	1.39
26	1H	2602	A	N3-C4	5.59	1.38	1.34
17	8A	49	GLU	CG-CD	5.58	1.60	1.51
26	14	691	C	N1-C6	-5.58	1.33	1.37
26	14	1384	A	N3-C4	-5.57	1.31	1.34
26	1H	569	U	C2-N3	-5.57	1.33	1.37
26	14	732	C	N1-C6	-5.56	1.33	1.37
26	1H	1380	G	N7-C5	-5.56	1.35	1.39
26	1H	265	A	N9-C4	-5.56	1.34	1.37
26	1H	2402	C	N1-C6	5.55	1.40	1.37
28	11	122	ASP	CB-CG	5.55	1.63	1.51
26	1H	2071	A	C5-C6	-5.54	1.36	1.41
26	14	2015	A	N3-C4	-5.54	1.31	1.34
26	1H	1385	G	N9-C4	-5.54	1.33	1.38
26	1H	1253	A	C5-C4	-5.53	1.34	1.38
26	14	1693	U	C4-O4	-5.53	1.19	1.23
1	1G	687	A	N9-C4	5.52	1.41	1.37
26	1H	2433	A	C6-N1	-5.52	1.31	1.35
27	1J	102	G	N7-C5	5.52	1.42	1.39
44	F8	15	GLU	CB-CG	5.51	1.62	1.52
26	1H	2281	C	N1-C6	-5.51	1.33	1.37
26	1H	1326	U	C2-N3	-5.51	1.33	1.37
26	14	1825	A	C6-N1	-5.51	1.31	1.35
27	16	6	C	N3-C4	5.50	1.37	1.33
26	14	1907	G	N7-C5	5.50	1.42	1.39
26	1H	2578	G	C6-N1	-5.50	1.35	1.39
26	14	2070	G	C6-N1	-5.49	1.35	1.39
26	14	1785	A	N7-C5	-5.49	1.35	1.39
26	1H	2310	A	N9-C4	5.49	1.41	1.37
26	1H	2713	A	N9-C8	5.49	1.42	1.37
26	1H	739	G	C5-C6	-5.49	1.36	1.42
27	16	7	G	N7-C5	5.49	1.42	1.39
26	1H	2448	A	N3-C4	-5.49	1.31	1.34
26	1H	2518	A	N7-C5	-5.49	1.35	1.39
26	1H	1698	A	N9-C8	5.48	1.42	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	14	1997	G	C2-N3	5.48	1.37	1.32
26	1H	957	A	N7-C5	-5.48	1.35	1.39
26	1H	680	G	C5-C4	-5.47	1.34	1.38
26	1H	722	A	N9-C4	-5.47	1.34	1.37
26	1H	71	A	N1-C2	5.46	1.39	1.34
26	1H	452	G	N1-C2	-5.46	1.33	1.37
26	1H	2700	C	N3-C4	5.46	1.37	1.33
26	1H	975	G	C2-N3	-5.46	1.28	1.32
26	1H	1258	C	N1-C6	-5.46	1.33	1.37
26	14	2058	A	N3-C4	-5.45	1.31	1.34
26	1H	430	G	N9-C8	-5.45	1.34	1.37
26	14	1978	A	N7-C5	-5.45	1.35	1.39
26	1H	748	G	C6-N1	-5.45	1.35	1.39
26	14	2252	G	N9-C8	-5.45	1.34	1.37
26	1H	917	A	C5-C6	-5.44	1.36	1.41
26	14	774	A	N3-C4	-5.44	1.31	1.34
26	1H	831	G	C6-N1	-5.43	1.35	1.39
26	1H	689	A	C6-N1	-5.43	1.31	1.35
26	14	2703	C	N1-C6	-5.43	1.33	1.37
26	1H	1660	C	C2-O2	-5.42	1.19	1.24
26	1H	2282	G	N1-C2	-5.42	1.33	1.37
26	14	1342	A	N7-C5	-5.42	1.35	1.39
26	1H	1332	G	C5-C4	5.41	1.42	1.38
26	1H	2245	U	C4-O4	-5.41	1.19	1.23
26	14	699	A	N3-C4	-5.40	1.31	1.34
26	14	2518	A	N9-C4	-5.40	1.34	1.37
26	1H	2761	G	N9-C4	-5.39	1.33	1.38
55	M5	56	GLU	CG-CD	5.39	1.60	1.51
26	1H	2239	G	C6-N1	-5.38	1.35	1.39
28	11	224	ALA	CA-CB	-5.38	1.41	1.52
26	14	783	A	N9-C8	5.37	1.42	1.37
26	1H	2430	A	C6-N1	5.37	1.39	1.35
26	1H	2712(A)	A	C5-C6	-5.37	1.36	1.41
26	1H	1349	A	N9-C8	5.37	1.42	1.37
26	1H	828	U	N3-C4	-5.36	1.33	1.38
26	1H	2430	A	N3-C4	-5.36	1.31	1.34
26	14	1612	C	C2-O2	5.35	1.29	1.24
26	1H	1681	G	N9-C4	-5.35	1.33	1.38
26	1H	2082	A	N9-C4	-5.35	1.34	1.37
37	88	82	ARG	N-CA	5.35	1.57	1.46
26	1H	2076	U	C2-O2	-5.35	1.17	1.22
26	14	565	C	N1-C6	-5.35	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	14	211	A	N7-C5	-5.35	1.36	1.39
26	1H	1436	G	C5-C4	-5.35	1.34	1.38
26	1H	2318	G	N9-C8	5.34	1.41	1.37
26	1H	1379	A	N9-C4	-5.34	1.34	1.37
26	1H	2451	A	N3-C4	-5.34	1.31	1.34
26	14	777	A	N3-C4	-5.34	1.31	1.34
26	1H	949	C	N3-C4	-5.33	1.30	1.33
26	14	2287	A	N9-C4	-5.33	1.34	1.37
26	1H	2508	G	C2-N3	-5.32	1.28	1.32
26	14	2873	A	C5-C6	-5.32	1.36	1.41
26	1H	1772	G	C6-N1	-5.31	1.35	1.39
26	1H	2327	A	N3-C4	-5.31	1.31	1.34
26	14	2873	A	N3-C4	-5.31	1.31	1.34
23	2K	38	A	N9-C4	-5.31	1.34	1.37
26	14	676	A	N9-C4	-5.31	1.34	1.37
26	1H	2490	G	C6-O6	-5.30	1.19	1.24
26	1H	181	A	C6-N1	-5.30	1.31	1.35
26	14	2511	U	C2-O2	-5.30	1.17	1.22
26	14	690	G	N9-C8	-5.30	1.34	1.37
26	14	1698	A	N9-C4	-5.29	1.34	1.37
26	1H	1789	A	C5-C6	-5.29	1.36	1.41
26	1H	1772	G	N9-C8	-5.28	1.34	1.37
26	1H	1817	G	C2-N3	5.28	1.36	1.32
26	1H	471	A	N9-C4	-5.28	1.34	1.37
26	1H	619	G	N9-C8	-5.28	1.34	1.37
26	1H	938	G	C2-N3	5.28	1.36	1.32
26	14	2713	A	N9-C4	-5.28	1.34	1.37
26	1H	1776	G	C5-C4	-5.27	1.34	1.38
26	1H	1269	A	C6-N1	-5.27	1.31	1.35
26	1H	1610	A	C5-C6	-5.27	1.36	1.41
26	1H	1271	G	N9-C8	-5.27	1.34	1.37
55	Q8	54	GLU	CG-CD	5.26	1.59	1.51
26	1H	1825	A	N3-C4	-5.26	1.31	1.34
26	1H	205	G	C2-N3	5.26	1.36	1.32
26	1H	1617	C	N3-C4	-5.26	1.30	1.33
26	14	1698	A	N1-C2	5.25	1.39	1.34
26	1H	239	U	C2-N3	-5.25	1.34	1.37
26	1H	805	G	C5-C4	-5.24	1.34	1.38
23	2K	21	U	N1-C2	5.24	1.43	1.38
26	1H	2248	C	C4-N4	-5.24	1.29	1.33
26	1H	2252	G	N9-C8	-5.24	1.34	1.37
26	1H	2518	A	C5-C6	-5.24	1.36	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	931	G	N7-C5	-5.23	1.36	1.39
26	14	1815	A	C5-C4	-5.23	1.35	1.38
26	14	783	A	N1-C2	5.22	1.39	1.34
26	1H	71	A	N7-C5	-5.22	1.36	1.39
26	14	213	A	N9-C4	-5.22	1.34	1.37
37	45	80	GLU	CB-CG	5.22	1.62	1.52
26	1H	869	G	N3-C4	-5.22	1.31	1.35
26	1H	1998	G	C2-N3	5.21	1.36	1.32
26	14	1950	G	C2-N2	5.21	1.39	1.34
26	1H	656	G	C2-N3	5.20	1.36	1.32
26	1H	2018	G	N7-C5	-5.20	1.36	1.39
26	14	746	A	N9-C4	-5.20	1.34	1.37
26	1H	2070	G	C2-N2	-5.20	1.29	1.34
26	14	766	C	N3-C4	-5.20	1.30	1.33
26	1H	2328	A	N3-C4	-5.20	1.31	1.34
26	1H	399	G	C6-O6	-5.19	1.19	1.24
26	1H	2346	A	C6-N1	-5.19	1.31	1.35
26	1H	1204	A	N9-C4	-5.19	1.34	1.37
26	14	2607	G	N7-C5	-5.19	1.36	1.39
26	1H	2645	G	N9-C4	-5.19	1.33	1.38
26	14	1275	A	N7-C5	-5.19	1.36	1.39
1	13	898	G	C2-N3	-5.18	1.28	1.32
37	88	78	PRO	CA-C	5.18	1.63	1.52
26	1H	929	G	N3-C4	-5.18	1.31	1.35
26	1H	1614	A	N3-C4	-5.18	1.31	1.34
26	1H	2282	G	C2-N3	-5.18	1.28	1.32
26	1H	1676	A	N3-C4	-5.17	1.31	1.34
26	1H	2689	U	C2-N3	-5.17	1.34	1.37
26	1H	378	C	N1-C6	-5.17	1.34	1.37
26	1H	2058	A	C5-C4	-5.17	1.35	1.38
26	14	1676	A	N9-C4	-5.17	1.34	1.37
1	13	694	A	N9-C4	-5.17	1.34	1.37
26	1H	1364	G	N7-C5	-5.17	1.36	1.39
26	1H	1593	G	C2-N3	-5.17	1.28	1.32
26	1H	250	G	N1-C2	-5.16	1.33	1.37
26	14	690	G	N7-C5	-5.15	1.36	1.39
26	1H	2451	A	N1-C2	-5.15	1.29	1.34
26	14	1284	A	N9-C4	-5.15	1.34	1.37
1	13	1523	G	C6-N1	-5.15	1.35	1.39
22	1K	76	A	C5-C4	5.15	1.42	1.38
26	1H	56	A	N7-C5	-5.14	1.36	1.39
26	1H	2598	A	C8-N7	-5.14	1.27	1.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	13	1520	G	C5-C6	-5.13	1.37	1.42
26	1H	2557	G	C2-N3	-5.13	1.28	1.32
26	14	1142(A)	A	N3-C4	-5.13	1.31	1.34
26	14	733	G	N9-C8	-5.13	1.34	1.37
26	14	2287	A	C5-C6	-5.13	1.36	1.41
26	1H	1899	G	C8-N7	5.13	1.34	1.30
26	1H	1824	G	N7-C5	-5.13	1.36	1.39
26	1H	947	G	C2-N3	-5.12	1.28	1.32
1	13	1498	U	C2-N3	5.12	1.41	1.37
26	1H	2490	G	C5-C6	-5.11	1.37	1.42
26	1H	735	A	N9-C8	-5.10	1.33	1.37
26	14	2439	A	N7-C5	-5.10	1.36	1.39
43	A5	77	ASP	CB-CG	5.10	1.62	1.51
26	1H	1355	G	N1-C2	-5.10	1.33	1.37
26	1H	1313	U	C4-C5	-5.09	1.39	1.43
26	1H	1621	U	N1-C2	-5.09	1.33	1.38
27	16	6	C	C2-O2	5.09	1.29	1.24
26	14	2329	G	C2-N3	5.09	1.36	1.32
1	13	302	G	N1-C2	-5.09	1.33	1.37
26	1H	1272	A	N3-C4	5.09	1.38	1.34
26	14	2430	A	C5-C6	-5.09	1.36	1.41
26	1H	74	A	N3-C4	-5.08	1.31	1.34
26	14	447	A	N3-C4	-5.08	1.31	1.34
44	B5	23	GLU	CG-CD	5.08	1.59	1.51
26	1H	2584	U	N3-C4	-5.08	1.33	1.38
26	1H	2685	G	N9-C8	-5.08	1.34	1.37
26	14	1303	G	C6-N1	-5.08	1.35	1.39
26	1H	473	G	N1-C2	-5.08	1.33	1.37
26	1H	2549	G	N9-C8	-5.07	1.34	1.37
26	1H	2589	A	C5-C4	-5.07	1.35	1.38
26	1H	184	C	N1-C6	-5.07	1.34	1.37
26	1H	1791	A	N3-C4	-5.07	1.31	1.34
26	1H	531	C	C2-O2	-5.07	1.19	1.24
26	14	1258	C	C4-C5	-5.07	1.38	1.43
26	1H	1616	A	N3-C4	-5.07	1.31	1.34
26	1H	1365	A	N7-C5	-5.06	1.36	1.39
26	1H	2521	C	N1-C6	-5.06	1.34	1.37
26	1H	58	G	C2-N3	-5.06	1.28	1.32
26	14	330	A	N9-C4	-5.06	1.34	1.37
26	1H	1798	U	C4-O4	-5.06	1.19	1.23
26	1H	676	A	C5-C6	-5.06	1.36	1.41
26	1H	188	G	N9-C8	-5.05	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	917	A	C2-N3	-5.05	1.29	1.33
26	1H	180	G	C2-N3	5.05	1.36	1.32
26	14	1288	U	C2-N3	-5.05	1.34	1.37
26	1H	199	A	C8-N7	5.05	1.35	1.31
26	1H	1892	C	N3-C4	-5.05	1.30	1.33
1	1G	1473	A	N9-C4	-5.05	1.34	1.37
26	14	330	A	C5-C6	-5.05	1.36	1.41
26	1H	829	A	N9-C4	-5.04	1.34	1.37
26	14	2712(A)	A	C5-C6	-5.04	1.36	1.41
26	1H	54	G	C8-N7	-5.04	1.27	1.30
26	14	2082	A	N3-C4	-5.04	1.31	1.34
26	14	774	A	C5-C6	-5.04	1.36	1.41
26	1H	2062	A	N3-C4	5.04	1.37	1.34
26	1H	197	A	N3-C4	-5.04	1.31	1.34
26	14	2612	C	N3-C4	5.04	1.37	1.33
26	1H	1915	U	N1-C2	5.03	1.43	1.38
26	1H	1602	U	C4-C5	5.03	1.48	1.43
1	13	792	A	N9-C8	5.03	1.41	1.37
26	1H	451	C	C2-N3	-5.03	1.31	1.35
26	14	1785	A	N9-C8	-5.03	1.33	1.37
26	14	2042	A	N9-C4	-5.03	1.34	1.37
26	1H	859	G	N9-C4	-5.03	1.33	1.38
26	14	2000	G	C5-C4	-5.03	1.34	1.38
26	14	2244	U	N1-C2	-5.02	1.34	1.38
26	1H	2678	C	N3-C4	-5.02	1.30	1.33
1	13	1502	A	P-O5'	-5.02	1.54	1.59
26	1H	1255	U	C2-N3	5.02	1.41	1.37
23	2K	17	C	C2-N3	5.01	1.39	1.35
26	14	204	A	N7-C5	-5.01	1.36	1.39
26	1H	818	G	N3-C4	-5.01	1.31	1.35
26	1H	1258	C	N3-C4	-5.01	1.30	1.33
26	1H	1888	G	C2-N3	5.01	1.36	1.32
26	1H	676	A	N1-C2	5.00	1.38	1.34
26	1H	787	U	N3-C4	-5.00	1.33	1.38
26	14	1614	A	N9-C4	-5.00	1.34	1.37
26	14	2776	A	N9-C4	5.00	1.40	1.37
26	1H	782	A	N7-C5	-5.00	1.36	1.39
26	1H	1368	G	C8-N7	5.00	1.33	1.30
26	1H	1789	A	N7-C5	-5.00	1.36	1.39
26	1H	2247	A	N9-C8	-5.00	1.33	1.37
26	14	947	G	C6-O6	5.00	1.28	1.24

All (7960) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	783	A	C2-N3-C4	-29.75	95.72	110.60
26	1H	1899	G	N3-C4-N9	-29.71	108.17	126.00
26	1H	945	A	C6-C5-N7	-23.71	115.70	132.30
26	1H	676	A	C2-N3-C4	-23.41	98.89	110.60
26	1H	1899	G	N3-C4-C5	22.92	140.06	128.60
26	1H	1678	G	C2-N3-C4	-22.41	100.69	111.90
26	1H	945	A	N1-C6-N6	21.98	131.79	118.60
26	14	783	A	C2-N3-C4	-21.75	99.72	110.60
26	1H	1332	G	C2-N3-C4	-21.74	101.03	111.90
26	1H	1678	G	C5-N7-C8	-21.17	93.71	104.30
26	1H	71	A	C2-N3-C4	-21.09	100.06	110.60
26	1H	2430	A	N1-C6-N6	20.45	130.87	118.60
26	1H	1678	G	N7-C8-N9	19.86	123.03	113.10
26	1H	1332	G	C5-N7-C8	-19.77	94.41	104.30
26	1H	945	A	C5-N7-C8	-19.74	94.03	103.90
26	1H	783	A	C5-N7-C8	-19.57	94.11	103.90
26	1H	1332	G	N3-C4-C5	19.45	138.33	128.60
26	14	1332	G	C6-C5-N7	-19.21	118.87	130.40
26	1H	74	A	C2-N3-C4	-19.00	101.10	110.60
26	1H	1786	A	C2-N3-C4	-19.00	101.10	110.60
26	14	945	A	N1-C6-N6	18.89	129.93	118.60
26	1H	1786	A	C5-N7-C8	-18.53	94.63	103.90
26	14	1899	G	N1-C2-N2	-18.37	99.66	116.20
26	1H	1332	G	N3-C4-N9	-18.09	115.15	126.00
26	1H	2430	A	C5-N7-C8	-17.85	94.98	103.90
26	14	1786	A	C2-N3-C4	-17.83	101.69	110.60
26	1H	2430	A	C2-N3-C4	-17.80	101.70	110.60
26	1H	2430	A	C4-C5-N7	17.61	119.50	110.70
1	13	792	A	N1-C6-N6	17.59	129.15	118.60
26	1H	2490	G	C5-N7-C8	-17.46	95.57	104.30
26	1H	2430	A	N3-C4-C5	17.35	138.94	126.80
26	1H	945	A	N7-C8-N9	17.33	122.47	113.80
26	1H	1899	G	C2-N3-C4	-17.16	103.32	111.90
26	1H	676	A	N3-C4-C5	17.12	138.78	126.80
26	1H	2430	A	O5'-P-OP2	-17.10	90.18	110.70
26	1H	1698	A	C2-N3-C4	-17.10	102.05	110.60
26	1H	2490	G	C4-C5-N7	17.00	117.60	110.80
26	1H	945	A	C4-C5-C6	16.89	125.44	117.00
26	14	1786	A	C5-N7-C8	-16.86	95.47	103.90
26	1H	2392	A	C5-N7-C8	-16.78	95.51	103.90
26	14	783	A	N1-C6-N6	16.78	128.67	118.60
26	14	1786	A	N7-C8-N9	16.75	122.18	113.80
27	16	81	G	C4-C5-N7	16.55	117.42	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1950	G	C5-N7-C8	-16.55	96.03	104.30
26	1H	2390	U	O5'-P-OP1	-16.38	90.96	105.70
26	1H	1786	A	N7-C8-N9	16.37	121.99	113.80
26	1H	1616	A	C5-N7-C8	-16.31	95.75	103.90
26	1H	945	A	C4-C5-N7	16.31	118.85	110.70
1	13	690	G	C6-C5-N7	-16.25	120.65	130.40
26	1H	71	A	C5-N7-C8	-16.20	95.80	103.90
26	1H	2346	A	N1-C2-N3	16.16	137.38	129.30
1	13	1492	A	O5'-P-OP2	-16.09	91.22	105.70
26	1H	1678	G	C8-N9-C4	-16.03	99.99	106.40
26	1H	783	A	N3-C4-C5	16.02	138.01	126.80
26	14	741	G	O5'-P-OP1	-16.00	91.30	105.70
26	14	945	A	C2-N3-C4	-15.97	102.61	110.60
26	1H	740	U	O5'-P-OP2	-15.94	91.35	105.70
26	1H	1678	G	C4-C5-N7	15.92	117.17	110.80
26	14	783	A	C5-N7-C8	-15.90	95.95	103.90
26	1H	1899	G	N9-C4-C5	15.88	111.75	105.40
26	14	945	A	C6-C5-N7	-15.87	121.19	132.30
26	1H	2346	A	C2-N3-C4	-15.82	102.69	110.60
26	1H	1382	G	C5-C6-O6	-15.79	119.13	128.60
1	13	792	A	C5-N7-C8	-15.73	96.03	103.90
26	14	1698	A	N1-C6-N6	15.71	128.02	118.60
26	14	74	A	C2-N3-C4	-15.70	102.75	110.60
26	1H	1899	G	N3-C2-N2	-15.62	108.97	119.90
26	1H	676	A	N3-C4-N9	-15.53	114.97	127.40
1	13	792	A	C4-C5-N7	15.45	118.42	110.70
26	1H	2287	A	C2-N3-C4	-15.43	102.89	110.60
26	14	330	A	C2-N3-C4	-15.33	102.94	110.60
26	1H	783	A	N3-C4-N9	-15.22	115.22	127.40
26	14	1899	G	C2-N3-C4	-15.18	104.31	111.90
26	1H	1332	G	N7-C8-N9	15.09	120.64	113.10
26	1H	783	A	N1-C6-N6	14.98	127.59	118.60
26	1H	1950	G	N3-C4-C5	14.87	136.03	128.60
22	1K	76	A	N7-C8-N9	14.85	121.23	113.80
26	1H	783	A	N7-C8-N9	14.78	121.19	113.80
26	14	1678	G	C5-N7-C8	-14.77	96.91	104.30
26	1H	2392	A	N7-C8-N9	14.76	121.18	113.80
26	14	1984	G	O5'-P-OP2	-14.74	92.43	105.70
26	1H	1950	G	N3-C4-N9	-14.73	117.16	126.00
26	1H	621	A	C2-N3-C4	-14.72	103.24	110.60
26	1H	774	A	C5-N7-C8	-14.67	96.56	103.90
26	1H	676	A	C5-N7-C8	-14.64	96.58	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	802	A	O5'-P-OP2	-14.59	92.57	105.70
26	1H	1678	G	C6-C5-N7	-14.54	121.67	130.40
26	1H	839	U	O5'-P-OP2	-14.39	92.74	105.70
26	1H	1332	G	N1-C6-O6	14.37	128.52	119.90
26	1H	783	A	C8-N9-C4	-14.35	100.06	105.80
26	1H	1782	C	O5'-P-OP1	-14.31	92.82	105.70
26	1H	783	A	C4-C5-N7	14.28	117.84	110.70
26	1H	917	A	N1-C6-N6	14.26	127.15	118.60
26	14	2518	A	N1-C6-N6	14.16	127.10	118.60
26	1H	2430	A	O5'-P-OP1	14.16	127.69	110.70
1	13	792	A	C6-C5-N7	-14.15	122.39	132.30
26	1H	945	A	C2-N3-C4	-14.10	103.55	110.60
26	14	1899	G	N3-C2-N2	14.04	129.73	119.90
26	1H	140	A	C5-N7-C8	-14.02	96.89	103.90
26	1H	140	A	N7-C8-N9	13.98	120.79	113.80
26	1H	783	A	C5-C6-N1	-13.96	110.72	117.70
26	1H	1332	G	C4-C5-N7	13.85	116.34	110.80
26	1H	1616	A	C4-C5-N7	13.82	117.61	110.70
26	14	1698	A	C6-C5-N7	-13.82	122.63	132.30
26	1H	793	A	O5'-P-OP2	-13.78	93.30	105.70
26	1H	2713	A	C5-N7-C8	-13.78	97.01	103.90
1	13	1502	A	C5-N7-C8	-13.76	97.02	103.90
1	13	792	A	C2-N3-C4	-13.75	103.72	110.60
26	1H	1950	G	N7-C8-N9	13.72	119.96	113.10
26	14	2873	A	C5-N7-C8	-13.69	97.05	103.90
26	14	1332	G	C5-N7-C8	-13.69	97.46	104.30
26	1H	1376	C	O5'-P-OP1	-13.69	93.38	105.70
26	1H	778	G	N1-C6-O6	-13.67	111.70	119.90
26	1H	774	A	N3-C4-C5	13.65	136.36	126.80
1	13	760	G	N1-C6-O6	13.64	128.08	119.90
26	1H	2275	C	O5'-P-OP2	-13.63	93.43	105.70
26	14	2873	A	N7-C8-N9	13.60	120.60	113.80
26	1H	930	U	C5-C4-O4	13.59	134.06	125.90
22	1K	76	A	C8-N9-C4	-13.59	100.36	105.80
26	14	829	A	O5'-P-OP2	-13.56	93.50	105.70
27	16	81	G	C6-C5-N7	-13.52	122.29	130.40
26	14	945	A	C4-C5-N7	13.50	117.45	110.70
26	1H	828	U	C5-C4-O4	13.48	133.99	125.90
26	14	783	A	N3-C4-C5	13.42	136.19	126.80
26	14	1332	G	C4-N9-C1'	13.40	143.92	126.50
26	1H	1698	A	C5-N7-C8	-13.38	97.21	103.90
26	1H	1786	A	C6-C5-N7	-13.37	122.94	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	124	G	C5-C6-O6	-13.36	120.58	128.60
26	1H	774	A	N3-C4-N9	-13.35	116.72	127.40
26	14	1786	A	C8-N9-C4	-13.34	100.46	105.80
26	14	1332	G	N7-C8-N9	13.33	119.77	113.10
26	1H	1829	A	O5'-P-OP1	-13.30	93.73	105.70
26	1H	71	A	C4-C5-N7	13.29	117.34	110.70
26	14	1332	G	C2-N3-C4	-13.26	105.27	111.90
26	1H	120	U	C5-C6-N1	-13.25	116.07	122.70
26	14	945	A	C5-N7-C8	-13.25	97.27	103.90
26	1H	1931	U	N3-C2-O2	-13.23	112.94	122.20
26	1H	917	A	C2-N3-C4	-13.18	104.01	110.60
26	1H	1786	A	C4-C5-N7	13.16	117.28	110.70
26	14	2430	A	N1-C6-N6	13.16	126.50	118.60
26	1H	1950	G	C4-C5-N7	13.11	116.05	110.80
26	14	1332	G	C4-C5-N7	13.08	116.03	110.80
26	1H	1950	G	C8-N9-C4	-13.07	101.17	106.40
26	1H	1786	A	N1-C6-N6	13.04	126.42	118.60
26	1H	2618	G	O5'-P-OP2	-13.00	94.00	105.70
26	1H	1382	G	N1-C6-O6	12.97	127.68	119.90
26	1H	1931	U	C5-C4-O4	12.95	133.67	125.90
26	14	1678	G	N7-C8-N9	12.94	119.57	113.10
26	14	783	A	C4-C5-N7	12.90	117.15	110.70
26	1H	621	A	C5-N7-C8	-12.85	97.48	103.90
26	1H	1678	G	N3-C4-C5	12.84	135.02	128.60
27	16	81	G	C5-N7-C8	-12.83	97.88	104.30
26	1H	945	A	N1-C2-N3	12.83	135.71	129.30
26	1H	2385	C	C2-N3-C4	-12.78	113.51	119.90
26	1H	140	A	C8-N9-C4	-12.78	100.69	105.80
26	1H	945	A	C5-C6-N6	-12.76	113.49	123.70
26	14	945	A	N1-C2-N3	12.74	135.67	129.30
26	1H	2490	G	C2-N3-C4	-12.72	105.54	111.90
26	1H	967	C	O5'-P-OP2	-12.71	94.27	105.70
26	1H	783	A	C6-C5-N7	-12.69	123.41	132.30
26	1H	849	A	O5'-P-OP2	-12.65	94.32	105.70
26	14	528	A	C2-N3-C4	-12.61	104.30	110.60
26	1H	71	A	N1-C2-N3	12.59	135.60	129.30
26	1H	1616	A	N7-C8-N9	12.59	120.09	113.80
26	14	1342	A	N1-C2-N3	12.54	135.57	129.30
26	1H	1614	A	C5-N7-C8	-12.54	97.63	103.90
26	1H	1013	C	O5'-P-OP2	-12.51	94.44	105.70
26	14	74	A	N3-C4-C5	12.51	135.55	126.80
26	1H	812	C	N1-C2-O2	-12.49	111.40	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2688	U	C5-C4-O4	12.49	133.40	125.90
26	1H	2468	G	O4'-C1'-N9	12.47	118.17	108.20
26	1H	695	G	N1-C6-O6	-12.46	112.42	119.90
26	1H	1632	A	N1-C6-N6	12.45	126.07	118.60
1	13	690	G	C4-N9-C1'	12.44	142.67	126.50
26	1H	2490	G	N7-C8-N9	12.44	119.32	113.10
1	13	789	U	C5-C4-O4	12.37	133.32	125.90
26	1H	683	C	N3-C4-C5	12.36	126.85	121.90
26	1H	510	C	O5'-P-OP2	-12.33	94.60	105.70
26	1H	2609	U	C5-C6-N1	-12.33	116.53	122.70
26	1H	676	A	C5-C6-N1	-12.32	111.54	117.70
26	14	2873	A	C6-C5-N7	-12.31	123.69	132.30
26	1H	1614	A	C2-N3-C4	-12.30	104.45	110.60
26	1H	1021	A	C2-N3-C4	-12.28	104.46	110.60
26	1H	133	C	C6-N1-C2	12.26	125.21	120.30
26	1H	1825	A	N1-C6-N6	-12.25	111.25	118.60
26	14	1828	G	O5'-P-OP1	-12.25	94.68	105.70
55	Q8	45	GLY	N-CA-C	-12.18	82.66	113.10
26	14	802	A	O5'-P-OP2	-12.13	94.78	105.70
1	13	760	G	C5-C6-O6	-12.10	121.34	128.60
26	14	2702	U	O5'-P-OP2	-12.08	94.83	105.70
26	1H	399	G	O5'-P-OP2	-12.06	94.85	105.70
26	14	1602	U	O5'-P-OP2	12.05	125.16	110.70
26	14	1902	C	N3-C4-C5	12.01	126.70	121.90
26	1H	1398	C	O5'-P-OP2	11.95	125.03	110.70
26	1H	202	U	C5-C4-O4	-11.93	118.74	125.90
26	1H	2713	A	N7-C8-N9	11.93	119.76	113.80
26	14	1816	G	O5'-P-OP1	-11.92	94.97	105.70
26	1H	1899	G	C8-N9-C1'	11.92	142.50	127.00
26	1H	1616	A	N1-C6-N6	11.92	125.75	118.60
26	14	1678	G	N3-C4-C5	11.89	134.55	128.60
26	1H	2392	A	C8-N9-C4	-11.88	101.05	105.80
26	1H	1786	A	C5-C6-N1	-11.88	111.76	117.70
26	1H	121	G	C5-C6-O6	-11.87	121.48	128.60
26	1H	1255	U	N3-C4-O4	11.87	127.71	119.40
26	14	1332	G	N1-C6-O6	11.87	127.02	119.90
26	1H	1678	G	N3-C4-N9	-11.86	118.88	126.00
26	14	1612	C	C6-N1-C2	11.84	125.04	120.30
26	1H	2425	A	O5'-P-OP2	-11.82	95.06	105.70
26	14	2503	A	O5'-P-OP2	-11.82	95.06	105.70
1	13	1502	A	C4-C5-N7	11.82	116.61	110.70
26	14	1332	G	C8-N9-C1'	-11.81	111.64	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	774	A	N1-C6-N6	11.80	125.68	118.60
26	1H	574	C	O5'-P-OP2	-11.79	95.09	105.70
26	1H	1210	A	C5-N7-C8	-11.79	98.01	103.90
26	1H	783	A	N1-C2-N3	11.78	135.19	129.30
26	1H	2504	U	O5'-P-OP2	-11.76	95.12	105.70
26	1H	2346	A	O4'-C1'-N9	11.73	117.59	108.20
26	1H	2392	A	C4-C5-N7	11.66	116.53	110.70
26	14	829	A	OP1-P-OP2	11.66	137.08	119.60
26	14	793	A	O5'-P-OP2	-11.62	95.24	105.70
26	1H	1950	G	C2-N3-C4	-11.62	106.09	111.90
26	1H	1678	G	N1-C2-N3	11.61	130.86	123.90
26	1H	2430	A	N3-C4-N9	-11.54	118.17	127.40
26	1H	1528	A	N7-C8-N9	11.54	119.57	113.80
26	1H	634	C	O5'-P-OP2	-11.53	95.33	105.70
1	13	792	A	O4'-C1'-N9	11.52	117.42	108.20
26	14	1678	G	N3-C4-N9	-11.51	119.09	126.00
26	1H	71	A	N1-C6-N6	11.51	125.50	118.60
26	1H	2062	A	C8-N9-C4	11.49	110.39	105.80
26	1H	2688	U	N3-C2-O2	-11.47	114.17	122.20
26	1H	2311	A	C2-N3-C4	-11.47	104.87	110.60
26	14	835	A	O5'-P-OP2	-11.47	95.38	105.70
26	1H	774	A	C4-C5-N7	11.44	116.42	110.70
26	1H	1528	A	C8-N9-C4	-11.43	101.23	105.80
26	14	1272	A	O5'-P-OP2	-11.42	95.42	105.70
26	1H	624	C	O5'-P-OP2	11.40	124.38	110.70
26	1H	609	A	N1-C6-N6	11.39	125.44	118.60
26	14	1678	G	C2-N3-C4	-11.37	106.22	111.90
26	1H	2544	G	C5-C6-O6	-11.35	121.79	128.60
1	1G	529	G	N1-C6-O6	11.34	126.71	119.90
26	14	2463	C	C6-N1-C2	11.34	124.83	120.30
26	1H	2265	U	O5'-P-OP1	-11.34	95.50	105.70
26	14	71	A	C2-N3-C4	-11.34	104.93	110.60
26	14	774	A	N3-C4-C5	11.32	134.73	126.80
26	1H	744	G	O5'-P-OP2	-11.31	95.52	105.70
26	1H	1616	A	C6-C5-N7	-11.30	124.39	132.30
26	1H	481	G	O5'-P-OP2	-11.28	95.55	105.70
26	14	1496	A	N7-C8-N9	11.26	119.43	113.80
26	14	1899	G	N1-C2-N3	11.18	130.61	123.90
26	1H	2518	A	C5-N7-C8	-11.17	98.31	103.90
26	14	2287	A	N1-C6-N6	11.16	125.30	118.60
26	14	1698	A	C2-N3-C4	-11.15	105.02	110.60
26	14	1616	A	C5-N7-C8	-11.15	98.32	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1204	A	C2-N3-C4	-11.09	105.06	110.60
26	14	2430	A	C2-N3-C4	-11.07	105.06	110.60
26	14	2518	A	C2-N3-C4	-11.05	105.07	110.60
26	14	205	G	C8-N9-C4	11.04	110.82	106.40
26	1H	735	A	C8-N9-C4	11.03	110.21	105.80
26	1H	729	G	N3-C2-N2	-11.03	112.18	119.90
26	1H	678	C	N3-C4-C5	11.03	126.31	121.90
26	1H	800	A	O5'-P-OP1	-11.03	95.78	105.70
26	14	1698	A	C4-C5-N7	11.02	116.21	110.70
1	13	1502	A	C2-N3-C4	-11.01	105.09	110.60
26	1H	2598	A	O5'-P-OP2	11.01	123.92	110.70
26	14	2873	A	C2-N3-C4	-11.01	105.09	110.60
27	16	81	G	N7-C8-N9	10.98	118.59	113.10
1	1G	529	G	C5-C6-O6	-10.98	122.01	128.60
1	13	690	G	C4-C5-N7	10.98	115.19	110.80
26	1H	827	U	O5'-P-OP2	-10.97	95.82	105.70
26	14	676	A	C2-N3-C4	-10.97	105.11	110.60
26	14	2873	A	N1-C6-N6	10.96	125.18	118.60
26	14	2070	G	N1-C6-O6	-10.95	113.33	119.90
26	14	1786	A	C5-C6-N1	-10.95	112.23	117.70
26	1H	1431	U	C5-C6-N1	10.94	128.17	122.70
22	1K	74	C	N1-C2-O2	10.94	125.46	118.90
26	1H	1142(A)	A	C2-N3-C4	-10.93	105.13	110.60
26	1H	1698	A	N1-C2-N3	10.93	134.76	129.30
26	1H	2699	C	C6-N1-C2	10.93	124.67	120.30
26	1H	2490	G	N3-C4-C5	10.90	134.05	128.60
1	13	690	G	O4'-C1'-N9	10.88	116.90	108.20
26	1H	1678	G	N1-C6-O6	10.88	126.43	119.90
1	13	1502	A	C6-C5-N7	-10.85	124.70	132.30
26	1H	2598	A	O5'-P-OP1	-10.84	95.94	105.70
26	14	783	A	C6-C5-N7	-10.84	124.71	132.30
26	1H	2689	U	N3-C4-O4	-10.83	111.82	119.40
26	1H	2713	A	C2-N3-C4	-10.81	105.20	110.60
26	1H	586	A	O5'-P-OP1	-10.80	95.98	105.70
26	14	510	C	O5'-P-OP2	-10.80	95.98	105.70
26	1H	1786	A	C8-N9-C4	-10.80	101.48	105.80
26	14	2464	C	C6-N1-C2	10.80	124.62	120.30
26	1H	1332	G	C8-N9-C4	-10.79	102.09	106.40
26	1H	1899	G	C8-N9-C4	-10.78	102.09	106.40
26	14	733	G	O5'-P-OP2	-10.78	96.00	105.70
26	14	462	C	O5'-P-OP2	-10.78	96.00	105.70
26	14	1616	A	C2-N3-C4	-10.78	105.21	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	676	A	N7-C8-N9	10.77	119.19	113.80
26	14	140	A	C5-N7-C8	-10.76	98.52	103.90
26	1H	1022	G	C8-N9-C4	-10.75	102.10	106.40
1	13	813	U	O5'-P-OP2	-10.73	96.04	105.70
26	1H	463	G	N3-C2-N2	10.72	127.41	119.90
26	1H	1785	A	C8-N9-C4	-10.72	101.51	105.80
26	14	744	G	O5'-P-OP2	-10.72	96.05	105.70
26	14	492	A	O5'-P-OP2	-10.72	96.05	105.70
26	14	783	A	N3-C4-N9	-10.72	118.83	127.40
26	1H	2374	C	C5-C6-N1	-10.71	115.65	121.00
26	1H	2506	U	N1-C2-O2	10.71	130.29	122.80
26	14	2612	C	O5'-P-OP2	-10.70	96.07	105.70
30	31	74	ARG	NE-CZ-NH1	10.66	125.63	120.30
26	14	774	A	C5-N7-C8	-10.65	98.57	103.90
26	1H	530	G	N1-C6-O6	-10.62	113.53	119.90
26	1H	621	A	N7-C8-N9	10.61	119.11	113.80
26	1H	120	U	C4-C5-C6	10.61	126.07	119.70
26	14	2554	U	O5'-P-OP1	-10.61	96.15	105.70
1	13	1517	G	O5'-P-OP2	-10.61	96.15	105.70
1	13	966	G	C5-C6-O6	-10.60	122.24	128.60
26	1H	1394	U	C5-C6-N1	10.58	127.99	122.70
26	14	242	G	C8-N9-C4	10.58	110.63	106.40
1	13	690	G	N7-C8-N9	10.57	118.38	113.10
26	1H	860	U	C4-C5-C6	10.56	126.04	119.70
26	1H	226	G	O4'-C1'-N9	10.54	116.63	108.20
26	14	945	A	C5-C6-N6	-10.54	115.27	123.70
24	3K	76	A	N7-C8-N9	10.54	119.07	113.80
1	13	1502	A	N7-C8-N9	10.53	119.07	113.80
26	1H	869	G	N1-C6-O6	-10.53	113.58	119.90
26	1H	2544	G	N1-C6-O6	10.53	126.22	119.90
26	1H	2272	U	O5'-P-OP1	10.52	123.33	110.70
26	1H	1899	G	C6-C5-N7	10.52	136.71	130.40
26	1H	271(B)	G	N3-C4-C5	-10.52	123.34	128.60
26	14	1342	A	C6-C5-N7	-10.52	124.94	132.30
26	14	2287	A	C2-N3-C4	-10.52	105.34	110.60
26	14	1784	A	C5-N7-C8	-10.51	98.65	103.90
26	1H	131	G	C5-C6-O6	-10.50	122.30	128.60
26	1H	917	A	N1-C2-N3	10.48	134.54	129.30
26	1H	2584	U	N3-C2-O2	-10.48	114.86	122.20
26	14	1332	G	C4-C5-C6	10.48	125.09	118.80
26	14	1204	A	C2-N3-C4	-10.47	105.37	110.60
1	13	974	A	N1-C6-N6	10.45	124.87	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2710	C	C6-N1-C2	10.43	124.47	120.30
26	1H	835	A	C2-N3-C4	10.43	115.81	110.60
26	1H	265	A	C2-N3-C4	-10.43	105.39	110.60
26	1H	2689	U	C5-C6-N1	-10.41	117.49	122.70
22	1K	76	A	C5-N7-C8	-10.41	98.69	103.90
26	1H	71	A	N7-C8-N9	10.38	118.99	113.80
26	14	479	A	N1-C6-N6	-10.37	112.38	118.60
26	1H	845	G	C4-C5-N7	10.37	114.95	110.80
26	1H	500	G	O5'-P-OP1	-10.36	96.38	105.70
26	14	827	U	O5'-P-OP2	-10.36	96.38	105.70
26	1H	1310	G	O5'-P-OP2	10.36	123.12	110.70
26	1H	2061	G	O5'-P-OP2	-10.35	96.39	105.70
26	1H	1681	G	N3-C4-C5	10.33	133.77	128.60
26	14	1673	U	O5'-P-OP1	-10.33	96.41	105.70
26	14	1332	G	N1-C2-N2	-10.32	106.91	116.20
26	14	1632	A	N1-C6-N6	10.32	124.79	118.60
26	1H	966	G	N1-C6-O6	-10.30	113.72	119.90
26	14	1342	A	C2-N3-C4	-10.30	105.45	110.60
26	14	1332	G	N1-C2-N3	10.29	130.08	123.90
26	1H	1200	C	N1-C2-O2	-10.29	112.72	118.90
1	1G	690	G	N3-C4-N9	-10.28	119.83	126.00
26	14	1932	A	O5'-P-OP1	-10.28	96.45	105.70
26	1H	2287	A	C5-C6-N1	-10.27	112.57	117.70
26	1H	146	G	C4-C5-N7	10.26	114.91	110.80
26	1H	124	G	N1-C6-O6	10.26	126.05	119.90
26	14	528	A	N1-C2-N3	10.25	134.43	129.30
26	1H	1365	A	C5-C6-N1	-10.25	112.57	117.70
26	1H	1899	G	C5-C6-O6	10.25	134.75	128.60
26	14	774	A	N3-C4-N9	-10.25	119.20	127.40
26	1H	1204	A	O4'-C1'-N9	10.23	116.38	108.20
26	1H	1404	C	O5'-P-OP2	-10.21	96.51	105.70
26	14	2688	U	N3-C2-O2	-10.20	115.06	122.20
26	1H	2380	C	C2-N3-C4	-10.20	114.80	119.90
26	14	694	U	O5'-P-OP2	-10.19	96.53	105.70
26	1H	462	C	O5'-P-OP2	-10.19	96.53	105.70
26	14	676	A	C5-N7-C8	-10.19	98.81	103.90
26	1H	330	A	C2-N3-C4	-10.17	105.52	110.60
26	1H	1210	A	C4-C5-N7	10.16	115.78	110.70
26	1H	49	A	O5'-P-OP2	-10.15	96.56	105.70
26	1H	624	C	O5'-P-OP1	-10.15	96.56	105.70
26	14	198	C	C6-N1-C2	-10.15	116.24	120.30
26	14	1786	A	C4-C5-N7	10.15	115.77	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	74	A	N1-C2-N3	10.14	134.37	129.30
26	1H	1602	U	N1-C2-N3	10.14	120.98	114.90
26	1H	621	A	C4-C5-N7	10.13	115.77	110.70
26	1H	2503	A	C5-C6-N6	-10.14	115.59	123.70
26	1H	778	G	C5-C6-O6	10.12	134.67	128.60
26	14	687	C	O5'-P-OP1	-10.12	96.59	105.70
26	1H	1660	C	N3-C4-C5	10.11	125.94	121.90
26	14	1678	G	C8-N9-C4	-10.11	102.36	106.40
26	1H	984	A	O5'-P-OP2	-10.10	96.61	105.70
26	1H	735	A	N7-C8-N9	-10.10	108.75	113.80
26	14	2713	A	N1-C6-N6	10.09	124.65	118.60
26	1H	1021	A	C5-N7-C8	-10.08	98.86	103.90
26	1H	71	A	N3-C4-C5	10.06	133.84	126.80
26	1H	1257	C	N1-C2-N3	10.05	126.24	119.20
26	14	774	A	C2-N3-C4	-10.05	105.57	110.60
26	14	621	A	C2-N3-C4	-10.04	105.58	110.60
1	13	1530	G	N3-C4-C5	10.03	133.61	128.60
26	1H	140	A	C4-C5-N7	10.03	115.71	110.70
26	14	2062	A	C8-N9-C4	10.02	109.81	105.80
26	14	783	A	N7-C8-N9	10.02	118.81	113.80
26	1H	1781	C	N3-C4-N4	-10.01	110.99	118.00
1	1G	254	G	O5'-P-OP1	-10.01	96.69	105.70
26	1H	2700	C	C6-N1-C2	10.00	124.30	120.30
26	14	1925	C	N1-C2-O2	-10.00	112.90	118.90
26	14	1678	G	C4-C5-N7	10.00	114.80	110.80
23	2K	21	U	N1-C2-O2	10.00	129.80	122.80
26	1H	2330	G	C6-C5-N7	-10.00	124.40	130.40
26	1H	2700	C	N3-C4-C5	9.99	125.89	121.90
26	14	2544	G	N1-C6-O6	9.99	125.89	119.90
26	1H	2318	G	N3-C4-N9	-9.98	120.01	126.00
26	1H	1496	A	N7-C8-N9	9.98	118.79	113.80
1	13	792	A	C5-C6-N6	-9.96	115.73	123.70
26	1H	2503	A	N9-C4-C5	-9.96	101.81	105.80
26	14	2839	G	O5'-P-OP2	-9.96	96.74	105.70
26	1H	1610	A	N9-C4-C5	-9.96	101.82	105.80
1	1G	576	G	C4-N9-C1'	9.96	139.44	126.50
26	14	1496	A	C5-N7-C8	-9.95	98.92	103.90
26	1H	1817	G	C5-C6-O6	9.95	134.57	128.60
26	14	1605	C	N1-C2-O2	-9.92	112.95	118.90
26	1H	729	G	C8-N9-C4	-9.92	102.43	106.40
26	14	1614	A	O5'-P-OP1	-9.92	96.78	105.70
26	1H	205	G	O5'-P-OP2	-9.91	96.78	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	690	G	C8-N9-C1'	-9.91	114.12	127.00
1	13	892	A	C2-N3-C4	-9.91	105.64	110.60
26	1H	1632	A	C4-C5-N7	9.91	115.66	110.70
26	1H	676	A	C4-C5-N7	9.91	115.65	110.70
26	1H	2069	G	C8-N9-C4	9.90	110.36	106.40
26	1H	1632	A	C5-N7-C8	-9.89	98.96	103.90
26	1H	1616	A	O4'-C1'-N9	9.88	116.11	108.20
26	1H	2070	G	N1-C2-N2	-9.88	107.31	116.20
26	1H	2395	C	O5'-P-OP2	-9.88	96.81	105.70
1	13	760	G	C4-C5-N7	9.87	114.75	110.80
26	1H	2269	A	C2-N3-C4	-9.86	105.67	110.60
26	1H	2342	C	C6-N1-C2	-9.86	116.36	120.30
26	1H	2380	C	C5-C6-N1	-9.85	116.07	121.00
26	14	2307	G	O4'-C1'-N9	9.85	116.08	108.20
26	14	613	U	N3-C2-O2	-9.85	115.31	122.20
26	1H	2599	G	N1-C6-O6	-9.84	113.99	119.90
26	1H	760	G	N1-C6-O6	9.84	125.81	119.90
24	3K	76	A	C5-N7-C8	-9.84	98.98	103.90
57	3L	76	A	N7-C8-N9	9.84	118.72	113.80
26	14	2873	A	C4-C5-N7	9.83	115.62	110.70
26	1H	945	A	C4-N9-C1'	9.83	144.00	126.30
26	1H	2573	C	N3-C2-O2	-9.82	115.02	121.90
26	1H	966	G	C5-C6-O6	9.82	134.49	128.60
55	Q8	25	MET	N-CA-C	9.82	137.51	111.00
26	14	213	A	C8-N9-C4	9.82	109.73	105.80
26	1H	271(B)	G	P-O3'-C3'	9.81	131.47	119.70
26	1H	1393	A	O5'-P-OP2	-9.81	96.87	105.70
26	1H	1022	G	N9-C4-C5	9.80	109.32	105.40
26	14	2490	G	C5-N7-C8	-9.80	99.40	104.30
26	1H	2713	A	N1-C6-N6	9.79	124.48	118.60
26	1H	34	C	O5'-P-OP1	-9.79	96.89	105.70
26	14	1304	C	N3-C4-N4	-9.79	111.15	118.00
26	1H	1332	G	N3-C2-N2	-9.78	113.05	119.90
26	1H	1790	C	N3-C4-C5	9.78	125.81	121.90
26	1H	122	G	C2-N3-C4	-9.78	107.01	111.90
26	14	2070	G	C5-C6-O6	9.76	134.45	128.60
27	16	115	G	C5-C6-N1	9.75	116.38	111.50
26	1H	1313	U	C5-C6-N1	9.75	127.57	122.70
26	14	1698	A	C5-N7-C8	-9.74	99.03	103.90
26	1H	1368	G	N9-C4-C5	9.71	109.28	105.40
26	14	1698	A	N9-C4-C5	-9.71	101.91	105.80
26	14	2551	C	O5'-P-OP2	-9.71	96.96	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	140	A	N7-C8-N9	9.70	118.65	113.80
57	3L	76	A	C5-N7-C8	-9.70	99.05	103.90
26	1H	664	C	O5'-P-OP2	-9.69	96.98	105.70
1	13	1505	G	OP1-P-OP2	-9.69	105.07	119.60
26	1H	1437	C	C6-N1-C2	-9.69	116.42	120.30
23	2K	21	U	N3-C2-O2	-9.69	115.42	122.20
26	1H	809	G	C5-C6-N1	9.68	116.34	111.50
26	1H	703	U	C5-C4-O4	9.68	131.71	125.90
26	1H	2490	G	C6-C5-N7	-9.68	124.59	130.40
1	1G	576	G	C6-C5-N7	-9.68	124.59	130.40
1	13	1502	A	N1-C6-N6	9.67	124.40	118.60
1	1G	576	G	N3-C4-N9	9.67	131.80	126.00
1	13	884	U	O5'-P-OP2	-9.67	97.00	105.70
22	1K	74	C	C2-N1-C1'	9.66	129.43	118.80
26	1H	2287	A	N1-C6-N6	9.66	124.40	118.60
27	16	47	C	O5'-P-OP2	-9.66	97.00	105.70
1	13	1195	C	C6-N1-C2	-9.66	116.44	120.30
26	14	530	G	N3-C4-C5	9.66	133.43	128.60
26	1H	491	G	O5'-P-OP1	-9.65	97.01	105.70
26	14	1619	G	O5'-P-OP2	-9.65	97.02	105.70
26	14	2722	G	N1-C6-O6	9.65	125.69	119.90
26	1H	774	A	C4-C5-C6	-9.64	112.18	117.00
26	1H	1301	A	N1-C6-N6	9.63	124.38	118.60
1	13	974	A	C6-C5-N7	-9.62	125.56	132.30
26	1H	509	C	O5'-P-OP2	-9.61	97.05	105.70
26	1H	146	G	C5-C6-O6	-9.60	122.84	128.60
26	1H	1607	C	C5-C4-N4	-9.60	113.48	120.20
26	1H	1614	A	N3-C4-C5	9.60	133.52	126.80
26	14	856	C	O5'-P-OP1	-9.60	97.06	105.70
26	14	2722	G	C5-C6-O6	-9.60	122.84	128.60
26	14	2273	A	O5'-P-OP2	-9.59	97.07	105.70
26	1H	1817	G	N1-C6-O6	-9.59	114.14	119.90
1	13	903	G	O5'-P-OP2	-9.59	97.07	105.70
1	13	1492	A	O5'-P-OP1	9.59	122.20	110.70
26	1H	2080	G	O5'-P-OP1	-9.59	97.07	105.70
26	14	2073	C	N1-C2-O2	-9.58	113.15	118.90
26	14	2080	G	O5'-P-OP2	-9.58	97.08	105.70
26	14	140	A	N1-C6-N6	9.57	124.34	118.60
26	1H	194	G	C5-C6-O6	-9.56	122.86	128.60
26	14	140	A	C4-C5-N7	9.56	115.48	110.70
26	1H	1623	G	N1-C6-O6	-9.56	114.16	119.90
26	14	1899	G	C5-C6-O6	9.55	134.33	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	245	G	O5'-P-OP1	-9.55	97.11	105.70
26	1H	2074	U	O5'-P-OP1	-9.55	97.11	105.70
26	14	1283	G	N3-C4-C5	-9.54	123.83	128.60
26	1H	388	G	O5'-P-OP2	-9.54	97.11	105.70
26	14	1248	G	O5'-P-OP1	9.54	122.15	110.70
26	14	2246	G	N7-C8-N9	9.54	117.87	113.10
26	1H	839	U	N3-C4-C5	-9.54	108.88	114.60
26	1H	745	G	C5-C6-O6	-9.53	122.88	128.60
26	1H	845	G	N3-C4-C5	9.53	133.36	128.60
26	1H	74	A	C5-C6-N1	-9.52	112.94	117.70
26	1H	678	C	C2-N3-C4	-9.52	115.14	119.90
26	1H	1698	A	N7-C8-N9	9.52	118.56	113.80
26	1H	1496	A	C8-N9-C4	-9.50	102.00	105.80
26	14	632	A	O5'-P-OP2	9.50	122.10	110.70
26	14	2542	A	C8-N9-C4	9.50	109.60	105.80
26	14	2518	A	C6-C5-N7	-9.50	125.65	132.30
26	1H	1192	G	O5'-P-OP2	-9.50	97.15	105.70
26	14	2712	U	N3-C2-O2	-9.49	115.55	122.20
26	1H	533	G	O5'-P-OP1	-9.48	97.17	105.70
26	14	2490	G	C4-C5-N7	9.48	114.59	110.80
1	1G	576	G	C8-N9-C1'	-9.48	114.68	127.00
26	1H	1379	A	N9-C1'-C2'	9.47	126.31	114.00
26	1H	198	C	N3-C4-C5	9.47	125.69	121.90
26	1H	1839	G	N9-C4-C5	-9.46	101.61	105.40
26	1H	2430	A	C5-C6-N1	-9.46	112.97	117.70
26	1H	2430	A	C5-C6-N6	-9.46	116.13	123.70
26	1H	85	G	O5'-P-OP2	-9.45	97.20	105.70
26	1H	1382	G	C4-C5-N7	9.45	114.58	110.80
26	1H	1271	G	O5'-P-OP2	-9.44	97.20	105.70
26	1H	1210	A	N1-C6-N6	9.44	124.26	118.60
26	1H	456	C	O5'-P-OP2	-9.43	97.21	105.70
26	1H	1616	A	C8-N9-C4	-9.43	102.03	105.80
26	1H	2427	C	O5'-P-OP2	9.43	122.02	110.70
26	1H	860	U	C5-C6-N1	-9.43	117.99	122.70
26	14	2518	A	C4-C5-N7	9.43	115.42	110.70
26	1H	2363	C	C6-N1-C2	9.43	124.07	120.30
26	14	2712	U	C5-C6-N1	-9.43	117.99	122.70
26	1H	1568	G	OP1-P-OP2	-9.43	105.46	119.60
26	1H	2518	A	N7-C8-N9	9.42	118.51	113.80
26	14	1616	A	N7-C8-N9	9.42	118.51	113.80
26	1H	2600	A	N9-C4-C5	9.41	109.57	105.80
26	1H	702	G	O5'-P-OP2	-9.41	97.23	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1632	A	C5-C6-N6	-9.41	116.17	123.70
26	1H	2573	C	C6-N1-C2	-9.41	116.54	120.30
26	1H	2276	G	N3-C2-N2	-9.40	113.32	119.90
26	1H	1888	G	N3-C4-N9	9.40	131.64	126.00
26	14	2713	A	C5-N7-C8	-9.40	99.20	103.90
26	14	1342	A	N1-C6-N6	9.39	124.24	118.60
1	13	963	G	N1-C2-N2	-9.39	107.75	116.20
26	1H	906	G	N9-C4-C5	9.38	109.15	105.40
26	1H	2304	G	O5'-P-OP1	-9.38	97.25	105.70
26	14	769	G	C8-N9-C4	9.39	110.15	106.40
26	1H	2503	A	N1-C2-N3	-9.38	124.61	129.30
26	1H	1700	A	OP1-P-OP2	9.38	133.66	119.60
26	1H	1300	U	N1-C2-N3	9.37	120.52	114.90
26	1H	180	G	C8-N9-C4	9.37	110.15	106.40
26	1H	593	G	O5'-P-OP2	-9.37	97.27	105.70
26	1H	938	G	N1-C6-O6	-9.37	114.28	119.90
26	14	71	A	C5-N7-C8	-9.37	99.22	103.90
26	1H	641	C	O5'-P-OP1	-9.37	97.27	105.70
26	1H	1641	A	O5'-P-OP2	9.37	121.94	110.70
1	1G	1228	C	O5'-P-OP2	-9.37	97.27	105.70
26	14	2422	A	O5'-P-OP2	-9.37	97.27	105.70
26	1H	1928	A	C8-N9-C4	-9.37	102.05	105.80
26	1H	470	A	O5'-P-OP1	-9.36	97.27	105.70
26	1H	1255	U	C4-C5-C6	9.36	125.32	119.70
26	14	2392	A	C5-C6-N1	-9.36	113.02	117.70
26	1H	470	A	C5-N7-C8	-9.36	99.22	103.90
1	13	827	U	N3-C2-O2	-9.35	115.65	122.20
26	14	569	U	C5-C6-N1	-9.35	118.02	122.70
26	14	752	A	P-O3'-C3'	9.35	130.92	119.70
26	14	2439	A	P-O3'-C3'	9.35	130.92	119.70
26	1H	852	G	O5'-P-OP2	-9.35	97.29	105.70
26	14	1195	G	N1-C6-O6	-9.35	114.29	119.90
26	1H	1021	A	N7-C8-N9	9.34	118.47	113.80
26	1H	945	A	C8-N9-C4	-9.34	102.06	105.80
26	14	1660	C	N3-C4-C5	9.34	125.63	121.90
26	1H	828	U	N3-C2-O2	-9.32	115.67	122.20
1	13	564	C	N3-C4-C5	-9.32	118.17	121.90
26	1H	617	G	C8-N9-C4	9.31	110.13	106.40
26	1H	247	G	C5-C6-O6	-9.31	123.02	128.60
26	1H	1610	A	C4-C5-N7	9.31	115.36	110.70
26	1H	938	G	N1-C2-N2	-9.31	107.82	116.20
26	1H	1673	U	C5-C6-N1	-9.31	118.05	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	250	G	C8-N9-C4	-9.31	102.68	106.40
26	1H	2328	A	N1-C2-N3	9.30	133.95	129.30
26	14	1598	C	O5'-P-OP2	9.30	121.87	110.70
26	1H	754	C	C2-N3-C4	-9.30	115.25	119.90
26	1H	1642	G	O5'-P-OP1	-9.30	97.33	105.70
26	1H	1128	A	O5'-P-OP1	-9.30	97.33	105.70
26	1H	2422	A	O4'-C1'-N9	9.30	115.64	108.20
26	14	74	A	N1-C6-N6	9.29	124.17	118.60
26	1H	120	U	C5-C4-O4	9.29	131.47	125.90
26	1H	71	A	C6-C5-N7	-9.26	125.82	132.30
26	14	1319	G	O5'-P-OP1	-9.26	97.37	105.70
26	14	2252	G	O5'-P-OP2	-9.25	97.37	105.70
26	1H	827	U	O5'-P-OP1	9.25	121.80	110.70
26	1H	464	U	C5-C6-N1	-9.24	118.08	122.70
26	1H	451	C	N1-C2-O2	-9.24	113.36	118.90
27	16	81	G	C5-C6-O6	-9.24	123.06	128.60
26	1H	330	A	N1-C2-N3	9.24	133.92	129.30
26	1H	788	A	C6-N1-C2	9.24	124.14	118.60
26	1H	2599	G	C5-C6-O6	9.24	134.14	128.60
22	1K	74	C	O4'-C1'-N1	9.23	115.59	108.20
26	1H	2437	U	C5-C4-O4	9.23	131.44	125.90
1	13	690	G	C5-N7-C8	-9.22	99.69	104.30
26	1H	1674	G	N1-C6-O6	9.21	125.43	119.90
26	1H	74	A	N3-C4-C5	9.21	133.25	126.80
26	14	1950	G	C4-N9-C1'	9.21	138.47	126.50
26	14	2238	G	O5'-P-OP2	-9.21	97.41	105.70
26	1H	963	U	O5'-P-OP2	9.20	121.74	110.70
26	1H	2498	C	O5'-P-OP2	-9.20	97.42	105.70
1	13	690	G	N1-C6-O6	9.20	125.42	119.90
26	1H	729	G	N9-C4-C5	9.20	109.08	105.40
26	1H	1698	A	C4-C5-N7	9.20	115.30	110.70
26	1H	2330	G	C5-C6-O6	-9.19	123.08	128.60
26	1H	2507	C	C6-N1-C2	-9.19	116.62	120.30
26	1H	2541	A	O5'-P-OP1	-9.19	97.43	105.70
26	14	2401	U	C5-C6-N1	9.19	127.30	122.70
26	1H	1318	C	O5'-P-OP1	-9.19	97.43	105.70
26	1H	2710	C	C5-C6-N1	-9.19	116.41	121.00
26	1H	913	U	O5'-P-OP2	-9.18	97.44	105.70
26	1H	917	A	C5-C6-N1	-9.18	113.11	117.70
55	Q8	52	LYS	C-N-CD	-9.18	100.41	120.60
26	1H	1812	A	O5'-P-OP2	-9.18	97.44	105.70
26	14	621	A	C5-C6-N1	-9.18	113.11	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	470	A	C4-C5-N7	9.17	115.28	110.70
26	1H	1598	C	OP1-P-O3'	9.17	125.37	105.20
26	1H	1640	C	O5'-P-OP1	9.17	121.70	110.70
26	1H	1217	C	N1-C2-O2	-9.16	113.40	118.90
26	14	769	G	N7-C8-N9	-9.16	108.52	113.10
36	35	147	LEU	CA-CB-CG	9.15	136.35	115.30
26	14	1786	A	N9-C1'-C2'	9.15	125.90	114.00
26	1H	1919	A	O5'-P-OP1	-9.15	97.47	105.70
26	1H	2584	U	C5-C4-O4	9.15	131.39	125.90
26	14	330	A	N1-C2-N3	9.15	133.87	129.30
26	14	1633	G	C8-N9-C4	-9.15	102.74	106.40
26	14	1989	G	C5-C6-O6	-9.14	123.12	128.60
26	14	917	A	O5'-P-OP1	-9.13	97.48	105.70
26	14	1597	A	O5'-P-OP2	-9.13	97.48	105.70
26	1H	1607	C	N3-C4-N4	9.13	124.39	118.00
1	13	971	G	O5'-P-OP2	-9.11	97.50	105.70
26	1H	1981	A	O5'-P-OP2	-9.11	97.50	105.70
26	14	1616	A	O4'-C1'-N9	9.11	115.49	108.20
26	1H	831	G	N7-C8-N9	-9.11	108.55	113.10
26	1H	1817	G	N3-C2-N2	9.11	126.28	119.90
1	13	1504	G	O5'-P-OP1	-9.10	97.51	105.70
26	1H	955	C	O5'-P-OP2	-9.10	97.51	105.70
26	14	148	C	C6-N1-C2	9.10	123.94	120.30
26	14	620	G	C8-N9-C4	-9.10	102.76	106.40
26	14	1251	C	N3-C4-N4	9.09	124.36	118.00
26	1H	2688	U	N3-C4-O4	-9.09	113.04	119.40
26	14	2249	U	C6-N1-C2	-9.09	115.55	121.00
1	1G	136	C	O5'-P-OP2	-9.09	97.52	105.70
26	1H	1610	A	N1-C6-N6	9.08	124.05	118.60
26	1H	2259	G	OP1-P-OP2	-9.08	105.98	119.60
26	1H	2507	C	N3-C2-O2	-9.08	115.55	121.90
26	1H	47	C	N3-C4-C5	9.07	125.53	121.90
26	14	676	A	N3-C4-C5	9.06	133.14	126.80
26	1H	2595	G	O5'-P-OP2	-9.06	97.55	105.70
26	14	828	U	C5-C4-O4	9.06	131.34	125.90
26	14	2392	A	C2-N3-C4	-9.06	106.07	110.60
26	1H	809	G	N7-C8-N9	-9.05	108.57	113.10
26	14	1291	C	O5'-P-OP2	-9.05	97.56	105.70
26	1H	747	U	O5'-P-OP1	-9.05	97.56	105.70
26	1H	2312	U	O5'-P-OP1	-9.04	97.56	105.70
1	1G	1397	C	C6-N1-C2	-9.04	116.68	120.30
26	1H	2573	C	C2-N1-C1'	9.04	128.75	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	205	G	N9-C4-C5	-9.04	101.78	105.40
26	14	2873	A	C8-N9-C4	-9.04	102.18	105.80
26	1H	126	A	O5'-P-OP2	-9.04	97.57	105.70
26	1H	1698	A	C6-C5-N7	-9.04	125.97	132.30
26	1H	2713	A	C4-C5-N7	9.04	115.22	110.70
26	1H	785	G	N3-C2-N2	-9.03	113.58	119.90
26	1H	2503	A	N1-C6-N6	9.03	124.02	118.60
26	14	1404	C	O5'-P-OP1	-9.02	97.58	105.70
26	1H	774	A	C8-N9-C1'	9.02	143.93	127.70
26	14	621	A	C5-N7-C8	-9.02	99.39	103.90
26	14	2553	G	O5'-P-OP1	-9.01	97.59	105.70
26	1H	446	G	N1-C6-O6	9.01	125.30	119.90
26	14	488	G	O5'-P-OP2	-9.01	97.59	105.70
26	14	71	A	N1-C2-N3	9.01	133.80	129.30
26	1H	138	G	C5-N7-C8	-9.00	99.80	104.30
26	14	786	C	O5'-P-OP2	-9.00	97.60	105.70
26	1H	676	A	O4'-C1'-N9	9.00	115.40	108.20
1	13	792	A	N7-C8-N9	8.99	118.30	113.80
26	1H	122	G	C6-C5-N7	-8.99	125.00	130.40
26	14	74	A	C5-C6-N1	-8.99	113.20	117.70
26	1H	1403	C	O5'-P-OP1	-8.99	97.61	105.70
26	14	2873	A	N1-C2-N3	8.99	133.80	129.30
26	14	2499	C	C6-N1-C2	-8.99	116.70	120.30
26	14	2713	A	C2-N3-C4	-8.99	106.11	110.60
26	1H	470	A	N1-C6-N6	8.98	123.99	118.60
27	16	6	C	C6-N1-C2	8.98	123.89	120.30
26	14	2776	A	C8-N9-C4	-8.98	102.21	105.80
1	13	892	A	N1-C2-N3	8.98	133.79	129.30
26	1H	1660	C	N3-C2-O2	-8.97	115.62	121.90
26	14	2544	G	C5-C6-O6	-8.97	123.22	128.60
26	1H	2430	A	C6-C5-N7	-8.97	126.02	132.30
26	1H	917	A	O5'-P-OP1	-8.96	97.63	105.70
26	1H	1839	G	C8-N9-C4	8.96	109.99	106.40
26	1H	1786	A	N3-C4-C5	8.96	133.07	126.80
26	14	1831	G	N1-C2-N3	8.96	129.28	123.90
26	1H	917	A	C6-C5-N7	-8.96	126.03	132.30
1	1G	665	A	O5'-P-OP2	-8.96	97.64	105.70
22	1K	74	C	C6-N1-C1'	-8.95	110.06	120.80
26	1H	809	G	C8-N9-C4	8.95	109.98	106.40
26	1H	1332	G	N1-C2-N3	8.95	129.27	123.90
26	14	1632	A	C5-C6-N6	-8.95	116.54	123.70
1	1G	413	G	C4-C5-N7	-8.94	107.22	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	929	G	N1-C6-O6	8.93	125.26	119.90
26	14	2593	U	C5-C4-O4	-8.93	120.54	125.90
1	13	690	G	C4-C5-C6	8.93	124.16	118.80
23	2L	21	U	N1-C2-O2	8.93	129.05	122.80
26	1H	1616	A	C5-C6-N6	-8.93	116.56	123.70
26	1H	2346	A	C6-C5-N7	-8.92	126.05	132.30
27	16	73	A	O5'-P-OP2	-8.92	97.67	105.70
26	1H	180	G	N9-C4-C5	-8.91	101.83	105.40
26	14	503	A	N9-C4-C5	8.90	109.36	105.80
26	14	1786	A	N3-C4-C5	8.90	133.03	126.80
26	14	2779	U	N3-C2-O2	-8.90	115.97	122.20
26	1H	120	U	N3-C2-O2	-8.90	115.97	122.20
26	1H	508	G	C8-N9-C4	-8.90	102.84	106.40
26	1H	1671	U	C5-C4-O4	-8.90	120.56	125.90
26	1H	2688	U	N1-C2-N3	8.90	120.24	114.90
26	14	2688	U	C5-C6-N1	-8.90	118.25	122.70
26	14	2441	C	N3-C4-N4	-8.89	111.78	118.00
26	14	1681	G	C5-N7-C8	-8.89	99.86	104.30
26	1H	1380	G	C6-C5-N7	-8.87	125.08	130.40
26	1H	1209	G	C5-C6-O6	-8.87	123.28	128.60
24	3K	76	A	C8-N9-C4	-8.87	102.25	105.80
26	14	783	A	N1-C2-N3	8.87	133.74	129.30
26	14	494	G	N1-C6-O6	8.87	125.22	119.90
26	14	503	A	N1-C6-N6	-8.87	113.28	118.60
26	14	2378	A	N1-C6-N6	8.87	123.92	118.60
1	13	899	C	N1-C2-O2	-8.86	113.58	118.90
26	1H	1308	A	C8-N9-C4	-8.86	102.25	105.80
26	14	1790	C	C6-N1-C2	8.86	123.84	120.30
1	13	318	G	N1-C6-O6	8.85	125.21	119.90
26	1H	2275	C	OP1-P-O3'	8.85	124.67	105.20
27	16	6	C	C5-C4-N4	-8.85	114.01	120.20
26	14	2437	U	C5-C4-O4	8.85	131.21	125.90
26	1H	740	U	O5'-P-OP1	8.85	121.32	110.70
26	1H	2324	C	C5-C4-N4	-8.85	114.01	120.20
1	1G	904	C	O5'-P-OP1	-8.85	97.74	105.70
26	1H	1396	U	O5'-P-OP1	-8.84	97.74	105.70
26	1H	679	C	C6-N1-C2	8.84	123.83	120.30
26	14	472	A	N9-C4-C5	8.84	109.33	105.80
26	14	774	A	C4-C5-N7	8.84	115.12	110.70
4	3E	12	CYS	CA-CB-SG	8.83	129.90	114.00
1	13	1203	C	C6-N1-C2	-8.83	116.77	120.30
26	1H	621	A	N1-C6-N6	8.82	123.89	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1602	U	C4-C5-C6	8.82	125.00	119.70
26	1H	1759	A	O5'-P-OP1	-8.82	97.76	105.70
1	13	1227	A	C5-N7-C8	-8.82	99.49	103.90
26	1H	1969	A	C5-N7-C8	8.82	108.31	103.90
26	14	130	C	N3-C4-C5	8.81	125.42	121.90
26	1H	829	A	OP1-P-OP2	8.81	132.81	119.60
26	14	1786	A	C6-C5-N7	-8.81	126.14	132.30
26	1H	211	A	C2-N3-C4	-8.80	106.20	110.60
26	1H	2076	U	N1-C2-N3	8.81	120.18	114.90
26	1H	845	G	N9-C4-C5	-8.80	101.88	105.40
26	1H	938	G	N3-C2-N2	8.80	126.06	119.90
26	1H	2584	U	N1-C2-N3	8.80	120.18	114.90
23	2L	21	U	N3-C2-O2	-8.80	116.04	122.20
26	1H	329	G	O5'-P-OP2	-8.79	97.78	105.70
1	13	802	A	N1-C6-N6	8.79	123.88	118.60
26	1H	1610	A	C5-N7-C8	-8.79	99.50	103.90
26	1H	138	G	C4-C5-N7	8.79	114.32	110.80
26	14	2518	A	C5-N7-C8	-8.79	99.51	103.90
26	1H	2444	G	C8-N9-C4	-8.78	102.89	106.40
1	1G	690	G	C8-N9-C4	-8.78	102.89	106.40
23	2L	40	C	C6-N1-C2	-8.78	116.79	120.30
26	1H	1191	G	C8-N9-C4	8.77	109.91	106.40
1	13	760	G	C6-C5-N7	-8.77	125.14	130.40
26	1H	1257	C	C2-N3-C4	-8.77	115.52	119.90
27	16	47	C	C6-N1-C2	8.76	123.81	120.30
26	1H	140	A	C6-C5-N7	-8.76	126.17	132.30
26	14	252	G	O5'-P-OP2	-8.75	97.82	105.70
26	1H	585	G	C5-C6-O6	-8.75	123.35	128.60
26	14	2430	A	C6-C5-N7	-8.75	126.17	132.30
26	1H	1299	G	O5'-P-OP1	-8.75	97.83	105.70
26	1H	691	C	C5-C6-N1	-8.75	116.63	121.00
26	14	974(A)	C	N3-C2-O2	-8.74	115.78	121.90
26	1H	512	G	O4'-C1'-N9	8.74	115.19	108.20
26	1H	676	A	C8-N9-C4	-8.74	102.30	105.80
26	14	1899	G	C6-C5-N7	-8.74	125.16	130.40
26	1H	973	A	C2-N3-C4	-8.74	106.23	110.60
26	1H	1998	G	N9-C4-C5	-8.73	101.91	105.40
26	1H	2576	G	N9-C4-C5	-8.73	101.91	105.40
1	1G	690	G	C5-N7-C8	-8.73	99.93	104.30
26	1H	1528	A	C5-N7-C8	-8.73	99.53	103.90
26	14	2713	A	C4-C5-N7	8.73	115.06	110.70
26	1H	860	U	N3-C2-O2	-8.73	116.09	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2401	U	C5-C6-N1	8.72	127.06	122.70
26	1H	528	A	C6-N1-C2	8.72	123.83	118.60
26	1H	1899	G	C4-N9-C1'	-8.72	115.16	126.50
26	14	212	G	O5'-P-OP2	-8.72	97.85	105.70
26	14	945	A	C4-C5-C6	8.72	121.36	117.00
26	14	1248	G	N1-C6-O6	8.72	125.13	119.90
26	1H	1496	A	C5-N7-C8	-8.71	99.54	103.90
26	14	613	U	C5-C4-O4	8.71	131.12	125.90
26	1H	1899	G	C4-C5-C6	-8.70	113.58	118.80
26	1H	1209	G	N1-C6-O6	8.70	125.12	119.90
26	1H	2326	C	C6-N1-C2	-8.70	116.82	120.30
26	14	1999	C	OP2-P-O3'	8.70	124.34	105.20
26	14	1566	A	N1-C6-N6	8.70	123.82	118.60
26	1H	2713	A	C6-C5-N7	-8.70	126.21	132.30
26	1H	839	U	C5-C4-O4	8.69	131.12	125.90
1	13	281	G	O5'-P-OP1	-8.69	97.88	105.70
26	14	37	C	C6-N1-C2	-8.69	116.83	120.30
26	1H	2713	A	C8-N9-C4	-8.68	102.33	105.80
26	1H	906	G	C5-C6-O6	8.67	133.80	128.60
26	1H	2070	G	N3-C2-N2	8.66	125.96	119.90
1	13	967	C	N3-C4-C5	8.66	125.36	121.90
1	1G	777	A	O5'-P-OP2	-8.66	97.91	105.70
26	14	2291	U	C5-C4-O4	8.65	131.09	125.90
36	35	62	LEU	N-CA-C	8.65	134.36	111.00
26	1H	779	U	N3-C4-O4	8.65	125.45	119.40
26	1H	1783	A	O5'-P-OP1	-8.65	97.92	105.70
26	1H	2067	G	N1-C6-O6	-8.65	114.71	119.90
1	1G	766	A	O5'-P-OP2	-8.65	97.92	105.70
27	16	81	G	C4-N9-C1'	8.64	137.74	126.50
26	14	330	A	C5-N7-C8	-8.64	99.58	103.90
26	1H	593	G	N1-C2-N2	-8.63	108.43	116.20
26	14	2447	G	P-O3'-C3'	8.63	130.05	119.70
26	14	2552	U	C2-N3-C4	-8.63	121.82	127.00
1	1G	690	G	N3-C4-C5	8.63	132.91	128.60
26	1H	1632	A	C6-C5-N7	-8.62	126.27	132.30
26	1H	2525	G	N9-C4-C5	-8.62	101.95	105.40
37	88	82	ARG	N-CA-C	8.62	134.27	111.00
1	13	564	C	C6-N1-C2	-8.61	116.85	120.30
26	1H	1969	A	O5'-P-OP1	-8.61	97.95	105.70
26	1H	1327	C	N1-C2-O2	-8.60	113.74	118.90
26	1H	503	A	N1-C6-N6	-8.59	113.44	118.60
26	14	1377	G	O5'-P-OP2	-8.59	97.97	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2600	A	O5'-P-OP2	-8.59	97.97	105.70
1	13	22	G	O5'-P-OP2	-8.59	97.97	105.70
26	1H	974	G	C5-C6-O6	-8.59	123.45	128.60
26	1H	1787	A	N7-C8-N9	8.59	118.09	113.80
26	1H	140	A	O4'-C1'-N9	8.58	115.06	108.20
26	1H	2311	A	N1-C2-N3	8.58	133.59	129.30
26	1H	2518	A	N1-C6-N6	8.57	123.74	118.60
26	1H	1332	G	C6-C5-N7	-8.56	125.26	130.40
1	13	656	C	C5-C6-N1	8.56	125.28	121.00
27	16	82	G	O5'-P-OP2	-8.56	98.00	105.70
26	1H	930	U	N3-C4-O4	-8.55	113.41	119.40
1	1G	1417	G	N1-C6-O6	8.55	125.03	119.90
26	14	1599	C	C6-N1-C2	-8.55	116.88	120.30
1	13	1128	C	C6-N1-C2	-8.55	116.88	120.30
26	1H	1604	C	N1-C2-O2	-8.55	113.77	118.90
26	1H	1784	A	O4'-C1'-N9	-8.55	101.36	108.20
26	1H	786	C	N3-C4-N4	-8.55	112.02	118.00
26	14	2239	G	N3-C2-N2	8.55	125.88	119.90
26	1H	252	G	O5'-P-OP2	-8.54	98.01	105.70
26	1H	1368	G	C8-N9-C4	-8.54	102.98	106.40
39	A8	110	LEU	CA-CB-CG	8.54	134.94	115.30
26	1H	130	C	C6-N1-C2	8.54	123.72	120.30
26	1H	271(B)	G	C6-N1-C2	-8.54	119.98	125.10
22	1K	76	A	C6-C5-N7	-8.53	126.33	132.30
26	1H	383	U	C5-C6-N1	-8.53	118.44	122.70
26	1H	683	C	C5-C4-N4	-8.53	114.23	120.20
52	N8	41	PRO	C-N-CD	-8.53	101.83	120.60
26	1H	1528	A	O4'-C1'-N9	8.53	115.02	108.20
26	14	330	A	C4-C5-N7	8.52	114.96	110.70
26	1H	659	C	C6-N1-C2	8.52	123.71	120.30
26	14	569	U	C2-N3-C4	-8.52	121.89	127.00
26	1H	831	G	C5-C6-O6	8.52	133.71	128.60
26	14	1348	G	O5'-P-OP2	8.52	120.92	110.70
26	14	2334	G	C8-N9-C4	8.52	109.81	106.40
26	14	2446	G	O5'-P-OP2	-8.52	98.03	105.70
1	13	1519	A	C5-C6-N6	8.51	130.51	123.70
26	14	1379	A	C5-N7-C8	-8.51	99.64	103.90
26	1H	944	G	O5'-P-OP2	-8.51	98.04	105.70
26	14	672	C	O5'-P-OP1	8.51	120.92	110.70
26	14	1195	G	C5-C6-O6	8.51	133.71	128.60
26	1H	683	C	C2-N3-C4	-8.51	115.64	119.90
26	1H	2638	G	N3-C4-N9	8.51	131.10	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	613	U	N3-C2-O2	-8.50	116.25	122.20
26	1H	2374	C	O5'-P-OP2	-8.50	98.05	105.70
26	1H	1836	C	N3-C4-C5	-8.50	118.50	121.90
26	1H	1990	C	C2-N3-C4	-8.50	115.65	119.90
26	1H	1998	G	C2-N3-C4	-8.49	107.65	111.90
1	1G	1517	G	O5'-P-OP2	-8.49	98.06	105.70
26	1H	108	U	O5'-P-OP1	-8.49	98.06	105.70
26	1H	1241	A	C5-N7-C8	-8.49	99.66	103.90
26	1H	2331	G	N1-C6-O6	8.48	124.99	119.90
26	1H	2392	A	C5-C6-N1	-8.48	113.46	117.70
26	1H	1210	A	N7-C8-N9	8.48	118.04	113.80
26	1H	2391	G	O5'-P-OP1	-8.48	98.07	105.70
26	14	74	A	C5-N7-C8	-8.48	99.66	103.90
26	1H	2026	C	C4-C5-C6	8.47	121.64	117.40
26	1H	2437	U	C6-N1-C2	-8.46	115.92	121.00
26	14	2420	C	O5'-P-OP1	-8.46	98.08	105.70
26	14	2542	A	O5'-P-OP2	-8.46	98.08	105.70
26	14	2501	C	C2-N1-C1'	-8.46	109.49	118.80
26	1H	746	A	O5'-P-OP2	8.46	120.85	110.70
26	14	1187	G	C8-N9-C4	-8.45	103.02	106.40
26	14	915	C	C6-N1-C2	-8.45	116.92	120.30
26	14	74	A	N3-C4-N9	-8.45	120.64	127.40
26	1H	1790	C	C2-N3-C4	-8.45	115.67	119.90
1	1G	1139	G	N3-C4-C5	8.44	132.82	128.60
26	1H	2439	A	O5'-P-OP2	-8.44	98.10	105.70
26	14	2502	G	O5'-P-OP1	-8.44	98.10	105.70
26	1H	774	A	C2-N3-C4	-8.43	106.38	110.60
26	14	2253	G	C5-C6-O6	-8.43	123.54	128.60
1	13	266	G	C4-C5-N7	8.43	114.17	110.80
1	13	302	G	N1-C6-O6	-8.43	114.84	119.90
26	14	676	A	O4'-C1'-N9	8.43	114.94	108.20
26	1H	1369	G	C5-N7-C8	8.43	108.51	104.30
26	1H	2437	U	N3-C4-C5	-8.43	109.54	114.60
1	13	1520	G	C4-C5-N7	8.43	114.17	110.80
26	1H	831	G	N1-C6-O6	-8.42	114.85	119.90
26	14	2198	A	O4'-C1'-N9	8.42	114.93	108.20
1	13	266	G	C5-N7-C8	-8.41	100.09	104.30
26	1H	1671	U	N3-C4-O4	8.41	125.29	119.40
26	1H	2012	G	C5-C6-O6	-8.41	123.55	128.60
26	14	1432	C	C6-N1-C2	8.41	123.67	120.30
27	16	44	G	C4-N9-C1'	-8.41	115.56	126.50
26	1H	1835	G	N3-C4-C5	-8.41	124.40	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1332	G	C5-C6-N1	-8.40	107.30	111.50
26	1H	1314	C	C2-N1-C1'	8.40	128.03	118.80
26	1H	1380	G	O5'-P-OP2	-8.40	98.14	105.70
26	14	704	G	N1-C6-O6	8.40	124.94	119.90
26	14	2689	U	P-O3'-C3'	8.40	129.78	119.70
26	14	2206	C	O5'-P-OP2	-8.39	98.14	105.70
1	1G	576	G	C4-C5-C6	8.39	123.83	118.80
26	1H	2330	G	C4-C5-N7	8.39	114.16	110.80
26	14	746	A	O5'-P-OP2	8.39	120.77	110.70
26	1H	330	A	C5-N7-C8	-8.38	99.71	103.90
26	1H	1790	C	C6-N1-C2	8.38	123.65	120.30
26	14	2707	G	C5-C6-N1	8.38	115.69	111.50
24	3K	76	A	C6-C5-N7	-8.38	126.44	132.30
26	1H	141	A	C5-N7-C8	-8.38	99.71	103.90
26	14	1313	U	C2-N1-C1'	8.37	127.75	117.70
1	13	22	G	N3-C2-N2	-8.37	114.04	119.90
26	14	2253	G	N1-C6-O6	8.37	124.92	119.90
1	13	1502	A	O5'-P-OP2	-8.37	98.17	105.70
24	3K	76	A	N1-C6-N6	8.37	123.62	118.60
26	1H	536	A	C6-N1-C2	-8.37	113.58	118.60
26	1H	1594	G	N3-C2-N2	-8.36	114.05	119.90
26	1H	2060	A	C5-N7-C8	-8.36	99.72	103.90
26	14	2503	A	C2-N3-C4	8.36	114.78	110.60
1	13	328	C	O5'-P-OP1	-8.36	98.18	105.70
26	1H	755	C	C4-C5-C6	8.36	121.58	117.40
26	14	528	A	N1-C6-N6	8.36	123.61	118.60
26	1H	2392	A	N3-C4-C5	8.35	132.65	126.80
26	1H	1156	A	O5'-P-OP2	-8.35	98.19	105.70
1	1G	1484	C	O5'-P-OP2	-8.35	98.19	105.70
23	2L	35	C	C2-N1-C1'	8.35	127.98	118.80
26	14	801	G	N1-C6-O6	-8.34	114.90	119.90
26	1H	210	C	C6-N1-C2	8.33	123.63	120.30
26	14	1698	A	C4-C5-C6	8.33	121.16	117.00
26	1H	1142(A)	A	N3-C4-N9	-8.32	120.74	127.40
26	1H	2438	U	C2-N3-C4	-8.32	122.01	127.00
26	14	2258	C	OP1-P-O3'	8.32	123.50	105.20
26	1H	942	G	N3-C2-N2	-8.32	114.08	119.90
26	1H	821	A	OP1-P-OP2	8.31	132.07	119.60
26	1H	2518	A	C4-C5-N7	8.31	114.86	110.70
26	1H	2518	A	C6-C5-N7	-8.31	126.48	132.30
26	1H	856	C	O5'-P-OP1	-8.30	98.23	105.70
26	1H	689	A	C6-N1-C2	-8.30	113.62	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1964	G	C5-C6-O6	8.30	133.58	128.60
1	13	811	C	C2-N3-C4	-8.30	115.75	119.90
26	1H	2689	U	C2-N3-C4	-8.30	122.02	127.00
26	14	2554	U	O5'-P-OP2	8.30	120.66	110.70
27	16	81	G	O4'-C1'-N9	8.29	114.84	108.20
26	1H	1379	A	C5-N7-C8	-8.29	99.75	103.90
26	1H	2503	A	C8-N9-C4	8.29	109.12	105.80
26	1H	2375	G	C5-C6-O6	-8.29	123.63	128.60
26	1H	2712	U	C2-N3-C4	-8.29	122.03	127.00
26	1H	1142(A)	A	N3-C4-C5	8.28	132.60	126.80
26	1H	2239	G	N3-C2-N2	8.28	125.70	119.90
26	14	1566	A	C5-C6-N6	-8.28	117.08	123.70
26	1H	828	U	N1-C2-N3	8.28	119.87	114.90
26	1H	860	U	C2-N1-C1'	8.28	127.63	117.70
26	1H	2254	C	N1-C2-O2	-8.28	113.94	118.90
26	1H	98	G	O5'-P-OP2	-8.27	98.26	105.70
26	1H	1257	C	C4-C5-C6	8.27	121.54	117.40
26	14	2246	G	C8-N9-C4	-8.27	103.09	106.40
1	13	1354	C	C6-N1-C2	-8.27	116.99	120.30
26	14	629	G	O5'-P-OP2	-8.27	98.26	105.70
26	14	2390	U	O5'-P-OP1	-8.27	98.26	105.70
26	14	2461	C	O5'-P-OP1	-8.27	98.26	105.70
26	14	2512	C	N3-C4-C5	8.27	125.21	121.90
26	1H	1376	C	N3-C4-C5	-8.27	118.59	121.90
26	1H	1392	A	OP2-P-O3'	8.26	123.38	105.20
26	1H	2508	G	N9-C4-C5	8.26	108.70	105.40
26	1H	1974	C	O5'-P-OP2	-8.26	98.27	105.70
26	1H	2392	A	C6-N1-C2	8.26	123.56	118.60
26	1H	1255	U	N3-C4-C5	-8.26	109.64	114.60
27	16	81	G	N9-C4-C5	-8.26	102.10	105.40
26	1H	1626	G	O5'-P-OP2	8.25	120.60	110.70
26	1H	836	G	C2-N3-C4	8.25	116.03	111.90
26	14	1950	G	C8-N9-C4	-8.25	103.10	106.40
26	1H	2199	A	C8-N9-C4	-8.25	102.50	105.80
26	1H	2559	C	O5'-P-OP2	-8.25	98.28	105.70
26	1H	1781	C	C5-C4-N4	8.24	125.97	120.20
26	1H	1332	G	C5-C6-O6	-8.24	123.65	128.60
26	14	819	A	O5'-P-OP2	-8.24	98.28	105.70
26	1H	59	U	N3-C4-C5	-8.24	109.66	114.60
26	1H	621	A	C8-N9-C4	-8.24	102.50	105.80
26	14	933	A	C5-N7-C8	-8.24	99.78	103.90
1	13	750	G	O5'-P-OP1	-8.24	98.28	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2392	A	N7-C8-N9	8.24	117.92	113.80
26	1H	831	G	C8-N9-C4	8.24	109.69	106.40
26	1H	2451	A	N1-C6-N6	-8.24	113.66	118.60
26	14	2689	U	OP2-P-O3'	8.24	123.32	105.20
26	1H	1626	G	N3-C2-N2	-8.23	114.14	119.90
26	14	1614	A	C2-N3-C4	-8.23	106.48	110.60
1	13	758	G	C4-C5-N7	8.23	114.09	110.80
26	1H	1658	C	N1-C2-O2	-8.22	113.97	118.90
26	14	676	A	N7-C8-N9	8.22	117.91	113.80
26	14	1633	G	N9-C4-C5	8.22	108.69	105.40
26	14	1657	C	C6-N1-C2	-8.22	117.01	120.30
26	1H	2435	A	N1-C6-N6	-8.22	113.67	118.60
26	1H	1660	C	C2-N3-C4	-8.22	115.79	119.90
26	14	56	A	N1-C6-N6	-8.22	113.67	118.60
26	14	2779	U	N1-C2-O2	8.21	128.55	122.80
26	1H	1939	U	C4-C5-C6	-8.21	114.78	119.70
26	14	847	U	C2-N1-C1'	-8.21	107.85	117.70
26	1H	2001	A	C2-N3-C4	8.20	114.70	110.60
26	1H	138	G	N7-C8-N9	8.20	117.20	113.10
26	1H	689	A	N1-C2-N3	8.20	133.40	129.30
26	1H	2445	G	C5-C6-O6	8.20	133.52	128.60
1	1G	889	A	O5'-P-OP1	-8.20	98.32	105.70
23	2K	17	C	N1-C2-O2	8.19	123.82	118.90
26	1H	120	U	N1-C2-N3	8.19	119.81	114.90
26	1H	665	C	C5-C6-N1	-8.19	116.91	121.00
26	14	1948	G	O5'-P-OP1	-8.19	98.33	105.70
26	1H	1614	A	N7-C8-N9	8.18	117.89	113.80
26	1H	1978	A	N1-C6-N6	-8.18	113.69	118.60
26	1H	2822	G	N9-C4-C5	-8.18	102.13	105.40
26	14	1681	G	N3-C4-C5	8.18	132.69	128.60
26	1H	770	G	C5-C6-O6	-8.18	123.69	128.60
41	C8	27	LEU	CA-CB-CG	8.17	134.09	115.30
26	1H	1760	A	O5'-P-OP2	-8.17	98.35	105.70
26	1H	602	G	C6-C5-N7	-8.17	125.50	130.40
26	1H	2434	A	C6-N1-C2	8.17	123.50	118.60
26	1H	528	A	N3-C4-C5	8.17	132.52	126.80
26	14	1254	A	C6-N1-C2	-8.17	113.70	118.60
26	14	2490	G	N7-C8-N9	8.17	117.18	113.10
26	1H	2600	A	C8-N9-C4	-8.16	102.53	105.80
1	13	917	G	O5'-P-OP1	-8.16	98.36	105.70
26	1H	530	G	C5-C6-O6	8.16	133.50	128.60
26	14	1141	U	P-O3'-C3'	8.15	129.49	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	845	G	C4-N9-C1'	-8.15	115.90	126.50
26	1H	2433	A	C2-N3-C4	-8.15	106.52	110.60
1	13	542	G	O5'-P-OP1	-8.15	98.36	105.70
26	14	18	C	O5'-P-OP1	-8.15	98.36	105.70
1	1G	898	G	C8-N9-C4	8.15	109.66	106.40
26	1H	694	U	O5'-P-OP2	-8.15	98.37	105.70
1	13	1489	G	C8-N9-C4	8.14	109.66	106.40
27	16	79	C	C6-N1-C2	-8.14	117.04	120.30
1	13	31	G	C5-C6-O6	-8.14	123.72	128.60
1	13	690	G	C8-N9-C4	-8.14	103.14	106.40
26	1H	238	C	C5-C6-N1	-8.14	116.93	121.00
26	1H	1773	A	C2-N3-C4	-8.14	106.53	110.60
26	1H	1241	A	C6-N1-C2	8.13	123.48	118.60
1	1G	690	G	N7-C8-N9	8.13	117.17	113.10
26	14	1781	C	C6-N1-C2	8.13	123.55	120.30
1	13	816	A	C8-N9-C4	-8.13	102.55	105.80
26	1H	795	C	C5-C6-N1	-8.13	116.94	121.00
26	1H	1700	A	O5'-P-OP2	-8.12	98.39	105.70
1	1G	529	G	C4-C5-N7	8.12	114.05	110.80
26	1H	816	C	N3-C4-N4	8.12	123.69	118.00
26	14	741	G	N3-C2-N2	-8.11	114.22	119.90
26	1H	832	G	C5-C6-N1	-8.11	107.45	111.50
1	1G	1399	C	C6-N1-C2	8.10	123.54	120.30
26	1H	874	G	O5'-P-OP2	-8.10	98.41	105.70
26	14	1299	G	O5'-P-OP1	-8.10	98.41	105.70
26	1H	1429	G	C5-C6-O6	8.10	133.46	128.60
26	1H	222	A	P-O3'-C3'	8.09	129.41	119.70
26	1H	1771	C	C2-N3-C4	-8.09	115.85	119.90
26	14	1786	A	N3-C4-N9	-8.09	120.93	127.40
26	14	1313	U	C6-N1-C2	-8.09	116.15	121.00
1	13	1497	G	O5'-P-OP2	-8.08	98.42	105.70
26	1H	488	G	O5'-P-OP2	-8.08	98.42	105.70
26	1H	609	A	N9-C4-C5	-8.08	102.57	105.80
26	1H	1971	A	O5'-P-OP2	-8.08	98.43	105.70
26	14	982	C	C6-N1-C2	-8.08	117.07	120.30
26	1H	318	C	O5'-P-OP1	-8.07	98.44	105.70
22	1K	76	A	O4'-C1'-N9	8.07	114.66	108.20
26	14	791	C	C6-N1-C2	8.07	123.53	120.30
26	14	2391	G	N7-C8-N9	8.07	117.14	113.10
26	14	49	A	P-O3'-C3'	8.07	129.38	119.70
26	14	1681	G	C2-N3-C4	-8.07	107.86	111.90
26	1H	1624	G	N1-C6-O6	-8.07	115.06	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2394	C	O5'-P-OP2	-8.07	98.44	105.70
1	13	586	C	C5-C6-N1	-8.06	116.97	121.00
26	1H	2330	G	N1-C6-O6	8.06	124.74	119.90
26	1H	1191	G	N7-C8-N9	-8.06	109.07	113.10
26	14	1248	G	C5-C6-O6	-8.06	123.77	128.60
26	1H	651	G	C8-N9-C4	-8.05	103.18	106.40
26	1H	906	G	N1-C6-O6	-8.05	115.07	119.90
26	1H	1614	A	C4-C5-N7	8.05	114.73	110.70
26	1H	2429	G	OP1-P-OP2	-8.05	107.52	119.60
26	1H	1658	C	C5-C4-N4	-8.05	114.57	120.20
26	14	2542	A	N7-C8-N9	-8.05	109.78	113.80
1	13	1025	U	C5-C6-N1	8.04	126.72	122.70
26	1H	110	G	O5'-P-OP2	-8.04	98.46	105.70
26	1H	658	C	O5'-P-OP2	-8.04	98.46	105.70
26	1H	2391	G	C5-C6-O6	8.04	133.43	128.60
26	14	761	A	O5'-P-OP1	-8.04	98.46	105.70
26	14	921	G	C8-N9-C4	-8.04	103.18	106.40
26	14	1566	A	C8-N9-C4	8.04	109.02	105.80
26	1H	330	A	N7-C8-N9	8.04	117.82	113.80
26	1H	1602	U	O5'-P-OP1	-8.04	98.47	105.70
26	14	2092	U	C5-C4-O4	8.04	130.72	125.90
26	1H	853	G	O5'-P-OP2	-8.03	98.47	105.70
26	1H	859	G	N3-C4-C5	8.03	132.62	128.60
26	1H	945	A	O4'-C1'-N9	8.03	114.62	108.20
26	1H	945	A	N9-C4-C5	-8.03	102.59	105.80
26	14	2612	C	O5'-P-OP1	8.03	120.33	110.70
1	13	770	C	O5'-P-OP2	8.03	120.33	110.70
26	1H	2272	U	OP1-P-OP2	-8.03	107.56	119.60
26	1H	148	C	C2-N3-C4	-8.03	115.89	119.90
26	1H	2424	C	OP1-P-OP2	8.03	131.64	119.60
26	1H	871	U	N1-C2-O2	-8.02	117.19	122.80
26	1H	941	A	C8-N9-C4	8.02	109.01	105.80
26	1H	2069	G	N7-C8-N9	-8.02	109.09	113.10
26	1H	1395	A	O5'-P-OP2	8.02	120.32	110.70
26	1H	2380	C	C4-C5-C6	8.02	121.41	117.40
26	1H	1614	A	N3-C4-N9	-8.01	120.99	127.40
26	1H	2573	C	N1-C2-O2	8.01	123.71	118.90
26	14	530	G	C4-C5-N7	8.01	114.00	110.80
26	1H	609	A	C5-C6-N6	-8.01	117.29	123.70
26	1H	2331	G	C5-C6-O6	-8.01	123.80	128.60
26	1H	1021	A	C8-N9-C4	-8.00	102.60	105.80
26	14	1342	A	C5-N7-C8	-8.00	99.90	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	65	110	LEU	CA-CB-CG	8.00	133.70	115.30
26	1H	788	A	C5-C6-N1	-8.00	113.70	117.70
26	14	2871	C	O5'-P-OP2	-8.00	98.50	105.70
1	13	967	C	N3-C4-N4	-8.00	112.40	118.00
26	1H	129	C	C5-C4-N4	-8.00	114.60	120.20
26	14	785	G	OP1-P-OP2	-8.00	107.61	119.60
26	14	945	A	N9-C4-C5	-8.00	102.60	105.80
26	1H	140	A	N1-C6-N6	8.00	123.40	118.60
26	1H	585	G	N1-C6-O6	7.99	124.70	119.90
26	1H	1623	G	OP2-P-O3'	7.99	122.78	105.20
26	14	1382	G	C5-C6-N1	7.99	115.50	111.50
26	1H	1430	C	OP1-P-O3'	7.99	122.77	105.20
26	1H	1923	U	O5'-P-OP2	-7.99	98.51	105.70
26	14	1950	G	N7-C8-N9	7.99	117.09	113.10
26	1H	1602	U	O5'-P-OP2	7.99	120.28	110.70
1	13	1226	C	N1-C2-O2	-7.99	114.11	118.90
26	14	2841	C	C6-N1-C2	7.99	123.49	120.30
26	1H	205	G	N3-C2-N2	7.98	125.49	119.90
26	1H	2067	G	C5-C6-O6	7.98	133.39	128.60
26	1H	2318	G	N3-C4-C5	7.98	132.59	128.60
26	1H	370	G	N1-C6-O6	-7.98	115.11	119.90
26	1H	596	G	N1-C6-O6	7.98	124.69	119.90
26	1H	1520	U	N3-C2-O2	-7.98	116.61	122.20
26	1H	2316	C	O5'-P-OP2	7.98	120.28	110.70
1	1G	121	C	N1-C2-O2	7.98	123.69	118.90
26	14	1302	A	OP1-P-OP2	7.98	131.57	119.60
26	1H	825	C	N3-C4-N4	7.98	123.58	118.00
26	14	1396	U	O5'-P-OP1	-7.98	98.52	105.70
26	14	1827	C	OP1-P-O3'	7.98	122.75	105.20
26	1H	1817	G	N1-C2-N2	-7.97	109.02	116.20
26	14	2011	U	N3-C2-O2	7.97	127.78	122.20
26	14	835	A	O5'-P-OP1	7.97	120.26	110.70
26	14	1303	G	N1-C6-O6	-7.97	115.12	119.90
26	14	2037	G	C5-N7-C8	7.97	108.28	104.30
26	1H	2346	A	C8-N9-C4	-7.96	102.61	105.80
1	1G	906	G	C5-C6-O6	-7.96	123.82	128.60
26	14	1698	A	C5-C6-N6	-7.96	117.33	123.70
26	1H	1142(A)	A	C5-N7-C8	-7.96	99.92	103.90
26	1H	1900	A	O5'-P-OP2	-7.96	98.54	105.70
26	1H	2328	A	C2-N3-C4	-7.96	106.62	110.60
26	1H	74	A	N3-C4-N9	-7.96	121.03	127.40
26	1H	2830	G	C8-N9-C4	-7.95	103.22	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	16	85	G	C5-C6-O6	-7.95	123.83	128.60
1	13	812	C	N3-C2-O2	-7.95	116.34	121.90
26	1H	2346	A	N7-C8-N9	7.95	117.77	113.80
26	14	1283	G	O5'-P-OP2	-7.95	98.55	105.70
26	1H	1437	C	N3-C2-O2	-7.94	116.34	121.90
26	1H	2530	A	N1-C6-N6	7.94	123.37	118.60
26	14	676	A	N3-C4-N9	-7.94	121.05	127.40
26	1H	694	U	O5'-P-OP1	7.94	120.23	110.70
26	14	778	G	N1-C2-N2	-7.94	109.06	116.20
1	1G	18	C	O5'-P-OP1	-7.93	98.56	105.70
26	14	1377	G	C8-N9-C4	-7.93	103.23	106.40
26	14	1556	C	O5'-P-OP1	-7.93	98.56	105.70
26	1H	2525	G	C5-C6-O6	-7.93	123.84	128.60
1	13	858	G	N1-C6-O6	-7.93	115.14	119.90
26	14	783	A	C5-C6-N1	-7.93	113.73	117.70
26	14	1681	G	N3-C4-N9	-7.93	121.24	126.00
26	1H	391	G	N1-C6-O6	7.93	124.66	119.90
26	1H	641	C	O5'-P-OP2	7.93	120.21	110.70
26	1H	1297	C	OP2-P-O3'	-7.92	87.77	105.20
26	1H	1931	U	N3-C4-O4	-7.92	113.85	119.40
26	1H	2070	G	C8-N9-C4	7.92	109.57	106.40
26	1H	1326	U	N3-C2-O2	-7.92	116.66	122.20
26	1H	2598	A	C8-N9-C4	7.92	108.97	105.80
26	1H	832	G	C8-N9-C4	-7.92	103.23	106.40
26	1H	946	G	OP1-P-OP2	-7.92	107.73	119.60
26	1H	1899	G	N1-C2-N2	7.92	123.33	116.20
26	1H	2412	A	C6-N1-C2	-7.92	113.85	118.60
1	1G	449	C	C6-N1-C2	-7.91	117.14	120.30
26	1H	47	C	C5-C4-N4	-7.91	114.66	120.20
26	1H	37	C	N3-C4-C5	-7.91	118.74	121.90
26	1H	98	G	OP1-P-OP2	7.91	131.46	119.60
26	14	530	G	C5-N7-C8	-7.91	100.35	104.30
26	1H	915	C	N3-C2-O2	-7.90	116.37	121.90
26	14	71	A	N1-C6-N6	7.90	123.34	118.60
26	1H	662	G	N7-C8-N9	-7.90	109.15	113.10
1	1G	1259	C	C6-N1-C2	-7.90	117.14	120.30
26	1H	2062	A	N7-C8-N9	-7.89	109.85	113.80
26	14	830	G	N9-C4-C5	-7.89	102.24	105.40
26	1H	757	U	O5'-P-OP2	-7.89	98.60	105.70
26	14	676	A	C4-C5-N7	7.89	114.65	110.70
22	1K	9	A	P-O3'-C3'	7.89	129.17	119.70
26	1H	1380	G	N1-C6-O6	7.89	124.64	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1755	A	O5'-P-OP1	-7.89	98.60	105.70
26	1H	2086	U	O5'-P-OP2	-7.89	98.60	105.70
26	1H	2346	A	C4-C5-C6	7.89	120.94	117.00
26	14	155	C	N1-C2-O2	7.89	123.63	118.90
26	14	2710	C	C6-N1-C2	7.89	123.46	120.30
26	14	597	U	O5'-P-OP2	-7.89	98.60	105.70
26	14	1336	A	C6-N1-C2	-7.89	113.87	118.60
26	1H	1618	A	C8-N9-C4	-7.88	102.65	105.80
26	14	915	C	N3-C2-O2	-7.88	116.39	121.90
26	14	1703	G	C4-C5-N7	7.88	113.95	110.80
26	14	621	A	N7-C8-N9	7.87	117.74	113.80
26	14	2275	C	C6-N1-C2	-7.87	117.15	120.30
26	14	2731	G	C8-N9-C4	-7.87	103.25	106.40
26	1H	1950	G	O4'-C1'-N9	7.87	114.50	108.20
26	1H	2357	U	O5'-P-OP2	-7.87	98.62	105.70
1	1G	721	G	C6-C5-N7	-7.86	125.68	130.40
26	14	472	A	C8-N9-C4	-7.86	102.66	105.80
26	1H	1472	A	C5-C6-N6	7.86	129.99	123.70
26	1H	122	G	N1-C2-N3	7.86	128.62	123.90
1	1G	1286	A	C8-N9-C4	-7.86	102.66	105.80
26	14	1762	A	O4'-C1'-N9	7.86	114.48	108.20
26	1H	1340	U	N3-C4-O4	7.85	124.90	119.40
26	14	2518	A	N9-C4-C5	-7.85	102.66	105.80
26	1H	146	G	N1-C6-O6	7.85	124.61	119.90
26	14	791	C	N3-C2-O2	7.85	127.39	121.90
26	14	1346	G	N1-C6-O6	-7.85	115.19	119.90
1	1G	413	G	C6-C5-N7	7.84	135.11	130.40
26	14	1566	A	N9-C4-C5	-7.84	102.66	105.80
26	1H	589	C	O5'-P-OP2	-7.84	98.64	105.70
26	14	1496	A	C8-N9-C4	-7.84	102.66	105.80
26	14	2509	G	O5'-P-OP1	-7.84	98.64	105.70
26	1H	602	G	N9-C4-C5	-7.84	102.26	105.40
26	1H	663	G	C4-C5-C6	7.84	123.50	118.80
26	1H	1386	C	O5'-P-OP2	-7.84	98.64	105.70
1	13	721	G	N3-C4-N9	7.84	130.70	126.00
26	14	2441	C	O5'-P-OP1	-7.84	98.65	105.70
29	29	88	GLY	N-CA-C	7.83	132.69	113.10
26	1H	1284	A	OP1-P-OP2	7.83	131.35	119.60
1	13	789	U	N1-C2-N3	7.83	119.60	114.90
1	13	1279	A	N7-C8-N9	7.83	117.72	113.80
26	14	1763	G	O5'-P-OP2	-7.83	98.66	105.70
26	14	1899	G	N7-C8-N9	7.83	117.02	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	71	A	O4'-C1'-N9	-7.83	101.94	108.20
26	1H	2486	G	O5'-P-OP2	-7.82	98.66	105.70
26	1H	2611	U	C5-C4-O4	7.82	130.59	125.90
26	14	945	A	N7-C8-N9	7.82	117.71	113.80
26	1H	123	G	C6-N1-C2	-7.82	120.41	125.10
26	1H	2059	A	C8-N9-C4	7.82	108.93	105.80
26	14	1618	A	C8-N9-C4	-7.81	102.67	105.80
26	1H	128	C	N3-C4-C5	7.81	125.03	121.90
1	1G	725	G	O5'-P-OP1	-7.81	98.67	105.70
1	13	182	U	N1-C2-O2	-7.81	117.33	122.80
26	1H	121	G	C4-C5-N7	7.81	113.92	110.80
26	1H	676	A	C6-N1-C2	7.80	123.28	118.60
1	13	1353	G	O5'-P-OP2	-7.80	98.68	105.70
26	1H	668	G	N1-C2-N2	-7.80	109.18	116.20
26	1H	691	C	N1-C2-O2	-7.80	114.22	118.90
26	1H	2490	G	C5-C6-O6	-7.79	123.92	128.60
26	1H	122	G	N1-C2-N2	-7.79	109.19	116.20
26	1H	2446	G	C4-C5-N7	7.79	113.92	110.80
26	1H	2592	G	O5'-P-OP1	-7.79	98.69	105.70
26	1H	528	A	O4'-C1'-N9	-7.79	101.97	108.20
26	1H	621	A	O4'-C1'-N9	7.79	114.43	108.20
26	1H	587	C	C2-N3-C4	-7.79	116.01	119.90
26	1H	624	C	N3-C2-O2	7.79	127.35	121.90
1	1G	481	G	N3-C4-N9	7.79	130.67	126.00
26	1H	1349	A	O5'-P-OP1	-7.79	98.69	105.70
26	14	1613	G	N3-C2-N2	7.78	125.35	119.90
26	14	1342	A	C4-C5-C6	7.78	120.89	117.00
26	1H	400	G	C5-C6-O6	-7.78	123.93	128.60
26	14	2024	G	N1-C6-O6	7.78	124.57	119.90
26	1H	62	C	C6-N1-C2	7.78	123.41	120.30
26	1H	783	A	OP1-P-O3'	-7.78	88.09	105.20
1	13	1479	C	C5-C4-N4	-7.78	114.76	120.20
26	1H	271(B)	G	C8-N9-C4	-7.77	103.29	106.40
26	1H	864	G	C2-N3-C4	7.77	115.79	111.90
26	1H	2508	G	C4-C5-N7	-7.77	107.69	110.80
26	14	141	A	C2-N3-C4	-7.77	106.72	110.60
26	14	2500	U	O5'-P-OP2	-7.77	98.71	105.70
26	1H	1698	A	N3-C4-C5	7.77	132.24	126.80
27	1J	60	C	C6-N1-C2	-7.77	117.19	120.30
26	1H	734	A	C2-N3-C4	-7.76	106.72	110.60
26	1H	265	A	C5-N7-C8	-7.76	100.02	103.90
26	1H	624	C	N1-C2-O2	-7.76	114.24	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1702	G	O5'-P-OP1	-7.76	98.72	105.70
26	1H	1786	A	N1-C2-N3	7.76	133.18	129.30
26	14	2079	U	O5'-P-OP1	-7.76	98.72	105.70
26	1H	945	A	C8-N9-C1'	-7.75	113.74	127.70
26	1H	2287	A	N3-C4-C5	7.75	132.22	126.80
26	1H	138	G	C5-C6-O6	-7.75	123.95	128.60
26	1H	1381	G	N3-C4-N9	-7.74	121.35	126.00
27	16	41	U	C5-C6-N1	-7.74	118.83	122.70
26	14	330	A	N1-C6-N6	7.74	123.24	118.60
26	14	2391	G	C8-N9-C4	-7.74	103.30	106.40
26	14	2379	G	N3-C4-C5	-7.74	124.73	128.60
26	1H	831	G	C5-N7-C8	7.74	108.17	104.30
26	14	1332	G	N9-C4-C5	-7.74	102.31	105.40
26	1H	729	G	N1-C2-N2	7.73	123.16	116.20
26	1H	2594	C	C2-N3-C4	-7.73	116.03	119.90
26	14	829	A	O5'-P-OP1	-7.73	98.74	105.70
26	1H	1915	U	N3-C2-O2	-7.73	116.79	122.20
1	13	858	G	C5-C6-O6	7.73	133.24	128.60
26	1H	599	G	N3-C2-N2	7.73	125.31	119.90
26	1H	1835	G	O5'-P-OP1	-7.73	98.75	105.70
26	14	2429	G	OP2-P-O3'	7.72	122.19	105.20
26	14	736	C	O5'-P-OP1	-7.72	98.75	105.70
26	1H	1312	U	O5'-P-OP1	-7.72	98.75	105.70
1	13	268	C	O5'-P-OP2	7.72	119.96	110.70
26	1H	680	G	N7-C8-N9	-7.71	109.24	113.10
26	1H	1202	C	N1-C2-O2	-7.71	114.27	118.90
26	14	1827	C	C5-C6-N1	-7.71	117.14	121.00
26	1H	754	C	N1-C2-O2	-7.71	114.27	118.90
26	1H	734	A	OP1-P-OP2	7.71	131.16	119.60
26	1H	2502	G	N3-C2-N2	-7.71	114.51	119.90
26	14	2314	C	N3-C2-O2	-7.71	116.51	121.90
26	1H	809	G	C5-C6-O6	-7.70	123.98	128.60
26	1H	1391	U	N3-C2-O2	-7.70	116.81	122.20
1	1G	1346	A	P-O3'-C3'	7.70	128.94	119.70
26	14	778	G	N1-C6-O6	-7.70	115.28	119.90
26	1H	1499	C	O5'-P-OP1	-7.70	98.77	105.70
27	16	37	C	C6-N1-C2	7.70	123.38	120.30
26	14	1784	A	C4-C5-N7	7.70	114.55	110.70
26	14	2392	A	C5-N7-C8	-7.70	100.05	103.90
26	14	2575	C	C5-C4-N4	7.70	125.59	120.20
1	1G	332	G	C8-N9-C4	7.69	109.48	106.40
26	14	778	G	N3-C2-N2	7.69	125.29	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2435	A	C8-N9-C4	-7.69	102.72	105.80
26	1H	1992	G	O5'-P-OP2	-7.69	98.78	105.70
26	14	1288	U	N3-C2-O2	-7.69	116.82	122.20
26	14	1776	G	N3-C4-N9	7.69	130.61	126.00
26	14	2585	U	C2-N1-C1'	7.69	126.92	117.70
26	1H	1613	G	N3-C4-N9	7.69	130.61	126.00
26	14	1520	U	C5-C4-O4	7.68	130.51	125.90
26	14	2552	U	C5-C4-O4	-7.68	121.29	125.90
26	1H	621	A	N3-C4-C5	7.68	132.18	126.80
26	1H	1900	A	O5'-P-OP1	7.68	119.92	110.70
26	14	2518	A	C5-C6-N6	-7.68	117.55	123.70
1	13	1342	C	C6-N1-C2	7.68	123.37	120.30
26	1H	931	G	N3-C4-C5	-7.68	124.76	128.60
26	1H	2374	C	C6-N1-C2	7.68	123.37	120.30
26	1H	377	C	C6-N1-C2	7.67	123.37	120.30
26	1H	1021	A	C5-C6-N1	-7.67	113.86	117.70
26	1H	1544	C	N1-C2-O2	7.67	123.50	118.90
26	14	1401	G	C8-N9-C4	-7.67	103.33	106.40
26	1H	1775	U	O5'-P-OP2	-7.67	98.79	105.70
26	1H	2688	U	C4-C5-C6	7.67	124.30	119.70
1	13	1227	A	N7-C8-N9	7.67	117.63	113.80
26	1H	2585	U	N3-C4-C5	7.67	119.20	114.60
1	1G	1260	C	C6-N1-C2	-7.67	117.23	120.30
26	1H	119	A	N9-C4-C5	7.67	108.87	105.80
26	14	119	A	OP1-P-O3'	7.67	122.06	105.20
26	1H	676	A	N1-C6-N6	7.66	123.20	118.60
26	1H	2439	A	C5-N7-C8	-7.66	100.07	103.90
11	2I	102	GLY	N-CA-C	-7.66	93.95	113.10
26	1H	2518	A	C8-N9-C4	-7.66	102.74	105.80
27	16	99	A	OP1-P-OP2	7.65	131.08	119.60
26	14	141	A	C4-C5-N7	7.65	114.53	110.70
26	14	1300	U	O5'-P-OP1	7.65	119.89	110.70
26	14	2821	A	C2-N3-C4	-7.65	106.77	110.60
1	13	1446	A	O4'-C1'-N9	7.65	114.32	108.20
26	14	2702	U	C2-N1-C1'	7.65	126.88	117.70
26	14	929	G	C6-C5-N7	-7.65	125.81	130.40
26	1H	2084	C	C5-C6-N1	-7.64	117.18	121.00
26	1H	837	C	C5-C4-N4	-7.64	114.85	120.20
26	14	467	G	C8-N9-C4	7.64	109.45	106.40
26	1H	693	C	N1-C2-O2	-7.63	114.32	118.90
26	1H	1632	A	N9-C4-C5	-7.63	102.75	105.80
26	1H	386	G	C5-C6-O6	-7.63	124.02	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	974	A	C4-C5-N7	7.63	114.52	110.70
1	13	1434	A	C8-N9-C4	7.63	108.85	105.80
1	1G	812	C	P-O3'-C3'	7.63	128.86	119.70
26	14	783	A	C5-C6-N6	-7.63	117.60	123.70
26	1H	407	G	N1-C2-N2	-7.63	109.33	116.20
26	1H	2346	A	C5-N7-C8	-7.62	100.09	103.90
26	1H	2017	U	N3-C4-O4	7.62	124.73	119.40
26	1H	2316	C	O5'-P-OP1	-7.62	98.84	105.70
1	1G	932	C	N1-C2-O2	7.62	123.47	118.90
26	14	141	A	C5-N7-C8	-7.62	100.09	103.90
26	1H	1363	C	C2-N3-C4	-7.62	116.09	119.90
26	1H	1836	C	C6-N1-C2	-7.62	117.25	120.30
26	1H	2439	A	N1-C6-N6	7.61	123.17	118.60
26	1H	1496	A	C4-C5-N7	7.61	114.50	110.70
26	1H	1602	U	C5-C6-N1	-7.61	118.90	122.70
26	14	1608	A	N1-C6-N6	-7.61	114.03	118.60
26	1H	2513	G	O5'-P-OP2	-7.61	98.86	105.70
43	E8	90	ARG	NE-CZ-NH1	-7.60	116.50	120.30
1	13	721	G	N9-C4-C5	-7.60	102.36	105.40
1	13	767	A	N1-C2-N3	7.60	133.10	129.30
1	13	811	C	C5-C6-N1	-7.60	117.20	121.00
26	14	2356	C	C6-N1-C2	7.60	123.34	120.30
1	13	1227	A	O5'-P-OP2	-7.60	98.86	105.70
1	1G	1286	A	N7-C8-N9	7.59	117.60	113.80
26	1H	2331	G	C4-C5-N7	7.59	113.84	110.80
24	3K	71	G	O4'-C1'-N9	7.59	114.27	108.20
26	1H	1184	G	OP2-P-O3'	7.59	121.90	105.20
28	19	272	ALA	N-CA-C	7.59	131.50	111.00
26	1H	797	C	C4-C5-C6	7.59	121.19	117.40
26	1H	1843	C	C2-N3-C4	-7.59	116.11	119.90
1	13	812	C	P-O3'-C3'	7.59	128.80	119.70
26	1H	29	U	OP1-P-OP2	-7.59	108.22	119.60
28	11	237	GLU	OE1-CD-OE2	-7.58	114.20	123.30
26	1H	2427	C	O5'-P-OP1	-7.58	98.88	105.70
1	13	812	C	N1-C2-O2	7.58	123.45	118.90
26	14	800	A	OP1-P-OP2	-7.58	108.23	119.60
26	14	1926	U	N3-C2-O2	-7.58	116.89	122.20
26	1H	1318	C	O5'-P-OP2	7.58	119.79	110.70
26	1H	2239	G	N1-C2-N2	-7.58	109.38	116.20
26	1H	28	A	OP1-P-OP2	-7.57	108.24	119.60
26	1H	66	C	C6-N1-C2	-7.57	117.27	120.30
26	1H	470	A	C5-C6-N6	-7.57	117.64	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1303	G	N1-C6-O6	-7.57	115.36	119.90
27	16	115	G	C4-C5-N7	7.57	113.83	110.80
26	1H	2689	U	C5-C4-O4	7.57	130.44	125.90
26	14	1187	G	N7-C8-N9	7.57	116.89	113.10
26	14	1896	G	N1-C6-O6	-7.57	115.36	119.90
26	1H	418	G	C8-N9-C4	7.57	109.43	106.40
26	1H	633	A	N1-C6-N6	7.57	123.14	118.60
26	1H	1390	U	OP1-P-O3'	7.57	121.84	105.20
26	1H	1797	C	C5-C6-N1	-7.57	117.22	121.00
26	14	2708	G	C8-N9-C4	7.56	109.43	106.40
26	1H	1984	G	C5-N7-C8	7.56	108.08	104.30
1	1G	576	G	N3-C4-C5	-7.56	124.82	128.60
26	1H	695	G	C5-C6-O6	7.56	133.13	128.60
26	1H	1742	C	C6-N1-C2	-7.56	117.28	120.30
26	14	74	A	C4-C5-N7	7.56	114.48	110.70
26	14	2386	C	C6-N1-C2	7.56	123.32	120.30
1	13	896	C	C2-N3-C4	-7.56	116.12	119.90
26	1H	1839	G	N3-C2-N2	7.56	125.19	119.90
26	1H	236	C	N3-C4-C5	-7.55	118.88	121.90
26	1H	794	G	O5'-P-OP1	-7.55	98.90	105.70
1	1G	730	G	O5'-P-OP1	-7.55	98.90	105.70
26	1H	144	C	C5-C6-N1	-7.55	117.22	121.00
1	1G	108	G	N7-C8-N9	7.55	116.88	113.10
26	14	2577	A	O5'-P-OP2	-7.55	98.90	105.70
26	14	201	C	N3-C4-N4	-7.55	112.72	118.00
26	14	2838	G	O5'-P-OP1	-7.55	98.91	105.70
26	1H	2712(A)	A	N9-C4-C5	-7.54	102.78	105.80
26	1H	696	G	N1-C6-O6	-7.54	115.37	119.90
26	1H	2318	G	C8-N9-C4	-7.54	103.38	106.40
26	14	2506	U	C2-N1-C1'	7.54	126.75	117.70
26	1H	828	U	N3-C4-O4	-7.54	114.12	119.40
26	1H	2428	G	C8-N9-C4	-7.54	103.38	106.40
1	13	1237	C	N1-C2-O2	-7.54	114.38	118.90
26	1H	749	C	N3-C4-C5	-7.54	118.88	121.90
1	13	422	C	N3-C2-O2	-7.54	116.62	121.90
26	1H	1829	A	N1-C6-N6	-7.54	114.08	118.60
1	1G	449	C	C5-C4-N4	7.54	125.48	120.20
26	14	1258	C	OP2-P-O3'	7.54	121.78	105.20
26	14	1998	G	C2-N3-C4	-7.54	108.13	111.90
26	1H	1804	C	OP1-P-OP2	-7.54	108.29	119.60
26	1H	2502	G	OP2-P-O3'	7.54	121.78	105.20
1	13	890	G	O4'-C1'-N9	7.54	114.23	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1907	G	O5'-P-OP1	-7.54	98.92	105.70
26	1H	234	C	O5'-P-OP2	-7.53	98.92	105.70
1	13	353	A	C8-N9-C4	-7.53	102.79	105.80
26	14	1905	C	O5'-P-OP2	-7.53	98.92	105.70
26	14	1367	A	N1-C6-N6	7.53	123.12	118.60
26	14	766	C	C5-C6-N1	-7.53	117.23	121.00
26	14	1349	A	N1-C6-N6	7.53	123.12	118.60
37	45	82	ARG	N-CA-C	7.53	131.33	111.00
26	1H	133	C	C5-C6-N1	-7.53	117.24	121.00
45	G8	81	LYS	N-CA-C	-7.53	90.68	111.00
26	14	503	A	C8-N9-C4	-7.53	102.79	105.80
26	1H	1817	G	C5-N7-C8	7.53	108.06	104.30
26	14	2036	C	O5'-P-OP2	-7.53	98.93	105.70
26	1H	371	A	O5'-P-OP2	-7.52	98.93	105.70
1	13	115	G	C8-N9-C4	-7.52	103.39	106.40
26	1H	252	G	O5'-P-OP1	7.52	119.73	110.70
1	1G	668	G	N1-C6-O6	7.52	124.41	119.90
26	14	2430	A	C5-C6-N1	-7.52	113.94	117.70
26	1H	751	A	OP1-P-OP2	-7.52	108.32	119.60
26	1H	1271	G	N9-C4-C5	-7.52	102.39	105.40
26	1H	195	A	P-O3'-C3'	7.52	128.72	119.70
26	1H	1535	U	N3-C2-O2	-7.51	116.94	122.20
26	14	1388	G	O5'-P-OP2	-7.51	98.94	105.70
26	14	1600	C	O5'-P-OP2	-7.51	98.94	105.70
26	1H	115	C	N1-C2-O2	-7.51	114.39	118.90
26	1H	1381	G	N3-C4-C5	7.51	132.35	128.60
26	1H	2053	G	O5'-P-OP2	-7.51	98.94	105.70
26	1H	2439	A	OP1-P-O3'	7.51	121.72	105.20
26	1H	1932	A	O5'-P-OP1	-7.51	98.94	105.70
26	1H	839	U	C4-C5-C6	7.50	124.20	119.70
26	14	138	G	C8-N9-C4	-7.50	103.40	106.40
1	13	767	A	C2-N3-C4	-7.50	106.85	110.60
1	13	1299	A	N7-C8-N9	7.50	117.55	113.80
26	1H	787	U	N3-C4-O4	-7.50	114.15	119.40
26	1H	1291	C	O5'-P-OP2	-7.50	98.95	105.70
26	1H	1543	A	C2-N3-C4	-7.50	106.85	110.60
26	1H	2699	C	N3-C4-C5	7.50	124.90	121.90
1	13	792	A	N9-C4-C5	-7.50	102.80	105.80
26	1H	868	U	N3-C2-O2	-7.50	116.95	122.20
26	1H	1300	U	N1-C2-O2	-7.50	117.55	122.80
26	1H	2084	C	C2-N3-C4	-7.50	116.15	119.90
26	1H	2269	A	C8-N9-C4	7.50	108.80	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	482	A	C6-N1-C2	-7.50	114.10	118.60
26	1H	1153	C	C4-C5-C6	7.50	121.15	117.40
26	1H	2346	A	C5-C6-N1	-7.50	113.95	117.70
26	1H	671	C	N3-C4-C5	7.50	124.90	121.90
26	1H	1990	C	N1-C2-N3	7.49	124.45	119.20
26	1H	2503	A	OP1-P-OP2	-7.49	108.36	119.60
26	1H	728	G	OP2-P-O3'	7.49	121.68	105.20
26	1H	805	G	O5'-P-OP1	-7.49	98.96	105.70
1	1G	117	G	C5-C6-O6	-7.49	124.11	128.60
26	14	791	C	C2-N1-C1'	-7.49	110.56	118.80
26	1H	839	U	N1-C2-N3	7.49	119.39	114.90
26	1H	1196	C	O5'-P-OP2	7.48	119.68	110.70
26	1H	2505	G	C5-C6-N1	-7.48	107.76	111.50
26	14	1307	A	C2-N3-C4	-7.48	106.86	110.60
26	1H	116	C	C5-C6-N1	-7.48	117.26	121.00
26	1H	1271	G	C6-C5-N7	-7.48	125.91	130.40
1	13	1214	C	C5-C6-N1	-7.48	117.26	121.00
26	14	2281	C	C6-N1-C2	-7.48	117.31	120.30
26	14	1939	U	OP2-P-O3'	7.48	121.65	105.20
26	1H	139	G	N3-C4-C5	-7.47	124.86	128.60
26	1H	677	A	O5'-P-OP2	-7.47	98.97	105.70
26	1H	740	U	OP2-P-O3'	7.47	121.64	105.20
26	1H	2430	A	N9-C4-C5	-7.47	102.81	105.80
27	16	85	G	N1-C6-O6	7.47	124.38	119.90
26	1H	1142(A)	A	C5-C6-N1	-7.47	113.97	117.70
26	1H	593	G	O5'-P-OP1	7.47	119.66	110.70
26	1H	906	G	N3-C4-N9	-7.47	121.52	126.00
27	16	6	C	N3-C2-O2	7.47	127.13	121.90
1	13	1281	U	N3-C2-O2	-7.46	116.97	122.20
26	1H	1428	C	C6-N1-C2	7.46	123.29	120.30
26	1H	2076	U	C5-C4-O4	7.46	130.38	125.90
24	3K	76	A	O4'-C1'-N9	7.46	114.17	108.20
26	1H	987	G	N3-C4-N9	-7.46	121.52	126.00
26	1H	2276	G	N1-C2-N2	7.46	122.92	116.20
1	1G	337	C	C6-N1-C2	-7.46	117.31	120.30
26	14	621	A	N1-C6-N6	7.46	123.08	118.60
26	1H	621	A	N1-C2-N3	7.46	133.03	129.30
26	1H	1778	U	C5-C6-N1	-7.46	118.97	122.70
26	1H	1623	G	C5-C6-N1	7.46	115.23	111.50
26	1H	2761	G	C2-N3-C4	-7.46	108.17	111.90
26	14	1784	A	N7-C8-N9	7.46	117.53	113.80
26	1H	622	G	O5'-P-OP2	-7.46	98.99	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2611	U	N3-C4-O4	-7.46	114.18	119.40
26	14	265	A	C2-N3-C4	-7.46	106.87	110.60
1	13	990	C	C6-N1-C2	-7.46	117.32	120.30
26	1H	265	A	N7-C8-N9	7.46	117.53	113.80
26	1H	524	U	N3-C2-O2	-7.45	116.98	122.20
26	1H	1785	A	N3-C4-C5	-7.45	121.58	126.80
26	14	2501	C	N1-C2-O2	-7.45	114.43	118.90
1	1G	519	C	C6-N1-C2	7.45	123.28	120.30
26	1H	1257	C	N1-C2-O2	-7.45	114.43	118.90
26	14	1373	A	C5-C6-N6	-7.45	117.74	123.70
26	14	1021	A	C2-N3-C4	-7.44	106.88	110.60
26	14	1786	A	N1-C2-N3	7.44	133.02	129.30
26	1H	121	G	C5-N7-C8	-7.44	100.58	104.30
26	1H	750	A	O5'-P-OP2	7.44	119.63	110.70
26	1H	814	C	C5-C6-N1	-7.44	117.28	121.00
23	2K	30	G	O5'-P-OP2	-7.44	99.00	105.70
26	14	2763	G	N3-C4-C5	-7.44	124.88	128.60
26	1H	2594	C	C5-C6-N1	-7.44	117.28	121.00
26	1H	202	U	N3-C4-C5	7.43	119.06	114.60
26	1H	533	G	C8-N9-C4	7.43	109.37	106.40
26	1H	1280	G	OP1-P-OP2	-7.43	108.45	119.60
26	14	982	C	C5-C6-N1	7.43	124.72	121.00
1	1G	1499	A	C8-N9-C4	7.43	108.77	105.80
26	1H	2368	C	O5'-P-OP1	-7.43	99.01	105.70
26	14	1378	A	N1-C2-N3	-7.43	125.59	129.30
26	1H	570	G	O5'-P-OP1	7.43	119.61	110.70
26	1H	1249	U	C5-C4-O4	-7.43	121.44	125.90
26	1H	2689	U	N1-C2-N3	7.43	119.36	114.90
26	14	2357	U	O5'-P-OP2	-7.43	99.02	105.70
1	13	1521	G	OP1-P-OP2	7.43	130.74	119.60
26	1H	795	C	OP1-P-OP2	7.43	130.74	119.60
26	14	1989	G	N3-C2-N2	-7.43	114.70	119.90
26	1H	129	C	C2-N3-C4	-7.42	116.19	119.90
26	1H	820	A	C8-N9-C4	7.42	108.77	105.80
26	1H	1664	A	OP1-P-OP2	-7.42	108.46	119.60
26	14	1809	A	O5'-P-OP2	7.42	119.61	110.70
26	14	2334	G	N9-C4-C5	-7.42	102.43	105.40
23	2K	35	C	C2-N1-C1'	7.42	126.96	118.80
26	1H	372	G	N1-C6-O6	-7.42	115.45	119.90
26	14	1382	G	C5-C6-O6	-7.42	124.15	128.60
1	13	1433	A	O5'-P-OP1	-7.42	99.03	105.70
26	1H	1428	C	C5-C6-N1	-7.41	117.29	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	1442	G	N3-C4-C5	7.41	132.31	128.60
26	1H	815	C	N3-C4-C5	7.41	124.86	121.90
26	1H	2554	U	N3-C4-O4	7.41	124.59	119.40
26	1H	827	U	C5-C6-N1	-7.41	119.00	122.70
26	14	1950	G	N3-C4-C5	-7.41	124.90	128.60
26	1H	906	G	C6-C5-N7	7.41	134.84	130.40
26	1H	2260	C	OP2-P-O3'	7.41	121.49	105.20
26	14	915	C	N1-C2-O2	7.41	123.34	118.90
26	1H	1129	A	O5'-P-OP2	-7.40	99.04	105.70
1	13	313	A	O5'-P-OP2	-7.40	99.04	105.70
1	13	422	C	N1-C2-O2	7.40	123.34	118.90
26	14	676	A	C8-N9-C4	-7.40	102.84	105.80
26	14	2435	A	C8-N9-C4	-7.40	102.84	105.80
1	13	872	A	O4'-C1'-N9	7.40	114.12	108.20
26	1H	96	G	N1-C6-O6	7.40	124.34	119.90
26	1H	840	C	C2-N3-C4	-7.40	116.20	119.90
26	1H	1771	C	C4-C5-C6	7.40	121.10	117.40
26	14	2401	U	N3-C4-O4	7.40	124.58	119.40
26	1H	2387	U	OP2-P-O3'	7.39	121.47	105.20
1	1G	598	U	N3-C4-C5	-7.39	110.16	114.60
26	14	2873	A	C4-C5-C6	7.39	120.69	117.00
1	13	583	A	O5'-P-OP1	-7.39	99.05	105.70
1	13	1128	C	C5-C6-N1	7.39	124.69	121.00
26	14	2420	C	O5'-P-OP2	7.39	119.57	110.70
1	13	1504	G	P-O3'-C3'	7.39	128.57	119.70
26	1H	1997	G	C2-N3-C4	-7.39	108.21	111.90
26	1H	1566	A	O5'-P-OP1	7.39	119.56	110.70
26	14	832	G	C8-N9-C4	-7.39	103.44	106.40
26	1H	1253	A	N1-C6-N6	-7.38	114.17	118.60
26	14	1902	C	C4-C5-C6	-7.38	113.71	117.40
1	13	690	G	N3-C4-N9	7.38	130.43	126.00
1	13	789	U	O5'-P-OP2	-7.38	99.06	105.70
26	1H	1998	G	C8-N9-C4	7.38	109.35	106.40
26	1H	2256	G	O5'-P-OP1	7.38	119.56	110.70
1	1G	366	C	C6-N1-C2	7.38	123.25	120.30
26	14	2596	U	OP1-P-OP2	7.38	130.67	119.60
26	14	1842	G	N1-C6-O6	-7.38	115.47	119.90
26	1H	1611	C	C5-C6-N1	-7.38	117.31	121.00
26	1H	2434	A	C4-C5-C6	-7.38	113.31	117.00
27	16	81	G	N3-C2-N2	7.37	125.06	119.90
26	1H	621	A	C6-C5-N7	-7.37	127.14	132.30
26	1H	1332	G	C5-C6-N1	-7.37	107.81	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1599	C	N3-C2-O2	-7.37	116.74	121.90
26	1H	2609	U	C2-N1-C1'	-7.37	108.86	117.70
1	1G	481	G	N3-C4-C5	-7.37	124.92	128.60
26	14	1819	A	P-O3'-C3'	7.37	128.54	119.70
26	1H	766	C	C5-C6-N1	-7.37	117.31	121.00
26	1H	1431	U	C6-N1-C2	-7.37	116.58	121.00
26	14	574	C	O5'-P-OP2	-7.37	99.07	105.70
26	14	2510	C	OP1-P-OP2	7.37	130.65	119.60
26	1H	576	U	O5'-P-OP2	7.36	119.53	110.70
26	14	1475	G	C8-N9-C4	-7.36	103.46	106.40
26	14	2012	G	C5-C6-O6	-7.36	124.18	128.60
1	13	1299	A	C6-C5-N7	-7.36	127.15	132.30
37	88	86	GLY	N-CA-C	-7.36	94.70	113.10
26	14	791	C	N3-C4-C5	7.36	124.84	121.90
1	13	902	G	O5'-P-OP2	-7.36	99.08	105.70
26	1H	774	A	C4-N9-C1'	-7.36	113.06	126.30
26	14	2313	C	C6-N1-C2	-7.36	117.36	120.30
1	13	584	G	C5-C6-O6	7.35	133.01	128.60
27	16	42	C	C6-N1-C2	7.35	123.24	120.30
26	14	528	A	C5-N7-C8	-7.35	100.22	103.90
26	14	1033	U	C5-C6-N1	7.35	126.38	122.70
26	14	1944	U	C5-C4-O4	-7.35	121.49	125.90
26	1H	77	C	C5-C4-N4	-7.35	115.05	120.20
26	1H	673	C	C5-C4-N4	-7.35	115.05	120.20
26	1H	695	G	N3-C2-N2	7.35	125.05	119.90
26	1H	71	A	O4'-C1'-N9	-7.35	102.32	108.20
26	1H	324	A	O5'-P-OP1	-7.35	99.08	105.70
26	1H	919	G	N3-C2-N2	-7.35	114.75	119.90
26	14	2042	A	O5'-P-OP2	-7.35	99.08	105.70
1	13	266	G	C6-C5-N7	-7.35	125.99	130.40
1	13	1424	C	O5'-P-OP2	-7.35	99.09	105.70
26	1H	816	C	O5'-P-OP1	7.35	119.52	110.70
26	1H	1681	G	N3-C4-N9	-7.35	121.59	126.00
26	1H	602	G	N1-C2-N2	-7.34	109.59	116.20
26	1H	1600	C	O5'-P-OP2	-7.34	99.09	105.70
26	1H	2508	G	C6-C5-N7	7.34	134.81	130.40
26	14	1614	A	C5-N7-C8	-7.34	100.23	103.90
26	14	2708	G	O5'-P-OP2	-7.34	99.09	105.70
1	13	449	C	N3-C2-O2	-7.34	116.76	121.90
26	1H	768	G	OP1-P-OP2	7.34	130.61	119.60
26	14	2445	G	C8-N9-C4	-7.34	103.46	106.40
26	14	2250	G	OP1-P-OP2	7.34	130.61	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	527	C	N3-C4-N4	-7.34	112.86	118.00
26	1H	74	A	C5-N7-C8	-7.33	100.23	103.90
26	1H	2620	C	C5-C4-N4	-7.33	115.07	120.20
1	1G	305	G	N1-C2-N2	-7.33	109.60	116.20
26	14	1760	A	O5'-P-OP2	-7.33	99.10	105.70
1	13	963	G	N3-C2-N2	7.33	125.03	119.90
36	35	65	ARG	N-CA-C	-7.33	91.20	111.00
26	1H	247	G	C5-C6-N1	7.33	115.17	111.50
26	14	1639	U	O5'-P-OP2	-7.33	99.11	105.70
26	14	1658	C	N3-C4-C5	-7.33	118.97	121.90
26	1H	2264	C	OP1-P-O3'	7.33	121.32	105.20
26	14	620	G	N9-C4-C5	7.33	108.33	105.40
1	13	792	A	N9-C1'-C2'	7.32	123.52	114.00
1	13	1455	G	C8-N9-C4	7.32	109.33	106.40
26	14	195	A	P-O3'-C3'	7.32	128.49	119.70
26	1H	1202	C	C4-C5-C6	7.32	121.06	117.40
26	1H	1122	G	C5-C6-O6	-7.32	124.21	128.60
26	1H	825	C	N1-C2-O2	-7.31	114.51	118.90
26	1H	1625	C	N3-C2-O2	-7.31	116.78	121.90
1	13	872	A	C6-N1-C2	7.31	122.99	118.60
1	13	1198	G	O5'-P-OP1	-7.31	99.12	105.70
1	13	1486	G	N3-C4-N9	-7.31	121.61	126.00
26	1H	963	U	OP1-P-OP2	-7.31	108.63	119.60
26	1H	2699	C	C5-C4-N4	-7.31	115.08	120.20
26	1H	405	U	N1-C2-O2	7.31	127.92	122.80
26	1H	1773	A	C5-C6-N1	-7.31	114.05	117.70
26	1H	2530	A	C5-C6-N6	-7.31	117.85	123.70
49	K8	30	ARG	NE-CZ-NH1	7.31	123.95	120.30
1	13	449	C	C6-N1-C2	-7.31	117.38	120.30
1	13	757	U	O5'-P-OP2	-7.31	99.12	105.70
1	13	109	A	O5'-P-OP2	-7.30	99.13	105.70
23	2K	40	C	C6-N1-C2	-7.30	117.38	120.30
26	1H	71	A	C5-C6-N6	-7.30	117.86	123.70
26	1H	210	C	N3-C4-C5	7.30	124.82	121.90
1	13	630	G	C5-C6-O6	-7.30	124.22	128.60
26	1H	1604	C	C2-N3-C4	-7.30	116.25	119.90
26	1H	1357	U	C4-C5-C6	7.30	124.08	119.70
26	14	2713	A	C6-C5-N7	-7.30	127.19	132.30
26	1H	1971	A	C2-N3-C4	7.30	114.25	110.60
26	14	1826	G	C4-C5-N7	-7.30	107.88	110.80
26	1H	251	A	C2-N3-C4	7.30	114.25	110.60
26	14	1728	G	N3-C4-N9	7.30	130.38	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	559	A	O4'-C1'-N9	7.29	114.04	108.20
27	16	29	A	C8-N9-C4	-7.29	102.88	105.80
1	13	963	G	N3-C4-N9	7.29	130.38	126.00
26	1H	201	C	C2-N3-C4	-7.29	116.25	119.90
27	16	115	G	C5-C6-O6	-7.29	124.22	128.60
26	14	196	A	O4'-C1'-N9	7.29	114.03	108.20
26	1H	696	G	O5'-P-OP2	7.29	119.45	110.70
26	1H	119	A	C4-C5-N7	-7.29	107.06	110.70
26	1H	1252	G	N7-C8-N9	-7.29	109.46	113.10
26	14	192	C	N1-C2-O2	-7.29	114.53	118.90
26	14	1253	A	C2-N3-C4	7.29	114.25	110.60
26	14	1683	C	O5'-P-OP1	-7.29	99.14	105.70
26	1H	2327	A	N1-C6-N6	-7.29	114.23	118.60
26	1H	1863	G	O5'-P-OP2	-7.29	99.14	105.70
26	1H	2347	C	OP2-P-O3'	7.29	121.23	105.20
26	1H	2620	C	N3-C4-C5	7.29	124.81	121.90
26	14	1270	C	C6-N1-C2	-7.29	117.39	120.30
26	1H	1616	A	C2-N3-C4	-7.28	106.96	110.60
26	1H	33	U	OP1-P-O3'	7.28	121.22	105.20
26	1H	662	G	C8-N9-C4	7.28	109.31	106.40
26	14	479	A	C5-C6-N6	7.28	129.53	123.70
26	1H	796	C	N3-C4-N4	-7.28	112.90	118.00
26	1H	2584	U	N3-C4-O4	-7.28	114.30	119.40
1	13	751	U	O5'-P-OP1	-7.28	99.15	105.70
26	14	2490	G	O4'-C1'-N9	7.28	114.02	108.20
1	13	5	U	P-O3'-C3'	7.28	128.43	119.70
26	14	1899	G	C5-C6-N1	-7.28	107.86	111.50
1	13	525	C	C5-C6-N1	7.28	124.64	121.00
26	1H	736	C	O5'-P-OP2	7.28	119.43	110.70
26	1H	1828	G	N3-C2-N2	-7.28	114.81	119.90
26	14	2251	G	N1-C6-O6	-7.28	115.53	119.90
26	1H	1283	G	N3-C2-N2	7.27	124.99	119.90
26	1H	1611	C	C2-N3-C4	-7.27	116.26	119.90
26	1H	2427	C	N1-C2-O2	-7.27	114.54	118.90
26	1H	335	C	N3-C4-C5	-7.27	118.99	121.90
26	1H	984	A	O5'-P-OP1	7.27	119.42	110.70
26	14	1572	A	O5'-P-OP2	-7.27	99.16	105.70
26	1H	210	C	C5-C4-N4	-7.27	115.11	120.20
26	1H	537	C	O5'-P-OP1	7.26	119.42	110.70
1	13	584	G	N1-C6-O6	-7.26	115.54	119.90
26	14	482	A	C5-C6-N1	7.26	121.33	117.70
26	14	1334	G	O5'-P-OP2	7.26	119.41	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	239	U	C5-C4-O4	7.26	130.26	125.90
26	14	1271	G	N3-C4-N9	7.26	130.36	126.00
1	13	970	C	O5'-P-OP1	-7.26	99.17	105.70
26	1H	2515	C	O5'-P-OP1	7.26	119.41	110.70
1	1G	690	G	C2-N3-C4	-7.25	108.27	111.90
1	13	795	C	C4-C5-C6	7.25	121.03	117.40
26	14	953	A	OP1-P-O3'	7.25	121.16	105.20
26	1H	1266	G	O5'-P-OP1	-7.25	99.17	105.70
26	14	1598	C	C2-N1-C1'	7.25	126.78	118.80
26	14	2037	G	N1-C6-O6	-7.25	115.55	119.90
26	14	2518	A	O4'-C1'-N9	-7.25	102.40	108.20
26	14	2287	A	N9-C4-C5	-7.25	102.90	105.80
26	1H	840	C	N3-C4-C5	7.25	124.80	121.90
25	4L	16	A	C8-N9-C4	7.25	108.70	105.80
26	1H	1757	U	N3-C4-O4	-7.25	114.33	119.40
26	1H	2385	C	N1-C2-N3	7.25	124.27	119.20
26	14	584	C	N1-C2-O2	-7.25	114.55	118.90
1	13	452	A	C8-N9-C4	7.24	108.70	105.80
26	1H	1764	G	N9-C4-C5	7.24	108.30	105.40
26	1H	2050	C	N1-C2-O2	-7.24	114.56	118.90
26	1H	2713	A	OP1-P-O3'	-7.24	89.27	105.20
26	14	204	A	N1-C6-N6	7.24	122.94	118.60
26	1H	2324	C	N3-C4-C5	7.23	124.79	121.90
26	14	1313	U	N1-C2-N3	7.23	119.24	114.90
26	14	1827	C	N3-C4-N4	-7.23	112.94	118.00
26	14	656	G	C5-C6-O6	-7.23	124.26	128.60
1	13	687	A	P-O3'-C3'	7.23	128.37	119.70
26	14	823	G	N7-C8-N9	-7.23	109.49	113.10
26	14	2062	A	N9-C4-C5	-7.23	102.91	105.80
28	19	37	LEU	CA-CB-CG	7.23	131.92	115.30
26	1H	672	C	OP2-P-O3'	7.22	121.09	105.20
26	1H	1931	U	N1-C2-O2	7.22	127.86	122.80
26	14	805	G	N3-C4-N9	7.22	130.33	126.00
26	1H	202	U	N3-C2-O2	7.22	127.25	122.20
26	1H	468	G	N1-C6-O6	7.22	124.23	119.90
26	1H	849	A	O5'-P-OP1	7.22	119.36	110.70
26	1H	1210	A	C2-N3-C4	-7.22	106.99	110.60
26	1H	2053	G	C5-C6-O6	-7.22	124.27	128.60
26	14	2387	U	C5-C6-N1	-7.22	119.09	122.70
26	14	2517	C	C2-N3-C4	-7.22	116.29	119.90
23	2K	6	G	N9-C4-C5	-7.22	102.51	105.40
26	1H	851	U	N1-C2-O2	-7.22	117.75	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1130	U	N3-C2-O2	-7.21	117.15	122.20
26	14	1313	U	N3-C4-O4	7.21	124.45	119.40
26	14	2473	U	C2-N1-C1'	7.21	126.36	117.70
26	14	2374	C	C6-N1-C2	7.21	123.19	120.30
26	1H	688	U	O5'-P-OP2	-7.21	99.21	105.70
26	14	1616	A	C4-C5-N7	7.21	114.31	110.70
1	13	827	U	C4-C5-C6	7.21	124.02	119.70
26	1H	1391	U	C2-N1-C1'	7.21	126.35	117.70
26	1H	738	G	N9-C4-C5	-7.21	102.52	105.40
26	1H	1198	U	C5-C6-N1	-7.21	119.10	122.70
26	14	2427	C	C5-C4-N4	-7.21	115.16	120.20
26	1H	613	U	N1-C2-N3	7.20	119.22	114.90
26	1H	1928	A	N7-C8-N9	7.20	117.40	113.80
26	1H	760	G	C5-C6-O6	-7.20	124.28	128.60
26	14	2763	G	N3-C4-N9	7.20	130.32	126.00
26	1H	779	U	C5-C4-O4	-7.20	121.58	125.90
26	1H	860	U	C6-N1-C1'	-7.20	111.12	121.20
26	1H	2060	A	C4-C5-C6	-7.20	113.40	117.00
26	14	823	G	C5-N7-C8	7.20	107.90	104.30
26	14	1342	A	C6-N1-C2	-7.20	114.28	118.60
1	13	1299	A	C5-N7-C8	-7.20	100.30	103.90
23	2K	62	C	N3-C2-O2	-7.20	116.86	121.90
26	1H	1771	C	N1-C2-O2	-7.20	114.58	118.90
26	1H	2507	C	N1-C2-O2	7.20	123.22	118.90
26	1H	69	C	N3-C4-N4	-7.20	112.96	118.00
26	1H	484	C	C2-N1-C1'	7.20	126.72	118.80
1	1G	810	C	N3-C4-C5	7.20	124.78	121.90
1	13	1498	U	C2-N1-C1'	7.19	126.33	117.70
26	14	2364	C	O5'-P-OP2	-7.19	99.23	105.70
26	1H	533	G	N7-C8-N9	-7.19	109.50	113.10
26	1H	1301	A	C6-C5-N7	-7.19	127.27	132.30
26	1H	1618	A	OP1-P-OP2	-7.19	108.81	119.60
26	1H	114	U	OP1-P-OP2	-7.19	108.82	119.60
26	1H	430	G	C8-N9-C4	7.19	109.28	106.40
26	1H	2318	G	O4'-C1'-N9	7.19	113.95	108.20
26	14	753	C	C5-C6-N1	-7.19	117.41	121.00
26	14	1528	A	C5-N7-C8	-7.19	100.31	103.90
26	1H	140	A	OP2-P-O3'	7.19	121.01	105.20
26	14	1574	C	OP2-P-O3'	7.19	121.01	105.20
26	1H	121	G	C5-C6-N1	7.19	115.09	111.50
26	1H	2610	C	C4-C5-C6	7.19	120.99	117.40
1	13	563	A	OP1-P-OP2	-7.18	108.82	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2704	C	C6-N1-C2	7.18	123.17	120.30
1	1G	963	G	C4-N9-C1'	7.18	135.84	126.50
26	1H	247	G	OP1-P-OP2	-7.18	108.83	119.60
26	1H	2430	A	C6-N1-C2	7.18	122.91	118.60
1	1G	1523	G	O5'-P-OP2	-7.18	99.24	105.70
26	14	1204	A	O4'-C1'-N9	7.18	113.94	108.20
26	14	1653	G	O5'-P-OP2	-7.18	99.24	105.70
1	13	266	G	N7-C8-N9	7.18	116.69	113.10
26	1H	974(A)	C	N3-C2-O2	-7.18	116.87	121.90
26	14	2688	U	C2-N3-C4	-7.18	122.69	127.00
1	13	988	G	N3-C4-C5	-7.17	125.01	128.60
26	1H	814	C	C4-C5-C6	7.17	120.99	117.40
26	1H	816	C	C2-N3-C4	7.17	123.49	119.90
26	1H	1301	A	C5-C6-N6	-7.17	117.96	123.70
26	1H	1763	G	O5'-P-OP2	-7.17	99.24	105.70
26	14	694	U	O5'-P-OP1	7.17	119.31	110.70
26	14	2423	U	C5-C6-N1	-7.17	119.11	122.70
26	1H	1349	A	N1-C6-N6	7.17	122.90	118.60
26	14	140	A	C6-C5-N7	-7.17	127.28	132.30
26	14	2225	A	P-O3'-C3'	7.17	128.30	119.70
26	1H	195	A	N1-C6-N6	7.17	122.90	118.60
26	14	808	G	O5'-P-OP1	-7.17	99.25	105.70
26	1H	1931	U	N1-C2-N3	7.17	119.20	114.90
26	14	2037	G	C4-C5-N7	-7.17	107.93	110.80
26	14	1614	A	O4'-C1'-N9	7.17	113.93	108.20
26	1H	767	U	C5-C4-O4	7.16	130.20	125.90
26	1H	2080	G	C4-C5-N7	7.16	113.67	110.80
1	1G	320	C	C6-N1-C2	7.16	123.17	120.30
26	14	769	G	C5-N7-C8	7.16	107.88	104.30
26	1H	842	G	C4-C5-N7	7.16	113.67	110.80
26	1H	1839	G	N3-C4-N9	7.16	130.30	126.00
1	13	1519	A	C5-C6-N1	-7.16	114.12	117.70
26	1H	416	C	N3-C4-N4	-7.16	112.99	118.00
26	1H	1124	C	N1-C2-O2	-7.16	114.60	118.90
26	1H	1566	A	C5-C6-N1	7.16	121.28	117.70
26	1H	1998	G	N1-C2-N2	-7.16	109.76	116.20
26	1H	85	G	O5'-P-OP1	7.16	119.29	110.70
26	1H	837	C	N3-C4-N4	7.16	123.01	118.00
26	1H	871	U	N3-C4-O4	7.16	124.41	119.40
26	1H	908	C	O5'-P-OP2	-7.16	99.26	105.70
26	1H	1162	G	O5'-P-OP1	-7.16	99.26	105.70
26	1H	1381	G	O5'-P-OP1	-7.16	99.26	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2508	G	N3-C2-N2	-7.16	114.89	119.90
26	14	528	A	C6-C5-N7	-7.16	127.29	132.30
26	14	2249	U	C5-C6-N1	7.16	126.28	122.70
26	1H	1799	G	P-O3'-C3'	7.16	128.29	119.70
27	16	6	C	N3-C4-N4	7.16	123.01	118.00
26	14	1558	A	C2-N3-C4	-7.16	107.02	110.60
26	1H	265	A	C8-N9-C4	-7.15	102.94	105.80
26	1H	382	G	OP1-P-O3'	7.15	120.94	105.20
26	1H	1139	G	O5'-P-OP2	-7.15	99.26	105.70
26	1H	463	G	N1-C2-N2	-7.15	109.76	116.20
26	1H	2392	A	N3-C4-N9	-7.15	121.68	127.40
26	14	205	G	N7-C8-N9	-7.15	109.52	113.10
26	1H	863	A	O5'-P-OP1	7.15	119.28	110.70
26	14	2062	A	N1-C6-N6	7.15	122.89	118.60
26	1H	1271	G	N1-C6-O6	7.15	124.19	119.90
26	1H	1303	G	N3-C2-N2	7.15	124.90	119.90
1	1G	1399	C	N3-C2-O2	7.15	126.90	121.90
26	1H	265	A	C5-C6-N1	-7.14	114.13	117.70
26	1H	648	G	O5'-P-OP2	-7.14	99.27	105.70
26	1H	1662	C	C6-N1-C2	7.14	123.16	120.30
26	1H	2445	G	N1-C6-O6	-7.14	115.61	119.90
26	1H	238	C	C4-C5-C6	7.14	120.97	117.40
26	1H	263	C	O5'-P-OP2	-7.14	99.27	105.70
26	1H	1225	C	C6-N1-C2	7.14	123.16	120.30
26	1H	2715	C	N3-C4-C5	7.14	124.76	121.90
1	13	956	U	C6-N1-C2	-7.14	116.72	121.00
26	14	752	A	OP2-P-O3'	7.14	120.90	105.20
26	1H	1162	G	C8-N9-C4	-7.14	103.55	106.40
26	1H	1785	A	C4-C5-C6	7.14	120.57	117.00
26	14	668	G	C2-N3-C4	-7.14	108.33	111.90
26	1H	793	A	N3-C4-C5	-7.13	121.81	126.80
26	1H	2363	C	C5-C6-N1	-7.13	117.43	121.00
26	14	1226	G	C5-C6-O6	7.13	132.88	128.60
26	1H	691	C	C6-N1-C2	7.13	123.15	120.30
26	1H	2012	G	C6-N1-C2	-7.13	120.82	125.10
26	14	778	G	C5-C6-O6	7.13	132.88	128.60
26	14	1700	A	O5'-P-OP2	7.13	119.26	110.70
26	1H	2392	A	N1-C6-N6	7.13	122.88	118.60
26	1H	200	U	O5'-P-OP1	-7.13	99.28	105.70
26	1H	1410	G	C4-N9-C1'	-7.13	117.23	126.50
26	1H	1517	G	OP1-P-O3'	7.13	120.88	105.20
26	14	849	A	OP1-P-O3'	7.13	120.88	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1835	G	N3-C2-N2	7.12	124.89	119.90
26	1H	840	C	C5-C6-N1	-7.12	117.44	121.00
26	1H	1281	G	C5-C6-O6	-7.12	124.33	128.60
26	1H	735	A	N1-C6-N6	7.12	122.87	118.60
26	1H	2245	U	OP1-P-OP2	-7.12	108.92	119.60
26	1H	2373	G	N1-C2-N3	7.12	128.17	123.90
1	13	314	C	O5'-P-OP2	-7.12	99.29	105.70
26	1H	1210	A	C6-C5-N7	-7.12	127.32	132.30
1	13	586	C	C2-N3-C4	-7.12	116.34	119.90
1	13	186(A)	C	C6-N1-C2	-7.12	117.45	120.30
26	1H	1658	C	N3-C4-N4	7.12	122.98	118.00
26	14	330	A	C6-C5-N7	-7.12	127.32	132.30
26	14	855	G	C8-N9-C4	-7.12	103.55	106.40
26	1H	2275	C	N3-C4-C5	-7.11	119.06	121.90
1	1G	60	A	C8-N9-C4	7.11	108.65	105.80
26	14	1528	A	N7-C8-N9	7.11	117.36	113.80
26	1H	1005	C	N3-C4-N4	-7.11	113.03	118.00
26	14	2490	G	C6-C5-N7	-7.11	126.14	130.40
26	14	2779	U	N3-C4-O4	-7.11	114.42	119.40
26	1H	2247	A	C5-C6-N1	-7.10	114.15	117.70
26	14	1995	U	O5'-P-OP2	-7.10	99.31	105.70
1	1G	117	G	N9-C4-C5	-7.10	102.56	105.40
26	14	2688	U	N1-C2-N3	7.10	119.16	114.90
26	14	691	C	C4-C5-C6	7.10	120.95	117.40
1	13	1200	C	N1-C2-O2	7.09	123.16	118.90
26	1H	2525	G	N3-C4-N9	7.09	130.26	126.00
27	16	8	U	O5'-P-OP2	-7.09	99.32	105.70
26	14	1966	A	C5-C6-N6	-7.09	118.03	123.70
1	13	328	C	N1-C2-O2	7.09	123.16	118.90
26	1H	1520	U	C6-N1-C2	-7.09	116.74	121.00
26	1H	1535	U	N1-C2-O2	7.09	127.77	122.80
26	14	2429	G	O5'-P-OP1	7.09	119.21	110.70
26	14	2463	C	C2-N1-C1'	-7.09	111.00	118.80
26	14	2251	G	C5-N7-C8	7.09	107.84	104.30
26	14	2361	A	C5-N7-C8	-7.09	100.36	103.90
26	1H	231	C	C4-C5-C6	7.09	120.94	117.40
26	1H	2028	U	C5-C4-O4	-7.09	121.65	125.90
26	1H	2392	A	C2-N3-C4	-7.09	107.06	110.60
26	1H	1199	U	N3-C2-O2	-7.08	117.24	122.20
26	14	2438	U	O5'-P-OP2	-7.08	99.32	105.70
26	1H	1257	C	C6-N1-C2	-7.08	117.47	120.30
26	1H	2454	G	N1-C6-O6	-7.08	115.65	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1598	C	C4-C5-C6	7.08	120.94	117.40
26	1H	2697	G	OP1-P-OP2	7.08	130.22	119.60
27	16	44	G	C8-N9-C1'	7.08	136.21	127.00
22	1K	76	A	C4-N9-C1'	7.08	139.04	126.30
26	1H	968	G	N3-C2-N2	7.08	124.85	119.90
26	1H	197	A	OP2-P-O3'	7.08	120.77	105.20
26	1H	1653	G	O5'-P-OP2	-7.08	99.33	105.70
26	1H	2233	U	N1-C2-N3	7.07	119.14	114.90
28	11	111	LEU	CA-CB-CG	7.07	131.57	115.30
26	1H	2392	A	O4'-C1'-N9	7.07	113.86	108.20
26	14	698	C	O5'-P-OP2	-7.07	99.34	105.70
26	14	456	C	N1-C2-O2	-7.07	114.66	118.90
26	1H	1843	C	C5-C6-N1	-7.07	117.47	121.00
26	14	467	G	O5'-P-OP2	-7.07	99.34	105.70
26	1H	1013	C	N1-C2-O2	-7.07	114.66	118.90
26	1H	1756	G	N1-C6-O6	7.07	124.14	119.90
26	1H	630	G	C8-N9-C4	7.06	109.23	106.40
26	1H	2307	G	N1-C6-O6	7.06	124.14	119.90
26	14	138	G	N7-C8-N9	7.06	116.63	113.10
26	1H	1520	U	C5-C4-O4	7.06	130.13	125.90
26	1H	1648	C	C2-N1-C1'	-7.06	111.03	118.80
26	14	802	A	C6-N1-C2	-7.06	114.36	118.60
26	1H	871	U	N3-C2-O2	7.06	127.14	122.20
37	88	24	GLY	N-CA-C	-7.06	95.46	113.10
26	14	1279	G	O5'-P-OP2	-7.06	99.35	105.70
26	1H	2311	A	C5-N7-C8	-7.06	100.37	103.90
1	13	1498	U	C5-C4-O4	-7.05	121.67	125.90
26	1H	2034	U	O5'-P-OP2	-7.05	99.35	105.70
26	1H	2826	A	C8-N9-C4	7.05	108.62	105.80
26	14	56	A	C5-C6-N6	7.05	129.34	123.70
1	1G	522	C	O5'-P-OP2	-7.05	99.35	105.70
26	14	581	C	C6-N1-C2	-7.05	117.48	120.30
1	13	802	A	C6-C5-N7	-7.05	127.37	132.30
26	1H	1333	C	C5-C6-N1	7.05	124.53	121.00
26	14	1400	G	O5'-P-OP1	7.05	119.16	110.70
1	13	1470	G	N3-C2-N2	-7.05	114.97	119.90
26	1H	728	G	C8-N9-C4	7.05	109.22	106.40
26	1H	2016	U	C5-C6-N1	-7.05	119.18	122.70
1	13	1517	G	C5-C6-O6	-7.05	124.37	128.60
26	1H	996	A	C8-N9-C4	7.05	108.62	105.80
26	14	1350	C	O5'-P-OP1	-7.05	99.36	105.70
26	1H	640	C	OP1-P-O3'	7.04	120.70	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2443	C	C5-C4-N4	-7.04	115.27	120.20
26	14	847	U	N1-C2-O2	-7.04	117.87	122.80
26	14	1142	U	C2-N1-C1'	7.04	126.15	117.70
1	13	644	G	O5'-P-OP1	7.04	119.15	110.70
26	1H	1613	G	N3-C2-N2	7.04	124.83	119.90
26	1H	1779	U	O5'-P-OP2	-7.04	99.36	105.70
26	1H	2856	C	C6-N1-C2	-7.04	117.48	120.30
26	14	2755	C	C2-N1-C1'	7.04	126.55	118.80
26	1H	1274	A	C8-N9-C4	-7.04	102.98	105.80
26	14	2689	U	C5-C6-N1	-7.04	119.18	122.70
26	1H	605	C	O5'-P-OP1	-7.04	99.37	105.70
26	1H	974(A)	C	C6-N1-C2	-7.04	117.48	120.30
26	14	382	G	O5'-P-OP1	-7.04	99.37	105.70
26	1H	1356	G	O5'-P-OP1	-7.03	99.37	105.70
26	1H	2444	G	N9-C4-C5	7.03	108.21	105.40
26	1H	2712(A)	A	N1-C6-N6	7.03	122.82	118.60
26	1H	1657	C	C6-N1-C2	-7.03	117.49	120.30
1	13	605	U	N1-C2-O2	-7.03	117.88	122.80
26	1H	1203	G	O5'-P-OP2	-7.03	99.38	105.70
26	1H	2509	G	C5-C6-N1	7.03	115.01	111.50
26	14	2261	C	O5'-P-OP2	-7.03	99.38	105.70
26	1H	686	G	N7-C8-N9	-7.03	109.59	113.10
27	16	12	C	C5-C6-N1	-7.03	117.49	121.00
26	14	1620	G	OP1-P-O3'	7.03	120.66	105.20
26	14	2267	A	OP1-P-OP2	7.03	130.14	119.60
26	1H	127	A	C5-C6-N6	-7.02	118.08	123.70
26	14	201	C	C2-N3-C4	-7.02	116.39	119.90
26	14	983	A	OP2-P-O3'	7.02	120.65	105.20
26	14	1349	A	C5-N7-C8	-7.02	100.39	103.90
26	14	1616	A	C8-N9-C4	-7.02	102.99	105.80
26	14	1968	G	C8-N9-C4	-7.02	103.59	106.40
26	1H	1284	A	O5'-P-OP2	-7.02	99.38	105.70
26	1H	917	A	O5'-P-OP2	7.02	119.12	110.70
26	1H	1221	C	N3-C2-O2	-7.02	116.99	121.90
26	1H	381	G	N1-C6-O6	-7.02	115.69	119.90
26	1H	1614	A	N1-C6-N6	7.02	122.81	118.60
26	14	1422	G	N1-C6-O6	7.02	124.11	119.90
1	13	1520	G	C5-N7-C8	-7.02	100.79	104.30
26	1H	239	U	N3-C4-O4	-7.02	114.49	119.40
26	1H	1349	A	C2-N3-C4	-7.02	107.09	110.60
26	1H	1785	A	N7-C8-N9	7.01	117.31	113.80
26	14	1902	C	O5'-P-OP2	7.01	119.12	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2065	C	O5'-P-OP2	-7.01	99.39	105.70
26	1H	1268	A	C2-N3-C4	-7.01	107.09	110.60
30	31	32	LEU	CA-CB-CG	7.01	131.42	115.30
26	14	602	G	N9-C4-C5	-7.01	102.60	105.40
26	14	1408	C	N1-C2-O2	-7.01	114.69	118.90
26	14	140	A	C8-N9-C4	-7.01	103.00	105.80
1	13	555	C	C6-N1-C2	-7.01	117.50	120.30
26	1H	258	G	N3-C2-N2	7.01	124.81	119.90
26	1H	508	G	N7-C8-N9	7.01	116.60	113.10
26	1H	805	G	OP1-P-O3'	7.01	120.62	105.20
26	1H	852	G	OP2-P-O3'	7.01	120.61	105.20
26	1H	1606	G	C2-N3-C4	7.01	115.40	111.90
26	1H	2684	U	C5-C6-N1	-7.01	119.20	122.70
26	14	2035	G	O5'-P-OP1	-7.01	99.39	105.70
1	13	328	C	N3-C2-O2	-7.00	117.00	121.90
26	1H	1472	A	N1-C6-N6	-7.00	114.40	118.60
26	14	1379	A	N7-C8-N9	7.00	117.30	113.80
26	14	1968	G	N7-C8-N9	7.00	116.60	113.10
26	14	1599	C	N3-C2-O2	-7.00	117.00	121.90
26	1H	2544	G	N9-C4-C5	-7.00	102.60	105.40
1	1G	529	G	C6-C5-N7	-7.00	126.20	130.40
26	14	71	A	C4-C5-N7	7.00	114.20	110.70
26	1H	1729	A	O4'-C1'-N9	7.00	113.80	108.20
26	1H	1670	C	N3-C2-O2	7.00	126.80	121.90
26	1H	2330	G	C2-N3-C4	-6.99	108.40	111.90
1	13	748	C	C6-N1-C2	-6.99	117.50	120.30
26	1H	1021	A	N3-C4-N9	-6.99	121.81	127.40
26	1H	211	A	C5-C6-N1	-6.99	114.21	117.70
26	1H	1670	C	N1-C2-O2	-6.99	114.71	118.90
26	14	155	C	N3-C2-O2	-6.99	117.01	121.90
26	14	479	A	N9-C4-C5	6.99	108.59	105.80
26	1H	687	C	N1-C2-O2	-6.99	114.71	118.90
26	1H	1006	C	O5'-P-OP1	-6.99	99.41	105.70
26	1H	774	A	C8-N9-C4	-6.99	103.01	105.80
26	1H	1381	G	O5'-P-OP2	6.99	119.08	110.70
26	14	2392	A	C8-N9-C4	-6.99	103.01	105.80
26	1H	2434	A	OP2-P-O3'	6.98	120.56	105.20
26	14	1703	G	C5-C6-O6	-6.98	124.41	128.60
26	1H	640	C	C6-N1-C2	-6.98	117.51	120.30
26	1H	860	U	C2-N3-C4	-6.98	122.81	127.00
26	1H	1698	A	C5-C6-N1	-6.98	114.21	117.70
26	1H	1839	G	N1-C2-N2	-6.98	109.92	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	459	U	O5'-P-OP2	-6.98	99.42	105.70
26	1H	2821	A	N1-C6-N6	6.98	122.79	118.60
1	13	758	G	C5-N7-C8	-6.98	100.81	104.30
26	1H	107	C	C6-N1-C2	6.98	123.09	120.30
26	1H	412	A	N7-C8-N9	-6.97	110.31	113.80
26	1H	2248	C	N3-C4-N4	-6.97	113.12	118.00
1	13	1074	G	N1-C6-O6	6.97	124.08	119.90
26	1H	1695	G	O5'-P-OP1	-6.97	99.42	105.70
26	1H	1774	C	C2-N3-C4	-6.97	116.41	119.90
1	1G	18	C	C5-C6-N1	6.97	124.49	121.00
26	14	949	C	OP2-P-O3'	6.97	120.54	105.20
26	14	2239	G	N1-C2-N2	-6.97	109.92	116.20
26	1H	1413	G	C8-N9-C4	-6.97	103.61	106.40
1	1G	1139	G	C8-N9-C4	6.97	109.19	106.40
26	1H	271(B)	G	C4-N9-C1'	6.97	135.56	126.50
26	1H	1606	G	O5'-P-OP2	-6.97	99.43	105.70
26	1H	2469	A	N1-C6-N6	6.97	122.78	118.60
26	1H	1445	C	C6-N1-C2	-6.97	117.51	120.30
26	14	453	C	C6-N1-C2	6.97	123.09	120.30
27	1J	101	A	N1-C6-N6	6.97	122.78	118.60
26	14	1989	G	N1-C6-O6	6.96	124.08	119.90
26	1H	719	C	C6-N1-C2	-6.96	117.52	120.30
26	1H	1324	G	N1-C6-O6	6.96	124.08	119.90
27	16	5	C	C5-C4-N4	-6.96	115.33	120.20
26	1H	144	C	C2-N3-C4	-6.96	116.42	119.90
26	1H	1623	G	C8-N9-C4	6.96	109.19	106.40
26	14	472	A	O5'-P-OP2	-6.96	99.44	105.70
26	14	2084	C	C6-N1-C2	6.96	123.08	120.30
1	13	1227	A	C2-N3-C4	-6.96	107.12	110.60
26	1H	945	A	C6-N1-C2	-6.96	114.43	118.60
1	1G	632	A	P-O3'-C3'	6.96	128.04	119.70
1	13	803	G	C5-C6-O6	6.95	132.77	128.60
26	1H	2251	G	C4-C5-N7	-6.95	108.02	110.80
26	1H	445	C	C6-N1-C2	-6.95	117.52	120.30
26	14	1681	G	N7-C8-N9	6.95	116.58	113.10
26	1H	180	G	N3-C2-N2	6.95	124.77	119.90
26	1H	1574	C	OP2-P-O3'	6.95	120.49	105.20
26	1H	1694	C	P-O3'-C3'	6.95	128.04	119.70
26	1H	1888	G	C4-N9-C1'	6.95	135.54	126.50
26	1H	2018	G	C6-C5-N7	-6.95	126.23	130.40
1	1G	413	G	C4-N9-C1'	-6.95	117.46	126.50
26	1H	664	C	C2-N3-C4	-6.95	116.43	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	96	G	C6-C5-N7	-6.95	126.23	130.40
26	1H	1848	A	N1-C6-N6	6.95	122.77	118.60
26	1H	793	A	C2-N3-C4	6.95	114.07	110.60
26	1H	1632	A	N7-C8-N9	6.95	117.27	113.80
1	1G	135	C	N1-C2-O2	-6.95	114.73	118.90
26	14	409	C	C6-N1-C2	6.95	123.08	120.30
26	1H	869	G	C5-C6-O6	6.94	132.77	128.60
26	14	2287	A	C6-C5-N7	-6.94	127.44	132.30
1	13	814	A	O5'-P-OP2	6.94	119.03	110.70
26	1H	104	U	C5-C6-N1	-6.94	119.23	122.70
26	1H	2071	A	OP1-P-OP2	-6.94	109.19	119.60
26	1H	2275	C	C5'-C4'-O4'	-6.94	100.77	109.10
23	2K	6	G	C5-C6-O6	-6.94	124.44	128.60
26	1H	1984	G	N1-C6-O6	-6.94	115.74	119.90
26	14	118	A	O5'-P-OP1	-6.94	99.46	105.70
26	14	1342	A	C4-C5-N7	6.94	114.17	110.70
26	14	2367	G	C8-N9-C4	-6.94	103.62	106.40
26	1H	645	C	C5-C6-N1	6.94	124.47	121.00
1	1G	357	G	O5'-P-OP1	-6.93	99.46	105.70
26	14	2065	C	N3-C2-O2	-6.93	117.05	121.90
26	14	2280	G	OP1-P-OP2	-6.93	109.20	119.60
1	13	742	G	C8-N9-C4	6.93	109.17	106.40
26	1H	816	C	C5-C6-N1	6.93	124.47	121.00
26	1H	1188	U	N3-C4-O4	-6.93	114.55	119.40
1	1G	1484	C	C5-C6-N1	-6.93	117.53	121.00
26	1H	1614	A	O4'-C1'-N9	6.93	113.74	108.20
26	1H	2288	A	N9-C4-C5	-6.93	103.03	105.80
23	2L	40	C	N3-C4-C5	-6.93	119.13	121.90
26	1H	122	G	N9-C4-C5	-6.93	102.63	105.40
26	1H	1888	G	N3-C4-C5	-6.93	125.14	128.60
26	1H	119	A	N1-C2-N3	6.92	132.76	129.30
26	1H	917	A	C4-C5-N7	6.92	114.16	110.70
26	1H	1772	G	N1-C6-O6	-6.92	115.75	119.90
26	1H	2300	G	C8-N9-C4	-6.92	103.63	106.40
1	1G	230	G	N3-C4-N9	-6.92	121.84	126.00
26	14	29	U	OP1-P-OP2	-6.92	109.22	119.60
26	14	2622	C	C5-C6-N1	-6.92	117.54	121.00
26	1H	271(B)	G	N3-C4-N9	6.92	130.15	126.00
26	1H	1678	G	C5-C6-N1	-6.92	108.04	111.50
26	14	1697	G	O5'-P-OP1	-6.92	99.47	105.70
26	1H	663	G	OP1-P-OP2	6.92	129.98	119.60
26	1H	1344	G	C5-C6-O6	-6.92	124.45	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1886	C	C6-N1-C2	6.92	123.07	120.30
26	14	138	G	O4'-C1'-N9	6.92	113.74	108.20
26	14	1663	C	C6-N1-C2	6.92	123.07	120.30
26	14	2512	C	C2-N3-C4	-6.92	116.44	119.90
26	1H	1297	C	OP1-P-O3'	6.92	120.41	105.20
26	1H	819	A	N1-C2-N3	-6.91	125.84	129.30
26	1H	922	U	N1-C2-O2	-6.91	117.96	122.80
1	13	1113	C	C6-N1-C2	-6.91	117.54	120.30
26	1H	31	C	O5'-P-OP1	-6.91	99.48	105.70
26	1H	982	C	N1-C2-O2	-6.91	114.75	118.90
26	1H	1415	U	C5-C4-O4	6.91	130.05	125.90
26	14	308	G	C5-C6-O6	-6.91	124.45	128.60
26	14	441	U	O5'-P-OP1	-6.91	99.48	105.70
26	1H	816	C	OP1-P-OP2	-6.91	109.24	119.60
26	1H	1634	A	C4-C5-C6	6.91	120.45	117.00
26	1H	1664	A	O5'-P-OP2	6.91	118.99	110.70
1	1G	1260	C	C5-C6-N1	6.91	124.45	121.00
26	14	1950	G	C6-C5-N7	-6.91	126.25	130.40
26	1H	795	C	C2-N3-C4	-6.91	116.45	119.90
26	14	1253	A	C5-C6-N6	-6.91	118.17	123.70
26	1H	596	G	C5-C6-O6	-6.91	124.46	128.60
26	1H	2822	G	C5-C6-O6	-6.90	124.46	128.60
26	1H	977	G	N1-C6-O6	-6.90	115.76	119.90
26	14	2544	G	C4-C5-N7	6.90	113.56	110.80
26	14	247	G	N1-C6-O6	6.90	124.04	119.90
26	1H	1161	C	C6-N1-C2	-6.90	117.54	120.30
26	1H	1258	C	C5-C6-N1	-6.90	117.55	121.00
26	1H	1300	U	C6-N1-C2	-6.90	116.86	121.00
26	1H	32	C	O5'-P-OP2	-6.89	99.50	105.70
26	1H	1428	C	C2-N1-C1'	-6.89	111.22	118.80
26	14	1241	A	C5-C6-N1	-6.89	114.25	117.70
26	1H	2499	C	N1-C2-O2	-6.89	114.77	118.90
26	1H	395	U	N3-C4-O4	6.89	124.22	119.40
26	1H	1201	C	C5-C4-N4	-6.89	115.38	120.20
26	14	2053	G	C8-N9-C4	6.89	109.16	106.40
26	1H	760	G	C5-N7-C8	-6.89	100.86	104.30
26	1H	1416	G	O4'-C1'-N9	6.89	113.71	108.20
26	1H	2084	C	C4-C5-C6	6.88	120.84	117.40
26	14	1379	A	C4-C5-N7	6.88	114.14	110.70
26	1H	698	C	OP1-P-OP2	6.88	129.92	119.60
26	14	1374	G	N1-C6-O6	6.88	124.03	119.90
30	39	80	ALA	C-N-CD	6.88	142.85	128.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2568	C	C2-N3-C4	-6.88	116.46	119.90
26	14	2565	A	O5'-P-OP2	6.88	118.96	110.70
26	1H	604	G	O5'-P-OP1	-6.88	99.51	105.70
26	1H	703	U	N1-C2-N3	6.88	119.03	114.90
26	1H	141	A	N7-C8-N9	6.88	117.24	113.80
26	1H	1279	G	O5'-P-OP2	-6.88	99.51	105.70
26	1H	1646	C	OP1-P-O3'	6.88	120.33	105.20
26	1H	1626	G	N3-C4-N9	-6.88	121.87	126.00
26	1H	2438	U	C5-C6-N1	-6.88	119.26	122.70
55	Q8	59	LYS	CD-CE-NZ	6.88	127.52	111.70
26	14	2712	U	C2-N3-C4	-6.88	122.87	127.00
1	13	690	G	C5-C6-O6	-6.87	124.48	128.60
1	13	805	C	C6-N1-C2	-6.87	117.55	120.30
1	13	1526	G	C6-C5-N7	-6.87	126.28	130.40
26	1H	2308	G	C6-N1-C2	6.87	129.22	125.10
26	1H	2506	U	C5-C6-N1	6.87	126.14	122.70
26	14	750	A	C8-N9-C4	-6.87	103.05	105.80
26	1H	1357	U	OP1-P-OP2	6.87	129.91	119.60
26	1H	1638	C	OP2-P-O3'	6.87	120.32	105.20
26	14	1776	G	C6-C5-N7	-6.87	126.28	130.40
55	Q8	46	ARG	NE-CZ-NH1	6.87	123.73	120.30
26	1H	2869	G	C8-N9-C4	-6.87	103.65	106.40
31	41	34	LEU	CA-CB-CG	6.87	131.10	115.30
1	13	266	G	N1-C6-O6	6.87	124.02	119.90
26	1H	241	A	C2-N3-C4	-6.87	107.17	110.60
26	1H	1625	C	N1-C2-O2	6.87	123.02	118.90
26	1H	165	U	C2-N1-C1'	6.87	125.94	117.70
26	1H	1817	G	C8-N9-C4	6.87	109.15	106.40
1	1G	1519	A	C8-N9-C4	-6.87	103.05	105.80
26	14	566	U	O5'-P-OP2	-6.87	99.52	105.70
26	14	1999	C	C6-N1-C2	6.87	123.05	120.30
26	1H	251	A	N3-C4-C5	-6.86	122.00	126.80
26	1H	2331	G	C6-C5-N7	-6.86	126.28	130.40
26	1H	1835	G	C4-N9-C1'	6.86	135.42	126.50
26	1H	2027	G	C4-C5-N7	-6.86	108.06	110.80
26	14	944	G	OP1-P-OP2	6.86	129.89	119.60
1	13	1430	C	O5'-P-OP1	-6.86	99.53	105.70
26	1H	2645	G	C5-N7-C8	-6.86	100.87	104.30
26	14	2074	U	N1-C2-N3	6.86	119.02	114.90
26	1H	869	G	N1-C2-N2	-6.86	110.03	116.20
26	1H	1642	G	N3-C2-N2	-6.86	115.10	119.90
26	1H	1839	G	C8-N9-C1'	-6.86	118.08	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	743	G	C8-N9-C4	6.86	109.14	106.40
1	13	811	C	C6-N1-C2	6.86	123.04	120.30
1	1G	484	G	C4-N9-C1'	-6.86	117.59	126.50
26	1H	1153	C	N1-C2-O2	-6.85	114.79	118.90
26	14	562	U	N3-C2-O2	-6.85	117.40	122.20
26	1H	1595	G	O5'-P-OP1	-6.85	99.53	105.70
26	1H	1817	G	N7-C8-N9	-6.85	109.67	113.10
26	14	1241	A	C5-N7-C8	-6.85	100.47	103.90
26	1H	973	A	N1-C2-N3	6.85	132.72	129.30
26	1H	2698	U	C5-C6-N1	-6.85	119.28	122.70
26	1H	828	U	C4-C5-C6	6.85	123.81	119.70
26	14	1826	G	C5-N7-C8	6.85	107.72	104.30
26	1H	2446	G	C5-N7-C8	-6.85	100.88	104.30
26	1H	2236	C	O5'-P-OP1	-6.85	99.54	105.70
26	1H	180	G	N1-C2-N2	-6.84	110.04	116.20
24	3K	76	A	C4-C5-N7	6.84	114.12	110.70
26	1H	2059	A	N7-C8-N9	-6.84	110.38	113.80
1	1G	449	C	N3-C2-O2	-6.84	117.11	121.90
26	14	2873	A	C4-N9-C1'	6.84	138.61	126.30
26	1H	906	G	C4-C5-N7	-6.84	108.06	110.80
26	14	200	U	N1-C2-N3	6.84	119.00	114.90
26	14	1686	C	C6-N1-C2	6.84	123.03	120.30
1	13	352	C	C6-N1-C2	6.83	123.03	120.30
1	13	532	A	C2-N3-C4	-6.83	107.18	110.60
27	16	81	G	C8-N9-C1'	-6.83	118.11	127.00
1	13	888	G	N1-C6-O6	6.83	124.00	119.90
26	1H	971	C	C6-N1-C2	-6.83	117.57	120.30
26	1H	2199	A	N7-C8-N9	6.83	117.22	113.80
26	1H	2464	C	C5-C4-N4	-6.83	115.42	120.20
26	14	991	C	O5'-P-OP1	-6.83	99.55	105.70
26	14	1309	G	O5'-P-OP1	6.83	118.90	110.70
1	13	1468	A	C5-C6-N1	6.83	121.11	117.70
26	1H	119	A	N1-C6-N6	-6.83	114.50	118.60
26	14	2237	G	N1-C2-N2	-6.83	110.05	116.20
26	14	1241	A	C2-N3-C4	-6.83	107.19	110.60
1	13	888	G	C5-C6-O6	-6.83	124.50	128.60
26	1H	1162	G	N9-C4-C5	6.83	108.13	105.40
26	1H	2476	A	C8-N9-C4	-6.83	103.07	105.80
1	1G	668	G	N3-C2-N2	-6.83	115.12	119.90
26	14	1974	C	O5'-P-OP2	-6.83	99.56	105.70
26	14	2599	G	N1-C6-O6	-6.83	115.80	119.90
26	1H	1728	G	N7-C8-N9	6.82	116.51	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1365	A	C4-C5-C6	6.82	120.41	117.00
26	1H	2710	C	C2-N3-C4	-6.82	116.49	119.90
1	13	974	A	O4'-C1'-N9	6.82	113.66	108.20
1	1G	932	C	C2-N1-C1'	6.82	126.30	118.80
26	14	121	G	C5-C6-O6	-6.82	124.51	128.60
26	14	265	A	N7-C8-N9	6.82	117.21	113.80
26	1H	1764	G	C5-C6-O6	6.82	132.69	128.60
26	1H	2358	G	N1-C2-N3	6.82	127.99	123.90
26	1H	2600	A	C2-N3-C4	6.82	114.01	110.60
26	14	656	G	N1-C6-O6	6.82	123.99	119.90
26	1H	71	A	N3-C4-N9	-6.82	121.95	127.40
26	14	1254	A	N3-C4-C5	-6.82	122.03	126.80
26	1H	1674	G	O4'-C1'-N9	-6.81	102.75	108.20
26	1H	944	G	C4-N9-C1'	6.81	135.36	126.50
26	1H	1246	A	N1-C2-N3	6.81	132.71	129.30
26	1H	1835	G	C8-N9-C4	-6.81	103.67	106.40
26	1H	925	C	O5'-P-OP2	-6.81	99.57	105.70
26	1H	2506	U	N3-C2-O2	-6.81	117.43	122.20
26	14	2237	G	N3-C2-N2	6.81	124.67	119.90
1	13	1279	A	C8-N9-C4	-6.81	103.08	105.80
26	1H	1021	A	N3-C4-C5	6.81	131.56	126.80
26	1H	1959	G	C8-N9-C4	-6.81	103.68	106.40
26	1H	2821	A	C5-C6-N6	-6.81	118.25	123.70
26	14	114	U	C2-N1-C1'	6.81	125.87	117.70
26	14	815	C	O5'-P-OP1	6.81	118.87	110.70
1	13	1299	A	C8-N9-C4	-6.80	103.08	105.80
26	1H	606	U	O5'-P-OP2	-6.80	99.58	105.70
26	14	2712	U	O4'-C1'-N1	6.80	113.64	108.20
1	13	1427	U	OP2-P-O3'	6.80	120.17	105.20
26	1H	1827	C	OP1-P-O3'	6.80	120.17	105.20
26	14	2595	G	C5-C6-N1	6.80	114.90	111.50
1	13	781	A	C5-C6-N1	6.80	121.10	117.70
26	1H	788	A	N9-C4-C5	-6.80	103.08	105.80
26	1H	1373	A	OP1-P-OP2	-6.80	109.40	119.60
1	13	623	C	C6-N1-C2	-6.80	117.58	120.30
1	1G	900	A	O5'-P-OP2	6.80	118.86	110.70
23	2L	40	C	O5'-P-OP1	-6.80	99.58	105.70
26	1H	1605	C	C2-N3-C4	-6.79	116.50	119.90
26	1H	1558	A	P-O3'-C3'	6.79	127.85	119.70
26	1H	1573	G	OP2-P-O3'	6.79	120.14	105.20
26	1H	1801	G	N3-C4-C5	-6.79	125.20	128.60
26	14	1783	A	O5'-P-OP1	6.79	118.85	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	516	U	C6-N1-C2	-6.79	116.93	121.00
26	14	1475	G	N7-C8-N9	6.79	116.49	113.10
27	16	5	C	C6-N1-C2	6.79	123.01	120.30
26	1H	944	G	OP1-P-OP2	6.78	129.78	119.60
26	1H	2270	G	C5-C6-O6	-6.78	124.53	128.60
26	1H	122	G	C5-C6-O6	-6.78	124.53	128.60
26	1H	2589	A	N7-C8-N9	-6.78	110.41	113.80
26	1H	2712	U	N3-C4-C5	6.78	118.67	114.60
26	1H	726	G	C8-N9-C4	6.78	109.11	106.40
1	1G	738	C	N1-C2-O2	-6.78	114.83	118.90
26	14	205	G	OP1-P-OP2	6.78	129.77	119.60
23	2K	1	C	C6-N1-C2	-6.78	117.59	120.30
1	1G	817	C	C5-C6-N1	-6.78	117.61	121.00
26	14	1204	A	C5-N7-C8	-6.78	100.51	103.90
26	1H	775	G	N3-C2-N2	6.78	124.64	119.90
1	1G	995	C	C6-N1-C2	-6.78	117.59	120.30
26	14	2546	U	O5'-P-OP2	-6.78	99.60	105.70
26	1H	1787	A	O4'-C1'-N9	-6.77	102.78	108.20
26	1H	2271	G	C6-C5-N7	-6.77	126.34	130.40
26	1H	2585	U	C6-N1-C2	6.77	125.06	121.00
26	1H	2598	A	OP2-P-O3'	6.77	120.10	105.20
26	14	1373	A	N1-C6-N6	6.77	122.66	118.60
26	1H	1801	G	N3-C4-N9	6.77	130.06	126.00
26	14	865	C	C6-N1-C2	6.77	123.01	120.30
23	2K	17	C	C2-N3-C4	6.77	123.28	119.90
1	1G	1498	U	P-O3'-C3'	6.77	127.82	119.70
26	1H	1394	U	C6-N1-C2	-6.77	116.94	121.00
26	1H	1599	C	N1-C2-N3	6.77	123.94	119.20
26	1H	2232	U	N3-C4-C5	-6.77	110.54	114.60
54	P8	9	ARG	NE-CZ-NH1	6.77	123.68	120.30
1	13	1158	C	C2-N1-C1'	6.77	126.24	118.80
26	1H	1940	U	N3-C4-O4	6.77	124.14	119.40
1	1G	1297	C	P-O3'-C3'	6.77	127.82	119.70
26	14	2463	C	N3-C2-O2	6.77	126.64	121.90
1	13	758	G	N1-C6-O6	6.76	123.96	119.90
1	13	789	U	C4-C5-C6	6.76	123.76	119.70
26	1H	829	A	O5'-P-OP2	-6.76	99.61	105.70
26	1H	2576	G	C8-N9-C4	6.76	109.11	106.40
26	14	2594	C	C6-N1-C2	6.76	123.01	120.30
26	1H	1935	G	C5-C6-O6	6.76	132.66	128.60
1	13	813	U	N3-C4-O4	-6.76	114.67	119.40
27	16	12	C	C4-C5-C6	6.76	120.78	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	608	A	C8-N9-C4	-6.76	103.10	105.80
1	13	111	G	C8-N9-C4	6.75	109.10	106.40
26	14	921	G	N9-C4-C5	6.75	108.10	105.40
26	1H	409	C	C6-N1-C2	6.75	123.00	120.30
26	1H	2827	C	N1-C2-O2	-6.75	114.85	118.90
27	16	30	C	O5'-P-OP1	-6.75	99.62	105.70
26	1H	2370	G	O5'-P-OP1	-6.75	99.62	105.70
26	1H	2437	U	C2-N3-C4	6.75	131.05	127.00
26	14	2591	C	N1-C2-O2	-6.75	114.85	118.90
1	13	1505	G	O5'-P-OP2	6.75	118.80	110.70
24	3K	5	G	C8-N9-C4	-6.75	103.70	106.40
26	1H	695	G	N1-C2-N2	-6.75	110.13	116.20
26	1H	2217	G	C8-N9-C4	-6.75	103.70	106.40
1	13	575	G	O4'-C1'-N9	-6.75	102.80	108.20
26	1H	203	C	C5-C4-N4	-6.75	115.48	120.20
26	1H	1392	A	O5'-P-OP1	-6.75	99.63	105.70
26	1H	2822	G	C8-N9-C4	6.75	109.10	106.40
1	1G	1188	A	C8-N9-C4	6.75	108.50	105.80
26	14	2430	A	C4-C5-N7	6.75	114.07	110.70
26	1H	383	U	O5'-P-OP1	-6.75	99.63	105.70
26	1H	776	G	C8-N9-C4	-6.75	103.70	106.40
26	14	1742	C	C6-N1-C2	-6.75	117.60	120.30
1	13	330	C	N1-C2-O2	6.74	122.95	118.90
26	1H	213	A	C5-N7-C8	-6.74	100.53	103.90
26	1H	2544	G	C4-C5-N7	6.74	113.50	110.80
26	1H	51	G	OP2-P-O3'	6.74	120.03	105.20
26	1H	391	G	C6-C5-N7	-6.74	126.36	130.40
26	1H	672	C	O5'-P-OP1	6.74	118.79	110.70
26	1H	2445	G	N3-C2-N2	6.74	124.62	119.90
26	14	312	G	O5'-P-OP1	-6.74	99.63	105.70
26	1H	835	A	O5'-P-OP2	-6.74	99.63	105.70
26	1H	2599	G	OP2-P-O3'	6.74	120.03	105.20
1	1G	810	C	C2-N3-C4	-6.74	116.53	119.90
26	14	1342	A	N7-C8-N9	6.74	117.17	113.80
26	14	1728	G	N3-C4-C5	-6.74	125.23	128.60
26	14	2063	C	C6-N1-C2	-6.74	117.60	120.30
26	1H	791	C	N3-C4-C5	6.74	124.60	121.90
26	14	1791	A	OP1-P-OP2	-6.74	109.49	119.60
26	14	1322	A	OP2-P-O3'	6.74	120.02	105.20
26	1H	951	C	N3-C4-N4	-6.74	113.28	118.00
26	1H	1558	A	C2-N3-C4	-6.74	107.23	110.60
26	1H	1660	C	N3-C4-N4	-6.74	113.28	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1814	G	C5-C6-N1	6.74	114.87	111.50
26	1H	2508	G	N1-C6-O6	-6.74	115.86	119.90
1	13	720	C	C6-N1-C2	-6.73	117.61	120.30
26	1H	138	G	C8-N9-C4	-6.73	103.71	106.40
26	1H	1774	C	OP1-P-OP2	-6.73	109.50	119.60
26	1H	1967	C	C4-C5-C6	6.73	120.77	117.40
1	1G	817	C	C6-N1-C2	6.73	122.99	120.30
26	1H	1379	A	N1-C6-N6	6.73	122.64	118.60
26	1H	1534	G	C2-N3-C4	6.73	115.27	111.90
26	14	581	C	C5-C4-N4	6.73	124.91	120.20
26	14	800	A	O5'-P-OP2	6.73	118.78	110.70
1	13	1299	A	N1-C6-N6	6.73	122.64	118.60
26	1H	528	A	C8-N9-C1'	6.73	139.82	127.70
26	14	1698	A	N1-C2-N3	6.73	132.66	129.30
26	1H	825	C	N3-C2-O2	6.73	126.61	121.90
26	1H	1296	G	N1-C6-O6	-6.73	115.86	119.90
1	13	891	U	N3-C2-O2	-6.73	117.49	122.20
26	1H	1157	G	N1-C2-N3	6.73	127.94	123.90
26	1H	1954	G	O5'-P-OP1	-6.73	99.64	105.70
26	1H	798	G	O5'-P-OP2	6.73	118.77	110.70
26	1H	410	G	O5'-P-OP1	-6.72	99.65	105.70
26	14	693	C	N3-C4-C5	6.72	124.59	121.90
26	14	1953	A	O5'-P-OP2	6.72	118.77	110.70
26	14	2318	G	O5'-P-OP1	-6.72	99.65	105.70
1	1G	1518	A	O5'-P-OP1	-6.72	99.65	105.70
26	1H	1789	A	C5-C6-N1	6.72	121.06	117.70
26	1H	1792	G	O5'-P-OP1	-6.72	99.65	105.70
26	1H	2752	C	C6-N1-C2	-6.72	117.61	120.30
26	14	783	A	C8-N9-C4	-6.72	103.11	105.80
26	14	2013	A	C2-N3-C4	-6.72	107.24	110.60
26	14	2329	G	C5-C6-O6	-6.72	124.57	128.60
1	13	789	U	N3-C2-O2	-6.72	117.50	122.20
1	13	792	A	N3-C4-C5	6.72	131.50	126.80
26	1H	593	G	N1-C2-N3	6.72	127.93	123.90
26	1H	1835	G	N3-C4-N9	6.72	130.03	126.00
26	1H	2420	C	O5'-P-OP1	-6.72	99.66	105.70
29	21	49	LEU	CA-CB-CG	-6.72	99.85	115.30
26	14	1830	C	C5-C4-N4	-6.72	115.50	120.20
26	14	2451	A	C8-N9-C4	-6.72	103.11	105.80
26	14	2873	A	C5-C6-N1	-6.72	114.34	117.70
26	1H	209	C	N3-C4-C5	6.71	124.59	121.90
26	1H	1767	C	O5'-P-OP1	-6.71	99.66	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
44	F8	67	GLY	N-CA-C	-6.71	96.31	113.10
26	14	933	A	N7-C8-N9	6.71	117.16	113.80
1	1G	337	C	C5-C6-N1	6.71	124.36	121.00
26	14	1776	G	N9-C4-C5	-6.71	102.72	105.40
1	13	872	A	N1-C2-N3	-6.71	125.94	129.30
26	1H	1406	U	C6-N1-C2	-6.71	116.97	121.00
26	14	1652	A	O5'-P-OP1	-6.71	99.66	105.70
1	13	827	U	C5-C4-O4	6.71	129.93	125.90
23	2K	24	C	N3-C2-O2	-6.71	117.20	121.90
26	1H	1879	C	C6-N1-C2	-6.71	117.62	120.30
26	14	2297	C	O5'-P-OP2	-6.71	99.66	105.70
26	14	2346	A	N1-C2-N3	6.71	132.65	129.30
26	14	2378	A	C5-C6-N6	-6.71	118.33	123.70
26	1H	847	U	C2-N3-C4	-6.71	122.98	127.00
26	14	1496	A	N1-C6-N6	6.71	122.62	118.60
26	1H	606	U	C5-C4-O4	6.70	129.92	125.90
26	14	145	G	O5'-P-OP2	-6.70	99.67	105.70
26	14	2712	U	C4-C5-C6	6.70	123.72	119.70
26	1H	1429	G	N1-C6-O6	-6.70	115.88	119.90
1	13	963	G	N1-C6-O6	-6.70	115.88	119.90
26	1H	2617	C	C6-N1-C2	6.70	122.98	120.30
26	14	1489	U	C2-N1-C1'	-6.70	109.66	117.70
26	1H	141	A	O4'-C1'-N9	6.70	113.56	108.20
26	1H	2636	U	O5'-P-OP1	-6.70	99.67	105.70
26	14	68	G	N1-C6-O6	6.70	123.92	119.90
26	14	451	C	C5-C4-N4	-6.70	115.51	120.20
26	14	1283	G	OP1-P-OP2	6.70	129.65	119.60
26	1H	731	C	C4-C5-C6	6.70	120.75	117.40
26	14	2681	C	C5-C4-N4	6.70	124.89	120.20
26	14	602	G	C8-N9-C1'	-6.70	118.30	127.00
26	14	1673	U	C2-N1-C1'	-6.70	109.67	117.70
1	13	330	C	N3-C2-O2	-6.69	117.21	121.90
26	1H	528	A	N3-C4-N9	-6.69	122.05	127.40
26	1H	1475	G	N3-C2-N2	-6.69	115.21	119.90
26	1H	364	C	C6-N1-C2	-6.69	117.62	120.30
26	1H	1625	C	C5-C4-N4	6.69	124.88	120.20
26	1H	1698	A	N1-C6-N6	6.69	122.62	118.60
26	1H	1819	A	C5-C6-N6	-6.69	118.35	123.70
50	L8	53	LEU	N-CA-C	-6.69	92.94	111.00
26	14	475	U	C6-N1-C2	-6.69	116.98	121.00
1	13	539	A	N9-C4-C5	6.69	108.47	105.80
26	1H	952	G	O5'-P-OP2	6.69	118.73	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1520	G	C6-C5-N7	-6.69	126.39	130.40
26	1H	1930	G	O5'-P-OP1	-6.69	99.68	105.70
1	13	318	G	N3-C2-N2	-6.68	115.22	119.90
26	1H	1274	A	O5'-P-OP1	-6.68	99.68	105.70
1	1G	108	G	C5-N7-C8	-6.68	100.96	104.30
26	14	383	U	C5-C6-N1	-6.68	119.36	122.70
26	1H	682	G	C4-C5-N7	6.68	113.47	110.80
26	1H	842	G	C5-C6-O6	-6.68	124.59	128.60
26	1H	1022	G	N3-C2-N2	-6.68	115.22	119.90
26	1H	121	G	N7-C8-N9	6.68	116.44	113.10
26	1H	208	C	C2-N3-C4	-6.68	116.56	119.90
26	14	2688	U	N3-C4-O4	-6.68	114.72	119.40
26	1H	2358	G	C6-N1-C2	-6.68	121.09	125.10
26	14	487	C	N1-C2-O2	-6.68	114.89	118.90
26	1H	686	G	C8-N9-C4	6.67	109.07	106.40
27	16	89	G	O5'-P-OP2	6.67	118.71	110.70
26	1H	1489	U	C5-C4-O4	6.67	129.90	125.90
1	1G	1519	A	N9-C4-C5	6.67	108.47	105.80
26	14	786	C	N3-C4-C5	6.67	124.57	121.90
1	13	1214	C	C6-N1-C2	6.67	122.97	120.30
26	1H	146	G	C5-N7-C8	-6.67	100.96	104.30
26	1H	599	G	N3-C4-N9	6.67	130.00	126.00
26	1H	735	A	O5'-P-OP2	-6.67	99.70	105.70
26	1H	766	C	N1-C2-O2	-6.67	114.90	118.90
26	1H	1301	A	O5'-P-OP1	-6.67	99.70	105.70
26	1H	1764	G	C8-N9-C4	-6.67	103.73	106.40
26	1H	1786	A	OP1-P-O3'	6.67	119.87	105.20
1	1G	121	C	C2-N1-C1'	6.67	126.14	118.80
26	1H	109	G	N1-C6-O6	-6.67	115.90	119.90
26	1H	1786	A	N9-C1'-C2'	6.67	122.67	114.00
26	14	2256	G	O5'-P-OP2	-6.67	99.70	105.70
26	14	2361	A	N1-C6-N6	6.67	122.60	118.60
26	1H	1141	U	O4'-C1'-N1	6.67	113.53	108.20
26	14	2271	G	OP2-P-O3'	6.67	119.87	105.20
26	14	2578	G	OP2-P-O3'	6.67	119.87	105.20
26	14	2420	C	N3-C4-C5	6.67	124.57	121.90
26	1H	515	A	O4'-C1'-N9	6.66	113.53	108.20
26	1H	557	U	C2-N3-C4	-6.66	123.00	127.00
26	14	461	C	O5'-P-OP1	-6.66	99.70	105.70
26	1H	194	G	C5-C6-N1	6.66	114.83	111.50
26	1H	1559	G	N1-C6-O6	6.66	123.90	119.90
26	1H	2711	A	OP1-P-O3'	6.66	119.86	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2374	C	C2-N3-C4	-6.66	116.57	119.90
26	14	2691	C	O5'-P-OP1	-6.66	99.71	105.70
26	1H	1673	U	C6-N1-C2	6.66	125.00	121.00
26	1H	2286	A	N7-C8-N9	6.66	117.13	113.80
27	16	12	C	C2-N3-C4	-6.66	116.57	119.90
26	14	530	G	C2-N3-C4	-6.66	108.57	111.90
1	1G	925	G	C8-N9-C4	6.66	109.06	106.40
26	1H	73	A	C2-N3-C4	6.65	113.93	110.60
26	1H	1525	G	O5'-P-OP2	-6.65	99.71	105.70
26	14	956	G	O5'-P-OP2	-6.65	99.71	105.70
26	14	1799	G	C5-C6-O6	6.65	132.59	128.60
26	14	2560	C	O5'-P-OP1	-6.65	99.71	105.70
26	14	2567	G	N3-C4-C5	-6.65	125.27	128.60
26	1H	747	U	OP1-P-OP2	6.65	129.58	119.60
26	1H	2440	C	N3-C4-C5	-6.65	119.24	121.90
26	1H	2598	A	N9-C4-C5	-6.65	103.14	105.80
26	1H	2857	G	O5'-P-OP1	-6.65	99.72	105.70
26	14	1226	G	N1-C6-O6	-6.65	115.91	119.90
26	14	2712	U	C2-N1-C1'	6.65	125.68	117.70
26	1H	617	G	N7-C8-N9	-6.65	109.78	113.10
26	1H	837	C	N1-C2-O2	-6.65	114.91	118.90
26	14	1695	G	C6-C5-N7	-6.65	126.41	130.40
1	13	1530	G	N3-C4-N9	-6.65	122.01	126.00
26	1H	2352	A	O5'-P-OP1	-6.65	99.72	105.70
26	1H	906	G	C8-N9-C1'	6.64	135.64	127.00
1	13	733	A	C8-N9-C4	6.64	108.46	105.80
26	1H	207	A	C2-N3-C4	-6.64	107.28	110.60
26	14	1349	A	C4-C5-N7	6.64	114.02	110.70
26	14	2622	C	C6-N1-C2	6.64	122.96	120.30
1	13	582	U	C2-N3-C4	-6.64	123.02	127.00
26	1H	847	U	C5-C6-N1	-6.64	119.38	122.70
1	1G	268	C	O5'-P-OP1	-6.64	99.72	105.70
1	13	567	G	O5'-P-OP1	-6.64	99.72	105.70
26	1H	187	G	N3-C2-N2	6.64	124.55	119.90
26	1H	200	U	C2-N3-C4	-6.64	123.02	127.00
26	1H	2766	G	C5-C6-O6	-6.64	124.62	128.60
26	14	2700	C	C5-C4-N4	-6.64	115.55	120.20
26	1H	1920	C	O5'-P-OP2	-6.64	99.72	105.70
1	13	926	G	N1-C6-O6	-6.64	115.92	119.90
26	1H	115	C	N3-C4-N4	6.64	122.64	118.00
26	14	2592	G	N3-C4-N9	6.64	129.98	126.00
26	1H	1815	A	OP1-P-O3'	6.63	119.79	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2708	G	C8-N9-C4	6.63	109.05	106.40
26	14	1899	G	C8-N9-C4	-6.63	103.75	106.40
26	14	1496	A	C6-C5-N7	-6.63	127.66	132.30
1	13	700	G	O5'-P-OP2	-6.63	99.73	105.70
26	1H	1639	U	OP1-P-OP2	-6.63	109.66	119.60
26	1H	2385	C	N3-C4-C5	6.63	124.55	121.90
1	1G	117	G	C4-C5-N7	6.63	113.45	110.80
26	14	2401	U	C6-N1-C2	-6.63	117.02	121.00
26	1H	1241	A	N3-C4-C5	6.63	131.44	126.80
26	1H	1471	A	N7-C8-N9	6.63	117.11	113.80
26	1H	1610	A	C5-C6-N6	-6.63	118.40	123.70
1	1G	1531	A	C8-N9-C4	-6.63	103.15	105.80
26	14	1973	G	N1-C6-O6	-6.63	115.92	119.90
26	14	1816	G	O5'-P-OP2	6.62	118.65	110.70
26	14	2512	C	C6-N1-C2	6.62	122.95	120.30
26	1H	831	G	N3-C2-N2	6.62	124.54	119.90
26	1H	1307	A	C2-N3-C4	-6.62	107.29	110.60
26	1H	2822	G	N1-C6-O6	6.62	123.87	119.90
26	14	141	A	N1-C6-N6	6.62	122.57	118.60
26	14	808	G	N3-C4-N9	6.62	129.97	126.00
26	14	1995	U	N3-C2-O2	-6.62	117.56	122.20
26	1H	773	U	N1-C2-N3	6.62	118.87	114.90
26	1H	1379	A	N7-C8-N9	6.62	117.11	113.80
26	14	528	A	N7-C8-N9	6.62	117.11	113.80
1	13	580	U	N3-C2-O2	-6.62	117.57	122.20
1	1G	108	G	C4-C5-N7	6.62	113.45	110.80
26	14	391	G	C4-N9-C1'	6.62	135.10	126.50
26	14	560	C	N3-C4-C5	6.62	124.55	121.90
26	1H	53	A	C8-N9-C4	-6.62	103.15	105.80
1	13	819	A	O5'-P-OP1	-6.62	99.75	105.70
26	1H	131	G	N1-C6-O6	6.62	123.87	119.90
26	1H	1639	U	OP2-P-O3'	6.62	119.75	105.20
26	14	789	A	O5'-P-OP1	-6.62	99.75	105.70
26	1H	630	G	C5-C6-O6	-6.61	124.63	128.60
1	13	857	C	C4-C5-C6	6.61	120.70	117.40
26	14	1961	C	N1-C2-O2	-6.61	114.93	118.90
57	3L	2	C	C6-N1-C2	-6.61	117.66	120.30
1	1G	586	C	O5'-P-OP2	-6.60	99.76	105.70
26	1H	629	G	O5'-P-OP2	-6.60	99.76	105.70
26	1H	774	A	C6-N1-C2	6.60	122.56	118.60
26	1H	122	G	C6-N1-C2	-6.60	121.14	125.10
26	1H	125	G	N3-C2-N2	6.60	124.52	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	673	C	C5-C6-N1	6.60	124.30	121.00
26	1H	2068	U	C2-N3-C4	6.60	130.96	127.00
1	1G	721	G	C5-C6-N1	-6.60	108.20	111.50
26	14	2510	C	O5'-P-OP2	-6.60	99.76	105.70
1	13	1279	A	C5-N7-C8	-6.60	100.60	103.90
26	1H	1982	C	O5'-P-OP1	-6.60	99.76	105.70
26	1H	2297	C	C5-C4-N4	6.60	124.82	120.20
26	14	265	A	C6-C5-N7	-6.60	127.68	132.30
26	1H	665	C	C6-N1-C2	6.59	122.94	120.30
26	1H	1202	C	N3-C4-C5	-6.59	119.26	121.90
26	1H	2324	C	C6-N1-C1'	-6.59	112.89	120.80
26	1H	2638	G	N3-C4-C5	-6.59	125.30	128.60
26	14	783	A	N9-C1'-C2'	-6.59	104.75	112.00
26	14	1950	G	C8-N9-C1'	-6.59	118.43	127.00
26	1H	704	G	C5-C6-O6	-6.59	124.64	128.60
32	51	171	LEU	CA-CB-CG	6.59	130.46	115.30
26	1H	189	G	C8-N9-C4	6.59	109.04	106.40
26	1H	206	U	N3-C4-O4	-6.59	114.79	119.40
26	14	974(A)	C	C5-C4-N4	6.59	124.81	120.20
26	14	1399	C	OP2-P-O3'	6.59	119.70	105.20
26	1H	1626	G	C8-N9-C4	-6.59	103.76	106.40
26	14	852	G	N1-C6-O6	-6.59	115.95	119.90
26	14	1391	U	O5'-P-OP1	-6.59	99.77	105.70
25	4K	16	A	C8-N9-C4	6.59	108.44	105.80
26	1H	2700	C	C5-C4-N4	-6.59	115.59	120.20
26	14	777	A	C6-N1-C2	-6.59	114.65	118.60
26	1H	1310	G	N1-C6-O6	6.58	123.85	119.90
26	14	784	A	OP1-P-O3'	6.58	119.69	105.20
24	3K	2	C	P-O3'-C3'	6.58	127.60	119.70
26	1H	2611	U	OP2-P-O3'	6.58	119.68	105.20
26	1H	189	G	N7-C8-N9	-6.58	109.81	113.10
26	1H	1595	G	O5'-P-OP2	6.58	118.60	110.70
26	14	1756	G	N9-C4-C5	6.58	108.03	105.40
26	1H	533	G	N1-C6-O6	-6.58	115.95	119.90
1	13	235	C	C6-N1-C2	6.57	122.93	120.30
26	14	1345	C	C6-N1-C2	-6.57	117.67	120.30
26	1H	967	C	O5'-P-OP1	6.57	118.58	110.70
1	1G	541	G	N1-C6-O6	6.57	123.84	119.90
26	14	2842	G	C5-C6-O6	-6.57	124.66	128.60
1	13	966	G	N1-C6-O6	6.57	123.84	119.90
26	1H	693	C	OP2-P-O3'	6.57	119.65	105.20
1	1G	692	U	C5-C4-O4	-6.57	121.96	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1248	G	N9-C4-C5	-6.57	102.77	105.40
26	14	1812	A	O5'-P-OP2	-6.57	99.79	105.70
26	14	2544	G	C6-C5-N7	-6.57	126.46	130.40
26	1H	942	G	N1-C2-N2	6.57	122.11	116.20
26	1H	1957	C	N3-C4-C5	6.57	124.53	121.90
26	1H	1965	C	C6-N1-C2	6.57	122.93	120.30
26	14	1780	A	N1-C2-N3	6.57	132.58	129.30
26	1H	452	G	N1-C6-O6	-6.56	115.96	119.90
26	1H	1610	A	N7-C8-N9	6.56	117.08	113.80
26	1H	1858	G	N1-C6-O6	6.56	123.84	119.90
26	14	2065	C	O5'-P-OP1	6.56	118.58	110.70
26	14	1293	C	C5-C4-N4	-6.56	115.61	120.20
1	13	762	C	C5-C4-N4	6.56	124.79	120.20
26	14	774	A	N1-C6-N6	6.56	122.53	118.60
26	14	1204	A	N3-C4-C5	6.56	131.39	126.80
1	1G	1305	G	O5'-P-OP1	-6.56	99.80	105.70
26	14	750	A	N7-C8-N9	6.56	117.08	113.80
26	1H	187	G	OP1-P-OP2	6.55	129.43	119.60
26	1H	1950	G	C5-C6-N1	-6.55	108.22	111.50
1	1G	713	G	C5-C6-O6	-6.55	124.67	128.60
1	1G	1467	G	O5'-P-OP2	-6.55	99.80	105.70
26	14	1647	G	O5'-P-OP1	-6.55	99.80	105.70
26	14	1347	G	OP1-P-O3'	6.55	119.62	105.20
1	13	807	A	C8-N9-C4	-6.55	103.18	105.80
1	13	1374	A	C2-N3-C4	-6.55	107.32	110.60
26	1H	2435	A	N9-C4-C5	6.55	108.42	105.80
26	1H	2666	C	C6-N1-C2	-6.55	117.68	120.30
27	16	8	U	O5'-P-OP1	6.55	118.56	110.70
26	14	1972	A	OP2-P-O3'	6.55	119.61	105.20
26	1H	35	G	C5-C6-O6	6.55	132.53	128.60
26	1H	2228	G	C6-C5-N7	-6.55	126.47	130.40
1	13	818	G	C4-C5-N7	-6.55	108.18	110.80
26	14	1914	C	C6-N1-C2	-6.55	117.68	120.30
1	13	1228	C	C6-N1-C2	-6.55	117.68	120.30
26	1H	602	G	N3-C4-N9	6.55	129.93	126.00
26	14	1771	C	N1-C2-O2	-6.55	114.97	118.90
26	14	1938	A	N1-C6-N6	6.55	122.53	118.60
26	1H	383	U	C2-N1-C1'	-6.54	109.85	117.70
26	14	729	G	N3-C2-N2	-6.54	115.32	119.90
26	1H	528	A	C5-N7-C8	-6.54	100.63	103.90
26	1H	740	U	OP1-P-O3'	-6.54	90.81	105.20
26	1H	1475	G	N3-C4-N9	-6.54	122.08	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1754	C	C6-N1-C2	-6.54	117.68	120.30
55	Q8	44	LYS	CD-CE-NZ	6.54	126.75	111.70
1	13	1394	A	C8-N9-C4	6.54	108.42	105.80
26	1H	814	C	C2-N3-C4	-6.54	116.63	119.90
26	1H	1259	G	OP2-P-O3'	6.54	119.59	105.20
26	1H	1807	G	C5-C6-O6	-6.54	124.68	128.60
27	16	95	U	C5-C4-O4	6.54	129.82	125.90
26	14	529	A	C6-C5-N7	-6.54	127.72	132.30
26	1H	1614	A	C5-C6-N1	-6.54	114.43	117.70
26	1H	2032	G	C2-N3-C4	-6.54	108.63	111.90
26	1H	2245	U	OP1-P-O3'	6.54	119.58	105.20
1	1G	823	G	O5'-P-OP1	-6.54	99.81	105.70
26	14	503	A	C5-C6-N6	6.54	128.93	123.70
26	14	2841	C	C5-C6-N1	-6.54	117.73	121.00
26	1H	845	G	C8-N9-C4	6.54	109.02	106.40
26	1H	2054	A	OP2-P-O3'	6.54	119.58	105.20
26	1H	536	A	C5-C6-N1	6.54	120.97	117.70
26	1H	1698	A	N3-C4-N9	-6.54	122.17	127.40
26	14	828	U	N3-C2-O2	-6.54	117.62	122.20
26	14	1673	U	O5'-P-OP2	6.54	118.54	110.70
26	1H	2713	A	C5-C6-N1	-6.53	114.43	117.70
26	1H	2430	A	C8-N9-C1'	6.53	139.46	127.70
26	1H	1998	G	N3-C2-N2	6.53	124.47	119.90
26	14	123	G	C8-N9-C4	6.53	109.01	106.40
26	1H	941	A	N9-C4-C5	-6.53	103.19	105.80
26	1H	2080	G	N1-C6-O6	6.53	123.82	119.90
1	1G	615	C	C6-N1-C2	-6.53	117.69	120.30
26	14	197	A	OP2-P-O3'	6.53	119.56	105.20
1	13	1262	C	O5'-P-OP2	-6.53	99.83	105.70
26	1H	1644	C	N3-C2-O2	-6.53	117.33	121.90
26	1H	2307	G	C6-C5-N7	-6.53	126.48	130.40
26	14	2329	G	C5-C6-N1	6.53	114.76	111.50
1	13	1203	C	N3-C2-O2	-6.53	117.33	121.90
26	1H	56	A	N9-C4-C5	-6.53	103.19	105.80
26	14	2544	G	N9-C4-C5	-6.53	102.79	105.40
26	1H	1340	U	C5-C4-O4	-6.52	121.99	125.90
26	1H	528	A	N1-C2-N3	-6.52	126.04	129.30
26	14	1333	C	N3-C4-C5	6.52	124.51	121.90
26	14	2328	A	C5-C6-N6	-6.52	118.48	123.70
26	14	1761	C	N1-C2-O2	-6.52	114.99	118.90
26	14	2246	G	C5-N7-C8	-6.52	101.04	104.30
26	1H	489	G	N3-C4-C5	6.52	131.86	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1342	A	N9-C1'-C2'	6.52	122.47	114.00
26	1H	323	G	O5'-P-OP1	-6.51	99.84	105.70
26	1H	1192	G	N1-C2-N2	-6.51	110.34	116.20
1	1G	1500	A	N1-C6-N6	6.51	122.51	118.60
26	1H	1295	C	OP2-P-O3'	6.51	119.53	105.20
26	1H	1853	A	N1-C6-N6	6.51	122.51	118.60
26	1H	2375	G	OP2-P-O3'	6.51	119.53	105.20
23	2K	40	C	C5-C6-N1	6.51	124.25	121.00
26	1H	755	C	N3-C4-C5	-6.51	119.30	121.90
26	1H	2298	A	O5'-P-OP2	-6.51	99.84	105.70
26	14	252	G	C2-N3-C4	6.51	115.16	111.90
26	14	2037	G	C5-C6-O6	6.51	132.50	128.60
1	13	748	C	C5-C6-N1	6.51	124.25	121.00
26	1H	380	U	N1-C2-N3	6.51	118.80	114.90
26	1H	1674	G	C6-C5-N7	-6.51	126.50	130.40
1	1G	690	G	O4'-C1'-N9	6.51	113.41	108.20
26	14	2430	A	O5'-P-OP2	6.51	118.51	110.70
22	1K	75	C	C5-C6-N1	6.50	124.25	121.00
26	1H	2725	A	N9-C4-C5	6.50	108.40	105.80
26	14	710	G	N1-C6-O6	6.50	123.80	119.90
26	14	1121	C	C6-N1-C2	6.50	122.90	120.30
26	14	2065	C	N1-C2-O2	6.50	122.80	118.90
26	14	2713	A	C5-C6-N6	-6.50	118.50	123.70
26	1H	791	C	OP2-P-O3'	6.50	119.50	105.20
26	1H	1161	C	OP1-P-OP2	-6.50	109.85	119.60
26	14	1651	G	O5'-P-OP2	-6.50	99.85	105.70
46	H8	76	LEU	CA-CB-CG	6.50	130.25	115.30
26	1H	682	G	N9-C4-C5	-6.50	102.80	105.40
26	1H	974	G	N3-C2-N2	-6.50	115.35	119.90
26	14	2251	G	C4-C5-N7	-6.50	108.20	110.80
26	1H	940	G	C5-C6-O6	-6.50	124.70	128.60
26	1H	2318	G	C5-N7-C8	-6.50	101.05	104.30
26	14	1960	A	O5'-P-OP2	-6.50	99.85	105.70
24	3K	71	G	C4-C5-N7	-6.50	108.20	110.80
26	1H	330	A	C8-N9-C4	-6.50	103.20	105.80
26	1H	1923	U	O5'-P-OP1	6.50	118.49	110.70
26	1H	2359	C	C6-N1-C2	-6.50	117.70	120.30
26	1H	2390	U	O5'-P-OP2	6.50	118.49	110.70
26	14	764	A	N1-C2-N3	-6.50	126.05	129.30
26	1H	82	G	N1-C6-O6	-6.49	116.00	119.90
26	1H	1185	C	N3-C4-C5	-6.49	119.30	121.90
26	1H	1298	C	OP1-P-O3'	6.49	119.49	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	221	A	C8-N9-C4	-6.49	103.20	105.80
26	14	242	G	N9-C4-C5	-6.49	102.80	105.40
26	14	2392	A	N1-C6-N6	6.49	122.50	118.60
1	13	974	A	C5-C6-N6	-6.49	118.51	123.70
26	1H	214	G	C8-N9-C4	-6.49	103.80	106.40
26	1H	532	A	C5-N7-C8	-6.49	100.66	103.90
35	25	8	LEU	CA-CB-CG	6.49	130.22	115.30
26	1H	787	U	C5-C4-O4	6.49	129.79	125.90
26	14	210	C	C6-N1-C2	6.49	122.89	120.30
26	14	828	U	C4-C5-C6	6.49	123.59	119.70
26	1H	571	A	C8-N9-C4	6.49	108.39	105.80
26	1H	617	G	N3-C2-N2	6.49	124.44	119.90
26	1H	705	A	N1-C6-N6	6.49	122.49	118.60
27	16	31	C	N3-C2-O2	-6.49	117.36	121.90
26	1H	2490	G	N1-C6-O6	6.48	123.79	119.90
26	14	1142	U	N1-C2-O2	6.48	127.34	122.80
26	1H	117	G	N1-C6-O6	-6.48	116.01	119.90
26	1H	683	C	C6-N1-C2	6.48	122.89	120.30
26	1H	2549	G	C5-C6-O6	-6.48	124.71	128.60
1	1G	11	G	O5'-P-OP1	-6.48	99.86	105.70
26	14	665	C	N3-C4-C5	6.48	124.49	121.90
26	1H	825	C	C4-C5-C6	6.48	120.64	117.40
26	1H	908	C	N1-C2-O2	-6.48	115.01	118.90
26	1H	1950	G	C6-C5-N7	-6.48	126.51	130.40
26	14	465	G	O5'-P-OP2	6.48	118.48	110.70
26	14	2387	U	C2-N3-C4	-6.48	123.11	127.00
26	14	2707	G	C6-N1-C2	-6.48	121.21	125.10
1	13	762	C	N3-C4-N4	-6.48	113.47	118.00
26	1H	2352	A	N9-C4-C5	-6.48	103.21	105.80
26	14	2235	G	N3-C4-N9	6.48	129.89	126.00
26	14	2607	G	O5'-P-OP1	6.48	118.47	110.70
55	Q8	28	GLY	N-CA-C	6.48	129.29	113.10
26	14	698	C	OP1-P-OP2	6.47	129.31	119.60
57	3L	76	A	O4'-C1'-N9	6.47	113.38	108.20
26	1H	858	U	O5'-P-OP2	-6.47	99.88	105.70
26	1H	2330	G	N9-C4-C5	-6.47	102.81	105.40
26	1H	2600	A	N1-C6-N6	-6.47	114.72	118.60
1	13	1190	G	N1-C6-O6	6.47	123.78	119.90
26	1H	1369	G	C4-C5-N7	-6.47	108.21	110.80
1	13	788	U	OP2-P-O3'	6.46	119.42	105.20
1	13	974	A	C5-N7-C8	-6.46	100.67	103.90
26	1H	295	G	O5'-P-OP1	-6.46	99.88	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	133	C	C2-N3-C4	-6.46	116.67	119.90
1	13	605	U	C5-C4-O4	6.46	129.78	125.90
26	1H	686	G	C5-N7-C8	6.46	107.53	104.30
26	1H	1220	A	O5'-P-OP1	-6.46	99.88	105.70
26	1H	38	A	C2-N3-C4	6.46	113.83	110.60
26	1H	481	G	C5-C6-O6	-6.46	124.72	128.60
26	1H	739	G	C8-N9-C4	6.46	108.98	106.40
26	1H	1147	C	C6-N1-C2	6.46	122.88	120.30
26	1H	1315	C	N3-C2-O2	-6.46	117.38	121.90
26	1H	1757	U	OP1-P-O3'	6.46	119.41	105.20
26	1H	2318	G	N7-C8-N9	6.46	116.33	113.10
26	14	2426	A	N1-C6-N6	6.46	122.48	118.60
26	1H	470	A	N7-C8-N9	6.46	117.03	113.80
26	1H	514	A	C6-N1-C2	-6.46	114.72	118.60
26	1H	1376	C	C6-N1-C2	-6.46	117.72	120.30
26	14	1698	A	N7-C8-N9	6.46	117.03	113.80
26	1H	107	C	N3-C2-O2	6.46	126.42	121.90
26	1H	930	U	N1-C2-N3	6.46	118.78	114.90
26	1H	1324	G	N3-C2-N2	-6.46	115.38	119.90
26	1H	2712	U	O4'-C1'-N1	6.46	113.37	108.20
26	14	242	G	N7-C8-N9	-6.46	109.87	113.10
26	14	1359	A	C8-N9-C4	6.46	108.38	105.80
1	13	760	G	C5-N7-C8	-6.46	101.07	104.30
1	13	1498	U	P-O3'-C3'	6.46	127.45	119.70
1	1G	518	C	O5'-P-OP1	6.46	118.45	110.70
26	14	1658	C	C6-N1-C2	-6.46	117.72	120.30
26	1H	1394	U	C2-N3-C4	6.46	130.87	127.00
1	13	1158	C	N1-C2-O2	6.45	122.77	118.90
1	13	1276	G	C8-N9-C4	-6.45	103.82	106.40
26	1H	250	G	N7-C8-N9	6.45	116.33	113.10
26	1H	557	U	C5-C6-N1	-6.45	119.47	122.70
26	1H	1534	G	C8-N9-C4	-6.45	103.82	106.40
26	1H	2585	U	N1-C2-O2	6.45	127.32	122.80
1	1G	721	G	C4-N9-C1'	6.45	134.89	126.50
26	1H	774	A	N7-C8-N9	6.45	117.03	113.80
1	13	562	C	O5'-P-OP2	-6.45	99.89	105.70
1	1G	576	G	N1-C2-N2	-6.45	110.39	116.20
26	14	747	U	C6-N1-C2	6.45	124.87	121.00
26	1H	290	G	N3-C2-N2	6.45	124.41	119.90
26	1H	1938	A	O4'-C1'-N9	6.45	113.36	108.20
26	1H	2737	G	N1-C6-O6	6.45	123.77	119.90
1	13	1225	A	N9-C4-C5	-6.45	103.22	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	448	U	N3-C4-C5	-6.45	110.73	114.60
26	1H	463	G	C8-N9-C4	6.45	108.98	106.40
26	1H	835	A	N9-C4-C5	6.45	108.38	105.80
26	1H	1293	C	O5'-P-OP2	6.45	118.44	110.70
27	1J	70	C	C6-N1-C2	-6.45	117.72	120.30
1	13	1202	G	C5-C6-O6	6.45	132.47	128.60
26	1H	789	A	O4'-C1'-N9	-6.45	103.04	108.20
26	1H	2782	G	N1-C6-O6	6.45	123.77	119.90
26	14	2610	C	N1-C2-O2	6.45	122.77	118.90
26	14	2755	C	C5-C6-N1	6.45	124.22	121.00
1	13	570	G	C8-N9-C4	-6.44	103.82	106.40
1	13	1517	G	C4-C5-N7	6.44	113.38	110.80
26	1H	1136	G	C2-N3-C4	6.44	115.12	111.90
26	1H	1199	U	N1-C2-O2	6.44	127.31	122.80
26	1H	2269	A	N1-C6-N6	6.44	122.47	118.60
26	1H	730	C	N3-C4-C5	6.44	124.48	121.90
26	14	2419	U	OP1-P-O3'	6.44	119.37	105.20
26	1H	586	A	N1-C6-N6	-6.44	114.74	118.60
26	1H	868	U	N1-C2-O2	6.44	127.31	122.80
26	1H	965	C	OP1-P-OP2	6.44	129.26	119.60
26	1H	1821	A	N3-C4-C5	-6.44	122.29	126.80
26	14	770	G	C8-N9-C4	6.44	108.98	106.40
26	14	1394	U	O5'-P-OP2	6.44	118.43	110.70
26	14	1978	A	OP2-P-O3'	6.44	119.37	105.20
26	14	2463	C	C5-C6-N1	-6.44	117.78	121.00
26	1H	69	C	C5-C4-N4	6.44	124.71	120.20
26	14	1249	U	N3-C4-O4	6.44	123.91	119.40
26	14	1304	C	N1-C2-O2	6.44	122.76	118.90
26	14	1435	G	C8-N9-C4	6.44	108.97	106.40
26	1H	577	G	OP1-P-OP2	-6.44	109.94	119.60
1	13	312	C	OP2-P-O3'	6.43	119.36	105.20
26	1H	279	C	C6-N1-C2	-6.43	117.73	120.30
26	1H	528	A	C4-N9-C1'	-6.43	114.72	126.30
26	1H	985	C	C5-C6-N1	-6.43	117.78	121.00
26	1H	2582	G	N3-C2-N2	6.43	124.40	119.90
26	14	530	G	N3-C4-N9	-6.43	122.14	126.00
26	14	2334	G	N3-C4-N9	6.43	129.86	126.00
26	1H	479	A	N7-C8-N9	-6.43	110.58	113.80
26	1H	2080	G	C5-C6-O6	-6.43	124.74	128.60
26	14	83	G	N1-C6-O6	6.43	123.76	119.90
26	14	747	U	N1-C2-N3	-6.43	111.04	114.90
26	1H	422	A	N1-C6-N6	6.43	122.46	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1307	A	N1-C2-N3	6.43	132.52	129.30
26	14	2235	G	N3-C4-C5	-6.43	125.39	128.60
27	16	115	G	N9-C4-C5	-6.43	102.83	105.40
26	14	1898	U	N1-C2-N3	6.43	118.76	114.90
26	14	1980	G	C5-C6-O6	-6.43	124.74	128.60
1	13	792	A	C3'-C2'-C1'	-6.43	96.36	101.50
26	14	1251	C	C6-N1-C2	-6.43	117.73	120.30
26	14	1564	C	N3-C4-N4	-6.43	113.50	118.00
26	1H	2430	A	C4-N9-C1'	-6.43	114.73	126.30
26	14	1930	G	C4-C5-N7	-6.43	108.23	110.80
1	13	302	G	N3-C4-C5	-6.42	125.39	128.60
26	1H	370	G	C5-C6-O6	6.42	132.45	128.60
26	1H	704	G	N3-C2-N2	-6.42	115.40	119.90
26	1H	1940	U	N1-C2-O2	-6.42	118.30	122.80
26	1H	739	G	N7-C8-N9	-6.42	109.89	113.10
26	1H	832	G	C4-C5-C6	6.42	122.65	118.80
26	14	2235	G	OP1-P-OP2	-6.42	109.97	119.60
26	1H	667	U	N3-C4-O4	6.42	123.89	119.40
26	1H	1761	C	C5-C4-N4	-6.42	115.70	120.20
26	14	1251	C	C5-C4-N4	-6.42	115.71	120.20
26	1H	391	G	C2-N3-C4	-6.42	108.69	111.90
26	1H	1636	C	N1-C2-O2	-6.42	115.05	118.90
26	1H	2461	C	N3-C4-C5	6.42	124.47	121.90
26	1H	2578	G	N1-C6-O6	-6.42	116.05	119.90
23	2K	62	C	N1-C2-O2	6.42	122.75	118.90
26	1H	290	G	N3-C4-N9	6.42	129.85	126.00
26	1H	1446	C	C6-N1-C2	-6.42	117.73	120.30
26	1H	2688	U	C5-C6-N1	-6.42	119.49	122.70
26	1H	2826	A	N7-C8-N9	-6.42	110.59	113.80
26	14	775	G	N1-C6-O6	-6.42	116.05	119.90
1	13	35	G	C5-C6-N1	-6.42	108.29	111.50
26	14	1955	U	C5-C6-N1	-6.42	119.49	122.70
1	13	800	G	N1-C6-O6	6.41	123.75	119.90
1	13	1362(A)	C	C6-N1-C2	6.41	122.86	120.30
26	14	1831	G	C2-N3-C4	-6.41	108.69	111.90
1	13	111	G	N1-C6-O6	6.41	123.75	119.90
1	13	875	C	C6-N1-C2	-6.41	117.74	120.30
26	1H	1428	C	N3-C4-C5	6.41	124.46	121.90
26	1H	2778	A	O5'-P-OP2	-6.41	99.93	105.70
26	14	1366	A	N1-C6-N6	6.41	122.45	118.60
1	13	762	C	C5-C6-N1	-6.41	117.80	121.00
26	1H	783	A	N9-C1'-C2'	-6.41	104.95	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	426	C	N3-C2-O2	-6.41	117.41	121.90
26	14	847	U	C6-N1-C1'	6.41	130.17	121.20
26	1H	1663	C	N3-C4-C5	6.41	124.46	121.90
26	1H	2275	C	C6-N1-C2	-6.41	117.74	120.30
26	1H	2774	C	C6-N1-C2	6.41	122.86	120.30
26	14	450	G	N1-C6-O6	-6.41	116.06	119.90
26	14	1585	C	N1-C2-O2	6.41	122.74	118.90
26	1H	2373	G	C2-N3-C4	-6.40	108.70	111.90
26	1H	793	A	C6-N1-C2	-6.40	114.76	118.60
26	1H	1837	C	N1-C2-O2	6.40	122.74	118.90
26	1H	1984	G	C5-C6-O6	6.40	132.44	128.60
26	1H	2357	U	OP2-P-O3'	6.40	119.29	105.20
26	14	1355	G	C8-N9-C4	-6.40	103.84	106.40
26	14	2700	C	C2-N3-C4	-6.40	116.70	119.90
26	14	2830	G	N3-C4-N9	-6.40	122.16	126.00
1	13	781	A	C5-C6-N6	-6.40	118.58	123.70
26	1H	815	C	N3-C4-N4	-6.40	113.52	118.00
26	1H	1567	A	C8-N9-C4	-6.40	103.24	105.80
26	14	1950	G	N3-C4-N9	6.40	129.84	126.00
26	14	2432	A	N1-C6-N6	6.40	122.44	118.60
1	13	305	G	C4-C5-N7	-6.40	108.24	110.80
1	13	575	G	C5-C6-O6	6.40	132.44	128.60
26	14	1831	G	C6-C5-N7	-6.40	126.56	130.40
1	13	576	G	C6-C5-N7	-6.40	126.56	130.40
26	1H	2346	A	C4-N9-C1'	6.40	137.81	126.30
26	1H	2451	A	C5-C6-N6	6.40	128.82	123.70
26	14	1618	A	N7-C8-N9	6.40	117.00	113.80
26	1H	1331	A	N9-C4-C5	6.40	108.36	105.80
26	14	475	U	N3-C4-C5	-6.40	110.76	114.60
1	13	1281	U	N1-C2-O2	6.39	127.28	122.80
23	2K	57	C	OP1-P-OP2	6.39	129.19	119.60
26	1H	682	G	C8-N9-C1'	-6.39	118.69	127.00
26	1H	1303	G	O5'-P-OP2	-6.39	99.94	105.70
26	1H	2609	U	N3-C4-O4	-6.39	114.92	119.40
27	1J	103	U	N3-C4-O4	-6.39	114.92	119.40
26	1H	1365	A	C2-N3-C4	-6.39	107.40	110.60
26	1H	1407	C	OP1-P-O3'	6.39	119.26	105.20
26	1H	2403	C	N1-C2-O2	-6.39	115.06	118.90
27	16	14	U	OP1-P-OP2	6.39	129.19	119.60
1	1G	906	G	C6-C5-N7	-6.39	126.56	130.40
26	14	1374	G	N3-C2-N2	-6.39	115.42	119.90
26	14	1835	G	N1-C6-O6	-6.39	116.06	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1428	C	C2-N3-C4	-6.39	116.70	119.90
26	1H	2274	A	OP2-P-O3'	6.39	119.26	105.20
44	F8	70	LEU	CA-CB-CG	6.39	130.00	115.30
26	14	1396	U	C2-N1-C1'	6.39	125.37	117.70
26	14	1565	C	N3-C4-N4	6.39	122.47	118.00
26	14	1773	A	O5'-P-OP1	6.39	118.37	110.70
26	1H	1828	G	OP1-P-OP2	-6.39	110.02	119.60
26	14	126	A	O5'-P-OP2	-6.39	99.95	105.70
26	14	247	G	C4-C5-N7	6.39	113.36	110.80
26	14	1496	A	C4-C5-N7	6.39	113.89	110.70
26	14	2511	U	O5'-P-OP2	-6.39	99.95	105.70
1	13	896	C	C5-C6-N1	-6.39	117.81	121.00
26	1H	1367	A	C2-N3-C4	-6.39	107.41	110.60
26	1H	1996	C	C6-N1-C2	6.39	122.85	120.30
26	1H	2391	G	C6-N1-C2	6.39	128.93	125.10
26	1H	239	U	C5-C6-N1	-6.38	119.51	122.70
26	1H	2725	A	C8-N9-C4	-6.38	103.25	105.80
26	14	2712	U	C6-N1-C1'	-6.38	112.26	121.20
26	1H	1932	A	N1-C6-N6	6.38	122.43	118.60
26	14	2731	G	N7-C8-N9	6.38	116.29	113.10
1	13	1486	G	N3-C4-C5	6.38	131.79	128.60
26	14	2320	A	O5'-P-OP1	-6.38	99.96	105.70
26	14	2611	U	C5-C6-N1	6.38	125.89	122.70
26	14	251	A	N1-C2-N3	6.38	132.49	129.30
26	1H	199	A	N1-C2-N3	-6.38	126.11	129.30
26	1H	812	C	C6-N1-C2	-6.38	117.75	120.30
26	1H	2363	C	N3-C4-N4	-6.38	113.53	118.00
26	1H	2466	C	N3-C4-C5	6.38	124.45	121.90
26	1H	412	A	C8-N9-C4	6.38	108.35	105.80
26	1H	682	G	N3-C2-N2	6.38	124.36	119.90
26	1H	1312	U	O5'-P-OP2	6.38	118.35	110.70
26	14	1145	C	C6-N1-C2	-6.38	117.75	120.30
26	1H	1610	A	C6-C5-N7	-6.38	127.84	132.30
26	1H	372	G	C5-C6-O6	6.37	132.42	128.60
26	1H	2359	C	N3-C2-O2	-6.37	117.44	121.90
1	1G	1469	G	C5-C6-O6	-6.37	124.78	128.60
26	14	2284	C	N1-C2-O2	-6.37	115.08	118.90
26	1H	1958	C	N3-C4-N4	6.37	122.46	118.00
1	1G	274	A	N7-C8-N9	-6.37	110.61	113.80
26	14	2380	C	C2-N3-C4	-6.37	116.71	119.90
26	14	2503	A	C5-C6-N1	6.37	120.89	117.70
26	14	2525	G	OP2-P-O3'	6.37	119.22	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	857	C	N3-C4-C5	-6.37	119.35	121.90
26	1H	457	A	O5'-P-OP2	-6.37	99.97	105.70
26	1H	1198	U	C2-N3-C4	-6.37	123.18	127.00
26	1H	2779	U	N3-C4-O4	-6.37	114.94	119.40
26	1H	1351	C	C6-N1-C2	-6.37	117.75	120.30
39	A8	30	ARG	NE-CZ-NH1	6.37	123.48	120.30
1	13	108	G	C4-C5-N7	6.37	113.35	110.80
1	13	587	G	C5-C6-O6	-6.37	124.78	128.60
26	1H	146	G	N9-C4-C5	-6.37	102.85	105.40
26	1H	1772	G	N3-C4-N9	6.37	129.82	126.00
26	1H	1798	U	O5'-P-OP2	-6.37	99.97	105.70
26	1H	1947	C	C5-C4-N4	-6.37	115.74	120.20
1	1G	108	G	C8-N9-C4	-6.37	103.85	106.40
26	14	2058	A	N9-C4-C5	6.37	108.35	105.80
26	14	2598	A	OP2-P-O3'	6.37	119.20	105.20
1	13	691	G	C5-C6-O6	-6.36	124.78	128.60
26	1H	2581	G	OP1-P-O3'	6.36	119.20	105.20
26	14	1659	U	O5'-P-OP1	-6.36	99.97	105.70
26	14	1964	G	N3-C4-C5	-6.36	125.42	128.60
26	14	2628	C	N3-C4-C5	6.36	124.45	121.90
26	1H	121	G	C6-N1-C2	-6.36	121.28	125.10
26	1H	946	G	N7-C8-N9	-6.36	109.92	113.10
26	1H	1599	C	N3-C4-N4	-6.36	113.55	118.00
26	14	819	A	O5'-P-OP1	6.36	118.33	110.70
26	14	784	A	P-O3'-C3'	6.36	127.33	119.70
26	14	2068	U	OP1-P-O3'	6.36	119.19	105.20
26	14	2506	U	N3-C4-O4	6.36	123.85	119.40
26	1H	1773	A	O5'-P-OP1	6.36	118.33	110.70
26	1H	2374	C	C4-C5-C6	6.36	120.58	117.40
1	1G	274	A	C8-N9-C4	6.36	108.34	105.80
1	1G	328	C	P-O3'-C3'	6.36	127.33	119.70
26	14	1409	C	OP1-P-OP2	6.36	129.13	119.60
1	1G	1305	G	N3-C4-N9	-6.35	122.19	126.00
26	14	791	C	N1-C2-O2	-6.35	115.09	118.90
26	1H	1265	A	O5'-P-OP2	-6.35	99.98	105.70
1	13	1359	C	O5'-P-OP1	-6.35	99.98	105.70
26	1H	503	A	C5-C6-N6	6.35	128.78	123.70
1	1G	1502	A	C6-C5-N7	-6.35	127.85	132.30
1	1G	1234	C	N3-C2-O2	-6.35	117.46	121.90
26	14	130	C	C2-N3-C4	-6.35	116.73	119.90
26	14	1941	C	C6-N1-C2	-6.35	117.76	120.30
26	1H	99	U	N3-C2-O2	-6.35	117.76	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	266	G	O5'-P-OP2	-6.35	99.99	105.70
26	14	458	G	O4'-C1'-N9	6.35	113.28	108.20
26	1H	776	G	N3-C2-N2	-6.35	115.46	119.90
26	1H	915	C	O4'-C1'-N1	6.35	113.28	108.20
26	1H	1698	A	C8-N9-C4	-6.35	103.26	105.80
26	1H	1252	G	C8-N9-C4	6.34	108.94	106.40
26	1H	1806	C	O5'-P-OP2	-6.34	99.99	105.70
26	1H	1998	G	C6-C5-N7	-6.34	126.59	130.40
1	1G	353	A	N1-C6-N6	6.34	122.41	118.60
26	14	1346	G	N7-C8-N9	-6.34	109.93	113.10
26	14	1379	A	N9-C1'-C2'	6.34	122.25	114.00
26	1H	1229(A)	G	N1-C6-O6	6.34	123.71	119.90
26	1H	1663	C	C2-N3-C4	-6.34	116.73	119.90
26	1H	2070	G	N1-C6-O6	-6.34	116.09	119.90
57	3L	1	G	N9-C1'-C2'	-6.34	105.02	112.00
27	1J	103	U	C5-C6-N1	-6.34	119.53	122.70
1	13	525	C	C6-N1-C2	-6.34	117.76	120.30
26	1H	1899	G	N1-C2-N3	6.34	127.70	123.90
26	1H	2354	G	C8-N9-C1'	-6.34	118.76	127.00
26	14	330	A	N3-C4-C5	6.34	131.24	126.80
26	1H	247	G	C4-C5-N7	6.34	113.33	110.80
26	1H	429	A	O5'-P-OP1	-6.34	100.00	105.70
26	1H	673	C	N3-C4-N4	6.34	122.44	118.00
26	1H	702	G	N1-C6-O6	-6.33	116.10	119.90
26	14	529	A	N1-C6-N6	6.33	122.40	118.60
26	1H	1391	U	N1-C2-O2	6.33	127.23	122.80
26	1H	1398	C	O5'-P-OP1	-6.33	100.00	105.70
26	1H	2033	A	N7-C8-N9	6.33	116.97	113.80
26	1H	2249	U	N1-C2-O2	6.33	127.23	122.80
57	3L	76	A	C4-C5-N7	6.33	113.87	110.70
26	14	301	G	C8-N9-C1'	6.33	135.24	127.00
26	14	2314	C	N1-C2-O2	6.33	122.70	118.90
26	1H	2297	C	N3-C4-N4	-6.33	113.57	118.00
26	14	391	G	C8-N9-C1'	-6.33	118.77	127.00
26	14	613	U	N1-C2-O2	6.33	127.23	122.80
26	14	830	G	C8-N9-C4	6.33	108.93	106.40
26	14	1285	G	OP2-P-O3'	6.33	119.13	105.20
26	1H	116	C	C4-C5-C6	6.33	120.56	117.40
1	13	1232	U	O5'-P-OP2	-6.33	100.00	105.70
26	1H	664	C	N1-C2-N3	6.33	123.63	119.20
26	1H	2288	A	N1-C6-N6	6.33	122.40	118.60
27	16	49	C	N3-C4-N4	6.33	122.43	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	673	C	O5'-P-OP1	6.33	118.29	110.70
26	14	691	C	N3-C4-C5	-6.33	119.37	121.90
26	1H	1673	U	C2-N3-C4	-6.33	123.20	127.00
27	16	99	A	N1-C6-N6	-6.33	114.81	118.60
26	14	2062	A	C4-C5-C6	-6.33	113.84	117.00
26	14	2595	G	C4-C5-C6	-6.33	115.00	118.80
26	1H	207	A	N1-C6-N6	6.32	122.39	118.60
26	1H	734	A	O5'-P-OP2	-6.32	100.01	105.70
26	14	2304	G	C8-N9-C4	-6.32	103.87	106.40
26	1H	2443	C	N3-C4-N4	6.32	122.42	118.00
1	13	584	G	N1-C2-N2	-6.32	110.51	116.20
1	13	1374	A	O4'-C1'-N9	6.32	113.25	108.20
26	1H	584	C	OP1-P-O3'	6.32	119.10	105.20
26	1H	1888	G	C8-N9-C1'	-6.32	118.79	127.00
26	1H	2247	A	C8-N9-C4	6.32	108.33	105.80
26	14	1142(A)	A	C2-N3-C4	-6.32	107.44	110.60
26	14	1393	A	C2-N3-C4	6.32	113.76	110.60
26	1H	1772	G	N3-C2-N2	6.32	124.32	119.90
26	1H	1786	A	N3-C4-N9	-6.32	122.35	127.40
26	14	1790	C	C2-N3-C4	-6.32	116.74	119.90
26	14	2557	G	N3-C4-C5	-6.32	125.44	128.60
1	13	865	A	N1-C6-N6	6.31	122.39	118.60
26	1H	81	G	C5-C6-O6	6.31	132.39	128.60
26	1H	691	C	C5-C4-N4	-6.31	115.78	120.20
26	1H	2430	A	N7-C8-N9	6.31	116.96	113.80
1	1G	507	C	O5'-P-OP1	-6.31	100.02	105.70
26	1H	77	C	N3-C4-N4	6.31	122.42	118.00
26	1H	446	G	C6-C5-N7	-6.31	126.61	130.40
26	14	93	C	C5-C6-N1	6.31	124.16	121.00
26	1H	139	G	O5'-P-OP1	-6.31	100.02	105.70
26	14	667	U	N1-C2-O2	-6.31	118.38	122.80
26	14	1357	U	N3-C4-C5	-6.31	110.81	114.60
26	14	2062	A	O5'-P-OP2	-6.31	100.02	105.70
1	13	900	A	OP1-P-OP2	-6.31	110.14	119.60
22	1K	75	C	N1-C2-O2	6.31	122.69	118.90
23	2K	43	G	C5-C6-O6	6.31	132.38	128.60
26	1H	1404	C	OP1-P-OP2	6.31	129.06	119.60
26	14	116	C	O5'-P-OP2	-6.31	100.02	105.70
26	14	121	G	C6-N1-C2	-6.31	121.32	125.10
26	14	127	A	C5-C6-N1	6.31	120.85	117.70
26	14	1336	A	C5-C6-N1	6.31	120.85	117.70
26	14	1614	A	C8-N9-C4	-6.31	103.28	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1830	C	N3-C4-C5	6.31	124.42	121.90
26	14	2359	C	C5-C4-N4	6.31	124.61	120.20
23	2K	48	U	OP2-P-O3'	6.30	119.07	105.20
26	1H	48	G	OP2-P-O3'	6.30	119.07	105.20
26	1H	752	A	P-O3'-C3'	6.30	127.27	119.70
26	1H	929	G	O5'-P-OP1	-6.30	100.03	105.70
26	1H	1761	C	O5'-P-OP2	6.30	118.27	110.70
26	14	1020	A	N1-C6-N6	6.30	122.38	118.60
26	14	1295	C	C2-N3-C4	-6.30	116.75	119.90
22	1K	76	A	C4-C5-N7	6.30	113.85	110.70
26	1H	88	G	N1-C6-O6	-6.30	116.12	119.90
26	1H	114	U	OP1-P-O3'	6.30	119.07	105.20
1	1G	748	C	P-O3'-C3'	6.30	127.26	119.70
26	14	741	G	O5'-P-OP2	6.30	118.26	110.70
26	14	2255	G	O5'-P-OP2	-6.30	100.03	105.70
1	13	1335	C	C6-N1-C2	6.30	122.82	120.30
1	1G	1502	A	C5-N7-C8	-6.30	100.75	103.90
26	14	914	C	OP1-P-O3'	6.30	119.06	105.20
26	14	2769	C	C6-N1-C2	-6.30	117.78	120.30
1	13	1278	U	O5'-P-OP2	-6.30	100.03	105.70
1	13	1502	A	N1-C2-N3	6.30	132.45	129.30
26	1H	628	G	N1-C6-O6	-6.30	116.12	119.90
26	1H	1271	G	C8-N9-C4	6.30	108.92	106.40
26	1H	1835	G	N3-C2-N2	6.30	124.31	119.90
26	1H	1969	A	C4-C5-N7	-6.30	107.55	110.70
26	14	2020	A	C5-C6-N1	6.30	120.85	117.70
26	14	2572	A	O5'-P-OP1	-6.29	100.03	105.70
27	1J	103	U	C2-N1-C1'	-6.29	110.15	117.70
26	1H	835	A	C6-N1-C2	-6.29	114.82	118.60
26	1H	1597	A	O4'-C1'-N9	6.29	113.23	108.20
26	1H	2072	G	OP1-P-O3'	6.29	119.05	105.20
26	1H	1331	A	N1-C6-N6	-6.29	114.83	118.60
26	1H	2261	C	O5'-P-OP1	6.29	118.25	110.70
26	1H	1300	U	C2-N3-C4	-6.29	123.23	127.00
26	1H	1806	C	OP1-P-OP2	6.29	129.03	119.60
26	1H	2502	G	C5-C6-O6	-6.29	124.83	128.60
26	1H	301	G	C8-N9-C4	6.29	108.92	106.40
26	1H	422	A	C2-N3-C4	-6.29	107.46	110.60
26	1H	537	C	N1-C2-O2	6.29	122.67	118.90
26	1H	650	C	C6-N1-C2	-6.29	117.78	120.30
26	1H	845	G	C2-N3-C4	-6.29	108.76	111.90
26	1H	2737	G	C5-C6-O6	-6.29	124.83	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	179	G	C8-N9-C4	6.29	108.92	106.40
26	14	365	C	C6-N1-C2	-6.29	117.78	120.30
26	14	679	C	N1-C2-O2	-6.29	115.13	118.90
26	14	737	C	N1-C2-O2	-6.29	115.13	118.90
26	14	922	U	O5'-P-OP1	-6.29	100.04	105.70
26	1H	2578	G	C8-N9-C4	6.29	108.92	106.40
1	1G	812	C	N3-C4-C5	-6.29	119.39	121.90
1	13	253	U	OP2-P-O3'	6.28	119.03	105.20
26	1H	973	A	C5-C6-N1	-6.28	114.56	117.70
26	1H	989	G	N3-C2-N2	-6.28	115.50	119.90
26	1H	1939	U	N3-C4-C5	6.28	118.37	114.60
26	1H	2532	G	N1-C6-O6	6.28	123.67	119.90
1	13	668	G	C8-N9-C4	-6.28	103.89	106.40
1	13	582	U	C5-C6-N1	-6.28	119.56	122.70
26	1H	793	A	C8-N9-C4	-6.28	103.29	105.80
26	14	1938	A	N9-C4-C5	-6.28	103.29	105.80
26	1H	1249	U	O5'-P-OP1	-6.28	100.05	105.70
26	1H	2582	G	C5-C6-O6	6.28	132.37	128.60
27	16	79	C	N3-C2-O2	-6.28	117.50	121.90
1	1G	963	G	N3-C4-N9	6.28	129.77	126.00
1	13	564	C	C2-N3-C4	6.28	123.04	119.90
26	1H	265	A	C6-C5-N7	-6.28	127.91	132.30
26	1H	2335	A	O4'-C1'-N9	6.28	113.22	108.20
1	1G	912	C	O5'-P-OP2	-6.28	100.05	105.70
26	14	1351	C	C6-N1-C2	6.28	122.81	120.30
26	14	1984	G	OP1-P-OP2	6.28	129.01	119.60
26	14	2346	A	C2-N3-C4	-6.28	107.46	110.60
26	14	2464	C	N3-C4-C5	6.28	124.41	121.90
26	1H	2070	G	N9-C4-C5	-6.28	102.89	105.40
26	1H	2600	A	N3-C4-C5	-6.28	122.41	126.80
26	1H	2621	A	C2-N3-C4	-6.28	107.46	110.60
27	16	98	G	OP1-P-OP2	6.28	129.01	119.60
26	14	559	G	C5-C6-N1	-6.28	108.36	111.50
26	14	1786	A	N1-C6-N6	6.28	122.36	118.60
26	14	1820	U	O5'-P-OP2	6.28	118.23	110.70
26	14	1966	A	N1-C6-N6	6.28	122.36	118.60
26	14	2501	C	C6-N1-C1'	6.28	128.33	120.80
26	14	1779	U	C5-C4-O4	-6.27	122.14	125.90
26	14	2072	G	OP1-P-OP2	-6.27	110.19	119.60
1	13	815	A	N1-C2-N3	6.27	132.44	129.30
26	1H	728	G	N1-C6-O6	6.27	123.66	119.90
26	1H	932	G	OP2-P-O3'	6.27	119.00	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	974	G	N1-C6-O6	6.27	123.66	119.90
26	1H	1135	C	C2-N1-C1'	6.27	125.70	118.80
26	1H	2307	G	C4-C5-N7	6.27	113.31	110.80
1	1G	691	G	C5-C6-O6	-6.27	124.84	128.60
1	1G	1145	C	C2-N1-C1'	6.27	125.70	118.80
26	1H	447	A	N1-C6-N6	-6.27	114.84	118.60
26	14	1379	A	N1-C6-N6	6.27	122.36	118.60
1	13	1526	G	C5-C6-O6	-6.27	124.84	128.60
26	1H	834	C	OP2-P-O3'	6.27	118.99	105.20
26	1H	1413	G	N7-C8-N9	6.27	116.23	113.10
26	1H	2439	A	O4'-C1'-N9	-6.27	103.19	108.20
26	14	1372	U	N1-C2-O2	-6.27	118.41	122.80
26	14	1564	C	N3-C2-O2	-6.27	117.51	121.90
26	1H	958	U	O5'-P-OP1	6.27	118.22	110.70
26	14	453	C	C2-N1-C1'	-6.27	111.91	118.80
26	14	1886	C	O5'-P-OP1	-6.27	100.06	105.70
26	1H	726	G	O5'-P-OP2	-6.27	100.06	105.70
26	1H	1790	C	O5'-P-OP1	6.27	118.22	110.70
26	1H	781	A	C8-N9-C4	6.26	108.31	105.80
26	1H	908	C	C2-N3-C4	-6.26	116.77	119.90
1	1G	1337	G	N3-C4-C5	6.26	131.73	128.60
1	1G	1399	C	C5-C4-N4	-6.26	115.81	120.20
1	1G	1512	U	O5'-P-OP2	-6.26	100.06	105.70
26	14	1283	G	N3-C4-N9	6.26	129.76	126.00
26	1H	203	C	O5'-P-OP2	6.26	118.22	110.70
26	1H	645	C	C6-N1-C2	-6.26	117.80	120.30
26	1H	1339	G	C5-C6-O6	-6.26	124.84	128.60
1	1G	528	C	O4'-C1'-N1	6.26	113.21	108.20
26	1H	1380	G	C4-C5-C6	6.26	122.56	118.80
26	1H	1611	C	C6-N1-C2	6.26	122.80	120.30
26	1H	1899	G	C5-N7-C8	-6.26	101.17	104.30
26	1H	2506	U	C2-N1-C1'	6.26	125.21	117.70
26	14	737	C	C6-N1-C2	6.26	122.80	120.30
1	1G	932	C	N3-C2-O2	-6.26	117.52	121.90
26	14	1903	G	C4-C5-N7	-6.26	108.30	110.80
1	13	121	C	N1-C2-O2	6.26	122.65	118.90
1	13	172	A	C8-N9-C4	-6.26	103.30	105.80
26	1H	2346	A	N1-C6-N6	6.26	122.35	118.60
1	1G	244	U	C5-C4-O4	-6.26	122.15	125.90
26	1H	749	C	N1-C2-O2	6.25	122.65	118.90
26	1H	245	G	C6-C5-N7	-6.25	126.65	130.40
26	1H	263	C	O5'-P-OP1	6.25	118.20	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	723	U	C5-C6-N1	6.25	125.83	122.70
26	14	729	G	N1-C6-O6	6.25	123.65	119.90
26	1H	113	G	N3-C4-N9	-6.25	122.25	126.00
26	1H	835	A	N3-C4-C5	-6.25	122.42	126.80
26	1H	842	G	N3-C4-C5	6.25	131.72	128.60
26	1H	1662	C	C5-C6-N1	-6.25	117.87	121.00
26	14	2314	C	C6-N1-C2	-6.25	117.80	120.30
26	1H	1967	C	N3-C4-C5	-6.25	119.40	121.90
26	1H	2377	A	N1-C6-N6	6.25	122.35	118.60
26	14	1904	G	O5'-P-OP2	-6.25	100.08	105.70
1	13	936	C	N3-C2-O2	-6.25	117.53	121.90
26	1H	127	A	N1-C6-N6	6.25	122.35	118.60
26	1H	2752	C	C5-C6-N1	6.25	124.12	121.00
1	1G	1519	A	C5-C6-N6	6.25	128.70	123.70
26	14	1570	A	C4-C5-C6	6.25	120.12	117.00
26	14	2071	A	C6-N1-C2	-6.25	114.85	118.60
26	14	2689	U	N1-C2-N3	6.25	118.65	114.90
23	2K	35	C	C6-N1-C1'	-6.25	113.30	120.80
26	1H	660	G	C5-N7-C8	-6.25	101.18	104.30
26	1H	1891	G	N1-C6-O6	6.25	123.65	119.90
1	13	833	U	C2-N1-C1'	-6.25	110.21	117.70
26	1H	1026	U	C2-N1-C1'	-6.25	110.21	117.70
26	1H	1978	A	N9-C4-C5	6.25	108.30	105.80
26	14	788	A	O5'-P-OP1	-6.25	100.08	105.70
26	1H	685	A	C5-N7-C8	-6.24	100.78	103.90
26	1H	2271	G	C4-N9-C1'	6.24	134.62	126.50
26	1H	2454	G	N1-C2-N2	-6.24	110.58	116.20
26	1H	130	C	C5-C4-N4	-6.24	115.83	120.20
26	1H	1496	A	C6-C5-N7	-6.24	127.93	132.30
26	14	729	G	N1-C2-N2	6.24	121.82	116.20
26	14	1695	G	C4-C5-N7	6.24	113.30	110.80
26	14	1632	A	C6-C5-N7	-6.24	127.93	132.30
27	16	69	G	OP2-P-O3'	6.24	118.93	105.20
1	1G	136	C	N3-C2-O2	-6.24	117.53	121.90
26	14	2329	G	C8-N9-C4	6.24	108.89	106.40
26	14	2624	G	C5-C6-O6	-6.24	124.86	128.60
26	1H	396	G	C5-C6-O6	-6.24	124.86	128.60
26	14	1324	G	N1-C6-O6	6.24	123.64	119.90
26	1H	690	G	C4-C5-C6	6.24	122.54	118.80
26	1H	1470	G	N1-C6-O6	6.24	123.64	119.90
26	14	1329	U	N1-C2-N3	6.24	118.64	114.90
26	14	1377	G	N3-C2-N2	-6.24	115.53	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2595	G	C4-N9-C1'	-6.24	118.39	126.50
1	13	811	C	N3-C4-C5	6.23	124.39	121.90
26	1H	344	G	N3-C4-C5	-6.23	125.48	128.60
26	1H	1264	G	OP1-P-O3'	6.23	118.91	105.20
26	1H	1899	G	C5-C6-N1	-6.23	108.38	111.50
26	14	2689	U	OP1-P-O3'	-6.23	91.49	105.20
26	1H	667	U	C4-C5-C6	6.23	123.44	119.70
26	1H	845	G	C5-N7-C8	-6.23	101.18	104.30
26	1H	1301	A	N9-C4-C5	-6.23	103.31	105.80
26	1H	2817	G	O5'-P-OP2	-6.23	100.09	105.70
26	14	74	A	C6-N1-C2	6.23	122.34	118.60
26	14	2700	C	C6-N1-C2	6.23	122.79	120.30
26	14	2702	U	C6-N1-C1'	-6.23	112.47	121.20
26	1H	2375	G	C5-C6-N1	6.23	114.61	111.50
26	1H	2449	U	OP2-P-O3'	6.23	118.91	105.20
26	14	668	G	N3-C4-C5	6.23	131.72	128.60
26	14	2328	A	C6-N1-C2	-6.23	114.86	118.60
1	13	936	C	N1-C2-O2	6.23	122.64	118.90
26	1H	1912	A	O5'-P-OP2	-6.23	100.09	105.70
26	1H	800	A	N1-C6-N6	-6.23	114.86	118.60
26	14	1632	A	C4-C5-N7	6.23	113.81	110.70
26	14	1636	C	N3-C4-N4	6.23	122.36	118.00
26	14	2023	G	O5'-P-OP1	-6.23	100.09	105.70
26	1H	1989	G	N1-C6-O6	6.23	123.64	119.90
26	14	1841	U	OP2-P-O3'	6.23	118.90	105.20
36	35	85	LEU	CA-CB-CG	6.23	129.62	115.30
1	13	786	G	C5-N7-C8	6.22	107.41	104.30
26	1H	1136	G	N1-C2-N2	6.22	121.80	116.20
26	1H	1140	C	N3-C2-O2	-6.22	117.54	121.90
26	1H	1761	C	N1-C2-O2	-6.22	115.17	118.90
26	1H	2286	A	C8-N9-C4	-6.22	103.31	105.80
1	1G	231	G	O5'-P-OP2	-6.22	100.10	105.70
26	1H	244	A	C8-N9-C4	-6.22	103.31	105.80
26	1H	730	C	N3-C4-N4	-6.22	113.64	118.00
26	14	565	C	C6-N1-C2	6.22	122.79	120.30
26	14	1321	A	C8-N9-C4	6.22	108.29	105.80
26	14	1616	A	N3-C4-C5	6.22	131.16	126.80
1	13	535	A	C5-C6-N6	6.22	128.68	123.70
26	1H	1336	A	C5-C6-N1	6.22	120.81	117.70
26	1H	2680	C	N1-C2-O2	-6.22	115.17	118.90
26	14	399	G	O5'-P-OP2	-6.22	100.10	105.70
26	1H	2755	C	C6-N1-C2	-6.22	117.81	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	360	A	C8-N9-C4	6.22	108.29	105.80
1	1G	366	C	C5-C6-N1	-6.22	117.89	121.00
26	14	2592	G	N3-C4-C5	-6.22	125.49	128.60
26	1H	196	A	C6-N1-C2	6.22	122.33	118.60
26	1H	2375	G	C4-C5-N7	6.22	113.29	110.80
26	14	1613	G	OP1-P-O3'	6.22	118.88	105.20
26	14	2500	U	O5'-P-OP1	6.22	118.16	110.70
26	1H	922	U	N1-C2-N3	6.22	118.63	114.90
26	1H	1663	C	C5-C4-N4	-6.22	115.85	120.20
26	14	1506	C	C6-N1-C2	-6.22	117.81	120.30
26	1H	1210	A	N3-C4-C5	6.21	131.15	126.80
26	1H	1702	G	C8-N9-C4	6.21	108.89	106.40
26	1H	1997	G	N1-C2-N3	6.21	127.63	123.90
26	14	1305	C	C5-C4-N4	-6.21	115.85	120.20
1	13	1065	U	P-O3'-C3'	6.21	127.16	119.70
26	14	1972	A	C2-N3-C4	6.21	113.71	110.60
1	13	537	G	O5'-P-OP1	-6.21	100.11	105.70
26	1H	273	G	O5'-P-OP2	-6.21	100.11	105.70
26	1H	484	C	N3-C4-N4	6.21	122.35	118.00
26	1H	1376	C	C4-C5-C6	6.21	120.51	117.40
26	1H	1940	U	C5-C4-O4	-6.21	122.17	125.90
26	1H	2271	G	N3-C4-N9	6.21	129.73	126.00
26	14	97	C	O5'-P-OP2	-6.21	100.11	105.70
26	14	792	G	OP2-P-O3'	6.21	118.86	105.20
26	14	1611	C	O5'-P-OP2	6.21	118.15	110.70
26	14	2691	C	C6-N1-C2	-6.21	117.81	120.30
26	1H	510	C	OP1-P-OP2	6.21	128.91	119.60
1	13	960	U	N3-C4-C5	-6.21	110.88	114.60
1	13	975	A	O4'-C1'-N9	-6.21	103.23	108.20
26	1H	131	G	C4-C5-N7	6.21	113.28	110.80
26	1H	1587	A	C8-N9-C4	-6.21	103.32	105.80
26	1H	1931	U	C4-C5-C6	6.21	123.42	119.70
26	1H	2073	C	OP1-P-OP2	-6.21	110.29	119.60
26	1H	2617	C	OP2-P-O3'	6.21	118.86	105.20
26	14	188	G	OP1-P-OP2	6.21	128.91	119.60
1	13	302	G	N1-C2-N2	-6.21	110.61	116.20
26	1H	197	A	OP1-P-O3'	-6.21	91.55	105.20
26	1H	583	G	C4-C5-N7	-6.21	108.32	110.80
26	1H	2050	C	N3-C2-O2	6.21	126.24	121.90
26	1H	2638	G	C5-C6-O6	-6.21	124.88	128.60
26	14	84	A	C8-N9-C4	6.21	108.28	105.80
1	13	533	A	O5'-P-OP2	-6.21	100.11	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2617	C	N3-C2-O2	6.21	126.24	121.90
26	14	1299	G	O5'-P-OP2	6.21	118.15	110.70
26	1H	2331	G	C2-N3-C4	-6.20	108.80	111.90
26	1H	2424	C	OP2-P-O3'	6.20	118.85	105.20
26	14	677	A	O5'-P-OP2	-6.20	100.12	105.70
1	13	1502	A	N9-C1'-C2'	6.20	122.06	114.00
26	1H	691	C	C4-C5-C6	6.20	120.50	117.40
26	1H	1292	U	OP1-P-O3'	6.20	118.84	105.20
26	1H	1559	G	C4-C5-N7	6.20	113.28	110.80
26	1H	1992	G	C5-C6-N1	6.20	114.60	111.50
26	1H	2586	C	OP1-P-O3'	6.20	118.84	105.20
1	13	1357	A	O5'-P-OP2	6.20	118.14	110.70
26	1H	734	A	N9-C4-C5	-6.20	103.32	105.80
26	1H	839	U	C6-N1-C2	-6.20	117.28	121.00
26	1H	2273	A	C8-N9-C4	6.20	108.28	105.80
1	1G	73	G	C5-C6-N1	-6.20	108.40	111.50
26	14	209	C	N3-C4-C5	6.20	124.38	121.90
26	14	766	C	N3-C4-N4	-6.20	113.66	118.00
26	14	1924	C	C6-N1-C2	-6.20	117.82	120.30
26	1H	869	G	C6-N1-C2	-6.20	121.38	125.10
26	1H	1618	A	N7-C8-N9	6.20	116.90	113.80
26	1H	189	G	C5-C6-O6	-6.20	124.88	128.60
26	1H	838	C	C2-N3-C4	-6.20	116.80	119.90
26	14	475	U	C4-C5-C6	6.20	123.42	119.70
1	13	814	A	C8-N9-C4	6.20	108.28	105.80
26	1H	74	A	O4'-C1'-N9	-6.20	103.24	108.20
26	14	834	C	C5-C6-N1	-6.20	117.90	121.00
26	14	1357	U	C4-C5-C6	6.20	123.42	119.70
26	14	2405	G	C8-N9-C4	-6.20	103.92	106.40
26	1H	103	A	C8-N9-C4	6.19	108.28	105.80
26	1H	808	G	OP1-P-OP2	6.19	128.89	119.60
26	1H	1480	G	O5'-P-OP2	6.19	118.13	110.70
26	1H	1634	A	N1-C6-N6	6.19	122.32	118.60
26	14	1304	C	C5-C4-N4	6.19	124.54	120.20
26	1H	265	A	O4'-C1'-N9	6.19	113.15	108.20
26	1H	1489	U	N1-C2-N3	6.19	118.62	114.90
26	14	584	C	N3-C2-O2	6.19	126.23	121.90
26	14	2707	G	N1-C6-O6	-6.19	116.19	119.90
1	13	766	A	O5'-P-OP2	-6.19	100.13	105.70
26	1H	1688	U	OP2-P-O3'	6.19	118.82	105.20
1	1G	117	G	N1-C6-O6	6.19	123.61	119.90
26	14	2763	G	N3-C2-N2	6.19	124.23	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	933	A	O5'-P-OP2	-6.19	100.13	105.70
26	1H	1757	U	O5'-P-OP2	-6.19	100.13	105.70
26	1H	675	A	C4-C5-C6	-6.19	113.91	117.00
26	1H	1321	A	N7-C8-N9	-6.19	110.71	113.80
26	1H	1778	U	OP2-P-O3'	6.19	118.81	105.20
26	1H	2390	U	N3-C4-O4	6.19	123.73	119.40
26	1H	2609	U	C2-N3-C4	-6.19	123.29	127.00
27	16	81	G	N3-C4-N9	6.19	129.71	126.00
1	1G	900	A	O5'-P-OP1	-6.19	100.13	105.70
26	14	808	G	N1-C2-N2	-6.19	110.63	116.20
26	1H	928	G	N1-C6-O6	6.18	123.61	119.90
26	1H	1228	G	N1-C2-N3	6.18	127.61	123.90
26	1H	2515	C	O5'-P-OP2	-6.18	100.13	105.70
26	14	263	C	N1-C2-O2	6.18	122.61	118.90
1	13	545	C	O5'-P-OP2	-6.18	100.14	105.70
26	1H	663	G	C4-N9-C1'	6.18	134.54	126.50
26	1H	2448	A	N9-C4-C5	6.18	108.27	105.80
26	14	1128	A	C5-C6-N1	6.18	120.79	117.70
26	1H	101	G	N9-C4-C5	-6.18	102.93	105.40
26	1H	1968	G	C5-C6-N1	6.18	114.59	111.50
26	1H	2717	G	N3-C4-C5	-6.18	125.51	128.60
1	13	888	G	N3-C2-N2	-6.18	115.57	119.90
26	1H	189	G	O5'-P-OP2	6.18	118.12	110.70
26	1H	702	G	C5-C6-O6	6.18	132.31	128.60
26	1H	775	G	N3-C4-N9	6.18	129.71	126.00
26	1H	1022	G	C6-N1-C2	-6.18	121.39	125.10
26	14	2228	G	C8-N9-C1'	-6.18	118.97	127.00
26	14	102	G	O5'-P-OP1	-6.18	100.14	105.70
26	1H	663	G	C6-C5-N7	-6.18	126.69	130.40
26	1H	2303	G	OP1-P-O3'	6.18	118.79	105.20
27	1J	14	U	O5'-P-OP2	-6.18	100.14	105.70
1	13	295	C	O5'-P-OP2	-6.17	100.14	105.70
1	13	652	U	O5'-P-OP1	-6.17	100.14	105.70
26	1H	938	G	C5-C6-O6	6.17	132.31	128.60
26	1H	2363	C	C2-N1-C1'	-6.17	112.01	118.80
55	Q8	52	LYS	C-N-CA	6.17	147.93	122.00
1	1G	862	C	C6-N1-C2	-6.17	117.83	120.30
1	13	892	A	N1-C6-N6	6.17	122.30	118.60
1	13	1526	G	C4-C5-N7	6.17	113.27	110.80
26	1H	1800	C	C6-N1-C2	-6.17	117.83	120.30
1	13	810	C	C2-N1-C1'	6.17	125.58	118.80
26	1H	127	A	N9-C4-C5	-6.17	103.33	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1681	G	N1-C6-O6	6.17	123.60	119.90
26	1H	1802	A	N1-C2-N3	6.17	132.38	129.30
26	1H	2434	A	OP1-P-O3'	-6.17	91.63	105.20
26	14	71	A	N7-C8-N9	6.17	116.89	113.80
26	14	565	C	C5-C6-N1	-6.17	117.92	121.00
1	13	1240	U	N1-C2-N3	-6.17	111.20	114.90
1	13	1519	A	N9-C4-C5	6.17	108.27	105.80
26	1H	1026	U	O4'-C1'-N1	6.17	113.13	108.20
26	1H	1309	G	O5'-P-OP1	6.17	118.10	110.70
26	1H	1356	G	C8-N9-C4	6.17	108.87	106.40
26	14	2765	A	C8-N9-C4	-6.17	103.33	105.80
26	1H	1375	C	OP1-P-O3'	6.17	118.76	105.20
26	14	278	A	OP1-P-O3'	6.17	118.76	105.20
26	1H	284	U	O5'-P-OP1	-6.16	100.15	105.70
26	1H	619	G	C8-N9-C4	6.16	108.86	106.40
26	1H	954	G	N3-C2-N2	-6.16	115.58	119.90
26	1H	2614	A	OP2-P-O3'	6.16	118.76	105.20
27	16	50	G	OP2-P-O3'	6.16	118.76	105.20
1	1G	1195	C	C6-N1-C2	-6.16	117.83	120.30
26	1H	461	C	N1-C2-O2	-6.16	115.20	118.90
26	1H	620	G	C8-N9-C4	-6.16	103.94	106.40
26	1H	792	G	O5'-P-OP2	-6.16	100.16	105.70
26	1H	832	G	N3-C2-N2	-6.16	115.59	119.90
26	1H	2779	U	C5-C6-N1	-6.16	119.62	122.70
26	14	1776	G	O5'-P-OP1	6.16	118.09	110.70
1	13	979	C	O5'-P-OP1	-6.16	100.16	105.70
26	1H	646	A	C8-N9-C4	-6.16	103.34	105.80
26	1H	1010	A	C8-N9-C4	6.16	108.26	105.80
26	1H	1258	C	O4'-C1'-N1	6.16	113.13	108.20
26	14	933	A	C4-C5-N7	6.16	113.78	110.70
26	1H	922	U	C4-C5-C6	6.16	123.39	119.70
26	1H	1129	A	C5-C6-N1	6.16	120.78	117.70
26	1H	1602	U	N1-C2-O2	-6.16	118.49	122.80
26	1H	1888	G	N3-C2-N2	6.16	124.21	119.90
1	1G	308	C	N3-C2-O2	-6.16	117.59	121.90
26	14	1694	C	C6-N1-C2	6.16	122.76	120.30
26	14	1831	G	C4-C5-C6	6.16	122.49	118.80
26	1H	195	A	C6-C5-N7	-6.16	127.99	132.30
26	1H	341	G	C5-C6-O6	6.16	132.29	128.60
26	1H	971	C	C4-C5-C6	6.16	120.48	117.40
26	1H	1636	C	O5'-P-OP2	6.16	118.09	110.70
26	1H	1987	G	N3-C2-N2	-6.16	115.59	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1260	G	C8-N9-C4	6.16	108.86	106.40
1	13	789	U	O5'-P-OP1	6.15	118.08	110.70
26	1H	1927	A	O5'-P-OP2	-6.15	100.16	105.70
27	16	48	A	N1-C6-N6	6.15	122.29	118.60
1	13	1227	A	N3-C4-C5	6.15	131.11	126.80
26	1H	2227	A	N9-C4-C5	6.15	108.26	105.80
26	14	2228	G	C6-C5-N7	-6.15	126.71	130.40
26	14	2688	U	C5-C4-O4	6.15	129.59	125.90
23	2K	21	U	C2-N1-C1'	6.15	125.08	117.70
26	1H	1382	G	N9-C4-C5	-6.15	102.94	105.40
26	14	190	A	C4-C5-N7	6.15	113.78	110.70
26	1H	492	A	O5'-P-OP2	-6.15	100.17	105.70
26	14	137	C	C6-N1-C2	-6.15	117.84	120.30
1	13	396	G	O5'-P-OP2	-6.15	100.17	105.70
1	13	545	C	N1-C2-O2	6.15	122.59	118.90
26	1H	1969	A	N7-C8-N9	-6.15	110.73	113.80
26	14	2643	G	O5'-P-OP1	-6.15	100.17	105.70
26	1H	531	C	OP1-P-O3'	6.15	118.72	105.20
26	1H	2319	G	N3-C4-C5	-6.15	125.53	128.60
26	14	912	C	C6-N1-C2	-6.15	117.84	120.30
1	13	749	C	C2-N1-C1'	6.14	125.56	118.80
26	1H	481	G	N1-C6-O6	6.14	123.59	119.90
26	1H	819	A	O5'-P-OP2	-6.14	100.17	105.70
26	1H	1284	A	C5-N7-C8	-6.14	100.83	103.90
26	14	461	C	N3-C4-C5	-6.14	119.44	121.90
26	14	510	C	N1-C2-O2	6.14	122.58	118.90
1	13	912	C	O5'-P-OP1	-6.14	100.17	105.70
26	14	972	G	N9-C4-C5	6.14	107.86	105.40
1	1G	388	G	O4'-C1'-N9	-6.14	103.29	108.20
26	14	607	U	O5'-P-OP2	-6.14	100.17	105.70
26	14	1022	G	N9-C4-C5	6.14	107.86	105.40
26	1H	1636	C	N3-C4-C5	-6.14	119.44	121.90
26	1H	1158	C	C5-C6-N1	-6.14	117.93	121.00
26	1H	1537	C	C6-N1-C2	-6.14	117.84	120.30
26	1H	1900	A	C5'-C4'-O4'	-6.14	101.74	109.10
1	1G	20	U	O5'-P-OP2	-6.14	100.18	105.70
26	14	307	G	OP1-P-OP2	6.14	128.81	119.60
26	14	2415	G	N3-C2-N2	-6.14	115.60	119.90
12	3I	92	ASP	CB-CG-OD2	-6.13	112.78	118.30
26	1H	845	G	P-O3'-C3'	6.13	127.06	119.70
26	1H	1761	C	C6-N1-C2	6.13	122.75	120.30
1	1G	363	A	N1-C6-N6	-6.13	114.92	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	525	C	C5-C6-N1	6.13	124.07	121.00
26	14	2717	G	C8-N9-C4	-6.13	103.95	106.40
1	13	580	U	C5-C6-N1	-6.13	119.63	122.70
26	1H	101	G	C8-N9-C4	6.13	108.85	106.40
26	1H	213	A	C4-C5-C6	-6.13	113.93	117.00
1	13	111	G	C5-C6-O6	-6.13	124.92	128.60
26	1H	456	C	P-O3'-C3'	6.13	127.06	119.70
26	1H	844	C	OP2-P-O3'	6.13	118.69	105.20
26	1H	2300	G	N7-C8-N9	6.13	116.17	113.10
26	14	468	G	OP1-P-OP2	-6.13	110.40	119.60
26	14	527	C	C5-C4-N4	6.13	124.49	120.20
26	14	918	A	C8-N9-C4	-6.13	103.35	105.80
26	14	1785	A	C4-C5-C6	6.13	120.06	117.00
26	14	1863	G	O5'-P-OP2	-6.13	100.18	105.70
26	14	1281	G	O5'-P-OP2	6.13	118.06	110.70
26	1H	979	G	N3-C2-N2	-6.13	115.61	119.90
26	14	265	A	C8-N9-C4	-6.13	103.35	105.80
26	1H	812	C	N1-C2-N3	6.13	123.49	119.20
26	1H	1653	G	N3-C4-C5	-6.13	125.54	128.60
26	14	750	A	OP1-P-O3'	6.13	118.68	105.20
26	14	1349	A	O4'-C1'-N9	6.13	113.10	108.20
26	14	1769	G	N3-C4-N9	6.13	129.68	126.00
1	13	1489	G	N7-C8-N9	-6.12	110.04	113.10
26	1H	1332	G	C8-N9-C1'	6.12	134.96	127.00
1	13	356	A	O4'-C1'-N9	6.12	113.10	108.20
26	1H	602	G	N3-C2-N2	6.12	124.19	119.90
26	1H	2490	G	O5'-P-OP2	-6.12	100.19	105.70
1	1G	632	A	OP2-P-O3'	6.12	118.67	105.20
26	14	843	G	O5'-P-OP2	-6.12	100.19	105.70
26	14	1524	G	N1-C6-O6	-6.12	116.22	119.90
26	14	1655	A	N7-C8-N9	-6.12	110.74	113.80
1	13	605	U	C6-N1-C1'	6.12	129.77	121.20
26	1H	2023	G	O5'-P-OP1	-6.12	100.19	105.70
26	1H	2432	A	N1-C6-N6	6.12	122.27	118.60
1	1G	449	C	N3-C4-N4	-6.12	113.72	118.00
1	1G	481	G	C4-C5-C6	6.12	122.47	118.80
26	14	736	C	O5'-P-OP2	6.12	118.05	110.70
26	14	1990	C	N3-C2-O2	-6.12	117.61	121.90
1	13	1469	G	C8-N9-C4	-6.12	103.95	106.40
26	14	1979	C	O5'-P-OP2	-6.12	100.19	105.70
26	1H	62	C	C5-C6-N1	-6.12	117.94	121.00
26	1H	1029	A	C2-N3-C4	6.12	113.66	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2275	C	P-O3'-C3'	6.12	127.04	119.70
1	13	576	G	N1-C6-O6	6.12	123.57	119.90
26	1H	324	A	O5'-P-OP2	6.12	118.04	110.70
26	14	736	C	N1-C2-O2	-6.12	115.23	118.90
1	13	690	G	N1-C2-N2	-6.12	110.70	116.20
1	13	910	C	C6-N1-C2	6.12	122.75	120.30
26	1H	121	G	C6-C5-N7	-6.12	126.73	130.40
26	1H	763	G	OP2-P-O3'	6.12	118.66	105.20
26	1H	865	C	C6-N1-C2	6.12	122.75	120.30
26	1H	1302	A	OP1-P-OP2	6.12	128.77	119.60
26	1H	2528	U	N3-C2-O2	-6.12	117.92	122.20
1	13	553	A	C8-N9-C4	-6.11	103.35	105.80
26	1H	1996	C	C5-C6-N1	-6.11	117.94	121.00
26	1H	2468	G	O5'-P-OP1	6.11	118.03	110.70
26	1H	2597	G	C4-C5-N7	6.11	113.25	110.80
27	16	14	U	O4'-C1'-N1	-6.11	103.31	108.20
1	13	263	A	O5'-P-OP1	-6.11	100.20	105.70
1	13	1221	G	OP2-P-O3'	6.11	118.65	105.20
1	1G	266	G	P-O3'-C3'	6.11	127.03	119.70
26	14	1698	A	C5-C6-N1	-6.11	114.64	117.70
26	1H	2401	U	C6-N1-C2	-6.11	117.33	121.00
26	14	155	C	C2-N1-C1'	6.11	125.52	118.80
26	14	841	A	C5-C6-N6	-6.11	118.81	123.70
26	14	1367	A	N9-C1'-C2'	-6.11	105.28	112.00
26	1H	199	A	C8-N9-C1'	6.11	138.70	127.70
26	1H	2457	U	N3-C4-C5	6.11	118.27	114.60
23	2L	35	C	OP1-P-O3'	6.11	118.64	105.20
26	14	1776	G	N1-C2-N2	-6.11	110.70	116.20
45	C5	103	GLY	N-CA-C	6.11	128.37	113.10
1	13	1369	C	O5'-P-OP2	-6.11	100.20	105.70
26	1H	859	G	N3-C4-N9	-6.11	122.33	126.00
26	1H	1314	C	C6-N1-C1'	-6.11	113.47	120.80
26	14	426	C	N1-C2-O2	6.11	122.56	118.90
27	1J	75	G	N3-C4-C5	-6.11	125.55	128.60
26	1H	214	G	N7-C8-N9	6.11	116.15	113.10
26	1H	2408	U	C5-C6-N1	-6.11	119.65	122.70
26	1H	2875	C	C6-N1-C2	6.11	122.74	120.30
26	14	2023	G	N7-C8-N9	6.11	116.15	113.10
26	14	2427	C	C6-N1-C2	6.11	122.74	120.30
27	1J	60	C	C5-C6-N1	6.11	124.05	121.00
22	1K	75	C	C6-N1-C2	-6.10	117.86	120.30
26	1H	577	G	O5'-P-OP1	6.10	118.03	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2316	C	C6-N1-C2	-6.10	117.86	120.30
26	1H	2324	C	C2-N1-C1'	6.10	125.51	118.80
26	1H	2390	U	C6-N1-C2	-6.10	117.34	121.00
1	1G	275	G	C4-C5-N7	6.10	113.24	110.80
1	1G	1395	C	O5'-P-OP1	-6.10	100.21	105.70
26	1H	1399	C	OP2-P-O3'	6.10	118.62	105.20
26	1H	1989	G	C5-C6-O6	-6.10	124.94	128.60
26	14	2463	C	O5'-P-OP2	-6.10	100.21	105.70
32	59	153	LYS	C-N-CD	6.10	141.22	128.40
26	1H	464	U	C4-C5-C6	6.10	123.36	119.70
26	1H	1994	C	O5'-P-OP2	-6.10	100.21	105.70
26	14	1842	G	C5-C6-O6	6.10	132.26	128.60
26	14	2392	A	C6-N1-C2	6.10	122.26	118.60
26	14	2542	A	N1-C6-N6	6.10	122.26	118.60
26	1H	1599	C	O5'-P-OP2	-6.10	100.21	105.70
33	61	35	LEU	CA-CB-CG	6.10	129.33	115.30
1	1G	495	A	N1-C6-N6	-6.10	114.94	118.60
26	14	998	C	N1-C2-O2	6.10	122.56	118.90
26	14	1565	C	N3-C4-C5	-6.10	119.46	121.90
26	14	1614	A	N7-C8-N9	6.10	116.85	113.80
26	14	1725	G	C4-N9-C1'	6.10	134.43	126.50
26	1H	239	U	C2-N1-C1'	-6.10	110.39	117.70
1	13	598	U	C5-C6-N1	6.09	125.75	122.70
26	1H	1790	C	C5-C4-N4	-6.09	115.93	120.20
26	14	449	A	OP1-P-O3'	6.09	118.61	105.20
26	14	2067	G	C8-N9-C4	-6.09	103.96	106.40
26	1H	845	G	C8-N9-C1'	6.09	134.92	127.00
27	16	81	G	N1-C6-O6	6.09	123.56	119.90
23	2K	45	A	O5'-P-OP2	6.09	118.01	110.70
26	1H	17	G	OP1-P-O3'	6.09	118.60	105.20
26	1H	1425	G	C5-C6-N1	6.09	114.55	111.50
26	1H	1526	G	N7-C8-N9	6.09	116.14	113.10
26	1H	2618	G	C8-N9-C4	-6.09	103.96	106.40
26	14	201	C	O5'-P-OP2	-6.09	100.22	105.70
26	14	1518	C	O5'-P-OP1	-6.09	100.22	105.70
26	14	1973	G	N3-C2-N2	6.09	124.16	119.90
1	13	813	U	C4-C5-C6	-6.09	116.05	119.70
26	1H	1698	A	N9-C1'-C2'	6.09	121.92	114.00
23	2L	24	C	O5'-P-OP2	-6.09	100.22	105.70
26	14	929	G	C5-C6-O6	-6.09	124.95	128.60
26	14	2013	A	N9-C4-C5	-6.09	103.36	105.80
26	14	2029	G	O5'-P-OP1	-6.09	100.22	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	786	G	N7-C8-N9	-6.09	110.06	113.10
26	14	1162	G	O5'-P-OP1	-6.09	100.22	105.70
26	14	2013	A	C8-N9-C4	6.09	108.23	105.80
1	13	960	U	C2-N1-C1'	6.09	125.00	117.70
26	1H	967	C	N3-C2-O2	-6.09	117.64	121.90
26	1H	1845	G	N9-C4-C5	6.09	107.83	105.40
26	1H	2272	U	OP2-P-O3'	6.09	118.59	105.20
1	1G	262	A	N1-C6-N6	6.09	122.25	118.60
26	14	744	G	OP1-P-OP2	6.09	128.73	119.60
26	14	2355	C	C2-N1-C1'	6.09	125.50	118.80
1	13	305	G	C8-N9-C4	6.08	108.83	106.40
1	13	1366	C	O5'-P-OP1	-6.08	100.22	105.70
26	1H	1599	C	C2-N3-C4	-6.08	116.86	119.90
27	16	81	G	OP1-P-OP2	6.08	128.73	119.60
26	14	1612	C	C5-C4-N4	-6.08	115.94	120.20
1	13	266	G	C2-N3-C4	-6.08	108.86	111.90
1	13	1331	G	P-O3'-C3'	6.08	127.00	119.70
26	1H	70	G	N3-C2-N2	6.08	124.16	119.90
26	1H	1279	G	O5'-P-OP1	6.08	118.00	110.70
26	1H	1962	C	C4-C5-C6	-6.08	114.36	117.40
26	14	586	A	OP1-P-O3'	6.08	118.58	105.20
27	1J	103	U	N3-C4-C5	6.08	118.25	114.60
1	13	1224	G	OP1-P-OP2	-6.08	110.48	119.60
26	1H	2554	U	C5-C4-O4	-6.08	122.25	125.90
23	2K	6	G	C8-N9-C4	6.08	108.83	106.40
26	1H	664	C	O5'-P-OP1	6.08	117.99	110.70
26	1H	1623	G	N7-C8-N9	-6.08	110.06	113.10
1	13	899	C	N3-C2-O2	6.08	126.15	121.90
26	1H	560	C	O5'-P-OP1	-6.08	100.23	105.70
26	1H	2070	G	C5-C6-N1	6.08	114.54	111.50
1	1G	906	G	N1-C6-O6	6.08	123.55	119.90
1	1G	924	C	OP1-P-OP2	6.08	128.71	119.60
26	14	828	U	N3-C4-O4	-6.08	115.15	119.40
1	13	1426	C	N3-C4-C5	-6.07	119.47	121.90
26	1H	2417	C	O5'-P-OP2	-6.07	100.23	105.70
26	14	863	A	O5'-P-OP2	-6.07	100.23	105.70
1	13	516	U	OP2-P-O3'	6.07	118.56	105.20
1	1G	275	G	C5-C6-O6	-6.07	124.96	128.60
1	13	684	A	C8-N9-C4	-6.07	103.37	105.80
1	13	1227	A	N3-C4-N9	-6.07	122.54	127.40
26	1H	111	A	O5'-P-OP2	-6.07	100.24	105.70
26	1H	407	G	N3-C2-N2	6.07	124.15	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	433	C	O5'-P-OP2	-6.07	100.24	105.70
26	1H	705	A	O5'-P-OP2	-6.07	100.24	105.70
26	1H	778	G	N3-C2-N2	6.07	124.15	119.90
26	1H	2388	A	O4'-C1'-N9	6.07	113.06	108.20
26	1H	2432	A	C8-N9-C4	6.07	108.23	105.80
26	14	213	A	C4-C5-C6	-6.07	113.97	117.00
1	13	353	A	N7-C8-N9	6.07	116.83	113.80
26	1H	602	G	C4-C5-N7	6.07	113.23	110.80
26	14	2526	G	N3-C4-N9	-6.07	122.36	126.00
26	1H	853	G	O5'-P-OP1	6.07	117.98	110.70
26	1H	1295	C	N1-C2-O2	-6.07	115.26	118.90
26	1H	1379	A	C4-C5-N7	6.07	113.73	110.70
26	1H	2312	U	N3-C4-O4	6.07	123.65	119.40
26	1H	82	G	OP1-P-O3'	6.07	118.54	105.20
26	1H	693	C	OP1-P-OP2	6.07	128.70	119.60
26	1H	917	A	N9-C4-C5	-6.07	103.37	105.80
26	1H	1313	U	N3-C4-O4	6.07	123.65	119.40
26	1H	2055	C	N1-C2-O2	-6.07	115.26	118.90
26	1H	2719	G	C8-N9-C4	-6.07	103.97	106.40
27	16	42	C	C5-C6-N1	-6.07	117.97	121.00
37	88	78	PRO	N-CA-C	6.07	127.87	112.10
26	14	833	U	C4-C5-C6	6.07	123.34	119.70
26	14	2070	G	N1-C2-N2	-6.07	110.74	116.20
26	14	2557	G	C2-N3-C4	6.07	114.93	111.90
26	1H	1613	G	C8-N9-C4	6.06	108.83	106.40
48	J8	80	LEU	CA-CB-CG	6.06	129.25	115.30
26	14	990	A	N7-C8-N9	6.06	116.83	113.80
26	1H	199	A	C4-N9-C1'	-6.06	115.39	126.30
26	1H	598	G	N3-C4-C5	-6.06	125.57	128.60
1	1G	890	G	O4'-C1'-N9	6.06	113.05	108.20
26	14	1277	G	C2-N3-C4	-6.06	108.87	111.90
26	14	2328	A	N1-C6-N6	6.06	122.24	118.60
26	1H	196	A	C5-C6-N1	-6.06	114.67	117.70
26	1H	843	G	C8-N9-C4	6.06	108.82	106.40
26	1H	1308	A	N1-C2-N3	6.06	132.33	129.30
27	16	111	U	C5-C6-N1	-6.06	119.67	122.70
26	14	785	G	N1-C6-O6	-6.06	116.26	119.90
26	1H	1694	C	OP2-P-O3'	6.06	118.53	105.20
26	1H	1804	C	C6-N1-C2	6.06	122.72	120.30
26	1H	1804	C	O5'-P-OP1	6.06	117.97	110.70
26	1H	2011	U	C2-N1-C1'	-6.06	110.43	117.70
1	1G	1519	A	N1-C6-N6	-6.06	114.97	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	2L	21	U	C2-N1-C1'	6.06	124.97	117.70
26	14	1953	A	C5-C6-N6	-6.06	118.85	123.70
26	14	1997	G	N1-C2-N2	-6.06	110.75	116.20
26	1H	676	A	N1-C2-N3	6.06	132.33	129.30
26	1H	1787	A	C8-N9-C4	-6.06	103.38	105.80
1	1G	721	G	N7-C8-N9	6.06	116.13	113.10
1	1G	1520	G	O5'-P-OP2	-6.06	100.25	105.70
26	14	738	G	N1-C2-N2	-6.06	110.75	116.20
26	1H	1594	G	OP1-P-O3'	6.06	118.52	105.20
26	1H	2442	C	C2-N3-C4	-6.06	116.87	119.90
26	14	301	G	C4-N9-C1'	-6.06	118.63	126.50
1	13	667	G	N3-C2-N2	-6.05	115.66	119.90
1	13	1226	C	N3-C2-O2	6.05	126.14	121.90
26	1H	240	G	N7-C8-N9	-6.05	110.07	113.10
26	1H	2070	G	N3-C4-N9	6.05	129.63	126.00
26	1H	2550	G	O5'-P-OP2	-6.05	100.25	105.70
26	1H	2348	U	O5'-P-OP2	-6.05	100.25	105.70
26	14	1950	G	O4'-C1'-N9	6.05	113.04	108.20
26	1H	931	G	N3-C4-N9	6.05	129.63	126.00
26	1H	1160	G	OP1-P-OP2	-6.05	110.52	119.60
26	1H	2064	C	N3-C4-N4	-6.05	113.76	118.00
26	1H	500	G	OP1-P-OP2	6.05	128.67	119.60
26	14	782	A	C6-N1-C2	-6.05	114.97	118.60
26	1H	1471	A	C5-N7-C8	-6.05	100.88	103.90
27	16	81	G	N1-C2-N2	-6.05	110.76	116.20
1	1G	123	C	O5'-P-OP2	-6.05	100.26	105.70
26	14	1833	U	N3-C2-O2	-6.05	117.97	122.20
1	13	919	A	N9-C4-C5	6.05	108.22	105.80
1	13	961	U	O5'-P-OP2	-6.05	100.26	105.70
26	1H	366	C	N1-C2-O2	-6.05	115.27	118.90
26	1H	1952	A	C8-N9-C4	-6.05	103.38	105.80
27	16	51	G	OP2-P-O3'	6.05	118.50	105.20
26	14	808	G	C5-N7-C8	6.05	107.32	104.30
27	1J	22	U	C5-C6-N1	6.05	125.72	122.70
26	1H	1396	U	OP1-P-OP2	6.04	128.67	119.60
26	1H	1488	G	C8-N9-C4	-6.04	103.98	106.40
1	13	309	G	N1-C6-O6	6.04	123.53	119.90
26	1H	1344	G	N1-C6-O6	6.04	123.53	119.90
26	1H	1566	A	O5'-P-OP2	-6.04	100.26	105.70
26	1H	2089	U	C5-C4-O4	-6.04	122.27	125.90
26	14	1304	C	N3-C4-C5	6.04	124.32	121.90
26	14	1754	C	N1-C2-O2	6.04	122.53	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1025	U	C2-N1-C1'	6.04	124.95	117.70
26	1H	1204	A	C5-C6-N1	-6.04	114.68	117.70
26	1H	139	G	C2-N3-C4	6.04	114.92	111.90
26	1H	1959	G	N9-C4-C5	6.04	107.82	105.40
1	13	721	G	C6-C5-N7	-6.04	126.78	130.40
23	2K	6	G	N1-C6-O6	6.04	123.52	119.90
26	14	107	C	O5'-P-OP2	-6.04	100.27	105.70
26	14	933	A	N1-C6-N6	6.04	122.22	118.60
26	14	1281	G	C4-C5-N7	6.04	113.22	110.80
1	13	884	U	N1-C2-N3	-6.04	111.28	114.90
26	1H	121	G	C8-N9-C4	-6.04	103.98	106.40
26	14	330	A	N9-C4-C5	-6.04	103.39	105.80
26	14	704	G	C5-C6-O6	-6.04	124.98	128.60
26	1H	1035	U	N1-C2-N3	6.04	118.52	114.90
1	1G	687	A	P-O3'-C3'	6.04	126.94	119.70
57	3L	3	C	C6-N1-C2	-6.04	117.89	120.30
26	14	1605	C	C2-N3-C4	-6.04	116.88	119.90
1	13	576	G	N3-C4-N9	6.03	129.62	126.00
1	13	1227	A	C8-N9-C4	-6.03	103.39	105.80
26	1H	87	C	C5-C4-N4	-6.03	115.98	120.20
26	1H	571	A	N9-C4-C5	-6.03	103.39	105.80
26	1H	2330	G	N1-C2-N2	-6.03	110.77	116.20
26	1H	2331	G	N9-C4-C5	-6.03	102.99	105.40
26	14	1558	A	P-O3'-C3'	6.03	126.94	119.70
1	13	732	C	OP2-P-O3'	6.03	118.47	105.20
26	1H	675	A	N1-C2-N3	-6.03	126.28	129.30
26	1H	1315	C	O5'-P-OP2	-6.03	100.27	105.70
26	1H	1325	G	O5'-P-OP2	6.03	117.94	110.70
26	1H	1412	A	C8-N9-C4	-6.03	103.39	105.80
26	1H	1624	G	C5-C6-N1	6.03	114.52	111.50
26	1H	1849	G	O5'-P-OP2	6.03	117.94	110.70
1	1G	413	G	C5-C6-O6	6.03	132.22	128.60
1	1G	1139	G	C4-N9-C1'	-6.03	118.66	126.50
26	14	82	G	C5-C6-N1	-6.03	108.48	111.50
26	14	329	G	C5-C6-N1	6.03	114.52	111.50
26	1H	1161	C	O5'-P-OP2	6.03	117.93	110.70
26	1H	2352	A	N1-C6-N6	6.03	122.22	118.60
26	1H	2713	A	OP2-P-O3'	6.03	118.46	105.20
26	14	684	G	C8-N9-C4	-6.03	103.99	106.40
26	1H	113	G	N3-C4-C5	6.03	131.61	128.60
26	1H	809	G	C5-N7-C8	6.03	107.31	104.30
26	1H	1497	U	N3-C4-O4	6.03	123.62	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1606	G	C5-C6-O6	-6.03	124.98	128.60
26	1H	2385	C	C5-C6-N1	-6.03	117.99	121.00
26	1H	2434	A	C5-C6-N6	6.03	128.52	123.70
26	1H	2685	G	C5-N7-C8	6.03	107.31	104.30
27	16	89	G	O5'-P-OP1	-6.03	100.28	105.70
1	1G	314	C	N1-C2-O2	6.03	122.52	118.90
1	1G	1442	G	N3-C4-N9	-6.03	122.38	126.00
26	14	834	C	O5'-P-OP2	-6.03	100.28	105.70
26	14	1586	A	N7-C8-N9	6.03	116.81	113.80
1	1G	197	A	N7-C8-N9	6.03	116.81	113.80
1	1G	1220	G	N1-C6-O6	6.03	123.52	119.90
26	14	762	U	C6-N1-C1'	-6.03	112.76	121.20
26	14	2371	G	N1-C6-O6	6.03	123.52	119.90
26	14	2700	C	N3-C4-C5	6.03	124.31	121.90
26	1H	1550	C	N1-C2-O2	-6.02	115.29	118.90
26	1H	1642	G	N9-C4-C5	6.02	107.81	105.40
26	1H	2031	A	C2-N3-C4	6.02	113.61	110.60
1	1G	484	G	N3-C4-C5	6.02	131.61	128.60
56	1L	74	C	C6-N1-C2	6.02	122.71	120.30
26	14	1903	G	C5-C6-N1	-6.02	108.49	111.50
26	1H	115	C	C5-C4-N4	-6.02	115.98	120.20
26	1H	961	C	OP1-P-O3'	6.02	118.45	105.20
26	1H	1842	G	C4-C5-N7	-6.02	108.39	110.80
26	1H	2269	A	N9-C4-C5	-6.02	103.39	105.80
26	14	812	C	C2-N1-C1'	6.02	125.42	118.80
26	14	475	U	N1-C2-N3	6.02	118.51	114.90
26	1H	623	G	C8-N9-C4	6.02	108.81	106.40
26	1H	1663	C	OP1-P-O3'	6.02	118.44	105.20
26	14	1344	G	N1-C6-O6	6.02	123.51	119.90
26	14	2341	G	C5-C6-N1	-6.02	108.49	111.50
1	13	1504	G	C2-N3-C4	-6.02	108.89	111.90
26	1H	1252	G	N1-C6-O6	-6.02	116.29	119.90
26	1H	1636	C	N3-C4-N4	6.02	122.21	118.00
27	16	81	G	C8-N9-C4	-6.02	103.99	106.40
26	14	565	C	C4-C5-C6	6.02	120.41	117.40
26	14	621	A	C4-C5-N7	6.02	113.71	110.70
27	1J	75	G	N3-C4-N9	6.02	129.61	126.00
26	1H	1374	G	N1-C6-O6	6.02	123.51	119.90
26	1H	2685	G	N7-C8-N9	-6.02	110.09	113.10
26	14	1776	G	N3-C2-N2	6.02	124.11	119.90
1	13	1469	G	N7-C8-N9	6.01	116.11	113.10
26	1H	766	C	C2-N3-C4	-6.01	116.89	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2434	A	N1-C6-N6	-6.01	114.99	118.60
1	1G	413	G	C8-N9-C1'	6.01	134.82	127.00
26	14	1599	C	C2-N1-C1'	6.01	125.42	118.80
26	14	1778	U	N1-C2-O2	-6.01	118.59	122.80
26	14	2319	G	N3-C4-C5	-6.01	125.59	128.60
1	13	1224	G	O5'-P-OP1	6.01	117.92	110.70
26	1H	775	G	O4'-C1'-N9	6.01	113.01	108.20
26	14	1239	G	N3-C4-N9	-6.01	122.39	126.00
26	14	1346	G	N3-C2-N2	6.01	124.11	119.90
27	1J	56	G	N3-C4-N9	6.01	129.61	126.00
26	1H	178	G	C8-N9-C4	6.01	108.81	106.40
26	1H	684	G	C8-N9-C4	-6.01	104.00	106.40
26	1H	1209	G	C6-C5-N7	-6.01	126.79	130.40
26	14	1346	G	C8-N9-C4	6.01	108.81	106.40
26	14	2371	G	C5-C6-O6	-6.01	124.99	128.60
26	1H	1776	G	OP1-P-O3'	6.01	118.42	105.20
26	1H	1780	A	C2-N3-C4	-6.01	107.60	110.60
1	13	1479	C	N3-C4-N4	6.01	122.20	118.00
26	1H	128	C	C2-N3-C4	-6.01	116.90	119.90
26	1H	1007	C	N1-C2-O2	-6.01	115.30	118.90
26	1H	2311	A	N3-C4-C5	6.01	131.00	126.80
26	14	621	A	N3-C4-C5	6.01	131.00	126.80
26	14	1673	U	N1-C2-O2	-6.01	118.59	122.80
26	14	1696	G	O5'-P-OP2	-6.00	100.30	105.70
26	1H	1428	C	N3-C4-N4	-6.00	113.80	118.00
26	1H	2270	G	C8-N9-C4	6.00	108.80	106.40
26	1H	2504	U	C6-N1-C2	-6.00	117.40	121.00
27	16	28	C	C6-N1-C2	-6.00	117.90	120.30
26	14	741	G	OP2-P-O3'	6.00	118.41	105.20
26	14	762	U	C2-N1-C1'	6.00	124.90	117.70
26	14	2251	G	N7-C8-N9	-6.00	110.10	113.10
1	13	293	G	N1-C6-O6	6.00	123.50	119.90
26	1H	731	C	C6-N1-C2	-6.00	117.90	120.30
27	16	100	G	N3-C4-N9	6.00	129.60	126.00
26	14	193	U	N1-C2-O2	-6.00	118.60	122.80
26	1H	598	G	OP1-P-OP2	6.00	128.60	119.60
26	14	197	A	P-O3'-C3'	6.00	126.90	119.70
1	1G	397	A	O5'-P-OP2	6.00	117.90	110.70
1	1G	1234	C	N1-C2-O2	6.00	122.50	118.90
26	1H	70	G	C5-C6-O6	6.00	132.20	128.60
26	1H	744	G	C2-N3-C4	-6.00	108.90	111.90
26	1H	1161	C	C5-C6-N1	6.00	124.00	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1513	C	C5-C6-N1	6.00	124.00	121.00
1	13	906	G	N3-C2-N2	-6.00	115.70	119.90
26	1H	944	G	N7-C8-N9	6.00	116.10	113.10
26	14	1636	C	O5'-P-OP1	-6.00	100.31	105.70
26	1H	1613	G	C5-N7-C8	5.99	107.30	104.30
26	1H	2686	G	N3-C4-C5	-5.99	125.60	128.60
1	13	757	U	C5-C6-N1	-5.99	119.70	122.70
1	13	766	A	C8-N9-C4	5.99	108.20	105.80
26	1H	1702	G	N9-C4-C5	-5.99	103.00	105.40
26	14	1998	G	C8-N9-C4	5.99	108.80	106.40
26	1H	686	G	N9-C4-C5	-5.99	103.00	105.40
26	1H	947	G	C8-N9-C4	-5.99	104.00	106.40
1	1G	739	C	N3-C4-C5	-5.99	119.50	121.90
1	13	18	C	N1-C2-O2	5.99	122.49	118.90
1	13	1407	C	C4-C5-C6	-5.99	114.41	117.40
26	14	55	G	C8-N9-C4	-5.99	104.00	106.40
26	14	940	G	C2-N3-C4	5.99	114.89	111.90
26	14	2429	G	OP1-P-O3'	-5.99	92.03	105.20
23	2K	43	G	N1-C6-O6	-5.99	116.31	119.90
26	1H	484	C	C6-N1-C1'	-5.99	113.62	120.80
26	1H	1267	U	C4-C5-C6	5.99	123.29	119.70
26	1H	2311	A	N7-C8-N9	5.99	116.79	113.80
26	1H	2418	A	C2-N3-C4	5.99	113.59	110.60
1	1G	305	G	N3-C2-N2	5.99	124.09	119.90
26	1H	2818	G	N3-C4-C5	5.98	131.59	128.60
1	13	726	C	O5'-P-OP1	-5.98	100.32	105.70
26	1H	786	C	C5-C4-N4	5.98	124.39	120.20
26	1H	866	A	C4-N9-C1'	5.98	137.07	126.30
26	1H	985	C	C2-N3-C4	-5.98	116.91	119.90
26	1H	1837	C	O5'-P-OP1	-5.98	100.32	105.70
26	14	1728	G	C2-N3-C4	5.98	114.89	111.90
26	14	1776	G	C8-N9-C1'	-5.98	119.22	127.00
1	13	748	C	C2-N1-C1'	5.98	125.38	118.80
26	1H	1919	A	O4'-C1'-N9	-5.98	103.42	108.20
56	1L	29	G	O5'-P-OP1	5.98	117.88	110.70
26	14	729	G	C5-C6-O6	-5.98	125.01	128.60
1	13	578	C	N3-C4-C5	-5.98	119.51	121.90
26	1H	201	C	OP1-P-OP2	5.98	128.57	119.60
26	1H	923	C	C6-N1-C2	-5.98	117.91	120.30
26	1H	2061	G	O5'-P-OP1	5.98	117.87	110.70
26	1H	2419	U	OP1-P-O3'	5.98	118.35	105.20
26	1H	2723	C	N3-C2-O2	-5.98	117.72	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	356	A	C8-N9-C4	-5.98	103.41	105.80
26	14	1248	G	C4-C5-N7	5.98	113.19	110.80
26	14	1610	A	N9-C4-C5	-5.98	103.41	105.80
26	1H	2331	G	C8-N9-C4	5.98	108.79	106.40
26	1H	2593	U	N3-C4-O4	-5.98	115.22	119.40
26	14	48	G	OP2-P-O3'	5.98	118.35	105.20
26	14	2385	C	C5-C4-N4	-5.98	116.02	120.20
26	14	2574	G	C5-C6-N1	5.98	114.49	111.50
26	1H	1223	C	N3-C2-O2	5.97	126.08	121.90
26	1H	1338	G	C5-C6-N1	5.97	114.49	111.50
26	1H	1399	C	N1-C2-O2	-5.97	115.31	118.90
26	1H	2232	U	C4-C5-C6	5.97	123.28	119.70
27	16	103	U	N3-C2-O2	5.97	126.38	122.20
45	G8	79	CYS	N-CA-C	5.97	127.13	111.00
1	1G	525	C	N3-C4-N4	5.97	122.18	118.00
1	1G	668	G	C5-C6-O6	-5.97	125.02	128.60
26	1H	828	U	C6-N1-C2	-5.97	117.42	121.00
26	14	1489	U	C5-C4-O4	5.97	129.48	125.90
26	14	1601	G	OP1-P-O3'	5.97	118.34	105.20
26	14	1694	C	N3-C4-C5	5.97	124.29	121.90
26	1H	945	A	C5-C6-N1	-5.97	114.71	117.70
1	1G	28	G	OP2-P-O3'	5.97	118.34	105.20
1	1G	1417	G	C5-C6-N1	-5.97	108.52	111.50
23	2L	36	A	O5'-P-OP1	-5.97	100.33	105.70
26	1H	231	C	N3-C4-C5	-5.97	119.51	121.90
26	1H	1241	A	C4-C5-N7	5.97	113.69	110.70
26	1H	2081	C	C6-N1-C2	-5.97	117.91	120.30
1	1G	818	G	C4-C5-N7	-5.97	108.41	110.80
26	14	828	U	C5-C6-N1	-5.97	119.72	122.70
26	14	1523	U	C5-C6-N1	5.97	125.68	122.70
26	1H	1238	G	OP2-P-O3'	5.97	118.33	105.20
26	1H	2245	U	C5-C4-O4	-5.97	122.32	125.90
26	14	1209	G	OP1-P-OP2	5.97	128.55	119.60
1	13	419	C	C2-N1-C1'	5.97	125.36	118.80
1	13	740	U	O5'-P-OP2	-5.97	100.33	105.70
26	1H	1424	G	O5'-P-OP2	-5.97	100.33	105.70
26	1H	1535	U	C2-N1-C1'	5.97	124.86	117.70
26	1H	2069	G	C5-C6-O6	-5.97	125.02	128.60
26	1H	2271	G	C8-N9-C1'	-5.97	119.24	127.00
26	14	470	A	C5-C6-N6	-5.97	118.93	123.70
26	1H	191	A	N1-C2-N3	5.96	132.28	129.30
26	1H	484	C	C5-C4-N4	-5.96	116.03	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1271	G	N3-C4-N9	5.96	129.58	126.00
26	1H	1333	C	N3-C4-N4	5.96	122.18	118.00
26	1H	1819	A	C5-C6-N1	5.96	120.68	117.70
26	14	140	A	C5-C6-N6	-5.96	118.93	123.70
26	14	1166	C	N3-C4-C5	-5.96	119.51	121.90
1	13	422	C	C6-N1-C2	-5.96	117.92	120.30
26	14	1506	C	C5-C6-N1	5.96	123.98	121.00
26	1H	2709	G	O5'-P-OP1	5.96	117.85	110.70
27	16	21	G	N9-C4-C5	5.96	107.78	105.40
1	1G	913	A	P-O3'-C3'	5.96	126.86	119.70
26	14	1367	A	N9-C4-C5	-5.96	103.42	105.80
26	14	1655	A	C5-N7-C8	5.96	106.88	103.90
1	1G	723	U	C2-N1-C1'	5.96	124.85	117.70
26	14	2037	G	N3-C4-C5	-5.96	125.62	128.60
1	13	509	A	P-O3'-C3'	5.96	126.85	119.70
26	1H	424	G	N1-C6-O6	-5.96	116.33	119.90
26	1H	2070	G	N7-C8-N9	-5.96	110.12	113.10
1	1G	692	U	N3-C4-O4	5.96	123.57	119.40
26	14	1257	C	C4-C5-C6	5.96	120.38	117.40
26	14	1681	G	C4-C5-N7	5.96	113.18	110.80
26	14	2211	G	P-O3'-C3'	5.96	126.85	119.70
1	13	919	A	N1-C6-N6	-5.96	115.03	118.60
26	1H	785	G	N9-C4-C5	5.96	107.78	105.40
26	1H	795	C	C4-C5-C6	5.96	120.38	117.40
26	1H	2058	A	O5'-P-OP1	5.96	117.85	110.70
26	1H	2311	A	N3-C4-N9	-5.96	122.63	127.40
27	16	44	G	C6-C5-N7	5.96	133.97	130.40
1	1G	275	G	N1-C6-O6	5.96	123.47	119.90
26	14	2710	C	N1-C2-O2	-5.96	115.33	118.90
26	1H	1566	A	C2-N3-C4	5.95	113.58	110.60
26	14	320	A	O5'-P-OP2	-5.95	100.34	105.70
26	1H	698	C	O5'-P-OP2	-5.95	100.34	105.70
26	1H	842	G	C5-N7-C8	-5.95	101.33	104.30
26	1H	1788	C	C4-C5-C6	5.95	120.38	117.40
1	1G	909	A	N1-C6-N6	5.95	122.17	118.60
26	14	1266	G	C8-N9-C4	5.95	108.78	106.40
1	13	896	C	C4-C5-C6	5.95	120.37	117.40
26	1H	1253	A	N9-C4-C5	5.95	108.18	105.80
26	1H	1626	G	C5-N7-C8	-5.95	101.33	104.30
1	13	22	G	N3-C4-N9	-5.95	122.43	126.00
26	1H	736	C	O5'-P-OP1	-5.95	100.35	105.70
26	1H	2498	C	N3-C4-C5	5.95	124.28	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	31	46	ARG	NE-CZ-NH2	-5.95	117.33	120.30
26	14	1195	G	C6-C5-N7	5.95	133.97	130.40
1	13	220	G	C4-N9-C1'	5.95	134.23	126.50
1	13	564	C	C5-C6-N1	5.95	123.97	121.00
26	1H	941	A	OP1-P-OP2	-5.95	110.68	119.60
26	1H	1776	G	N9-C4-C5	-5.95	103.02	105.40
26	1H	2579	C	N1-C2-O2	-5.95	115.33	118.90
26	1H	2685	G	C8-N9-C4	5.95	108.78	106.40
1	1G	721	G	C4-C5-C6	5.95	122.37	118.80
23	2L	45	A	O5'-P-OP1	-5.95	100.35	105.70
29	29	78	LEU	CA-CB-CG	5.95	128.97	115.30
26	1H	735	A	N9-C4-C5	-5.94	103.42	105.80
26	1H	2282	G	O5'-P-OP2	5.94	117.83	110.70
26	14	1189	A	OP1-P-OP2	-5.94	110.68	119.60
26	1H	1308	A	N9-C4-C5	5.94	108.18	105.80
26	14	843	G	N1-C6-O6	5.94	123.47	119.90
26	14	1627	G	N3-C2-N2	5.94	124.06	119.90
26	14	1664	A	C8-N9-C4	5.94	108.18	105.80
26	14	2304	G	N7-C8-N9	5.94	116.07	113.10
26	14	2339	G	O5'-P-OP2	-5.94	100.35	105.70
26	1H	679	C	N3-C2-O2	5.94	126.06	121.90
26	1H	1825	A	C5-C6-N6	5.94	128.45	123.70
26	14	223	A	C8-N9-C4	-5.94	103.42	105.80
26	14	828	U	N1-C2-N3	5.94	118.46	114.90
26	14	1680	U	O5'-P-OP1	-5.94	100.35	105.70
26	14	2019	A	C8-N9-C4	5.94	108.18	105.80
26	14	2779	U	N3-C4-C5	5.94	118.16	114.60
26	14	1790	C	N3-C4-C5	5.94	124.28	121.90
1	13	988	G	C8-N9-C4	-5.94	104.03	106.40
26	1H	637	A	N9-C4-C5	-5.94	103.42	105.80
26	1H	983	A	C8-N9-C4	5.94	108.17	105.80
26	1H	1204	A	N3-C4-C5	5.94	130.96	126.80
26	1H	2342	C	N3-C4-C5	-5.94	119.53	121.90
1	1G	1472	U	O5'-P-OP1	5.94	117.83	110.70
26	14	1812	A	OP1-P-OP2	5.94	128.50	119.60
26	14	2067	G	N9-C4-C5	5.94	107.78	105.40
26	1H	55	G	C8-N9-C4	-5.94	104.03	106.40
26	1H	587	C	N3-C4-C5	5.94	124.28	121.90
26	1H	847	U	N1-C2-N3	5.94	118.46	114.90
26	1H	1410	G	C8-N9-C1'	5.94	134.72	127.00
26	1H	501	A	O5'-P-OP2	-5.93	100.36	105.70
26	1H	1466	G	C5-C6-O6	5.93	132.16	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	16	7	G	C5-N7-C8	-5.93	101.33	104.30
26	1H	201	C	N1-C2-N3	5.93	123.35	119.20
26	1H	687	C	N3-C2-O2	5.93	126.05	121.90
26	1H	764	A	OP1-P-OP2	-5.93	110.70	119.60
26	1H	845	G	C5-C6-O6	-5.93	125.04	128.60
26	14	265	A	C5-N7-C8	-5.93	100.93	103.90
26	14	737	C	N3-C2-O2	5.93	126.05	121.90
26	14	1762	A	N1-C6-N6	5.93	122.16	118.60
1	13	576	G	C4-N9-C1'	5.93	134.21	126.50
1	1G	1305	G	N3-C2-N2	-5.93	115.75	119.90
26	1H	626	U	N1-C2-N3	5.93	118.46	114.90
26	1H	829	A	N1-C2-N3	5.93	132.26	129.30
26	1H	1776	G	N1-C6-O6	5.93	123.46	119.90
54	P8	23	ARG	NE-CZ-NH1	5.93	123.27	120.30
1	1G	322	C	OP1-P-OP2	-5.93	110.70	119.60
1	1G	1126	U	P-O3'-C3'	5.93	126.81	119.70
26	14	479	A	C4-C5-N7	-5.93	107.73	110.70
26	14	1195	G	C4-C5-N7	-5.93	108.43	110.80
26	14	1252	G	O4'-C1'-N9	-5.93	103.46	108.20
26	14	2779	U	C6-N1-C1'	-5.93	112.90	121.20
1	13	57	G	N1-C6-O6	-5.93	116.34	119.90
1	13	1521	G	O5'-P-OP1	-5.93	100.37	105.70
26	1H	634	C	N3-C4-N4	-5.93	113.85	118.00
26	1H	1818	U	O5'-P-OP2	-5.93	100.37	105.70
26	1H	2602	A	C2-N3-C4	5.93	113.56	110.60
26	14	593	G	O5'-P-OP1	5.93	117.81	110.70
26	1H	1830	C	OP1-P-OP2	-5.92	110.71	119.60
39	A8	101	LEU	CA-CB-CG	5.92	128.93	115.30
26	14	209	C	C2-N3-C4	-5.92	116.94	119.90
26	14	1383	C	N3-C2-O2	5.92	126.05	121.90
26	1H	1613	G	C8-N9-C1'	-5.92	119.30	127.00
26	1H	124	G	N3-C2-N2	-5.92	115.75	119.90
26	1H	2363	C	N3-C4-C5	5.92	124.27	121.90
26	1H	838	C	N1-C2-O2	-5.92	115.35	118.90
26	1H	1772	G	N1-C2-N2	-5.92	110.87	116.20
26	1H	2576	G	N3-C2-N2	5.92	124.04	119.90
1	1G	963	G	C8-N9-C1'	-5.92	119.30	127.00
26	14	1313	U	O4'-C1'-N1	5.92	112.94	108.20
26	14	2590	A	C8-N9-C4	5.92	108.17	105.80
38	55	104	ARG	NE-CZ-NH1	-5.92	117.34	120.30
1	13	514	C	C5-C4-N4	-5.92	116.06	120.20
26	1H	431	U	N3-C2-O2	-5.92	118.06	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	975	G	N1-C2-N2	5.92	121.53	116.20
1	1G	620	C	C2-N1-C1'	5.92	125.31	118.80
26	14	463	G	N3-C2-N2	5.92	124.04	119.90
26	14	697	C	N1-C2-O2	-5.92	115.35	118.90
26	14	1288	U	O5'-P-OP2	-5.92	100.37	105.70
26	14	1653	G	N3-C4-C5	-5.92	125.64	128.60
26	1H	199	A	C4-C5-C6	-5.92	114.04	117.00
26	1H	385	C	C6-N1-C2	-5.92	117.93	120.30
26	1H	1571	A	N7-C8-N9	-5.92	110.84	113.80
1	1G	31	G	N1-C6-O6	5.92	123.45	119.90
11	2A	63	LEU	CA-CB-CG	5.92	128.91	115.30
26	1H	1249	U	N3-C2-O2	5.92	126.34	122.20
23	2K	9	G	C8-N9-C4	-5.91	104.03	106.40
26	1H	2006	C	C5-C4-N4	-5.91	116.06	120.20
40	B8	105	LEU	CA-CB-CG	5.91	128.90	115.30
1	13	418	C	N1-C2-O2	5.91	122.45	118.90
26	1H	2329	G	OP1-P-OP2	5.91	128.47	119.60
26	1H	2433	A	N1-C2-N3	5.91	132.26	129.30
1	13	1530	G	C4-N9-C1'	-5.91	118.82	126.50
26	1H	1307	A	N1-C6-N6	5.91	122.15	118.60
26	1H	2451	A	N9-C4-C5	5.91	108.16	105.80
26	1H	2507	C	N3-C4-C5	-5.91	119.54	121.90
26	14	563	G	C5-C6-N1	5.91	114.46	111.50
26	14	2701	C	P-O3'-C3'	5.91	126.79	119.70
1	13	1027	C	OP1-P-O3'	5.91	118.20	105.20
1	13	1404	C	N1-C2-O2	-5.91	115.36	118.90
26	1H	1606	G	N1-C2-N3	-5.91	120.36	123.90
26	14	1626	G	N3-C2-N2	-5.91	115.76	119.90
26	14	1968	G	OP1-P-OP2	-5.91	110.74	119.60
26	1H	540	G	N1-C2-N2	5.91	121.52	116.20
1	1G	249	U	O5'-P-OP2	-5.91	100.38	105.70
26	14	1254	A	C5-C6-N1	5.91	120.65	117.70
1	13	305	G	C5-N7-C8	5.91	107.25	104.30
26	1H	848	G	O5'-P-OP2	-5.91	100.39	105.70
26	1H	1331	A	C4-C5-N7	-5.91	107.75	110.70
26	14	1379	A	C5-C6-N6	-5.91	118.98	123.70
26	14	1914	C	C2-N1-C1'	5.91	125.30	118.80
26	1H	2552	U	N1-C2-O2	-5.90	118.67	122.80
1	13	1196	U	C5-C6-N1	5.90	125.65	122.70
26	1H	578	A	C5-N7-C8	-5.90	100.95	103.90
1	1G	1158	C	N1-C2-O2	5.90	122.44	118.90
26	14	746	A	N9-C4-C5	5.90	108.16	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1678	G	N1-C6-O6	5.90	123.44	119.90
26	14	2000	G	C6-N1-C2	-5.90	121.56	125.10
26	1H	52	A	O5'-P-OP2	-5.90	100.39	105.70
26	1H	391	G	C5-C6-N1	-5.90	108.55	111.50
26	14	2877	G	O5'-P-OP1	5.90	117.78	110.70
26	14	2878	U	N3-C2-O2	-5.90	118.07	122.20
1	1G	866	C	C6-N1-C2	-5.90	117.94	120.30
26	14	1673	U	C5-C6-N1	-5.90	119.75	122.70
26	14	1896	G	C8-N9-C4	-5.90	104.04	106.40
26	14	1930	G	C5-N7-C8	5.90	107.25	104.30
1	13	449	C	N3-C4-N4	-5.90	113.87	118.00
26	1H	229	A	P-O3'-C3'	5.90	126.78	119.70
26	1H	599	G	N1-C2-N2	-5.90	110.89	116.20
26	1H	1382	G	N3-C4-C5	5.90	131.55	128.60
26	1H	1649	G	N3-C4-C5	-5.90	125.65	128.60
26	1H	1905	C	N3-C4-C5	-5.90	119.54	121.90
27	16	56	G	C8-N9-C4	-5.90	104.04	106.40
26	14	487	C	N3-C4-C5	-5.90	119.54	121.90
26	14	2522	U	C4-C5-C6	5.90	123.24	119.70
26	1H	148	C	N3-C4-C5	5.90	124.26	121.90
12	3A	27	LEU	CA-CB-CG	5.90	128.86	115.30
26	14	28	A	OP1-P-OP2	-5.90	110.76	119.60
26	14	1801	G	O5'-P-OP1	-5.90	100.39	105.70
1	13	52	G	N9-C4-C5	-5.89	103.04	105.40
26	1H	120	U	N3-C4-O4	-5.89	115.27	119.40
26	1H	621	A	N3-C4-N9	-5.89	122.68	127.40
27	16	5	C	N3-C4-C5	5.89	124.26	121.90
26	14	1204	A	C4-C5-N7	5.89	113.65	110.70
26	14	2426	A	N9-C4-C5	-5.89	103.44	105.80
1	13	918	A	N1-C6-N6	5.89	122.14	118.60
26	1H	78	A	N1-C6-N6	5.89	122.14	118.60
26	1H	228	A	C4-C5-N7	5.89	113.65	110.70
26	1H	983	A	N7-C8-N9	-5.89	110.85	113.80
26	1H	1274	A	N7-C8-N9	5.89	116.75	113.80
26	1H	1285	G	C5-C6-O6	-5.89	125.06	128.60
41	C8	74	LEU	CA-CB-CG	5.89	128.85	115.30
26	14	1901	A	C2-N3-C4	5.89	113.55	110.60
26	14	1973	G	C5-C6-O6	5.89	132.14	128.60
1	13	977	A	N1-C6-N6	-5.89	115.07	118.60
1	13	1402	C	N3-C4-C5	-5.89	119.54	121.90
26	1H	81	G	N1-C6-O6	-5.89	116.37	119.90
26	1H	2313	C	N3-C2-O2	-5.89	117.78	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2438	U	N1-C2-N3	5.89	118.43	114.90
26	14	1678	G	N3-C2-N2	-5.89	115.78	119.90
26	14	2011	U	O5'-P-OP2	5.89	117.77	110.70
26	1H	598	G	C5-C6-O6	-5.89	125.07	128.60
26	1H	2319	G	C8-N9-C4	-5.89	104.05	106.40
1	1G	768	A	C2-N3-C4	-5.89	107.66	110.60
1	13	948	C	O5'-P-OP2	-5.89	100.40	105.70
1	13	1474	G	C5-C6-N1	5.89	114.44	111.50
26	1H	119	A	C8-N9-C4	-5.89	103.44	105.80
26	14	834	C	C4-C5-C6	5.89	120.34	117.40
26	1H	212	G	OP2-P-O3'	5.88	118.15	105.20
26	1H	780	G	C4-C5-N7	5.88	113.15	110.80
26	1H	1350	C	O5'-P-OP1	-5.88	100.40	105.70
26	1H	1671	U	C2-N1-C1'	5.88	124.76	117.70
26	14	198	C	N3-C2-O2	-5.88	117.78	121.90
26	14	1187	G	C5-C6-N1	-5.88	108.56	111.50
26	14	1210	A	C5-N7-C8	-5.88	100.96	103.90
26	14	2609	U	O5'-P-OP2	-5.88	100.40	105.70
26	14	302	C	O5'-P-OP2	-5.88	100.41	105.70
26	14	2497	A	O5'-P-OP2	5.88	117.76	110.70
1	13	449	C	C5-C4-N4	5.88	124.32	120.20
26	1H	302	C	N3-C2-O2	-5.88	117.78	121.90
26	1H	967	C	C5-C6-N1	-5.88	118.06	121.00
26	1H	2037	G	N3-C4-C5	-5.88	125.66	128.60
26	1H	2247	A	OP1-P-O3'	5.88	118.14	105.20
26	1H	2491	U	N1-C2-N3	-5.88	111.37	114.90
1	1G	391	G	C4-C5-N7	5.88	113.15	110.80
1	13	190	G	C4-N9-C1'	5.88	134.14	126.50
26	1H	381	G	OP1-P-O3'	5.88	118.14	105.20
26	1H	1241	A	N3-C4-N9	-5.88	122.70	127.40
26	1H	2440	C	C2-N3-C4	5.88	122.84	119.90
26	14	1315	C	N3-C4-N4	-5.88	113.88	118.00
26	14	1964	G	N3-C4-N9	5.88	129.53	126.00
13	4I	108	ARG	NE-CZ-NH1	5.88	123.24	120.30
26	1H	968	G	C5-C6-O6	5.88	132.13	128.60
26	1H	1613	G	N7-C8-N9	-5.88	110.16	113.10
26	1H	1633	G	O5'-P-OP1	-5.88	100.41	105.70
26	1H	2239	G	N1-C6-O6	-5.88	116.37	119.90
26	1H	2241	A	C4-C5-N7	-5.88	107.76	110.70
26	1H	2270	G	C8-N9-C1'	-5.88	119.36	127.00
26	1H	2507	C	C5-C4-N4	5.88	124.31	120.20
26	14	681	G	O5'-P-OP2	-5.88	100.41	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	695	G	C5-C6-N1	5.88	114.44	111.50
26	1H	1850	G	O5'-P-OP2	5.88	117.75	110.70
26	1H	2258	C	N1-C2-O2	-5.88	115.37	118.90
26	14	731	C	C2-N3-C4	-5.88	116.96	119.90
26	14	2001	A	C5-C6-N1	5.88	120.64	117.70
27	1J	102	G	C4-C5-N7	-5.88	108.45	110.80
26	1H	2239	G	N3-C4-C5	-5.88	125.66	128.60
1	1G	275	G	N9-C4-C5	-5.88	103.05	105.40
26	14	1351	C	C5-C6-N1	-5.88	118.06	121.00
26	1H	448	U	C4-C5-C6	5.87	123.22	119.70
26	1H	655	A	N1-C2-N3	5.87	132.24	129.30
26	1H	1049	C	N1-C2-O2	5.87	122.42	118.90
26	1H	1678	G	O4'-C1'-N9	-5.87	103.50	108.20
26	1H	1698	A	O4'-C1'-N9	5.87	112.90	108.20
27	16	31	C	N3-C4-N4	-5.87	113.89	118.00
26	14	1632	A	N9-C4-C5	-5.87	103.45	105.80
26	1H	662	G	C5-N7-C8	5.87	107.24	104.30
26	1H	963	U	C4-C5-C6	5.87	123.22	119.70
26	1H	1801	G	C5-C6-N1	5.87	114.44	111.50
26	14	332	A	OP2-P-O3'	5.87	118.12	105.20
1	13	587	G	N1-C6-O6	5.87	123.42	119.90
26	1H	680	G	C6-N1-C2	-5.87	121.58	125.10
27	16	31	C	N1-C2-O2	5.87	122.42	118.90
26	14	2526	G	N3-C4-C5	5.87	131.53	128.60
1	13	730	G	OP1-P-O3'	5.87	118.11	105.20
26	1H	229	A	OP2-P-O3'	5.87	118.11	105.20
26	1H	944	G	C8-N9-C4	-5.87	104.05	106.40
26	1H	968	G	N1-C2-N2	-5.87	110.92	116.20
26	1H	2447	G	O4'-C1'-N9	5.87	112.89	108.20
26	14	528	A	C8-N9-C4	-5.87	103.45	105.80
26	14	1517	G	OP1-P-O3'	5.87	118.11	105.20
26	1H	1210	A	C8-N9-C4	-5.87	103.45	105.80
1	1G	598	U	N1-C2-O2	-5.87	118.69	122.80
26	14	119	A	OP2-P-O3'	-5.87	92.29	105.20
26	14	2567	G	N3-C4-N9	5.87	129.52	126.00
1	13	412	A	P-O3'-C3'	5.87	126.74	119.70
26	1H	395	U	C2-N1-C1'	5.87	124.74	117.70
26	1H	808	G	O5'-P-OP1	-5.87	100.42	105.70
1	1G	1442	G	C4-N9-C1'	-5.87	118.88	126.50
1	13	419	C	C5-C6-N1	5.86	123.93	121.00
1	13	789	U	N3-C4-C5	-5.86	111.08	114.60
26	1H	1406	U	OP1-P-O3'	5.86	118.10	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1326	C	O5'-P-OP2	-5.86	100.42	105.70
22	1K	76	A	N1-C6-N6	5.86	122.12	118.60
26	1H	611	C	C5-C6-N1	-5.86	118.07	121.00
1	13	30	U	N1-C2-O2	-5.86	118.70	122.80
26	1H	1203	G	N3-C4-C5	-5.86	125.67	128.60
26	1H	1244	G	C5-C6-O6	-5.86	125.08	128.60
26	1H	1475	G	N1-C2-N2	5.86	121.47	116.20
26	1H	2271	G	C4-C5-N7	5.86	113.14	110.80
26	1H	2390	U	N1-C2-N3	5.86	118.42	114.90
1	1G	50	A	N9-C4-C5	5.86	108.14	105.80
26	14	992	C	C6-N1-C2	-5.86	117.96	120.30
26	14	2272	U	N3-C2-O2	-5.86	118.10	122.20
26	14	2841	C	N1-C2-O2	-5.86	115.38	118.90
26	1H	593	G	C6-N1-C2	-5.86	121.58	125.10
26	1H	651	G	N9-C4-C5	5.86	107.74	105.40
1	1G	180	U	C5-C6-N1	5.86	125.63	122.70
26	14	2066	C	OP1-P-O3'	5.86	118.09	105.20
26	1H	2464	C	N3-C4-N4	5.86	122.10	118.00
26	1H	2503	A	C2-N3-C4	5.86	113.53	110.60
26	14	843	G	N9-C4-C5	-5.86	103.06	105.40
26	1H	80	G	C8-N9-C4	-5.86	104.06	106.40
26	1H	1830	C	C5-C4-N4	-5.86	116.10	120.20
1	1G	953	G	N3-C2-N2	5.86	124.00	119.90
26	14	2542	A	N9-C4-C5	-5.86	103.46	105.80
1	13	1511	G	C4-N9-C1'	5.85	134.11	126.50
46	H8	117	LEU	CA-CB-CG	5.85	128.76	115.30
1	13	724	G	OP1-P-O3'	5.85	118.07	105.20
26	1H	386	G	C5-C6-N1	5.85	114.43	111.50
26	1H	616	A	N1-C6-N6	5.85	122.11	118.60
26	1H	2062	A	N9-C4-C5	-5.85	103.46	105.80
26	1H	2619	C	N3-C4-N4	5.85	122.10	118.00
26	1H	2743	C	N3-C4-N4	-5.85	113.90	118.00
27	16	29	A	N7-C8-N9	5.85	116.73	113.80
26	14	2347	C	N3-C2-O2	-5.85	117.80	121.90
26	1H	1231	G	C5-C6-O6	-5.85	125.09	128.60
1	13	770	C	N3-C4-N4	5.85	122.09	118.00
26	1H	1379	A	O4'-C1'-N9	5.85	112.88	108.20
1	13	1451	A	C8-N9-C4	-5.85	103.46	105.80
26	1H	121	G	N1-C6-O6	5.85	123.41	119.90
26	1H	1264	G	N3-C2-N2	5.85	123.99	119.90
26	1H	1842	G	N7-C8-N9	-5.85	110.18	113.10
27	16	11	C	N1-C2-O2	5.85	122.41	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	398	C	N1-C2-O2	5.85	122.41	118.90
1	13	758	G	C6-C5-N7	-5.85	126.89	130.40
26	1H	2345	G	C4-C5-N7	5.85	113.14	110.80
1	1G	504	C	N1-C2-O2	-5.85	115.39	118.90
26	14	552	G	C5-N7-C8	5.85	107.22	104.30
26	14	1543	A	O5'-P-OP1	5.85	117.72	110.70
1	13	1313	U	C5-C6-N1	5.84	125.62	122.70
26	1H	1984	G	N7-C8-N9	-5.84	110.18	113.10
26	14	481	G	O4'-C1'-N9	5.84	112.88	108.20
26	14	1651	G	OP1-P-O3'	5.84	118.06	105.20
26	1H	401	A	N1-C2-N3	5.84	132.22	129.30
26	1H	1226	G	C8-N9-C4	-5.84	104.06	106.40
26	1H	1324	G	O4'-C1'-N9	5.84	112.87	108.20
26	1H	1373	A	O5'-P-OP1	5.84	117.71	110.70
26	1H	1656	C	N1-C2-O2	5.84	122.41	118.90
1	1G	1259	C	C5-C6-N1	5.84	123.92	121.00
26	14	110	G	N1-C6-O6	5.84	123.41	119.90
26	14	205	G	N3-C2-N2	5.84	123.99	119.90
26	14	666	G	C2-N3-C4	-5.84	108.98	111.90
26	14	1949	G	OP1-P-OP2	5.84	128.36	119.60
26	14	2702	U	N1-C1'-C2'	5.84	121.59	114.00
1	13	974	A	C4-C5-C6	5.84	119.92	117.00
26	1H	987	G	C8-N9-C1'	5.84	134.59	127.00
26	1H	1578	U	C5-C4-O4	5.84	129.40	125.90
1	1G	904	C	N1-C2-O2	-5.84	115.40	118.90
26	14	1613	G	N1-C2-N2	-5.84	110.94	116.20
26	14	2609	U	C5-C6-N1	-5.84	119.78	122.70
1	13	186	C	C6-N1-C2	-5.84	117.97	120.30
26	14	1570	A	OP1-P-O3'	5.84	118.04	105.20
26	14	1616	A	C6-C5-N7	-5.84	128.21	132.30
1	13	799	G	O5'-P-OP1	-5.84	100.45	105.70
1	13	1464	G	C5-C6-O6	-5.84	125.10	128.60
26	1H	716	A	N7-C8-N9	5.84	116.72	113.80
26	1H	1948	G	N1-C6-O6	-5.84	116.40	119.90
26	1H	2509	G	N3-C4-N9	5.84	129.50	126.00
26	14	774	A	C4-C5-C6	-5.84	114.08	117.00
26	14	1142	U	C6-N1-C1'	-5.84	113.03	121.20
26	14	1249	U	OP1-P-O3'	5.84	118.04	105.20
26	14	2346	A	N7-C8-N9	5.84	116.72	113.80
26	1H	245	G	N3-C4-N9	5.83	129.50	126.00
26	1H	847	U	OP1-P-OP2	5.83	128.35	119.60
26	1H	984	A	N9-C4-C5	-5.83	103.47	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1658	C	C2-N3-C4	-5.83	116.98	119.90
1	13	898	G	N1-C2-N2	5.83	121.45	116.20
26	1H	37	C	C5-C4-N4	5.83	124.28	120.20
26	1H	841	A	N1-C6-N6	5.83	122.10	118.60
26	1H	1936	A	O4'-C1'-N9	5.83	112.87	108.20
27	16	33	G	N1-C6-O6	-5.83	116.40	119.90
26	14	1821	A	C6-N1-C2	-5.83	115.10	118.60
1	13	1200	C	C2-N1-C1'	5.83	125.22	118.80
1	13	1432	G	N1-C6-O6	5.83	123.40	119.90
26	1H	533	G	C5-C6-N1	5.83	114.42	111.50
26	1H	1634	A	C5-C6-N6	-5.83	119.03	123.70
26	1H	2609	U	C6-N1-C2	5.83	124.50	121.00
26	14	1734	C	C6-N1-C2	-5.83	117.97	120.30
26	14	1785	A	N9-C4-C5	5.83	108.13	105.80
26	14	1941	C	C5-C6-N1	5.83	123.92	121.00
26	14	2228	G	N3-C4-N9	5.83	129.50	126.00
26	1H	251	A	O5'-P-OP1	-5.83	100.45	105.70
26	14	252	G	O5'-P-OP1	5.83	117.70	110.70
26	14	1608	A	C5-C6-N6	5.83	128.36	123.70
26	14	2287	A	C4-C5-N7	5.83	113.61	110.70
26	14	2600	A	OP2-P-O3'	5.83	118.03	105.20
26	1H	598	G	C6-N1-C2	-5.83	121.60	125.10
26	1H	1591	G	N3-C4-N9	-5.83	122.50	126.00
26	1H	2311	A	O4'-C1'-N9	5.83	112.86	108.20
26	14	690	G	C5-N7-C8	5.83	107.21	104.30
26	14	1962	C	C6-N1-C2	-5.83	117.97	120.30
1	13	52	G	C6-C5-N7	-5.83	126.90	130.40
1	13	263	A	O5'-P-OP2	5.83	117.69	110.70
26	1H	1321	A	C6-N1-C2	-5.83	115.10	118.60
1	13	1139	G	N9-C4-C5	-5.83	103.07	105.40
26	1H	1123	C	C2-N3-C4	-5.83	116.99	119.90
26	1H	1199	U	C5-C6-N1	-5.83	119.79	122.70
26	1H	1673	U	C2-N1-C1'	-5.83	110.71	117.70
26	14	735	A	C8-N9-C4	5.83	108.13	105.80
26	14	926	A	OP1-P-O3'	5.83	118.02	105.20
26	14	1786	A	C4-N9-C1'	5.83	136.79	126.30
26	14	2060	A	C5-N7-C8	-5.83	100.99	103.90
26	14	2413	G	N1-C6-O6	5.83	123.40	119.90
1	13	219	C	C6-N1-C2	-5.82	117.97	120.30
26	1H	578	A	N7-C8-N9	5.82	116.71	113.80
26	14	1754	C	N3-C2-O2	-5.82	117.82	121.90
26	14	2391	G	C5-N7-C8	-5.82	101.39	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1691	C	O5'-P-OP1	-5.82	100.46	105.70
26	1H	2550	G	C5-C6-O6	-5.82	125.11	128.60
1	1G	481	G	C4-N9-C1'	5.82	134.07	126.50
26	1H	2266	A	C6-N1-C2	-5.82	115.11	118.60
26	1H	2359	C	N3-C4-N4	-5.82	113.93	118.00
53	O8	21	TYR	CA-CB-CG	5.82	124.46	113.40
26	14	1703	G	N9-C4-C5	-5.82	103.07	105.40
26	14	2741	A	C8-N9-C4	5.82	108.13	105.80
26	1H	541	C	N1-C2-O2	5.82	122.39	118.90
26	1H	617	G	C5-C6-N1	5.82	114.41	111.50
1	1G	953	G	N3-C4-N9	5.82	129.49	126.00
26	14	1365	A	C8-N9-C4	-5.82	103.47	105.80
26	1H	322	A	OP2-P-O3'	5.82	118.00	105.20
26	1H	1573	G	OP1-P-O3'	-5.82	92.40	105.20
26	1H	1770	G	C2-N3-C4	-5.82	108.99	111.90
26	1H	2354	G	C4-N9-C1'	5.82	134.06	126.50
26	1H	2751	G	C5-N7-C8	-5.82	101.39	104.30
26	14	459	U	C2-N3-C4	-5.82	123.51	127.00
26	14	2439	A	C2-N3-C4	-5.82	107.69	110.60
1	13	545	C	N3-C4-N4	-5.82	113.93	118.00
1	13	1498	U	C2'-C3'-O3'	5.82	123.01	113.70
26	1H	760	G	C4-C5-N7	5.82	113.13	110.80
26	1H	955	C	OP1-P-O3'	5.82	118.00	105.20
26	1H	1836	C	C5-C4-N4	5.82	124.27	120.20
26	1H	2281	C	C5-C4-N4	-5.82	116.13	120.20
26	14	1968	G	C5-N7-C8	-5.82	101.39	104.30
26	14	2228	G	C4-N9-C1'	5.82	134.06	126.50
1	13	1498	U	N3-C4-O4	5.81	123.47	119.40
23	2K	77	A	N1-C6-N6	5.81	122.09	118.60
26	1H	1773	A	N1-C2-N3	5.81	132.21	129.30
36	35	21	ARG	NE-CZ-NH1	-5.81	117.39	120.30
26	1H	749	C	N3-C2-O2	-5.81	117.83	121.90
26	1H	1317	A	OP1-P-O3'	5.81	117.99	105.20
26	1H	1621	U	O5'-P-OP1	-5.81	100.47	105.70
26	1H	2394	C	C6-N1-C2	-5.81	117.97	120.30
26	1H	2779	U	N3-C2-O2	-5.81	118.13	122.20
54	P8	33	ARG	NE-CZ-NH2	5.81	123.21	120.30
26	14	608	A	N7-C8-N9	5.81	116.71	113.80
26	14	801	G	O5'-P-OP1	5.81	117.68	110.70
26	14	1257	C	C5-C6-N1	-5.81	118.09	121.00
26	14	2074	U	C2-N3-C4	-5.81	123.51	127.00
26	1H	851	U	OP2-P-O3'	5.81	117.98	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2435	A	C5-C6-N6	5.81	128.35	123.70
26	1H	2606	C	O5'-P-OP1	-5.81	100.47	105.70
1	13	1183	A	C8-N9-C4	5.81	108.12	105.80
26	1H	146	G	C6-C5-N7	-5.81	126.91	130.40
26	1H	946	G	C8-N9-C4	5.81	108.72	106.40
26	1H	1757	U	C5-C6-N1	-5.81	119.80	122.70
26	1H	2219	G	OP2-P-O3'	5.81	117.98	105.20
1	1G	401	C	O5'-P-OP2	-5.81	100.47	105.70
1	1G	691	G	N1-C6-O6	5.81	123.39	119.90
26	1H	119	A	C6-N1-C2	-5.81	115.12	118.60
26	1H	760	G	C2-N3-C4	-5.81	109.00	111.90
26	14	49	A	C8-N9-C4	-5.81	103.48	105.80
1	13	298	A	C8-N9-C4	-5.81	103.48	105.80
1	13	545	C	N3-C2-O2	-5.81	117.84	121.90
1	13	770	C	C5-C4-N4	-5.81	116.14	120.20
26	1H	139	G	N3-C4-N9	5.81	129.48	126.00
26	14	945	A	C5-C6-N1	-5.81	114.80	117.70
26	14	2540	C	O5'-P-OP2	-5.81	100.47	105.70
27	1J	6	C	C6-N1-C2	5.81	122.62	120.30
39	65	101	LEU	CA-CB-CG	5.81	128.65	115.30
26	1H	1261	C	C5-C4-N4	-5.80	116.14	120.20
23	2L	69	C	C6-N1-C2	5.80	122.62	120.30
26	14	834	C	OP1-P-OP2	5.80	128.31	119.60
26	14	1270	C	OP2-P-O3'	5.80	117.97	105.20
26	14	2364	C	O5'-P-OP1	5.80	117.67	110.70
26	14	2518	A	N1-C2-N3	5.80	132.20	129.30
1	13	594	G	O5'-P-OP1	-5.80	100.48	105.70
26	14	201	C	C5-C6-N1	-5.80	118.10	121.00
26	14	2712(A)	A	C6-N1-C2	5.80	122.08	118.60
26	1H	271(B)	G	N1-C2-N2	-5.80	110.98	116.20
1	13	794	A	O5'-P-OP1	5.80	117.66	110.70
26	1H	382	G	N9-C4-C5	-5.80	103.08	105.40
26	1H	782	A	C6-N1-C2	-5.80	115.12	118.60
26	1H	2241	A	N1-C2-N3	5.80	132.20	129.30
26	14	385	C	OP1-P-OP2	5.80	128.30	119.60
26	14	2360	A	C2-N3-C4	-5.80	107.70	110.60
26	14	2391	G	O5'-P-OP2	-5.80	100.48	105.70
42	95	71	LEU	CA-CB-CG	-5.80	101.96	115.30
1	13	972	C	OP2-P-O3'	5.80	117.95	105.20
26	1H	691	C	N3-C2-O2	5.80	125.96	121.90
26	14	1467	C	N3-C2-O2	-5.80	117.84	121.90
26	1H	2004	G	OP1-P-OP2	5.80	128.29	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1658	C	N3-C4-N4	5.80	122.06	118.00
26	14	2433	A	O5'-P-OP2	5.80	117.66	110.70
1	13	534	U	C5-C6-N1	-5.79	119.80	122.70
26	1H	2236	C	N3-C4-C5	-5.79	119.58	121.90
1	1G	1405	G	OP2-P-O3'	5.79	117.95	105.20
26	14	1305	C	C2-N3-C4	-5.79	117.00	119.90
1	13	941	G	C8-N9-C4	-5.79	104.08	106.40
26	1H	528	A	C4-C5-C6	-5.79	114.10	117.00
26	1H	2287	A	C6-C5-N7	-5.79	128.24	132.30
27	16	47	C	N3-C2-O2	5.79	125.95	121.90
57	3L	76	A	N1-C6-N6	5.79	122.08	118.60
26	14	669	G	OP1-P-OP2	-5.79	110.91	119.60
26	14	2392	A	C4-C5-N7	5.79	113.60	110.70
26	14	2441	C	C5-C4-N4	5.79	124.26	120.20
26	14	2464	C	C5-C6-N1	-5.79	118.10	121.00
1	13	238	G	C8-N9-C4	5.79	108.72	106.40
26	1H	1978	A	C5-C6-N1	5.79	120.59	117.70
1	1G	1025	U	C2-N1-C1'	5.79	124.65	117.70
26	14	191	A	OP1-P-O3'	-5.79	92.46	105.20
26	14	797	C	N1-C2-O2	-5.79	115.43	118.90
26	14	1519	G	O5'-P-OP1	-5.79	100.49	105.70
26	1H	1603	A	C8-N9-C4	-5.79	103.48	105.80
1	13	568	G	N3-C4-C5	-5.79	125.70	128.60
1	13	1177	G	C8-N9-C4	5.79	108.72	106.40
26	1H	123	G	C5-C6-N1	5.79	114.39	111.50
26	1H	514	A	OP1-P-O3'	5.79	117.93	105.20
26	1H	1286	A	O4'-C1'-N9	5.79	112.83	108.20
26	1H	1630	G	N1-C6-O6	-5.79	116.43	119.90
26	1H	1761	C	N3-C2-O2	5.79	125.95	121.90
26	1H	2431	U	OP1-P-O3'	5.79	117.94	105.20
26	14	1586	A	C8-N9-C4	-5.79	103.48	105.80
27	1J	7	G	C8-N9-C1'	-5.79	119.48	127.00
26	1H	855	G	C8-N9-C4	-5.79	104.08	106.40
1	1G	1502	A	N7-C8-N9	5.79	116.69	113.80
26	14	1241	A	N7-C8-N9	5.79	116.69	113.80
26	14	1427	A	P-O3'-C3'	5.79	126.64	119.70
26	14	2023	G	C8-N9-C4	-5.79	104.08	106.40
1	13	185	A	C8-N9-C4	-5.79	103.48	105.80
26	1H	1205	U	O5'-P-OP1	5.79	117.64	110.70
26	1H	1311	G	C5-N7-C8	-5.79	101.41	104.30
26	1H	2373	G	C6-C5-N7	-5.79	126.93	130.40
44	F8	3	THR	C-N-CA	5.79	136.17	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	246	C	O5'-P-OP1	-5.79	100.49	105.70
26	14	610	C	N3-C2-O2	-5.79	117.85	121.90
26	14	1960	A	N1-C2-N3	5.79	132.19	129.30
26	14	2011	U	O5'-P-OP1	-5.79	100.49	105.70
26	1H	1625	C	O5'-P-OP1	5.78	117.64	110.70
26	1H	1694	C	OP1-P-O3'	-5.78	92.48	105.20
26	1H	2434	A	N1-C2-N3	-5.78	126.41	129.30
26	14	2575	C	C6-N1-C2	-5.78	117.99	120.30
1	13	913	A	OP1-P-O3'	5.78	117.92	105.20
26	1H	396	G	N1-C6-O6	5.78	123.37	119.90
26	1H	734	A	N1-C6-N6	5.78	122.07	118.60
26	1H	1815	A	N9-C4-C5	5.78	108.11	105.80
26	14	1726	G	C8-N9-C4	-5.78	104.09	106.40
26	14	2391	G	C5-C6-O6	5.78	132.07	128.60
1	13	376	G	OP1-P-OP2	5.78	128.27	119.60
26	1H	271(B)	G	C5-C6-N1	5.78	114.39	111.50
1	1G	1280	A	C8-N9-C4	5.78	108.11	105.80
26	14	270(X)	G	C6-C5-N7	-5.78	126.93	130.40
26	14	501	A	O5'-P-OP2	-5.78	100.50	105.70
26	14	2501	C	N3-C2-O2	5.78	125.95	121.90
26	1H	688	U	N1-C2-N3	5.78	118.37	114.90
26	1H	1691	C	OP1-P-O3'	5.78	117.91	105.20
1	13	632	A	N1-C6-N6	-5.78	115.13	118.60
26	1H	198	C	C2-N3-C4	-5.78	117.01	119.90
26	1H	1858	G	N7-C8-N9	5.78	115.99	113.10
26	1H	2393	A	O4'-C1'-N9	5.78	112.82	108.20
26	14	1349	A	C6-C5-N7	-5.78	128.26	132.30
26	14	1568	G	N1-C6-O6	-5.78	116.43	119.90
26	14	2047	U	N3-C4-O4	-5.78	115.36	119.40
26	14	2250	G	C2-N3-C4	5.78	114.79	111.90
27	1J	101	A	C5-N7-C8	-5.78	101.01	103.90
26	1H	16	G	O5'-P-OP2	-5.78	100.50	105.70
26	1H	70	G	N1-C2-N2	-5.78	111.00	116.20
26	1H	134	C	C2-N3-C4	-5.78	117.01	119.90
26	1H	1201	C	N3-C4-N4	5.78	122.04	118.00
26	1H	1787	A	O5'-P-OP1	-5.78	100.50	105.70
1	13	370	C	O5'-P-OP2	-5.77	100.50	105.70
1	13	630	G	N1-C6-O6	5.77	123.36	119.90
26	1H	1555	G	O5'-P-OP1	-5.77	100.50	105.70
1	13	353	A	OP2-P-O3'	5.77	117.90	105.20
26	1H	829	A	O4'-C1'-N9	5.77	112.82	108.20
26	14	973	A	N9-C4-C5	-5.77	103.49	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2075	U	C5-C6-N1	-5.77	119.81	122.70
26	14	2391	G	N1-C6-O6	-5.77	116.44	119.90
18	9I	72	ARG	NE-CZ-NH1	-5.77	117.42	120.30
26	1H	178	G	O5'-P-OP2	5.77	117.63	110.70
26	14	1400	G	OP1-P-OP2	-5.77	110.94	119.60
26	1H	2525	G	C4-C5-N7	5.77	113.11	110.80
26	14	2880	C	C6-N1-C2	-5.77	117.99	120.30
26	1H	141	A	C4-C5-N7	5.77	113.58	110.70
26	1H	534	U	OP2-P-O3'	5.77	117.89	105.20
1	1G	721	G	N1-C6-O6	5.77	123.36	119.90
1	1G	728	A	C8-N9-C4	-5.77	103.49	105.80
1	13	874	G	N1-C6-O6	-5.77	116.44	119.90
26	14	1282	U	C2-N3-C4	-5.77	123.54	127.00
26	1H	528	A	C5-C6-N1	-5.76	114.82	117.70
26	1H	832	G	N1-C6-O6	5.76	123.36	119.90
26	1H	996	A	N7-C8-N9	-5.76	110.92	113.80
26	1H	1589	C	O5'-P-OP2	5.76	117.62	110.70
26	1H	2287	A	N1-C2-N3	5.76	132.18	129.30
26	14	389	G	C5-C6-O6	-5.76	125.14	128.60
26	14	954	G	O5'-P-OP2	5.76	117.62	110.70
26	14	2346	A	C6-C5-N7	-5.76	128.26	132.30
26	1H	2063	C	OP1-P-OP2	-5.76	110.95	119.60
26	1H	2439	A	C2-N3-C4	-5.76	107.72	110.60
26	1H	2491	U	N3-C2-O2	5.76	126.23	122.20
27	16	29	A	OP1-P-OP2	-5.76	110.95	119.60
26	14	1774	C	N3-C4-C5	-5.76	119.59	121.90
1	13	1205	U	N1-C2-N3	5.76	118.36	114.90
26	1H	195	A	OP1-P-OP2	-5.76	110.96	119.60
26	1H	482	A	C8-N9-C4	-5.76	103.50	105.80
26	1H	767	U	O5'-P-OP2	-5.76	100.51	105.70
26	1H	1602	U	C2-N3-C4	-5.76	123.54	127.00
26	1H	2017	U	C6-N1-C2	-5.76	117.54	121.00
1	1G	1401	G	C4-N9-C1'	5.76	133.99	126.50
26	14	372	G	O4'-C1'-N9	5.76	112.81	108.20
26	14	1303	G	C5-C6-O6	5.76	132.06	128.60
26	14	2023	G	C4-C5-N7	5.76	113.11	110.80
26	1H	778	G	N1-C2-N2	-5.76	111.02	116.20
38	98	4	LEU	CA-CB-CG	-5.76	102.06	115.30
1	1G	266	G	O4'-C1'-N9	-5.76	103.59	108.20
1	1G	925	G	N7-C8-N9	-5.76	110.22	113.10
23	2L	71	G	N3-C4-C5	5.76	131.48	128.60
26	14	929	G	C4-C5-C6	5.76	122.26	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1998	G	N1-C2-N3	5.76	127.36	123.90
26	14	2782	G	N3-C4-C5	-5.76	125.72	128.60
1	13	1317	C	N3-C4-C5	-5.76	119.60	121.90
26	1H	454	A	OP2-P-O3'	5.76	117.87	105.20
26	1H	1191	G	OP1-P-OP2	5.76	128.24	119.60
26	1H	2871	C	O5'-P-OP2	-5.76	100.52	105.70
1	13	49	U	O5'-P-OP2	-5.76	100.52	105.70
26	1H	1502	C	C6-N1-C2	-5.76	118.00	120.30
26	14	47	C	OP2-P-O3'	5.76	117.86	105.20
26	14	329	G	C6-N1-C2	-5.76	121.65	125.10
26	14	447	A	O4'-C1'-N9	-5.76	103.60	108.20
26	14	747	U	O5'-P-OP1	-5.76	100.52	105.70
26	14	1489	U	C6-N1-C1'	5.76	129.26	121.20
26	14	2449	U	OP2-P-O3'	5.76	117.86	105.20
26	1H	824	A	N1-C6-N6	-5.75	115.15	118.60
1	1G	135	C	N3-C2-O2	5.75	125.93	121.90
1	1G	353	A	C4-C5-N7	5.75	113.58	110.70
26	1H	430	G	N7-C8-N9	-5.75	110.22	113.10
26	1H	1357	U	O5'-P-OP2	-5.75	100.52	105.70
26	1H	2444	G	N3-C2-N2	-5.75	115.87	119.90
26	14	1403	C	O5'-P-OP2	-5.75	100.52	105.70
26	14	2001	A	OP1-P-OP2	-5.75	110.97	119.60
1	13	1205	U	N1-C2-O2	-5.75	118.77	122.80
26	1H	963	U	N1-C2-N3	5.75	118.35	114.90
26	1H	2067	G	C8-N9-C4	-5.75	104.10	106.40
26	1H	2365	G	N1-C6-O6	-5.75	116.45	119.90
1	1G	1426	C	N1-C2-O2	-5.75	115.45	118.90
26	14	929	G	C4-N9-C1'	5.75	133.98	126.50
26	14	2235	G	C5-C6-N1	5.75	114.38	111.50
26	1H	1559	G	N3-C4-C5	5.75	131.47	128.60
1	1G	963	G	N3-C4-C5	-5.75	125.72	128.60
26	14	2082	A	N1-C6-N6	5.75	122.05	118.60
26	1H	937	U	N3-C2-O2	5.75	126.22	122.20
26	1H	2256	G	O5'-P-OP2	-5.75	100.53	105.70
26	1H	2822	G	C4-C5-N7	5.75	113.10	110.80
23	2L	35	C	C6-N1-C2	-5.75	118.00	120.30
26	14	2250	G	O5'-P-OP1	-5.75	100.53	105.70
26	14	2287	A	C8-N9-C4	5.75	108.10	105.80
26	14	2386	C	C5-C6-N1	-5.75	118.13	121.00
26	14	2702	U	O4'-C1'-N1	5.75	112.80	108.20
1	13	802	A	C4-C5-N7	5.75	113.57	110.70
26	1H	375	C	OP2-P-O3'	5.75	117.84	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	444	C	O5'-P-OP1	5.75	117.60	110.70
26	1H	1445	C	C5-C6-N1	5.75	123.87	121.00
26	1H	1604	C	C5-C4-N4	-5.75	116.18	120.20
26	14	708	C	C5-C6-N1	5.75	123.87	121.00
26	14	1577	C	N3-C4-N4	-5.75	113.98	118.00
26	14	743	G	N7-C8-N9	-5.75	110.23	113.10
26	1H	503	A	O4'-C1'-N9	5.74	112.79	108.20
26	1H	2432	A	C5-C6-N6	-5.74	119.11	123.70
26	14	775	G	N3-C4-N9	5.74	129.45	126.00
26	14	1888	G	C2-N3-C4	5.74	114.77	111.90
26	14	2776	A	N7-C8-N9	5.74	116.67	113.80
1	13	813	U	OP1-P-OP2	5.74	128.21	119.60
1	13	963	G	C5-C6-O6	5.74	132.04	128.60
26	1H	224	G	O5'-P-OP2	-5.74	100.53	105.70
26	1H	1804	C	C5-C6-N1	-5.74	118.13	121.00
26	1H	1757	U	C5-C4-O4	5.74	129.34	125.90
26	1H	2246	G	N3-C4-N9	5.74	129.44	126.00
26	1H	2503	A	C4-C5-N7	5.74	113.57	110.70
26	1H	2688	U	C6-N1-C2	-5.74	117.56	121.00
26	14	102	G	O4'-C1'-N9	5.74	112.79	108.20
26	14	552	G	N1-C6-O6	-5.74	116.45	119.90
1	13	50	A	N3-C4-C5	-5.74	122.78	126.80
1	13	1513	A	C5-C6-N6	-5.74	119.11	123.70
26	14	1772	G	C8-N9-C4	5.74	108.69	106.40
26	14	1973	G	N1-C2-N2	-5.74	111.03	116.20
26	1H	697	C	N3-C4-C5	5.74	124.19	121.90
26	1H	1990	C	C6-N1-C2	-5.74	118.00	120.30
26	1H	2296	U	N3-C4-O4	5.74	123.42	119.40
26	1H	2434	A	N3-C4-C5	5.74	130.82	126.80
26	1H	2638	G	C2-N3-C4	5.74	114.77	111.90
1	13	1512	U	O5'-P-OP2	-5.74	100.54	105.70
26	1H	750	A	OP1-P-O3'	5.74	117.82	105.20
26	1H	1126	A	O4'-C1'-N9	-5.74	103.61	108.20
26	1H	1543	A	C5-C6-N1	-5.74	114.83	117.70
26	1H	1785	A	N9-C4-C5	5.74	108.09	105.80
26	1H	2727	G	OP2-P-O3'	5.74	117.82	105.20
26	14	2822	G	N1-C2-N2	-5.74	111.04	116.20
26	1H	381	G	C4-C5-N7	-5.73	108.51	110.80
26	1H	569	U	N1-C2-N3	5.73	118.34	114.90
1	13	1177	G	O5'-P-OP1	5.73	117.58	110.70
26	1H	1321	A	C8-N9-C4	5.73	108.09	105.80
26	1H	2320	A	O4'-C1'-N9	5.73	112.79	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2699	C	C5-C6-N1	-5.73	118.13	121.00
26	14	593	G	C8-N9-C4	5.73	108.69	106.40
26	14	985	C	OP2-P-O3'	5.73	117.81	105.20
26	14	1597	A	N7-C8-N9	-5.73	110.93	113.80
26	14	1662	C	O5'-P-OP2	-5.73	100.54	105.70
26	14	1792	G	C5-C6-O6	-5.73	125.16	128.60
26	1H	124	G	C8-N9-C4	5.73	108.69	106.40
26	1H	763	G	N1-C2-N3	5.73	127.34	123.90
26	1H	1246	A	C4-C5-C6	5.73	119.86	117.00
26	1H	2371	G	N1-C6-O6	5.73	123.34	119.90
26	14	621	A	C6-C5-N7	-5.73	128.29	132.30
26	1H	727	A	C5-C6-N6	5.73	128.28	123.70
26	14	2710	C	OP1-P-OP2	-5.73	111.01	119.60
26	14	1318	C	N3-C4-C5	-5.73	119.61	121.90
26	1H	1626	G	N1-C2-N2	5.73	121.35	116.20
26	14	2275	C	C5'-C4'-O4'	-5.73	102.23	109.10
26	1H	961	C	O4'-C1'-N1	5.72	112.78	108.20
26	1H	1603	A	OP1-P-O3'	5.72	117.80	105.20
26	1H	1957	C	C2-N3-C4	-5.72	117.04	119.90
26	1H	2056	G	O5'-P-OP1	5.72	117.57	110.70
1	1G	1203	C	C6-N1-C2	5.72	122.59	120.30
26	14	457	A	N1-C2-N3	-5.72	126.44	129.30
26	14	856	C	C6-N1-C2	-5.72	118.01	120.30
26	14	2233	U	C2-N3-C4	-5.72	123.56	127.00
26	1H	251	A	C8-N9-C4	-5.72	103.51	105.80
26	1H	620	G	OP1-P-OP2	5.72	128.18	119.60
26	1H	781	A	N7-C8-N9	-5.72	110.94	113.80
26	1H	1599	C	OP2-P-O3'	5.72	117.79	105.20
26	1H	2506	U	C2-N3-C4	5.72	130.43	127.00
26	1H	2509	G	N9-C4-C5	-5.72	103.11	105.40
26	1H	2520	C	OP1-P-OP2	-5.72	111.02	119.60
26	1H	2609	U	O5'-P-OP2	-5.72	100.55	105.70
26	14	1679	U	N1-C2-N3	5.72	118.33	114.90
26	1H	2879	C	OP1-P-OP2	-5.72	111.02	119.60
26	14	805	G	N3-C4-C5	-5.72	125.74	128.60
26	14	2430	A	OP1-P-OP2	-5.72	111.02	119.60
26	1H	659	C	C5-C6-N1	-5.72	118.14	121.00
26	1H	974	G	O5'-P-OP2	-5.72	100.55	105.70
26	1H	2599	G	C4-C5-N7	-5.72	108.51	110.80
42	95	49	THR	C-N-CD	5.72	140.41	128.40
26	1H	2485	G	C2-N3-C4	-5.72	109.04	111.90
26	1H	2509	G	C8-N9-C4	5.72	108.69	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1141	U	OP2-P-O3'	5.72	117.78	105.20
1	13	1470	G	N3-C4-N9	-5.72	122.57	126.00
26	1H	617	G	N9-C4-C5	-5.72	103.11	105.40
26	14	631	A	OP1-P-O3'	5.72	117.78	105.20
26	14	649	G	O5'-P-OP2	-5.72	100.56	105.70
26	14	1383	C	N1-C2-O2	-5.72	115.47	118.90
26	1H	117	G	C5-C6-N1	5.71	114.36	111.50
26	1H	1185	C	O5'-P-OP2	-5.71	100.56	105.70
26	1H	1600	C	C5-C6-N1	5.71	123.86	121.00
26	1H	1600	C	O5'-P-OP1	5.71	117.56	110.70
26	1H	1616	A	OP1-P-O3'	5.71	117.77	105.20
26	1H	2304	G	N1-C6-O6	5.71	123.33	119.90
1	1G	1159	U	O4'-C1'-N1	5.71	112.77	108.20
26	14	970	C	O5'-P-OP1	-5.71	100.56	105.70
1	13	128	G	C4-N9-C1'	-5.71	119.07	126.50
26	1H	1225	C	OP1-P-OP2	5.71	128.17	119.60
26	1H	1275	A	N1-C6-N6	5.71	122.03	118.60
26	1H	1391	U	C6-N1-C2	-5.71	117.57	121.00
26	1H	2494	G	C5-C6-O6	5.71	132.03	128.60
1	1G	975	A	O4'-C1'-N9	-5.71	103.63	108.20
26	14	2094	G	O5'-P-OP2	-5.71	100.56	105.70
1	13	190	G	N3-C4-C5	-5.71	125.74	128.60
1	13	960	U	C6-N1-C2	-5.71	117.57	121.00
26	1H	974(A)	C	N1-C2-O2	5.71	122.33	118.90
26	1H	1241	A	C2-N3-C4	-5.71	107.74	110.60
26	1H	1858	G	C6-C5-N7	-5.71	126.97	130.40
26	1H	2469	A	C4-C5-N7	5.71	113.56	110.70
26	14	252	G	N3-C4-C5	-5.71	125.74	128.60
26	14	2024	G	C5-C6-O6	-5.71	125.17	128.60
1	13	699	C	OP2-P-O3'	5.71	117.76	105.20
26	1H	470	A	C2-N3-C4	-5.71	107.75	110.60
26	14	2585	U	N1-C2-O2	5.71	126.80	122.80
26	1H	655	A	C8-N9-C4	-5.71	103.52	105.80
26	1H	1558	A	N1-C2-N3	5.71	132.16	129.30
26	14	1528	A	C8-N9-C4	-5.71	103.52	105.80
26	1H	1822	G	OP2-P-O3'	5.71	117.75	105.20
26	1H	1825	A	N9-C4-C5	5.71	108.08	105.80
26	1H	2227	A	C8-N9-C4	-5.71	103.52	105.80
26	1H	2549	G	N1-C6-O6	5.71	123.32	119.90
26	1H	2751	G	C4-C5-N7	5.71	113.08	110.80
26	14	810	U	OP1-P-O3'	5.71	117.75	105.20
26	14	2079	U	N3-C2-O2	-5.71	118.21	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2379	G	C6-N1-C2	-5.71	121.68	125.10
23	2L	35	C	N1-C2-O2	5.71	122.32	118.90
26	1H	120	U	C2-N3-C4	-5.70	123.58	127.00
26	1H	583	G	N9-C4-C5	5.70	107.68	105.40
26	1H	1200	C	C2-N3-C4	-5.70	117.05	119.90
26	1H	1904	G	OP2-P-O3'	5.70	117.75	105.20
26	1H	2437	U	C5-C6-N1	5.70	125.55	122.70
27	16	80	U	N3-C2-O2	-5.70	118.21	122.20
26	14	1303	G	N1-C2-N2	-5.70	111.07	116.20
26	1H	629	G	N3-C2-N2	5.70	123.89	119.90
26	1H	1931	U	C5-C6-N1	-5.70	119.85	122.70
26	1H	2585	U	N3-C4-O4	-5.70	115.41	119.40
26	14	1698	A	O4'-C1'-N9	5.70	112.76	108.20
24	3K	3	C	C6-N1-C2	-5.70	118.02	120.30
26	1H	423	A	OP1-P-OP2	5.70	128.15	119.60
26	1H	1107	G	C8-N9-C4	-5.70	104.12	106.40
26	1H	1186	G	OP1-P-O3'	5.70	117.74	105.20
26	1H	1477	A	OP2-P-O3'	5.70	117.74	105.20
26	1H	2037	G	C8-N9-C4	-5.70	104.12	106.40
26	14	1393	A	C5-C6-N6	-5.70	119.14	123.70
26	14	2229	C	O5'-P-OP2	-5.70	100.57	105.70
27	1J	72	G	C8-N9-C4	5.70	108.68	106.40
1	13	758	G	N3-C4-C5	5.70	131.45	128.60
26	1H	1574	C	C2-N3-C4	-5.70	117.05	119.90
26	1H	1807	G	C8-N9-C4	5.70	108.68	106.40
26	1H	2714	G	C5-C6-O6	-5.70	125.18	128.60
26	14	595	C	C5-C6-N1	5.70	123.85	121.00
26	14	1204	A	C5-C6-N1	-5.70	114.85	117.70
26	14	1349	A	C2-N3-C4	-5.70	107.75	110.60
26	14	1616	A	N1-C2-N3	5.70	132.15	129.30
26	14	1254	A	N1-C2-N3	5.70	132.15	129.30
1	13	419	C	C6-N1-C2	-5.70	118.02	120.30
1	13	575	G	N1-C6-O6	-5.70	116.48	119.90
1	13	814	A	N7-C8-N9	-5.70	110.95	113.80
1	13	1498	U	C6-N1-C2	-5.70	117.58	121.00
26	1H	967	C	N3-C4-C5	5.70	124.18	121.90
26	1H	994	C	N1-C2-O2	-5.70	115.48	118.90
26	1H	1229(A)	G	O5'-P-OP2	-5.70	100.57	105.70
26	1H	1247	A	C6-N1-C2	-5.70	115.18	118.60
26	14	809	G	C5-C6-N1	5.70	114.35	111.50
26	14	1638	C	N3-C4-N4	-5.70	114.01	118.00
26	14	2324	C	C5-C4-N4	-5.70	116.21	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2392	A	N3-C4-C5	5.70	130.79	126.80
26	14	2430	A	C5-N7-C8	-5.70	101.05	103.90
26	14	2875	C	C6-N1-C2	5.70	122.58	120.30
26	1H	655	A	N7-C8-N9	5.69	116.65	113.80
26	1H	2454	G	C5-C6-O6	5.69	132.02	128.60
26	1H	2582	G	N1-C6-O6	-5.69	116.48	119.90
26	14	1698	A	C4-N9-C1'	5.69	136.55	126.30
26	14	2053	G	N9-C4-C5	-5.69	103.12	105.40
26	14	2516	G	OP2-P-O3'	5.69	117.72	105.20
26	14	2713	A	OP1-P-OP2	5.69	128.14	119.60
27	1J	79	C	OP2-P-O3'	5.69	117.72	105.20
26	1H	203	C	C2-N3-C4	-5.69	117.05	119.90
26	1H	478	A	N1-C2-N3	5.69	132.15	129.30
26	1H	530	G	N3-C4-N9	-5.69	122.59	126.00
26	1H	1782	C	OP1-P-OP2	5.69	128.14	119.60
26	14	271(A)	C	C6-N1-C2	-5.69	118.02	120.30
26	14	350	U	O5'-P-OP1	-5.69	100.58	105.70
26	14	2713	A	N7-C8-N9	5.69	116.64	113.80
26	1H	974(A)	C	C5-C4-N4	5.69	124.18	120.20
26	1H	2269	A	N3-C4-C5	5.69	130.78	126.80
26	14	1925	C	C2-N3-C4	-5.69	117.06	119.90
1	13	1486	G	C2-N3-C4	-5.69	109.06	111.90
26	1H	258	G	N1-C2-N2	-5.69	111.08	116.20
26	1H	400	G	N3-C4-N9	5.69	129.41	126.00
26	1H	942	G	O5'-P-OP2	5.69	117.52	110.70
26	1H	1985	G	C5-C6-N1	5.69	114.34	111.50
26	1H	2256	G	N3-C4-N9	5.69	129.41	126.00
26	14	1288	U	N1-C2-N3	5.69	118.31	114.90
26	14	2002	G	N1-C6-O6	-5.69	116.49	119.90
27	1J	22	U	C6-N1-C2	-5.69	117.59	121.00
26	1H	731	C	N1-C2-N3	5.69	123.18	119.20
24	3K	4	C	C6-N1-C2	-5.68	118.03	120.30
26	1H	1228	G	N3-C2-N2	-5.68	115.92	119.90
26	1H	1597	A	O5'-P-OP2	-5.68	100.58	105.70
26	1H	1688	U	N1-C2-O2	-5.68	118.82	122.80
26	1H	2304	G	N3-C4-C5	5.68	131.44	128.60
26	14	819	A	OP2-P-O3'	5.68	117.71	105.20
27	1J	102	G	N7-C8-N9	-5.68	110.26	113.10
26	1H	74	A	N7-C8-N9	5.68	116.64	113.80
26	1H	184	C	N1-C2-O2	5.68	122.31	118.90
26	1H	2027	G	C5-C6-N1	-5.68	108.66	111.50
1	1G	413	G	N3-C4-N9	-5.68	122.59	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1958	C	N3-C4-N4	5.68	121.98	118.00
29	29	80	GLU	N-CA-C	5.68	126.34	111.00
26	14	2763	G	N1-C2-N2	-5.68	111.09	116.20
1	13	50	A	P-O3'-C3'	5.68	126.52	119.70
1	13	1342	C	N3-C4-C5	5.68	124.17	121.90
26	1H	59	U	C4-C5-C6	5.68	123.11	119.70
26	1H	585	G	C6-C5-N7	-5.68	126.99	130.40
26	1H	921	G	C2-N3-C4	5.68	114.74	111.90
26	1H	1344	G	N3-C2-N2	-5.68	115.92	119.90
26	1H	1466	G	OP2-P-O3'	5.68	117.69	105.20
26	1H	2072	G	C5-N7-C8	5.68	107.14	104.30
1	1G	64	G	P-O3'-C3'	5.68	126.52	119.70
26	14	552	G	N7-C8-N9	-5.68	110.26	113.10
26	14	2293	C	O5'-P-OP1	5.68	117.52	110.70
26	1H	109	G	N9-C4-C5	5.68	107.67	105.40
26	1H	698	C	C2-N3-C4	-5.68	117.06	119.90
26	14	810	U	C5-C4-O4	-5.68	122.49	125.90
1	13	789	U	C6-N1-C2	-5.68	117.59	121.00
26	1H	464	U	C2-N3-C4	-5.68	123.59	127.00
26	1H	1258	C	N1-C1'-C2'	-5.68	105.76	112.00
26	1H	1500	G	O5'-P-OP2	-5.68	100.59	105.70
26	1H	1961	C	OP2-P-O3'	5.68	117.69	105.20
26	1H	2258	C	OP1-P-O3'	5.68	117.69	105.20
1	1G	953	G	N1-C2-N2	-5.68	111.09	116.20
27	1J	7	G	C4-N9-C1'	5.68	133.88	126.50
23	2K	77	A	O5'-P-OP2	5.67	117.51	110.70
26	1H	396	G	N3-C2-N2	-5.67	115.93	119.90
26	1H	680	G	O5'-P-OP1	-5.67	100.59	105.70
26	1H	842	G	N1-C6-O6	5.67	123.31	119.90
26	1H	1129	A	OP1-P-OP2	5.67	128.11	119.60
26	1H	2018	G	N7-C8-N9	5.67	115.94	113.10
1	1G	791	G	N1-C6-O6	5.67	123.31	119.90
1	1G	867	G	C8-N9-C4	-5.67	104.13	106.40
26	14	2332	U	C5-C6-N1	-5.67	119.86	122.70
26	1H	566	U	C6-N1-C2	5.67	124.40	121.00
26	14	133	C	N3-C4-C5	5.67	124.17	121.90
26	14	306	U	N1-C2-O2	-5.67	118.83	122.80
26	14	2610	C	N3-C4-C5	5.67	124.17	121.90
26	1H	55	G	N7-C8-N9	5.67	115.94	113.10
26	1H	932	G	N1-C2-N2	-5.67	111.10	116.20
26	14	2244	U	N1-C2-O2	-5.67	118.83	122.80
26	1H	192	C	N1-C2-O2	-5.67	115.50	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	273(A)	G	C8-N9-C4	5.67	108.67	106.40
1	13	865	A	C5-N7-C8	-5.67	101.07	103.90
1	13	1331	G	O5'-P-OP2	-5.67	100.60	105.70
26	1H	470	A	N9-C4-C5	-5.67	103.53	105.80
26	14	693	C	N3-C4-N4	-5.67	114.03	118.00
26	14	762	U	C5-C4-O4	-5.67	122.50	125.90
26	14	2420	C	C6-N1-C2	5.67	122.57	120.30
27	1J	61	G	N1-C6-O6	5.67	123.30	119.90
1	13	380	G	N3-C4-N9	-5.67	122.60	126.00
26	1H	128	C	C6-N1-C2	5.67	122.57	120.30
26	1H	640	C	N3-C2-O2	-5.67	117.93	121.90
26	1H	744	G	OP1-P-OP2	5.67	128.10	119.60
26	1H	1626	G	N1-C6-O6	5.67	123.30	119.90
26	1H	2593	U	OP2-P-O3'	5.67	117.67	105.20
36	78	20	GLY	N-CA-C	5.67	127.27	113.10
1	13	50	A	C5-C6-N1	5.67	120.53	117.70
26	1H	2580	U	OP1-P-OP2	-5.67	111.10	119.60
26	14	1633	G	N3-C4-N9	-5.67	122.60	126.00
1	13	893	C	N3-C4-C5	5.66	124.17	121.90
1	13	1517	G	C5-C6-N1	5.66	114.33	111.50
26	1H	486	C	N3-C4-N4	5.66	121.97	118.00
26	1H	942	G	OP1-P-O3'	5.66	117.66	105.20
26	1H	966	G	N1-C2-N2	-5.66	111.10	116.20
26	1H	1648	C	N1-C2-O2	-5.66	115.50	118.90
27	16	115	G	C6-N1-C2	-5.66	121.70	125.10
25	4L	20	C	C6-N1-C2	-5.66	118.03	120.30
26	14	1085	A	OP1-P-O3'	5.66	117.66	105.20
26	14	1801	G	C5-C6-O6	-5.66	125.20	128.60
26	14	2779	U	C2-N1-C1'	5.66	124.50	117.70
26	1H	209	C	C5-C6-N1	-5.66	118.17	121.00
26	1H	1396	U	C5-C4-O4	5.66	129.30	125.90
26	1H	122	G	C4-C5-N7	5.66	113.06	110.80
26	1H	942	G	O5'-P-OP1	-5.66	100.61	105.70
26	1H	1594	G	O5'-P-OP2	5.66	117.49	110.70
26	1H	2060	A	N3-C4-N9	-5.66	122.87	127.40
26	1H	2062	A	C5-N7-C8	5.66	106.73	103.90
26	14	1815	A	OP1-P-O3'	5.66	117.66	105.20
26	14	1965	C	N3-C4-C5	5.66	124.16	121.90
1	13	1266	G	N3-C4-N9	-5.66	122.61	126.00
26	1H	450	G	N1-C6-O6	5.66	123.30	119.90
26	1H	2230	G	N1-C2-N2	5.66	121.29	116.20
26	14	767	U	C5-C6-N1	-5.66	119.87	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1029	A	N1-C6-N6	5.66	122.00	118.60
26	14	1614	A	N3-C4-N9	-5.66	122.87	127.40
1	13	1412	C	N3-C2-O2	5.66	125.86	121.90
26	1H	1306	C	C2-N3-C4	-5.66	117.07	119.90
26	1H	1434	A	C2-N3-C4	-5.66	107.77	110.60
26	14	2233	U	N1-C2-O2	-5.66	118.84	122.80
1	13	775	G	C5-C6-O6	-5.66	125.21	128.60
26	1H	190	A	C5-C6-N6	-5.66	119.17	123.70
26	1H	635	C	O5'-P-OP2	-5.66	100.61	105.70
26	1H	1021	A	N1-C2-N3	5.66	132.13	129.30
26	1H	2282	G	O5'-P-OP1	-5.66	100.61	105.70
1	1G	481	G	C8-N9-C1'	-5.66	119.65	127.00
23	2L	35	C	C6-N1-C1'	-5.66	114.01	120.80
26	14	1528	A	C4-C5-N7	5.66	113.53	110.70
26	14	2029	G	N3-C4-N9	-5.66	122.61	126.00
26	14	2585	U	C6-N1-C1'	-5.66	113.28	121.20
1	13	191(F)	U	C6-N1-C2	-5.65	117.61	121.00
1	1G	731	G	O5'-P-OP2	-5.65	100.61	105.70
1	13	1079	G	N3-C2-N2	-5.65	115.94	119.90
26	1H	608	A	O5'-P-OP1	5.65	117.48	110.70
26	1H	703	U	C6-N1-C2	-5.65	117.61	121.00
26	1H	760	G	C6-C5-N7	-5.65	127.01	130.40
26	1H	1399	C	C5-C6-N1	5.65	123.83	121.00
26	1H	2501	C	O4'-C1'-N1	5.65	112.72	108.20
1	1G	559	A	C8-N9-C4	-5.65	103.54	105.80
1	1G	1297	C	OP2-P-O3'	5.65	117.64	105.20
26	14	566	U	C5-C6-N1	-5.65	119.87	122.70
26	14	2232	U	O5'-P-OP2	-5.65	100.61	105.70
1	13	533	A	O5'-P-OP1	5.65	117.48	110.70
1	13	535	A	N1-C6-N6	-5.65	115.21	118.60
1	13	652	U	C5-C6-N1	5.65	125.53	122.70
1	13	858	G	C8-N9-C4	-5.65	104.14	106.40
26	1H	657	U	C5-C6-N1	-5.65	119.88	122.70
26	1H	1496	A	N1-C6-N6	5.65	121.99	118.60
27	16	9	G	OP2-P-O3'	5.65	117.63	105.20
23	2L	77	A	C8-N9-C4	5.65	108.06	105.80
9	8E	56	LEU	CA-CB-CG	5.65	128.29	115.30
26	1H	41	C	C6-N1-C2	-5.65	118.04	120.30
26	1H	859	G	C4-N9-C1'	-5.65	119.16	126.50
26	1H	989	G	C5-C6-O6	-5.65	125.21	128.60
26	1H	1617	C	O5'-P-OP1	-5.65	100.62	105.70
26	1H	2500	U	N1-C2-N3	5.65	118.29	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	1124	G	O4'-C1'-N9	5.65	112.72	108.20
1	1G	1354	C	C6-N1-C2	-5.65	118.04	120.30
26	14	1970	A	O4'-C1'-N9	-5.65	103.68	108.20
1	13	359	U	N3-C2-O2	-5.65	118.25	122.20
26	1H	533	G	C6-C5-N7	5.65	133.79	130.40
26	1H	803	U	OP1-P-O3'	-5.64	92.78	105.20
26	1H	1258	C	OP2-P-O3'	5.64	117.62	105.20
26	1H	1596	A	OP2-P-O3'	5.64	117.62	105.20
26	1H	1767	C	N3-C4-C5	5.64	124.16	121.90
26	1H	2692	C	N3-C2-O2	-5.64	117.95	121.90
26	14	1905	C	C5-C4-N4	5.64	124.15	120.20
26	14	1999	C	C5-C4-N4	-5.64	116.25	120.20
27	1J	47	C	OP1-P-O3'	5.64	117.62	105.20
1	13	582	U	N3-C4-C5	5.64	117.98	114.60
1	13	912	C	C6-N1-C2	5.64	122.56	120.30
1	13	1158	C	C6-N1-C2	-5.64	118.04	120.30
26	1H	723	G	N7-C8-N9	-5.64	110.28	113.10
26	1H	975	G	N3-C2-N2	-5.64	115.95	119.90
26	1H	2346	A	C1'-O4'-C4'	-5.64	105.39	109.90
27	16	115	G	N3-C4-N9	5.64	129.39	126.00
26	14	930	U	N1-C2-O2	5.64	126.75	122.80
26	14	1620	G	OP1-P-OP2	-5.64	111.14	119.60
26	14	2685	G	C5-C6-N1	5.64	114.32	111.50
1	13	1128	C	C2-N1-C1'	5.64	125.00	118.80
26	1H	2712(A)	A	C2-N3-C4	-5.64	107.78	110.60
26	1H	1217	C	N3-C4-N4	5.64	121.95	118.00
26	1H	2326	C	C5-C6-N1	5.64	123.82	121.00
1	1G	963	G	N1-C2-N2	-5.64	111.12	116.20
26	14	925	C	C2-N1-C1'	-5.64	112.60	118.80
26	1H	463	G	N1-C6-O6	-5.64	116.52	119.90
1	13	576	G	O5'-P-OP1	5.64	117.47	110.70
1	13	780	A	C6-N1-C2	5.64	121.98	118.60
1	13	802	A	C5-N7-C8	-5.64	101.08	103.90
22	1K	76	A	C4-C5-C6	5.64	119.82	117.00
26	1H	35	G	OP1-P-OP2	5.64	128.05	119.60
26	1H	663	G	N3-C4-C5	-5.64	125.78	128.60
26	1H	805	G	C8-N9-C4	5.64	108.65	106.40
26	14	1216	G	C8-N9-C4	-5.64	104.14	106.40
26	14	1771	C	C2-N3-C4	-5.64	117.08	119.90
26	14	2012	G	N9-C4-C5	-5.64	103.14	105.40
24	3K	60	U	P-O3'-C3'	5.63	126.46	119.70
26	1H	797	C	N1-C2-O2	-5.63	115.52	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1437	C	N1-C2-O2	5.63	122.28	118.90
26	14	2430	A	N1-C2-N3	5.63	132.12	129.30
26	1H	947	G	N3-C2-N2	-5.63	115.96	119.90
26	1H	1759	A	OP1-P-OP2	5.63	128.05	119.60
26	1H	968	G	O5'-P-OP1	5.63	117.46	110.70
26	14	388	G	C5-C6-N1	-5.63	108.68	111.50
26	14	855	G	N7-C8-N9	5.63	115.92	113.10
26	1H	1630	G	O5'-P-OP2	5.63	117.46	110.70
26	1H	2593	U	OP1-P-OP2	-5.63	111.16	119.60
26	14	784	A	C5-N7-C8	5.63	106.72	103.90
1	13	601	C	N3-C2-O2	-5.63	117.96	121.90
22	1K	35	A	N1-C2-N3	-5.63	126.49	129.30
26	1H	119	A	C5-N7-C8	5.63	106.71	103.90
1	1G	328	C	O5'-P-OP2	-5.63	100.63	105.70
1	1G	518	C	O5'-P-OP2	-5.63	100.64	105.70
26	14	241	A	O5'-P-OP2	-5.63	100.64	105.70
26	14	832	G	N9-C4-C5	5.63	107.65	105.40
26	14	2249	U	N3-C2-O2	-5.63	118.26	122.20
1	13	243	A	O5'-P-OP1	-5.63	100.64	105.70
26	1H	788	A	N1-C6-N6	5.63	121.98	118.60
26	1H	823	G	C5-N7-C8	5.63	107.11	104.30
26	1H	1162	G	N3-C2-N2	-5.63	115.96	119.90
26	1H	1689	A	O5'-P-OP2	-5.63	100.64	105.70
26	1H	2819	G	C8-N9-C4	5.63	108.65	106.40
33	61	131	LYS	C-N-CD	-5.63	108.22	120.60
26	14	774	A	C8-N9-C1'	5.62	137.83	127.70
26	1H	784	A	O4'-C1'-N9	5.62	112.70	108.20
26	1H	819	A	C4-C5-C6	-5.62	114.19	117.00
26	1H	1781	C	N3-C2-O2	-5.62	117.96	121.90
26	1H	2089	U	N3-C4-O4	5.62	123.34	119.40
26	1H	2240	C	OP1-P-O3'	5.62	117.57	105.20
26	1H	2345	G	C5-C6-O6	-5.62	125.23	128.60
26	1H	2346	A	N9-C1'-C2'	5.62	121.31	114.00
1	1G	799	G	OP2-P-O3'	5.62	117.57	105.20
26	14	1341	U	OP1-P-O3'	5.62	117.57	105.20
26	14	2490	G	C5-C6-O6	-5.62	125.23	128.60
1	13	1027	C	P-O3'-C3'	5.62	126.45	119.70
26	1H	1008	C	N1-C2-O2	5.62	122.27	118.90
26	1H	985	C	C4-C5-C6	5.62	120.21	117.40
26	1H	1878	G	N1-C2-N3	5.62	127.27	123.90
26	1H	1990	C	C4-C5-C6	5.62	120.21	117.40
26	14	575	A	O5'-P-OP1	-5.62	100.64	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1594	G	N7-C8-N9	5.62	115.91	113.10
26	1H	28	A	N9-C4-C5	-5.62	103.55	105.80
26	1H	37	C	N3-C2-O2	-5.62	117.97	121.90
26	1H	114	U	C2-N1-C1'	5.62	124.44	117.70
26	1H	125	G	N1-C2-N2	-5.62	111.14	116.20
26	1H	1252	G	C5-N7-C8	5.62	107.11	104.30
26	1H	2467	C	C5-C6-N1	-5.62	118.19	121.00
1	13	532	A	N1-C6-N6	5.62	121.97	118.60
26	1H	970	C	C5-C6-N1	-5.62	118.19	121.00
26	1H	2866	U	O5'-P-OP2	-5.62	100.64	105.70
1	1G	667	G	N1-C6-O6	-5.62	116.53	119.90
26	14	843	G	C8-N9-C4	5.62	108.65	106.40
26	1H	60	G	OP1-P-O3'	-5.62	92.85	105.20
26	1H	1520	U	OP2-P-O3'	5.62	117.56	105.20
26	1H	2226	C	N3-C4-C5	5.62	124.15	121.90
26	14	467	G	N7-C8-N9	-5.62	110.29	113.10
26	14	2346	A	O4'-C1'-N9	5.62	112.69	108.20
1	13	169	C	C6-N1-C2	-5.61	118.06	120.30
26	1H	757	U	C5-C4-O4	5.61	129.27	125.90
26	1H	908	C	OP2-P-O3'	5.61	117.55	105.20
26	1H	1363	C	N3-C4-C5	5.61	124.14	121.90
1	1G	536	C	C6-N1-C2	-5.61	118.06	120.30
26	1H	1388	G	O5'-P-OP2	-5.61	100.65	105.70
26	1H	2353	G	OP1-P-OP2	5.61	128.01	119.60
26	1H	2385	C	N1-C2-O2	-5.61	115.53	118.90
26	14	2575	C	N3-C4-N4	-5.61	114.07	118.00
26	14	1695	G	N9-C4-C5	-5.61	103.16	105.40
26	14	1892	C	OP2-P-O3'	5.61	117.54	105.20
26	14	2506	U	C5-C6-N1	5.61	125.50	122.70
26	1H	37	C	C4-C5-C6	5.61	120.20	117.40
26	1H	49	A	C5-N7-C8	5.61	106.70	103.90
26	1H	121	G	C4-N9-C1'	5.61	133.79	126.50
26	1H	1051	G	N1-C6-O6	5.61	123.27	119.90
26	1H	2310	A	C8-N9-C4	-5.61	103.56	105.80
26	14	679	C	OP1-P-O3'	5.61	117.54	105.20
26	14	774	A	C5-C6-N1	-5.61	114.90	117.70
26	14	808	G	N3-C4-C5	-5.61	125.80	128.60
26	14	1271	G	N3-C4-C5	-5.61	125.80	128.60
26	14	2764	A	O5'-P-OP1	-5.61	100.65	105.70
1	13	128	G	N3-C4-N9	-5.61	122.64	126.00
1	13	561	U	O4'-C1'-N1	5.61	112.68	108.20
26	1H	680	G	C5-N7-C8	5.61	107.10	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2199	A	O5'-P-OP1	-5.61	100.66	105.70
26	14	652	C	N1-C2-O2	-5.61	115.54	118.90
26	14	1969	A	N1-C6-N6	5.61	121.96	118.60
26	14	2060	A	OP1-P-OP2	-5.61	111.19	119.60
48	F5	36	GLY	N-CA-C	5.61	127.11	113.10
1	13	1374	A	N1-C2-N3	5.60	132.10	129.30
26	14	1698	A	C8-N9-C1'	-5.60	117.61	127.70
26	14	2252	G	OP1-P-OP2	5.60	128.01	119.60
1	13	115	G	P-O3'-C3'	5.60	126.42	119.70
26	1H	784	A	N9-C4-C5	5.60	108.04	105.80
26	1H	840	C	C2-N1-C1'	-5.60	112.64	118.80
26	1H	1651	G	C5-N7-C8	-5.60	101.50	104.30
1	1G	354	G	C8-N9-C1'	-5.60	119.72	127.00
26	1H	584	C	N3-C2-O2	5.60	125.82	121.90
26	1H	1257	C	C5-C6-N1	-5.60	118.20	121.00
26	1H	2354	G	OP1-P-O3'	5.60	117.52	105.20
26	1H	2391	G	C5-C6-N1	-5.60	108.70	111.50
23	2L	77	A	N3-C4-C5	5.60	130.72	126.80
26	14	2763	G	C4-N9-C1'	5.60	133.78	126.50
1	13	309	G	N3-C2-N2	-5.60	115.98	119.90
1	13	396	G	N3-C2-N2	5.60	123.82	119.90
26	1H	632	A	O5'-P-OP2	5.60	117.42	110.70
26	1H	1185	C	C5-C4-N4	5.60	124.12	120.20
26	1H	1405	U	N3-C4-O4	-5.60	115.48	119.40
34	58	23	LEU	CA-CB-CG	-5.60	102.42	115.30
26	14	481	G	O5'-P-OP1	5.60	117.42	110.70
26	14	791	C	P-O3'-C3'	5.60	126.42	119.70
26	14	1132	A	C8-N9-C4	-5.60	103.56	105.80
26	14	2058	A	C8-N9-C4	-5.60	103.56	105.80
26	14	2281	C	C2-N1-C1'	5.60	124.96	118.80
1	13	1214	C	C2-N1-C1'	-5.60	112.64	118.80
26	1H	2302	G	N1-C6-O6	-5.60	116.54	119.90
26	14	1267	U	OP2-P-O3'	5.60	117.52	105.20
26	14	2712	U	N1-C2-N3	5.60	118.26	114.90
26	1H	728	G	N9-C4-C5	-5.60	103.16	105.40
26	1H	1408	C	C5-C4-N4	-5.60	116.28	120.20
1	13	721	G	C8-N9-C1'	-5.59	119.73	127.00
26	1H	2490	G	N3-C4-N9	-5.59	122.64	126.00
1	1G	484	G	C8-N9-C4	5.59	108.64	106.40
26	14	512	G	O4'-C1'-N9	5.59	112.67	108.20
26	14	1938	A	C5-C6-N6	-5.59	119.22	123.70
26	14	2426	A	OP1-P-O3'	5.59	117.51	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	123	G	N1-C2-N3	5.59	127.25	123.90
26	1H	380	U	N3-C2-O2	-5.59	118.29	122.20
26	1H	837	C	C6-N1-C2	-5.59	118.06	120.30
26	1H	1258	C	C4-C5-C6	5.59	120.19	117.40
26	1H	1437	C	C2-N1-C1'	5.59	124.95	118.80
26	1H	2273	A	N7-C8-N9	-5.59	111.00	113.80
1	1G	481	G	C6-C5-N7	-5.59	127.05	130.40
26	14	302	C	N3-C2-O2	-5.59	117.98	121.90
26	14	947	G	C5-C6-N1	-5.59	108.70	111.50
26	14	2059	A	OP1-P-O3'	5.59	117.50	105.20
26	14	2287	A	C5-C6-N1	-5.59	114.91	117.70
26	14	2619	C	C6-N1-C2	5.59	122.54	120.30
1	13	754	C	C2-N1-C1'	5.59	124.95	118.80
26	1H	726	G	C2-N3-C4	-5.59	109.11	111.90
26	1H	758	C	N3-C4-C5	5.59	124.14	121.90
26	1H	2382	G	C8-N9-C4	-5.59	104.16	106.40
26	1H	2498	C	C4-C5-C6	-5.59	114.61	117.40
26	1H	2743	C	C5-C4-N4	5.59	124.11	120.20
26	14	205	G	O5'-P-OP2	-5.59	100.67	105.70
1	13	182	U	N3-C2-O2	5.59	126.11	122.20
23	2K	72	C	OP2-P-O3'	5.59	117.49	105.20
26	1H	254	G	C5-C6-O6	-5.59	125.25	128.60
26	1H	917	A	C4-C5-C6	5.59	119.79	117.00
26	1H	1658	C	N3-C2-O2	5.59	125.81	121.90
12	3A	52	LEU	CA-CB-CG	5.59	128.15	115.30
26	14	1377	G	N9-C4-C5	5.59	107.64	105.40
26	14	1393	A	P-O3'-C3'	5.58	126.40	119.70
26	14	1661	G	N1-C6-O6	5.58	123.25	119.90
1	13	318	G	C2-N3-C4	-5.58	109.11	111.90
26	1H	321	G	N1-C6-O6	5.58	123.25	119.90
26	1H	691	C	C2-N3-C4	-5.58	117.11	119.90
26	1H	745	G	N1-C6-O6	5.58	123.25	119.90
26	1H	1283	G	OP1-P-OP2	5.58	127.97	119.60
26	1H	1764	G	C4-C5-N7	-5.58	108.57	110.80
27	16	91	C	C6-N1-C2	-5.58	118.07	120.30
28	11	271	ILE	N-CA-C	5.58	126.08	111.00
26	14	974(A)	C	C6-N1-C2	-5.58	118.07	120.30
26	14	1277	G	OP1-P-OP2	5.58	127.97	119.60
1	13	1200	C	C5-C6-N1	5.58	123.79	121.00
26	1H	141	A	O5'-P-OP2	-5.58	100.68	105.70
26	1H	400	G	N1-C6-O6	5.58	123.25	119.90
26	14	415	A	O5'-P-OP2	-5.58	100.68	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2014	A	C8-N9-C4	5.58	108.03	105.80
26	1H	2697	G	N1-C6-O6	-5.58	116.55	119.90
26	14	461	C	C2-N3-C4	5.58	122.69	119.90
26	1H	1777	U	C5-C6-N1	-5.58	119.91	122.70
26	1H	2299	G	O5'-P-OP2	5.58	117.39	110.70
26	1H	2325	G	N1-C2-N2	5.58	121.22	116.20
26	14	116	C	N1-C2-O2	-5.58	115.55	118.90
26	14	499	U	N1-C2-N3	5.58	118.25	114.90
26	14	1597	A	C8-N9-C4	5.58	108.03	105.80
26	14	1619	G	C5-C6-N1	5.58	114.29	111.50
26	14	2708	G	N9-C4-C5	-5.58	103.17	105.40
1	13	1196	U	C2-N1-C1'	5.58	124.39	117.70
1	13	1512	U	N1-C2-O2	5.58	126.70	122.80
26	1H	462	C	C6-N1-C2	-5.58	118.07	120.30
28	11	46	GLN	C-N-CA	-5.58	110.59	122.30
30	31	192	LEU	CA-CB-CG	5.58	128.13	115.30
1	1G	1346	A	OP2-P-O3'	5.58	117.47	105.20
6	52	14	LEU	CA-CB-CG	5.58	128.13	115.30
26	1H	180	G	N3-C4-N9	5.58	129.34	126.00
26	1H	731	C	C2-N3-C4	-5.58	117.11	119.90
26	1H	1386	C	C6-N1-C2	-5.58	118.07	120.30
26	1H	2307	G	C2-N3-C4	-5.58	109.11	111.90
41	C8	11	ARG	NE-CZ-NH1	-5.58	117.51	120.30
26	14	143	C	C6-N1-C2	-5.58	118.07	120.30
26	14	1271	G	C8-N9-C1'	-5.58	119.75	127.00
26	14	1582	C	N1-C2-O2	5.58	122.25	118.90
1	13	321	A	C8-N9-C4	5.57	108.03	105.80
1	13	874	G	N3-C4-C5	-5.57	125.81	128.60
1	13	1475	G	C8-N9-C4	-5.57	104.17	106.40
26	1H	395	U	O4'-C1'-N1	5.57	112.66	108.20
26	1H	657	U	C6-N1-C2	5.57	124.34	121.00
26	1H	1427	A	P-O3'-C3'	5.57	126.39	119.70
26	1H	1501	C	OP1-P-O3'	5.57	117.46	105.20
26	1H	1642	G	N1-C2-N2	5.57	121.22	116.20
27	16	100	G	N9-C4-C5	-5.57	103.17	105.40
26	1H	1936	A	C5-N7-C8	-5.57	101.11	103.90
26	1H	2244	U	C4-C5-C6	5.57	123.04	119.70
26	14	977	G	O5'-P-OP1	-5.57	100.69	105.70
26	1H	586	A	N9-C4-C5	5.57	108.03	105.80
26	1H	2386	C	N1-C2-O2	-5.57	115.56	118.90
26	14	1786	A	C6-N1-C2	5.57	121.94	118.60
26	1H	77	C	C2-N1-C1'	5.57	124.93	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1608	A	C4-C5-N7	-5.57	107.92	110.70
1	13	394	G	C8-N9-C4	-5.57	104.17	106.40
1	13	816	A	N7-C8-N9	5.57	116.58	113.80
26	1H	2050	C	C5-C4-N4	-5.57	116.30	120.20
26	1H	2713	A	N3-C4-C5	5.57	130.70	126.80
26	14	212	G	OP2-P-O3'	5.57	117.45	105.20
26	14	2565	A	O5'-P-OP1	-5.57	100.69	105.70
26	1H	46	C	C5-C4-N4	-5.57	116.30	120.20
26	1H	524	U	N1-C2-O2	5.57	126.70	122.80
26	1H	700	G	OP1-P-OP2	-5.57	111.25	119.60
26	1H	940	G	OP2-P-O3'	5.57	117.44	105.20
26	1H	2062	A	N1-C6-N6	-5.57	115.26	118.60
26	1H	2377	A	C8-N9-C4	5.57	108.03	105.80
48	J8	21	ARG	NE-CZ-NH1	-5.57	117.52	120.30
1	1G	536	C	C5-C6-N1	5.57	123.78	121.00
26	14	198	C	C2-N1-C1'	5.57	124.92	118.80
26	14	950	G	OP1-P-OP2	-5.57	111.25	119.60
26	14	1366	A	C5-C6-N6	-5.57	119.25	123.70
26	1H	1601	G	OP1-P-O3'	5.56	117.44	105.20
26	1H	1642	G	C8-N9-C4	-5.56	104.17	106.40
26	1H	2520	C	O5'-P-OP1	5.56	117.38	110.70
1	13	292	G	O5'-P-OP2	-5.56	100.69	105.70
26	1H	207	A	C5-C6-N6	-5.56	119.25	123.70
26	1H	290	G	N3-C4-C5	-5.56	125.82	128.60
26	1H	514	A	C5-C6-N1	5.56	120.48	117.70
26	1H	1241	A	C5-C6-N1	-5.56	114.92	117.70
1	1G	873	A	N1-C6-N6	-5.56	115.26	118.60
26	14	961	C	O4'-C1'-N1	5.56	112.65	108.20
26	14	1549	C	O5'-P-OP2	5.56	117.37	110.70
26	14	1933	G	C2-N3-C4	-5.56	109.12	111.90
26	14	2010	G	C4-C5-N7	-5.56	108.58	110.80
27	1J	103	U	C6-N1-C2	5.56	124.34	121.00
1	13	579	G	C4-N9-C1'	5.56	133.73	126.50
1	13	1070	U	O5'-P-OP1	-5.56	100.69	105.70
23	2K	76	C	N3-C4-N4	5.56	121.89	118.00
26	1H	1926	U	C2-N3-C4	-5.56	123.66	127.00
26	1H	2477	C	C5-C6-N1	5.56	123.78	121.00
1	1G	768	A	O5'-P-OP2	5.56	117.37	110.70
26	1H	613	U	C5-C4-O4	5.56	129.24	125.90
26	1H	1321	A	O5'-P-OP1	-5.56	100.70	105.70
26	1H	2353	G	O5'-P-OP1	-5.56	100.70	105.70
1	1G	1124	G	C8-N9-C1'	5.56	134.23	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	606	U	N3-C2-O2	-5.56	118.31	122.20
26	1H	1401	G	C8-N9-C4	-5.56	104.18	106.40
26	1H	1557	C	O5'-P-OP2	-5.56	100.70	105.70
1	1G	413	G	C5-N7-C8	5.56	107.08	104.30
26	14	1558	A	N1-C2-N3	5.56	132.08	129.30
26	1H	1469	A	OP1-P-O3'	5.56	117.42	105.20
1	1G	386	C	N3-C4-C5	5.56	124.12	121.90
1	13	507	C	C4-C5-C6	5.55	120.18	117.40
1	13	1440	C	C6-N1-C2	5.55	122.52	120.30
26	1H	51	G	C8-N9-C4	5.55	108.62	106.40
26	1H	658	C	N1-C2-O2	5.55	122.23	118.90
26	14	560	C	C6-N1-C2	5.55	122.52	120.30
26	14	1883	G	N3-C4-N9	5.55	129.33	126.00
26	14	2572	A	OP1-P-O3'	5.55	117.42	105.20
1	13	956	U	N3-C4-C5	-5.55	111.27	114.60
1	13	1374	A	C5-N7-C8	-5.55	101.12	103.90
26	1H	789	A	O5'-P-OP1	-5.55	100.70	105.70
26	1H	1265	A	C4-C5-C6	5.55	119.78	117.00
26	1H	1786	A	C4-C5-C6	5.55	119.78	117.00
26	1H	2595	G	N3-C2-N2	5.55	123.79	119.90
26	1H	2701	C	C6-N1-C2	-5.55	118.08	120.30
26	14	956	G	N1-C6-O6	5.55	123.23	119.90
1	13	1518	A	O5'-P-OP2	-5.55	100.70	105.70
26	1H	196	A	O4'-C1'-N9	5.55	112.64	108.20
26	1H	1878	G	C8-N9-C4	-5.55	104.18	106.40
26	1H	1936	A	N7-C8-N9	5.55	116.57	113.80
26	1H	2362	G	C8-N9-C4	5.55	108.62	106.40
26	1H	2594	C	C4-C5-C6	5.55	120.17	117.40
26	14	211	A	N1-C6-N6	5.55	121.93	118.60
26	14	613	U	C6-N1-C2	-5.55	117.67	121.00
26	14	2328	A	N1-C2-N3	5.55	132.07	129.30
26	14	2433	A	OP2-P-O3'	5.55	117.41	105.20
26	14	2440	C	OP1-P-O3'	5.55	117.41	105.20
26	14	2710	C	N3-C2-O2	5.55	125.78	121.90
1	13	1412	C	C6-N1-C2	5.55	122.52	120.30
26	1H	774	A	C5-C6-N6	-5.55	119.26	123.70
29	21	144	ARG	NE-CZ-NH2	5.55	123.07	120.30
1	1G	1487	G	N1-C6-O6	5.55	123.23	119.90
26	14	306	U	N3-C2-O2	5.55	126.08	122.20
26	14	602	G	C6-C5-N7	-5.55	127.07	130.40
26	14	1022	G	C8-N9-C4	-5.55	104.18	106.40
26	14	2356	C	N3-C2-O2	5.55	125.78	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2516	G	C8-N9-C4	-5.55	104.18	106.40
26	1H	735	A	C5-N7-C8	5.55	106.67	103.90
26	1H	738	G	C2-N3-C4	-5.55	109.13	111.90
26	1H	1814	G	N1-C6-O6	-5.55	116.57	119.90
26	1H	2699	C	C2-N3-C4	-5.55	117.13	119.90
26	14	672	C	C5-C4-N4	5.55	124.08	120.20
26	14	1644	C	N3-C2-O2	-5.55	118.02	121.90
26	14	1952	A	C5-C6-N1	5.55	120.47	117.70
26	14	2361	A	C4-C5-N7	5.55	113.47	110.70
26	1H	668	G	N3-C2-N2	5.54	123.78	119.90
26	1H	846	C	O5'-P-OP1	-5.54	100.71	105.70
23	2L	45	A	O5'-P-OP2	5.54	117.35	110.70
26	14	533	G	C2-N3-C4	-5.54	109.13	111.90
26	14	1643	G	OP2-P-O3'	5.54	117.40	105.20
1	13	758	G	C2-N3-C4	-5.54	109.13	111.90
26	1H	401	A	C2-N3-C4	-5.54	107.83	110.60
26	1H	1387	C	C6-N1-C2	-5.54	118.08	120.30
1	1G	1408	A	OP1-P-OP2	5.54	127.92	119.60
26	14	1322	A	C5-C6-N1	5.54	120.47	117.70
26	1H	588	U	N3-C4-C5	5.54	117.92	114.60
26	1H	788	A	OP2-P-O3'	5.54	117.39	105.20
26	1H	1410	G	N3-C4-C5	5.54	131.37	128.60
26	1H	1674	G	C5-C6-O6	-5.54	125.28	128.60
26	1H	2311	A	C5-C6-N1	-5.54	114.93	117.70
26	14	2023	G	C5-N7-C8	-5.54	101.53	104.30
26	14	2263	C	OP1-P-O3'	5.54	117.39	105.20
26	1H	129	C	N1-C2-O2	-5.54	115.58	118.90
26	1H	335	C	C2-N3-C4	5.54	122.67	119.90
26	1H	1326	U	OP2-P-O3'	5.54	117.39	105.20
26	1H	1382	G	N3-C2-N2	-5.54	116.02	119.90
26	14	97	C	OP1-P-OP2	5.54	127.91	119.60
1	13	795	C	C2-N3-C4	-5.54	117.13	119.90
1	13	815	A	C6-N1-C2	-5.54	115.28	118.60
26	1H	637	A	C8-N9-C4	5.54	108.02	105.80
26	1H	1142(A)	A	N7-C8-N9	5.54	116.57	113.80
1	1G	722	A	N1-C6-N6	5.54	121.92	118.60
26	14	972	G	N3-C4-N9	-5.54	122.68	126.00
26	14	1899	G	C5-N7-C8	-5.54	101.53	104.30
1	13	101	A	N1-C6-N6	5.54	121.92	118.60
1	13	1359	C	N1-C2-O2	-5.54	115.58	118.90
26	1H	131	G	C6-C5-N7	-5.54	127.08	130.40
1	1G	137	C	C6-N1-C2	5.54	122.52	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	208	C	OP1-P-OP2	5.54	127.91	119.60
26	14	2326	C	C6-N1-C2	-5.54	118.08	120.30
26	1H	296	C	C4-C5-C6	5.54	120.17	117.40
26	1H	307	G	N3-C4-C5	-5.54	125.83	128.60
26	1H	985	C	OP1-P-OP2	-5.54	111.30	119.60
1	1G	1158	C	C6-N1-C2	-5.54	118.09	120.30
26	14	2866	U	C5-C4-O4	5.54	129.22	125.90
26	1H	70	G	N1-C6-O6	-5.53	116.58	119.90
26	1H	438	G	C6-C5-N7	-5.53	127.08	130.40
26	1H	795	C	O5'-P-OP2	-5.53	100.72	105.70
26	1H	1980	G	C2-N3-C4	5.53	114.67	111.90
26	14	199	A	C2-N3-C4	5.53	113.37	110.60
26	14	672	C	N3-C4-N4	-5.53	114.13	118.00
1	13	963	G	N1-C2-N3	5.53	127.22	123.90
26	1H	729	G	N3-C4-N9	-5.53	122.68	126.00
26	1H	1699	G	O5'-P-OP1	-5.53	100.72	105.70
26	14	2681	C	N3-C4-N4	-5.53	114.13	118.00
1	13	781	A	C6-N1-C2	-5.53	115.28	118.60
26	1H	599	G	N3-C4-C5	-5.53	125.83	128.60
26	1H	682	G	O4'-C1'-N9	-5.53	103.78	108.20
26	1H	2028	U	N1-C2-O2	-5.53	118.93	122.80
26	1H	2560	C	C4-C5-C6	-5.53	114.64	117.40
1	1G	734	G	C8-N9-C4	-5.53	104.19	106.40
26	14	62	C	C2-N1-C1'	-5.53	112.72	118.80
26	14	942	G	O5'-P-OP2	5.53	117.34	110.70
26	1H	808	G	N1-C2-N2	-5.53	111.22	116.20
26	14	429	A	C8-N9-C4	-5.53	103.59	105.80
26	14	2675	A	C2-N3-C4	-5.53	107.84	110.60
26	1H	1888	G	O4'-C1'-N9	5.53	112.62	108.20
1	1G	963	G	C6-C5-N7	-5.53	127.08	130.40
26	14	2256	G	C6-C5-N7	-5.53	127.08	130.40
1	13	827	U	C5-C6-N1	-5.53	119.94	122.70
26	1H	1932	A	O5'-P-OP2	5.53	117.33	110.70
26	14	862	G	N1-C6-O6	-5.53	116.58	119.90
26	14	1695	G	N3-C4-N9	5.53	129.32	126.00
26	14	1804	C	OP1-P-OP2	-5.53	111.31	119.60
26	1H	294	A	O4'-C1'-N9	5.52	112.62	108.20
26	1H	391	G	C4-C5-N7	5.52	113.01	110.80
26	1H	2012	G	C5-C6-N1	5.52	114.26	111.50
1	13	881	G	OP1-P-OP2	-5.52	111.31	119.60
1	13	1072	G	N1-C6-O6	-5.52	116.59	119.90
1	13	1486	G	C8-N9-C1'	5.52	134.18	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2009	G	C8-N9-C4	5.52	108.61	106.40
27	16	47	C	C2-N1-C1'	-5.52	112.72	118.80
26	14	2511	U	N1-C2-N3	5.52	118.21	114.90
26	1H	757	U	C5-C6-N1	-5.52	119.94	122.70
26	1H	1378	A	O5'-P-OP1	-5.52	100.73	105.70
26	1H	2406	U	O4'-C1'-N1	-5.52	103.78	108.20
56	1L	76	A	N7-C8-N9	5.52	116.56	113.80
26	14	82	G	N1-C6-O6	5.52	123.21	119.90
26	1H	938	G	O5'-P-OP1	5.52	117.32	110.70
26	1H	2241	A	C5-N7-C8	5.52	106.66	103.90
26	1H	2386	C	N3-C2-O2	5.52	125.76	121.90
1	1G	1401	G	C6-C5-N7	-5.52	127.09	130.40
26	14	602	G	C4-N9-C1'	5.52	133.68	126.50
26	14	1226	G	N3-C4-N9	-5.52	122.69	126.00
26	14	1616	A	N3-C4-N9	-5.52	122.98	127.40
26	14	2598	A	O5'-P-OP2	5.52	117.32	110.70
26	14	2689	U	C2-N3-C4	-5.52	123.69	127.00
1	13	973	G	N3-C4-N9	5.52	129.31	126.00
1	13	1474	G	N1-C6-O6	-5.52	116.59	119.90
26	1H	786	C	OP2-P-O3'	5.52	117.34	105.20
26	1H	809	G	N3-C4-N9	5.52	129.31	126.00
26	1H	974(A)	C	OP1-P-O3'	5.52	117.34	105.20
26	1H	2424	C	O5'-P-OP1	-5.52	100.73	105.70
1	1G	1480	G	C5-C6-O6	-5.52	125.29	128.60
1	1G	1502	A	N1-C6-N6	5.52	121.91	118.60
26	14	270(X)	G	N1-C6-O6	5.52	123.21	119.90
26	14	1762	A	C2-N3-C4	-5.52	107.84	110.60
1	13	268	C	O5'-P-OP1	-5.52	100.74	105.70
26	1H	2360	A	C5-C6-N1	-5.52	114.94	117.70
26	14	1661	G	C5-C6-O6	-5.52	125.29	128.60
1	13	50	A	C2-N3-C4	5.51	113.36	110.60
1	13	730	G	O5'-P-OP1	-5.51	100.74	105.70
26	1H	381	G	OP1-P-OP2	5.51	127.87	119.60
26	1H	404	C	P-O3'-C3'	5.51	126.32	119.70
26	1H	932	G	N3-C2-N2	5.51	123.76	119.90
26	1H	1229(A)	G	C6-C5-N7	-5.51	127.09	130.40
26	14	1786	A	OP1-P-O3'	5.51	117.33	105.20
26	14	2277	G	C4-C5-N7	-5.51	108.59	110.80
26	14	2379	G	C8-N9-C4	-5.51	104.19	106.40
26	1H	81	G	C4-C5-N7	-5.51	108.59	110.80
26	1H	2550	G	N3-C4-C5	-5.51	125.84	128.60
26	14	1401	G	N7-C8-N9	5.51	115.86	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	213	A	C4-C5-N7	5.51	113.45	110.70
26	1H	589	C	N3-C2-O2	-5.51	118.04	121.90
26	1H	778	G	C5-N7-C8	5.51	107.06	104.30
26	1H	1764	G	N1-C6-O6	-5.51	116.59	119.90
26	14	1332	G	N9-C1'-C2'	-5.51	105.94	112.00
26	1H	2558	C	N3-C4-C5	5.51	124.10	121.90
1	1G	1077	G	C8-N9-C4	5.51	108.60	106.40
26	14	197	A	C5-C6-N1	5.51	120.45	117.70
26	14	809	G	N1-C6-O6	-5.51	116.59	119.90
29	29	44	TYR	CA-CB-CG	5.51	123.87	113.40
26	1H	394	A	C8-N9-C4	-5.51	103.60	105.80
26	14	1762	A	C6-C5-N7	-5.51	128.44	132.30
26	14	2712(A)	A	C4-C5-N7	5.51	113.45	110.70
1	13	123	C	C5-C6-N1	-5.51	118.25	121.00
1	13	871	U	N1-C2-N3	5.51	118.20	114.90
26	1H	1544	C	C6-N1-C1'	-5.51	114.19	120.80
26	1H	2026	C	N3-C4-N4	5.51	121.86	118.00
26	1H	2069	G	N9-C4-C5	-5.51	103.20	105.40
26	1H	2575	C	C5-C4-N4	5.51	124.06	120.20
26	1H	2608	G	N3-C4-C5	-5.51	125.85	128.60
1	1G	1502	A	N1-C2-N3	5.51	132.05	129.30
26	14	2062	A	C4-N9-C1'	-5.51	116.39	126.30
1	13	187	C	N1-C2-O2	-5.50	115.60	118.90
26	1H	290	G	N1-C2-N2	-5.50	111.25	116.20
26	1H	1643	G	C5-C6-N1	5.50	114.25	111.50
1	1G	266	G	C4-N9-C1'	5.50	133.66	126.50
1	1G	1501	C	C5-C6-N1	-5.50	118.25	121.00
26	14	1785	A	C8-N9-C4	-5.50	103.60	105.80
1	13	1310	G	O5'-P-OP2	-5.50	100.75	105.70
26	1H	48	G	N1-C6-O6	-5.50	116.60	119.90
26	1H	917	A	C5-N7-C8	-5.50	101.15	103.90
26	1H	2255	G	OP1-P-OP2	-5.50	111.34	119.60
1	1G	361	G	O5'-P-OP2	5.50	117.30	110.70
26	14	2237	G	C5-C6-O6	5.50	131.90	128.60
30	39	68	LYS	C-N-CA	-5.50	107.94	121.70
1	13	712	A	N1-C6-N6	-5.50	115.30	118.60
23	2K	6	G	C4-C5-N7	5.50	113.00	110.80
26	1H	1308	A	C6-N1-C2	-5.50	115.30	118.60
26	1H	1488	G	N1-C2-N3	5.50	127.20	123.90
26	1H	1573	G	C8-N9-C4	5.50	108.60	106.40
26	1H	1613	G	N9-C4-C5	-5.50	103.20	105.40
26	14	766	C	C2-N3-C4	-5.50	117.15	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	830	G	C2-N3-C4	-5.50	109.15	111.90
26	14	1241	A	C6-N1-C2	5.50	121.90	118.60
26	14	1365	A	N7-C8-N9	5.50	116.55	113.80
26	14	1827	C	C2-N3-C4	-5.50	117.15	119.90
26	14	2430	A	C4-C5-C6	5.50	119.75	117.00
1	13	861	G	O5'-P-OP1	-5.50	100.75	105.70
45	G8	81	LYS	C-N-CD	-5.50	108.50	120.60
26	14	632	A	OP1-P-OP2	-5.50	111.35	119.60
26	14	1772	G	OP1-P-OP2	5.50	127.85	119.60
1	1G	245	C	N1-C2-O2	-5.50	115.60	118.90
26	14	698	C	C6-N1-C2	-5.50	118.10	120.30
26	14	2360	A	C8-N9-C4	5.50	108.00	105.80
26	1H	102	G	OP1-P-O3'	5.50	117.29	105.20
26	1H	697	C	O5'-P-OP1	-5.50	100.75	105.70
26	1H	1272	A	O5'-P-OP2	-5.50	100.75	105.70
26	1H	1690	A	OP1-P-OP2	-5.50	111.36	119.60
26	1H	1972	A	OP2-P-O3'	5.50	117.29	105.20
26	1H	2827	C	C2-N3-C4	-5.50	117.15	119.90
1	1G	898	G	O5'-P-OP2	-5.50	100.75	105.70
26	14	1367	A	C8-N9-C4	5.50	108.00	105.80
26	14	2078	C	N1-C2-O2	-5.50	115.60	118.90
26	14	2517	C	N1-C2-N3	5.50	123.05	119.20
26	1H	1516	U	N1-C2-O2	5.50	126.65	122.80
26	14	2433	A	N7-C8-N9	5.50	116.55	113.80
1	13	452	A	N7-C8-N9	-5.49	111.05	113.80
26	1H	27	G	N3-C4-C5	-5.49	125.85	128.60
26	1H	241	A	N1-C2-N3	5.49	132.05	129.30
26	1H	1013	C	C2-N1-C1'	-5.49	112.76	118.80
26	1H	2010	G	C8-N9-C4	-5.49	104.20	106.40
29	21	65	GLY	N-CA-C	-5.49	99.37	113.10
26	14	472	A	N1-C6-N6	-5.49	115.30	118.60
26	14	613	U	N3-C4-O4	-5.49	115.56	119.40
26	14	1837	C	N3-C4-C5	-5.49	119.70	121.90
26	14	862	G	C8-N9-C4	-5.49	104.20	106.40
26	1H	1264	G	N1-C2-N2	-5.49	111.26	116.20
26	1H	2083	G	O5'-P-OP1	5.49	117.29	110.70
26	1H	2558	C	OP2-P-O3'	5.49	117.28	105.20
26	1H	2774	C	N3-C4-C5	5.49	124.10	121.90
27	16	109	G	C8-N9-C4	-5.49	104.20	106.40
26	14	1806	C	C6-N1-C2	5.49	122.50	120.30
23	2K	32	G	C8-N9-C4	-5.49	104.20	106.40
26	1H	2490	G	C8-N9-C4	-5.49	104.20	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	16	45	A	OP1-P-OP2	5.49	127.83	119.60
36	78	19	VAL	CG1-CB-CG2	5.49	119.68	110.90
26	14	1618	A	N9-C4-C5	5.49	108.00	105.80
26	14	1780	A	C5-C6-N6	5.49	128.09	123.70
26	14	2451	A	N7-C8-N9	5.49	116.54	113.80
26	1H	370	G	C4-C5-N7	-5.49	108.61	110.80
26	1H	2719	G	N9-C4-C5	5.49	107.59	105.40
1	1G	413	G	N9-C4-C5	5.49	107.59	105.40
25	4L	20	C	N1-C2-O2	5.49	122.19	118.90
26	14	1402	C	C6-N1-C2	-5.49	118.11	120.30
26	14	2779	U	C2-N3-C4	-5.49	123.71	127.00
26	1H	1238	G	N9-C1'-C2'	-5.49	105.97	112.00
26	1H	1369	G	N3-C4-C5	-5.49	125.86	128.60
26	1H	2027	G	C5-C6-O6	5.49	131.89	128.60
26	14	693	C	OP2-P-O3'	5.49	117.27	105.20
26	14	1899	G	C4-C5-N7	5.49	112.99	110.80
1	13	509	A	C2'-C3'-O3'	5.48	122.47	113.70
26	1H	456	C	OP2-P-O3'	5.48	117.27	105.20
26	1H	941	A	N1-C6-N6	5.48	121.89	118.60
26	1H	988	A	OP2-P-O3'	5.48	117.27	105.20
26	1H	2737	G	C4-C5-N7	5.48	112.99	110.80
1	1G	812	C	N3-C4-N4	5.48	121.84	118.00
26	14	777	A	N1-C2-N3	5.48	132.04	129.30
26	14	1145	C	C5-C6-N1	5.48	123.74	121.00
26	14	1394	U	C6-N1-C2	-5.48	117.71	121.00
1	13	581	G	C5-C6-O6	-5.48	125.31	128.60
26	1H	520	G	N1-C2-N2	-5.48	111.27	116.20
26	1H	1151	G	N1-C6-O6	5.48	123.19	119.90
26	1H	1943	U	O5'-P-OP1	-5.48	100.77	105.70
26	14	830	G	OP1-P-O3'	5.48	117.26	105.20
1	13	233	C	C6-N1-C2	-5.48	118.11	120.30
1	13	1406	U	O5'-P-OP2	-5.48	100.77	105.70
26	1H	697	C	C5-C6-N1	-5.48	118.26	121.00
26	1H	992	C	OP1-P-O3'	5.48	117.26	105.20
26	1H	1021	A	C4-C5-N7	5.48	113.44	110.70
26	1H	1326	U	N1-C2-O2	5.48	126.64	122.80
26	1H	2067	G	N9-C4-C5	5.48	107.59	105.40
26	1H	2552	U	C2-N3-C4	-5.48	123.71	127.00
26	1H	2599	G	C6-C5-N7	5.48	133.69	130.40
30	31	176	LEU	CB-CG-CD2	-5.48	101.68	111.00
26	14	106	C	OP2-P-O3'	5.48	117.26	105.20
26	14	519	U	C5-C6-N1	-5.48	119.96	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1566	A	C4-C5-N7	5.48	113.44	110.70
26	14	675	A	C4-C5-C6	-5.48	114.26	117.00
26	14	1802	A	C6-N1-C2	-5.48	115.31	118.60
26	14	2394	C	C5-C6-N1	-5.48	118.26	121.00
26	1H	612	G	N1-C6-O6	-5.48	116.61	119.90
26	1H	975	G	OP1-P-OP2	-5.48	111.38	119.60
26	1H	1010	A	N9-C4-C5	-5.48	103.61	105.80
26	1H	1600	C	OP1-P-OP2	-5.48	111.38	119.60
26	1H	2060	A	OP1-P-O3'	5.48	117.25	105.20
26	1H	2313	C	OP2-P-O3'	5.48	117.25	105.20
26	14	310	A	O5'-P-OP1	-5.48	100.77	105.70
26	14	1187	G	OP2-P-O3'	5.48	117.25	105.20
26	14	1280	G	N9-C1'-C2'	-5.48	105.97	112.00
26	14	1325	G	OP1-P-OP2	-5.48	111.38	119.60
26	14	2087	G	C5-C6-N1	-5.48	108.76	111.50
26	14	2393	A	C2-N3-C4	-5.48	107.86	110.60
26	14	2426	A	N7-C8-N9	5.48	116.54	113.80
1	13	1158	C	N3-C2-O2	-5.48	118.07	121.90
26	1H	2320	A	C6-N1-C2	-5.48	115.31	118.60
27	16	44	G	N3-C4-N9	-5.48	122.71	126.00
23	2L	21	U	C6-N1-C2	-5.48	117.72	121.00
26	14	1572	A	C6-N1-C2	-5.48	115.31	118.60
1	13	1277	C	C6-N1-C2	-5.47	118.11	120.30
1	13	1516	G	C5-N7-C8	-5.47	101.56	104.30
23	2K	29	C	C6-N1-C2	-5.47	118.11	120.30
26	1H	816	C	N3-C4-C5	-5.47	119.71	121.90
1	1G	266	G	C8-N9-C4	-5.47	104.21	106.40
1	1G	293	G	C8-N9-C4	5.47	108.59	106.40
1	1G	1404	C	OP2-P-O3'	5.47	117.24	105.20
26	14	565	C	OP1-P-OP2	5.47	127.81	119.60
26	14	2341	G	N1-C6-O6	5.47	123.19	119.90
26	14	2567	G	C6-N1-C2	-5.47	121.81	125.10
38	55	79	LEU	CA-CB-CG	5.47	127.89	115.30
26	1H	1783	A	O4'-C1'-N9	-5.47	103.82	108.20
26	1H	1833	U	N3-C2-O2	-5.47	118.37	122.20
26	1H	2443	C	N1-C2-O2	-5.47	115.62	118.90
26	1H	2618	G	C5-C6-N1	-5.47	108.76	111.50
26	14	784	A	O4'-C1'-N9	5.47	112.58	108.20
26	14	1324	G	O4'-C1'-N9	5.47	112.58	108.20
26	14	2005	A	C8-N9-C4	5.47	107.99	105.80
26	1H	594	U	C5-C6-N1	-5.47	119.97	122.70
26	1H	633	A	C4-C5-N7	5.47	113.44	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1212	G	N1-C6-O6	5.47	123.18	119.90
26	1H	2055	C	C6-N1-C1'	5.47	127.36	120.80
28	11	257	LEU	CA-CB-CG	5.47	127.88	115.30
1	1G	242	C	N3-C4-C5	-5.47	119.71	121.90
26	1H	667	U	C5-C4-O4	-5.47	122.62	125.90
26	1H	1797	C	C2-N3-C4	-5.47	117.17	119.90
37	88	106	VAL	CB-CA-C	-5.47	101.01	111.40
1	1G	250	A	P-O3'-C3'	5.47	126.26	119.70
26	14	127	A	C6-N1-C2	-5.47	115.32	118.60
26	14	2579	C	C4-C5-C6	-5.47	114.67	117.40
1	13	1498	U	C2-N3-C4	-5.47	123.72	127.00
26	14	71	A	N3-C4-C5	5.47	130.63	126.80
26	14	389	G	C4-C5-N7	5.47	112.99	110.80
26	1H	198	C	C6-N1-C2	5.47	122.49	120.30
26	1H	848	G	O5'-P-OP1	5.47	117.26	110.70
26	1H	1209	G	C4-C5-N7	5.47	112.99	110.80
26	1H	1959	G	OP2-P-O3'	5.47	117.23	105.20
26	1H	2342	C	C5-C6-N1	5.47	123.73	121.00
26	14	620	G	N7-C8-N9	5.47	115.83	113.10
26	14	792	G	N1-C6-O6	-5.47	116.62	119.90
26	14	1470	G	C5-C6-N1	-5.47	108.77	111.50
26	1H	773	U	C5-C6-N1	-5.46	119.97	122.70
26	1H	2027	G	C4-C5-C6	5.46	122.08	118.80
1	1G	769	G	N3-C4-C5	-5.46	125.87	128.60
26	14	704	G	N3-C2-N2	-5.46	116.08	119.90
26	14	809	G	N3-C4-C5	-5.46	125.87	128.60
26	14	1827	C	N3-C2-O2	-5.46	118.08	121.90
26	14	2078	C	N3-C4-C5	-5.46	119.71	121.90
1	13	810	C	C6-N1-C1'	-5.46	114.24	120.80
1	1G	1487	G	C5-C6-O6	-5.46	125.32	128.60
26	14	1332	G	N3-C4-N9	5.46	129.28	126.00
26	14	1980	G	N1-C6-O6	5.46	123.18	119.90
1	13	1139	G	C8-N9-C4	5.46	108.58	106.40
26	1H	72	U	N3-C4-O4	5.46	123.22	119.40
26	1H	111	A	N9-C4-C5	5.46	107.98	105.80
26	1H	2518	A	C2-N3-C4	-5.46	107.87	110.60
1	1G	581	G	C8-N9-C4	5.46	108.58	106.40
26	14	2622	C	C2-N3-C4	-5.46	117.17	119.90
26	14	2688	U	C4-C5-C6	5.46	122.98	119.70
26	14	2829	C	N1-C2-O2	-5.46	115.62	118.90
26	14	301	G	N3-C4-N9	-5.46	122.72	126.00
1	13	447	G	C8-N9-C4	-5.46	104.22	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	576	G	C8-N9-C1'	-5.46	119.90	127.00
26	1H	738	G	N1-C2-N2	-5.46	111.29	116.20
26	14	808	G	C6-N1-C2	-5.46	121.82	125.10
26	14	2620	C	C5-C4-N4	-5.46	116.38	120.20
1	13	733	A	O4'-C1'-N9	5.46	112.56	108.20
26	1H	223	A	O5'-P-OP2	-5.46	100.79	105.70
26	1H	251	A	C4-C5-C6	5.46	119.73	117.00
26	1H	841	A	C2-N3-C4	-5.46	107.87	110.60
26	1H	1499	C	C6-N1-C1'	5.46	127.35	120.80
26	1H	1967	C	N3-C2-O2	-5.46	118.08	121.90
26	1H	2071	A	C4-C5-C6	5.46	119.73	117.00
26	1H	2373	G	C4-C5-C6	5.46	122.07	118.80
26	14	704	G	C8-N9-C4	5.46	108.58	106.40
26	14	864	G	N3-C4-C5	-5.46	125.87	128.60
26	14	2600	A	C6-N1-C2	-5.46	115.33	118.60
1	13	345	C	C2-N1-C1'	5.46	124.80	118.80
12	3I	89	ARG	NE-CZ-NH1	5.46	123.03	120.30
26	1H	271(B)	G	N1-C2-N3	5.46	127.17	123.90
26	1H	2286	A	N1-C6-N6	5.46	121.87	118.60
26	14	62	C	N1-C2-O2	-5.46	115.63	118.90
1	13	768	A	OP1-P-OP2	5.45	127.78	119.60
26	1H	532	A	O4'-C1'-N9	5.45	112.56	108.20
26	1H	765	G	C6-N1-C2	5.45	128.37	125.10
26	1H	962	G	O5'-P-OP1	-5.45	100.79	105.70
26	1H	1806	C	C2-N1-C1'	-5.45	112.80	118.80
26	1H	1817	G	C4-C5-N7	-5.45	108.62	110.80
26	14	179	G	N7-C8-N9	-5.45	110.37	113.10
26	14	488	G	N3-C4-N9	5.45	129.27	126.00
26	14	972	G	C5-C6-O6	5.45	131.87	128.60
26	14	1372	U	N1-C2-N3	5.45	118.17	114.90
26	14	2049	G	C5'-C4'-O4'	5.45	115.64	109.10
26	14	2304	G	C4-C5-C6	5.45	122.07	118.80
26	14	2312	U	O5'-P-OP1	-5.45	100.79	105.70
26	14	1408	C	N3-C2-O2	5.45	125.72	121.90
27	1J	60	C	C2-N1-C1'	5.45	124.80	118.80
26	1H	265	A	N1-C6-N6	5.45	121.87	118.60
26	1H	784	A	O5'-P-OP2	5.45	117.24	110.70
26	1H	1499	C	N1-C2-O2	-5.45	115.63	118.90
26	1H	1728	G	C4-C5-N7	5.45	112.98	110.80
26	1H	1942	C	N3-C4-C5	5.45	124.08	121.90
26	14	138	G	C5-N7-C8	-5.45	101.57	104.30
26	14	790	C	N3-C4-C5	5.45	124.08	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
48	F5	82	LEU	CA-CB-CG	5.45	127.84	115.30
1	13	690	G	C2-N3-C4	-5.45	109.17	111.90
1	13	770	C	C6-N1-C2	5.45	122.48	120.30
26	1H	796	C	O5'-P-OP2	-5.45	100.80	105.70
26	1H	807	U	OP1-P-OP2	5.45	127.77	119.60
26	1H	954	G	OP2-P-O3'	5.45	117.19	105.20
26	1H	2023	G	C4-N9-C1'	5.45	133.58	126.50
1	1G	892	A	OP1-P-OP2	5.45	127.77	119.60
26	14	49	A	OP2-P-O3'	5.45	117.19	105.20
26	14	741	G	N1-C2-N2	5.45	121.10	116.20
26	14	2225	A	N9-C1'-C2'	-5.45	106.01	112.00
26	14	2304	G	C6-C5-N7	-5.45	127.13	130.40
1	13	691	G	N1-C6-O6	5.45	123.17	119.90
26	1H	673	C	OP1-P-OP2	-5.45	111.43	119.60
26	1H	2270	G	N1-C6-O6	5.45	123.17	119.90
27	16	31	C	C5-C4-N4	5.45	124.01	120.20
26	14	247	G	C5-C6-O6	-5.45	125.33	128.60
1	13	238	G	N7-C8-N9	-5.45	110.38	113.10
26	1H	1888	G	N9-C4-C5	-5.45	103.22	105.40
26	1H	2304	G	N1-C2-N2	5.45	121.10	116.20
26	1H	2416	C	C2-N1-C1'	-5.45	112.81	118.80
26	1H	2433	A	C5-C6-N1	-5.45	114.98	117.70
26	1H	2549	G	C2-N3-C4	5.45	114.62	111.90
1	1G	1349	A	OP1-P-O3'	5.45	117.18	105.20
26	14	2053	G	N9-C1'-C2'	-5.45	106.01	112.00
26	14	2510	C	C5-C4-N4	5.45	124.01	120.20
26	1H	82	G	C4-C5-N7	-5.44	108.62	110.80
26	1H	383	U	N1-C2-O2	-5.44	118.99	122.80
26	1H	1255	U	C5-C4-O4	-5.44	122.63	125.90
1	1G	316	G	OP1-P-O3'	5.44	117.18	105.20
1	1G	1484	C	C6-N1-C2	5.44	122.48	120.30
26	14	1379	A	C6-C5-N7	-5.44	128.49	132.30
26	14	1435	G	N9-C4-C5	-5.44	103.22	105.40
26	14	2615	U	C4-C5-C6	-5.44	116.43	119.70
2	1E	111	ARG	NE-CZ-NH1	5.44	123.02	120.30
26	1H	1497	U	C5-C4-O4	-5.44	122.63	125.90
26	14	735	A	N7-C8-N9	-5.44	111.08	113.80
26	14	1342	A	C5-C6-N6	-5.44	119.35	123.70
26	14	1647	G	C5-C6-N1	5.44	114.22	111.50
26	14	2058	A	OP1-P-O3'	5.44	117.17	105.20
1	13	447	G	N7-C8-N9	5.44	115.82	113.10
26	1H	299	A	C8-N9-C4	-5.44	103.62	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1369	G	N7-C8-N9	-5.44	110.38	113.10
26	1H	1995	U	C2-N3-C4	-5.44	123.74	127.00
26	1H	2350	C	N3-C2-O2	-5.44	118.09	121.90
26	14	529	A	C4-C5-C6	5.44	119.72	117.00
26	14	1255	U	O5'-P-OP2	-5.44	100.80	105.70
26	14	2413	G	O5'-P-OP2	-5.44	100.80	105.70
1	13	789	U	N3-C4-O4	-5.44	115.59	119.40
26	1H	947	G	N9-C4-C5	5.44	107.58	105.40
26	1H	1162	G	N3-C4-N9	-5.44	122.74	126.00
26	14	834	C	OP2-P-O3'	5.44	117.17	105.20
1	13	1502	A	C4-N9-C1'	5.44	136.09	126.30
26	1H	248	G	C5-C6-O6	-5.44	125.34	128.60
26	1H	504	U	C2-N1-C1'	5.44	124.23	117.70
26	1H	1382	G	O5'-P-OP1	5.44	117.22	110.70
26	1H	1681	G	C4-C5-N7	5.44	112.97	110.80
26	14	1614	A	N3-C4-C5	5.44	130.61	126.80
26	14	2264	C	O5'-P-OP2	5.44	117.23	110.70
26	14	2685	G	C8-N9-C4	5.44	108.58	106.40
55	M5	33	ASN	N-CA-C	5.44	125.68	111.00
26	1H	60	G	OP2-P-O3'	5.44	117.16	105.20
26	1H	62	C	C2-N3-C4	-5.44	117.18	119.90
26	1H	731	C	C2-N1-C1'	5.44	124.78	118.80
26	14	1621	U	N1-C2-O2	-5.44	119.00	122.80
26	1H	664	C	C5-C6-N1	-5.43	118.28	121.00
26	1H	1786	A	C4-N9-C1'	5.43	136.08	126.30
26	1H	2308	G	C5-C6-N1	-5.43	108.78	111.50
26	1H	2505	G	C2-N3-C4	-5.43	109.18	111.90
26	14	308	G	N1-C6-O6	5.43	123.16	119.90
26	14	618	G	C8-N9-C4	5.43	108.57	106.40
26	14	2459	A	C8-N9-C4	-5.43	103.63	105.80
26	1H	2839	G	N1-C6-O6	-5.43	116.64	119.90
1	1G	299	G	O5'-P-OP2	5.43	117.22	110.70
26	14	200	U	O5'-P-OP1	-5.43	100.81	105.70
26	14	797	C	C4-C5-C6	5.43	120.12	117.40
1	13	809	G	C5-C6-O6	5.43	131.86	128.60
26	1H	1381	G	C2-N3-C4	-5.43	109.18	111.90
26	1H	1944	U	N3-C4-O4	-5.43	115.60	119.40
26	1H	2503	A	N3-C4-N9	5.43	131.74	127.40
26	1H	1845	G	C5-C6-N1	-5.43	108.78	111.50
26	14	465	G	OP1-P-OP2	-5.43	111.46	119.60
26	14	2450	A	O5'-P-OP2	-5.43	100.81	105.70
1	13	1509	C	C2-N3-C4	-5.43	117.19	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	79	G	C8-N9-C4	-5.43	104.23	106.40
26	1H	659	C	N3-C4-C5	5.43	124.07	121.90
26	1H	1835	G	O5'-P-OP2	5.43	117.21	110.70
26	14	602	G	N3-C4-N9	5.43	129.26	126.00
1	13	756	C	N1-C2-O2	-5.43	115.64	118.90
23	2K	10	G	C8-N9-C1'	-5.43	119.95	127.00
26	1H	773	U	N1-C2-O2	-5.43	119.00	122.80
26	1H	841	A	C5-C6-N6	-5.43	119.36	123.70
26	1H	1675	C	OP1-P-O3'	5.43	117.14	105.20
26	1H	1701	A	OP1-P-O3'	5.43	117.14	105.20
26	1H	2712(A)	A	C6-C5-N7	-5.43	128.50	132.30
51	M8	45	GLY	N-CA-C	-5.43	99.53	113.10
1	1G	865	A	C8-N9-C4	-5.43	103.63	105.80
26	14	1692	U	O5'-P-OP2	-5.43	100.82	105.70
26	1H	67	U	C6-N1-C2	-5.42	117.75	121.00
26	1H	104	U	C2-N3-C4	-5.42	123.75	127.00
26	1H	765	G	C5-C6-N1	-5.42	108.79	111.50
26	1H	2076	U	N3-C4-O4	-5.42	115.60	119.40
26	1H	2251	G	C5-N7-C8	5.42	107.01	104.30
26	1H	2326	C	N3-C4-C5	-5.42	119.73	121.90
26	14	1301	A	O4'-C1'-N9	5.42	112.54	108.20
26	14	2286	A	N7-C8-N9	5.42	116.51	113.80
26	14	2443	C	N3-C4-N4	5.42	121.80	118.00
26	14	2679	A	OP2-P-O3'	5.42	117.13	105.20
1	13	785	G	C4-C5-N7	-5.42	108.63	110.80
26	1H	1135	C	N1-C2-O2	5.42	122.15	118.90
26	14	2363	C	C6-N1-C2	5.42	122.47	120.30
26	1H	128	C	OP1-P-O3'	-5.42	93.27	105.20
26	1H	484	C	OP1-P-O3'	5.42	117.13	105.20
26	1H	2297	C	N3-C2-O2	-5.42	118.11	121.90
26	1H	2373	G	C6-N1-C2	-5.42	121.85	125.10
26	1H	2392	A	C6-C5-N7	-5.42	128.50	132.30
1	1G	873	A	N9-C4-C5	5.42	107.97	105.80
26	14	121	G	C6-C5-N7	-5.42	127.15	130.40
26	14	529	A	C5-N7-C8	-5.42	101.19	103.90
26	14	736	C	C5-C6-N1	-5.42	118.29	121.00
26	14	1598	C	C6-N1-C2	-5.42	118.13	120.30
26	14	1929	G	OP1-P-OP2	5.42	127.73	119.60
26	14	2491	U	OP1-P-O3'	5.42	117.13	105.20
1	13	966	G	N9-C4-C5	-5.42	103.23	105.40
1	13	1520	G	N1-C6-O6	5.42	123.15	119.90
23	2K	31	G	C8-N9-C4	-5.42	104.23	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2011	U	N3-C2-O2	5.42	125.99	122.20
1	13	1131	G	N1-C6-O6	-5.42	116.65	119.90
1	13	1494	G	N1-C6-O6	-5.42	116.65	119.90
1	13	1502	A	N9-C4-C5	-5.42	103.63	105.80
26	1H	813	U	N3-C4-O4	5.42	123.19	119.40
26	1H	965	C	O5'-P-OP1	-5.42	100.82	105.70
26	1H	1241	A	N7-C8-N9	5.42	116.51	113.80
26	1H	1300	U	OP1-P-O3'	5.42	117.12	105.20
26	1H	1416	G	OP1-P-O3'	5.42	117.12	105.20
26	1H	1901	A	C8-N9-C4	-5.42	103.63	105.80
26	1H	2477	C	C6-N1-C2	-5.42	118.13	120.30
1	1G	396	G	N3-C2-N2	5.42	123.69	119.90
35	25	64	ARG	NE-CZ-NH1	-5.42	117.59	120.30
1	13	810	C	N3-C4-N4	5.42	121.79	118.00
1	13	973	G	C4-C5-C6	5.42	122.05	118.80
1	13	1431	C	C5-C4-N4	-5.42	116.41	120.20
26	1H	576	U	N3-C2-O2	5.42	125.99	122.20
26	1H	596	G	N1-C2-N2	5.42	121.07	116.20
26	1H	933	A	O5'-P-OP1	5.42	117.20	110.70
28	11	131	LEU	CB-CG-CD2	-5.42	101.79	111.00
1	1G	230	G	N3-C2-N2	-5.42	116.11	119.90
1	13	58	C	N1-C2-O2	5.42	122.15	118.90
26	1H	38	A	C5-C6-N1	5.42	120.41	117.70
26	1H	2363	C	OP2-P-O3'	5.42	117.11	105.20
26	14	1995	U	N1-C2-O2	5.42	126.59	122.80
26	14	2427	C	N3-C4-N4	5.42	121.79	118.00
1	13	339	C	O5'-P-OP2	-5.41	100.83	105.70
1	13	352	C	N3-C4-C5	5.41	124.07	121.90
1	13	516	U	N3-C4-C5	-5.41	111.35	114.60
1	13	1199	U	N3-C2-O2	-5.41	118.41	122.20
26	1H	129	C	N3-C4-N4	5.41	121.79	118.00
26	1H	620	G	N7-C8-N9	5.41	115.81	113.10
26	1H	1944	U	N3-C4-C5	5.41	117.85	114.60
26	1H	2311	A	OP2-P-O3'	5.41	117.11	105.20
26	1H	2639	A	C2-N3-C4	-5.41	107.89	110.60
26	14	494	G	C5-C6-O6	-5.41	125.35	128.60
26	14	1978	A	C8-N9-C4	-5.41	103.64	105.80
26	1H	182	A	OP2-P-O3'	5.41	117.11	105.20
26	1H	576	U	C4-C5-C6	-5.41	116.45	119.70
26	1H	1771	C	C5-C6-N1	-5.41	118.29	121.00
26	1H	2841	C	N3-C4-C5	5.41	124.06	121.90
26	14	2282	G	O5'-P-OP1	-5.41	100.83	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2502	G	OP1-P-O3'	5.41	117.11	105.20
1	13	804	U	C5-C4-O4	5.41	129.15	125.90
26	1H	1314	C	C6-N1-C2	-5.41	118.14	120.30
26	1H	1604	C	O5'-P-OP2	5.41	117.19	110.70
26	1H	1728	G	C8-N9-C4	-5.41	104.24	106.40
26	1H	1772	G	N9-C1'-C2'	-5.41	106.05	112.00
57	3L	76	A	C6-C5-N7	-5.41	128.51	132.30
26	14	760	G	OP1-P-O3'	5.41	117.11	105.20
1	13	656	C	C6-N1-C2	-5.41	118.14	120.30
26	1H	193	U	N1-C2-O2	-5.41	119.01	122.80
26	1H	906	G	C8-N9-C4	-5.41	104.24	106.40
26	1H	2623	G	N1-C2-N2	-5.41	111.33	116.20
26	1H	2736	G	N3-C4-C5	5.41	131.30	128.60
1	1G	1394	A	O5'-P-OP2	5.41	117.19	110.70
26	14	451	C	N3-C4-C5	5.41	124.06	121.90
29	29	51	PHE	N-CA-C	5.41	125.60	111.00
1	13	1342	C	N3-C2-O2	5.41	125.69	121.90
26	1H	240	G	N3-C2-N2	-5.41	116.11	119.90
26	1H	823	G	N7-C8-N9	-5.41	110.40	113.10
26	1H	2326	C	N1-C2-O2	5.41	122.14	118.90
1	1G	108	G	C6-C5-N7	-5.41	127.16	130.40
1	1G	354	G	C6-C5-N7	-5.41	127.16	130.40
1	1G	942	G	OP1-P-O3'	5.41	117.10	105.20
26	14	468	G	O5'-P-OP2	5.41	117.19	110.70
26	14	1783	A	C2-N3-C4	-5.41	107.90	110.60
26	1H	243	U	C5-C6-N1	5.41	125.40	122.70
26	1H	310	A	OP1-P-O3'	5.41	117.09	105.20
26	1H	795	C	N1-C2-N3	5.41	122.98	119.20
26	1H	2761	G	N1-C2-N3	5.41	127.14	123.90
27	16	59	A	C8-N9-C4	-5.41	103.64	105.80
26	14	747	U	N3-C2-O2	5.41	125.98	122.20
26	14	1594	G	C8-N9-C4	-5.41	104.24	106.40
26	14	2638	G	N3-C4-N9	5.41	129.24	126.00
26	1H	214	G	N3-C4-C5	-5.40	125.90	128.60
1	1G	413	G	N1-C6-O6	-5.40	116.66	119.90
26	14	1142(A)	A	N1-C2-N3	5.40	132.00	129.30
1	13	1102	A	OP2-P-O3'	5.40	117.08	105.20
26	1H	430	G	N3-C4-N9	5.40	129.24	126.00
26	1H	1347	G	C5-C6-O6	-5.40	125.36	128.60
26	1H	1848	A	N9-C4-C5	-5.40	103.64	105.80
26	1H	2269	A	O5'-P-OP2	-5.40	100.84	105.70
26	1H	2293	C	C6-N1-C2	-5.40	118.14	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2779	U	C5-C4-O4	5.40	129.14	125.90
1	1G	1428	A	C8-N9-C4	-5.40	103.64	105.80
26	14	1470	G	OP2-P-O3'	5.40	117.08	105.20
26	14	1892	C	O5'-P-OP1	-5.40	100.84	105.70
26	14	2565	A	C8-N9-C4	5.40	107.96	105.80
26	14	2724	C	C5-C4-N4	-5.40	116.42	120.20
26	1H	732	C	C2-N3-C4	-5.40	117.20	119.90
26	1H	1534	G	N3-C4-C5	-5.40	125.90	128.60
26	1H	1893	C	O5'-P-OP2	-5.40	100.84	105.70
1	1G	740	U	O5'-P-OP2	-5.40	100.84	105.70
26	14	198	C	C5-C6-N1	5.40	123.70	121.00
26	14	770	G	OP1-P-OP2	-5.40	111.50	119.60
1	13	1407	C	N3-C4-C5	5.40	124.06	121.90
26	1H	628	G	C5-C6-N1	5.40	114.20	111.50
26	14	2035	G	OP1-P-OP2	5.40	127.70	119.60
1	13	733	A	N7-C8-N9	-5.40	111.10	113.80
1	13	770	C	OP1-P-OP2	-5.40	111.50	119.60
26	1H	804	A	O4'-C1'-N9	5.40	112.52	108.20
26	1H	1217	C	N3-C2-O2	5.40	125.68	121.90
1	1G	953	G	N3-C4-C5	-5.40	125.90	128.60
26	14	741	G	N1-C6-O6	5.40	123.14	119.90
26	14	1308	A	N1-C2-N3	5.40	132.00	129.30
26	1H	296	C	C5-C6-N1	-5.40	118.30	121.00
26	1H	388	G	OP1-P-OP2	5.40	127.69	119.60
26	1H	1559	G	C5-C6-O6	-5.40	125.36	128.60
26	1H	1624	G	N1-C2-N2	-5.40	111.34	116.20
26	1H	2008	C	OP2-P-O3'	5.40	117.07	105.20
26	14	208	C	C6-N1-C2	5.40	122.46	120.30
26	14	768	G	N1-C2-N2	-5.40	111.34	116.20
26	14	1907	G	C6-C5-N7	5.40	133.64	130.40
1	13	786	G	C8-N9-C4	5.39	108.56	106.40
26	1H	688	U	OP1-P-OP2	5.39	127.69	119.60
26	1H	1271	G	C8-N9-C1'	-5.39	119.99	127.00
26	1H	1308	A	N7-C8-N9	5.39	116.50	113.80
26	14	190	A	C5-N7-C8	-5.39	101.20	103.90
1	13	865	A	C4-C5-N7	5.39	113.40	110.70
26	1H	583	G	C8-N9-C4	-5.39	104.24	106.40
26	1H	696	G	N3-C2-N2	5.39	123.67	119.90
26	1H	1568	G	C4-N9-C1'	-5.39	119.49	126.50
26	1H	2253	G	N3-C4-N9	-5.39	122.76	126.00
26	14	71	A	C6-C5-N7	-5.39	128.53	132.30
26	14	1585	C	N3-C2-O2	-5.39	118.13	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2335	A	O4'-C1'-N9	5.39	112.51	108.20
26	14	2437	U	OP1-P-OP2	5.39	127.69	119.60
26	14	2763	G	C8-N9-C1'	-5.39	119.99	127.00
1	13	220	G	N3-C4-C5	-5.39	125.90	128.60
26	1H	125	G	C4-C5-N7	5.39	112.96	110.80
26	1H	2213	U	O4'-C1'-N1	5.39	112.51	108.20
1	1G	1380	U	C6-N1-C2	5.39	124.23	121.00
25	4L	12	A	P-O3'-C3'	5.39	126.17	119.70
26	14	1318	C	C6-N1-C2	-5.39	118.14	120.30
26	14	1617	C	C6-N1-C2	-5.39	118.14	120.30
1	13	1479	C	OP1-P-OP2	-5.39	111.52	119.60
1	13	1519	A	N1-C6-N6	-5.39	115.37	118.60
23	2K	25	U	C5-C4-O4	5.39	129.13	125.90
26	1H	101	G	C8-N9-C1'	-5.39	119.99	127.00
26	1H	187	G	N1-C2-N2	-5.39	111.35	116.20
26	1H	1676	A	O5'-P-OP2	-5.39	100.85	105.70
26	1H	2257	U	P-O3'-C3'	5.39	126.17	119.70
26	1H	2439	A	C5-C6-N6	-5.39	119.39	123.70
26	1H	2666	C	N3-C4-N4	5.39	121.77	118.00
26	14	775	G	N3-C2-N2	5.39	123.67	119.90
26	14	991	C	C6-N1-C2	-5.39	118.14	120.30
26	14	2507	C	O5'-P-OP2	-5.39	100.85	105.70
26	1H	478	A	N1-C6-N6	-5.39	115.37	118.60
26	1H	1229(A)	G	C4-C5-N7	5.39	112.95	110.80
26	1H	2276	G	O5'-P-OP1	-5.39	100.85	105.70
26	1H	2433	A	C5-C6-N6	5.39	128.01	123.70
1	1G	275	G	C6-C5-N7	-5.39	127.17	130.40
26	1H	436	C	N3-C4-C5	-5.39	119.75	121.90
26	1H	684	G	N9-C4-C5	5.39	107.56	105.40
26	1H	1204	A	C5-N7-C8	-5.39	101.21	103.90
26	1H	2503	A	C5-C6-N1	5.39	120.39	117.70
23	2L	29	C	C6-N1-C2	-5.39	118.14	120.30
26	14	1295	C	C5-C6-N1	-5.39	118.31	121.00
26	14	1338	G	C6-C5-N7	-5.39	127.17	130.40
26	14	2072	G	OP1-P-O3'	5.39	117.05	105.20
26	14	2261	C	O5'-P-OP1	5.39	117.16	110.70
1	13	822	C	C6-N1-C2	5.38	122.45	120.30
26	1H	247	G	C8-N9-C4	5.38	108.55	106.40
57	3L	70	G	N3-C4-C5	-5.38	125.91	128.60
26	14	841	A	N1-C6-N6	5.38	121.83	118.60
26	14	845	G	C6-C5-N7	-5.38	127.17	130.40
26	14	2352	A	C2-N3-C4	-5.38	107.91	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2435	A	N7-C8-N9	5.38	116.49	113.80
26	14	2602	A	N1-C6-N6	-5.38	115.37	118.60
1	13	745	C	N3-C4-N4	5.38	121.77	118.00
1	13	600	C	N1-C2-O2	-5.38	115.67	118.90
26	1H	628	G	C8-N9-C4	5.38	108.55	106.40
26	1H	1154	G	O5'-P-OP2	-5.38	100.86	105.70
26	1H	2766	G	N1-C6-O6	5.38	123.13	119.90
26	14	1371	G	C5-C6-O6	-5.38	125.37	128.60
1	13	309	G	C5-C6-O6	-5.38	125.37	128.60
26	1H	1344	G	C5-N7-C8	-5.38	101.61	104.30
26	1H	2365	G	C5-C6-N1	5.38	114.19	111.50
1	1G	308	C	C6-N1-C2	-5.38	118.15	120.30
26	14	1304	C	N3-C2-O2	-5.38	118.13	121.90
26	14	1342	A	C4-N9-C1'	5.38	135.98	126.30
1	13	59	A	O5'-P-OP1	-5.38	100.86	105.70
26	1H	1012	U	N3-C2-O2	5.38	125.97	122.20
26	1H	2546	U	O5'-P-OP2	-5.38	100.86	105.70
26	1H	2726	U	C5-C6-N1	-5.38	120.01	122.70
26	14	383	U	C4-C5-C6	5.38	122.93	119.70
26	14	775	G	N3-C4-C5	-5.38	125.91	128.60
26	14	1372	U	C4-C5-C6	5.38	122.93	119.70
26	14	2519	U	OP1-P-OP2	5.38	127.67	119.60
1	13	942	G	OP1-P-O3'	5.38	117.03	105.20
26	1H	770	G	N3-C4-N9	5.38	129.23	126.00
26	1H	1818	U	OP1-P-OP2	5.38	127.67	119.60
26	1H	1842	G	C5-N7-C8	5.38	106.99	104.30
26	1H	2017	U	N3-C4-C5	-5.38	111.37	114.60
26	1H	2818	G	N3-C4-N9	-5.38	122.77	126.00
1	1G	800	G	O5'-P-OP2	-5.38	100.86	105.70
25	4L	16	A	N7-C8-N9	-5.38	111.11	113.80
26	14	1641	A	N1-C2-N3	5.38	131.99	129.30
26	14	1645	G	C5-N7-C8	5.38	106.99	104.30
1	13	1263	C	O5'-P-OP2	-5.38	100.86	105.70
26	1H	71	A	C8-N9-C4	-5.38	103.65	105.80
26	1H	2502	G	N3-C4-C5	-5.38	125.91	128.60
26	14	40	C	N1-C2-O2	5.38	122.12	118.90
26	14	1202	C	C2-N3-C4	-5.38	117.21	119.90
1	13	1079	G	O5'-P-OP1	-5.37	100.86	105.70
26	1H	1229(A)	G	C5-N7-C8	-5.37	101.61	104.30
26	14	1772	G	N9-C1'-C2'	-5.37	106.09	112.00
26	14	2508	G	N9-C4-C5	5.37	107.55	105.40
1	13	812	C	C6-N1-C2	-5.37	118.15	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1426	C	N3-C4-N4	5.37	121.76	118.00
26	1H	613	U	N3-C4-O4	-5.37	115.64	119.40
26	1H	1656	C	O5'-P-OP1	5.37	117.15	110.70
26	1H	2500	U	C2-N3-C4	-5.37	123.78	127.00
1	1G	244	U	C2-N1-C1'	5.37	124.14	117.70
23	2L	34	U	C5-C6-N1	-5.37	120.01	122.70
26	14	1342	A	C8-N9-C4	-5.37	103.65	105.80
26	14	2044	C	O5'-P-OP1	-5.37	100.87	105.70
1	13	128	G	N3-C4-C5	5.37	131.28	128.60
26	1H	609	A	C8-N9-C4	5.37	107.95	105.80
26	1H	815	C	C6-N1-C2	5.37	122.45	120.30
27	16	12	C	N1-C2-N3	5.37	122.96	119.20
26	14	2033	A	O4'-C1'-N9	5.37	112.50	108.20
26	14	2690	C	O5'-P-OP2	-5.37	100.87	105.70
1	13	1468	A	C5-C6-N6	-5.37	119.41	123.70
1	13	1499	A	N1-C2-N3	5.37	131.98	129.30
1	13	1511	G	N1-C2-N3	5.37	127.12	123.90
26	1H	19	C	C4-C5-C6	5.37	120.08	117.40
26	1H	473	G	O5'-P-OP2	-5.37	100.87	105.70
26	1H	1367	A	C8-N9-C4	5.37	107.95	105.80
1	1G	413	G	N7-C8-N9	-5.37	110.42	113.10
26	14	201	C	N1-C2-N3	5.37	122.96	119.20
26	14	1602	U	O5'-P-OP1	-5.37	100.87	105.70
26	14	2038	G	N9-C4-C5	-5.37	103.25	105.40
29	29	50	GLY	N-CA-C	5.37	126.52	113.10
1	1G	363	A	N9-C4-C5	5.37	107.95	105.80
1	1G	1502	A	C2-N3-C4	-5.37	107.92	110.60
26	14	330	A	N7-C8-N9	5.37	116.48	113.80
26	14	706	A	N1-C2-N3	5.37	131.98	129.30
26	14	974(A)	C	N1-C2-O2	5.37	122.12	118.90
26	14	1549	C	O5'-P-OP1	-5.37	100.87	105.70
26	1H	115	C	OP1-P-O3'	5.37	117.00	105.20
26	14	1366	A	C4-C5-N7	5.37	113.38	110.70
26	14	2689	U	O5'-P-OP1	-5.37	100.87	105.70
1	13	452	A	O5'-P-OP1	-5.36	100.87	105.70
23	2K	75	C	OP1-P-O3'	5.36	117.00	105.20
26	1H	380	U	O5'-P-OP2	-5.36	100.87	105.70
26	1H	931	G	C6-N1-C2	-5.36	121.88	125.10
26	1H	1613	G	N1-C2-N2	-5.36	111.37	116.20
26	1H	2232	U	C5-C4-O4	5.36	129.12	125.90
26	1H	2444	G	N7-C8-N9	5.36	115.78	113.10
26	1H	2508	G	C5-C6-O6	5.36	131.82	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	842	C	N1-C2-O2	5.36	122.12	118.90
26	14	495	G	N3-C2-N2	-5.36	116.14	119.90
26	14	911	A	OP2-P-O3'	-5.36	93.40	105.20
26	14	1253	A	N1-C6-N6	5.36	121.82	118.60
1	13	386	C	C2-N1-C1'	-5.36	112.90	118.80
26	1H	2056	G	OP1-P-O3'	5.36	117.00	105.20
26	1H	2231	C	C4-C5-C6	5.36	120.08	117.40
26	14	2347	C	N1-C2-O2	5.36	122.12	118.90
1	13	300	A	O5'-P-OP1	-5.36	100.88	105.70
1	13	330	C	C6-N1-C2	-5.36	118.16	120.30
1	13	793	U	N1-C2-N3	5.36	118.12	114.90
1	13	865	A	N7-C8-N9	5.36	116.48	113.80
26	1H	446	G	C5-C6-N1	-5.36	108.82	111.50
26	1H	647	G	C8-N9-C4	-5.36	104.26	106.40
26	1H	703	U	C6-N1-C1'	5.36	128.70	121.20
26	1H	1973	G	C8-N9-C4	-5.36	104.26	106.40
26	1H	2626	C	N3-C4-C5	5.36	124.04	121.90
1	1G	453	A	O5'-P-OP1	-5.36	100.88	105.70
26	14	2320	A	N9-C4-C5	-5.36	103.66	105.80
26	14	2332	U	N3-C4-O4	-5.36	115.65	119.40
26	14	2445	G	N7-C8-N9	5.36	115.78	113.10
26	14	2648	C	N3-C4-C5	5.36	124.04	121.90
26	1H	1599	C	C6-N1-C2	-5.36	118.16	120.30
26	14	2574	G	O5'-P-OP2	-5.36	100.88	105.70
26	14	2703	C	N3-C2-O2	-5.36	118.15	121.90
27	1J	100	G	N3-C4-N9	5.36	129.22	126.00
1	13	28	G	C8-N9-C4	-5.36	104.26	106.40
1	13	545	C	N3-C4-C5	5.36	124.04	121.90
26	1H	586	A	C5-C6-N6	5.36	127.99	123.70
26	1H	1792	G	N1-C6-O6	-5.36	116.69	119.90
26	1H	1927	A	C5-C6-N6	-5.36	119.41	123.70
26	1H	2782	G	C6-C5-N7	-5.36	127.19	130.40
26	14	455	C	C6-N1-C2	5.36	122.44	120.30
26	14	1026	U	C5-C6-N1	5.36	125.38	122.70
27	1J	26	A	N1-C6-N6	5.36	121.81	118.60
26	1H	624	C	N3-C4-N4	5.36	121.75	118.00
26	1H	797	C	C2-N1-C1'	-5.36	112.91	118.80
26	1H	994	C	C6-N1-C2	-5.36	118.16	120.30
26	1H	1178	C	N3-C4-C5	5.36	124.04	121.90
26	1H	1664	A	C8-N9-C4	-5.36	103.66	105.80
26	14	192	C	OP1-P-OP2	5.36	127.63	119.60
26	14	1301	A	C8-N9-C4	5.36	107.94	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2722	G	C6-C5-N7	-5.36	127.19	130.40
26	1H	471	A	C5-N7-C8	-5.35	101.22	103.90
26	1H	520	G	N3-C2-N2	5.35	123.65	119.90
26	1H	1775	U	OP1-P-O3'	5.35	116.98	105.20
26	1H	2234	G	C8-N9-C4	5.35	108.54	106.40
26	1H	2439	A	C4-C5-N7	5.35	113.38	110.70
27	16	15	A	O4'-C1'-N9	5.35	112.48	108.20
1	1G	321	A	OP2-P-O3'	5.35	116.98	105.20
1	13	529	G	N1-C6-O6	5.35	123.11	119.90
26	1H	839	U	OP1-P-OP2	5.35	127.63	119.60
26	1H	1158	C	C2-N3-C4	-5.35	117.22	119.90
26	1H	1380	G	C4-N9-C1'	5.35	133.46	126.50
55	Q8	13	ARG	NE-CZ-NH2	5.35	122.98	120.30
1	1G	896	C	N3-C4-C5	5.35	124.04	121.90
26	14	2072	G	C5-C6-O6	-5.35	125.39	128.60
1	13	508	C	O5'-P-OP1	-5.35	100.88	105.70
26	1H	20	C	C2-N3-C4	-5.35	117.22	119.90
26	1H	1270	C	C2-N3-C4	-5.35	117.22	119.90
26	1H	1956	U	N3-C2-O2	-5.35	118.45	122.20
1	13	917	G	OP1-P-O3'	5.35	116.97	105.20
26	1H	1204	A	C4-C5-N7	5.35	113.38	110.70
26	1H	2712(A)	A	C4-C5-N7	5.35	113.37	110.70
1	1G	769	G	C5-C6-O6	-5.35	125.39	128.60
26	14	265	A	N1-C2-N3	5.35	131.97	129.30
26	14	915	C	N3-C4-C5	-5.35	119.76	121.90
1	13	1282	C	O5'-P-OP1	-5.35	100.89	105.70
1	13	1432	G	C4-C5-C6	5.35	122.01	118.80
24	3K	71	G	N1-C6-O6	-5.35	116.69	119.90
26	1H	1606	G	C5-C6-N1	5.35	114.17	111.50
26	14	714	U	N1-C2-O2	-5.35	119.06	122.80
26	14	1776	G	C4-N9-C1'	5.35	133.45	126.50
26	14	1787	A	C2-N3-C4	-5.35	107.93	110.60
1	13	813	U	N3-C4-C5	5.35	117.81	114.60
26	1H	1574	C	N3-C4-C5	5.35	124.04	121.90
26	14	950	G	C5-C6-O6	5.35	131.81	128.60
26	14	1588	C	C6-N1-C2	-5.35	118.16	120.30
26	1H	987	G	C4-N9-C1'	-5.34	119.55	126.50
26	1H	1195	G	N3-C2-N2	-5.34	116.16	119.90
26	1H	1229(A)	G	C2-N3-C4	-5.34	109.23	111.90
1	1G	452	A	O4'-C1'-N9	5.34	112.47	108.20
26	14	141	A	O4'-C1'-N9	5.34	112.48	108.20
26	14	921	G	N7-C8-N9	5.34	115.77	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1777	U	N1-C2-N3	5.34	118.11	114.90
28	19	43	ARG	CG-CD-NE	5.34	123.02	111.80
1	13	571	U	OP2-P-O3'	5.34	116.96	105.20
26	1H	569	U	N3-C2-O2	-5.34	118.46	122.20
1	1G	913	A	OP2-P-O3'	5.34	116.95	105.20
26	1H	804	A	C6-N1-C2	-5.34	115.39	118.60
26	1H	1214	A	OP2-P-O3'	5.34	116.95	105.20
26	1H	1281	G	N1-C6-O6	5.34	123.11	119.90
26	14	823	G	C5-C6-O6	5.34	131.81	128.60
26	14	1607	C	C5-C4-N4	-5.34	116.46	120.20
26	14	1804	C	N3-C4-C5	5.34	124.04	121.90
26	14	2593	U	N3-C4-C5	5.34	117.81	114.60
1	13	402	G	O5'-P-OP1	5.34	117.11	110.70
26	1H	970	C	C4-C5-C6	5.34	120.07	117.40
23	2L	17	C	C2-N1-C1'	5.34	124.67	118.80
26	14	2821	A	N1-C6-N6	5.34	121.80	118.60
26	14	2873	A	N9-C1'-C2'	5.34	120.94	114.00
1	13	1299	A	C4-C5-N7	5.34	113.37	110.70
26	1H	2058	A	C5-N7-C8	5.34	106.57	103.90
26	1H	2598	A	N7-C8-N9	-5.34	111.13	113.80
26	1H	2621	A	OP2-P-O3'	5.34	116.94	105.20
26	14	676	A	N1-C6-N6	5.34	121.80	118.60
26	14	1773	A	C2-N3-C4	-5.34	107.93	110.60
1	13	1242	C	C5-C4-N4	-5.34	116.47	120.20
1	13	1381	U	C2-N1-C1'	5.34	124.10	117.70
23	2K	25	U	N3-C4-O4	-5.34	115.67	119.40
26	1H	141(A)	C	OP2-P-O3'	5.34	116.94	105.20
26	1H	395	U	C6-N1-C1'	-5.34	113.73	121.20
26	1H	1954	G	O5'-P-OP2	5.34	117.10	110.70
26	1H	2228	G	C4-C5-C6	5.34	122.00	118.80
26	1H	2267	A	N1-C6-N6	-5.34	115.40	118.60
26	1H	2302	G	C5-C6-O6	5.34	131.80	128.60
26	14	1326	U	O5'-P-OP1	-5.34	100.90	105.70
26	14	1623	G	OP2-P-O3'	5.34	116.94	105.20
26	14	2262	U	O5'-P-OP1	5.34	117.10	110.70
26	1H	866	A	N7-C8-N9	5.33	116.47	113.80
26	1H	1338	G	N1-C6-O6	-5.33	116.70	119.90
26	1H	1640	C	N3-C4-C5	5.33	124.03	121.90
27	16	5	C	C6-N1-C1'	-5.33	114.40	120.80
35	68	8	LEU	CA-CB-CG	5.33	127.57	115.30
1	1G	1501	C	C6-N1-C2	5.33	122.43	120.30
26	14	2035	G	O4'-C1'-N9	5.33	112.47	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	727	G	C5-N7-C8	-5.33	101.63	104.30
23	2K	27	G	C5-C6-O6	-5.33	125.40	128.60
26	1H	2243	U	C6-N1-C2	-5.33	117.80	121.00
26	1H	2256	G	N3-C2-N2	5.33	123.63	119.90
26	14	1973	G	C5-N7-C8	5.33	106.97	104.30
27	1J	92	G	OP2-P-O3'	5.33	116.93	105.20
1	13	484	G	P-O3'-C3'	5.33	126.10	119.70
26	1H	222	A	C8-N9-C4	-5.33	103.67	105.80
26	1H	781	A	OP1-P-OP2	5.33	127.60	119.60
26	14	2429	G	O5'-P-OP2	-5.33	100.90	105.70
1	13	963	G	N3-C4-C5	-5.33	125.94	128.60
1	13	973	G	N3-C4-C5	-5.33	125.94	128.60
26	1H	623	G	N9-C4-C5	-5.33	103.27	105.40
26	1H	835	A	C5-C6-N1	5.33	120.36	117.70
1	1G	826	C	O5'-P-OP2	-5.33	100.90	105.70
26	14	2611	U	O5'-P-OP2	-5.33	100.90	105.70
19	AI	25	LYS	N-CA-C	-5.33	96.61	111.00
26	1H	1333	C	C5-C4-N4	-5.33	116.47	120.20
26	1H	1843	C	C4-C5-C6	5.33	120.06	117.40
26	1H	2491	U	C4-C5-C6	-5.33	116.50	119.70
27	16	33	G	O5'-P-OP2	-5.33	100.91	105.70
1	1G	1466	C	OP2-P-O3'	5.33	116.92	105.20
57	3L	3	C	C5-C6-N1	5.33	123.67	121.00
26	14	1648	C	C6-N1-C1'	5.33	127.19	120.80
26	14	2607	G	O5'-P-OP2	-5.33	100.90	105.70
33	69	102	SER	N-CA-C	-5.33	96.61	111.00
1	13	899	C	N3-C4-C5	-5.33	119.77	121.90
26	1H	1301	A	C4-C5-N7	5.33	113.36	110.70
26	1H	1516	U	N3-C2-O2	-5.33	118.47	122.20
26	1H	2000	G	OP1-P-OP2	-5.33	111.61	119.60
26	14	736	C	C4-C5-C6	5.33	120.06	117.40
26	14	1664	A	OP2-P-O3'	5.33	116.92	105.20
1	13	776	G	N9-C4-C5	5.33	107.53	105.40
26	1H	378	C	C6-N1-C2	5.33	122.43	120.30
26	1H	390	A	N9-C4-C5	5.33	107.93	105.80
26	1H	802	A	O5'-P-OP1	5.33	117.09	110.70
26	1H	825	C	C5-C4-N4	-5.33	116.47	120.20
26	1H	1528	A	C6-C5-N7	-5.33	128.57	132.30
26	1H	1819	A	C4-C5-N7	5.33	113.36	110.70
26	1H	1927	A	C6-N1-C2	-5.33	115.41	118.60
26	1H	2060	A	N7-C8-N9	5.33	116.46	113.80
1	1G	815	A	OP2-P-O3'	5.33	116.92	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	1L	74	C	C2-N1-C1'	-5.33	112.94	118.80
26	14	204	A	C6-C5-N7	-5.33	128.57	132.30
26	14	529	A	N7-C8-N9	5.33	116.46	113.80
26	14	2217	G	N1-C6-O6	5.33	123.10	119.90
1	13	689	C	OP1-P-O3'	5.32	116.91	105.20
26	1H	1787	A	C2-N3-C4	-5.32	107.94	110.60
27	16	14	U	C5-C6-N1	-5.32	120.04	122.70
26	14	93	C	C6-N1-C2	-5.32	118.17	120.30
26	14	742	G	N3-C4-N9	-5.32	122.81	126.00
26	14	2506	U	O4'-C1'-N1	-5.32	103.94	108.20
1	13	1520	G	C5-C6-O6	-5.32	125.41	128.60
26	1H	2645	G	C4-C5-N7	5.32	112.93	110.80
26	14	1142(A)	A	C5-C6-N1	-5.32	115.04	117.70
26	14	2778	A	OP1-P-O3'	5.32	116.91	105.20
26	1H	592	G	OP1-P-OP2	5.32	127.58	119.60
26	1H	732	C	C4-C5-C6	5.32	120.06	117.40
26	1H	2330	G	N1-C2-N3	5.32	127.09	123.90
26	1H	2566	A	P-O3'-C3'	5.32	126.08	119.70
1	1G	423	G	C4-C5-N7	5.32	112.93	110.80
26	14	138	G	C2-N3-C4	5.32	114.56	111.90
26	14	1950	G	C2-N3-C4	5.32	114.56	111.90
1	13	1502	A	C8-N9-C4	-5.32	103.67	105.80
26	1H	430	G	N9-C4-C5	-5.32	103.27	105.40
26	1H	1612	C	N3-C4-C5	-5.32	119.77	121.90
26	1H	2712	U	P-O3'-C3'	5.32	126.08	119.70
26	14	1278	A	N3-C4-N9	-5.32	123.14	127.40
26	1H	208	C	C5-C6-N1	-5.32	118.34	121.00
26	1H	609	A	C6-C5-N7	-5.32	128.58	132.30
26	1H	1153	C	C5-C6-N1	-5.32	118.34	121.00
26	1H	1381	G	N3-C2-N2	-5.32	116.18	119.90
26	1H	2581	G	N3-C2-N2	5.32	123.62	119.90
1	1G	23	C	C5-C6-N1	5.32	123.66	121.00
1	1G	579	G	C4-N9-C1'	5.32	133.41	126.50
1	1G	1374	A	O4'-C1'-N9	5.32	112.45	108.20
26	14	1204	A	N1-C6-N6	5.32	121.79	118.60
26	14	1594	G	OP1-P-O3'	5.32	116.90	105.20
26	14	2073	C	N3-C2-O2	5.32	125.62	121.90
26	14	2346	A	C5-C6-N1	-5.32	115.04	117.70
23	2K	48	U	P-O3'-C3'	5.32	126.08	119.70
26	1H	1610	A	C2-N3-C4	-5.32	107.94	110.60
26	1H	2310	A	N7-C8-N9	5.32	116.46	113.80
1	1G	111	G	O5'-P-OP2	-5.32	100.92	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	62	C	OP2-P-O3'	5.32	116.89	105.20
26	14	383	U	O4'-C1'-N1	5.32	112.45	108.20
26	14	562	U	O5'-P-OP1	-5.32	100.92	105.70
26	14	1922	G	N1-C6-O6	5.32	123.09	119.90
26	14	2286	A	N1-C6-N6	5.32	121.79	118.60
1	13	932	C	N1-C2-O2	5.31	122.09	118.90
1	13	988	G	N3-C4-N9	5.31	129.19	126.00
26	1H	593	G	N3-C2-N2	5.31	123.62	119.90
26	14	2824	C	C5-C4-N4	-5.31	116.48	120.20
26	1H	737	C	C5-C6-N1	-5.31	118.34	121.00
27	16	103	U	N1-C2-O2	-5.31	119.08	122.80
26	14	59	U	C5-C4-O4	5.31	129.09	125.90
26	14	459	U	O5'-P-OP2	-5.31	100.92	105.70
26	14	2059	A	N1-C6-N6	5.31	121.79	118.60
26	14	2062	A	C5-C6-N6	-5.31	119.45	123.70
26	14	2390	U	C6-N1-C2	-5.31	117.81	121.00
33	69	131	LYS	C-N-CD	-5.31	108.91	120.60
1	13	302	G	C5-C6-O6	5.31	131.79	128.60
26	1H	446	G	N9-C4-C5	-5.31	103.28	105.40
26	1H	1752	C	C6-N1-C2	5.31	122.42	120.30
26	1H	2079	U	OP1-P-O3'	5.31	116.89	105.20
36	78	45	LEU	CB-CG-CD2	-5.31	101.97	111.00
26	14	672	C	C5-C6-N1	-5.31	118.34	121.00
26	1H	119	A	C4-C5-C6	5.31	119.66	117.00
26	1H	127	A	C4-C5-N7	5.31	113.35	110.70
26	1H	210	C	C2-N3-C4	-5.31	117.25	119.90
26	1H	445	C	N3-C4-C5	-5.31	119.78	121.90
26	1H	953	A	N9-C4-C5	-5.31	103.68	105.80
26	1H	2058	A	C4-C5-C6	5.31	119.66	117.00
26	1H	2075	U	C2-N3-C4	-5.31	123.81	127.00
1	1G	1453	G	P-O3'-C3'	5.31	126.07	119.70
1	1G	1496	C	O5'-P-OP2	-5.31	100.92	105.70
26	14	676	A	C4-C5-C6	-5.31	114.34	117.00
26	14	1422	G	C5-C6-N1	-5.31	108.84	111.50
26	14	1627	G	N9-C4-C5	-5.31	103.28	105.40
26	14	1854	A	N9-C4-C5	5.31	107.92	105.80
1	13	291	C	C6-N1-C2	-5.31	118.18	120.30
26	1H	1574	C	C5-C6-N1	-5.31	118.35	121.00
26	1H	1987	G	N1-C6-O6	5.31	123.08	119.90
26	1H	2379	G	C5-C6-O6	-5.31	125.42	128.60
1	1G	15	G	N3-C4-N9	5.31	129.19	126.00
23	2L	77	A	OP1-P-OP2	-5.31	111.64	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2346	A	N1-C6-N6	5.31	121.78	118.60
1	13	405	U	C6-N1-C2	-5.31	117.82	121.00
26	1H	665	C	C2-N3-C4	-5.31	117.25	119.90
26	1H	2550	G	N3-C4-N9	5.31	129.18	126.00
26	14	2337	G	N3-C2-N2	-5.31	116.19	119.90
45	C5	41	GLY	N-CA-C	-5.31	99.84	113.10
1	13	780	A	C2-N3-C4	-5.30	107.95	110.60
26	1H	87	C	N3-C4-N4	5.30	121.71	118.00
26	1H	433	C	N1-C2-O2	-5.30	115.72	118.90
26	1H	1416	G	C8-N9-C4	5.30	108.52	106.40
26	1H	1836	C	C4-C5-C6	5.30	120.05	117.40
26	1H	2374	C	OP1-P-OP2	5.30	127.56	119.60
26	14	2551	C	C2-N3-C4	-5.30	117.25	119.90
1	13	612	C	O5'-P-OP2	5.30	117.06	110.70
1	13	858	G	N3-C4-C5	-5.30	125.95	128.60
26	1H	1762	A	N7-C8-N9	-5.30	111.15	113.80
26	14	2374	C	C2-N3-C4	-5.30	117.25	119.90
1	13	1246	C	C6-N1-C2	-5.30	118.18	120.30
1	13	1498	U	N1-C2-N3	5.30	118.08	114.90
26	1H	813	U	N1-C2-O2	-5.30	119.09	122.80
26	1H	909	A	C2-N3-C4	5.30	113.25	110.60
26	1H	1431	U	C2-N3-C4	5.30	130.18	127.00
26	1H	1668	A	C2-N3-C4	5.30	113.25	110.60
26	1H	2359	C	N3-C4-C5	5.30	124.02	121.90
26	14	460	A	O5'-P-OP2	5.30	117.06	110.70
26	14	947	G	OP1-P-O3'	5.30	116.86	105.20
26	14	1451	C	N1-C2-O2	-5.30	115.72	118.90
27	1J	71	C	C2-N1-C1'	5.30	124.63	118.80
1	13	726	C	OP1-P-O3'	5.30	116.86	105.20
26	1H	863	A	O5'-P-OP2	-5.30	100.93	105.70
26	1H	1606	G	C4-C5-N7	5.30	112.92	110.80
26	1H	2228	G	C4-N9-C1'	5.30	133.39	126.50
1	1G	721	G	C8-N9-C1'	-5.30	120.11	127.00
26	14	794	G	N1-C2-N3	5.30	127.08	123.90
26	14	800	A	C5-N7-C8	-5.30	101.25	103.90
26	1H	784	A	O5'-P-OP1	-5.30	100.93	105.70
26	1H	1568	G	C4-C5-C6	-5.30	115.62	118.80
26	14	1372	U	N3-C4-O4	5.30	123.11	119.40
1	13	623	C	C5-C6-N1	5.30	123.65	121.00
26	1H	418	G	N9-C4-C5	-5.30	103.28	105.40
26	1H	608	A	N9-C4-C5	5.30	107.92	105.80
26	1H	861	A	OP1-P-OP2	-5.30	111.66	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1313	U	C2-N1-C1'	5.30	124.06	117.70
26	1H	1654	A	C6-N1-C2	-5.30	115.42	118.60
1	1G	1394	A	OP1-P-OP2	-5.30	111.66	119.60
26	14	768	G	O5'-P-OP2	-5.30	100.93	105.70
26	14	972	G	OP1-P-O3'	5.30	116.85	105.20
26	14	2428	G	N9-C4-C5	5.30	107.52	105.40
1	13	966	G	C4-C5-N7	5.29	112.92	110.80
26	1H	609	A	C4-C5-N7	5.29	113.35	110.70
26	1H	940	G	N3-C2-N2	-5.29	116.19	119.90
26	1H	1928	A	C5-N7-C8	-5.29	101.25	103.90
26	14	1598	C	OP1-P-OP2	-5.29	111.66	119.60
1	13	1399	C	OP2-P-O3'	5.29	116.85	105.20
1	13	1511	G	C6-C5-N7	-5.29	127.22	130.40
26	1H	595	C	N3-C4-N4	-5.29	114.30	118.00
26	1H	1968	G	OP2-P-O3'	5.29	116.84	105.20
26	1H	2327	A	N9-C4-C5	5.29	107.92	105.80
26	1H	2591	C	N1-C2-O2	-5.29	115.72	118.90
26	1H	2830	G	N7-C8-N9	5.29	115.75	113.10
34	58	15	LEU	CA-CB-CG	5.29	127.47	115.30
1	1G	353	A	OP2-P-O3'	5.29	116.84	105.20
26	14	37	C	N3-C4-C5	-5.29	119.78	121.90
26	14	528	A	C4-C5-N7	5.29	113.35	110.70
26	14	911	A	OP1-P-O3'	5.29	116.84	105.20
26	14	1300	U	O5'-P-OP2	-5.29	100.94	105.70
26	14	1893	C	C6-N1-C2	-5.29	118.18	120.30
28	19	235	GLY	N-CA-C	5.29	126.33	113.10
26	1H	605	C	C5-C6-N1	-5.29	118.35	121.00
26	1H	1347	G	N1-C6-O6	5.29	123.08	119.90
26	14	1363	C	N3-C4-N4	-5.29	114.30	118.00
26	14	1606	G	OP1-P-O3'	5.29	116.84	105.20
26	1H	122	G	OP1-P-OP2	5.29	127.53	119.60
26	1H	1634	A	N3-C4-C5	-5.29	123.10	126.80
26	1H	774	A	C5-C6-N1	-5.29	115.06	117.70
26	1H	1993	U	C5-C6-N1	-5.29	120.06	122.70
26	1H	2048	G	N9-C4-C5	5.29	107.52	105.40
26	1H	2461	C	N3-C2-O2	-5.29	118.20	121.90
26	1H	2502	G	C8-N9-C4	-5.29	104.28	106.40
26	14	304	G	C8-N9-C4	-5.29	104.28	106.40
26	14	2428	G	C5-C6-O6	5.29	131.77	128.60
26	14	2508	G	C2-N3-C4	5.29	114.54	111.90
26	14	664	C	C5-C6-N1	-5.29	118.36	121.00
26	14	2526	G	O5'-P-OP1	-5.29	100.94	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	693	C	C2-N3-C4	-5.29	117.26	119.90
26	1H	1756	G	N3-C2-N2	-5.29	116.20	119.90
26	1H	2700	C	C4-C5-C6	-5.29	114.76	117.40
1	1G	197	A	C8-N9-C4	-5.29	103.69	105.80
26	14	2823	A	C2-N3-C4	-5.29	107.96	110.60
1	13	120	A	N1-C6-N6	5.28	121.77	118.60
1	13	1285	A	P-O3'-C3'	5.28	126.04	119.70
26	1H	46	C	OP1-P-OP2	-5.28	111.67	119.60
26	1H	541	C	N3-C2-O2	-5.28	118.20	121.90
26	1H	840	C	C6-N1-C2	5.28	122.41	120.30
26	1H	2226	C	C2-N3-C4	-5.28	117.26	119.90
26	14	829	A	C2-N3-C4	-5.28	107.96	110.60
26	14	864	G	C2-N3-C4	5.28	114.54	111.90
26	14	1009	A	OP2-P-O3'	5.28	116.82	105.20
26	14	2423	U	C6-N1-C2	5.28	124.17	121.00
1	13	816	A	N9-C4-C5	5.28	107.91	105.80
26	1H	2651	C	N1-C2-O2	-5.28	115.73	118.90
1	1G	262	A	N9-C4-C5	-5.28	103.69	105.80
1	1G	1522	U	C6-N1-C2	-5.28	117.83	121.00
26	14	517	C	C6-N1-C2	-5.28	118.19	120.30
26	14	1014	U	C5-C6-N1	5.28	125.34	122.70
26	14	2325	G	N7-C8-N9	5.28	115.74	113.10
1	13	220	G	N3-C4-N9	5.28	129.17	126.00
1	13	1522	U	C4-C5-C6	5.28	122.87	119.70
26	1H	683	C	O5'-P-OP1	5.28	117.04	110.70
26	1H	1265	A	OP1-P-O3'	5.28	116.82	105.20
26	1H	1607	C	C2-N1-C1'	5.28	124.61	118.80
26	1H	2032	G	N1-C2-N3	5.28	127.07	123.90
26	1H	2380	C	N1-C2-N3	5.28	122.90	119.20
26	1H	2692	C	N1-C2-O2	5.28	122.07	118.90
26	1H	2712	U	C6-N1-C1'	-5.28	113.81	121.20
1	1G	1495	U	O5'-P-OP1	-5.28	100.95	105.70
26	14	889	C	C6-N1-C2	-5.28	118.19	120.30
26	14	1796	U	O5'-P-OP2	5.28	117.04	110.70
1	13	812	C	C2-N1-C1'	5.28	124.61	118.80
26	1H	576	U	C5-C6-N1	5.28	125.34	122.70
26	1H	837	C	C2-N3-C4	-5.28	117.26	119.90
26	1H	937	U	C5-C4-O4	-5.28	122.73	125.90
26	1H	1919	A	N7-C8-N9	5.28	116.44	113.80
26	1H	2461	C	N3-C4-N4	-5.28	114.31	118.00
26	14	808	G	C8-N9-C1'	-5.28	120.14	127.00
26	14	2069	G	C8-N9-C4	5.28	108.51	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	12	U	C6-N1-C2	-5.28	117.83	121.00
26	1H	855	G	N7-C8-N9	5.28	115.74	113.10
26	1H	1800	C	C4-C5-C6	5.28	120.04	117.40
26	1H	2620	C	C2-N3-C4	-5.28	117.26	119.90
26	14	774	A	N7-C8-N9	5.28	116.44	113.80
26	14	1338	G	C4-C5-N7	5.28	112.91	110.80
1	13	302	G	N3-C2-N2	5.28	123.59	119.90
26	1H	181	A	C5-C6-N6	5.28	127.92	123.70
26	1H	728	G	C5-C6-O6	-5.28	125.44	128.60
26	1H	1198	U	N1-C2-N3	5.28	118.06	114.90
26	1H	1934	C	OP1-P-O3'	5.28	116.81	105.20
26	1H	1971	A	N7-C8-N9	-5.28	111.16	113.80
26	1H	2454	G	N3-C2-N2	5.28	123.59	119.90
26	1H	2873	A	O5'-P-OP1	-5.28	100.95	105.70
50	L8	54	VAL	CB-CA-C	-5.28	101.38	111.40
1	1G	413	G	O4'-C1'-N9	5.28	112.42	108.20
1	1G	691	G	C4-C5-N7	5.28	112.91	110.80
1	1G	1224	G	O5'-P-OP1	5.28	117.03	110.70
26	14	1496	A	O4'-C1'-N9	5.28	112.42	108.20
26	14	1974	C	N3-C4-C5	5.28	124.01	121.90
26	1H	767	U	O5'-P-OP1	-5.27	100.95	105.70
26	1H	1246	A	C6-N1-C2	-5.27	115.44	118.60
26	1H	1252	G	O5'-P-OP1	-5.27	100.95	105.70
1	1G	26	A	O5'-P-OP2	-5.27	100.95	105.70
26	14	302	C	N1-C2-O2	5.27	122.06	118.90
26	14	1255	U	N3-C4-O4	5.27	123.09	119.40
1	13	970	C	OP2-P-O3'	5.27	116.80	105.20
1	13	971	G	C4-C5-N7	-5.27	108.69	110.80
26	1H	312	G	N1-C6-O6	5.27	123.06	119.90
26	1H	465	G	C4-C5-N7	-5.27	108.69	110.80
26	1H	764	A	N1-C6-N6	5.27	121.76	118.60
26	1H	775	G	N1-C2-N2	-5.27	111.45	116.20
26	1H	975	G	N3-C4-N9	-5.27	122.84	126.00
26	1H	1643	G	OP2-P-O3'	5.27	116.80	105.20
26	1H	1665	A	N1-C6-N6	5.27	121.76	118.60
26	14	973	A	C8-N9-C4	5.27	107.91	105.80
26	14	1085	A	P-O3'-C3'	5.27	126.03	119.70
1	13	586	C	C4-C5-C6	5.27	120.04	117.40
26	1H	1947	C	N3-C4-N4	5.27	121.69	118.00
26	14	2649	U	N3-C4-O4	5.27	123.09	119.40
1	13	511	C	C4-C5-C6	5.27	120.03	117.40
26	1H	27	G	C4-C5-N7	-5.27	108.69	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	693	C	C6-N1-C1'	5.27	127.12	120.80
26	1H	913	U	OP1-P-OP2	5.27	127.50	119.60
26	1H	1280	G	N9-C1'-C2'	-5.27	106.20	112.00
26	1H	1334	G	N7-C8-N9	5.27	115.73	113.10
26	1H	2286	A	C6-C5-N7	-5.27	128.61	132.30
1	1G	266	G	N3-C4-C5	-5.27	125.97	128.60
26	14	1432	C	N3-C2-O2	5.27	125.59	121.90
26	14	2346	A	C4-C5-C6	5.27	119.64	117.00
1	13	1500	A	O5'-P-OP1	5.27	117.02	110.70
26	1H	814	C	N1-C2-O2	-5.27	115.74	118.90
26	1H	966	G	N3-C2-N2	5.27	123.59	119.90
26	1H	1499	C	N1-C2-N3	5.27	122.89	119.20
26	1H	1569	A	O5'-P-OP1	-5.27	100.96	105.70
26	14	710	G	N3-C4-C5	5.27	131.23	128.60
26	14	954	G	N3-C4-C5	-5.27	125.97	128.60
26	14	1974	C	C2-N3-C4	-5.27	117.27	119.90
1	13	1331	G	C8-N9-C4	-5.27	104.29	106.40
26	1H	522	G	OP1-P-OP2	-5.27	111.70	119.60
26	1H	1361	G	C5-C6-N1	5.27	114.13	111.50
26	1H	2577	A	N1-C6-N6	-5.27	115.44	118.60
1	1G	323	U	N3-C4-O4	5.27	123.09	119.40
26	14	1934	C	N1-C2-O2	5.27	122.06	118.90
26	14	2053	G	N7-C8-N9	-5.27	110.47	113.10
1	13	1321	C	N3-C4-C5	-5.26	119.79	121.90
1	13	1483	A	C5-N7-C8	-5.26	101.27	103.90
26	1H	682	G	N1-C2-N2	-5.26	111.46	116.20
26	1H	2011	U	OP1-P-OP2	-5.26	111.70	119.60
26	1H	2050	C	N3-C4-N4	5.26	121.69	118.00
26	1H	2256	G	N7-C8-N9	-5.26	110.47	113.10
26	14	1612	C	N1-C2-N3	-5.26	115.51	119.20
26	14	2607	G	C6-C5-N7	-5.26	127.24	130.40
26	1H	936	C	OP1-P-OP2	5.26	127.49	119.60
26	1H	1203	G	N1-C6-O6	-5.26	116.74	119.90
26	1H	1959	G	C5-C6-O6	5.26	131.76	128.60
26	1H	2862	G	OP1-P-O3'	5.26	116.78	105.20
45	G8	81	LYS	C-N-CA	5.26	144.10	122.00
1	1G	249	U	O5'-P-OP1	5.26	117.02	110.70
1	1G	939	G	O5'-P-OP2	-5.26	100.96	105.70
26	14	2325	G	C8-N9-C4	-5.26	104.30	106.40
42	95	80	GLN	N-CA-C	5.26	125.21	111.00
1	13	380	G	C8-N9-C1'	5.26	133.84	127.00
1	13	751	U	N3-C4-O4	5.26	123.08	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	911	U	C2-N1-C1'	-5.26	111.39	117.70
26	14	70	G	C8-N9-C4	-5.26	104.30	106.40
26	14	447	A	N1-C2-N3	5.26	131.93	129.30
26	14	808	G	OP1-P-OP2	5.26	127.49	119.60
1	13	1420	C	C2-N3-C4	-5.26	117.27	119.90
26	1H	195	A	C5-N7-C8	-5.26	101.27	103.90
26	1H	508	G	C5-N7-C8	-5.26	101.67	104.30
26	1H	685	A	N7-C8-N9	5.26	116.43	113.80
26	1H	767	U	OP1-P-OP2	5.26	127.49	119.60
26	1H	808	G	N1-C2-N3	5.26	127.06	123.90
26	14	105	C	OP2-P-O3'	5.26	116.77	105.20
26	14	1886	C	O5'-P-OP2	5.26	117.01	110.70
26	14	2375	G	OP2-P-O3'	5.26	116.77	105.20
26	14	2375	G	C5-C6-O6	-5.26	125.44	128.60
26	1H	308	G	N3-C2-N2	-5.26	116.22	119.90
26	1H	1676	A	N3-C4-N9	-5.26	123.19	127.40
1	1G	490	G	C8-N9-C4	5.26	108.50	106.40
26	14	864	G	N3-C4-N9	5.26	129.16	126.00
26	14	1690	A	C6-N1-C2	-5.26	115.44	118.60
26	1H	464	U	N1-C2-N3	5.26	118.05	114.90
26	1H	1271	G	C4-C5-C6	5.26	121.95	118.80
1	1G	788	U	OP2-P-O3'	5.26	116.76	105.20
26	14	531	C	N1-C2-O2	-5.26	115.75	118.90
26	1H	59	U	C6-N1-C2	-5.25	117.85	121.00
26	1H	657	U	OP2-P-O3'	5.25	116.76	105.20
26	1H	1821	A	C5-C6-N1	5.25	120.33	117.70
26	14	2842	G	N1-C6-O6	5.25	123.05	119.90
1	13	667	G	OP2-P-O3'	5.25	116.76	105.20
1	13	935	A	N1-C6-N6	-5.25	115.45	118.60
26	1H	611	C	C6-N1-C2	5.25	122.40	120.30
26	1H	831	G	C4-C5-N7	-5.25	108.70	110.80
26	1H	833	U	O5'-P-OP1	-5.25	100.97	105.70
26	1H	868	U	C4-C5-C6	5.25	122.85	119.70
26	1H	1132	A	OP1-P-OP2	5.25	127.48	119.60
27	16	14	U	N1-C2-N3	5.25	118.05	114.90
27	16	79	C	C2-N1-C1'	5.25	124.58	118.80
40	B8	6	LEU	CA-CB-CG	5.25	127.39	115.30
26	14	1681	G	C8-N9-C4	-5.25	104.30	106.40
1	13	30	U	N3-C2-O2	5.25	125.88	122.20
26	14	552	G	C4-C5-N7	-5.25	108.70	110.80
26	14	1313	U	N1-C2-O2	-5.25	119.12	122.80
26	14	2724	C	C2-N3-C4	-5.25	117.27	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	1J	12	C	N1-C2-O2	5.25	122.05	118.90
26	14	525	U	C6-N1-C2	-5.25	117.85	121.00
26	1H	125	G	N3-C4-N9	5.25	129.15	126.00
26	1H	467	G	C4-C5-C6	5.25	121.95	118.80
26	1H	704	G	C6-N1-C2	-5.25	121.95	125.10
26	1H	1216	G	N3-C4-C5	-5.25	125.98	128.60
26	1H	2441	C	C2-N3-C4	-5.25	117.28	119.90
1	1G	842	C	O4'-C1'-N1	5.25	112.40	108.20
26	14	1967	C	OP2-P-O3'	5.25	116.75	105.20
26	14	2256	G	N1-C2-N2	-5.25	111.48	116.20
26	1H	682	G	C4-N9-C1'	5.25	133.32	126.50
26	1H	769	G	N1-C2-N3	5.25	127.05	123.90
26	1H	937	U	C6-N1-C2	5.25	124.15	121.00
23	2L	48	U	P-O3'-C3'	5.25	126.00	119.70
1	13	691	G	C4-C5-N7	5.25	112.90	110.80
26	1H	387	U	N1-C2-O2	-5.25	119.13	122.80
26	1H	1032	A	N1-C6-N6	5.25	121.75	118.60
26	1H	2298	A	C5-C6-N1	5.25	120.32	117.70
26	1H	2819	G	N7-C8-N9	-5.25	110.48	113.10
26	14	790	C	C6-N1-C2	5.25	122.40	120.30
1	13	377	G	N1-C2-N2	-5.24	111.48	116.20
26	1H	799	G	C8-N9-C4	5.24	108.50	106.40
26	1H	1154	G	C5-C6-O6	5.24	131.75	128.60
26	1H	1252	G	O5'-P-OP2	5.24	116.99	110.70
1	1G	727	G	N3-C4-N9	5.24	129.15	126.00
26	14	143	C	N3-C4-C5	-5.24	119.80	121.90
26	14	388	G	N3-C4-N9	-5.24	122.85	126.00
26	14	2053	G	N3-C4-N9	5.24	129.15	126.00
26	1H	585	G	C4-C5-N7	5.24	112.90	110.80
26	1H	705	A	C5-C6-N6	-5.24	119.51	123.70
26	1H	997	G	N7-C8-N9	-5.24	110.48	113.10
26	1H	1901	A	N1-C6-N6	-5.24	115.45	118.60
26	14	2361	A	C6-C5-N7	-5.24	128.63	132.30
23	2K	25	U	O5'-P-OP2	-5.24	100.98	105.70
26	1H	2325	G	N3-C2-N2	-5.24	116.23	119.90
26	1H	2644	G	N3-C2-N2	-5.24	116.23	119.90
27	16	48	A	C5-C6-N6	-5.24	119.51	123.70
26	14	383	U	C2-N1-C1'	-5.24	111.41	117.70
26	14	1860	G	N3-C2-N2	-5.24	116.23	119.90
26	14	2702	U	P-O3'-C3'	5.24	125.99	119.70
26	1H	938	G	C8-N9-C4	5.24	108.50	106.40
26	1H	1365	A	O5'-P-OP2	-5.24	100.99	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2318	G	C2-N3-C4	-5.24	109.28	111.90
26	1H	2689	U	N3-C2-O2	-5.24	118.53	122.20
26	14	1665	A	OP2-P-O3'	5.24	116.72	105.20
26	1H	1676	A	N3-C4-C5	5.24	130.47	126.80
26	1H	2008	C	O5'-P-OP2	-5.24	100.99	105.70
26	1H	2490	G	N9-C4-C5	-5.24	103.31	105.40
1	1G	576	G	N3-C2-N2	5.24	123.57	119.90
26	14	464	U	C5-C6-N1	-5.24	120.08	122.70
1	13	62	U	O5'-P-OP2	-5.24	100.99	105.70
1	13	668	G	N7-C8-N9	5.24	115.72	113.10
26	1H	79	G	N9-C4-C5	5.24	107.49	105.40
26	1H	273(A)	G	N9-C4-C5	-5.24	103.31	105.40
26	1H	1227	A	OP1-P-OP2	-5.24	111.75	119.60
26	1H	1269	A	C5-N7-C8	-5.24	101.28	103.90
26	1H	2067	G	N3-C2-N2	5.24	123.56	119.90
26	1H	2689	U	N3-C4-C5	5.24	117.74	114.60
1	1G	493	G	N3-C4-C5	-5.24	125.98	128.60
1	1G	769	G	N1-C6-O6	5.24	123.04	119.90
26	14	541	C	N3-C2-O2	-5.24	118.23	121.90
26	14	2346	A	C8-N9-C4	-5.24	103.71	105.80
26	1H	449	A	OP1-P-O3'	5.23	116.71	105.20
26	1H	780	G	O4'-C1'-N9	-5.23	104.01	108.20
26	1H	2042	A	O5'-P-OP1	5.23	116.98	110.70
26	1H	668	G	C2-N3-C4	-5.23	109.28	111.90
26	1H	1026	U	C6-N1-C1'	5.23	128.53	121.20
26	1H	1193	G	C8-N9-C4	5.23	108.49	106.40
1	1G	800	G	N1-C6-O6	5.23	123.04	119.90
1	13	690	G	N3-C4-C5	-5.23	125.98	128.60
26	1H	665	C	C4-C5-C6	5.23	120.02	117.40
26	1H	794	G	N3-C4-C5	-5.23	125.98	128.60
26	1H	940	G	C6-N1-C2	-5.23	121.96	125.10
26	1H	956	G	C5-C6-O6	-5.23	125.46	128.60
26	1H	1577	C	N1-C2-O2	5.23	122.04	118.90
26	1H	2584	U	C5-C6-N1	-5.23	120.08	122.70
27	16	98	G	C6-C5-N7	-5.23	127.26	130.40
1	1G	121	C	C6-N1-C1'	-5.23	114.52	120.80
1	13	67	C	C6-N1-C2	-5.23	118.21	120.30
26	1H	96	G	C5-C6-N1	-5.23	108.89	111.50
26	1H	1293	C	N3-C4-N4	5.23	121.66	118.00
26	1H	2045	C	C6-N1-C2	5.23	122.39	120.30
26	14	1248	G	C8-N9-C4	5.23	108.49	106.40
26	14	1646	C	C6-N1-C2	5.23	122.39	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	576	G	C4-C5-C6	5.23	121.94	118.80
26	1H	836	G	N1-C2-N3	-5.23	120.76	123.90
26	1H	1613	G	P-O3'-C3'	5.23	125.97	119.70
26	1H	1965	C	C5-C4-N4	-5.23	116.54	120.20
26	1H	2665	A	O4'-C1'-N9	5.23	112.38	108.20
1	1G	777	A	O5'-P-OP1	5.23	116.97	110.70
1	1G	1500	A	C6-C5-N7	-5.23	128.64	132.30
26	14	855	G	OP1-P-O3'	5.23	116.70	105.20
26	14	1343	G	O5'-P-OP1	-5.23	101.00	105.70
26	14	1436	G	OP2-P-O3'	5.23	116.70	105.20
26	14	1652	A	N1-C6-N6	5.23	121.74	118.60
1	13	128	G	C8-N9-C1'	5.23	133.79	127.00
26	1H	813	U	C4-C5-C6	5.23	122.83	119.70
26	1H	1076	C	N1-C2-O2	5.23	122.03	118.90
26	1H	2710	C	OP2-P-O3'	5.23	116.70	105.20
26	1H	580	C	C6-N1-C2	-5.22	118.21	120.30
26	1H	683	C	C6-N1-C1'	-5.22	114.53	120.80
26	1H	1327	C	N3-C4-C5	-5.22	119.81	121.90
26	1H	2329	G	N1-C2-N3	5.22	127.03	123.90
1	1G	565	U	N3-C2-O2	-5.22	118.54	122.20
26	14	2567	G	C8-N9-C1'	-5.22	120.21	127.00
26	14	2607	G	OP1-P-O3'	5.22	116.69	105.20
26	14	2776	A	P-O3'-C3'	5.22	125.97	119.70
1	13	413	G	O4'-C1'-N9	5.22	112.38	108.20
1	13	422	C	C2-N1-C1'	5.22	124.55	118.80
26	1H	594	U	N3-C4-O4	-5.22	115.74	119.40
26	1H	944	G	C8-N9-C1'	-5.22	120.21	127.00
26	1H	1694	C	N1-C1'-C2'	-5.22	106.25	112.00
26	1H	2071	A	C6-C5-N7	-5.22	128.64	132.30
26	1H	2267	A	C5-N7-C8	5.22	106.51	103.90
26	1H	2325	G	C8-N9-C4	-5.22	104.31	106.40
26	14	576	U	N3-C4-O4	-5.22	115.75	119.40
26	14	672	C	OP1-P-OP2	-5.22	111.77	119.60
26	14	1533	C	C2-N1-C1'	5.22	124.54	118.80
26	14	1956	U	N1-C2-N3	5.22	118.03	114.90
26	14	2490	G	C8-N9-C4	-5.22	104.31	106.40
1	13	318	G	C5-C6-O6	-5.22	125.47	128.60
26	1H	1636	C	C4-C5-C6	5.22	120.01	117.40
26	1H	1962	C	N3-C4-C5	5.22	123.99	121.90
1	13	932	C	N3-C2-O2	-5.22	118.25	121.90
26	1H	752	A	N7-C8-N9	5.22	116.41	113.80
26	14	2020	A	C5-C6-N6	-5.22	119.53	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2703	C	C4-C5-C6	5.22	120.01	117.40
1	13	310	G	N3-C4-N9	-5.22	122.87	126.00
1	13	415	A	C4-C5-C6	-5.22	114.39	117.00
1	13	1336	C	P-O3'-C3'	5.22	125.96	119.70
26	1H	1550	C	N3-C2-O2	5.22	125.55	121.90
26	1H	2603	G	OP1-P-O3'	5.22	116.68	105.20
26	14	2033	A	C8-N9-C4	-5.22	103.71	105.80
26	1H	909	A	N7-C8-N9	-5.22	111.19	113.80
26	1H	1674	G	OP1-P-O3'	5.22	116.67	105.20
1	1G	1410	G	C2-N3-C4	-5.22	109.29	111.90
26	14	43	G	O5'-P-OP1	-5.22	101.00	105.70
26	14	1392	A	OP2-P-O3'	5.22	116.67	105.20
26	14	1681	G	N1-C6-O6	5.22	123.03	119.90
26	14	2060	A	N7-C8-N9	5.22	116.41	113.80
26	14	2581	G	OP1-P-OP2	5.22	127.42	119.60
1	13	504	C	N1-C2-O2	-5.21	115.77	118.90
1	13	587	G	C4-C5-N7	5.21	112.89	110.80
1	13	1310	G	N1-C2-N2	-5.21	111.51	116.20
26	1H	307	G	N3-C4-N9	5.21	129.13	126.00
26	1H	432	A	C5-C6-N6	-5.21	119.53	123.70
26	1H	619	G	N7-C8-N9	-5.21	110.49	113.10
26	1H	650	C	OP1-P-O3'	5.21	116.67	105.20
26	1H	1197	G	N7-C8-N9	-5.21	110.49	113.10
1	1G	305	G	O5'-P-OP2	-5.21	101.01	105.70
1	1G	911	U	C5-C4-O4	5.21	129.03	125.90
26	14	2638	G	N3-C4-C5	-5.21	125.99	128.60
26	1H	122	G	C4-C5-C6	5.21	121.93	118.80
26	1H	818	G	OP2-P-O3'	5.21	116.67	105.20
26	1H	2550	G	C6-C5-N7	-5.21	127.27	130.40
26	14	2080	G	OP1-P-OP2	5.21	127.42	119.60
1	13	1432	G	C5-C6-O6	-5.21	125.47	128.60
26	1H	245	G	C4-N9-C1'	5.21	133.27	126.50
26	1H	769	G	N7-C8-N9	-5.21	110.50	113.10
26	1H	1829	A	N7-C8-N9	-5.21	111.19	113.80
1	1G	1400	C	N1-C2-O2	5.21	122.03	118.90
26	14	1598	C	N3-C4-N4	5.21	121.65	118.00
1	13	914	A	N7-C8-N9	5.21	116.41	113.80
26	1H	1999	C	C2-N1-C1'	-5.21	113.07	118.80
45	G8	80	GLY	N-CA-C	5.21	126.13	113.10
1	1G	740	U	N3-C2-O2	-5.21	118.55	122.20
26	1H	1436	G	C2-N3-C4	5.21	114.50	111.90
26	1H	1923	U	OP1-P-OP2	-5.21	111.79	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	27	G	N1-C6-O6	5.21	123.03	119.90
1	1G	199	G	N1-C6-O6	5.21	123.03	119.90
1	1G	402	G	C8-N9-C4	5.21	108.48	106.40
1	1G	1348	U	N3-C2-O2	-5.21	118.55	122.20
26	14	214	G	C8-N9-C4	-5.21	104.32	106.40
26	14	659	C	OP2-P-O3'	5.21	116.66	105.20
26	14	1390	U	OP1-P-O3'	5.21	116.66	105.20
26	14	1660	C	C5-C6-N1	5.21	123.61	121.00
1	13	387	U	OP1-P-O3'	5.21	116.65	105.20
1	13	1514	C	OP1-P-OP2	-5.21	111.79	119.60
26	1H	357	A	C8-N9-C4	-5.21	103.72	105.80
26	1H	642	G	N9-C4-C5	5.21	107.48	105.40
26	1H	673	C	N1-C2-O2	-5.21	115.78	118.90
26	1H	1683	C	C6-N1-C2	-5.21	118.22	120.30
26	1H	2070	G	C6-N1-C2	-5.21	121.98	125.10
26	1H	2589	A	C8-N9-C4	5.21	107.88	105.80
26	14	247	G	C6-C5-N7	-5.21	127.28	130.40
26	14	1806	C	C5-C6-N1	-5.21	118.40	121.00
26	14	1836	C	OP1-P-O3'	5.21	116.66	105.20
1	13	1394	A	N9-C4-C5	-5.21	103.72	105.80
26	1H	782	A	C5-C6-N6	-5.21	119.54	123.70
26	1H	818	G	N9-C4-C5	5.21	107.48	105.40
26	14	131	G	N3-C4-N9	5.21	129.12	126.00
26	14	2381	C	C6-N1-C2	5.21	122.38	120.30
26	1H	140	A	C2-N3-C4	-5.20	108.00	110.60
26	1H	583	G	N1-C6-O6	-5.20	116.78	119.90
26	1H	755	C	N1-C2-O2	-5.20	115.78	118.90
26	1H	776	G	N9-C4-C5	5.20	107.48	105.40
26	1H	2440	C	C6-N1-C2	-5.20	118.22	120.30
26	14	866	A	C4-N9-C1'	5.20	135.67	126.30
26	14	1914	C	O4'-C1'-N1	5.20	112.36	108.20
26	1H	616	A	OP2-P-O3'	5.20	116.64	105.20
26	1H	2582	G	C6-N1-C2	5.20	128.22	125.10
26	1H	2608	G	OP1-P-OP2	-5.20	111.80	119.60
23	2L	28	U	C5-C6-N1	5.20	125.30	122.70
1	13	415	A	C5-C6-N1	5.20	120.30	117.70
1	13	1420	C	N3-C4-C5	5.20	123.98	121.90
26	1H	1945	G	N1-C2-N2	-5.20	111.52	116.20
26	1H	2270	G	N3-C2-N2	-5.20	116.26	119.90
26	1H	2451	A	N3-C4-N9	-5.20	123.24	127.40
26	14	531	C	C2-N1-C1'	-5.20	113.08	118.80
26	14	1301	A	N9-C4-C5	-5.20	103.72	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2082	A	C6-N1-C2	-5.20	115.48	118.60
27	1J	44	G	O5'-P-OP2	-5.20	101.02	105.70
1	13	1303	C	N1-C2-O2	5.20	122.02	118.90
26	1H	633	A	C5-N7-C8	-5.20	101.30	103.90
26	1H	728	G	N7-C8-N9	-5.20	110.50	113.10
26	1H	780	G	C5-C6-O6	-5.20	125.48	128.60
26	1H	923	C	N1-C2-O2	-5.20	115.78	118.90
26	1H	967	C	N1-C2-O2	5.20	122.02	118.90
26	1H	989	G	N1-C2-N2	5.20	120.88	116.20
1	1G	972	C	O5'-P-OP2	-5.20	101.02	105.70
1	13	605	U	N1-C2-N3	5.20	118.02	114.90
26	1H	931	G	OP1-P-OP2	-5.20	111.81	119.60
26	1H	578	A	C8-N9-C4	-5.20	103.72	105.80
26	1H	1002	G	OP1-P-OP2	-5.20	111.81	119.60
26	1H	1262	A	OP1-P-O3'	5.20	116.63	105.20
26	1H	1418	G	N1-C6-O6	-5.20	116.78	119.90
26	1H	1662	C	N1-C2-O2	-5.20	115.78	118.90
26	1H	1821	A	C6-N1-C2	-5.20	115.48	118.60
26	1H	1892	C	OP2-P-O3'	5.20	116.63	105.20
26	1H	2281	C	O5'-P-OP2	-5.20	101.02	105.70
29	21	129	HIS	C-N-CA	-5.20	111.39	122.30
1	1G	555	C	N3-C4-N4	5.20	121.64	118.00
26	14	70	G	N3-C4-C5	-5.20	126.00	128.60
26	14	270(Z)	U	N3-C2-O2	-5.20	118.56	122.20
26	14	1282	U	N1-C2-N3	5.20	118.02	114.90
26	14	1355	G	N7-C8-N9	5.20	115.70	113.10
26	14	1407	C	C5-C6-N1	5.20	123.60	121.00
1	13	1511	G	C8-N9-C1'	-5.19	120.25	127.00
26	1H	465	G	C5-C6-N1	-5.19	108.90	111.50
26	1H	622	G	N3-C4-N9	5.19	129.12	126.00
26	1H	1825	A	C5-C6-N1	5.19	120.30	117.70
26	1H	2690	C	N1-C2-O2	-5.19	115.78	118.90
1	13	1053	G	P-O3'-C3'	5.19	125.93	119.70
26	1H	668	G	N1-C2-N3	5.19	127.02	123.90
26	1H	803	U	C5-C6-N1	-5.19	120.10	122.70
26	1H	919	G	N9-C4-C5	5.19	107.48	105.40
26	1H	1683	C	C4-C5-C6	5.19	120.00	117.40
26	1H	1990	C	C5-C6-N1	-5.19	118.40	121.00
26	1H	2078	C	C6-N1-C2	-5.19	118.22	120.30
1	1G	17	U	OP1-P-O3'	5.19	116.62	105.20
1	1G	1025	U	N1-C2-O2	5.19	126.43	122.80
1	1G	1511	G	C4-C5-C6	5.19	121.92	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	12	196	LEU	CA-CB-CG	5.19	127.24	115.30
26	14	2392	A	C6-C5-N7	-5.19	128.67	132.30
26	14	2574	G	N3-C4-N9	5.19	129.12	126.00
27	1J	22	U	C2-N1-C1'	5.19	123.93	117.70
1	13	897	C	C6-N1-C2	5.19	122.38	120.30
1	13	1462	G	C5-C6-N1	5.19	114.09	111.50
26	1H	132	G	OP2-P-O3'	5.19	116.62	105.20
26	1H	414	C	C2-N3-C4	-5.19	117.31	119.90
26	1H	692	C	N1-C2-O2	-5.19	115.78	118.90
26	1H	2032	G	N7-C8-N9	-5.19	110.50	113.10
15	6A	23	GLY	N-CA-C	5.19	126.08	113.10
26	14	671	C	C2-N3-C4	-5.19	117.31	119.90
26	14	1754	C	C6-N1-C2	-5.19	118.22	120.30
1	13	1518	A	C5-C6-N1	-5.19	115.11	117.70
26	1H	866	A	C8-N9-C1'	-5.19	118.36	127.70
26	1H	1624	G	C6-N1-C2	-5.19	121.99	125.10
26	1H	1900	A	OP1-P-OP2	-5.19	111.82	119.60
26	1H	2581	G	N1-C2-N2	-5.19	111.53	116.20
1	13	580	U	C2-N3-C4	-5.19	123.89	127.00
26	1H	820	A	N1-C2-N3	5.19	131.89	129.30
26	1H	1252	G	O4'-C1'-N9	-5.19	104.05	108.20
26	1H	1368	G	C6-N1-C2	-5.19	121.99	125.10
26	1H	1398	C	OP2-P-O3'	5.19	116.61	105.20
26	1H	1648	C	N3-C2-O2	5.19	125.53	121.90
30	31	67	GLN	CB-CA-C	-5.19	100.03	110.40
1	1G	314	C	N3-C2-O2	-5.19	118.27	121.90
1	1G	1336	C	C2-N1-C1'	5.19	124.51	118.80
26	14	1614	A	C5-C6-N1	-5.19	115.11	117.70
26	1H	1597	A	OP2-P-O3'	5.19	116.61	105.20
26	14	2338	G	O5'-P-OP1	-5.19	101.03	105.70
1	13	1113	C	N1-C2-O2	5.18	122.01	118.90
26	1H	814	C	N1-C2-N3	5.18	122.83	119.20
26	1H	974	G	O4'-C1'-N9	-5.18	104.05	108.20
26	1H	1310	G	O5'-P-OP1	-5.18	101.03	105.70
26	1H	1399	C	C6-N1-C2	-5.18	118.23	120.30
26	1H	1826	G	OP1-P-O3'	5.18	116.60	105.20
26	1H	2381	C	N3-C4-C5	5.18	123.97	121.90
33	61	110	ASP	C-N-CD	-5.18	109.19	120.60
26	14	211	A	C5-C6-N6	-5.18	119.55	123.70
26	14	2240	C	N3-C4-N4	5.18	121.63	118.00
26	14	2508	G	C6-C5-N7	5.18	133.51	130.40
53	K5	36	LEU	CA-CB-CG	5.18	127.23	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1529	G	C8-N9-C4	-5.18	104.33	106.40
26	1H	564	C	C5-C6-N1	5.18	123.59	121.00
26	1H	766	C	C4-C5-C6	5.18	119.99	117.40
26	1H	1201	C	OP2-P-O3'	5.18	116.60	105.20
26	1H	2338	G	O5'-P-OP1	-5.18	101.03	105.70
26	14	1391	U	O5'-P-OP2	5.18	116.92	110.70
26	14	2879	C	O5'-P-OP2	5.18	116.92	110.70
1	13	907	A	C4-C5-C6	-5.18	114.41	117.00
1	13	1260	C	C6-N1-C2	-5.18	118.23	120.30
26	1H	1341	U	O5'-P-OP2	5.18	116.92	110.70
26	1H	1659	U	OP1-P-OP2	5.18	127.37	119.60
26	1H	2012	G	N1-C2-N3	5.18	127.01	123.90
26	14	2595	G	C8-N9-C4	5.18	108.47	106.40
1	13	1530	G	N1-C6-O6	5.18	123.01	119.90
26	1H	180	G	C8-N9-C1'	-5.18	120.27	127.00
26	1H	635	C	C2-N3-C4	-5.18	117.31	119.90
26	1H	1571	A	C6-N1-C2	-5.18	115.49	118.60
23	2L	27	G	C8-N9-C4	5.18	108.47	106.40
26	14	533	G	N1-C2-N2	-5.18	111.54	116.20
26	14	1790	C	OP1-P-O3'	5.18	116.59	105.20
26	14	1997	G	C4-C5-C6	5.18	121.91	118.80
1	13	827	U	N1-C2-N3	5.18	118.01	114.90
1	13	1281	U	OP2-P-O3'	5.18	116.59	105.20
26	1H	1195	G	C5-C6-O6	-5.18	125.49	128.60
26	1H	1933	G	N3-C2-N2	-5.18	116.28	119.90
56	1L	74	C	C5-C6-N1	-5.18	118.41	121.00
26	14	56	A	C2-N3-C4	-5.18	108.01	110.60
26	14	1208	C	O5'-P-OP1	-5.18	101.04	105.70
26	14	1341	U	O5'-P-OP1	-5.18	101.04	105.70
26	14	2286	A	C6-C5-N7	-5.18	128.68	132.30
1	13	748	C	N3-C4-N4	5.18	121.62	118.00
1	13	757	U	N1-C2-O2	5.18	126.42	122.80
22	1K	74	C	N3-C2-O2	-5.18	118.28	121.90
26	1H	478	A	N9-C4-C5	5.18	107.87	105.80
26	1H	845	G	C4-C5-C6	-5.18	115.69	118.80
26	1H	2569	G	O4'-C1'-N9	-5.18	104.06	108.20
1	1G	660	G	C8-N9-C4	5.18	108.47	106.40
1	1G	1200	C	N1-C2-O2	5.18	122.00	118.90
26	14	27	G	OP1-P-OP2	-5.18	111.83	119.60
26	14	510	C	C2-N3-C4	5.18	122.49	119.90
26	14	1267	U	P-O3'-C3'	5.18	125.91	119.70
26	14	1350	C	N1-C2-O2	-5.18	115.79	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1762	A	N7-C8-N9	5.18	116.39	113.80
1	13	249	U	OP1-P-OP2	5.17	127.36	119.60
1	13	792	A	C5-C6-N1	-5.17	115.11	117.70
26	1H	845	G	OP1-P-O3'	5.17	116.59	105.20
26	1H	1347	G	OP1-P-O3'	5.17	116.58	105.20
26	1H	1950	G	C6-N1-C2	5.17	128.21	125.10
26	1H	2779	U	C2-N3-C4	-5.17	123.89	127.00
26	14	665	C	C6-N1-C2	5.17	122.37	120.30
26	14	692	C	N3-C2-O2	5.17	125.52	121.90
26	14	2010	G	C2-N3-C4	5.17	114.49	111.90
26	1H	243	U	C6-N1-C2	-5.17	117.90	121.00
26	1H	2362	G	C8-N9-C1'	-5.17	120.28	127.00
27	1J	88	C	C6-N1-C2	-5.17	118.23	120.30
26	1H	299	A	OP2-P-O3'	5.17	116.58	105.20
26	1H	1293	C	C5-C4-N4	-5.17	116.58	120.20
26	1H	2530	A	C4-C5-N7	5.17	113.28	110.70
26	14	1524	G	C5-C6-O6	5.17	131.70	128.60
26	14	2055	C	C6-N1-C2	5.17	122.37	120.30
26	14	2068	U	O5'-P-OP1	-5.17	101.05	105.70
1	13	1516	G	C8-N9-C1'	5.17	133.72	127.00
26	1H	1964	G	N1-C6-O6	-5.17	116.80	119.90
26	1H	2513	G	N3-C4-C5	-5.17	126.02	128.60
27	16	83	G	N1-C6-O6	5.17	123.00	119.90
26	14	2430	A	C5-C6-N6	-5.17	119.56	123.70
26	14	2451	A	N9-C4-C5	5.17	107.87	105.80
26	1H	608	A	N1-C2-N3	5.17	131.88	129.30
26	1H	627	A	C8-N9-C4	5.17	107.87	105.80
26	1H	655	A	C2-N3-C4	-5.17	108.02	110.60
26	1H	1152	C	C6-N1-C2	5.17	122.37	120.30
1	1G	21	G	C8-N9-C4	5.17	108.47	106.40
1	1G	729	A	OP1-P-O3'	5.17	116.57	105.20
26	14	388	G	N3-C4-C5	5.17	131.18	128.60
26	14	2007	C	C4-C5-C6	5.17	119.98	117.40
26	1H	763	G	C6-N1-C2	-5.17	122.00	125.10
26	1H	840	C	OP2-P-O3'	5.17	116.57	105.20
26	1H	1229(A)	G	N7-C8-N9	5.17	115.68	113.10
26	1H	1393	A	N9-C4-C5	5.17	107.87	105.80
26	1H	1688	U	OP1-P-OP2	5.17	127.35	119.60
26	1H	1756	G	C5-C6-O6	-5.17	125.50	128.60
26	1H	2233	U	C5-C4-O4	5.17	129.00	125.90
26	14	2060	A	N1-C6-N6	-5.17	115.50	118.60
1	13	795	C	C5-C6-N1	-5.17	118.42	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1308	U	C6-N1-C2	5.17	124.10	121.00
26	1H	540	G	N1-C2-N3	-5.17	120.80	123.90
26	1H	1832	C	C6-N1-C2	5.17	122.37	120.30
26	1H	2645	G	N3-C4-C5	5.17	131.18	128.60
1	1G	255	G	N1-C6-O6	-5.17	116.80	119.90
26	14	201	C	C5-C4-N4	5.17	123.82	120.20
26	1H	2243	U	N1-C2-N3	5.16	118.00	114.90
26	1H	2249	U	O5'-P-OP1	-5.16	101.05	105.70
26	1H	2297	C	C5-C6-N1	-5.16	118.42	121.00
26	14	60	G	C8-N9-C4	-5.16	104.33	106.40
26	14	529	A	N1-C2-N3	5.16	131.88	129.30
26	14	2008	C	N3-C2-O2	-5.16	118.28	121.90
26	14	2848	G	C5-C6-O6	5.16	131.70	128.60
30	39	125	LEU	CA-CB-CG	5.16	127.18	115.30
1	13	117	G	N9-C4-C5	-5.16	103.33	105.40
26	1H	1763	G	O5'-P-OP1	5.16	116.89	110.70
26	1H	2310	A	N3-C4-C5	-5.16	123.19	126.80
26	1H	2611	U	P-O3'-C3'	5.16	125.89	119.70
26	14	1805	U	O5'-P-OP1	-5.16	101.05	105.70
1	13	1480	G	N1-C2-N3	5.16	127.00	123.90
26	1H	240	G	C5-C6-O6	-5.16	125.50	128.60
26	1H	461	C	C4-C5-C6	5.16	119.98	117.40
26	1H	1314	C	OP2-P-O3'	5.16	116.55	105.20
26	1H	2271	G	N3-C4-C5	-5.16	126.02	128.60
26	14	1969	A	OP1-P-O3'	5.16	116.56	105.20
1	13	237	C	C6-N1-C2	5.16	122.36	120.30
1	13	758	G	C5-C6-O6	-5.16	125.50	128.60
26	1H	383	U	C4-C5-C6	5.16	122.80	119.70
26	1H	857	C	N3-C2-O2	-5.16	118.29	121.90
26	1H	961	C	N1-C2-O2	-5.16	115.81	118.90
26	1H	1303	G	C5-C6-O6	5.16	131.69	128.60
26	1H	1403	C	C6-N1-C2	-5.16	118.24	120.30
26	1H	1416	G	OP2-P-O3'	-5.16	93.85	105.20
43	E8	19	LEU	CB-CG-CD2	-5.16	102.23	111.00
1	1G	698	G	N1-C6-O6	5.16	123.00	119.90
2	12	23	ARG	N-CA-C	-5.16	97.07	111.00
26	14	1894	C	N3-C2-O2	-5.16	118.29	121.90
23	2K	57	C	C5-C6-N1	-5.16	118.42	121.00
26	1H	775	G	N1-C6-O6	-5.16	116.81	119.90
26	1H	1001	A	C8-N9-C4	-5.16	103.74	105.80
26	1H	1908	C	N1-C2-O2	5.16	121.99	118.90
26	1H	1948	G	C6-C5-N7	5.16	133.49	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2393	A	C8-N9-C1'	5.16	136.98	127.70
26	14	608	A	C6-C5-N7	-5.16	128.69	132.30
26	14	2331	G	C4-C5-N7	5.16	112.86	110.80
1	13	1056	U	N3-C4-C5	-5.16	111.51	114.60
26	1H	335	C	C6-N1-C2	-5.16	118.24	120.30
26	1H	1122	G	C4-C5-N7	5.16	112.86	110.80
26	1H	1591	G	C5-C6-O6	5.16	131.69	128.60
26	1H	1728	G	C5-N7-C8	-5.16	101.72	104.30
26	1H	2299	G	N1-C6-O6	5.16	122.99	119.90
27	16	60	C	C5-C6-N1	5.16	123.58	121.00
42	D8	18	LEU	CA-CB-CG	5.16	127.16	115.30
23	2L	15	G	O5'-P-OP1	-5.16	101.06	105.70
26	14	566	U	C2-N3-C4	-5.16	123.91	127.00
26	14	2019	A	N7-C8-N9	-5.16	111.22	113.80
26	14	2441	C	N3-C4-C5	5.16	123.96	121.90
1	13	1462	G	N1-C6-O6	-5.15	116.81	119.90
26	1H	1575	C	OP2-P-O3'	5.15	116.54	105.20
26	1H	1832	C	OP2-P-O3'	5.15	116.54	105.20
1	13	288	A	O5'-P-OP1	-5.15	101.06	105.70
1	13	717	C	N3-C4-C5	5.15	123.96	121.90
1	13	753	A	OP1-P-O3'	5.15	116.53	105.20
1	13	1252	A	O5'-P-OP2	-5.15	101.06	105.70
26	1H	812	C	C2-N3-C4	-5.15	117.32	119.90
26	1H	1197	G	C8-N9-C4	5.15	108.46	106.40
26	1H	2591	C	C2-N3-C4	-5.15	117.32	119.90
26	14	1608	A	N9-C4-C5	5.15	107.86	105.80
26	14	2431	U	N1-C2-O2	-5.15	119.19	122.80
26	1H	68	G	O5'-P-OP1	-5.15	101.06	105.70
26	1H	1369	G	N1-C2-N3	5.15	126.99	123.90
1	1G	299	G	C8-N9-C4	-5.15	104.34	106.40
1	1G	484	G	C8-N9-C1'	5.15	133.69	127.00
26	14	22	C	N3-C4-C5	5.15	123.96	121.90
26	14	656	G	C4-C5-N7	5.15	112.86	110.80
26	14	1187	G	C4-N9-C1'	5.15	133.19	126.50
1	13	726	C	N1-C2-O2	5.15	121.99	118.90
26	1H	2332	U	OP2-P-O3'	5.15	116.53	105.20
48	J8	62	VAL	CB-CA-C	-5.15	101.62	111.40
1	1G	913	A	C5-C6-N1	5.15	120.28	117.70
26	14	2453	A	N1-C6-N6	5.15	121.69	118.60
1	13	247	G	C8-N9-C4	-5.15	104.34	106.40
1	13	962	C	C5-C6-N1	-5.15	118.43	121.00
26	1H	46	C	O5'-P-OP1	-5.15	101.07	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	647	G	N3-C4-C5	-5.15	126.03	128.60
26	1H	801	G	C4-C5-N7	-5.15	108.74	110.80
26	1H	928	G	C5-C6-O6	-5.15	125.51	128.60
26	1H	1660	C	N1-C2-N3	5.15	122.80	119.20
26	1H	1780	A	C5-C6-N6	5.15	127.82	123.70
1	1G	886	G	N9-C4-C5	-5.15	103.34	105.40
26	14	1678	G	C5-C6-N1	-5.15	108.93	111.50
26	14	2053	G	C5-C6-O6	-5.15	125.51	128.60
26	14	2067	G	C2-N3-C4	5.15	114.47	111.90
26	14	2388	A	O4'-C1'-N9	5.15	112.32	108.20
26	1H	2437	U	OP1-P-OP2	5.15	127.32	119.60
26	14	2038	G	OP1-P-OP2	-5.15	111.88	119.60
26	14	2839	G	C8-N9-C4	-5.15	104.34	106.40
1	13	11	G	C5-C6-N1	-5.14	108.93	111.50
1	13	792	A	O5'-P-OP2	5.14	116.87	110.70
26	1H	228	A	C6-C5-N7	-5.14	128.70	132.30
26	1H	617	G	OP1-P-OP2	-5.14	111.88	119.60
26	1H	696	G	N1-C2-N2	-5.14	111.57	116.20
26	1H	1472	A	N9-C4-C5	5.14	107.86	105.80
26	1H	1634	A	N3-C4-N9	5.14	131.52	127.40
26	1H	2261	C	O5'-P-OP2	-5.14	101.07	105.70
26	14	371	A	C2-N3-C4	-5.14	108.03	110.60
26	14	551	G	N1-C6-O6	5.14	122.99	119.90
26	14	639	U	C5-C4-O4	5.14	128.99	125.90
26	14	2450	A	O5'-P-OP1	5.14	116.87	110.70
1	13	950	U	OP1-P-O3'	5.14	116.52	105.20
1	13	1512	U	C5-C4-O4	5.14	128.99	125.90
26	1H	705	A	C4-C5-N7	5.14	113.27	110.70
26	1H	970	C	OP1-P-O3'	-5.14	93.89	105.20
26	1H	1035	U	C5-C6-N1	-5.14	120.13	122.70
26	1H	1274	A	OP1-P-OP2	5.14	127.31	119.60
26	1H	2412	A	N1-C2-N3	5.14	131.87	129.30
1	1G	401	C	O5'-P-OP1	5.14	116.87	110.70
26	14	802	A	C5-C6-N1	5.14	120.27	117.70
26	14	1470	G	N1-C6-O6	5.14	122.99	119.90
26	14	1570	A	N1-C6-N6	5.14	121.69	118.60
1	13	298	A	OP1-P-O3'	5.14	116.51	105.20
26	1H	921	G	C8-N9-C4	-5.14	104.34	106.40
26	1H	2030	A	O4'-C1'-N9	-5.14	104.09	108.20
26	14	141	A	N3-C4-C5	5.14	130.40	126.80
26	14	1524	G	O5'-P-OP1	-5.14	101.07	105.70
26	1H	557	U	OP1-P-OP2	5.14	127.31	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	797	C	C5-C6-N1	-5.14	118.43	121.00
26	1H	1634	A	OP1-P-OP2	5.14	127.31	119.60
26	1H	1770	G	OP1-P-O3'	5.14	116.51	105.20
26	1H	2060	A	C8-N9-C1'	5.14	136.95	127.70
26	1H	2366	A	C8-N9-C4	-5.14	103.74	105.80
26	1H	2561	A	OP1-P-OP2	5.14	127.31	119.60
26	14	581	C	N3-C4-C5	-5.14	119.84	121.90
26	14	2255	G	O5'-P-OP1	5.14	116.87	110.70
28	19	272	ALA	N-CA-CB	-5.14	102.91	110.10
1	13	1304	G	N3-C4-C5	-5.14	126.03	128.60
26	1H	75	G	C5-N7-C8	-5.14	101.73	104.30
26	1H	501	A	C5-C6-N6	5.14	127.81	123.70
26	1H	1302	A	N9-C4-C5	5.14	107.86	105.80
26	14	672	C	C2-N1-C1'	-5.14	113.15	118.80
1	13	1237	C	N3-C4-N4	5.14	121.60	118.00
26	1H	331	A	OP1-P-O3'	5.14	116.50	105.20
26	1H	816	C	C5-C4-N4	-5.14	116.61	120.20
26	1H	859	G	C5-C6-O6	-5.14	125.52	128.60
26	1H	1993	U	N3-C4-O4	-5.14	115.80	119.40
26	14	270(X)	G	N7-C8-N9	5.14	115.67	113.10
26	14	559	G	N3-C2-N2	-5.14	116.30	119.90
26	14	669	G	C5-C6-O6	-5.14	125.52	128.60
26	14	752	A	C2'-C3'-O3'	5.14	121.92	113.70
26	14	1842	G	C2-N3-C4	5.14	114.47	111.90
26	14	2230	G	N1-C6-O6	-5.14	116.82	119.90
26	14	2595	G	O5'-P-OP1	-5.14	101.08	105.70
26	1H	265	A	C4-C5-N7	5.13	113.27	110.70
26	1H	734	A	C8-N9-C4	5.13	107.85	105.80
26	1H	1010	A	OP1-P-OP2	-5.13	111.90	119.60
26	1H	2036	C	C2-N3-C4	5.13	122.47	119.90
26	1H	2643	G	N1-C2-N3	5.13	126.98	123.90
1	1G	21	G	N7-C8-N9	-5.13	110.53	113.10
1	1G	1396	A	C6-N1-C2	-5.13	115.52	118.60
26	14	1537	C	C6-N1-C2	-5.13	118.25	120.30
26	1H	117	G	O5'-P-OP1	5.13	116.86	110.70
26	14	331	A	O5'-P-OP2	-5.13	101.08	105.70
1	13	897	C	O5'-P-OP2	-5.13	101.08	105.70
26	1H	1501	C	N1-C2-O2	-5.13	115.82	118.90
26	1H	2017	U	N1-C2-N3	5.13	117.98	114.90
26	14	1771	C	C5-C4-N4	-5.13	116.61	120.20
26	14	2734	A	N1-C6-N6	-5.13	115.52	118.60
26	1H	1655	A	OP2-P-O3'	5.13	116.49	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	536	C	C2-N3-C4	5.13	122.47	119.90
26	14	2426	A	C6-C5-N7	-5.13	128.71	132.30
1	13	789	U	O4'-C1'-N1	5.13	112.30	108.20
1	13	865	A	C6-C5-N7	-5.13	128.71	132.30
1	13	1242	C	N3-C4-N4	5.13	121.59	118.00
26	1H	90	U	N1-C2-N3	-5.13	111.82	114.90
26	1H	651	G	OP1-P-OP2	-5.13	111.91	119.60
26	1H	915	C	C6-N1-C2	-5.13	118.25	120.30
26	1H	940	G	C5-N7-C8	5.13	106.86	104.30
26	1H	949	C	C2-N1-C1'	-5.13	113.16	118.80
26	1H	1203	G	C5-C6-O6	5.13	131.68	128.60
26	1H	1778	U	C2-N3-C4	-5.13	123.92	127.00
26	1H	1902	C	C4-C5-C6	5.13	119.96	117.40
26	1H	2530	A	N9-C4-C5	-5.13	103.75	105.80
1	1G	14	U	C5-C6-N1	5.13	125.27	122.70
3	22	196	LEU	CA-CB-CG	5.13	127.09	115.30
26	14	278	A	P-O3'-C3'	5.13	125.85	119.70
26	14	1548	C	OP1-P-O3'	5.13	116.48	105.20
26	14	2325	G	N3-C2-N2	-5.13	116.31	119.90
26	1H	1021	A	C6-C5-N7	-5.13	128.71	132.30
26	1H	1639	U	N3-C2-O2	-5.13	118.61	122.20
1	1G	118	U	N3-C4-O4	5.13	122.99	119.40
1	1G	236	G	C4-C5-N7	-5.13	108.75	110.80
26	14	499	U	C4-C5-C6	5.13	122.78	119.70
26	14	2207	C	N3-C4-C5	5.13	123.95	121.90
26	1H	228	A	C5-N7-C8	-5.12	101.34	103.90
26	1H	536	A	N1-C6-N6	-5.12	115.53	118.60
26	1H	570	G	N7-C8-N9	-5.12	110.54	113.10
26	1H	754	C	C5-C6-N1	-5.12	118.44	121.00
26	1H	845	G	O4'-C1'-N9	5.12	112.30	108.20
26	1H	1835	G	C2-N3-C4	5.12	114.46	111.90
1	1G	529	G	N9-C4-C5	-5.12	103.35	105.40
26	14	1963	U	N1-C2-O2	5.12	126.39	122.80
27	1J	102	G	C8-N9-C4	5.12	108.45	106.40
1	13	50	A	C6-N1-C2	-5.12	115.53	118.60
1	13	306	G	C2-N3-C4	5.12	114.46	111.90
1	13	793	U	C4-C5-C6	5.12	122.77	119.70
26	1H	929	G	N1-C6-O6	5.12	122.97	119.90
54	P8	28	ARG	NE-CZ-NH1	5.12	122.86	120.30
1	1G	397	A	O5'-P-OP1	-5.12	101.09	105.70
1	1G	867	G	N3-C4-C5	-5.12	126.04	128.60
26	14	2394	C	C2-N3-C4	-5.12	117.34	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	940	C	OP1-P-O3'	5.12	116.47	105.20
1	13	1513	A	OP2-P-O3'	5.12	116.47	105.20
23	2K	10	G	C5-C6-O6	-5.12	125.53	128.60
26	1H	295	G	O5'-P-OP2	5.12	116.85	110.70
26	1H	1123	C	C5-C6-N1	-5.12	118.44	121.00
26	1H	1153	C	O5'-P-OP2	-5.12	101.09	105.70
26	1H	1186	G	C4-C5-N7	-5.12	108.75	110.80
26	1H	1309	G	C5-N7-C8	5.12	106.86	104.30
26	1H	1634	A	C6-C5-N7	-5.12	128.72	132.30
1	1G	1285	A	P-O3'-C3'	5.12	125.84	119.70
1	1G	1489	G	OP2-P-O3'	5.12	116.47	105.20
26	14	265	A	O4'-C1'-N9	5.12	112.30	108.20
26	14	1460	A	OP1-P-O3'	5.12	116.47	105.20
26	14	1657	C	N3-C2-O2	-5.12	118.31	121.90
26	14	1953	A	C5-C6-N1	5.12	120.26	117.70
26	14	2093	G	C6-C5-N7	-5.12	127.33	130.40
26	14	2577	A	C4-C5-C6	5.12	119.56	117.00
26	1H	530	G	N3-C4-C5	5.12	131.16	128.60
26	1H	1629	U	OP1-P-OP2	-5.12	111.92	119.60
26	1H	1678	G	C5-C6-O6	-5.12	125.53	128.60
26	1H	1858	G	C4-N9-C1'	5.12	133.16	126.50
26	1H	2856	C	N3-C2-O2	-5.12	118.32	121.90
26	14	1414	G	C4-N9-C1'	5.12	133.16	126.50
1	13	792	A	C1'-O4'-C4'	-5.12	105.81	109.90
26	1H	209	C	O5'-P-OP2	-5.12	101.09	105.70
26	1H	809	G	N9-C4-C5	-5.12	103.35	105.40
26	1H	823	G	N1-C2-N2	-5.12	111.59	116.20
26	1H	1969	A	N1-C6-N6	-5.12	115.53	118.60
26	1H	2192	G	N1-C6-O6	5.12	122.97	119.90
26	1H	2592	G	OP2-P-O3'	5.12	116.46	105.20
1	1G	229	U	N1-C2-O2	-5.12	119.22	122.80
26	14	186	G	C6-N1-C2	-5.12	122.03	125.10
26	14	782	A	N1-C2-N3	5.12	131.86	129.30
26	14	1789	A	N1-C2-N3	5.12	131.86	129.30
26	14	2197	U	OP2-P-O3'	5.12	116.46	105.20
26	1H	982	C	C6-N1-C2	-5.12	118.25	120.30
26	1H	1364	G	C5-C6-O6	-5.12	125.53	128.60
1	1G	898	G	N9-C1'-C2'	-5.12	106.37	112.00
26	14	141	A	N7-C8-N9	5.12	116.36	113.80
26	14	213	A	N7-C8-N9	-5.12	111.24	113.80
22	1K	35	A	C2-N3-C4	5.12	113.16	110.60
26	1H	471	A	C6-N1-C2	5.12	121.67	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2025	C	C6-N1-C2	-5.12	118.25	120.30
1	1G	545	C	N3-C2-O2	-5.12	118.32	121.90
26	14	730	C	OP1-P-O3'	5.12	116.45	105.20
26	14	1259	G	OP2-P-O3'	5.12	116.45	105.20
1	13	37	U	C5-C6-N1	5.11	125.26	122.70
1	13	696	A	C8-N9-C4	-5.11	103.75	105.80
24	3K	8	U	OP1-P-O3'	5.11	116.45	105.20
26	1H	1424	G	N1-C2-N3	5.11	126.97	123.90
1	1G	598	U	C4-C5-C6	5.11	122.77	119.70
26	14	2251	G	C5-C6-O6	5.11	131.67	128.60
26	14	2593	U	C2-N3-C4	-5.11	123.93	127.00
26	1H	1409	C	N3-C4-C5	5.11	123.94	121.90
27	16	100	G	C8-N9-C4	5.11	108.44	106.40
26	14	2434	A	OP1-P-OP2	5.11	127.27	119.60
1	13	889	A	C8-N9-C4	5.11	107.84	105.80
26	1H	1331	A	C5-C6-N6	5.11	127.79	123.70
26	1H	1633	G	OP2-P-O3'	5.11	116.44	105.20
26	1H	2367	G	N7-C8-N9	5.11	115.66	113.10
46	H8	33	LEU	CA-CB-CG	-5.11	103.54	115.30
1	1G	1223	C	OP1-P-OP2	-5.11	111.93	119.60
26	14	502	A	N1-C2-N3	5.11	131.85	129.30
26	14	932	G	N3-C4-N9	-5.11	122.93	126.00
26	1H	531	C	C2-N1-C1'	-5.11	113.18	118.80
26	1H	1821	A	C2-N3-C4	5.11	113.15	110.60
26	1H	2262	U	O5'-P-OP1	5.11	116.83	110.70
26	14	592	G	OP2-P-O3'	5.11	116.44	105.20
1	13	57	G	N3-C4-C5	-5.11	126.05	128.60
1	13	310	G	OP2-P-O3'	5.11	116.44	105.20
26	1H	596	G	N3-C2-N2	-5.11	116.33	119.90
26	1H	964	C	O5'-P-OP1	-5.11	101.10	105.70
26	1H	1265	A	C5'-C4'-C3'	-5.11	107.83	116.00
26	1H	1495	A	C2-N3-C4	5.11	113.15	110.60
26	1H	1594	G	N1-C2-N2	5.11	120.80	116.20
27	16	33	G	OP1-P-O3'	5.11	116.43	105.20
1	1G	842	C	C6-N1-C2	-5.11	118.26	120.30
1	1G	892	A	N1-C6-N6	5.11	121.67	118.60
26	14	106	C	C6-N1-C2	-5.11	118.26	120.30
26	14	1376	C	C4-C5-C6	5.11	119.95	117.40
26	14	2592	G	N1-C2-N2	-5.11	111.60	116.20
1	13	1461	G	C5-C6-O6	-5.11	125.54	128.60
26	1H	529	A	N7-C8-N9	5.11	116.35	113.80
26	1H	588	U	N3-C4-O4	-5.11	115.83	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	606	U	OP1-P-OP2	5.11	127.26	119.60
26	1H	1253	A	C5-C6-N1	5.11	120.25	117.70
26	1H	1314	C	O5'-P-OP2	-5.11	101.10	105.70
26	1H	1376	C	N1-C2-O2	-5.11	115.84	118.90
26	1H	1526	G	C8-N9-C4	-5.11	104.36	106.40
1	1G	319	G	N1-C6-O6	-5.11	116.84	119.90
1	1G	1145	C	C6-N1-C1'	-5.11	114.67	120.80
1	1G	1300	G	P-O3'-C3'	5.11	125.83	119.70
26	14	2726	U	N3-C4-O4	-5.11	115.83	119.40
26	1H	779	U	C4-C5-C6	5.10	122.76	119.70
26	1H	1675	C	C6-N1-C2	-5.10	118.26	120.30
1	1G	691	G	C6-C5-N7	-5.10	127.34	130.40
1	1G	891	U	N3-C4-O4	5.10	122.97	119.40
26	14	87	C	OP1-P-O3'	5.10	116.43	105.20
26	14	1956	U	C2-N3-C4	-5.10	123.94	127.00
26	14	2727	G	OP2-P-O3'	5.10	116.43	105.20
26	1H	59	U	C5-C4-O4	5.10	128.96	125.90
26	1H	209	C	C2-N3-C4	-5.10	117.35	119.90
26	1H	630	G	N7-C8-N9	-5.10	110.55	113.10
26	1H	862	G	N3-C4-C5	-5.10	126.05	128.60
26	1H	2012	G	N9-C4-C5	-5.10	103.36	105.40
54	P8	21	ARG	NE-CZ-NH1	-5.10	117.75	120.30
26	14	146	G	C6-N1-C2	-5.10	122.04	125.10
26	14	1631	A	OP1-P-O3'	5.10	116.42	105.20
26	14	1903	G	N3-C2-N2	-5.10	116.33	119.90
26	14	2067	G	N1-C6-O6	-5.10	116.84	119.90
26	14	2503	A	O5'-P-OP1	5.10	116.82	110.70
1	13	612	C	O5'-P-OP1	-5.10	101.11	105.70
26	1H	108	U	C5-C6-N1	-5.10	120.15	122.70
26	1H	290	G	C4-N9-C1'	5.10	133.13	126.50
1	1G	332	G	N3-C4-C5	5.10	131.15	128.60
26	14	1377	G	N3-C4-C5	-5.10	126.05	128.60
26	1H	1782	C	OP2-P-O3'	5.10	116.42	105.20
26	1H	2418	A	N9-C4-C5	5.10	107.84	105.80
26	1H	2469	A	N9-C4-C5	-5.10	103.76	105.80
26	1H	2818	G	C2-N3-C4	-5.10	109.35	111.90
1	1G	242	C	N3-C4-N4	5.10	121.57	118.00
26	14	773	U	N3-C2-O2	-5.10	118.63	122.20
26	14	1762	A	C5-C6-N1	-5.10	115.15	117.70
26	14	2312	U	C5-C6-N1	5.10	125.25	122.70
26	14	2437	U	O5'-P-OP1	-5.10	101.11	105.70
1	13	32	A	N7-C8-N9	5.10	116.35	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	848	C	C5-C6-N1	5.10	123.55	121.00
26	1H	178	G	N7-C8-N9	-5.10	110.55	113.10
26	1H	963	U	C6-N1-C2	-5.10	117.94	121.00
26	1H	1326	U	C2-N1-C1'	5.10	123.82	117.70
26	1H	1820	U	O5'-P-OP2	-5.10	101.11	105.70
26	1H	2616	C	O5'-P-OP2	5.10	116.82	110.70
26	1H	2689	U	C2-N1-C1'	-5.10	111.58	117.70
1	1G	387	U	OP1-P-O3'	5.10	116.41	105.20
1	1G	1489	G	OP1-P-OP2	5.10	127.25	119.60
26	14	552	G	C5-C6-O6	5.10	131.66	128.60
26	14	672	C	C6-N1-C1'	5.10	126.92	120.80
26	14	1950	G	N3-C2-N2	5.10	123.47	119.90
26	14	2058	A	C2-N3-C4	-5.10	108.05	110.60
26	14	2351	G	O5'-P-OP2	-5.10	101.11	105.70
26	1H	75	G	C2-N3-C4	5.10	114.45	111.90
26	1H	667	U	N1-C2-O2	-5.10	119.23	122.80
1	13	1251	A	C8-N9-C4	5.09	107.84	105.80
26	1H	115	C	C4-C5-C6	5.09	119.95	117.40
26	1H	124	G	C6-N1-C2	-5.09	122.04	125.10
26	1H	125	G	C6-C5-N7	-5.09	127.34	130.40
26	1H	190	A	C8-N9-C4	5.09	107.84	105.80
26	1H	332	A	C2-N3-C4	-5.09	108.05	110.60
26	1H	470	A	C6-C5-N7	-5.09	128.73	132.30
26	1H	543	C	C5-C6-N1	-5.09	118.45	121.00
26	1H	1035	U	C5-C4-O4	5.09	128.96	125.90
26	1H	1359	A	N1-C2-N3	5.09	131.85	129.30
26	1H	1831	G	O5'-P-OP2	5.09	116.81	110.70
26	1H	2242	G	N7-C8-N9	-5.09	110.55	113.10
26	1H	2299	G	N3-C2-N2	-5.09	116.33	119.90
26	1H	2420	C	O5'-P-OP2	5.09	116.81	110.70
26	1H	2503	A	OP2-P-O3'	5.09	116.41	105.20
1	1G	1226	C	N1-C2-O2	5.09	121.96	118.90
26	14	494	G	N3-C2-N2	-5.09	116.33	119.90
26	14	714	U	C2-N1-C1'	-5.09	111.59	117.70
26	14	1376	C	O5'-P-OP1	-5.09	101.11	105.70
26	14	1642	G	OP2-P-O3'	5.09	116.41	105.20
26	14	1770	G	N7-C8-N9	5.09	115.65	113.10
26	14	1831	G	C6-N1-C2	-5.09	122.04	125.10
26	14	2351	G	N3-C4-C5	-5.09	126.05	128.60
26	14	2498	C	O5'-P-OP2	-5.09	101.11	105.70
26	1H	860	U	N1-C2-O2	5.09	126.36	122.80
26	14	2609	U	C2-N3-C4	-5.09	123.94	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1139	G	C5-C6-O6	-5.09	125.55	128.60
23	2K	62	C	C6-N1-C2	-5.09	118.26	120.30
26	1H	651	G	C2-N3-C4	5.09	114.45	111.90
26	1H	864	G	N3-C4-C5	-5.09	126.05	128.60
26	1H	1185	C	C6-N1-C2	-5.09	118.26	120.30
26	1H	1239	G	OP2-P-O3'	5.09	116.40	105.20
26	1H	1308	A	C4-N9-C1'	5.09	135.47	126.30
26	1H	1379	A	C6-C5-N7	-5.09	128.74	132.30
26	1H	2504	U	C5-C6-N1	5.09	125.25	122.70
26	1H	2545	G	C8-N9-C4	5.09	108.44	106.40
25	4L	20	C	N3-C2-O2	-5.09	118.34	121.90
26	14	141	A	C6-C5-N7	-5.09	128.74	132.30
26	14	1321	A	N1-C6-N6	5.09	121.66	118.60
26	14	1653	G	C5-N7-C8	5.09	106.84	104.30
26	14	2236	C	O5'-P-OP1	-5.09	101.12	105.70
26	14	2607	G	N3-C2-N2	5.09	123.46	119.90
1	13	108	G	C5-N7-C8	-5.09	101.75	104.30
1	13	967	C	C4-C5-C6	-5.09	114.86	117.40
1	13	1450	U	N1-C2-O2	5.09	126.36	122.80
26	1H	97	C	OP1-P-OP2	5.09	127.23	119.60
26	1H	988	A	O5'-P-OP2	5.09	116.81	110.70
26	1H	1354	A	C2-N3-C4	-5.09	108.06	110.60
26	1H	1995	U	N1-C2-N3	5.09	117.95	114.90
26	1H	2573	C	C6-N1-C1'	-5.09	114.69	120.80
26	14	776	G	N9-C4-C5	5.09	107.44	105.40
26	14	1394	U	O5'-P-OP1	-5.09	101.12	105.70
26	14	1467	C	N1-C2-O2	5.09	121.95	118.90
26	14	1964	G	N3-C2-N2	5.09	123.46	119.90
27	1J	94	C	C6-N1-C2	-5.09	118.27	120.30
26	1H	122	G	C8-N9-C4	5.09	108.44	106.40
26	1H	828	U	C5-C6-N1	-5.09	120.16	122.70
26	1H	1559	G	O5'-P-OP1	-5.09	101.12	105.70
26	1H	2776	A	C2-N3-C4	-5.09	108.06	110.60
1	1G	620	C	C6-N1-C1'	-5.09	114.70	120.80
26	14	213	A	N3-C4-C5	5.09	130.36	126.80
26	14	1022	G	P-O3'-C3'	5.09	125.80	119.70
26	1H	613	U	O4'-C1'-N1	5.08	112.27	108.20
26	14	663	G	C5-C6-O6	5.08	131.65	128.60
26	1H	126	A	OP1-P-OP2	5.08	127.22	119.60
26	1H	523	C	C6-N1-C2	-5.08	118.27	120.30
26	1H	594	U	C5-C4-O4	5.08	128.95	125.90
26	1H	1617	C	O5'-P-OP2	5.08	116.80	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2441	C	N1-C2-N3	5.08	122.76	119.20
26	1H	2701	C	P-O3'-C3'	5.08	125.80	119.70
26	1H	2711	A	N1-C6-N6	5.08	121.65	118.60
26	14	496	G	N3-C4-N9	5.08	129.05	126.00
26	14	2046	G	C5-C6-N1	5.08	114.04	111.50
26	14	2346	A	C4-N9-C1'	5.08	135.45	126.30
1	13	780	A	N3-C4-C5	5.08	130.36	126.80
24	3K	74	C	N3-C2-O2	-5.08	118.34	121.90
26	1H	165	U	N1-C2-O2	5.08	126.36	122.80
26	1H	199	A	C6-C5-N7	5.08	135.86	132.30
26	1H	617	G	N1-C2-N2	-5.08	111.63	116.20
26	1H	1569	A	OP1-P-O3'	5.08	116.38	105.20
26	1H	2287	A	C4-C5-N7	5.08	113.24	110.70
1	1G	1442	G	C8-N9-C1'	5.08	133.61	127.00
23	2L	35	C	C5-C6-N1	5.08	123.54	121.00
26	14	1253	A	N3-C4-N9	5.08	131.47	127.40
26	14	1292	U	N3-C2-O2	5.08	125.76	122.20
26	14	1346	G	C5-C6-O6	5.08	131.65	128.60
26	14	2490	G	N1-C6-O6	5.08	122.95	119.90
26	14	2554	U	N1-C2-O2	-5.08	119.24	122.80
27	1J	50	G	O5'-P-OP2	-5.08	101.13	105.70
26	1H	750	A	P-O3'-C3'	-5.08	113.60	119.70
47	I8	84	LEU	N-CA-C	-5.08	97.28	111.00
26	14	1161	C	C6-N1-C2	-5.08	118.27	120.30
26	14	1682	G	C5-C6-O6	5.08	131.65	128.60
1	13	481	G	C6-C5-N7	-5.08	127.35	130.40
1	13	690	G	N1-C2-N3	5.08	126.95	123.90
26	1H	245	G	C8-N9-C1'	-5.08	120.40	127.00
26	1H	616	A	C5-C6-N6	-5.08	119.64	123.70
26	1H	758	C	O5'-P-OP2	-5.08	101.13	105.70
26	1H	850	C	O5'-P-OP1	-5.08	101.13	105.70
26	1H	1618	A	C5-N7-C8	-5.08	101.36	103.90
26	1H	2275	C	O4'-C1'-N1	-5.08	104.14	108.20
26	1H	2323	G	O4'-C1'-N9	-5.08	104.14	108.20
26	1H	2358	G	OP1-P-OP2	-5.08	111.98	119.60
26	1H	2449	U	N1-C2-N3	5.08	117.95	114.90
26	14	948	G	N1-C6-O6	5.08	122.95	119.90
26	14	1610	A	OP1-P-O3'	5.08	116.37	105.20
26	14	2055	C	OP1-P-O3'	5.08	116.37	105.20
26	1H	1968	G	N9-C1'-C2'	-5.08	106.42	112.00
26	1H	2006	C	C6-N1-C2	5.08	122.33	120.30
26	14	271(A)	C	N3-C4-C5	-5.08	119.87	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	474	G	N9-C4-C5	5.08	107.43	105.40
27	1J	14	U	OP1-P-OP2	5.08	127.22	119.60
26	1H	462	C	N1-C2-O2	-5.08	115.86	118.90
26	1H	673	C	N3-C2-O2	5.08	125.45	121.90
26	1H	869	G	N1-C2-N3	5.08	126.95	123.90
26	1H	2296	U	N3-C4-C5	-5.08	111.56	114.60
1	1G	262	A	C5-C6-N6	-5.08	119.64	123.70
1	1G	1431	C	N3-C4-N4	5.08	121.55	118.00
26	14	599	G	N1-C2-N3	5.08	126.94	123.90
26	14	608	A	C4-C5-C6	5.08	119.54	117.00
26	14	805	G	C6-C5-N7	-5.08	127.36	130.40
1	13	553	A	N7-C8-N9	5.07	116.34	113.80
1	13	1054	C	O5'-P-OP2	5.07	116.79	110.70
26	1H	217	G	N1-C6-O6	-5.07	116.86	119.90
26	1H	374	A	N1-C6-N6	5.07	121.64	118.60
26	1H	833	U	C5-C6-N1	-5.07	120.16	122.70
26	1H	1313	U	C6-N1-C2	-5.07	117.96	121.00
26	1H	1669	A	N7-C8-N9	5.07	116.34	113.80
26	1H	2246	G	N3-C4-C5	-5.07	126.06	128.60
26	1H	2717	G	N3-C4-N9	5.07	129.04	126.00
26	14	714	U	C6-N1-C1'	5.07	128.30	121.20
26	14	1570	A	C6-C5-N7	-5.07	128.75	132.30
26	14	1643	G	O5'-P-OP2	-5.07	101.13	105.70
26	14	1860	G	N3-C4-N9	-5.07	122.96	126.00
26	14	2007	C	N1-C2-O2	-5.07	115.86	118.90
26	14	2071	A	N9-C4-C5	5.07	107.83	105.80
26	14	2443	C	O5'-P-OP1	-5.07	101.13	105.70
26	1H	788	A	C2-N3-C4	-5.07	108.06	110.60
1	1G	423	G	N9-C4-C5	-5.07	103.37	105.40
1	1G	1356	G	C8-N9-C4	-5.07	104.37	106.40
1	13	1511	G	N1-C2-N2	-5.07	111.64	116.20
24	3K	40	C	N1-C2-O2	5.07	121.94	118.90
26	1H	936	C	C5-C4-N4	-5.07	116.65	120.20
26	1H	2027	G	C5-N7-C8	5.07	106.83	104.30
26	1H	2710	C	N3-C4-C5	5.07	123.93	121.90
1	1G	769	G	C4-C5-C6	5.07	121.84	118.80
26	14	382	G	OP1-P-O3'	5.07	116.36	105.20
26	14	1318	C	C4-C5-C6	5.07	119.94	117.40
26	14	1941	C	C2-N3-C4	5.07	122.44	119.90
26	1H	423	A	N7-C8-N9	-5.07	111.27	113.80
26	1H	2349	G	N1-C6-O6	-5.07	116.86	119.90
26	14	984	A	C5-C6-N1	5.07	120.23	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1310	G	C5-C6-N1	-5.07	108.97	111.50
1	13	915	A	OP1-P-O3'	5.07	116.35	105.20
26	1H	1256	G	N3-C2-N2	-5.07	116.35	119.90
26	1H	2266	A	C8-N9-C4	5.07	107.83	105.80
26	1H	2562	U	C5-C6-N1	-5.07	120.17	122.70
26	1H	2849	U	OP1-P-O3'	5.07	116.35	105.20
27	16	56	G	N1-C6-O6	-5.07	116.86	119.90
1	1G	9	G	N1-C2-N2	-5.07	111.64	116.20
1	1G	32	A	N1-C2-N3	5.07	131.83	129.30
1	1G	615	C	OP1-P-O3'	5.07	116.35	105.20
26	14	541	C	C6-N1-C2	-5.07	118.27	120.30
26	14	925	C	C6-N1-C1'	5.07	126.88	120.80
26	14	1194	A	OP2-P-O3'	5.07	116.35	105.20
26	14	1570	A	C8-N9-C4	-5.07	103.77	105.80
26	14	1981	A	C4-C5-C6	-5.07	114.47	117.00
26	14	2066	C	C5-C4-N4	-5.07	116.65	120.20
1	13	21	G	OP2-P-O3'	5.07	116.34	105.20
1	13	1504	G	C5-C6-N1	-5.07	108.97	111.50
26	1H	542	C	OP1-P-OP2	5.07	127.20	119.60
26	1H	1834	U	N3-C2-O2	-5.07	118.65	122.20
26	1H	1844	C	C5-C4-N4	-5.07	116.66	120.20
26	1H	2430	A	C4-C5-C6	-5.07	114.47	117.00
1	1G	345	C	P-O3'-C3'	5.07	125.78	119.70
1	1G	784	C	OP1-P-OP2	5.07	127.20	119.60
26	14	527	C	N3-C2-O2	-5.07	118.35	121.90
26	14	570	G	C8-N9-C4	-5.07	104.37	106.40
26	14	1559	G	C6-C5-N7	-5.07	127.36	130.40
26	14	1660	C	C6-N1-C2	-5.07	118.27	120.30
26	14	1935	G	N3-C4-C5	5.07	131.13	128.60
26	14	2276	G	N3-C2-N2	-5.07	116.35	119.90
26	14	2346	A	C5-N7-C8	-5.07	101.37	103.90
26	1H	247	G	N9-C4-C5	-5.06	103.38	105.40
26	1H	290	G	C8-N9-C1'	-5.06	120.42	127.00
26	1H	753	C	N1-C2-O2	5.06	121.94	118.90
26	1H	1781	C	O4'-C1'-N1	5.06	112.25	108.20
26	1H	2622	C	O5'-P-OP2	-5.06	101.14	105.70
1	1G	707	C	O5'-P-OP2	-5.06	101.14	105.70
1	1G	1471	G	C8-N9-C4	5.06	108.43	106.40
26	14	1460	A	P-O3'-C3'	5.06	125.78	119.70
26	14	1899	G	C4-C5-C6	5.06	121.84	118.80
1	13	1409	C	O5'-P-OP1	-5.06	101.14	105.70
1	13	1520	G	C2-N3-C4	-5.06	109.37	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	307	G	C2-N3-C4	5.06	114.43	111.90
26	1H	762	U	C5-C6-N1	5.06	125.23	122.70
26	1H	1914	C	C5-C4-N4	5.06	123.74	120.20
26	1H	2198	A	N1-C2-N3	5.06	131.83	129.30
26	1H	2254	C	N1-C2-N3	5.06	122.74	119.20
26	1H	2319	G	C5'-C4'-C3'	-5.06	107.90	116.00
26	1H	2389	G	P-O3'-C3'	5.06	125.78	119.70
1	1G	267	C	N1-C2-O2	5.06	121.94	118.90
1	1G	576	G	N9-C4-C5	-5.06	103.38	105.40
1	1G	924	C	C4-C5-C6	5.06	119.93	117.40
26	14	1349	A	N7-C8-N9	5.06	116.33	113.80
26	14	2755	C	C6-N1-C1'	-5.06	114.72	120.80
1	13	1381	U	N3-C2-O2	-5.06	118.66	122.20
26	14	1400	G	N1-C6-O6	-5.06	116.86	119.90
26	14	1726	G	N3-C4-C5	-5.06	126.07	128.60
26	14	2032	G	C5-N7-C8	-5.06	101.77	104.30
1	13	326	G	O5'-P-OP2	-5.06	101.15	105.70
26	1H	1131	G	N1-C6-O6	-5.06	116.86	119.90
26	1H	1615	C	N3-C2-O2	-5.06	118.36	121.90
26	1H	1899	G	N1-C6-O6	-5.06	116.86	119.90
26	1H	2269	A	C5-C6-N1	-5.06	115.17	117.70
26	1H	2597	G	C5-C6-O6	-5.06	125.56	128.60
1	1G	1446	A	O5'-P-OP1	5.06	116.77	110.70
26	14	121	G	C4-C5-N7	5.06	112.82	110.80
26	14	914	C	N1-C2-O2	5.06	121.94	118.90
26	14	2725	A	OP2-P-O3'	5.06	116.33	105.20
1	13	1410	G	N1-C6-O6	5.06	122.94	119.90
1	13	1459	C	N1-C2-O2	5.06	121.93	118.90
26	1H	37	C	N1-C2-O2	5.06	121.94	118.90
26	1H	479	A	C5-N7-C8	5.06	106.43	103.90
26	1H	1421	G	N1-C6-O6	5.06	122.93	119.90
26	1H	1787	A	N1-C6-N6	-5.06	115.57	118.60
26	14	558	G	C8-N9-C4	5.06	108.42	106.40
26	14	752	A	C2-N3-C4	-5.06	108.07	110.60
26	14	801	G	C5-C6-O6	5.06	131.63	128.60
26	14	2057	A	N1-C6-N6	5.06	121.64	118.60
26	14	2391	G	N9-C4-C5	5.06	107.42	105.40
1	13	827	U	N1-C2-O2	5.06	126.34	122.80
1	13	1509	C	N3-C4-C5	5.06	123.92	121.90
26	1H	759	G	O5'-P-OP2	-5.06	101.15	105.70
26	1H	1958	C	C5-C4-N4	-5.06	116.66	120.20
27	16	32	C	N1-C2-O2	5.06	121.93	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	388	G	C2-N3-C4	-5.06	109.37	111.90
26	14	1815	A	N7-C8-N9	-5.06	111.27	113.80
26	14	1977	A	OP1-P-OP2	-5.06	112.02	119.60
26	14	2005	A	N1-C2-N3	-5.06	126.77	129.30
26	1H	203	C	N3-C4-N4	5.05	121.54	118.00
26	1H	296	C	C2-N3-C4	-5.05	117.37	119.90
26	1H	987	G	N9-C4-C5	5.05	107.42	105.40
26	1H	2485	G	N1-C2-N2	-5.05	111.65	116.20
26	14	1384	A	N9-C4-C5	5.05	107.82	105.80
26	1H	141	A	C8-N9-C4	-5.05	103.78	105.80
26	1H	447	A	N1-C2-N3	5.05	131.83	129.30
26	1H	821	A	O4'-C1'-N9	5.05	112.24	108.20
26	1H	2351	G	OP1-P-OP2	5.05	127.18	119.60
26	1H	2580	U	N3-C2-O2	-5.05	118.66	122.20
27	16	47	C	O5'-P-OP1	5.05	116.76	110.70
1	1G	666	G	C6-C5-N7	-5.05	127.37	130.40
1	1G	1506	U	C5-C4-O4	-5.05	122.87	125.90
26	14	1320	C	N3-C4-N4	5.05	121.54	118.00
26	14	1544	C	N1-C2-O2	5.05	121.93	118.90
1	13	788	U	OP1-P-O3'	-5.05	94.08	105.20
1	13	964	A	C8-N9-C4	5.05	107.82	105.80
26	1H	395	U	N1-C2-O2	5.05	126.34	122.80
26	1H	769	G	C6-N1-C2	-5.05	122.07	125.10
26	1H	1023	U	O5'-P-OP1	-5.05	101.15	105.70
26	1H	1337	G	OP1-P-O3'	5.05	116.31	105.20
26	1H	2318	G	N3-C2-N2	-5.05	116.36	119.90
26	1H	2591	C	C5-C4-N4	-5.05	116.66	120.20
26	14	238	C	N1-C2-O2	-5.05	115.87	118.90
26	14	1161	C	O5'-P-OP1	-5.05	101.15	105.70
26	14	1988	C	C5-C4-N4	-5.05	116.66	120.20
26	14	2452	C	OP1-P-OP2	5.05	127.18	119.60
26	14	2787	C	C6-N1-C2	-5.05	118.28	120.30
1	13	792	A	N1-C2-N3	5.05	131.82	129.30
26	1H	1306	C	O5'-P-OP1	-5.05	101.16	105.70
26	1H	2361	A	OP1-P-OP2	5.05	127.18	119.60
26	1H	2848	G	N3-C2-N2	5.05	123.43	119.90
1	1G	483	C	C6-N1-C2	5.05	122.32	120.30
26	14	1365	A	C5-N7-C8	-5.05	101.38	103.90
26	14	1559	G	C4-C5-N7	5.05	112.82	110.80
26	14	2597	G	C5-C6-N1	-5.05	108.98	111.50
1	13	328	C	C2-N1-C1'	5.05	124.35	118.80
26	1H	2044	C	C2-N1-C1'	5.05	124.35	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2420	C	N1-C2-O2	-5.05	115.87	118.90
1	1G	119	A	C8-N9-C4	5.05	107.82	105.80
5	42	31	LEU	CA-CB-CG	5.05	126.91	115.30
26	14	141	A	OP2-P-O3'	5.05	116.31	105.20
26	14	265	A	N1-C6-N6	5.05	121.63	118.60
26	14	1281	G	C5-C6-O6	-5.05	125.57	128.60
26	14	1324	G	C5-C6-N1	-5.05	108.98	111.50
1	13	881	G	C8-N9-C4	5.05	108.42	106.40
26	1H	119	A	N3-C4-C5	-5.05	123.27	126.80
26	1H	450	G	OP1-P-OP2	-5.05	112.03	119.60
26	1H	921	G	N1-C2-N3	-5.05	120.87	123.90
26	1H	1528	A	C4-C5-N7	5.05	113.22	110.70
26	1H	1980	G	N3-C4-C5	-5.05	126.08	128.60
27	16	110	G	C8-N9-C4	-5.05	104.38	106.40
23	2L	49	C	C6-N1-C2	-5.05	118.28	120.30
26	14	525	U	N3-C4-C5	-5.05	111.57	114.60
26	14	2374	C	C5-C6-N1	-5.05	118.48	121.00
1	13	559	A	C8-N9-C4	-5.04	103.78	105.80
26	1H	432	A	N1-C6-N6	5.04	121.63	118.60
26	1H	1619	G	C2-N3-C4	5.04	114.42	111.90
26	1H	1789	A	C5-C6-N6	-5.04	119.66	123.70
26	14	196	A	O5'-P-OP2	-5.04	101.16	105.70
26	14	365	C	N1-C2-N3	5.04	122.73	119.20
26	14	950	G	N1-C6-O6	-5.04	116.87	119.90
1	13	181	G	N3-C4-C5	-5.04	126.08	128.60
1	13	264	U	C5-C4-O4	-5.04	122.87	125.90
1	13	306	G	C5-C6-N1	5.04	114.02	111.50
1	13	801	U	N3-C2-O2	-5.04	118.67	122.20
26	1H	131	G	C6-N1-C2	-5.04	122.07	125.10
26	1H	141(A)	C	O5'-P-OP1	-5.04	101.16	105.70
26	1H	399	G	C5-C6-N1	5.04	114.02	111.50
26	1H	479	A	C8-N9-C4	5.04	107.82	105.80
26	1H	775	G	N3-C4-C5	-5.04	126.08	128.60
26	1H	1561	G	OP1-P-O3'	5.04	116.30	105.20
26	1H	2028	U	C2-N3-C4	-5.04	123.97	127.00
1	1G	267	C	N3-C2-O2	-5.04	118.37	121.90
1	1G	1338	G	N3-C4-C5	-5.04	126.08	128.60
1	1G	1487	G	N3-C2-N2	-5.04	116.37	119.90
1	1G	1511	G	OP2-P-O3'	5.04	116.30	105.20
26	14	1621	U	O5'-P-OP1	-5.04	101.16	105.70
26	14	1679	U	C6-N1-C2	-5.04	117.97	121.00
26	14	1709	U	N3-C2-O2	-5.04	118.67	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2287	A	N1-C2-N3	5.04	131.82	129.30
26	1H	503	A	N9-C4-C5	5.04	107.82	105.80
26	1H	628	G	N7-C8-N9	-5.04	110.58	113.10
26	1H	678	C	N3-C4-N4	-5.04	114.47	118.00
26	1H	766	C	C6-N1-C2	5.04	122.32	120.30
26	1H	1369	G	C4-C5-C6	5.04	121.82	118.80
26	1H	2390	U	C4-C5-C6	5.04	122.72	119.70
1	1G	24	U	OP1-P-OP2	5.04	127.16	119.60
26	14	478	A	O5'-P-OP1	-5.04	101.16	105.70
26	14	2510	C	N3-C4-N4	-5.04	114.47	118.00
23	2K	21	U	C6-N1-C2	-5.04	117.98	121.00
26	1H	723	G	N1-C6-O6	-5.04	116.88	119.90
32	51	86	GLU	N-CA-C	5.04	124.61	111.00
26	14	551	G	C5-C6-O6	-5.04	125.58	128.60
26	14	1816	G	N1-C6-O6	-5.04	116.88	119.90
26	14	2344	U	C5-C4-O4	5.04	128.92	125.90
1	13	817	C	C6-N1-C2	5.04	122.32	120.30
26	1H	1648	C	C6-N1-C1'	5.04	126.85	120.80
26	1H	2821	A	C6-C5-N7	-5.04	128.77	132.30
1	1G	812	C	C2-N3-C4	5.04	122.42	119.90
26	14	772	C	OP2-P-O3'	5.04	116.28	105.20
26	14	1894	C	N1-C2-O2	5.04	121.92	118.90
37	45	79	LEU	CA-CB-CG	5.04	126.89	115.30
1	13	253	U	O5'-P-OP2	5.04	116.74	110.70
26	1H	36	G	OP2-P-O3'	5.04	116.28	105.20
26	1H	46	C	N3-C4-N4	5.04	121.53	118.00
26	1H	482	A	N3-C4-C5	-5.04	123.27	126.80
26	1H	516	C	C6-N1-C2	-5.04	118.28	120.30
26	1H	762	U	C4-C5-C6	-5.04	116.68	119.70
26	1H	1188	U	N1-C2-O2	5.04	126.33	122.80
1	1G	727	G	N3-C2-N2	5.04	123.43	119.90
1	13	136	C	O5'-P-OP2	-5.04	101.17	105.70
1	13	285	G	C5-C6-N1	-5.04	108.98	111.50
1	13	546	G	C8-N9-C4	5.04	108.41	106.40
26	1H	406	G	C8-N9-C4	-5.04	104.39	106.40
26	1H	536	A	N3-C4-C5	-5.04	123.28	126.80
26	1H	602	G	C2-N3-C4	-5.04	109.38	111.90
26	1H	859	G	N1-C2-N2	5.04	120.73	116.20
26	1H	1027	A	C5-C6-N1	-5.04	115.18	117.70
26	1H	1845	G	C8-N9-C4	-5.04	104.39	106.40
26	14	328	U	N3-C4-C5	-5.04	111.58	114.60
26	14	511	U	C6-N1-C2	-5.04	117.98	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1858	G	P-O3'-C3'	5.04	125.74	119.70
1	13	300	A	O5'-P-OP2	5.03	116.74	110.70
26	1H	181	A	N1-C6-N6	-5.03	115.58	118.60
26	1H	200	U	C5-C6-N1	-5.03	120.18	122.70
26	1H	1771	C	C5-C4-N4	-5.03	116.68	120.20
26	1H	1936	A	C4-C5-N7	5.03	113.22	110.70
1	1G	1511	G	C5-C6-N1	-5.03	108.98	111.50
26	14	258	G	O5'-P-OP1	5.03	116.74	110.70
26	14	735	A	C5-N7-C8	5.03	106.42	103.90
26	14	914	C	O4'-C1'-N1	5.03	112.23	108.20
26	14	1288	U	OP1-P-O3'	5.03	116.27	105.20
26	1H	543	C	OP1-P-OP2	5.03	127.15	119.60
26	1H	559	G	N1-C6-O6	5.03	122.92	119.90
26	1H	2258	C	C5-C4-N4	-5.03	116.68	120.20
26	14	212	G	C6-C5-N7	-5.03	127.38	130.40
26	14	1196	C	C4-C5-C6	-5.03	114.88	117.40
26	14	2270	G	C5-C6-O6	-5.03	125.58	128.60
26	14	2681	C	C4-C5-C6	5.03	119.92	117.40
23	2K	40	C	C2-N1-C1'	5.03	124.33	118.80
26	1H	667	U	N1-C2-N3	5.03	117.92	114.90
26	1H	2099	U	C5-C6-N1	5.03	125.22	122.70
26	1H	2287	A	C6-N1-C2	5.03	121.62	118.60
26	1H	2665	A	C8-N9-C4	-5.03	103.79	105.80
1	1G	355	C	N3-C4-N4	-5.03	114.48	118.00
23	2L	21	U	C5-C6-N1	5.03	125.22	122.70
26	14	808	G	N1-C2-N3	5.03	126.92	123.90
26	14	836	G	OP1-P-OP2	-5.03	112.05	119.60
26	14	1190	G	OP1-P-O3'	5.03	116.27	105.20
26	14	1827	C	C4-C5-C6	5.03	119.92	117.40
26	14	2778	A	O5'-P-OP2	-5.03	101.17	105.70
26	14	2854	G	OP1-P-OP2	-5.03	112.05	119.60
1	13	267	C	OP2-P-O3'	5.03	116.27	105.20
1	13	1151	A	O5'-P-OP2	-5.03	101.17	105.70
26	1H	94	G	C5-C6-O6	-5.03	125.58	128.60
26	14	1635	G	C8-N9-C4	5.03	108.41	106.40
1	13	601	C	N1-C2-O2	5.03	121.92	118.90
1	13	1198	G	O5'-P-OP2	5.03	116.73	110.70
1	13	1311	G	N3-C2-N2	5.03	123.42	119.90
26	1H	126	A	OP2-P-O3'	5.03	116.26	105.20
26	1H	381	G	C5-C6-O6	5.03	131.62	128.60
26	1H	796	C	O5'-P-OP1	5.03	116.73	110.70
26	1H	2212	A	O4'-C1'-N9	5.03	112.22	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2324	C	C2-N3-C4	-5.03	117.39	119.90
1	1G	1487	G	O5'-P-OP1	5.03	116.73	110.70
26	14	1840	G	N1-C6-O6	5.03	122.92	119.90
26	14	2275	C	OP1-P-O3'	5.03	116.26	105.20
26	14	2457	U	N3-C2-O2	-5.03	118.68	122.20
1	13	1519	A	C8-N9-C4	-5.03	103.79	105.80
26	1H	109	G	C4-C5-N7	-5.03	108.79	110.80
26	1H	228	A	N1-C6-N6	5.03	121.61	118.60
26	1H	1984	G	C4-C5-N7	-5.03	108.79	110.80
26	1H	2333	A	P-O3'-C3'	5.03	125.73	119.70
26	14	591	C	N1-C2-O2	-5.03	115.88	118.90
26	14	2644	G	N3-C4-N9	-5.03	122.98	126.00
26	1H	2068	U	N1-C2-O2	5.02	126.32	122.80
1	1G	354	G	C4-N9-C1'	5.02	133.03	126.50
26	14	1569	A	C8-N9-C4	-5.02	103.79	105.80
26	14	1673	U	N3-C2-O2	5.02	125.72	122.20
26	1H	137(A)	G	N1-C6-O6	5.02	122.91	119.90
26	1H	739	G	N1-C2-N3	-5.02	120.89	123.90
26	1H	1203	G	N3-C2-N2	5.02	123.42	119.90
26	1H	1636	C	N3-C2-O2	5.02	125.42	121.90
26	1H	1965	C	N3-C4-N4	5.02	121.52	118.00
26	1H	2261	C	N1-C2-O2	-5.02	115.89	118.90
1	1G	425	G	O5'-P-OP1	-5.02	101.18	105.70
26	14	765	G	C8-N9-C4	-5.02	104.39	106.40
1	13	1530	G	C4-C5-N7	5.02	112.81	110.80
26	1H	1410	G	N3-C4-N9	-5.02	122.99	126.00
26	1H	1914	C	C6-N1-C2	-5.02	118.29	120.30
26	14	991	C	C5-C6-N1	5.02	123.51	121.00
26	14	1029	A	C8-N9-C4	5.02	107.81	105.80
26	14	2503	A	C5-C6-N6	-5.02	119.68	123.70
26	1H	240	G	N1-C6-O6	5.02	122.91	119.90
26	1H	609(A)	G	OP2-P-O3'	5.02	116.24	105.20
26	1H	1298	C	OP2-P-O3'	-5.02	94.16	105.20
26	1H	1441	G	OP1-P-O3'	5.02	116.25	105.20
26	1H	1761	C	N3-C4-N4	5.02	121.51	118.00
26	1H	2512	C	C6-N1-C2	5.02	122.31	120.30
1	1G	515	G	N3-C4-N9	-5.02	122.99	126.00
23	2L	1	C	C6-N1-C2	-5.02	118.29	120.30
26	14	569	U	O5'-P-OP1	-5.02	101.18	105.70
26	14	2463	C	N1-C2-O2	-5.02	115.89	118.90
26	14	2624	G	N1-C6-O6	5.02	122.91	119.90
1	13	380	G	C4-N9-C1'	-5.02	119.98	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	784	A	OP1-P-O3'	5.02	116.24	105.20
26	1H	1707	G	C5-C6-O6	-5.02	125.59	128.60
26	1H	1772	G	C5-C6-O6	5.02	131.61	128.60
26	1H	2576	G	N3-C4-N9	5.02	129.01	126.00
26	1H	2815	C	OP1-P-OP2	5.02	127.13	119.60
1	1G	619	U	OP1-P-O3'	5.02	116.24	105.20
26	14	4	C	C2-N1-C1'	5.02	124.32	118.80
26	14	754	C	N3-C4-N4	5.02	121.51	118.00
26	14	1639	U	N3-C2-O2	-5.02	118.69	122.20
26	14	1660	C	C4-C5-C6	-5.02	114.89	117.40
23	2K	77	A	C4-C5-N7	5.02	113.21	110.70
26	1H	513	A	C4-N9-C1'	5.02	135.33	126.30
26	1H	1245	G	N3-C2-N2	-5.02	116.39	119.90
26	1H	2036	C	C5-C4-N4	5.02	123.71	120.20
1	1G	1491	G	O5'-P-OP1	5.02	116.72	110.70
26	14	574	C	C2-N1-C1'	-5.02	113.28	118.80
26	14	581	C	N1-C2-N3	5.02	122.71	119.20
26	14	1525	G	O5'-P-OP1	-5.02	101.19	105.70
1	13	119	A	C5-C6-N6	-5.01	119.69	123.70
1	13	707	C	C6-N1-C2	-5.01	118.29	120.30
1	13	876	G	O5'-P-OP1	-5.01	101.19	105.70
12	3I	85	ILE	CG1-CB-CG2	-5.01	100.37	111.40
26	1H	439	G	OP1-P-O3'	5.01	116.23	105.20
26	1H	486	C	O5'-P-OP2	5.01	116.72	110.70
26	1H	1969	A	C5-C6-N6	5.01	127.71	123.70
26	1H	2010	G	N3-C2-N2	-5.01	116.39	119.90
26	1H	2286	A	C5-N7-C8	-5.01	101.39	103.90
26	1H	2440	C	C5-C4-N4	5.01	123.71	120.20
26	1H	2502	G	N1-C2-N2	5.01	120.71	116.20
1	1G	114	U	C5-C6-N1	-5.01	120.19	122.70
1	1G	520	A	N1-C6-N6	5.01	121.61	118.60
26	14	117	G	OP1-P-OP2	-5.01	112.08	119.60
26	14	774	A	C8-N9-C4	-5.01	103.79	105.80
26	14	2249	U	N3-C4-C5	-5.01	111.59	114.60
23	2K	37	U	C5-C6-N1	-5.01	120.19	122.70
26	1H	264	C	N3-C4-C5	5.01	123.91	121.90
26	1H	2068	U	N1-C2-N3	-5.01	111.89	114.90
26	1H	2307	G	C5-C6-O6	-5.01	125.59	128.60
26	14	1271	G	C8-N9-C4	5.01	108.41	106.40
26	14	2336	A	N1-C6-N6	-5.01	115.59	118.60
1	13	564	C	OP1-P-O3'	5.01	116.23	105.20
1	13	1200	C	C2-N3-C4	5.01	122.41	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1306	A	O5'-P-OP2	-5.01	101.19	105.70
26	1H	1192	G	O5'-P-OP1	5.01	116.72	110.70
26	1H	1306	C	C6-N1-C2	5.01	122.30	120.30
26	1H	2401	U	O5'-P-OP1	-5.01	101.19	105.70
26	14	208	C	N3-C4-C5	5.01	123.90	121.90
26	14	995	C	C2-N1-C1'	-5.01	113.29	118.80
26	14	2071	A	C5-C6-N1	5.01	120.21	117.70
1	13	1299	A	C4-N9-C1'	5.01	135.32	126.30
26	1H	112	U	O5'-P-OP2	5.01	116.71	110.70
26	1H	113	G	N3-C2-N2	-5.01	116.39	119.90
26	1H	602	G	C8-N9-C1'	-5.01	120.49	127.00
26	1H	1281	G	C4-C5-N7	5.01	112.80	110.80
26	1H	1689	A	OP2-P-O3'	5.01	116.22	105.20
26	1H	1792	G	C5-C6-O6	5.01	131.61	128.60
26	1H	1831	G	OP1-P-OP2	-5.01	112.09	119.60
1	1G	712	A	N1-C6-N6	5.01	121.61	118.60
23	2L	71	G	N3-C4-N9	-5.01	122.99	126.00
26	14	1562	A	N1-C6-N6	5.01	121.61	118.60
26	14	2252	G	C8-N9-C4	5.01	108.40	106.40
26	14	2291	U	C6-N1-C1'	5.01	128.21	121.20
26	14	2319	G	N1-C6-O6	-5.01	116.89	119.90
26	1H	710	G	OP1-P-OP2	-5.01	112.09	119.60
26	1H	1564	C	N3-C2-O2	-5.01	118.39	121.90
26	1H	1788	C	O5'-P-OP2	-5.01	101.19	105.70
1	1G	865	A	N7-C8-N9	5.01	116.30	113.80
26	14	479	A	P-O3'-C3'	5.01	125.71	119.70
26	14	561	G	N3-C4-C5	5.01	131.10	128.60
26	14	2070	G	N3-C2-N2	5.01	123.41	119.90
26	14	2445	G	C5-N7-C8	-5.01	101.80	104.30
1	13	306	G	C6-C5-N7	5.01	133.40	130.40
26	1H	40	C	C2-N3-C4	-5.01	117.40	119.90
26	1H	134	C	N3-C2-O2	-5.01	118.40	121.90
26	1H	502	A	C5-C6-N1	-5.01	115.20	117.70
26	1H	2538	C	OP1-P-OP2	5.01	127.11	119.60
27	16	39	A	N7-C8-N9	5.01	116.30	113.80
1	1G	505	G	OP1-P-O3'	5.01	116.21	105.20
1	1G	1478	C	C6-N1-C2	-5.01	118.30	120.30
26	14	1251	C	OP1-P-OP2	5.01	127.11	119.60
26	14	1284	A	C5-C6-N6	-5.01	119.69	123.70
26	14	1695	G	N3-C2-N2	5.01	123.41	119.90
26	14	2385	C	N1-C2-O2	-5.01	115.90	118.90
1	13	298	A	N9-C4-C5	5.00	107.80	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	86	C	OP2-P-O3'	5.00	116.21	105.20
26	1H	106	C	C6-N1-C2	-5.00	118.30	120.30
26	1H	2434	A	N3-C4-N9	-5.00	123.40	127.40
26	14	2830	G	N3-C2-N2	-5.00	116.40	119.90
1	13	395	C	C2-N1-C1'	-5.00	113.30	118.80
1	13	721	G	C4-N9-C1'	5.00	133.01	126.50
26	1H	110	G	OP1-P-OP2	5.00	127.11	119.60
26	1H	271(B)	G	N7-C8-N9	5.00	115.60	113.10
26	1H	508	G	C2-N3-C4	5.00	114.40	111.90
26	1H	699	A	C2-N3-C4	5.00	113.10	110.60
26	1H	2856	C	C2-N1-C1'	5.00	124.30	118.80
26	14	453	C	N3-C4-N4	-5.00	114.50	118.00
26	14	1807	G	OP1-P-O3'	5.00	116.21	105.20
26	14	2307	G	C4-N9-C1'	5.00	133.00	126.50
26	1H	344	G	N3-C4-N9	5.00	129.00	126.00
26	1H	489	G	N1-C6-O6	5.00	122.90	119.90
26	1H	2042	A	N9-C4-C5	5.00	107.80	105.80
26	1H	2085	C	C6-N1-C2	5.00	122.30	120.30
26	14	785	G	C6-C5-N7	5.00	133.40	130.40
26	14	1346	G	C5-N7-C8	5.00	106.80	104.30
26	14	1564	C	C5-C4-N4	5.00	123.70	120.20

There are no chirality outliers.

All (127) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
28	11	141	VAL	Peptide
28	11	197	GLY	Peptide
28	19	237	GLU	Peptide
28	19	270	ILE	Peptide
28	19	271	ILE	Peptide
28	19	32	SER	Peptide
28	19	37	LEU	Peptide
10	1A	55	LYS	Peptide
2	1E	15	VAL	Peptide
2	1E	237	ALA	Peptide
29	21	56	PRO	Peptide
29	21	78	LEU	Peptide
29	21	87	GLU	Peptide
29	21	89	ASP	Peptide
29	29	139	GLY	Peptide
29	29	201	THR	Peptide

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
29	29	44	TYR	Peptide
29	29	61	ARG	Peptide
29	29	65	GLY	Peptide
11	2A	49	GLY	Peptide
30	31	23	ASP	Peptide
30	31	6	VAL	Peptide
30	31	73	ALA	Peptide
4	32	152	SER	Peptide
4	32	30	LYS	Peptide
36	35	110	TYR	Peptide
36	35	36	LYS	Peptide
36	35	64	LYS	Peptide
30	39	127	GLU	Peptide
30	39	166	ALA	Peptide
30	39	20	LEU	Peptide
30	39	24	LEU	Peptide
30	39	26	ALA	Peptide
30	39	69	HIS	Mainchain
30	39	89	VAL	Peptide
12	3I	87	GLY	Peptide
31	41	85	GLY	Peptide
31	41	95	ARG	Peptide
37	45	134	ARG	Peptide
37	45	135	ASP	Peptide
37	45	25	ASP	Peptide
37	45	27	VAL	Peptide
37	45	86	GLY	Peptide
37	45	87	LYS	Peptide
31	49	13	GLU	Peptide
13	4I	105	THR	Peptide
13	4I	4	ILE	Peptide
38	55	106	GLY	Mainchain,Peptide
32	59	155	SER	Peptide
14	5A	30	ALA	Peptide
33	61	11	ASN	Peptide
33	61	114	LEU	Peptide
33	61	134	PRO	Peptide
33	61	82	ARG	Peptide
39	65	59	LYS	Peptide
33	69	101	LEU	Peptide
33	69	112	LYS	Peptide
33	69	143	SER	Peptide

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
40	75	12	SER	Peptide
40	75	4	GLY	Peptide
36	78	11	GLY	Peptide
36	78	115	LEU	Peptide
36	78	14	LYS	Peptide
9	82	117	HIS	Peptide
41	85	72	HIS	Peptide
41	85	98	LEU	Peptide
37	88	1	MET	Peptide
37	88	23	GLY	Peptide
37	88	58	PHE	Peptide
37	88	78	PRO	Peptide
42	95	44	LYS	Peptide
42	95	80	GLN	Peptide
38	98	1	MET	Peptide
38	98	44	LEU	Peptide
43	A5	43	GLY	Peptide
43	A5	93	ALA	Peptide
19	AI	6	LYS	Peptide
19	AI	7	LYS	Peptide
44	B5	61	GLY	Peptide
40	B8	54	ARG	Peptide
40	B8	58	ASN	Peptide
20	BA	11	SER	Peptide
20	BA	72	LEU	Peptide
20	BI	96	GLY	Peptide
45	C5	81	LYS	Peptide
41	C8	96	ALA	Peptide
46	D5	142	SER	Peptide
42	D8	47	VAL	Peptide
48	F5	85	LEU	Peptide
49	G5	15	LYS	Peptide
49	G5	17	SER	Peptide
49	G5	43	GLN	Peptide
49	G5	69	ARG	Peptide
45	G8	5	MET	Peptide
45	G8	53	PRO	Peptide
45	G8	94	LYS	Peptide
46	H8	158	PRO	Peptide
46	H8	59	LEU	Peptide
46	H8	63	ASP	Peptide
51	I5	26	SER	Peptide

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Mol	Chain	Res	Type	Group
47	I8	83	PRO	Peptide
47	I8	9	SER	Peptide
48	J8	75	GLU	Peptide
48	J8	85	LEU	Peptide
53	K5	15	GLU	Peptide
53	K5	16	CYS	Peptide
53	K5	43	CYS	Peptide
53	K5	44	ARG	Peptide
49	K8	17	SER	Peptide
49	K8	46	GLN	Peptide
55	M5	30	ARG	Peptide
55	M5	33	ASN	Peptide
55	M5	40	GLU	Peptide
51	M8	38	LYS	Peptide
51	M8	40	HIS	Peptide
52	N8	41	PRO	Peptide
53	O8	15	GLU	Peptide
53	O8	27	LYS	Peptide
55	Q8	18	ALA	Peptide
55	Q8	27	THR	Peptide
55	Q8	44	LYS	Peptide
55	Q8	46	ARG	Peptide
55	Q8	49	VAL	Peptide
55	Q8	57	ARG	Peptide
55	Q8	7	HIS	Peptide
55	Q8	9	GLY	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	I3	32207	0	16256	718	0
1	1G	32204	0	16255	829	0
2	I2	1924	0	1975	99	0
2	1E	1924	0	1975	100	0
3	22	1612	0	1677	90	0
3	2E	1605	0	1668	52	0
4	32	1702	0	1763	86	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	3E	1702	0	1762	62	0
5	42	1155	0	1213	55	0
5	4E	1155	0	1213	53	0
6	52	842	0	857	31	0
6	5E	842	0	857	26	0
7	62	1243	0	1284	58	0
7	6E	1256	0	1296	42	0
8	72	1115	0	1177	41	0
8	7E	1115	0	1177	57	0
9	82	983	0	1006	61	0
9	8E	1009	0	1037	61	0
10	1A	801	0	849	45	0
10	1I	801	0	849	51	0
11	2A	864	0	881	32	0
11	2I	864	0	881	27	0
12	3A	975	0	1062	47	0
12	3I	975	0	1062	48	0
13	4A	933	0	992	64	0
13	4I	938	0	997	56	0
14	5A	475	0	511	29	0
14	5I	491	0	529	24	0
15	6A	733	0	771	33	0
15	6I	733	0	771	28	0
16	7A	705	0	725	29	0
16	7I	705	0	725	53	0
17	8A	834	0	904	22	0
17	8I	834	0	904	33	0
18	9A	590	0	662	18	0
18	9I	590	0	662	26	0
19	AA	624	0	636	44	0
19	AI	647	0	665	53	0
20	BA	762	0	861	30	0
20	BI	762	0	861	48	0
21	1B	217	0	234	20	0
21	1F	217	0	234	8	0
22	1K	1627	0	836	35	0
23	2K	1646	0	845	27	0
23	2L	1646	0	845	32	0
24	3K	1603	0	824	57	0
25	4K	279	0	142	4	0
25	4L	235	0	121	14	0
26	14	62647	0	31578	1347	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
26	1H	62707	0	31600	1532	1
27	16	2617	0	1328	54	0
27	1J	2617	0	1328	106	0
28	11	2115	0	2195	85	0
28	19	2120	0	2197	88	0
29	21	1568	0	1634	89	0
29	29	1568	0	1634	92	0
30	31	1585	0	1632	93	0
30	39	1627	0	1680	104	0
31	41	1473	0	1535	80	0
31	49	1473	0	1535	62	0
32	51	1336	0	1418	71	0
32	59	1307	0	1382	63	0
33	61	1136	0	1223	54	0
33	69	1136	0	1223	54	0
34	15	1104	0	1180	53	0
34	58	1104	0	1180	54	0
35	25	932	0	996	48	0
35	68	932	0	996	35	0
36	35	1144	0	1228	101	0
36	78	1144	0	1228	98	0
37	45	1121	0	1179	74	0
37	88	1086	0	1129	64	0
38	55	959	0	1021	45	0
38	98	967	0	1033	53	0
39	65	881	0	943	70	0
39	A8	881	0	943	59	0
40	75	1141	0	1202	63	0
40	B8	1141	0	1202	70	0
41	85	963	0	1022	44	0
41	C8	963	0	1022	85	0
42	95	778	0	852	70	0
42	D8	778	0	852	34	0
43	A5	899	0	964	31	0
43	E8	899	0	964	33	0
44	B5	735	0	785	31	0
44	F8	742	0	803	42	0
45	C5	794	0	883	57	0
45	G8	791	0	882	59	0
46	D5	1428	0	1454	70	0
46	H8	1397	0	1430	84	0
47	E5	612	0	633	30	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
47	I8	626	0	642	26	0
48	F5	737	0	813	32	0
48	J8	762	0	848	37	0
49	G5	563	0	612	21	1
49	K8	563	0	612	36	0
50	H5	468	0	518	13	0
50	L8	452	0	503	21	0
51	I5	481	0	479	46	0
51	M8	533	0	526	43	0
52	J5	458	0	480	32	0
52	N8	453	0	475	28	0
53	K5	389	0	404	21	0
53	O8	389	0	404	28	0
54	L5	398	0	441	17	0
54	P8	391	0	432	17	0
55	M5	477	0	540	45	0
55	Q8	480	0	549	95	0
56	1L	1627	0	836	40	0
57	3L	1624	0	827	68	0
58	11	4	0	0	0	0
58	13	148	0	0	0	0
58	14	407	0	0	0	0
58	16	13	0	0	0	0
58	1G	96	0	0	0	0
58	1H	520	0	0	0	0
58	1J	5	0	0	0	0
58	1K	2	0	0	0	0
58	21	2	0	0	0	0
58	25	1	0	0	0	0
58	29	4	0	0	0	0
58	2A	2	0	0	0	0
58	2I	1	0	0	0	0
58	2K	5	0	0	0	0
58	2L	3	0	0	0	0
58	3E	2	0	0	0	0
58	3K	1	0	0	0	0
58	3L	2	0	0	0	0
58	41	2	0	0	0	0
58	49	1	0	0	0	0
58	4K	1	0	0	0	0
58	55	1	0	0	0	0
58	5E	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	5I	2	0	0	0	0
58	78	1	0	0	0	0
58	7A	1	0	0	0	0
58	88	2	0	0	0	0
58	98	2	0	0	0	0
58	C5	1	0	0	0	0
58	G8	1	0	0	0	0
58	I8	1	0	0	0	0
58	J5	1	0	0	0	0
58	L8	1	0	0	0	0
58	P8	1	0	0	0	0
59	13	42	0	45	1	0
59	1G	42	0	45	2	0
60	32	1	0	0	0	0
60	3E	1	0	0	0	0
60	5A	1	0	0	0	0
60	5I	1	0	0	0	0
60	C5	1	0	0	0	0
60	G8	1	0	0	0	0
61	11	13	0	0	3	0
61	13	197	0	0	29	0
61	14	598	0	0	153	0
61	16	21	0	0	4	0
61	19	13	0	0	3	0
61	1G	82	0	0	18	0
61	1H	999	0	0	280	0
61	1I	2	0	0	1	0
61	1K	5	0	0	0	0
61	21	4	0	0	0	0
61	2K	6	0	0	0	0
61	31	4	0	0	0	0
61	35	1	0	0	0	0
61	39	7	0	0	1	0
61	3E	3	0	0	0	0
61	3I	1	0	0	0	0
61	3K	1	0	0	0	0
61	3L	6	0	0	1	0
61	4K	2	0	0	0	0
61	58	2	0	0	0	0
61	5I	2	0	0	1	0
61	6I	1	0	0	0	0
61	78	5	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
61	7A	1	0	0	0	0
61	7I	1	0	0	0	0
61	85	1	0	0	0	0
61	8E	2	0	0	0	0
61	A5	1	0	0	0	0
61	B8	1	0	0	0	0
61	BA	1	0	0	0	0
61	C8	3	0	0	0	0
61	D8	1	0	0	0	0
61	G5	1	0	0	0	0
61	G8	4	0	0	1	0
61	I8	7	0	0	0	0
61	L5	1	0	0	0	0
61	L8	1	0	0	1	0
61	P8	1	0	0	0	0
61	Q8	2	0	0	0	0
All	All	300252	0	200448	8632	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 18.

All (8632) 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)
26:14:2701:C:H3'	26:14:2702:U:H5''	1.27	1.15
26:1H:2592:G:OP1	61:1H:4524:HOH:O	1.68	1.10
40:B8:50:ILE:HD11	40:B8:102:ILE:HD11	1.32	1.10
26:1H:1614:A:OP1	61:1H:3947:HOH:O	1.70	1.09
26:1H:945:A:OP1	61:1H:4167:HOH:O	1.70	1.09
26:1H:1315:C:OP2	61:1H:3970:HOH:O	1.72	1.08
26:1H:2006:C:OP1	61:1H:4447:HOH:O	1.72	1.08
26:1H:2615:U:OP1	61:1H:3611:HOH:O	1.73	1.07
41:C8:61:TRP:HB3	41:C8:95:LEU:HD21	1.28	1.07
26:14:1783:A:OP2	61:14:4021:HOH:O	1.72	1.07
26:1H:567:A:OP1	61:1H:3601:HOH:O	1.72	1.07
26:1H:810:U:OP1	61:1H:3712:HOH:O	1.72	1.06
1:1G:963:G:H21	10:1A:55:LYS:HE3	1.16	1.05
41:C8:96:ALA:HB3	41:C8:98:LEU:H	1.12	1.04
26:1H:730:C:OP2	61:1H:3685:HOH:O	1.73	1.04
26:14:1774:C:OP1	61:14:3560:HOH:O	1.75	1.04
26:1H:1013:C:OP2	61:1H:3774:HOH:O	1.75	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2685:G:N7	61:1H:4134:HOH:O	1.90	1.03
26:1H:1997:G:OP2	61:1H:4031:HOH:O	1.77	1.03
26:1H:71:A:H2	44:F8:31:HIS:HE1	1.06	1.01
26:1H:450:G:OP2	61:1H:3918:HOH:O	1.77	1.01
36:35:62:LEU:HD12	55:M5:25:MET:HB2	1.41	1.01
26:14:1614:A:OP1	61:14:3507:HOH:O	1.77	1.01
26:1H:1774:C:OP1	61:1H:3800:HOH:O	1.77	1.01
26:1H:2431:U:OP2	61:1H:3934:HOH:O	1.80	1.00
26:1H:763:G:OP1	61:1H:3681:HOH:O	1.79	1.00
26:14:662:G:H5'	36:35:15:ARG:HA	1.41	1.00
26:14:785:G:OP2	61:14:4038:HOH:O	1.80	0.99
26:14:1327:C:OP2	61:14:3655:HOH:O	1.79	0.99
26:1H:1647:G:OP2	61:1H:3955:HOH:O	1.79	0.99
26:1H:1665:A:OP2	61:1H:4466:HOH:O	1.79	0.99
26:1H:2248:C:OP2	61:1H:3722:HOH:O	1.81	0.98
2:12:185:ILE:HG22	2:12:199:TYR:HB2	1.46	0.98
36:35:65:ARG:HB2	36:35:65:ARG:HH11	1.30	0.97
27:1J:80:U:H2'	27:1J:81:G:H21	1.27	0.97
26:1H:1968:G:OP1	61:1H:4520:HOH:O	1.80	0.97
8:7E:41:ARG:NH2	8:7E:123:GLU:OE1	1.97	0.97
26:14:958:U:OP2	37:45:14:ARG:NH1	1.96	0.97
26:1H:1332:G:OP1	61:1H:3973:HOH:O	1.81	0.96
34:15:47:ALA:HB2	34:15:112:LEU:HD21	1.47	0.96
26:1H:1771:C:HO2'	26:1H:1786:A:H8	1.06	0.96
39:A8:78:LEU:HD12	39:A8:108:GLY:HA2	1.47	0.96
26:14:1533:C:H42	26:14:1538:G:H1	1.11	0.96
26:14:1616:A:O2'	61:14:3642:HOH:O	1.83	0.96
26:14:1899:G:H21	26:14:1902:C:N4	1.64	0.96
26:1H:2588:G:OP2	61:1H:4453:HOH:O	1.82	0.96
2:12:42:ILE:HD11	2:12:202:PRO:HB2	1.48	0.95
57:3L:1:G:H1	57:3L:72:C:H42	1.05	0.95
26:1H:1639:U:OP1	61:1H:3671:HOH:O	1.82	0.95
55:Q8:27:THR:HG22	55:Q8:29:LYS:HB3	1.48	0.95
1:13:1502:A:H2	1:13:1505:G:H1	1.12	0.95
26:1H:1689:A:H62	26:1H:1698:A:H2	1.14	0.94
26:1H:2576:G:OP1	61:1H:3809:HOH:O	1.85	0.94
26:14:2593:U:O4	61:14:3600:HOH:O	1.83	0.94
26:14:2598:A:OP1	61:14:3584:HOH:O	1.85	0.94
26:1H:1613:G:N7	61:1H:4579:HOH:O	1.99	0.94
49:K8:47:ASN:HB2	49:K8:50:ILE:HD11	1.50	0.94
26:14:1890:A:OP2	61:14:3967:HOH:O	1.85	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2588:G:OP2	61:14:3593:HOH:O	1.85	0.94
26:1H:1187:G:OP2	61:1H:3899:HOH:O	1.83	0.94
1:1G:1248:A:N3	9:82:70:LYS:NZ	2.16	0.94
1:1G:1508:G:OP1	61:1G:1760:HOH:O	1.86	0.94
1:1G:588:G:H1	1:1G:651:C:H42	1.14	0.93
26:1H:574:C:OP2	61:1H:4043:HOH:O	1.87	0.93
30:31:29:ASN:H	30:31:112:MET:HE1	1.32	0.93
26:1H:1496:A:H8	26:1H:1577:C:HO2'	1.02	0.93
1:1G:961:U:O2	1:1G:1201:A:N6	2.02	0.93
26:1H:607:U:H3	26:1H:621:A:H2	1.14	0.92
26:1H:2588:G:OP1	61:1H:3943:HOH:O	1.85	0.92
26:14:1771:C:HO2'	26:14:1786:A:H8	1.00	0.92
26:1H:155:C:H42	26:1H:171:G:H1	1.13	0.92
26:1H:1658:C:OP1	61:1H:3700:HOH:O	1.86	0.92
26:1H:2419:U:H5'	53:O8:23:THR:HG21	1.51	0.92
26:1H:2781:A:H5''	26:1H:2782:G:H5'	1.50	0.92
26:14:586:A:OP2	61:14:4026:HOH:O	1.87	0.92
26:14:1839:G:OP2	61:14:4001:HOH:O	1.85	0.92
26:1H:1265:A:OP2	61:1H:3611:HOH:O	1.87	0.92
26:1H:1728:G:H8	26:1H:1732:A:H62	1.18	0.92
26:1H:585:G:OP2	61:1H:3853:HOH:O	1.88	0.91
26:1H:2597:G:O3'	61:1H:3647:HOH:O	1.88	0.91
26:1H:1623:G:O6	61:1H:3965:HOH:O	1.89	0.91
26:1H:566:U:OP1	36:78:29:LYS:NZ	2.02	0.91
26:1H:805:G:OP1	61:1H:4480:HOH:O	1.88	0.91
26:14:1664:A:OP2	61:14:3613:HOH:O	1.88	0.91
42:95:85:LYS:HG3	42:95:87:HIS:H	1.35	0.91
26:1H:1828:G:OP2	61:1H:4459:HOH:O	1.87	0.91
61:1H:3700:HOH:O	29:21:135:HIS:NE2	2.02	0.91
26:14:2134:A:O2'	26:14:2159:G:N2	2.04	0.91
41:85:90:VAL:HG22	42:95:39:LEU:HB3	1.51	0.91
1:13:1110:A:OP2	61:13:1921:HOH:O	1.86	0.91
2:1E:87:ARG:NH2	2:1E:220:ASP:OD1	2.04	0.91
26:1H:741:G:OP1	61:1H:3997:HOH:O	1.87	0.90
26:1H:571:A:OP2	61:1H:3894:HOH:O	1.87	0.90
1:13:1178:G:H5''	9:8E:93:ARG:HH22	1.35	0.90
11:2A:29:ILE:HG22	11:2A:44:SER:HB2	1.53	0.90
24:3K:22:G:N7	24:3K:46:G:N2	2.19	0.90
1:1G:1157:A:H61	1:1G:1178:G:H21	1.14	0.90
30:39:25:PRO:HB2	30:39:27:GLU:H	1.37	0.90
24:3K:5:G:N2	24:3K:68:C:N3	2.20	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1153:C:OP2	61:1H:4023:HOH:O	1.88	0.90
26:1H:2354:G:N7	61:1H:4565:HOH:O	2.03	0.90
4:32:26:CYS:HA	4:32:31:CYS:HB3	1.52	0.90
26:14:2588:G:OP1	61:14:3591:HOH:O	1.90	0.89
26:1H:2074:U:OP1	61:1H:3680:HOH:O	1.90	0.89
1:13:664:G:H22	1:13:741:G:H1	1.13	0.89
26:14:2499:C:OP1	61:14:3703:HOH:O	1.89	0.89
26:1H:1417:C:OP2	61:1H:4059:HOH:O	1.89	0.89
26:14:574:C:OP2	61:14:3659:HOH:O	1.91	0.89
26:1H:120:U:OP2	61:1H:4182:HOH:O	1.89	0.89
26:14:397:G:N7	61:14:3977:HOH:O	2.06	0.89
26:1H:2582:G:OP2	61:1H:3822:HOH:O	1.90	0.88
26:1H:1601:G:N7	61:1H:4048:HOH:O	2.07	0.88
26:1H:1828:G:OP1	61:1H:4514:HOH:O	1.90	0.88
10:1I:77:PRO:HB2	10:1I:79:ARG:HH12	1.35	0.88
57:3L:5:G:N2	57:3L:68:C:N3	2.20	0.88
26:1H:946:G:OP2	61:1H:4162:HOH:O	1.91	0.88
26:1H:1386:C:H2'	26:1H:1387:C:H6	1.38	0.88
26:14:1496:A:H8	26:14:1577:C:HO2'	0.93	0.88
26:14:2597:G:O3'	61:14:3585:HOH:O	1.92	0.88
2:1E:111:ARG:HG2	2:1E:111:ARG:HH11	1.37	0.88
26:1H:576:U:OP1	61:1H:4548:HOH:O	1.91	0.88
17:8I:67:LYS:HA	17:8I:70:ARG:HH12	1.38	0.87
26:1H:49:A:N7	26:1H:120:U:H5	1.72	0.87
26:1H:2468:G:H5''	37:88:120:ILE:HD12	1.56	0.87
40:B8:57:PHE:O	40:B8:58:ASN:ND2	2.08	0.87
26:1H:1783:A:OP1	61:1H:4506:HOH:O	1.91	0.87
33:69:81:VAL:HG23	33:69:143:SER:HB2	1.57	0.87
29:21:57:LYS:HG3	29:21:59:VAL:HG12	1.57	0.87
55:Q8:57:ARG:HB3	55:Q8:59:LYS:HE2	1.57	0.87
26:1H:733:G:OP2	61:1H:4112:HOH:O	1.92	0.87
26:1H:987:G:OP2	61:1H:4019:HOH:O	1.91	0.87
26:14:676:A:H8	26:14:2069:G:H21	1.22	0.87
26:14:1828:G:OP1	61:14:3570:HOH:O	1.92	0.87
45:C5:97:ARG:NH1	45:C5:104:GLY:O	2.08	0.87
26:1H:780:G:H21	26:1H:783:A:H62	1.18	0.87
26:14:567:A:OP1	61:14:3679:HOH:O	1.91	0.87
26:1H:1664:A:OP2	61:1H:4129:HOH:O	1.93	0.86
40:75:1:MET:HB3	40:75:5:ALA:HB3	1.56	0.86
26:1H:1525:G:H2'	26:1H:1526:G:H8	1.38	0.86
30:31:9:ILE:HD13	30:31:123:LEU:HG	1.57	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:E5:49:LYS:HG3	47:E5:80:HIS:HB3	1.57	0.86
1:13:1029:G:H1'	1:13:1032(A):G:H22	1.38	0.86
19:AI:41:VAL:HG21	19:AI:67:VAL:HG12	1.57	0.86
33:61:7:GLU:HA	33:61:15:VAL:HG22	1.55	0.86
13:4A:13:LYS:HA	13:4A:44:ARG:HH11	1.38	0.86
26:14:2074:U:OP1	61:14:3503:HOH:O	1.92	0.86
26:1H:2406:U:OP1	61:1H:3729:HOH:O	1.94	0.86
26:1H:2608:G:N7	61:1H:3823:HOH:O	2.08	0.86
26:1H:2432:A:OP2	61:1H:3931:HOH:O	1.92	0.86
33:69:75:LEU:HD22	33:69:76:THR:H	1.39	0.86
26:1H:973:A:OP2	61:1H:3890:HOH:O	1.94	0.86
27:16:100:G:OP2	61:16:317:HOH:O	1.91	0.86
1:13:785:G:N7	61:13:1934:HOH:O	2.09	0.86
26:1H:270(X):G:O6	61:1H:4468:HOH:O	1.92	0.86
41:C8:94:ASN:C	41:C8:96:ALA:HB2	1.95	0.86
26:14:833:U:O2	36:35:55:ARG:NH1	2.09	0.86
41:85:92:ARG:HD3	41:85:94:ASN:HB3	1.57	0.86
26:14:1782:C:OP1	61:14:4021:HOH:O	1.94	0.86
26:1H:1009:A:OP2	34:58:37:LYS:NZ	2.09	0.85
35:68:88:ASN:HD21	35:68:90:GLN:HB2	1.39	0.85
26:1H:734:A:OP2	61:1H:4491:HOH:O	1.93	0.85
10:1I:61:GLU:OE2	14:5I:45:ARG:NH1	2.10	0.85
34:58:56:ASN:N	34:58:125:GLY:O	2.08	0.85
26:14:2062:A:OP1	61:14:3788:HOH:O	1.94	0.85
36:35:39:LYS:HD2	36:35:45:LEU:HD21	1.56	0.85
26:1H:1728:G:H3'	26:1H:1729:A:H5''	1.59	0.85
26:14:2836:U:H2'	26:14:2837:G:C8	2.11	0.85
1:13:877:C:OP1	8:7E:88:LYS:NZ	2.08	0.85
26:1H:2017:U:OP2	61:1H:4475:HOH:O	1.94	0.85
26:1H:2838:G:N7	61:1H:4288:HOH:O	2.09	0.85
55:Q8:53:PRO:HB3	55:Q8:56:GLU:HG3	1.57	0.85
26:14:571:A:OP2	61:14:3695:HOH:O	1.94	0.85
26:14:2293:C:H5''	39:65:89:ARG:HH12	1.40	0.85
38:55:100:LEU:HD21	38:55:113:LEU:HD13	1.59	0.85
52:N8:50:GLY:H	52:N8:56:LYS:HG3	1.41	0.85
24:3K:76:A:H8	26:1H:2394:C:H42	1.19	0.85
15:6A:82:ILE:HD11	15:6A:88:ARG:HB2	1.58	0.85
26:1H:1313:U:OP1	61:1H:3982:HOH:O	1.95	0.84
26:1H:1332:G:H5'	26:1H:1332:G:C8	2.12	0.84
37:88:51:ARG:HH12	37:88:52:VAL:HG23	1.42	0.84
26:14:1647:G:OP2	61:14:3639:HOH:O	1.93	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:8:GLU:OE1	5:4E:63:ARG:NH2	2.09	0.84
1:13:505:G:N7	61:13:1850:HOH:O	2.11	0.84
26:1H:71:A:H2	44:F8:31:HIS:CE1	1.94	0.84
26:1H:2656:U:H3	26:1H:2665:A:H2	1.25	0.84
26:14:273(D):C:N4	26:14:363(B):G:O6	2.10	0.84
26:1H:1784:A:OP2	61:1H:4505:HOH:O	1.93	0.84
55:Q8:34:TRP:CH2	55:Q8:39:LYS:HB2	2.12	0.84
1:1G:998:G:N2	1:1G:1043:C:N3	2.25	0.84
26:14:123:G:N7	61:14:4047:HOH:O	2.10	0.84
30:39:188:ARG:HA	36:35:3:LEU:HD11	1.60	0.84
26:1H:450:G:O6	61:1H:3920:HOH:O	1.96	0.84
45:C5:87:LYS:HG2	45:C5:88:LYS:H	1.43	0.84
26:1H:2126:A:N6	26:1H:2163:C:O2	2.10	0.84
26:14:1757:U:H3	26:14:1762:A:H2	1.23	0.84
1:1G:589:C:H42	1:1G:650:G:H1	1.23	0.84
59:1G:1697:PAR:O44	59:1G:1697:PAR:N64	2.10	0.84
26:14:800:A:OP1	61:14:3727:HOH:O	1.96	0.84
26:14:1048:A:N6	26:14:1112:G:O2'	2.09	0.84
12:3A:47:LYS:HG2	12:3A:48:PRO:HD2	1.58	0.83
26:14:399:G:OP2	61:14:3828:HOH:O	1.96	0.83
26:1H:533:G:O6	61:1H:4555:HOH:O	1.94	0.83
1:1G:576:G:N2	1:1G:759:A:OP1	2.11	0.83
26:14:593:G:H4'	55:M5:60:LEU:HD22	1.57	0.83
27:1J:15:A:H5'	27:1J:16:G:H8	1.41	0.83
27:1J:18:G:N2	27:1J:65:C:N3	2.27	0.83
29:21:29:GLY:H	29:21:51:PHE:HE1	1.24	0.83
36:35:19:VAL:HG13	36:35:21:ARG:H	1.43	0.83
16:7I:53:VAL:HG13	16:7I:79:VAL:HG22	1.60	0.83
26:1H:1798:U:H5'	28:11:259:THR:HG22	1.59	0.83
26:1H:2033:A:OP1	61:1H:4101:HOH:O	1.94	0.83
30:39:40:GLN:HE22	30:39:182:ASN:HB2	1.43	0.83
26:14:2777:G:H5''	26:14:2778:A:H5'	1.59	0.83
26:14:2782:G:OP2	61:14:3879:HOH:O	1.97	0.83
26:1H:1267:U:O3'	61:1H:4450:HOH:O	1.96	0.83
26:1H:2518:A:OP2	61:1H:4105:HOH:O	1.95	0.83
56:1L:74:C:N4	26:14:2554:U:O2	2.11	0.83
26:14:2304:G:N2	26:14:2312:U:O4	2.11	0.82
1:1G:1502:A:H2	1:1G:1505:G:H1	1.27	0.82
9:82:51:ARG:HG2	9:82:56:LEU:HD13	1.60	0.82
57:3L:5:G:H1	57:3L:68:C:H42	1.24	0.82
26:1H:885:C:O2	26:1H:890:A:N6	2.11	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:5A:21:TYR:OH	14:5A:23:ARG:NH2	2.11	0.82
26:14:152:G:H1	26:14:174:C:H42	1.25	0.82
26:14:801:G:OP2	61:14:3840:HOH:O	1.97	0.82
27:1J:14:U:O2'	27:1J:107:U:O2'	1.96	0.82
23:2K:47:7MG:H81	23:2K:48:U:H5	1.43	0.82
45:G8:82:PRO:HG3	45:G8:97:ARG:HG3	1.61	0.82
46:H8:72:ARG:NH2	46:H8:97:GLU:O	2.12	0.82
1:1G:589:C:N3	1:1G:650:G:N2	2.26	0.82
1:1G:963:G:N2	10:1A:55:LYS:HE3	1.94	0.82
1:13:446:G:H1	1:13:488:C:H42	1.24	0.82
41:C8:96:ALA:HB3	41:C8:98:LEU:N	1.93	0.82
26:1H:882:G:N2	26:1H:895:U:O4	2.13	0.82
26:1H:2533:A:OP2	61:1H:4383:HOH:O	1.96	0.82
26:14:1187:G:OP2	61:14:3684:HOH:O	1.98	0.82
28:11:85:ASP:OD2	28:11:88:ARG:NH1	2.12	0.81
26:1H:576:U:O4	61:1H:4039:HOH:O	1.98	0.81
48:J8:92:LYS:HA	48:J8:95:LEU:HB2	1.62	0.81
1:1G:1014:A:H2'	1:1G:1015:A:C8	2.15	0.81
21:1B:8:THR:HG22	21:1B:11:GLY:H	1.44	0.81
57:3L:18:G:H22	57:3L:55:PSU:H1'	1.45	0.81
26:1H:731:C:H5''	61:1H:3840:HOH:O	1.80	0.81
42:D8:1:MET:HG2	42:D8:43:GLU:HB3	1.62	0.81
47:I8:53:MET:HG3	47:I8:59:LEU:HD23	1.61	0.81
26:14:1342:A:H2	26:14:1602:U:H3	1.25	0.81
51:I5:22:ILE:HG12	51:I5:23:GLU:H	1.45	0.81
26:14:800:A:OP1	61:14:3730:HOH:O	1.98	0.81
12:3A:41:ARG:HD2	12:3A:42:THR:H	1.45	0.81
26:14:635:C:O2'	26:14:639:U:OP1	1.98	0.81
32:59:137:ASP:HB3	32:59:140:LYS:HB2	1.61	0.81
26:1H:624:C:OP1	61:1H:4329:HOH:O	1.98	0.81
29:21:116:VAL:HG11	29:21:138:PRO:HB3	1.61	0.81
1:1G:1256:A:OP2	3:22:26:LYS:NZ	2.13	0.81
26:1H:67:U:H3	26:1H:74:A:H2	1.29	0.81
26:1H:620:G:H4'	26:1H:621:A:H5''	1.63	0.81
26:14:907:U:O2'	37:45:101:ARG:NH2	2.11	0.81
32:59:119:GLU:O	32:59:140:LYS:NZ	2.14	0.81
15:6I:17:ARG:HD3	15:6I:26:GLU:HG3	1.63	0.81
38:98:51:LEU:HD22	38:98:66:VAL:HG13	1.63	0.81
26:14:2873:A:H8	38:55:6:SER:H	1.24	0.81
27:1J:38:C:H42	27:1J:44:G:H1	1.29	0.81
1:13:1178:G:OP2	9:8E:93:ARG:NH2	2.13	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2069:G:O3'	61:1H:4177:HOH:O	1.99	0.81
26:1H:2249:U:O4	61:1H:3722:HOH:O	1.98	0.81
28:19:238:GLY:O	61:19:311:HOH:O	1.98	0.81
31:49:40:ASN:HB2	31:49:91:ARG:HG3	1.62	0.80
1:13:1240:U:OP2	7:6E:116:ALA:N	2.13	0.80
26:1H:2849:U:O4	40:B8:23:ARG:NH2	2.15	0.80
26:14:566:U:O3'	61:14:3679:HOH:O	1.98	0.80
26:1H:446:G:OP2	61:1H:3695:HOH:O	1.98	0.80
26:1H:654(E):C:N3	26:1H:654(P):G:N2	2.28	0.80
1:1G:1154:G:H2'	1:1G:1155:G:H8	1.45	0.80
1:13:1008:C:N4	1:13:1021:G:O6	2.13	0.80
26:1H:880:G:H1	26:1H:897:C:H42	1.29	0.80
26:1H:2308:G:H1	26:1H:2311:A:H2	1.29	0.80
2:12:163:PHE:HD2	2:12:185:ILE:HG13	1.46	0.80
26:14:1141:U:OP2	34:15:63:THR:OG1	1.99	0.80
43:E8:1:MET:HE3	43:E8:62:HIS:HB3	1.61	0.80
1:1G:1506:U:O2'	61:1G:1763:HOH:O	1.98	0.80
43:A5:92:ARG:NH1	43:A5:94:ASP:OD1	2.14	0.80
26:14:2357:U:OP1	47:E5:20:ARG:NH1	2.13	0.80
5:4E:143:ARG:NE	8:7E:77:GLU:OE1	2.13	0.80
15:6A:87:ILE:HG22	15:6A:88:ARG:H	1.46	0.80
26:14:71:A:H2	44:B5:31:HIS:HE2	1.26	0.80
1:13:509:A:OP2	61:13:1950:HOH:O	1.99	0.80
1:13:1305:G:N2	1:13:1331:G:H2'	1.96	0.80
26:1H:999:U:OP2	61:1H:4022:HOH:O	1.99	0.80
26:1H:2589:A:OP1	61:1H:4575:HOH:O	1.99	0.80
2:12:12:GLU:HB3	2:12:213:LEU:HD22	1.64	0.80
9:82:112:LYS:HA	9:82:119:ALA:HB2	1.62	0.80
30:39:133:ASN:HA	30:39:162:LEU:HD23	1.64	0.80
1:13:972:C:OP1	61:13:1822:HOH:O	1.98	0.79
26:1H:862:G:OP2	61:1H:4015:HOH:O	2.00	0.79
15:6A:17:ARG:HD3	15:6A:26:GLU:HG3	1.64	0.79
27:1J:15:A:H3'	27:1J:16:G:H5'	1.64	0.79
26:1H:674:G:H1'	30:31:74:ARG:HD3	1.63	0.79
4:32:14:ARG:HH11	4:32:14:ARG:HG3	1.47	0.79
44:B5:65:ARG:HB2	44:B5:70:LEU:HB3	1.64	0.79
45:C5:19:LYS:HG3	45:C5:20:TYR:H	1.47	0.79
1:13:1353:G:OP1	21:1F:10:ARG:NH2	2.15	0.79
26:1H:1678:G:N2	26:1H:1989:G:H22	1.81	0.79
56:1L:74:C:H1'	56:1L:75:C:H5'	1.64	0.79
23:2L:8:4SU:O2	23:2L:14:A:N6	2.15	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2392:A:H2	26:14:2424:C:H42	1.29	0.79
18:9I:38:GLU:OE1	18:9I:41:LYS:NZ	2.15	0.79
26:1H:422:A:OP2	61:1H:4488:HOH:O	2.01	0.79
40:B8:56:GLY:O	40:B8:59:THR:HG22	1.82	0.79
11:2A:85:ARG:HE	11:2A:111:ASP:HB3	1.47	0.79
29:29:111:ARG:HA	38:55:2:ARG:HH12	1.47	0.79
1:13:1129:C:H4'	1:13:1130:A:H5'	1.65	0.79
30:31:66:PRO:O	30:31:67:GLN:HB3	1.82	0.79
1:1G:768:A:OP2	61:1G:1703:HOH:O	2.00	0.79
26:14:2137:C:N3	26:14:2155:G:N1	2.30	0.79
8:7E:87:SER:HB2	8:7E:93:VAL:HB	1.63	0.79
16:7I:5:ARG:HE	16:7I:22:THR:HG21	1.48	0.79
26:1H:370:G:OP2	61:1H:4486:HOH:O	1.99	0.79
26:1H:1064:C:N4	26:1H:1070:A:OP1	2.16	0.79
36:78:47:ASP:OD2	36:78:50:ARG:NH2	2.15	0.79
36:78:138:LEU:HD12	36:78:144:GLU:HG3	1.63	0.79
55:Q8:47:LYS:HA	55:Q8:47:LYS:NZ	1.97	0.79
26:14:898:C:H3'	26:14:899:A:H5''	1.64	0.79
40:B8:6:LEU:HA	40:B8:9:LEU:HB2	1.63	0.79
1:1G:406:G:H21	4:32:119:GLN:HE22	1.30	0.79
14:5A:45:ARG:O	14:5A:49:HIS:ND1	2.15	0.79
1:13:975:A:H4'	1:13:976:G:H5''	1.64	0.79
26:1H:259:G:H21	26:1H:621:A:H8	1.28	0.79
1:1G:438:G:H4'	4:32:123:HIS:HD2	1.47	0.79
26:1H:2864:G:N7	61:1H:4191:HOH:O	2.14	0.79
26:14:400:G:O6	61:14:3831:HOH:O	2.00	0.79
26:1H:2318:G:H22	39:A8:2:ALA:N	1.81	0.79
35:25:24:VAL:HA	35:25:39:ILE:HG22	1.63	0.79
44:B5:36:LYS:HG2	44:B5:54:VAL:HB	1.65	0.79
1:13:963:G:H21	10:1I:55:LYS:NZ	1.81	0.78
26:1H:2830:G:N7	61:1H:4297:HOH:O	2.16	0.78
26:1H:879:G:O6	26:1H:898:C:N4	2.15	0.78
49:K8:18:PRO:HA	49:K8:21:LEU:HB2	1.64	0.78
26:1H:1153:C:OP2	61:1H:4024:HOH:O	2.00	0.78
26:1H:1332:G:N2	26:1H:1609:A:O2'	2.17	0.78
30:39:4:VAL:HA	30:39:19:GLU:HB3	1.65	0.78
1:13:396:G:O2'	1:13:398:C:OP1	2.00	0.78
26:1H:1010:A:OP2	61:1H:4208:HOH:O	2.02	0.78
26:14:1330:C:OP1	61:14:3757:HOH:O	2.00	0.78
26:14:2343:C:HO2'	26:14:2373:G:HO2'	1.30	0.78
26:14:1168:G:O6	26:14:1181:C:N4	2.16	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:15:33:LEU:HD12	34:15:38:HIS:HD2	1.48	0.78
26:1H:71:A:C2	44:F8:31:HIS:HE1	1.97	0.78
39:A8:48:LEU:HD23	39:A8:82:ILE:HD11	1.66	0.78
26:14:1249:U:OP1	61:14:4027:HOH:O	2.01	0.78
26:14:1780:A:OP1	61:14:4022:HOH:O	2.01	0.78
30:39:66:PRO:O	30:39:67:GLN:HB3	1.82	0.78
26:1H:1143:A:OP2	61:1H:3778:HOH:O	2.02	0.78
29:21:13:ARG:HG2	29:21:13:ARG:HH11	1.49	0.78
45:G8:87:LYS:H	45:G8:94:LYS:HG2	1.47	0.78
26:14:309:G:H4'	45:C5:18:GLY:HA3	1.66	0.78
26:1H:1653:G:H3'	38:98:2:ARG:HG3	1.66	0.78
26:14:2689:U:OP2	26:14:2719:G:N2	2.16	0.78
27:1J:18:G:H1	27:1J:65:C:H42	1.29	0.78
19:AI:40:ILE:HG23	19:AI:41:VAL:HG13	1.64	0.78
26:1H:33:U:H4'	26:1H:34:C:OP1	1.83	0.78
26:1H:818:G:OP2	61:1H:4501:HOH:O	2.01	0.78
3:22:91:LEU:HB2	3:22:99:VAL:HG11	1.64	0.78
26:14:450:G:OP2	61:14:3734:HOH:O	2.00	0.78
26:1H:751:A:P	61:1H:3948:HOH:O	2.42	0.78
1:13:1122:U:O4	1:13:1123:A:N6	2.17	0.77
12:3A:60:LEU:HB2	12:3A:64:TYR:HB2	1.65	0.77
26:14:2028:U:O4	61:14:4058:HOH:O	1.98	0.77
26:1H:800:A:OP1	61:1H:3642:HOH:O	2.00	0.77
29:21:128:SER:OG	29:21:129:HIS:N	2.12	0.77
55:Q8:39:LYS:O	55:Q8:40:GLU:HB3	1.82	0.77
2:1E:15:VAL:HG21	2:1E:209:ARG:HB3	1.66	0.77
24:3K:72:C:H3'	24:3K:73:A:H5''	1.65	0.77
1:13:187:C:O2	1:13:191(A):G:N1	2.18	0.77
4:3E:30:LYS:HB2	4:3E:35:ARG:HE	1.49	0.77
26:1H:302:C:H2'	26:1H:303:U:H6	1.48	0.77
9:82:10:ARG:HD2	9:82:105:ASP:HB3	1.66	0.77
26:1H:860:U:H5	26:1H:917:A:C2	2.02	0.77
1:1G:1298:C:OP2	7:62:114:ARG:NH2	2.18	0.77
1:1G:1305:G:H22	1:1G:1331:G:H2'	1.49	0.77
29:21:105:THR:HG22	29:21:106:GLY:H	1.49	0.77
31:41:64:THR:HG22	31:41:66:GLN:H	1.50	0.77
26:14:2327:A:H2'	26:14:2328:A:C8	2.19	0.77
36:35:14:LYS:O	36:35:16:ARG:N	2.17	0.77
42:95:85:LYS:HD2	42:95:86:GLY:H	1.48	0.77
1:13:413:G:O2'	1:13:428:G:N2	2.16	0.77
10:1I:61:GLU:OE1	14:5I:58:LYS:NZ	2.17	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1970:A:OP2	61:14:3573:HOH:O	2.02	0.77
38:98:33:ARG:HG3	38:98:115:GLU:HB3	1.67	0.77
46:H8:62:PRO:C	46:H8:64:GLY:HA2	2.05	0.77
1:1G:286:G:N7	61:1G:1742:HOH:O	2.18	0.77
26:14:517:C:OP1	52:J5:16:ARG:NH2	2.18	0.77
26:14:2272:U:O4	61:14:3909:HOH:O	2.03	0.77
31:49:109:VAL:HG11	31:49:142:PRO:HG3	1.67	0.77
41:85:28:ARG:NH1	41:85:38:THR:OG1	2.17	0.77
26:1H:2096:U:H3	26:1H:2193:G:H1	1.33	0.77
37:88:5:ARG:H	37:88:5:ARG:HD3	1.50	0.77
2:12:105:PHE:HA	2:12:108:ILE:HB	1.65	0.77
26:14:1962:C:O2'	26:14:1964:G:OP2	2.01	0.77
11:2I:99:GLN:HA	11:2I:105:VAL:HG11	1.67	0.77
26:1H:1664:A:OP1	61:1H:4464:HOH:O	2.01	0.77
26:1H:2447:G:OP2	61:1H:3865:HOH:O	2.02	0.77
26:1H:2789:C:O2	26:1H:2894:G:N2	2.14	0.77
9:82:28:VAL:HG22	9:82:63:ILE:HB	1.65	0.77
26:14:910:A:H62	37:45:12:GLN:HA	1.48	0.77
40:75:50:ILE:HD11	40:75:102:ILE:HD11	1.66	0.77
11:2I:79:SER:OG	11:2I:106:LYS:NZ	2.17	0.76
26:1H:409:C:OP1	61:1H:3749:HOH:O	2.03	0.76
26:1H:625:G:N7	36:78:107:LYS:NZ	2.33	0.76
15:6A:16:ALA:HB1	15:6A:21:ASP:HB3	1.65	0.76
26:1H:217:G:OP2	61:1H:3763:HOH:O	2.02	0.76
26:1H:607:U:OP1	30:31:102:PRO:HA	1.85	0.76
26:1H:1332:G:H5''	61:1H:3971:HOH:O	1.84	0.76
1:1G:411:A:H62	1:1G:413:G:H21	1.32	0.76
19:AA:39:THR:OG1	19:AA:70:LYS:NZ	2.17	0.76
26:14:1359:A:H62	26:14:1372:U:H3	1.32	0.76
29:29:12:THR:HG22	40:75:58:ASN:HD21	1.49	0.76
1:13:510:A:OP2	4:3E:49:ARG:NH2	2.18	0.76
26:1H:1226:G:OP1	42:D8:69:LYS:NZ	2.16	0.76
7:62:113:GLU:HB2	7:62:119:ARG:HG2	1.66	0.76
26:14:2210:G:O5'	26:14:2211:G:N2	2.19	0.76
40:75:16:ARG:HH21	40:75:19:LEU:HD21	1.51	0.76
12:3I:126:LYS:HG3	12:3I:128:ALA:H	1.49	0.76
36:78:19:VAL:HG11	36:78:27:HIS:HB2	1.65	0.76
1:1G:1435:G:H2'	1:1G:1436:U:C6	2.21	0.76
10:1A:48:THR:HA	10:1A:62:HIS:HB3	1.65	0.76
44:B5:41:ASN:HA	44:B5:44:GLU:HB2	1.68	0.76
27:16:12:C:O2	47:I8:74:ARG:NH1	2.19	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:70:VAL:HG12	3:22:72:LYS:H	1.49	0.76
1:13:1004:A:O5'	1:13:1025:U:N3	2.17	0.76
48:J8:83:GLU:HG2	48:J8:85:LEU:H	1.48	0.76
1:1G:1002:G:H2'	1:1G:1003:G:H8	1.49	0.76
26:14:1729:A:H2'	26:14:1731:G:N2	2.01	0.76
28:19:37:LEU:HB2	28:19:38:LYS:HG2	1.66	0.76
32:59:89:ILE:HG21	32:59:130:ARG:HA	1.68	0.76
26:1H:2502:G:OP2	61:1H:3625:HOH:O	2.02	0.76
26:14:363:G:H2'	26:14:363(A):A:H8	1.49	0.76
2:12:87:ARG:HE	2:12:233:SER:HB3	1.49	0.76
26:14:372:G:OP2	48:F5:69:LYS:NZ	2.18	0.76
30:39:46:ARG:HG2	30:39:46:ARG:HH11	1.51	0.76
38:55:103:ARG:NH1	38:55:108:GLY:O	2.19	0.76
1:13:353:A:H8	1:13:353:A:H5'	1.50	0.76
39:A8:74:ALA:HB1	39:A8:108:GLY:HA3	1.67	0.76
1:1G:1503:A:N3	25:4L:13:A:N6	2.34	0.76
26:14:761:A:N7	61:14:4077:HOH:O	2.17	0.76
30:39:123:LEU:O	30:39:125:LEU:N	2.16	0.76
35:25:2:ILE:HD12	35:25:6:THR:HG21	1.66	0.76
1:13:398:C:OP2	61:13:1982:HOH:O	2.03	0.75
26:1H:226:G:H21	26:1H:228:A:H2	1.33	0.75
26:1H:311:A:OP2	61:1H:4542:HOH:O	2.04	0.75
26:1H:1828:G:OP1	61:1H:4516:HOH:O	2.05	0.75
33:61:110:ASP:HB2	33:61:112:LYS:H	1.51	0.75
1:1G:1126:U:H4'	1:1G:1127:G:C8	2.21	0.75
26:14:274:G:H2'	26:14:275:G:H4'	1.66	0.75
31:49:161:THR:HG22	31:49:163:ALA:H	1.51	0.75
33:69:73:GLU:HG3	33:69:136:VAL:HG23	1.68	0.75
13:4I:10:PRO:HB2	13:4I:18:ALA:HB1	1.69	0.75
20:BI:69:GLY:O	20:BI:73:HIS:NE2	2.19	0.75
26:1H:450:G:O6	61:1H:3922:HOH:O	2.03	0.75
1:1G:587:G:N2	1:1G:754:C:OP2	2.18	0.75
1:1G:631:G:H3'	1:1G:632:A:H8	1.51	0.75
28:19:246:PRO:HD2	28:19:255:LYS:HE2	1.69	0.75
23:2K:54:G:H2'	23:2K:55:5MU:H6	1.51	0.75
24:3K:6:G:N2	24:3K:67:C:O2	2.18	0.75
26:1H:330:A:HO2'	26:1H:331:A:H8	1.32	0.75
26:1H:732:C:OP2	61:1H:4116:HOH:O	2.03	0.75
26:14:780:G:H21	26:14:783:A:H62	1.34	0.75
26:14:2210:G:H3'	26:14:2211:G:C2	2.21	0.75
40:75:64:ARG:HB2	40:75:73:GLU:HG2	1.66	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:K5:28:ARG:O	53:K5:32:ASN:ND2	2.19	0.75
26:1H:574:C:OP1	61:1H:3803:HOH:O	2.04	0.75
26:14:2701:C:H3'	26:14:2702:U:C5'	2.14	0.75
35:25:10:VAL:HG12	35:25:19:ILE:HG12	1.67	0.75
1:1G:490:G:OP2	4:32:132:ARG:NH2	2.19	0.75
26:14:1043:C:N3	26:14:1112:G:N2	2.32	0.75
14:5I:6:LEU:HD13	14:5I:23:ARG:HH22	1.50	0.75
49:K8:30:ARG:HG3	49:K8:30:ARG:HH11	1.51	0.75
26:14:990:A:H5'	26:14:990:A:H8	1.52	0.75
27:16:102:G:N7	61:16:302:HOH:O	2.18	0.75
1:1G:979:C:H3'	1:1G:980:C:H5''	1.69	0.75
26:1H:2017:U:P	61:1H:4475:HOH:O	2.44	0.75
26:14:662:G:OP1	36:35:15:ARG:NH2	2.20	0.75
26:14:900:A:H3'	26:14:901:A:H8	1.52	0.75
26:1H:751:A:OP1	61:1H:3949:HOH:O	2.05	0.75
26:1H:2164:C:OP2	26:1H:2166:G:N2	2.20	0.75
26:14:1823:G:N7	61:14:3852:HOH:O	2.20	0.75
1:13:1007:C:H42	1:13:1022:G:H1	1.32	0.74
32:51:169:VAL:O	32:51:170:ARG:NE	2.20	0.74
1:13:201:C:H42	1:13:216:G:H1	1.33	0.74
23:2K:62:C:H2'	23:2K:63:C:H6	1.52	0.74
26:14:252:G:OP2	36:35:50:ARG:NH2	2.19	0.74
26:14:446:G:OP2	61:14:3824:HOH:O	2.04	0.74
28:19:93:ALA:HB3	28:19:105:ILE:HG22	1.70	0.74
37:45:31:ASP:H	37:45:107:ALA:HB2	1.52	0.74
26:1H:76:C:O2'	49:K8:62:THR:HG21	1.87	0.74
26:1H:1007:C:OP2	61:1H:4205:HOH:O	2.05	0.74
26:1H:1386:C:H2'	26:1H:1387:C:C6	2.21	0.74
41:C8:8:VAL:HG23	41:C8:11:ARG:HH21	1.52	0.74
55:Q8:46:ARG:HH11	55:Q8:46:ARG:HG2	1.52	0.74
1:13:376:G:H1	1:13:387:U:H3	1.35	0.74
26:1H:441:U:O2	30:31:46:ARG:NH2	2.20	0.74
26:1H:839:U:N3	26:1H:939:G:O6	2.18	0.74
26:14:2025:C:N4	61:14:3715:HOH:O	2.19	0.74
3:2E:21:ARG:NH2	3:2E:56:ASP:OD2	2.21	0.74
26:1H:142:G:H1'	44:F8:37:THR:HG21	1.70	0.74
26:1H:598:G:H5'	36:78:11:GLY:HA3	1.69	0.74
26:1H:1253:A:N7	61:1H:3712:HOH:O	2.20	0.74
26:1H:1478:G:H2'	26:1H:1479:G:H8	1.53	0.74
26:1H:1525:G:H2'	26:1H:1526:G:C8	2.22	0.74
26:1H:1778:U:H2'	26:1H:1784:A:N6	2.02	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2495:G:OP1	61:1H:4388:HOH:O	2.05	0.74
1:1G:976:G:N2	1:1G:1362(A):C:OP2	2.15	0.74
9:82:111:ARG:HB3	9:82:113:LYS:HE2	1.69	0.74
20:BA:89:ARG:NH1	20:BA:105:SER:O	2.19	0.74
26:14:617:G:OP1	30:39:40:GLN:NE2	2.19	0.74
29:29:81:ILE:HG22	29:29:82:ARG:H	1.52	0.74
30:39:103:LYS:HA	30:39:106:ARG:HG3	1.68	0.74
26:1H:376:C:OP2	61:1H:3750:HOH:O	2.04	0.74
26:1H:2850:A:OP1	61:1H:4190:HOH:O	2.05	0.74
39:A8:56:LEU:HB3	39:A8:58:LEU:HD21	1.68	0.74
1:1G:960:U:H3	1:1G:1225:A:H1'	1.53	0.74
26:1H:2583:G:OP1	61:1H:4423:HOH:O	2.05	0.74
46:H8:108:PRO:HB2	46:H8:112:ARG:HA	1.70	0.74
33:69:124:GLY:H	33:69:142:VAL:HG12	1.52	0.74
1:13:1009:G:N1	1:13:1020:U:O2	2.19	0.74
26:1H:229:A:H4'	26:1H:230:U:H5'	1.70	0.74
26:1H:993:G:OP1	41:C8:50:ARG:NH2	2.20	0.74
26:14:1582:C:HO2'	26:14:1586:A:H8	1.35	0.74
1:13:1423:G:OP1	35:68:49:ARG:NH2	2.21	0.74
1:13:1497:G:H2'	1:13:1498:U:H5'	1.69	0.74
20:BI:33:ILE:O	20:BI:37:SER:OG	2.06	0.74
26:1H:2503:A:OP1	61:1H:4545:HOH:O	2.04	0.74
41:C8:50:ARG:HH12	42:D8:72:VAL:HG12	1.51	0.74
26:14:1537:C:H2'	26:14:1538:G:C8	2.23	0.74
26:14:2685:G:O6	61:14:3617:HOH:O	2.06	0.74
36:35:55:ARG:HG2	36:35:56:SER:H	1.51	0.74
1:13:1177:G:OP1	1:13:1177:G:H4'	1.86	0.74
1:13:1292:U:OP2	7:6E:41:ARG:NH2	2.21	0.74
3:22:182:ILE:HG22	3:22:203:PHE:HA	1.68	0.74
26:14:1665:A:N7	61:14:3608:HOH:O	2.19	0.74
26:14:2056:G:H1	52:J5:4:HIS:HB3	1.52	0.74
48:F5:91:LYS:HZ3	48:F5:91:LYS:HA	1.51	0.74
1:13:601:C:H2'	1:13:602:A:H8	1.53	0.73
1:13:1305:G:H21	1:13:1331:G:H2'	1.52	0.73
26:1H:2518:A:OP2	61:1H:4107:HOH:O	2.06	0.73
30:39:102:PRO:HB2	30:39:105:VAL:HG23	1.70	0.73
34:15:56:ASN:HA	34:15:125:GLY:H	1.53	0.73
35:25:115:VAL:HG13	35:25:121:VAL:HG21	1.70	0.73
42:95:85:LYS:HG3	42:95:87:HIS:N	2.03	0.73
26:1H:1899:G:H22	26:1H:1902:C:H5	1.33	0.73
26:1H:2062:A:OP2	61:1H:3859:HOH:O	2.05	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:61:3:VAL:HG12	33:61:38:LEU:HA	1.69	0.73
57:3L:71:G:HO2'	26:14:1851:U:HO2'	1.20	0.73
26:14:1942:C:OP2	26:14:1943:U:O2'	2.05	0.73
26:14:2415:G:H4'	36:35:67:MET:H	1.52	0.73
26:14:2738:A:OP2	61:14:3914:HOH:O	2.06	0.73
26:1H:731:C:OP2	61:1H:3685:HOH:O	2.06	0.73
1:1G:826:C:O2	1:1G:874:G:N2	2.18	0.73
26:14:259:G:H21	26:14:621:A:H8	1.35	0.73
47:E5:53:MET:HG3	47:E5:59:LEU:CD2	2.19	0.73
1:13:827:U:H5	1:13:872:A:N1	1.86	0.73
26:1H:1616:A:O2'	61:1H:3951:HOH:O	2.07	0.73
26:1H:2312:U:H5'	31:41:88:ILE:HD12	1.70	0.73
33:61:92:VAL:HG13	33:61:120:ILE:HG23	1.69	0.73
26:14:654(B):C:O2	26:14:654(S):G:N2	2.20	0.73
26:14:1385:G:HO2'	26:14:1396:U:H6	1.36	0.73
27:1J:80:U:H2'	27:1J:81:G:N2	2.01	0.73
35:25:68:GLU:HA	35:25:78:ARG:HB3	1.70	0.73
1:13:1124:G:O2'	1:13:1145:C:N4	2.21	0.73
1:13:1422:G:H5''	35:68:48:PRO:HB3	1.70	0.73
24:3K:37:MIA:H8	24:3K:37:MIA:O5'	1.87	0.73
26:1H:1486:A:H2'	26:1H:1487:G:H8	1.54	0.73
30:31:6:VAL:N	30:31:24:LEU:O	2.22	0.73
37:45:88:GLY:O	37:45:89:ASN:ND2	2.21	0.73
26:1H:654(A):A:H2	26:1H:654(T):A:N1	1.87	0.73
26:1H:1588:C:H2'	26:1H:1589:C:H6	1.52	0.73
26:1H:2392:A:H2	26:1H:2424:C:H42	1.35	0.73
31:41:67:LYS:HE2	51:M8:6:HIS:CE1	2.23	0.73
36:78:114:ILE:HD11	36:78:130:PHE:HD2	1.53	0.73
1:1G:474:G:H2'	1:1G:475:G:C8	2.23	0.73
7:62:116:ALA:HA	7:62:119:ARG:HE	1.52	0.73
26:14:567:A:P	61:14:3679:HOH:O	2.47	0.73
26:14:881:G:O6	26:14:882:G:N2	2.22	0.73
26:14:1138:G:H21	34:15:106:MET:HE3	1.52	0.73
26:14:2037:G:N7	61:14:3712:HOH:O	2.21	0.73
26:14:2681:C:H5	26:14:2725:A:H62	1.33	0.73
30:39:25:PRO:HB3	30:39:28:ILE:HG23	1.68	0.73
3:2E:40:ARG:O	3:2E:44:GLU:HG2	1.87	0.73
5:4E:126:ARG:HG3	5:4E:126:ARG:HH11	1.53	0.73
39:A8:27:SER:HA	39:A8:88:ASP:HB3	1.69	0.73
45:G8:38:ILE:HD11	45:G8:64:GLU:HG3	1.71	0.73
1:1G:957:U:O2'	1:1G:959:A:N7	2.21	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6A:54:ARG:NH1	15:6A:58:MET:SD	2.62	0.73
1:13:1322:C:O2'	1:13:1323:G:O5'	2.07	0.73
31:41:21:ARG:HG2	31:41:21:ARG:HH11	1.54	0.73
32:51:4:ILE:HG21	32:51:6:ARG:NH1	2.02	0.73
5:42:11:ILE:HD12	5:42:31:LEU:HD12	1.70	0.73
21:1B:10:ARG:HA	21:1B:13:ILE:HD12	1.69	0.73
26:14:1327:C:OP2	61:14:3653:HOH:O	2.05	0.73
26:14:1678:G:H22	26:14:1989:G:H22	1.37	0.73
3:22:6:HIS:HB3	14:5A:49:HIS:CD2	2.24	0.73
26:14:1443:G:H1	26:14:1548:C:H42	1.33	0.73
27:1J:3:C:N3	27:1J:117:G:N2	2.37	0.73
1:13:991:U:O2'	1:13:992:U:O5'	2.06	0.73
26:1H:1006:C:OP2	61:1H:4209:HOH:O	2.07	0.73
26:1H:1171:G:N2	26:1H:1178:C:N3	2.35	0.73
29:21:82:ARG:O	29:21:84:PHE:N	2.22	0.73
2:12:70:PHE:HB2	2:12:92:TYR:HB2	1.69	0.73
26:14:1657:C:OP2	29:29:136:ARG:HG3	1.89	0.73
26:14:739:G:OP1	61:14:3751:HOH:O	2.06	0.72
26:1H:733:G:N7	61:1H:4113:HOH:O	2.23	0.72
38:98:55:ALA:HA	38:98:80:PHE:CE1	2.23	0.72
26:14:452:G:OP2	61:14:3733:HOH:O	2.06	0.72
26:1H:958:U:OP2	37:88:14:ARG:NH1	2.22	0.72
26:1H:1165:U:H2'	26:1H:1166:C:C6	2.24	0.72
34:58:73:THR:HB	34:58:82:LEU:HD11	1.68	0.72
1:1G:521:G:O6	1:1G:528:C:N4	2.19	0.72
57:3L:21:A:N6	57:3L:46:7MG:HN21	1.87	0.72
26:14:2504:U:OP2	61:14:3667:HOH:O	2.07	0.72
26:14:2819:G:O6	26:14:2827:C:N4	2.18	0.72
44:B5:65:ARG:HG3	44:B5:67:GLY:H	1.54	0.72
5:4E:8:GLU:HG2	5:4E:34:VAL:HG22	1.71	0.72
26:1H:1900:A:H5'	26:1H:1900:A:H8	1.55	0.72
26:14:570:G:OP1	61:14:3697:HOH:O	2.07	0.72
55:M5:30:ARG:O	55:M5:32:LEU:N	2.22	0.72
1:13:504:C:OP1	61:13:1854:HOH:O	2.08	0.72
2:1E:185:ILE:HG23	2:1E:199:TYR:HB2	1.70	0.72
26:1H:2255:G:OP2	61:1H:4171:HOH:O	2.07	0.72
26:1H:2392:A:H8	36:78:61:ARG:HG2	1.55	0.72
55:Q8:39:LYS:HD2	55:Q8:40:GLU:H	1.55	0.72
1:1G:1302:U:OP1	13:4A:13:LYS:NZ	2.22	0.72
26:14:570:G:O6	61:14:3703:HOH:O	2.07	0.72
26:14:674:G:O2'	30:39:74:ARG:HG3	1.89	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:D5:10:ARG:NH2	46:D5:26:GLY:O	2.22	0.72
7:6E:15:ASP:HB3	7:6E:20:ASP:H	1.52	0.72
23:2K:47:7MG:H81	23:2K:48:U:C5	2.22	0.72
26:1H:780:G:H21	26:1H:783:A:N6	1.86	0.72
2:12:91:PRO:HG3	2:12:154:LEU:HB2	1.71	0.72
26:14:2273:A:H2'	26:14:2274:A:C8	2.25	0.72
27:1J:44:G:H1'	27:1J:47:C:H42	1.54	0.72
17:8I:18:THR:OG1	17:8I:69:LYS:NZ	2.17	0.72
31:41:161:THR:HG23	31:41:163:ALA:H	1.54	0.72
46:H8:19:ARG:NH1	46:H8:84:GLU:O	2.22	0.72
28:19:69:ARG:NE	28:19:105:ILE:HD11	2.05	0.72
46:D5:8:TYR:HD1	46:D5:62:PRO:HG3	1.54	0.72
26:1H:800:A:P	61:1H:3642:HOH:O	2.47	0.72
26:1H:1534:G:H2'	26:1H:1535:U:H4'	1.71	0.72
26:1H:1970:A:OP2	61:1H:4003:HOH:O	2.08	0.72
57:3L:9:A:O2'	57:3L:10:G:N7	2.19	0.72
26:14:588:U:H2'	26:14:589:C:C6	2.24	0.72
1:13:1062:U:H2'	1:13:1063:C:C6	2.25	0.72
45:G8:30:VAL:HG22	45:G8:37:VAL:HG12	1.72	0.72
2:12:18:GLY:O	2:12:204:ASN:ND2	2.23	0.72
26:14:2448:A:O5'	61:14:3698:HOH:O	2.07	0.72
1:13:1132:C:N4	1:13:1142:G:O6	2.18	0.72
26:1H:305:U:O4	61:1H:4540:HOH:O	2.07	0.72
26:1H:587:C:OP2	36:78:21:ARG:NH2	2.22	0.72
26:14:1013:C:H42	26:14:1149:G:H1	1.38	0.72
40:75:4:GLY:O	40:75:7:ILE:N	2.22	0.72
49:G5:47:ASN:O	49:G5:49:LYS:N	2.23	0.72
55:M5:40:GLU:HA	55:M5:43:GLN:HB2	1.72	0.72
26:1H:1784:A:OP1	61:1H:3995:HOH:O	2.07	0.71
26:1H:2134:A:OP2	26:1H:2157:G:N2	2.23	0.71
31:41:112:PRO:HB3	51:M8:37:SER:H	1.54	0.71
26:14:193:U:OP2	61:14:3723:HOH:O	2.07	0.71
26:14:1689:A:H62	26:14:1698:A:H2	1.35	0.71
28:19:242:ARG:O	61:19:309:HOH:O	2.08	0.71
30:39:113:ALA:HB1	30:39:186:ILE:HG21	1.70	0.71
45:C5:76:CYS:SG	45:C5:97:ARG:HG3	2.29	0.71
26:1H:761:A:OP1	61:1H:3685:HOH:O	2.07	0.71
1:1G:324:G:N7	61:1G:1748:HOH:O	2.23	0.71
23:2L:24:C:H2'	23:2L:25:U:H6	1.54	0.71
53:K5:28:ARG:HG3	53:K5:31:PRO:HD2	1.71	0.71
34:58:96:GLU:O	34:58:98:VAL:HG12	1.90	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:B8:26:ASP:HB2	40:B8:91:ARG:HA	1.71	0.71
5:42:102:ALA:HB1	5:42:106:PRO:HG2	1.71	0.71
28:19:40:THR:OG1	28:19:41:GLY:N	2.22	0.71
38:55:67:LEU:HD12	38:55:76:VAL:HG11	1.72	0.71
42:95:69:LYS:HB3	42:95:86:GLY:HA3	1.72	0.71
48:F5:85:LEU:HA	48:F5:87:PRO:HD2	1.72	0.71
1:13:541:G:N7	61:13:1931:HOH:O	2.22	0.71
26:1H:910:A:N7	37:88:13:GLN:HG3	2.04	0.71
26:1H:2588:G:P	61:1H:4453:HOH:O	2.47	0.71
26:1H:2701:C:H3'	26:1H:2702:U:H5''	1.72	0.71
44:F8:5:TYR:O	49:K8:36:ARG:NH2	2.21	0.71
26:14:1041:C:H42	26:14:1114:G:H22	1.39	0.71
26:14:2211:G:O2'	26:14:2212:A:OP1	2.08	0.71
43:A5:65:LEU:HD13	43:A5:68:ARG:HD2	1.70	0.71
15:6I:17:ARG:HH11	15:6I:17:ARG:HG3	1.54	0.71
1:1G:1002:G:H2'	1:1G:1003:G:C8	2.25	0.71
26:14:2849:U:O4	40:75:23:ARG:NH2	2.20	0.71
46:D5:5:LEU:HD12	46:D5:47:VAL:HG21	1.72	0.71
26:1H:275:G:N2	26:1H:276:A:N1	2.37	0.71
26:1H:739:G:OP1	61:1H:4509:HOH:O	2.07	0.71
26:1H:943:U:OP2	61:1H:4444:HOH:O	2.08	0.71
26:1H:2849:U:O2'	61:1H:4193:HOH:O	2.09	0.71
30:31:6:VAL:HG11	30:31:119:ARG:HA	1.71	0.71
50:L8:13:ILE:O	61:L8:201:HOH:O	2.08	0.71
15:6A:26:GLU:OE2	15:6A:77:ARG:NH1	2.24	0.71
1:13:262:A:H2'	1:13:263:A:C8	2.25	0.71
17:8I:76:LEU:HD21	17:8I:79:SER:HB3	1.71	0.71
26:1H:1951:U:O4	61:1H:4035:HOH:O	2.08	0.71
1:1G:1226:C:N4	13:4A:104:ARG:HD2	2.06	0.71
23:2L:41:C:H2'	23:2L:42:C:H6	1.55	0.71
26:14:2748:A:H2'	26:14:2749:A:H8	1.54	0.71
29:29:55:ASN:O	29:29:57:LYS:N	2.23	0.71
1:13:1345:U:OP1	61:13:1941:HOH:O	2.08	0.71
26:1H:1333:C:OP2	61:1H:3980:HOH:O	2.08	0.71
26:1H:1359:A:H2	26:1H:1372:U:O4	1.74	0.71
26:1H:2033:A:H8	61:1H:4101:HOH:O	1.73	0.71
26:1H:2270:G:OP2	61:1H:4280:HOH:O	2.09	0.71
30:31:29:ASN:H	30:31:112:MET:CE	2.02	0.71
47:I8:50:ASN:ND2	47:I8:81:VAL:O	2.22	0.71
26:14:1980:G:H4'	61:14:3532:HOH:O	1.91	0.71
34:15:42:TRP:O	41:85:64:ARG:NH2	2.19	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:C5:73:ARG:NH2	45:C5:81:LYS:O	2.24	0.71
26:1H:999:U:OP2	61:1H:4025:HOH:O	2.09	0.71
26:1H:1164:G:H2'	26:1H:1165:U:C6	2.25	0.71
26:1H:2334:G:O6	47:I8:74:ARG:NH2	2.23	0.71
44:F8:67:GLY:O	44:F8:69:TYR:N	2.24	0.71
45:G8:76:CYS:O	45:G8:78:ALA:N	2.21	0.71
5:42:51:VAL:HG23	5:42:52:PRO:HD3	1.73	0.71
13:4A:54:VAL:HA	13:4A:57:ARG:HB3	1.71	0.71
1:13:677:U:H3	1:13:713:G:H22	1.39	0.71
26:1H:453:C:OP1	61:1H:3925:HOH:O	2.08	0.71
26:1H:910:A:C5	37:88:13:GLN:HG3	2.26	0.71
26:1H:1287:A:N7	38:98:107:ASP:HB2	2.06	0.71
55:Q8:7:HIS:ND1	55:Q8:7:HIS:O	2.23	0.71
26:14:2378:A:H4'	39:65:23:ARG:HH11	1.56	0.71
12:3I:58:VAL:O	12:3I:65:GLU:HA	1.90	0.70
26:1H:1426:G:OP2	26:1H:1427:A:O2'	2.08	0.70
26:1H:1622:G:OP2	61:1H:4330:HOH:O	2.09	0.70
26:1H:2576:G:OP1	61:1H:3814:HOH:O	2.09	0.70
46:H8:45:ASP:OD2	46:H8:49:ARG:NH1	2.24	0.70
41:85:92:ARG:HD2	41:85:95:LEU:HD12	1.70	0.70
51:I5:14:ILE:HG12	51:I5:33:VAL:HG11	1.72	0.70
26:1H:804:A:OP2	61:1H:4481:HOH:O	2.08	0.70
26:14:330:A:H2	26:14:1210:A:HO2'	1.38	0.70
1:13:1034:G:N2	1:13:1035:A:N7	2.40	0.70
1:13:1334:G:OP2	61:13:1952:HOH:O	2.09	0.70
3:2E:15:THR:HG21	3:2E:181:ASN:HA	1.73	0.70
10:1I:48:THR:HA	10:1I:62:HIS:HB3	1.73	0.70
26:1H:740:U:OP2	61:1H:4503:HOH:O	2.08	0.70
26:1H:2452:C:OP1	61:1H:4400:HOH:O	2.08	0.70
1:13:786:G:N7	61:13:1932:HOH:O	2.23	0.70
26:1H:392:C:OP1	61:1H:3753:HOH:O	2.07	0.70
45:G8:9:LYS:HA	45:G8:27:VAL:HG22	1.73	0.70
26:14:2287:A:N6	26:14:2344:U:H3	1.90	0.70
26:1H:330:A:H2	26:1H:1210:A:HO2'	1.39	0.70
26:1H:1253:A:C8	61:1H:3712:HOH:O	2.43	0.70
26:1H:1676:A:OP2	61:1H:3706:HOH:O	2.08	0.70
1:1G:1324:A:H4'	1:1G:1362:C:H4'	1.73	0.70
57:3L:53:G:O2'	57:3L:54:5MU:OP2	2.09	0.70
26:14:120:U:OP2	61:14:4046:HOH:O	2.09	0.70
26:14:1019:U:H2'	26:14:1020:A:C8	2.27	0.70
45:G8:100:ALA:HB1	45:G8:101:LYS:HB2	1.71	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:119:GLN:O	4:32:123:HIS:ND1	2.24	0.70
26:14:602:G:HO2'	26:14:604:G:HO2'	1.36	0.70
39:65:27:SER:HA	39:65:88:ASP:HB2	1.73	0.70
47:E5:53:MET:HG3	47:E5:59:LEU:HD23	1.72	0.70
13:4I:3:ARG:HB3	13:4I:9:ILE:HG12	1.73	0.70
15:6I:26:GLU:OE2	15:6I:77:ARG:NH1	2.23	0.70
26:1H:31:C:OP1	61:1H:3788:HOH:O	2.08	0.70
26:1H:1776:G:OP2	61:1H:3650:HOH:O	2.09	0.70
26:1H:2844:G:O6	61:1H:4140:HOH:O	2.09	0.70
34:58:96:GLU:O	34:58:98:VAL:N	2.23	0.70
13:4A:91:ARG:HB2	13:4A:98:VAL:HG12	1.73	0.70
27:1J:48:A:H4'	39:65:95:HIS:HD2	1.54	0.70
26:1H:2636:U:OP1	29:21:79:ARG:HA	1.91	0.70
8:72:17:THR:O	8:72:78:GLN:NE2	2.24	0.70
26:14:4:C:H42	26:14:2899:G:H1	1.39	0.70
32:59:41:MET:N	32:59:41:MET:SD	2.65	0.70
41:85:92:ARG:HH22	42:95:10:LYS:HA	1.57	0.70
1:13:1263:C:H2'	1:13:1264:C:H6	1.57	0.70
46:H8:77:ASP:OD2	46:H8:80:ARG:NH1	2.24	0.70
51:M8:12:ALA:HB3	51:M8:24:THR:HB	1.73	0.70
4:32:4:TYR:HE2	4:32:11:LEU:HD11	1.55	0.70
12:3A:52:LEU:O	12:3A:54:LYS:NZ	2.25	0.70
26:14:249:C:OP1	61:14:3516:HOH:O	2.10	0.70
26:14:1776:G:OP2	61:14:3531:HOH:O	2.08	0.70
42:95:37:VAL:HG21	42:95:57:VAL:HG12	1.74	0.70
46:D5:4:ARG:NH1	46:D5:60:GLU:OE2	2.24	0.70
39:A8:34:HIS:HB2	39:A8:36:TYR:HE1	1.56	0.70
1:1G:474:G:H2'	1:1G:475:G:H8	1.57	0.70
2:12:58:ILE:O	2:12:62:ALA:N	2.22	0.70
3:22:57:ILE:HG12	3:22:66:VAL:HG22	1.74	0.70
36:35:47:ASP:OD2	36:35:50:ARG:NH1	2.24	0.70
1:13:1023:G:H3'	1:13:1024:G:H5''	1.74	0.69
1:13:1348:U:N3	1:13:1374:A:H2	1.90	0.69
26:1H:298:G:N7	61:1H:4199:HOH:O	2.24	0.69
26:1H:376:C:OP1	61:1H:3754:HOH:O	2.10	0.69
26:1H:2287:A:H62	26:1H:2344:U:H3	1.40	0.69
26:14:1005:C:O2'	34:15:28:THR:HG21	1.92	0.69
2:1E:8:LYS:HG2	2:1E:9:GLU:H	1.57	0.69
27:16:42:C:O2'	31:41:67:LYS:HE3	1.92	0.69
55:Q8:53:PRO:HA	55:Q8:55:ALA:N	2.07	0.69
2:12:75:LYS:HA	2:12:78:GLN:HB2	1.71	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2107:C:N3	26:14:2182:G:N2	2.39	0.69
26:14:2503:A:OP1	61:14:3665:HOH:O	2.09	0.69
7:6E:62:PHE:HA	7:6E:124:LEU:HD21	1.73	0.69
26:1H:270(N):G:OP2	33:61:57:ARG:NH2	2.25	0.69
26:1H:963:U:OP1	61:1H:3872:HOH:O	2.08	0.69
26:1H:1803:A:O2'	28:11:259:THR:HG21	1.92	0.69
29:21:77:ILE:O	29:21:79:ARG:N	2.24	0.69
31:41:97:ASP:O	31:41:100:TRP:N	2.26	0.69
42:D8:43:GLU:HA	42:D8:44:LYS:HZ3	1.57	0.69
44:F8:3:THR:HA	44:F8:6:ASP:OD2	1.92	0.69
1:1G:6:G:O2'	1:1G:7:G:H5'	1.92	0.69
1:1G:353:A:H5'	1:1G:353:A:H8	1.57	0.69
13:4A:82:MET:SD	13:4A:83:ASP:N	2.64	0.69
26:14:1416:G:O2'	26:14:1417:C:O5'	2.09	0.69
29:29:3:GLY:HA3	29:29:81:ILE:HD12	1.75	0.69
30:39:53:THR:HG23	30:39:55:GLY:H	1.57	0.69
27:16:8:U:N3	27:16:112:G:O6	2.15	0.69
40:B8:111:ARG:HD3	40:B8:111:ARG:H	1.56	0.69
45:G8:76:CYS:HB2	45:G8:82:PRO:HD3	1.74	0.69
55:Q8:37:SER:HA	55:Q8:39:LYS:O	1.93	0.69
26:14:654(D):G:H22	26:14:654(Q):C:H42	1.38	0.69
48:F5:87:PRO:O	48:F5:91:LYS:N	2.22	0.69
1:13:538:G:H5''	12:3I:114:LYS:HB2	1.73	0.69
11:2I:57:THR:HG22	11:2I:59:TYR:H	1.57	0.69
1:1G:458:C:N3	1:1G:474:G:N2	2.39	0.69
26:14:2057:A:OP2	61:14:4031:HOH:O	2.10	0.69
42:95:67:GLY:O	42:95:88:ARG:HD2	1.92	0.69
7:6E:155:ARG:O	7:6E:155:ARG:NH2	2.26	0.69
26:1H:839:U:OP2	61:1H:3905:HOH:O	2.08	0.69
26:1H:1021:A:H62	26:1H:1141:U:H3	1.40	0.69
26:1H:1062:G:H2'	26:1H:1063:G:C8	2.28	0.69
39:A8:83:LYS:HE2	39:A8:84:GLN:HG2	1.73	0.69
1:1G:1014:A:H4'	19:AA:14:HIS:CE1	2.27	0.69
26:14:607:U:H3	26:14:621:A:H2	1.38	0.69
47:E5:36:ILE:HD11	47:E5:39:ARG:HG2	1.74	0.69
26:1H:2212:A:H1'	26:1H:2215:G:C5	2.26	0.69
48:J8:91:LYS:HZ3	48:J8:91:LYS:HA	1.57	0.69
5:42:101:ILE:HD11	5:42:119:LEU:HD23	1.74	0.69
26:14:2296:U:OP2	39:65:9:ARG:NH1	2.20	0.69
52:J5:49:CYS:SG	52:J5:50:GLY:N	2.65	0.69
4:3E:26:CYS:HA	4:3E:31:CYS:HB2	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:153:LYS:HD3	5:4E:154:GLY:H	1.57	0.69
26:1H:10:G:O2'	26:1H:2801:A:N3	2.26	0.69
26:1H:860:U:C5	26:1H:917:A:H2	2.11	0.69
26:1H:1138:G:H21	34:58:106:MET:HE3	1.54	0.69
26:1H:1619:G:N7	61:1H:3960:HOH:O	2.25	0.69
39:A8:93:LYS:HG2	39:A8:95:HIS:HB2	1.74	0.69
1:1G:673:G:H2'	1:1G:674:G:C8	2.28	0.69
1:1G:1004:A:OP1	1:1G:1024:G:N1	2.24	0.69
1:1G:1095:U:OP1	1:1G:1108:G:N1	2.26	0.69
26:14:1141:U:O2'	26:14:1142:U:OP2	2.11	0.69
26:14:1298:C:OP2	61:14:3522:HOH:O	2.11	0.69
26:14:2420:C:N4	55:M5:31:HIS:O	2.26	0.69
26:14:2448:A:OP1	61:14:3703:HOH:O	2.11	0.69
26:14:2652:C:H42	26:14:2668:G:H1	1.39	0.69
37:45:20:ALA:HA	37:45:99:PRO:HG2	1.74	0.69
1:13:1502:A:H2	1:13:1505:G:N1	1.90	0.69
26:1H:249:C:OP1	61:1H:3656:HOH:O	2.09	0.69
26:1H:2027:G:N7	61:1H:4099:HOH:O	2.24	0.69
41:C8:69:CYS:HG	41:C8:79:PHE:HD2	1.40	0.69
49:K8:42:GLY:O	49:K8:44:LEU:N	2.25	0.69
1:1G:973:G:O3'	14:5A:41:ARG:NH2	2.26	0.69
1:1G:1048:G:H1	1:1G:1209:C:H42	1.40	0.69
26:14:140:A:H8	26:14:1408:C:HO2'	1.41	0.69
26:14:259:G:N2	26:14:621:A:H8	1.91	0.69
25:4K:13:A:O2'	25:4K:14:A:OP1	2.11	0.68
26:1H:635:C:O2'	26:1H:639:U:OP1	2.10	0.68
26:1H:770:G:OP2	61:1H:4379:HOH:O	2.11	0.68
31:41:65:GLY:HA2	51:M8:7:PRO:HG2	1.74	0.68
1:1G:975:A:H4'	1:1G:976:G:H5''	1.76	0.68
26:14:2153:G:N2	26:14:2154:G:O6	2.26	0.68
26:14:2693:A:H2'	26:14:2694:G:H8	1.57	0.68
42:95:62:LEU:HD23	42:95:93:GLU:HG2	1.75	0.68
26:1H:399:G:OP2	61:1H:4086:HOH:O	2.10	0.68
26:1H:1330:C:OP1	61:1H:3990:HOH:O	2.11	0.68
26:1H:1899:G:N2	26:1H:1902:C:H5	1.92	0.68
26:1H:2598:A:OP1	61:1H:3647:HOH:O	2.11	0.68
28:11:182:LEU:H	28:11:272:ALA:HB3	1.58	0.68
1:1G:1300:G:O2'	1:1G:1301:U:O5'	2.08	0.68
26:14:19:C:H2'	26:14:20:C:H6	1.57	0.68
26:14:2017:U:OP1	61:14:3673:HOH:O	2.12	0.68
32:59:159:GLU:O	32:59:163:TYR:OH	2.10	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:45:26:TYR:O	37:45:28:ALA:N	2.25	0.68
45:C5:29:GLU:OE1	45:C5:29:GLU:N	2.26	0.68
3:2E:77:ILE:HA	3:2E:84:ILE:HD12	1.75	0.68
26:14:1772:G:OP1	61:14:3567:HOH:O	2.09	0.68
26:14:2228:G:OP2	28:19:263:ARG:NH2	2.26	0.68
53:K5:27:LYS:HZ3	53:K5:28:ARG:HH12	1.38	0.68
1:13:588:G:OP2	61:13:1969:HOH:O	2.10	0.68
1:13:1178:G:H5''	9:8E:93:ARG:NH2	2.09	0.68
26:1H:1221:C:H2'	26:1H:1222:C:H6	1.58	0.68
39:A8:89:ARG:HG2	39:A8:89:ARG:O	1.93	0.68
1:13:376:G:H5''	16:7I:5:ARG:HD2	1.75	0.68
26:1H:399:G:OP2	61:1H:4084:HOH:O	2.10	0.68
26:1H:547:A:H2'	26:1H:548:A:C8	2.29	0.68
1:1G:643:C:O2'	8:72:132:GLU:OE1	2.08	0.68
1:1G:1177:G:O2'	1:1G:1178:G:O4'	2.11	0.68
4:32:31:CYS:C	4:32:33:MET:H	1.96	0.68
42:95:35:LEU:O	42:95:37:VAL:HG22	1.93	0.68
1:13:1348:U:H3	1:13:1374:A:H2	1.42	0.68
26:1H:2032:G:H21	29:21:146:THR:CG2	2.05	0.68
32:51:153:LYS:HE2	32:51:153:LYS:H	1.59	0.68
40:B8:64:ARG:HB2	40:B8:73:GLU:HG2	1.76	0.68
41:C8:92:ARG:HA	41:C8:95:LEU:HB3	1.75	0.68
1:1G:560:U:O2'	1:1G:561:U:OP2	2.10	0.68
26:14:882:G:H22	26:14:894:C:H42	1.40	0.68
26:1H:1665:A:N6	61:1H:4131:HOH:O	2.25	0.68
2:12:178:ARG:NH1	2:12:196:LEU:O	2.27	0.68
56:1L:29:G:H4'	56:1L:29:G:OP1	1.92	0.68
26:14:1249:U:OP1	61:14:4028:HOH:O	2.11	0.68
10:1I:58:ASP:OD1	61:1I:201:HOH:O	2.12	0.68
11:2I:22:HIS:HB3	11:2I:29:ILE:HG23	1.75	0.68
13:4I:15:VAL:O	13:4I:19:LEU:HD22	1.94	0.68
29:21:152:LYS:HD3	34:58:77:GLY:HA3	1.76	0.68
40:75:24:PRO:HA	40:75:49:VAL:HG23	1.75	0.68
41:85:88:ILE:HG22	41:85:90:VAL:HG23	1.75	0.68
1:13:342:C:H2'	1:13:343:U:O4'	1.94	0.68
1:13:673:G:H2'	1:13:674:G:C8	2.27	0.68
14:5I:18:VAL:O	61:5I:201:HOH:O	2.11	0.68
26:1H:792:G:H5''	26:1H:793:A:H5'	1.75	0.68
26:1H:2127:G:H22	26:1H:2162:G:H1'	1.59	0.68
26:1H:2406:U:OP1	61:1H:3728:HOH:O	2.11	0.68
26:1H:2837:G:N7	61:1H:4290:HOH:O	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:21:64:LYS:O	29:21:70:ALA:HB2	1.94	0.68
35:68:47:ILE:HD13	35:68:48:PRO:HD2	1.74	0.68
1:13:376:G:O3'	16:7I:5:ARG:NH1	2.23	0.68
2:1E:165:VAL:HG23	2:1E:166:ASP:H	1.59	0.68
24:3K:7:A:N6	24:3K:49:C:N3	2.42	0.68
26:1H:270(L):U:O2	33:61:50:ARG:HG2	1.94	0.68
26:1H:1509:C:H3'	26:1H:1510:A:H5''	1.76	0.68
26:1H:1843:C:H5'	28:11:253:GLN:OE1	1.93	0.68
27:16:42:C:O3'	31:41:67:LYS:NZ	2.27	0.68
32:51:54:ARG:HD3	32:51:65:HIS:ND1	2.09	0.68
39:A8:26:LEU:HD12	39:A8:39:ILE:HD11	1.76	0.68
55:Q8:54:GLU:O	55:Q8:56:GLU:N	2.27	0.68
1:1G:1288:A:N3	1:1G:1352:C:O2'	2.26	0.68
7:62:72:ARG:HG2	7:62:142:GLU:OE2	1.93	0.68
26:14:607:U:OP1	30:39:102:PRO:HA	1.93	0.68
30:39:20:LEU:HG	30:39:199:TRP:HH2	1.59	0.68
1:13:1348:U:H2'	1:13:1349:A:H8	1.58	0.67
26:1H:330:A:O2'	26:1H:331:A:H8	1.76	0.67
26:1H:574:C:OP1	61:1H:3808:HOH:O	2.12	0.67
26:14:1664:A:OP2	61:14:3610:HOH:O	2.12	0.67
26:14:2415:G:H4'	36:35:67:MET:N	2.08	0.67
38:55:38:VAL:HG12	38:55:42:LYS:HD2	1.76	0.67
1:13:177:C:OP1	20:BI:65:LYS:NZ	2.22	0.67
26:1H:459:U:H5''	54:P8:40:TRP:CD2	2.29	0.67
26:1H:2864:G:OP1	40:B8:119:LYS:HD2	1.94	0.67
28:11:17:THR:HG22	28:11:204:ILE:HA	1.76	0.67
30:31:29:ASN:N	30:31:112:MET:HE1	2.06	0.67
33:61:132:PRO:O	33:61:133:HIS:ND1	2.27	0.67
50:L8:26:LEU:HB2	50:L8:28:LEU:HD12	1.74	0.67
1:1G:371:G:H1	1:1G:390:C:H42	1.41	0.67
4:32:4:TYR:CE2	4:32:11:LEU:HD11	2.29	0.67
26:14:1864:U:OP1	26:14:2410:G:O2'	2.12	0.67
26:14:2801:A:H5''	26:14:2895:U:H4'	1.75	0.67
26:1H:1434:A:H61	26:1H:1558:A:N6	1.92	0.67
1:1G:1194:U:H2'	1:1G:1195:C:H6	1.59	0.67
1:13:271:C:H2'	1:13:272:C:H6	1.60	0.67
26:1H:392:C:OP1	61:1H:3752:HOH:O	2.13	0.67
26:1H:1309:G:H4'	54:P8:7:PRO:HB2	1.76	0.67
26:1H:2150:U:H2'	26:1H:2151:G:C8	2.29	0.67
55:Q8:53:PRO:HA	55:Q8:54:GLU:C	2.14	0.67
26:14:34:C:O2'	26:14:35:G:OP1	2.12	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1141:U:H3'	34:15:63:THR:HG21	1.76	0.67
26:14:1716:U:H2'	26:14:1717:G:H8	1.59	0.67
30:39:157:VAL:HB	30:39:194:MET:HB3	1.76	0.67
31:49:76:SER:OG	31:49:84:LYS:N	2.27	0.67
33:69:65:ALA:O	33:69:69:LYS:N	2.27	0.67
43:A5:106:ILE:O	43:A5:106:ILE:HG13	1.93	0.67
1:13:265:G:N2	1:13:267:C:H5'	2.08	0.67
1:13:736:C:H2'	1:13:737:A:C8	2.29	0.67
12:3I:42:THR:HG22	12:3I:54:LYS:HD2	1.75	0.67
18:9I:53:ARG:HH21	18:9I:60:ALA:N	1.93	0.67
26:1H:583:G:OP2	41:C8:10:ARG:NH1	2.27	0.67
26:1H:900:A:H3'	26:1H:901:A:H8	1.58	0.67
26:1H:903:C:O2'	46:H8:169:GLU:OE1	2.13	0.67
1:1G:555:C:H2'	1:1G:556:C:C6	2.29	0.67
26:14:1593:G:H2'	26:14:1594:G:C8	2.29	0.67
32:59:152:ARG:HD2	32:59:153:LYS:HG3	1.76	0.67
37:45:35:VAL:HG12	37:45:36:ALA:H	1.60	0.67
55:M5:40:GLU:H	55:M5:43:GLN:HG3	1.58	0.67
1:13:601:C:H2'	1:13:602:A:C8	2.29	0.67
7:6E:16:LEU:HD13	9:8E:44:VAL:HG22	1.77	0.67
26:1H:1520:U:H2'	26:1H:1521:G:O4'	1.94	0.67
26:1H:1534:G:H22	26:1H:1538:G:H22	1.42	0.67
37:88:86:GLY:HA3	37:88:87:LYS:HD3	1.77	0.67
2:12:5:ILE:HA	2:12:221:LEU:HD21	1.74	0.67
28:19:148:GLU:HB2	28:19:151:LYS:HE3	1.76	0.67
1:13:838:G:H1	1:13:848:C:N4	1.93	0.67
1:13:1015:A:H2'	1:13:1016:A:C8	2.30	0.67
1:13:1318:A:H5''	19:AI:10:PHE:CD2	2.30	0.67
13:4I:27:LYS:HD3	13:4I:31:LYS:HZ1	1.60	0.67
26:1H:138:G:N2	44:F8:44:GLU:OE2	2.18	0.67
38:98:20:LEU:HD21	38:98:40:LYS:HD3	1.77	0.67
57:3L:3:C:H2'	57:3L:4:C:O4'	1.95	0.67
26:1H:2588:G:OP1	61:1H:3944:HOH:O	2.13	0.67
55:Q8:57:ARG:HD3	55:Q8:57:ARG:N	2.10	0.67
1:1G:179:A:H2'	1:1G:180:U:C6	2.29	0.67
1:1G:1154:G:H2'	1:1G:1155:G:C8	2.29	0.67
1:1G:1326:C:OP1	21:1B:12:LYS:NZ	2.26	0.67
26:14:1828:G:OP2	61:14:3524:HOH:O	2.13	0.67
26:1H:252:G:OP2	36:78:50:ARG:NH1	2.27	0.67
26:1H:422:A:OP2	61:1H:4487:HOH:O	2.12	0.67
26:1H:860:U:H5	26:1H:917:A:H2	1.43	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2448:A:N1	61:1H:3878:HOH:O	2.28	0.67
29:21:105:THR:OG1	29:21:199:ARG:NH2	2.27	0.67
29:21:116:VAL:O	29:21:117:MET:HB3	1.94	0.67
1:1G:1213:A:N6	1:1G:1215:G:N3	2.43	0.67
1:1G:1343:G:H2'	1:1G:1344:C:C6	2.29	0.67
5:42:71:LEU:HD21	5:42:115:VAL:HG22	1.75	0.67
5:42:81:GLU:HB3	5:42:90:VAL:HG13	1.75	0.67
20:BA:87:LYS:O	20:BA:91:LEU:HG	1.95	0.67
26:14:2528:U:O3'	26:14:2529:G:N2	2.23	0.67
4:3E:83:SER:HA	4:3E:89:THR:HG23	1.75	0.67
19:AI:40:ILE:HD11	19:AI:62:ILE:HG23	1.77	0.67
19:AI:41:VAL:HB	19:AI:42:PRO:HA	1.76	0.67
26:1H:322:A:P	30:31:168:ARG:HH21	2.18	0.67
26:1H:2053:G:OP2	61:1H:3810:HOH:O	2.13	0.67
55:Q8:42:ARG:HG2	55:Q8:42:ARG:O	1.95	0.67
24:3K:35:A:H2'	24:3K:36:A:H8	1.59	0.66
26:1H:879:G:N1	26:1H:898:C:N3	2.43	0.66
26:1H:963:U:OP1	61:1H:3874:HOH:O	2.13	0.66
26:1H:1992:G:OP2	61:1H:4128:HOH:O	2.14	0.66
26:1H:2788:C:O2'	26:1H:2809:A:N3	2.27	0.66
28:11:228:PRO:O	61:11:405:HOH:O	2.12	0.66
29:21:38:THR:HG23	29:21:41:LYS:H	1.60	0.66
42:D8:44:LYS:HZ3	42:D8:44:LYS:HA	1.59	0.66
1:1G:1218:C:OP2	14:5A:9:LYS:NZ	2.25	0.66
2:12:8:LYS:HE2	2:12:213:LEU:HD21	1.75	0.66
5:42:61:TYR:HA	5:42:64:ARG:HB2	1.77	0.66
57:3L:26:A:H61	57:3L:44:G:H1	1.43	0.66
26:14:323:G:HO2'	26:14:1205:U:H3	1.41	0.66
51:I5:22:ILE:HG12	51:I5:23:GLU:N	2.10	0.66
26:1H:1664:A:OP1	61:1H:4466:HOH:O	2.13	0.66
26:1H:1676:A:OP2	61:1H:3702:HOH:O	2.11	0.66
26:1H:2099:U:N3	26:1H:2190:G:O6	2.19	0.66
3:22:59:ARG:HG2	3:22:64:VAL:HG23	1.77	0.66
26:14:2033:A:H8	61:14:4058:HOH:O	1.78	0.66
2:1E:100:GLY:O	2:1E:104:ASN:N	2.26	0.66
3:2E:40:ARG:HH11	3:2E:40:ARG:HG3	1.60	0.66
26:1H:1102:C:H2'	26:1H:1103:A:C8	2.30	0.66
48:J8:91:LYS:O	48:J8:94:LEU:N	2.27	0.66
55:Q8:59:LYS:HZ2	55:Q8:59:LYS:HB3	1.58	0.66
29:29:89:ASP:OD1	29:29:90:THR:N	2.28	0.66
1:1G:983:A:N1	1:1G:1222:G:N2	2.43	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1274:G:H2'	1:1G:1275:A:H8	1.60	0.66
26:14:1035:U:H2'	26:14:1036:G:C8	2.29	0.66
28:19:255:LYS:CE	28:19:255:LYS:H	2.08	0.66
55:M5:34:TRP:CG	55:M5:35:GLN:N	2.58	0.66
26:1H:563:G:OP2	61:1H:3631:HOH:O	2.13	0.66
26:1H:2317:C:H2'	26:1H:2318:G:H5'	1.77	0.66
1:1G:261:U:OP2	20:BA:79:ARG:NH2	2.28	0.66
1:1G:1500:A:OP1	61:1G:1760:HOH:O	2.14	0.66
8:72:114:THR:HG23	8:72:116:LYS:H	1.61	0.66
57:3L:76:A:H8	26:14:2394:C:H42	1.43	0.66
26:14:1061:U:H4'	26:14:1070:A:H1'	1.76	0.66
26:14:2016:U:O2	52:J5:7:PRO:HG2	1.96	0.66
26:1H:302:C:H2'	26:1H:303:U:C6	2.31	0.66
26:1H:1049:C:H2'	26:1H:1050:A:H5'	1.76	0.66
26:1H:2317:C:C2'	26:1H:2318:G:H5'	2.26	0.66
26:1H:2327:A:H2'	26:1H:2328:A:C8	2.31	0.66
30:31:167:ALA:HB1	30:31:173:VAL:HG11	1.77	0.66
1:1G:222:U:H2'	1:1G:223:U:C6	2.31	0.66
26:14:2115:G:O2'	26:14:2171:A:N6	2.28	0.66
27:16:87:G:N2	27:16:89(A):A:OP2	2.28	0.66
18:9A:36:ASN:O	18:9A:36:ASN:ND2	2.19	0.66
26:14:741:G:OP1	61:14:3555:HOH:O	2.13	0.66
26:14:1434:A:H61	26:14:1558:A:N6	1.93	0.66
46:D5:53:ILE:HG22	46:D5:71:VAL:HG13	1.75	0.66
26:1H:1670:C:OP1	61:1H:3662:HOH:O	2.13	0.66
26:1H:1900:A:H5'	26:1H:1900:A:C8	2.31	0.66
26:1H:2061:G:OP2	61:1H:3626:HOH:O	2.12	0.66
31:41:66:GLN:OE1	31:41:98:ARG:NH1	2.28	0.66
51:M8:52:THR:OG1	51:M8:53:GLU:N	2.28	0.66
1:1G:1131:G:H2'	1:1G:1132:C:H6	1.58	0.66
3:22:21:ARG:HB3	3:22:21:ARG:NH1	2.10	0.66
26:14:1024:G:H3'	26:14:1025:G:H5''	1.77	0.66
26:14:2062:A:OP2	61:14:3792:HOH:O	2.14	0.66
26:14:2818:G:OP2	38:55:42:LYS:NZ	2.28	0.66
37:45:22:LYS:N	37:45:23:GLY:HA3	2.09	0.66
40:75:26:ASP:O	40:75:49:VAL:HG22	1.94	0.66
26:1H:563:G:OP2	61:1H:3632:HOH:O	2.14	0.66
26:1H:1210:A:H5'	26:1H:1210:A:H8	1.61	0.66
41:C8:69:CYS:SG	41:C8:79:PHE:HD2	2.18	0.66
45:G8:95:LYS:HB3	45:G8:97:ARG:HH12	1.61	0.66
1:1G:742:G:OP2	15:6A:35:ARG:NH2	2.27	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1235:U:O2'	1:1G:1305:G:O5'	2.13	0.66
1:1G:1478:C:H2'	1:1G:1479:C:H6	1.61	0.66
2:12:67:THR:HG21	2:12:155:LEU:HG	1.77	0.66
26:14:2074:U:OP1	61:14:3505:HOH:O	2.12	0.66
39:65:84:GLN:HA	39:65:110:LEU:HD12	1.77	0.66
1:13:674:G:H2'	1:13:675:A:H8	1.60	0.66
26:1H:646:A:H2'	26:1H:647:G:O4'	1.96	0.66
26:1H:1021:A:H8	26:1H:1022:G:H5''	1.59	0.66
26:1H:1899:G:H1	26:1H:1902:C:H41	1.44	0.66
28:11:96:HIS:CE1	28:11:102:LYS:HE2	2.30	0.66
3:22:3:ASN:HD22	3:22:3:ASN:H	1.44	0.66
9:82:24:GLY:HA2	9:82:59:PHE:O	1.96	0.66
20:BA:51:GLU:HA	20:BA:54:LYS:HB3	1.77	0.66
26:14:120:U:OP2	61:14:4042:HOH:O	2.13	0.66
26:14:1859:A:N6	26:14:1883:G:O2'	2.29	0.66
28:19:255:LYS:H	28:19:255:LYS:NZ	1.94	0.66
3:2E:32:LEU:HD13	3:2E:59:ARG:HD3	1.78	0.65
17:8I:68:ARG:H	17:8I:70:ARG:HH11	1.43	0.65
26:1H:270(R):G:O6	61:1H:4355:HOH:O	2.11	0.65
26:1H:2292:C:OP1	39:A8:17:ARG:NH2	2.26	0.65
26:1H:2311:A:H1'	31:41:88:ILE:HD13	1.77	0.65
26:1H:2347:C:OP1	53:O8:39:TYR:OH	2.14	0.65
26:1H:2429:G:O6	36:78:61:ARG:NH1	2.28	0.65
32:51:107:VAL:HB	32:51:152:ARG:HG2	1.78	0.65
38:98:55:ALA:HA	38:98:80:PHE:HE1	1.60	0.65
1:1G:1255:G:OP1	10:1A:45:ARG:NH1	2.29	0.65
26:14:1022:G:H22	26:14:1142(A):A:H2	1.42	0.65
26:14:1112:G:H5'	32:59:3:ARG:HB3	1.78	0.65
26:14:1639:U:OP2	61:14:3519:HOH:O	2.13	0.65
39:65:34:HIS:CE1	39:65:54:LEU:HD13	2.30	0.65
12:3I:91:LYS:HG3	12:3I:91:LYS:O	1.96	0.65
20:BI:53:LEU:HA	20:BI:56:MET:HB3	1.78	0.65
26:1H:676:A:H8	26:1H:2069:G:H21	1.44	0.65
26:1H:1156:A:OP2	61:1H:3820:HOH:O	2.13	0.65
33:61:31:LEU:HD21	33:61:38:LEU:HG	1.76	0.65
41:C8:65:ILE:HD11	41:C8:95:LEU:HD22	1.78	0.65
1:1G:619:U:C6	4:32:135:LEU:HD21	2.31	0.65
1:1G:838:G:N2	1:1G:849:C:N3	2.44	0.65
1:1G:976:G:H5'	1:1G:1358:U:O2'	1.96	0.65
1:1G:1245:A:H61	1:1G:1292:U:H3	1.44	0.65
13:4A:13:LYS:HA	13:4A:44:ARG:NH1	2.09	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2L:24:C:H2'	23:2L:25:U:C6	2.32	0.65
25:4L:12:A:H4'	25:4L:13:A:OP2	1.95	0.65
26:14:7:G:H2'	26:14:8:A:C8	2.31	0.65
26:14:1225:C:H4'	42:95:85:LYS:HB2	1.78	0.65
30:39:122:LYS:HB3	30:39:191:ARG:HB2	1.78	0.65
1:13:445:G:H1	1:13:489:C:H42	1.44	0.65
5:4E:144:THR:OG1	5:4E:147:ASP:OD1	2.13	0.65
6:5E:69:GLU:O	6:5E:72:VAL:HG12	1.96	0.65
9:8E:112:LYS:HA	9:8E:119:ALA:HB2	1.77	0.65
26:1H:878:A:N6	26:1H:899:A:O2'	2.28	0.65
26:14:2010:G:N7	61:14:3645:HOH:O	2.29	0.65
27:1J:70:C:H2'	27:1J:71:C:H6	1.61	0.65
1:13:1145:C:H4'	1:13:1146:A:H5'	1.77	0.65
18:9I:38:GLU:HA	18:9I:41:LYS:HZ2	1.61	0.65
24:3K:5:G:H1	24:3K:68:C:H42	1.44	0.65
26:1H:848:G:H2'	26:1H:849:A:C8	2.31	0.65
26:1H:1332:G:N2	26:1H:1610:A:C8	2.65	0.65
41:C8:94:ASN:O	41:C8:96:ALA:HB2	1.95	0.65
1:1G:962:C:H42	1:1G:973:G:H1	1.43	0.65
6:52:7:ASN:HD22	18:9A:76:LEU:HD11	1.61	0.65
10:1A:3:LYS:N	10:1A:74:ILE:O	2.28	0.65
13:4A:37:THR:HG21	13:4A:56:LEU:HD23	1.78	0.65
61:14:3840:HOH:O	30:39:55:GLY:HA2	1.97	0.65
32:59:144:VAL:O	32:59:148:ILE:HG12	1.97	0.65
3:2E:74:GLY:HA2	3:2E:77:ILE:HB	1.79	0.65
26:1H:443:A:H1'	26:1H:1201:C:O4'	1.96	0.65
26:1H:1332:G:OP1	61:1H:3971:HOH:O	2.14	0.65
26:1H:1533:C:H3'	26:1H:1534:G:H5''	1.76	0.65
28:11:237:GLU:OE1	61:11:409:HOH:O	2.14	0.65
26:14:2250:G:C6	37:45:82:ARG:HD2	2.32	0.65
29:29:11:MET:SD	29:29:24:THR:HG22	2.36	0.65
30:39:18:ARG:HG2	30:39:19:GLU:H	1.61	0.65
37:45:75:THR:HA	37:45:89:ASN:HA	1.77	0.65
1:13:559:A:OP1	5:4E:126:ARG:NH2	2.30	0.65
1:13:612:C:O2	1:13:629:G:N2	2.29	0.65
1:13:631:G:H2'	1:13:632:A:N3	2.10	0.65
2:1E:84:GLU:HB3	2:1E:219:VAL:HG21	1.79	0.65
4:3E:150:GLU:OE1	4:3E:150:GLU:N	2.29	0.65
26:1H:1557:C:OP2	26:1H:1558:A:O2'	2.08	0.65
1:1G:157:G:H1	1:1G:164:U:H3	1.42	0.65
26:14:1426:G:OP2	26:14:1427:A:O2'	2.15	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1636:C:OP2	61:14:3629:HOH:O	2.15	0.65
26:14:2528:U:O2'	26:14:2530:A:OP1	2.10	0.65
34:15:34:LEU:HD21	34:15:120:LEU:HD13	1.79	0.65
43:A5:73:ALA:HB3	43:A5:106:ILE:HG12	1.79	0.65
1:13:1000:A:H2'	1:13:1001:G:C8	2.32	0.65
26:1H:193:U:OP1	61:1H:4178:HOH:O	2.13	0.65
41:C8:50:ARG:NH1	42:D8:72:VAL:HG12	2.12	0.65
43:E8:27:LYS:HB3	43:E8:31:GLU:HG3	1.77	0.65
4:32:60:GLU:OE2	4:32:199:ASN:N	2.29	0.65
7:62:79:ARG:HE	7:62:84:ASN:HB3	1.60	0.65
26:14:1154:G:OP1	41:85:58:ARG:HD3	1.97	0.65
26:1H:860:U:C5	26:1H:917:A:C2	2.85	0.65
26:1H:997:G:OP1	41:C8:92:ARG:HB2	1.97	0.65
26:1H:1406:U:H2'	26:1H:1407:C:C6	2.31	0.65
42:D8:65:GLY:HA3	42:D8:91:TYR:CE1	2.31	0.65
43:E8:95:ILE:O	43:E8:95:ILE:HG13	1.96	0.65
46:H8:163:LEU:HB3	46:H8:165:VAL:H	1.61	0.65
55:Q8:14:VAL:HG21	55:Q8:21:LYS:HZ2	1.62	0.65
1:1G:114:U:H2'	1:1G:115:G:C8	2.31	0.65
1:1G:682:G:O6	61:1G:1773:HOH:O	2.13	0.65
1:1G:793:U:O2	1:1G:1516:G:H4'	1.97	0.65
1:13:57:G:H2'	1:13:58:C:C6	2.31	0.65
26:1H:1515:C:H2'	26:1H:1516:U:H6	1.61	0.65
26:1H:2583:G:OP2	61:1H:3822:HOH:O	2.15	0.65
36:78:15:ARG:HB2	36:78:16:ARG:HB2	1.79	0.65
41:C8:49:HIS:HA	41:C8:52:ARG:HB3	1.79	0.65
57:3L:72:C:H3'	57:3L:73:A:H5''	1.78	0.65
26:14:848:G:H2'	26:14:849:A:C8	2.32	0.65
26:14:1485:G:H1	26:14:1504:C:H42	1.43	0.65
26:14:2292:C:OP1	39:65:17:ARG:NH2	2.30	0.65
26:14:2315:G:OP1	31:49:36:LYS:NZ	2.28	0.65
39:65:10:ARG:O	39:65:14:VAL:HG22	1.96	0.65
20:BI:53:LEU:HD12	20:BI:56:MET:HE2	1.78	0.65
20:BI:73:HIS:HB3	20:BI:74:LYS:HG3	1.77	0.65
26:1H:607:U:N3	26:1H:621:A:H2	1.92	0.65
26:1H:2862:G:H2'	26:1H:2863:C:H6	1.61	0.65
26:1H:2865:U:O4	61:1H:4194:HOH:O	2.10	0.65
37:88:133:ARG:O	37:88:134:ARG:HB2	1.97	0.65
46:H8:120:ILE:HG13	46:H8:170:THR:HG22	1.78	0.65
1:1G:222:U:H2'	1:1G:223:U:H6	1.62	0.65
1:1G:1268:A:H2'	1:1G:1269:A:C8	2.32	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:19:HIS:HE1	2:12:206:ASP:HB2	1.62	0.65
4:3E:160:GLN:NE2	4:3E:160:GLN:O	2.30	0.64
5:4E:45:PHE:CE2	5:4E:47:LYS:HD2	2.32	0.64
10:1I:40:LEU:HB2	10:1I:69:ASN:HB2	1.79	0.64
26:1H:945:A:P	61:1H:4167:HOH:O	2.49	0.64
26:1H:1899:G:H22	26:1H:1902:C:H41	1.45	0.64
52:N8:40:LYS:HE2	52:N8:47:PRO:HD2	1.78	0.64
55:Q8:34:TRP:C	55:Q8:34:TRP:CD1	2.69	0.64
1:1G:1286:A:C8	1:1G:1287:A:H4'	2.32	0.64
4:32:71:SER:HB3	4:32:74:GLN:HG3	1.79	0.64
26:14:195:A:H61	26:14:198:C:H3'	1.60	0.64
26:14:1188:U:O2'	26:14:1189:A:H5'	1.97	0.64
26:14:1225:C:O2'	42:95:85:LYS:N	2.30	0.64
26:14:2056:G:OP2	61:14:4035:HOH:O	2.14	0.64
26:14:2871:C:N3	61:14:3622:HOH:O	2.30	0.64
1:13:154:C:N3	1:13:168:G:N2	2.44	0.64
2:1E:33:TYR:HB2	2:1E:43:ASP:HB2	1.77	0.64
26:1H:1417:C:P	61:1H:4059:HOH:O	2.54	0.64
26:1H:1784:A:OP2	61:1H:4502:HOH:O	2.14	0.64
26:1H:2051:A:OP2	61:1H:4096:HOH:O	2.14	0.64
1:1G:179:A:H2'	1:1G:180:U:H6	1.61	0.64
1:1G:452:A:O2'	1:1G:453:A:O4'	2.12	0.64
1:1G:661:G:H1	1:1G:744:C:H42	1.45	0.64
26:14:741:G:P	61:14:3555:HOH:O	2.54	0.64
26:14:796:C:H2'	26:14:797:C:C6	2.33	0.64
35:25:67:LYS:HE3	35:25:68:GLU:OE1	1.98	0.64
26:1H:2344:U:O2'	53:O8:37:ARG:HG2	1.96	0.64
30:31:8:GLN:H	30:31:8:GLN:CD	1.99	0.64
55:Q8:46:ARG:CZ	55:Q8:46:ARG:HB3	2.26	0.64
8:72:120:THR:HG23	8:72:123:GLU:H	1.63	0.64
26:14:945:A:OP1	61:14:3794:HOH:O	2.15	0.64
26:14:2114:A:N6	26:14:2119:A:N7	2.45	0.64
26:14:2137:C:N4	26:14:2155:G:O6	2.19	0.64
26:14:2429:G:O6	36:35:61:ARG:NH2	2.30	0.64
9:8E:50:LEU:HD23	9:8E:85:LEU:HD11	1.78	0.64
20:BI:71:THR:HG22	20:BI:72:LEU:H	1.62	0.64
26:1H:2061:G:P	61:1H:3626:HOH:O	2.55	0.64
1:1G:1002:G:N2	1:1G:1038:C:N3	2.42	0.64
9:82:42:ARG:NH1	9:82:75:ASP:OD2	2.26	0.64
11:2A:100:ALA:O	11:2A:102:GLY:N	2.30	0.64
57:3L:52:G:H1	57:3L:62:C:H42	1.45	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:84:A:N6	26:14:102:G:O2'	2.23	0.64
26:14:93:C:H5'	26:14:94:G:OP2	1.97	0.64
26:14:2267:A:OP2	61:14:3912:HOH:O	2.14	0.64
26:14:2748:A:H2'	26:14:2749:A:C8	2.32	0.64
1:13:1297:C:OP1	13:4I:13:LYS:NZ	2.28	0.64
7:6E:111:ARG:NH1	7:6E:113:GLU:OE2	2.27	0.64
9:8E:24:GLY:HA2	9:8E:59:PHE:O	1.97	0.64
19:AI:5:LEU:HD13	19:AI:10:PHE:CD1	2.33	0.64
26:1H:1159:U:P	50:L8:30:ARG:HH12	2.20	0.64
26:1H:1430:C:H2'	26:1H:1431:U:C6	2.32	0.64
26:1H:1434:A:H61	26:1H:1558:A:H61	1.44	0.64
32:51:4:ILE:HG13	32:51:6:ARG:NE	2.13	0.64
55:Q8:5:LYS:O	55:Q8:6:THR:OG1	2.09	0.64
5:42:80:ILE:HG13	8:72:104:ARG:HH21	1.62	0.64
26:14:1225:C:O3'	42:95:85:LYS:HA	1.97	0.64
26:14:2128:C:H42	26:14:2160:G:H1	1.44	0.64
6:5E:39:LYS:HD3	6:5E:64:GLN:HG3	1.80	0.64
9:8E:3:GLN:OE1	9:8E:20:ARG:NH1	2.30	0.64
20:BI:89:ARG:NH2	20:BI:104:LEU:HD11	2.13	0.64
26:1H:2107:C:O2	26:1H:2182:G:N2	2.22	0.64
30:31:191:ARG:HB3	30:31:191:ARG:HH11	1.62	0.64
1:1G:407:G:OP1	4:32:115:ARG:NH2	2.30	0.64
5:42:70:PRO:HB3	5:42:144:THR:HG22	1.79	0.64
48:F5:82:LEU:HD23	48:F5:82:LEU:H	1.62	0.64
1:13:686:U:O4	1:13:703:G:H1'	1.97	0.64
1:13:1007:C:N4	1:13:1022:G:H1	1.95	0.64
2:1E:141:GLU:O	2:1E:145:LEU:HB2	1.97	0.64
26:1H:1697:G:OP2	26:1H:1698:A:O2'	2.12	0.64
46:H8:125:LEU:HG	46:H8:164:ALA:HB3	1.80	0.64
1:1G:987:G:N2	1:1G:1218:C:N3	2.44	0.64
1:1G:1308:U:OP2	13:4A:101:GLN:NE2	2.29	0.64
1:1G:1385:G:H2'	1:1G:1386:G:H8	1.63	0.64
3:22:6:HIS:HB3	14:5A:49:HIS:HD2	1.61	0.64
4:32:190:ASP:HB3	4:32:192:GLU:HG3	1.80	0.64
13:4A:84:ILE:HG12	19:AA:63:THR:HG21	1.79	0.64
26:14:1060:U:H4'	26:14:1061:U:H5''	1.80	0.64
26:14:2720:U:H3	26:14:2873:A:H2	1.45	0.64
37:45:51:ARG:HG2	37:45:51:ARG:HH11	1.60	0.64
45:C5:68:HIS:HB3	45:C5:71:LYS:HG3	1.78	0.64
1:13:1314:C:N4	19:AI:4:SER:O	2.25	0.64
26:1H:111:A:H4'	49:K8:69:ARG:NH2	2.13	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2135:A:N6	26:1H:2156:G:O2'	2.30	0.64
1:1G:41:G:H2'	1:1G:42:G:C8	2.33	0.64
1:1G:362:G:O2'	12:3A:33:ARG:NH2	2.30	0.64
26:14:987:G:O2'	26:14:1000:A:N3	2.29	0.64
26:14:1278:A:OP1	38:55:36:THR:HG22	1.98	0.64
26:14:1977:A:OP2	61:14:4014:HOH:O	2.15	0.64
42:95:48:GLY:HA3	42:95:51:VAL:C	2.18	0.64
1:13:1286:A:H8	1:13:1287:A:H4'	1.63	0.64
15:6I:6:GLU:HA	15:6I:9:GLN:HB2	1.80	0.64
26:1H:259:G:N2	26:1H:621:A:H8	1.96	0.64
26:1H:796:C:H2'	26:1H:797:C:C6	2.32	0.64
26:1H:1061:U:H4'	26:1H:1070:A:H1'	1.79	0.64
26:1H:1678:G:H22	26:1H:1989:G:H22	1.46	0.64
26:1H:1858:G:H8	26:1H:1858:G:OP2	1.80	0.64
33:61:73:GLU:HG3	33:61:136:VAL:HG23	1.80	0.64
41:C8:88:ILE:O	41:C8:90:VAL:N	2.27	0.64
44:F8:12:VAL:HG13	44:F8:27:THR:O	1.98	0.64
1:1G:1292:U:H2'	1:1G:1293:G:C8	2.33	0.64
3:22:141:VAL:HA	3:22:144:SER:HB3	1.79	0.64
57:3L:48:C:C5	57:3L:59:U:H1'	2.32	0.64
46:D5:27:VAL:HG12	46:D5:87:ASP:HA	1.80	0.64
1:13:405:U:O4	4:3E:2:GLY:N	2.31	0.64
19:AI:41:VAL:HG11	19:AI:67:VAL:HA	1.79	0.64
26:1H:573:G:O2'	26:1H:574:C:H3'	1.97	0.64
26:1H:1359:A:C2	26:1H:1372:U:O4	2.50	0.64
26:1H:1495:A:OP2	61:1H:4397:HOH:O	2.15	0.64
32:51:4:ILE:HB	32:51:6:ARG:HG3	1.81	0.64
37:88:66:ILE:O	37:88:104:PHE:N	2.30	0.64
56:1L:38:A:H2'	56:1L:39:PSU:H6	1.63	0.64
26:14:38:A:H1'	30:39:48:THR:HB	1.80	0.64
26:14:1676:A:OP2	61:14:3536:HOH:O	2.14	0.64
1:13:1133:G:H2'	1:13:1134:G:C8	2.33	0.63
26:1H:1009:A:OP2	61:1H:4205:HOH:O	2.16	0.63
26:1H:2584:U:H2'	26:1H:2585:U:H2'	1.79	0.63
1:1G:1298:C:O2'	1:1G:1299:A:OP2	2.16	0.63
2:12:9:GLU:HB2	2:12:217:ARG:NH2	2.13	0.63
26:14:123:G:N2	26:14:128:C:O2	2.19	0.63
27:1J:9:G:P	39:65:25:ARG:HH22	2.21	0.63
28:19:32:SER:O	28:19:32:SER:OG	2.16	0.63
33:61:9:LEU:HD21	33:61:35:LEU:HD12	1.79	0.63
1:1G:1305:G:H22	1:1G:1331:G:C2'	2.11	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:69:38:LEU:HD12	33:69:38:LEU:H	1.63	0.63
45:C5:62:GLU:CD	45:C5:63:LYS:H	2.01	0.63
1:13:233:C:H2'	1:13:234:C:H6	1.64	0.63
1:13:1372:U:H5''	9:8E:71:SER:HB2	1.81	0.63
10:1I:6:ILE:HG22	10:1I:98:ILE:HG13	1.79	0.63
19:AI:6:LYS:O	19:AI:7:LYS:HB3	1.98	0.63
24:3K:19:G:O2'	24:3K:57:G:N3	2.31	0.63
26:1H:1479:G:N7	26:1H:1510:A:N6	2.46	0.63
26:1H:2688:U:H5	26:1H:2720:U:OP2	1.81	0.63
28:11:72:LYS:NZ	28:11:99:ASP:OD2	2.26	0.63
26:14:2572:A:C8	29:29:144:ARG:HD2	2.33	0.63
1:13:412:A:H4'	1:13:413:G:O5'	1.98	0.63
17:8I:67:LYS:HA	17:8I:70:ARG:NH1	2.11	0.63
26:1H:422:A:P	61:1H:4487:HOH:O	2.55	0.63
36:78:19:VAL:HB	36:78:20:GLY:HA2	1.79	0.63
36:78:19:VAL:HG12	36:78:21:ARG:H	1.63	0.63
42:D8:21:ARG:HG2	42:D8:91:TYR:HE2	1.62	0.63
12:3A:36:VAL:O	12:3A:59:ARG:N	2.32	0.63
26:14:2318:G:H5'	26:14:2319:G:OP2	1.98	0.63
30:39:68:LYS:HB3	30:39:69:HIS:CD2	2.34	0.63
37:45:34:LEU:HB2	37:45:118:LEU:HD22	1.80	0.63
1:13:101:A:H2'	1:13:102:G:H8	1.62	0.63
1:13:209:U:H5'	1:13:210:U:OP2	1.99	0.63
1:13:963:G:H21	10:1I:55:LYS:HZ1	1.47	0.63
1:13:1126:U:O4	1:13:1127:G:N1	2.32	0.63
26:1H:286:C:H2'	26:1H:287:C:H6	1.62	0.63
26:1H:557:U:H2'	26:1H:558:G:H8	1.61	0.63
26:1H:832:G:H5'	36:78:45:LEU:HD11	1.80	0.63
26:1H:1265:A:H8	26:1H:1265:A:OP1	1.80	0.63
29:21:101:ARG:CZ	29:21:171:GLU:HB2	2.29	0.63
37:88:104:PHE:HE2	37:88:125:LEU:HD11	1.63	0.63
41:C8:91:ASP:HB2	42:D8:11:GLN:OE1	1.98	0.63
26:14:892:G:N2	26:14:894:C:OP1	2.31	0.63
31:49:77:ILE:HG23	31:49:79:ASN:H	1.62	0.63
1:13:524:G:H2'	1:13:525:C:C6	2.32	0.63
1:13:854:G:N7	61:13:1887:HOH:O	2.31	0.63
40:B8:26:ASP:CB	40:B8:92:GLY:H	2.12	0.63
1:1G:625:G:H2'	1:1G:626:U:H6	1.63	0.63
1:1G:760:G:N2	17:8A:94:ASN:OD1	2.32	0.63
26:14:2119:A:N6	26:14:2170:A:N7	2.45	0.63
26:14:2611:U:O2'	52:J5:3:LYS:HG3	1.97	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:45:26:TYR:O	37:45:26:TYR:HD1	1.82	0.63
1:13:1133:G:H2'	1:13:1134:G:H8	1.63	0.63
1:13:1301:U:O2'	1:13:1302:U:H5'	1.99	0.63
1:13:1346:A:H5''	9:8E:120:ARG:NH1	2.13	0.63
8:7E:64:LYS:HB3	8:7E:79:VAL:HG21	1.81	0.63
26:1H:761:A:OP1	61:1H:3683:HOH:O	2.16	0.63
26:1H:1156:A:C8	41:C8:51:LYS:HD3	2.33	0.63
26:1H:1602:U:O4	61:1H:4049:HOH:O	2.10	0.63
32:51:98:LEU:HD22	32:51:125:VAL:HG23	1.80	0.63
37:88:81:VAL:O	37:88:82:ARG:HB2	1.98	0.63
8:72:79:VAL:HG12	8:72:80:ILE:HG13	1.80	0.63
37:45:66:ILE:HG13	37:45:67:ARG:H	1.63	0.63
46:D5:163:LEU:HD23	46:D5:163:LEU:H	1.64	0.63
1:13:160:A:H1'	1:13:344:A:C8	2.34	0.63
26:1H:141:A:H8	26:1H:1595:G:H21	1.46	0.63
37:88:51:ARG:NH1	37:88:52:VAL:HG23	2.14	0.63
40:B8:54:ARG:HA	40:B8:59:THR:HB	1.80	0.63
46:H8:129:SER:H	46:H8:161:VAL:HG11	1.63	0.63
4:32:176:LEU:HG	4:32:178:VAL:HG13	1.80	0.63
7:62:26:PHE:HD1	7:62:101:LEU:HD22	1.62	0.63
26:14:2120:G:H2'	26:14:2121:G:C8	2.33	0.63
26:14:2773:C:OP1	29:29:166:THR:OG1	2.15	0.63
29:29:23:VAL:HG11	29:29:183:LEU:HD23	1.79	0.63
30:39:192:LEU:HD23	30:39:193:VAL:H	1.63	0.63
42:95:71:LEU:N	42:95:86:GLY:HA2	2.14	0.63
1:13:542:G:O6	61:13:1928:HOH:O	2.12	0.63
1:13:1117:G:H5''	9:8E:104:ARG:NH1	2.13	0.63
2:1E:162:ILE:O	2:1E:185:ILE:HG13	1.98	0.63
9:8E:26:VAL:HG13	9:8E:61:ALA:HB3	1.80	0.63
10:1I:84:GLN:HG3	10:1I:88:LEU:HD23	1.81	0.63
26:1H:49:A:N7	26:1H:120:U:C5	2.63	0.63
26:1H:1102:C:H2'	26:1H:1103:A:H8	1.63	0.63
26:1H:1425:G:O6	61:1H:4245:HOH:O	2.12	0.63
31:41:179:PRO:HG3	51:M8:38:LYS:HE3	1.81	0.63
33:61:131:LYS:HB3	33:61:132:PRO:HA	1.79	0.63
35:68:68:GLU:OE2	35:68:78:ARG:NH1	2.30	0.63
51:M8:6:HIS:HD1	51:M8:7:PRO:HD2	1.64	0.63
20:BA:49:ALA:HA	20:BA:52:ALA:HB3	1.81	0.63
26:14:123:G:N1	26:14:128:C:N3	2.39	0.63
26:14:994:C:OP1	41:85:53:ARG:NH2	2.31	0.63
36:35:47:ASP:HB3	36:35:49:ARG:N	2.14	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:35:64:LYS:CB	55:M5:30:ARG:HH22	2.12	0.63
39:65:11:LYS:HG3	39:65:91:PRO:HD3	1.80	0.63
46:D5:4:ARG:HA	46:D5:58:VAL:HB	1.81	0.63
48:F5:92:LYS:O	48:F5:94:LEU:N	2.31	0.63
11:2I:21:ILE:HB	11:2I:84:VAL:HG12	1.81	0.62
22:1K:7:A:H61	22:1K:66:U:H3	1.45	0.62
22:1K:9:A:O2'	22:1K:10:G:OP1	2.15	0.62
26:1H:1794:U:H2'	26:1H:1795:C:C6	2.34	0.62
26:1H:2572:A:N7	29:21:144:ARG:HD2	2.13	0.62
26:1H:2646:C:OP2	26:1H:2732:G:O2'	2.14	0.62
1:1G:766:A:OP2	61:1G:1770:HOH:O	2.16	0.62
5:42:61:TYR:O	5:42:65:ASN:N	2.25	0.62
26:14:654(B):C:H2'	26:14:654(C):G:C8	2.32	0.62
26:14:2037:G:H2'	26:14:2038:G:C8	2.33	0.62
31:49:120:LEU:HG	31:49:179:PRO:O	1.99	0.62
35:25:104:ARG:HH12	40:75:36:GLU:HB3	1.64	0.62
1:13:631:G:C8	1:13:632:A:H2	2.18	0.62
26:1H:34:C:OP2	26:1H:34:C:H6	1.81	0.62
26:1H:1798:U:C5'	28:11:259:THR:HG22	2.30	0.62
30:31:9:ILE:HD11	30:31:125:LEU:H	1.63	0.62
36:78:114:ILE:HD11	36:78:130:PHE:CD2	2.34	0.62
40:B8:16:ARG:HE	40:B8:19:LEU:HD11	1.62	0.62
41:C8:68:ALA:O	41:C8:71:GLN:HB2	1.99	0.62
1:1G:564:C:O2'	8:72:91:ARG:NH2	2.32	0.62
4:32:98:GLU:OE2	4:32:103:ASN:ND2	2.31	0.62
26:14:751:A:P	61:14:3506:HOH:O	2.57	0.62
26:14:1342:A:H2	26:14:1602:U:N3	1.95	0.62
32:59:26:VAL:HG12	32:59:33:LEU:H	1.64	0.62
53:K5:9:LEU:N	53:K5:27:LYS:HG3	2.14	0.62
4:3E:81:GLU:OE1	4:3E:139:ARG:NH2	2.31	0.62
26:1H:606:U:OP2	30:31:104:LYS:NZ	2.33	0.62
26:1H:805:G:OP2	36:78:41:ARG:HG2	1.98	0.62
39:A8:37:ALA:HB2	39:A8:101:LEU:HD21	1.82	0.62
1:1G:841:U:O2'	1:1G:842:C:H5''	1.99	0.62
1:1G:1057:G:H1	1:1G:1203:C:H42	1.47	0.62
3:22:155:GLY:HA3	3:22:196:LEU:HD13	1.81	0.62
29:29:25:VAL:HG12	29:29:26:ILE:H	1.63	0.62
42:95:80:GLN:HG3	42:95:81:TYR:H	1.64	0.62
1:13:736:C:H2'	1:13:737:A:H8	1.62	0.62
12:3I:57:LYS:NZ	12:3I:67:THR:HG22	2.14	0.62
26:1H:994:C:OP1	41:C8:53:ARG:NH2	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2232:U:P	48:J8:40:ARG:HH12	2.22	0.62
26:1H:2315:G:OP1	31:41:36:LYS:NZ	2.32	0.62
37:88:5:ARG:HD3	37:88:5:ARG:N	2.13	0.62
1:1G:1294:G:H2'	1:1G:1295:G:H8	1.64	0.62
5:42:145:LYS:O	5:42:149:GLU:N	2.30	0.62
27:1J:4:C:H42	27:1J:116:G:H1	1.47	0.62
30:39:25:PRO:HB2	30:39:27:GLU:N	2.12	0.62
32:59:6:ARG:H	32:59:6:ARG:HD2	1.63	0.62
1:13:658:G:H2'	1:13:659:U:H6	1.64	0.62
1:13:1348:U:H4'	9:8E:120:ARG:HD2	1.80	0.62
6:5E:101:ALA:HB2	18:9I:28:GLU:HG2	1.82	0.62
26:1H:1113:U:H5'	32:51:2:SER:HB2	1.81	0.62
26:1H:1509:C:H2'	26:1H:1511:A:C8	2.35	0.62
26:1H:1575:C:H2'	26:1H:1576:U:C6	2.34	0.62
37:88:138:ASP:OD1	37:88:138:ASP:N	2.31	0.62
38:98:97:VAL:HG22	38:98:114:VAL:HG22	1.79	0.62
1:1G:485:G:O2'	1:1G:486:U:O5'	2.17	0.62
1:1G:501:C:H2'	1:1G:502:G:H8	1.64	0.62
1:1G:1118:C:H1'	1:1G:1179:A:C4	2.35	0.62
7:62:92:SER:HB2	7:62:95:ARG:H	1.64	0.62
26:14:491:G:H2'	26:14:492:A:C8	2.34	0.62
26:14:2250:G:C4	37:45:82:ARG:HG3	2.34	0.62
45:C5:48:ALA:HB3	45:C5:59:GLY:C	2.20	0.62
46:D5:139:VAL:HG13	46:D5:156:LYS:HE2	1.81	0.62
5:4E:110:LEU:HD13	5:4E:118:ILE:HD13	1.81	0.62
24:3K:76:A:H8	26:1H:2394:C:N4	1.95	0.62
26:1H:155:C:N4	26:1H:171:G:H1	1.93	0.62
26:1H:2383:G:O2'	26:1H:2384:G:H5'	1.99	0.62
35:68:4:PRO:O	35:68:5:GLN:HB2	1.98	0.62
39:A8:35:ILE:HD11	39:A8:101:LEU:HD23	1.82	0.62
44:F8:15:GLU:HG3	44:F8:16:LYS:N	2.14	0.62
26:14:19:C:H2'	26:14:20:C:C6	2.34	0.62
26:14:576:U:O4	61:14:3660:HOH:O	2.14	0.62
26:14:824:A:H1'	26:14:2358:G:N7	2.14	0.62
26:14:2331:G:O3'	47:E5:43:THR:HG22	2.00	0.62
35:25:8:LEU:HD13	35:25:82:ASN:HB3	1.82	0.62
37:45:25:ASP:HB3	37:45:102:VAL:HG23	1.81	0.62
1:13:737:A:H2'	1:13:738:C:C6	2.35	0.62
1:13:824:C:O2'	8:7E:1:MET:HB3	1.99	0.62
2:1E:126:GLU:HA	2:1E:129:GLU:HG2	1.81	0.62
13:4I:3:ARG:HE	13:4I:9:ILE:HD11	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:19:G:C6	26:1H:2112:G:H1'	2.35	0.62
26:1H:612:G:N2	26:1H:616:A:O2'	2.33	0.62
37:88:12:GLN:HG2	37:88:73:PRO:HD2	1.81	0.62
1:1G:1258:G:H2'	1:1G:1259:C:H6	1.65	0.62
19:AA:41:VAL:HG12	19:AA:43:GLU:H	1.64	0.62
27:1J:6:C:H2'	27:1J:7:G:H5''	1.81	0.62
1:13:1530:G:H3'	1:13:1531:A:OP1	1.98	0.62
2:1E:53:ARG:NH2	2:1E:198:ASP:O	2.32	0.62
26:1H:2233:U:H2'	26:1H:2234:G:C8	2.35	0.62
33:61:144:VAL:HG22	33:61:145:VAL:HG23	1.81	0.62
52:N8:33:CYS:HB2	52:N8:40:LYS:HD3	1.81	0.62
26:14:321:G:OP1	30:39:135:LYS:NZ	2.31	0.62
32:59:163:TYR:CE1	32:59:169:VAL:HG21	2.35	0.62
33:69:112:LYS:HA	33:69:114:LEU:H	1.65	0.62
40:75:23:ARG:HG3	40:75:120:ARG:NH1	2.15	0.62
41:85:100:VAL:O	41:85:101:ARG:HG2	1.99	0.62
1:13:766:A:OP2	61:13:1804:HOH:O	2.16	0.62
1:13:793:U:H5'	1:13:794:A:H5''	1.82	0.62
1:13:1133:G:N2	1:13:1141:C:N3	2.47	0.62
1:13:1448:C:H42	1:13:1455:G:H1	1.46	0.62
10:1I:34:VAL:HG12	10:1I:74:ILE:HG23	1.80	0.62
26:1H:1138:G:H21	34:58:106:MET:CE	2.13	0.62
26:1H:1332:G:H5'	26:1H:1332:G:H8	1.64	0.62
26:1H:1701:A:OP2	61:1H:4371:HOH:O	2.16	0.62
29:21:111:ARG:HD2	29:21:160:TYR:CE2	2.34	0.62
34:58:96:GLU:C	34:58:98:VAL:H	2.02	0.62
36:78:18:ARG:O	36:78:19:VAL:HG13	1.99	0.62
37:88:35:VAL:HG13	37:88:130:LYS:HB3	1.82	0.62
38:98:87:TYR:HE1	38:98:117:VAL:HG12	1.65	0.62
39:A8:59:LYS:HG2	39:A8:60:GLY:H	1.65	0.62
3:22:75:VAL:O	3:22:83:ARG:NH2	2.32	0.62
13:4A:17:VAL:HG13	13:4A:27:LYS:NZ	2.15	0.62
29:29:147:PRO:HB2	29:29:149:ARG:HG2	1.82	0.62
46:D5:7:ALA:HB3	46:D5:61:LEU:HA	1.81	0.62
46:D5:10:ARG:NE	46:D5:37:VAL:O	2.24	0.62
26:1H:1354:A:H4'	28:11:38:LYS:HE3	1.82	0.62
1:1G:1294:G:H2'	1:1G:1295:G:C8	2.35	0.62
27:1J:18:G:H2'	27:1J:19:G:C8	2.35	0.62
31:49:118:ARG:HB3	31:49:181:ARG:HG3	1.82	0.62
1:13:254:G:O3'	17:8I:69:LYS:NZ	2.29	0.61
1:13:1286:A:C8	1:13:1287:A:H4'	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3I:11:VAL:HG13	17:8I:29:HIS:HD2	1.64	0.61
26:1H:1021:A:C8	26:1H:1021:A:H3'	2.35	0.61
26:1H:1221:C:H2'	26:1H:1222:C:C6	2.35	0.61
33:61:40:THR:O	33:61:44:LEU:HB2	2.00	0.61
42:D8:21:ARG:HG2	42:D8:91:TYR:CE2	2.35	0.61
53:O8:41:PRO:HB2	53:O8:43:CYS:HB2	1.82	0.61
1:1G:1108:G:H5'	3:22:176:HIS:CD2	2.34	0.61
1:1G:1268:A:H2'	1:1G:1269:A:H8	1.65	0.61
2:12:60:ASP:O	2:12:64:ARG:N	2.33	0.61
26:14:2542:A:H4'	26:14:2542:A:OP1	1.99	0.61
26:14:2588:G:P	61:14:3593:HOH:O	2.53	0.61
40:75:4:GLY:HA2	40:75:8:LYS:HB2	1.81	0.61
40:75:54:ARG:HA	40:75:59:THR:HB	1.82	0.61
5:4E:11:ILE:HG13	5:4E:31:LEU:HD13	1.81	0.61
20:BI:26:ASN:HB2	20:BI:71:THR:HG23	1.80	0.61
20:BI:49:ALA:HB2	20:BI:99:LEU:HD23	1.82	0.61
26:1H:1021:A:H8	26:1H:1021:A:H3'	1.65	0.61
26:1H:1069:A:H4'	26:1H:1070:A:H5''	1.81	0.61
26:1H:1314:C:OP1	61:1H:3970:HOH:O	2.16	0.61
26:1H:1453:A:O2'	26:1H:1454:U:H2'	1.99	0.61
29:21:15:PHE:HA	29:21:19:ARG:O	1.99	0.61
7:62:149:ARG:HD3	11:2A:59:TYR:CE1	2.35	0.61
20:BA:45:GLN:HB2	20:BA:91:LEU:HD13	1.83	0.61
26:14:2137:C:O2	26:14:2155:G:N2	2.32	0.61
35:25:73:ASP:OD2	40:75:32:TYR:OH	2.09	0.61
2:1E:226:ARG:HG3	2:1E:227:GLY:H	1.64	0.61
26:1H:639:U:O2'	26:1H:640:C:H5'	1.99	0.61
26:1H:1512:G:H2'	26:1H:1513:C:C6	2.34	0.61
48:J8:58:ILE:HG23	48:J8:87:PRO:HG3	1.83	0.61
4:32:24:GLU:N	4:32:24:GLU:OE2	2.32	0.61
4:32:31:CYS:C	4:32:33:MET:N	2.54	0.61
26:14:878:A:H61	26:14:899:A:H1'	1.65	0.61
26:14:910:A:C5	37:45:13:GLN:HG3	2.34	0.61
26:14:2537:U:H2'	26:14:2538:C:C6	2.35	0.61
36:35:105:LEU:O	36:35:106:LEU:HB3	1.98	0.61
1:13:664:G:N2	1:13:741:G:H1	1.92	0.61
1:13:953:G:H2'	1:13:954:G:O4'	2.01	0.61
13:4I:27:LYS:HA	13:4I:31:LYS:NZ	2.15	0.61
26:1H:2334:G:H5'	39:A8:9:ARG:HG2	1.83	0.61
31:41:64:THR:HG22	31:41:66:GLN:N	2.16	0.61
43:E8:38:TYR:OH	52:N8:47:PRO:HG3	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:K8:22:GLU:OE2	49:K8:68:ARG:NH2	2.32	0.61
52:N8:41:PRO:HD2	52:N8:44:THR:HG21	1.83	0.61
53:O8:25:LYS:HB2	55:Q8:32:LEU:HD12	1.82	0.61
1:1G:376:G:H5''	16:7A:5:ARG:HD2	1.81	0.61
26:14:67:U:H3	26:14:74:A:H2	1.47	0.61
26:14:1434:A:H61	26:14:1558:A:H62	1.48	0.61
26:14:2190:G:H2'	26:14:2191:G:O4'	2.00	0.61
26:14:2261:C:H1'	26:14:2388:A:N3	2.15	0.61
40:75:56:GLY:O	40:75:59:THR:HG23	2.00	0.61
44:B5:32:PRO:HA	44:B5:77:LYS:HB2	1.81	0.61
1:13:201:C:N4	1:13:209:U:O2	2.33	0.61
1:13:963:G:H1	1:13:972:C:H42	1.47	0.61
1:13:1131:G:H2'	1:13:1132:C:C6	2.36	0.61
4:3E:22:LYS:HB2	4:3E:26:CYS:SG	2.40	0.61
18:9I:26:LEU:HD22	18:9I:42:ARG:HH22	1.66	0.61
43:E8:92:ARG:NH1	43:E8:94:ASP:OD1	2.30	0.61
4:32:76:ARG:HH21	4:32:80:GLU:HG2	1.65	0.61
20:BA:49:ALA:HB2	20:BA:92:LEU:HD22	1.81	0.61
26:14:631:A:OP2	55:M5:47:LYS:NZ	2.28	0.61
26:14:1154:G:OP2	41:85:58:ARG:NH1	2.34	0.61
30:39:7:TYR:CD1	30:39:18:ARG:HB2	2.35	0.61
1:13:1003:G:N2	1:13:1004:A:O2'	2.34	0.61
24:3K:35:A:H2'	24:3K:36:A:C8	2.36	0.61
31:41:129:GLY:O	31:41:161:THR:HG22	2.01	0.61
1:1G:1054:C:O2'	1:1G:1055:A:O5'	2.15	0.61
1:1G:1220:G:H5'	19:AA:35:SER:HA	1.82	0.61
26:14:1428:C:N4	26:14:1570:A:OP2	2.25	0.61
26:14:2557:G:H2'	26:14:2558:C:C6	2.36	0.61
29:29:151:TYR:HD2	29:29:154:LYS:HZ2	1.47	0.61
48:F5:86:SER:N	48:F5:87:PRO:HD2	2.15	0.61
1:13:156:G:H1'	1:13:166:G:N2	2.16	0.61
9:8E:49:PRO:HA	9:8E:52:ALA:HB3	1.82	0.61
24:3K:9:A:H62	24:3K:23:A:H62	1.49	0.61
41:C8:92:ARG:HA	41:C8:95:LEU:HD23	1.82	0.61
46:H8:73:GLN:HB2	46:H8:87:ASP:HB2	1.82	0.61
1:1G:1325:C:H5''	21:1B:17:THR:HG21	1.82	0.61
52:J5:41:PRO:O	52:J5:44:THR:OG1	2.17	0.61
3:2E:58:GLU:HB2	3:2E:65:ALA:HB3	1.83	0.61
3:2E:175:LEU:HD23	3:2E:182:ILE:HD13	1.83	0.61
23:2K:21:U:O2	23:2K:21:U:H2'	2.00	0.61
26:1H:881:G:O6	26:1H:895:U:N3	2.29	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:957:A:N1	26:1H:2458:G:H4'	2.16	0.61
26:1H:2830:G:H5''	26:1H:2830:G:H8	1.65	0.61
32:51:86:GLU:HG3	32:51:165:ALA:HB3	1.83	0.61
37:88:18:LYS:O	37:88:98:LYS:NZ	2.34	0.61
55:Q8:53:PRO:HB3	55:Q8:56:GLU:CG	2.31	0.61
1:1G:600:C:H2'	1:1G:601:C:C6	2.36	0.61
1:1G:933:G:O6	7:62:3:ARG:NH2	2.29	0.61
1:1G:1288:A:H4'	21:1B:13:ILE:HD13	1.83	0.61
23:2L:22:A:N6	23:2L:47:7MG:H2'	2.15	0.61
26:14:2567:G:H2'	26:14:2568:C:C6	2.35	0.61
4:3E:15:GLU:OE1	4:3E:66:ARG:NH1	2.32	0.61
26:1H:265:A:C8	26:1H:266:G:H1'	2.36	0.61
26:1H:326:G:N7	61:1H:3850:HOH:O	2.31	0.61
26:1H:607:U:N3	26:1H:621:A:C2	2.68	0.61
26:1H:2032:G:H21	29:21:146:THR:HG23	1.66	0.61
26:1H:2287:A:N6	26:1H:2344:U:H3	1.98	0.61
29:21:24:THR:HG21	29:21:188:VAL:CG2	2.30	0.61
45:G8:40:GLU:HA	45:G8:42:VAL:H	1.65	0.61
1:1G:1128:C:H4'	9:82:16:ARG:HH12	1.66	0.61
1:1G:1274:G:H2'	1:1G:1275:A:C8	2.35	0.61
23:2L:76:C:H2'	23:2L:77:A:C8	2.36	0.61
26:14:1677:A:H2'	26:14:1678:G:C8	2.36	0.61
26:14:2467:C:H4'	37:45:123:HIS:CE1	2.36	0.61
45:C5:99:CYS:SG	45:C5:100:ALA:N	2.73	0.61
46:D5:30:ASN:HA	46:D5:89:PHE:HE1	1.64	0.61
1:13:625:G:H4'	16:7I:16:HIS:ND1	2.16	0.61
1:13:1130:A:O2'	9:8E:3:GLN:NE2	2.28	0.61
6:5E:18:GLN:HA	6:5E:21:LEU:HD22	1.82	0.61
26:1H:1532:C:H2'	26:1H:1533:C:O4'	2.00	0.61
28:11:238:GLY:O	28:11:240:ALA:N	2.34	0.61
40:B8:3:ARG:HB2	40:B8:6:LEU:HB3	1.81	0.61
1:1G:1387:G:H2'	1:1G:1388:C:H6	1.64	0.61
26:14:2058:A:N6	61:14:4032:HOH:O	2.12	0.61
27:1J:9:G:OP1	39:65:25:ARG:NH2	2.33	0.61
29:29:103:ASP:OD2	29:29:199:ARG:NH2	2.34	0.61
36:35:65:ARG:HB2	36:35:65:ARG:NH1	2.10	0.61
36:35:71:VAL:HG13	36:35:72:PRO:HD3	1.83	0.61
41:85:52:ARG:HA	41:85:55:ARG:HD3	1.81	0.61
46:D5:157:LEU:HD12	46:D5:161:VAL:HG11	1.83	0.61
1:13:765:G:H5''	1:13:766:A:OP1	2.01	0.60
1:13:1423:G:P	35:68:49:ARG:HH22	2.24	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:108:LEU:HD13	4:3E:174:LEU:HD13	1.83	0.60
26:1H:1055:G:H1'	26:1H:1085:A:C2	2.37	0.60
26:1H:1055:G:O2'	26:1H:1086:A:N6	2.33	0.60
33:61:80:PRO:HB2	33:61:146:ALA:HA	1.83	0.60
41:C8:96:ALA:H	41:C8:99:ALA:H	1.49	0.60
1:1G:750:G:N3	15:6A:23:GLY:HA3	2.16	0.60
1:1G:1513:A:H2'	1:1G:1514:C:C6	2.37	0.60
19:AA:18:LYS:O	19:AA:22:LEU:HB2	2.01	0.60
26:14:800:A:H8	61:14:3727:HOH:O	1.82	0.60
26:14:1253:A:OP1	61:14:4007:HOH:O	2.16	0.60
26:14:2393:A:O3'	36:35:63:PRO:HD2	2.01	0.60
26:14:2420:C:N4	55:M5:31:HIS:HB3	2.15	0.60
9:8E:46:ALA:HB2	9:8E:74:ILE:HG23	1.83	0.60
19:AI:5:LEU:HB3	19:AI:10:PHE:HE1	1.66	0.60
26:1H:507:A:H5''	26:1H:508:G:H3'	1.82	0.60
26:1H:2199:A:H5'	26:1H:2199:A:C8	2.35	0.60
32:51:15:VAL:HG12	32:51:29:PRO:HD2	1.83	0.60
48:J8:90:ILE:HG22	48:J8:94:LEU:HD12	1.82	0.60
1:1G:438:G:H4'	4:32:123:HIS:CD2	2.35	0.60
1:1G:649:G:H2'	1:1G:650:G:H8	1.66	0.60
11:2A:85:ARG:HD3	11:2A:113:PRO:HD3	1.83	0.60
12:3A:111:LYS:H	12:3A:111:LYS:HD2	1.66	0.60
26:14:38:A:H2'	26:14:39:C:C6	2.36	0.60
27:1J:72:G:O2'	27:1J:104:A:N6	2.34	0.60
29:29:33:VAL:HG12	29:29:89:ASP:CB	2.30	0.60
33:69:102:SER:O	33:69:106:GLY:N	2.34	0.60
36:35:128:HIS:HA	36:35:147:LEU:HA	1.81	0.60
1:13:545:C:O2'	1:13:549:C:OP1	2.17	0.60
15:6I:7:GLU:OE1	15:6I:38:ARG:NH2	2.33	0.60
26:1H:805:G:P	61:1H:4480:HOH:O	2.55	0.60
26:1H:1110:G:O2'	26:1H:1111:A:O5'	2.18	0.60
26:1H:2080:G:H5''	26:1H:2080:G:H8	1.66	0.60
28:11:146:GLU:HB2	28:11:189:CYS:HB3	1.83	0.60
45:G8:40:GLU:HA	45:G8:42:VAL:N	2.16	0.60
1:1G:861:G:H2'	1:1G:862:C:H6	1.67	0.60
13:4A:3:ARG:HG2	13:4A:9:ILE:HG12	1.83	0.60
39:65:34:HIS:ND1	39:65:53:SER:OG	2.34	0.60
45:C5:76:CYS:HB2	45:C5:82:PRO:HG3	1.83	0.60
1:13:74:C:H42	1:13:96:G:H1	1.49	0.60
1:13:1060:C:HO2'	10:1I:56:HIS:HD1	1.48	0.60
26:1H:692:C:O2'	28:11:38:LYS:HE2	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:41:173:LEU:HB3	31:41:178:PHE:CD2	2.36	0.60
46:H8:126:VAL:HA	46:H8:164:ALA:H	1.66	0.60
51:M8:48:ARG:HA	51:M8:48:ARG:HH11	1.65	0.60
1:1G:135:C:O2	16:7A:1:MET:HB3	2.00	0.60
1:1G:1251:A:H2'	1:1G:1252:A:C8	2.36	0.60
26:14:2393:A:H4'	36:35:62:LEU:H	1.67	0.60
39:65:67:ARG:NH1	39:65:67:ARG:HB2	2.16	0.60
1:13:392:G:H5'	16:7I:12:LYS:HD2	1.84	0.60
26:1H:730:C:H3'	61:1H:3684:HOH:O	2.01	0.60
26:1H:1575:C:H2'	26:1H:1576:U:H6	1.65	0.60
26:1H:1996:C:OP1	35:68:31:LYS:HE3	2.02	0.60
11:2A:21:ILE:HB	11:2A:84:VAL:HG12	1.83	0.60
26:14:152:G:H1	26:14:174:C:N4	1.99	0.60
26:14:1058:U:H2'	26:14:1059:G:C8	2.36	0.60
26:14:1386:C:H2'	26:14:1387:C:C6	2.36	0.60
26:14:2572:A:OP1	26:14:2574:G:O2'	2.15	0.60
55:M5:52:LYS:HE2	55:M5:52:LYS:O	2.02	0.60
16:7I:26:ARG:HE	16:7I:31:LYS:HB3	1.65	0.60
26:1H:1047:G:O2'	26:1H:1111:A:N6	2.34	0.60
26:1H:2572:A:C8	29:21:144:ARG:HD2	2.37	0.60
35:68:88:ASN:ND2	35:68:90:GLN:HB2	2.13	0.60
41:C8:92:ARG:C	41:C8:94:ASN:H	2.05	0.60
51:M8:36:CYS:SG	51:M8:39:CYS:HB3	2.41	0.60
1:1G:411:A:H62	1:1G:413:G:N2	2.00	0.60
1:1G:827:U:H3	1:1G:872:A:H62	1.48	0.60
13:4A:60:VAL:HG13	13:4A:64:TRP:HE1	1.66	0.60
23:2L:41:C:H2'	23:2L:42:C:C6	2.35	0.60
26:14:141:A:H8	26:14:1595:G:H21	1.49	0.60
27:1J:42:C:O2	31:49:93:THR:N	2.25	0.60
38:55:97:VAL:HG12	38:55:114:VAL:HG13	1.82	0.60
11:2I:54:ARG:NH1	24:3K:39:PSU:O2'	2.33	0.60
15:6I:6:GLU:OE1	15:6I:7:GLU:N	2.28	0.60
26:1H:323:G:C8	30:31:171:PRO:HG3	2.37	0.60
1:1G:376:G:H1	1:1G:387:U:H3	1.50	0.60
9:82:13:ALA:HB2	9:82:68:GLY:HA3	1.84	0.60
13:4A:22:ILE:HB	13:4A:25:ILE:HG13	1.83	0.60
28:19:200:ASP:OD1	28:19:203:ASN:ND2	2.34	0.60
29:29:119:ARG:HG2	29:29:160:TYR:HB2	1.84	0.60
34:15:38:HIS:NE2	34:15:50:ASP:OD2	2.32	0.60
36:35:146:VAL:HG13	36:35:147:LEU:HD22	1.82	0.60
42:95:70:ILE:N	42:95:86:GLY:O	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:890:G:O2'	1:13:906:G:O6	2.14	0.60
26:1H:557:U:H2'	26:1H:558:G:C8	2.37	0.60
26:1H:744:G:OP1	61:1H:3699:HOH:O	2.17	0.60
37:88:21:THR:HA	37:88:98:LYS:HB2	1.84	0.60
44:F8:3:THR:OG1	44:F8:4:ALA:HA	2.02	0.60
44:F8:3:THR:HB	44:F8:6:ASP:HB2	1.83	0.60
44:F8:41:ASN:O	44:F8:45:THR:HG23	2.01	0.60
1:1G:458:C:H2'	1:1G:464:G:H8	1.66	0.60
1:1G:632:A:H1'	1:1G:633:G:OP2	2.01	0.60
1:1G:767:A:H3'	61:1G:1703:HOH:O	2.00	0.60
7:62:15:ASP:OD1	7:62:44:TYR:OH	2.20	0.60
41:85:49:HIS:HA	41:85:52:ARG:HB2	1.82	0.60
53:K5:27:LYS:HZ3	53:K5:28:ARG:NH1	2.00	0.60
1:13:67:C:H2'	1:13:68:G:C8	2.36	0.60
26:1H:85:G:OP2	45:G8:9:LYS:HB2	2.00	0.60
29:21:23:VAL:HA	29:21:185:LYS:HA	1.82	0.60
1:1G:683:G:H2'	1:1G:684:A:C8	2.36	0.60
1:1G:1141:C:H2'	1:1G:1142:G:H8	1.67	0.60
2:12:179:LYS:HD3	2:12:180:LEU:HG	1.84	0.60
4:32:60:GLU:HG2	4:32:202:LEU:HB2	1.84	0.60
16:7A:53:VAL:HG13	16:7A:79:VAL:HG22	1.82	0.60
26:14:29:U:H2'	26:14:30:G:C8	2.37	0.60
26:14:918:A:O2'	27:1J:96:G:N2	2.34	0.60
26:14:2303:G:C2'	26:14:2304:G:H5'	2.32	0.60
33:69:63:ALA:HA	33:69:66:GLU:HG2	1.84	0.60
35:25:102:VAL:HB	35:25:106:LEU:HD12	1.84	0.60
39:65:50:SER:O	39:65:76:LYS:NZ	2.29	0.60
1:13:1368:G:OP2	9:8E:112:LYS:HD2	2.02	0.60
26:1H:1204:A:H61	26:1H:1240:U:H2'	1.67	0.60
26:1H:2867:G:OP2	40:B8:119:LYS:NZ	2.26	0.60
31:41:67:LYS:HE2	31:41:67:LYS:H	1.67	0.60
55:Q8:38:GLY:HA2	55:Q8:39:LYS:O	2.02	0.60
1:1G:409:G:H2'	1:1G:410:G:O4'	2.02	0.60
1:1G:1126:U:H4'	1:1G:1127:G:N7	2.16	0.60
26:14:1250:G:OP1	61:14:4029:HOH:O	2.17	0.60
26:14:1963:U:H5''	26:14:1963:U:O2	2.01	0.60
45:C5:30:VAL:HG12	45:C5:32:PRO:HD3	1.84	0.60
46:D5:110:GLY:HA2	46:D5:144:LEU:HD23	1.83	0.60
2:1E:5:ILE:HG13	2:1E:6:THR:HG22	1.84	0.59
17:8I:68:ARG:H	17:8I:70:ARG:NH1	1.99	0.59
26:1H:2795:G:H3'	26:1H:2797:U:H5''	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:31:101:LEU:HD22	30:31:102:PRO:HD2	1.84	0.59
53:08:41:PRO:HB2	53:08:43:CYS:H	1.67	0.59
1:1G:668:G:O4'	15:6A:49:ASP:HB2	2.02	0.59
19:AA:63:THR:OG1	19:AA:65:ASN:O	2.19	0.59
26:14:2331:G:H4'	47:E5:43:THR:H	1.67	0.59
27:1J:46:A:H2'	27:1J:47:C:C6	2.37	0.59
27:1J:46:A:H2'	27:1J:47:C:H6	1.67	0.59
27:1J:104:A:H2'	27:1J:105:G:O4'	2.02	0.59
1:13:674:G:H2'	1:13:675:A:C8	2.36	0.59
26:1H:309:G:H4'	45:G8:18:GLY:HA2	1.83	0.59
39:A8:24:LEU:HB2	39:A8:85:VAL:HG12	1.84	0.59
6:52:74:ASP:OD1	6:52:74:ASP:N	2.35	0.59
26:14:800:A:P	61:14:3727:HOH:O	2.59	0.59
26:14:882:G:H22	26:14:894:C:N4	1.99	0.59
26:14:2414:G:H21	36:35:67:MET:CE	2.16	0.59
26:14:2439:A:H5'	26:14:2439:A:C8	2.37	0.59
27:1J:40:U:H3	27:1J:43:C:H5''	1.67	0.59
33:69:78:THR:HG21	33:69:104:GLN:HG3	1.82	0.59
1:13:535:A:H5''	61:13:1846:HOH:O	2.02	0.59
1:13:1060:C:C5	3:2E:2:GLY:HA3	2.37	0.59
2:1E:88:ALA:HB2	2:1E:219:VAL:HG13	1.84	0.59
11:2I:21:ILE:HG12	11:2I:30:VAL:HG12	1.84	0.59
19:AI:50:ALA:HB1	19:AI:57:HIS:HB3	1.84	0.59
26:1H:1103:A:H3'	26:1H:1104:C:H6	1.68	0.59
26:1H:1165:U:H2'	26:1H:1166:C:H6	1.66	0.59
26:1H:1168:G:C2	26:1H:1182:A:C2	2.91	0.59
30:31:129:PHE:HA	30:31:142:TRP:NE1	2.17	0.59
40:B8:24:PRO:HD3	40:B8:52:ILE:HD12	1.84	0.59
41:C8:92:ARG:CB	41:C8:95:LEU:HD23	2.32	0.59
13:4A:97:PRO:HB2	13:4A:101:GLN:HG3	1.83	0.59
16:7A:49:LEU:HD22	16:7A:73:LEU:HD13	1.85	0.59
56:1L:18:G:O2'	56:1L:19:G:OP1	2.19	0.59
26:14:1165:U:H2'	26:14:1166:C:C6	2.37	0.59
26:14:2130:U:H2'	26:14:2158:A:N1	2.18	0.59
28:19:65:ILE:HD11	28:19:67:PHE:CE1	2.37	0.59
31:49:33:ARG:CZ	31:49:162:THR:HG21	2.32	0.59
36:35:15:ARG:HB2	36:35:15:ARG:CZ	2.31	0.59
41:85:28:ARG:HH11	41:85:38:THR:HG1	1.50	0.59
47:E5:51:VAL:N	47:E5:62:LEU:HD12	2.17	0.59
51:I5:22:ILE:HD13	51:I5:22:ILE:H	1.68	0.59
1:13:272:C:H2'	1:13:273:A:H8	1.66	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:23:TYR:HD2	13:4I:67:GLU:HA	1.67	0.59
24:3K:8:U:H2'	24:3K:13:C:H41	1.67	0.59
26:1H:353:G:H2'	26:1H:354:G:H8	1.67	0.59
26:1H:524:U:H2'	26:1H:525:U:C6	2.36	0.59
26:1H:637:A:H2'	36:78:117:GLU:OE1	2.01	0.59
26:1H:860:U:H1'	26:1H:2268:A:H5'	1.84	0.59
26:1H:1062:G:N2	26:1H:1076:C:N3	2.46	0.59
26:1H:1420:U:O2'	26:1H:1421:G:OP1	2.19	0.59
34:58:127:ASP:OD1	34:58:127:ASP:N	2.36	0.59
44:F8:24:GLY:O	44:F8:83:VAL:HG22	2.02	0.59
1:1G:1187:G:H5'	9:82:113:LYS:HZ3	1.67	0.59
1:1G:1266:G:N2	1:1G:1270:C:N3	2.50	0.59
4:32:14:ARG:HG3	4:32:14:ARG:NH1	2.17	0.59
7:62:92:SER:HB3	7:62:94:ARG:HG2	1.84	0.59
57:3L:56:C:O2	26:14:2112:G:N2	2.35	0.59
26:14:218:A:C2	26:14:235:U:H4'	2.37	0.59
26:14:2656:U:H3	26:14:2665:A:H2	1.49	0.59
37:45:57:HIS:CD2	37:45:117:ALA:HB2	2.36	0.59
41:85:92:ARG:CZ	42:95:11:GLN:H	2.15	0.59
1:13:235:C:H5'	17:8I:70:ARG:HG2	1.84	0.59
1:13:598:U:H4'	8:7E:94:TYR:CD2	2.38	0.59
23:2K:62:C:H2'	23:2K:63:C:C6	2.33	0.59
26:1H:581:C:OP1	41:C8:33:ARG:HG3	2.01	0.59
26:1H:1997:G:P	61:1H:4031:HOH:O	2.50	0.59
26:1H:2791:C:N3	26:1H:2807:G:N2	2.48	0.59
35:68:71:ARG:HH21	35:68:77:ILE:HG21	1.66	0.59
41:C8:95:LEU:HD12	41:C8:96:ALA:CA	2.32	0.59
42:D8:3:ALA:HB1	42:D8:38:LEU:HD11	1.84	0.59
43:E8:18:ARG:HD3	43:E8:76:VAL:HG13	1.83	0.59
55:Q8:52:LYS:HA	55:Q8:54:GLU:HB2	1.85	0.59
1:1G:54:C:N4	1:1G:353:A:OP2	2.33	0.59
1:1G:146:G:H2'	1:1G:147:G:H8	1.67	0.59
4:32:8:VAL:HA	4:32:11:LEU:HD12	1.84	0.59
5:42:143:ARG:NH1	8:72:77:GLU:OE2	2.34	0.59
26:14:67:U:H2'	26:14:68:G:H8	1.68	0.59
26:14:279:C:H42	26:14:361:G:H1	1.50	0.59
26:14:654(E):C:H42	26:14:654(P):G:H22	1.50	0.59
32:59:42:ARG:NH1	32:59:53:GLU:O	2.36	0.59
36:35:62:LEU:HD12	55:M5:25:MET:CB	2.27	0.59
1:13:560:U:O2'	1:13:561:U:OP2	2.19	0.59
10:1I:5:ARG:HB2	10:1I:73:ASP:OD1	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2074:U:P	61:1H:3680:HOH:O	2.56	0.59
44:F8:80:ILE:HG13	44:F8:80:ILE:O	2.00	0.59
1:1G:438:G:C4'	4:32:123:HIS:HD2	2.16	0.59
8:72:99:GLU:CD	8:72:100:ILE:H	2.05	0.59
19:AA:27:GLU:O	19:AA:47:HIS:NE2	2.29	0.59
26:14:2839:G:H5'	38:55:46:GLY:HA2	1.83	0.59
27:1J:5:C:H42	27:1J:115:G:H1	1.51	0.59
31:49:125:PHE:HB3	31:49:166:ASP:HB2	1.84	0.59
42:95:85:LYS:CD	42:95:86:GLY:H	2.14	0.59
1:13:228:A:H2'	1:13:229:U:O4'	2.03	0.59
1:13:1279:A:O2'	1:13:1281:U:OP2	2.20	0.59
1:13:1312:G:O3'	19:AI:6:LYS:NZ	2.36	0.59
11:2I:107:SER:HA	18:9I:87:ARG:HD3	1.85	0.59
26:1H:2629:A:OP1	26:1H:2629:A:H4'	2.01	0.59
28:11:71:ASP:OD2	28:11:103:ARG:NH2	2.36	0.59
47:I8:63:VAL:HG23	47:I8:64:ASP:O	2.02	0.59
52:N8:46:CYS:HB2	52:N8:50:GLY:HA2	1.84	0.59
1:1G:362:G:H4'	12:3A:33:ARG:HH21	1.67	0.59
1:1G:1191:A:OP1	3:22:3:ASN:ND2	2.33	0.59
4:32:30:LYS:CB	4:32:35:ARG:HD2	2.32	0.59
26:14:873:G:N2	26:14:905:U:C2	2.71	0.59
32:59:23:ARG:HA	32:59:36:PRO:HA	1.84	0.59
36:35:47:ASP:HB3	36:35:49:ARG:H	1.67	0.59
36:35:55:ARG:HG2	36:35:56:SER:N	2.16	0.59
46:D5:97:GLU:HB3	46:D5:125:LEU:HD21	1.83	0.59
1:13:1280:A:H3'	1:13:1281:U:H5'	1.85	0.59
8:7E:121:ASP:HB2	8:7E:125:ARG:NH2	2.17	0.59
29:21:50:GLY:HA2	29:21:77:ILE:HA	1.85	0.59
34:58:96:GLU:HG2	34:58:97:ARG:N	2.16	0.59
36:78:19:VAL:HG21	36:78:27:HIS:CG	2.38	0.59
46:H8:165:VAL:HB	46:H8:166:SER:HA	1.84	0.59
1:1G:1057:G:H1	1:1G:1203:C:N4	2.01	0.59
1:1G:1298:C:H4'	1:1G:1299:A:C8	2.37	0.59
2:12:163:PHE:CD2	2:12:185:ILE:HG13	2.33	0.59
17:8A:45:HIS:O	17:8A:73:VAL:HG12	2.02	0.59
19:AA:67:VAL:HG11	51:I5:56:VAL:HG23	1.84	0.59
26:14:1019:U:H3	26:14:1142(A):A:H62	1.51	0.59
36:35:64:LYS:HB2	55:M5:30:ARG:HH22	1.67	0.59
39:65:34:HIS:HD1	39:65:53:SER:HG	1.47	0.59
46:D5:94:GLU:HB3	46:D5:96:VAL:HG23	1.85	0.59
3:2E:3:ASN:O	3:2E:4:LYS:HG2	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8I:22:LEU:HD11	17:8I:39:SER:HB3	1.83	0.59
20:BI:97:ALA:O	20:BI:99:LEU:N	2.36	0.59
24:3K:56:C:N3	26:1H:2112:G:N2	2.51	0.59
26:1H:639:U:H2'	26:1H:640:C:C6	2.38	0.59
26:1H:1705:G:C2'	26:1H:1706:U:H5'	2.33	0.59
26:1H:1970:A:P	61:1H:4003:HOH:O	2.60	0.59
37:88:72:LYS:HB3	37:88:94:VAL:HG23	1.85	0.59
57:3L:1:G:H1	57:3L:72:C:N4	1.88	0.59
26:14:491:G:H2'	26:14:492:A:H8	1.68	0.59
26:14:1843:C:H5'	28:19:253:GLN:OE1	2.01	0.59
38:55:54:LEU:HD23	38:55:66:VAL:HG23	1.84	0.59
1:13:973:G:H3'	1:13:974:A:H5''	1.85	0.59
26:1H:320:A:H2'	30:31:136:THR:HG21	1.84	0.59
26:1H:2402:C:H5	26:1H:2415:G:H22	1.50	0.59
26:1H:2704:C:H2'	26:1H:2705:A:C8	2.38	0.59
27:16:15:A:H1'	27:16:109:G:C8	2.38	0.59
29:21:33:VAL:O	29:21:69:LYS:HD2	2.03	0.59
42:D8:41:GLY:O	42:D8:45:THR:HA	2.02	0.59
26:14:1033:U:H3'	26:14:1033:U:H6	1.66	0.59
26:14:1266:G:O5'	43:A5:15:ARG:NH2	2.35	0.59
1:13:244:U:H4'	1:13:245:C:O5'	2.02	0.58
26:1H:2314:C:H2'	26:1H:2315:G:H8	1.66	0.58
41:C8:91:ASP:HB3	41:C8:94:ASN:HB2	1.86	0.58
1:1G:4:U:H3'	1:1G:5:U:H5'	1.85	0.58
4:32:18:LYS:HB3	4:32:33:MET:HG3	1.84	0.58
26:14:754:C:H2'	26:14:755:C:H6	1.67	0.58
46:D5:40:ASP:HB3	46:D5:43:GLU:HG3	1.85	0.58
4:3E:175:SER:HB3	4:3E:186:LEU:HD21	1.84	0.58
26:1H:671:C:OP1	36:78:42:SER:O	2.21	0.58
27:16:7:G:H4'	39:A8:29:PHE:CD2	2.38	0.58
35:68:93:PRO:HG3	35:68:114:ILE:HG12	1.85	0.58
40:B8:29:ARG:NH1	40:B8:46:GLU:OE2	2.36	0.58
2:12:68:ILE:HG12	2:12:161:ALA:HB3	1.85	0.58
57:3L:18:G:C2'	57:3L:57:G:H22	2.16	0.58
26:14:479:A:N3	26:14:481:G:H5''	2.17	0.58
26:14:2054:A:H5''	26:14:2055:C:O5'	2.03	0.58
26:14:2875:C:OP1	40:75:3:ARG:NH1	2.36	0.58
28:19:181:GLU:HA	28:19:272:ALA:HB1	1.85	0.58
45:C5:87:LYS:CB	45:C5:94:LYS:HA	2.33	0.58
24:3K:8:U:H4'	24:3K:9:A:OP1	2.03	0.58
26:1H:550:G:O2'	26:1H:1220:A:N3	2.30	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:995:C:O2	34:58:3:THR:OG1	2.21	0.58
26:1H:2058:A:OP1	61:1H:4269:HOH:O	2.17	0.58
26:1H:2683:C:OP1	40:B8:53:ARG:NH2	2.27	0.58
31:41:112:PRO:HG3	51:M8:38:LYS:HD2	1.85	0.58
45:G8:95:LYS:HE2	45:G8:97:ARG:HH22	1.68	0.58
1:1G:17:U:H2'	1:1G:18:C:C6	2.38	0.58
26:14:1754:C:OP1	40:75:96:ARG:NH1	2.35	0.58
26:14:2404:C:O3'	36:35:77:ARG:NH2	2.36	0.58
26:14:2776:A:OP1	26:14:2776:A:H3'	2.03	0.58
34:15:56:ASN:H	34:15:125:GLY:HA3	1.68	0.58
1:13:619:U:H3	4:3E:134:ASP:HB2	1.67	0.58
2:1E:21:ARG:HB2	2:1E:39:ILE:HA	1.86	0.58
5:4E:11:ILE:HD11	5:4E:31:LEU:HD22	1.84	0.58
13:4I:80:ARG:HH11	19:AI:65:ASN:HB2	1.69	0.58
26:1H:5:A:H2'	26:1H:6:A:C8	2.39	0.58
26:1H:286:C:H42	26:1H:355:G:H1	1.49	0.58
26:1H:899:A:HO2'	26:1H:900:A:H8	1.51	0.58
26:1H:1783:A:P	61:1H:4502:HOH:O	2.60	0.58
26:1H:2062:A:H2'	26:1H:2062:A:N3	2.18	0.58
26:1H:2431:U:OP2	61:1H:3933:HOH:O	2.17	0.58
26:1H:2591:C:OP1	28:11:239:ARG:HG3	2.03	0.58
46:H8:4:ARG:HB3	46:H8:58:VAL:HG23	1.84	0.58
1:1G:256:U:H2'	1:1G:257:G:C8	2.37	0.58
4:32:29:PRO:HD2	4:32:30:LYS:HE2	1.85	0.58
5:42:31:LEU:HD22	5:42:45:PHE:HB2	1.84	0.58
29:29:51:PHE:CE2	29:29:52:LEU:HG	2.39	0.58
5:4E:81:GLU:HG2	5:4E:90:VAL:HG23	1.85	0.58
17:8I:76:LEU:HD11	17:8I:79:SER:HB3	1.84	0.58
22:1K:26:A:H61	22:1K:44:G:N2	2.02	0.58
26:1H:1664:A:H5''	61:1H:4466:HOH:O	2.03	0.58
26:1H:2392:A:OP2	55:Q8:30:ARG:NH2	2.28	0.58
26:1H:2393:A:H2'	26:1H:2394:C:H6	1.68	0.58
26:1H:2492:U:H2'	26:1H:2493:U:C6	2.39	0.58
40:B8:2:ASN:O	40:B8:3:ARG:HG3	2.03	0.58
45:G8:49:VAL:HG21	45:G8:55:TYR:CE2	2.39	0.58
55:Q8:23:VAL:O	55:Q8:46:ARG:HB2	2.04	0.58
1:1G:192:U:H2'	1:1G:193:C:H6	1.68	0.58
1:1G:957:U:H1'	1:1G:960:U:H5	1.69	0.58
3:22:9:GLY:HA3	14:5A:49:HIS:HA	1.85	0.58
26:14:196:A:O2'	26:14:805:G:O6	2.10	0.58
26:14:323:G:O2'	26:14:1205:U:N3	2.29	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:330:A:H2	26:14:1210:A:O2'	1.85	0.58
26:14:1079:C:H41	26:14:1088:A:H5''	1.68	0.58
43:A5:27:LYS:O	43:A5:71:VAL:HG23	2.04	0.58
1:13:804:U:H5''	1:13:805:C:OP2	2.04	0.58
1:13:1160:G:H1	1:13:1177:G:N2	2.02	0.58
3:2E:73:PRO:O	3:2E:76:VAL:HG13	2.02	0.58
10:1I:52:GLY:O	14:5I:41:ARG:NH2	2.37	0.58
19:AI:7:LYS:HB3	19:AI:7:LYS:HZ3	1.69	0.58
1:1G:1372:U:H5''	9:82:71:SER:HB2	1.86	0.58
45:C5:52:SER:HA	45:C5:55:TYR:O	2.03	0.58
1:13:1346:A:OP1	9:8E:120:ARG:NH1	2.36	0.58
1:13:1435:G:H2'	1:13:1436:U:C6	2.39	0.58
8:7E:122:ARG:O	8:7E:126:LYS:HG3	2.04	0.58
12:3I:57:LYS:HZ2	12:3I:67:THR:HG22	1.67	0.58
18:9I:59:SER:HB3	18:9I:62:GLU:HG3	1.85	0.58
26:1H:585:G:P	61:1H:3853:HOH:O	2.59	0.58
26:1H:2210:G:H3'	26:1H:2211:G:C8	2.39	0.58
40:B8:60:THR:HG22	40:B8:77:PRO:HA	1.85	0.58
45:G8:94:LYS:HA	45:G8:94:LYS:HZ3	1.67	0.58
1:1G:690:G:H2'	1:1G:691:G:O4'	2.02	0.58
1:1G:1347:G:O2'	1:1G:1373:G:O6	2.20	0.58
10:1A:22:LYS:NZ	10:1A:88:LEU:O	2.36	0.58
26:14:218:A:H2	26:14:235:U:H4'	1.69	0.58
26:14:654(C):G:H2'	26:14:654(D):G:O4'	2.04	0.58
37:45:38:GLU:HB2	37:45:127:ILE:HG22	1.84	0.58
1:13:667:G:H4'	15:6I:51:HIS:CE1	2.38	0.58
1:13:1118:C:H1'	1:13:1179:A:C4	2.39	0.58
1:13:1226:C:O3'	13:4I:111:LYS:NZ	2.37	0.58
26:1H:11:G:H2'	26:1H:12:U:H5'	1.86	0.58
26:1H:1486:A:H2'	26:1H:1487:G:C8	2.39	0.58
28:11:242:ARG:O	61:11:401:HOH:O	2.17	0.58
32:51:30:LYS:HD2	32:51:81:GLU:H	1.67	0.58
41:C8:101:ARG:O	41:C8:103:PRO:HD3	2.04	0.58
1:1G:861:G:H2'	1:1G:862:C:C6	2.39	0.58
26:14:2468:G:H3'	26:14:2476:A:N1	2.19	0.58
34:15:19:GLU:HA	34:15:59:LYS:O	2.04	0.58
34:15:128:HIS:NE2	34:15:134:ARG:HD2	2.19	0.58
1:13:1322:C:O2'	1:13:1323:G:P	2.60	0.58
3:2E:7:PRO:O	3:2E:11:ARG:HG2	2.04	0.58
26:1H:1426:G:N1	61:1H:4248:HOH:O	2.32	0.58
26:1H:1607:C:H4'	26:1H:1608:A:O5'	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1783:A:OP2	61:1H:4502:HOH:O	2.17	0.58
26:1H:2115:G:N2	26:1H:2172:U:O2	2.37	0.58
26:1H:2257:U:O2'	26:1H:2258:C:H5'	2.04	0.58
26:1H:2400:G:H2'	26:1H:2401:U:H6	1.68	0.58
27:16:101:A:H8	27:16:101:A:O5'	1.87	0.58
28:11:93:ALA:HB3	28:11:105:ILE:HG22	1.86	0.58
35:68:12:ASP:HB3	35:68:85:VAL:HG13	1.85	0.58
38:98:38:VAL:HB	38:98:39:PRO:HD3	1.86	0.58
38:98:72:ASP:O	38:98:76:VAL:HG23	2.04	0.58
40:B8:3:ARG:HD2	40:B8:6:LEU:HB3	1.86	0.58
42:D8:44:LYS:HA	42:D8:44:LYS:NZ	2.19	0.58
46:H8:63:ASP:HB2	46:H8:65:GLN:HG3	1.85	0.58
46:H8:105:VAL:HG22	46:H8:140:ASP:HB3	1.86	0.58
26:14:943:U:OP2	36:35:36:LYS:NZ	2.31	0.58
26:14:1187:G:OP2	61:14:3681:HOH:O	2.17	0.58
26:14:2757:A:N1	32:59:67:LEU:HD22	2.18	0.58
48:F5:29:GLY:O	48:F5:30:VAL:HG22	2.04	0.58
48:F5:51:VAL:HG23	48:F5:58:ILE:HB	1.85	0.58
1:13:343:U:O2'	1:13:346:G:O6	2.17	0.58
1:13:963:G:N2	10:1I:55:LYS:NZ	2.50	0.58
2:1E:185:ILE:CG2	2:1E:199:TYR:HB2	2.33	0.58
9:8E:112:LYS:HD3	9:8E:113:LYS:N	2.19	0.58
15:6I:6:GLU:CD	15:6I:6:GLU:H	2.06	0.58
16:7I:5:ARG:HE	16:7I:22:THR:CG2	2.17	0.58
22:1K:27:G:N2	22:1K:43:C:O2	2.35	0.58
26:1H:277:C:H3'	26:1H:278:A:O4'	2.04	0.58
26:1H:818:G:H4'	26:1H:838:C:O3'	2.04	0.58
26:1H:1178:C:H4'	26:1H:1179:C:OP1	2.03	0.58
31:4I:112:PRO:HD3	51:M8:38:LYS:HE2	1.85	0.58
55:Q8:47:LYS:HA	55:Q8:47:LYS:HZ2	1.66	0.58
1:1G:588:G:H1	1:1G:651:C:N4	1.94	0.58
10:1A:51:ARG:HB2	10:1A:60:ARG:HA	1.85	0.58
18:9A:22:VAL:HG12	18:9A:56:THR:HA	1.86	0.58
19:AA:33:THR:HG22	19:AA:49:ILE:HG22	1.85	0.58
33:69:14:ASP:O	33:69:17:GLN:HB2	2.04	0.58
42:95:35:LEU:HB2	42:95:37:VAL:HG13	1.85	0.58
1:13:323:U:H2'	1:13:324:G:O4'	2.03	0.57
1:13:1307:U:OP1	13:4I:101:GLN:NE2	2.37	0.57
12:3I:66:VAL:HG21	12:3I:98:TYR:HE2	1.69	0.57
20:BI:53:LEU:HD23	20:BI:100:ILE:HG22	1.85	0.57
22:1K:8:4SU:H6	22:1K:8:4SU:O5'	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1266:G:O4'	43:E8:15:ARG:NH2	2.37	0.57
26:1H:2176:A:H2'	26:1H:2177:C:H6	1.68	0.57
26:1H:2887:U:H2'	26:1H:2888:C:C6	2.38	0.57
29:21:119:ARG:HD2	29:21:160:TYR:HB2	1.86	0.57
39:A8:14:VAL:O	39:A8:18:ILE:HD13	2.04	0.57
42:D8:34:GLU:HB2	42:D8:58:VAL:HG22	1.87	0.57
51:M8:34:GLU:HG2	51:M8:35:VAL:N	2.19	0.57
1:1G:1157:A:N6	1:1G:1178:G:H21	1.96	0.57
26:14:57:C:H2'	26:14:58:G:O4'	2.04	0.57
29:29:182:LEU:O	29:29:183:LEU:HD12	2.04	0.57
31:49:67:LYS:H	51:I5:6:HIS:CE1	2.22	0.57
38:55:104:ARG:HD2	38:55:109:ALA:HB3	1.86	0.57
46:D5:59:LEU:HD22	46:D5:61:LEU:HG	1.86	0.57
1:13:1446:A:OP1	1:13:1446:A:H4'	2.03	0.57
8:7E:10:LEU:HB3	8:7E:83:ILE:HD11	1.85	0.57
26:1H:2419:U:O4	55:Q8:29:LYS:NZ	2.25	0.57
30:31:107:LYS:HD2	30:31:206:ILE:HA	1.86	0.57
45:G8:39:VAL:O	45:G8:39:VAL:HG12	2.03	0.57
55:Q8:59:LYS:HB3	55:Q8:59:LYS:NZ	2.18	0.57
1:1G:45:U:H2'	1:1G:46:G:C8	2.39	0.57
1:1G:1127:G:N3	1:1G:1147:C:N4	2.51	0.57
1:1G:1129:C:C4	1:1G:1139:G:N1	2.73	0.57
2:12:21:ARG:HA	2:12:39:ILE:HA	1.85	0.57
20:BA:26:ASN:HB2	20:BA:71:THR:HG23	1.85	0.57
56:1L:19:G:N2	56:1L:56:C:N3	2.52	0.57
26:14:1057:A:H2'	26:14:1058:U:O4'	2.04	0.57
26:14:1176:G:H5'	26:14:1177:A:OP1	2.04	0.57
26:14:2557:G:H2'	26:14:2558:C:H6	1.68	0.57
29:29:37:ARG:NE	29:29:42:ASP:OD2	2.34	0.57
39:65:106:ARG:O	39:65:106:ARG:NH1	2.29	0.57
49:G5:43:GLN:OE1	49:G5:43:GLN:N	2.34	0.57
1:13:1106:G:H5''	3:2E:172:ARG:HG2	1.86	0.57
22:1K:47:U:H5'	22:1K:48:C:H5'	1.86	0.57
23:2K:20:G:C2	23:2K:58:A:N3	2.72	0.57
26:1H:1405:U:H2'	26:1H:1406:U:C6	2.38	0.57
26:1H:1443:G:N2	26:1H:1549:C:O2	2.37	0.57
26:1H:2137:C:H42	26:1H:2154:G:N2	2.02	0.57
26:1H:2211:G:H4'	26:1H:2212:A:OP2	2.04	0.57
33:61:109:ILE:HB	33:61:130:TYR:CZ	2.39	0.57
36:78:114:ILE:HD12	36:78:134:ALA:HB1	1.86	0.57
43:E8:110:LYS:HG3	43:E8:111:HIS:H	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:683:G:N2	1:1G:707:C:O2	2.30	0.57
1:1G:1326:C:OP1	21:1B:17:THR:OG1	2.16	0.57
1:1G:1344:C:HO2'	1:1G:1348:U:HO2'	1.52	0.57
17:8A:17:LYS:HD3	17:8A:47:PRO:HA	1.87	0.57
37:45:81:VAL:O	37:45:82:ARG:NH1	2.38	0.57
42:95:44:LYS:O	42:95:46:VAL:N	2.32	0.57
55:M5:59:LYS:C	55:M5:60:LEU:HG	2.23	0.57
1:13:678:U:H2'	1:13:679:C:C6	2.39	0.57
1:13:963:G:N2	10:1I:55:LYS:HZ1	2.02	0.57
1:13:1015:A:H2'	1:13:1016:A:H8	1.69	0.57
1:13:1302:U:OP2	13:4I:21:TYR:OH	2.14	0.57
26:1H:176:G:O2'	26:1H:177:G:H5'	2.03	0.57
26:1H:511:U:H5''	26:1H:512:G:OP2	2.04	0.57
26:1H:910:A:C4	37:88:13:GLN:NE2	2.72	0.57
26:1H:1287:A:C8	38:98:107:ASP:HB2	2.40	0.57
26:1H:2376:A:H2	39:A8:112:PHE:HB3	1.69	0.57
40:B8:108:ARG:HA	40:B8:111:ARG:HE	1.70	0.57
5:42:122:GLU:O	5:42:126:ARG:NH1	2.36	0.57
11:2A:98:LEU:O	11:2A:101:SER:OG	2.10	0.57
13:4A:5:ALA:HB3	13:4A:8:GLU:HB2	1.86	0.57
26:14:2387:U:OP1	47:E5:55:ARG:NH1	2.29	0.57
29:29:36:ARG:NH1	29:29:85:ASN:OD1	2.37	0.57
45:C5:19:LYS:HG3	45:C5:20:TYR:HD1	1.69	0.57
46:D5:157:LEU:HA	46:D5:161:VAL:HG11	1.85	0.57
49:G5:47:ASN:C	49:G5:49:LYS:H	2.06	0.57
10:1I:49:VAL:CG2	14:5I:41:ARG:HB2	2.33	0.57
26:1H:1257:C:OP1	30:31:75:HIS:HE1	1.87	0.57
32:51:101:ARG:HH22	32:51:122:THR:HA	1.68	0.57
43:E8:37:ARG:HD3	43:E8:38:TYR:CE1	2.39	0.57
48:J8:3:LYS:O	48:J8:12:PRO:HD3	2.05	0.57
52:N8:33:CYS:HB2	52:N8:40:LYS:CD	2.34	0.57
1:1G:536:C:H2'	1:1G:537:G:C8	2.40	0.57
1:1G:581:G:OP1	15:6A:61:GLY:HA3	2.05	0.57
1:1G:1317:C:O2	19:AA:37:ARG:NH2	2.38	0.57
3:22:40:ARG:HA	3:22:43:LEU:HB2	1.87	0.57
3:22:131:ARG:NH2	3:22:166:GLU:OE2	2.37	0.57
10:1A:40:LEU:HD13	10:1A:71:LEU:HD13	1.86	0.57
18:9A:22:VAL:HG22	18:9A:23:LYS:H	1.69	0.57
26:14:1464:C:HO2'	26:14:1528:A:H8	1.52	0.57
26:14:2441:C:OP2	26:14:2586:C:O2'	2.21	0.57
27:1J:90:C:P	37:45:16:ARG:HH21	2.27	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:39:125:LEU:HD12	30:39:196:LEU:HD21	1.85	0.57
32:59:6:ARG:H	32:59:6:ARG:HH11	1.53	0.57
32:59:97:ARG:NH2	32:59:98:LEU:O	2.37	0.57
37:45:110:THR:HG23	37:45:113:GLN:HE21	1.68	0.57
46:D5:155:LEU:HB2	46:D5:157:LEU:HD13	1.86	0.57
46:D5:158:PRO:HB2	46:D5:159:PRO:HD2	1.85	0.57
1:13:141:A:H2'	1:13:142:G:H8	1.69	0.57
1:13:1318:A:H1'	19:AI:37:ARG:HH21	1.69	0.57
3:2E:79:ARG:NH1	18:9A:87:ARG:HH12	2.02	0.57
26:1H:882:G:N2	26:1H:894:C:H42	2.02	0.57
26:1H:2559:C:O2'	26:1H:2560:C:H5'	2.04	0.57
32:51:4:ILE:HD13	32:51:4:ILE:H	1.70	0.57
34:58:15:LEU:HD12	34:58:136:GLU:HG2	1.86	0.57
45:G8:76:CYS:SG	45:G8:97:ARG:HG2	2.43	0.57
49:K8:58:ALA:O	49:K8:62:THR:HG22	2.04	0.57
1:1G:111:G:H8	1:1G:111:G:O5'	1.87	0.57
1:1G:1037:C:H2'	1:1G:1038:C:C6	2.39	0.57
26:14:67:U:H2'	26:14:68:G:C8	2.39	0.57
26:14:1324:G:N7	61:14:3652:HOH:O	2.33	0.57
31:49:56:ALA:HA	31:49:59:GLU:HB3	1.87	0.57
1:13:221:C:H2'	1:13:222:U:H6	1.69	0.57
1:13:555:C:OP2	12:3I:20:LYS:NZ	2.26	0.57
1:13:1187:G:O5'	9:8E:113:LYS:NZ	2.38	0.57
1:13:1190:G:OP1	3:2E:4:LYS:HA	2.04	0.57
1:13:1379:G:N7	7:6E:2:ALA:HB3	2.20	0.57
26:1H:1338:G:O2'	26:1H:1393:A:N1	2.37	0.57
26:1H:1364:G:N7	48:J8:2:SER:HB3	2.19	0.57
26:1H:1438:U:O2'	26:1H:1439:A:H5'	2.05	0.57
32:51:150:ALA:O	32:51:153:LYS:NZ	2.33	0.57
33:61:77:LEU:H	33:61:77:LEU:HD12	1.70	0.57
36:78:15:ARG:CB	36:78:16:ARG:HB2	2.35	0.57
36:78:60:MET:HA	55:Q8:13:ARG:NH1	2.19	0.57
1:1G:604:G:H2'	1:1G:605:U:O4'	2.05	0.57
1:1G:1455:G:H5'	20:BA:32:ALA:HB2	1.86	0.57
2:12:84:GLU:HB3	2:12:219:VAL:HG11	1.87	0.57
10:1A:45:ARG:HB3	10:1A:65:LEU:HB3	1.86	0.57
26:14:1047:G:H2'	26:14:1110:G:H1	1.70	0.57
26:14:1141:U:OP1	34:15:25:ARG:NE	2.34	0.57
26:14:2062:A:O2'	26:14:2063:C:OP1	2.19	0.57
26:14:2064:C:H2'	26:14:2065:C:C6	2.40	0.57
27:1J:16:G:H2'	27:1J:17:C:C6	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:A5:13:SER:HB3	43:A5:16:LYS:HD2	1.86	0.57
1:13:1308:U:OP1	13:4I:98:VAL:HG23	2.05	0.57
1:13:1374:A:O2'	7:6E:28:ASN:HB3	2.04	0.57
4:3E:74:GLN:O	4:3E:78:LEU:HD13	2.05	0.57
26:1H:5:A:H2'	26:1H:6:A:H8	1.68	0.57
26:1H:1786:A:H2	26:1H:2606:C:H1'	1.69	0.57
26:1H:2001:A:H2'	26:1H:2002:G:C8	2.40	0.57
40:B8:58:ASN:C	40:B8:58:ASN:HD22	2.07	0.57
1:1G:142:G:H2'	1:1G:143:A:H8	1.70	0.57
7:62:26:PHE:O	7:62:30:ILE:HG13	2.05	0.57
26:14:71:A:H2	44:B5:31:HIS:NE2	2.00	0.57
26:14:2420:C:H41	55:M5:31:HIS:HB3	1.68	0.57
29:29:9:VAL:HG12	40:75:8:LYS:HZ1	1.69	0.57
51:I5:37:SER:C	51:I5:39:CYS:H	2.08	0.57
1:13:659:U:H2'	1:13:660:G:H8	1.70	0.57
26:1H:1332:G:N2	26:1H:1610:A:H8	2.02	0.57
26:1H:1588:C:H2'	26:1H:1589:C:C6	2.37	0.57
26:1H:2275:C:H5'	26:1H:2275:C:H6	1.68	0.57
32:51:101:ARG:NH2	32:51:121:ILE:O	2.38	0.57
40:B8:26:ASP:HB3	40:B8:92:GLY:H	1.70	0.57
47:I8:23:VAL:HA	47:I8:38:VAL:HG22	1.86	0.57
1:1G:501:C:H2'	1:1G:502:G:C8	2.40	0.57
1:1G:652:U:H1'	1:1G:653:A:H2	1.69	0.57
1:1G:967:C:H3'	1:1G:968:A:H2'	1.87	0.57
2:12:221:LEU:HA	2:12:224:GLN:HB2	1.87	0.57
26:14:2786:U:H4'	29:29:64:LYS:C	2.25	0.57
26:14:2850:A:C2	26:14:2851:A:C4	2.93	0.57
26:14:2865:U:C4	26:14:2866:U:C4	2.93	0.57
33:69:80:PRO:HA	33:69:143:SER:HA	1.87	0.57
39:65:106:ARG:NH1	39:65:107:GLU:OE1	2.37	0.57
1:13:963:G:N3	10:1I:55:LYS:NZ	2.52	0.57
1:13:983:A:OP1	14:5I:3:ARG:NH2	2.38	0.57
14:5I:4:LYS:O	14:5I:7:ILE:HG13	2.05	0.57
26:1H:760:G:OP1	61:1H:3842:HOH:O	2.16	0.57
26:1H:2400:G:H2'	26:1H:2401:U:C6	2.39	0.57
1:1G:255:G:H2'	1:1G:256:U:C6	2.40	0.57
4:32:26:CYS:HA	4:32:31:CYS:CB	2.30	0.57
12:3A:49:ASN:ND2	12:3A:92:ASP:OD2	2.38	0.57
26:14:784:A:H5'	26:14:785:G:OP1	2.05	0.57
26:14:1000:A:C6	26:14:1001:A:N1	2.73	0.57
26:14:1292:U:H2'	26:14:1293:C:C6	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:56:G:H4'	27:1J:57:A:C8	2.40	0.57
39:65:51:ALA:HB3	39:65:73:LEU:HG	1.87	0.57
41:85:19:LYS:O	41:85:22:LYS:HG3	2.05	0.57
1:13:401:C:OP2	4:3E:73:ARG:HD3	2.05	0.56
1:13:963:G:H21	10:1I:55:LYS:CE	2.18	0.56
1:13:991:U:HO2'	1:13:992:U:P	2.28	0.56
3:2E:14:ILE:HG13	3:2E:15:THR:N	2.20	0.56
4:3E:111:ALA:HB2	4:3E:120:LEU:HD12	1.87	0.56
26:1H:126:A:OP2	54:P8:19:ARG:HG3	2.04	0.56
26:1H:322:A:OP1	30:31:168:ARG:NH2	2.34	0.56
26:1H:569:U:C4	26:1H:570:G:C6	2.93	0.56
26:1H:1464:C:HO2'	26:1H:1528:A:H8	1.53	0.56
26:1H:1570:A:H2'	26:1H:1571:A:C8	2.39	0.56
26:1H:1794:U:H2'	26:1H:1795:C:H6	1.69	0.56
30:31:66:PRO:O	30:31:67:GLN:CB	2.52	0.56
31:41:16:ARG:O	31:41:20:ILE:HG13	2.05	0.56
41:C8:65:ILE:HD11	41:C8:95:LEU:HB2	1.86	0.56
41:C8:75:ASN:HB3	41:C8:77:SER:N	2.20	0.56
44:F8:1:MET:C	44:F8:3:THR:H	2.07	0.56
45:G8:87:LYS:HD3	45:G8:89:PHE:HD2	1.70	0.56
46:H8:9:TYR:HE1	46:H8:35:ARG:HD3	1.69	0.56
55:Q8:26:LYS:HB3	55:Q8:42:ARG:NH2	2.20	0.56
1:1G:20:U:H2'	1:1G:21:G:O4'	2.04	0.56
1:1G:736:C:H2'	1:1G:737:A:C8	2.39	0.56
1:1G:1129:C:N3	1:1G:1143:G:N2	2.52	0.56
2:12:97:TRP:CZ3	2:12:99:GLY:HA2	2.40	0.56
6:52:68:PRO:HG2	6:52:71:ARG:HG3	1.86	0.56
26:14:1639:U:P	61:14:3519:HOH:O	2.62	0.56
30:39:49:ALA:O	30:39:92:PRO:HB2	2.03	0.56
33:69:130:TYR:HB3	33:69:136:VAL:HG13	1.87	0.56
36:35:97:PRO:HG3	36:35:112:LEU:HD12	1.86	0.56
37:45:29:PHE:HD2	37:45:65:PHE:CE2	2.22	0.56
1:13:1117:G:OP1	61:13:1923:HOH:O	2.18	0.56
5:4E:153:LYS:HD3	5:4E:154:GLY:N	2.19	0.56
26:1H:754:C:H2'	26:1H:755:C:H6	1.69	0.56
26:1H:1858:G:H2'	26:1H:1883:G:N2	2.20	0.56
26:1H:2074:U:H2'	26:1H:2075:U:C6	2.40	0.56
26:1H:2272:U:O4	61:1H:4281:HOH:O	2.17	0.56
26:1H:2313:C:H4'	31:41:91:ARG:HG3	1.86	0.56
34:58:38:HIS:O	41:C8:67:ALA:HB1	2.04	0.56
34:58:46:VAL:CG1	34:58:48:MET:HG3	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:L8:38:GLU:OE2	50:L8:38:GLU:N	2.27	0.56
53:O8:16:CYS:O	53:O8:17:LYS:HB2	2.06	0.56
57:3L:26:A:H3'	57:3L:27:G:H8	1.69	0.56
28:19:146:GLU:HB2	28:19:189:CYS:HB3	1.86	0.56
33:69:6:LEU:HD13	33:69:37:VAL:HG23	1.86	0.56
37:45:34:LEU:HD11	37:45:129:THR:HB	1.86	0.56
40:75:64:ARG:CB	40:75:73:GLU:HG2	2.35	0.56
48:F5:8:SER:HB3	48:F5:66:HIS:CD2	2.40	0.56
1:13:393:A:OP2	16:7I:12:LYS:NZ	2.19	0.56
1:13:468:A:H5''	16:7I:80:PHE:HB3	1.86	0.56
1:13:1497:G:C2'	1:13:1498:U:H5'	2.33	0.56
19:AI:5:LEU:HD13	19:AI:10:PHE:HD1	1.70	0.56
22:1K:9:A:H2	22:1K:11:C:H41	1.52	0.56
24:3K:9:A:H5''	24:3K:11:C:OP2	2.06	0.56
26:1H:125:G:C6	54:P8:10:ARG:HG3	2.40	0.56
26:1H:142:G:H1'	44:F8:37:THR:CG2	2.35	0.56
26:1H:336:C:OP1	45:G8:83:THR:HG23	2.05	0.56
26:1H:518:G:H2'	26:1H:519:U:C6	2.40	0.56
26:1H:1508:A:O2'	26:1H:1509:C:O4'	2.20	0.56
26:1H:2250:G:C4	37:88:82:ARG:HG2	2.40	0.56
28:11:10:THR:OG1	28:11:13:ARG:HB2	2.04	0.56
29:21:63:LEU:HD23	29:21:63:LEU:O	2.05	0.56
31:41:35:GLU:HG3	31:41:36:LYS:HB2	1.86	0.56
32:51:77:LYS:HE2	32:51:138:LYS:HD2	1.87	0.56
37:88:137:TYR:CE1	46:H8:83:PRO:HG3	2.40	0.56
48:J8:18:ILE:HG12	48:J8:37:ILE:HG12	1.86	0.56
51:M8:23:GLU:OE1	51:M8:24:THR:N	2.38	0.56
1:1G:36:C:OP1	12:3A:123:LYS:NZ	2.26	0.56
1:1G:130:A:C8	17:8A:63:ARG:HG3	2.40	0.56
1:1G:456:C:H2'	1:1G:457:C:H6	1.70	0.56
1:1G:1413:A:H2'	1:1G:1414:U:O4'	2.05	0.56
6:52:10:LEU:HD11	6:52:61:LEU:HD22	1.86	0.56
7:62:92:SER:O	7:62:96:GLN:HG3	2.05	0.56
13:4A:17:VAL:HG13	13:4A:27:LYS:HZ3	1.69	0.56
13:4A:33:ALA:O	13:4A:37:THR:OG1	2.13	0.56
26:14:547:A:N7	26:14:548:A:N6	2.53	0.56
26:14:1171:G:N2	26:14:1174:A:N1	2.53	0.56
26:14:1542:G:O6	26:14:1543:A:N6	2.37	0.56
26:14:1778:U:H2'	26:14:1784:A:N6	2.19	0.56
26:14:2239:G:P	61:14:3504:HOH:O	2.63	0.56
26:14:2257:U:O2'	26:14:2258:C:H5'	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:29:25:VAL:O	29:29:26:ILE:HG12	2.05	0.56
32:59:137:ASP:CB	32:59:140:LYS:HB2	2.34	0.56
33:69:52:ARG:HA	33:69:55:ALA:HB3	1.86	0.56
37:45:116:GLU:OE2	37:45:119:ARG:NE	2.38	0.56
39:65:42:ASP:O	39:65:43:GLU:HB2	2.05	0.56
45:C5:17:SER:OG	45:C5:18:GLY:O	2.23	0.56
55:M5:31:HIS:O	55:M5:32:LEU:HD12	2.05	0.56
1:13:658:G:H2'	1:13:659:U:C6	2.41	0.56
3:2E:128:PHE:HZ	3:2E:132:ARG:HD2	1.70	0.56
24:3K:75:C:HO2'	24:3K:76:A:H2	1.54	0.56
26:1H:563:G:P	61:1H:3632:HOH:O	2.64	0.56
26:1H:1216:G:OP2	41:C8:12:ARG:NH2	2.35	0.56
26:1H:1332:G:H21	26:1H:1610:A:H8	1.53	0.56
29:21:3:GLY:HA3	29:21:81:ILE:HG21	1.87	0.56
37:88:66:ILE:HG22	37:88:67:ARG:N	2.20	0.56
42:D8:25:LEU:HD11	42:D8:94:LEU:HD11	1.87	0.56
52:N8:50:GLY:N	52:N8:56:LYS:HG3	2.17	0.56
1:1G:57:G:H2'	1:1G:58:C:C6	2.40	0.56
26:14:107:C:H2'	26:14:108:U:H6	1.70	0.56
26:14:273(C):C:H42	26:14:363(C):G:H1	1.53	0.56
26:14:667:U:O2	55:M5:2:PRO:HD2	2.05	0.56
26:14:754:C:H2'	26:14:755:C:C6	2.41	0.56
27:1J:44:G:H1'	27:1J:47:C:N4	2.20	0.56
35:25:3:GLN:HB2	35:25:4:PRO:HD2	1.87	0.56
46:D5:128:VAL:HG11	46:D5:133:ILE:HG23	1.88	0.56
50:H5:59:VAL:HG12	50:H5:60:GLU:H	1.68	0.56
55:M5:29:LYS:HB3	55:M5:44:LYS:HB3	1.88	0.56
1:13:1149:C:H2'	1:13:1150:U:C6	2.41	0.56
17:8I:100:LYS:HB3	17:8I:101:ARG:NH1	2.20	0.56
26:1H:1994:C:O2'	26:1H:1995:U:H5'	2.05	0.56
26:1H:2002:G:N7	61:1H:4267:HOH:O	2.31	0.56
26:1H:2285:C:OP2	53:O8:28:ARG:HG3	2.05	0.56
34:58:96:GLU:HB2	34:58:122:VAL:HG12	1.87	0.56
51:M8:40:HIS:CG	51:M8:45:GLY:HA3	2.41	0.56
55:Q8:34:TRP:CZ2	55:Q8:39:LYS:HB2	2.40	0.56
55:Q8:57:ARG:CB	55:Q8:59:LYS:HE2	2.32	0.56
1:1G:448:A:OP2	1:1G:485:G:N1	2.34	0.56
1:1G:512:U:H2'	1:1G:513:C:H6	1.70	0.56
1:1G:1291:G:H4'	9:82:39:GLY:HA3	1.88	0.56
16:7A:11:SER:H	16:7A:14:ASN:HB3	1.70	0.56
26:14:235:U:H2'	26:14:236:C:C6	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:446:G:OP2	61:14:3827:HOH:O	2.17	0.56
26:14:660:G:H21	36:35:12:ALA:HB2	1.70	0.56
26:14:1425:G:N2	26:14:1573:G:N7	2.54	0.56
26:14:2689:U:P	26:14:2719:G:H22	2.28	0.56
51:I5:23:GLU:HG3	51:I5:24:THR:H	1.71	0.56
51:I5:23:GLU:HG3	51:I5:24:THR:N	2.20	0.56
1:13:458:C:H2'	1:13:464:G:O4'	2.06	0.56
1:13:1300:G:N7	61:13:1951:HOH:O	2.33	0.56
2:1E:67:THR:HG21	2:1E:155:LEU:HG	1.87	0.56
2:1E:209:ARG:HG3	2:1E:240:GLN:HE22	1.71	0.56
26:1H:270(J):G:H2'	26:1H:270(K):C:O4'	2.06	0.56
26:1H:524:U:H2'	26:1H:525:U:H6	1.71	0.56
26:1H:654:A:H3'	26:1H:654:A:N3	2.20	0.56
26:1H:1187:G:O6	61:1H:4501:HOH:O	2.15	0.56
26:1H:1314:C:OP1	61:1H:3971:HOH:O	2.18	0.56
26:1H:1337:G:H2'	26:1H:1338:G:H8	1.70	0.56
26:1H:1534:G:N2	26:1H:1538:G:H22	2.03	0.56
26:1H:2128:C:H2'	26:1H:2129:C:C6	2.41	0.56
55:Q8:44:LYS:HG3	55:Q8:45:GLY:N	2.21	0.56
1:1G:512:U:H2'	1:1G:513:C:C6	2.40	0.56
1:1G:999:U:H2'	1:1G:1000:A:C8	2.40	0.56
1:1G:1203:C:H2'	1:1G:1204:A:O4'	2.06	0.56
15:6A:87:ILE:HG22	15:6A:88:ARG:N	2.18	0.56
20:BA:72:LEU:O	20:BA:73:HIS:HB2	2.06	0.56
26:14:71:A:H5'	26:14:71:A:C8	2.41	0.56
26:14:576:U:P	61:14:3663:HOH:O	2.63	0.56
26:14:673:C:H4'	30:39:82:ILE:HG12	1.88	0.56
26:14:1030:G:OP2	37:45:128:LYS:NZ	2.29	0.56
26:14:2134:A:OP2	26:14:2157:G:N2	2.39	0.56
30:39:79:GLY:HA2	30:39:86:GLY:HA2	1.86	0.56
31:49:37:VAL:HG23	31:49:99:MET:HE3	1.87	0.56
32:59:7:LEU:HD12	32:59:8:PRO:HD3	1.87	0.56
42:95:29:PRO:HA	42:95:61:VAL:HG11	1.87	0.56
1:13:1530:G:H3'	1:13:1531:A:P	2.46	0.56
19:AI:7:LYS:HB3	19:AI:7:LYS:NZ	2.21	0.56
24:3K:15:G:H22	24:3K:21:A:H8	1.53	0.56
26:1H:71:A:C2	44:F8:31:HIS:CE1	2.83	0.56
26:1H:82:G:O6	61:1H:4559:HOH:O	2.18	0.56
26:1H:389:G:H1	36:78:71:VAL:HG12	1.71	0.56
31:41:11:TYR:OH	31:41:16:ARG:NH1	2.39	0.56
41:C8:92:ARG:CA	41:C8:95:LEU:HD23	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:H8:126:VAL:HG12	46:H8:163:LEU:HA	1.87	0.56
1:1G:1055:A:N3	3:22:156:ARG:NH1	2.54	0.56
9:82:18:PHE:HD2	9:82:62:TYR:HD2	1.54	0.56
20:BA:25:ARG:HG3	20:BA:29:LYS:HE3	1.88	0.56
27:1J:13:A:N1	27:1J:69:G:O2'	2.31	0.56
28:19:49:ILE:HD11	28:19:52:ARG:HA	1.87	0.56
1:13:872:A:C5	1:13:874:G:C8	2.93	0.56
1:13:1182:G:H4'	1:13:1183:A:H5''	1.87	0.56
1:13:1226:C:H4'	19:AI:80:TYR:OH	2.06	0.56
1:13:1510:U:H2'	1:13:1511:G:C8	2.41	0.56
8:7E:88:LYS:HB3	8:7E:89:PRO:HD2	1.87	0.56
19:AI:39:THR:HG22	19:AI:40:ILE:H	1.71	0.56
20:BI:35:THR:O	20:BI:38:LYS:HB2	2.06	0.56
26:1H:950:G:H2'	26:1H:951:C:C6	2.41	0.56
41:C8:34:LYS:HE2	41:C8:34:LYS:HA	1.87	0.56
45:G8:87:LYS:N	45:G8:94:LYS:HG2	2.19	0.56
46:H8:52:SER:O	46:H8:52:SER:OG	2.18	0.56
1:1G:765:G:N2	1:1G:813:U:OP2	2.31	0.56
1:1G:983:A:H3'	1:1G:983:A:N3	2.21	0.56
1:1G:1095:U:P	1:1G:1108:G:H1	2.27	0.56
3:22:18:TRP:CD1	14:5A:54:PRO:HA	2.41	0.56
8:72:83:ILE:HG13	8:72:137:VAL:HG22	1.86	0.56
9:82:43:ALA:HA	9:82:74:ILE:HD13	1.88	0.56
12:3A:37:CYS:HA	12:3A:58:VAL:HA	1.86	0.56
12:3A:47:LYS:CG	12:3A:48:PRO:HD2	2.35	0.56
13:4A:3:ARG:HB2	51:I5:34:GLU:HG3	1.88	0.56
26:14:273(C):C:H5'	26:14:273(D):C:OP2	2.05	0.56
26:14:2378:A:O2'	39:65:21:THR:HG21	2.06	0.56
36:35:95:VAL:HA	36:35:99:LEU:HD23	1.88	0.56
37:45:57:HIS:CG	37:45:117:ALA:HB2	2.40	0.56
46:D5:76:LEU:HA	46:D5:83:PRO:HA	1.88	0.56
1:13:200:G:H1	1:13:217:C:H42	1.53	0.56
1:13:757:U:H2'	1:13:758:G:O4'	2.04	0.56
1:13:1429:C:H2'	1:13:1430:C:C6	2.41	0.56
24:3K:13:C:H2'	24:3K:14:A:H8	1.71	0.56
24:3K:15:G:C6	24:3K:48:C:N4	2.74	0.56
26:1H:265:A:H1'	26:1H:266:G:O4'	2.05	0.56
26:1H:916:G:C2'	26:1H:917:A:H5''	2.36	0.56
26:1H:1316:U:H2'	26:1H:1317:A:H8	1.69	0.56
26:1H:2298:A:H2'	26:1H:2299:G:O4'	2.06	0.56
26:1H:2577:A:P	61:1H:3811:HOH:O	2.64	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:21:78:LEU:HD23	29:21:78:LEU:O	2.05	0.56
35:68:98:VAL:HG13	35:68:117:LEU:HB3	1.87	0.56
37:88:135:ASP:HB3	37:88:137:TYR:H	1.70	0.56
44:F8:1:MET:HG2	44:F8:2:LYS:H	1.71	0.56
46:H8:141:VAL:HG21	46:H8:150:LEU:HD11	1.88	0.56
1:1G:985:C:N3	1:1G:1220:G:N2	2.52	0.56
1:1G:1028(A):C:O2	1:1G:1033:G:N2	2.39	0.56
1:1G:1114:C:H1'	14:5A:60:SER:HB2	1.88	0.56
5:42:151:LEU:HD13	8:72:77:GLU:HG2	1.88	0.56
20:BA:82:SER:OG	20:BA:86:ARG:NH2	2.39	0.56
21:1B:2:GLY:O	21:1B:4:GLY:N	2.39	0.56
26:14:1794:U:H2'	26:14:1795:C:C6	2.41	0.56
26:14:2074:U:P	61:14:3503:HOH:O	2.59	0.56
50:H5:7:LYS:HG3	50:H5:34:GLU:HG3	1.86	0.56
1:13:32:A:H2'	1:13:33:A:C8	2.41	0.56
1:13:1156:G:H2'	1:13:1157:A:H5''	1.88	0.56
2:1E:160:ASP:O	2:1E:183:PRO:HD2	2.06	0.56
20:BI:49:ALA:HB1	20:BI:99:LEU:HB2	1.87	0.56
26:1H:242:G:H5'	55:Q8:60:LEU:HD13	1.88	0.56
26:1H:1385:G:O6	26:1H:1403:C:N4	2.39	0.56
26:1H:1533:C:H2'	26:1H:1534:G:C2	2.41	0.56
34:58:34:LEU:HD21	34:58:120:LEU:HB2	1.88	0.56
36:78:39:LYS:HG3	36:78:45:LEU:HD22	1.86	0.56
38:98:27:SER:HB3	38:98:34:ILE:HD11	1.88	0.56
46:H8:40:ASP:HB3	46:H8:43:GLU:HB2	1.87	0.56
1:1G:191(F):U:H2'	1:1G:191:G:C8	2.41	0.56
1:1G:980:C:H3'	1:1G:981:U:C6	2.40	0.56
1:1G:991:U:O2	1:1G:993:G:H8	1.88	0.56
1:1G:1382:C:O2'	57:3L:34:G:N7	2.37	0.56
9:82:17:VAL:HA	9:82:63:ILE:HG12	1.88	0.56
13:4A:19:LEU:HB2	13:4A:25:ILE:HG21	1.88	0.56
13:4A:57:ARG:HH12	51:I5:17:GLY:HA3	1.70	0.56
19:AA:29:ARG:HH12	19:AA:47:HIS:HA	1.71	0.56
26:14:957:A:N6	26:14:2459:A:C8	2.73	0.56
26:14:996:A:N6	26:14:1160:G:C6	2.73	0.56
26:14:2507:C:H5''	26:14:2573:C:N4	2.21	0.56
26:14:2636:U:HO2'	29:29:44:TYR:HH	1.52	0.56
27:1J:15:A:C5'	27:1J:16:G:H8	2.17	0.56
1:13:67:C:H2'	1:13:68:G:H8	1.71	0.55
1:13:247:G:OP2	17:8I:100:LYS:HB2	2.06	0.55
1:13:538:G:OP2	12:3I:115:LYS:HG3	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3I:90:VAL:O	12:3I:91:LYS:HB3	2.06	0.55
14:5I:23:ARG:HD2	14:5I:28:GLY:O	2.06	0.55
26:1H:229:A:OP2	36:78:150:ALA:HB1	2.07	0.55
26:1H:363(A):A:H2'	26:1H:363(B):G:H8	1.71	0.55
26:1H:508:G:N3	26:1H:508:G:H5''	2.20	0.55
26:1H:986:C:H3'	61:1H:4017:HOH:O	2.06	0.55
26:1H:1257:C:H4'	30:31:83:PHE:CD1	2.42	0.55
26:1H:2308:G:N1	26:1H:2311:A:H2	2.01	0.55
28:11:164:GLN:NE2	28:11:166:GLN:OE1	2.36	0.55
41:C8:8:VAL:HG23	41:C8:11:ARG:NH2	2.20	0.55
46:H8:151:HIS:ND1	46:H8:168:GLU:HG3	2.21	0.55
50:L8:31:LEU:HB3	50:L8:32:GLN:OE1	2.07	0.55
5:42:141:GLN:HA	5:42:143:ARG:HH21	1.70	0.55
11:2A:12:ARG:NH2	11:2A:13:GLN:O	2.39	0.55
26:14:329:G:O6	45:C5:19:LYS:HG2	2.06	0.55
26:14:920:G:H2'	26:14:921:G:H8	1.70	0.55
26:14:1364:G:OP2	48:F5:2:SER:N	2.39	0.55
26:14:1636:C:P	61:14:3631:HOH:O	2.64	0.55
26:14:2228:G:OP1	28:19:261:LYS:NZ	2.40	0.55
34:15:28:THR:HG22	34:15:29:LYS:HZ3	1.71	0.55
39:65:64:GLU:O	39:65:68:GLN:HG3	2.05	0.55
44:B5:67:GLY:C	44:B5:69:TYR:H	2.09	0.55
54:L5:24:THR:O	54:L5:28:ARG:HG3	2.06	0.55
1:13:1429:C:H2'	1:13:1430:C:H6	1.70	0.55
23:2K:48:U:O2'	23:2K:49:C:OP2	2.22	0.55
26:1H:309:G:N3	26:1H:329:G:O2'	2.38	0.55
26:1H:1509:C:N3	26:1H:1511:A:N6	2.54	0.55
26:1H:1693:U:H1'	28:11:14:ARG:NH2	2.21	0.55
26:1H:1899:G:H22	26:1H:1902:C:N4	2.04	0.55
26:1H:2062:A:P	61:1H:3859:HOH:O	2.63	0.55
32:51:149:ARG:NH1	32:51:167:GLU:OE2	2.37	0.55
39:A8:10:ARG:O	39:A8:14:VAL:HG13	2.05	0.55
39:A8:106:ARG:CZ	39:A8:107:GLU:HB2	2.36	0.55
46:H8:7:ALA:HB2	46:H8:59:LEU:HD22	1.88	0.55
55:Q8:8:LYS:H	55:Q8:8:LYS:HD2	1.70	0.55
3:22:39:ILE:O	3:22:43:LEU:HB2	2.06	0.55
7:62:94:ARG:O	7:62:97:GLN:HB3	2.06	0.55
12:3A:28:LYS:HE3	12:3A:33:ARG:HH12	1.70	0.55
28:19:166:GLN:HB3	28:19:174:ILE:HG22	1.88	0.55
33:69:2:LYS:HA	33:69:20:ASP:HA	1.88	0.55
36:35:85:LEU:HA	36:35:88:LEU:HB3	1.86	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:45:57:HIS:NE2	37:45:116:GLU:HB3	2.21	0.55
39:65:110:LEU:HB3	39:65:112:PHE:HE1	1.71	0.55
5:4E:147:ASP:HA	5:4E:150:ARG:NH1	2.21	0.55
19:AI:5:LEU:CB	19:AI:10:PHE:HE1	2.18	0.55
19:AI:41:VAL:O	51:M8:63:TYR:OH	2.24	0.55
26:1H:275:G:N7	26:1H:363:G:C4	2.74	0.55
26:1H:330:A:H2	26:1H:1210:A:O2'	1.88	0.55
26:1H:1038:C:H2'	26:1H:1039:G:O4'	2.07	0.55
26:1H:1061:U:N3	26:1H:1063:G:OP1	2.38	0.55
26:1H:1433:U:O2	26:1H:1561:G:C2	2.59	0.55
26:1H:1441:G:H2'	26:1H:1442:G:H8	1.71	0.55
26:1H:1883:G:HO2'	26:1H:1884:A:H8	1.51	0.55
26:1H:2419:U:C5'	53:O8:23:THR:HG21	2.31	0.55
26:1H:2469:A:H2	26:1H:2481:G:H21	1.51	0.55
29:21:111:ARG:HD2	29:21:160:TYR:CD2	2.41	0.55
30:31:12:LEU:O	30:31:127:GLU:N	2.39	0.55
30:31:39:TRP:O	30:31:43:LYS:HG2	2.06	0.55
38:98:104:ARG:HH11	38:98:107:ASP:CG	2.09	0.55
42:D8:76:LYS:O	42:D8:79:VAL:HG12	2.06	0.55
47:I8:47:PRO:HG3	47:I8:53:MET:HB2	1.87	0.55
1:1G:766:A:OP2	61:1G:1765:HOH:O	2.18	0.55
1:1G:804:U:H5''	1:1G:805:C:OP2	2.07	0.55
26:14:30:G:H2'	26:14:31:C:C6	2.41	0.55
26:14:729:G:OP2	28:19:13:ARG:NH1	2.38	0.55
26:14:1266:G:O4'	43:A5:15:ARG:NH2	2.38	0.55
30:39:148:LEU:HD11	30:39:193:VAL:HG21	1.88	0.55
36:35:121:LYS:HG3	36:35:122:PRO:HD2	1.88	0.55
38:55:106:GLY:O	38:55:107:ASP:HB3	2.05	0.55
1:13:626:U:C2	1:13:627:G:C8	2.94	0.55
2:1E:163:PHE:CD1	2:1E:185:ILE:HB	2.42	0.55
13:4I:40:ASN:HB3	13:4I:43:THR:HG23	1.89	0.55
13:4I:108:ARG:HG3	13:4I:108:ARG:HH11	1.71	0.55
17:8I:45:HIS:HB2	17:8I:65:ILE:HD13	1.87	0.55
24:3K:33:U:C2	24:3K:35:A:H5'	2.42	0.55
26:1H:7:G:N2	26:1H:8:A:N3	2.54	0.55
26:1H:1329:U:H5''	26:1H:1330:C:H5	1.72	0.55
26:1H:1420:U:HO2'	26:1H:1421:G:P	2.29	0.55
26:1H:2019:A:N7	52:N8:9:LYS:HE3	2.21	0.55
26:1H:2820:A:OP1	38:98:2:ARG:NH2	2.38	0.55
26:1H:2852:G:H2'	26:1H:2853:C:O4'	2.06	0.55
31:41:107:LEU:HD21	31:41:178:PHE:CE1	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:250:A:H1'	1:1G:251:G:OP2	2.07	0.55
1:1G:1004:A:C6	1:1G:1025:U:H1'	2.41	0.55
1:1G:1157:A:H61	1:1G:1178:G:N2	1.94	0.55
1:1G:1328:C:O2'	13:4A:29:ARG:NE	2.35	0.55
1:1G:1508:G:H8	1:1G:1508:G:O5'	1.89	0.55
2:12:212:GLN:O	2:12:216:SER:N	2.26	0.55
4:32:173:TRP:CZ3	4:32:193:ASP:HB3	2.41	0.55
56:1L:19:G:O2'	56:1L:57:G:N2	2.39	0.55
26:14:95:G:H4'	49:G5:46:GLN:HB2	1.87	0.55
26:14:138:G:N2	44:B5:44:GLU:OE2	2.29	0.55
26:14:2353:G:H4'	47:E5:33:ALA:HB3	1.87	0.55
27:1J:93:C:H2'	27:1J:94:C:H6	1.72	0.55
31:49:103:LEU:HD22	31:49:178:PHE:HZ	1.70	0.55
33:69:76:THR:HG23	33:69:77:LEU:H	1.72	0.55
1:13:345:C:O2'	1:13:346:G:N2	2.39	0.55
1:13:1157:A:N6	1:13:1178:G:H21	2.05	0.55
22:1K:76:A:H8	26:1H:2583:G:H21	1.47	0.55
26:1H:1378:A:O2'	26:1H:1379:A:H5''	2.06	0.55
26:1H:1534:G:H3'	26:1H:1534:G:N3	2.22	0.55
26:1H:1796:U:H2'	26:1H:1797:C:C6	2.41	0.55
26:1H:2373:G:H2'	26:1H:2374:C:C6	2.42	0.55
47:I8:36:ILE:O	47:I8:36:ILE:HD13	2.06	0.55
49:K8:47:ASN:O	49:K8:49:LYS:N	2.38	0.55
3:22:113:ALA:HA	3:22:202:ILE:HD11	1.89	0.55
26:14:614:U:H4'	26:14:615:G:OP1	2.05	0.55
27:1J:117:G:O5'	27:1J:117:G:H8	1.90	0.55
46:D5:144:LEU:HD23	46:D5:144:LEU:H	1.72	0.55
50:H5:44:ARG:O	50:H5:48:GLU:HG3	2.07	0.55
1:13:272:C:H2'	1:13:273:A:C8	2.42	0.55
1:13:1028:C:H42	1:13:1033:G:H1	1.54	0.55
8:7E:13:ILE:O	8:7E:17:THR:HG23	2.07	0.55
26:1H:34:C:OP2	26:1H:34:C:C6	2.60	0.55
26:1H:1021:A:C8	26:1H:1022:G:H5''	2.41	0.55
26:1H:1533:C:H3'	26:1H:1534:G:C5'	2.36	0.55
26:1H:2146:C:H4'	26:1H:2147:G:N7	2.21	0.55
26:1H:2147:G:H2'	26:1H:2148:G:H4'	1.88	0.55
27:16:7:G:O5'	39:A8:29:PHE:CE2	2.60	0.55
30:31:160:ASN:OD1	30:31:163:VAL:HG23	2.07	0.55
37:88:21:THR:HG22	37:88:99:PRO:O	2.06	0.55
46:H8:124:ILE:HD12	46:H8:125:LEU:H	1.72	0.55
1:1G:1387:G:H2'	1:1G:1388:C:C6	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:654(D):G:H22	26:14:654(Q):C:N4	2.05	0.55
26:14:2839:G:H21	38:55:92:GLY:HA2	1.71	0.55
42:95:37:VAL:HG21	42:95:57:VAL:H	1.72	0.55
1:13:377:G:H5'	16:7I:5:ARG:HH12	1.72	0.55
1:13:509:A:H5'	4:3E:54:TYR:HD2	1.72	0.55
1:13:805:C:O2'	1:13:806:C:H5'	2.07	0.55
4:3E:108:LEU:HD23	4:3E:110:PHE:HE1	1.71	0.55
19:AI:51:VAL:O	19:AI:57:HIS:HA	2.07	0.55
23:2K:24:C:H2'	23:2K:25:U:C6	2.42	0.55
26:1H:575:A:O3'	61:1H:4546:HOH:O	2.18	0.55
26:1H:600:G:N2	26:1H:605:C:O3'	2.39	0.55
26:1H:732:C:H3'	61:1H:4112:HOH:O	2.07	0.55
26:1H:1899:G:H1	26:1H:1902:C:N4	2.05	0.55
27:16:15:A:H3'	27:16:16:G:H5'	1.88	0.55
33:61:7:GLU:O	33:61:9:LEU:HD22	2.06	0.55
34:58:133:GLN:HG2	34:58:134:ARG:H	1.72	0.55
55:Q8:38:GLY:HA2	55:Q8:39:LYS:C	2.26	0.55
1:1G:406:G:H1	1:1G:436:C:H42	1.55	0.55
1:1G:1227:A:OP1	19:AA:80:TYR:OH	2.20	0.55
11:2A:32:ILE:HD11	11:2A:68:ALA:HB1	1.89	0.55
11:2A:32:ILE:HD13	11:2A:72:ALA:HB2	1.89	0.55
12:3A:27:LEU:HG	12:3A:33:ARG:HG2	1.88	0.55
26:14:433:C:C4	26:14:434:U:O4	2.60	0.55
26:14:519:U:H2'	26:14:520:G:H8	1.70	0.55
26:14:588:U:O4	26:14:670:A:H1'	2.07	0.55
26:14:2496:C:P	37:45:81:VAL:HG12	2.47	0.55
36:35:18:ARG:O	36:35:19:VAL:HG23	2.07	0.55
40:75:24:PRO:HD3	40:75:52:ILE:HD12	1.89	0.55
26:1H:66:C:H2'	26:1H:67:U:H6	1.72	0.55
26:1H:2393:A:H2'	26:1H:2394:C:C6	2.41	0.55
26:1H:2801:A:H5'	26:1H:2895:U:H1'	1.88	0.55
1:1G:1220:G:O3'	19:AA:36:ARG:HD3	2.06	0.55
9:82:102:LEU:O	9:82:103:THR:OG1	2.20	0.55
15:6A:79:ARG:HA	15:6A:82:ILE:HG22	1.87	0.55
16:7A:22:THR:HA	16:7A:33:ILE:HG13	1.88	0.55
26:14:979:G:H3'	26:14:980:A:C5'	2.36	0.55
26:14:1022:G:O2'	26:14:1023:U:OP2	2.24	0.55
26:14:2781:A:H5''	26:14:2782:G:H5'	1.89	0.55
27:1J:48:A:H4'	39:65:95:HIS:CD2	2.39	0.55
4:3E:98:GLU:O	4:3E:103:ASN:ND2	2.39	0.55
5:4E:91:LEU:HD12	5:4E:120:THR:HG22	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:517:C:OP1	52:N8:16:ARG:NH2	2.32	0.55
26:1H:1152:C:H3'	61:1H:4023:HOH:O	2.07	0.55
26:1H:2346:A:O2'	53:O8:24:GLU:OE2	2.25	0.55
26:1H:2845:G:O2'	26:1H:2846:G:H5'	2.06	0.55
29:21:48:GLN:OE1	29:21:77:ILE:HG21	2.06	0.55
30:31:197:ASP:O	30:31:199:TRP:N	2.40	0.55
44:F8:67:GLY:C	44:F8:69:TYR:H	2.09	0.55
26:14:1970:A:P	61:14:3573:HOH:O	2.65	0.55
26:14:2291:U:H2'	26:14:2292:C:C6	2.42	0.55
26:14:2448:A:N1	61:14:3799:HOH:O	2.33	0.55
1:13:165:C:H2'	1:13:166:G:H8	1.71	0.55
1:13:624:C:O3'	16:7I:10:GLY:HA2	2.06	0.55
1:13:1015:A:N3	1:13:1218:C:O2'	2.37	0.55
3:2E:128:PHE:CZ	3:2E:132:ARG:HD2	2.42	0.55
4:3E:129:ASN:ND2	4:3E:144:ASP:OD1	2.38	0.55
10:1I:26:ALA:HB1	10:1I:84:GLN:HG2	1.89	0.55
23:2K:17:C:H3'	23:2K:18:C:H2'	1.88	0.55
26:1H:731:C:P	61:1H:3685:HOH:O	2.63	0.55
26:1H:768:G:O2'	26:1H:1379:A:N6	2.40	0.55
34:58:129:PRO:O	34:58:134:ARG:NH1	2.40	0.55
47:I8:11:ARG:O	47:I8:14:ARG:NH2	2.40	0.55
1:1G:426:G:OP1	4:32:38:TYR:OH	2.21	0.55
21:1B:9:ARG:HE	21:1B:10:ARG:HG3	1.72	0.55
57:3L:71:G:O2'	26:14:1851:U:O2'	2.01	0.55
26:14:870:A:OP1	37:45:6:ARG:HD3	2.07	0.55
26:14:1204:A:C2	26:14:1241:A:N1	2.75	0.55
26:14:2839:G:H21	38:55:92:GLY:CA	2.20	0.55
31:49:97:ASP:HA	31:49:100:TRP:HD1	1.71	0.55
50:H5:46:ASN:O	50:H5:50:VAL:HG22	2.06	0.55
1:13:165:C:H2'	1:13:166:G:C8	2.42	0.54
1:13:555:C:H2'	1:13:556:C:C6	2.42	0.54
1:13:991:U:C4	1:13:1212:U:H1'	2.42	0.54
9:8E:17:VAL:HG21	9:8E:80:GLY:HA3	1.89	0.54
10:1I:78:ASN:HB2	10:1I:81:THR:HG23	1.88	0.54
11:2I:78:GLN:O	11:2I:103:LEU:HA	2.08	0.54
23:2K:54:G:H2'	23:2K:55:5MU:C6	2.39	0.54
26:1H:2052:G:H4'	29:21:143:ASN:O	2.07	0.54
29:21:13:ARG:HH11	29:21:13:ARG:CG	2.19	0.54
34:58:26:LEU:O	34:58:30:ILE:HG13	2.06	0.54
37:88:11:LYS:HE2	37:88:86:GLY:HA2	1.89	0.54
51:M8:39:CYS:SG	51:M8:41:PRO:HD3	2.47	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:O8:9:LEU:N	53:O8:27:LYS:HA	2.23	0.54
53:O8:13:CYS:O	53:O8:21:TYR:HB3	2.07	0.54
55:Q8:46:ARG:HH11	55:Q8:46:ARG:CG	2.20	0.54
55:Q8:49:VAL:HG22	55:Q8:50:LEU:HA	1.87	0.54
1:1G:458:C:H2'	1:1G:464:G:C8	2.41	0.54
2:12:30:ARG:HH21	2:12:194:PRO:HB2	1.72	0.54
5:42:76:ILE:HG12	5:42:118:ILE:HG13	1.89	0.54
9:82:27:THR:HB	9:82:32:ASP:HA	1.87	0.54
11:2A:48:ILE:HD11	11:2A:64:ALA:HA	1.88	0.54
12:3A:46:LYS:HG2	12:3A:47:LYS:N	2.22	0.54
26:14:574:C:OP2	61:14:3656:HOH:O	2.18	0.54
26:14:1055:G:O2'	26:14:1085:A:N1	2.33	0.54
31:49:50:ALA:HB2	31:49:87:PRO:HG3	1.89	0.54
34:15:96:GLU:H	34:15:96:GLU:CD	2.08	0.54
43:A5:18:ARG:HG3	43:A5:76:VAL:HG13	1.89	0.54
53:K5:51:GLU:HG2	53:K5:52:VAL:H	1.70	0.54
1:13:1291:G:OP1	7:6E:37:ASN:ND2	2.40	0.54
12:3I:87:GLY:HA2	12:3I:98:TYR:HA	1.88	0.54
17:8I:45:HIS:CE1	17:8I:47:PRO:HG3	2.41	0.54
19:AI:42:PRO:HD2	19:AI:43:GLU:OE1	2.07	0.54
26:1H:125:G:H5'	26:1H:125:G:H8	1.72	0.54
26:1H:620:G:H4'	26:1H:621:A:C5'	2.36	0.54
26:1H:888:C:H2'	26:1H:889:C:C2	2.42	0.54
26:1H:890:A:H3'	26:1H:892:G:H8	1.71	0.54
26:1H:960:A:H61	37:88:82:ARG:HH21	1.53	0.54
26:1H:1639:U:H4'	26:1H:2699:C:H4'	1.90	0.54
26:1H:2127:G:N2	26:1H:2162:G:H1'	2.22	0.54
29:21:13:ARG:HG2	29:21:13:ARG:NH1	2.20	0.54
31:41:28:VAL:O	31:41:31:VAL:HG13	2.07	0.54
46:H8:103:ARG:HB2	46:H8:138:GLU:HA	1.90	0.54
1:1G:560:U:H4'	1:1G:561:U:O5'	2.07	0.54
1:1G:980:C:H5'	1:1G:981:U:C5	2.42	0.54
10:1A:45:ARG:O	10:1A:65:LEU:N	2.34	0.54
19:AA:18:LYS:HG2	19:AA:31:ILE:HD13	1.88	0.54
56:1L:18:G:O2'	56:1L:60:U:O4	2.24	0.54
26:14:596:G:H2'	26:14:597:U:O4'	2.07	0.54
26:14:997:G:OP1	41:85:93:LYS:HB2	2.07	0.54
26:14:2303:G:H2'	26:14:2304:G:H5'	1.89	0.54
27:1J:15:A:H5'	27:1J:16:G:C8	2.32	0.54
27:1J:44:G:H5''	27:1J:45:A:OP1	2.07	0.54
32:59:6:ARG:HH11	32:59:6:ARG:N	2.05	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:35:62:LEU:HD13	36:35:63:PRO:O	2.07	0.54
42:95:57:VAL:HG23	42:95:99:ILE:H	1.72	0.54
48:F5:15:ALA:O	48:F5:40:ARG:HG2	2.07	0.54
49:G5:13:ALA:HA	49:G5:16:LEU:HD23	1.89	0.54
1:13:411:A:C4	1:13:413:G:H1'	2.43	0.54
1:13:475:G:H2'	1:13:476:G:H8	1.73	0.54
1:13:606:G:N3	1:13:632:A:N6	2.55	0.54
1:13:920:U:H2'	1:13:921:U:C6	2.43	0.54
1:13:1060:C:OP1	14:5I:45:ARG:NH2	2.40	0.54
1:13:1368:G:H5''	9:8E:112:LYS:HB3	1.88	0.54
5:4E:147:ASP:OD1	5:4E:147:ASP:N	2.39	0.54
10:1I:54:PHE:CZ	10:1I:55:LYS:NZ	2.67	0.54
11:2I:87:THR:HG22	11:2I:88:GLY:H	1.72	0.54
22:1K:1:G:O6	22:1K:72:C:N4	2.41	0.54
22:1K:74:C:O2'	22:1K:75:C:O5'	2.23	0.54
28:11:145:VAL:HG12	28:11:146:GLU:O	2.07	0.54
42:D8:47:VAL:HG23	42:D8:48:GLY:N	2.22	0.54
53:O8:36:LEU:HB3	53:O8:50:ARG:HG2	1.90	0.54
1:1G:1246:C:O2	1:1G:1291:G:N2	2.29	0.54
1:1G:1300:G:HO2'	1:1G:1301:U:P	2.30	0.54
1:1G:1315:U:H2'	1:1G:1316:G:O4'	2.07	0.54
1:1G:1367:C:H4'	10:1A:48:THR:HG21	1.87	0.54
4:32:112:VAL:HG12	4:32:116:GLN:OE1	2.06	0.54
16:7A:70:ALA:O	16:7A:74:LEU:HD23	2.08	0.54
26:14:249:C:H4'	26:14:250:G:O5'	2.08	0.54
26:14:870:A:H5''	37:45:6:ARG:HB3	1.87	0.54
26:14:903:C:H2'	26:14:904:C:C6	2.42	0.54
26:14:972:G:OP2	26:14:973:A:O2'	2.23	0.54
26:14:1538:G:H2'	26:14:1539:G:H8	1.72	0.54
26:14:1783:A:H5'	26:14:2608:G:H4'	1.89	0.54
31:49:42:GLY:O	31:49:43:LEU:HD13	2.07	0.54
35:25:71:ARG:NH2	35:25:122:LEU:O	2.39	0.54
38:55:24:GLN:OE1	38:55:36:THR:HG21	2.06	0.54
39:65:67:ARG:HB2	39:65:67:ARG:CZ	2.36	0.54
1:13:114:U:H2'	1:13:115:G:C8	2.42	0.54
1:13:712:A:O2'	1:13:713:G:H5'	2.07	0.54
1:13:737:A:H2'	1:13:738:C:H6	1.72	0.54
1:13:1194:U:H2'	1:13:1195:C:C6	2.43	0.54
2:1E:212:GLN:O	2:1E:216:SER:OG	2.13	0.54
3:2E:72:LYS:HB3	3:2E:75:VAL:HG23	1.90	0.54
4:3E:102:ASP:OD1	4:3E:103:ASN:N	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:94:ARG:HH22	26:1H:887:A:H5'	1.71	0.54
26:1H:270(M):U:O2'	26:1H:270(N):G:O5'	2.22	0.54
26:1H:919:G:H4'	27:16:81:G:H4'	1.88	0.54
26:1H:1021:A:H3'	26:1H:1022:G:H5''	1.88	0.54
26:1H:2035:G:OP1	61:1H:3793:HOH:O	2.18	0.54
26:1H:2331:G:O3'	47:I8:43:THR:HG22	2.07	0.54
26:1H:2395:C:H5''	26:1H:2396:G:OP2	2.07	0.54
30:31:7:TYR:O	30:31:22:ALA:N	2.39	0.54
32:51:3:ARG:CZ	32:51:3:ARG:HA	2.37	0.54
39:A8:88:ASP:O	39:A8:90:GLY:N	2.40	0.54
1:1G:8:A:N7	4:32:209:ARG:HA	2.23	0.54
1:1G:1116:C:H42	1:1G:1184:G:H1	1.55	0.54
1:1G:1133:G:N2	1:1G:1141:C:O2	2.40	0.54
1:1G:1206:G:H4'	3:22:192:THR:O	2.07	0.54
1:1G:1372:U:H2'	1:1G:1373:G:O4'	2.06	0.54
2:12:145:LEU:O	2:12:149:LEU:HB2	2.07	0.54
3:22:18:TRP:H	3:22:18:TRP:HE3	1.55	0.54
4:32:30:LYS:HB2	4:32:35:ARG:HD2	1.89	0.54
6:52:70:ASP:OD1	6:52:70:ASP:N	2.39	0.54
7:62:84:ASN:OD1	7:62:84:ASN:N	2.38	0.54
11:2A:13:GLN:HA	11:2A:75:TYR:O	2.07	0.54
56:1L:35:A:H2'	56:1L:36:A:O4'	2.08	0.54
26:14:247:G:H4'	26:14:386:G:C5	2.43	0.54
26:14:311:A:C6	26:14:328:U:C4	2.96	0.54
26:14:890:A:H2'	26:14:892:G:H8	1.71	0.54
26:14:1317:A:H2'	26:14:1318:C:C6	2.43	0.54
26:14:1688:U:O2	26:14:1700:A:H5'	2.07	0.54
29:29:79:ARG:N	29:29:79:ARG:HD2	2.22	0.54
1:13:74:C:N4	1:13:96:G:H1	2.05	0.54
1:13:447:G:H8	1:13:447:G:O5'	1.91	0.54
1:13:523:A:H61	12:3I:92:ASP:HB2	1.72	0.54
1:13:1167:A:P	1:13:1167:A:H8	2.31	0.54
26:1H:1218:C:H6	26:1H:1218:C:H5''	1.73	0.54
26:1H:1932:A:H2'	26:1H:1933:G:O4'	2.06	0.54
38:98:78:LYS:O	38:98:83:ILE:HG13	2.07	0.54
41:C8:11:ARG:O	41:C8:15:LYS:HG3	2.07	0.54
43:E8:24:ILE:HD12	43:E8:24:ILE:O	2.08	0.54
45:G8:28:LYS:HB2	45:G8:40:GLU:OE1	2.08	0.54
47:I8:49:LYS:HB2	47:I8:80:HIS:HB3	1.89	0.54
1:1G:750:G:H1'	15:6A:22:THR:OG1	2.08	0.54
1:1G:957:U:H1'	1:1G:960:U:C5	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:976:G:OP1	14:5A:31:ARG:HB3	2.08	0.54
1:1G:1086:U:H2'	1:1G:1087:G:H8	1.73	0.54
9:82:9:ARG:HG2	9:82:14:VAL:HG22	1.88	0.54
13:4A:78:ILE:HG23	13:4A:92:HIS:CE1	2.43	0.54
19:AA:23:ASN:HA	19:AA:27:GLU:CD	2.28	0.54
26:14:459:U:H5''	54:L5:40:TRP:CD2	2.42	0.54
26:14:1340:U:H4'	26:14:1394:U:O2'	2.07	0.54
26:14:1678:G:N2	26:14:1989:G:H22	2.04	0.54
26:14:2111:C:N4	26:14:2147:G:H21	2.06	0.54
44:B5:49:VAL:HB	44:B5:83:VAL:HG21	1.90	0.54
46:D5:7:ALA:O	46:D5:8:TYR:CG	2.60	0.54
1:13:57:G:H2'	1:13:58:C:H6	1.70	0.54
1:13:1014:A:C2	1:13:1219:U:H1'	2.42	0.54
1:13:1170:A:C8	1:13:1171:G:C8	2.96	0.54
2:1E:27:LYS:HD2	2:1E:193:ASP:HB2	1.89	0.54
7:6E:79:ARG:HG2	7:6E:84:ASN:OD1	2.08	0.54
15:6I:74:ASP:HB3	15:6I:77:ARG:HG2	1.88	0.54
16:7I:74:LEU:HA	16:7I:77:ALA:HB2	1.87	0.54
20:BI:57:ARG:NH1	20:BI:102:GLY:HA2	2.22	0.54
31:41:21:ARG:HG2	31:41:21:ARG:NH1	2.19	0.54
33:61:69:LYS:HG3	33:61:136:VAL:HB	1.89	0.54
1:1G:456:C:H42	1:1G:476:G:H1	1.53	0.54
1:1G:1193:G:O2'	5:42:25:ARG:NH2	2.40	0.54
5:42:9:LYS:HB2	5:42:112:LEU:HD11	1.89	0.54
8:72:109:ILE:HG22	8:72:137:VAL:HB	1.89	0.54
28:19:69:ARG:NH2	28:19:128:GLY:O	2.40	0.54
30:39:129:PHE:HA	30:39:142:TRP:NE1	2.22	0.54
35:25:111:PHE:HB3	35:25:114:ILE:HG13	1.90	0.54
36:35:50:ARG:HG2	36:35:50:ARG:HH11	1.73	0.54
1:13:128:G:H5'	17:8I:2:PRO:O	2.07	0.54
2:1E:73:THR:O	2:1E:78:GLN:NE2	2.40	0.54
4:3E:148:VAL:HG21	4:3E:158:ILE:HG21	1.90	0.54
8:7E:9:MET:SD	8:7E:32:LYS:HG2	2.48	0.54
16:7I:21:VAL:O	16:7I:33:ILE:N	2.37	0.54
26:1H:270(I):G:H1	26:1H:270(Q):C:H42	1.53	0.54
26:1H:536:A:H2'	26:1H:537:C:C6	2.43	0.54
26:1H:779:U:O4	61:1H:4118:HOH:O	2.19	0.54
26:1H:1026:U:H1'	26:1H:1027:A:P	2.48	0.54
26:1H:1786:A:C2	26:1H:2606:C:H1'	2.43	0.54
27:16:15:A:H5'	27:16:16:G:C8	2.43	0.54
31:41:84:LYS:HG3	31:41:84:LYS:O	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:78:96:THR:C	36:78:98:GLU:H	2.11	0.54
40:B8:24:PRO:HA	40:B8:49:VAL:HG22	1.89	0.54
2:12:73:THR:HB	2:12:96:ARG:H	1.73	0.54
26:14:276:A:N3	26:14:277:C:N4	2.55	0.54
26:14:889:C:H2'	26:14:890:A:H4'	1.90	0.54
29:29:11:MET:HA	29:29:24:THR:HA	1.90	0.54
30:39:7:TYR:HD1	30:39:18:ARG:H	1.56	0.54
30:39:53:THR:HG22	30:39:56:GLU:HG3	1.90	0.54
33:69:3:VAL:HG12	33:69:38:LEU:HA	1.89	0.54
39:65:3:ARG:HE	39:65:4:LEU:N	2.06	0.54
39:65:15:ARG:O	39:65:19:LYS:HD3	2.08	0.54
43:A5:96:ILE:HD11	43:A5:98:LYS:HD2	1.89	0.54
1:13:38:G:C2	1:13:397:A:C2	2.96	0.54
1:13:919:A:O2'	1:13:920:U:H5'	2.07	0.54
2:1E:18:GLY:N	2:1E:42:ILE:HG22	2.22	0.54
26:1H:1820:U:H4'	26:1H:1821:A:OP2	2.07	0.54
26:1H:2137:C:H42	26:1H:2154:G:H22	1.56	0.54
26:1H:2335:A:C8	26:1H:2337:G:C5	2.96	0.54
30:31:77:ASP:HB2	30:31:79:GLY:H	1.73	0.54
36:78:19:VAL:CG1	36:78:27:HIS:HB2	2.35	0.54
39:A8:42:ASP:O	39:A8:43:GLU:HB2	2.07	0.54
51:M8:24:THR:OG1	51:M8:25:TYR:N	2.41	0.54
52:N8:42:PRO:O	52:N8:44:THR:HB	2.08	0.54
55:Q8:32:LEU:HG	55:Q8:33:ASN:N	2.23	0.54
1:1G:562:C:H1'	12:3A:15:ARG:HD2	1.88	0.54
16:7A:21:VAL:HG22	16:7A:33:ILE:HB	1.89	0.54
26:14:821:A:O2'	26:14:946:G:OP2	2.24	0.54
26:14:993:G:N3	42:95:89:GLN:NE2	2.56	0.54
26:14:1819:A:H4'	26:14:1820:U:O5'	2.07	0.54
26:14:2693:A:H2'	26:14:2694:G:C8	2.41	0.54
31:49:124:SER:HB2	31:49:131:TYR:CE2	2.43	0.54
34:15:34:LEU:O	34:15:49:GLY:HA3	2.08	0.54
36:35:47:ASP:OD1	36:35:49:ARG:NE	2.27	0.54
41:85:92:ARG:NH1	42:95:11:GLN:H	2.06	0.54
51:I5:2:LYS:HB3	51:I5:6:HIS:HB2	1.90	0.54
1:13:945:G:C2	1:13:946:A:C8	2.96	0.54
1:13:1278:U:H5''	1:13:1279:A:O4'	2.07	0.54
3:2E:62:ASP:HB3	3:2E:97:LYS:HG2	1.90	0.54
4:3E:206:PHE:O	4:3E:209:ARG:HD2	2.08	0.54
8:7E:39:LEU:HB3	8:7E:45:ILE:HD11	1.89	0.54
8:7E:104:ARG:O	8:7E:107:LEU:HB2	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:32:ILE:HD12	11:2I:72:ALA:HB2	1.88	0.54
26:1H:70:G:H21	26:1H:71:A:N6	2.05	0.54
26:1H:634:C:H2'	26:1H:635:C:C6	2.42	0.54
26:1H:1442:G:C2	26:1H:1550:C:O2	2.60	0.54
26:1H:2128:C:N4	26:1H:2160:G:H1	2.05	0.54
26:1H:2518:A:H5'	26:1H:2518:A:C8	2.42	0.54
26:1H:2700:C:C2'	26:1H:2701:C:H5'	2.37	0.54
37:88:34:LEU:HD11	37:88:129:THR:HB	1.90	0.54
37:88:135:ASP:HB2	37:88:138:ASP:OD1	2.08	0.54
45:G8:28:LYS:NZ	45:G8:64:GLU:OE2	2.40	0.54
46:H8:4:ARG:HB3	46:H8:58:VAL:CG2	2.38	0.54
47:I8:51:VAL:N	47:I8:62:LEU:HD12	2.23	0.54
1:1G:979:C:H3'	1:1G:980:C:C5'	2.38	0.54
1:1G:1401:G:OP1	25:4L:18:G:O2'	2.24	0.54
26:14:270(I):G:H2'	26:14:270(J):G:H8	1.71	0.54
26:14:528:A:C2	26:14:2042:A:H2'	2.43	0.54
26:14:579:G:H2'	26:14:580:C:C6	2.43	0.54
26:14:1646:C:O3'	61:14:3643:HOH:O	2.18	0.54
34:15:23:LEU:HD12	34:15:99:LEU:HD23	1.89	0.54
36:35:65:ARG:HH21	55:M5:15:LYS:HB3	1.73	0.54
37:45:36:ALA:HB2	37:45:103:MET:SD	2.47	0.54
1:13:1160:G:H1	1:13:1177:G:H2	1.54	0.54
2:1E:163:PHE:HD1	2:1E:185:ILE:HB	1.73	0.54
3:2E:40:ARG:HG3	3:2E:40:ARG:NH1	2.23	0.54
5:4E:126:ARG:HG3	5:4E:126:ARG:NH1	2.21	0.54
26:1H:956:G:OP1	37:88:85:LYS:HG3	2.08	0.54
26:1H:1579:A:H2'	26:1H:1580:A:O4'	2.08	0.54
26:1H:1678:G:C8	26:1H:1678:G:H5''	2.43	0.54
37:88:82:ARG:HD2	37:88:82:ARG:N	2.23	0.54
40:B8:5:ALA:HA	40:B8:8:LYS:HE2	1.90	0.54
49:K8:42:GLY:C	49:K8:44:LEU:H	2.09	0.54
4:32:127:THR:HG21	4:32:149:ALA:HB2	1.89	0.54
15:6A:78:TYR:HD1	15:6A:79:ARG:HG3	1.72	0.54
26:14:1071:G:H1'	26:14:1089:G:H2'	1.90	0.54
26:14:2392:A:H2	26:14:2424:C:N4	2.00	0.54
26:14:2873:A:H8	38:55:6:SER:N	2.01	0.54
27:1J:66:A:N6	27:1J:107:U:H2'	2.23	0.54
28:19:43:ARG:HH11	28:19:43:ARG:CG	2.20	0.54
35:25:4:PRO:O	35:25:5:GLN:HB2	2.07	0.54
40:75:45:PHE:CE2	40:75:74:ARG:HB2	2.43	0.54
51:I5:42:PHE:O	51:I5:43:TYR:HB3	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:7:ALA:HB2	8:7E:85:ARG:HH11	1.72	0.53
26:1H:442:G:C4	26:1H:444:C:C5	2.96	0.53
26:1H:761:A:H5''	61:1H:3683:HOH:O	2.08	0.53
26:1H:1093:G:H1'	26:1H:1099:G:H1	1.72	0.53
26:1H:1339:G:N2	26:1H:1603:A:H1'	2.24	0.53
26:1H:1899:G:N2	26:1H:1902:C:H41	2.06	0.53
26:1H:2807:G:H3'	26:1H:2808:U:H5''	1.90	0.53
28:11:71:ASP:HB2	28:11:103:ARG:HH22	1.73	0.53
38:98:117:VAL:O	38:98:118:GLU:HB2	2.08	0.53
1:1G:998:G:H2'	1:1G:998(A):C:C6	2.43	0.53
1:1G:1237:C:O2'	1:1G:1300:G:N2	2.39	0.53
12:3A:37:CYS:SG	12:3A:81:SER:HB3	2.49	0.53
56:1L:76:A:H8	26:14:2583:G:H21	1.51	0.53
26:14:270(T):G:C6	26:14:270(U):C:C4	2.96	0.53
30:39:123:LEU:HB2	30:39:192:LEU:HB3	1.90	0.53
31:49:56:ALA:HB2	31:49:153:ARG:CZ	2.38	0.53
26:1H:528:A:C2	26:1H:2043:C:H4'	2.43	0.53
26:1H:762:U:H4'	26:1H:763:G:O5'	2.08	0.53
26:1H:1152:C:H4'	41:C8:77:SER:HA	1.90	0.53
26:1H:1312:U:H4'	26:1H:1313:U:O5'	2.08	0.53
26:1H:1512:G:H2'	26:1H:1513:C:H6	1.73	0.53
31:41:67:LYS:HE2	51:M8:6:HIS:HE1	1.73	0.53
33:61:124:GLY:H	33:61:142:VAL:HG23	1.73	0.53
39:A8:5:THR:OG1	39:A8:8:GLU:HG3	2.07	0.53
43:E8:71:VAL:HA	43:E8:107:LEU:HD12	1.89	0.53
55:Q8:30:ARG:HB2	55:Q8:30:ARG:CZ	2.37	0.53
1:1G:60:A:N6	1:1G:110:C:N3	2.55	0.53
1:1G:414:A:H2'	1:1G:415:A:O4'	2.09	0.53
1:1G:529:G:O6	12:3A:49:ASN:HA	2.08	0.53
1:1G:1048:G:N2	1:1G:1209:C:N3	2.48	0.53
1:1G:1279:A:O2'	1:1G:1282:C:N4	2.41	0.53
1:1G:1478:C:H2'	1:1G:1479:C:C6	2.42	0.53
2:12:19:HIS:CE1	2:12:206:ASP:HB2	2.43	0.53
7:62:21:VAL:HG23	7:62:22:LEU:HD12	1.89	0.53
12:3A:49:ASN:N	12:3A:49:ASN:OD1	2.40	0.53
26:14:739:G:P	61:14:3751:HOH:O	2.65	0.53
26:14:1425:G:H2'	26:14:1426:G:C8	2.43	0.53
26:14:1485:G:H1	26:14:1504:C:N4	2.06	0.53
26:14:2447:G:OP2	61:14:3809:HOH:O	2.19	0.53
26:14:2619:C:OP1	29:29:152:LYS:HE2	2.07	0.53
43:A5:13:SER:O	43:A5:16:LYS:HB2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M5:14:VAL:HG13	55:M5:22:VAL:HG13	1.91	0.53
1:13:45:U:H2'	1:13:46:G:C8	2.44	0.53
1:13:112:G:OP1	16:7I:27:LYS:HD2	2.08	0.53
2:1E:6:THR:OG1	2:1E:7:VAL:N	2.42	0.53
2:1E:17:PHE:HB3	2:1E:44:LEU:HD21	1.90	0.53
4:3E:18:LYS:HD3	4:3E:31:CYS:SG	2.49	0.53
4:3E:85:LYS:HG3	4:3E:86:LYS:N	2.22	0.53
6:5E:68:PRO:HG2	6:5E:71:ARG:HG3	1.90	0.53
13:4I:7:VAL:HB	31:4I:115:ARG:CZ	2.38	0.53
23:2K:64:G:H2'	23:2K:65:G:H8	1.73	0.53
26:1H:217:G:P	61:1H:3763:HOH:O	2.63	0.53
26:1H:325:G:O2'	26:1H:326:G:H5'	2.09	0.53
26:1H:446:G:OP2	61:1H:3697:HOH:O	2.17	0.53
26:1H:484:C:H2'	26:1H:485:C:C6	2.43	0.53
26:1H:582:G:H2'	26:1H:583:G:C8	2.43	0.53
29:21:119:ARG:HG2	29:21:120:TRP:NE1	2.23	0.53
39:A8:99:LYS:O	39:A8:103:GLU:HG2	2.07	0.53
46:H8:103:ARG:HG3	46:H8:136:PHE:CD2	2.44	0.53
1:1G:411:A:C5	1:1G:413:G:H1'	2.43	0.53
1:1G:986:A:H1'	19:AA:54:GLY:O	2.07	0.53
1:1G:1003:G:N2	1:1G:1037:C:O2	2.24	0.53
10:1A:24:VAL:HG13	10:1A:34:VAL:HG11	1.89	0.53
13:4A:81:LEU:HD13	13:4A:88:ARG:HD2	1.90	0.53
56:1L:37:MIA:H153	56:1L:37:MIA:HN6	1.73	0.53
23:2L:62:C:H2'	23:2L:63:C:H6	1.73	0.53
26:14:94:G:H21	49:G5:47:ASN:HD22	1.56	0.53
26:14:587:C:O2	36:35:33:ARG:NH1	2.41	0.53
26:14:1041:C:N4	26:14:1114:G:H22	2.03	0.53
26:14:2016:U:OP1	61:14:3885:HOH:O	2.19	0.53
27:1J:51:G:OP2	39:65:59:LYS:NZ	2.41	0.53
28:19:70:TRP:CH2	28:19:150:LYS:HA	2.44	0.53
30:39:178:PRO:HB3	30:39:198:ALA:HA	1.90	0.53
34:15:33:LEU:HD12	34:15:38:HIS:CD2	2.37	0.53
39:65:74:ALA:HB1	39:65:107:GLU:HB3	1.91	0.53
4:3E:60:GLU:OE1	4:3E:63:LYS:NZ	2.23	0.53
26:1H:234:C:H2'	26:1H:235:U:C6	2.44	0.53
26:1H:847:U:C5	26:1H:933:A:N1	2.77	0.53
26:1H:969:U:OP1	50:L8:17:LYS:HG2	2.08	0.53
26:1H:1001:A:H2'	26:1H:1002:G:O4'	2.07	0.53
26:1H:2144:U:N3	26:1H:2146:C:O2	2.42	0.53
29:21:70:ALA:O	29:21:73:GLU:N	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:78:49:ARG:HE	55:Q8:57:ARG:HG2	1.73	0.53
44:F8:65:ARG:HG3	44:F8:67:GLY:H	1.73	0.53
1:1G:8:A:N6	4:32:209:ARG:HB2	2.23	0.53
1:1G:32:A:C2	1:1G:33:A:C4	2.96	0.53
1:1G:129(A):G:C6	1:1G:188:U:H4'	2.43	0.53
1:1G:130:A:O2'	1:1G:131:C:O5'	2.25	0.53
1:1G:694:A:O2'	57:3L:38:A:O2'	2.26	0.53
1:1G:977:A:HO2'	1:1G:981:U:H3	1.54	0.53
1:1G:1329:A:H2'	1:1G:1330:U:O4'	2.08	0.53
2:12:130:ARG:H	2:12:130:ARG:HE	1.54	0.53
56:1L:53:G:H1	56:1L:61:C:H42	1.55	0.53
26:14:96:G:H4'	49:G5:48:HIS:CE1	2.44	0.53
26:14:107:C:H2'	26:14:108:U:C6	2.43	0.53
26:14:305:U:H2'	26:14:306:U:C6	2.42	0.53
26:14:1204:A:H2	26:14:1241:A:N1	2.05	0.53
27:1J:94:C:H2'	27:1J:95:U:C6	2.44	0.53
42:95:71:LEU:O	42:95:72:VAL:HG12	2.08	0.53
42:95:80:GLN:C	42:95:81:TYR:HD1	2.12	0.53
1:13:1218:C:H2'	1:13:1219:U:C6	2.43	0.53
1:13:1292:U:H2'	1:13:1293:G:C8	2.44	0.53
2:1E:60:ASP:HB3	2:1E:64:ARG:HH12	1.72	0.53
5:4E:148:VAL:HG21	8:7E:107:LEU:HD22	1.89	0.53
7:6E:122:HIS:HA	7:6E:125:MET:HE2	1.90	0.53
9:8E:112:LYS:HD3	9:8E:113:LYS:H	1.72	0.53
26:1H:270(Y):G:N1	61:1H:4468:HOH:O	2.27	0.53
26:1H:1316:U:H2'	26:1H:1317:A:C8	2.44	0.53
26:1H:1858:G:H2'	26:1H:1883:G:H22	1.73	0.53
27:16:54:G:O2'	27:16:55:U:H5'	2.09	0.53
30:31:96:ASP:OD1	30:31:98:SER:HB3	2.08	0.53
34:58:96:GLU:HB2	34:58:122:VAL:CG1	2.39	0.53
36:78:115:LEU:HA	36:78:134:ALA:HB2	1.90	0.53
46:H8:165:VAL:HB	46:H8:167:PRO:HD3	1.90	0.53
49:K8:14:ARG:HB3	49:K8:15:LYS:HE3	1.89	0.53
55:Q8:33:ASN:O	55:Q8:34:TRP:CG	2.62	0.53
4:32:158:ILE:HG22	4:32:162:LEU:HD12	1.91	0.53
9:82:111:ARG:HD2	14:5A:61:TRP:C	2.29	0.53
26:14:666:G:H5''	36:35:47:ASP:O	2.09	0.53
26:14:1485:G:H2'	26:14:1486:A:H8	1.72	0.53
26:14:1788:C:C2	26:14:1789:A:C8	2.96	0.53
26:14:2777:G:OP2	26:14:2781:A:O2'	2.20	0.53
31:49:18:GLU:HG2	31:49:175:LEU:HD13	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:C5:18:GLY:O	45:C5:20:TYR:N	2.42	0.53
6:5E:50:TYR:OH	18:9I:74:ARG:O	2.14	0.53
9:8E:21:PRO:HA	9:8E:59:PHE:HA	1.89	0.53
9:8E:47:LEU:H	9:8E:47:LEU:HD22	1.73	0.53
11:2I:69:ALA:HB1	11:2I:103:LEU:HD23	1.91	0.53
12:3I:66:VAL:HG21	12:3I:98:TYR:CE2	2.43	0.53
16:7I:20:VAL:HG21	16:7I:32:TYR:CD2	2.43	0.53
20:BI:30:LYS:NZ	20:BI:80:ARG:HH12	2.07	0.53
23:2K:8:4SU:O5'	23:2K:8:4SU:H6	2.08	0.53
26:1H:92:G:H2'	26:1H:93:C:H6	1.73	0.53
26:1H:608:A:H1'	26:1H:621:A:N6	2.23	0.53
26:1H:1022:G:N2	26:1H:1023:U:O4	2.41	0.53
26:1H:1799:G:H5'	26:1H:1819:A:H61	1.73	0.53
26:1H:2160:G:C2	26:1H:2161:C:H1'	2.44	0.53
26:1H:2251:G:OP1	61:1H:4387:HOH:O	2.19	0.53
26:1H:2784:C:O2'	29:21:37:ARG:NH1	2.41	0.53
40:B8:51:ARG:HB2	40:B8:98:LYS:HD3	1.90	0.53
40:B8:112:ARG:HA	40:B8:115:ARG:CZ	2.38	0.53
43:E8:70:TYR:HD1	43:E8:70:TYR:H	1.55	0.53
44:F8:57:LEU:HG	44:F8:78:LYS:HG2	1.90	0.53
2:12:19:HIS:CG	2:12:20:GLU:H	2.27	0.53
11:2A:85:ARG:NE	11:2A:111:ASP:HB3	2.22	0.53
57:3L:52:G:H1	57:3L:62:C:N4	2.07	0.53
26:14:1485:G:H2'	26:14:1486:A:C8	2.44	0.53
26:14:2287:A:H61	26:14:2344:U:H3	1.55	0.53
37:45:34:LEU:HD12	37:45:130:LYS:O	2.09	0.53
37:45:86:GLY:O	37:45:88:GLY:N	2.42	0.53
39:65:77:ALA:O	39:65:80:LEU:N	2.41	0.53
46:D5:108:PRO:HG3	46:D5:142:SER:HA	1.91	0.53
48:F5:83:GLU:OE1	48:F5:83:GLU:N	2.41	0.53
2:1E:112:VAL:O	2:1E:115:LEU:N	2.41	0.53
5:4E:76:ILE:HG13	5:4E:93:PRO:HB3	1.89	0.53
13:4I:13:LYS:O	13:4I:44:ARG:NE	2.42	0.53
13:4I:27:LYS:HA	13:4I:31:LYS:HZ1	1.72	0.53
14:5I:6:LEU:HB3	14:5I:23:ARG:NH2	2.24	0.53
26:1H:588:U:H2'	26:1H:589:C:C6	2.44	0.53
26:1H:2298:A:H62	26:1H:2318:G:H8	1.55	0.53
32:51:129:THR:O	32:51:129:THR:OG1	2.26	0.53
36:78:19:VAL:HG21	36:78:27:HIS:CB	2.39	0.53
40:B8:102:ILE:HA	40:B8:105:LEU:HD22	1.90	0.53
53:O8:32:ASN:OD1	53:O8:32:ASN:N	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:448:A:P	1:1G:485:G:H22	2.32	0.53
1:1G:742:G:P	15:6A:35:ARG:HH22	2.32	0.53
1:1G:974:A:P	14:5A:41:ARG:HH22	2.32	0.53
1:1G:1194:U:H2'	1:1G:1195:C:C6	2.42	0.53
1:1G:1449:C:H3'	1:1G:1450:U:H4'	1.90	0.53
2:12:69:LEU:HD23	2:12:70:PHE:H	1.74	0.53
26:14:108:U:H2'	26:14:109:G:C8	2.43	0.53
26:14:483:A:H5''	45:C5:49:VAL:HG22	1.91	0.53
26:14:495:G:H21	43:A5:61:ASN:HD21	1.55	0.53
26:14:646:A:H2'	26:14:647:G:O4'	2.08	0.53
26:14:747:U:C6	52:J5:2:ALA:HB3	2.44	0.53
26:14:2346:A:H5''	26:14:2383:G:O4'	2.09	0.53
27:1J:13:A:H5''	27:1J:15:A:C6	2.43	0.53
36:35:124:LYS:HE2	36:35:143:GLY:O	2.09	0.53
41:85:110:VAL:O	41:85:114:LYS:HG2	2.08	0.53
49:G5:24:LEU:HD13	49:G5:60:LEU:HD21	1.90	0.53
53:K5:29:ASN:ND2	53:K5:29:ASN:H	2.07	0.53
1:13:974:A:OP2	14:5I:41:ARG:NH1	2.42	0.53
1:13:1044:A:C5	1:13:1045:C:H1'	2.44	0.53
8:7E:85:ARG:HD3	8:7E:88:LYS:HG2	1.91	0.53
14:5I:29:ARG:HD3	14:5I:40:CYS:SG	2.49	0.53
22:1K:15:G:N2	22:1K:59:U:O2	2.42	0.53
26:1H:606:U:H4'	26:1H:658:C:H4'	1.89	0.53
26:1H:1107:G:H2'	26:1H:1108:U:C6	2.44	0.53
26:1H:2341:G:H2'	26:1H:2342:C:C6	2.42	0.53
33:61:110:ASP:CB	33:61:112:LYS:H	2.22	0.53
41:C8:28:ARG:NH1	41:C8:38:THR:OG1	2.33	0.53
50:L8:37:LEU:HD12	50:L8:43:ILE:CG2	2.38	0.53
1:1G:535:A:H5''	61:1G:1733:HOH:O	2.08	0.53
1:1G:888:G:O2'	1:1G:1488:G:O2'	2.23	0.53
3:22:106:VAL:HB	3:22:109:PRO:HB3	1.91	0.53
4:32:13:ARG:C	4:32:15:GLU:H	2.12	0.53
5:42:126:ARG:HH11	5:42:126:ARG:HG3	1.74	0.53
9:82:82:ALA:HB1	9:82:96:LEU:HD21	1.91	0.53
26:14:1309:G:H4'	54:L5:7:PRO:HB2	1.89	0.53
26:14:1364:G:N7	48:F5:2:SER:HB2	2.24	0.53
26:14:1462:C:H4'	26:14:2703:C:H5'	1.91	0.53
45:C5:42:VAL:O	45:C5:65:ALA:N	2.35	0.53
54:L5:34:ARG:NH1	54:L5:41:ARG:O	2.41	0.53
1:13:352:C:P	61:13:1861:HOH:O	2.67	0.53
1:13:607:A:C2	16:7I:31:LYS:HG3	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:30:LYS:CB	4:3E:35:ARG:HE	2.21	0.53
12:3I:11:VAL:HG13	17:8I:29:HIS:CD2	2.43	0.53
26:1H:234:C:H2'	26:1H:235:U:H6	1.74	0.53
26:1H:389:G:N1	36:78:71:VAL:HG12	2.23	0.53
26:1H:576:U:O2'	26:1H:577:G:H5'	2.09	0.53
26:1H:1198:U:H2'	26:1H:1199:U:C6	2.44	0.53
26:1H:2153:G:O6	26:1H:2154:G:N2	2.42	0.53
35:68:112:MET:HA	35:68:115:VAL:HG22	1.91	0.53
39:A8:61:ASN:HB3	39:A8:64:GLU:HG3	1.90	0.53
40:B8:26:ASP:O	40:B8:49:VAL:HG13	2.08	0.53
1:1G:301:G:H8	1:1G:301:G:OP2	1.92	0.53
1:1G:1134:G:C2	1:1G:1135:U:H1'	2.43	0.53
1:1G:1360:A:H8	1:1G:1360:A:OP1	1.92	0.53
26:14:303:U:H2'	26:14:304:G:O4'	2.09	0.53
26:14:307:G:H21	26:14:330:A:N6	2.07	0.53
26:14:868:U:C2	26:14:869:G:C8	2.97	0.53
26:14:1317:A:H2'	26:14:1318:C:H6	1.73	0.53
26:14:2648:C:H2'	26:14:2649:U:C6	2.44	0.53
29:29:134:ILE:HD12	29:29:134:ILE:O	2.08	0.53
29:29:151:TYR:HD2	29:29:154:LYS:NZ	2.06	0.53
40:75:77:PRO:O	40:75:80:SER:HB2	2.08	0.53
46:D5:28:MET:O	46:D5:34:ASN:HA	2.09	0.53
1:13:413:G:HO2'	1:13:414:A:P	2.32	0.53
2:1E:8:LYS:H	2:1E:8:LYS:HE2	1.74	0.53
4:3E:110:PHE:CE2	4:3E:148:VAL:HG23	2.44	0.53
6:5E:86:ARG:O	6:5E:87:ARG:HG2	2.09	0.53
8:7E:88:LYS:O	8:7E:92:ARG:HD3	2.08	0.53
9:8E:18:PHE:HD2	9:8E:62:TYR:HD2	1.57	0.53
18:9I:38:GLU:HA	18:9I:41:LYS:NZ	2.24	0.53
26:1H:1159:U:OP1	50:L8:30:ARG:NH1	2.39	0.53
26:1H:2345:G:H4'	26:1H:2346:A:O5'	2.09	0.53
32:51:24:VAL:HG13	32:51:35:VAL:HB	1.91	0.53
32:51:154:PRO:HB3	32:51:163:TYR:CE2	2.44	0.53
41:C8:96:ALA:CB	41:C8:98:LEU:H	2.03	0.53
41:C8:110:VAL:O	41:C8:114:LYS:N	2.30	0.53
42:D8:16:PRO:HA	42:D8:96:ILE:HG22	1.91	0.53
46:H8:30:ASN:ND2	46:H8:90:VAL:HB	2.23	0.53
46:H8:130:PRO:O	46:H8:133:ILE:HG13	2.08	0.53
49:K8:30:ARG:HH11	49:K8:30:ARG:CG	2.22	0.53
54:P8:5:TRP:NE1	54:P8:7:PRO:HG3	2.24	0.53
55:Q8:9:GLY:O	55:Q8:13:ARG:HG2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2683:C:OP1	40:75:53:ARG:NH2	2.42	0.53
33:69:14:ASP:N	33:69:17:GLN:OE1	2.31	0.53
40:75:54:ARG:HG2	40:75:59:THR:HG21	1.89	0.53
42:95:71:LEU:H	42:95:86:GLY:HA2	1.73	0.53
42:95:85:LYS:HE3	42:95:88:ARG:H	1.73	0.53
48:F5:50:ARG:HD2	48:F5:57:GLU:OE1	2.08	0.53
1:13:222:U:H2'	1:13:223:U:C6	2.44	0.52
1:13:667:G:H4'	15:6I:51:HIS:ND1	2.25	0.52
1:13:1236:A:O2'	1:13:1304:G:H4'	2.09	0.52
1:13:1478:C:H2'	1:13:1479:C:C6	2.44	0.52
7:6E:45:ASP:O	7:6E:49:ILE:HG12	2.08	0.52
10:1I:32:ALA:HB3	10:1I:76:ASN:O	2.09	0.52
15:6I:82:ILE:HD13	15:6I:88:ARG:HB2	1.91	0.52
26:1H:286:C:H2'	26:1H:287:C:C6	2.42	0.52
26:1H:306:U:H2'	26:1H:307:G:O4'	2.08	0.52
26:1H:340:A:H2'	26:1H:341:G:O4'	2.09	0.52
26:1H:754:C:H2'	26:1H:755:C:C6	2.43	0.52
26:1H:1026:U:H1'	26:1H:1027:A:O5'	2.08	0.52
26:1H:1535:U:O2	26:1H:1535:U:H2'	2.09	0.52
26:1H:2058:A:H5''	26:1H:2059:A:OP2	2.09	0.52
26:1H:2572:A:N7	29:21:145:LYS:HB2	2.24	0.52
26:1H:2580:U:H4'	29:21:130:GLY:HA3	1.91	0.52
29:21:24:THR:N	29:21:184:VAL:O	2.41	0.52
29:21:103:ASP:OD1	29:21:201:THR:HG23	2.10	0.52
33:61:86:THR:HA	33:61:123:LEU:HD13	1.92	0.52
45:G8:84:ARG:HD2	45:G8:84:ARG:C	2.29	0.52
46:H8:92:SER:O	46:H8:130:PRO:HG2	2.09	0.52
1:1G:728:A:H2'	1:1G:729:A:C8	2.44	0.52
1:1G:1141:C:H2'	1:1G:1142:G:C8	2.44	0.52
1:1G:1170:A:H8	1:1G:1170:A:O5'	1.92	0.52
1:1G:1212:U:H4'	1:1G:1213:A:C8	2.44	0.52
1:1G:1321:C:H4'	13:4A:87:TYR:CZ	2.44	0.52
5:42:43:LEU:HD22	5:42:136:MET:HG3	1.92	0.52
8:72:73:ASP:HB2	8:72:75:ARG:NH2	2.24	0.52
13:4A:70:LEU:O	13:4A:74:VAL:HG23	2.09	0.52
14:5A:17:LYS:HD2	14:5A:18:VAL:N	2.24	0.52
14:5A:17:LYS:NZ	14:5A:18:VAL:HG13	2.24	0.52
26:14:142:G:H5''	26:14:1598:C:O2'	2.08	0.52
26:14:747:U:C5	52:J5:2:ALA:HB3	2.45	0.52
26:14:1298:C:OP2	61:14:3518:HOH:O	2.18	0.52
27:1J:15:A:H1'	27:1J:109:G:C5	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:15:43:THR:H	34:15:48:MET:HE3	1.74	0.52
34:15:104:LYS:HA	34:15:107:LEU:HD12	1.91	0.52
46:D5:139:VAL:HG22	46:D5:156:LYS:HG2	1.91	0.52
51:I5:11:PRO:HA	51:I5:25:TYR:HA	1.91	0.52
1:13:271:C:H2'	1:13:272:C:C6	2.44	0.52
1:13:491:G:H2'	1:13:492:G:O4'	2.08	0.52
1:13:730:G:C5	1:13:731:G:H1'	2.44	0.52
1:13:872:A:C4	1:13:874:G:N7	2.77	0.52
26:1H:1111:A:N3	26:1H:1112:G:H1'	2.24	0.52
26:1H:2171:A:O2'	26:1H:2172:U:O5'	2.27	0.52
28:11:206:LEU:O	28:11:211:ARG:HD3	2.09	0.52
30:31:101:LEU:O	30:31:106:ARG:NH1	2.42	0.52
32:51:94:TYR:HA	32:51:106:THR:O	2.09	0.52
37:88:59:ARG:C	37:88:61:GLY:H	2.12	0.52
49:K8:59:ARG:O	49:K8:62:THR:HG23	2.09	0.52
55:Q8:46:ARG:NH2	55:Q8:48:PHE:HA	2.24	0.52
1:1G:192:U:H2'	1:1G:193:C:C6	2.43	0.52
1:1G:503:C:OP2	12:3A:116:SER:HB3	2.09	0.52
7:62:143:ARG:O	7:62:146:GLU:HB2	2.08	0.52
11:2A:59:TYR:CZ	11:2A:63:LEU:HD21	2.44	0.52
26:14:973:A:OP2	61:14:3697:HOH:O	2.19	0.52
26:14:1581:G:H2'	26:14:1582:C:O4'	2.09	0.52
26:14:1786:A:H2	26:14:2606:C:H1'	1.74	0.52
26:14:2068:U:H3	26:14:2430:A:H2	1.52	0.52
27:1J:89(A):A:C8	27:1J:90:C:H1'	2.44	0.52
28:19:11:PRO:O	28:19:13:ARG:N	2.42	0.52
30:39:123:LEU:O	30:39:193:VAL:HA	2.10	0.52
33:69:101:LEU:HD23	33:69:101:LEU:H	1.75	0.52
40:75:21:GLU:O	40:75:91:ARG:NH2	2.42	0.52
42:95:85:LYS:CG	42:95:87:HIS:H	2.14	0.52
7:6E:5:ARG:NE	7:6E:7:ALA:HA	2.25	0.52
16:7I:3:LYS:HG3	16:7I:24:ALA:HB2	1.90	0.52
16:7I:71:ARG:O	16:7I:74:LEU:N	2.35	0.52
22:1K:44:G:H2'	22:1K:45:U:C6	2.44	0.52
24:3K:71:G:HO2'	26:1H:1851:U:HO2'	1.54	0.52
26:1H:125:G:H5'	26:1H:125:G:C8	2.44	0.52
26:1H:218:A:H2	26:1H:235:U:H4'	1.74	0.52
26:1H:686:G:OP1	54:P8:11:LYS:NZ	2.41	0.52
26:1H:899:A:O2'	26:1H:900:A:O4'	2.25	0.52
26:1H:1430:C:H2'	26:1H:1431:U:H6	1.74	0.52
26:1H:2356:C:H2'	26:1H:2357:U:O4'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2577:A:H1'	52:N8:3:LYS:HA	1.91	0.52
27:16:1:U:H2'	27:16:2:C:C6	2.44	0.52
27:16:99:A:H3'	61:16:317:HOH:O	2.09	0.52
31:41:11:TYR:HA	31:41:15:VAL:HB	1.91	0.52
31:41:16:ARG:N	31:41:17:PRO:HD2	2.24	0.52
34:58:128:HIS:HB2	34:58:129:PRO:HD2	1.92	0.52
35:68:10:VAL:HG11	35:68:16:ALA:HB3	1.91	0.52
37:88:21:THR:HG21	37:88:100:GLY:C	2.29	0.52
39:A8:56:LEU:C	39:A8:57:LYS:HG2	2.29	0.52
49:K8:50:ILE:HD12	49:K8:50:ILE:N	2.24	0.52
52:N8:40:LYS:HG3	52:N8:47:PRO:HD2	1.91	0.52
53:O8:10:LEU:HD23	55:Q8:32:LEU:HD13	1.91	0.52
53:O8:51:GLU:HG2	53:O8:52:VAL:H	1.73	0.52
1:1G:677:U:H3	1:1G:713:G:H22	1.58	0.52
1:1G:934:C:O2'	1:1G:1344:C:OP2	2.26	0.52
1:1G:1412:C:H2'	1:1G:1413:A:C8	2.44	0.52
2:12:134:GLU:O	2:12:138:LEU:HG	2.09	0.52
12:3A:60:LEU:HD23	12:3A:64:TYR:HB3	1.89	0.52
19:AA:58:VAL:O	19:AA:60:VAL:HG12	2.09	0.52
57:3L:13:C:H2'	57:3L:14:A:H8	1.75	0.52
26:14:139:G:H1'	26:14:140:A:H2	1.74	0.52
26:14:2191:G:O2'	26:14:2192:G:OP1	2.25	0.52
26:14:2637:U:H2'	26:14:2638:G:O4'	2.10	0.52
26:14:2802:G:H2'	26:14:2803:C:O4'	2.10	0.52
34:15:30:ILE:O	34:15:34:LEU:HD22	2.09	0.52
39:65:89:ARG:O	39:65:92:TYR:N	2.42	0.52
39:65:102:ALA:HA	39:65:105:ALA:HB3	1.91	0.52
4:3E:67:ILE:HD13	4:3E:196:LEU:HD22	1.91	0.52
6:5E:23:LYS:HB2	6:5E:23:LYS:NZ	2.25	0.52
24:3K:71:G:O2'	26:1H:1851:U:O2'	2.20	0.52
26:1H:223:A:O4'	26:1H:422:A:H5'	2.10	0.52
26:1H:1444:G:C2	26:1H:1548:C:N3	2.78	0.52
45:G8:5:MET:HG3	45:G8:6:HIS:H	1.75	0.52
45:G8:20:TYR:CE1	45:G8:43:ASN:HA	2.45	0.52
1:1G:247:G:OP2	17:8A:100:LYS:HE2	2.08	0.52
2:12:98:LEU:O	2:12:101:MET:HG2	2.10	0.52
26:14:1049:C:N4	26:14:2751:G:O6	2.40	0.52
26:14:1759:A:H4'	26:14:2715:C:O4'	2.09	0.52
26:14:2782:G:OP2	61:14:3881:HOH:O	2.19	0.52
27:1J:13:A:H5''	27:1J:15:A:N6	2.24	0.52
27:1J:116:G:C5'	39:65:55:ALA:HB2	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:323:U:H5'	20:BI:23:ARG:HB2	1.91	0.52
1:13:649:G:H2'	1:13:650:G:H8	1.74	0.52
1:13:1336:C:C6	1:13:1336:C:H5''	2.45	0.52
2:1E:100:GLY:N	2:1E:176:GLU:OE2	2.42	0.52
4:3E:106:TYR:HE1	4:3E:107:ARG:HH11	1.57	0.52
9:8E:43:ALA:HA	9:8E:74:ILE:HD13	1.91	0.52
12:3I:82:VAL:HG12	12:3I:106:ASP:OD2	2.09	0.52
12:3I:93:LEU:O	12:3I:96:VAL:HG13	2.09	0.52
22:1K:52:G:H5'	37:88:56:ARG:HH21	1.75	0.52
26:1H:7:G:H2'	26:1H:8:A:O4'	2.09	0.52
26:1H:250:G:H2'	26:1H:251:A:C8	2.45	0.52
26:1H:500:G:N1	26:1H:503:A:OP2	2.39	0.52
26:1H:1278:A:OP1	38:98:36:THR:HG22	2.09	0.52
26:1H:1412:A:H2'	26:1H:1413:G:C8	2.45	0.52
26:1H:1980:G:H4'	61:1H:3651:HOH:O	2.10	0.52
26:1H:2056:G:C2	26:1H:2057:A:C8	2.98	0.52
26:1H:2321:G:H5''	26:1H:2322:A:OP2	2.09	0.52
33:61:69:LYS:O	33:61:73:GLU:HB2	2.08	0.52
34:58:4:TYR:O	41:C8:64:ARG:NH1	2.37	0.52
52:N8:16:ARG:HG3	52:N8:17:ASP:N	2.25	0.52
54:P8:24:THR:HG23	54:P8:27:GLY:H	1.75	0.52
1:1G:292:G:OP2	1:1G:305:G:N2	2.30	0.52
1:1G:834:C:H2'	1:1G:835:U:H6	1.74	0.52
2:12:61:LEU:HD23	2:12:68:ILE:HD11	1.91	0.52
2:12:197:VAL:HG12	2:12:200:ILE:HG13	1.91	0.52
26:14:732:C:H3'	61:14:4081:HOH:O	2.09	0.52
36:35:121:LYS:HG2	36:35:123:LEU:HD21	1.92	0.52
37:45:26:TYR:O	37:45:26:TYR:CD1	2.62	0.52
51:I5:18:CYS:H	51:I5:19:GLY:HA2	1.75	0.52
26:1H:330:A:O2'	26:1H:331:A:C8	2.53	0.52
26:1H:1408:C:C2	26:1H:1595:G:N2	2.78	0.52
31:41:104:GLU:CD	51:M8:23:GLU:HG3	2.30	0.52
32:51:153:LYS:H	32:51:153:LYS:CE	2.22	0.52
36:78:13:ASN:ND2	36:78:13:ASN:O	2.40	0.52
44:F8:31:HIS:CD2	44:F8:33:LYS:H	2.26	0.52
1:1G:1289:A:N6	1:1G:1371:G:HO2'	2.08	0.52
1:1G:1310:G:OP1	13:4A:77:ASN:ND2	2.36	0.52
1:1G:1312:G:H2'	1:1G:1313:U:O4'	2.10	0.52
2:12:190:THR:O	2:12:191:ASP:HB3	2.10	0.52
26:14:1430:C:H2'	26:14:1431:U:H6	1.75	0.52
26:14:1786:A:OP1	61:14:3563:HOH:O	2.18	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2123:G:H1	26:14:2175:C:H42	1.57	0.52
27:1J:88:C:H3'	27:1J:89:G:C8	2.44	0.52
28:19:70:TRP:CD1	28:19:70:TRP:C	2.83	0.52
42:95:85:LYS:CG	42:95:86:GLY:H	2.23	0.52
1:13:381:C:H2'	1:13:382:A:O4'	2.08	0.52
1:13:1306:A:H61	1:13:1331:G:H1'	1.75	0.52
26:1H:821:A:H5''	26:1H:822:U:H6	1.74	0.52
26:1H:1103:A:H3'	26:1H:1104:C:C6	2.44	0.52
26:1H:1204:A:C2	26:1H:1241:A:N1	2.78	0.52
26:1H:1424:G:H2'	26:1H:1425:G:O4'	2.10	0.52
28:11:12:SER:O	28:11:16:MET:HB2	2.10	0.52
31:41:37:VAL:N	31:41:99:MET:HE3	2.25	0.52
33:61:77:LEU:HD13	33:61:140:LEU:HB3	1.90	0.52
34:58:1:MET:HE2	42:D8:12:TYR:HA	1.91	0.52
41:C8:92:ARG:HB3	41:C8:95:LEU:HD23	1.92	0.52
1:1G:34:C:H2'	1:1G:35:G:C8	2.45	0.52
1:1G:45:U:H2'	1:1G:46:G:H8	1.75	0.52
1:1G:625:G:H2'	1:1G:626:U:C6	2.43	0.52
4:32:13:ARG:O	4:32:15:GLU:N	2.42	0.52
26:14:747:U:OP1	52:J5:3:LYS:HD3	2.10	0.52
26:14:1430:C:H2'	26:14:1431:U:C6	2.44	0.52
26:14:2532:G:N2	26:14:2663:G:O2'	2.43	0.52
28:19:108:PRO:HG2	28:19:111:LEU:HG	1.92	0.52
32:59:20:ALA:O	32:59:22:GLY:N	2.41	0.52
36:35:89:ALA:HB1	36:35:121:LYS:HD2	1.92	0.52
38:55:20:LEU:HD21	38:55:40:LYS:HD3	1.92	0.52
42:95:29:PRO:HA	42:95:61:VAL:CG1	2.39	0.52
44:B5:5:TYR:CZ	49:G5:30:ARG:HG3	2.44	0.52
46:D5:19:ARG:NH1	46:D5:84:GLU:O	2.42	0.52
1:13:222:U:H2'	1:13:223:U:H6	1.74	0.52
1:13:1288:A:N1	1:13:1371:G:H1'	2.25	0.52
1:13:1346:A:N1	1:13:1374:A:H5''	2.25	0.52
2:1E:22:LYS:H	2:1E:40:HIS:CD2	2.28	0.52
2:1E:178:ARG:HB2	2:1E:178:ARG:HH11	1.74	0.52
26:1H:321:G:O3'	30:31:168:ARG:NH2	2.43	0.52
26:1H:638:G:C5	26:1H:651:G:C2	2.98	0.52
26:1H:863:A:H2'	26:1H:864:G:H8	1.74	0.52
26:1H:1828:G:P	61:1H:4514:HOH:O	2.64	0.52
26:1H:2250:G:C5	37:88:82:ARG:HG2	2.44	0.52
26:1H:2569:G:H8	26:1H:2569:G:H5''	1.75	0.52
27:16:42:C:H4'	31:41:67:LYS:HD2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:51:6:ARG:HB3	32:51:65:HIS:CG	2.44	0.52
32:51:64:LEU:O	32:51:68:THR:OG1	2.28	0.52
37:88:39:PRO:HA	37:88:97:VAL:O	2.10	0.52
40:B8:87:ASP:OD1	40:B8:87:ASP:N	2.42	0.52
46:H8:126:VAL:HA	46:H8:164:ALA:N	2.25	0.52
47:I8:53:MET:HG3	47:I8:59:LEU:CD2	2.38	0.52
1:1G:973:G:OP1	10:1A:57:LYS:NZ	2.35	0.52
1:1G:1109:C:H2'	1:1G:1110:A:O4'	2.09	0.52
1:1G:1203:C:H2'	1:1G:1204:A:C8	2.44	0.52
1:1G:1320:C:H2'	1:1G:1321:C:C6	2.45	0.52
1:1G:1348:U:H4'	9:82:120:ARG:HD2	1.90	0.52
2:12:36:ARG:HB3	2:12:41:ILE:HD11	1.91	0.52
3:22:11:ARG:HB2	3:22:11:ARG:HH11	1.74	0.52
5:42:147:ASP:O	5:42:151:LEU:HG	2.10	0.52
6:52:7:ASN:N	6:52:7:ASN:OD1	2.42	0.52
8:72:121:ASP:OD1	8:72:122:ARG:N	2.43	0.52
9:82:117:HIS:O	9:82:118:LYS:HB2	2.08	0.52
10:1A:30:SER:OG	10:1A:81:THR:HG22	2.10	0.52
25:4L:14:A:H5'	25:4L:15:A:OP2	2.10	0.52
26:14:251:A:C5	26:14:252:G:H1'	2.44	0.52
26:14:661:C:H1'	36:35:12:ALA:HA	1.91	0.52
26:14:1382:G:N7	61:14:3818:HOH:O	2.34	0.52
26:14:1786:A:C2	26:14:2606:C:H1'	2.45	0.52
26:14:1800:C:OP2	28:19:183:ARG:NH2	2.42	0.52
26:14:2273:A:O2'	26:14:2274:A:H5'	2.09	0.52
26:14:2275:C:H6	26:14:2275:C:H5'	1.75	0.52
26:14:2287:A:C2	26:14:2289:G:C8	2.98	0.52
26:14:2319:G:H4'	26:14:2320:A:O4'	2.09	0.52
27:1J:38:C:N4	27:1J:44:G:H1	2.03	0.52
28:19:73:VAL:HG13	28:19:120:GLY:HA3	1.91	0.52
35:25:63:VAL:HB	35:25:102:VAL:HG12	1.91	0.52
36:35:85:LEU:HB2	36:35:88:LEU:HD23	1.92	0.52
44:B5:55:ASN:HB2	44:B5:80:ILE:HG13	1.91	0.52
1:13:626:U:N3	1:13:627:G:N7	2.58	0.52
1:13:648:A:N6	1:13:649:G:O6	2.43	0.52
4:3E:32:ALA:O	4:3E:35:ARG:N	2.43	0.52
5:4E:63:ARG:HA	5:4E:66:MET:HE2	1.91	0.52
24:3K:64:A:H2'	24:3K:65:G:H4'	1.90	0.52
26:1H:598:G:C5'	36:78:11:GLY:HA3	2.40	0.52
26:1H:1253:A:N6	61:1H:3711:HOH:O	2.15	0.52
26:1H:1401:G:H2'	26:1H:1402:C:C6	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:A8:38:GLN:HG3	39:A8:47:THR:HG21	1.91	0.52
1:1G:939:G:H1	1:1G:1344:C:H42	1.58	0.52
2:12:7:VAL:HG22	2:12:8:LYS:H	1.75	0.52
3:22:8:ILE:HG23	3:22:16:ARG:HG2	1.92	0.52
8:72:84:ARG:O	8:72:135:CYS:HB2	2.09	0.52
57:3L:18:G:H2'	57:3L:57:G:H22	1.75	0.52
57:3L:32:PSU:H5''	57:3L:33:U:OP2	2.10	0.52
57:3L:52:G:N2	57:3L:62:C:N3	2.55	0.52
26:14:276:A:H2'	26:14:277:C:C5	2.44	0.52
26:14:548:A:C6	26:14:549:G:H1'	2.45	0.52
36:35:101:VAL:HA	36:35:105:LEU:O	2.09	0.52
36:35:122:PRO:HB3	36:35:141:ALA:HB1	1.92	0.52
42:95:20:LEU:O	42:95:94:LEU:N	2.41	0.52
43:A5:62:HIS:HB2	43:A5:64:MET:HG3	1.91	0.52
45:C5:87:LYS:HB2	45:C5:94:LYS:HA	1.92	0.52
1:13:324:G:N2	1:13:326:G:H3'	2.25	0.52
1:13:349:A:O2'	1:13:350:G:H5'	2.10	0.52
2:1E:235:SER:HG	2:1E:236:TYR:HD2	1.57	0.52
13:4I:80:ARG:NH1	19:AI:65:ASN:O	2.43	0.52
25:4K:24:A:H2'	25:4K:25:A:C8	2.45	0.52
26:1H:155:C:H5'	26:1H:161:U:OP2	2.10	0.52
26:1H:910:A:H62	37:88:12:GLN:HA	1.74	0.52
26:1H:1113:U:OP1	32:51:2:SER:N	2.42	0.52
26:1H:1163:G:H2'	26:1H:1164:G:H8	1.74	0.52
26:1H:1331:A:O2'	26:1H:1332:G:H8	1.92	0.52
26:1H:2287:A:N1	26:1H:2346:A:H2	2.08	0.52
26:1H:2793:G:H8	26:1H:2793:G:OP2	1.93	0.52
42:D8:59:ALA:HB2	42:D8:96:ILE:HD13	1.92	0.52
45:G8:82:PRO:HB3	45:G8:99:CYS:HB3	1.92	0.52
1:1G:664:G:H22	1:1G:741:G:H1	1.58	0.52
1:1G:1120:G:H1	1:1G:1152:A:H61	1.57	0.52
1:1G:1126:U:N3	1:1G:1281:U:O4'	2.43	0.52
1:1G:1386:G:C2	1:1G:1387:G:C8	2.98	0.52
11:2A:82:VAL:HG13	11:2A:108:ILE:HG23	1.92	0.52
20:BA:26:ASN:HA	20:BA:29:LYS:HG3	1.92	0.52
26:14:2273:A:H2'	26:14:2274:A:H8	1.75	0.52
26:14:2541:A:H5''	26:14:2542:A:OP2	2.10	0.52
26:14:2816:C:O3'	38:55:99:LYS:NZ	2.43	0.52
32:59:26:VAL:CG1	32:59:33:LEU:H	2.23	0.52
32:59:27:LYS:HA	32:59:32:GLU:HB3	1.91	0.52
34:15:42:TRP:HA	34:15:48:MET:HE1	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:25:47:ILE:HG13	35:25:48:PRO:HD2	1.92	0.52
45:C5:88:LYS:O	45:C5:89:PHE:HB3	2.09	0.52
1:13:926:G:H5'	1:13:927:G:O5'	2.09	0.51
10:1I:24:VAL:HG12	10:1I:25:GLU:HG3	1.90	0.51
19:AI:41:VAL:CG1	19:AI:67:VAL:HA	2.39	0.51
26:1H:11:G:C2'	26:1H:12:U:H5'	2.40	0.51
26:1H:942:G:OP2	36:78:39:LYS:HE2	2.10	0.51
26:1H:1858:G:HO2'	26:1H:1859:A:H8	1.55	0.51
26:1H:2262:U:OP1	26:1H:2387:U:O2'	2.20	0.51
26:1H:2418:A:OP1	55:Q8:39:LYS:HE2	2.10	0.51
27:16:54:G:H2'	27:16:55:U:H6	1.74	0.51
27:16:89:G:C6	27:16:89(A):A:C6	2.97	0.51
28:11:69:ARG:HH11	28:11:69:ARG:HG3	1.74	0.51
34:58:137:LYS:HE3	34:58:138:LEU:C	2.31	0.51
39:A8:103:GLU:O	39:A8:106:ARG:NE	2.43	0.51
43:E8:92:ARG:HB3	43:E8:92:ARG:HH11	1.74	0.51
1:1G:324:G:N7	61:1G:1752:HOH:O	2.34	0.51
1:1G:382:A:H2'	1:1G:383:A:C8	2.45	0.51
1:1G:407:G:P	4:32:115:ARG:HH21	2.32	0.51
1:1G:730:G:C5	1:1G:731:G:H1'	2.45	0.51
1:1G:1117:G:O3'	9:82:104:ARG:HD2	2.10	0.51
13:4A:89:GLY:HA2	13:4A:92:HIS:HB2	1.92	0.51
19:AA:51:VAL:HG23	19:AA:60:VAL:HG11	1.92	0.51
56:1L:2:C:N3	56:1L:72:C:N4	2.58	0.51
56:1L:10:G:H2'	56:1L:11:C:C6	2.44	0.51
26:14:2438:U:O3'	26:14:2439:A:H3'	2.10	0.51
26:14:2646:C:OP2	26:14:2732:G:O2'	2.23	0.51
27:1J:88:C:H3'	27:1J:89:G:N7	2.25	0.51
28:19:121:PRO:HA	28:19:131:LEU:HD23	1.91	0.51
36:35:59:LEU:O	36:35:59:LEU:HD22	2.10	0.51
37:45:89:ASN:C	37:45:89:ASN:HD22	2.13	0.51
1:13:1346:A:H5''	9:8E:120:ARG:HH12	1.75	0.51
2:1E:42:ILE:HD11	2:1E:202:PRO:HB2	1.91	0.51
5:4E:142:LEU:O	5:4E:143:ARG:NH1	2.44	0.51
15:6I:18:PHE:CZ	15:6I:21:ASP:HB2	2.45	0.51
22:1K:29:G:H1	22:1K:41:C:H42	1.57	0.51
26:1H:1228:G:OP2	41:C8:16:LYS:NZ	2.34	0.51
26:1H:2308:G:H2'	26:1H:2308:G:N3	2.25	0.51
26:1H:2498:C:OP1	61:1H:3873:HOH:O	2.17	0.51
26:1H:2543:G:H2'	26:1H:2544:G:C8	2.44	0.51
28:11:147:LEU:HD22	28:11:155:LEU:HD11	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:51:23:ARG:HH12	32:51:25:LYS:HE3	1.75	0.51
34:58:35:ARG:O	34:58:42:TRP:HZ3	1.92	0.51
46:H8:98:MET:O	46:H8:125:LEU:HA	2.11	0.51
1:1G:984:C:H2'	1:1G:985:C:C6	2.45	0.51
1:1G:991:U:O4	1:1G:1212:U:O2'	2.14	0.51
2:12:162:ILE:O	2:12:185:ILE:HG12	2.10	0.51
2:12:236:TYR:HB2	2:12:239:VAL:HB	1.92	0.51
57:3L:8:4SU:H4'	57:3L:9:A:OP1	2.10	0.51
26:14:829:A:N7	26:14:2248:C:H5'	2.26	0.51
26:14:1894:C:O2'	26:14:1895:C:H5'	2.11	0.51
26:14:2212:A:H1'	26:14:2215:G:C5	2.45	0.51
26:14:2286:A:H8	26:14:2287:A:N6	2.08	0.51
26:14:2317:C:H2'	26:14:2318:G:O4'	2.11	0.51
26:14:2734:A:H2'	26:14:2735:G:O4'	2.10	0.51
55:M5:35:GLN:HG3	55:M5:35:GLN:O	2.11	0.51
1:13:377:G:H5'	16:7I:5:ARG:NH1	2.26	0.51
26:1H:1068:G:H1'	26:1H:1096:A:N3	2.25	0.51
31:4I:5:VAL:H	51:M8:25:TYR:HE2	1.58	0.51
36:78:49:ARG:NE	55:Q8:57:ARG:HG2	2.25	0.51
36:78:62:LEU:O	55:Q8:13:ARG:HD3	2.10	0.51
1:1G:1321:C:N4	1:1G:1322:C:N4	2.58	0.51
2:12:22:LYS:HB3	2:12:40:HIS:CD2	2.45	0.51
2:12:27:LYS:HB2	2:12:194:PRO:HD2	1.92	0.51
3:22:47:LEU:HB3	3:22:52:LEU:HD13	1.92	0.51
12:3A:46:LYS:HG2	12:3A:47:LYS:HB2	1.92	0.51
56:1L:76:A:C8	26:14:2583:G:N2	2.78	0.51
26:14:235:U:H2'	26:14:236:C:H6	1.74	0.51
27:1J:40:U:C2'	27:1J:45:A:H61	2.24	0.51
34:15:72:TYR:HB2	34:15:85:ILE:HD12	1.92	0.51
53:K5:18:ARG:HH21	53:K5:44:ARG:HE	1.58	0.51
1:13:292:G:N7	1:13:293:G:H1'	2.26	0.51
1:13:1036:G:N7	1:13:1037:C:N4	2.58	0.51
1:13:1263:C:H2'	1:13:1264:C:C6	2.40	0.51
1:13:1367:C:H5'	10:1I:60:ARG:NH1	2.25	0.51
5:4E:41:VAL:HG22	5:4E:113:ALA:HB2	1.91	0.51
26:1H:729:G:C6	28:11:208:LYS:HB2	2.44	0.51
26:1H:1591:G:H2'	26:1H:1592:C:H6	1.75	0.51
26:1H:1692:U:O2'	26:1H:1693:U:H2'	2.10	0.51
26:1H:2111:C:H2'	26:1H:2118:U:H4'	1.91	0.51
26:1H:2635:C:H5''	29:21:78:LEU:HA	1.93	0.51
27:16:60:C:C2	27:16:61:G:C8	2.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:31:134:GLY:HA3	30:31:162:LEU:O	2.10	0.51
44:F8:3:THR:CB	44:F8:4:ALA:HA	2.40	0.51
1:1G:1286:A:C8	1:1G:1286:A:H3'	2.46	0.51
1:1G:1316:G:H4'	14:5A:18:VAL:HG11	1.93	0.51
1:1G:1505:G:H5'	61:1G:1759:HOH:O	2.09	0.51
26:14:2150:U:H2'	26:14:2151:G:H8	1.75	0.51
26:14:2320:A:H1'	26:14:2321:G:C6	2.45	0.51
26:14:2776:A:H4'	26:14:2777:G:O5'	2.11	0.51
30:39:89:VAL:HG12	30:39:90:PHE:H	1.75	0.51
30:39:117:ARG:HH12	36:35:1:MET:H2	1.57	0.51
1:13:789:U:H5	1:13:792:A:OP2	1.93	0.51
1:13:922:G:C6	1:13:923:A:C6	2.98	0.51
1:13:1078:U:O2'	5:4E:130:ASN:OD1	2.15	0.51
8:7E:54:ASP:HB2	8:7E:56:LYS:HE2	1.93	0.51
12:3I:8:ASN:O	12:3I:12:ARG:HG3	2.11	0.51
13:4I:7:VAL:HB	31:41:115:ARG:NH2	2.24	0.51
20:BI:67:ALA:HA	20:BI:72:LEU:O	2.11	0.51
20:BI:75:ASN:OD1	20:BI:75:ASN:N	2.36	0.51
22:1K:23:A:H2'	22:1K:24:G:O4'	2.11	0.51
26:1H:2336:A:H61	47:I8:43:THR:HB	1.74	0.51
28:11:112:GLN:NE2	28:11:115:GLN:OE1	2.44	0.51
31:41:10:LYS:HE2	31:41:175:LEU:O	2.11	0.51
37:88:130:LYS:NZ	46:H8:81:ARG:HG2	2.25	0.51
41:C8:32:PHE:HZ	41:C8:36:ARG:HH21	1.59	0.51
1:1G:987:G:H1	1:1G:1218:C:H42	1.57	0.51
1:1G:1111:A:H2'	1:1G:1112:C:C6	2.45	0.51
1:1G:1298:C:H41	7:62:114:ARG:HB3	1.75	0.51
1:1G:1386:G:C2	1:1G:1387:G:N7	2.78	0.51
3:22:59:ARG:HH12	3:22:97:LYS:HZ2	1.58	0.51
5:42:34:VAL:O	5:42:41:VAL:HG12	2.10	0.51
9:82:26:VAL:HG22	9:82:61:ALA:N	2.26	0.51
13:4A:66:LEU:HA	13:4A:70:LEU:HB2	1.93	0.51
26:14:1298:C:P	61:14:3518:HOH:O	2.68	0.51
26:14:1473:G:C2	26:14:1474:C:C2	2.98	0.51
26:14:1678:G:H22	26:14:1989:G:N2	2.07	0.51
29:29:11:MET:HE3	29:29:186:GLY:HA2	1.92	0.51
30:39:187:VAL:HG12	36:35:3:LEU:HG	1.93	0.51
47:E5:53:MET:HG3	47:E5:59:LEU:HD21	1.93	0.51
8:7E:41:ARG:HH11	8:7E:41:ARG:HG3	1.75	0.51
20:BI:26:ASN:HB2	20:BI:71:THR:CG2	2.40	0.51
26:1H:280:C:N3	26:1H:361:G:C2	2.79	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:883:G:H2'	26:1H:884:C:H4'	1.93	0.51
26:1H:1375:C:H2'	26:1H:1376:C:H6	1.74	0.51
43:E8:86:LEU:HD12	43:E8:87:PRO:HD2	1.93	0.51
43:E8:97:LYS:HE2	43:E8:99:ARG:NH2	2.25	0.51
55:Q8:27:THR:O	55:Q8:29:LYS:HA	2.11	0.51
1:1G:429:U:H1'	1:1G:430:A:H5''	1.91	0.51
1:1G:485:G:HO2'	1:1G:486:U:P	2.34	0.51
1:1G:1053:G:O2'	1:1G:1054:C:OP2	2.28	0.51
7:62:89:MET:HE3	7:62:155:ARG:HG3	1.92	0.51
8:72:86:ILE:HG12	8:72:135:CYS:HA	1.91	0.51
19:AA:7:LYS:HE3	19:AA:10:PHE:CE1	2.45	0.51
19:AA:66:MET:HA	19:AA:67:VAL:O	2.11	0.51
26:14:194:G:H2'	26:14:195:A:O4'	2.10	0.51
26:14:1053:C:H2'	26:14:1054:A:O4'	2.09	0.51
26:14:1111:A:H4'	32:59:3:ARG:HD3	1.92	0.51
26:14:1112:G:H2'	26:14:1113:U:C6	2.45	0.51
26:14:1582:C:O2'	26:14:1586:A:H8	1.92	0.51
26:14:1677:A:H2'	26:14:1678:G:H8	1.75	0.51
26:14:1716:U:H2'	26:14:1717:G:C8	2.42	0.51
26:14:1885:A:H5'	26:14:1886:C:OP2	2.11	0.51
26:14:2107:C:H42	26:14:2182:G:H1	1.58	0.51
26:14:2312:U:OP1	31:49:74:LYS:HD2	2.09	0.51
26:14:2785:C:O2'	29:29:64:LYS:NZ	2.44	0.51
33:69:102:SER:OG	33:69:103:ARG:N	2.43	0.51
34:15:19:GLU:OE1	34:15:59:LYS:NZ	2.26	0.51
1:13:703:G:H4'	1:13:704:A:O5'	2.11	0.51
1:13:791:G:C6	1:13:792:A:C2	2.99	0.51
1:13:939:G:H2'	1:13:940:C:C6	2.45	0.51
1:13:1120:G:H2'	1:13:1121:U:H6	1.76	0.51
5:4E:6:PHE:CE1	5:4E:36:ASP:HB3	2.45	0.51
10:1I:6:ILE:HG12	10:1I:72:VAL:O	2.11	0.51
24:3K:18:G:HO2'	24:3K:19:G:P	2.33	0.51
26:1H:50:U:H3'	26:1H:51:G:H5'	1.92	0.51
26:1H:2261:C:O2'	26:1H:2262:U:H5'	2.11	0.51
31:41:4:ASP:OD1	31:41:9:ARG:NH1	2.44	0.51
34:58:95:PRO:O	34:58:96:GLU:CD	2.50	0.51
38:98:24:GLN:HE22	38:98:36:THR:HG21	1.74	0.51
46:H8:9:TYR:CE1	46:H8:35:ARG:HD3	2.45	0.51
55:Q8:39:LYS:O	55:Q8:40:GLU:CB	2.58	0.51
1:1G:164:U:H2'	1:1G:165:C:C6	2.45	0.51
1:1G:502:G:OP1	12:3A:118:SER:HB3	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:583:A:H2'	1:1G:584:G:O4'	2.11	0.51
1:1G:978:A:O2'	1:1G:1322:C:N3	2.42	0.51
1:1G:1224:G:O2'	1:1G:1322:C:OP2	2.28	0.51
2:12:5:ILE:HG12	2:12:6:THR:HG22	1.92	0.51
6:52:81:ILE:HD11	28:19:125:ILE:HB	1.92	0.51
26:14:279:C:N4	26:14:361:G:H1	2.07	0.51
26:14:749:C:H5''	61:14:3784:HOH:O	2.10	0.51
26:14:1142:U:O2	26:14:1142:U:H2'	2.11	0.51
26:14:1291:C:H2'	26:14:1292:U:C6	2.46	0.51
26:14:1657:C:H2'	26:14:1658:C:C6	2.45	0.51
26:14:1849:G:H2'	26:14:1850:G:H8	1.75	0.51
26:14:2002:G:N7	61:14:3889:HOH:O	2.34	0.51
26:14:2275:C:H5'	26:14:2275:C:C6	2.45	0.51
29:29:116:VAL:O	29:29:117:MET:HB3	2.11	0.51
35:25:49:ARG:HA	35:25:53:LYS:NZ	2.26	0.51
37:45:69:PHE:CD1	37:45:70:PRO:HD2	2.46	0.51
1:13:186(C):G:H2'	1:13:186(D):C:C6	2.45	0.51
1:13:448:A:OP2	1:13:485:G:N2	2.30	0.51
1:13:967:C:OP2	1:13:968:A:O2'	2.25	0.51
1:13:1120:G:H2'	1:13:1121:U:C6	2.46	0.51
9:8E:83:ARG:O	9:8E:86:VAL:HG12	2.11	0.51
26:1H:1088:A:H5'	26:1H:1089:G:H5'	1.91	0.51
26:1H:1803:A:H4'	28:11:259:THR:HG23	1.92	0.51
26:1H:1805:U:O2	28:11:50:THR:HB	2.10	0.51
26:1H:2364:C:H2'	26:1H:2365:G:O4'	2.11	0.51
26:1H:2760:C:O2'	26:1H:2761:G:H5'	2.11	0.51
26:1H:2875:C:H4'	40:B8:5:ALA:HB2	1.93	0.51
28:11:102:LYS:C	28:11:103:ARG:HG2	2.31	0.51
32:51:6:ARG:HA	32:51:66:GLY:HA2	1.92	0.51
38:98:81:ASP:O	38:98:85:PRO:HG2	2.10	0.51
55:Q8:48:PHE:CZ	55:Q8:52:LYS:HG3	2.46	0.51
1:1G:757:U:H2'	1:1G:758:G:O4'	2.10	0.51
7:62:101:LEU:O	7:62:105:VAL:HG23	2.09	0.51
9:82:77:ILE:O	9:82:81:ILE:HG12	2.11	0.51
9:82:112:LYS:HE3	9:82:118:LYS:H	1.75	0.51
10:1A:4:ILE:HG12	10:1A:100:THR:HG22	1.92	0.51
11:2A:17:GLY:N	11:2A:79:SER:O	2.27	0.51
56:1L:68:C:H2'	56:1L:69:G:C8	2.46	0.51
25:4L:13:A:O2'	25:4L:14:A:OP1	2.27	0.51
26:14:1444(A):A:H2'	26:14:1444(A):A:N3	2.26	0.51
26:14:2015:A:H1'	52:J5:2:ALA:CB	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2378:A:O5'	26:14:2378:A:H8	1.93	0.51
30:39:88:VAL:HG23	30:39:89:VAL:O	2.11	0.51
31:49:122:PRO:O	31:49:125:PHE:HD2	1.93	0.51
36:35:14:LYS:O	36:35:14:LYS:HD3	2.10	0.51
40:75:61:PHE:CE1	40:75:76:PHE:HB2	2.46	0.51
44:B5:8:ILE:O	49:G5:36:ARG:NH2	2.44	0.51
49:G5:21:LEU:O	49:G5:25:VAL:HG22	2.11	0.51
52:J5:16:ARG:HG3	52:J5:17:ASP:N	2.25	0.51
55:M5:52:LYS:NZ	55:M5:53:PRO:HA	2.25	0.51
1:13:659:U:H2'	1:13:660:G:C8	2.44	0.51
1:13:1148:U:H2'	1:13:1149:C:O4'	2.10	0.51
1:13:1161:C:H2'	1:13:1162:C:C6	2.45	0.51
1:13:1162:C:H2'	1:13:1163:C:C6	2.46	0.51
26:1H:213:A:H5''	26:1H:214:G:OP2	2.11	0.51
26:1H:916:G:H2'	26:1H:917:A:H5''	1.92	0.51
26:1H:1510:A:O2'	26:1H:1512:G:N7	2.37	0.51
26:1H:1859:A:N6	26:1H:1883:G:O2'	2.44	0.51
26:1H:2757:A:N1	32:51:67:LEU:HD13	2.26	0.51
26:1H:2849:U:H4'	26:1H:2868:A:C2	2.46	0.51
27:16:39:A:H5''	27:16:39:A:H8	1.75	0.51
28:11:70:TRP:CD1	28:11:70:TRP:C	2.84	0.51
35:68:2:ILE:HD12	35:68:6:THR:HG21	1.92	0.51
38:98:33:ARG:NH1	38:98:113:LEU:HD21	2.25	0.51
46:H8:135:GLU:HG3	46:H8:136:PHE:HD1	1.76	0.51
2:12:47:THR:HG23	2:12:202:PRO:HG2	1.93	0.51
26:14:519:U:H2'	26:14:520:G:C8	2.46	0.51
26:14:521:G:H2'	26:14:522:G:H8	1.74	0.51
26:14:751:A:OP1	61:14:3506:HOH:O	2.19	0.51
26:14:1784:A:H4'	26:14:1785:A:O5'	2.11	0.51
26:14:2122:U:H2'	26:14:2123:G:O4'	2.10	0.51
26:14:2126:A:N1	26:14:2163:C:H1'	2.26	0.51
29:29:171:GLU:O	29:29:184:VAL:HA	2.11	0.51
30:39:107:LYS:HE2	30:39:205:ARG:HD2	1.92	0.51
32:59:81:GLU:HG2	32:59:83:TYR:H	1.76	0.51
34:15:97:ARG:HA	34:15:100:GLU:HB2	1.92	0.51
45:C5:83:THR:HG22	45:C5:84:ARG:H	1.75	0.51
4:3E:57:ARG:HB3	4:3E:206:PHE:HB2	1.92	0.51
8:7E:9:MET:HG3	8:7E:26:VAL:HG21	1.92	0.51
8:7E:127:LEU:HD23	8:7E:127:LEU:N	2.26	0.51
13:4I:22:ILE:HB	13:4I:25:ILE:HD12	1.93	0.51
15:6I:17:ARG:HG3	15:6I:17:ARG:NH1	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:40:ILE:O	19:AI:41:VAL:HG22	2.11	0.51
20:BI:89:ARG:HG3	20:BI:104:LEU:HD21	1.92	0.51
26:1H:270(P):C:H2'	26:1H:270(Q):C:C6	2.45	0.51
26:1H:389:G:H22	36:78:72:PRO:HD3	1.75	0.51
26:1H:962:G:H2'	26:1H:963:U:C6	2.46	0.51
26:1H:1011:G:OP1	41:C8:77:SER:OG	2.20	0.51
26:1H:1432:C:H2'	26:1H:1433:U:O4'	2.11	0.51
26:1H:2315:G:H5''	26:1H:2316:C:OP2	2.11	0.51
42:D8:17:GLY:N	42:D8:96:ILE:O	2.22	0.51
43:E8:79:GLY:CA	43:E8:100:THR:HG22	2.41	0.51
46:H8:81:ARG:HG3	46:H8:81:ARG:O	2.10	0.51
54:P8:10:ARG:O	54:P8:14:LYS:HG3	2.10	0.51
1:1G:18:C:H6	1:1G:18:C:O5'	1.94	0.51
1:1G:176:C:H2'	1:1G:177:C:H6	1.76	0.51
1:1G:631:G:C3'	1:1G:632:A:H8	2.23	0.51
1:1G:1208:C:H2'	1:1G:1209:C:C6	2.46	0.51
1:1G:1298:C:H5''	7:62:114:ARG:HH22	1.77	0.51
3:22:7:PRO:O	3:22:11:ARG:NH1	2.44	0.51
3:22:152:ILE:HB	3:22:199:LYS:HB2	1.92	0.51
5:42:80:ILE:HG13	8:72:104:ARG:NH2	2.26	0.51
10:1A:61:GLU:HG3	14:5A:58:LYS:HE2	1.92	0.51
10:1A:78:ASN:OD1	10:1A:81:THR:HG23	2.11	0.51
57:3L:56:C:H2'	57:3L:57:G:H8	1.75	0.51
26:14:273(C):C:N4	26:14:363(C):G:H1	2.09	0.51
26:14:322:A:H3'	30:39:169:ASN:OD1	2.11	0.51
26:14:363(E):U:H5'	26:14:363(F):A:OP2	2.11	0.51
26:14:839:U:H2'	26:14:840:C:C6	2.46	0.51
26:14:1530:G:H2'	26:14:1531:C:O4'	2.11	0.51
26:14:2052:G:O4'	29:29:142:GLY:HA3	2.11	0.51
27:1J:38:C:N3	27:1J:44:G:N2	2.48	0.51
27:1J:63:G:H2'	27:1J:64:C:C6	2.46	0.51
27:1J:116:G:H5''	39:65:55:ALA:HB2	1.93	0.51
35:25:86:ILE:HG22	35:25:94:ARG:HG3	1.93	0.51
35:25:98:VAL:HG12	35:25:117:LEU:HB3	1.93	0.51
37:45:78:PRO:HB2	37:45:79:LEU:HG	1.93	0.51
45:C5:17:SER:HG	45:C5:18:GLY:N	2.08	0.51
1:13:31:G:H3'	1:13:32:A:H5''	1.92	0.50
6:5E:67:MET:SD	6:5E:75:LEU:HD12	2.51	0.50
13:4I:16:ASP:HB3	13:4I:41:PRO:HB3	1.93	0.50
26:1H:760:G:H5''	61:1H:3839:HOH:O	2.10	0.50
26:1H:1210:A:H5'	26:1H:1210:A:C8	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1530:G:O6	26:1H:1542:G:N2	2.44	0.50
26:1H:2209:C:O2	26:1H:2216:G:C2	2.63	0.50
29:21:78:LEU:O	29:21:79:ARG:HB2	2.11	0.50
30:31:67:GLN:O	30:31:67:GLN:HG3	2.10	0.50
31:41:98:ARG:HH21	51:M8:1:MET:HG3	1.76	0.50
51:M8:4:GLY:C	51:M8:5:ILE:HG13	2.32	0.50
1:1G:1051:C:H2'	1:1G:1052:U:C6	2.46	0.50
1:1G:1179:A:H2'	1:1G:1180:A:O4'	2.11	0.50
1:1G:1375:A:H4'	7:62:29:LYS:HE3	1.92	0.50
7:62:92:SER:CB	7:62:94:ARG:HG2	2.41	0.50
26:14:29:U:H2'	26:14:30:G:H8	1.76	0.50
26:14:823:G:H2'	26:14:824:A:C8	2.46	0.50
26:14:1250:G:OP2	36:35:21:ARG:NH1	2.44	0.50
26:14:1442:G:H2'	26:14:1443:G:C8	2.46	0.50
26:14:2032:G:H21	29:29:146:THR:HG23	1.75	0.50
30:39:192:LEU:HD22	30:39:194:MET:HG2	1.93	0.50
34:15:4:TYR:O	41:85:64:ARG:NH1	2.44	0.50
34:15:95:PRO:O	34:15:98:VAL:HG22	2.11	0.50
1:13:779:C:H2'	1:13:780:A:O4'	2.10	0.50
1:13:939:G:H5''	7:6E:102:ARG:NH2	2.26	0.50
1:13:1226:C:H2'	13:4I:103:THR:HB	1.93	0.50
5:4E:147:ASP:HA	5:4E:150:ARG:HH12	1.77	0.50
10:1I:45:ARG:HG2	10:1I:47:PHE:CZ	2.46	0.50
19:AI:36:ARG:NH1	19:AI:52:TYR:O	2.42	0.50
26:1H:311:A:C6	26:1H:328:U:C4	2.99	0.50
26:1H:459:U:H2'	26:1H:460:A:H8	1.76	0.50
26:1H:729:G:O5'	28:11:208:LYS:NZ	2.41	0.50
26:1H:2657:A:O3'	32:51:160:LYS:NZ	2.42	0.50
28:11:68:LYS:HB3	28:11:70:TRP:CZ3	2.47	0.50
31:41:112:PRO:HB3	51:M8:37:SER:N	2.25	0.50
45:G8:94:LYS:HG3	45:G8:95:LYS:H	1.77	0.50
51:M8:38:LYS:O	51:M8:39:CYS:HB3	2.11	0.50
1:1G:108:G:H5'	1:1G:109:A:H5''	1.91	0.50
1:1G:236:G:H2'	1:1G:237:C:O4'	2.11	0.50
1:1G:509:A:C8	1:1G:509:A:H3'	2.46	0.50
1:1G:1004:A:H8	1:1G:1036:G:H22	1.59	0.50
4:32:24:GLU:HG2	4:32:25:ARG:H	1.76	0.50
7:62:143:ARG:NH1	57:3L:41:C:O2'	2.45	0.50
10:1A:33:GLN:HB3	10:1A:75:ILE:HG12	1.93	0.50
23:2L:54:G:O2'	23:2L:55:5MU:H5''	2.12	0.50
26:14:780:G:H21	26:14:783:A:N6	2.07	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1224:G:N2	26:14:1227:A:OP2	2.33	0.50
26:14:1450:C:H2'	26:14:1451:C:C6	2.46	0.50
26:14:2327:A:H2'	26:14:2328:A:H8	1.72	0.50
26:14:2335:A:C8	26:14:2337:G:C5	2.99	0.50
26:14:2720:U:N3	26:14:2873:A:H2	2.10	0.50
28:19:245:PRO:HG2	28:19:253:GLN:NE2	2.26	0.50
29:29:96:PHE:O	29:29:175:VAL:HG11	2.10	0.50
37:45:25:ASP:OD1	37:45:25:ASP:N	2.44	0.50
38:55:45:ARG:HA	38:55:95:THR:HG21	1.93	0.50
48:F5:91:LYS:HA	48:F5:91:LYS:NZ	2.24	0.50
51:I5:34:GLU:HG2	51:I5:35:VAL:H	1.76	0.50
1:13:375:U:O3'	16:7I:6:LEU:HB2	2.12	0.50
1:13:446:G:H1	1:13:488:C:N4	2.00	0.50
1:13:971:G:N2	1:13:1363:A:OP2	2.41	0.50
1:13:1432:G:OP1	40:B8:107:ASP:HB2	2.11	0.50
4:3E:173:TRP:CD1	4:3E:174:LEU:HG	2.47	0.50
22:1K:27:G:H2'	22:1K:28:G:H8	1.75	0.50
24:3K:9:A:N6	24:3K:23:A:H62	2.07	0.50
26:1H:801:G:OP2	61:1H:4223:HOH:O	2.18	0.50
26:1H:818:G:H5'	26:1H:839:U:OP1	2.10	0.50
26:1H:863:A:H2'	26:1H:864:G:C8	2.46	0.50
26:1H:2405:G:H5''	36:78:75:ILE:HD12	1.93	0.50
39:A8:27:SER:HA	39:A8:88:ASP:CB	2.39	0.50
41:C8:90:VAL:HG12	41:C8:91:ASP:N	2.26	0.50
1:1G:909:A:H2'	1:1G:910:C:O4'	2.10	0.50
1:1G:1187:G:H5'	9:82:113:LYS:NZ	2.26	0.50
2:12:131:PRO:HG2	2:12:134:GLU:HB2	1.93	0.50
7:62:69:VAL:HG12	7:62:103:TRP:HE3	1.76	0.50
13:4A:78:ILE:HG23	13:4A:92:HIS:ND1	2.26	0.50
26:14:1003:G:N2	26:14:1153:C:C2	2.78	0.50
26:14:1087:G:H2'	26:14:1089:G:H1'	1.91	0.50
26:14:1888:G:N3	26:14:1888:G:H5''	2.26	0.50
26:14:1979:C:H2'	26:14:1980:G:H5'	1.92	0.50
26:14:2306:C:H3'	26:14:2307:G:H5''	1.92	0.50
29:29:101:ARG:O	29:29:201:THR:OG1	2.30	0.50
41:85:66:ASN:HB2	41:85:76:TYR:HB2	1.92	0.50
51:I5:21:VAL:HG22	51:I5:22:ILE:H	1.75	0.50
1:13:429:U:H1'	1:13:430:A:H5''	1.93	0.50
1:13:982:U:H5''	14:5I:6:LEU:HD11	1.94	0.50
1:13:1164:G:C6	1:13:1165:C:C4	2.99	0.50
3:2E:52:LEU:HA	3:2E:70:VAL:HG12	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:33:GLU:OE2	8:7E:50:ARG:NH1	2.44	0.50
8:7E:42:GLU:HG3	8:7E:109:ILE:HD12	1.93	0.50
16:7I:8:ARG:HB3	16:7I:28:ARG:NH1	2.26	0.50
26:1H:270(E):G:C6	26:1H:270(F):U:C4	2.99	0.50
26:1H:2513:G:N2	29:21:143:ASN:HD21	2.10	0.50
26:1H:2756:U:H4'	26:1H:2757:A:OP1	2.10	0.50
26:1H:2795:G:H3'	26:1H:2797:U:C5'	2.40	0.50
31:41:36:LYS:HG2	31:41:38:VAL:HG23	1.93	0.50
31:41:131:TYR:O	31:41:159:VAL:HG23	2.11	0.50
34:58:30:ILE:HG22	34:58:34:LEU:HD22	1.93	0.50
38:98:87:TYR:CE1	38:98:117:VAL:HG12	2.45	0.50
1:1G:539:A:H2'	1:1G:540:G:C8	2.46	0.50
1:1G:723:U:H4'	1:1G:724:G:OP2	2.11	0.50
1:1G:977:A:O2'	1:1G:981:U:N3	2.43	0.50
1:1G:1131:G:C8	1:1G:1132:C:H5	2.27	0.50
3:22:34:LEU:HD13	14:5A:25:VAL:HG11	1.94	0.50
3:22:50:ALA:HB1	3:22:70:VAL:HG11	1.93	0.50
7:62:116:ALA:O	7:62:120:ILE:HG12	2.11	0.50
10:1A:40:LEU:HG	10:1A:41:PRO:HD2	1.92	0.50
57:3L:38:A:H5''	61:3L:203:HOH:O	2.12	0.50
26:14:2685:G:OP2	40:75:51:ARG:NH1	2.43	0.50
28:19:136:ILE:HG22	28:19:140:THR:OG1	2.11	0.50
28:19:182:LEU:H	28:19:272:ALA:HB2	1.77	0.50
29:29:31:CYS:O	29:29:91:VAL:HG22	2.12	0.50
32:59:70:THR:O	32:59:74:ASN:ND2	2.36	0.50
36:35:98:GLU:HA	36:35:101:VAL:HG12	1.93	0.50
37:45:21:THR:HG22	37:45:23:GLY:HA3	1.93	0.50
46:D5:158:PRO:O	46:D5:161:VAL:HG22	2.10	0.50
8:7E:38:ILE:HD11	8:7E:118:VAL:O	2.12	0.50
12:3I:66:VAL:HG22	12:3I:67:THR:H	1.76	0.50
26:1H:120:U:OP2	61:1H:4187:HOH:O	2.19	0.50
26:1H:444:C:H4'	30:31:49:ALA:HB2	1.93	0.50
26:1H:833:U:O2	36:78:55:ARG:NH2	2.43	0.50
26:1H:1069:A:N7	26:1H:1073:A:N6	2.59	0.50
26:1H:2125:G:N2	26:1H:2173:A:H62	2.09	0.50
26:1H:2308:G:N1	26:1H:2311:A:C2	2.68	0.50
27:16:66:A:H61	27:16:107:U:H2'	1.75	0.50
29:21:37:ARG:O	29:21:45:THR:HA	2.11	0.50
30:31:129:PHE:HA	30:31:142:TRP:CD1	2.45	0.50
44:F8:83:VAL:HG11	44:F8:89:ILE:HD12	1.93	0.50
1:1G:565:U:OP2	1:1G:566:G:O2'	2.22	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1108:G:H5'	3:22:176:HIS:HD2	1.76	0.50
1:1G:1385:G:H2'	1:1G:1386:G:C8	2.45	0.50
26:14:639:U:H2'	26:14:640:C:C6	2.45	0.50
26:14:958:U:OP1	37:45:74:TYR:OH	2.25	0.50
26:14:1025:G:C4	26:14:1135:C:H1'	2.46	0.50
26:14:1033:U:H3'	26:14:1033:U:C6	2.46	0.50
26:14:1040:C:H2'	26:14:1041:C:C6	2.46	0.50
26:14:1310:G:N7	61:14:3925:HOH:O	2.35	0.50
26:14:1412:A:H2'	26:14:1413:G:C8	2.46	0.50
26:14:2019:A:OP2	52:J5:9:LYS:NZ	2.44	0.50
26:14:2027:G:N7	61:14:4057:HOH:O	2.35	0.50
26:14:2272:U:H5''	26:14:2273:A:OP1	2.11	0.50
32:59:121:ILE:HA	32:59:134:SER:O	2.11	0.50
36:35:15:ARG:NH2	36:35:17:LYS:HE3	2.27	0.50
39:65:3:ARG:HE	39:65:4:LEU:H	1.59	0.50
40:75:4:GLY:N	40:75:7:ILE:HG22	2.27	0.50
41:85:92:ARG:C	41:85:94:ASN:H	2.15	0.50
1:13:141:A:H1'	1:13:182:U:O2	2.12	0.50
1:13:433:C:H2'	1:13:434:U:C6	2.47	0.50
1:13:690:G:H2'	1:13:691:G:O4'	2.12	0.50
1:13:1029:G:H1'	1:13:1032(A):G:N2	2.19	0.50
5:4E:35:GLY:HA3	5:4E:112:LEU:O	2.12	0.50
23:2K:9:G:N2	23:2K:47:7MG:OP2	2.45	0.50
26:1H:617:G:OP1	30:31:40:GLN:NE2	2.44	0.50
26:1H:773:U:C4'	28:11:47:GLY:HA3	2.41	0.50
26:1H:1109:C:O2'	26:1H:1110:G:O4'	2.30	0.50
26:1H:2116:G:N2	26:1H:2165:G:H22	2.10	0.50
26:1H:2292:C:H42	26:1H:2340:G:H1	1.60	0.50
27:16:29:A:H2'	27:16:30:C:O4'	2.11	0.50
32:51:154:PRO:HD3	32:51:162:ILE:O	2.11	0.50
43:E8:4:LYS:HE3	43:E8:6:ILE:HD11	1.93	0.50
45:G8:85:VAL:O	45:G8:86:ARG:HD3	2.11	0.50
55:Q8:6:THR:O	55:Q8:7:HIS:HB3	2.11	0.50
1:1G:561:U:HO2'	1:1G:562:C:P	2.35	0.50
1:1G:601:C:H2'	1:1G:602:A:C8	2.47	0.50
1:1G:1347:G:H22	1:1G:1373:G:H2'	1.77	0.50
3:22:150:LYS:HG3	3:22:169:ALA:HB2	1.93	0.50
7:62:79:ARG:HG2	7:62:84:ASN:HB3	1.93	0.50
17:8A:82:MET:O	17:8A:86:GLU:HG2	2.11	0.50
26:14:30:G:O6	61:14:3964:HOH:O	2.19	0.50
26:14:1057:A:H2	26:14:1082:U:H3	1.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1210:A:H5'	26:14:1212:G:H5'	1.93	0.50
26:14:1423:G:OP1	26:14:1492:G:O2'	2.30	0.50
26:14:1751:C:O2'	26:14:1752:C:H5'	2.12	0.50
26:14:2015:A:H1'	52:J5:2:ALA:HB2	1.94	0.50
27:1J:40:U:N3	27:1J:43:C:H5''	2.27	0.50
33:69:6:LEU:HB2	33:69:36:ALA:HA	1.94	0.50
36:35:85:LEU:HA	36:35:88:LEU:HD23	1.93	0.50
40:75:11:GLU:OE1	40:75:11:GLU:N	2.45	0.50
1:13:1228:C:H2'	1:13:1229:A:H8	1.76	0.50
4:3E:98:GLU:HG2	4:3E:189:PRO:HG2	1.94	0.50
7:6E:63:LYS:NZ	7:6E:64:GLN:OE1	2.44	0.50
26:1H:654(H):G:H2'	26:1H:654(H):G:N3	2.27	0.50
26:1H:805:G:O2'	61:1H:4534:HOH:O	2.20	0.50
26:1H:1728:G:C6	26:1H:1730:U:OP2	2.64	0.50
26:1H:2611:U:H2'	52:N8:3:LYS:HG3	1.93	0.50
26:1H:2660:A:C2	26:1H:2661:G:H1'	2.47	0.50
26:1H:2700:C:O2'	26:1H:2701:C:H5'	2.12	0.50
32:51:10:PRO:HD3	32:51:69:ARG:HE	1.77	0.50
35:68:107:ARG:HH12	40:B8:36:GLU:HG2	1.77	0.50
35:68:107:ARG:NH1	40:B8:36:GLU:HG2	2.27	0.50
52:N8:31:VAL:HB	52:N8:41:PRO:O	2.12	0.50
55:Q8:56:GLU:O	55:Q8:57:ARG:HG3	2.11	0.50
1:1G:656:C:O2'	15:6A:28:GLN:OE1	2.19	0.50
1:1G:1018:C:H2'	1:1G:1019:C:O4'	2.11	0.50
3:22:136:GLN:O	3:22:139:GLN:N	2.44	0.50
20:BA:33:ILE:O	20:BA:37:SER:OG	2.28	0.50
20:BA:73:HIS:HB3	20:BA:74:LYS:HG2	1.94	0.50
57:3L:58:A:H1'	57:3L:60:U:H5	1.77	0.50
26:14:1024:G:C3'	26:14:1025:G:H5''	2.40	0.50
26:14:2059:A:H5''	26:14:2060:A:OP2	2.11	0.50
27:1J:42:C:C4	31:49:91:ARG:NH2	2.80	0.50
29:29:68:ALA:C	29:29:70:ALA:H	2.15	0.50
30:39:158:THR:HB	30:39:195:ASP:HB2	1.93	0.50
1:13:73:G:H2'	1:13:74:C:C6	2.46	0.50
1:13:685:G:O2'	1:13:686:U:H5'	2.11	0.50
1:13:825:G:H2'	1:13:826:C:H6	1.76	0.50
2:1E:118:LEU:HB3	2:1E:142:LEU:HD12	1.93	0.50
14:5I:27:CYS:HB2	14:5I:29:ARG:H	1.77	0.50
30:31:28:ILE:HA	30:31:112:MET:HE3	1.94	0.50
48:J8:91:LYS:O	48:J8:93:GLU:N	2.45	0.50
49:K8:21:LEU:HD13	49:K8:64:LEU:HA	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:K8:47:ASN:C	49:K8:49:LYS:H	2.15	0.50
1:1G:79:G:H2'	1:1G:79:G:N3	2.27	0.50
1:1G:1069:C:O2'	1:1G:1192:C:O2	2.22	0.50
1:1G:1528:U:OP2	1:1G:1528:U:H6	1.95	0.50
2:12:9:GLU:HB2	2:12:217:ARG:HH22	1.76	0.50
3:22:186:PHE:HE2	3:22:188:LEU:HD22	1.76	0.50
4:32:150:GLU:C	4:32:152:SER:H	2.14	0.50
26:14:528:A:H8	26:14:528:A:H3'	1.76	0.50
26:14:1568:G:H5'	28:19:60:ARG:HA	1.94	0.50
26:14:2340:G:O2'	26:14:2341:G:H5'	2.12	0.50
26:14:2575:C:H2'	26:14:2578:G:O6	2.12	0.50
28:19:127:VAL:HA	28:19:193:VAL:HG22	1.93	0.50
32:59:22:GLY:O	32:59:37:VAL:HG12	2.12	0.50
36:35:125:VAL:O	36:35:144:GLU:HB3	2.11	0.50
37:45:2:LEU:O	37:45:70:PRO:HG2	2.12	0.50
39:65:30:ARG:HG3	39:65:35:ILE:HD13	1.93	0.50
44:B5:26:TYR:O	44:B5:81:VAL:HG22	2.12	0.50
46:D5:152:ALA:HB2	46:D5:169:GLU:O	2.12	0.50
53:K5:21:TYR:HE2	53:K5:52:VAL:HG11	1.76	0.50
1:13:684:A:N6	1:13:685:G:C6	2.80	0.50
2:1E:71:VAL:HG23	2:1E:164:VAL:HA	1.93	0.50
7:6E:120:ILE:O	7:6E:124:LEU:HB2	2.12	0.50
26:1H:1268:A:OP1	61:1H:4448:HOH:O	2.19	0.50
26:1H:1339:G:H21	26:1H:1603:A:H1'	1.76	0.50
26:1H:1385:G:O2'	26:1H:1396:U:H6	1.95	0.50
26:1H:2392:A:H2	26:1H:2424:C:N4	2.06	0.50
26:1H:2518:A:H5'	26:1H:2518:A:H8	1.77	0.50
26:1H:2563:U:O2'	35:68:28:SER:HB2	2.12	0.50
31:41:47:LYS:HZ1	31:41:80:PHE:HD2	1.59	0.50
32:51:87:LEU:HB2	32:51:131:VAL:HG12	1.94	0.50
41:C8:61:TRP:CH2	41:C8:93:LYS:HB2	2.47	0.50
43:E8:73:ALA:HB3	43:E8:106:ILE:HB	1.93	0.50
48:J8:64:ALA:HA	48:J8:67:ILE:HG13	1.94	0.50
49:K8:35:LEU:CD1	49:K8:53:LEU:HD12	2.42	0.50
50:L8:35:ARG:HB3	50:L8:37:LEU:CD2	2.42	0.50
1:1G:375:U:OP1	16:7A:69:THR:OG1	2.19	0.50
1:1G:591:U:H2'	1:1G:592:G:C8	2.47	0.50
1:1G:1308:U:H5''	13:4A:98:VAL:HG22	1.93	0.50
26:14:290:G:H2'	26:14:291:C:O4'	2.12	0.50
26:14:350:U:H2'	26:14:351:G:O4'	2.11	0.50
26:14:1420:U:O2'	26:14:1421:G:OP1	2.29	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2543:G:H2'	26:14:2544:G:C8	2.47	0.50
26:14:2712:U:H2'	26:14:2714:G:H5''	1.92	0.50
30:39:164:ARG:O	30:39:167:ALA:HB3	2.11	0.50
36:35:27:HIS:HB3	36:35:32:THR:HG23	1.94	0.50
37:45:51:ARG:HG2	37:45:51:ARG:NH1	2.26	0.50
51:I5:49:PHE:HD2	51:I5:50:VAL:HG22	1.77	0.50
1:13:917:G:H2'	1:13:918:A:C8	2.47	0.49
4:3E:110:PHE:HE2	4:3E:148:VAL:HG23	1.77	0.49
10:1I:5:ARG:NH1	10:1I:99:LYS:HD2	2.27	0.49
18:9I:26:LEU:HD13	18:9I:42:ARG:NH2	2.26	0.49
18:9I:31:LEU:H	18:9I:31:LEU:HD23	1.76	0.49
20:BI:10:LEU:HD11	20:BI:12:ALA:HB3	1.93	0.49
26:1H:618:G:H2'	26:1H:618(A):C:H6	1.76	0.49
26:1H:1429:G:O2'	26:1H:1430:C:H5'	2.11	0.49
27:16:44:G:C2	27:16:48:A:C2	3.00	0.49
32:51:42:ARG:HG2	32:51:44:VAL:HG23	1.94	0.49
36:78:121:LYS:O	36:78:123:LEU:N	2.41	0.49
38:98:63:ARG:HG3	38:98:80:PHE:HE2	1.77	0.49
41:C8:106:PHE:HA	41:C8:109:LEU:HD12	1.94	0.49
46:H8:100:VAL:HG11	46:H8:137:ILE:HG13	1.93	0.49
1:1G:142:G:H2'	1:1G:143:A:C8	2.47	0.49
1:1G:922:G:N3	1:1G:1398:A:H2	2.09	0.49
1:1G:1215:G:C5	1:1G:1216:G:C8	2.99	0.49
2:12:166:ASP:OD2	2:12:169:LYS:HB2	2.12	0.49
7:62:50:ILE:HB	7:62:58:PRO:HG3	1.94	0.49
9:82:89:ASN:O	9:82:92:TYR:HB2	2.12	0.49
26:14:26:G:C6	26:14:27:G:N1	2.79	0.49
26:14:1191:G:O2'	26:14:1192:G:H5'	2.12	0.49
29:29:89:ASP:O	29:29:91:VAL:N	2.39	0.49
30:39:32:LEU:O	30:39:36:VAL:HG23	2.12	0.49
32:59:30:LYS:HB3	32:59:79:VAL:O	2.10	0.49
37:45:63:LYS:HE2	37:45:65:PHE:CE2	2.46	0.49
46:D5:6:LYS:O	46:D5:62:PRO:HD3	2.12	0.49
46:D5:111:VAL:HG22	46:D5:112:ARG:HG2	1.94	0.49
1:13:295:C:H2'	1:13:296:U:O4'	2.12	0.49
1:13:827:U:C5	1:13:872:A:N1	2.74	0.49
8:7E:87:SER:HB2	8:7E:93:VAL:CB	2.39	0.49
12:3I:24:VAL:HB	12:3I:27:LEU:HD12	1.94	0.49
26:1H:458:G:O2'	26:1H:469:G:O6	2.21	0.49
26:1H:2123:G:H22	26:1H:2175:C:N4	2.10	0.49
26:1H:2235:G:H2'	26:1H:2236:C:C6	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2376:A:H2'	26:1H:2377:A:O4'	2.12	0.49
28:11:96:HIS:ND1	28:11:102:LYS:HE2	2.27	0.49
34:58:78:TYR:CD1	34:58:78:TYR:N	2.80	0.49
39:A8:106:ARG:NH1	39:A8:107:GLU:HB2	2.27	0.49
41:C8:93:LYS:N	41:C8:95:LEU:HG	2.28	0.49
47:I8:60:PHE:CD1	47:I8:60:PHE:N	2.80	0.49
53:O8:30:THR:HA	53:O8:31:PRO:C	2.32	0.49
1:1G:456:C:H2'	1:1G:457:C:C6	2.47	0.49
1:1G:596:C:H2'	1:1G:597:G:H8	1.77	0.49
1:1G:748:C:H6	1:1G:748:C:O5'	1.95	0.49
2:12:213:LEU:HA	2:12:216:SER:HB3	1.93	0.49
26:14:234:C:H2'	26:14:235:U:C6	2.47	0.49
26:14:2657:A:O2'	32:59:160:LYS:HE3	2.11	0.49
33:69:76:THR:HG23	33:69:77:LEU:N	2.28	0.49
33:69:129:THR:HG22	33:69:137:PRO:HB3	1.93	0.49
44:B5:60:ARG:HH11	44:B5:60:ARG:HG2	1.77	0.49
1:13:4:U:O4	8:7E:105:ARG:HD2	2.12	0.49
2:1E:59:GLU:HB2	2:1E:221:LEU:HD11	1.94	0.49
4:3E:107:ARG:NH2	4:3E:194:LEU:HD13	2.28	0.49
5:4E:41:VAL:HG22	5:4E:113:ALA:CB	2.42	0.49
20:BI:30:LYS:HZ1	20:BI:80:ARG:HH12	1.59	0.49
26:1H:481:G:H1'	26:1H:507:A:N1	2.27	0.49
26:1H:783:A:H8	26:1H:784:A:H4'	1.77	0.49
26:1H:890:A:H2'	26:1H:892:G:H5'	1.94	0.49
26:1H:2108:C:H2'	26:1H:2109:U:O4'	2.12	0.49
26:1H:2109:U:N3	26:1H:2110:G:O6	2.45	0.49
26:1H:2314:C:H2'	26:1H:2315:G:C8	2.47	0.49
32:51:125:VAL:HG12	32:51:127:GLU:O	2.12	0.49
37:88:85:LYS:HG2	37:88:86:GLY:N	2.27	0.49
44:F8:37:THR:O	44:F8:40:LYS:HB3	2.13	0.49
46:H8:63:ASP:OD2	46:H8:65:GLN:NE2	2.42	0.49
1:1G:79:G:H1	1:1G:90:C:N4	2.11	0.49
1:1G:300:A:H1'	1:1G:565:U:O2	2.12	0.49
1:1G:1130:A:N6	1:1G:1144:G:H21	2.10	0.49
3:22:175:LEU:H	3:22:175:LEU:HD12	1.77	0.49
10:1A:3:LYS:NZ	10:1A:75:ILE:O	2.45	0.49
10:1A:9:ARG:HH21	10:1A:95:GLU:HG2	1.77	0.49
57:3L:15:G:N1	57:3L:48:C:N4	2.60	0.49
26:14:1111:A:H4'	32:59:3:ARG:HH11	1.77	0.49
26:14:1790:C:H2'	26:14:1791:A:C5	2.47	0.49
26:14:2635:C:O2'	29:29:48:GLN:NE2	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:23:G:C2	27:1J:24:G:O6	2.65	0.49
31:49:60:LEU:O	31:49:64:THR:HG22	2.12	0.49
35:25:63:VAL:HG12	35:25:106:LEU:HD11	1.93	0.49
42:95:71:LEU:CA	42:95:86:GLY:HA2	2.42	0.49
53:K5:21:TYR:CE2	53:K5:52:VAL:HG11	2.47	0.49
1:13:630:G:H2'	1:13:631:G:O4'	2.12	0.49
1:13:1004:A:C5'	1:13:1025:U:H3	2.20	0.49
1:13:1442:G:C6	1:13:1446:A:C6	3.01	0.49
2:1E:60:ASP:HB3	2:1E:64:ARG:NH1	2.27	0.49
2:1E:237:ALA:O	2:1E:239:VAL:N	2.45	0.49
7:6E:91:VAL:HG12	7:6E:95:ARG:HB3	1.94	0.49
9:8E:4:TYR:CE2	9:8E:88:TYR:HB2	2.47	0.49
9:8E:118:LYS:O	9:8E:119:ALA:HB3	2.12	0.49
10:1I:22:LYS:NZ	10:1I:88:LEU:O	2.45	0.49
26:1H:459:U:H5''	54:P8:40:TRP:CE2	2.47	0.49
26:1H:498:G:O2'	26:1H:499:U:H5'	2.13	0.49
26:1H:1510:A:OP1	26:1H:1511:A:H5'	2.13	0.49
26:1H:1695:G:H2'	26:1H:1696:G:O4'	2.11	0.49
26:1H:2262:U:O2'	26:1H:2263:C:H5'	2.12	0.49
27:16:44:G:H1'	27:16:47:C:N4	2.28	0.49
29:21:36:ARG:HH22	29:21:88:GLY:H	1.60	0.49
44:F8:3:THR:CB	44:F8:6:ASP:HB2	2.42	0.49
1:1G:426:G:OP1	4:32:36:ARG:NH2	2.37	0.49
1:1G:626:U:C2	1:1G:627:G:C8	3.00	0.49
1:1G:981:U:O2'	14:5A:30:ALA:HB1	2.12	0.49
1:1G:1053:G:O2'	1:1G:1054:C:P	2.70	0.49
1:1G:1190:G:H5'	3:22:176:HIS:CE1	2.48	0.49
7:62:73:MET:HG3	7:62:89:MET:O	2.12	0.49
56:1L:36:A:H61	25:4L:19:U:H3	1.59	0.49
26:14:678:C:H2'	26:14:679:C:C6	2.46	0.49
26:14:921:G:C6	26:14:922:U:C4	3.01	0.49
26:14:1742:C:H5'	26:14:1743:G:OP2	2.12	0.49
26:14:1794:U:H2'	26:14:1795:C:H6	1.77	0.49
26:14:2127:G:O2'	26:14:2173:A:N1	2.42	0.49
32:59:9:ILE:HD12	32:59:49:VAL:HB	1.94	0.49
38:55:97:VAL:HA	38:55:113:LEU:O	2.12	0.49
44:B5:63:LYS:O	44:B5:63:LYS:HD2	2.11	0.49
48:F5:6:GLU:HG3	48:F5:61:ARG:O	2.13	0.49
1:13:1178:G:N2	1:13:1181:G:H8	2.11	0.49
2:1E:155:LEU:HD13	2:1E:157:ARG:O	2.11	0.49
3:2E:19:GLU:HA	3:2E:54:ARG:HH12	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2K:13:C:H4'	26:1H:1924:C:H4'	1.94	0.49
26:1H:492:A:H2'	26:1H:493:G:O4'	2.13	0.49
26:1H:1971:A:H5'	26:1H:1972:A:H5''	1.94	0.49
26:1H:2377:A:H2'	26:1H:2378:A:C8	2.48	0.49
26:1H:2475:C:H4'	26:1H:2476:A:OP1	2.12	0.49
26:1H:2689:U:H5''	26:1H:2713:A:C2	2.47	0.49
33:61:57:ARG:O	33:61:61:ARG:HG2	2.12	0.49
46:H8:111:VAL:HG11	46:H8:146:ILE:HG12	1.94	0.49
1:1G:446:G:H2'	1:1G:447:G:O4'	2.13	0.49
1:1G:1028(A):C:N4	1:1G:1028(B):C:H41	2.11	0.49
1:1G:1152:A:H2'	1:1G:1153:C:O4'	2.13	0.49
1:1G:1157:A:O2'	1:1G:1158:C:O5'	2.30	0.49
1:1G:1322:C:O2'	1:1G:1323:G:H5'	2.13	0.49
26:14:141:A:C8	26:14:1408:C:H1'	2.48	0.49
26:14:234:C:H2'	26:14:235:U:H6	1.77	0.49
26:14:975:G:H1'	26:14:990:A:C2	2.48	0.49
26:14:2567:G:H2'	26:14:2568:C:H6	1.77	0.49
27:1J:15:A:H1'	27:1J:109:G:C8	2.48	0.49
32:59:124:GLU:HG3	32:59:132:ARG:HD2	1.95	0.49
33:69:130:TYR:C	33:69:131:LYS:HD2	2.32	0.49
37:45:25:ASP:HB3	37:45:102:VAL:CG2	2.41	0.49
1:13:1305:G:O2'	1:13:1331:G:N2	2.46	0.49
2:1E:97:TRP:CZ3	2:1E:172:ILE:HB	2.47	0.49
2:1E:187:LEU:HA	2:1E:201:ILE:HB	1.94	0.49
3:2E:59:ARG:HA	3:2E:63:ASN:O	2.12	0.49
4:3E:172:PRO:HB2	4:3E:187:ARG:HH12	1.77	0.49
8:7E:82:HIS:HE1	8:7E:136:GLU:OE2	1.95	0.49
20:BI:26:ASN:O	20:BI:30:LYS:HB2	2.13	0.49
26:1H:1101:U:H2'	26:1H:1102:C:C6	2.48	0.49
26:1H:1252:G:H5''	61:1H:3758:HOH:O	2.12	0.49
36:78:98:GLU:O	36:78:101:VAL:HG22	2.13	0.49
36:78:113:LYS:HG2	36:78:115:LEU:HD23	1.95	0.49
37:88:22:LYS:HG3	37:88:22:LYS:O	2.13	0.49
40:B8:81:PRO:HG2	40:B8:82:LEU:HD12	1.93	0.49
1:1G:186(D):C:H2'	1:1G:186(E):C:C6	2.46	0.49
1:1G:735:C:H2'	1:1G:736:C:H6	1.78	0.49
1:1G:947:G:O3'	13:4A:109:THR:OG1	2.29	0.49
1:1G:1127:G:N2	1:1G:1144:G:H22	2.10	0.49
1:1G:1151:A:HO2'	1:1G:1152:A:C5'	2.25	0.49
2:12:128:GLU:O	2:12:130:ARG:HG2	2.13	0.49
4:32:148:VAL:HG12	4:32:152:SER:OG	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:24:ARG:HB2	5:42:26:PHE:CE1	2.47	0.49
57:3L:35:A:H2'	57:3L:36:A:H8	1.78	0.49
26:14:85:G:OP1	45:C5:30:VAL:HG21	2.12	0.49
26:14:362:U:H5'	26:14:363:G:OP2	2.13	0.49
26:14:452:G:N3	26:14:457:A:H2	2.10	0.49
26:14:1087:G:N3	26:14:1089:G:O2'	2.46	0.49
26:14:1111:A:O2'	32:59:2:SER:OG	2.27	0.49
26:14:1131:G:C2	26:14:1132:A:C4	3.01	0.49
26:14:1510:A:H2'	26:14:1511:A:O4'	2.12	0.49
26:14:1899:G:N2	26:14:1902:C:N4	2.46	0.49
26:14:2146:C:H4'	26:14:2147:G:C8	2.48	0.49
27:1J:70:C:H2'	27:1J:71:C:C6	2.47	0.49
28:19:273:ARG:O	28:19:273:ARG:HG2	2.13	0.49
1:13:108:G:C6	20:BI:15:ARG:HD2	2.47	0.49
1:13:110:C:O2'	16:7I:25:ARG:O	2.27	0.49
1:13:1131:G:H2'	1:13:1132:C:H6	1.76	0.49
1:13:1226:C:O2'	13:4I:111:LYS:NZ	2.45	0.49
1:13:1313:U:P	19:AI:6:LYS:HZ3	2.36	0.49
9:8E:17:VAL:HG11	9:8E:81:ILE:HD13	1.94	0.49
20:BI:29:LYS:O	20:BI:33:ILE:HG12	2.13	0.49
26:1H:459:U:H2'	26:1H:460:A:C8	2.46	0.49
26:1H:602:G:N2	26:1H:655:A:C8	2.65	0.49
26:1H:1173:G:C2	26:1H:1175:U:H5	2.30	0.49
26:1H:1359:A:H2'	26:1H:1360:A:H5'	1.94	0.49
26:1H:2017:U:O3'	52:N8:9:LYS:NZ	2.46	0.49
26:1H:2155:G:H2'	26:1H:2156:G:H5'	1.94	0.49
28:11:6:PHE:HE1	28:11:18:VAL:HG23	1.77	0.49
30:31:77:ASP:OD1	30:31:77:ASP:N	2.37	0.49
31:41:67:LYS:CE	51:M8:6:HIS:CE1	2.94	0.49
36:78:96:THR:O	36:78:98:GLU:N	2.42	0.49
40:B8:62:THR:HB	40:B8:75:ILE:HG12	1.94	0.49
1:1G:200:G:H1	1:1G:217:C:H42	1.60	0.49
1:1G:280:C:H3'	1:1G:281:G:H5'	1.94	0.49
1:1G:1243:C:OP1	21:1B:8:THR:HG21	2.13	0.49
3:22:95:THR:HG21	3:22:97:LYS:HG2	1.94	0.49
4:32:79:PHE:HE1	4:32:204:ILE:HD13	1.77	0.49
7:62:113:GLU:O	7:62:119:ARG:HD3	2.12	0.49
13:4A:32:GLU:OE2	13:4A:33:ALA:N	2.45	0.49
56:1L:30:G:N2	56:1L:41:C:N3	2.61	0.49
23:2L:32:G:C5	23:2L:33:OMC:C5	3.01	0.49
26:14:634:C:H2'	26:14:635:C:C6	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:849:A:H2	50:H5:24:LYS:HB3	1.77	0.49
26:14:1693:U:O2'	28:19:14:ARG:NH2	2.46	0.49
26:14:2096:U:H3	26:14:2193:G:H1	1.59	0.49
26:14:2458:G:O2'	26:14:2460:U:O4	2.20	0.49
26:14:2611:U:H6	26:14:2611:U:H5'	1.77	0.49
26:14:2753:A:H2'	26:14:2754:U:O4'	2.12	0.49
28:19:242:ARG:N	28:19:242:ARG:HD3	2.26	0.49
30:39:153:SER:OG	30:39:190:GLU:HB2	2.12	0.49
30:39:160:ASN:HB3	30:39:163:VAL:HB	1.93	0.49
34:15:65:LYS:NZ	34:15:65:LYS:HB3	2.28	0.49
39:65:7:TYR:CZ	39:65:91:PRO:HG3	2.47	0.49
46:D5:1:MET:N	46:D5:135:GLU:OE1	2.45	0.49
53:K5:52:VAL:HG22	53:K5:53:LYS:H	1.78	0.49
1:13:266:G:H5''	1:13:267:C:C5	2.48	0.49
1:13:453:A:H4'	16:7I:72:ARG:HB2	1.95	0.49
7:6E:115:ARG:O	7:6E:118:VAL:HG12	2.11	0.49
8:7E:23:SER:HA	8:7E:61:VAL:O	2.13	0.49
12:3I:90:VAL:HG11	12:3I:93:LEU:HG	1.95	0.49
12:3I:90:VAL:HB	12:3I:96:VAL:HG22	1.95	0.49
21:1F:5:ASP:O	21:1F:11:GLY:HA3	2.13	0.49
21:1F:9:ARG:O	21:1F:13:ILE:HG13	2.13	0.49
22:1K:52:G:H2'	22:1K:53:G:O4'	2.13	0.49
26:1H:141:A:C8	26:1H:1408:C:H1'	2.48	0.49
26:1H:764:A:N3	28:11:213:ARG:NH1	2.61	0.49
26:1H:817:C:H4'	26:1H:932:G:C5	2.47	0.49
26:1H:1170:G:N2	26:1H:1180:C:C2	2.80	0.49
26:1H:1754:C:H5	40:B8:96:ARG:NH2	2.10	0.49
26:1H:1914:C:H2'	26:1H:1915:U:O4'	2.12	0.49
26:1H:1986:A:OP1	61:1H:4238:HOH:O	2.20	0.49
26:1H:2503:A:P	61:1H:4545:HOH:O	2.68	0.49
26:1H:2784:C:H1'	29:21:37:ARG:HH12	1.76	0.49
30:31:178:PRO:HB3	30:31:198:ALA:HA	1.94	0.49
32:51:11:VAL:HB	32:51:12:PRO:HD2	1.94	0.49
45:G8:99:CYS:SG	45:G8:100:ALA:N	2.85	0.49
1:1G:539:A:OP2	12:3A:115:LYS:NZ	2.36	0.49
3:22:61:ALA:C	3:22:63:ASN:H	2.16	0.49
4:32:61:LYS:HE2	4:32:206:PHE:CE2	2.47	0.49
17:8A:86:GLU:O	17:8A:90:ILE:HG12	2.13	0.49
20:BA:44:ALA:HB3	20:BA:91:LEU:HD12	1.95	0.49
26:14:450:G:N7	61:14:3736:HOH:O	2.34	0.49
26:14:469:G:O6	54:L5:39:ARG:NH1	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1432:C:H2'	26:14:1433:U:O4'	2.12	0.49
26:14:2012:G:OP1	43:A5:11:ARG:NH2	2.46	0.49
26:14:2354:G:O2'	47:E5:36:ILE:HG23	2.12	0.49
26:14:2685:G:P	40:75:51:ARG:HH22	2.34	0.49
29:29:9:VAL:HG12	40:75:8:LYS:NZ	2.27	0.49
37:45:87:LYS:HB3	37:45:90:VAL:HG22	1.94	0.49
1:13:474:G:H2'	1:13:475:G:C8	2.47	0.49
4:3E:162:LEU:O	4:3E:165:MET:HB3	2.13	0.49
14:5I:21:TYR:OH	14:5I:23:ARG:NH2	2.45	0.49
22:1K:27:G:H2'	22:1K:28:G:C8	2.48	0.49
26:1H:150:C:O2'	26:1H:151:C:H5'	2.13	0.49
26:1H:287:C:H2'	26:1H:288:C:H6	1.78	0.49
26:1H:1138:G:H2'	26:1H:1139:G:O4'	2.13	0.49
26:1H:1580:A:H8	26:1H:1580:A:OP2	1.96	0.49
26:1H:1582:C:O2'	26:1H:1586:A:C8	2.62	0.49
26:1H:2287:A:C2	26:1H:2346:A:H2	2.31	0.49
26:1H:2884:U:H2'	26:1H:2885:C:O4'	2.13	0.49
28:11:37:LEU:HD12	28:11:62:TYR:HB2	1.93	0.49
28:11:238:GLY:O	28:11:239:ARG:C	2.51	0.49
29:21:24:THR:HG21	29:21:188:VAL:HG21	1.95	0.49
37:88:51:ARG:HD2	37:88:66:ILE:HD11	1.95	0.49
49:K8:65:ASN:O	49:K8:69:ARG:HG3	2.12	0.49
1:1G:1299:A:C6	1:1G:1301:U:C2	3.01	0.49
2:12:19:HIS:CD2	2:12:20:GLU:HG2	2.48	0.49
3:22:44:GLU:HA	3:22:52:LEU:HD11	1.95	0.49
8:72:39:LEU:HB3	8:72:45:ILE:HG12	1.95	0.49
13:4A:37:THR:HG21	13:4A:56:LEU:HA	1.94	0.49
19:AA:49:ILE:O	19:AA:60:VAL:HG13	2.13	0.49
19:AA:51:VAL:O	19:AA:57:HIS:HA	2.13	0.49
26:14:590:A:H2'	26:14:591:C:C6	2.48	0.49
26:14:920:G:H2'	26:14:921:G:C8	2.48	0.49
26:14:1754:C:H2'	26:14:1755:A:C8	2.48	0.49
26:14:2392:A:H8	36:35:61:ARG:HD2	1.77	0.49
27:1J:73:A:C4	27:1J:104:A:C2	3.01	0.49
30:39:40:GLN:NE2	30:39:182:ASN:HB2	2.21	0.49
36:35:63:PRO:HG3	55:M5:13:ARG:CZ	2.43	0.49
36:35:63:PRO:HD3	55:M5:13:ARG:NH1	2.28	0.49
44:B5:3:THR:O	44:B5:5:TYR:N	2.46	0.49
44:B5:84:ALA:O	44:B5:87:GLN:HG3	2.12	0.49
1:13:735:C:H2'	1:13:736:C:H6	1.78	0.49
1:13:1494:G:N7	59:13:1749:PAR:N32	2.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5E:16:GLN:HG2	6:5E:17:SER:N	2.28	0.49
17:8I:76:LEU:HD12	17:8I:77:VAL:H	1.78	0.49
19:AI:40:ILE:HD11	19:AI:62:ILE:HD13	1.95	0.49
20:BI:75:ASN:HA	20:BI:78:ALA:HB3	1.95	0.49
26:1H:6:A:H2'	26:1H:7:G:O4'	2.13	0.49
26:1H:84:A:OP2	45:G8:8:LYS:NZ	2.39	0.49
26:1H:1140:C:OP1	34:58:23:LEU:HB3	2.12	0.49
26:1H:1443:G:C2	26:1H:1549:C:O2	2.64	0.49
26:1H:1728:G:H3'	26:1H:1729:A:C5'	2.37	0.49
26:1H:1827:C:H5''	61:1H:4459:HOH:O	2.13	0.49
26:1H:1899:G:N2	26:1H:1902:C:C5	2.71	0.49
26:1H:2286:A:H2'	53:O8:31:PRO:HD3	1.95	0.49
26:1H:2308:G:H22	26:1H:2311:A:H2	1.60	0.49
26:1H:2467:C:C2'	26:1H:2468:G:H5'	2.42	0.49
41:C8:97:ASP:O	41:C8:101:ARG:N	2.38	0.49
1:1G:652:U:O2'	1:1G:653:A:O5'	2.31	0.49
1:1G:720:C:O5'	1:1G:720:C:H6	1.96	0.49
1:1G:1095:U:H2'	1:1G:1096:C:O4'	2.13	0.49
1:1G:1260:C:H3'	1:1G:1260:C:H6	1.78	0.49
4:32:9:CYS:SG	4:32:22:LYS:HD2	2.53	0.49
26:14:244:A:C2	26:14:255:A:C4	3.00	0.49
26:14:2142:C:H2'	26:14:2143:C:C6	2.48	0.49
28:19:33:LEU:HD21	28:19:103:ARG:HA	1.95	0.49
29:29:60:ASN:C	29:29:62:PRO:HD3	2.32	0.49
36:35:75:ILE:HD13	36:35:75:ILE:H	1.78	0.49
37:45:37:LEU:HD11	37:45:130:LYS:HB2	1.94	0.49
44:B5:11:PRO:HG2	44:B5:13:LEU:HD21	1.94	0.49
1:13:170:U:H2'	1:13:171:A:H8	1.78	0.48
12:3I:90:VAL:HG12	12:3I:92:ASP:H	1.78	0.48
13:4I:3:ARG:CZ	13:4I:7:VAL:HG13	2.43	0.48
15:6I:78:TYR:CZ	15:6I:82:ILE:HD11	2.47	0.48
17:8I:31:LEU:HD23	17:8I:32:TYR:CZ	2.48	0.48
26:1H:92:G:H2'	26:1H:93:C:C6	2.48	0.48
26:1H:468:G:N7	54:P8:39:ARG:NH2	2.60	0.48
26:1H:654(C):G:H2'	26:1H:654(D):G:O4'	2.13	0.48
26:1H:880:G:H1	26:1H:897:C:N4	2.06	0.48
26:1H:996:A:H5'	41:C8:93:LYS:HE2	1.95	0.48
26:1H:1405:U:H2'	26:1H:1406:U:H6	1.78	0.48
26:1H:1593:G:H2'	26:1H:1594:G:C8	2.48	0.48
34:58:25:ARG:HG2	34:58:25:ARG:HH11	1.76	0.48
37:88:81:VAL:C	37:88:82:ARG:HD2	2.33	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:D8:34:GLU:O	42:D8:36:PRO:HD3	2.12	0.48
42:D8:47:VAL:CG2	42:D8:48:GLY:N	2.76	0.48
46:H8:128:VAL:HG23	46:H8:161:VAL:HG21	1.95	0.48
48:J8:51:VAL:HG21	48:J8:74:VAL:HG21	1.95	0.48
1:1G:532:A:N6	1:1G:1206:G:O2'	2.46	0.48
1:1G:1028(A):C:H42	1:1G:1032(B):G:H22	1.59	0.48
1:1G:1392:G:H21	1:1G:1502:A:H8	1.61	0.48
3:22:73:PRO:HA	3:22:76:VAL:HG13	1.94	0.48
20:BA:86:ARG:CZ	20:BA:86:ARG:HB2	2.41	0.48
26:14:1019:U:H2'	26:14:1020:A:N7	2.27	0.48
26:14:1926:U:H2'	26:14:1928:A:OP2	2.13	0.48
26:14:2211:G:HO2'	26:14:2212:A:P	2.34	0.48
26:14:2320:A:N6	26:14:2333:A:H2'	2.28	0.48
26:14:2564:A:OP1	26:14:2648:C:H4'	2.12	0.48
26:14:2875:C:O2'	40:75:1:MET:HA	2.13	0.48
28:19:218:ARG:HB3	28:19:219:PRO:HD2	1.95	0.48
30:39:165:ARG:HG2	30:39:168:ARG:NH1	2.28	0.48
36:35:75:ILE:HG13	36:35:77:ARG:CZ	2.43	0.48
46:D5:70:LEU:O	46:D5:89:PHE:N	2.41	0.48
1:13:66:G:O4'	1:13:173:U:C4	2.65	0.48
1:13:501:C:H2'	1:13:502:G:H8	1.77	0.48
2:1E:166:ASP:C	2:1E:168:THR:H	2.16	0.48
2:1E:226:ARG:HG3	2:1E:227:GLY:N	2.27	0.48
15:6I:47:LYS:HB3	15:6I:47:LYS:NZ	2.28	0.48
16:7I:19:ILE:HB	16:7I:36:ILE:O	2.13	0.48
24:3K:48:C:N4	24:3K:59:U:C2	2.81	0.48
26:1H:415:A:H2'	26:1H:416:C:O4'	2.13	0.48
26:1H:706:A:H5'	28:11:7:LYS:HD2	1.94	0.48
26:1H:751:A:H5'	43:E8:90:ARG:HA	1.95	0.48
26:1H:1429:G:H2'	26:1H:1430:C:C6	2.48	0.48
26:1H:1590:U:H2'	26:1H:1591:G:C8	2.48	0.48
27:16:32:C:C2	27:16:51:G:N2	2.81	0.48
30:31:63:LYS:HG2	30:31:65:TRP:O	2.13	0.48
36:78:88:LEU:HD12	36:78:95:VAL:HG11	1.95	0.48
40:B8:107:ASP:OD2	40:B8:109:GLU:HG3	2.12	0.48
41:C8:58:ARG:HA	41:C8:61:TRP:CE3	2.48	0.48
55:Q8:34:TRP:CD1	55:Q8:36:LYS:N	2.81	0.48
1:1G:176:C:O2'	1:1G:177:C:H5'	2.13	0.48
1:1G:363:A:OP1	12:3A:33:ARG:HG3	2.13	0.48
1:1G:377:G:OP1	16:7A:3:LYS:NZ	2.45	0.48
1:1G:1402:C:H2'	1:1G:1403:C:O4'	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:22:GLU:HG3	8:72:23:SER:HB3	1.95	0.48
26:14:2296:U:H4'	26:14:2297:C:OP1	2.11	0.48
28:19:32:SER:O	28:19:33:LEU:HB2	2.13	0.48
30:39:65:TRP:CZ3	30:39:72:ARG:HB3	2.48	0.48
34:15:35:ARG:HB2	34:15:42:TRP:HZ3	1.77	0.48
36:35:78:PRO:HA	36:35:110:TYR:CD2	2.48	0.48
39:65:101:LEU:HD12	39:65:105:ALA:HB2	1.95	0.48
45:C5:43:ASN:N	45:C5:43:ASN:OD1	2.45	0.48
46:D5:52:SER:O	46:D5:52:SER:OG	2.24	0.48
47:E5:48:GLY:HA3	47:E5:80:HIS:ND1	2.28	0.48
49:G5:47:ASN:N	49:G5:47:ASN:OD1	2.46	0.48
55:M5:34:TRP:CD1	55:M5:35:GLN:N	2.81	0.48
1:13:22:G:H2'	1:13:23:C:C6	2.48	0.48
8:7E:120:THR:OG1	8:7E:123:GLU:HG3	2.13	0.48
11:2I:87:THR:HA	11:2I:91:ARG:HH21	1.79	0.48
16:7I:17:TYR:HE2	16:7I:41:PRO:HG3	1.78	0.48
17:8I:28:PRO:HA	17:8I:35:VAL:HA	1.95	0.48
19:AI:14:HIS:CD2	19:AI:14:HIS:H	2.31	0.48
26:1H:433:C:H2'	26:1H:434:U:C6	2.48	0.48
26:1H:713:G:H2'	26:1H:714:U:C6	2.48	0.48
26:1H:960:A:H2'	26:1H:962:G:H5'	1.95	0.48
26:1H:1479:G:O2'	26:1H:1558:A:H5'	2.13	0.48
26:1H:1591:G:H2'	26:1H:1592:C:C6	2.49	0.48
26:1H:2766:G:H2'	26:1H:2766:G:N3	2.29	0.48
32:51:86:GLU:O	32:51:131:VAL:O	2.31	0.48
34:58:12:ARG:HB3	34:58:50:ASP:OD1	2.12	0.48
38:98:32:GLY:HA2	38:98:116:LEU:HD12	1.95	0.48
53:O8:17:LYS:O	53:O8:19:ARG:N	2.45	0.48
1:1G:397:A:H3'	1:1G:397:A:N3	2.28	0.48
1:1G:500:G:H2'	1:1G:501:C:C6	2.48	0.48
1:1G:1148:U:H2'	1:1G:1149:C:O4'	2.13	0.48
1:1G:1316:G:H5''	14:5A:17:LYS:NZ	2.27	0.48
2:12:7:VAL:O	2:12:217:ARG:NH2	2.43	0.48
2:12:8:LYS:CE	2:12:213:LEU:HD21	2.42	0.48
9:82:50:LEU:HB3	9:82:56:LEU:HA	1.95	0.48
26:14:1040:C:O2	26:14:1115:G:N2	2.34	0.48
26:14:1045:A:H1'	26:14:1047:G:N3	2.28	0.48
26:14:1666:G:OP1	35:25:66:LYS:HD3	2.12	0.48
26:14:1826:G:H4'	28:19:242:ARG:NH1	2.28	0.48
26:14:2250:G:C2	37:45:82:ARG:HB3	2.48	0.48
26:14:2400:G:H3'	26:14:2401:U:H6	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2745:C:H4'	32:59:142:GLY:O	2.13	0.48
27:1J:103:U:HO2'	46:D5:29:TYR:HH	1.58	0.48
28:19:245:PRO:HG2	28:19:253:GLN:HE21	1.78	0.48
28:19:267:SER:O	28:19:268:ARG:HG2	2.13	0.48
29:29:12:THR:HG22	40:75:58:ASN:ND2	2.23	0.48
30:39:51:THR:HG23	30:39:92:PRO:HG2	1.95	0.48
31:49:14:GLU:O	31:49:17:PRO:HG2	2.14	0.48
35:25:68:GLU:CA	35:25:78:ARG:HB3	2.41	0.48
36:35:78:PRO:HA	36:35:110:TYR:HD2	1.78	0.48
40:75:88:ILE:HG21	40:75:91:ARG:CZ	2.42	0.48
46:D5:178:GLU:HG3	46:D5:179:ASP:H	1.78	0.48
53:K5:18:ARG:NH2	53:K5:43:CYS:O	2.43	0.48
1:13:10:A:OP2	5:4E:126:ARG:HD3	2.14	0.48
1:13:150:C:H2'	1:13:151:A:O4'	2.13	0.48
1:13:964:A:N3	1:13:969:A:O2'	2.33	0.48
1:13:1052:U:O2'	1:13:1055:A:OP2	2.26	0.48
1:13:1057:G:H2'	1:13:1058:G:O4'	2.13	0.48
11:2I:19:ALA:O	11:2I:82:VAL:HA	2.13	0.48
19:AI:5:LEU:HB3	19:AI:10:PHE:CE1	2.47	0.48
26:1H:194:G:H2'	26:1H:195:A:O4'	2.12	0.48
26:1H:882:G:H22	26:1H:894:C:H42	1.62	0.48
26:1H:1087:G:C5	26:1H:1089:G:H1'	2.48	0.48
26:1H:1478:G:O2'	26:1H:1558:A:H2	1.96	0.48
26:1H:1677:A:H2'	26:1H:1678:G:C8	2.48	0.48
26:1H:2887:U:H2'	26:1H:2888:C:H6	1.76	0.48
27:16:71:C:C2	27:16:72:G:C8	3.01	0.48
27:16:73:A:C4	27:16:104:A:C2	3.01	0.48
32:51:144:VAL:O	32:51:148:ILE:HG12	2.14	0.48
33:61:77:LEU:CD1	33:61:140:LEU:HB3	2.44	0.48
41:C8:14:HIS:O	41:C8:18:LEU:HD12	2.14	0.48
46:H8:13:GLU:HB3	46:H8:18:LEU:HD11	1.96	0.48
53:O8:44:ARG:O	53:O8:45:LYS:HG2	2.13	0.48
1:1G:428:G:C5	1:1G:430:A:C6	3.00	0.48
2:12:178:ARG:NH2	8:72:68:ARG:HH22	2.11	0.48
7:62:26:PHE:CE2	7:62:30:ILE:HD11	2.48	0.48
10:1A:22:LYS:HE2	10:1A:90:LEU:HD12	1.96	0.48
56:1L:76:A:H8	26:14:2583:G:N2	2.11	0.48
26:14:2208:U:H2'	26:14:2209:C:C6	2.48	0.48
26:14:2734:A:C8	26:14:2735:G:C8	3.01	0.48
26:14:2746:U:OP1	32:59:85:LYS:NZ	2.46	0.48
26:14:2823:A:OP1	29:29:159:HIS:NE2	2.38	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:59:99:VAL:HG13	32:59:100:GLY:H	1.77	0.48
33:69:138:ILE:HG12	33:69:139:GLN:O	2.13	0.48
39:65:86:ALA:O	39:65:87:PHE:HB2	2.13	0.48
42:95:18:LEU:O	42:95:96:ILE:HG12	2.14	0.48
49:G5:25:VAL:O	49:G5:29:LYS:HB2	2.12	0.48
52:J5:3:LYS:N	52:J5:3:LYS:HD2	2.24	0.48
52:J5:16:ARG:NH1	52:J5:17:ASP:OD1	2.46	0.48
1:13:353:A:H5'	1:13:353:A:C8	2.39	0.48
2:1E:239:VAL:O	2:1E:239:VAL:HG12	2.13	0.48
4:3E:61:LYS:HA	4:3E:203:VAL:HG22	1.94	0.48
19:AI:33:THR:HG23	19:AI:35:SER:H	1.78	0.48
26:1H:370:G:H4'	26:1H:371:A:OP2	2.13	0.48
26:1H:2111:C:O2'	26:1H:2119:A:OP1	2.31	0.48
31:41:121:ASN:HB2	31:41:181:ARG:HH22	1.78	0.48
33:61:41:GLU:O	33:61:45:LYS:HB2	2.13	0.48
36:78:126:VAL:HG13	36:78:145:PRO:HG2	1.94	0.48
40:B8:90:GLN:HG3	40:B8:91:ARG:N	2.28	0.48
44:F8:36:LYS:HG2	44:F8:54:VAL:HB	1.94	0.48
45:G8:40:GLU:HG2	45:G8:64:GLU:CD	2.33	0.48
45:G8:84:ARG:HD2	45:G8:84:ARG:O	2.14	0.48
49:K8:48:HIS:N	49:K8:50:ILE:HD11	2.29	0.48
50:L8:43:ILE:O	50:L8:47:VAL:HG23	2.14	0.48
1:1G:1053:G:O6	1:1G:1199:U:H2'	2.12	0.48
1:1G:1172:C:H2'	1:1G:1173:G:H8	1.79	0.48
2:12:118:LEU:HB3	2:12:142:LEU:HD12	1.95	0.48
4:32:17:VAL:HA	4:32:33:MET:HE1	1.94	0.48
4:32:59:ARG:HA	4:32:62:GLN:HB2	1.95	0.48
4:32:111:ALA:HB2	4:32:120:LEU:HD12	1.96	0.48
7:62:46:ALA:O	7:62:50:ILE:HG12	2.14	0.48
8:72:99:GLU:OE2	8:72:100:ILE:N	2.44	0.48
10:1A:47:PHE:CZ	14:5A:37:PHE:HE2	2.32	0.48
14:5A:25:VAL:O	14:5A:26:ARG:HB3	2.13	0.48
16:7A:16:HIS:CD2	16:7A:16:HIS:N	2.82	0.48
57:3L:53:G:HO2'	57:3L:54:5MU:P	2.34	0.48
57:3L:76:A:H8	26:14:2394:C:N4	2.09	0.48
26:14:774:A:H2	26:14:787:U:HO2'	1.60	0.48
26:14:1011:G:O3'	41:85:75:ASN:ND2	2.46	0.48
26:14:1359:A:N7	26:14:1372:U:O4	2.45	0.48
26:14:1385:G:O2'	26:14:1396:U:H6	1.95	0.48
26:14:2015:A:N3	52:J5:2:ALA:N	2.62	0.48
26:14:2689:U:H5''	26:14:2713:A:H2	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:85:88:ILE:HA	42:95:49:THR:O	2.13	0.48
49:G5:33:MET:O	49:G5:36:ARG:HB2	2.13	0.48
1:13:110:C:H2'	1:13:111:G:O4'	2.13	0.48
1:13:807:A:H2'	1:13:808:C:C6	2.47	0.48
1:13:1347:G:C8	9:8E:107:ARG:HB3	2.48	0.48
1:13:1347:G:OP2	9:8E:107:ARG:HG2	2.12	0.48
1:13:1405:G:O4'	1:13:1519:A:H4'	2.14	0.48
7:6E:31:MET:SD	7:6E:36:LYS:HG2	2.54	0.48
24:3K:10:G:H1	24:3K:25:C:H42	1.62	0.48
26:1H:405:U:O2	26:1H:405:U:H2'	2.13	0.48
26:1H:547:A:C6	26:1H:548:A:C6	3.02	0.48
26:1H:729:G:OP2	28:11:13:ARG:NH1	2.43	0.48
26:1H:1357:U:H2'	26:1H:1358:G:O4'	2.13	0.48
26:1H:1649:G:O2'	38:98:107:ASP:OD1	2.24	0.48
26:1H:2157:G:O2'	26:1H:2158:A:O5'	2.29	0.48
29:21:15:PHE:HB3	40:B8:81:PRO:HG3	1.95	0.48
30:31:66:PRO:HD2	30:31:70:THR:HG21	1.95	0.48
32:51:102:ALA:HB2	32:51:116:GLU:HG3	1.95	0.48
33:61:71:ILE:HG12	33:61:72:LEU:HD12	1.95	0.48
35:68:4:PRO:O	35:68:5:GLN:CB	2.62	0.48
36:78:85:LEU:HA	36:78:88:LEU:HD22	1.94	0.48
39:A8:28:VAL:HG11	39:A8:98:VAL:HG13	1.96	0.48
1:1G:66:G:C2	1:1G:67:C:C6	3.02	0.48
1:1G:517:G:N2	1:1G:530:G:OP1	2.36	0.48
1:1G:616:G:H2'	1:1G:617:G:H8	1.78	0.48
1:1G:957:U:H2'	1:1G:959:A:OP2	2.14	0.48
1:1G:972:C:O2'	10:1A:55:LYS:HB3	2.14	0.48
1:1G:1151:A:O2'	1:1G:1152:A:O5'	2.32	0.48
1:1G:1262:C:H2'	1:1G:1263:C:C6	2.49	0.48
9:82:70:LYS:O	9:82:74:ILE:HG13	2.14	0.48
18:9A:31:LEU:HD23	18:9A:31:LEU:H	1.78	0.48
57:3L:50:U:H2'	57:3L:51:U:H6	1.77	0.48
26:14:300:A:H2'	26:14:334:C:O2'	2.13	0.48
26:14:1036:G:OP1	32:59:59:ARG:N	2.39	0.48
26:14:1225:C:H4'	42:95:85:LYS:CB	2.43	0.48
26:14:1794:U:O2'	26:14:1795:C:H5'	2.14	0.48
27:1J:39:A:N1	51:I5:1:MET:N	2.55	0.48
31:49:130:ASN:HB3	31:49:160:VAL:HA	1.95	0.48
40:75:88:ILE:HG21	40:75:91:ARG:NH2	2.28	0.48
46:D5:111:VAL:HG23	46:D5:112:ARG:NH1	2.27	0.48
46:D5:174:VAL:HG13	46:D5:177:PRO:HG2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:155:C:H2'	1:13:156:G:O4'	2.13	0.48
1:13:159:G:O2'	1:13:161:A:N7	2.36	0.48
1:13:1147:C:O2	9:8E:16:ARG:NH1	2.46	0.48
1:13:1378:C:O2	7:6E:76:ARG:NH1	2.47	0.48
4:3E:9:CYS:HB3	4:3E:32:ALA:HB2	1.96	0.48
4:3E:108:LEU:CD1	4:3E:174:LEU:HD13	2.44	0.48
6:5E:22:GLU:O	6:5E:26:ILE:HG13	2.14	0.48
23:2K:69:C:H2'	23:2K:70:C:C6	2.48	0.48
26:1H:90:U:H6	26:1H:90:U:OP1	1.97	0.48
26:1H:276:A:C5	26:1H:278:A:H2	2.30	0.48
26:1H:533:G:H5'	41:C8:24:TYR:CD1	2.49	0.48
26:1H:827:U:H5'	26:1H:828:U:O5'	2.13	0.48
26:1H:999:U:P	61:1H:4025:HOH:O	2.70	0.48
26:1H:1106:G:H2'	26:1H:1107:G:O4'	2.13	0.48
26:1H:1385:G:O2'	26:1H:1396:U:C6	2.63	0.48
26:1H:1813:G:H1'	28:11:50:THR:OG1	2.13	0.48
26:1H:1858:G:H1'	26:1H:1884:A:N6	2.28	0.48
26:1H:2262:U:H4'	26:1H:2328:A:C2	2.49	0.48
26:1H:2430:A:H8	26:1H:2431:U:C5	2.32	0.48
26:1H:2862:G:H2'	26:1H:2863:C:C6	2.46	0.48
29:21:51:PHE:O	29:21:74:PRO:HB2	2.13	0.48
32:51:8:PRO:HG2	32:51:69:ARG:NH2	2.28	0.48
32:51:92:ILE:HD11	32:51:160:LYS:HZ2	1.79	0.48
42:D8:53:GLU:HG2	42:D8:54:GLY:N	2.29	0.48
48:J8:91:LYS:HA	48:J8:91:LYS:NZ	2.28	0.48
1:1G:328:C:H4'	1:1G:329:A:H5''	1.95	0.48
1:1G:377:G:H1	1:1G:386:C:H42	1.61	0.48
1:1G:980:C:H3'	1:1G:981:U:H6	1.78	0.48
1:1G:1103:C:C2	1:1G:1104:G:C8	3.02	0.48
1:1G:1423:G:OP1	35:25:49:ARG:NH2	2.46	0.48
1:1G:1512:U:H2'	1:1G:1513:A:C8	2.49	0.48
5:42:141:GLN:HA	5:42:143:ARG:NH2	2.27	0.48
11:2A:18:ARG:HD2	11:2A:83:ILE:HD11	1.96	0.48
56:1L:30:G:H1	56:1L:40:C:H42	1.61	0.48
26:14:5:A:H2'	26:14:6:A:C8	2.49	0.48
26:14:1653:G:C6	38:55:9:LYS:HB2	2.48	0.48
26:14:2641:G:P	34:15:74:ARG:HH21	2.37	0.48
34:15:13:TRP:O	34:15:135:PRO:HD2	2.14	0.48
37:45:102:VAL:O	37:45:102:VAL:HG12	2.14	0.48
1:13:224:C:H2'	1:13:225:C:H6	1.79	0.48
1:13:536:C:H2'	1:13:537:G:C8	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:33:VAL:CG1	5:4E:109:ILE:HG12	2.44	0.48
5:4E:68:GLU:O	5:4E:68:GLU:HG3	2.13	0.48
10:1I:27:ALA:HB1	10:1I:34:VAL:HG11	1.96	0.48
15:6I:36:ILE:HG23	15:6I:56:LEU:HD11	1.94	0.48
23:2K:24:C:H2'	23:2K:25:U:H6	1.79	0.48
26:1H:722:A:H2'	26:1H:723:G:C8	2.49	0.48
26:1H:748:G:C8	43:E8:89:ALA:HB1	2.49	0.48
26:1H:1385:G:HO2'	26:1H:1396:U:H6	1.55	0.48
26:1H:1510:A:H2'	26:1H:1510:A:N3	2.27	0.48
30:31:37:VAL:HG21	36:78:6:LEU:HD21	1.96	0.48
34:58:104:LYS:HB2	34:58:117:PHE:CE1	2.49	0.48
36:78:43:GLY:N	61:78:305:HOH:O	2.33	0.48
36:78:90:ARG:HD3	36:78:91:PHE:HE1	1.79	0.48
41:C8:108:GLU:OE1	41:C8:112:ARG:NH1	2.46	0.48
46:H8:111:VAL:HG11	46:H8:146:ILE:CG1	2.44	0.48
49:K8:52:ASP:O	49:K8:56:GLN:HB2	2.14	0.48
1:1G:191:G:H1'	20:BA:104:LEU:O	2.13	0.48
1:1G:520:A:N1	1:1G:536:C:H1'	2.29	0.48
1:1G:1120:G:H1	1:1G:1152:A:N6	2.11	0.48
1:1G:1148:U:OP1	9:82:7:THR:HG21	2.13	0.48
4:32:191:ARG:NH1	4:32:200:GLU:OE1	2.46	0.48
9:82:27:THR:OG1	9:82:31:GLN:O	2.20	0.48
20:BA:50:GLU:N	20:BA:100:ILE:HG12	2.29	0.48
23:2L:24:C:C2	23:2L:25:U:C5	3.02	0.48
57:3L:18:G:N2	57:3L:55:PSU:H1'	2.22	0.48
26:14:322:A:OP2	30:39:169:ASN:HB2	2.13	0.48
26:14:676:A:H8	26:14:2069:G:N2	2.01	0.48
26:14:2056:G:H1	52:J5:4:HIS:CB	2.25	0.48
26:14:2392:A:C8	36:35:61:ARG:HD2	2.49	0.48
26:14:2611:U:H3'	26:14:2611:U:OP2	2.14	0.48
26:14:2862:G:H2'	26:14:2863:C:H6	1.79	0.48
27:1J:65:C:H41	27:1J:108:C:C2'	2.26	0.48
28:19:49:ILE:O	28:19:49:ILE:HG12	2.13	0.48
30:39:182:ASN:O	30:39:186:ILE:HG12	2.13	0.48
32:59:54:ARG:HD2	32:59:56:SER:O	2.14	0.48
35:25:19:ILE:HG22	35:25:43:VAL:HA	1.96	0.48
45:C5:47:LYS:HA	45:C5:60:PHE:HB3	1.96	0.48
49:G5:49:LYS:HB2	49:G5:49:LYS:HE3	1.68	0.48
1:13:1363:A:H1'	1:13:1365:G:N7	2.28	0.48
10:1I:80:LYS:O	10:1I:80:LYS:HD3	2.14	0.48
11:2I:99:GLN:HA	11:2I:105:VAL:CG1	2.42	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3I:9:GLN:O	12:3I:13:LYS:HG2	2.14	0.48
24:3K:21:A:H2'	24:3K:22:G:O4'	2.13	0.48
26:1H:299:A:C2	26:1H:322:A:C4	3.01	0.48
26:1H:645:C:OP1	26:1H:645:C:H6	1.96	0.48
26:1H:844:C:H3'	26:1H:845:G:C8	2.49	0.48
26:1H:1227:A:OP1	42:D8:84:LYS:HE3	2.14	0.48
26:1H:1533:C:C2	26:1H:1534:G:N2	2.81	0.48
26:1H:2001:A:OP1	38:98:9:LYS:NZ	2.47	0.48
26:1H:2125:G:H21	26:1H:2173:A:H62	1.61	0.48
26:1H:2492:U:H2'	26:1H:2493:U:H6	1.78	0.48
28:11:69:ARG:HD3	28:11:105:ILE:HD11	1.94	0.48
29:21:24:THR:HG21	29:21:188:VAL:HG22	1.94	0.48
33:61:110:ASP:HB2	33:61:112:LYS:HG2	1.96	0.48
45:G8:11:ASP:O	45:G8:26:LYS:HG3	2.14	0.48
49:K8:55:ARG:O	49:K8:58:ALA:HB3	2.14	0.48
1:1G:979:C:OP1	1:1G:1223:C:N4	2.47	0.48
2:12:75:LYS:HD2	2:12:75:LYS:O	2.14	0.48
2:12:214:ILE:O	2:12:218:ALA:HB2	2.14	0.48
3:22:32:LEU:HD22	3:22:59:ARG:NH1	2.29	0.48
13:4A:94:ARG:NH2	19:AA:78:ARG:HH12	2.11	0.48
15:6A:70:LEU:HD23	15:6A:78:TYR:HA	1.96	0.48
57:3L:50:U:H2'	57:3L:51:U:C6	2.49	0.48
26:14:673:C:H5''	30:39:81:PRO:HD2	1.95	0.48
26:14:1149:G:H2'	26:14:1150:C:C6	2.49	0.48
26:14:1750:G:O2'	26:14:1751:C:H5'	2.13	0.48
26:14:2849:U:H1'	26:14:2866:U:O2	2.14	0.48
28:19:71:ASP:CG	28:19:103:ARG:HH12	2.16	0.48
30:39:7:TYR:O	30:39:15:SER:HA	2.14	0.48
33:69:77:LEU:HD12	33:69:78:THR:H	1.78	0.48
55:M5:32:LEU:HB3	55:M5:33:ASN:OD1	2.13	0.48
1:13:101:A:H8	1:13:101:A:OP2	1.97	0.48
1:13:116:A:H61	1:13:313:A:H1'	1.77	0.48
1:13:600:C:O2	1:13:639:G:N2	2.47	0.48
1:13:881:G:OP2	12:3I:12:ARG:NH2	2.47	0.48
1:13:1018:C:H2'	1:13:1019:C:O4'	2.14	0.48
1:13:1145:C:H4'	1:13:1146:A:H8	1.79	0.48
1:13:1386:G:O2'	1:13:1387:G:H5'	2.13	0.48
12:3I:82:VAL:HG13	12:3I:105:TYR:HB3	1.95	0.48
13:4I:94:ARG:HD3	13:4I:94:ARG:HA	1.54	0.48
20:BI:61:SER:O	20:BI:65:LYS:HB2	2.13	0.48
26:1H:658:C:H2'	26:1H:659:C:C6	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:804:A:P	61:1H:4481:HOH:O	2.70	0.48
26:1H:1266:G:O5'	43:E8:15:ARG:NH2	2.47	0.48
26:1H:1345:C:H2'	26:1H:1346:G:H8	1.77	0.48
26:1H:2553:G:H5''	26:1H:2554:U:OP2	2.14	0.48
32:51:101:ARG:NH2	32:51:122:THR:HA	2.29	0.48
36:78:82:GLY:HA2	36:78:113:LYS:O	2.13	0.48
39:A8:34:HIS:CB	39:A8:36:TYR:HE1	2.24	0.48
1:1G:407:G:C2	1:1G:436:C:C2	3.02	0.48
1:1G:570:G:H1'	1:1G:820:U:C4	2.49	0.48
1:1G:853:G:H2'	1:1G:854:G:H8	1.78	0.48
1:1G:872:A:O2'	1:1G:873:A:H5''	2.13	0.48
1:1G:1281:U:H3'	1:1G:1282:C:C5	2.49	0.48
3:22:11:ARG:NH2	3:22:182:ILE:HD11	2.28	0.48
3:22:140:ARG:NE	3:22:140:ARG:HA	2.29	0.48
10:1A:60:ARG:HE	10:1A:60:ARG:HB3	1.44	0.48
26:14:84:A:H2'	26:14:99:U:O4	2.14	0.48
26:14:399:G:OP2	61:14:3830:HOH:O	2.20	0.48
26:14:1021:A:H8	26:14:1021:A:H3'	1.79	0.48
28:19:11:PRO:C	28:19:13:ARG:H	2.16	0.48
29:29:51:PHE:O	29:29:52:LEU:HB2	2.14	0.48
40:75:8:LYS:HB2	40:75:8:LYS:NZ	2.29	0.48
42:95:12:TYR:CZ	42:95:22:VAL:HG23	2.49	0.48
42:95:35:LEU:HD12	42:95:37:VAL:HG11	1.95	0.48
2:1E:25:ASN:ND2	2:1E:193:ASP:HB3	2.29	0.47
2:1E:189:ASP:HB3	2:1E:191:ASP:HB2	1.96	0.47
2:1E:223:ILE:HA	2:1E:226:ARG:HG2	1.96	0.47
3:2E:114:PRO:O	3:2E:118:GLN:HG3	2.14	0.47
7:6E:143:ARG:HG2	24:3K:41:C:H4'	1.94	0.47
10:1I:81:THR:O	10:1I:85:LEU:HG	2.14	0.47
16:7I:13:HIS:C	16:7I:15:PRO:HD3	2.34	0.47
26:1H:1042:G:H1	26:1H:1113:U:H3	1.62	0.47
26:1H:1174:A:C4	26:1H:1178:C:N4	2.82	0.47
26:1H:1448:G:N2	26:1H:1449:A:N6	2.62	0.47
27:16:116:G:H2'	27:16:117:G:O4'	2.14	0.47
31:41:42:GLY:O	31:41:43:LEU:HD13	2.14	0.47
42:D8:98:GLU:OE2	42:D8:100:ARG:HD3	2.13	0.47
46:H8:69:THR:HA	46:H8:89:PHE:O	2.13	0.47
1:1G:134:A:H61	16:7A:25:ARG:NH1	2.12	0.47
1:1G:198:G:H2'	1:1G:199:G:H8	1.79	0.47
1:1G:824:C:H2'	1:1G:825:G:C8	2.49	0.47
1:1G:994:A:N7	1:1G:1216:G:H4'	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:994:A:C2	14:5A:5:ALA:HB2	2.49	0.47
1:1G:1263:C:N3	1:1G:1273:G:N2	2.62	0.47
14:5A:17:LYS:HZ1	14:5A:18:VAL:HG13	1.77	0.47
26:14:266:G:H2'	26:14:267:C:O5'	2.14	0.47
26:14:443:A:H1'	26:14:1201:C:O4'	2.13	0.47
26:14:480:A:H1'	45:C5:44:ILE:HG12	1.96	0.47
26:14:630:G:N2	26:14:633:A:OP2	2.40	0.47
26:14:839:U:H2'	26:14:840:C:H6	1.79	0.47
26:14:1945:G:H2'	26:14:1946:U:C6	2.49	0.47
28:19:89:SER:HB2	28:19:159:ALA:HB2	1.95	0.47
35:25:119:PRO:HB2	40:75:68:TYR:CE2	2.49	0.47
41:85:108:GLU:HG2	41:85:112:ARG:HD2	1.95	0.47
1:13:359:U:OP1	33:69:87:LYS:HD2	2.15	0.47
1:13:748:C:H6	1:13:748:C:O5'	1.97	0.47
1:13:1331:G:OP2	13:4I:23:TYR:HD1	1.97	0.47
3:2E:94:LEU:HD12	3:2E:95:THR:HG23	1.96	0.47
4:3E:141:ARG:HB2	4:3E:141:ARG:CZ	2.43	0.47
4:3E:192:GLU:H	4:3E:192:GLU:CD	2.14	0.47
9:8E:77:ILE:O	9:8E:81:ILE:HG12	2.13	0.47
10:1I:38:ILE:HG23	10:1I:71:LEU:HB3	1.96	0.47
15:6I:82:ILE:O	15:6I:86:GLY:N	2.47	0.47
20:BI:75:ASN:O	20:BI:79:ARG:HB2	2.14	0.47
21:1F:10:ARG:HA	21:1F:10:ARG:HE	1.78	0.47
26:1H:654(D):G:H22	26:1H:654(Q):C:N4	2.12	0.47
26:1H:1050:A:H2'	26:1H:1051:G:O4'	2.14	0.47
26:1H:1204:A:N6	26:1H:1240:U:H2'	2.29	0.47
26:1H:1494:A:C2'	26:1H:1495:A:H5'	2.44	0.47
26:1H:1754:C:OP1	40:B8:96:ARG:NH1	2.47	0.47
26:1H:2151:G:H2'	26:1H:2152:G:H8	1.79	0.47
26:1H:2309:A:C4	26:1H:2310:A:H8	2.32	0.47
27:16:119:A:H2'	27:16:119:A:N3	2.29	0.47
29:21:60:ASN:OD1	29:21:62:PRO:HD2	2.13	0.47
30:31:129:PHE:O	30:31:130:ALA:HB3	2.15	0.47
31:41:20:ILE:O	31:41:24:GLY:HA2	2.14	0.47
33:61:39:ALA:HB1	33:61:44:LEU:HD13	1.95	0.47
36:78:2:LYS:HD3	36:78:4:SER:HB2	1.96	0.47
36:78:59:LEU:O	55:Q8:13:ARG:HD2	2.14	0.47
39:A8:35:ILE:HG22	39:A8:97:ARG:HH21	1.79	0.47
1:1G:631:G:H3'	1:1G:632:A:C8	2.41	0.47
1:1G:745:C:H2'	1:1G:746:A:C8	2.49	0.47
1:1G:975:A:H4'	1:1G:976:G:C5'	2.42	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1028(A):C:N4	1:1G:1032(B):G:H22	2.12	0.47
1:1G:1067:A:H4'	1:1G:1068:G:O5'	2.13	0.47
2:12:119:GLU:HA	2:12:122:PHE:HB3	1.95	0.47
15:6A:78:TYR:CZ	15:6A:82:ILE:HD12	2.49	0.47
26:14:239:U:H2'	26:14:240:G:O4'	2.13	0.47
26:14:483:A:H1'	45:C5:60:PHE:CE1	2.49	0.47
26:14:717:G:H2'	26:14:718:A:O4'	2.14	0.47
26:14:864:G:C6	26:14:865:C:N4	2.82	0.47
26:14:2685:G:N7	61:14:3614:HOH:O	2.35	0.47
28:19:201:HIS:O	28:19:204:ILE:HG23	2.14	0.47
29:29:9:VAL:HG23	29:29:26:ILE:O	2.14	0.47
29:29:81:ILE:HG22	29:29:82:ARG:N	2.26	0.47
8:7E:49:GLU:HG2	8:7E:62:TYR:HE2	1.79	0.47
9:8E:48:GLU:N	9:8E:49:PRO:HD2	2.28	0.47
26:1H:247:G:H4'	26:1H:386:G:C5	2.49	0.47
26:1H:978:G:C2	26:1H:986:C:C2	3.03	0.47
26:1H:1164:G:H2'	26:1H:1165:U:H6	1.75	0.47
26:1H:2275:C:H5'	26:1H:2275:C:C6	2.46	0.47
27:16:43:C:P	31:41:67:LYS:HZ2	2.37	0.47
33:61:40:THR:HB	33:61:42:SER:H	1.80	0.47
46:H8:3:TYR:O	46:H8:58:VAL:HG22	2.14	0.47
1:1G:216:G:O2'	1:1G:217:C:O5'	2.31	0.47
1:1G:373:A:C2	1:1G:374:A:C8	3.02	0.47
1:1G:1171:G:H2'	1:1G:1172:C:C6	2.50	0.47
1:1G:1404:C:H2'	1:1G:1405:G:C8	2.49	0.47
2:12:32:ILE:HD12	2:12:41:ILE:O	2.14	0.47
12:3A:8:ASN:OD1	17:8A:34:LYS:HE2	2.13	0.47
12:3A:70:ILE:HD13	12:3A:77:LEU:HD12	1.96	0.47
21:1B:25:LYS:HA	21:1B:25:LYS:HD2	1.67	0.47
57:3L:36:A:N1	25:4L:14:A:H2	2.12	0.47
26:14:34:C:H2'	26:14:35:G:H5'	1.95	0.47
26:14:253:C:OP2	55:M5:5:LYS:NZ	2.28	0.47
26:14:491:G:O6	43:A5:49:LYS:HD3	2.15	0.47
26:14:1138:G:C4	26:14:1139:G:H1'	2.49	0.47
26:14:2129:C:H2'	26:14:2130:U:O4'	2.13	0.47
26:14:2535:G:H2'	26:14:2536:G:H8	1.79	0.47
36:35:13:ASN:C	36:35:15:ARG:H	2.16	0.47
38:55:87:TYR:HD1	38:55:90:ARG:HE	1.62	0.47
42:95:13:ARG:NH1	42:95:15:GLU:OE1	2.47	0.47
46:D5:127:LYS:O	46:D5:162:GLU:HB2	2.15	0.47
47:E5:23:VAL:HA	47:E5:38:VAL:HG22	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:981:U:H5	1:13:982:U:HO2'	1.62	0.47
1:13:1464:G:H2'	1:13:1465:C:C6	2.50	0.47
26:1H:66:C:H2'	26:1H:67:U:C6	2.50	0.47
26:1H:409:C:P	61:1H:3749:HOH:O	2.70	0.47
26:1H:1268:A:OP1	61:1H:4447:HOH:O	2.19	0.47
26:1H:1299:G:H3'	26:1H:1639:U:O4	2.14	0.47
26:1H:1317:A:H2'	26:1H:1318:C:H6	1.80	0.47
26:1H:1592:C:H2'	26:1H:1593:G:H8	1.80	0.47
36:78:147:LEU:O	36:78:148:LEU:HD23	2.15	0.47
39:A8:88:ASP:C	39:A8:90:GLY:H	2.17	0.47
43:E8:79:GLY:C	43:E8:100:THR:HG22	2.34	0.47
49:K8:63:VAL:HA	49:K8:66:GLU:HG3	1.96	0.47
1:1G:11:G:N2	1:1G:525:C:O2'	2.38	0.47
1:1G:247:G:OP2	17:8A:100:LYS:HG2	2.14	0.47
1:1G:834:C:H2'	1:1G:835:U:C6	2.49	0.47
1:1G:983:A:H2	1:1G:984:C:C6	2.32	0.47
1:1G:1068:G:N7	1:1G:1094:G:C8	2.82	0.47
1:1G:1227:A:O2'	13:4A:115:LYS:HD2	2.14	0.47
1:1G:1295:G:O2'	13:4A:14:ARG:NH1	2.47	0.47
1:1G:1502:A:H4'	1:1G:1503:A:OP2	2.14	0.47
3:22:9:GLY:N	14:5A:49:HIS:O	2.47	0.47
12:3A:28:LYS:HE3	12:3A:33:ARG:NH1	2.29	0.47
56:1L:12:U:H3	56:1L:23:A:H61	1.61	0.47
56:1L:72:C:H2'	56:1L:73:A:H5''	1.96	0.47
26:14:108:U:H2'	26:14:109:G:H8	1.79	0.47
26:14:374:A:C2	26:14:401:A:C4	3.02	0.47
26:14:459:U:H2'	26:14:460:A:H8	1.79	0.47
26:14:902:C:H2'	26:14:903:C:C6	2.49	0.47
26:14:1533:C:N3	26:14:1534:G:O2'	2.40	0.47
27:1J:21:G:H2'	27:1J:22:U:O4'	2.14	0.47
27:1J:88:C:P	27:1J:88:C:H6	2.38	0.47
29:29:89:ASP:C	29:29:91:VAL:H	2.18	0.47
30:39:20:LEU:HG	30:39:199:TRP:CH2	2.44	0.47
30:39:82:ILE:H	30:39:82:ILE:HG13	1.37	0.47
30:39:141:ALA:O	30:39:144:LYS:HB3	2.15	0.47
38:55:24:GLN:HB2	38:55:44:LEU:HD21	1.96	0.47
54:L5:5:TRP:NE1	54:L5:7:PRO:HG3	2.29	0.47
1:13:1356:G:O2'	1:13:1357:A:H5'	2.14	0.47
12:3I:85:ILE:HA	12:3I:85:ILE:HD13	1.44	0.47
16:7I:21:VAL:HG12	16:7I:33:ILE:HB	1.96	0.47
22:1K:76:A:H8	26:1H:2507:C:H1'	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:14:A:C6	24:3K:22:G:C2	3.02	0.47
26:1H:475:U:C4	26:1H:481:G:O6	2.67	0.47
26:1H:493:G:H2'	26:1H:494:G:O4'	2.15	0.47
26:1H:880:G:H2'	26:1H:881:G:H8	1.79	0.47
26:1H:2243:U:H2'	26:1H:2244:U:C6	2.49	0.47
26:1H:2475:C:H2'	26:1H:2477:C:OP2	2.13	0.47
27:16:100:G:OP1	61:16:315:HOH:O	2.20	0.47
30:31:125:LEU:HD21	30:31:199:TRP:CE3	2.50	0.47
31:41:47:LYS:NZ	31:41:81:LYS:HB2	2.30	0.47
40:B8:84:GLN:HE21	40:B8:85:LYS:HD2	1.78	0.47
44:F8:2:LYS:O	44:F8:3:THR:OG1	2.27	0.47
52:N8:30:LEU:HD23	52:N8:41:PRO:HA	1.95	0.47
1:1G:1040:U:H2'	1:1G:1041:A:C8	2.49	0.47
20:BA:67:ALA:HA	20:BA:73:HIS:HA	1.95	0.47
26:14:6:A:H2'	26:14:7:G:H5'	1.97	0.47
26:14:150:C:H2'	26:14:151:C:C6	2.50	0.47
26:14:1248:G:C8	41:85:3:ARG:HB2	2.49	0.47
26:14:1950:G:N1	26:14:1951:U:O4	2.47	0.47
26:14:2255:G:H21	47:E5:9:SER:HB2	1.79	0.47
26:14:2638:G:O2'	26:14:2639:A:H8	1.97	0.47
28:19:16:MET:HE1	28:19:208:LYS:HD3	1.97	0.47
38:55:32:GLY:HA2	38:55:116:LEU:HD12	1.96	0.47
45:C5:39:VAL:HG23	45:C5:41:GLY:H	1.78	0.47
45:C5:52:SER:H	45:C5:57:GLN:N	2.12	0.47
45:C5:75:ILE:HG23	45:C5:76:CYS:N	2.29	0.47
1:13:486:U:H2'	1:13:487:A:H8	1.79	0.47
1:13:539:A:OP2	12:3I:115:LYS:HE2	2.14	0.47
1:13:963:G:C2	10:1I:55:LYS:NZ	2.83	0.47
1:13:1002:G:C4	1:13:1003:G:C8	3.02	0.47
3:2E:58:GLU:CB	3:2E:65:ALA:HB3	2.44	0.47
12:3I:110:VAL:CG2	12:3I:120:TYR:HB3	2.44	0.47
18:9I:59:SER:OG	18:9I:60:ALA:N	2.46	0.47
26:1H:483:A:O4'	45:G8:48:ALA:HB1	2.14	0.47
26:1H:720:C:H2'	26:1H:721:C:C6	2.49	0.47
26:1H:761:A:OP2	61:1H:4111:HOH:O	2.20	0.47
26:1H:1519:G:C2'	26:1H:1520:U:H5'	2.45	0.47
26:1H:2388:A:C2'	26:1H:2389:G:H5'	2.44	0.47
26:1H:2679:A:H4'	29:21:165:VAL:HG11	1.97	0.47
26:1H:2695:C:H2'	26:1H:2696:U:H6	1.79	0.47
40:B8:99:LEU:HB3	40:B8:101:PHE:HE1	1.78	0.47
44:F8:36:LYS:HE2	44:F8:54:VAL:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:I8:7:LEU:O	47:I8:11:ARG:HG2	2.14	0.47
1:1G:56:U:H2'	1:1G:57:G:C8	2.50	0.47
1:1G:468:A:C6	1:1G:474:G:H1'	2.50	0.47
4:32:126:ILE:HG22	4:32:127:THR:N	2.30	0.47
4:32:200:GLU:O	4:32:204:ILE:HG12	2.14	0.47
6:52:15:ASP:O	6:52:19:LEU:HB2	2.14	0.47
21:1B:2:GLY:O	21:1B:5:ASP:N	2.38	0.47
26:14:438:G:H2'	26:14:439:G:H8	1.80	0.47
26:14:1047:G:H21	26:14:1111:A:H62	1.63	0.47
26:14:1048:A:H61	26:14:1112:G:HO2'	1.54	0.47
26:14:1593:G:H2'	26:14:1594:G:H8	1.76	0.47
26:14:1939:U:OP1	26:14:2604:U:O2'	2.30	0.47
26:14:2228:G:P	28:19:263:ARG:HH21	2.37	0.47
30:39:129:PHE:HA	30:39:142:TRP:CD1	2.49	0.47
32:59:105:LEU:HG	32:59:113:VAL:HG13	1.95	0.47
42:95:76:LYS:HD2	42:95:80:GLN:O	2.13	0.47
46:D5:60:GLU:HA	46:D5:66:SER:HA	1.96	0.47
48:F5:49:VAL:HG21	48:F5:67:ILE:HD12	1.96	0.47
1:13:390:C:O3'	16:7I:28:ARG:NH2	2.48	0.47
1:13:593:G:H2'	1:13:594:G:H8	1.79	0.47
1:13:600:C:H2'	1:13:601:C:C6	2.49	0.47
1:13:1000:A:H2'	1:13:1001:G:H8	1.76	0.47
1:13:1020:U:H2'	1:13:1021:G:C8	2.50	0.47
1:13:1129:C:N4	1:13:1139:G:H1	2.13	0.47
1:13:1203:C:H2'	1:13:1204:A:O4'	2.15	0.47
1:13:1366:C:H2'	1:13:1367:C:C6	2.49	0.47
2:1E:11:LEU:HB3	2:1E:213:LEU:HD11	1.96	0.47
2:1E:76:GLN:O	2:1E:80:ILE:HD13	2.15	0.47
5:4E:72:GLN:O	5:4E:75:THR:HG22	2.14	0.47
6:5E:44:GLY:HA2	6:5E:59:TYR:CZ	2.50	0.47
9:8E:121:ARG:NH1	9:8E:122:ALA:O	2.44	0.47
20:BI:14:LYS:HG3	20:BI:17:ARG:HH21	1.79	0.47
24:3K:18:G:O2'	24:3K:19:G:OP1	2.29	0.47
24:3K:19:G:H4'	24:3K:57:G:H21	1.79	0.47
26:1H:270(G):C:H2'	26:1H:270(H):C:O4'	2.15	0.47
26:1H:392:C:P	61:1H:3752:HOH:O	2.72	0.47
26:1H:602:G:O2'	26:1H:604:G:O2'	2.28	0.47
26:1H:674:G:O2'	30:31:74:ARG:HD3	2.15	0.47
26:1H:945:A:OP2	26:1H:945:A:H4'	2.14	0.47
26:1H:1203:G:H3'	26:1H:1204:A:H5''	1.96	0.47
26:1H:1270:C:H5''	26:1H:1271:G:O5'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2128:C:H2'	26:1H:2129:C:H6	1.80	0.47
26:1H:2176:A:H2'	26:1H:2177:C:C6	2.48	0.47
26:1H:2432:A:P	61:1H:3931:HOH:O	2.67	0.47
26:1H:2636:U:OP1	29:21:80:GLU:HG3	2.14	0.47
26:1H:2734:A:H3'	26:1H:2735:G:H8	1.80	0.47
31:41:61:ALA:HA	31:41:66:GLN:O	2.14	0.47
31:41:94:LEU:N	31:41:94:LEU:HD23	2.30	0.47
32:51:10:PRO:HD2	32:51:50:VAL:O	2.14	0.47
34:58:23:LEU:HD12	34:58:23:LEU:HA	1.59	0.47
38:98:48:VAL:O	38:98:51:LEU:N	2.47	0.47
38:98:53:HIS:ND1	38:98:94:TYR:OH	2.41	0.47
41:C8:65:ILE:CD1	41:C8:95:LEU:HD22	2.42	0.47
41:C8:88:ILE:HD11	41:C8:112:ARG:HB3	1.97	0.47
45:G8:34:LYS:O	45:G8:34:LYS:HG2	2.15	0.47
48:J8:83:GLU:CD	48:J8:85:LEU:HB2	2.34	0.47
54:P8:15:THR:HG22	54:P8:16:HIS:CE1	2.50	0.47
1:1G:90:C:H2'	1:1G:91:C:C6	2.50	0.47
1:1G:468:A:C5	1:1G:474:G:H1'	2.49	0.47
1:1G:619:U:N3	4:32:134:ASP:OD1	2.48	0.47
1:1G:633:G:H8	1:1G:633:G:O5'	1.96	0.47
1:1G:689:C:H3'	1:1G:690:G:H21	1.79	0.47
1:1G:727:G:N2	1:1G:730:G:OP2	2.41	0.47
1:1G:801:U:H2'	1:1G:802:A:H8	1.79	0.47
1:1G:1127:G:H1'	1:1G:1148:U:N3	2.29	0.47
1:1G:1286:A:H2	21:1B:18:TYR:HH	1.62	0.47
2:12:101:MET:O	2:12:105:PHE:HB2	2.15	0.47
3:22:21:ARG:O	3:22:58:GLU:HA	2.14	0.47
3:22:33:LEU:O	3:22:36:ASP:N	2.47	0.47
3:22:37:GLN:O	3:22:40:ARG:N	2.48	0.47
6:52:39:LYS:HE3	6:52:64:GLN:NE2	2.29	0.47
7:62:63:LYS:HG3	7:62:64:GLN:N	2.29	0.47
7:62:93:PRO:HG2	7:62:94:ARG:HD3	1.97	0.47
10:1A:24:VAL:HG21	10:1A:37:PRO:HG3	1.95	0.47
17:8A:59:ILE:HD13	17:8A:73:VAL:HA	1.97	0.47
19:AA:66:MET:N	19:AA:67:VAL:HB	2.29	0.47
57:3L:10:G:P	57:3L:46:7MG:H5'	2.55	0.47
26:14:92:G:H2'	26:14:93:C:C6	2.49	0.47
26:14:198:C:H5'	26:14:2244:U:OP1	2.15	0.47
26:14:528:A:H3'	26:14:528:A:C8	2.49	0.47
26:14:843:G:H1	26:14:935:C:H42	1.63	0.47
26:14:1839:G:H2'	26:14:1839:G:N3	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1950:G:C2	26:14:1951:U:C5	3.02	0.47
26:14:2017:U:P	61:14:3670:HOH:O	2.72	0.47
26:14:2101:G:H2'	26:14:2102:U:O4'	2.14	0.47
26:14:2271:G:H5''	47:E5:20:ARG:NE	2.30	0.47
26:14:2400:G:H3'	26:14:2401:U:C6	2.50	0.47
26:14:2762:G:H5''	61:14:3913:HOH:O	2.14	0.47
26:14:2887:U:H2'	26:14:2888:C:C6	2.50	0.47
27:1J:64:C:H2'	27:1J:65:C:C6	2.50	0.47
27:1J:101:A:OP2	27:1J:101:A:H8	1.96	0.47
29:29:101:ARG:HG3	29:29:203:LYS:HD3	1.96	0.47
30:39:8:GLN:OE1	30:39:9:ILE:HB	2.15	0.47
30:39:46:ARG:HG2	30:39:46:ARG:NH1	2.27	0.47
34:15:61:ARG:HA	34:15:61:ARG:NE	2.29	0.47
34:15:134:ARG:O	34:15:134:ARG:HG2	2.14	0.47
35:25:98:VAL:CG1	35:25:117:LEU:HB3	2.45	0.47
37:45:35:VAL:HG12	37:45:36:ALA:N	2.29	0.47
41:85:88:ILE:HG22	41:85:90:VAL:CG2	2.45	0.47
42:95:19:LYS:H	42:95:19:LYS:HG3	1.47	0.47
42:95:71:LEU:H	42:95:86:GLY:CA	2.27	0.47
45:C5:67:LEU:HG	45:C5:71:LYS:HE3	1.97	0.47
48:F5:80:LEU:HD23	48:F5:82:LEU:HD21	1.96	0.47
1:13:1454:G:OP1	20:BI:39:LYS:NZ	2.37	0.47
2:1E:5:ILE:HG13	2:1E:6:THR:N	2.29	0.47
2:1E:82:ARG:HG3	2:1E:92:TYR:OH	2.15	0.47
2:1E:115:LEU:HD13	2:1E:145:LEU:HB3	1.96	0.47
5:4E:20:GLN:HG2	5:4E:21:ALA:H	1.79	0.47
20:BI:10:LEU:HG	20:BI:12:ALA:H	1.80	0.47
23:2K:63:C:O2	23:2K:64:G:C8	2.67	0.47
26:1H:723:G:H2'	26:1H:724:U:O4'	2.14	0.47
26:1H:998:C:H3'	61:1H:4022:HOH:O	2.13	0.47
26:1H:1021:A:C8	26:1H:1021:A:C3'	2.98	0.47
26:1H:1668:A:OP1	35:68:5:GLN:HG3	2.15	0.47
26:1H:2154:G:O2'	26:1H:2155:G:H8	1.97	0.47
30:31:8:GLN:CD	30:31:8:GLN:N	2.66	0.47
31:41:110:ALA:HA	31:41:140:ILE:O	2.14	0.47
37:88:14:ARG:HG2	37:88:41:TRP:HH2	1.79	0.47
45:G8:29:GLU:HB3	45:G8:38:ILE:CG2	2.44	0.47
55:Q8:34:TRP:C	55:Q8:34:TRP:HD1	2.15	0.47
1:1G:188:U:O2'	1:1G:189:U:H5'	2.15	0.47
1:1G:1080:A:H5'	5:42:14:ARG:HH22	1.80	0.47
1:1G:1499:A:H1'	1:1G:1520:G:H5'	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:77:ILE:HA	3:22:84:ILE:HB	1.97	0.47
4:32:9:CYS:O	4:32:12:CYS:HB2	2.15	0.47
5:42:14:ARG:O	5:42:16:THR:HG22	2.14	0.47
15:6A:55:GLY:O	15:6A:59:MET:HG3	2.15	0.47
26:14:125:G:H5''	54:L5:19:ARG:HD3	1.97	0.47
26:14:363:G:H2'	26:14:363(A):A:C8	2.40	0.47
26:14:469:G:C6	54:L5:39:ARG:NH1	2.83	0.47
26:14:654(J):A:H5'	26:14:654(K):C:OP2	2.14	0.47
26:14:996:A:H4'	41:85:92:ARG:CZ	2.45	0.47
26:14:1011:G:C2	26:14:1151:G:C2	3.03	0.47
26:14:1386:C:H2'	26:14:1387:C:H6	1.78	0.47
26:14:2469:A:H2	26:14:2481:G:H21	1.61	0.47
33:69:77:LEU:HA	33:69:141:LYS:HB2	1.97	0.47
35:25:88:ASN:HB3	35:25:94:ARG:HD3	1.96	0.47
40:75:77:PRO:HG2	40:75:80:SER:HB2	1.97	0.47
42:95:35:LEU:C	42:95:37:VAL:HG13	2.34	0.47
45:C5:100:ALA:O	45:C5:102:CYS:SG	2.73	0.47
46:D5:106:GLY:HA3	46:D5:140:ASP:OD1	2.15	0.47
1:13:838:G:H1	1:13:848:C:H42	1.62	0.47
1:13:1464:G:H2'	1:13:1465:C:H6	1.79	0.47
4:3E:92:VAL:O	4:3E:96:LEU:HD22	2.15	0.47
8:7E:36:LEU:HA	8:7E:39:LEU:HB2	1.97	0.47
9:8E:79:LEU:HD22	9:8E:83:ARG:HG3	1.97	0.47
11:2I:73:MET:HG3	11:2I:103:LEU:HD22	1.97	0.47
15:6I:39:LEU:HD13	15:6I:56:LEU:HB2	1.96	0.47
19:AI:65:ASN:OD1	19:AI:65:ASN:N	2.48	0.47
26:1H:466:A:H5''	26:1H:467:G:OP2	2.15	0.47
26:1H:960:A:C8	26:1H:962:G:C8	3.03	0.47
26:1H:2863:C:O2'	26:1H:2864:G:H5'	2.14	0.47
31:41:98:ARG:NH2	51:M8:1:MET:HG3	2.30	0.47
33:61:12:LEU:HG	33:61:19:VAL:HG21	1.97	0.47
41:C8:85:LYS:HA	41:C8:85:LYS:NZ	2.30	0.47
46:H8:117:LEU:HD22	46:H8:118:GLN:H	1.78	0.47
46:H8:128:VAL:CB	46:H8:161:VAL:HG21	2.45	0.47
52:N8:41:PRO:CD	52:N8:44:THR:HG21	2.44	0.47
1:1G:50:A:N1	1:1G:360:A:O2'	2.42	0.47
1:1G:516:U:O2'	1:1G:519:C:N3	2.46	0.47
1:1G:1157:A:H1'	1:1G:1181:G:H21	1.79	0.47
1:1G:1224:G:N1	1:1G:1322:C:H1'	2.29	0.47
1:1G:1298:C:H1'	1:1G:1299:A:C6	2.50	0.47
1:1G:1498:U:O2	1:1G:1499:A:N6	2.42	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:111:ARG:HA	2:12:111:ARG:HH11	1.80	0.47
6:52:2:ARG:HH21	6:52:69:GLU:HG3	1.80	0.47
23:2L:9:G:H21	23:2L:46:G:H3'	1.80	0.47
23:2L:38:A:H2'	23:2L:39:A:O4'	2.14	0.47
26:14:71:A:C2	44:B5:31:HIS:NE2	2.78	0.47
26:14:265:A:N6	26:14:427:U:O2'	2.45	0.47
26:14:333:G:H5''	26:14:334:C:OP2	2.15	0.47
26:14:442:G:C6	26:14:444:C:N4	2.83	0.47
26:14:1078:U:H1'	26:14:1088:A:C2	2.50	0.47
26:14:2527:C:N4	26:14:2528:U:C4	2.83	0.47
26:14:2655:G:N2	26:14:2665:A:OP2	2.38	0.47
28:19:141:VAL:HG23	28:19:162:SER:HB2	1.96	0.47
31:49:106:LEU:O	31:49:111:LEU:HG	2.14	0.47
31:49:135:LEU:HD23	31:49:140:ILE:HD11	1.97	0.47
36:35:60:MET:C	36:35:61:ARG:HG2	2.34	0.47
36:35:64:LYS:HD2	55:M5:30:ARG:HH12	1.79	0.47
38:55:107:ASP:C	38:55:107:ASP:OD1	2.53	0.47
42:95:35:LEU:HB2	42:95:37:VAL:CG1	2.44	0.47
45:C5:40:GLU:N	45:C5:40:GLU:OE2	2.48	0.47
51:I5:53:GLU:OE2	51:I5:55:ARG:N	2.38	0.47
55:M5:29:LYS:HG2	55:M5:44:LYS:HB3	1.97	0.47
1:13:976:G:OP1	14:5I:32:SER:N	2.48	0.47
1:13:1286:A:N3	21:1F:18:TYR:OH	2.48	0.47
7:6E:92:SER:O	7:6E:96:GLN:HG3	2.15	0.47
7:6E:113:GLU:HG2	7:6E:119:ARG:HG2	1.96	0.47
11:2I:59:TYR:CZ	11:2I:63:LEU:HD11	2.49	0.47
12:3I:84:LEU:HB2	12:3I:105:TYR:CE2	2.50	0.47
26:1H:274:G:H8	26:1H:274:G:H3'	1.80	0.47
26:1H:618:G:H2'	26:1H:618(A):C:C6	2.50	0.47
26:1H:1058:U:H3	26:1H:1080:A:H61	1.63	0.47
26:1H:1671:U:OP2	61:1H:3662:HOH:O	2.19	0.47
26:1H:1830:C:C2'	26:1H:1831:G:H5'	2.45	0.47
31:41:53:LEU:HD12	31:41:53:LEU:HA	1.69	0.47
32:51:166:GLY:O	32:51:167:GLU:HG2	2.15	0.47
41:C8:19:LYS:O	41:C8:22:LYS:HG3	2.15	0.47
45:G8:64:GLU:H	45:G8:64:GLU:HG2	1.40	0.47
55:Q8:33:ASN:O	55:Q8:34:TRP:CD1	2.68	0.47
55:Q8:47:LYS:NZ	55:Q8:47:LYS:CA	2.74	0.47
1:1G:1028:C:H2'	1:1G:1028(A):C:O4'	2.14	0.47
1:1G:1258:G:H2'	1:1G:1259:C:C6	2.47	0.47
1:1G:1286:A:H3'	1:1G:1286:A:H8	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1347:G:N2	1:1G:1373:G:H2'	2.30	0.47
2:12:92:TYR:CD1	2:12:151:GLY:HA3	2.50	0.47
6:52:33:TYR:OH	6:52:78:GLU:HG3	2.15	0.47
7:62:45:ASP:O	7:62:49:ILE:HG13	2.15	0.47
7:62:116:ALA:HA	7:62:119:ARG:NE	2.25	0.47
9:82:27:THR:HG1	9:82:28:VAL:H	1.63	0.47
13:4A:71:ARG:O	13:4A:75:ALA:N	2.48	0.47
18:9A:78:LEU:O	18:9A:79:LEU:HD23	2.15	0.47
26:14:35:G:H2'	26:14:36:G:O4'	2.15	0.47
26:14:71:A:OP2	26:14:71:A:H3'	2.14	0.47
26:14:2158:A:H1'	26:14:2159:G:C8	2.49	0.47
26:14:2294:C:OP2	39:65:89:ARG:NH2	2.48	0.47
26:14:2772:C:H2'	26:14:2773:C:C6	2.50	0.47
32:59:6:ARG:HD3	32:59:54:ARG:HH12	1.79	0.47
35:25:22:ILE:HA	35:25:22:ILE:HD13	1.46	0.47
45:C5:51:VAL:HA	45:C5:57:GLN:HA	1.96	0.47
46:D5:60:GLU:HB2	46:D5:66:SER:OG	2.15	0.47
46:D5:146:ILE:HG13	46:D5:147:GLY:H	1.79	0.47
1:13:438:G:H4'	4:3E:123:HIS:CD2	2.51	0.46
1:13:864:A:H5''	1:13:865:A:OP2	2.14	0.46
1:13:1032(A):G:H2'	1:13:1032(B):G:N7	2.30	0.46
1:13:1132:C:H2'	1:13:1133:G:C8	2.50	0.46
7:6E:26:PHE:CE2	7:6E:30:ILE:HD11	2.49	0.46
16:7I:23:ASP:OD1	16:7I:25:ARG:HG3	2.15	0.46
26:1H:1019:U:O2'	26:1H:1021:A:C2	2.67	0.46
26:1H:1268:A:H2'	26:1H:1269:A:O4'	2.15	0.46
26:1H:1387:C:C2	26:1H:1388:G:C8	3.02	0.46
26:1H:1680:U:H2'	26:1H:1681:G:O4'	2.15	0.46
26:1H:2249:U:C5	61:1H:3722:HOH:O	2.67	0.46
29:21:131:ALA:HB1	29:21:135:HIS:HE1	1.80	0.46
34:58:40:PRO:CB	41:C8:68:ALA:HB2	2.44	0.46
37:88:35:VAL:HA	37:88:101:ARG:O	2.15	0.46
46:H8:128:VAL:HB	46:H8:161:VAL:HG21	1.97	0.46
55:Q8:7:HIS:HD1	55:Q8:10:ALA:H	1.62	0.46
55:Q8:8:LYS:HD2	55:Q8:8:LYS:N	2.30	0.46
1:1G:677:U:O2'	1:1G:678:U:H5'	2.15	0.46
1:1G:857:C:H2'	1:1G:858:G:O4'	2.15	0.46
1:1G:865:A:O5'	1:1G:865:A:H8	1.98	0.46
1:1G:1227:A:C8	1:1G:1227:A:H3'	2.49	0.46
1:1G:1265:G:H2'	1:1G:1266:G:O4'	2.15	0.46
1:1G:1443:G:O2'	40:75:122:ASP:OD2	2.32	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1466:C:H2'	1:1G:1467:G:O4'	2.15	0.46
1:1G:1495:U:O4	59:1G:1697:PAR:N12	2.47	0.46
5:42:41:VAL:O	5:42:67:VAL:HG12	2.15	0.46
9:82:26:VAL:HG13	9:82:61:ALA:O	2.15	0.46
57:3L:8:4SU:H2'	57:3L:13:C:H41	1.80	0.46
57:3L:8:4SU:H2'	57:3L:13:C:N4	2.30	0.46
26:14:747:U:O2	26:14:2014:A:H1'	2.15	0.46
26:14:962:G:H2'	26:14:963:U:C6	2.50	0.46
26:14:1449(A):G:H2'	26:14:1450:C:C6	2.50	0.46
26:14:1511:A:H3'	26:14:1512:G:H8	1.80	0.46
26:14:1614:A:H2	61:14:3509:HOH:O	1.97	0.46
26:14:2104:G:H2'	26:14:2105:C:C6	2.50	0.46
26:14:2839:G:H5'	38:55:46:GLY:CA	2.44	0.46
29:29:57:LYS:HA	29:29:57:LYS:HD3	1.76	0.46
38:55:55:ALA:HB2	38:55:79:LEU:HD13	1.97	0.46
46:D5:130:PRO:HA	46:D5:133:ILE:HD11	1.97	0.46
46:D5:155:LEU:HD12	46:D5:163:LEU:HD13	1.96	0.46
1:13:156:G:H1	1:13:165:C:H42	1.63	0.46
1:13:1312:G:H5'	19:AI:6:LYS:NZ	2.30	0.46
2:1E:5:ILE:HG13	2:1E:6:THR:H	1.79	0.46
7:6E:16:LEU:HD21	9:8E:45:ALA:HB2	1.97	0.46
15:6I:21:ASP:OD2	15:6I:24:SER:HB3	2.15	0.46
22:1K:54:5MU:H2'	22:1K:55:PSU:O4'	2.15	0.46
26:1H:356:G:H2'	26:1H:357:A:H8	1.79	0.46
26:1H:495:G:O2'	43:E8:62:HIS:HE1	1.98	0.46
26:1H:801:G:OP2	61:1H:4224:HOH:O	2.20	0.46
26:1H:1124:C:H2'	26:1H:1125:G:O4'	2.16	0.46
26:1H:1494:A:O2'	26:1H:1495:A:H5'	2.16	0.46
26:1H:1728:G:H2'	26:1H:1731:G:O6	2.15	0.46
26:1H:2061:G:OP1	61:1H:3626:HOH:O	2.20	0.46
26:1H:2315:G:H2'	26:1H:2316:C:C6	2.50	0.46
26:1H:2378:A:H2'	39:A8:21:THR:HG21	1.97	0.46
26:1H:2698:U:H2'	26:1H:2699:C:C6	2.50	0.46
42:D8:79:VAL:HG13	42:D8:81:TYR:HB3	1.96	0.46
46:H8:7:ALA:HB3	46:H8:61:LEU:CB	2.45	0.46
50:L8:31:LEU:O	50:L8:32:GLN:HB2	2.14	0.46
55:Q8:14:VAL:O	55:Q8:15:LYS:HD3	2.15	0.46
1:1G:134:A:H61	16:7A:25:ARG:HH12	1.63	0.46
1:1G:607:A:H2'	1:1G:608:A:O4'	2.15	0.46
1:1G:992:U:H3	1:1G:1044:A:H62	1.64	0.46
3:22:21:ARG:HB3	3:22:21:ARG:HH11	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:101:ILE:H	5:42:101:ILE:HD13	1.80	0.46
26:14:819:A:OP2	26:14:1187:G:N2	2.48	0.46
26:14:1257:C:H4'	30:39:83:PHE:CE1	2.49	0.46
26:14:2184:G:H2'	26:14:2185:C:C6	2.50	0.46
26:14:2209:C:H1'	26:14:2216:G:N2	2.29	0.46
26:14:2232:U:P	48:F5:40:ARG:HH12	2.39	0.46
26:14:2262:U:OP1	47:E5:19:LYS:HE2	2.14	0.46
26:14:2882:A:H5'	38:55:96:ARG:HG3	1.96	0.46
27:1J:9:G:H5'	39:65:25:ARG:HH12	1.80	0.46
32:59:6:ARG:HB2	32:59:66:GLY:HA2	1.98	0.46
37:45:74:TYR:O	37:45:89:ASN:HB2	2.15	0.46
1:13:167:G:H2'	1:13:168:G:C8	2.50	0.46
1:13:639:G:N2	1:13:640:A:C4	2.84	0.46
1:13:948:C:O2'	1:13:949:A:H5'	2.14	0.46
1:13:1124:G:H5'	10:1I:35:SER:HB2	1.97	0.46
1:13:1151:A:O2'	1:13:1152:A:H8	1.98	0.46
1:13:1160:G:H22	1:13:1177:G:N2	2.14	0.46
4:3E:126:ILE:HG22	4:3E:127:THR:N	2.31	0.46
4:3E:155:LEU:O	4:3E:158:ILE:N	2.49	0.46
8:7E:109:ILE:HD11	8:7E:120:THR:CG2	2.45	0.46
12:3I:28:LYS:HD3	12:3I:28:LYS:HA	1.58	0.46
18:9I:66:LEU:O	18:9I:70:ILE:HG13	2.15	0.46
19:AI:40:ILE:HD11	19:AI:62:ILE:CG2	2.44	0.46
22:1K:9:A:O2'	22:1K:10:G:H5'	2.15	0.46
26:1H:598:G:H2'	26:1H:599:G:O4'	2.15	0.46
26:1H:1443:G:N2	26:1H:1549:C:C2	2.84	0.46
26:1H:1678:G:N2	26:1H:1989:G:N2	2.56	0.46
26:1H:1771:C:H1'	26:1H:1786:A:C8	2.50	0.46
26:1H:1899:G:O2'	26:1H:1900:A:OP2	2.29	0.46
31:41:9:ARG:HG2	31:41:13:GLU:CD	2.36	0.46
31:41:117:PHE:CZ	31:41:119:GLY:HA2	2.51	0.46
53:O8:9:LEU:HB3	53:O8:26:ASN:O	2.15	0.46
1:1G:235:C:H5'	17:8A:70:ARG:HG2	1.98	0.46
1:1G:885:G:O2'	1:1G:914:A:N1	2.35	0.46
1:1G:1240:U:H1'	7:62:38:LEU:HD21	1.97	0.46
1:1G:1521:G:H2'	1:1G:1522:U:H6	1.80	0.46
9:82:23:ASN:HD22	9:82:23:ASN:H	1.63	0.46
13:4A:14:ARG:HD2	13:4A:42:ALA:HA	1.98	0.46
26:14:210:C:OP2	54:L5:29:LYS:NZ	2.48	0.46
26:14:1568:G:P	28:19:63:ARG:HH12	2.38	0.46
26:14:1750:G:H2'	26:14:1751:C:H6	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2543:G:H1'	26:14:2766:G:H5'	1.96	0.46
26:14:2729:G:H2'	26:14:2730:C:H6	1.80	0.46
27:1J:41:U:O4	31:49:70:VAL:HG23	2.15	0.46
27:1J:42:C:O2'	31:49:67:LYS:O	2.23	0.46
28:19:267:SER:C	28:19:269:PHE:N	2.67	0.46
38:55:30:THR:HG22	38:55:31:HIS:CD2	2.50	0.46
49:G5:10:LEU:HD12	49:G5:10:LEU:HA	1.78	0.46
52:J5:18:ALA:O	52:J5:21:SER:HB3	2.15	0.46
2:1E:111:ARG:HG2	2:1E:111:ARG:NH1	2.11	0.46
7:6E:12:LEU:HD21	7:6E:28:ASN:ND2	2.31	0.46
8:7E:54:ASP:O	8:7E:56:LYS:HG3	2.16	0.46
16:7I:38:TYR:CZ	16:7I:50:LYS:HB2	2.51	0.46
22:1K:74:C:O2'	22:1K:75:C:P	2.74	0.46
26:1H:192:C:O2'	26:1H:802:A:N3	2.45	0.46
26:1H:270(L):U:H3	33:61:50:ARG:NE	2.13	0.46
26:1H:1013:C:O2'	26:1H:1014:U:H5'	2.16	0.46
26:1H:1077:A:H3'	26:1H:1078:U:C5'	2.45	0.46
26:1H:1187:G:H5''	42:D8:81:TYR:CE2	2.49	0.46
26:1H:1630:G:H2'	26:1H:1630(A):C:C6	2.51	0.46
26:1H:2467:C:H4'	37:88:123:HIS:CD2	2.49	0.46
27:16:12:C:H2'	47:I8:73:GLY:HA3	1.96	0.46
29:21:13:ARG:O	29:21:14:ILE:HD13	2.15	0.46
36:78:76:LYS:HD3	36:78:76:LYS:HA	1.68	0.46
38:98:81:ASP:OD1	38:98:81:ASP:N	2.48	0.46
42:D8:24:LYS:HA	42:D8:92:THR:HG23	1.96	0.46
44:F8:1:MET:C	44:F8:3:THR:N	2.69	0.46
46:H8:117:LEU:HD22	46:H8:118:GLN:N	2.31	0.46
55:Q8:57:ARG:CZ	55:Q8:57:ARG:O	2.63	0.46
1:1G:741:G:H2'	1:1G:742:G:O4'	2.15	0.46
1:1G:778:G:O2'	11:2A:119:CYS:HB3	2.15	0.46
1:1G:1036:G:H5'	1:1G:1037:C:OP2	2.14	0.46
1:1G:1227:A:H3'	1:1G:1227:A:H8	1.80	0.46
1:1G:1260:C:OP1	1:1G:1284:C:H4'	2.15	0.46
1:1G:1448:C:H2'	1:1G:1449:C:O4'	2.16	0.46
7:62:25:ALA:HA	7:62:28:ASN:ND2	2.30	0.46
10:1A:32:ALA:HA	10:1A:76:ASN:HB2	1.97	0.46
57:3L:36:A:C6	25:4L:14:A:H2	2.33	0.46
26:14:127:A:H5''	26:14:128:C:C6	2.51	0.46
26:14:1022:G:C6	26:14:1140:C:C4	3.04	0.46
26:14:1287:A:C5	26:14:1288:U:C4	3.03	0.46
26:14:1971:A:P	28:19:242:ARG:HH22	2.38	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2074:U:H2'	26:14:2075:U:C6	2.50	0.46
26:14:2113:U:O4	26:14:2168:G:O2'	2.25	0.46
26:14:2427:C:H5''	26:14:2428:G:OP1	2.15	0.46
26:14:2872:G:C4	26:14:2873:A:C2	3.04	0.46
28:19:36:PRO:HA	28:19:61:LEU:HD12	1.97	0.46
29:29:35:GLN:O	29:29:48:GLN:HB2	2.15	0.46
31:49:104:GLU:HG2	51:I5:23:GLU:HG2	1.97	0.46
32:59:20:ALA:HB1	32:59:23:ARG:HG3	1.96	0.46
33:69:6:LEU:HD13	33:69:37:VAL:CG2	2.45	0.46
33:69:82:ARG:O	33:69:89:TYR:HD2	1.98	0.46
36:35:36:LYS:HB3	36:35:37:GLY:H	1.62	0.46
47:E5:26:TYR:O	47:E5:29:GLN:HB2	2.16	0.46
51:I5:16:CYS:HA	51:I5:33:VAL:HG13	1.98	0.46
52:J5:36:CYS:SG	52:J5:49:CYS:HB3	2.56	0.46
1:13:603:U:H2'	1:13:604:G:C8	2.50	0.46
1:13:659:U:C2	1:13:660:G:C8	3.02	0.46
1:13:963:G:H21	10:1I:55:LYS:HE2	1.79	0.46
1:13:973:G:H4'	10:1I:54:PHE:O	2.16	0.46
1:13:1226:C:H4'	19:AI:80:TYR:CZ	2.50	0.46
1:13:1351:U:H2'	1:13:1352:C:H6	1.81	0.46
3:2E:92:ALA:HA	3:2E:95:THR:OG1	2.15	0.46
4:3E:8:VAL:CG1	4:3E:21:LEU:HB2	2.46	0.46
5:4E:33:VAL:HG11	5:4E:109:ILE:HG12	1.98	0.46
18:9I:26:LEU:HB3	18:9I:42:ARG:HH22	1.79	0.46
26:1H:26:G:C6	26:1H:27:G:N1	2.83	0.46
26:1H:719:C:H2'	26:1H:720:C:H6	1.80	0.46
26:1H:1047:G:H2'	26:1H:1110:G:C2	2.50	0.46
26:1H:1301:A:H2	26:1H:1626:G:H21	1.61	0.46
26:1H:1337:G:C4	26:1H:1338:G:C8	3.04	0.46
26:1H:1364:G:OP2	48:J8:2:SER:OG	2.30	0.46
26:1H:1820:U:C2	28:11:202:LYS:HB3	2.51	0.46
26:1H:2291:U:H2'	26:1H:2292:C:C6	2.51	0.46
26:1H:2882:A:OP1	38:98:96:ARG:NH1	2.48	0.46
26:1H:2886:G:O2'	52:N8:31:VAL:HG22	2.16	0.46
28:11:108:PRO:HD2	28:11:111:LEU:HG	1.98	0.46
29:21:201:THR:HG22	29:21:203:LYS:H	1.80	0.46
31:41:107:LEU:HD21	31:41:178:PHE:CD1	2.51	0.46
32:51:4:ILE:HG21	32:51:6:ARG:HH11	1.75	0.46
35:68:104:ARG:NH1	40:B8:36:GLU:OE2	2.48	0.46
41:C8:66:ASN:HB2	41:C8:76:TYR:HB2	1.98	0.46
1:1G:406:G:C2	1:1G:407:G:C8	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:801:U:H2'	1:1G:802:A:C8	2.50	0.46
1:1G:1048:G:O4'	1:1G:1215:G:H4'	2.16	0.46
1:1G:1306:A:C6	1:1G:1307:U:C2	3.04	0.46
1:1G:1371:G:OP1	9:82:11:LYS:HB3	2.15	0.46
1:1G:1443:G:N2	40:75:119:LYS:HB2	2.31	0.46
4:32:105:VAL:HG13	4:32:110:PHE:HB2	1.98	0.46
4:32:156:GLU:H	4:32:156:GLU:HG3	1.54	0.46
7:62:50:ILE:HG21	7:62:58:PRO:HA	1.98	0.46
16:7A:49:LEU:HD11	16:7A:51:VAL:HG23	1.98	0.46
26:14:459:U:H2'	26:14:460:A:C8	2.50	0.46
26:14:1021:A:H3'	26:14:1021:A:C8	2.51	0.46
26:14:1427:A:H4'	26:14:1428:C:O4'	2.16	0.46
26:14:1753:G:N1	26:14:1756:G:C2	2.83	0.46
29:29:120:TRP:CD2	29:29:155:LYS:HD3	2.50	0.46
37:45:110:THR:HG23	37:45:113:GLN:NE2	2.30	0.46
44:B5:36:LYS:HA	44:B5:39:ILE:HD12	1.97	0.46
1:13:501:C:H2'	1:13:502:G:C8	2.50	0.46
1:13:687:A:H2'	1:13:701:C:N4	2.30	0.46
12:3I:7:ILE:O	12:3I:11:VAL:HG23	2.14	0.46
15:6I:6:GLU:CD	15:6I:6:GLU:N	2.69	0.46
26:1H:654(L):G:H3'	26:1H:654(M):C:H5''	1.98	0.46
26:1H:662:G:P	36:78:15:ARG:HE	2.39	0.46
26:1H:783:A:C8	26:1H:784:A:H4'	2.50	0.46
26:1H:852:G:H2'	26:1H:853:G:H8	1.80	0.46
26:1H:2591:C:P	28:11:239:ARG:HG3	2.56	0.46
26:1H:2646:C:H2'	26:1H:2647:U:O4'	2.16	0.46
28:11:239:ARG:HD3	28:11:239:ARG:HA	1.77	0.46
30:31:23:ASP:CG	30:31:24:LEU:H	2.18	0.46
30:31:198:ALA:O	30:31:201:VAL:N	2.49	0.46
48:J8:21:ARG:HE	48:J8:21:ARG:HB3	1.43	0.46
1:1G:570:G:C2	1:1G:571:U:C4	3.04	0.46
1:1G:578:C:P	61:1G:1714:HOH:O	2.74	0.46
10:1A:3:LYS:HD2	10:1A:77:PRO:HG3	1.98	0.46
13:4A:49:THR:HB	13:4A:52:GLU:H	1.79	0.46
15:6A:24:SER:O	15:6A:28:GLN:HG3	2.15	0.46
19:AA:41:VAL:H	19:AA:44:MET:HB2	1.81	0.46
19:AA:50:ALA:HB3	19:AA:57:HIS:HB3	1.98	0.46
26:14:236:C:H2'	26:14:237:C:C6	2.51	0.46
26:14:601:C:O2	26:14:605:C:H4'	2.15	0.46
26:14:656:G:H2'	26:14:657:U:O4'	2.16	0.46
26:14:1044:G:H4'	26:14:1048:A:H1'	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1260:G:H2'	26:14:1261:C:C6	2.50	0.46
26:14:1288:U:C2	26:14:1327:C:O2	2.69	0.46
26:14:2321:G:N3	26:14:2321:G:H2'	2.30	0.46
26:14:2331:G:H5'	47:E5:44:ARG:HG3	1.97	0.46
26:14:2880:C:O2	38:55:93:GLY:N	2.25	0.46
28:19:65:ILE:HD11	28:19:67:PHE:CZ	2.50	0.46
42:95:48:GLY:HA3	42:95:52:VAL:N	2.30	0.46
48:F5:92:LYS:O	48:F5:93:GLU:C	2.53	0.46
50:H5:9:VAL:HG22	50:H5:53:LEU:O	2.15	0.46
55:M5:23:VAL:HG23	55:M5:49:VAL:HG22	1.96	0.46
1:13:515:G:N2	1:13:537:G:C4	2.83	0.46
1:13:747:C:OP2	1:13:748:C:N4	2.47	0.46
1:13:972:C:OP1	61:13:1823:HOH:O	2.21	0.46
5:4E:71:LEU:HD22	5:4E:115:VAL:H	1.80	0.46
13:4I:67:GLU:CG	13:4I:71:ARG:HH21	2.29	0.46
19:AI:6:LYS:HE2	19:AI:6:LYS:HB3	1.40	0.46
20:BI:92:LEU:HD23	20:BI:92:LEU:HA	1.81	0.46
24:3K:38:A:C2'	24:3K:39:PSU:H5''	2.46	0.46
26:1H:298:G:H5''	26:1H:299:A:OP1	2.16	0.46
26:1H:389:G:O5'	26:1H:389:G:H8	1.99	0.46
26:1H:1588:C:O2'	26:1H:1589:C:H5'	2.16	0.46
26:1H:1787:A:O4'	26:1H:2589:A:H4'	2.16	0.46
26:1H:2688:U:C5	26:1H:2720:U:OP2	2.65	0.46
26:1H:2850:A:C2	26:1H:2851:A:C4	3.03	0.46
29:21:9:VAL:O	29:21:192:ASN:HB3	2.16	0.46
30:31:196:LEU:C	30:31:197:ASP:O	2.53	0.46
33:61:110:ASP:OD1	33:61:111:PRO:HA	2.15	0.46
36:78:138:LEU:HD12	36:78:144:GLU:CG	2.41	0.46
37:88:85:LYS:HG2	37:88:86:GLY:H	1.80	0.46
37:88:135:ASP:CB	37:88:137:TYR:H	2.28	0.46
38:98:9:LYS:HA	38:98:17:ARG:CD	2.45	0.46
45:G8:40:GLU:HB2	45:G8:41:GLY:HA2	1.98	0.46
46:H8:33:LEU:HD12	46:H8:33:LEU:HA	1.61	0.46
48:J8:73:LEU:HD13	48:J8:90:ILE:O	2.16	0.46
1:1G:35:G:C2	1:1G:550:G:N3	2.84	0.46
1:1G:675:A:H2'	1:1G:676:A:O4'	2.16	0.46
1:1G:1130:A:H62	1:1G:1144:G:H21	1.62	0.46
1:1G:1238:A:N3	1:1G:1241:G:O2'	2.31	0.46
1:1G:1273:G:H3'	1:1G:1274:G:C8	2.51	0.46
1:1G:1396:A:H4'	1:1G:1397:C:OP2	2.15	0.46
3:22:42:LEU:O	3:22:46:GLU:HG3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:52:11:ASN:HB3	6:52:14:LEU:CD1	2.45	0.46
11:2A:22:HIS:HB3	11:2A:29:ILE:HG12	1.98	0.46
18:9A:29:PHE:N	18:9A:29:PHE:HD1	2.14	0.46
26:14:861:A:C2	26:14:917:A:C4	3.04	0.46
26:14:1239:G:H2'	26:14:1240:U:O4'	2.15	0.46
26:14:1657:C:H2'	26:14:1658:C:H6	1.81	0.46
26:14:2687:U:C4	26:14:2688:U:C5	3.04	0.46
26:14:2697:G:H2'	26:14:2698:U:O4'	2.16	0.46
27:1J:52:A:N6	39:65:33:LYS:HG3	2.30	0.46
33:69:97:ILE:HD12	33:69:114:LEU:HD11	1.98	0.46
36:35:78:PRO:HB3	36:35:111:ARG:HH21	1.80	0.46
40:75:91:ARG:NH1	40:75:124:ASP:OD2	2.48	0.46
52:J5:4:HIS:O	52:J5:5:PRO:C	2.52	0.46
54:L5:12:ARG:NH2	54:L5:44:PRO:HB3	2.31	0.46
1:13:174:C:H5'	1:13:174:C:H6	1.81	0.46
1:13:451:A:N6	1:13:480:U:H2'	2.31	0.46
1:13:538:G:P	12:3I:115:LYS:HG3	2.55	0.46
1:13:620:C:H5''	61:13:1987:HOH:O	2.15	0.46
1:13:633:G:OP2	1:13:633:G:H8	1.97	0.46
1:13:1171:G:O2'	1:13:1172:C:H5'	2.16	0.46
1:13:1178:G:N2	1:13:1181:G:C8	2.84	0.46
1:13:1233:G:H2'	1:13:1234:C:C6	2.50	0.46
2:1E:162:ILE:HD11	2:1E:184:VAL:HG22	1.97	0.46
4:3E:79:PHE:O	4:3E:83:SER:HB2	2.16	0.46
6:5E:11:ASN:OD1	6:5E:12:PRO:HD2	2.15	0.46
7:6E:73:MET:HA	7:6E:90:GLU:HA	1.97	0.46
9:8E:95:LYS:HE2	9:8E:95:LYS:HB2	1.65	0.46
26:1H:1550:C:H2'	26:1H:1551:C:H6	1.81	0.46
26:1H:1858:G:H1'	26:1H:1884:A:H61	1.81	0.46
26:1H:2119:A:N6	26:1H:2170:A:C6	2.84	0.46
30:31:33:LEU:HD12	30:31:33:LEU:HA	1.74	0.46
30:31:63:LYS:CE	30:31:67:GLN:HB2	2.45	0.46
31:41:101:ILE:HG13	51:M8:25:TYR:O	2.16	0.46
33:61:21:VAL:HG21	33:61:25:TYR:HD2	1.81	0.46
45:G8:55:TYR:N	45:G8:56:PRO:HD3	2.31	0.46
46:H8:76:LEU:HD13	46:H8:76:LEU:H	1.80	0.46
48:J8:8:SER:HB3	48:J8:66:HIS:CD2	2.51	0.46
52:N8:3:LYS:HB3	52:N8:3:LYS:HE3	1.63	0.46
53:O8:45:LYS:HD3	53:O8:45:LYS:HA	1.79	0.46
1:1G:1011:G:H2'	1:1G:1012:U:C6	2.51	0.46
3:22:73:PRO:O	3:22:76:VAL:HG22	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:40:ARG:HA	5:42:67:VAL:O	2.16	0.46
11:2A:73:MET:HG2	11:2A:103:LEU:HD13	1.97	0.46
13:4A:94:ARG:HH22	19:AA:78:ARG:HH12	1.64	0.46
19:AA:14:HIS:ND1	19:AA:15:LEU:N	2.64	0.46
56:1L:9:A:H5'	56:1L:9:A:N3	2.31	0.46
26:14:270(Z):U:O3'	26:14:271(A):C:H6	1.98	0.46
26:14:302:C:H2'	26:14:303:U:C6	2.51	0.46
26:14:568:U:N3	61:14:3695:HOH:O	2.18	0.46
26:14:1857:G:O2'	26:14:1885:A:N6	2.48	0.46
26:14:2861:G:C2	26:14:2862:G:C4	3.03	0.46
29:29:170:LEU:HD13	29:29:170:LEU:HA	1.82	0.46
30:39:7:TYR:HD1	30:39:18:ARG:N	2.14	0.46
32:59:11:VAL:O	32:59:13:LYS:HG3	2.16	0.46
36:35:52:GLU:CD	36:35:57:THR:HA	2.37	0.46
42:95:34:GLU:OE1	42:95:56:SER:HB2	2.16	0.46
44:B5:30:VAL:HG23	44:B5:77:LYS:HB3	1.97	0.46
46:D5:67:LEU:HA	46:D5:68:PRO:HD3	1.64	0.46
1:13:378:G:H2'	1:13:379:C:O4'	2.16	0.46
1:13:417:C:H2'	1:13:418:C:H6	1.81	0.46
9:8E:70:LYS:O	9:8E:74:ILE:HG13	2.16	0.46
16:7I:50:LYS:HD3	16:7I:51:VAL:H	1.80	0.46
22:1K:6:G:H1	22:1K:67:C:H42	1.64	0.46
24:3K:7:A:H5'	24:3K:8:U:OP2	2.16	0.46
24:3K:18:G:H1'	24:3K:58:A:C2	2.50	0.46
24:3K:75:C:O2'	24:3K:76:A:H2	1.99	0.46
26:1H:208:C:H2'	26:1H:209:C:H6	1.81	0.46
26:1H:747:U:O2	26:1H:2014:A:H1'	2.16	0.46
26:1H:900:A:H3'	26:1H:901:A:C8	2.46	0.46
26:1H:960:A:H61	37:88:82:ARG:NH2	2.14	0.46
26:1H:1050:A:H1'	26:1H:2751:G:C8	2.51	0.46
26:1H:1435:G:H21	26:1H:1478:G:H5'	1.79	0.46
26:1H:1718:G:C2	26:1H:1725:G:C8	3.04	0.46
26:1H:2068:U:N3	26:1H:2430:A:C2	2.84	0.46
26:1H:2137:C:N3	26:1H:2138:C:N4	2.64	0.46
26:1H:2516:G:O2'	26:1H:2517:C:H5'	2.15	0.46
26:1H:2801:A:H2'	26:1H:2802:G:H4'	1.98	0.46
27:16:29:A:H2'	27:16:30:C:C6	2.51	0.46
27:16:40:U:H1'	27:16:45:A:N6	2.31	0.46
32:51:15:VAL:CG1	32:51:29:PRO:HD2	2.44	0.46
33:61:95:LYS:HE2	33:61:95:LYS:HB3	1.81	0.46
1:1G:618:C:H5'	1:1G:619:U:H5''	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:999:U:O2	1:1G:1042:G:N2	2.49	0.46
1:1G:1084:G:H5'	1:1G:1102:A:OP2	2.15	0.46
1:1G:1157:A:H8	1:1G:1158:C:N4	2.14	0.46
1:1G:1503:A:C2	25:4L:13:A:N7	2.84	0.46
2:12:54:THR:HG23	2:12:199:TYR:HB3	1.98	0.46
57:3L:21:A:H61	57:3L:46:7MG:HN21	1.61	0.46
26:14:13:A:N1	26:14:525:U:H2'	2.30	0.46
26:14:557:U:O2'	34:15:45:ASN:O	2.33	0.46
26:14:933:A:C5	26:14:934:G:C8	3.04	0.46
26:14:994:C:OP2	41:85:54:LYS:NZ	2.33	0.46
26:14:1210:A:H5'	26:14:1212:G:C5'	2.46	0.46
26:14:1614:A:N6	43:A5:88:ARG:H	2.14	0.46
28:19:270:ILE:O	28:19:271:ILE:HG23	2.15	0.46
29:29:111:ARG:HB2	29:29:160:TYR:O	2.16	0.46
31:49:145:THR:C	31:49:147:ASP:H	2.18	0.46
32:59:20:ALA:CB	32:59:23:ARG:HG3	2.46	0.46
32:59:54:ARG:NH2	32:59:57:ASP:OD1	2.47	0.46
43:A5:59:VAL:HG21	43:A5:66:GLU:HB2	1.98	0.46
46:D5:104:PHE:O	46:D5:105:VAL:HB	2.15	0.46
51:I5:1:MET:HG2	51:I5:3:GLU:HG3	1.98	0.46
55:M5:14:VAL:CG1	55:M5:22:VAL:HG13	2.45	0.46
1:13:142:G:H2'	1:13:143:A:C8	2.51	0.46
1:13:329:A:C5	1:13:332:G:C6	3.04	0.46
1:13:553:A:H5''	12:3I:24:VAL:HG21	1.98	0.46
1:13:818:G:O2'	1:13:819:A:H5'	2.16	0.46
1:13:1075:C:O3'	2:1E:175:ARG:NH2	2.49	0.46
1:13:1523:G:OP1	11:2I:123:LYS:HE3	2.16	0.46
4:3E:143:GLY:N	4:3E:185:PHE:O	2.36	0.46
7:6E:73:MET:HG2	7:6E:90:GLU:HA	1.98	0.46
9:8E:34:ASN:O	9:8E:38:GLN:HB2	2.16	0.46
12:3I:53:ARG:HG3	12:3I:53:ARG:HH11	1.82	0.46
16:7I:72:ARG:O	16:7I:72:ARG:HG2	2.15	0.46
17:8I:66:SER:OG	17:8I:69:LYS:HB2	2.16	0.46
26:1H:120:U:H3'	61:1H:4182:HOH:O	2.16	0.46
26:1H:587:C:N3	36:78:33:ARG:NH1	2.61	0.46
26:1H:890:A:H3'	26:1H:892:G:C8	2.51	0.46
26:1H:1033:U:H6	26:1H:1033:U:H5'	1.80	0.46
26:1H:1173:G:C2	26:1H:1175:U:C5	3.04	0.46
38:98:52:ILE:O	38:98:55:ALA:N	2.49	0.46
40:B8:62:THR:CG2	40:B8:75:ILE:HG12	2.46	0.46
46:H8:165:VAL:HB	46:H8:166:SER:CA	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:L8:54:VAL:O	50:L8:54:VAL:HG13	2.16	0.46
1:1G:15:G:H2'	1:1G:16:A:H8	1.81	0.46
1:1G:519:C:H2'	1:1G:520:A:O4'	2.16	0.46
1:1G:719:C:C5	1:1G:720:C:C4	3.04	0.46
1:1G:756:C:H2'	1:1G:757:U:O4'	2.15	0.46
1:1G:854:G:C2	1:1G:855:G:C8	3.04	0.46
1:1G:987:G:O5'	1:1G:987:G:H8	1.99	0.46
1:1G:1245:A:N6	1:1G:1292:U:H3	2.13	0.46
12:3A:58:VAL:O	12:3A:65:GLU:HA	2.15	0.46
17:8A:59:ILE:HG22	17:8A:71:PHE:CD2	2.51	0.46
26:14:993:G:OP1	41:85:50:ARG:NH2	2.49	0.46
26:14:1210:A:H5'	26:14:1212:G:O4'	2.16	0.46
26:14:1486:A:H2'	26:14:1487:G:C8	2.51	0.46
26:14:1647:G:H2'	61:14:3639:HOH:O	2.15	0.46
26:14:2031:A:C6	26:14:2498:C:H1'	2.51	0.46
26:14:2536:G:C6	26:14:2537:U:C4	3.04	0.46
29:29:81:ILE:HG21	29:29:84:PHE:HD2	1.80	0.46
31:49:61:ALA:HB2	31:49:68:PRO:HD3	1.98	0.46
34:15:91:LEU:O	34:15:95:PRO:HB3	2.15	0.46
37:45:66:ILE:HG13	37:45:67:ARG:N	2.30	0.46
42:95:97:LYS:HD2	42:95:97:LYS:HA	1.68	0.46
46:D5:152:ALA:HB3	46:D5:167:PRO:HA	1.96	0.46
1:13:224:C:H2'	1:13:225:C:C6	2.50	0.45
1:13:509:A:H3'	61:13:1946:HOH:O	2.16	0.45
1:13:739:C:C4	1:13:740:U:C5	3.04	0.45
1:13:859:A:H2'	1:13:860:A:H8	1.80	0.45
1:13:901:A:C5	1:13:902:G:H1'	2.52	0.45
1:13:1016:A:H2'	1:13:1017:G:O4'	2.16	0.45
1:13:1165:C:H2'	1:13:1166:G:O4'	2.16	0.45
1:13:1441:G:H21	1:13:1460:A:H62	1.65	0.45
2:1E:94:ASN:OD1	2:1E:95:GLN:N	2.44	0.45
3:2E:62:ASP:N	3:2E:62:ASP:OD1	2.49	0.45
12:3I:53:ARG:HG3	12:3I:93:LEU:HD21	1.98	0.45
17:8I:48:GLU:O	17:8I:50:LYS:HG2	2.16	0.45
26:1H:930:U:H4'	26:1H:931:G:O5'	2.16	0.45
26:1H:1203:G:OP2	26:1H:1204:A:H2'	2.15	0.45
26:1H:1925:C:C2'	26:1H:1926:U:H5'	2.45	0.45
26:1H:2562:U:H1'	35:68:23:ARG:NH1	2.30	0.45
26:1H:2636:U:P	29:21:79:ARG:HA	2.56	0.45
39:A8:29:PHE:CD1	39:A8:30:ARG:N	2.85	0.45
41:C8:39:LEU:HD23	41:C8:39:LEU:HA	1.62	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:5:U:O2'	4:32:84:LYS:HG3	2.16	0.45
1:1G:382:A:H2'	1:1G:383:A:H8	1.80	0.45
1:1G:646:U:H2'	1:1G:647:C:C6	2.52	0.45
1:1G:942:G:C2	1:1G:1342:C:C2	3.04	0.45
1:1G:1149:C:H2'	1:1G:1150:U:O4'	2.15	0.45
3:22:70:VAL:HG21	3:22:76:VAL:HG11	1.98	0.45
3:22:73:PRO:O	3:22:77:ILE:HG13	2.16	0.45
4:32:121:VAL:O	4:32:134:ASP:HA	2.14	0.45
6:52:82:ARG:HE	6:52:82:ARG:HB3	1.69	0.45
12:3A:69:TYR:HB2	12:3A:96:VAL:HG11	1.98	0.45
26:14:271(A):C:O2'	26:14:271(B):G:H5'	2.16	0.45
26:14:706:A:H2'	26:14:707:G:O4'	2.16	0.45
26:14:720:C:H2'	26:14:721:C:H6	1.81	0.45
26:14:821:A:H62	26:14:972:G:H21	1.63	0.45
26:14:979:G:H3'	26:14:980:A:H5''	1.97	0.45
26:14:1011:G:C2	26:14:1013:C:C2	3.04	0.45
26:14:1116:C:H2'	26:14:1117:G:H8	1.80	0.45
26:14:1152:C:H4'	41:85:77:SER:HA	1.98	0.45
26:14:1871:A:H2'	26:14:1872:A:C8	2.51	0.45
26:14:1966:A:H4'	26:14:1967:C:OP1	2.16	0.45
26:14:2291:U:H5''	26:14:2380:C:O2'	2.17	0.45
26:14:2299:G:N1	26:14:2318:G:H8	2.15	0.45
26:14:2562:U:H4'	35:25:25:LEU:HD21	1.96	0.45
26:14:2689:U:H5''	26:14:2713:A:C2	2.51	0.45
37:45:117:ALA:HA	37:45:120:ILE:HB	1.98	0.45
40:75:29:ARG:HD3	40:75:44:ASP:OD2	2.15	0.45
41:85:108:GLU:OE1	41:85:112:ARG:NH1	2.49	0.45
45:C5:76:CYS:SG	45:C5:102:CYS:HB2	2.55	0.45
1:13:1075:C:OP1	2:1E:179:LYS:HE2	2.16	0.45
1:13:1443:G:O2'	40:B8:122:ASP:OD2	2.30	0.45
11:2I:43:SER:OG	11:2I:44:SER:N	2.49	0.45
12:3I:70:ILE:HD13	12:3I:77:LEU:HD12	1.97	0.45
24:3K:71:G:N2	26:1H:1852:C:OP1	2.47	0.45
26:1H:59:U:O2'	26:1H:73:A:H2'	2.16	0.45
26:1H:1005:C:O2	26:1H:1005:C:H2'	2.17	0.45
26:1H:1110:G:HO2'	26:1H:1111:A:H8	1.60	0.45
26:1H:1142(A):A:C4	26:1H:1144:G:C8	3.03	0.45
26:1H:1204:A:H2	26:1H:1241:A:N1	2.14	0.45
26:1H:1265:A:O5'	61:1H:3615:HOH:O	2.21	0.45
26:1H:1292:U:H2'	26:1H:1293:C:C6	2.51	0.45
26:1H:1417:C:H42	26:1H:1581:G:H1	1.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1827:C:O2'	26:1H:1828:G:H5'	2.17	0.45
26:1H:2353:G:O6	26:1H:2365:G:C2	2.70	0.45
27:16:16:G:N2	27:16:69:G:H1'	2.31	0.45
28:11:232:PRO:HB3	28:11:244:ARG:CZ	2.46	0.45
33:61:1:MET:O	33:61:20:ASP:HA	2.16	0.45
36:78:106:LEU:O	36:78:107:LYS:C	2.55	0.45
38:98:91:GLN:NE2	38:98:91:GLN:H	2.13	0.45
42:D8:43:GLU:OE2	42:D8:44:LYS:NZ	2.48	0.45
46:H8:120:ILE:HG12	46:H8:172:ALA:HA	1.97	0.45
48:J8:87:PRO:O	48:J8:91:LYS:HB2	2.15	0.45
1:1G:273:A:H1'	17:8A:16:GLN:NE2	2.32	0.45
1:1G:1273:G:H3'	1:1G:1274:G:H8	1.81	0.45
1:1G:1306:A:N6	1:1G:1331:G:O2'	2.50	0.45
3:22:40:ARG:H	3:22:40:ARG:HG3	1.40	0.45
3:22:88:ARG:HB2	3:22:101:LEU:HD22	1.97	0.45
6:52:23:LYS:HB3	6:52:23:LYS:HE2	1.79	0.45
7:62:50:ILE:O	7:62:54:THR:HG23	2.16	0.45
11:2A:85:ARG:HA	11:2A:112:THR:OG1	2.15	0.45
16:7A:21:VAL:HG23	16:7A:33:ILE:HD12	1.98	0.45
17:8A:67:LYS:O	17:8A:68:ARG:HB3	2.16	0.45
26:14:329:G:OP2	45:C5:71:LYS:HD3	2.15	0.45
26:14:533:G:H2'	26:14:534:U:O4'	2.17	0.45
26:14:602:G:N2	26:14:655:A:C8	2.85	0.45
26:14:745:G:H2'	26:14:746:A:H5'	1.97	0.45
26:14:827:U:H2'	26:14:2430:A:H2	1.81	0.45
26:14:1331:A:HO2'	26:14:1332:G:H8	1.64	0.45
26:14:1385:G:C4	26:14:1386:C:C5	3.04	0.45
26:14:1676:A:OP2	61:14:3537:HOH:O	2.20	0.45
27:1J:2:C:H2'	27:1J:3:C:C6	2.51	0.45
31:49:68:PRO:HB2	31:49:90:LEU:HD12	1.97	0.45
34:15:47:ALA:O	34:15:119:ARG:NH2	2.49	0.45
46:D5:126:VAL:HA	46:D5:163:LEU:HA	1.98	0.45
55:M5:51:ALA:O	55:M5:52:LYS:HD3	2.16	0.45
1:13:22:G:H4'	1:13:885:G:C8	2.50	0.45
1:13:645:C:P	61:13:1972:HOH:O	2.73	0.45
1:13:741:G:H2'	1:13:742:G:O4'	2.15	0.45
1:13:933:G:OP2	7:6E:3:ARG:HB2	2.17	0.45
1:13:1139:G:H4'	1:13:1140:C:H5'	1.98	0.45
2:1E:4:GLU:OE2	2:1E:5:ILE:HG12	2.16	0.45
3:2E:142:MET:SD	3:2E:148:GLY:HA2	2.56	0.45
16:7I:5:ARG:HB3	16:7I:67:THR:OG1	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:25:C:C4	24:3K:26:A:C8	3.05	0.45
26:1H:71:A:OP1	26:1H:72:U:H2'	2.16	0.45
26:1H:1528:A:N6	26:1H:1529:A:N1	2.64	0.45
26:1H:1889:A:N1	26:1H:2234:G:H1'	2.31	0.45
26:1H:2065:C:H2'	26:1H:2066:C:C6	2.51	0.45
26:1H:2341:G:H2'	26:1H:2342:C:H6	1.81	0.45
27:16:61:G:C6	27:16:62:C:C4	3.04	0.45
28:11:27:THR:HG23	28:11:28:GLU:HG2	1.98	0.45
28:11:70:TRP:CD1	28:11:70:TRP:O	2.69	0.45
36:78:96:THR:C	36:78:98:GLU:N	2.69	0.45
41:C8:79:PHE:CD1	41:C8:79:PHE:C	2.90	0.45
45:G8:97:ARG:HD2	45:G8:97:ARG:N	2.30	0.45
46:H8:7:ALA:HB3	46:H8:61:LEU:HB3	1.97	0.45
46:H8:67:LEU:HD22	46:H8:90:VAL:HG11	1.98	0.45
1:1G:254:G:OP1	17:8A:67:LYS:O	2.34	0.45
1:1G:1068:G:N3	1:1G:1191:A:C2	2.85	0.45
3:22:84:ILE:HG12	3:22:88:ARG:NH2	2.31	0.45
3:22:121:ALA:HB2	3:22:198:VAL:HG21	1.99	0.45
5:42:19:MET:HG3	5:42:20:GLN:N	2.30	0.45
7:62:131:LYS:NZ	7:62:131:LYS:HB3	2.30	0.45
11:2A:29:ILE:HG22	11:2A:44:SER:CB	2.34	0.45
18:9A:29:PHE:N	18:9A:29:PHE:CD1	2.83	0.45
56:1L:54:5MU:H73	56:1L:55:U:C4	2.51	0.45
26:14:139:G:N2	26:14:141:A:N1	2.61	0.45
26:14:142:G:H2'	26:14:143:C:C6	2.51	0.45
26:14:2018:G:P	52:J5:9:LYS:HZ3	2.39	0.45
26:14:2070:G:C2	26:14:2442:C:C2	3.04	0.45
26:14:2531:A:C2'	26:14:2532:G:H5'	2.46	0.45
26:14:2615:U:C2	52:J5:7:PRO:HA	2.52	0.45
26:14:2851:A:H2'	26:14:2852:G:O4'	2.16	0.45
29:29:8:LYS:HB3	29:29:192:ASN:HA	1.99	0.45
29:29:182:LEU:HD12	29:29:182:LEU:HA	1.69	0.45
32:59:82:GLY:HA3	32:59:135:GLY:O	2.17	0.45
33:69:129:THR:HA	33:69:137:PRO:HA	1.99	0.45
39:65:36:TYR:HA	39:65:52:SER:HB3	1.99	0.45
45:C5:86:ARG:NE	45:C5:87:LYS:O	2.47	0.45
48:F5:79:GLY:C	48:F5:80:LEU:HG	2.37	0.45
48:F5:95:LEU:HD23	48:F5:95:LEU:HA	1.77	0.45
55:M5:29:LYS:HB3	55:M5:44:LYS:CB	2.46	0.45
1:13:448:A:P	1:13:485:G:H22	2.38	0.45
1:13:554:C:O2'	1:13:555:C:H5'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1319:A:OP2	19:AI:5:LEU:HD22	2.17	0.45
4:3E:107:ARG:NH1	4:3E:114:ARG:HH22	2.14	0.45
9:8E:112:LYS:HE3	9:8E:117:HIS:O	2.16	0.45
19:AI:37:ARG:H	19:AI:37:ARG:HG3	1.35	0.45
22:1K:60:U:H5'	22:1K:61:C:OP2	2.16	0.45
26:1H:184:C:H2'	26:1H:185:U:C6	2.51	0.45
26:1H:588:U:C2	30:31:90:PHE:CE1	3.04	0.45
26:1H:705:A:C8	26:1H:727:A:C2	3.05	0.45
26:1H:784:A:C5	28:11:229:VAL:HG21	2.51	0.45
26:1H:1071:G:H8	26:1H:1071:G:O5'	1.98	0.45
26:1H:1417:C:O5'	61:1H:4059:HOH:O	2.20	0.45
26:1H:2032:G:N2	29:21:146:THR:HG23	2.30	0.45
26:1H:2388:A:H2'	26:1H:2389:G:H5'	1.99	0.45
27:16:41:U:H5	31:41:70:VAL:O	1.99	0.45
28:11:68:LYS:HB3	28:11:70:TRP:CH2	2.52	0.45
33:61:10:GLU:HG3	33:61:10:GLU:O	2.16	0.45
34:58:57:ALA:C	34:58:59:LYS:H	2.19	0.45
40:B8:20:PRO:HG2	40:B8:86:ILE:O	2.16	0.45
40:B8:29:ARG:HB2	40:B8:46:GLU:HG3	1.97	0.45
1:1G:186(A):C:H2'	1:1G:186(B):C:C6	2.51	0.45
1:1G:197:A:C6	1:1G:221:C:H4'	2.50	0.45
1:1G:728:A:C2	1:1G:729:A:C5	3.04	0.45
1:1G:1250:A:H4'	9:82:68:GLY:N	2.31	0.45
1:1G:1443:G:H22	40:75:119:LYS:HB2	1.80	0.45
6:52:8:ILE:N	6:52:8:ILE:HD12	2.31	0.45
21:1B:9:ARG:NE	21:1B:10:ARG:HG3	2.32	0.45
23:2L:14:A:C2	23:2L:23:G:C4	3.05	0.45
57:3L:15:G:H1	57:3L:48:C:H42	1.65	0.45
57:3L:15:G:H1	57:3L:48:C:N4	2.14	0.45
26:14:162:U:H4'	26:14:171:G:C4	2.51	0.45
26:14:336:C:OP1	45:C5:83:THR:HG23	2.15	0.45
26:14:528:A:H2	26:14:2043:C:H5'	1.81	0.45
26:14:952:G:C6	26:14:966:G:C6	3.05	0.45
26:14:1000:A:N6	26:14:1001:A:N1	2.65	0.45
26:14:1001:A:C8	26:14:1002:G:C8	3.04	0.45
26:14:1226:G:H5'	42:95:85:LYS:H	1.82	0.45
26:14:1359:A:H5'	26:14:1359:A:H8	1.81	0.45
26:14:2312:U:H3'	26:14:2312:U:H6	1.82	0.45
26:14:2394:C:P	36:35:63:PRO:HD2	2.56	0.45
34:15:34:LEU:HD21	34:15:120:LEU:CD1	2.46	0.45
36:35:59:LEU:HD21	55:M5:10:ALA:HA	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:95:12:TYR:OH	42:95:22:VAL:HG23	2.17	0.45
45:C5:86:ARG:HG3	45:C5:87:LYS:N	2.31	0.45
48:F5:76:ARG:HG3	48:F5:94:LEU:HD13	1.97	0.45
51:I5:18:CYS:SG	51:I5:19:GLY:HA2	2.57	0.45
1:13:141:A:H2'	1:13:142:G:C8	2.49	0.45
1:13:148:G:H2'	1:13:149:A:H8	1.81	0.45
1:13:320:C:H42	1:13:333:G:H1	1.64	0.45
1:13:345:C:H5'	1:13:346:G:OP1	2.16	0.45
1:13:606:G:N2	1:13:632:A:N1	2.60	0.45
1:13:1151:A:O2'	1:13:1152:A:O5'	2.31	0.45
2:1E:11:LEU:O	2:1E:16:HIS:NE2	2.50	0.45
2:1E:91:PRO:HB3	2:1E:154:LEU:HB2	1.99	0.45
2:1E:178:ARG:HG3	8:7E:72:PRO:HA	1.98	0.45
2:1E:182:ILE:HA	2:1E:183:PRO:HD3	1.85	0.45
5:4E:6:PHE:HE1	5:4E:36:ASP:HB3	1.80	0.45
8:7E:87:SER:CB	8:7E:93:VAL:H	2.28	0.45
22:1K:62:C:H2'	22:1K:63:G:C8	2.51	0.45
26:1H:37:C:O2'	26:1H:38:A:H5'	2.17	0.45
26:1H:729:G:O4'	28:11:208:LYS:NZ	2.49	0.45
26:1H:880:G:O2'	26:1H:881:G:O5'	2.26	0.45
26:1H:2062:A:N6	26:1H:2503:A:H62	2.14	0.45
26:1H:2131:G:H5''	26:1H:2133:G:H4'	1.98	0.45
26:1H:2291:U:OP1	26:1H:2380:C:O2'	2.29	0.45
26:1H:2789:C:H1'	26:1H:2892:A:H2	1.80	0.45
29:21:32:PRO:HD2	29:21:50:GLY:O	2.16	0.45
36:78:38:GLN:O	36:78:44:GLY:HA2	2.17	0.45
36:78:71:VAL:CG1	36:78:72:PRO:HD3	2.46	0.45
37:88:85:LYS:CG	37:88:86:GLY:H	2.29	0.45
45:G8:83:THR:HG22	45:G8:84:ARG:HG3	1.98	0.45
46:H8:174:VAL:O	46:H8:175:VAL:HG23	2.17	0.45
55:Q8:27:THR:HG21	55:Q8:39:LYS:HZ3	1.82	0.45
55:Q8:35:GLN:C	55:Q8:37:SER:H	2.20	0.45
1:1G:108:G:H5'	1:1G:109:A:C5'	2.45	0.45
1:1G:890:G:O2'	1:1G:906:G:O6	2.28	0.45
3:22:11:ARG:HB2	3:22:11:ARG:NH1	2.31	0.45
6:52:69:GLU:O	6:52:72:VAL:HG12	2.16	0.45
7:62:95:ARG:HH21	7:62:99:LEU:HD11	1.80	0.45
12:3A:89:ARG:HG3	12:3A:97:ARG:HG2	1.99	0.45
13:4A:97:PRO:HA	13:4A:110:ARG:HD3	1.97	0.45
21:1B:6:ARG:HD3	21:1B:15:ARG:NH2	2.32	0.45
57:3L:72:C:C3'	57:3L:73:A:H5''	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:81:G:O6	61:14:3767:HOH:O	2.21	0.45
26:14:138:G:H22	44:B5:44:GLU:CD	2.18	0.45
26:14:240:G:O2'	26:14:257:A:N6	2.44	0.45
26:14:651:G:H5'	55:M5:18:ALA:HB3	1.98	0.45
26:14:654:A:H8	26:14:654:A:OP1	1.99	0.45
26:14:1248:G:C5	41:85:3:ARG:HB2	2.52	0.45
26:14:2185:C:H2'	26:14:2186:G:C8	2.51	0.45
26:14:2616:C:C2'	26:14:2617:C:H5'	2.47	0.45
28:19:131:LEU:HB2	28:19:136:ILE:HD11	1.97	0.45
28:19:148:GLU:CB	28:19:151:LYS:HE3	2.44	0.45
45:C5:67:LEU:HD12	45:C5:67:LEU:HA	1.74	0.45
46:D5:94:GLU:O	46:D5:129:SER:HA	2.15	0.45
51:I5:9:LEU:HD22	51:I5:9:LEU:H	1.81	0.45
55:M5:60:LEU:HB2	55:M5:61:LEU:H	1.35	0.45
1:13:827:U:H5''	1:13:828:A:OP2	2.15	0.45
1:13:963:G:H5'	61:13:1902:HOH:O	2.15	0.45
1:13:1327:C:P	21:1F:12:LYS:HZ3	2.40	0.45
1:13:1350:A:C5	1:13:1351:U:C4	3.05	0.45
3:2E:57:ILE:HG12	3:2E:66:VAL:HG22	1.97	0.45
10:1I:47:PHE:CZ	14:5I:37:PHE:HE2	2.35	0.45
13:4I:52:GLU:O	13:4I:56:LEU:HB2	2.16	0.45
13:4I:67:GLU:HG3	13:4I:71:ARG:HH21	1.82	0.45
16:7I:26:ARG:NE	16:7I:31:LYS:HB3	2.31	0.45
24:3K:19:G:N2	26:1H:2112:G:H21	2.14	0.45
24:3K:72:C:C3'	24:3K:73:A:H5''	2.40	0.45
26:1H:152:G:H2'	26:1H:153:C:C6	2.50	0.45
26:1H:739:G:P	61:1H:4509:HOH:O	2.74	0.45
26:1H:930:U:O2	26:1H:930:U:O4'	2.32	0.45
26:1H:1310:G:OP2	54:P8:9:ARG:HD2	2.15	0.45
26:1H:1778:U:P	61:1H:4513:HOH:O	2.75	0.45
26:1H:2396:G:H5''	48:J8:25:LYS:HE3	1.99	0.45
30:31:28:ILE:HG21	30:31:116:ASP:HB2	1.98	0.45
30:31:140:LEU:HD12	30:31:140:LEU:HA	1.77	0.45
34:58:96:GLU:C	34:58:98:VAL:N	2.69	0.45
36:78:39:LYS:CA	36:78:45:LEU:HD13	2.47	0.45
40:B8:112:ARG:O	40:B8:112:ARG:HG3	2.16	0.45
40:B8:118:ARG:HH21	40:B8:121:ILE:HG21	1.81	0.45
48:J8:23:LYS:HG2	48:J8:29:GLY:HA3	1.98	0.45
1:1G:41:G:H2'	1:1G:42:G:H8	1.80	0.45
1:1G:619:U:C5	4:32:135:LEU:HD21	2.51	0.45
1:1G:1509:C:H2'	1:1G:1510:U:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:150:GLU:HA	4:32:153:ARG:HG2	1.97	0.45
8:72:20:TYR:HA	8:72:65:TYR:CE2	2.52	0.45
57:3L:31:A:H5'	57:3L:32:PSU:OP2	2.17	0.45
26:14:128:C:H2'	26:14:129:C:H6	1.82	0.45
26:14:360:G:H2'	26:14:361:G:H8	1.81	0.45
26:14:607:U:N3	26:14:621:A:C2	2.78	0.45
26:14:819:A:C4	26:14:1189:A:C2	3.04	0.45
26:14:1796:U:H2'	26:14:1797:C:C6	2.52	0.45
26:14:2212:A:O2'	26:14:2213:U:O5'	2.32	0.45
26:14:2302:G:C4	26:14:2303:G:C8	3.05	0.45
27:1J:18:G:H1	27:1J:65:C:N4	2.07	0.45
34:15:28:THR:HG22	34:15:29:LYS:NZ	2.31	0.45
38:55:38:VAL:HG22	38:55:112:ALA:HB2	1.99	0.45
40:75:53:ARG:HG3	40:75:53:ARG:O	2.17	0.45
44:B5:65:ARG:HG3	44:B5:67:GLY:N	2.26	0.45
45:C5:87:LYS:HB3	45:C5:94:LYS:HA	1.99	0.45
1:13:109:A:N7	1:13:326:G:H2'	2.32	0.45
1:13:115:G:C2	1:13:289:G:N7	2.85	0.45
1:13:153:C:H42	1:13:168:G:H22	1.65	0.45
1:13:721:G:C6	1:13:733:A:C2	3.05	0.45
1:13:1272:G:C6	1:13:1273:G:C5	3.05	0.45
1:13:1366:C:H2'	1:13:1367:C:H6	1.82	0.45
23:2K:16:C:O2'	23:2K:62:C:OP1	2.30	0.45
26:1H:3:U:OP1	26:1H:2790:A:N6	2.50	0.45
26:1H:3:U:H3	26:1H:2900:A:H61	1.65	0.45
26:1H:280:C:C2	26:1H:361:G:N2	2.85	0.45
26:1H:317:G:C2	26:1H:318:C:C2	3.05	0.45
26:1H:710:G:H2'	26:1H:711:G:C8	2.51	0.45
26:1H:821:A:H5''	26:1H:822:U:C6	2.52	0.45
26:1H:1940:U:C4	26:1H:1964:G:H4'	2.52	0.45
26:1H:2002:G:C5	61:1H:4267:HOH:O	2.69	0.45
27:16:2:C:H2'	27:16:3:C:C6	2.52	0.45
40:B8:105:LEU:C	40:B8:107:ASP:H	2.20	0.45
40:B8:111:ARG:O	40:B8:112:ARG:HB3	2.16	0.45
51:M8:2:LYS:HD3	51:M8:2:LYS:HA	1.89	0.45
53:O8:51:GLU:HG2	53:O8:52:VAL:N	2.32	0.45
1:1G:19:C:H5''	5:42:86:ALA:HB3	1.98	0.45
1:1G:421:U:O2'	1:1G:423:G:N7	2.48	0.45
1:1G:1028(A):C:H42	1:1G:1032(B):G:H1	1.65	0.45
1:1G:1497:G:O2'	1:1G:1498:U:H5'	2.17	0.45
3:22:40:ARG:O	3:22:44:GLU:N	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:113:ALA:HB3	3:22:114:PRO:HD3	1.97	0.45
4:32:173:TRP:HZ3	4:32:193:ASP:HB3	1.82	0.45
8:72:86:ILE:HD11	8:72:136:GLU:HG2	1.99	0.45
12:3A:110:VAL:CG2	12:3A:120:TYR:HB3	2.47	0.45
13:4A:53:VAL:HG11	13:4A:57:ARG:HH21	1.81	0.45
15:6A:50:HIS:O	15:6A:53:HIS:HB3	2.16	0.45
26:14:483:A:C5'	45:C5:49:VAL:HG22	2.47	0.45
26:14:1028:A:N6	26:14:1125:G:H2'	2.32	0.45
26:14:1572:A:H2'	26:14:1573:G:O4'	2.16	0.45
26:14:2292:C:H4'	26:14:2375:G:H4'	1.99	0.45
29:29:33:VAL:HG11	29:29:36:ARG:NH2	2.32	0.45
30:39:146:ALA:HB1	30:39:148:LEU:HG	1.99	0.45
36:35:64:LYS:HB3	55:M5:30:ARG:HH22	1.81	0.45
41:85:28:ARG:HD3	41:85:38:THR:OG1	2.17	0.45
1:13:652:U:C4	1:13:752:G:N3	2.85	0.45
1:13:868:C:H2'	1:13:869:G:O4'	2.16	0.45
1:13:1316:G:N2	1:13:1318:A:H3'	2.32	0.45
2:1E:87:ARG:HH11	2:1E:233:SER:HB2	1.82	0.45
3:2E:151:VAL:HA	3:2E:199:LYS:O	2.16	0.45
7:6E:15:ASP:OD1	7:6E:16:LEU:N	2.50	0.45
7:6E:111:ARG:HD2	7:6E:123:GLU:HB2	1.99	0.45
12:3I:85:ILE:HG23	12:3I:85:ILE:HD12	1.69	0.45
26:1H:546:C:C4	26:1H:547:A:C6	3.04	0.45
26:1H:1219:G:OP2	41:C8:19:LYS:NZ	2.50	0.45
26:1H:1431:U:C2	26:1H:1563:G:N2	2.85	0.45
26:1H:1590:U:H2'	26:1H:1591:G:H8	1.80	0.45
32:51:15:VAL:HG12	32:51:28:GLY:HA3	1.98	0.45
48:J8:85:LEU:HA	48:J8:87:PRO:HD2	1.98	0.45
50:L8:2:PRO:HB2	50:L8:3:ARG:H	1.52	0.45
51:M8:16:CYS:HG	51:M8:36:CYS:HG	1.64	0.45
1:1G:1004:A:H2	1:1G:1024:G:C8	2.34	0.45
1:1G:1028(A):C:H5	1:1G:1029:G:C5	2.34	0.45
1:1G:1040:U:H2'	1:1G:1041:A:H8	1.82	0.45
1:1G:1082:G:H8	1:1G:1082:G:OP2	2.00	0.45
1:1G:1210:C:H3'	1:1G:1211:U:H5''	1.98	0.45
2:12:77:ALA:O	2:12:81:VAL:HG23	2.15	0.45
6:52:15:ASP:OD1	6:52:18:GLN:N	2.42	0.45
7:62:16:LEU:HD11	9:82:42:ARG:HA	1.99	0.45
26:14:58:G:OP1	44:B5:75:ASP:HB2	2.15	0.45
26:14:274:G:C2'	26:14:275:G:H4'	2.42	0.45
26:14:375:C:H2'	26:14:376:C:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:654(S):G:C2	26:14:654(T):A:C6	3.05	0.45
26:14:690:G:H2'	26:14:691:C:C6	2.51	0.45
26:14:729:G:C6	28:19:208:LYS:HB2	2.52	0.45
26:14:745:G:C2'	26:14:746:A:H5'	2.47	0.45
26:14:1184:G:C6	26:14:1185:C:C4	3.04	0.45
26:14:1336:A:H2'	26:14:1337:G:C8	2.51	0.45
26:14:1421:G:C2	26:14:1422:G:C8	3.04	0.45
26:14:1461:G:H2'	26:14:1462:C:C6	2.51	0.45
26:14:1628:G:H2'	26:14:1629:U:C6	2.51	0.45
26:14:1628:G:H2'	26:14:1629:U:H6	1.81	0.45
26:14:2078:C:C4	26:14:2079:U:C4	3.05	0.45
26:14:2414:G:H21	36:35:67:MET:HE3	1.81	0.45
26:14:2520:C:H41	26:14:2542:A:N6	2.15	0.45
26:14:2562:U:H1'	35:25:23:ARG:NE	2.32	0.45
26:14:2849:U:H4'	26:14:2868:A:C2	2.52	0.45
28:19:16:MET:HG3	28:19:206:LEU:O	2.17	0.45
31:49:63:ILE:HD12	31:49:141:PHE:CD2	2.52	0.45
35:25:64:ARG:HH12	40:75:70:VAL:HG21	1.81	0.45
38:55:37:THR:OG1	38:55:40:LYS:HG3	2.17	0.45
38:55:70:LEU:HD23	38:55:70:LEU:HA	1.77	0.45
39:65:88:ASP:O	39:65:89:ARG:HB3	2.16	0.45
43:A5:17:VAL:O	43:A5:20:VAL:HG22	2.15	0.45
51:I5:12:ALA:HB1	51:I5:29:PRO:HA	1.99	0.45
54:L5:19:ARG:HG2	54:L5:19:ARG:HH11	1.81	0.45
1:13:346:G:H3'	1:13:346:G:N3	2.32	0.45
1:13:465:A:H2'	1:13:466:C:H5''	1.98	0.45
1:13:982:U:H4'	1:13:983:A:O5'	2.16	0.45
1:13:1014:A:H4'	19:AI:14:HIS:ND1	2.31	0.45
1:13:1022:G:H2'	1:13:1023:G:H8	1.82	0.45
1:13:1192:C:OP2	3:2E:4:LYS:NZ	2.50	0.45
26:1H:102:G:OP1	49:K8:7:ARG:NH2	2.50	0.45
26:1H:274:G:H3'	26:1H:274:G:C8	2.52	0.45
26:1H:534:U:H5'	41:C8:42:ALA:HB1	1.99	0.45
26:1H:937:U:H2'	26:1H:938:G:O4'	2.17	0.45
26:1H:1242:A:N1	36:78:4:SER:OG	2.40	0.45
26:1H:1337:G:H2'	26:1H:1338:G:C8	2.51	0.45
26:1H:1871:A:H2'	26:1H:1872:A:C8	2.52	0.45
26:1H:2663:G:C6	26:1H:2664:G:C4	3.04	0.45
30:31:89:VAL:HG12	30:31:90:PHE:CD2	2.51	0.45
30:31:130:ALA:H	30:31:132:VAL:HG13	1.81	0.45
31:41:107:LEU:O	51:M8:38:LYS:HD3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:78:39:LYS:CG	36:78:45:LEU:HD22	2.47	0.45
44:F8:35:THR:N	44:F8:38:GLU:OE1	2.50	0.45
50:L8:46:ASN:O	50:L8:50:VAL:HG22	2.17	0.45
55:Q8:21:LYS:HD2	55:Q8:21:LYS:HA	1.59	0.45
55:Q8:34:TRP:CD1	55:Q8:35:GLN:N	2.85	0.45
1:1G:34:C:H2'	1:1G:35:G:H8	1.82	0.45
1:1G:596:C:H2'	1:1G:597:G:C8	2.51	0.45
1:1G:1171:G:H2'	1:1G:1172:C:H6	1.81	0.45
3:22:29:TYR:O	3:22:33:LEU:HB2	2.16	0.45
3:22:36:ASP:HA	3:22:39:ILE:HD12	1.99	0.45
9:82:112:LYS:HA	9:82:119:ALA:CB	2.39	0.45
23:2L:17:C:H3'	23:2L:18:C:H2'	1.99	0.45
23:2L:66:C:O2'	23:2L:67:C:H5'	2.17	0.45
26:14:675:A:N6	26:14:676:A:N6	2.65	0.45
26:14:818:G:H5'	26:14:839:U:OP1	2.17	0.45
26:14:1019:U:OP1	26:14:1035:U:O2'	2.25	0.45
26:14:1316:U:O2'	26:14:1317:A:H5'	2.17	0.45
26:14:1399:C:O2'	26:14:1400:G:H5'	2.17	0.45
26:14:1588:C:H5'	26:14:1589:C:OP2	2.17	0.45
26:14:1614:A:H61	43:A5:88:ARG:H	1.63	0.45
26:14:1652:A:OP1	38:55:8:ARG:NH1	2.50	0.45
26:14:1757:U:N3	26:14:1762:A:H2	2.03	0.45
26:14:1828:G:P	61:14:3570:HOH:O	2.70	0.45
26:14:2558:C:H2'	26:14:2559:C:O4'	2.17	0.45
26:14:2729:G:H2'	26:14:2730:C:C6	2.52	0.45
27:1J:40:U:O2'	27:1J:45:A:N6	2.34	0.45
29:29:81:ILE:HG21	29:29:84:PHE:CD2	2.52	0.45
30:39:116:ASP:O	30:39:120:GLU:HG2	2.17	0.45
30:39:168:ARG:HG3	30:39:175:THR:HG21	1.99	0.45
32:59:73:ALA:O	32:59:76:VAL:HB	2.17	0.45
33:69:109:ILE:HB	33:69:130:TYR:OH	2.17	0.45
35:25:63:VAL:O	35:25:64:ARG:HG3	2.17	0.45
43:A5:33:ARG:NE	43:A5:52:GLU:OE2	2.46	0.45
1:13:532:A:H2	1:13:1206:G:H21	1.64	0.45
1:13:1284:C:H2'	1:13:1285:A:N7	2.31	0.45
7:6E:79:ARG:NH1	7:6E:82:GLY:O	2.50	0.45
10:1I:16:LEU:HD12	10:1I:68:HIS:HB2	1.99	0.45
14:5I:3:ARG:O	14:5I:7:ILE:HG23	2.17	0.45
26:1H:250:G:P	36:78:60:MET:HE1	2.57	0.45
26:1H:443:A:N7	30:31:45:ARG:HG2	2.32	0.45
26:1H:1826:G:H4'	28:11:242:ARG:CZ	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1827:C:C2'	26:1H:1828:G:H5'	2.47	0.45
26:1H:1931:U:H5	26:1H:1969:A:N7	2.15	0.45
26:1H:2699:C:H2'	26:1H:2700:C:O4'	2.17	0.45
26:1H:2715:C:O2'	26:1H:2716:U:H5'	2.17	0.45
28:11:69:ARG:HG3	28:11:69:ARG:NH1	2.31	0.45
32:51:154:PRO:HB3	32:51:163:TYR:CZ	2.52	0.45
33:61:47:LEU:HA	33:61:50:ARG:HB2	1.98	0.45
37:88:43:THR:HG22	37:88:94:VAL:HG12	1.99	0.45
38:98:33:ARG:HD2	38:98:115:GLU:OE1	2.16	0.45
43:E8:33:ARG:NE	43:E8:52:GLU:OE1	2.30	0.45
47:I8:56:ASP:OD1	47:I8:58:THR:HB	2.17	0.45
49:K8:18:PRO:O	49:K8:22:GLU:HG3	2.17	0.45
1:1G:428:G:O4'	1:1G:430:A:C8	2.70	0.45
1:1G:600:C:H2'	1:1G:601:C:H6	1.79	0.45
1:1G:641:U:O3'	1:1G:642:A:H8	2.00	0.45
1:1G:1158:C:H2'	1:1G:1158:C:O2	2.16	0.45
1:1G:1428:A:H2'	1:1G:1429:C:C6	2.51	0.45
14:5A:26:ARG:O	14:5A:26:ARG:HG2	2.16	0.45
56:1L:11:C:H2'	56:1L:12:U:O4'	2.17	0.45
26:14:172:C:H2'	26:14:173:G:H8	1.82	0.45
26:14:288:C:H2'	26:14:289:A:C8	2.52	0.45
26:14:1110:G:O2'	26:14:1111:A:O4'	2.22	0.45
26:14:1268:A:H2'	26:14:1269:A:O4'	2.16	0.45
26:14:1607:C:H4'	26:14:1608:A:O5'	2.17	0.45
26:14:2019:A:N7	52:J5:9:LYS:HD2	2.32	0.45
26:14:2128:C:C4	26:14:2129:C:C4	3.05	0.45
26:14:2791:C:H42	26:14:2805:G:H1	1.65	0.45
26:14:2887:U:H2'	26:14:2888:C:H6	1.81	0.45
32:59:18:GLU:HG3	32:59:25:LYS:HD2	1.99	0.45
33:69:70:GLU:O	33:69:74:ASN:ND2	2.50	0.45
43:A5:50:VAL:HG22	43:A5:105:VAL:HG23	1.98	0.45
46:D5:24:LEU:HD12	46:D5:25:PRO:O	2.16	0.45
46:D5:40:ASP:OD2	46:D5:43:GLU:HG2	2.16	0.45
46:D5:59:LEU:HB3	46:D5:60:GLU:H	1.56	0.45
47:E5:27:GLU:HB2	47:E5:69:PHE:HD1	1.82	0.45
1:13:390:C:H2'	1:13:391:G:C8	2.52	0.44
1:13:484:G:O2'	1:13:485:G:OP2	2.31	0.44
1:13:588:G:H5''	8:7E:5:PRO:HG3	1.99	0.44
1:13:939:G:C6	1:13:940:C:N4	2.85	0.44
1:13:1176:A:N1	1:13:1177:G:C6	2.85	0.44
2:1E:174:VAL:HG13	2:1E:184:VAL:HG11	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:80:ILE:HG12	5:4E:81:GLU:H	1.82	0.44
6:5E:23:LYS:HB2	6:5E:23:LYS:HZ3	1.80	0.44
22:1K:38:A:H5'	26:1H:1913:A:C6	2.52	0.44
26:1H:41:C:H42	26:1H:438:G:H1	1.65	0.44
26:1H:847:U:H5	26:1H:933:A:N1	2.16	0.44
26:1H:1022:G:O6	34:58:66:LYS:NZ	2.48	0.44
26:1H:1241:A:N3	26:1H:1241:A:O4'	2.49	0.44
26:1H:1878:G:H2'	26:1H:1879:C:C6	2.52	0.44
26:1H:2601:C:H3'	61:1H:4432:HOH:O	2.17	0.44
26:1H:2734:A:H8	26:1H:2734:A:H5''	1.83	0.44
26:1H:2749:A:H1'	32:51:63:SER:OG	2.17	0.44
27:16:112:G:H2'	27:16:113:C:C6	2.52	0.44
29:21:197:ILE:HD11	29:21:199:ARG:HE	1.83	0.44
31:41:173:LEU:HD22	31:41:178:PHE:CE2	2.52	0.44
35:68:64:ARG:HG2	35:68:79:PHE:CD2	2.51	0.44
37:88:3:MET:HG2	37:88:4:PRO:O	2.17	0.44
40:B8:6:LEU:HD13	40:B8:9:LEU:HB3	1.99	0.44
46:H8:77:ASP:N	46:H8:84:GLU:HG2	2.32	0.44
55:Q8:57:ARG:HA	55:Q8:58:ILE:C	2.37	0.44
1:1G:15:G:C4	1:1G:16:A:C8	3.05	0.44
1:1G:434:U:H2'	1:1G:435:C:C6	2.52	0.44
1:1G:559:A:H4'	1:1G:560:U:H5''	1.99	0.44
1:1G:942:G:C2	1:1G:1342:C:O2	2.69	0.44
1:1G:1023:G:H3'	1:1G:1024:G:H5''	1.99	0.44
1:1G:1105:A:H2'	1:1G:1106:G:H8	1.81	0.44
5:42:79:GLU:OE1	8:72:104:ARG:HA	2.17	0.44
8:72:8:ASP:OD2	8:72:12:ARG:NH1	2.51	0.44
13:4A:29:ARG:HB3	13:4A:64:TRP:CZ2	2.52	0.44
18:9A:41:LYS:O	18:9A:41:LYS:HD3	2.17	0.44
57:3L:26:A:H3'	57:3L:27:G:C8	2.50	0.44
57:3L:36:A:C6	25:4L:14:A:C2	3.04	0.44
57:3L:67:C:H2'	57:3L:68:C:C6	2.52	0.44
26:14:110:G:C2	26:14:111:A:C8	3.05	0.44
26:14:248:G:H2'	61:14:3514:HOH:O	2.17	0.44
26:14:953:A:H2'	26:14:954:G:H8	1.82	0.44
26:14:996:A:C2	26:14:997:G:C8	3.04	0.44
26:14:1021:A:H62	26:14:1141:U:H3	1.64	0.44
26:14:1054:A:H2'	26:14:1055:G:H8	1.81	0.44
26:14:1204:A:O2'	26:14:1205:U:OP2	2.34	0.44
26:14:1328:G:H2'	26:14:1330:C:C4	2.52	0.44
26:14:1459:G:O2'	26:14:1460:A:H5'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1758:G:C2	26:14:2696:U:H5'	2.51	0.44
26:14:1949:G:O6	61:14:3903:HOH:O	2.20	0.44
26:14:1973:G:H2'	26:14:1974:C:C6	2.53	0.44
26:14:2123:G:H22	26:14:2175:C:H42	1.65	0.44
26:14:2238:G:H2'	26:14:2238:G:N3	2.32	0.44
28:19:176:ARG:HG2	28:19:176:ARG:HH11	1.82	0.44
30:39:9:ILE:HG23	30:39:11:VAL:O	2.16	0.44
30:39:89:VAL:O	30:39:90:PHE:C	2.55	0.44
30:39:205:ARG:HB2	30:39:205:ARG:NH1	2.32	0.44
38:55:29:LEU:HD23	38:55:70:LEU:HD11	1.98	0.44
38:55:79:LEU:HA	38:55:83:ILE:HB	1.98	0.44
39:65:67:ARG:O	39:65:71:ARG:N	2.40	0.44
42:95:71:LEU:HD13	42:95:71:LEU:HA	1.47	0.44
46:D5:30:ASN:HA	46:D5:89:PHE:CE1	2.48	0.44
50:H5:3:ARG:HD2	50:H5:60:GLU:C	2.37	0.44
53:K5:47:THR:HG23	53:K5:48:VAL:N	2.32	0.44
55:M5:33:ASN:OD1	55:M5:33:ASN:N	2.50	0.44
1:13:820:U:H4'	1:13:821:G:OP2	2.17	0.44
1:13:1180:A:H5''	1:13:1181:G:OP1	2.18	0.44
1:13:1336:C:H5''	1:13:1336:C:H6	1.81	0.44
1:13:1358:U:OP1	14:5I:35:ARG:HG3	2.17	0.44
1:13:1390:U:H2'	1:13:1391:U:C6	2.52	0.44
1:13:1442:G:H2'	1:13:1443:G:H5'	2.00	0.44
7:6E:62:PHE:HD1	7:6E:124:LEU:HD11	1.81	0.44
8:7E:45:ILE:HD12	8:7E:47:GLY:HA2	1.98	0.44
19:AI:10:PHE:CD1	19:AI:10:PHE:N	2.85	0.44
22:1K:76:A:C8	26:1H:2507:C:H1'	2.52	0.44
26:1H:197:A:N6	26:1H:2430:A:H2'	2.32	0.44
26:1H:818:G:OP2	61:1H:4498:HOH:O	2.21	0.44
26:1H:2352:A:C4	26:1H:2366:A:C2	3.05	0.44
26:1H:2619:C:H5'	29:21:150:VAL:O	2.17	0.44
30:31:9:ILE:HD12	30:31:10:PRO:HD2	1.99	0.44
33:61:5:LEU:HD23	33:61:5:LEU:HA	1.65	0.44
36:78:100:LEU:HD23	36:78:112:LEU:HD11	1.99	0.44
38:98:2:ARG:O	38:98:5:LYS:HG3	2.17	0.44
44:F8:89:ILE:HG21	44:F8:92:LEU:HD12	1.99	0.44
45:G8:93:GLY:O	45:G8:94:LYS:HB2	2.17	0.44
46:H8:104:PHE:CE2	46:H8:119:GLU:HB3	2.52	0.44
1:1G:109:A:H2'	1:1G:326:G:H21	1.81	0.44
1:1G:167:G:O2'	1:1G:168:G:H5'	2.17	0.44
1:1G:243:A:C2	1:1G:245:C:C2	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:640:A:N3	8:72:115:SER:HB2	2.33	0.44
1:1G:942:G:N2	9:82:124:GLN:OE1	2.47	0.44
1:1G:1052:U:H5''	1:1G:1053:G:OP2	2.17	0.44
3:22:120:VAL:O	3:22:123:GLN:HB3	2.18	0.44
4:32:39:PRO:HA	4:32:40:PRO:HD3	1.81	0.44
5:42:133:TYR:O	5:42:137:GLU:HB2	2.17	0.44
10:1A:49:VAL:O	10:1A:60:ARG:HB2	2.17	0.44
56:1L:44:G:H2'	56:1L:45:U:C6	2.52	0.44
23:2L:8:4SU:O5'	23:2L:8:4SU:H6	2.17	0.44
23:2L:20:G:C2	23:2L:58:A:C2	3.05	0.44
26:14:1784:A:H4'	26:14:1785:A:C5'	2.47	0.44
26:14:2319:G:N1	26:14:2334:G:OP2	2.47	0.44
26:14:2651:C:H42	26:14:2669:G:H1	1.65	0.44
28:19:253:GLN:HG2	28:19:255:LYS:HZ3	1.83	0.44
28:19:267:SER:C	28:19:269:PHE:H	2.20	0.44
30:39:117:ARG:NH1	30:39:120:GLU:OE1	2.51	0.44
36:35:36:LYS:NZ	36:35:36:LYS:HB2	2.32	0.44
1:13:7:G:H5'	1:13:298:A:O4'	2.17	0.44
1:13:376:G:H5''	16:7I:5:ARG:HB2	1.99	0.44
1:13:464:G:O6	1:13:466:C:H4'	2.17	0.44
1:13:750:G:N3	15:6I:23:GLY:HA3	2.32	0.44
1:13:1013:G:N2	1:13:1016:A:OP2	2.50	0.44
1:13:1504:G:OP1	1:13:1507:A:H4'	2.17	0.44
2:1E:168:THR:OG1	2:1E:192:SER:HB2	2.17	0.44
17:8I:9:VAL:O	17:8I:21:VAL:HA	2.17	0.44
18:9I:67:ALA:O	18:9I:71:LYS:HG2	2.17	0.44
26:1H:315:G:C5	26:1H:316:C:C4	3.04	0.44
26:1H:356:G:H2'	26:1H:357:A:C8	2.52	0.44
26:1H:365:C:H2'	26:1H:366:C:O4'	2.18	0.44
26:1H:581:C:H2'	26:1H:582:G:H8	1.82	0.44
26:1H:783:A:C8	26:1H:783:A:H3'	2.52	0.44
26:1H:1528:A:C6	26:1H:1529:A:C6	3.05	0.44
26:1H:2667:C:H1'	32:51:109:PHE:CD1	2.51	0.44
29:21:38:THR:HG22	29:21:41:LYS:HB2	1.99	0.44
32:51:88:LEU:H	32:51:88:LEU:HG	1.60	0.44
35:68:87:ILE:HD12	35:68:91:LEU:HG	1.99	0.44
36:78:64:LYS:HE3	55:Q8:12:LYS:HD2	2.00	0.44
43:E8:74:ALA:HA	43:E8:104:THR:O	2.18	0.44
1:1G:73:G:H1	1:1G:97:U:H3	1.65	0.44
1:1G:109:A:H2'	1:1G:326:G:N2	2.33	0.44
1:1G:310:G:H5''	16:7A:31:LYS:HB2	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:512:U:C2	1:1G:513:C:C5	3.06	0.44
1:1G:707:C:OP1	11:2A:85:ARG:NH1	2.50	0.44
1:1G:994:A:C5	1:1G:1216:G:H4'	2.52	0.44
1:1G:1092:A:C2	1:1G:1183:A:H2	2.33	0.44
1:1G:1226:C:H4'	19:AA:80:TYR:OH	2.16	0.44
1:1G:1286:A:C8	1:1G:1286:A:C3'	3.01	0.44
1:1G:1327:C:H2'	1:1G:1328:C:C6	2.51	0.44
2:12:231:GLU:HA	2:12:232:PRO:HD3	1.80	0.44
3:22:14:ILE:HG12	3:22:15:THR:H	1.82	0.44
3:22:191:THR:HB	3:22:193:TYR:CE1	2.53	0.44
5:42:7:GLU:HG2	5:42:8:GLU:N	2.33	0.44
9:82:92:TYR:O	9:82:95:LYS:HD3	2.18	0.44
10:1A:32:ALA:HB2	10:1A:81:THR:HG21	1.98	0.44
10:1A:81:THR:OG1	10:1A:82:ILE:N	2.50	0.44
12:3A:92:ASP:O	12:3A:93:LEU:HD23	2.18	0.44
19:AA:40:ILE:HD13	19:AA:62:ILE:HG13	1.99	0.44
23:2L:44:A:H2'	23:2L:45:A:C8	2.52	0.44
26:14:76:C:O3'	49:G5:59:ARG:HG3	2.17	0.44
26:14:476:G:N1	26:14:479:A:OP2	2.50	0.44
26:14:706:A:OP1	28:19:7:LYS:HE3	2.17	0.44
26:14:1225:C:H4'	42:95:85:LYS:CG	2.47	0.44
26:14:1499:C:H2'	26:14:1500:G:H8	1.82	0.44
26:14:2415:G:O3'	36:35:66:GLY:HA3	2.18	0.44
26:14:2771:C:O3'	29:29:168:MET:HE1	2.17	0.44
26:14:2855:C:H2'	26:14:2856:C:H6	1.82	0.44
29:29:81:ILE:O	29:29:82:ARG:HB2	2.17	0.44
32:59:152:ARG:HG3	32:59:153:LYS:N	2.32	0.44
33:69:76:THR:HG21	33:69:139:GLN:O	2.17	0.44
34:15:1:MET:HB2	34:15:2:LYS:H	1.50	0.44
34:15:128:HIS:CE1	34:15:134:ARG:HD2	2.52	0.44
36:35:11:GLY:C	36:35:13:ASN:H	2.20	0.44
38:55:28:LEU:HD23	38:55:28:LEU:HA	1.81	0.44
38:55:81:ASP:O	38:55:82:GLU:HB3	2.17	0.44
41:85:34:LYS:NZ	41:85:37:GLU:OE1	2.38	0.44
42:95:5:VAL:HB	42:95:37:VAL:HG12	2.00	0.44
45:C5:33:LYS:NZ	45:C5:33:LYS:HB2	2.33	0.44
51:I5:14:ILE:HG22	51:I5:22:ILE:HA	1.99	0.44
55:M5:54:GLU:H	55:M5:54:GLU:HG3	1.52	0.44
1:13:407:G:H2'	1:13:408:A:C8	2.52	0.44
1:13:977:A:H1'	1:13:982:U:O4	2.17	0.44
1:13:1347:G:N2	1:13:1373:G:H2'	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:68:ILE:O	2:1E:91:PRO:HD2	2.18	0.44
3:2E:88:ARG:H	3:2E:88:ARG:HG3	1.58	0.44
6:5E:25:ILE:HD13	6:5E:25:ILE:HA	1.77	0.44
7:6E:43:PHE:O	7:6E:46:ALA:HB3	2.18	0.44
7:6E:50:ILE:O	7:6E:54:THR:HG23	2.18	0.44
8:7E:95:VAL:HG12	8:7E:99:GLU:HB3	1.99	0.44
11:2I:34:ASP:HB2	11:2I:35:PRO:CD	2.48	0.44
18:9I:26:LEU:HD13	18:9I:42:ARG:HH21	1.83	0.44
23:2K:19:G:C2	23:2K:59:A:C5	3.06	0.44
26:1H:7:G:C2	26:1H:8:A:C4	3.06	0.44
26:1H:273(F):C:H3'	26:1H:274:G:H5''	2.00	0.44
26:1H:758:C:O2	26:1H:1981:A:H2	2.01	0.44
26:1H:803:U:C4	26:1H:804:A:N7	2.85	0.44
26:1H:1163:G:C2	26:1H:1164:G:C8	3.06	0.44
26:1H:1265:A:H3'	52:N8:19:ARG:NH1	2.32	0.44
26:1H:1903:G:OP1	28:11:241:PRO:HB2	2.16	0.44
26:1H:2469:A:O2'	37:88:56:ARG:HG3	2.17	0.44
26:1H:2716:U:O2'	26:1H:2717:G:H5'	2.17	0.44
29:21:3:GLY:HA3	29:21:81:ILE:CG2	2.47	0.44
29:21:166:THR:HG21	29:21:199:ARG:HH22	1.81	0.44
30:31:110:LEU:HD12	30:31:110:LEU:HA	1.79	0.44
32:51:20:ALA:HB1	32:51:21:PRO:HD2	1.97	0.44
35:68:98:VAL:HG11	35:68:114:ILE:HG23	1.98	0.44
39:A8:11:LYS:HD3	39:A8:91:PRO:HD3	1.99	0.44
45:G8:84:ARG:NH2	61:G8:303:HOH:O	2.39	0.44
46:H8:117:LEU:H	46:H8:117:LEU:HD13	1.81	0.44
47:I8:64:ASP:HB2	47:I8:85:ALA:HB1	2.00	0.44
50:L8:7:LYS:HA	50:L8:33:GLN:O	2.17	0.44
50:L8:8:LEU:HD22	50:L8:31:LEU:CD2	2.48	0.44
1:1G:91:C:H2'	1:1G:92:G:C8	2.53	0.44
1:1G:526:C:C5	1:1G:527:G:H1'	2.52	0.44
1:1G:622:A:C8	1:1G:623:C:C6	3.06	0.44
1:1G:776:G:N2	1:1G:802:A:OP2	2.48	0.44
1:1G:1009:G:H8	1:1G:1009:G:OP2	2.01	0.44
2:12:42:ILE:HD13	2:12:43:ASP:N	2.33	0.44
2:12:166:ASP:CG	2:12:169:LYS:HB2	2.38	0.44
4:32:59:ARG:O	4:32:63:LYS:N	2.41	0.44
4:32:100:ARG:HE	4:32:100:ARG:HB3	1.54	0.44
7:62:27:ILE:HA	7:62:30:ILE:HB	1.99	0.44
8:72:104:ARG:C	8:72:106:GLY:H	2.21	0.44
17:8A:75:ARG:HG3	17:8A:76:LEU:N	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BA:59:ALA:O	20:BA:63:ILE:N	2.44	0.44
20:BA:59:ALA:HB3	20:BA:84:LEU:HD11	1.99	0.44
57:3L:51:U:H2'	57:3L:52:G:C8	2.52	0.44
26:14:1027:A:C2	26:14:2488:A:H5'	2.52	0.44
26:14:1858:G:O2'	26:14:1884:A:N6	2.50	0.44
26:14:1954:G:C2	26:14:2551:C:H5''	2.52	0.44
26:14:2068:U:N3	26:14:2430:A:H2	2.15	0.44
26:14:2459:A:C4	26:14:2460:U:C5	3.05	0.44
29:29:34:VAL:HG21	29:29:78:LEU:HD22	2.00	0.44
29:29:62:PRO:C	29:29:64:LYS:N	2.70	0.44
30:39:8:GLN:HA	30:39:15:SER:HA	2.00	0.44
30:39:81:PRO:HG3	30:39:89:VAL:HG22	1.99	0.44
31:49:16:ARG:NH2	31:49:28:VAL:O	2.49	0.44
38:55:57:ARG:HH11	38:55:57:ARG:HG3	1.82	0.44
39:65:63:THR:O	39:65:66:ALA:HB3	2.17	0.44
41:85:95:LEU:HD11	42:95:11:GLN:O	2.17	0.44
48:F5:25:LYS:HE2	48:F5:25:LYS:HB3	1.67	0.44
51:I5:37:SER:HB3	51:I5:39:CYS:HB2	1.99	0.44
1:13:455:C:H42	1:13:477:G:H22	1.65	0.44
1:13:465:A:N7	1:13:467:G:C6	2.86	0.44
1:13:488:C:O2'	1:13:489:C:H5'	2.17	0.44
1:13:947:G:H2'	1:13:948:C:C6	2.52	0.44
1:13:1179:A:H4'	9:8E:103:THR:HA	2.00	0.44
1:13:1182:G:H4'	1:13:1183:A:C5'	2.48	0.44
1:13:1350:A:C6	1:13:1351:U:N3	2.86	0.44
8:7E:10:LEU:HD23	8:7E:10:LEU:N	2.32	0.44
16:7I:38:TYR:CE1	16:7I:50:LYS:HB2	2.52	0.44
26:1H:428:A:P	61:1H:3761:HOH:O	2.75	0.44
26:1H:511:U:C5	26:1H:512:G:C5	3.05	0.44
26:1H:1328:G:H2'	26:1H:1330:C:C5	2.52	0.44
26:1H:1388:G:H2'	26:1H:1389:G:C8	2.52	0.44
26:1H:1728:G:H8	26:1H:1732:A:N6	2.01	0.44
26:1H:2224:G:H4'	26:1H:2226:C:C2	2.53	0.44
26:1H:2376:A:C2	39:A8:112:PHE:HB3	2.51	0.44
26:1H:2496:C:OP1	37:88:82:ARG:HD3	2.17	0.44
26:1H:2749:A:H4'	32:51:62:LYS:HB3	1.99	0.44
26:1H:2830:G:H5''	26:1H:2830:G:C8	2.50	0.44
40:B8:42:ILE:HD12	40:B8:42:ILE:H	1.82	0.44
40:B8:50:ILE:O	40:B8:99:LEU:HD12	2.18	0.44
41:C8:95:LEU:HD12	41:C8:96:ALA:HA	1.99	0.44
49:K8:50:ILE:HD12	49:K8:50:ILE:H	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:P8:8:ASN:OD1	54:P8:8:ASN:C	2.56	0.44
55:Q8:50:LEU:O	55:Q8:51:ALA:HB3	2.18	0.44
55:Q8:57:ARG:HD3	55:Q8:57:ARG:H	1.82	0.44
1:1G:241:C:C2	1:1G:286:G:C2	3.05	0.44
1:1G:458:C:H42	1:1G:474:G:H1	1.66	0.44
3:22:21:ARG:HH12	10:1A:92:THR:HB	1.83	0.44
3:22:112:SER:HB3	3:22:115:LEU:HB2	1.99	0.44
9:82:99:LEU:HB3	9:82:101:PHE:CE1	2.53	0.44
56:1L:29:G:N2	56:1L:42:C:H1'	2.32	0.44
26:14:196:A:N3	26:14:196:A:H2'	2.33	0.44
26:14:513:A:C2	26:14:514:A:C4	3.05	0.44
26:14:784:A:H3'	61:14:4036:HOH:O	2.18	0.44
26:14:867:C:C5	26:14:868:U:H5	2.36	0.44
26:14:913:U:H4'	26:14:914:C:OP1	2.16	0.44
26:14:1027:A:H5'	27:1J:88:C:H41	1.83	0.44
26:14:1113:U:H5'	32:59:2:SER:HA	1.98	0.44
26:14:1341:U:OP2	26:14:1394:U:O2'	2.27	0.44
26:14:1491:G:O2'	28:19:101:GLU:HB2	2.17	0.44
26:14:1520:U:H2'	26:14:1521:G:O4'	2.17	0.44
26:14:2259:G:H1'	26:14:2427:C:H2'	1.98	0.44
27:1J:8:U:H6	27:1J:8:U:H5''	1.83	0.44
27:1J:42:C:N3	31:49:91:ARG:NH2	2.65	0.44
28:19:34:VAL:CG1	28:19:61:LEU:HG	2.48	0.44
28:19:49:ILE:CD1	28:19:52:ARG:HA	2.47	0.44
30:39:83:PHE:O	30:39:84:VAL:HB	2.17	0.44
34:15:137:LYS:HD3	34:15:137:LYS:HA	1.79	0.44
37:45:141:GLN:HG2	37:45:141:GLN:O	2.18	0.44
43:A5:78:GLU:OE2	43:A5:99:ARG:HD3	2.18	0.44
45:C5:30:VAL:O	45:C5:36:ALA:O	2.35	0.44
50:H5:52:HIS:CD2	50:H5:53:LEU:HG	2.53	0.44
1:13:130:A:O2'	1:13:131:C:O5'	2.31	0.44
1:13:607:A:H2	16:7I:31:LYS:HG3	1.83	0.44
1:13:942:G:C2	1:13:943:U:C6	3.06	0.44
1:13:1167:A:H8	1:13:1167:A:OP1	2.00	0.44
1:13:1170:A:H2'	1:13:1171:G:O4'	2.18	0.44
8:7E:87:SER:OG	8:7E:92:ARG:HA	2.17	0.44
12:3I:59:ARG:HA	12:3I:65:GLU:HA	1.99	0.44
14:5I:42:ILE:HG22	14:5I:46:GLU:OE1	2.18	0.44
22:1K:18:G:O2'	22:1K:19:G:OP1	2.29	0.44
26:1H:376:C:P	61:1H:3754:HOH:O	2.75	0.44
26:1H:427:U:H5''	26:1H:428:A:OP1	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:582:G:H2'	26:1H:583:G:H8	1.82	0.44
26:1H:804:A:P	61:1H:4480:HOH:O	2.75	0.44
26:1H:1026:U:HO2'	26:1H:1027:A:C5'	2.31	0.44
26:1H:1568:G:H5'	28:11:60:ARG:HA	2.00	0.44
26:1H:1945:G:H2'	26:1H:1946:U:C6	2.52	0.44
26:1H:2168:G:O2'	26:1H:2169:A:H5'	2.18	0.44
26:1H:2392:A:C8	36:78:61:ARG:HG2	2.44	0.44
27:16:60:C:N3	27:16:61:G:N7	2.66	0.44
42:D8:40:LEU:HD22	42:D8:47:VAL:HA	1.98	0.44
1:1G:841:U:H4'	1:1G:842:C:C6	2.52	0.44
1:1G:922:G:C6	1:1G:923:A:C6	3.06	0.44
1:1G:1280:A:H5'	1:1G:1281:U:OP2	2.18	0.44
8:72:68:ARG:HD3	8:72:69:ARG:O	2.17	0.44
16:7A:19:ILE:HB	16:7A:36:ILE:O	2.18	0.44
19:AA:7:LYS:HB2	19:AA:7:LYS:NZ	2.32	0.44
23:2L:22:A:H61	23:2L:47:7MG:H2'	1.82	0.44
26:14:242:G:O5'	55:M5:3:LYS:HE3	2.18	0.44
26:14:1071:G:N2	26:14:1087:G:H22	2.14	0.44
26:14:1416:G:O2'	26:14:1417:C:O4'	2.34	0.44
26:14:1678:G:N2	26:14:1989:G:N2	2.66	0.44
26:14:1970:A:OP1	26:14:1970:A:H4'	2.18	0.44
29:29:103:ASP:OD1	29:29:201:THR:HG23	2.17	0.44
30:39:155:LEU:HD23	30:39:186:ILE:HD13	1.99	0.44
31:49:32:PRO:HB2	31:49:172:LEU:HD22	2.00	0.44
31:49:145:THR:HG22	51:I5:31:ILE:HG21	2.00	0.44
33:69:41:GLU:H	33:69:41:GLU:HG3	1.48	0.44
34:15:125:GLY:HA3	34:15:126:PRO:HA	1.72	0.44
48:F5:52:ARG:HH11	48:F5:57:GLU:HG3	1.83	0.44
48:F5:73:LEU:HD23	48:F5:73:LEU:HA	1.80	0.44
54:L5:15:THR:HG22	54:L5:16:HIS:CE1	2.52	0.44
1:13:445:G:H1	1:13:489:C:N4	2.13	0.44
1:13:615:C:C2	1:13:616:G:C8	3.06	0.44
1:13:754:C:H6	15:6I:69:TYR:CE2	2.35	0.44
6:5E:41:GLU:CD	18:9I:35:ARG:HH22	2.21	0.44
12:3I:117:ARG:O	12:3I:119:LYS:O	2.35	0.44
13:4I:15:VAL:HG23	13:4I:43:THR:O	2.17	0.44
14:5I:9:LYS:O	14:5I:12:ARG:HG3	2.18	0.44
26:1H:6:A:N3	34:58:131:GLN:HG3	2.33	0.44
26:1H:569:U:O4	26:1H:570:G:C6	2.71	0.44
26:1H:654(B):C:H2'	26:1H:654(C):G:C8	2.53	0.44
26:1H:878:A:N1	26:1H:899:A:H1'	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2031:A:C6	26:1H:2498:C:H1'	2.52	0.44
26:1H:2047:U:O2'	26:1H:2823:A:N1	2.45	0.44
26:1H:2327:A:H2'	26:1H:2328:A:H8	1.80	0.44
26:1H:2740:A:C6	26:1H:2764:A:C8	3.05	0.44
26:1H:2774:C:H2'	26:1H:2775:A:O4'	2.17	0.44
27:16:43:C:H5''	51:M8:1:MET:HG2	1.99	0.44
28:11:64:ILE:HD13	28:11:64:ILE:HG21	1.82	0.44
32:51:33:LEU:HD12	32:51:75:ALA:HA	1.99	0.44
38:98:109:ALA:HA	38:98:110:PRO:HD2	1.72	0.44
40:B8:3:ARG:O	40:B8:7:ILE:N	2.49	0.44
40:B8:5:ALA:O	40:B8:8:LYS:HG2	2.17	0.44
43:E8:88:ARG:HD2	43:E8:88:ARG:HA	1.68	0.44
50:L8:9:VAL:HG22	50:L8:54:VAL:HA	2.00	0.44
1:1G:352:C:P	61:1G:1723:HOH:O	2.75	0.44
1:1G:475:G:OP1	16:7A:81:ARG:NH1	2.50	0.44
1:1G:947:G:H2'	1:1G:948:C:O4'	2.16	0.44
1:1G:1034:G:H8	1:1G:1034:G:O5'	2.01	0.44
1:1G:1063:C:H3'	1:1G:1064:G:H2'	1.99	0.44
1:1G:1149:C:OP2	9:82:9:ARG:NH1	2.50	0.44
1:1G:1246:C:H2'	1:1G:1247:U:H6	1.83	0.44
1:1G:1338:G:C6	1:1G:1339:A:C6	3.06	0.44
4:32:108:LEU:HD11	4:32:174:LEU:HB3	2.00	0.44
13:4A:84:ILE:C	13:4A:86:CYS:H	2.21	0.44
15:6A:10:LYS:HD2	15:6A:10:LYS:HA	1.56	0.44
15:6A:43:LEU:HA	15:6A:43:LEU:HD23	1.77	0.44
21:1B:8:THR:HG22	21:1B:11:GLY:N	2.23	0.44
56:1L:29:G:O6	56:1L:41:C:N4	2.51	0.44
26:14:1071:G:O2'	26:14:1089:G:H3'	2.18	0.44
26:14:1484:G:C6	26:14:1485:G:C5	3.05	0.44
26:14:1858:G:H2'	26:14:1883:G:N2	2.33	0.44
26:14:2105:C:H42	26:14:2184:G:H1	1.65	0.44
31:49:95:ARG:HG2	31:49:96:ARG:HG2	2.00	0.44
32:59:106:THR:HG22	32:59:112:PRO:HB3	1.99	0.44
37:45:27:VAL:HG12	46:D5:81:ARG:NH2	2.33	0.44
40:75:45:PHE:CD2	40:75:74:ARG:HD3	2.53	0.44
43:A5:12:ILE:HD13	43:A5:17:VAL:HB	1.99	0.44
43:A5:72:LYS:HB3	43:A5:106:ILE:HD11	1.99	0.44
45:C5:39:VAL:HG23	45:C5:41:GLY:N	2.32	0.44
1:13:31:G:O2'	1:13:48:C:N4	2.51	0.44
1:13:153:C:N4	1:13:168:G:H22	2.15	0.44
1:13:232:G:H2'	1:13:233:C:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:413:G:N2	1:13:428:G:H1'	2.33	0.44
1:13:625:G:H2'	1:13:626:U:H6	1.82	0.44
1:13:1028(A):C:H42	1:13:1032(A):G:H1	1.65	0.44
1:13:1263:C:O2'	1:13:1264:C:H5'	2.18	0.44
1:13:1291:G:P	7:6E:37:ASN:HD22	2.40	0.44
8:7E:95:VAL:HG12	8:7E:99:GLU:CB	2.47	0.44
22:1K:56:C:O4'	26:1H:896:A:O2'	2.36	0.44
26:1H:308:G:H2'	26:1H:309:G:C8	2.53	0.44
26:1H:700:G:H2'	26:1H:701:G:O4'	2.18	0.44
26:1H:1045:A:H4'	26:1H:1045:A:OP1	2.18	0.44
26:1H:2129:C:N3	26:1H:2160:G:N2	2.65	0.44
26:1H:2160:G:N1	26:1H:2161:C:H1'	2.33	0.44
26:1H:2310:A:N6	31:41:79:ASN:HB2	2.33	0.44
30:31:24:LEU:HA	30:31:25:PRO:HD2	1.70	0.44
30:31:63:LYS:NZ	30:31:75:HIS:O	2.46	0.44
41:C8:79:PHE:HE2	41:C8:106:PHE:CZ	2.35	0.44
41:C8:92:ARG:C	41:C8:94:ASN:N	2.71	0.44
1:1G:195:A:C6	1:1G:196:A:N1	2.86	0.44
1:1G:284:G:H2'	1:1G:285:G:H8	1.82	0.44
1:1G:540:G:H2'	1:1G:541:G:O4'	2.17	0.44
1:1G:575:G:OP1	1:1G:575:G:H4'	2.18	0.44
1:1G:963:G:HO2'	10:1A:54:PHE:HZ	1.64	0.44
1:1G:1176:A:C2'	1:1G:1177:G:H5'	2.47	0.44
1:1G:1281:U:H3'	1:1G:1282:C:H5	1.82	0.44
1:1G:1287:A:H2	1:1G:1353:G:N3	2.16	0.44
2:12:48:MET:HA	2:12:51:LEU:HB2	1.99	0.44
9:82:40:LEU:HB3	9:82:43:ALA:HB2	2.00	0.44
13:4A:94:ARG:NH2	19:AA:78:ARG:HH22	2.16	0.44
23:2L:25:U:H2'	23:2L:26:C:O4'	2.18	0.44
57:3L:30:G:H2'	57:3L:31:A:C8	2.53	0.44
26:14:981:A:N1	26:14:2027:G:O2'	2.40	0.44
26:14:1538:G:H2'	26:14:1539:G:C8	2.52	0.44
26:14:2299:G:N1	26:14:2318:G:C8	2.86	0.44
26:14:2467:C:H4'	37:45:123:HIS:ND1	2.32	0.44
26:14:2495:G:O3'	37:45:81:VAL:HG12	2.18	0.44
26:14:2861:G:O2'	26:14:2862:G:H5'	2.18	0.44
28:19:145:VAL:HG13	28:19:191:ALA:HB2	1.99	0.44
29:29:29:GLY:H	29:29:51:PHE:HE1	1.65	0.44
30:39:25:PRO:HB2	30:39:27:GLU:C	2.38	0.44
30:39:182:ASN:ND2	30:39:185:ASP:OD2	2.43	0.44
33:69:76:THR:HG21	33:69:140:LEU:HA	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:69:110:ASP:OD1	33:69:111:PRO:HD2	2.18	0.44
34:15:120:LEU:O	34:15:121:LYS:HD2	2.17	0.44
35:25:35:VAL:HG11	35:25:103:ALA:HB3	1.99	0.44
39:65:74:ALA:HB1	39:65:107:GLU:CB	2.47	0.44
43:A5:15:ARG:O	43:A5:19:LEU:HD13	2.17	0.44
46:D5:158:PRO:HD2	46:D5:161:VAL:HG13	1.98	0.44
49:G5:64:LEU:HD21	49:G5:68:ARG:NH1	2.33	0.44
1:13:111:G:H8	1:13:111:G:O5'	2.01	0.44
1:13:341:C:O2'	1:13:342:C:H5'	2.17	0.44
1:13:428:G:C5	1:13:430:A:C6	3.06	0.44
1:13:650:G:N3	1:13:650:G:H2'	2.33	0.44
1:13:848:C:H6	1:13:848:C:O5'	2.00	0.44
1:13:1064:G:H4'	1:13:1065:U:OP1	2.17	0.44
1:13:1137:C:O2'	1:13:1138:G:N3	2.51	0.44
1:13:1285:A:H4'	1:13:1286:A:C5'	2.48	0.44
1:13:1455:G:H5''	20:BI:31:SER:HB2	1.99	0.44
2:1E:60:ASP:O	2:1E:64:ARG:HG2	2.17	0.44
2:1E:233:SER:OG	2:1E:234:PRO:HD2	2.18	0.44
13:4I:34:LEU:HD13	13:4I:39:ILE:HB	2.00	0.44
18:9I:58:LEU:HG	18:9I:62:GLU:OE1	2.18	0.44
24:3K:37:MIA:N1	24:3K:37:MIA:H152	2.33	0.44
26:1H:338:G:N2	26:1H:339:U:H1'	2.32	0.44
26:1H:528:A:N1	26:1H:2042:A:H2'	2.32	0.44
26:1H:556:G:H2'	26:1H:557:U:C6	2.53	0.44
26:1H:709:U:O2'	26:1H:710:G:H5'	2.18	0.44
26:1H:832:G:C5'	36:78:45:LEU:HD11	2.46	0.44
26:1H:1386:C:C2	26:1H:1387:C:C5	3.06	0.44
26:1H:2199:A:H5'	26:1H:2205:C:H5	1.83	0.44
26:1H:2488:A:H2'	26:1H:2489:G:O4'	2.18	0.44
36:78:107:LYS:HA	36:78:107:LYS:HD2	1.74	0.44
37:88:56:ARG:HA	37:88:56:ARG:HD2	1.64	0.44
41:C8:5:LYS:H	41:C8:5:LYS:HG3	1.69	0.44
41:C8:69:CYS:SG	41:C8:79:PHE:CD2	3.02	0.44
55:Q8:30:ARG:HB2	55:Q8:30:ARG:NH1	2.33	0.44
1:1G:21:G:H2'	1:1G:22:G:C8	2.53	0.44
1:1G:200:G:H1	1:1G:217:C:N4	2.16	0.44
1:1G:244:U:O4	1:1G:906:G:H1'	2.18	0.44
1:1G:362:G:H4'	12:3A:33:ARG:NH2	2.32	0.44
1:1G:979:C:H5	1:1G:980:C:C6	2.36	0.44
1:1G:1275:A:H2'	1:1G:1276:G:H8	1.82	0.44
3:22:20:SER:HB2	3:22:40:ARG:HH12	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:31:CYS:O	4:32:33:MET:HG2	2.18	0.44
4:32:108:LEU:CD2	4:32:183:GLY:HA3	2.48	0.44
5:42:145:LYS:O	5:42:149:GLU:HG2	2.18	0.44
7:62:70:LYS:HG2	7:62:96:GLN:HB3	1.99	0.44
12:3A:60:LEU:HD13	12:3A:60:LEU:HA	1.79	0.44
15:6A:39:LEU:O	15:6A:39:LEU:HD22	2.18	0.44
19:AA:50:ALA:HB1	19:AA:58:VAL:N	2.32	0.44
23:2L:21:U:O2	23:2L:21:U:H2'	2.17	0.44
26:14:68:G:H2'	26:14:69:C:C6	2.52	0.44
26:14:301:G:C4	26:14:302:C:C5	3.06	0.44
26:14:332:A:O2'	26:14:334:C:OP2	2.32	0.44
26:14:848:G:H2'	26:14:849:A:H8	1.82	0.44
26:14:1047:G:N2	26:14:1111:A:H62	2.15	0.44
26:14:2448:A:P	61:14:3698:HOH:O	2.76	0.44
26:14:2639:A:C2	26:14:2778:A:C8	3.05	0.44
30:39:101:LEU:O	30:39:106:ARG:NH1	2.51	0.44
37:45:103:MET:O	37:45:104:PHE:HB2	2.18	0.44
40:75:118:ARG:NH1	40:75:121:ILE:HG21	2.33	0.44
1:13:256:U:H2'	1:13:257:G:O4'	2.18	0.43
1:13:881:G:H2'	1:13:882:C:O4'	2.17	0.43
1:13:1077:G:N2	1:13:1080:A:OP2	2.44	0.43
1:13:1098:C:C2	1:13:1099:G:C8	3.07	0.43
1:13:1226:C:OP2	13:4I:103:THR:OG1	2.21	0.43
2:1E:44:LEU:HA	2:1E:47:THR:OG1	2.18	0.43
2:1E:87:ARG:NH1	2:1E:233:SER:HB2	2.32	0.43
2:1E:163:PHE:HA	2:1E:185:ILE:O	2.17	0.43
10:1I:90:LEU:N	10:1I:91:PRO:HD3	2.33	0.43
15:6I:18:PHE:CE1	15:6I:21:ASP:HB2	2.53	0.43
15:6I:63:ARG:HG2	15:6I:67:LEU:HD12	1.99	0.43
19:AI:18:LYS:HD2	19:AI:21:GLU:HG2	2.00	0.43
26:1H:139:G:N3	26:1H:141:A:N1	2.65	0.43
26:1H:662:G:H5'	36:78:15:ARG:HB3	1.99	0.43
26:1H:1471:A:C6	26:1H:1522:G:C2	3.06	0.43
26:1H:1472:A:H3'	26:1H:1473:G:H8	1.83	0.43
26:1H:2760:C:H2'	26:1H:2761:G:H8	1.82	0.43
29:21:21:VAL:HA	29:21:22:PRO:HD3	1.46	0.43
30:31:123:LEU:HD12	30:31:124:LEU:N	2.33	0.43
33:61:57:ARG:HA	33:61:60:GLU:HG2	1.99	0.43
39:A8:41:ASP:OD2	39:A8:44:LYS:HB2	2.18	0.43
1:1G:678:U:H2'	1:1G:679:C:C6	2.53	0.43
1:1G:974:A:H5'	1:1G:975:A:OP1	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1157:A:O2'	1:1G:1158:C:P	2.76	0.43
4:32:106:TYR:HE2	4:32:112:VAL:O	2.01	0.43
4:32:153:ARG:HD3	4:32:153:ARG:HA	1.79	0.43
8:72:97:VAL:O	8:72:99:GLU:N	2.50	0.43
9:82:95:LYS:HE2	9:82:95:LYS:HB2	1.62	0.43
11:2A:106:LYS:H	11:2A:106:LYS:HG3	1.63	0.43
12:3A:21:LYS:HE3	12:3A:21:LYS:HB2	1.91	0.43
26:14:370:G:H4'	26:14:371:A:OP2	2.18	0.43
26:14:676:A:H1'	26:14:2443:C:H1'	1.99	0.43
26:14:1257:C:H4'	30:39:83:PHE:CD1	2.53	0.43
26:14:1826:G:H4'	28:19:242:ARG:CZ	2.48	0.43
26:14:2286:A:OP2	53:K5:28:ARG:HD2	2.17	0.43
26:14:2611:U:O2'	52:J5:3:LYS:CG	2.64	0.43
26:14:2747:G:C2	26:14:2754:U:C4	3.06	0.43
27:1J:3:C:H2'	27:1J:4:C:C6	2.53	0.43
27:1J:52:A:N6	39:65:33:LYS:HE2	2.33	0.43
39:65:27:SER:HA	39:65:88:ASP:CB	2.46	0.43
40:75:55:ASN:N	40:75:59:THR:HG22	2.32	0.43
46:D5:8:TYR:HA	46:D5:62:PRO:HG3	1.99	0.43
55:M5:7:HIS:CB	55:M5:58:ILE:HG22	2.48	0.43
1:13:13:U:O2	1:13:914:A:H3'	2.17	0.43
1:13:533:A:C2	1:13:536:C:C5	3.06	0.43
1:13:812:C:H4'	1:13:813:U:H5'	2.00	0.43
1:13:1334:G:H5''	1:13:1335:C:OP2	2.18	0.43
6:5E:41:GLU:O	6:5E:43:LEU:HD12	2.18	0.43
7:6E:79:ARG:NH1	7:6E:80:VAL:O	2.51	0.43
15:6I:82:ILE:HG22	15:6I:83:GLU:N	2.33	0.43
26:1H:66:C:O2'	26:1H:67:U:H5'	2.18	0.43
26:1H:449:A:C6	26:1H:450:G:C5	3.06	0.43
26:1H:1213:A:H1'	26:1H:1238:G:N3	2.33	0.43
26:1H:1317:A:H2'	26:1H:1318:C:C6	2.53	0.43
26:1H:1375:C:H2'	26:1H:1376:C:C6	2.53	0.43
26:1H:2334:G:H4'	26:1H:2335:A:OP2	2.17	0.43
26:1H:2508:G:H2'	26:1H:2509:G:H8	1.83	0.43
27:16:88:C:H2'	27:16:89:G:O4'	2.19	0.43
28:11:232:PRO:HB3	28:11:244:ARG:NH1	2.33	0.43
31:41:96:ARG:O	31:41:97:ASP:HB2	2.18	0.43
32:51:10:PRO:HB2	32:51:50:VAL:HG13	2.00	0.43
32:51:43:VAL:HB	32:51:52:VAL:HG22	1.99	0.43
39:A8:34:HIS:HB2	39:A8:36:TYR:CE1	2.45	0.43
39:A8:48:LEU:CD2	39:A8:82:ILE:HD11	2.42	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:G8:35:TYR:CE2	45:G8:69:ALA:HB3	2.53	0.43
46:H8:48:PHE:HE1	46:H8:71:VAL:HG11	1.83	0.43
50:L8:5:LYS:HD2	50:L8:34:GLU:OE1	2.18	0.43
1:1G:29:G:H5'	1:1G:296:U:OP1	2.18	0.43
1:1G:38:G:H4'	1:1G:547:A:N6	2.33	0.43
1:1G:411:A:N7	1:1G:413:G:N3	2.66	0.43
1:1G:1442:G:C6	1:1G:1446:A:N6	2.86	0.43
2:12:130:ARG:HE	2:12:130:ARG:N	2.16	0.43
7:62:60:LYS:HD2	7:62:60:LYS:HA	1.75	0.43
7:62:99:LEU:HD22	7:62:103:TRP:CZ2	2.53	0.43
19:AA:28:LYS:HG2	19:AA:29:ARG:H	1.83	0.43
26:14:585:G:H3'	61:14:4026:HOH:O	2.18	0.43
26:14:664:C:OP1	36:35:18:ARG:NH2	2.46	0.43
26:14:782:A:O2'	28:19:225:ALA:HB1	2.18	0.43
26:14:998:C:OP2	41:85:58:ARG:NH2	2.40	0.43
26:14:1358:G:N2	26:14:1372:U:C5	2.86	0.43
26:14:2280:G:O2'	26:14:2388:A:N1	2.37	0.43
26:14:2292:C:H2'	26:14:2293:C:C6	2.53	0.43
27:1J:43:C:O4'	31:49:66:GLN:NE2	2.51	0.43
27:1J:89:G:H21	27:1J:89(A):A:H2	1.67	0.43
28:19:232:PRO:HA	61:19:301:HOH:O	2.18	0.43
29:29:116:VAL:O	29:29:117:MET:CB	2.66	0.43
30:39:178:PRO:HG2	30:39:179:GLU:OE2	2.18	0.43
31:49:20:ILE:HG23	31:49:25:TYR:HB2	2.00	0.43
31:49:172:LEU:O	31:49:176:LEU:HB2	2.18	0.43
33:69:75:LEU:HD22	33:69:76:THR:N	2.20	0.43
34:15:67:LEU:HG	34:15:88:GLU:HG2	1.99	0.43
36:35:19:VAL:HG13	36:35:21:ARG:N	2.22	0.43
39:65:6:ALA:HA	39:65:9:ARG:HB2	2.00	0.43
51:I5:8:LYS:HA	51:I5:8:LYS:HD3	1.48	0.43
53:K5:35:GLU:HG2	53:K5:51:GLU:HB2	1.99	0.43
1:13:74:C:H2'	1:13:75:C:O4'	2.18	0.43
1:13:1060:C:O2'	10:1I:56:HIS:ND1	2.42	0.43
1:13:1072:G:C5	1:13:1073:U:C4	3.06	0.43
1:13:1528:U:C2	1:13:1530:G:C8	3.06	0.43
2:1E:54:THR:HG21	2:1E:201:ILE:HD11	2.00	0.43
9:8E:112:LYS:CA	9:8E:119:ALA:HB2	2.47	0.43
13:4I:84:ILE:HD12	13:4I:84:ILE:HA	1.82	0.43
16:7I:77:ALA:HB3	16:7I:79:VAL:HG23	1.99	0.43
26:1H:243:U:O2'	26:1H:244:A:H5'	2.18	0.43
26:1H:617:G:OP2	30:31:43:LYS:HE2	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:674:G:C1'	30:31:74:ARG:HD3	2.41	0.43
26:1H:907:U:O2'	37:88:101:ARG:NH2	2.45	0.43
26:1H:1171:G:N2	26:1H:1179:C:C2	2.86	0.43
26:1H:1388:G:H2'	26:1H:1389:G:H8	1.83	0.43
26:1H:1441:G:H2'	26:1H:1442:G:C8	2.50	0.43
26:1H:1470:G:H5''	26:1H:1471:A:OP1	2.18	0.43
26:1H:1550:C:H2'	26:1H:1551:C:C6	2.53	0.43
26:1H:1677:A:H2'	26:1H:1678:G:H8	1.83	0.43
26:1H:2123:G:H2'	26:1H:2124:G:H8	1.83	0.43
26:1H:2598:A:P	61:1H:3647:HOH:O	2.60	0.43
26:1H:2705:A:O2'	26:1H:2852:G:OP1	2.26	0.43
26:1H:2734:A:H5''	26:1H:2734:A:C8	2.54	0.43
26:1H:2862:G:C4	26:1H:2863:C:C5	3.06	0.43
27:16:40:U:H1'	27:16:45:A:H61	1.83	0.43
29:21:50:GLY:HA2	29:21:76:ARG:O	2.18	0.43
30:31:112:MET:HE3	30:31:112:MET:HB3	1.65	0.43
37:88:32:TYR:OH	37:88:111:GLU:HB2	2.18	0.43
43:E8:19:LEU:HB3	52:N8:25:LEU:HD11	2.00	0.43
45:G8:15:VAL:HG21	45:G8:42:VAL:HG21	1.98	0.43
1:1G:176:C:OP1	20:BA:29:LYS:NZ	2.51	0.43
1:1G:303:A:H2'	1:1G:304:U:O4'	2.19	0.43
1:1G:401:C:H2'	1:1G:402:G:C8	2.53	0.43
1:1G:537:G:H5''	12:3A:113:ARG:NH1	2.33	0.43
1:1G:616:G:C2	1:1G:617:G:N7	2.86	0.43
1:1G:1129:C:H4'	1:1G:1130:A:O5'	2.18	0.43
2:12:144:ARG:HG3	2:12:145:LEU:N	2.33	0.43
3:22:54:ARG:HE	3:22:54:ARG:HB2	1.70	0.43
4:32:33:MET:O	4:32:35:ARG:HG3	2.18	0.43
5:42:69:VAL:O	5:42:71:LEU:N	2.50	0.43
7:62:42:ILE:HG23	7:62:117:ALA:HB2	2.00	0.43
12:3A:26:ALA:O	12:3A:27:LEU:HD22	2.17	0.43
17:8A:10:VAL:HA	17:8A:20:THR:O	2.19	0.43
26:14:573:G:O2'	26:14:574:C:H3'	2.18	0.43
26:14:746:A:H2'	26:14:2612:C:H5''	1.99	0.43
26:14:1033:U:C6	26:14:1033:U:C3'	3.01	0.43
26:14:1519:G:C6	26:14:1520:U:N3	2.86	0.43
26:14:1818:U:H2'	28:19:157:ARG:HG3	2.00	0.43
26:14:2461:C:H2'	26:14:2462:U:C6	2.52	0.43
29:29:9:VAL:HA	40:75:3:ARG:CG	2.49	0.43
32:59:152:ARG:HG3	32:59:153:LYS:HB2	1.99	0.43
35:25:7:TYR:HE1	35:25:20:MET:CE	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:974:A:OP2	14:5I:29:ARG:NH2	2.52	0.43
1:13:1372:U:OP1	9:8E:72:GLY:N	2.51	0.43
3:2E:43:LEU:O	3:2E:47:LEU:HB2	2.18	0.43
6:5E:62:TRP:CH2	6:5E:64:GLN:HG2	2.54	0.43
9:8E:89:ASN:HB2	9:8E:91:ASP:OD1	2.17	0.43
9:8E:126:SER:OG	9:8E:127:LYS:N	2.51	0.43
17:8I:52:LYS:HD2	17:8I:55:ASP:OD1	2.18	0.43
19:AI:43:GLU:H	19:AI:43:GLU:HG2	1.57	0.43
20:BI:74:LYS:HB3	20:BI:75:ASN:OD1	2.18	0.43
26:1H:130:C:O3'	26:1H:1349:A:H1'	2.19	0.43
26:1H:205:G:O2'	26:1H:206:U:P	2.76	0.43
26:1H:302:C:C2	26:1H:303:U:C5	3.06	0.43
26:1H:674:G:H1'	30:31:74:ARG:CD	2.41	0.43
26:1H:831:G:N2	36:78:53:GLY:O	2.51	0.43
26:1H:1171:G:N1	26:1H:1178:C:N4	2.67	0.43
26:1H:1324:G:C4	26:1H:1328:G:O6	2.71	0.43
26:1H:1378:A:OP1	54:P8:10:ARG:NH2	2.51	0.43
26:1H:2109:U:H2'	26:1H:2110:G:C8	2.53	0.43
26:1H:2262:U:H4'	26:1H:2328:A:H2	1.83	0.43
26:1H:2368:C:H2'	26:1H:2369:A:H8	1.83	0.43
26:1H:2590:A:H2'	26:1H:2591:C:C6	2.53	0.43
26:1H:2619:C:O2'	26:1H:2620:C:H5'	2.18	0.43
27:16:15:A:H5'	27:16:16:G:H8	1.84	0.43
29:21:77:ILE:C	29:21:79:ARG:H	2.20	0.43
30:31:32:LEU:HD22	30:31:105:VAL:HG13	2.00	0.43
32:51:104:GLU:HB2	32:51:114:VAL:HG22	2.00	0.43
36:78:58:THR:HG21	55:Q8:52:LYS:HE3	1.99	0.43
39:A8:83:LYS:HE3	39:A8:110:LEU:HD23	2.00	0.43
45:G8:44:ILE:H	45:G8:44:ILE:HG13	1.49	0.43
46:H8:99:TYR:HD2	46:H8:123:ASP:HB3	1.84	0.43
49:K8:3:LEU:O	49:K8:6:VAL:HG13	2.19	0.43
1:1G:8:A:C5	4:32:209:ARG:HA	2.53	0.43
1:1G:340:U:H2'	1:1G:341:C:C6	2.53	0.43
1:1G:371:G:O2'	1:1G:373:A:N7	2.50	0.43
1:1G:487:A:H2'	1:1G:488:C:O4'	2.18	0.43
1:1G:867:G:O2'	1:1G:868:C:H5'	2.18	0.43
1:1G:1432:G:OP1	40:75:107:ASP:HB2	2.19	0.43
3:22:18:TRP:HE3	3:22:18:TRP:N	2.15	0.43
3:22:61:ALA:O	3:22:63:ASN:N	2.50	0.43
4:32:30:LYS:HB3	4:32:35:ARG:HD2	2.00	0.43
6:52:30:LEU:HB3	6:52:35:ALA:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:52:100:ASN:ND2	18:9A:26:LEU:O	2.51	0.43
12:3A:117:ARG:HB3	12:3A:122:THR:HB	1.99	0.43
23:2L:55:5MU:C4	23:2L:56:PSU:C2	3.06	0.43
23:2L:65:G:C6	23:2L:66:C:C4	3.07	0.43
57:3L:15:G:O5'	57:3L:15:G:H8	2.01	0.43
26:14:84:A:O5'	45:C5:8:LYS:HD3	2.18	0.43
26:14:236:C:H2'	26:14:237:C:H6	1.84	0.43
26:14:376:C:H2'	26:14:377:C:C6	2.52	0.43
26:14:1054:A:H2'	26:14:1055:G:C8	2.52	0.43
26:14:1157:G:C2	26:14:1158:C:C2	3.06	0.43
26:14:1996:C:OP1	35:25:31:LYS:HE2	2.18	0.43
26:14:2298:A:H2'	26:14:2299:G:O4'	2.17	0.43
26:14:2371:G:H4'	53:K5:45:LYS:HG2	2.00	0.43
26:14:2392:A:N1	26:14:2424:C:N3	2.66	0.43
29:29:26:ILE:HG22	29:29:27:LEU:C	2.38	0.43
31:49:131:TYR:O	31:49:159:VAL:HG23	2.17	0.43
35:25:9:GLU:N	35:25:82:ASN:O	2.50	0.43
42:95:85:LYS:HD2	42:95:86:GLY:N	2.26	0.43
51:15:43:TYR:O	51:15:43:TYR:CG	2.71	0.43
1:13:190:G:HO2'	1:13:191(A):G:P	2.40	0.43
1:13:304:U:H2'	1:13:305:G:C8	2.54	0.43
1:13:973:G:OP1	10:1I:57:LYS:NZ	2.21	0.43
1:13:1064:G:OP1	1:13:1386:G:H4'	2.18	0.43
1:13:1091:U:O2	1:13:1093:A:C8	2.72	0.43
1:13:1118:C:H1'	1:13:1179:A:C5	2.53	0.43
1:13:1132:C:H2'	1:13:1133:G:O4'	2.18	0.43
1:13:1177:G:O2'	1:13:1178:G:O4'	2.26	0.43
2:1E:31:TYR:O	2:1E:42:ILE:HG13	2.18	0.43
4:3E:11:LEU:HD22	4:3E:66:ARG:HG2	2.01	0.43
7:6E:104:LEU:HD13	7:6E:104:LEU:HA	1.84	0.43
8:7E:86:ILE:HG22	8:7E:93:VAL:HG21	2.01	0.43
13:4I:23:TYR:HB3	13:4I:67:GLU:HB2	2.00	0.43
20:BI:45:GLN:HA	20:BI:91:LEU:HD22	1.99	0.43
20:BI:72:LEU:HD21	20:BI:77:ALA:HB2	2.00	0.43
26:1H:208:C:H2'	26:1H:209:C:C6	2.52	0.43
26:1H:286:C:N4	26:1H:355:G:H1	2.14	0.43
26:1H:1163:G:N3	26:1H:1164:G:C8	2.87	0.43
26:1H:1170:G:N2	26:1H:1180:C:O2	2.51	0.43
26:1H:1433:U:O2	26:1H:1561:G:N1	2.52	0.43
26:1H:1658:C:H5''	61:1H:3698:HOH:O	2.17	0.43
26:1H:1727:U:H2'	26:1H:1728:G:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2502:G:N7	61:1H:3867:HOH:O	2.36	0.43
26:1H:2780:G:OP2	34:58:118:LYS:HD3	2.18	0.43
28:11:107:ALA:HA	28:11:108:PRO:HD3	1.82	0.43
29:21:29:GLY:N	29:21:51:PHE:HE1	2.04	0.43
30:31:114:VAL:HG21	30:31:202:PHE:CE1	2.53	0.43
30:31:124:LEU:HD12	30:31:125:LEU:O	2.18	0.43
30:31:136:THR:O	30:31:140:LEU:HB2	2.18	0.43
34:58:10:GLU:HA	34:58:11:PRO:HD3	1.74	0.43
34:58:65:LYS:HB2	34:58:65:LYS:HE3	1.38	0.43
35:68:86:ILE:HG22	35:68:94:ARG:HB2	2.00	0.43
38:98:4:LEU:HA	38:98:4:LEU:HD13	1.27	0.43
38:98:10:LEU:O	38:98:11:ASN:C	2.56	0.43
45:G8:94:LYS:HG3	45:G8:95:LYS:N	2.33	0.43
46:H8:55:HIS:ND1	46:H8:55:HIS:N	2.66	0.43
47:I8:26:TYR:O	47:I8:67:VAL:HG22	2.17	0.43
48:J8:15:ALA:O	48:J8:40:ARG:HG2	2.18	0.43
51:M8:12:ALA:C	51:M8:24:THR:HG21	2.39	0.43
55:Q8:48:PHE:CG	55:Q8:49:VAL:N	2.79	0.43
1:1G:243:A:H4'	1:1G:244:U:O5'	2.18	0.43
1:1G:456:C:N4	1:1G:476:G:H1	2.15	0.43
1:1G:567:G:H2'	1:1G:568:G:O4'	2.19	0.43
1:1G:616:G:N3	1:1G:617:G:C8	2.87	0.43
1:1G:972:C:O3'	10:1A:57:LYS:HG3	2.18	0.43
1:1G:1172:C:H2'	1:1G:1173:G:C8	2.54	0.43
1:1G:1275:A:H2'	1:1G:1276:G:C8	2.53	0.43
1:1G:1344:C:H5'	9:82:120:ARG:O	2.19	0.43
1:1G:1359:C:O2'	1:1G:1361:G:N7	2.51	0.43
1:1G:1517:G:C6	1:1G:1518:A:C5	3.07	0.43
2:12:193:ASP:OD2	2:12:196:LEU:HG	2.19	0.43
4:32:173:TRP:CD1	4:32:174:LEU:HG	2.53	0.43
5:42:37:ARG:HG2	5:42:112:LEU:HA	2.00	0.43
5:42:76:ILE:HG23	5:42:142:LEU:HD13	1.99	0.43
18:9A:18:ARG:HG3	18:9A:19:LYS:N	2.34	0.43
57:3L:9:A:C8	57:3L:11:C:N4	2.87	0.43
26:14:142:G:H2'	26:14:143:C:H6	1.84	0.43
26:14:882:G:H2'	26:14:883:G:H8	1.84	0.43
26:14:959:A:C6	26:14:960:A:N1	2.86	0.43
26:14:1204:A:N1	26:14:1241:A:C2	2.87	0.43
26:14:1329:U:H5''	26:14:1330:C:H5	1.83	0.43
26:14:1946:U:H2'	26:14:1947:C:C6	2.53	0.43
26:14:2130:U:H2'	26:14:2158:A:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2197:U:O2	26:14:2198:A:O2'	2.26	0.43
26:14:2402:C:H5	26:14:2415:G:H22	1.65	0.43
26:14:2859:G:C8	26:14:2859:G:H3'	2.54	0.43
51:I5:13:ARG:HA	51:I5:22:ILE:HB	1.99	0.43
1:13:114:U:O2'	1:13:115:G:H5'	2.18	0.43
1:13:645:C:OP2	61:13:1972:HOH:O	2.21	0.43
1:13:663:A:H2'	1:13:664:G:O4'	2.19	0.43
1:13:940:C:H2'	1:13:941:G:C8	2.53	0.43
1:13:1111:A:N1	3:2E:177:THR:HG23	2.33	0.43
1:13:1273:G:H5'	1:13:1274:G:OP2	2.18	0.43
1:13:1298:C:C5	7:6E:114:ARG:HD3	2.54	0.43
1:13:1315:U:H2'	1:13:1316:G:O4'	2.19	0.43
1:13:1374:A:C5	1:13:1375:A:C8	3.07	0.43
5:4E:110:LEU:CD1	5:4E:118:ILE:HD13	2.48	0.43
8:7E:121:ASP:OD1	8:7E:121:ASP:N	2.51	0.43
11:2I:79:SER:HB2	11:2I:106:LYS:HD2	2.00	0.43
16:7I:74:LEU:HB3	16:7I:79:VAL:HG21	2.00	0.43
20:BI:92:LEU:O	20:BI:96:GLY:HA3	2.19	0.43
22:1K:19:G:OP1	22:1K:60:U:N3	2.52	0.43
26:1H:10:G:N2	26:1H:2801:A:O2'	2.39	0.43
26:1H:382:G:H5''	26:1H:383:U:OP2	2.19	0.43
26:1H:581:C:H2'	26:1H:582:G:C8	2.54	0.43
26:1H:602:G:HO2'	26:1H:604:G:HO2'	1.52	0.43
26:1H:1243:G:O2'	36:78:7:ARG:NH2	2.52	0.43
26:1H:1790:C:H2'	26:1H:1791:A:C5	2.53	0.43
26:1H:2056:G:N3	26:1H:2056:G:H2'	2.33	0.43
28:11:2:ALA:HA	28:11:20:ASP:CB	2.48	0.43
28:11:6:PHE:CE1	28:11:18:VAL:HG23	2.52	0.43
29:21:107:THR:O	29:21:190:GLY:HA3	2.19	0.43
31:41:21:ARG:HH11	31:41:21:ARG:CG	2.27	0.43
31:41:135:LEU:O	31:41:154:GLY:HA3	2.18	0.43
32:51:12:PRO:HG2	32:51:13:LYS:HG2	2.00	0.43
35:68:117:LEU:HA	35:68:117:LEU:HD23	1.83	0.43
36:78:97:PRO:HB3	36:78:112:LEU:HB2	1.99	0.43
39:A8:62:LYS:HB3	39:A8:97:ARG:HD2	2.01	0.43
44:F8:57:LEU:HD11	44:F8:78:LYS:HD2	2.00	0.43
44:F8:89:ILE:HG22	44:F8:92:LEU:HB2	2.01	0.43
46:H8:135:GLU:HG3	46:H8:136:PHE:CD1	2.54	0.43
55:Q8:32:LEU:HG	55:Q8:33:ASN:OD1	2.18	0.43
55:Q8:45:GLY:O	55:Q8:46:ARG:HB2	2.19	0.43
1:1G:617:G:C2	1:1G:618:C:C5	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:828:A:H2'	1:1G:829:G:O4'	2.18	0.43
1:1G:830:G:H2'	1:1G:831:U:O4'	2.18	0.43
1:1G:892:A:C2	1:1G:907:A:C4	3.07	0.43
1:1G:1206:G:C6	1:1G:1207:G:C5	3.07	0.43
1:1G:1255:G:O3'	1:1G:1258:G:H1'	2.19	0.43
2:12:24:TRP:N	2:12:24:TRP:CD1	2.85	0.43
2:12:208:ILE:HA	2:12:211:ILE:HD12	2.00	0.43
3:22:91:LEU:HD11	3:22:101:LEU:CD1	2.49	0.43
4:32:31:CYS:O	4:32:31:CYS:SG	2.76	0.43
5:42:152:ARG:HD3	8:72:42:GLU:O	2.17	0.43
10:1A:6:ILE:HG22	10:1A:98:ILE:HG12	2.01	0.43
11:2A:19:ALA:O	11:2A:82:VAL:HA	2.19	0.43
21:1B:9:ARG:HG3	21:1B:10:ARG:H	1.83	0.43
21:1B:22:ARG:HA	21:1B:23:PRO:HD2	1.94	0.43
26:14:396:G:H8	26:14:396:G:O5'	2.01	0.43
26:14:818:G:H4'	26:14:838:C:O3'	2.19	0.43
26:14:968:G:H2'	26:14:969:U:O4'	2.18	0.43
26:14:1104:C:H2'	26:14:1105:U:C5	2.54	0.43
26:14:1338:G:N3	26:14:1393:A:H2	2.17	0.43
26:14:1636:C:OP1	61:14:3631:HOH:O	2.21	0.43
26:14:2426:A:H4'	26:14:2427:C:OP2	2.19	0.43
29:29:173:VAL:N	29:29:183:LEU:O	2.39	0.43
35:25:1:MET:HE2	35:25:32:TYR:CD1	2.53	0.43
36:35:97:PRO:HD3	36:35:126:VAL:O	2.19	0.43
37:45:1:MET:H3	37:45:69:PHE:HE1	1.64	0.43
39:65:7:TYR:OH	39:65:91:PRO:HG3	2.19	0.43
42:95:28:GLU:O	42:95:61:VAL:HG11	2.19	0.43
44:B5:88:LYS:HE2	44:B5:90:GLU:OE2	2.19	0.43
1:13:431:A:H2'	1:13:432:A:O4'	2.19	0.43
1:13:474:G:C2	1:13:475:G:C4	3.07	0.43
1:13:475:G:H2'	1:13:476:G:C8	2.53	0.43
1:13:725:G:H2'	1:13:726:C:H6	1.83	0.43
1:13:1162:C:O5'	1:13:1162:C:H6	2.01	0.43
1:13:1343:G:O2'	9:8E:121:ARG:HD3	2.18	0.43
2:1E:17:PHE:HD1	2:1E:17:PHE:H	1.65	0.43
11:2I:34:ASP:HB3	11:2I:40:ILE:HD11	1.99	0.43
19:AI:30:LEU:H	19:AI:30:LEU:HD13	1.84	0.43
24:3K:2:C:O3'	24:3K:3:C:O4'	2.37	0.43
26:1H:37:C:H2'	26:1H:38:A:C8	2.54	0.43
26:1H:65:C:H2'	26:1H:66:C:H6	1.84	0.43
26:1H:270(N):G:H5'	33:61:53:ALA:HB1	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:720:C:H2'	26:1H:721:C:H6	1.84	0.43
26:1H:1324:G:N2	26:1H:1331:A:C4	2.87	0.43
26:1H:2164:C:H5	26:1H:2165:G:C6	2.36	0.43
26:1H:2383:G:C2'	26:1H:2384:G:H5'	2.48	0.43
35:68:44:LYS:HD3	35:68:44:LYS:HA	1.87	0.43
41:C8:79:PHE:C	41:C8:79:PHE:HD1	2.22	0.43
55:Q8:60:LEU:N	55:Q8:61:LEU:HA	2.34	0.43
1:1G:554:C:H2'	1:1G:555:C:C6	2.54	0.43
1:1G:713:G:H2'	1:1G:714:G:C8	2.54	0.43
1:1G:834:C:H42	1:1G:852:G:H1	1.67	0.43
1:1G:1329:A:O2'	13:4A:24:GLY:HA2	2.17	0.43
1:1G:1330:U:H4'	13:4A:23:TYR:CE1	2.53	0.43
3:22:21:ARG:HB3	3:22:21:ARG:CZ	2.47	0.43
3:22:23:TYR:CD1	3:22:24:ALA:N	2.87	0.43
8:72:20:TYR:HA	8:72:65:TYR:CZ	2.54	0.43
9:82:112:LYS:HG2	9:82:119:ALA:HB2	2.01	0.43
12:3A:60:LEU:HB2	12:3A:64:TYR:CB	2.44	0.43
17:8A:45:HIS:HA	17:8A:69:LYS:HZ1	1.83	0.43
19:AA:50:ALA:CB	19:AA:57:HIS:HB3	2.48	0.43
19:AA:66:MET:HA	19:AA:67:VAL:C	2.39	0.43
20:BA:85:MET:HB2	20:BA:104:LEU:HD21	1.99	0.43
56:1L:22:G:OP2	56:1L:22:G:H8	2.01	0.43
56:1L:43:C:N3	56:1L:44:G:N2	2.67	0.43
56:1L:53:G:N2	56:1L:61:C:N3	2.50	0.43
57:3L:48:C:N4	57:3L:59:U:H1'	2.34	0.43
25:4L:19:U:O5'	25:4L:19:U:C6	2.72	0.43
26:14:77:C:OP1	49:G5:59:ARG:HD3	2.19	0.43
26:14:102:G:OP1	49:G5:7:ARG:NH2	2.51	0.43
26:14:252:G:P	36:35:50:ARG:NH2	2.92	0.43
26:14:270(F):U:H2'	26:14:270(G):C:C6	2.54	0.43
26:14:602:G:OP2	26:14:602:G:H8	2.01	0.43
26:14:637:A:H2'	36:35:117:GLU:OE2	2.18	0.43
26:14:702:G:C2	26:14:731:C:C2	3.07	0.43
26:14:757:U:H2'	26:14:758:C:O4'	2.18	0.43
26:14:817:C:H6	26:14:817:C:O5'	2.01	0.43
26:14:832:G:H5'	36:35:45:LEU:CD1	2.49	0.43
26:14:1006:C:C2	26:14:1138:G:N2	2.87	0.43
26:14:1142:U:H5''	26:14:1142(A):A:H5'	2.01	0.43
26:14:1147:C:H2'	26:14:1148:A:H8	1.83	0.43
26:14:1213:A:N3	26:14:1238:G:O2'	2.45	0.43
26:14:1533:C:C4	26:14:1534:G:H1'	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1952:A:C6	35:25:22:ILE:HD12	2.54	0.43
26:14:2103:C:H2'	26:14:2104:G:C8	2.53	0.43
26:14:2211:G:H3'	26:14:2212:A:N3	2.33	0.43
26:14:2688:U:C5	26:14:2720:U:OP2	2.72	0.43
26:14:2836:U:H2'	26:14:2837:G:H8	1.70	0.43
34:15:21:LYS:O	34:15:60:ILE:HG13	2.18	0.43
36:35:90:ARG:HG3	36:35:91:PHE:H	1.84	0.43
39:65:41:ASP:OD1	39:65:44:LYS:HB2	2.18	0.43
47:E5:34:GLY:HA2	47:E5:61:ALA:O	2.18	0.43
48:F5:86:SER:N	48:F5:87:PRO:CD	2.82	0.43
1:13:21:G:OP1	61:13:1831:HOH:O	2.21	0.43
1:13:66:G:C2	1:13:67:C:C6	3.07	0.43
1:13:280:C:O2	17:8I:38:ARG:HG3	2.19	0.43
1:13:455:C:H42	1:13:477:G:H1	1.67	0.43
1:13:606:G:H22	1:13:631:G:H5''	1.84	0.43
1:13:704:A:H5''	1:13:705:U:OP2	2.19	0.43
1:13:828:A:H2'	1:13:829:G:O4'	2.18	0.43
4:3E:85:LYS:HE2	4:3E:85:LYS:HB2	1.65	0.43
5:4E:60:TYR:O	5:4E:64:ARG:HD3	2.19	0.43
9:8E:78:LYS:HE2	9:8E:101:PHE:CE1	2.54	0.43
16:7I:4:ILE:HA	16:7I:20:VAL:O	2.19	0.43
23:2K:52:C:H2'	23:2K:53:G:O4'	2.18	0.43
26:1H:163:U:O5'	26:1H:163:U:H6	2.00	0.43
26:1H:286:C:O2'	26:1H:287:C:H5'	2.18	0.43
26:1H:588:U:O4	26:1H:670:A:H1'	2.19	0.43
26:1H:644:A:C4	26:1H:646:A:C2	3.07	0.43
26:1H:734:A:O2'	26:1H:1635:G:H5'	2.18	0.43
26:1H:1300:U:H4'	26:1H:1301:A:H5'	2.01	0.43
26:1H:1478:G:H1'	26:1H:1557:C:O2'	2.18	0.43
26:1H:2418:A:P	55:Q8:39:LYS:HE2	2.59	0.43
26:1H:2729:G:H2'	26:1H:2730:C:C6	2.54	0.43
26:1H:2789:C:H3'	26:1H:2790:A:H5''	2.01	0.43
28:11:94:LEU:HD23	28:11:95:LEU:N	2.33	0.43
30:31:9:ILE:HD11	30:31:125:LEU:N	2.30	0.43
30:31:106:ARG:H	30:31:106:ARG:HG2	1.66	0.43
31:41:66:GLN:NE2	31:41:93:THR:O	2.51	0.43
31:41:67:LYS:HE2	31:41:67:LYS:N	2.32	0.43
31:41:179:PRO:HG3	51:M8:38:LYS:CE	2.46	0.43
33:61:127:VAL:HA	33:61:138:ILE:O	2.18	0.43
34:58:127:ASP:O	34:58:128:HIS:HB3	2.18	0.43
38:98:98:LEU:HD23	38:98:98:LEU:HA	1.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:A8:56:LEU:O	39:A8:58:LEU:HD23	2.19	0.43
40:B8:99:LEU:HD12	40:B8:99:LEU:H	1.84	0.43
45:G8:47:LYS:HG3	45:G8:48:ALA:O	2.19	0.43
47:I8:7:LEU:HA	47:I8:11:ARG:NH1	2.33	0.43
47:I8:36:ILE:HD13	47:I8:36:ILE:C	2.39	0.43
48:J8:75:GLU:O	48:J8:77:ALA:N	2.52	0.43
49:K8:15:LYS:H	49:K8:67:LYS:HE2	1.83	0.43
51:M8:60:GLN:HB2	51:M8:61:ARG:HD2	2.01	0.43
55:Q8:9:GLY:N	55:Q8:12:LYS:H	2.17	0.43
1:1G:1028(A):C:H42	1:1G:1032(B):G:N2	2.17	0.43
1:1G:1186:G:N2	1:1G:1187:G:H1'	2.34	0.43
1:1G:1256:A:N6	1:1G:1278:U:OP2	2.47	0.43
1:1G:1400:C:N4	23:2L:35:C:H1'	2.33	0.43
6:52:96:PRO:HB3	18:9A:30:ASP:CG	2.39	0.43
9:82:65:VAL:HG21	9:82:73:GLN:HB3	2.00	0.43
9:82:119:ALA:O	9:82:120:ARG:HB2	2.18	0.43
26:14:322:A:H5'	26:14:340:A:H1'	2.01	0.43
26:14:588:U:H2'	26:14:589:C:H6	1.76	0.43
26:14:820:A:O2'	26:14:821:A:H5'	2.19	0.43
26:14:1169:G:N3	26:14:1170:G:H1'	2.33	0.43
26:14:1366:A:H2'	26:14:1367:A:O4'	2.18	0.43
26:14:1387:C:C2	26:14:1388:G:C8	3.06	0.43
26:14:1643:G:N7	61:14:3984:HOH:O	2.37	0.43
26:14:1849:G:H2'	26:14:1850:G:C8	2.54	0.43
26:14:2016:U:H1'	52:J5:6:VAL:HG13	1.99	0.43
26:14:2033:A:P	61:14:4056:HOH:O	2.76	0.43
26:14:2638:G:OP2	29:29:82:ARG:NH2	2.52	0.43
27:1J:27:C:O3'	39:65:36:TYR:OH	2.36	0.43
29:29:29:GLY:HA2	29:29:180:ASN:HB3	2.00	0.43
31:49:117:PHE:HE1	31:49:120:LEU:HD23	1.83	0.43
32:59:120:GLY:O	32:59:135:GLY:HA2	2.19	0.43
42:95:80:GLN:HG3	42:95:81:TYR:N	2.31	0.43
44:B5:31:HIS:HA	44:B5:32:PRO:HD3	1.77	0.43
1:13:179:A:H2'	1:13:180:U:C6	2.54	0.43
1:13:683:G:C6	1:13:684:A:C6	3.07	0.43
5:4E:80:ILE:HG12	5:4E:81:GLU:N	2.34	0.43
6:5E:10:LEU:HD13	6:5E:61:LEU:HD13	1.99	0.43
8:7E:12:ARG:HD3	8:7E:26:VAL:HB	2.01	0.43
8:7E:85:ARG:NE	8:7E:87:SER:O	2.48	0.43
12:3I:89:ARG:HG3	12:3I:89:ARG:HH11	1.84	0.43
13:4I:69:GLU:HG3	31:41:118:ARG:NH2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:42:PRO:HD3	51:M8:63:TYR:HE2	1.84	0.43
26:1H:35:G:H2'	26:1H:36:G:O4'	2.19	0.43
26:1H:99:U:C6	26:1H:102:G:C2	3.07	0.43
26:1H:375:C:H42	26:1H:399:G:H1	1.66	0.43
26:1H:425:G:H2'	26:1H:426:C:H6	1.83	0.43
26:1H:710:G:H2'	26:1H:711:G:H8	1.84	0.43
26:1H:1178:C:H1'	26:1H:1179:C:C6	2.54	0.43
26:1H:1523:U:C2	26:1H:1524:G:C8	3.07	0.43
26:1H:2028:U:H2'	26:1H:2029:G:O4'	2.18	0.43
26:1H:2544:G:H8	26:1H:2544:G:O5'	2.02	0.43
36:78:62:LEU:HB3	55:Q8:23:VAL:HG21	1.99	0.43
37:88:106:VAL:HG21	37:88:114:ALA:HB1	2.00	0.43
40:B8:48:ILE:HD12	40:B8:110:ILE:HD11	1.99	0.43
41:C8:94:ASN:CA	41:C8:96:ALA:HB2	2.48	0.43
43:E8:58:ALA:HB1	43:E8:64:MET:HB2	2.01	0.43
55:Q8:7:HIS:CD2	55:Q8:57:ARG:HH22	2.36	0.43
1:1G:198:G:H2'	1:1G:199:G:C8	2.54	0.43
1:1G:457:C:H2'	1:1G:458:C:C6	2.54	0.43
1:1G:1119:C:OP2	9:82:9:ARG:NH2	2.52	0.43
1:1G:1331:G:OP1	1:1G:1331:G:H4'	2.19	0.43
4:32:126:ILE:HG22	4:32:127:THR:H	1.82	0.43
6:52:16:GLN:H	6:52:16:GLN:HG2	1.46	0.43
11:2A:34:ASP:HB2	11:2A:35:PRO:CD	2.49	0.43
15:6A:24:SER:OG	15:6A:27:VAL:HG23	2.18	0.43
26:14:146:G:H2'	26:14:147:U:O4'	2.19	0.43
26:14:857:C:H4'	47:E5:23:VAL:HG21	1.99	0.43
26:14:956:G:H5''	37:45:77:LYS:HD2	2.00	0.43
26:14:971:C:H2'	26:14:972:G:O4'	2.19	0.43
26:14:1171:G:N2	26:14:1178:C:H42	2.17	0.43
26:14:1203:G:H3'	26:14:1204:A:H5''	2.00	0.43
26:14:1453:A:O2'	26:14:1454:U:H2'	2.18	0.43
26:14:1784:A:H5''	61:14:3558:HOH:O	2.18	0.43
26:14:1856:G:N2	26:14:1886:C:O2	2.51	0.43
26:14:2211:G:H3'	26:14:2212:A:C2	2.54	0.43
26:14:2261:C:O2'	26:14:2262:U:H5'	2.19	0.43
26:14:2441:C:O2'	26:14:2442:C:H5'	2.19	0.43
26:14:2772:C:H2'	26:14:2773:C:H6	1.84	0.43
28:19:127:VAL:HG13	28:19:194:GLY:HA3	1.99	0.43
31:49:104:GLU:OE1	51:I5:23:GLU:HG2	2.18	0.43
33:69:77:LEU:HD22	33:69:141:LYS:HE3	2.00	0.43
35:25:47:ILE:HD12	35:25:47:ILE:HA	1.92	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:75:16:ARG:HG3	40:75:79:HIS:HA	2.01	0.43
44:B5:36:LYS:HG3	44:B5:56:THR:HG23	2.01	0.43
45:C5:40:GLU:HG3	45:C5:64:GLU:OE1	2.18	0.43
45:C5:75:ILE:O	45:C5:76:CYS:HB3	2.18	0.43
46:D5:102:LEU:HD22	46:D5:104:PHE:HE1	1.83	0.43
46:D5:138:GLU:O	46:D5:156:LYS:HG3	2.19	0.43
52:J5:2:ALA:C	52:J5:3:LYS:O	2.57	0.43
53:K5:27:LYS:NZ	53:K5:28:ARG:HH12	2.13	0.43
1:13:60:A:N6	1:13:110:C:N3	2.67	0.43
1:13:142:G:C2	1:13:143:A:C5	3.07	0.43
1:13:157:G:H1	1:13:164:U:H3	1.65	0.43
1:13:237:C:C5'	17:8I:25:ARG:HH12	2.32	0.43
1:13:450:G:N7	1:13:481:G:C6	2.87	0.43
1:13:517:G:N1	1:13:533:A:OP2	2.45	0.43
1:13:1338:G:C6	1:13:1339:A:C6	3.06	0.43
2:1E:12:GLU:HA	2:1E:16:HIS:CD2	2.53	0.43
2:1E:27:LYS:HB2	2:1E:194:PRO:HD2	2.01	0.43
2:1E:165:VAL:HG23	2:1E:166:ASP:N	2.31	0.43
2:1E:189:ASP:HB2	2:1E:205:ASP:HB3	2.01	0.43
4:3E:135:LEU:HA	4:3E:136:PRO:HD2	1.83	0.43
8:7E:97:VAL:O	8:7E:100:ILE:HG13	2.19	0.43
10:1I:79:ARG:HA	10:1I:79:ARG:HD3	1.77	0.43
11:2I:105:VAL:O	11:2I:105:VAL:HG22	2.19	0.43
26:1H:140:A:C8	26:1H:1408:C:O2'	2.72	0.43
26:1H:639:U:C4	26:1H:640:C:N4	2.86	0.43
26:1H:729:G:C5	28:11:208:LYS:HB2	2.54	0.43
26:1H:780:G:N2	26:1H:783:A:N6	2.62	0.43
26:1H:1043:C:C4	26:1H:1044:G:N7	2.86	0.43
26:1H:1251:C:H5	61:1H:3852:HOH:O	2.02	0.43
26:1H:1386:C:OP2	26:1H:1396:U:H5	2.01	0.43
26:1H:2002:G:C6	61:1H:4267:HOH:O	2.70	0.43
26:1H:2067:G:H4'	61:1H:4534:HOH:O	2.18	0.43
26:1H:2287:A:C2	26:1H:2346:A:C2	3.07	0.43
26:1H:2592:G:C6	26:1H:2593:U:C4	3.07	0.43
26:1H:2689:U:OP2	26:1H:2719:G:N2	2.39	0.43
26:1H:2784:C:H1'	29:21:37:ARG:NH1	2.34	0.43
31:41:124:SER:HB2	31:41:131:TYR:CE1	2.54	0.43
33:61:8:PRO:HA	33:61:14:ASP:HA	2.00	0.43
33:61:33:ARG:HB3	33:61:35:LEU:HD23	2.00	0.43
36:78:57:THR:HB	36:78:59:LEU:H	1.84	0.43
45:G8:76:CYS:CB	45:G8:97:ARG:HG2	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:H8:133:ILE:HA	46:H8:134:PRO:HD2	1.71	0.43
51:M8:43:TYR:CE2	51:M8:44:THR:HG23	2.54	0.43
55:Q8:5:LYS:O	55:Q8:6:THR:CB	2.67	0.43
1:1G:216:G:O2'	1:1G:217:C:O4'	2.36	0.43
1:1G:676:A:H1'	11:2A:115:PRO:HB3	2.01	0.43
1:1G:1246:C:H2'	1:1G:1247:U:C6	2.53	0.43
1:1G:1508:G:P	61:1G:1763:HOH:O	2.77	0.43
1:1G:1521:G:H2'	1:1G:1522:U:C6	2.54	0.43
4:32:188:LEU:HD23	4:32:188:LEU:HA	1.93	0.43
7:62:15:ASP:O	7:62:19:GLY:HA2	2.19	0.43
9:82:18:PHE:HD2	9:82:62:TYR:CD2	2.35	0.43
18:9A:45:SER:OG	18:9A:46:GLU:N	2.50	0.43
56:1L:14:A:C2	56:1L:22:G:H1'	2.54	0.43
56:1L:53:G:H3'	56:1L:54:5MU:H71	2.00	0.43
26:14:71:A:H5'	26:14:71:A:H8	1.83	0.43
26:14:117:G:C6	26:14:119:A:C6	3.06	0.43
26:14:307:G:N2	26:14:309:G:H3'	2.34	0.43
26:14:529:A:H8	26:14:530:G:C6	2.36	0.43
26:14:1260:G:C6	26:14:1261:C:C4	3.06	0.43
26:14:2093:G:O5'	33:69:24:GLY:HA3	2.19	0.43
26:14:2314:C:H5'	31:49:38:VAL:HG11	2.01	0.43
26:14:2688:U:H5	26:14:2720:U:OP2	2.02	0.43
28:19:158:ALA:O	28:19:161:THR:HG23	2.18	0.43
30:39:128:ALA:O	30:39:129:PHE:C	2.56	0.43
33:69:40:THR:O	33:69:44:LEU:N	2.43	0.43
35:25:34:THR:OG1	35:25:35:VAL:N	2.52	0.43
35:25:122:LEU:HA	35:25:122:LEU:HD23	1.84	0.43
41:85:92:ARG:NH2	42:95:10:LYS:HA	2.30	0.43
42:95:23:GLU:OE1	42:95:91:TYR:HE1	2.02	0.43
42:95:94:LEU:HD23	42:95:94:LEU:HA	1.84	0.43
1:13:131:C:O2	1:13:131:C:H2'	2.19	0.42
1:13:153:C:H42	1:13:168:G:H1	1.67	0.42
1:13:626:U:N3	1:13:627:G:C8	2.87	0.42
1:13:1292:U:H5'	9:8E:38:GLN:OE1	2.19	0.42
3:2E:91:LEU:HB3	3:2E:99:VAL:HG11	2.01	0.42
5:4E:71:LEU:HA	5:4E:75:THR:O	2.19	0.42
8:7E:86:ILE:HG22	8:7E:87:SER:H	1.83	0.42
13:4I:23:TYR:CE2	13:4I:71:ARG:HG3	2.53	0.42
15:6I:39:LEU:O	15:6I:42:HIS:N	2.51	0.42
16:7I:83:GLU:HB3	16:7I:84:ALA:H	1.66	0.42
17:8I:18:THR:HG23	17:8I:69:LYS:HD2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:9:VAL:HG21	51:M8:63:TYR:O	2.19	0.42
22:1K:9:A:H2'	22:1K:9:A:N3	2.34	0.42
24:3K:18:G:H2'	24:3K:57:G:N2	2.34	0.42
26:1H:222:A:H8	26:1H:222:A:H2'	1.76	0.42
26:1H:709:U:H2'	26:1H:710:G:C8	2.54	0.42
26:1H:929:G:H8	26:1H:929:G:O5'	2.02	0.42
26:1H:1007:C:N4	61:1H:4589:HOH:O	2.51	0.42
26:1H:1026:U:C1'	26:1H:1027:A:P	3.07	0.42
26:1H:1396:U:O2	26:1H:1396:U:H2'	2.19	0.42
26:1H:1729:A:C6	26:1H:1731:G:C2	3.07	0.42
28:11:112:GLN:O	28:11:115:GLN:HG3	2.19	0.42
28:11:149:PRO:O	28:11:150:LYS:HB2	2.18	0.42
38:98:2:ARG:HB3	38:98:3:HIS:H	1.64	0.42
38:98:42:LYS:O	38:98:45:ARG:HD2	2.18	0.42
46:H8:70:LEU:HA	46:H8:70:LEU:HD23	1.68	0.42
46:H8:111:VAL:O	46:H8:114:GLY:HA2	2.18	0.42
55:Q8:48:PHE:CD1	55:Q8:49:VAL:N	2.87	0.42
1:1G:475:G:C6	1:1G:476:G:C5	3.06	0.42
1:1G:784:C:H2'	1:1G:785:G:O4'	2.18	0.42
1:1G:828:A:H61	1:1G:858:G:C2'	2.32	0.42
1:1G:848:C:H2'	1:1G:849:C:C6	2.53	0.42
1:1G:1033:G:H2'	1:1G:1034:G:O4'	2.19	0.42
1:1G:1190:G:H3'	3:22:3:ASN:OD1	2.19	0.42
1:1G:1490:C:H2'	1:1G:1491:G:O4'	2.18	0.42
2:12:146:GLN:O	2:12:149:LEU:N	2.52	0.42
3:22:87:LEU:HA	3:22:90:GLU:HG2	2.00	0.42
19:AA:25:LYS:HB3	19:AA:26:GLY:H	1.63	0.42
56:1L:36:A:C2	25:4L:20:C:C2	3.07	0.42
57:3L:14:A:N6	57:3L:22:G:C4	2.87	0.42
26:14:21:A:C2	26:14:520:G:C2	3.06	0.42
26:14:445:C:O2'	26:14:446:G:H5'	2.19	0.42
26:14:860:U:C2	26:14:2268:A:C8	3.07	0.42
26:14:1475:G:H5'	26:14:1476:C:OP2	2.19	0.42
26:14:1858:G:H8	26:14:1858:G:OP2	2.02	0.42
26:14:2128:C:H2'	26:14:2129:C:O4'	2.19	0.42
26:14:2271:G:H2'	26:14:2272:U:C6	2.54	0.42
26:14:2881:C:H2'	26:14:2882:A:O4'	2.18	0.42
29:29:112:GLY:O	29:29:159:HIS:HA	2.18	0.42
30:39:205:ARG:HB2	30:39:205:ARG:HH11	1.84	0.42
32:59:40:GLU:OE1	32:59:64:LEU:HD12	2.19	0.42
32:59:76:VAL:O	32:59:80:SER:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:65:62:LYS:O	39:65:65:VAL:HG12	2.19	0.42
49:G5:64:LEU:O	49:G5:64:LEU:HD23	2.19	0.42
51:I5:21:VAL:HG22	51:I5:22:ILE:HD13	2.01	0.42
51:I5:26:SER:OG	51:I5:28:LYS:O	2.32	0.42
1:13:37:U:O2'	1:13:500:G:H4'	2.19	0.42
1:13:221:C:H2'	1:13:222:U:C6	2.52	0.42
1:13:567:G:H2'	1:13:568:G:O4'	2.19	0.42
1:13:859:A:H2'	1:13:860:A:C8	2.54	0.42
1:13:1273:G:H3'	1:13:1274:G:H8	1.84	0.42
1:13:1351:U:O4	9:8E:118:LYS:HE3	2.19	0.42
5:4E:145:LYS:HA	8:7E:107:LEU:HD21	2.01	0.42
9:8E:114:TYR:HE2	10:1I:59:SER:HA	1.85	0.42
26:1H:136:G:H2'	26:1H:137:C:C6	2.54	0.42
26:1H:1678:G:C8	26:1H:1678:G:C5'	3.02	0.42
26:1H:1820:U:O2	28:11:202:LYS:HB3	2.20	0.42
26:1H:2213:U:O4'	48:J8:52:ARG:NH2	2.52	0.42
26:1H:2309:A:C6	26:1H:2310:A:N7	2.87	0.42
26:1H:2593:U:H2'	26:1H:2594:C:C6	2.53	0.42
26:1H:2659:G:H4'	32:51:175:LYS:HD2	2.01	0.42
27:16:25:A:H2'	27:16:26:A:O4'	2.19	0.42
30:31:29:ASN:HB3	30:31:112:MET:HE1	2.01	0.42
32:51:124:GLU:HB3	32:51:132:ARG:HB3	2.02	0.42
34:58:133:GLN:O	34:58:134:ARG:HB2	2.19	0.42
35:68:108:GLU:H	35:68:108:GLU:HG3	1.67	0.42
1:1G:266:G:H2'	1:1G:266:G:N3	2.34	0.42
1:1G:568:G:N3	1:1G:574:A:H2	2.17	0.42
1:1G:964:A:N3	1:1G:969:A:O2'	2.45	0.42
1:1G:1226:C:OP2	13:4A:91:ARG:NH1	2.51	0.42
1:1G:1256:A:N6	1:1G:1277:C:H3'	2.34	0.42
6:52:33:TYR:CE1	6:52:78:GLU:HG3	2.54	0.42
13:4A:13:LYS:HG2	13:4A:14:ARG:N	2.33	0.42
13:4A:57:ARG:NH1	51:I5:34:GLU:O	2.51	0.42
13:4A:73:GLU:O	13:4A:77:ASN:HB2	2.19	0.42
20:BA:45:GLN:HA	20:BA:91:LEU:HB3	2.00	0.42
20:BA:61:SER:OG	20:BA:65:LYS:NZ	2.52	0.42
26:14:191:A:H2'	26:14:192:C:C6	2.54	0.42
26:14:275:G:H2'	26:14:276:A:C8	2.55	0.42
26:14:699:A:H2'	26:14:700:G:O4'	2.18	0.42
26:14:792:G:H5''	26:14:793:A:H5'	2.01	0.42
26:14:867:C:N4	26:14:868:U:O4	2.52	0.42
26:14:1152:C:H5''	41:85:80:ILE:HG22	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1641:A:H2'	26:14:1642:G:O4'	2.19	0.42
26:14:1903:G:OP1	28:19:241:PRO:HB2	2.18	0.42
26:14:2027:G:H2'	26:14:2028:U:O4'	2.18	0.42
26:14:2028:U:H2'	26:14:2029:G:O4'	2.19	0.42
26:14:2489:G:O2'	26:14:2490:G:H5'	2.19	0.42
26:14:2774:C:H2'	26:14:2775:A:O4'	2.20	0.42
26:14:2845:G:H2'	26:14:2846:G:C8	2.54	0.42
27:1J:66:A:C6	27:1J:107:U:H2'	2.53	0.42
27:1J:87:G:N2	27:1J:89:G:H3'	2.34	0.42
30:39:107:LYS:HA	30:39:107:LYS:HD3	1.54	0.42
33:69:75:LEU:HD21	33:69:141:LYS:CE	2.49	0.42
35:25:50:GLY:C	35:25:52:VAL:H	2.22	0.42
36:35:56:SER:O	36:35:57:THR:HB	2.19	0.42
1:13:113:G:H2'	1:13:114:U:C6	2.54	0.42
1:13:116:A:OP2	1:13:116:A:C8	2.72	0.42
1:13:530:G:O6	25:4K:21:C:H1'	2.19	0.42
1:13:593:G:H2'	1:13:594:G:C8	2.55	0.42
1:13:651:C:H2'	1:13:652:U:C6	2.55	0.42
1:13:938:A:N6	61:13:1962:HOH:O	2.46	0.42
1:13:1286:A:C2	21:1F:18:TYR:OH	2.71	0.42
1:13:1347:G:C4	1:13:1373:G:C6	3.07	0.42
2:1E:74:LYS:NZ	2:1E:205:ASP:O	2.52	0.42
5:4E:68:GLU:O	5:4E:70:PRO:HD3	2.18	0.42
8:7E:100:ILE:HD13	8:7E:112:LEU:HD21	2.01	0.42
11:2I:30:VAL:HG21	11:2I:65:ALA:HA	2.01	0.42
13:4I:34:LEU:HA	13:4I:34:LEU:HD22	1.85	0.42
17:8I:45:HIS:NE2	17:8I:47:PRO:HG3	2.34	0.42
21:1F:6:ARG:H	21:1F:6:ARG:HG3	1.47	0.42
26:1H:18:C:O3'	41:C8:23:GLY:HA2	2.19	0.42
26:1H:250:G:C6	26:1H:251:A:C6	3.07	0.42
26:1H:1049:C:N3	26:1H:2751:G:O6	2.51	0.42
26:1H:1058:U:H3	26:1H:1080:A:N6	2.17	0.42
26:1H:1125:G:OP2	26:1H:1126:A:O2'	2.35	0.42
26:1H:1188:U:C5'	42:D8:79:VAL:HG22	2.49	0.42
26:1H:1380:G:N2	26:1H:1570:A:C2	2.87	0.42
26:1H:2345:G:N3	26:1H:2381:C:H2'	2.34	0.42
26:1H:2590:A:OP2	28:11:238:GLY:HA2	2.20	0.42
26:1H:2791:C:H42	26:1H:2807:G:H1	1.67	0.42
28:11:44:ASN:O	28:11:46:GLN:O	2.37	0.42
36:78:101:VAL:HA	36:78:105:LEU:O	2.20	0.42
41:C8:75:ASN:HB3	41:C8:77:SER:H	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:G8:28:LYS:HD2	45:G8:40:GLU:CG	2.48	0.42
1:1G:90:C:H2'	1:1G:91:C:H6	1.83	0.42
1:1G:392:G:OP1	16:7A:8:ARG:NH2	2.50	0.42
1:1G:668:G:O2'	15:6A:46:HIS:HB3	2.19	0.42
1:1G:1261:A:C2	1:1G:1262:C:H1'	2.54	0.42
1:1G:1447:G:H2'	1:1G:1448:C:C6	2.54	0.42
3:22:113:ALA:HB2	3:22:202:ILE:HG13	2.01	0.42
6:52:91:VAL:HG12	6:52:92:LYS:O	2.18	0.42
7:62:49:ILE:HG22	7:62:53:LYS:HD2	2.00	0.42
7:62:69:VAL:HG13	7:62:134:ALA:O	2.19	0.42
13:4A:3:ARG:HB2	51:15:34:GLU:CG	2.49	0.42
13:4A:40:ASN:OD1	13:4A:41:PRO:HD2	2.19	0.42
57:3L:23:A:H2'	57:3L:24:G:H8	1.85	0.42
57:3L:56:C:H2'	57:3L:57:G:C8	2.54	0.42
26:14:271(B):G:N7	26:14:421:U:H2'	2.34	0.42
26:14:881:G:N7	26:14:882:G:C2	2.87	0.42
26:14:1471:A:C2	26:14:1472:A:C4	3.08	0.42
26:14:1812:A:H2'	26:14:1813:G:C8	2.54	0.42
26:14:2208:U:H4'	28:19:151:LYS:HG2	2.01	0.42
26:14:2298:A:H1'	26:14:2321:G:N2	2.34	0.42
26:14:2388:A:C2'	26:14:2389:G:H5'	2.49	0.42
26:14:2650:U:H2'	26:14:2651:C:C6	2.54	0.42
28:19:13:ARG:HD2	28:19:13:ARG:HA	1.75	0.42
36:35:52:GLU:O	36:35:54:GLY:N	2.52	0.42
36:35:84:ASN:ND2	36:35:117:GLU:HB3	2.34	0.42
36:35:97:PRO:O	36:35:98:GLU:HB3	2.20	0.42
39:65:83:LYS:O	39:65:110:LEU:HD12	2.19	0.42
40:75:125:ARG:HA	40:75:125:ARG:HD3	1.74	0.42
42:95:48:GLY:N	42:95:52:VAL:HG22	2.34	0.42
51:15:55:ARG:HB2	51:15:56:VAL:H	1.66	0.42
1:13:687:A:N1	1:13:700:G:O2'	2.46	0.42
1:13:1238:A:N3	1:13:1241:G:O2'	2.41	0.42
1:13:1417:G:N2	1:13:1482:G:H2'	2.34	0.42
3:2E:24:ALA:HB1	3:2E:28:GLN:HB2	2.01	0.42
3:2E:134:ILE:HD11	3:2E:153:VAL:HG21	2.01	0.42
4:3E:162:LEU:HD13	4:3E:181:MET:HG2	2.01	0.42
5:4E:36:ASP:OD2	5:4E:38:GLN:HB2	2.19	0.42
10:1I:89:ASP:C	10:1I:91:PRO:HD3	2.40	0.42
16:7I:74:LEU:O	16:7I:79:VAL:HB	2.18	0.42
17:8I:89:LEU:HA	17:8I:89:LEU:HD13	1.74	0.42
24:3K:71:G:C2	24:3K:72:C:H1'	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:686:G:H4'	26:1H:687:C:OP2	2.19	0.42
26:1H:910:A:N1	26:1H:2277:G:H1'	2.34	0.42
26:1H:1054:A:H2	26:1H:1105:U:H3	1.68	0.42
26:1H:1514:U:H2'	26:1H:1515:C:C6	2.55	0.42
26:1H:2401:U:H2'	26:1H:2402:C:H5''	2.02	0.42
27:16:70:C:N3	27:16:71:C:C5	2.87	0.42
28:11:53:PHE:O	28:11:218:ARG:N	2.48	0.42
28:11:221:VAL:HG22	28:11:226:MET:CE	2.49	0.42
31:41:79:ASN:OD1	31:41:79:ASN:N	2.50	0.42
34:58:30:ILE:O	34:58:34:LEU:HB2	2.19	0.42
34:58:39:ARG:NH1	34:58:41:ASP:OD2	2.51	0.42
35:68:63:VAL:HG12	35:68:106:LEU:HD11	2.00	0.42
38:98:51:LEU:HD23	38:98:51:LEU:HA	1.91	0.42
39:A8:36:TYR:N	39:A8:36:TYR:CD1	2.87	0.42
40:B8:16:ARG:HH21	40:B8:19:LEU:HD21	1.84	0.42
44:F8:1:MET:O	44:F8:3:THR:N	2.52	0.42
47:I8:47:PRO:CB	47:I8:51:VAL:HG12	2.50	0.42
50:L8:35:ARG:HB3	50:L8:37:LEU:HD21	2.02	0.42
1:1G:836:G:C6	1:1G:851:G:C6	3.07	0.42
1:1G:1011:G:N2	1:1G:1019:C:O2	2.51	0.42
1:1G:1054:C:HO2'	1:1G:1055:A:P	2.42	0.42
1:1G:1099:G:H5'	1:1G:1100:C:OP2	2.19	0.42
1:1G:1376:U:H2'	1:1G:1377:A:C8	2.55	0.42
1:1G:1512:U:H2'	1:1G:1513:A:H8	1.84	0.42
2:12:215:LEU:HA	2:12:218:ALA:HB3	2.00	0.42
4:32:22:LYS:HD2	4:32:26:CYS:SG	2.58	0.42
13:4A:29:ARG:HD3	13:4A:64:TRP:CZ3	2.54	0.42
20:BA:55:ILE:HA	20:BA:55:ILE:HD13	1.71	0.42
56:1L:15:G:N2	56:1L:59:U:O2	2.53	0.42
23:2L:32:G:C4	23:2L:33:OMC:C5	3.08	0.42
26:14:515:A:H1'	26:14:581:C:H1'	2.01	0.42
26:14:605:C:O2	26:14:657:U:O2'	2.37	0.42
26:14:854:G:H2'	26:14:855:G:C8	2.54	0.42
26:14:999:U:O2'	26:14:1000:A:H5'	2.19	0.42
26:14:1025:G:C5	26:14:1135:C:H1'	2.55	0.42
26:14:1470:G:N2	26:14:1522:G:OP2	2.53	0.42
26:14:1664:A:P	61:14:3613:HOH:O	2.68	0.42
26:14:1771:C:H1'	26:14:1786:A:C8	2.54	0.42
26:14:1824:G:N7	61:14:3851:HOH:O	2.37	0.42
26:14:2228:G:C5	26:14:2229:C:C4	3.07	0.42
26:14:2377:A:H2'	26:14:2378:A:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2489:G:C2'	26:14:2490:G:H5'	2.49	0.42
27:1J:56:G:H4'	27:1J:57:A:H8	1.81	0.42
29:29:73:GLU:HA	29:29:74:PRO:HD2	1.74	0.42
31:49:33:ARG:NH2	31:49:162:THR:HG21	2.34	0.42
34:15:15:LEU:HD23	34:15:134:ARG:HG3	2.00	0.42
37:45:59:ARG:H	37:45:59:ARG:HG3	1.42	0.42
39:65:87:PHE:CZ	39:65:102:ALA:HB2	2.54	0.42
41:85:92:ARG:O	41:85:94:ASN:N	2.53	0.42
46:D5:163:LEU:HD12	46:D5:165:VAL:HG23	2.01	0.42
1:13:1152:A:H4'	10:1I:13:HIS:CD2	2.54	0.42
3:2E:91:LEU:HB2	3:2E:99:VAL:HG21	2.00	0.42
4:3E:120:LEU:HD23	4:3E:120:LEU:HA	1.85	0.42
5:4E:24:ARG:HE	5:4E:24:ARG:HB3	1.72	0.42
13:4I:49:THR:C	13:4I:51:ALA:N	2.73	0.42
20:BI:33:ILE:HG12	20:BI:33:ILE:H	1.55	0.42
26:1H:57:C:H2'	26:1H:58:G:O4'	2.19	0.42
26:1H:301:G:C2	26:1H:302:C:C2	3.08	0.42
26:1H:1207:C:H2'	26:1H:1208:C:H6	1.84	0.42
26:1H:1636:C:H2'	26:1H:1637:A:C8	2.54	0.42
26:1H:1799:G:H5'	26:1H:1819:A:N6	2.33	0.42
26:1H:2128:C:O2'	26:1H:2129:C:H5'	2.19	0.42
26:1H:2854:G:C2	26:1H:2855:C:C2	3.07	0.42
27:16:42:C:HO2'	31:41:67:LYS:HE3	1.84	0.42
28:11:16:MET:HE3	28:11:211:ARG:HD2	2.00	0.42
31:41:43:LEU:N	31:41:88:ILE:O	2.47	0.42
33:61:135:GLU:HB2	33:61:136:VAL:H	1.64	0.42
35:68:80:ASP:OD2	40:B8:71:GLY:HA3	2.20	0.42
36:78:100:LEU:HA	36:78:100:LEU:HD12	1.60	0.42
41:C8:60:LEU:HD11	41:C8:64:ARG:CZ	2.49	0.42
44:F8:57:LEU:N	44:F8:57:LEU:HD23	2.34	0.42
1:1G:407:G:H2'	1:1G:408:A:C8	2.53	0.42
1:1G:643:C:H2'	1:1G:644:G:H8	1.84	0.42
1:1G:1014:A:P	1:1G:1014:A:H8	2.43	0.42
1:1G:1086:U:O5'	1:1G:1086:U:H6	2.02	0.42
1:1G:1127:G:H22	1:1G:1144:G:N2	2.18	0.42
1:1G:1203:C:H2'	1:1G:1204:A:H8	1.84	0.42
2:12:71:VAL:HG23	2:12:164:VAL:HG13	2.01	0.42
3:22:134:ILE:HD13	3:22:134:ILE:HA	1.86	0.42
4:32:57:ARG:HH12	5:42:107:ARG:NH2	2.17	0.42
26:14:550:G:O2'	26:14:1220:A:N3	2.41	0.42
26:14:720:C:H2'	26:14:721:C:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1138:G:H21	34:15:106:MET:CE	2.28	0.42
26:14:2298:A:N6	26:14:2318:G:H2'	2.34	0.42
29:29:31:CYS:HB3	29:29:49:LEU:HB3	2.00	0.42
30:39:28:ILE:HA	30:39:112:MET:HG2	2.02	0.42
32:59:103:LEU:HD13	32:59:131:VAL:HG21	2.01	0.42
33:69:140:LEU:HA	33:69:140:LEU:HD12	1.68	0.42
36:35:15:ARG:O	36:35:15:ARG:NE	2.52	0.42
39:65:49:VAL:CG2	39:65:80:LEU:HD12	2.50	0.42
39:65:89:ARG:O	39:65:90:GLY:C	2.57	0.42
43:A5:95:ILE:HG12	43:A5:95:ILE:O	2.20	0.42
46:D5:29:TYR:HB3	46:D5:34:ASN:OD1	2.19	0.42
46:D5:94:GLU:HA	46:D5:95:PRO:HD3	1.92	0.42
1:13:723:U:H5'	1:13:724:G:OP2	2.19	0.42
1:13:814:A:N7	1:13:816:A:C4	2.87	0.42
1:13:1103:C:H5''	2:1E:98:LEU:HD13	2.02	0.42
1:13:1513:A:H2'	1:13:1514:C:C6	2.54	0.42
2:1E:187:LEU:HD11	2:1E:204:ASN:O	2.20	0.42
3:2E:33:LEU:O	3:2E:36:ASP:HB2	2.19	0.42
4:3E:99:SER:O	4:3E:140:VAL:HG22	2.20	0.42
26:1H:794:G:H2'	26:1H:795:C:C6	2.54	0.42
26:1H:828:U:H4'	26:1H:831:G:N1	2.34	0.42
26:1H:1534:G:H22	26:1H:1538:G:N2	2.14	0.42
26:1H:2199:A:C8	26:1H:2199:A:C5'	3.01	0.42
26:1H:2469:A:H5'	26:1H:2469:A:N3	2.35	0.42
26:1H:2564:A:C2	26:1H:2647:U:H4'	2.54	0.42
27:16:79:C:O5'	27:16:79:C:H6	2.03	0.42
29:21:116:VAL:HG13	29:21:122:PHE:CD2	2.55	0.42
36:78:85:LEU:HA	36:78:88:LEU:CD2	2.50	0.42
36:78:121:LYS:HE3	36:78:121:LYS:HB3	1.37	0.42
36:78:135:LEU:HD23	36:78:135:LEU:HA	1.89	0.42
37:88:30:GLY:HA2	37:88:107:ALA:HB2	2.02	0.42
39:A8:108:GLY:O	39:A8:110:LEU:HD22	2.19	0.42
40:B8:45:PHE:CZ	40:B8:65:LYS:HG2	2.55	0.42
46:H8:28:MET:HB2	46:H8:37:VAL:HG11	2.02	0.42
48:J8:83:GLU:C	48:J8:85:LEU:H	2.23	0.42
55:Q8:14:VAL:CG2	55:Q8:21:LYS:HZ2	2.28	0.42
55:Q8:46:ARG:CG	55:Q8:46:ARG:NH1	2.79	0.42
55:Q8:50:LEU:HG	55:Q8:51:ALA:H	1.85	0.42
1:1G:322:C:H5	1:1G:328:C:H5	1.66	0.42
1:1G:501:C:OP1	12:3A:117:ARG:NH2	2.29	0.42
1:1G:625:G:C4	1:1G:626:U:C5	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:652:U:O2'	1:1G:653:A:N3	2.44	0.42
1:1G:1055:A:N6	1:1G:1206:G:C5	2.88	0.42
1:1G:1320:C:C4	1:1G:1321:C:N4	2.88	0.42
1:1G:1365:G:H2'	1:1G:1366:C:C6	2.55	0.42
2:12:136:VAL:O	2:12:139:LYS:HB3	2.19	0.42
4:32:138:TYR:CD1	4:32:138:TYR:C	2.93	0.42
19:AA:32:LYS:HB3	19:AA:57:HIS:CD2	2.54	0.42
19:AA:71:LEU:HD23	19:AA:71:LEU:HA	1.84	0.42
20:BA:47:GLY:C	20:BA:49:ALA:H	2.23	0.42
20:BA:97:ALA:HA	20:BA:98:PRO:HD3	1.82	0.42
21:1B:9:ARG:HG3	21:1B:10:ARG:N	2.34	0.42
26:14:686:G:H2'	26:14:788:A:N1	2.35	0.42
26:14:686:G:N7	54:L5:5:TRP:CH2	2.87	0.42
26:14:832:G:N2	36:35:53:GLY:HA3	2.35	0.42
26:14:1060:U:H5'	26:14:1061:U:C6	2.54	0.42
26:14:1328:G:H2'	26:14:1330:C:C5	2.55	0.42
26:14:1683:C:H2'	26:14:1684:C:H6	1.84	0.42
26:14:1979:C:C2'	26:14:1980:G:H5'	2.49	0.42
26:14:2695:C:H2'	26:14:2696:U:H6	1.83	0.42
26:14:2747:G:C6	26:14:2754:U:C5	3.08	0.42
27:1J:2:C:H2'	27:1J:3:C:C5	2.55	0.42
34:15:35:ARG:CB	34:15:42:TRP:HZ3	2.33	0.42
37:45:19:GLY:O	37:45:99:PRO:HD2	2.18	0.42
40:75:45:PHE:CE2	40:75:74:ARG:HD3	2.54	0.42
42:95:17:GLY:H	42:95:96:ILE:HB	1.85	0.42
45:C5:17:SER:HB2	45:C5:71:LYS:HD2	2.02	0.42
47:E5:32:ARG:O	47:E5:34:GLY:N	2.46	0.42
1:13:22:G:C6	1:13:23:C:C4	3.07	0.42
1:13:444:C:H2'	1:13:445:G:C8	2.55	0.42
1:13:464:G:C6	1:13:466:C:H5'	2.55	0.42
1:13:724:G:C2	1:13:725:G:C8	3.07	0.42
1:13:917:G:H2'	1:13:918:A:H8	1.85	0.42
1:13:1117:G:H5''	9:8E:104:ARG:CZ	2.49	0.42
5:4E:20:GLN:OE1	5:4E:25:ARG:NH2	2.53	0.42
9:8E:92:TYR:HD1	9:8E:92:TYR:HA	1.69	0.42
11:2I:16:SER:O	11:2I:35:PRO:HG3	2.20	0.42
11:2I:20:TYR:HB2	11:2I:31:THR:HG23	2.02	0.42
13:4I:67:GLU:OE2	13:4I:68:GLY:N	2.52	0.42
16:7I:58:TYR:O	16:7I:61:SER:N	2.49	0.42
22:1K:76:A:O2'	26:1H:2506:U:H1'	2.19	0.42
24:3K:64:A:C2	24:3K:65:G:H1'	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:86:C:H4'	26:1H:104:U:H1'	2.01	0.42
26:1H:322:A:OP2	30:31:169:ASN:HB2	2.20	0.42
26:1H:503:A:H4'	26:1H:504:U:H5''	2.02	0.42
26:1H:587:C:O2	36:78:33:ARG:NH1	2.53	0.42
26:1H:813:U:H2'	26:1H:814:C:C6	2.55	0.42
26:1H:1163:G:C2	26:1H:1164:G:N7	2.88	0.42
26:1H:1221:C:C2	26:1H:1222:C:C5	3.08	0.42
26:1H:1534:G:N2	26:1H:1538:G:N2	2.68	0.42
26:1H:2299:G:N2	26:1H:2318:G:H1'	2.34	0.42
26:1H:2432:A:C4	48:J8:33:LYS:HG2	2.55	0.42
26:1H:2692:C:OP1	26:1H:2871:C:H5'	2.20	0.42
26:1H:2713:A:H3'	26:1H:2714:G:H5''	2.00	0.42
26:1H:2815:C:H5'	52:N8:29:THR:HG21	2.02	0.42
31:41:37:VAL:HG21	31:41:103:LEU:HD21	2.02	0.42
37:88:85:LYS:CG	37:88:86:GLY:N	2.82	0.42
42:D8:9:GLY:O	42:D8:10:LYS:HG3	2.20	0.42
48:J8:78:LYS:O	48:J8:78:LYS:HG2	2.20	0.42
53:O8:34:LEU:H	53:O8:34:LEU:HD22	1.83	0.42
1:1G:15:G:H2'	1:1G:16:A:C8	2.55	0.42
1:1G:199:G:H2'	1:1G:200:G:H8	1.85	0.42
1:1G:362:G:C4'	12:3A:33:ARG:HH21	2.33	0.42
1:1G:374:A:C4	1:1G:375:U:C5	3.07	0.42
1:1G:642:A:N3	8:72:113:SER:OG	2.50	0.42
1:1G:868:C:H2'	1:1G:869:G:O4'	2.19	0.42
1:1G:991:U:OP2	1:1G:991:U:H6	2.03	0.42
1:1G:1507:A:O3'	61:1G:1761:HOH:O	2.22	0.42
2:12:10:LEU:HD13	2:12:10:LEU:HA	1.82	0.42
3:22:129:ALA:HB3	3:22:132:ARG:HB3	2.01	0.42
9:82:48:GLU:N	9:82:49:PRO:HD2	2.35	0.42
13:4A:86:CYS:SG	13:4A:88:ARG:HB3	2.60	0.42
26:14:513:A:C2	26:14:514:A:C5	3.08	0.42
26:14:635:C:H2'	26:14:636:G:O4'	2.20	0.42
26:14:649:G:C5	26:14:650:C:C4	3.07	0.42
26:14:1115:G:H2'	26:14:1116:C:C6	2.55	0.42
26:14:1187:G:P	61:14:3684:HOH:O	2.70	0.42
26:14:1322:A:N1	26:14:1333:C:O2'	2.36	0.42
26:14:2168:G:N2	26:14:2170:A:C8	2.88	0.42
26:14:2294:C:P	39:65:89:ARG:NH2	2.93	0.42
29:29:151:TYR:CD2	29:29:154:LYS:NZ	2.79	0.42
30:39:25:PRO:C	30:39:27:GLU:N	2.72	0.42
41:85:91:ASP:O	41:85:93:LYS:N	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:A5:71:VAL:HA	43:A5:107:LEU:HD12	2.00	0.42
51:I5:22:ILE:O	51:I5:24:THR:HG23	2.19	0.42
52:J5:3:LYS:HD2	52:J5:3:LYS:HA	1.49	0.42
54:L5:1:MET:HE2	54:L5:1:MET:HB3	1.97	0.42
1:13:257:G:N1	1:13:258:G:C5	2.88	0.42
1:13:282:A:N3	1:13:282:A:H2'	2.34	0.42
1:13:329:A:C4	1:13:332:G:C5	3.07	0.42
1:13:595:G:H1'	1:13:596:C:H5	1.84	0.42
1:13:692:U:O2'	1:13:694:A:N7	2.36	0.42
1:13:739:C:O2	15:6I:42:HIS:HE1	2.02	0.42
2:1E:85:ALA:O	2:1E:90:MET:N	2.47	0.42
4:3E:50:ARG:H	4:3E:50:ARG:HG3	1.54	0.42
5:4E:133:TYR:HD1	5:4E:133:TYR:HA	1.58	0.42
8:7E:39:LEU:HD12	8:7E:39:LEU:HA	1.79	0.42
9:8E:127:LYS:O	9:8E:127:LYS:HG2	2.20	0.42
10:1I:6:ILE:HG22	10:1I:98:ILE:CG1	2.46	0.42
13:4I:11:ARG:HG2	13:4I:12:ASN:H	1.84	0.42
16:7I:21:VAL:HG12	16:7I:33:ILE:HD12	2.02	0.42
18:9I:37:VAL:HG12	18:9I:41:LYS:HE3	2.02	0.42
18:9I:52:PRO:O	18:9I:56:THR:HG23	2.19	0.42
26:1H:18:C:H4'	41:C8:23:GLY:O	2.20	0.42
26:1H:533:G:H5'	41:C8:24:TYR:CE1	2.53	0.42
26:1H:1253:A:C5	61:1H:3711:HOH:O	2.73	0.42
26:1H:1526:G:H2'	26:1H:1527:G:O4'	2.20	0.42
26:1H:1682:G:C2	26:1H:1683:C:C2	3.08	0.42
26:1H:1975:G:C2	26:1H:1976:U:C2	3.08	0.42
26:1H:2115:G:H1'	26:1H:2171:A:N1	2.34	0.42
26:1H:2443:C:OP1	30:31:68:LYS:HD3	2.20	0.42
26:1H:2837:G:C6	26:1H:2838:G:N7	2.87	0.42
33:6I:58:LEU:HD23	33:6I:59:ALA:N	2.35	0.42
39:A8:59:LYS:HG2	39:A8:60:GLY:N	2.32	0.42
40:B8:105:LEU:O	40:B8:107:ASP:N	2.53	0.42
45:G8:29:GLU:HB3	45:G8:38:ILE:HG23	2.00	0.42
46:H8:80:ARG:H	46:H8:80:ARG:HG2	1.44	0.42
46:H8:141:VAL:HG21	46:H8:150:LEU:CD1	2.49	0.42
51:M8:12:ALA:O	51:M8:24:THR:HG21	2.20	0.42
1:1G:112:G:HO2'	1:1G:354:G:HO2'	1.68	0.42
1:1G:176:C:H2'	1:1G:177:C:C6	2.55	0.42
1:1G:283:C:C2	1:1G:284:G:C8	3.07	0.42
1:1G:373:A:N3	1:1G:374:A:C8	2.88	0.42
1:1G:519:C:OP2	12:3A:50:SER:OG	2.38	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:750:G:H21	15:6A:23:GLY:HA3	1.84	0.42
1:1G:972:C:OP2	10:1A:57:LYS:HD2	2.20	0.42
1:1G:1043:C:H2'	1:1G:1044:A:H8	1.84	0.42
1:1G:1099:G:OP1	2:12:148:TYR:OH	2.37	0.42
1:1G:1287:A:H2'	1:1G:1288:A:C8	2.55	0.42
1:1G:1496:C:H2'	1:1G:1497:G:O4'	2.19	0.42
2:12:30:ARG:NH2	2:12:195:ASP:OD1	2.53	0.42
2:12:189:ASP:OD1	2:12:189:ASP:N	2.53	0.42
26:14:122:G:OP1	26:14:149:A:O2'	2.36	0.42
26:14:664:C:P	36:35:18:ARG:HH21	2.42	0.42
26:14:768:G:H2'	26:14:769:G:H8	1.85	0.42
26:14:851:U:H5'	50:H5:49:LYS:HD2	2.02	0.42
26:14:1104:C:H2'	26:14:1105:U:C6	2.55	0.42
26:14:1327:C:O3'	38:55:105:ARG:NH2	2.53	0.42
26:14:1341:U:O4'	44:B5:57:LEU:HD22	2.20	0.42
26:14:1436:G:O2'	26:14:1477:A:H4'	2.20	0.42
26:14:2360:A:H2'	26:14:2361:A:O4'	2.20	0.42
26:14:2506:U:O5'	26:14:2506:U:H6	2.03	0.42
26:14:2766:G:H5''	26:14:2767:C:OP2	2.19	0.42
26:14:2767:C:H2'	26:14:2768:C:C6	2.54	0.42
26:14:2887:U:O2'	26:14:2888:C:H5'	2.20	0.42
27:1J:118:G:C6	27:1J:119:A:N7	2.88	0.42
29:29:199:ARG:HH12	29:29:202:LYS:NZ	2.17	0.42
31:49:37:VAL:HG22	31:49:159:VAL:HG12	2.02	0.42
31:49:108:ASN:O	51:I5:37:SER:HA	2.20	0.42
32:59:138:LYS:HD2	32:59:138:LYS:HA	1.84	0.42
44:B5:66:LEU:HD23	44:B5:66:LEU:HA	1.86	0.42
45:C5:39:VAL:O	45:C5:40:GLU:HB2	2.20	0.42
1:13:173:U:C6	1:13:197:A:C2	3.07	0.42
1:13:376:G:OP1	16:7I:5:ARG:HB2	2.20	0.42
1:13:963:G:H1	1:13:972:C:N4	2.16	0.42
1:13:1348:U:N3	1:13:1374:A:C2	2.80	0.42
1:13:1438:G:H2'	1:13:1439:C:C6	2.54	0.42
2:1E:141:GLU:HG3	2:1E:145:LEU:HD23	2.00	0.42
2:1E:178:ARG:HD2	8:7E:71:GLY:O	2.20	0.42
2:1E:237:ALA:O	2:1E:239:VAL:HG23	2.20	0.42
8:7E:39:LEU:HB3	8:7E:45:ILE:CD1	2.49	0.42
12:3I:69:TYR:CD1	12:3I:90:VAL:HG21	2.55	0.42
13:4I:82:MET:O	13:4I:84:ILE:N	2.49	0.42
18:9I:76:LEU:HD13	18:9I:76:LEU:HA	1.85	0.42
26:1H:287:C:H2'	26:1H:288:C:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:333:G:H5''	26:1H:334:C:OP2	2.20	0.42
26:1H:631:A:H61	26:1H:2402:C:N4	2.18	0.42
26:1H:852:G:H2'	26:1H:853:G:C8	2.55	0.42
26:1H:996:A:C5	26:1H:1160:G:N2	2.88	0.42
26:1H:1165:U:C2	26:1H:1166:C:C5	3.08	0.42
26:1H:1414:G:C6	26:1H:1415:U:C4	3.08	0.42
26:1H:1621:U:H5''	26:1H:1622:G:OP1	2.19	0.42
26:1H:1652:A:OP1	38:98:8:ARG:NH1	2.53	0.42
26:1H:2127:G:H1	26:1H:2162:G:H1'	1.84	0.42
26:1H:2286:A:H4'	26:1H:2287:A:O4'	2.20	0.42
28:11:108:PRO:HG3	28:11:143:HIS:CE1	2.55	0.42
28:11:150:LYS:HA	28:11:150:LYS:HD3	1.94	0.42
29:21:37:ARG:HA	29:21:42:ASP:OD2	2.20	0.42
29:21:141:ILE:HD12	29:21:150:VAL:HG21	2.02	0.42
31:41:66:GLN:HA	51:M8:6:HIS:HE1	1.85	0.42
33:61:79:ILE:HD13	33:61:79:ILE:HA	1.70	0.42
33:61:79:ILE:HA	33:61:80:PRO:HD2	1.87	0.42
42:D8:15:GLU:HB3	42:D8:16:PRO:HD2	2.01	0.42
1:1G:659:U:H2'	1:1G:660:G:O4'	2.20	0.42
1:1G:674:G:N2	1:1G:717:C:O2	2.53	0.42
1:1G:1292:U:H2'	1:1G:1293:G:H8	1.84	0.42
1:1G:1308:U:H5''	13:4A:98:VAL:CG2	2.49	0.42
1:1G:1424:C:H2'	1:1G:1425:U:O4'	2.20	0.42
17:8A:10:VAL:HG23	17:8A:54:GLY:N	2.34	0.42
17:8A:63:ARG:HG2	17:8A:64:PRO:HD2	2.01	0.42
56:1L:21:A:N6	56:1L:46:G:N3	2.68	0.42
26:14:337:C:H2'	26:14:338:G:O4'	2.20	0.42
26:14:340:A:C8	26:14:341:G:C8	3.08	0.42
26:14:515:A:H2	26:14:1260:G:N3	2.18	0.42
26:14:576:U:H2'	26:14:577:G:C8	2.55	0.42
26:14:696:G:O2'	26:14:697:C:H5'	2.19	0.42
26:14:797:C:H2'	26:14:798:G:O4'	2.20	0.42
26:14:918:A:C2	27:1J:80:U:H4'	2.54	0.42
26:14:1358:G:O2'	26:14:1359:A:H5''	2.20	0.42
26:14:1543:A:H1'	26:14:1545:A:H1'	2.01	0.42
26:14:2562:U:H1'	35:25:23:ARG:HE	1.85	0.42
26:14:2577:A:H5''	26:14:2578:G:H5'	2.01	0.42
26:14:2724:C:N4	61:14:3617:HOH:O	2.06	0.42
27:1J:15:A:H1'	27:1J:109:G:C4	2.54	0.42
28:19:134:ARG:NH1	28:19:188:GLU:OE2	2.48	0.42
29:29:38:THR:HG23	29:29:40:GLU:HB2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:39:69:HIS:CD2	30:39:69:HIS:N	2.88	0.42
37:45:33:GLY:O	37:45:132:VAL:HG12	2.20	0.42
42:95:15:GLU:HG2	42:95:16:PRO:HD2	2.00	0.42
43:A5:69:LEU:HA	43:A5:108:GLY:O	2.20	0.42
45:C5:104:GLY:HA2	45:C5:105:ALA:HA	1.69	0.42
54:L5:12:ARG:HH21	54:L5:44:PRO:HB3	1.84	0.42
1:13:122:G:H8	1:13:122:G:OP1	2.01	0.42
1:13:266:G:H8	1:13:266:G:H2'	1.77	0.42
1:13:600:C:C6	1:13:601:C:C5	3.08	0.42
1:13:883:C:C2'	1:13:884:U:H5'	2.50	0.42
1:13:963:G:N2	1:13:972:C:N3	2.46	0.42
1:13:992:U:H3	1:13:1044:A:H62	1.67	0.42
1:13:1326:C:H2'	1:13:1327:C:H6	1.85	0.42
2:1E:80:ILE:HD12	2:1E:80:ILE:H	1.84	0.42
3:2E:113:ALA:HA	3:2E:202:ILE:HD11	2.02	0.42
6:5E:44:GLY:HA2	6:5E:59:TYR:CE1	2.54	0.42
6:5E:79:LEU:HD23	6:5E:79:LEU:HA	1.78	0.42
8:7E:134:ILE:HG22	8:7E:135:CYS:SG	2.59	0.42
10:1I:3:LYS:N	10:1I:74:ILE:O	2.53	0.42
12:3I:12:ARG:HH11	12:3I:12:ARG:HD2	1.67	0.42
13:4I:65:LYS:NZ	51:M8:52:THR:HB	2.35	0.42
17:8I:68:ARG:N	17:8I:70:ARG:HH11	2.13	0.42
19:AI:25:LYS:HD3	19:AI:27:GLU:HB2	2.02	0.42
26:1H:444:C:C4'	30:31:49:ALA:HB2	2.50	0.42
26:1H:527:C:H4'	26:1H:528:A:H5'	2.02	0.42
26:1H:789:A:OP1	26:1H:789:A:H3'	2.20	0.42
26:1H:1112:G:C6	26:1H:1113:U:C4	3.07	0.42
26:1H:1156:A:C8	41:C8:51:LYS:CD	3.03	0.42
26:1H:1296:G:O2'	26:1H:1297:C:H5'	2.20	0.42
26:1H:1314:C:P	61:1H:3971:HOH:O	2.78	0.42
26:1H:1485:G:C2	26:1H:1486:A:C4	3.08	0.42
26:1H:1525:G:C4	26:1H:1526:G:C8	3.08	0.42
26:1H:1658:C:H2'	26:1H:1659:U:C6	2.54	0.42
26:1H:1900:A:N1	26:1H:1970:A:C6	2.88	0.42
26:1H:2212:A:H1'	26:1H:2215:G:C6	2.54	0.42
28:11:92:ILE:HD12	28:11:104:TYR:CD1	2.55	0.42
28:11:121:PRO:HB3	28:11:135:PHE:CE2	2.54	0.42
28:11:236:GLY:O	28:11:237:GLU:HB2	2.20	0.42
28:11:261:LYS:HG3	28:11:262:ARG:N	2.35	0.42
30:31:177:ALA:HB1	30:31:178:PRO:HD2	2.02	0.42
30:31:206:ILE:HG21	30:31:206:ILE:HD13	1.78	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:58:23:LEU:HD13	34:58:60:ILE:HG13	2.02	0.42
38:98:117:VAL:HG22	38:98:118:GLU:H	1.85	0.42
48:J8:92:LYS:HG3	48:J8:95:LEU:HD12	2.01	0.42
52:N8:33:CYS:SG	52:N8:36:CYS:N	2.93	0.42
52:N8:41:PRO:HG2	52:N8:44:THR:HG21	2.01	0.42
1:1G:28:G:C6	1:1G:29:G:C5	3.08	0.42
1:1G:187:C:H2'	1:1G:188:U:O4'	2.20	0.42
1:1G:405:U:H5''	1:1G:406:G:O4'	2.20	0.42
1:1G:448:A:H2'	1:1G:449:C:O2	2.20	0.42
1:1G:750:G:C2	15:6A:23:GLY:HA3	2.54	0.42
1:1G:1030:C:O2	1:1G:1031:G:N1	2.52	0.42
1:1G:1072:G:C6	1:1G:1104:G:N1	2.88	0.42
1:1G:1236:A:H2'	1:1G:1237:C:C6	2.55	0.42
1:1G:1260:C:H3'	1:1G:1260:C:C6	2.55	0.42
1:1G:1326:C:H2'	1:1G:1327:C:C6	2.55	0.42
1:1G:1349:A:P	9:82:118:LYS:NZ	2.92	0.42
3:22:34:LEU:HD11	3:22:38:ARG:HH21	1.83	0.42
6:52:2:ARG:HE	6:52:69:GLU:CB	2.33	0.42
6:52:10:LEU:HD12	6:52:10:LEU:N	2.35	0.42
8:72:20:TYR:HD1	8:72:65:TYR:CD2	2.38	0.42
12:3A:32:PHE:HD1	12:3A:86:ARG:HA	1.84	0.42
13:4A:66:LEU:CA	13:4A:70:LEU:HB2	2.50	0.42
18:9A:66:LEU:O	18:9A:70:ILE:HG13	2.20	0.42
20:BA:54:LYS:HA	20:BA:57:ARG:NH1	2.35	0.42
26:14:221:A:C4	26:14:266:G:N7	2.88	0.42
26:14:273(C):C:H3'	26:14:273(D):C:H5''	2.02	0.42
26:14:582:G:H2'	26:14:583:G:C8	2.55	0.42
26:14:768:G:O2'	26:14:1379:A:N6	2.52	0.42
26:14:782:A:H5'	26:14:783:A:C2	2.55	0.42
26:14:1348:G:C6	26:14:1349:A:N1	2.88	0.42
26:14:1558:A:O2'	26:14:1559:G:OP2	2.28	0.42
26:14:1800:C:HO2'	26:14:1818:U:H3	1.67	0.42
26:14:2079:U:H2'	26:14:2080:G:O4'	2.20	0.42
26:14:2535:G:H2'	26:14:2536:G:C8	2.55	0.42
26:14:2578:G:O2'	26:14:2579:C:H5'	2.20	0.42
26:14:2747:G:O6	26:14:2755:C:H5''	2.20	0.42
27:1J:90:C:OP2	37:45:16:ARG:NH2	2.50	0.42
29:29:51:PHE:O	29:29:74:PRO:HB2	2.19	0.42
31:49:64:THR:OG1	31:49:94:LEU:HD21	2.19	0.42
32:59:88:LEU:HD13	32:59:164:TYR:O	2.20	0.42
34:15:56:ASN:OD1	34:15:56:ASN:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:35:78:PRO:HB3	36:35:111:ARG:NH2	2.35	0.42
38:55:48:VAL:HA	38:55:51:LEU:HB2	2.01	0.42
42:95:85:LYS:HG3	42:95:87:HIS:CA	2.50	0.42
46:D5:73:GLN:O	46:D5:86:VAL:HG22	2.19	0.42
53:K5:27:LYS:NZ	53:K5:27:LYS:HB3	2.35	0.42
1:13:724:G:O2'	1:13:725:G:H5'	2.19	0.41
1:13:1135:U:H2'	1:13:1137:C:C2	2.54	0.41
2:1E:219:VAL:HA	2:1E:222:ILE:HD12	2.01	0.41
3:2E:70:VAL:HG21	3:2E:76:VAL:HG11	2.01	0.41
3:2E:149:ALA:HA	3:2E:201:TYR:O	2.20	0.41
13:4I:13:LYS:NZ	13:4I:13:LYS:HA	2.35	0.41
20:BI:30:LYS:HA	20:BI:30:LYS:HD2	1.78	0.41
23:2K:76:C:H5''	23:2K:77:A:OP2	2.20	0.41
24:3K:60:U:H6	24:3K:60:U:O5'	2.01	0.41
26:1H:456:C:O2'	26:1H:457:A:OP2	2.32	0.41
26:1H:942:G:H4'	26:1H:1190:G:H5'	2.02	0.41
26:1H:1092:C:H2'	26:1H:1093:G:H5'	2.01	0.41
26:1H:1394:U:H4'	26:1H:1603:A:H4'	2.02	0.41
26:1H:1897:G:H2'	26:1H:1898:U:O4'	2.20	0.41
26:1H:2302:G:C6	26:1H:2315:G:C6	3.08	0.41
26:1H:2309:A:C5	26:1H:2310:A:C8	3.07	0.41
26:1H:2747:G:O2'	32:51:67:LEU:HD12	2.19	0.41
31:41:33:ARG:O	31:41:162:THR:HG23	2.20	0.41
32:51:30:LYS:HG3	32:51:80:SER:HA	2.02	0.41
32:51:88:LEU:HB3	32:51:130:ARG:HG3	2.02	0.41
41:C8:88:ILE:O	41:C8:88:ILE:HG22	2.20	0.41
46:H8:137:ILE:HG12	46:H8:158:PRO:HG2	2.01	0.41
49:K8:34:GLU:O	49:K8:38:GLN:HG3	2.20	0.41
55:Q8:58:ILE:HD13	55:Q8:58:ILE:HG21	1.64	0.41
1:1G:64:G:OP1	1:1G:64:G:H3'	2.20	0.41
1:1G:338:A:C5	1:1G:339:C:C5	3.08	0.41
1:1G:446:G:H1	1:1G:488:C:H42	1.67	0.41
1:1G:1151:A:OP1	10:1A:42:THR:N	2.48	0.41
1:1G:1269:A:H2	1:1G:1313:U:H1'	1.84	0.41
1:1G:1326:C:H2'	1:1G:1327:C:H6	1.84	0.41
1:1G:1355:G:H2'	1:1G:1356:G:C8	2.55	0.41
2:12:100:GLY:O	2:12:104:ASN:N	2.45	0.41
2:12:105:PHE:O	2:12:109:SER:N	2.36	0.41
3:22:65:ALA:HA	3:22:100:ALA:HB3	2.02	0.41
5:42:152:ARG:O	8:72:64:LYS:HD3	2.20	0.41
7:62:16:LEU:HD13	9:82:44:VAL:HG22	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:137(A):G:H2'	26:14:139:G:N7	2.35	0.41
26:14:566:U:H4'	26:14:809:G:OP2	2.20	0.41
26:14:1018:C:H2'	26:14:1019:U:C6	2.56	0.41
26:14:1140:C:H4'	26:14:1143:A:C6	2.55	0.41
26:14:1427:A:H4'	26:14:1428:C:O5'	2.19	0.41
26:14:2041:U:H2'	26:14:2042:A:O4'	2.20	0.41
26:14:2228:G:C6	26:14:2229:C:C4	3.08	0.41
26:14:2465:C:O2	26:14:2486:G:C2	2.73	0.41
26:14:2473:U:O2	26:14:2473:U:H2'	2.19	0.41
28:19:17:THR:O	28:19:211:ARG:NH2	2.50	0.41
30:39:198:ALA:O	30:39:201:VAL:HG12	2.19	0.41
34:15:133:GLN:O	34:15:134:ARG:HB3	2.20	0.41
35:25:10:VAL:CG1	35:25:19:ILE:HG12	2.45	0.41
36:35:93:GLY:O	36:35:123:LEU:HB2	2.20	0.41
37:45:25:ASP:HB3	37:45:102:VAL:CB	2.50	0.41
40:75:86:ILE:HD13	40:75:86:ILE:HG21	1.81	0.41
41:85:90:VAL:HA	42:95:39:LEU:HD22	2.02	0.41
46:D5:155:LEU:HB2	46:D5:157:LEU:CD1	2.49	0.41
1:13:51:A:OP2	1:13:52:G:H8	2.02	0.41
1:13:103:C:C2	1:13:104:G:C8	3.08	0.41
1:13:444:C:H2'	1:13:445:G:H8	1.86	0.41
1:13:1000:A:H4'	26:14:2137:C:OP1	2.19	0.41
1:13:1189:C:OP1	10:1I:51:ARG:NH2	2.36	0.41
1:13:1292:U:H2'	1:13:1293:G:H8	1.84	0.41
5:4E:11:ILE:HG12	5:4E:31:LEU:HB3	2.02	0.41
8:7E:103:VAL:HG21	8:7E:110:ALA:HB2	2.02	0.41
12:3I:33:ARG:HD3	12:3I:62:SER:OG	2.20	0.41
13:4I:23:TYR:CD2	13:4I:67:GLU:HA	2.50	0.41
23:2K:56:PSU:O4	23:2K:58:A:C8	2.73	0.41
26:1H:265:A:C2	26:1H:428:A:C2	3.07	0.41
26:1H:627:A:H4'	26:1H:628:G:OP1	2.20	0.41
26:1H:644:A:H2'	26:1H:646:A:H2	1.84	0.41
26:1H:717:G:H2'	26:1H:718:A:O4'	2.19	0.41
26:1H:719:C:H2'	26:1H:720:C:C6	2.55	0.41
26:1H:1016:G:N7	61:1H:4320:HOH:O	2.36	0.41
26:1H:1136:G:N3	26:1H:1136:G:H2'	2.35	0.41
26:1H:1443:G:C2	26:1H:1549:C:C2	3.08	0.41
26:1H:1729:A:C4	26:1H:1731:G:C6	3.08	0.41
26:1H:2340:G:O2'	26:1H:2341:G:H5'	2.20	0.41
26:1H:2771:C:H2'	26:1H:2772:C:C6	2.55	0.41
29:21:49:LEU:HD12	29:21:49:LEU:HA	1.57	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:31:134:GLY:H	30:31:162:LEU:HB3	1.85	0.41
31:41:7:LEU:HB2	31:41:104:GLU:CD	2.40	0.41
34:58:94:HIS:C	34:58:95:PRO:O	2.56	0.41
36:78:144:GLU:HA	36:78:145:PRO:HD3	1.79	0.41
37:88:72:LYS:HA	37:88:73:PRO:HD3	1.91	0.41
45:G8:89:PHE:HD1	45:G8:90:LEU:N	2.19	0.41
46:H8:103:ARG:HG3	46:H8:136:PHE:HD2	1.84	0.41
48:J8:85:LEU:HA	48:J8:85:LEU:HD13	1.52	0.41
1:1G:1502:A:H5''	1:1G:1504:G:N7	2.34	0.41
2:12:22:LYS:HB3	2:12:40:HIS:NE2	2.35	0.41
4:32:18:LYS:HD2	4:32:20:TYR:CZ	2.55	0.41
5:42:7:GLU:O	5:42:35:GLY:N	2.45	0.41
5:42:103:GLY:O	5:42:106:PRO:HD2	2.19	0.41
6:52:21:LEU:HD22	6:52:21:LEU:HA	1.68	0.41
16:7A:9:PHE:HB2	16:7A:16:HIS:O	2.19	0.41
16:7A:20:VAL:HG11	16:7A:32:TYR:CD2	2.54	0.41
26:14:118:A:H1'	26:14:178:G:O4'	2.20	0.41
26:14:570:G:H5''	61:14:3692:HOH:O	2.21	0.41
26:14:654(J):A:N7	26:14:654(K):C:N4	2.67	0.41
26:14:810:U:O4	61:14:3675:HOH:O	2.21	0.41
26:14:868:U:N3	26:14:869:G:N7	2.69	0.41
26:14:918:A:C5	26:14:919:G:H1'	2.55	0.41
26:14:973:A:O4'	26:14:1188:U:C6	2.73	0.41
26:14:1026:U:H6	26:14:1026:U:H5''	1.84	0.41
26:14:1190:G:O2'	26:14:1191:G:H5'	2.20	0.41
26:14:2319:G:O6	39:65:4:LEU:HB3	2.20	0.41
26:14:2320:A:H61	26:14:2333:A:H2'	1.85	0.41
26:14:2758:A:C2	26:14:2759:G:H1'	2.54	0.41
27:1J:13:A:O2'	27:1J:15:A:O5'	2.38	0.41
33:69:8:PRO:HD3	33:69:15:VAL:HG22	2.01	0.41
37:45:25:ASP:CB	37:45:102:VAL:H	2.34	0.41
37:45:134:ARG:N	37:45:135:ASP:OD1	2.52	0.41
40:75:91:ARG:O	40:75:116:ALA:HA	2.20	0.41
47:E5:36:ILE:HD11	47:E5:39:ARG:CG	2.48	0.41
48:F5:89:GLU:HA	48:F5:93:GLU:HG3	2.02	0.41
51:I5:23:GLU:C	51:I5:24:THR:HG1	2.22	0.41
1:13:156:G:H1'	1:13:166:G:H22	1.84	0.41
1:13:355:C:H2'	1:13:356:A:O4'	2.21	0.41
1:13:714:G:H2'	1:13:715:A:C8	2.55	0.41
1:13:827:U:C4	1:13:870:U:C4	3.08	0.41
1:13:1157:A:C6	1:13:1180:A:C5	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1372:U:H5'	9:8E:71:SER:CB	2.47	0.41
2:1E:76:GLN:NE2	2:1E:207:ALA:H	2.18	0.41
9:8E:18:PHE:HB2	9:8E:62:TYR:HB3	2.01	0.41
9:8E:102:LEU:HD23	9:8E:102:LEU:HA	1.90	0.41
13:4I:31:LYS:HD3	13:4I:31:LYS:N	2.36	0.41
19:AI:78:ARG:HD3	19:AI:78:ARG:C	2.41	0.41
26:1H:456:C:O5'	26:1H:456:C:H6	2.03	0.41
26:1H:515:A:C8	26:1H:516:C:C5	3.08	0.41
26:1H:649:G:C5	26:1H:650:C:C4	3.08	0.41
26:1H:969:U:O3'	50:L8:14:GLY:HA2	2.19	0.41
26:1H:1156:A:P	61:1H:3820:HOH:O	2.77	0.41
26:1H:1357:U:C4	26:1H:1358:G:C5	3.08	0.41
26:1H:1766:U:O2'	26:1H:1767:C:H5'	2.20	0.41
26:1H:1900:A:C8	26:1H:1900:A:C5'	3.01	0.41
26:1H:2210:G:H4'	26:1H:2211:G:OP2	2.20	0.41
26:1H:2436:G:C6	26:1H:2437:U:C4	3.08	0.41
29:21:46:ALA:HB2	29:21:82:ARG:HA	2.02	0.41
29:21:103:ASP:OD1	29:21:103:ASP:N	2.52	0.41
30:31:122:LYS:HD3	30:31:122:LYS:HA	1.74	0.41
40:B8:58:ASN:ND2	40:B8:58:ASN:O	2.53	0.41
41:C8:79:PHE:HD1	41:C8:79:PHE:O	2.02	0.41
45:G8:9:LYS:HA	45:G8:27:VAL:CG2	2.47	0.41
46:H8:30:ASN:OD1	46:H8:33:LEU:N	2.53	0.41
46:H8:125:LEU:HG	46:H8:164:ALA:CB	2.47	0.41
1:1G:453:A:C5	1:1G:454:C:C4	3.08	0.41
1:1G:1029:G:O2'	1:1G:1031:G:OP2	2.35	0.41
1:1G:1275:A:C4	1:1G:1276:G:C8	3.09	0.41
1:1G:1316:G:HO2'	1:1G:1318:A:H62	1.68	0.41
1:1G:1385:G:C4	1:1G:1386:G:C8	3.08	0.41
19:AA:29:ARG:NH1	19:AA:48:THR:H	2.18	0.41
56:1L:8:U:H2'	56:1L:9:A:H5'	2.01	0.41
26:14:21:A:C2'	26:14:22:C:H5'	2.50	0.41
26:14:185:U:H2'	26:14:186:G:O4'	2.19	0.41
26:14:537:C:H5'	26:14:539:G:OP2	2.20	0.41
26:14:817:C:H2'	26:14:818:G:O4'	2.20	0.41
26:14:990:A:H5'	26:14:990:A:C8	2.42	0.41
26:14:1035:U:H2'	26:14:1036:G:H8	1.83	0.41
26:14:1233:C:H2'	26:14:1234:U:H6	1.84	0.41
26:14:1324:G:C8	61:14:3652:HOH:O	2.71	0.41
26:14:1389:G:H2'	26:14:1390:U:O4'	2.20	0.41
26:14:1454:U:C5	26:14:2702:U:O4	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2271:G:H2'	26:14:2272:U:H6	1.85	0.41
26:14:2359:C:H2'	26:14:2360:A:C8	2.56	0.41
26:14:2506:U:H4'	26:14:2507:C:OP1	2.16	0.41
26:14:2552:U:C2	26:14:2554:U:H5'	2.55	0.41
27:1J:42:C:N4	31:49:91:ARG:HH22	2.18	0.41
30:39:5:ALA:N	30:39:18:ARG:O	2.46	0.41
30:39:63:LYS:NZ	30:39:67:GLN:HB2	2.35	0.41
30:39:89:VAL:HG12	30:39:90:PHE:N	2.34	0.41
31:49:29:TRP:HE3	31:49:33:ARG:NH1	2.18	0.41
32:59:111:HIS:HA	32:59:112:PRO:HD2	1.91	0.41
36:35:39:LYS:HB2	36:35:45:LEU:HD21	2.01	0.41
37:45:138:ASP:HB2	37:45:141:GLN:HG2	2.02	0.41
41:85:33:ARG:O	41:85:37:GLU:HG3	2.20	0.41
42:95:25:LEU:HD23	42:95:25:LEU:HA	1.81	0.41
42:95:37:VAL:CG2	42:95:57:VAL:H	2.33	0.41
44:B5:50:LYS:HA	44:B5:50:LYS:HD2	1.78	0.41
1:13:505:G:OP1	61:13:1853:HOH:O	2.22	0.41
1:13:589:C:H42	1:13:650:G:H1	1.69	0.41
1:13:738:C:OP1	6:5E:2:ARG:NH1	2.51	0.41
6:5E:17:SER:O	6:5E:21:LEU:HD13	2.21	0.41
6:5E:97:PHE:O	18:9I:31:LEU:HD23	2.19	0.41
7:6E:49:ILE:O	7:6E:53:LYS:HB2	2.20	0.41
10:1I:8:LEU:HD22	10:1I:96:ILE:HG22	2.03	0.41
12:3I:7:ILE:HD12	12:3I:7:ILE:HG23	1.74	0.41
13:4I:31:LYS:HD3	13:4I:31:LYS:H	1.85	0.41
13:4I:92:HIS:HA	13:4I:110:ARG:HH22	1.85	0.41
15:6I:17:ARG:HA	15:6I:17:ARG:HD2	1.72	0.41
16:7I:39:TYR:HB2	16:7I:49:LEU:HD13	2.02	0.41
19:AI:71:LEU:HD23	19:AI:71:LEU:HA	1.84	0.41
20:BI:29:LYS:HB2	20:BI:29:LYS:HE3	1.48	0.41
26:1H:172:C:H2'	26:1H:173:G:H8	1.85	0.41
26:1H:764:A:H5'	28:11:210:GLY:HA2	2.03	0.41
26:1H:860:U:H5	26:1H:917:A:N1	2.17	0.41
26:1H:887:A:H5'	26:1H:888:C:OP1	2.20	0.41
26:1H:945:A:P	61:1H:4160:HOH:O	2.77	0.41
26:1H:1534:G:C2'	26:1H:1535:U:H4'	2.45	0.41
26:1H:1786:A:H1'	26:1H:1938:A:N6	2.35	0.41
26:1H:2239:G:P	61:1H:3677:HOH:O	2.77	0.41
26:1H:2262:U:C2'	26:1H:2263:C:H5'	2.50	0.41
26:1H:2400:G:H5'	53:O8:19:ARG:HB2	2.02	0.41
26:1H:2779:U:O2	26:1H:2779:U:O4'	2.37	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:11:53:PHE:O	28:11:218:ARG:HG3	2.20	0.41
29:21:105:THR:HG21	29:21:164:ARG:NH1	2.35	0.41
29:21:170:LEU:HD21	29:21:187:ALA:HB3	2.01	0.41
32:51:152:ARG:HG3	32:51:161:GLY:HA2	2.03	0.41
40:B8:88:ILE:O	40:B8:88:ILE:HG13	2.20	0.41
41:C8:93:LYS:H	41:C8:95:LEU:CD2	2.34	0.41
55:Q8:38:GLY:N	55:Q8:41:ILE:HG13	2.34	0.41
1:1G:943:U:H1'	9:82:124:GLN:HE22	1.85	0.41
1:1G:995:C:H6	1:1G:995:C:O5'	2.03	0.41
1:1G:1242:C:O5'	1:1G:1242:C:H6	2.04	0.41
1:1G:1321:C:H4'	13:4A:87:TYR:CE1	2.55	0.41
2:12:9:GLU:HG2	2:12:48:MET:HG3	2.03	0.41
5:42:144:THR:HG23	5:42:147:ASP:OD2	2.20	0.41
9:82:113:LYS:HD2	9:82:113:LYS:N	2.34	0.41
10:1A:79:ARG:HH11	10:1A:79:ARG:H	1.67	0.41
15:6A:87:ILE:CG2	15:6A:88:ARG:H	2.24	0.41
16:7A:26:ARG:HE	16:7A:31:LYS:HB3	1.84	0.41
16:7A:40:ASP:HA	16:7A:41:PRO:HD2	1.73	0.41
17:8A:60:ILE:HG22	17:8A:62:SER:OG	2.21	0.41
57:3L:8:4SU:O5'	57:3L:8:4SU:H6	2.21	0.41
57:3L:64:A:C2	57:3L:65:G:H1'	2.54	0.41
26:14:819:A:H2'	26:14:820:A:H5'	2.01	0.41
26:14:1342:A:C2	26:14:1397:U:C2	3.08	0.41
26:14:1640:C:O2'	26:14:1641:A:H5'	2.21	0.41
26:14:2015:A:H1'	52:J5:2:ALA:HA	2.01	0.41
26:14:2056:G:O3'	52:J5:8:LYS:NZ	2.53	0.41
26:14:2320:A:C6	26:14:2333:A:C8	3.09	0.41
26:14:2432:A:H2'	26:14:2433:A:C8	2.56	0.41
27:1J:16:G:H2'	27:1J:17:C:H6	1.83	0.41
27:1J:87:G:H3'	27:1J:88:C:C5'	2.49	0.41
30:39:53:THR:HG22	30:39:56:GLU:CG	2.50	0.41
31:49:18:GLU:O	31:49:21:ARG:HB3	2.20	0.41
31:49:34:LEU:HB3	31:49:99:MET:HE1	2.01	0.41
35:25:104:ARG:HB3	35:25:104:ARG:CZ	2.50	0.41
46:D5:98:MET:HE3	46:D5:98:MET:HB2	1.92	0.41
1:13:237:C:H5''	17:8I:25:ARG:NH1	2.35	0.41
1:13:380:G:C2	1:13:384:G:C6	3.08	0.41
1:13:413:G:H22	1:13:428:G:H1'	1.84	0.41
1:13:750:G:C2	1:13:751:U:C5	3.08	0.41
1:13:818:G:C2	1:13:820:U:O2'	2.73	0.41
1:13:838:G:OP2	1:13:842:C:N4	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:944:G:C2	1:13:1340:A:C6	3.09	0.41
1:13:983:A:H2	1:13:984:C:C6	2.39	0.41
1:13:1251:A:H2'	1:13:1252:A:C8	2.56	0.41
1:13:1326:C:H2'	1:13:1327:C:C6	2.56	0.41
19:AI:40:ILE:HG21	19:AI:40:ILE:HD13	1.85	0.41
20:BI:69:GLY:O	20:BI:73:HIS:CD2	2.72	0.41
20:BI:73:HIS:O	20:BI:76:ALA:HB3	2.20	0.41
22:1K:10:G:O2'	22:1K:11:C:OP1	2.34	0.41
24:3K:71:G:H1'	26:1H:1851:U:O2'	2.20	0.41
26:1H:32:C:C2'	26:1H:33:U:H5'	2.50	0.41
26:1H:304:G:H2'	26:1H:305:U:C6	2.56	0.41
26:1H:353:G:H2'	26:1H:354:G:C8	2.51	0.41
26:1H:821:A:H2'	26:1H:946:G:H5''	2.02	0.41
26:1H:1528:A:H2	26:1H:1542:G:C2	2.39	0.41
26:1H:1634:A:H5''	61:1H:4274:HOH:O	2.20	0.41
26:1H:1668:A:N6	26:1H:1676:A:H61	2.18	0.41
26:1H:2309:A:H8	26:1H:2309:A:O5'	2.03	0.41
26:1H:2808:U:H5'	26:1H:2891:G:O6	2.20	0.41
29:21:116:VAL:HG13	29:21:122:PHE:HB2	2.02	0.41
33:61:11:ASN:O	33:61:12:LEU:HB2	2.20	0.41
36:78:86:LYS:HB3	36:78:118:GLY:CA	2.50	0.41
38:98:92:GLY:H	38:98:94:TYR:HE1	1.66	0.41
38:98:92:GLY:N	38:98:94:TYR:HE1	2.18	0.41
51:M8:18:CYS:HB3	51:M8:39:CYS:SG	2.61	0.41
53:O8:33:LYS:HB2	53:O8:33:LYS:NZ	2.34	0.41
54:P8:24:THR:HG23	54:P8:27:GLY:N	2.35	0.41
55:Q8:4:MET:HE2	55:Q8:59:LYS:HD2	2.02	0.41
1:1G:186(C):G:C6	1:1G:186(D):C:C4	3.08	0.41
1:1G:743:U:H2'	1:1G:744:C:C6	2.55	0.41
1:1G:977:A:H1'	1:1G:982:U:O4	2.20	0.41
1:1G:1127:G:H22	1:1G:1144:G:H1	1.69	0.41
1:1G:1189:C:P	10:1A:51:ARG:HH22	2.43	0.41
1:1G:1299:A:N1	1:1G:1301:U:N3	2.69	0.41
1:1G:1316:G:N2	1:1G:1318:A:H3'	2.35	0.41
1:1G:1342:C:H4'	9:82:125:TYR:HB3	2.02	0.41
2:12:43:ASP:O	2:12:47:THR:OG1	2.38	0.41
2:12:91:PRO:HA	2:12:154:LEU:HD12	2.01	0.41
2:12:134:GLU:HA	2:12:137:ARG:HB2	2.03	0.41
4:32:168:ARG:HD3	4:32:168:ARG:HA	1.81	0.41
5:42:68:GLU:HG3	5:42:68:GLU:O	2.21	0.41
5:42:110:LEU:HD23	5:42:110:LEU:HA	1.79	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:52:33:TYR:CE2	6:52:74:ASP:HB2	2.56	0.41
8:72:12:ARG:NH1	8:72:27:PRO:HD2	2.36	0.41
10:1A:12:ASP:OD1	10:1A:13:HIS:N	2.54	0.41
11:2A:86:GLY:H	11:2A:112:THR:HG23	1.85	0.41
11:2A:120:ARG:HA	11:2A:121:PRO:HD3	1.78	0.41
57:3L:31:A:H3'	57:3L:32:PSU:O4'	2.21	0.41
57:3L:35:A:H2	25:4L:14:A:C6	2.38	0.41
26:14:39:C:O2	30:39:46:ARG:NH2	2.53	0.41
26:14:874:G:N2	26:14:904:C:C2	2.89	0.41
26:14:916:G:C2'	26:14:917:A:H5''	2.51	0.41
26:14:1542:G:O5'	26:14:1543:A:H5''	2.20	0.41
26:14:1839:G:H5''	26:14:1840:G:OP2	2.20	0.41
26:14:1839:G:C8	26:14:1927:A:H1'	2.55	0.41
26:14:2396:G:H4'	48:F5:30:VAL:H	1.86	0.41
26:14:2422:A:H8	26:14:2422:A:H2'	1.73	0.41
26:14:2590:A:OP2	28:19:237:GLU:HB3	2.19	0.41
26:14:2841:C:H2'	26:14:2842:G:C8	2.56	0.41
27:1J:7:G:H1	27:1J:113:C:H42	1.68	0.41
27:1J:109:G:C6	27:1J:110:G:C5	3.08	0.41
28:19:43:ARG:HA	28:19:49:ILE:HA	2.01	0.41
29:29:4:ILE:HD12	29:29:28:ALA:CB	2.51	0.41
33:69:38:LEU:HB2	33:69:40:THR:HG23	2.01	0.41
34:15:71:ILE:HD12	34:15:71:ILE:O	2.20	0.41
36:35:86:LYS:HG3	36:35:87:ASP:H	1.85	0.41
39:65:30:ARG:HE	39:65:30:ARG:HB3	1.62	0.41
41:85:47:TYR:HA	41:85:50:ARG:NH2	2.35	0.41
47:E5:25:ARG:HD3	47:E5:25:ARG:HA	1.87	0.41
51:I5:16:CYS:HB2	51:I5:20:ASN:H	1.85	0.41
51:I5:56:VAL:HG22	51:I5:57:GLU:HG3	2.01	0.41
1:13:616:G:C2	1:13:617:G:C8	3.08	0.41
1:13:953:G:C2	1:13:954:G:H1'	2.56	0.41
1:13:1152:A:H2'	1:13:1153:C:H6	1.85	0.41
1:13:1392:G:N2	1:13:1502:A:H8	2.18	0.41
1:13:1406:U:H2'	1:13:1407:C:H5'	2.03	0.41
1:13:1448:C:N4	1:13:1455:G:H1	2.16	0.41
2:1E:69:LEU:HB3	2:1E:162:ILE:HG22	2.02	0.41
5:4E:10:MET:O	5:4E:10:MET:HG2	2.19	0.41
6:5E:3:ARG:HB3	6:5E:93:SER:HB2	2.02	0.41
13:4I:36:LYS:HB3	13:4I:36:LYS:HE3	1.88	0.41
13:4I:108:ARG:N	13:4I:108:ARG:HD2	2.36	0.41
16:7I:55:ARG:HE	16:7I:55:ARG:HB3	1.62	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:44:MET:O	19:AI:47:HIS:HB2	2.20	0.41
26:1H:643:A:H2'	26:1H:644:A:C8	2.56	0.41
26:1H:1005:C:H5''	26:1H:1006:C:OP2	2.21	0.41
26:1H:1063:G:H22	26:1H:1076:C:H2'	1.86	0.41
26:1H:1268:A:C2	26:1H:2013:A:C4	3.08	0.41
26:1H:2062:A:N3	26:1H:2062:A:C2'	2.83	0.41
26:1H:2371:G:C4'	53:O8:45:LYS:HG3	2.51	0.41
31:41:39:ILE:HB	31:41:92:VAL:HG12	2.02	0.41
32:51:3:ARG:HA	32:51:3:ARG:NE	2.36	0.41
33:61:129:THR:HG22	33:61:137:PRO:HB3	2.03	0.41
33:61:131:LYS:HB3	33:61:132:PRO:CA	2.47	0.41
36:78:100:LEU:O	36:78:105:LEU:HD12	2.21	0.41
38:98:9:LYS:HA	38:98:17:ARG:NE	2.36	0.41
38:98:41:ALA:O	38:98:44:LEU:N	2.43	0.41
39:A8:67:ARG:CZ	39:A8:67:ARG:HB2	2.50	0.41
43:E8:79:GLY:HA3	43:E8:100:THR:HG22	2.02	0.41
49:K8:31:GLU:HB3	49:K8:53:LEU:HD11	2.02	0.41
55:Q8:34:TRP:CG	55:Q8:35:GLN:N	2.85	0.41
1:1G:147:G:N2	1:1G:148:G:C4	2.88	0.41
1:1G:328:C:O2	1:1G:328:C:H2'	2.20	0.41
1:1G:1053:G:HO2'	1:1G:1054:C:P	2.44	0.41
1:1G:1073:U:H2'	1:1G:1074:G:C8	2.55	0.41
1:1G:1123:A:O3'	10:1A:36:GLY:HA3	2.20	0.41
1:1G:1216:G:H2'	1:1G:1217:C:C6	2.55	0.41
4:32:209:ARG:O	4:32:209:ARG:HG3	2.19	0.41
5:42:122:GLU:HG2	5:42:131:ILE:HD12	2.03	0.41
8:72:51:VAL:HG11	8:72:60:ARG:HE	1.84	0.41
13:4A:86:CYS:HA	19:AA:73:GLU:O	2.19	0.41
15:6A:32:LEU:O	15:6A:36:ILE:HG13	2.20	0.41
16:7A:52:ASP:OD2	16:7A:55:ARG:HG3	2.20	0.41
18:9A:19:LYS:HD2	18:9A:19:LYS:HA	1.78	0.41
26:14:24:G:H2'	26:14:25:U:O4'	2.20	0.41
26:14:270(E):G:C6	26:14:270(F):U:C4	3.08	0.41
26:14:571:A:H5'	26:14:2030:A:N7	2.36	0.41
26:14:774:A:H2	26:14:787:U:O2'	2.03	0.41
26:14:1449(A):G:O2'	26:14:1450:C:H5'	2.20	0.41
26:14:1499:C:H2'	26:14:1500:G:C8	2.56	0.41
26:14:2017:U:O2	52:J5:10:LYS:HB2	2.20	0.41
26:14:2388:A:H2'	26:14:2389:G:H5'	2.01	0.41
27:1J:0:A:H2'	27:1J:1:U:C6	2.55	0.41
27:1J:6:C:C2	27:1J:115:G:N2	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:118:G:C5	27:1J:119:A:N7	2.89	0.41
29:29:9:VAL:HA	40:75:3:ARG:HG3	2.03	0.41
30:39:11:VAL:HG23	30:39:12:LEU:H	1.85	0.41
30:39:78:ILE:HA	30:39:83:PHE:CD2	2.56	0.41
31:49:43:LEU:HD12	31:49:45:GLU:OE1	2.19	0.41
31:49:105:LYS:NZ	51:I5:26:SER:HA	2.36	0.41
35:25:7:TYR:HE1	35:25:20:MET:HE3	1.85	0.41
35:25:68:GLU:OE2	35:25:78:ARG:NH1	2.53	0.41
39:65:7:TYR:CE1	39:65:11:LYS:HD3	2.54	0.41
39:65:80:LEU:HD23	39:65:80:LEU:HA	1.78	0.41
42:95:57:VAL:HG23	42:95:99:ILE:N	2.35	0.41
45:C5:42:VAL:HG13	45:C5:65:ALA:HB3	2.02	0.41
50:H5:4:LEU:O	50:H5:36:VAL:HA	2.20	0.41
52:J5:46:CYS:SG	52:J5:48:GLU:HG2	2.61	0.41
1:13:337:C:H2'	1:13:338:A:C8	2.55	0.41
1:13:468:A:O2'	16:7I:82:GLN:HG2	2.21	0.41
1:13:604:G:H2'	1:13:605:U:O4'	2.20	0.41
1:13:828:A:N7	1:13:859:A:C8	2.89	0.41
3:2E:18:TRP:HB3	3:2E:20:SER:O	2.21	0.41
23:2K:64:G:N3	23:2K:65:G:C8	2.89	0.41
25:4K:24:A:H8	25:4K:24:A:O5'	2.04	0.41
26:1H:15:G:C2	26:1H:16:G:C8	3.08	0.41
26:1H:211:A:H2'	26:1H:212:G:O4'	2.21	0.41
26:1H:357:A:H2'	26:1H:358:U:H6	1.85	0.41
26:1H:1025:G:C4	26:1H:1135:C:H1'	2.55	0.41
26:1H:1257:C:H4'	30:31:83:PHE:CE1	2.55	0.41
26:1H:1550:C:O2'	26:1H:1551:C:H5'	2.20	0.41
26:1H:1675:C:H2'	26:1H:1676:A:O4'	2.20	0.41
26:1H:2557:G:H2'	26:1H:2558:C:C6	2.56	0.41
26:1H:2704:C:H2'	26:1H:2705:A:H8	1.83	0.41
26:1H:2820:A:P	38:98:2:ARG:NH2	2.94	0.41
26:1H:2830:G:N3	26:1H:2883:A:H2	2.18	0.41
26:1H:2851:A:H8	26:1H:2851:A:O5'	2.04	0.41
27:16:30:C:H2'	27:16:31:C:H5'	2.03	0.41
29:21:81:ILE:O	29:21:81:ILE:HG22	2.20	0.41
30:31:176:LEU:HD21	30:31:180:GLY:O	2.21	0.41
35:68:75:SER:CB	40:B8:74:ARG:HH12	2.34	0.41
36:78:38:GLN:O	36:78:41:ARG:HB2	2.21	0.41
36:78:96:THR:HG22	36:78:126:VAL:HG21	2.02	0.41
37:88:1:MET:O	37:88:2:LEU:HB2	2.21	0.41
37:88:2:LEU:HD12	37:88:2:LEU:HA	1.93	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:88:136:ALA:HB2	46:H8:52:SER:HB2	2.03	0.41
38:98:50:HIS:O	38:98:54:LEU:HD22	2.21	0.41
51:M8:59:PHE:HD1	51:M8:59:PHE:HA	1.73	0.41
55:Q8:40:GLU:HA	55:Q8:43:GLN:OE1	2.20	0.41
55:Q8:47:LYS:HA	55:Q8:47:LYS:CE	2.24	0.41
1:1G:328:C:H4'	1:1G:329:A:C5'	2.50	0.41
1:1G:332:G:C2	1:1G:333:G:C8	3.09	0.41
1:1G:565:U:H3'	1:1G:566:G:H2'	2.03	0.41
1:1G:689:C:C2'	1:1G:690:G:H5'	2.51	0.41
2:12:47:THR:HA	2:12:202:PRO:HG2	2.01	0.41
2:12:80:ILE:HG21	2:12:211:ILE:HG21	2.03	0.41
2:12:141:GLU:O	2:12:145:LEU:HB2	2.21	0.41
3:22:11:ARG:O	3:22:14:ILE:O	2.39	0.41
12:3A:18:VAL:O	12:3A:19:ARG:HB2	2.21	0.41
12:3A:41:ARG:HH11	12:3A:41:ARG:HB3	1.86	0.41
15:6A:26:GLU:H	15:6A:26:GLU:HG2	1.66	0.41
16:7A:37:GLY:HA2	16:7A:50:LYS:HD3	2.01	0.41
16:7A:58:TYR:O	16:7A:62:VAL:HG22	2.20	0.41
26:14:616:A:C4	30:39:180:GLY:HA2	2.55	0.41
26:14:868:U:C4	26:14:869:G:N7	2.88	0.41
26:14:1044:G:C2'	26:14:1045:A:H5''	2.51	0.41
26:14:1894:C:C2'	26:14:1895:C:H5'	2.51	0.41
26:14:2283:C:C2	26:14:2389:G:C2	3.08	0.41
26:14:2356:C:H4'	47:E5:20:ARG:HG3	2.03	0.41
26:14:2419:U:O4	55:M5:31:HIS:CG	2.73	0.41
26:14:2468:G:H3'	26:14:2476:A:C2	2.55	0.41
26:14:2543:G:C1'	26:14:2766:G:H5'	2.51	0.41
26:14:2771:C:H5''	29:29:202:LYS:HE2	2.02	0.41
27:1J:45:A:N3	27:1J:45:A:H2'	2.35	0.41
27:1J:51:G:C6	27:1J:52:A:C2	3.09	0.41
27:1J:57:A:C2'	27:1J:58:A:H5'	2.51	0.41
33:69:77:LEU:HD13	33:69:141:LYS:HD2	2.03	0.41
35:25:64:ARG:HH11	40:75:70:VAL:HG11	1.85	0.41
43:A5:96:ILE:HG12	43:A5:97:LYS:N	2.36	0.41
45:C5:59:GLY:O	45:C5:61:ILE:HG13	2.20	0.41
50:H5:50:VAL:HG12	50:H5:53:LEU:HD12	2.03	0.41
53:K5:33:LYS:HE2	53:K5:33:LYS:HB3	1.82	0.41
1:13:36:C:H1'	12:3I:118:SER:HB3	2.03	0.41
1:13:339:C:OP2	35:68:97:ARG:HD3	2.21	0.41
1:13:940:C:H2'	1:13:941:G:H8	1.86	0.41
1:13:1339:A:H2'	1:13:1340:A:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1499:A:H1'	1:13:1520:G:O5'	2.21	0.41
2:1E:97:TRP:CH2	2:1E:176:GLU:OE2	2.74	0.41
3:2E:84:ILE:HG23	3:2E:88:ARG:HE	1.85	0.41
9:8E:89:ASN:O	9:8E:91:ASP:N	2.52	0.41
26:1H:451:C:H5'	61:1H:3916:HOH:O	2.20	0.41
26:1H:839:U:H2'	26:1H:840:C:C6	2.56	0.41
26:1H:1187:G:P	61:1H:3899:HOH:O	2.67	0.41
26:1H:1309:G:P	54:P8:9:ARG:HD3	2.61	0.41
26:1H:1332:G:N2	26:1H:1609:A:HO2'	2.15	0.41
26:1H:1358:G:N2	26:1H:1372:U:C5	2.89	0.41
26:1H:1642:G:C2'	26:1H:1643:G:H5'	2.50	0.41
26:1H:1831:G:H2'	26:1H:1832:C:C6	2.55	0.41
26:1H:1919:A:H5''	26:1H:1920:C:OP2	2.21	0.41
26:1H:1931:U:O2	26:1H:1931:U:O4'	2.39	0.41
26:1H:2371:G:H4'	53:O8:45:LYS:HG3	2.03	0.41
26:1H:2436:G:C5	26:1H:2437:U:C5	3.09	0.41
28:11:105:ILE:HD12	28:11:105:ILE:HA	1.51	0.41
32:51:4:ILE:HD11	32:51:7:LEU:HD11	2.03	0.41
32:51:12:PRO:HD3	32:51:48:GLY:O	2.21	0.41
32:51:92:ILE:H	32:51:92:ILE:HG13	1.55	0.41
36:78:52:GLU:OE1	36:78:55:ARG:NE	2.49	0.41
38:98:29:LEU:O	38:98:78:LYS:HE3	2.21	0.41
39:A8:17:ARG:HH11	39:A8:17:ARG:HG3	1.86	0.41
40:B8:107:ASP:CG	40:B8:109:GLU:HG3	2.41	0.41
44:F8:2:LYS:HG2	49:K8:26:ARG:HE	1.86	0.41
44:F8:61:GLY:N	44:F8:75:ASP:OD1	2.50	0.41
45:G8:40:GLU:HB3	45:G8:64:GLU:CB	2.51	0.41
46:H8:53:ILE:O	46:H8:53:ILE:HG13	2.19	0.41
48:J8:73:LEU:O	48:J8:76:ARG:HB2	2.19	0.41
1:1G:131:C:H2'	1:1G:132:C:C6	2.56	0.41
1:1G:191(F):U:H2'	1:1G:191:G:H8	1.85	0.41
1:1G:1050:G:C6	1:1G:1051:C:N4	2.89	0.41
1:1G:1265:G:C2	1:1G:1271:G:C2	3.09	0.41
1:1G:1290:G:C6	1:1G:1291:G:C5	3.09	0.41
1:1G:1324:A:C5	1:1G:1325:C:C5	3.09	0.41
2:12:239:VAL:HG12	2:12:240:GLN:HG3	2.02	0.41
3:22:81:GLY:HA2	3:22:85:ARG:HD3	2.02	0.41
3:22:188:LEU:HD13	3:22:188:LEU:HA	1.80	0.41
5:42:76:ILE:O	5:42:93:PRO:HB3	2.21	0.41
5:42:107:ARG:O	5:42:110:LEU:N	2.54	0.41
6:52:99:ALA:HB3	18:9A:29:PHE:CE1	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:100:ILE:HA	8:72:101:PRO:HD3	1.88	0.41
15:6A:5:LYS:O	15:6A:9:GLN:HG2	2.21	0.41
57:3L:8:4SU:O4'	57:3L:48:C:H2'	2.21	0.41
26:14:38:A:H2'	26:14:39:C:H6	1.83	0.41
26:14:414:C:H2'	26:14:415:A:C8	2.55	0.41
26:14:442:G:C4	26:14:444:C:C5	3.09	0.41
26:14:459:U:H4'	54:L5:40:TRP:CZ3	2.56	0.41
26:14:761:A:C5	61:14:4077:HOH:O	2.71	0.41
26:14:988:A:N6	50:H5:13:ILE:HG21	2.35	0.41
26:14:992:C:H2'	26:14:993:G:H8	1.85	0.41
26:14:1728:G:H2'	26:14:1731:G:H1	1.85	0.41
26:14:2211:G:H2'	26:14:2211:G:N3	2.34	0.41
26:14:2347:C:H4'	53:K5:39:TYR:HE2	1.86	0.41
26:14:2459:A:H2'	26:14:2459:A:N3	2.36	0.41
26:14:2622:C:H5'	29:29:159:HIS:ND1	2.35	0.41
26:14:2820:A:O5'	38:55:4:LEU:HD23	2.21	0.41
28:19:106:ILE:O	28:19:108:PRO:HD3	2.20	0.41
30:39:5:ALA:HB1	30:39:125:LEU:HD21	2.02	0.41
30:39:18:ARG:HG2	30:39:19:GLU:N	2.31	0.41
33:69:2:LYS:H	33:69:2:LYS:HG2	1.78	0.41
39:65:26:LEU:HD22	39:65:87:PHE:CD1	2.55	0.41
39:65:62:LYS:HA	39:65:65:VAL:HG12	2.03	0.41
46:D5:67:LEU:HA	46:D5:67:LEU:HD23	1.91	0.41
46:D5:148:ASP:OD2	46:D5:175:VAL:HG11	2.20	0.41
50:H5:13:ILE:HD12	50:H5:13:ILE:H	1.85	0.41
1:13:16:A:C2	1:13:920:U:O2	2.74	0.41
1:13:131:C:H2'	1:13:132:C:C6	2.56	0.41
1:13:323:U:O3'	20:BI:22:ARG:HD3	2.21	0.41
1:13:375:U:OP1	16:7I:69:THR:HG21	2.20	0.41
1:13:456:C:H42	1:13:476:G:H1	1.68	0.41
1:13:575:G:H4'	1:13:576:G:C5'	2.51	0.41
1:13:825:G:O2'	1:13:826:C:H5'	2.21	0.41
1:13:1054:C:H5	1:13:1196:U:H2'	1.86	0.41
1:13:1129:C:O2	1:13:1130:A:N7	2.53	0.41
1:13:1348:U:H5	1:13:1373:G:N2	2.19	0.41
2:1E:28:PHE:O	2:1E:32:ILE:HG22	2.21	0.41
2:1E:178:ARG:HA	2:1E:178:ARG:HD3	1.94	0.41
3:2E:130:VAL:O	3:2E:134:ILE:HG12	2.20	0.41
3:2E:154:SER:OG	3:2E:165:THR:HB	2.21	0.41
4:3E:90:GLY:H	4:3E:204:ILE:HD11	1.86	0.41
7:6E:73:MET:HG2	7:6E:90:GLU:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8I:45:HIS:O	17:8I:73:VAL:HG23	2.21	0.41
19:AI:40:ILE:HG22	19:AI:69:HIS:O	2.21	0.41
23:2K:64:G:C2	23:2K:65:G:C5	3.09	0.41
24:3K:9:A:H2'	24:3K:10:G:N7	2.36	0.41
24:3K:26:A:H2'	24:3K:27:G:H5'	2.03	0.41
24:3K:28:G:H1	24:3K:42:C:H42	1.67	0.41
26:1H:259:G:O2'	26:1H:621:A:O2'	2.17	0.41
26:1H:322:A:H5'	26:1H:340:A:H1'	2.03	0.41
26:1H:323:G:H5'	30:31:169:ASN:OD1	2.21	0.41
26:1H:363(B):G:H2'	26:1H:363(C):G:H8	1.86	0.41
26:1H:442:G:C6	26:1H:444:C:N4	2.89	0.41
26:1H:449:A:N6	26:1H:450:G:C6	2.89	0.41
26:1H:587:C:P	36:78:21:ARG:HH22	2.44	0.41
26:1H:784:A:O4'	28:11:227:ASN:ND2	2.54	0.41
26:1H:784:A:C8	26:1H:792:G:C5	3.09	0.41
26:1H:845:G:H8	26:1H:845:G:OP2	2.04	0.41
26:1H:1061:U:H3'	26:1H:1062:G:C5'	2.51	0.41
26:1H:1280:G:N2	26:1H:1291:C:C2	2.89	0.41
26:1H:1336:A:OP2	44:F8:64:LYS:NZ	2.53	0.41
26:1H:1448:G:H1'	26:1H:1528:A:H62	1.85	0.41
26:1H:1545(A):A:N7	26:1H:1546:C:C2	2.89	0.41
26:1H:1666:G:C2'	26:1H:1667:G:H5'	2.51	0.41
26:1H:1756:G:H4'	26:1H:1758:G:O4'	2.21	0.41
26:1H:2422:A:C5	26:1H:2424:C:C4	3.08	0.41
26:1H:2643:G:H2'	26:1H:2644:G:O4'	2.20	0.41
26:1H:2715:C:C2'	26:1H:2716:U:H5'	2.51	0.41
26:1H:2845:G:N2	26:1H:2871:C:O2	2.51	0.41
27:16:99:A:C4	27:16:100:G:C8	3.09	0.41
29:21:1:MET:HG2	29:21:83:ASP:O	2.20	0.41
30:31:63:LYS:HE3	30:31:67:GLN:HB2	2.02	0.41
30:31:129:PHE:O	30:31:130:ALA:CB	2.69	0.41
31:41:47:LYS:NZ	31:41:80:PHE:HD2	2.17	0.41
34:58:35:ARG:HA	34:58:116:LEU:HD13	2.03	0.41
39:A8:32:LEU:HD23	39:A8:32:LEU:N	2.35	0.41
39:A8:63:THR:O	39:A8:66:ALA:HB3	2.21	0.41
41:C8:88:ILE:C	41:C8:90:VAL:H	2.17	0.41
43:E8:110:LYS:HG3	43:E8:111:HIS:N	2.34	0.41
45:G8:88:LYS:HD3	45:G8:88:LYS:HA	1.51	0.41
46:H8:102:LEU:HD23	46:H8:102:LEU:HA	1.83	0.41
46:H8:109:ALA:HB3	46:H8:144:LEU:HD13	2.03	0.41
47:I8:47:PRO:HB3	47:I8:51:VAL:HG12	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:J8:25:LYS:HE2	48:J8:25:LYS:HB3	1.48	0.41
48:J8:41:ARG:HG3	48:J8:43:TYR:CZ	2.55	0.41
48:J8:82:LEU:H	48:J8:82:LEU:HD22	1.85	0.41
48:J8:90:ILE:HG21	48:J8:90:ILE:HD13	1.71	0.41
49:K8:15:LYS:HD3	49:K8:67:LYS:HZ3	1.85	0.41
49:K8:33:MET:O	49:K8:36:ARG:HB2	2.20	0.41
1:1G:129(A):G:C2	1:1G:191(A):G:C8	3.08	0.41
1:1G:151:A:H2'	1:1G:152:A:O4'	2.19	0.41
1:1G:255:G:H2'	1:1G:256:U:H6	1.81	0.41
1:1G:359:U:H2'	1:1G:360:A:C8	2.56	0.41
1:1G:391:G:C6	1:1G:392:G:C5	3.08	0.41
1:1G:491:G:H2'	1:1G:492:G:O4'	2.20	0.41
1:1G:552:U:C2'	1:1G:553:A:H5'	2.51	0.41
1:1G:674:G:H2'	1:1G:675:A:C8	2.56	0.41
1:1G:745:C:OP1	1:1G:851:G:O2'	2.33	0.41
1:1G:750:G:N2	15:6A:23:GLY:HA3	2.36	0.41
1:1G:1072:G:H2'	1:1G:1073:U:O4'	2.21	0.41
1:1G:1125:U:C5	10:1A:5:ARG:NH1	2.89	0.41
1:1G:1181:G:H2'	1:1G:1182:G:O4'	2.21	0.41
1:1G:1241:G:H1	1:1G:1296:C:H42	1.68	0.41
1:1G:1446:A:OP1	1:1G:1446:A:H4'	2.21	0.41
2:12:6:THR:OG1	2:12:217:ARG:HB3	2.20	0.41
2:12:219:VAL:HG23	2:12:222:ILE:HD12	2.02	0.41
4:32:18:LYS:HD2	4:32:20:TYR:CE1	2.55	0.41
4:32:61:LYS:HA	4:32:203:VAL:HG22	2.02	0.41
4:32:104:VAL:O	4:32:108:LEU:HB2	2.21	0.41
5:42:34:VAL:HB	5:42:62:ALA:HB1	2.03	0.41
6:52:44:GLY:HA2	6:52:59:TYR:CZ	2.56	0.41
7:62:78:ARG:O	7:62:84:ASN:HA	2.20	0.41
10:1A:8:LEU:HD22	10:1A:20:ALA:HB2	2.02	0.41
10:1A:50:ILE:HB	14:5A:41:ARG:HD2	2.03	0.41
13:4A:84:ILE:O	13:4A:86:CYS:N	2.54	0.41
14:5A:53:LEU:HD23	14:5A:53:LEU:HA	1.67	0.41
19:AA:12:ASP:HB3	19:AA:38:SER:CB	2.50	0.41
23:2L:48:U:O2'	23:2L:49:C:OP2	2.32	0.41
57:3L:11:C:H2'	57:3L:12:U:C6	2.56	0.41
26:14:30:G:C5	26:14:31:C:C4	3.08	0.41
26:14:286:C:H2'	26:14:287:C:C6	2.56	0.41
26:14:606:U:H4'	26:14:658:C:H4'	2.03	0.41
26:14:619:G:H5''	26:14:620:G:N2	2.35	0.41
26:14:867:C:C6	26:14:868:U:H5	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1034:G:H2'	26:14:1035:U:O4'	2.20	0.41
26:14:1316:U:C2'	26:14:1317:A:H5'	2.51	0.41
26:14:1434:A:H2'	26:14:1435:G:C8	2.56	0.41
26:14:1945:G:H2'	26:14:1946:U:H6	1.85	0.41
26:14:2168:G:H2'	26:14:2168:G:N3	2.36	0.41
26:14:2244:U:O5'	26:14:2244:U:H6	2.04	0.41
26:14:2408:U:H2'	26:14:2409:G:H8	1.86	0.41
26:14:2415:G:C6	26:14:2416:C:C4	3.09	0.41
26:14:2563:U:O2	26:14:2565:A:C8	2.74	0.41
26:14:2607:G:H2'	26:14:2608:G:O4'	2.21	0.41
27:1J:66:A:C2	27:1J:108:C:C4	3.09	0.41
28:19:260:ARG:NH2	28:19:264:LYS:HD3	2.36	0.41
29:29:50:GLY:HA2	29:29:78:LEU:HD23	2.03	0.41
30:39:29:ASN:HA	30:39:30:PRO:HD3	1.63	0.41
30:39:31:HIS:CD2	30:39:31:HIS:O	2.74	0.41
30:39:85:GLY:C	61:39:302:HOH:O	2.58	0.41
40:75:62:THR:HG22	40:75:75:ILE:HG12	2.02	0.41
40:75:90:GLN:HG3	40:75:91:ARG:N	2.36	0.41
45:C5:87:LYS:HB2	45:C5:96:ILE:HD13	2.01	0.41
47:E5:72:ARG:HB3	47:E5:75:LEU:HB2	2.03	0.41
48:F5:18:ILE:HG12	48:F5:37:ILE:HD12	2.02	0.41
1:13:8:A:N7	4:3E:208:SER:HB3	2.37	0.41
1:13:243:A:H4'	1:13:244:U:H5''	2.03	0.41
1:13:255:G:C4	1:13:256:U:C5	3.09	0.41
1:13:310:G:OP2	16:7I:27:LYS:NZ	2.29	0.41
1:13:324:G:N1	1:13:327:A:OP2	2.51	0.41
1:13:375:U:C2	1:13:376:G:C8	3.09	0.41
1:13:560:U:H4'	1:13:561:U:H5''	2.03	0.41
1:13:1128:C:C6	1:13:1139:G:C6	3.09	0.41
1:13:1132:C:C2'	1:13:1133:G:H5'	2.51	0.41
1:13:1305:G:H8	1:13:1305:G:OP2	2.04	0.41
2:1E:21:ARG:C	2:1E:23:ARG:H	2.25	0.41
3:2E:7:PRO:O	3:2E:11:ARG:NH1	2.53	0.41
5:4E:35:GLY:H	5:4E:112:LEU:HD13	1.85	0.41
5:4E:69:VAL:O	5:4E:71:LEU:HG	2.20	0.41
8:7E:80:ILE:H	8:7E:80:ILE:HG12	1.73	0.41
16:7I:8:ARG:HD3	16:7I:17:TYR:CE1	2.56	0.41
18:9I:47:THR:HA	18:9I:83:GLU:HB2	2.02	0.41
26:1H:141:A:H8	26:1H:1408:C:H1'	1.86	0.41
26:1H:150:C:H2'	26:1H:151:C:C6	2.56	0.41
26:1H:234:C:C2	26:1H:235:U:C5	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1250:G:OP2	36:78:18:ARG:NH1	2.54	0.41
30:31:64:ILE:HA	30:31:64:ILE:HD13	1.50	0.41
30:31:149:ASP:OD1	30:31:149:ASP:N	2.49	0.41
33:61:139:GLN:C	33:61:140:LEU:HG	2.41	0.41
34:58:3:THR:HG22	41:C8:64:ARG:NH1	2.35	0.41
37:88:5:ARG:O	37:88:6:ARG:C	2.59	0.41
39:A8:71:ARG:HE	39:A8:71:ARG:HB3	1.80	0.41
45:G8:54:LYS:O	45:G8:55:TYR:CG	2.74	0.41
51:M8:36:CYS:SG	51:M8:38:LYS:O	2.79	0.41
1:1G:162:A:H8	1:1G:162:A:O5'	2.04	0.41
1:1G:422:C:H6	1:1G:422:C:H2'	1.73	0.41
7:62:12:LEU:HA	7:62:12:LEU:HD12	1.68	0.41
8:72:97:VAL:HG22	8:72:129:VAL:C	2.41	0.41
11:2A:100:ALA:C	11:2A:102:GLY:H	2.24	0.41
16:7A:74:LEU:HD12	16:7A:79:VAL:HG21	2.03	0.41
21:1B:6:ARG:HH11	21:1B:15:ARG:NH1	2.19	0.41
56:1L:29:G:H3'	56:1L:30:G:C8	2.56	0.41
56:1L:74:C:O2'	56:1L:75:C:OP2	2.38	0.41
23:2L:26:C:H2'	23:2L:27:G:O4'	2.21	0.41
26:14:49:A:H5''	26:14:51:G:O4'	2.20	0.41
26:14:363(A):A:H2'	26:14:363(A):A:N3	2.35	0.41
26:14:429:A:H2'	26:14:430:G:C8	2.56	0.41
26:14:947:G:H2'	26:14:948:G:C8	2.56	0.41
26:14:1174:A:H5'	26:14:1175:U:OP2	2.20	0.41
26:14:1488:G:C6	26:14:1489:U:N3	2.89	0.41
26:14:2157:G:O2'	26:14:2158:A:C8	2.72	0.41
26:14:2357:U:P	47:E5:20:ARG:HH11	2.44	0.41
26:14:2414:G:OP1	48:F5:25:LYS:NZ	2.54	0.41
26:14:2885:C:N3	26:14:2886:G:H1'	2.36	0.41
27:1J:17:C:H2'	27:1J:18:G:O4'	2.21	0.41
27:1J:118:G:O6	27:1J:119:A:N6	2.54	0.41
29:29:44:TYR:HE2	29:29:80:GLU:OE1	2.03	0.41
32:59:9:ILE:HG22	32:59:51:ARG:HA	2.01	0.41
32:59:55:PRO:HG2	32:59:61:HIS:CG	2.56	0.41
32:59:154:PRO:HB3	32:59:162:ILE:O	2.21	0.41
33:69:58:LEU:O	33:69:62:LYS:N	2.53	0.41
33:69:130:TYR:O	33:69:131:LYS:HD2	2.21	0.41
34:15:35:ARG:HB2	34:15:42:TRP:CZ3	2.54	0.41
37:45:63:LYS:HE2	37:45:65:PHE:CZ	2.56	0.41
39:65:74:ALA:HB2	39:65:105:ALA:O	2.21	0.41
51:I5:2:LYS:HB3	51:I5:6:HIS:CD2	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:93:U:H2'	1:13:95:G:H5''	2.02	0.40
1:13:187:C:O2	1:13:191(A):G:C6	2.74	0.40
1:13:475:G:C4	1:13:476:G:C8	3.08	0.40
1:13:687:A:C2'	1:13:701:C:H41	2.34	0.40
1:13:1023:G:H3'	1:13:1024:G:C5'	2.47	0.40
1:13:1068:G:N7	1:13:1094:G:H2'	2.35	0.40
13:4I:50:GLU:O	13:4I:54:VAL:HG23	2.21	0.40
14:5I:13:THR:HG23	14:5I:20:ALA:HB2	2.04	0.40
17:8I:25:ARG:CZ	17:8I:27:PHE:HE2	2.34	0.40
20:BI:57:ARG:HH12	20:BI:102:GLY:HA2	1.85	0.40
26:1H:858:U:O2	26:1H:2268:A:H2'	2.21	0.40
26:1H:1045:A:H1'	26:1H:1047:G:C4	2.56	0.40
26:1H:1340:U:H4'	26:1H:1341:U:OP2	2.20	0.40
26:1H:1359:A:N1	26:1H:1372:U:C4	2.88	0.40
26:1H:1426:G:P	26:1H:1427:A:HO2'	2.36	0.40
26:1H:1524:G:C2	26:1H:1525:G:C4	3.08	0.40
26:1H:1641:A:N6	26:1H:1642:G:C2	2.90	0.40
26:1H:2028:U:C5	61:1H:4099:HOH:O	2.70	0.40
26:1H:2309:A:C6	26:1H:2310:A:C8	3.09	0.40
26:1H:2376:A:N1	39:A8:87:PHE:HD2	2.18	0.40
26:1H:2459:A:H2'	26:1H:2460:U:H5'	2.03	0.40
26:1H:2540:C:H2'	26:1H:2541:A:O4'	2.21	0.40
26:1H:2552:U:H2'	26:1H:2554:U:H5''	2.03	0.40
26:1H:2695:C:H2'	26:1H:2696:U:C6	2.56	0.40
29:21:105:THR:HG22	29:21:106:GLY:N	2.26	0.40
29:21:105:THR:O	29:21:196:VAL:HB	2.21	0.40
30:31:34:TRP:CZ2	36:78:8:PRO:HG3	2.56	0.40
33:61:131:LYS:N	33:61:131:LYS:HZ2	2.19	0.40
36:78:46:LYS:O	36:78:47:ASP:HB3	2.20	0.40
36:78:52:GLU:HG3	36:78:57:THR:HA	2.03	0.40
40:B8:129:ARG:HD3	40:B8:129:ARG:HA	1.86	0.40
43:E8:58:ALA:O	43:E8:64:MET:HB2	2.21	0.40
45:G8:100:ALA:HB1	45:G8:101:LYS:CB	2.45	0.40
46:H8:143:GLY:O	46:H8:145:GLU:HG2	2.21	0.40
48:J8:91:LYS:HZ2	48:J8:91:LYS:HG3	1.72	0.40
50:L8:8:LEU:HD22	50:L8:31:LEU:HD22	2.02	0.40
54:P8:37:LYS:O	54:P8:37:LYS:HG3	2.21	0.40
55:Q8:48:PHE:O	55:Q8:49:VAL:HG12	2.21	0.40
1:1G:589:C:N4	1:1G:650:G:H1	2.04	0.40
1:1G:779:C:H2'	1:1G:780:A:O4'	2.21	0.40
1:1G:960:U:O2	1:1G:1225:A:C8	2.74	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:977:A:OP1	14:5A:31:ARG:HD3	2.20	0.40
1:1G:1062:U:H2'	1:1G:1063:C:C6	2.56	0.40
1:1G:1119:C:H2'	1:1G:1120:G:C8	2.56	0.40
1:1G:1165:C:H2'	1:1G:1166:G:O4'	2.19	0.40
1:1G:1187:G:H2'	1:1G:1188:A:C8	2.55	0.40
1:1G:1347:G:C8	9:82:107:ARG:HB3	2.56	0.40
2:12:97:TRP:HH2	2:12:176:GLU:OE2	2.05	0.40
3:22:51:GLY:O	3:22:70:VAL:HG13	2.21	0.40
5:42:9:LYS:HG2	5:42:108:ALA:HB1	2.03	0.40
7:62:69:VAL:HG21	7:62:104:LEU:HD13	2.02	0.40
8:72:104:ARG:HB3	8:72:107:LEU:HB2	2.03	0.40
9:82:26:VAL:HG22	9:82:61:ALA:H	1.85	0.40
13:4A:13:LYS:HG2	13:4A:14:ARG:H	1.85	0.40
23:2L:9:G:O4'	23:2L:47:7MG:H1'	2.21	0.40
57:3L:18:G:O2'	57:3L:57:G:N2	2.53	0.40
26:14:128:C:H2'	26:14:129:C:C6	2.56	0.40
26:14:528:A:C2	26:14:2043:C:H4'	2.57	0.40
26:14:719:C:O2'	26:14:720:C:H5'	2.20	0.40
26:14:868:U:N3	26:14:869:G:C5	2.89	0.40
26:14:883:G:H2'	26:14:884:C:C6	2.56	0.40
26:14:914:C:C4	26:14:915:C:C6	3.10	0.40
26:14:1268:A:C2	26:14:2013:A:C4	3.09	0.40
26:14:1780:A:P	61:14:4022:HOH:O	2.72	0.40
26:14:2187:G:C5	26:14:2188:C:C4	3.09	0.40
26:14:2420:C:OP1	55:M5:34:TRP:HB3	2.21	0.40
26:14:2854:G:C2	26:14:2864:G:C2	3.09	0.40
26:14:2873:A:C8	38:55:5:LYS:HA	2.56	0.40
27:1J:50:G:OP1	39:65:63:THR:HG23	2.21	0.40
27:1J:52:A:H62	39:65:33:LYS:HG3	1.86	0.40
28:19:70:TRP:O	28:19:73:VAL:HG23	2.21	0.40
30:39:154:VAL:HA	30:39:191:ARG:O	2.21	0.40
31:49:95:ARG:HG2	31:49:96:ARG:H	1.86	0.40
33:69:37:VAL:HG12	33:69:38:LEU:HD12	2.03	0.40
39:65:29:PHE:O	39:65:35:ILE:HD12	2.22	0.40
39:65:77:ALA:HA	39:65:80:LEU:HB2	2.03	0.40
43:A5:4:LYS:HA	43:A5:105:VAL:O	2.21	0.40
54:L5:40:TRP:N	54:L5:40:TRP:CD1	2.86	0.40
1:13:129:U:N3	1:13:131:C:N4	2.69	0.40
1:13:403:C:O3'	4:3E:122:ARG:HD2	2.21	0.40
1:13:1080:A:H5''	5:4E:16:THR:HG21	2.03	0.40
1:13:1087:G:H2'	1:13:1088:G:C8	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1365:G:H2'	1:13:1366:C:H6	1.87	0.40
1:13:1484:C:HO2'	26:1H:1960:A:HO2'	1.67	0.40
1:13:1504:G:P	1:13:1504:G:H3'	2.62	0.40
13:4I:82:MET:HB3	13:4I:82:MET:HE3	1.94	0.40
20:BI:50:GLU:HG3	20:BI:100:ILE:HG12	2.02	0.40
22:1K:29:G:H1	22:1K:41:C:N4	2.19	0.40
23:2K:55:5MU:C4	23:2K:56:PSU:C2	3.09	0.40
24:3K:62:C:O5'	24:3K:62:C:H6	2.04	0.40
26:1H:259:G:N2	26:1H:621:A:C8	2.80	0.40
26:1H:270(I):G:H8	26:1H:270(I):G:O5'	2.03	0.40
26:1H:608:A:C4	26:1H:621:A:C6	3.09	0.40
26:1H:1013:C:H42	26:1H:1149:G:H1	1.69	0.40
26:1H:1239:G:H2'	26:1H:1240:U:O4'	2.21	0.40
26:1H:1588:C:C2	26:1H:1589:C:C5	3.10	0.40
26:1H:2126:A:H2'	26:1H:2126:A:N3	2.36	0.40
26:1H:2334:G:C2	39:A8:12:PHE:CD1	3.10	0.40
26:1H:2647:U:H2'	26:1H:2648:C:C6	2.56	0.40
26:1H:2693:A:H2'	26:1H:2694:G:H8	1.87	0.40
30:31:22:ALA:HB1	30:31:24:LEU:HD13	2.03	0.40
30:31:34:TRP:CH2	36:78:8:PRO:HB3	2.56	0.40
39:A8:110:LEU:O	39:A8:111:GLU:HB2	2.21	0.40
44:F8:5:TYR:CZ	49:K8:30:ARG:HB2	2.56	0.40
46:H8:28:MET:HB2	46:H8:37:VAL:CG1	2.51	0.40
52:N8:46:CYS:HA	52:N8:47:PRO:HD2	1.94	0.40
55:Q8:27:THR:HG23	55:Q8:31:HIS:NE2	2.36	0.40
1:1G:1028(A):C:N3	1:1G:1028(B):C:H5	2.19	0.40
1:1G:1239:A:H4'	1:1G:1240:U:C5'	2.51	0.40
1:1G:1401:G:C2	1:1G:1402:C:H1'	2.57	0.40
1:1G:1441:G:H5''	1:1G:1442:G:H5'	2.03	0.40
3:22:140:ARG:O	3:22:144:SER:HB2	2.21	0.40
6:52:7:ASN:HD21	18:9A:34:TYR:HE1	1.70	0.40
6:52:87:ARG:HH11	6:52:87:ARG:HG2	1.86	0.40
7:62:114:ARG:H	7:62:114:ARG:HG2	1.62	0.40
7:62:150:ALA:O	11:2A:57:THR:HG21	2.21	0.40
56:1L:16:U:H2'	56:1L:17:C:H5''	2.04	0.40
57:3L:76:A:O2'	26:14:2394:C:N3	2.45	0.40
25:4L:15:A:O5'	25:4L:15:A:H8	2.04	0.40
26:14:590:A:H2'	26:14:591:C:O4'	2.21	0.40
26:14:1018:C:H2'	26:14:1019:U:H6	1.86	0.40
26:14:1171:G:O2'	26:14:1173:G:N3	2.44	0.40
26:14:1344:G:H4'	26:14:1384:A:C5	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1379:A:H4'	26:14:1380:G:OP2	2.22	0.40
26:14:2094:G:OP1	33:69:22:LYS:HD2	2.21	0.40
26:14:2187:G:C6	26:14:2188:C:N3	2.90	0.40
26:14:2191:G:HO2'	26:14:2192:G:P	2.43	0.40
26:14:2631:G:O2'	26:14:2810:A:N1	2.50	0.40
26:14:2889:C:H2'	26:14:2891:G:O4'	2.21	0.40
28:19:33:LEU:HA	28:19:33:LEU:HD12	1.71	0.40
29:29:170:LEU:HD11	29:29:185:LYS:O	2.21	0.40
37:45:135:ASP:O	37:45:137:TYR:HD1	2.04	0.40
40:75:105:LEU:O	40:75:110:ILE:HG13	2.21	0.40
40:75:123:GLN:O	40:75:127:ALA:N	2.48	0.40
1:13:50:A:H1'	1:13:52:G:C8	2.57	0.40
1:13:51:A:OP2	1:13:52:G:C8	2.75	0.40
1:13:222:U:C2	1:13:223:U:C5	3.09	0.40
1:13:539:A:H2'	1:13:540:G:C8	2.57	0.40
1:13:580:U:H2'	1:13:581:G:O4'	2.22	0.40
1:13:648:A:C6	1:13:649:G:C6	3.09	0.40
1:13:1527:C:H2'	1:13:1528:U:C6	2.56	0.40
2:1E:17:PHE:HD1	2:1E:17:PHE:N	2.19	0.40
3:2E:64:VAL:HG12	3:2E:66:VAL:HG23	2.03	0.40
5:4E:142:LEU:C	5:4E:143:ARG:HG2	2.42	0.40
5:4E:145:LYS:HE2	5:4E:145:LYS:HB3	1.89	0.40
6:5E:82:ARG:HB2	6:5E:85:VAL:HG23	2.03	0.40
11:2I:107:SER:HA	18:9I:87:ARG:CD	2.49	0.40
16:7I:80:PHE:N	16:7I:80:PHE:CD1	2.89	0.40
23:2K:44:A:C2	23:2K:45:A:C4	3.10	0.40
24:3K:22:G:C2	24:3K:23:A:C8	3.10	0.40
26:1H:142:G:O3'	44:F8:35:THR:HG21	2.22	0.40
26:1H:249:C:P	61:1H:3656:HOH:O	2.77	0.40
26:1H:265:A:H8	26:1H:266:G:H1'	1.85	0.40
26:1H:270(Y):G:C2	26:1H:270(Z):U:O4	2.74	0.40
26:1H:478:A:C6	26:1H:480:A:C6	3.09	0.40
26:1H:962:G:H2'	26:1H:963:U:H6	1.87	0.40
26:1H:1808:U:H2'	26:1H:1809:A:O4'	2.21	0.40
26:1H:1861:G:C2	26:1H:1862:G:C8	3.09	0.40
26:1H:2308:G:N2	26:1H:2311:A:H2	2.20	0.40
26:1H:2392:A:N1	26:1H:2424:C:N3	2.69	0.40
26:1H:2615:U:OP1	61:1H:3614:HOH:O	2.22	0.40
26:1H:2758:A:C2	26:1H:2759:G:H1'	2.57	0.40
26:1H:2818:G:OP2	38:98:42:LYS:NZ	2.51	0.40
27:16:0:A:N6	27:16:119:A:N1	2.61	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:21:101:ARG:HB3	29:21:201:THR:OG1	2.21	0.40
39:A8:34:HIS:CE1	39:A8:54:LEU:HD23	2.56	0.40
43:E8:42:ARG:HH11	43:E8:42:ARG:HD3	1.69	0.40
47:I8:51:VAL:HG23	47:I8:81:VAL:HG23	2.04	0.40
49:K8:21:LEU:HD23	49:K8:21:LEU:HA	1.73	0.40
52:N8:42:PRO:HB2	52:N8:43:HIS:ND1	2.36	0.40
55:Q8:39:LYS:HE3	55:Q8:43:GLN:NE2	2.36	0.40
1:1G:222:U:C2	1:1G:223:U:C5	3.09	0.40
1:1G:281:G:H8	1:1G:281:G:OP2	2.05	0.40
1:1G:324:G:C8	61:1G:1752:HOH:O	2.74	0.40
1:1G:833:U:O2'	1:1G:834:C:H5'	2.22	0.40
1:1G:921:U:O2	5:42:19:MET:HB3	2.20	0.40
1:1G:1132:C:C2	1:1G:1133:G:C8	3.09	0.40
1:1G:1205:U:O2'	3:22:195:VAL:HG13	2.22	0.40
2:12:32:ILE:HG13	2:12:33:TYR:N	2.36	0.40
2:12:189:ASP:HB3	2:12:203:GLY:O	2.21	0.40
7:62:38:LEU:O	7:62:42:ILE:HG13	2.20	0.40
10:1A:51:ARG:HE	10:1A:61:GLU:HB2	1.86	0.40
12:3A:27:LEU:HD21	12:3A:60:LEU:HG	2.04	0.40
14:5A:12:ARG:H	14:5A:12:ARG:HG3	1.39	0.40
16:7A:74:LEU:CD1	16:7A:79:VAL:HG21	2.52	0.40
17:8A:23:VAL:O	17:8A:39:SER:HA	2.21	0.40
19:AA:31:ILE:HG23	19:AA:49:ILE:HG23	2.04	0.40
21:1B:12:LYS:HD2	21:1B:17:THR:O	2.21	0.40
23:2L:48:U:H4'	23:2L:49:C:H5'	2.02	0.40
26:14:307:G:H21	26:14:330:A:H62	1.68	0.40
26:14:443:A:N7	30:39:45:ARG:HD2	2.37	0.40
26:14:521:G:H2'	26:14:522:G:C8	2.55	0.40
26:14:528:A:H2	26:14:2043:C:C5'	2.34	0.40
26:14:613:U:O2	26:14:613:U:O4'	2.40	0.40
26:14:760:G:H2'	26:14:761:A:O4'	2.21	0.40
26:14:863:A:H2'	26:14:864:G:H8	1.86	0.40
26:14:1750:G:H2'	26:14:1751:C:C6	2.57	0.40
26:14:1848:A:C4	26:14:1849:G:C8	3.09	0.40
26:14:2057:A:P	61:14:4031:HOH:O	2.75	0.40
26:14:2111:C:C2	26:14:2118:U:H4'	2.56	0.40
27:1J:45:A:O4'	31:49:95:ARG:NH1	2.54	0.40
29:29:101:ARG:CZ	29:29:171:GLU:HB2	2.52	0.40
32:59:94:TYR:CD1	32:59:94:TYR:N	2.88	0.40
36:35:124:LYS:HA	36:35:143:GLY:O	2.21	0.40
55:M5:52:LYS:O	55:M5:52:LYS:CG	2.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:434:U:H2'	1:13:435:C:C6	2.57	0.40
1:13:632:A:H8	1:13:633:G:N9	2.20	0.40
1:13:858:G:O6	1:13:869:G:H3'	2.21	0.40
1:13:1159:U:O4'	1:13:1182:G:N2	2.55	0.40
1:13:1345:U:P	61:13:1941:HOH:O	2.76	0.40
1:13:1440:C:H2'	1:13:1441:G:O4'	2.22	0.40
1:13:1478:C:H2'	1:13:1479:C:H6	1.84	0.40
3:2E:79:ARG:HH21	11:2A:99:GLN:HG2	1.86	0.40
4:3E:18:LYS:HB2	4:3E:18:LYS:HE3	1.65	0.40
10:1I:32:ALA:HB1	10:1I:76:ASN:OD1	2.21	0.40
12:3I:76:ASN:ND2	12:3I:106:ASP:O	2.54	0.40
13:4I:89:GLY:O	13:4I:93:ARG:HG3	2.22	0.40
18:9I:32:ARG:HH11	18:9I:65:ILE:HD13	1.86	0.40
19:AI:58:VAL:HA	19:AI:59:PRO:HD3	1.90	0.40
20:BI:53:LEU:H	20:BI:53:LEU:HD22	1.86	0.40
20:BI:76:ALA:O	20:BI:80:ARG:HG2	2.21	0.40
22:1K:12:U:O2	22:1K:24:G:N2	2.55	0.40
24:3K:71:G:OP1	26:1H:1893:C:H4'	2.21	0.40
26:1H:172:C:H2'	26:1H:173:G:C8	2.57	0.40
26:1H:1486:A:O2'	26:1H:1487:G:H5'	2.21	0.40
26:1H:1655:A:H3'	26:1H:1656:C:H6	1.87	0.40
26:1H:1918:A:N3	26:1H:1919:A:N6	2.69	0.40
26:1H:2025:C:H2'	26:1H:2026:C:C6	2.56	0.40
26:1H:2343:C:HO2'	26:1H:2373:G:HO2'	1.67	0.40
26:1H:2608:G:H5''	26:1H:2609:U:OP1	2.21	0.40
26:1H:2846:G:N7	61:1H:4568:HOH:O	2.37	0.40
35:68:31:LYS:HB3	35:68:32:TYR:CE1	2.56	0.40
38:98:10:LEU:O	38:98:12:ARG:N	2.55	0.40
40:B8:16:ARG:NE	40:B8:19:LEU:HD11	2.32	0.40
40:B8:78:LEU:O	40:B8:78:LEU:HD22	2.21	0.40
43:E8:83:LYS:O	43:E8:84:ARG:HD2	2.22	0.40
45:G8:79:CYS:HB2	45:G8:80:GLY:H	1.68	0.40
46:H8:117:LEU:H	46:H8:117:LEU:CD1	2.34	0.40
47:I8:11:ARG:H	47:I8:11:ARG:HG3	1.37	0.40
1:1G:464:G:C6	1:1G:466:C:H5'	2.57	0.40
1:1G:465:A:N6	1:1G:467:G:C2	2.90	0.40
1:1G:624:C:O3'	16:7A:10:GLY:HA2	2.20	0.40
1:1G:957:U:H2'	1:1G:958:A:H3'	2.03	0.40
1:1G:999:U:H2'	1:1G:1000:A:H8	1.82	0.40
1:1G:1279:A:H5''	1:1G:1280:A:OP1	2.21	0.40
1:1G:1291:G:H2'	1:1G:1292:U:C6	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1320:C:H2'	1:1G:1321:C:H6	1.83	0.40
1:1G:1324:A:H2'	1:1G:1325:C:H6	1.86	0.40
2:12:187:LEU:HA	2:12:201:ILE:O	2.22	0.40
9:82:3:GLN:C	9:82:4:TYR:HD1	2.25	0.40
57:3L:52:G:O2'	57:3L:53:G:OP1	2.31	0.40
26:14:76:C:O2'	26:14:77:C:H5'	2.22	0.40
26:14:426:C:H2'	26:14:427:U:O4'	2.21	0.40
26:14:522:G:C2	26:14:523:C:C2	3.09	0.40
26:14:527:C:O2	26:14:527:C:O4'	2.39	0.40
26:14:528:A:O2'	26:14:529:A:H5'	2.22	0.40
26:14:612:G:H2'	26:14:613:U:O2	2.21	0.40
26:14:919:G:C6	26:14:920:G:C5	3.09	0.40
26:14:951:C:O2'	26:14:952:G:H5'	2.22	0.40
26:14:1655:A:H1'	29:29:113:PHE:CD1	2.56	0.40
26:14:1786:A:H1'	26:14:1938:A:N6	2.36	0.40
26:14:2128:C:H1'	26:14:2173:A:H2	1.86	0.40
26:14:2365:G:H4'	47:E5:60:PHE:CZ	2.56	0.40
26:14:2418:A:OP2	55:M5:29:LYS:NZ	2.47	0.40
26:14:2630:G:H21	26:14:2894:G:N2	2.20	0.40
26:14:2646:C:H2'	26:14:2647:U:O4'	2.22	0.40
26:14:2687:U:H2'	26:14:2688:U:O4'	2.21	0.40
29:29:7:VAL:HG12	29:29:193:GLY:HA2	2.04	0.40
33:69:97:ILE:O	33:69:100:ALA:HB3	2.22	0.40
38:55:69:ASP:OD1	38:55:69:ASP:N	2.54	0.40
40:75:4:GLY:O	40:75:7:ILE:HG22	2.22	0.40
40:75:99:LEU:HA	40:75:99:LEU:HD23	1.83	0.40
42:95:71:LEU:HA	42:95:86:GLY:HA2	2.03	0.40
43:A5:89:ALA:O	43:A5:90:ARG:HB2	2.21	0.40
1:13:251:G:O6	1:13:271:C:N4	2.54	0.40
1:13:343:U:C2	1:13:347:G:N1	2.90	0.40
1:13:380:G:N2	1:13:384:G:C5	2.90	0.40
1:13:719:C:H1'	18:9I:49:LYS:HB3	2.03	0.40
1:13:1285:A:H4'	1:13:1286:A:O5'	2.22	0.40
2:1E:17:PHE:N	2:1E:17:PHE:CD1	2.88	0.40
13:4I:20:THR:HG23	13:4I:26:GLY:HA3	2.04	0.40
13:4I:66:LEU:O	13:4I:70:LEU:HB2	2.22	0.40
26:1H:6:A:O2'	34:58:129:PRO:HB3	2.21	0.40
26:1H:143:C:O2'	26:1H:144:C:H5'	2.22	0.40
26:1H:880:G:H22	26:1H:897:C:H42	1.68	0.40
26:1H:1268:A:P	61:1H:4450:HOH:O	2.76	0.40
26:1H:1466:G:N2	26:1H:1547:C:N3	2.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2845:G:H2'	26:1H:2846:G:C8	2.57	0.40
27:16:11:C:OP2	27:16:12:C:H5	2.05	0.40
29:21:31:CYS:HA	29:21:32:PRO:HD3	1.72	0.40
29:21:120:TRP:CD1	29:21:155:LYS:HB3	2.57	0.40
32:51:9:ILE:HG13	32:51:9:ILE:O	2.21	0.40
32:51:137:ASP:HB3	32:51:140:LYS:HB3	2.02	0.40
33:61:6:LEU:O	33:61:7:GLU:HB3	2.21	0.40
34:58:28:THR:HA	34:58:106:MET:HE2	2.03	0.40
34:58:41:ASP:C	41:C8:64:ARG:HD2	2.42	0.40
34:58:67:LEU:HA	34:58:87:LEU:HD12	2.04	0.40
36:78:91:PHE:N	36:78:91:PHE:CD1	2.90	0.40
46:H8:18:LEU:O	46:H8:21:ALA:HB3	2.22	0.40
49:K8:32:LEU:HA	49:K8:35:LEU:HD12	2.04	0.40
1:1G:4:U:C4	8:72:102:ARG:NE	2.90	0.40
1:1G:418:C:H2'	1:1G:419:C:O4'	2.21	0.40
1:1G:790:A:H2'	1:1G:791:G:C8	2.56	0.40
1:1G:1048:G:H1	1:1G:1209:C:N4	2.14	0.40
1:1G:1113:C:H2'	1:1G:1114:C:H6	1.86	0.40
1:1G:1301:U:O3'	13:4A:21:TYR:OH	2.34	0.40
1:1G:1329:A:H5''	13:4A:25:ILE:O	2.21	0.40
1:1G:1452:C:H4'	1:1G:1453:G:O5'	2.21	0.40
4:32:146:ILE:H	4:32:146:ILE:HD12	1.86	0.40
5:42:42:GLY:HA3	5:42:65:ASN:O	2.21	0.40
8:72:104:ARG:C	8:72:106:GLY:N	2.75	0.40
23:2L:37:U:H2'	23:2L:38:A:O4'	2.22	0.40
23:2L:56:PSU:O4	23:2L:58:A:C8	2.74	0.40
26:14:302:C:H2'	26:14:303:U:H6	1.85	0.40
26:14:403:U:H4'	26:14:404:C:H5'	2.04	0.40
26:14:631:A:H2'	26:14:632:A:O4'	2.20	0.40
26:14:914:C:C5	26:14:915:C:C6	3.10	0.40
26:14:959:A:N6	26:14:960:A:N1	2.70	0.40
26:14:1337:G:H2'	26:14:1338:G:H8	1.87	0.40
26:14:1420:U:HO2'	26:14:1421:G:P	2.43	0.40
26:14:1826:G:H2'	26:14:1827:C:O4'	2.21	0.40
26:14:2056:G:N3	26:14:2056:G:H2'	2.35	0.40
26:14:2611:U:O2	52:J5:3:LYS:HE3	2.20	0.40
26:14:2674:G:H2'	26:14:2675:A:C8	2.57	0.40
27:1J:24:G:H4'	27:1J:25:A:H5'	2.03	0.40
29:29:52:LEU:O	29:29:75:VAL:HG23	2.21	0.40
29:29:64:LYS:HB3	29:29:65:GLY:H	1.56	0.40
31:49:96:ARG:HG2	31:49:96:ARG:H	1.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:49:109:VAL:HG13	51:I5:33:VAL:HG23	2.03	0.40
37:45:43:THR:OG1	37:45:45:GLN:HG2	2.21	0.40
46:D5:109:ALA:O	46:D5:114:GLY:HA3	2.22	0.40
47:E5:36:ILE:HD12	47:E5:58:THR:HG23	2.03	0.40
53:K5:16:CYS:O	53:K5:17:LYS:HB2	2.22	0.40

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

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:277:C:O2'	49:G5:49:LYS:NZ[2_564]	2.14	0.06

## 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%)	192 (82%)	37 (16%)	6 (3%)	5	24
2	1E	235/256 (92%)	197 (84%)	37 (16%)	1 (0%)	34	69
3	22	204/239 (85%)	180 (88%)	23 (11%)	1 (0%)	29	64
3	2E	203/239 (85%)	184 (91%)	19 (9%)	0	100	100
4	32	206/209 (99%)	179 (87%)	25 (12%)	2 (1%)	15	48
4	3E	206/209 (99%)	192 (93%)	12 (6%)	2 (1%)	15	48
5	42	149/162 (92%)	140 (94%)	9 (6%)	0	100	100
5	4E	149/162 (92%)	140 (94%)	8 (5%)	1 (1%)	22	56
6	52	99/101 (98%)	96 (97%)	3 (3%)	0	100	100
6	5E	99/101 (98%)	92 (93%)	7 (7%)	0	100	100
7	62	148/156 (95%)	137 (93%)	11 (7%)	0	100	100
7	6E	153/156 (98%)	144 (94%)	9 (6%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
8	72	136/138 (99%)	122 (90%)	12 (9%)	2 (2%)	10	38
8	7E	136/138 (99%)	125 (92%)	10 (7%)	1 (1%)	22	56
9	82	122/128 (95%)	113 (93%)	8 (7%)	1 (1%)	19	53
9	8E	125/128 (98%)	105 (84%)	19 (15%)	1 (1%)	19	53
10	1A	97/105 (92%)	88 (91%)	9 (9%)	0	100	100
10	1I	97/105 (92%)	89 (92%)	8 (8%)	0	100	100
11	2A	114/129 (88%)	102 (90%)	8 (7%)	4 (4%)	3	17
11	2I	114/129 (88%)	99 (87%)	14 (12%)	1 (1%)	17	51
12	3A	123/132 (93%)	101 (82%)	18 (15%)	4 (3%)	4	18
12	3I	123/132 (93%)	103 (84%)	20 (16%)	0	100	100
13	4A	115/126 (91%)	96 (84%)	18 (16%)	1 (1%)	17	51
13	4I	116/126 (92%)	96 (83%)	19 (16%)	1 (1%)	17	51
14	5A	56/61 (92%)	46 (82%)	9 (16%)	1 (2%)	8	33
14	5I	58/61 (95%)	47 (81%)	9 (16%)	2 (3%)	3	17
15	6A	86/89 (97%)	79 (92%)	7 (8%)	0	100	100
15	6I	86/89 (97%)	79 (92%)	7 (8%)	0	100	100
16	7A	82/88 (93%)	75 (92%)	7 (8%)	0	100	100
16	7I	82/88 (93%)	75 (92%)	7 (8%)	0	100	100
17	8A	98/105 (93%)	91 (93%)	7 (7%)	0	100	100
17	8I	98/105 (93%)	94 (96%)	4 (4%)	0	100	100
18	9A	70/88 (80%)	65 (93%)	5 (7%)	0	100	100
18	9I	70/88 (80%)	63 (90%)	6 (9%)	1 (1%)	11	39
19	AA	76/93 (82%)	59 (78%)	15 (20%)	2 (3%)	5	24
19	AI	79/93 (85%)	65 (82%)	11 (14%)	3 (4%)	3	15
20	BA	97/106 (92%)	84 (87%)	12 (12%)	1 (1%)	15	48
20	BI	97/106 (92%)	86 (89%)	10 (10%)	1 (1%)	15	48
21	1B	23/27 (85%)	21 (91%)	2 (9%)	0	100	100
21	1F	23/27 (85%)	22 (96%)	1 (4%)	0	100	100
28	11	270/276 (98%)	253 (94%)	12 (4%)	5 (2%)	8	32
28	19	271/276 (98%)	248 (92%)	16 (6%)	7 (3%)	5	24
29	21	203/206 (98%)	164 (81%)	30 (15%)	9 (4%)	2	12

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
29	29	203/206 (98%)	156 (77%)	35 (17%)	12 (6%)	1	7
30	31	200/210 (95%)	182 (91%)	15 (8%)	3 (2%)	10	38
30	39	206/210 (98%)	165 (80%)	34 (16%)	7 (3%)	3	17
31	41	179/182 (98%)	156 (87%)	21 (12%)	2 (1%)	14	46
31	49	179/182 (98%)	155 (87%)	22 (12%)	2 (1%)	14	46
32	51	172/180 (96%)	146 (85%)	18 (10%)	8 (5%)	2	11
32	59	168/180 (93%)	131 (78%)	30 (18%)	7 (4%)	3	13
33	61	144/148 (97%)	117 (81%)	23 (16%)	4 (3%)	5	22
33	69	144/148 (97%)	112 (78%)	29 (20%)	3 (2%)	7	29
34	15	136/140 (97%)	120 (88%)	15 (11%)	1 (1%)	22	56
34	58	136/140 (97%)	116 (85%)	16 (12%)	4 (3%)	4	21
35	25	120/122 (98%)	110 (92%)	8 (7%)	2 (2%)	9	34
35	68	120/122 (98%)	113 (94%)	7 (6%)	0	100	100
36	35	148/150 (99%)	117 (79%)	27 (18%)	4 (3%)	5	23
36	78	148/150 (99%)	113 (76%)	29 (20%)	6 (4%)	3	13
37	45	139/141 (99%)	111 (80%)	27 (19%)	1 (1%)	22	56
37	88	134/141 (95%)	112 (84%)	15 (11%)	7 (5%)	2	9
38	55	115/118 (98%)	108 (94%)	5 (4%)	2 (2%)	9	34
38	98	116/118 (98%)	104 (90%)	10 (9%)	2 (2%)	9	34
39	65	109/112 (97%)	88 (81%)	18 (16%)	3 (3%)	5	22
39	A8	109/112 (97%)	91 (84%)	16 (15%)	2 (2%)	8	33
40	75	135/146 (92%)	115 (85%)	17 (13%)	3 (2%)	6	28
40	B8	135/146 (92%)	119 (88%)	15 (11%)	1 (1%)	22	56
41	85	115/118 (98%)	102 (89%)	12 (10%)	1 (1%)	17	51
41	C8	115/118 (98%)	104 (90%)	9 (8%)	2 (2%)	9	34
42	95	99/101 (98%)	77 (78%)	17 (17%)	5 (5%)	2	9
42	D8	99/101 (98%)	94 (95%)	4 (4%)	1 (1%)	15	48
43	A5	111/113 (98%)	102 (92%)	7 (6%)	2 (2%)	8	33
43	E8	111/113 (98%)	100 (90%)	11 (10%)	0	100	100
44	B5	92/96 (96%)	83 (90%)	5 (5%)	4 (4%)	2	12
44	F8	92/96 (96%)	83 (90%)	7 (8%)	2 (2%)	6	28

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
45	C5	102/110 (93%)	75 (74%)	21 (21%)	6 (6%)	1	7
45	G8	102/110 (93%)	80 (78%)	15 (15%)	7 (7%)	1	4
46	D5	177/206 (86%)	134 (76%)	33 (19%)	10 (6%)	2	8
46	H8	173/206 (84%)	142 (82%)	25 (14%)	6 (4%)	3	17
47	E5	75/85 (88%)	67 (89%)	6 (8%)	2 (3%)	5	23
47	I8	78/85 (92%)	68 (87%)	9 (12%)	1 (1%)	12	41
48	F5	92/98 (94%)	87 (95%)	4 (4%)	1 (1%)	14	46
48	J8	95/98 (97%)	85 (90%)	8 (8%)	2 (2%)	7	29
49	G5	65/72 (90%)	61 (94%)	2 (3%)	2 (3%)	4	19
49	K8	65/72 (90%)	58 (89%)	4 (6%)	3 (5%)	2	11
50	H5	57/60 (95%)	53 (93%)	4 (7%)	0	100	100
50	L8	55/60 (92%)	51 (93%)	3 (6%)	1 (2%)	8	33
51	I5	58/71 (82%)	29 (50%)	25 (43%)	4 (7%)	1	4
51	M8	64/71 (90%)	43 (67%)	18 (28%)	3 (5%)	2	11
52	J5	57/60 (95%)	48 (84%)	8 (14%)	1 (2%)	8	33
52	N8	56/60 (93%)	48 (86%)	6 (11%)	2 (4%)	3	16
53	K5	43/54 (80%)	27 (63%)	14 (33%)	2 (5%)	2	11
53	O8	43/54 (80%)	28 (65%)	13 (30%)	2 (5%)	2	11
54	L5	44/49 (90%)	42 (96%)	2 (4%)	0	100	100
54	P8	43/49 (88%)	41 (95%)	2 (5%)	0	100	100
55	M5	58/65 (89%)	49 (84%)	6 (10%)	3 (5%)	2	9
55	Q8	58/65 (89%)	30 (52%)	21 (36%)	7 (12%)	0	1
All	All	11318/12054 (94%)	9776 (86%)	1313 (12%)	229 (2%)	7	30

All (229) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
29	21	83	ASP
36	78	57	THR
41	C8	89	GLU
41	C8	90	VAL
45	G8	54	LYS
49	K8	48	HIS
50	L8	54	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
52	N8	41	PRO
55	Q8	44	LYS
55	Q8	49	VAL
9	82	118	LYS
20	BA	73	HIS
28	19	237	GLU
29	29	25	VAL
30	39	28	ILE
30	39	84	VAL
37	45	27	VAL
38	55	107	ASP
46	D5	53	ILE
46	D5	165	VAL
46	D5	171	ILE
48	F5	30	VAL
51	I5	5	ILE
55	M5	35	GLN
4	3E	31	CYS
18	9I	22	VAL
29	21	60	ASN
29	21	78	LEU
32	51	168	PRO
32	51	169	VAL
37	88	6	ARG
37	88	66	ILE
37	88	79	LEU
44	F8	2	LYS
46	H8	6	LYS
46	H8	60	GLU
46	H8	165	VAL
51	M8	50	VAL
52	N8	42	PRO
53	O8	17	LYS
55	Q8	55	ALA
2	12	7	VAL
11	2A	48	ILE
11	2A	100	ALA
11	2A	101	SER
12	3A	18	VAL
12	3A	26	ALA
19	AA	11	VAL
28	19	33	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
28	19	38	LYS
29	29	81	ILE
29	29	90	THR
36	35	15	ARG
39	65	87	PHE
39	65	89	ARG
42	95	45	THR
44	B5	4	ALA
45	C5	29	GLU
46	D5	105	VAL
49	G5	47	ASN
52	J5	57	VAL
55	M5	31	HIS
8	7E	86	ILE
14	5I	13	THR
28	11	239	ARG
29	21	118	LYS
30	31	67	GLN
34	58	97	ARG
34	58	128	HIS
37	88	2	LEU
45	G8	81	LYS
48	J8	75	GLU
48	J8	76	ARG
49	K8	43	GLN
55	Q8	8	LYS
4	32	32	ALA
28	19	273	ARG
29	29	9	VAL
29	29	51	PHE
30	39	124	LEU
33	69	111	PRO
36	35	6	LEU
43	A5	44	ALA
44	B5	3	THR
45	C5	17	SER
46	D5	161	VAL
47	E5	33	ALA
49	G5	48	HIS
53	K5	17	LYS
13	4I	83	ASP
14	5I	14	PRO

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
19	AI	7	LYS
28	11	3	VAL
28	11	240	ALA
29	21	21	VAL
33	61	12	LEU
33	61	145	VAL
34	58	22	THR
36	78	42	SER
39	A8	4	LEU
39	A8	61	ASN
44	F8	68	ARG
45	G8	40	GLU
46	H8	59	LEU
47	I8	83	PRO
49	K8	47	ASN
2	12	73	THR
3	22	62	ASP
14	5A	29	ARG
28	19	239	ARG
29	29	26	ILE
30	39	167	ALA
32	59	92	ILE
33	69	145	VAL
36	35	110	TYR
39	65	111	GLU
40	75	2	ASN
40	75	94	ALA
42	95	85	LYS
43	A5	93	ALA
44	B5	68	ARG
45	C5	19	LYS
46	D5	8	TYR
46	D5	116	VAL
51	I5	38	LYS
4	3E	155	LEU
11	2I	82	VAL
28	11	122	ASP
29	21	56	PRO
29	21	82	ARG
31	41	5	VAL
31	41	97	ASP
32	51	10	PRO

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	51	167	GLU
34	58	127	ASP
36	78	12	ALA
37	88	3	MET
37	88	60	ARG
38	98	2	ARG
40	B8	106	SER
45	G8	53	PRO
45	G8	84	ARG
46	H8	81	ARG
2	12	101	MET
8	72	22	GLU
8	72	73	ASP
11	2A	106	LYS
12	3A	47	LYS
29	29	187	ALA
30	39	25	PRO
38	55	3	HIS
40	75	126	ALA
41	85	93	LYS
47	E5	44	ARG
51	I5	26	SER
51	I5	33	VAL
5	4E	115	VAL
9	8E	112	LYS
28	11	123	ALA
29	21	22	PRO
29	21	55	ASN
30	31	24	LEU
33	61	133	HIS
36	78	95	VAL
38	98	11	ASN
51	M8	43	TYR
53	O8	21	TYR
55	Q8	33	ASN
55	Q8	43	GLN
4	32	14	ARG
28	19	3	VAL
29	29	62	PRO
31	49	47	LYS
32	59	168	PRO
35	25	5	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	25	12	ASP
42	95	71	LEU
32	51	12	PRO
33	61	131	LYS
45	G8	76	CYS
29	29	91	VAL
30	39	89	VAL
30	39	132	VAL
34	15	128	HIS
44	B5	51	VAL
46	D5	141	VAL
2	1E	239	VAL
19	AI	9	VAL
19	AI	41	VAL
20	BI	63	ILE
30	31	132	VAL
36	78	19	VAL
42	D8	49	THR
2	12	39	ILE
2	12	71	VAL
12	3A	96	VAL
13	4A	84	ILE
29	29	59	VAL
29	29	77	ILE
32	59	167	GLU
42	95	72	VAL
46	D5	158	PRO
55	M5	52	LYS
32	51	92	ILE
32	51	127	GLU
36	78	7	ARG
19	AA	67	VAL
31	49	5	VAL
32	59	4	ILE
32	59	8	PRO
32	59	131	VAL
45	C5	85	VAL
53	K5	52	VAL
45	G8	77	PRO
46	H8	53	ILE
55	Q8	58	ILE
28	19	240	ALA

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Mol	Chain	Res	Type
29	29	52	LEU
32	59	169	VAL
42	95	99	ILE
45	C5	76	CYS
37	88	27	VAL
51	M8	5	ILE
2	12	32	ILE
33	69	144	VAL
36	35	63	PRO
45	C5	3	VAL
46	D5	176	PRO
32	51	173	PRO

### 5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	12	205/220 (93%)	161 (78%)	44 (22%)	1	4
2	1E	205/220 (93%)	161 (78%)	44 (22%)	1	4
3	22	160/188 (85%)	128 (80%)	32 (20%)	1	5
3	2E	159/188 (85%)	128 (80%)	31 (20%)	1	6
4	32	180/181 (99%)	150 (83%)	30 (17%)	2	9
4	3E	180/181 (99%)	139 (77%)	41 (23%)	1	3
5	42	116/123 (94%)	90 (78%)	26 (22%)	1	3
5	4E	116/123 (94%)	94 (81%)	22 (19%)	1	6
6	52	90/90 (100%)	71 (79%)	19 (21%)	1	4
6	5E	90/90 (100%)	77 (86%)	13 (14%)	3	13
7	62	126/127 (99%)	106 (84%)	20 (16%)	2	10
7	6E	126/127 (99%)	101 (80%)	25 (20%)	1	6
8	72	119/119 (100%)	99 (83%)	20 (17%)	2	9
8	7E	119/119 (100%)	95 (80%)	24 (20%)	1	5

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	82	95/99 (96%)	79 (83%)	16 (17%)	2	9
9	8E	98/99 (99%)	73 (74%)	25 (26%)	0	2
10	1A	89/92 (97%)	70 (79%)	19 (21%)	1	4
10	1I	89/92 (97%)	72 (81%)	17 (19%)	1	6
11	2A	88/99 (89%)	72 (82%)	16 (18%)	1	7
11	2I	88/99 (89%)	72 (82%)	16 (18%)	1	7
12	3A	104/109 (95%)	81 (78%)	23 (22%)	1	3
12	3I	104/109 (95%)	89 (86%)	15 (14%)	3	13
13	4A	94/101 (93%)	70 (74%)	24 (26%)	0	2
13	4I	94/101 (93%)	73 (78%)	21 (22%)	1	3
14	5A	48/50 (96%)	40 (83%)	8 (17%)	2	9
14	5I	49/50 (98%)	36 (74%)	13 (26%)	0	2
15	6A	79/80 (99%)	66 (84%)	13 (16%)	2	9
15	6I	79/80 (99%)	65 (82%)	14 (18%)	2	8
16	7A	72/74 (97%)	64 (89%)	8 (11%)	6	22
16	7I	72/74 (97%)	58 (81%)	14 (19%)	1	6
17	8A	95/97 (98%)	81 (85%)	14 (15%)	3	12
17	8I	95/97 (98%)	76 (80%)	19 (20%)	1	5
18	9A	63/77 (82%)	52 (82%)	11 (18%)	2	8
18	9I	63/77 (82%)	55 (87%)	8 (13%)	4	17
19	AA	67/80 (84%)	50 (75%)	17 (25%)	0	2
19	AI	70/80 (88%)	53 (76%)	17 (24%)	0	2
20	BA	76/82 (93%)	64 (84%)	12 (16%)	2	10
20	BI	76/82 (93%)	62 (82%)	14 (18%)	1	7
21	1B	20/22 (91%)	18 (90%)	2 (10%)	7	26
21	1F	20/22 (91%)	19 (95%)	1 (5%)	24	57
28	11	214/218 (98%)	173 (81%)	41 (19%)	1	6
28	19	214/218 (98%)	169 (79%)	45 (21%)	1	4
29	21	165/166 (99%)	124 (75%)	41 (25%)	0	2
29	29	165/166 (99%)	123 (74%)	42 (26%)	0	2
30	31	161/166 (97%)	128 (80%)	33 (20%)	1	5

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
30	39	165/166 (99%)	127 (77%)	38 (23%)	1	3
31	41	155/156 (99%)	120 (77%)	35 (23%)	1	3
31	49	155/156 (99%)	124 (80%)	31 (20%)	1	5
32	51	145/148 (98%)	108 (74%)	37 (26%)	0	2
32	59	142/148 (96%)	109 (77%)	33 (23%)	1	3
33	61	122/124 (98%)	88 (72%)	34 (28%)	0	1
33	69	122/124 (98%)	88 (72%)	34 (28%)	0	1
34	15	117/119 (98%)	91 (78%)	26 (22%)	1	3
34	58	117/119 (98%)	94 (80%)	23 (20%)	1	6
35	25	100/100 (100%)	79 (79%)	21 (21%)	1	4
35	68	100/100 (100%)	85 (85%)	15 (15%)	3	12
36	35	116/116 (100%)	84 (72%)	32 (28%)	0	1
36	78	116/116 (100%)	78 (67%)	38 (33%)	0	1
37	45	111/111 (100%)	86 (78%)	25 (22%)	1	3
37	88	104/111 (94%)	78 (75%)	26 (25%)	0	2
38	55	100/101 (99%)	79 (79%)	21 (21%)	1	4
38	98	101/101 (100%)	73 (72%)	28 (28%)	0	1
39	65	87/88 (99%)	64 (74%)	23 (26%)	0	2
39	A8	87/88 (99%)	57 (66%)	30 (34%)	0	1
40	75	120/127 (94%)	87 (72%)	33 (28%)	0	1
40	B8	120/127 (94%)	82 (68%)	38 (32%)	0	1
41	85	93/94 (99%)	73 (78%)	20 (22%)	1	4
41	C8	93/94 (99%)	80 (86%)	13 (14%)	3	14
42	95	82/82 (100%)	58 (71%)	24 (29%)	0	1
42	D8	82/82 (100%)	68 (83%)	14 (17%)	2	8
43	A5	92/92 (100%)	71 (77%)	21 (23%)	1	3
43	E8	92/92 (100%)	68 (74%)	24 (26%)	0	2
44	B5	74/78 (95%)	58 (78%)	16 (22%)	1	4
44	F8	76/78 (97%)	60 (79%)	16 (21%)	1	4
45	C5	85/91 (93%)	63 (74%)	22 (26%)	0	2
45	G8	85/91 (93%)	62 (73%)	23 (27%)	0	1

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
46	D5	158/179 (88%)	123 (78%)	35 (22%)	1	3
46	H8	154/179 (86%)	121 (79%)	33 (21%)	1	4
47	E5	62/67 (92%)	53 (86%)	9 (14%)	3	13
47	I8	61/67 (91%)	48 (79%)	13 (21%)	1	4
48	F5	79/83 (95%)	62 (78%)	17 (22%)	1	4
48	J8	82/83 (99%)	65 (79%)	17 (21%)	1	4
49	G5	62/67 (92%)	44 (71%)	18 (29%)	0	1
49	K8	62/67 (92%)	37 (60%)	25 (40%)	0	0
50	H5	51/52 (98%)	37 (72%)	14 (28%)	0	1
50	L8	49/52 (94%)	35 (71%)	14 (29%)	0	1
51	I5	54/63 (86%)	44 (82%)	10 (18%)	1	7
51	M8	59/63 (94%)	42 (71%)	17 (29%)	0	1
52	J5	51/52 (98%)	39 (76%)	12 (24%)	1	3
52	N8	51/52 (98%)	39 (76%)	12 (24%)	1	3
53	K5	44/52 (85%)	36 (82%)	8 (18%)	1	7
53	O8	44/52 (85%)	29 (66%)	15 (34%)	0	1
54	L5	39/42 (93%)	33 (85%)	6 (15%)	2	11
54	P8	38/42 (90%)	32 (84%)	6 (16%)	2	10
55	M5	49/55 (89%)	34 (69%)	15 (31%)	0	1
55	Q8	50/55 (91%)	32 (64%)	18 (36%)	0	1
All	All	9552/9998 (96%)	7454 (78%)	2098 (22%)	1	4

All (2098) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	1E	6	THR
2	1E	8	LYS
2	1E	15	VAL
2	1E	17	PHE
2	1E	24	TRP
2	1E	28	PHE
2	1E	48	MET
2	1E	53	ARG
2	1E	67	THR
2	1E	71	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	1E	74	LYS
2	1E	83	MET
2	1E	93	VAL
2	1E	96	ARG
2	1E	107	THR
2	1E	108	ILE
2	1E	111	ARG
2	1E	121	LEU
2	1E	122	PHE
2	1E	127	ILE
2	1E	130	ARG
2	1E	136	VAL
2	1E	144	ARG
2	1E	145	LEU
2	1E	150	SER
2	1E	153	ARG
2	1E	155	LEU
2	1E	160	ASP
2	1E	162	ILE
2	1E	164	VAL
2	1E	172	ILE
2	1E	175	ARG
2	1E	178	ARG
2	1E	185	ILE
2	1E	190	THR
2	1E	196	LEU
2	1E	200	ILE
2	1E	209	ARG
2	1E	213	LEU
2	1E	215	LEU
2	1E	217	ARG
2	1E	226	ARG
2	1E	231	GLU
2	1E	232	PRO
3	2E	3	ASN
3	2E	4	LYS
3	2E	5	ILE
3	2E	14	ILE
3	2E	17	ASP
3	2E	21	ARG
3	2E	32	LEU
3	2E	36	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	2E	38	ARG
3	2E	40	ARG
3	2E	45	LYS
3	2E	49	SER
3	2E	52	LEU
3	2E	54	ARG
3	2E	62	ASP
3	2E	68	VAL
3	2E	76	VAL
3	2E	77	ILE
3	2E	79	ARG
3	2E	84	ILE
3	2E	95	THR
3	2E	98	ASN
3	2E	138	VAL
3	2E	144	SER
3	2E	165	THR
3	2E	166	GLU
3	2E	167	TRP
3	2E	179	ARG
3	2E	190	ARG
3	2E	192	THR
3	2E	202	ILE
4	3E	3	ARG
4	3E	10	ARG
4	3E	15	GLU
4	3E	24	GLU
4	3E	28	SER
4	3E	31	CYS
4	3E	46	LYS
4	3E	49	ARG
4	3E	50	ARG
4	3E	58	LEU
4	3E	61	LYS
4	3E	66	ARG
4	3E	70	ILE
4	3E	83	SER
4	3E	85	LYS
4	3E	86	LYS
4	3E	88	VAL
4	3E	91	SER
4	3E	96	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	3E	104	VAL
4	3E	106	TYR
4	3E	108	LEU
4	3E	122	ARG
4	3E	127	THR
4	3E	132	ARG
4	3E	135	LEU
4	3E	141	ARG
4	3E	146	ILE
4	3E	155	LEU
4	3E	160	GLN
4	3E	163	GLU
4	3E	175	SER
4	3E	179	GLU
4	3E	184	LYS
4	3E	187	ARG
4	3E	188	LEU
4	3E	190	ASP
4	3E	192	GLU
4	3E	193	ASP
4	3E	194	LEU
4	3E	209	ARG
5	4E	5	ASP
5	4E	6	PHE
5	4E	10	MET
5	4E	11	ILE
5	4E	15	ARG
5	4E	16	THR
5	4E	31	LEU
5	4E	33	VAL
5	4E	41	VAL
5	4E	50	GLU
5	4E	53	LEU
5	4E	71	LEU
5	4E	72	GLN
5	4E	73	ASN
5	4E	80	ILE
5	4E	91	LEU
5	4E	92	LYS
5	4E	107	ARG
5	4E	112	LEU
5	4E	121	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
5	4E	147	ASP
5	4E	153	LYS
6	5E	19	LEU
6	5E	21	LEU
6	5E	23	LYS
6	5E	24	GLU
6	5E	40	VAL
6	5E	55	ASP
6	5E	64	GLN
6	5E	65	VAL
6	5E	74	ASP
6	5E	75	LEU
6	5E	87	ARG
6	5E	89	MET
6	5E	91	VAL
7	6E	6	ARG
7	6E	13	GLN
7	6E	24	THR
7	6E	36	LYS
7	6E	38	LEU
7	6E	41	ARG
7	6E	54	THR
7	6E	63	LYS
7	6E	76	ARG
7	6E	78	ARG
7	6E	79	ARG
7	6E	80	VAL
7	6E	89	MET
7	6E	90	GLU
7	6E	91	VAL
7	6E	94	ARG
7	6E	95	ARG
7	6E	104	LEU
7	6E	111	ARG
7	6E	113	GLU
7	6E	115	ARG
7	6E	138	LYS
7	6E	143	ARG
7	6E	155	ARG
7	6E	156	TRP
8	7E	1	MET
8	7E	10	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
8	7E	12	ARG
8	7E	19	VAL
8	7E	25	ASP
8	7E	26	VAL
8	7E	35	ILE
8	7E	41	ARG
8	7E	45	ILE
8	7E	53	VAL
8	7E	54	ASP
8	7E	68	ARG
8	7E	80	ILE
8	7E	82	HIS
8	7E	83	ILE
8	7E	85	ARG
8	7E	95	VAL
8	7E	102	ARG
8	7E	104	ARG
8	7E	111	ILE
8	7E	122	ARG
8	7E	127	LEU
8	7E	129	VAL
8	7E	137	VAL
9	8E	7	THR
9	8E	9	ARG
9	8E	10	ARG
9	8E	14	VAL
9	8E	16	ARG
9	8E	20	ARG
9	8E	31	GLN
9	8E	38	GLN
9	8E	42	ARG
9	8E	44	VAL
9	8E	47	LEU
9	8E	53	VAL
9	8E	63	ILE
9	8E	79	LEU
9	8E	86	VAL
9	8E	92	TYR
9	8E	95	LYS
9	8E	105	ASP
9	8E	108	VAL
9	8E	111	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
9	8E	113	LYS
9	8E	117	HIS
9	8E	118	LYS
9	8E	121	ARG
9	8E	124	GLN
10	1I	4	ILE
10	1I	5	ARG
10	1I	7	LYS
10	1I	16	LEU
10	1I	25	GLU
10	1I	30	SER
10	1I	33	GLN
10	1I	51	ARG
10	1I	54	PHE
10	1I	62	HIS
10	1I	70	ARG
10	1I	75	ILE
10	1I	76	ASN
10	1I	88	LEU
10	1I	92	THR
10	1I	96	ILE
10	1I	98	ILE
11	2I	12	ARG
11	2I	28	THR
11	2I	29	ILE
11	2I	31	THR
11	2I	32	ILE
11	2I	36	ASP
11	2I	81	ASP
11	2I	93	GLN
11	2I	96	ARG
11	2I	103	LEU
11	2I	105	VAL
11	2I	106	LYS
11	2I	109	VAL
11	2I	114	VAL
11	2I	116	HIS
11	2I	120	ARG
12	3I	21	LYS
12	3I	33	ARG
12	3I	43	VAL
12	3I	46	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
12	3I	47	LYS
12	3I	50	SER
12	3I	60	LEU
12	3I	62	SER
12	3I	67	THR
12	3I	83	VAL
12	3I	85	ILE
12	3I	89	ARG
12	3I	91	LYS
12	3I	114	LYS
12	3I	116	SER
13	4I	4	ILE
13	4I	19	LEU
13	4I	20	THR
13	4I	31	LYS
13	4I	32	GLU
13	4I	34	LEU
13	4I	44	ARG
13	4I	45	VAL
13	4I	48	LEU
13	4I	49	THR
13	4I	56	LEU
13	4I	64	TRP
13	4I	67	GLU
13	4I	70	LEU
13	4I	86	CYS
13	4I	98	VAL
13	4I	102	ARG
13	4I	106	ASN
13	4I	108	ARG
13	4I	110	ARG
13	4I	117	VAL
14	5I	4	LYS
14	5I	6	LEU
14	5I	12	ARG
14	5I	15	LYS
14	5I	17	LYS
14	5I	18	VAL
14	5I	22	THR
14	5I	26	ARG
14	5I	33	VAL
14	5I	41	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
14	5I	44	LEU
14	5I	50	LYS
14	5I	58	LYS
15	6I	6	GLU
15	6I	10	LYS
15	6I	24	SER
15	6I	26	GLU
15	6I	35	ARG
15	6I	38	ARG
15	6I	39	LEU
15	6I	40	SER
15	6I	41	GLU
15	6I	47	LYS
15	6I	66	LEU
15	6I	67	LEU
15	6I	68	ARG
15	6I	72	ARG
16	7I	1	MET
16	7I	2	VAL
16	7I	8	ARG
16	7I	11	SER
16	7I	36	ILE
16	7I	45	THR
16	7I	51	VAL
16	7I	54	GLU
16	7I	55	ARG
16	7I	67	THR
16	7I	69	THR
16	7I	72	ARG
16	7I	82	GLN
16	7I	83	GLU
17	8I	9	VAL
17	8I	11	VAL
17	8I	19	VAL
17	8I	25	ARG
17	8I	35	VAL
17	8I	45	HIS
17	8I	48	GLU
17	8I	50	LYS
17	8I	52	LYS
17	8I	57	VAL
17	8I	60	ILE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
17	8I	62	SER
17	8I	68	ARG
17	8I	74	LEU
17	8I	87	LYS
17	8I	88	TYR
17	8I	89	LEU
17	8I	92	ARG
17	8I	101	ARG
18	9I	18	ARG
18	9I	31	LEU
18	9I	32	ARG
18	9I	35	ARG
18	9I	53	ARG
18	9I	82	THR
18	9I	86	VAL
18	9I	88	LYS
19	AI	4	SER
19	AI	5	LEU
19	AI	7	LYS
19	AI	14	HIS
19	AI	21	GLU
19	AI	22	LEU
19	AI	29	ARG
19	AI	30	LEU
19	AI	31	ILE
19	AI	37	ARG
19	AI	43	GLU
19	AI	60	VAL
19	AI	61	TYR
19	AI	65	ASN
19	AI	67	VAL
19	AI	77	THR
19	AI	78	ARG
20	BI	10	LEU
20	BI	15	ARG
20	BI	18	GLN
20	BI	20	LEU
20	BI	31	SER
20	BI	33	ILE
20	BI	37	SER
20	BI	50	GLU
20	BI	51	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
20	BI	53	LEU
20	BI	72	LEU
20	BI	75	ASN
20	BI	99	LEU
20	BI	105	SER
21	1F	6	ARG
28	11	3	VAL
28	11	7	LYS
28	11	13	ARG
28	11	15	PHE
28	11	17	THR
28	11	27	THR
28	11	32	SER
28	11	37	LEU
28	11	61	LEU
28	11	64	ILE
28	11	65	ILE
28	11	76	PRO
28	11	83	GLU
28	11	95	LEU
28	11	103	ARG
28	11	105	ILE
28	11	106	ILE
28	11	111	LEU
28	11	112	GLN
28	11	141	VAL
28	11	142	VAL
28	11	155	LEU
28	11	165	ILE
28	11	183	ARG
28	11	192	THR
28	11	200	ASP
28	11	208	LYS
28	11	212	SER
28	11	217	ARG
28	11	221	VAL
28	11	229	VAL
28	11	242	ARG
28	11	255	LYS
28	11	257	LEU
28	11	259	THR
28	11	261	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
28	11	265	PRO
28	11	266	SER
28	11	270	ILE
28	11	271	ILE
28	11	273	ARG
29	21	2	LYS
29	21	5	LEU
29	21	12	THR
29	21	13	ARG
29	21	14	ILE
29	21	16	ARG
29	21	26	ILE
29	21	34	VAL
29	21	40	GLU
29	21	41	LYS
29	21	42	ASP
29	21	45	THR
29	21	52	LEU
29	21	54	GLN
29	21	59	VAL
29	21	61	ARG
29	21	63	LEU
29	21	66	HIS
29	21	67	PHE
29	21	69	LYS
29	21	72	VAL
29	21	79	ARG
29	21	87	GLU
29	21	89	ASP
29	21	92	THR
29	21	101	ARG
29	21	116	VAL
29	21	128	SER
29	21	138	PRO
29	21	144	ARG
29	21	146	THR
29	21	152	LYS
29	21	167	VAL
29	21	175	VAL
29	21	179	GLU
29	21	185	LYS
29	21	196	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
29	21	200	GLU
29	21	201	THR
29	21	202	LYS
29	21	203	LYS
30	31	7	TYR
30	31	8	GLN
30	31	9	ILE
30	31	12	LEU
30	31	13	SER
30	31	15	SER
30	31	24	LEU
30	31	28	ILE
30	31	32	LEU
30	31	33	LEU
30	31	38	ARG
30	31	57	VAL
30	31	64	ILE
30	31	77	ASP
30	31	88	VAL
30	31	98	SER
30	31	101	LEU
30	31	106	ARG
30	31	112	MET
30	31	117	ARG
30	31	127	GLU
30	31	136	THR
30	31	158	THR
30	31	165	ARG
30	31	170	LEU
30	31	174	VAL
30	31	175	THR
30	31	176	LEU
30	31	181	LEU
30	31	183	VAL
30	31	191	ARG
30	31	192	LEU
30	31	201	VAL
31	41	10	LYS
31	41	14	GLU
31	41	20	ILE
31	41	21	ARG
31	41	26	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
31	41	28	VAL
31	41	31	VAL
31	41	33	ARG
31	41	34	LEU
31	41	43	LEU
31	41	45	GLU
31	41	52	ILE
31	41	58	GLN
31	41	62	LEU
31	41	67	LYS
31	41	70	VAL
31	41	71	THR
31	41	76	SER
31	41	77	ILE
31	41	80	PHE
31	41	82	LEU
31	41	84	LYS
31	41	86	MET
31	41	90	LEU
31	41	94	LEU
31	41	101	ILE
31	41	104	GLU
31	41	116	ASP
31	41	133	LEU
31	41	135	LEU
31	41	159	VAL
31	41	161	THR
31	41	162	THR
31	41	165	THR
31	41	170	ARG
32	51	2	SER
32	51	3	ARG
32	51	4	ILE
32	51	6	ARG
32	51	7	LEU
32	51	10	PRO
32	51	24	VAL
32	51	37	VAL
32	51	40	GLU
32	51	43	VAL
32	51	45	VAL
32	51	50	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	51	64	LEU
32	51	67	LEU
32	51	68	THR
32	51	71	LEU
32	51	72	ILE
32	51	77	LYS
32	51	80	SER
32	51	84	SER
32	51	88	LEU
32	51	92	ILE
32	51	97	ARG
32	51	103	LEU
32	51	122	THR
32	51	129	THR
32	51	131	VAL
32	51	132	ARG
32	51	136	ILE
32	51	139	GLN
32	51	141	VAL
32	51	149	ARG
32	51	153	LYS
32	51	160	LYS
32	51	169	VAL
32	51	171	LEU
32	51	175	LYS
33	61	2	LYS
33	61	9	LEU
33	61	25	TYR
33	61	35	LEU
33	61	38	LEU
33	61	40	THR
33	61	44	LEU
33	61	45	LYS
33	61	48	GLU
33	61	56	LYS
33	61	60	GLU
33	61	64	GLU
33	61	67	ARG
33	61	74	ASN
33	61	77	LEU
33	61	78	THR
33	61	81	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
33	61	82	ARG
33	61	85	GLU
33	61	92	VAL
33	61	95	LYS
33	61	97	ILE
33	61	107	VAL
33	61	108	THR
33	61	110	ASP
33	61	113	ARG
33	61	120	ILE
33	61	131	LYS
33	61	135	GLU
33	61	136	VAL
33	61	139	GLN
33	61	140	LEU
33	61	142	VAL
33	61	143	SER
34	58	1	MET
34	58	7	LYS
34	58	9	VAL
34	58	12	ARG
34	58	29	LYS
34	58	34	LEU
34	58	48	MET
34	58	58	ASP
34	58	60	ILE
34	58	61	ARG
34	58	65	LYS
34	58	67	LEU
34	58	87	LEU
34	58	90	MET
34	58	96	GLU
34	58	97	ARG
34	58	98	VAL
34	58	99	LEU
34	58	115	ARG
34	58	120	LEU
34	58	127	ASP
34	58	128	HIS
34	58	134	ARG
35	68	8	LEU
35	68	9	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	68	14	THR
35	68	20	MET
35	68	23	ARG
35	68	24	VAL
35	68	28	SER
35	68	32	TYR
35	68	38	VAL
35	68	47	ILE
35	68	53	LYS
35	68	90	GLN
35	68	94	ARG
35	68	112	MET
35	68	113	LYS
36	78	1	MET
36	78	6	LEU
36	78	7	ARG
36	78	10	PRO
36	78	15	ARG
36	78	18	ARG
36	78	19	VAL
36	78	29	LYS
36	78	30	THR
36	78	32	THR
36	78	39	LYS
36	78	41	ARG
36	78	45	LEU
36	78	46	LYS
36	78	49	ARG
36	78	50	ARG
36	78	57	THR
36	78	61	ARG
36	78	75	ILE
36	78	77	ARG
36	78	88	LEU
36	78	99	LEU
36	78	100	LEU
36	78	105	LEU
36	78	106	LEU
36	78	112	LEU
36	78	115	LEU
36	78	117	GLU
36	78	119	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
36	78	121	LYS
36	78	126	VAL
36	78	135	LEU
36	78	138	LEU
36	78	144	GLU
36	78	146	VAL
36	78	147	LEU
36	78	148	LEU
36	78	149	GLU
37	88	1	MET
37	88	5	ARG
37	88	6	ARG
37	88	12	GLN
37	88	21	THR
37	88	22	LYS
37	88	25	ASP
37	88	35	VAL
37	88	45	GLN
37	88	51	ARG
37	88	56	ARG
37	88	58	PHE
37	88	59	ARG
37	88	60	ARG
37	88	67	ARG
37	88	82	ARG
37	88	87	LYS
37	88	98	LYS
37	88	102	VAL
37	88	103	MET
37	88	112	GLU
37	88	129	THR
37	88	134	ARG
37	88	138	ASP
37	88	139	GLU
37	88	141	GLN
38	98	2	ARG
38	98	4	LEU
38	98	9	LYS
38	98	10	LEU
38	98	17	ARG
38	98	18	LEU
38	98	24	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
38	98	28	LEU
38	98	29	LEU
38	98	33	ARG
38	98	34	ILE
38	98	36	THR
38	98	44	LEU
38	98	54	LEU
38	98	57	ARG
38	98	59	ASP
38	98	64	ARG
38	98	67	LEU
38	98	73	VAL
38	98	79	LEU
38	98	80	PHE
38	98	88	ARG
38	98	91	GLN
38	98	94	TYR
38	98	95	THR
38	98	105	ARG
38	98	117	VAL
38	98	118	GLU
39	A8	3	ARG
39	A8	4	LEU
39	A8	8	GLU
39	A8	10	ARG
39	A8	14	VAL
39	A8	17	ARG
39	A8	24	LEU
39	A8	29	PHE
39	A8	30	ARG
39	A8	32	LEU
39	A8	35	ILE
39	A8	36	TYR
39	A8	46	VAL
39	A8	50	SER
39	A8	52	SER
39	A8	54	LEU
39	A8	56	LEU
39	A8	57	LYS
39	A8	58	LEU
39	A8	61	ASN
39	A8	69	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
39	A8	73	LEU
39	A8	80	LEU
39	A8	83	LYS
39	A8	89	ARG
39	A8	101	LEU
39	A8	106	ARG
39	A8	107	GLU
39	A8	110	LEU
39	A8	112	PHE
40	B8	3	ARG
40	B8	6	LEU
40	B8	11	GLU
40	B8	12	SER
40	B8	13	ARG
40	B8	15	VAL
40	B8	19	LEU
40	B8	21	GLU
40	B8	23	ARG
40	B8	27	THR
40	B8	30	VAL
40	B8	35	LYS
40	B8	41	ARG
40	B8	42	ILE
40	B8	49	VAL
40	B8	50	ILE
40	B8	55	ASN
40	B8	58	ASN
40	B8	59	THR
40	B8	62	THR
40	B8	64	ARG
40	B8	65	LYS
40	B8	74	ARG
40	B8	78	LEU
40	B8	86	ILE
40	B8	87	ASP
40	B8	88	ILE
40	B8	89	VAL
40	B8	90	GLN
40	B8	98	LYS
40	B8	99	LEU
40	B8	105	LEU
40	B8	106	SER

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
40	B8	110	ILE
40	B8	111	ARG
40	B8	112	ARG
40	B8	118	ARG
40	B8	136	GLN
41	C8	3	ARG
41	C8	5	LYS
41	C8	64	ARG
41	C8	74	LEU
41	C8	75	ASN
41	C8	79	PHE
41	C8	83	LEU
41	C8	89	GLU
41	C8	104	GLN
41	C8	108	GLU
41	C8	111	GLU
41	C8	112	ARG
41	C8	117	GLN
42	D8	1	MET
42	D8	5	VAL
42	D8	6	LYS
42	D8	7	THR
42	D8	12	TYR
42	D8	18	LEU
42	D8	35	LEU
42	D8	40	LEU
42	D8	44	LYS
42	D8	52	VAL
42	D8	64	HIS
42	D8	70	ILE
42	D8	73	SER
42	D8	100	ARG
43	E8	4	LYS
43	E8	11	ARG
43	E8	15	ARG
43	E8	16	LYS
43	E8	19	LEU
43	E8	20	VAL
43	E8	39	THR
43	E8	51	LEU
43	E8	65	LEU
43	E8	66	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
43	E8	68	ARG
43	E8	69	LEU
43	E8	70	TYR
43	E8	76	VAL
43	E8	78	GLU
43	E8	82	LEU
43	E8	92	ARG
43	E8	96	ILE
43	E8	97	LYS
43	E8	98	LYS
43	E8	99	ARG
43	E8	100	THR
43	E8	107	LEU
43	E8	111	HIS
44	F8	2	LYS
44	F8	15	GLU
44	F8	23	GLU
44	F8	38	GLU
44	F8	45	THR
44	F8	49	VAL
44	F8	54	VAL
44	F8	57	LEU
44	F8	60	ARG
44	F8	65	ARG
44	F8	72	LYS
44	F8	80	ILE
44	F8	81	VAL
44	F8	87	GLN
44	F8	88	LYS
44	F8	89	ILE
45	G8	6	HIS
45	G8	24	VAL
45	G8	33	LYS
45	G8	38	ILE
45	G8	40	GLU
45	G8	42	VAL
45	G8	47	LYS
45	G8	50	ARG
45	G8	51	VAL
45	G8	52	SER
45	G8	54	LYS
45	G8	55	TYR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
45	G8	57	GLN
45	G8	61	ILE
45	G8	67	LEU
45	G8	79	CYS
45	G8	82	PRO
45	G8	84	ARG
45	G8	85	VAL
45	G8	86	ARG
45	G8	98	VAL
45	G8	99	CYS
45	G8	106	LEU
46	H8	11	GLU
46	H8	19	ARG
46	H8	42	VAL
46	H8	43	GLU
46	H8	53	ILE
46	H8	61	LEU
46	H8	71	VAL
46	H8	72	ARG
46	H8	76	LEU
46	H8	77	ASP
46	H8	80	ARG
46	H8	81	ARG
46	H8	86	VAL
46	H8	91	LEU
46	H8	93	ASP
46	H8	103	ARG
46	H8	105	VAL
46	H8	116	VAL
46	H8	117	LEU
46	H8	118	GLN
46	H8	119	GLU
46	H8	121	HIS
46	H8	128	VAL
46	H8	132	ASN
46	H8	135	GLU
46	H8	140	ASP
46	H8	144	LEU
46	H8	148	ASP
46	H8	154	ASP
46	H8	161	VAL
46	H8	166	SER

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
46	H8	168	GLU
46	H8	171	ILE
47	I8	11	ARG
47	I8	19	LYS
47	I8	30	VAL
47	I8	36	ILE
47	I8	38	VAL
47	I8	44	ARG
47	I8	46	LYS
47	I8	58	THR
47	I8	60	PHE
47	I8	67	VAL
47	I8	70	GLN
47	I8	74	ARG
47	I8	82	ARG
48	J8	4	VAL
48	J8	21	ARG
48	J8	25	LYS
48	J8	26	ARG
48	J8	41	ARG
48	J8	46	LEU
48	J8	57	GLU
48	J8	62	VAL
48	J8	69	LYS
48	J8	78	LYS
48	J8	80	LEU
48	J8	81	LYS
48	J8	82	LEU
48	J8	83	GLU
48	J8	91	LYS
48	J8	94	LEU
48	J8	97	LEU
49	K8	5	GLU
49	K8	8	LYS
49	K8	12	GLU
49	K8	15	LYS
49	K8	16	LEU
49	K8	17	SER
49	K8	19	VAL
49	K8	20	GLU
49	K8	23	LYS
49	K8	24	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
49	K8	30	ARG
49	K8	32	LEU
49	K8	41	ILE
49	K8	44	LEU
49	K8	45	SER
49	K8	46	GLN
49	K8	47	ASN
49	K8	48	HIS
49	K8	50	ILE
49	K8	53	LEU
49	K8	55	ARG
49	K8	62	THR
49	K8	64	LEU
49	K8	66	GLU
49	K8	67	LYS
50	L8	3	ARG
50	L8	4	LEU
50	L8	6	VAL
50	L8	8	LEU
50	L8	28	LEU
50	L8	30	ARG
50	L8	31	LEU
50	L8	32	GLN
50	L8	36	VAL
50	L8	37	LEU
50	L8	38	GLU
50	L8	40	THR
50	L8	55	ARG
50	L8	58	VAL
51	M8	1	MET
51	M8	5	ILE
51	M8	13	ARG
51	M8	15	ILE
51	M8	16	CYS
51	M8	34	GLU
51	M8	37	SER
51	M8	39	CYS
51	M8	42	PHE
51	M8	44	THR
51	M8	50	VAL
51	M8	52	THR
51	M8	55	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
51	M8	59	PHE
51	M8	61	ARG
51	M8	62	ARG
51	M8	65	ASP
52	N8	3	LYS
52	N8	6	VAL
52	N8	16	ARG
52	N8	29	THR
52	N8	31	VAL
52	N8	35	GLU
52	N8	36	CYS
52	N8	40	LYS
52	N8	44	THR
52	N8	49	CYS
52	N8	51	TYR
52	N8	56	LYS
53	O8	10	LEU
53	O8	12	GLU
53	O8	19	ARG
53	O8	21	TYR
53	O8	25	LYS
53	O8	26	ASN
53	O8	27	LYS
53	O8	28	ARG
53	O8	30	THR
53	O8	32	ASN
53	O8	33	LYS
53	O8	37	ARG
53	O8	39	TYR
53	O8	42	TRP
53	O8	47	THR
54	P8	4	THR
54	P8	8	ASN
54	P8	19	ARG
54	P8	23	ARG
54	P8	29	LYS
54	P8	43	THR
55	Q8	8	LYS
55	Q8	19	SER
55	Q8	21	LYS
55	Q8	26	LYS
55	Q8	30	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
55	Q8	31	HIS
55	Q8	34	TRP
55	Q8	35	GLN
55	Q8	42	ARG
55	Q8	43	GLN
55	Q8	46	ARG
55	Q8	47	LYS
55	Q8	49	VAL
55	Q8	52	LYS
55	Q8	57	ARG
55	Q8	59	LYS
55	Q8	60	LEU
55	Q8	61	LEU
2	12	5	ILE
2	12	17	PHE
2	12	22	LYS
2	12	23	ARG
2	12	24	TRP
2	12	31	TYR
2	12	42	ILE
2	12	47	THR
2	12	51	LEU
2	12	55	PHE
2	12	58	ILE
2	12	67	THR
2	12	69	LEU
2	12	71	VAL
2	12	75	LYS
2	12	78	GLN
2	12	83	MET
2	12	92	TYR
2	12	103	THR
2	12	108	ILE
2	12	117	GLU
2	12	121	LEU
2	12	130	ARG
2	12	137	ARG
2	12	138	LEU
2	12	139	LYS
2	12	144	ARG
2	12	145	LEU
2	12	155	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	12	165	VAL
2	12	170	GLU
2	12	172	ILE
2	12	178	ARG
2	12	179	LYS
2	12	180	LEU
2	12	185	ILE
2	12	187	LEU
2	12	196	LEU
2	12	204	ASN
2	12	205	ASP
2	12	209	ARG
2	12	213	LEU
2	12	219	VAL
2	12	223	ILE
3	22	3	ASN
3	22	5	ILE
3	22	16	ARG
3	22	18	TRP
3	22	22	TRP
3	22	28	GLN
3	22	29	TYR
3	22	40	ARG
3	22	43	LEU
3	22	47	LEU
3	22	52	LEU
3	22	54	ARG
3	22	67	THR
3	22	76	VAL
3	22	79	ARG
3	22	83	ARG
3	22	91	LEU
3	22	94	LEU
3	22	95	THR
3	22	98	ASN
3	22	102	ASN
3	22	104	GLN
3	22	107	GLN
3	22	119	ARG
3	22	128	PHE
3	22	131	ARG
3	22	140	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	22	167	TRP
3	22	188	LEU
3	22	190	ARG
3	22	192	THR
3	22	202	ILE
4	32	5	ILE
4	32	11	LEU
4	32	14	ARG
4	32	24	GLU
4	32	28	SER
4	32	30	LYS
4	32	36	ARG
4	32	45	GLN
4	32	50	ARG
4	32	57	ARG
4	32	58	LEU
4	32	61	LYS
4	32	73	ARG
4	32	76	ARG
4	32	83	SER
4	32	115	ARG
4	32	119	GLN
4	32	122	ARG
4	32	127	THR
4	32	135	LEU
4	32	137	SER
4	32	150	GLU
4	32	168	ARG
4	32	184	LYS
4	32	187	ARG
4	32	190	ASP
4	32	191	ARG
4	32	192	GLU
4	32	200	GLU
4	32	209	ARG
5	42	6	PHE
5	42	12	LEU
5	42	14	ARG
5	42	16	THR
5	42	19	MET
5	42	25	ARG
5	42	34	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
5	42	41	VAL
5	42	43	LEU
5	42	47	LYS
5	42	51	VAL
5	42	61	TYR
5	42	64	ARG
5	42	68	GLU
5	42	72	GLN
5	42	78	HIS
5	42	79	GLU
5	42	83	GLU
5	42	90	VAL
5	42	91	LEU
5	42	101	ILE
5	42	116	THR
5	42	118	ILE
5	42	127	ASN
5	42	137	GLU
5	42	144	THR
6	52	3	ARG
6	52	7	ASN
6	52	14	LEU
6	52	16	GLN
6	52	21	LEU
6	52	25	ILE
6	52	27	GLN
6	52	28	ARG
6	52	32	ASN
6	52	47	ARG
6	52	54	LYS
6	52	61	LEU
6	52	70	ASP
6	52	71	ARG
6	52	74	ASP
6	52	82	ARG
6	52	87	ARG
6	52	92	LYS
6	52	93	SER
7	62	4	ARG
7	62	8	GLU
7	62	23	VAL
7	62	27	ILE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
7	62	29	LYS
7	62	32	ARG
7	62	52	GLU
7	62	54	THR
7	62	60	LYS
7	62	63	LYS
7	62	73	MET
7	62	78	ARG
7	62	84	ASN
7	62	94	ARG
7	62	104	LEU
7	62	114	ARG
7	62	118	VAL
7	62	131	LYS
7	62	137	LYS
7	62	140	ASP
8	72	1	MET
8	72	22	GLU
8	72	23	SER
8	72	25	ASP
8	72	26	VAL
8	72	39	LEU
8	72	52	ASP
8	72	73	ASP
8	72	84	ARG
8	72	86	ILE
8	72	91	ARG
8	72	92	ARG
8	72	97	VAL
8	72	99	GLU
8	72	100	ILE
8	72	104	ARG
8	72	107	LEU
8	72	109	ILE
8	72	112	LEU
8	72	116	LYS
9	82	7	THR
9	82	27	THR
9	82	31	GLN
9	82	38	GLN
9	82	42	ARG
9	82	47	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
9	82	85	LEU
9	82	88	TYR
9	82	93	ARG
9	82	95	LYS
9	82	99	LEU
9	82	104	ARG
9	82	111	ARG
9	82	113	LYS
9	82	117	HIS
9	82	125	TYR
10	1A	13	HIS
10	1A	17	ASP
10	1A	19	SER
10	1A	22	LYS
10	1A	35	SER
10	1A	40	LEU
10	1A	43	ARG
10	1A	47	PHE
10	1A	48	THR
10	1A	55	LYS
10	1A	59	SER
10	1A	62	HIS
10	1A	70	ARG
10	1A	72	VAL
10	1A	74	ILE
10	1A	76	ASN
10	1A	79	ARG
10	1A	96	ILE
10	1A	99	LYS
11	2A	12	ARG
11	2A	13	GLN
11	2A	14	VAL
11	2A	29	ILE
11	2A	31	THR
11	2A	40	ILE
11	2A	63	LEU
11	2A	82	VAL
11	2A	83	ILE
11	2A	95	ILE
11	2A	98	LEU
11	2A	105	VAL
11	2A	106	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
11	2A	111	ASP
11	2A	114	VAL
11	2A	124	LYS
12	3A	6	THR
12	3A	33	ARG
12	3A	37	CYS
12	3A	41	ARG
12	3A	42	THR
12	3A	43	VAL
12	3A	46	LYS
12	3A	49	ASN
12	3A	52	LEU
12	3A	54	LYS
12	3A	57	LYS
12	3A	60	LEU
12	3A	64	TYR
12	3A	66	VAL
12	3A	78	GLN
12	3A	83	VAL
12	3A	84	LEU
12	3A	85	ILE
12	3A	89	ARG
12	3A	96	VAL
12	3A	111	LYS
12	3A	118	SER
12	3A	122	THR
13	4A	8	GLU
13	4A	9	ILE
13	4A	11	ARG
13	4A	16	ASP
13	4A	17	VAL
13	4A	19	LEU
13	4A	39	ILE
13	4A	47	ASP
13	4A	48	LEU
13	4A	56	LEU
13	4A	64	TRP
13	4A	65	LYS
13	4A	66	LEU
13	4A	77	ASN
13	4A	82	MET
13	4A	88	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
13	4A	92	HIS
13	4A	94	ARG
13	4A	101	GLN
13	4A	102	ARG
13	4A	103	THR
13	4A	108	ARG
13	4A	114	ARG
13	4A	117	VAL
14	5A	12	ARG
14	5A	17	LYS
14	5A	18	VAL
14	5A	22	THR
14	5A	33	VAL
14	5A	35	ARG
14	5A	44	LEU
14	5A	58	LYS
15	6A	3	ILE
15	6A	13	GLN
15	6A	26	GLU
15	6A	31	LEU
15	6A	32	LEU
15	6A	34	LEU
15	6A	38	ARG
15	6A	39	LEU
15	6A	45	VAL
15	6A	48	LYS
15	6A	66	LEU
15	6A	68	ARG
15	6A	88	ARG
16	7A	2	VAL
16	7A	34	GLU
16	7A	45	THR
16	7A	55	ARG
16	7A	62	VAL
16	7A	67	THR
16	7A	73	LEU
16	7A	82	GLN
17	8A	10	VAL
17	8A	13	ASP
17	8A	25	ARG
17	8A	49	GLU
17	8A	52	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
17	8A	53	LEU
17	8A	60	ILE
17	8A	68	ARG
17	8A	70	ARG
17	8A	74	LEU
17	8A	79	SER
17	8A	81	ARG
17	8A	100	LYS
17	8A	101	ARG
18	9A	21	LYS
18	9A	26	LEU
18	9A	29	PHE
18	9A	32	ARG
18	9A	36	ASN
18	9A	42	ARG
18	9A	44	LEU
18	9A	53	ARG
18	9A	54	ARG
18	9A	58	LEU
18	9A	84	LYS
19	AA	7	LYS
19	AA	10	PHE
19	AA	11	VAL
19	AA	15	LEU
19	AA	22	LEU
19	AA	23	ASN
19	AA	25	LYS
19	AA	33	THR
19	AA	34	TRP
19	AA	49	ILE
19	AA	53	ASN
19	AA	60	VAL
19	AA	66	MET
19	AA	71	LEU
19	AA	78	ARG
19	AA	81	ARG
19	AA	83	HIS
20	BA	8	ARG
20	BA	11	SER
20	BA	24	LEU
20	BA	29	LYS
20	BA	37	SER

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
20	BA	55	ILE
20	BA	64	ASP
20	BA	68	LYS
20	BA	73	HIS
20	BA	74	LYS
20	BA	75	ASN
20	BA	84	LEU
21	1B	9	ARG
21	1B	25	LYS
28	19	10	THR
28	19	18	VAL
28	19	28	GLU
28	19	32	SER
28	19	33	LEU
28	19	35	LYS
28	19	37	LEU
28	19	38	LYS
28	19	43	ARG
28	19	49	ILE
28	19	61	LEU
28	19	64	ILE
28	19	65	ILE
28	19	68	LYS
28	19	69	ARG
28	19	87	ASN
28	19	88	ARG
28	19	89	SER
28	19	94	LEU
28	19	105	ILE
28	19	106	ILE
28	19	111	LEU
28	19	112	GLN
28	19	136	ILE
28	19	141	VAL
28	19	147	LEU
28	19	173	VAL
28	19	192	THR
28	19	202	LYS
28	19	204	ILE
28	19	211	ARG
28	19	212	SER
28	19	217	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
28	19	239	ARG
28	19	242	ARG
28	19	244	ARG
28	19	253	GLN
28	19	255	LYS
28	19	257	LEU
28	19	259	THR
28	19	260	ARG
28	19	262	ARG
28	19	266	SER
28	19	267	SER
28	19	271	ILE
29	29	4	ILE
29	29	5	LEU
29	29	7	VAL
29	29	19	ARG
29	29	23	VAL
29	29	40	GLU
29	29	44	TYR
29	29	45	THR
29	29	48	GLN
29	29	54	GLN
29	29	60	ASN
29	29	61	ARG
29	29	63	LEU
29	29	64	LYS
29	29	66	HIS
29	29	67	PHE
29	29	69	LYS
29	29	75	VAL
29	29	77	ILE
29	29	78	LEU
29	29	79	ARG
29	29	87	GLU
29	29	90	THR
29	29	93	VAL
29	29	107	THR
29	29	116	VAL
29	29	117	MET
29	29	119	ARG
29	29	134	ILE
29	29	136	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
29	29	144	ARG
29	29	146	THR
29	29	154	LYS
29	29	170	LEU
29	29	174	ASP
29	29	175	VAL
29	29	178	GLU
29	29	181	LEU
29	29	188	VAL
29	29	197	ILE
29	29	200	GLU
29	29	201	THR
30	39	2	LYS
30	39	7	TYR
30	39	8	GLN
30	39	11	VAL
30	39	19	GLU
30	39	20	LEU
30	39	23	ASP
30	39	24	LEU
30	39	29	ASN
30	39	33	LEU
30	39	43	LYS
30	39	53	THR
30	39	57	VAL
30	39	62	ARG
30	39	68	LYS
30	39	69	HIS
30	39	70	THR
30	39	74	ARG
30	39	77	ASP
30	39	82	ILE
30	39	100	THR
30	39	110	LEU
30	39	123	LEU
30	39	125	LEU
30	39	135	LYS
30	39	140	LEU
30	39	152	GLU
30	39	153	SER
30	39	158	THR
30	39	183	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
30	39	191	ARG
30	39	192	LEU
30	39	193	VAL
30	39	194	MET
30	39	196	LEU
30	39	201	VAL
30	39	203	GLN
30	39	205	ARG
31	49	3	LEU
31	49	7	LEU
31	49	19	LEU
31	49	20	ILE
31	49	26	GLN
31	49	28	VAL
31	49	33	ARG
31	49	35	GLU
31	49	39	ILE
31	49	40	ASN
31	49	48	GLU
31	49	64	THR
31	49	67	LYS
31	49	71	THR
31	49	74	LYS
31	49	77	ILE
31	49	80	PHE
31	49	81	LYS
31	49	82	LEU
31	49	90	LEU
31	49	91	ARG
31	49	96	ARG
31	49	120	LEU
31	49	130	ASN
31	49	133	LEU
31	49	135	LEU
31	49	139	LEU
31	49	144	ILE
31	49	153	ARG
31	49	157	ILE
31	49	159	VAL
32	59	3	ARG
32	59	6	ARG
32	59	7	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	59	11	VAL
32	59	19	VAL
32	59	24	VAL
32	59	26	VAL
32	59	32	GLU
32	59	41	MET
32	59	42	ARG
32	59	69	ARG
32	59	70	THR
32	59	85	LYS
32	59	86	GLU
32	59	98	LEU
32	59	101	ARG
32	59	105	LEU
32	59	107	VAL
32	59	111	HIS
32	59	119	GLU
32	59	122	THR
32	59	123	PHE
32	59	124	GLU
32	59	127	GLU
32	59	129	THR
32	59	134	SER
32	59	136	ILE
32	59	139	GLN
32	59	152	ARG
32	59	155	SER
32	59	157	TYR
32	59	160	LYS
32	59	164	TYR
33	69	2	LYS
33	69	7	GLU
33	69	9	LEU
33	69	15	VAL
33	69	25	TYR
33	69	37	VAL
33	69	44	LEU
33	69	54	GLN
33	69	56	LYS
33	69	58	LEU
33	69	61	ARG
33	69	68	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
33	69	75	LEU
33	69	76	THR
33	69	77	LEU
33	69	78	THR
33	69	81	VAL
33	69	82	ARG
33	69	86	THR
33	69	101	LEU
33	69	103	ARG
33	69	104	GLN
33	69	109	ILE
33	69	113	ARG
33	69	114	LEU
33	69	117	GLU
33	69	122	GLU
33	69	125	GLU
33	69	130	TYR
33	69	131	LYS
33	69	133	HIS
33	69	138	ILE
33	69	142	VAL
33	69	145	VAL
34	15	1	MET
34	15	5	VAL
34	15	9	VAL
34	15	10	GLU
34	15	29	LYS
34	15	33	LEU
34	15	34	LEU
34	15	35	ARG
34	15	37	LYS
34	15	46	VAL
34	15	48	MET
34	15	56	ASN
34	15	63	THR
34	15	65	LYS
34	15	69	GLN
34	15	85	ILE
34	15	89	LYS
34	15	91	LEU
34	15	93	THR
34	15	94	HIS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
34	15	99	LEU
34	15	104	LYS
34	15	106	MET
34	15	112	LEU
34	15	134	ARG
34	15	138	LEU
35	25	5	GLN
35	25	8	LEU
35	25	10	VAL
35	25	14	THR
35	25	22	ILE
35	25	24	VAL
35	25	28	SER
35	25	35	VAL
35	25	48	PRO
35	25	49	ARG
35	25	53	LYS
35	25	69	ILE
35	25	87	ILE
35	25	91	LEU
35	25	94	ARG
35	25	97	ARG
35	25	104	ARG
35	25	105	GLU
35	25	113	LYS
35	25	114	ILE
35	25	117	LEU
36	35	4	SER
36	35	6	LEU
36	35	10	PRO
36	35	14	LYS
36	35	15	ARG
36	35	18	ARG
36	35	21	ARG
36	35	30	THR
36	35	36	LYS
36	35	41	ARG
36	35	45	LEU
36	35	55	ARG
36	35	62	LEU
36	35	64	LYS
36	35	65	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
36	35	67	MET
36	35	71	VAL
36	35	75	ILE
36	35	81	GLN
36	35	85	LEU
36	35	90	ARG
36	35	98	GLU
36	35	105	LEU
36	35	110	TYR
36	35	112	LEU
36	35	114	ILE
36	35	123	LEU
36	35	135	LEU
36	35	138	LEU
36	35	144	GLU
36	35	147	LEU
36	35	149	GLU
37	45	10	ARG
37	45	18	LYS
37	45	21	THR
37	45	22	LYS
37	45	25	ASP
37	45	26	TYR
37	45	27	VAL
37	45	45	GLN
37	45	56	ARG
37	45	59	ARG
37	45	75	THR
37	45	77	LYS
37	45	79	LEU
37	45	81	VAL
37	45	83	MET
37	45	85	LYS
37	45	89	ASN
37	45	90	VAL
37	45	91	GLU
37	45	103	MET
37	45	110	THR
37	45	112	GLU
37	45	113	GLN
37	45	127	ILE
37	45	134	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
38	55	2	ARG
38	55	15	SER
38	55	18	LEU
38	55	28	LEU
38	55	29	LEU
38	55	35	THR
38	55	42	LYS
38	55	44	LEU
38	55	51	LEU
38	55	57	ARG
38	55	63	ARG
38	55	65	LEU
38	55	67	LEU
38	55	74	LYS
38	55	75	LEU
38	55	79	LEU
38	55	81	ASP
38	55	82	GLU
38	55	91	GLN
38	55	115	GLU
38	55	118	GLU
39	65	3	ARG
39	65	12	PHE
39	65	17	ARG
39	65	21	THR
39	65	23	ARG
39	65	24	LEU
39	65	27	SER
39	65	31	SER
39	65	36	TYR
39	65	39	ILE
39	65	41	ASP
39	65	50	SER
39	65	58	LEU
39	65	69	VAL
39	65	73	LEU
39	65	78	LEU
39	65	83	LYS
39	65	88	ASP
39	65	93	LYS
39	65	98	VAL
39	65	101	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
39	65	106	ARG
39	65	110	LEU
40	75	6	LEU
40	75	8	LYS
40	75	9	LEU
40	75	10	VAL
40	75	12	SER
40	75	13	ARG
40	75	19	LEU
40	75	21	GLU
40	75	27	THR
40	75	28	VAL
40	75	36	GLU
40	75	40	THR
40	75	41	ARG
40	75	45	PHE
40	75	59	THR
40	75	62	THR
40	75	63	VAL
40	75	64	ARG
40	75	67	SER
40	75	74	ARG
40	75	78	LEU
40	75	86	ILE
40	75	88	ILE
40	75	91	ARG
40	75	105	LEU
40	75	106	SER
40	75	108	ARG
40	75	112	ARG
40	75	120	ARG
40	75	124	ASP
40	75	132	LYS
40	75	134	GLU
40	75	136	GLN
41	85	3	ARG
41	85	5	LYS
41	85	8	VAL
41	85	12	ARG
41	85	17	ILE
41	85	20	LEU
41	85	27	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
41	85	34	LYS
41	85	55	ARG
41	85	57	PHE
41	85	58	ARG
41	85	64	ARG
41	85	71	GLN
41	85	74	LEU
41	85	75	ASN
41	85	78	THR
41	85	83	LEU
41	85	88	ILE
41	85	92	ARG
41	85	97	ASP
42	95	7	THR
42	95	10	LYS
42	95	19	LYS
42	95	28	GLU
42	95	32	THR
42	95	33	VAL
42	95	35	LEU
42	95	40	LEU
42	95	46	VAL
42	95	47	VAL
42	95	49	THR
42	95	53	GLU
42	95	61	VAL
42	95	62	LEU
42	95	66	ARG
42	95	74	LYS
42	95	76	LYS
42	95	80	GLN
42	95	82	ARG
42	95	83	ARG
42	95	84	LYS
42	95	91	TYR
42	95	95	LEU
42	95	97	LYS
43	A5	11	ARG
43	A5	12	ILE
43	A5	19	LEU
43	A5	23	LEU
43	A5	37	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
43	A5	51	LEU
43	A5	65	LEU
43	A5	67	ASP
43	A5	68	ARG
43	A5	70	TYR
43	A5	76	VAL
43	A5	88	ARG
43	A5	90	ARG
43	A5	92	ARG
43	A5	95	ILE
43	A5	96	ILE
43	A5	97	LYS
43	A5	98	LYS
43	A5	100	THR
43	A5	107	LEU
43	A5	110	LYS
44	B5	3	THR
44	B5	12	VAL
44	B5	27	THR
44	B5	35	THR
44	B5	40	LYS
44	B5	45	THR
44	B5	48	LYS
44	B5	52	VAL
44	B5	54	VAL
44	B5	57	LEU
44	B5	63	LYS
44	B5	69	TYR
44	B5	70	LEU
44	B5	75	ASP
44	B5	78	LYS
44	B5	93	GLU
45	C5	6	HIS
45	C5	24	VAL
45	C5	29	GLU
45	C5	33	LYS
45	C5	37	VAL
45	C5	43	ASN
45	C5	44	ILE
45	C5	50	ARG
45	C5	51	VAL
45	C5	55	TYR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
45	C5	60	PHE
45	C5	62	GLU
45	C5	63	LYS
45	C5	67	LEU
45	C5	70	SER
45	C5	72	VAL
45	C5	84	ARG
45	C5	85	VAL
45	C5	88	LYS
45	C5	89	PHE
45	C5	97	ARG
45	C5	99	CYS
46	D5	9	TYR
46	D5	15	PRO
46	D5	16	SER
46	D5	19	ARG
46	D5	24	LEU
46	D5	32	HIS
46	D5	59	LEU
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	78	LYS
46	D5	79	ARG
46	D5	82	ARG
46	D5	84	GLU
46	D5	87	ASP
46	D5	98	MET
46	D5	107	THR
46	D5	111	VAL
46	D5	117	LEU
46	D5	119	GLU
46	D5	121	HIS
46	D5	122	ARG
46	D5	123	ASP
46	D5	132	ASN
46	D5	133	ILE
46	D5	136	PHE
46	D5	154	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
46	D5	161	VAL
46	D5	163	LEU
46	D5	165	VAL
46	D5	168	GLU
46	D5	170	THR
47	E5	9	SER
47	E5	11	ARG
47	E5	12	ASN
47	E5	32	ARG
47	E5	36	ILE
47	E5	43	THR
47	E5	49	LYS
47	E5	63	VAL
47	E5	74	ARG
48	F5	3	LYS
48	F5	4	VAL
48	F5	19	GLN
48	F5	38	SER
48	F5	40	ARG
48	F5	56	GLN
48	F5	57	GLU
48	F5	62	VAL
48	F5	72	GLU
48	F5	76	ARG
48	F5	78	LYS
48	F5	80	LEU
48	F5	82	LEU
48	F5	83	GLU
48	F5	85	LEU
48	F5	86	SER
48	F5	91	LYS
49	G5	5	GLU
49	G5	15	LYS
49	G5	16	LEU
49	G5	17	SER
49	G5	24	LEU
49	G5	26	ARG
49	G5	30	ARG
49	G5	40	SER
49	G5	44	LEU
49	G5	46	GLN
49	G5	47	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
49	G5	48	HIS
49	G5	53	LEU
49	G5	55	ARG
49	G5	59	ARG
49	G5	60	LEU
49	G5	65	ASN
49	G5	67	LYS
50	H5	5	LYS
50	H5	8	LEU
50	H5	17	LYS
50	H5	18	ASP
50	H5	24	LYS
50	H5	30	ARG
50	H5	32	GLN
50	H5	33	GLN
50	H5	35	ARG
50	H5	36	VAL
50	H5	38	GLU
50	H5	40	THR
50	H5	44	ARG
50	H5	57	GLU
51	I5	1	MET
51	I5	22	ILE
51	I5	27	THR
51	I5	32	TYR
51	I5	36	CYS
51	I5	39	CYS
51	I5	44	THR
51	I5	53	GLU
51	I5	59	PHE
51	I5	60	GLN
52	J5	3	LYS
52	J5	4	HIS
52	J5	8	LYS
52	J5	15	ARG
52	J5	16	ARG
52	J5	23	HIS
52	J5	25	LEU
52	J5	29	THR
52	J5	35	GLU
52	J5	48	GLU
52	J5	55	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
52	J5	57	VAL
53	K5	10	LEU
53	K5	12	GLU
53	K5	18	ARG
53	K5	28	ARG
53	K5	29	ASN
53	K5	35	GLU
53	K5	45	LYS
53	K5	47	THR
54	L5	1	MET
54	L5	2	LYS
54	L5	4	THR
54	L5	14	LYS
54	L5	32	LYS
54	L5	43	THR
55	M5	6	THR
55	M5	11	LYS
55	M5	13	ARG
55	M5	15	LYS
55	M5	21	LYS
55	M5	32	LEU
55	M5	33	ASN
55	M5	34	TRP
55	M5	50	LEU
55	M5	52	LYS
55	M5	53	PRO
55	M5	57	ARG
55	M5	58	ILE
55	M5	59	LYS
55	M5	60	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (23) such sidechains are listed below:

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
6	5E	7	ASN
13	4I	101	GLN
19	AI	14	HIS
29	21	135	HIS
30	31	75	HIS
40	B8	84	GLN
41	C8	75	ASN
43	E8	62	HIS

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Mol	Chain	Res	Type
44	F8	31	HIS
2	12	19	HIS
3	22	176	HIS
4	32	119	GLN
4	32	123	HIS
7	62	84	ASN
15	6A	53	HIS
30	39	40	GLN
33	69	104	GLN
34	15	128	HIS
37	45	89	ASN
37	45	113	GLN
43	A5	61	ASN
49	G5	48	HIS
53	K5	29	ASN

### 5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	13	1495/1522 (98%)	329 (22%)	34 (2%)
1	1G	1495/1522 (98%)	353 (23%)	37 (2%)
22	1K	74/76 (97%)	33 (44%)	3 (4%)
23	2K	76/77 (98%)	21 (27%)	2 (2%)
23	2L	76/77 (98%)	16 (21%)	1 (1%)
24	3K	72/76 (94%)	40 (55%)	6 (8%)
25	4K	12/30 (40%)	4 (33%)	0
25	4L	10/30 (33%)	3 (30%)	1 (10%)
26	14	2908/2917 (99%)	721 (24%)	52 (1%)
26	1H	2911/2917 (99%)	701 (24%)	51 (1%)
27	16	121/122 (99%)	27 (22%)	1 (0%)
27	1J	121/122 (99%)	35 (28%)	2 (1%)
56	1L	74/76 (97%)	34 (45%)	3 (4%)
57	3L	75/76 (98%)	37 (49%)	4 (5%)
All	All	9520/9640 (98%)	2354 (24%)	197 (2%)

All (2354) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	13	5	U
1	13	6	G
1	13	7	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	13	8	A
1	13	21	G
1	13	22	G
1	13	28	G
1	13	32	A
1	13	39	G
1	13	47	C
1	13	48	C
1	13	50	A
1	13	51	A
1	13	53	A
1	13	54	C
1	13	61	G
1	13	65	U
1	13	66	G
1	13	77	C
1	13	78	G
1	13	91	C
1	13	95	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	142	G
1	13	144	G
1	13	147	G
1	13	150	C
1	13	151	A
1	13	157	G
1	13	159	G
1	13	163	C
1	13	168	G
1	13	172	A
1	13	173	U
1	13	174	C
1	13	188	U
1	13	189	U
1	13	190	G
1	13	191(A)	G
1	13	195	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	13	197	A
1	13	199	G
1	13	201	C
1	13	208	U
1	13	210	U
1	13	216	G
1	13	217	C
1	13	222	U
1	13	227	G
1	13	231	G
1	13	244	U
1	13	245	C
1	13	247	G
1	13	251	G
1	13	262	A
1	13	266	G
1	13	267	C
1	13	281	G
1	13	288	A
1	13	289	G
1	13	316	G
1	13	317	G
1	13	318	G
1	13	321	A
1	13	324	G
1	13	328	C
1	13	329	A
1	13	330	C
1	13	332	G
1	13	342	C
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	367	U
1	13	372	C
1	13	373	A
1	13	383	A
1	13	384	G
1	13	388	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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	451	A
1	13	465	A
1	13	466	C
1	13	467	G
1	13	485	G
1	13	487	A
1	13	496	A
1	13	497	U
1	13	498	A
1	13	505	G
1	13	508	C
1	13	509	A
1	13	510	A
1	13	511	C
1	13	517	G
1	13	518	C
1	13	524	G
1	13	527	G
1	13	531	U
1	13	533	A
1	13	536	C
1	13	545	C
1	13	547	A
1	13	559	A
1	13	561	U
1	13	562	C
1	13	572	A
1	13	573	A
1	13	576	G
1	13	577	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	13	596	C
1	13	607	A
1	13	630	G
1	13	631	G
1	13	632	A
1	13	639	G
1	13	650	G
1	13	653	A
1	13	655	A
1	13	660	G
1	13	662	G
1	13	665	A
1	13	666	G
1	13	687	A
1	13	688	G
1	13	693	G
1	13	704	A
1	13	723	U
1	13	724	G
1	13	728	A
1	13	748	C
1	13	749	C
1	13	755	G
1	13	759	A
1	13	766	A
1	13	767	A
1	13	777	A
1	13	792	A
1	13	793	U
1	13	794	A
1	13	805	C
1	13	813	U
1	13	817	C
1	13	821	G
1	13	827	U
1	13	828	A
1	13	841	U
1	13	842	C
1	13	843	U
1	13	848	C
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	884	U
1	13	902	G
1	13	904	C
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	936	C
1	13	940	C
1	13	941	G
1	13	960	U
1	13	968	A
1	13	969	A
1	13	971	G
1	13	974	A
1	13	975	A
1	13	976	G
1	13	977	A
1	13	983	A
1	13	991	U
1	13	992	U
1	13	993	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	1021	G
1	13	1024	G
1	13	1025	U
1	13	1028	C
1	13	1029	G
1	13	1032(A)	G
1	13	1033	G
1	13	1037	C
1	13	1040	U
1	13	1042	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	13	1046	A
1	13	1049	U
1	13	1053	G
1	13	1054	C
1	13	1055	A
1	13	1064	G
1	13	1065	U
1	13	1066	C
1	13	1081	G
1	13	1094	G
1	13	1095	U
1	13	1101	A
1	13	1121	U
1	13	1122	U
1	13	1125	U
1	13	1126	U
1	13	1129	C
1	13	1130	A
1	13	1131	G
1	13	1132	C
1	13	1133	G
1	13	1136	U
1	13	1137	C
1	13	1138	G
1	13	1139	G
1	13	1144	G
1	13	1146	A
1	13	1149	C
1	13	1152	A
1	13	1154	G
1	13	1157	A
1	13	1158	C
1	13	1159	U
1	13	1171	G
1	13	1177	G
1	13	1178	G
1	13	1181	G
1	13	1191	A
1	13	1196	U
1	13	1197	G
1	13	1201	A
1	13	1204	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	13	1212	U
1	13	1213	A
1	13	1214	C
1	13	1225	A
1	13	1226	C
1	13	1227	A
1	13	1236	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	1270	C
1	13	1273	G
1	13	1278	U
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	1290	G
1	13	1299	A
1	13	1300	G
1	13	1302	U
1	13	1303	C
1	13	1317	C
1	13	1322	C
1	13	1323	G
1	13	1331	G
1	13	1335	C
1	13	1336	C
1	13	1337	G
1	13	1338	G
1	13	1340	A
1	13	1346	A
1	13	1347	G
1	13	1350	A
1	13	1353	G
1	13	1358	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	13	1363	A
1	13	1364	U
1	13	1370	G
1	13	1377	A
1	13	1379	G
1	13	1381	U
1	13	1388	C
1	13	1398	A
1	13	1419	G
1	13	1422	G
1	13	1430	C
1	13	1442	G
1	13	1443	G
1	13	1446	A
1	13	1449	C
1	13	1451	A
1	13	1452	C
1	13	1453	G
1	13	1467	G
1	13	1469	G
1	13	1487	G
1	13	1492	A
1	13	1495	U
1	13	1497	G
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	1529	G
1	13	1530	G
22	1K	7	A
22	1K	9	A
22	1K	10	G
22	1K	11	C
22	1K	13	C
22	1K	14	A
22	1K	16	U
22	1K	17	C
22	1K	18	G
22	1K	19	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
22	1K	21	A
22	1K	22	G
22	1K	24	G
22	1K	27	G
22	1K	29	G
22	1K	36	A
22	1K	44	G
22	1K	46	G
22	1K	47	U
22	1K	48	C
22	1K	49	C
22	1K	52	G
22	1K	53	G
22	1K	55	PSU
22	1K	59	U
22	1K	61	C
22	1K	64	A
22	1K	68	C
22	1K	70	G
22	1K	73	A
22	1K	74	C
22	1K	75	C
22	1K	76	A
23	2K	2	G
23	2K	6	G
23	2K	9	G
23	2K	13	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	31	G
23	2K	35	C
23	2K	48	U
23	2K	49	C
23	2K	50	G
23	2K	53	G
23	2K	54	G
23	2K	59	A
23	2K	62	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
23	2K	68	C
23	2K	77	A
24	3K	2	C
24	3K	3	C
24	3K	7	A
24	3K	8	U
24	3K	9	A
24	3K	10	G
24	3K	13	C
24	3K	14	A
24	3K	17	C
24	3K	19	G
24	3K	20	U
24	3K	21	A
24	3K	22	G
24	3K	24	G
24	3K	26	A
24	3K	33	U
24	3K	36	A
24	3K	38	A
24	3K	39	PSU
24	3K	41	C
24	3K	42	C
24	3K	43	C
24	3K	45	U
24	3K	46	G
24	3K	47	U
24	3K	48	C
24	3K	49	C
24	3K	52	G
24	3K	55	U
24	3K	56	C
24	3K	58	A
24	3K	59	U
24	3K	60	U
24	3K	61	C
24	3K	65	G
24	3K	66	U
24	3K	69	G
24	3K	72	C
24	3K	73	A
24	3K	76	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	4K	14	A
25	4K	15	A
25	4K	22	A
25	4K	25	A
26	1H	5	A
26	1H	9	U
26	1H	12	U
26	1H	27	G
26	1H	34	C
26	1H	39	C
26	1H	46	C
26	1H	51	G
26	1H	61	G
26	1H	63	U
26	1H	64	A
26	1H	71	A
26	1H	74	A
26	1H	75	G
26	1H	85	G
26	1H	93	C
26	1H	95	G
26	1H	118	A
26	1H	119	A
26	1H	120	U
26	1H	125	G
26	1H	126	A
26	1H	140	A
26	1H	151	C
26	1H	155	C
26	1H	163	U
26	1H	164	U
26	1H	171	G
26	1H	181	A
26	1H	188	G
26	1H	196	A
26	1H	199	A
26	1H	200	U
26	1H	213	A
26	1H	214	G
26	1H	215	G
26	1H	216	A
26	1H	222	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	223	A
26	1H	224	G
26	1H	228	A
26	1H	229	A
26	1H	230	U
26	1H	233	A
26	1H	248	G
26	1H	252	G
26	1H	261	G
26	1H	266	G
26	1H	270(F)	U
26	1H	270(K)	C
26	1H	270(M)	U
26	1H	270(N)	G
26	1H	270(P)	C
26	1H	271(B)	G
26	1H	271(C)	U
26	1H	271	G
26	1H	274	G
26	1H	275	G
26	1H	278	A
26	1H	299	A
26	1H	304	G
26	1H	311	A
26	1H	323	G
26	1H	324	A
26	1H	329	G
26	1H	330	A
26	1H	340	A
26	1H	352	G
26	1H	354	G
26	1H	357	A
26	1H	363	G
26	1H	364	C
26	1H	370	G
26	1H	372	G
26	1H	375	C
26	1H	380	U
26	1H	382	G
26	1H	386	G
26	1H	396	G
26	1H	399	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	405	U
26	1H	407	G
26	1H	411	G
26	1H	427	U
26	1H	428	A
26	1H	431	U
26	1H	443	A
26	1H	444	C
26	1H	446	G
26	1H	448	U
26	1H	449	A
26	1H	451	C
26	1H	454	A
26	1H	455	C
26	1H	457	A
26	1H	459	U
26	1H	470	A
26	1H	471	A
26	1H	478	A
26	1H	481	G
26	1H	482	A
26	1H	494	G
26	1H	505	A
26	1H	508	G
26	1H	509	C
26	1H	513	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	547	A
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	583	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	587	C
26	1H	588	U
26	1H	603	A
26	1H	607	U
26	1H	609(A)	G
26	1H	613	U
26	1H	614	U
26	1H	615	G
26	1H	617	G
26	1H	618(A)	C
26	1H	621	A
26	1H	622	G
26	1H	626	U
26	1H	627	A
26	1H	637	A
26	1H	640	C
26	1H	644	A
26	1H	645	C
26	1H	646	A
26	1H	652	C
26	1H	654	A
26	1H	654(A)	A
26	1H	654(B)	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(O)	G
26	1H	654(T)	A
26	1H	664	C
26	1H	669	G
26	1H	678	C
26	1H	686	G
26	1H	690	G
26	1H	717	G
26	1H	729	G
26	1H	730	C
26	1H	731	C
26	1H	736	C
26	1H	752	A
26	1H	753	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	764	A
26	1H	765	G
26	1H	770	G
26	1H	775	G
26	1H	776	G
26	1H	777	A
26	1H	779	U
26	1H	782	A
26	1H	784	A
26	1H	785	G
26	1H	789	A
26	1H	790	C
26	1H	791	C
26	1H	792	G
26	1H	805	G
26	1H	812	C
26	1H	824	A
26	1H	827	U
26	1H	828	U
26	1H	829	A
26	1H	831	G
26	1H	832	G
26	1H	845	G
26	1H	846	C
26	1H	847	U
26	1H	858	U
26	1H	859	G
26	1H	860	U
26	1H	866	A
26	1H	879	G
26	1H	880	G
26	1H	881	G
26	1H	882	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	892	G
26	1H	893	C
26	1H	894	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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	907	U
26	1H	910	A
26	1H	917	A
26	1H	918	A
26	1H	925	C
26	1H	932	G
26	1H	938	G
26	1H	940	G
26	1H	941	A
26	1H	946	G
26	1H	947	G
26	1H	952	G
26	1H	959	A
26	1H	961	C
26	1H	962	G
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	1003	G
26	1H	1005	C
26	1H	1011	G
26	1H	1012	U
26	1H	1013	C
26	1H	1015	G
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	1028	A
26	1H	1031	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	1033	U
26	1H	1037	G
26	1H	1046	A
26	1H	1047	G
26	1H	1054	A
26	1H	1057	A
26	1H	1061	U
26	1H	1062	G
26	1H	1064	C
26	1H	1067	A
26	1H	1068	G
26	1H	1070	A
26	1H	1071	G
26	1H	1072	C
26	1H	1073	A
26	1H	1075	C
26	1H	1076	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
26	1H	1085	A
26	1H	1086	A
26	1H	1087	G
26	1H	1088	A
26	1H	1090	U
26	1H	1095	A
26	1H	1096	A
26	1H	1097	U
26	1H	1104	C
26	1H	1106	G
26	1H	1107	G
26	1H	1111	A
26	1H	1112	G
26	1H	1122	G
26	1H	1128	A
26	1H	1129	A
26	1H	1130	U
26	1H	1131	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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	1151	G
26	1H	1156	A
26	1H	1171	G
26	1H	1176	G
26	1H	1178	C
26	1H	1179	C
26	1H	1180	C
26	1H	1194	A
26	1H	1195	G
26	1H	1204	A
26	1H	1205	U
26	1H	1210	A
26	1H	1218	C
26	1H	1220	A
26	1H	1225	C
26	1H	1228	G
26	1H	1237	A
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	1268	A
26	1H	1269	A
26	1H	1271	G
26	1H	1272	A
26	1H	1274	A
26	1H	1300	U
26	1H	1301	A
26	1H	1313	U
26	1H	1314	C
26	1H	1321	A
26	1H	1329	U
26	1H	1330	C
26	1H	1342	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	1344	G
26	1H	1345	C
26	1H	1347	G
26	1H	1348	G
26	1H	1349	A
26	1H	1352	U
26	1H	1359	A
26	1H	1360	A
26	1H	1365	A
26	1H	1368	G
26	1H	1369	G
26	1H	1370	C
26	1H	1379	A
26	1H	1380	G
26	1H	1384	A
26	1H	1385	G
26	1H	1386	C
26	1H	1416	G
26	1H	1420	U
26	1H	1421	G
26	1H	1422	G
26	1H	1424	G
26	1H	1428	C
26	1H	1431	U
26	1H	1442	G
26	1H	1444(A)	A
26	1H	1449(A)	G
26	1H	1453	A
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	1483	G
26	1H	1490	A
26	1H	1493	C
26	1H	1495	A
26	1H	1497	U
26	1H	1507	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	1508	A
26	1H	1509	C
26	1H	1510	A
26	1H	1511	A
26	1H	1522	G
26	1H	1526	G
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	1555	G
26	1H	1558	A
26	1H	1559	G
26	1H	1560	G
26	1H	1566	A
26	1H	1569	A
26	1H	1577	C
26	1H	1578	U
26	1H	1580	A
26	1H	1586	A
26	1H	1594	G
26	1H	1608	A
26	1H	1609	A
26	1H	1610	A
26	1H	1611	C
26	1H	1612	C
26	1H	1616	A
26	1H	1617	C
26	1H	1622	G
26	1H	1635	G
26	1H	1639	U
26	1H	1644	C
26	1H	1647	G
26	1H	1648	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	1651	G
26	1H	1654	A
26	1H	1674	G
26	1H	1685	C
26	1H	1695	G
26	1H	1706	U
26	1H	1728	G
26	1H	1729	A
26	1H	1730	U
26	1H	1731	G
26	1H	1746	G
26	1H	1756	G
26	1H	1758	G
26	1H	1763	G
26	1H	1764	G
26	1H	1772	G
26	1H	1773	A
26	1H	1782	C
26	1H	1787	A
26	1H	1788	C
26	1H	1791	A
26	1H	1799	G
26	1H	1800	C
26	1H	1801	G
26	1H	1811	G
26	1H	1812	A
26	1H	1816	G
26	1H	1827	C
26	1H	1829	A
26	1H	1835	G
26	1H	1836	C
26	1H	1837	C
26	1H	1839	G
26	1H	1847	A
26	1H	1858	G
26	1H	1860	G
26	1H	1870	C
26	1H	1878	G
26	1H	1889	A
26	1H	1897	G
26	1H	1900	A
26	1H	1901	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	1905	C
26	1H	1906	G
26	1H	1913	A
26	1H	1914	C
26	1H	1916	A
26	1H	1919	A
26	1H	1926	U
26	1H	1929	G
26	1H	1930	G
26	1H	1931	U
26	1H	1936	A
26	1H	1937	A
26	1H	1938	A
26	1H	1951	U
26	1H	1952	A
26	1H	1955	U
26	1H	1959	G
26	1H	1961	C
26	1H	1963	U
26	1H	1965	C
26	1H	1967	C
26	1H	1969	A
26	1H	1970	A
26	1H	1971	A
26	1H	1972	A
26	1H	1993	U
26	1H	2020	A
26	1H	2021	C
26	1H	2023	G
26	1H	2030	A
26	1H	2031	A
26	1H	2033	A
26	1H	2043	C
26	1H	2051	A
26	1H	2055	C
26	1H	2056	G
26	1H	2058	A
26	1H	2060	A
26	1H	2061	G
26	1H	2062	A
26	1H	2063	C
26	1H	2069	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	2077	A
26	1H	2080	G
26	1H	2099	U
26	1H	2108	C
26	1H	2111	C
26	1H	2112	G
26	1H	2113	U
26	1H	2114	A
26	1H	2116	G
26	1H	2118	U
26	1H	2120	G
26	1H	2125	G
26	1H	2126	A
26	1H	2127	G
26	1H	2128	C
26	1H	2129	C
26	1H	2131	G
26	1H	2132	U
26	1H	2133	G
26	1H	2135	A
26	1H	2136	C
26	1H	2139	C
26	1H	2147	G
26	1H	2148	G
26	1H	2154	G
26	1H	2157	G
26	1H	2158	A
26	1H	2161	C
26	1H	2166	G
26	1H	2167	U
26	1H	2168	G
26	1H	2170	A
26	1H	2171	A
26	1H	2172	U
26	1H	2173	A
26	1H	2174	C
26	1H	2175	C
26	1H	2176	A
26	1H	2181	G
26	1H	2185	C
26	1H	2190	G
26	1H	2198	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	2199	A
26	1H	2205	C
26	1H	2210	G
26	1H	2212	A
26	1H	2213	U
26	1H	2215	G
26	1H	2224	G
26	1H	2225	A
26	1H	2226	C
26	1H	2237	G
26	1H	2238	G
26	1H	2239	G
26	1H	2240	C
26	1H	2250	G
26	1H	2254	C
26	1H	2263	C
26	1H	2267	A
26	1H	2273	A
26	1H	2275	C
26	1H	2280	G
26	1H	2283	C
26	1H	2286	A
26	1H	2287	A
26	1H	2298	A
26	1H	2305	A
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	2318	G
26	1H	2319	G
26	1H	2320	A
26	1H	2321	G
26	1H	2325	G
26	1H	2326	C
26	1H	2327	A
26	1H	2334	G
26	1H	2336	A
26	1H	2343	C
26	1H	2346	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	2347	C
26	1H	2350	C
26	1H	2376	A
26	1H	2377	A
26	1H	2383	G
26	1H	2385	C
26	1H	2389	G
26	1H	2390	U
26	1H	2395	C
26	1H	2402	C
26	1H	2403	C
26	1H	2405	G
26	1H	2406	U
26	1H	2418	A
26	1H	2425	A
26	1H	2428	G
26	1H	2429	G
26	1H	2430	A
26	1H	2431	U
26	1H	2435	A
26	1H	2439	A
26	1H	2440	C
26	1H	2441	C
26	1H	2448	A
26	1H	2468	G
26	1H	2469	A
26	1H	2470	G
26	1H	2475	C
26	1H	2476	A
26	1H	2478	A
26	1H	2482	G
26	1H	2484	G
26	1H	2498	C
26	1H	2502	G
26	1H	2505	G
26	1H	2506	U
26	1H	2518	A
26	1H	2529	G
26	1H	2553	G
26	1H	2554	U
26	1H	2556	C
26	1H	2566	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	2567	G
26	1H	2573	C
26	1H	2582	G
26	1H	2590	A
26	1H	2594	C
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	2615	U
26	1H	2629	A
26	1H	2630	G
26	1H	2634	G
26	1H	2636	U
26	1H	2654	A
26	1H	2660	A
26	1H	2665	A
26	1H	2666	C
26	1H	2667	C
26	1H	2673	G
26	1H	2682	U
26	1H	2689	U
26	1H	2701	C
26	1H	2702	U
26	1H	2703	C
26	1H	2704	C
26	1H	2705	A
26	1H	2707	G
26	1H	2712(A)	A
26	1H	2713	A
26	1H	2714	G
26	1H	2718	G
26	1H	2726	U
26	1H	2733	A
26	1H	2734	A
26	1H	2744	G
26	1H	2756	U
26	1H	2757	A
26	1H	2758	A
26	1H	2764	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	2765	A
26	1H	2766	G
26	1H	2778	A
26	1H	2779	U
26	1H	2781	A
26	1H	2787	C
26	1H	2789	C
26	1H	2790	A
26	1H	2791	C
26	1H	2793	G
26	1H	2794	C
26	1H	2795	G
26	1H	2797	U
26	1H	2799	A
26	1H	2801	A
26	1H	2802	G
26	1H	2807	G
26	1H	2808	U
26	1H	2820	A
26	1H	2821	A
26	1H	2830	G
26	1H	2833	G
26	1H	2834	G
26	1H	2835	A
26	1H	2847	U
26	1H	2872	G
26	1H	2891	G
26	1H	2892	A
26	1H	2893	G
26	1H	2894	G
26	1H	2895	U
26	1H	2899	G
26	1H	2902	C
27	16	0	A
27	16	1	U
27	16	3	C
27	16	5	C
27	16	8	U
27	16	9	G
27	16	12	C
27	16	13	A
27	16	15	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
27	16	16	G
27	16	25	A
27	16	33	G
27	16	39	A
27	16	42	C
27	16	45	A
27	16	48	A
27	16	52	A
27	16	53	A
27	16	56	G
27	16	65	C
27	16	73	A
27	16	105	G
27	16	107	U
27	16	109	G
27	16	115	G
27	16	117	G
27	16	119	A
1	1G	5	U
1	1G	7	G
1	1G	9	G
1	1G	22	G
1	1G	31	G
1	1G	32	A
1	1G	39	G
1	1G	47	C
1	1G	48	C
1	1G	50	A
1	1G	51	A
1	1G	54	C
1	1G	65	U
1	1G	73	G
1	1G	76	G
1	1G	79	G
1	1G	80	G
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	131	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1G	154	C
1	1G	163	C
1	1G	173	U
1	1G	174	C
1	1G	182	U
1	1G	186	C
1	1G	187	C
1	1G	188	U
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	210	U
1	1G	216	G
1	1G	231	G
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	274	A
1	1G	280	C
1	1G	281	G
1	1G	283	C
1	1G	289	G
1	1G	298	A
1	1G	308	C
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

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1G	349	A
1	1G	350	G
1	1G	351	G
1	1G	352	C
1	1G	353	A
1	1G	354	G
1	1G	356	A
1	1G	363	A
1	1G	367	U
1	1G	369	C
1	1G	372	C
1	1G	384	G
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	414	A
1	1G	421	U
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	465	A
1	1G	466	C
1	1G	467	G
1	1G	475	G
1	1G	478	A
1	1G	484	G
1	1G	485	G
1	1G	486	U
1	1G	496	A
1	1G	497	U
1	1G	502	G
1	1G	505	G
1	1G	509	A
1	1G	510	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1G	511	C
1	1G	517	G
1	1G	518	C
1	1G	521	G
1	1G	527	G
1	1G	530	G
1	1G	531	U
1	1G	532	A
1	1G	533	A
1	1G	536	C
1	1G	547	A
1	1G	553	A
1	1G	559	A
1	1G	561	U
1	1G	562	C
1	1G	566	G
1	1G	567	G
1	1G	572	A
1	1G	573	A
1	1G	574	A
1	1G	576	G
1	1G	581	G
1	1G	596	C
1	1G	607	A
1	1G	608	A
1	1G	618	C
1	1G	630	G
1	1G	632	A
1	1G	633	G
1	1G	651	C
1	1G	653	A
1	1G	657	G
1	1G	665	A
1	1G	669	U
1	1G	670	G
1	1G	687	A
1	1G	688	G
1	1G	723	U
1	1G	724	G
1	1G	731	G
1	1G	734	G
1	1G	749	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1G	755	G
1	1G	760	G
1	1G	764	C
1	1G	777	A
1	1G	778	G
1	1G	792	A
1	1G	793	U
1	1G	794	A
1	1G	799	G
1	1G	809	G
1	1G	813	U
1	1G	816	A
1	1G	817	C
1	1G	821	G
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	873	A
1	1G	876	G
1	1G	885	G
1	1G	914	A
1	1G	916	G
1	1G	926	G
1	1G	927	G
1	1G	933	G
1	1G	934	C
1	1G	935	A
1	1G	936	C
1	1G	954	G
1	1G	958	A
1	1G	960	U
1	1G	961	U
1	1G	966	G
1	1G	968	A
1	1G	969	A
1	1G	971	G
1	1G	972	C
1	1G	974	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1G	975	A
1	1G	976	G
1	1G	977	A
1	1G	978	A
1	1G	980	C
1	1G	983	A
1	1G	984	C
1	1G	991	U
1	1G	992	U
1	1G	993	G
1	1G	995	C
1	1G	1004	A
1	1G	1006	C
1	1G	1009	G
1	1G	1013	G
1	1G	1023	G
1	1G	1024	G
1	1G	1025	U
1	1G	1028	C
1	1G	1028(B)	C
1	1G	1029	G
1	1G	1031	G
1	1G	1032(A)	G
1	1G	1033	G
1	1G	1035	A
1	1G	1036	G
1	1G	1038	C
1	1G	1040	U
1	1G	1046	A
1	1G	1047	G
1	1G	1050	G
1	1G	1051	C
1	1G	1053	G
1	1G	1054	C
1	1G	1055	A
1	1G	1056	U
1	1G	1064	G
1	1G	1081	G
1	1G	1086	U
1	1G	1088	G
1	1G	1092	A
1	1G	1094	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1G	1095	U
1	1G	1099	G
1	1G	1101	A
1	1G	1113	C
1	1G	1124	G
1	1G	1125	U
1	1G	1128	C
1	1G	1129	C
1	1G	1130	A
1	1G	1131	G
1	1G	1135	U
1	1G	1137	C
1	1G	1138	G
1	1G	1139	G
1	1G	1146	A
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	1178	G
1	1G	1181	G
1	1G	1183	A
1	1G	1185	G
1	1G	1188	A
1	1G	1196	U
1	1G	1197	G
1	1G	1201	A
1	1G	1202	G
1	1G	1209	C
1	1G	1211	U
1	1G	1212	U
1	1G	1213	A
1	1G	1214	C
1	1G	1225	A
1	1G	1227	A
1	1G	1232	U
1	1G	1238	A
1	1G	1240	U
1	1G	1241	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1G	1256	A
1	1G	1257	U
1	1G	1258	G
1	1G	1260	C
1	1G	1263	C
1	1G	1267	C
1	1G	1269	A
1	1G	1274	G
1	1G	1275	A
1	1G	1278	U
1	1G	1279	A
1	1G	1280	A
1	1G	1281	U
1	1G	1286	A
1	1G	1287	A
1	1G	1288	A
1	1G	1293	G
1	1G	1297	C
1	1G	1298	C
1	1G	1299	A
1	1G	1300	G
1	1G	1301	U
1	1G	1303	C
1	1G	1305	G
1	1G	1312	G
1	1G	1317	C
1	1G	1319	A
1	1G	1320	C
1	1G	1322	C
1	1G	1323	G
1	1G	1331	G
1	1G	1335	C
1	1G	1336	C
1	1G	1337	G
1	1G	1338	G
1	1G	1346	A
1	1G	1347	G
1	1G	1362(A)	C
1	1G	1363	A
1	1G	1364	U
1	1G	1370	G
1	1G	1379	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1G	1382	C
1	1G	1386	G
1	1G	1396	A
1	1G	1397	C
1	1G	1398	A
1	1G	1399	C
1	1G	1400	C
1	1G	1401	G
1	1G	1406	U
1	1G	1419	G
1	1G	1442	G
1	1G	1443	G
1	1G	1446	A
1	1G	1447	G
1	1G	1450	U
1	1G	1451	A
1	1G	1452	C
1	1G	1453	G
1	1G	1454	G
1	1G	1469	G
1	1G	1492	A
1	1G	1498	U
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	1519	A
1	1G	1520	G
1	1G	1525	G
1	1G	1528	U
1	1G	1529	G
1	1G	1530	G
56	1L	8	U
56	1L	9	A
56	1L	11	C
56	1L	16	U
56	1L	17	C
56	1L	18	G
56	1L	19	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
56	1L	20	U
56	1L	21	A
56	1L	22	G
56	1L	25	C
56	1L	26	A
56	1L	27	G
56	1L	29	G
56	1L	31	A
56	1L	32	PSU
56	1L	34	G
56	1L	38	A
56	1L	41	C
56	1L	46	G
56	1L	47	U
56	1L	48	C
56	1L	51	U
56	1L	57	G
56	1L	58	A
56	1L	60	U
56	1L	61	C
56	1L	68	C
56	1L	69	G
56	1L	70	G
56	1L	73	A
56	1L	74	C
56	1L	75	C
56	1L	76	A
23	2L	6	G
23	2L	15	G
23	2L	16	C
23	2L	17	C
23	2L	18	C
23	2L	19	G
23	2L	20	G
23	2L	21	U
23	2L	23	G
23	2L	47	7MG
23	2L	48	U
23	2L	49	C
23	2L	50	G
23	2L	53	G
23	2L	55	5MU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
23	2L	57	C
57	3L	2	C
57	3L	4	C
57	3L	9	A
57	3L	13	C
57	3L	16	U
57	3L	17	C
57	3L	18	G
57	3L	19	G
57	3L	20	U
57	3L	21	A
57	3L	22	G
57	3L	26	A
57	3L	31	A
57	3L	32	PSU
57	3L	33	U
57	3L	34	G
57	3L	37	A
57	3L	39	U
57	3L	40	C
57	3L	42	C
57	3L	44	G
57	3L	45	U
57	3L	46	7MG
57	3L	47	U
57	3L	48	C
57	3L	53	G
57	3L	54	5MU
57	3L	55	PSU
57	3L	58	A
57	3L	59	U
57	3L	60	U
57	3L	61	C
57	3L	62	C
57	3L	66	U
57	3L	72	C
57	3L	73	A
57	3L	76	A
25	4L	13	A
25	4L	14	A
25	4L	20	C
26	14	2	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	3	U
26	14	4	C
26	14	5	A
26	14	9	U
26	14	15	G
26	14	34	C
26	14	35	G
26	14	36	G
26	14	46	C
26	14	49	A
26	14	50	U
26	14	58	G
26	14	70	G
26	14	71	A
26	14	72	U
26	14	74	A
26	14	75	G
26	14	78	A
26	14	84	A
26	14	91	A
26	14	93	C
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	125	G
26	14	129	C
26	14	131	G
26	14	138	G
26	14	139	G
26	14	140	A
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
26	14	181	A
26	14	182	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	196	A
26	14	199	A
26	14	201	C
26	14	205	G
26	14	215	G
26	14	216	A
26	14	221	A
26	14	222	A
26	14	225	A
26	14	229	A
26	14	233	A
26	14	248	G
26	14	249	C
26	14	250	G
26	14	252	G
26	14	265	A
26	14	267	C
26	14	270(K)	C
26	14	270(L)	U
26	14	270(M)	U
26	14	270(N)	G
26	14	270(O)	U
26	14	270(P)	C
26	14	271(B)	G
26	14	271	G
26	14	273(C)	C
26	14	273(D)	C
26	14	274	G
26	14	275	G
26	14	277	C
26	14	278	A
26	14	279	C
26	14	283	A
26	14	289	A
26	14	290	G
26	14	298	G
26	14	299	A
26	14	310	A
26	14	311	A
26	14	324	A
26	14	327	G
26	14	329	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	330	A
26	14	352	G
26	14	362	U
26	14	363	G
26	14	363(A)	A
26	14	363(E)	U
26	14	363(F)	A
26	14	372	G
26	14	380	U
26	14	382	G
26	14	386	G
26	14	396	G
26	14	405	U
26	14	406	G
26	14	411	G
26	14	412	A
26	14	416	C
26	14	426	C
26	14	428	A
26	14	443	A
26	14	444	C
26	14	448	U
26	14	455	C
26	14	457	A
26	14	470	A
26	14	480	A
26	14	481	G
26	14	498	G
26	14	501	A
26	14	504	U
26	14	505	A
26	14	509	C
26	14	529	A
26	14	531	C
26	14	532	A
26	14	533	G
26	14	537	C
26	14	546	C
26	14	549	G
26	14	556	G
26	14	563	G
26	14	564	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	573	G
26	14	575	A
26	14	584	C
26	14	586	A
26	14	587	C
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	619	G
26	14	620	G
26	14	621	A
26	14	622	G
26	14	627	A
26	14	634	C
26	14	637	A
26	14	645	C
26	14	646	A
26	14	650	C
26	14	651	G
26	14	654	A
26	14	654(E)	C
26	14	654(G)	C
26	14	654(H)	G
26	14	654(I)	C
26	14	654(K)	C
26	14	654(L)	G
26	14	654(O)	G
26	14	654(T)	A
26	14	655	A
26	14	668	G
26	14	669	G
26	14	686	G
26	14	701	G
26	14	708	C
26	14	717	G
26	14	722	A
26	14	730	C
26	14	731	C
26	14	732	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	738	G
26	14	740	U
26	14	750	A
26	14	752	A
26	14	753	C
26	14	764	A
26	14	765	G
26	14	770	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	789	A
26	14	792	G
26	14	800	A
26	14	805	G
26	14	812	C
26	14	814	C
26	14	816	C
26	14	819	A
26	14	820	A
26	14	827	U
26	14	828	U
26	14	830	G
26	14	831	G
26	14	832	G
26	14	840	C
26	14	846	C
26	14	848	G
26	14	859	G
26	14	860	U
26	14	863	A
26	14	865	C
26	14	866	A
26	14	874	G
26	14	878	A
26	14	880	G
26	14	881	G
26	14	882	G
26	14	885	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	886	C
26	14	887	A
26	14	888	C
26	14	889	C
26	14	890	A
26	14	894	C
26	14	896	A
26	14	897	C
26	14	899	A
26	14	900	A
26	14	901	A
26	14	903	C
26	14	904	C
26	14	906	G
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	933	A
26	14	938	G
26	14	941	A
26	14	945	A
26	14	946	G
26	14	958	U
26	14	959	A
26	14	961	C
26	14	974	G
26	14	977	G
26	14	980	A
26	14	983	A
26	14	989	G
26	14	990	A
26	14	991	C
26	14	996	A
26	14	1002	G
26	14	1009	A
26	14	1011	G
26	14	1012	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	1013	C
26	14	1015	G
26	14	1017	G
26	14	1020	A
26	14	1022	G
26	14	1023	U
26	14	1025	G
26	14	1026	U
26	14	1037	G
26	14	1039	G
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	1051	G
26	14	1057	A
26	14	1060	U
26	14	1062	G
26	14	1064	C
26	14	1065	U
26	14	1067	A
26	14	1068	G
26	14	1070	A
26	14	1072	C
26	14	1073	A
26	14	1077	A
26	14	1079	C
26	14	1082	U
26	14	1083	U
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	1095	A
26	14	1096	A
26	14	1098	A
26	14	1105	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	1111	A
26	14	1112	G
26	14	1122	G
26	14	1128	A
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	1142(A)	A
26	14	1143	A
26	14	1151	G
26	14	1155	A
26	14	1157	G
26	14	1160	G
26	14	1167	U
26	14	1170	G
26	14	1173	G
26	14	1174	A
26	14	1175	U
26	14	1177	A
26	14	1178	C
26	14	1187	G
26	14	1188	U
26	14	1204	A
26	14	1205	U
26	14	1212	G
26	14	1213	A
26	14	1220	A
26	14	1230	C
26	14	1244	G
26	14	1253	A
26	14	1256	G
26	14	1268	A
26	14	1271	G
26	14	1272	A
26	14	1273	U
26	14	1293	C
26	14	1296	G
26	14	1298	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	1300	U
26	14	1301	A
26	14	1303	G
26	14	1314	C
26	14	1317	A
26	14	1318	C
26	14	1319	G
26	14	1321	A
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	1359	A
26	14	1360	A
26	14	1365	A
26	14	1368	G
26	14	1369	G
26	14	1370	C
26	14	1378	A
26	14	1380	G
26	14	1384	A
26	14	1385	G
26	14	1386	C
26	14	1395	A
26	14	1400	G
26	14	1407	C
26	14	1416	G
26	14	1417	C
26	14	1419	A
26	14	1420	U
26	14	1421	G
26	14	1422	G
26	14	1424	G
26	14	1427	A
26	14	1428	C
26	14	1437	C
26	14	1444(A)	A
26	14	1445	C
26	14	1449	A
26	14	1449(A)	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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	1478	G
26	14	1482	U
26	14	1483	G
26	14	1490	A
26	14	1492	G
26	14	1493	C
26	14	1494	A
26	14	1508	A
26	14	1509	C
26	14	1510	A
26	14	1515	C
26	14	1516	U
26	14	1520	U
26	14	1523	U
26	14	1533	C
26	14	1535	U
26	14	1537	C
26	14	1543	A
26	14	1547	C
26	14	1554	A
26	14	1558	A
26	14	1559	G
26	14	1560	G
26	14	1566	A
26	14	1569	A
26	14	1578	U
26	14	1585	C
26	14	1586	A
26	14	1588	C
26	14	1594	G
26	14	1598	C
26	14	1608	A
26	14	1609	A
26	14	1616	A
26	14	1618	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	1620	G
26	14	1622	G
26	14	1647	G
26	14	1648	C
26	14	1654	A
26	14	1660	C
26	14	1671	U
26	14	1674	G
26	14	1682	G
26	14	1696	G
26	14	1700	A
26	14	1701	A
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	1743	G
26	14	1753	G
26	14	1754	C
26	14	1756	G
26	14	1762	A
26	14	1763	G
26	14	1764	G
26	14	1773	A
26	14	1780	A
26	14	1782	C
26	14	1791	A
26	14	1800	C
26	14	1801	G
26	14	1811	G
26	14	1813	G
26	14	1816	G
26	14	1820	U
26	14	1829	A
26	14	1839	G
26	14	1847	A
26	14	1848	A
26	14	1858	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	1878	G
26	14	1883	G
26	14	1899	G
26	14	1906	G
26	14	1913	A
26	14	1915	U
26	14	1917	U
26	14	1929	G
26	14	1930	G
26	14	1936	A
26	14	1937	A
26	14	1938	A
26	14	1952	A
26	14	1955	U
26	14	1960	A
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	1980	G
26	14	1985	G
26	14	1986	A
26	14	1993	U
26	14	2016	U
26	14	2020	A
26	14	2023	G
26	14	2031	A
26	14	2033	A
26	14	2043	C
26	14	2048	G
26	14	2049	G
26	14	2055	C
26	14	2056	G
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	2071	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	2082	A
26	14	2093	G
26	14	2099	U
26	14	2100	G
26	14	2108	C
26	14	2111	C
26	14	2112	G
26	14	2113	U
26	14	2114	A
26	14	2117	A
26	14	2118	U
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	2136	C
26	14	2137	C
26	14	2140	C
26	14	2144	U
26	14	2145	C
26	14	2146	C
26	14	2147	G
26	14	2150	U
26	14	2157	G
26	14	2158	A
26	14	2165	G
26	14	2166	G
26	14	2167	U
26	14	2168	G
26	14	2173	A
26	14	2174	C
26	14	2189	U
26	14	2191	G
26	14	2192	G
26	14	2198	A
26	14	2207	C
26	14	2210	G
26	14	2211	G
26	14	2212	A
26	14	2213	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	2215	G
26	14	2225	A
26	14	2226	C
26	14	2236	C
26	14	2238	G
26	14	2239	G
26	14	2245	U
26	14	2246	G
26	14	2249	U
26	14	2253	G
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	2280	G
26	14	2281	C
26	14	2283	C
26	14	2286	A
26	14	2287	A
26	14	2294	C
26	14	2298	A
26	14	2307	G
26	14	2308	G
26	14	2310	A
26	14	2311	A
26	14	2318	G
26	14	2321	G
26	14	2325	G
26	14	2327	A
26	14	2334	G
26	14	2335	A
26	14	2336	A
26	14	2342	C
26	14	2346	A
26	14	2347	C
26	14	2350	C
26	14	2353	G
26	14	2354	G
26	14	2355	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	2360	A
26	14	2372	G
26	14	2383	G
26	14	2385	C
26	14	2388	A
26	14	2389	G
26	14	2392	A
26	14	2395	C
26	14	2396	G
26	14	2401	U
26	14	2402	C
26	14	2403	C
26	14	2406	U
26	14	2411	A
26	14	2413	G
26	14	2414	G
26	14	2418	A
26	14	2422	A
26	14	2424	C
26	14	2425	A
26	14	2428	G
26	14	2429	G
26	14	2430	A
26	14	2431	U
26	14	2435	A
26	14	2439	A
26	14	2440	C
26	14	2441	C
26	14	2448	A
26	14	2449	U
26	14	2469	A
26	14	2470	G
26	14	2472	G
26	14	2474	C
26	14	2475	C
26	14	2476	A
26	14	2477	C
26	14	2478	A
26	14	2482	G
26	14	2484	G
26	14	2486	G
26	14	2496	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	2497	A
26	14	2498	C
26	14	2502	G
26	14	2505	G
26	14	2506	U
26	14	2507	C
26	14	2518	A
26	14	2520	C
26	14	2528	U
26	14	2529	G
26	14	2532	G
26	14	2536	G
26	14	2542	A
26	14	2543	G
26	14	2554	U
26	14	2555	U
26	14	2566	A
26	14	2567	G
26	14	2569	G
26	14	2573	C
26	14	2579	C
26	14	2584	U
26	14	2585	U
26	14	2602	A
26	14	2603	G
26	14	2609	U
26	14	2611	U
26	14	2612	C
26	14	2613	U
26	14	2615	U
26	14	2617	C
26	14	2630	G
26	14	2636	U
26	14	2641	G
26	14	2665	A
26	14	2667	C
26	14	2670	A
26	14	2673	G
26	14	2682	U
26	14	2689	U
26	14	2690	C
26	14	2700	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	2702	U
26	14	2703	C
26	14	2704	C
26	14	2707	G
26	14	2709	G
26	14	2712(A)	A
26	14	2713	A
26	14	2726	U
26	14	2733	A
26	14	2739	U
26	14	2744	G
26	14	2750	A
26	14	2751	G
26	14	2752	C
26	14	2754	U
26	14	2758	A
26	14	2761	G
26	14	2762	G
26	14	2764	A
26	14	2765	A
26	14	2766	G
26	14	2769	C
26	14	2777	G
26	14	2778	A
26	14	2779	U
26	14	2786	U
26	14	2787	C
26	14	2790	A
26	14	2791	C
26	14	2794	C
26	14	2795	G
26	14	2797	U
26	14	2798	C
26	14	2818	G
26	14	2820	A
26	14	2821	A
26	14	2833	G
26	14	2834	G
26	14	2849	U
26	14	2860	A
26	14	2872	G
26	14	2873	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	2880	C
26	14	2885	C
26	14	2886	G
26	14	2894	G
26	14	2896	C
26	14	2898	U
27	1J	0	A
27	1J	7	G
27	1J	8	U
27	1J	13	A
27	1J	15	A
27	1J	16	G
27	1J	19	G
27	1J	22	U
27	1J	24	G
27	1J	29	A
27	1J	30	C
27	1J	40	U
27	1J	41	U
27	1J	42	C
27	1J	45	A
27	1J	47	C
27	1J	53	A
27	1J	58	A
27	1J	63	G
27	1J	64	C
27	1J	73	A
27	1J	75	G
27	1J	76	G
27	1J	81	G
27	1J	88	C
27	1J	89	G
27	1J	89(A)	A
27	1J	90	C
27	1J	97	G
27	1J	99	A
27	1J	100	G
27	1J	101	A
27	1J	108	C
27	1J	109	G
27	1J	114	G

All (197) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	13	5	U
1	13	50	A
1	13	115	G
1	13	190	G
1	13	244	U
1	13	266	G
1	13	412	A
1	13	413	G
1	13	428	G
1	13	429	U
1	13	484	G
1	13	496	A
1	13	509	A
1	13	560	U
1	13	687	A
1	13	703	G
1	13	748	C
1	13	793	U
1	13	812	C
1	13	991	U
1	13	992	U
1	13	1027	C
1	13	1053	G
1	13	1054	C
1	13	1064	G
1	13	1065	U
1	13	1285	A
1	13	1300	G
1	13	1302	U
1	13	1322	C
1	13	1336	C
1	13	1452	C
1	13	1498	U
1	13	1504	G
22	1K	9	A
22	1K	10	G
22	1K	18	G
23	2K	21	U
23	2K	48	U
24	3K	2	C
24	3K	8	U
24	3K	18	G
24	3K	46	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
24	3K	58	A
24	3K	60	U
26	1H	33	U
26	1H	125	G
26	1H	196	A
26	1H	199	A
26	1H	222	A
26	1H	229	A
26	1H	249	C
26	1H	271(B)	G
26	1H	404	C
26	1H	456	C
26	1H	481	G
26	1H	508	G
26	1H	587	C
26	1H	685	A
26	1H	752	A
26	1H	764	A
26	1H	776	G
26	1H	880	G
26	1H	974	G
26	1H	974(A)	C
26	1H	1022	G
26	1H	1026	U
26	1H	1060	U
26	1H	1085	A
26	1H	1110	G
26	1H	1178	C
26	1H	1312	U
26	1H	1420	U
26	1H	1427	A
26	1H	1460	A
26	1H	1508	A
26	1H	1558	A
26	1H	1608	A
26	1H	1609	A
26	1H	1617	C
26	1H	1694	C
26	1H	1757	U
26	1H	1799	G
26	1H	1900	A
26	1H	2062	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	2157	G
26	1H	2171	A
26	1H	2199	A
26	1H	2428	G
26	1H	2439	A
26	1H	2447	G
26	1H	2475	C
26	1H	2481	G
26	1H	2566	A
26	1H	2611	U
26	1H	2756	U
27	16	108	C
1	1G	64	G
1	1G	115	G
1	1G	197	A
1	1G	250	A
1	1G	266	G
1	1G	327	A
1	1G	328	C
1	1G	345	C
1	1G	412	A
1	1G	429	U
1	1G	485	G
1	1G	509	A
1	1G	560	U
1	1G	561	U
1	1G	632	A
1	1G	687	A
1	1G	723	U
1	1G	748	C
1	1G	793	U
1	1G	812	C
1	1G	884	U
1	1G	913	A
1	1G	992	U
1	1G	1053	G
1	1G	1054	C
1	1G	1128	C
1	1G	1137	C
1	1G	1145	C
1	1G	1157	A
1	1G	1285	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1G	1297	C
1	1G	1298	C
1	1G	1300	G
1	1G	1346	A
1	1G	1400	C
1	1G	1453	G
1	1G	1498	U
56	1L	10	G
56	1L	18	G
56	1L	19	G
23	2L	48	U
57	3L	8	4SU
57	3L	32	PSU
57	3L	52	G
57	3L	58	A
25	4L	12	A
26	14	34	C
26	14	49	A
26	14	101	G
26	14	128	C
26	14	199	A
26	14	278	A
26	14	310	A
26	14	503	A
26	14	575	A
26	14	627	A
26	14	752	A
26	14	764	A
26	14	784	A
26	14	893	C
26	14	974	G
26	14	990	A
26	14	1022	G
26	14	1085	A
26	14	1141	U
26	14	1378	A
26	14	1396	U
26	14	1416	G
26	14	1420	U
26	14	1427	A
26	14	1460	A
26	14	1558	A

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Mol	Chain	Res	Type
26	14	1608	A
26	14	1647	G
26	14	1819	A
26	14	1963	U
26	14	1984	G
26	14	2062	A
26	14	2157	G
26	14	2191	G
26	14	2211	G
26	14	2212	A
26	14	2225	A
26	14	2275	C
26	14	2335	A
26	14	2402	C
26	14	2406	U
26	14	2439	A
26	14	2447	G
26	14	2506	U
26	14	2602	A
26	14	2611	U
26	14	2629	A
26	14	2689	U
26	14	2776	A
26	14	2790	A
26	14	2859	G
26	14	2893	G
27	1J	56	G
27	1J	88	C

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

28 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	PSU	1K	32	58,22	18,21,22	1.47	2 (11%)	22,30,33	1.72	4 (18%)
22	PSU	1K	55	22	18,21,22	1.39	2 (11%)	22,30,33	1.37	4 (18%)
23	4SU	2K	8	23	18,21,22	1.72	3 (16%)	26,30,33	3.12	5 (19%)
23	5MU	2K	55	58,23	19,22,23	3.98	5 (26%)	28,32,35	3.39	8 (28%)
23	PSU	2K	56	23	18,21,22	1.04	1 (5%)	22,30,33	2.02	4 (18%)
23	OMC	2L	33	23	19,22,23	1.82	3 (15%)	26,31,34	1.29	4 (15%)
22	5MU	1K	54	22	19,22,23	3.93	5 (26%)	28,32,35	3.19	9 (32%)
57	7MG	3L	46	57	22,26,27	3.41	6 (27%)	29,39,42	2.82	12 (41%)
22	MIA	1K	37	22	24,31,32	2.49	4 (16%)	26,44,47	3.34	7 (26%)
22	4SU	1K	8	22	18,21,22	1.82	5 (27%)	26,30,33	2.15	5 (19%)
23	4SU	2L	8	23	18,21,22	1.97	5 (27%)	26,30,33	2.44	5 (19%)
57	PSU	3L	55	57	18,21,22	1.24	1 (5%)	22,30,33	1.46	4 (18%)
23	PSU	2L	56	23	18,21,22	1.43	2 (11%)	22,30,33	1.74	2 (9%)
24	MIA	3K	37	58,24	24,31,32	2.57	5 (20%)	26,44,47	2.48	8 (30%)
57	4SU	3L	8	57	18,21,22	2.05	5 (27%)	26,30,33	1.97	5 (19%)
24	PSU	3K	39	24	18,21,22	1.23	1 (5%)	22,30,33	1.47	3 (13%)
23	7MG	2L	47	23	22,26,27	3.24	5 (22%)	29,39,42	2.74	12 (41%)
56	PSU	1L	32	56	18,21,22	1.22	1 (5%)	22,30,33	1.73	5 (22%)
56	MIA	1L	37	56	24,31,32	2.41	4 (16%)	26,44,47	3.20	7 (26%)
56	PSU	1L	39	56	18,21,22	1.09	1 (5%)	22,30,33	1.46	3 (13%)
56	5MU	1L	54	56	19,22,23	4.04	5 (26%)	28,32,35	3.07	7 (25%)
24	PSU	3K	32	24	18,21,22	1.31	1 (5%)	22,30,33	1.72	4 (18%)
22	PSU	1K	39	22	18,21,22	1.16	1 (5%)	22,30,33	1.76	3 (13%)
23	OMC	2K	33	23	19,22,23	1.93	3 (15%)	26,31,34	1.14	2 (7%)
57	PSU	3L	32	57	18,21,22	1.28	2 (11%)	22,30,33	1.99	7 (31%)
23	5MU	2L	55	23	19,22,23	4.06	5 (26%)	28,32,35	3.41	11 (39%)
23	7MG	2K	47	23	22,26,27	3.10	6 (27%)	29,39,42	2.60	10 (34%)
57	5MU	3L	54	57	19,22,23	3.96	5 (26%)	28,32,35	3.03	11 (39%)

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	PSU	1K	32	58,22	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
22	PSU	1K	55	22	-	3/7/25/26	0/2/2/2
23	4SU	2K	8	23	-	0/7/25/26	0/2/2/2
23	5MU	2K	55	58,23	-	0/7/25/26	0/2/2/2
23	PSU	2K	56	23	-	0/7/25/26	0/2/2/2
23	OMC	2L	33	23	-	0/9/27/28	0/2/2/2
22	5MU	1K	54	22	-	0/7/25/26	0/2/2/2
57	7MG	3L	46	57	-	0/7/37/38	0/3/3/3
22	MIA	1K	37	22	-	2/11/33/34	0/3/3/3
22	4SU	1K	8	22	-	0/7/25/26	0/2/2/2
23	4SU	2L	8	23	-	2/7/25/26	0/2/2/2
57	PSU	3L	55	57	-	2/7/25/26	0/2/2/2
23	PSU	2L	56	23	-	0/7/25/26	0/2/2/2
24	MIA	3K	37	58,24	-	6/11/33/34	0/3/3/3
57	4SU	3L	8	57	-	0/7/25/26	0/2/2/2
24	PSU	3K	39	24	-	4/7/25/26	0/2/2/2
23	7MG	2L	47	23	-	0/7/37/38	0/3/3/3
56	PSU	1L	32	56	-	1/7/25/26	0/2/2/2
56	MIA	1L	37	56	-	9/11/33/34	0/3/3/3
56	PSU	1L	39	56	-	0/7/25/26	0/2/2/2
56	5MU	1L	54	56	-	0/7/25/26	0/2/2/2
24	PSU	3K	32	24	-	2/7/25/26	0/2/2/2
22	PSU	1K	39	22	-	0/7/25/26	0/2/2/2
23	OMC	2K	33	23	-	0/9/27/28	0/2/2/2
57	PSU	3L	32	57	-	1/7/25/26	0/2/2/2
23	5MU	2L	55	23	-	3/7/25/26	0/2/2/2
23	7MG	2K	47	23	-	2/7/37/38	0/3/3/3
57	5MU	3L	54	57	-	2/7/25/26	0/2/2/2

All (94) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2K	55	5MU	C2-N1	13.10	1.59	1.38
56	1L	54	5MU	C2-N1	13.08	1.59	1.38
23	2L	55	5MU	C2-N1	13.02	1.59	1.38
22	1K	54	5MU	C2-N1	12.17	1.58	1.38
57	3L	54	5MU	C2-N1	12.03	1.57	1.38
57	3L	46	7MG	C5-N7	9.91	1.47	1.35
22	1K	37	MIA	C13-C14	9.28	1.59	1.32
57	3L	46	7MG	C4-N9	-9.20	1.27	1.37
24	3K	37	MIA	C13-C14	9.06	1.58	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2L	47	7MG	C4-N9	-8.82	1.27	1.37
56	1L	37	MIA	C13-C14	8.80	1.57	1.32
23	2L	47	7MG	C5-N7	8.66	1.45	1.35
23	2K	47	7MG	C5-N7	8.28	1.45	1.35
23	2K	47	7MG	C4-N9	-8.23	1.28	1.37
24	3K	37	MIA	C6-N6	6.58	1.46	1.34
57	3L	54	5MU	C6-N1	6.40	1.49	1.38
56	1L	54	5MU	C6-N1	6.31	1.48	1.38
22	1K	54	5MU	C6-N1	6.27	1.48	1.38
23	2K	55	5MU	C2-N3	6.27	1.49	1.38
56	1L	54	5MU	C2-N3	6.22	1.49	1.38
57	3L	54	5MU	C2-N3	6.19	1.49	1.38
57	3L	8	4SU	C5-C4	6.14	1.50	1.42
22	1K	54	5MU	C2-N3	6.09	1.48	1.38
23	2L	55	5MU	C4-C5	6.06	1.54	1.44
23	2L	55	5MU	C2-N3	6.06	1.48	1.38
23	2L	47	7MG	C4-N3	6.01	1.48	1.34
57	3L	54	5MU	C4-C5	5.95	1.54	1.44
23	2L	55	5MU	C4-N3	-5.92	1.27	1.38
22	1K	37	MIA	C6-N6	5.77	1.45	1.34
23	2L	8	4SU	C5-C4	5.76	1.50	1.42
23	2K	55	5MU	C6-N1	5.76	1.47	1.38
22	1K	54	5MU	C4-N3	-5.69	1.28	1.38
22	1K	54	5MU	C4-C5	5.61	1.54	1.44
57	3L	54	5MU	C4-N3	-5.61	1.28	1.38
56	1L	54	5MU	C4-N3	-5.60	1.28	1.38
23	2L	55	5MU	C6-N1	5.51	1.47	1.38
23	2K	47	7MG	C4-N3	5.46	1.47	1.34
23	2K	55	5MU	C4-N3	-5.44	1.28	1.38
57	3L	46	7MG	C4-N3	5.42	1.47	1.34
22	1K	8	4SU	C5-C4	5.39	1.49	1.42
23	2K	33	OMC	C2-N3	5.30	1.47	1.36
56	1L	37	MIA	C6-N6	5.09	1.43	1.34
23	2K	8	4SU	C5-C4	5.07	1.49	1.42
23	2L	33	OMC	C2-N3	4.90	1.46	1.36
56	1L	54	5MU	C4-C5	4.90	1.52	1.44
23	2K	55	5MU	C4-C5	4.86	1.52	1.44
22	1K	32	PSU	C6-C5	4.72	1.40	1.35
22	1K	55	PSU	C6-C5	4.63	1.40	1.35
24	3K	32	PSU	C6-C5	4.58	1.40	1.35
23	2L	56	PSU	C6-C5	4.56	1.40	1.35
23	2L	47	7MG	C5-C4	-4.51	1.23	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2K	33	OMC	C4-N4	4.48	1.44	1.33
57	3L	46	7MG	C5-C4	-4.40	1.23	1.38
23	2L	33	OMC	C4-N4	4.38	1.44	1.33
24	3K	39	PSU	C6-C5	4.27	1.40	1.35
56	1L	32	PSU	C6-C5	4.25	1.40	1.35
56	1L	37	MIA	C2-S10	4.22	1.79	1.75
23	2K	47	7MG	C5-C4	-4.19	1.24	1.38
57	3L	32	PSU	C6-C5	4.11	1.40	1.35
57	3L	55	PSU	C6-C5	4.09	1.40	1.35
57	3L	8	4SU	C2-N1	3.98	1.44	1.38
22	1K	39	PSU	C6-C5	3.77	1.39	1.35
23	2K	33	OMC	C5-C4	3.70	1.51	1.42
22	1K	8	4SU	C2-N1	3.57	1.44	1.38
23	2L	8	4SU	C2-N1	3.55	1.44	1.38
56	1L	39	PSU	C6-C5	3.41	1.39	1.35
23	2L	33	OMC	C5-C4	3.41	1.50	1.42
24	3K	37	MIA	C2-S10	3.31	1.78	1.75
23	2L	47	7MG	C2-N2	3.30	1.42	1.34
23	2L	8	4SU	C6-N1	3.22	1.45	1.38
23	2K	47	7MG	C8-N9	3.17	1.47	1.46
23	2K	8	4SU	C2-N1	3.17	1.43	1.38
57	3L	8	4SU	C6-N1	3.12	1.45	1.38
23	2K	56	PSU	C6-C5	3.09	1.38	1.35
57	3L	46	7MG	C2-N2	2.99	1.41	1.34
23	2L	56	PSU	C2-N1	2.84	1.40	1.36
22	1K	37	MIA	C15-C14	2.79	1.57	1.50
23	2K	47	7MG	C2-N2	2.74	1.40	1.34
23	2L	8	4SU	C4-N3	2.65	1.40	1.37
22	1K	8	4SU	C6-N1	2.61	1.44	1.38
23	2K	8	4SU	C6-N1	2.60	1.44	1.38
22	1K	32	PSU	C2-N1	2.58	1.40	1.36
24	3K	37	MIA	C6-N1	2.54	1.36	1.32
57	3L	46	7MG	C5-C6	2.44	1.49	1.43
56	1L	37	MIA	C6-N1	2.44	1.36	1.32
24	3K	37	MIA	C15-C14	2.29	1.56	1.50
57	3L	32	PSU	O4'-C1'	-2.28	1.40	1.43
22	1K	37	MIA	C4-N3	-2.24	1.32	1.35
22	1K	55	PSU	C2-N1	2.21	1.39	1.36
57	3L	8	4SU	C2-N3	2.20	1.41	1.38
57	3L	8	4SU	C4-N3	2.18	1.40	1.37
22	1K	8	4SU	C2-N3	2.16	1.41	1.38
22	1K	8	4SU	C4-N3	2.12	1.39	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2L	8	4SU	C2-N3	2.04	1.41	1.38

All (171) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	1K	37	MIA	C11-S10-C2	11.81	111.09	102.27
22	1K	54	5MU	C5-C4-N3	11.34	124.99	115.31
23	2K	55	5MU	C5-C4-N3	11.22	124.89	115.31
56	1L	37	MIA	C11-S10-C2	11.02	110.49	102.27
56	1L	54	5MU	C5-C4-N3	10.39	124.18	115.31
23	2K	8	4SU	C4-N3-C2	-10.27	117.36	127.34
57	3L	54	5MU	C5-C4-N3	9.43	123.36	115.31
22	1K	37	MIA	C12-C13-C14	-9.11	109.42	127.14
23	2K	8	4SU	C5-C4-N3	9.06	123.09	114.69
23	2L	55	5MU	C5-C4-N3	9.04	123.02	115.31
24	3K	37	MIA	C12-C13-C14	-8.41	110.78	127.14
23	2L	8	4SU	C4-N3-C2	-8.04	119.53	127.34
56	1L	37	MIA	C12-C13-C14	-7.83	111.91	127.14
23	2L	55	5MU	C6-C5-C4	7.46	124.27	118.03
57	3L	46	7MG	C5-C4-N9	7.37	115.92	106.35
22	1K	8	4SU	C4-N3-C2	-7.12	120.42	127.34
23	2K	55	5MU	O4-C4-C5	-6.97	116.82	124.90
23	2L	55	5MU	C4-N3-C2	-6.80	118.55	127.35
23	2K	55	5MU	C4-N3-C2	-6.69	118.69	127.35
23	2L	47	7MG	C4-C5-N7	6.63	114.73	105.53
23	2L	55	5MU	C5-C6-N1	-6.60	116.55	123.34
23	2K	47	7MG	C4-C5-N7	6.60	114.69	105.53
57	3L	8	4SU	C4-N3-C2	-6.53	121.00	127.34
57	3L	46	7MG	CM7-N7-C5	6.16	142.31	126.40
23	2L	8	4SU	C5-C4-N3	6.09	120.34	114.69
22	1K	54	5MU	C4-N3-C2	-6.03	119.54	127.35
23	2K	55	5MU	C5-C6-N1	-6.01	117.15	123.34
23	2K	47	7MG	C5-C4-N9	5.89	114.00	106.35
56	1L	54	5MU	O4-C4-C5	-5.67	118.33	124.90
23	2K	55	5MU	C6-C5-C4	5.63	122.74	118.03
57	3L	54	5MU	C4-N3-C2	-5.60	120.10	127.35
23	2L	47	7MG	C5-C4-N9	5.57	113.57	106.35
22	1K	54	5MU	C5-C6-N1	-5.55	117.63	123.34
56	1L	54	5MU	C4-N3-C2	-5.52	120.20	127.35
23	2L	47	7MG	CM7-N7-C5	5.47	140.51	126.40
23	2K	47	7MG	CM7-N7-C5	5.25	139.96	126.40
57	3L	46	7MG	C4-C5-N7	5.20	112.75	105.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	2L	55	5MU	C5M-C5-C6	-5.18	115.93	122.85
57	3L	54	5MU	C5M-C5-C6	-5.08	116.06	122.85
23	2K	56	PSU	C4-N3-C2	-5.07	119.04	126.34
22	1K	8	4SU	C5-C4-N3	5.00	119.33	114.69
23	2K	8	4SU	C5-C4-S4	-4.99	118.03	124.47
23	2L	56	PSU	C4-N3-C2	-4.80	119.42	126.34
56	1L	54	5MU	C5-C6-N1	-4.72	118.48	123.34
57	3L	46	7MG	C5-C6-N1	4.71	119.29	110.99
23	2L	47	7MG	C5-C6-N1	4.68	119.24	110.99
23	2L	8	4SU	C5-C4-S4	-4.67	118.45	124.47
22	1K	37	MIA	C5-C6-N1	-4.67	116.94	120.81
23	2K	56	PSU	N1-C2-N3	4.66	120.42	115.13
56	1L	54	5MU	C6-C5-C4	4.64	121.91	118.03
22	1K	54	5MU	O4-C4-C5	-4.64	119.53	124.90
56	1L	32	PSU	C4-N3-C2	-4.61	119.70	126.34
57	3L	54	5MU	C5-C6-N1	-4.60	118.61	123.34
23	2K	47	7MG	C6-C5-N7	-4.55	124.77	131.91
22	1K	54	5MU	C5M-C5-C6	-4.50	116.83	122.85
57	3L	54	5MU	C6-C5-C4	4.50	121.79	118.03
57	3L	8	4SU	C5-C4-N3	4.45	118.82	114.69
56	1L	37	MIA	C2-N3-C4	4.39	121.38	115.32
22	1K	39	PSU	C4-N3-C2	-4.39	120.01	126.34
24	3K	32	PSU	N1-C2-N3	4.39	120.10	115.13
56	1L	32	PSU	N1-C2-N3	4.38	120.09	115.13
56	1L	37	MIA	C15-C14-C13	-4.35	110.07	122.65
57	3L	32	PSU	N1-C2-N3	4.35	120.05	115.13
57	3L	32	PSU	C4-N3-C2	-4.34	120.08	126.34
24	3K	32	PSU	C4-N3-C2	-4.33	120.09	126.34
23	2K	8	4SU	N3-C2-N1	4.32	120.62	114.89
22	1K	32	PSU	N1-C2-N3	4.31	120.02	115.13
23	2K	56	PSU	O2-C2-N1	-4.26	118.10	122.79
22	1K	32	PSU	C4-N3-C2	-4.25	120.21	126.34
22	1K	39	PSU	N1-C2-N3	4.24	119.93	115.13
24	3K	37	MIA	C5-C6-N1	-4.18	117.34	120.81
56	1L	54	5MU	C5M-C5-C6	-4.11	117.36	122.85
23	2L	47	7MG	N9-C8-N7	-4.09	97.53	103.38
57	3L	8	4SU	N3-C2-N1	4.06	120.27	114.89
23	2L	8	4SU	N3-C2-N1	3.98	120.17	114.89
23	2L	47	7MG	C6-C5-N7	-3.97	125.66	131.91
57	3L	46	7MG	C2-N3-C4	3.96	119.36	112.30
56	1L	39	PSU	C4-N3-C2	-3.95	120.65	126.34
22	1K	54	5MU	C6-C5-C4	3.90	121.29	118.03

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	2L	55	5MU	N3-C2-N1	3.88	120.03	114.89
23	2L	56	PSU	N1-C2-N3	3.87	119.52	115.13
23	2K	55	5MU	C5M-C5-C6	-3.86	117.69	122.85
57	3L	54	5MU	C6-N1-C2	-3.85	117.40	121.30
22	1K	8	4SU	C5-C4-S4	-3.83	119.53	124.47
23	2K	47	7MG	C5-C6-N1	3.82	117.72	110.99
57	3L	55	PSU	C4-N3-C2	-3.77	120.90	126.34
23	2L	47	7MG	C2-N3-C4	3.76	119.00	112.30
22	1K	8	4SU	N3-C2-N1	3.74	119.85	114.89
23	2L	55	5MU	C6-N1-C2	-3.71	117.54	121.30
24	3K	39	PSU	N1-C2-N3	3.71	119.33	115.13
24	3K	39	PSU	C4-N3-C2	-3.69	121.02	126.34
57	3L	54	5MU	O4-C4-C5	-3.65	120.67	124.90
57	3L	46	7MG	N9-C8-N7	-3.60	98.22	103.38
23	2K	47	7MG	N9-C8-N7	-3.58	98.26	103.38
23	2L	55	5MU	O4-C4-C5	-3.51	120.83	124.90
56	1L	37	MIA	C16-C14-C13	-3.48	112.58	122.65
24	3K	37	MIA	C4-C5-N7	-3.45	105.80	109.40
24	3K	37	MIA	C2-N3-C4	3.43	120.05	115.32
23	2L	47	7MG	O6-C6-C5	-3.42	119.16	127.54
56	1L	54	5MU	C6-N1-C2	-3.40	117.85	121.30
57	3L	54	5MU	O2-C2-N1	-3.39	118.28	122.79
22	1K	37	MIA	C4-C5-N7	-3.37	105.89	109.40
57	3L	46	7MG	N2-C2-N1	3.35	123.85	116.71
23	2L	33	OMC	N4-C4-N3	3.34	123.84	117.97
24	3K	37	MIA	C16-C14-C13	-3.31	113.09	122.65
23	2L	33	OMC	C5-C4-N4	-3.26	115.44	120.57
22	1K	37	MIA	C16-C14-C13	-3.19	113.43	122.65
57	3L	32	PSU	O4'-C1'-C2'	3.19	109.64	105.14
22	1K	32	PSU	C6-N1-C2	-3.15	119.46	122.68
22	1K	55	PSU	C4-N3-C2	-3.15	121.80	126.34
22	1K	37	MIA	C15-C14-C13	-3.14	113.57	122.65
23	2L	47	7MG	C5-C4-N3	-3.13	122.17	128.13
57	3L	54	5MU	C5M-C5-C4	3.07	122.15	118.77
57	3L	55	PSU	N1-C2-N3	3.06	118.59	115.13
23	2K	47	7MG	O6-C6-C5	-3.01	120.17	127.54
23	2K	47	7MG	C5-C4-N3	-2.96	122.49	128.13
23	2K	33	OMC	N4-C4-N3	2.94	123.12	117.97
57	3L	46	7MG	N9-C4-N3	-2.93	121.08	125.47
57	3L	54	5MU	N3-C2-N1	2.89	118.73	114.89
24	3K	37	MIA	C15-C14-C13	-2.88	114.32	122.65
22	1K	55	PSU	N1-C2-N3	2.88	118.39	115.13

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	1K	54	5MU	C5M-C5-C4	2.83	121.88	118.77
56	1L	37	MIA	N3-C2-N1	-2.82	121.79	126.98
23	2L	55	5MU	C1'-N1-C6	2.78	125.75	121.12
22	1K	39	PSU	C6-N1-C2	-2.78	119.84	122.68
23	2L	8	4SU	O2-C2-N1	-2.77	119.10	122.79
23	2K	47	7MG	C2-N1-C6	-2.76	120.06	125.10
24	3K	32	PSU	C6-N1-C2	-2.75	119.87	122.68
56	1L	37	MIA	C4-C5-N7	-2.71	106.58	109.40
57	3L	46	7MG	C5-C4-N3	-2.69	123.01	128.13
57	3L	46	7MG	C2-N1-C6	-2.69	120.20	125.10
56	1L	39	PSU	N1-C2-N3	2.63	118.11	115.13
57	3L	32	PSU	C3'-C2'-C1'	2.59	104.65	101.64
23	2K	47	7MG	C2-N3-C4	2.59	116.91	112.30
22	1K	54	5MU	O2-C2-N1	-2.57	119.37	122.79
23	2L	47	7MG	C2-N1-C6	-2.57	120.42	125.10
23	2K	33	OMC	C5-C4-N4	-2.53	116.59	120.57
57	3L	46	7MG	O6-C6-C5	-2.47	121.47	127.54
23	2L	33	OMC	C1'-N1-C2	2.47	123.94	118.42
23	2L	55	5MU	O2-C2-N1	-2.47	119.51	122.79
23	2K	56	PSU	C6-N1-C2	-2.46	120.16	122.68
57	3L	32	PSU	O2-C2-N1	-2.43	120.12	122.79
22	1K	54	5MU	O4-C4-N3	-2.42	115.48	120.12
22	1K	55	PSU	C6-N1-C2	-2.38	120.25	122.68
23	2L	33	OMC	C1'-N1-C6	-2.36	115.69	120.84
23	2K	55	5MU	C6-N1-C2	-2.31	118.96	121.30
57	3L	32	PSU	C6-N1-C2	-2.30	120.33	122.68
57	3L	8	4SU	C5-C4-S4	-2.29	121.51	124.47
24	3K	32	PSU	O2-C2-N1	-2.28	120.28	122.79
22	1K	37	MIA	C2-N3-C4	2.28	118.46	115.32
57	3L	55	PSU	O4'-C1'-C2'	2.25	108.32	105.14
57	3L	8	4SU	O2-C2-N1	-2.21	119.85	122.79
22	1K	8	4SU	O2-C2-N1	-2.20	119.87	122.79
56	1L	39	PSU	C6-C5-C4	-2.19	116.66	118.20
24	3K	37	MIA	C2-N1-C6	2.18	121.08	117.19
24	3K	39	PSU	C6-N1-C2	-2.17	120.46	122.68
57	3L	54	5MU	O4-C4-N3	-2.17	115.96	120.12
57	3L	46	7MG	C6-C5-C4	-2.16	118.17	122.62
22	1K	55	PSU	O2-C2-N1	-2.13	120.44	122.79
24	3K	37	MIA	O5'-C5'-C4'	2.12	116.22	108.99
57	3L	55	PSU	O2-C2-N1	-2.12	120.46	122.79
56	1L	32	PSU	O4'-C1'-C2'	2.10	108.11	105.14
23	2L	55	5MU	O4-C4-N3	-2.08	116.13	120.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	1L	32	PSU	O2-C2-N1	-2.07	120.51	122.79
23	2L	47	7MG	N2-C2-N1	2.06	121.09	116.71
56	1L	32	PSU	C6-N1-C2	-2.03	120.60	122.68
23	2K	8	4SU	C1'-N1-C2	2.03	121.24	117.57
57	3L	32	PSU	C6-C5-C4	2.02	119.61	118.20
22	1K	32	PSU	O2-C2-N1	-2.01	120.58	122.79
23	2L	47	7MG	N1-C2-N3	-2.01	119.57	123.32
23	2K	55	5MU	N3-C2-N1	2.00	117.55	114.89

There are no chirality outliers.

All (39) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
24	3K	32	PSU	C2'-C1'-C5-C6
24	3K	37	MIA	C4'-C5'-O5'-P
24	3K	37	MIA	O4'-C4'-C5'-O5'
24	3K	37	MIA	C3'-C4'-C5'-O5'
24	3K	37	MIA	C5-C6-N6-C12
24	3K	37	MIA	C12-C13-C14-C15
56	1L	32	PSU	C2'-C1'-C5-C4
56	1L	37	MIA	O4'-C4'-C5'-O5'
56	1L	37	MIA	C5-C6-N6-C12
56	1L	37	MIA	N1-C2-S10-C11
56	1L	37	MIA	N3-C2-S10-C11
56	1L	37	MIA	N6-C12-C13-C14
56	1L	37	MIA	C12-C13-C14-C15
56	1L	37	MIA	C12-C13-C14-C16
22	1K	37	MIA	C12-C13-C14-C15
22	1K	37	MIA	C12-C13-C14-C16
57	3L	32	PSU	C4'-C5'-O5'-P
57	3L	55	PSU	C2'-C1'-C5-C6
23	2K	47	7MG	O4'-C4'-C5'-O5'
56	1L	37	MIA	C3'-C4'-C5'-O5'
24	3K	39	PSU	C3'-C4'-C5'-O5'
24	3K	39	PSU	O4'-C4'-C5'-O5'
23	2L	55	5MU	C3'-C4'-C5'-O5'
23	2L	55	5MU	O4'-C4'-C5'-O5'
24	3K	37	MIA	N1-C6-N6-C12
56	1L	37	MIA	N1-C6-N6-C12
23	2K	47	7MG	C3'-C4'-C5'-O5'
22	1K	55	PSU	O4'-C4'-C5'-O5'
57	3L	54	5MU	O4'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
22	1K	55	PSU	C3'-C4'-C5'-O5'
57	3L	54	5MU	C3'-C4'-C5'-O5'
23	2L	8	4SU	O4'-C4'-C5'-O5'
23	2L	55	5MU	C4'-C5'-O5'-P
24	3K	39	PSU	O4'-C1'-C5-C4
22	1K	55	PSU	O4'-C1'-C5-C4
23	2L	8	4SU	C3'-C4'-C5'-O5'
24	3K	32	PSU	O4'-C1'-C5-C6
24	3K	39	PSU	O4'-C1'-C5-C6
57	3L	55	PSU	O4'-C1'-C5-C6

There are no ring outliers.

22 monomers are involved in 43 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
22	1K	55	PSU	1	0
23	2K	8	4SU	1	0
23	2K	55	5MU	3	0
23	2K	56	PSU	2	0
23	2L	33	OMC	2	0
22	1K	54	5MU	1	0
57	3L	46	7MG	3	0
22	1K	8	4SU	1	0
23	2L	8	4SU	2	0
57	3L	55	PSU	2	0
23	2L	56	PSU	2	0
24	3K	37	MIA	2	0
57	3L	8	4SU	5	0
24	3K	39	PSU	2	0
23	2L	47	7MG	3	0
56	1L	37	MIA	1	0
56	1L	39	PSU	1	0
56	1L	54	5MU	2	0
57	3L	32	PSU	3	0
23	2L	55	5MU	2	0
23	2K	47	7MG	3	0
57	3L	54	5MU	2	0

## 5.5 Carbohydrates

There are no monosaccharides in this entry.

## 5.6 Ligand geometry

Of 1246 ligands modelled in this entry, 1244 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
59	PAR	1G	1697	-	45,45,45	0.87	3 (6%)	64,67,67	1.64	15 (23%)
59	PAR	13	1749	-	45,45,45	0.71	1 (2%)	64,67,67	1.59	15 (23%)

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
59	PAR	1G	1697	-	-	5/18/94/94	0/4/4/4
59	PAR	13	1749	-	-	5/18/94/94	0/4/4/4

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	1G	1697	PAR	C24-N24	-2.79	1.43	1.47
59	1G	1697	PAR	C34-C24	-2.37	1.50	1.53
59	1G	1697	PAR	C31-C21	-2.02	1.51	1.53
59	13	1749	PAR	C21-N21	-2.02	1.44	1.47

All (30) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	1G	1697	PAR	C13-O52-C52	-4.53	106.75	117.96
59	1G	1697	PAR	C14-O33-C33	-4.08	107.88	117.96
59	13	1749	PAR	C14-O54-C54	3.94	121.42	113.69
59	1G	1697	PAR	C34-C24-N24	-3.36	104.17	111.05
59	1G	1697	PAR	O11-C11-C21	-3.31	102.51	108.22
59	13	1749	PAR	O61-C61-C51	-3.29	100.01	111.29
59	13	1749	PAR	C22-C12-C62	-3.22	105.17	110.04

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	1G	1697	PAR	O33-C14-C24	2.91	113.23	108.22
59	1G	1697	PAR	O52-C13-O43	-2.83	108.37	111.43
59	13	1749	PAR	C11-O51-C51	2.78	119.15	113.69
59	13	1749	PAR	O51-C51-C41	2.77	114.72	109.69
59	13	1749	PAR	O11-C42-C32	-2.74	102.64	109.18
59	13	1749	PAR	C11-C21-C31	2.73	117.37	110.21
59	13	1749	PAR	O54-C54-C44	2.67	114.54	109.69
59	13	1749	PAR	O34-C34-C44	-2.49	104.59	110.35
59	13	1749	PAR	O52-C13-O43	-2.45	108.78	111.43
59	1G	1697	PAR	O62-C62-C52	2.42	116.35	109.94
59	1G	1697	PAR	C14-O54-C54	2.37	118.34	113.69
59	13	1749	PAR	O43-C13-C23	-2.33	101.97	104.98
59	1G	1697	PAR	C11-O51-C51	2.32	118.23	113.69
59	1G	1697	PAR	O51-C11-C21	2.29	115.21	110.06
59	1G	1697	PAR	C62-C12-N12	-2.27	106.47	110.97
59	1G	1697	PAR	O52-C13-C23	2.26	112.64	107.96
59	1G	1697	PAR	C41-C31-C21	-2.24	107.22	111.07
59	13	1749	PAR	C11-C21-N21	-2.21	106.23	110.20
59	1G	1697	PAR	O54-C54-C44	2.19	113.67	109.69
59	1G	1697	PAR	O11-C42-C32	-2.14	104.07	109.18
59	13	1749	PAR	C14-C24-C34	-2.04	104.87	110.21
59	13	1749	PAR	O11-C11-O51	-2.01	105.06	110.67
59	13	1749	PAR	C62-C52-C42	-2.01	107.07	111.66

There are no chirality outliers.

All (10) torsion outliers are listed below:

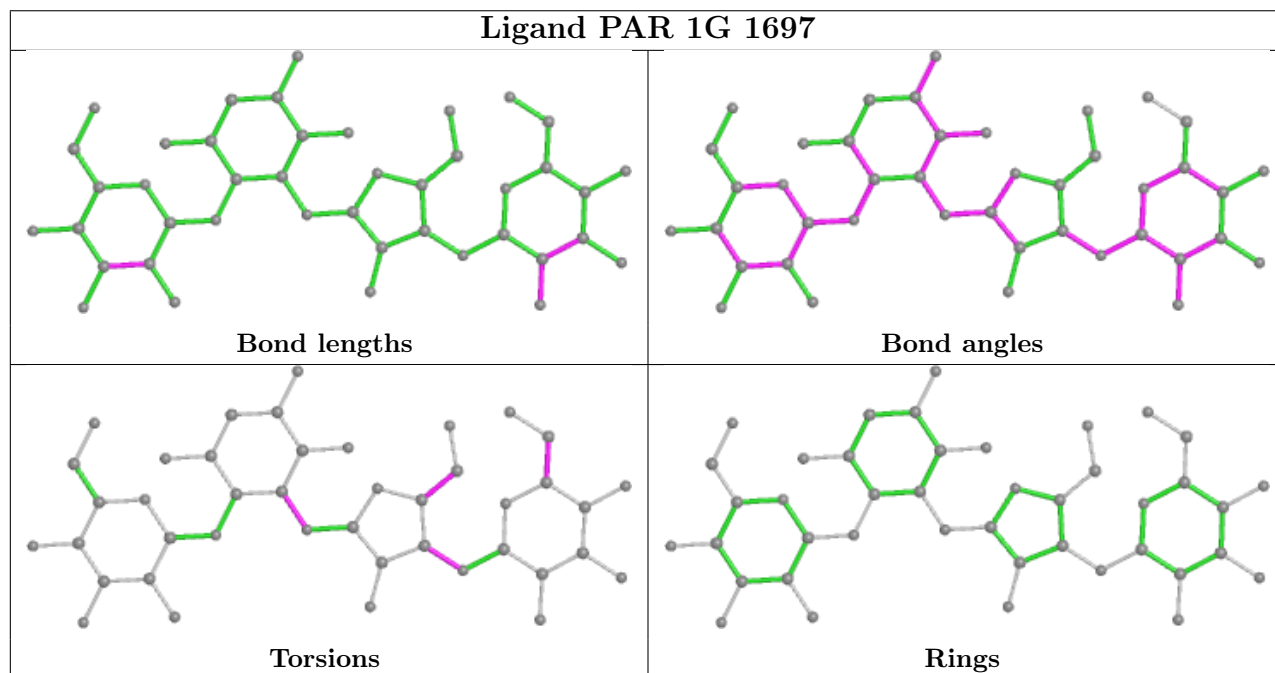
Mol	Chain	Res	Type	Atoms
59	13	1749	PAR	C33-C43-C53-O53
59	13	1749	PAR	O43-C43-C53-O53
59	1G	1697	PAR	C44-C54-C64-N64
59	13	1749	PAR	O43-C13-O52-C52
59	1G	1697	PAR	O43-C43-C53-O53
59	1G	1697	PAR	C42-C52-O52-C13
59	1G	1697	PAR	C62-C52-O52-C13
59	13	1749	PAR	C23-C13-O52-C52
59	13	1749	PAR	C23-C33-O33-C14
59	1G	1697	PAR	C23-C33-O33-C14

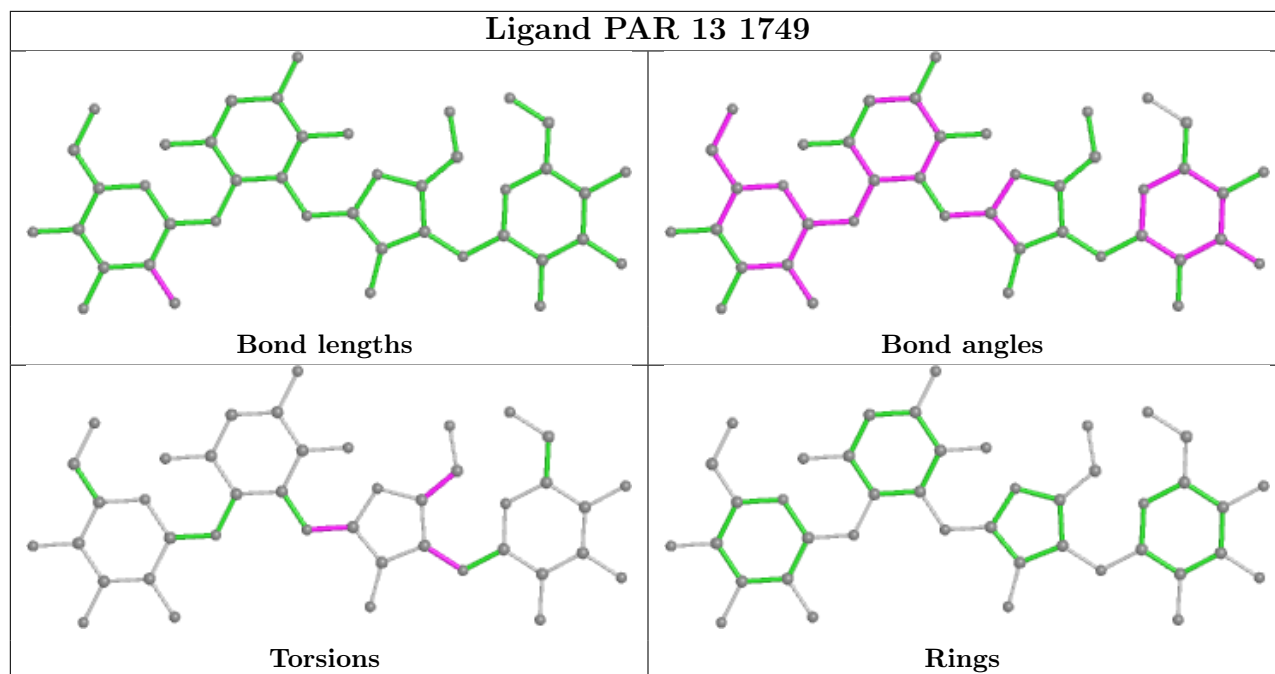
There are no ring outliers.

2 monomers are involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
59	1G	1697	PAR	2	0
59	13	1749	PAR	1	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](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	13	1
1	1G	1
25	4L	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	13	1530:G	O3'	1531:A	P	3.82
1	1G	1530:G	O3'	1531:A	P	3.28
1	4L	21:C	O3'	22:A	P	3.02

## 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	1498/1522 (98%)	0.27	14 (0%) 84 71	53, 93, 174, 276	0
1	1G	1498/1522 (98%)	0.40	67 (4%) 33 21	69, 116, 188, 285	0
2	12	237/256 (92%)	0.39	20 (8%) 11 6	141, 173, 195, 205	0
2	1E	237/256 (92%)	0.49	19 (8%) 12 7	105, 141, 169, 176	0
3	22	206/239 (86%)	1.37	63 (30%) 0 0	136, 162, 182, 190	0
3	2E	205/239 (85%)	0.72	19 (9%) 8 5	82, 102, 138, 147	0
4	32	208/209 (99%)	1.28	49 (23%) 0 0	93, 114, 138, 145	0
4	3E	208/209 (99%)	0.84	35 (16%) 1 1	75, 100, 123, 134	0
5	42	151/162 (93%)	1.85	61 (40%) 0 0	111, 135, 154, 184	0
5	4E	151/162 (93%)	1.15	35 (23%) 0 0	72, 93, 117, 160	0
6	52	101/101 (100%)	0.01	0 100 100	82, 100, 119, 142	0
6	5E	101/101 (100%)	0.33	2 (1%) 65 48	77, 96, 118, 141	0
7	62	152/156 (97%)	0.65	19 (12%) 3 2	112, 127, 147, 160	0
7	6E	155/156 (99%)	0.63	18 (11%) 4 2	92, 111, 146, 163	0
8	72	138/138 (100%)	2.12	60 (43%) 0 0	102, 132, 151, 155	0
8	7E	138/138 (100%)	1.25	35 (25%) 0 0	84, 101, 113, 121	0
9	82	124/128 (96%)	2.50	63 (50%) 0 0	115, 150, 165, 171	0
9	8E	127/128 (99%)	0.85	25 (19%) 1 0	80, 127, 148, 158	0
10	1A	99/105 (94%)	2.50	40 (40%) 0 0	131, 155, 176, 184	0
10	1I	99/105 (94%)	1.36	32 (32%) 0 0	73, 125, 159, 162	0
11	2A	116/129 (89%)	0.89	15 (12%) 3 2	85, 108, 130, 159	0
11	2I	116/129 (89%)	0.53	11 (9%) 8 5	69, 100, 127, 165	0
12	3A	125/132 (94%)	1.21	33 (26%) 0 0	83, 106, 134, 167	0
12	3I	125/132 (94%)	0.88	19 (15%) 2 1	60, 71, 107, 165	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å <sup>2</sup> )	Q<0.9
13	4A	117/126 (92%)	2.11	52 (44%)	0	0	118, 155, 179, 185	0
13	4I	118/126 (93%)	0.75	19 (16%)	1	1	74, 112, 132, 145	0
14	5A	58/61 (95%)	6.47	53 (91%)	0	0	134, 159, 174, 179	0
14	5I	60/61 (98%)	2.20	33 (55%)	0	0	80, 91, 106, 119	0
15	6A	88/89 (98%)	0.60	11 (12%)	3	2	87, 112, 127, 133	0
15	6I	88/89 (98%)	0.65	10 (11%)	5	3	69, 98, 116, 126	0
16	7A	84/88 (95%)	1.85	34 (40%)	0	0	87, 103, 126, 159	0
16	7I	84/88 (95%)	2.10	42 (50%)	0	0	93, 107, 141, 158	0
17	8A	100/105 (95%)	1.74	41 (41%)	0	0	93, 110, 128, 148	0
17	8I	100/105 (95%)	1.09	22 (22%)	0	0	83, 101, 113, 116	0
18	9A	72/88 (81%)	0.44	5 (6%)	16	10	92, 115, 144, 170	0
18	9I	72/88 (81%)	0.28	0	100	100	83, 100, 136, 168	0
19	AA	78/93 (83%)	1.81	29 (37%)	0	0	150, 182, 192, 196	0
19	AI	81/93 (87%)	0.56	9 (11%)	5	3	88, 113, 138, 146	0
20	BA	99/106 (93%)	1.65	42 (42%)	0	0	85, 111, 137, 149	0
20	BI	99/106 (93%)	0.96	18 (18%)	1	1	102, 117, 153, 161	0
21	1B	25/27 (92%)	5.51	22 (88%)	0	0	119, 140, 152, 167	0
21	1F	25/27 (92%)	2.57	15 (60%)	0	0	88, 97, 113, 142	0
22	1K	70/76 (92%)	0.76	11 (15%)	2	1	76, 203, 246, 250	0
23	2K	72/77 (93%)	0.16	2 (2%)	53	36	68, 91, 119, 138	0
23	2L	72/77 (93%)	-0.08	2 (2%)	53	36	80, 113, 149, 166	0
24	3K	72/76 (94%)	0.31	4 (5%)	24	15	71, 230, 258, 260	0
25	4K	13/30 (43%)	0.91	2 (15%)	2	1	64, 80, 130, 131	0
25	4L	11/30 (36%)	1.08	1 (9%)	9	5	93, 124, 136, 143	0
26	14	2909/2917 (99%)	0.35	53 (1%)	68	51	50, 84, 241, 338	0
26	1H	2912/2917 (99%)	0.38	28 (0%)	82	68	37, 70, 222, 303	0
27	16	122/122 (100%)	-0.03	0	100	100	63, 87, 110, 193	0
27	1J	122/122 (100%)	-0.16	2 (1%)	72	55	86, 120, 149, 192	0
28	11	272/276 (98%)	0.62	11 (4%)	38	25	38, 62, 78, 83	0
28	19	273/276 (98%)	1.21	53 (19%)	1	0	46, 71, 87, 97	0
29	21	205/206 (99%)	1.00	24 (11%)	4	2	50, 88, 129, 144	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
29	29	205/206 (99%)	1.26	45 (21%) 0 0	61, 93, 141, 174	0
30	31	202/210 (96%)	0.47	6 (2%) 50 34	43, 73, 113, 131	0
30	39	208/210 (99%)	0.64	24 (11%) 4 3	56, 103, 167, 189	0
31	41	181/182 (99%)	0.71	21 (11%) 4 2	78, 98, 131, 148	0
31	49	181/182 (99%)	1.35	54 (29%) 0 0	120, 142, 168, 178	0
32	51	174/180 (96%)	0.54	8 (4%) 32 20	77, 102, 120, 135	0
32	59	170/180 (94%)	3.51	109 (64%) 0 0	142, 193, 215, 227	0
33	61	146/148 (98%)	0.41	8 (5%) 25 15	71, 129, 146, 151	0
33	69	146/148 (98%)	0.77	22 (15%) 2 1	81, 122, 150, 157	0
34	15	138/140 (98%)	1.44	40 (28%) 0 0	77, 106, 136, 163	0
34	58	138/140 (98%)	0.73	11 (7%) 12 7	62, 89, 128, 145	0
35	25	122/122 (100%)	0.72	9 (7%) 14 8	66, 87, 103, 109	0
35	68	122/122 (100%)	0.53	3 (2%) 57 40	57, 72, 89, 100	0
36	35	150/150 (100%)	1.45	41 (27%) 0 0	58, 106, 138, 169	0
36	78	150/150 (100%)	0.71	13 (8%) 10 6	43, 77, 104, 157	0
37	45	141/141 (100%)	2.47	69 (48%) 0 0	75, 107, 136, 152	0
37	88	138/141 (97%)	0.73	7 (5%) 28 17	50, 76, 98, 128	0
38	55	117/118 (99%)	0.82	13 (11%) 5 3	59, 76, 91, 110	0
38	98	118/118 (100%)	0.99	16 (13%) 3 1	61, 81, 102, 110	0
39	65	111/112 (99%)	1.46	39 (35%) 0 0	91, 114, 131, 139	0
39	A8	111/112 (99%)	1.00	19 (17%) 1 1	73, 84, 108, 123	0
40	75	137/146 (93%)	0.84	20 (14%) 2 1	78, 95, 150, 184	0
40	B8	137/146 (93%)	0.59	9 (6%) 18 10	69, 89, 145, 175	0
41	85	117/118 (99%)	0.92	23 (19%) 1 0	66, 94, 138, 155	0
41	C8	117/118 (99%)	0.93	18 (15%) 2 1	52, 79, 111, 129	0
42	95	101/101 (100%)	0.95	22 (21%) 0 0	66, 124, 140, 157	0
42	D8	101/101 (100%)	0.72	12 (11%) 4 2	54, 103, 129, 140	0
43	A5	113/113 (100%)	1.12	14 (12%) 4 2	60, 72, 105, 150	0
43	E8	113/113 (100%)	0.88	10 (8%) 10 5	56, 72, 105, 146	0
44	B5	94/96 (97%)	1.07	11 (11%) 4 2	68, 83, 109, 120	0
44	F8	94/96 (97%)	0.49	3 (3%) 47 31	55, 69, 90, 108	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
45	C5	104/110 (94%)	1.55	28 (26%) 0 0	92, 115, 146, 153	0
45	G8	104/110 (94%)	0.46	3 (2%) 51 35	70, 90, 131, 142	0
46	D5	179/206 (86%)	1.27	44 (24%) 0 0	113, 151, 230, 237	0
46	H8	175/206 (84%)	0.30	4 (2%) 60 43	80, 119, 203, 216	0
47	E5	77/85 (90%)	2.07	36 (46%) 0 0	67, 88, 106, 145	0
47	I8	80/85 (94%)	1.11	13 (16%) 1 1	54, 67, 101, 108	0
48	F5	94/98 (95%)	1.74	39 (41%) 0 0	60, 79, 122, 132	0
48	J8	97/98 (98%)	1.39	21 (21%) 0 0	50, 69, 122, 149	0
49	G5	67/72 (93%)	0.69	7 (10%) 6 4	80, 100, 121, 144	0
49	K8	67/72 (93%)	0.68	2 (2%) 50 34	61, 77, 95, 125	0
50	H5	59/60 (98%)	1.48	17 (28%) 0 0	77, 100, 140, 153	0
50	L8	57/60 (95%)	0.53	1 (1%) 68 51	57, 78, 102, 109	0
51	I5	60/71 (84%)	1.03	12 (20%) 1 0	151, 187, 203, 206	0
51	M8	66/71 (92%)	0.88	13 (19%) 1 0	104, 144, 179, 189	0
52	J5	59/60 (98%)	1.06	7 (11%) 4 2	57, 81, 150, 183	0
52	N8	58/60 (96%)	1.28	8 (13%) 2 1	48, 97, 160, 163	0
53	K5	45/54 (83%)	7.57	42 (93%) 0 0	123, 152, 165, 172	0
53	O8	45/54 (83%)	4.33	37 (82%) 0 0	107, 137, 157, 161	0
54	L5	46/49 (93%)	1.25	6 (13%) 3 2	45, 58, 72, 85	0
54	P8	45/49 (91%)	0.69	2 (4%) 34 21	40, 48, 61, 75	0
55	M5	60/65 (92%)	1.93	23 (38%) 0 0	71, 79, 100, 124	0
55	Q8	60/65 (92%)	1.99	24 (40%) 0 0	56, 72, 98, 109	0
56	1L	72/76 (94%)	1.69	19 (26%) 0 0	122, 239, 257, 262	0
57	3L	71/76 (93%)	0.72	10 (14%) 2 1	82, 208, 243, 253	0
All	All	21028/21694 (96%)	0.79	2541 (12%) 4 2	37, 97, 186, 338	0

All (2541) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
32	59	100	GLY	23.3
32	59	4	ILE	21.1
53	K5	13	CYS	18.8
53	K5	50	ARG	17.1
53	K5	42	TRP	16.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
53	K5	51	GLU	16.0
57	3L	17	C	15.0
14	5A	29	ARG	14.7
37	45	1	MET	14.7
14	5A	31	ARG	14.6
13	4A	6	GLY	14.5
14	5A	38	GLY	14.1
53	K5	52	VAL	13.8
46	D5	117	LEU	13.5
13	4A	7	VAL	13.2
45	C5	59	GLY	12.4
13	4A	102	ARG	12.4
53	K5	22	ALA	12.3
14	5A	30	ALA	12.3
14	5A	39	LEU	12.3
10	1A	47	PHE	12.1
52	N8	60	VAL	12.1
10	1A	55	LYS	11.9
46	D5	179	ASP	11.5
10	1A	54	PHE	11.5
48	J8	98	LEU	11.4
8	72	1	MET	11.3
53	K5	41	PRO	11.2
26	14	2901	C	11.1
3	22	2	GLY	11.1
32	59	96	ALA	11.1
53	K5	14	THR	11.0
36	35	110	TYR	11.0
56	1L	17	C	11.0
9	82	115	GLY	11.0
56	1L	72	C	10.8
53	K5	49	HIS	10.8
53	O8	53	LYS	10.6
10	1A	65	LEU	10.5
14	5A	35	ARG	10.5
21	1B	14	TRP	10.5
14	5A	34	TYR	10.5
21	1B	13	ILE	10.5
39	A8	2	ALA	10.4
10	1A	59	SER	10.4
21	1B	22	ARG	10.4
46	D5	116	VAL	10.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
56	1L	76	A	10.2
53	O8	42	TRP	10.1
10	1A	46	ARG	10.1
53	K5	25	LYS	10.0
14	5A	10	ALA	10.0
32	59	115	VAL	10.0
56	1L	71	G	9.9
7	6E	81	GLY	9.9
53	K5	23	THR	9.8
57	3L	34	G	9.7
53	K5	21	TYR	9.6
55	Q8	34	TRP	9.6
53	K5	36	LEU	9.5
19	AA	80	TYR	9.5
37	45	103	MET	9.4
14	5A	37	PHE	9.4
19	AA	78	ARG	9.2
21	1B	17	THR	9.1
14	5A	25	VAL	9.1
12	3A	19	ARG	9.1
39	65	2	ALA	9.1
53	K5	12	GLU	9.0
46	D5	146	ILE	9.0
22	1K	17	C	9.0
32	59	103	LEU	9.0
53	K5	39	TYR	8.9
32	59	132	ARG	8.8
53	K5	40	CYS	8.8
8	72	2	LEU	8.8
48	J8	92	LYS	8.7
56	1L	73	A	8.7
53	K5	53	LYS	8.7
3	22	155	GLY	8.6
32	59	95	ARG	8.6
21	1B	16	GLY	8.5
21	1B	21	TYR	8.5
19	AA	82	GLY	8.5
48	J8	96	LYS	8.5
44	B5	69	TYR	8.5
53	K5	11	LEU	8.5
53	O8	25	LYS	8.4
21	1B	2	GLY	8.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
10	1A	40	LEU	8.4
19	AA	83	HIS	8.4
14	5A	36	PHE	8.3
14	5A	26	ARG	8.3
27	1J	88	C	8.3
7	6E	83	ALA	8.3
46	D5	178	GLU	8.3
53	O8	34	LEU	8.3
14	5A	44	LEU	8.1
14	5A	33	VAL	8.1
37	45	104	PHE	8.1
12	3I	19	ARG	8.1
22	1K	76	A	8.1
7	62	80	VAL	8.1
9	82	109	VAL	8.1
32	59	45	VAL	8.0
53	K5	26	ASN	8.0
5	42	13	ILE	8.0
13	4A	65	LYS	8.0
14	5A	22	THR	8.0
14	5A	55	GLY	8.0
24	3K	17	C	8.0
53	O8	23	THR	7.9
14	5A	21	TYR	7.9
14	5A	6	LEU	7.9
14	5A	41	ARG	7.9
32	59	6	ARG	7.9
14	5A	58	LYS	7.9
17	8A	101	ARG	7.8
5	42	24	ARG	7.8
32	59	169	VAL	7.8
32	59	164	TYR	7.8
37	45	33	GLY	7.7
10	1A	64	GLU	7.7
9	82	66	ARG	7.7
37	45	90	VAL	7.6
11	2A	11	LYS	7.6
53	K5	9	LEU	7.6
32	59	114	VAL	7.6
53	O8	22	ALA	7.6
7	6E	82	GLY	7.6
32	59	3	ARG	7.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
9	82	110	GLU	7.5
35	25	1	MET	7.5
14	5A	12	ARG	7.5
44	B5	68	ARG	7.5
26	14	2902	C	7.5
17	8I	36	ILE	7.5
9	82	111	ARG	7.5
52	N8	58	LEU	7.4
14	5A	15	LYS	7.4
3	22	198	VAL	7.4
32	59	41	MET	7.4
53	O8	26	ASN	7.3
14	5A	23	ARG	7.3
21	1B	10	ARG	7.3
32	59	5	GLY	7.2
9	82	114	TYR	7.2
32	59	101	ARG	7.2
53	K5	24	GLU	7.2
10	1A	60	ARG	7.2
9	82	116	LYS	7.2
48	J8	97	LEU	7.2
14	5A	19	ARG	7.2
8	72	133	LEU	7.1
37	45	65	PHE	7.1
41	C8	117	GLN	7.1
51	M8	55	ARG	7.1
5	42	45	PHE	7.1
53	K5	19	ARG	7.1
29	29	150	VAL	7.1
55	M5	34	TRP	7.1
32	59	43	VAL	7.1
33	69	1	MET	7.1
9	82	117	HIS	7.0
13	4A	4	ILE	7.0
32	59	93	GLY	7.0
29	29	151	TYR	7.0
32	59	99	VAL	7.0
21	1B	15	ARG	6.9
14	5A	4	LYS	6.9
32	59	52	VAL	6.9
9	82	69	GLY	6.9
21	1B	6	ARG	6.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
26	14	2799	A	6.8
46	D5	115	GLY	6.8
36	35	150	ALA	6.8
54	L5	1	MET	6.7
52	J5	59	GLU	6.7
9	82	125	TYR	6.7
22	1K	73	A	6.7
47	E5	9	SER	6.7
13	4A	103	THR	6.7
52	N8	59	GLU	6.7
31	49	139	LEU	6.7
53	K5	44	ARG	6.7
32	59	104	GLU	6.6
4	3E	209	ARG	6.6
10	1A	67	THR	6.6
9	82	106	ALA	6.6
10	1A	49	VAL	6.6
14	5A	61	TRP	6.6
32	59	55	PRO	6.6
10	1A	50	ILE	6.6
53	K5	20	ASN	6.6
10	1A	66	ARG	6.6
53	K5	10	LEU	6.6
12	3A	28	LYS	6.5
37	45	91	GLU	6.5
5	42	126	ARG	6.5
32	59	39	PRO	6.5
9	82	64	THR	6.5
10	1A	62	HIS	6.4
16	7I	32	TYR	6.4
7	62	78	ARG	6.4
11	2A	126	ARG	6.4
7	62	79	ARG	6.4
20	BA	72	LEU	6.3
14	5A	56	VAL	6.3
21	1F	26	LYS	6.3
11	2A	13	GLN	6.3
9	82	8	GLY	6.3
28	19	38	LYS	6.3
42	95	74	LYS	6.3
26	1H	2477	C	6.3
32	59	25	LYS	6.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
8	72	84	ARG	6.2
8	72	93	VAL	6.2
11	2A	12	ARG	6.2
29	29	76	ARG	6.2
14	5A	8	GLU	6.2
17	8A	32	TYR	6.2
8	72	86	ILE	6.2
32	59	141	VAL	6.2
14	5A	59	ALA	6.2
37	45	60	ARG	6.2
13	4A	66	LEU	6.2
51	I5	42	PHE	6.2
13	4A	97	PRO	6.2
32	59	131	VAL	6.2
3	22	6	HIS	6.1
10	1A	58	ASP	6.1
47	E5	21	LEU	6.1
10	1I	66	ARG	6.1
42	D8	36	PRO	6.1
10	1A	57	LYS	6.1
12	3I	20	LYS	6.1
36	35	64	LYS	6.1
53	O8	10	LEU	6.1
32	59	87	LEU	6.1
19	AA	84	GLY	6.1
29	21	204	ALA	6.1
19	AA	71	LEU	6.1
34	15	75	TYR	6.1
53	K5	45	LYS	6.1
39	65	32	LEU	6.0
21	1B	18	TYR	6.0
14	5A	53	LEU	6.0
46	D5	176	PRO	6.0
20	BI	72	LEU	6.0
48	F5	36	GLY	6.0
13	4A	98	VAL	6.0
31	41	26	GLN	6.0
37	45	34	LEU	6.0
14	5A	7	ILE	6.0
14	5A	11	LYS	6.0
32	59	106	THR	6.0
16	7I	1	MET	6.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
53	K5	46	HIS	6.0
10	1A	61	GLU	5.9
47	E5	22	GLY	5.9
10	1I	65	LEU	5.9
13	4A	25	ILE	5.9
56	1L	75	C	5.9
32	59	83	TYR	5.8
32	51	171	LEU	5.8
3	22	30	ARG	5.8
28	19	2	ALA	5.8
16	7I	2	VAL	5.8
8	72	4	ASP	5.8
53	O8	29	ASN	5.8
3	22	131	ARG	5.8
10	1A	53	PRO	5.8
9	82	123	PRO	5.8
36	35	106	LEU	5.8
4	32	23	GLY	5.7
16	7I	9	PHE	5.7
9	82	71	SER	5.7
10	1I	5	ARG	5.7
32	59	7	LEU	5.7
8	72	58	TYR	5.7
10	1A	48	THR	5.7
53	K5	18	ARG	5.7
53	K5	37	ARG	5.7
40	75	6	LEU	5.7
14	5A	51	GLY	5.7
48	J8	95	LEU	5.7
53	O8	11	LEU	5.7
12	3I	129	ALA	5.7
53	O8	18	ARG	5.7
29	21	78	LEU	5.7
37	45	66	ILE	5.6
16	7A	33	ILE	5.6
31	49	39	ILE	5.6
32	59	105	LEU	5.6
5	42	12	LEU	5.6
8	72	112	LEU	5.6
32	59	94	TYR	5.6
3	22	8	ILE	5.6
32	59	84	SER	5.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
13	4A	101	GLN	5.6
12	3A	129	ALA	5.6
32	59	69	ARG	5.6
37	45	68	ILE	5.6
32	59	155	SER	5.6
13	4A	8	GLU	5.6
53	O8	12	GLU	5.6
14	5A	50	LYS	5.5
34	15	80	GLY	5.5
19	AA	79	THR	5.5
20	BA	68	LYS	5.5
14	5A	16	PHE	5.5
11	2I	12	ARG	5.5
37	45	64	ILE	5.5
53	O8	13	CYS	5.5
32	59	170	ARG	5.5
9	82	14	VAL	5.5
45	C5	49	VAL	5.5
3	22	196	LEU	5.5
12	3A	21	LYS	5.5
55	Q8	48	PHE	5.5
14	5A	46	GLU	5.5
20	BA	70	SER	5.5
29	29	77	ILE	5.5
42	95	91	TYR	5.4
32	59	107	VAL	5.4
53	K5	30	THR	5.4
45	C5	46	LYS	5.4
45	C5	47	LYS	5.4
7	6E	78	ARG	5.4
18	9A	88	LYS	5.4
48	F5	28	GLY	5.4
12	3I	7	ILE	5.4
16	7A	27	LYS	5.4
32	59	53	GLU	5.4
53	O8	19	ARG	5.4
3	22	207	VAL	5.4
30	39	1	MET	5.4
26	14	1092	C	5.4
12	3A	64	TYR	5.4
10	1A	51	ARG	5.4
21	1B	5	ASP	5.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
52	J5	2	ALA	5.4
39	65	33	LYS	5.3
42	95	70	ILE	5.3
43	A5	113	LYS	5.3
1	1G	1202	G	5.3
9	82	15	ALA	5.3
16	7I	6	LEU	5.3
29	29	54	GLN	5.3
16	7I	59	TRP	5.3
20	BA	71	THR	5.3
14	5A	9	LYS	5.3
40	B8	1	MET	5.3
3	22	164	ARG	5.3
32	59	51	ARG	5.3
33	69	5	LEU	5.3
33	69	3	VAL	5.3
17	8A	36	ILE	5.3
51	I5	52	THR	5.3
32	59	168	PRO	5.3
56	1L	1	G	5.3
26	1H	2117	A	5.3
3	22	186	PHE	5.3
55	M5	40	GLU	5.3
40	75	99	LEU	5.3
39	65	37	ALA	5.2
47	E5	75	LEU	5.2
16	7A	32	TYR	5.2
28	19	37	LEU	5.2
32	59	8	PRO	5.2
20	BI	70	SER	5.2
13	4A	2	ALA	5.2
45	C5	60	PHE	5.2
36	35	35	HIS	5.2
37	45	106	VAL	5.2
14	5A	18	VAL	5.2
29	21	205	ALA	5.2
53	K5	31	PRO	5.2
46	D5	121	HIS	5.2
12	3A	128	ALA	5.2
40	B8	106	SER	5.1
9	82	36	TYR	5.1
13	4A	99	ARG	5.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
26	14	2147	G	5.1
9	82	124	GLN	5.1
10	1I	10	GLY	5.1
21	1F	14	TRP	5.1
16	7I	22	THR	5.1
53	O8	14	THR	5.1
32	59	123	PHE	5.1
45	C5	93	GLY	5.1
26	14	1093	G	5.1
5	42	15	ARG	5.1
14	5A	42	ILE	5.1
21	1F	17	THR	5.1
3	22	190	ARG	5.1
22	1K	72	C	5.1
32	59	162	ILE	5.0
53	K5	34	LEU	5.0
4	3E	110	PHE	5.0
37	45	102	VAL	5.0
53	O8	35	GLU	5.0
53	O8	50	ARG	5.0
1	1G	1286	A	5.0
8	72	134	ILE	5.0
13	4I	6	GLY	5.0
20	BI	18	GLN	5.0
14	5I	51	GLY	5.0
29	29	116	VAL	5.0
18	9A	17	SER	5.0
52	J5	60	VAL	5.0
20	BA	66	ALA	5.0
14	5A	57	ARG	5.0
34	15	84	LYS	5.0
53	O8	49	HIS	5.0
46	D5	109	ALA	5.0
16	7I	4	ILE	5.0
14	5A	32	SER	4.9
53	O8	31	PRO	4.9
16	7A	1	MET	4.9
46	D5	147	GLY	4.9
14	5A	54	PRO	4.9
4	32	49	ARG	4.9
16	7I	27	LYS	4.9
17	8A	37	LYS	4.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
31	49	182	LYS	4.9
3	22	10	PHE	4.9
21	1B	24	ARG	4.9
29	29	59	VAL	4.9
9	8E	126	SER	4.9
26	14	2899	G	4.9
16	7I	66	PRO	4.9
26	14	1046	A	4.9
28	19	5	LYS	4.9
37	45	32	TYR	4.9
21	1F	16	GLY	4.9
9	82	9	ARG	4.9
9	82	112	LYS	4.8
8	72	136	GLU	4.8
31	49	137	GLU	4.8
37	45	80	GLU	4.8
14	5A	60	SER	4.8
36	35	71	VAL	4.8
16	7A	31	LYS	4.8
20	BA	23	ARG	4.8
8	72	92	ARG	4.8
12	3A	20	LYS	4.8
36	35	16	ARG	4.8
28	19	18	VAL	4.8
7	6E	79	ARG	4.8
9	82	113	LYS	4.8
17	8A	7	THR	4.8
53	O8	20	ASN	4.8
9	82	10	ARG	4.8
29	21	79	ARG	4.8
7	62	85	TYR	4.8
32	59	64	LEU	4.7
8	7E	2	LEU	4.7
10	1A	43	ARG	4.7
26	14	1026	U	4.7
55	M5	22	VAL	4.7
5	4E	89	ILE	4.7
14	5I	29	ARG	4.7
10	1I	6	ILE	4.7
12	3I	17	LYS	4.7
32	59	37	VAL	4.7
46	D5	107	THR	4.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
40	75	129	ARG	4.7
32	59	33	LEU	4.7
26	14	2797	U	4.7
21	1B	9	ARG	4.7
36	35	18	ARG	4.7
5	42	109	ILE	4.7
12	3I	5	PRO	4.7
32	59	36	PRO	4.7
46	H8	113	ALA	4.7
9	82	121	ARG	4.7
10	1I	60	ARG	4.7
31	49	19	LEU	4.6
53	K5	16	CYS	4.6
45	C5	92	ASN	4.6
33	69	4	ILE	4.6
9	82	65	VAL	4.6
9	82	102	LEU	4.6
50	H5	26	LEU	4.6
20	BA	69	GLY	4.6
36	35	30	THR	4.6
17	8A	68	ARG	4.6
5	4E	81	GLU	4.6
34	15	109	LYS	4.6
32	59	89	ILE	4.6
47	I8	85	ALA	4.6
34	58	72	TYR	4.6
39	65	5	THR	4.6
10	1A	10	GLY	4.6
13	4A	26	GLY	4.6
26	14	1	G	4.6
29	29	70	ALA	4.6
10	1A	45	ARG	4.6
45	C5	45	VAL	4.5
22	1K	3	C	4.5
32	59	24	VAL	4.5
26	14	2146	C	4.5
17	8I	98	LEU	4.5
51	M8	56	VAL	4.5
36	78	149	GLU	4.5
13	4I	102	ARG	4.5
47	E5	45	PHE	4.5
28	19	55	GLY	4.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	1G	973	G	4.5
22	1K	71	G	4.5
10	1A	63	PHE	4.5
8	72	131	GLY	4.5
55	M5	29	LYS	4.5
8	72	89	PRO	4.5
21	1B	23	PRO	4.5
45	C5	50	ARG	4.5
55	Q8	61	LEU	4.5
53	K5	35	GLU	4.5
9	82	75	ASP	4.5
19	AA	70	LYS	4.5
7	6E	84	ASN	4.5
5	42	31	LEU	4.5
19	AA	35	SER	4.5
17	8A	38	ARG	4.5
17	8A	22	LEU	4.5
34	15	74	ARG	4.5
53	O8	9	LEU	4.5
31	49	138	GLN	4.4
33	69	35	LEU	4.4
45	C5	44	ILE	4.4
31	49	74	LYS	4.4
8	72	85	ARG	4.4
5	42	130	ASN	4.4
53	K5	48	VAL	4.4
32	59	40	GLU	4.4
31	49	178	PHE	4.4
13	4A	90	LEU	4.4
34	15	82	LEU	4.4
19	AA	67	VAL	4.4
13	4A	67	GLU	4.4
49	K8	15	LYS	4.4
50	H5	20	LYS	4.4
3	22	153	VAL	4.4
32	59	17	VAL	4.4
37	45	56	ARG	4.4
8	72	87	SER	4.4
31	49	82	LEU	4.4
17	8A	11	VAL	4.4
29	29	141	ILE	4.4
26	14	2125	G	4.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
16	7I	31	LYS	4.4
20	BA	9	ASN	4.4
3	22	199	LYS	4.4
32	59	82	GLY	4.4
36	35	13	ASN	4.4
37	45	61	GLY	4.4
14	5I	59	ALA	4.3
21	1F	15	ARG	4.3
33	61	113	ARG	4.3
26	14	1177	A	4.3
31	41	88	ILE	4.3
10	1A	69	ASN	4.3
12	3A	15	ARG	4.3
17	8A	99	SER	4.3
53	K5	43	CYS	4.3
54	L5	46	VAL	4.3
19	AA	49	ILE	4.3
23	2K	1	C	4.3
13	4A	88	ARG	4.3
13	4A	104	ARG	4.3
17	8I	35	VAL	4.3
32	59	42	ARG	4.3
8	72	88	LYS	4.3
8	72	111	ILE	4.3
10	1I	63	PHE	4.3
5	42	123	LEU	4.3
16	7A	9	PHE	4.3
32	59	124	GLU	4.3
55	Q8	35	GLN	4.3
17	8I	31	LEU	4.3
42	95	81	TYR	4.3
10	1A	44	VAL	4.3
48	F5	37	ILE	4.3
8	72	91	ARG	4.3
13	4A	107	ALA	4.3
32	59	71	LEU	4.3
7	6E	85	TYR	4.3
28	19	17	THR	4.3
55	M5	16	ILE	4.3
26	14	2802	G	4.3
34	15	85	ILE	4.2
37	45	105	GLU	4.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
56	1L	70	G	4.2
29	29	159	HIS	4.2
9	82	67	GLY	4.2
31	49	34	LEU	4.2
37	45	125	LEU	4.2
5	42	107	ARG	4.2
13	4A	3	ARG	4.2
34	15	46	VAL	4.2
3	2E	193	TYR	4.2
8	7E	112	LEU	4.2
34	15	116	LEU	4.2
11	2A	25	TYR	4.2
17	8A	4	LYS	4.2
10	1I	47	PHE	4.2
53	O8	51	GLU	4.2
38	55	5	LYS	4.2
1	1G	1531	A	4.2
52	N8	54	GLY	4.2
14	5A	24	CYS	4.2
5	42	81	GLU	4.2
8	7E	90	GLY	4.2
1	1G	1032	A	4.2
5	4E	135	THR	4.2
17	8I	95	TYR	4.2
13	4A	96	LEU	4.1
16	7A	6	LEU	4.1
31	49	90	LEU	4.1
31	49	23	PHE	4.1
5	42	89	ILE	4.1
14	5A	27	CYS	4.1
16	7I	17	TYR	4.1
16	7A	59	TRP	4.1
28	19	217	ARG	4.1
41	85	40	PHE	4.1
10	1A	34	VAL	4.1
13	4A	92	HIS	4.1
36	35	46	LYS	4.1
5	42	82	VAL	4.1
2	1E	14	GLY	4.1
47	E5	44	ARG	4.1
53	K5	27	LYS	4.1
8	7E	95	VAL	4.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
13	4A	69	GLU	4.1
32	59	88	LEU	4.1
13	4A	87	TYR	4.1
17	8I	32	TYR	4.1
39	65	112	PHE	4.1
32	59	49	VAL	4.1
33	69	21	VAL	4.1
37	45	35	VAL	4.1
16	7I	19	ILE	4.1
16	7I	33	ILE	4.1
13	4A	5	ALA	4.1
33	69	38	LEU	4.1
34	15	87	LEU	4.1
16	7I	29	ASP	4.1
30	39	208	GLY	4.1
32	59	9	ILE	4.1
31	49	152	LEU	4.1
40	75	104	ASN	4.1
53	O8	21	TYR	4.1
5	4E	82	VAL	4.1
45	C5	5	MET	4.1
32	59	165	ALA	4.1
2	12	102	LEU	4.1
3	22	162	GLN	4.1
8	7E	91	ARG	4.0
51	I5	40	HIS	4.0
32	59	35	VAL	4.0
9	82	11	LYS	4.0
4	32	208	SER	4.0
17	8I	27	PHE	4.0
26	1H	887	A	4.0
1	1G	1224	G	4.0
8	7E	1	MET	4.0
31	49	133	LEU	4.0
46	D5	112	ARG	4.0
29	29	205	ALA	4.0
15	6I	89	GLY	4.0
4	32	70	ILE	4.0
8	7E	136	GLU	4.0
53	O8	43	CYS	4.0
5	4E	118	ILE	4.0
13	4A	80	ARG	4.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
42	95	83	ARG	4.0
2	12	133	LYS	4.0
34	15	72	TYR	4.0
4	3E	96	LEU	4.0
9	8E	118	LYS	4.0
16	7I	35	LYS	4.0
12	3A	5	PRO	4.0
2	1E	11	LEU	4.0
5	42	25	ARG	4.0
53	K5	28	ARG	4.0
1	1G	963	G	4.0
20	BA	14	LYS	4.0
32	59	92	ILE	4.0
12	3A	32	PHE	4.0
20	BA	20	LEU	4.0
2	1E	96	ARG	4.0
37	45	88	GLY	4.0
56	1L	3	C	4.0
39	A8	43	GLU	4.0
32	59	97	ARG	4.0
37	88	104	PHE	4.0
8	7E	132	GLU	4.0
31	49	15	VAL	3.9
16	7A	19	ILE	3.9
5	42	94	ALA	3.9
32	59	90	LYS	3.9
56	1L	74	C	3.9
1	1G	975	A	3.9
14	5I	7	ILE	3.9
32	59	54	ARG	3.9
32	59	2	SER	3.9
37	45	79	LEU	3.9
41	85	20	LEU	3.9
20	BI	14	LYS	3.9
53	O8	52	VAL	3.9
35	68	1	MET	3.9
3	22	124	ILE	3.9
41	C8	34	LYS	3.9
50	H5	17	LYS	3.9
3	22	197	GLY	3.9
8	7E	63	LEU	3.9
37	45	58	PHE	3.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
16	7I	28	ARG	3.9
12	3A	18	VAL	3.9
31	49	157	ILE	3.9
48	J8	70	VAL	3.9
36	35	63	PRO	3.9
5	42	119	LEU	3.9
37	45	69	PHE	3.9
3	22	154	SER	3.9
10	1I	62	HIS	3.9
5	42	133	TYR	3.9
5	42	105	VAL	3.9
51	M8	31	ILE	3.9
33	61	12	LEU	3.9
36	35	148	LEU	3.9
16	7A	8	ARG	3.9
16	7A	25	ARG	3.9
47	E5	55	ARG	3.9
48	F5	26	ARG	3.9
1	1G	1225	A	3.9
11	2A	125	PHE	3.9
31	49	89	GLY	3.9
13	4A	73	GLU	3.9
9	82	63	ILE	3.9
19	AA	81	ARG	3.9
37	45	6	ARG	3.9
37	45	10	ARG	3.9
42	95	75	PHE	3.9
2	1E	188	ALA	3.9
5	4E	95	ALA	3.9
3	22	5	ILE	3.8
10	1I	46	ARG	3.8
39	65	3	ARG	3.8
47	E5	76	GLY	3.8
1	1G	994	A	3.8
12	3A	17	LYS	3.8
22	1K	74	C	3.8
34	15	83	LYS	3.8
5	42	14	ARG	3.8
9	82	105	ASP	3.8
9	82	108	VAL	3.8
3	22	206	GLU	3.8
9	82	12	GLU	3.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
48	F5	23	LYS	3.8
55	Q8	26	LYS	3.8
32	59	129	THR	3.8
39	65	58	LEU	3.8
21	1B	25	LYS	3.8
57	3L	35	A	3.8
16	7A	64	ALA	3.8
7	6E	80	VAL	3.8
48	F5	62	VAL	3.8
13	4A	111	LYS	3.8
45	C5	34	LYS	3.8
17	8I	101	ARG	3.8
20	BA	12	ALA	3.8
5	42	28	PHE	3.8
5	42	84	PHE	3.8
8	7E	4	ASP	3.8
8	72	83	ILE	3.8
14	5A	17	LYS	3.8
21	1F	25	LYS	3.8
21	1B	3	LYS	3.8
32	59	85	LYS	3.8
12	3I	16	GLU	3.8
41	C8	27	LEU	3.8
21	1F	6	ARG	3.8
39	65	17	ARG	3.8
48	F5	92	LYS	3.8
51	M8	59	PHE	3.8
13	4A	108	ARG	3.8
19	AA	36	ARG	3.8
51	M8	52	THR	3.8
2	1E	31	TYR	3.8
32	51	172	LYS	3.8
19	AI	78	ARG	3.8
37	45	97	VAL	3.8
32	59	67	LEU	3.8
22	1K	70	G	3.8
8	72	90	GLY	3.8
47	E5	39	ARG	3.8
32	59	72	ILE	3.8
14	5A	49	HIS	3.7
4	32	69	GLY	3.7
32	59	128	PRO	3.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
39	65	19	LYS	3.7
5	42	88	LYS	3.7
29	21	72	VAL	3.7
4	32	19	LEU	3.7
3	2E	189	ALA	3.7
10	1A	39	PRO	3.7
36	35	45	LEU	3.7
37	45	124	LYS	3.7
5	42	29	GLY	3.7
14	5I	2	ALA	3.7
14	5I	30	ALA	3.7
43	A5	6	ILE	3.7
28	19	35	LYS	3.7
29	29	152	LYS	3.7
37	45	7	MET	3.7
2	12	232	PRO	3.7
31	49	75	LYS	3.7
31	49	135	LEU	3.7
45	C5	63	LYS	3.7
45	C5	29	GLU	3.7
50	H5	28	LEU	3.7
3	22	167	TRP	3.7
16	7I	25	ARG	3.7
8	7E	134	ILE	3.7
26	14	3	U	3.7
7	62	86	GLN	3.7
38	55	9	LYS	3.7
13	4I	8	GLU	3.7
36	35	149	GLU	3.7
26	1H	1	G	3.7
29	21	195	LEU	3.7
40	75	105	LEU	3.7
32	59	122	THR	3.7
38	98	69	ASP	3.6
42	95	73	SER	3.7
26	1H	2901	C	3.6
36	35	51	PHE	3.6
26	14	2801	A	3.6
47	I8	8	ALA	3.6
12	3A	69	TYR	3.6
51	I5	32	TYR	3.6
9	8E	127	LYS	3.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
51	I5	24	THR	3.6
12	3A	16	GLU	3.6
32	59	46	GLU	3.6
16	7I	7	ALA	3.6
55	Q8	21	LYS	3.6
1	1G	964	A	3.6
32	59	57	ASP	3.6
32	59	81	GLU	3.6
37	45	38	GLU	3.6
4	3E	138	TYR	3.6
30	39	207	GLY	3.6
16	7A	29	ASP	3.6
53	O8	15	GLU	3.6
5	4E	88	LYS	3.6
55	M5	12	LYS	3.6
47	E5	57	PHE	3.6
5	4E	123	LEU	3.6
5	42	55	VAL	3.6
13	4A	64	TRP	3.6
53	O8	32	ASN	3.6
39	A8	11	LYS	3.6
31	49	161	THR	3.6
5	42	62	ALA	3.6
43	A5	85	VAL	3.6
14	5I	26	ARG	3.6
17	8A	27	PHE	3.6
20	BA	22	ARG	3.6
29	21	51	PHE	3.6
51	M8	66	SER	3.6
36	78	57	THR	3.6
5	4E	129	ILE	3.6
30	39	82	ILE	3.6
31	41	135	LEU	3.6
10	1I	64	GLU	3.6
14	5I	8	GLU	3.6
34	15	79	PRO	3.6
40	B8	104	ASN	3.6
20	BI	22	ARG	3.6
55	M5	57	ARG	3.6
1	1G	1357	A	3.6
11	2I	124	LYS	3.6
21	1B	8	THR	3.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
26	1H	2476	A	3.6
32	59	153	LYS	3.6
40	75	50	ILE	3.6
12	3A	8	ASN	3.6
7	62	42	ILE	3.6
31	49	175	LEU	3.6
9	82	120	ARG	3.6
26	14	2798	C	3.5
32	59	117	PRO	3.6
55	M5	2	PRO	3.6
39	65	36	TYR	3.5
29	21	88	GLY	3.5
7	62	41	ARG	3.5
16	7I	36	ILE	3.5
31	49	160	VAL	3.5
34	15	86	PRO	3.5
56	1L	16	U	3.5
5	42	122	GLU	3.5
8	72	132	GLU	3.5
34	58	71	ILE	3.5
8	72	3	THR	3.5
8	72	98	LYS	3.5
55	M5	3	LYS	3.5
8	72	135	CYS	3.5
17	8I	34	LYS	3.5
20	BA	29	LYS	3.5
45	C5	24	VAL	3.5
17	8I	26	GLN	3.5
5	42	26	PHE	3.5
9	8E	110	GLU	3.5
10	1A	56	HIS	3.5
48	J8	93	GLU	3.5
43	E8	92	ARG	3.5
14	5I	33	VAL	3.5
39	65	35	ILE	3.5
55	Q8	49	VAL	3.5
7	6E	32	ARG	3.5
51	M8	32	TYR	3.5
1	1G	965	A	3.5
9	82	44	VAL	3.5
41	85	17	ILE	3.5
34	15	69	GLN	3.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
14	5A	45	ARG	3.5
32	59	29	PRO	3.5
8	72	9	MET	3.5
40	75	1	MET	3.5
26	14	2795	G	3.5
48	F5	93	GLU	3.5
55	Q8	43	GLN	3.5
13	4A	27	LYS	3.5
14	5A	13	THR	3.5
26	1H	2132	U	3.5
8	7E	83	ILE	3.5
10	1I	61	GLU	3.5
43	E8	113	LYS	3.5
5	42	86	ALA	3.5
16	7A	20	VAL	3.5
34	15	98	VAL	3.5
3	22	178	LEU	3.4
8	7E	10	LEU	3.4
28	19	211	ARG	3.4
34	15	73	THR	3.4
20	BA	67	ALA	3.4
9	82	33	PHE	3.4
29	21	76	ARG	3.4
43	A5	92	ARG	3.4
31	49	86	MET	3.4
33	69	12	LEU	3.4
41	C8	18	LEU	3.4
3	22	187	ALA	3.4
9	8E	111	ARG	3.4
42	95	93	GLU	3.4
50	H5	30	ARG	3.4
1	13	1032	A	3.4
32	59	154	PRO	3.4
5	4E	133	TYR	3.4
5	42	131	ILE	3.4
8	7E	137	VAL	3.4
8	72	94	TYR	3.4
10	1I	48	THR	3.4
35	25	65	THR	3.4
2	12	152	PHE	3.4
47	I8	7	LEU	3.4
20	BA	77	ALA	3.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
32	51	9	ILE	3.4
46	D5	120	ILE	3.4
16	7I	39	TYR	3.4
31	49	146	TYR	3.4
47	E5	71	ASP	3.4
37	45	99	PRO	3.4
21	1F	13	ILE	3.4
37	45	44	ALA	3.4
12	3A	14	GLY	3.4
36	35	91	PHE	3.4
20	BA	84	LEU	3.4
47	E5	40	GLN	3.4
12	3I	128	ALA	3.4
44	F8	2	LYS	3.4
28	19	177	LEU	3.4
17	8A	30	PRO	3.4
31	41	2	PRO	3.4
11	2A	21	ILE	3.4
12	3I	18	VAL	3.4
30	39	89	VAL	3.4
47	E5	38	VAL	3.4
37	45	22	LYS	3.4
12	3I	64	TYR	3.4
19	AI	71	LEU	3.3
29	21	75	VAL	3.3
3	22	23	TYR	3.3
25	4L	22	A	3.3
4	32	112	VAL	3.3
8	72	130	GLY	3.3
12	3A	7	ILE	3.3
12	3A	31	PRO	3.3
13	4A	114	ARG	3.3
52	N8	55	ARG	3.3
1	13	1033	G	3.3
48	F5	32	LYS	3.3
53	K5	17	LYS	3.3
17	8A	26	GLN	3.3
26	1H	654(J)	A	3.3
52	N8	57	VAL	3.3
16	7I	18	ARG	3.3
42	95	84	LYS	3.3
48	F5	3	LYS	3.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
55	M5	21	LYS	3.3
37	45	74	TYR	3.3
53	O8	24	GLU	3.3
28	19	147	LEU	3.3
31	41	94	LEU	3.3
14	5I	13	THR	3.3
5	4E	128	PRO	3.3
5	42	17	ALA	3.3
29	21	4	ILE	3.3
33	69	36	ALA	3.3
55	Q8	28	GLY	3.3
16	7A	28	ARG	3.3
47	E5	23	VAL	3.3
55	Q8	23	VAL	3.3
31	49	155	MET	3.3
1	1G	972	C	3.3
12	3A	10	LEU	3.3
3	22	160	ALA	3.3
5	4E	98	THR	3.3
5	42	16	THR	3.3
14	5I	31	ARG	3.3
19	AA	37	ARG	3.3
29	21	199	ARG	3.3
29	29	157	ALA	3.3
42	95	36	PRO	3.3
5	42	125	SER	3.3
3	22	28	GLN	3.3
7	62	38	LEU	3.3
14	5I	34	TYR	3.3
28	11	111	LEU	3.3
8	7E	85	ARG	3.3
20	BA	25	ARG	3.3
39	65	15	ARG	3.3
46	D5	79	ARG	3.3
5	4E	101	ILE	3.3
20	BA	63	ILE	3.3
8	72	129	VAL	3.3
34	15	117	PHE	3.3
4	32	168	ARG	3.3
8	7E	84	ARG	3.3
16	7I	65	GLN	3.3
37	45	63	LYS	3.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
37	45	130	LYS	3.3
39	65	11	LYS	3.3
8	72	59	LEU	3.3
13	4I	96	LEU	3.3
15	6I	68	ARG	3.3
15	6A	68	ARG	3.3
20	BI	20	LEU	3.3
37	45	17	LEU	3.3
48	J8	94	LEU	3.3
53	O8	47	THR	3.3
55	Q8	6	THR	3.3
4	3E	84	LYS	3.3
7	6E	5	ARG	3.3
14	5I	61	TRP	3.3
37	45	76	LYS	3.3
16	7I	8	ARG	3.3
31	49	136	ARG	3.3
3	22	188	LEU	3.3
4	3E	135	LEU	3.3
20	BA	73	HIS	3.3
51	I5	47	GLN	3.3
13	4A	106	ASN	3.3
13	4I	5	ALA	3.3
28	19	51	VAL	3.3
46	D5	172	ALA	3.3
36	35	107	LYS	3.3
37	45	83	MET	3.3
3	22	132	ARG	3.3
21	1F	2	GLY	3.3
21	1B	4	GLY	3.3
8	72	31	PHE	3.2
34	15	78	TYR	3.2
5	4E	90	VAL	3.2
9	82	122	ALA	3.2
56	1L	31	A	3.2
48	F5	40	ARG	3.2
4	3E	101	LEU	3.2
4	32	90	GLY	3.2
12	3A	27	LEU	3.2
1	1G	1029	G	3.2
3	2E	184	TYR	3.2
9	8E	114	TYR	3.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
3	2E	198	VAL	3.2
4	32	14	ARG	3.2
12	3A	55	VAL	3.2
37	45	39	PRO	3.2
2	1E	187	LEU	3.2
29	29	52	LEU	3.2
34	15	104	LYS	3.2
37	45	37	LEU	3.2
17	8I	29	HIS	3.2
32	59	111	HIS	3.2
8	72	13	ILE	3.2
17	8I	42	TYR	3.2
43	A5	103	ILE	3.2
53	O8	37	ARG	3.2
31	49	92	VAL	3.2
32	59	50	VAL	3.2
9	82	118	LYS	3.2
34	15	1	MET	3.2
54	P8	1	MET	3.2
4	32	120	LEU	3.2
8	7E	133	LEU	3.2
20	BA	10	LEU	3.2
47	E5	41	ARG	3.2
2	12	24	TRP	3.2
31	41	25	TYR	3.2
8	72	119	LEU	3.2
9	8E	75	ASP	3.2
49	G5	44	LEU	3.2
39	65	20	ARG	3.2
28	19	90	ALA	3.2
32	59	38	SER	3.2
5	42	43	LEU	3.2
9	82	27	THR	3.2
26	14	1084	A	3.2
5	42	47	LYS	3.2
2	12	197	VAL	3.2
37	45	123	HIS	3.2
39	65	108	GLY	3.2
47	E5	42	GLY	3.2
17	8A	31	LEU	3.2
37	45	42	ILE	3.2
5	42	90	VAL	3.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
8	72	95	VAL	3.2
47	E5	74	ARG	3.2
36	35	118	GLY	3.2
5	42	10	MET	3.2
43	A5	82	LEU	3.2
47	E5	19	LYS	3.2
1	13	311	C	3.2
40	75	101	PHE	3.2
32	59	86	GLU	3.2
4	32	17	VAL	3.2
16	7I	26	ARG	3.2
29	21	187	ALA	3.2
47	E5	61	ALA	3.2
53	K5	29	ASN	3.2
28	19	61	LEU	3.2
31	41	80	PHE	3.2
4	32	209	ARG	3.1
12	3I	33	ARG	3.1
17	8A	92	ARG	3.1
29	29	149	ARG	3.1
36	78	71	VAL	3.1
47	E5	79	VAL	3.1
17	8I	37	LYS	3.1
1	13	1286	A	3.1
28	11	236	GLY	3.1
4	3E	207	TYR	3.1
48	F5	71	TYR	3.1
3	22	135	LYS	3.1
20	BI	21	LYS	3.1
23	2L	1	C	3.1
40	75	110	ILE	3.1
55	Q8	3	LYS	3.1
8	7E	110	ALA	3.1
37	45	40	ALA	3.1
39	65	55	ALA	3.1
49	G5	61	LEU	3.1
13	4I	111	LYS	3.1
31	41	74	LYS	3.1
48	F5	21	ARG	3.1
8	72	61	VAL	3.1
26	14	1537	C	3.1
29	29	113	PHE	3.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
36	35	65	ARG	3.1
14	5A	28	GLY	3.1
14	5A	52	GLN	3.1
21	1B	11	GLY	3.1
29	29	204	ALA	3.1
4	3E	168	ARG	3.1
28	19	254	THR	3.1
52	J5	3	LYS	3.1
38	55	21	TYR	3.1
46	D5	142	SER	3.1
45	C5	61	ILE	3.1
2	12	164	VAL	3.1
5	4E	132	ALA	3.1
56	1L	56	C	3.1
14	5A	47	LEU	3.1
9	8E	125	TYR	3.1
8	72	5	PRO	3.1
13	4I	97	PRO	3.1
5	42	115	VAL	3.1
32	59	26	VAL	3.1
32	59	130	ARG	3.1
49	G5	9	GLN	3.1
51	I5	46	GLN	3.1
38	98	113	LEU	3.1
38	55	4	LEU	3.1
3	22	201	TYR	3.1
42	95	12	TYR	3.1
52	J5	11	THR	3.1
3	22	7	PRO	3.1
16	7A	4	ILE	3.1
16	7A	35	LYS	3.1
5	42	22	GLY	3.1
9	8E	120	ARG	3.1
10	1I	49	VAL	3.1
19	AA	9	VAL	3.1
20	BA	15	ARG	3.1
46	D5	145	GLU	3.1
28	19	6	PHE	3.1
7	62	37	ASN	3.1
19	AA	53	ASN	3.1
55	Q8	27	THR	3.1
14	5I	37	PHE	3.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
26	1H	2799	A	3.1
19	AA	69	HIS	3.1
11	2A	120	ARG	3.1
20	BA	17	ARG	3.1
20	BA	83	ARG	3.1
2	12	165	VAL	3.0
17	8A	71	PHE	3.0
20	BA	24	LEU	3.0
29	29	181	LEU	3.0
14	5I	3	ARG	3.0
26	14	2900	A	3.0
34	15	115	ARG	3.0
32	59	58	GLU	3.0
2	12	26	PRO	3.0
11	2I	25	TYR	3.0
4	3E	89	THR	3.0
33	69	2	LYS	3.0
37	45	132	VAL	3.0
16	7A	7	ALA	3.0
54	L5	2	LYS	3.0
7	62	32	ARG	3.0
47	E5	72	ARG	3.0
38	55	102	GLU	3.0
3	22	157	ILE	3.0
26	1H	654(K)	C	3.0
29	21	147	PRO	3.0
34	15	37	LYS	3.0
48	F5	10	LYS	3.0
31	49	181	ARG	3.0
17	8A	100	LYS	3.0
48	J8	7	ILE	3.0
1	1G	1201	A	3.0
13	4A	23	TYR	3.0
3	22	165	THR	3.0
4	3E	111	ALA	3.0
5	42	127	ASN	3.0
17	8A	57	VAL	3.0
53	O8	48	VAL	3.0
30	39	49	ALA	3.0
4	32	110	PHE	3.0
28	19	206	LEU	3.0
10	1I	101	VAL	3.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
26	14	654(J)	A	3.0
37	45	49	ALA	3.0
40	B8	94	ALA	3.0
11	2I	98	LEU	3.0
17	8A	24	GLU	3.0
29	29	78	LEU	3.0
26	14	2	G	3.0
39	65	13	ARG	3.0
41	85	52	ARG	3.0
49	G5	57	ILE	3.0
32	59	125	VAL	3.0
3	22	166	GLU	3.0
30	39	65	TRP	3.0
30	39	73	ALA	3.0
16	7I	49	LEU	3.0
16	7A	22	THR	3.0
25	4K	25	A	3.0
47	E5	69	PHE	3.0
47	I8	9	SER	3.0
16	7A	63	GLY	3.0
39	65	60	GLY	3.0
17	8A	25	ARG	3.0
37	45	120	ILE	3.0
40	75	112	ARG	3.0
53	O8	44	ARG	3.0
12	3I	91	LYS	3.0
13	4A	117	VAL	3.0
4	32	207	TYR	3.0
28	19	247	ALA	3.0
31	41	137	GLU	3.0
45	C5	53	PRO	3.0
46	D5	51	ALA	3.0
8	72	107	LEU	3.0
9	82	37	PHE	3.0
39	65	29	PHE	3.0
57	3L	16	U	3.0
13	4I	100	GLY	3.0
20	BI	79	ARG	3.0
20	BA	18	GLN	3.0
49	G5	41	ILE	3.0
9	8E	109	VAL	3.0
5	4E	134	ALA	3.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
4	3E	97	LEU	3.0
32	51	83	TYR	3.0
36	35	59	LEU	3.0
13	4A	95	GLY	3.0
14	5I	41	ARG	3.0
4	3E	137	SER	3.0
12	3I	28	LYS	3.0
46	D5	119	GLU	3.0
14	5I	10	ALA	2.9
3	22	29	TYR	2.9
10	1I	45	ARG	2.9
9	82	70	LYS	2.9
5	42	120	THR	2.9
22	1K	75	C	2.9
41	85	25	TRP	2.9
8	7E	86	ILE	2.9
8	72	109	ILE	2.9
2	12	70	PHE	2.9
4	3E	139	ARG	2.9
5	42	93	PRO	2.9
13	4I	104	ARG	2.9
20	BI	87	LYS	2.9
47	E5	60	PHE	2.9
10	1A	38	ILE	2.9
14	5I	22	THR	2.9
26	1H	1537	C	2.9
38	98	47	PHE	2.9
41	85	32	PHE	2.9
17	8A	6	LEU	2.9
16	7A	17	TYR	2.9
32	59	151	ILE	2.9
31	49	83	ARG	2.9
34	58	73	THR	2.9
36	35	25	SER	2.9
37	45	41	TRP	2.9
40	75	106	SER	2.9
42	D8	74	LYS	2.9
2	1E	15	VAL	2.9
34	15	48	MET	2.9
34	15	122	VAL	2.9
37	45	96	VAL	2.9
42	D8	37	VAL	2.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
39	A8	58	LEU	2.9
9	82	88	TYR	2.9
31	49	48	GLU	2.9
21	1B	26	LYS	2.9
8	72	12	ARG	2.9
8	72	38	ILE	2.9
12	3I	15	ARG	2.9
1	1G	1362	C	2.9
4	3E	21	LEU	2.9
55	Q8	60	LEU	2.9
26	14	2897	U	2.9
14	5I	52	GLN	2.9
53	O8	40	CYS	2.9
51	M8	58	ARG	2.9
10	1I	59	SER	2.9
13	4I	105	THR	2.9
17	8A	21	VAL	2.9
37	45	94	VAL	2.9
3	2E	33	LEU	2.9
4	3E	176	LEU	2.9
8	72	10	LEU	2.9
34	15	81	GLY	2.9
46	D5	2	GLU	2.9
10	1A	68	HIS	2.9
34	15	108	PRO	2.9
1	1G	876	G	2.9
46	D5	171	ILE	2.9
2	12	163	PHE	2.9
5	42	121	LYS	2.9
12	3A	68	ALA	2.9
14	5I	60	SER	2.9
40	B8	101	PHE	2.9
17	8A	34	LYS	2.9
20	BI	67	ALA	2.9
26	14	888	C	2.9
45	G8	106	LEU	2.9
17	8A	29	HIS	2.9
29	21	111	ARG	2.9
42	95	80	GLN	2.9
43	E8	24	ILE	2.9
44	B5	89	ILE	2.9
5	42	92	LYS	2.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
8	7E	88	LYS	2.9
16	7I	53	VAL	2.9
17	8I	23	VAL	2.9
30	39	90	PHE	2.9
33	61	118	LYS	2.9
4	32	186	LEU	2.9
5	42	91	LEU	2.9
13	4A	110	ARG	2.9
15	6A	52	SER	2.9
43	E8	23	LEU	2.9
47	E5	53	MET	2.9
20	BI	15	ARG	2.9
46	D5	69	THR	2.9
36	35	39	LYS	2.9
1	1G	378	G	2.9
9	82	107	ARG	2.9
17	8A	35	VAL	2.9
34	58	74	ARG	2.9
31	49	73	ALA	2.9
38	98	79	LEU	2.9
5	42	98	THR	2.8
10	1I	67	THR	2.8
26	14	1033	U	2.8
9	8E	117	HIS	2.8
12	3I	11	VAL	2.8
20	BA	80	ARG	2.8
32	59	109	PHE	2.8
32	59	113	VAL	2.8
1	1G	974	A	2.8
29	29	114	ALA	2.8
46	D5	144	LEU	2.8
47	E5	59	LEU	2.8
34	58	83	LYS	2.8
37	45	12	GLN	2.8
46	D5	118	GLN	2.8
1	1G	1354	C	2.8
4	32	37	PRO	2.8
8	7E	6	ILE	2.8
16	7I	42	ARG	2.8
20	BA	79	ARG	2.8
32	59	163	TYR	2.8
37	88	10	ARG	2.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
41	85	47	TYR	2.8
5	42	85	GLY	2.8
5	4E	119	LEU	2.8
11	2A	123	LYS	2.8
39	65	57	LYS	2.8
8	7E	3	THR	2.8
8	7E	102	ARG	2.8
32	59	68	THR	2.8
37	45	93	TYR	2.8
31	49	28	VAL	2.8
48	J8	49	VAL	2.8
30	39	22	ALA	2.8
23	2K	77	A	2.8
28	19	204	ILE	2.8
20	BA	27	LYS	2.8
39	65	87	PHE	2.8
48	F5	22	GLY	2.8
13	4I	87	TYR	2.8
19	AA	11	VAL	2.8
29	21	198	VAL	2.8
9	82	79	LEU	2.8
20	BA	13	LEU	2.8
9	8E	121	ARG	2.8
32	59	167	GLU	2.8
36	35	33	ARG	2.8
37	45	133	ARG	2.8
38	55	8	ARG	2.8
16	7A	3	LYS	2.8
19	AA	76	PRO	2.8
16	7A	36	ILE	2.8
29	29	134	ILE	2.8
31	49	116	ASP	2.8
56	1L	2	C	2.8
17	8A	95	TYR	2.8
29	29	75	VAL	2.8
28	11	262	ARG	2.8
55	M5	46	ARG	2.8
2	12	132	LYS	2.8
2	1E	167	PRO	2.8
31	41	23	PHE	2.8
37	45	57	HIS	2.8
1	1G	1223	C	2.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
16	7A	34	GLU	2.8
26	1H	888	C	2.8
30	39	97	TYR	2.8
8	7E	7	ALA	2.8
39	65	51	ALA	2.8
45	C5	19	LYS	2.8
1	1G	1196	U	2.8
48	F5	18	ILE	2.8
28	19	3	VAL	2.8
38	98	17	ARG	2.8
55	M5	31	HIS	2.8
1	1G	968	A	2.8
1	1G	1226	C	2.8
2	1E	27	LYS	2.8
15	6I	56	LEU	2.8
21	1F	3	LYS	2.8
48	F5	94	LEU	2.8
38	98	21	TYR	2.8
16	7I	48	TRP	2.8
8	7E	131	GLY	2.8
18	9A	43	PHE	2.8
32	59	148	ILE	2.8
5	4E	122	GLU	2.8
55	M5	59	LYS	2.8
34	15	9	VAL	2.8
36	35	38	GLN	2.8
20	BA	26	ASN	2.7
28	19	234	GLY	2.7
8	72	35	ILE	2.7
15	6I	88	ARG	2.7
19	AA	13	ASP	2.7
17	8A	23	VAL	2.7
46	D5	125	LEU	2.7
48	F5	95	LEU	2.7
12	3I	6	THR	2.7
41	85	46	ALA	2.7
50	H5	15	TYR	2.7
1	1G	1028(B)	C	2.7
12	3A	12	ARG	2.7
20	BI	68	LYS	2.7
36	35	50	ARG	2.7
4	32	146	ILE	2.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
29	29	51	PHE	2.7
34	58	85	ILE	2.7
39	A8	112	PHE	2.7
45	C5	64	GLU	2.7
31	49	37	VAL	2.7
34	58	75	TYR	2.7
9	82	20	ARG	2.7
32	51	3	ARG	2.7
53	K5	38	LYS	2.7
39	A8	12	PHE	2.7
3	22	94	LEU	2.7
12	3A	13	LYS	2.7
28	19	59	LYS	2.7
34	15	70	LYS	2.7
4	32	122	ARG	2.7
9	82	42	ARG	2.7
13	4I	94	ARG	2.7
19	AA	52	TYR	2.7
28	19	16	MET	2.7
3	22	39	ILE	2.7
10	1I	50	ILE	2.7
22	1K	16	U	2.7
29	21	55	ASN	2.7
2	12	196	LEU	2.7
4	32	11	LEU	2.7
5	42	20	GLN	2.7
20	BA	104	LEU	2.7
9	82	119	ALA	2.7
41	85	49	HIS	2.7
46	D5	173	ALA	2.7
51	M8	53	GLU	2.7
8	72	17	THR	2.7
11	2A	117	ASN	2.7
3	22	4	LYS	2.7
10	1A	7	LYS	2.7
17	8I	38	ARG	2.7
31	49	26	GLN	2.7
33	69	37	VAL	2.7
5	4E	125	SER	2.7
16	7I	24	ALA	2.7
32	59	159	GLU	2.7
5	42	19	MET	2.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
3	22	177	THR	2.7
11	2A	122	LYS	2.7
51	M8	42	PHE	2.7
8	72	15	ASN	2.7
45	C5	2	ARG	2.7
4	32	135	LEU	2.7
10	1I	94	VAL	2.7
31	49	179	PRO	2.7
43	A5	17	VAL	2.7
45	C5	39	VAL	2.7
19	AI	61	TYR	2.7
5	42	80	ILE	2.7
19	AA	62	ILE	2.7
21	1F	24	ARG	2.7
28	19	270	ILE	2.7
39	65	40	ILE	2.7
53	K5	47	THR	2.7
1	1G	1117	G	2.7
37	45	92	GLY	2.7
41	C8	25	TRP	2.7
47	E5	24	LYS	2.7
3	22	31	HIS	2.7
34	15	76	SER	2.7
8	72	18	ARG	2.7
4	3E	204	ILE	2.7
9	8E	36	TYR	2.7
51	I5	49	PHE	2.7
56	1L	55	U	2.7
8	7E	119	LEU	2.7
20	BI	71	THR	2.7
40	B8	114	LEU	2.7
41	C8	83	LEU	2.7
46	D5	168	GLU	2.7
49	G5	60	LEU	2.7
50	H5	8	LEU	2.7
11	2I	11	LYS	2.7
17	8A	67	LYS	2.7
55	Q8	2	PRO	2.7
8	7E	92	ARG	2.7
19	AA	57	HIS	2.7
37	45	14	ARG	2.7
17	8A	59	ILE	2.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
11	2I	123	LYS	2.6
14	5I	17	LYS	2.6
37	88	17	LEU	2.6
39	65	26	LEU	2.6
39	65	110	LEU	2.6
3	22	195	VAL	2.6
21	1F	10	ARG	2.6
50	H5	21	ALA	2.6
5	4E	45	PHE	2.6
39	65	12	PHE	2.6
47	I8	57	PHE	2.6
48	J8	60	PHE	2.6
1	1G	966	G	2.6
33	69	112	LYS	2.6
17	8A	43	LEU	2.6
39	A8	24	LEU	2.6
42	D8	38	LEU	2.6
48	J8	73	LEU	2.6
31	49	27	ASN	2.6
41	85	6	THR	2.6
8	7E	135	CYS	2.6
12	3A	48	PRO	2.6
14	5A	14	PRO	2.6
31	49	95	ARG	2.6
9	82	13	ALA	2.6
48	F5	27	GLU	2.6
7	62	156	TRP	2.6
24	3K	20	U	2.6
41	C8	80	ILE	2.6
48	J8	90	ILE	2.6
3	2E	188	LEU	2.6
28	19	215	LEU	2.6
48	F5	42	GLN	2.6
16	7A	2	VAL	2.6
26	1H	896	A	2.6
42	95	72	VAL	2.6
35	25	2	ILE	2.6
48	J8	13	ILE	2.6
55	Q8	58	ILE	2.6
36	35	42	SER	2.6
5	4E	126	ARG	2.6
17	8I	91	ARG	2.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
40	B8	99	LEU	2.6
5	4E	105	VAL	2.6
13	4A	24	GLY	2.6
16	7I	62	VAL	2.6
28	11	59	LYS	2.6
42	D8	78	LYS	2.6
12	3A	94	PRO	2.6
46	D5	68	PRO	2.6
10	1I	11	PHE	2.6
26	14	4	C	2.6
2	1E	222	ILE	2.6
13	4A	71	ARG	2.6
48	F5	20	ARG	2.6
39	A8	73	LEU	2.6
42	95	94	LEU	2.6
5	42	100	VAL	2.6
8	72	137	VAL	2.6
31	49	12	TYR	2.6
54	L5	14	LYS	2.6
29	29	24	THR	2.6
30	31	48	THR	2.6
4	3E	3	ARG	2.6
1	1G	1367	C	2.6
26	14	2896	C	2.6
20	BA	21	LYS	2.6
46	D5	155	LEU	2.6
53	O8	27	LYS	2.6
55	Q8	47	LYS	2.6
8	72	118	VAL	2.6
31	49	25	TYR	2.6
40	75	100	TYR	2.6
46	H8	153	SER	2.6
4	3E	79	PHE	2.6
8	72	102	ARG	2.6
16	7A	26	ARG	2.6
1	1G	977	A	2.6
19	AI	79	THR	2.6
19	AA	77	THR	2.6
28	19	161	THR	2.6
1	1G	1061	G	2.6
4	32	201	GLN	2.6
55	M5	41	ILE	2.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
2	1E	196	LEU	2.6
3	22	12	LEU	2.6
28	19	182	LEU	2.6
14	5I	25	VAL	2.6
38	55	6	SER	2.6
9	8E	119	ALA	2.6
30	39	92	PRO	2.6
43	E8	104	THR	2.6
4	32	96	LEU	2.6
16	7A	60	LEU	2.6
26	1H	1536	A	2.6
33	69	6	LEU	2.6
46	D5	5	LEU	2.6
26	1H	277	C	2.6
51	M8	40	HIS	2.6
4	32	73	ARG	2.6
46	D5	80	ARG	2.6
39	65	6	ALA	2.6
48	F5	33	LYS	2.6
5	4E	124	GLY	2.5
10	1I	8	LEU	2.5
38	98	114	VAL	2.5
39	65	85	VAL	2.5
3	2E	201	TYR	2.5
3	22	184	TYR	2.5
29	21	151	TYR	2.5
39	A8	7	TYR	2.5
41	85	24	TYR	2.5
57	3L	6	G	2.5
15	6A	2	PRO	2.5
3	22	13	GLY	2.5
14	5I	44	LEU	2.5
36	35	52	GLU	2.5
2	1E	101	MET	2.5
12	3A	47	LYS	2.5
36	78	36	LYS	2.5
42	95	78	LYS	2.5
47	E5	46	LYS	2.5
51	I5	44	THR	2.5
32	59	65	HIS	2.5
4	3E	68	TYR	2.5
8	72	65	TYR	2.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
17	8A	42	TYR	2.5
39	65	53	SER	2.5
41	85	48	ALA	2.5
50	H5	12	PRO	2.5
10	1A	6	ILE	2.5
13	4A	9	ILE	2.5
32	59	18	GLU	2.5
32	59	34	GLU	2.5
2	12	115	LEU	2.5
28	11	206	LEU	2.5
28	11	263	ARG	2.5
33	61	9	LEU	2.5
34	15	34	LEU	2.5
39	A8	3	ARG	2.5
50	H5	18	ASP	2.5
3	2E	128	PHE	2.5
26	1H	1762	A	2.5
28	19	39	LYS	2.5
20	BI	101	GLY	2.5
26	1H	2125	G	2.5
26	14	944	G	2.5
37	45	62	GLY	2.5
41	C8	88	ILE	2.5
39	A8	4	LEU	2.5
43	A5	86	LEU	2.5
8	72	138	TRP	2.5
7	6E	33	ASP	2.5
4	32	54	TYR	2.5
4	32	68	TYR	2.5
4	32	195	ALA	2.5
5	4E	138	ALA	2.5
20	BA	76	ALA	2.5
47	E5	26	TYR	2.5
5	42	18	ARG	2.5
26	14	2476	A	2.5
47	E5	20	ARG	2.5
51	M8	37	SER	2.5
43	A5	19	LEU	2.5
28	19	34	VAL	2.5
16	7I	12	LYS	2.5
45	G8	89	PHE	2.5
48	F5	39	LYS	2.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
5	42	48	ALA	2.5
15	6I	65	ARG	2.5
15	6I	62	GLN	2.5
47	I8	40	GLN	2.5
1	1G	1363	A	2.5
20	BA	41	ILE	2.5
25	4K	15	A	2.5
4	3E	9	CYS	2.5
28	19	257	LEU	2.5
38	55	70	LEU	2.5
54	L5	31	LEU	2.5
31	49	36	LYS	2.5
34	58	84	LYS	2.5
4	32	47	ARG	2.5
20	BI	17	ARG	2.5
20	BA	8	ARG	2.5
38	55	17	ARG	2.5
29	29	131	ALA	2.5
28	19	62	TYR	2.5
30	39	76	GLY	2.5
47	I8	42	GLY	2.5
3	2E	14	ILE	2.5
17	8A	28	PRO	2.5
20	BA	19	SER	2.5
26	14	2477	C	2.5
30	39	181	LEU	2.5
46	D5	57	ILE	2.5
12	3I	21	LYS	2.5
1	1G	1251	A	2.5
13	4I	106	ASN	2.5
34	15	45	ASN	2.5
37	45	89	ASN	2.5
42	95	76	LYS	2.5
52	J5	10	LYS	2.5
1	1G	952	U	2.5
24	3K	33	U	2.5
36	35	19	VAL	2.5
13	4I	110	ARG	2.5
15	6A	54	ARG	2.5
36	35	119	GLU	2.5
37	88	59	ARG	2.5
40	75	76	PHE	2.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
4	32	32	ALA	2.5
13	4A	105	THR	2.5
26	1H	2115	G	2.5
38	55	71	GLN	2.5
39	65	7	TYR	2.5
1	1G	879	C	2.5
30	39	81	PRO	2.5
31	49	172	LEU	2.5
34	58	82	LEU	2.5
13	4A	91	ARG	2.5
29	29	7	VAL	2.5
55	M5	23	VAL	2.5
10	1I	54	PHE	2.5
16	7I	68	ASP	2.5
26	14	2173	A	2.5
7	6E	156	TRP	2.5
9	82	74	ILE	2.5
57	3L	19	G	2.5
4	32	76	ARG	2.4
28	19	54	ARG	2.4
1	1G	884	U	2.4
8	72	44	PHE	2.4
14	5I	56	VAL	2.4
16	7A	80	PHE	2.4
29	21	167	VAL	2.4
35	25	81	ASP	2.4
26	14	1096	A	2.4
50	H5	10	LYS	2.4
9	8E	115	GLY	2.4
48	F5	64	ALA	2.4
55	M5	9	GLY	2.4
32	59	61	HIS	2.4
36	35	27	HIS	2.4
28	19	214	TRP	2.4
7	6E	16	LEU	2.4
7	62	154	TYR	2.4
28	19	33	LEU	2.4
28	19	155	LEU	2.4
33	69	9	LEU	2.4
35	25	32	TYR	2.4
36	35	75	ILE	2.4
47	E5	77	ARG	2.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
8	7E	89	PRO	2.4
26	14	2148	G	2.4
1	1G	1358	U	2.4
4	32	206	PHE	2.4
14	5I	58	LYS	2.4
31	41	182	LYS	2.4
46	D5	96	VAL	2.4
13	4A	100	GLY	2.4
51	I5	54	GLY	2.4
4	32	48	ALA	2.4
10	1I	20	ALA	2.4
2	1E	61	LEU	2.4
9	8E	102	LEU	2.4
30	39	33	LEU	2.4
31	49	94	LEU	2.4
41	85	62	ILE	2.4
46	D5	24	LEU	2.4
44	B5	5	TYR	2.4
43	E8	97	LYS	2.4
55	Q8	5	LYS	2.4
2	12	112	VAL	2.4
28	19	205	VAL	2.4
26	1H	2798	C	2.4
26	14	832	G	2.4
21	1B	7	ARG	2.4
40	75	5	ALA	2.4
31	49	35	GLU	2.4
4	32	196	LEU	2.4
20	BI	55	ILE	2.4
26	1H	2119	A	2.4
28	11	35	LYS	2.4
30	39	93	LYS	2.4
55	M5	60	LEU	2.4
37	45	129	THR	2.4
4	32	185	PHE	2.4
48	F5	70	VAL	2.4
16	7I	23	ASP	2.4
29	29	115	GLY	2.4
9	8E	128	ARG	2.4
14	5I	57	ARG	2.4
44	B5	60	ARG	2.4
1	1G	976	G	2.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	1G	1365	G	2.4
26	1H	1176	G	2.4
43	A5	97	LYS	2.4
5	4E	31	LEU	2.4
11	2A	48	ILE	2.4
13	4I	92	HIS	2.4
29	21	52	LEU	2.4
16	7I	21	VAL	2.4
17	8I	30	PRO	2.4
26	14	1103	A	2.4
26	14	2790	A	2.4
31	49	159	VAL	2.4
10	1A	52	GLY	2.4
17	8I	99	SER	2.4
20	BI	83	ARG	2.4
28	19	203	ASN	2.4
33	69	20	ASP	2.4
38	98	14	SER	2.4
43	A5	101	SER	2.4
50	H5	11	SER	2.4
55	Q8	59	LYS	2.4
1	1G	877	C	2.4
13	4A	76	ALA	2.4
2	12	155	LEU	2.4
28	19	24	ILE	2.4
37	45	47	ILE	2.4
37	45	127	ILE	2.4
8	7E	94	TYR	2.4
16	7A	18	ARG	2.4
34	15	51	PHE	2.4
37	45	29	PHE	2.4
41	C8	28	ARG	2.4
41	85	2	PRO	2.4
44	B5	52	VAL	2.4
31	49	30	GLU	2.4
36	78	70	GLN	2.4
36	35	81	GLN	2.4
47	I8	46	LYS	2.4
36	78	150	ALA	2.4
48	F5	15	ALA	2.4
4	3E	162	LEU	2.4
5	42	11	ILE	2.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
15	6I	57	LEU	2.4
31	41	60	LEU	2.4
32	51	87	LEU	2.4
38	98	20	LEU	2.4
38	98	100	LEU	2.4
1	13	111	G	2.4
3	22	26	LYS	2.4
16	7I	5	ARG	2.4
28	19	13	ARG	2.4
32	59	62	LYS	2.4
34	15	118	LYS	2.4
35	68	66	LYS	2.4
41	C8	22	LYS	2.4
41	85	16	LYS	2.4
53	O8	33	LYS	2.4
57	3L	37	A	2.4
30	39	80	ALA	2.4
41	C8	35	ALA	2.4
48	F5	2	SER	2.4
30	39	78	ILE	2.4
32	59	121	ILE	2.4
36	35	29	LYS	2.4
9	82	18	PHE	2.4
42	D8	75	PHE	2.4
7	62	34	GLY	2.4
31	49	70	VAL	2.4
34	15	44	PRO	2.4
36	78	34	GLY	2.4
37	45	52	VAL	2.4
1	1G	1451	A	2.4
26	1H	2062	A	2.4
3	2E	27	LYS	2.4
5	4E	131	ILE	2.4
15	6A	65	ARG	2.4
35	68	122	LEU	2.4
41	85	18	LEU	2.4
5	4E	83	GLU	2.3
41	C8	32	PHE	2.3
54	L5	18	PHE	2.3
2	1E	202	PRO	2.3
7	62	151	TYR	2.3
30	39	96	ASP	2.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	1G	326	G	2.3
3	22	60	ALA	2.3
4	32	66	ARG	2.3
13	4I	108	ARG	2.3
1	1G	60	A	2.3
1	1G	983	A	2.3
1	1G	1236	A	2.3
3	22	152	ILE	2.3
29	29	183	LEU	2.3
35	25	19	ILE	2.3
45	C5	75	ILE	2.3
3	22	35	GLU	2.3
26	14	2111	C	2.3
28	19	53	PHE	2.3
46	D5	48	PHE	2.3
32	51	85	LYS	2.3
32	59	77	LYS	2.3
7	6E	4	ARG	2.3
17	8I	25	ARG	2.3
33	69	27	ARG	2.3
55	M5	13	ARG	2.3
13	4I	107	ALA	2.3
37	45	121	ALA	2.3
5	4E	13	ILE	2.3
29	29	140	SER	2.3
34	15	99	LEU	2.3
36	35	62	LEU	2.3
36	35	28	GLY	2.3
45	C5	58	GLY	2.3
1	13	307	C	2.3
12	3A	9	GLN	2.3
15	6I	60	VAL	2.3
18	9A	84	LYS	2.3
47	E5	70	GLN	2.3
3	2E	179	ARG	2.3
29	29	126	PRO	2.3
14	5I	21	TYR	2.3
19	AA	44	MET	2.3
33	61	146	ALA	2.3
47	I8	53	MET	2.3
4	3E	158	ILE	2.3
28	11	37	LEU	2.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
28	11	92	ILE	2.3
31	41	63	ILE	2.3
50	H5	13	ILE	2.3
50	H5	23	LEU	2.3
38	98	15	SER	2.3
29	29	50	GLY	2.3
1	1G	978	A	2.3
10	1A	101	VAL	2.3
11	2I	13	GLN	2.3
1	1G	883	C	2.3
17	8A	91	ARG	2.3
36	78	79	ARG	2.3
48	F5	4	VAL	2.3
26	1H	654(I)	C	2.3
48	F5	61	ARG	2.3
1	1G	1049	U	2.3
20	BA	64	ASP	2.3
21	1F	18	TYR	2.3
51	I5	43	TYR	2.3
16	7A	24	ALA	2.3
17	8I	59	ILE	2.3
38	55	44	LEU	2.3
28	19	235	GLY	2.3
16	7I	20	VAL	2.3
16	7A	65	GLN	2.3
55	M5	30	ARG	2.3
29	29	104	VAL	2.3
42	D8	79	VAL	2.3
26	14	1095	A	2.3
43	E8	111	HIS	2.3
4	3E	136	PRO	2.3
5	4E	106	PRO	2.3
10	1A	41	PRO	2.3
6	5E	63	TYR	2.3
31	41	35	GLU	2.3
2	12	145	LEU	2.3
10	1I	55	LYS	2.3
11	2I	122	LYS	2.3
33	69	25	TYR	2.3
34	15	90	MET	2.3
5	42	76	ILE	2.3
14	5I	47	LEU	2.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
40	75	78	LEU	2.3
50	L8	8	LEU	2.3
53	O8	45	LYS	2.3
17	8A	65	ILE	2.3
19	AI	40	ILE	2.3
16	7I	37	GLY	2.3
39	65	109	GLY	2.3
44	B5	65	ARG	2.3
32	59	144	VAL	2.3
36	78	64	LYS	2.3
55	M5	56	GLU	2.3
1	1G	1254	C	2.3
1	1G	1397	C	2.3
17	8I	22	LEU	2.3
18	9A	44	LEU	2.3
38	98	70	LEU	2.3
4	3E	75	PHE	2.3
4	32	79	PHE	2.3
44	B5	28	PHE	2.3
2	12	240	GLN	2.3
5	4E	130	ASN	2.3
47	E5	43	THR	2.3
35	25	42	SER	2.3
35	25	63	VAL	2.3
46	H8	149	SER	2.3
48	F5	65	SER	2.3
3	22	161	GLU	2.3
29	29	73	GLU	2.3
31	41	75	LYS	2.3
32	59	32	GLU	2.3
5	42	78	HIS	2.3
10	1A	37	PRO	2.3
3	22	59	ARG	2.3
3	22	175	LEU	2.3
4	3E	78	LEU	2.3
4	32	188	LEU	2.3
15	6I	72	ARG	2.3
27	1J	1(M)	A	2.3
30	31	72	ARG	2.3
33	69	29	TYR	2.3
36	35	138	LEU	2.3
38	98	68	ARG	2.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
3	2E	182	ILE	2.3
8	72	6	ILE	2.3
9	8E	8	GLY	2.3
17	8A	60	ILE	2.3
39	A8	109	GLY	2.3
43	E8	96	ILE	2.3
28	19	208	LYS	2.3
32	59	133	VAL	2.3
36	78	30	THR	2.3
21	1F	9	ARG	2.3
26	14	1094	U	2.3
3	2E	196	LEU	2.3
3	22	34	LEU	2.3
4	32	67	ILE	2.3
14	5I	28	GLY	2.3
31	41	133	LEU	2.3
31	49	177	GLY	2.3
1	1G	377	G	2.3
4	3E	203	VAL	2.2
48	F5	14	VAL	2.2
57	3L	33	U	2.2
28	19	82	ILE	2.2
28	19	238	GLY	2.2
36	35	34	GLY	2.2
52	J5	58	LEU	2.2
53	O8	41	PRO	2.2
3	2E	4	LYS	2.2
11	2I	125	PHE	2.2
12	3A	98	TYR	2.2
37	88	38	GLU	2.2
39	A8	38	GLN	2.2
47	E5	11	ARG	2.2
4	32	83	SER	2.2
42	95	45	THR	2.2
44	B5	3	THR	2.2
47	E5	58	THR	2.2
26	14	2144	U	2.2
48	J8	69	LYS	2.2
4	32	97	LEU	2.2
29	21	49	LEU	2.2
31	41	34	LEU	2.2
33	69	146	ALA	2.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
48	F5	66	HIS	2.2
50	H5	53	LEU	2.2
36	78	51	PHE	2.2
43	E8	103	ILE	2.2
48	F5	7	ILE	2.2
29	29	167	VAL	2.2
55	Q8	13	ARG	2.2
15	6A	48	LYS	2.2
26	14	229	A	2.2
1	1G	107	G	2.2
4	32	21	LEU	2.2
14	5I	6	LEU	2.2
8	7E	31	PHE	2.2
12	3I	85	ILE	2.2
36	35	48	PRO	2.2
14	5I	27	CYS	2.2
19	AA	34	TRP	2.2
31	49	96	ARG	2.2
9	8E	116	LYS	2.2
9	82	78	LYS	2.2
29	29	145	LYS	2.2
31	41	31	VAL	2.2
31	41	160	VAL	2.2
42	95	68	LYS	2.2
7	62	84	ASN	2.2
3	22	158	GLY	2.2
16	7I	69	THR	2.2
26	14	2506	U	2.2
36	35	47	ASP	2.2
30	31	80	ALA	2.2
38	55	29	LEU	2.2
39	65	54	LEU	2.2
41	C8	39	LEU	2.2
45	C5	90	LEU	2.2
55	Q8	50	LEU	2.2
9	8E	101	PHE	2.2
1	1G	1032(B)	G	2.2
16	7I	71	ARG	2.2
39	65	9	ARG	2.2
7	62	36	LYS	2.2
4	3E	170	VAL	2.2
4	32	56	VAL	2.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
8	7E	93	VAL	2.2
11	2I	14	VAL	2.2
31	49	38	VAL	2.2
41	85	90	VAL	2.2
45	C5	13	VAL	2.2
1	1G	1450	U	2.2
9	82	40	LEU	2.2
17	8A	76	LEU	2.2
22	1K	20	U	2.2
29	29	195	LEU	2.2
39	A8	111	GLU	2.2
40	75	109	GLU	2.2
26	14	575	A	2.2
44	B5	92	LEU	2.2
46	H8	18	LEU	2.2
31	49	80	PHE	2.2
34	15	71	ILE	2.2
7	6E	106	GLN	2.2
26	14	654(L)	G	2.2
16	7A	51	VAL	2.2
31	41	37	VAL	2.2
1	1G	1060	C	2.2
1	1G	1321	C	2.2
8	72	99	GLU	2.2
2	1E	209	ARG	2.2
3	22	17	ASP	2.2
29	29	143	ASN	2.2
41	C8	59	ARG	2.2
41	85	44	ASN	2.2
45	G8	92	ASN	2.2
52	N8	25	LEU	2.2
16	7I	64	ALA	2.2
37	45	50	ALA	2.2
40	75	57	PHE	2.2
50	H5	25	ALA	2.2
38	98	39	PRO	2.2
11	2A	75	TYR	2.2
37	45	81	VAL	2.2
39	65	92	TYR	2.2
42	95	79	VAL	2.2
9	82	68	GLY	2.2
11	2A	71	LYS	2.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
26	14	2145	C	2.2
41	85	10	ARG	2.2
10	1I	71	LEU	2.2
28	11	61	LEU	2.2
14	5I	42	ILE	2.2
45	C5	69	ALA	2.2
50	H5	43	ILE	2.2
8	7E	5	PRO	2.2
2	1E	164	VAL	2.2
9	82	28	VAL	2.2
9	82	41	VAL	2.2
10	1I	22	LYS	2.2
13	4I	98	VAL	2.2
16	7I	34	GLU	2.2
17	8I	4	LYS	2.2
33	69	10	GLU	2.2
41	C8	90	VAL	2.2
9	82	30	GLY	2.2
17	8A	70	ARG	2.2
55	M5	36	LYS	2.2
1	1G	112	G	2.2
1	1G	230	G	2.2
8	7E	59	LEU	2.2
3	22	189	ALA	2.2
11	2I	83	ILE	2.2
4	3E	31	CYS	2.2
41	85	14	HIS	2.2
29	21	69	LYS	2.2
30	39	72	ARG	2.2
32	59	138	LYS	2.2
36	35	108	LYS	2.2
13	4I	7	VAL	2.2
31	49	11	TYR	2.2
33	69	19	VAL	2.2
40	75	63	VAL	2.2
41	85	50	ARG	2.2
5	4E	139	LEU	2.1
9	82	19	LEU	2.1
15	6A	57	LEU	2.1
34	15	67	LEU	2.1
47	I8	69	PHE	2.1
2	1E	201	ILE	2.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
28	11	93	ALA	2.1
47	E5	12	ASN	2.1
1	13	1031	G	2.1
5	42	106	PRO	2.1
45	C5	28	LYS	2.1
48	J8	87	PRO	2.1
55	Q8	7	HIS	2.1
8	72	97	VAL	2.1
1	1G	969	A	2.1
26	14	2126	A	2.1
7	6E	99	LEU	2.1
12	3A	84	LEU	2.1
33	61	116	LEU	2.1
38	55	69	ASP	2.1
47	I8	37	LEU	2.1
55	M5	50	LEU	2.1
20	BA	65	LYS	2.1
30	31	42	ALA	2.1
37	88	41	TRP	2.1
43	A5	81	ALA	2.1
47	I8	6	ALA	2.1
1	1G	1149	C	2.1
8	72	37	ARG	2.1
28	19	232	PRO	2.1
37	88	1	MET	2.1
26	1H	2116	G	2.1
48	F5	17	SER	2.1
3	22	205	GLY	2.1
4	32	133	VAL	2.1
39	65	14	VAL	2.1
42	95	86	GLY	2.1
2	1E	213	LEU	2.1
15	6A	32	LEU	2.1
29	21	5	LEU	2.1
36	78	108	LYS	2.1
1	1G	325	A	2.1
26	14	5	A	2.1
4	3E	24	GLU	2.1
5	4E	24	ARG	2.1
13	4A	72	ALA	2.1
39	65	38	GLN	2.1
2	12	97	TRP	2.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
56	1L	41	C	2.1
4	3E	140	VAL	2.1
12	3A	11	VAL	2.1
17	8A	8	GLY	2.1
39	A8	49	VAL	2.1
1	13	306	G	2.1
1	13	631	G	2.1
48	F5	91	LYS	2.1
7	62	101	LEU	2.1
13	4A	81	LEU	2.1
29	29	49	LEU	2.1
31	49	3	LEU	2.1
39	A8	92	TYR	2.1
2	1E	45	GLN	2.1
3	2E	57	ILE	2.1
4	3E	15	GLU	2.1
4	32	144	ASP	2.1
39	A8	17	ARG	2.1
10	1I	74	ILE	2.1
20	BI	33	ILE	2.1
35	25	84	ALA	2.1
57	3L	60	U	2.1
5	42	136	MET	2.1
29	29	117	MET	2.1
8	72	26	VAL	2.1
11	2A	124	LYS	2.1
49	K8	63	VAL	2.1
51	I5	45	GLY	2.1
28	19	212	SER	2.1
5	42	135	THR	2.1
15	6A	31	LEU	2.1
41	85	3	ARG	2.1
44	F8	66	LEU	2.1
26	14	1131	G	2.1
41	85	56	ASP	2.1
9	8E	106	ALA	2.1
9	82	77	ILE	2.1
19	AA	40	ILE	2.1
28	19	64	ILE	2.1
8	7E	9	MET	2.1
12	3A	29	GLY	2.1
28	19	246	PRO	2.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
33	61	111	PRO	2.1
44	F8	1	MET	2.1
55	Q8	25	MET	2.1
42	D8	46	VAL	2.1
45	C5	30	VAL	2.1
3	22	127	ARG	2.1
10	1I	68	HIS	2.1
21	1F	22	ARG	2.1
46	D5	151	HIS	2.1
13	4A	19	LEU	2.1
17	8A	89	LEU	2.1
28	19	67	PHE	2.1
39	A8	48	LEU	2.1
46	D5	170	THR	2.1
1	13	560	U	2.1
8	72	124	ALA	2.1
9	82	81	ILE	2.1
29	29	162	ALA	2.1
33	61	109	ILE	2.1
1	13	230	G	2.1
55	Q8	44	LYS	2.1
5	4E	27	ARG	2.1
8	72	74	PRO	2.1
20	BA	75	ASN	2.1
16	7A	5	ARG	2.1
46	D5	81	ARG	2.1
46	D5	141	VAL	2.1
1	1G	962	C	2.1
39	65	43	GLU	2.1
55	M5	7	HIS	2.1
56	1L	4	C	2.1
4	32	93	PHE	2.1
12	3I	10	LEU	2.1
28	19	15	PHE	2.1
48	F5	60	PHE	2.1
3	22	192	THR	2.1
3	2E	39	ILE	2.1
10	1I	38	ILE	2.1
30	31	64	ILE	2.1
36	78	110	TYR	2.1
40	B8	52	ILE	2.1
40	B8	110	ILE	2.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
51	M8	22	ILE	2.1
2	12	96	ARG	2.1
5	42	32	VAL	2.1
33	69	18	VAL	2.1
48	J8	51	VAL	2.1
1	1G	1116	C	2.1
1	1G	1400	C	2.1
3	2E	26	LYS	2.1
3	22	33	LEU	2.1
7	62	153	HIS	2.1
24	3K	64	A	2.1
32	59	16	SER	2.1
41	C8	40	PHE	2.1
41	C8	106	PHE	2.1
43	A5	13	SER	2.1
56	1L	40	C	2.1
4	3E	102	ASP	2.1
32	51	162	ILE	2.1
41	C8	38	THR	2.1
4	32	50	ARG	2.1
7	6E	3	ARG	2.1
13	4A	94	ARG	2.1
5	4E	92	LYS	2.1
5	4E	100	VAL	2.1
8	72	77	GLU	2.1
43	A5	78	GLU	2.1
30	31	66	PRO	2.1
48	F5	49	VAL	2.1
1	13	108	G	2.1
3	2E	91	LEU	2.0
4	3E	93	PHE	2.1
4	32	64	LEU	2.0
4	32	94	LEU	2.0
7	6E	86	GLN	2.0
9	82	85	LEU	2.0
13	4A	70	LEU	2.0
14	5I	53	LEU	2.0
15	6A	56	LEU	2.0
30	39	83	PHE	2.1
34	15	107	LEU	2.0
38	98	13	HIS	2.0
57	3L	62	C	2.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
9	8E	81	ILE	2.0
10	1I	58	ASP	2.0
12	3A	100	ILE	2.0
39	A8	9	ARG	2.0
48	J8	26	ARG	2.0
37	45	100	GLY	2.0
15	6A	5	LYS	2.0
42	D8	76	LYS	2.0
48	F5	57	GLU	2.0
3	22	64	VAL	2.0
7	62	105	VAL	2.0
19	AI	76	PRO	2.0
29	29	188	VAL	2.0
34	58	44	PRO	2.0
40	75	28	VAL	2.0
42	D8	47	VAL	2.0
9	8E	40	LEU	2.0
19	AI	15	LEU	2.0
47	E5	62	LEU	2.0
15	6I	63	ARG	2.0
1	1G	781	A	2.0
23	2L	77	A	2.0
26	1H	34	C	2.0
26	1H	2612	C	2.0
28	19	49	ILE	2.0
42	D8	82	ARG	2.0
20	BA	78	ALA	2.0
16	7A	54	GLU	2.0
26	1H	2113	U	2.0
48	F5	24	ALA	2.0
43	E8	98	LYS	2.0
46	D5	162	GLU	2.0
56	1L	47	U	2.0
38	98	37	THR	2.0
19	AI	41	VAL	2.0
29	21	165	VAL	2.0
29	29	173	VAL	2.0
28	19	21	PHE	2.0
46	D5	177	PRO	2.0
6	5E	61	LEU	2.0
9	8E	79	LEU	2.0
9	82	31	GLN	2.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
10	1A	71	LEU	2.0
31	49	41	GLN	2.0
8	72	81	HIS	2.0
29	29	132	HIS	2.0
42	95	66	ARG	2.0
17	8A	87	LYS	2.0
20	BA	30	LYS	2.0
37	45	71	ASP	2.0
40	75	98	LYS	2.0
44	B5	33	LYS	2.0
49	G5	52	ASP	2.0
9	82	82	ALA	2.0
19	AA	75	ALA	2.0
1	1G	108	G	2.0
1	1G	1370	G	2.0
48	J8	27	GLU	2.0
4	32	27	TYR	2.0
26	1H	2114	A	2.0
26	14	2119	A	2.0
29	29	160	TYR	2.0
31	41	146	TYR	2.0
32	59	157	TYR	2.0
3	2E	153	VAL	2.0
30	39	84	VAL	2.0
39	65	28	VAL	2.0
46	D5	111	VAL	2.0
47	I8	79	VAL	2.0
3	22	101	LEU	2.0
4	3E	196	LEU	2.0
5	42	27	ARG	2.0
20	BA	86	ARG	2.0
29	29	122	PHE	2.0
30	39	95	ARG	2.0
42	95	35	LEU	2.0
46	D5	76	LEU	2.0
46	D5	163	LEU	2.0
3	22	93	LYS	2.0
48	J8	91	LYS	2.0
9	82	39	GLY	2.0
19	AA	12	ASP	2.0
13	4A	118	ALA	2.0
19	AI	38	SER	2.0

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Mol	Chain	Res	Type	RSRZ
32	59	150	ALA	2.0
26	14	2898	U	2.0
42	D8	73	SER	2.0
48	J8	71	TYR	2.0
1	13	607	A	2.0
1	13	1001	G	2.0
9	8E	42	ARG	2.0
10	1I	43	ARG	2.0
10	1A	72	VAL	2.0
26	14	196	A	2.0
32	59	60	ARG	2.0
34	58	46	VAL	2.0
52	N8	11	THR	2.0
10	1A	85	LEU	2.0
13	4A	10	PRO	2.0
54	P8	36	GLN	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
22	PSU	1K	55	20/21	0.76	0.16	112,129,148,149	0
56	5MU	1L	54	21/22	0.77	0.27	134,151,174,175	0
57	5MU	3L	54	21/22	0.78	0.18	115,149,174,177	0
57	PSU	3L	55	20/21	0.78	0.15	121,143,168,174	0
56	PSU	1L	32	20/21	0.80	0.32	124,129,142,152	0
57	4SU	3L	8	20/21	0.80	0.09	153,160,176,185	0
57	7MG	3L	46	24/25	0.83	0.10	147,158,169,181	0
24	MIA	3K	37	29/30	0.84	0.28	103,119,131,151	0
57	PSU	3L	32	20/21	0.86	0.18	119,134,142,142	0
56	PSU	1L	39	20/21	0.89	0.27	110,121,135,138	0
22	4SU	1K	8	20/21	0.89	0.10	129,144,162,164	0
23	PSU	2L	56	20/21	0.91	0.10	96,107,114,116	0
56	MIA	1L	37	29/30	0.91	0.35	102,116,122,128	0
23	5MU	2L	55	21/22	0.92	0.13	101,107,114,117	0
24	PSU	3K	39	20/21	0.93	0.14	113,120,126,127	0
24	PSU	3K	32	20/21	0.93	0.18	108,124,131,143	0
23	4SU	2L	8	20/21	0.93	0.11	94,105,113,115	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
23	PSU	2K	56	20/21	0.93	0.13	84,91,100,103	0
22	PSU	1K	32	20/21	0.94	0.23	89,96,103,114	0
22	5MU	1K	54	21/22	0.94	0.13	106,112,129,132	0
22	MIA	1K	37	29/30	0.95	0.25	70,75,87,93	0
22	PSU	1K	39	20/21	0.95	0.17	72,86,90,90	0
23	7MG	2K	47	24/25	0.95	0.14	82,93,103,108	0
23	4SU	2K	8	20/21	0.96	0.17	75,84,93,98	0
23	7MG	2L	47	24/25	0.96	0.10	107,115,120,123	0
23	5MU	2K	55	21/22	0.96	0.12	81,93,97,102	0
23	OMC	2L	33	21/22	0.97	0.21	87,93,96,103	0
23	OMC	2K	33	21/22	0.98	0.25	65,68,74,78	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( $\text{\AA}^2$ )	Q<0.9
58	MG	1H	3491	1/1	0.32	0.13	105,105,105,105	0
60	ZN	G8	202	1/1	0.39	0.17	164,164,164,164	0
58	MG	1G	1607	1/1	0.46	0.26	85,85,85,85	0
58	MG	1G	1661	1/1	0.47	0.17	99,99,99,99	0
58	MG	1H	3292	1/1	0.47	0.38	84,84,84,84	0
58	MG	14	3266	1/1	0.51	0.26	84,84,84,84	0
58	MG	3K	101	1/1	0.52	0.23	80,80,80,80	0
58	MG	1H	3302	1/1	0.53	0.18	77,77,77,77	0
58	MG	14	3143	1/1	0.55	0.45	85,85,85,85	0
58	MG	14	3178	1/1	0.55	0.25	88,88,88,88	0
58	MG	14	3193	1/1	0.55	0.41	89,89,89,89	0
58	MG	1H	3334	1/1	0.55	0.46	95,95,95,95	0
58	MG	1H	3500	1/1	0.55	0.12	54,54,54,54	0
58	MG	14	3039	1/1	0.56	0.18	74,74,74,74	0
58	MG	29	304	1/1	0.56	0.28	95,95,95,95	0
58	MG	1H	3310	1/1	0.56	0.46	105,105,105,105	0
58	MG	14	3269	1/1	0.58	0.27	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
58	MG	1H	3214	1/1	0.58	0.26	67,67,67,67	0
58	MG	1H	3012	1/1	0.58	0.38	78,78,78,78	0
58	MG	1H	3392	1/1	0.59	0.09	94,94,94,94	0
58	MG	14	3035	1/1	0.59	0.21	72,72,72,72	0
60	ZN	C5	202	1/1	0.59	0.19	181,181,181,181	0
58	MG	1H	3045	1/1	0.60	0.29	72,72,72,72	0
58	MG	1H	3475	1/1	0.61	0.16	109,109,109,109	0
58	MG	1H	3027	1/1	0.62	0.24	76,76,76,76	0
58	MG	1H	3047	1/1	0.63	0.34	76,76,76,76	0
58	MG	1H	3262	1/1	0.64	0.43	96,96,96,96	0
58	MG	1H	3273	1/1	0.64	0.19	84,84,84,84	0
58	MG	1H	3025	1/1	0.65	0.30	90,90,90,90	0
58	MG	14	3272	1/1	0.66	0.21	85,85,85,85	0
58	MG	13	1666	1/1	0.66	0.32	82,82,82,82	0
58	MG	1H	3051	1/1	0.67	0.24	97,97,97,97	0
58	MG	1H	3314	1/1	0.67	0.34	84,84,84,84	0
58	MG	13	1622	1/1	0.67	0.30	66,66,66,66	0
58	MG	14	3298	1/1	0.67	0.13	93,93,93,93	0
58	MG	14	3337	1/1	0.67	0.10	73,73,73,73	0
58	MG	13	1684	1/1	0.67	0.33	94,94,94,94	0
58	MG	14	3185	1/1	0.67	0.18	81,81,81,81	0
58	MG	1H	3403	1/1	0.67	0.11	72,72,72,72	0
58	MG	1H	3205	1/1	0.68	0.18	68,68,68,68	0
58	MG	13	1710	1/1	0.68	0.43	148,148,148,148	0
58	MG	13	1664	1/1	0.68	0.16	74,74,74,74	0
58	MG	14	3049	1/1	0.69	0.22	86,86,86,86	0
58	MG	1H	3249	1/1	0.69	0.33	76,76,76,76	0
58	MG	14	3285	1/1	0.69	0.39	104,104,104,104	0
58	MG	1H	3019	1/1	0.69	0.25	85,85,85,85	0
58	MG	1H	3337	1/1	0.69	0.43	86,86,86,86	0
58	MG	1H	3248	1/1	0.69	0.36	75,75,75,75	0
58	MG	14	3265	1/1	0.69	0.21	90,90,90,90	0
58	MG	14	3048	1/1	0.69	0.23	76,76,76,76	0
58	MG	14	3186	1/1	0.70	0.22	85,85,85,85	0
58	MG	14	3029	1/1	0.70	0.15	87,87,87,87	0
58	MG	14	3077	1/1	0.70	0.14	77,77,77,77	0
58	MG	1H	3081	1/1	0.70	0.33	90,90,90,90	0
58	MG	1H	3345	1/1	0.70	0.26	81,81,81,81	0
58	MG	5I	101	1/1	0.70	0.21	81,81,81,81	0
58	MG	13	1665	1/1	0.71	0.25	88,88,88,88	0
58	MG	1H	3499	1/1	0.71	0.08	105,105,105,105	0
58	MG	1H	3454	1/1	0.72	0.23	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
58	MG	1G	1660	1/1	0.72	0.30	98,98,98,98	0
58	MG	1H	3161	1/1	0.72	0.13	89,89,89,89	0
58	MG	14	3010	1/1	0.72	0.23	78,78,78,78	0
58	MG	1H	3056	1/1	0.72	0.54	97,97,97,97	0
58	MG	13	1608	1/1	0.72	0.26	85,85,85,85	0
58	MG	14	3406	1/1	0.72	0.30	112,112,112,112	0
58	MG	1H	3092	1/1	0.72	0.31	57,57,57,57	0
58	MG	14	3255	1/1	0.72	0.32	92,92,92,92	0
58	MG	1H	3513	1/1	0.72	0.21	82,82,82,82	0
58	MG	1H	3275	1/1	0.73	0.35	82,82,82,82	0
58	MG	14	3289	1/1	0.73	0.16	78,78,78,78	0
58	MG	14	3158	1/1	0.73	0.45	95,95,95,95	0
58	MG	14	3160	1/1	0.73	0.14	82,82,82,82	0
58	MG	14	3361	1/1	0.73	0.05	76,76,76,76	0
58	MG	1H	3282	1/1	0.73	0.27	98,98,98,98	0
58	MG	1H	3218	1/1	0.73	0.28	55,55,55,55	0
58	MG	1H	3293	1/1	0.73	0.23	67,67,67,67	0
58	MG	14	3276	1/1	0.73	0.31	80,80,80,80	0
58	MG	13	1704	1/1	0.74	0.32	102,102,102,102	0
58	MG	1H	3254	1/1	0.74	0.43	78,78,78,78	0
58	MG	13	1694	1/1	0.74	0.23	78,78,78,78	0
58	MG	14	3038	1/1	0.74	0.35	86,86,86,86	0
58	MG	1H	3269	1/1	0.74	0.29	72,72,72,72	0
58	MG	1H	3247	1/1	0.74	0.54	92,92,92,92	0
58	MG	1G	1635	1/1	0.74	0.33	92,92,92,92	0
58	MG	1H	3208	1/1	0.74	0.22	70,70,70,70	0
58	MG	1H	3326	1/1	0.74	0.19	90,90,90,90	0
58	MG	7A	101	1/1	0.74	0.32	90,90,90,90	0
58	MG	1H	3267	1/1	0.75	0.17	71,71,71,71	0
58	MG	1H	3519	1/1	0.75	0.11	101,101,101,101	0
58	MG	16	203	1/1	0.75	0.22	81,81,81,81	0
58	MG	14	3045	1/1	0.75	0.27	70,70,70,70	0
58	MG	14	3381	1/1	0.75	0.09	91,91,91,91	0
58	MG	14	3271	1/1	0.75	0.19	86,86,86,86	0
58	MG	1J	204	1/1	0.75	0.30	94,94,94,94	0
58	MG	1H	3469	1/1	0.75	0.10	99,99,99,99	0
58	MG	14	3019	1/1	0.75	0.33	84,84,84,84	0
58	MG	1H	3024	1/1	0.75	0.30	77,77,77,77	0
58	MG	14	3051	1/1	0.76	0.33	102,102,102,102	0
58	MG	14	3293	1/1	0.76	0.34	94,94,94,94	0
58	MG	14	3211	1/1	0.76	0.15	81,81,81,81	0
58	MG	1H	3303	1/1	0.76	0.21	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
58	MG	1H	3258	1/1	0.76	0.23	64,64,64,64	0
58	MG	14	3144	1/1	0.76	0.34	81,81,81,81	0
58	MG	98	202	1/1	0.76	0.31	95,95,95,95	0
58	MG	1H	3180	1/1	0.76	0.32	77,77,77,77	0
58	MG	14	3015	1/1	0.76	0.21	80,80,80,80	0
58	MG	1H	3271	1/1	0.76	0.37	80,80,80,80	0
58	MG	14	3020	1/1	0.76	0.15	75,75,75,75	0
58	MG	14	3254	1/1	0.77	0.18	92,92,92,92	0
58	MG	1H	3137	1/1	0.77	0.31	71,71,71,71	0
58	MG	1H	3257	1/1	0.77	0.19	69,69,69,69	0
58	MG	1H	3281	1/1	0.77	0.39	98,98,98,98	0
58	MG	1H	3157	1/1	0.77	0.26	84,84,84,84	0
58	MG	14	3392	1/1	0.77	0.23	77,77,77,77	0
58	MG	14	3397	1/1	0.77	0.10	52,52,52,52	0
58	MG	1H	3290	1/1	0.77	0.24	84,84,84,84	0
58	MG	13	1609	1/1	0.77	0.16	81,81,81,81	0
58	MG	1H	3049	1/1	0.77	0.32	69,69,69,69	0
58	MG	1H	3198	1/1	0.77	0.22	70,70,70,70	0
58	MG	1H	3010	1/1	0.77	0.40	87,87,87,87	0
58	MG	11	304	1/1	0.78	0.26	73,73,73,73	0
58	MG	1H	3220	1/1	0.78	0.17	74,74,74,74	0
58	MG	1H	3177	1/1	0.78	0.39	86,86,86,86	0
58	MG	1H	3021	1/1	0.78	0.34	68,68,68,68	0
58	MG	1H	3196	1/1	0.78	0.38	102,102,102,102	0
58	MG	1H	3484	1/1	0.78	0.12	73,73,73,73	0
58	MG	1H	3316	1/1	0.78	0.28	81,81,81,81	0
58	MG	3L	101	1/1	0.78	0.25	99,99,99,99	0
58	MG	13	1745	1/1	0.78	0.14	107,107,107,107	0
58	MG	13	1708	1/1	0.78	0.29	90,90,90,90	0
58	MG	1H	3020	1/1	0.78	0.49	90,90,90,90	0
58	MG	1H	3052	1/1	0.78	0.33	83,83,83,83	0
58	MG	1H	3054	1/1	0.78	0.32	92,92,92,92	0
58	MG	1H	3389	1/1	0.79	0.07	74,74,74,74	0
58	MG	3L	102	1/1	0.79	0.11	151,151,151,151	0
58	MG	1H	3321	1/1	0.79	0.25	72,72,72,72	0
58	MG	1H	3162	1/1	0.79	0.43	89,89,89,89	0
58	MG	1H	3426	1/1	0.79	0.12	88,88,88,88	0
58	MG	14	3082	1/1	0.79	0.23	63,63,63,63	0
58	MG	14	3372	1/1	0.79	0.11	76,76,76,76	0
58	MG	14	3379	1/1	0.79	0.07	106,106,106,106	0
58	MG	14	3263	1/1	0.79	0.29	76,76,76,76	0
58	MG	13	1675	1/1	0.79	0.14	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
58	MG	1H	3035	1/1	0.79	0.37	89,89,89,89	0
58	MG	14	3268	1/1	0.79	0.14	87,87,87,87	0
58	MG	1G	1675	1/1	0.79	0.18	90,90,90,90	0
58	MG	1G	1688	1/1	0.79	0.10	102,102,102,102	0
58	MG	14	3166	1/1	0.79	0.35	81,81,81,81	0
58	MG	1H	3287	1/1	0.79	0.34	77,77,77,77	0
58	MG	1G	1601	1/1	0.80	0.29	90,90,90,90	0
58	MG	1H	3259	1/1	0.80	0.33	82,82,82,82	0
58	MG	1H	3283	1/1	0.80	0.24	73,73,73,73	0
58	MG	1H	3240	1/1	0.80	0.18	77,77,77,77	0
58	MG	1H	3133	1/1	0.80	0.23	53,53,53,53	0
58	MG	1H	3331	1/1	0.80	0.15	67,67,67,67	0
58	MG	1H	3184	1/1	0.80	0.33	78,78,78,78	0
58	MG	1H	3195	1/1	0.80	0.38	81,81,81,81	0
58	MG	1H	3295	1/1	0.80	0.40	87,87,87,87	0
58	MG	14	3389	1/1	0.80	0.13	75,75,75,75	0
58	MG	1H	3301	1/1	0.80	0.31	59,59,59,59	0
58	MG	14	3116	1/1	0.80	0.26	80,80,80,80	0
58	MG	13	1615	1/1	0.80	0.34	84,84,84,84	0
58	MG	13	1699	1/1	0.80	0.14	61,61,61,61	0
58	MG	41	202	1/1	0.80	0.34	81,81,81,81	0
58	MG	14	3159	1/1	0.80	0.11	73,73,73,73	0
58	MG	1H	3234	1/1	0.80	0.32	67,67,67,67	0
58	MG	13	1701	1/1	0.81	0.21	99,99,99,99	0
58	MG	14	3151	1/1	0.81	0.53	91,91,91,91	0
58	MG	14	3274	1/1	0.81	0.23	88,88,88,88	0
58	MG	1H	3339	1/1	0.81	0.33	75,75,75,75	0
58	MG	1G	1606	1/1	0.81	0.17	83,83,83,83	0
58	MG	14	3023	1/1	0.81	0.26	90,90,90,90	0
58	MG	14	3292	1/1	0.81	0.26	84,84,84,84	0
58	MG	1H	3268	1/1	0.81	0.25	71,71,71,71	0
58	MG	14	3172	1/1	0.81	0.13	72,72,72,72	0
58	MG	1H	3492	1/1	0.81	0.28	82,82,82,82	0
58	MG	14	3338	1/1	0.81	0.12	74,74,74,74	0
58	MG	1G	1636	1/1	0.81	0.38	106,106,106,106	0
58	MG	14	3370	1/1	0.81	0.10	106,106,106,106	0
58	MG	1G	1647	1/1	0.81	0.16	94,94,94,94	0
58	MG	14	3376	1/1	0.81	0.06	119,119,119,119	0
58	MG	13	1736	1/1	0.81	0.08	116,116,116,116	0
58	MG	1H	3040	1/1	0.81	0.47	76,76,76,76	0
58	MG	14	3385	1/1	0.81	0.12	91,91,91,91	0
58	MG	14	3229	1/1	0.81	0.34	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
58	MG	1H	3155	1/1	0.81	0.10	58,58,58,58	0
58	MG	14	3050	1/1	0.81	0.39	94,94,94,94	0
58	MG	1H	3043	1/1	0.81	0.22	77,77,77,77	0
58	MG	1H	3431	1/1	0.81	0.10	94,94,94,94	0
58	MG	16	206	1/1	0.81	0.21	74,74,74,74	0
58	MG	13	1652	1/1	0.81	0.16	85,85,85,85	0
58	MG	13	1700	1/1	0.81	0.30	92,92,92,92	0
58	MG	1G	1680	1/1	0.82	0.38	101,101,101,101	0
58	MG	13	1712	1/1	0.82	0.14	80,80,80,80	0
58	MG	1H	3308	1/1	0.82	0.26	75,75,75,75	0
58	MG	2L	102	1/1	0.82	0.20	85,85,85,85	0
58	MG	1H	3340	1/1	0.82	0.35	82,82,82,82	0
58	MG	1H	3192	1/1	0.82	0.17	71,71,71,71	0
58	MG	1H	3023	1/1	0.82	0.53	88,88,88,88	0
58	MG	1H	3315	1/1	0.82	0.32	80,80,80,80	0
58	MG	1H	3272	1/1	0.82	0.24	68,68,68,68	0
58	MG	13	1651	1/1	0.82	0.23	79,79,79,79	0
58	MG	14	3220	1/1	0.82	0.30	66,66,66,66	0
58	MG	14	3407	1/1	0.82	0.09	117,117,117,117	0
58	MG	1J	202	1/1	0.82	0.34	88,88,88,88	0
58	MG	1H	3174	1/1	0.82	0.25	70,70,70,70	0
58	MG	13	1606	1/1	0.82	0.43	88,88,88,88	0
58	MG	14	3147	1/1	0.82	0.16	81,81,81,81	0
58	MG	1H	3156	1/1	0.82	0.17	78,78,78,78	0
58	MG	14	3148	1/1	0.83	0.19	65,65,65,65	0
58	MG	1H	3077	1/1	0.83	0.18	54,54,54,54	0
58	MG	1H	3457	1/1	0.83	0.15	82,82,82,82	0
58	MG	1H	3246	1/1	0.83	0.27	75,75,75,75	0
58	MG	1H	3474	1/1	0.83	0.10	100,100,100,100	0
58	MG	14	3034	1/1	0.83	0.27	82,82,82,82	0
58	MG	14	3169	1/1	0.83	0.22	92,92,92,92	0
58	MG	14	3300	1/1	0.83	0.20	63,63,63,63	0
58	MG	13	1705	1/1	0.83	0.44	91,91,91,91	0
58	MG	1H	3030	1/1	0.83	0.21	67,67,67,67	0
58	MG	1H	3159	1/1	0.83	0.28	73,73,73,73	0
58	MG	14	3367	1/1	0.83	0.07	103,103,103,103	0
58	MG	1H	3346	1/1	0.83	0.16	80,80,80,80	0
58	MG	14	3047	1/1	0.83	0.15	92,92,92,92	0
58	MG	1H	3348	1/1	0.83	0.33	73,73,73,73	0
58	MG	1H	3187	1/1	0.83	0.17	78,78,78,78	0
58	MG	1H	3188	1/1	0.83	0.31	73,73,73,73	0
58	MG	14	3234	1/1	0.83	0.16	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
58	MG	14	3244	1/1	0.83	0.13	68,68,68,68	0
58	MG	13	1723	1/1	0.83	0.13	70,70,70,70	0
58	MG	1H	3421	1/1	0.83	0.15	46,46,46,46	0
58	MG	16	204	1/1	0.83	0.19	67,67,67,67	0
58	MG	1H	3422	1/1	0.83	0.15	66,66,66,66	0
58	MG	14	3121	1/1	0.83	0.30	75,75,75,75	0
58	MG	14	3126	1/1	0.83	0.21	79,79,79,79	0
58	MG	11	301	1/1	0.83	0.26	50,50,50,50	0
58	MG	1H	3327	1/1	0.83	0.35	77,77,77,77	0
58	MG	1H	3075	1/1	0.83	0.19	76,76,76,76	0
58	MG	14	3123	1/1	0.84	0.24	78,78,78,78	0
58	MG	14	3299	1/1	0.84	0.17	76,76,76,76	0
58	MG	14	3227	1/1	0.84	0.11	84,84,84,84	0
58	MG	1G	1646	1/1	0.84	0.37	95,95,95,95	0
58	MG	14	3140	1/1	0.84	0.23	69,69,69,69	0
58	MG	14	3242	1/1	0.84	0.20	78,78,78,78	0
58	MG	14	3025	1/1	0.84	0.21	81,81,81,81	0
58	MG	1H	3333	1/1	0.84	0.28	71,71,71,71	0
58	MG	1G	1649	1/1	0.84	0.23	101,101,101,101	0
58	MG	13	1636	1/1	0.84	0.27	77,77,77,77	0
58	MG	13	1692	1/1	0.84	0.18	79,79,79,79	0
58	MG	16	205	1/1	0.84	0.20	81,81,81,81	0
58	MG	13	1680	1/1	0.84	0.18	97,97,97,97	0
58	MG	1H	3277	1/1	0.84	0.27	70,70,70,70	0
58	MG	1H	3224	1/1	0.84	0.49	92,92,92,92	0
58	MG	1H	3136	1/1	0.84	0.18	73,73,73,73	0
58	MG	13	1683	1/1	0.84	0.12	76,76,76,76	0
58	MG	1H	3266	1/1	0.84	0.24	91,91,91,91	0
58	MG	1H	3242	1/1	0.84	0.33	77,77,77,77	0
58	MG	14	3286	1/1	0.84	0.14	71,71,71,71	0
58	MG	1H	3153	1/1	0.84	0.29	72,72,72,72	0
58	MG	1H	3007	1/1	0.84	0.36	64,64,64,64	0
58	MG	1H	3033	1/1	0.84	0.37	78,78,78,78	0
58	MG	13	1706	1/1	0.85	0.38	81,81,81,81	0
58	MG	14	3076	1/1	0.85	0.13	73,73,73,73	0
58	MG	88	202	1/1	0.85	0.22	64,64,64,64	0
58	MG	14	3296	1/1	0.85	0.16	74,74,74,74	0
58	MG	1H	3241	1/1	0.85	0.29	71,71,71,71	0
58	MG	1H	3098	1/1	0.85	0.41	71,71,71,71	0
58	MG	14	3118	1/1	0.85	0.15	72,72,72,72	0
58	MG	1H	3183	1/1	0.85	0.18	60,60,60,60	0
58	MG	1H	3138	1/1	0.85	0.14	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
58	MG	1G	1625	1/1	0.85	0.12	129,129,129,129	0
58	MG	14	3236	1/1	0.85	0.21	86,86,86,86	0
58	MG	1G	1630	1/1	0.85	0.14	78,78,78,78	0
58	MG	1H	3322	1/1	0.85	0.22	88,88,88,88	0
58	MG	14	3248	1/1	0.85	0.20	79,79,79,79	0
58	MG	1H	3185	1/1	0.85	0.27	72,72,72,72	0
58	MG	1H	3119	1/1	0.85	0.33	91,91,91,91	0
58	MG	1H	3514	1/1	0.85	0.09	77,77,77,77	0
58	MG	14	3386	1/1	0.85	0.12	94,94,94,94	0
58	MG	1H	3330	1/1	0.85	0.23	75,75,75,75	0
58	MG	1H	3297	1/1	0.85	0.31	78,78,78,78	0
58	MG	1H	3154	1/1	0.85	0.19	59,59,59,59	0
58	MG	14	3404	1/1	0.85	0.12	66,66,66,66	0
58	MG	1H	3440	1/1	0.85	0.09	52,52,52,52	0
58	MG	14	3164	1/1	0.85	0.34	78,78,78,78	0
58	MG	1H	3026	1/1	0.85	0.32	80,80,80,80	0
58	MG	14	3167	1/1	0.85	0.19	86,86,86,86	0
58	MG	1J	205	1/1	0.85	0.20	78,78,78,78	0
58	MG	14	3168	1/1	0.85	0.32	92,92,92,92	0
58	MG	1H	3228	1/1	0.85	0.22	83,83,83,83	0
58	MG	1H	3175	1/1	0.85	0.19	65,65,65,65	0
58	MG	1H	3250	1/1	0.86	0.46	86,86,86,86	0
58	MG	1G	1685	1/1	0.86	0.11	88,88,88,88	0
58	MG	14	3231	1/1	0.86	0.21	70,70,70,70	0
58	MG	14	3145	1/1	0.86	0.33	87,87,87,87	0
58	MG	1H	3335	1/1	0.86	0.22	59,59,59,59	0
58	MG	1H	3509	1/1	0.86	0.12	68,68,68,68	0
58	MG	1H	3252	1/1	0.86	0.15	60,60,60,60	0
58	MG	1H	3031	1/1	0.86	0.41	90,90,90,90	0
58	MG	14	3369	1/1	0.86	0.07	102,102,102,102	0
58	MG	1H	3217	1/1	0.86	0.25	54,54,54,54	0
58	MG	1G	1633	1/1	0.86	0.31	82,82,82,82	0
58	MG	14	3258	1/1	0.86	0.12	82,82,82,82	0
58	MG	14	3060	1/1	0.86	0.17	58,58,58,58	0
58	MG	14	3075	1/1	0.86	0.13	89,89,89,89	0
58	MG	14	3012	1/1	0.86	0.13	69,69,69,69	0
58	MG	1H	3341	1/1	0.86	0.16	96,96,96,96	0
58	MG	14	3387	1/1	0.86	0.17	93,93,93,93	0
58	MG	1H	3343	1/1	0.86	0.54	99,99,99,99	0
58	MG	14	3090	1/1	0.86	0.15	68,68,68,68	0
58	MG	1H	3042	1/1	0.86	0.17	64,64,64,64	0
58	MG	14	3273	1/1	0.86	0.12	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
58	MG	14	3180	1/1	0.86	0.15	74,74,74,74	0
58	MG	1H	3243	1/1	0.86	0.27	81,81,81,81	0
58	MG	14	3282	1/1	0.86	0.45	88,88,88,88	0
58	MG	1H	3165	1/1	0.86	0.24	60,60,60,60	0
58	MG	14	3190	1/1	0.86	0.14	53,53,53,53	0
58	MG	13	1647	1/1	0.86	0.13	87,87,87,87	0
58	MG	1H	3113	1/1	0.86	0.21	68,68,68,68	0
58	MG	3E	301	1/1	0.86	0.14	109,109,109,109	0
58	MG	14	3281	1/1	0.87	0.30	84,84,84,84	0
58	MG	5I	102	1/1	0.87	0.26	90,90,90,90	0
58	MG	1H	3354	1/1	0.87	0.13	49,49,49,49	0
58	MG	1H	3376	1/1	0.87	0.18	67,67,67,67	0
58	MG	1G	1671	1/1	0.87	0.18	82,82,82,82	0
58	MG	1H	3221	1/1	0.87	0.26	63,63,63,63	0
58	MG	1H	3520	1/1	0.87	0.51	97,97,97,97	0
58	MG	14	3294	1/1	0.87	0.15	94,94,94,94	0
58	MG	14	3201	1/1	0.87	0.19	69,69,69,69	0
58	MG	1H	3284	1/1	0.87	0.25	74,74,74,74	0
58	MG	1H	3285	1/1	0.87	0.12	80,80,80,80	0
58	MG	14	3223	1/1	0.87	0.10	80,80,80,80	0
58	MG	2K	103	1/1	0.87	0.31	88,88,88,88	0
58	MG	1H	3329	1/1	0.87	0.33	85,85,85,85	0
58	MG	16	209	1/1	0.87	0.26	65,65,65,65	0
58	MG	13	1677	1/1	0.87	0.29	74,74,74,74	0
58	MG	14	3001	1/1	0.87	0.28	89,89,89,89	0
58	MG	14	3239	1/1	0.87	0.37	98,98,98,98	0
58	MG	1H	3430	1/1	0.87	0.09	73,73,73,73	0
58	MG	13	1644	1/1	0.87	0.36	78,78,78,78	0
58	MG	78	201	1/1	0.87	0.25	80,80,80,80	0
58	MG	14	3250	1/1	0.87	0.22	72,72,72,72	0
58	MG	14	3253	1/1	0.87	0.18	151,151,151,151	0
58	MG	13	1630	1/1	0.87	0.16	67,67,67,67	0
58	MG	1H	3044	1/1	0.87	0.21	61,61,61,61	0
58	MG	1H	3199	1/1	0.87	0.19	44,44,44,44	0
58	MG	1H	3200	1/1	0.87	0.17	35,35,35,35	0
58	MG	1H	3338	1/1	0.87	0.34	80,80,80,80	0
58	MG	14	3400	1/1	0.87	0.09	65,65,65,65	0
58	MG	1H	3202	1/1	0.87	0.23	58,58,58,58	0
58	MG	1H	3478	1/1	0.87	0.13	91,91,91,91	0
58	MG	1G	1631	1/1	0.87	0.25	82,82,82,82	0
58	MG	1H	3078	1/1	0.87	0.21	67,67,67,67	0
58	MG	1H	3080	1/1	0.87	0.14	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
58	MG	13	1707	1/1	0.87	0.45	80,80,80,80	0
58	MG	13	1648	1/1	0.87	0.36	78,78,78,78	0
58	MG	13	1687	1/1	0.87	0.21	98,98,98,98	0
58	MG	14	3277	1/1	0.87	0.13	104,104,104,104	0
58	MG	1G	1678	1/1	0.88	0.29	108,108,108,108	0
58	MG	1G	1679	1/1	0.88	0.39	120,120,120,120	0
58	MG	13	1738	1/1	0.88	0.07	84,84,84,84	0
58	MG	14	3122	1/1	0.88	0.36	79,79,79,79	0
58	MG	1H	3311	1/1	0.88	0.31	81,81,81,81	0
58	MG	1H	3434	1/1	0.88	0.09	63,63,63,63	0
58	MG	2A	201	1/1	0.88	0.13	91,91,91,91	0
58	MG	2A	202	1/1	0.88	0.27	98,98,98,98	0
58	MG	13	1739	1/1	0.88	0.07	85,85,85,85	0
58	MG	13	1627	1/1	0.88	0.31	90,90,90,90	0
58	MG	2L	103	1/1	0.88	0.21	93,93,93,93	0
58	MG	1H	3342	1/1	0.88	0.30	89,89,89,89	0
58	MG	14	3275	1/1	0.88	0.18	86,86,86,86	0
58	MG	1H	3460	1/1	0.88	0.16	81,81,81,81	0
58	MG	13	1646	1/1	0.88	0.26	61,61,61,61	0
58	MG	1H	3204	1/1	0.88	0.14	41,41,41,41	0
58	MG	1H	3034	1/1	0.88	0.38	73,73,73,73	0
58	MG	14	3163	1/1	0.88	0.17	71,71,71,71	0
58	MG	13	1643	1/1	0.88	0.35	78,78,78,78	0
58	MG	14	3165	1/1	0.88	0.21	83,83,83,83	0
58	MG	14	3016	1/1	0.88	0.32	91,91,91,91	0
58	MG	1H	3186	1/1	0.88	0.17	74,74,74,74	0
58	MG	1H	3485	1/1	0.88	0.09	87,87,87,87	0
58	MG	1H	3373	1/1	0.88	0.08	75,75,75,75	0
58	MG	1G	1626	1/1	0.88	0.35	99,99,99,99	0
58	MG	14	3176	1/1	0.88	0.19	58,58,58,58	0
58	MG	13	1721	1/1	0.88	0.09	83,83,83,83	0
58	MG	1H	3497	1/1	0.88	0.14	42,42,42,42	0
58	MG	14	3181	1/1	0.88	0.28	79,79,79,79	0
58	MG	1H	3383	1/1	0.88	0.12	61,61,61,61	0
58	MG	13	1669	1/1	0.88	0.11	68,68,68,68	0
58	MG	1H	3503	1/1	0.88	0.28	73,73,73,73	0
58	MG	14	3042	1/1	0.88	0.24	87,87,87,87	0
58	MG	14	3044	1/1	0.88	0.16	57,57,57,57	0
58	MG	13	1725	1/1	0.88	0.08	77,77,77,77	0
58	MG	14	3215	1/1	0.88	0.09	73,73,73,73	0
58	MG	14	3216	1/1	0.88	0.08	63,63,63,63	0
58	MG	14	3046	1/1	0.88	0.24	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
58	MG	1H	3398	1/1	0.88	0.10	57,57,57,57	0
58	MG	1H	3169	1/1	0.88	0.37	85,85,85,85	0
58	MG	1H	3515	1/1	0.88	0.05	83,83,83,83	0
58	MG	14	3390	1/1	0.88	0.12	109,109,109,109	0
58	MG	1H	3253	1/1	0.88	0.23	76,76,76,76	0
58	MG	1G	1665	1/1	0.88	0.52	127,127,127,127	0
58	MG	1G	1668	1/1	0.88	0.12	84,84,84,84	0
58	MG	1G	1670	1/1	0.88	0.12	88,88,88,88	0
58	MG	13	1671	1/1	0.88	0.22	95,95,95,95	0
58	MG	14	3243	1/1	0.88	0.35	70,70,70,70	0
58	MG	1H	3309	1/1	0.88	0.17	70,70,70,70	0
58	MG	14	3245	1/1	0.88	0.29	77,77,77,77	0
58	MG	1G	1676	1/1	0.88	0.35	95,95,95,95	0
58	MG	29	303	1/1	0.88	0.19	73,73,73,73	0
58	MG	14	3087	1/1	0.88	0.16	48,48,48,48	0
58	MG	14	3251	1/1	0.88	0.30	84,84,84,84	0
58	MG	1G	1677	1/1	0.88	0.14	97,97,97,97	0
58	MG	14	3196	1/1	0.89	0.12	65,65,65,65	0
58	MG	14	3283	1/1	0.89	0.23	82,82,82,82	0
58	MG	13	1673	1/1	0.89	0.22	73,73,73,73	0
58	MG	13	1688	1/1	0.89	0.35	97,97,97,97	0
58	MG	1H	3147	1/1	0.89	0.27	63,63,63,63	0
58	MG	14	3290	1/1	0.89	0.20	79,79,79,79	0
58	MG	1G	1655	1/1	0.89	0.24	86,86,86,86	0
58	MG	1G	1658	1/1	0.89	0.11	92,92,92,92	0
58	MG	13	1654	1/1	0.89	0.15	76,76,76,76	0
58	MG	1H	3453	1/1	0.89	0.08	105,105,105,105	0
58	MG	14	3026	1/1	0.89	0.15	71,71,71,71	0
58	MG	1G	1662	1/1	0.89	0.34	83,83,83,83	0
58	MG	14	3146	1/1	0.89	0.10	64,64,64,64	0
58	MG	14	3334	1/1	0.89	0.09	49,49,49,49	0
58	MG	14	3032	1/1	0.89	0.23	82,82,82,82	0
58	MG	13	1633	1/1	0.89	0.15	49,49,49,49	0
58	MG	14	3352	1/1	0.89	0.18	99,99,99,99	0
58	MG	1H	3209	1/1	0.89	0.10	57,57,57,57	0
58	MG	1H	3211	1/1	0.89	0.39	78,78,78,78	0
58	MG	1H	3279	1/1	0.89	0.25	67,67,67,67	0
58	MG	13	1670	1/1	0.89	0.33	91,91,91,91	0
58	MG	14	3162	1/1	0.89	0.24	81,81,81,81	0
58	MG	13	1709	1/1	0.89	0.32	84,84,84,84	0
58	MG	1H	3015	1/1	0.89	0.16	73,73,73,73	0
58	MG	1H	3480	1/1	0.89	0.11	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
58	MG	98	201	1/1	0.89	0.21	56,56,56,56	0
58	MG	1H	3318	1/1	0.89	0.27	85,85,85,85	0
58	MG	1H	3320	1/1	0.89	0.27	71,71,71,71	0
58	MG	13	1634	1/1	0.89	0.17	47,47,47,47	0
58	MG	13	1672	1/1	0.89	0.10	72,72,72,72	0
58	MG	14	3173	1/1	0.89	0.17	79,79,79,79	0
58	MG	1G	1610	1/1	0.89	0.10	88,88,88,88	0
58	MG	1H	3130	1/1	0.89	0.12	59,59,59,59	0
58	MG	1H	3289	1/1	0.89	0.47	89,89,89,89	0
58	MG	13	1713	1/1	0.89	0.40	88,88,88,88	0
58	MG	14	3183	1/1	0.89	0.14	66,66,66,66	0
58	MG	1H	3135	1/1	0.89	0.28	61,61,61,61	0
58	MG	1H	3235	1/1	0.89	0.34	83,83,83,83	0
58	MG	1H	3294	1/1	0.89	0.68	61,61,61,61	0
58	MG	1H	3038	1/1	0.89	0.45	73,73,73,73	0
58	MG	14	3278	1/1	0.89	0.14	89,89,89,89	0
58	MG	14	3279	1/1	0.89	0.15	74,74,74,74	0
58	MG	14	3195	1/1	0.89	0.24	70,70,70,70	0
58	MG	1G	1674	1/1	0.90	0.23	98,98,98,98	0
58	MG	1H	3270	1/1	0.90	0.38	77,77,77,77	0
58	MG	1H	3471	1/1	0.90	0.08	63,63,63,63	0
58	MG	1H	3018	1/1	0.90	0.37	73,73,73,73	0
58	MG	14	3184	1/1	0.90	0.26	91,91,91,91	0
58	MG	13	1655	1/1	0.90	0.08	77,77,77,77	0
58	MG	1H	3100	1/1	0.90	0.25	64,64,64,64	0
58	MG	1H	3109	1/1	0.90	0.10	46,46,46,46	0
58	MG	1G	1681	1/1	0.90	0.22	75,75,75,75	0
58	MG	1G	1682	1/1	0.90	0.19	103,103,103,103	0
58	MG	P8	101	1/1	0.90	0.29	73,73,73,73	0
58	MG	1G	1687	1/1	0.90	0.09	104,104,104,104	0
58	MG	1H	3110	1/1	0.90	0.13	45,45,45,45	0
58	MG	1G	1692	1/1	0.90	0.09	83,83,83,83	0
58	MG	14	3115	1/1	0.90	0.27	66,66,66,66	0
58	MG	14	3297	1/1	0.90	0.09	75,75,75,75	0
58	MG	1G	1602	1/1	0.90	0.20	93,93,93,93	0
58	MG	1G	1605	1/1	0.90	0.36	83,83,83,83	0
58	MG	1H	3332	1/1	0.90	0.26	74,74,74,74	0
58	MG	1H	3488	1/1	0.90	0.10	69,69,69,69	0
58	MG	1H	3046	1/1	0.90	0.25	84,84,84,84	0
58	MG	14	3232	1/1	0.90	0.58	52,52,52,52	0
58	MG	1H	3306	1/1	0.90	0.45	78,78,78,78	0
58	MG	14	3358	1/1	0.90	0.08	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
58	MG	1H	3493	1/1	0.90	0.22	79,79,79,79	0
58	MG	14	3237	1/1	0.90	0.15	79,79,79,79	0
58	MG	1H	3280	1/1	0.90	0.45	82,82,82,82	0
58	MG	14	3240	1/1	0.90	0.11	83,83,83,83	0
58	MG	1H	3230	1/1	0.90	0.52	91,91,91,91	0
58	MG	1H	3423	1/1	0.90	0.11	59,59,59,59	0
58	MG	1H	3009	1/1	0.90	0.49	73,73,73,73	0
58	MG	1H	3428	1/1	0.90	0.15	74,74,74,74	0
58	MG	1G	1637	1/1	0.90	0.23	79,79,79,79	0
58	MG	1H	3127	1/1	0.90	0.12	50,50,50,50	0
58	MG	1H	3207	1/1	0.90	0.17	56,56,56,56	0
58	MG	14	3024	1/1	0.90	0.27	82,82,82,82	0
58	MG	1G	1648	1/1	0.90	0.20	79,79,79,79	0
58	MG	14	3391	1/1	0.90	0.09	97,97,97,97	0
58	MG	13	1682	1/1	0.90	0.22	73,73,73,73	0
58	MG	13	1662	1/1	0.90	0.29	115,115,115,115	0
58	MG	14	3398	1/1	0.90	0.09	70,70,70,70	0
58	MG	14	3261	1/1	0.90	0.13	84,84,84,84	0
58	MG	1H	3448	1/1	0.90	0.09	51,51,51,51	0
58	MG	14	3033	1/1	0.90	0.21	76,76,76,76	0
58	MG	13	1653	1/1	0.90	0.28	87,87,87,87	0
58	MG	1H	3344	1/1	0.90	0.28	70,70,70,70	0
58	MG	1H	3245	1/1	0.90	0.32	81,81,81,81	0
58	MG	1H	3459	1/1	0.90	0.21	73,73,73,73	0
58	MG	1H	3091	1/1	0.90	0.23	77,77,77,77	0
58	MG	16	210	1/1	0.90	0.15	73,73,73,73	0
58	MG	25	201	1/1	0.90	0.48	102,102,102,102	0
58	MG	14	3175	1/1	0.90	0.20	87,87,87,87	0
58	MG	1H	3466	1/1	0.90	0.06	67,67,67,67	0
58	MG	11	303	1/1	0.91	0.12	41,41,41,41	0
58	MG	1H	3325	1/1	0.91	0.37	92,92,92,92	0
58	MG	1H	3378	1/1	0.91	0.09	79,79,79,79	0
58	MG	14	3182	1/1	0.91	0.24	86,86,86,86	0
58	MG	14	3280	1/1	0.91	0.40	87,87,87,87	0
58	MG	1G	1672	1/1	0.91	0.26	88,88,88,88	0
58	MG	1H	3120	1/1	0.91	0.36	70,70,70,70	0
58	MG	1H	3265	1/1	0.91	0.22	79,79,79,79	0
58	MG	13	1661	1/1	0.91	0.22	97,97,97,97	0
58	MG	2K	102	1/1	0.91	0.15	80,80,80,80	0
58	MG	14	3191	1/1	0.91	0.12	70,70,70,70	0
58	MG	L8	101	1/1	0.91	0.42	79,79,79,79	0
58	MG	14	3070	1/1	0.91	0.11	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
58	MG	14	3074	1/1	0.91	0.16	73,73,73,73	0
58	MG	1H	3236	1/1	0.91	0.26	79,79,79,79	0
58	MG	14	3206	1/1	0.91	0.14	50,50,50,50	0
58	MG	1H	3016	1/1	0.91	0.41	97,97,97,97	0
58	MG	1H	3017	1/1	0.91	0.41	66,66,66,66	0
58	MG	1G	1604	1/1	0.91	0.17	98,98,98,98	0
58	MG	13	1702	1/1	0.91	0.38	81,81,81,81	0
58	MG	14	3326	1/1	0.91	0.16	61,61,61,61	0
58	MG	1H	3494	1/1	0.91	0.11	82,82,82,82	0
58	MG	1H	3206	1/1	0.91	0.13	54,54,54,54	0
58	MG	1H	3305	1/1	0.91	0.21	75,75,75,75	0
58	MG	1G	1613	1/1	0.91	0.08	87,87,87,87	0
58	MG	1G	1614	1/1	0.91	0.24	91,91,91,91	0
58	MG	1G	1618	1/1	0.91	0.17	78,78,78,78	0
58	MG	14	3365	1/1	0.91	0.19	83,83,83,83	0
58	MG	14	3366	1/1	0.91	0.10	94,94,94,94	0
58	MG	1G	1624	1/1	0.91	0.14	85,85,85,85	0
58	MG	1H	3178	1/1	0.91	0.10	63,63,63,63	0
58	MG	13	1703	1/1	0.91	0.15	89,89,89,89	0
58	MG	1G	1628	1/1	0.91	0.37	88,88,88,88	0
58	MG	1H	3508	1/1	0.91	0.12	55,55,55,55	0
58	MG	1H	3048	1/1	0.91	0.42	81,81,81,81	0
58	MG	14	3011	1/1	0.91	0.24	70,70,70,70	0
58	MG	1H	3510	1/1	0.91	0.25	51,51,51,51	0
58	MG	14	3246	1/1	0.91	0.16	85,85,85,85	0
58	MG	13	1733	1/1	0.91	0.10	104,104,104,104	0
58	MG	3E	302	1/1	0.91	0.25	108,108,108,108	0
58	MG	14	3154	1/1	0.91	0.12	68,68,68,68	0
58	MG	1H	3105	1/1	0.91	0.22	71,71,71,71	0
58	MG	13	1696	1/1	0.91	0.10	70,70,70,70	0
58	MG	1H	3039	1/1	0.91	0.39	75,75,75,75	0
58	MG	16	202	1/1	0.91	0.29	81,81,81,81	0
58	MG	14	3259	1/1	0.91	0.17	102,102,102,102	0
58	MG	14	3402	1/1	0.91	0.11	76,76,76,76	0
58	MG	14	3403	1/1	0.91	0.08	66,66,66,66	0
58	MG	1H	3011	1/1	0.91	0.13	72,72,72,72	0
58	MG	1G	1650	1/1	0.91	0.33	81,81,81,81	0
58	MG	1H	3223	1/1	0.91	0.26	60,60,60,60	0
58	MG	14	3031	1/1	0.91	0.20	78,78,78,78	0
58	MG	1G	1657	1/1	0.91	0.22	107,107,107,107	0
58	MG	1H	3464	1/1	0.91	0.11	84,84,84,84	0
58	MG	1H	3118	1/1	0.91	0.17	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
58	MG	1H	3371	1/1	0.91	0.09	45,45,45,45	0
58	MG	1H	3059	1/1	0.91	0.26	56,56,56,56	0
58	MG	1H	3472	1/1	0.91	0.07	72,72,72,72	0
60	ZN	5A	101	1/1	0.91	0.12	143,143,143,143	0
58	MG	1G	1667	1/1	0.91	0.21	92,92,92,92	0
58	MG	1H	3288	1/1	0.92	0.18	58,58,58,58	0
58	MG	13	1642	1/1	0.92	0.24	64,64,64,64	0
58	MG	13	1657	1/1	0.92	0.28	89,89,89,89	0
58	MG	14	3171	1/1	0.92	0.26	80,80,80,80	0
58	MG	1G	1643	1/1	0.92	0.28	74,74,74,74	0
58	MG	1H	3146	1/1	0.92	0.32	67,67,67,67	0
58	MG	1H	3261	1/1	0.92	0.21	64,64,64,64	0
58	MG	1H	3101	1/1	0.92	0.28	72,72,72,72	0
58	MG	1H	3436	1/1	0.92	0.09	67,67,67,67	0
58	MG	1H	3264	1/1	0.92	0.18	67,67,67,67	0
58	MG	1G	1651	1/1	0.92	0.17	77,77,77,77	0
58	MG	1H	3447	1/1	0.92	0.14	55,55,55,55	0
58	MG	1G	1656	1/1	0.92	0.14	140,140,140,140	0
58	MG	1H	3150	1/1	0.92	0.35	69,69,69,69	0
58	MG	1H	3449	1/1	0.92	0.08	74,74,74,74	0
58	MG	1G	1659	1/1	0.92	0.20	95,95,95,95	0
58	MG	1H	3298	1/1	0.92	0.22	68,68,68,68	0
58	MG	1H	3299	1/1	0.92	0.56	98,98,98,98	0
58	MG	16	208	1/1	0.92	0.29	77,77,77,77	0
58	MG	13	1698	1/1	0.92	0.15	80,80,80,80	0
58	MG	1H	3233	1/1	0.92	0.25	70,70,70,70	0
58	MG	1H	3041	1/1	0.92	0.19	88,88,88,88	0
58	MG	14	3321	1/1	0.92	0.11	55,55,55,55	0
58	MG	14	3204	1/1	0.92	0.23	63,63,63,63	0
58	MG	1H	3463	1/1	0.92	0.15	66,66,66,66	0
58	MG	13	1691	1/1	0.92	0.26	75,75,75,75	0
58	MG	41	201	1/1	0.92	0.15	67,67,67,67	0
58	MG	1H	3112	1/1	0.92	0.22	71,71,71,71	0
58	MG	14	3353	1/1	0.92	0.12	82,82,82,82	0
58	MG	13	1737	1/1	0.92	0.06	93,93,93,93	0
58	MG	14	3221	1/1	0.92	0.27	72,72,72,72	0
58	MG	88	201	1/1	0.92	0.16	84,84,84,84	0
58	MG	1H	3470	1/1	0.92	0.06	73,73,73,73	0
58	MG	14	3084	1/1	0.92	0.10	81,81,81,81	0
58	MG	13	1686	1/1	0.92	0.19	80,80,80,80	0
58	MG	13	1693	1/1	0.92	0.42	94,94,94,94	0
58	MG	14	3371	1/1	0.92	0.08	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
58	MG	14	3106	1/1	0.92	0.19	62,62,62,62	0
58	MG	14	3235	1/1	0.92	0.19	80,80,80,80	0
58	MG	I8	101	1/1	0.92	0.08	56,56,56,56	0
58	MG	1H	3473	1/1	0.92	0.07	85,85,85,85	0
58	MG	14	3383	1/1	0.92	0.09	66,66,66,66	0
58	MG	1H	3352	1/1	0.92	0.13	45,45,45,45	0
58	MG	1H	3274	1/1	0.92	0.28	83,83,83,83	0
58	MG	1H	3313	1/1	0.92	0.30	78,78,78,78	0
58	MG	1H	3079	1/1	0.92	0.15	53,53,53,53	0
58	MG	1H	3481	1/1	0.92	0.09	132,132,132,132	0
58	MG	14	3129	1/1	0.92	0.25	69,69,69,69	0
58	MG	1H	3164	1/1	0.92	0.30	58,58,58,58	0
58	MG	14	3394	1/1	0.92	0.12	53,53,53,53	0
58	MG	14	3395	1/1	0.92	0.24	75,75,75,75	0
58	MG	1H	3121	1/1	0.92	0.23	35,35,35,35	0
58	MG	1H	3487	1/1	0.92	0.12	100,100,100,100	0
58	MG	1H	3122	1/1	0.92	0.20	68,68,68,68	0
58	MG	2K	105	1/1	0.92	0.06	81,81,81,81	0
58	MG	1G	1616	1/1	0.92	0.29	86,86,86,86	0
58	MG	13	1742	1/1	0.92	0.21	95,95,95,95	0
58	MG	1G	1620	1/1	0.92	0.18	77,77,77,77	0
58	MG	14	3004	1/1	0.92	0.23	78,78,78,78	0
58	MG	14	3156	1/1	0.92	0.21	63,63,63,63	0
58	MG	1H	3131	1/1	0.92	0.28	57,57,57,57	0
58	MG	1H	3400	1/1	0.92	0.20	54,54,54,54	0
58	MG	1H	3496	1/1	0.92	0.12	59,59,59,59	0
58	MG	1H	3082	1/1	0.92	0.17	61,61,61,61	0
58	MG	1H	3417	1/1	0.92	0.11	66,66,66,66	0
58	MG	C5	201	1/1	0.92	0.32	105,105,105,105	0
58	MG	14	3018	1/1	0.92	0.16	50,50,50,50	0
58	MG	4K	101	1/1	0.92	0.21	73,73,73,73	0
58	MG	1H	3006	1/1	0.92	0.23	57,57,57,57	0
58	MG	1G	1609	1/1	0.93	0.11	81,81,81,81	0
58	MG	1H	3149	1/1	0.93	0.22	61,61,61,61	0
58	MG	14	3179	1/1	0.93	0.27	72,72,72,72	0
58	MG	1H	3439	1/1	0.93	0.13	51,51,51,51	0
58	MG	1H	3222	1/1	0.93	0.11	58,58,58,58	0
58	MG	1H	3443	1/1	0.93	0.11	66,66,66,66	0
58	MG	14	3284	1/1	0.93	0.43	94,94,94,94	0
58	MG	13	1676	1/1	0.93	0.09	88,88,88,88	0
58	MG	13	1660	1/1	0.93	0.30	86,86,86,86	0
58	MG	13	1678	1/1	0.93	0.11	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
58	MG	1H	3191	1/1	0.93	0.45	70,70,70,70	0
58	MG	13	1610	1/1	0.93	0.20	66,66,66,66	0
58	MG	1G	1627	1/1	0.93	0.18	88,88,88,88	0
58	MG	1G	1695	1/1	0.93	0.08	96,96,96,96	0
58	MG	1G	1696	1/1	0.93	0.04	109,109,109,109	0
58	MG	1H	3193	1/1	0.93	0.14	60,60,60,60	0
58	MG	14	3197	1/1	0.93	0.19	73,73,73,73	0
58	MG	14	3083	1/1	0.93	0.18	88,88,88,88	0
58	MG	13	1612	1/1	0.93	0.29	89,89,89,89	0
58	MG	14	3307	1/1	0.93	0.12	49,49,49,49	0
58	MG	13	1728	1/1	0.93	0.13	95,95,95,95	0
58	MG	1H	3237	1/1	0.93	0.28	72,72,72,72	0
58	MG	14	3333	1/1	0.93	0.13	67,67,67,67	0
58	MG	14	3213	1/1	0.93	0.19	75,75,75,75	0
58	MG	14	3097	1/1	0.93	0.21	77,77,77,77	0
58	MG	14	3098	1/1	0.93	0.16	71,71,71,71	0
58	MG	14	3217	1/1	0.93	0.17	101,101,101,101	0
58	MG	14	3219	1/1	0.93	0.18	51,51,51,51	0
58	MG	14	3354	1/1	0.93	0.15	56,56,56,56	0
58	MG	14	3104	1/1	0.93	0.15	74,74,74,74	0
58	MG	1H	3089	1/1	0.93	0.31	72,72,72,72	0
58	MG	14	3362	1/1	0.93	0.06	56,56,56,56	0
58	MG	14	3363	1/1	0.93	0.12	54,54,54,54	0
58	MG	14	3110	1/1	0.93	0.10	55,55,55,55	0
58	MG	1H	3465	1/1	0.93	0.14	76,76,76,76	0
58	MG	16	207	1/1	0.93	0.25	88,88,88,88	0
58	MG	14	3368	1/1	0.93	0.06	89,89,89,89	0
58	MG	14	3230	1/1	0.93	0.60	82,82,82,82	0
58	MG	1H	3359	1/1	0.93	0.13	60,60,60,60	0
58	MG	13	1695	1/1	0.93	0.19	83,83,83,83	0
58	MG	14	3007	1/1	0.93	0.33	68,68,68,68	0
58	MG	14	3373	1/1	0.93	0.06	64,64,64,64	0
58	MG	14	3375	1/1	0.93	0.11	89,89,89,89	0
58	MG	14	3009	1/1	0.93	0.15	66,66,66,66	0
58	MG	14	3124	1/1	0.93	0.23	76,76,76,76	0
58	MG	1H	3128	1/1	0.93	0.20	66,66,66,66	0
58	MG	16	212	1/1	0.93	0.04	81,81,81,81	0
58	MG	14	3138	1/1	0.93	0.11	94,94,94,94	0
58	MG	1H	3163	1/1	0.93	0.28	65,65,65,65	0
58	MG	14	3014	1/1	0.93	0.17	77,77,77,77	0
58	MG	13	1607	1/1	0.93	0.28	71,71,71,71	0
58	MG	1H	3319	1/1	0.93	0.22	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
58	MG	1H	3094	1/1	0.93	0.21	54,54,54,54	0
58	MG	1H	3095	1/1	0.93	0.18	49,49,49,49	0
58	MG	14	3393	1/1	0.93	0.17	76,76,76,76	0
58	MG	13	1656	1/1	0.93	0.25	79,79,79,79	0
58	MG	14	3022	1/1	0.93	0.20	78,78,78,78	0
58	MG	1H	3036	1/1	0.93	0.30	65,65,65,65	0
58	MG	13	1674	1/1	0.93	0.16	77,77,77,77	0
58	MG	1H	3413	1/1	0.93	0.09	50,50,50,50	0
58	MG	1H	3414	1/1	0.93	0.28	64,64,64,64	0
58	MG	14	3027	1/1	0.93	0.31	81,81,81,81	0
58	MG	14	3161	1/1	0.93	0.21	74,74,74,74	0
58	MG	14	3028	1/1	0.93	0.17	99,99,99,99	0
58	MG	1H	3251	1/1	0.93	0.28	79,79,79,79	0
58	MG	14	3030	1/1	0.93	0.16	70,70,70,70	0
58	MG	1G	1663	1/1	0.93	0.14	112,112,112,112	0
58	MG	13	1641	1/1	0.93	0.11	69,69,69,69	0
58	MG	1H	3212	1/1	0.93	0.29	70,70,70,70	0
58	MG	1H	3179	1/1	0.93	0.39	67,67,67,67	0
58	MG	1H	3255	1/1	0.93	0.34	83,83,83,83	0
58	MG	1H	3215	1/1	0.93	0.12	60,60,60,60	0
58	MG	1H	3022	1/1	0.93	0.12	88,88,88,88	0
60	ZN	32	301	1/1	0.93	0.38	112,112,112,112	0
58	MG	13	1711	1/1	0.93	0.26	76,76,76,76	0
58	MG	1H	3148	1/1	0.93	0.24	78,78,78,78	0
58	MG	1H	3381	1/1	0.94	0.16	62,62,62,62	0
58	MG	1H	3382	1/1	0.94	0.09	71,71,71,71	0
58	MG	1G	1632	1/1	0.94	0.30	83,83,83,83	0
58	MG	13	1679	1/1	0.94	0.15	75,75,75,75	0
58	MG	1H	3387	1/1	0.94	0.14	65,65,65,65	0
58	MG	1H	3076	1/1	0.94	0.24	51,51,51,51	0
58	MG	14	3086	1/1	0.94	0.17	67,67,67,67	0
58	MG	14	3287	1/1	0.94	0.15	96,96,96,96	0
58	MG	1H	3468	1/1	0.94	0.11	63,63,63,63	0
58	MG	14	3089	1/1	0.94	0.24	81,81,81,81	0
58	MG	14	3003	1/1	0.94	0.24	77,77,77,77	0
58	MG	14	3091	1/1	0.94	0.12	57,57,57,57	0
58	MG	14	3096	1/1	0.94	0.24	73,73,73,73	0
58	MG	14	3295	1/1	0.94	0.18	79,79,79,79	0
58	MG	1G	1642	1/1	0.94	0.18	92,92,92,92	0
58	MG	14	3198	1/1	0.94	0.26	94,94,94,94	0
58	MG	1H	3210	1/1	0.94	0.34	67,67,67,67	0
58	MG	14	3202	1/1	0.94	0.25	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
58	MG	1H	3393	1/1	0.94	0.10	58,58,58,58	0
58	MG	14	3301	1/1	0.94	0.15	87,87,87,87	0
58	MG	14	3305	1/1	0.94	0.09	69,69,69,69	0
58	MG	14	3205	1/1	0.94	0.16	58,58,58,58	0
58	MG	14	3312	1/1	0.94	0.12	88,88,88,88	0
58	MG	14	3317	1/1	0.94	0.12	48,48,48,48	0
58	MG	1H	3394	1/1	0.94	0.15	70,70,70,70	0
58	MG	14	3208	1/1	0.94	0.14	83,83,83,83	0
58	MG	14	3332	1/1	0.94	0.16	64,64,64,64	0
58	MG	14	3209	1/1	0.94	0.17	81,81,81,81	0
58	MG	13	1616	1/1	0.94	0.22	65,65,65,65	0
58	MG	14	3335	1/1	0.94	0.16	80,80,80,80	0
58	MG	14	3111	1/1	0.94	0.18	92,92,92,92	0
58	MG	14	3214	1/1	0.94	0.25	75,75,75,75	0
58	MG	14	3344	1/1	0.94	0.13	64,64,64,64	0
58	MG	14	3346	1/1	0.94	0.10	74,74,74,74	0
58	MG	14	3348	1/1	0.94	0.08	76,76,76,76	0
58	MG	13	1690	1/1	0.94	0.28	90,90,90,90	0
58	MG	2K	101	1/1	0.94	0.22	66,66,66,66	0
58	MG	1H	3406	1/1	0.94	0.19	49,49,49,49	0
58	MG	14	3355	1/1	0.94	0.09	64,64,64,64	0
58	MG	14	3218	1/1	0.94	0.15	71,71,71,71	0
58	MG	21	302	1/1	0.94	0.17	68,68,68,68	0
58	MG	13	1618	1/1	0.94	0.20	63,63,63,63	0
58	MG	1H	3216	1/1	0.94	0.27	71,71,71,71	0
58	MG	13	1717	1/1	0.94	0.07	76,76,76,76	0
58	MG	1H	3420	1/1	0.94	0.14	50,50,50,50	0
58	MG	14	3127	1/1	0.94	0.14	54,54,54,54	0
58	MG	1H	3141	1/1	0.94	0.14	40,40,40,40	0
58	MG	14	3134	1/1	0.94	0.17	62,62,62,62	0
58	MG	14	3137	1/1	0.94	0.20	78,78,78,78	0
58	MG	14	3233	1/1	0.94	0.10	63,63,63,63	0
58	MG	1H	3219	1/1	0.94	0.12	70,70,70,70	0
58	MG	1H	3144	1/1	0.94	0.30	49,49,49,49	0
58	MG	14	3141	1/1	0.94	0.11	46,46,46,46	0
58	MG	1H	3197	1/1	0.94	0.21	63,63,63,63	0
58	MG	14	3377	1/1	0.94	0.14	107,107,107,107	0
58	MG	14	3378	1/1	0.94	0.07	71,71,71,71	0
58	MG	1H	3312	1/1	0.94	0.13	73,73,73,73	0
58	MG	14	3380	1/1	0.94	0.07	76,76,76,76	0
58	MG	1H	3114	1/1	0.94	0.16	66,66,66,66	0
58	MG	13	1605	1/1	0.94	0.31	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
58	MG	1H	3495	1/1	0.94	0.09	47,47,47,47	0
58	MG	13	1722	1/1	0.94	0.10	76,76,76,76	0
58	MG	13	1743	1/1	0.94	0.07	60,60,60,60	0
58	MG	14	3153	1/1	0.94	0.34	60,60,60,60	0
58	MG	1H	3347	1/1	0.94	0.45	78,78,78,78	0
58	MG	1H	3317	1/1	0.94	0.22	84,84,84,84	0
58	MG	14	3157	1/1	0.94	0.15	71,71,71,71	0
58	MG	14	3252	1/1	0.94	0.34	91,91,91,91	0
58	MG	1H	3229	1/1	0.94	0.20	50,50,50,50	0
58	MG	1H	3203	1/1	0.94	0.38	79,79,79,79	0
58	MG	14	3396	1/1	0.94	0.11	53,53,53,53	0
58	MG	1G	1611	1/1	0.94	0.10	91,91,91,91	0
58	MG	14	3256	1/1	0.94	0.42	57,57,57,57	0
58	MG	1H	3231	1/1	0.94	0.26	74,74,74,74	0
58	MG	14	3043	1/1	0.94	0.25	76,76,76,76	0
58	MG	1H	3367	1/1	0.94	0.10	54,54,54,54	0
58	MG	1H	3511	1/1	0.94	0.11	82,82,82,82	0
58	MG	1H	3005	1/1	0.94	0.31	53,53,53,53	0
58	MG	1G	1619	1/1	0.94	0.24	92,92,92,92	0
58	MG	13	1624	1/1	0.94	0.29	68,68,68,68	0
58	MG	13	1747	1/1	0.94	0.07	96,96,96,96	0
58	MG	1G	1691	1/1	0.94	0.19	89,89,89,89	0
58	MG	1H	3518	1/1	0.94	0.13	94,94,94,94	0
58	MG	14	3053	1/1	0.94	0.19	45,45,45,45	0
58	MG	49	201	1/1	0.94	0.22	128,128,128,128	0
58	MG	1H	3458	1/1	0.94	0.12	45,45,45,45	0
58	MG	14	3062	1/1	0.94	0.35	75,75,75,75	0
58	MG	13	1625	1/1	0.94	0.15	82,82,82,82	0
58	MG	14	3177	1/1	0.94	0.20	84,84,84,84	0
58	MG	14	3073	1/1	0.94	0.25	91,91,91,91	0
58	MG	16	201	1/1	0.94	0.41	79,79,79,79	0
58	MG	13	1716	1/1	0.95	0.08	73,73,73,73	0
58	MG	14	3152	1/1	0.95	0.21	75,75,75,75	0
58	MG	1H	3369	1/1	0.95	0.18	55,55,55,55	0
58	MG	1H	3476	1/1	0.95	0.11	70,70,70,70	0
58	MG	14	3017	1/1	0.95	0.20	63,63,63,63	0
58	MG	1H	3300	1/1	0.95	0.31	72,72,72,72	0
58	MG	1H	3479	1/1	0.95	0.09	79,79,79,79	0
58	MG	13	1628	1/1	0.95	0.18	58,58,58,58	0
58	MG	1H	3375	1/1	0.95	0.05	81,81,81,81	0
58	MG	13	1740	1/1	0.95	0.10	70,70,70,70	0
58	MG	1H	3151	1/1	0.95	0.28	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
58	MG	1H	3380	1/1	0.95	0.12	77,77,77,77	0
58	MG	13	1635	1/1	0.95	0.19	48,48,48,48	0
58	MG	13	1649	1/1	0.95	0.17	79,79,79,79	0
58	MG	1H	3307	1/1	0.95	0.24	60,60,60,60	0
58	MG	1H	3028	1/1	0.95	0.32	64,64,64,64	0
58	MG	1G	1634	1/1	0.95	0.15	84,84,84,84	0
58	MG	1H	3106	1/1	0.95	0.17	49,49,49,49	0
58	MG	1H	3390	1/1	0.95	0.12	56,56,56,56	0
58	MG	1H	3256	1/1	0.95	0.15	58,58,58,58	0
58	MG	1G	1638	1/1	0.95	0.30	84,84,84,84	0
58	MG	1H	3029	1/1	0.95	0.31	72,72,72,72	0
58	MG	14	3036	1/1	0.95	0.19	67,67,67,67	0
58	MG	1H	3158	1/1	0.95	0.11	44,44,44,44	0
58	MG	1G	1644	1/1	0.95	0.21	110,110,110,110	0
58	MG	1H	3053	1/1	0.95	0.37	66,66,66,66	0
58	MG	13	1744	1/1	0.95	0.08	89,89,89,89	0
58	MG	1H	3504	1/1	0.95	0.12	66,66,66,66	0
58	MG	14	3303	1/1	0.95	0.14	53,53,53,53	0
58	MG	1H	3505	1/1	0.95	0.09	41,41,41,41	0
58	MG	1H	3506	1/1	0.95	0.09	44,44,44,44	0
58	MG	1H	3507	1/1	0.95	0.10	43,43,43,43	0
58	MG	1G	1653	1/1	0.95	0.29	78,78,78,78	0
58	MG	1H	3213	1/1	0.95	0.15	43,43,43,43	0
58	MG	13	1689	1/1	0.95	0.20	118,118,118,118	0
58	MG	14	3329	1/1	0.95	0.09	54,54,54,54	0
58	MG	14	3330	1/1	0.95	0.11	53,53,53,53	0
58	MG	13	1746	1/1	0.95	0.07	84,84,84,84	0
58	MG	1H	3066	1/1	0.95	0.25	48,48,48,48	0
58	MG	14	3194	1/1	0.95	0.13	61,61,61,61	0
58	MG	14	3057	1/1	0.95	0.21	62,62,62,62	0
58	MG	14	3059	1/1	0.95	0.13	55,55,55,55	0
58	MG	1H	3415	1/1	0.95	0.12	63,63,63,63	0
58	MG	14	3339	1/1	0.95	0.09	62,62,62,62	0
58	MG	14	3340	1/1	0.95	0.09	67,67,67,67	0
58	MG	1H	3068	1/1	0.95	0.17	50,50,50,50	0
58	MG	14	3063	1/1	0.95	0.22	70,70,70,70	0
58	MG	1H	3418	1/1	0.95	0.10	70,70,70,70	0
58	MG	14	3203	1/1	0.95	0.28	83,83,83,83	0
58	MG	14	3071	1/1	0.95	0.15	42,42,42,42	0
58	MG	1H	3071	1/1	0.95	0.18	39,39,39,39	0
58	MG	1H	3170	1/1	0.95	0.41	77,77,77,77	0
58	MG	1H	3173	1/1	0.95	0.24	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
58	MG	14	3360	1/1	0.95	0.07	69,69,69,69	0
58	MG	1H	3323	1/1	0.95	0.34	78,78,78,78	0
58	MG	1H	3324	1/1	0.95	0.18	76,76,76,76	0
58	MG	14	3081	1/1	0.95	0.21	80,80,80,80	0
58	MG	14	3364	1/1	0.95	0.08	75,75,75,75	0
58	MG	1G	1669	1/1	0.95	0.12	80,80,80,80	0
58	MG	1H	3073	1/1	0.95	0.24	73,73,73,73	0
58	MG	1H	3074	1/1	0.95	0.40	88,88,88,88	0
58	MG	1H	3124	1/1	0.95	0.18	39,39,39,39	0
58	MG	13	1650	1/1	0.95	0.27	72,72,72,72	0
58	MG	1H	3226	1/1	0.95	0.17	89,89,89,89	0
58	MG	1H	3276	1/1	0.95	0.12	55,55,55,55	0
58	MG	13	1727	1/1	0.95	0.09	55,55,55,55	0
58	MG	14	3094	1/1	0.95	0.12	76,76,76,76	0
58	MG	14	3224	1/1	0.95	0.19	77,77,77,77	0
58	MG	14	3225	1/1	0.95	0.20	57,57,57,57	0
58	MG	13	1681	1/1	0.95	0.11	66,66,66,66	0
58	MG	1H	3444	1/1	0.95	0.09	82,82,82,82	0
58	MG	1H	3037	1/1	0.95	0.30	62,62,62,62	0
58	MG	14	3099	1/1	0.95	0.17	55,55,55,55	0
58	MG	14	3102	1/1	0.95	0.19	73,73,73,73	0
58	MG	14	3382	1/1	0.95	0.09	81,81,81,81	0
58	MG	14	3103	1/1	0.95	0.32	78,78,78,78	0
58	MG	11	302	1/1	0.95	0.12	35,35,35,35	0
58	MG	2I	201	1/1	0.95	0.17	77,77,77,77	0
58	MG	1H	3232	1/1	0.95	0.11	72,72,72,72	0
58	MG	1H	3452	1/1	0.95	0.08	74,74,74,74	0
58	MG	1H	3134	1/1	0.95	0.22	50,50,50,50	0
58	MG	13	1730	1/1	0.95	0.07	67,67,67,67	0
58	MG	1H	3455	1/1	0.95	0.15	66,66,66,66	0
58	MG	1H	3456	1/1	0.95	0.08	80,80,80,80	0
58	MG	13	1613	1/1	0.95	0.27	83,83,83,83	0
58	MG	13	1734	1/1	0.95	0.07	100,100,100,100	0
58	MG	1H	3083	1/1	0.95	0.30	68,68,68,68	0
58	MG	14	3247	1/1	0.95	0.26	85,85,85,85	0
58	MG	1H	3139	1/1	0.95	0.25	52,52,52,52	0
58	MG	14	3249	1/1	0.95	0.23	65,65,65,65	0
58	MG	1H	3462	1/1	0.95	0.09	79,79,79,79	0
58	MG	1H	3085	1/1	0.95	0.13	69,69,69,69	0
58	MG	14	3130	1/1	0.95	0.29	85,85,85,85	0
58	MG	14	3405	1/1	0.95	0.17	75,75,75,75	0
58	MG	1H	3142	1/1	0.95	0.21	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
58	MG	1H	3143	1/1	0.95	0.22	50,50,50,50	0
58	MG	1H	3244	1/1	0.95	0.38	98,98,98,98	0
58	MG	14	3002	1/1	0.95	0.23	64,64,64,64	0
58	MG	1H	3467	1/1	0.95	0.18	69,69,69,69	0
58	MG	14	3142	1/1	0.95	0.36	88,88,88,88	0
58	MG	13	1667	1/1	0.95	0.22	82,82,82,82	0
58	MG	1H	3351	1/1	0.95	0.15	53,53,53,53	0
58	MG	1H	3296	1/1	0.95	0.22	72,72,72,72	0
58	MG	13	1611	1/1	0.95	0.28	71,71,71,71	0
58	MG	14	3267	1/1	0.95	0.13	79,79,79,79	0
58	MG	2K	104	1/1	0.95	0.12	80,80,80,80	0
58	MG	1H	3361	1/1	0.95	0.09	64,64,64,64	0
58	MG	14	3150	1/1	0.95	0.18	50,50,50,50	0
58	MG	14	3041	1/1	0.96	0.18	66,66,66,66	0
58	MG	1G	1654	1/1	0.96	0.23	85,85,85,85	0
58	MG	1H	3168	1/1	0.96	0.20	64,64,64,64	0
58	MG	1H	3450	1/1	0.96	0.10	62,62,62,62	0
58	MG	1H	3357	1/1	0.96	0.10	35,35,35,35	0
58	MG	1H	3129	1/1	0.96	0.09	63,63,63,63	0
58	MG	1H	3088	1/1	0.96	0.18	77,77,77,77	0
58	MG	14	3174	1/1	0.96	0.17	84,84,84,84	0
58	MG	1H	3364	1/1	0.96	0.14	47,47,47,47	0
58	MG	1H	3171	1/1	0.96	0.15	58,58,58,58	0
58	MG	1H	3172	1/1	0.96	0.35	79,79,79,79	0
58	MG	13	1639	1/1	0.96	0.16	55,55,55,55	0
58	MG	1G	1664	1/1	0.96	0.14	92,92,92,92	0
58	MG	13	1729	1/1	0.96	0.12	86,86,86,86	0
58	MG	1G	1666	1/1	0.96	0.15	84,84,84,84	0
58	MG	1H	3374	1/1	0.96	0.07	90,90,90,90	0
58	MG	1H	3461	1/1	0.96	0.13	51,51,51,51	0
58	MG	1H	3055	1/1	0.96	0.31	85,85,85,85	0
58	MG	14	3068	1/1	0.96	0.16	60,60,60,60	0
58	MG	14	3069	1/1	0.96	0.18	60,60,60,60	0
58	MG	14	3187	1/1	0.96	0.14	47,47,47,47	0
58	MG	13	1626	1/1	0.96	0.33	90,90,90,90	0
58	MG	1H	3377	1/1	0.96	0.09	61,61,61,61	0
58	MG	14	3310	1/1	0.96	0.07	56,56,56,56	0
58	MG	14	3192	1/1	0.96	0.11	59,59,59,59	0
58	MG	14	3313	1/1	0.96	0.08	48,48,48,48	0
58	MG	13	1629	1/1	0.96	0.24	69,69,69,69	0
58	MG	14	3318	1/1	0.96	0.10	47,47,47,47	0
58	MG	14	3319	1/1	0.96	0.16	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
58	MG	1H	3096	1/1	0.96	0.21	50,50,50,50	0
58	MG	1H	3064	1/1	0.96	0.18	43,43,43,43	0
58	MG	14	3327	1/1	0.96	0.06	58,58,58,58	0
58	MG	1H	3181	1/1	0.96	0.23	63,63,63,63	0
58	MG	1H	3182	1/1	0.96	0.34	61,61,61,61	0
58	MG	14	3331	1/1	0.96	0.09	56,56,56,56	0
58	MG	14	3078	1/1	0.96	0.18	63,63,63,63	0
58	MG	14	3199	1/1	0.96	0.35	96,96,96,96	0
58	MG	1H	3386	1/1	0.96	0.14	50,50,50,50	0
58	MG	1H	3225	1/1	0.96	0.19	79,79,79,79	0
58	MG	13	1614	1/1	0.96	0.23	86,86,86,86	0
58	MG	1H	3227	1/1	0.96	0.35	87,87,87,87	0
58	MG	14	3085	1/1	0.96	0.21	52,52,52,52	0
58	MG	13	1735	1/1	0.96	0.12	84,84,84,84	0
58	MG	14	3207	1/1	0.96	0.12	68,68,68,68	0
58	MG	1G	1683	1/1	0.96	0.07	61,61,61,61	0
58	MG	1H	3102	1/1	0.96	0.24	60,60,60,60	0
58	MG	1G	1686	1/1	0.96	0.10	84,84,84,84	0
58	MG	14	3212	1/1	0.96	0.17	75,75,75,75	0
58	MG	1H	3104	1/1	0.96	0.17	68,68,68,68	0
58	MG	1G	1603	1/1	0.96	0.18	87,87,87,87	0
58	MG	14	3357	1/1	0.96	0.10	69,69,69,69	0
58	MG	14	3095	1/1	0.96	0.13	83,83,83,83	0
58	MG	1G	1690	1/1	0.96	0.12	104,104,104,104	0
58	MG	1H	3396	1/1	0.96	0.07	69,69,69,69	0
58	MG	1H	3070	1/1	0.96	0.31	68,68,68,68	0
58	MG	13	1748	1/1	0.96	0.10	82,82,82,82	0
58	MG	1H	3402	1/1	0.96	0.09	53,53,53,53	0
58	MG	1G	1608	1/1	0.96	0.16	72,72,72,72	0
58	MG	1H	3189	1/1	0.96	0.14	61,61,61,61	0
58	MG	1H	3107	1/1	0.96	0.18	52,52,52,52	0
58	MG	14	3107	1/1	0.96	0.20	58,58,58,58	0
58	MG	1H	3486	1/1	0.96	0.14	50,50,50,50	0
58	MG	1H	3408	1/1	0.96	0.14	49,49,49,49	0
58	MG	14	3114	1/1	0.96	0.36	79,79,79,79	0
58	MG	1H	3410	1/1	0.96	0.10	33,33,33,33	0
58	MG	1G	1615	1/1	0.96	0.17	85,85,85,85	0
58	MG	14	3374	1/1	0.96	0.10	86,86,86,86	0
58	MG	1H	3412	1/1	0.96	0.09	50,50,50,50	0
58	MG	14	3120	1/1	0.96	0.07	54,54,54,54	0
58	MG	1H	3108	1/1	0.96	0.12	50,50,50,50	0
58	MG	1H	3072	1/1	0.96	0.26	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
58	MG	1H	3004	1/1	0.96	0.35	68,68,68,68	0
58	MG	1G	1622	1/1	0.96	0.21	81,81,81,81	0
58	MG	14	3125	1/1	0.96	0.20	70,70,70,70	0
58	MG	14	3008	1/1	0.96	0.19	65,65,65,65	0
58	MG	1H	3416	1/1	0.96	0.11	67,67,67,67	0
58	MG	1H	3238	1/1	0.96	0.65	52,52,52,52	0
58	MG	1H	3239	1/1	0.96	0.10	67,67,67,67	0
58	MG	14	3132	1/1	0.96	0.15	44,44,44,44	0
58	MG	14	3388	1/1	0.96	0.10	79,79,79,79	0
58	MG	1H	3498	1/1	0.96	0.11	47,47,47,47	0
58	MG	14	3136	1/1	0.96	0.25	49,49,49,49	0
58	MG	1H	3111	1/1	0.96	0.27	44,44,44,44	0
58	MG	1G	1629	1/1	0.96	0.28	96,96,96,96	0
58	MG	1H	3152	1/1	0.96	0.27	71,71,71,71	0
58	MG	13	1658	1/1	0.96	0.26	92,92,92,92	0
58	MG	13	1659	1/1	0.96	0.36	68,68,68,68	0
58	MG	1H	3425	1/1	0.96	0.16	49,49,49,49	0
58	MG	5E	201	1/1	0.96	0.21	67,67,67,67	0
58	MG	1H	3201	1/1	0.96	0.16	41,41,41,41	0
58	MG	1H	3115	1/1	0.96	0.21	37,37,37,37	0
58	MG	13	1632	1/1	0.96	0.24	71,71,71,71	0
58	MG	13	1645	1/1	0.96	0.26	69,69,69,69	0
58	MG	1G	1640	1/1	0.96	0.14	83,83,83,83	0
58	MG	1H	3435	1/1	0.96	0.08	82,82,82,82	0
58	MG	13	1637	1/1	0.96	0.12	66,66,66,66	0
58	MG	1K	101	1/1	0.96	0.08	85,85,85,85	0
58	MG	1J	201	1/1	0.96	0.40	76,76,76,76	0
58	MG	1G	1645	1/1	0.96	0.19	142,142,142,142	0
58	MG	1H	3013	1/1	0.96	0.23	52,52,52,52	0
58	MG	14	3270	1/1	0.96	0.20	95,95,95,95	0
58	MG	1H	3516	1/1	0.96	0.07	86,86,86,86	0
58	MG	1H	3517	1/1	0.96	0.13	57,57,57,57	0
58	MG	1H	3050	1/1	0.96	0.27	63,63,63,63	0
58	MG	1H	3349	1/1	0.96	0.14	40,40,40,40	0
58	MG	1H	3032	1/1	0.96	0.23	82,82,82,82	0
58	MG	J5	101	1/1	0.96	0.11	52,52,52,52	0
59	PAR	1G	1697	42/42	0.96	0.19	75,80,88,91	0
60	ZN	5I	103	1/1	0.96	0.18	91,91,91,91	0
58	MG	14	3037	1/1	0.96	0.16	82,82,82,82	0
58	MG	1G	1652	1/1	0.96	0.19	81,81,81,81	0
58	MG	1K	102	1/1	0.96	0.21	72,72,72,72	0
58	MG	14	3040	1/1	0.96	0.15	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
58	MG	1H	3362	1/1	0.97	0.15	41,41,41,41	0
58	MG	1H	3363	1/1	0.97	0.14	40,40,40,40	0
58	MG	16	211	1/1	0.97	0.09	70,70,70,70	0
58	MG	13	1724	1/1	0.97	0.11	96,96,96,96	0
58	MG	14	3072	1/1	0.97	0.22	74,74,74,74	0
58	MG	1H	3366	1/1	0.97	0.14	56,56,56,56	0
58	MG	14	3238	1/1	0.97	0.11	86,86,86,86	0
58	MG	1H	3116	1/1	0.97	0.37	51,51,51,51	0
58	MG	1H	3145	1/1	0.97	0.38	76,76,76,76	0
58	MG	14	3241	1/1	0.97	0.28	80,80,80,80	0
58	MG	1H	3482	1/1	0.97	0.10	54,54,54,54	0
58	MG	14	3342	1/1	0.97	0.09	49,49,49,49	0
58	MG	14	3005	1/1	0.97	0.28	60,60,60,60	0
58	MG	21	301	1/1	0.97	0.27	54,54,54,54	0
58	MG	14	3080	1/1	0.97	0.21	62,62,62,62	0
58	MG	14	3351	1/1	0.97	0.18	87,87,87,87	0
58	MG	1H	3483	1/1	0.97	0.07	90,90,90,90	0
58	MG	1H	3370	1/1	0.97	0.07	55,55,55,55	0
58	MG	13	1638	1/1	0.97	0.25	62,62,62,62	0
58	MG	1H	3069	1/1	0.97	0.15	52,52,52,52	0
58	MG	1H	3432	1/1	0.97	0.10	70,70,70,70	0
58	MG	1H	3260	1/1	0.97	0.22	35,35,35,35	0
58	MG	1H	3490	1/1	0.97	0.10	64,64,64,64	0
58	MG	13	1621	1/1	0.97	0.14	74,74,74,74	0
58	MG	1H	3328	1/1	0.97	0.25	56,56,56,56	0
58	MG	1H	3437	1/1	0.97	0.18	54,54,54,54	0
58	MG	14	3093	1/1	0.97	0.18	63,63,63,63	0
58	MG	1H	3014	1/1	0.97	0.15	58,58,58,58	0
58	MG	1H	3263	1/1	0.97	0.49	56,56,56,56	0
58	MG	14	3260	1/1	0.97	0.20	100,100,100,100	0
58	MG	14	3021	1/1	0.97	0.23	73,73,73,73	0
58	MG	13	1603	1/1	0.97	0.34	50,50,50,50	0
58	MG	14	3264	1/1	0.97	0.19	77,77,77,77	0
58	MG	13	1663	1/1	0.97	0.34	62,62,62,62	0
58	MG	13	1623	1/1	0.97	0.23	62,62,62,62	0
58	MG	14	3101	1/1	0.97	0.15	65,65,65,65	0
58	MG	13	1714	1/1	0.97	0.12	45,45,45,45	0
58	MG	1H	3103	1/1	0.97	0.20	58,58,58,58	0
58	MG	1H	3501	1/1	0.97	0.09	42,42,42,42	0
58	MG	1H	3336	1/1	0.97	0.13	62,62,62,62	0
58	MG	14	3189	1/1	0.97	0.15	46,46,46,46	0
58	MG	1H	3451	1/1	0.97	0.10	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
58	MG	14	3108	1/1	0.97	0.23	50,50,50,50	0
58	MG	13	1602	1/1	0.97	0.27	49,49,49,49	0
58	MG	1H	3003	1/1	0.97	0.24	49,49,49,49	0
58	MG	14	3113	1/1	0.97	0.23	62,62,62,62	0
58	MG	1G	1612	1/1	0.97	0.22	83,83,83,83	0
58	MG	1H	3391	1/1	0.97	0.05	60,60,60,60	0
58	MG	1G	1673	1/1	0.97	0.09	92,92,92,92	0
58	MG	1H	3304	1/1	0.97	0.12	71,71,71,71	0
58	MG	13	1620	1/1	0.97	0.30	72,72,72,72	0
58	MG	13	1719	1/1	0.97	0.10	67,67,67,67	0
58	MG	1G	1617	1/1	0.97	0.12	74,74,74,74	0
58	MG	1H	3395	1/1	0.97	0.14	36,36,36,36	0
58	MG	1H	3512	1/1	0.97	0.09	44,44,44,44	0
58	MG	13	1720	1/1	0.97	0.12	82,82,82,82	0
58	MG	1H	3397	1/1	0.97	0.08	49,49,49,49	0
58	MG	1H	3160	1/1	0.97	0.35	79,79,79,79	0
58	MG	13	1685	1/1	0.97	0.18	74,74,74,74	0
58	MG	1H	3190	1/1	0.97	0.25	69,69,69,69	0
58	MG	14	3210	1/1	0.97	0.14	51,51,51,51	0
58	MG	14	3131	1/1	0.97	0.28	87,87,87,87	0
58	MG	1H	3058	1/1	0.97	0.24	36,36,36,36	0
58	MG	1H	3278	1/1	0.97	0.21	106,106,106,106	0
58	MG	14	3135	1/1	0.97	0.12	54,54,54,54	0
58	MG	13	1631	1/1	0.97	0.22	82,82,82,82	0
58	MG	1G	1689	1/1	0.97	0.10	84,84,84,84	0
58	MG	1H	3060	1/1	0.97	0.30	52,52,52,52	0
58	MG	1H	3350	1/1	0.97	0.09	51,51,51,51	0
58	MG	1J	203	1/1	0.97	0.18	100,100,100,100	0
58	MG	1H	3194	1/1	0.97	0.15	40,40,40,40	0
58	MG	1H	3140	1/1	0.97	0.30	69,69,69,69	0
58	MG	29	301	1/1	0.97	0.21	64,64,64,64	0
58	MG	29	302	1/1	0.97	0.19	57,57,57,57	0
58	MG	1H	3166	1/1	0.97	0.24	64,64,64,64	0
58	MG	1H	3061	1/1	0.97	0.28	56,56,56,56	0
58	MG	13	1668	1/1	0.97	0.18	66,66,66,66	0
58	MG	14	3315	1/1	0.97	0.16	57,57,57,57	0
58	MG	55	201	1/1	0.97	0.18	58,58,58,58	0
58	MG	1H	3286	1/1	0.97	0.15	71,71,71,71	0
58	MG	14	3226	1/1	0.97	0.20	67,67,67,67	0
59	PAR	13	1749	42/42	0.97	0.23	52,62,69,75	0
58	MG	14	3064	1/1	0.97	0.20	86,86,86,86	0
58	MG	14	3065	1/1	0.97	0.17	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
58	MG	14	3323	1/1	0.97	0.10	65,65,65,65	0
58	MG	14	3066	1/1	0.97	0.20	59,59,59,59	0
58	MG	14	3067	1/1	0.97	0.15	81,81,81,81	0
58	MG	14	3328	1/1	0.97	0.11	49,49,49,49	0
58	MG	1H	3065	1/1	0.98	0.21	43,43,43,43	0
58	MG	1H	3409	1/1	0.98	0.11	41,41,41,41	0
58	MG	14	3336	1/1	0.98	0.10	60,60,60,60	0
58	MG	G8	201	1/1	0.98	0.21	73,73,73,73	0
58	MG	1H	3502	1/1	0.98	0.11	66,66,66,66	0
58	MG	14	3112	1/1	0.98	0.19	65,65,65,65	0
58	MG	13	1715	1/1	0.98	0.12	89,89,89,89	0
58	MG	14	3341	1/1	0.98	0.14	41,41,41,41	0
58	MG	1H	3411	1/1	0.98	0.12	46,46,46,46	0
58	MG	1H	3067	1/1	0.98	0.25	46,46,46,46	0
58	MG	14	3052	1/1	0.98	0.23	59,59,59,59	0
58	MG	14	3347	1/1	0.98	0.11	48,48,48,48	0
58	MG	14	3117	1/1	0.98	0.22	57,57,57,57	0
58	MG	14	3349	1/1	0.98	0.14	62,62,62,62	0
58	MG	14	3350	1/1	0.98	0.08	92,92,92,92	0
58	MG	1H	3372	1/1	0.98	0.15	64,64,64,64	0
58	MG	14	3119	1/1	0.98	0.14	49,49,49,49	0
58	MG	14	3188	1/1	0.98	0.11	53,53,53,53	0
58	MG	14	3054	1/1	0.98	0.15	51,51,51,51	0
58	MG	14	3262	1/1	0.98	0.07	78,78,78,78	0
58	MG	14	3356	1/1	0.98	0.08	65,65,65,65	0
58	MG	14	3055	1/1	0.98	0.21	54,54,54,54	0
58	MG	1H	3008	1/1	0.98	0.33	68,68,68,68	0
58	MG	14	3359	1/1	0.98	0.08	73,73,73,73	0
58	MG	1H	3084	1/1	0.98	0.33	69,69,69,69	0
58	MG	1H	3132	1/1	0.98	0.27	62,62,62,62	0
58	MG	14	3061	1/1	0.98	0.20	58,58,58,58	0
58	MG	13	1732	1/1	0.98	0.07	78,78,78,78	0
58	MG	1H	3086	1/1	0.98	0.19	54,54,54,54	0
58	MG	14	3128	1/1	0.98	0.16	58,58,58,58	0
58	MG	14	3006	1/1	0.98	0.21	62,62,62,62	0
58	MG	1H	3087	1/1	0.98	0.22	75,75,75,75	0
58	MG	14	3200	1/1	0.98	0.22	94,94,94,94	0
58	MG	1H	3379	1/1	0.98	0.04	72,72,72,72	0
58	MG	13	1604	1/1	0.98	0.41	81,81,81,81	0
58	MG	1H	3291	1/1	0.98	0.14	86,86,86,86	0
58	MG	13	1640	1/1	0.98	0.10	64,64,64,64	0
58	MG	13	1718	1/1	0.98	0.09	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
58	MG	1H	3384	1/1	0.98	0.12	34,34,34,34	0
58	MG	1H	3429	1/1	0.98	0.05	72,72,72,72	0
58	MG	14	3139	1/1	0.98	0.22	63,63,63,63	0
58	MG	1H	3385	1/1	0.98	0.12	45,45,45,45	0
58	MG	1H	3057	1/1	0.98	0.18	44,44,44,44	0
58	MG	1H	3093	1/1	0.98	0.20	53,53,53,53	0
58	MG	1H	3433	1/1	0.98	0.04	73,73,73,73	0
58	MG	1H	3001	1/1	0.98	0.38	53,53,53,53	0
58	MG	1G	1621	1/1	0.98	0.10	90,90,90,90	0
58	MG	14	3079	1/1	0.98	0.20	73,73,73,73	0
58	MG	14	3384	1/1	0.98	0.07	68,68,68,68	0
58	MG	13	1726	1/1	0.98	0.08	93,93,93,93	0
58	MG	14	3291	1/1	0.98	0.18	70,70,70,70	0
58	MG	1H	3167	1/1	0.98	0.20	56,56,56,56	0
58	MG	14	3149	1/1	0.98	0.10	62,62,62,62	0
58	MG	1H	3353	1/1	0.98	0.15	40,40,40,40	0
58	MG	1H	3438	1/1	0.98	0.14	55,55,55,55	0
58	MG	1H	3117	1/1	0.98	0.14	43,43,43,43	0
58	MG	14	3222	1/1	0.98	0.21	75,75,75,75	0
58	MG	1H	3355	1/1	0.98	0.14	57,57,57,57	0
58	MG	13	1697	1/1	0.98	0.13	73,73,73,73	0
58	MG	14	3155	1/1	0.98	0.22	65,65,65,65	0
58	MG	1H	3097	1/1	0.98	0.33	69,69,69,69	0
58	MG	14	3302	1/1	0.98	0.24	83,83,83,83	0
58	MG	16	213	1/1	0.98	0.12	66,66,66,66	0
58	MG	14	3399	1/1	0.98	0.11	77,77,77,77	0
58	MG	14	3304	1/1	0.98	0.11	50,50,50,50	0
58	MG	14	3401	1/1	0.98	0.08	45,45,45,45	0
58	MG	14	3228	1/1	0.98	0.26	85,85,85,85	0
58	MG	1H	3489	1/1	0.98	0.17	53,53,53,53	0
58	MG	14	3308	1/1	0.98	0.07	46,46,46,46	0
58	MG	14	3309	1/1	0.98	0.14	59,59,59,59	0
58	MG	1H	3446	1/1	0.98	0.09	59,59,59,59	0
58	MG	14	3311	1/1	0.98	0.09	65,65,65,65	0
58	MG	14	3092	1/1	0.98	0.16	48,48,48,48	0
58	MG	13	1619	1/1	0.98	0.15	75,75,75,75	0
58	MG	14	3314	1/1	0.98	0.12	58,58,58,58	0
58	MG	1G	1684	1/1	0.98	0.09	70,70,70,70	0
58	MG	14	3316	1/1	0.98	0.10	62,62,62,62	0
58	MG	1H	3099	1/1	0.98	0.33	63,63,63,63	0
58	MG	1H	3062	1/1	0.98	0.17	44,44,44,44	0
58	MG	1H	3401	1/1	0.98	0.18	47,47,47,47	0

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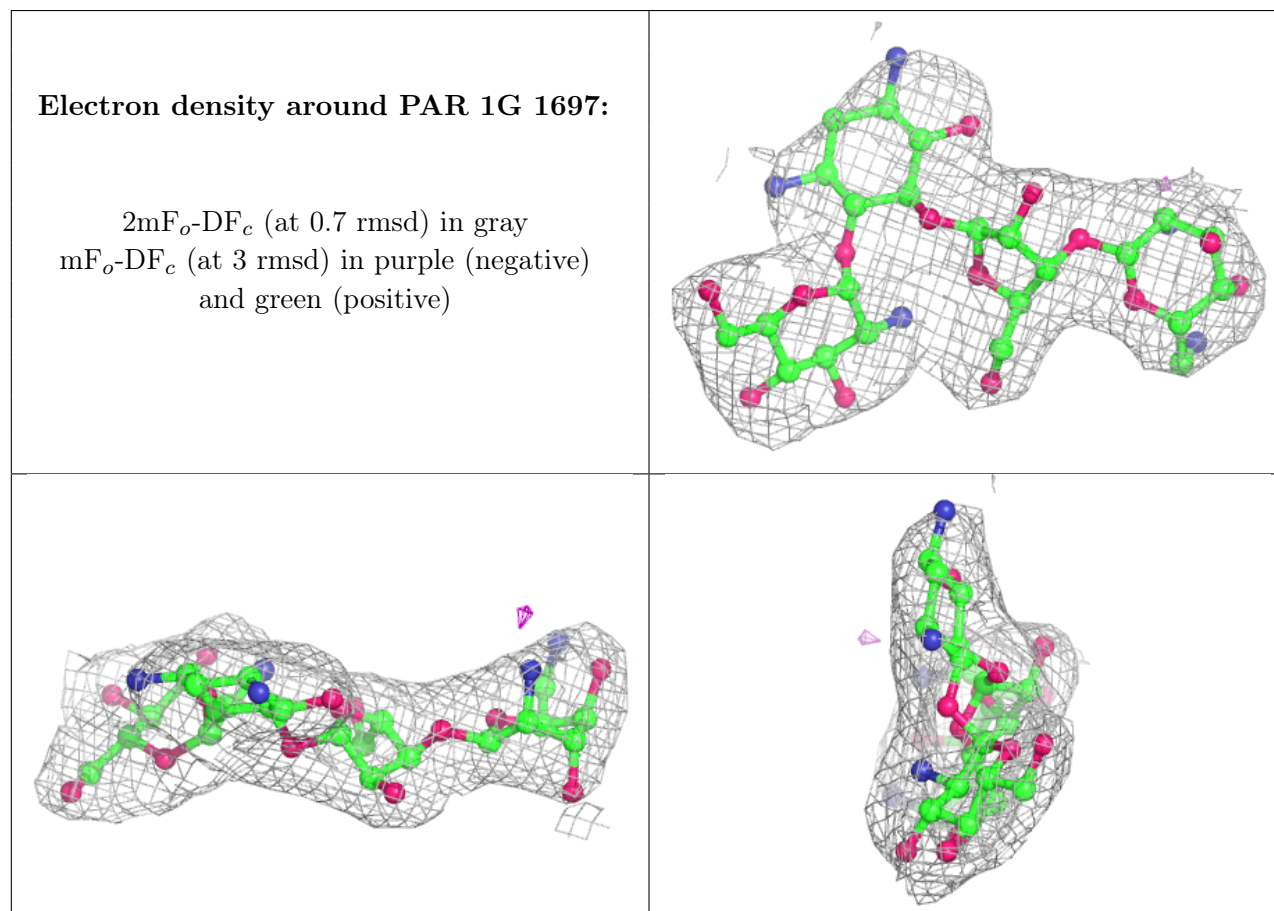
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
58	MG	14	3320	1/1	0.98	0.10	42,42,42,42	0
58	MG	13	1617	1/1	0.98	0.17	60,60,60,60	0
58	MG	14	3322	1/1	0.98	0.06	72,72,72,72	0
58	MG	1G	1639	1/1	0.98	0.16	80,80,80,80	0
58	MG	14	3325	1/1	0.98	0.09	76,76,76,76	0
58	MG	14	3100	1/1	0.98	0.23	66,66,66,66	0
58	MG	1H	3125	1/1	0.98	0.19	47,47,47,47	0
58	MG	14	3170	1/1	0.98	0.10	84,84,84,84	0
60	ZN	3E	303	1/1	0.98	0.44	97,97,97,97	0
58	MG	1H	3404	1/1	0.98	0.15	48,48,48,48	0
58	MG	1H	3176	1/1	0.98	0.30	82,82,82,82	0
58	MG	1G	1693	1/1	0.98	0.12	82,82,82,82	0
58	MG	14	3105	1/1	0.98	0.27	45,45,45,45	0
58	MG	1H	3407	1/1	0.98	0.12	43,43,43,43	0
58	MG	1H	3360	1/1	0.99	0.12	46,46,46,46	0
58	MG	1H	3126	1/1	0.99	0.28	60,60,60,60	0
58	MG	1H	3399	1/1	0.99	0.10	52,52,52,52	0
58	MG	13	1741	1/1	0.99	0.14	82,82,82,82	0
58	MG	1H	3090	1/1	0.99	0.11	37,37,37,37	0
58	MG	1H	3477	1/1	0.99	0.17	62,62,62,62	0
58	MG	1H	3388	1/1	0.99	0.08	59,59,59,59	0
58	MG	14	3288	1/1	0.99	0.13	78,78,78,78	0
58	MG	14	3324	1/1	0.99	0.14	62,62,62,62	0
58	MG	13	1731	1/1	0.99	0.10	68,68,68,68	0
58	MG	1G	1641	1/1	0.99	0.13	98,98,98,98	0
58	MG	14	3257	1/1	0.99	0.17	58,58,58,58	0
58	MG	1H	3419	1/1	0.99	0.10	47,47,47,47	0
58	MG	14	3013	1/1	0.99	0.25	56,56,56,56	0
58	MG	1H	3365	1/1	0.99	0.10	44,44,44,44	0
58	MG	1H	3405	1/1	0.99	0.11	43,43,43,43	0
58	MG	14	3133	1/1	0.99	0.21	77,77,77,77	0
58	MG	13	1601	1/1	0.99	0.20	52,52,52,52	0
58	MG	1G	1694	1/1	0.99	0.12	67,67,67,67	0
58	MG	1H	3441	1/1	0.99	0.08	51,51,51,51	0
58	MG	1G	1623	1/1	0.99	0.22	91,91,91,91	0
58	MG	1H	3442	1/1	0.99	0.14	54,54,54,54	0
58	MG	1H	3123	1/1	0.99	0.29	49,49,49,49	0
58	MG	1H	3424	1/1	0.99	0.15	73,73,73,73	0
58	MG	14	3109	1/1	0.99	0.19	62,62,62,62	0
58	MG	2L	101	1/1	0.99	0.15	88,88,88,88	0
58	MG	14	3306	1/1	0.99	0.12	52,52,52,52	0
58	MG	14	3343	1/1	0.99	0.08	47,47,47,47	0

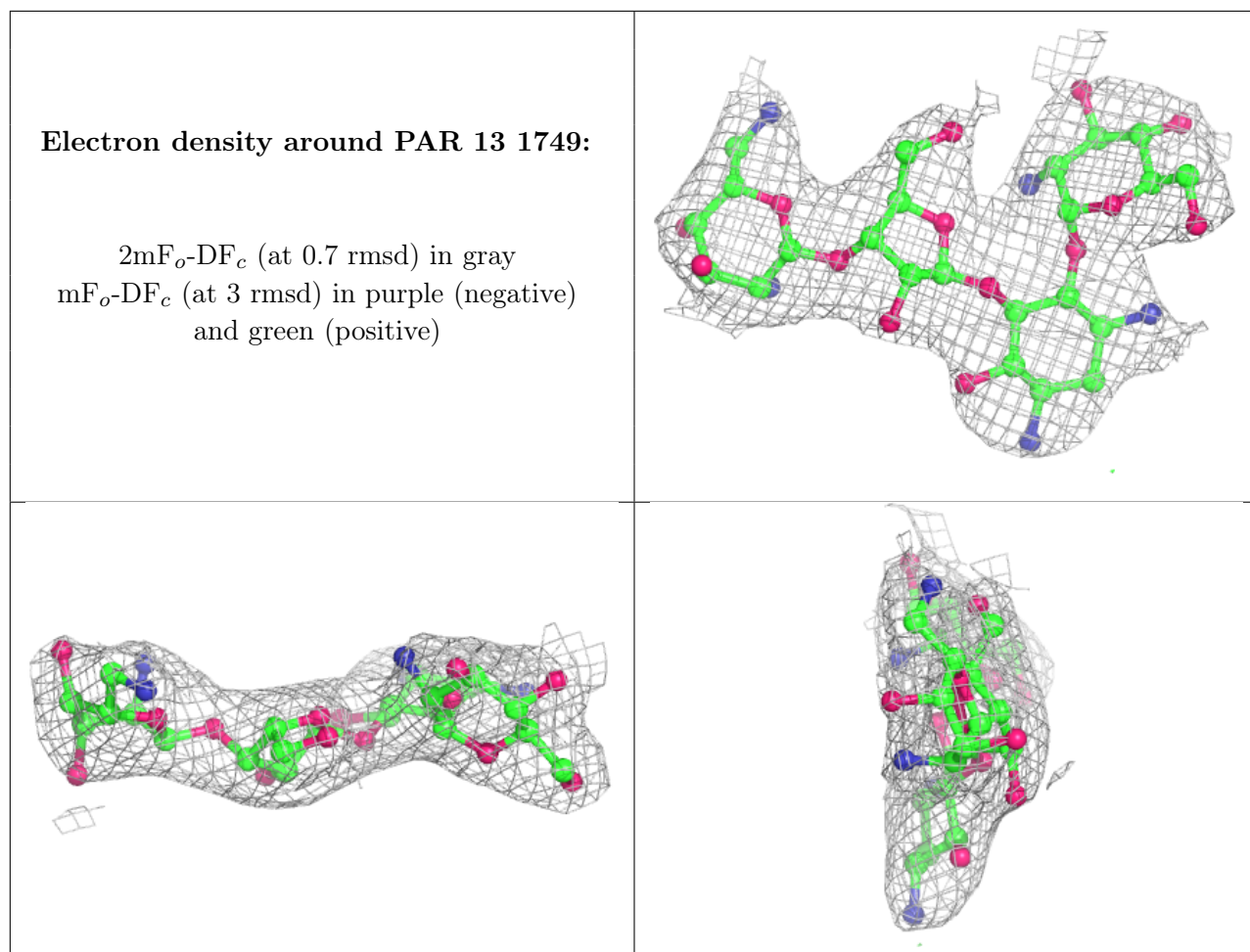
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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
58	MG	1H	3445	1/1	0.99	0.11	44,44,44,44	0
58	MG	14	3345	1/1	0.99	0.14	51,51,51,51	0
58	MG	1H	3368	1/1	0.99	0.14	56,56,56,56	0
58	MG	1H	3356	1/1	0.99	0.12	52,52,52,52	0
58	MG	1H	3427	1/1	0.99	0.12	41,41,41,41	0
58	MG	1H	3002	1/1	0.99	0.22	60,60,60,60	0
58	MG	14	3056	1/1	0.99	0.26	58,58,58,58	0
58	MG	1H	3063	1/1	0.99	0.17	64,64,64,64	0
58	MG	14	3058	1/1	0.99	0.22	58,58,58,58	0
58	MG	14	3088	1/1	0.99	0.20	45,45,45,45	0
58	MG	1H	3358	1/1	1.00	0.09	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.